EX-1232/2464
ELECTRONIC KEY TELEPHONE SYSTEM
INSTRUCTION MANUAL

OMEGA-PHONE®
IV

4.2 GENERAL DESCRIPTION OF PROGRAMMING

4.2.1 System Programming Terminal

When the mode changes from Ordinary Mode to Programming Mode, the functions of the Attendant Console keys all change and the Attendant Console becomes a System Programming Terminal.
In Programming Mode, the operator is notified with the following when changing states or items:

- Key lamps
- LCD indications
- Prompts

These are described in this section.

Mike 516/446-8460

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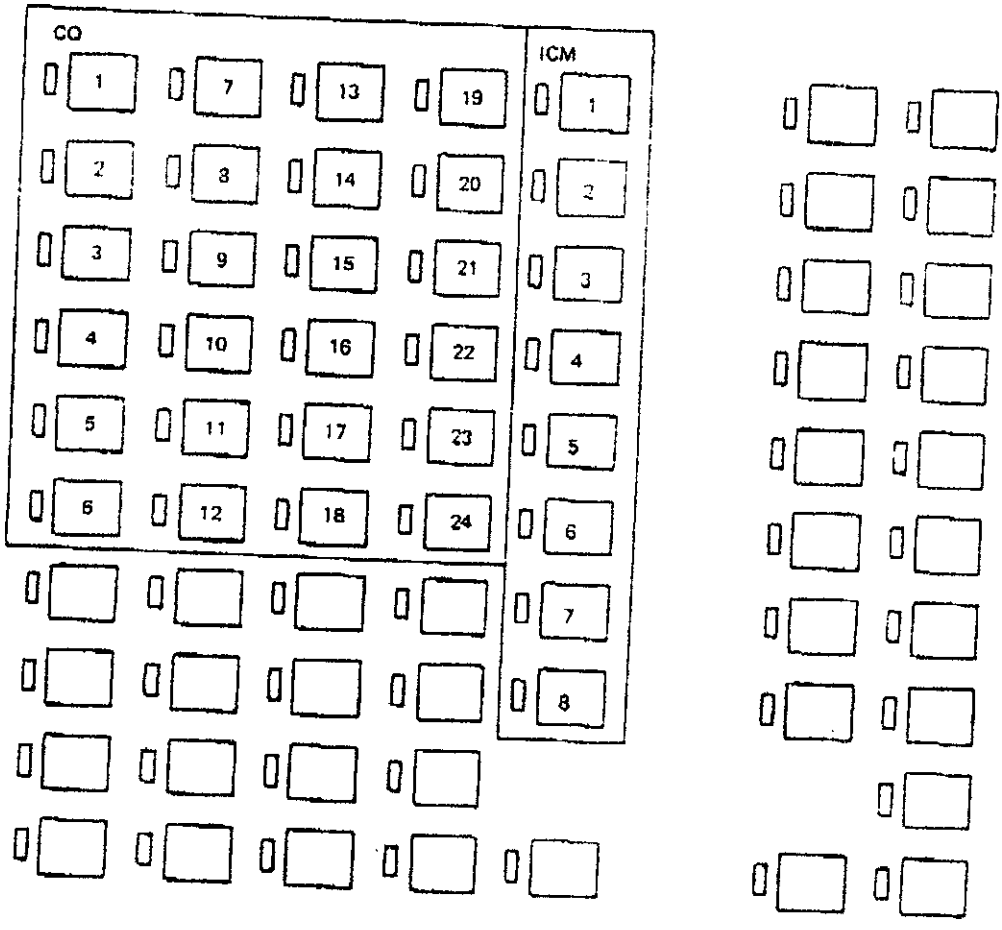

Figure 4.2.1.1.3 CO and ICM Keys

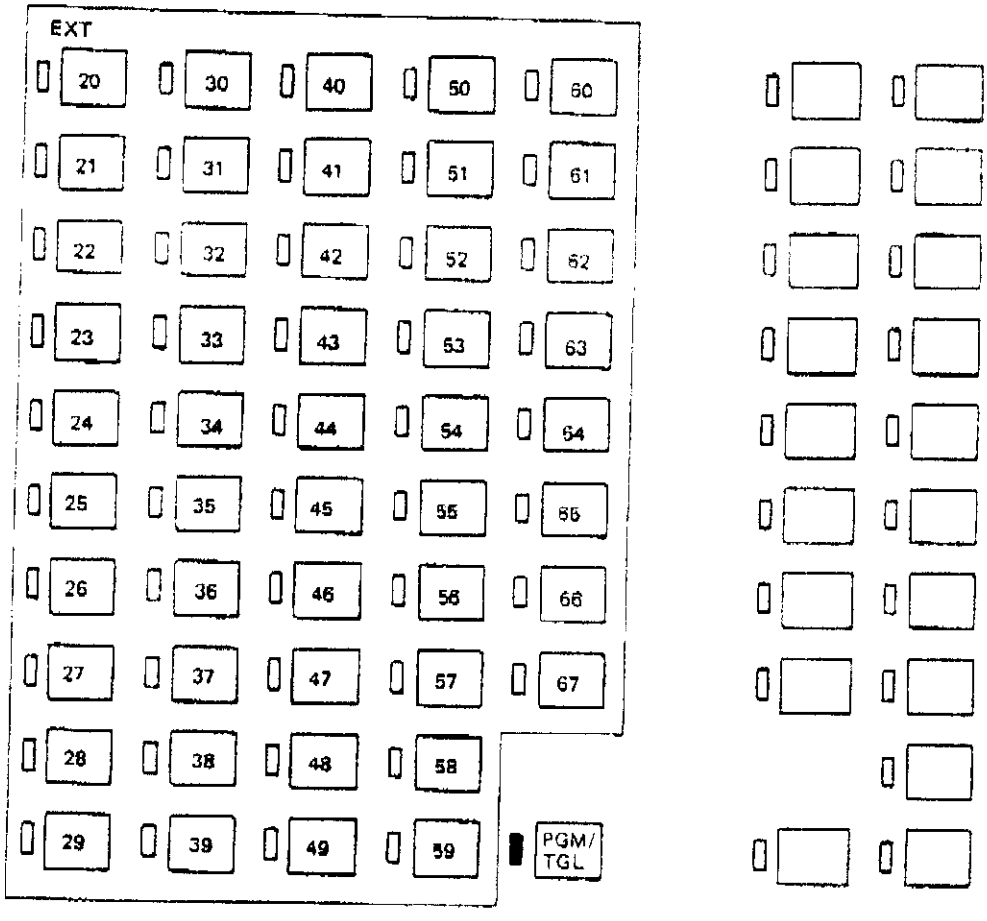

Figure 4.2.1.1.2.a Normal-side Mode of EXT Key

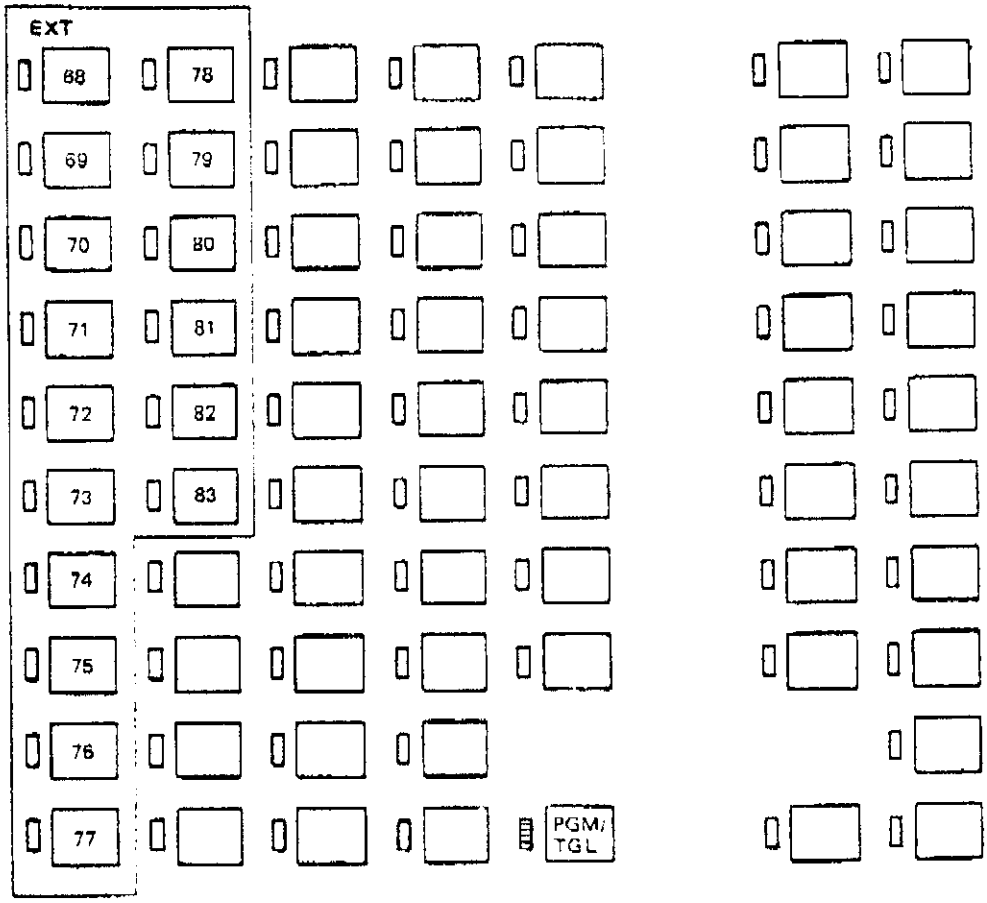

Figure 4.2.1.1.2.b Reverse-side Mode of EXT Key

4.2.1.1 Key Assignments of Terminal

Password Is 428

The assignments of System Programming Terminal's Function Keys are as follows:

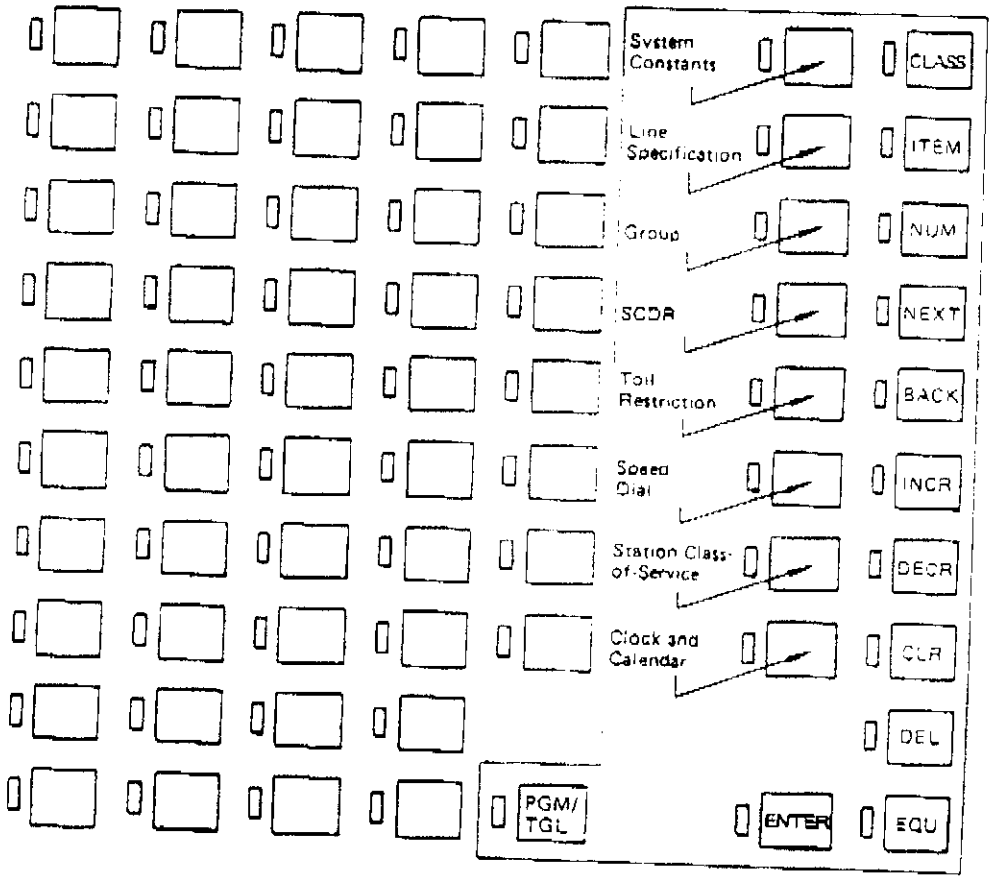

Figure 4.2.1.1.1 Function Keys

Keys that are not Function Keys are Input Data Keys.

The [illegible] according to data, keys are assigned the following functions:

- EXT Keys

  - The Input Data Keys can be switched over to two modes using a toggle key.
  - Extension key are assigned as follows:
    Normal-side mode: EXT 20 to EXT 67
    Reverse-side mode: EXT 68 to EXT 83
  - Depress the PGM/TGL key to switch over the Input Data Key mode.

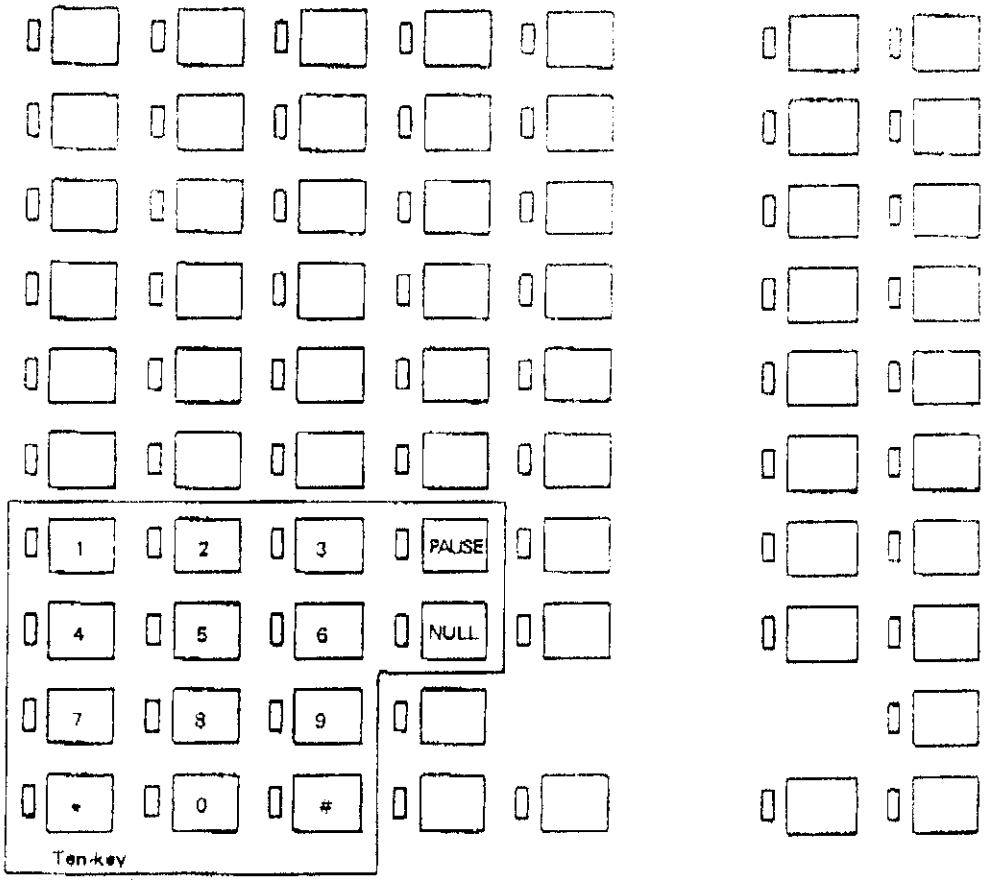

Figure 4.2.1.1.4 Ten-Key

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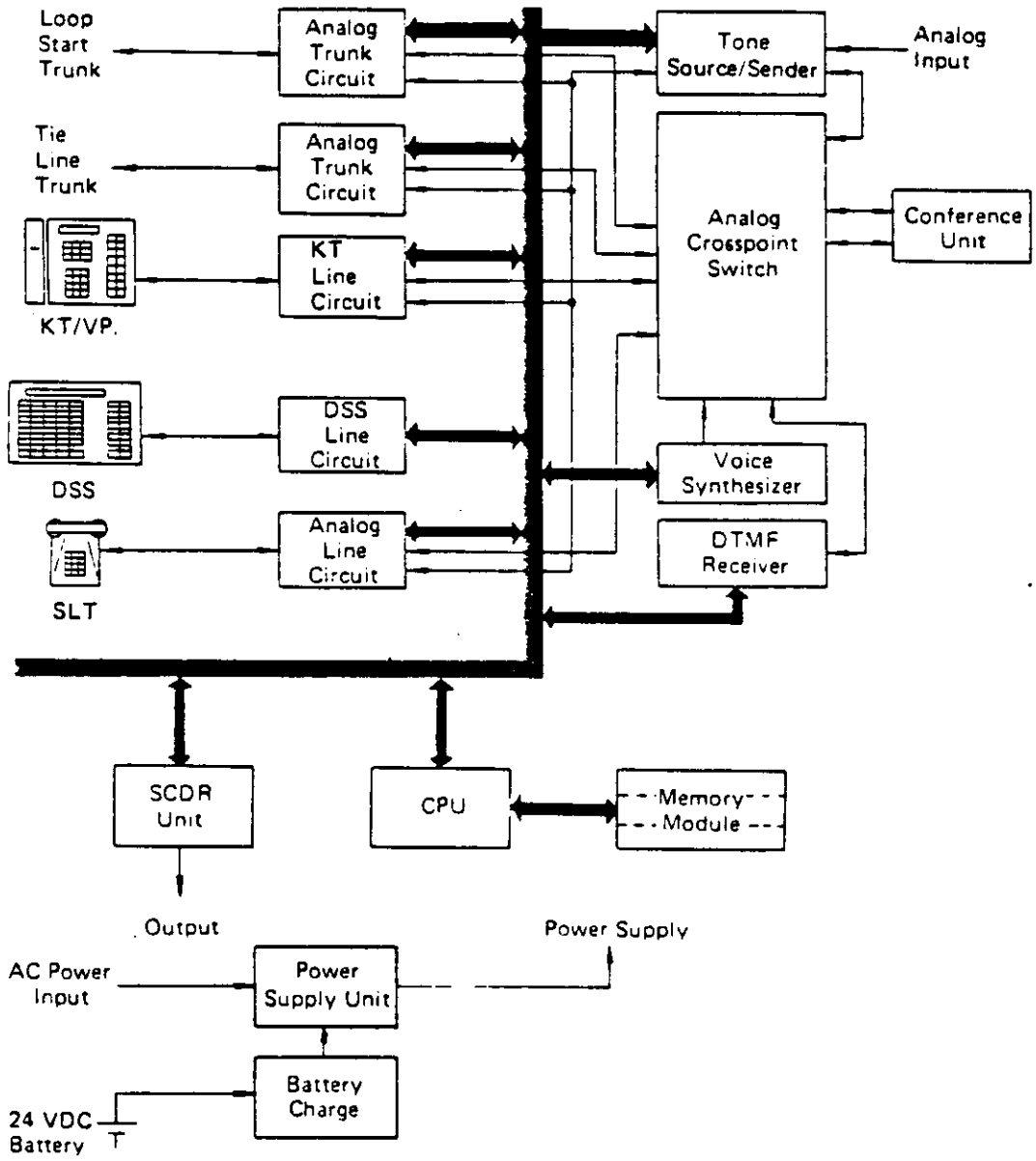

Figure 1.1.B EX-824/1648 System Architecture

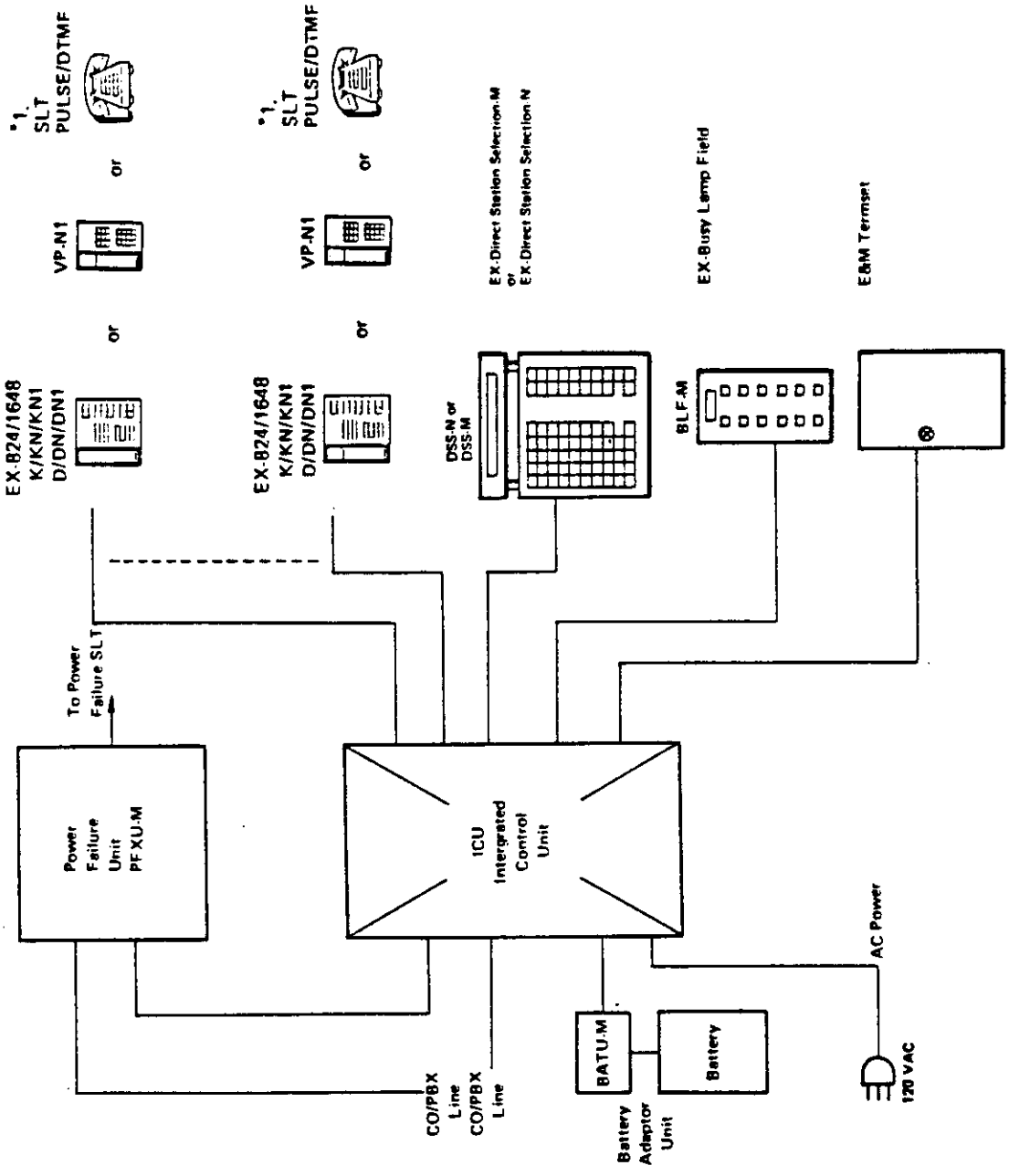

Figure 1.1.A Omega Phone IV EX-824/1648 Electronic Key Telephone System

The user's inherent features can be set at the DSS at any time. The system remains in normal operation during feature setting, so the setting process does not adversely affect any other function.
UL-recognized special power supplies are available.
Figure 1.1.A shows the EX-824/1648 system configuration and Table 1.1 the system capacity. Figure 1.1.B shows the EX-824/1648 system Architecture. All the components, of the EX-824/1648 system are shown in Figure 1.1.C.

Table 1.1 System Capacity

Function	Standard KSU (EX-824/1648CM)	Expanded KSU (EX-824/1648CM and EX-1648EM)	Note
CO/PBX lines	8	16	
E&M-trunks	2	4	1
Electronic key telephones	24	48	2
Varsa phone	24	48	3
Single-line telephones	24	48	3
Intercom lines	8	8	4
DSS consoles (DSS-M, DSS-N)	2	2	5
BLF consoles (BLF-M)	4	4	
SCDR unit	1	1	

Notes: 1. This trunk card carries two circuits, and can be inserted in any subscriber slot in an ICU. Remember, however, that each one trunk card can be inserted in the EX-824/1648CM or the EX-1648EM. If the new trunk card is inserted in the EX-824/1648CM, trunk card CO/PBX lines 7 and 8 are unusable. If the new trunk card is inserted in the EX-1648EM, CO/PBX lines 11 and 12 cannot be used.

2. The key telephone comes in two types, one with a display and the other without. There are no restrictions about their positions. The maximum number of key telephones that can be accommodated in the EX-824/1648CM is 24 and that in the EX-1648EM and the EX-824/1648CM together is 48.

3. The maximum number of single-line telephones (common to OPS and ONS) is shown in the Table. Any subscriber slots may be used for them. One card has circuits for four single-line telephones, each of which can handle DTMF or DP, whichever is selected.

4. The eight ICM lines initially accommodated can be preset and used as follows: Ordinary ICM, attendant dedicated ICM, or hot line ICM.

5. The system may have two DSS consoles (EX-Direct Station Selection-M or -N), paired with key telephones No. 20 and No. 21, to function as attendants consoles. The DSS consoles can also be used as input devices for programming terminal.

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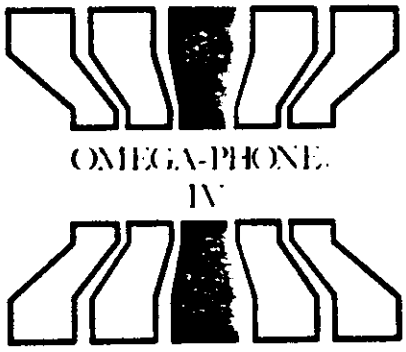

This instruction manual applies to EX-824/1648 Software Version 3.

1.1 GENERAL

The Omega Phone IV EX-824/1648 Electric Key Telephone System is an advanced version of the Omega Phone Series, which was developed and marketed earlier, embodying proven technology and featuring improved functions and quality. This system can be used as an MF or KF system by changing the software package.

To reduce the system cost, C-MOS analog switches are used for space-division of speech paths in an unbalanced configuration. The main processing unit is a 16-bit microcomputer with advanced functions; 8-bit mask type microprocessors for the key telephones and other interfaces help the CPU maintain its processing capacity.

Omega Phone IV's additional feature keys provide more convenient functions. The key telephone comes in four types, two with a display (LCD) and the other without one, which may be selected to suit the intended use.

The system can be divided into the EX-824/1648CM unit and EX-1648EM unit. The former can accommodate up to 8 CO/PBX lines and 24 extensions, and the latter may be added to the former to increase the capacity to 16 CO/PBX lines and 48 extensions. The simplicity of system expansion means easy system upgrading.

Besides these features, the Omega Phone IV EX-824/1648 Electric Key Telephone System offers such other features as ease of installation, simplicity of programming, availability of a wide range of options, software function package, and increased capacity and functions for single-line telephones. All this adds up to more advanced functions and a broader range of applications than offered by conventional key telephones.

The system operates on commercial power, and may also operate on battery power with an optional unit. All system features are the regardless of the type of power.

ICM key telephones and/or ordinary single-line telephones (SLTs) can be connected to the system.

The key telephones and DSSs have liquid-crystal displays (LCDs) that show the number dialed, call duration. ICM number of the opposite party, etc. for ease of use. When the telephone or DSS is not in use for conversation, the LCD shows the date and time. It thus provides two convenient services.

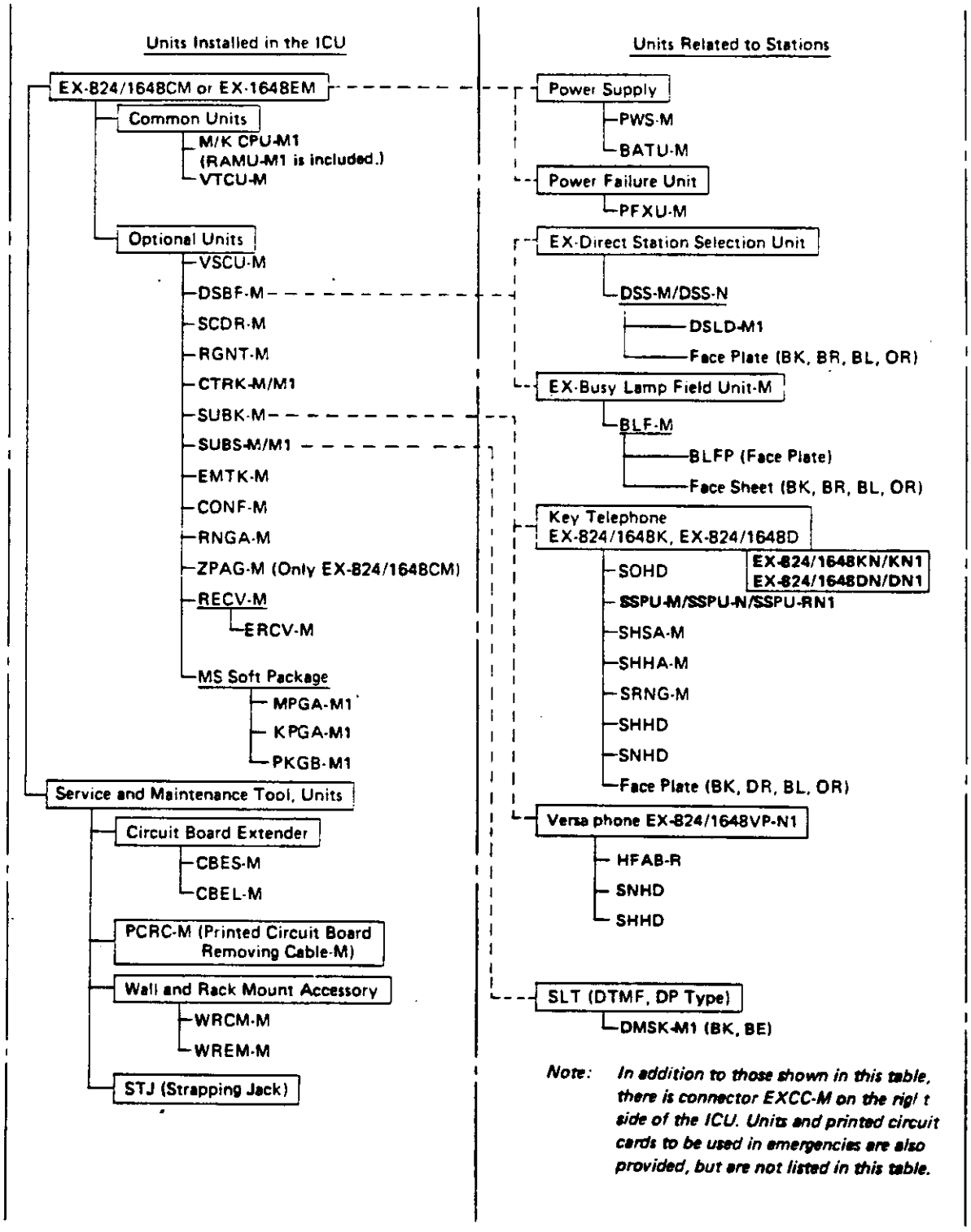

Figure 1.1.C Components of EX-824/1648 System

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ELECTRONIC KEY TELEPHONE SYSTEM
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OMEGA-PHONE IV

1.2 PHYSICAL DESCRIPTION

(1) The outside dimensions and weights of the units are follows:

Table 1.2.(1).A Dimensions and Weight

No.	Unit	Description	Dimensions HxWxD (inches)	Weight (pounds)	Remarks
1	Module assembly units	EX-824/1648 Common Module Unit (EX-834/1648CM)	29.8x21x12.8	61	
		EX-1648 Expansion Module Unit (EX-1648EM)	13.4x21x12.8	28	
2	Key telephone	EX-824/1648 Key Telephone (EX-824/1648K)	3.9x9.7x8.5	2.9	
		EX-824/1648 Key Telephone with Display (EX-824/1648D)	3.9x9.7x8.5	3.0	
		EX-824/1648 Key Telephone N (EX-824/1648KN)	3.5x9.4x8.5	2.7	
		EX-824/1648 Key Telephone N1 (EX-824/1648KN1)	3.5x9.4x8.5	2.6	
		EX-824/1648 Key Telephone N with Display (EX-824/1648DN)	3.5x9.4x8.5	2.8	
		EX-824/1648 Key Telephone N1 with Display (EX-824/1648DN1)	3.5x9.4x8.5	2.6	
		EX-824/1648 Versa Phone-N1 (EX-824/1648VP-N1)	3.5x6.9x8.5	2.0	
3	Individual system components	EX-Direct Station Selection-M (DSS-M)	3.9x9.7x8.5	2.9	
		EX-Direct Station Selection-N (DSS-N)	3.0x9.4x8.5	2.4	
		EX-Busy Lamp Field Unit-M (BLF-M)	3.9x3.1x8.5	1.1	
		EX-Power Failure Transfer Unit-M (PFXU-M)	12.6x6.9x2.3	4.0	
4	Power supply units	EX-Power Supply Unit-M (PWS-M)	14.5x9.8x10.6	33	
		EX-Power Supply Unit-MH (PWS-MH)	14.5x9.8x10.6	35	
		EX-Battery Adaptor Unit-M (BATU-M)	7.3x5.0x8.7	9.9	
5	Common units	MF/KF Central Control Processor Unit-M1 (K/M CPU-M1)	12.4x9.25x1.57	2.4	*Note 1*
		Voice/Tone Control Unit-M (VTCU-M)	9.25x9.25x1.18	0.85	

Table 1.2.(1).A Dimensions and Weight (con.)

No.	Unit	Description	Dimensions HxWxD (inches)	Weight (pounds)	Remarks
6	Optional units	Voice Synthesizer Control-M (VSCU-M)	12.4x9.25x1.0	0.97	
		DSS and BLF Interface Card-M (DSBF-M)	12.4x9.25x1.0	0.97	
		Station Call Detail Recorder-M (SCDR-M)	12.4x9.25x1.0	1.0	
		Ringing Generator Unit for SLT-M (RGNT-M)	12.4x9.25x2.3	2.16	
		Zone Paging Unit-M (ZPAG-M)	9.25x9.25x1.0	0.53	
		DTMF Receiver Unit-M (RECV-M)	9.25x9.25x1.0	0.51	
		Expanded DTMF Receiver Unit-M (ERCV-M)	5x3.15x0.6	0.11	
		Conference Trunk-M (CONF-M)	9.25x9.25x1.0	0.77	
		Key Telephone Subscriber Card-M (SUBK-M)	9.25x9.25x1.0	1.04	
		Single-Line Telephone Subscriber Card-M (SUBS-M)	9.25x9.25x1.0	1.08	
		Single-Line Telephone Subscriber Card-M1 (SUBS-M1).	9.25x9.25x1.0	1.08	
		Central Office Trunk Card-M (CTRK-M)	9.25x9.25x1.57	1.76	
		Central Office Trunk Card-M1 (CTRK-M1)	9.25x9.25x1.57	1.76	
		E&M Trunk Card-M (EMTK-M)	9.25x9.25x1.2	0.95	
		Loud Ringer Adaptor-M (RNGA-M)	9.25x9.25x1.0	0.64	
7	Optional units	MF Software Package A-M1 (MPGA-M1)	5.8x3.2x1	0.22	
		KF Software Package A-M1 (KPGA-M1)	5.8x3.2x1	0.22	
		MS Software Package B-M1 (PKGB-M1)	5.8x3.2x1	0.22	
8	Optional units for key telephone	Station Speaker Phone Unit-M (SSPU-M)	6.3x5x0.8	0.22	
		Station Speakerphone Unit-N (SSPU-N)	3.7x3.0x10	0.11	
		Station Speakerphone Unit-RN1 (SSPU-RN1)			
		External Speakerphone Adaptor-N (ESPA-N)	0.78x2.1x1.6	0.44	
		Station Headset Adaptor-M (SHSA-M)	1.8x3.7x0.8	0.06	
		Station Hard Hearing Handset Adaptor-M (SHHA-M)	1.8x3.7x0.8	0.06	
		Station Loud Ringing Unit-M (SRNG-M)	2.3x1.7x0.8	0.08	
		Station Hard Hearing Handset (SHHD)	2.4x7.9x1.9	0.1	
		Station Noise Canceling Handset (SNHD)	2.4x7.9x1.9	0.1	
9	Service and maintenance tools	Circuit Board Extender Small-M (CBES-M)	0.2x11x0.4	0.64	
		Circuit Board Extender Large-M (CBEL-M)	12.4x9.8x0.4	0.68	
		LCD Unit for DSS-M (DSLD-M1)	1.6x9.45x0.87	0.35	*Note 2*
		DSS Programming Overlay-M (PROV-M)	7.4x8.6x0.01	0.02	
		Printed Circuit Board Removing Cable-M (PCRC-M)	3.6 feet	0.22	
10	Service and maintenance Module	Motherboard No.1 Unit-M (MBD1-M)	12.6x7.28x1.18	0.97	
		Motherboard No.2 Unit-M (MBD2-M)	13.1x18.3x1.18	2.9	
		Expanded Mother Board Unit-M (EMBD-M)	13.1x18.3x1.18	2.9	

Table 1.2.(1).A Dimensions and Weight (con.)

No.	Unit		Description	Dimensions HxWxD (inches)	Weight (pounds)	Remarks
10	Service and maintenance units	Module	Wall and Rack Mount for Common Module-M (WRCM-M)	25.5x2.7x1.34	2.6	*Note 3*
			Wall and Rack Mount for Expansion Module-M (WREM-M)	10.2x2.7x1.34	1.1	
			EX Connector Cover-M (EXCC-M)			
			Strapping Jack (STJ) (100pcs)	0.3x4.0x5.0	0.07	
			Random Access Memory Unit-M1 (RAMU-M1)	2.8x4.7x0.67	0.2	
		Station	Station Processor Unit for Key Telephone-M (KTSP-M)	8.4x8.0x0.15	0.53	
			Station Processor Unit for Key Telephone-N (KTSP-N)	7.1x6.3x0.83	0.46	
			Station Processor Unit for Key Telephone-N1 (KTSP-N1)	7.1x6.3x0.83		
			Keyboard Unit for Key Telephone-M (KTKB-M)	6.4x6.4x0.83	0.46	
			Keyboard Unit for Key Telephone-M (KTKB-N)	6.0x5.8x0.11	0.55	
			Station Processor Unit for DSS-N (DSSP-N)	8.0x7.2x1.0	0.48	
			Keyboard Unit for DSS-M (DSKB-M)	7.0x7.9x0.83	0.86	
			Keyboard Unit for DSS-N (DSKB-N)	7.9x7.0x0.83	0.86	
			Station Processor Unit for BLF-M (BFSP-M)	6.7x3.15x0.91	0.24	
			Display Unit for BLF-M (BFDY-M)	6.34x2.8x0.71	0.29	
			Control Card for Power Failure Transfer Unit-M (PFXC-M)	7.76x5.3x1.26	0.68	
			Key Telephone and Call Processor LCD Unit (KCLD)	1.8x3.15x0.35	0.09	
			Key Telephone LCD Unit-N (KTLD-N)	4.8x1.3x0.43	0.11	
			Station Ordinary Handset (SOHD)	2.4x7.9x1.9	0.1	
	Service and maintenance units		EX-824/1648K Face Plate-Black (824/1648-BK)	7.5x6.5x0.5	0.15	
			EX-824/1648K Face Plate-Brown (824/1648-BR)	7.5x6.5x0.5	0.15	
			EX-824/1648K Face Plate-Blue (824/1648-BL)	7.5x6.5x0.5	0.15	
			EX-824/1648K Face Plate-Orange (824/1648-OR)	7.5x6.5x0.5	0.15	
			EX-824/1648D Face Plate Black (824/1648D-BK)	7.5x6.5x0.5	0.15	
			EX-824/1648D Face Plate Brown (824/1648D-BR)	7.5x6.5x0.5	0.15	
			EX-824/1648D Face Plate Blue (824/1648D-BL)	7.5x6.5x0.5	0.15	
			EX-824/1648D Face Plate Orange (824/1648D-OR)	7.5x6.5x0.5	0.15	
			EX-DSS Face Plate-Black (EX-DSSP-BK)	7.44x8.58x0.5	0.15	
			EX-DSS Face Plate-Brown (EX-DSSP-BR)	7.44x8.58x0.5	0.15	
			EX-DSS Face Plate-Blue (EX-DSSP-BL)	7.44x8.58x0.5	0.15	
			EX-DSS Face Plate-Orange (EX-DSSP-OR)	7.44x8.58x0.5	0.15	
			IDS-BLF Face Plate (BLFP)	1.6x3.15x0.04	0.04	
			EX-BLF Face Sheet Kit (EX-BLFS-KIT)	7.4x3.2x0.04	0.04	
			Dial Mask-M1-Black (DMSK-M1-BK)	3.6x4.1x0.01	0.04	
			Dial Mask-M1-Beige (DMSK-M1-BE)	3.6x4.1x0.01	0.04	

Notes: 1. RAMU-M1 is included.
2. PROV-M, PROV-M1 and DSLD-M are included.
3. Two make up one unit. The weight and dimensions are for one of the two.

(2) An external view of each unit is shown in Figures 1.2.(2).A through 1.2.(2).T. The units and their corresponding figures are shown in Table 1.2.(2).B with the exception of the service and maintenance units.

Table 1.2.(2).B Outside Views

No.	Description		Figure Number	Remarks
1	Module assembly unit	EX-824/1648CM	1.2.(2).A	
		EX-824/1648EM	1.2.(2).B	
2	Key telephone (Versa Phone)	EX-824/1648K	1.2.(2).C.1	
		EX-824/1648KN/KN1	1.2.(2).C.2	
		EX-824/1648D	1.2.(2).D.1	
		EX-824/1648DN/DN1	1.2.(2).D.2	
		EX824/1648VP-N1	1.2.(2).E	
3	Individual system components	DSS-M	1.2.(2).F.1	
		DSS-N	1.2.(2).F.2	
		BLF-M	1.2.(2).G	
		PFXU-M	1.2.(2).H	
4	Power supply units	PWS-M	1.2.(2).I	
		BATU-M	1.2.(2).J	
5	Common units	M/KCPU-M1	1.2.(2).K	
6	Optional units	CTRK-M/M1	1.2.(2).L	
		ERCV-M	1.2.(2).M	
		KPGA-M1, MPGA-M1, PKGB-M1	1.2.(2).N	
7	Cards in station	SSPU-M, SSPU-N, SHHA-M, SRNG-M	1.2.(2).O	
		DMSK-M1	1.2.(2).P	
8	Service and maintenance tools and units	CBES-M	1.2.(2).Q	
		CBEL-M	1.2.(2).R	
		DSLD-M	1.2.(2).S	
		PCRC-M	1.2.(2).T	
		RAMU-M1	1.2.(2).U	

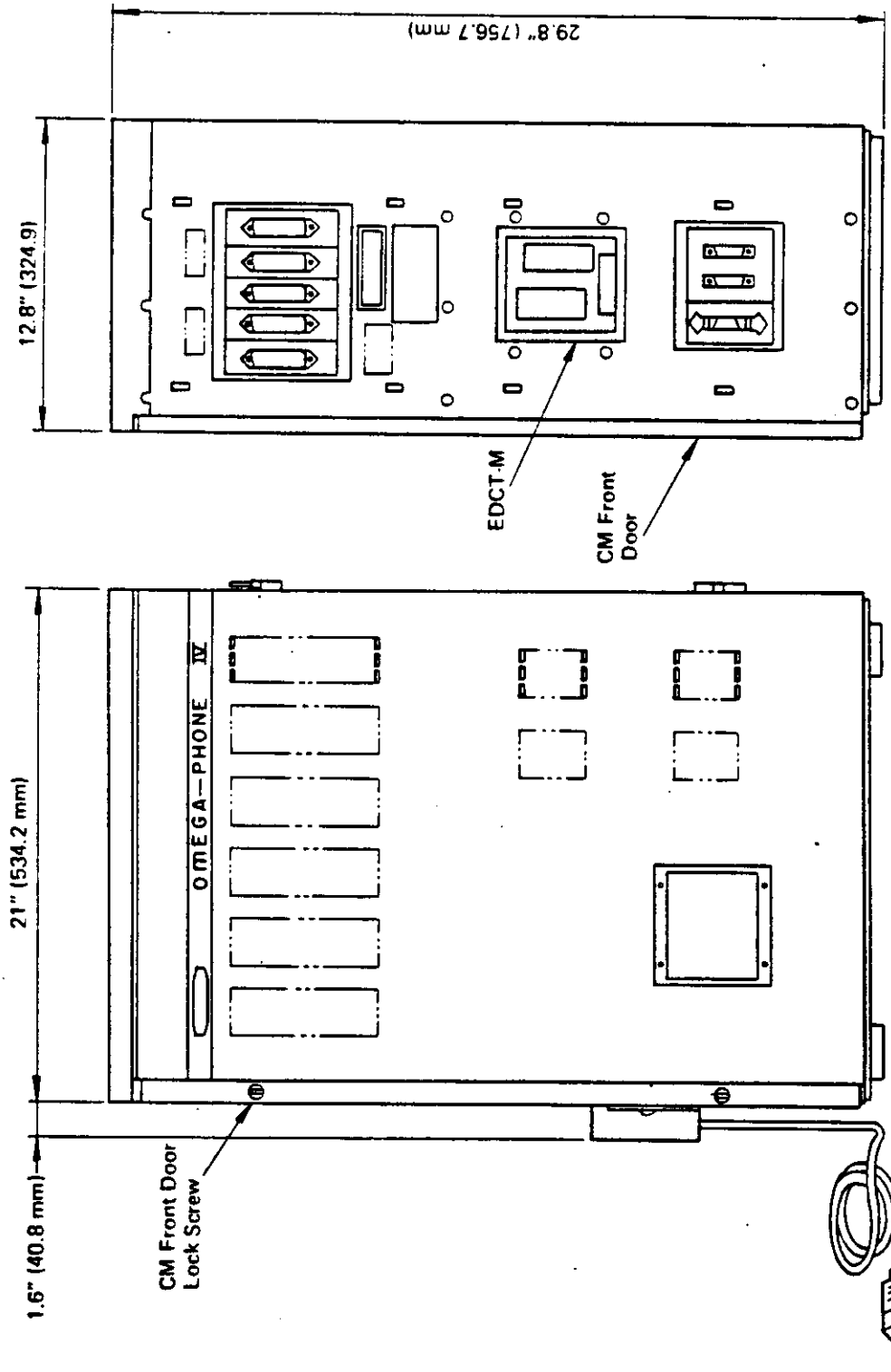


Figure 1.2.(2).A EX-824/1648 Common Module Unit (EX-824/1648CM)

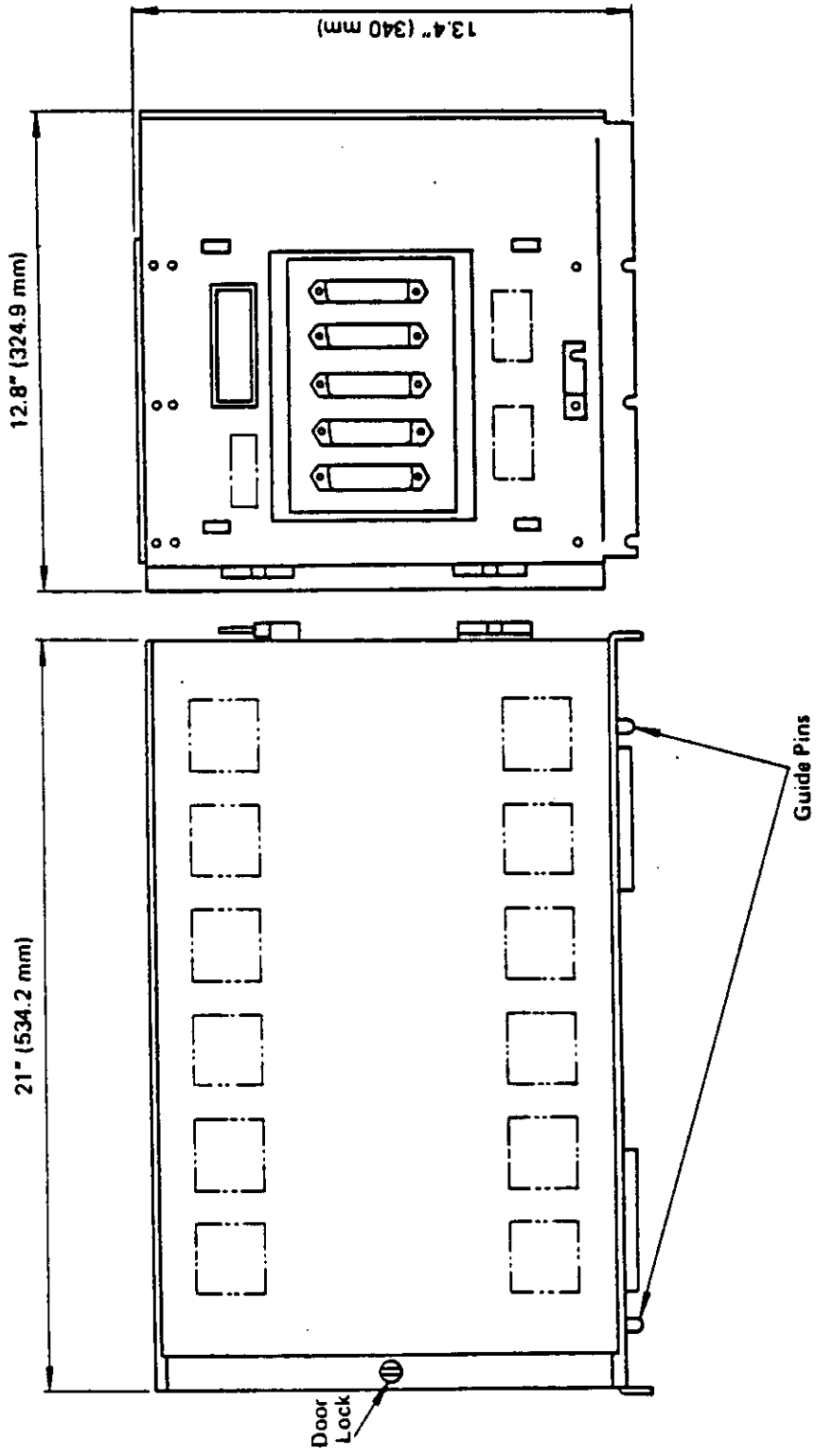


Figure 1.2.(2).B EX-1648 Expansion Module Unit (EX-1648EM)

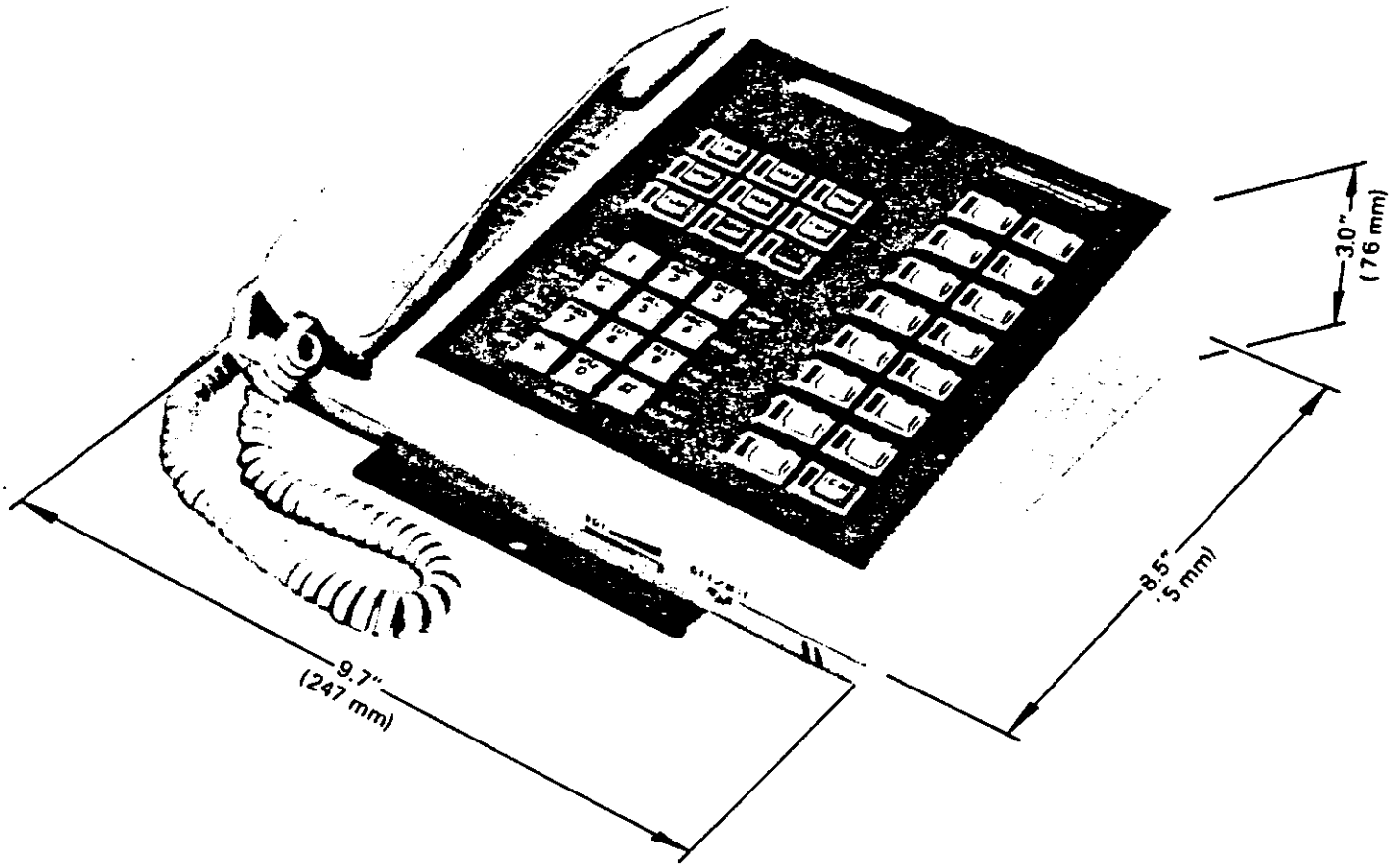


Figure 1.2.(2).C-1 EX-824/1648 Key Telephone (EX-824/1648K)

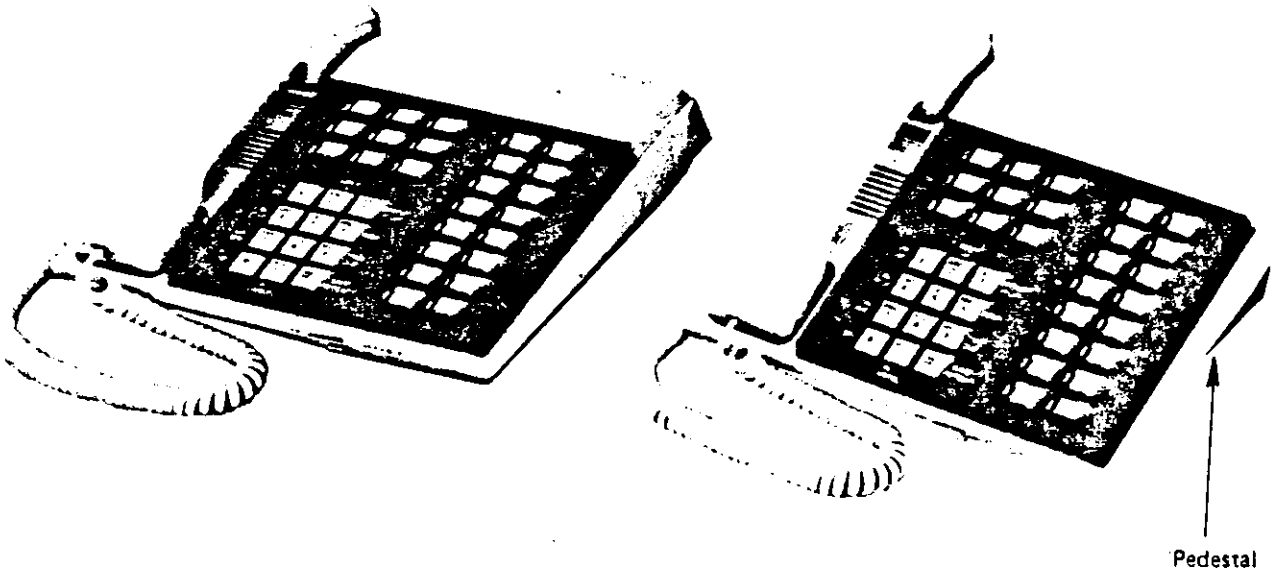


Figure 1.2.(2).C-2 EX-824/1648KN/KN1 Key Telephone (EX-824/1648KN/KN1 Telephone)

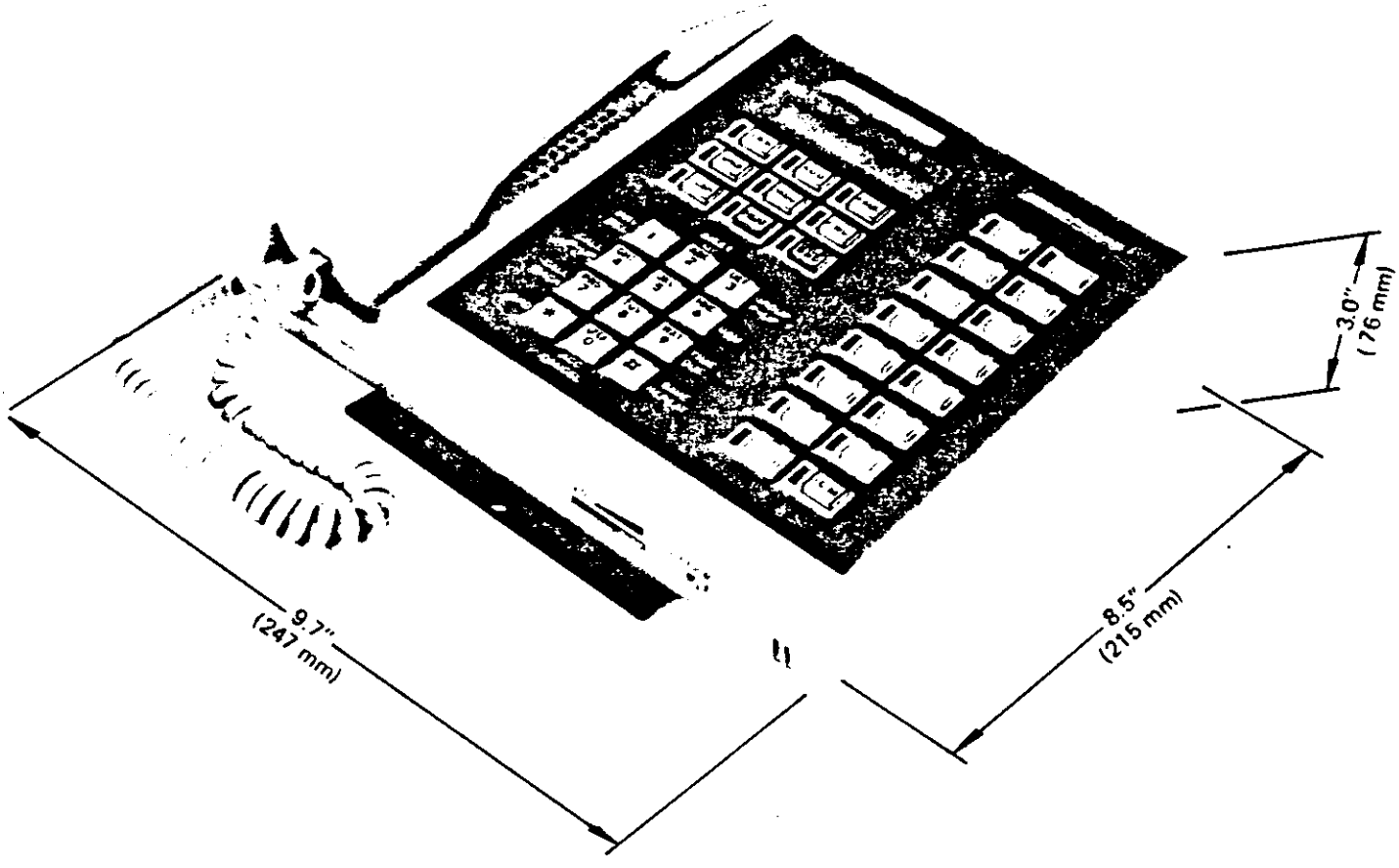


Figure 1.2.(2).D-1 EX-824/1648 Key Telephone With Display (EX-824/1648D)

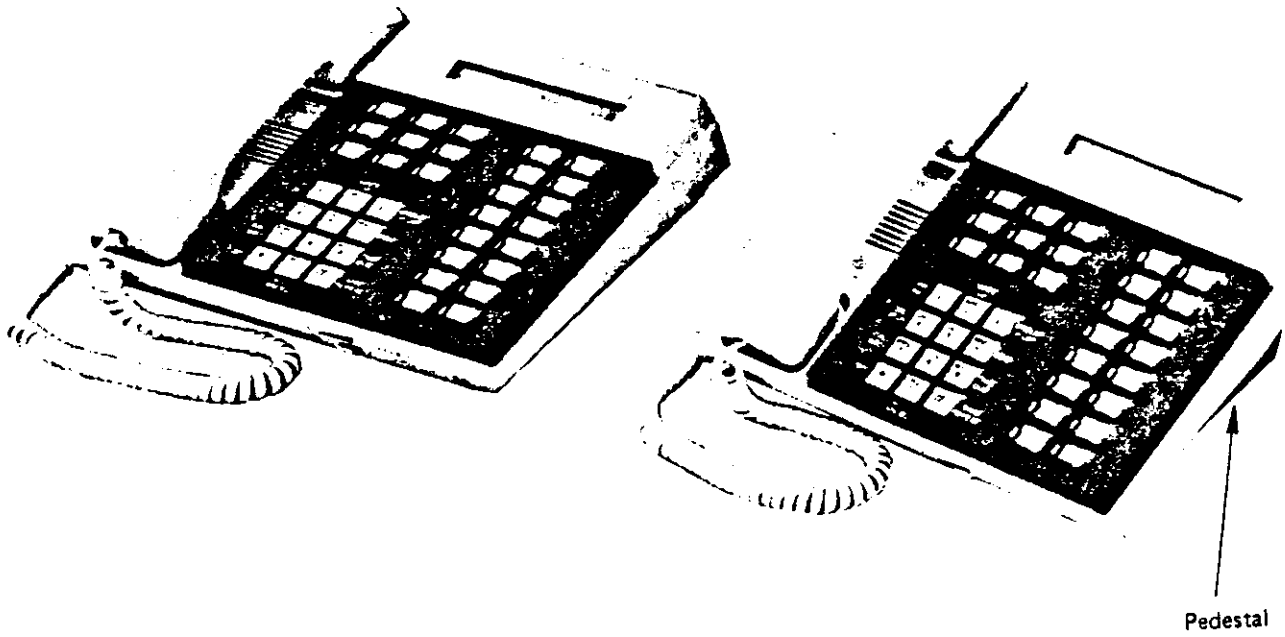


Figure 1.2.(2).D-2 EX-824/1648 Key Telephone N/N1 With Display (EX-824/1648DN/DN1)

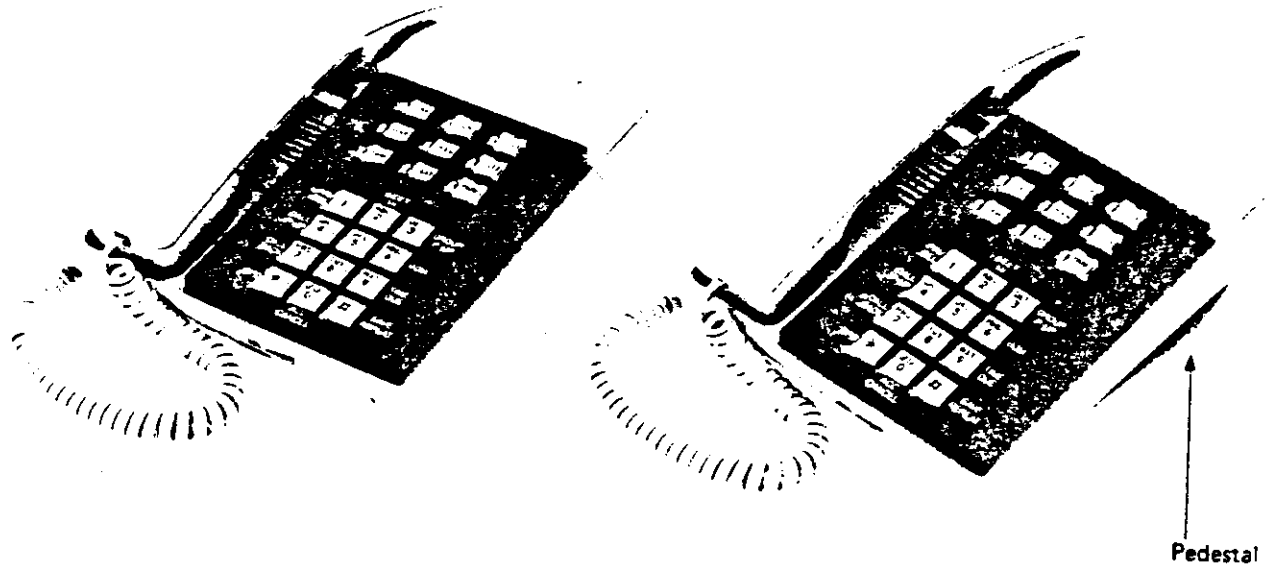


Figure 1.2.(2).E EX-824/1648VP-N1 Versa Phone (EX-824/1648VP-N1 Telephone)

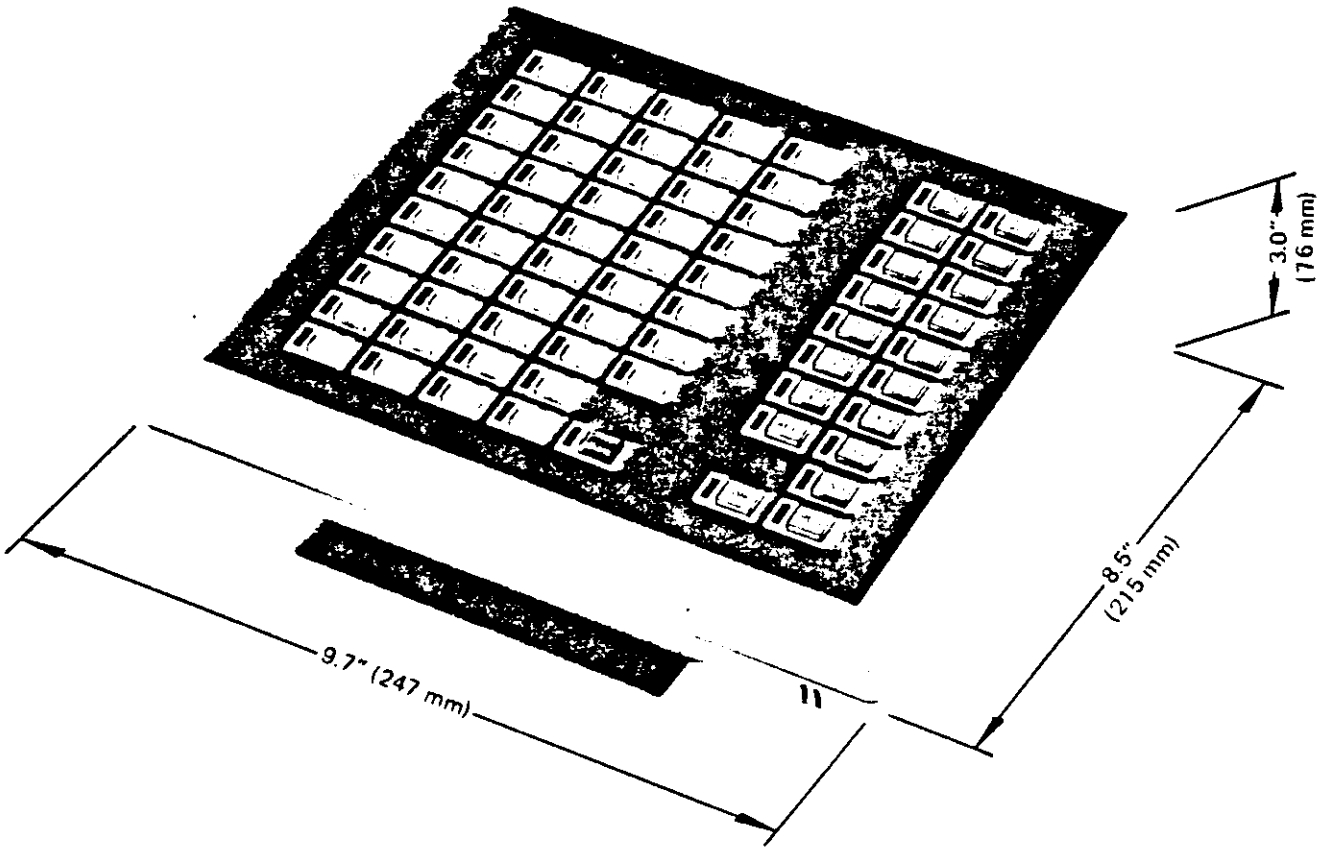


Figure 1.2.(2).F-1 EX-Direct Station Selection-M (DSS-M)

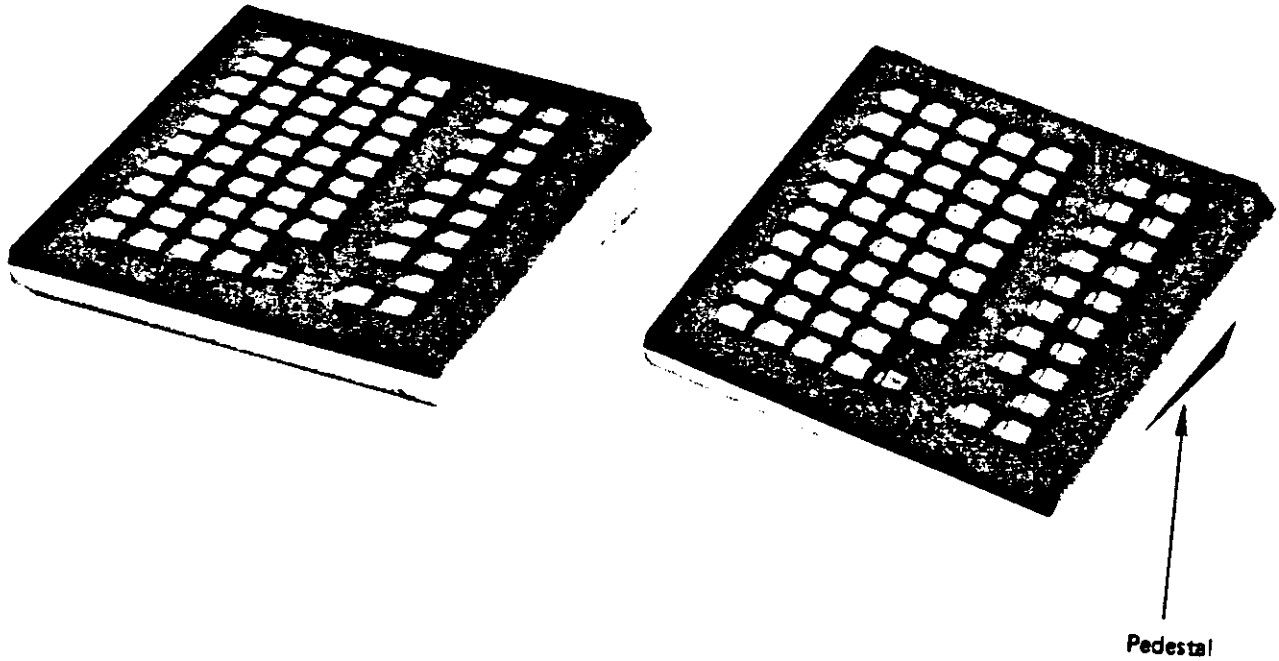


Figure 1.2.(2).F-2 EX-Direct Station Selection-N (DSS-N)

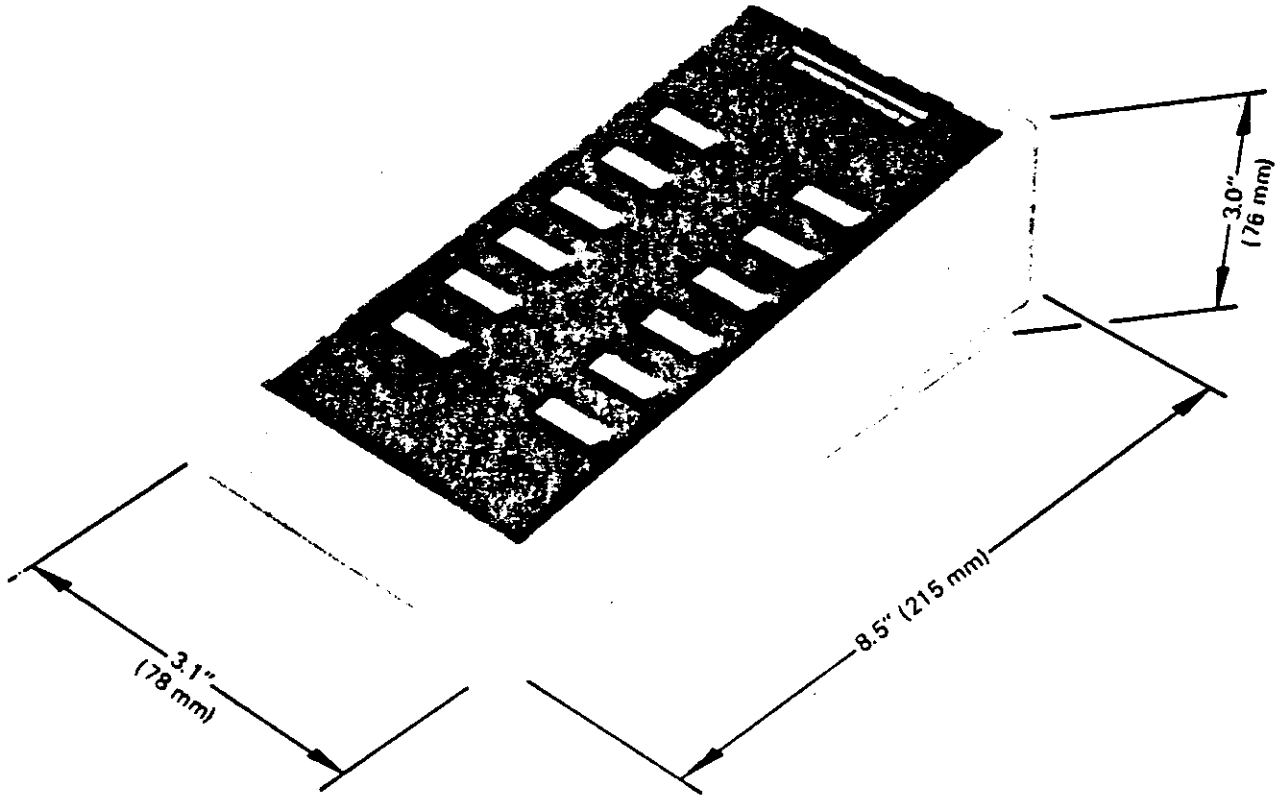


Figure 1.2.(2).G EX-Busy Lamp Field Unit-M (EX-BLF-M)

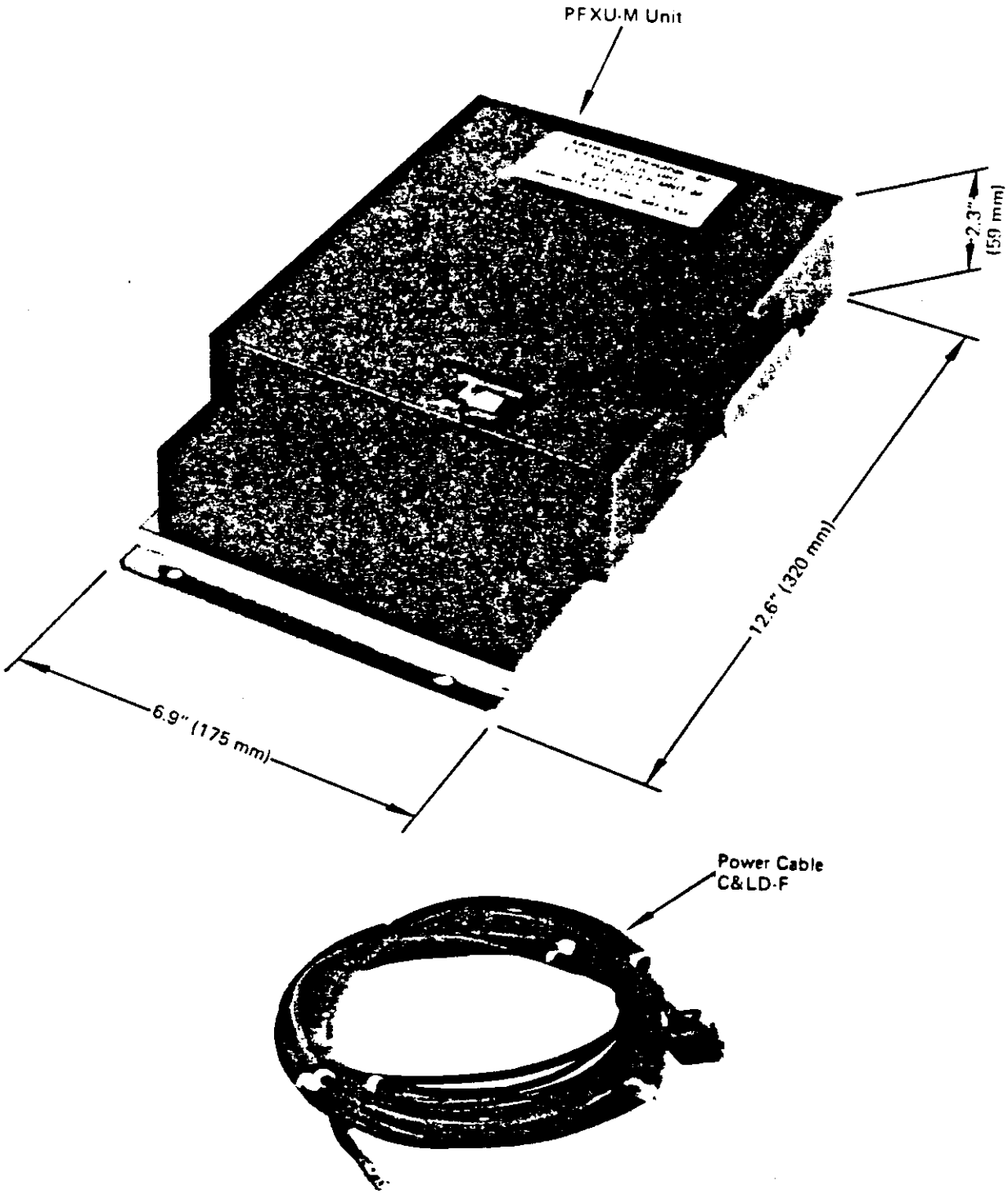


Figure 1.2.(2).H EX-Power Failure Transfer Unit-M (PFXU-M)

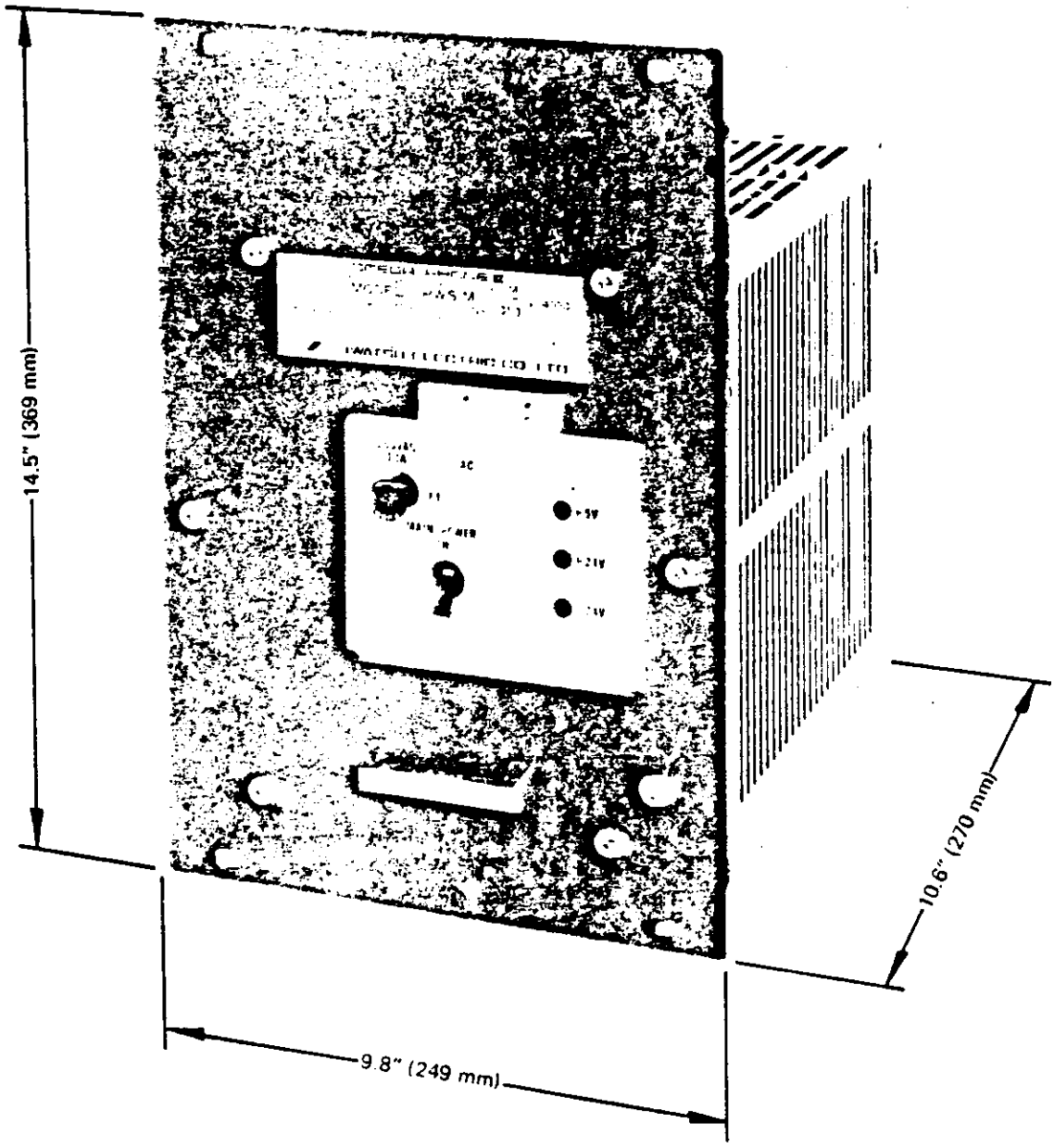


Figure 1.2.(2).I EX-Power Supply Unit-M (PWS-M)

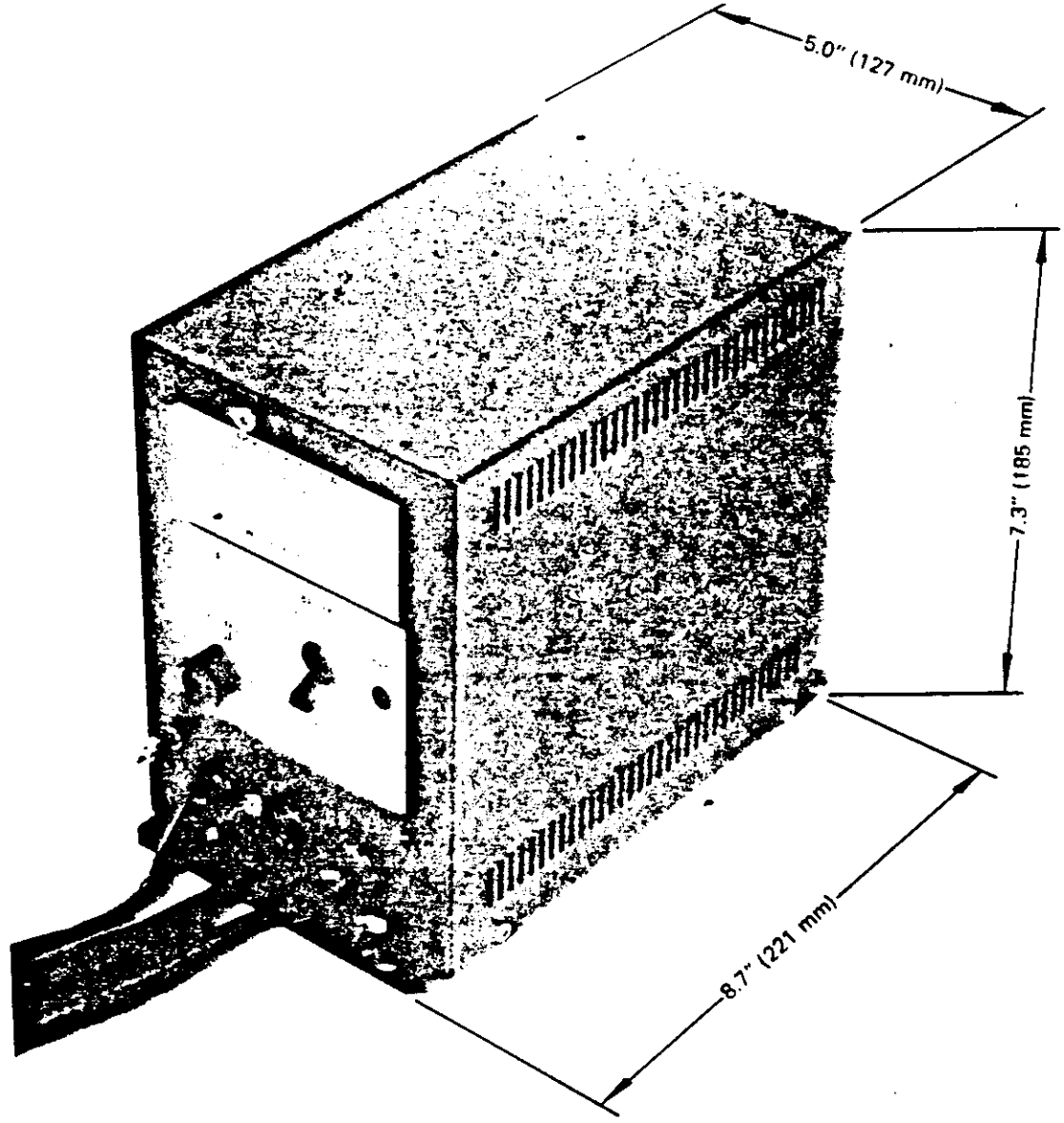
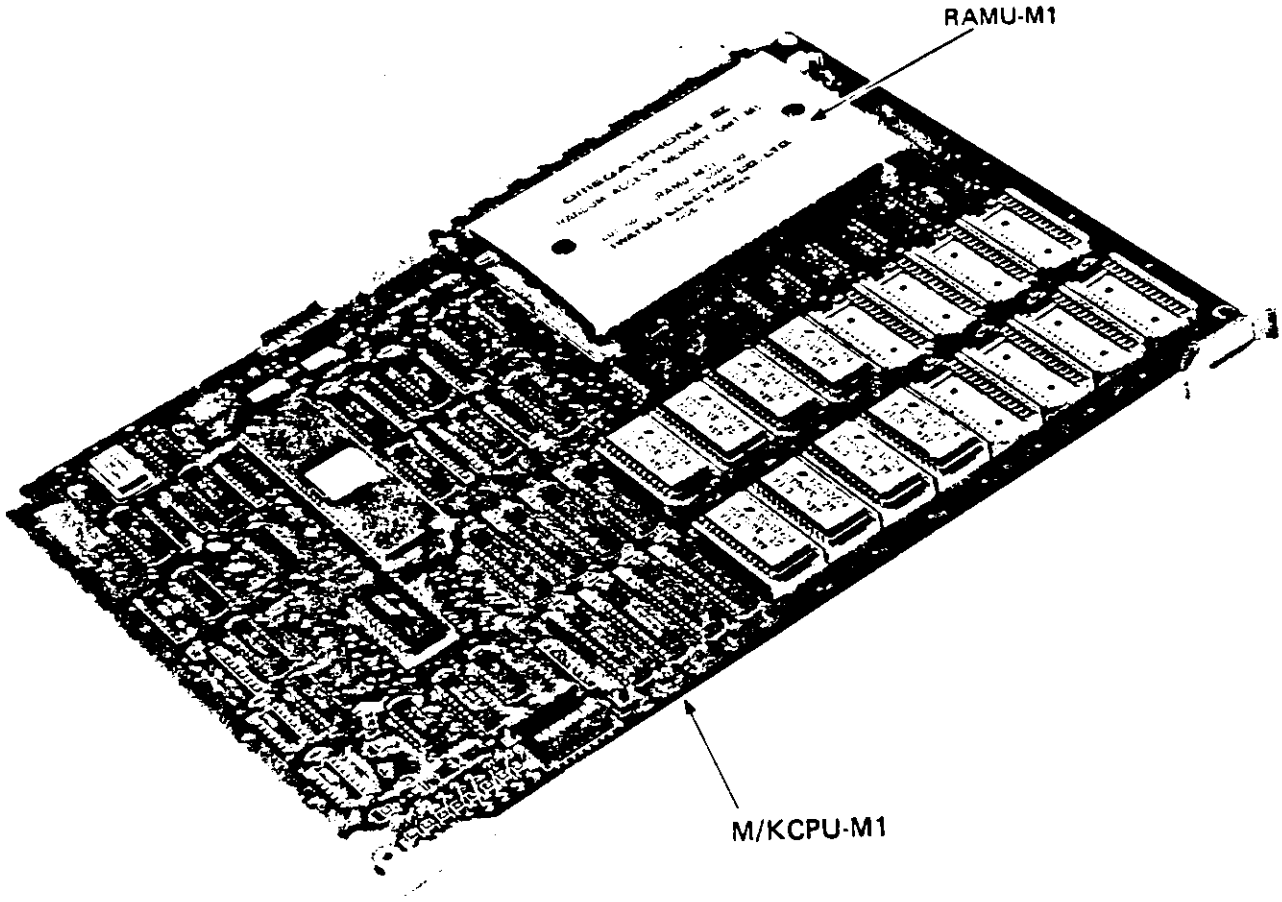


Figure 1.2.(2).J EX-Battery Adaptor Unit-M (BATU-M)



The M/K CPU card can be used with either an MF system or a KF system.
This card is used for the MF system when MPGA-MEs are mounted and used for the KF system when KPGA-MEs are mounted.
The standard ROM card is used for the KF system.
The M/KCPU-M1 card mounts the RAMU-M1.
The basic quantity of memory ICs are mounted on the M/KCPU-M1 card. If additional features are required, optional memory ICs, such as MPGA-M1, must be installed.
RAMU-M1 has a built-in battery for holding user data.

Figure 1.2.(2).K MF/KF Central Control Processor Unit-M1 (M/KCPU-M1)

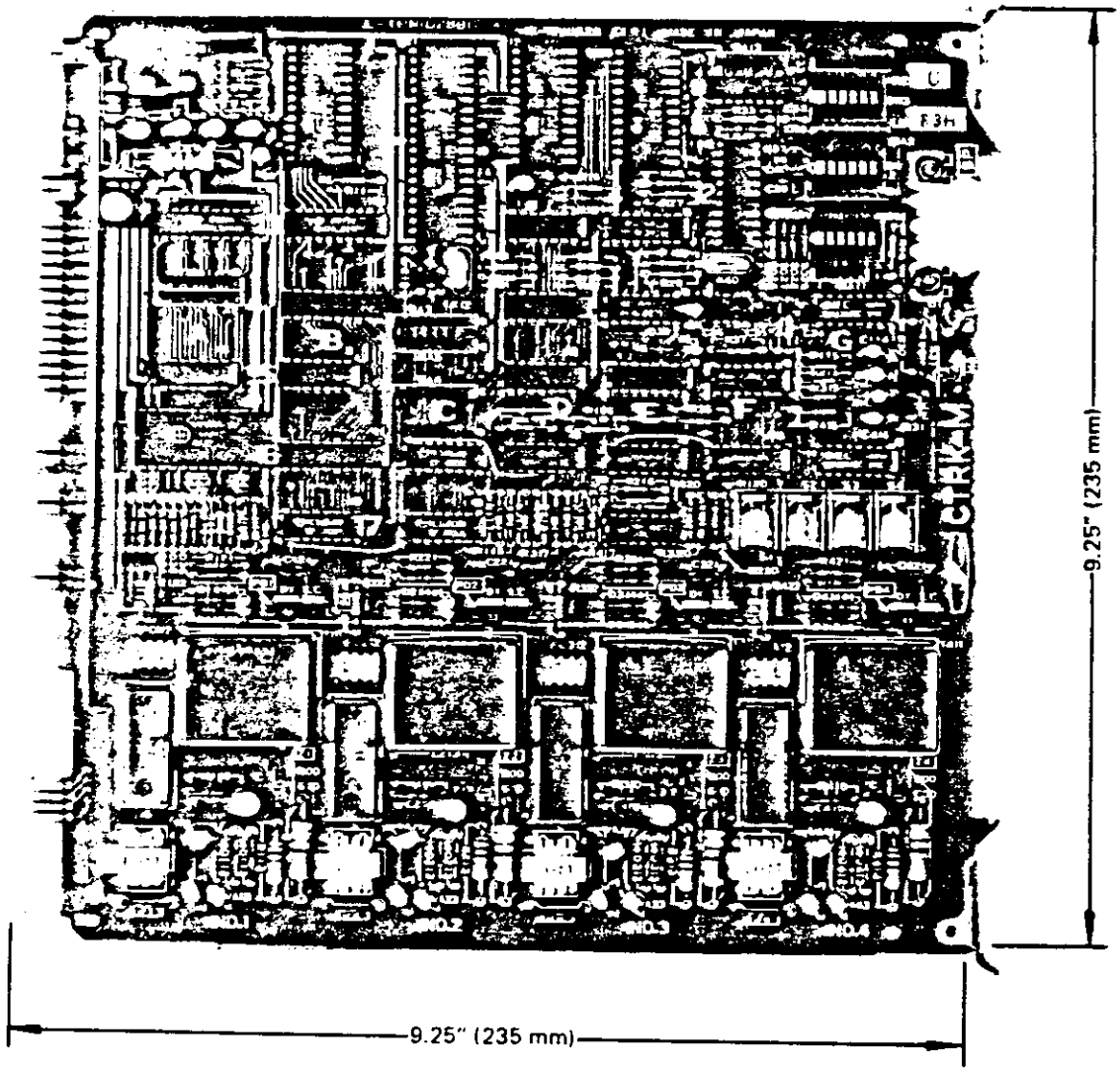


Figure 1.2.(2).L Central Office Trunk Card-M/M1 (CTRK-M/M1)

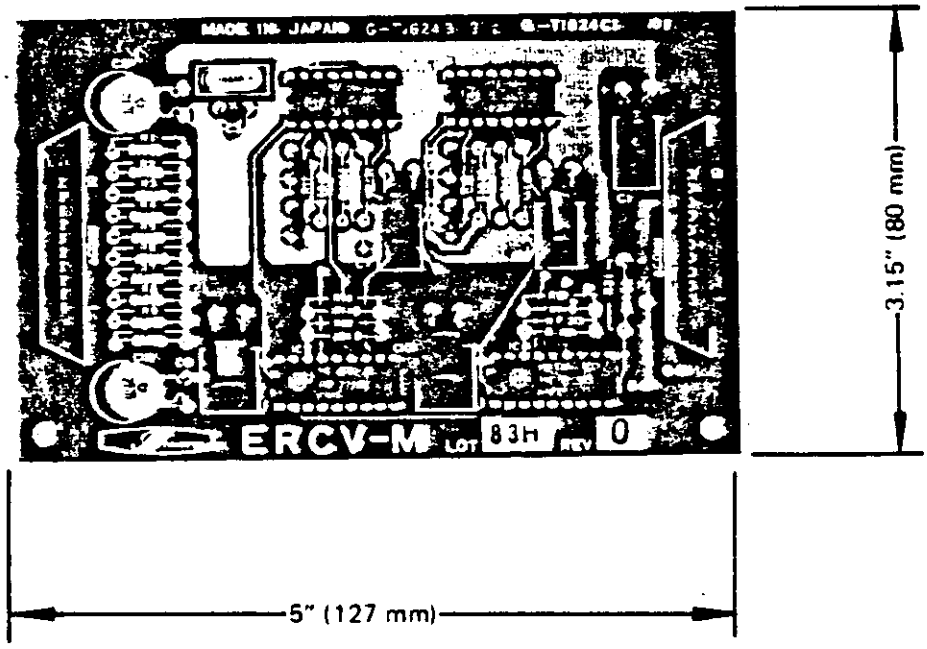
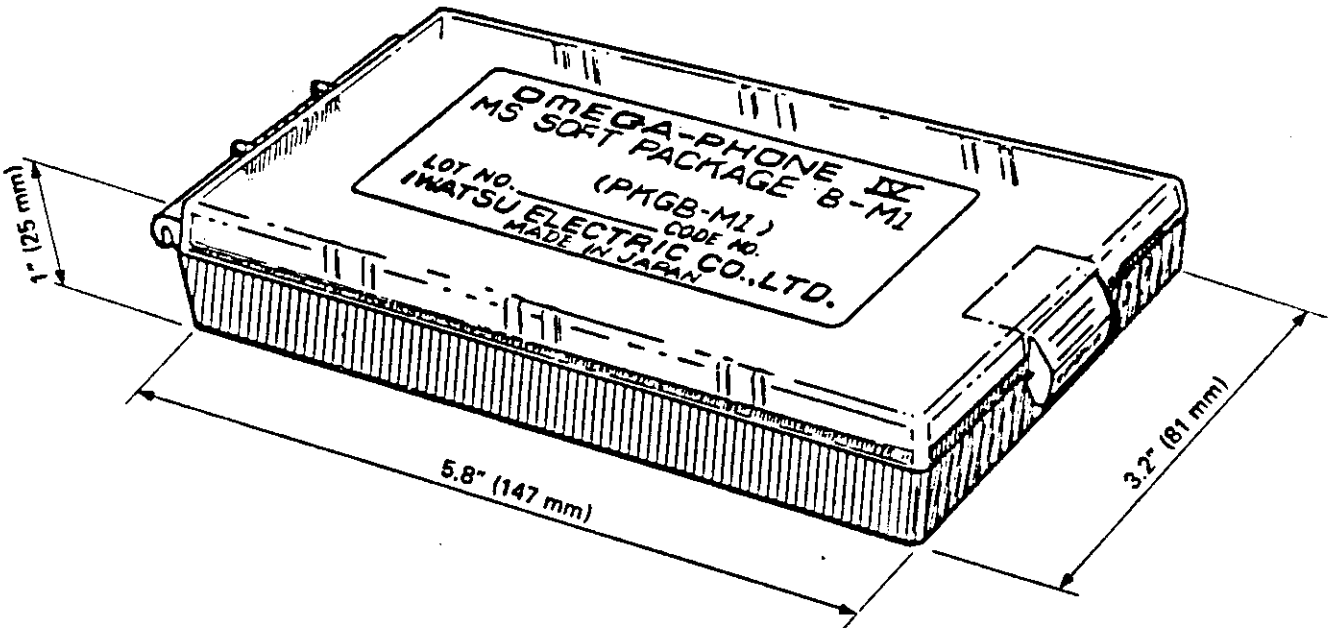


Figure 1.2.(2).M Expanded DTMF Receiver Unit-M (ERCV-M)



These are optional memory ICs to be mounted on the M/KCPU-M1 card. The following packages, each with its own features, are available:

Function \ Package	KPGA-M1 (for KF only)	MPGA-M1 (for MF only)	PKGB-M1 (KF/MF)
• Toll Restriction	X	X	–
• System Data Print Out	X	X	–
• Calculator	X	X	–
• Optimized Call Routing Access	–	X	–
• SLT COL Outgoing Access	X (Direct)	X (Floating)	–
• Voice Message Waiting	–	–	X
• Reminder	–	–	X
• Absence Message	–	–	X
• Night Automatic Answering	–	–	X
• Private Line Automatic Answer	–	–	X
• E&M Tie Line	–	–	X

Note 1: The EX-824/1648 operates as an MF system only when an MPGA-M1 unit is mounted, otherwise it works as a KF system.

Note 2: Except when a KPGA-M1 or MPGA-M1 unit is mounted, an SLT can seize no CO/PBX line or E&M tie line (in the case where a KPGB-M1 unit is mounted). Any SLT can, however, can place CO/PBX outgoing calls through the attendant console.

Figure 1.2.(2).N Software Package A and B

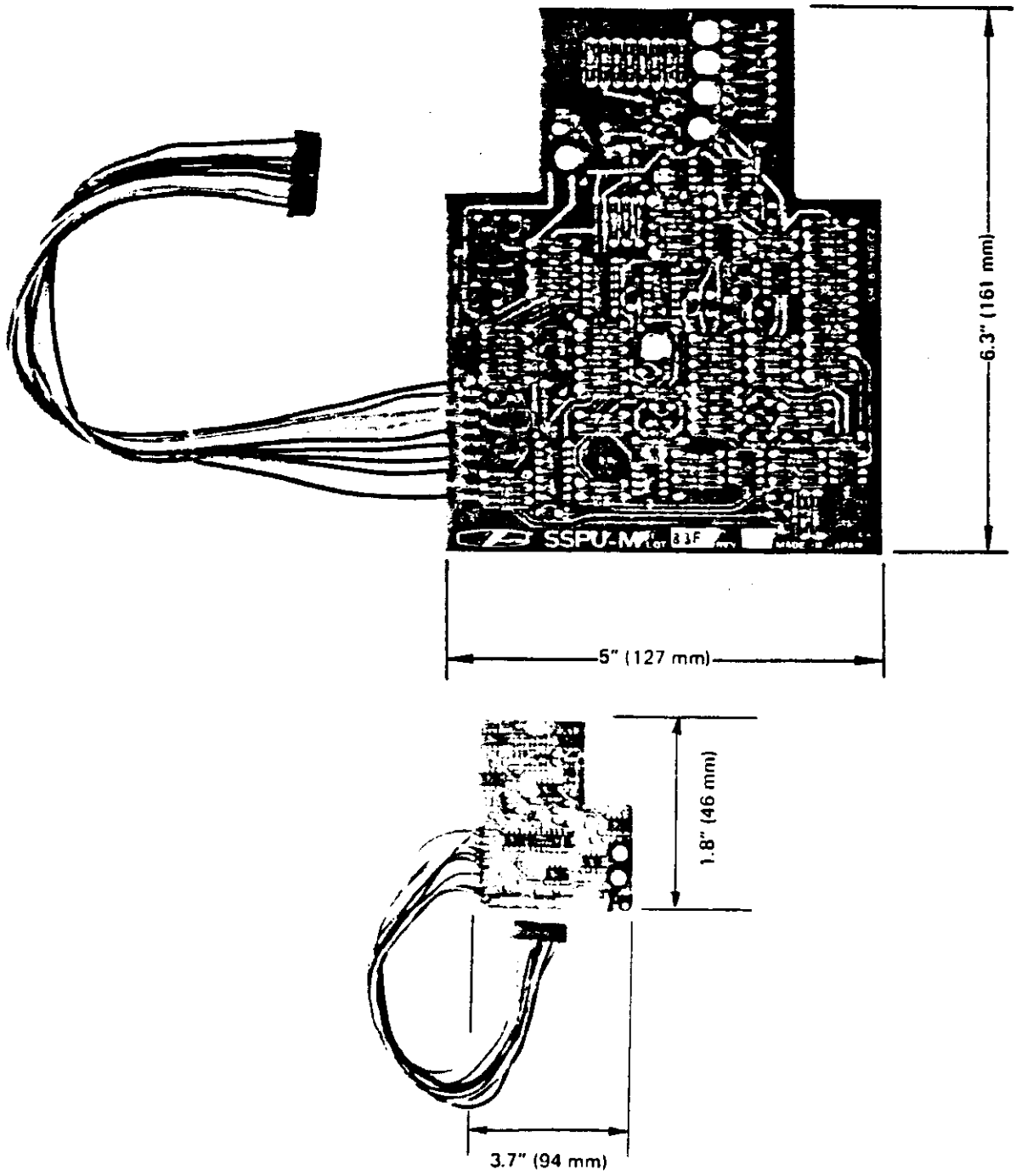


Figure 1.2.(2).O Cards in Key Telephone (1/2)

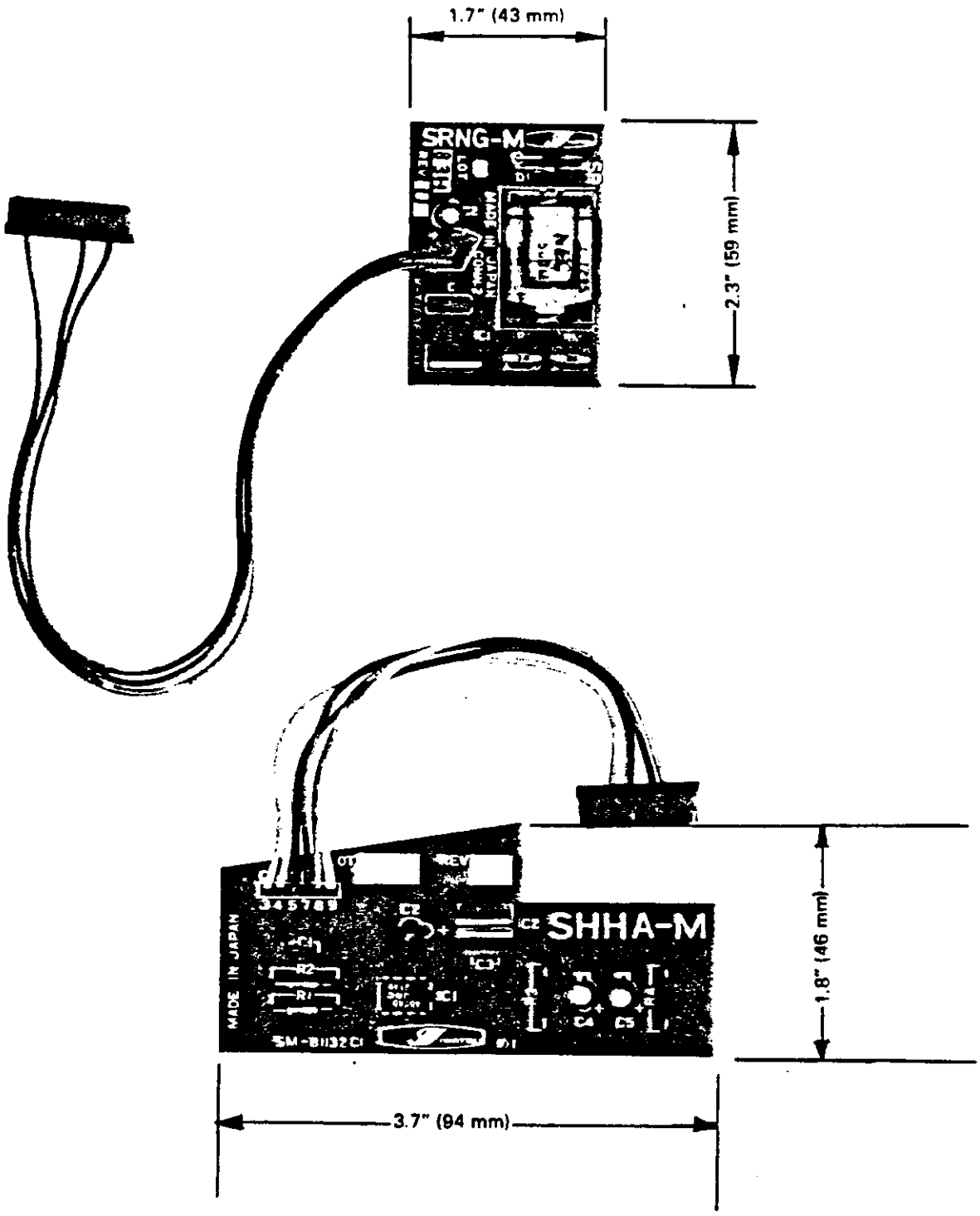
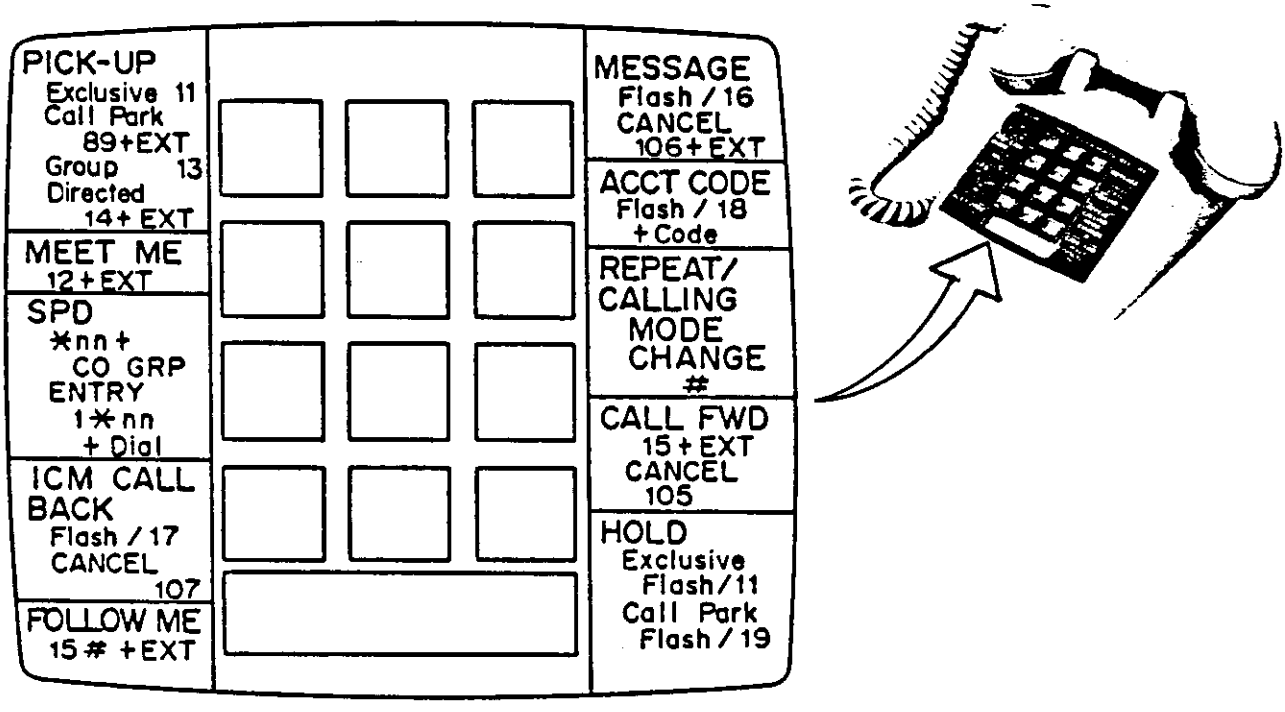


Figure 1.2.(2).O Cards in Key Telephone (2/2)



This dial mask facilitates use of the type 2500 telephone as an extension. Stick it on the dial portion of the telephone.
The dial mask comes in two colors: Black and beige.

