

Panasonic

MODEL NO. **KX-A271**

EIA / REMOTE PROGRAMMING

&

DIAGNOSIS MANUAL
(Version 2)

Please read this manual before using the KX-A271.

Foreword

This manual describes how to use the KX-A271 software package which is used to assist in programming the Digital Super Hybrid Systems (abbreviated to "DSHS" in this manual) KX-TD1232 and KX-TD816. The KX-A271 enables you to confirm, change, load and save the System Data. It can also diagnose DSHS lines and cards, and edit files in a floppy disk (FD) or a hard disk (HD) in which the System Data is stored. For KX-TD1232, this version is applicable to ROM version P011J and ROM versions from P011N. However, the Batch files of inapplicable ROM versions can be saved in PC and they are converted to the new version automatically. The converted version can be loaded into the DSHS of applicable ROM versions.

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*: Available for KX-TD1232 only.

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*: Available for KX-TD1232 only.

Chapter 1 Introduction

1-1 The System

The Digital Super Hybrid System (abbreviated to "DSHS" in this manual) works under PC-DOS in IBM-PC. The system and data can be stored either in FD or HD.

1-2 System Configuration

The configuration of the system is as explained below.

1. Master Computer

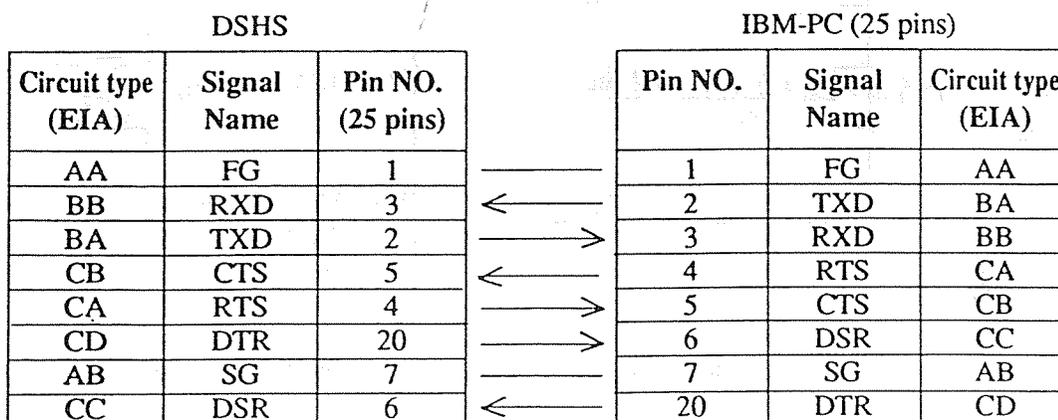
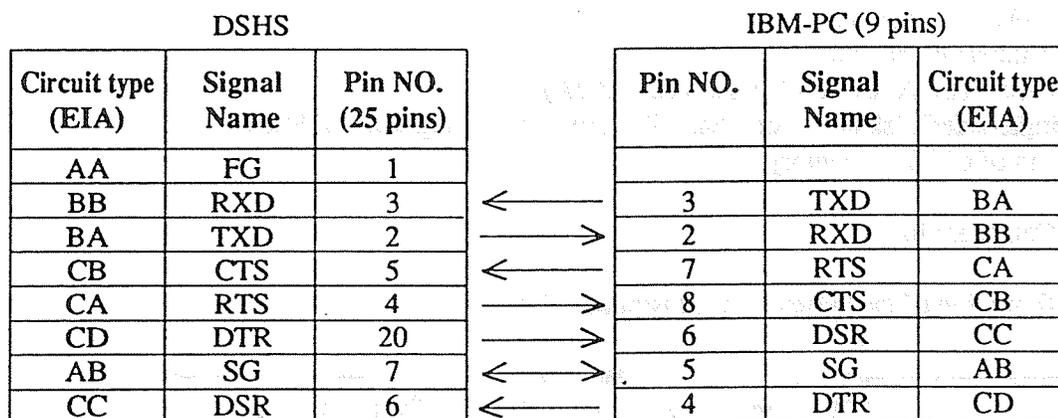
The DSHS works with an IBM-PC XT/AT or compatible personal computers.

2. OS

Version 3.1 or later versions of PC-DOS (MS-DOS) is required.

3. Connection Cable

To connect the DSHS with an IBM-PC in the EIA mode, use an RS-232C cross cable. When you connect IBM-PC through the RS-232C interface port, the following sample chart should be used as a guide.



4. Modem

To connect the DSHS with an IBM-PC from a remote site, use a Hayes compatible modem (AT command). The RS-232C straight cable is necessary to connect the DSHS with an external modem.

- (1) The modem which is used to connect with the DSHS must be able to use one of the following standards :

CCITT V.21, CCITT V.22, Bell 103, Bell 212A.

- (2) The modem must be also able to use the following AT commands to assign the modem from the IBM-PC :

Z=Reset

E=Echo back

V=Result code

B=Communication standard

S=Register assignment

D=Dial

H=Line hook

F=Full Duplex Mode

+++=Escape

<Note>

If the modem cannot use the commands mentioned above, it may work improperly.

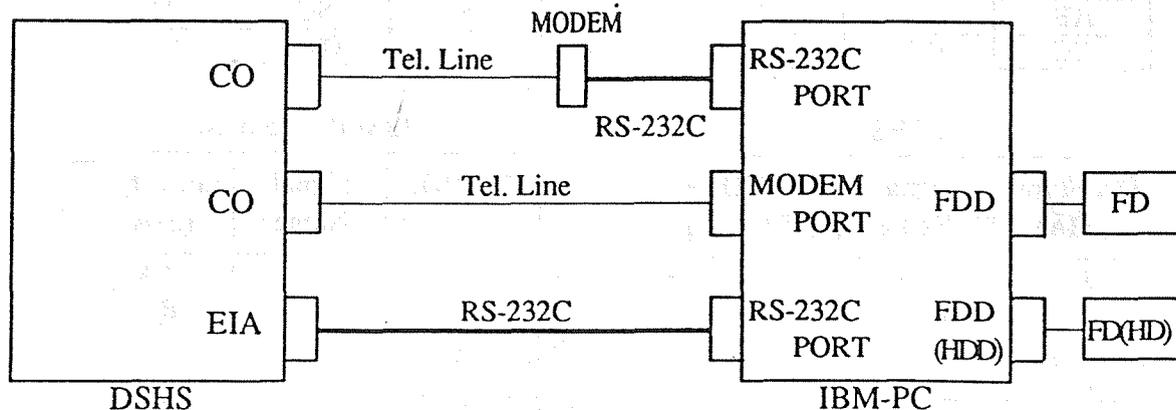
5. Hardware Requirement

The IBM-PC requires the following items.

- The KX-A271 floppy disk
- A communication adaptor
- CRT adaptor (CGA, EGA, MCGA, VGA, MDA)
- Two single-sided disk drives or a hard disk drive plus a single-sided disk drive
- Minimum of 640K of memory.

6. System Configuration

The configuration of the system is as illustrated below.



Select one of three methods to connect your IBM-PC with your DSHS.

Chapter 2 Before You Begin

This chapter provides you the basic operation which is common to all System Data Program including the layout of the screen, function keys, various messages, and the operating flow chart.

2-1 Page Organization

The figure below is a sample screen of CO Line Setting.

CO Line Setting --- (1)					Off-line-- (2)		KX-TD1232 Both --- (3)			
CO No.	C O R	T R I	D I T	D P I	P I S	C D M	CPC Detection Mode	DIL 1 : 1 EXT No Day	Night	--- (6)
	N	G	A	M	S	D	Out	Day	Night	
			L	F						
01	Y	[1]	D	80	10	N	Disable	Disable	EXT[109] EXT[109]	
02	N	[2]	P	160	20	N	100ms	Enable	Disable Disable	
03	Y	[3]	D	80	10	N	200ms	Enable	Disable Disable	
04	Y	[4]	P	80	10	N	300ms	Enable	Disable Disable	
05	Y	[5]	P	80	10	N	400ms	Enable	Disable Disable	
06	Y	[6]	P	80	10	N	500ms	Enable	Disable Disable	--- (7)
07	Y	[7]	P	80	10	Y	600ms	Enable	Disable Disable	
08	Y	[8]	P	80	10	N	400ms	Enable	Disable Disable	
09	Y	[8]	P	80	10	N	400ms	Enable	Disable Disable	
10	Y	[8]	P	80	10	N	400ms	Enable	Disable Disable	
11	Y	[8]	P	80	10	N	400ms	Enable	Disable Disable	
12	Y	[8]	P	80	10	N	400ms	Enable	Disable Disable	
Hit spacebar to select parameter --- (4)										
1	2	3	4	5	6	7	8	--- (5)		
	COPY		HELP	P-PAGE	N-PAGE	SAVE	EXIT			

- (1) Title Name: The title of the program is displayed here.
- (2) DSHS Connecting Status: The condition of connecting with the DSHS is displayed here.
- (3) Batch File Type: One of the following Batch file types is displayed.
- Empty: No Batch files are saved in the system.
 - KX-TD1232 Both: The Batch files of the KX-TD1232 Master & Slave are saved in the system.
 - KX-TD1232 Master: The Batch file of the KX-TD1232 Master is saved in the system.

- KX-TD1232 Slave: The Batch file of the KX-TD1232 Slave is saved in the system.
- KX-TD816: The Batch file of the KX-TD816 is saved in the system.

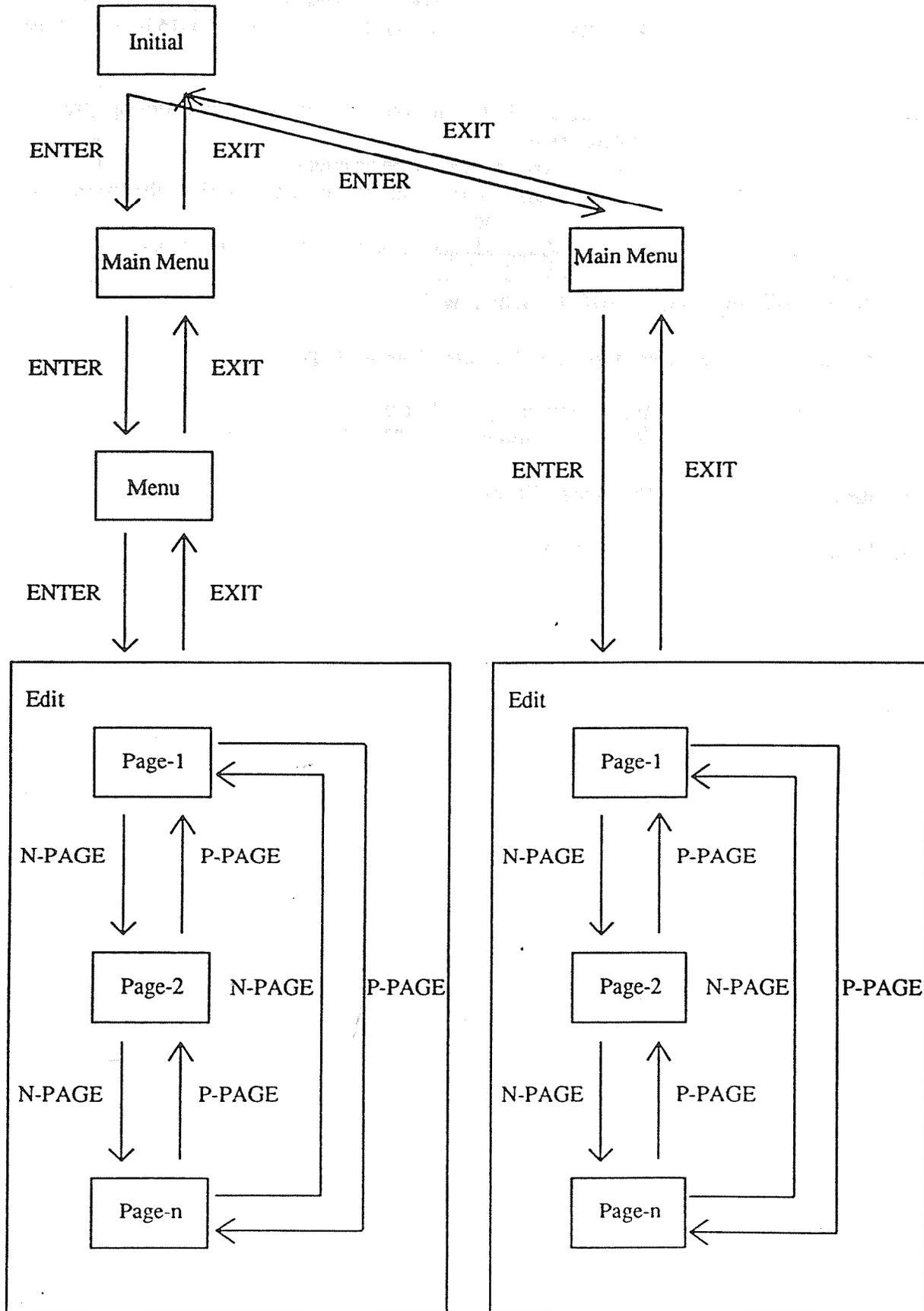
- (4) Message: Error Message, Status Message, and Operation Guide Message are displayed here.
- Error Message: Appears when an error occurs.
 - Status Message: Appears when it is necessary to show the proceeding job.
 - Operation Guide Message: Shows the way of operation.

The order priority of the message is as following:

① Error Message ② Status Message ③ Operation Guide Message .

- (5) Function Keys: Appear when it is possible to operate them.
(For further information see "2-4 Function Keys")
- (6) Items: The names of items to be assigned.
- (7) Fields: Parameters are entered into them.

2-2 Flow Chart of the Screens



2-3 Assigning Items

This section provides you the basic operation of programming the assigning items.

1. Change the screens

① The initial screen

Press ENTER key to advance to the next screen.

② The menu screens

Press ENTER key to advance to the next screen.
Press EXIT key to return to the initial screen.

③ The editing screens

Press F5 (P-PAGE) key to return to the previous page.
Press F6 (N-PAGE) key to advance to the next page.
Press EXIT key to return to the menu screen.

For further information about function keys, see "2-4 Function Keys"

2. Types of fields

There are two types of the fields. You can distinguish the type by a display of the cursor or a message.

① Selecting type

A parameter is highlighted. (Example **Disable**)
A message "Hit spacebar to select....." appears.

② Entering directly type

The cursor is displayed as an underline in a field. (Example EXT[_])
A message "Enter....." appears.

3. Move the cursor

You can use TAB key, ENTER key, or cursor keys to move the cursor to the next or the previous items.

- TAB key: Moves the cursor to the right or lower item.
- SHIFT+TAB: Moves the cursor to the left or upper item.
- ENTER key: Moves the cursor to the right or lower item.
- ↑ key: Moves the cursor to the upper item.
- ↓ key: Moves the cursor to the lower item.
- key: Moves the cursor to one figure right or the right item.
- ←key: Moves the cursor to one figure left or the first character of the left item.

3. Enter, correct and change parameters

① Selecting type

- Press the spacebar a few times until you find the parameter you need.
- Press BS key, which displays the parameters in the inverted order of the spacebar until you find the parameter you need.
- F4 (HELP) provides you the explanation of assigned items and a list of parameters.

② Entering directly type

- Enter dialing numbers, numerals, alphabets and punctuation marks etc. directly.
- You must enter parameters from a left end.
- Correcting Move the cursor to the parameter you want to correct and enter a new parameter.
- Deleting Press BS key and the cursor moves to one figure left and delete one letter.
Move the cursor to the letter you want to delete, and press DEL key.
Press Ctl + Home to delete the parameter in which the cursor is placed.
- Inserting Move the cursor to the letter before which you want to insert letters.
Press INS key needed times, and enter a parameter there.
- Press F4 (HELP) key so that you can see the explanation of assigned items and also characters, numbers, and the range of numbers you can enter.

2-4 Function Keys

1 2 COPY 3 4 HELP 5 P-PAGE 6 N-PAGE 7 SAVE 8 EXIT

1 2 3 4 5 6 7 CONNECT 8

F2 (COPY) : Copies parameters by CO lines, extensions, CO line groups or jack numbers.
(For further information see "2-5 Use of F2 (COPY) Key")

F4 (HELP) : Explains assigned items.

F5 (P-PAGE) : Returns to the previous page.

F6 (N-PAGE) : Advances to the next page.

F7 (SAVE) : Saves the data displayed on the screen.

F7 (CONNECT) : Connects your IBM- PC with the DSHS.

F8 (EXIT) : Returns to the Menu screen.

<Condition>

- (1) When you press F5 (P-PAGE), F6 (N-PAGE) or F8 (EXIT) without pressing F7 (SAVE) to save the changed data, a message "Screen will be changed without saving new data. OK?(Y/N) ⇒" appears. Press "Y" or "y" to carry out or press "N" or "n" to cancel.
- (2) If your IBM-PC is disconnected from the DSHS while saving the data, you should save it again after reconnecting the PC.

2-5 Use of F2 (COPY) Key

F2 (COPY) is used to copy parameters of items (by CO lines, extensions, CO line groups or jack numbers).

<Operation>

- (1) Move the cursor to one of the parameters of the group you want to copy from.
- (2) After pressing F2 (COPY), the group turns highlighted and a message "Enter start range xxxx No. []" appears. "Xxxx" can be Jack, CO, TRG etc.
- (3) Enter the number of the first group you want to copy from. When you press ENTER key a message "Enter end range xxxx No. []" appears. "Xxxx" can be Jack, CO, TRG etc.
- (4) Enter the number of the last group you want to copy the data to. Press ENTER key, and the data are copied to the assigned groups.
- (5) Press ESC to quit.

<Example>

In CO Line Setting, copy the data of CO No.02 to CO No.05 and 06.

CO No.	C	T	D	D	P	C	CPC	DIL 1 : 1		
	O	R	I	T	P	I	Detection	EXT No		
	N	G	A	M	S	D	Mode	Out	Day	Night
	L	F								
01	Y	[1]	D	80	10	N	Disable	Disable	EXT[109]	EXT[109]
02	N	[2]	P	160	20	N	100ms	Enable	Disable	Disable
03	Y	[3]	D	80	10	N	200ms	Enable	Disable	Disable

1 2 COPY 3 4 HELP 5 P-PAGE 6 N-PAGE 7 SAVE 8 EXIT

- ① Move the cursor to the line of CO 02.

CO No.	C	T	D	D	P	C	CPC	DIL 1 : 1		
	O	R	I	T	P	I	Detection	EXT No		
	N	G	A	M	S	D	Mode	Out	Day	Night
	L	F								
01	Y	[1]	D	80	10	N	Disable	Disable	EXT[109]	EXT[109]
02	N	[2]	P	60	20	N	100ms	Enable	Disable	Disable
03	Y	[3]	D	80	10	N	200ms	Enable	Disable	Disable

Enter start range CO No. []

1 2 COPY 3 4 HELP 5 P-PAGE 6 N-PAGE 7 SAVE 8 EXIT

- ② Press F2 (COPY) and the all data of CO No.02 turn highlighted.
A message "Enter start range CO No. []" appears. Press F2 again if you want to return to the previous stage(①).

CO No.	C	T	D	D	P	C	CPC	DIL 1:1		
No.	O	R	I	T	P	I	Detection	EXT No		
	N	G	A	M	S	D	Mode	Out		
	L	F					Day	Night		
01	Y	[1]	D	80	10	N	Disable	Disable	EXT[109]	EXT[109]
02	N	[2]	P	160	20	N	100ms	Enable	Disable	Disable
03	Y	[3]	D	80	10	N	200ms	Enable	Disable	Disable
04	Y	[4]	P	80	10	N	300ms	Enable	Disable	Disable
05	Y	[5]	P	80	10	N	400ms	Enable	Disable	Disable
06	Y	[6]	P	80	10	N	500ms	Enable	Disable	Disable

Enter start range CO No. [05]

COPY P-PAGE N-PAGE SAVE EXIT

③ Enter CO No.05. Press F2 again if you want to return to the previous stage (①).

CO No.	C	T	D	D	P	C	CPC	DIL 1:1		
No.	O	R	I	T	P	I	Detection	EXT No		
	N	G	A	M	S	D	Mode	Out		
	L	F					Day	Night		
01	Y	[1]	D	80	10	N	Disable	Disable	EXT[109]	EXT[109]
02	N	[2]	P	160	20	N	100ms	Enable	Disable	Disable
03	Y	[3]	D	80	10	N	200ms	Enable	Disable	Disable
04	Y	[4]	P	80	10	N	300ms	Enable	Disable	Disable
05	Y	[5]	P	80	10	N	400ms	Enable	Disable	Disable
06	Y	[6]	P	80	10	N	500ms	Enable	Disable	Disable

Enter end range CO No. []

COPY P-PAGE N-PAGE SAVE EXIT

④ Press ENTER key and a message "Enter end range CO No.[] appears. Press F2 again if you want to return to the previous stage (①).

CO No.	C	T	D	D	P	C	CPC	DIL 1:1		
No.	O	R	I	T	P	I	Detection	EXT No		
	N	G	A	M	S	D	Mode	Out		
	L	F					Day	Night		
01	Y	[1]	D	80	10	N	Disable	Disable	EXT[109]	EXT[109]
02	N	[2]	P	160	20	N	100ms	Enable	Disable	Disable
03	Y	[3]	D	80	10	N	200ms	Enable	Disable	Disable
04	Y	[4]	P	80	10	N	300ms	Enable	Disable	Disable
05	Y	[5]	P	80	10	N	400ms	Enable	Disable	Disable
06	Y	[6]	P	80	10	N	500ms	Enable	Disable	Disable

Enter end range CO No. [06]

COPY P-PAGE N-PAGE SAVE EXIT

⑤ Enter CO No.06.

CO No.	C	T	D	D	P	C	CPC	DIL 1 : 1		
	O	R	I	T	P	I	Detection	EXT No		
	N	G	A	M	S	D	Mode	Out	Day	Night
			L	F						
01	Y	[1]	D	80	10	N	Disable	Disable	EXT[109]	EXT[109]
02	N	[2]	P	160	20	N	100ms	Enable	Disable	Disable
03	Y	[3]	D	80	10	N	200ms	Enable	Disable	Disable
04	Y	[4]	P	80	10	N	300ms	Enable	Disable	Disable
05	N	[2]	P	160	20	N	100ms	Enable	Disable	Disable
06	N	[2]	P	160	20	N	100ms	Enable	Disable	Disable

COPY P-PAGE N-PAGE SAVE EXIT

⑥ Press ENTER key and the data of CO No.05 and No.06 turn to the same as CO No.02. The data are saved and the screen returns to the previous stage(①).

<Note>

- (1) Press ESC key at any stage to quit the copy mode.
- (2) When you copy the data of Flexible Keys or DSS, the data of the whole screen are copied to another. You cannot copy a part of them.

2-6 Help Option

If you need the explanation of the item on which the cursor is placed, press F4 (HELP). Help screen illustrated below appears.

<Example>

Station Setting 4		Off-line		KX-TD1232 Both	
Jack	DIL 1 : N				
	Day	Night			
	00000000111 11111112222	00000000111 11111112222			
	123456789012 345678901234	123456789012 345678901234			
01-1	00000000000 00000000000	00000000000 00000000000			
01-2	00000000000 00000000000	DDDDDDDDDDDD 00000000000			
02-1	00000000000 00000000000	00000000000 00000000000			
02-2	00000000000 00000000000	00000000000 00000000000			
03-1	00000000000 00000000000	00000000000 00000000000			
03-2	00000000000 00000000000	00000000000 00000000000			
04-1	00000000000 00000000000	00000000000 00000000000			
04-2	00000000000 00000000000	00000000000 00000000000			
05-1	00300DDDDDD 00000000000	00000000000 00000000000			
05-2	00000000000 00000000000	00000000000 00000000000			
06-1	D600DDDDDDDD 00000000000	00000000000 00000000000			
06-2	D600DDDDDDDD 00000000000	00000000000 00000000000			
07-1	00000000000 00000000000	00000000000 00000000000			
07-2	00000000000 00000000000	00000000000 00000000000			
08-1	00000000000 00000000000	00000000000 00000000000			
08-2	00000000000 00000000000	00000000000 00000000000			

Enter numeric code
 1 2 3 4 HELP 5 P-PAGE 6 N-PAGE 7 SAVE 8 EXIT

Press F4 (HELP) key



Press F8 (EXIT) key



Explanation of DIL 1 : N (Delay Ring Times)

DIL 1 : N Day / Night

(Direct In Line 1 : N Extension and Delayed Ringing — Day / Night)

Assigns the state of DIL 1 : N to each extension in day mode or in night mode.

D : Disable, 0 : Immediate, 1 : 1 Rings, 3 : 3 Rings, 6 : 6 Rings, N : No Rings

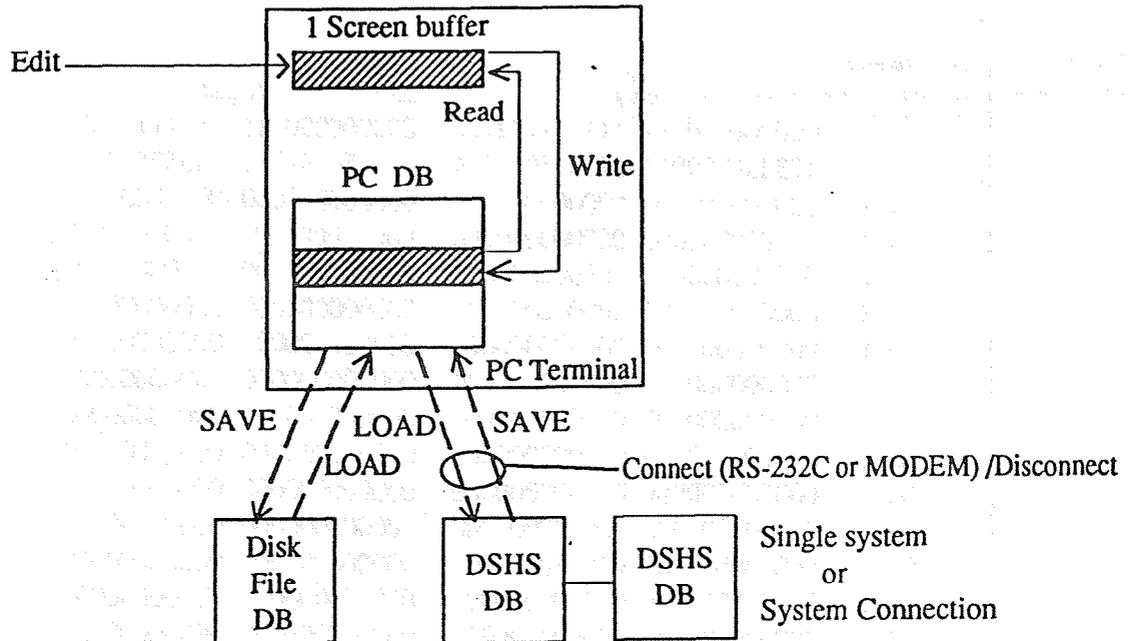
1 2 3 4 5 P-PAGE 6 N-PAGE 7 8 EXIT

2-7 Mode Structure

There are two types of editing modes.

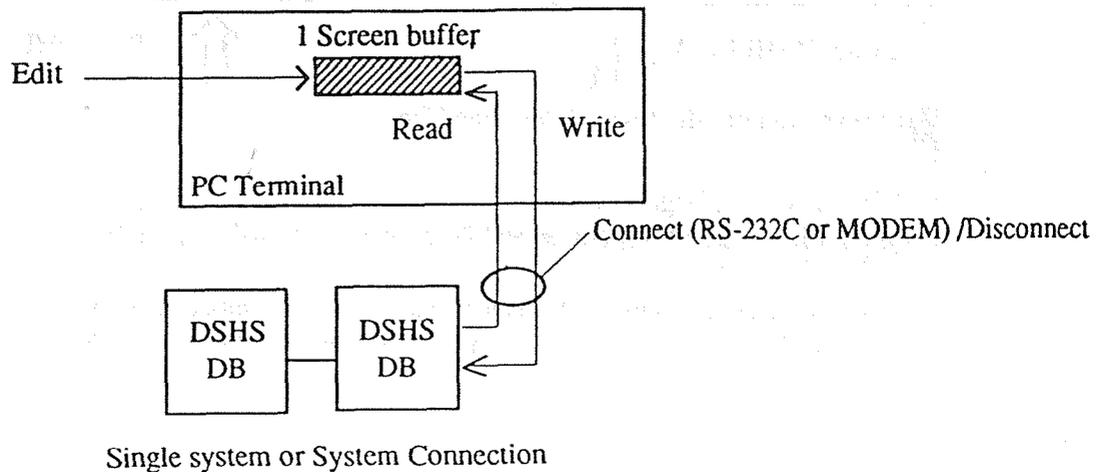
1. Batch Editing Mode

This is the way to program the DSHS by editing the PC database(DB). To use this mode, you must first load Disk File DB or save DSHS DB into PC DB.



2. Interactive Editing Mode

This is the way to program the DSHS directly from the PC terminal connected by the RS-232C or the MODEM.

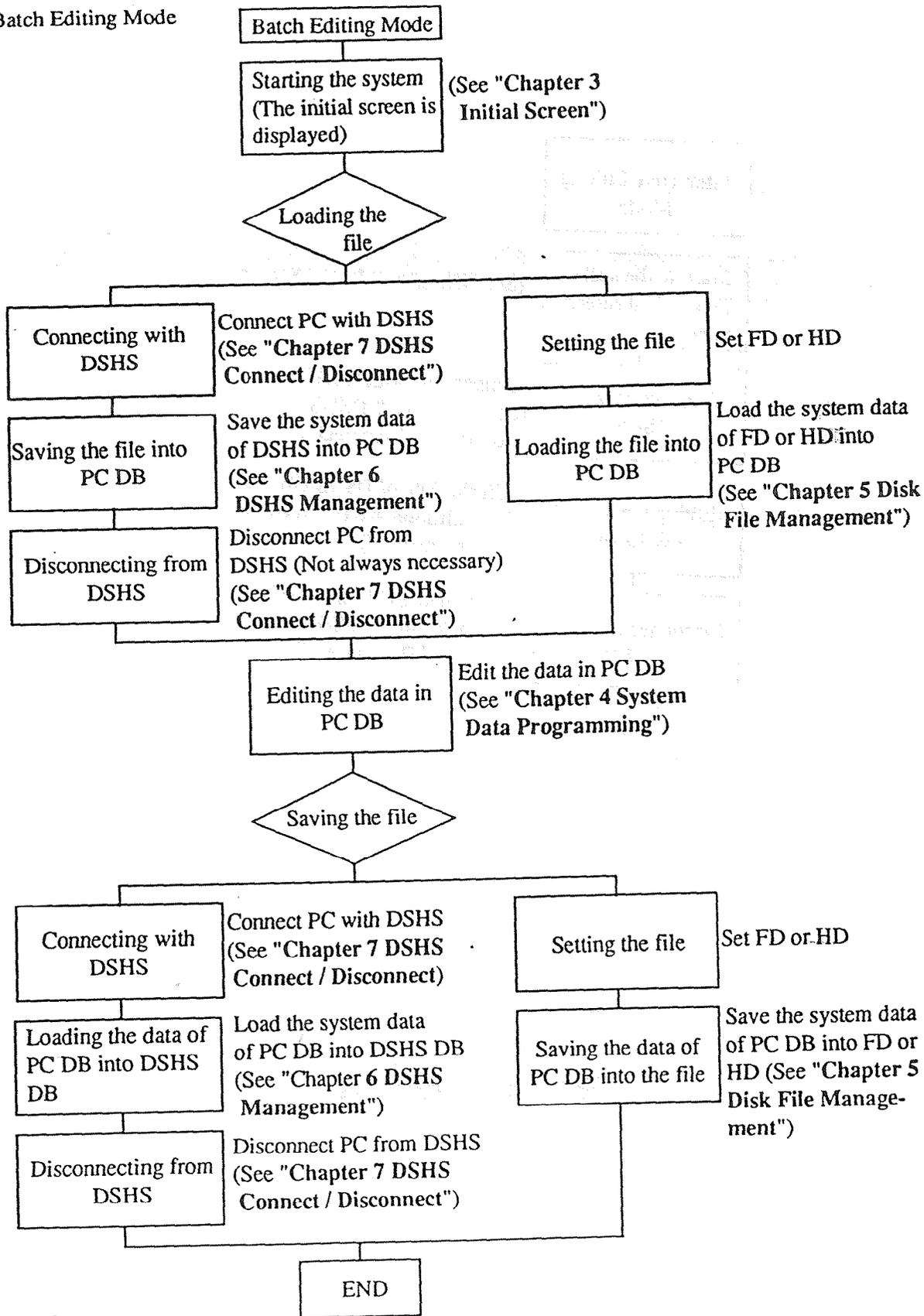


<Note>

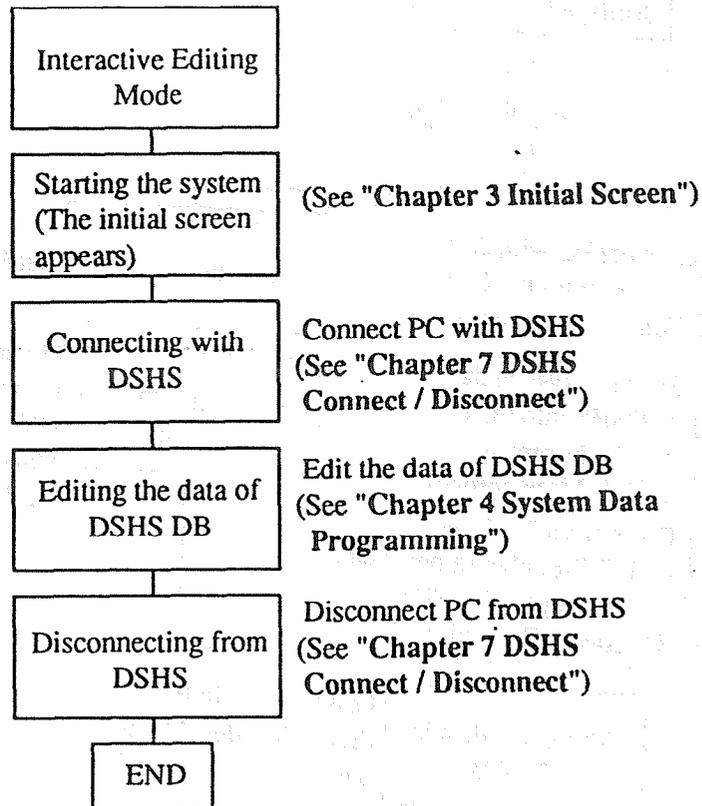
When the single system is operating, parameters of some items cannot be assigned to the system which is not operating. They are not displayed in the screens.