Figure 1.2.(2).P Dial Mask for 2500-Type Telephone (DMSK-M1)

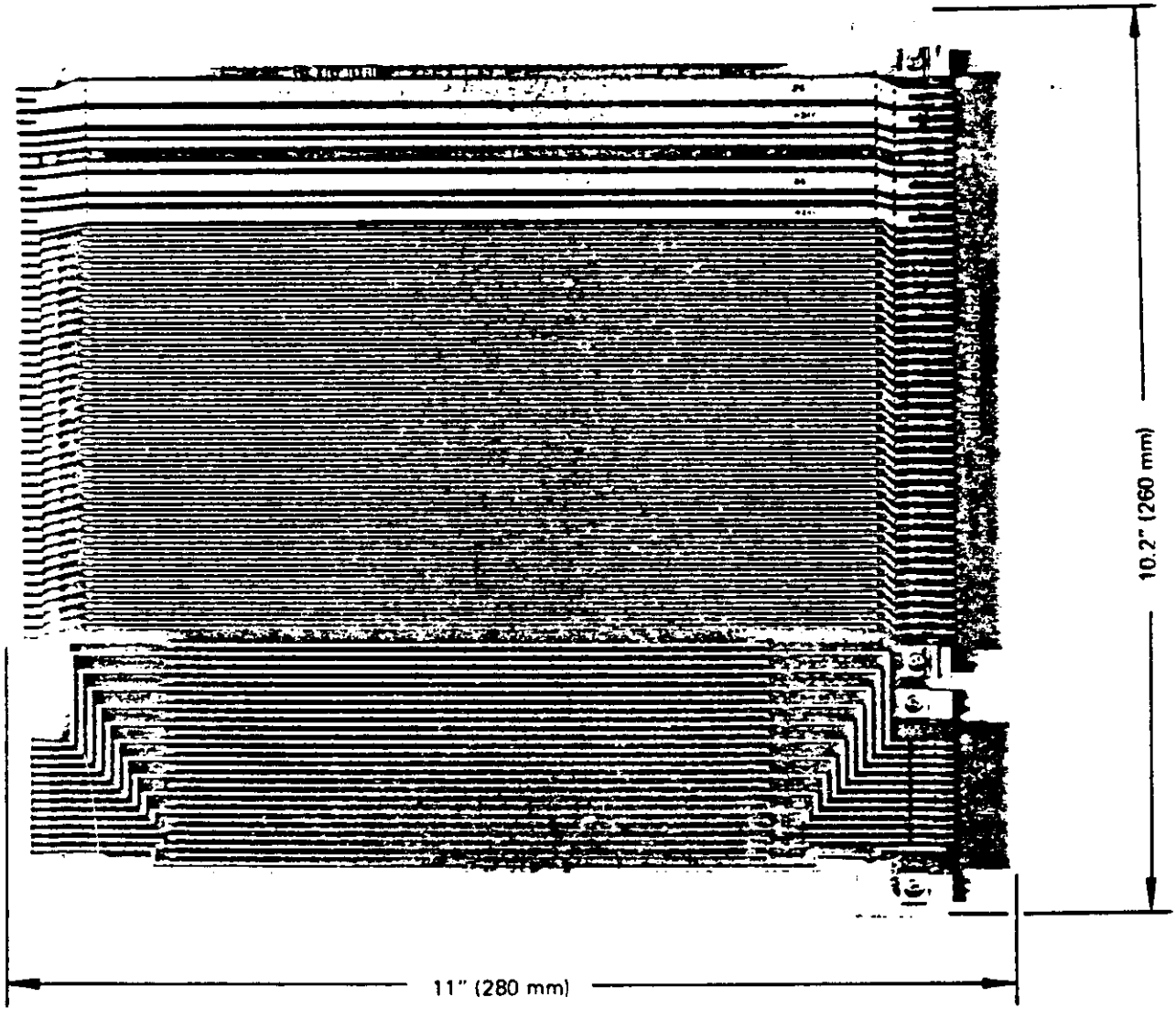


Figure 1.2.(2).Q Circuit Board Extender Small-M (CBES-M)

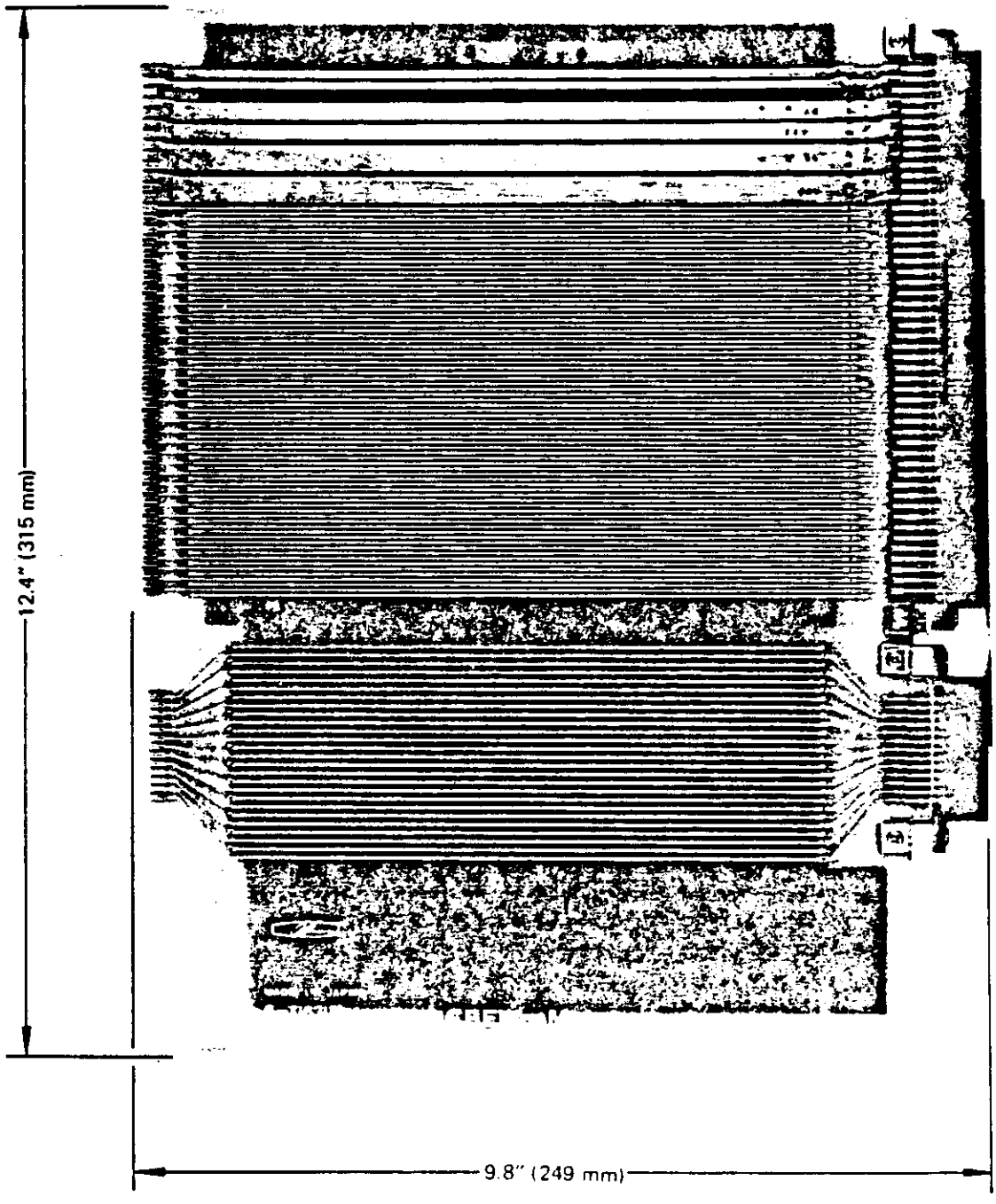
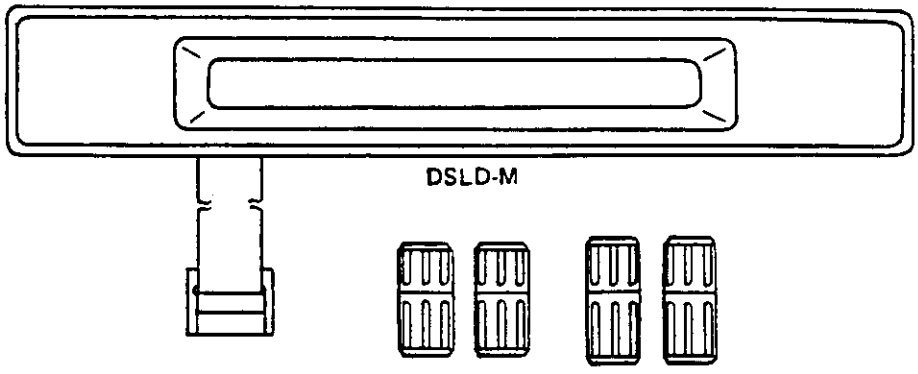
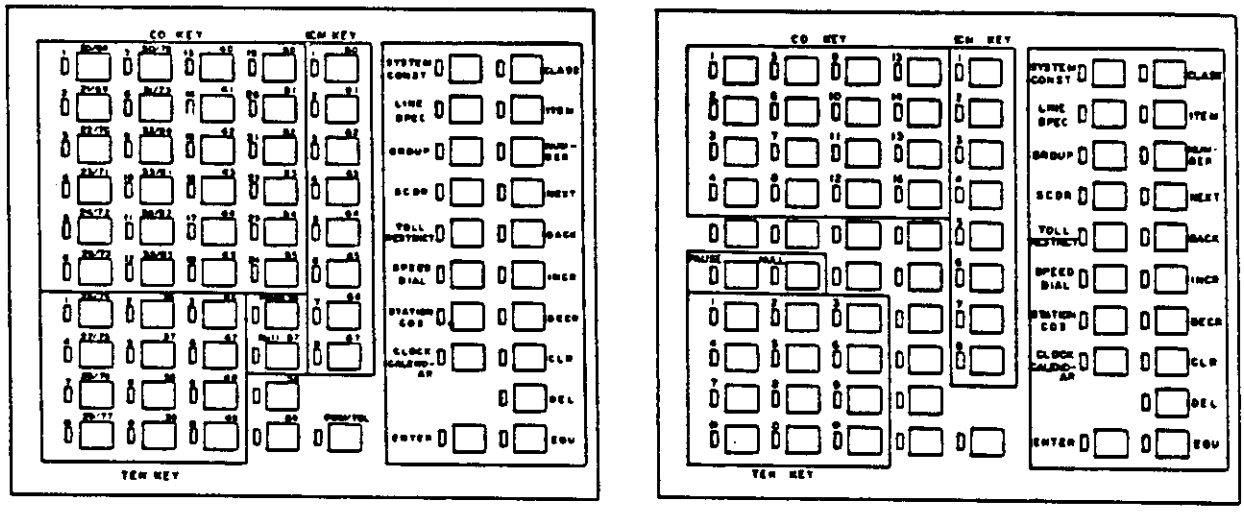


Figure 1.2.(2).R Circuit Board Extender Large-M (CBEL–M)





PROV-M1 PROV-M

(DSLD-M1 includes DSLD-M/LCD CASE Support A/B, PROV-M1 and PROV-M)

DSLD-M

This LCD is to be installed on a DSS-M or DSS-N.

PROV-M/M1

This is a special sheet to be placed on the DSS keyboard in entering user data from a DSS-M or DSS-N.

EX-824/1648 system uses PROV-M.

Figure 1.2.(2).S LCD Unit for DSS-M (DSLD-M) and DSS Programming Overlay-M/M1 (PROV-M/M1)

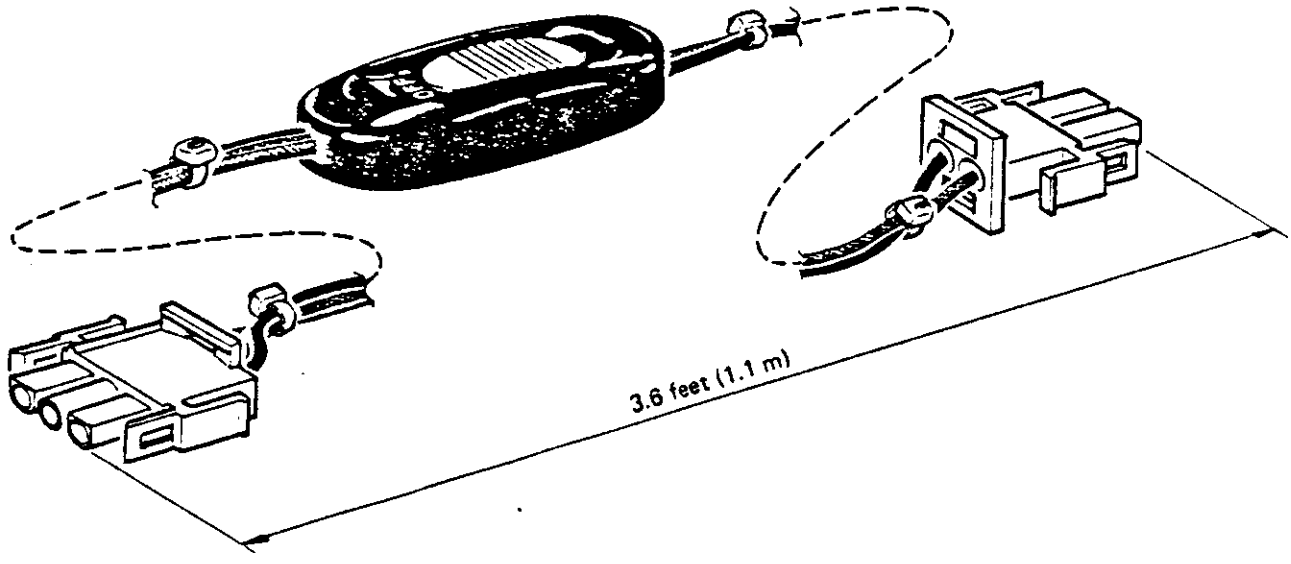


Figure 1.2.(2).T Printed Circuit Board Removing Cable-M (PCRC-M)

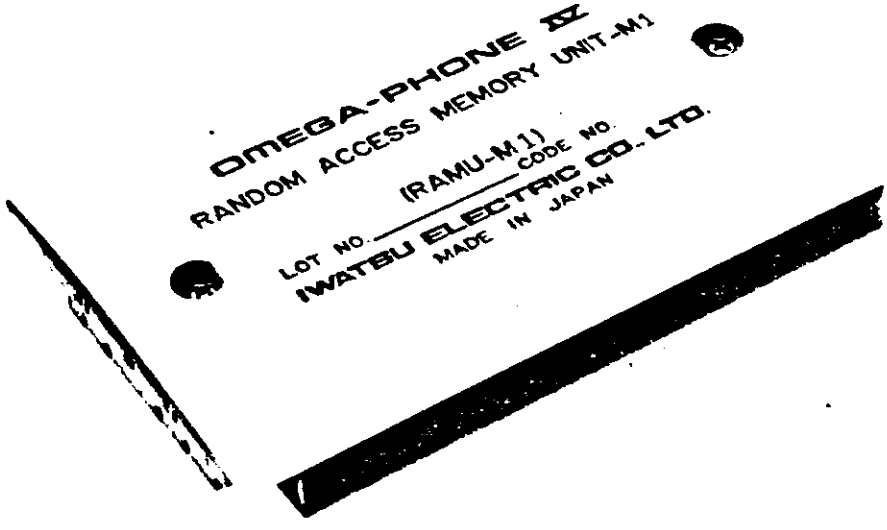


Figure 1.2.(2)U Random Access Memory Unit-M1 (RAMU-M1)

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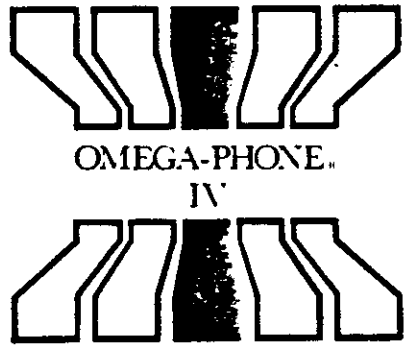

1.3 CHARACTERISTICS

The specifications of the EX-824/1648 System are as follows:

1.3.1 Environmental Conditions

Operating temperature	–5° to 45°C (23° to 113°F)
Operating humidity	10 to 90% RH
Storage temperature	–10° to 50°C (14° to 122°F)
Storage humidity	5 to 95% RH

1.3.2 EX-824/1648 KSU

1.3.2.1 CO Line Specifications

(1)	Originating type	Loop start
(2)	CO loop current	20 to 130 mA DC
(3)	CO line resistance	Loop 1600 ohms or less (subject to loop current specifications)
(4)	Ringing signal	15 to 70 Hz AC, 40 to 150 Vrms
(5)	Impedance to ringing signal	20 kilo-ohms or more (at 16 Hz)

(6)	Dial type	DP or DTMF
(6.1)	DP type	
	Dial speed	10 ±0.5 pps
	Make ratio	39% or 33%
	Minimum pause	700 ms
(6.2)	DTMF type	
	Frequency deviation	±1.0% or less
	Output level low group	−4 ±3 dBm
	Output level high group	−6 ±3 dBm
	Sending time	150 ms
	Minimum pause	150 ms
(7)	Speech paths	
	Impedance	600 ohms ±15% (at 1 to 1.5 kHz) or 900 ohms ±15% (at 1 to 1.5 kHz)
	Speech level	0 dBm maximum
	Music-on-hold sending level	−10 dBm maximum
	CO—extension telephone speech attenuation	2.5 dB or less (at 1 kHz)
	CO line crosstalk	75 dB or more (at 1.5 kHz)
	Longitudinal balance	70 dB or more (at 200 Hz to 6 kHz)
	Return loss	10 dB or more (at 200 Hz to 4 kHz)
(8)	Terminal	50-pin micro-ribbon connector

1.3.2.2 ICM Specifications

(1)	Common items	
	Speech path	600 ohms ±10% (at 1 to 1.5 kHz)
	Speech signal level	0 dBm maximum
	ICM speech attenuation	4.5 dB ±1 dB (at 1 kHz)
	Crosstalk	75 dB or more (at 1.5 kHz)
(2)	Key telephones (KTs)	
	Line resistance	Loop 60 ohms or less (cable only) (40 ohms or less if an optional unit is mounted in the telephone)
	ICM dial tone	440 Hz ±1% continuous
	Busy tone	480/620 Hz, 0.5 s ON/0.5 s OFF
	Ringing tone	440/480 Hz, 1 s ON/3 s OFF
	CO ringing	440/480 Hz, 1 s ON/3 s OFF
	ICM ringing	440 Hz, 1 s ON/3 s OFF
	Supply voltage (for control)	−24 VDC

(3) Single-line telephones (SLTs)

Line resistance	Loop 600 ohms or less (including telephone resistance) (480 ohms or less in case of battery operation) Loop 1200 ohms or less (including telephone resistance) in case of optional unit SUBS-M1 and external 48 V power supply.
Speech current source voltage	−24 VDC or −48 VDC (external 48 V power supply)
Dial type	PULSE 10 pps or 20 pps, DTMF
No. of parallel connections	3 maximum
Ringing signal	18 to 24 Hz AC, 45 to 100 Vrms
Ring trip	Provided
Longitudinal balance	60 dB or more (at 1 kHz)
ICM dial tone	440 Hz ± 1% continuous
Busy tone	480/620 Hz, 0.5 s ON/0.5 s OFF
Ringing tone	440/480 Hz, 1 s ON/3 s OFF
CO ringing	Bell rings 0.4 s ON/0.2 s OFF/0.4 s ON/3 s OFF
ICM ringing	Bell rings 1 s ON/3 s OFF

(4) Terminal — 50-pin micro-ribbon connector

1.3.2.3 DSS/BLF

Line resistance	Loop 60 ohms or less (cable only)
Supply voltage (for control)	−24 VDC
Terminal	24-pin micro-ribbon connector

1.3.2.4 External Connecting Devices

Relay contact output for externally connected device control

(1) External loudringer

Switching voltage	48 VDC/30 VAC or less
Switching current	0.5 A or less
Switching power	25 VA or less
Connecting terminal	50-pin micro-ribbon connector

(2) Zone paging

Switching voltage	48 VDC/30 VAC or less
Switching current	0.5 A or less
Switching power	25 VA or less

The following specifications apply to speaker signals.

Speaker line voltages 100 VAC or less
Amplifier output impedance 160 ohms or more
Amplifier output power 100 W or less

Connecting terminal 16-pin screw terminal board

(3) Other devices
- Music-on-hold ON/OFF
- Paging amplifier ON/OFF
- Night mode display
- Incoming CO call display in night mode

Switching voltage 48 VDC/30 VAC or less
Switching current 0.5 A or less
Switching power 25 VA or less
Connecting terminal 16-pin screw terminal board

1.3.2.5 Voice Signals

(1) Paging amplifier output (voice)

Output impedance 600 ohms
Output voltage 700 mV (−3 dBV)
Connecting terminal RCA-type pin jack

(2) Music-on-hold input

Input impedance 600 ohms
Input voltage 500 mV (−6 dBV) not to exceed 2 V (+6 dBV)
Connecting terminal RCA-type pin jack

(3) Background music input

Input impedance 600 ohms
Input voltage 200 mV (−14 dBV) not to exceed 1 V (0 dBV)
Connecting terminal RCA-type pin jack

1.3.2.6 Printer for Station Call Detail Recorder (SCDR)

Transmission RS-232C EIA standard or 20 mA current loop
Type of signal
- Baud rate 110, 330, 600, 1200, 2400, 4800 bits/s
- Word length 7 or 8
- Parity Even, odd, or no parity
- Stop bit 1 or 2
- Connecting terminal 25-pin D-Sub connector

1.3.2.7 PFTU

Power failure transfer unit (PFXU-M) output

Output voltage	−24 VDC
Output current	1 A maximum
Connecting terminal	16-pin screw terminal board

1.3.2.8 Power Input

1.3.2.8.1 Input

(1) AC commercial power input

Use PWS-M

Input voltage	90 to 135 VAC 47 to 63 Hz Single-phase
Input power	800 VA maximum

Use PWS-MH

Input voltage	180 to 270 VAC 47 to 63 Hz Single-phase
Input power	840 VA maximum

Use BATU-M

Input voltage	Same as connecting PWS-M or PWS-MH
Input power	80 VA maximum

(2) DC input

Use PWS-M and BATU-M or PWS-MH and BATU-M

Input voltage	21 to 27 VDC
Input current	19 A maximum

1.3.2.8.2 Power Line Condition

(1) AC commercial power

Voltage drop, sug, and momentary interruption exceeding the rating by 20%	A total of less than 60 ms.	
	Pulse width	50ns to 1 μs
	Number of pulses	60 pulse/second or less
	Peak voltage	1000V peak or less

1.3.3 Heat Dissipation

The following applied if the EX-824/1648 system is fully equipped. The maximum values refer to the condition when all telephones and all speech paths are busy.

EX-824/1648CM system (extension 24)	1500 BTU's
EX-824/1648CM and EX-1648EM systems (extension 48)	2000 BTU's

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1.4 FEATURES

The features of the EX-824/1648 system are shown in Table 1.4.
The detailed operating and programming descriptions of each feature are described in Part 2 and Part 4.
Pay special attention to the note for Table 1.4.

(1) Symbols

The marks in the table have the following meaning:
× : available
◇ : necessary
△ : necessary for some features in the paragraph.

(2) Hardware

In addition to the hardwares in the table, the following hardwares are required:

(a) CTRK-M/M1 if COL or P.B.X Line is used.

(b) SUBK-M if key telephone is used.

(c) SUBS-M/M1 if single-line telephone (PULSE) is used.

(d) SUBS-M/M1 and RECV-M (ERCV-M) if single-line telephone (DTMF) is used.

No.	Feature	Trunk		Station				Feature Package		Hardware
		COL	ICM	KT	VP	SLT	ATTND	A	B	
A-1	Attendant Call Priority						X			DSS-M/N, DSBF-M
A-2	Attendant Dedicated ICM Line		X				X			DSS-M/N, DSBF-M
A-3	Attendant DSS Calling		X				X			DSS-M/N, DSBF-M
A-4	Attendant Intercept	X					X			DSS-M/N, DSBF-M
A-5	Attendant Recall	X					X			DSS-M/N, DSBF-M
A-6	Attendant • Serial Call	X					X			DSS-M/N, DSBF-M
A-7	Attendant • Chain Call		X				X			DSS-M/N, DSBF-M
A-8	Attendant • Call Release	X	X				X			DSS-M/N, DSBF-M
A-9	Attendant • Through Dialing	X		X	X		X			DSS-M/N, DSBF-M
A-10	Attendant • Overflow Transfer	X	X				X			DSS-M/N, DSBF-M
A-11	Attendant • Dual Attendant						X			DSS-M/N, DSBF-M
A-12	Attendant • Trunk Forced Release	X	X				X			DSS-M/N, DSBF-M, DSLD-M
A-13	Attendant • Station Forced Release						X			DSS-M, DSBF-M, DSLD-M
A-14	Attendant • Call Forward Forced Release						X			DSS-M/N, DSBF-M, DSLD-M
A-15	Attendant • Call Forward • Busy Call Forward Forced Release						X			DSS-M/N, DSBF-M, DSLD-M
A-16	Automatic COL Release	X		X	X	X	X			
A-17	Automatic ICM Termination		X	X	X					
A-18	Automatic Line Answer	X	X	X	X					
A-19	Automatic Trunk/Station Release	X	X	X	X	X				
B-1	Back Ground Music			X	X					External BGM souse
B-2	Busy Lamp Field						X			DSS-M/N, DSBF-M,
C-1	Calculator			X				◇		EX-816/824/1648 D/DN/DN1

No.	Feature	Trunk		Station				Feature Package		Hardware
		COL	ICM	KT	VP	SLT	ATTND	A	B	
C-2	Call Abbreviation	X	X	X	X					
C-3	Call Back Queuing COL	X		X	X					
C-4	Call Back Queuing ICM (Automatic Call Back)		X	X	X	X				
C-5	Call Forward	X	X	X	X	X				
C-6	Call Forward • Busy Call Forward	X	X	X	X	X				
C-7	Call Monitor	X	X	X	X					
C-8	Call Park	X		X	X	X	X			
C-9	Call Park • Call Park Pickup	X		X	X	X	X			
C-10	Call Park • Call Split	X		X	X	X				
C-11	Call Pick Up Group	X		X	X	X				
C-12	Camp On • COL Camp On	X		X	X	X				
C-13	Camp On • ICM Camp On		X	X	X	X				
C-14	Camp On • Pick Up	X	X	X	X	X				
C-15	Camp On • Recall	X		X	X	X				
C-16	Clock Adjustment						X			DSS-M/N, DSBF-M, DSLD-M
C-17	COL Selection	X		X	X	X				
C-18	Conference • Add On Conference	X	X	X	X	X				
C-19	Conference • Automatic Add On	X					X			DSS-M/N, DSBF-M
C-20	Conference • Conference Hold	X	X	X	X	X				
C-21	Conference • Multi Line Conference	X		X	X	X				CONF-M
C-22	Conference • Trunk to Trunk Conference	X		X	X	X				CONF-M
C-23	Conference • Conference Camp On		X	X	X	X				
D-1	Direct Call Pick Up	X	X	X	X	X				

No.	Feature	Trunk		Station				Feature Package		Hardware
		COL	ICM	KT	VP	SLT	ATTND	A	B	
D-2	Direct COL • Assignment	X		X	X					
D-3	Disconnect	X	X	X	X	X	X			(DSS-M/N, DSBF-M)
D-4	Display Mode Change			X						EX-816/824/1648 D/DN/DN1
D-5	Do Not Disturb	X	X	X	X					
D-6	Do Not Disturb • Forced Release						X			DSS-M/N, DSBF-M, DSLD-M
E-1										
E-2	Equal Access Dialing	X		X	X	X				
E-3	E/M Tie Line Service	X		X	X	X			◇	EMTK-M
F-1	Flash (Dial Tone Reorder)	X	X	X	X					
F-2	Flexible Key Assignment			X	X		X			
F-3	Floating COL Group Access	X		X	X	X		◇		
F-4	Follow Me	X	X	X	X	X Only DTMF				
H-1	Hands-free Stations (Built-in Speakerphone)		X	X						SSPU-M/N/NS/RN1
H-2	Exclusive Hold	X	X	X	X	X				
H-3	System Hold	X		X	X					
H-4	Consultation Hold		X	X	X	X				
H-5	Consultation Hold Recall		X	X	X	X				
H-6	Automatic Hold	X	X	X	X		X			(DSS-M/N, DSBF-M)
H-7	Music On Hold	X		X	X	X				
H-8	Hold Recall	X	X	X	X	X				
H-9	Ring Back Tone On Hold	X								
I-1	ICM Calling • Calling Mode Change		X	X	X					(RGNT-M)
I-2	ICM Calling • Hands-Free Answer		X	X	X					HFAB-R (only VP) HFAB-R is initially mounted on EX824/1648 VP-N1.

No.	Feature	Trunk		Station				Feature Package		Hardware
		COL	ICM	KT	VP	SLT	ATTND	A	B	
I-3	ICM Calling · Establishment of ICM Calling Method		X	X	X	X				
I-4	ICM Path Termination		X	X	X	X	X			
I-5	Incoming COL Call	X		X	X	X				
M-1	Master Group Hunt Call		X	X	X	X				
M-2	Meet Me		X	X	X	X				
M-3	Message · Absence Message		X	X	X				◇	VSCU-M
M-4	Message · Memo of Call		X	X	X					
M-5	Message · Message Waiting		X	X	X	X				EX-816/824/1648 D, DN/DN1
M-6	Message · Night Automatic Answer	X							◇	VSCU-M
M-7	Message · Reminder			X	X				◇	VSCU-M
M-8	Message · Voice Message Waiting		X	X	X				◇	VSCU-M
M-9	Microphone Cut Off			X	X					
M-10	Multi Level Toll Restriction	X		X	X	X		◇		
N-1	Night Service	X		X	X	X				
N-2	Night Service · Switch Night Mode						X			
N-3	Night Service · Night Relay				(Only Tenant A) X	X	X			
N-4	Night Service · Automatic Night Assign	X			X	X	X			
N-5	Night Service · Universal Night Assign	X				X				
N-6	Night Service · Universal Night Assign Pick Up	X		X	X	X				
O-1	On-hook Dialing	X	X	X	X					
O-2	Optimized Call Routing	X		X	X	X		◇		
O-3	Optional Equipments · Station Hard Hearing Handset/Station Noise Cancelling Handset			X	X					SHHD, SHHA-M SNHD

No.	Feature	Trunk		Station				Feature Package		Hardware
		COL	ICM	KT	VP	SLT	ATTND	A	B	
O-4	Handset Adapter			X						SHSA-M
O-5	External Station Loud Ringer	X		X						SRNG-M
O-6	External Alarm Signal	X								LRAD-M External loud ringer
O-7	Outgoing Address Signal Outpulsing	X		X	X	X				
O-8	Outgoing Restriction	X		X	X	X				
O-9	Overriding • Busy Override		X				X			DSS-M/N, DSBF-M
O-10	Overriding • Do Not Disturb Override		X				X			DSS-M/N, DSBF-M
O-11	Overriding • Executive Override	X	X	X	X					
O-12	Overriding • Call Waiting		X	X	X	X				
P-1	Paging Call • All Call With Meet Me		X	X	X	X				
P-2	Paging Call • All Zone Call With Meet Me		X	X	X	X				
P-3	Paging Call • All Group Call With Meet Me		X	X	X	X				
P-4	Paging Call • Zone Call With Meet Me		X	X	X	X				
P-5	Paging Call • Group Call With Meet Me		X	X	X	X				
P-6	Paging Call • Attendant Paging Call With Meet Me		X				X			
P-7	Pick Up Restriction	X		X	X	X				
P-8	Preselection	X	X	X	X					
P-9	Prime Station	X		X	X	X				
P-10	Privacy	X	X	X	X					
P-11	Private Line	X		X	X	X				
P-12	Private Line • Automatic Answering	X		X	X					VSCU-M

No.	Feature	Trunk		Station				Feature Package		Hardware
		COL	ICM	KT	VP	SLT	ATTND	A	B	
P-13	Programming · System Programming Terminal						X			DSS-M/N, DSBF-M, DSLD-M, PROV-M1
P-14	Programming · Dynamic Programming						X			DSS-M/N, DSBF-M, DSLD-M, PROV-M1
P-15	Programming · Programming COL Lines	X		X	X	X				
P-16	Programming · Programming From KT/VP			X	X					
P-17										
Q-1	Quick Mode Operation			X	X		X			
R-1	Redialing	X		X	X					
S-1	SCDR	X		X	X	X				SCDR-M, Printer
S-2	Secretarial Hot Line Termination		X	X	X					
S-3	Sender Time Out	X		X	X	X				
S-4	Soft Ringer	X	X	X	X					
S-5	Speed Dialing	X		X	X	X				
S-6	Station Class of Service			X	X	X				
S-7	Station Lock Out			X	X					
S-8	System Alarm Indications									
S-9	System Initialization									
T-1	Tenant Service	X	X	X	X		X			
T-2	Timed Trunk Queuing	X		X	X					
T-3	Transfer	X	X	X	X	X				
V-1										

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1.5 SYSTEM CONFIGURATION

The EX-824/1648 system consists of the following units:

1.5.1 Integrated Control Unit

Key telephones and other optional units can be controlled by inserting various cards into the EX-824/1648CM and EX-1648EM. The unit that controls them is called the ICU (Integrated Control Unit).

1.5.1.1 EX-824/1648CM

The EX-824/1648CM shown in Figure 1.2 (2).A can be mounted in a 23-inch rack, or on a wall or floor. The EX-824/1648CM consists of two card shelves, the upper one of which is called the line shelf and the lower one, the common shelf. The line shelf mainly holds CO/PBX trunk cards, subscriber cards, sound source cards, etc. The common shelf holds the cards that control the system. The EX-824/1648CM can control 8 CO/PBX lines and 24 subscribers.

1.5.1.2 EX-1648EM

The system can be easily expanded to 16 CO/PBX lines and 48 subscribers by simply installing this unit on the EX-824/1648CM. The motherboard is automatically plugged into the connector for easy, safe expansion. Even if the system is expanded, it can be mounted in a rack or on a wall or floor.
A rack consists of a single card-holding shelf, which matches the EX-824/1648CM line shelf. It holds cards for up to 8 CO/PBX lines and 24 subscribers.

1.5.1.3 Power Supply Units

Table 1.5.1.3 shows the power supply units.

Table 1.5.1.3 EX-824/1648 System Power Supply Unit

No.	Name of Unit	Description
1	PWS-M	Power supply unit for EX-824/1648 system Input: 47 Hz to 63 Hz, 90 to 135 VAC, single phase, 800 VA or less. UL-recognized file Na E-81314.
2	PWS-MH	Power supply unit for EX-824/1648 system Input: 47 Hz to 63 Hz, 180 to 270 VAC, single phase, 840 VA or less
3	BATU-M	Battery adaptor unit for backing up the system during power failure Connect this unit to PWS-M or PWS-MH UL-recognized file No. E-81314.

1.5.1.4 Printed-Circuit Cards

The various printed-circuit cards that are installed in the shelves are described below.

1.5.1.4.1 Common Cards

The common cards are always necessary regardless of system configuration. Table 1.5.1.4.1 describes these cards.

Table 1.5.1.4.1 Common Cards

No.	Name of Card	Description
1	M/KCPU-M	This card controls the system as a whole, and has a 16-bit CPU as the central processor. RAMU-M1 is mounted on this card. This card has an IC socket in which an optional IC memory may be connected.
2	VTCU-M	This card has control relay contacts for sound sources, ICM circuits, and external units used for the system, and mainly provides sound service for the system.

1.5.1.4.2 Optional Cards

Table 1.5.1.4.2 shows optional cards.

Table 1.5.1.4.2 Optional Cards

No.	Name of Cards	Description
1	VSCU-M	Voice synthesizer unit to supply synthesized sound to the system as requested. VSCU-M for two channels is installed.
2	DSBF-M	Interface circuit for DSS-M, DSS-N and BLF-M consoles. A single DSBF-M can control two DSS consoles and four BLF consoles.

Table 1.5.1.4.2 Optional Cards (con.)

No.	Name of Card	Description
3	SCDR-M	Interface card for a speech recording printer. It controls one printer. Compatible with RS-232C and current loop.
4	RGNT-M	Single-line telephone ringer drive card
5	ZPAG-M	This card controls paging and BGM from the three zone page speakers of the system.
6	RNGA-M	This card controls the relay for driving the loud ringer if an incoming CO call is received. One card takes care of eight CO/PBX lines.
7	RECV-M	DTMF receiver card for single-line telephones. Two receivers are initially installed, and four are installed if ERCV-M is also installed.
8	ERCV-M	Two additional DTMF receives can be installed if this card is used.
9	CONF-M	This card, consisting of two pairs of units, is used for multi-conference and trunk-to-trunk control. A simple, two-way amplifier is provided.
10	SUBK-M	Key telephone interface card to control four key telephones
11	SUBS-M	Single-line telephone interface card to control four SLTs
12	SUBS-M1	Single-line telephone interface card to control four SLTs. Supplies-48V to single line telephones, and long line SLTs can also be connected.
13	CTRK-M/1	CO/PBX line interface card to control four CO/PBX lines. Suitable with a line impedance of 600 or 900 ohms.
14	EMTK-M	E&M tie trunk interface card with two circuits. Interface is Type 2.

1.5.2 Extensions

1.5.2.1 EX-824/1648K (EX-824/1648 Key Telephone)/EX-824/1648KN/KN1 (EX-824/1648 Key Telephone N/N1)

The EX-824/1648K and EX-824/1648KN/KN1 means a multiple-function electronic key telephone designed specially for EX-824/1648 system.
Voice signals are analog and control signals are digital; the key telephone is interfaced with the SUBK-M card in the ICU.

1.5.2.2 EX-824/1648D (EX-824/1648 Key Telephone With Display)/EX-824/1648DN/DN1 (EX-824/1648 Key Telephone N/N1 With Display)

The EX-824/1648D or EX-824/1648DN/DN1 is today's most versatile electronic key telephone, designed specially for the EX-824/1648 system. It is exactly the same as the EX-824/1648K and EX-824/1648KN/KN1 Key telephone except that it has a 16-digit LCD (liquid-crystal display).

1.5.2.3 EX-824/1648VP-N1 (EX-824/1648 Versa Phone)

The EX-824/1648 VP-N1 is a simple type key telephone. The function of this type is almost the same as other key telephones except that it has no LCD unit and less number of keys.
The Hands Free Answer Back Unit HFAB-R is initially built in the EX-824/1648 VP-N1.

1.5.2.4 Single-Line Telephone

The EX-824/1648 System can interface with industry standard single-line telephones as well as the EX-824/1648K, D, KN/KN1 and DN/DN1.
SUBS-M or SUBS-M1 cards must be mounted in the KSU as interface cards.

1.5.3 Other Components

1.5.3.1 DSS-M (EX-Direct Station Selection-M)/DSS-N (EX-Direct Station Selection-N)

This units are used in combination with extension Nos. 20 or 21 to function as attendant consoles. It is also used as a system programming terminal.

1.5.3.2 BLF-M (EX-Busy Lamp Field Unit-M)

This card has 12 LEDs to display the status of the corresponding extensions. These LEDs correspond to LEDs on the DSS-M or DSS-N. The LEDs and extensions can be freely paired by jumpers.

1.5.3.3 PFXU-M (Power Failure Transfer Unit-M)

The unit that transfer 8 CO/PBX Lines to single line telephones during power failure.

1.5.4 Station Options

1.5.4.1 Key Telephone Options

The following options are available for the EX-824/1648K, EX-824/1648D, EX-824/1648KN, and EX-824/1648DN key telephones.

1.5.4.1(a) Station Options

No.	Unit	Description	Note
1	SHSA-M	This unit is installed in a key telephone if a headset is used.	
2	SHHA-M	This unit is installed in a key telephone if a Hard-of-Hearing Handset (SHHD) is used.	1
3	SSPU-M	Station speakerphone unit to be built inside EX-824/1648K and EX-824/1648D key telephone	
4	SSPU-N	Station speakerphone unit to be built inside EX-824/1648KN and EX-824/1648DN key telephone	
5	SSPU-N1	Station speakerphone unit to be built inside all types of key telephone	
6	ESPA-N	Interface unit for externally installing commercial speaker-phone. This unit is for EX-824/1648 KN/DN key telephones.	
7	SRNG-M	Station external loud ringer adaptor to be installed in key telephone	
8	SHHD	Hard-of-Hearing Handset, usable in place of ordinary handset. SHHA-M unit must be installed in key telephone if SHHD is to be used.	1
9	SNHD	Noise-Cancelling Handset, usale in place of ordinary handset. Internal key telephone settings must be changed.	

Note 1: Any of the EX-824/1648 KN1, EX-824/1648 DN1, and EX-824/1648 VP-N1 systems has a built-in SHHA circuit, so there is no need to install a SHHA-M unit even when it uses SHHDs.

Table 3.10.6.4(1)C EX-824/1648 K, D, KN, DN, KN1, DN1, VP-N1 Optional Equipments

Optional Equipment		Note	K	D	KN	DN	KN1	DN1	VP-N1
Headset	AC-011	1	X	X	X	X	X	X	X
Headset Adaptor	SHSA-M	2	X	X	X	X	X	X	
External Speakerphone Adapter	ESPA-N				X	X	X	X	X
Station Speakerphone Unit	SSPU-M		X	X					
Station Speakerphone Unit	SSPU-N				X	X	X	X	
Station Speakerphone Unit	SSPU-NS				X	X	X	X	
Station Speakerphone Unit	SSPU-RN1	3	X	X	X	X	X	X	
Hands Free Answer Back Unit	HFAB-R	4	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required
Noise Prevention Handset	SNHD		X	X	X	X	X	X	X
Hard-of-hearing Handset	SHHD		X	X	X	X	X	X	X
Hard-of-hearing Handset Adaptor	SHHA-M	5	X	X	X	X	Not Required	Not Required	Not Required
Station Loud Ringer Unit	SRNG-M		X	X	X	X	X	X	

Note: 1. *Headset AC-011 does not detect hook-switch signals, so hooking with the handset is necessary.*
2. *The SHSA-M is an adaptor for starset of plantronics.*
3. *When mounting an SSPU-RN1 on a K or D key telephone, an SMPA-B (SSRU-RN1 Mount Plate Assembly – B) is required.*
4. *HFAB (Hands Free Answer Back circuits) are built in the K, D, KN, and DN.*
5. *SHHA circuits are built in the KN1, DN1, and VP-N1.*

1.5.4.2 SLT Option

The following option is available for single-line telephones:

Table 1.5.4.2 SLT Option

No.	Unit	Description
1	DMSK-M1	Dial mask with DTMF dial showing SLT operating procedure DMSK-M1 is for 2500-type telephones.

1.5.5 DSS Option

The following option is available for DSS:

Table 1.5.5 DSS Option

No.	Unit	Description
1	DSLD-M1	Mask (PROV-M), (PROV-M1) and 32-digit LCD, used in system programming with DSS. This system uses the PROV-M. Two sets of display mounting feet

1.5.6 Installation and Maintenance Tools

CBES-M and CBEL-M cards are available as card extenders. Use these extenders as shown in Table 1.5.5.

Table 1.5.6 Extender Cards

No.	Extender	Conformable Cards
1	CBES-M	VTCU-M, CTRK-M, CTRK-M1, SUBK-M, SUBS-M/M1, CONF-M RECV-M, RNGA-M, ZPAG-M, EMTK-M
2	CBEL-M	VSCU-M, DSBF-M, SCDR-M, M/KCPU-M1

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1.6 SYSTEM DESCRIPTION

1.6.1 System Block Diagram

Figure 1.6.1 is a system block diagram of the EX-824/1648 system.

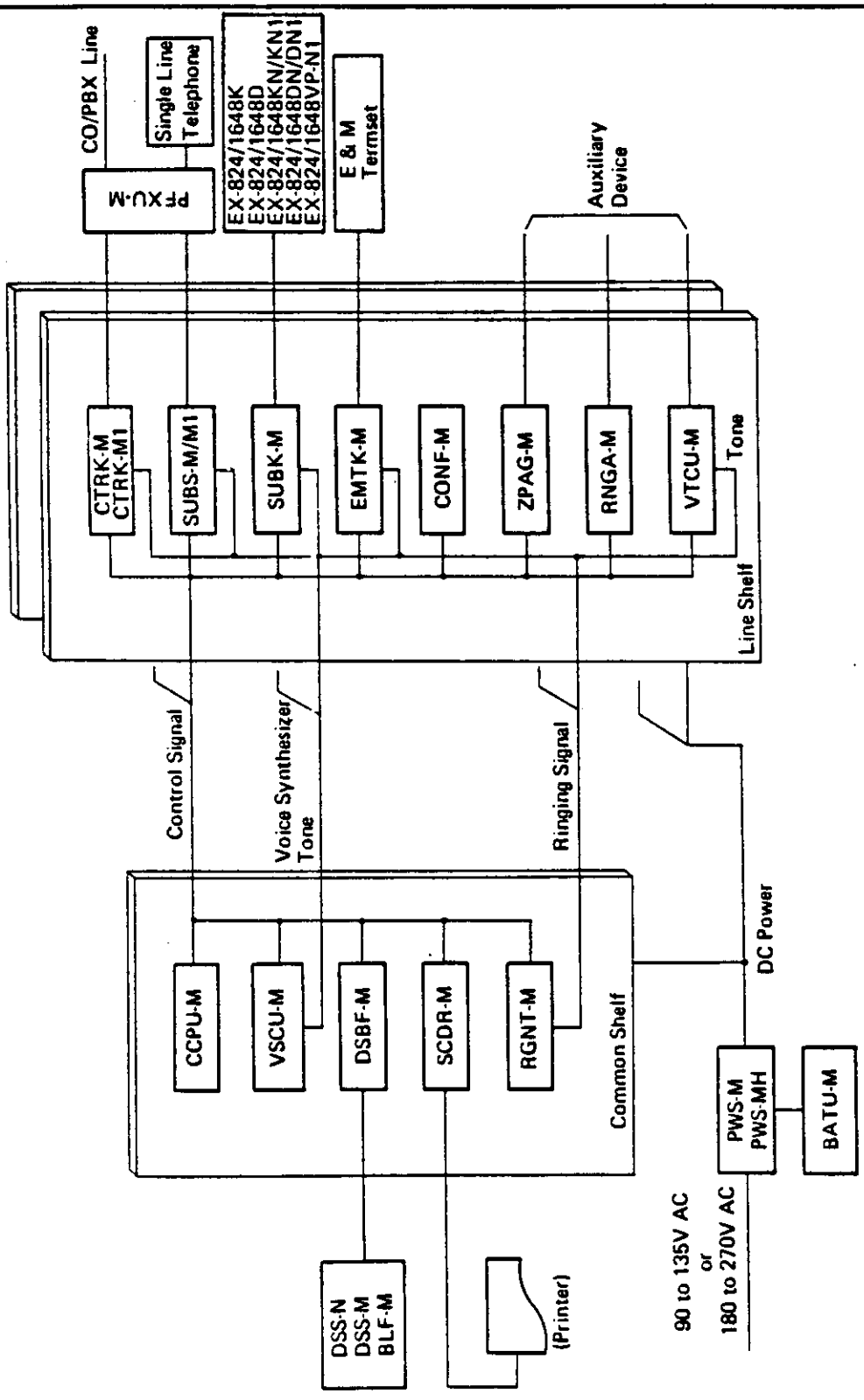

Figure 1.6.1 EX-824/1648 System Block Diagram

1.6.2 System Operation

1.6.2.1 Control Concept

The EX-824/1648 system has 8-bit mask microprocessors on some interface cards, but all system operations are basically controlled by the 16-bit CPU. The 8-bit mask microprocessors control the hardware. The CPU scans the terminal microprocessors and outputs data to them as the same I/O program is started at regular intervals. The system uses a 10-ms interrupt clock. Figure 1.6.2.1 shows the configuration. Each of the cards and units shown in the diagram has a microprocessor (PPU).

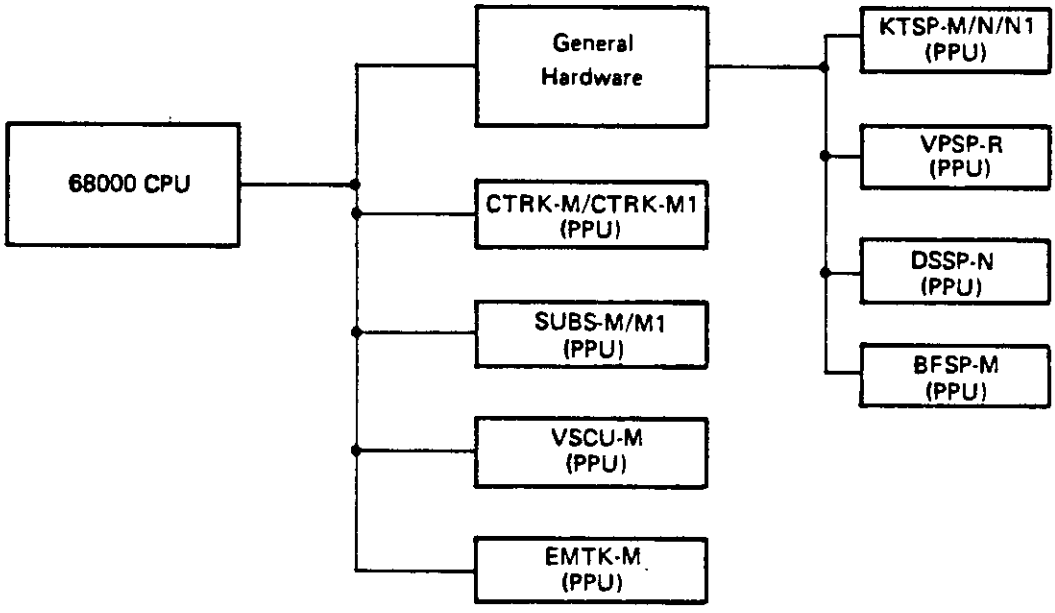

Figure 1.6.2.1 Control Concept

1.6.2.2 Speech Path Concept

Figure 1.6.2.2 shows an outline of the system's speech paths. The speech paths form a space-division system, and are connected with C-MOS bilateral switches of an unbalanced type, which helps reduce cost. The system requires no printed-circuit cards mounting conventional switches. The switches are individually mounted on the subscriber cards SUBK-M, SUBS-M/M1 and EMTK-M. Thus, the system can be installed without worrying about the switches. The switches are unbalanced, so the impedance is 600 ohms, and noise and crosstalk are minimized.
Other sound source service is provided but not described here.

1.6.2.3 Station Call Detail Recording (SCDR-M)

The SCDR-M receives information from the main microprocessor on the M/KCPU-M1 card, processes it in the proper format, and outputs it to an external printer.
It can also be used for outputting user data from the RAMU-M1 unit. Therefore, the user data can be retained even if the RAMU-M1 unit is replaced.

1.6.2.4 E & M Tie Trunk

Two channels of E & M tie lines can be accommodated if an EMTK-M card is installed. It permits mutual dialing and talking.

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1.7 INSTALLATION AND MAINTENANCE

1.7.1 Installation

This section describes the general requirements for system installation. Refer to Parts 3 and 4 for details. Personnel actually performing installation should read Parts 3 and 4 in addition to this section.

1.7.1.1 Installation

(1) The ICU (Integrated Control Unit) is the nucleus of the system, and consists of an EX-824/1648CM and EX-1648EM.

(2) The system can be easily installed by placing the EX-1648EM on the EX-824/1648CM.

(3) All connections from the outside can be easily made with the connectors and terminals on the right side of the ICU.

(4) Insert the printed-circuit cards into the prescribed slots. If a printed-circuit card is inserted into the wrong slot, operation may not be normal, but the card will not break down.

(5) The number of SUBK-M, SUBS-M/M1 and CTRK-M1 cards to be inserted varies with the numbers of subscribers and CO/PBX lines. In installing them, be careful to check the slots, and the numbers of CO/PBX lines and subscribers.

(6) Some cards require presetting or installer's optional jobs before insertion. (Refer to Part 3.6.)

(7) Various types of stations may be connected to the system. The following proprietary stations are available.
- o EX-824/1648K
- o EX-824/1648D
- o EX-824/1648KN
- o EX-824/1648KN1

- EX-824/1648DN
- EX-824/1648DN1
- EX-824/1648VP-N1
- DSS-M
- DSS-N
- BLF-M
- SLT

1.7.1.2 Programming

(1) The EX-824/1648 system provides a wide range of function selections and settings as desired by the user. It is necessary to carefully check the user requirements before installing and operating the system.

(2) After the user's desires and needs are clarified, plan the system to meet them according to the planning sheets shown in Paragraph 3.3 and 4 of this manual to eliminate errors in planning. Remember, system planning involves both hardware and software.

(3) There are two methods of system setting: One is to use STJs or Dip switches on the printed-circuit cards, and the other is to use a programming terminal (DSS-M or DSS-N)

1.7.1.3 Testing

(1) This system does not have an independent program unit dedicated to testing but conducts major checks on the memory and for uncontrolled program run, and indicates check results by LEDs on the M/KCPU-M1 card.

1.7.2 Maintenance

Especially important maintenance precautions are listed below.

- Fixed system data and subscriber data are stored in random access memory (RAM), backed up by a battery. The battery lasts about 8 years, and should be replaced after that. Consult your nearest dealer about battery replacement.

- The backed up data are stored in RAMU-M1. If it is necessary to service M/KCPU-M1, though RAMU-M1 has not been destroyed, relocate RAMU-M1 onto a separate M/KCPU-M1 to avoid the trouble of setting it again.

- The system clock should be adjusted about once a month to keep it accurate.

- The printed-circuit cards (except some control card units) can be removed for maintenance and reinserted without switching power off. Table 1.7.2 shows the details. Refer to 3.6.2.2 for further details.

Table 1.7.2 Power on Maintenance

Card Name	Ejector Clip Color	Enable/Disable
M/KCPU-M1	Red	Disable
VTCU-M	Red	Disable
VSCU-M	Orange	Disable
DSBF-M	Blue (dark)	Enable
SCDR-M	Orange	Disable
RGNT-M	Orange	Disable
ZPAG-M	Blue (dark)	Enable
RNGA-M	Blue (dark)	Enable
RECV-M	Blue (dark)	Enable
CONF-M	Blue (dark)	Enable
SUBK-M	Green	Enable
SUBS-M/M1	Green	Enable
CTRK-M	Blue (light)	Enable
CTRK-M1	Blue (light)	Enable
EMTK-M	Green	Enable

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2.1 GENERAL

2.1.1 Configuration

Part 2 describes the system features and their operation of the Electronic Key Telephone System EX-816/824/1648 in detail. The configuration of this manual and the outline of the contents are described below:

- 2.1 General: Configuration and contents of this manual
- 2.2 System Overview
  - 2.2.1 Software: Software configuration and software package
  - 2.2.2 System Configuration: Hardware configuration and logical configuration
- 2.3 System Feature and Their Operation: Detailed explanation of each service feature in alphabetical order
- 2.4 Programming Feature: System data programming method

The terms, abbreviations and operation symbols are explained in the following pages.

2.1.2 Glossary

Each feature or hardware name is uniformly used in this manual. Each name is defined or explained in the following:

2.1.2.1 Terms

Attendant:	A key telephone in a special position with on EX-Direct Station Selection-M/N (DSS-M/N)
Attendant Console:	An EX-Direct Station Selection-M/N console (DSS-M/N)
Busy:	Off-hook or speaker on
Busy Lamp Field:	DSS key lamps on attendant console or EX-Busy Lamp Field Unit-M (BLF-M)
Central Office Line:	A line connected to Central Office Trunk Card-ME(CTRK-ME)
Display:	A key telephone LCD unit or an LCD unit for DSS-M (DSLD-M)
Extension:	A key telephone (KT) Versa Phone (VP) or single-line telephone (SLT)
Function key:	A key other than line keys and DSS keys
Idle:	Connected to no lines
Intercom:	A line between extensions
Key Lamp:	An LED associated with a key
Key Telephone:	An EX-824/1648K, D, KN, DN, KN1, DN1
Programming Terminal:	An EX-Direct Station Selection M/N (DSS-M/N) with a DSS Programming Overlay-M1 (PROV-M1) and an LCD Unit for DSS (DSLD-M)
Station:	An extension, attendant console, programming terminal, or EX-Busy Lamp Field Unit-M (BLF-M)
Trunk:	A CO line, E & M tie line, or intercom line
Versa Phone:	Versatile Telephone (EX-824/1648 VP-N1)

2.1.2.2 Abbreviations

The meanings of the abbreviations used in Part 2 of this manual are given in Table 2.1.2.2.

Table 2.1.2.2 Abbreviations in Part 2

No.	Abbreviation	Meaning
A	ADD	Add-on conference key
	ADJUST	Adjust function key on attendant console
	ALL	All-call key
	ANA	Automatic night assignment
	AOT	Add on tone
	ATTND	Attendant
B	BBB	Busy bypass burst
	BACK	Back function key on programming terminal
	BFWD	Busy call forward
	BGM	Background music
	BLF	Busy lamp field
	BLF-M	EX-Busy Lamp Field Unit-M
	BT	Busy tone
C	CALC	Calculator key
	CBT	Callback tone
	CLASS	Class function key on programming terminal
	CLR	Clear function key on programming terminal
	CO	Central office or central office line
	COL	Central office line
	CONC	Connect function key on attendant console
	CONF	Conference trunk (CONF-ME)
	COTS	Camp on tone for SLT
	CPT	Call progress tone
	CT	Confirmation tone
	CTA	Confirmation tone for attendant
	C-HOLD	Consultation hold
D	DDD	Direct distance dialing
	DECR	Decrement function key on programming terminal
	DEL	Delete function key on programming terminal
	DND	Do not disturb

Table 2.1.2.2 Abbreviations in Part 2 (con.)

No.	Abbreviation	Meaning
D	DSS	Direct station select (key)
	DSLD-M	LCD Unit for DSS-M
	DSP	Display key
	DT	Dial tone
	DTEL	Key telephone with display (EX-824/1648D or EX-824/1648DN/DN1)
	DTMF	Dual-tone multifrequency
E	ENTER	Enter function key on programming terminal
	EXT	Extension (EX824/1648K, D, KN, DN, and single-line telephone)
	E&ML	E & M tie-line
	EQU	Equate function key on programming terminal
	E-HOLD	Exclusive hold
F	FEAT	Feature key
	FLSH	Flash key
	FLT	Floating COL Group Access key
	FLTn	Floating COL Group Direct Access key
	FRL	Forward forced release key on attendant console
	FWD	Call forward (key)
	FX	Foreign exchange
G	GRPn	Group n key on attendant console
H	HNTn	Direct master group hunt key
I	ICM	Intercom line (key)
	ICU	Integrated control unit
	INCR	Increment function key on programming terminal
	ITCT	Intercept tone
	ITEM	Item function key on programming terminal
K	KF	Fully protected KTS
	KT	Key telephone (EX-824/1648K, D, KN, DN)
	KTEL	Key telephone without display (EX-824/1648K, KN)
L	LCD	Liquid-crystal display
	LED	Light-emitting diode
	LK	Line key (central office line key, intercom line key)
M	MF	Fully protected multifunction systems, typically hyblid KTS/PBXS.
	MIC	Microphone
	MOH	Music on hold
	MSG	Message (key)

Table 2.1.2.2 Abbreviations in Part 2 (con.)

No.	Abbreviation	Meaning
N	NEXT	Next function key on programming terminal
	NUM	Number function key on programming terminal
	NIGHT	Night mode key on attendant console
O	OPT	Optimized Call Routing Access Key
	OVR	Override key on attendant console
P	PAGE	Direct paging key
	PARK	Call Park key
	PBX	Private branch exchange
	PGM	Program function key on attendant console (programming terminal)
	PROV-M1	DSS Programming Overlay-Sheet-M1
	PRB	Privacy release burst
	PULSE	Dial Pulse
	P-UP	Pickup key
R	RBT	Ring-back tone
	RCL	Recall (key on attendant console)
	RCV	DTMF dial receiver
	RGT	Ringing tone
	RLS	Release key on attendant console
S	SCC	Specialized common carrier
	SCDR	Station call detail recorder
	SECR	Secretarial hot-line key
	SER	Serial key on attendant console
	SLT	Single-line telephone
	SPD	Speed dialing (key)
	SPDn	Direct speed Dial Access key
	SPKR	Speaker (key)
	SRL	Station forced release key on attendant console
	S-HOLD	System hold
T	TCL	Tone call
	TGL	Toggle key
	TRAN	Transfer key
	TRK	Trunk
	TT	Transfer tone
U	UNA	Universal night assignment

Table 2.1.2.2 Abbreviations in Part 2 (con.)

No.	Abbreviation	Meaning
V	VCB	Voice call burst
	VCL	Voice call
	VP	Versa Phone
	VS	Voice synthesizer
W	WATS	Wide-area telecommunications service
	WT	Warning tone
Z	ZONE n	Direct Zone Call key

2.1.3 Operation Symbols

The following symbols are used in this manual for describing system operarions:

(1)  ——— Dial or sender

Example:  means dial number 9.

 means one of dial numbers 1 through 7.

(2)  ——— Hook

Example:  means on-hook operation.

 means on-hook state.

 means off-hook operation.

 means off-hook state.

 means flashing switchhook. (only for SLT)

(3)  ——— Key and lamp (see Table 2.2.2.3.1 Visual Indications)

Example:  means depressing a key.

means the CO 1 key for "I-Use".

means the intercom key for incoming calls.

means the feature key for any indication. (initial state)

means the message key for any indication (initial state)

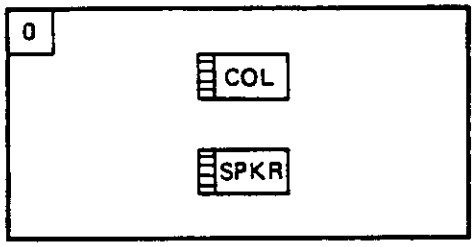
(4)  —— Audible indication (see Table 2.2.2.4.6.C and D Audible Indications)

Example:  means the ring-back tone.

 means the COL ringing tone.

(5)  —— Display (A key telephone LCD unit)

(6)  —— Display (An LCD Unit for DSS)

(7) 

— State of station

(8)  —— Connecter

(9)  —— State transition

(10) [ ] —— Condition

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2.2 SYSTEM OVERVIEW

2.2.1 Softwares of EX-816/824/1648

2.2.1.1 Physical Configuration

The system softwares of EX-816/824/1648 are packed in 14 ROMs on M/KCPU-M1. Their configuration is shown below.

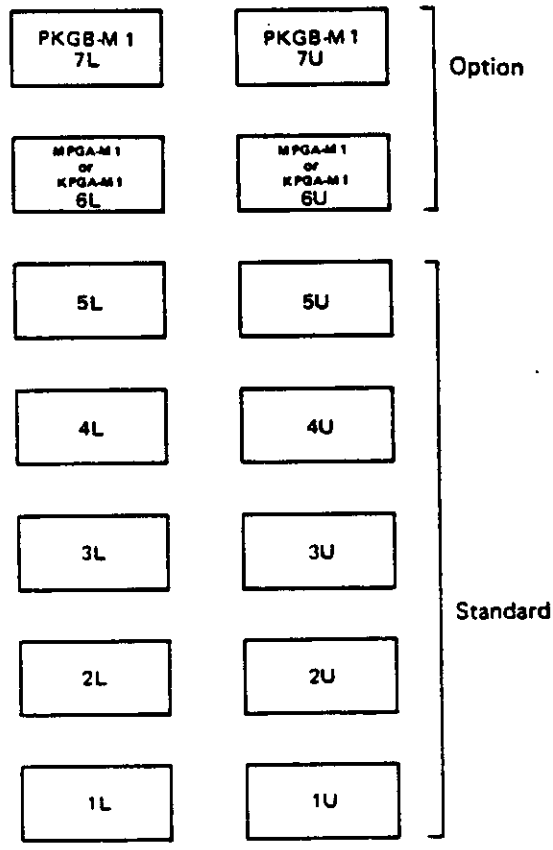


Figure 2.2.1.1 Physical Configuration of EX-816/824/1648 System Software

The standard ROMs are initially mounted. The optional ROMs can be freely combined with an exceptions. (See 2.2.1.2 Logical Configuration)

2.2.1.2 Logical Configuration

Table 2.2.1.2 Software Packages and Their Features

These are optional memory ICs to be mounted on the M/KCPU-M1 card. The following packages, each with its own features, are available:

Function \ Package	KPGA-M1 (for KF only)	MPGA-M1 (for MF only)	PKGB-M1 (KF/MF)
• Toll Restriction	X	X	–
• System Data Print Out	X	X	–
• Calculator	X	X	–
• Optimized Call Routing Access	–	X	–
• SLT COL Outgoing Access	X (Direct)	X (Floating)	–
• Voice Message Waiting	–	–	X
• Reminder	–	–	X
• Absence Message	–	–	X
• Night Automatic Answering	–	–	X
• Private Line Automatic Answer	–	–	X
• E&M Tie Line	–	–	X

Note 1: The EX-824/1648 operates as an MF system only when an MPGA-M1 unit is mounted, otherwise it works as a KF system.

Note 2: Except when a KPGA-M1 or MPGA-M1 unit is mounted, an SLT can seize no CO/PBX line or E&M tie line (in the case where a KPGB-M1 unit is mounted). Any SLT can, however, can place CO/PBX outgoing calls through the attendant console.

2.2.1.3 Feature Reference Table

The relationship between features and hardware is shown in the following tables:

Symbols X : available
◇ : necessary

Note: The following cards are necessary:

(a) CTRK-M if COL is used.

(b) SUBK-M if key telephone is used.

(c) SUBS-M or SUBS-M1 if single-line telephone (PULSE) is used.

(d) SUBS-M, AUXC-M and RECV-M if single-line telephone (DTMF dial) is used.

No.	Feature	Trunk		Station				Feature Package		Hardware
		COL	ICM	KT	VP	SLT	ATTND	A	B	
A-1	Attendant Call Priority						X			DSS-M/N, DSBF-M
A-2	Attendant Dedicated ICM Line		X				X			DSS-M/N, DSBF-M
A-3	Attendant DSS Calling		X				X			DSS-M/N, DSBF-M
A-4	Attendant Intercept	X					X			DSS-M/N, DSBF-M
A-5	Attendant Recall	X					X			DSS-M/N, DSBF-M
A-6	Attendant • Serial Call	X					X			DSS-M/N, DSBF-M
A-7	Attendant • Chain Call		X				X			DSS-M/N, DSBF-M
A-8	Attendant • Call Release	X	X				X			DSS-M/N, DSBF-M
A-9	Attendant • Through Dialing	X		X	X		X			DSS-M/N, DSBF-M
A-10	Attendant • Overflow Transfer	X	X				X			DSS-M/N, DSBF-M
A-11	Attendant • Dual Attendant						X			DSS-M/N, DSBF-M
A-12	Attendant • Trunk Forced Release	X	X				X			DSS-M/N, DSBF-M, DSLD-M
A-13	Attendant • Station Forced Release						X			DSS-M, DSBF-M, DSLD-M
A-14	Attendant • Call Forward Forced Release						X			DSS-M/N, DSBF-M, DSLD-M
A-15	Attendant • Call Forward • Busy Call Forward Forced Release						X			DSS-M/N, DSBF-M, DSLD-M
A-16	Automatic COL Release	X		X	X	X	X			
A-17	Automatic ICM Termination		X	X	X					
A-18	Automatic Line Answer	X	X	X	X					
A-19	Automatic Trunk/Station Release	X	X	X	X	X				
B-1	Back Ground Music			X	X					External BGM souse
B-2	Busy Lamp Field						X			DSS-M/N, DSBF-M,
C-1	Calculator			X				◇		EX-816/824/1648 D/DN/DN1

No.	Feature	Trunk		Station				Feature Package		Hardware
		COL	ICM	KT	VP	SLT	ATTND	A	B	
C-2	Call Abbreviation	X	X	X	X					
C-3	Call Back Queuing COL	X		X	X					
C-4	Call Back Queuing ICM (Automatic Call Back)		X	X	X	X				
C-5	Call Forward	X	X	X	X	X				
C-6	Call Forward • Busy Call Forward	X	X	X	X	X				
C-7	Call Monitor	X	X	X	X					
C-8	Call Park	X		X	X	X	X			
C-9	Call Park • Call Park Pickup	X		X	X	X	X			
C-10	Call Park • Call Split	X		X	X	X				
C-11	Call Pick Up Group	X		X	X	X				
C-12	Camp On • COL Camp On	X		X	X	X				
C-13	Camp On • ICM Camp On		X	X	X	X				
C-14	Camp On • Pick Up	X	X	X	X	X				
C-15	Camp On • Recall	X		X	X	X				
C-16	Clock Adjustment						X			DSS-M/N, DSBF-M, DSLD-M
C-17	COL Selection	X		X	X	X				
C-18	Conference • Add On Conference	X	X	X	X	X				
C-19	Conference • Automatic Add On	X					X			DSS-M/N, DSBF-M
C-20	Conference • Conference Hold	X	X	X	X	X				
C-21	Conference • Multi Line Conference	X		X	X	X				CONF-M
C-22	Conference • Trunk to Trunk Conference	X		X	X	X				CONF-M
C-23	Conference • Conference Camp On		X	X	X	X				
D-1	Direct Call Pick Up	X	X	X	X	X				

No.	Feature	Trunk		Station				Feature Package		Hardware
		COL	ICM	KT	VP	SLT	ATTND	A	B	
D-2	Direct COL • Assignment	X		X	X					
D-3	Disconnect	X	X	X	X	X	X			(DSS-M/N, DSBF-M)
D-4	Display Mode Change			X						EX-816/824/1648 D/DN/DN1
D-5	Do Not Disturb	X	X	X	X					
D-6	Do Not Disturb • Forced Release						X			DSS-M/N, DSBF-M, DSLD-M
E-1										
E-2	Equal Access Dialing	X		X	X	X				
E-3	E/M Tie Line Service	X		X	X	X			◇	EMTK-M
F-1	Flash (Dial Tone Reorder)	X	X	X	X					
F-2	Flexible Key Assignment			X	X		X			
F-3	Floating COL Group Access	X		X	X	X		◇		
F-4	Follow Me	X	X	X	X	X Only DTMF				
H-1	Hands-free Stations (Built-in Speakerphone)		X	X						SSPU-M/N/NS/RN1
H-2	Exclusive Hold	X	X	X	X	X				
H-3	System Hold	X		X	X					
H-4	Consultation Hold		X	X	X	X				
H-5	Consultation Hold Recall		X	X	X	X				
H-6	Automatic Hold	X	X	X	X		X			(DSS-M/N, DSBF-M)
H-7	Music On Hold	X		X	X	X				
H-8	Hold Recall	X	X	X	X	X				
H-9	Ring Back Tone On Hold	X								
I-1	ICM Calling • Calling Mode Change		X	X	X					(RGNT-M)
I-2	ICM Calling • Hands-Free Answer		X	X	X					HFAB-R (only VP) HFAB-R is initially mounted on EX824/1648 VP-N1.

No.	Feature	Trunk		Station				Feature Package		Hardware
		COL	ICM	KT	VP	SLT	ATTND	A	B	
I-3	ICM Calling • Establishment of ICM Calling Method		X	X	X	X				
I-4	ICM Path Termination		X	X	X	X	X			
I-5	Incoming COL Call	X		X	X	X				
M-1	Master Group Hunt Call		X	X	X	X				
M-2	Meet Me		X	X	X	X				
M-3	Message • Absence Message		X	X	X				◇	VSCU-M
M-4	Message • Memo of Call		X	X	X					
M-5	Message • Message Waiting		X	X	X	X				EX-816/824/1648 D, DN/DN1
M-6	Message • Night Automatic Answer	X							◇	VSCU-M
M-7	Message • Reminder			X	X				◇	VSCU-M
M-8	Message • Voice Message Waiting		X	X	X				◇	VSCU-M
M-9	Microphone Cut Off			X	X					
M-10	Multi Level Toll Restriction	X		X	X	X		◇		
N-1	Night Service	X		X	X	X				
N-2	Night Service • Switch Night Mode						X			
N-3	Night Service • Night Relay				(Only Tenant A) X	X	X			
N-4	Night Service • Automatic Night Assign	X			X	X	X			
N-5	Night Service • Universal Night Assign	X				X				
N-6	Night Service • Universal Night Assign Pick Up	X		X	X	X				
O-1	On-hook Dialing	X	X	X	X					
O-2	Optimized Call Routing	X		X	X	X		◇		
O-3	Optional Equipments • Station Hard Hearing Handset/Station Noise Cancelling Handset			X	X					SHHD, SHHA-M SNHD

No.	Feature	Trunk		Station				Feature Package		Hardware
		COL	ICM	KT	VP	SLT	ATTND	A	B	
O-4	Handset Adapter			X						SHSA-M
O-5	External Station Loud Ringer	X		X						SRNG-M
O-6	External Alarm Signal	X								LRAD-M External loud ringer
O-7	Outgoing Address Signal Outpulsing	X		X	X	X				
O-8	Outgoing Restriction	X		X	X	X				
O-9	Overriding • Busy Override		X				X			DSS-M/N, DSBF-M
O-10	Overriding • Do Not Disturb Override		X				X			DSS-M/N, DSBF-M
O-11	Overriding • Executive Override	X	X	X	X					
O-12	Overriding • Call Waiting		X	X	X	X				
P-1	Paging Call • All Call With Meet Me		X	X	X	X				
P-2	Paging Call • All Zone Call With Meet Me		X	X	X	X				
P-3	Paging Call • All Group Call With Meet Me		X	X	X	X				
P-4	Paging Call • Zone Call With Meet Me		X	X	X	X				
P-5	Paging Call • Group Call With Meet Me		X	X	X	X				
P-6	Paging Call • Attendant Paging Call With Meet Me		X				X			
P-7	Pick Up Restriction	X		X	X	X				
P-8	Preselection	X	X	X	X					
P-9	Prime Station	X		X	X	X				
P-10	Privacy	X	X	X	X					
P-11	Private Line	X		X	X	X				
P-12	Private Line • Automatic Answering	X		X	X					VSCU-M

No.	Feature	Trunk		Station				Feature Package		Hardware
		COL	ICM	KT	VP	SLT	ATTND	A	B	
P-13	Programming • System Programming Terminal						X			DSS-M/N, DSBF-M, DSLD-M, PROV-M1
P-14	Programming • Dynamic Programming						X			DSS-M/N, DSBF-M, DSLD-M, PROV-M1
P-15	Programming • Programming COL Lines	X		X	X	X				
P-16	Programming • Programming From KT/VP			X	X					
P-17										
Q-1	Quick Mode Operation			X	X		X			
R-1	Redialing	X		X	X					
S-1	SCDR	X		X	X	X				SCDR-M, Printer
S-2	Secretarial Hot Line Termination		X	X	X					
S-3	Sender Time Out	X		X	X	X				
S-4	Soft Ringer	X	X	X	X					
S-5	Speed Dialing	X		X	X	X				
S-6	Station Class of Service			X	X	X				
S-7	Station Lock Out			X	X					
S-8	System Alarm Indications									
S-9	System Initialization									
T-1	Tenant Service	X	X	X	X		X			
T-2	Timed Trunk Queuing	X		X	X					
T-3	Transfer	X	X	X	X	X				
V-1										

4.2.3 System Data Printout

4.2.3.1 Printout Condition

The content of each system data item can be displayed on the Programming Terminal in Programming Mode. To view all system data at once, however, print the system data from the SCDR.
Printing the system data from the SCDR enables verificaton of the contents and retention of a data history for future changes.
Note that all system functions halt when system data is printed.
Refer to Section 2.3.S.12, System Data Printout, for operation.

4.2.3.2 Printout Format

A part of the printed system data format is shown in the following page.

• EX - 824/1648 System Software --- system Data Listing •

86/ 5/21/3 12 : 30

• System Constants •

1. Hold Timeout (seconds)
2. Sender Timeout (seconds) 30
3. Page Timeout (seconds) 20
4. Hold Recall Timeout (seconds) 10
5. Camp On Timeout (seconds) 20
6. Callback Timeout (seconds) 30
7. Automatic Answer Time (seconds) 20
8. Attendant Intercept Time (seconds) 12
9. Master Group Hunt Timeout (seconds) 20
10. PBX Outgoing Specification Code 20

Code No	
1	23
2	234
3	123
4	235
5	1111

11. Overflow Transfer Minimum

Attendant	
1	3

12. Overflow Transfer Extension

Attendant	
1	23
2	20

13. ICM Call Mode

Tenant	
A	1
B	1

14. External Paging Speakers

Tenant	
A	2

15. System Prefix 1
16. Automatic Pause Length 5
17. Timed Trunk Queuing Interval 10
18. Attendant Key Assignment

Attendant. 1

Key	1	2	3	4	5	6	7	8	9	10
0	DSS 1	DSS 2	DSS 3	DSS 4	DSS 5	DSS 6	DSS 7	DSS 8	DSS 9	DSS10
1	DSS11	DSS12	DSS13	DSS14	DSS15	DSS16	DSS17	DSS18	DSS19	DSS20
2	DSS21	DSS22	DSS23	DSS24	DSS25	DSS26	DSS27	DSS28	DSS29	DSS30
3	DSS31	DSS32	DSS33	DSS34	DSS35	DSS36	DSS37	DSS38	DSS39	DSS40
4	DSS41	DSS42	DSS43	DSS44	DSS45	DSS46	DSS47	DSS48		

19. Attendant EXT Assignment

Attendant	
1	20
2	21

Figure 4.2.3.2.1 System Data Format

2.2.1.4 Key Telephon/Versa Phone Key Operation

The key operation on KT/VP are listed in the following table. However, the Calculator and Display feature are applied only on KT with display.

*: Can be abbreviated

	Feature	Conditions	Number Plan
Automatic ICM Termination	Automatic ICM Termination	Off-hook ∨ SPKR On	(key)
BGM	BGM On	Off-hook	FEAT * 6
	BGM Off	Off-hook ∧ Idle	FEAT 0 6
Calculator	Calculator Only for KT With Display		FEAT HOLD DN
	Calculator		CALC
	COL Selection		FLT m m (only KF) (m: COL No. (01 ~ 16)
Call Back Queuing	COL Call Back Queuing Registration	Off-hook ∧ BT	FEAT 9 d_1 * ... d_{32} * (d_i: Dial Code)
	COL Call Back Queuing Cancellation	Off-hook ∧ Idle	FEAT 0 9
	ICM Automatic Call Back Registration	ICM BT	FEAT * 7
	ICM Automatic Call Back Cancellation	Off-hook ∧ Idle	FEAT 0 7
Call Forward	Call Forward Registration	Off-hook ∧ Idle	FWD n n (nn: Destination Ext. No.)
	Call Forward Cancellation	Off-hook ∧ Idle	FWD ↓
	Call Forward Activation/Inactivation	Registration On ∧ On-hook ∧ SPKR Off	FWD
	Busy Call Forward Registration	Off-hook ∧ Idle	FWD n n
	Busy Call Forward Cancellation	Off-hook ∧ Idle	FWD ↓
	Busy Call Forward Activation/ Inactivation	Registration On ∧ On-hook ∧ SPKR Off	FWD
Call Monitor	Call Monitor	Conversation With Handset ∧ SPKR Off	SPKR ↓
	Call Monitor	Conversation With Speaker Phone	Mic SW Off
	Call Monitor Cancellation	Conversation ∧ SPKR On	↑
Call Park	Call Park	COL Conversation	PARK
	Call Park Pick Up	Off-hook	PARK
	Remote Call Park Retrieve	Off-hook	FEAT * 5 n_1 n_2 (n_1, n_2: Call Park Orbit Number)
	Call Split	Call Park ∧ ICM/COL Conversation	PARK
Call Pickup Group	Call Pickup Group	Off-hook ∨ Idle	FEAT * 3

*: Can be abbreviated

	Feature	Conditions	Number Plan
Camp On	Camp On	COL/ICM Conversation	TRN (ICM Call Operation) ↓
	Camp On	COL/ICM Conversation	TRN (ICM Call Operation) SPKR (: On)
	Camp On Pick Up	(Off-hook ∨ SPKR On) ∧ Idle	FEAT * 4 n n (nn: Camp On Called EXT No.)
COL Selection	COL Selection	Off-hook ∨ SPKR On	COL
	COL Selection	On-hook ∧ SPKR Off	COL ↑
	COL Selection	On-hook ∧ SPKR Off	COL SPKR
	COL Selection	Off-hook ∨ SPKR On	FLT m m (Only FK) mm: COL NO (01 to 16)
Conference	Add On Conference from COL Conversation	COL Conversation	ADD (ICM Calling Operation) (Called Party Answer) ADD
	Add On Conference From COL Conference	COL CONF	ADD (ICM Calling Operation) (Called Party Answer) ADD
	Add On Conference From Conference Hold	Off-hook ∨ SPKR ON	COL
	Add On Conference From Conference Hold	On-hook ∧ SPKR Off	COL ↑
	Add On Conference From Conference Hold	On-hook ∧ SPKR Off	COL SPKR
	Add On Conference by Executive KT/VP	Off-hook ∨ SPKR On	COL
	Add On Conference by Executive KT/VP	Off-hook ∧ SPKR Off	COL ↑
	Add On Conference by Executive KT/VP	Off-hook ∧ SPKR Off	COL SPKR
	ICM Add On Conference From ICM Conversation	ICM Conversation	ADD (ICM Calling Operation) (Called Party Answer) ADD
	ICM Add On Conference From ICM Conference	ICM CONF	ADD (ICM Calling Operation) (Called Party Answer) ADD
	COL Conference Hold	COL Conference	HOLD
	COL Conference Hold	COL Conference	COL (: COL during a call)
	COL Conference Hold Pick Up	Off-hook ∨ SPKR On	COL
	COL Conference Hold Pick Up	On-hook ∧ SPKR Off	COL ↑

*: Can be abbreviated

	Feature	Conditions	Number Plan
	COL Conference Hold Pick Up	On-hook ∧ SPKR Off	COL SPKR
	ICM Conference Hold	ICM Conference	HOLD DN:
	ICM Conference Hold Pick Up	Off-hook ∨ SPKR On	ICM
	ICM Conference Hold Pick Up	On-hook ∧ SPKR Off	ICM ↑
	ICM Conference Hold Pick Up	On-hook ∧ SPKR Off	ICM SPKR
	Multi-Line Conference	COL Conversation With COL E-Hold	ADD
	Trunk to Trunk Conference	Multi-Line Conference	HOLD DN:
	Trunk to Trunk Conference Access	Off-hook ∨ SPKR On	COL (: COL indicating I-USE)
	Trunk to Trunk Conference Access	On-hook ∧ SPKR Off	COL + ↑ (SPKR)
	Conference Camp On	ICM Conference Conversation	TRN (ICM Call Operation) ↓
	Conference Camp On	ICM Conference Conversation	TRN (ICM Call Operation) SPKR (:SPKR On)
Direct Call Pickup	Direct Call Pickup	(Off-hook ∨ SPKR On) ∧ Idle	FEAT * 4 n n (nn: Called EXT No.)
Disconnect	COL/ICM Disconnect	Off-hook ∧ SPKR Off	↓
	COL/ICM Disconnect	On-hook ∧ SPKR On	SPKR
	COL Disconnect	COL Conversation	ICM
	COL Disconnect	COL Conversation	COL (Other COL)
	ICM Disconnect	ICM Conversation	COL
Display Mode Change	Display Mode Change	Off-hook	FEAT FWD
	Display Mode Change Only for KT With Display	Off-hook	DSP
Do Not Disturb Registration	Activation	On-hook ∧ SPKR Off ∧ DND Off	HOLD DN:
	Inactivation	On-hook ∧ SPKR Off ∧ DND On	HOLD DN:
Equal Access Dialing	Equal Access Dialing (with pin code)	After COL Access	FEAT • n • (0≦n≦9)
	Equal Access Dialing (without pin code)	After COL Access	FEAT • n # (0≦n≦9)
	Equal Access Dialing (not presubscribed)	After COL Access	10 x x x + (1) + 7/10 digits
	Equal Access Dialing (presubscribed)	After COL Access	1 + 7/10 digits
	Equal Access Dialing (cut through)	After COL Access	10 x x x + # PIN + (1) + 7/10 digits

*: Can be abbreviated

	Feature	Conditions	Number Plan
FLASH	With CO Access	After COL Originating or Conversation	[FLSH]
Dial Tone Reorder	With ICM Access	After ICM Originating, Calling, or Conversation	[FLSH]
Floating	Floating Direct COL Group Access	Off-hook	[FLTn] [n_1] [n_2] ... [n_i] (ni: Destination Customer number)
	Optimised Call Routing Access	Off-hook	[OPT] [n_1] [n_2] ... [n_i] (ni: Destination Customer number)
	Floating COL Group Access	Off-hook	[FLT] [g] [n_1] [n_2] ... [n_i] (g=0: Optimized Call Routing; g=1–7: COL Group No; ni: Destination Customer number)
Follow Me	Follow Me	Off-hook ∧ idle	[FWD] [#] [n] [n] (nn: Call Forward activating EXT No.)
Hands Free Stations	Activate Speakerphone	Preselection	[SPKR]
	Activate Speakerphone	On-hook	[SPKR] [COL] / [ICM]
	Activate Speakerphone	COL/ICM Conversation	[SPKR] [ ]↓
	Activate Speakerphone	Call Monitor	Mic SW On
	Inactivate Speakerphone (When switching to call monitor)	Speakerphone Activate	Mic SW Off
	Inactivate Speaker phone (When switching to handset talk)	Speaker phone Activate	[ ]↑
Holding	Exclusive Hold (COL)	COL Conversation	[COL] (: COL during a call)
	Exclusive Hold Pick Up (COL)	Off-hook ∨ SPKR On	[COL]
	Exclusive Hold Pick Up (COL)	On-hook ∧ SPRK Off	[COL] [ ]↑
	Exclusive Hold Pick Up (COL)	On-hook ∧ SPKR Off	[COL] [SPKR]

*: Can be abbreviated

	Feature	Conditions	Number Plan
	Exclusive Hold (ICM)	ICM Conversation	HOLD DND
	Exclusive Hold Pick Up (ICM)	Off-hook ∨ SPKR On	ICM
	Exclusive Hold Pick Up (ICM)	On-hook ∧ SPKR Off	ICM ↑
	Exclusive Hold Pick Up (ICM)	On-hook ∧ SPKR Off	ICM SPKR
	System Hold	COL Conversation	HOLD DND
	System Hold Pick Up	Off-hook ∨ SPKR On	COL
	System Hold Pick Up	On-hook ∧ SPKR Off	COL ↑
	System Hold Pick Up	On-hook ∧ SPKR Off	COL SPKR
	Consultation Hold	ICM Conversation	ADD
	Consultation Hold	ICM Conversation	TRN
	Consultation Hold Pick Up	Off-hook ∨ SPKR On With Consultation Hold	ADD
	Automatic COL Hold by Paging	COL Conversation	PAGE (ALL, ALL GRP, ALL ZONE, GRP 1 to 4, ZONE 1 to 3)
	Automatic COL Hold by Transfer	COL Conversation	TRN
	Automatic COL Hold by Add On	COL Conversation	ADD
	KT/VP Automatic COL HOLD by Automatic ICM Hold	COL Conversation	DSS
ICM Calling	Calling	ICM DT	n n (nn: Destination extension number)
	Calling Mode Change	ICM Calling	#

*: Can be abbreviated

	Feature	Conditions	Number Plan
Master Group Hunt Call	Master Group Hunt Call (Group 1)	DT	[8] [7] [0]
	Master Group Hunt Call (Group 2)	DT	[8] [7] [1]
	Master Group Hunt Call (Group 3)	DT	[8] [7] [2]
	Master Group Hunt Call (Group 4)	DT	[8] [7] [3]
	Direct Master Group Hunt Call (Group 1)	DT ∨ (On-hook ∧ SPKR Off)	[HNT_0]
	Direct Master Group Hunt Call (Group 2)	DT ∨ (On-hook ∧ SPKR Off)	[HNT_1]
	Direct Master Group Hunt Call (Group 3)	DT ∨ (On-hook ∧ SPKR Off)	[HNT_2]
	Direct Master Group Hunt Call (Group 4)	DT ∨ (On-hook ∧ SPKR Off)	[HNT_3]
Meet Me	Meet Me	Off-hook ∧ Idle	[FEAT] * [2] [n] [n] (nn: Paging station number)
Message	Absence Message (Return Time)	Off-hook ∧ Idle	[FEAT] [MSG] [2] [H] [H] [M] [M] (HHMM: Time)
	Absence Message (Return Day)	Off-hook ∧ Idle	[FEAT] [MSG] [3] [W] (w: Day of Week 0 to 7)
	Absence Message (Lunch Return Time)	Off-hook ∧ Idle	[FEAT] [MSG] [4] [H] [H] [M] [M] (HHMM: Time)
	Absence Message (Meeting Return Time)	Off-hook ∧ Idle	[FEAT] [MSG] [5] [H] [H] [M] [M] (HHMM: Time)
	Absence Message (Telephone Number)	Off-hook ∧ Idle	[FEAT] [MSG] [6] [d_1] ... [d_{16}] [*] (d: Dial Code)
	Absence Message Cancellation	Off-hook ∧ Idle	[FEAT] [0] [MSG] [2~6]
	Message Waiting Registration	ICM Calling ∨ BT	[MSG] [#]

*: Can be abbreviated

	Feature	Conditions	Number Plan
	Message Waiting Access	(Off-hook ∨ SPKR On) ∧ Idle	[MSG] [#]
	Message Waiting Cancellation	Off-hook ∧ Idle	[FEAT] [0] [MSG] [7] [n] [n] (nn: Destination EXT. No.)
	Night Automatic Answering	Idle	[FEAT] [MSG] [8] [l] [l] [d] [n1] ... [n16] [*] (ll: COL No. 01 to 24, d: Day Code 0 to 8, n: Emergency Dial Code)
	Night Automatic Answering Cancellation	Off-hook ∧ Idle	[FEAT] [0] [MSG] [8] [l] [l] (ll: COL No. 01 to 24)
	Reminder Registration	Off-hook ∧ Idle	[FEAT] [MSG] [1] [H] [H] [M] [M] [W] (HHMM: Time, w: Day of Week)
	Reminder Cancellation	Off-hook ∧ Idle	[FEAT] [0] [MSG] [1]
	Voice Message Waiting Registration	ICM Calling ∧ BT	[FEAT] [MSG] [7] [H] [H] [M] [M] (HHMM: Time)
	Voice Message Waiting Access	Off-hook ∨ SPKR On	[MSG] [#]
	Voice Message Waiting Cancellation	Off-hook ∧ Idle	[FEAT] [0] [MSG] [7] [n] [n] (nn: Destination EXT. No.)
Night Service	Universal Night Assignment Pick Up	Off-hook ∨ SPKR On	[FEAT] [4] [9] [9]
On-hook Dialing	On-hook Dialing (ICM)	On-hook ∧ SPKR Off	[SPKR] [ICM]
	On-hook Dialing (ICM)	On-hook ∧ SPKR Off	[ICM] within 10s' [SPKR]
	On-hook Dialing (COL)	On-hook ∧ SPKR Off	[SPKR] [COL]
	On-hook Dialing (COL)	On-hook ∧ SPKR Off	[COL] within 10s' [SPKR]
Overriding	Executive COL Monitor	Off-hook ∨ SPKR On	[COL]
	Executive COL Monitor	On-hook ∧ SPKR Off	[COL] [↑]
	Executive COL Monitor	On-hook ∧ SPKR Off	[COL] [SPKR]
Paging Call	All Call	DT	[8] [8] [0]
	All Call	Off-hook ∨ SPKR On ∨ COL Conversation	[ALL]
	All Call	Off-hook ∨ SPKR On ∨ COL Conversation	[PAGE] (Press and Talk)
	All Zone	DT	[8] [8] [4]

*: Can be abbreviated

	Feature	Conditions	Number Plan
	All Zone	Off-hook v SPKR On v COL Conversation	[ALL ZONE]
	All Group	DT	[8] [8] [5]
	All Group	Off-hook v SPKR On v COL Conversation	[ALL GRP]
	Zone Call (Zone Speaker 1)	Off-hook v SPKR On v COL Conversation	[ZONE 1]
	Zone Call (Zone Speaker 1)	DT	[8] [8] [1]
	Zone Call (Zone Speaker 2)	Off-hook v SPKR On v COL Conversation	[ZONE 2]
	Zone Call (Zone Speaker 2)	DT	[8] [8] [2]
	Zone Call (Zone Speaker 3)	Off-hook v SPKR On v COL Conversation	[ZONE 3]
	Zone Call (Zone Speaker 3)	DT	[8] [8] [3]
	(ICM) Group Call (Group 1)	Off-hook v SPKR On v COL Conversation	[GRP 1]
	(ICM) Group Call (Group 1)	DT	[8] [8] [6]
	(ICM) Group Call (Group 2)	Off-hook v SPKR On v COL Conversation	[GRP 2]
	(ICM) Group Call (Group 2)	DT	[8] [8] [7]
	(ICM) Group Call (Group 3)	Off-hook v SPKR On v COL Conversation	[GRP 3]
	(ICM) Group Call (Group 3)	DT	[8] [8] [8]
	(ICM) Group Call (Group 4)	Off-hook v SPKR On v COL Conversation	[GRP 4]
	(ICM) Group Call (Group 4)	DT	[8] [8] [9]
Preselection	Preselection (ICM)	On-hook ^ SPKR Off	[ICM] / [FLT]
	Preselection (COL)	On-hook ^ SPKR Off	[COL] / [FLT]
Privacy	Privacy Release/Restore	COL Conversation	[FEAT] [1]
	Privacy Released COL Pick Up	Off-hook v SPKR On	[COL]
	Privacy Released COL Pick Up	On-hook ^ SPKR Off	[COL] [ ]↑
	Privacy Released COL Pick Up	On-hook ^ SPKR Off	[COL] [SPKR]

•: Can be abbreviated

	Feature	Conditions	Number Plan
Programming	Programming From KT/VP (to Night Mode)	Off-hook ∧ Idle,	FEAT 8 •
	Programming From KT/VP (to Day Mode)	Off-hook ∧ Idle,	FEAT 8 #
	Programming From KT/VP (Clock)	Off-hook ∧ Idle,	FEAT 8 1 H H M M (HHMM: Time)
	Programming From KT/VP (Calendar)	Off-hook ∧ Idle	FEAT 8 2 Y_1 Y_2 M_1 M_2 D_1 D_2 W (Y_1Y_2: Year, M_1M_2: Month, D_1D_2: Day, W: Day of Week)
Redialig	Redialing Save	With COL Conversation	FEAT #
	Redialing Access	With COL DT	FEAT • #
	Redialing Access	Off-hook ∨ SPKR On	# (Quick Operation: When floating)
SCDR	Account Code Input	COL Conversation	FEAT 0 d_1 ... d_ℓ • •
Speed Dialing	Direct Speed Dialing	COL DT ∨ COL Conversation	SPDn
	Direct Speed Dialing	On-hook and Speaker Off	SPDn
	Station Speed Dial Registration	Off-hook ∧ Idle	FEAT • n n d_1 ... d_{16} (nn: SPD No. d: Dial Code)
	Speed Dial Access (1st Time)	With COL DT	FEAT • • n n (nn: SPD No.)
	Speed Dial Access (2nd Time)	With COL Originating	FEAT • n n (nn: SPD No.)
Station Lock Out	Station Lock Out (Personal ID Code) (Registration)	Off-hook ∧ Idle	FEAT 8 5 P_1 P_2 P_3 P_4 P_5 P_6 P: Personal ID Code, ($0 \leqq Pi \leqq 9$)
	Station Lock Out	Off-hook ∧ Idle	FEAT 8 3 P_1 P_2 P_3 P: Personal ID Code, ($0 \leqq Pi \leqq 9$)
	Station Lock Out Release	Off-hook ∧ Idle	FEAT 8 4 P_1 P_2 P_3 P: Personal ID Code, ($0 \leqq Pi \leqq 9$)
Timed Trunk Queuing	Registration	COL Conversation	FEAT 9
	Cancellation	Off-hook ∧ Idle	FEAT 0 9

*: Can be abbreviated

	Feature	Conditions	Number Plan
Transfer	Transfer	COL/ICM Conversation	TRN (ICM Operation) (Called Party Answer) ↓
	Transfer	COL/ICM Conversation	TRN (ICM Operation) (Called Party Answer) ↓ SPKR
	Transfer	COL/ICM Conversation	DSS (ICM Operation) (Called Party Answer) ↓
	Transfer	COL/ICM Conversation	DSS (ICM Operation) (Called Party Answer) ↓ SPKR

2.2.1.5 Specialized Number Plan

Key operations on an DTMF-SLT and PULSE-SLT are shown in the Table 2.2.1.5.1 and Table 2.2.15.2.

Table 2.2.1.5.1 DTMF-SLT Dial Operation

*: Can be abbreviated

	Features	Conditions	Dial
ICM Automatic Call Back	Registration	ICM BT	↑ ↓ [1] [7]
	Cancellation	ICM Automatic Call Back On	(DT) [1] [0] [7]
(Busy) Call Forward	Registration	DT	[1] [5] [n] [n] (nn: Destination station No.)
	Cancellation	(Busy) Call Forward On	(DT) [1] [0] [5]
Call Park	Call Park	COL Conversation Without COL Hold	↓ ↑ (DT) [1] [9]
	Own-station Call Park pick up	Idle with COL Hold & Call Park On	(DT) [1] [9]
	Call Park Pickup when Called station is SLT	Off-hook with COL Hold & Call Park On	(DT) [8] [9] [n_1] [n_2] (nn: Call Park Orbit No.)
	Call Split	COL Conversation With Call Park Hold	↓ ↑ (DT) [1] [9]
	Call Pickup Group	With Incomming Call in the Group	(DT) [1] [3]
Camp On	COL Camp On	COL Conversation	↓ ↑ (DT) ICM Call Operation + [ ] ↓
	ICM Camp On	ICM Conversation	↓ ↑ (DT) ICM Call Operation + [ ] ↓
	Camp On Pickup	DT	[1] [4] [n] [n] (nn: Camp On Called station No.)
	COL Selection	DT	[9] [n] (0≦n≦7) (MF) [9] [m] [m] (KF) mm: COL No. (01 to 16)
Conference	Add On Conference	COL Conversation or COL Conference	↓ ↑ (DT & COL CONF Hold) ICM Call Operation + Called Party Answer + ↓ ↑
	Add On Conference	ICM Conversation or ICM Conference	↓ ↑ (DT & ICM CONF Hold) ICM Call Operation + Called Party Answer + ↓ ↑
	COL Conference Hold	COL Conference	↓ ↑
	ICM Conference Hold	ICM Conference	↓ ↑
	COL Conference Hold Pickup	With COL Conference Hold	(DT) [1] [1]
	ICM Conference Hold Pickup	Off hook With ICM Conference Hold	[ ] ↑ + ↓ ↑
	Multi-Line Conference	COL Conversation With COL Hold	↓ ↑ (DT) [1] [1]
	Trunk To Trunk Conference	Multi-line Conference	↓ ↑

*: Can be abbreviated

	Features	Conditions	Dial
	Conference Camp On	ICM Conference	↓ ↑ (DT) ICM Call Operation + ▯↓
	Dial Tone Reorder	After ICM Originating	↓ ↑
	Direct Call Pickup	DT	[1] [4] [n] [n] nn: Called station No.
Disconnect	COL/ICM Disconnect	COL/ICM Conversation	▯↓
Equal Access	Equal Access	After COL Access With PIN code	[•] [n] [•] [9] [m] 0≦n≦9 (MF) 1≦m≦7 (COL Group No.) [•] [n] [•] [m] [m] (KF) mm: COL No. (01 to 16)
	Equal Access	After COL Access Without PIN code	[•] [n] [#] [9] [m] 0≦n≦9 (MF) 1≦m≦7 (COL Group No.) [•] [n] [#] [m] [m] (KF) mm: COL No. (01 to 16)
	Equal Access (Manual Dial)	After COL Access	10xxx + (1) + 7/10 digits (Not presubscribed)
	Equal Access (Manual Dial)	After COL Access	1 + 7/10 digits (Presubscribed)
	Equal Access (Manual Dial)	After COL Access	10xxx# + PIN + (1) + 7/10 digits (Cut through)
Floating COL Group Access *	Optimized Call Routing Access	DT	[9] [0] [n1] ... [n2] (Only MF) nn: Destination Customer No.
	Floating CO Group Access	DT	[9] [9] [n1] ... [n2] (Only MF) nn: Destination Customer No. g: COL Group No. (1 to 7)
	Follow Me	DT	[1] [5] [#] [n] [n] nn: Call Forward activating EXT. No.
Holding	Exclusive Hold	COL Conversation	↓ ↑
	Exclusive Hold Pickup	With Exclusive Hold	(DT) [1] [1]
	Consultation Hold	ICM/COL Conversation	↓ ↑
	Consultation Hold Pickup	Off hook With Consultation Hold	↓ ↑
	Consultation Hold Recall Pickup	Off hook With Consultation Hold Recall	↓ ↑
	Consultation Hold Recall Pickup	On hook With Consultation Hold Recall	▯↑
ICM Calling	ICM Calling	DT	[n] [n] (nn: Called station No.)
	ICM Calling Mode Change	ICM Calling	[#]

*: Can be abbreviated

	Features	Conditions	Dial
Master Group Hunt Call	Group 1	DT	[8] [7] [0]
	Group 2	DT	[8] [7] [1]
	Group 3	DT	[8] [7] [2]
	Group 4	DT	[8] [7] [3]
	Meet Me	DT	[1] [2] [n] [n] (nn: Paging station No.)
Message Waiting	Registration	ICM Calling or BT	↑ ↓ (DT) [1] [6]
	Cancellation	DT	[1] [0] [6] [n] [n] (nn: destination station No.)
Night Service	Universal Night Assignment Pick Up	DT	[9] [9]
Paging Call	All Call With Meet Me	Seizing ICM Line	(DT) [8] [8] [0]
	Zone Call With Meet Me (Zone 1)	Seizing ICM Line	(DT) [8] [8] [1]
	Zone Call With Meet Me (Zone 2)	Seizing ICM Line	(DT) [8] [8] [2]
	Zone Call With Meet Me (Zone 3)	Seizing ICM Line	(DT) [8] [8] [3]
	All Zone Call With Meet Me	Seizing ICM Line	(DT) [8] [8] [4]
	All Group Call With Meet Me	Seizing ICM Line	(DT) [8] [8] [5]
	ICM Group Call With Meet Me (Group 1)	Seizing ICM Line	(DT) [8] [8] [6]
	ICM Group Call With Meet Me (Group 2)	Seizing ICM Line	(DT) [8] [8] [7]
	ICM Group Call With Meet Me (Group 3)	Seizing ICM Line	(DT) [8] [8] [8]
	ICM Group Call With Meet Me (Group 4)	Seizing ICM Line	(DT) [8] [8] [9]
	Redialing	DT	[#]
SCDR	Account Code Input	COL Conversation	↓ ↑ (DT) [1] [8] [n_1] ... [n_6] [•] * (n: Account Code) Up to 6 digits
System/station Speed Dialing	Station Speed Dial Registration	DT	[1] [•] [n] [n] [d_1] ... [d_{16}] (nn: SPD No. 90 to 99) (dn: Dial)

•: Can be abbreviated

	Features	Conditions	Dial
System/station Speed Dialing	System Speed Dial Access	DT	• n n g m nn: SPD No. 0 to 89) (MF) COL Group No. (m: 0 to 7) • n n c c (KF) cc: COL No. (01 to 16)
	Station Speed Dial Access	DT	• n n g m (nn: SPD No. 90 to 99) (MF) COL Group No. 0≦m≦7 • n n c c (KF) cc: COL No. (01 to 16)
	Transfer	COL/ICM Conversation	↓ ↑ (DT) ICM Call Operation + Called Party Answer + ▯↓

Table 2.2.1.5.2 PULSE-SLT Dial Operation

*: Can be abbreviated

	Features	Conditions	Dial
ICM Automatic Call Back	Registration	ICM BT	↑ ↓ [1] [7]
	Cancellation	ICM Automatic Call Back On	(DT) [1] [0] [7]
(Busy) Call Forward	Registration	(DT)	[1] [5] [n] [n] (nn: Destination station No.)
	Cancellation	(Busy) Call Forward On	(DT) [1] [0] [5]
Call Park	Call Park	COL Conversation Without COL Hold	↓ ↑ (DT) [1] [9]
	Own-station Call Park On Pickup	Idle With COL Hold & Call Park On	(DT) [1] [9]
	Called station is SLT	Off-hook With COL Hold & Call Park On	(DT) [8] [9] [n] [n] (nn: Call Park Orbit No.)
	Call Split	COL Conversation With Call Park Hold	↓ ↑ (DT) [1] [9]
	Call Pickup Group	With Incomming Call in the Group	(DT) [1] [3]
Camp On	COL Camp On	COL Conversation	↓ ↑ (DT) ICM Call Operation + [ ] ↓
	ICM Camp On	ICM Conversation	↓ ↑ (DT) ICM Call Operation + [ ] ↓
	Camp On Pickup	(DT)	[1] [4] [n] [n] (nn: Camp On Called station No.)
	COL Selection	(DT)	[9] [n] (1≦n≦7) (MF) [9] [m] [m] (KF) mm: COL No. (01 to 16)
Conference	Add On Conference	COL Conversation or COL Conference	↓ ↑ (DT & COL CONF Hold) ICM Call Operation + Called Party Answer + ↓ ↑
	Add On Conference	ICM Conversation or ICM Conference	↓ ↑ (DT & ICM CONF Hold) ICM Call Operation + Called Party Answer + ↓ ↑
	COL Conference Hold	COL Conference	↓ ↑
	ICM Conference Hold	ICM Conference	↓ ↑
	COL Conference Hold Pickup	With COL Conference Hold	(DT) [1] [1]

*: Can be abbreviated

	Features	Conditions	Dial
	ICM Conference Hold Pickup	Off hook With ICM Conference Hold	[ ]↑ + ↓ ↑
	Multi-Line Conference	COL Conversation With COL Hold	↓ ↑ (DT) [1] [1]
	Trunk To Trunk Conference	Multi-line Conference	↓ ↑
	Conference Camp On	ICM Conference	↓ ↑ (DT) ICM Call Operation + [ ]↓
	Dial Tone Reorder	After ICM Originating	↓ ↑
	Direct Call Pickup	DT	[1] [4] [n] [n] nn: Called station No.
Disconnect	COL/ICM Disconnect	COL/ICM Conversation	[ ]↓
Floating COL Group Access *	Optimized Call Routing Access	DT	[9] [0] [n_1] ... [n_i] (Only MF) nn: Destination Customer No.
	Floating CO Group Access	DT	[9] [g] [n_1] ... [n_i] (Only MF) nn: Destination Customer No. g: COL Group No. (1 to 7)
Holding	Exclusive Hold	COL Conversation	↓ ↑
	Exclusive Hold Pickup	With Exclusive Hold	(DT) [1] [1]
	Consultation Hold	ICM/COL Conversation	↓ ↑
	Consultation Hold Pickup	Off-hook With Consultation Hold	↓ ↑
	Consultation Hold Recall Pickup	Off-hook With Consultation Hold Recall	↓ ↑
	Consultation Hold Recall Pickup	On-hook With Consultation Hold Recall	[ ]↑
ICM Calling	ICM Calling	DT	[n] [n] (nn: Called station No.)
	ICM Calling Mode Change	ICM Calling	[2]
Master Group Hunt Call	Group 1	DT	[8] [7] [0]
	Group 2	DT	[8] [7] [1]
	Group 3	DT	[8] [7] [2]
	Group 4	DT	[8] [7] [3]
	Meet Me	DT	[1] [2] [n] [n] (nn: Paging station No.)
Message Waiting	Registration	ICM Calling or BT	↑ ↓ (DT) [1] [6]

*: Can be abbreviated

	Features	Conditions	Dial
Message Waiting	Cancellation	DT	[1] [0] [6] [n] [n] (nn: Destination station No.)
Night Service	Universal Night Assignment Pick Up	DT	[9] [9]
Paging Call	All Call With Meet Me	Seizing ICM Line	(DT) [8] [8] [0]
	Zone Call With Meet Me (Zone 1)	Seizing ICM Line	(DT) [8] [8] [1]
	Zone Call With Meet Me (Zone 2)	Seizing ICM Line	(DT) [8] [8] [2]
	Zone Call With Meet Me (Zone 3)	Seizing ICM Line	(DT) [8] [8] [3]
	All Zone Call With Meet Me	Seizing ICM Line	(DT) [8] [8] [4]
	All Group Call With Meet Me	Seizing ICM Line	(DT) [8] [8] [5]
	ICM Group Call With Meet Me (Group 1)	Seizing ICM Line	(DT) [8] [8] [6]
	ICM Group Call With Meet Me (Group 2)	Seizing ICM Line	(DT) [8] [8] [7]
	ICM Group Call With Meet Me (Group 3)	Seizing ICM Line	(DT) [8] [8] [8]
	ICM Group Call With Meet Me (Group 4)	Seizing ICM Line	(DT) [8] [8] [9]
	Redialing	DT	[9] [8]
SCDR	Account Code Input	COL Conversation	↓ ↑ (DT) [1] [8] [n_1] ... [n_s] (n: Account Code)
	Transfer	COL/ICM Conversation	↓ ↑ (DT) ICM Call Operation + Called Party Answer + [ ] ↓

2.2.1.6 Numbering Plan

The numbering plan for the system is shown in the Table 2.2.1.6.

Table 2.2.1.6 System Dialing Plan

Feature	Dial	Note
Operator Call	0	Only One ATTND in Tenant
	01	ATTND1
	02	ATTND2
Station Call	20 to 67	
Master Group Hunt Call	870 to 873	
Paging Call	880	All Call
	881 to 883	Zone Call
	884	All Zone Call
	885	All Group Call
	886 to 889	Group Call
Optimized Call Routing Access	90	(Only SLT) MF
Floating COL Group Access	91 to 97	(Only SLT) MF
Redialing	98	(Only PULSE-SLT)
UNA Pick Up	99	(Only SLT)
COL Access	901 to 916	(Only SLT) KF

2.2.2 EX-816/824/1648 System Configuration

2.2.2.1 Hardware Configuration

The EX-816/824/1648 system consists of the following hardware units.

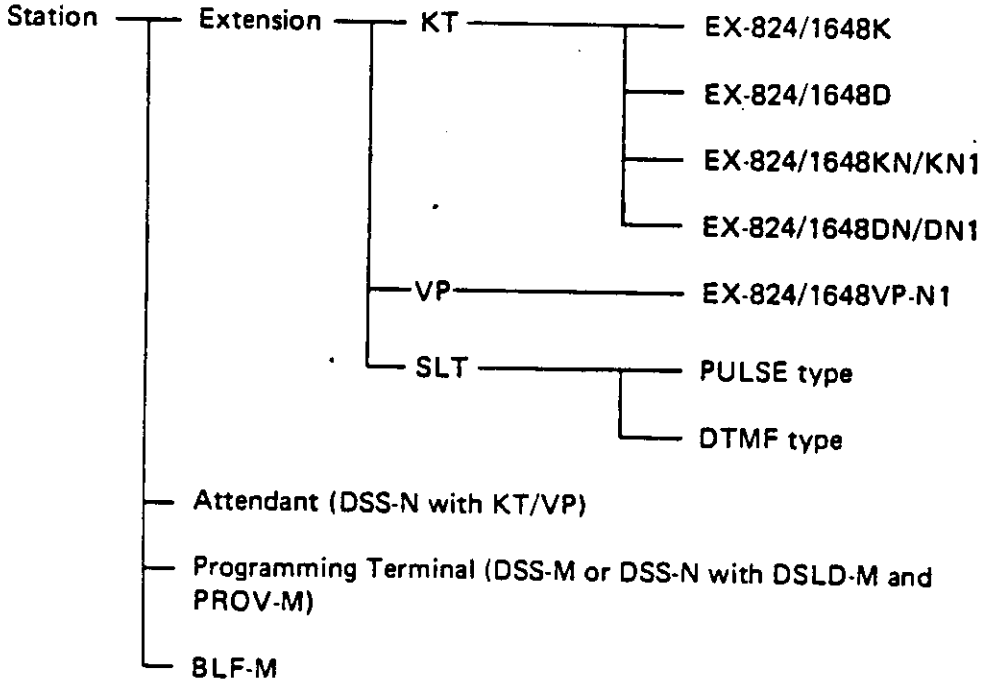
- ICU
  COL interface: max. 8 (EX-816) / max. 16 (EX-824/1648), ICM 8, subscriber interface: max. 16 (EX-816) / max. 48 (EX-824/1648), VS, SCDR interface, etc.
- KT/VP
  The total number together with single-line telephones: 16 (EX-816) / 48 (EX-824/1648) or less being able to be increased by 4.
- Single-line telephone
  The total number together with key telephones: 16 (EX-816) / 48 (EX-824/1648) or less being able to be increased by 4.
- ATTND
  Up to two units can be connected to one system.
- SCDR
  One unit can be connected to one system.
- BLF
  Up to four units can be connected to one system.

2.2.2.2 Terminal Configuration

The following terminals are connected to the EX-816/824/1648 system.

- EX-824/1648 Key Telephone (EX-824/1648K, KN,/KN1)
- EX-824/1648 Key Telephone with Display (EX-824/1648D, DN/DN1)
- EX-824/1648 Versa Phone-N (EX-824/1648 VP-N1)
- Single Line Telephone (PULSE)
- Single Line Telephone (DTMF)
- EX-Direct Station Selection-M, N (DSS-M, N)
- EX-Busy Lamp Field Unit-M (BLF-M)

The names of these terminals and their classifications are shown below.



External views of the individual terminals are shown in the following figures:

Figure 2.2.2.2A EX-824/1648K

Figure 2.2.2.2B EX-824/1648D

Figure 2.2.2.2.C EX-824/1648KN/KN1

Figure 2.2.2.2.D EX-824/1648DN/DN1

Figure 2.2.2.2.E EX-824/1648VP-N1

Figure 2.2.2.2.F BLF-M

Figure 2.2.2.2.G DSS-M with DSLD-M

Figure 2.2.2.2.H DSS-N with DSLD-M

Figure 2.2.2.2.I DSS-M with DSLD-M and PROV-M

Figure 2.2.2.2.J DSS-N with DSLD-M and PROV-M

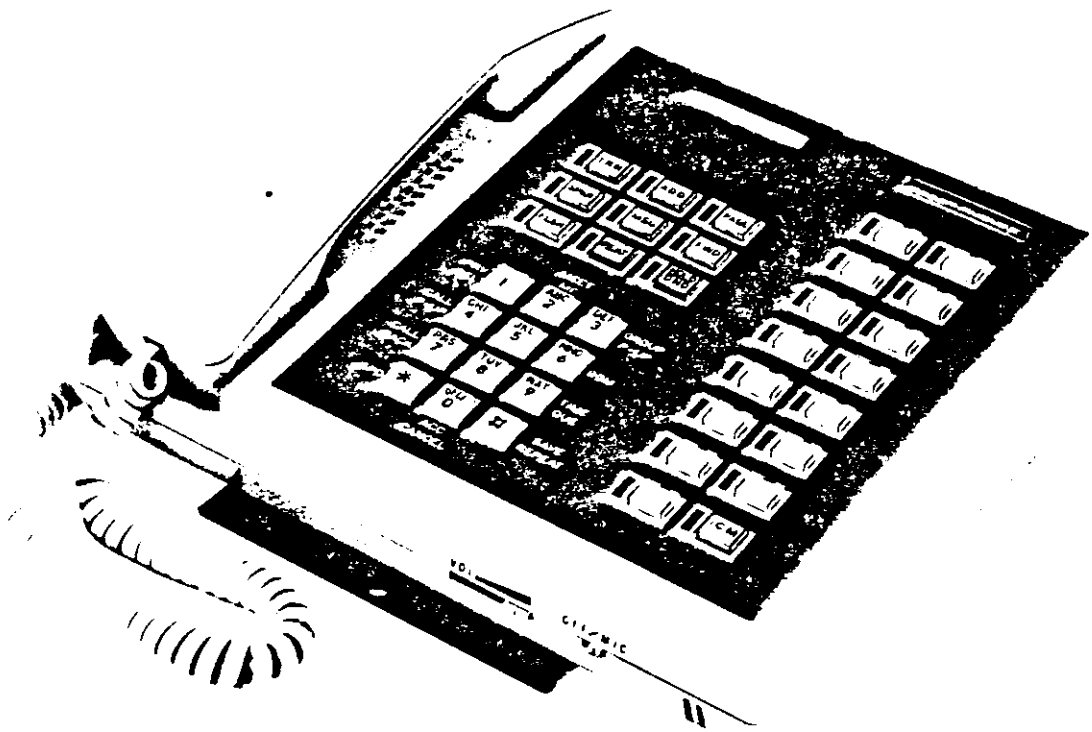


Figure 2.2.2.2.A EX-824/1648K

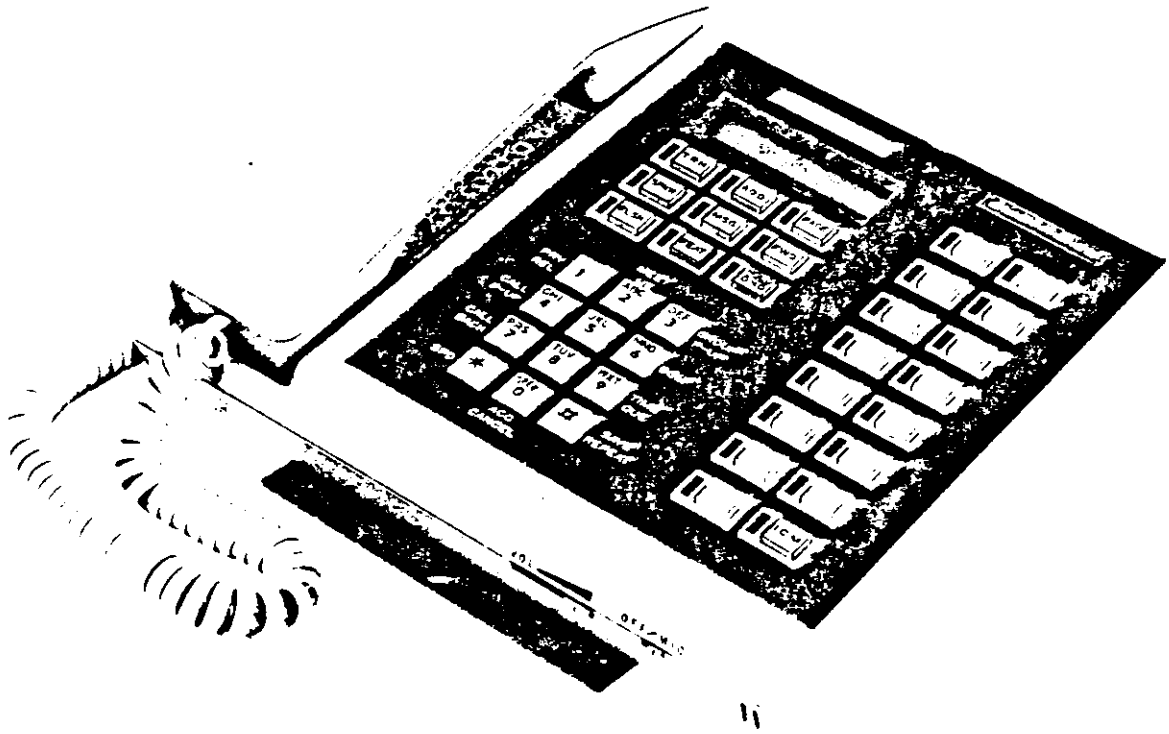


Figure 2.2.2.2.B EX-824/1648D

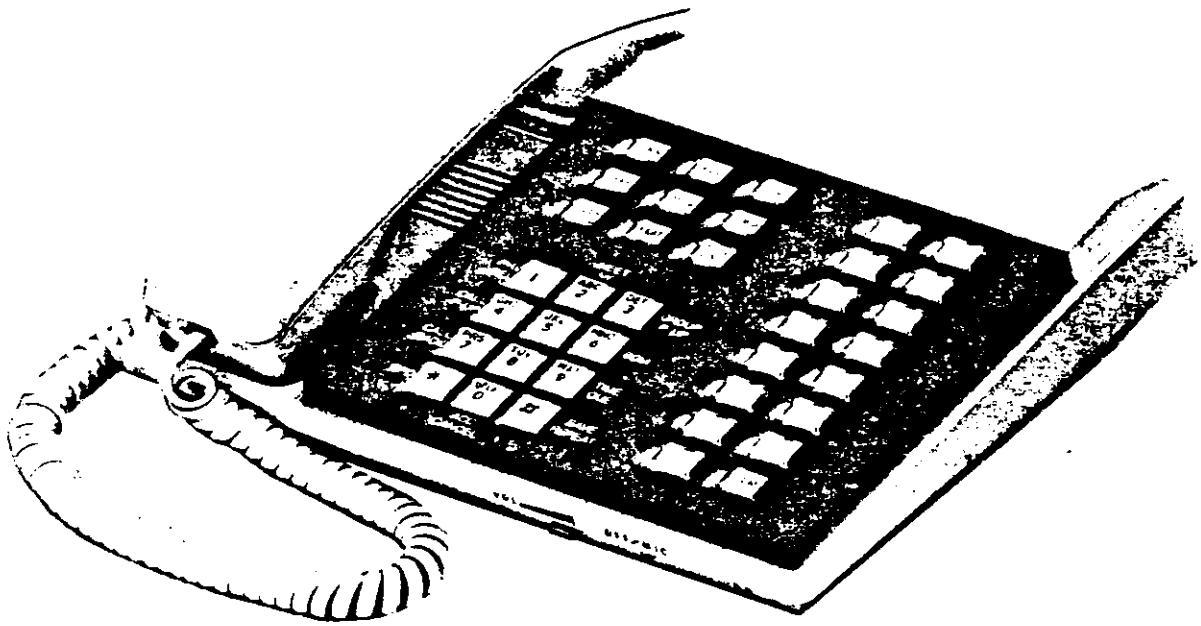


Figure 2.2.2.2.C EX-824/1648KN/KN1

Figure 2.2.2.2.D EX-824/1648DN/DN1

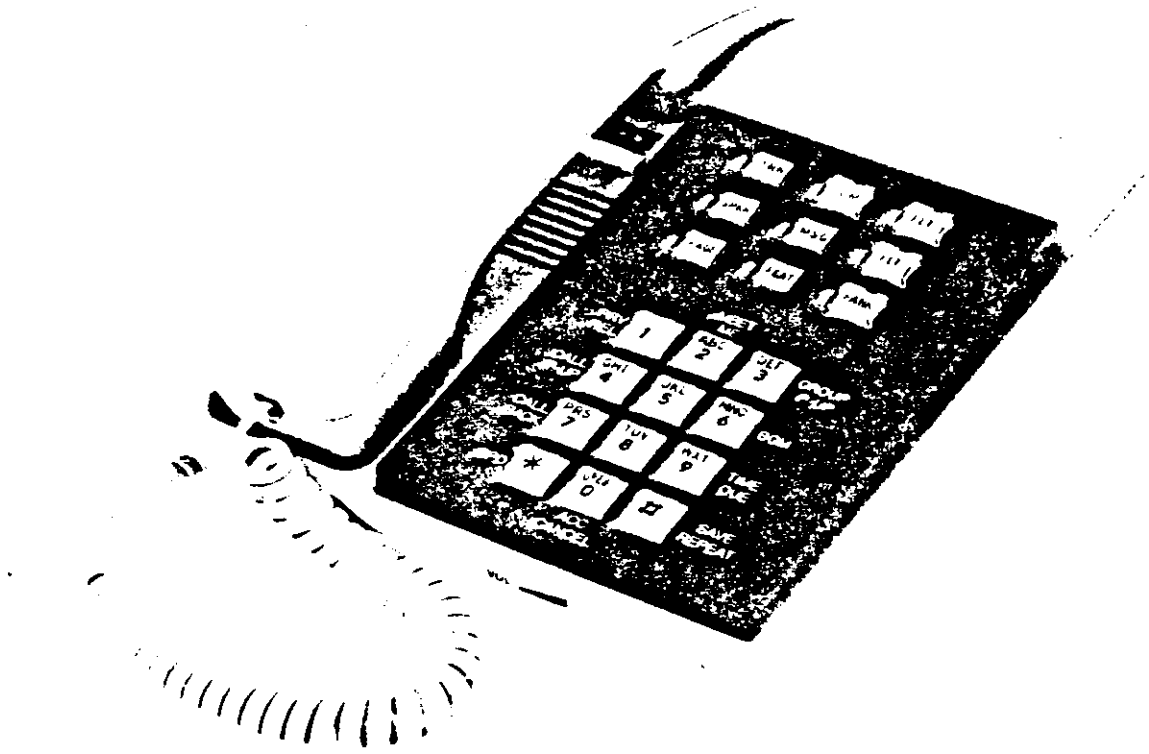


Figure 2.2.2.2.E EX-824/1648VP-N1

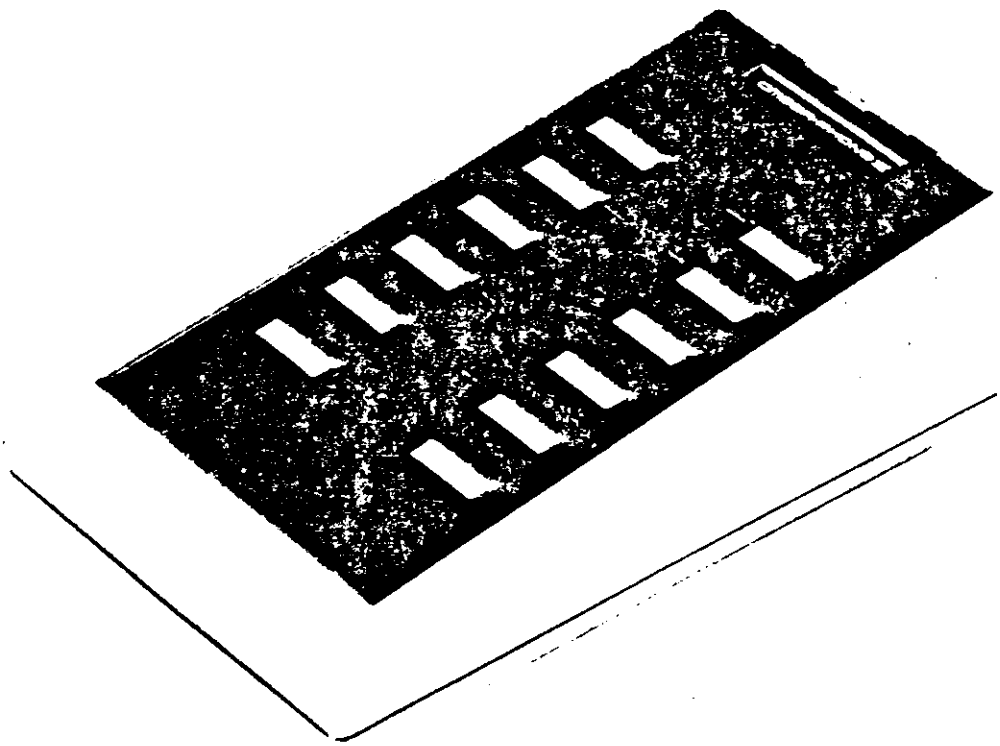


Figure 2.2.2.2.F BLF-M

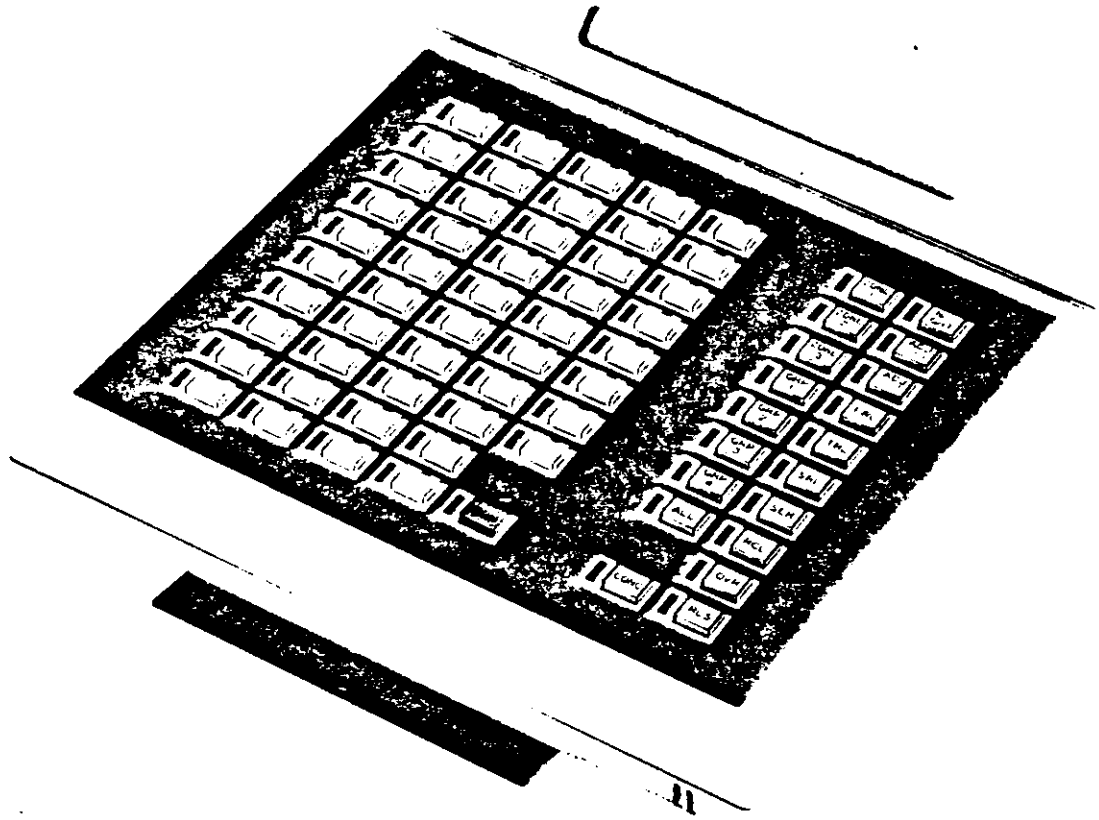


Figure 2.2.2.2.G DSS-M With DSLD-M

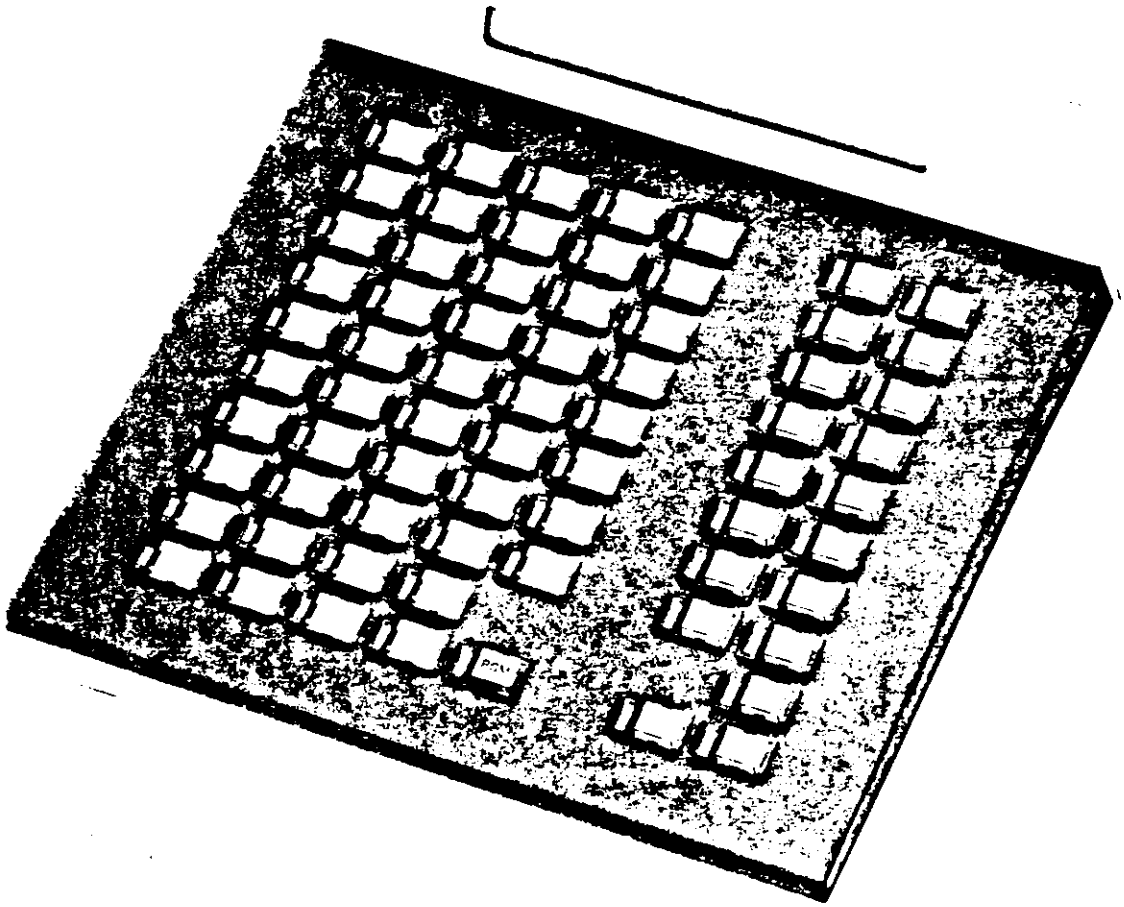


Figure 2.2.2.2.H DSS-N With DSLD-M

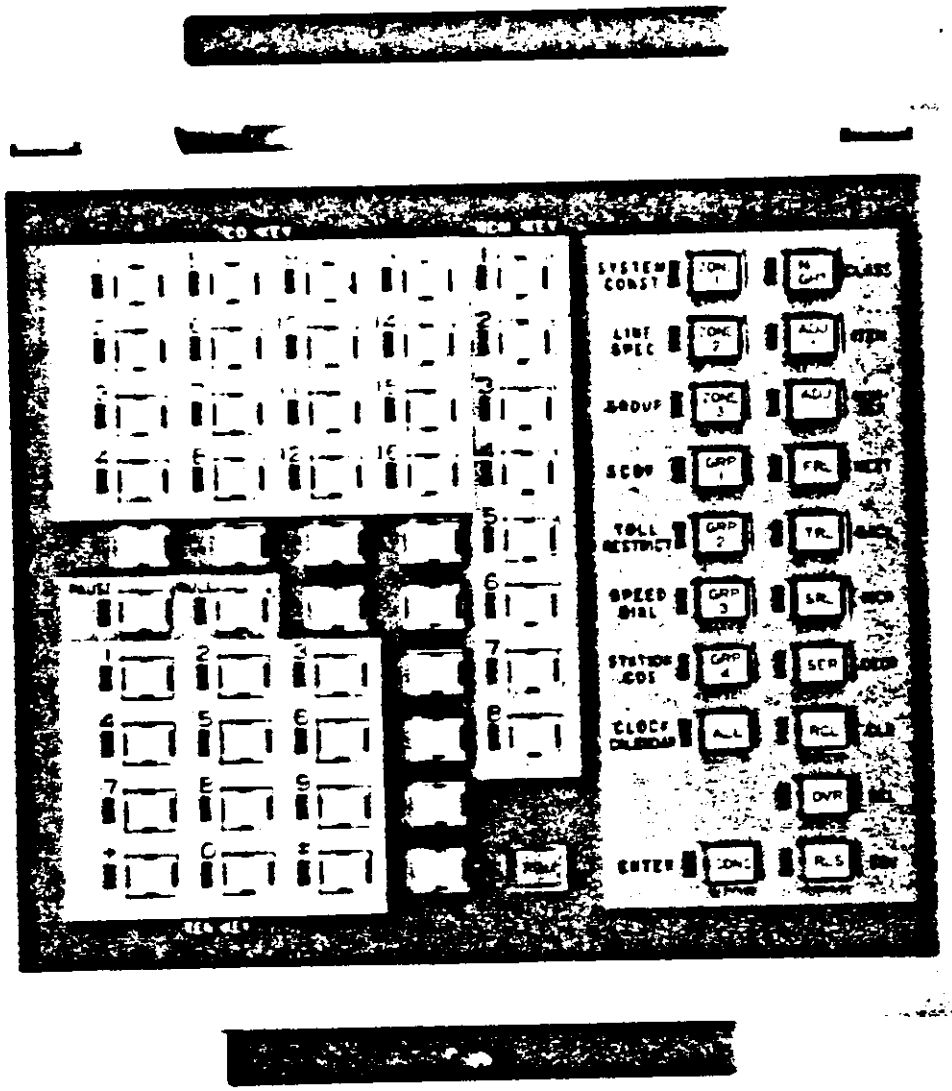


Figure 2.2.2.2.I DSS-M With DSLD-M and PROV-M

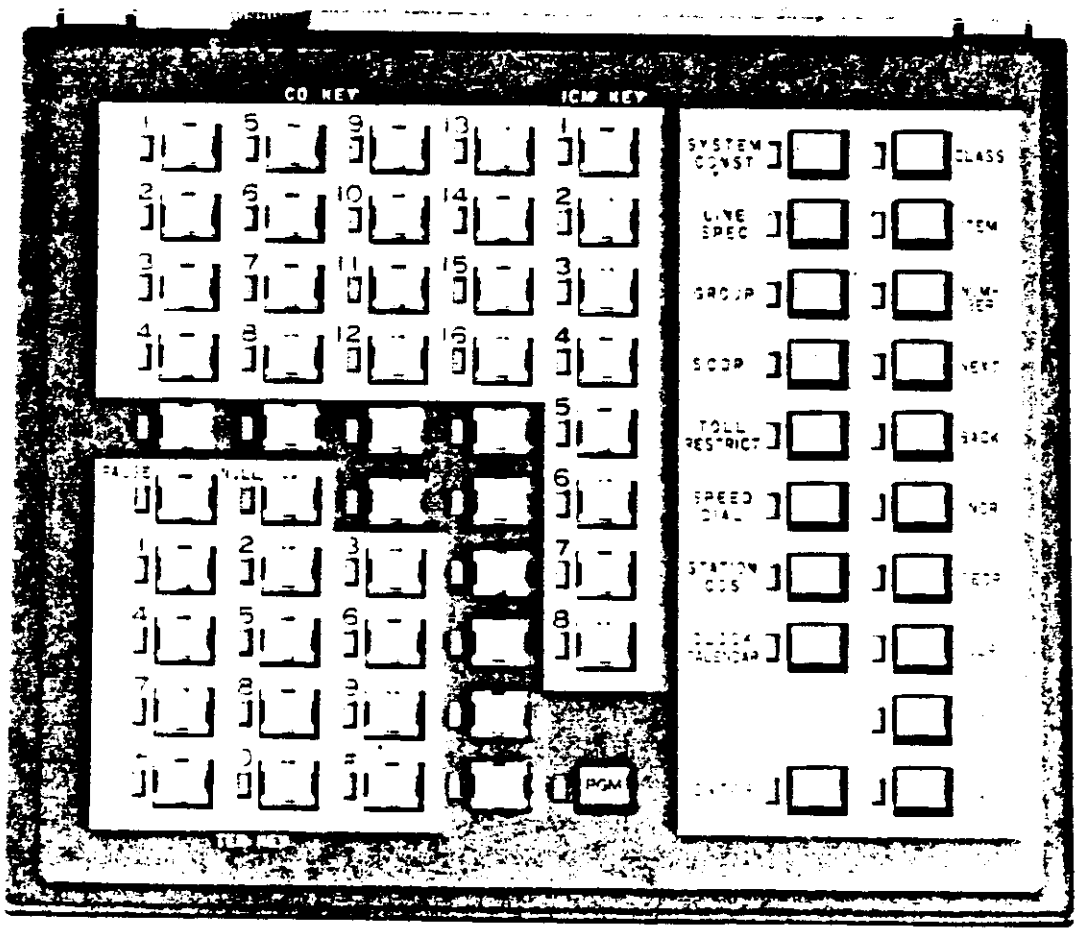


Figure 2.2.2.2.J DSS-N With DSLD-M and PROV-M

2.2.2.3 Visual Indications

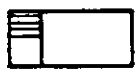
Visual indication functions of terminals are as shown below.

2.2.2.3.1 KT/VP Key Lamp
2.2.2.3.2 Visual Indications of Trunks
2.2.2.3.3 Busy Lamp Field
2.2.2.3.4 Key Telephone Display
2.2.2.3.5 Attendant Display
2.2.2.3.6 Terminal Display for Programming

2.2.2.3.1 Key Telephone and Versa Phone Key Lamp

Visual indications given by key telephones and Versa Phone are shown in Table 2.2.2.3.1.

Table 2.2.2.3.1 Visual Indications

No.	Use	Operation/Lamp Indication	Pattern 0.5 s	0.5 s	0.5 s	0.5 s
1	I-Use TRAN ADD		0.05			
			0.05			
2	Callback MSG waiting Camp On Hold recall ICM incoming Camp On recall				1.1 s	
3	COL incoming					0.4 s
4	System hold Non privacy		0.4 s		1.6 s	
5	DND Page busy Line busy Absence message Call Forward					
6	Idle (off)					
7	Voice massege waiting I-Hold			1.1 s		
8	Programming class			0.95 s	0.05 s	0.95 s 0.05 s

2.2.2.3.2 Visual Indications of Trunks

Visual indications on key lamps of KTs/VPs to indicate COL/ICM status are as listed below.

Table 2.2.2.3.2 Visual Indications of Trunks

Trunk	Visual Indications	Note
COL	Idle	COL not used or can not be used.
	Busy	Used by another station. Cannot be seized from the KT/VP. (Refer to 2.3.0.6.3 Executive Override.)
	System Hold	On System-hold by another KT/VP.
	Incoming	Incoming call.
	Hold Recall	Hold Recall or Camp On Recall is ringing.
	I-Hold	COL held at the KT/VP, one COL of multi-line Conference, or COL in Trunk to Trunk Conference.
	I-Use	COL that is used by the KT/VP.
ICM	Idle	ICM that is available.
	Incoming	ICM call ringing.
	Hold Recall	ICM Hold Recall ringing.
	I-Use	Engaged on an ICM call.
	I-Hold	ICM call placed on-hold.

2.2.2.3.3 BLF

Visual indications given by BLF are shown in Table 2.2.2.3.3.

Table 2.2.2.3.3 Visual Indications of BLF

No.	Use	Pattern			
		0.5 s	0.5 s	0.5 s	0.5 s
1	Forced release	1.05 s		0.05 s / 0.05 s	
2	DND	0.05 s / 0.05 s			
3	Camp On		1.2 s	0.4 s	0.4 s
4	Conversing Incoming				
5	Message waiting	0.05 s / 0.05 s		1.05 s	
6	Others				

2.2.2.3.4 Key Telephone Display

Key telephone alphanumeric display are shown in Figures 2.2.2.3.4.A and B.

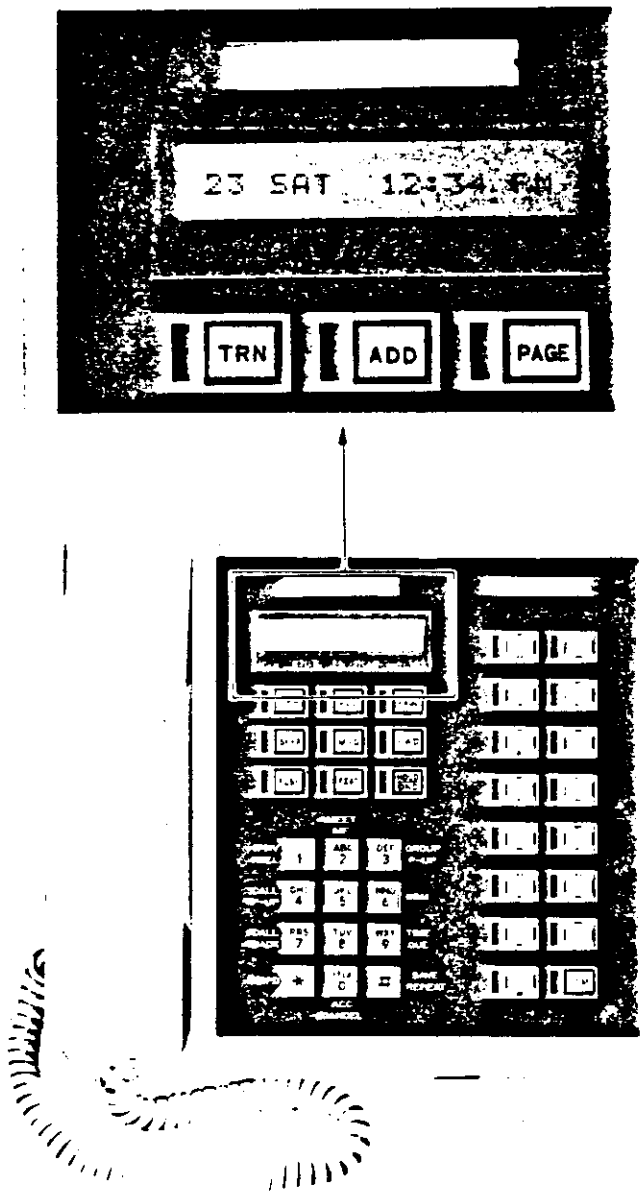


Figure 2.2.2.3.4.A Telephone Alphanumeric Display

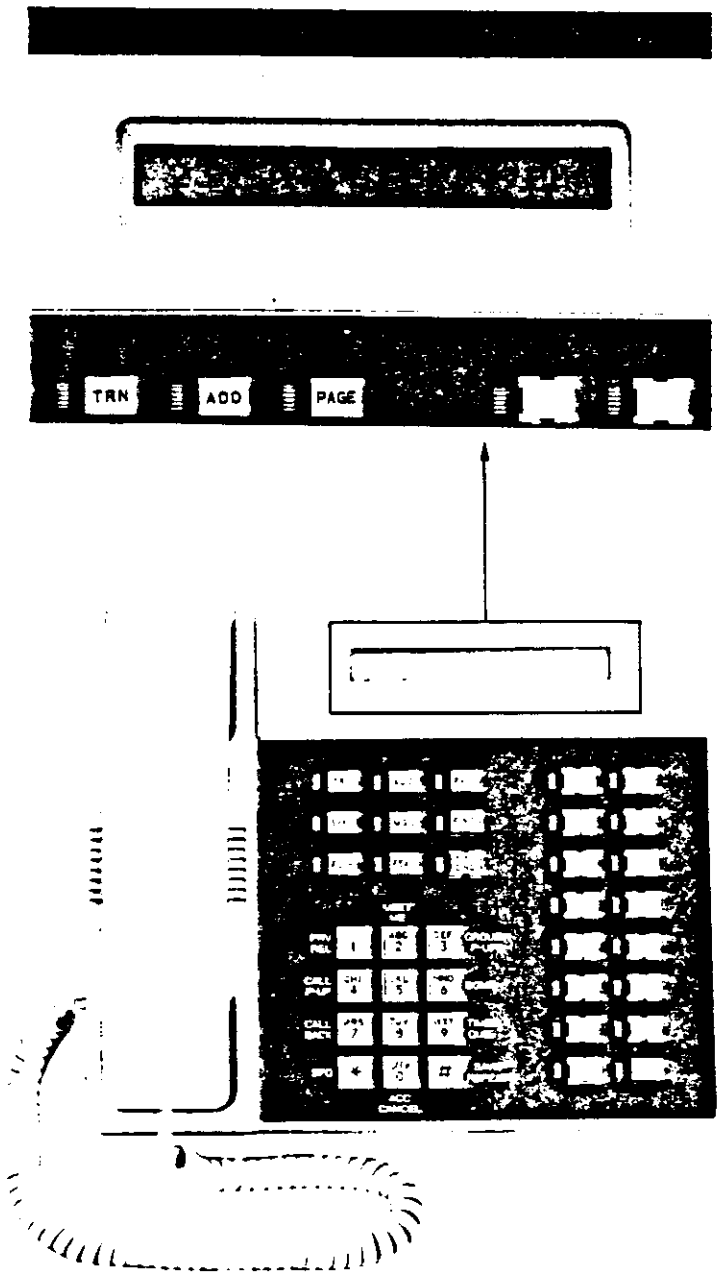


Figure 2.2.2.3.4.B Telephone Alphanumeric Display

KT display unit displays five levels as listed below.

Class	Contents
1	Clock & Calendar
2	Incoming Call
3	Duration of Call
4	Dial Number (ICM)
5	Calculator/Account Code/Dial Number (CO)

The key telephone has a 16-digit alphanumeric display for receiving various services.

2.2.2.3.4.1 Account Code

When Account Code is entered during a COL call, the content is displayed. The display remains for 10 seconds after input is complete.

```
Acct Code 123456
```

2.2.2.3.4.2 Transfer

When a COL call is transferred by various means, the transfer originating station number is displayed at the answering KT. Display appear in the following cases:

i) ICM Voice/Tone Call: Station that originated the (Busy) Call Forward

ii) ICM Camp On: Station that originated the Camp-On

iii) COL RGT: Station that originated the (Busy) Call Forward

iv) COL Camp On: Station that originated the Camp-On

v) COL Camp On Recall: Camp-On called station

```
Forward From 21
```

2.2.2.3.4.3 COL Selection

i) When a CO Line is seized for a COL outgoing call, the COL number and group number are displayed.

```
COL nn GP m
```

(nn = COL No. 01 to 16/m = Group No. 1 to 7)

ii) When a E&M CO line is seized for an E&M outgoing call, the COL number and group number are displayed.

EMT nn GP m

(nn = COL No. 07, 08, 11, 12/m = Group No. 1 to 7)

Above displays are maintained until a dial input or a Duration of Call.

2.2.2.3.4.4 COL Outgoing Dial

The dial number sent to the COL is displayed during COL call. Display shifts from the right to the left end while dialing. A dial number with invisible attribution is not displayed.

0-2129551512

(Automatic pause is displayed as '–'.)

2.2.2.3.4.5 COL Call (Duration)

Duration of a COL Call is displayed while engaged. Maximum display is up to 99 minutes 59 seconds. The COL call display returns to 0:00 when the call duration exceeds 100 minutes.

(minute) (second)

1:25

2.2.2.3.4.6 ICM Dial

The first digit of the dialed number is displayed while originating an ICM call.

2

2.2.2.3.4.7 ICM Calling

The called station No. is displayed while the ICM call is engaged.

21

2.2.2.3.4.8 ICM Calling (Forward)

The called station number is displayed followed by the station number originating the (Busy) Call Forward.

(Called EXT No.) (FWD EXT No.)

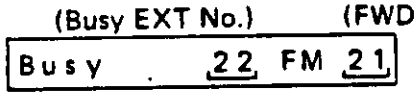
22 FM 21

2.2.2.3.4.9 Station Busy

The dialed number is displayed when the called station is busy and the display remains for 10 seconds, except in case the called station is engaged on an Attendant or Override call.

2.2.2.3.4.10 Station Busy (Forward)

When (Busy) Call Forward is performed during ICM call and the destination station is busy, the called station number is displayed followed by the station number originating the (Busy) Call Forward. The display remains for 10 seconds except in case the called station is engaged on an override call.

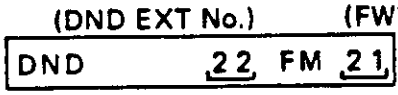


2.2.2.3.4.11 Station Do-Not-Disturb

During an ICM Call, if the called station is set to Do-Not-Disturb, the station number is displayed for 10 seconds.

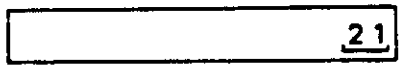
2.2.2.3.4.12 Station Do-Not-Disturb (Forward)

When (Busy) Call Forward is performed during an ICM call, the called number is displayed followed by the station number originating the (Busy) Call Forward.



2.2.2.3.4.13 ICM Call

The called station number is displayed during an ICM call.



2.2.2.3.4.14 Registration

The dial number is displayed when dial input is required for registration such as Station Speed Dial, Call Forward, etc.

(SPD No.)

90 0*5212955151 2

(For Station SPD)

2.2.2.3.4.15 COL/ICM Call

When there are more than one COL or ICM calls, the one with the highest priority is displayed. The format is as follows:

i) ICM Voice/Tone Call

(Caller EXT No.)

Call From 21

ii) ICM Voice/Tone Call (Forward)

(Caller EXT No.) (FWD EXT No.)

Call From 21 (22)

iii) Consultation Hold Recall

Recall

iv) COL Hold Recall

(COL No.)

#7 Recall

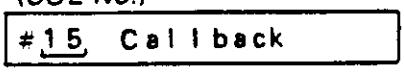
v) COL Camp-On Recall

(COL No.) (Camp-On Called EXT No.)

#7 Recall FM 21

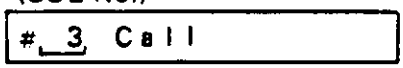
vi) COL Callback

(COL No.)



vii) COL Incoming

(COL No.)

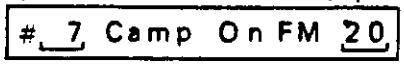


viii) COL Incoming (Forward)

(COL No.) (FWD EXT No.)

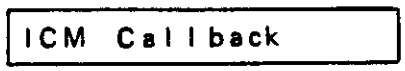
ix) COL Camp-On

(COL No.) (Operating EXT No.)



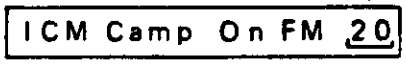
x) ICM Hold Recall

xi) ICM Callback



xii) ICM Camp-On

(Operating EXT No.)



2.2.2.3.4.16 Message

When messages are received, they are displayed in sequence of priority.

(4th) (3rd) (2nd) (1st Priority)

```
MSG    30 25 23 20
```

2.2.2.3.4.17 Clock and Calendar

Clock and calendar are displayed when no display exists.

(day) (day of week) (hour) (minute)

```
23 SAT  12:34 PM
```

2.2.2.3.4.18 Absence Message

When a station with Absence Message assignment is called, the following appears on the display.

```
Absence MSG    20
```

2.2.2.3.4.19 E&M

i) When there is an E&M incoming call, the following appears on the display.

```
Call From          Tn
```

(n = 1 ~ 4)

ii) During conversation on an E&M call, the following appears on the display.

```
                E&M  Tn
```

(n = 1 ~ 4)

2.2.2.3.4.20 Meet Me Waiting

During a Meet Me Waiting, the following appears on the display.

```
Meet me Waiting
```

2.2.2.3.5 Attendant Display

Attendant alphanumeric displays are shown in Figures 2.2.2.3.5.A and B.

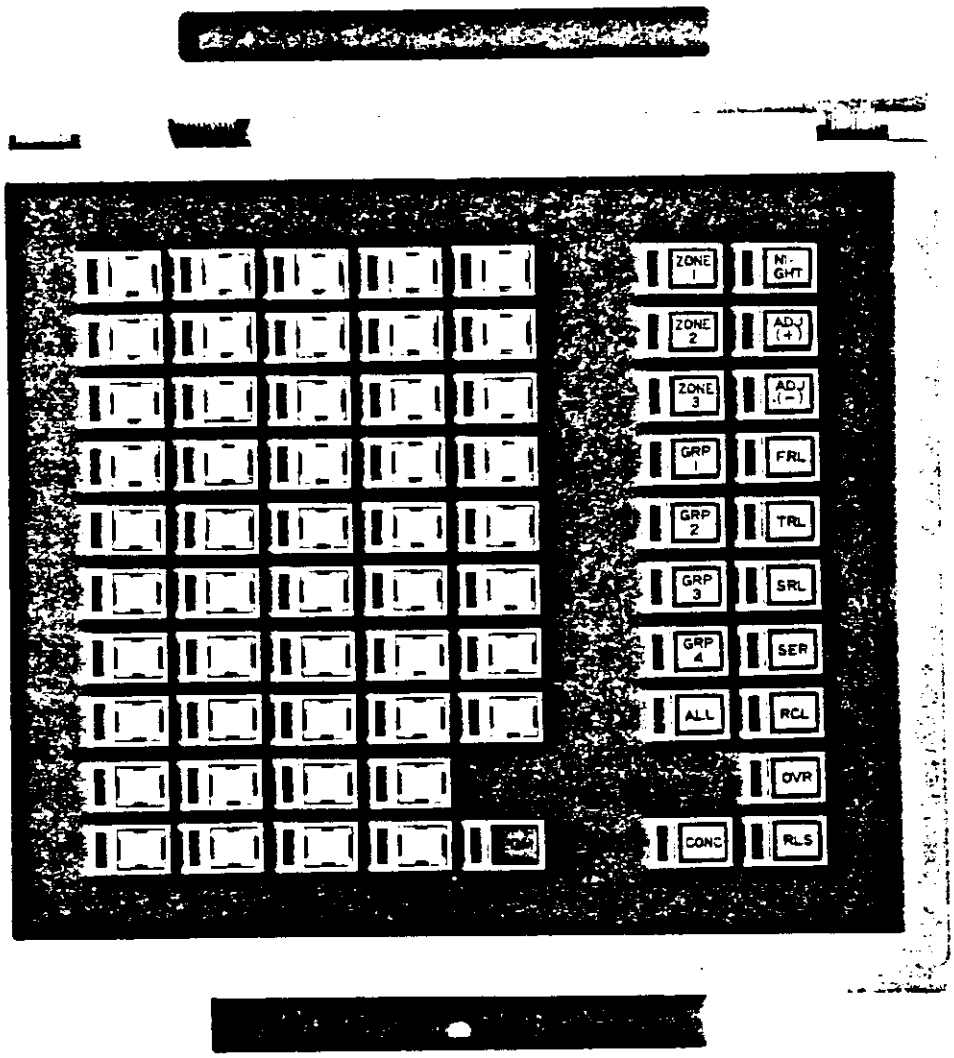


Figure 2.2.2.3.5.A DSS-M and DSLD-M

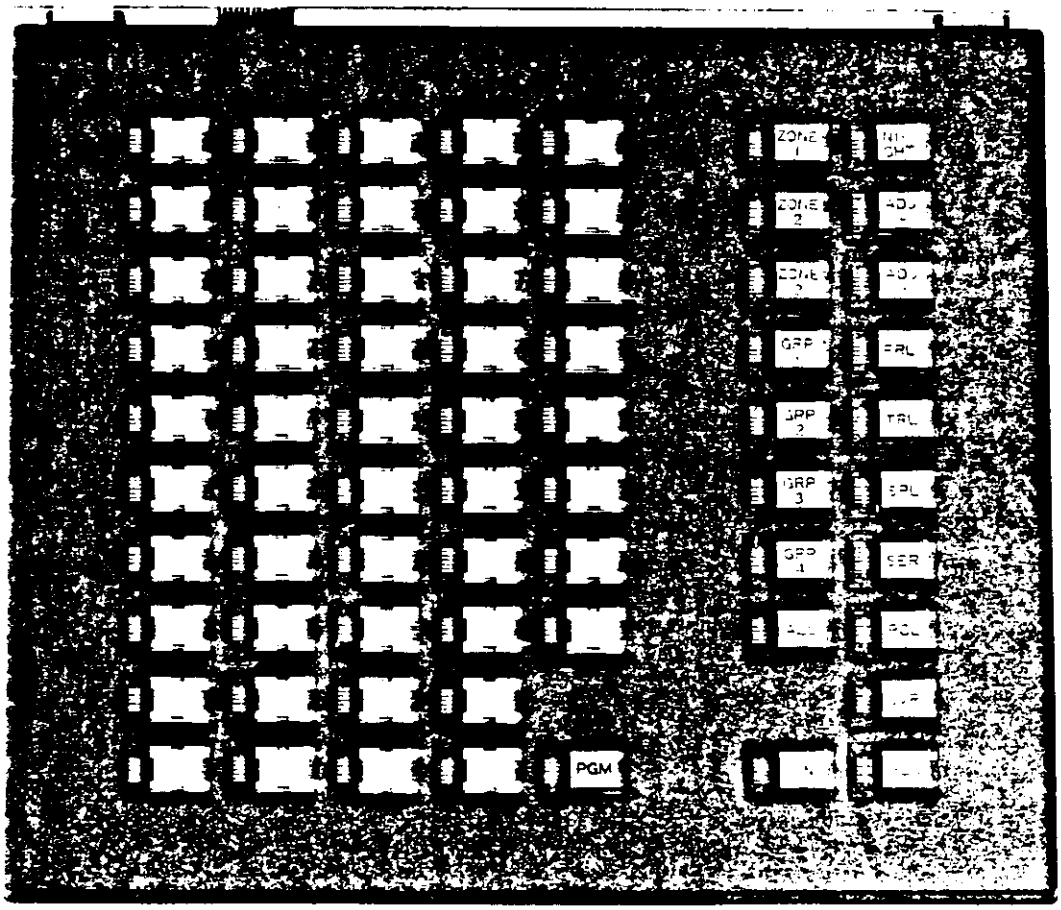


Figure 2.2.2.3.5.B DSS-N and DSLD-M

A 32-digit display is available by connecting an Alphanumeric Display (DSLD-M) unit connected to the Attendant station. (Refer to Table 2.2.2.3.5.12 Attendant Alphanumeric Display.)

2.2.2.3.5.1 Clock and Calendar

When no other display exists on the Attendant display, the clock and calendar is displayed.

■ **Display**

31 0

```
19 MAY 87 MON 9:15:08 AM
```

2.2.2.3.5.2 Through Dialing

When an Attendant answers an ICM call, the caller's station number, Toll Class number, and outgoing level are displayed.
(See Section 2.3.A.1.9 Through Dialing.)

■ **Condition**

The above informations do not appear when either the Programming Feature or Forced Release Feature is displayed.

■ **Display**

31 0

```
<EXT 32> Toll CLS=1/OUTG Level=2
```

2.2.2.3.5.3 First-Priority-Call Trunk Number Display

Trunk numbers with the first-priority-call appear at the Attendant display.

■ **Condition**

- The above information does not appear when any information other than Clock & Calendar or Call Park No Answer is displayed.
- Attendant Recall is not included in the first-priority-call trunk numbers.

■ **Display**

```
Incoming Trunk Number      COL 17
```

2.2.2.3.5.4 Engaged Trunk Number Display

The trunk number with which the Attendant is engaged is displayed.

■ **Condition**

The above information does not appear when either Programming Feature or Forced Release Feature is displayed.

■ **Display**

```
31                                      0
| Conversing On               COL 17 |
```

2.2.2.3.5.5 Attendant Call Park Pickup Number Display

When the Attendant places a call on Call Park, the pickup number of the Call Park is displayed. (See Section 2.3.C.6.2 Call Park Pickup.)

■ **Condition**

The above informations do not appear when either Programming Feature or Forced Release Feature is displayed.

■ **Display**

```
31                                      0
| ATT Call Park Pick Up No.        01 |
```

2.2.2.3.5.6 Attendant Call Park No Answer Display

Among the calls placed on Call Park by the Attendant, pickup numbers and trunk numbers of the parked calls, which are not yet picked up, are displayed. (See Section 2.3.C.6.2 Call Park Pickup.)

■ **Condition**

- The above informations do not appear when any information other than Clock & Calendar is displayed.
- When there are more than four Call Parks, pickup numbers and trunk numbers of the top four priority Call Parks are displayed.

■ **Display**

```
31                                      0
| P01#11  P03#01  P08#05  P05#03 |
  └┬┘ └┬┘
   │   └──── Trunk No.
   └──── Pickup No.
```

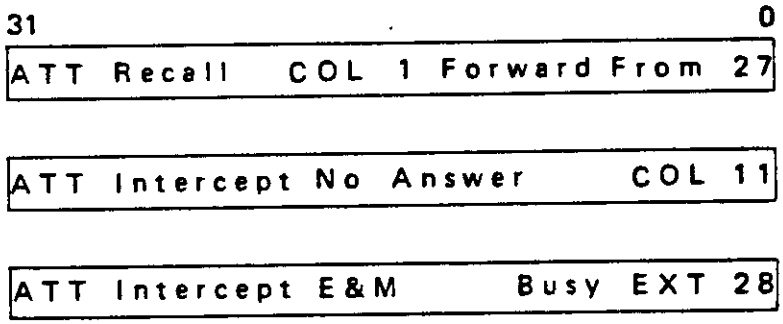
2.2.2.3.5.7 Attendant Recall

When an Attendant Recall is picked up, such information as the type of the Attendant Recall, trunk number, and station number are displayed. (See Section 2.3.A.1.11 Attendant Recall.)

■ **Condition**

- The above informations do not appear when either Programming Feature or Forced Release Feature is displayed.
- Attendant Recalls are classified as follows:
  - Attendant Recall
  - COL Attendant Intercept
  - E&M Attendant Intercept

■ **Display**



2.2.2.3.5.8 Trunk Forced Release

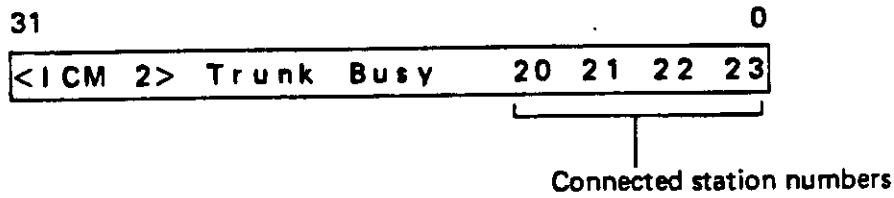
When the Attendant operates Trunk Forced Release, the trunk status and connected station number is displayed. (See Section 2.3.A.1.12 Trunk Forced Release.)

■ **Conditions**

o The trunk status to be displayed may be any of the following:

- Idle: Not busy
- Busy: Engaged on a call
- Released: Forced release
- No trunk: Trunk not installed

■ **Display**



2.2.2.3.5.9 Station Forced Release

When the Attendant operates Station Forced Release, the station status is displayed. (See Section 2.3.A.1.13 Station Forced Release.)

- **Conditions**

  - The station status to be displayed may be any of the following:

    – Idle: Not busy
    – Busy: Engaged on a call
    – Lock out: Station lock out
    – Released: Forced release
    – No station: Station not connected

  - If a SUBS-ME circuit card is installed, "No Station" will not be displayed even if no single-line telephone is installed with the card.

- **Display**

31 0

```
<EXT 23> Extension Busy
```

2.2.2.3.5.10 Call Forward/Do-Not-Disturb Forced Release

When the Attendant operates Call Forward Release or DND Forced Release, the Call Forward/DND status of the station is displayed. (See Section 2.3.C.4.2, Call Forward Forced Release, and Section 2.3.D.5.2, Do-Not-Disturb Forced Release.)

- **Conditions**

  - The Call Forward and Do-Not-Disturb status to be displayed may be any of the following:

    – Call Forward
    – Busy Call Forward
    – Do Not Disturb
    – DND and CFWD
    – DND and BCFWD
    – No Station, Released, Station Idle

- **Display**

31 0

```
<EXT 20> Call Forward To      21
```

Destination Ext Number

2.2.2.3.5.11 Programming

For System Programming Terminal display, see Section 2.4, Programming Feature.

2.2.2.3.5.12 Attendant Alphanumeric Display

Contents of the Attendant displays for individual features are shown in the following pages.

Table 2.2.2.3.5.12 Attendont Alphanumeric Display

Condition	Display (31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0)
Attendant Recall	ATT Recall COL [1] Forward From [27]
	ATT Intercept No Answer COL
	ATT Intercept COL [11] Busy EXT [28]
	ATT Intercept E&M No Ans EXT 27
	ATT Intercept E&M Busy EXT 28
	ATT Intercept E&M Busy MGH #1
	ATT Intercept E&M Busy COG #1
	ATT Intercept E&M Deny COG #2
Clock & Calendar	(Day) [20] (Month) [MAY] (Year) [87] (Week) [TUE] [7]:[45]:[12] [PM]
Through dialing	<EXT [20]> Toll CLS=[4]/OUTG Level=[2]
Prior incoming Call Trunk NO	Incoming Trunk Number COL [17]
	Incoming Trunk Number ICM [3]

Condition	Display (31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0)
Conversing Tunk NO	Conversing On COL [16]
	Conversing On ICM [4]
Attendant Call Park Pick up NO	ATT Call Paak Pick up NO [02]
Attendant Call Park NO Answer	P01(*1)#17(*2) P03#11 P07#04 P05#01

*1 Pick up NO
*2 Trunk NO

Table 2.2.2.3.5.12 Attendant Alphanumeric Display

Condition	Display (31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0)
Call forward forced release	<EXT 20> Call Forward To (Destination EXT) 21
	<EXT 20> Busy Call Forward To (Destination EXT) 21
	<EXT 20> Do Not Disturb
	<EXT 20> DND & CFWD To (Destination EXT) 21
	<EXT 20> DND & BCFWD To (Destination EXT) 21
	<EXT 20> NO Extension
	<EXT 20> Released
	<EXT 20> Extension Idle
Station forced release	<EXT 20> Extension Busy
	<EXT 20> Released
	<EXT 20> No Extension
	<EXT 20> Extension Idle
	<EXT 20> Station Locked Out

Table 2.2.2.3.5.12 Attendant Alphanumeric Display (con.)

Condition	Display (31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0)
Trunk forced release	<COL 1> Trunk Idle
	<ICM 1> Trunk Idle
	<COL 1> Trunk Busy (Station #) 22 20 21
	<ICM 1> Trunk Busy (Station #) 20 21 22 23
	<COL 1> Trunk Released
	<ICM 1> Trunk Released
	<COL 1> No Trunk
	<ICM 1> No Trunk

2.2.2.3.6 Terminal Display for Programming

Contents of the Attendant display, which the Attendant is working as a programming terminal, are shown in the following pages.

Table 2.2.2.3.6 System Programing Terminal Display

Class	Item	Display
System Constants	1	Hold Timeout (seconds) [130]
	2	Sender Timeout (seconds) [20]
	3	Page Timeout (seconds) [250]
	4	Hold RCL Timeout (seconds) [160]
	5	Camp-On Timeout (seconds) [80]
	6	Callback Timeout (seconds) [115]
	7	Auto. Answer Time (seconds) [210]
	8	ATT Intercept Time (seconds) [50]
	9	MGH Timeout (seconds) [60]
	10	PBX Outgoing Spec. Code <[1]> [0]
	11	<ATT [1]> Oveflow Transfer Min [3]
	12	<ATT [1]> Oveflow Transfer EXT =

Table 2.2.2.3.6 System Programing Terminal Display

Class	Item	Display
	13	<TNT [A]> ICM Call Mode (V: 0 / T: 1) [0]
	14	<TNT [A]> Paging Speakers [3]
	15	System Prefix [0]
	16	Automatic Pause Length [5]
	17	Timed Trunk Queuing Interval [1][0]
	18	<ATT[1]-Key[1]> Key Assign [DSS] [ ]
	19	<ATT[1]> ATT Extension Assign

Table 2.2.2.3.6 System Programing Terminal Display

Class	Item	Display (31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0)
Line Specification	1	< C O 1 > L i n e C l a s s [1 0]
	1	< I C M 1 > L i n e C l a s s [5]
	2	< C O 1 > T e n a n t G r o u p [0]
	2	< I C M 1 > T e n a n t G r o u p [1]
	3	< C O 1 > U n i v e r s a l N i g h t A s s i g n [1]
	4	< C O 1 > A u t o m a t i c N i g h t A s s i g n
	5	< C O 1 > O u t g o i n g L e v e l [3]
	6	< C O 1 > T o l l R e s t r i c t i o n G r o u p [4]
	7	< C O 1 > F l a s h S i g n a l I n t e r v a l [1 1]
	8	< C O 1 > P r e f i x D i a l [1]
	9	< C O 1 > D i s c o n n e c t S i g n a l [1]
	10	< C O 1 > A t t e n d a n t I n t e r c e p t [1]
	11	< C O 1 > I n d i v i d u a l I n c o m i n g E X T
	12	< C O 1 > O u t g o i n g G r o u p [7]
	13	< C O 1 > E & M W i n k / D e l a y D T F l a g [1]

Table 2.2.2.3.6 System Programing Terminal Display

Class	Item	Display (31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0)
Group	1	< G r o u p [1] - [1] > I C M M a s t e r G r o u p
	2	< G r o u p [1] > I C M G r o u p C a l l
	3	< G r o u p [1] > C a l l P i c k u p G r o u p

Table 2.2.2.3.6 System Programing Terminal Display

Class	Item	Display (31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0)
SCDR Data	1	SCDR Print Out CO
	2	SCDR Print Out EXT
	3	SCDR Print Out Minimum Time [03]
	4	SCDR Print Out Incoming Call [1]
	5	SCDR Print Out Call with ACCD [0]
	6	SCDR Print Out Toll Call [1]

Table 2.2.2.3.6 System Programing Terminal Display

Class	Item	Display (31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0)
Toll Restriction	1	<GRP 1 - CLS 1> Toll Restriction 13
	2	<P 1 - C 1> TOL (Mode) 0 - 21 - 01 - 05 - (Exception Table #) 11 - 07 - 13
	3	<Dial TBL 1 - 1> Toll 1234 - 01 - 03
	4	<TNT A - COD 200> E&M A. Code 3
	5	<TNT A - GRP 1 - COD 200> E&M 0. GRP 4
	6	<TNT A - COD 200> Area Code 3
	7	<TNT A - COD 200> Office Code 4
	8	<TNT A - GRP 1> Override 0. Code 211
	9	<C 1 - Hour 00> Time Schedule 0
	10	<TNT A - ROUT 1 - ZON 1> Route 1 - 2 - 3 - 4
	11	<TNT A - GRP 1> Delete Index 3
	12	<TNT A - NO 1> Delete Data 311
	13	<TNT A - GRP 1> Additional Index 3
	14	<NO 1 - COD 200> ADD. Area 1 - 09

Table 2.2.2.3.6 System Programing Terminal Display

Class	Item	Display (31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0)
	15	<NO[1]-COD[200]> ADD. Office [1]-[08]
	16	<NO[1]> ADD. [1]-[0P5123456789055432]
	17	<TNT [A]-NO[1]> Specific Code [6]
	18	<TNT [A]-NO[1]> EA [12345678901234 56]
	19	<TNT [A]-NO[1]> PIN Code 1234567890
	20	<TNT [A]-NO[1]> PIN Code Timing [1]
	21	<TNT [A]-NO[1]> EA Prefix [1]
	22	<CO[1]-NO[1]> EA Toll Group [5]

Table 2.2.2.3.6 System Programing Terminal Display

Class	Item	Display (31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0)
Speed Dial	1	1 . S P D < T N T [A] - [1] > [1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6]
	2	2 . S P D < T N T [A] - [1] > I n v i s i b l e [1]
	3	3 . S P D < E X T [2 0] - [1] > [0 P 5 1 2 3 4 5 6 7 8 9 0 1 2 3]

Table 2.2.2.3.6 System Programing Terminal Display

Class	Item	Display
		31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0
Station class of Service	1	1. Tenant Group B
	2	2. Secretary Attribution
	3	3. Protected Attribution
	4	4. Executive Attribution
	5	5. Versaphone Attribution
	6	6. Busy Call Forward
	7	7. Massage Attribution
	8	8. Quick Mode Deny
	9	9. Offhook Signal Deny
	10	10. Offhook All-Call Deny
	11	11. All-Call Deny
	12	12. Hold Recall Deny
	13	13. Speed Dial Access Deny
	14	14. Toll Speed Dial Deny

Table 2.2.2.3.6 System Programing Terminal Display

Class	Item	Display (31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0)
	15	15. CO Automatic Answer Deny
	16	16. ICM Automatic Answer Deny
	17	17. Paging Access Deny
	18	18. Call Forward Deny
	19	19. DND Deny
	20	20. Optimized Access Deny
	21	21. Equal / SCC Access Deny
	22	<EXT[20]> 22. Toll Dial C.O.R. [3]
	23	<EXT[20]> 23. CO Outgoing Level [4]
	24	<EXT[20]> 24. Route Advance Step [3]
	25	<EXT[20]> 25. Pickup Restriction
	26	<EXT[20]-Key[1]> Key Assign [TRN] [ ]
	27	<EXT[20]> 27. Personal ID Code [777]

Table 2.2.2.3.6 System Programing Terminal Display

Class	Item	Display (31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0)
Clock and Calendar	1	Clock (Hour:Minute) [2 1]:[1 0]
	2	Calendar (YY/MM/DD/W) [8 7]/[0 5]/[1 9]/[1]
	3	Daylight Saving [1]
	4	<NO 1> Holiday List [1 1]/[2 4]

2.2.2.4 Audible Indications

Audible indication functions of terminals are as shown below.

1. From Key Telephone/Versa Phone Speaker
2. From Single-line Telephone Ringer/Handset
3. To ATTND/Programming Terminal
4. From ICM
5. To COL/EXT with COL Conversation
6. Priority of Call

Each station of the system can give audible indications.

2.2.2.4.1 Key Telephone/Versa Phone Speaker

The audible indications from key telephone/Versa Phone speakers and their priority order are shown in Table 2.2.2.4.1.A.

Table 2.2.2.4.1.A

Priority	Audible Indication	Notes
1	ICM Voice Call	Involving Voice Call Burst and Intercept Tone
2	Reminder	
3	Consultation Hold Recall	
4	COL Recall	Abbreviated when busy
5	COL Callback	Abbreviated when busy
6	COL RGT (Camp-On)	Abbreviated when busy
7	ICM Hold Recall	Abbreviated when busy
8	ICM Callback	Abbreviated when busy
9	ICM Tone Call (Camp-On)	Prior to Consultation Hold Recall in case of priority call
10	Group Call	

The other audible indications by a key telephone/Versa Phone are shown in Table 2.2.2.4.1.B.

Table 2.2.2.4.1.B

Audible Indication	Notes
Busy Tone	Extension busy, ICM busy, page busy
Warning Tone	Illegal operation
Confirmation Tone	Registration complete

2.2.2.4.2 From Single-Line Telephone Ringer/Handset

The audible indications by the single-line telephone ringer and their priority order are shown in Table 2.2.2.4.2.A

Table 2.2.2.4.2.A

Priority	Audible Indication	Notes
1	Consultation Hold Recall	
2	COL Recall	
3	COL RGT (Camp-On)	
4	ICM Hold Recall	
5	ICM Callback	
6	ICM Tone Call (Camp-On)	Prior to Consultation Hold Recall in case of priority call

The audible indications from the handset of the single-line telephone are shown in Table 2.2.2.4.2.B.

Table 2.2.2.4.2.B

Audible Indication	Notes
Dial Tone	Dial input enable
Busy Tone	Station busy, ICM busy, page busy
Warning Tone	Illegal operation
Confirmation Tone	Registration complete
Camp-On Tone	Indicates Camp-On while engaged

2.2.2.4.3 To ATTND/Programming Terminal

The audible indications to the Attendants and Programming Terminals are shown in Table 2.2.2.4.3.

Table 2.2.2.4.3

Indication	Notes
Attendant Recall	
Confirmation Tone for Attendant	Used in Clock Adjustment, Programming

2.2.2.4.4 From ICM

The audible indications from ICM are shown in Table 2.2.2.4.4.

Table2.2.2.4.4

Audible Indication	Notes
Dial Tone	Dial input enable
Ring-back Tone	ICM Tone Call
Busy Tone	Extension busy, page busy
Transfer Tone	Transfer complete
Add-On Tone	Add-On complete
Voice Call Burst	ICM Voice Call
Busy Bypass Burst	ICM Busy Bypass Voice Call

2.2.2.4.5 To COL/EXT with COL Conversation

The audible indications to a COL and the audible indications to stations busy on a COL are shown in Table 2.2.2.4.5

Table 2.2.2.4.5

Audible Indication	Notes
Music On Hold	During COL held except recall
Ring-back Tone	During recall
Primary Release Burst	Privacy released
Transfer Tone	Transfer complete
Add-On Tone	Add-On complete
Confirmation Tone	Account code accepted, save complete

2.2.2.4.6 Priority of Call

Call priority and ringing priority are shown in Table 2.2.2.4.6.A.

Table 2.2.2.4.6.A Call Priority

Priority	Explanation	Incoming Call Class
1	Calls that can always be received	Consultation Hold Recall COLRGT
2	Calls that can always be received and have call abbreviation	COL Recall COL Callback ICM Hold Recall ICM Callback
3	Calls that can be received only when there is no ICM Voice Call	Reminder
4	Calls that can be received when there are no calls with priority 2, no COL RGT and no prior call with the same priority	ICM Voice Call * ICM Tone Call *
5	Calls that can be received only when there are no calls with priority 1 to 4	Group Call, All Call

* Does not apply to Attendant or Executive. For details, see Section 2.3.1.1, ICM Calling.

Table 2.2.2.4.6.B Priority of Audible Indications

Priority	Incoming Call Class
1	ICM Voice Call, ICM Tone Call with priority *
2	Reminder
3	Consulation Hold Recall
4	COL Recall
5	COL Callback
6	COL RGT
7	ICM Hold Recall
8	ICM Callback
9	ICM Tone Call
10	Group Call, All Call

* ICM Tone Call from Executive KT/VP Attendant

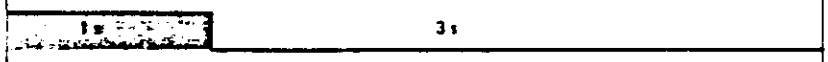
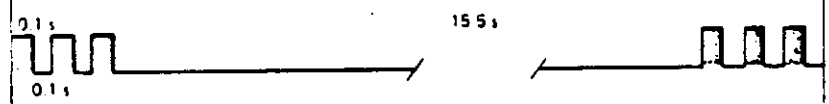
Audible indication on the RGT appear on Table 2.2.2.4.6.C.

Table 2.2.2.4.6.C Audible Indication (RGT)

EXT	Classification	Pattern and Symbol	Tone
KT/VP	COL RGT COL camp-on	1 s — CORGT — 3 s — Repeat	440/480 Hz
	ICM tone call ICM camp-on	1 s — ICMRGT — 3 s — Repeat	440 Hz
	COL callback	0.4 s, 0.4 s, 0.2 s — COCBT — Repeat	440/480 Hz
	ICM callback	0.4 s, 0.4 s, 0.2 s — ICMCBT — Repeat	440 Hz
	COL recall	0.1 s, 0.1 s — 7.5 s — CORCL — Repeat	440/480 Hz
	ICM recall	0.1 s, 0.1 s — 7.5 s — ICMRCL — Repeat	440 Hz
	ICM burst	0.8 s — VCB	440 Hz
	Intercept tone	0.2 s A, 0.3 s, 0.2 s B — IT	A: 620 Hz B: 440 Hz
SLT	COL RGT COL camp-on COL recall	0.4 s, 0.4 s, 0.2 s — CORGTS — 3 s — Repeat	Ringer
	ICM tone call ICM camp-on ICM hold recall ICM call-back	1 s — ICMRGTS — 3 s — Repeat	Ringer
ATTND	Recall	0.1 s, 0.1 s — 7.5 s — ATRCL — Repeat	Buzzer

Audible indications on the CPT appear on Table 2.2.2.4.6.D.

Table 2.2.2.4.6.D Audible Indications (CPT)

Classification and Symbol	Pattern	Service	Tone
ICM dial tone (DT)		ICM SLT	440 Hz
Ring-back tone (RBT)		COL ICM	440/480 Hz
Busy tone (BT)		COL ICM KT/VP SLT	480/620 Hz
Warning tone (WT)		KT/VP SLT	480/620 Hz
Confirmation tone (CT)		COL KT/VP SLT	440 Hz
Privacy release burst (PRB)		COL	440 Hz
Voice call burst (VCB)		ICM	440 Hz
Camp-on tone for SLT (COTS)		SLT	440 Hz
Transfer tone (TT)		COL ICM	440 Hz
Add-on tone (AOT)		COL ICM	440/480 Hz
Confirmation tone for ATTND (CTA)		ATTND	Buzzer
Busy Bypass Burst (BBB)		ICM	440 Hz

Audible indications on the CPT appear on Table 2.2.2.4.6.D.

Table 2.2.2.4.6.D Audible Indications (CPT)

Classification and Symbol	Pattern	Service	Tone
Optimized dial tone (DT)		KT/VP SLT	350/440 Hz
E&M dial tone (DT)		E&M	350/440 Hz

Contents of messages from the voice synthesizer appear on Table 2.2.2.4.6.E.

Table 2.2.2.4.6.E Voice Message from System

MSG No.	Item	Contents
1	Reminder	~~ [Reminder (Set Time) (Set Day)]
2	Absence message (Return time)	Station (EXT #) I'm out I'll return at [(Return Time)]
3	Absence message (Return day)	Station (EXT #) I'm out [I'll return (Return Day)]
4	Absence message (Lunch return time)	Station (EXT #) I'm out to lunch I'll return at [(Return Time)]
5	Absence message (Meeting return time)	Station (EXT #) I'm in a meeting I'll return at [(Return Time)]
6	Absence message (Telephone No.)	Station (EXT #) I'm out please call [(Telephone No.)]
7	Voice message waiting	Station (Calling EXT #) Please call back at [(Call Back Time)]
8	Night message (Telephone No.)	Hello we're closed today [for emergency please call (Telephone No.)]
9	Night message (Open day)	Hello we're closed today [We'll open (Return Day)]
10	Prompt 1	Enter password
11	Prompt 2	Enter class
12	Prompt 3	Enter data
13	Prompt 4	Enter number
14	Prompt 5	Enter item
15	Prompt 6	Illegal data
16	Prompt 7	Accepted

~ : burst tone
( ) : variable
[ ] : repeat

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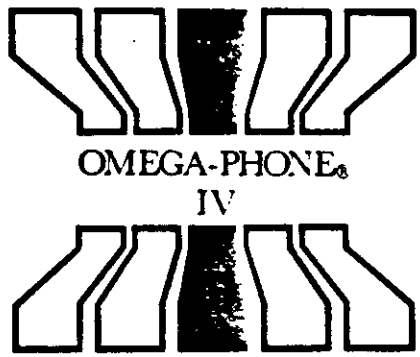


2.3 SYSTEM FEATURES AND THEIR OPERATIONS

Service features provided by the system are arranged in the alphabetical order and each of them is described in details. Programming functions are described in Section 2.4 EX-816/824/1648 Programming Functions.

List of EX-816/824/1648 Service Features

Feature	Package	Feature	Package
A. 1 Attendant		C. 1 Calculator	A
1. Attendant Call Priority		2 Call Abbreviation	
2. Attendant Dedicated ICM Line		3 Call Back Queuing	
3. Attendant DSS Calling		4 Call Forward	
4. Attendant Intercept		1. Call Foward	
5. Attendant Recall		2. Busy Call Forward	
6. Serial Call		5 Call Monitor	
7. Chain Call		6 Call Park	
8. Call Release		1. Call Park	
9. Through Dialing		2. Call Park Pickup	
10. Overflow Transfer		3. Call Park Split	
11. Dual Attendant		7 Call Pickup Group	
12. Trunk Forced Release		8 Camp On	
13. Station Forced Release		1. COL Camp On	
14 Call Forward Forced Release		2. ICM Camp On	
15. Busy Call Forward Forced Release		3. Camp On Pickup	
		4. Camp On Recall	
2 Automatic COL Release		9 Clock Adjustment	
3 Automatic ICM Termination		10 COL Selection	
4 Automatic Line Answer		11 Conference	
5 Automatic Trunk/Station Release		1. Add On Conference	
B. 1 Back Ground Music		2. Automatic Add On	
2 Busy Lamp Field		3. Conference Hold	

List of EX-816/824/1648 Service Features (con.)

Feature	Package	Feature	Package
C.1 4. Multi Line Conference		N.1 4. Universal Night Assign	
5. Trunk to Trunk Conference		5. Universal Night Assign Pick-Up	
6. Conference Camp On		O. 1 On-Hook Dialing	
D. 1 Direct Call Pickup		2 Optimized Call Routing	A
2 Direct COL Assignment		3 Optional Equipments	
3 Disconnect		1. Station Hard Hearing Handset/ Station Noise Cancelling Handset	
4 Display Mode Change		2. Head Set Adapter	
5 Do Not Disturb		3. External Station Loud Ringer	
1. Do Not Disturb		4. External Alarm Signal	
2. Do Not Disturb Forced Release		4 Outgoing Address Signal Outpulsing	
E. 1 Equal Access Dialing	A	5 Outgoing Restriction	
2 E&M Tie Line Service	B	6 Override	
F. 1 Flash (/Dial Tone Reorder)		1. Busy Override	
2 Flexible Key Assignment		2. Do Not Disturb Override	
3 Floating COL Group Access	A	3. Executive Override	
4 Follow Me		4. Call Waiting	
H. 1 Hands Free Stations		P. 1 Paging Call	
2 Holding		1. All Call with Meet Me	
1. Exclusive Hold		2. All Zone Call with Meet Me	
2. System Hold		3. All Group Call with Meet Me	
3. Consultation Hold		4. Zone Call with Meet Me	
4. Consultation Hold Recall		5. Group Call with Meet Me	
5. Automatic Hold		6. Attendant Paging Call with Meet Me	
6. Music On Hold		2 Pickup Restriction	
7. Hold Recall		3 Preselection	
8. Ring Back Tone On Hold		4 Prime Station	
I. 1 ICM Calling		5 Privacy	
1. Calling Mode Change		6 Private Line	
2. Establishment of ICM Calling Method		7 Programming	
2 ICM Path Termination		1. System Programming Terminal	
3 Incoming COL Calling		2. Dynamic Programming	
M. 1 Master Group Hunt Call		3. Programming COL Lines	
2 Meet Me		4. Programming from KT/VP	
3 Message	ΔB	Q. 1 Quick Mode Operation	
1. Absense Message	B	R. 1 Redialing	
2. Memo of Call		S. 1 SCDR	ΔA
3. Message Waiting		2 Secretarial Hot Line Termination	
4. Night Automatic Answering	B	3 Sender Time Out	
5. Reminder	B	4 Soft Ringer	
6. Voice Message Waiting	B	5 Speed Dialing	
4 Microphone Cut Off		6 Station Class of Service	
5 Multi Level Toll Restriction	A	7 Station Lock Out	
N. 1 Night Service		8 System Alarm Indications	
1. Switching Night Mode			
2. Night Relay			
3. Automatic Night Assign			

Feature	Package	Feature	Package
S. 9 System Initialization T. 1 Tenant Service		T. 2 Timed Trunk Queuing 3 Transfer	

Note: *A/B:* *Either package A or B is necessary.*
Balnk: *Standard feature.*
Δ: *Package is necessary depending on the feature.*

A

2.3.A.1 Attendant

The attendant console has many features that are not available from other stations.

- **Conditions**

Typical features of the attendant console is as shown below.

A.1.1 Attendant Call Priority
A.1.2 Attendant Dedicated ICM Line
A.1.3 Attendant DSS Calling
A.1.4 Attendant Intercept
A.1.5 Attendant Recall
A.1.6 Serial Call
A.1.7 Chain Call
A.1.8 Call Release
A.1.9 Through Dialing
A.1.10 Overflow Transfer
A.1.11 Dual Attendant
A.1.12 Trunk Forced Release
A.1.13 Station Forced Release
A.1.14 Call Foward Forced Release
A.1.15 Busy Call Foward Forced Release

(See Section 2.3.D.5.2 Do not Disturb Forced Release.)
(See Section 2.3.O.6.2 Do not Disturb Override.)
(See Section 2.3.O.6.1 Busy Override.)
(See Section 2.3.C.6.4 Call Waiting.)
(See Section 2.3.C.8 Camp On.)
(See Section 2.3.P.7 Programming.)
(See Section 2.3.C.11.2 Automatic Add On)
(See Section 2.3.N.1 Night Service.)
(See Section 2.3.P.1 Attendant Page Call with Meet Me.)
(See Section 2.3.S.6 Station Class of Service.)
(See Section 2.3.B.2 Busy Lamp Field.)
(See Section 2.3.C.9 Clock Adjustment.)
(See Section 2.3.C.6.2 Call Park Pickup.)

Refer to each paragraph for other features of the attendant console.

A

2.3.A.1.1 Attendant Call Priority

This function provides Attendants with call priority to make effective use of individual calls and Paging calls.

2.3.A.1.1.1 Attendant Call Override

An Attendant can call a station user being called on an ICM line by an ordinary station (other than an Attendant, or Executive KT/VP) user. When an Attendant call arrives, the former call is overridden and the calling party receives a Busy Tone. (See Section 2.3.O.6.4 Call Waiting.)

- **Conditions**

  - o A call from an Executive station or another Attendant cannot be overridden by the Attendant.
  - o When a call is overridden, an Interrupt Tone is applied to the called KT station instead of a Voice Call Burst.

2.3.A.1.1.2 Attendant Paging Override

An Attendant can originate a paging call even when a station user other than Attendant's is engaged in a paging call. In this case, the preceding paging call is stopped and a Busy Tone is connected to the caller.

- **Conditions**

  - o A paging call from an Attendant cannot be overridden by another Attendant in the same tenant.
  - o An overridden paging call is never reconnected.

2.3.A.1.1.3 Attendant Priority Call

A call from an Attendant rings in precedence to any other call.

- **Conditions**

  - o Except for the case that the called party has already received a call from another Attendant or an Executive station.
  - o An Attendant can call a Off-hook Signal Denied KT/VP even while off-hook.

A

2.3.A.1.2 Attendant Dedicated ICM Lines

This facility always assures the availability of an ICM Line for Attendant use.

- **Conditions**

  - o If an Attendant Dedicated ICM Line is idle when an Attendant originates an ICM call, the Attendant's station seizes the line.
  - o Stations other than Attendants' cannot seize the Attendant Dedicated ICM Lines to originate calls.
  - o A non-attendant station user can perform an Add-On Conference or a Transfer operation on an Attendant Dedicated ICM Line. (See Sections 2.3.C.11.1 Add On Conference and 2.3.T.3 Transfer.)

- **Programming**

  Line Specification Item 1 Line Class (ICM No.): 17 (ATTND Dedicated)

  If an station user other than the Attendant operates Dial Tone Reorder while conversing on the Attendant Dedicated ICM Line, the ICM call is disconnected and he may seize a new idle ICM. (See Section 2.3.F.1.2 Dial Tone Reorder.)

A

2.3.A.1.3 Attendant DSS Calling

Attendants can originate a DSS (Direct Station Select) call by depressing the DSS key associated with the desired station.

- **Conditions**

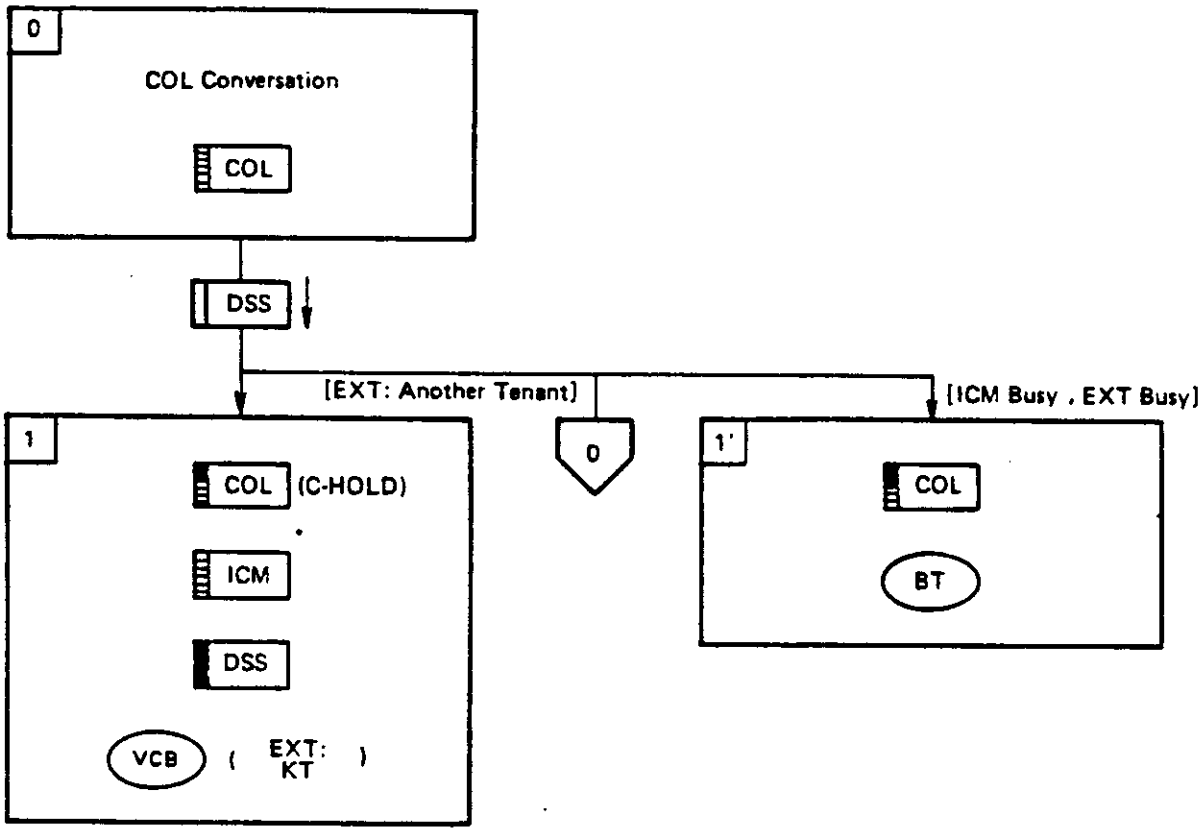
  - o If an Attendant extension is idle, the Attendant can directly originate a DSS call by depressing the DSS key on the Attendant Console.
  - o If the Attendant depresses the DSS key while conversing on an ICM line or calling on ICM, the ICM is disconnected and a new ICM call is initiated.
  - o If the Attendant depresses the DSS key while conversing on a COL, the COL is automatically placed on Consultation Hold and a new ICM call is initiated. (See Section 2.3.H.2.5 Automatic Hold.)
  - o If the Attendant depresses the DSS key while participating in a COL conference, the COL is automatically placed on Conference Hold and a new ICM call is initiated. (See Section 2.3.H.2.5 Automatic Hold.)
  - o A DSS call during Multi-line Conference is ignored.
  - o If the Attendant depresses the DSS key while conversing on a COL line that is placed on Conference Hold, the depression is ignored. (See Section 2.3.C.11.3 Conference Hold.)

- **Operation Guide**

  (Off-hook or SPKR on) [DSS]

A

■ Operation Flow



A

2.3.A.1.4 Attendant Intercept

Various Attendant Intercept features are provided for COL and E&M Tie Line. For calls that cannot be completed under a certain condition, automatic routing takes place to the attendant.

2.3.A.1.4.1 COL Attendant Intercept

The Attendant Intercept feature is provided for COLs.

- **Conditions**
  - o Attendant intercept occurs when a COL incoming call rings for a certain time (10 to 255 seconds).
  - o Attendant intercept occurs when all stations called on the COL incoming call are busy.
  - o Attendant Intercept terminates on the Recall key. (See Section 2.3.A.1.5 Attendant Recall.)
  - o Attendant Intercept does not occur in the Night Mode.
  - o Attendant Intercept does not occur on an Attendant Pickup Restricted COL.
  - o Attendant Intercept does not occur when there is no Attendant.
  - o This feature is allowed to be preprogrammed on each COL basis.
- **Programming**
  - o Line Specification Item 10

    COL Attendant Intercept (CO NO.)

    0: Not Assigned
    1: Assigned

  - o Station Class of Service Item 25

    Pickup Restriction (EXT NO.)

    Each CO — Lit: No Function
    Blink: Pickup Restriction

  - o System Constants Item 8

    Attendant Intercept (no Answer)
    10 to 255 seconds

A

2.3.A.1.4.2 E&M Attendant Intercept

The Attendant Intercept feature is provided for E&M Tie Lines.

- **Conditions**

  - o Attendant Intercept occurs when a station user does not answer a call thru E&M Tie Line for a certain time. (10 to 255 seconds).
  - o Attendant intercept occurs when a call thru E&M tie line accesses busy station.
  - o Attendant Intercept occurs if the COL group is busy or pickup restricted when the E&M accesses COL Group.
  - o This feature is allowed to be preprogrammed on each E&M tie line basis. (See Section 2.3.A.1.4.1 COL Attendant Intercept.)
  - o Attendant Intercept terminates on the Recall key. (See Section 2.3.A.1.5 Attendant Recall)
  - o Attendant Intercept does not occur in the Night Mode.
  - o Attendant Intercept does not occur when there is no Attendant.

A

2.3.A.1.5 Attendant Recall

This facility automatically alerts the Attendant after a prescribed period of time. A camped-on call, a COL held call, or an unanswered COL incoming call is terminated on the Attendant recall key (RCL) under this condition.
A COL intercepted by the attendant is also terminated on the RCL.

- **Conditions**
  - o The RCL key lamp on the Attendant Console flashes in the I-USE pattern during Attendant Recall.
  - o Hold Recalls to and from the Attendant are terminated as Attendant Recalls.
  - o If no Attendant is connected, an Attendant Recall other than the Attendant Intercept terminates on the Prime Station as a COL Recall. (See Section 2.3.P.4 Prime Station.)
- **Programming**
  - o System Constants Item 4, Hold Recall Timeout (1 to 255 seconds)
  - o System Constants Item 5, Camp On Timeout (1 to 255 seconds)
  - o System Constants Item 8, Attendant Intercept (10 to 255 seconds)

2.3.A.1.5.1 Attendant Recall Pickup

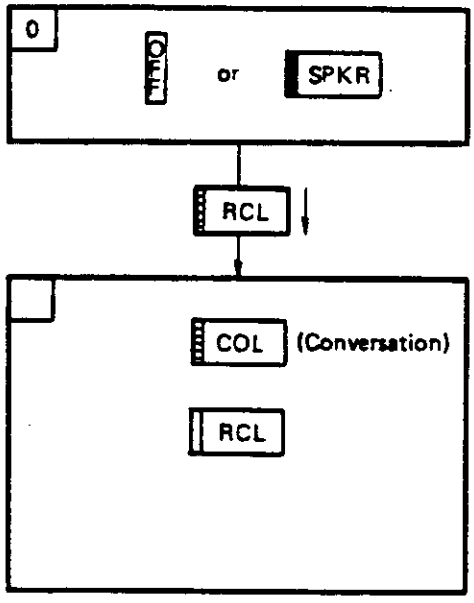
An Attendant can pick up an Attendant Recall by depressing the RCL key on the Attendant Console.

- **Conditions**
  - o If Attendant has two or more Attendant Recalls, he picks up recalls on a first-come-first-answered basis.
  - o If Attendant performs this operation while conversing on a CO or ICM line, the conversing call is automatically disconnected and the recall is answered.
  - o When Attendant picks up the recall the Hold EXT No. or Camp On called EXT No. is displayed on the Attendant display.
- **Operation Guide**

  (Off-hook or SPKR) on) [RCL]

A

■ Operation Flow



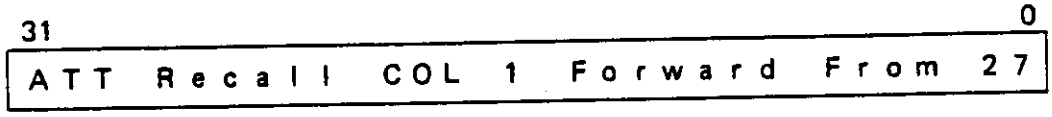
(nn: Hold EXT number of Camp-On called EXT No.)

A

■ Conditions

o When the Attendant answers the Attendant Recall, the following contents are displayed on the Attendant display.

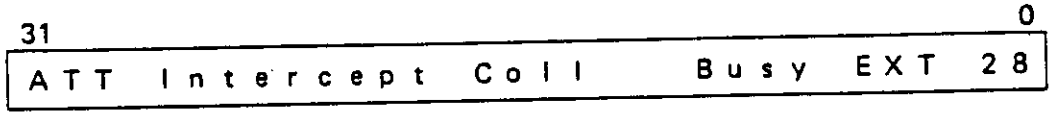
1. When a call is answered after a COL Hold Recall or COL Camp On Recall continues for a preprogrammed period of time.



2. COL Attendant Intercept.

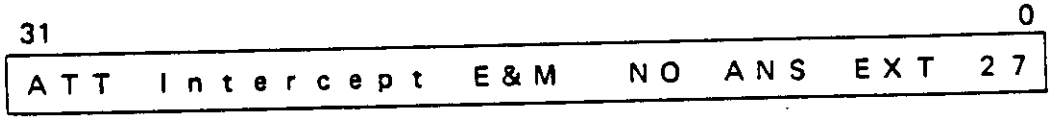
o When Attendant answers a COL incoming call which is not answered for a certain time.

o When a call is answered which all the station called on a COL incoming call are busy.

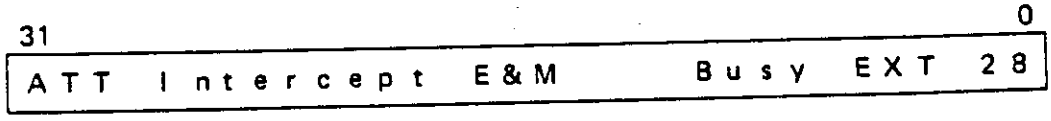


3. E&M Attendant Intercept

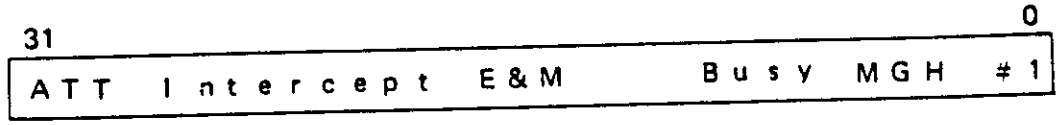
o When a call is answered which a station user does not answer a call thru the E&M tie line for a certain time.



o When a call is answered which a Station called thru the E&M tie line is busy.



o When a call is answered which the Mastor Hunt Group accessed from E&M tie line is busy.



A

o When a call is answered which the COL Group Accessed thru the E&M tie line is busy.

31																0
A	T	T		I	n	t	e	r	c	e	p	t		E	&	M				B	u	s	y		C	O	G	#		1

o When a call is answered which the COL Group accessed from the E&M tie line is restricted.

31																0
A	T	T		I	n	t	e	r	c	e	p	t		E	&	M				D	e	n	y		C	O	G	#		2

o In the KF version, however, a COL No is displayed in place of a COL Group No.

2.3.A.1.6 Serial Call

Once a serial call is set by an Attendant, the call returns to the Attendant after it is disconnected by a transferred station.

- **Conditions**

  - o Under serial call condition, the COL is kept held after the transferred call is disconnected by a station and an Attendant Recall rings.
  - o RBT is sent to the COL during Attendant Recall.
  - o Even though Serial Call is set, COL is disconnected and Attendant Recall is canceled when a disconnect signal from the COL is detected.

- **Operation Guide**

  (COL Conversation) [SER] + Transfer Operation (See Section 2.3.T.3 Transfer.)

A

2.3.A.1.7 Chain Call

When an Attendant depresses the DSS, ALL, ZONEn, GRPn, ALL ZONE, or ALL GRP key while ICM calling, the call is interrupted and a new call is automatically initiated.

- **Conditions**
  - o WT is accessed if Attendant depresses one of these keys corresponding to another tenant's station or an uninstalled station.
  - o This feature is available during BT or WT connection.
- **Operation Guide**

(ICM Calling) [DSS] ([ALL], [ZONEn], [GRPn], [ALL ZONE], [ALL GRP])

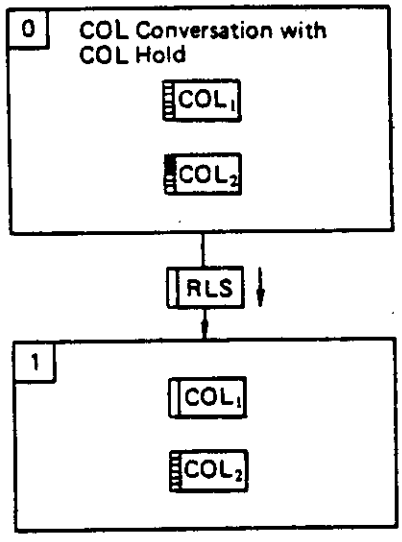
A

2.3.A.1.8 Call Release

While conversing on a COL/ICM call or being idle, this feature allows an Attendant to return automatically to the newest held COL call except Call Park.

- **Conditions**
  - o When conversing on a COL/ICM line, the call is automatically disconnected.
  - o If there is no held COL call, an ICM held call may be answered.
- **Operation Guide**

  (Off-hook or SPKR on) [RLS]
- **Operation Flow**



A

2.3.A.1.9 Through Dialing

When station users desire or are required to use Attendant assistance in the completion of outgoing Central Office calls, this feature allows the attendant to select the trunk facility and Pass to the station user so that he may directly dial the call.

- **Conditions**

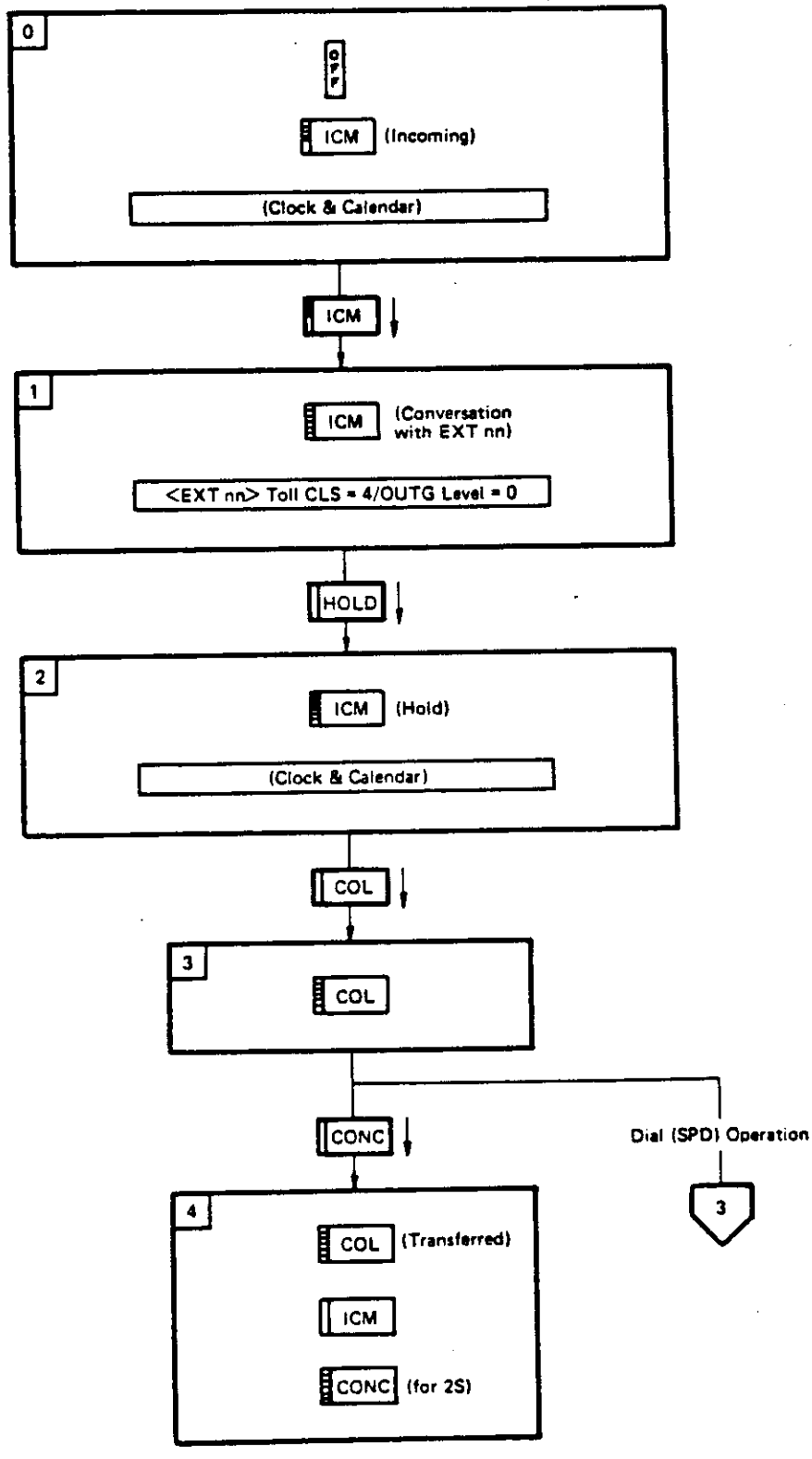
  - o An Attendant can choose whether to transfer the COL immediately after seizing it or to transfer it after dial out.
  - o Outgoing level and class-of-restriction of the station are displayed on the Attendant display before the operation is completed.
  - o Even if the COL is transferred by Through Dialing facility, the dials are subject to Toll Restriction when the transferred station user originates outgoing dials.
  - o Impossible after ICM hold time out.

- **Operation Guide**

(ATTND ICM Called) answer + $\frac{\boxed{\text{HOLD}}}{\boxed{\text{DND}}}$ + [COL] + (dial) + [CONC]

A

- Operation Flow



A

2.3.A.1.10 Overflow Transfer

This feature enables the Attendant to transfer the surplus incoming calls automatically when the Attendant has many incoming calls or held calls.

- **Conditions**

  - o To activate this feature, the threshold number of held or incoming calls and the destination station number should be specified in the system data.
  - o Camped-on calls are not included in the count.
  - o Attendant Recall, Consultation Hold Recall, and COL/ICM Callback are not transferred.
  - o The threshold number and the destination number are programmed for each Attendant.

- **Programming**

  System Constants Item 11, Overflow Transfer Minimum (Attendant 1 or 2)
  3 to 9 (lines)

  System Constants Item 12, Overflow Transfer Station (Attendant 1 or 2)
  EXT No. (destination)

A

2.3.A.1.11 Dual Attendant

Up to two Attendants can be connected to one system and they can work independently and simultaneously.

- **Conditions**

  - o A KT/VP with an DSS console works as an Attendant.
  - o If there is only one Attendant in a tenant, the Operator No. is '0'.
  - o If there are two Attendants within the same tenant, operator numbers '01' and '02' are assigned to the respective Attendants.
  - o Each Attendant can be used as a programming terminal non-simultaneously.
  - o No Attendant can be used as a programming terminal when remote programming is performed with the PC.

- **Programming**

  System Constants Item 19 Attendant EXT Assignment (Attendant 1 or 2).
  EXT NO (destination)

A

2.3.A.1.12 Trunk Forced Release

This feature allows an Attendant to display each COL or ICM trunk status on its display or to release the trunks.

- **Conditions**

  - o Valid only for trunks assigned to the same tenant as Attendant.
  - o This feature is allowed only when the ATTND KT/VP is off-hook.
  - o The status of trunks is classified as follows:
    - i) Trunk Idle: Idle
    - ii) Trunk Busy: Incoming, conversing or held
    - iii) Trunk Released: Forced Released
    - iv) No Trunk: Not Installed
  - o If the trunk is busy, the conversing station number is also displayed.
  - o While a trunk is released, all resources connected to the trunk are kept idle and the trunk becomes unavailable.
  - o An ICM call during Consultation hold cannot be released.
  - o A released trunk becomes available when the connect operation is done, to depress the connect key (CONC), after trunk selection.
  - o When the Attendant depresses the TRL key, the BLF indications are interrupted and the status of each trunk is displayed with lamps. A trunk is specified by depressing the corresponding key. (See Section 2.2.3.1.1 KT/VP Key Lamp.)
  - o When the Night Automatic Answering is registered, the following message is displayed on the Attendant Display.

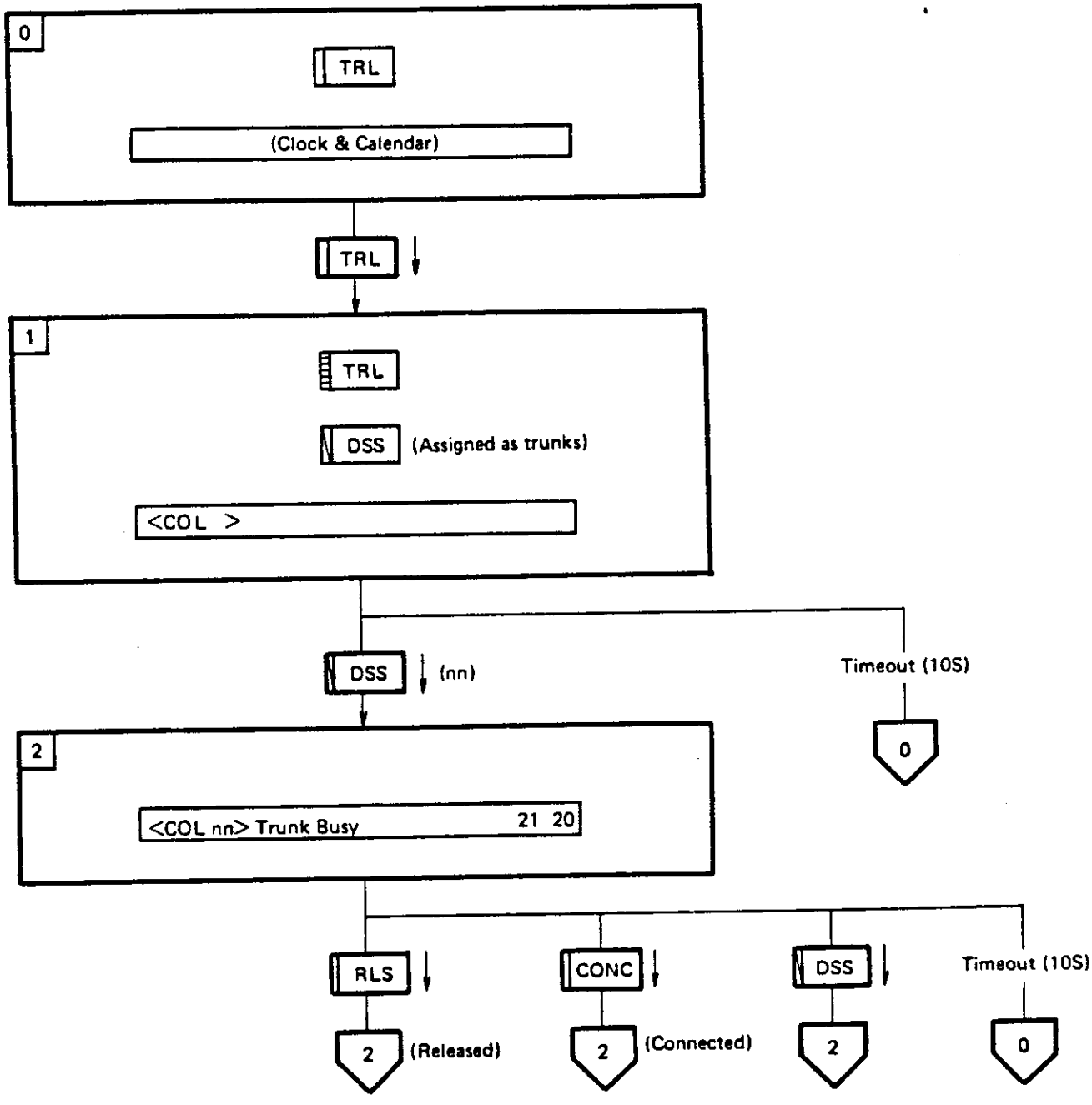
< C O L 1 2 > T r u n k I d l e M S G

This display indicates that the Night Automatic Answering is registered.

- **Operation Guide**

(ATTND KT/VP Off-hook) [TRL] + [DSS] + [RLS] ([CONC])

- **Operation Flow**



A

2.3.A.1.13 Station Forced Release

This feature allows an Attendant to display each station status on its display or to release stations.

- **Conditions**

  - o Valid only for extensions assigned to the same tenant as Attendant.
  - o This feature is valid only when the ATTND KT/VP is off-hook.
  - o Extensions accommodated in the self attendant or Attendant 1 are not placed on Station Forced Release.
  - o Station status is classified as follows:
    - i) Station Busy: COL/ICM conversing
    - ii) Station Idle: Idle
    - iii) Lock Out: During station lockout
    - iv) Released: Forced released
    - v) No Station: Not installed
  - o An extension that is forced released cannot be used until restored by the Attendant.
  - o An station that is forced released is indicated on the busy lamp field. (See Section 2.3.B.2 Busy Lamp Field.)
  - o If an station that is originating a COL/ICM call or is receiving a call is forced released, the following is performed:
    - i) COL Originating/conversing: COL is disconnected
    - ii) COL Conference: COL changes to conversing/Conference
    - iii) Trunk-to-Trunk operation EXT: changes to Attendant Recall
    - iv) COL Hold operating station: changes to Attendant Recall
    - v) COL Conference Hold operating station: COL changes to conversing/Conference
    - vi) COL Recall called station: changes to Attendant Recall
    - vii) COL Callback called station: Callback terminates
    - viii) COL RGT called station: Ringing continues.

A

ix) ICM Originating/Conversing: ICM is disconnected

x) ICM Conference: ICM changes to conversing/Conference

xi) ICM Hold operating station: ICM is disconnected

xii) Consultation Hold operating station: ICM is disconnected

xiii) ICM Hold Recall called station: : Ringing continues.

xiv) ICM Callback called station: Ringing continues.

xv) ICM Voice/Tone called station: Ringing continues.

xvi) Master Group Hunt called station: Ringing continues.

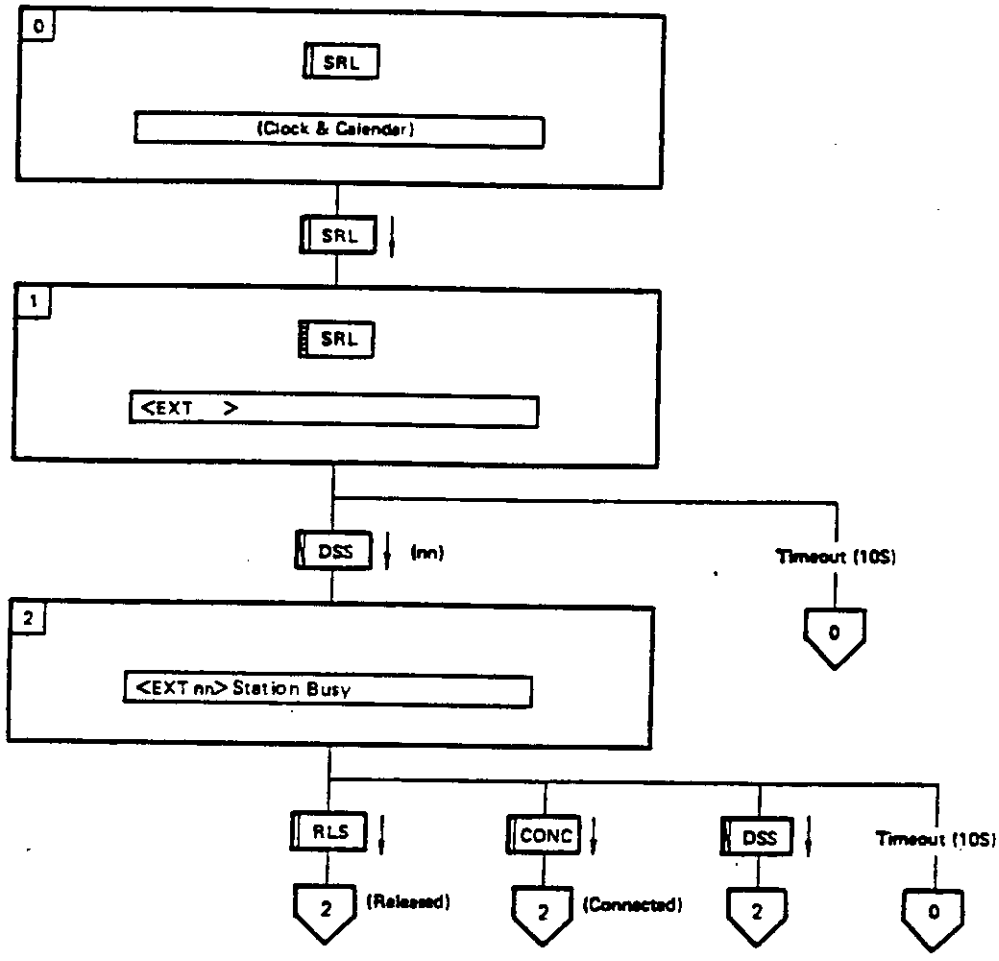
xvii) (All) Group Call called station: Ringing continues.
(See Section 2.3.S.7 Station Lock Out.)

- **Operation Guide**

(ATTND KT/VP Off-hook) [SRL] + [DSS] + [RLS] ([CONC])

A

- **Operation Flow**



2.3.A.1.14 Call Forward Forced Release

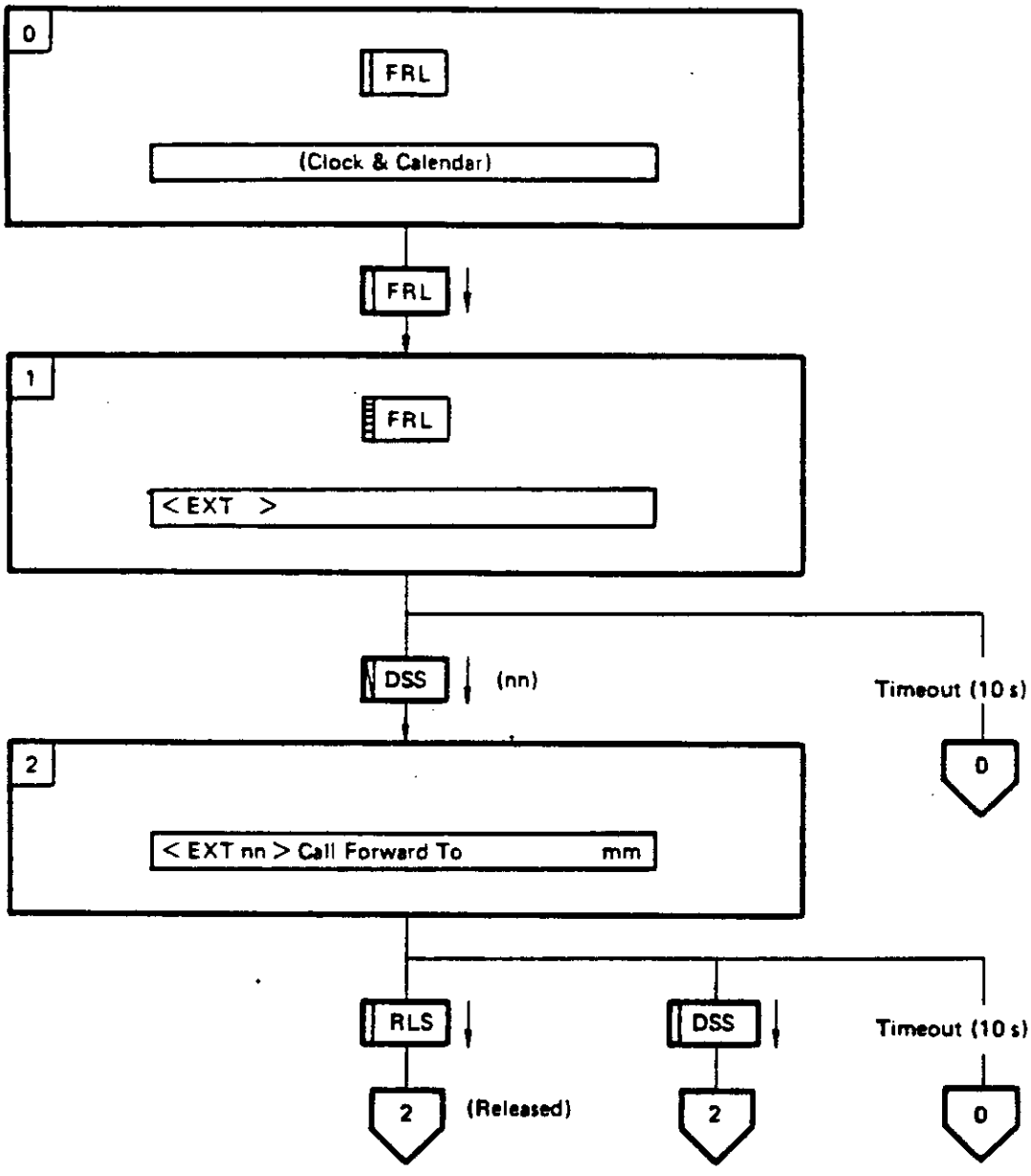
The Attendant can display the Call Forward/Busy Call Forward and DND status of each station on the Attendant display and can cancel them.

- **Conditions**
  - o This feature is permitted when the Attendant KT/VP is Off-hook.
  - o Call Forward (Busy Call Forward) is not displayed unless being activated.
  - o If Call Forward (Busy Call Forward) and DND are in operation at the same time, they are canceled simultaneously.
  - o An extension is specified with a DSS key on the Attendant console.
  - o Valid only for stations of the same tenant as Attendant
- **Operation Guide**

  (ATTND KT/VP Off-hook) [FRL] + [DSS] + [RLS]

A

■ Operation Flow



A

2.3.A.1.15 Busy Call Forward Release

This feature allows the Attendant to display Busy Call Forward status of each station on the Attendant display and to cancel Busy Call Forward. (See Section 2.3.A.1.14 Call Forward Forced Release.)

A

2.3.A.2 Automatic COL Release (From COL)

This Feature provides disconnection of COL conversation by a disconnect signal from the COL.

- **Conditions**

  - o Feature is permitted only when a station user is engaged in a COL conversation. If a call is being originated, the disconnect signal can be detected but is ignored until Sender Timeout.

  - o During a Trunk to Trunk Conference, if the disconnect signal from either COL is detected, both COLs are immediately disconnected.

  - o The length of the Disconnect Signal can be selected independently for each COL among from 90 ms, 150 ms, 500 ms, 600 ms, and 1.5 s. Only those Disconnect Signals exceeding the selected length are detected. (See Section 3.6.2.4.2.2 CTRK-M.)

  - o Disconnect signals are valid when detected from COLs which are programmed as disconnect signal enable.

- **Programming**

  Line Specification Item 9 Disconnect signal (COL No.): 1 (enable)
  0 (disable)

A

2.3.A.3 Automatic ICM Termination

This feature allows a KT/VP user to assign DSS key for Stations, Master Group Hunt, or Paging by Flexible Key Assignment. A KT/VP user is permitted to initiate ICM calls only by depressing the assigned key.

- **Condition**

  Refer to Section 2.3.F.2 for Flexible Key Assignment.

  - o When this operation is made while conversing on a COL, the COL is automatically placed on Exclusive Hold, the TRN key lamp indicates I-USE, and an ICM call is initiated (when a station or Master Group Hunt is specified.)
  - o When a key on which Paging is assigned is depressed while conversing on a COL, the COL is automatically placed on System Hold.
  - o When this operation is made while conversing on an ICM, the ICM is disconnected and a new call is initiated.
  - o If ICM busy BT (busy tone) is connected.
  - o The Automatic ICM key can be used for Preselection (for stations only).
  - o An incoming call from a station predetermined as a destination of an Automatic ICM Termination is indicated on the Automatic ICM key lamp. In this case, the incoming call can be answered by depressing the Automatic ICM key (for stations only).
  - o A busy indication is made on the Automatic ICM key lamp when the station predetermined as a destination of Automatic ICM Termination is off-hook (for stations only). (See Section 2.3.A.3.1 Key Lamp.)

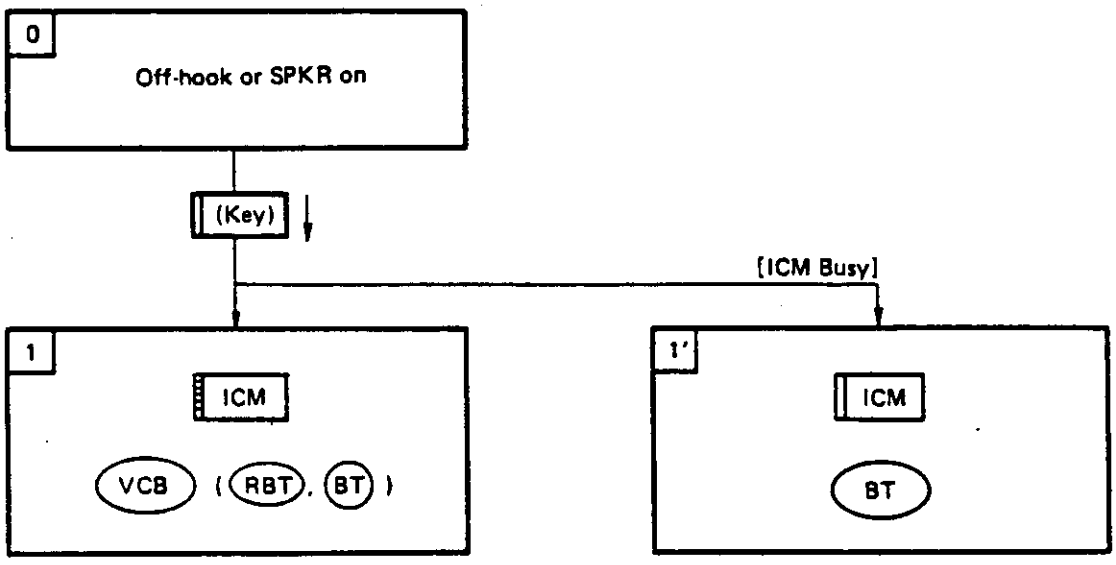
- **Programming**

  Station Class of Service Item 26: KT Key Assignment (EXT. No. – Key No.)