2-8 Operating Flow Chart

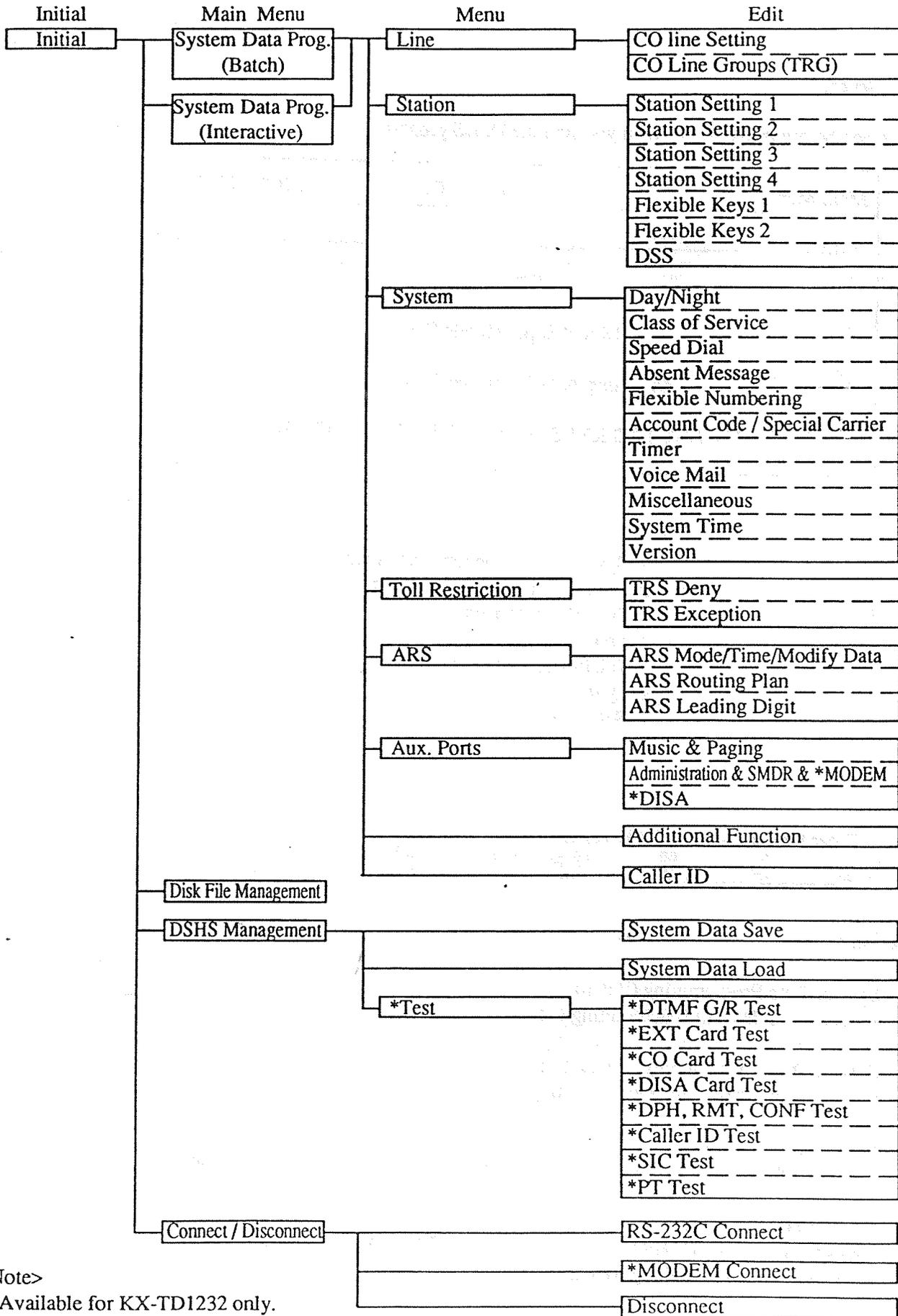
1 Batch Editing Mode



2 Interactive Editing Mode



2-9 Menu Tree



<Note>

*: Available for KX-TD1232 only.

Chapter 3 Initial Screen

3-1 Initial Screen

The screen below is displayed when you start the DSHS program.

Main Menu	Off-line	KX-TD1232 Both
-----------	----------	----------------

Panasonic

Digital Super Hybrid System

Operating & Maintenance Tool Ver 2.xx

(C) COPYRIGHT 1993 KYUSHU MATSUSHITA ELECTRIC CO., LTD.

1. System Data Programming (Batch)
2. System Data Programming (Interactive)
3. Disk File Management
4. DSHS Management
5. DSHS Connect / Disconnect
6. Quit

Select the number :[_]

Enter the number, and hit ENTER key

[1] [2] [3] [4] HELP [5] [6] [7] [8]

<Explanation>

- [1] System Data Programming (Batch)
Edits System Data in Batch Editing Mode.

- [2] System Data Programming (Interactive)
Edits System Data in Interactive Editing Mode.

- [3] Disk File Management
Loads the data from the disk and saves them into the disk in Batch Editing Mode.

- [4] DSHS Management
Saves the data from DSHS and loads them into DSHS in Batch Editing Mode and also diagnoses DSHS in Interactive Editing Mode.

- [5] DSHS Connect / Disconnect
Connects the PC terminal with the DSHS by RS-232C or MODEM and disconnects from the DSHS.
- [6] Quit
Returns to MS-DOS System.

<Operation>

- (1) Enter the number of the program, and press ENTER key.
- (2) When you select "1. System Data Programming (Batch)", you must choose "3. Disk File Management" or "4. DSHS Management" first to load or save the system data into PC DB .
- (3) When you select "2. System Data Programming (Interactive)" or "4. DSHS Management", you must choose "5. DSHS Connect / Disconnect" first to connect the PC terminal with the DSHS.
- (4) Select "6. Quit" to return to MS-DOS.

<Condition>

When you select "2. System Data Programming (Interactive)" or "4. DSHS Management" without connecting the PC terminal with the DSHS, a message "Please connect with the DSHS by 5. DSHS Connect / Disconnect".

Chapter 4 System Data Programming

4-1 Main Menu

The screen below appears first when you select "1. System Data Programming (Batch)".

System Data Programming Main Menu	Off-line	KX-TD1232 Both
<p>1. Line</p> <p>2. Station</p> <p>3. System</p> <p>4. Toll Restriction</p> <p>5. ARS</p> <p>6. Aux. Ports</p> <p>7. Additional Function</p> <p>8. Caller ID</p> <p>Select the number : [_]</p>		
Enter the number, and hit ENTER key		
<input type="text" value="1"/>	<input type="text" value="2"/>	<input type="text" value="3"/>
<input type="text" value="4"/>	HELP	<input type="text" value="5"/>
<input type="text" value="6"/>	<input type="text" value="7"/>	<input type="text" value="8"/> EXIT

<Operation>

- (1) Enter the number of the program, and press ENTER key.
- (2) Press F8 (EXIT) to return to the initial screen.

4-2 Line

The screen illustrated below appears when you select "1. Line".

Line Menu	Off-line	KX-TD1232 Both
<p>1. CO Line Setting</p> <p>2. CO Line Groups (TRG)</p> <p>Select the number : []</p> <p>Enter the number, and hit ENTER key</p> <p>1 2 3 4 HELP 5 6 7 8 EXIT</p>		

<Operation>

- (1) Enter the number of the program, and press ENTER key.
- (2) Press F8 (EXIT) to return to Main Menu screen.

1. CO Line Setting

CO Line Setting							Off-line		KX-TD816			
CO No.	C O	T R	D I	D T	P I	C S	CPC Detection Mode	CPC Out	DIL 1:1 EXT No.	Day	Night	Reverse Circuit
01	<input checked="" type="checkbox"/>	[1]	D	80	10	N	Disable	Disable	EXT[109]	EXT[109]		Reverse
02	<input type="checkbox"/>	[2]	P	160	20	N	100ms	Enable	Disable	Disable		Regular
03	<input checked="" type="checkbox"/>	[3]	D	80	10	N	200ms	Enable	Disable	Disable		Regular
04	<input checked="" type="checkbox"/>	[4]	P	80	10	N	300ms	Enable	Disable	Disable		Regular
05	<input checked="" type="checkbox"/>	[5]	P	80	10	N	400ms	Enable	Disable	Disable		Regular
06	<input checked="" type="checkbox"/>	[6]	T	80	10	N	500ms	Enable	Disable	Disable		Regular
07	<input checked="" type="checkbox"/>	[7]	P	80	10	Y	600ms	Enable	Disable	Disable		Regular
08	<input checked="" type="checkbox"/>	[8]	P	80	10	N	400ms	Enable	Disable	Disable		Regular

Hit spacebar to select parameter

COPY HELP SAVE EXIT

<Explanation>

- [1] CON (CO Line Connection Assignment) [400]
Assigns connecting states of CO lines.
- [2] TRG (CO Line Group Assignment) [401]
Assigns individual CO lines to one CO line group.
- [3] DIAL (Dial Mode Selection) [402]
Assigns the dial mode to each CO line.
- [4] DTMF (DTMF Time) [404]
Sets the DTMF time of CO lines. It is available when the dial mode is assigned DTMF.
- [5] PULSE PPS (Pulse Speed Selection) [403]
Sets the pulse speed of CO lines. It is available when the dial mode is assigned PULSE.
- [6] CID (Caller ID Assignment) [406]
Assigns to identify calling parties.

- | | |
|---------------------------------------------------------------------------------------|------------|
| [7] CPC Detection Mode (CPC Signal Detection Incoming Set) | [405] |
| Sets the CPC signal detection time when either calling or called party goes on hook . | |
| [8] CPC Detection Out (CPC Signal Detection Outgoing Set) | [415] |
| Assigns to enable or disable to detect the CPC signal while calling . | |
| [9] DIL 1 : 1 EXT No. Day / Night | |
| (Direct In Line Extension —Day / Night) | [407, 408] |
| Assigns an extension for a DIL 1:1 destination during day time or night time. | |
| [10] Reverse Circuit (Reverse Circuit Assignment) | [416] |
| Enables or disables to detect Reverse Circuit. | |
| • This feature is available for KX-TD816 only. | |

<Operation>

- (1) For KX-TD1232, this program consists of two pages. One displays CO No.01 through 12 and the other displays CO No.13 through 24.
For KX-TD816, this program consists of one page. It displays CO No.01 through 08.
- (2) Move the cursor to the field in which you want to set a parameter.
- (3) After editing the data, press F7 (SAVE) to save them on the screen into DB file.
- (4) Use F2 (COPY) if you want to copy the data of one CO No. in another.
- (5) Press F8 (EXIT) to return to Line Menu screen.

<Condition>

- (1) It is possible to assign Floating Extension Number as an extension number in DIL 1 : 1.
- (2) When the single system is operating, the data of DIL 1 : 1 of the system which is not operating cannot be assigned and they are not displayed in the screen.
- (3) When you copy the data of DIL 1:1, it is invalid to copy in or from the data which are not displayed.

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
CON	Selecting	Y : Connect or N : Disconnect	Y
TRG	Direct	1 through 8 1 digit	CO01=1, CO02=2 CO03=3, CO04=4 CO05=5, CO06=6 CO07=7, CO08=8 CO09=8 through CO24=8 (KX-TD1232)
DIAL	Selecting	D : DTMF, P : Pulse, C : Call Block	D
DTMF	Selecting	80 or 160	80
PULSE (PPS)	Selecting	10 or 20	10
CID	Selecting	Y : Identify or N: Not identify	N
CPC Detection Mode	Selecting	Disable, 100ms, 200ms, 300ms, 400ms, 500ms, 600ms	400ms
CPC Detection Out	Selecting	Disable or Enable	Disable
DIL1 : 1 EXT No. Day / Night	Selecting and Direct	Disable or EXT [] (After selecting EXT []) 0 through 9 2, 3 or 4 digits	Disable
Reverse Circuit	Selecting	Reverse (detection) or Regular (no detection)	Regular

2. CO Line Groups (TRG)

CO Line Groups (TRG)			Off-line	KX-TD1232 Both					
T	Intercept		Flash	Pause	DSC	PBX Access			
R	EXT No.		Time	Time	Time	1	2	3	4
G	Day	Night	(msec)	(sec)	(sec)				
1	EXT	[100] EXT[100]	NO	1.5	1.5	[01]	[08]	[10]	[22]
2	Disable	Disable	80	1.5	1.5	[01]	[08]	[]	[]
3	Disable	Disable	96	1.5	1.5	[01]	[08]	[12]	[]
4	Disable	Disable	112	1.5	1.5	[01]	[]	[12]	[82]
5	Disable	Disable	200	1.5	1.5	[02]	[32]	[]	[]
6	Disable	Disable	300	1.5	1.5	[02]	[22]	[32]	[]
7	Disable	Disable	400	1.5	1.5	[02]	[]	[12]	[22]
8	Disable	Disable	1200	1.5	1.5	[]	[]	[]	[]

Hit spacebar to select parameter

COPY HELP SAVE EXIT

<Explanation>

- [1] Intercept EXT No. Day / Night (Intercept Extension — Day / Night) [409,410]
Assigns extensions for destinations of intercept routing during day time or night time.
- [2] Flash Time (Flash Time) [413]
Sets the length of the Flash Time.
- [3] Pause Time (Pause Time) [412]
Sets the length of the Pause Time.
- [4] DSC Time (Disconnect Time) [414]
Sets the length of the disconnecting time.
- [5] PBX Access (Host PBX Access Codes) [411]
Assigns the Host PBX access codes.

<Operation>

- (1) Move the cursor to the field in which you want to set a parameter.
- (2) After editing the data, press F7 (SAVE) to save them on the screen into DB file.
- (3) Use F2 (COPY) if you want to copy the data of one CO line group in another.
- (4) Press F8 (EXIT) to return to Line Menu screen.

<Condition>

- (1) It is possible to assign Floating Extension Number of Pager and DISA as an Intercept Extension number.
- (2) In case of the redundant storage of PBX Access No., 1 digit entry is valid.
EXAMPLE ; 8 is more valid than 81.

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
Intercept EXT No. Day / Night	Selecting and Direct	Disable or EXT [] (After selecting EXT []) 0 through 9 2,3 or 4 digits	Disable
Flash Time	Selecting	NO, 80, 96, 112, 200, 300, 400, 500, 600, 700, 800, 900, 1000, 1100, 1200	600
Pause Time	Selecting	1.5, 2.5, 3.5, 4.5	1.5
DSC Time	Selecting	1.5 or 4.0	1.5
PBX Access No.	Direct	0 through 9 Maximum 2 digits *(a wild card character)	Not Stored

*(a wild card character) is used as any number.

For example:

0 * applies to numbers which begin with 0.

9 * applies to numbers which begin with 9.

4-3 Station

The screen illustrated below appears when you select "2. Station."

Station Menu	Off-line	KX-TD1232 Both
<p>1. Station Setting 1</p> <p>2. Station Setting 2</p> <p>3. Station Setting 3</p> <p>4. Station Setting 4</p> <p>5. Flexible Keys 1</p> <p>6. Flexible Keys 2</p> <p>7. DSS</p> <p>Select the number : [_]</p> <p>Enter the number, and hit ENTER key</p> <p>1 2 3 4 HELP 5 6 7 8 EXIT</p>		

<Operation>

- (1) Enter the number of the program, and press ENTER key.
- (2) Press F8 (EXIT) to return to Main Menu screen.

<Condition>

When you assign "Station Setting 2", "Flexible Keys 1", "FlexibleKeys 2", or "DSS" in Interactive Editing mode, the data are not loaded into DB of the DSHS by pressing only F7 (SAVE) key. They are only saved in DB of the IBM-PC. If you want to load the data into DB of the DSHS, you must press F7 (SAVE) and then F8 (EXIT) key.

1. Station Setting 1

Station Setting 1			Off-line		KX-TD1232 Both							
Jack	EXT	Name	X	E	Doorphone							
			D	X	Day				Night			
			P	G	1	2	3	4	1	2	3	4
01-1	[101]	[Operator-1]	Y	[1]	Y	Y	Y	Y	Y	Y	Y	Y
01-2	[201]	[Operator-2]	-	[1]	N	Y	N	N	N	N	N	N
02-1	[102]	[Manager]	Y	[1]	Y	Y	Y	Y	N	N	N	N
02-2	[202]	[Sheriff]	-	[1]	Y	Y	Y	Y	Y	Y	Y	Y
03-1	[103]	[]	N	[1]	N	N	N	N	N	N	N	N
03-2	[203]	[]	-	[1]	N	N	N	N	N	N	N	N
04-1	[104]	[]	N	[1]	N	N	N	N	N	N	N	N
04-2	[204]	[]	-	[1]	N	N	N	N	N	N	N	N
05-1	[105]	[Boss 1]	Y	[2]	N	Y	N	N	N	N	N	N
05-2	[205]	[Secretary 1]	-	[2]	N	N	N	N	N	N	N	N
06-1	[106]	[]	Y	[2]	N	N	N	N	N	N	N	N
06-2	[206]	[]	-	[2]	N	N	N	N	N	N	N	N
07-1	[107]	[Boss 2]	N	[3]	N	N	N	N	N	N	N	N
07-2	[207]	[Secretary 2]	-	[3]	N	N	N	N	N	N	N	N
08-1	[108]	[]	Y	[3]	N	N	N	N	N	N	N	N
08-2	[208]	[]	-	[3]	N	N	N	N	N	N	N	N

Enter numeric code
 COPY HELP P-PAGE N-PAGE SAVE EXIT

<Explanation>

- [1] EXT (Extension Number Set) [003]
Assigns an extension number to each extension.
- [2] Name (Extension Name Set) [004]
Assigns a user's name to each extension.
- [3] XDP (Extra Device Port) [600]
Assigns each extension port (jack) to be connected with a standard telephone or a proprietary telephone in parallel or not.
- [4] EXG (Extension Group Assignment) [602]
Assigns individual extensions to one extension group.
- [5] Doorphone Day / Night (Doorphone Ringing Assignment —Day / Night) [607,608]
Assigns extensions to answer a doorphone during day mode or night mode.

<Operation>

- (1) For KX-TD1232, this program consists of 8 pages.
The first page displays Jack No.01-1 through 08-2.
The second page displays Jack No.09-1 through 16-2.
The third page displays Jack No.17-1 through 24-2.
The fourth page displays Jack No.25-1 through 32-2.
The fifth page displays Jack No.33-1 through 40-2.
The sixth page displays Jack No.41-1 through 48-2.
The seventh page displays Jack No.49-1 through 56-2.
The last page displays Jack No.57-1 through 64-2.
For KX-TD816, this program consists of 2 pages.
The first page displays Jack No.01-1 through 08-2.
The last page displays Jack No.09-1 through 16-2.
- (2) Move the cursor to the field in which you want to set a parameter.
- (3) After editing the data, press F7 (SAVE) to save them on the screen into DB file.
- (4) Press F5 (P-PAGE) to return to the previous page.
- (5) Press F6 (N-PAGE) to advance to the next page.
- (6) Use F2 (COPY) if you want to copy the data of one Jack No. in another.
- (7) Press F8 (EXIT) to return to Station Menu screen.

<Condition>

- (1) A maximum of two doorphones are available for KX-TD816.
- (2) The extension numbers must be assigned.
- (3) The extension numbers and the extension names are unable to be copied.
- (4) The XDP feature cannot be assigned to Jack xx-2.
- (5) When you copy the data, those of Jack xx-1 and Jack xx-2 are regarded as one and they are copied together.
- (6) Immediately after changing your assignment of XDP, changed setting may not work for a maximum of eight seconds.
- (7) The XDP feature must be assigned "Disable" for DSS ports.

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

Table of Items

Assigning Items	Type of Field	Selection of parameter	Default
EXT	Direct	0 through 9 2,3 or 4 digits	For KX-TD1232 Jack01-1=101 Jack02-1=102 ⋮ Jack64-1=164 Jack01-2=201 Jack02-2=202 ⋮ Jack 64-2=264 For KX-TD816 Jack01-1=101 Jack02-1=102 ⋮ Jack16-1=116 Jack01-2=201 Jack02-2=202 ⋮ Jack 16-2=216
Name	Direct	0 through 9, A through Z, a through z, * # ! ? Space . , ' : ; / + = < > \$ % & @ () Maximum 10 characters	Not Stored
XDP	Selecting	Y : Enable or N : Disable	N
EXG	Direct	1 through 8 1 digit	1
Doorphone Day/ Night	Select	Y : Enable or N : Disable	Jack 01-1=Y Other Jacks=N

2. Station Setting 2

Station Setting 2		Off-line	KX-TD1232 Both
Jack	C	Mailbox	
	O	ID	
	S		
01-1	[1]	[1234567890123456]	
01-2	[1]	[101]
02-1	[1]	[102]
02-2	[1]	[103]
03-1	[1]	[104]
03-2	[1]	[105]
04-1	[1]	[106]
04-2	[1]	[107]
05-1	[2]	[110]
05-2	[3]	[111]
06-1	[3]	[112]
06-2	[3]	[113]
07-1	[2]	[114]
07-2	[3]	[115]
08-1	[3]	[116]
08-2	[3]	[117]

Enter numeric code

HELP
 P-PAGE
 N-PAGE
 SAVE
 EXIT

<Explanation>

[1] COS (Class of Service) [601]
 Assigns the Class of Service number to each extension.

[2] Mailbox ID (Voice Mail Access Codes) [609]
 Assigns the access codes for Voice Processing System.

<Operation>

- For KX-TD1232, this program consists of 8 pages.
 The first page displays Jack No.01-1 through 08-2.
 The second page displays Jack No.09-1 through 16-2.
 The third page displays Jack No.17-1 through 24-2.
 The fourth page displays Jack No.25-1 through 32-2.
 The fifth page displays Jack No.33-1 through 40-2.
 The sixth page displays Jack No.41-1 through 48-2.
 The seventh page displays Jack No.49-1 through 56-2.
 The last page displays Jack No.57-1 through 64-2.

For KX-TD816, this program consists of 2 pages.
 The first page displays Jack No.01-1 through 08-2.
 The last page displays Jack No.09-1 through 16-2.

- (2) Move the cursor to the field in which you want to set a parameter.
- (3) After editing the data, press F7 (SAVE) to save them on the screen into DB file.
- (4) Press F5 (P-PAGE) to return to the previous page.
- (5) Press F6 (N-PAGE) to advance to the next page.
- (6) Press F2 (COPY) to copy the data of one jack number in another.
- (7) Press F8 (EXIT) to return to Station Menu screen.

<Condition>

The Mailbox ID numbers are usually extension numbers, but the number you assigned here becomes valid when SYS2 Bit8 is assigned "free" in Additional Functions. (See 4-8 Additional Functions.)

<Note>

- (1) The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.
- (2) When the single system is operating, the data of all items in the screen of the system which is not operating cannot be assigned and they are not displayed in the screen.
- (3) It is invalid to copy to and from the data which are not displayed.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
COS	Direct	1 through 8 1 digit	1
Mailbox ID	Direct	0 through 9 * # P or p (PAUSE) Maximum 16 digits	Not Stored

3. Station Setting 3

Station Setting 3		Off-line	KX-TD1232 Both
Jack		CO line OG	
	Day	Night	
	00000000111 11111122222	00000000111	11111122222
	123456789012 345678901234	123456789012	345678901234
01-1	YYYYYYYYYYYY YYYYYYYYYYYY	YYYYYYYYYYYY	YYYYYYYYYYYY
01-2	YYYYYYYYYYYY YYYYYYYYYYYY	YYYYYYYYYYYY	YYYYYYYYYYYY
02-1	YYYYYYYYYYYY YYYYYYYYYYYY	YYYYYYYYYYYY	YYYYYYYYYYYY
02-2	YYYYYYYYYYYY YYYYYYYYYYYY	YYYYYYYYYYYY	YYYYYYYYYYYY
03-1	YYYYYYYYYYYY YYYYYYYYYYYY	YYYYYYYYYYYY	YYYYYYYYYYYY
03-2	YYYYYYYYYYYY YYYYYYYYYYYY	YYYYYYYYYYYY	YYYYYYYYYYYY
04-1	YYYYYYYYYYYY YYYYYYYYYYYY	YYYYYYYYYYYY	YYYYYYYYYYYY
04-2	YYYYYYYYYYYY YYYYYYYYYYYY	YYYYYYYYYYYY	YYYYYYYYYYYY
05-1	YYYYYYYYYYYY YYYYYYYYYYYY	YYYYYYYYYYYY	YYYYYYYYYYYY
05-2	YYYYYYYYYYYY YYYYYYYYYYYY	YYYYYYYYYYYY	YYYYYYYYYYYY
06-1	YYYYYYYYYYYY YYYYYYYYYYYY	YYYYYYYYYYYY	YYYYYYYYYYYY
06-2	NNNNNNNNNNNN YYYYYYYYYYYY	NNNNNNNNNNNN	YYYYYYYYYYYY
07-1	YYYYYYYYYYYY YYYYYYYYYYYY	YYYYYYYYYYYY	YYYYYYYYYYYY
07-2	YYYYYYYYYYYY YYYYYYYYYYYY	YYYYYYYYYYYY	NNNNNNNNNNNN
08-1	YYYYYYYYYYYY YYYYYNNNNNN	YYYYYYYYYYYY	YYYYYYYYYYYY
08-2	YYYYYYYYYYYY YYYYYYYYYYYY	YYYYYYYYYYYY	YYYYYYYYYYYY

Hit spacebar to select parameter

1 2 3 4 HELP 5 P-PAGE 6 N-PAGE 7 SAVE 8 EXIT

<Explanation>

CO line OG (Outgoing Permitted CO line Assignment — Day / Night) [605,606]
 Assigns a CO line with which extension users can make outside calls in day mode or in night mode.

<Operation>

- (1) For KX-TD1232, this program consists of 8 pages.
 The first page displays Jack No.01-1 through 08-2.
 The second page displays Jack No.09-1 through 16-2.
 The third page displays Jack No.17-1 through 24-2.
 The fourth page displays Jack No.25-1 through 32-2.
 The fifth page displays Jack No.33-1 through 40-2.
 The sixth page displays Jack No.41-1 through 48-2.
 The seventh page displays Jack No.49-1 through 56-2.
 The last page displays Jack No.57-1 through 64-2.
- For KX-TD816, this program consists of 2 pages.
 The first page displays Jack No.01-1 through 08-2.
 The last page displays Jack No.09-1 through 16-2.

- (2) Move the cursor to the field in which you want to set a parameter.
- (3) After editing the data, press F7 (SAVE) to save them on the screen into DB file.
- (4) Press F5 (P-PAGE) to return to the previous page.
- (5) Press F6 (N-PAGE) to advance to the next page.
- (6) Press F2 (COPY) to copy the data of one jack number in another.
- (7) Press F8 (EXIT) to return to Station Menu screen

<Condition>

- (1) A maximum of 8 CO lines are available for KX-TD816.
- (2) When the single system is operating, the data of CO line OG of the system which is not operating cannot be assigned and they are not displayed in the screen.
- (3) When you copy the data of CO line OG, it is invalid to copy to or from the data which are not displayed.

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
CO line OG	Selecting	Y : Enable or N : Disable	Y

4. Station Setting 4

Station Setting 4		Off-line	KX-TD1232 Both	
Jack	DIL 1 : N			
	Day		Night	
	00000000111	111111122222	00000000111	111111122222
	123456789012	345678901234	123456789012	345678901234
01-1	00000000000	00000000000	00000000000	00000000000
01-2	00000000000	00000000000	DDDDDDDDDDDD	00000000000
02-1	00000000000	00000000000	00000000000	00000000000
02-2	00000000000	00000000000	00000000000	00000000000
03-1	00000000000	00000000000	00000000000	00000000000
03-2	00000000000	00000000000	00000000000	00000000000
04-1	00000000000	00000000000	00000000000	00000000000
04-2	00000000000	00000000000	00000000000	00000000000
05-1	00300DDDDDD	00000000000	00000000000	00000000000
05-2	00000000000	00000000000	00000000000	00000000000
06-1	D600DDDDDDDD	00000000000	00000000000	00000000000
06-2	D600DDDDDDDD	00000000000	00000000000	00000000000
07-1	00000000000	00000000000	00000000000	00000000000
07-2	00000000000	00000000000	00000000000	00000000000
08-1	00000000000	00000000000	00000000000	00000000000
08-2	00000000000	00000000000	00000000000	00000000000

Enter numeric code

1 2 3 4 HELP 5 P-PAGE 6 N-PAGE 7 SAVE 8 EXIT

<Explanation>

- [1] DIL 1 : N Day/Night [603,604]
 (Direct In Line 1 : N Extension and Delayed Ringing — Day / Night)
 Assigns the state of DIL 1 : N to each extension in day mode or in night mode.

<Operation>

- (1) For KX-TD1232, this program consists of 8 pages.
 The first page displays Jack No.01-1 through 08-2.
 The second page displays Jack No.09-1 through 16-2.
 The third page displays Jack No.17-1 through 24-2.
 The fourth page displays Jack No.25-1 through 32-2.
 The fifth page displays Jack No.33-1 through 40-2.
 The sixth page displays Jack No.41-1 through 48-2.
 The seventh page displays Jack No.49-1 through 56-2.
 The last page displays Jack No.57-1 through 64-2.
 For KX-TD816, this program consists of 2 pages.
 The first page displays Jack No.01-1 through 08-2.
 The last page displays Jack No.09-1 through 16-2.

- (2) Move the cursor to the field in which you want to set a parameter.
- (3) After editing the data, press F7 (SAVE) to save them on the screen into DB file.
- (4) Press F5 (P-PAGE) to return to the previous page.
- (5) Press F6 (N-PAGE) to advance to the next page.
- (6) Press F2 (COPY) to copy the data of one jack number in another.
- (7) Press F8 (EXIT) to return to Station Menu screen.

<Condition>

- (1) A maximum of 8 CO lines are available for the KX-TD816.
- (2) In the case of KX-TD1232, the Batch files of inapplicable versions are converted to the new version automatically.

<Note>

- (1) The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.
- (2) When the single system is operating, the data of all items in the screen of the system which is not operating cannot be assigned and they are not displayed in the screen.
- (3) It is invalid to copy to and from the data which are not displayed.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
DIL 1 : N Day / Night	Selecting	D : Disable, 0 : Immediate, 1 : 1 Ring, 3 : 3 Rings, 6 : 6 Rings N : No Rings	0

5. Flexible Keys 1

Flexible Keys 1	Off-line	KX-TD1232 Both
<p style="text-align: center;">[Faint, illegible text]</p>		
<p>Enter jack no.=[_]</p> <p>[1] [2] [3] [4] [5] [6] [7] [8] EXIT</p>		

<Explanation>

Flexible Keys (Flexible CO Button Assignment) [005]
Assigns the use of the flexible CO buttons of the extension telephones within the system.

<Operation>

- (1) Enter the Jack number and press Enter key. The data screen appears.
- (2) Press F8 (EXIT) to return to Station Menu Screen.

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
jack no.	Direct	01 through 64 (for KX-TD1232) 01 through 16 (for KX-TD816)	2 digits Not Stored

Flexible Keys 1	Off-line	KX-TD1232 Both
Jack No. 01		
CO01	S-CO [01] : TONE[1]	CO13 S-CO[02] : TONE[1]
CO02	G-CO [1] : TONE[1]	CO14 S-CO[03] : TONE[1]
CO03	L-CO : TONE[1]	CO15 S-CO[04] : TONE[1]
CO04	DSS : EXT[100]	CO16 S-CO[05] : TONE[1]
CO05(DSS1)	[092-431-2111]	CO17 S-CO[06] : TONE[1]
CO06(DSS2)	MSG WAIT	CO18 S-CO[07] : TONE[1]
CO07(DSS3)	FWD/DND	CO19 [092-234-1234]
CO08(DSS4)	SAVE	CO20 [092-234-2345]
CO09(DSS5)	ACCOUNT	CO21 [092-234-3456]
CO10(DSS6)	[]	CO22 [092-234-4567]
CO11(DSS7)	[]	CO23 [092-234-5678]
CO12(DSS8)	[]	CO24 [092-234-6789]
Hit spacebar to select parameter		
<input type="checkbox"/> JACK <input type="checkbox"/> COPY <input type="checkbox"/> <input type="checkbox"/> HELP <input type="checkbox"/> P-PAGE <input type="checkbox"/> N-PAGE <input type="checkbox"/> SAVE <input type="checkbox"/> EXIT		

<Operation>

- (1) This program is displayed at every jack number.
- (2) Move the cursor to the field in which you want to set a parameter. You must select the feature first and enter numbers.
- (3) After editing the data, press F7 (SAVE) to save them on the screen into DB file.
- (4) Press F5 (P-PAGE) to return to the previous page.
- (5) Press F6 (N-PAGE) to advance to the next page.
- (6) Use F2 (COPY) if you want to copy the data of one Flexible button in another.
- (7) Press F1 (JACK) to return to the screen to enter Jack number.
- (8) Press F8 (EXIT) to return to Station Menu screen.

<Condition>

- (1) If the number assigned for Single CO key or DSS key is redundant, an error message appears.
- (2) An assignable number of One Touch key is fixed beforehand. You cannot exceed it.
- (3) When a single system is operating, you cannot assign the features of Flexible keys of the system which is not operating and they are not displayed in the screen.
- (4) It is invalid to copy to or from the data which are not displayed.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
Flexible Keys	Selecting	S-CO, G-CO, L-CO, DSS, [](means One Touch Key), MSG WAIT, FWD/DND, SAVE, ACCOUNT, CONF, VTR	For KX-TD1232 CO01 : S-CO[01] : TONE[1] CO02 : S-CO[02] : TONE[1] : CO24 : S-CO[24] : TONE[1]
S-CO	Direct	CO=01 through 24 Tone=1 though 8	: CO01 : S-CO[01] : TONE[1] CO02 : S-CO[02] : TONE[1] : CO24 : S-CO[24] : TONE[1]
G-CO	Direct	TRG=1 through 8 Tone=1 though 8	For KX-TD816 CO01 : S-CO[01] : TONE[1] CO02 : S-CO[02] : TONE[1] : CO08 : S-CO[08] : TONE[1]
L-CO	Direct	Tone=1 through 8	CO01 : S-CO[01] : TONE[1] CO02 : S-CO[02] : TONE[1] : CO08 : S-CO[08] : TONE[1]
DSS	Direct	EXT=0 through 9 2, 3 or 4 digits	CO01 : S-CO[01] : TONE[1] CO02 : S-CO[02] : TONE[1] : CO08 : S-CO[08] : TONE[1]
[] (One Touch)	Direct	0 through 9 * # -, P or p (PAUSE), F or f (FLASH), S or s (SECRET)	CO01 : S-CO[01] : TONE[1] CO02 : S-CO[02] : TONE[1] : CO08 : S-CO[08] : TONE[1]
VTR	Direct	EXT=0 through 9 2, 3 or 4 digits	CO01 : S-CO[01] : TONE[1] CO02 : S-CO[02] : TONE[1] : CO08 : S-CO[08] : TONE[1]

The table illustrated below shows all features assignable to Flexible Keys.

Flexible Keys Features	CO	DSS	PF
Single CO Key	✓	-	-
Group CO Key	✓	-	-
Loop CO Key	✓	-	-
DSS Key	✓	✓	-
One Touch Key	✓	✓	✓
MESSAGE WAIT Key	✓	✓	-
FWD / DND Key	✓	✓	✓
SAVE Key	✓	✓	✓
ACCOUNT Key	✓	✓	✓
CONF Key	✓	✓	✓
VTR Key	✓	✓	✓

• Features marked ✓ can be assigned to each Flexible key.

5. Flexible Keys 2

Flexible Keys 2	Off-line	KX-TD1232 Both
<p>Enter jack no.=[_]</p> <p>[1] [2] [3] [4] [5] [6] [7] [8] EXIT</p>		

<Explanation>

- [1] Flexible Keys (Flexible Button Assignment) [005]
Assigns the use of the flexible buttons of the extension telephones within the system.

<Operation>

- (1) Enter the Jack number and press Enter key. The data screen appears.
- (2) Press F8 (EXIT) to return to Station Menu Screen.

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
jack no.	Direct	01 through 64 (for KX-TD1232) 01 through 16 (for KX-TD816)	2 digits Not Stored

Flexible Keys 2	Off-line	KX-TD1232 Both
Jack No. 01-1		
PF01(F1) [092-321-9876]	Name(F1)	[KME-4DIV]
PF02(F2) [092-321-8765]	Name(F2)	[Jim Kopp]
PF03(F3) [092-321-7654]	Name(F3)	[]
PF04(F4) [092-321-6543]	Name(F4)	[]
PF05(F5) [092-321-5432]	Name(F5)	[]
PF06(F6) [092-321-4321]	Name(F6)	[]
PF07(F7) [092-321-3210]	Name(F7)	[]
PF08(F8) [092-321-2109]	Name(F8)	[]
PF09(F9) [092-321-1098]	Name(F9)	[]
PF10(F10) [092-321-0987]	Name(F10)	[]
PF11 [092-321-0876]		
PF12 [092-321-0765]		
Jack No. 01-2		
SPD0 []	SPD4 []	SPD8 []
SPD1 []	SPD5 []	SPD9 []
SPD2 []	SPD6 []	P-DL []
SPD3 []	SPD7 []	
Enter numeric code		
1 JACK	2 COPY	3 4 HELP
	5 P-PAGE	6 N-PAGE
	7 SAVE	8 EXIT

<Operation>

- (1) This program is displayed at every jack number.
- (2) Move the cursor to the field in which you want to set a parameter. You must select the feature first and enter numbers.
- (3) After editing the data, press F7 (SAVE) to save them on the screen into DB file.
- (4) Press F5 (P-PAGE) to return to the previous page.
- (5) Press F6 (N-PAGE) to advance to the next page.
- (6) Use F2 (COPY) if you want to copy the data of one Flexible button in another.
- (7) Press F1 (JACK) to return to the screen to enter Jack number.
- (8) Press F8 (EXIT) to return to Station Menu screen.

<Condition>

- (1) An assignable number of One Touch key is fixed beforehand. You cannot exceed it.
- (2) When you copy the data, those of Jack xx-1 and Jack xx-2 are regarded as one and they are copied together.
- (3) When a single system is operating, you cannot assign the features of Flexible keys of the system which is not operating and they are not displayed in the screen.
- (4) It is invalid to copy in or from the data which are not displayed.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
Flexible Keys	Selecting	[](means One Touch Key), FWD/DND, SAVE, ACCOUNT, CONF, VTR	PF01 : [] PF02 : [] . . . PF12 : []
[] (One Touch)	Direct	0 through 9 * # -, P or p (PAUSE), F or f (FLASH), S or s (SECRET)	
VTR	Direct	EXT=0 through 9 2, 3 or 4 digits	
Name	Direct	0 through 9 A through Z a through z Maximum * # ! ? Space . , ' : ; / + - = < > \$ % & @ () 10 characters	Not Stored
SPD	Direct	0 through 9 * # -, P or p (PAUSE), F or f (FLASH), S or s (SECRET)	Not Stored
P-DL	Direct	0 through 9 * # -, P or p (PAUSE), F or f (FLASH), S or s (SECRET)	Not Stored

<Note>

For assignable features, refer to page 4-20.

6. DSS

DSS	Off-line	KX-TD1232 Both
<p>Enter DSS no.=[_]</p> <p> <input type="button" value="1"/> <input type="button" value="2"/> <input type="button" value="3"/> <input type="button" value="4"/> <input type="button" value="5"/> <input type="button" value="6"/> <input type="button" value="7"/> <input type="button" value="8"/> EXIT </p>		

<Explanation>

DSS (DSS Console Assignment)

Assigns the feature of DSS buttons of DSS consoles.

<Operation>

- (1) Enter DSS number and press ENTER key. The data screen appears.
- (2) Press F8 (EXIT) to return to Station Menu screen.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter		Default
DSS No.	Direct	1 through 8 (for KX-TD1232) 1 through 4 (for KX-TD816)	1 digit	Not Stored

DSS	Off-line	KX-TD1232 Both
DSS No. 1		
DSS Jack No.⇒ Jack [02]		
Pair Jack No.⇒ Jack [01]		
DSS01	DSS: EXT[100]	DSS17 [092-234-1234] PF01 [092-321-9876]
DSS02	[092-431-2111]	DSS18 [092-234-2345] PF02 [092-321-8765]
DSS03	MSG WAIT	DSS19 [092-234-3456] PF03 [092-321-7654]
DSS04	FWD/DND	DSS20 [092-234-4567] PF04 [092-321-6543]
DSS05	SAVE	DSS21 [092-234-5678] PF05 [092-321-5432]
DSS06	ACCOUNT	DSS22 [092-234-6789] PF06 [092-321-4321]
DSS07	[]	DSS23 [] PF07 [092-321-3210]
DSS08	[]	DSS24 [] PF08 [092-321-2109]
DSS09	[]	DSS25 [] PF09 [092-321-1098]
DSS10	[]	DSS26 [] PF10 [092-321-0987]
DSS11	[]	DSS27 [] PF11 [092-321-0876]
DSS12	[]	DSS28 [] PF12 [092-321-0765]
DSS13	[]	DSS29 [] PF13 []
DSS14	[]	DSS30 [] PF14 []
DSS15	[]	DSS31 [] PF14 []
DSS16	[]	DSS32 [] PF16 []
Enter numeric code		
<input type="checkbox"/> DSS <input type="checkbox"/> COPY <input type="checkbox"/> <input type="checkbox"/> HELP <input type="checkbox"/> P-PAGE <input type="checkbox"/> N-PAGE <input type="checkbox"/> SAVE <input type="checkbox"/> EXIT		

<Explanation>

- [1] DSS Jack No. [007]
Assigns the Jack numbers connected with a DSS console.
- [2] Pair Jack No. [007]
Assigns the paired extension's Jack number.

<Operation>

- (1) This program is displayed at every DSS number.
- (2) Move the cursor to the field in which you want to set a parameter. You must select the feature first and enter numbers.
- (3) After editing the data, press F7 (SAVE) to save them on the screen into DB file.
- (4) Press F5 (P-PAGE) to return to the previous page.
- (5) Press F6 (N-PAGE) to advance to the next page.
- (6) Use F2 (COPY) if you want to copy the data of one DSS button in another.

- (7) Press F1 (DSS) to return to the screen to enter DSS number.
- (8) Press F8 (EXIT) to return to Station Menu screen.

<Condition>

- (1) If the number assigned for DSS key is redundant, the previous assignment is cancelled and the new entry becomes effective.
- (2) An assignable number of One Touch key is fixed beforehand. You cannot exceed it.
- (3) For KX-TD1232, when you assign extensions connected to DSS consoles and paired telephones, DSS No.1 through 4 must be connected to one of Jack No. 02 through 32 and DSS No.5 through 8 must be connected to one of Jack No.33 through 64. (When System Connection is executed, you must connect DSS consoles and paired telephones to the same system.)
- (4) Multiple DSS consoles cannot be connected to the same extension.
- (5) The multiple paired telephones can be connected to the same extension.
- (6) When a single system is operating, you cannot assign the features of DSS consoles connected to the system unoperating. If you try to assign the features, an error message appears.
- (7) You cannot assign the jack 01 or the jack number of Manager to a DSS jack.
- (8) The XDP feature must be assigned "Disable" for DSS ports.

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
DSS Jack No.	Selecting and Direct	Disable or [] (After selecting []) 02 through 64 (for KX-TD1232) 2 digits 02 through 16 (for KX-TD816)	Disable
Pair Jack No.	Selecting and Direct	Disable or [] (After selecting []) 01 through 64 (for KX-TD1232) 2 digits 01 through 16 (for KX-TD816)	Disable
Flexible Keys	Direct	DSS, [](means One Touch Key), MSG WAIT, FWD/DND, SAVE, ACCOUNT, CONF, VTR	DSS 01 : DSS : EXT [101] DSS 02 : DSS : EXT [102] : : DSS 32 : DSS : EXT [132]
DSS	Selecting	EXT=0 through 9 2, 3 or 4 digits	PF01 : [] PF02 : [] : : PF16 : []
[] (One Touch)	Direct	0 through 9 * # -, P or p (PAUSE), F or f (FLASH), S or s (SECRET)	

The table illustrated below shows all features assignable to Flexible Keys.

Features	Flexible Keys	
	DSS	PF
DSS Key	✓	-
One Touch Key	✓	✓
MESSAGE WAIT Key	✓	-
FWD / DND Key	✓	✓
SAVE Key	✓	✓
ACCOUNT Key	✓	✓
CONF Key	✓	✓
VTR Key	✓	✓

• Features marked ✓ can be assigned to each Flexible key.

4-4 System

The screen illustrated below appears when you select "3. System".

System Menu	Off-line	KX-TD1232 Both
<p>01. Day / Night 02. Class of Service 03. Speed Dial 04. Absent Message 05. Flexible Numbering 06. Account Code / Special Carrier 07. Timer 08. Voice Mail 09. Miscellaneous 10. System Time 11. Version</p> <p>Select the number : []</p> <p>Enter the number, and hit ENTER key</p> <p>1 2 3 4 HELP 5 6 7 8 EXIT</p>		

<Operation>

- (1) Enter the number of the program, and press ENTER key.
- (2) Press F8 (EXIT) to return to Main Menu screen.

<Condition>

An error message appears when you select "10. System Time" or "11. Version" in Batch Editing Mode.

01. Day/Night

Day / Night	Off-line	KX-TD1232 Both
Mode⇒Manual		
	Day	Night
Sun	09 : 00 AM	05 : 00 PM
Mon	09 : 00 AM	05 : 00 PM
Tue	09 : 00 AM	05 : 00 PM
Wed	09 : 00 AM	05 : 00 PM
Thu	09 : 00 AM	05 : 00 PM
Fri	09 : 00 AM	05 : 00 PM
Sat	09 : 00 AM	05 : 00 PM
Hit spacebar to select parameter		
[1]	[2]	[3]
[4] HELP	[5]	[6]
[7] SAVE	[8] EXIT	

<Explanation>

[1] Mode (Day / Night Service Switching Mode)

[101]

Assigns the method to alternate with the day and night modes.

[2] Time (Day / Night Service Starting Time)

[102]

Sets the starting time when you select the automatic switching mode for day / night service.

<Operation>

(1) Move the cursor to the field in which you want to set a parameter.

(2) After editing the data, press F7 (SAVE) to save them on the screen into DB file.

(3) Press F8 (EXIT) to return to System Menu screen.

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

02. Class of Service

Class of Service			Off-line			KX-TD1232 Both			
C	TRS-Level		Durat	TRNSF	Call	Busy	Busy	DND	Account
O			Limit	to CO	FWD	OVRID	OVRID	OVRID	Code
S	Day	Night			to CO		Deny		
1	[1]	[1]	Disable	Disable	Disable	Disable	Disable	Disable	Option
2	[1]	[2]	Enable	Enable	Enable	Enable	Enable	Enable	Verify-All
3	[1]	[2]	Disable	Disable	Disable	Disable	Disable	Disable	Verify-Toll
4	[1]	[2]	Disable	Disable	Disable	Disable	Disable	Disable	Option
5	[2]	[3]	Disable	Disable	Disable	Disable	Disable	Disable	Option
6	[2]	[3]	Disable	Disable	Disable	Disable	Disable	Disable	Option
7	[3]	[4]	Disable	Disable	Disable	Disable	Disable	Disable	Option
8	[3]	[4]	Disable	Disable	Disable	Disable	Disable	Disable	Option

Enter numeric code

1
 2 COPY
 3
 4 HELP
 5
 6
 7 SAVE
 8 EXIT

<Explanation>

- [1] TRS-Level Day/Night (Toll Restriction Level — Day / Night) [500, 501]
Assigns the level of Toll Restriction during day or night mode.
- [2] Durat Limit (Extension-to-CO Line Call Duration Limit) [502]
Assigns the duration time of an originated outside call to be limited or not.
- [3] TRNSF to CO (Call Transfer to CO Line) [503]
Assigns transferring to CO to be made or not.
- [4] Call FWD to CO (Call Forwarding to CO Line) [504]
Assigns the Call Forwarding to outside to be made or not.
- [5] Busy OVRID (Executive Busy Override) [505]
Assigns Busy Override Service to be valid or not.
- [6] Busy OVRID Deny (Executive Busy Override Deny) [506]
Assigns the Busy Override to be denied or not.

[7] DND OVRID (Do Not Disturb Override) [507]
Assigns the Do Not Disturb Service to be valid or not.

[8] Account Code (Account Code Entry Mode) [508]
Assigns the mode of entering the account codes.

<Operation>

- (1) Move the cursor to the field in which you want to set a parameter.
- (2) After editing the data, press F7 (SAVE) to save them on the screen into DB file.
- (3) Use F2 (COPY) if you want to copy the data of one COS No. in another.
- (4) Press F8 (EXIT) to return to System Menu screen.

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
TRS-Level Day / Night	Direct	1 through 8 1 digit	1
Durat Limit	Selecting	Disable or Enable	Disable
TRNSF to CO	Selecting	Disable or Enable	Enable
Call FWD to CO	Selecting	Disable or Enable	Disable
Busy OVRID	Selecting	Disable or Enable	Disable
Busy OVRID Deny	Selecting	Disable or Enable	Enable
DND OVRID	Selecting	Disable or Enable	Disable
Account Code	Selecting	Option, Verify-All, Verify-Toll	Option

TRS-Level

- Level 1 ... Not restricted
- Level 7 ... All outgoing calls are prohibited.
- Level 8 ... All outgoing and extension calls except calling to the operator are prohibited.
- Level 2 through 6 are assigned in Toll Restriction Menu.

- (4) Press F5 (P-PAGE) to return to the previous page.
- (5) Press F6 (N-PAGE) to advance to the next page.
- (6) Press F8 (EXIT) to return to System Menu screen.

<Condition>

You must enter numbers from a left end. If you make a space in a field and try to move the cursor to the next item, an error message appears and the cursor does not move to the next.

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
Name	Direct	0 through 9 A through Z a through z * # ! ? Space . , ' : ; / + - = < > \$ % & @ ()	Maximum 10 characters Not Stored
Number	Direct	0 through 9 * # - P or p (PAUSE) F or f (FLASH) S or s (SECRET)	Maximum 24 digits Not Stored

04. Absent Message

Absent Message	Off-line	KX-TD1232 Both																				
<table> <thead> <tr> <th>MSGN</th> <th>Message</th> </tr> </thead> <tbody> <tr> <td>1-</td> <td>[<u>Will Return soon</u>]</td> </tr> <tr> <td>2-</td> <td>[<u>Gone Home</u>]</td> </tr> <tr> <td>3-</td> <td>[<u>At Ext %%%</u>]</td> </tr> <tr> <td>4-</td> <td>[<u>Back at %%%:%%%</u>]</td> </tr> <tr> <td>5-</td> <td>[<u>Out Until %%/%%%</u>]</td> </tr> <tr> <td>6-</td> <td>[<u>In a Meeting</u>]</td> </tr> <tr> <td>7-</td> <td>[]</td> </tr> <tr> <td>8-</td> <td>[]</td> </tr> <tr> <td>9-</td> <td>[]</td> </tr> </tbody> </table>			MSGN	Message	1-	[<u>Will Return soon</u>]	2-	[<u>Gone Home</u>]	3-	[<u>At Ext %%%</u>]	4-	[<u>Back at %%%:%%%</u>]	5-	[<u>Out Until %%/%%%</u>]	6-	[<u>In a Meeting</u>]	7-	[]	8-	[]	9-	[]
MSGN	Message																					
1-	[<u>Will Return soon</u>]																					
2-	[<u>Gone Home</u>]																					
3-	[<u>At Ext %%%</u>]																					
4-	[<u>Back at %%%:%%%</u>]																					
5-	[<u>Out Until %%/%%%</u>]																					
6-	[<u>In a Meeting</u>]																					
7-	[]																					
8-	[]																					
9-	[]																					
Enter alphanumeric Code <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 HELP <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 SAVE <input type="checkbox"/> 8 EXIT																						

<Explanation>

Message (Absent Messages)
 Assigns the Absent Messages.

[008]

<Operation>

- (1) Move the cursor to the field in which you want to set a parameter.
- (2) After editing the data, press F7 (SAVE) to save them on the screen into DB file.
- (3) Press F8 (EXIT) to return to System Menu screen.

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
Message	Direct	0 through 9 A through Z a through z Maximum * # ! ? Space . , ' : ; / + - = < > \$ % & @ () 16 characters	1-[Will Return Soon] 2-[Gone Home] 3-[At Ext %%%] 4-[Back at %% :%%] 5-[Out Until %%/%%] 6-[In a Meeting] 7-[] 8-[] 9-[]

% means a Flexible character. You can enter up to 7 characters in one message.

05. Flexible Numbering

Flexible Numbering		Off-line		KX-TD1232 Both	
No. (Feature)	Dial	No. (Feature)	Dial	No. (Feature)	Dial
01(1-EXT BLK)	⇒[1]	21(Speed STA)	⇒[3*]	41(OMG P/Rec)	⇒[36]
02(2-EXT BLK)	⇒[2]	22(Speed PRG)	⇒[30]	42(FWD / DND)	⇒[710]
03(3-EXT BLK)	⇒[]	23(Door Call)	⇒[31]	43(Pick Deny)	⇒[720]
04(4-EXT BLK)	⇒[]	24(Extr Page)	⇒[32]	44(Data Line)	⇒[730]
05(5-EXT BLK)	⇒[]	25(E-Pag Ans)	⇒[42]	45(Call Wait)	⇒[731]
06(6-EXT BLK)	⇒[]	26(STA Page)	⇒[33]	46(Over Deny)	⇒[733]
07(7-EXT BLK)	⇒[]	27(S-Pag Ans)	⇒[43]	47(Pickup DL)	⇒[74]
08(8-EXT BLK)	⇒[]	28(CO Pick)	⇒[4*]	48(Absnt MSG)	⇒[750]
09(9-EXT BLK)	⇒[]	29(GRP Pick)	⇒[40]	49(T-Reminder)	⇒[76]
10(10-EXT BLK)	⇒[]	30(Call Pick)	⇒[41]	50(STA Lock)	⇒[77]
11(11-EXT BLK)	⇒[]	31(Hold)	⇒[50]	51(Night Mod)	⇒[78]
12(12-EXT BLK)	⇒[]	32(H-Ret STA)	⇒[51]	52(Para Mod)	⇒[39]
13(13-EXT BLK)	⇒[]	33(H-Ret TRK)	⇒[53]	53(Extr BGM)	⇒[35]
14(14-EXT BLK)	⇒[]	34(Redial)	⇒[#]		
15(15-EXT BLK)	⇒[]	35(Call Park)	⇒[52]		
16(16-EXT BLK)	⇒[]	36(ACCT Code)	⇒[49]		
17(Oper Call)	⇒[0]	37(Door Open)	⇒[55]		
18(Locl Call)	⇒[9]	38(E-Feature)	⇒[6]		
19(TRG Call)	⇒[8]	39(STA Clear)	⇒[790]		
20(Speed SYS)	⇒[*]	40(MSG Wait)	⇒[70]		

Enter numeric code

4 HELP 7 SAVE 8 EXIT

<Explanation>

Dial (Flexible Numbering)

[100]

Assigns dialing numbers of each feature.

<Operation>

- (1) Move the cursor to the field in which you want to set a parameter.
- (2) After editing the data, press F7 (SAVE) to save them on the screen into DB file.
- (3) Press F8 (EXIT) to return to System Menu screen.

<Condition>

- (1) For KX-TD816, "No.41(OMG P/Rec) ⇒[36]" is changed to "41(Reverse) ⇒[]".
- (2) You must enter numbers from a left end. If you make a space in a field and try to move the cursor to the next item, an error message appears and it does not move to the next.

- (3) When you press F7 (SAVE), it is checked whether the double storage is done or not.
- (4) An error message appears when you press F7 (SAVE) if you changed the numbers of extension block which are used in extension numbers or Floating extension numbers.

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
Dial	Direct	0 through 9 ≠ # 0, 1, 2 or 3 digits	Same as the screen on the previous page

06. Account Code / Special Carrier

Account Code / Special Carrier		Off-line	KX-TD1232 Both
LOC	Account Code	LOC	Special Carrier
01	[3230001]	01	[1028800]
02	[]	02	[]
03	[]	03	[]
04	[]	04	[]
05	[]	05	[]
06	[]	06	[]
07	[]	07	[]
08	[]	08	[]
09	[]	09	[]
10	[]	10	[]
11	[]	11	[]
12	[]	12	[]
13	[]	13	[]
14	[]	14	[]
15	[]	15	[]
16	[]	16	[]
17	[]	17	[]
18	[]	18	[]
19	[]	19	[]
20	[]	20	[]

Enter numeric code

1
 2
 3
 4 HELP
 5
 6
 7 SAVE
 8 EXIT

<Explanation>

- [1] Account Code (Account Codes) [105]
Assigns the Account Codes for Verified mode.
- [2] Special Carrier (Special Carrier Access Codes) [311]
Assigns the Special Carrier numbers.

<Operation>

- (1) Move the cursor to the field in which you want to set a parameter.
- (2) After editing the data, press F7 (SAVE) to save them on the screen into DB file.
- (3) Press F8 (EXIT) to return to System Menu screen.

<Condition>

- (1) Special Carrier Assignment is unavailable in countries except USA, Canada and New Zealand.
- (2) Account Codes including "99" in any part or ending with "9" are invalid.

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
Account Code	Direct	0 through 9 Maximum 10 digits	Not Stored
Special Carrier	Direct	0 through 9 *(a wild card character) Maximum 7 digits	Not Stored

- | | | |
|------|-----------------------------------------------------------------------------------------|-------|
| [7] | CO-CO Call Duration Time (CO-to-CO Call Duration Time) | [206] |
| | Assigns the duration time allowed for a conversation between two outside parties. | |
| [8] | 1st Digit Time (First Digit Time) | [207] |
| | Sets the maximum time allowed between the dial tone and the first digit dialed. | |
| [9] | Inter Digit Time (Inter Digit Time) | [208] |
| | Sets the maximum time allowed between digits on an outside call. | |
| [10] | Automatic Redial Repeat Times (Automatic Redial Repeat Times) | [209] |
| | Sets the repeated time of Automatic Redial. | |
| [11] | Automatic Redial Interval Time (Automatic Redial Interval Time) | [210] |
| | Sets the interval time for Automatic Redial. | |
| [12] | CO Dial Starting Time (Dial Start Time) | [211] |
| | Sets the time taken for the system to start dialing after an outside line is seized. | |
| [13] | Call Duration Count Start Time (Call Duration Count Start Time) | [212] |
| | Sets the time taken to start counting the outgoing call duration. | |
| [14] | DISA Delayed Answer Time (DISA Delayed Answer Time) | [213] |
| | Sets the time taken to answer incoming calls by DISA feature. | |
| | • The feature is available for KX-TD1232 only. | |
| [15] | DISA Prolong Time (DISA Prolong Time) | [214] |
| | Sets the prolonged time for a conversation between two outside parties by DISA feature. | |
| | • The feature is available for KX-TD1232 only. | |

<Operation>

- (1) Move the cursor to the field in which you want to set a parameter.
- (2) After editing the data, press F7 (SAVE) to save them on the screen into DB file.
- (3) Press F8 (EXIT) to return to System Menu screen.

<Condition>

- (1) If you make a space in a field and press F7 (SAVE), an error message appears.
- (2) An error message appears when you set a parameter beyond a range and press F7 (SAVE).

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
All items	Direct	0 through 9 1, 2 or 3 digits	Same as the screen on the previous page

08. Voice Mail

Voice Mail	Off-line	KX-TD1232 Both
Extension Status		
Ringback Tone	[1]	
Busy Tone	[2]	
Reorder Tone	[3]	
DND Tone	[4]	
Extension Answer	[5]	
Extension Disconnect	[#9]	
Confirmation Tone	[9]	
FWD to VM Ringback Tone	[6]	
FWD to VM Busy Tone	[7]	
FWD to Extension Ringback Tone	[8]	
Voice Mail Command		
Leave Message	[H]	
Get Message	[*H]	
AA Service	[#8]	
VM Service	[#6]	
Enter numeric code		
[1]	[2]	[3]
[4] HELP	[5]	[6]
[7] SAVE	[8] EXIT	

<Explanation>

- [1] Extension Status (VM Status DTMF Set) [113]
Assigns the DTMF signal to allow the Voice Processing System to recognize it as the tone.
- [2] Voice Mail Command (VM Command DTMF Set) [114]
Assigns the features which the Voice Processing System executes.

<Operation>

- (1) Move the cursor to the field in which you want to set a parameter.
- (2) After editing the data, press F7 (SAVE) to save them on the screen into DB file.
- (3) Press F8 (EXIT) to return to System Menu screen.

<Condition>

- (1) "H" can be assigned to Leave Message and Get Message. The ID is inserted in the place of "H".

- (2) The FWD to VM Ringback Tone and FWD to Extension Ringback Tone are not available now, but they are assignable for further use.