- **Operation Guide**

  (Off-Hook or SPKR on) [(Key)]↓

- **Operation Flow**



A

2.3.A.3.1 Key Lamp

A key lamp which assigned as an automatic ICM key indicates the status of destination station.

- **Conditions**
  - o Status of off-hook or speaker on is indicated as busy; any other status is indicated as idle.
  - o A call from destination station of an automatic ICM is indicated on the automatic ICM key lamp.

A

2.3.A.4 Automatic Line Answer

This feature provides a KT/VP user with automatic response by lifting the handset or depressing the SPKR key.

- **Condition**

  - o COL auto-answer deny and/or ICM auto-answer deny may be programmed for each station.
  - o If two or more incoming calls can be automatically answered at the same time, the priority order of audible indications is applied. If they are the same in priority order, they are answered on a first-come-first-answered basis.
  - o Paging calls are excepted.

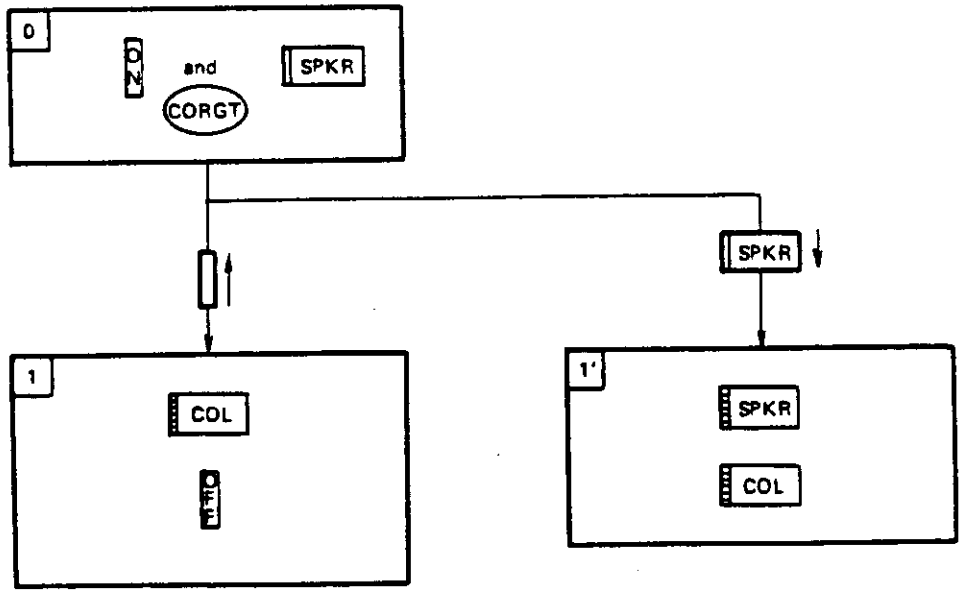
- **Programming**

Station Class-of-Service	Item 15	CO Auto-Answer Deny	
		Each EXT	{allow (lit) / deny (blink)}
	Item 16	ICM Auto-Answer Deny	
		Each EXT	{allow (lit) / deny (blink)}

- **Operation Guide**

  (On-hook and SPKR off) [ ] ↑ ([SPKR] ↓)

- **Operation Flow**



A

2.3.A.5 Automatic Trunk/Station Release

System resources, such as trunks and stations, are automatically released upon timeout to facilitate effective use.

2.3.A.5.1 Permanent Signal Timeout

If a station user does not dial for 10 seconds after seizing ICM line, the line is released and a warning tone is connected to the station.

2.3.A.5.2 Partial Dial Timeout (COL)

If a station user does not dial for 10 seconds after seizing COL, the outgoing address signals are regarded as being finished and the system dial sender, if connected, is disconnected.

- **Conditions**

  - o The system dial sender is not used when a DTMF-SLT sends address signals to a DTMF COL.

2.3.A.5.3 Partial Dial Timeout (ICM)

If a station user inputs the first digit of a dial number after seizing an ICM line and does not input the next digit within 10 seconds, the ICM is released and a Warning Tone is connected to the station.

- **Conditions**

  - o If the first digit of the number dialed is invalid, a Warning Tone is immediately connected.

2.3.A.5.4 Partial Dial Timeout (Registration/Cancellation)

In registering or canceling features, operating intervals of input keys or dial must be less than 10 seconds. Registration or cancellation operation is complete in some cases, or invalid in others, upon timeout.

- **Conditions**

  - o For details, refer to the pertinent sections.

A

2.3.A.5.5 Overall Timeout

Registration or cancellation of a feature must be completed within a specific time. Upon timeout, the operation is complete in some cases or invalid in others.

- **Conditions**

  - o The maximum time allowed for operating input keys and dial is as follows:

Up to three digits:	10 seconds
Four to eight digits:	20 seconds
Nine digits or more:	30 seconds

  - o For details, refer to the pertinent sections.

2.3.A.5.6 CPT Timeout

A Warning Tone or Busy Tone connected to a station continues for 10 seconds.

- **Conditions**

  - o If a station that is calling a station is overridden or if an Attendant that is calling on an ICM line finds the called party busy, a Busy Tone is connected without time limits. The former case the station may return to the call and the later case the Attendant may use busy override facility. (See Section 2.3.O.6.1 Busy Override.)

2.3.B.1 Background Music

2.3.B.1.1 BGM From KT/VP

B

Background music can be heard through the speaker of KT/VP while no other audible indication exists.

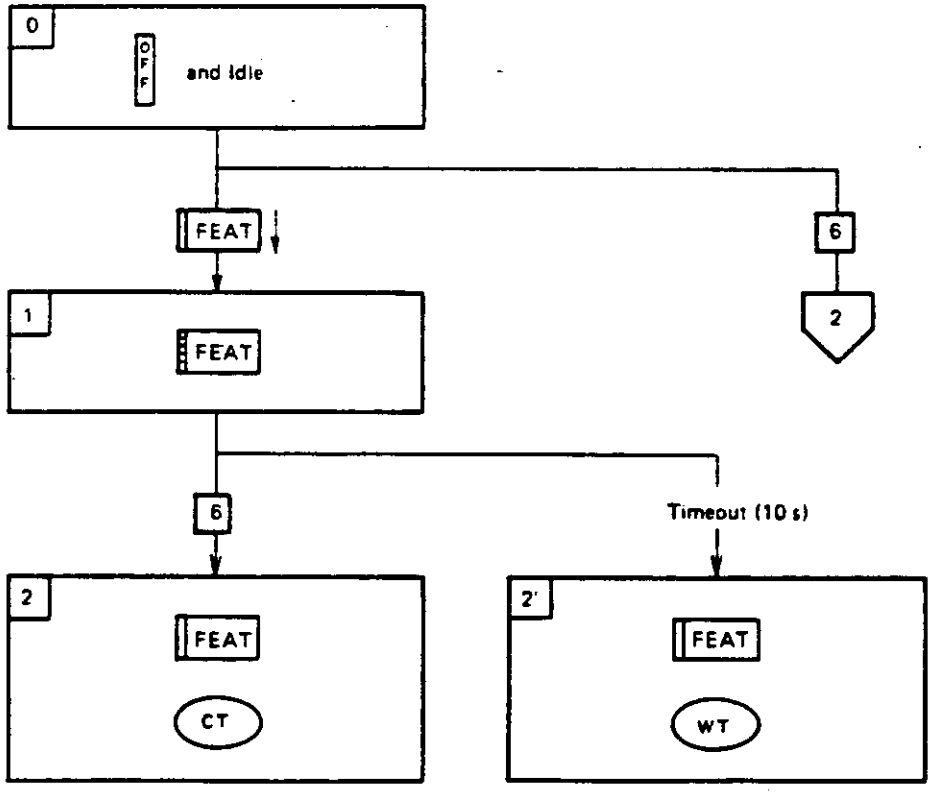
- **Conditions**
  - o A KT/VP user is allowed to change BGM on/off.
  - o The BGM is disconnected when the handset is lifted or the SPKR key is on.
  - o Source of background music needs to be connected to the system. (See Section 3.4.6, Installation of External Devices.)

2.3.B.1.1.1 BGM On

- **Operation Guide**

  (Off-hook and Idle) ([FEAT]) + [6]

- **Operation Flow**

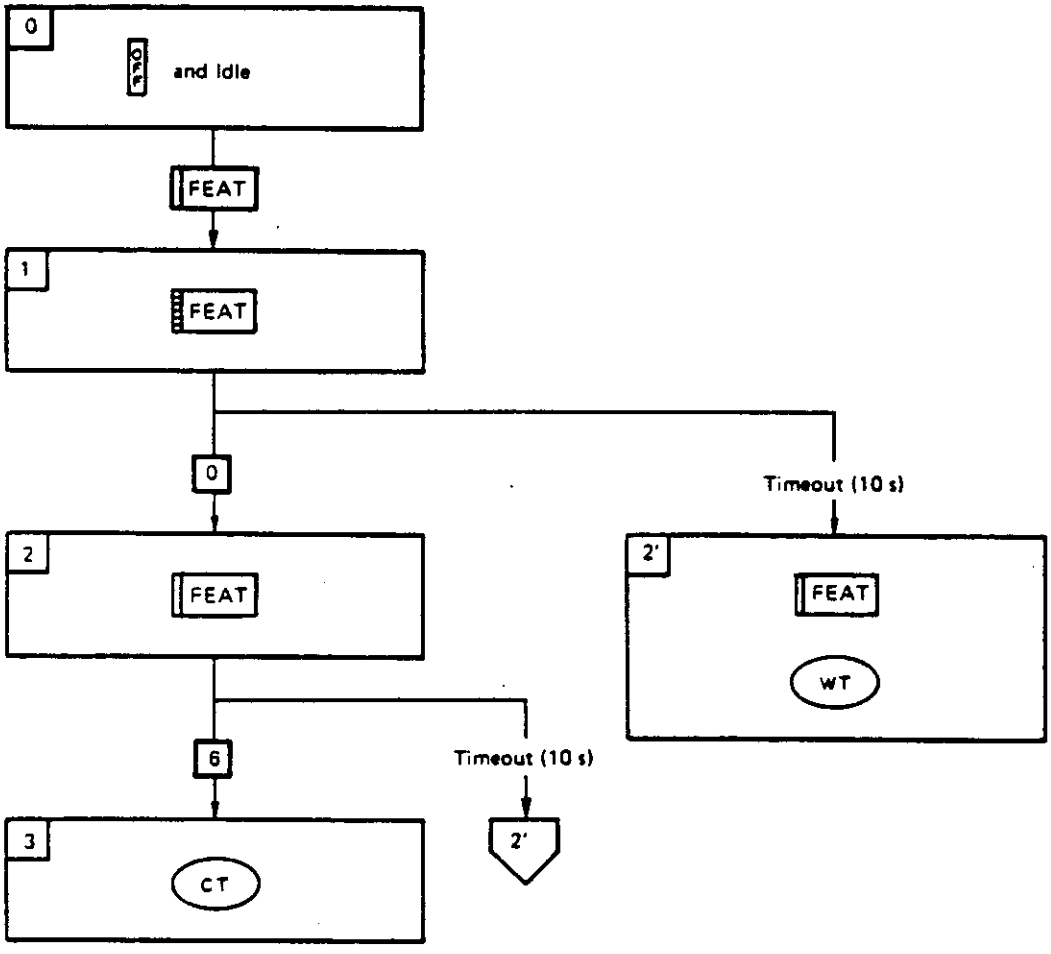


2.3.B.1.1.2 BGM Off

- **Operation Guide**

  (Off-hook and Idle) FEAT + 0 + 6

- **Operation Flow**



2.3.B.1.2 BGM From Zone Speaker

While zone speakers are idle, Background Music may be heard thru them.

- **Conditions**

  o Set BGM on/off with Strapping Jack (See Sections 3.4.6.7 to 3.4.6.9 on instructions for external devices.)

  o Background Music Source and Amplifier are required.

2.3.B.2 Busy Lamp Field

2.3.B.2.1 Attendant Busy Lamp Field

B

An Attendant has 48 busy lamps on DSS console.

- **Conditions**
  - o DSS key lamps on the DSS-M/N indicate as a Busy Lamp Field unless performing Trunk Forced Release or Programming Terminal features.
  - o See Table 2.2.3.1.3 for type and content of BLF indication.
  - o The No. in Table 2.2.3.1.3 shows the indication priority (1 to 6) of indication.
  - o State of stations of the same tenant as the Attendant can be indicated on the BLF.

2.3.B.2.2 Busy Lamp Field Unit

In addition to an Attendant BLF, up to two Ex-Busy Lamp Field Unit-Ms can be connected to the system. (See Section 3.11.2 BLF-M Installation.)

- **Conditions**
  - o They have 12 DSS lamps which indicate the same information as those on ATTND1 or ATTND2.
  - o These 12 lamps can be assigned freely to any station.
  - o Up to 2 BLF-Ms may be connected as a subset of ATTND1 and of ATTND2, so up to 4 BLF-Ms connected in total.
  - o When the Attendant is used as Programming Terminal, all lamps on BLF-M blink out in pattern No. 8 (Programming) (Table 2.2.3.1).

2.3.C.1 Calculator

This feature is available only for a key telephone with display.

- **Conditions**

  - o While calculating line keys are changed to function keys.
  - o A station user may calculate while conversing on any call.
  - o In the calculation mode, the CALC key and HOLD/DND key indicate I-USE.
  - o The CALC key should be assigned to a key that is not used in the calculation mode. (See Section 2.3.C.1.2.)
  - o Arithmetic operation keys are fixed.
  - o A number with up to 8 digits can be entered. Exceeding digits are ignored.
  - o An exponent in the range of –99 to +99 can be entered.
  - o If result exceeding the limit ($\pm 9.9999999 \times 10^{+99}$), an Error character ("E") is displayed. In this case, depress the All Clear key and another calculation starts.

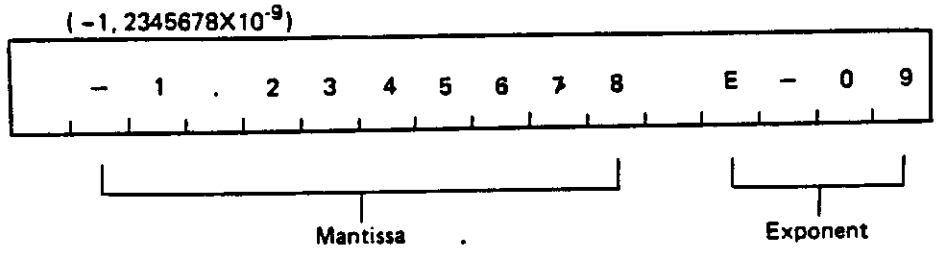
- **Operation**

  [FEAT] + [HOLD/DND] or [CALC]

  Follow the same procedure to exit from the Calculation mode.

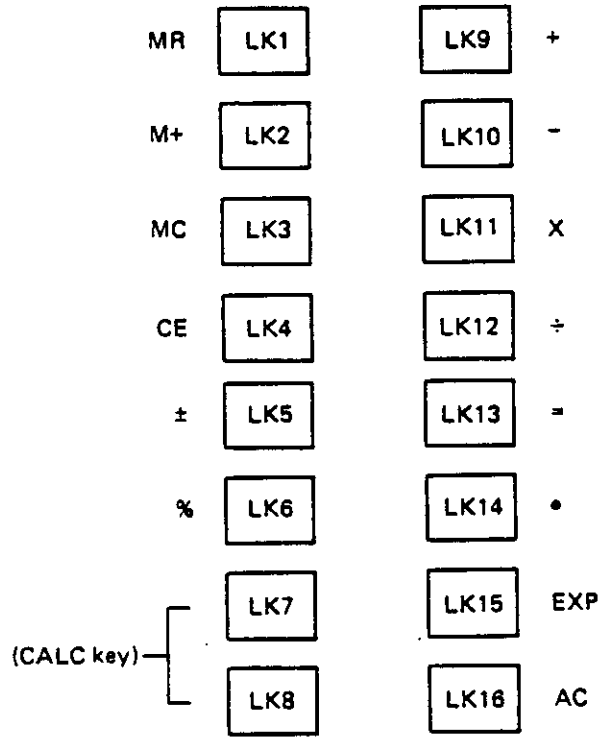
2.3.C.1.1 Display

The process and result of a calculation is displayed on the KT display. A display example is shown in the following.



2.3.C.1.2 Keys

The key arrangement is shown in the following.
(CALC key positions)



2.3.C.1.3 Input Keys

[0] ~ [9] Ten Keys

[+] [−] [X] [÷] [=] [.] Arithmetic Operation Keys, Equal Key, 0-Point Key

C

[EXP]	Exponent	Used for entering a value as an exponent.
[AC]	All Clear	Clears all entries except the contents in the memory.
[MR]	Memory Recall	Load the contents of the memory.
[M+]	Memory +	Add some value to the memory. ("m" is displayed when a value except 0 is stored.)
[MC]	Memory Clear	Clears the contents of the memory.
[CE]	Clear Entry	Clears the immediately preceding entry. Used for correction or deletion of a value that has been entered by mistake.
[±]	Sign Reversing	Used for entering a negative value (including exponents)
[%]	Percent	Used in together with arithmetic operation keys for calculation of ratio, premium, reduction, or change ratio.

2.3.C.1.4 Calculation Example

o $12.3 - 45.6 + 78 \times 10^2 =$

12.3 [−] 45.6 [+] 78 [EXP] 2 [=]

o $12 \div (-3) + 45 =$

12 [÷] 3 [±] [+] 45 [=]

o $2 \times 3 =$
$+) \underline{4 \div 5 =}$
total

2 [x] 3 [=] [M+] 4 [÷] 5 [=] [M+] [MR]

o $2 + 2 + 3 + (6 \times 3) + (5 \div 4) =$

2 [M+] [M+] 3 [M+] 6 [x] 3 [M+] 5 [÷] 4 [M+] [MR]

o What percentage is 20 of 50?

$\frac{20}{50} \times 100 =$ 20 [÷] 50 [%]

o What value is 17% of 1500?

$1500 \times \frac{17}{100} =$ 1500 [x] 17 [%]

o What percentage is the sum of 85 and 20 of 85?

$\frac{85 + 20}{85} \times 100 =$ 20 [+] 85 [%]

o By what percentage is 46 larger than 40?

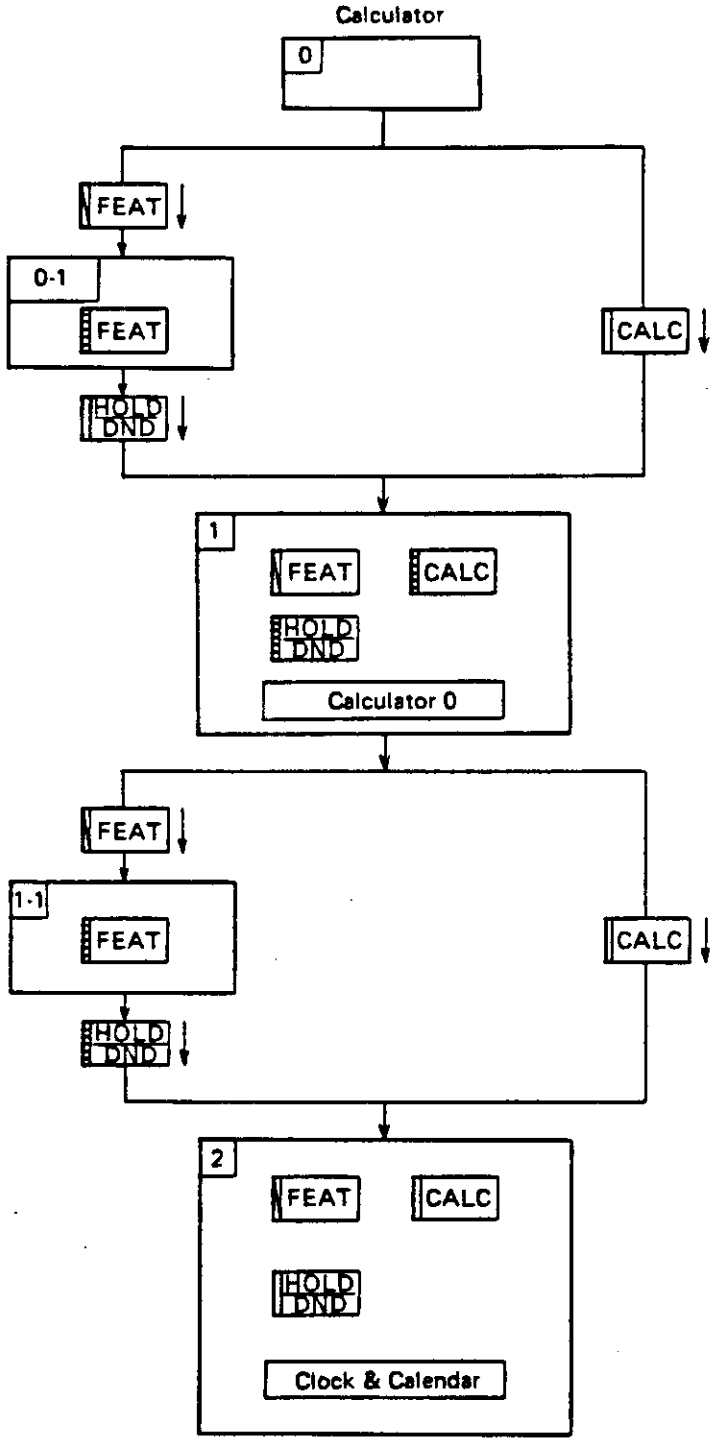
$\frac{46 - 40}{40} \times 100 =$ 46 [−] 40 [%]

o By what percentage is 55 smaller than 63?

$\frac{55 - 63}{63} \times 100 =$ 55 [−] 63 [%]

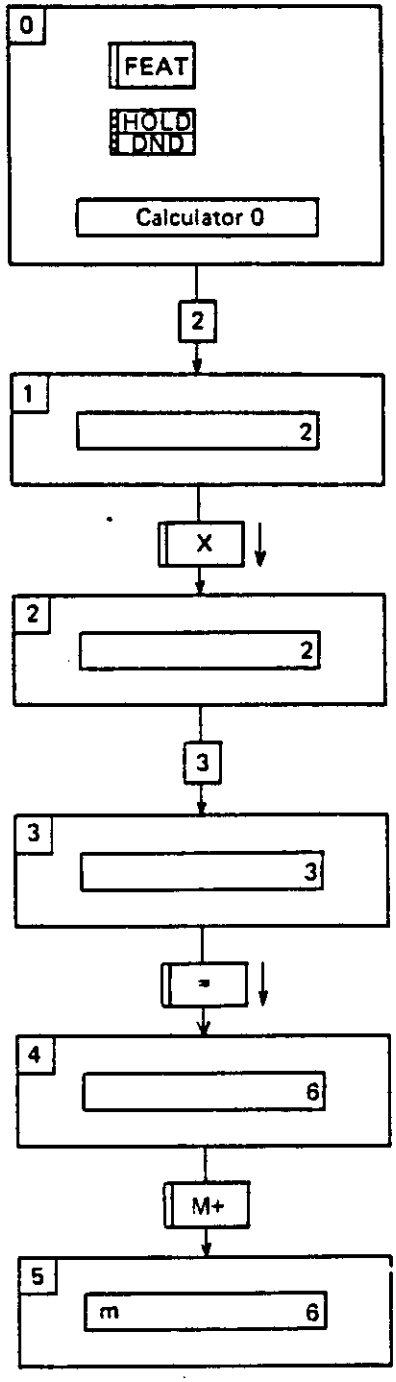
C

■ Operation Flow



- Operation Flow

Calculator Operation Sample 2 x 3 = 6 Memory In



2.3.C.2 Call Abbreviation (Abbreviated Ringing)

Ringing is abbreviated in some kind of call when the called KT/VP is busy.

- **Conditions**

  - o This feature is applied to COL Recall, COL Callback, COL Camp On, ICM Hold Recall, and ICM Callback.
  - o Busy condition is defined as the receiver being off-hook or the speaker being on.
  - o The system gives only a single audible ring of short duration at the called station.
  - o An Abbreviated Ringing returns to normal when KT/VP becomes idle.
  - o When there is an abbreviated call (A) and an unabbreviated call (B), and the priority of A is higher than B, then A is rung the usual pattern, but while KT/VP is busy, A is rung for the first period and then B is rung continuously.
    (Example: A: COL Recall, B: COL RGT)
  - o Valid with KT/VP which has the class-of-service 'Off-hook Signal Deny'.

C

2.3.C.3 Callback Queuing

Callback queuing is valid on busy COLs or busy COL groups.

2.3.C.3.1 COL Call Back Queuing

A KT/VP user can register a queuing on a COL or a COL group while the COL or the COL group is busy so that an alert with Callback Tone is made when it becomes idle. If he registers telephone number together, that telephone number is automatically dialed when he responds to the Callback.

- **Conditions**

  - o This feature is not available on outgoing restricted COL.
  - o Multiple reservations on the same COL are called back in the order the reservations are made.
  - o Only one newest registration (including Timed Trunk Queuing) is valid for one KT/VP.
  - o A Callback Tone continues for certain duration of time and then automatically released if it is not responded. (Duration of time can be set freely by Programming System Constants item 6 to between 10 and 255 seconds. Default value is 20 seconds.)
  - o When COL call incomes while Callback Tone is ringing, the Callback is interrupted and COL RGT ringing replaces it. Callback restores after the conversation on the COL has completed.
  - o Callback Queued COL cannot be picked up by other station than called party.
  - o Abbreviated Ringing is applied to the Callback Tone. (See Section 2.3.C.2 Abbreviated Ringing.)
  - o The Callback Tone is prior to Call Forward/Busy Call Forward and DND. (See Section 2.3.T.2 Timed Trunk Queuing.)

2.3.C.3.1.1 Registration

A KT/VP user can set a Callback Queuing at the moment a COL/COL group outgoing call becomes busy.

- **Conditions**

  - o A maximum of 32 digits can be registered for automatic dialing.
  - o Automatic dialing number '*n' means 'for n-seconds pause' and '**' means dial '*'. They are counted as two digits.
  - o A KT/VP users may save a Speed Dial or Redialing number as the telephone number of automatic call origination.

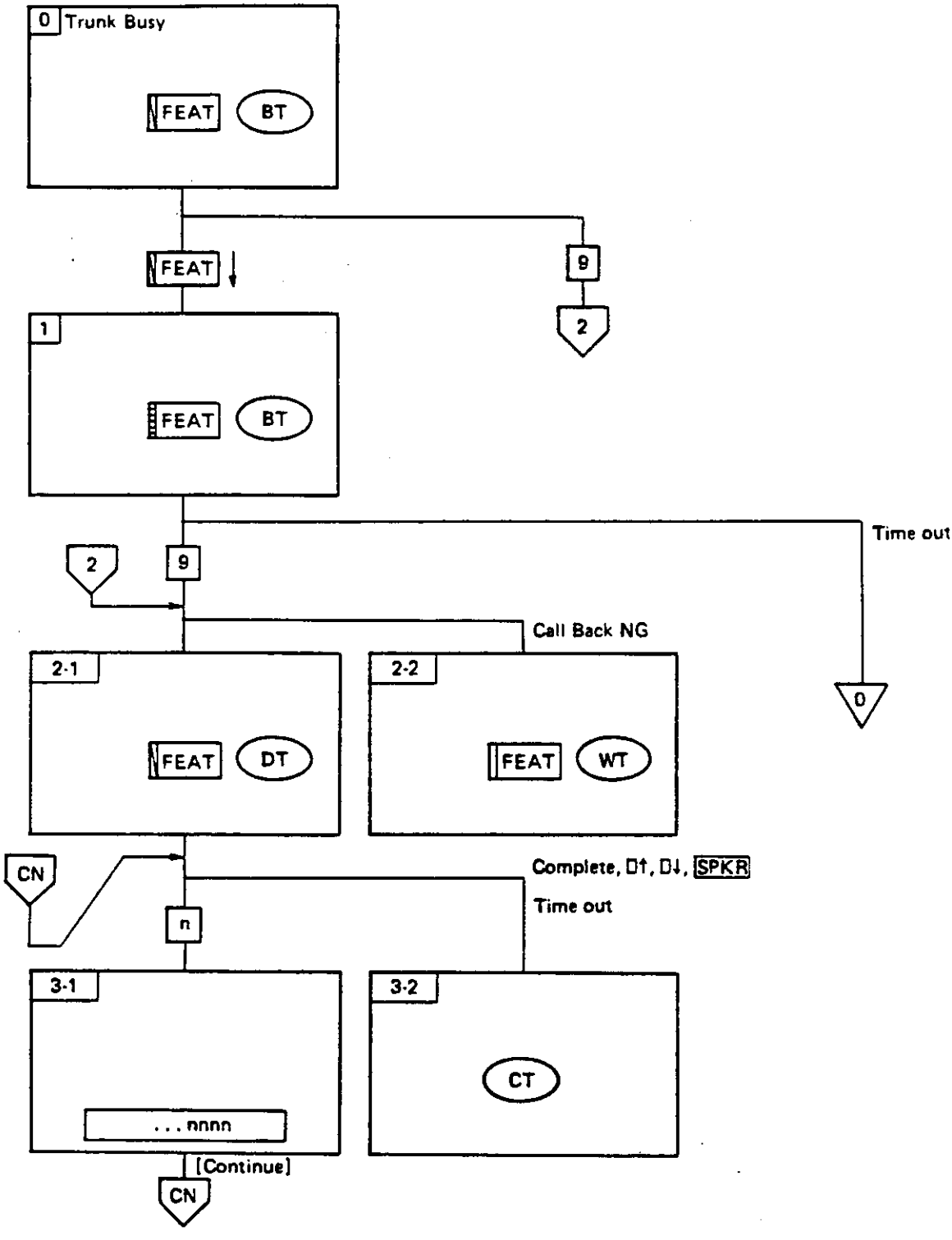
- **Operation Guide**

  (Off-hook and BT) [FEAT] + [9] + ([d_1] + [d_2] + . . . + [d_n])
  $(1 \leqq n \leqq 32)$

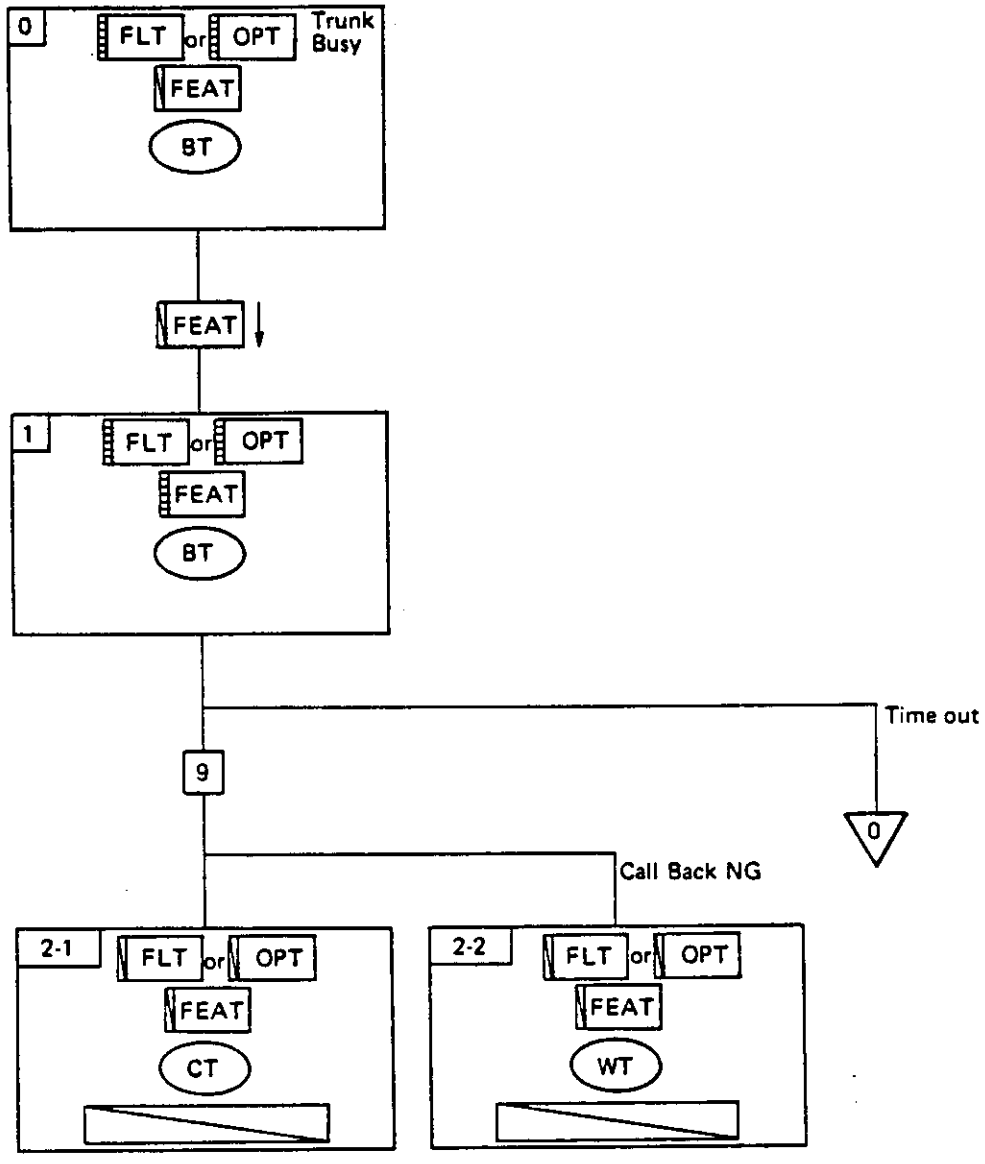
C

- **Operation Flow**

i) COL Group Access



ii) Optimized Call Routing Access



2.3.C.3.1.2 Cancellation

A KT/VP user can cancel the registration of a Callback Queuing.

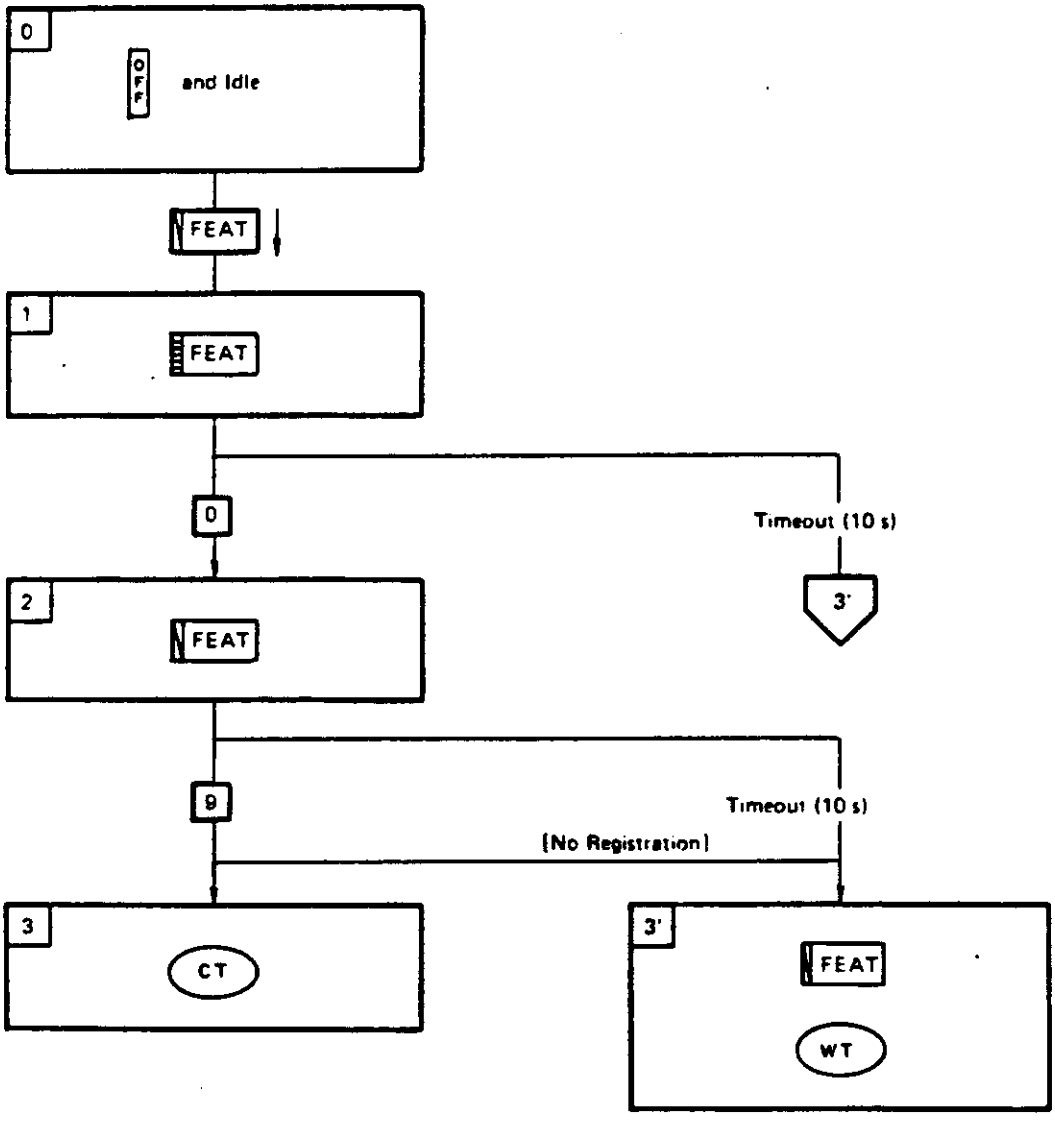
- **Condition**

  Callback queuing cancel and timed trunk queuing cancel are done by the same operation.

- **Operation Guide**

  (Off-hook and Idle) FEAT + 0 + 9

- **Operation Flow**



2.3.C.3.2 ICM Automatic Callback

If a KT/VP user registers an Automatic Callback when the called party is busy or does not respond an ICM call, an ICM Callback Tone is returned to the station when called party and caller becomes idle. An ICM call then automatically is connected to the called party as soon as the caller respond to the Callback.

- **Condition**

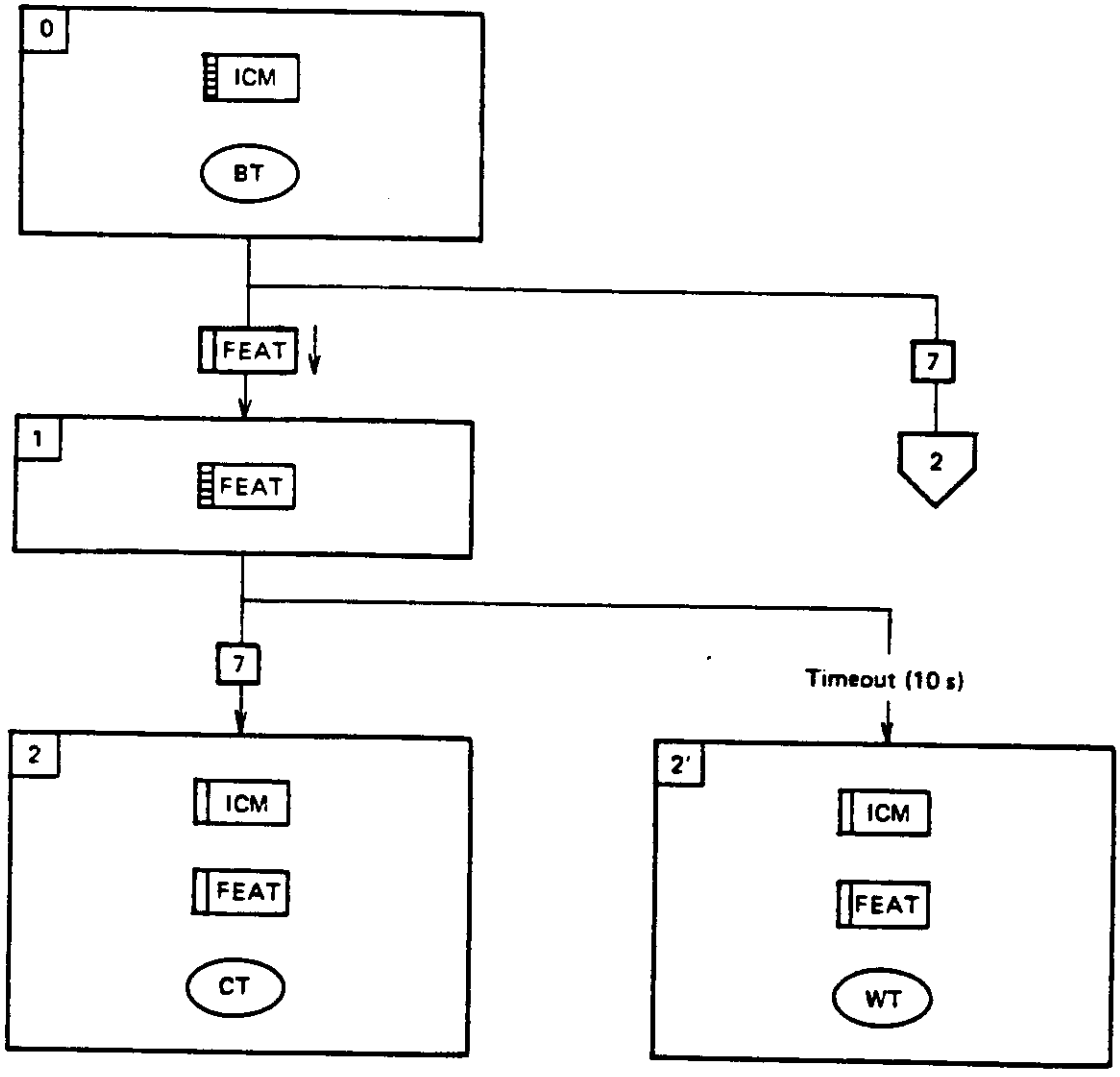
  - o Callback is activated only when the station of the called party is not in DND status, on-hook status, and not receiving another call.
  - o A Callback Tone continues for certain duration of time and then automatically released if it is not responded. (Duration of time can be set freely by Programming System Constants item 6 to between 10 and 255 seconds. Default is 20 seconds.)
  - o When all the available ICM are busy, no Callback is made even if the called station goes idle.
  - o Only one Automatic Callback can be registered per station.
  - o If a station that has already registered an Automatic Callback registers new one, the former registration is automatically canceled.
  - o If two or more registration are set to a station, the earlier one is activated when the station goes idle.
  - o When a KT/VP user completes registration/Cancellation, he receives a CT.
  - o If he cancels inspite of no registration, he receives a WT.

2.3.C.3.2.1 Registration From Key Telephone/Versa Phone

- **Operation Guide**

  (ICM BT) ([FEAT]) + [7]

- **Operation Flow**



2.3.C.3.2.2 Registration From Single-Line Telephone

- **Operation Guide**

(ICM BT) ↓↑+ [1] + [7]

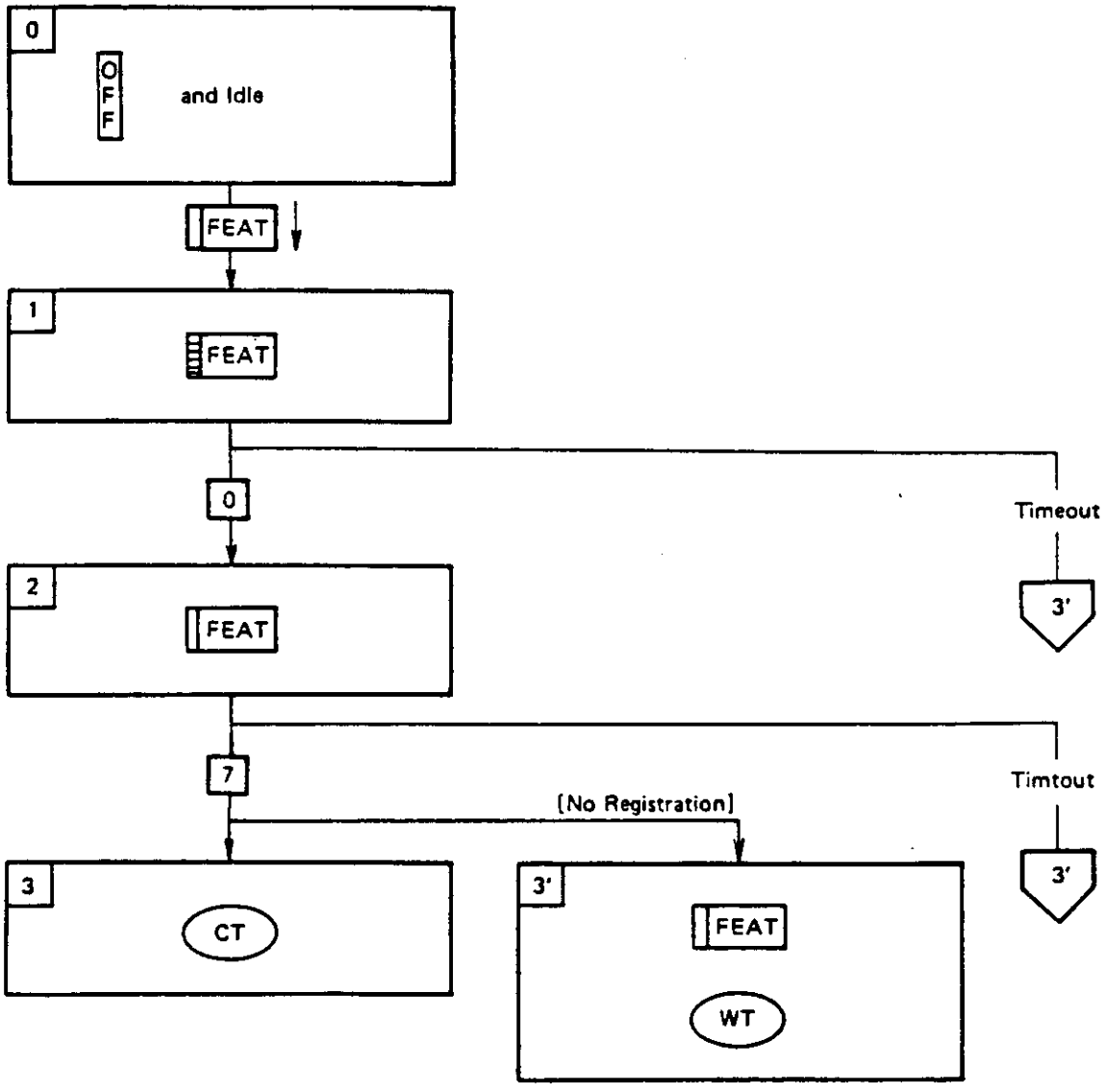
C

2.3.C.3.2.3 Cancellation From Key Telephone/Versa Phone

- **Operation Guide**

Off-hook and Idle) [FEAT] + [0] + [7]

- **Operation Flow**



2.3.C.3.2.4 Cancellation From Single-Line Telephone

- **Operation Guide**

  (DT and Registration On) [1] + [0] + [7]

C

2.3.C.4 Call Forward

This feature allows a station user to register call forward destination number, and while call forward is activated by the station user, all incoming calls except callback and recall to this station will be automatically rerouted to that registered destination station.

C

Call Forward functions are classified as follows:

2.3.C.4.1 Call Forward

2.3.C.4.2 Busy Call Forward

See Section 2.3.A.1.14 Call Forward Forced Release.
See Section 2.3.A.1.15 Busy Call Forward Release.

2.3.C.4.1 Call Forward

Certain kinds of call is automatically rerouted to a destination station while call forward is activated.

- **Conditions**

  - o Destination station number is required to be registered.
  - o Calls which may be forwarded are showed below.

    i) COL RGT
    ii) ICM Voice Call
    iii) ICM Tone Call (excluding Master Group Hunt Call)

  - o If the destination of Call Forward is engaged in Call Forward, the call is rerouted again, but it cannot be rerouted any further.
  - o A COL call is not rerouted to a station which is restricted to pickup the COL.
  - o Recursive call forward may be registered. In this case rerouting is executed as described below.

    (Example 1) A: Call Forward to B

    A rings when B calls A.

    (Example 2) A: Call Forward to B, B: Call Forward to C

    B rings when C calls A.

  - o Once call forward is registered, station user can activate or inactivate the Call Forward function. Calls are not forwarded when inactivated.
  - o Call forward registration can be denied according to station class of service.

- **Programming**

  Station Class-of-Service

Item 6	Busy Call Forward	Lit:	Call Forward
Item 18	Call Forward Deny	Lit:	Allow

C

2.3.C.4.1.1 Key Telephone/Versa Phone

Operations and conditions above Call Forward with KT/VP are described below.

- **Conditions**

  o To perform Call Forward, registration and activation are required.

  o When Call Forward is activated, the FWD key lamp on the KT/VP lights steadily.

2.3.C.4.1.1.1 Registration

- **Conditions**

  o A station user should not register stations of another tenant and uninstalled stations as a destination.

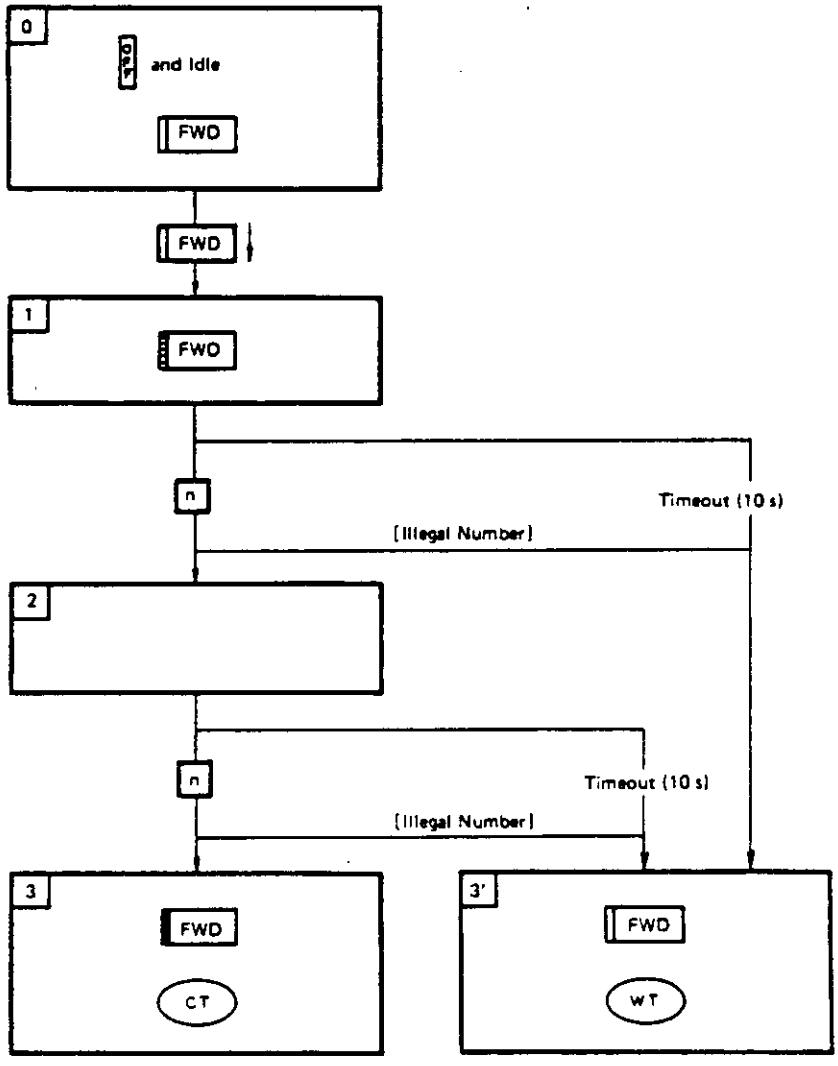
  o When a station user completes registration, Call Forward automatically goes activated.

- **Operation Guide**

  (Off-hook and Idle) [FWD] + [n] + [n]

  (nn: Station number of destination)

- **Operation Flow**



2.3.C.4.1.1.2 Cancellation

- **Conditions**

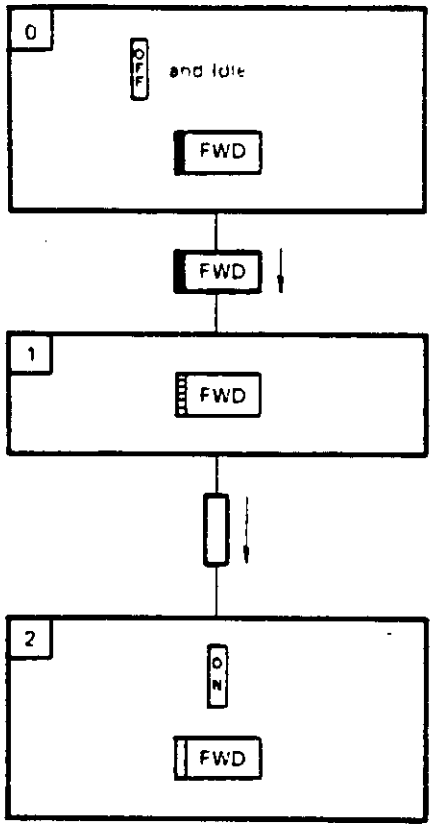
  - o If a station user does not complete properly because of off-hook, timeout, illegal number, or depressing of other keys, previous registration (if any) is canceled.

  - o Cancellation makes Call Forward inactivated and destination number is cleared.

- **Operation Guide**

  (Off-hook and Idle) FWD + [ ]↓

- **Operation Flow**



2.3.C.4.1.1.3 Activation/Inactivation

If a station user completes Call Forward registration, Call Forward goes activated. He may make Call Forward inactivated. He may make it activated again.

- **Conditions**

  o Activation/inactivation cannot be performed if not registered.

  o Activation/inactivation is same operation that switches the status alternately.

- **Operation Guide**

  (On-hook and SPKR off) FWD

2.3.C.4.1.2 Single-Line Telephone

Operations and conditions about Call Forward with SLT are described below.

- **Conditions**

  o To perform Call Forward, a SLT user should register the destination.

2.3.C.4.1.2.1 Registration

- **Condition**

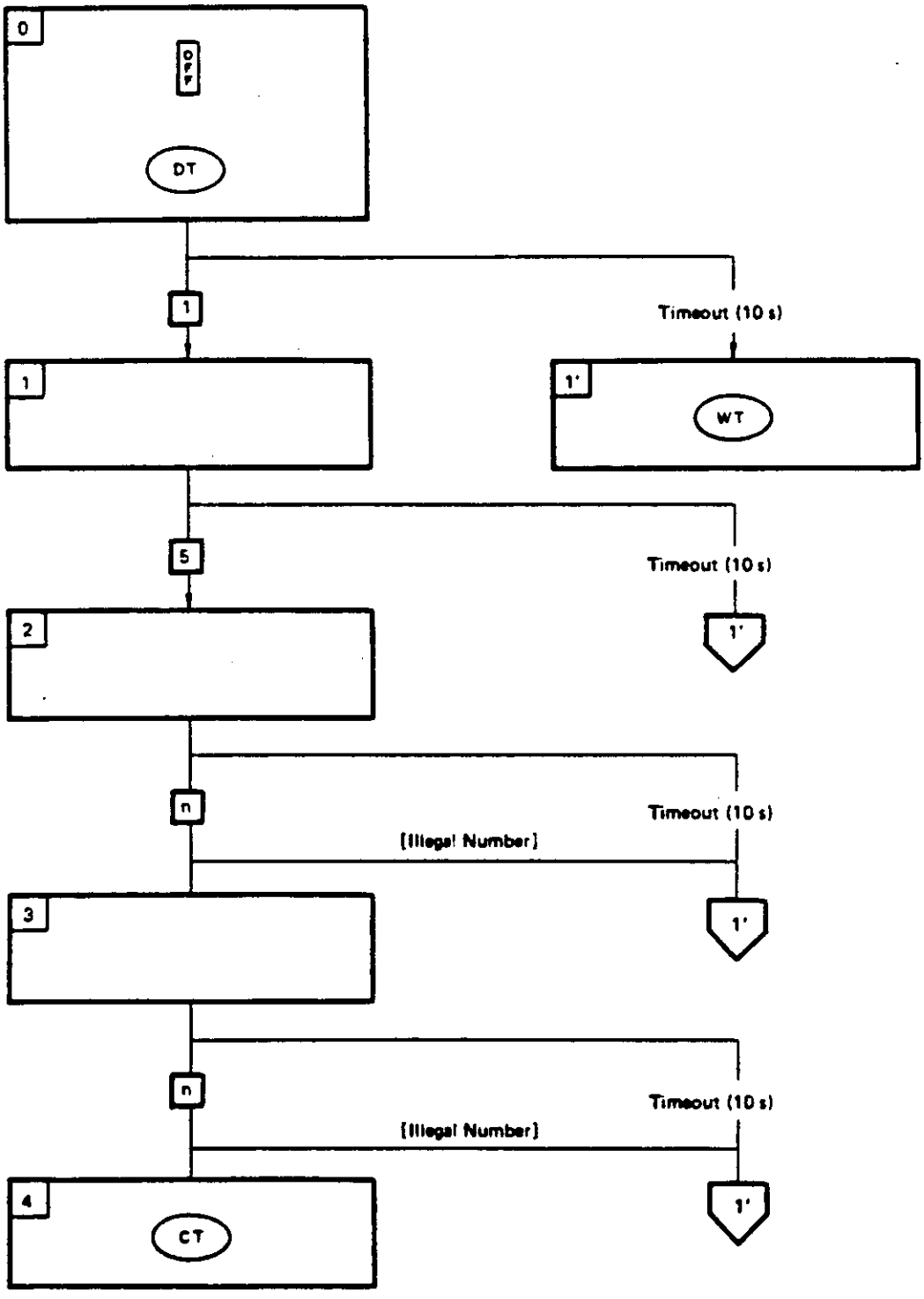
  o A SLT user are not permitted to register station of another tenant and uninstalled station as a destination.

- **Operation Guide**

  (DT) [1]+[5]+[n]+[n] nn: Destination EXT No.

C

■ Operation Flow



2.3.C.4.1.2.2 Cancellation

- **Conditions**

  - o When a SLT user completes cancellation, he receives a CT.
  - o WT is connected if cancellation is performed when not registered.

- **Operation Guide**

  (DT) [1]+[0]+[5]

2.3.C.4.2 Busy Call Forward

A station user can perform Busy Call Forward with the same operation as for Call Forward depending on Station Class of service. In this case, Call Forward is activated only when the station is busy.
(See Section 2.3.C.4 Call Forward.)

C

- **Conditions**

  - o Only while a station is busy (off-hook or SPKR on), Busy Call Forward may be activated. Once a station goes on-hook, Busy Call Forward is automatically inactivated.

  - o With Busy Call Forward feature, FWD key lamp on KT/VP indicates steady lamp pattern only while forward is activated and station is busy.

- **Programming**

  Station Class-of-Service

Item 6	Busy Call Forward	Blink:	Busy Call Forward
Item 18	Call Forward Deny	Lit:	Allow

2.3.C.5 Call Monitor

A KT/VP user may utilize call monitor facility while conversing.

- **Conditions**

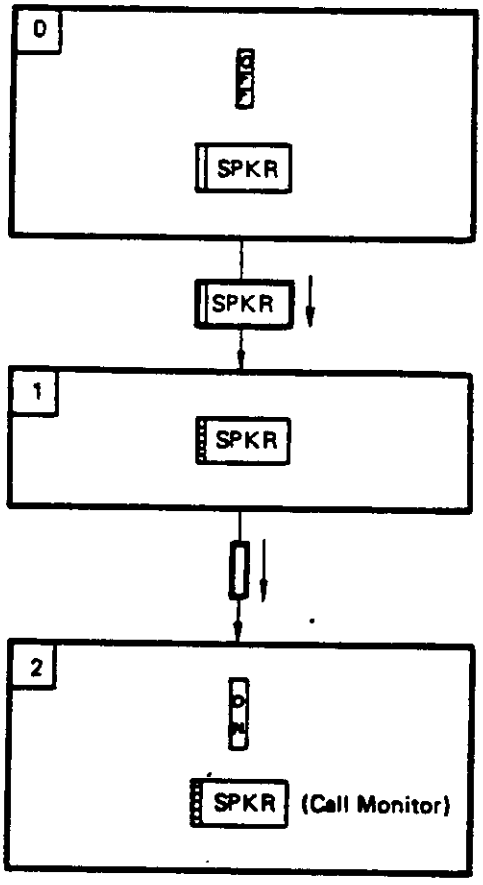
  o A KT/VP with speakerphone should have the microphone off to utilize Call Monitor. (See Section 2.3.H.1 Hands Free Stations.)

- **Operation Guide**

  (Conversation with handset and SPKR off) SPKR + [ ]

  (Conversation with Speakerphone) Microphone off

- **Operation Flow**



2.3.C.6 Call Park

While conversing on a COL call in progress, a station user may place it on Hold. Once a call is placed in the "park" condition, any station within the same tenant may retrieve it either by dialing the appropriate access code or by depressing [PARK] key. This feature is also available for attendant use.

C

- **Conditions**

  - o The Call Park feature is not applicable to ICM conversation.

  - o The Call Park feature is classified into the following.

    1 **Call Park**

    2 **Call Park Pick Up**

    3 **Call Split**

2.3.C.6.1.1 Key Telephone/Versa Phone

While conversing on a COL call in progress, a KT/VP user can place it on Hold by depressing PARK key.

- **Conditions**

  - o When the PARK key is depressed during conversation on a COL, the COL is placed on Call Park and the PARK key indicates I-HOLD indication.
  - o A station user is allowed to swap a conversing COL with the COL placed on Call Park. (See Section 2.3.C.6.3 Call Split.)
  - o Call Park Recall is made at Hold Timeout. Hold Recall Denied station, however, is not allowed to use the Call Park Recall feature.
  - o The Call Park Orbit is assigned to each station.
  - o The orbit number is equal to the station number.
  - o Any station user is allowed to pick up a Call Park placed by another station user. (See Section 2.3.C.6.2 Call Park Pickup.)
  - o No ICM can be placed on Call Park.

- **Operation Guide**

  (COL Conversation) PARK

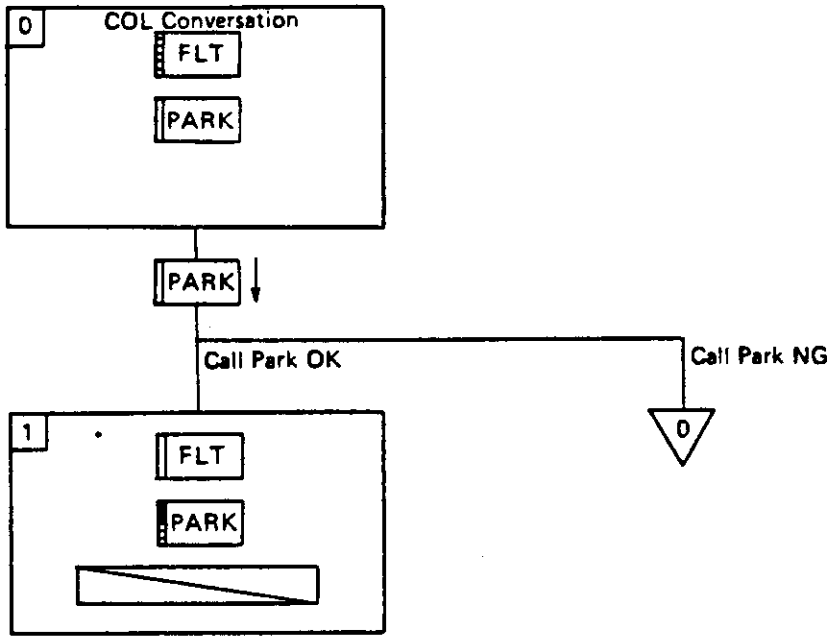
- **Programming**

  System Constants Item 1
  Hold Timeout 10 ~ 255 seconds
  Station Class of Service Item 12
  Hold Recall Deny
  Each EXT — Lit: allow
  Blink: deny

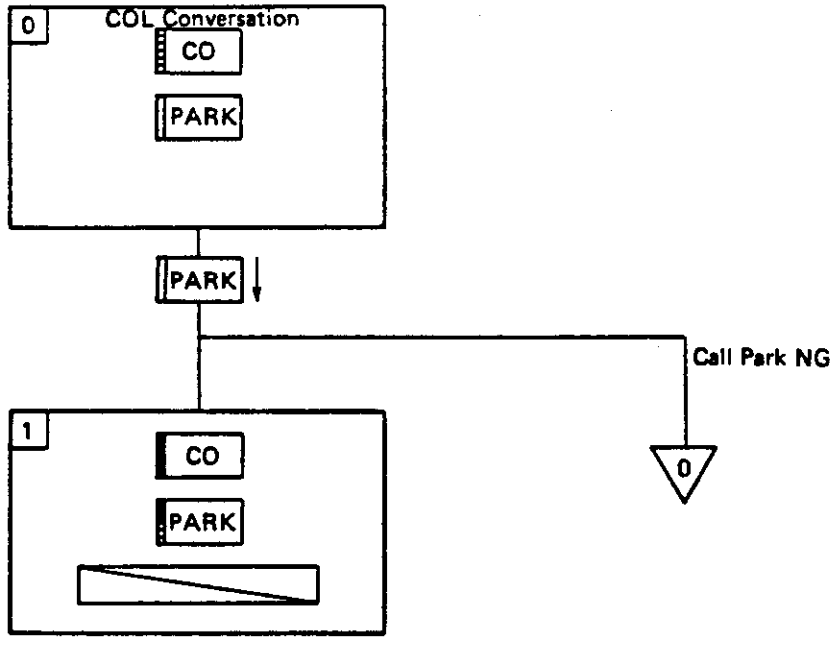
C

- **Operation Flow**

i) Conversation With FLT Key



ii) Conversation With COL Key



2.3.C.6.1.2 Single Line Telephone

Any SLT user may place a call on Call Park by dialing the appropriate number.

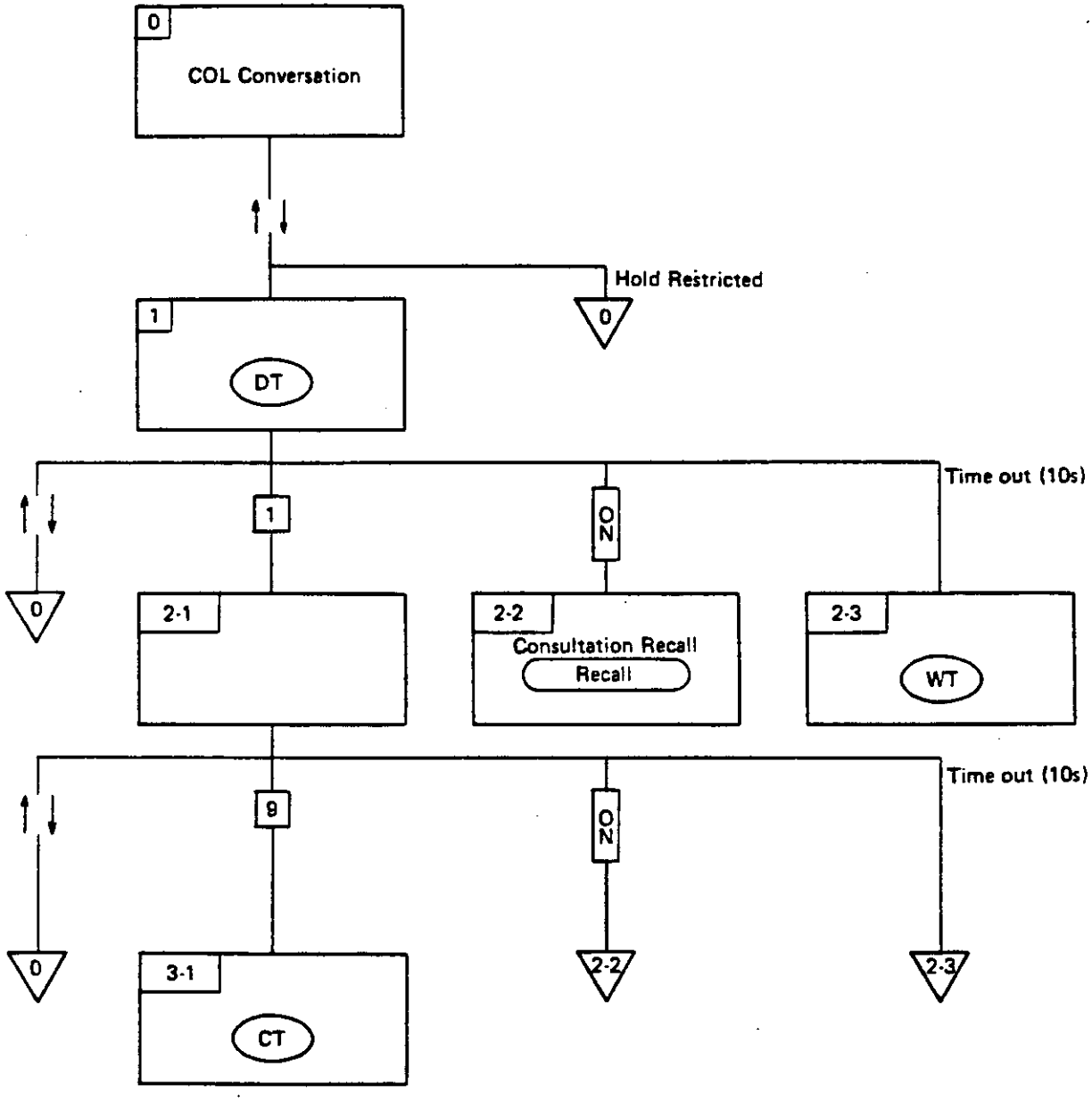
- **Conditions**

  - o While conversing in progress, a SLT user may place COL on Call Park by dialing the special number (19).
  - o A SLT user is allowed to swap a conversing COL with another COL placed on Call Park. (See Section 2.3.C.6.3 Call Split.)
  - o Call Park Recall is made at the Hold Timeout. A Hold Recall Denied station is not allowed to use the Call Park Recall Feature.
  - o The Call Park Orbit is assigned to each station.
  - o The orbit number is equal to the station number.
  - o Any station user is allowed to pick up a Call Park placed by another station. (See Section 2.3.C.6.2 Call Park Pickup.)

    (COL or Conversation) ↑↓ + [1] + [9]

C

■ Operation Flow



2.3.C.6.1.3 Attendant

While conversing in progress, the Attendant (ATTND) can automatically place the call on Call Park by depressing the Direct Page Call key.

- **Conditions**

  - o When Attendant depresses the Direct Page Call key, the Call Park Orbit number is automatically displayed on the ATTND display.
  - o Ten Call Park Orbits are assigned to one ATTND.
  - o The Call Park Orbit numbers are assigned as follows:

    1) 00 to 09: ATTND 1
    2) 10 to 19: ATTND 2

  - o Attendant Call Park Recall is made at the Hold Timeout feature.
  - o An Attendant Call Park Orbit number is given by system automatically.
  - o If all of Call Park Orbit numbers are busy, the call is placed on Consultation Hold.

- **Operation Guide**

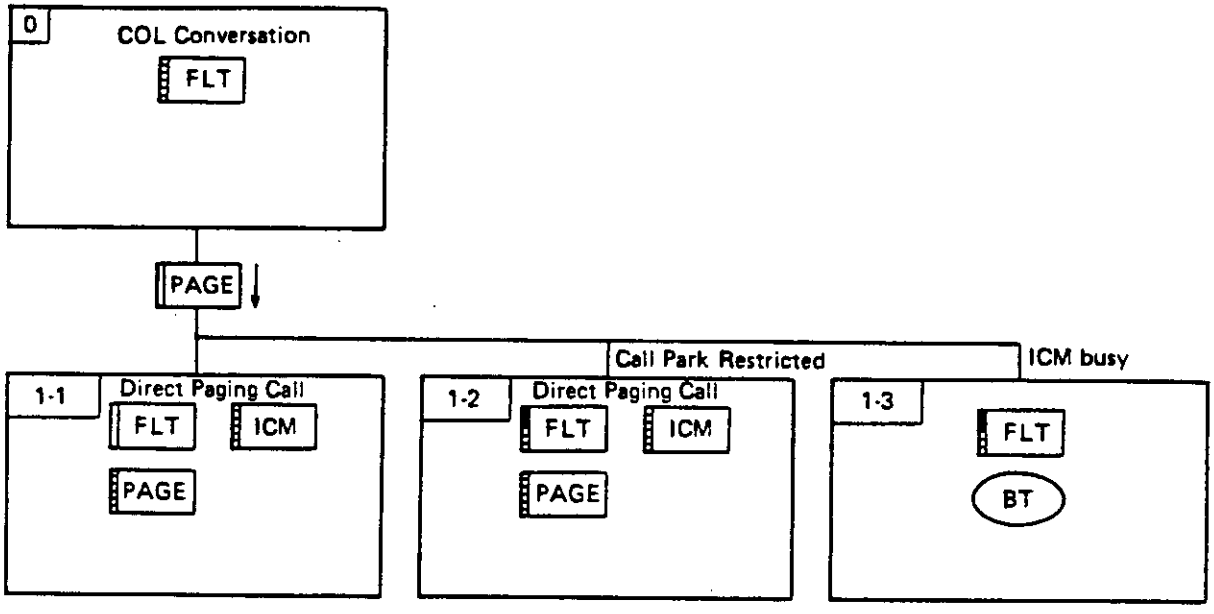
  (COL Conversation) [PAGE]

  Here, the PAGE key means the Direct Page Call key.
  It is either the ALL, ZONE 1 to 3, GRP 1 to 4 key, ALL ZONE or ALL GRP.

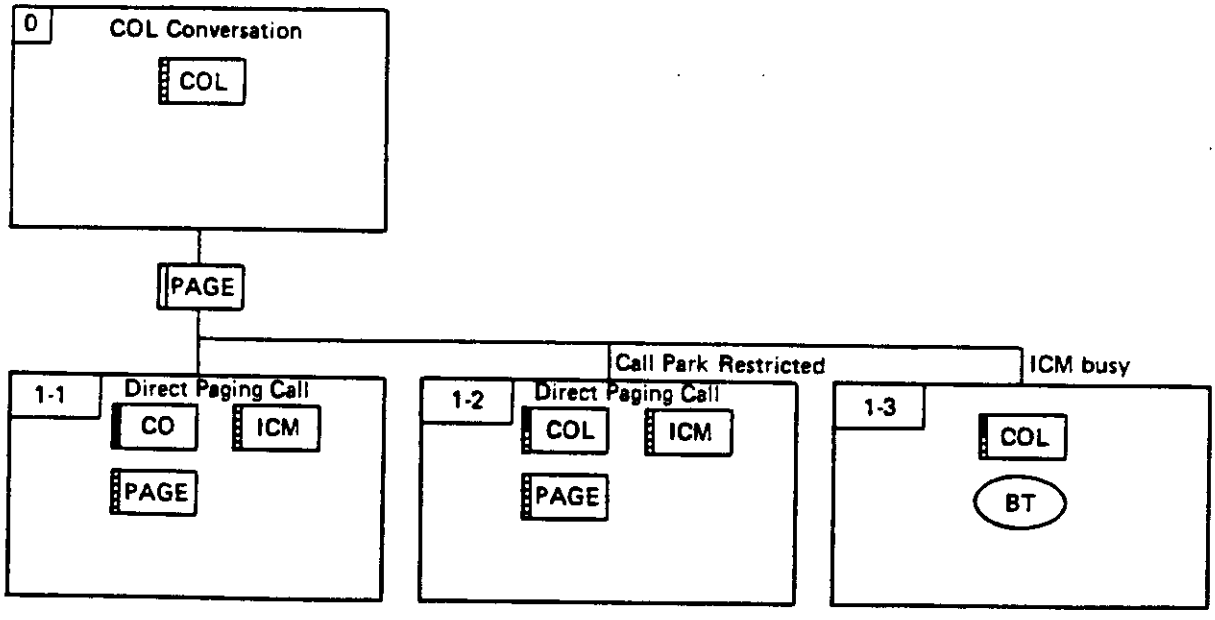
C

- **Operation Flow**

i) Conversation With FLT Key



ii) Conversation With COL Key



2.3.C.6.2 Call Park Pickup

2.3.C.6.2.1 Local Call Park Pickup

A station user can retrieve a call parked on the station.

2.3.C.6.2.1.1 Key Telephone/Versa Phone

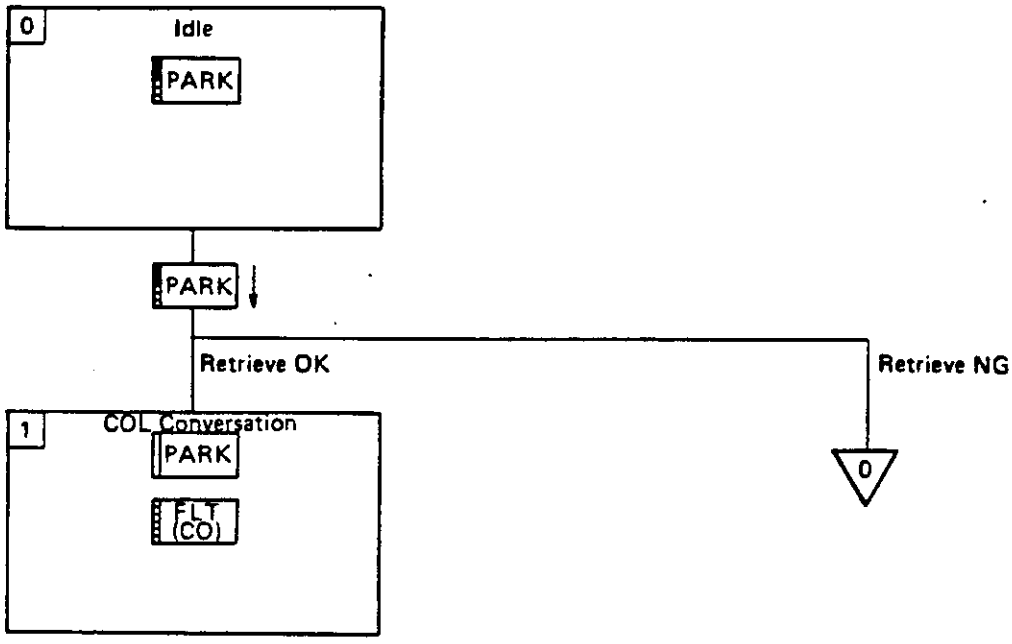
- **Conditions**
  - o A station user is allowed to retrieve the call by depressing the PARK key on I-Hold is indicated.
  - o If the operation is made during conversation, a Call Split feature is applied. (See Section 2.3.C.6.3 Call Split.)
- **Operation Guide**

  (Off-hook) PARK

C

- **Operation Flow**

  i) Local Retrieve



2.3.C.6.2.1.2 Single Line Telephone

- **Conditions**

  - o A SLT user can retrieve a call placed on Call Park by dialing the special number (19).

  - o A parked call is changed to Call Park Recall the moment hold timeout. Once a parked call changes to recall, it cannot be pickedup by dial '19' and lifting handset it is answered.

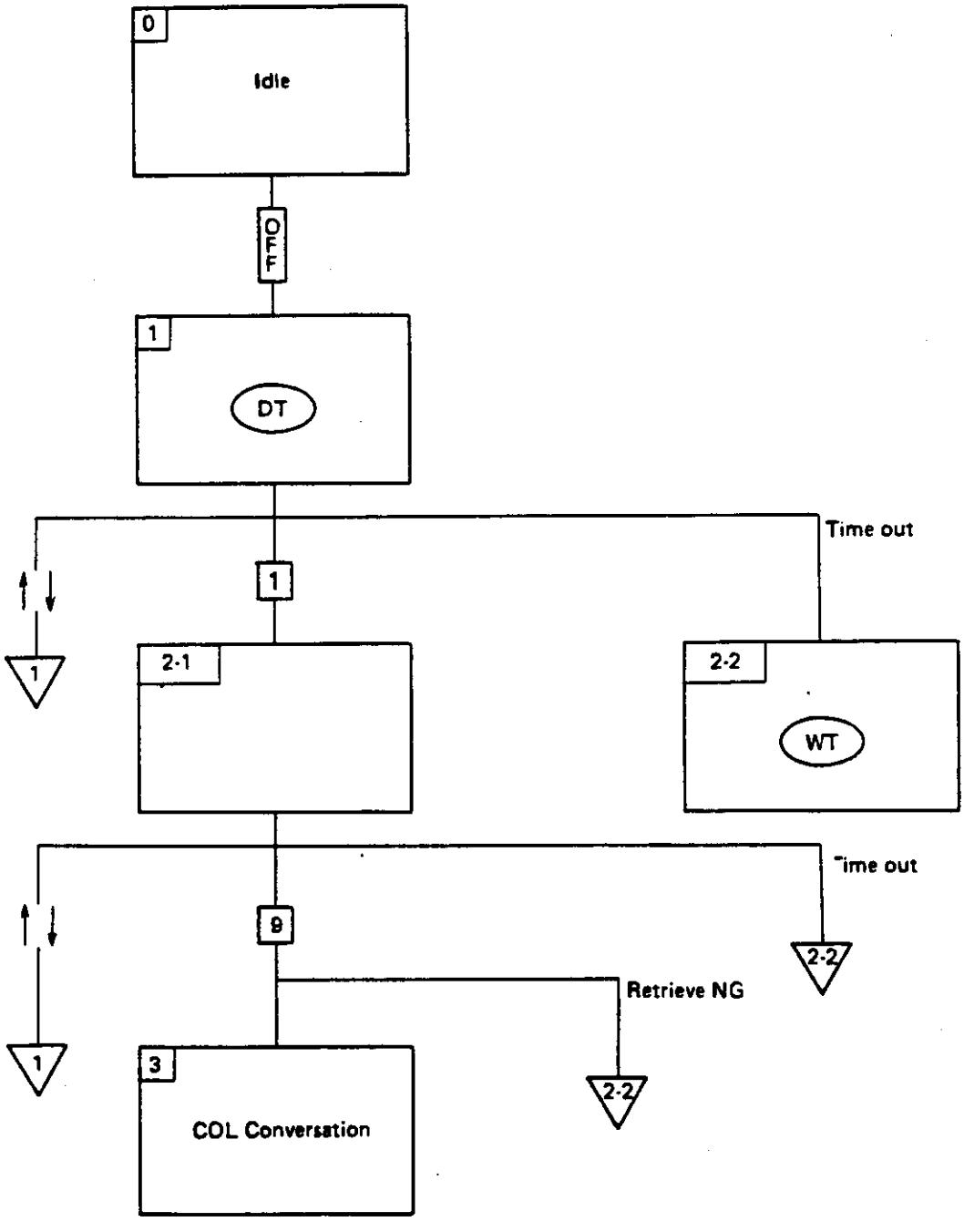
- **Operation Guide**

(Idle) [Off] + [1] + [9]

C

- **Operation Flow**

i) Local Retrieve



2.3.C.6.2.1.3 Attendant Call Park Pickup

- Conditions
  - o The newest call is picked up among from those placed on Call Park by the Attendant.
  - o While conversing on COL or ICM, it is disconnected when the Attendant operates this feature.
  - o When the parked call is picked up by depressing [P-UP] key, the key lamp flashes for approximately 1.5 second.
- **Operation Guide**

  (off-hook or SPKR on) [P-UP]

2.3.C.6.2.2 Remote Call Pickup

Once a call is placed in the "Park" condition, it can be picked up from another station.

C

2.3.C.6.2.2.1 Key Telephone/Versa Phone

A KT/VP station user can retrieve a call parked on another station (including Attendant Call Parks).

- **Conditions**
  - o A parked call can be a COL call which the operating station is restricted to pickup, in this case BT connection is made.
  - o Call Park Recall is not to be picked up with this feature.
  - o When a Call Park is retrieved, The PARK key lamp on the park operating KT indicates Idle indication.
- **Operation Guide**

  (Off-hook) ([FEAT]) + [5] + [n1] + [n2]

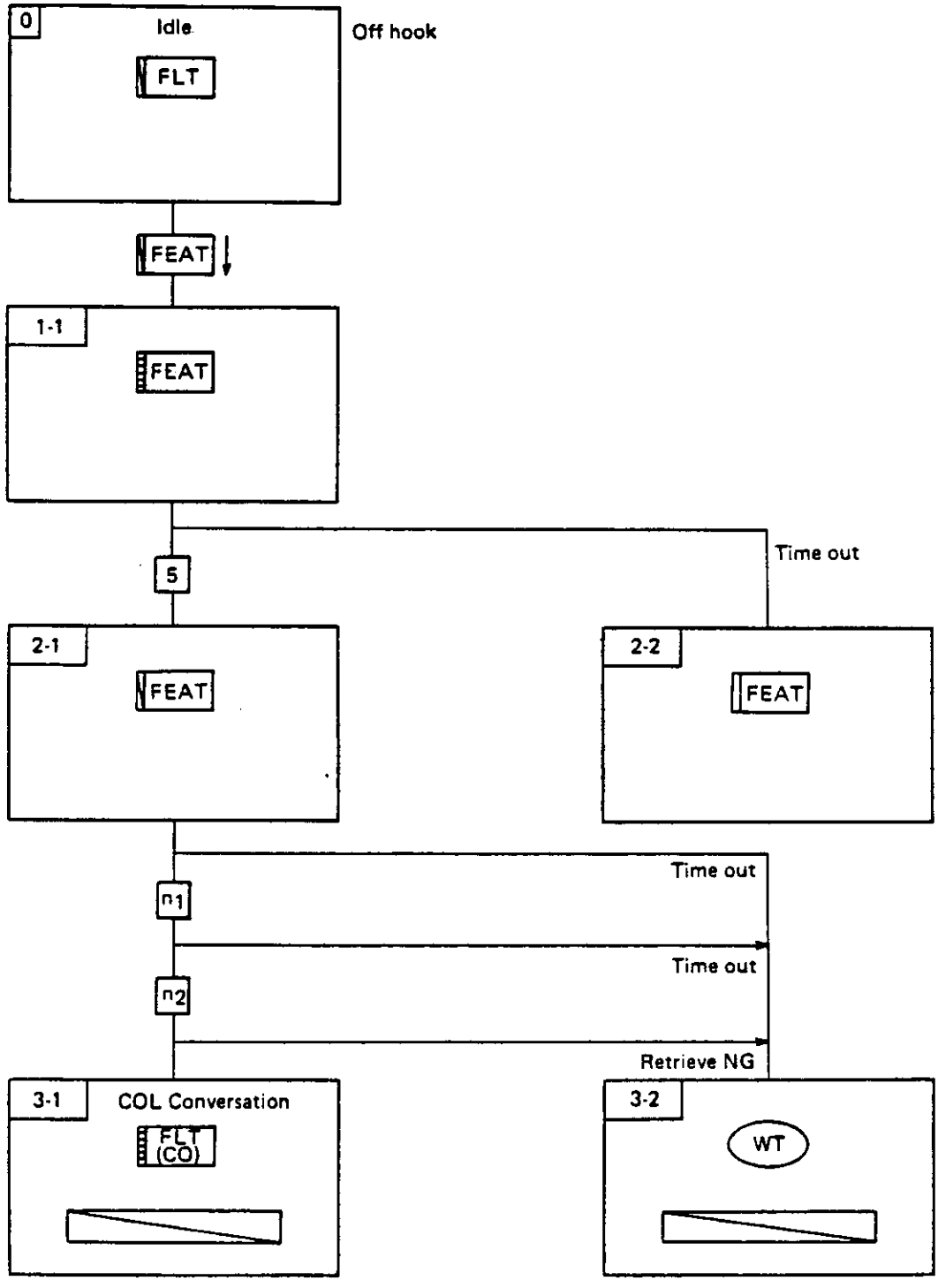
  n1, n2: Call Park Orbit Number

- **Programming**

  Station Class of Service Item 25
  Pickup Restriction (EXT NO.)

  Each COL — Lit: No Function
  Blink: Pickup Restriction

■ Operation Flow



2.3.C.6.2.2.2 Single Line Telephone

- **Conditions**

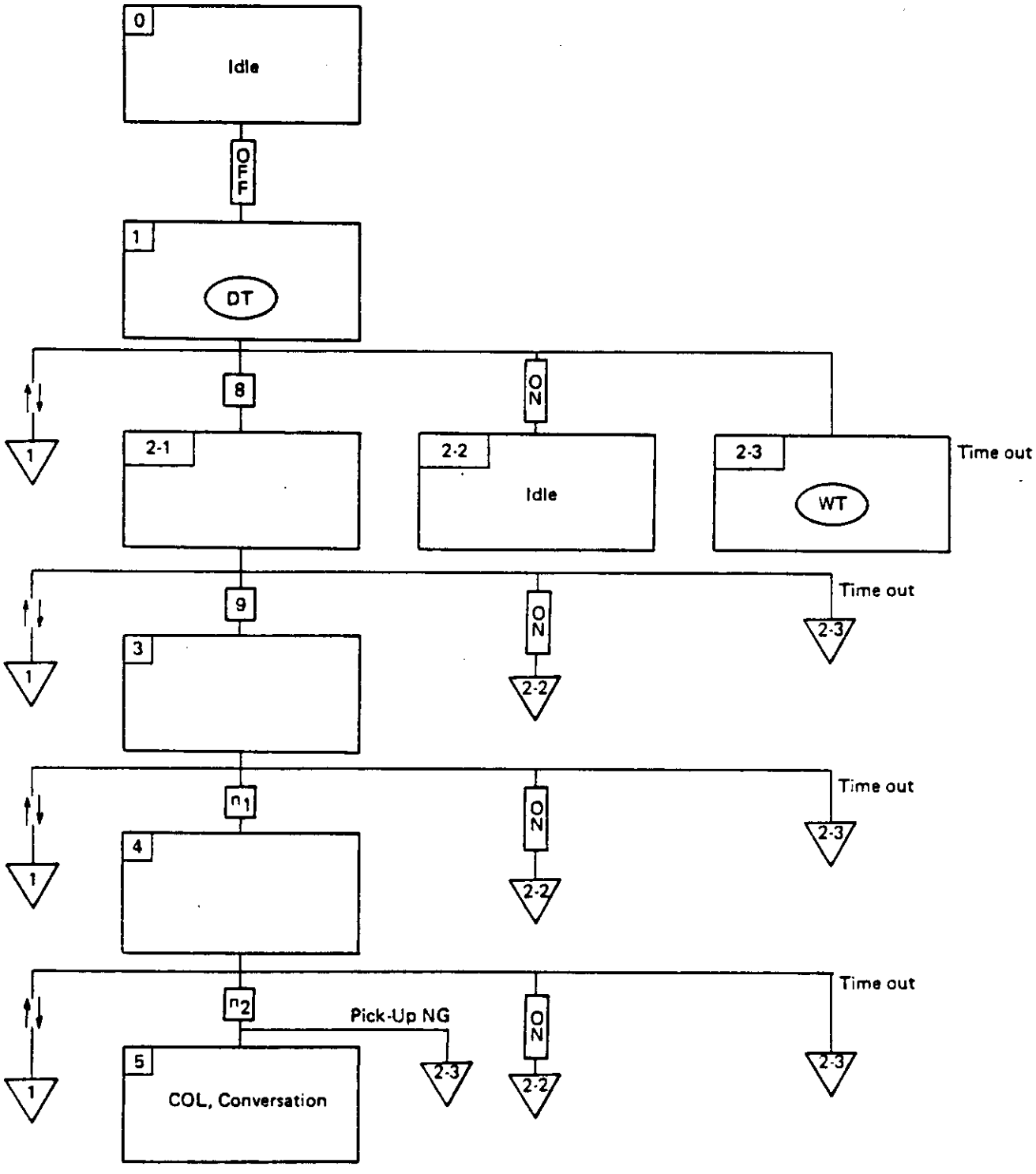
  - o A pickup restricted SLT user is not allowed to retrieve.
  - o Call Park Recall is not to be picked up with this feature.
  - o When a Call Park is retrieved, The PARK key lamp on the park operating KT indicates Idle indication.

- **Operation Guide**

  (Off-hook) [8] + [9] + [n1] + [n2]

  n1, n2: Call Park Orbit Number

■ Operation Flow



2.3.C.6.3 Call Split

While conversing on COL, with Call Park operation, the current call is placed on Call Park and a call already placed on Call Park is automatically answered.

C

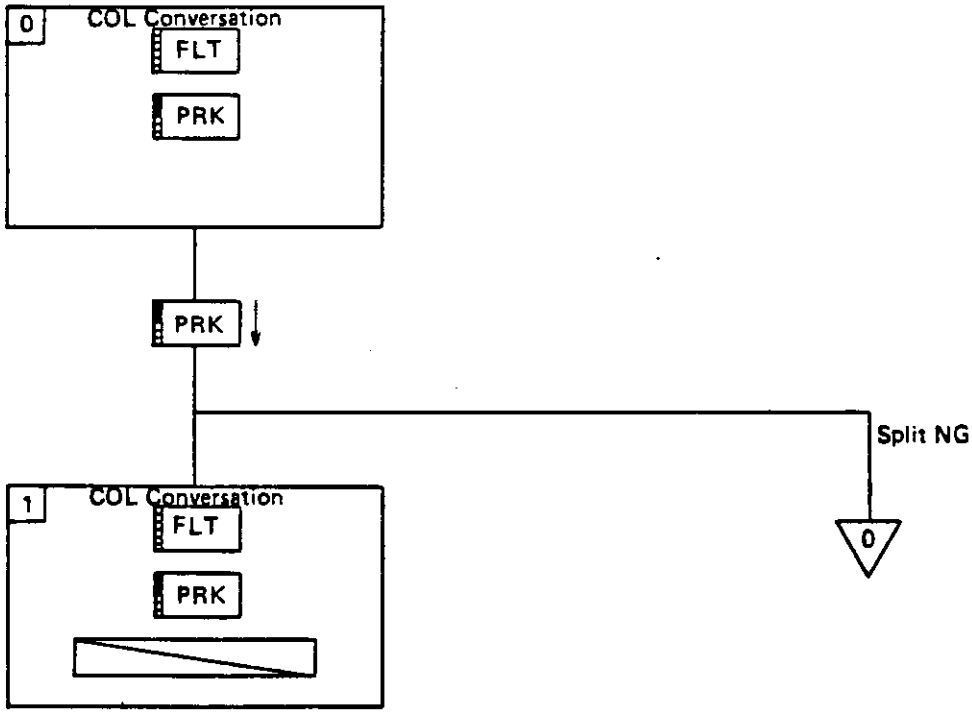
2.3.C.6.3.1 KT/VP

A KT/VP user may use the Call Split feature.

- **Operation Guide**

  (Call Park On and COL conversation) PARK

- **Operation Flow**



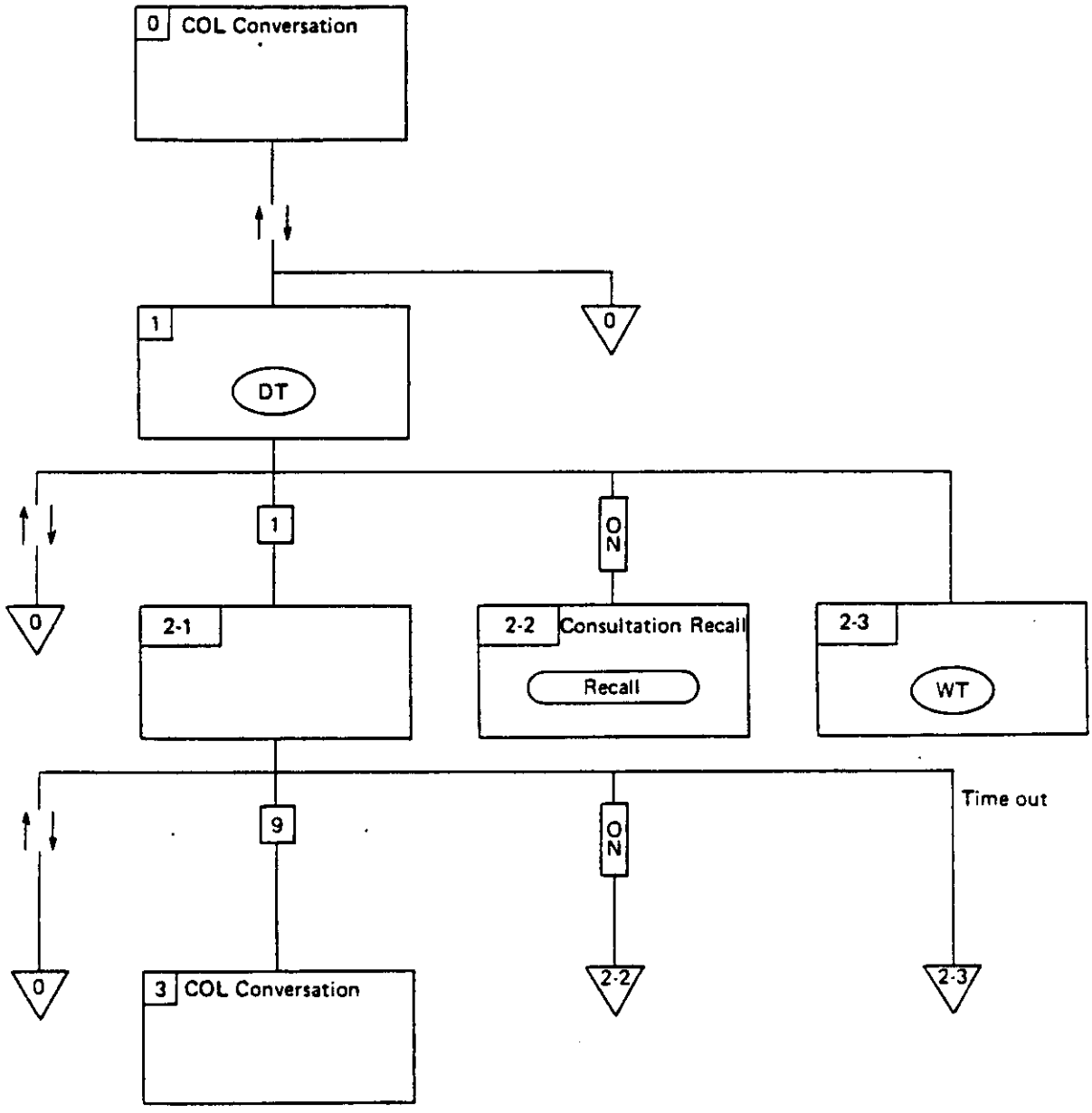
2.3.C.6.3.2 Single Line Telephone

A SLT user may use the Call Split feature with the special number (19).

- **Operation Guide**

  (Call Park On and COL Conversation) ↑↓ + [1] + [9]

- **Operation Flow**



2.3.C.7 Call Pickup Group

Certain kinds of calls are to be picked up from a station which is in the same pickup group as the called station.

C

- **Conditions**

  - o Call Pickup is applicable to the following calls:

    i) COL Recall
    ii) COL RGT
    iii) ICM Hold Recall
    iv) ICM Voice/Tone Call (Including Master Group Hunt Call)

  - o This feature is not applicable to pickup restricted COL calls.

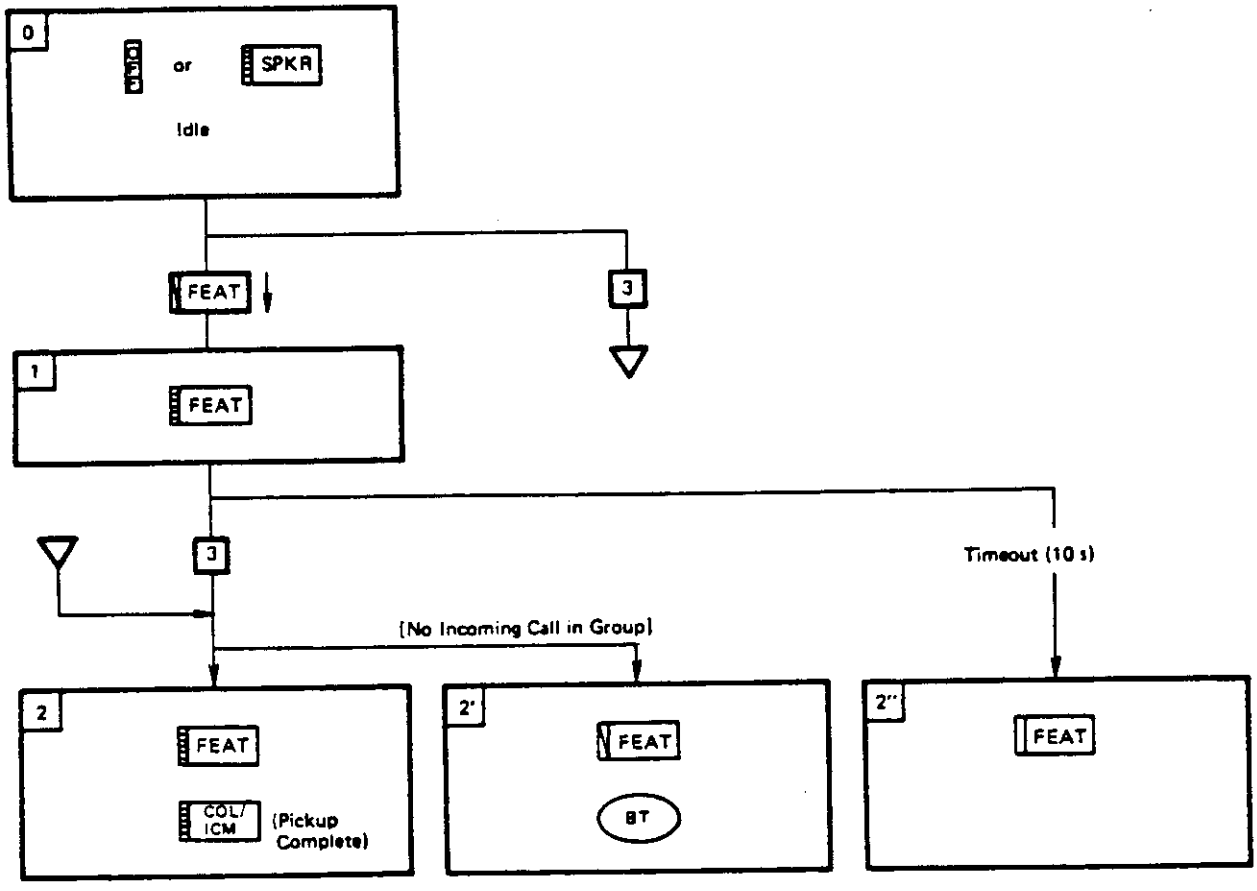
  - o A BT connection is made if this operation is performed when there is no incoming calls in the Pickup Group. (See Section 2.3.D.1 Direct Call Pickup.)

2.3.C.7.1 KT/VP

- **Operation Guide**

  (Off-hook or SPKR on) (FEAT) + 3

- Operation Guide



2.3.C.7.2 Single-Line Telephone

- Operation Guide

(DT) [1]+[3]

C

2.3.C.8 Camp On (Unscreened Transfer)

A COL/ICM call is to be camped on a designated station.

- **Conditions**
  - o To designate destination station ICM individual call or Master Group Hunt Call is used.
  - o Valid only for COL/ICM call on Consultation Hold.
  - o Conference Camp On. (See Section 2.3.C.11.6 Conference Camp On.)

2.3.C.8.1 COL Camp On

After a station user places a COL on consultation hold, he can call a station and transfer the COL call to the station.

- **Conditions**
  - o Camp On Recall is connected immediately when the call is transferred to a station which is restricted to pickup the COL.
  - o When a call transferred to a busy SLT Camp On Tone is sent to the station thru speech path.
  - o When a call transferred to a busy SLT which has Off-hook Signal Deny service class, Camp On Tone is not sent and Camp On Recall is connected to the operating station.
  - o Camp On Recall is connected when there is no answer within certain duration of time. (Duration of time is set by programming Camp On Timeout between 1 and 255 seconds. (Default is 30 seconds.))

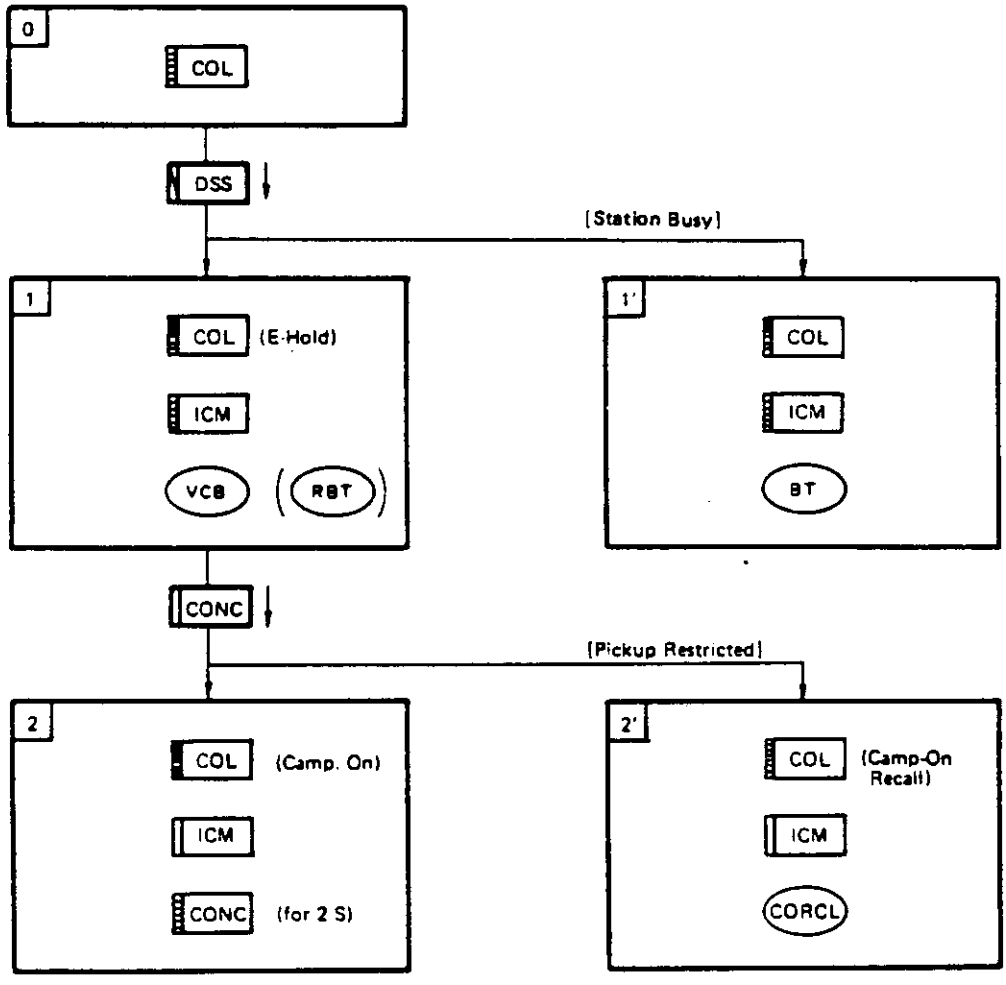
2.3.C.8.1.1 Attendant

While conversing on COL, Attendant can perform Camp On call with DSS key and CONC key. (See Section 2.3.C.11.2 Automatic Add On.)

- **Operation Guide**

  (COL Conversation) DSS + CONC

- **Operation Flow**



2.3.C.8.1.2 Key Telephone/Versa Phone

While conversing on COL, a KT/VP user can perform Camp On with the TRN key.

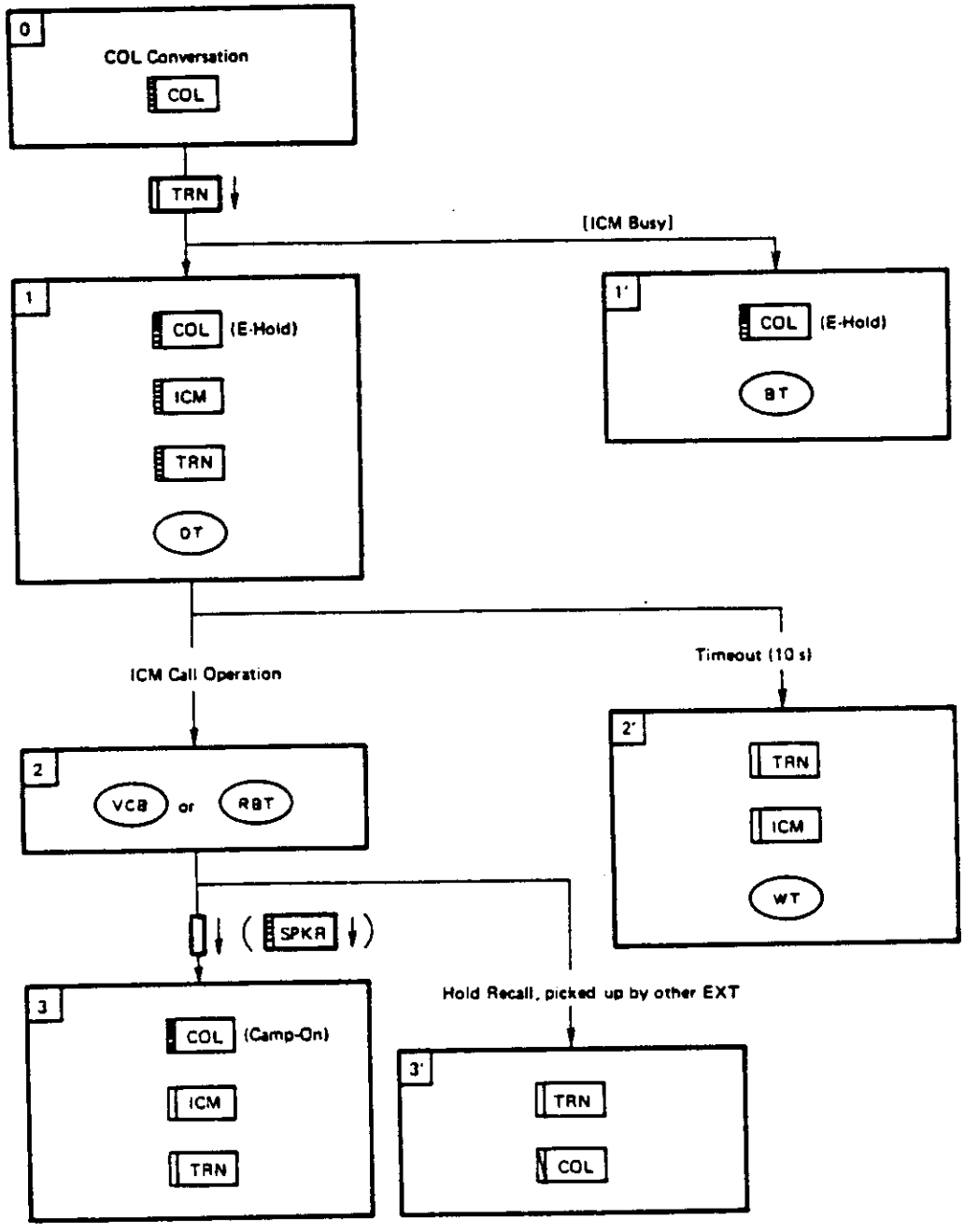
- **Conditions**

  o The COL is placed on Exclusive Hold when the operation is started.

- **Operation Guide**

  (COL Conversation) [TRN] + ICM Call Operation + [ ]↓ ([SPKR]: SPKR on)

■ Operation Flow



2.3.C.8.1.3 Single-Line Telephone

While conversing on COL, a SLT user can perform COL Camp On to other station.

- **Operation Guide**

  (COL Conversation) ↓1 + ICM Call Operation + □↓

C

2.3.C.8.2 ICM Camp On

Conversing on an ICM call, it can be camped on to other station.

- **Conditions**

  - o If Camp On destination is busy or ICM busy, an ICM call cannot be transferred.

  - o If there is no answer to Camp On within certain duration of time, Camp On call is terminated. Duration of time is set by programming Camp On Timeout Item 5 between 1 and 255 seconds. (Default is 30 seconds.)

2.3.C.8.2.1 Key Telephone/Versa Phone

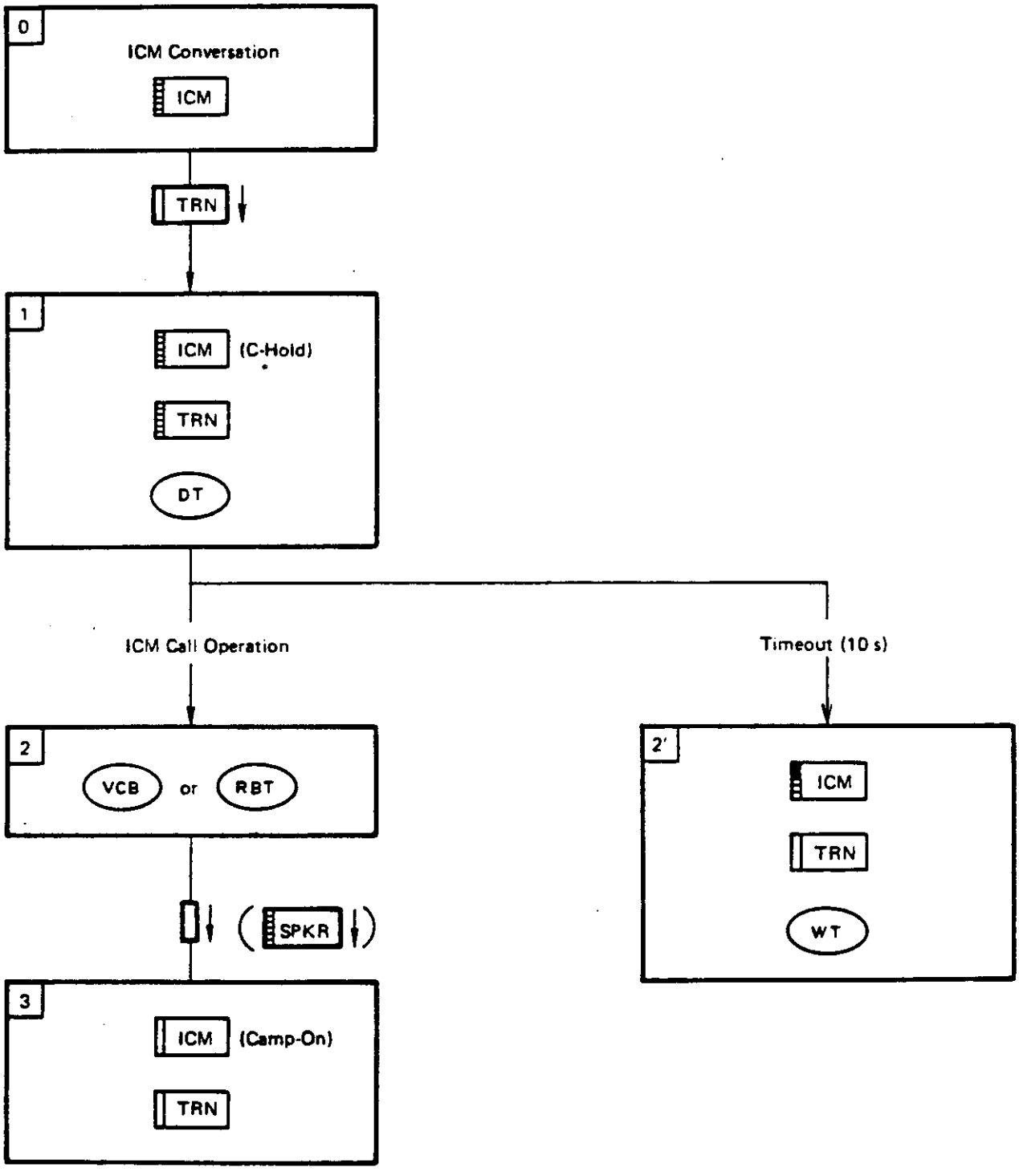
While conversing on ICM line, a KT/VP user can perform ICM Camp On with the TRN key.

- **Operation Guide**

  (ICM Conversation) [TRN] + ICM Call Operation + [ ]↓ ([SPKR]: SPKR on)

C

■ Operation Flow



2.3.C.8.2.2 Single-Line Telephone

A SLT users can perform ICM Camp On after flashing switch-hook.

- **Operation Guide**

  (ICM Conversation) ↓↑ + ICM Call Operation + □↓

2.3.C.8.3 Camp On Pickup

Camp On call can be retrieved from another station than Camp On called station. (See Section 2.3.D.1 Direct Call Pickup.)

C

- **Conditions**

  o A station user is not allowed to retrieve the Pickup Ristricted COL Calls.

2.3.C.8.3.1 Key Telephone/Versa Phone

- **Operation Guide**

  ((Off-hook or SPKR on) and Idle) ([FEAT]) + [4] + [n] + [n]
  nn: Camp On Called Station No.

- **Operation Flow**

  See Section 2.3.D.1.1.

2.3.C.8.3.2 Single-Line Telephone

- **Operation Guide**

  (DT) [1] + [4] + [n] + [n] nn: Camp On Called Station No.

- **Operation Flow**

  See Section 2.3.D.1.2. Direct Call Pickup: SLT

2.3.C.8.4 Camp On Recall

If there is no answer within certain duration of time after COL Camp On is started, Camp On Recall is made to the Camp On operating station and the Camp On call is terminated.
(Duration of time is set by programming Camp On Timeout, Item 5 to between 1 and 255 seconds (Default is 30 seconds.))

- **Conditions**

  - o Camp On Recall and COL Hold Recall have the same audible indication and are collectively referred to as COL Recall.

  - o If Camp On Recall continues for certain duration of time, Automatic Recall (Attendant Recall) is performed. (See Section 2.3.A.1.5 Attendant Recall.)
    (Duration of time is set by programming system constants, Item 4 between 1 and 255 seconds. (Default is 20 seconds.))

  - o When a station user attempts to make COL Camp On to a station to which that COL is pickup restricted, Camp On Recall is sent immediately to the operating station.

2.3.C.9 Clock Adjustment

The system has a built-in system clock for a time-display and other time-related functions. An Attendant can make adjustment of the seconds to 0 second.

C

- **Condition**

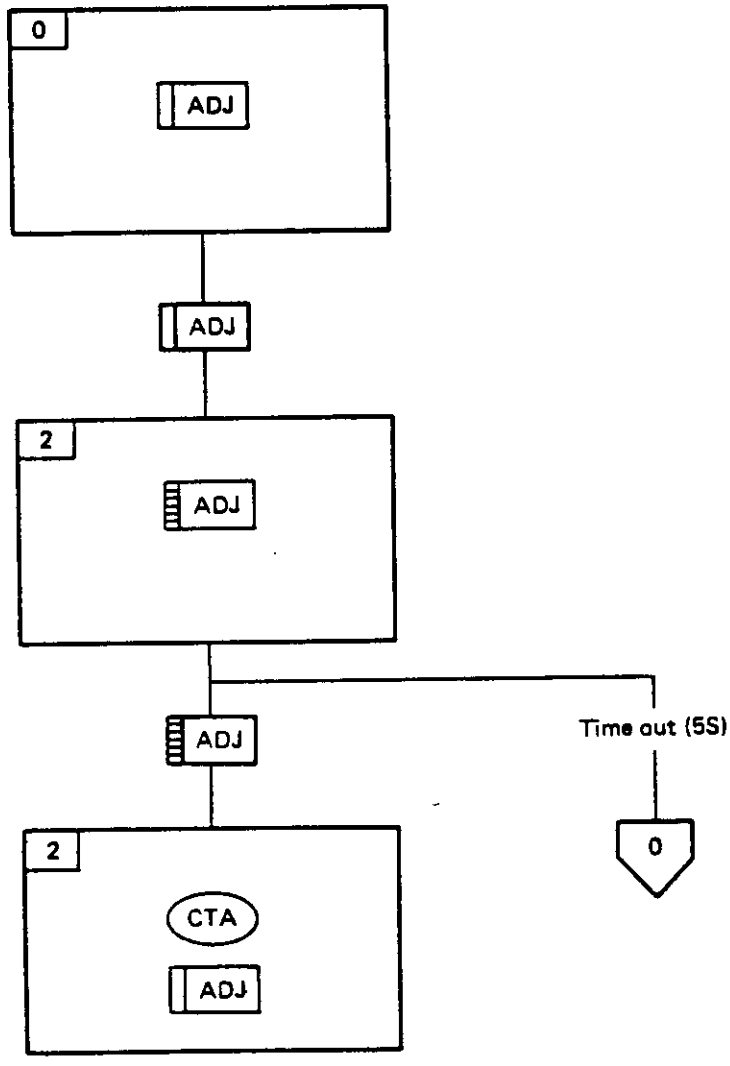
  - o Confirmation Tone is connected when adjustment is complete.
  - o Adjusted time of day is immediately displayed on ATTND display.
  - o The time of day is adjusted by depressing the ADJUST key twice.
  - o The adjustment is executed in the manner described below.
    If an Attendant adjusts system-clock while second is between 0 to 29, the value of second is revised to 0.
    If an Attendant adjusts system-clock while second is between 30 to 59, the value of second is revised to 0 and minute increases by 1.
  - o This function is for time, minutes and second adjustment, and not for date.
  - o If there is no Attendant, the KT/VP user with station No. 20 can adjust the system-clock. (See Section 2.3.P.7.4 Programming from KT/VP.)

- **Operation Guide**

  (Attendant KT off-Hook) [ADJ] + [ADJ]

■ Operation Flow

Operation Flow



C

2.3.C.10 COL Selection

2.3.C.10.1 KT/VP

Originating a COL call a station user can select COL which is not Pickup Restricted and in the same tenant as the station. (See Section 2.3.D.2 Direct COL Assignment.)

- **Conditions**
  - o Only a COL which has direct appearance on the station can be selected among them.
  - o When a station user originates a call, he can access only a COL which is not outgoing restricted. (See Section 2.3.O.5 Outgoing Restriction.)
- **Operation Guide**

MF/KF
(Off-hook or SPKR on) [COL]

(On-hook and SPKR off) [COL] + [↑] ([SPKR])

KF
[FLT] + [m] + [m] mm: COL No. (01 to 16)
(Only KF)

2.3.C.10.2 SLT

To originate a COL outgoing call with SLT, an idle COL in designated COL group is seized automatically.

- **Conditions**
  - o System assigns an idle COL in the same tenant as the caller, a COL which is not pickup restricted and is not outgoing restricted.
  - o System searches COLs in the group from one with the largest COL number.
  - o COL group number 1 to 7 are designated by dial number 91 to 97 correspondingly.
- **Operation Guide**

MF
(DT) [9] + [n] n: 1, 2, 3, 4, 5, 6, 7

KF
(DT) [9] + [m] + [m] mm: COL No. (01 to 16)

■ Programming

Line Specification Item 12	CO Outgoing Group (COL No.) 1 ~ 7 Group 0: Not Assigned Default is Group 1.

2.3.C.11 Conference

Up to three internal party can be connected to a COL simultaneously. And up to four party can be joined to an internal call. A station can seize two COL simultaneously.

- **Conditions**

  o Conference features are listed below.

  1. Add On Conference
  2. Automatic Add On
  3. Conference Hold
  4. Multi Line Conference
  5. Trunk To Trunk Conference
  6. Conference Camp On

C

2.3.C.11.1 Add On Conference

Up to three (COL call) or four (internal call) parties can participate in a conference.

2.3.C.11.1.1 COL Add On Conference

Up to three parties can participate in a COL conference.

- **Conditions**

  - o A station can not participate in a COL conference which is pickup restricted from the station. And in this case an Add On conference operation is ignored.

  - o When an Add On Operation is completed, an Add On Tone is sent to all the parties and the COL.

- **Programming**

  Station Class-of-Service Item 25: Pickup Restriction (EXT No.)

  Each COL { Lit: No Restriction; Blink: Restriction; Default is No Restriction

2.3.C.11.1.1.1 Add On Conference From COL Conversation (KT/VP)

A KT/VP user in COL conversation can make a COL Add On Conference to call another station.

- **Conditions**

  - o The COL is placed on Exclusive Hold during the operation and ADD key lamp on the station flashes.

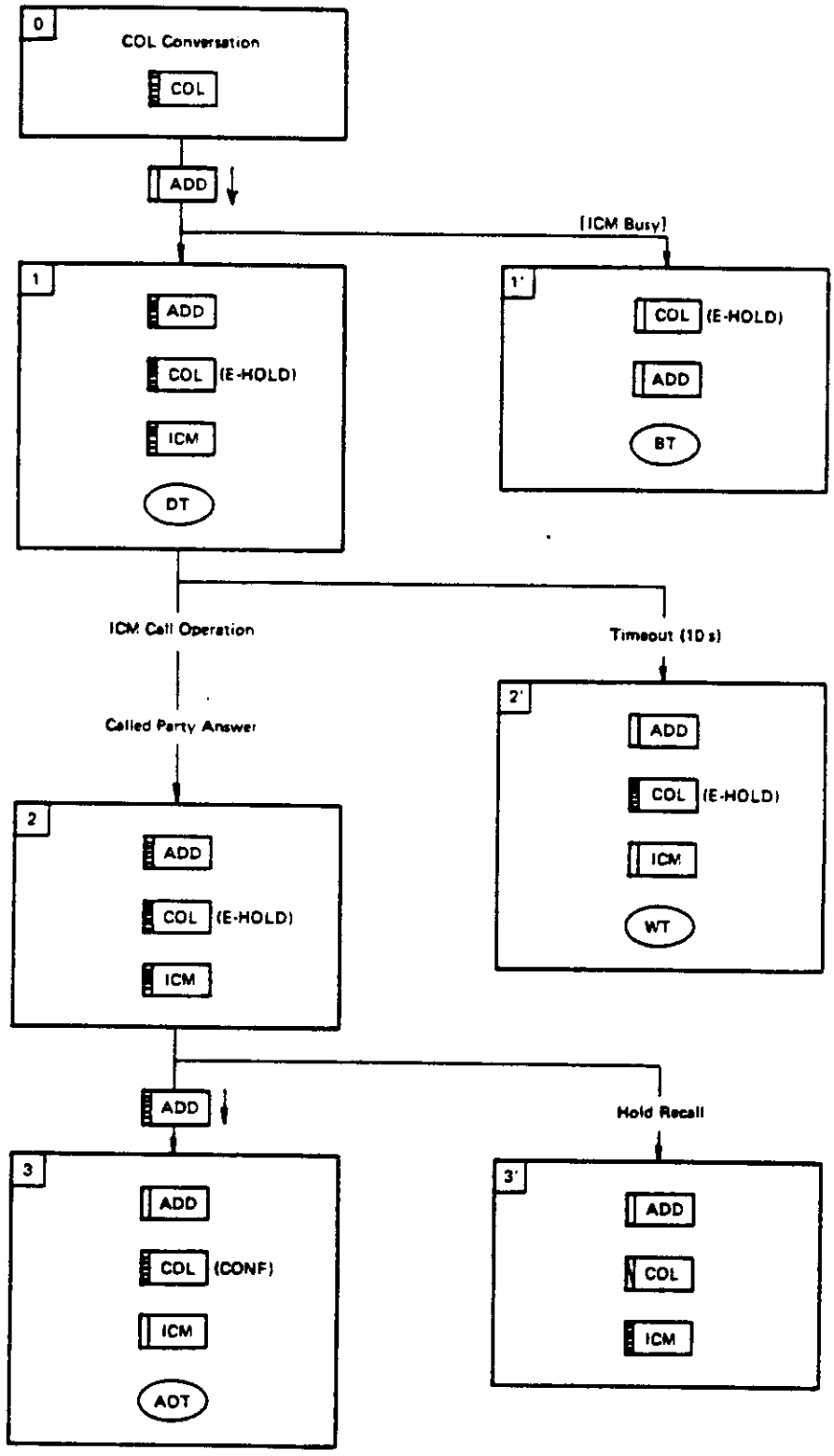
  - o If the COL goes Hold Recall, the ADD key lamp goes out and the operation terminates.

- **Operation Guide**

  (COL Conversation) [ADD] + ICM Call Operation + Called Party Answer + [ADD]

C

- Operation Flow



2.3.C.11.1.1.2 Add On Conference From COL Conference (KT/VP)

If two extensions are in a COL Add On Conference, another party can be joined to the conference.

- **Conditions**

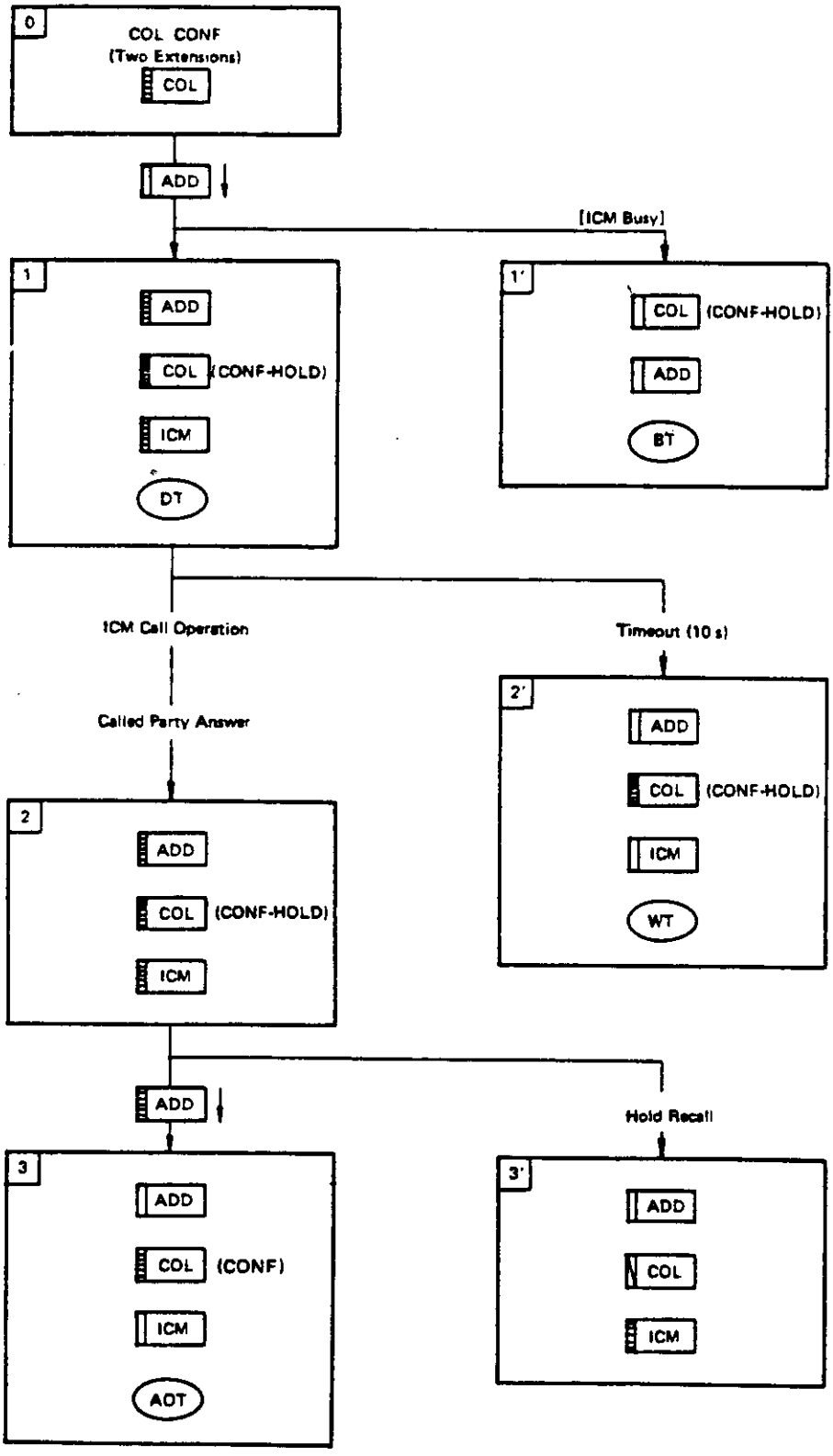
  o The COL is placed on Conference Hold during the operation.

- **Operation Guide**

  (COL CONF) [ADD] + ICM Call Operation + Called Party Answer + [ADD]

C

- **Operation Flow**



2.3.C.11.1.1.3 Add On Conference From Conference Hold (KT/VP)

If the COL engaged in an Add On Conference is placed in any of the following conditions, other KT/VP user can join the conference by depressing the COL key:

- o An station user in the Add On Conference places the Conference on hold. (See Section 2.3.C.11.3 Conference Hold.)
- o Either station user performs Privacy Release in a two-party conference. (See Section 2.3.P.5 Privacy.)

■ **Operating Guide**

(Off-hook or SPKR on) [COL]

(On-hook and SPKR off) [COL] + [ ]↑

[COL] + [SPKR]

2.3.C.11.1.1.4 Add On Conference by Executive (KT/VP)

An Executive KT/VP user can connect itself to a busy COL or a COL engaged in an Add On Conference by depressing the COL key. (See Section 2.3.O.6.3 Executive Override.)

■ **Conditions**

- o The above operation is invalid while outgoing COL call is to be originating.
- o It is invalid if three stations are connected to a COL.
- o If the COL is busy in the Privacy mode (other than Privacy Release and Conference Hold), no Add On Tone is sent.

■ **Operation Guide**

(Off-hook or SPKR on) [COL]

(On-hook and SPKR off) [COL] + [ ]↑

[COL] + [SPKR]

2.3.C.11.1.1.5 Add On Conference From COL Conversation (SLT)

While conversing on COL in progress, a SLT user can have a COL Add On Conference to call another station.

- **Conditions**

  - o The COL is placed on Exclusive Hold during the operation.
  - o If the COL is placed on Hold Recall or if another extension answers before the operation is complete, the operation terminates.

- **Operation Guide**

  (COL Conversation) ↑↓ + ICM Call Operation + Called Party Answer + ↓↑

2.3.C.11.1.1.6 Add On Conference From COL Conference (SLT)

If two stations are connected to a COL, the SLT user in the Add On conference can join another station to it.

- **Conditions**

  - o The COL is placed on Conference Hold during the operation.
  - o If another station user answers the COL before the operation is complete, it is terminated.

- **Operation Guide**

  (COL CONF) ↓↑ + ICM Call Operation + Called Party Answer + ↓↑

2.3.C.11.1.2 ICM Add On Conference

Up to four party can participate in an internal call.

- **Conditions**
  - o Upon completion of an Add On operation, an Add On Tone is sent to all the parties.

2.3.C.11.1.2.1 Add On Conference From ICM Conversation (KT/VP)

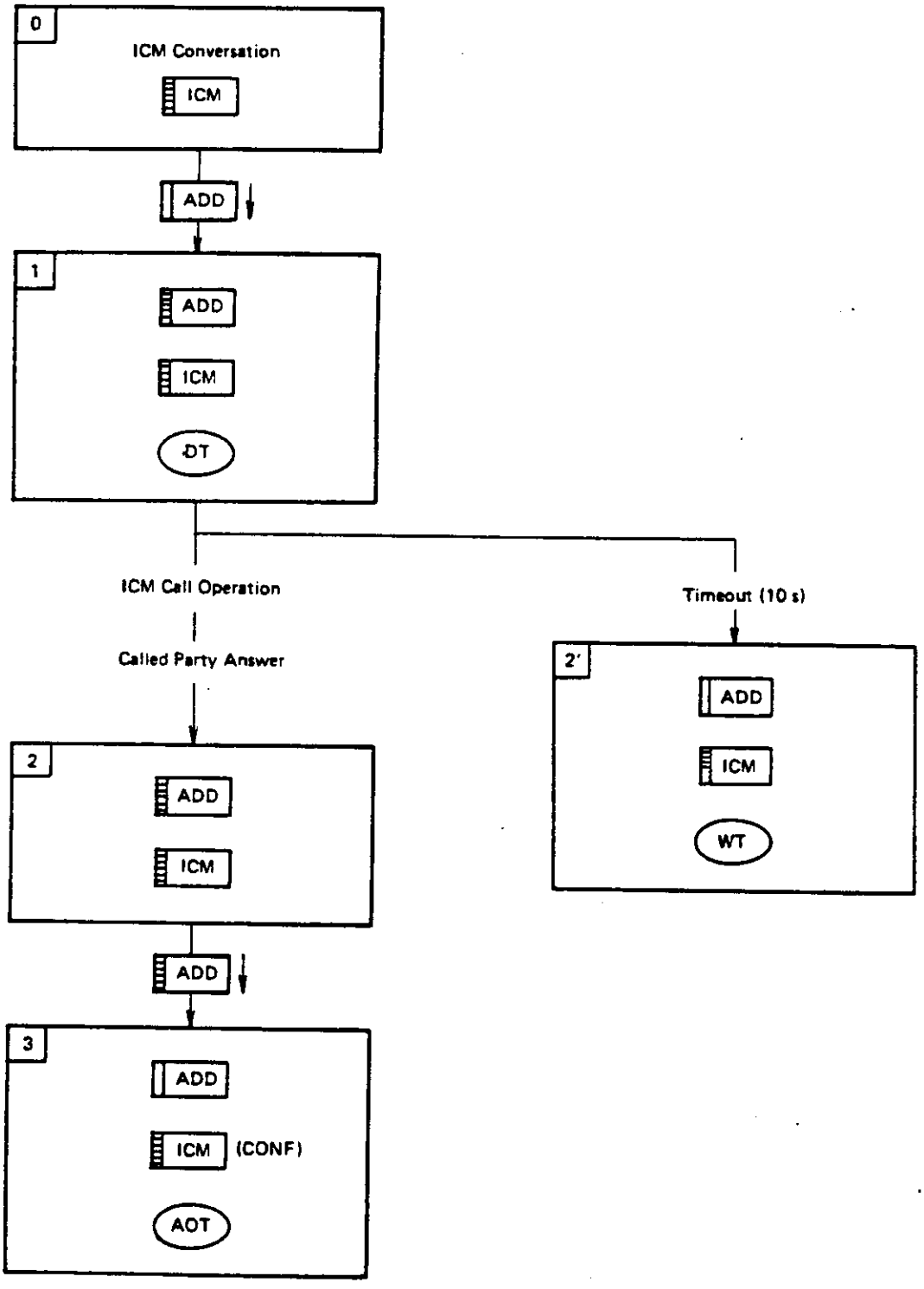
While in conversing on an internal call a KT/VP user can initiate an ICM Add On Conference.

- **Conditions**
  - o The ICM line is placed on Consultation Hold during the operation.
  - o No ICM line is necessary but the one engaged in conversing.
  - o The operation is terminated if Consultation Hold Recall begins.
- **Operation Guide**

  (ICM Conversation) [ADD] + ICM Call Operation + Called Party Answer + [ADD]

C

- Operation Flow



2.3.C.11.1.2.2 Add On Conference From ICM Conference (KT/VP)

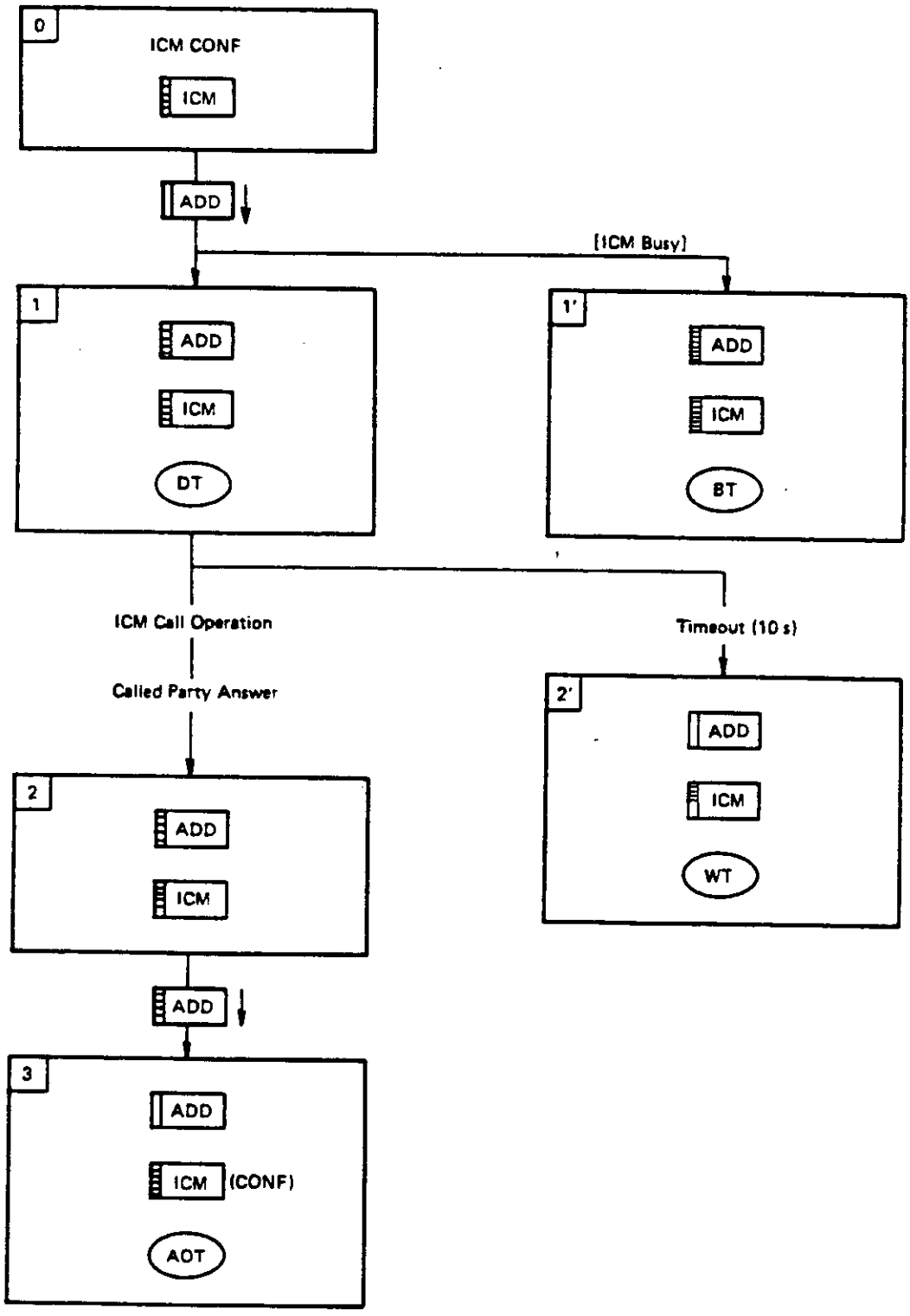
In a three party internal conference, another station can participate in the conference.

- **Conditions**
  - o The call is placed on Conference Hold during the operation.
  - o An ICM line other than the one engaged in the conference is used for calling.
- **Operation Guide**

  (ICM CONF) [ADD] + ICM Call Operation + Called Party Answer + [ADD]

C

■ Operation Flow



2.3.C.11.1.2.3 Add On Conference From ICM Conversation (SLT)

While in conversing on an internal call, a SLT user can initiate an ICM Add On Conference.

- **Conditions**
  - o The ICM line is placed on Consultation Hold during the operation.
  - o The operation is terminated if Consultation Hold Recall begins.
- **Operation Guide**

  (ICM Conversation) ↓↑ + ICM Call Operation + Called Party Answer + ↓↑

2.3.C.11.1.2.4 Add On Conference From ICM Conference (SLT)

In a three party internal conference, another station can participate in the conference.

- **Conditions**
  - o The ICM line is placed on Conference Hold during the operation.
- **Operation Guide**

  (ICM CONF) ↓↑ + ICM Call Operation + Called Party Answer + ↓↑

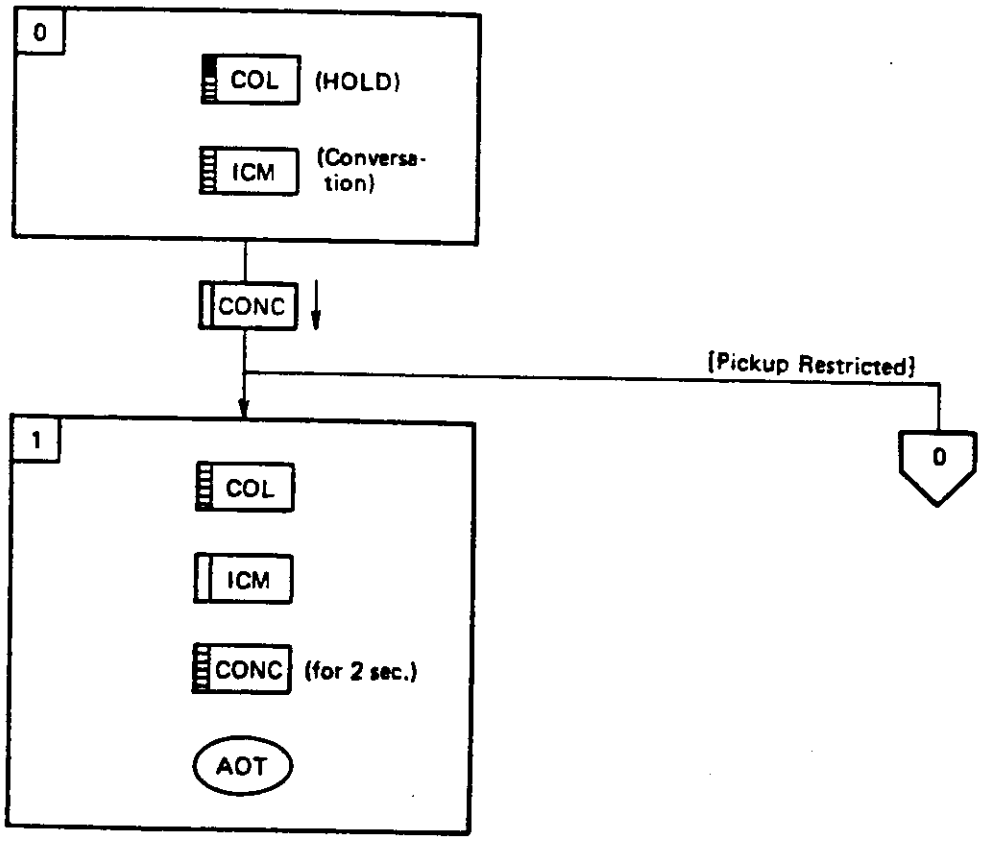
2.3.C.11.2 Automatic Add On

While conversing on an internal call with held COL, an Attendant can initiate a three-party Add On Conference with the COL by depressing the CONC key. (See Section 2.3.C.8 Camp On.)

C

- **Conditions**
  - o If some COL calls are placed on hold, this operation is effective for the COL that was most recently placed on hold.
  - o If the station which the Attendant converses is pickup restricted from the held COL, the operation is ignored.
- **Operation Guide**

  (ICM Conversation with COL hold) CONC
- **Operation Flow**



2.3.C.11.3 Conference Hold

A conference call can be placed on hold. And it can be retrieved again.

- **Conditions**
  - o Once a conference is held, no more hold operation is valid.
  - o Conference Hold is canceled when another station joins to the conference.

2.3.C.11.3.1 COL Conference Hold

If a station user performs holding operation (including Call Park) while conversing in a COL Conference, the COL is placed on a Conference Hold.

2.3.C.11.3.1.1 Key Telephone/Versa Phone

A KT/VP user can place a COL Conference on Conference Hold.

- **Operation Guide**

  (COL Conference) [HOLD] ([ADD], [TRN], [PARK], [OPT], [FLTn], [FLT], [COL]: Conversing COL

2.3.C.11.3.1.2 Single-Line Telephone

A SLT user can place a COL Conference call on Hold.

- **Operation Guide**

  (COL Conference) ↓↑ +[1]+[1]

2.3.C.11.3.2 COL Conference Hold Pickup

A station user can pick up a COL Conference Hold.

- **Conditions**
  - o A SLT user can pick up only the COL placed on Conference Hold by own station.

C

2.3.C.11.3.2.1 Key Telephone/Versa Phone

- **Operation Guide**

(Off-hook or SPKR on) [COL], [FLT], [FLTn], [OPT]

(On-hook and SPKR off) [COL] + [ ]↑ ([SPKR]), [FLT], [FLTn], [OPT])

2.3.C.11.3.2.2 Single Line Telephone

- **Operation Guide**

(DT) [1]+[1]

2.3.C.11.3.3 ICM Conference Hold

An internal conference call can be held. (The Call Park feature is not available for an ICM.)

2.3.C.11.3.3.1 Key Telephone/Versa Phone

- **Operation Guide**

(ICM Conference) [HOLD/DND] ([ADD], [TRN])

2.3.C.11.3.3.2 Single Line Telephone

- **Operation Guide**

(ICM Conference) ↓↑ +[1]+[1]

2.3.C.11.3.4 ICM Conference Hold Pickup

A station user can pick up ICM Conference Hold.

- **Conditions**

  - o Only the station user who initiated the hold can pick up the ICM Conference Hold.
  - o When an ICM Conference Hold is placed by pressing the TRN key or ADD key, the station user can pick up the ICM Conference Hold by recall answering.

2.3.C.11.3.4.1 Key Telephone/Versa Phone

- **Operation Guide**

[When a Conference Hold is placed by pressing the Hold key]

(Off-hook or SPKR on) [ICM]

(On-hook and SPKR off) [ICM] + [ ] ↑ ([SPKR])

2.3.C.11.3.4.2 Single Line Telephone

- **Operation Guide**

(Recall) [ ] ↑

C

2.3.C.11.4 Multi Line Conference

Two COLs can be seized by a station simultaneously.

- **Conditions**

  - o CONF-M board is necessary for this feature. The operation is ignored if this board is not installed
  - o The key lamps for the two CO lines which are in conference on the KT/VP indicate I-USE indication.
  - o Both COLs are disconnected if the station user disconnects the call.
  - o The station user initiating a Multi Line Conference can switch the two COL lines into a Trunk to Trunk Conference. (See Section 2.3.C.11.5 Trunk to Trunk Conference.)

2.3.C.11.4.1 Key Telephone/Versa Phone

- **Operation Guide**

  (COL Conversation with COL hold) [ADD]

2.3.C.11.4.2 Single Line Telephone

- **Operation Guide**

  (COL Conversation with COL Hold) ↓↑ +[1]+[1]

2.3.C.11.5 Trunk-to-Trunk Conference

A station user initiating a Multi Line Conference may switch the two CO lines to Trunk to Trunk Conference. (See Section 2.3.C.11.4 Multi Line Conference.)

C

- **Conditions**

  - o Valid only when the two COLs have Disconnect Signals.
  - o Both COLs are disconnected when the disconnect signal of either COL is detected during the Trunk to Trunk Conference.
  - o Only the station user who initiated a Trunk to Trunk Conference can retrieve it until the recall is started.
  - o When the station user who initiated a Trunk to Trunk Conference retrieve it again, it changes to a Multi Line Conference.
  - o When a SLT user initiates a Trunk to Trunk Conference, Hold Recall is started after certain duration of time which is with an interval four times that of Hold Recall Time but the duration cannot exceed 255 seconds. Attendant Recall is started if the SLT user is busy when the timeout occurs. (See Section 2.3.A.1.5 Attendant Recall.)
  - o Attendant Recall is performed if Recall continues for a certain duration of time.
  - o If a COL with Pickup Restricted attendant is included in the conference, Attendant Recall is not performed and Hold Recall continues. (See Section 2.3.H.2.7 Hold Recall.)
  - o The operation to initiate a Trunk to Trunk conference is ignored in case of either or both COL in Multi Line Conference don't have Disconnect Signal.
  - o The key lamps for the two CO lines on the KT/VP which initiates a Trunk to Trunk Conference indicate I-HOLD pattern during the conference.

- **Programming**

  Line Specification Item 9. Disconnect Signal (COL No.)
  0: No Reception
  1: With Disconnect signal
  Default value is 1 with Disconnect Signal

2.3.C.11.5.1 KT/VP

- **Operation Guide**

(Multi Line Conference) HOLD/DND (COL: COL with I-USE indication)

2.3.C.11.5.2 SLT

- **Operation Guide**

(Multi Line Conference) ↓↑

2.3.C.11.6 Conference Camp-On

A station user engaged in ICM Conference can initiate Conference Camp On to call another station.

- **Conditions**

  - o This feature is not applied when the operating station has no other idle ICM.

  - o Conference Camp On is canceled if the selected station does not respond to within certain duration of time. Duration of time is set by programming system constants, Item 5 between 1 to 255 seconds (Default is 30 seconds.))

2.3.C.11.6.1 Key Telephone/Versa Phone

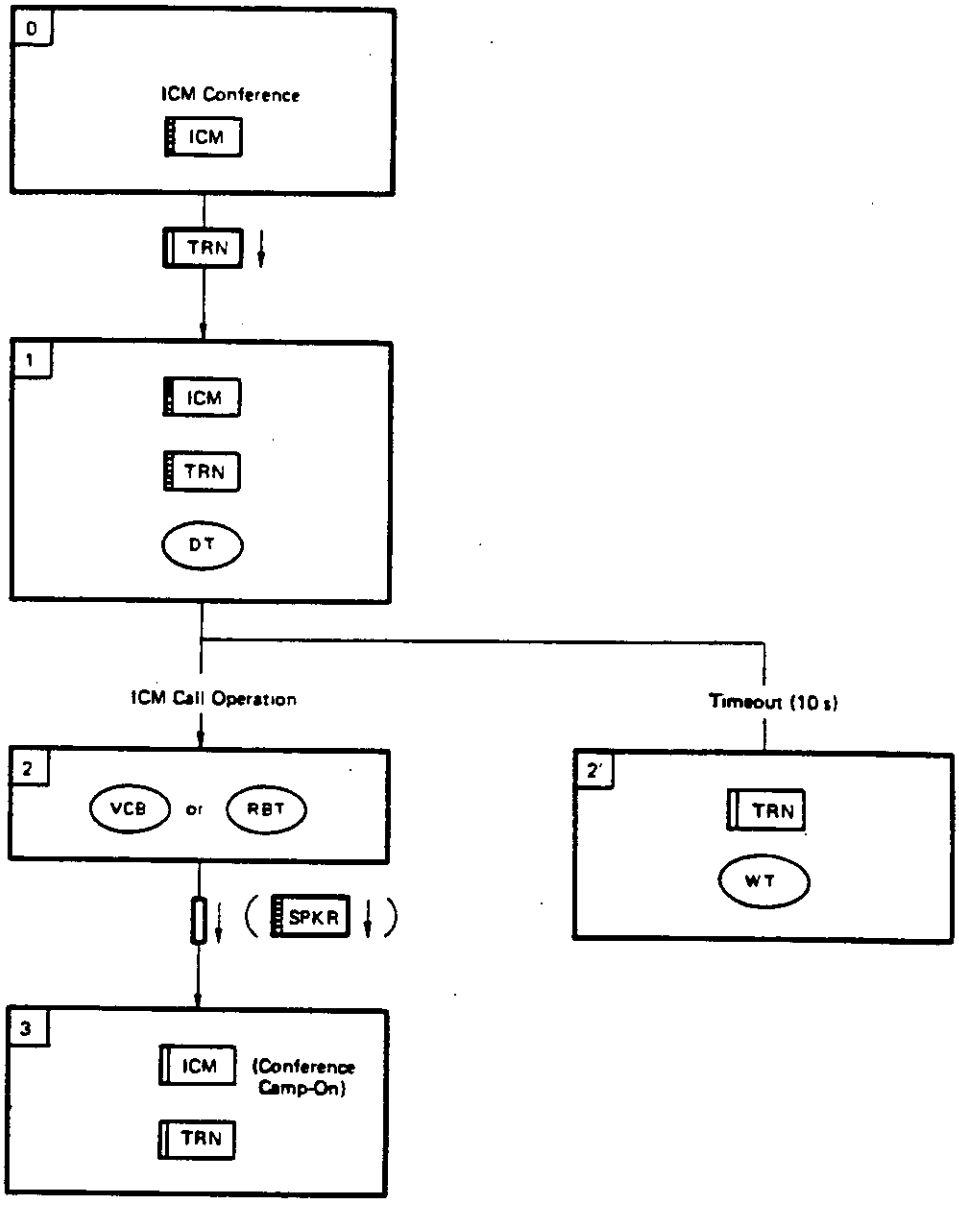
A KT/VP user engaged in an ICM conference can initiate Conference Camp On with the TRN key.

- **Operation Guide**

  (ICM Conference) [TRN] + ICM Call Operation + [ ] ↓ ([SPKR]: SPKR on)

C

- **Operation Flow**



2.3.C.11.6.2 Single Line Telephone

A SLT user engaged in an ICM conference can initiate Conference Camp On after flashing the switch-hook.

- **Operation Guide**

(ICM Conference) ↓↑ + ICM Call Operation + [ ]↓

2.3.D.1 Direct Call Pickup

A station user can pick up calls ringing on another station within the same tenant as the station by dialing special number and called station number.

- **Conditions**

  - o The following calls can be picked up.

    i) COL Recall
    ii) COL RGT
    iii) ICM Hold Recall
    iv) ICM Voice/Tone Call (Including Master Group Hunt Call)

  - o A station user can not pick up calls on a Pickup Restricted COL.

D

2.3.D.1.1 Key Telephone/Versa Phone

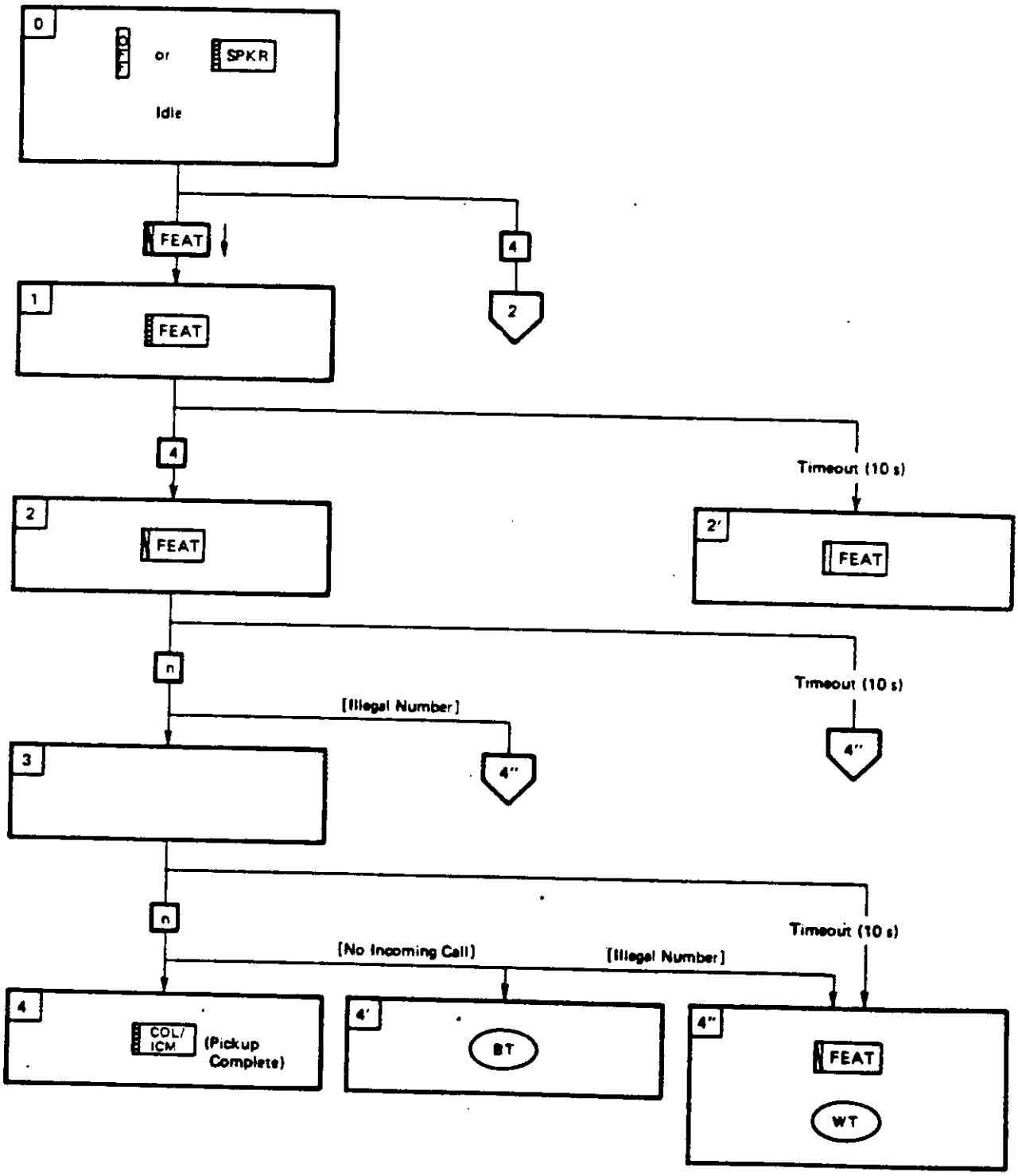
- **Operation Guide**

(Off-hook or SPKR on) (FEAT) + 4 + n + n nn: Called EXT No.

D

D

■ Operation Flow

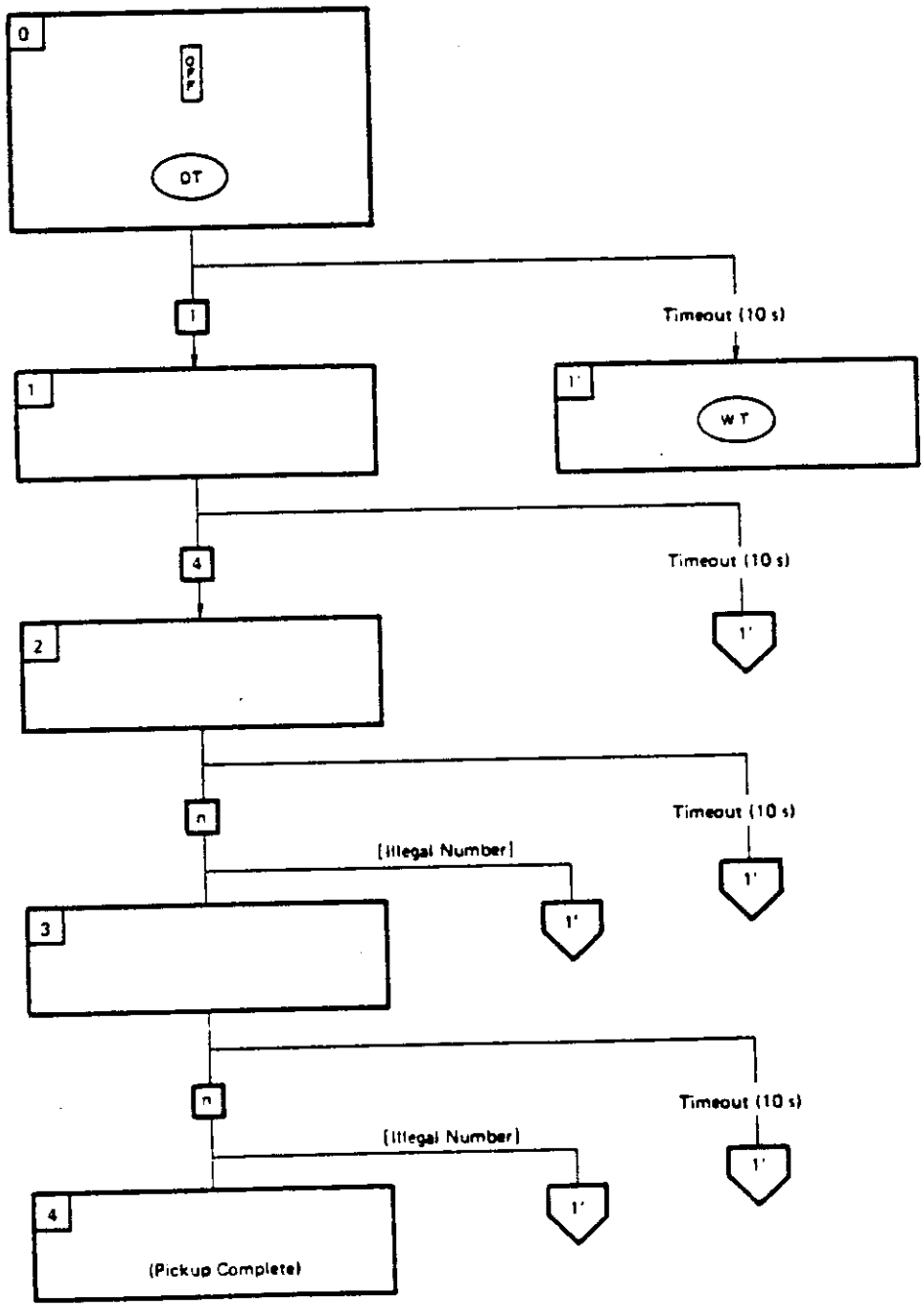


2.3.D.1.2 Single Line Telephone

- **Operation Guide**

  (DT) 1 + 4 + n + n nn: Called EXT No.

- **Operation Flow**



2.3.D.2 Direct COL Assignment

A KT/VP user can access a COL directly by depressing the direct COL keys assigned to COLs.

- **Conditions**

  - o Only those COLs in the same tenant and not pickup restricted from the station can be assigned as direct appearance.

  - o Direct COL keys can be assigned to Line Keys or Certain Function Keys. (See Section 2.3.F.2 Flexible Key Assignment.)

- **Programming**

  Station Class-of-Service Item 25, Pickup Restriction (Station No.)

  Each COL No.: { Lit: No Restriction
  Blink: Restriction
  Default is No Restriction

  Station Class-of-Service Item 26, KT key Assignment (Station No. X key No.)

2.3.D.3 Disconnect

2.3.D.3.1 COL

A COL call is disconnected with disconnect signal of the COL, disconnect operation by station, or forced disconnect by ATTND.

D

2.3.D.3.1.1 Disconnect Signal

When a disconnect signal from a COL is detected, the COL is disconnected and the conversing or holding stations on the COL are released.

- **Conditions**

  - o Disconnect signal is valid only with those COLs which are programmed as disconnect signal enable.
  - o When a disconnect signal is detected during COL conversing, COL holding, COL Hold Recall, or COL Camp On, the COL is disconnected.
  - o When originating a COL outgoing call, a disconnect signal is ignored.

- **Programming**

  Line Specification Item 9, Disconnect Signal (COL No.)
  0: No Reception
  1: With Disconnect Signal
  Default value is 1 with Disconnect Signal

- **Setting**

  Threshold value of Disconnect Signal is set with DIP switch on CTRK-M. (See Section 3.6.2.4.2.2 CTRK-M.)

2.3.D.3.1.2 Disconnect Operation

While conversing on COL call, the COL is disconnected when a station user performs a Disconnect Operation.

- **Conditions**

D

  - o After being disconnected, the COL is locked out for an interval equal to the Flash Signal length predefined by the system data to ensure the line disconnected by the central office.
  - o The COL is not disconnected and only the station is released from the call when a disconnect operation is performed by one of parties during COL Conference or COL Conference Hold.

2.3.D.3.1.2.1 Key Telephone/Versa Phone

- **Operation Guide**

  i) (Off-hook and SPKR off) [ ] ↓

  ii) (On-hook and SPKR on) [SPKR]

  iii) (COL Conversation) [ICM], [COL] (other COL)

2.3.D.3.1.2.2 Single Line Telephone

- **Operation Guide**

  (COL Conversation) [ ] ↓

2.3.D.3.1.3 Forced Release from ATTND

An Attendant can disconnect a busy COL with the Trunk Forced Release feature. (See Section 2.3.A.1.12 Trunk Forced Release.)

2.3.D.3.2 ICM

An internal call is disconnected with station user's Disconnect Operation or forced disconnection from ATTND.

2.3.D.3.2.1 Disconnect Operation

While conversing on internal call, the call is disconnected when a station user performs a Disconnect Operation.

D

- **Conditions**

  o An internal call is disconnected in First-Party Release method.

  o In an internal conference, if one of parties executes a disconnect operation, he is released from conference and conversation continues.

2.3.D.3.2.1.1 Key Telephone/Versa Phone

- **Operation Guide**

  i) (Off-hook and SPKR off) [ ] ↓

  ii) (On-hook and SPKR on) [SPKR]

  iii) (ICM Conversation) [COL]

2.3.D.3.2.1.2 Single Line Telephone

- **Operation Guide**

  (ICM Conversation) [ ] ↓

2.3.D.3.2.2 Forced Release from ATTND

An Attendant can disconnect an internal call with the Trunk Forced Release feature. (See Section 2.3.A.1.12 Trunk Forced Release.)

2.3.D.4 Display Mode Change

A KT with display user can change the contents of display.

- **Conditions**

  o A user can change the contents of display in any mode.

  o The display screen has the following five levels.

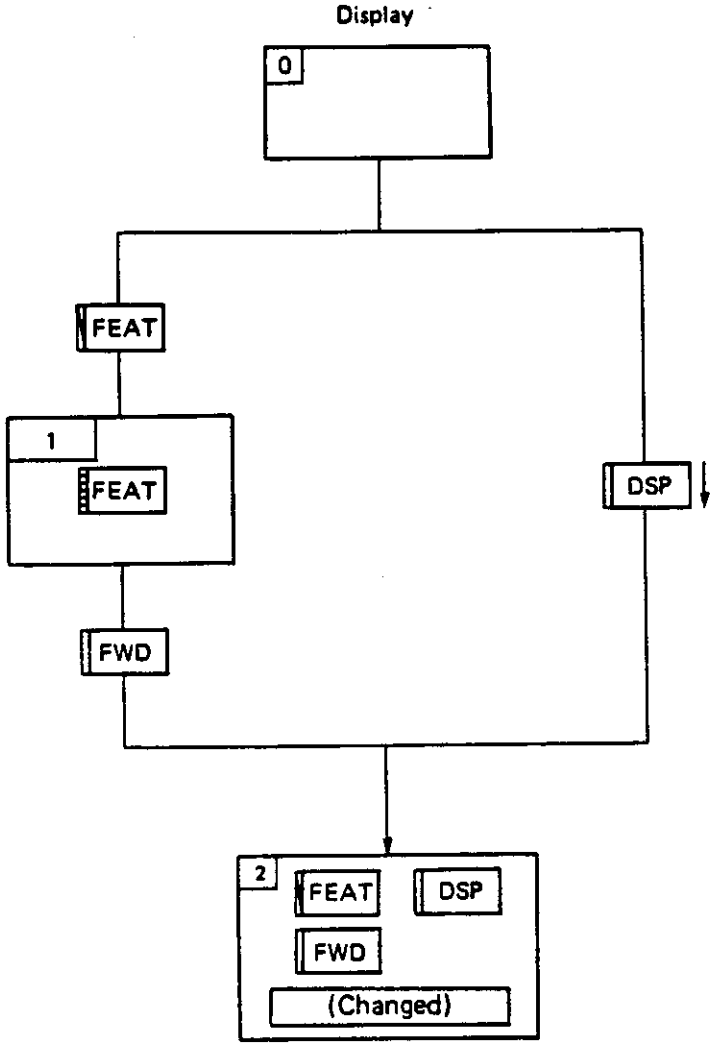
  i) Clock & Calendar
  ii) Incoming Call
  iii) Duration of Call
  iv) Dial Number (ICM)
  v) Calculator/Dial Number (CO)/Account Code

- **Operation**

  (Off-hook) FEAT + FWD or DSP

■ Operation Flow

· Display Mode Change



2.3.D.5 Do Not Disturb

A KT/VP user can reject reception of CO RGT, ICM Voice/Tone Call, and Paging Call.

- **Conditions**

  o Do Not Disturb functions are classified as follows:

  1. Do Not Disturb
  2. Do Not Disturb Forced Release

  See Section 2.3.O.6.2 Do Not Disturb Override
  See Section 2.3.9.1 Paging Call

D

2.3.D.5.1 Do Not Disturb

A KT/VP user can reject reception of CO RGT, ICM Voice/Tone Call, and Paging Call.

- **Conditions**

  - o When DND and (Busy) Call Forward are both in activation, (Busy) Call Forward takes precedence.

  - o A BT connection is made if ICM called station is set to DND. (See Section 2.3.O.6.2, Do Not Disturb Override.)

  - o The station rings, when it is called by an Executive KT/VP user. (See Section 2.3.O.6.3 Executive Override.)

  - o While DND is activated a HOLD Key lamp on the KT/VP turns on.

- **Programming**

  Station Class-of-Service Item 19, Do Not Disturb Deny.

Each station	Lit:	allow
	Blink:	deny

2.3.D.5.1.1 Activation

- **Operation Guide**

  (On-hook and SPKR off HOLD/DND

2.3.D.5.1.2 Inactivation

- **Operation Guide**

  (On-hook and SPKR off) HOLD/DND

2.3.D.5.2 Do Not Disturb Forced Release

An Attendant can inactivate the Do Not Disturb status of a KT/VP. (See Section 2.3.A.1.14 Call Forward Forced Release.)

- **Conditions**

  - o An Attendnat can display DND or (Busy) Call Forward status of a station on the Attendant Display.

  - o If (Busy) Call Forward is also activated, it is also released.

  - o Valid only for KT/VP in the same tenant as the Attendant.

  - o This feature is available only when the attendant KT/VP is off-hook.

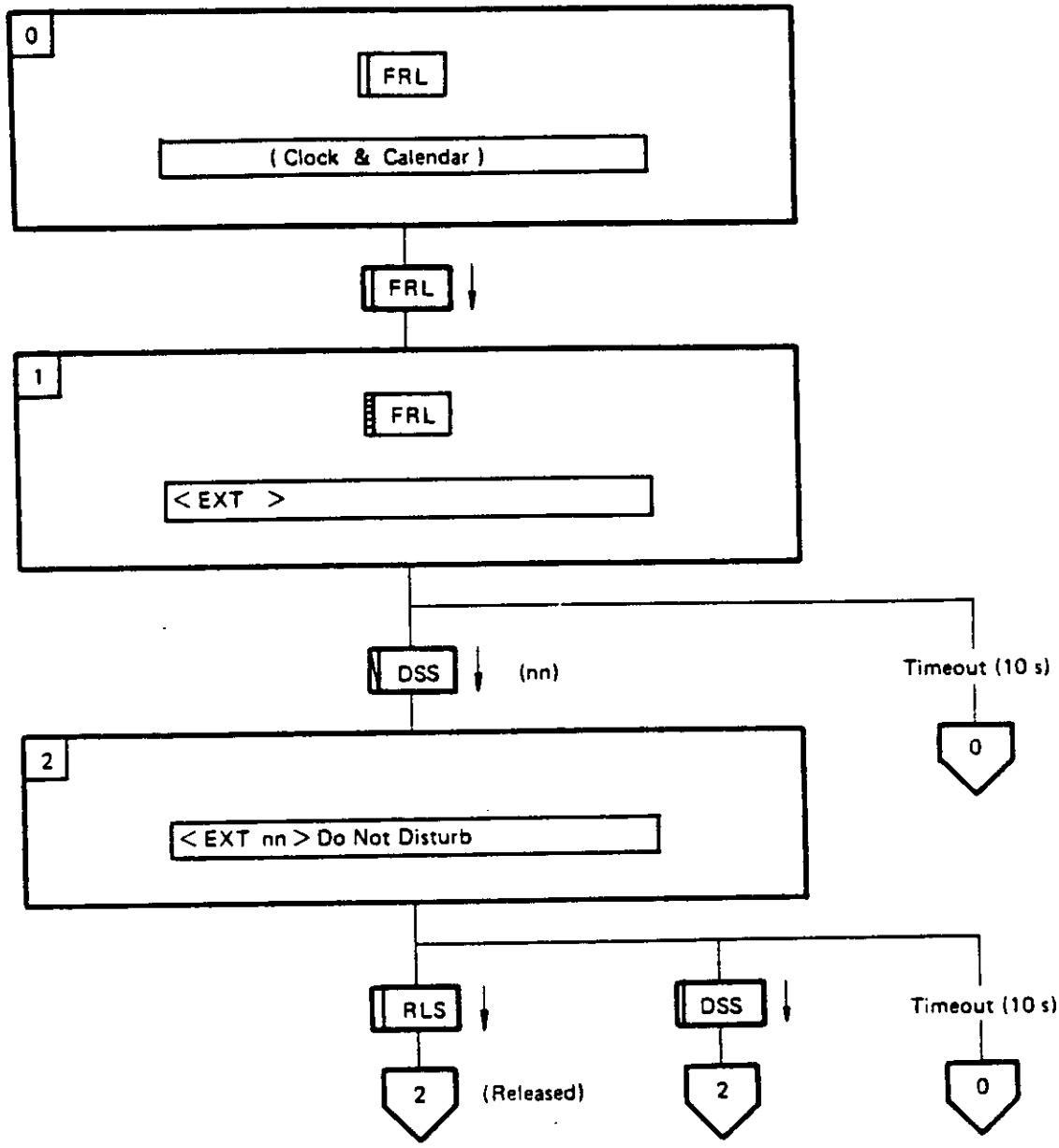
  - o Attendant selects the station is available with the DSS key on the Attendant Console.

- **Operation Guide**

  (ATTND KT/VP off-hook) [FRL] + [DSS] + [RLS]

D

■ Operation Flow



2.3.E.1 Equal Access Dialing

The Equal Access feature is used in two methods.

1) Manually inputting the equal access dial.

2) Using a special number.

2.3.E.1.1 Key Telephone/Versa Phone

E

- **Conditions**

  - o When a KT/VP user originates a call by dialing special number, he should select either with PIN code or without PIN code.

  - o A KT/VP user can utilize up to 10 carriers of SCC Offices or Interexchange carriers (IXC) in one tenant as special numbers. In this case, the following settings are required.

    1) office number (up to 16 digits)
    2) PIN code (up to 8 digits)
    3) PIN code timing (before/after)

  - o Toll restriction is checked even with equal access dialing.

- **Operation Guide**

Special Number
- (after COL access) ([FEAT]) + [*] + [n] + [*] — With PIN code
- (after COL access) ([FEAT]) + [*] + [n] + [#] — Without PIN code; $0 \leq n \leq 9$

Manual
- (after COL access) 10XXX + (1) + 7/10 digits (not presubscribed)
- (after COL access) 1 + 7/10 digits (presubscribed)
- (after COL access) 10XXX# + PIN + (1) + 7/10 digits (cut through)

- **Programming**

Toll Restriction — Item 18 Equal Access Code Table
(Tenant A/B, Table No. 1 to 10)
Office Number 16 digits
Default Value 0: No Function

Toll Restriction — Item 19 Equal Access PIN Code Table
(Tenant A/B, Table No. 1 to 10)
PIN Code 8 digits
Default Value: No Function

Toll Restriction — Item 20 Equal Access PIN Code Timing Table
(Tenant A/B, Table No. 1 to 10)
0: After the Equal Access Code
1: After the Subscriber Code
Default Value 0: After Equal Access Code

Toll Restriction — Item 21 Equal Access Prefix Information
(Tenant A/B, Table No. 1 to 10)
0: Not Assigned
1: Assigned
Default Value 0: Not Assigned

Toll Restriction — Item 22 Equal Access Toll Group
(COL No, Table No. 1 to 10)
Toll Restriction Group 5 to 8.
Default Value 0: No Function

2.3.E.1.2 Single Line Telephone

- **Conditions**

  Same as 2.3.E.1.1.

- **Operation Guide**

MF	[*] + [n] + [*] + [9] + [m]	With PIN code
	[*] + [n] + [#] + [9] + [m]	Without PIN code
	$0 \leqq n \leqq 9$ $1 \leqq m \leqq 7$ (COL Group No.)	
(after COL access)	Manual Dial	
KF	[•] + [n] + [•] + [m] + [m]	With PIN code
	[•] + [n] + [#] + [m] + [m]	Without PIN code
	mm: COL No. (01 to 16)	
(after COL access)	Manual Dial	

E

2.3.E.2 E&M Tie Line Service

The system can provide with E&M tie lines for an outgoing/incoming call service. Although the E&M tie line has four protocols such as Attendant mode, Immediate Mode, Delay Dial Mode, and Wink Signal Mode, the use of the three modes except the Attendant Mode is identical.

- **Setting**

  - o An EMTK-M board is installed in place of an SUBK-M board or SUBS-M (SUBS-M1) board. In this case, among the subscriber circuits corresponding to four stations, the two stations with smaller numbers are assigned to the E&M and the other two become not available.

  - o E&M tie lines installed in the positions of station 20 to 43 are assigned to COL 7 and 8 and those installed in the positions of station 44 to 67 are assigned to COL 11 and 12.

  - o The EMTK-M board provides two circuits of E&M tie lines. A system user can select any of Attendant, Immediate, Delay Dial or Wink Signal mode on each of these lines (by switch setting on the board). The system user should select the same mode as that of the opposite system.

  - o Set the flash signal length for the E&M tie line to 10 (1sec) or more.

- **Programming**

  - o Data of an outgoing trunk (TRK No. 7, 8 or 11, 12)

Line Specification	Item 1	Line Class (COL No.) 3: E&M Tie Line DT MF 11: E&M Tie Line SF	
	Item 2	Tenant Group	Assigned as required (Same as orginary COL.)
	5	Outgoing Level	
	6	Toll Restriction Group	
	7	Flash Signal Length	
	Item 9	Disconnect Signal (COL No.) 1: Allow	

  - o Data of an incoming station (Station No. specified depending on the accommodated position of the EMTK-M.)

Station Class Of Service	Item 1	Tenant	Assigned as required (Same as a normal EXT.)
	22	Class of Restriction	
	23	CO Outgoing Level	
	25	Pickup Restriction	

2.3.E.2.1 Attendant Mode

In this mode, all incoming calls terminate on the Attendant. Once an Attendant answers an incoming call, he can originate a COL outgoing call or internal call with the Through Dialing or ICM Camp On feature.

2.3.E.2.2 Immediate

In this mode, any incoming call is immediately DT-connected, and the caller in the opposite system can originate a internal Call, a Master Group Hunt Call or a COL outgoing Call by dialing a station number (0, 01, 02, 20 through 35 (EX-816), or 20 through 67 (EX-824/1648)), Master Group Hunt Call number (870 through 873), or COL group number (91 through 97 : MF, 901 through 916 : KF).

2.3.E.2.3 Delay Dial/Wink Signal Mode

- o In this mode, whether the DT signal for an incoming call is sent to the opposite system or not can be selected by Line Specification Item 13 E&M Wink/Delay DT Flag.
- o After receiving the DT signal, the caller can originated an internal Call, a Master Group Hunt Call, or a COL outgoing Call by dialing a station number. Group Hunt Call number, or COL group No.

■ Programming
Line Specification Item 13 E&M Wink/Delay DT Flag
0: No DT sending for an incoming call and DT sending for an outgoing call
1: DT sending for an incoming call and no DT sending for an outgoing call

2.3.E.2.4 Incoming E&M Trunk

In any mode, an incoming call on an E&M tie line is treated as a call originated by the station corresponding to the installed position of the EMTK-M.

When a COL call is originated by a station on an E&M tie line, the station number is displayed on the SCDR.
When there is an incoming call on an E&M tie line, the following messages appear on the display of the called station.

While the station is called:

Call From Tn

During conversation:

E&M Tn

Tn: E&M Tie Line No.
CO 7 : T1
CO 8 : T2
CO11 : T3
CO12 : T4

For incoming calls on an E&M tie line, a COL call origination, an internal call, and Master Group Hunt services are provided. The caller in the opposite system can select any of the these service. Sending of an Absence Message is, however, not available.

2.3.E.2.5 Outgoing E&M Trunk

Outgoing calls on an E&M tie line are treated in the same way as ordinary COL calls.

2.3.F.1 Flash (Dial Tone Reorder)

Station user can send a flash signal or place a Dial Tone Reorder by depression of the Flash key (KT/VP) or by flashing hook switch (SLT).

2.3.F.1.1 Flash (to COL)

While conversing on COL call, a KT/VP user can disconnect the COL and then send a Flash signal to the COL.

- **Conditions**

  - o Depressing FLSH key is ignored during a COL Conference.
  - o While Conversing on COL call, if an Outgoing Restricted KT/VP user performs this feature, the COL is disconnected and a WT connection is made.
  - o When the operation is accepted, the FLSH key lamp blinks for about 0.5 second.

- **Operation Guide**

  (COL Originating or Conversing) [FLSH]

2.3.F.1.2 Dial Tone Reorder

2.3.F.1.2.1 Key Telephone/Versa Phone

A KT/VP user can terminate an internal call and make an ICM DT connection when originating or conversing on an internal call.

- **Conditions**

  - o When a KT/VP user performs this feature while originating or calling on an internal call, the ICM line is disconnected. And ICM line is seized to originate call again.
  - o When a KT/VP user performs this feature while conversing on ICM, the ICM call is terminated and an idle ICM line is seized. Therefore, a BT connection can occur when there is no available ICM line.

- **Operation Guide**

  (ICM Originating, Calling or Conversing) [FLSH]

2.3.F.1.2.2 Single Line Telephone

A SLT user can receive an ICM DT, when he performs hook-switch flashing to terminate the call while calling an internal party.

- **Condition**

  - o When a SLT user performs this feature while originating an internal call or calling an internal party, the call is released and ICM DT is connected.

- **Operation Guide**

  (ICM Originating, calling) ↓↑

2.3.F.2 Flexible Key Assignment

The operation keys on a station can be flexibly assigned as function keys or line pickup keys.

2.3.F.2.1 Key Telephone/Versatile Telephone

By programming system data from the Programming Terminal, keys on a KT/VP can be flexibly assigned.

- **Conditions**
  - o Locations of the ICM and FEAT keys are fixed.
  - o PAGE key is fixed.
  - o More than one Floating COL Group keys (FLT) can be assigned to station.
  - o More than one Floating Direct COL Group keys (FLTn) can be assigned to station.
  - o When a key to be assigned is in use (the lamp indicates a status other than "Idle"), the key cannot be assigned.
  - o Assignable keys and their functions are shown in Table 2.3.F.2.1.
  - o Key Assignment Defaults are shown in Figures 2.3.F.2.1.1 and 2.3.F.2.1.2.
  - o The CALC key should be assigned to a key other than the arithmetic operation keys.
- **Programming**

  Station Class of Service Item 26
  KT Key Assignment (EXT NO., Key NO.)

F

Table 2.3.F.2.1 Flexible Key Assignment

SPKR	Speaker Key
ADD	Add-On Conference Key
FLSH	Flash Key
FWD	Call Foward Key
HOLD / DND	Hold/Do Not Disturb Key
MSG	Message Key
PARK	Call Park Key
TRN	Transfer Key
PAGE	Page Key: Assignable only to the Original key
CO	Direct COL Key
FLT	Floating COL Group Access Key
FLTn	Floating Direct COL Group Access Key
OPT	Optimized Routing Access Key
HNTn	Direct Master Group Hunt Key
SPDn	Direct Speed Dial Access Key
PAGE keys (ALL, ALLGRP, ALL ZONE, GRPn, ZONEn)	Direct Page Call Key
DSP	Display Key
CALC	Calculator Key
DSS	Direct Station Select Key

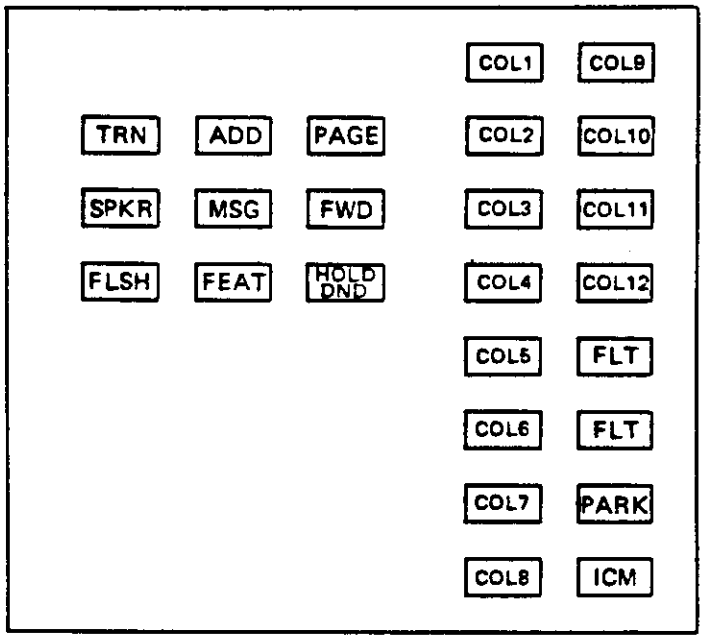


Figure 2.3.F.2.1.1 KT Default Key Assignment

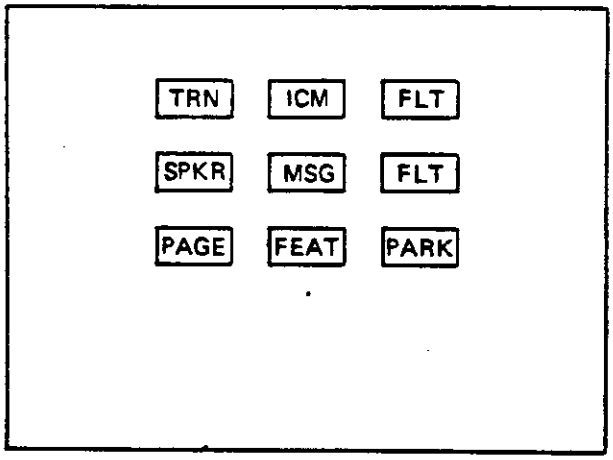


Figure 2.3.F.2.1.2 VP Default Key Assignment

2.3.F.2.2 Attendant

Keys on DSS-M/N can be assigned as certain kind of function keys.

- **Conditions**

  - o DSS keys on the Attendant can be flexibly assigned as DSS keys, System Speed Dial keys, and Direct Master Group Hunt keys (HNTn).
  - o As for DSS, Attendant has 48 keys.
  - o Default Key Assignments are as follows:

    Keys 1 to 48 DSS No. 20 to No. 67

  - o More than one DSS key for one station cannot be assigned to one Attendant.

- **Programming**

  System Constants Item 18
  Attendant Key Assignment (ATTND NO., Key No.)

2.3.F.3 Floating COL Group Access (only MF)

A station user can originate a Floating COL Group Access call.
Floating COL Group Access is available with an MF system only.
In the KF system, the Floating key is used as the COL Access key.

2.3.F.3.1 Key Telephone/Versa Phone

A KT/VP user can originate a Floating COL Group Access call by depressing the Floating key.

- Conditions

  o There are three kinds of Floating Keys as follows.

  1) Floating Direct COL Group Access key
     (FLTn key) n = 1 to 7
     A key which is preprogrammed to select one of CO Outgoing Groups.

  2) Optimized Routing Access key
     (OPT key)
     A key for Optimized Call Routing.

  3) Floating COL Group Access key
     (FLT key)
     A key to select a group with a dial code which specifies either originating a COL Group Access call or Optimized Call Routing call.

  o In the case of a KT/VP which has no COL key corresponding to the COL incoming, an idle FLT key at the station will be steadily illuminated. If there is no idle FLT key, it is impossible to incoming.

  o A station which is preprogrammed as the Optimized Call Routing Access Deny can not use the Optimized Call Routing Access feature.

  o An idle COL which is not outgoing restricted is automatically selected when an outgoing COL group call is originated.

  o There are seven COL groups.

  o If there is no available COL in a group, a KT/VP user who select the group to originate an outgoing call recives a WT.

  o If all the available COLs in a group are busy, an outgoing call to select the group is not possible and BT connection is made as soon as the group is selected.

■ **Operation Guide**

1) (off-hook) [FLTn] + [n1] + [n2] +——+ [ni]
(n=1 to 7)

2) (off-hook) [OPT] + [n1] + [n2] +——+ [ni]

3) (off-hook) [FLT] + [g] + [n1] + [n2] +——+ [ni]

n1, n2, — ni: Destination Customer number
g: 0 (Optimized Call Routing)
1 to 7 (COL Group No.)

■ **Programming**

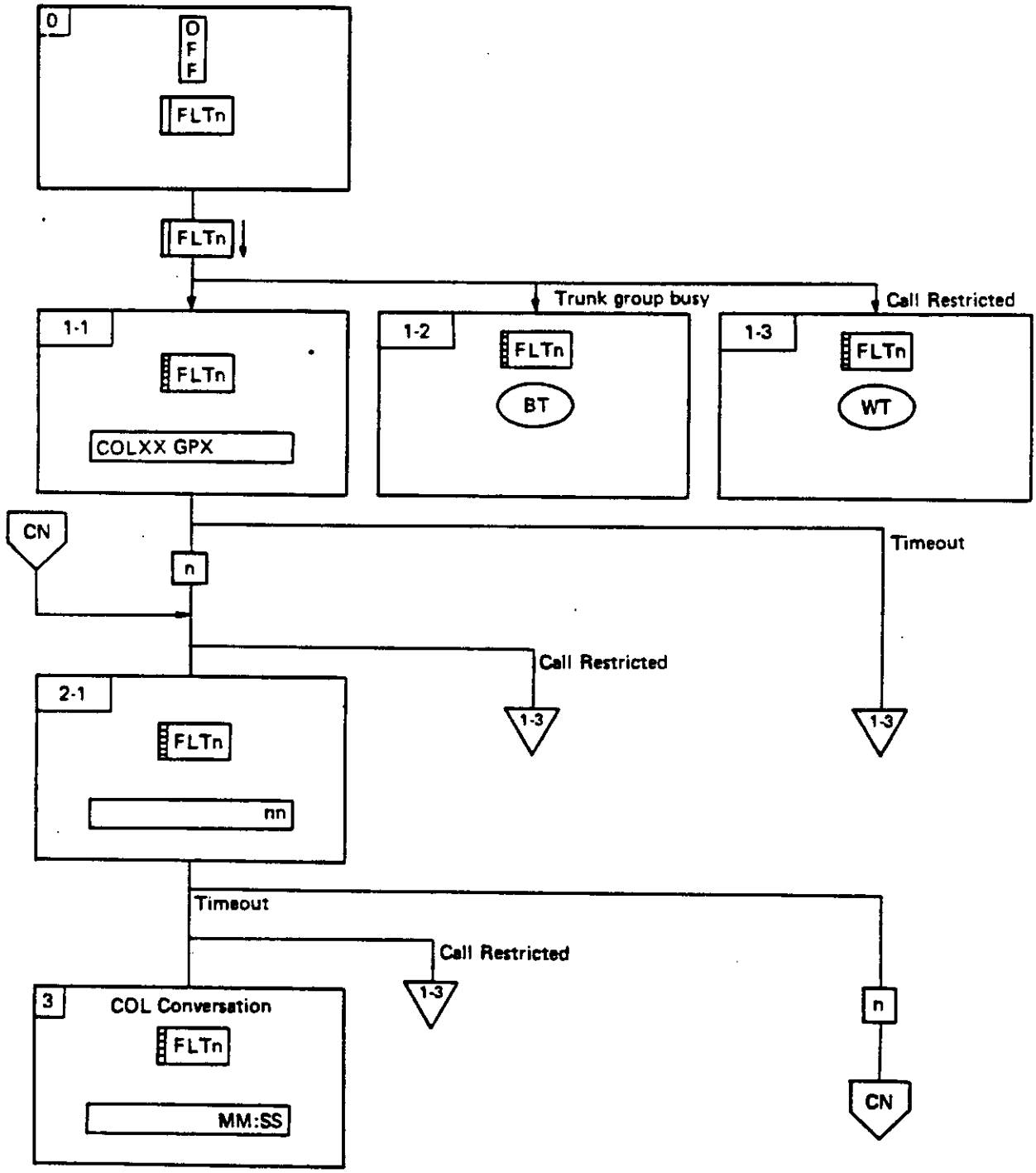
Line Specification Item 12 CO Outgoing Group
(CO No.)
1 to 7 CO Group No.
Default is CO Group 1.

Station Class of Service Item 20 Optimized Call Routine Access Deny

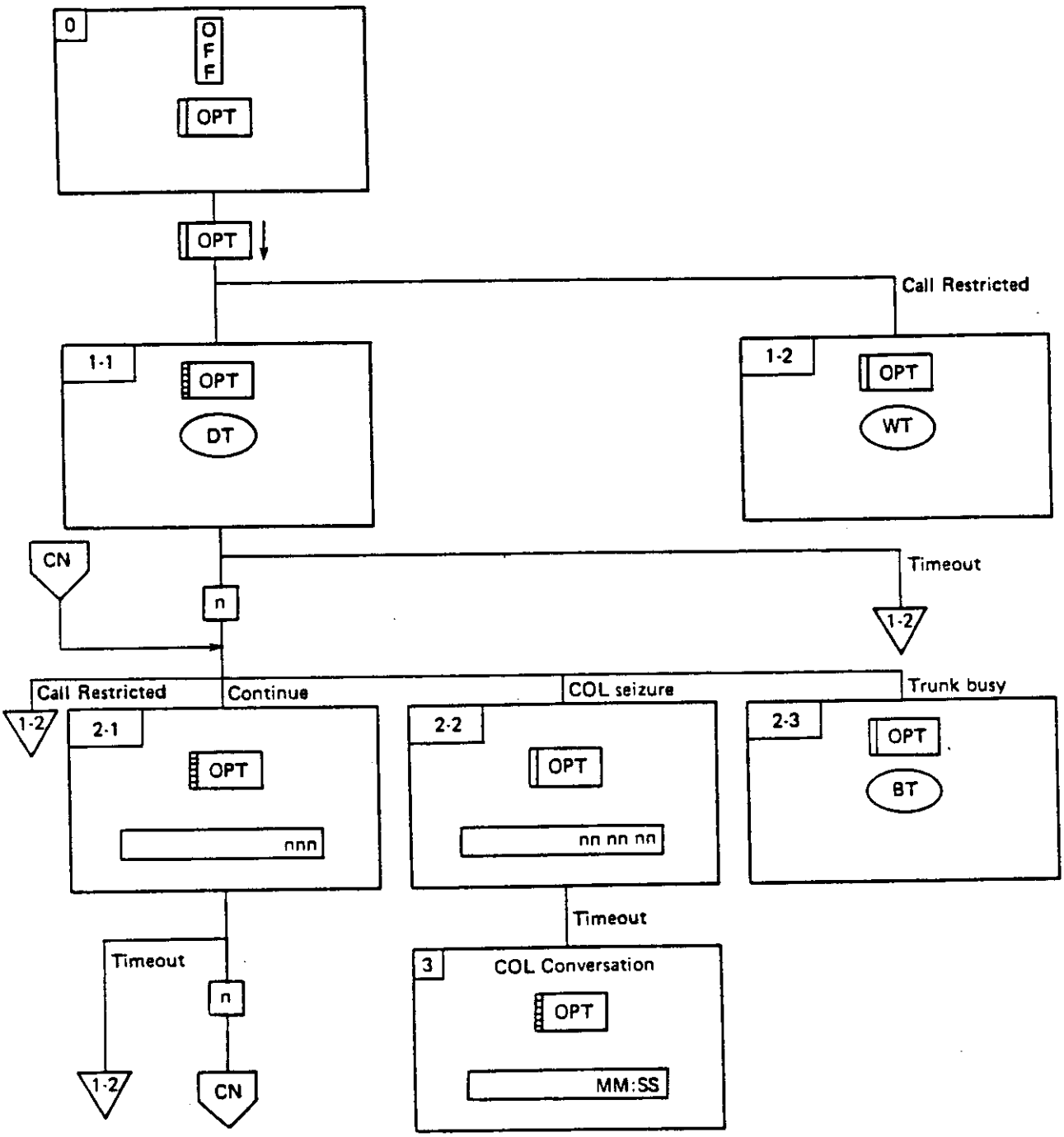
Each EXT { Lit: allow / Blink: deny
Default is Allow.

■ **Operation Flow**

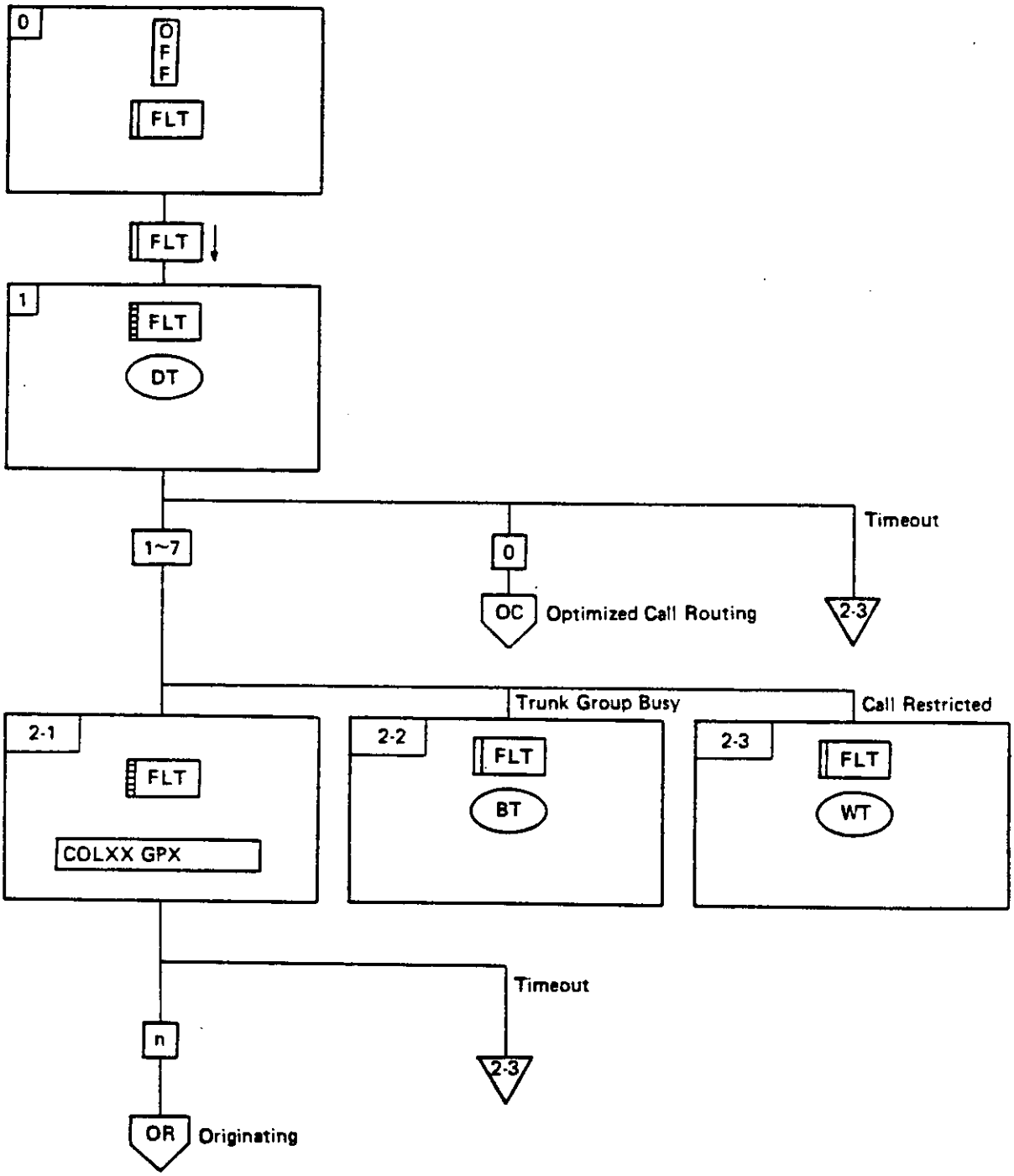
i) FLTn (Floating Direct COL Group Access) key



ii) OPT (Optimized Call Routing Access) Key

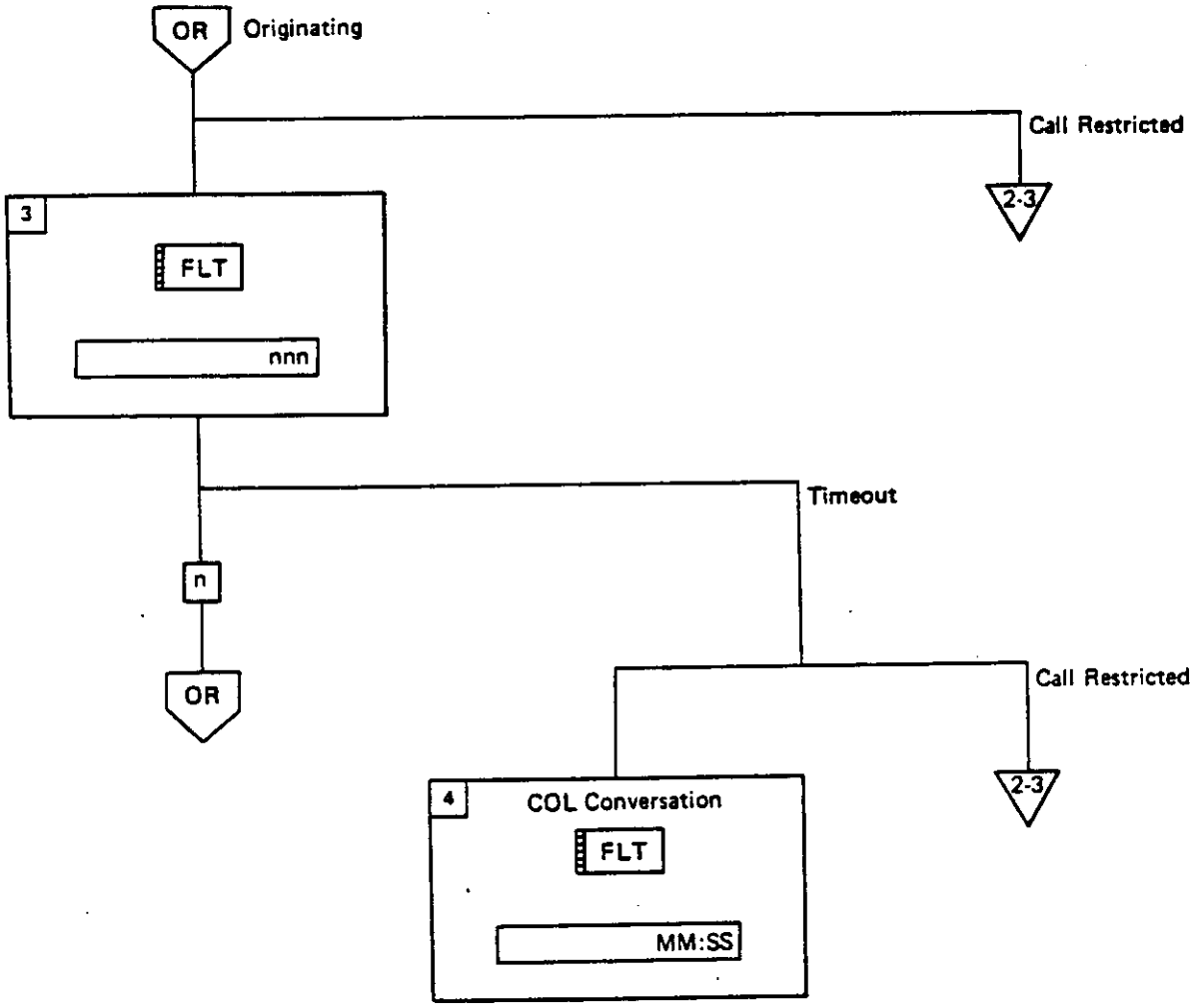


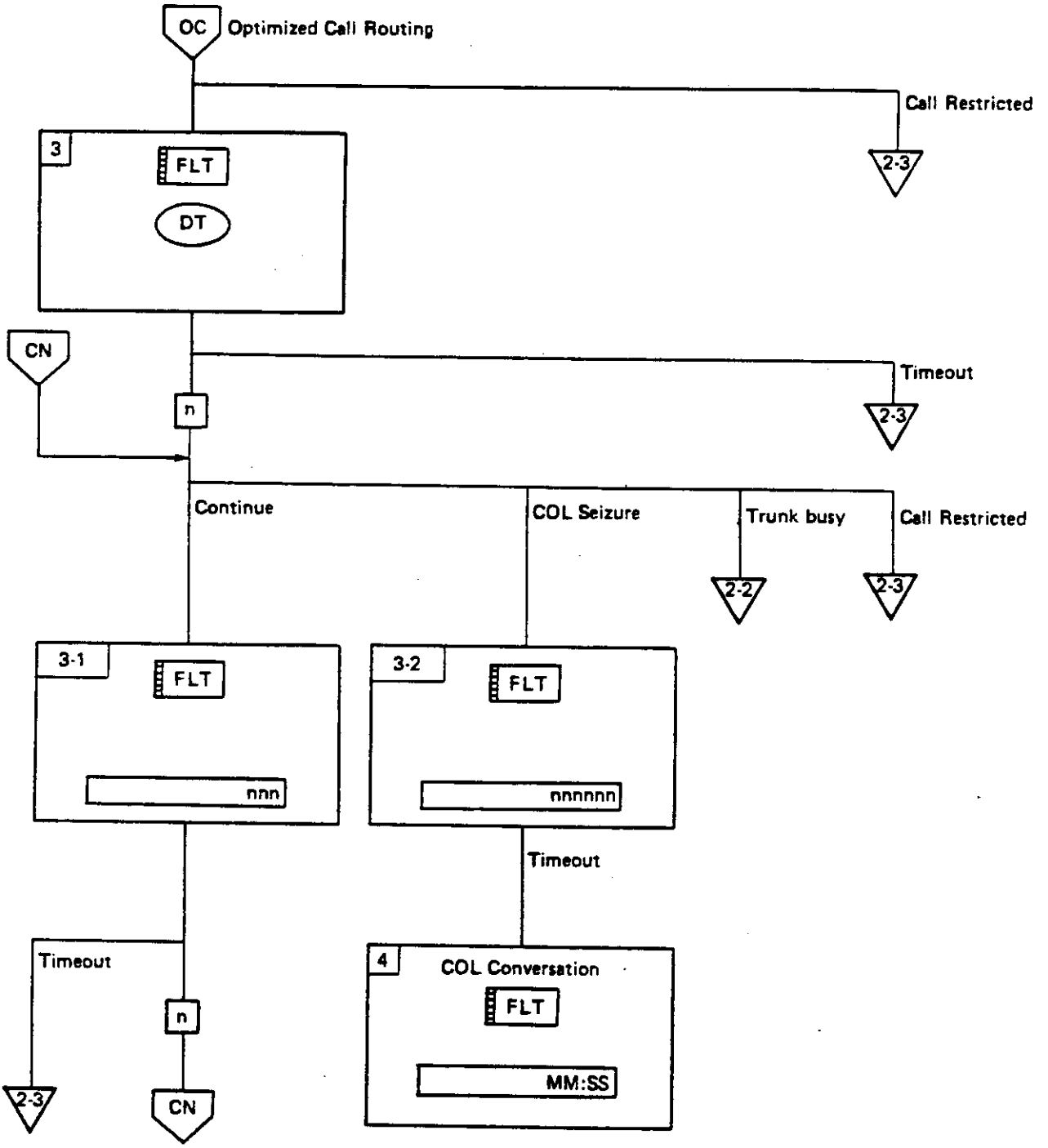
iii) FLT (Floating COL Group Access) Key



F

F


OR
Originating
Call Restricted
2-3
3
FLT
nnn
Timeout
n
OR
Call Restricted
2-3
4
COL Conversation
FLT
MM:SS


OC
Optimized Call Routing
Call Restricted
2-3
3
FLT
DT
CN
n
Timeout
2-3
Continue
COL Seizure
Trunk busy
Call Restricted
2-2
2-3
3-1
FLT
nnn
3-2
FLT
nnnnnn
Timeout
Timeout
4
COL Conversation
FLT
MM:SS
n
2-3
CN

F

2.3.F.3.2 Single Line Telephone (SLT)

A SLT user can originate a call by dialing Floating COL Group Access special numbers. (only MF)

- **Conditions**

  o The special number is showed as follows.

  1) 90: Optimized Call Routing Access
  2) 91 to 97: Floating COL Group 1 to 7 Access

F

  o A station which is preprogrammed as the Optimized Call Routing Access Deny can not use the Optimized Call Routing Access feature.

  o A SLT user can not use a Outgoing Restricted COL.

  o There are seven COL groups.

  o If there is no available COL in a group, a KT/VP user who select the group to originate an outgoing call recives a WT.

  o If all the available COLs in a group are busy, an outgoing call to select the group is not possible and BT connection is made as soon as the group is selected.

- **Operation Guide**

  1) Optimized Call Routing Access

  [O f f] + [9] + [0] + [n1] + [n2] +----+ [ni]

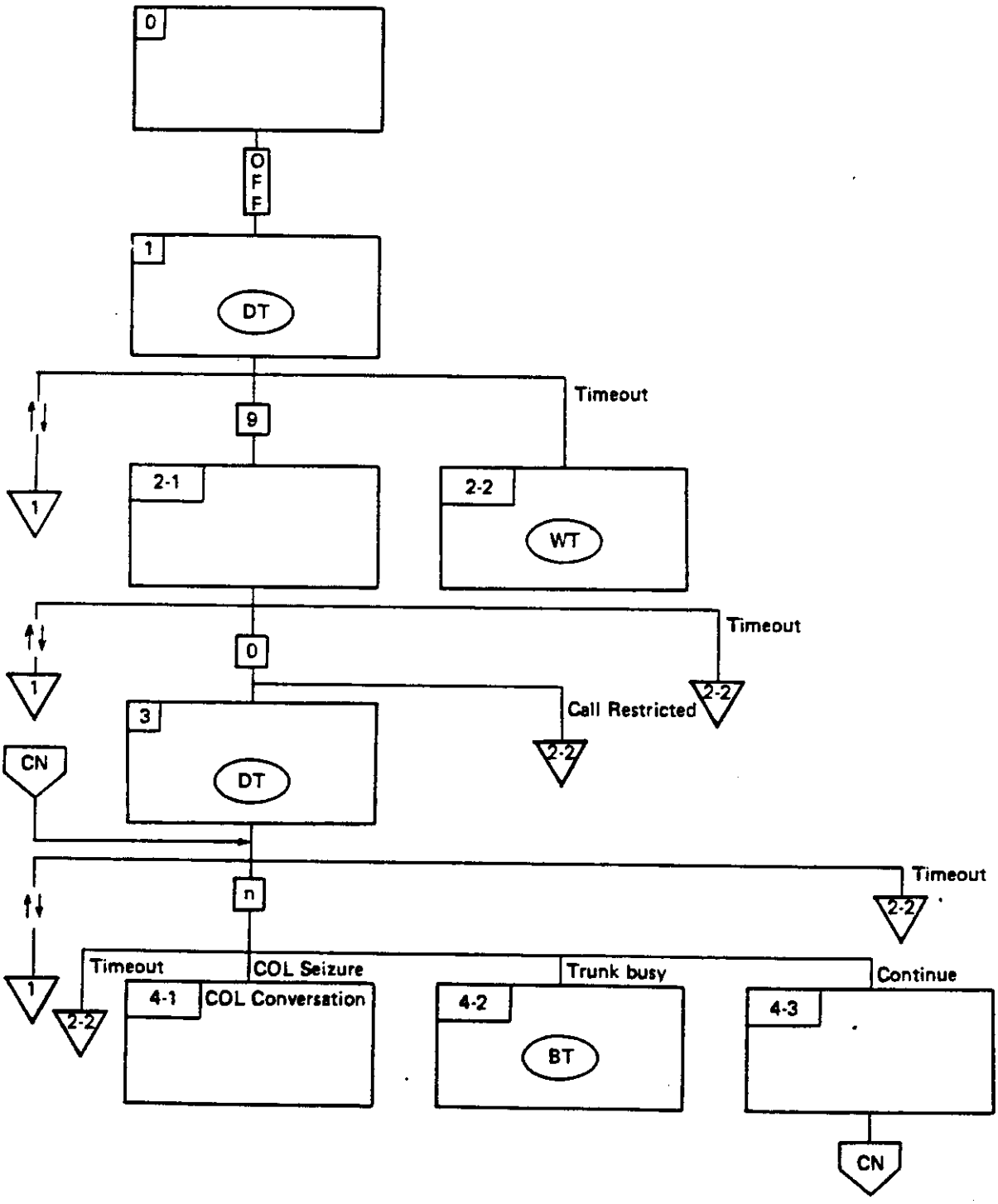
  2) Floating CO Group Access

  [O f f] + [9] + [g] + [n1] + [n2] +----+ [ni]

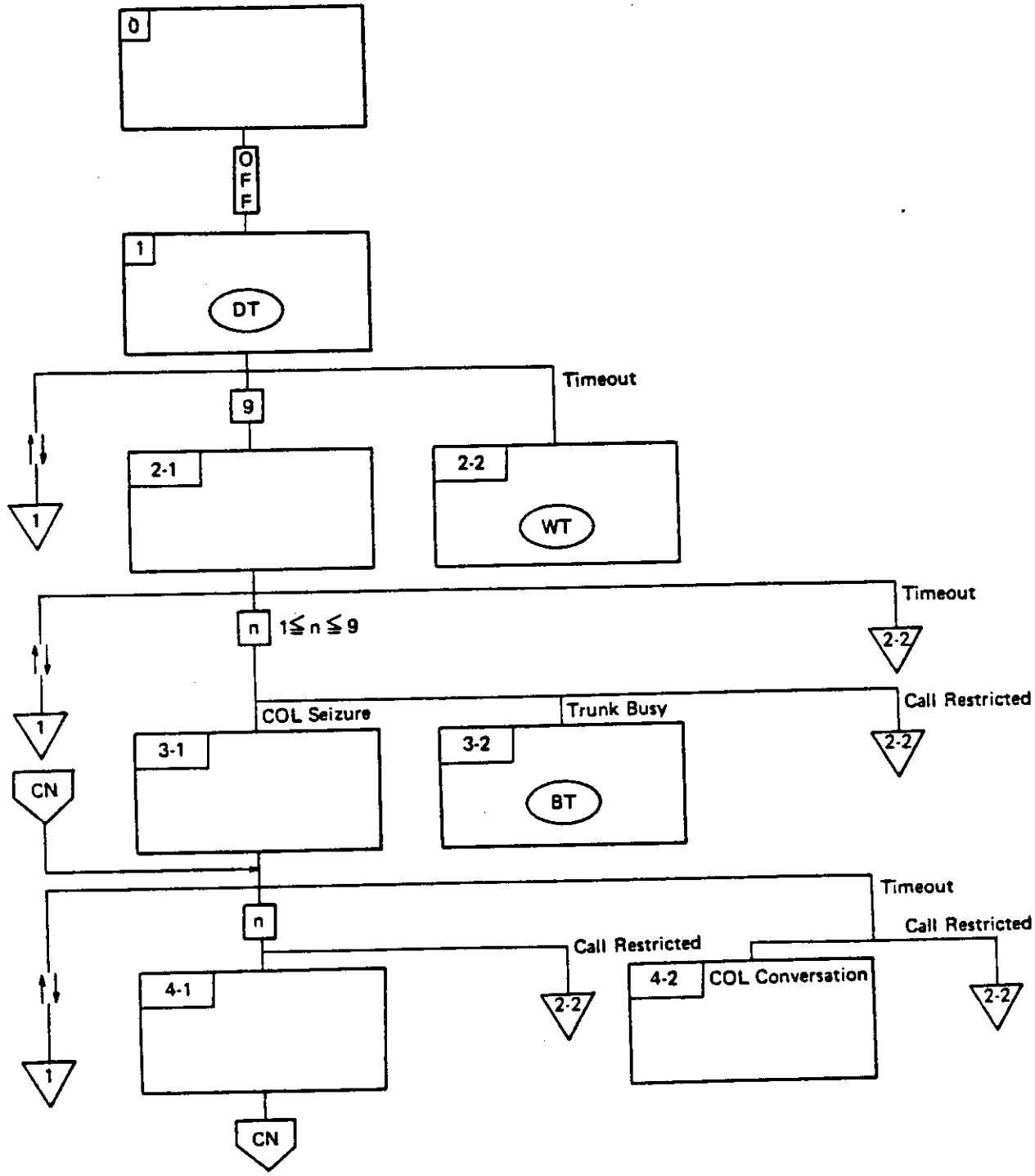
  n1, n2 -- ni: Customer number
  g: COL Group No. (1 to 7)

- **Operation Flow**

i) Optimized Call Routing Access



ii) Floating COL Group Access



2.3.F.4 Follow Me

A user of a station can change the (Busy) Call Forward destination of another station to the station.

- **Conditions**

  - o This feature is applied only when the station to be changed destination is in following condition.
  - o Call Forward: Call Forward is active.
    Busy Call Forward: Busy Call Forward is active and the station is off-hook or speaker-on.
  - o When a station user completes the operation, he receives a CT. But when he cannot complete it for same reason, he receives a WT.

F

2.3.F.4.1 Key Telephone/Versa Phone

- **Operation Guide**

(Off-hook) [FWD] + [#] + [n] + [n] (nn: EXT No. setting the (Busy) Call Forward)

2.3.F.4.2 Single Line Telephone

This feature is available for only an DTMF.

(DT) [1] + [5] + [#] + [n] + [n] (nn: EXT No. setting the (Busy) Call Forward)

2.3.H.1 Hands-free Stations

A KT equipped with a Built-in Speakerphone provides hands-free conversation.

2.3.H.1.1 Activate Speakerphone

A KT user can use the speakerphone when a speakerphone unit is installed and the microphone switch is on.
This feature is available with VP only when an external speakerphone (Panasonic KX-A01) is connected.

- **Conditions**

  - o The speakerphone is automatically activated when the KT is conversing on COL or ICM line provided that microphone is on.

  - o See Section 3.10.4.4.(2), Optional Units Installation (b), for speakerphone installation.

    2.3.C.5 Call Monitor
    2.3.I.1.1.2.1 Hands-Free Answer Back
    2.3.O.1 On-Hook Dialing

- **Operation Guide**

  i) (Preselection) [SPKR]

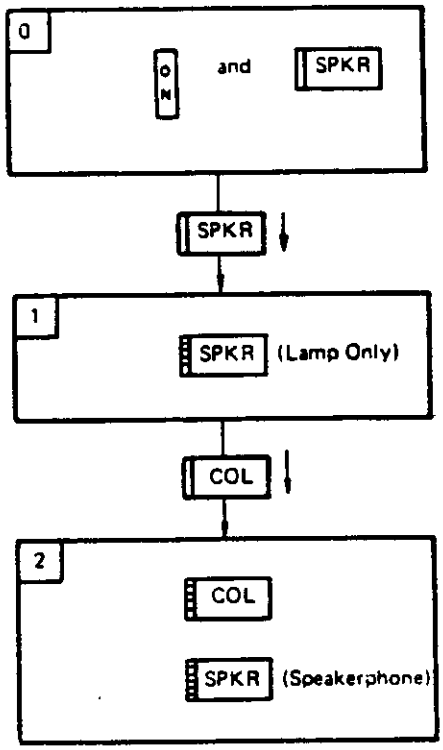
  ii) (On-hook) [SPKR] + [COL] ([ICM])

  iii) (COL or ICM Conversation) [SPKR] + [ ]↓

  iv) (Call Monitor) Microphone switch on

H

■ Operation Flow



2.3.H.1.2 Inactivate Speakerphone

A KT/VP user can make the active speakerphone inactive and switches the status of call to Call Monitor or to Handset Conversation. (See Sections 2.3.C.5 Call Monitor, and 2.3.M.4 Microphone Cut Off).

- **Operation Guide**

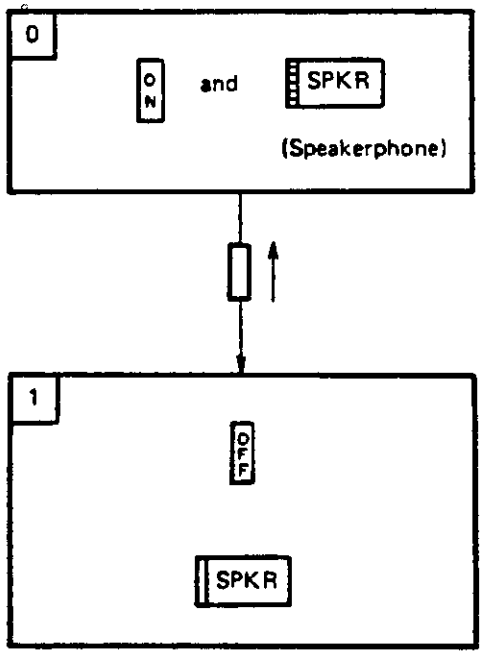
  i) to Call Monitor

  (Speakerphone) Microphone off

  ii) to Handset Conversation

  (Speakerphone) [ ]↑

- **Operation Flow**



H

2.3.H.2 Holding

A station user can place a call on hold. He also can retrieve a held call.

- **Conditions**

  * There are the following kinds of Hold:

    o Exclusive Hold

      A Hold that call can be retrieved only from the station which has placed a call on hold.

    o System Hold

      A Hold that call can be retrieved from any stations in the same tenant as the holding station.

    o Conference Hold

      A Hold of Conference call.

    o Consultation Hold

      A Hold to transfer a call.

    o Call Park

      A Hold that call can be retrieved with a park orbie number.

  * Holding functions are classified as follows:

    1. Exclusive Hold
    2. System Hold
    3. Consultation Hold
    4. Consultation Hold Recall
    5. Automatic Hold
    6. Music On Hold
    7. Hold Recall
    8. Ring Back Tone On Hold

    See Section 2.3.A.1.8 Call Release (ATTND)
    See Section 2.3.C.3 Call Back Queuing
    See Section 2.3.C.11.3 Conference Hold

H

2.3.H.2.1 Exclusive Hold

A station user can place a COL call or an internal call on Exclusive Hold to prevent if from being seized by other stations.

2.3.H.2.1.1 COL

- **Conditions**
  - o Music On Hold is sent to the COL during Exclusive Hold. (See Section 2.3.H.2.6 Music On Hold.)
  - o The COL is disconnected and Exclusive Hold is released when a disconnect signal is detected.
  - o If a holding user does not answer before Hold Recall Timeout, he receives a Hold Recall.
  - o Once a holding station user receives a Hold Recall, an Exclusive Hold call changes to a System Held call, so all stations can retrieve the held call.
  - o An Executive KT/VP user can seize the Exclusive Held call. (See Section 2.3.O.6.3 Executive Override.)

2.3.H.2.1.1.1 Key Telephone/Versa Phone

A KT/VP user can place a COL on Exclusive Hold by depressing the COL key or Floating key (FLT, FLTn, OPT) while conversing on a COL call or by Automatic Hold feature. (See Section 2.3.H.2.5 Automatic Hold.)

- **Conditions**
  - o During Exclusive Hold, the COL key or Floating key (FLT, FLTn, OPT) lamp on the KT/VP that initiated the holding indicates I-Hold. And the COL key lamps corresponding to the held COL on other KT/VP indicate busy.

2.3.H.2.1.1.1.1 Exclusive Hold Operation

- **Operation Guide**

(COL Conversation) [COL] (conversing COL)

(COL Conversation) [ADD]

(COL Conversation) [TRN]

(COL Conversation) [FLT] (conversing COL)

(COL Conversation) [FLTn] (conversing COL)

(COL Conversation) [OPT] (conversing COL)

2.3.H.2.1.1.1.2 Exclusive Hold Pick up

Only the Exclusive Holding station and an Executive KT/VP user can pick up the Exclusive Held CO line.

- **Operation Guide**

  (Off-hook or SPKR on) [COL], [FLT], [FLTn], [OPT]

  (On-hook and SPKR off) [COL], [FLT], [FLTn], [OPT] + [ ]↑ ([SPKR])

2.3.H.2.1.1.2 SLT

While conversing on a COL call, a SLT user can place a COL on Exclusive Hold by flashing hook switch.

2.3.H.2.1.1.2.1 Exclusive Hold Operation

- **Operation Guide**

  (COL Conversation) ↓↑ + [1] + [1]

2.3.H.2.1.1.2.2 Exclusive Hold Pickup

A SLT user can pick up the Exclusive Held CO line which is held from the station.

- **Operation Guide**

  (DT) [1] + [1]

2.3.H.2.1.2 ICM

- **Conditions**

  - o A KT/VP user can place an internal call on Exclusive Hold while conversing on it.
  - o A KT/VP user should not place a call on Exclusive Hold when another call is already placed on Consultation Hold.
  - o When the internal call is placed on Exclusive Hold, no Music-on-Hold is sent to the rest.
  - o If a holding user does not answer before Hold Recall Timeout, he receives Hold Recall.
  - o The ICM lamp on the KT/VP that placed the call on Exclusive Hold indicates I-HOLD during the holding.

H

- **Operation Guide**

  (ICM Conversing) [HOLD / DND]

2.3.H.2.1.2.1 ICM Hold Pickup

- **Operation Guide**

  (Off-hook or SPKR on) [ICM]

  (On-hook and SPKR off) [ICM] + [ ] ↑ ([SPKR])

2.3.H.2.2 System Hold

A KT/VP user can place a COL on System Hold to be seized from another KT/VP.

- **Conditions**

  - o When a COL is placed on System Hold, the COL lamp on the KT/VP indicates I-Hold and COL lamps on other KT/VP indicates System Hold indications.
  - o COL is in MOH (Music On Hold) connection during System Hold.
  - o When a Disconnect Signal from the COL is detected, the COL is disconnected and System Hold is released.
  - o When the system data Hold Recall Timeout is not 0, if a System Holding user does not answer before Hold Recall Timeout, he receives a Hold Recall.

H

2.3.H.2.2.1 System Hold Operation

- **Operation Guide**

(COL Conversation) [HOLD/DND]

2.3.H.2.2.2 Automatic COL Hold Operation

While conversing on a COL, a KT/VP user can place the COL on System Hold automatically by depressing PAGE key. (See Sections 2.3.P.1 Paging Call.)

2.3.H.2.2.3 System Hold Pickup

- **Operation Guide**

(Off-hook or SPKR on) [COL]

(On-hook and SPKR off) [COL] + [ ] ↑ ([SPKR])

2.3.H.2.3 Consultation Hold

While conversing on any call in progress, if a station user starts Add On Conference, Transfer, or Camp On, the call is placed on Consultation Hold at first.

- **Conditions**

  - o When an internal call between two stations is placed on Consultation Hold, the station of the rest becomes silent.

  - o Once a Consultation Hold is performed, no more hold operation is valid.