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
Extension Status	Direct	0 through 9 # P or p (PAUSE) Maximum 3 digits	Same as the screen on the previous page
Voice Mail Command	Direct	0 through 9 # P or p (PAUSE) H or h (Home Position) Maximum 16 digits	Same as the screen on the previous page

09. Miscellaneous

Miscellaneous	Off-line	KX-TD1232 Both
Expansion Card Type (Master) ⇒ EXP1-EXT1 EXP2-EXT2 EXP3-COT1		
(Slave) ⇒ EXP1-EXT1 EXP2-EXT2 EXP3-COT1		
Password ⇒ [1234567]		
Operator-1 ⇒ Jack[01]		
Operator-2 ⇒ Disable		
Manager ⇒ Disable		
Local Access ⇒ Priority = 1 2 3 4 5 6 7 8		
TRG No.= [1] [2] [3] [4] [5] [6] [7] [8]		
Call Hunting ⇒ EXG No.= 1 2 3 4 5 6 7 8		
D T C D D D D D		
SPD TRS Override ⇒ Disable		
CO Auto-Hold By Push DSS-Key ⇒ Enable		
Adjust Time ⇒ [01:00] AM		
Hit spacebar to select parameter		
<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 HELP <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 SAVE <input type="checkbox"/> 8 EXIT		

<Explanation>

- [1] Expansion Card Type Master / Slave (Expansion Card Type) [109]
Assigns the type of Expansion Card for Master or Slave DSHS.
- [2] Password (System Password) [107]
Assigns a password for communicating with DSHS from a remote terminal.
- [3] Operator-1/-2 (Operator Extension Assignment) [1006]
Assigns Jack No. connected with Operator-1 or Operator-2.
- [4] Manager (Manager Extension Assignment) [1006]
Assigns Jack No. connected with Manager.
- [5] Local Access (Automatic Access CO Line Group Assignment) [103]
Assigns CO line groups in the preferential order for Automatic Access.
- [6] Call Hunting (Station Hunting Type) [106]
Assigns the Station Hunting type on an extension group basis.

- [7] SPD TRS Override (TRS Override for System Speed Dialing) [300]
Assigns to enable or disable to restrict calls made by SPD.
- [8] CO Auto-Hold by Push DSS-Key (One-Touch Transfer by DSS Button) [108]
Assigns to enable or disable to hold an outside call automatically by pressing a DSS button on the DSS Console during the outside call.
- [9] Adjust Time (Adjust Time) [115]
Sets the time to adjust the data between the system of Master DSHS and Slave DSHS.

<Operation>

- (1) Move the cursor to the field in which you want to set a parameter.
- (2) After editing the data, press F7 (SAVE) to save them on the screen into DB file.
- (3) Press F8 (EXIT) to return to System Menu screen.

<Condition>

- (1) Operator-1, Operator-2 and Manager can be connected to the same jack.
- (2) The manager cannot be assigned the jack number of the DSS Console.
- (3) For KX-TD1232, the type of expansion cards installed in the system which is not operating is displayed as the following : Expansion Card Type (Master or Slave) ⇒ -----
- (4) After changing the setting of Expansion Card Type, to make your setting effective, turn the Power Switch of the DSHS off and on once. Otherwise the previous setting will be maintained.

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
Expansion Card Type	Selecting	<p>For KX-TD1232 EXP1-COT1 EXP2-EXT1 EXP3-EXT2 EXP1-COT1 EXP2-EXT2 EXP3-EXT1 EXP1-EXT1 EXP2-EXT2 EXP3-COT1 EXP1-EXT1 EXP2-COT1 EXP3-EXT2 EXP1-EXT2 EXP2-EXT1 EXP3-COT1 EXP1-EXT2 EXP2-COT1 EXP3-EXT1</p> <p>For KX-TD816 EXP1-COT1 EXP2-EXT1 EXP1-EXT1 EXP2-COT1</p>	<p>For KX-TD1232 EXP1-COT1 EXP2-EXT1 EXP3-EXT2</p> <p>For KX-TD816 EXP1-COT1 EXP2-EXT1</p>
Password	Direct	0 through 9 4, 5, 6 or 7 digits	1234
Operator / Manager	Selecting and Direct	Disable or Jack [] (After selecting Jack []) 01 through 64 (for KX-TD1232) 01 through 16 (for KX-TD816) 2 digits	Same as the screen on the previous page
Local Access	Direct	1 through 8 1 digit	Same as the screen on the previous page
Call Hunting	Selecting	D : Disable, T : Terminate, C : Circular, A : Automated Attendant, V : Voice Mail	D
SPD TRS Override	Selecting	Disable or Enable	Disable
CO Auto-Hold by Push DSS-Key	Selecting	Disable or Enable	Enable
Adjust Time Hour	Direct	01 through 12 2 digits	01:00 AM
Minute	Direct	00 through 59 2 digits	
AM / PM	Selecting	AM or PM	

10. System Time

System Time	On-line (RS-232C)	KX-TD1232 Master
'93. Jan. 1 FRI 12:00 AM		
Enter alphanumeric Code		
1	2	3
4	HELP	5
6	7	SAVE
8	9	EXIT

<Explanation>

System Time (Date and Time Set)
Sets the time of DSHS.

[000]

<Operation>

- (1) Move the cursor and set the time.
- (2) After editing the data, press F7 (SAVE) to save them on the screen into DB file.
- (3) Press F8 (EXIT) to return to System Menu screen.

<Condition>

This screen is only available in Interactive Editing Mode.

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
Year	Direct	0 through 9 2 digits	93
Month	Selecting	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	Jan
Date	Direct	1 through 31 2 digits	1
Day of the week	Selecting	SUN, MON, TUE, WED, THU, FRI, SAT	FRI
Hour	Direct	01 through 12 2 digits	12
Minute	Direct	00 through 59 2 digits	00
AM / PM	Selecting	AM or PM	AM

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

4-5 Toll Restriction

Toll Restriction Menu	Off-line	KX-TD1232 Both
<p>1. TRS Deny</p> <p>2. TRS Exception</p> <p>Select the number : []</p>		
<p>Enter the number, and hit ENTER key</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 HELP <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 EXIT</p>		

<Operation>

- (1) Enter the number of the program and press ENTER key.
- (2) Press F8 (EXIT) to return to Main Menu screen.

1. TRS Deny

TRS Deny		Off-line	KX-TD1232 Both
LOC	LVL2	LVL3	LVL4 LVL5 LVL6
01	[011****]	[120923*]	[] [] []
02	[1916****]	[]	[] [] []
03	[]	[]	[] [] []
04	[]	[]	[] [] []
05	[]	[]	[] [] []
06	[]	[]	[] [] []
07	[]	[]	[] [] []
08	[]	[]	[] [] []
09	[]	[]	[] [] []
10	[]	[]	[] [] []
11	[]	[]	[] [] []
12	[]	[]	[] [] []
13	[]	[]	[] [] []
14	[]	[]	[] [] []
15	[]	[]	[] [] []
16	[]	[]	[] [] []
17	[]	[]	[] [] []
18	[]	[]	[] [] []
19	[]	[]	[] [] []
20	[]	[]	[] [] []

Enter numeric code

4 HELP
 7 SAVE 8 EXIT

<Explanation>

TRS Deny (Toll Restriction Denied Code Entry) [301, 302, 303, 304, 305]
 Assigns telephone numbers prohibited for each Toll Restriction level.

<Operation>

- (1) Move the cursor to the field in which you want to set a parameter.
- (2) After editing the data, press F7 (SAVE) to save them on the screen into DB file.
- (3) Press F8 (EXIT) to return to Toll Restriction Menu screen.

<Condition>

You must enter a number from a left end and fill in the blank with *(a wild card character).

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
TRS Deny	Direct	0 through 9 *(a wild card character) 7 digits	Not Stored

2. TRS Exception

TRS Exception	Off-line	KX-TD1232 Both			
LOC	LVL2	LVL3	LVL4	LVL5	LVL6
01	[211****]	[]	[]	[]	[]
02	[611****]	[]	[]	[]	[]
03	[]	[]	[]	[]	[]
04	[]	[]	[]	[]	[]
05	[]	[]	[]	[]	[]

Enter numeric codes

HELP
 SAVE EXIT

<Explanation>

TRS Exception (Toll Restriction Excepted Code Entry) [306, 307, 308, 309, 310]
 Assigns telephone numbers not prohibited for each Toll Restriction level.

<Operation>

- (1) Move the cursor to the field in which you want to set a parameter.
- (2) After editing the data, press F7 (SAVE) to save them on the screen into DB file.
- (3) Press F8 (EXIT) to return to Toll Restriction Menu screen.

<Condition>

- (1) You must enter a number from a left end and fill in the blank with *(a wild card character).
- (2) Store your emergency numbers in Level 6.

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
TRS Exception	Direct	0 through 9 *(a wild card character) 7 digits	Not Stored

4-6 ARS (Automatic Route Selection)

ARS Menu	Off-line	KX-TD1232 Both
<p data-bbox="656 520 1045 552">1. ARS Mode/Time/Modify Data</p> <p data-bbox="656 625 902 657">2. ARS Routing Plan</p> <p data-bbox="656 730 911 762">3. ARS Leading Digit</p> <p data-bbox="656 905 922 936">Select the number : []</p> <p data-bbox="272 1121 732 1152">Enter the number, and hit ENTER key</p> <p data-bbox="277 1157 1227 1188">1 2 3 4 HELP 5 6 7 8 EXIT</p>		

<Operation>

- (1) Enter the number of the program and press ENTER key.
- (2) Press F8 (EXIT) to return to Main Menu screen.

1. ARS Mode / Time/ Modify Data

ARS Mode/Time/Modify Data	Off-line	KX-TD1232 Both
<p>Mode⇒ Off</p> <p>Time-A⇒ [08] : 00 AM Time-B⇒ [05] : 00 PM Time-C⇒ [09] : 00 PM Time-D⇒ Disable</p> <p>Mod 1 ⇒ Remove[1] Add[] Mod 2 ⇒ Remove[1] Add[10288] Mod 3 ⇒ Remove[0] Add[] Mod 4 ⇒ Remove[0] Add[] Mod 5 ⇒ Remove[0] Add[] Mod 6 ⇒ Remove[0] Add[] Mod 7 ⇒ Remove[0] Add[] Mod 8 ⇒ Remove[0] Add[]</p> <p>Hit spacebar to select parameter</p> <p>1 2 3 4 HELP 5 6 7 SAVE 8 EXIT</p>		

<Explanation>

- [1] Mode (Automatic Route Selection Mode) [312]
Assigns to enable or disable the ARS feature.
- [2] Time (ARS Time) [313]
Sets the starting time of 4 time zones.
- [3] Mod Remove / Add (ARS Modify Removed Digit and Added Number) [330, 331]
Assigns the removed numbers and/or the added numbers for ARS modification.

<Operation>

- (1) Move the cursor to the field in which you want to set a parameter.
- (2) After editing the data, press F7 (SAVE) to save them on the screen into DB file.
- (3) Press F8 (EXIT) to return to ARS Menu screen.

<Condition>

- (1) Time or Disable appears by turns every time you press the spacebar to set the time.
- (2) Time zones should be as follows : Time-A<Time-B<Time-C< Time-D.
- (3) Disable must be set from Time-D.

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
Mode	Selecting	On or Off	Off
Time	Selecting	Disable or []AM/PM	Same as the screen on the previous page
Hour	Direct	01 through 12 2 digits	
AM / PM	Selecting	AM or PM	
Remove	Direct	0 through 9 1 digit	0
Add	Direct	0 through 9 * # P or p (PAUSE) Maximum 20 digits	Not Stored

2. ARS Routing Plan

ARS Routing Plan	Off-line	KX-TD1232 Both						
Routing Plan ==	1	2	3	4	5	6	7	8
Priority ==	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3
Time-A : TRG =>	1 2 3	1 2 3	1 2 -	1 - -	- - -	- - -	- - -	- - -
: Mod =>	1 1 1	1 1 1	1 1 -	1 - -	- - -	- - -	- - -	- - -
Time-B : TRG =>	1 2 3	1 2 3	1 - -	2 - -	- - -	- - -	- - -	- - -
: Mod =>	1 1 1	1 1 1	1 - -	1 - -	- - -	- - -	- - -	- - -
Time-C : TRG =>	1 2 3	1 2 -	1 - -	3 - -	- - -	- - -	- - -	- - -
: Mod =>	1 1 1	1 1 -	1 - -	1 - -	- - -	- - -	- - -	- - -
Time-D : TRG =>	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
: Mod =>	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Enter numeric code								
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HELP	<input type="checkbox"/>	<input type="checkbox"/>	SAVE	<input type="checkbox"/> EXIT

<Explanation>

ARS Routing Plan (ARS Routing Plans) [322, 323, 324, 325, 326, 327, 328, 329]
 Assigns the order of priority of CO line groups and modification numbers which cost least in each time zone.

<Operation>

- (1) Move the cursor to the field in which you want to set a parameter.
- (2) After editing the data, press F7 (SAVE) to save them on the screen.
- (3) Press F8 (EXIT) to return to ARS Menu screen.

<Condition>

- (1) You must enter a CO line group number and a modification number in a pair.
- (2) When you press F7 (SAVE), it is checked that a CO line group number and a modification number are entered in a pair.

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
TRG	Direct	1 through 8 Space (displayed as-)	Space (-)
Mod	Direct	1 through 8 Space (displayed as-)	Space (-)

(6) Press F8 (EXIT) to return to ARS Menu screen.

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter		Default
ARS Leading Digit	Direct	0 through 9	*(a wild card character)	Maximum 7 digits Not Stored

4-7 Aux. Ports

Aux. Ports Menu	Off-line	KX-TD1232 Both
<p>1. Music & Paging</p> <p>2. Administration & SMDR & MODEM</p> <p>3. DISA</p> <p>Select the number : [_]</p>		
Enter the number, and hit ENTER key		
1	2	3
4	5	6
7	8	EXIT

<Operation>

- (1) Select the number of the program and press ENTER key.
- (2) Press F8 (EXIT) to return to Main Menu screen.

<Condition>

- (1) For KX-TD816, the menu changes as follows:
 1. Music & Paging
 2. Administration & SMDR

1. Music & Paging

Music & Paging	Off-line	KX-TD1232 Both															
<p>Hold Music No. [1] BGM No. [1]</p> <p>Pager Tone On</p> <table> <thead> <tr> <th></th> <th>EXT No.</th> <th>BGM</th> </tr> </thead> <tbody> <tr> <td>Ex-Pager 1</td> <td>EXT [196]</td> <td>Off</td> </tr> <tr> <td>Ex-Pager 2</td> <td>EXT [197]</td> <td>Off</td> </tr> <tr> <td>Ex-Pager 3</td> <td>EXT [296]</td> <td>Off</td> </tr> <tr> <td>Ex-Pager 4</td> <td>EXT [297]</td> <td>Off</td> </tr> </tbody> </table>				EXT No.	BGM	Ex-Pager 1	EXT [196]	Off	Ex-Pager 2	EXT [197]	Off	Ex-Pager 3	EXT [296]	Off	Ex-Pager 4	EXT [297]	Off
	EXT No.	BGM															
Ex-Pager 1	EXT [196]	Off															
Ex-Pager 2	EXT [197]	Off															
Ex-Pager 3	EXT [296]	Off															
Ex-Pager 4	EXT [297]	Off															
<p>Enter numeric code</p> <p>[1] [2] [3] [4] HELP [5] [6] [7] SAVE [8] EXIT</p>																	

<Explanation>

- [1] Music on Hold No. (Music Source Use for Hold Music) [803]
 Assigns music sources for Music on Hold.
- [2] BGM No. (Music Source Use for BGM) [803]
 Assigns music sources for BGM.
- [3] Pager Tone (External Pager Confirmation Tone) [805]
 Assigns the confirmation tone for external pagers to be sent or not.
- [4] Ex-Pager EXT No. (Floating Number Assignment) [813]
 Assigns Floating Extension numbers for External Pager 1 through 4 for KX-TD1232
 or for External Pager 1 for KX-TD816.
- [5] BGM (External Pager BGM) [804]
 Assigns BGM to be sent or not for External Pager 1 through 4 for KX-TD1232
 or for External Pager 1 for KX-TD816.

<Operation>

- (1) Move the cursor to the field in which you want to set a parameter.
- (2) After editing the data, press F7 (SAVE) to save them on the screen into DB file.
- (3) Press F8 (EXIT) to return to Aux. Ports Menu screen.

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
Hold Music No.	Direct	For KX-TD1232 1 : Music Source 1 of Master DSHS 2 : Music Source 2 of Master DSHS 3 : Music Source 1 of Slave DSHS 4 : Music Source 2 of Slave DSHS - : No music For KX-TD816 1 : Music Source 1 of DSHS - : No music	1 digit 1
BGM No.	Direct	For KX-TD1232 1 : Music Source 1 of Master DSHS 2 : Music Source 2 of Master DSHS 3 : Music Source 1 of Slave DSHS 4 : Music Source 2 of Slave DSHS - : No BGM For KX-TD816 1 : Music Source 1 of DSHS - : No BGM	1 digit 1
Pager Tone	Selecting	On or Off	On
EXT No.	Direct	0 through 9	2, 3 or 4 digits Same as the screen on the previous page
BGM	Selecting	On or Off	Off

2. Administration & SMDR & MODEM

Administration & SMDR & MODEM	Off-line	KX-TD1232 Both
MODEM EXT No.	EXT [299]	
MODEM Type	Bell	
RS-232C Interface	Port - 1	Port - 2
Parity	Mark	Mark
NL Code	CR+LF	CR+LF
Word Length	7 bits	7 bits
Stop Bit	1 Bit	1 Bit
Baud Rate	1200	1200
SMDR		
Duration Log (Outgoing)	All	
Duration Log (Incoming)	On	
Format-Page Length	[66]	
Format-Skip Perforation	[00]	
Hit spacebar to select parameter		
[1]	[2]	[3] [4] HELP [5] [6] [7] SAVE [8] EXIT

<Explanation>

- [1] MODEM EXT No. (Floating Number Assignment) [813]
Assigns Floating Extension number for MODEM.
• The feature is available for KX-TD1232 only.
- [2] MODEM TYPE (MODEM Standard) [814]
Assigns the type of a modem.
• The feature is available for KX-TD1232 only.
- [3] RS-232C Interface (EIA (RS-232C) Parameters) [806, 807]
Assigns communication parameters for RS-232C.
Prot-1 indicates Master DSHS and Port-2 indicates Slave DSHS for KX-TD1232.
The KX-TD816 does not make a distinction between master and slave.
- [4] SMDR Duration Log Outgoing (SMDR Outgoing Call Log Printout) [800]
Assigns the type of SMDR outgoing calls being printed out.
- [5] SMDR Duration Log Incoming (SMDR Incoming Call Log Printout) [800]
Assigns to print out SMDR incoming calls.

[6] Format-Page Length (SMDR Format) [801]
Assigns the number of lines per page when the record is printed out.

[7] Format-Skip Perforation (SMDR Format) [801]
Assigns the number of lines to be skipped at the end of every page.

<Operation>

- (1) Move the cursor to the field in which you want to set a parameter.
- (2) After editing the data, press F7 (SAVE) to save them on the screen into DB file.
- (3) Press F8 (EXIT) to return to Aux. Ports Menu screen.

<Condition>

- (1) Page Length must be longer than Skip Perforation by 4 or more lines.
- (2) The following combinations are invalid.

Parity	Word Length	Stop Bit
Mark	8	2
Space	8	1
Space	8	2

- (3) In the case of KX-TD1232, the parameters of RS-232C Interface of the system which is not operating are displayed as the following .

Port-1 or -2

Parity	----
NL Code	----
Word Length	----
Stop Bit	----
Baud Rate	----

- (4) The formats of SMDR are not available unless a printer is connected with the DSHS by RS-232C cable. If a printer is already connected, it has to be disconnected and connected again. Otherwise the former formats become valid.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
*MODEM EXT No.	Direct	0 through 9 2, 3 or 4 digits	299
*MODEM Type	Selecting	BELL or CCITT	Bell
Parity	Selecting	None, Mark, Space, Even, Odd	Mark
NL Code	Selecting	CR+LF or CR	CR+LF
Word Length	Selecting	7 or 8 bits	8 bits
Stop Bit	Selecting	1 bit or 2 bits	1 bit
Baud Rate	Selecting	150, 300, 600, 1200, 2400, 4800, 9600	9600
Duration Log (Outgoing)	Selecting	All ; All duration of outgoing calls Toll ; Only duration of Toll calls Off ; Not printed	All
Duration Log (Incoming)	Selecting	On ; All incoming calls or Off ; Not printed	On
Format -Page Length	Direct	04 through 99 2 digits	66
Format -Skip Perforation	Direct	00 through 95 2 digits	00

*: Available for KX-TD1232 only.

3. DISA (for KX-TD1232 only)

DISA	Off-line	KX-TD1232 Both
EXT No.		
OGM1 (DISA1)	⇒	EXT[198]
OGM2 (DISA2)	⇒	EXT[298]
Security Mode	⇒	Non
Tone-Detect	⇒	Enable
User Code		
User-1	⇒	Code[1111] COS[1]
User-2	⇒	Code[2222] COS[1]
User-3	⇒	Code[3333] COS[1]
User-4	⇒	Code[4444] COS[1]
REC Time		
OGM1 (DISA1)	⇒	32sec
OGM2 (DISA2)	⇒	0sec
OGM3 (Timed Reminder)	⇒	32sec
OGM4	⇒	0sec
Repeat		
Dialing Mode	⇒	Repeat
Talking Mode	⇒	Through
Enter numeric code		
1 2 3 4 HELP 5 6 7 SAVE 8 EXIT		

<Explanation>

- [1] EXT No. (Floating Number Assignment) [813]
Assigns Floating Extension numbers for DISA.
- [2] Security Mode (DISA Security Type) [809]
Assigns the security mode for DISA.
- [3] Tone-Detect (DISA Tone Detection) [810]
Assigns to enable or disable to detect the DISA tone.
- [4] User Code Code No. (DISA User Codes) [811]
Assigns the DISA user codes.
- [5] User Code COS No. (DISA User Codes) [811]
Assigns COS No. appending to the user codes.
- [6] REC Time (Outgoing Message Time) [215]
Sets the time to record OGM 1 through 4.

[7] Repeat (DISA DTMF Repeat)

[812]

Assigns the level of DTMF tone to be repeated or not.

<Operation>

- (1) Move the cursor to the field in which you want to set a parameter.
- (2) After editing the data, press F7 (SAVE) to save them on the screen into DB file.
- (3) Press F8 (EXIT) to return to Aux. Ports Menu screen.

<Condition>

- (1) The same User Code numbers cannot be assigned to two or more user codes.
- (2) The total of REC Time must be less than 64 seconds.

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
EXT No.	Direct	0 through 9 2, 3 or 4 digits	OGM1=EXT[198] OGM2=EXT[298]
Security Mode	Selecting	Non or Trunk	Non
Tone-Detect	Selecting	Disable or Enable	Enable
User Code (Code No.)	Direct	0 through 9 4 digits	Same as the screen on the previous page
User Code (COS No.)	Direct	1 through 8 1 digit	Same as the screen on the previous page
REC Time	Selecting	0, 16, 32, 64 seconds	Same as the screen on the previous page
Repeat	Selecting	Repeat or Through	Repeat

4-8 Additional Function

Additional Function									Off-line				KX-TD1232 Both			
FNC	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
SYS1	0	0	1	0	1	0	0	0	1	1	0	0	0	0	0	1
SYS2	1	1	1	1	1	1	1	1	0	0	1	0	1	1	0	0
SYS3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
SYS4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
COS1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0
COS2	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0
COS3	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0
COS4	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0
COS5	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0
COS6	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0
COS7	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0
COS8	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0
TRG1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TRG2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TRG3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TRG4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TRG5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TRG6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TRG7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TRG8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Hit spacebar to select parameter

HELP SAVE EXIT

<Explanation>

- [1] SYS1 Bit1 [990]
Assigns to send the music on hold or the ringback tone to the calling party while being transferred automatically.
- [2] SYS1 Bit2 [990]
Assigns to judge it disconnecting or the consultation hold to press the hookswitch lightly and then place the handset in case of having a conversation with a standard telephone.
- [3] SYS1 Bit3 [990]
Assigns to send the hooking signal or the disconnecting signal to CO lines when the Flash button is pressed in case of having a conversation with a proprietary telephone.
- [4] SYS1 Bit8 [990]
Assigns to enable or disable to hear the sound from CO lines when Pause is sent to the lines in case of using a standard telephone.
- [5] SYS1 Bit9 [990]
Assigns to judge it the hooking signal or the disconnecting signal to press the hookswitch lightly in case of using a standard telephone.

- [6] SYS1 Bit10 [990]
Sets the time to send the DTMF signal to the Voice Mail.
- [7] SYS1 Bit11,12 [990]
Sets the delayed time to send the DTMF signal to the Voice Mail when the Voice Mail answers the call and receives the ID.
- [8] SYS1 Bit13,14 [990]
Assigns the delayed time to send the DTMF signal to the Voice Mail when the Voice Mail answers the DSHS and receives the Extension Status signal.
- [9] SYS1 Bit15 [990]
Assigns to turn off the message waiting lamp.
- [10] SYS1 Bit16 [990]
Assigns to start the Automated Attendant Service when the Voice Mail receives an outside call by FWD or IRNA.
- [11] SYS2 Bit1 [990]
Assigns whether Transfer Recall occurs at the transfer originating extension or Operator 1 if an outside party is transferred and unanswered.
- [12] SYS2 Bit2 [990]
Assigns if Limited Call Duration is done for both outgoing and incoming calls or outgoing calls only.
- [13] SYS2 Bit3 [990]
Assigns the Override Tone to be sent or not in case of Busy Override, Barge in or Privacy Release.
- [14] SYS2 Bit4 [990]
Assigns to enable or disable to check * and # under the Toll Restriction.
- [15] SYS2 Bit5 [990]
Assigns to enable or disable to work the Flash function during receiving an outside call at a station locked extension.
- [16] SYS2 Bit6 [990]
Assigns Confirm Tone #3 to be sent or not.
- [17] SYS2 Bit7 [990]
Assigns the pulse break ratio during dial pulsing.
- [18] SYS2 Bit8 [990]
Assigns if the Mail Box ID is substituted by the extension number or it is programmable (free).
- [19] SYS2 Bit9 [990]
Assigns the first display of LCD of a digital proprietary telephone (KX-T7235) in Station Speed Dial program.
- [20] SYS2 Bit10 [990]
Assigns the source of Music Source 1 of the DSHS for Music on Hold and BGM.
- [21] SYS2 Bit11, 12 [990]
Assigns inter-digit pause for pulse dialing.

- [22] SYS2 Bit13 [990]
Assigns intercom dial tone frequency.
- [23] SYS3 Bit 1 - 16 & SYS4 Bit 1 - 8 [990]
These areas are provided to assign PAD Switch Control (volume control of received calls on a CO line). This can be assigned per CO line. SYS 3 Bit 1 through 16 correspond to CO lines 1 through 16 and SYS4 Bit 1 through 8 correspond to CO lines 17 through 24 respectively.
- [24] SYS4 Bit 9 [990]
Prohibits or allows a call originated by an AA port of VPS to another AA port.
- [25] SYS4 Bit10 [990]
Restricts or allows sending pulse dialing signals during a CO call.
- [26] COS 1 - 8 Bit 1, 2, 3, 4 [991]
Assigns the number of the available digit to dial in case of having a conversation with an outside party.
- [27] COS 1 - 8 Bit 5 [991]
Assigns to enable or disable the Call Forwarding - Follow Me feature.

<Operation>

- (1) Move the cursor to the field in which you want to set the parameter.
- (2) After editing the data, press F7 (SAVE) to save them on the screen into DB file.
- (3) Press F8 (EXIT) to return to Main Menu screen.

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
SYS 1 Bit 1	Selecting	0 : The ringback tone or 1 : The Music on hold	1
SYS1 Bit 2	Selecting	0 : The consultation hold or 1 : Disconnecting	0
SYS 1 Bit 3	Selecting	0 : The disconnecting signal or 1 : The hooking signal	0
SYS1 Bit 8	Selecting	0 : Enable or 1 : Disable	1
SYS1 Bit 9	Selecting	0 : The consultation hold or 1 : Disconnecting	0
SYS1 Bit 10	Selecting	0 : 80 msec or 1 : 160 msec	0
SYS1 Bit 11,12	Selecting	Bit 12 11 0 0 0.5 seconds 0 1 1.0 seconds 1 0 1.5 seconds 1 1 2.0 seconds	12=1 11=0
SYS1 Bit 13,14	Selecting	Bit 14 13 0 0 0.5 seconds 0 1 1.0 seconds 1 0 1.5 seconds 1 1 2.0 seconds	14=1 13=0
SYS1 Bit 15	Selecting	0 : The lamp is turned off when it is answered by the System. or 1 : The lamp is turned off by entering the feature number of the Voice Mail.	0
SYS1 Bit 16	Selecting	0 : Not starting or 1: starting	0
SYS2 Bit1	Selecting	0 : Extension or 1 : Operator	0
SYS2 Bit2	Selecting	0 : Outgoing and incoming calls or 1 : Outgoing calls only	0
SYS2 Bit3	Selecting	0 : Disable or 1 : Enable	1

TABLE of ITEMS (continued)

Assigning Items	Type of Field	Selection of parameter	Default
SYS2 Bit4	Selecting	0 : No check or 1 : check	1
SYS2 Bit5	Selecting	0 : Disable or 1 : Enable	0
SYS2 Bit6	Selecting	0 : Disable or 1 : Enable	1
SYS 2 Bit7	Selecting	0 : 60% or 1 : 67%	0
SYS2 Bit8	Selecting	0 : Extension number or 1 : Free	0
SYS2 Bit9	Selecting	0 : Names or 1 : Numbers	0
SYS2 Bit10	Selecting	0 : Internal music source or 1 : External music source	1
SYS2 Bit11,12	Selecting	Bit 12 11 0 0 : 630 ms, 0 1 : 830 ms, 1 0 : 1030 ms	01
SYS2 Bit13	Selecting	0 : Normal or 1 : Distinctive	0
SYS3 Bit 1 - 16 SYS4 BIT 1 - 8	Selecting	0 : 0 dB or 1 : -3 dB	0
SYS4 Bit9	Selecting	0 : prohibit or 1 : allow	0
SYS4 Bit10	Selecting	0 : restriction or 1 : no restriction	1

TABLE of ITEMS (continued)

Assigning Items	Type of Field	Selection of parameter	Default																																																												
COS 1 - 8 Bit 1, 2, 3, 4	Selecting	<table border="0"> <tr> <td>Bit 4</td> <td>3</td> <td>2</td> <td>1</td> <td></td> <td>Bit 4</td> <td>3</td> <td>2</td> <td>1</td> <td></td> </tr> <tr> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>Not limited</td> <td>1</td> <td>0</td> <td>0</td> <td>0</td> <td>8 digits</td> </tr> <tr> <td>0</td> <td>0</td> <td>0</td> <td>1</td> <td>1 digit</td> <td>1</td> <td>0</td> <td>0</td> <td>1</td> <td>9 digits</td> </tr> <tr> <td>0</td> <td>0</td> <td>1</td> <td>0</td> <td>2 digits</td> <td>1</td> <td>0</td> <td>1</td> <td>0</td> <td>10 digits</td> </tr> <tr> <td>0</td> <td>0</td> <td>1</td> <td>1</td> <td>3 digits</td> <td>1</td> <td>0</td> <td>1</td> <td>1</td> <td>11 digits</td> </tr> <tr> <td>0</td> <td>1</td> <td>0</td> <td>0</td> <td>4 digits</td> <td>1</td> <td>1</td> <td>0</td> <td>0</td> <td>12 digits</td> </tr> </table>	Bit 4	3	2	1		Bit 4	3	2	1		0	0	0	0	Not limited	1	0	0	0	8 digits	0	0	0	1	1 digit	1	0	0	1	9 digits	0	0	1	0	2 digits	1	0	1	0	10 digits	0	0	1	1	3 digits	1	0	1	1	11 digits	0	1	0	0	4 digits	1	1	0	0	12 digits	All=0
Bit 4	3	2	1		Bit 4	3	2	1																																																							
0	0	0	0	Not limited	1	0	0	0	8 digits																																																						
0	0	0	1	1 digit	1	0	0	1	9 digits																																																						
0	0	1	0	2 digits	1	0	1	0	10 digits																																																						
0	0	1	1	3 digits	1	0	1	1	11 digits																																																						
0	1	0	0	4 digits	1	1	0	0	12 digits																																																						
COS 1 - 8 Bit 5	Selecting	0 : Disable or 1 : Enable	1																																																												

4-9 Caller ID

Caller ID	Off-line	KX-TD1232 Both
Entry	Caller ID Code	Caller ID Name
1 []	[
2 []	[
3 []	[
4 []	[
5 []	[
6 []	[
7 []	[
8 []	[
9 []	[
10 []	[

Enter numeric code

COPY HELP P-PAGE N-PAGE SAVE EXIT

<Explanation>

- [1] Caller ID Code (Caller ID Code Set) [110]
Assigns the numbers of the callers.
- [2] Caller ID Name (Caller ID Name Set) [111]
Assigns the names of the callers.

<Operation>

- (1) There are 500 entries. They are displayed on the screen every 10 entries.
- (2) Move the cursor to the field in which you want to set a parameter.
- (3) After editing the data, press F7 (SAVE) to save them on the screen into DB file.
- (4) Press F5 (P-PAGE) to return to the previous page.
- (5) Press F6 (N-PAGE) to advance to the next page.
- (6) Use F2 (COPY) if you want to copy the data of one entry in another.

(7) Press F8 (EXIT) to return to the Main menu screen.

<Condition>

- (1) This feature is only available in USA, Canada and Hong Kong.
- (2) When you assign "Caller ID" in Interactive Editing mode, the data are not loaded into DB of the DSHS by pressing only F7 (SAVE) key. They are only saved in DB of the IBM-PC. If you want to load the data into DB of the DSHS, you must press F7 (SAVE) and then F8 (EXIT) key.

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter		Default
Caller ID Code	Direct	0 through 9	Maximum 11 digits	Not Stored
Caller ID Name	Direct	0 through 9 A through Z a through z * # ! ? Space . , ' : ; / + - = < > \$ % & @ ()	Maximum 15 characters	Not Stored

Chapter 5 Disk File Management

5-1 Disk File Management

Disk File Management	Off-line	Empty	
Directory [A:_]			
File Name	Type	Comment	Date
Enter Directory Name			
1 LOAD 2 ASC II 3 DELETE 4 HELP 5 P-PAGE 6 N-PAGE 7 SAVE 8 EXIT			

<Explanation>

Manages the files in PC DB.

<Operation>

- (1) Enter the number of the drive and the name of the directory.
Press ENTER key.
- (2) Press F8 (EXIT) to return to the initial screen.

Disk File Management		Off-line	Empty
Directory [C:\DEFAULT\]			
File Name	Type	Comment	Date
TD1232A.DBD	KX-TD1232 Both		01.21.94
TD1232B.DBD	KX-TD1232 Master		01.22.94
TD1232C.DBD	KX-TD1232 Slave		01.23.94
TD1232D.DBD	KX-TD816		01.24.94
TD1232E.DBE	KX-TD1232 Both		01.25.94
TD1232F.DBE	KX-TD1232 Master		01.26.94
TD1232G.DBE	KX-TD1232 Slave		01.27.94
TD1232H.DBE	KX-TD816		01.28.94
TD1232 I.DBA		ASCII CONVERTED FILE	01.29.94

Enter Function key
 LOAD ASCII DELETE HELP P-PAGE N-PAGE SAVE EXIT

(3) File names are displayed when the file extensions of them are ".DBE", ".DBD" and ".DBA".
 The files whose file extensions are ".DBE" are the files of database of version 2.xx type.
 The files whose file extensions are ".DBD" are the files of database of version 1.xx type.
 The files whose file extensions are ".DBA" are the files of ASC II for printing.

(4) • To load the files of database into the memory of the PC terminal

- ① Select the file by using ↑ or ↓ key and press F1(LOAD).
- ② When you select the file with ".DBE" and it is not in the memory, a message "Now loading system data" appears and loading starts.
 When you select the file with ".DBE" and it is already in the memory, a message "Old system data will be cleared OK? (Y/N)⇒" appears.
 Press "Y" or "y" to load or "N" or "n" to cancel.
 When you select the file with ".DBD", a message "This is Ver.1xx Disk File DB. Do you convert to Ver.2xx? (Y/N)⇒" appears. Press "Y" or "y" to convert and load or "N" or "n" to cancel. If the file is already in the memory, the former file is cleared automatically. Press F8 (EXIT) to cancel and return to the initial screen.
 When you press "Y" or "y", a message "Now loading system data" appears and loading starts.
 When it is completed, a message "System data loading completed" appears.
 If you select the file with ".DBA", an error message "No Database Error" appears.

(5) • To convert the database in the memory into the files of ASC II

- ① Press F2 (ASC II) and a message "Enter File Name[]" appears .
- ② Enter the name of the file without the file extension (as it is automatically attached to the name) and press ENTER key.
- ③ A message "Page Length[]" appears. Enter the length of the page and press ENTER key.
- ④ A message "Now converting system data " appears and converting starts.
- ⑤ When it is completed, a message "System data conversion completed" appears.

(6) • To delete files

- ① Select the file by using ↑ or ↓ key, and press F3 (DELETE).
- ② A message "Are you sure? (Y/N)⇒" appears.
Press "Y" or "y" to delete, or "N" or "n" to cancel.
Press F8 (EXIT) to cancel and return to the initial screen.

(7) • To save the database in the memory into files

- ① Press F7 (SAVE) and a message "Enter File Name[], Comment[]" appears.
- ② Enter the name of the file without the file extension (as it is automatically attached to the name) and press ENTER key. Enter the comment and press ENTER key.
- ③ A message "Now saving system data " appears and saving starts.
- ④ When it is completed, a message "System data saving completed" appears.

(8) Press F5 (P-PAGE) to return to the previous page.

(9) Press F6 (N-PAGE) to advance to the next page.

(10) Press F8 (EXIT) to return to the initial screen.

<Condition>

When you press F2 (ASC II) or F7 (SAVE) and there are not any files in PC DB, an error message appears.

Chapter 6 DSHS Management

6-1 DSHS Management Main Menu

DSHS Management Main Menu	On-line (RS-232C)	Empty
<p>1. System Data Save (DSHS→PC Memory)</p> <p>2. System Data Load (PC Memory→DSHS)</p> <p>3. Test</p> <p>Select the number : []</p>		
Enter the number, and hit ENTER key		
1	2	3
4	HELP	5
6	7	8
EXIT		

<Operation>

(1) Enter the number of the program and press ENTER key.

(2) Press F8 (EXIT) to return to the initial screen.

<Condition>

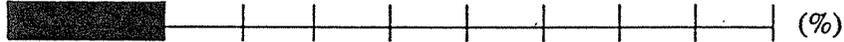
(1) When you select "1. System Data Save (DSHS→PC Memory)" and the data already exist in PC DB file, a message "Old System Data will be cleared. OK?(Y/N)⇒" appears.

Press "Y" or "y" to be cleared. Press "N", "n" or ESC key to cancel. Press F8 (EXIT) to cancel and return to the initial screen.

(2) When you select "2. System Data Load (PC Memory →DSHS)" but the data do not exist in PC DB file, an error message appears.

(3) "3.Test" is available for KX-TD1232 only.

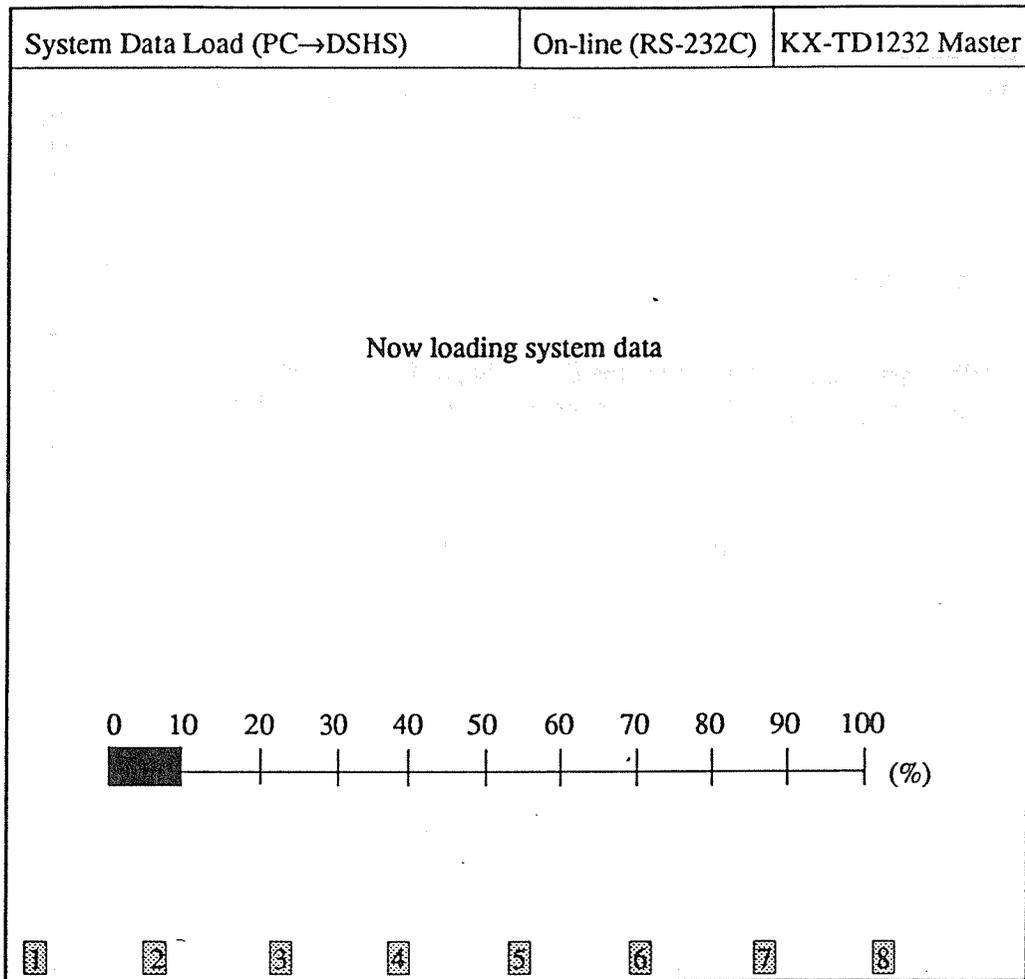
6-2 System Data Save (DSHS→PC)

System Data Save (DSHS→PC)	On-line (RS-232C)	Empty
Now saving system data		
0 10 20 30 40 50 60 70 80 90 100 (%)		
		
Hit ENTER key		
		
		
		EXIT

<Operation>

- (1) Press ENTER key.
- (2) A message "Now saving system data" appears and saving starts.
- (3) When it is completed, a message "System data saving completed" appears.
- (4) Press F8 (EXIT) to cancel while the system data are being saved.
- (5) Press F8 (EXIT) to return to the initial screen after saving is completed.

6-3 System Data Load (PC→DSHS)



<Operation>

- (1) Press ENTER key.
- (2) A message "Now loading system data" appears and loading starts.
- (3) When it is completed, a message "System data loading completed" appears.
- (4) Press F8 (EXIT) to return to the initial screen after loading is completed.

6-4 Test (for KX-TD1232 only)

6-4.1 TEST Entry

Test Entry	On-line (RS-232C)	Empty
<p data-bbox="358 600 1182 699">When you start the test mode, the Digital Super Hybrid System stops functioning and goes into the test mode. All telephones are disconnected.</p> <p data-bbox="613 779 959 814">Are you ready? (Y/N) ⇒ []</p> <p data-bbox="280 1205 837 1241">Enter Y (Yes) or N (No) , and hit ENTER key</p> <p data-bbox="277 1241 1239 1276">1 2 3 4 5 6 7 8 EXIT</p>		

<Operation>

- (1) After selecting "3. Test", the screen above appears.
- (2) Press "Y" and then press ENTER key to start testing. The screen turns into "System Selection" screen. Once you start, the DSHS stops functioning and turns into the diagnostic mode.
- (3) Press "N" and then press ENTER key to cancel. The screen returns to the "DSHS Management Menu" screen.
- (4) Press F8 (EXIT) to return to the initial screen.

<Condition>

You cannot execute testing through Jack No. 01. If you connect the modem to Jack No. 01, please reconnect it to another jack.

6-4.2 System Selection

System Selection	On-line (RS-232C)	Empty
<p>System Selection</p> <p>Which System do you select? (M / S / E) ⇒ []</p> <p>End of Test</p> <p>When you finish testing, the communication between the terminal and the Digital Super Hybrid System is disconnected. The DSHS starts functioning again.</p> <p>Are you ready? (Y/N) ⇒ []</p> <p>Enter M(Master) , S(Slave), or E(End), and hit ENTER key</p> <p>1 2 3 4 5 6 7 8</p>		

<Operation>

- (1) System Selection
 - Press "M" or "S" and then press ENTER key. The screen turns into "Test Menu" screen. Press "E" to advance to the next item "Test End".
- (2) Test End
 - Press "Y" to finish communicating or "N" to return to the previous item "System Selection" and then press ENTER key.

6-4.3 Test Menu

Test Menu	(Master)	On-line (RS-232C)	Empty																						
1. DTMF G/R Test 2. EXT Card Test 3. CO Card Test 4. DISA Card Test 5. DPH, RMT, CONF Test 6. Caller ID Test 7. SIC Test 8. PT Test			<table border="1"> <thead> <tr> <th colspan="2">Configuration</th> </tr> </thead> <tbody> <tr> <td>BAC1</td> <td>CO1</td> </tr> <tr> <td>BAC2</td> <td>EXT1</td> </tr> <tr> <td>BAC3</td> <td>EXT2</td> </tr> <tr> <td>EXP1</td> <td>CO2</td> </tr> <tr> <td>EXP2</td> <td>EXT3</td> </tr> <tr> <td>EXP3</td> <td>EXT4</td> </tr> <tr> <td>OP1</td> <td>DISA</td> </tr> <tr> <td>OP2</td> <td>RMT</td> </tr> <tr> <td>OP3</td> <td>DPH</td> </tr> <tr> <td>OP4</td> <td>SIC</td> </tr> </tbody> </table>	Configuration		BAC1	CO1	BAC2	EXT1	BAC3	EXT2	EXP1	CO2	EXP2	EXT3	EXP3	EXT4	OP1	DISA	OP2	RMT	OP3	DPH	OP4	SIC
Configuration																									
BAC1	CO1																								
BAC2	EXT1																								
BAC3	EXT2																								
EXP1	CO2																								
EXP2	EXT3																								
EXP3	EXT4																								
OP1	DISA																								
OP2	RMT																								
OP3	DPH																								
OP4	SIC																								
Select the number : <input type="text"/>																									
Enter the number, and hit ENTER key																									
<input type="button" value="1"/>	<input type="button" value="2"/>	<input type="button" value="3"/>	<input type="button" value="4"/>																						
<input type="button" value="5"/>	<input type="button" value="6"/>	<input type="button" value="7"/>	<input type="button" value="8"/> EXIT																						

<Operation>

- (1) After pressing "Y" on the previous screen, the screen above appears.
- (2) Enter the number of the test and press ENTER key.
- (3) Press F8 (EXIT) to return to the initial screen.

<Explanation>

- (1) BAC 1/2/3 and EXP 1/2/3 in Configuration indicate the types of the cards in order of being installed and the numbers are automatically attached to the cards. All tests are executed according to the numbers. If the cards are not installed, BAC 1/2/3 and EXP 1/2/3 are displayed as blanks.
- (2) OP1/2/3/4 indicate DISA, RMT, DPH and SIC cards when they are installed.
- (3) The system (Master or Slave) which is now tested is displayed in the screen.

1. DTMF G/R Test

DTMF G/R Test	(Master)	On-line (RS-232C)	Empty																				
<table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr> <th style="padding: 5px;">TSW DTMF-G</th> <th style="padding: 5px;">EXT DTMF-R</th> <th style="padding: 5px;">EXT1</th> <th style="padding: 5px;">EXT2</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">1</td> <td style="text-align: center;">OK</td> <td style="text-align: center;">OK</td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">OK</td> <td style="text-align: center;">OK</td> </tr> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">1</td> <td style="text-align: center;">OK</td> <td style="text-align: center;">OK</td> </tr> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">2</td> <td style="text-align: center;">OK</td> <td style="text-align: center;">OK</td> </tr> </tbody> </table> <p style="text-align: center; margin-top: 10px;">Extension ports must be on-hook or disconnected.</p> <p style="text-align: center; margin-top: 10px;">Enter EXT card No. (1-2,*) => [_]</p> <p style="text-align: center; margin-top: 20px;">Enter the EXT Card number, and hit ENTER key</p> <p style="text-align: center; margin-top: 5px;"> 1 2 3 4 5 6 7 8 EXIT </p>				TSW DTMF-G	EXT DTMF-R	EXT1	EXT2	1	1	OK	OK	1	2	OK	OK	2	1	OK	OK	2	2	OK	OK
TSW DTMF-G	EXT DTMF-R	EXT1	EXT2																				
1	1	OK	OK																				
1	2	OK	OK																				
2	1	OK	OK																				
2	2	OK	OK																				

<Operation>

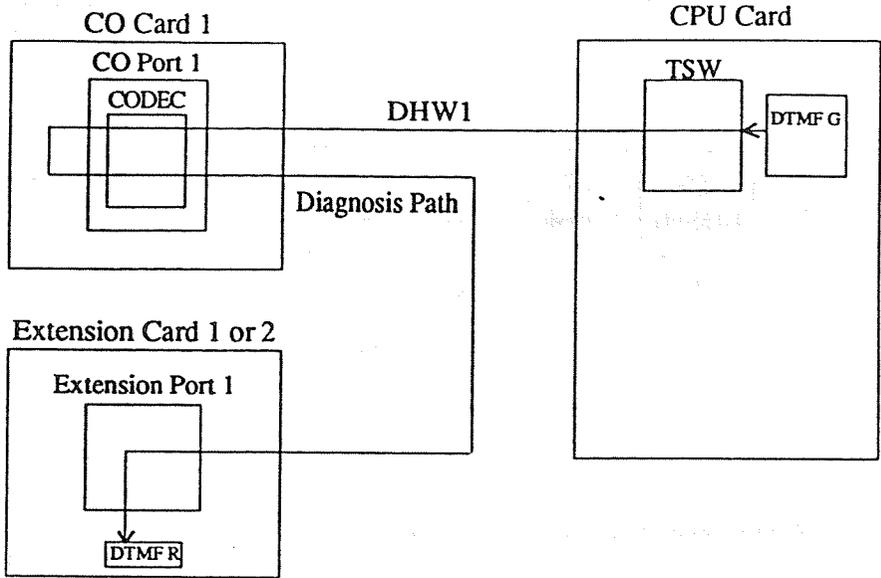
- (1) Enter the number of the extension card (1 through 2) or * (a wild card character) and then press ENTER key.
- (2) The result is displayed by OK or NG.
- (3) Press F8 (EXIT) to return to Test Menu screen.

<Note>

The System (Master or Slave) which is now being tested is displayed in the screen.

<Explanation>

Examines the function of receiving DTMF of an extension card.



- The DTMF signal is sent from the DTMF generator in the CPU card, passes through CODEC and reaches the DTMF receiver in an extension card.
- The DTMF signal is sent and received in the following order.

CPU/DTMF G	UHW0 TS19	–	TSW	–	DHW1 TS 0	–	CO/CODEC	–	Diagnosis Path	–	DTMF R1
	19				0						2
	23				0						1
	23				0						2

<Condition>

All extensions connected with the extension cards must be on-hook or disconnected to reflect the signal at the balance network circuit.

2. EXT Card Test

EXT Card Test		(Master)		On-line (RS-232C)		Empty		
Port	EXT1		EXT2		EXT3		EXT4	
	Digital	Data	Digital	Data	Digital	Data	Digital	Data
1	OK	OK	OK	OK	OK	OK	OK	OK
2	OK	OK	OK	OK	OK	OK	OK	OK
3	OK	OK	OK	OK	OK	OK	OK	OK
4	OK	OK	OK	OK	OK	OK	OK	OK
5	OK	OK	OK	OK	OK	OK	OK	OK
6	OK	OK	OK	OK	OK	OK	OK	OK
7	OK	OK	OK	OK	OK	OK	OK	OK
8	OK	OK	OK	OK	OK	OK	OK	OK

Enter EXT Card No. (1-4.*) => []

Enter the EXT Card number, and hit ENTER key

1
2
3
4
5
6
7
8 EXIT

<Operation>

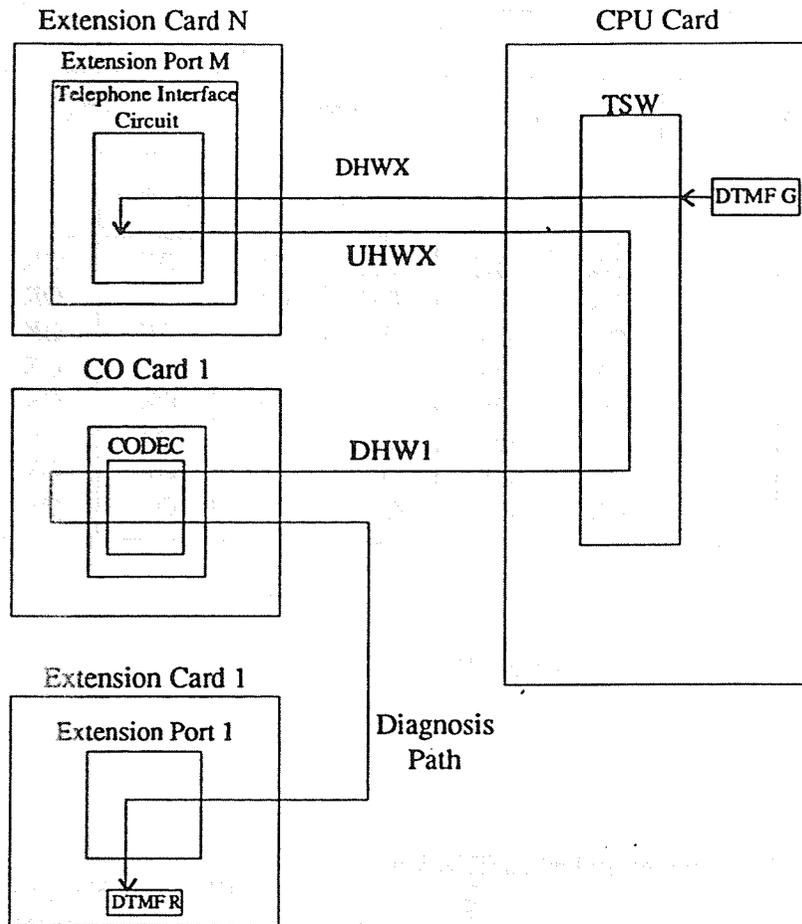
- (1) Enter the number of the extension card (1 through 4) or *(a wild card character) and then press ENTER key.
- (2) The result is displayed by OK or NG.
- (3) Press F8 (EXIT) to return to TEST Menu screen.

<Note>

The System (Master or Slave) which is now being tested is displayed in the screen.

<Explanation>

- (1) Examines the digital path of an extension card.



- The DTMF signal is sent from the DTMF generator in the CPU card. It passes through the telephone interface circuit in the extension port M of the extension card N and turns back to TWS. (The telephone interface circuit turns the signal back inside.) Then the signal passes through the port 1 of CO card 1 and the Diagnosis path, and reaches the DTMF receiver through the extension port 1 of the extension card 1.

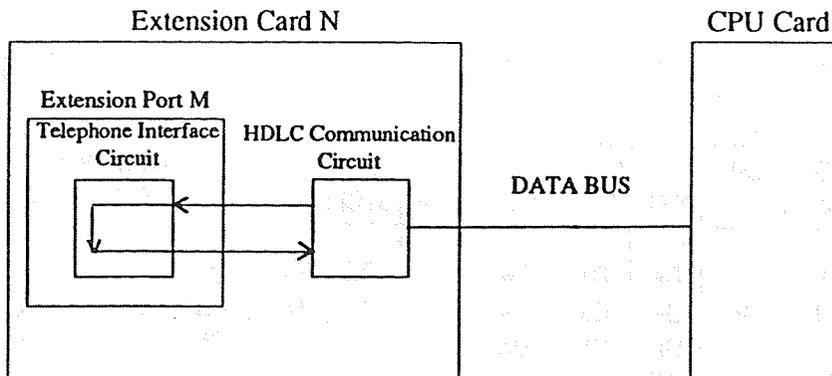
- The signal is sent in the following order.

DTMF G1 – UHW0 – TSW – DHWX – Telephone Interface Circuit – UHWX – TSW – DHW1 – CO CODEC
 TS19 TS0-15 TS0

– Diagnosis Path EXT 1/DTMFR1

HWX=HW2 (EXT 1 Card), HW3 (EXT2 Card), HW4 (EXT3 Card), HW5 (EXT4 Card)

- (2) Examines the data communication circuit of digital proprietary telephones of the extension cards.



- The telephone interface circuit is automatically assigned to turn the HDLC data back to HDLC Communication Circuit . The feature is examined as mentioned.
- The test is executed from port 1 to port 8.

3. CO Card Test

CO Card Test (Master)							On-line (RS-232C)			Empty		
Port	CO1						CO2					
	Path	CUR. DTCT	FLSH	PLS DIAL	DTMF DIAL	Bell DTCT	Path	CUR. DTCT	FLSH	PLS DIAL	DTMF DIAL	Bell DTCT
1	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
2	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
3	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
4	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
5	OK	OK	OK	OK	OK	OK	--	--	--	--	--	--
6	OK	OK	OK	OK	OK	OK	--	--	--	--	--	--
7	OK	OK	OK	OK	OK	OK	--	--	--	--	--	--
8	OK	OK	OK	OK	OK	OK	--	--	--	--	--	--

Enter CO Card No. (1-2.*y) ⇒ []

Enter the CO Card number, and hit ENTER key

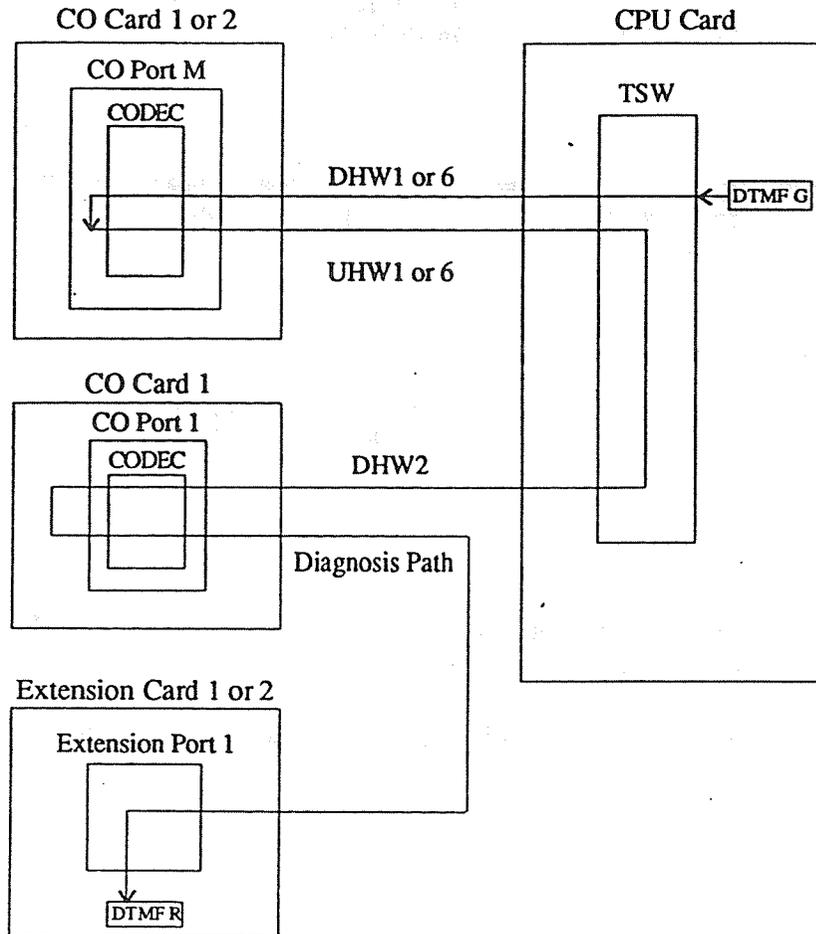
1
2
3
4
5
6
7
8 EXIT

<Operation>

- (1) Enter the number of the CO card (1 or 2) or *(a wild card character) and then press ENTER key.
- (2) The result is displayed by OK or NG.
- (3) Press F8 (EXIT) to return to Test Menu screen.

<Explanation>

(1) Examines the path of CO cards.



- The DTMF signal is sent from the DTMF generator in the CPU card. It passes through CODEC in the CO port M of the CO Card N. (It is reflected at the balance network circuit.) The signal is turned back to TWS, passes through the port 1 of CO card 1 and reaches the DTMF receiver through the Diagnosis path and the extension port 1 of the extension card 1. The path is examined as mentioned above.

• The signal is sent in the following order.