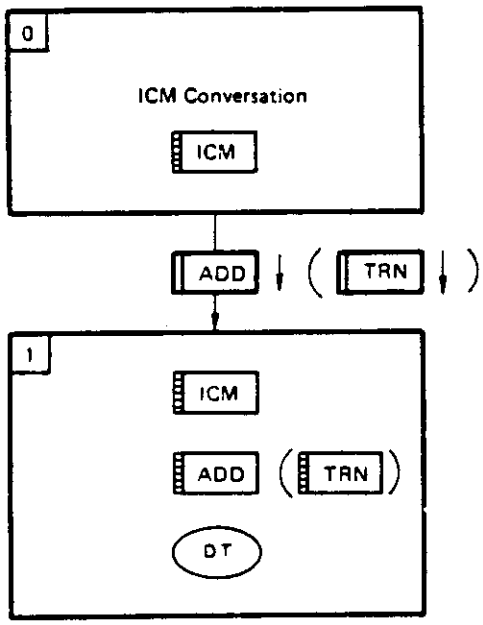
2.3.H.2.3.1 Consultation Hold From Key Telephone/Versa Phone

A KT/VP user can place the call on Consultation Hold by depressing ADD key or TRN key.

- **Operation Guide**

  (ICM Conversation) [ADD] ([TRN])

- **Operation Flow**



2.3.H.2.3.2 Consultation Hold from single-line telephone

A SLT user can place the call on Consultation Hold by flashing hook switch while conversing on any call.

- **Operation Guide**

  (Conversation) ↓↑

2.3.H.2.3.3 Consultation Hold Pick Up

A station user can release a call from Consultation Hold and he can retrieve the held call again.

- **Conditions**

  - o If a station user picks up a Consultation Held call while conversing on an ICM, the status changes to Add On Conference.
  - o If the station on Consultation Hold is already released, no more Consultation Hold operations is valid.

H

2.3.H.2.3.3.1 Key Telephone/Versa Phone

- **Operation Guide**

  (Off-hook or SPKR on with Consultation Hold) [ADD]

2.3.H.2.3.3.2 Single Line Telephone

- **Operation Guide**

  (Off-hook with Consultation Hold) ↓↑

2.3.H.2.3.4 Consultation Hold Recall

If a station user does not complete Add On Conference, Transfer, Camp On or Consultation Hold Recall rings.

- Condition

  A Consultation Hold Recall continues until the station that has placed the call on Consultation Hold retrieves the call.

2.3.H.2.4.1 Consultation Hold Recall Pickup

A statin user can pick up Consultation Hold Recall.

2.3.H.2.4.1.1 Key Telephone/Versa Phone

- **Operation Guide**

(Off-hook or SPKR on with Consultation Hold Recall) ICM

2.3.H.2.4.1.2 Single Line Telephone

(On-hook with Consultation Hold Recall) ▯ ↑

H

2.3.H.2.5 Automatic Hold

While conversing on any call in progress, the station user or Attendant can place the call on hold without depressing the HOLD or COL key.

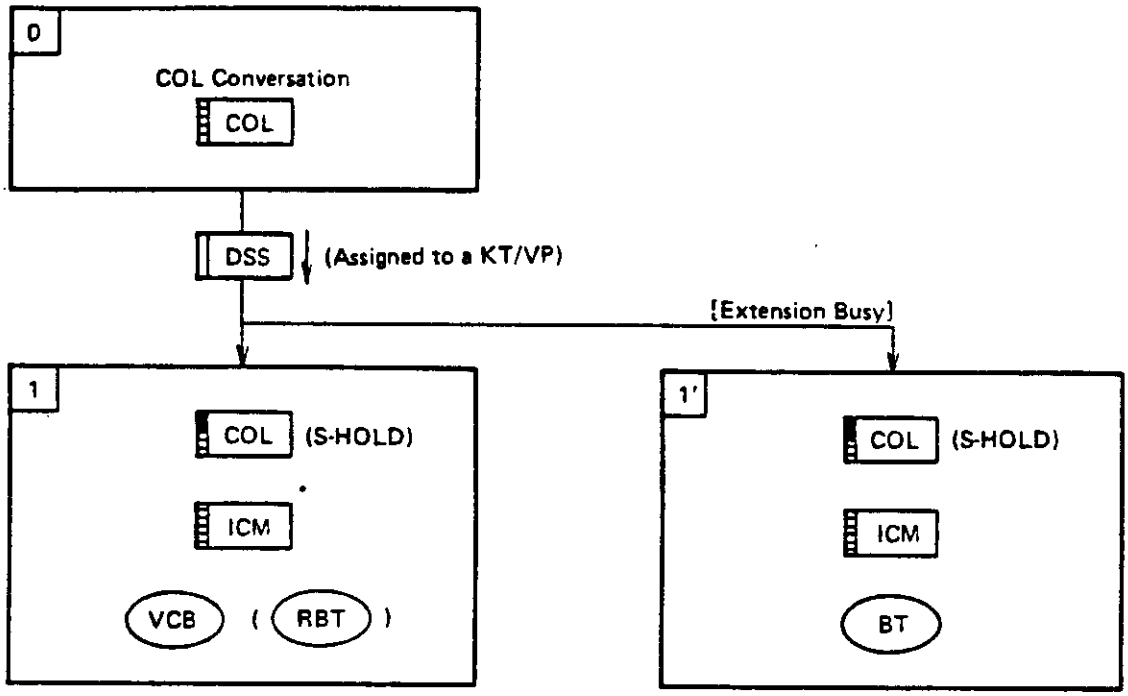
2.3.H.2.5.1 Attendant Automatic COL Hold

While conversing on a COL, if Attendant depresses the [DSS] keys, the COL is automatically placed on System Hold, and call is originated:

- **Conditions**
  - o The call is placed on Call Park when the Direct Page Call Key is depressed. (See Section 2.3.C.6 Call Park.)
  - o When all the ICM lines for an Attendant are busy, a Busy Tone is connected after the COL is placed on hold.
  - o If the operation is utilized during a COL Conference, the CO line is placed on Conference Hold.
  - o An Attendant should not depress the DSS key assigned to stations of another tenant.
- **Operation Guide**

  (COL Conversation) [DSS]

■ Operation Flow



H

2.3.H.2.5.2 Key Telephone/Versa Phone Automatic COL Hold by Paging

While conversing on COL, if a KT/VP user depresses the Direct Page Call key, the COL call is automatically placed on System Hold and a paging call is started.

- **Condition**

  - o If all the ICM lines for a KT/VP are busy, a Busy Tone is connected after the COL is placed on System Hold.

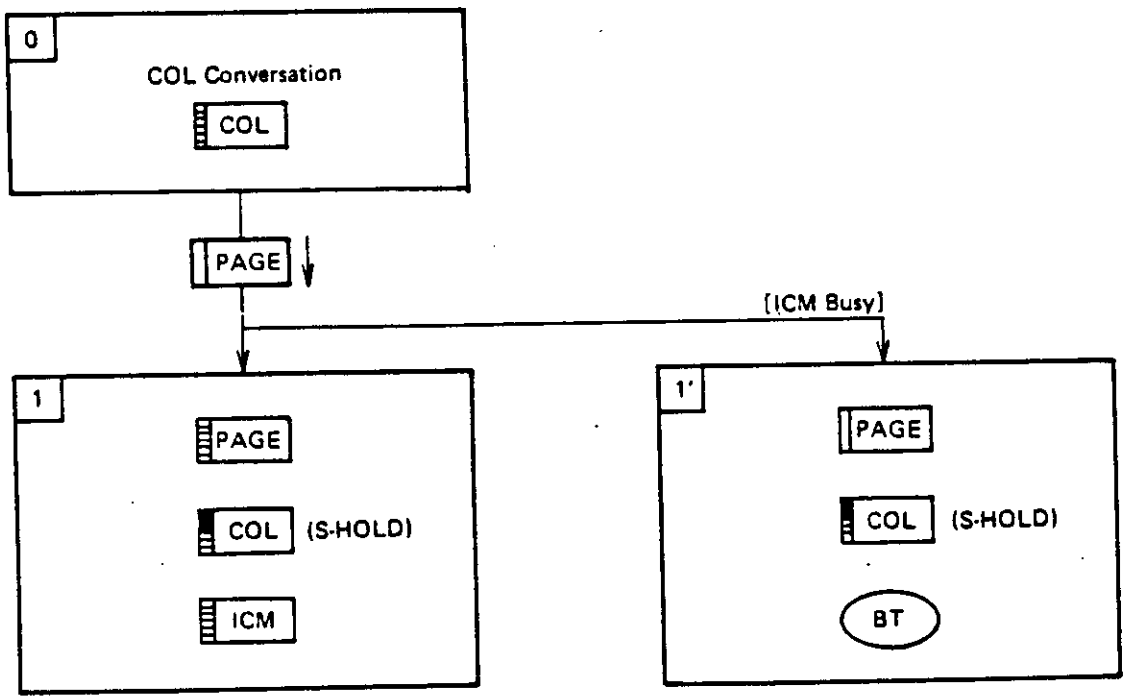
  - o If a KT/VP user performs the operation during a COL Conference, the CO line is placed on Conference Hold.

- **Operation Guide**

  (COL Conversation) [PAGE] (ALL, ALL GRP, ALL ZONE, GRP1 to GRP4, ZONE1 to ZONE3)

  [PAGE]

- **Operation Flow**



2.3.H.2.5.3 Key Telephone/Versa Phone Transfer/Add On

While coversing on COL, if a KT/VP user depresses the TRN key or ADD key, the COL is automatically placed on Consultation Hold and an idle ICM line is seized.

- **Conditions**

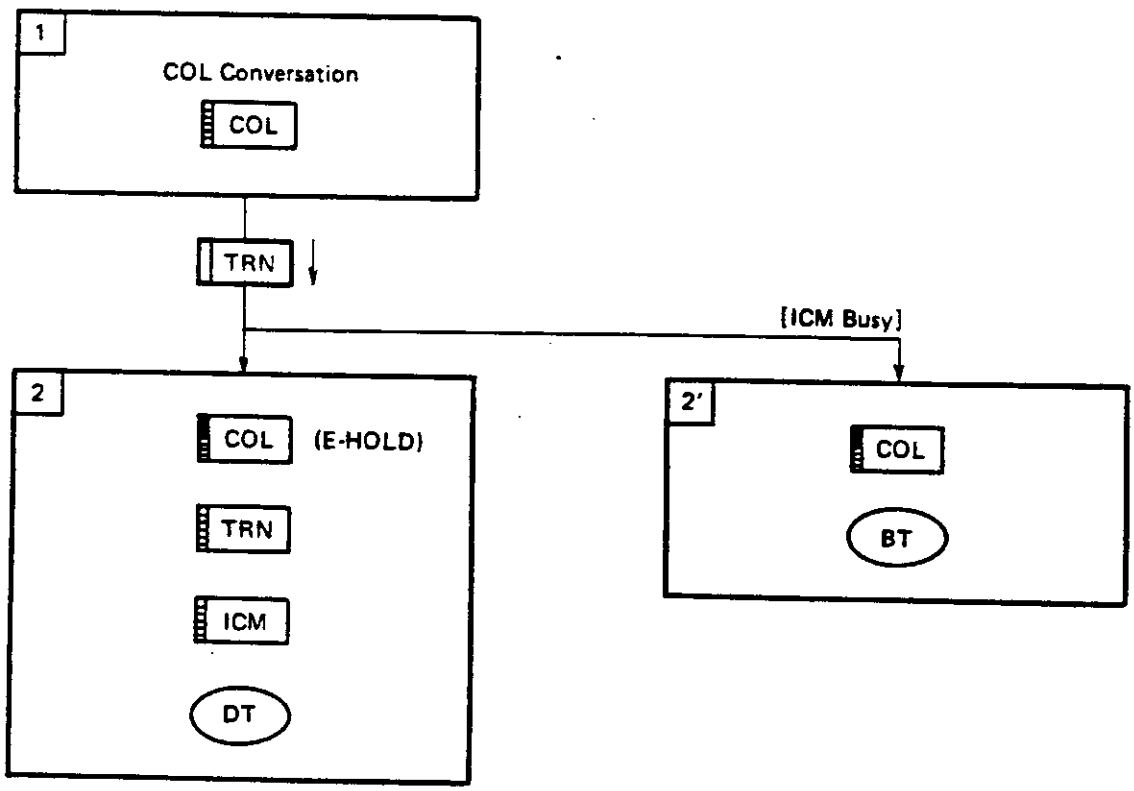
  - o If all the ICMs for a KT/VP are busy, a Busy Tone is connected after the COL is placed on Exclusive Hold.

  - o If a KT/VP user performs the operation during a COL Conference, the CO line is placed on Conference Hold.

- **Operation Guide**

  (COL Conversation) [TRN] ([ADD])

- **Operation Flow**

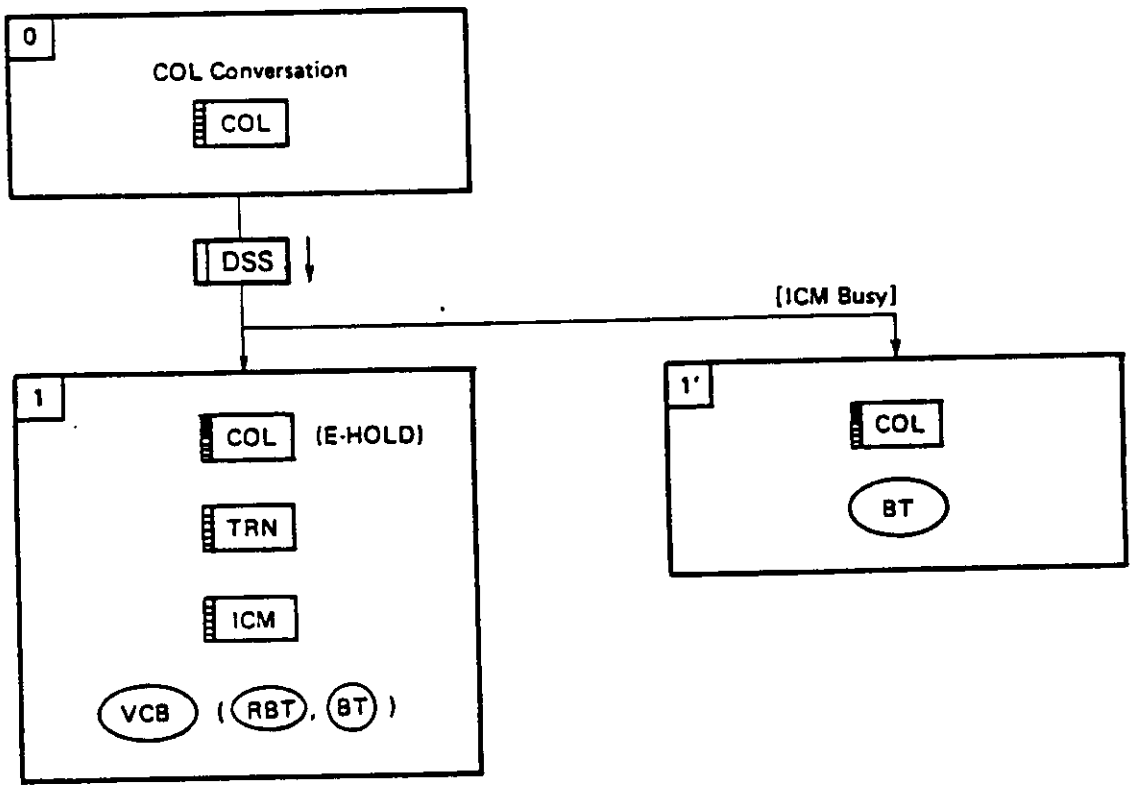


2.3.H.2.5.4 Key Telephone/Versa Phone Automatic COL Hold by Automatic ICM

While conversing on COL in progress, if a KT/VP user depresses the DSS key, the COL is automatically placed on Consultation Hold, the TRN key lamp indicates I-HOLD, and the preprogrammed station is called. (See Section 2.3.F.2 Flexible Key Assignment.)

- **Condition**
  - o If all the ICM lines for a KT/VP are busy, a Busy Tone is connected after the COL is placed on Exclusive Hold.
  - o If a KT/VP user performs the operation during a COL conference, the line is placed on Conference Hold.
- **Operation Guide**

  (COL Conversation) [DSS]
- **Operation Flow**



2.3.H.2.6 Music On Hold

Music On Hold is sent to a held CO line.

- **Conditions**

  - o In addition to a built-in audio source, an external audio source are available for MOH. (See Section 3.4.6.1, Installation of MOH Service.)

  - o While there is one or more held COL, the relay for an external MOH audio source keeps on.

  - o When a COL call goes Hold Recall, MOH is released and a RBT connection is made to the COL.

H

2.3.H.2.7 Hold Recall

This feature provides automatic recall to the holding station user after programmed duration of time.

- **Conditions**

  o Hold recall does not happen in systems which duration of time is set to 0.

- **Programming**

  System Constants Item 1 Hold Timeout
  0: No Hold Recall
  1 to 255 (seconds): Hold Recall
  Default is 30 seconds

2.3.H.2.7.1 COL

- **Conditions**

  o Hold Recall does not occure if the call is held by Hold Recall Denied station even though Hold Recall Timeout setting.

  o When in Hold Recall, all station users can pick up.

  o During Hold Recall, an a RBT sent to the COL and MOH (Music On Hold). Exclusive Held line is released.

  o Hold Recall is released after a preprogrammed duration of time and an Attendant Recall occurs.

- **Programming**

  Station Class-of-Service Item 12, Hold Recall Deny

  Each station { Lit: allow / Blink: deny

  System Constant Item 4, Hold Recall Timeout

  0: No Function
  1 to 255 seconds
  Default is 20 seconds.

2.3.H.2.7.2 ICM

- **Conditions**

  - o Hold Recall does not occur if the call is held by Hold Recall Denied station and the internal call is immediately released.

  - o Hold Recall is released after a preprogrammed duration of time and the internal call is released.

- **Programming**

  System Constant Item 4, Hold Recall Timeout

  1 to 255 seconds
  0: No function
  Default is 20 seconds.

H

2.3.H.2.8 Ring Back Tone on Hold

Ring Back Tone is sent to COL while the COL call is in Hold Recall or Attendant Recall mode.

- **Conditions**
  - o The tone is sent only while the held COL is on Hold Recall or Attendant Recall.
  - o Once Ring Back Tone starts to be sent, MOH is disconnected.

H

2.3.I.1 ICM Calling

An ICM Voice/Tone Call provides various audible calls, such as Voice Call, Tone Call, BT connection, or interrupt call depending on the attribution (Attendant, Executive, or others) of the caller and status of the called station.

- **Conditions**

  - o A WT connection is made when a station user calls a station is the other tenant or an uninstalled station.

  - o For details, see Table 2.3.I.1.

Table 2.3.I.1 ICM Calling Conditions

Called Party / Calling Party	KT/VP												SLT					
	DND or Call Deny					Neither DND nor Call Deny							Idle	Incoming			Busy	
	Incoming			No Incoming		Incoming					No Incoming			Other Calls	ICM Call		Interrupt Enable	Interrupt Disable
	ICM Call		Other Calls			ICM Call			Other Calls						Prior Call	Ordinary Call		
	Prior Call	Ordinary Call		Idle	Busy	Prior Call	Ordinary Call Idle	Ordinary Call Busy	Idle	Busy	Idle	Busy						
Attendant	BT	*1 BT	*1 BT	*1 BT	*1 BT	BT	*2 VC	*1 BT	VC	*1 BT	VC	*1 BT	RBT	RBT	BT	*2 RBT	BT	BT
Executive	BT	*3 VC	VC	VC	VC	BT	*3 VC	*3 VC	VC	VC	VC	VC	RBT	RBT	BT	*3 RBT	INTR	BT
Others	BT	BT	BT	BT	BT	BT	BT	BT	BT	BT	VC	VC	RBT	BT	BT	BT	BT	BT

VC: Voice Call
BT: Station Busy
RBT: Tone Call
INTR: Interrupt

*1 ATTND Override Available
*2 ATTND Call with Priority
*3 Executive Override Call

2.3.1.1.1 Calling Mode Change

An ICM calling station (KT/VP) user can switch the mode of calling from Voice to Tone or Tone to Voice.

- **Conditions**

  - o Priority of ICM Tone call is less than COL calls, so if the calling mode is changed to tone call it can be overriden by other calls.

  - o When the called station is a SLT, only Tone call is available.

- **Programming**

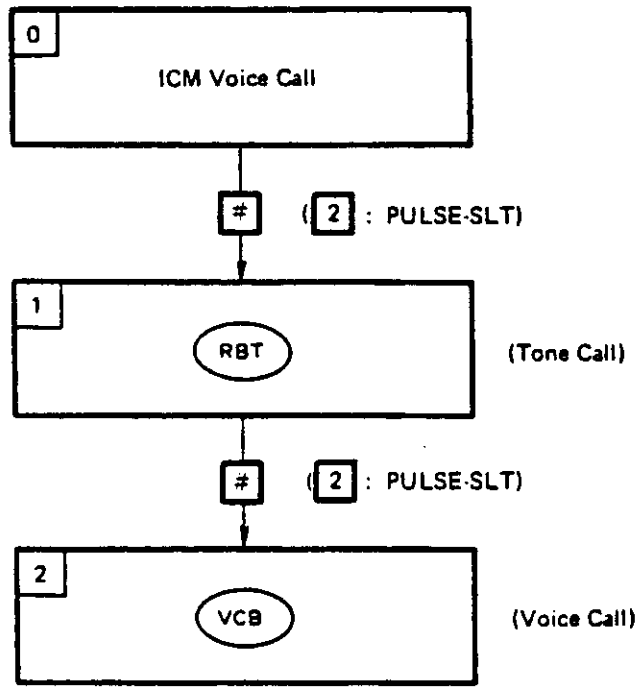
  System Constants Item 13: ICM call Mode (Tenant A/B)

  0: Voice mode
  1: Tone mode

- **Operation Guide**

  (ICM Voice/Tone Call) [#] ([2] when PULSE-SLT)

- **Operation Flow**



2.3.O.1 On-hook Dialing

COL and ICM lines can be picked up and dialed without lifting the handset at a KT/VP.

- **Conditions**

  - o With on-hook dialing, a station user can hear voice from COL/ICM but voice from the KT/VP is not sent to COL/ICM.

  - o When the microphone switch at the KT/VP with speakerphone is on , the speakerphone is turned off and switched to On-hook Dialing. The speakerphone operates automatically, as soon as the COL/ICM call is connected.

  - o By lifting the handset, the speaker turns off and normal handset calling is available.

  - o See Section 2.3.H.1 Hands-free Station.
    (2.3.C.5 Call Monitor)

- **Operation Guide**

  (On-hook and SPKR off) [SPKR] + [COL/ICM]

  (On-hook and SPKR off) [COL/ICM] + [SPKR]
  within 10 seconds

O

2.3.O.2 Optimized Call Routing

This feature selects the optimum line to comply with the input dial information depending on the system line condition or time zone, and transmits it after converting it into a dial mode suitable to the seized line.

2.3.O.2.1 KT/VP/SLT

- **Conditions**
  - o The optimized Call Routing is available with an MF system only.
  - o There are seven COL Groups (1 to 7), and these are identical to the Floating COL Groups.
  - o This feature is void on Optimized Call Routing Access Denied station.
  - o The desired number of steps can be assigned with the Route Advance Step in the Station Class of Service.
  - o See Section 4.2.2.6 Optimized Call Routing Access.
  - o The dialed numbers are sent after all dialing digits are entered.
- **Operating Guide**

  (See Section 2.3.F.3 Floating COL Group Access.)
- **Programming**
  - o Line Specification Item 12
    CO Outgoing Group (CO No.)
    1 to 7 CO Outgoing Group No.
  - o Station Class of Service Item 20
    Optimized Call Routing Access Deny.
    Each station—{ Steady ON: allow / Flash: deny
  - o Station Class of Service Item 24
    Route Advance Step (EXT No.)
    0 to 3 Level

O

2.3.0.3 Optional Equipment

Various optional units are available. Refer to Part 3. Details of Installation.

- **Condition**

2.3.0.3.1. Station Hard of Hearing Handset (SHHD)/Station Noise Canceling Handset (SNHD)
2.3.0.3.2. Headset Adapter
2.3.0.3.3. External Station Loud Ringer
2.3.0.3.4. External Alarm Signal (Loud Ringer)

2.3.0.3.1 SHHD/SNHD

The Station Hard of Hearing Handset (SHHD) or Station Noise Canceling Handset (SNHD) can be connected to a KT/VP. (See Section 3.10.4.4(2) Optional Unit installation (d), (e).)

2.3.0.3.2 Headset Adaptor

An optional Headset Adaptor can be connected to a KT/VP. (See Section 3.10.3.4 Optional Features.)

2.3.0.3.3 External Station Loud Ringer

An External Station Loud Ringer Relay can be connected to a KT/VP. (See Section 3.10.3.4 Optional Features.)

- Conditions
  - o The External Station Loud Ringer Relay operates in a 1-second -on, 3-seconds-off pattern at the KT/VP with an incoming COLRGT or COL Camp-on.
  - o The ringer operates even when there is a call with higher priority.
  - o The ringer does not operate on other COL incoming calls (Recall, Callback).

2.3.0.3.4 External Alarm Signal (Loud Ringer)

A Loud Ringer Relay can be connected on each COL and used for an incoming call. (See Section 3.4.6.6 Loud Ringer Installation.)

- Conditions
  - o When there is an incoming call on the COL, the Loud Ringer operates in a 1-second-on, 3-seconds-off pattern.
  - o The Loud Ringer does not operate on other COL calls (Camp On, Recall, and Callback).

2.3.N.1 Night Service

This feature allows the system to be switched to Night Mode and perform various ringing services on incoming COL calls. (See Section 2.3.N.1.4 Universal Night Assign.) (See Section 2.3.M.3.4 Night Automatic Answering.)

- **Conditions**
  - o Night mode is set for each tenant.
  - o Night Mode is automatically released with Power-on Reset.

2.3.N.1.1 Switching Night Mode

The Attendant may switch the corresponding tenant to Night Mode (or Day Mode).

- **Conditions**
  - o NIGHT key lamp on the Attendant Console lights during Night Mode.
  - o The Attendant may switch Night Mode and Day Mode.
- **Operation Guide**

  (ATTND KT/VP Off-hook) [NIGHT]

2.3.N.1.2 Night Relay

Night Relay remains operating during Night Mode.

- **Condtitions**
  - o Valid only for Tenant A.

N

2.3.N.1.3 Automatic Night Assign

When there is a COL incoming call in Night Mode, the station preprogrammed by Automatic Night Assign of the COL ring, unlike in Day Mode.

- **Conditions**

  o Same as a COL incoming call in Day Mode, except for the ringing stations.

- **Programming**

  Line Specification Item 4: ANA (COL No.)

Each station	0:	Does not ring
	1:	Rings

N

2.3.M.5.6 Dial Table

The method for assigning dial numbers in the Dial Table is described below.

2.3.M.5.6.1 Dial Table Selection

A restriction mode (0: deny; 1: allow) and up to six numbers of the dial table containing dial numbers can be programmed by data corresponding to plan number and condition number to Toll Restriction Plan and Condition. If more than one dial table is programmed the system searches for them.

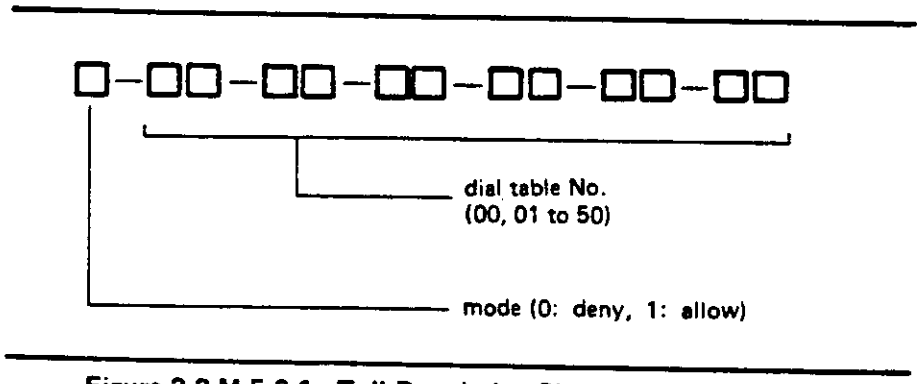


Figure 2.2.M.5.6.1 Toll Restriction Plan and Condition Data

2.3.M.5.6.2 Dial and Expansion

There are ten data entries in an dial table. Each data entry consists of a dial number of up to four digits and up to two expanded dial table numbers. If expansion is programmed, the system refers to the dial data in the expanded dial table following the dial data. If there are two expanded dial tables, the system refers to the first table and then the second table.

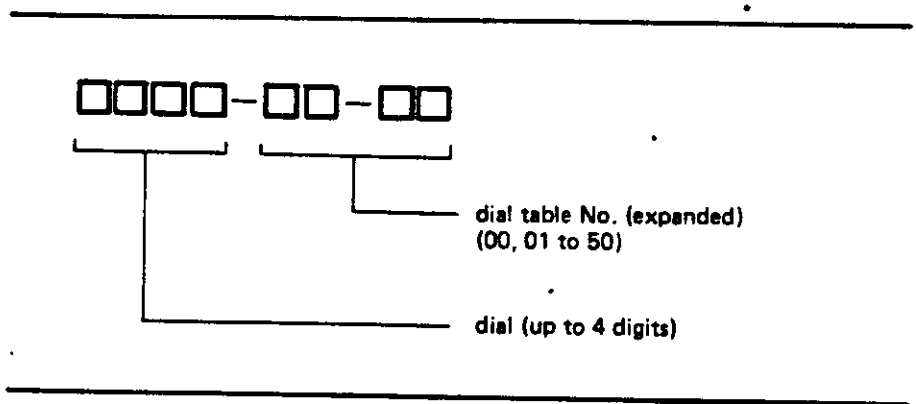


Figure 2.3.M.5.6.2 Dial Table Data

2.3.M.5.5 Allow Mode

Toll restriction in Allow Mode is performed when the input dial does not match the system toll restriction data. Then COL is disconnected and a WT connection is made to the station.

- **Conditions**

  o Allow mode is not applicable to Operator Call condition.

- **Programming**

  Toll Restriction Item 1: Toll Plan No.
  (Group: COL Toll Group No., Class: EXT Toll Dial Class No.)
  0: No Function
  1 to 15: Toll Plan No.

2.3.M.5.5.1 PBX/E&M Tie Line Condition

If a dial number among the PBX Outgoing Specific Code which is other than system toll restriction data is entered on E&M Tie Line or PBX line, it is restricted.

- **Programming**

  Toll Restriction Item 2: Toll Restriction Plan and Condition
  (Plan: Toll Plan No., Condition: 1=PBX/E&M)
  1—ll—mm—nn—pp—qq—rr: allow mode
  ll, mm, nn, pp, qq, rr: dial table no. (00, 01 to 50)

  Toll Restriction Item 3: Toll Restriction Dial Table (dial table no.)
  dddd—ss—tt
  dddd: dial
  ss, tt: dial table no. (00, 01 to 50)

M

2.3.M.5.5.2 Area Code Condition

An area code that does not match system toll restriction data is restricted. Note that as there is special override office code, restriction is performed when override office code condition is not satisfied. (See Section 2.3.m.5.3.1 Override Office Code.)

- **Programming**

Toll Restriction Item 2: Toll Restriction Plan and Condition
(Plan: Toll Plan No., Condition: 3=area code
5=prefix area code)
1–ll–mm–nn–pp–qq–rr: allow mode
ll, mm, nn, pp, qq, rr: dial table no. (00, 01 to 50)

Toll Restriction Item 3: Toll Restriction Dial Tabie (dial table no.)
dddd–ss–tt { dddd: dial
ss, tt: dial table no. (00, 01 to 50)

Toll Restriction Override Office Code Item 8
(Tenant A/B x Office Group Table No. 1 to 4)
Override Office Code 3 digits

2.3.M.5.5.3 Office/Subscriber Code Condition

The Office/subscriber codes that do not correspond to the dial sequence preprogrammed by system data and special codes (N11, 1N) can be restricted.

- **Programming**

Toll Restriction Item 2: Toll Restriction Plan and Condition
(Plan: Toll Plan No., Condition: 4=office/subscriber code
6=prefix office/subscriber)
1–ll–mm–nn–pp–qq–rr: allow mode
ll, mm, nn, pp, qq, rr: dial table no. (00, 01 to 50)

The Restriction Item 3: Toll Restriction Dial Table (dial table no.)
dddd–ss–tt { dddd: dial
ss, tt: dial table no. (00, 01 to 50)

2.3.M.5.3 Special Dial Exceptions

Special dials are provided to perform processes different from normal Toll Restriction.

2.3.M.5.3.1 Override Office Code

When an override official code is entered subsequent to an area code, no restriction is imposed on the area code and office code.

2.3.M.5.4 Deny Mode

Toll Restriction in deny mode takes place when the input dial matches certain dials in system Toll Restriction data, and then the COL is disconnected and a WT connection is made to the station.

- **Programming**

Toll Restriction Item 1: Toll Plan No.
(Group: COL Toll Group No., Class: EXT Toll Dial Class No.)
0: No Function
1 to 15: Toll Plan No.

2.3.M.5.4.1 PBX/E&M Tie Line Condition

Toll restriction is imposed on the entry of a PBX Outgoing Specific Code preprogrammed by the system data on a PBX/E&M Tie Line COL.

- **Condition**

o Toll restriction is not imposed on the entry of a code other than the PBX Outgoing Specific Code by preprogrammed of the system data on a PBX/E&M Tie Line COL. Therefore, this condition is imposed on only those dials registered with the PBX Outgoing Specific Code.

M

- **Programming**

Tll Restriction Item 2: Toll Plan Table
(Plan: Toll Plan No., Condition: 1=PBX/E&M)
0—ll—mm—nn—pp—qq—rr: deny mode
ll, mm, nn, pp, qq, rr: dial table no. (00, 01 to 50)

Toll Restriction Item 3: Toll Restriction Dial Table (dial table no.)

dddd—ss—tt	dddd:	dial
	ss, tt:	dial table no. (00, 01 to 50)

2.3.M.5.4.2 Operator Call Condition

Operator Call Dial is restricted.

- **Programming**

Toll Restriction Item 2: Toll Restriction Plan and Condition
(Plan: Toll Plan No., Condition: 2=operator call)
0: deny mode

2.3.M.5.4.3 Area Code Condition

An area code matching a dial number specified with system toll restriction data is restricted. Note that as there is override office code, restriction is performed when the override office code is not satisfied. (See Section 2.3.M.5.3.1 override office code.)

- **Programming**

Toll Restriction Item 2: Toll Restriction Plan and Condition
(Plan: Toll Plan No., Condition: 3=area code, 5=prefix area code)
0—ll—mm—nn—pp—qq—rr: deny mode
ll, mm, nn, pp, qq, rr: dial table no. (00, 01 to 50)

Toll Restriction Item 3: Toll Restriction Dial Table (dial table no.)
dddd—ss—tt { dddd: dial; ss, tt: dial table no. (00, 01 to 50)

M Toll Restriction Item 8: Override Office Code (Tenant A/BX Office Group table no. 1 to 4)
Override office code dial 3 digits

2.3.M.5.4.4 Office/Subscriber Code Condition

The Office/Subscriber code corresponding to the dial sequence programmed by system data and special dial (N11, 1N) can be restricted.

- **Programming**

Toll Restriction Item 2: Toll Restriction Plan and Condition
(Plan: Toll Plan No., Conditions: 4=office/subscriber code
6=prefix office/subscriber code)
0—ll—mm—nn—pp—qq—rr: deny mode
ll, mm, nn, pp, qq, rr: dial table no. (00, 01 to 50)

Toll Restriction Item 3: Toll Restriction Dial Table (dial table no.)
dddd—ss—tt { dddd: dial; ss, tt: dial table no. (00, 01 to 50)

2.3.M.5 Multi Level Toll Restriction

This feature is allowed to perform Multi Level Toll Restriction according to the COL outgoing dial number.

2.3.M.5.1 Toll Restriction Call

Calls subject to Toll Restriction are calls from stations with Toll Dial Class of Restriction 1 to 4 on COLs assigned to Toll Restriction Group 1 to 4.

- **Conditions**

  - o Calls originated with System Speed Dialing are excluded from Toll Restriction unless the calling station is set to Toll Speed Dial Access Deny.
  - o In the above case, if Manual Dial or Station Speed Dial is originated after System Speed Dial, all dials are subject to Toll Restriction.
  - o The outgoing calls on a PBX line or an E&M tie line whose dial number does not involve the PBX Outoging Specific Code from the first digit are not subject to Toll Restriction.

- **Programming**

Line Specification Item 6: Toll Restriction Group (COL No.)
0: No Toll Restriction
1 to 4: Toll Restriction Group No.

Station Class-of-Service Item 14: Toll Speed Dial Access Deny
Each EXT {Steady on : Allow
Flash : Deny

Station Class-of-Service Item 22: Toll Dial Class of Restriction (EXT No.)
0: No Toll Restriction
1 to 4: Toll Dial Class No.

M

2.3.M.5.2 Toll Dial

Toll Dial consists of the following codes:

i) Predial
If system data PBX Outgoing Specific Code, is dialed from the first digit on a PBX line COL, it is considered as a predial code.
The truck group code on the E&M Tie Line COL is considered a predial code.
An interexchange carrier code at the tme of Equal Access is considered a predial code.

ii) Operator call dial
When the first digit excluding the predial is 'O', it is considered an operator call dial.

iii) Prefix
If COL is set to Prefix Dial, '1' in the first digit excluding predial is considered a prefix.

iv) Area code
Excluding predial and prefix, if the first digit is 2 to 9, the second digit is 0 or 1, and the third digit is 0 to 9, then these three digits are considered an area code.

v) Special dial
Excluding predial and prefix, if the first two digits are '1N' or if the first three digits are 'N11' where (N=2 to 9), then these dials are considered special dials.

vi) Officecode
The first three digits excluding the predial, prefix, and area code are considered an office code.

vii) Subscriber code
Four digits following the office code are considered a subscriber code.

2.3.M.4 Microphone Cutoff

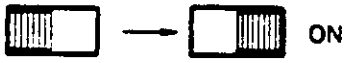
The attached Microphone can be turned off.

- **Conditions**

  - o Hands-free Answer Back is not available when the Microphone is turned off. (See Section 2.3.1.1.1.2.1 Hands-Free Answer)

  - o When the Microphone is turned off while using the speakerphone the call becoes call monitor mod. (See Section 2.3.C.5 Call Monitor)

- **Operation Guide**

OFF  ON

M

2.3.M.3.6 Voice Message Waiting

If a KT/VP user receives a Busy Tone while accessing another KT/VP on a ICM line or after originating an ICM call, the calling station can perform the Voice Message Waiting feature.

- **Conditions**

  - o Voice messages are processed as ordinary messages except for Meccage Access and Release Conditions (See Section 2.3.M.3.3 Message Waiting).

  - o When the Voice Message at a KT/VP is top priority, the MSG key lamp flashes with the I-Hold pattern.

- **Voice Message**

  Station XX, please call back at HH MM
  XX: caller EXT No., HH: hour, MM: minute

2.3.M.3.6.1 Registration

- **Conditions**

  - o On finishing the registeration, the ICM line is disconnected and the registered message is heard from the speaker.

  - o A station user should predefine call back time. If he enters illegal data the ICM line is disconnected, and a WT is connected.

- **Operation Guide**

  (ICM Calling or BT) [FEAT] + [MSG] + [7] + [H] + [H] + [M] + [M]

  HH: hour (00 to 23)
  MM: minute (00 to 59)

M

2.3.M.3.6.2 Message Access

A KT/VP user can hear any existing Voice Message Waiting by depressing the MSG key.

- **Conditions**
  - o If there are two or more registered messages, the one with top priority is first picked up.
  - o A station user can perform Voice message access even when an ICM line is busy.
  - o If the voice synthesizer is busy, no sound is generated, but as soon as it is released from the busy state, a message is sent out.
  - o If a voice message has top priority, the MSG lamp flashes with the I-Hold pattern.
- **Operation Guide**

  (Off-hook or SPKR on and idle) [MSG] [#]

2.3.M.3.6.3 Cancellation

A KT/VP user can cancel the registered Voice Message Waiting.

- **Conditions**
  - o If a station user performs a cancellation operation when the Voice Messages have aiready been released or if no voice messages are registered, a WT is connected.
  - o When a Voice Message is cancelled, the remaining messages move up in priority order.
- **Operation Guide**

  (Off-hook and Idle) [FEAT] + [0] + [MSG] + [7] + [n] + [n]

  nn: destination EXT No.

2.3.M.3.6.4 Release Conditions

The Voice Message Waiting is automatically released in the following cases:

- **Conditions**
  - o The voice message has been accessed.
  - o The date has been changed.

2.3.M.3.5 Reminder

A KT/VP user can receive a Reminder Message from the Voice Synthesizer at a predefined time.

- **Conditions**

  - o The system checks Reminder registration every minute; when the predefined time of the predefined day arrives or has already passed, the reminder is sounded and the registration is automatically canceled.
  - o If the Voice Synthesizer is busy when the Reminder is activated, the Reminder is sounded when the Synthesizer goes idle.
  - o The Reminder has priority over all incoming calls except the ICM Voice Call.
  - o If the station has been called by an ICM Voice Call when the Reminder is activated, the Reminder is reactivated one minute later.
  - o One Reminder registration is allowed for each KT/VP.

2.3.M.3.5.1 Registration

- **Conditions**

  - o The time (hour and minute) and day of the week should be entered for Reminder registration.
  - o A station user can predefine a day as Sunday, Monday and so on, up to the same day of the next week. In the last case he must set the time earlier than the present time.
  - o WT connection is made if invalid data is entered.
  - o On completing the registration, the message is output for verification.

- **Operation Guide**

(Off-hook and Idle) [FEAT] + [MSG] + [1] + [H] + [H] + [M] + [M] + [W]

HH: hour (00 to 23)
MM: minute (00 to 59)
W: day of the week

0: Same day of next week
1: Sunday
2: Monday
3: Tuesday
4: Wednesday
5: Thursday
6: Friday
7: Saturday

M

2.3.M.3.5.2 Cancellation

- Conditions
  - o A WT connection is made if Reminder is not registered.
  - o A CT connection is made when cancellation is complete.
- Operation Guide

  (Off-hook and Idle) FEAT + 0 + MSG + 1

M

2.3.M.3.4.1 Registration

The Prime Station can register Night Automatic Answering on each COL with or without Attendant KT/VP.

- **Conditions**

  - o On registration of message i), enter the COL numbers and day code (0 to 7).
  - o On registration of message ii), enter the COL number day code (8), and a dial number consisting of not more than 16.
  - o Registration is performed by entering all the required data or '*' data. It is terminated by timeout (10 seconds) beteen digits, overall timeout (30 seconds), or illegal data input.
  - o When the registration is complete, the registered message is sent to the Attendant.
  - o A CT is connected on finishing the registration and a WT on illegal input.
  - o Registered data are valid until canceled or re-registered.

- **Operation Guide**

(ATTND KT/VP or Prime Station Idle)

[FEAT] + [MSG] + [8] + [I] + [I] + [d] + ([n] + ... + [n]) + ([*] or [▯↓])

([n] + ... + [n]: within 16 digits)

(within 30 seconds)

II: COL No. (01 to 16)
d: day code 0 = tomorrow
1 = Sunday
2 = Monday
:
7 = Saturday
8 = Emergency
n ... n: emergency dial code (within 16 digits)

M

2.3.M.3.4.2 Cancellation

With or without Attendant KT/VP, the Prime Station can cancel the registration of Night Automatic Answering on each COL.

- **Conditons**
  - o Messages i) and ii) are canceled in the same manner.
  - o A CT connection is made when a message is canceled.
  - o A WT connection is made if no message is registered or the data is incorrect.
- **Operation Guide**

(ATTND KT/VP or Prime Station Off-hook and Idle)

[FEAT] + [0] + [MSG] + [8] + [1] + [1]

n1: COL No. (01 to 16)

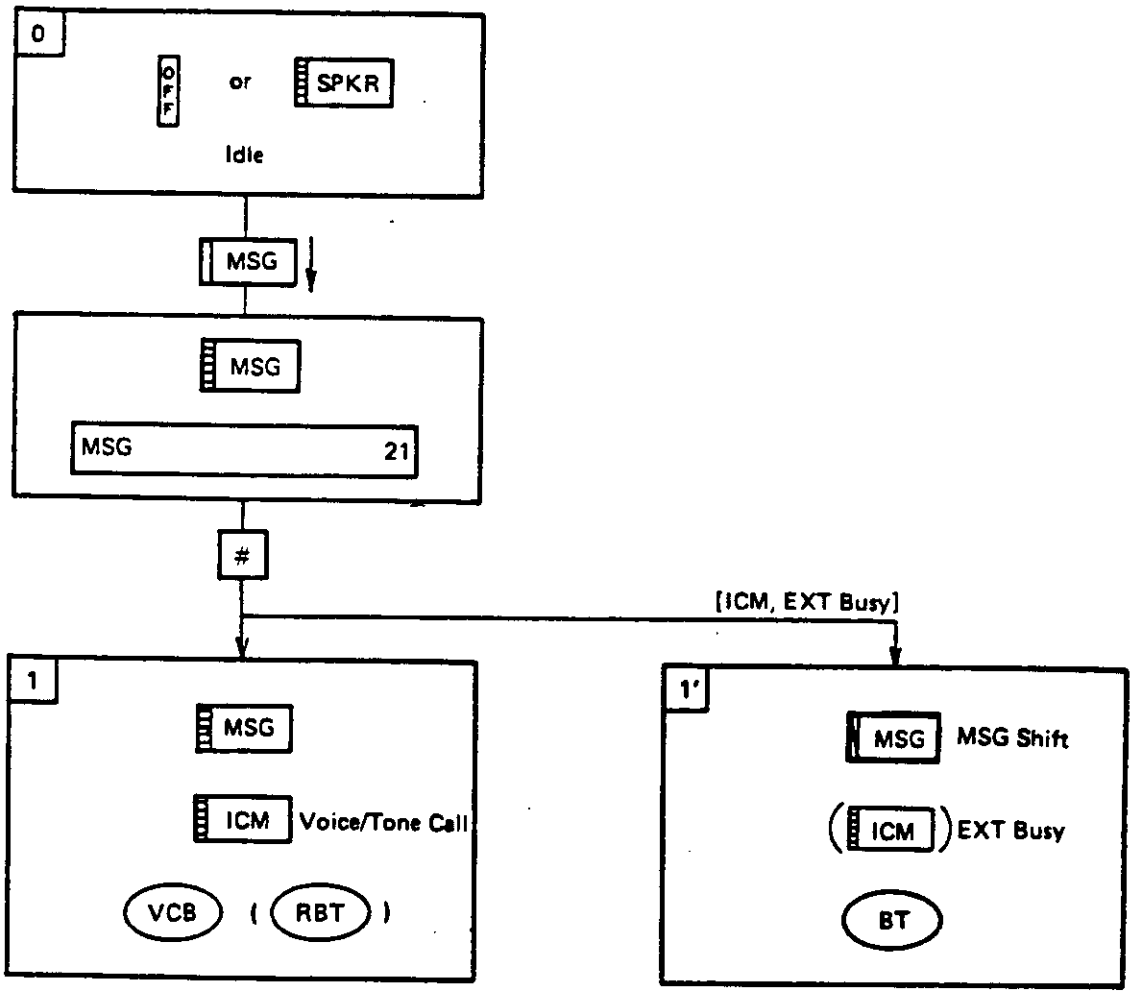
M

2.3.M.3.3.4 Message Access

A KT/VP user can automatically call the registering station on an ICM line by depressing the MSG key.

- **Conditions**
  - o If two or more messages have been registered, this feature is effected in the sequence of priority.
  - o When ICM line busy or station busy is encountered on Message Accessing, the first priority message shifts to the last priority and the next comes up to the first position. Note that the message from the Attendant is always with top priority.
- **Operation Guide**

  (Off-hook or SPKR on) and Idle [MSG] + [#]
- **Operation Flow**



M

2.3.M.3.4 Night Automatic Answering

When the system is in Night Mode, incoming calls over specified COL are answered automatically and message is sent from the Voice Synthesizer.

- **Conditions**

  o Automatic Answering is performed after a certain period (programmable) of timed ringing from an incoming Central Office Call.

  Programing System Constant Item 7

  0: No Function
  1 to 255 seconds programmable Default value is 12 seconds.

  o No message is sent if a station answers before the Automatic Answering.

  o If the voice synthesizer is busy when the automatic answering is activated, there is no sound, but a message is sent as soon as the synthesizer goes idle.

  o There are two types of messages that can be selected on each COL.

2.3.M.3-14

  o Whether the Night Automatic Answering is registered or not can be checked from the Attendant. (See Section 2.3.A.1.22 Trunk Forced Release.)

M

- **Message**

  i) Hello, we're closed today, we'll open, (day)., (repeat)

  ii) Hello, we're closed today, for emergency please call, (dial)., (repeat)

2.3.M.3.3 Message Waiting

When calling a KT/VP over the ICM line and the call is not answered or a Busy Tone is accessed, the MSG Key Lamp at the called KT/VP can be lit from the caller's KT/VP.

- **Conditions**

  - o If the called KT is equipped with a display, a Memo Of Call is displayed. (See Section 2.3.M.3.2 Memo of Call.)
  - o A KT/VP can receive up to four messages. One of them is used exclusively for the Attendant and has the first priority. Other three have priorities in order of registration.
  - o If a KT/VP has already four messages, a Busy Tone is connected to the operator.
  - o The MSG key lamp of the KT/VP that received the message flashes with the same pattern of Hold Recall. If, however, the first-priority message is a Voice Message Waiting, the key indicates I-HOLD. (See Section 2.3.M.3.6 Voice Message Waiting.)
  - o An station on which the Message Wait feature can be registered (having a MSG key assigned) should be assigned.

- **Programming**

Station Class of Service Item 7 Message Attribution

Each EXT	Flashing:	with attribute
	Steady on:	No attribute

M

2.3.M.3.3.1 Registration

- **Conditions**

  - o On completing registration, a CT is connected (an ICM is disconnected when calling on an ICM line).

2.3.M.3.3.1.1 Key Telephone/Versa Phone

- **Operation Guide**

(ICM Calling or BT) [MSG] + [#]

2.3.M.3.3.1.2 Single Line Telephone

- **Operation Guide**

(ICM Calling or BT) ↓↑ + [1] + [6]

2.3.M.3.3.2 Cancellation

A station user can cancel the messages registered by himself.

- **Conditions**
  - o When the message is already canceled or no message is registered, a WT is connected.
  - o When a message is cancelled, the remaining messages registered with that Station move up in priority order.

2.3.M.3.3.2.1 KT/VP

- **Operation Guide**

(Off-hook and Idle) [FEAT] + [0] + [MSG] + [7] + [n] + [n]

(nn: destination EXT No.)

2.3.M.3.3.2.2 SLT

- **Operation Guide**

(DT) [1] + [0] + [6] + [n] + [n] (nn: destination EXT No.)

M

2.3.M.3.3.3 Release Conditions

A registered message is automatically released under the following conditions:

- **Conditions**
  - o A registering Station has made an ICM call with the registered KT/VP.
  - o The date has changed.

2.3.M.3.1.3 Message Activation

The registered message is sent in the following cases:

- o When a KT/VP with a registered message is called by another Station on an ICM line, the registered message is sent to the caller.
- o When a KT/VP with a registered message does not answer an incoming call on the Private Line for 12 seconds, the registered message is sent to the caller.

2.3.M.3.1.4 Automatic Release Conditions

The registered message is automatically canceled in the following cases:

- o Return day
  On and after the day next to the registered return day.
- o Return time/lunch return time/meeting return time/telephone number
  On and after the day next to the day of registration.

2.3.M.3.1.5 Private Line Automatic Answering

A COL call on a Private Line can be automatically answered and the message is sent from Voice Synthesizer.

- **Conditions**
  - o Automatic answering is performed when the line is not picked up for 12 seconds after receiving a COL call.
  - o This is performed only when an Absence Message is registered.
  - o The Absence Message registered at the station is sent to the COL.
  - o The COL is automatically disconnected after sending the message.
- **Programming**

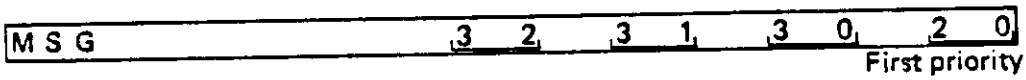
  See Section 2.3.M.3.1.1 Registration.

M

2.3.M.3.2 Memo of Call

When message are registered at the KT with display (DTEL) from other stations, the EXT No. are displayed in the sequence of priority.

- Conditions
  - o Messages are displayed from right to left in priority order.
  - o A message appears on the display when MSG key is depressed.
  - o To seek for contents other than message, such as time of the day, etc., execute the Display Mode Change.
- Indications



First priority message

2.3.M.3.1.2 Cancellation

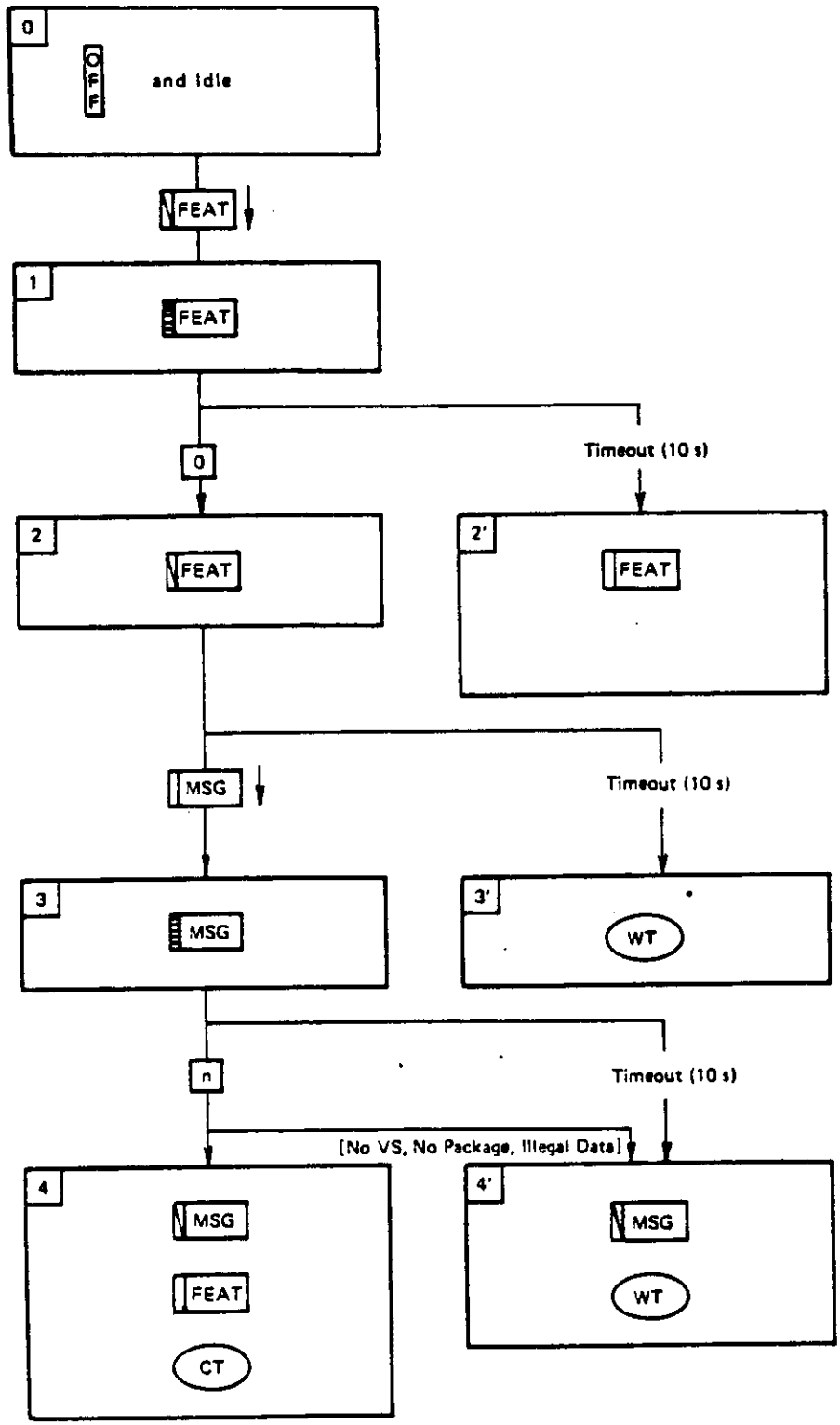
The registered message can be canceled.

- **Operation Guide**

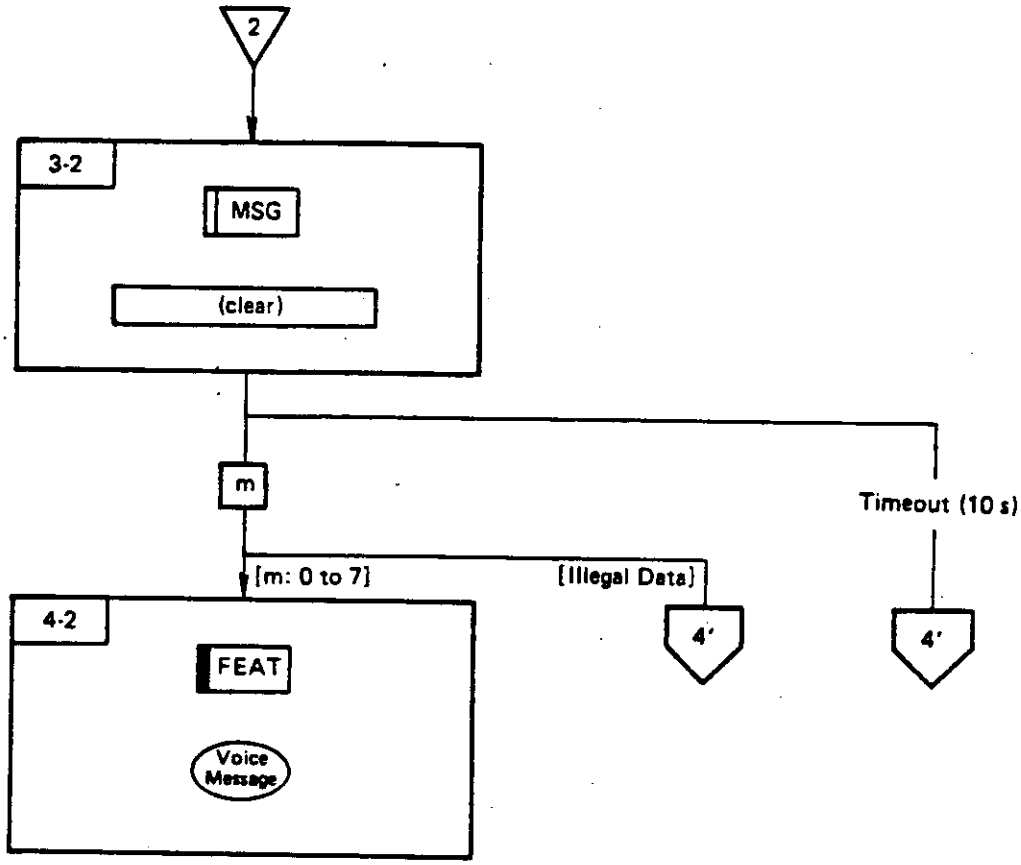
(Off-hook) [FEAT] + [0] + [MSG] + [n] n = 2 to 6 (any arbitrary number)

M

- Operation Flow

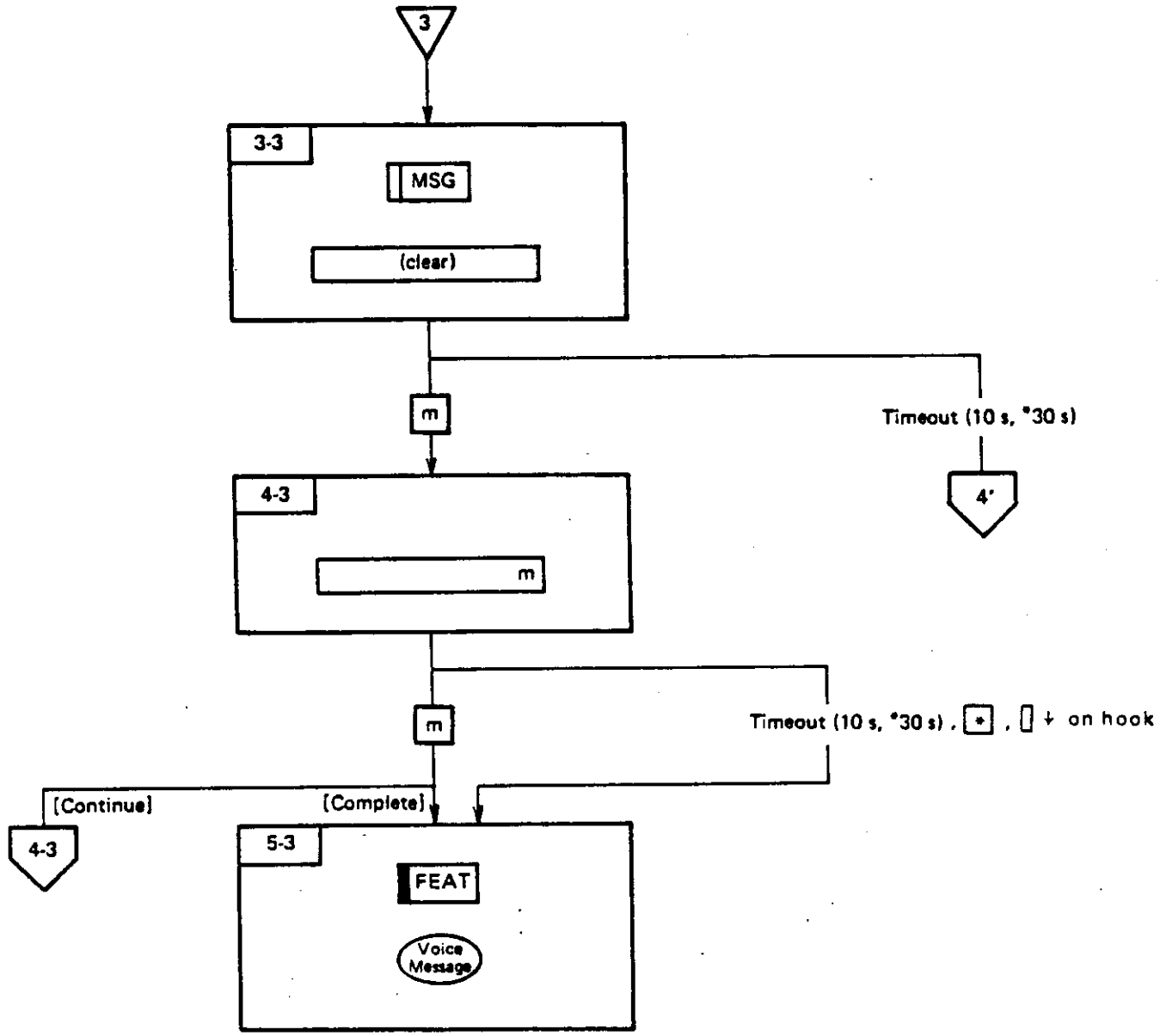


ii) Return day

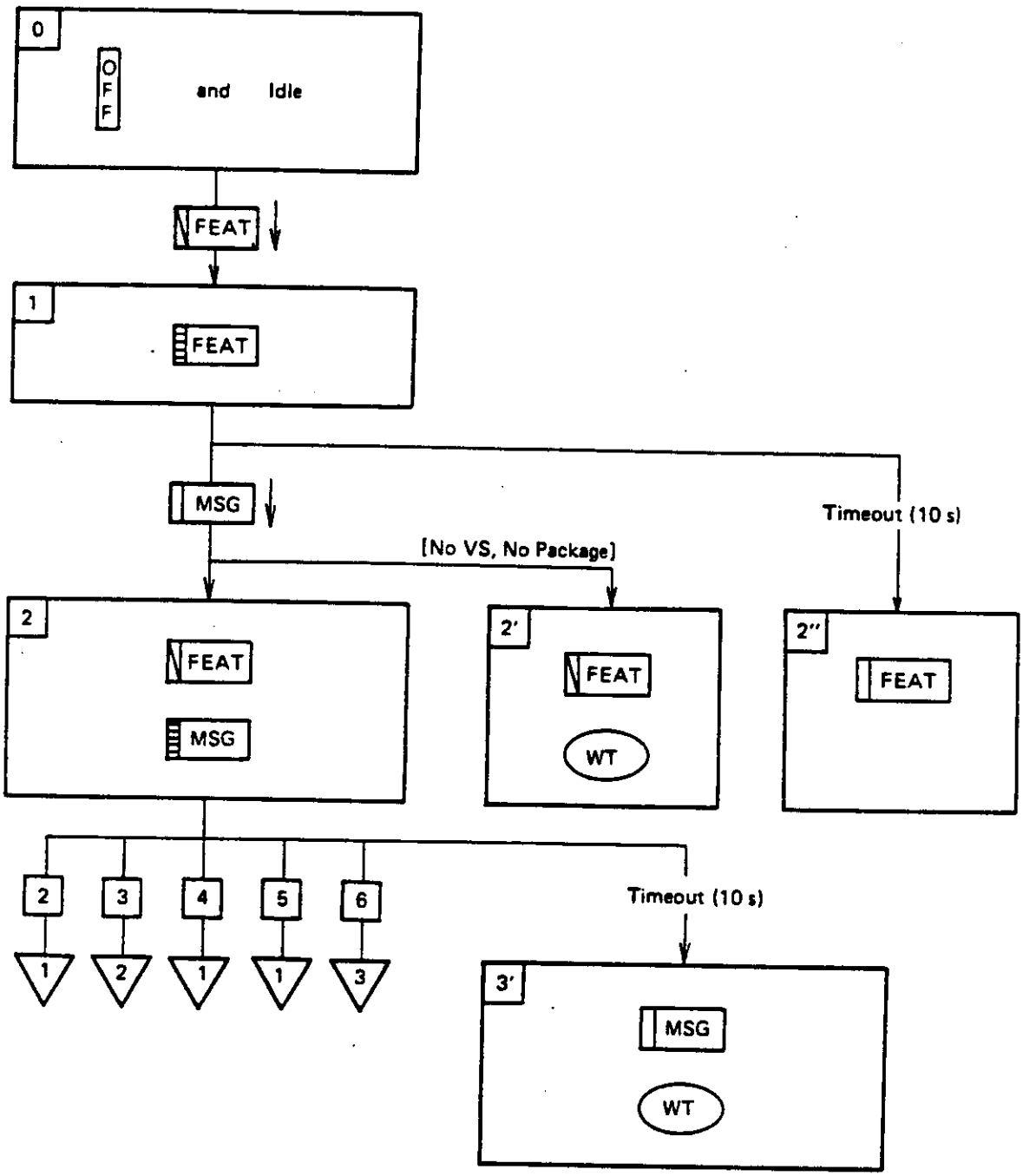


M

iii) Telephone number

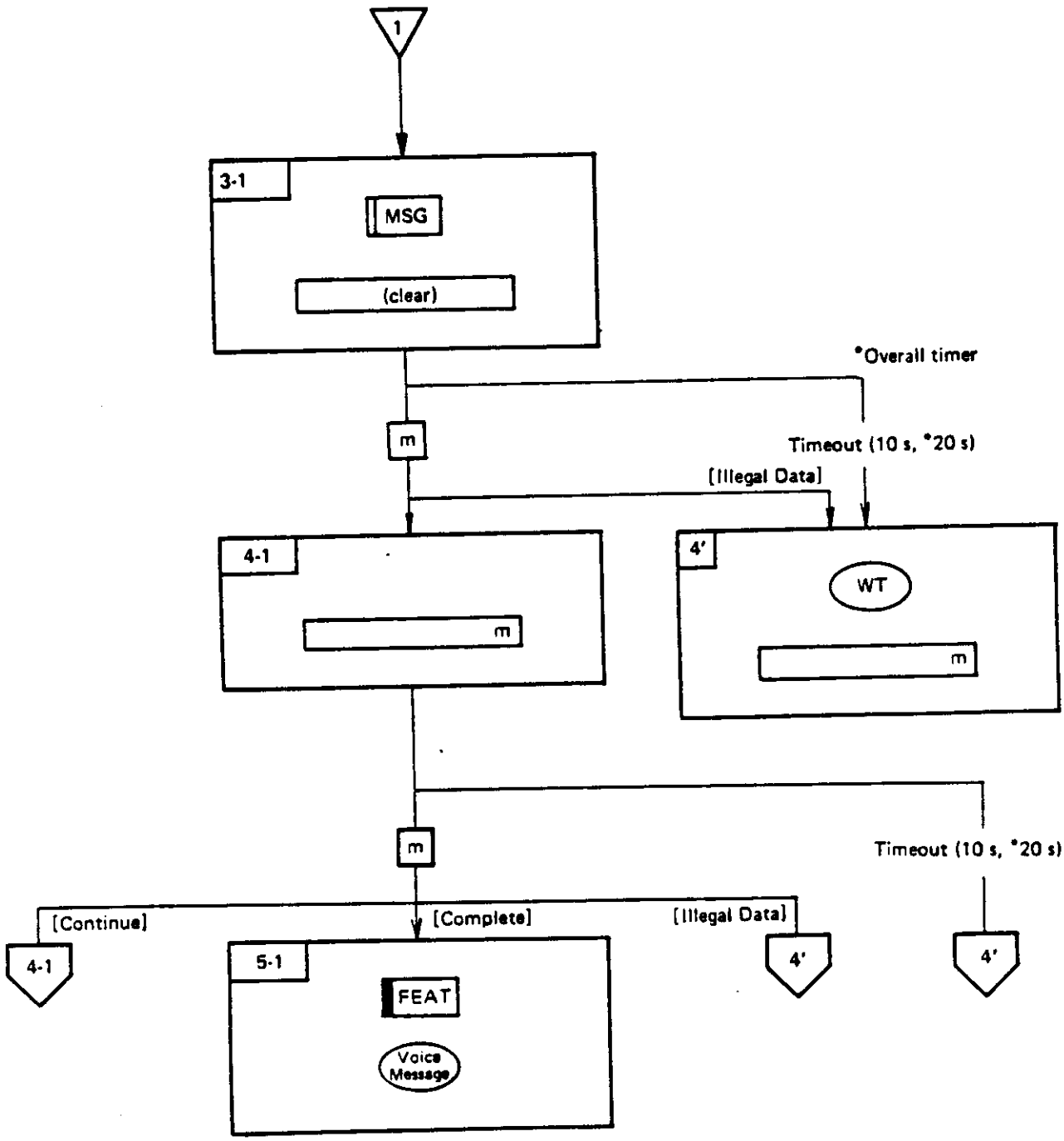


■ Operation Flow



M

i) Return time / Lunch return time / Meeting return time



2.3.M.3 Message

A station user can access messages using the Voice Synthesizer and Display.

- **Condition**

  Message functions are classified as follows:

1. Absense Message
2. Memo of Call
3. Message Waiting
4. Night Automatic Answering
5. Reminder
6. Voice Message Waiting

M

2.3.M.3.1 Absense Message

A KT/VP user can send a specific message to ICM calling station.

2.3.M.3.1.1 Registration

A any one of the following messages can be registered.

- o Return time
- o Return day
- o Lunch return time
- o Meeting return time
- o Telephone number

■ **Conditions**

- o It is not allowed to register two or more messages simultaneously.
- o If a new message is registered when another has already been registered, the earlier one is automatically canceled.
- o A message for assurance is output from the speaker of the KT/VP after registration.

■ **Operation Guide**

(Off-hook and idle) [FEAT] + [MSG] + [n] + [m] + --- + [m] + ([*] or [#])

o Return time	n=2	m = time (HHMM)	
o Return day	n=3	m = day of week	(1: Sunday to 7: Saturday) (0: Tomorrow)
o Lunch return time	n=4	m = time (HHMM)	
o Meeting return time	n=5	m = time (HHMM)	
o Telephone number	n=6	m = dial (up to 16 digits)	

■ **Indication**

[FEAT] message registered

2.3.M.2 Meet Me

This feature provides Meet Me answer for a Paging (All, Group, Zone) call.

- **Conditions**

  - o The answering station user needs to dial Paging-calling station number.
  - o A BT connection is made if the specified station is not performing a Paging Call. (See Section 2.3.P.1 Paging Call.)

2.3.M.2.1 Key Telephone/Versa Phone

- **Operation Guide**

(Off-hook and Idle) ([FEAT]) + [2] + [n] + [n] nn: Paging Calling Station number

2.3.M.2.2 Single Line Telephone

- **Operation Guide**

(DT) [1] + [2] + [n] + [n] nn: Paging Calling Station number

M

2.3.M.1 Master Group Hunt Call

A hunt call for certain master group, which is defined by system data, is available.

- **Conditions**
  - o There are four ICM Master Groups with up to 48 Stations each.
  - o Within a group stations have priority of searching.
  - o A station during (Busy) Call Forward, DND, or call termination, or off-hook state (SPKR on) is not called.
  - o If the called station does not answer for a certain time (programmable), the call is transferred to the next station; if there is no available station the call continues on the same station.
  - o If there is no available station, the calling station receives a BT.
  - o This feature provides tone call only.
  - o Once the Master Group Hung Call is overriden, the call is immediately transferred to the neck station.
- **Operaiton Guide**

  (DT) [8]+[7]+[0] (Group 1)

  (DT) [8]+[7]+[1] (Group 2)

  (DT) [8]+[7]+[2] (Group 3)

  (DT) [8]+[7]+[3] (Group 4)
- **Programming**

  Group Item 1 (Group No. 1 to 4 x Priority.)
  One station is assigned.

  System Constants: Item 9 Master Group Hunt Timeout
  10 ~ 255 seconds
  Default is 20 seconds.

M

2.3.M.1.1 Direct Master Group Hunt Call

A hunt call can be originated by depressing HNTn key on KT/VP.

- **Condition**

  - o Same as the Master Group Hunt call.
  - o This feature provides Quick Mode Operation. (See Section 2.3.Q.1 Quick Mode Operation.)

- **Operation Guide**

  (DT) or (On-hook and SPKR off: Quick Mode Operation)

HNT1	(Group 1)
HNT2	(Group 2)
HNT3	(Group 3)
HNT4	(Group 4)

- **Programming**

  Group Item 1: ICM Master Hunt Group
  (Group No. 1 to 4 x Priority 1 to 48)
  One station is assigned.

M

2.3.N.1.4 Universal Night Assign

When a Universal Night Assign (UNA) attribution is assigned to a COL various services are provided for an incoming call during Night Mode.

- **Conditions**

  - o Valid for tenant A only.
  - o If a COL incoming call is received during Day Mode and the mode changes to Night Mode during the call, the call does not use UNA facility.
  - o If a COL incoming call is received during Night Mode and the mode changes to Day Mode during the call, the call continues to use the UNA facility.

- **Programming**

  Line Specification Item 2 Tenant Group (COL No.)
  0: Tenant A
  Item 3 Universal Night Assign (COL No.)
  1: with attribute

2.3.N.1.4.1 UNA Relay

While there is an incoming call on a COL with UNA attribute during Night Mode, the UNA Relay operates in a 1-second-on/3-seconds-off pattern.

2.3.N.1.4.2 Paging

While there is an incoming call on a COL with UNA attribute during Night Mode, CORGT is sent from the Paging Speakers.

N

- **Conditons**

  - o CO RGT is mixed at the paging speakers while paging call goes on.

2.3.N.1.5 Universal Night Assignment Pick Up

An Incoming calls on a COL with UNA attribute during Night Mode can be picked up with an SLT, KT and VP.

- **Conditions**

  o A BT is accessed when no COL can be picked up.

  o If multiple COLs can be picked up, they are answered in the order of first-come, first-served.

- **Operation Guide**

i) KT/VP

(off hook or SPKR) [FEAT] + [4] + [9] + [9]

ii) SLT

(DT) [9] + [9]

N

2.3.I.3 Incoming COL Call

When system detects an incoming signal on a COL, it provides audible and visible indications of incoming COL on the stations programmed to ring.

- **Conditions**

  - o If an incoming signal continues for more than 300 miliseconds, the system considers it to be an incoming COL signal and performs incoming processing.

  - o After an incoming COL signal is received, if signal is not detected for more than 6 seconds, the system considers that the incoming signal is canceled and terminates incoming processing.

  - o Once an incoming COL signal is received, the COL key lamp on the KT/VP assigned to the tenant those are not Pickup Restricted for the COL blinks in the pattern No. 3.

  - o If no COL key is assigned to an incoming COL, an incoming lamp indication is mode on a floating key (FLT, FLTn, OPT).

  - o Once an incoming COL signal is received, COLRGT audible indication is provided for the individual receiving station programmed by system data.

  - o COLRGT does not ring for the following stations:

    i) A station called with a higher-level call. (See Section 2.2.3.2.6 Priority of Call.)
    ii) A station set to Do Not Disturb. (See Section 2.3.D.5.1 Do Not Disturb.)
    iii) Off-hook Signal Deny and Off-hook or speaker on.
    iv) A station set to (Busy) Call Forward (rings at the destination). (See Section 2.3.C.4 Call Forward)

- **Programming**

  Line Specification Item 11: Individual Incoming Stations (COL No.)

  Each EXT { On (blink): Ring / Off (lit): No ring }

  Default is All EXTs Assigned.

2.3.I.2 ICM Path Termination

A system provides eight ICM circuit and assigns automatically an available one according to the tenant and attribution of the internal caller.

- **Conditions**

  - o Each station seizes an ICM line assigned to the same tenant as the station or an ICM line with AB tenant attribution.

  - o Once a station seize an ICM line assigned to tenant AB, the ICM line is considered belonging to the tenant of the seizing station. (See Section 2.3.T.1 Tenant Service.)

- **Programming**

  Line Specification Item 2 Tenant Group (ICM No.)
  0: Tenant A (Default)
  1: Tenant B
  2: Tenant A & B (Only ICM)

2.3.1.2.1 Ordinary ICM

An ICM line that can be seized from all stations assigned to the tenant.

- **Programming**

  Line Sepecification Item 1:LIne Class (ICM No.)
  16: Ordinary ICM

2.3.1.2.2 Attendant Dedicated ICM

An ICM line that can be seized from Attendant only.

- **Conditions**

  - o When seizing an ICM line, the Attendant first searches for an idle Attendant Dedicated ICM. If there is no idle line, it searches for an idle ordinary ICM.

  - o A BT connection is made if there are no available ICMs.

  - o When a station other than Attendant, which is conversing with Attendant on Attendant Dedicated ICM, perfoms Dial Tone Reorder, the ICM is released and an idle ICM line other than that is seized.

- **Programming**

  Line Spedification Iem 1 Line Class (ICM No.)
  17: ATTND Dedicated ICM

2.3.1.2.3 Hot Line ICM

An ICM line that can be seized only from a station with Executive or Secretary attribution.

- **Conditions**

  o When a station without an Executive or Secretary attribution performs a Dial Tone Reorder during a Hot Line ICM call, the internal call is released and another idle ICM line is seized. A BT connection is made if there are no available ICMs. (See Section 2.3.S.2 Secretarial Hot Line Termination).

- **Programming**

  Line Specification Item 1: Line Class (ICM No.)
  18: Hot Line ICM

2.3.I.2 ICM Path Termination

A system provides eight ICM circuit and assigns automatically an available one according to the tenant and attribution of the internal caller.

- **Conditions**

  - o Each station seizes an ICM line assigned to the same tenant as the station or an ICM line with AB tenant attribution.

  - o Once a station seize an ICM line assigned to tenant AB, the ICM line is considered belonging to the tenant of the seizing station. (See Section 2.3.T.1 Tenant Service.)

- **Programming**

  Line Specification Item 2 Tenant Group (ICM No.)
  0: Tenant A (Default)
  1: Tenant B
  2: Tenant A & B (Only ICM)

2.3.1.2.1 Ordinary ICM

An ICM line that can be seized from all stations assigned to the tenant.

- **Programming**

  Line Sepecification Item 1:LIne Class (ICM No.)
  16: Ordinary ICM

2.3.1.2.2 Attendant Dedicated ICM

An ICM line that can be seized from Attendant only.

- **Conditions**

  - o When seizing an ICM line, the Attendant first searches for an idle Attendant Dedicated ICM. If there is no idle line, it searches for an idle ordinary ICM.

  - o A BT connection is made if there are no available ICMs.

  - o When a station other than Attendant, which is conversing with Attendant on Attendant Dedicated ICM, perfoms Dial Tone Reorder, the ICM is released and an idle ICM line other than that is seized.

- **Programming**

  Line Spedification Iem 1 Line Class (ICM No.)
  17: ATTND Dedicated ICM

2.3.I.1.1.2.1 Hands-Free Answer

While answering an internal call, a KT/VP user can utilize Hands-Free Answer feature.

- **Conditions**

  - o When a KT/VP microphone is off, the user can not utilize Hands-Free Answer.
  - o When a KT/VP microphone is on, a station user can initiate Hands-Free Answer.
  - o A KT/VP user can not perform Hands-Free Answer when the built-in speakerphone is activate.
  - o Hands-Free Answer needs no operation to answer back, but the incoming call still remains not picked up so it can be picked up from another station.
    (See Section 2.3.H.1 Hands-free Stations.)

2.3.1.1.2 Establishment of ICM Calling Method

The initial mode of ICM calling (Voice calling or Tone calling) for each tenant can be programmed.

- **Programming**

System Constants	Item 13: ICM Calling Mode (Tenant A or B) 0: Voice Call 1: Tone Call Defaults is 0.

2.3.1.1.1.1 Tone Calling

While originating an internal call, a station user can call other station with tone.

- **Conditions**
  - o When a SLT is called, it is always called with Tone.
  - o A RBT is sent to the calling station during a Tone call.
- **Operation Guide**

  (DT) [n]+[n]

  (ICM voice calling) [#] ([2]: only PULSE-SLT)

2.3.I.1.1.2 Voice Calling

While originating an internal call, a station user can call other station with Voice.

- **Conditions**
  - o A 0.8-second Burst Tone (VCB) is sent to the called and calling Station when an internal call begins.
  - o While conversing on any call in progress, a KT/VP user can receive Voice Calling but he can not receive more than one ICM calls at once. He receives a call in incoming order.
  - o While originating an internal call with Tone, a station user can change the call to a Voice call.
  - o A called KT/VP station user can answer to the call with Hands-Free Answer Back feature.
- **Operation Guide**

  (DT) [n] + [n]

  (ICM Tone Calling) [#] ([2]: only PULSE-SLT)

2.3.0.4 Outgoing Address Signal

The system can send a dial signal (Outgoing Address Signal) to a COL.

- **Conditions**
  - o Dial transmission is executed in the following cases:
    - i) Dialing from a KT/VP.
    - ii) Dialing from a SLT on a DP COL.
    - iii) Dialing from a DP SLT on a DTMF COL.
    - iv) Automatic dialing (Speed Dialing, Redialing, Callback Queuing/Timed Trunk Queuing) from a DTMF SLT on a DTMF COL.

2.3.O.5 Outgoing Restriction

A Station Outgoing call COL pick up can be restricted in five levels per COL.

- **Conditions**

  - o When the outgoing level of the station is lower than the COL outgoing level, the station cannot pick up the COL.
  - o The attempt by a KT/VP to pick up an outgoing restriction COL is ignored.
  - o When no available COL exists in the COL group which a SLT can pick up, WT is accessed.
  - o When Flash is operated at a KT/VP while engaged on an Outgoing Restriction COL, that operation is ignored.

- **Programming**

  Line Specification Item 5, Outgoing Level (COL No.)
  0 to 4 level

  Station-Class-of-Service Item 23, CO Outgoing Level (Station No.)
  0 to 4 level

O

2.3.O.6 Overriding

The Attendant KT/VP and KT/VP provided with Executive Attribute are available to access various special features.

- **Condition**

  - o Override includes the following features:

2.3.O.6.1.	Busy Override	(ATTND)
2.3.O.6.2.	Do Not Disturb Override	(ATTND)
2.3.O.6.3.	Executive Override	(Executive KT/VP)
2.3.O.6.4.	Call Waiting	(ATTND and Executive KT/VP)

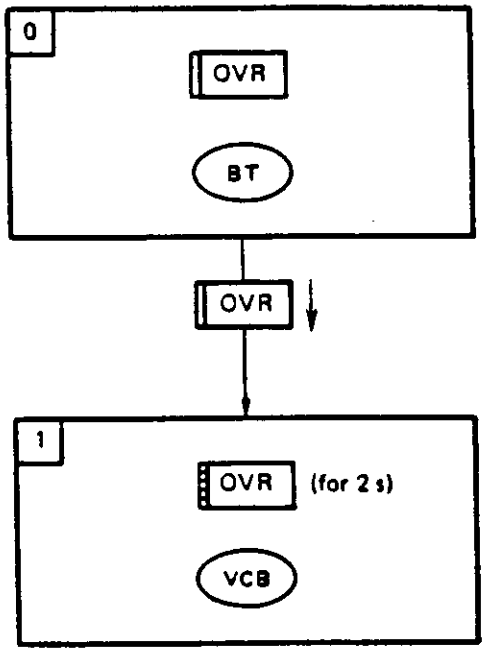
O

2.3.0.6.1 Busy Override

When the attendant accesses BT while calling an engaged KT/VP (on-hook or SPKR on) on an ICM line, forced ICM calling is available.

- **Conditions**
  - When a KT/VT with protected attribution is accessed, the operation is ignored.
  - When an SLT is accessed, the operation is ignored.
- **Operation Guide**

  (ATTND BT) OVR
- **Operation Flow**

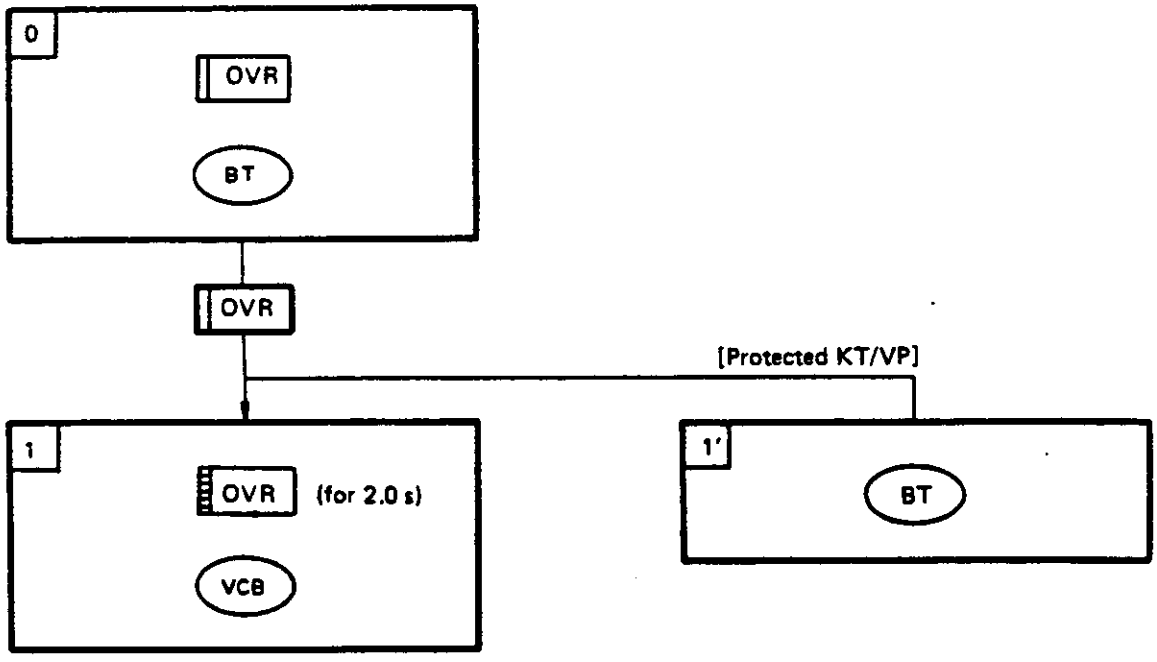


2.3.0.6.2 Do-Not-Disturb Override

When the attendant accesses BT while calling a KT/VP in Do-Not-Disturb mode, forced ICM calling is available.

- **Conditions**
  - o If the called KT/VP is protected, that operation is ignored.
- **Operation Guide**

  (ATTND BT) [OVR]
- **Operation Flow**



2.3.O.6.3 Executive Override

The KT/VP with Executive attribute can have access to various special functions.

- **Conditions**

  o Even though the attendant KT as the Executive attribute, the Executive feature is not available and operates only as an attendant station on ICM calls.

  o An SLT with Executive Attribute can not use functions other than those relating to ICM calls.

- **Programming**

  Station Class-of-Service Item 4, Executive Attribute

Corresponding EXT:	Executive Attribution (blink)
Each EXT	Flashing ON
	Steady on OFF

2.3.O.6.3.1 DND/Busy Override

An Executive KT/VP can have access to the KT/VP that is set for DND or Off-hook Signal Deny on an ICM call.

2.3.O.6.3.2 ICM Call Priority

When an ICM call originating from an Executive KT/VP arrives at a KT/VP that is being called from an ordinary station (not ATTND or Executive), the preceding call is blocked and accessed to BT, and Interrupt Tone is sounded instead of bust tone and ICM Voice Call is heard at the called KT/VP.

2.3.O.6.3.3 Executive Automatic Add-On

When an ICM call is originated from an Executive KT/VP to a busy SLT, Add-On Conference is established following the Add-On Tone. (See Section 2.3.C.11.1 Add-On Conference.)

- **Conditions**

  o When the called SLT is originating a COL/ICM call or engaged in a COL/ICM Conference to full capacity, override is disabled and BT is accessed at the calling KT/VP.

2.3.0.6.3.4 Executive COL Monitor

A COL call in Privacy status can be entered from an Executive KT/VP without sounding the Add-On Tone.

- **Conditions**
  - o When entering a COL call in Privacy Release status or COL on Conference Hold, the Add-On Tone is sent to the COL.
  - o A COL being a dialed can not be entered.
- **Operation Guide**

  (Off-hook or SPKR on) [COL]

  (On-hook and SPKR off) [COL] + [ ] † ([SPKR])

2.3.0.6.3.5 Hot Line

An ICM line assigned to Hot Line can be picked up for originating a call from the Executive KT/VP.

- **Programming**

  Line Specification Item 1: Line Class (ICM No.)
  18: Hot Line

2.3.O.6.4 Call Waiting

A call overridden by a KT/VP with Attendant or an Executive Attribute is automatically restored when the overriding call is finished.

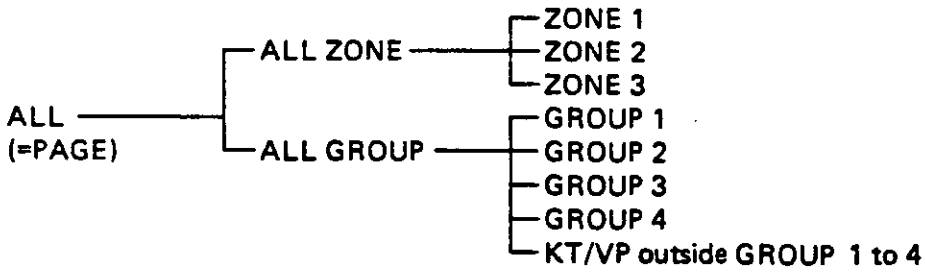
- **Conditions**
  - o BT is accessed by the caller of the overridden call while the overriding call is in progress.
  - o During this time, there is no timeout for the BT.
  - o The call cannot be restored if the caller disconnects while accessing the BT.

2.3.P.1 Paging Call

A station user can originate a Paging Call.

- **Conditions**

  - o There are ten Paging Call types:



  - o Quick Mode Operation is available with the Direct Page Keys (PAGE, ALL, ALL ZONE, ALL GRP, ZONEn, PAGEn). Press the desired Direct Page Key while on-hook with the SPKR off and the speaker goes an automatically. (See Section 2.3.Q.1 Quick Mode Operation.)

  - o Refer to the following sections for key assignments.

    2.3.A.3 Automatic ICM Termination
    2.3.F.2 Flexible Key Assignment

  - o Paging functions are classified as follows:

    1. All Call with Meet-Me
    2. All Zone Call with Meet-Me
    3. All Group Call with Meet-Me
    4. Zone Call with Meet-Me
    5. (ICM) Group Call with Meet-Me
    6. Attendant Paging CALL with Meet-Me

       (2.3.A.1.8) Chain Call
       (2.3.H.1) Handsfree Stations
       (2.3.H.3.5) Automatic Hold
       (2.3.I.1) ICM Calling
       (2.3.M.2) Meet-Me
       (2.3.O.1) On Hook Dialing

  - o Refer to the following for time setting to terminate a page:

    Programming System Constants Item 3: Page Timeout
    1 to 255 Seconds
    0: No Function
    Default is 10 seconds.

P

3.P.1.1 All Call with Meet-Me

After seizing an ICM line, artivate All Call with Meet-Me facility by pressing the ALL or PAGE key or dialing a specified number.

- **Conditions**

  - o All Call is available only at the KT/VP where the following conditions are entirely satisfied.

    i) Assigned to the same tenant as the calling station.

    ii) No other call is in progress.

    iii) Station Class-of-Service 'All Call Deny' is set to allow (lit).

    iv) Station Class-of-Service 'Off-hook All Call Deny' is set to allow (lit) or on-hook and speaker off where denied (flashing).

  - o Zone speakers 1 to 3 are also eligible for tenant A.

  - o BT is accessed when another station of the same stenant is performing All Call, All Group Call, or Group Call. (See Section 2.3.A.1.1 Attendant Call Priority.)

  - o All Call terminates after a specified programmable time and is held in Meet-Me status.

  - o All call is not available when no idle ICM line exists.

  - o BT is accessed when no idle called KT/VP exists.

  - o The Page Key is a Press-to-Talk Key, and paging is possible only while the key is pressed.

- **Programming**

  Station Class-of-Service Item 17, Paging Call Access Deny

Each station	Steady on:	allow
	Flashing:	deny

- **Operation Guide**

  (DT) [8] + [8] + [0]

  or

  (Off-hook or SPKR on) [ALL] or [PAGE] (Press-to-Talk)

2.3.P.1.2 All Zone Call with Meet-Me

After seizing an ICM line activate All Zone Call with Meet-Me by pressing the ALL ZONE key or dialing a specified number.

- **Conditions**

  - o Call from Tenant B is not possible.
  - o BT is accessed when another station the same tenant is performing All Call, All Zone Call, or Zone Call. (See Section 2.3.A.1 1 Attendant Call Priority.)
  - o All Zone Call terminates after a specified time programmable and is held in Meet-Me status.
  - o All Zone Call is not available when no idle ICM line existes.
  - o When only one external speaker is connected without using the ZPAD-M card, System Constants Item 14, 'External Paging Speaker' should be assigned as '1'.

- **Programming**

  Station Class-of-Service Item 17, Paging Call Access Deny

  Each station { Steady on: allow / Flashing: deny

  System Constants Item 14: External Paging Spea.

  kers (Tenant A)
  0 : No Zone Speaker
  1 : 1 Zone Speaker
  2 : 2 Zone Speaker
  3 : 3 Zone Speaker
  Default is 0 (No Zone Speaker)

- **Operation Guide**

  (DT) [8]+[8]+[4]

  or

  (Off-hook or SPKR on) [ALL ZONE]

P

2.3.P.1.3 All Group Call with Meet-Me

After seizing an ICM line, activate All Group Call with Meet-Me facility by pressing the ALL GROUP key or dialing a specified number.

- **Conditions**

  - o All Group Call is available only at the KT/VP where the following conditions are entirely satisfied.

    i) Assigned to the same tenant as the calling station.

    ii) No other call is in progress.

    iii) Station Class-of-Service All Call Deny is set to allow (lit).

    iv) Station Class-of-Service 'Off-hook All Call Deny' is set to allow (lit) or on-hook and speaker off where denied (flashing).

  - o BT is accessed when no called KT/VP exists.

  - o BT is accessed when another station of the same tenant is performing ALL Call, All-Group Call, or Group Call. (See Section 2.3.A.1,1 Attendant Call Priority.)

  - o All Group Call is not possible when no idle ICM line exists.

  - o All Group Call terminates after a spesified time (programmable) and is held in Meet-Me status.

- **Programming**

  Station Class-of-Service Item 17: Paging Call Access Deny

Each Station	Steady on:	allow
	Flashing:	deny

- **Operation Guide**

  (DT) [8]+[8]+[5]

  or

  (Off-hook or SPKR on) [ALL GRP]

2.3.P.1.4 Zone Call with Meet-Me

After seizing an ICM line, activate Zone Call with Meet-Me facility by pressing the ZONEn key or dialing a specified number.

- **Conditions**

  - o Call from Tenant B is not Possible.
  - o Zone Call terminates after a specified time (programmable) and is held in Meet-Me status.
  - o Zone Call is not possible when no idle ICM line exists.
  - o This feature is not available unless a ZPAD-M is installed.

- **Programming**

  Station Class-off-Service Item 17: Paging Call Access Deny

Each Station	Steady on:	allow
	Flashing:	deny

  System Constant Item 14 External Ringing Speakers (Tenant A)

  0: No Zone Speakers
  1: 1 Zone Speaker
  2: 2 Zone Speakers
  3: 3 Zone Speakers

  Example: When Tenant A is "2" Zone 1 and 2 are assigned to the Tenant A.

- **Operation Guide**

  (DT) [8] + [8] + [1] or (Off-hook or SPKR on) [ZONE 1] (Zone Speaker 1)

  (DT) [8] + [8] + [2] or (Off-hook or SPKR on) [ZONE 2] (Zone Speaker 2)

  (DT) [8] + [8] + [3] or (Off-hook or SPKR on) [ZONE 3] (Zone Speaker 3)

P

2.3.P.1.5 (ICM) Group Call with Meet-Me

After seizing an ICM line a activate All Group Call with Meet-Me facility by pressing the GRPn key or dialing a specified number.

- **Conditions**

  - o All Group Call is available only at the KT/VP where the following conditions are entirely satisfied.

    i) Assigned to the specified ICM Group.

    ii) Assigned to the same tenant as the calling station.

    iii) No other call is in progress.

    iv) Station Class-of-Service 'All Call Deny' is set to allow (lit).

    v) Station Class-of-Service 'Off-hook All Call Deny' is set to allow (lit) or on-hook and speaker off where denied.

  - o BT is accessed when no called KT/VP exists.

  - o BT is accessed when another station of the same tenant is performing ALL Call, All Group Call, or Group Call.

  - o All Group Call is not possible when no idle ICM line exists.

  - o All Group Calls terminate after a specified time (programmable) and are held in Meet-Me status.

- **Programming**

  Station Class-of-Service Item 17: Paging Call Access Deny

Each station	Steady on:	allow
	Flashing:	deny

- **Operation Guide**

  (DT) [8] + [8] + [6] or (Off-hook or SPKR on) [GRP 1] (Group 1)

  (DT) [8] + [8] + [7] or (Off-hook or SPKR on) [GRP 2] (Group 2)

  (DT) [8] + [8] + [8] or (Off-hook or SPKR on) [GRP 3] (Group 3)

  (DT) [8] + [8] + [9] or (Off-hook or SPKR on) [GRP 4] (Group 4)

2.3.P.1.6 Attendant Paging Call with Meet-Me

The attendant can perform Paging Call (All Call, Group Call, Zone Call) by using the Direct Page Call keys on the Attendant Console.

- **Conditions**
  - o This feature is available when the ATTND KT/VP is off-hook or speaker is on.
  - o This feature is not available when no idle ICM line exists.
  - o BT is accessed when another attendant of the same tenant is performing a Paging Call.
  - o For the details of Paging Call, refer to the following sections: (See Section 2.3.P.1.1 to 5.)
  - o When Attendant performs this feature while on a COL call, the COL is automatically placed on Call Park.
- **Programming**

  Station Class-of-Service Item 17: Paging Call Access Deny

Each station	Steady on:	allow
	Flashing:	deny

- **Operation Guide**

  (ATTND KT off-hook or speaker on) [ALL], [GRPn], [ZONEn], [ALL GRP], [ALL ZONE]

P

2.3.P.2 Pickup Restriction

This facility restricts accessable COLs from Stations

- **Conditions**
  - o Pickup Restriction corresponding to each COL can be assigned per station.
  - o Audible and visible indications relating to pickup restricted COL do not appear at the corresponding KT/VP.
  - o A station user cannot disable to access a Pickup Restricted COL.
- **Programming**

Station Class-of-Service Item 25: Pickup Restriction (EXT No.)

Each COL	{ Restricted:	Flashing
	{ Not restricted:	Steady on

P

2.3.P.3 Preselection

A KT/VP user can preselect a COL/ICM before seizing the line.

- **Conditions**

  - o Preselection is valid for 10 seconds and a station user can seize a COL/ICM by lifting the handset or pressing the SPKR key during this interval.
  - o When the preselected COL/ICM line is busy, the line can not be seized.
  - o During preselection the COL/ICM key lamp indicates I-USE, and the lamp goes out if the line is not seized within 10 seconds.
  - o If there is an incoming call to the station during preselection and the station user lifts the handset or presses the SPKR key, the preselected line is seized even if Automatic Line Answer is assigned. (See Section 2.3.A.4 Automatic Line Answer.)

- **Operation Guide**

  (On-hook and SPKR off) [COL] or [ICM] or [FLT]

P

2.3.P.4 Prime Station

The station with the lowest number among those that can access a COL is called the prime station and has a special feature for incoming calls.

- **Conditions**

  o The Prime Station is not fixed and changes automatically according to the status of each station. For example, if a prime station is removed or released, the next station becomes the prime station.

2.3.P.4.1 COL Incoming Call Answering Position

When there is an incoming call on a COL and no station is assignes to individual ringing or the assigned are in Do-Not-Disturb, Station Forced Released, or not installed, the prime station rings.

- **Conditions**

  o Calls ring even at a prime station set to Do-Not-Disturb.

  o The prime station can be an attendant KT.

  o The incoming call is transferred when the prime station is in (Busy) Call Forward mode.

2.3.P.4.2 Automatic Recall

If an attendant KT does not exist in the same tenant or an attendant KT exists but the COL is pickup restricted, Atutomatic Recall rings at the prime station.

- **Conditions**

  o Ringing is the same as normal COL recall.

  o When the Prime Station is set to Call Forward, the call is transferred.

P

2.3.P.5 Privacy

Privacy is provided on COL and ICM calls.

- **Conditions**
  - o Privacy Release is possible on COL but not on ICM calls.
  - o Any COL Add-On Conference performed with three stations is always in Privacy status and Privacy Release is not possible.
  - o When a COL is placed on Conference Hold, it is automatically set to Privacy Release.

2.3.P.5.1 Privacy Release

A COL call can be placed on Privasy Release at the engaged KT/VP.

- **Conditions**
  - o When Privacy Release operation is complete, a Privacy Release Burst Tone is set to both COL and occupied station(s).
  - o The COL that is in Privacy Release mode can be entered from any KT/VP by pressing the correcorresponding COL key.
  - o The COL key lamp corresponding to the Privacy Release COL at all KT/VP, except at the engaged KT/VP, flashes in the System Hold pattern.
- **Operation Guide**

  (COL Conversation) [FEAT] + [1]

2.3.P.5.2 Privacy Released COL Pickup

COL that is in Privacy Release mode can be picked up at any KT/VP.

- **Operation Guide**

  (Off-hook or SPKR on) [COL]

  (On-hook and SPKR off) [COL] + [ ] ↑ ([SPKR])

2.3.P.5.3 Privacy Restore

A Privacy Released COL can be restored to Privacy.

- **Conditions**

  - o When a COL is restored to Privacy, the corresponding COL key lamp at all KT/VP except at the engaged KT/VP, indicates Busy.

  - o When the Privacy Restore operation is completed, a CT is sent to the operating KT/VP and COL.

- **Operation Guide**

  (COL Conversation) FEAT + 1

2.3.P.6 Private Line

A COL private line that can be accessed only from one station is assignable.

- **Conditions**

  - o As the Private Line cannot be accessed from other stations, Add On Conference, Transfer, and Camp On are not available.
  - o Private Line incoming call rings even though the KT/VP with Private Line is set to Do-Not-Disturb Note that during Off-hook Signal Deny, incoming calls arrive but the ringing tone is not sounded.
  - o See Section 2.3.M.3.1.5 Private Line Automatic Answering.

- **Programming**

  Station Class-of-Service Item 25: Picup Restriction (all stations of same tenant)

  COL No. (Private Line No.) { Steady on: Private EXT No.
  Flashing: Other EXTs

P

2.3.P.7 Programming

This section describes the programming functions. Refer to Section 2.4 Programming Features.

- **Conditions**

  o Programming functions are classified as follows:

  1. System Programming Terminal (ATTND)
  2. Dynamic Programming (ATTND)
  3. Programming COL Lines (ATTND)
  4. Programming from KT/VP (KT/VP)

P

2.3.P.7.1 System Programming Terminal

The Attendant Console is used as a System Programming Terminal to set system data. (See Section 2.4 Programming Features.)

- **Conditions**

  - o If there are two attendant consoles in a system, either attendant can be used as system programming therminal, but not both at the same time.
  - o When an attendant console is used as a programming terminal, the system continues to operate usually. (See Section 2.3.P.7.2 Dynamic Programming.)
  - o Even though an attendant console is used as a programming terminal, the attached KT/VP operates as an attendant KT/VP.
  - o Programming operation is started only when the attendant KT/VP is off-hook.

- **Setting**

  DSS Programming Overlay-M (PROV-M) and LCD Unit for DSS-M/N (DSLO-M) are required.

- **Operation Guide**

  (ATTND KT/VP Off-hook) [PGM] + [8] + [2] + [4]

  Number keys specified by PROV-M1 on DSS-M/DSS-N.

2.3.P.7.2 Dynamic Programming

System data programming is possible while the system is operating.

- **Conditions**

  - o When the class-of-service of a station is changed while engaged in a call the data base relating to the station is revised on finishing the call.
  - o When the line specification of a COL/ICM line is changed while busy, the data base relating to the COL/ICM line is revised on finishing the call.
  - o Changes in system data relating to other classes an immediately effected on finishing the entry operation.
  - o For details on programming, refer to Section 2.4 Programming Features.

P

2.3.P.7.3 Programming CO Lines

COLs connected to the system are classified as follows according to their intended use:

2.3.P.7.3.1 Direct Distance Dialing COL

A line from a CO that is connected directly to the system.

- **Programming**

Line Specification Item	1: Line Class (COL No.) 0: DTMF DDD COL 8: PULSE DDD COL

2.3.P.7.3.2 PBX Line

A line connected to an Intercom Line of another PBX.

- **Conditions**

  o If there is a PBX line, the PBX Outgoing Specific Code should be assigned to the system data.

- **Programming**

Line Specification Item	1: Line Class (COL No.) 2: DTMF PBX Line 10: PULSE PBX Line

2.3.P.7.3.3 E&M Tie Line

A line connected to another PBX with an E&M Tie Line. (See Section 2.3.E.2 E&M Tie Line Service.)

- **Programming**

Line Specification Item	1 Line Class (COL No.) 3 E&M Tie Line DTMF 11 E&M Line SF

2.3.P.7.3.4 FX Line

Line from CO outside the local area where the system is installed.

- **Programming**

Line Spec.	Item 1	Line Class 1 FX DTMF 9 FX PULSE

2.3.P.7.4 Programming From KT

Clock and Calendar, and Day/Night Mode are programmed from Ext. No.20 KT.

2.3.P.7.4.1 Clock

- **Conditions**
  - o Hour and minute can be set, however second is initialized to 00.
  - o WT is accessed when invalid data is entered.
  - o CT is accessed on completion of the setting.
- **Operation Guide**

(Off-hook and Idle) [FEAT] + [8] + [1] + [H] + [H] + [M] + [M]

HH: hour 00 to 23
MM: minute 00 to 59

2.3.P.7.4.2 Calendar

- **Conditions**
  - o Enter the last two digits of the year, month, date, and day of the week.
  - o WT is accessed when invalid data are entered.
  - o CT is accessed on completion of the setting.
- **Operation Guide**

9 1 0 8 2 8 4

(Off-hook and Idle) [FEAT] + [8] + [2] + [Y] + [Y] + [M] + [M] + [D] + [D] + [W]

YY: Year (00 to 99)
MM: Month (01 to 12)
DD: Day (01 to 31)
W: Day of the week
1: Sunday
2: Monday
3: Tuesday
4: Wednesday
5: Thursday
6: Friday
7: Saturday

2.3.P.7.3.5 WATS

When WATS line is accommodated.

- **Programming**

Line Spec. Item 1: Line Class (COL No.)
4: outward WATS DTMF
5: inward WATS
12: outward WATS PULSE

2.3.P.7.4.3 Day/Night Mode

- **Conditions**
  - o The mode can be switched on individual tenant.
  - o CT is accessed on completion of the programming.
- **Operation Guide**

(Off-hook and Idle) [FEAT] + [8] + [*] (to Night Mode)

(Off-hook and Idle) [FEAT] + [8] + [#] (to Day Mode)

P

2.3.Q.1 Quick Mode Operation

This feature is provided to simplify the operation of a KT/VP by automatically turning the SPKR to ON position from an on-hook and SPKR Off position.

2.3.Q.1.1 KT/VP

Quick Mode Operation is available at the KT/VP assigned with the feature.
Quick Mode Operation by the optimized key (OPT) is available with an MF system only.

- **Conditions**

  - o Quick Mode Operation is effected when an Idle COL/FLT key is pressed. Preselection is effected, however, when a busy COL/FLT key is pressed.
  - o Quick Mode Operation is effected when the Direct Speed Dial key is pressed. In this case, however, Optimized Call Routing is initiated and the FLT key indicates I-USE automatically. This operation is invalid when there is no FLT key.
  - o Quick Mode Operation is effected when Speed Dial Operation is performed. In this case, however, Optimized Call Routing is initiated and the FLT key indicates I-USE automatically. This operation is invalid when there is no FLT key.
  - o Quick Mode Operation is effected when an Idle DSS key is pressed.
  - o Quick Mode Operation is effected when an Idle ICM key is pressed.
  - o Quick Mode Operation is effected when an Idle PAGE key is pressed.
  - o Quick Mode Operation is effected when the Direct Page Call key is pressed.
  - o Quick Mode Operation is effected when the Direct Master Group Hunt Key (HNTN) is pressed.
  - o Preselection is effected when a busy DSS, ICM, or PAGE key is pressed.

- **Programming**

Station Class of Service Item 8
Quick Mode Deny

Each EXT	Steady ON:	Allow
	Flashing:	Deny

Q

- **Operation Guide**

1) On-hook and SPKR off [FLT]

   On-hook and SPKR off [COL]

2) On-hook and SPKR off [SPDn] (direct speed dial access key) (only MF)

3) On-hook and SPKR off [DSS]

4) On-hook and SPKR off ([FEAT]) + [*] + [n1] + [n2] (only MF)

5) On-hook and SPKR off [ICM]

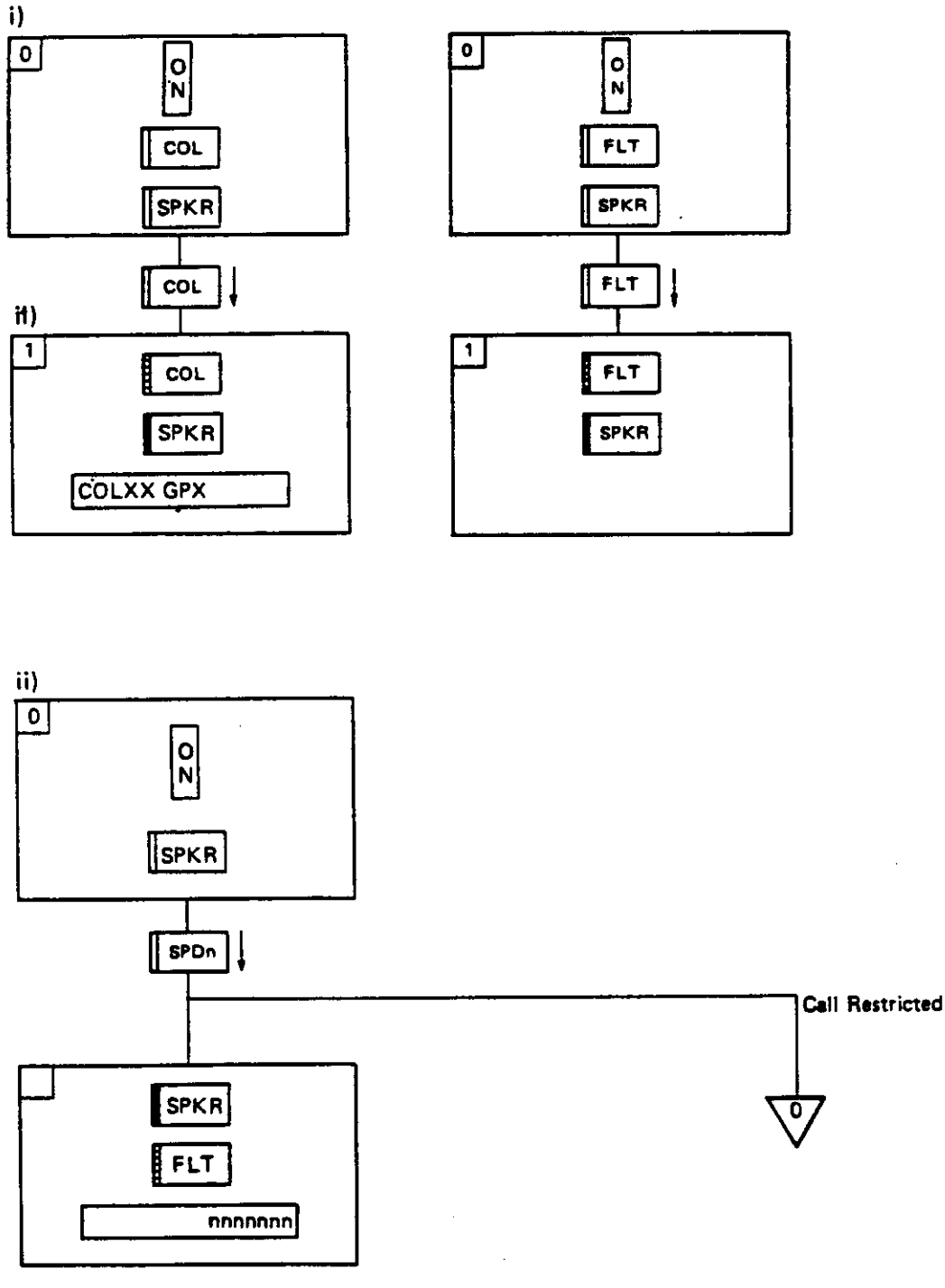
6) On-hook and SPKR off [PAGE]

7) On-hook and SPKR off [PAGE] (direct page call key)

   ALL, ALL GRP, ALL ZONE
   GRP 1 to 4, ZONE 1 to 3

8) On-hook and SPKR off [HNTn] (direct master group hunt key)

■ Operation Flow



Q

2.3.Q.1.2 Attendant

An attendant can use the Quick Mode Operation feature.