In case of CO card 1 ;

CPU/DTMF G1 -UHW0 - TSW - DHW1 - CODEC - UHW1 - TSW - DHW1 - CO CODEC - Diagnosis Path
TS19 TS 4, 8, 12 TS 4, 8, 12 TS 0
16, 20, 24, 28 16, 20, 24, 28
- EXT/DTMF R1

In case of CO card 2 ;

CPU/DTMF G1 -UHW0 - TSW - DHW6 - CODEC - UHW6 - TSW - DHW1 - CO CODEC - Diagnosis Path
TS19 TS 0, 4, 8, 12 TS 0, 4, 8, 12 TS 0
- EXT/DTMF R1

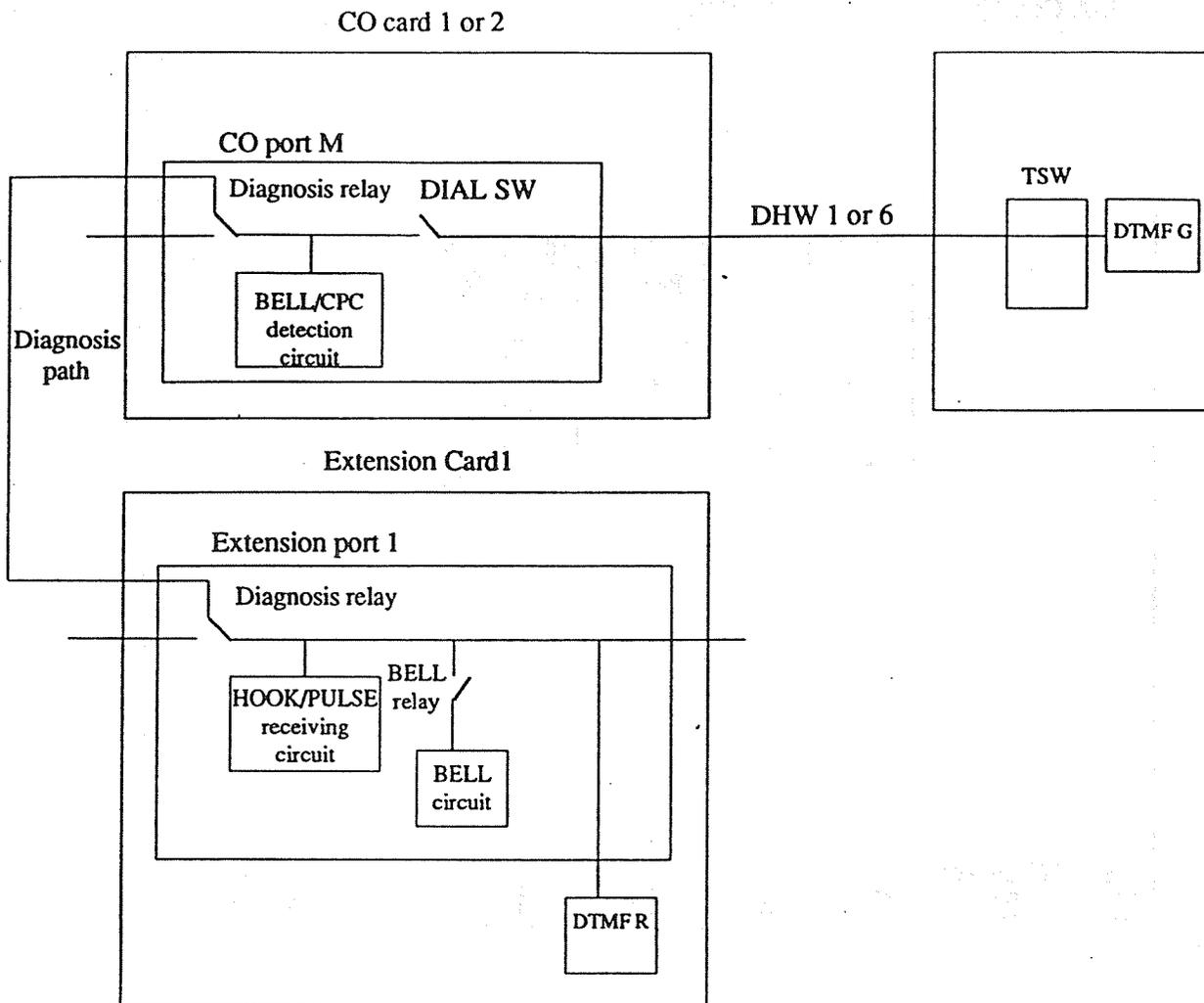
In case of the port 1 of CO card 1 ;

CPU/DTMF G1 -UHW0 - TSW - DHW1 - CODEC - UHW1 - TSW - DHW1 - CO CODEC - Diagnosis Path
TS19 TS 0 TS 0, 4, 8, 12 TS 4
- EXT/DTMF R1

<Condition>

- (1) To reflect the signal at the balance network circuit, the extensions connected with the extension card 1 must be on-hook or disconnected.
- (2) To reflect the signal at the balance network circuit, the CO lines must be disconnected from CO cards.

- (2) Examines the CPC detection function, sending the DTMF and the pulse dial function , and the BELL detection function of CO ports.



- 1) The extension port is turned into the diagnostic mode.
- 2) The CO port M is turned into the diagnostic mode .
- 3) DIAL is switched on and an electric current is sent to the BELL/CPC detection circuit in the port.
- 4) The DTMF signal is sent from the DTMF generator in the CPU card and received on the DTMF receiver in the extension card.
- 5) The Pulse is sent from and received on the HOOK/PULSE receiving circuit in the extension port.
- 6) DIAL is switched off and an electric current is not sent to the BELL/CPC detection circuit.
- 7) The Bell is sent from the extension port and received on the BELL/CPC detection circuit in the CO port M.
- 8) The CO port and the extension port quit the diagnosis mode.
- 9) The test mentioned above is executed from the port 1 to port 8 of the CO card 1 and from the port 1 to port 4 of the CO card 2.

4. DISA Test

DISA Card Test	(Master)	On-line (RS-232C)	Empty																									
<table border="1"><thead><tr><th>DISA Port</th><th>CO-CO Path</th><th>DTMF Repeater</th><th>OGM</th><th>Tone Detect</th></tr></thead><tbody><tr><td>1-1</td><td>OK</td><td>OK</td><td>--</td><td>OK</td></tr><tr><td>1-2</td><td>OK</td><td>--</td><td>OK</td><td>OK</td></tr><tr><td>2-1</td><td>OK</td><td>OK</td><td>--</td><td>OK</td></tr><tr><td>2-2</td><td>OK</td><td>--</td><td>OK</td><td>OK</td></tr></tbody></table>				DISA Port	CO-CO Path	DTMF Repeater	OGM	Tone Detect	1-1	OK	OK	--	OK	1-2	OK	--	OK	OK	2-1	OK	OK	--	OK	2-2	OK	--	OK	OK
DISA Port	CO-CO Path	DTMF Repeater	OGM	Tone Detect																								
1-1	OK	OK	--	OK																								
1-2	OK	--	OK	OK																								
2-1	OK	OK	--	OK																								
2-2	OK	--	OK	OK																								
Hit ENTER key																												
1	2	3	4	5	6	7	8 EXIT																					

<Operation>

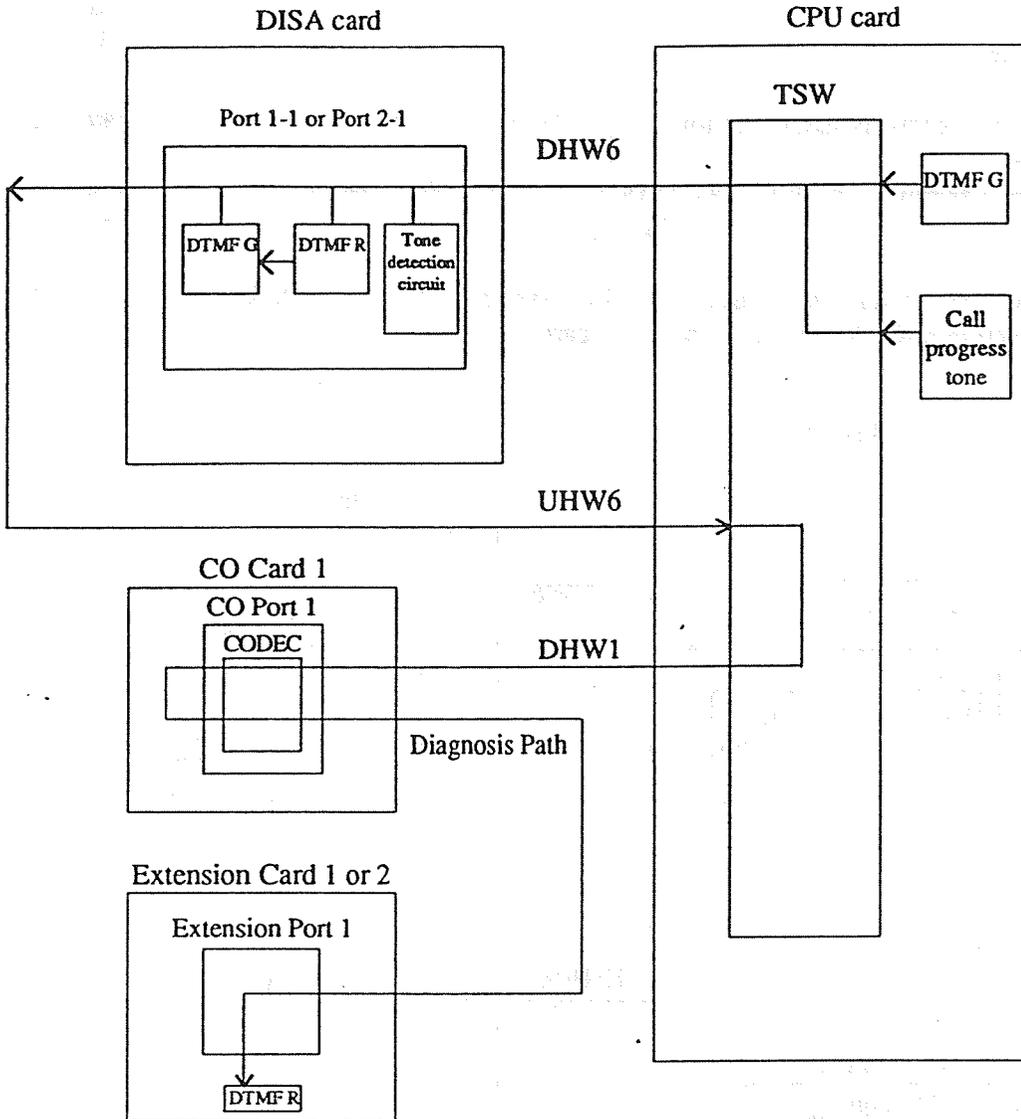
- (1) Press ENTER key.
- (2) The result is displayed by OK or NG.
- (3) Press F8 (EXIT) to return to Test Menu screen.

<Note>

The System (Master or Slave) which is now being tested is displayed in the screen.

<Explanation>

- (1) Examines the upper and lower paths, the DTMF repeater function, and the Tone detection function of DTMF circuit in the DISA card.



1) CO-CO path test

- The DTMF signal is sent from the DTMF generator and received on the DTMF receiver in the extension card. The path is examined as mentioned above.
- The signal is sent in the following order.

DTMF G1 - UHW0 - DHW6 - DISA - UHW6 - DHW1 - CO CODEC - Diagnosis Path - EXT1 / DTMF R1
 TS19 TS16, 18 TS16, 18 TS 0

2) DTMF repeater test

- The DTMF signal is sent from the DTMF generator, passes through the DTMF receiver and the DTMF generator in the DISA card and received on the DTMF receiver in the extension card. The DTMF repeater function is examined as mentioned above.

- The signal is sent in the following order.

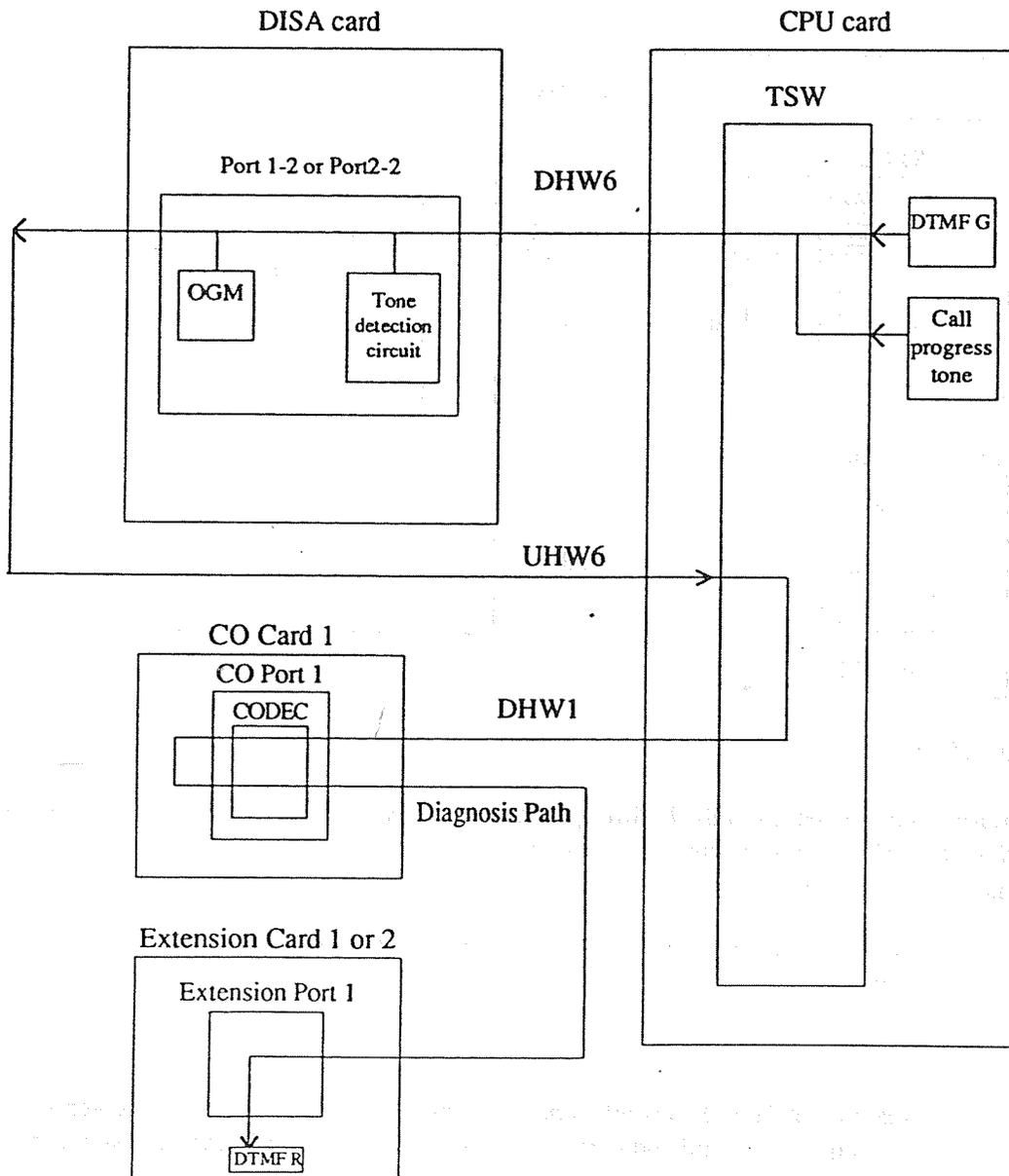
DTMF G1 – UHW0 – DHW6 – DISA/DTMF R – DISA/DTMF G – UHW6 – DHW1 – CO CODEC – Diagnosis Path
 TS19 TS16,18 TS16, 18 TS 0
 – EXT1 /DTMF R1

3) Tone detection test

- The call progress tone is sent in the following order and the tone detection circuit is examined.

Call progress tone – UHW0. TS3 – DHW6 – DISA Tone detection circuit
 TS16, 18

- (2) Examines the upper and lower paths, the OGM recording and playing back function and the Tone detection function of OGM circuit in the DISA card.



1) CO-CO path test

- The DTMF signal is sent from the DTMF generator and received on the DTMF receiver in the extension card. The path is examined as mentioned above.
- The signal is sent in the following order.

DTMF G1 - UHW0 - DHW6 - DISA - UHW6 - DHW1 - CO CODEC - Diagnosis Path - EXT1 / DTMF R1
TS19 TS17, 19 TS17, 19 TS 0

2) OGM test

- The DTMF signal is sent from the DTMF generator in the CPU card and recorded in OGM. The signal is played back from OGM and received on the DTMF receiver in the extension card. The OGM recording and playing back function is examined as mentioned above.
- The signal is sent in the following order.

DTMF G1 - UHW0. TS19 - DHW6. TS17 - DISA OGM recording - DISA. OGM playing back - UHW6. TS17
TS19
- DHW2. TS16 - CODEC - DTMF R1

3) Tone detection test

- The call progress tone is sent in the following order and the tone detection circuit is examined.

Call progress tone - UHW0. TS3 - DHW6 - DISA Tone detection circuit
TS17, 19

5. DPH, RMT, CONF Test

DPH, RMT, CONF Test	(Master)	On-line (RS-232C)	Empty									
<table border="1" style="margin: auto; border-collapse: collapse;"> <tr> <td style="width: 15%;">DPH</td> <td style="width: 55%;">Port 1 Port 2</td> <td style="width: 30%;">OK OK</td> </tr> <tr> <td>RMT</td> <td>Digital Loop Back Analog Loop Back</td> <td>OK OK</td> </tr> <tr> <td>CONF</td> <td>CONF Trunk 1 CONF Trunk 2 CONF Trunk 3 CONF Trunk 4 CONF Trunk 5 CONF Trunk 6</td> <td>OK OK OK OK OK OK</td> </tr> </table>	DPH	Port 1 Port 2	OK OK	RMT	Digital Loop Back Analog Loop Back	OK OK	CONF	CONF Trunk 1 CONF Trunk 2 CONF Trunk 3 CONF Trunk 4 CONF Trunk 5 CONF Trunk 6	OK OK OK OK OK OK			
DPH	Port 1 Port 2	OK OK										
RMT	Digital Loop Back Analog Loop Back	OK OK										
CONF	CONF Trunk 1 CONF Trunk 2 CONF Trunk 3 CONF Trunk 4 CONF Trunk 5 CONF Trunk 6	OK OK OK OK OK OK										
Enter card No. (DPH=1, RMT=2, CONF=3) ⇒ []												
Enter the Card number, and hit ENTER key 1 2 3 4 5 6 7 8 EXIT												

<Operation>

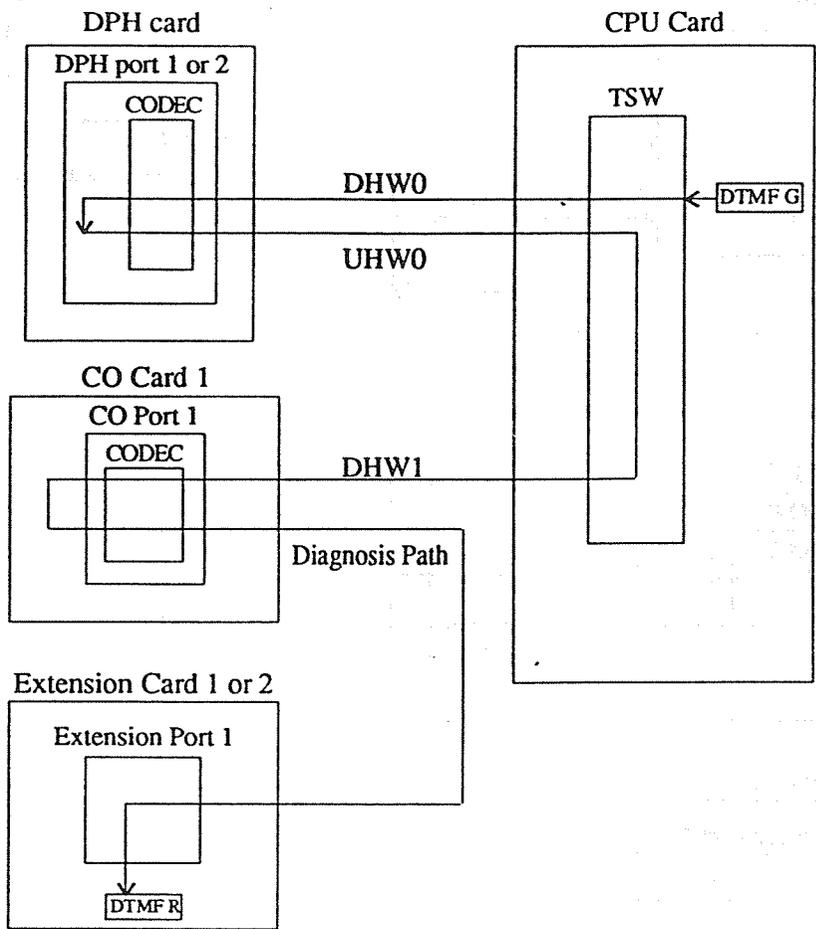
- (1) Enter the number of the card (1 through 4) and then press ENTER key.
- (2) The result is displayed by OK or NG.
- (3) Press F8 (EXIT) to return to Test Menu screen.

<Note>

The System (Master or Slave) which is now being tested is displayed in the screen.

<Explanation>

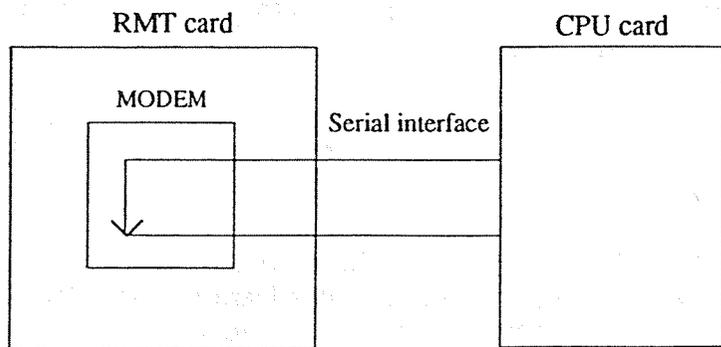
(1) Examines ports of the DPH card.



- The DTMF signal is sent from the DTMF generator in the CPU card and received on the DTMF receiver in the extension card.
The path is examined as mentioned above.
- The signal is sent in the following order.

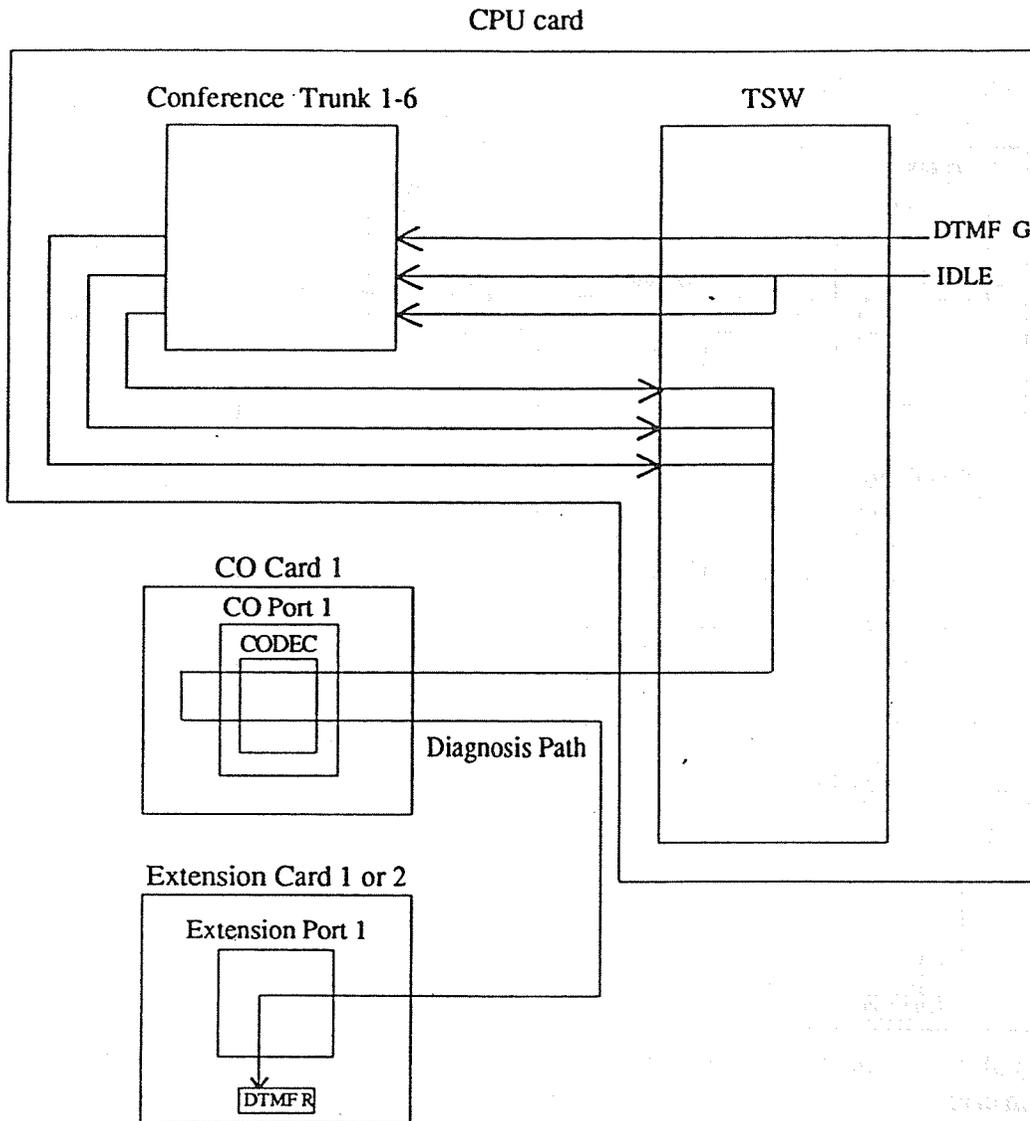
DTMF G1 – UHW0 – DHW0 – DPH CODEC – UHW0 – DHW1 – CO CODEC – Diagnosis Path – DTMF R1
 TS19 TS29, 30 TS29, 30 TS 0

(2) Examines the loopback on the RMT card.



- The digital and analog serial data are looped back in MODEM IC.
The loopback function is examined as mentioned above.

- (3) Examines the path in the CONF trunks.



- The DTMF signal is sent from the DTMF generator in the CPU card, passes through the CONF trunk and reaches the DTMF receiver in the extension card.
The Conference trunks are examined as mentioned above.
- 3 patterns of paths are checked at every CONF trunk in the following order.

[DTMF G1 → DHW0. TS0 → CONF 1 UHW0. TS4 → DHW1. TS 0 → Diagnosis Path → DTMF R1(DTMF)]
	IDLE → DHW0. TS1 → CONF 1 UHW0. TS5 → DHW1. TS 0 → Diagnosis Path → DTMF R1(IDLE)	
	IDLE → DHW0. TS2 → CONF 1 UHW0. TS6 → DHW1. TS 0 → Diagnosis Path → DTMF R1(DTMF)	
[IDLE → DHW0. TS0 → CONF 1 UHW0. TS4 → DHW1. TS 0 → Diagnosis Path → DTMF R1(IDLE)]
	DTMF G1 → DHW0. TS1 → CONF 1 UHW0. TS5 → DHW1. TS 0 → Diagnosis Path → DTMF R1(DTMF)	
	IDLE → DHW0. TS2 → CONF 1 UHW0. TS6 → DHW1. TS 0 → Diagnosis Path → DTMF R1(DTMF)	
[IDLE → DHW0. TS0 → CONF 1 UHW0. TS4 → DHW1. TS 0 → Diagnosis Path → DTMF R1(DTMF)]
	IDLE → DHW0. TS1 → CONF 1 UHW0. TS5 → DHW1. TS 0 → Diagnosis Path → DTMF R1(DTMF)	
	DTMF G1 → DHW0. TS2 → CONF 1 UHW0. TS6 → DHW1. TS 0 → Diagnosis Path → DTMF R1(IDLE)	

6 conference trunks are examined.

	Down path (TS NO.)	UP path (TS NO.)
CONF1	4 , 5 , 6	0 , 1 , 2
CONF2	8 , 9 , 10	4 , 5 , 6
CONF3	12, 13, 14	8 , 9 , 10
CONF4	16, 17, 18	12, 13, 14
CONF5	20, 21, 22	16, 17, 18
CONF6	24, 25, 26	20, 21, 22

<Condition>

Doorphones must be disconnected from the Doorphone ports to reflect the signal at the balance network circuit.

6. Caller ID Test

Caller ID Test	(Master)	On-line (RS-232C)	Empty																														
<table border="1"><thead><tr><th></th><th>CO1</th><th>CO2</th></tr><tr><th>Port</th><th>Loop Back</th><th>Loop Back</th></tr></thead><tbody><tr><td>1</td><td>OK</td><td>OK</td></tr><tr><td>2</td><td>OK</td><td>OK</td></tr><tr><td>3</td><td>OK</td><td>OK</td></tr><tr><td>4</td><td>OK</td><td>OK</td></tr><tr><td>5</td><td>OK</td><td>--</td></tr><tr><td>6</td><td>OK</td><td>--</td></tr><tr><td>7</td><td>OK</td><td>--</td></tr><tr><td>8</td><td>OK</td><td>--</td></tr></tbody></table>					CO1	CO2	Port	Loop Back	Loop Back	1	OK	OK	2	OK	OK	3	OK	OK	4	OK	OK	5	OK	--	6	OK	--	7	OK	--	8	OK	--
	CO1	CO2																															
Port	Loop Back	Loop Back																															
1	OK	OK																															
2	OK	OK																															
3	OK	OK																															
4	OK	OK																															
5	OK	--																															
6	OK	--																															
7	OK	--																															
8	OK	--																															
Enter CO Card No. (1-2,*) ⇒ []																																	
Enter the CO Card number, and hit ENTER key																																	
1	2	3	4	5	6	7	8	EXIT																									

<Operation>

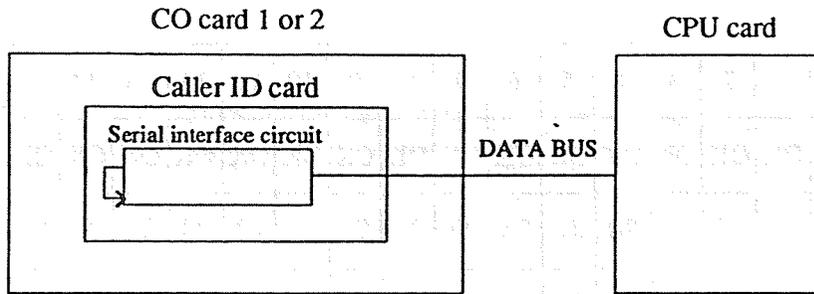
- (1) Enter the number of the CO card (1 or 2) or *(a wild card character) and then press ENTER key.
- (2) The result is displayed by OK or NG.
- (3) Press F8 (EXIT) to return to Test Menu screen.

<Note>

The System (Master or Slave) which is now being tested is displayed in the screen.

<Explanation>

Examines the Caller ID function of CO cards.



- The serial interface circuit in the Caller ID card is assigned to turn the serial data back inside and received them on the circuit.
The function is examined as mentioned above.

7. SIC Test

SIC Test		(Master)						On-line (RS-232C)						Empty		
CH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Path	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	
CH	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Path	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	

Hit ENTER key

1
2
3
4
5
6
7
8 EXIT

<Operation>

- (1) Press ENTER key to proceed.
- (2) The result is displayed by OK or NG.
- (3) Press F8 (EXIT) to return to Test Menu screen.

<Note>

The System (Master or Slave) which is now being tested is displayed in the screen.

8. PT TEST

PT Test	(Master)	On-line (RS-232C)	Empty					
	EXT 1	EXT 2	EXT 3	EXT 4				
Port	Normal Path	OHCA Path	Normal Path	OHCA Path	Normal Path	OHCA Path	Normal Path	OHCA Path
1	OK	OK	OK	OK	OK	OK	OK	OK
2	OK	OK	OK	OK	OK	OK	OK	OK
3	OK	OK	OK	OK	OK	OK	OK	OK
4	OK	OK	OK	OK	OK	OK	OK	OK
5	OK	OK	OK	OK	OK	OK	OK	OK
6	OK	OK	OK	OK	OK	OK	OK	OK
7	OK	OK	OK	OK	OK	OK	OK	OK
8	OK	OK	OK	OK	OK	OK	OK	OK

You must connect the following PT with extension ports.
 KX-T7130 (Normal path, OHCA path)
 KX-T7220, KX-T7230, KX-T7235, KX-T7250, KX-T7020, KX-T7030, KX-T7050 (Normal path)
 Enter EXT Card No. (1-4,*) => []

Enter the EXT Card number, and hit ENTER key

1
2
3
4
5
6
7
8 EXIT

<Operation>

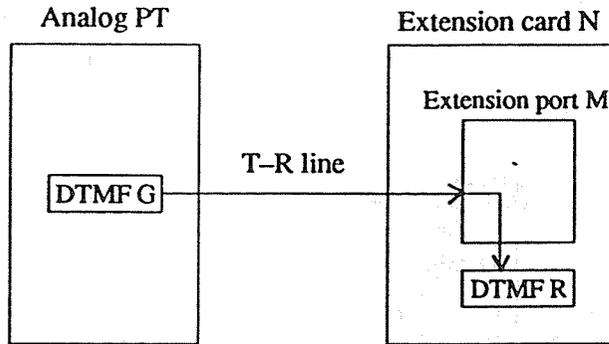
- (1) Enter the number of the extension card (1 through 4) or *(a wild card character) and then press ENTER key.
- (2) The result is displayed by OK or NG.
- (3) Press F8 (EXIT) to return to TEST Menu screen.

<Note>

- (1) A proprietary telephone is abbreviated to PT in the screen.
- (2) The System (Master or Slave) which is now being tested is displayed in the screen.

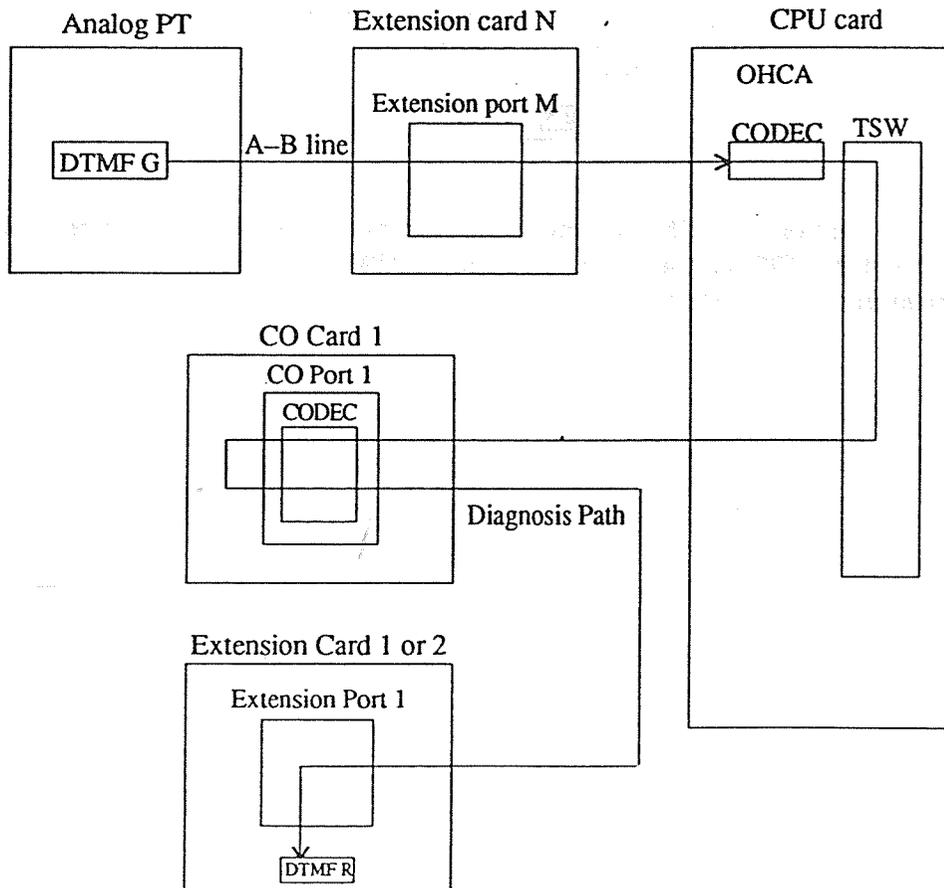
<Explanation>

(1) Examines the normal path of analog proprietary telephones.



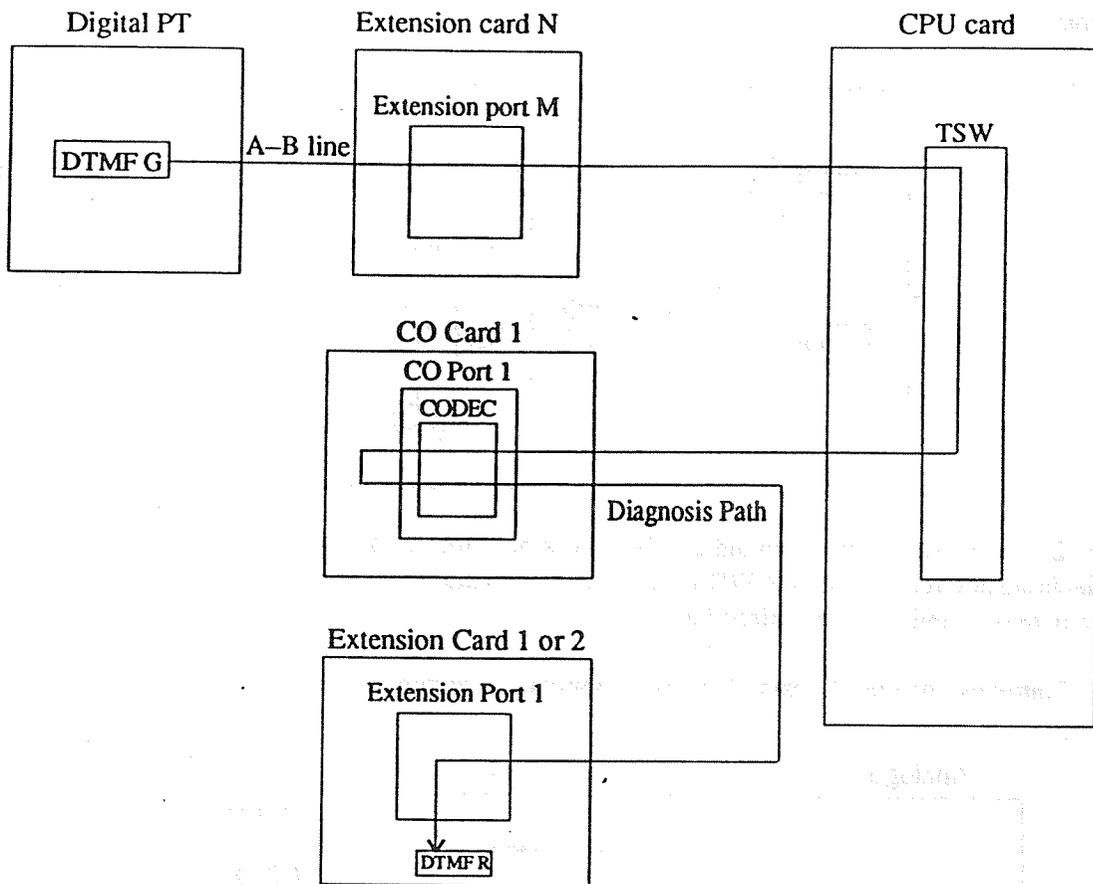
- The DTMF signal is sent from the DTMF generator to the normal path in an analog proprietary telephone and received on the DTMF receiver in the extension card. The path is examined as mentioned above.

(2) Examines the OHCA path of analog proprietary telephones.



- The DTMF signal is sent from the DTMF generator to the OHCA path in an analog proprietary telephone, passes through CODEC and TSW in OHCA and the CO port 1 of CO card 1, and received on the DTMF receiver in the extension card 1. The path is examined as mentioned above.

(3) Examines the normal path of digital proprietary telephones.



- The DTMF signal is sent from the DTMF generator to the normal path in a digital proprietary telephone, passes through TSW in the CPU card and is received on the DTMF receiver in the extension card 1. The paths are examined as mentioned above.

Chapter 7 DSHS Connect / Disconnect

7-1 DSHS Connect / Disconnect Main Menu

DSHS Connect / Disconnect Main Menu	Off-line	KX-TD1232 Both
<p>1. RS-232C Connect</p> <p>2. MODEM Connect</p> <p>3. Disconnect</p> <p>Select the number : [_]</p> <p>Enter the number, and hit ENTER key</p> <p>1 2 3 4 HELP 5 6 7 8 EXIT</p>		

<Operation>

- (1) Select the number of the program and press ENTER key.
 - If RS-232C is connected to an external MODEM, you must select "2. MODEM Connect".
 - If your PC terminal is already connected with the DSHS and you want to reconnect it, you must disconnect it from the DSHS first and reconnect it.
- (2) Press F8 (EXIT) to return to the initial screen.

<Condition>

- (1) If your PC terminal is already connected with the DSHS and you select "1. RS-232C Connect" or "2. MODEM Connect", an error message appears.
- (2) If your PC terminal is already disconnected from the DSHS and you select "3. Disconnect", an error message appears.
- (3) "2 MODEM Connect" is available for KX-TD1232 only.

7-2 RS-232C Connect

RS-232C Connect	Off-line	KX-TD1232 Both
COM Port No.	[1]	
Baud Rate	9600	
NL Code	CR+LF	
Word Length	8 bits	
Parity	Mark	
Stop Bit	1 bit	
Password	[]	
Enter numeric code		
[1]	[2]	[3]
[4] HELP	[5]	[6]
[7] CONNECT	[8] EXIT	

<Explanation>

Assigns the communication parameters of RS-232C connection.

<Operation>

- (1) Before assigning the parameters, connect the DSHS with Port 1 or 2 of the PC terminal by the RS-232C cable.
- (2) After selecting "1. RS-232C Connect", the screen above appears.
- (3) The cursor is placed in the Password field.
- (4) If you want to change the parameters, use TAB key, the cursor keys or ENTER key to move the cursor. The defaults of the DSHS are as the following.

Baud Rate = 9600 NL Code = CR+LF Word Length = 7 bits Parity = Mark
 Stop Bit = 1 bit Password = 1234

- (5) After editing the data, enter the password and press F7 (CONNECT).

(6) A message "DSHS Connection completed (DSHS ID⇒KX-TDxxxx)" appears when the PC terminal is connected with the DSHS. DSHS Connecting Status turns into "On-line (RS-232C)".

(7) Press F8 (EXIT) to return to DSHS Connect / Disconnect Main Menu screen.

<Condition>

(1) If the password is wrong, an error message appears after pressing F7 (CONNECT). Reenter the correct one and press F7 again.

(2) An error message appears when something is wrong with the line. Check the line and then press F7 (CONNECT) again.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
Port No.	Direct	1 or 2 1 digit	1
Baud Rate	Selecting	150, 300, 600, 1200, 2400, 4800, 9600	9600
NL Code	Selecting	CR+ LF or CR	CR + LF
Word Length	Selecting	7 bits or 8 bits	8 bits
Parity	Selecting	None, Mark, Space, Even, Odd	Mark
Stop Bit	Selecting	1 bit or 2 bits	1 bit
Password	Direct	0 through 9 4, 5, 6 or 7 digits	Not Stored

7-3 MODEM Connect (for KX-TD1232 only)

MODEM Connect	Off-line	KX-TD1232 Both
COM Port No.		[1]
Interface	CCITT V.22(1200BPS)	
ORG CON Type	Auto	
NL Code	CR+LF	
Dial Mode	Tone	
MODEM Init	[]
Dial Number	[]
Password	[]
Enter numeric code		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	HELP	<input type="checkbox"/>
<input type="checkbox"/>		<input type="checkbox"/>
<input type="checkbox"/>	CONNECT	<input type="checkbox"/>
<input type="checkbox"/>		EXIT

<Explanation>

Assigns the communication parameters of MODEM connection.

<Operation>

- (1) Before assigning the parameters, install the Modem card (Hayes compatible modem) in the PC terminal, or connect the external Modem (Hayes compatible modem) with the COM port 1 or 2 of the PC terminal. Connects the card or the Modem with a CO line after that.
- (2) After selecting "2. MODEM Connect", the screen above appears.
- (3) • Automatic call from the Modem
 - ① Assigns the following parameters.

COM Port, Interface, ORG CON Type,
Dial Mode, Dial Number, Password
 - ② After editing the data, press F7 (CONNECT).

The PC terminal detects the carrier signal from the DSHS and starts communicating with it.

7-4 Disconnect

DSHS Disconnect	On-line (RS-232C)	KX-TD1232 Both
<p>DSHS Communication Disconnect</p> <p>Hit ENTER key</p>		
1	2	3
4	5	6
7	8	EXIT

<Explanation>

Disconnects the PC terminal from the DSHS.

<Operation>

- (1) After selecting "3. Disconnect", the screen above appears.
- (2) After pressing ENTER key to disconnect from the DSHS, a message "DSHS Disconnected" appears and DSHS Connecting Status turns into "Off-line".
- (3) Press F8 (EXIT) to return to the initial screen.

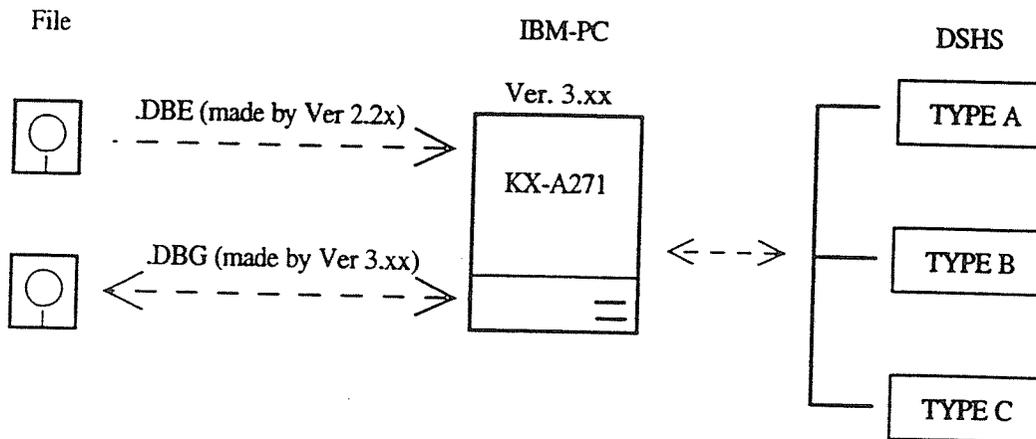
EIA/REMOTE PROGRAMMING & DIAGNOSIS MANUAL

Additional Information (KX-A271 Version 3.xx)

The KX-A271 Version 3.xx is a software package which is used to assist in programming the Digital Super Hybrid System of Type C. It can also work with old types (Type A and B). Each type is as follows:

Type	ROM Version
TYPE A	P011Q (KX-TD1232) P011V (KX-TD1232) P051C (KX-TD816)
TYPE B	P011Y (KX-TD1232) P051I (KX-TD816)
TYPE C	P101A (KX-TD1232)

The DB files of old types can also be loaded into PC and newly assigned data is saved into DSHS of old types. The file extension of Version 3.xx is ".DBG". See the illustration below.



As new features are added to DSHS, The following programs are changed and added in KX-A271 Version 3.xx:

Added Programs

- 1) 4-4 System 09. Voice Mail Integration See page 9, 11 and 12.
- 2) 4-5 Toll Restriction 3. TRS Extra Entry See page 18 through 21.

Changed Programs

- 1) 4-3 Station 1. Station Setting: "LCS Mode" feature is added. See page 2 and 3
5. Flexible Keys 1 and 6. DSS: 2WAY-REC: EXT[], 2-WAY TRN:EXT[], LCS, LCS Cancel are added to Selection of parameter.
See page 3 through 8.
- 2) 4-4 System 05. Flexible Numbering: 54(TAM Extr)=>[799] is added. See page 10.

- 2) **4-5 Toll Restriction** 1. TRS Deny and 2. TRS Exception: a maximum digit is changed from "7" to "10". See page 13 through 17.
- 3) **4-6 ARS** 3. ARS Leading Digits: a maximum digit is changed from "7" to "10".
The entry numbers are changed from "01 through 50" to "001 through 100". See page 22 and 23.
- 4) **4-8 Additional Function** SYS4 Bit 9
Prohibits or allows a call originated by an AA port of VPS to another AA port: the default setting is changed from "0" to "1".
See page 24.
- 5) **4-9 Caller ID:** the location numbers are changed from "001 through 500" to "001 through 250".
See page 25.

The DSHS Connecting Status on the screen, Off-line and On-line, is changed into the DSHS Type, TYPE A, TYPE B, TYPE C.

1. Station Setting 1

Station Setting 1			TYPE C:ROM[P101A]		KX-TD1232 Both									
Jack	EXT	Name	X	E	Doorphone						LCS			
			D	X	Day				Night					
			P	G	1	2	3	4	1	2	3	4		
01-1	[101]	[RONNA]	N	[1]	Y	Y	Y	Y	Y	Y	Y	Y	Stop	Rec
01-2	[201]	[]	-	[1]	N	Y	N	N	N	N	N	N		
02-1	[102]	[DEANNA]	Y	[2]	Y	Y	Y	Y	N	N	N	N	Stop	Rec
02-2	[202]	[BRUCE]	-	[2]	Y	Y	Y	Y	Y	Y	Y	Y		
03-1	[103]	[RENEE]	Y	[3]	N	N	N	N	N	N	N	N	Stop	Rec
03-2	[203]	[RICK T]	-	[3]	N	N	N	N	N	N	N	N		
04-1	[104]	[]	Y	[4]	N	N	N	N	N	N	N	N	Stop	Rec
04-2	[204]	[]	-	[4]	N	N	N	N	N	N	N	N		
05-1	[105]	[BILL O]	Y	[5]	N	Y	N	N	N	N	N	N	Stop	Rec
05-2	[205]	[JAY D]	-	[5]	N	N	N	N	N	N	N	N		
06-1	[106]	[ANITA]	Y	[6]	N	N	N	N	N	N	N	N	Stop	Rec
06-2	[206]	[BARRY N]	-	[6]	N	N	N	N	N	N	N	N		
07-1	[107]	[MATT]	Y	[7]	N	N	N	N	N	N	N	N	Stop	Rec
07-2	[207]	[]	-	[7]	N	N	N	N	N	N	N	N		
08-1	[108]	[DON R]	Y	[8]	N	N	N	N	N	N	N	N	Stop	Rec
08-2	[208]	[]	-	[8]	N	N	N	N	N	N	N	N		

Enter numeric code

1
 2 COPY
 3
 4 HELP
 5 P-PAGE
 6 N-PAGE
 7 SAVE
 8 EXIT

<Explanation>

- [1] EXT (Extension Number Set) [003]
Assigns an extension number to each extension.
- [2] Name (Extension Name Set) [004]
Assigns a user's name to each extension.
- [3] XDP (Extra Device Port) [600]
Assigns each extension port (jack) to be connected with a standard telephone or a proprietary telephone in parallel or not.
- [4] EXG (Extension Group Assignment) [602]
Assigns individual extensions to one extension group.
- [5] Doorphone Day / Night (Doorphone Ringing Assignment —Day / Night) [607,608]
Assigns extensions to answer a doorphone during day mode or night mode.
- *[6] LCS Mode (Live Call Screening Recording Mode Assignment) [610]
Assigns whether to close the mailbox or to keep recording the conversation after the call is intercepted.

Table of Items

Assigning Items	Type of Field	Selection of parameter	Default
EXT	Direct	0 through 9 2,3 or 4 digits	For KX-TD1232 Jack 01-1=101 Jack 02-1=102 : Jack 64-1=164 Jack 01-2=201 Jack 02-2=202 : Jack 64-2=264 For KX-TD816 Jack 01-1=101 Jack 02-1=102 : Jack 16-1=116 Jack 01-2=201 Jack 02-2=202 : Jack 16-2=216
Name	Direct	0 through 9, A through Z, a through z, * # ! ? Space . , ' : ; / + - = < > \$ % & @ () 10 characters Maximum	Not Stored
XDP	Selecting	Y : Enable or N : Disable	N
EXG	Direct	1 through 8 1 digit	1
Doorphone Day/ Night	Select	Y : Enable or N : Disable	Jack 01-1=Y Other Jacks=N
*LCS Mode	Select	Stop Rec or Keep Rec	Stop Rec

*: is only available for DSHS of TYPE C.

5. Flexible Keys 1

Flexible Keys 1	TYPE C:ROM[P101A]	KX-TD1232 Both
Jack No. 01		
CO01 S-CO [01] : TONE[1]	CO13 2WAY-REC: EXT[165]	
CO02 G-CO [1] : TONE[1]	CO14 2WAY-TRC: EXT[166]	
CO03 L-CO : TONE[1]	CO15 LCS	
CO04 DSS : EXT[100]	CO16 S-CO[05]: TONE[1]	
CO05(DSS1) [092-431-2111]	CO17 S-CO[06]: TONE[1]	
CO06(DSS2) MSG WAIT	CO18 S-CO[07]: TONE[1]	
CO07(DSS3) FWD/DND	CO19 [092-234-1234]	
CO08(DSS4) SAVE	CO20 [092-234-2345]	
CO09(DSS5) ACCOUNT	CO21 [092-234-3456]	
CO10(DSS6) []	CO22 [092-234-4567]	
CO11(DSS7) []	CO23 [092-234-5678]	
CO12(DSS8) []	CO24 [092-234-6789]	
Hit spacebar to select parameter		
<input type="checkbox"/> JACK <input type="checkbox"/> COPY <input type="checkbox"/> HELP <input type="checkbox"/> P-PAGE <input type="checkbox"/> N-PAGE <input type="checkbox"/> SAVE <input type="checkbox"/> EXIT		

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
Flexible Keys	Selecting	S-CO, G-CO, L-CO, DSS, [](means One Touch Key), MSG WAIT, FWD/DND, SAVE, ACCOUNT, CONF, VTR *2 WAY-REC: EXT[], *2 WAY-TRN: EXT[], *LCS, *LCS Cancel	For KX-TD1232 CO01 : S-CO[01] : TONE[1] CO02 : S-CO[02] : TONE[1] : CO24 : S-CO[24] : TONE[1]
S-CO	Direct	CO=01 through 24 Tone=1 though 8	
G-CO	Direct	TRG=1 through 8 Tone=1 though 8	
L-CO	Direct	Tone=1 through 8	For KX-TD816 CO01 : S-CO[01] : TONE[1] CO02 : S-CO[02] : TONE[1] : CO08 : S-CO[08] : TONE[1]
DSS	Direct	EXT=0 through 9 2, 3 or 4 digits	
[] (One Touch)	Direct	0 through 9* #-, P or p (PAUSE), F or f (FLASH), S or s (SECRET)	
VTR	Direct	EXT=0 through 9 2, 3 or 4 digits	
*2 WAY- REC	Direct	EXT=0 through 9 2, 3 or 4 digits	
*2 WAY- TRN	Direct	EXT=0 through 9 2, 3 or 4 digits	

*: are only available for TYPE C.

DSS		TYPE C:ROM[P101A]	KX-TD1232 Both
DSS No. 1			
DSS Jack No.⇒ Jack [02]			
Pair Jack No.⇒ Jack [01]			
DSS01	DSS: EXT[100]	DSS17 [092-234-1234]	PF01 [092-321-9876]
DSS02	[092-431-2111]	DSS18 [092-234-2345]	PF02 [092-321-8765]
DSS03	MSG WAIT	DSS19 [092-234-3456]	PF03 [092-321-7654]
DSS04	FWD/DND	DSS20 [092-234-4567]	PF04 [092-321-6543]
DSS05	SAVE	DSS21 [092-234-5678]	PF05 [092-321-5432]
DSS06	ACCOUNT	DSS22 [092-234-6789]	PF06 [092-321-4321]
DSS07	[]	DSS23 []	PF07 [092-321-3210]
DSS08	[]	DSS24 []	PF08 [092-321-2109]
DSS09	[]	DSS25 []	PF09 [092-321-1098]
DSS10	[]	DSS26 []	PF10 [092-321-0987]
DSS11	[]	DSS27 []	PF11 [092-321-0876]
DSS12	[]	DSS28 []	PF12 [092-321-0765]
DSS13	[]	DSS29 []	PF13 []
DSS14	[]	DSS30 2WAY-REC:EXT []	PF14 []
DSS15	[]	DSS31 2WAY-REC:EXT []	PF14 []
DSS16	[]	DSS32 LCS	PF16 []
Enter numeric code			
<input type="checkbox"/> 1 DSS <input type="checkbox"/> 2 COPY <input type="checkbox"/> 3 <input type="checkbox"/> 4 HELP <input type="checkbox"/> 5 P-PAGE <input type="checkbox"/> 6 N-PAGE <input type="checkbox"/> 7 SAVE <input type="checkbox"/> 8 EXIT			

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
DSS Jack No.	Selecting and Direct	Disable or [] (After selecting []) 02 through 64 (for KX-TD1232) 02 through 16 (for KX-TD816)	2 digits Disable
Pair Jack No.	Selecting and Direct	Disable or [] (After selecting []) 01 through 64 (for KX-TD1232) 01 through 16 (for KX-TD816)	2 digits Disable
Flexible Keys	Direct	DSS, [](means One Touch Key), MSG WAIT, FWD/DND, SAVE, ACCOUNT, CONF, VTR *2 WAY-REC:EXT[], *2 WAY-TRN:EXT [], *LCS, *LCS Cancel	DSS 01 : DSS : EXT [101] DSS 02 : DSS : EXT[102] : DSS32 : DSS : EXT[132] PF01 : [] PF02 : [] : PF16 : []
DSS	Selecting	EXT=0 through 9	2, 3 or 4 digits
[] (One Touch)	Direct	0 through 9 * #-, P or p (PAUSE), F or f (FLASH), S or s (SECRET)	
*2 WAY-REC	Direct	EXT=0 through 9	2, 3 or 4 digits
*2 WAY-TRN	Direct	EXT=0 through 9	2, 3 or 4 digits

*: are only available for TYPE C.

4-4 System

The screen illustrated below appears when you select "3. System".

System Menu	TYPE C:ROM[P101A]	KX-TD1232 Both
<p>01. Day / Night 02. Class of Service 03. Speed Dial 04. Absent Message 05. Flexible Numbering 06. Account Code / Special Carrier 07. Timer 08. Voice Mail 09. Voice Mail Integration 10. Miscellaneous 11. System Time 12. Version</p> <p>Select the number : <input type="text"/></p>		
Enter the number, and hit ENTER key		
<input type="button" value="1"/>	<input type="button" value="2"/>	<input type="button" value="3"/>
<input type="button" value="4"/>	<input type="button" value="5"/>	<input type="button" value="6"/>
<input type="button" value="7"/>	<input type="button" value="8"/>	<input type="button" value="9"/>
<input type="button" value="0"/>	<input type="button" value="HELP"/>	<input type="button" value="EXIT"/>

<Operation>

- (1) Enter the number of the program, and press ENTER key.
- (2) Press F8 (EXIT) to return to Main Menu screen.

<Condition>

An error message appears when you select "11. System Time" or "12. Version" in Batch Editing Mode.

05. Flexible Numbering

Flexible Numbering		Off-line		KX-TD1232 Both	
No. (Feature)	Dial	No. (Feature)	Dial	No. (Feature)	Dial
01(1-EXT BLK)	⇒[1]	21(Speed STA)	⇒[3*]	41(OMG P/Rec)	⇒[36]
02(2-EXT BLK)	⇒[2]	22(Speed PRG)	⇒[30]	42(FWD / DND)	⇒[710]
03(3-EXT BLK)	⇒[]	23(Door Call)	⇒[31]	43(Pick Deny)	⇒[720]
04(4-EXT BLK)	⇒[]	24(Extr Page)	⇒[32]	44(Data Line)	⇒[730]
05(5-EXT BLK)	⇒[]	25(E-Pag Ans)	⇒[42]	45(Call Wait)	⇒[73]
06(6-EXT BLK)	⇒[]	26(STA Page)	⇒[33]	46(Over Deny)	⇒[733]
07(7-EXT BLK)	⇒[]	27(S-Pag Ans)	⇒[43]	47(Pickup DL)	⇒[74]
08(8-EXT BLK)	⇒[]	28(CO Pick)	⇒[4*]	48(Absnt MSG)	⇒[750]
09(9-EXT BLK)	⇒[]	29(GRP Pick)	⇒[40]	49(T-Reminder)	⇒[76]
10(10-EXT BLK)	⇒[]	30(Call Pick)	⇒[41]	50(STA Lock)	⇒[77]
11(11-EXT BLK)	⇒[]	31(Hold)	⇒[50]	51(Night Mod)	⇒[78]
12(12-EXT BLK)	⇒[]	32(H-Ret STA)	⇒[51]	52(Para Mod)	⇒[39]
13(13-EXT BLK)	⇒[]	33(H-Ret TRK)	⇒[53]	53(Extr BGM)	⇒[35]
14(14-EXT BLK)	⇒[]	34(Redial)	⇒[#]	54(TAM Extr)	⇒[799]
15(15-EXT BLK)	⇒[]	35(Call Park)	⇒[52]		
16(16-EXT BLK)	⇒[]	36(ACCT Code)	⇒[49]		
17(Oper Call)	⇒[0]	37(Door Open)	⇒[55]		
18(Locl Call)	⇒[9]	38(E-Feature)	⇒[6]		
19(TRG Call)	⇒[8]	39(STA Clear)	⇒[790]		
20(Speed SYS)	⇒[*]	40(MSG Wait)	⇒[70]		

Enter numeric code

1
 2
 3
 4 HELP
 5
 6
 7 SAVE
 8 EXIT

<Explanation>

Dial (Flexible Numbering)

[100]

Assigns dialing numbers of each feature.

<Operation>

- (1) Move the cursor to the field in which you want to set a parameter.
- (2) After editing the data, press F7 (SAVE) to save them on the screen into DB file.
- (3) Press F8 (EXIT) to return to System Menu screen.

<Condition>

- (1) For KX-TD816, "No.41(OMG P/Rec) ⇒[36]" is changed to "41(Reverse) ⇒[]".
- (2) You must enter numbers from a left end. If you make a space in a field and try to move the cursor to the next item, an error message appears and it does not move to the next.

09. Voice Mail Integration

Voice Mail Integration		TYPE C:ROM[P101A]	KX-TD1232 Both	
VM Port No.	Master	[09]	[10]	[11]
	Slave	[]	[]	[]
	VM	Jack	EXT	EXG
Master	01	09-1	[165]	[1]
	02	09-2	[166]	[1]
	03	10-1	[167]	[1]
	04	10-2	[168]	[1]
	05	11-1	[169]	[1]
	06	11-2	[170]	[1]
Slave	07	-1	[171]	[1]
	08	-2	[172]	[1]
	09	-1	[173]	[1]
	10	-2	[174]	[1]
	11	-1	[175]	[1]
	12	-2	[176]	[1]

Enter numeric code

1
 2
 3
 4 HELP 5
 6
 7 SAVE 8 EXIT

<Explanation>

- [1] Voice Port No. (Voice Mail Number Assignment) [117]
 Assigns the jack number corresponding to voice mail port for data transmission to the Voice Processing System.
- [2] EXT (Voice Mail Extension Number Assignment) [118]
 Assigns the extension number for voice mail number. These numbers can be used the same way extension numbers are used for station access.
- [3] EXG (Voice Mail Extension Group Assignment) [119]
 Assigns each voice mail number to an extension group number.

<Operation>

- (1) Move the cursor to the field in which you want to set a parameter.
- (2) After editing the data, press F7 (SAVE) to save them on the screen into DB file.
- (3) Press F8 (EXIT) to return to System Menu screen.

<Condition>

- (1) The Jack number 01 or manager extension cannot be assigned as the jack of voice mail port. The jack of voice mail port cannot be assigned to manager extension.
- (2) The jack numbers correspond to the voice mail port in numerical order.
Example: Stored jack numbers: Jacks 02, 03, 05
Jack 02=Voice mail numbers 01, 02; Jack 03=Voice mail numbers 03, 04; Jack 05=Voice mail numbers 05, 06
- (3) You must assign the extension numbers. Do not leave the entry empty.
- (4) Double entry and incompatible entry for the extension numbers are invalid.

<Note>

The numbers beside the items in the explanation area are program addresses which are used when you program the system by proprietary telephones.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
VM Port No.	Direct	Master: 02 through 32 Slave: 33 through 64 2 digits	Not Stored
EXT	Direct	0 through 9 2, 3 or 4 digits	Same as the screen on the previous page
EXG	Direct	1 through 8 1 digit	1

Note: this feature is only available for DSHS of TYPE C.

4-5 Toll Restriction

Toll Restriction Menu	TYPE C:ROM[P101A]	KX-TD1232 Both
-----------------------	-------------------	----------------

1. TRS Deny

2. TRS Exception

3. TRS Extra Table

Select the number :

Enter the number, and hit ENTER key

HELP EXIT

<Operation>

- (1) Enter the number of the program and press ENTER key.
- (2) Press F8 (EXIT) to return to Main Menu screen.