- **Conditions**
  - o Quick Mode Operation is effected when a DSS key on the attendant DSS is depressed.
  - o Quick Mode Operation is effected when the Direct System Speed Dial key on the Attendant DSS is depressed. In this case, however, Optimized Call Routing is initiated and the FLT key indicates I-USE automatically. This operation is invalid when there is no FLT key.
  - o Quick Mode Operation is effected when the Direct page call key or the Direct Master Group Hunt key on the Attendant DSS is pressed.
- **Operation Guide**
  - o (On-hook and SPKR off) [DSS]
  - o (On-hook and SPKR off) [SPDn] (Direct speed dial access key)
  - o (On-hook and SPKR off) [PAGE] (Direct page call key)

    ALL, ALL GRP, ALL ZONE
    GRP 1 to 4, ZONE 1 to 3
  - o (On-hook and SPKR off) [HNTn] (Direct master group hunt key)

2.3.R.1 Redialing (Saved)

After originating a COL call, the station user can save the dialed unmber. At any later time, the number can be dialed by redial operation.

- **Conditions**

  o Up to 32 digits can be saved.

  o When COL Line Class is 2 or 10 (PBX line) and the system data for PBX outgoing Specific Code is dialed from the first digit, a 5-second pause (can be changed on the program) is automatically inserted after the code and saved or repeated.

  o Speed dial with attribute is maintained.

  o Once a saved number is redialed, it disappears. When there is no saved number, the Last Number Redialing feature is automatically effected; when there is a saved dial, the Saved Dial Redialing feature is effected.

2.3.R.1.1 Saving

2.3.R.1.1.1 KT/VP

A KT/VP user can save the dialed number after originating a COL call.

- **Conditions**

  o CT is accessed When Saving is complete.

- **Operation**

  (During COL call) [FEAT] + [#]

2.3.R.1.1.2 SLT

The dialed number of a SLT is saved every time a COL outgoing call is finished.

- **Conditions**

  o COL Group number that was selected by the SLT is also saved. (only MF)
  The COL No. when it is originated is saved in the KF system.

R

2.3.R.1.2 Redialing

2.3.R.1.2.1 KT/VP

A KT/VP user can redial a saved number when originating a COL.

- **Conditions**

  - o When there is no saved number, the Lost Number Redialing feature is effected.
  - o A station user can redial on a COL other than the COL from which the dialed number was saved. Note that when the number saved on a PBX line call is redialed on a DDD COL or vice versa, Redialing may be performed incorrectly.
  - o To prevent an incorrect connection by picking up a different group when Redialing, Quick Operation automatically seizes an appropriate COL for Redialing.

- **Operation Guide**

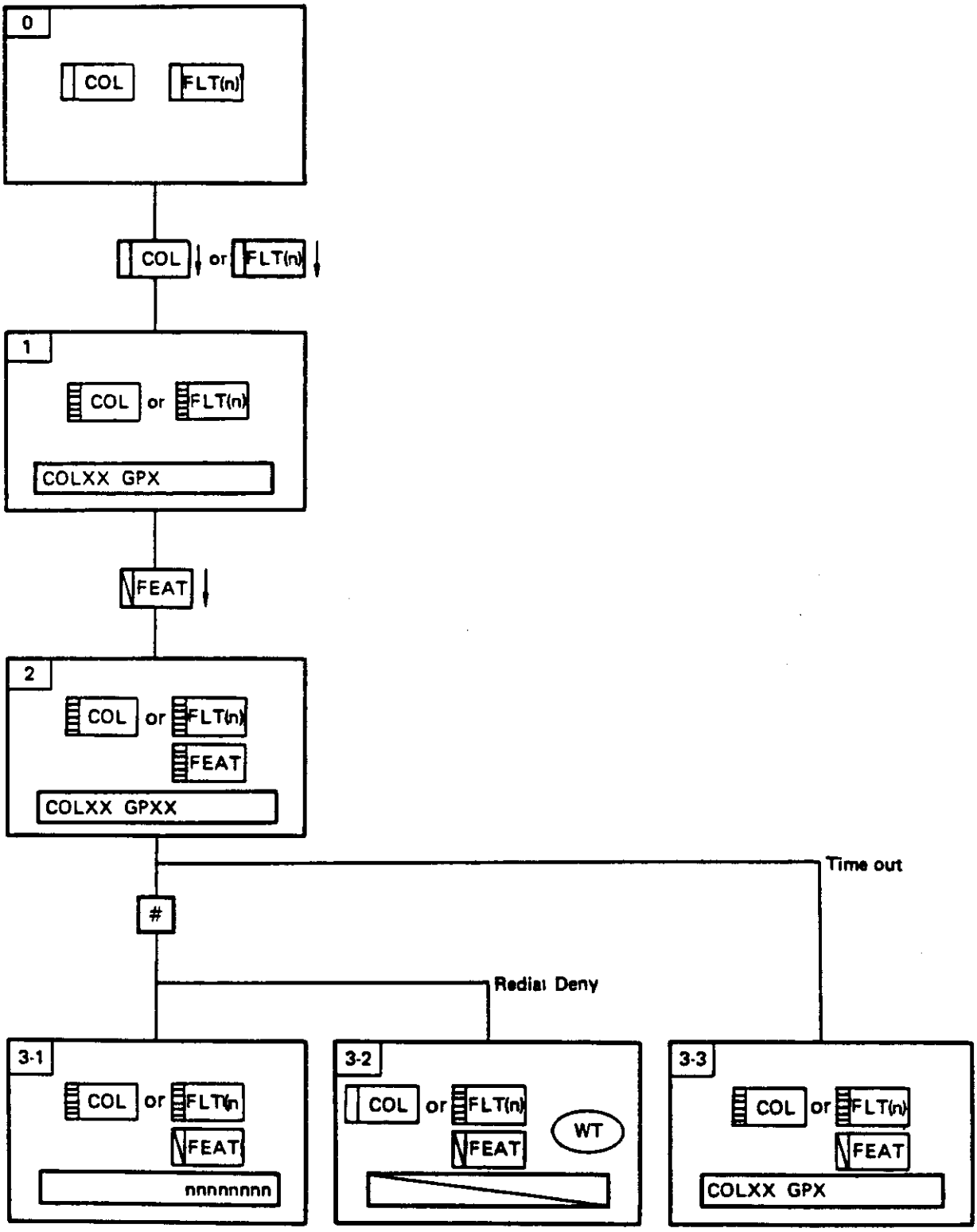
  (COL DT) ([FEAT]) + [#]

  (Off Hook or SPKR On) [#]

R

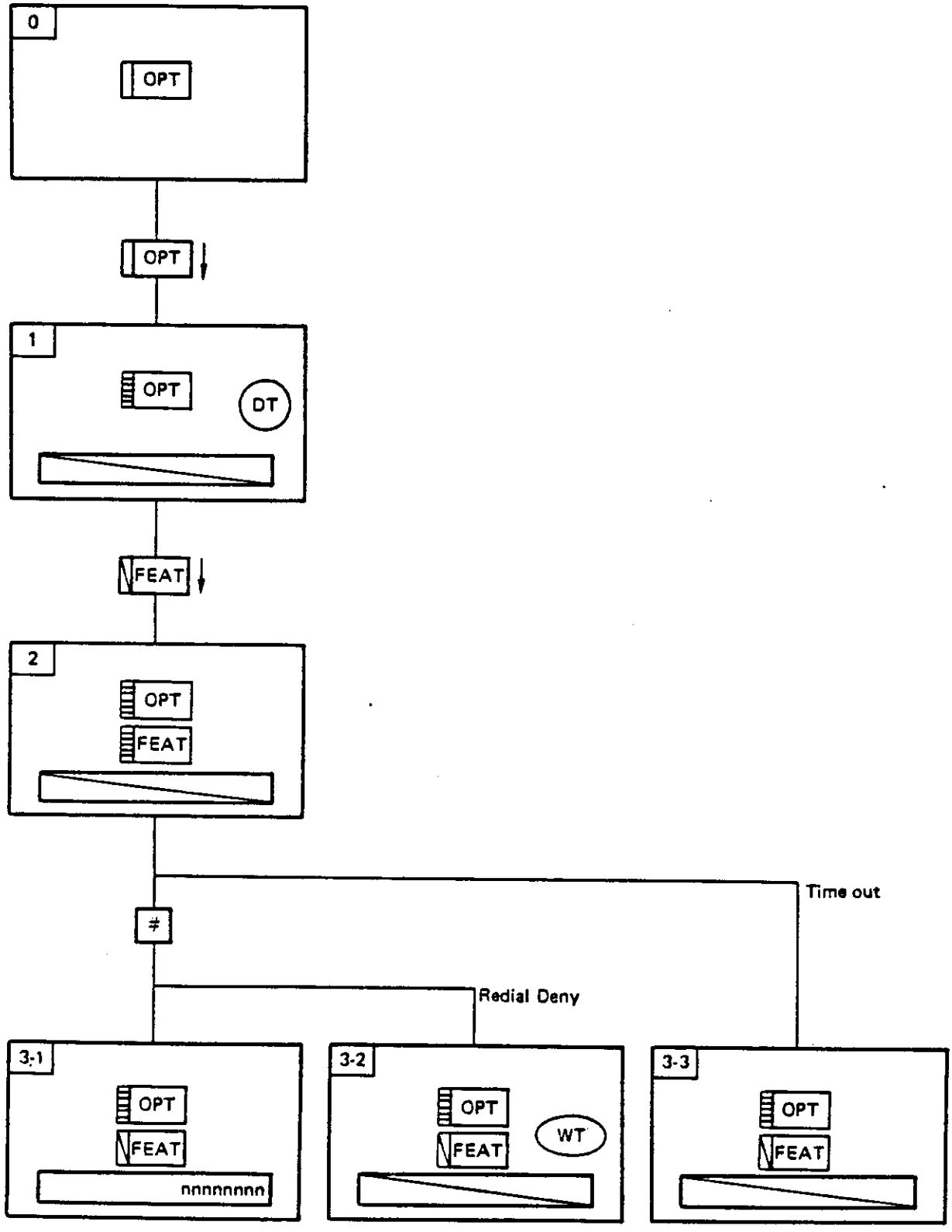
Redialing with COL or FLT(n) Key

i) Normal Operation (COL or FLT(n) key)

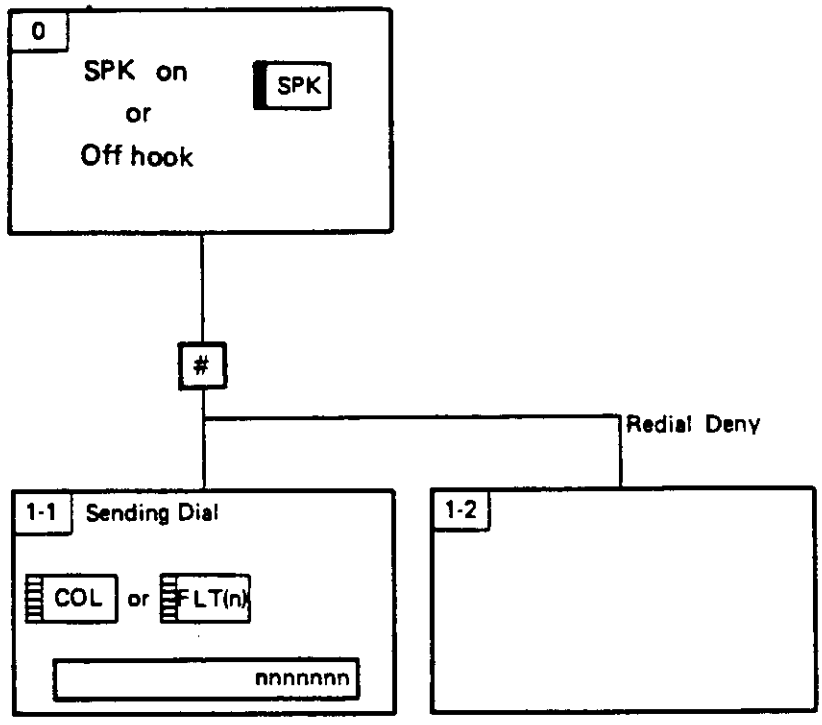


R

ii) Normal Operation (OPT Key)



iii) Quick Operation



R

2.3.R.1.2.2 SLT

An SLT user can redial a saved number from a saved COL Group.

- **Conditions**
  - o The special number of DTMF SLT differs from the one of PULSE SLT.
- **Operation Guide**

  DTMF SLT: (DT) [#]

  PULSE SLT: (DT) [9] + [8]

R

2.3.S. 1 SCDR (Station Call Dial Reorder)

A printed copy of the recorded details of each COL is available with the SCDR.

- **Conditions**

  o The following printed data are available with the SCDR:

  i) Sequence Number (SEQ): Sequence number of calls (000 to 999)

  ii) Trunk Number (TRK): COL number (01 to 16) involed in the Calls.

  iii) Extension 1 (EXT 1): Number of the station that first seized the COL (20 to 67)

  iv) Extension 2 (EXT 2): Number of the station that next seized the COL (20 to 67)

  v) Time (TIME): Call start time.

  vi) Duration (DUR): Call duration in 1-minute units rounded to 1 minute. Note that for originating a call, the call duration counting is started from 20 seconds after the COL is seized.

  vii) Dial (CALLED NUMBER): Called destination dial number (26 digits or less), excluding invisible attribute.

  viii) Account Code (ACCT No.): Entered Account Code (6 digits or less).

  ix) Class (NOTE): I (Incoming call), O (Outgoing call), A (Attendant call), * (Toll call), N (Tenant B)

2.3.S.1.1. COL

Only the data corresponding to the specified COL can be printed out. Note that this is not applicable on incoming calls.

- **Programming**

SCDR Item 1: Print Out CO
Specify CO for output
Default is All CO Output

S

2.3.S.1.2 Stations

Only the data corresponding to the specified station can be printed out. Note that this is not applicable to incoming calls.

- **Programming**

SCDR Item 2: Print Out Stations
Specify EXT for output.
Default is All EXT Output.

2.3.S.1.3 Minimum Time

Only those calls exceeding the specified time (minutes) are printed out.

- **Programming**

SCDR Item 3: Print Out Minimum Time
0: no limit
1 to 30 (minutes)

2.3.S.1.4 Incoming Call

Incoming calls can be specified to be printed.

- **Programming**

SCDR Item 4: Print Out Incoming Calls
0: Print
1: Do not print.

2.3.S.1.5 Account Code

Only outgoing calls or incoming calls bearing account, code can be printed out. (See Section 2.2.3.1.4 KT Display.)

- **Programming**

SCDR Item 5: Print Out Calls With Account Code
0: No Limit
1: Incoming and Outgoing Calls With Account Code Input Only
2: Outgoing and Incoming Calls With Account Code Input Only
3: Calls With Account Code Input Only

S

2.3.S.1.6 Toll Call

Outgoing calls other than Toll Calls can be assigned not to be printed out.

- **Programming**

SCDR Item 6: Print Out Toll Call
0: no limit
1: Toll Call/Incoming Call only.

2.3.S.1.7 Format

Figure 2.3.S.1 shows the format of the SCDR output.

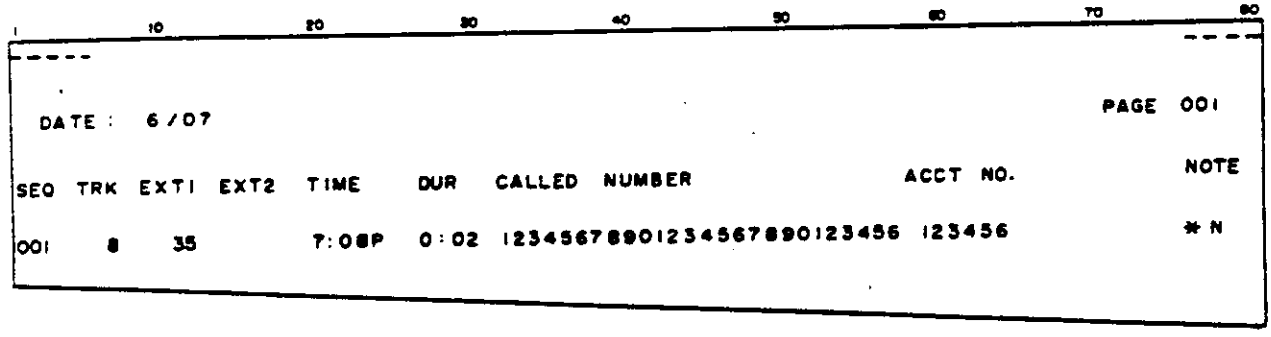


Figure 2.3.S.1 SCDR Output Format

S

2.3.S.1.8 Account Code

Account Code to be printed out with the SCDR can be entered from the KT/VP. (See Section 2.2.3.1.4 KT Display.)

- **Conditions**
  - o Account Code should not exceed six digits.
  - o Only one registration is permitted per call.
  - o Registration ends with the input of the end code *, interdigit timeout (10 s), overall timeout (20 s), or six digits.
  - o If registration is suspended by other operation, the digits already entered are registered.

2.3.S.1.8.1 Input From KT/VP

The Account Code can be entered during the COL call.

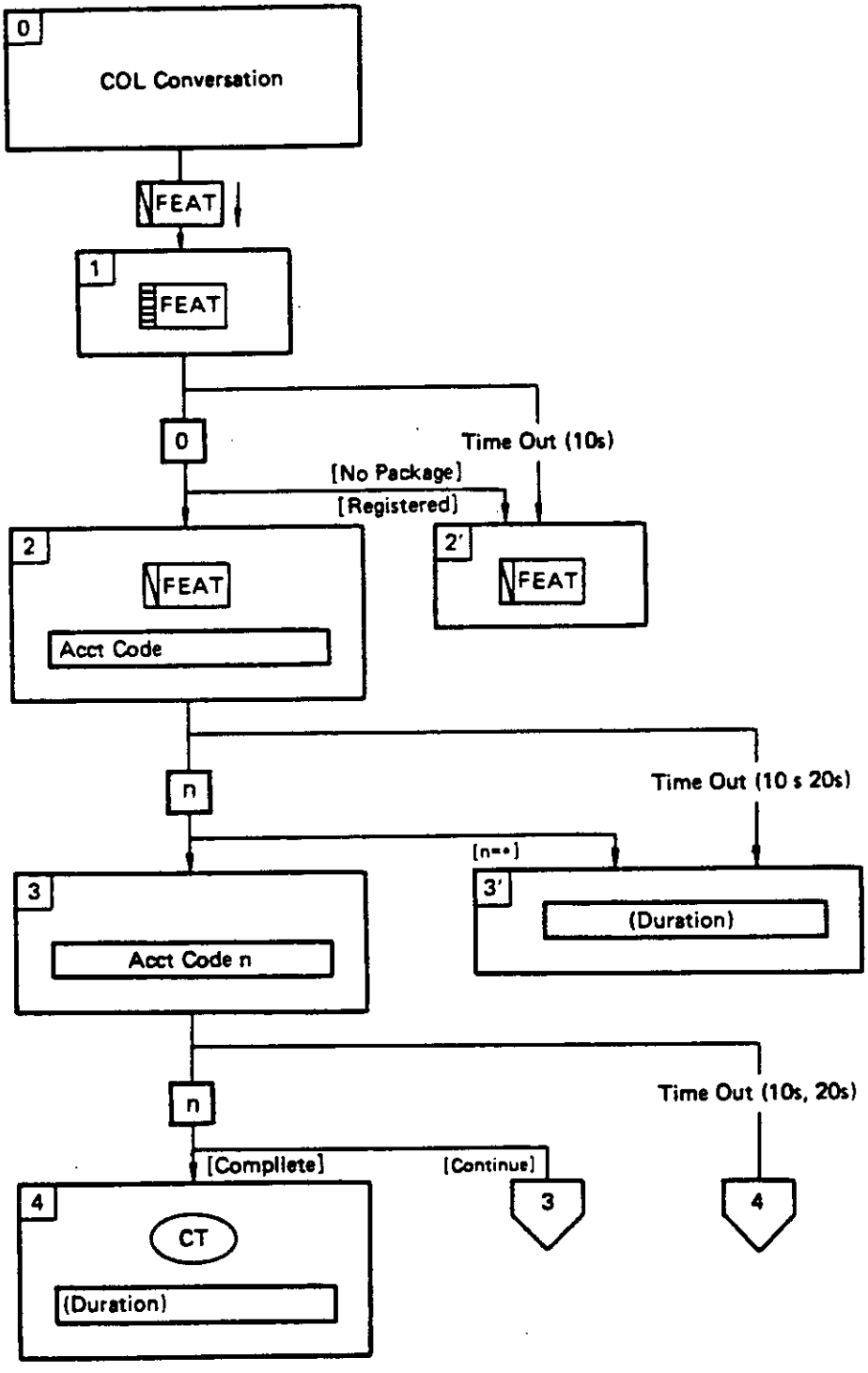
- **Operation Guide**

(During COL call) [FEAT] + [0] + [n] + — + [n] + ([*])

Up to 6 digits

S

- Operation Flow



S

2.3.S.1.8.2 Input From SLT

The Account Code can be entered after placing the COL on-hold.

- Condition

When the entry of the Account Code is finished at an SLT, the hold is automatically released and the SLT is reverted to the COL.

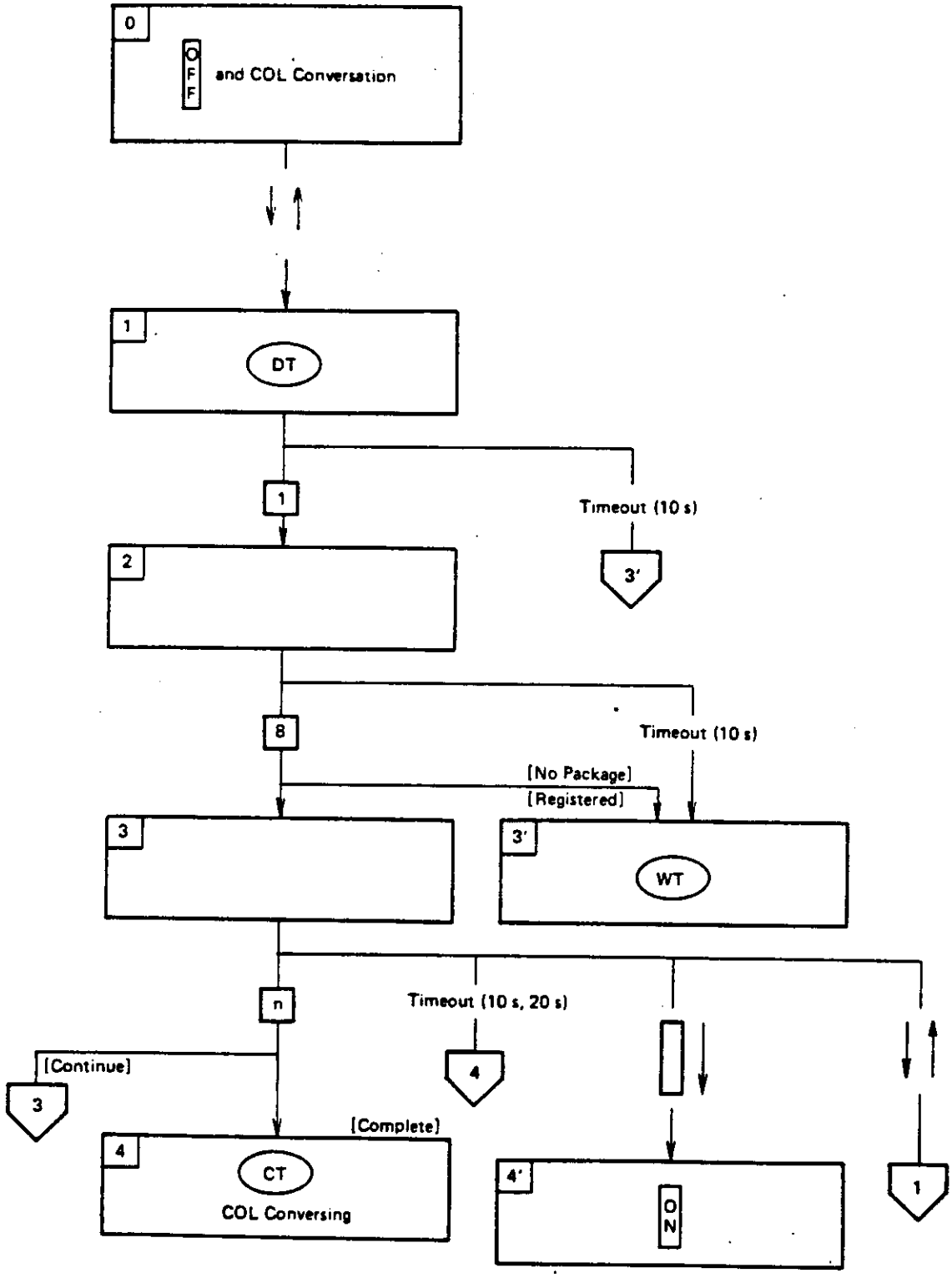
- **Operation Guide**

(During COL call) ↓↑ + [1] + [8] + [n] + ---- + [n] + ([•])

Up to 6 digits

S

■ Operation Flow



S

2.3.S.1.9 System Data Printout

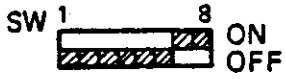
The System Data can be printed out with the SCDR when the power of the system is turned on.

- **Conditions**

  i) The system is not operational until the print out ends.
  ii) Printing is available only in Backup Mode.

- **Operations**

  [1] Set the DIP switch on the M/KCPU-ME card as follows:



  [2] Turn power to on (if power is off) or turn RESET switch to on (if power is on).

  [3] Set the DIP switch as follows after printing starts:

  [4] Set the RESET switch twice to on after printing ends.

2.3.S.2 Secretarial Hot Line Termination

An ICM Hot Line between a KT/VP with Secretary attribute (called Secretary) and a KT/VP with Executive attribute (called Boss) can be installed.

- **Conditions**

  - o The Secretary and Boss should be programmed with as the destination of the Automatic ICM Termination. (See Section 2.3.A.3 Automatic ICM Termination.)

  - o At least one of the ICM lines within the same tenant should be assigned as Hot Line (where more than one pair exist, lines should assigned in pairs). (See Section 2.3.1.2 ICM Path Termination.)

  - o One Secretary can attend two Bosses. In this case, the Secretary should have a sets of Automatic ICM Termination.

  - o When the Boss sets Call Forward to the Secretary, all incoming calls to Boss (except from Secretary) are transferred to Secretary. (See Section 2.3.C.4 Call Forward.)

- **Programming**

  See Section 2.3.A.1.3 Automatic ICM Termination.
  2.3.I.2 ICM Path Termination.
  2.3.S.6 Station Class-of-Service.

S

2.3.S.3 Sender Timeout

When originating a COL outgoing call, the COL is switched to engaged status the moment the Sender Timeout condition is met.

- **Conditions**

  - o The system sender (if activated) is disconnected with Sender Timeout.
  - o Call duration counting on a KT display starts at this moment.
  - o If a DTMF SLT is making a COL call, the MF Receiver is disconnected at this moment.

2.3.S.3.1 Partial Dial Condition

When dialing is started at a station that is originating a COL call, the system starts to monitor the entry with an inter-digit timer. Monitoring continues for 10 seconds; if there is no dial input or Speed Dial input during this time, Sender Timeout occurs. (See Sectin 2.3.A.5 Automatic Trunk/Station Release.)

- **Conditions**

  - o Call duration count output to the SCDR starts 20 seconds after the COL is seized, and not after the Partial Dial Condition.
  - o Overall Timer monitoring ends when Partial Dial Condition monitoring starts.

2.3.S.3.2 Overall Timer

When dialed numbers are sent with Speed Dialing, Redialing, Callback/Times, Trunk Queuing, from a station upon seizing a COL, Sender Timeout occurs when the system data assigned Sender Timeout Time elapses.

- **Programming**

System Constants Item 2, Sender Timeout
10 to 255 (seconds)
0: No Function

S

2.3.S.4 Soft Ringer

The KT/VP automatically muting mutes incoming rings while the KT/VP is in off-hook or SPKR on status.

- **Conditions**

  o Voice Synthesizer Services from the speaker such as Reminder and Prompt, are also muted.

  o While the Built-in Speakerphone or On-hook Dial/Call Monitor is operating, only the incoming ring is muted and mixed.

S

2.3.S.5 Speed Dialing

Any station, except PULSE SLT, can use the System/Station Speed Dialing on a COL.

- **Conditions**

  - o Any station can access the System Speed Dial, with a capacity of up to 90 destinations (No. 00 to 89), allocated to its tenant.
  - o Each station is provided with a Station Speed Dial with a capacity of up to 10 destinations (No. 90 to 99). Each station can arbitrarily assign the speed dial for its individual use.
  - o Each destination number should be within 16 digits.
  - o System Speed Dial is programmed with the system data.
  - o The System Speed Dial can be assigned the invisible attribute to avoid display on the KT display or SCDR.
  - o System Speed Dials numbers are excluded from Toll Restriction. (See Section 2.3.S.6 Station Class-of-Service.)
  - o Stations denied Speed Dial can be specified with the system data. (See Section 2.3.S.6 Station Class-of-Service.)
  - o Any station, except for PULSE-SLT, can transmit system/station speed dial numbers.

2.3.S.5.1 Speed Dial Access

- **Conditions**

  - o Access to the System and Station Speed Dials are the same.
  - o KT/VP and attendant console are provided with Direct Station Speed Dialing and Direct System Speed Dialing. (See Section 2.3.F.2 Flexible Key Assignment)

S

2.3.S.5.1.1 KT/VP

- **Conditions**

  o COL is disconnected and WT is accessed, when Speed Dial without assigned dial numbers is accessed.

- **Operation Guide**

  (COL DT) ([FEAT]) + [*] + [n] + [n] 1st time

  (COL Originating) [FEAT] + [*] + [n] + [n] 2nd time or more.
  (When transmitting from SPD after DT)

  nn: SPD No.

2.3.S.5.1.2 SLT

- **Conditions**

  o Valide only from DTM to SLT.

  o SLT can access a Speed Dial number only when originating COL outgoing calls.

  o WT is accessed when Speed Dial number without an assigned dial number is accessed.

- **Operation Guide**

  MF
  (DT) [*] + [n] + [n] + [9] + [m] nn: SPD No. m: 0 to 7
  COL Group No.

  KF
  (DT) [*] + [n] + [n] + [m] + [m] nn: SPD No. m: COL No. (01 to 16)

S

2.3.S.5.2 Speed Dial Registration

Each station can be assigned with its individual Station Speed Dial numbers.

System Speed Dial is programmable only from the Attendant Console or Ext. No. 20 KT/VP.

- **Conditions**

  - o A one-second pause is set with '*n'. Dial '*' is registered with '**'. Pause and Dial '*' are regarded as two digits each.
  - o The 30-second overall timer monitors the registration, and registration finishes with timeout.
  - o Registration finishes with inter-digit timeout (10 seconds) and any operation other than dial entry.
  - o Registration finishes and CT is accessed when the 16th digit is entered.
  - o CT is accessed when registration is completed with timeout.
  - o System Speed Dial can also be entered from station No. 20 KT/VP. However invisible attribute can not be assigned. Data input operation is the same as with the Attendant Console.

2.3.S.5.2.1 KT/VP

- **Operation Guide**

(Off-hook and Idle) [FEAT] + [*] + [n] + [n] + [d] + ... + [d]

SPD No. Dial (up to 16 digits)
90 to 99: Station Speed Dial
00 to 89: System Speed Dial (Only No. 20 KT/VP)

2.3.S.5.2.2 SLT

- **Operation**

(DT) [1] + [*] + [n] + [n] + [d] + ... + [d]

SPD No. (90 to 99) Dial (Up to 16 digits)

Note: Only DTMF SLT.

S

2.3.S.5.2.3 Attendant

- **Programming**

Speed Dial

Item 1 System Speed Dial
(Tenant A/B X system speed Dial No. (0 to 89))
Dial 16 digits or less

Item 2 System Speed Dial Invisible
(Tenant A/B X System Speed Dial No. (0 to 89))
0: No attribute
1: With attribute

Item 3 Station Speed Dial
(EXT 1 to 64 X Station Speed Dial No. 1 to 10)
Dial 16 digits or less

2.3.S.5.3 Direct Speed Dialing

A Direct Speed Dial access key can be assigned to KT/VP or ATTND.

- **Conditions**
  - o Refer to Section 2.3.F.2 Flexible Key Assignment.
  - o Quick Mode Operation is available. (See Section 2.3.Q.1 Quick Mode Operation.)
- **Operation Guide**
  - o Normal
    (COL DT or during COL call) [SPD n]
  - o Quick Mode Operation
    (On-hook and Speaker Off) [SPDn]

S

2.3.S.6 Station Class-of-Service

Attributes of the stations are specified and various functions can be restricted.

2.3.S.6.1 Attribution

KT/VP can be assigned the following five attributes.

1. Secretary Attribution
2. Protected Attribution
3. Message Attribution
4. Quick Mode Deny Attribution
5. Executive Attribution
6. Versa Phone Attribution

S

2.3.S.6.1.1 Secretary Attribute

Secretarial Hot Line is available.

- **Programming**

Station Class-of-Service Item 2: Secretary Attribute

Each EXT	With attribute	(flashing)
	Without attribute	(steady on)

2.3.S.6.1.2 Protected Attribute

Protected from Do-Not-Disturb Override.

- **Programming**

Station Class-of-Service Item 3: Protected Attribute

Each EXT	With attribution	(flashing)
	Without attribution	(steady on)

2.3.S.6.1.3 Message Attribution

An station on which the Message Wait feature can be registered (having a MSG key assigned) should be assigned.

- **Programming**

Station Class-of-Service Item 7: Message Attribute

Each station	Flashing: With attribute
	Steady on: No attribute

S

2.3.S.6.1.4 Quick Mode Deny

Quick Mode Operation is available.

- **Programming**

Station Class-of-Service Item 8 Quick Mode Deny

Each station	Flashing:	Allow
	Steady on:	Deny

2.3.S.6.1.5 Executive Attribute

An Executive Override and access to the Secretarial Hot Line are available.

- **Programming**

Station Class-of-Service Item 4: Executive Attribute

Each station	Flashing:	With attribute
	Steady on:	No attribute

2.3.S.6.1.6 Versa Phone Attribute

Assign the Versa Phone Attribute without fail when a Versa Phone in connected.

Each station	Flashing:	With attribute
	Steady on:	No attribute

S

2.3.S.6.2 Access Deny Class

Certain functions can be denied at the desired station.

2.3.S.6.2.1 Off-hook Signal Deny

Ringing on incoming calls can be denied while in off-hook or SPKR on status.

- **Conditions**
  - o Valide only for KT/VP.
  - o Excludes Consultation Hold, Reminder, and short ringing tones.
  - o COL RGT rings when the status reverts to on-hook and speaker off.
  - o When the called KT/VP enters off-hook or SPKR on status during ICM Voice/Tone Call, except on answering the ICM call with the Automatic Line answer function, the ICM Voice/Tone Call is blocked and the caller accesses BT. In this case ICM Voice/Tone Call is not resumed.

- **Programming**

Station Class-of-Service Item 9: Off-hook Signal Deny

Each station	Steady on:	allow
	Flashing:	deny

2.3.S.6.2.2 Off-Hook All Call Deny

During off-hook or SPKR on status, All Page, All Zone Call and All Group Call ringing can be denied.

- **Conditions**
  - o Ringing resumes when the status reverts to on-hook and speaker off, provided that the Call is continued.
  - o Valid only for KT/VP.

- **Programming**

Station Class-of-Service Item 10: Off-Hook All Call Deny

Each station	Steady on:	allow
	Flashing:	deny

2.3.S.6.2.3 All Call Deny

All Page, All Group Call, and All Zone Call ringing can be denied.

- **Conditions**

  o Valied only for KT/VP.

- **Programming**

  Station Class-of-Service Item 11: All Call Deny

Each station	Steady on:	allow
	Flashing:	deny

2.3.S.6.2.4 Hold Recall Deny

Hold Recall ringing can be denied.

- **Conditions**

  o When the called station is denied ringing on Hold Recall.

- **Programming**

  Station Class-of-Service Item 12: Hold Recall Deny

Each station	Steady on:	allow
	Flashing:	deny

2.3.S.6.2.5 Speed Dial Access Deny

Access to System/Station Speed Dial can be denied.

- **Programming**

  Station Class-of-Service Item 13: Speed Dial Access Deny

Each station	Steady on:	allow
	Flashing:	deny

2.3.S.6.2.6 Toll Speed Dial Access Deny

Excluding the System Speed Dial from Toll Restriction can be denied.

S

- **Programming**

  Station Class-of-Service Item 14: Toll Speed Dial Access Deny

Each station	Steady on:	allow
	Flashing:	deny

2.3.S.6.2.7 COL Automatic Line Answer Deny

COL Automatic Line Answer can be denied.

- **Conditions**

  o Valid only for KT/VP.

- **Programming**

  Station Class-of-Service Item 15: CO Automatic Answer Deny

Each station	Steady on:	allow
	Flashing:	deny

2.3.S.6.2.8 ICM Automatic Answer Deny

ICM Automatic Answer can be denied.

- **Conditons**

  o Valid only for KT/VP.

- **Programming**

  Station Class-of-Service Ltem 16: ICM Automatic Answer Deny

Each station	Steady on:	allow
	Flashing:	deny

2.3.S.6.2.9 Paging Call Access Deny

Paging Calls (ALL Call, All Zone Call, All Group Call, Zone Call, Group Call) from an station can be denied.

- **Conditions**

  o WT is accessed when Paging Call access is made from the denied station.

  o Direct Page Access is ignored.

- **Programming**

  Station Class-of Service Item 17: Paging Call Access Deny

Each station	Steady on:	allow
	Flashing:	deny

2.3.S.6.2.10 Call Forward Deny

A station can be denied executing (Busy) Call Forward.

- **Conditons**

  o WT is accessed when (Busy) Call Forward is executed at a denied station.

- **Programming**

  Stattion Class-of-Service Item 18: Call Forward Deny

Each station	Steady on:	allow
	Flashing:	deny

2.3.S.6.2.11 Do-Not-Disturb Deny

A KT/VP can be denied executing Do-Not-Disturb.

- **Condition**

  o Do-Not-Disturb is ignored at a denied KT/VP.

- **Programming**

  Station Class-of-Service Ltem 19: Do-Not-Disturb Deny

Each station	Steady on:	allow
	Flashing:	deny

2.3.S.6.2.12 Optimized Call Routing Access Deny

A station can be denied executing Optimized Call Routing Access.

- **Programming**

  Station Class of Service Item 20: Optimized Call Routing Access Deny

Each station	Steady on:	allow
	Flashing:	deny

2.3.S.6.2.13 Equal/SCC Access Deny

A station can be denied executing Equal/SCC Access.

S

- **Programming**

  Station Class of Service Item 21: Equal/SCC Access Deny

Each station	Steady on:	allow
	Flashing:	deny

2.3.S.7 Station Lock Out

The operation of a KT/VP can be set to lock out or release Incoming with the prearranged Personal ID code. (Incoming calls are possible.)

2.3.S.7.1 Personal ID Code Registration

The Personal ID Code can be coded from the KT/VP or the Programming Terminal.

- **Conditions**

  - o The default value of the Personal ID Code is Null Code.
  - o The Personal ID Code can be confirmed at the Programming Terminal.

- **Operation Guide**

  (Off-hook and idle)

  [FEAT] + [8] + [5] + [P1] + [P2] + [P3] + [P4] + [P5] + [P6]

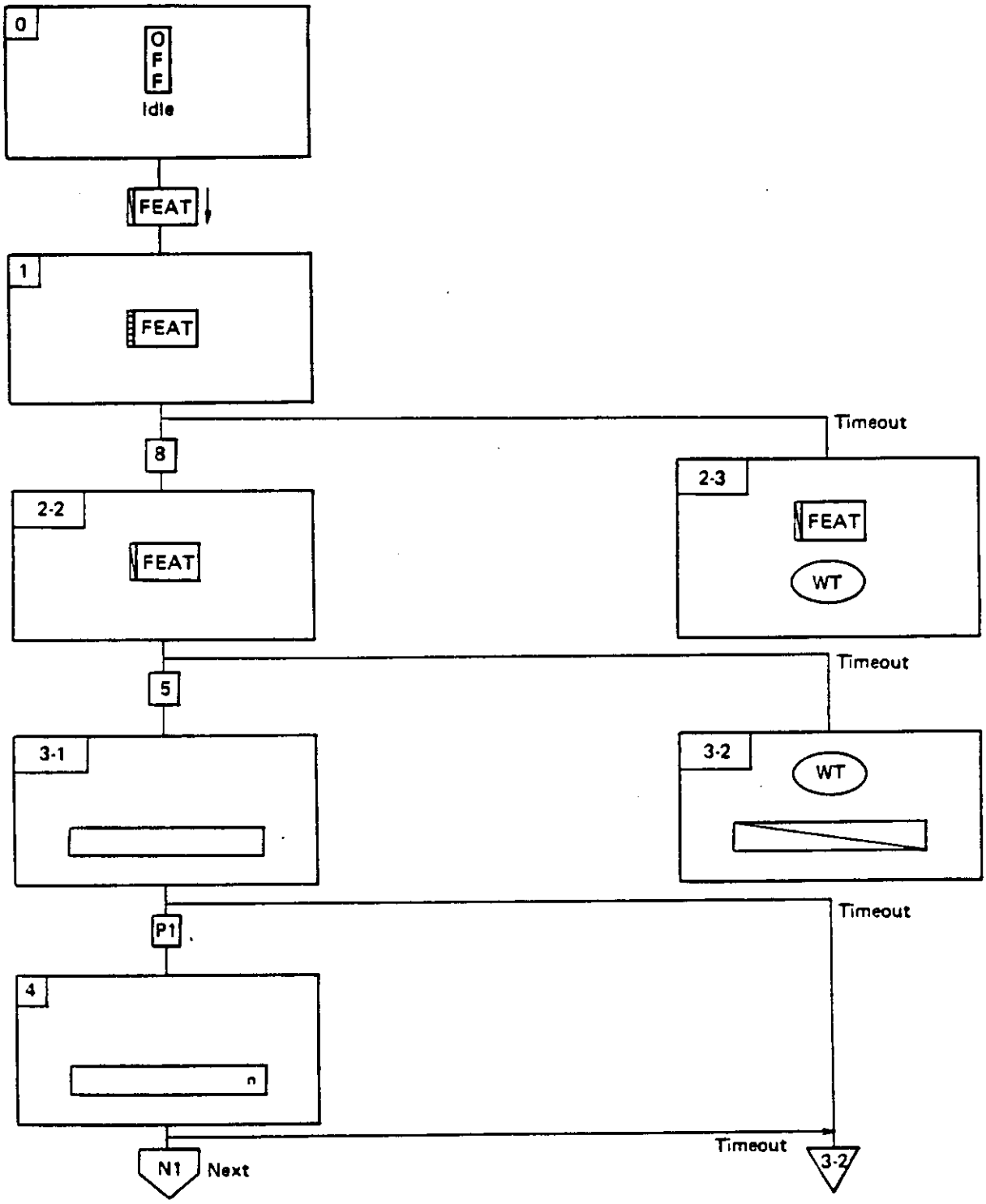
  p1 p2 p3: Old Personal ID code.
  p4 p5 p6: New Personal ID code.
  $0 \leqq Pi \leqq 9$

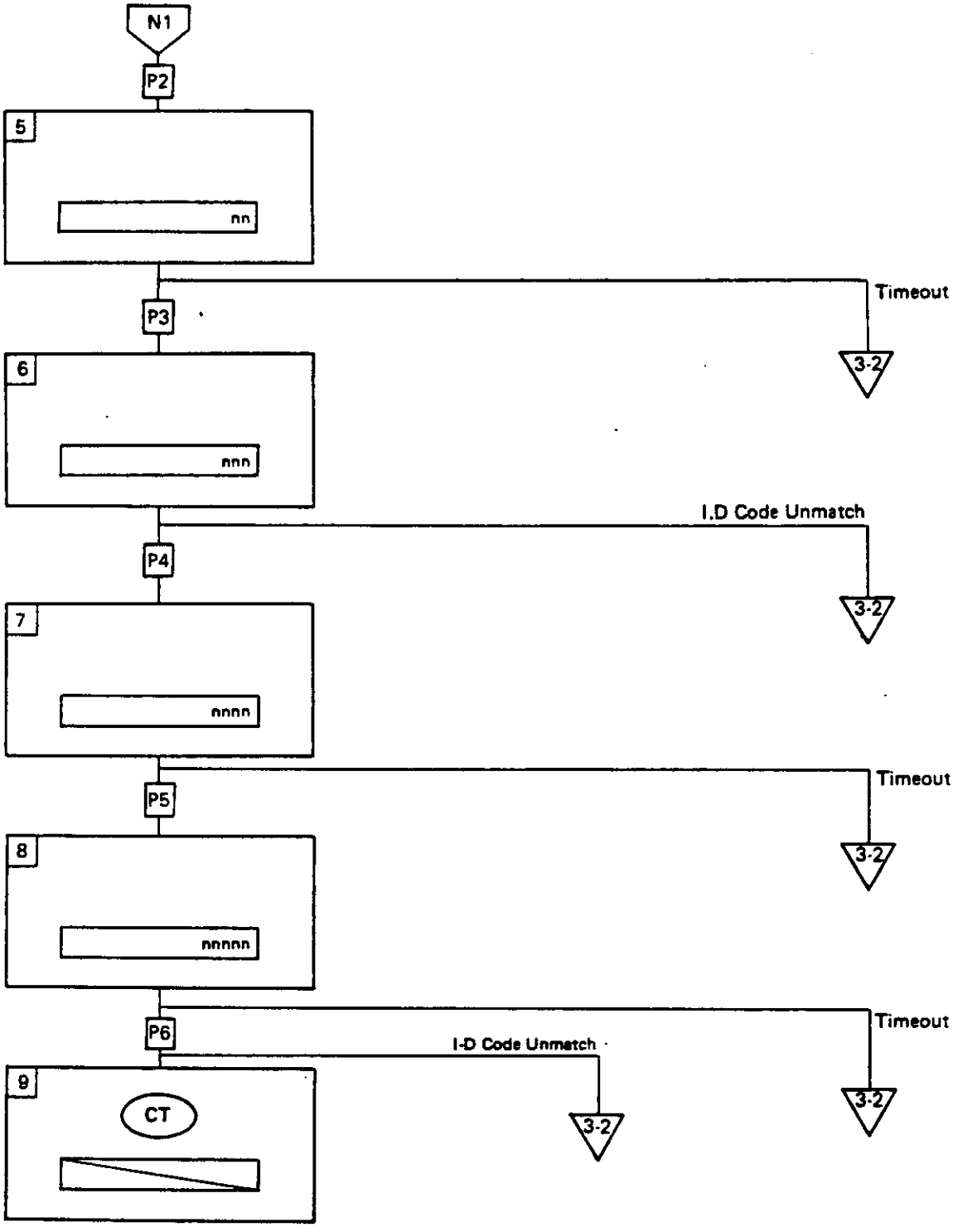
- **Programming**

  Station Class of Service Item 27: Personal ID Code (EXT No.)
  Personal ID Code
  ID Code 3 digits 0 to 9

S

■ Operation Flow




N1
P2
5
nn
Timeout
P3
3-2
6
nnn
I.D Code Unmatch
P4
3-2
7
nnnn
Timeout
P5
3-2
8
nnnnn
Timeout
P6
I-D Code Unmatch
3-2
9
CT
3-2

S

2.3.S.7.2 Station Lock Out

The KT/VP is placed in a Lock Out status.

- o Conditions
- o Operation Guide
- o Operation Flow

■ **Conditions**

- o All operations at a KT/VP placed in Lock Out status are disabled, except Station Lock Out Release.
- o Duriong Lock Out status, the FEAT key flashes and a message appears on the display.

■ **Operation Guide**

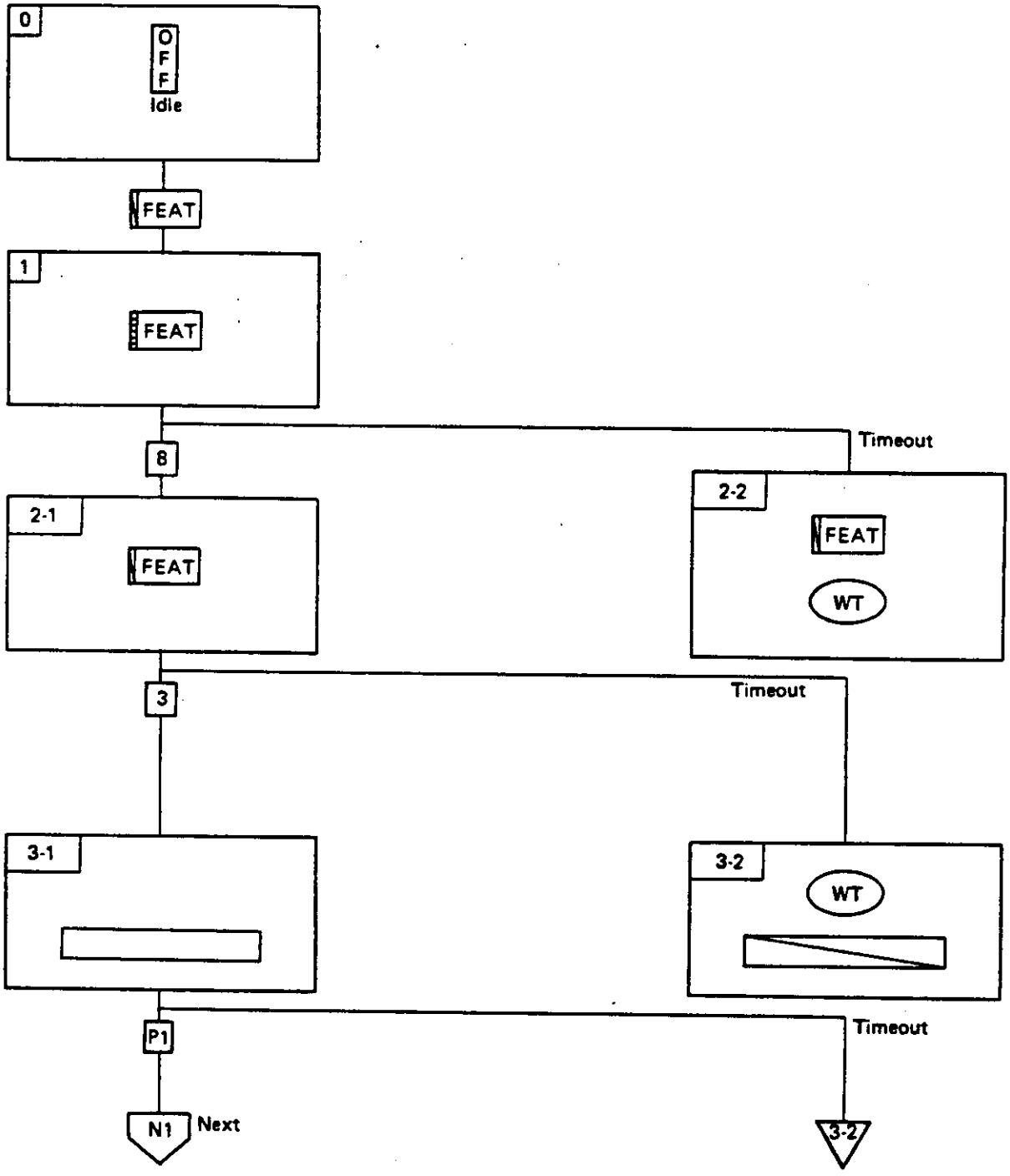
(Off-hook and Idle)

[FEAT] + [8] + [3] + [P1] + [P2] + [P3]

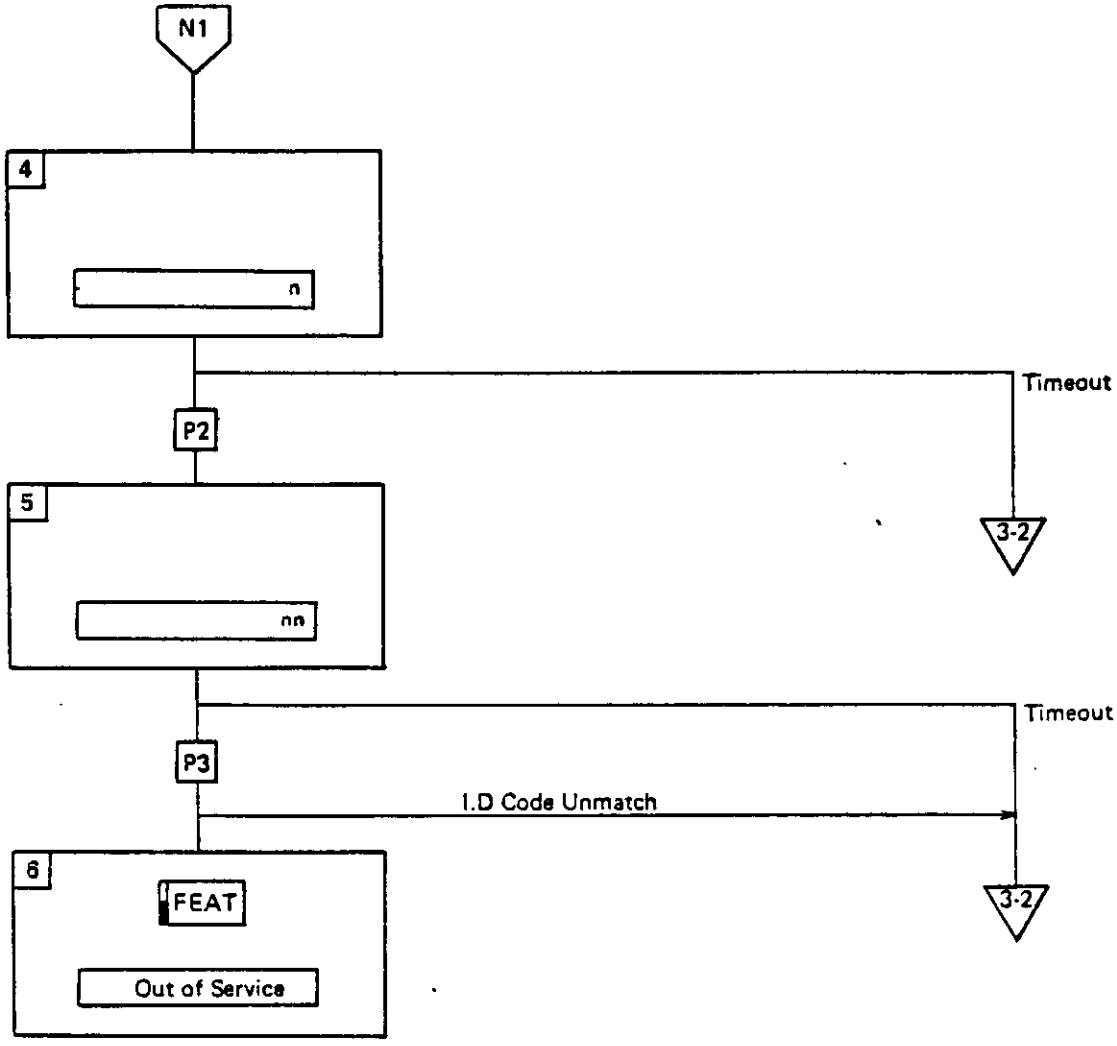
P1 P2 P3: Personal ID code
$0 \leqq Pi \leqq 9$

S

- Operation Flow



S


N1
4
n
Timeout
P2
5
nn
3-2
Timeout
P3
I.D Code Unmatch
6
FEAT
Out of Service
3-2

2.3.S.7.3 Station Lock Out Release

Station Lock Out Release is executed at the KT/VP.

- **Conditions**

  - o The Attendant can execute Station Lock Out Release. (Refer to 2.3.A. 1.13 Station Forced Release.)
  - o The FEAT lamp and display revert to the normal state when the Station Lock Out Release is effected.

- **Operation Guide**

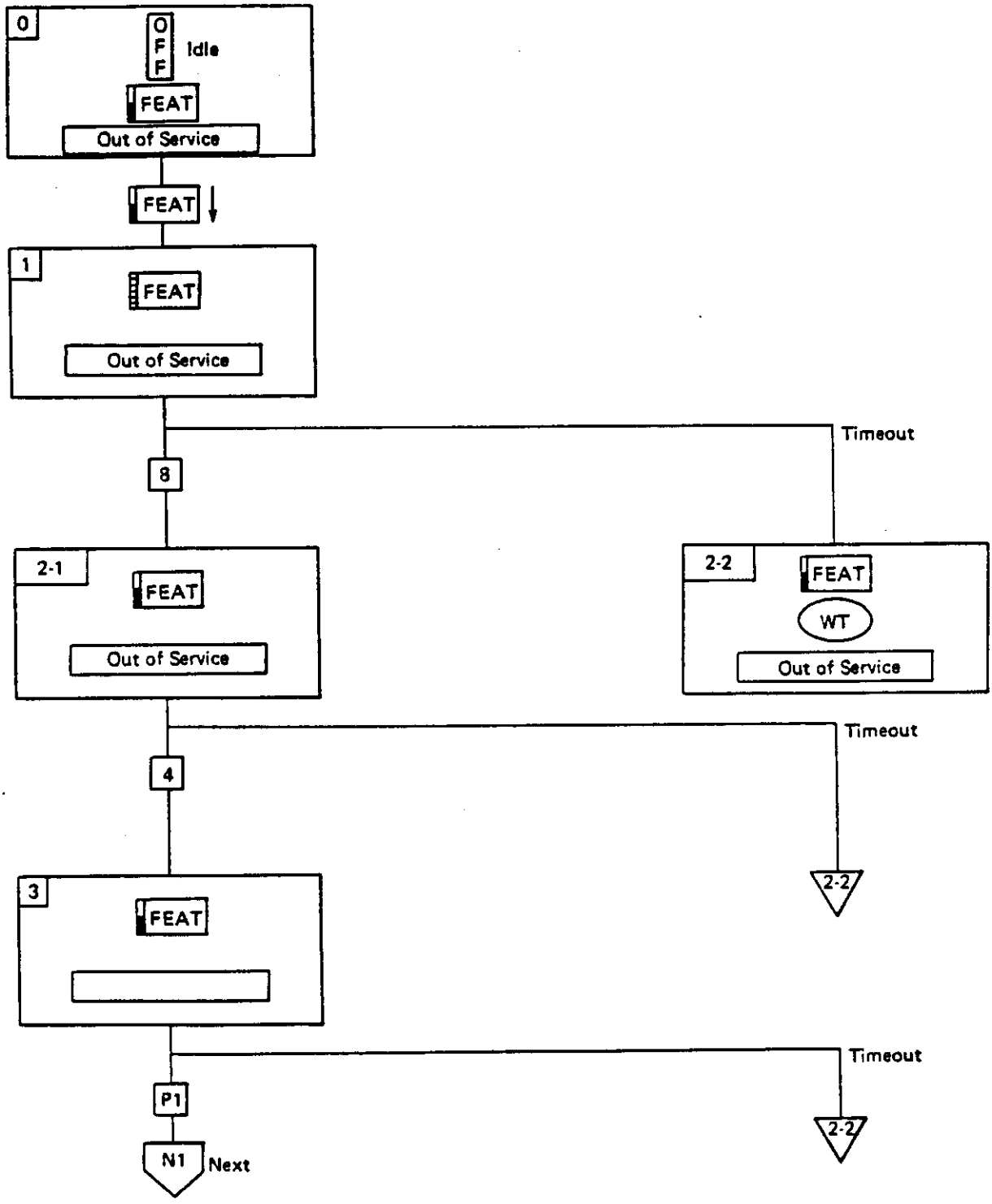
  (Off-hook and Idle)

  [FEAT] + [8] + [4] + [P1] + [P2] + [P3]

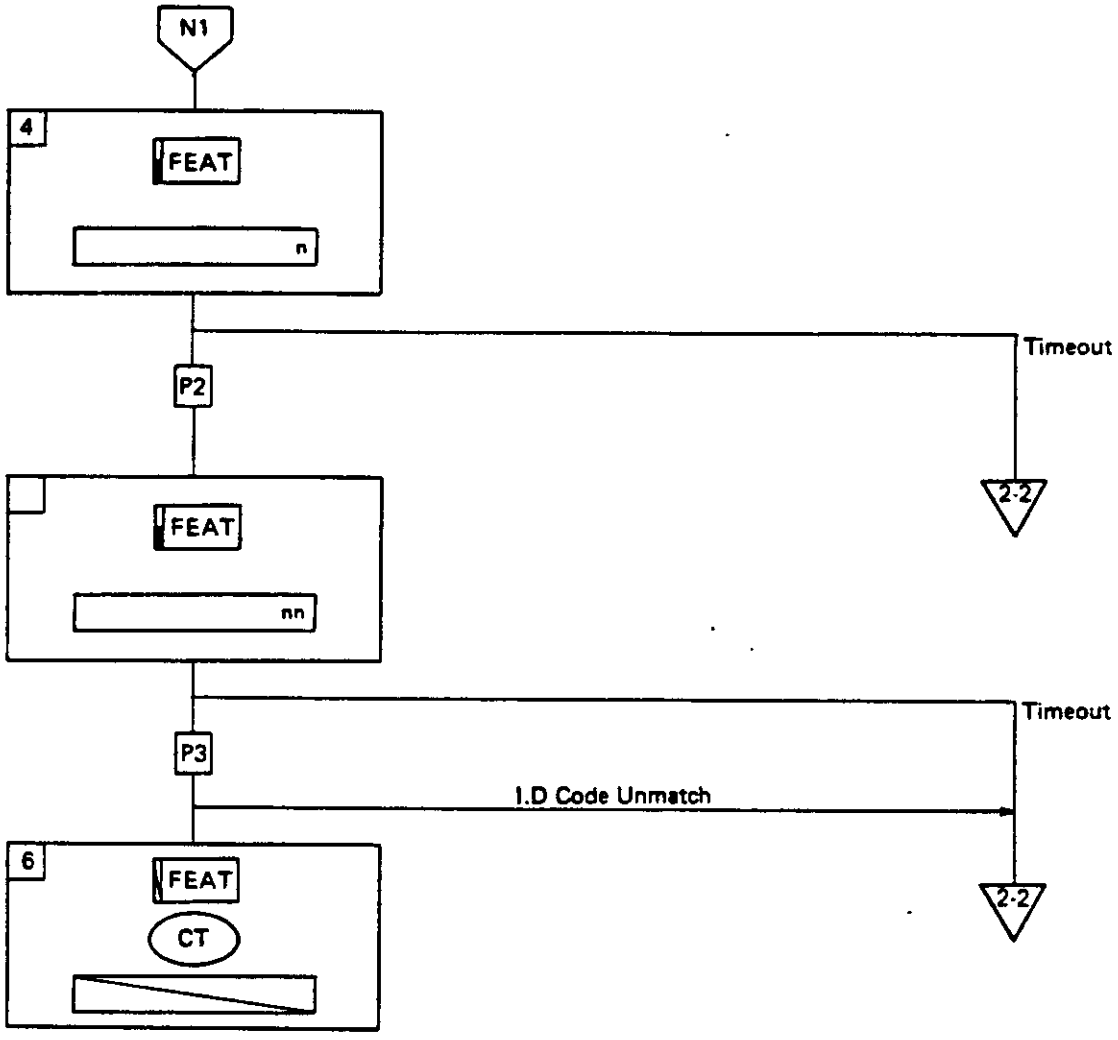
  P1 P2 P3: Personal ID code
  $0 \leqq Pi \leqq 9$

S

■ Operation Flow



S


N1
4
FEAT
n
P2
Timeout
2-2
FEAT
nn
P3
Timeout
I.D Code Unmatch
2-2
6
FEAT
CT

S

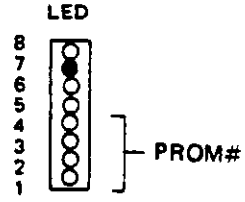
2.3.S.8 System Alarm Indications

The following describes the System Alarm Indications and the contents.

2.3.S.8.1 Program Check Sum Error

Sum Check of the system program is executed in units of 32 kilobytes.
When an error is detected, LEDs on the CCPU-M card indicate the following and the system stops operating.

LEDs 0 to 3 correspond to binary bits 0 to 3 and indicate PROM# (1 to 8).



1: 1U, 1L
2: 2U, 2L
3: 3U, 2L
}
8: 8U, 8L

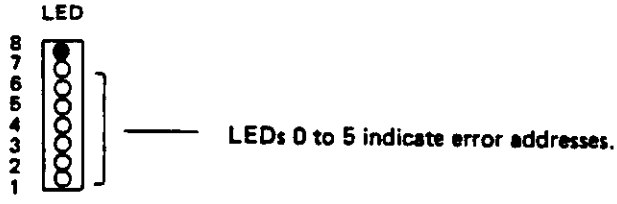
- **Conditions**

  i) Sum check is always executed when the system power is switched on.

  ii) Lack of the optional package ROM is not an error.

2.3.S.8.2 Memory Read-After-Write Check Error

When an error is detected in the system memory by Read-After-Write check, LEDs on the M/K CPU-M1 card indicate the following and the system stops operating.



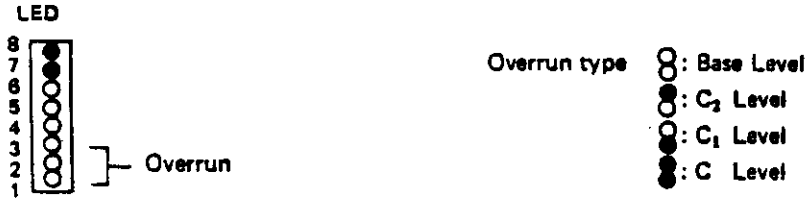
- **Conditions**

The check is executed when the system power is switched on. To avoid the entire memory from being destroyed, checking is executed only when initialization is effected with clear mode.

S

2.3.S.8.3 Overrun Error

If the execution of the system program does not end within a specified time, an overrun error is detected. In this case, the LEDs or M/KCPU-M1 card indicate the following and the system stops operating.



2.3.S.9 System Initialization

The following describes the control of system data/backup data when the system power is switched on.

2.3.S.9.1 Clear Mode

All data in the memory is cleared in this mode, and all functions of the system are set to the default values. (See Section 2.4 Programming Features.) Also, Memory Read-After-Write is executed.

- **Conditions**

  Clock and calendar should be set after initialization.

- **Setting**

  [1] Set the DIP switch on the M/KCPU-M1 card as follows:

  [2] Turn on power (if power is off) or the RESET switch (if power is on).

2.3.S.9.2 Backup Mode

In this mode, the memory (excluding system data and backup data) is cleared. Therefore the previously set system data is saved and backup data is not destroyed.

- **Conditions**

If system data is not set (default values are used), backup data is not saved unless set to this mode.

- Setting

  [1] Set the DIP switch on the M/KCPU-M1 card as follows:

  [2] Turn on power (if power is off) or turn the RESET switch to on. (if power is on).

S

2.3.T.1 Tenant Service

The system can be used with a single tenant or two tenants.

2.3.T.1.1 Stations

All stations of the system belong to either tenant A or tenant B. Calling or transfering between stations assigned to different tenants is not possible.

- Programming

Station Class-of-Service Item 1: Tenant Group B

Each station { Steady on: Tenant A
Flashing: Tenant B

2.3.T.1.2 COL

All COLs of the system belong to either tenant A or tenant B and allowed to be accessed only from the stations assigned to the same tenant. Audible and visible indications are provided only for those stations which belong to the same tenant.

- Programming

Line Specification Item 2: Tenant Group 0: Tenant A 1: Tenant B

2.3.T.1.3 ICM

All ICMs of the system can be asigned to tenant A, tenant B, or tenant AB. ICM lines assigned to tenant A or B are able to be seized only from stations assigned to the same tenant. ICM lines assigned to tenant AB are able to be seized from stations in either tenant A or tenant B, but once seized, the line is considered as belonging to the same tenant as the station that seized it.

- Programming

Line Specification Item 2: Tenant Group
0: Tenant A
1: Tenant B
2: Tenant AB

2.3.T.1.4 External Paging Unit

An External Paging Unit connected to the system is exclusively for tenant A. Extensions belonging to tenant B is not allowed to use it.

- Conditions

All Call from Tenant B excludes the External Paging Unit.

T

2.3.T.1.5 Paging Call Link

A System Link for Paging Call is assigned to each of tenants A and B. A station should use the link assigned to the same tenant.

2.3.T.1.6 SCDR

The SCDR is shared by tenants A and B, and data for both tenants is printed on the same SCDR.

- **Conditions**

  Setting of SCDR printing conditions (system data SCDR Items 3 to 6) is common for both tenants A and B and cannot be set separately.

2.3.T.2 Timed Trunk Queuing

When reservation is made at a KT/VP while calling or engaged on a COL, a Call-back from the COL can be received after elapse of the specified time (1 to 20 minutes).

- **Conditions**

  - o Only one reservation, including Call-back Queuing, is possible per KT/VP.
  - o When the COL is engaged at the specified time (1 to 20 minutes), the status becomes the same as Call-back Queuing. (See 2.3.C.3.1 Callback Queuing.)
  - o After the Call-back is activated, the status becomes Call-back Queuing.
  - o When the Call-back is picked up, the reserved dialed number is automatically sent.
  - o The Call-back time (common to the system) can be assigned from 1 to 20 minutes.

Programming System Constants Item 17: Timed Trunk Queuing Interval 0: No Function
1 to 20 minutes
Default 10 minutes

2.3.T.2.1 Registration

- **Conditions**

  - o On finishing registeration, the COL is disconnected and CT is accessed.
  - o When the call is by Through Dialing from a KT/VP with Outgoing Restriction, the operation is ignored.

- **Operation Guide**

(COL engaged) FEAT + 9

2.3.T.2.2 Cancellation

- **Conditions**

  - o Same as cancellation of Call-back Queuing. (See Section 2.3.C.3 Call Back Queuing.)
  - o CT is accessed on finishing the operation if Callback/Timed Trunk Queuing is registered; otherwise WT is accessed.

- **Operation Guide**

(Idle) FEAT + 0 + 9

T

2.3.T.3 Transfer (Screened Transfer)

An engaged COL/ICM call can be placed on hold at the station and transferred to the desired station.

- **Conditions**
  - o Upon transfer, a Transfer Tone is sent to the COL or ICM line.
  - o COL Transfer to a station with Pick Up Restriction is invalid and immediately reverts to Hold Recall.
  - o A COL on Hold Recall cannot be transferred.

2.3.T.3.1 KT/VP

A COL/ICM placed on-hold can be transferred by pressing the TRN key or pressing the DSS key while engaged in a COL call.

- **Conditions**
  - o Valid only for the latest line if multiple COL/ICMs are placed on hold with the TRN key.
  - o When the TRN key is pressed while engaged on a COL call, the COL is automatically placed on hold and an idle ICM line is seized. When no idle ICM line exists, the operation is ignored.
  - o COL in conference can be transferred.
  - o When the TRN key is pressed while engaged in ICM call, the ICM call is placed on Consultation Hold and an ICM call can be made using the same ICM line.
  - o When the TRN key is pressed during ICM Conference, the ICM line is placed on Conference Hold and an idle ICM is seized. When no idle ICM line exists, BT is accessed and the operation terminates.

- **Operation Guide**

(COL/ICM engaged) [TRN] or [DSS] + ICM Call Operation + Called Party Answer + [] ↓ ([SPKR]: when speaker on)

(COL/ICM engaged) [DSS] + ICM Call Operation + Called Party Answer + [] ↓ ([SPKR]: when speaker on)

T

2.3.T.3.2 SLT

A SLT user may hold and transfer a COL/ICM by flashing the switch hook.

- **Conditions**

  - o When flashing is executed at a SLT while engaged in a COL call, ICM call, or ICM conference, DT is accessed and the line is placed on Exclusive Hold, Consultation Hold, or Conference Hold.

  - o When flashing is executed at a DTMF SLT while the DTMF Receiver is busy, BT is accessed and the operation terminates.

  - o When Consultation Hold is executed, the same ICM line is used. However in other cases an idle ICM line is required, so when no idle ICM line exists the operation terminates.

- **Operation Guide**

  (COL/ICM Conversation) ↓↑ + ICM Call Operation + Called Party Answer + [ ] ↓

ALPHABETICAL INDEX

The alphabetical indices for the Feature and Operation of this section in general are provided here.

Note: *A/B: Either package A or B is necessary.*
Balnk: Standard feature.
Δ: Package is necessary depending on the feature.

Note: *A/B: Either package A or B is necessary.*
Balnk: Standard feature.
Δ: Package is necessary depending on the feature.

	Feature	Package	Section
L	Last Number Redialing (Saved)		R.1
M	Master Group Hunt Call		M.1
	Meet-Me		M.2
	Memo of Call		M.3.2
	Message	ΔB	M. 3
	Message Waiting		M.3.3
	MF COL Access A (MF)		
	Microphone Cutoff		M.4
	Multi-level Toll Restriction	A	M.5
	Multi-line Conference		C.11.4
	Music-on-Hold		H.2.6
N	Night Automatic Answering	B	M.3.4
	Night Relay		N.1.2
	Night Service		N.1
O	On-hook Dialing		O.1
	Optimized Call Routing	A	O.2
	Optional Equipments		O.3
	Outgoing Address Signal Outpulsing		O.4
	Outgoing Restriction		O.5
	Overflow Transfer		A.1.10
	Override		O.6
P	Paging Call		P.1
	Pickup Restriction		P.2
	Preselection		P.3
	Prime Station		P.4
	Privacy		P.5
	Private Line		P.6
	Private Line Automatic Answering	B	M.3.1.5
	Programming COL Lines		P.7.3
	Programming From Key Telephone		P.7.4
Q	Quick Mode Operation		Q.1
R	Reminder	B	M.3.5
	Remote Call Park Retrieve		C.6.2.2
	Ring-Back Tone on Hold		H.2.8
S	Saved Number Redial		R.1
	SCDR		S.1
	Secretarial Busy Lamp Field		A.3.1
	Secretarial Hot-Line Termination		S.2
	Sender Timeout		S.3
	Serial Call		A.1.6
	Soft Ringer		S.4
	Station Class-of-Service		S.6
	Station Forced Release		A.1.13
	Station Lock Out		S.7
	Switching Night Mode		N.1.1
	System Alarm Indications		S.8
	System Data Printout	A	S.1.9
	System Hold		H.2.2
	System Initialization		S.9
	System Programming Terminal		P.7.1
	System/Station Speed Dialing		S.5
T	Tenant Service		T.1
	Through Dialing		A.1.9
	Timed Trunk Queuing		T.2
	Toll Restriction	A	M.5
	Tone Calling		I.1.1.1
	Transfer (Screened Transfer)		T.3
	Trunk Forced Release		A.1.12
	Trunk-to-Trunk Conference		C.11.5
U	Universal Night Assign		N.1.4
	Universal Night Assign Pick up		N.1.5
V	Voice Calling		I.1.1.2
	Voice Message Waiting	B	M.3.6
Z	Zone Call with Meet Me		P.1.4

ALPHABETICAL INDEX

The alphabetical indices for the Feature and Operation of this section in general are provided here.

Note: *A/B: Either package A or B is necessary.*
Balnk: Standard feature.
Δ: Package is necessary depending on the feature.

Note: *A/B: Either package A or B is necessary.*
Balnk: Standard feature.
Δ: Package is necessary depending on the feature.

	Feature	Package	Section
L	Last Number Redialing (Saved)		R.1
M	Master Group Hunt Call		M.1
	Meet-Me		M.2
	Memo of Call		M.3.2
	Message	ΔB	M. 3
	Message Waiting		M.3.3
	MF COL Access A (MF)		
	Microphone Cutoff		M.4
	Multi-level Toll Restriction	A	M.5
	Multi-line Conference		C.11.4
	Music-on-Hold		H.2.6
N	Night Automatic Answering	B	M.3.4
	Night Relay		N.1.2
	Night Service		N.1
O	On-hook Dialing		O.1
	Optimized Call Routing	A	O.2
	Optional Equipments		O.3
	Outgoing Address Signal Outpulsing		O.4
	Outgoing Restriction		O.5
	Overflow Transfer		A.1.10
	Override		O.6
P	Paging Call		P.1
	Pickup Restriction		P.2
	Preselection		P.3
	Prime Station		P.4
	Privacy		P.5
	Private Line		P.6
	Private Line Automatic Answering	B	M.3.1.5
	Programming COL Lines		P.7.3
	Programming From Key Telephone		P.7.4
Q	Quick Mode Operation		Q.1
R	Reminder	B	M.3.5
	Remote Call Park Retrieve		C.6.2.2
	Ring-Back Tone on Hold		H.2.8

	Feature	Package	Section
S	Saved Number Redial		R.1
	SCDR		S.1
	Secretarial Busy Lamp Field		A.3.1
	Secretarial Hot-Line Termination		S.2
	Sender Timeout		S.3
	Serial Call		A.1.6
	Soft Ringer		S.4
	Station Class-of-Service		S.6
	Station Forced Release		A.1.13
	Station Lock Out		S.7
	Switching Night Mode		N.1.1
	System Alarm Indications		S.8
	System Data Printout	A	S.1.9
	System Hold		H.2.2
	System Initialization		S.9
	System Programming Terminal		P.7.1
	System/Station Speed Dialing		S.5
T	Tenant Service		T.1
	Through Dialing		A.1.9
	Timed Trunk Queuing		T.2
	Toll Restriction	A	M.5
	Tone Calling		I.1.1.1
	Transfer (Screened Transfer)		T.3
	Trunk Forced Release		A.1.12
	Trunk-to-Trunk Conference		C.11.5
U	Universal Night Assign		N.1.4
	Universal Night Assign Pick up		N.1.5
V	Voice Calling		I.1.1.2
	Voice Message Waiting	B	M.3.6
Z	Zone Call with Meet Me		P.1.4

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2.4 PROGRAMMING FEATURES

2.4.1 Programming Mode

System data can be entered during system operation if the following conditions are satisfied:

- An Attendant is included in the system.
- PROV-M is set.

When the above conditions are satisfied, depress the keys on the Attendant Console as follows while the Attendant KT is off-hook:

Depress [PGM] key + [8] (Ten-key (Note)) + [2] + [4]

System data can then be entered.
This status is called programming mode, and the status before this operation is called ordinary mode. To change from programming mode to ordinary mode, enter the following:

Depress [PGM] key + [4] (Ten-key) + [2] + [8]

Only one Attendant Console can be in programming mode even if there are two Attendant Consoles in a system.
An Attendant cannot go into the Programming Mode when the system is performing Remote Programming.
An Attendant Console in programming mode is called a System Programming Terminal.
In programming mode, the keys on the System Programming Terminal are classified into two types. The Keys shown in Figure 2.4.1.1 are called Input Data Keys, and the Keys shown in Figure 2.4.1.2 are called Function keys.

*Note: Ten-Key: Because there are no ten-keys on the Attendant Console, a part of the Input Data keys are assigned to numbers 0 to 9 and characters * and # and are referred to as Ten-Key.*

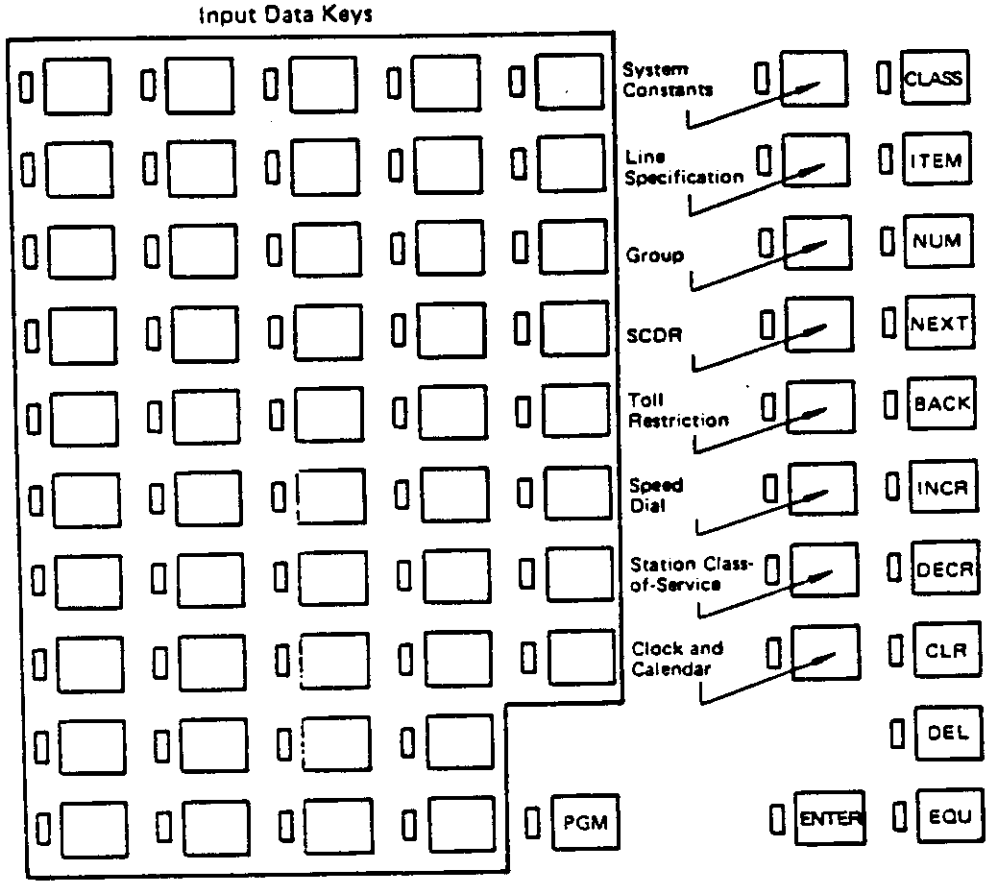

Figure 2.4.1.1 Input Data Keys

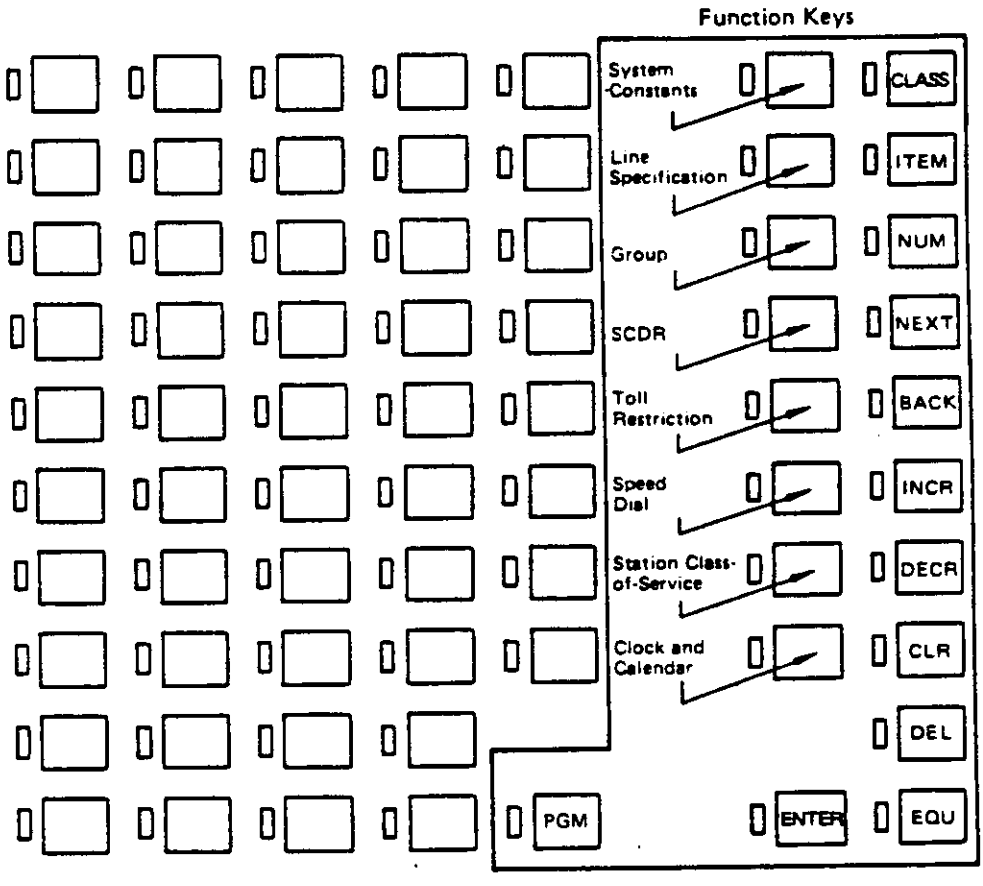

Figure 2.4.1.2 Function Keys

2.4.2 Status of Programming Mode

The programming mode consists of four states:

- Class State
- Item State
- Number State
- Data State

Figure 2.4.2.1 shows the relationship between each state of the programming mode and the keys used in that state.
Each state is described below.

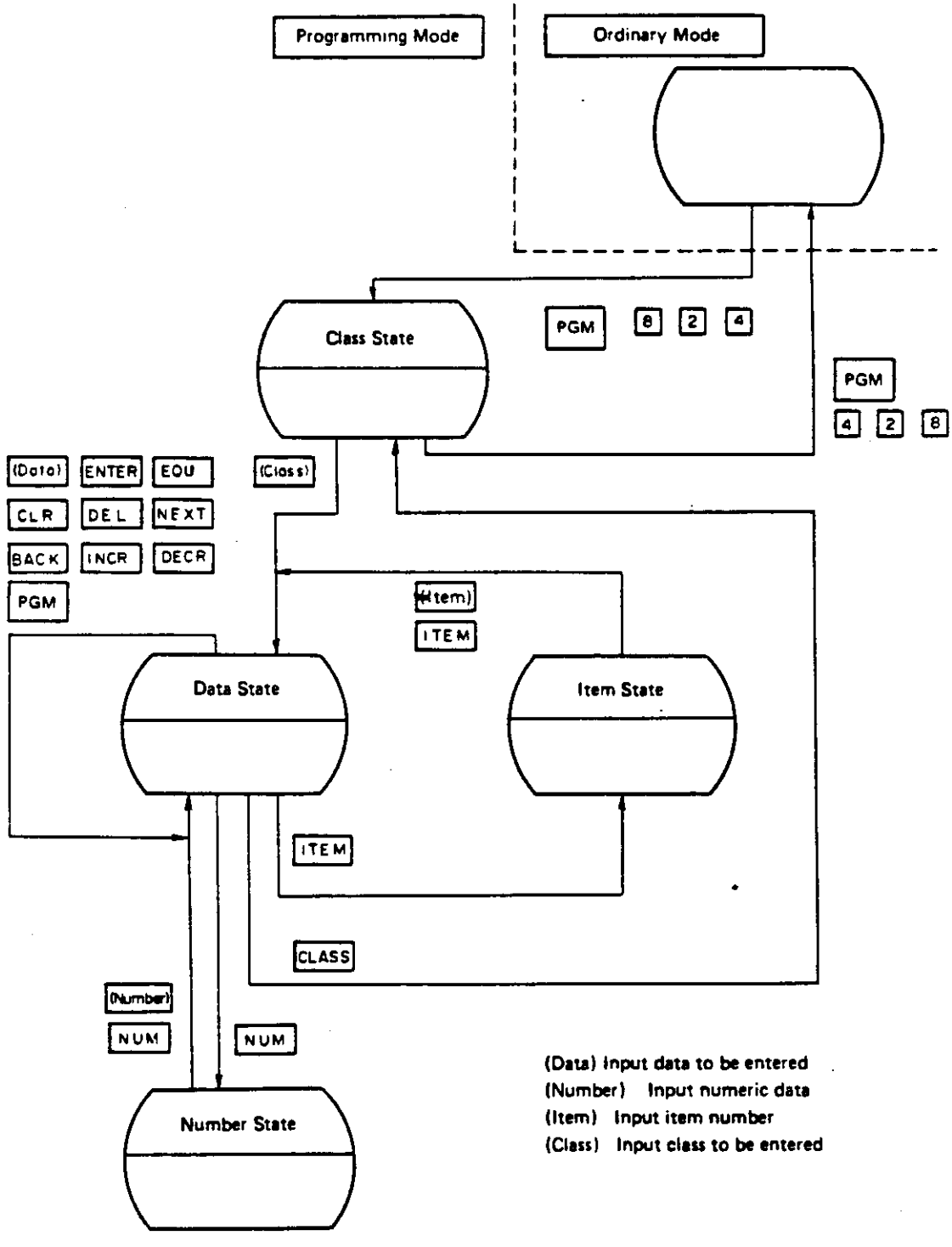

Figure 2.4.2.1 Programming Mode

2.4.2.1 Class State

The following classes can be entered in Class State:

- System Constants
- Line Specification
- Group
- SCDR
- Toll Restriction
- Speed Dial
- Station Class-of-Service
- Clock and Calendar

When class is entered, the status changes to Data State. The [PGM] key can be used to switch to ordinary mode.

2.4.2.2 Item State

In Item State, input data keys are used to enter an item number. When an item number is entered, the status changes to Data State. If function key [ITEM] is depressed before ending item number input, the item number immediately before changing to Item State is automatically entered and the status changes to Data State.

2.4.2.3 Number State

In Number State, input data keys are used to enter a specified number.
When a number is entered, the status changes to Data State. If function key [NUM] is depressed before ending number input, the number immediately before changing to Number State is automatically entered and the status changes to Data State. If the number consists of two number however, and the [NUM] key is depressed after entering the first number, the number before changing to Number State is automatically entered as the second number, the manually keyed number is entered as the first number, and the status changes to Data State. The following is an example.

Toll Exception Table Number: 03
Exception Number: 04

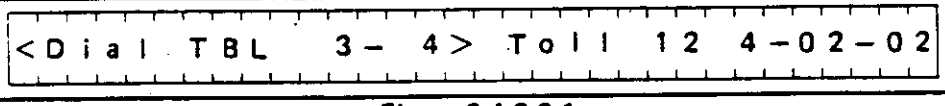

Figure 2.4.2.3.1

Change to Number State and enter [0] and [4].

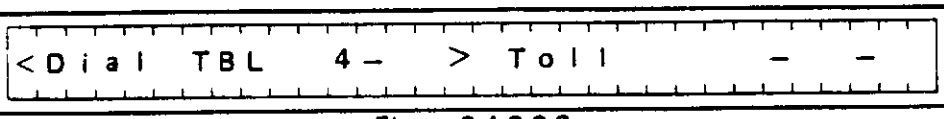

Figure 2.4.2.3.2

When the [NUM] key is depressed in this status to change to Data State, the numbers become:
Toll Exception Table Number: 04
Exception Number: 04

Only the first number changes. The second number remains unchanged.

2.4.2.4 Data State

In Data State, function keys (NEXT , BACK , INCR , and DECR) can be used to display the data after changing the number or item on the Programming Terminal. Also, the data to be input can be entered using the input data keys and function keys (CLR , DEL , and EQU), and the data entered can be registered (with the ENTER key).
Function keys (CLASS , ITEM , and NUM) can be used to change from Data State to other states.
The input data keys in Data State show the current setting by turning on key lamps. The lamp on the Function key or Input Data Key-lights to indicate the key that is usable. However, for item in which the Input Data Key is assigned to EXT, CO, the key lamp is used to indicate the setting. The lamp blinks if the data is set and steadily lights if the data is not set.
In this case, if a blinking key is depressed, the lamp changes to steadily lit (Not set) and if a key with lamp lit is depressed, it blinks (Set).
The Programming Terminal Display displays the content of specified data. For items ir which data is entered with ten-key, the value of the ten-key is displayed as it is entered.

2.4.3 Function Keys of Programming Mode

The use of function keys in Programming Mode is described below.

2.4.3.1 Class Keys

When one of the eight class keys is depressed, the data for item 1 of that class is displayed and the status changes to Data State.

2.4.3.2 CLASS Key

Status changes to Class State.

2.4.3.3 ITEM Key

Status changes to Item State, Status returns to Data State if depressed in Item State.

2.4.3.4 NUM Key

Status changes to Number State. Status returns to Data State if pressed in Number State.

2.4.3.5 NEXT/BACK Key

The NEXT and BACK keys can be used to change items within a class. When NEXT is depressed the data for the next item is displayed. When DECR is depressed, the data for the previous item is displayed. For items that have numbers, if there is a same number in the item after depressing NEXT or BACK, the number of the previous item is retained and does not change.
If the same number does not exist, however, the first number in the item is entered. This is true also when switching from an item without numbers to an item with numbers.

2.4.3.6 INCR/DECR Key

The INCR and DECR keys can be used to change Number within item. When INCR is depressed, the data display changes to the next number.
If DECR is entered, the previous number is displayed.

2.4.3.7 EQU Key

The data for the previous number is entered.

2.4.3.8 CLR Key

All the setting data on the Display and Input Data Keys are made invalid. All the display and lamp indications are cleared.

2.4.3.9 DEL Key

Invalidates the last digit of the data and clears the display of that digit.

2.4.3.10 ENTER Key

Registers input data. Data may be registered only when the input data is within the range of data for the item. If there is an error, the status before data entry is restored.

2.4.3.11 PGM Key

Enter password 4, 2, 8 to switch to ordinary mode. If the PGM key is depressed during password entry, the status changes to Class State.
If one digit is not entered within 10 seconds, the status changes to Class State even if PGM key is depressed.

2.4.4 Select Class of Data

Any class can be specified. Class is specified by depressing one of the following class set keys in Class State:

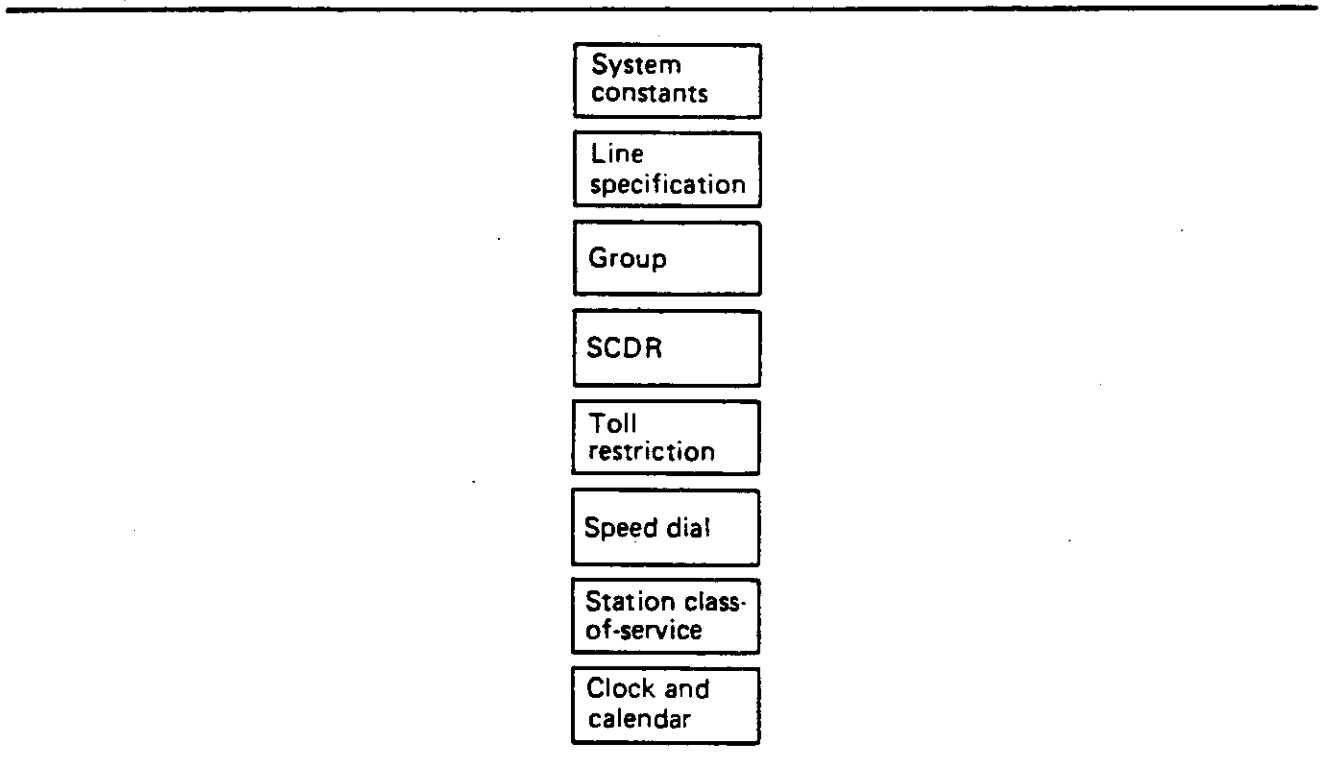

Figure 2.4.4.1 Class Keys

Status changes to data State when one of the above keys is depressed.

2.4.5 Select Item of Data

Any item within the current class range can be specified. An item is specified with the Ten-Key assigned to the input data keys. Ten-Key lamps light to indicate the keys that can be depressed.
The status returns to Data State after the depression.

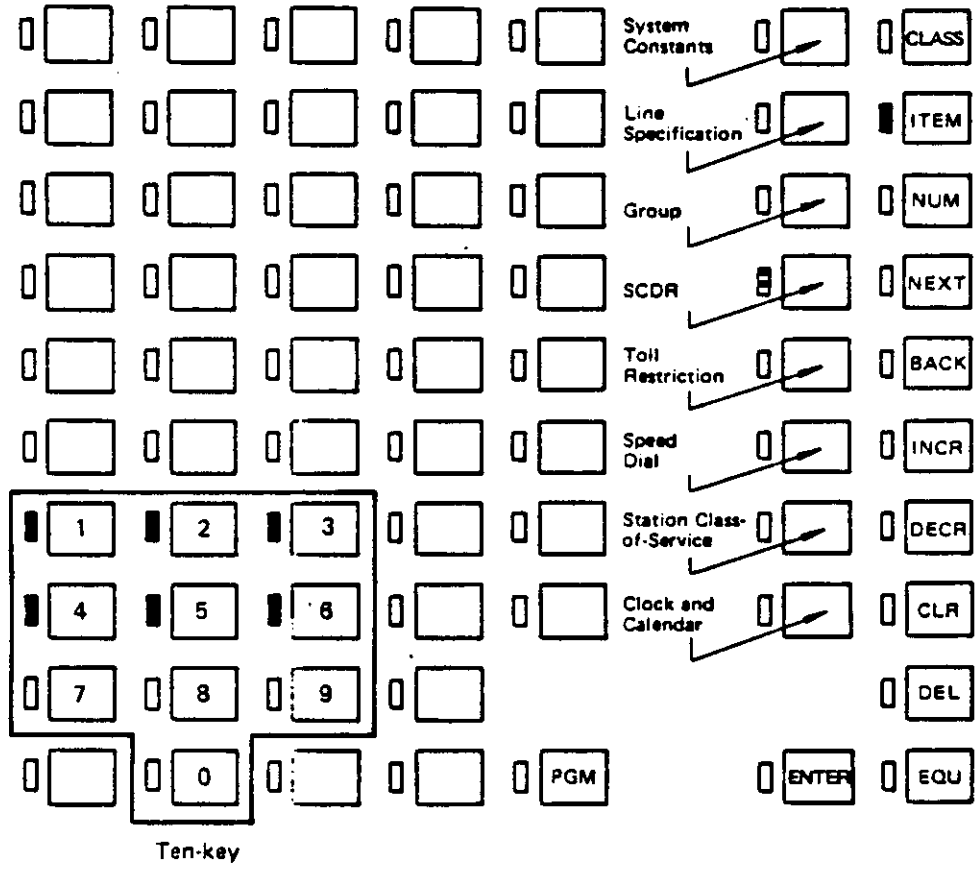

Figure 2.4.5.1 Data Keys for Item State

2.4.6 Select Number of Data

Any number within the current range of numbers can be specified. A number is specified according to the input method for item. Input is performed by pressing the ten keys assigned to input data keys or by depressing keys representing EXT, CO, or ICM.
In either case, key lamps light to indicate the keys that can be depressed. The status changes to Data State after the depression.

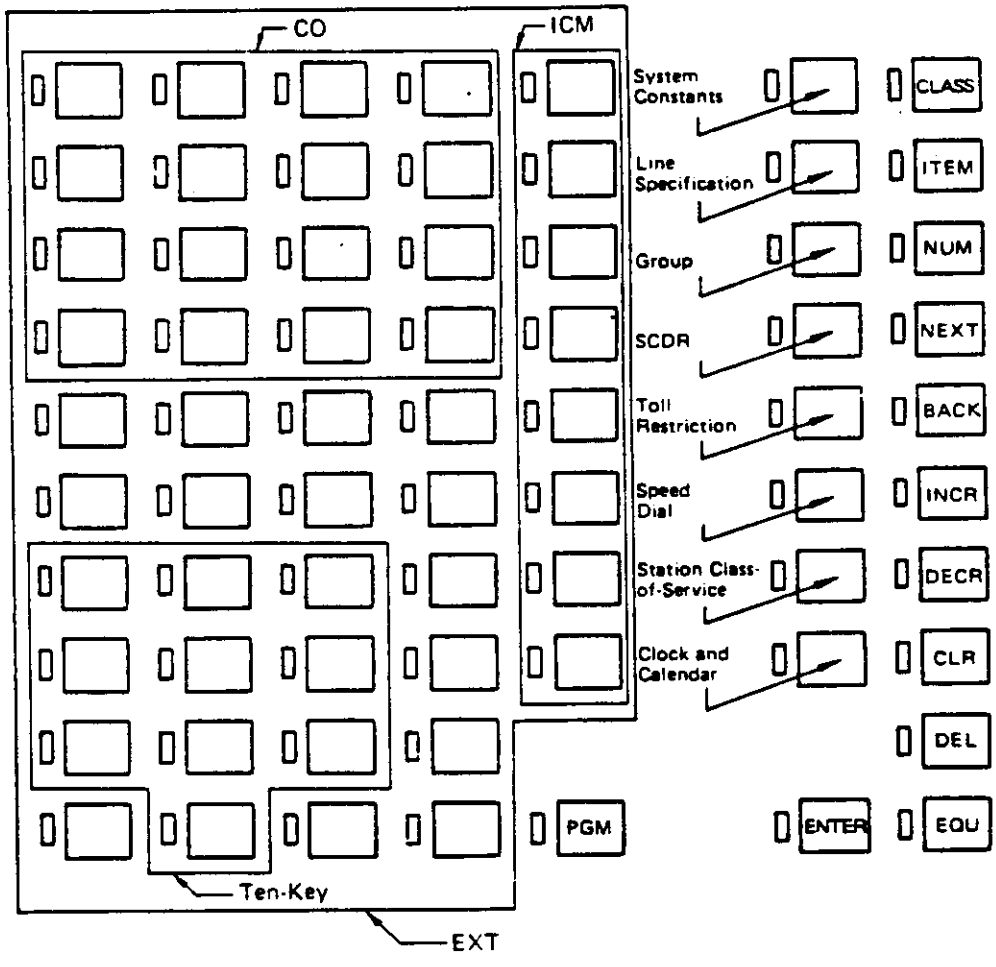

Figure 2.4.6. Data Keys for Number State

2.4.7 Data Registration

The content of the currently registered data can be changed in Data State. Input data keys are used to enter new data. The following steps show how data is displayed.

a. When the key lamps of the data input keys are blinking (Set) or lit (Not Set), a blinking key changes to lit (Not Set) and a lit key changes to blinking (Set) when depressed.

b. To display data, Ten-keys assigned to input data keys are used. The usable Ten-key is indicated by lit key lamps.

When a Ten-key is pressed, the current data is cleared and the new data is displayed.
Use the following function keys to enter data:

a. Use the [EQU] key to enter the same data as the previous number for items with numbers. The key lamp is lit if the key is usable.

b. Use the [CLR] key to enter default data.

c. Use the [DEL] key to delete the last digit of the displayed data. The key lamp is lit if the key is usable.

Data cannot be registered just by entering it. Data is registered, provided it is in the correct range when the [ENTER] key is depressed after the data is entered.
When [ENTER] is depressed, the prompt "Accepted" is announced and the key lamp for the [ENTER] key blinks for about 0.5 second if the input is correct. If the data is incorrect, the prompt "Illegal Data" is announced and the display returns to the previous status.

2.4.8 Prompt

In programming mode, Prompt is available for the information listed below. The voice comes from the Attendant KT speaker.

- When [PGM] key is pressed in Class State:
  "Enter Password"
- When changing from ordinary mode to programming mode or when the [CLASS] key is depressed and the status changes to Class State:
  "Enter Class"
- When the [ITEM] key is depressed and the status changes to Item State:
  "Enter Class"
- When the [NUM] key is depressed and the status changes to Number State:
  "Enter Number"
- When the status changes to Data State:
  "Enter Data"
- When the [ENTER] key is depressed and the input data is registered in the system:
  "Accepted"
- When the [ENTER] key is depressed and the input data is incorrect:
  "Illegal Data"
- When the [ENTER] key is depressed without entering data:
  "Enter Data"

Prompt is available for function keys [CLASS], [ITEM], [NUM], [ENTER], and [PGM].
For keys without prompt such as the [NEXT], [BACK], [INCR], [DECR], [CLR], [DEL], and [EQU] keys, a buzzer sounds to indicate whether the input is correct. This buzzer is called a Confirmation Tone for Attendant. A buzzer sounds when a key is depressed and the function of the key is executed.

2.4.9 Display of Data

For data format displayed on Display, refer to Table 2.2.2.3.6, System Programming Terminal Display.

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3.1 GENERAL DESCRIPTION

Part 3 describes EX-824/1648 system installation, with particular emphasis on the system hardware. Refer to Part 4 for the software (programming). Parts 3 and 4 provide the information needed to install the EX-824/1648 system properly to achieve advanced functions.

3.1.1 System Capacity

Table 3.1.1 shows the capacity of EX-824/1648 System.

Table 3.1.1 EX-824/1648 System Capacity

Function	Maximum Quantity	Note
CO/PBX line	16	1
Extension	48	2
Intercom line	8	3
E & M tie line	4	4
Attendant (KT+DSS-M or DSS-N)	2	
Busy lamp unit (BLF-M)	4	5

ss: 1. *CO/PBX lines can be connected to loop-start trunks, and an impedance of either 600 ohms or 900 ohms may be selected. Each unit consists of four circuits.*

2. *Extensions*
   a. *EX-824/1648K, EX-824/1648KN/KN1, EX-824/1648D and EX-824/1648DN/DN1 key telephones EX-824/1648VP-N1 Versa Phone and single-line telephones can be connected. Each printed-circuit card consists of four circuits.*
   b. *There are no rules about the number of EX-824/1648 key telephones to be accommodated and their telephone numbers. The key telephones are interfaced through a SUBK-M card, and may be mix in used the same card.*
   c. *All extensions may be single-line telephones. Remeber, however, that telephone numbers 20 and 21 are reserved for key telephones that correspond to a DSS-M or DSS-N. Care must also be taken in using DTMF-type single-line telephones because of the receiver traffic problem involved. (See Section 3.1.1.)*
   d. *Either DP- or DTMF-type single-line telephones may be used. DTMF-type single-line telephones, however, require a receiver card (RECV-M).*
3. *Up to eight ICM lines are originally installed, and no additional ICM lines can be installed. The ICM lines can be freely allocated by programming as follows:*
   a. *Ordinary ICM*
   b. *Attendant dedicated ICM*
   c. *Hot-line ICM*
4. *E & M tie lines*
   a. *The EX-824/1648 system may have up to four E & M tie lines. One printed-circuit card (EMTK-M) can be connected to two tie lines.*
   b. *EMTK-M cards may be installed in any subscriber slots except the SUB 20-23 slot (one for EX-824/1648CM, and another for EX-1648EM).*
   c. *If EMTK-M cards are installed, the telephone numbers corresponding to slots where these cards are installed cannot be used. CO/PBX trunks 7 and 8 (EX/824/1648CM) and 11 and 12 (EX-1648EM) can no longer be used, and the direct keys corresponding to these trunks become E & M tie trunk line keys.*
5. *Busy Lamp Field Unit*
   a. *One BLF-M can display the busy status of up to 12 extensions.*
   b. *One DSS-M or DSS-N covers two BLF units, which display in the same way as the LEDs on the DSS-M or DSS-N unit. All LEDs on the BLF units flash during programming.*

ming: *This equipment generates and uses radio frequency energy, and if not installed and used properly, i.e., in strict accordance with the instruction manual, it may cause harmful interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment.*

Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

3.1.2 System Configuration

The EX-824/1648 system is composed of an EX-824/1648CM and EX-824/1648EM ICUs (Integrated Control Units), which consists of modules where various cards are inserted, and electronic key telephones, plus various equipment such as a DSS Unit, Busy Lamp Unit, Power Failure Transfer Unit, E & M Tie Trunk, Main Power Supply Unit, etc.
The EX-824/1648CM may be installed on the wall, mounted in a 23-inch rack, or placed on the floor. The EX-824/1648CM consists of two shelves. The upper shelf is called the line shelf and the lower one, the common shelf. The line shelf mainly holds CO trunk cards, subscriber cards, and sound source cards, and the common shelf accommodates the cards that control the system. The EX-824/1648CM can control up to eight CO/PBX lines and 24 subscribers.
On the right side of the EX-824/1648CM are four ribbon-type connectors for CO/PBX lines, stations, and loud ringeres; one EDCT-M (External Device Connecting Terminal-M) for external devices; and one printer connector.
The EX-824/1648EM, composed of one shelf, is used to expand system capacity. On the right side of an EX-1648EM are four ribbon-type connectors for CO/PBX Lines, stations, and loud ringeres.
An EX-1648EM can be easily connected with an EX-824/1648CM. Just align one module on top of the other and insert the motherboard of the lower module in the card-edge connector of the upper module.

Seven types of proprietary key telephone are provided for the EX-824/1648 System:

(1)	EX-824/1648K, KN, KN1:	Key telephone without liquid-crystal display
(2)	EX-824/1648D, DN, DN1:	Key telephone with 16-digit liquid-crystal display
(3)	EX-824/1648VP-N1:	Versa phone

Besides these key telephones, industry standard single-line telephones may be connectedtto the system.

3.1.3 External Devices Connectable

In addition to the system configuration described in 3.1.2, the following devices may be connected to an EX-824/1648 system:

(1) Music-on-hold source
(2) Background music source
(3) Paging amplifier
(4) Speakers
(5) Loud ringers (the EX-824/1648 system only provides a loud-ringer control relay drive circuit)
(6) Night service device (the EX-824/1648 system only provides a night-service device control relay drive circuit)

3.1.4 EX-824/1648 System Schematic

Figure 3.1.4 is on EX-824/1648 system schematic diagram.

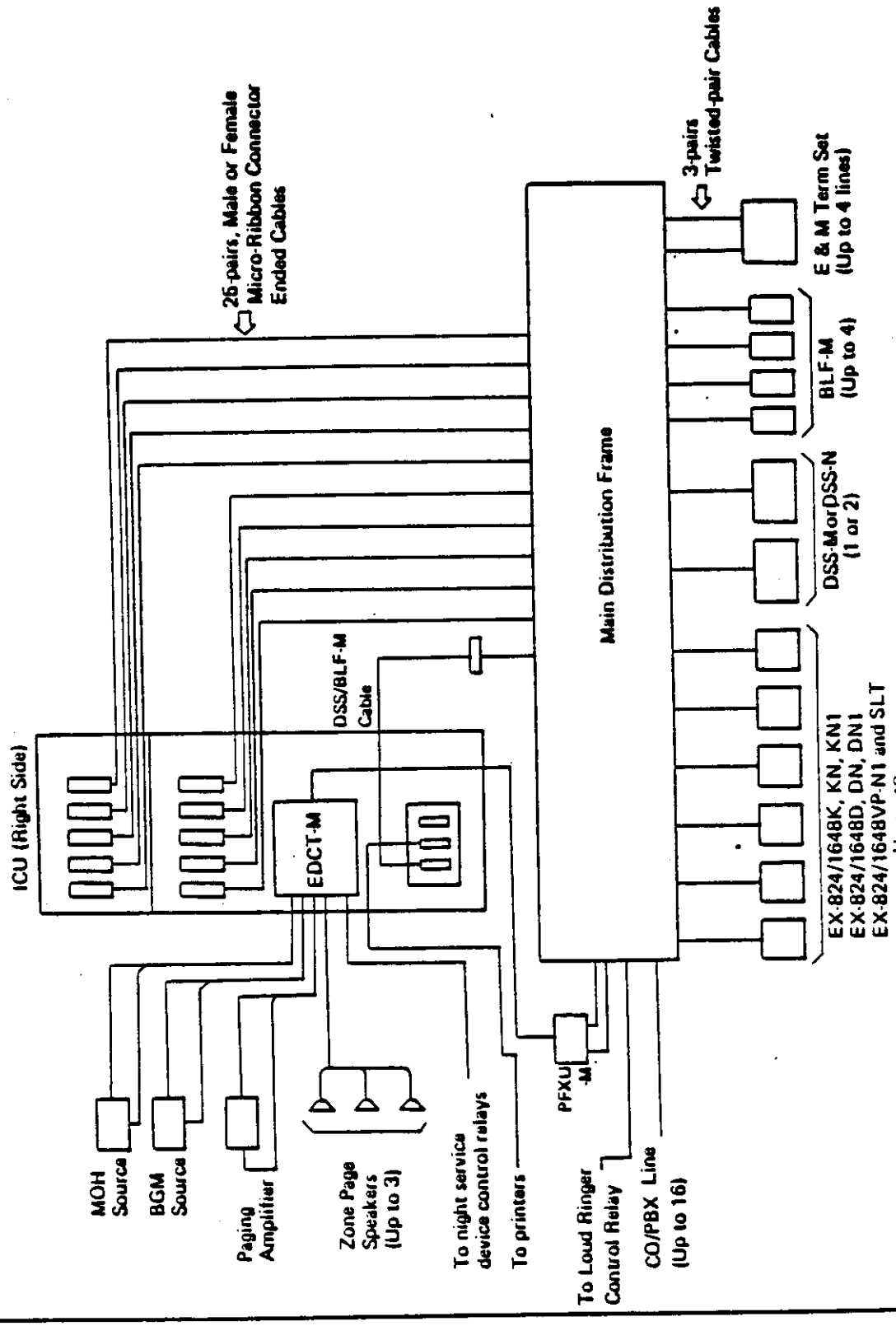

Figure 3.1.4 EX-824/1648 System Schematic

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3.2 SPECIFICATIONS

3.2.1 System Architecture

Table 3.2.1 shows the maximum capacity of the EX-824/1648 system.

Table 3.2.1 Maximum System Capacity

Function	Maximum Quantity
CO/PBX lines	16
E&M Tie Lines	4
Extensions	48
DSS	2
BLF	4

Figure 3.2.1 shows the layout of the printed-circuit cards and other units installed in the ICU.

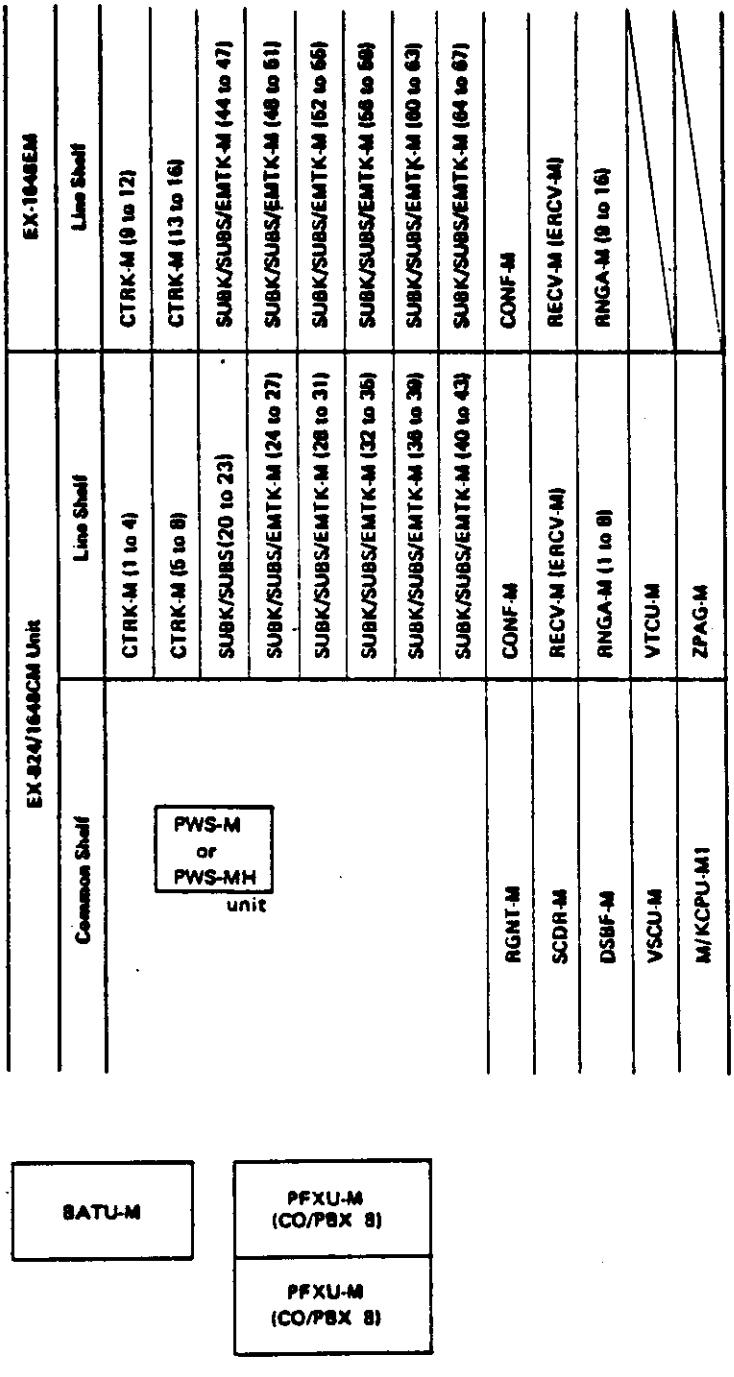


Figure 3.2.1 ICU Mounting Diagram

3.2.2 Cabling Requirments

3.2.2.1 Loop Resistance

Table 3.2.2.1 shows the system cable loop limits.

Table 3.2.2.1 System Cable Loop Limit

Function	Cable Loop Limit	Note
CO/PBX Lines	1600Ω	
EX-824/1648K, KN/KN1, D, DN/DN1, VP-N1	60Ω	1
SLT	400Ω	2
	1000Ω	3
BLF	60Ω	
DSS	60Ω	

Notes
1. *The cable loop limit if an optional unit is used is 40 ohms.*
2. *This value applies where SUBS-M card and single-line telephone Model 2500 type are used.*
3. *This value applies where SUBS-M1 card, single-line telephone Model 2500 type.*
4. *Cable of #22 to #28 AWG wire may be used; however #24 AWG wire is especially recommended.*

3.2.2.2 Station Cable Requirements

The MDF (Main Distribution Frame) connects CO/PBX lines, stations, and loud ringers with the ICU. To connect the ICU with the MDF, use 25-pair, micro-ribbon connector Amphenol-ended cables.

External devices are connected to the EDCT-M (External Device Connecting Terminal) on the right side of the EX-824/1648CM. For connections shown in Table 3.2.2.2, use shielded cables.

The EX-824/1648 also has connectors on the right side for connecting the DSS console and the SCDR Printers.

Table 3.2.2.2 Connection of External Devices

External Device	Terminal on EDCT-M
MOH source	MOH
BGM source	BGM SOURCE
Paging amplifier	PAGE

3.2.3 Auxiliary Circuits

The input sensitivities required to the page amplifier and music sources are as follows:

(1) Paging Amplifier Input Sensitivity,
Paging Amplifier Input Impedance: 700 mV (−3 dBV), more than 600 Ω

(2) Music-on-Hold Input Sensitivity,
MOH Input Impedance in ICU: 500 mV, 600 Ω (−6 dBV), not to exceed 2 V (+6 dBV)

(3) Background Music Input Sensitivity,
BGM Input Impedance in ICU: 200 mV (−14 dBV), 600 Ω, not to exceed 1 V (0 dBV)

3.2.4 Power Supply Specifications

	PWS-M	PWS-DH MH
AC power	120 VAC (90 to 135 VAC)	180 to 270 VAC 48Hz to 63 Hz, single phase
Maximum input power	800 VA	840 VA

	BATU-M
DC power	210 to VDC
Maximum input current	7 ADC

The EX-824/1648 system requires the following power supplies:

(1) AC power: 90 to 135 VAC ±10 %, 47 Hz to 63 Hz, single phase

(2) Maximum AC current: 800 VA

(3) Backup DC power: 19 to 27 VDC

3.2.5 Grounding Requirements

A power supply is normally grounded via the power cable, so little difficulty arises. For added safety, however, it is suggested that the CM casing be grounded separately from its ground terminal. If the power cable is not grounded, the CM casing must be grounded. For grounding installation, see paragraph 3.4.4.6.

3.2.6 Visual and Audible Indications

The typical visual and audible indications by the EX-824/1648K, KN, KN1, D, DN, DN1 or VP-N1 and the DSS-M or N and the BLF-M, are shown in Table 2.3.6. For further details, refer to Sections 2.2.2 and 2.2.3.

Table 3.2.6 (1/4) Visual Indications (KT)

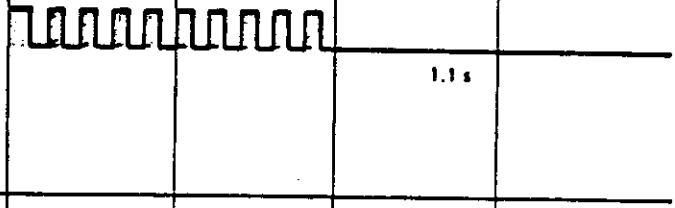
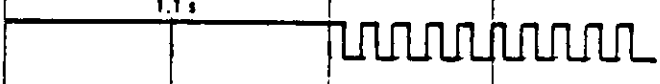
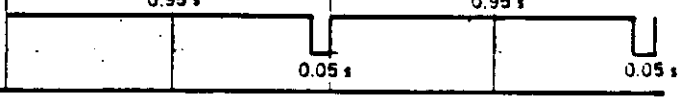
No.	Use	Operation/Lamp Indication	Pattern			
			0.5 s	0.5 s	0.5 s	0.5 s
1	I-Use TRAN ADD					
2	Callback; MSG wait Camp-On Hold recall ICM incoming Camp-On recall					
3	CO incoming Forward					
4	System hold Non privacy					
5	DND Page busy Line busy Absence message					
6	Idle (off)					
7	Voice message wait I-hold					
8	Programming class					

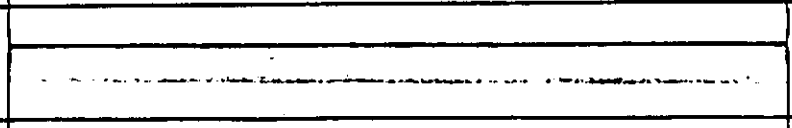
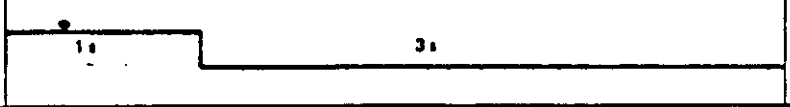
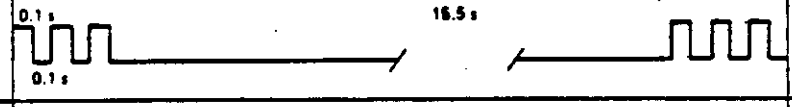
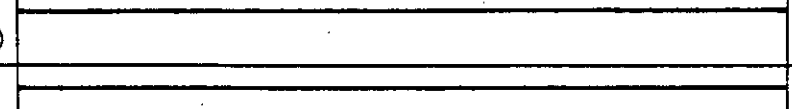
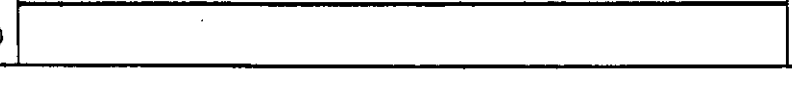
Table 3.2.6 (2/4) Visual Indication (DSS-M, DSS-N, BLF-M)

No.	Use	Pattern			
		0.5 s	0.5 s	0.5 s	0.5 s
1	Forced release	1.05 s		0.05 s / 0.05 s	
2	DND	0.05 s / 0.05 s			
3	Camp-On		1.2 s	0.4 s	0.4 s
4	Conversing Incoming				
5	Message waiting	0.05 s / 0.05 s		1.05 s	
6	Others				

Table 3.2.6 (3/4) Audible Indications (RGT)

EXT	Classification	Pattern and Symbol	Tone
K T	CO RGT CO camp-on	CORGT, 3 s, Repeat	440/480 Hz
	ICM tone call ICM camp-on	ICMRGT, 3 s, Repeat	440 Hz
	CO callback	COCBT, 0.4 s, 0.2 s, 0.4 s, Repeat	440/480 Hz
	ICM callback	ICMCBT, 0.4 s, 0.2 s, 0.4 s, Repeat	440 Hz
	CO recall	0.1 s, 0.1 s, 7.5 s, CORCL, Repeat	440/480 Hz
	ICM recall	0.1 s, 0.1 s, 7.5 s, ICMRCL, Repeat	440 Hz
	ICM burst	0.8 s, VCB	440 Hz
	Intercept tone	0.2 s, A, 0.3 s, 0.2 s, B, IT	A: 620 Hz B: 440 Hz
S L T	CO RGT CO camp-on CO recall	CORGTS, 3 s, Repeat, 0.4 s, 0.2 s, 0.4 s	Ringer
	ICM tone call ICM camp-on ICM hold recall ICM call-back	ICMRGTS, 3 s, Repeat	Ringer
ATTND	Recall	0.1 s, 0.1 s, 7.5 s, ATRCL, Repeat	Buzzer

Table 3.2.6 (4/4) Audible Indications (CPT)

Classification and Symbol	Pattern	Service	Tone
ICM dial tone (DT)		ICM SLT	440 Hz
Ring-back tone (RBT)		COL ICM	440/ 480 Hz
Busy tone (BT)		COL ICM KT SLT	480/ 620 Hz
Warning tone (WT)		KT SLT	480/ 620 Hz
Confirmation tone (CT)		COL KT SLT	440 Hz
Privacy release burst (PRS)		COL	440 Hz
Voice call burst (VCB)		ICM	440 Hz
Camp-on tone for SLT (COTS)		SLT	440 Hz
Transfer tone (TT)		COL ICM	440 Hz
Add-on tone (AOT)		COL ICM	440/ 480 Hz
Confirmation tone for ATTND (CTA)		ATTND	Buzzer
Busy Bypass Burst (BSB)		ICM	440 Hz
Optimized Dial Tone (DT)		KT/VP SLT	350/ 440 Hz
E&M Dial Tone (DT)		E&M	350/ 440 Hz

3.2.7 Physical Characteristics

Table 3.2.7 shows the external dimensions and weight of the main EX-824/1648 system components.

Table 3.2.7 Dimensions and Weight

Components	Dimensions (H x W x D) (inches)	Weight (pounds)
EX-824/1648CM	29.8 x 21 x 12.8	61
EX-824/1648EM	13.4 x 21 x 12.8	28
EX-824/1648K	3.9 x 9.7 x 8.5	2.9
EX-824/1648KN	3.4 x 9.5 x 8.5	2.7
EX-824/1648KN1	3.4 x 9.5 x 8.5	2.6
EX-824/1648D	3.9 x 9.7 x 8.5	3.0
EX-824/1648DN	3.4 x 9.5 x 8.5	2.8
EX-824/1648DN1	3.4 x 9.5 x 8.5	2.6
EX-824/1648VP-N1	3.4 x 9.9 x 8.5	2.0
DSS-M	3.9 x 9.7 x 8.5	2.9
DSS-N	3.0 x 9.7 x 8.5	2.8
BLF-M	3.9 x 3.1 x 8.5	1.1
PFXU-M	12.6 x 6.9 x 2.3	4.0
PWS-M	14.5 x 9.8 x 10.6	33
PWS-MH	14.5 x 9.8 x 10.6	35
BATU-M	7.3 x 5.0 x 8.7	9.9
Cards for ICU (Large)	12.4 x 9.25 x (1.0 to 2.3)	0.97 to 2.4
Cards for ICU (Small)	9.25 x 9.25 x (1.0 to 1.57)	0.51 to 1.76

3.2.8 Transmission Parameters

The transmission parameters for the EX-824/1648 system are as follows:

- System Impedance

  Station: 600 Ω ± 10% at 1 kHz to 1.5 kHz
  Trunk: 600 Ω or 900 Ω ± 15% at 1 kHz to 1.5 kHz

- Insertion Loss

  Station to Station: 4.5 dB ± 1 dB at 1 kHz
  Station to Trunk: 2.5 dB or less*1 at 1 kHz

  *1 An insertion loss of 2.5 dB or less is compensated for inside the EX-824/1648 key telephones.

- Crosstalk Attenuation: 75 dB or more at 1.5 kHz
- Longitudinal Balance: 70 dB or more at 200 Hz to 4 kHz
- Return Loss: 10 dB or more at 200 Hz to 4 kHz

3.2.9 Environmental Requirements

All units are designed to operate under the following environmental conditions:

- Ambient temperature: −5° to +45°C (27° to 109°F)
- Relative humidity: 5 % to 90 % (non-condensing)

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3.3 PLANNING SHEET

3.3.1 Hardware Unit Planning

This section discusses the planning sheets used for determining what kinds of hardware unit and how many of them, are necessary. The hardware units related to the ICU are shown in Section 3.3.1.1, and the optional units for key telephones, in Section 3.3.1.2.

3.3.1.1 General Planning Sheets

Table 3.3.1.1 shows General Planning Sheets that should be used in determining the general system configuration.
Figure 3.3.1.1 shows a front layout of the units in the EX-824/1648 Common Module and EX-1648 Expansion Module.

Table 3.3.1.1 General Planning Sheet (1/3)

	Number of CO/PBX Lines Stations	Abbreviated Card Name and Number of Cards	Location on Shelf	Remarks
Total No. of CO/PBX lines	Loop start lines ..... ( )	CTRK-M/M1..... ( )	Slot CTRK-M	One card is required for every four lines. The total number of CO/PBX lines must not exceed 16. Two CO/PBX lines decrease per EMTK-M card.
Total Number of Stations	(1) Attendant console . . .( ) (A) DSS-M. . . . . .( ) (B) DSS-N. . . . . .( ) (2) Busy lamp field BLF-M . . . . . .( )	(1), (2) DSBF-M ..... 1.	Slot DSBF-M	All DSS-M, DSS-N and BLF-M units can be controled by a single DSBF-M card.
	(3) Key telephones (A) EX-824/1648K . .( ) (B) EX-824/1648D . .( ) (C) EX-824/1648KN.( ) EX-824/1648KN1 (D) EX-824/1648DN.( ) EX-824/1648DN1 (E) EX-824/1648VP-N ( )	(A), (B) SUBK-M .... ( )	Slot SUBK-M	One card is required for every four lines. The total number of key telephones must not exceed 48.
	(4) Single line telephones (A) DP type ..... ( ) (B) DTMF type .....( )	(A), (B) SUBS-M/M1..... ( ) +RGNT-M 1 +RECV-M (ERCV-M) .... ( )	Slot SUBS-M	One card is required for every four lines. Each circuit can control DP or DTMF.
E & M Tie lines	E & M Tie lines ..... ( )	EMTK-M .....( )	Slot EMTK-M	One card is required for every two lines. The total-number of E & M tie lines must not exceed 4.

Notes:

1. *Total number of key telephones and single-line telephones cannot exceed 48.*
2. *Total number of CO/PBX lines cannot exceed 16.*
3. *One EMTK-M card can be mounted in the EX-824/1648 Common Module and one in the EX-1648 Expansion Module. If one card is mounted in each, CO/PBX lines 7, 8, 11, and 12 cannot be used.*
4. *Single-line telephone type DP or DTMF can be assigned subscriber by subscriber.*
5. *The RECV-M card has two DTMF receivers, and the ERCV-M card has two receivers. The RECV-M card can be expanded by mounting an ERCV-M on it.*
   Remember, however, that single-line telephones for the EX-824/1648 Common Module are connected to the Common Module receivers, and those for the EX-1648 Expansion Module are connected to the Expansion Module receivers, so the receivers can be used only for those single-line telephones which belong to the rack where the receivers are mounted. Select the number of DTMF-type single-line telephones and the number of receivers according to the following guidelines:
   (1) Number of DTMF single-line telephones and number of receivers to be accommodated in the EX-824/1648 Common Module Eight or less single-line telephones: Two receivers or more 16 or less single-line telephones: Four receivers or less More than 16 single-line telephones: Four receivers
   (2) Number of DTMF single-line telephones and number of receivers to be accommodated in the EX-1648 Expansion Module Same as above.

Table 3.3.1.1 General Planning Sheet (2/3)

	Abbreviated Card Name and Number of Cards	Location on Shelf	Remarks
Common Cards	(1) M/KCPU-M1. . . . . 1 (2) VTCU-M 1	Slot CCPU-M Slot VTCU-M	Originally installed in EX-824/1648 Common Module
Optional Printed Cards	(1) CONF-M . . . . . ( )	Slot CONF-M	One CONF-M card permits two conferences simultaneously. One CONF-M card can be installed in the EX-824/1648 Common Module and one in the EX-1648 Expansion Module.
	(2) ZPAG-M . . . . . ( )	Slot ZPAG-M on the EX-824/1648 CM line shelf	Only one ZPAG-M card can be installed per system. Three zone speakers can be controlled.
	(3) RNGA-M . . . . . ( )	Slot RNGA-M	One RNGA-M card can control ringers for eight CO/PBX lines. One RNGA-M card can be installed in the EX-824/1648 Common Module and one in the EX-1648 Expansion Module.
	(4) SCDR-M . . . . . ( )	Slot SCDR-M	Interface card to external printer when station call detail record is required.
	(5) VSCU-M . . . . . ( )	Slot VSCU-M	One VSCU-M card permits use of two channels of voice synthesizer output.
Power Supply Unit	(1) PSW-M . . . . . ( ) (2) PWS-MH . . . . . ( )	EX-824/1648CM	PWS-M is a UL-recognized component with a rated input of 90 to 135 VAC, 47 to 63 Hz. PWS-MH's rated input is 180 to 270 VAC, 47 to 63 Hz.
	(3) BATU-M . . . . . ( )	External installation	BATU-M is required for connection to the battery adaptor. UL-recognized BATU-M uses an external battery. Have a 24V, 10 to 48AH (20AH standard) battery-ready.
Other Unit	(1) PFXU-M . . . . . ( ) maximum is 2	External installation	Eight CO/PBX lines can be connected to eight single-line telephones during power failure with one PFXU-M.

Table 3.3.1.1 General Planning Sheet (3/3)

	Addreviated Package Name and Number of ROM	Location on Board (M/KCPU-M1)	Remarks
Software Package	(1) MPGA-M1 . . . . . ( )	P-ROM socket 6U, 6L	[Optional ROMs for MF system.] · Toll Restriction · Calculator · SLT COL Outgoing Access (floating) · Systemdata Print Out · Optimized Call Routing Access
	(2) KPGA-M1 . . . . . ( )	P-ROM socket 6U, 6L	[Optional ROMs for KF system] · Toll Restriction · Calculator · SLT COL Outgoing Access (direct) · Systemdata Print Out · Optimized Call Routing Access
	(3) PKGB-M1 . . . . . ( )	P-ROM socket 7U, 7L	[Common Optional ROMs for KF and MF system] · Voice Message Waiting · Absence Message · Private Line Auto Answer · Reminder · Night Automatic Answering · E&M tie Line.
	(4) Standard	Originally installed on M/KCPU-M1 card (P-ROM socket 1U, 1L to 5U, 5L)	Basic Feature

Notes: 1. The standard software ROM is absolutely necessary. (A system with the standard package only is the KF system).

2. The other packages can be used independently of one another.

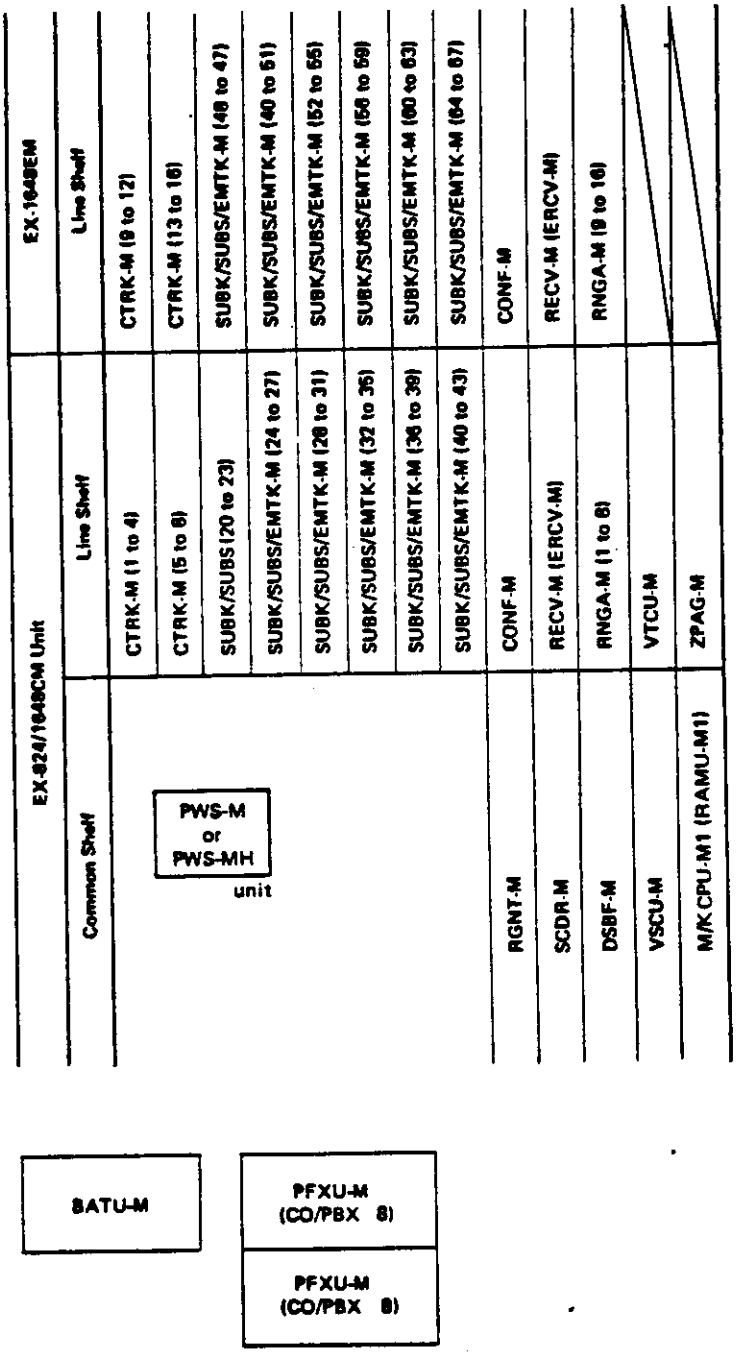


Figure 3.3.1.1 ICU Mounting Diagram

3.3.1.2 Key Telephone Optional Feature Planning

Plan key telephone optional features by referring to the flow chart in Figure 3.3.1.2 and Table 3.3.1.2.

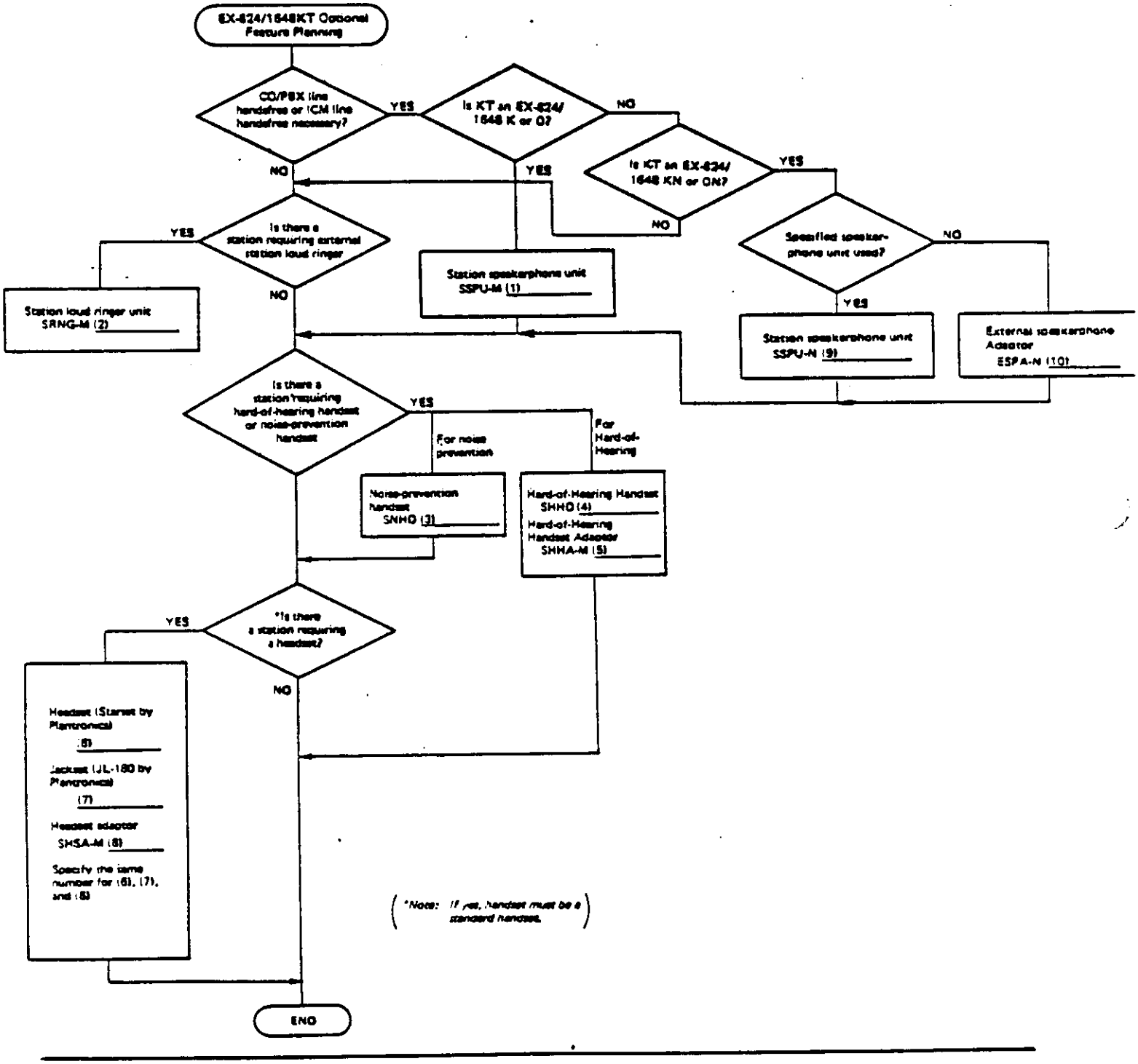


Figure 3.3.1.2.(1) Optional Feature Planning Sheet

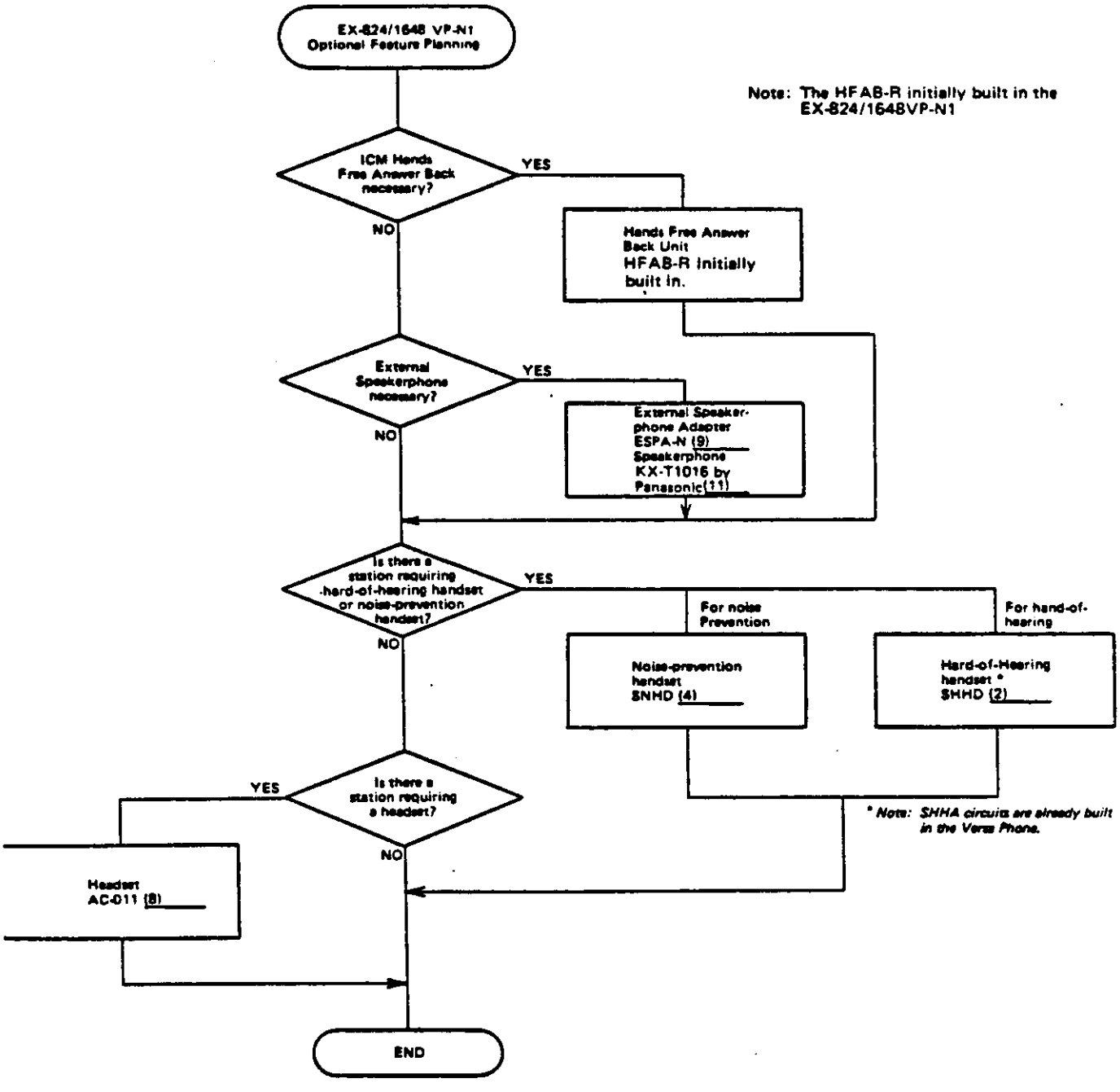


Figure 3.3.1.2.(2) Optional Feature Planning Sheet (EX 824/1648VP-N1)

Table 3.3.1.2 (3) EX-824/1648 K, D, KN, DN, KN1, DN1, VP-N1 Optional Equipments

Optional Equipment		Note	K	D	KN	DN	KN1	DN1	VP-N1
Headset	AC-011	1	X	X	X	X	X	X	X
Headset Adaptor	SHSA-M	2	X	X	X	X	X	X	X
External Speakerphone Adaptor	ESPA-N				X	X	X	X	X
Station Speakerphone Unit	SSPU-M		X	X					
Station Speakerphone Unit	SSPU-N				X	X	X	X	
Station Speakerphone Unit	SSPU-NS				X	X	X	X	
Station Speakerphone Unit	SSPU-RN1	3	X	X	X	X	X	X	
Hands Free Answer Back Unit	HFAB-R	4	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required
Noise Prevention Handset	SNHD		X	X	X	X	X	X	X
Hard-of-hearing Handset	SHHD		X	X	X	X	X	X	X
Hard-of-hearing Handset Adaptor	SHHA-M	5	X	X	X	X	Not Required	Not Required	Not Required
Station Loud Ringer Unit	SRNG-M		X	X	X	X	X	X	

Note:
1. *Headset AC-011 does not detect hook-switch signals, so hooking with the handset is necessary.*
2. *The SHSA-M is an adaptor for starset of plantronics.*
3. *When mounting an SSPU-RN1 on a K or D key telephone, an SMPA-B (SSRU-RN1 Mount Plate Assembly – B) is required.*
4. *HFAB (Hands Free Answer Back circuits) are built in the K, D, KN, and DN. The HFAB-R circuits are initially built in the VP-N1.*
5. *SHHA circuits are built in the KN1, DN1, and VP-N1.*

Table 3.3.1.2.(4) Optional Feature Planning Sheet

Optional Unit		Total
Station loud ringer unit	SRNG-M	(1) =
Hard-of-hearing handset	SHHD	(2) =
Hard-of-hearing handset adaptor	SHHA-M	(3) =
Noise-prevention handset	SNHD	(4) =
Station speakerphone unit	SSPU-M	(5) =
Station speakerphone unit	SSPU-N	(6) =
Hands free answerback unit	HFAB-R	Initially built in.
Headset	AC-011	(8) =
External speakerphone adaptor	ESPA-N	(9) =
Headset adaptar	SHSA-M	(10) =

Other Manufacturers' Products		Total
Speakerphone	(KX-T1016 by Panasonic)	(11) =
Headset	(Starset by Plantronics)	(12) =
Jackset	(JS-180 by Plantronics)	(13) =

3.3.2 Programming Using Programming Console

Various settings are necessary for the EX-824/1648 system to make use of a variety of features, most of which can be made available by following the procedures described in this section that involve the use of the programming console (DSS). The feature planning procedures and planning sheets shown in this section, as well as the explanations in Section 4, should be referred to in preparing your system plan.

3.2.1 System Constant

System constant planning table is shown below. The Sec. 4.3.3 shall be referred to for the details.

Table 3.3.2.1.A System Constant Planning

Item No.	Item (Contents)	Planning Sheet	Reference
1	Hold Timeout	Table 3.3.2.1.B	4.3.3.1
2	Sender Timeout	Table 3.3.2.1.B	4.3.3.2
3	Page Timeout	Table 3.3.2.1.B	4.3.3.3
4	Hold Recall Timeout	Table 3.3.2.1.B	4.3.3.4
5	Camp on Timeout	Table 3.3.2.1.B	4.3.3.5
6	Callback Timeout	Table 3.3.2.1.B	4.3.3.6
7	Automatic Answer Time	Table 3.3.2.1.B	4.3.3.7
8	Attendant Intercept	Table 3.3.2.1.B	4.3.3.8
9	Master Group Hunt Timeout	Table 3.3.2.1.B	4.3.3.9
10	PBX Outgoing Specification Code	Table 3.3.2.1.C	4.3.3.10
11	Overflow Transfer Minimum	Table 3.3.2.1.C	4.3.3.11
12	Overflow Transfer Extension	Table 3.3.2.1.C	4.3.3.12
13	ICM Call Mode	Table 3.3.2.1.D	4.3.3.13
14	External Paging Speakers	Table 3.3.2.1.D	4.3.3.14
15	System Prefix	Table 3.3.2.1.D	4.3.3.15
16	.Automatic Pause Length	Table 3.3.2.1.D	4.3.3.16
17	Timed Trunk Queuing Interval	Table 3.3.2.1.D	4.3.3.17
18	Attendant Key Assignment	Table 3.3.2.1.E	4.3.3.18
19	Attendant EXT Assignment	Table 3.3.2.1.D	4.3.3.19

Attendant Key Assignment Planning Sheet should be duplicated for usage at user's end.

Table 3.3.2.1.B System Constants Planning Sheet

Item	Contents	Condition	Set Value	Boundary	Default	Reference
1	Hold Timeout	—	□□□	1 to 255 seconds 0 : No function	30 seconds	4.3.3.1
2	Sender Timeout	—	□□□	10 to 255 seconds 0 : No function	20 seconds	4.3.3.2
3	Page Timeout	—	□□□	1 to 255 seconds 0 : No function	10 seconds	4.3.3.3
4	Hold Recall Timeout	—	□□□	1 to 255 seconds 0 : No function	20 secons	4.3.3.4
5	Camp on Timeout	—	□□□	1 to 255 seconds 0 : No function	30 secons	4.3.3.5
6	Callback Timeout	—	□□□	10 to 255 seconds 0 : No. function	20 secons	4.3.3.6
7	Auto. Answer Time	—	□□□	1 to 255 seconds 0 to No function	12 seconds	4.3.3.7
8	ATT Intercept Time	—	□□□	10 to 255 seconds 0 : No function	20 seconds	4.3.3.8
9	Master Group Hunt Timeout	—	□□□	10 to 255 seconds 0 : No function	20 seconds	4.3.3.9

Table 3.3.2.1.C System Constants Planning Sheet

Item	Contents	Condition	Set Value	Boundary	Default	Reference
10	PBX Outgoing Specific Code	01	□□□□	Dial: 4 digits or less	No function	4.3.3.10
		02	□□□□			
		03	□□□□			
		04	□□□□			
		05	□□□□			
		06	□□□□			
		07	□□□□			
		08	□□□□			
		09	□□□□			
		10	□□□□			
		11	□□□□			
		12	□□□□			
11	Overflow Transfer Minimum	ATT 1	□	0: No function 3 to 9 lines	0: No function	4.3.3.11
		ATT 2	□			
12	Overflow Transfer Extension	ATT 1	□□ EXT Key (EXT NO.)	Specify 1 EXT	No function	4.3.3.12
		ATT 2	□□ EXT Key (EXT NO.)			

Table 3.3.2.1.D System Constants Planning Sheet

Item	Contents	Condition	Set Value	Boundary	Default	Reference
13	ICM Call Mode	Tenant A	☐	0: Voice 1: Tone	0: Voice	4.3.3.13
		Tenant B	☐			
14	External Paging Speakers	Tenant A	☐	0: No zone speaker 1: 1 zone speaker 2: 2 zone speaker 3: 3 zone speaker	0: No zone speaker	4.3.3.14
15	System Prefix	–	☐	0: Not assigned 1: Assigned	0: Not assigned	4.3.3.15
16	Automatic Pause Length	–	☐☐	1 to 10 seconds	5 seconds	4.3.3.16
17	Timed Trunk Queuing Interval	–	☐☐	1 to 20 minutes	10 minutes	4.3.3.17
18	Attendant Key Assignment	Refer to 3.3.2.1.E				
19	Attendant EXT Assignment	ATT 1	☐☐ EXT Key (EXT No.)	Specify 1 EXT	ATT1: EXT20 ATT2: EXT21	4.3.3.19
		ATT 2	☐☐ EXT Key (EXT No.)			

Table 3.3.2.1.E Attendant Key Assignment Planning Sheet

Attendant 1

	Attendant Key No.																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
DSS (3)																								
HNT(5)																								
SPD (6)																								

	Attendant Key No.																							
	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
DSS (3)																								
HNT(5)																								
SPD (6)																								

Attendant 2

	Attendant Key No.																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
DSS (3)																								
HNT(5)																								
SPD (6)																								

	Attendant Key No.																							
	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
DSS (3)																								
HNT(5)																								
SPD (6)																								

( ): Key code number used for setting.

Notes 1. Attendant Key No. 1 to 48 are positioned on the normal-side surface of the DSS, while Attendant Key No. 49 to 96 on its reverse-side surface.

2. In the default settings, the Key No. 1 to 48 are assigned to DSS 1 to 48, while the Key No. 49 to 96 are assigned to the SPD key Speed Dial No. 0 to 47.

3. If you assign DSS keys, Station No. should also be designated. If you assign HNT keys, Master Group No. 1 to 4 should also be designated. If you assign SPD keys, Speed Dial No. 0 to 99 should be set.

3.3.2.2 Line Specification Planning

The items shown in Table 3.3.2.2.A can be preset. The class of setting for these items is the line specification class. For details, refer to Section 4.3.4.

Table 3.3.2.2.A. Line Specification Planning

Item No.	Contents	Planning Sheet	Reference
1	Line class	Table 3.3.2.2.B	4.3.4.1
2	Tenant group	Table 3.3.2.2.C	4.3.4.2
3	Universal night assignment	Table 3.3.2.2.C	4.3.4.3
4	Automatic night assignment	Table 3.3.2.2.D	4.3.4.4
5	Outgoing level	Table 3.3.2.2.C	4.3.4.5
6	Toll restriction group	Table 3.3.2.2.C	4.3.4.6
7	Flash signal interval	Table 3.3.2.2.C	4.3.4.7
8	Prefix dial	Table 3.3.2.2.C	4.3.4.8
9	Disconnect signal	Table 3.3.2.2.C	4.3.4.9
10	COL attendant intercept	Table 3.3.2.2.C	4.3.4.10
11	Individual incoming extension	Table 3.3.2.2.E	4.3.4.11
12	CO outgoing group	Table 3.3.2.2.C	4.3.4.12
13	E&M Wink/Delay DT Flag	Table 3.3.2.2.C	4.3.4.13

Table 3.3.2.2.B Line Class Planning Sheet

em	Contents	Condition	Set Value	Boundary	Default
1	Line Class	CO1	☐☐	0: DDD MF 1: FX MF 2: PBX MF 3: E&M MF 4: WATS MF (outward) 5: WATS (inward) 8: DDD DP 9: FX DP 10: PBX DP 11: E&M SF 12: WATS DP (outward) 16: ICM (ordinary) 17: ICM (ATT Dedicated) 18: ICM (Hot Line)	CO 0: DDD (MF) ICM 16: ICM (Ordinary)
		CO2	☐☐		
		CO3	☐☐		
		CO4	☐☐		
		CO5	☐☐		
		CO6	☐☐		
		CO7	☐☐		
		CO8	☐☐		
		CO9	☐☐		
		CO10	☐☐		
		CO11	☐☐		
		CO12	☐☐		
		CO13	☐☐		
		CO14	☐☐		
		CO15	☐☐		
		CO16	☐☐		
		ICM1	☐☐		
		ICM2	☐☐		
		ICM3	☐☐		
		ICM4	☐☐		
		ICM5	☐☐		
		ICM6	☐☐		
		ICM7	☐☐		
		ICM8	☐☐		

Table 3.3.2.2.C Line

Item / Contents / Condition	2	3	4	5	6
	Tenant Group	Universal Night Assignment	Automatic Night Assignment	Outgoing Level	Toll Restrict Grou
CO1			Refer to 3.3.2.2.D		
CO2					
CO3					
CO4					
CO5					
CO6					
CO7					
CO8					
CO9					
CO10					
CO11					
CO12					
CO13					
CO14					
CO15					
CO16					
ICM1		—		—	—
ICM2		—		—	—
ICM3		—		—	—
ICM4		—		—	—
ICM5		—		—	—
ICM6		—		—	—
ICM7		—		—	—
ICM8		—		—	—
Boundary	0: Tenant A 1: Tenant B 2: Tenant A&B (Only ICM)	0: Not Assigned 1: Assigned	Each EXT	0 to 4 Level	0: No Toll Restrict 1 to 4 Grou
Default	0: Tenant A	1: Assigned	EXT20 Assigned	0 Level	No Toll Restrictior

2.2.2 Line Specification Planning Sheet

	6	7	8	9	10	11	12	13
	Toll Restriction Group	Flash Signal Interval	Prefix Dial	Disconnect Signal	COL Attendant Intercept	Individual Incoming Extension	CO Outgoing Group	E&M Wink/Delay DT Flag
						Refer to 3.3.2.2.E		
	—	—	—	—	—		—	—
	—	—	—	—	—		—	—
	—	—	—	—	—		—	—
	—	—	—	—	—		—	—
	—	—	—	—	—		—	—
	—	—	—	—	—		—	—
	—	—	—	—	—		—	—
	—	—	—	—	—		—	—
	0: No Toll Restriction 1 to 4 Group	1 to 20 • 100 ms	0: Not Assigned 1: Assigned	0: No Reception 1: Reception	0: Not Assigned 1: Assigned	Each EXT —	0: Not Assigned 1 to 7 Group	0: Not Assigned 1: Assigned
	No Toll Restriction	700 ms	1: Assigned	No Reception	0: Not Assigned	EXT 20 Assigned	CO Group 1	0: Not Assigned

Table 3.3.2.2.D Automatic Ni

Extension	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	3
CO1																			
CO2																			
CO3																			
CO4																			
CO5																			
CO6																			
CO7																			
CO8																			
CO9																			
CO10																			
CO11																			
CO12																			
CO13																			
CO14																			
CO15																			
CO16																			

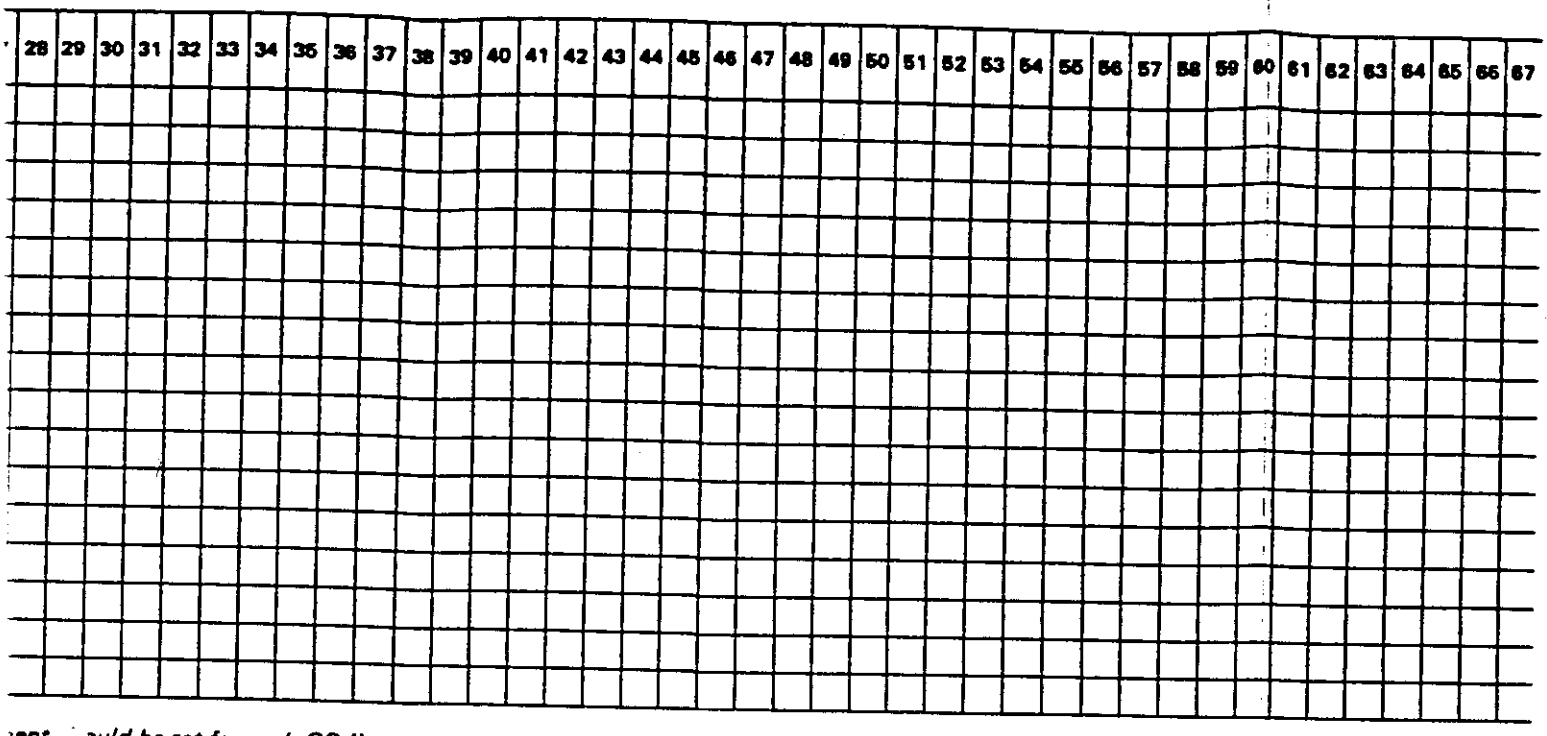
Note 1. Extension for Automatic Night Assignment should be set for each CO line.
2. In the default settings, extension 20 is assigned.

Table 3.3.2.2.E Individual Incon

Extension	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	3
CO1																			
CO2																			
CO3																			
CO4																			
CO5																			
CO6																			
CO7																			
CO8																			
CO9																			
CO10																			
CO11																			
CO12																			
CO13																			
CO14																			
CO15																			
CO16																			

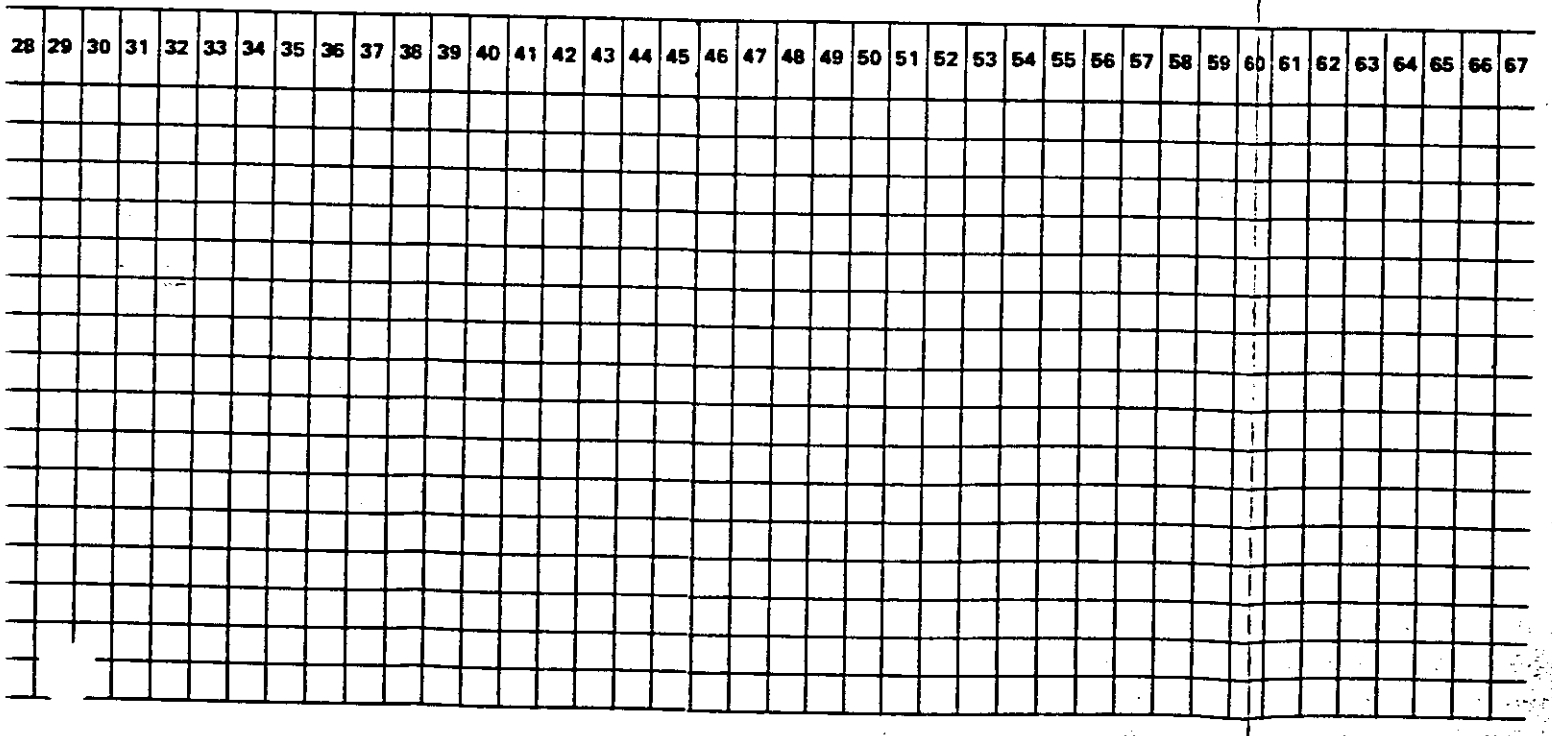
Note 1. Individual Incoming Extension should be set for each CO line.
2. In the default setting, extension 20 is assigned.

3.3.2.2.D Automatic Night Assignment Planning Sheet (Item No. 4)



...ould be set for each CO line.

able 3.3.2.2.E Individual Incoming Extensions Planning Sheet (Item No. 11)



set for each CO line.
...gned.

3.3.2.3 Group Data Planning

The group data shown in Table 3.3.2.3.A can be preset.
For details, refer to Section 4.3.5.

Table 3.3.2.3.A Group Data Planning

Item No.	Contents	Planning Sheet	Reference
1	ICM master hunt group	Table 3.3.2.3.B	4.3.5.1
2	ICM group call	Table 3.3.2.3.C	4.3.5.2
3	Pickup group	Table 3.3.2.3.D	4.3.5.3

Table 3.3.2.3.B ICM Master G

Master Group	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	2
1																					
2																					
3																					
4																					

Notes 1. Set one ICM Master Group EXT with priority.
2. Default is no function.

T

Call Group	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	4
1																					
2																					
3																					
4																					

Notes 1. Set ICM Group Call Group EXT.
2. Default is all EXTs assigned.

Pickup Group	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	
1																					
2																					
3																					
4																					

Notes 1. Set Pickup Group EXT.
2. Default is all EXTs assigned.

Table 3.3.2.3.B ICM Master Group Hunt Planning (Item No. 1)

Priority

9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48

rity.

Table 3.3.2.3.C ICM Group Call Planning (Item No. 2)

Extension

28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67

Table 3.3.2.3.D Pickup Group Planning (Item No. 3)

Extension

28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67

3.3.2.4 SCDR Data Programming

The items shown in Table 3.3.2.4.A can be preset. For details, refer to Section 4.3.6. Use the planning sheet shown in Table 3.3.2.4.B in presetting any of these items.

Table 3.3.2.4.A SCDR Data Programming

Item 1	Print out CO
Item 2	Print out extensions
Item 3	Print out minimum time
Item 4	Print out incoming calls
Item 5	Print out calls with account code
Item 6	Print out toll calls

Table 3.3.2.4.B SCDR Data Planning Sheet

Item / Data Type	Set Data	Default	Circle Note
(1) Registered trunk only	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 (CO/PBX No.)	All CO/PBX lines printed out	Circle the CO/PBX trunk numbers for which data for outgoing calls are to be printed.
(2) Registered extension only	20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 (EXT. No.)	All extensions printed out	Circle extension numbers for which data for outgoing calls are to be printed.
(3) Duration screening	Print data when duration nn ≥ □□ (min.) (0 to 30 minutes)	0: No restrictions	
(4) Incoming call suppression	Print data for outgoing and incoming calls Print data for outgoing calls only 0/1	0: Output	
(5) Print out calls with account code	o No restrictions → 0 o Outgoing calls with account code input and all incoming calls → 1 o Incoming calls with account code input and all outgoing calls → 2 o Only calls with account code → 3	0: No restrictions	If "no incoming call output" is preset in item (4), this item's incoming calls will not be output.
(6) Toll call only	Print data for all outgoing calls code Print data for toll calls only 0/1	0: Output	

3.3.2.5 Toll Restriction Planning

There are many items of toll restriction to be preset. Use the table below as a check list.

Table 3.3.2.5.A Toll Restriction Planning Check Sheet

Item No.	Contents	Planning Sheet	Reference
1	Toll Plan No.	Table 3.3.2.5.B	4.3.7.1
2	Toll Plan Table	Table 3.3.2.5.C	4.3.7.2
3	Dial Table	Table 3.3.2.5.D	4.3.7.3
4	E&M Area Code Table	Table 3.3.2.5.E	4.3.7.4
5	E&M Office Group Table	Table 3.3.2.5.F	4.3.7.5
6	Area Code Table	Table 3.3.2.5.G	4.3.7.6
7	Office Code Table	Table 3.3.2.5.H	4.3.7.7
8	Override Office Code	Table 3.3.2.5.I	4.3.7.8
9	Time Schedule	Table 3.3.2.5.J	4.3.7.9
10	Route Table	Table 3.3.2.5.K	4.3.7.10
11	Delete Index Table	Table 3.3.2.5.L	4.3.7.11
12	Delete Data Table	Table 3.3.2.5.L	4.3.7.12
13	Additional Index Table	Table 3.3.2.5.M	4.3.7.13
14	Additional Data Area Table	Table 3.3.2.5.N	4.3.7.14
15	Additional Data Office Table	Table 3.3.2.5.O	4.3.7.15
16	Additional Table	Table 3.3.2.5.P	4.3.7.16
17	Specific Code Table	Table 3.3.2.5.Q	4.3.7.17
18	Equal Access Code Table	Table 3.3.2.5.R	4.3.7.18
19	Equal Access Pin Code Table	Table 3.3.2.5.S	4.3.7.19
20	Equal Access Pin Code Timing	Table 3.3.2.5.T	4.3.7.20
21	Equal Access Prefix Information	Table 3.3.2.5.U	4.3.7.21
22	Equal Access Toll Group	Table 3.3.2.5.V	4.3.7.22

E&M Office Group Table, Additional Data Area Table, and Additional Data Office Table should be duplicated for usage at user's end.

Table 3.3.2.5.B Toll Plan No Planning Sheet (Item No. 1)

CO Toll Restriction Group \ EXT Toll Restriction Group	1	2	3	4
1				
2				
3				
4				
5				
6				
7				
8				

Notes 1. Set Restriction Plan Number.
2. Default value 0 is no function.
3. Toll Plan Nos. are 0 to 15.

Table 3.3.2.5.C Toll Plan Table Planning Sheet (Item No. 2)

		Dial Condition	Mode	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
				Dial Table No. (0 to 50)					
Plan No.	1	PBX, E & M	Deny						
			Allow						
	2	Operator Call	Deny	–	–	–	–	–	–
			Allow						
	3	Area Code	Deny						
			Allow						
	4	Office Code	Deny						
			Allow						
	5	Area Code (Prefix)	Deny						
			Allow						
	6	Office Code (Prefix)	Deny						
			Allow						
Plan No.	1	PBX, E & M	Deny						
			Allow						
	2	Operator Call	Deny	–	–	–	–	–	–
			Allow						
	3	Area Code	Deny						
			Allow						
	4	Office Code	Deny						
			Allow						
	5	Area Code (Prefix)	Deny						
			Allow						
	6	Office Code (Prefix)	Deny						
			Allow						
Plan No.	1	PBX, E & M	Deny						
			Allow						
	2	Operator Call	Deny	–	–	–	–	–	–
			Allow						
	3	Area Code	Deny						
			Allow						
	4	Office Code	Deny						
			Allow						
	5	Area Code (Prefix)	Deny						
			Allow						
	6	Office Code (Prefix)	Deny						
			Allow						
Plan No.	1	PBX, E & M	Deny						
			Allow						
	2	Operator Call	Deny	–	–	–	–	–	–
			Allow						
	3	Area Code	Deny						
			Allow						
	4	Office Code	Deny						
			Allow						
	5	Area Code (Prefix)	Deny						
			Allow						
	6	Office Code (Prefix)	Deny						
			Allow						

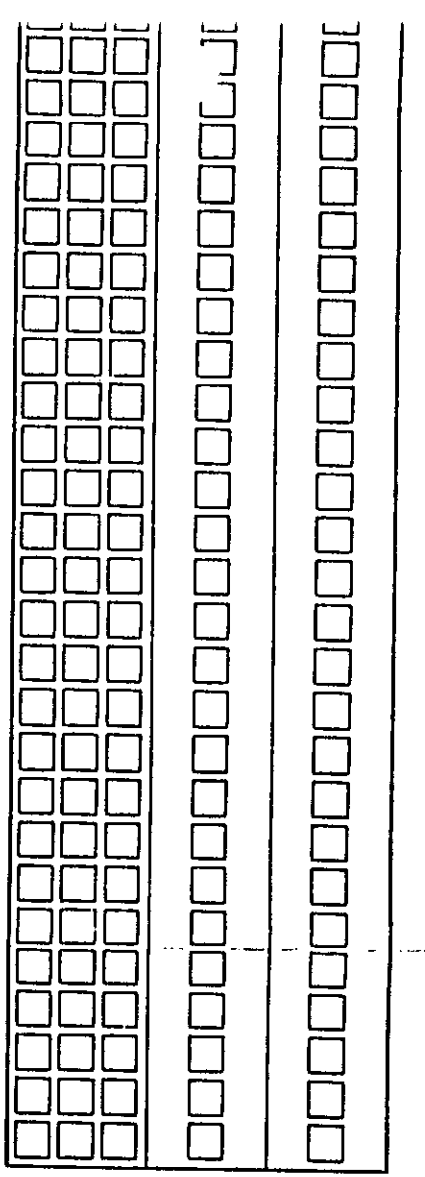
Table 3.3.2.5.D Dial Table Setting (Item No. 3)

Table No.	Table	Dial				First Dial Table No. (1 to 50)	Second Dial Table No. (1 to 50)
		Digit 1	Digit 2	Digit 3	Digit 4		
Table No.	1						
	2						
	3						
	4						
	5						
	6						
	7						
	8						
	9						
	10						
Table No.	1						
	2						
	3						
	4						
	5						
	6						
	7						
	8						
	9						
	10						
Table No.	1						
	2						
	3						
	4						
	5						
	6						
	7						
	8						
	9						
	10						
Table No.	1						
	2						
	3						
	4						
	5						
	6						
	7						
	8						
	9						
	10						

Notes:
1. *Table numbers are 1 to 10.*
2. *If Dial table numbers are preset, restriction will be enforced according to the specifications in the tables involved.*

Table 3.3.2.5.E E&M Area Co' Table Planning Sheet (Item No. 4)

Area Code P1 P2 P3	Office Group No.	
	Tenant A	Tenant B



Notes 1. Office Group Nos. should be set in accordance with the setting of the Tenant A/B and Area Code.

2. Office Group Nos. are 1 to 4.

3. The default value is 0, and it has no function.

4. Area Code P1 P2 P3 must satisfy the condition $2 \leqq P1 \leqq 9$, $00 \leqq P2\ P3 \leqq 19$.

Table 3.3.2.5.F E&M Office Group Table Planning Sheet (Item No. 5)

Office Group No. ☐

Office Code			Route Table No.	
m	m	m	Tenant A	Tenant B

Office Group No. ☐

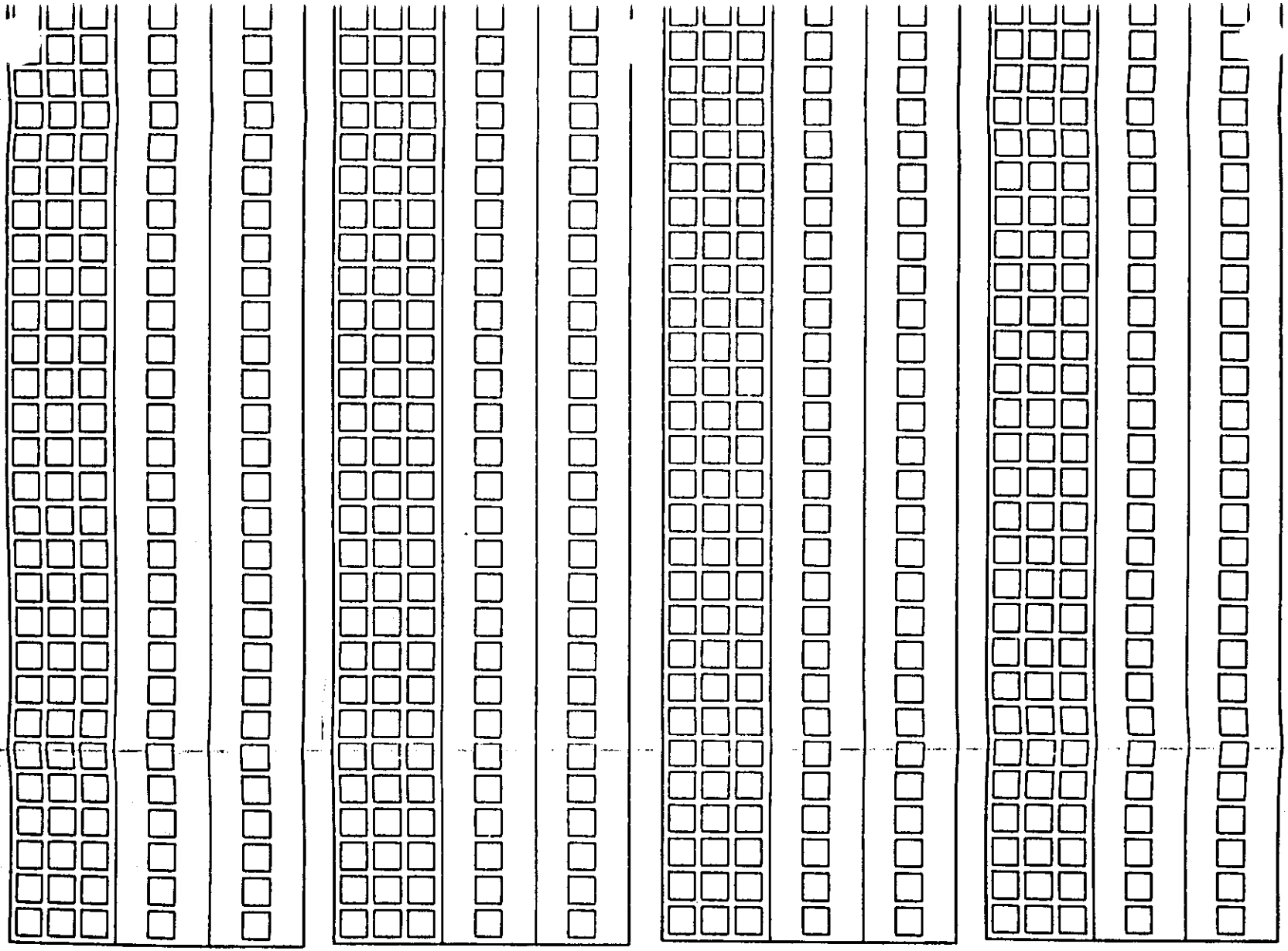
Office Code			Route Table No.	
m	m	m	Tenant A	Tenant B

Office Group No. ☐

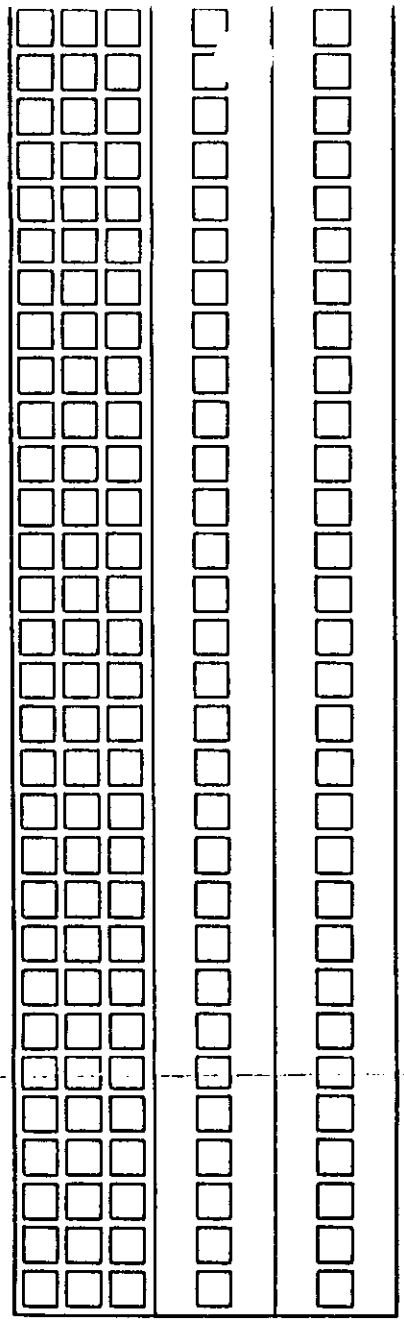
Office Code			Route Table No.	
m	m	m	Tenant A	Tenant B

Office Group No. ☐

Office Code			Route Table No.	
m	m	m	Tenant A	Tenant B



Notes 1. *Office Group Nos. are 1 to 4.*
2. *Route Table Nos. should be set in accordance with the setting of the Tenant A/B, Office Group Nos., and Office Codes.*
3. *Route Table Nos. are 1 to 8.*
4. *The default value is 0, and it has no function.*
5. *Office Code mmm must satisfy* $200 \leqq mmm \leqq 999$.



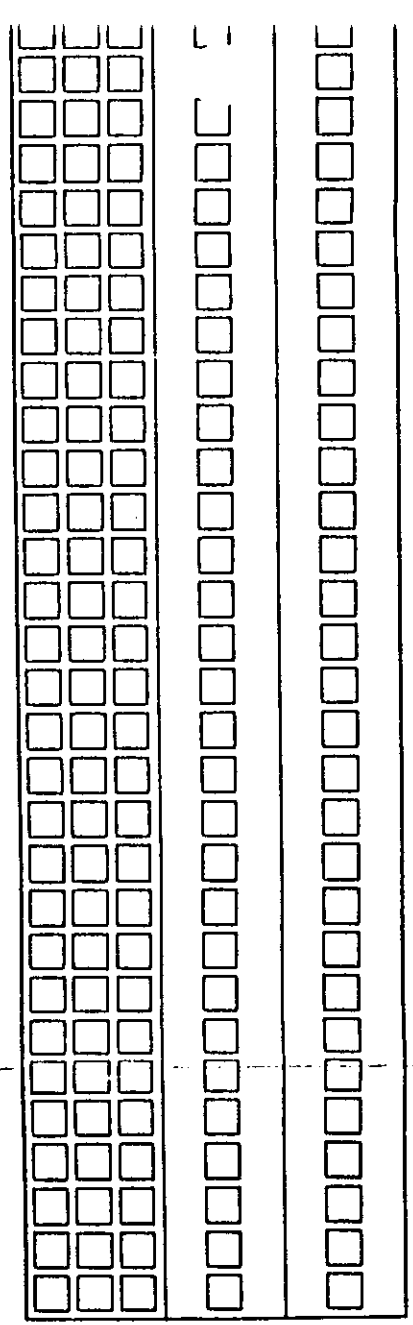
Notes 1. Route Table Nos. should be set in accordance with the setting of the Tenant A/B, and Area Codes.
2. Route Table Nos. are 1 to 8.
3. The default value is 0, and it has no function.
4. Area Code P1 P2 P3 must satisfy $2 \leq P1 \leq 9$, $00 \leq P2\ P3 \leq 19$.

Table 3.3.2.5.G Area Code Table Planning Sheet (Item No. 6)

Area Code P1 P2 P3	Route Table No.	
	Tenant A	Tenant B

Table 3.3.2.5.H Office Code Table Planning Sheet (Item No. 7)

Office Code m m m	Route Table No.	
	Tenant A	Tenant B



Notes 1. Route Table Nos. should be set in accordance with the setting of the Tenant A/B and Office Codes.
2. Route Table Nos. are 1 to 8.
3. The default value is 0, and it has no function.
4. Office Code mmm must satisfy 200≦mmm≦999.

Table 3.3.2.5.1 Override Office Code Planning Sheet (Item No. 8)

Condition		Set Value
Office Group No. 1	Tenant A	☐☐☐
	Tenant B	☐☐☐
Office Group No. 2	Tenant A	☐☐☐
	Tenant B	☐☐☐
Office Group No. 3	Tenant A	☐☐☐
	Tenant B	☐☐☐
Office Group No. 4	Tenant A	☐☐☐
	Tenant B	☐☐☐

Notes 1. Override Office Code should be set in accordance with the setting of the Tenant A/B and Office Group Nos.
2. Override Office Codes are the dials of the Office Codes of 200 to 999.
3. The default is no function.

Table 3.3.2.5.J Time Schedule Planning Sheet (Item 9)

Time Zone Hour	Condition			
	1 Week Day	2 Saturday	3 Sunday	4 Holiday
00 0:00 to 0:59				
01 1:00 to 1:59				
02 2.00 to 2:59				
03 3:00 to 3:59				
04 4:00 to 4:59				
05 5:00 to 5:59				
06 6.00 to 6:59				
07 7:00 to 7:59				
08 8:00 to 8:59				
09 9:00 to 9:59				
10 10:00 to 10:59				
11 11:00 to 11:59				
12 12:00 to 12:59				
13 13:00 to 13:59				
14 14:00 to 14:59				
15 15:00 to 15:59				
16 16:00 to 16:59				
17 17:00 to 17:59				
18 18:00 to 18:59				
19 19:00 to 19:59				
20 20:00 to 20:59				
21 21:00 to 21:59				
22 22:00 to 22:59				
23 23:00 to 23:59				

Notes: 1. Set Time Zone 0 to 2 according to conditions 1 to 4 and Time Zone Hour 00 to 24.
2. Default 0 : 8:00 to 16:59
1 : 17:00 to 22:59
2 : 23:00 to 7:59

Table 3.3.2.5.K Route Table Planning Sheet (Item No. 10)

Time Zone 0.

	Route Table No. 1				Route Table No. 2				Route Table No. 3				Route Table No. 4				Route Table No. 5				Route Table No. 6				Route Table No. 7				Route Table No. 8			
Advance Step	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Tenant A																																
Tenant B																																

Time Zone 1.

	Route Table No. 1				Route Table No. 2				Route Table No. 3				Route Table No. 4				Route Table No. 5				Route Table No. 6				Route Table No. 7				Route Table No. 8			
Advance Step	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Tenant A																																
Tenant B																																

Time Zone 2.

	Route Table	Route Table	Route Table	Route Table	Route Table	Route Table	Route Table	Route Table

Time Zone 1.

	Route Table No. 1				Route Table No. 2				Route Table No. 3				Route Table No. 4				Route Table No. 5				Route Table No. 6				Route Table No. 7				Route Table No. 8			
Advance Step	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Tenant A																																
Tenant B																																

Time Zone 2.

	Route Table No. 1				Route Table No. 2				Route Table No. 3				Route Table No. 4				Route Table No. 5				Route Table No. 6				Route Table No. 7				Route Table No. 8			
Advance Step	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Tenant A																																
Tenant B																																

Notes 1. CO Outgoing Group Nos. should be set in accordance with the setting of the Tenant A/B, Time Zone, Route Table Nos. and Advance Steps.
2. CO Outgoing Group Nos. are 0 to 7.
3. The default value is 0, and it has no function.

Table 3.3.2.5.L Delete Index Table and Delete Data Table Planning Sheet (Items No. 11 and 12)

Delete Index Table

CO Outgoing Group No.	Delete Data Table No.	
	Tenant A	Tenant B
1		
2		
3		
4		
5		
6		
7		

Note 1. Delete Data Table No. shall be set in accordance with the setting of the Tenant A/B, CO Outgoing Group No.
2. Delete Data Table No. are 1 to 4.
3. The default value is 0, and it has no function.

Delete Data Table

Delete Data Table No.	Area Code (P1, P2, P3)					
	Tenant A			Tenant B		
	P1	P2	P3	P1	P2	P3
1						
2						
3						
4						

Notes 1. Area Code should be set in accordance with the setting of the Tenant A/B and Delete Data Table No.
2. Area Code $P_1P_2P_3$ must society $2 \leqq P_1 \leqq 9$, $00 \leqq P_2P_3 \leqq 19$.
3. In the default settings, no function is set.

Table 3.3.2.5.M Additional Index Table Planning Sheet (Item No. 13)

CO Outgoing Group No.	Additional Data Area/Office Table No.	
	Tenant A	Tenant B
1		
2		
3		
4		
5		
6		
7		

Notes 1. Additional Data Area/Office Table Nos. should be set in accordance with setting of the Tenant A/B, and CO Outgoing Group.

2. Additional Data Area/Office Table Nos. are 1 to 5.

3. The default is 0, and it has no function.

Table 3.3.2.5.N Additional Data Area Table Planning Sheet (Item No. 14)

Additional Data Area Table No. ☐

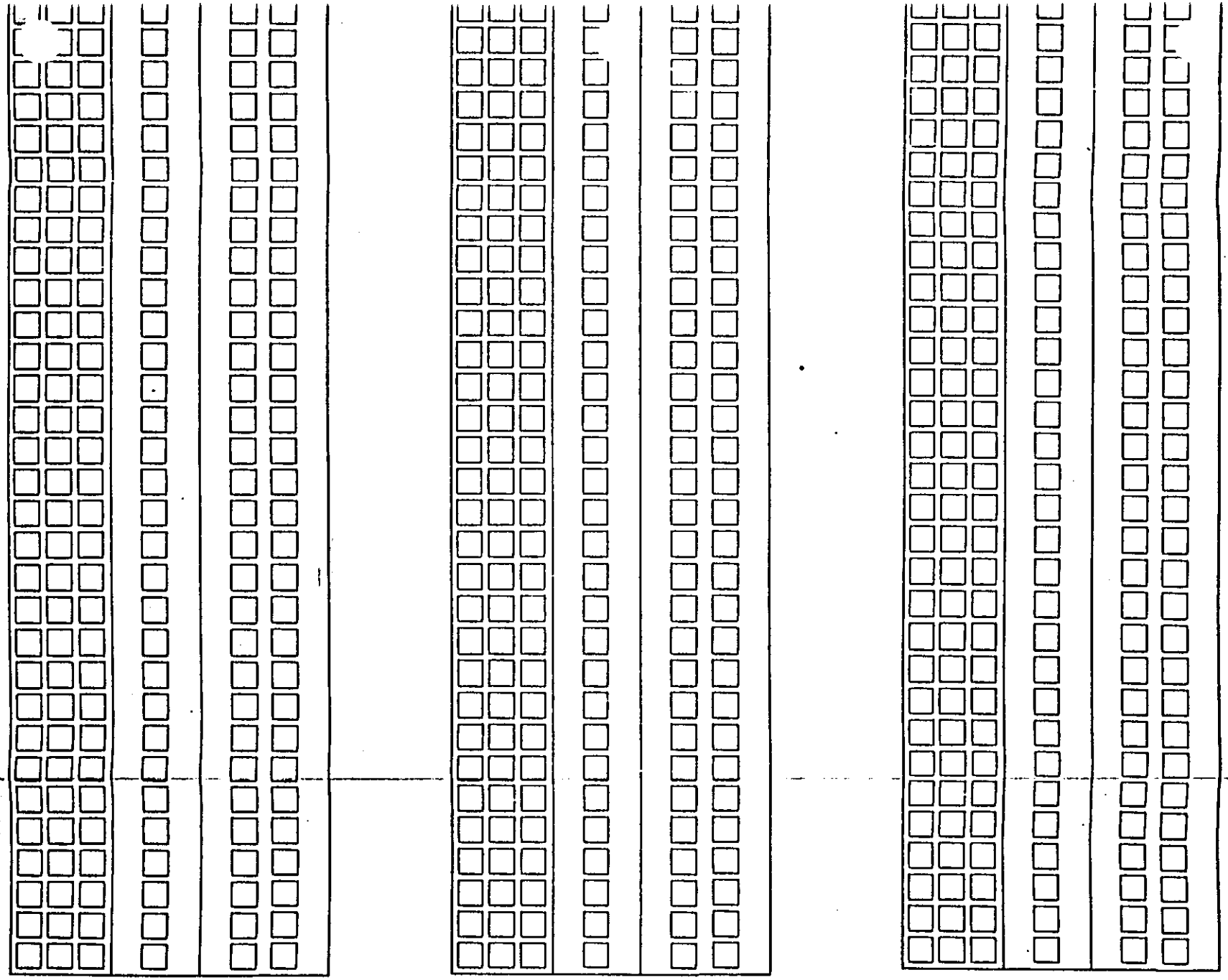
Area Code P1 P2 P3	Prefix	Additional Table No.

Additional Data Area Table No. ☐

Area Code P1 P2 P3	Prefix	Additional Table No.

Additional Data Area Table No. ☐

Area Code P1 P2 P3	Prefix	Additional Table No.



Notes 1. Additional Data Area Table Nos. are 1 to 5.
2. Prefix and Additional Table Nos. should be set in accordance with the setting of the Additional Data Area Table Nos. and Area Code.
3. Prefix should be set at 1, if needed.
4 Additional Table Nos. are 1 to 10.
5. The default value is 0, and it has no function.
6. Area Code P1 P2 P3 must satisfy $2 \leq P1 \leq 9$, $00 \leq P2\ P3 \leq 19$.

Table 3.3.2.5.0 Additional Data C e Table Planning Sheet (Item No. 15)

Additional Data Office Table No. ☐

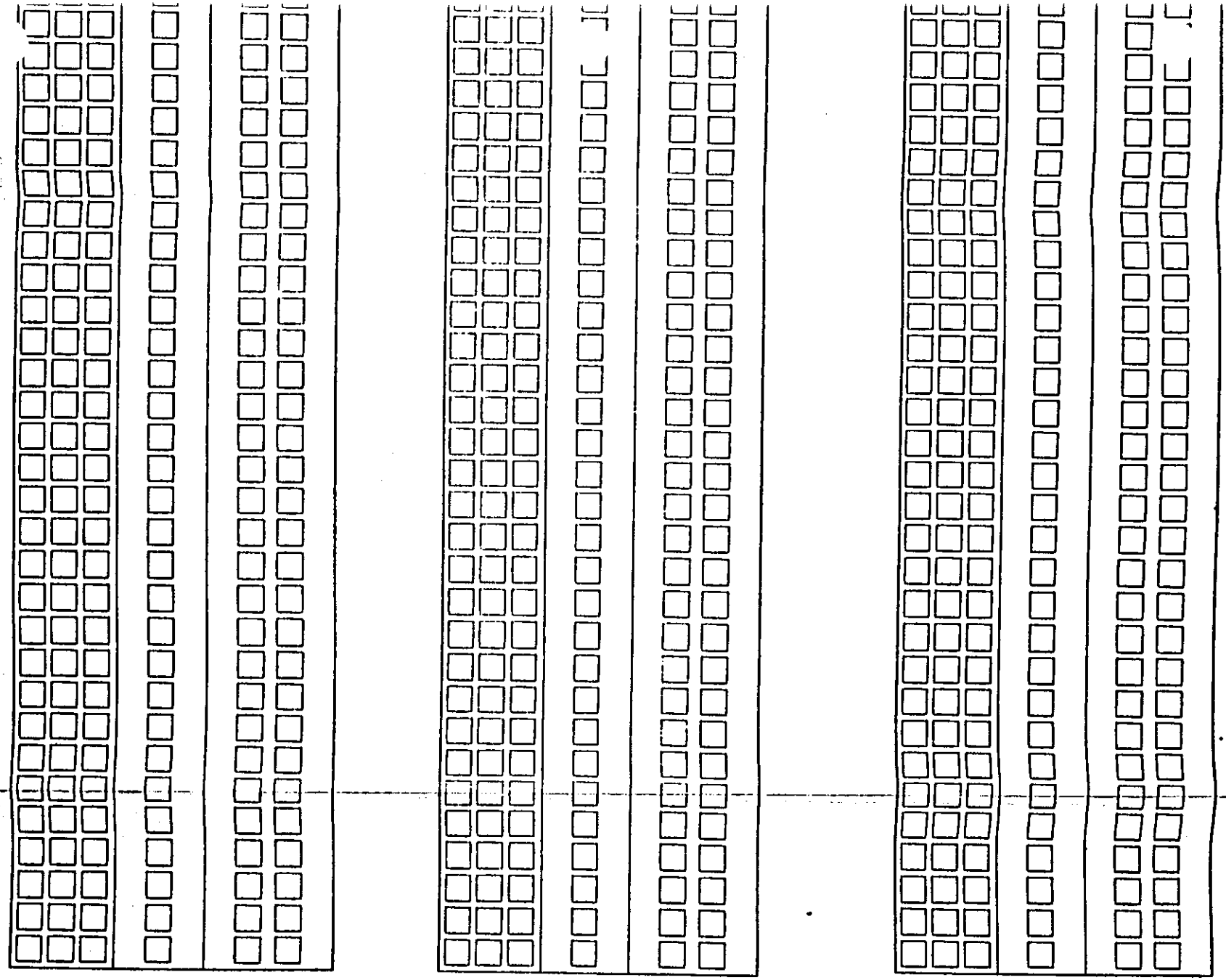
Office Code P1 P2 P3	Prefix	Additional Table No.

Additional Data Office Table No. ☐

Office Code P1 P2 P3	Prefix	Additional Table No.

Additional Data Office Table No. ☐

Office Code P1 P2 P3	Prefix	Additional Table No.



Notes 1. *Additional Data Office Table Nos. are 1 to 5.*
2. *Prefix and Additional Table Nos. should be set in accordance with the setting of the Additional Data Office Table Nos. and Office Code.*
3. *Prefix should be set at 1, if needed.*
4. *Additional Table Nos. are 1 to 10.*
5. *The default value is 0, and it has no function.*
6. *Office Code mmm must satisfy* $200 \leq mmm \leq 999$.

Table 3.3.2.5.P Additional Table Planning Sheet (Item No. 16)

Additional Table No.	Additional Flag	Dial
1	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
2	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
3	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
4	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
5	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
6	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
7	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
8	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
9	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
10	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

Note 1. *Additional Flag and Dial should be set in accordance with the setting of the Additional Table No.*
2. *Additional Flag should be set at 1, if needed.*
3. *The number of the digits for the Dial Data should be within 18.*
4. *In the default settings, no function is set.*

Table 3.3.2.5.Q Specific Code Table Planning Sheet (Item No. 17)

Specific Code	CO Outgoing Group No.	
	Tenant A	Tenant B
0	☐	☐
1N	☐	☐
N11	☐	☐

Notes
1. *CO Outgoing Group Nos. should be set in accordance with the setting of the Tenant A/B and Specific Code.*
2. *CO Outgoing Group Nos. are 1 to 7.*
3. *The default value is 0, and it has no function.*

Table 3.3.2.5.R Equal Access Code Table Planning Sheet (Item No. 18)

Table No.	Condition	Dial Data
1	Tenant A	
	Tenant B	
2	Tenant A	
	Tenant B	
3	Tenant A	
	Tenant B	
4	Tenant A	
	Tenant B	
5	Tenant A	
	Tenant B	
6	Tenant A	
	Tenant B	
7	Tenant A	
	Tenant B	
8	Tenant A	
	Tenant B	
9	Tenant A	
	Tenant B	
10	Tenant A	
	Tenant B	

Notes 1. *The number of the digits for the Dial Data should be within 16 in accordance with the setting of the Tenant A/B and Table Nos.*
2. *In the default settings, no function is set.*

Table 3.3.2.5.S Equal Access Pin Code Table Planning Sheet (Item No. 19)

Table No.	Condition	Dial Data
1	Tenant A	□□□□□□□□
	Tenant B	□□□□□□□□
2	Tenant A	□□□□□□□□
	Tenant B	□□□□□□□□
3	Tenant A	□□□□□□□□
	Tenant B	□□□□□□□□
4	Tenant A	□□□□□□□□
	Tenant B	□□□□□□□□
5	Tenant A	□□□□□□□□
	Tenant B	□□□□□□□□
6	Tenant A	□□□□□□□□
	Tenant B	□□□□□□□□
7	Tenant A	□□□□□□□□
	Tenant B	□□□□□□□□
8	Tenant A	□□□□□□□□
	Tenant B	□□□□□□□□
9	Tenant A	□□□□□□□□
	Tenant B	□□□□□□□□
10	Tenant A	□□□□□□□□
	Tenant B	□□□□□□□□

Notes 1. The number of the digits for the Dial Data should be within 8 in accordance with the setting of the Tenant A/B and Table Nos.
2. In the default settings, no function is set.

Table 3.3.2.5.T Equal Access Pin Code Timing Table Planning Sheet (Item No. 20)

Table No.	Condition	Pin Code Timing
1	Tenant A	☐
	Tenant B	☐
2	Tenant A	☐
	Tenant B	☐
3	Tenant A	☐
	Tenant B	☐
4	Tenant A	☐
	Tenant B	☐
5	Tenant A	☐
	Tenant B	☐
6	Tenant A	☐
	Tenant B	☐
7	Tenant A	☐
	Tenant B	☐
8	Tenant A	☐
	Tenant B	☐
9	Tenant A	☐
	Tenant B	☐
10	Tenant A	☐
	Tenant B	☐

Notes 1. Pin Code Timing shall be set in accordance with the setting of the Tenant A/B and Table Nos.

2. For Pin Code Timing, 0 shall be set After the Equal Access Code, while 1 should be set After the Subscriber Code.

3. The default value is 0, after equal access code.

Table 3.3.2.5.U Equal Access Prefix Information Table Planning Sheet (Item No. 21)

Table No.	Condition	Prefix
1	Tenant A	☐
	Tenant B	☐
2	Tenant A	☐
	Tenant B	☐
3	Tenant A	☐
	Tenant B	☐
4	Tenant A	☐
	Tenant B	☐
5	Tenant A	☐
	Tenant B	☐
6	Tenant A	☐
	Tenant B	☐
7	Tenant A	☐
	Tenant B	☐
8	Tenant A	☐
	Tenant B	☐
9	Tenant A	☐
	Tenant B	☐
10	Tenant A	☐
	Tenant B	☐

Notes 1. Whether Prefix is needed or not shall be set in accordance with the setting of the Tenant A/B and Table Nos.
2. Prefix should be set at 1, if needed.
3. The default value 0 is not assigned.

Table 3.3.2.5.V Equal Access Toll Group Planning Sheet (Item No. 22)

Table No.	CO/PBX Line No.															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																

Notes 1. Toll Restriction Group should be set in accordance with the setting of the CO Number and Table Nos.
2. A number of 5 to 8 should be set to the Toll Restriction Group.
3. The default value is 0, and it has no function.

3.3.2.6 Speed Dial Planning

Speed Dial Planning Table is shown below.
The Sec. 4.3.8 and the 2.3.S.5 will be referred to for the details.

Table 3.3.2.6.A

Item No.	Contents	Planning Sheet	Boundary	Default
1	System speed dial	3.3.2.6.B, C, D, E	Dial 16 digits or less	No. Function
2	System speed dial invisible	3.3.2.6.B, C, D, E	0: No Attributes 1: with Attributes	No Attributes
3	Station speed dial	3.3.2.6.F	Dial 16 digits or less	No Function

Station Speed Dial Planning Sheet should be duplicated for usage at user's end.

Table 3.3.2.6.B Speed Dial Planning Sheet

Speed Dial Number		Dial Number
00	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
01	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
02	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
03	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
04	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
05	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
06	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
07	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
08	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
09	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
10	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
11	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
12	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
13	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
14	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
15	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
16	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
17	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
18	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
19	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
20	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
21	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
22	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
23	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
24	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

* Speed dial invisible attribute

Table 3.3.2.6.C Speed Dial Planning Sheet

Speed Dial Number		Dial Number
25	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
26	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
27	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
28	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
29	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
30	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
31	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
32	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
33	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
34	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
35	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
36	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
37	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
38	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
39	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
40	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
41	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
42	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
43	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
44	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
45	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
46	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
47	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
48	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
49	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

• Speed dial invisible attribute

Table 3.3.2.6.D Speed Dial Planning Sheet

Speed Dial Number		Dial Number
50	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
51	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
52	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
53	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
54	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
55	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
56	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
57	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
58	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
59	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
60	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
61	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
62	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
63	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
64	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
65	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
66	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
67	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
68	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
69	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
70	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
71	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
72	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
73	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
74	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

* Speed dial invisible attribute

Table 3.3.2.6.E Speed Dial Planning Sheet

Speed Dial Number		Dial Number
75	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
76	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
77	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
78	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
79	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
80	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
81	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
82	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
83	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
84	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
85	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
86	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
87	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
88	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
89	☐	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

• Speed dial invisible attribute

Table 3.3.2.6.F Station Speed Dial Planning Sheet

Extension Number ☐☐

Speed Dial Number		Dial Number
1	90	
2	91	
3	92	
4	93	
5	94	
6	95	
7	96	
8	97	
9	98	
10	99	

Extension Number ☐☐

Speed Dial Number		Dial Number
1	90	
2	91	
3	92	
4	93	
5	94	
6	95	
7	96	
8	97	
9	98	
10	99	

Notes 1. Station Speed Dials should be set in accordance with the EXT Nos. and Station Speed Dial Nos. 1 to 10 (90 to 99).
2. The number of the digits for the Station Speed Dial should be within 16.

3.3.2.7 Station Class-of-Service Planning

The following station classes of service can be preset (for details, refer to Section 4.3.9).

Table 3.3.2.7.A

Item No.	Item (contents)	Table No.	Boundary	Default
1	Tenant group B	3.3.2.7. (B to J)	Each EXT	Tenant A
2	Secretary attribution	3.3.2.7. (B to J)	Each EXT	No attribute
3	Protected attribution	3.3.2.7. (B to J)	Each EXT	No attribute
4	Executive attribution	3.3.2.7. (B to J)	Each EXT	No attribute
5	Versaphone attribution	3.3.2.7. (B to J)	Each EXT	No attribute
6	Busy call forward	3.3.2.7. (B to J)	Each EXT	Call forward
7	Message attribution	3.3.2.7. (B to J)	Each EXT	No attribute
8	Quick mode deny	3.3.2.7. (B to J)	Each EXT	Enable
9	Off-hook signal deny	3.3.2.7. (B to J)	Each EXT	Enable
10	Off-hook all-call deny	3.3.2.7. (B to J)	Each EXT	Enable
11	All-call deny	3.3.2.7. (B to J)	Each EXT	Enable
12	Hold recall deny	3.3.2.7. (B to J)	Each EXT	Enable
13	Speed dial access deny	3.3.2.7. (B to J)	Each EXT	Enable
14	Toll speed dial access deny	3.3.2.7. (B to J)	Each EXT	Enable
15	CO auto answer deny	3.3.2.7. (B to J)	Each EXT	Enable
16	ICM auto answer deny	3.3.2.7. (B to J)	Each EXT	Enable
17	Paging call access deny	3.3.2.7. (B to J)	Each EXT	Enable
18	Call forward deny	3.3.2.7. (B to J)	Each EXT	Enable
19	Do not disturb deny	3.3.2.7. (B to J)	Each EXT	Enable
20	Optimized call routing access deny	3.3.2.7. (B to J)	Each EXT	Enable
21	Equal / SCC access deny	3.3.2.7. (B to J)	Each EXT	Enable

Table 3.3.2.7.A (CON)

Item No.	Item (contents)	Table No.	Boundary	Default
22	Toll dial class of restriction	3.3.2.7. (B to J)	0: No Function 1 to 4 class	No function
23	CO outgoing level	3.3.2.7. (B to J)	0 to 4 level	0 Level
24	Route advance step	3.3.2.7. (B to J)	0 to 3 step	0 step
25	Pickup restriction	3.3.2.7. (B to J)	Each CO	No function
26	KT key assignment	3.3.2.7. (K, L)	Refer to 4.2.2.5.	Refer to 4.2.2.5.
27	Personal ID code	3.3.2.7. (B to J)	0 to 9: 3 digits	Null Code

KT Key Assignment Planning Sheet should be duplicated for usage at user's end.

Table 3.3.2.7.C Station Class of Service Planning Sheet (KT)

Data Type \ Extension No.	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
Group Data — Master Hunt Group	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Group Data — ICM Group Call	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Group Data — Call Pickup Group	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Class of Service Data — (1) Tenant Group	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B
(2) Secretary Attribution	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes
(3) Protected Attribution	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes
(4) Executive Attribution	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes
(5) Verse Phone Attribution	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes
(6) Busy Call Forward	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD
(7) Message Attribution	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes
(8) Quick Mode	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(9) Off-Hook Signal	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(10) Off-Hook All-Call	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(11) All-Call	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(12) Hold Recall	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(13) Speed Dial Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(14) Toll Speed Dial Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(15) CO Automatic Answer	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(16) ICM Automatic Answer	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(17) Paging Call Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(18) Call Forward Deny	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En

Station Class of Service Data

(13) Speed Dial Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(14) Toll Speed Dial Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(15) CO Automatic Answer	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(16) ICM Automatic Answer	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(17) Paging Call Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(18) Call Forward Deny	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(19) Do Not Disturb	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(20) Optimized Call Routing Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(21) Equal / SCC Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(22) Toll Dial Class of Restriction	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
(23) CO Outgoing Level	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
(24) Route Advance Step	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3
(25) Pickup Restriction (CO/PBX No.)	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
(26) Personal ID Code	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐

Note: For Personal ID Code, a number of three digits of 0 to 9 should be set.

Table 3.3.2.7.B Station Class of Service Planning Sheet (KT)

Data Type \ Extension No.	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Group Data — Master Hunt Group	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Group Data — ICM Group Call	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Group Data — Call Pickup Group	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Service Data — (1) Tenant Group	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B
Service Data — (2) Secretary Attribution	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes
Service Data — (3) Protected Attribution	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes
Service Data — (4) Executive Attribution	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes
Service Data — (5) Versa Phone Attribution	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes
Service Data — (6) Busy Call Forward	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD
Service Data — (7) Message Attribution	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes
Service Data — (8) Quick Mode	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
Service Data — (9) Off-Hook Signal	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
Service Data — (10) Off-Hook All-Call	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
Service Data — (11) All-Call	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
Service Data — (12) Hold Recall	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
Service Data — (13) Speed Dial Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
Service Data — (14) Toll Speed Dial Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
Service Data — (15) CO Automatic Answer	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
Service Data — (16) ICM Automatic Answer	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
Service Data — (17) Paging Call Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
Service Data — (18) Call ...	Dis	Dis	Dis	Dis	Dis	Dis	Dis	Dis	Dis	Dis	Dis	Dis	Dis	Dis	Dis	Dis

Station Class of Service Data

Access	En	En	En	En	En	En	En	En	En	En	En	En	En	En	En	En
(14) Toll Speed Dial Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	/ En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(15) CO Automatic Answer	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(16) ICM Automatic Answer	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(17) Paging Call Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(18) Call Forward Deny	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(19) Do Not Disturb	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(20) Optimized Call Routing Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(21) Equal / SCC Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(22) Toll Dial Class of Restriction	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
(23) CO Outgoing Level	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
(24) Route Advance Step	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3
(25) Pickup Restriction (CO/PBX No.)	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
(26) Personal ID Code	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐

Note: For Personal ID Code, a number of three digits of 0 to 9 should be set.

Table 3.3.2.7.D Station Class of Service Planning Sheet (KT)

Data Type \ Extension No.	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67
Group Data — Master Hunt Group	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Group Data — ICM Group Call	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Group Data — Call Pickup Group	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Service Data — (1) Tenant Group	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B
(2) Secretary Attribution	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes
(3) Protected Attribution	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes
(4) Executive Attribution	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes
(5) Verse Phone Attribution	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes
(6) Busy Call Forward	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD
(7) Message Attribution	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes
(8) Quick Mode	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(9) Off-Hook Signal	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(10) Off-Hook All-Call	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(11) All-Call	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(12) Hold Recall	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(13) Speed Dial Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(14) Toll Speed Dial Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(15) CO Automatic Answer	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(16) ICM Automatic Answer	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(17) Paging Call Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En

Station Class of Service Data

(12) Hold Recall	En	En	En	En	En	En	En	En	En	En	En	En	En	En	En	En
(13) Speed Dial Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	D / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(14) Toll Speed Dial Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(15) CO Automatic Answer	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(16) ICM Automatic Answer	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(17) Paging Call Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(18) Call Forward Deny	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(19) Do Not Disturb	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(20) Optimized Call Routing Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(21) Equal / SCC Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(22) Toll Dial Class of Restriction	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
(23) CO Outgoing Level	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
(24) Route Advance Step	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3
(25) Pickup Restriction (CO/PBX No.)	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
(26) Personal ID Code	□ □ □	□ □ □	□ □ □	□ □ □	□ □ □	□ □ □	□ □ □	□ □ □	□ □ □	□ □ □	□ □ □	□ □ □	□ □ □	□ □ □	□ □ □	□ □ □

Note: For Personal ID Code, a number of three digits of 0 to 9 should be set.

Table 3.3.2.7.G Station Class of Service Planning Sheet (Versaphon)

Data Type \ Extension No.		52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67
Group Data	Master Hunt Group	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
	ICM Group Call	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
	Call Pickup Group	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Service Data	(1) Tenant Group B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B
	(2) Secretary Attribution	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes
	(3) Protected Attribution	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes
	(4) Executive Attribution	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes
	(5) Versa Phone Attribution	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes
	(6) Busy Call Forward	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD
	(7) Message Attribution	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes	No / Yes
	(8) Quick Mode	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
	(9) Off-Hook Signal	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
	(10) Off-Hook All-Call	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
	(11) All-Call	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
	(12) Hold Recall	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
	(13) Speed Dial Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
	(14) Toll Speed Dial Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
	(15) CO Automatic Answer	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
	(16) ICM Automatic Answer	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
	(17) Paging Call Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
		Dis	Dis	Dis	Dis												

Station Class of Service Data																
Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(14) Toll Speed Dial Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(15) CO Automatic Answer	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(16) ICM Automatic Answer	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(17) Paging Call Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(18) Call Forward Deny	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(19) Do Not Disturb	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(20) Optimized Call Routing Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(21) Equal / SCC Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(22) Toll Dial Class of Restriction	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
(23) CO Outgoing Level	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
(24) Route Advance Step	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3
(25) Pickup Restriction (CO/PBX No.)	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
(26) Personal ID Code	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐

Note: For Personal ID Code, a number of three digits of 0 to 9 should be set.

Table 3.3.2.7.H Station Class of Service Planning Sheet (SLT)

Data Type \ Extension No.	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Group Data — Master Hunt Group	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Group Data — ICM Group Cell	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Group Data — Call Pickup Group	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Station Class of Service Data — (11) Tenant Group	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B
(61) Busy Call Forward	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD
(12) Hold Recall	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(13) Speed Dial Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(14) Toll Speed Dial Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(17) Paging Call Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(18) Call Forward Deny	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(20) Optimized Call Routing Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(21) Equal / SCC Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(22) Toll Dial Class of Restriction	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
(23) CO Outgoing Level	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
(24) Route Advance Step	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3
(25) Pickup	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8

Gr	Call Pickup Group	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 1	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Station Class of Service Data	(1) Tenant Group B	A / B	A / B	A / B	A / B	A / B	B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B
	(6) Busy Call Forward	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD
	(12) Hold Recall	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
	(13) Speed Dial Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
	(14) Toll Speed Dial Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
	(17) Paging Call Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
	(18) Call Forward Deny	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
	(20) Optimized Call Routing Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
	(21) Equal / SCC Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
	(22) Toll Dial Class of Restriction	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
	(23) CO Outgoing Level	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
	(24) Route Advance Step	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3
	(25) Pickup Restriction (CO/PBX No.)	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
SUBS. ME	Type of Service Selection	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE

Table 3.3.2.7.1 Station Class of Service Planning Sheet (SLT)

Data Type \ Extension No.	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
Group Data — Master Hunt Group	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Group Data — ICM Group Call	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Group Data — Call Pickup Group	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Station Class of Service Data — (11) Tenant Group	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B
(6) Busy Call Forward	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD
(12) Hold Recall	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(13) Speed Dial Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(14) Toll Speed Dial Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(17) Paging Call Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(18) Call Forward Deny	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(20) Optimized Call Routing Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(21) Equal / SCC Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(22) Toll Dial Class of Restriction	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
(23) CO Outgoing Level	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
(24) Route Advance Step	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3
	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4 5 6

Station Class of Service Data

Call Pickup Group	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 - 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
(1) Tenant Group	A / B	A / B	A / B	A / B	A / B	B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B
(6) Busy Call Forward	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD
(12) Hold Recall	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(13) Speed Dial Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(14) Toll Speed Dial Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(17) Paging Call Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(18) Call Forward Deny	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(20) Optimized Call Routing Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(21) Equal / SCC Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(22) Toll Dial Class of Restriction	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
(23) CO Outgoing Level	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
(24) Route Advance Step	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3
(25) Pickup Restriction (CO/PBX No.)	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
SUBE ME — Type of Service Selection	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE

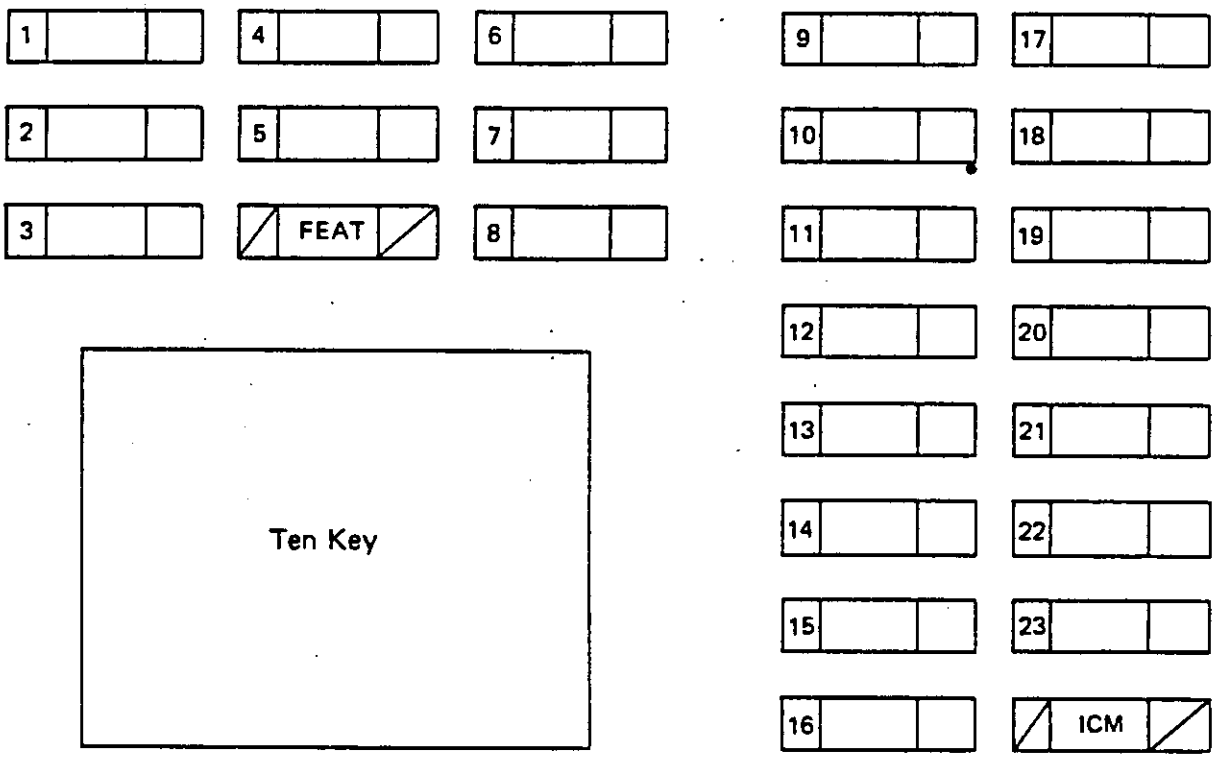
Table 3.3.2.7.J Station Class of Service Planning Sheet (SLT)

Data Type \ Extension No.	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67
Group Data																
Master Hunt Group	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
ICM Group Call	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Call Pickup Group	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Station Class of Service Data																
(1) Tenant Group B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B
(6) Busy Call Forward	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD
(12) Hold Recall	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(13) Speed Dial Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(14) Toll Speed Dial Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(17) Paging Call Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(18) Call Forward Deny	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(20) Optimized Call Routing Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(21) Equal / SCC Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
(22) Toll Dial Class of Restriction	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
(23) CO Outgoing Level	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
(24) Route Advance Step	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3
	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

Group Data	Master Hunt Group	3 4	3 4	3 4	3 4	3 4	3 4	3 4	3 4	3 4	3 4	3 4	3 4	3 4	3 4	3 4	3 4
Group Data	ICM Group Call	1 2 / 3 4	1 2 / 3 4	1 2 / 3 4	1 2 / 3 4	1 2 / 3 4	1 2 / 3 4	2 / 3 4	1 2 / 3 4	1 2 / 3 4	1 2 / 3 4	1 2 / 3 4	1 2 / 3 4	1 2 / 3 4	1 2 / 3 4	1 2 / 3 4	1 2 / 3 4
Group Data	Call Pickup Group	1 2 / 3 4	1 2 / 3 4	1 2 / 3 4	1 2 / 3 4	1 2 / 3 4	1 2 / 3 4	1 2 / 3 4	1 2 / 3 4	1 2 / 3 4	1 2 / 3 4	1 2 / 3 4	1 2 / 3 4	1 2 / 3 4	1 2 / 3 4	1 2 / 3 4	1 2 / 3 4
Station Class of Service Data	(1) Tenant Group B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B	A / B
Station Class of Service Data	(6) Busy Call Forward	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD	FWD / BFWD
Station Class of Service Data	(12) Hold Recall	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
Station Class of Service Data	(13) Speed Dial Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
Station Class of Service Data	(14) Toll Speed Dial Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
Station Class of Service Data	(17) Paging Call Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
Station Class of Service Data	(18) Call Forward Deny	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
Station Class of Service Data	(20) Optimized Call Routing Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
Station Class of Service Data	(21) Equal / SCC Access	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En	Dis / En
Station Class of Service Data	(22) Toll Dial Class of Restriction	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
Station Class of Service Data	(23) CO Outgoing Level	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
Station Class of Service Data	(24) Route Advance Step	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3
Station Class of Service Data	(25) Pickup Restriction (CO/PBX No.)	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
SUBS. LINE	Type of Service Selection	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE	DTMF / PULSE

Table 3.3.2.7.K KT Key Assignment (KT) Planning Sheet

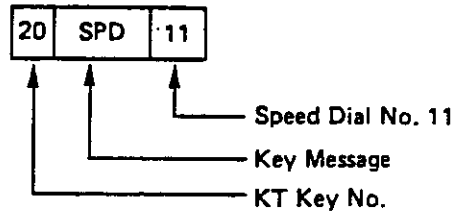
EXT Number



Notes 1. Feat keys and ICM keys are fixed keys and their key assignment cannot be changed.

2. If you assign CO keys, CO Nos. should also be set.
If you assign DSS keys, Station should also be set.
If you assign Page keys, Page Nos. should also be set.
If you assign HNT keys, Master Group Hunt Nos. should also be set.
If you assign SPD keys, Speed Dial Nos. should also be set.

Example)



Data 1) Key Assignment Key Code

Key Message	Key Code No.
ADD	00
FLSH	01
FWD	02
HOLD	03
MSG	04
PARK	05
SPKR	06
TRN	07
P. PAG	08
CO nn	1
FLT	20
FLT1	21
FLT2	22

Key Message	Key Code No.
FLT3	23
FLT4	24
FLT5	25
FLT6	26
FLT7	27
OPT	28
DSS mm	3
D. PAG n	4
HNT n	5
SPD nn	6
DSP	70
CALC	71

Data 2) KT Default Key Assignment

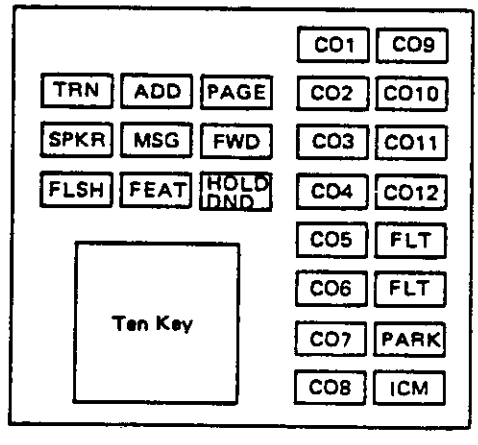


Table 3.3.2.7.L KT Key Assignment Versaphone Planning Sheet

EXT Number ☐☐

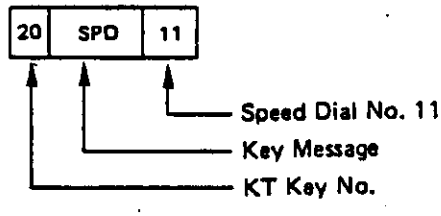
1	ICM	21
2	5	22
6	FEAT	23

Ten Key

Notes 1. Feat keys and ICM keys are fixed keys and their key assignment cannot be changed.

2. If you assign CO keys, CO Nos. should also be set.
If you assign DSS keys, Station should also be set.
If you assign Page keys, Page Nos. should also be set.
If you assign HNT keys, Master Group Hunt Nos. should also be set.
If you assign SPD keys, Speed Dial Nos. should also be set.

Example)

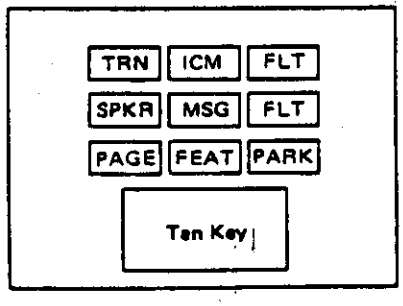


Data 1) Key Assignment Key Code

Key Message	Key Code No.
ADD	00
FLSH	01
FWD	02
HOLD	03
MSG	04
PARK	05
SPKR	06
TRN	07
P. PAG	08
CO nn	1
FLT	20
FLT1	21
FLT2	22

Key Message	Key Code No.
FLT3	23
FLT4	24
FLT5	25
FLT6	26
FLT7	27
OPT	28
DSS mm	3
D. PAG n	4
HNT n	5
SPD nn	6
DSP	70
CALC	71

Data 2) Versaphone Default Key Assignment



3.3.2.8 Clock & Calendar Planning

The items below may be preset. For details, refer to Section 4.3.10. No special planning sheets are provided.

(1) Clock ☐☐:☐☐

(2) Calender ☐☐Year ☐☐Month ☐☐Day ☐Day of week (1: Sunday to 7: Saturday)

(3) Daylight save time ☐
- ○ Set : 1 (Default)
- ○ No : 0

(4) Holiday list

Table 3.3.2.8.A Holiday List Planning

No.	Holiday List
1	☐☐ Month ☐☐ Day
2	☐☐ Month ☐☐ Day
3	☐☐ Month ☐☐ Day
4	☐☐ Month ☐☐ Day
5	☐☐ Month ☐☐ Day
6	☐☐ Month ☐☐ Day
7	☐☐ Month ☐☐ Day
8	☐☐ Month ☐☐ Day
9	☐☐ Month ☐☐ Day
10	☐☐ Month ☐☐ Day
11	☐☐ Month ☐☐ Day
12	☐☐ Month ☐☐ Day
13	☐☐ Month ☐☐ Day
14	☐☐ Month ☐☐ Day
15	☐☐ Month ☐☐ Day
16	☐☐ Month ☐☐ Day
17	☐☐ Month ☐☐ Day
18	☐☐ Month ☐☐ Day
19	☐☐ Month ☐☐ Day
20	☐☐ Month ☐☐ Day

Note 1. Default value 0 is no function.