1. TRS Deny

TRS Deny		TYPE C:ROM[P101A]		KX-TD1232 Both	
LOC	LVL2	LVL3	LVL4	LVL5	LVL6
01	[012*****]	[013*****]	[014*****]	[015*****]	[016*****]
02	[022*****]	[023*****]	[024*****]	[025*****]	[026*****]
03	[032*****]	[033*****]	[034*****]	[035*****]	[036*****]
04	[042*****]	[043*****]	[044*****]	[045*****]	[046*****]
05	[052*****]	[053*****]	[054*****]	[055*****]	[056*****]
06	[062*****]	[063*****]	[064*****]	[065*****]	[066*****]
07	[072*****]	[073*****]	[074*****]	[075*****]	[076*****]
08	[082*****]	[083*****]	[084*****]	[085*****]	[086*****]
09	[092*****]	[093*****]	[094*****]	[095*****]	[096*****]
10	[102*****]	[103*****]	[104*****]	[105*****]	[106*****]
11	[112*****]	[113*****]	[114*****]	[115*****]	[116*****]
12	[122*****]	[123*****]	[124*****]	[125*****]	[126*****]
13	[132*****]	[133*****]	[134*****]	[135*****]	[136*****]
14	[142*****]	[143*****]	[144*****]	[145*****]	[146*****]
15	[152*****]	[153*****]	[154*****]	[155*****]	[156*****]
16	[162*****]	[163*****]	[164*****]	[165*****]	[166*****]
17	[172*****]	[173*****]	[174*****]	[175*****]	[176*****]
18	[182*****]	[183*****]	[184*****]	[185*****]	[186*****]
19	[192*****]	[193*****]	[194*****]	[195*****]	[196*****]
20	[202*****]	[203*****]	[204*****]	[205*****]	[206*****]

Enter numeric code

1
 2
 3
 4 HELP
 5
 6
 7 SAVE
 8 EXIT

<Explanation>

TRS Deny (Toll Restriction Denied Code Entry) [301, 302, 303, 304, 305]
 Assigns telephone numbers prohibited for each Toll Restriction level.

<Operation>

- (1) Move the cursor to the field in which you want to set a parameter.
- (2) After editing the data, press F7 (SAVE) to save them on the screen into DB file.
- (3) Press F8 (EXIT) to return to Toll Restriction Menu screen.

<Condition>

You must enter a number from a left end and fill in the blank with *(a wild card character).

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
TRS Deny	Direct	0 through 9*(a wild card character) Maximum 10 digits	Not Stored

Note: In case of DSHS of TYPE A, a maximum of 7 digits can be assigned.

2. TRS Exception

TRS Exception	TYPE C:ROM[P101A]		KX-TD1232 Both		
LOC	LVL2	LVL3	LVL4	LVL5	LVL6
01	[0012*****]	[0013*****]	[0014*****]	[0015*****]	[0016*****]
02	[0022*****]	[0023*****]	[0024*****]	[0025*****]	[0026*****]
03	[0032*****]	[0033*****]	[0034*****]	[0035*****]	[0036*****]
04	[0042*****]	[0043*****]	[0044*****]	[0045*****]	[0046*****]
05	[0052*****]	[0053*****]	[0054*****]	[0055*****]	[0056*****]

Enter numeric codes

1
 2
 3
 HELP
 5
 6
 7 SAVE
 8 EXIT

<Explanation>

TRS Exception (Toll Restriction Excepted Code Entry) [306, 307, 308, 309, 310]
 Assigns telephone numbers not prohibited for each Toll Restriction level.

<Operation>

- (1) Move the cursor to the field in which you want to set a parameter.
- (2) After editing the data, press F7 (SAVE) to save them on the screen into DB file.
- (3) Press F8 (EXIT) to return to Toll Restriction Menu screen.

<Condition>

- (1) You must enter a number from a left end and fill in the blank with *(a wild card character).
- (2) Store your emergency numbers in Level 6.

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
TRS Exception	Direct	0 through 9*(a wild card character) Maximum 10 digits	Not Stored

Note: In case of DSHS of TYPE A, a maximum of 7 digits can be assigned.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter	Default
TRS Extra	Selecting	Except-2, Except-3, Except-4, Except-5, Except-6 Deny-2, Deny-3, Deny-4, Deny-5, Deny-6	Except-2

Note: this feature is only available for DSHS of TYPE B and C.

TRS Extra Entry	TYPE C:ROM[P101A]	KX-TD1232 Both
TRS Extra - Except-2		
001 [01111*****]	002 [1209234***]	003 [] 004[] 005[]
006 []	007 []	008 [] 009[] 010[]
011 []	012 []	013 [] 014[] 015[]
016 []	017 []	018 [] 019[] 020[]
021 []	022 []	023 [] 024[] 025[]
026 []	027 []	028 [] 029[] 030[]
031 []	032 []	033 [] 034[] 035[]
036 []	037 []	038 [] 039[] 040[]
041 []	042 []	043 [] 044[] 045[]
046 []	047 []	048 [] 049[] 050[]
051 []	052 []	053 [] 054[] 055[]
056 []	057 []	058 [] 059[] 060[]
061 []	062 []	063 [] 064[] 065[]
066 []	067 []	068 [] 069[] 070[]
071 []	072 []	073 [] 074[] 075[]
076 []	077 []	078 [] 079[] 080[]
081 []	082 []	083 [] 084[] 085[]
086 []	087 []	088 [] 089[] 090[]
091 []	092 []	093 [] 094[] 095[]
096 []	097 []	098 [] 099[] 100[]
Enter numeric codes		
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
<input type="checkbox"/> 4	<input type="checkbox"/> HELP	<input type="checkbox"/> P-PAGE
<input type="checkbox"/> N-PAGE	<input type="checkbox"/> SAVE	<input type="checkbox"/> EXIT

<Explanation>

TRS Extra Entry (Toll Restriction Extra Entry)

[333]

This allows you to specify the numbers for extra Denied or Excepted Code Table for expansion.

<Operation>

- (1) After selecting the code table in "TRS Extra Entry" program, this screen appears.
This program consists of 4 pages.
The first page displays No.001 through 100.
The second page displays No.101 through 200.
The third page displays No.201 through 300.
The last page displays No.301 through 400.
- (2) Move the cursor to the field in which you want to set a parameter.
- (3) After editing the data, press F7 (SAVE) to save them on the screen into DB file.
- (4) Press F5 (P-PAGE) to return to the previous page.
- (5) Press F6 (N-PAGE) to advance to the next page.

(6) Press F8 (EXIT) to return to Toll Restriction Menu screen.

<Condition>

You must enter a number from a left end and fill in the blank with *(a wild card character).

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter		Default
TRS Extra Entry	Direct	0 through 9*(a wild card character)	Maximum 10 digits	Not Stored

3. ARS Leading Digit

ARS Leading Digit	TYPE C:ROM[P101A]	KX-TD1232 Both
Routing Plan No.1		
001 [	] 002 [	] 003 [] 004 [] 005 []
006 [	] 007 [	] 008 [] 009 [] 010 []
011 [	] 012 [	] 013 [] 014 [] 015 []
016 [	] 017 [	] 018 [] 019 [] 020 []
021 [	] 022 [	] 023 [] 024 [] 025 []
026 [	] 027 [	] 028 [] 029 [] 030 []
031 [	] 032 [	] 033 [] 034 [] 035 []
036 [	] 037 [	] 038 [] 039 [] 040 []
041 [	] 042 [	] 043 [] 044 [] 045 []
046 [	] 047 [	] 048 [] 049 [] 050 []
051 [	] 052 [	] 053 [] 054 [] 055 []
056 [	] 057 [	] 058 [] 059 [] 060 []
061 [	] 062 [	] 063 [] 064 [] 065 []
066 [	] 067 [	] 068 [] 069 [] 070 []
071 [	] 072 [	] 073 [] 074 [] 075 []
076 [	] 077 [	] 078 [] 079 [] 080 []
081 [	] 082 [	] 083 [] 084 [] 085 []
086 [	] 087 [	] 088 [] 089 [] 090 []
091 [	] 092 [	] 093 [] 094 [] 095 []
096 [	] 097 [	] 098 [] 099 [] 100 []
Enter numeric codes		
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
<input type="checkbox"/> 4	<input type="checkbox"/> HELP	<input type="checkbox"/> P-PAGE
<input type="checkbox"/> 5	<input type="checkbox"/> N-PAGE	<input type="checkbox"/> 7
<input type="checkbox"/> 6	<input type="checkbox"/> SAVE	<input type="checkbox"/> 8
<input type="checkbox"/> 7	<input type="checkbox"/> EXIT	

<Explanation>

ARS Leading Digit (ARS Leading Digit Entry) [314, 315, 316, 317, 318, 319, 320, 321]
 Assigns dialing numbers for each ARS Routing Plan.

<Operation>

- (1) This program consists of 8 pages.
 The first page displays Routing Plan No.1.
 The second page displays Routing Plan No.2.
 The third page displays Routing Plan No.3.
 The fourth page displays Routing Plan No.4.
 The fifth page displays Routing Plan No.5.
 The sixth page displays Routing Plan No.6.
 The seventh page displays Routing Plan No.7.
 The last page displays Routing Plan No.8.
- (2) Move the cursor to the field in which you want to set a parameter.
- (3) After editing the data, press F7 (SAVE) to save them on the screen into DB file.

(4) Press F5 (P-PAGE) to return to the previous page.

(5) Press F6 (N-PAGE) to advance to the next page.

(6) Press F8 (EXIT) to return to ARS Menu screen.

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

TABLE of ITEMS

Assigning Items	Type of Field	Selection of parameter			Default
ARS Leading Digit	Direct	0 through 9	*(a wild card character)	Maximum 10 digits	Not Stored

Note: In case of DSHS of TYPE A, 50 numbers of a maximum of 7 digits can be stored.

4-8 Additional Function

TABLE of ITEMS (continued)

Assigning Items	Type of Field	Selection of parameter	Default
SYS2 Bit4	Selecting	0 : No check or 1 : check	1
SYS2 Bit5	Selecting	0 : Disable or 1 : Enable	0
SYS2 Bit6	Selecting	0 : Disable or 1 : Enable	1
SYS 2 Bit7	Selecting	0 : 60% or 1 : 67%	0
SYS2 Bit8	Selecting	0 : Extension number or 1 : Free	0
SYS2 Bit9	Selecting	0 : Names or 1 : Numbers	0
SYS2 Bit10	Selecting	0 : Internal music source or 1 : External music source	1
SYS2 Bit11,12	Selecting	Bit 12 11 0 0 : 630 ms, 0 1 : 830 ms, 1 0 : 1030 ms	01
SYS2 Bit13	Selecting	0 : Normal or 1 : Distinctive	0
SYS3 Bit 1 - 16 SYS4 BIT 1 - 8	Selecting	0 : 0 dB or 1 : -3 dB	0
SYS4 Bit9	Selecting	0 : prohibit or 1 : allow	1
SYS4 Bit10	Selecting	0 : restriction or 1 : no restriction	1

4-9 Caller ID

Caller ID		TYPE C:ROM[P101A]	KX-TD1232 Both
Entry	Caller ID Code	Caller ID Name	
1	[]	[]	[]
2	[]	[]	[]
3	[]	[]	[]
4	[]	[]	[]
5	[]	[]	[]
6	[]	[]	[]
7	[]	[]	[]
8	[]	[]	[]
9	[]	[]	[]
10	[]	[]	[]

Enter numeric code

COPY HELP P-PAGE N-PAGE SAVE EXIT

<Explanation>

- [1] Caller ID Code (Caller ID Code Set) [110]
Assigns the numbers of the callers.
- [2] Caller ID Name (Caller ID Name Set) [111]
Assigns the names of the callers.

<Operation>

- (1) There are 250 entries. They are displayed on the screen every 10 entries.
- (2) Move the cursor to the field in which you want to set a parameter.
- (3) After editing the data, press F7 (SAVE) to save them on the screen into DB file.
- (4) Press F5 (P-PAGE) to return to the previous page.
- (5) Press F6 (N-PAGE) to advance to the next page.
- (6) Use F2 (COPY) if you want to copy the data of one entry in another.

(7) Press F8 (EXIT) to return to the Main menu screen.

<Condition>

(1) When you assign "Caller ID" in Interactive Editing mode, the data are not loaded into DB of the DSHS by pressing only F7 (SAVE) key. They are only saved in DB of the IBM-PC. If you want to load the data into DB of the DSHS, you must press F7 (SAVE) and then F8 (EXIT) key.

<Note>

The numbers beside the items are program addresses which are used when you program the system by proprietary telephones.

TABLE of ITEMS

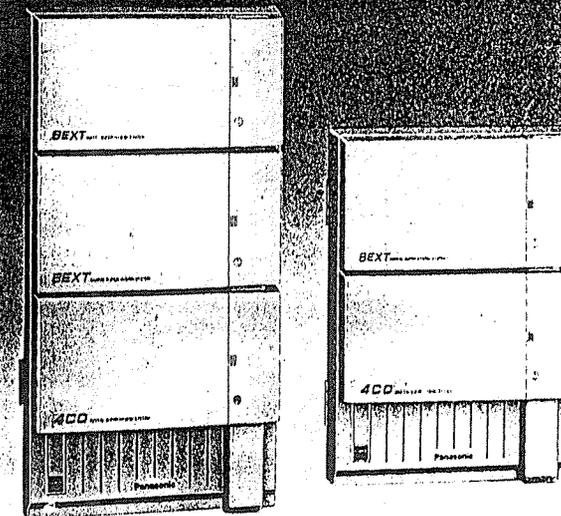
Assigning Items	Type of Field	Selection of parameter	Default
Caller ID Code	Direct	0 through 9 Maximum 11 digits	Not Stored
Caller ID Name	Direct	0 through 9A through Z a through z * # ! ? Space . , ' : ; / + - = < > \$ % & @ () Maximum 15 characters	Not Stored

Note: In case of the DSHS of TYPE A, 500 entries are available and 250 entries are available for Type B and C.

Panasonic

For touch tone
and rotary telephones

Reference Guide



Panasonic Company,
Division of Matsushita Electric Corporation of America
One Panasonic Way, Secaucus, New Jersey 07094

Panasonic Company (West) of America,
Division of Matsushita Electric Corporation of America
6550 Katella Avenue, Cypress, California 90630

Panasonic Sales Company ("PSC"),
Division of Matsushita Electric of Puerto Rico, Inc.
San Gabriel Industrial Park, 65th Infantry Avenue, KM 9.5, Carolina, P.R. 00630

Use this reference guide when you use a touch tone or rotary telephone with
the KX-TD816/KX-TD1232, Panasonic Digital Super Hybrid Systems.

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*1 Feature Descriptions

*2 Operating Instructions

Feature Numbers

This Manual uses the initial factory settings (default value) for feature descriptions. If you change the feature number, use new one you programmed instead. Additional Required Digits are different depending on model of the Digital Super Hybrid System, KX-TD816 or KX-TD1232 your telephone is connected to.

Feature Numbers	Default	Your #	Additional Required Digits	
			KX-TD816	KX-TD1232
Absent Message Capability set/cancel	750		1-9/0	1-9/0
Account Code Entry	49		Acct. code + #(99)	Acct. code + #(99)
Alternate Calling - Ring/Voice	*			
Call Forwarding set/cancel	710		2-6/0	2-6/0
Call Forwarding - Follow Me set/cancel	710		7/8	7/8
Call Hold	50			
Call Hold Retrieve - Intercom call	51		EXTN.	EXTN.
Call Hold Retrieve - CO call	53			
Call Park Call Park retrieve	52		0-9	0-9
Call Pickup, CO Line	4 *			
Call Pickup, Directed	41		EXTN.	EXTN.
Call Pickup, Group	40			
Call Pickup Deny set/cancel	720		1/0	1/0
Call Waiting set/cancel	731		1/0	1/0
Data Line Security set/cancel	730		1/0	1/0
Do Not Disturb set/cancel	710		1/0	1/0
Electronic Station Lockout lock	77		000-999 twice	000-999 twice
Electronic Station Lockout unlock	77		000-999	000-999
Executive Busy Override Deny set/cancel	733		1/0	1/0
External Feature Access	6			
Line Access, Automatic/ARS	9			
Line Access, CO Line Group	8		1-8	1-8
Message Waiting set/cancel/call back	70		1/0/2	1/0/2
Operator Call	0		0 or 1	0 or 1
Paging-All	32 or 33		*	*
Paging-External	32		0/1	0/1-4
Paging External Answer/TAFAS Answer	42		1	1-4
Paging-Group	33		0/1-8	0/1-8
Paging-Group Answer	43			
Pickup Dialing set/cancel/assign	74		1/0/2+phone no.+#	1/0/2+phone no.+#
Redial	#			
Station Feature Clear	790			
Station Speed Dialing	3 *		0-9	0-9
System Speed Dialing	*		00-99	00-99
Timed Reminder set	76		1+*hhmm+0/1+0/1	1+*hhmm+0/1+0/1
Timed Reminder cancel	76		0	0

*hhmm hh : hour (01-12)
mm : minute (00-59)

Feature Descriptions

- **Absent Message Capability**
There are nine flexible absent messages available. If you select a message it will be shown on the display of the calling party's telephone.
- **Call Hold**
Allows you to hold an extension or a CO call.
- **Call Park**
Allows you to "park a call" so that any extension can retrieve it.
- **Call Pickup**
Allows you to answer a call from any extension.
- **Call Transfer to Extension**
Transfers incoming CO or extension calls to another extension (screened or unscreened.)
- **Call Waiting**
Informs you with three beeps that there is a call waiting.
- **Conference**
Allows you to make a three-party conference.
- **Do Not Disturb (DND)**
The extension will not receive extension or CO calls.
- **Do Not Disturb (DND) Override***
Allows you to call an extension even though Do Not Disturb is set.
- **Executive Busy Override***
- Extension
Allows you to enter into an existing extension conversation.
- **External Feature Access**
Allows you to access special functions (e.g. Call Waiting) offered by a PBX, Centrex or the central office.
- **Absent Message Capability**
There are nine flexible absent messages available. If you select a message it will be shown on the display of the calling party's telephone.
- **Automatic Callback Busy (Camp-On)**
When the selected CO line or extension you have dialed is busy, dial the camp-on code and hang up. Your telephone will ring when the called party is idle. When you answer, their phone rings.
- **Busy Station Signaling (BSS)**
You can inform a busy extension, which Call Waiting has been set, that you are waiting. The extension hears three beeps.
- **Call Forwarding (FWD)**
Automatically transfers incoming calls to another extension or to an external destination. The following types are available:
- **All Calls**
All incoming calls are forwarded to another extension.
- **Busy**
All incoming calls are forwarded to another extension, when your extension is busy.
- **No Answer**
All incoming calls are forwarded to another extension, if you don't answer the call.
- **Busy/No Answer**
All incoming calls will be forwarded to another extension, if you don't answer or your extension is busy.
- **to CO Line***
All incoming calls are forwarded to a CO line.
- **Follow Me**
Allows you to remotely set Call Forwarding-All Calls from another extension.

Feature Descriptions (contd.)

■ Intercom Calling

Allows you to make a call to another extension.

■ Line Access, Automatic

Allows you to select an available CO line automatically.

■ Line Access, CO Line Group

Allows each extension to select an idle CO line within the designated CO Line group.

■ Message Waiting

Allows you to leave a message for another extension. The message waiting lamp gives a visual indication to the called party.

■ Paging

Provides an announcement (page), through the built-in speaker of the telephone or by external speakers.

- All
 - Page using both built-in speakers and external pagers.
- External
 - Page using all external pagers simultaneously.
 - Page using a specific external pager.
- Group
 - Page to all groups (all extensions) simultaneously.
 - Page to a particular group of extensions using the built-in speakers.

■ Paging and Transfer

Allows you to transfer a call to a paged person.

■ Pickup Dialing

Allows you to make an outgoing call by lifting the handset, if you have previously stored the phone number.

■ Redial

- Last Number

Automatically saves the last CO call number you dialed and allows you to make the same outgoing call again.

■ Station Feature Clear

Allows you to reset all station features you programmed, which gives two beeps before dialing, to the default settings.

■ Station Speed Dialing

Each station can store up to 10 speed dial numbers which are only available to that extension user.

■ System Speed Dialing

The system supports 100 speed dial numbers which are available to all extension users.

■ Timed Reminder

Each phone can be set to generate an alarm tone at a preset time as a wake up or to remind you of an appointment, etc.

■ Trunk (CO Line) Answer from Any Station (TAFAS)

Ringling through the external paging system indicates an incoming CO call. TAFAS allows this call to be answered from any extension.

■ Voice Mail Integration

When you are busy or absent, your calls can be forwarded to a mail box of the Voice Processing System.

* These features must first be enabled through System Programming. See the Installation Manual of the Digital Super Hybrid System.

Operating Instructions (contd.)

■ Redial*

- Last Number

- Lift the handset.
- Dial **[#]**.

■ Station Feature Clear

- Lift the handset.
- Dial **[790]**.
- *Confirmation tone is audible.*
- Replace the handset.

■ Station Speed Dialing* Storing phone numbers

- Lift the handset.
- Dial **[30]** + **[speed dial number]** (0-9) + **[line access code]** (9, 81-88) + **[phone number]** + **[#]**.
- *Confirmation tone is audible.*
- Replace the handset.

Dialing

- Lift the handset.
- Dial **[3 X]** + **[speed dial number]** (0-9).

■ System Speed Dialing*

- Lift the handset.
- Dial **[*]** + **[speed dial number]** (00-99).

■ Timed Reminder Setting

- Lift the handset.
- Dial **[761]**.
- Enter **[hour]** (01-12).
- Enter **[minute]** (00-59).
- Dial **[0]** or **[1]**.
 - 0 : for A.M.
 - 1 : for P.M.
- Dial **[0]** or **[1]**.
 - 0 : for one time alarm setting
 - 1 : for daily alarm setting
- Replace the handset.

■ Cancelling

- Lift the handset.
- Dial **[760]**.
- *Confirmation tone is audible.*
- Replace the handset.

■ Trunk (CO Line) Answer from Any Station (TAFAS)

Answer

- Lift the handset.
- Dial **[42]** + **[external pager number]** (1-4).
- If your telephone is connected to the KX-TDS16,
- Dial **[42]** + **[external pager number]** (1).

■ Voice Mail Integration

Setting Call Forwarding to Voice Processing System

- Lift the handset.
- Dial **[710]** + **[FWD number]** (2-5)
 - 2: FWD-All Calls
 - 3: FWD-Busy
 - 4: FWD-No Answer
 - 5: FWD-Busy/No Answer
- Dial **[extension number]** of the Voice Processing System.
- *Confirmation tone is audible.*
- Replace the handset.

Listening to a stored message

- Lift the handset.
- Dial **[extension number]** of the Voice Processing System.
- *You can listen to the stored message by following the Voice Mail guidance.*

■ Message Waiting

Setting

- Lift the handset.
- Dial [701] + [extension number].
- Replace the handset.

Cancelling

- Lift the handset.
- Dial [700] + [extension number].
- Confirmation tone is audible.
- Replace the handset.

Responding to a message

- Lift the handset.
- Dial [702].

■ Paging

- All*

- Lift the handset.
- Dial [32] (or [33]) + [*].
- Confirmation tone is audible (optional).
- Announce.

- External

To access all external pagers

- Lift the handset.
- Dial [320].
- Confirmation tone is audible (optional).
- Announce.

To access a particular pager only

- Lift the handset.
- Dial [32] + [external pager number] (1-4).
- If your telephone is connected to the KX-TD816.
- Dial [32] + [external pager number] (1).
- Confirmation tone is audible (optional).
- Announce.

- Group

To access all groups simultaneously

- Lift the handset.
- Press [330].
- Confirmation tone is audible (optional).
- Announce.

To access a particular group of extensions

- Lift the handset.

- Dial [33] + [extension group number] (1-8).

- Confirmation tone is audible (optional).

- Announce.

- Answer

- Lift the handset.
- Dial [42] + [external pager number] (1-4), or [43].

If your telephone is connected to the KX-TD816.

- Dial [42] + [external pager number] (1), or [43].

- 42: To answer a page sent to the external pager/TAFAS.
- 43: To answer a page sent to the built-in speaker.

- Confirmation tone is audible (optional).

- Talk.

■ Paging and Transfer

To transfer

- Flash the hookswitch before dialing [paging feature number] (32 or 33).

■ Pickup Dialing*

Storing the phone number

- Lift the handset.
- Dial [742] + [phone number] + [#].
- Confirmation tone is audible.
- Replace the handset.

Setting/Cancelling

- Lift the handset.
- Dial [74].
- Dial [1] or [0].
- 1: for setting
- 0: for cancelling
- Confirmation tone is audible.
- Replace the handset.

Dialing

- Lift the handset.
- Wait for an answer.

<NOTE>

If you use a dial pulse (DP) type single line telephone, it is impossible to access the features marked " * ".

Basic Operation

■ Making Calls

Intercom Calling

- Lift the handset.
- Dial [extension number].

Outward Dialing

- Line Access, Automatic

- Lift the handset.
- Dial [9] + [phone number].

- Line Access, CO Line Group

- Lift the handset.
- Dial [8] + [CO Line group number] (1-8).
- Dial [phone number].

■ Receiving Calls

- Lift the handset.

Advanced Operation

■ Absent Message Capability

Setting

Message 1. "Will Return Soon"

- Lift the handset.
- Dial [7501].
- Replace the handset.

Message 2. "Gone Home"

- Lift the handset.
- Dial [7502].
- Replace the handset.

Message 3. "At Ext (number)"

- Lift the handset.
- Dial [7503] + [extension number].
- Replace the handset.

Message 4. "Back at (time)"

- Lift the handset.
- Dial [7504].
- Enter [hour] (00-23).
- Enter [minute] (00-59).
- Replace the handset.

Message 5. "Out Until (date)"

- Lift the handset.
- Dial [7505].
- Enter [month] (01-12).
- Enter [day] (01-31).
- Replace the handset.

Message 6. "In a Meeting"

- Lift the handset.
- Dial [7506].
- Replace the handset.

Message 7, 8 or 9. (Unassigned)

- Lift the handset.
- Dial [7507] - [7509].
- 7507: for Message 7
- 7508: for Message 8
- 7509: for Message 9
- Enter parameters (if required).
- Replace the handset.

Cancelling

- Lift the handset.
- Dial [7500].
- Replace the handset.

■ Automatic Callback Busy (Camp-On)

While hearing busy tone;

- Dial [6].
- Confirmation tone is audible.
- Replace the handset.

■ Busy Station Signaling (BSS)

If a busy tone is heard;

- Dial [1].
- Wait for an answer.

Operating Instructions (contd.)

■ Call Forwarding (FWD)

Setting

- Lift the handset.
- Dial as follows:

- All Calls

[7102] + [extension number]

- Busy

[7103] + [extension number]

- No Answer

[7104] + [extension number]

- Busy/No Answer

[7105] + [extension number]

- to CO Line*

[7106] + [line access code] (9, 81-88)
+ [phone number] + [#]

- Follow Me

[7107] + [your extension number]

- Replace the handset.

Cancelling

- At the original extension

- Lift the handset.
- Dial [7100].
- Replace the handset.

- At the destination extension

(Follow Me)

- Lift the handset.
- Dial [7108].
- Dial [your extension number].
- Replace the handset.

■ Call Hold

Setting

- Flash the hookswitch.
- Dial [50].
- Confirmation tone is audible.
- Replace the handset.

Retrieving

- At the holding extension

- Lift the handset.
- Dial [50].

- At another extension

(CO Call)

- Lift the handset.
- Dial [53] + held [CO line number] (01-24).

If your telephone is connected to the KX-TD816,

- Dial [53] + held [CO line number] (01-08).

(Intercom Call)

- Lift the handset.
- Dial [51] + holding [extension number].

■ Call Park

Setting

While having a conversation:

- Flash the hookswitch.
- Confirmation tone is audible.
- Dial [52] + [parking zone number] (0-9).
- Confirmation tone is audible.
- Replace the handset.

Retrieving

- Lift the handset.
- Dial [52] + [parking zone number] (0-9).
- Confirmation tone is audible (optional).
- Talk.

■ Call Pickup

- CO Line*

- Lift the handset.
- Dial [4 *].
- Confirmation tone is audible (optional).
- Talk.

- Directed

- Lift the handset.
- Dial [41] + [extension number].
- Confirmation tone is audible (optional).
- Talk.

- Group

- Lift the handset.
- Dial [40].
- Confirmation tone is audible (optional).
- Talk.

Operating Instructions (contd.)

■ Call Transfer to Extension

- Screened

While having a conversation:

- Flash the hookswitch.
- Dial [extension number].
- Wait for an answer and announce.
- Replace the handset.

- Unscreened

While having a conversation:

- Flash the hookswitch.
- Dial [extension number].
- Replace the handset.

■ Call Waiting

Setting

- Lift the handset.
- Dial [7311].
- Confirmation tone is audible.
- Replace the handset.

Cancelling

- Lift the handset.
- Dial [7310].
- Confirmation tone is audible.
- Replace the handset.

To talk to the new caller, terminating the current call

While hearing call waiting tone:

- Replace the handset.
- Lift the handset.

To talk to the new caller, holding the current call

While hearing call waiting tone:

- Flash the hookswitch.
- Dial [50].
- Replace the handset.
- Lift the handset.

■ Conference

While having a conversation:

- Flash the hookswitch.
- Dial the [third party's number].
- Talk to the third party.
- Flash the hookswitch.
- Dial [3].

■ Do Not Disturb (DND)

Setting

- Lift the handset.
- Dial [7101].
- Confirmation tone is audible.
- Replace the handset.

Cancelling

- Lift the handset.
- Dial [7100].
- Confirmation tone is audible.
- Replace the handset.

■ Do Not Disturb (DND) Override

Calling a DND extension:

- Dial [1].

■ Executive Busy Override

- Extension

When a line is busy:

- Dial [2].

■ External Feature Access

While having a conversation:

- Flash the hookswitch.
- Dial [6].
- Dial the code for the desired service.

Panasonic

Digital Proprietary Telephone
For Digital Super Hybrid System

Model NO. **KX-T7235**

When you ship the product

Carefully pack and send it prepaid, adequately insured and preferably in the original carton. Attach a postage-paid letter, detailing the symptom, to the outside of the carton. **DO NOT** send the product to the Executive or Regional Sales offices. They are **NOT** equipped to make repairs.

Product service

Panasonic Servicenters for this product are listed in the servicenter directory. Consult your authorized Panasonic dealer for detailed instructions.

For your future reference

SERIAL NO. _____ DATE OF PURCHASE _____
(found on the bottom of the unit)

NAME OF DEALER _____

DEALER'S ADDRESS _____

Panasonic Company,
Division of Matsushita Electric Corporation of America
One Panasonic Way, Secaucus, New Jersey 07094

Panasonic Company (West) of America,
Division of Matsushita Electric Corporation of America
6550 Katella Avenue, Cypress, California 90630

Panasonic Sales Company ("PSC"),
Division of Matsushita Electric of Puerto Rico, Inc.
San Gabriel Industrial Park, 65th Infantry Avenue, KM 9.5, Carolina, P.R. 00630

Printed in Japan

PQQX10249ZA S0993T0

Reference Guide



with LCD and Speakerphone

This is a picture of white color model.

The KX-T7235 is compatible with the Panasonic Digital Super Hybrid System and can perform most of the functions of the system.

Please read before using this telephone.

Thank you for purchasing this Panasonic Telephone.

Please read **IMPORTANT SAFETY INSTRUCTIONS** on pages 25-26 before use. Read and understand all instructions.

Introduction

This KX-T7235 Digital Proprietary Telephone is designed for use with the Digital Super Hybrid System.

The telephone has the following convenient features:

Large Type Display

The large 24-character / 6-line Liquid Crystal Display provides visual cues for the user. These cues adapt to the current state of the telephone. In Programming mode, the display shows Programming messages.

Display Operation

The display adapts to the call status providing the user with the available options at every step. This improves efficiency and helps to prevent mistakes.

Speakerphone

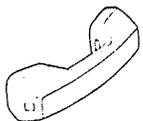
A built-in speakerphone lets you have a totally "Handsfree" conversation.

Twelve Flexible CO Buttons

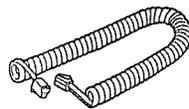
These buttons are totally flexible allowing you to re-assign them as another CO or to various feature buttons, such as, One-Touch Dialing or SAVE.

Included Accessories

Handsetone



Handset cordone



Telephone line cordone



Overlayone
(For System Programming)



FCC and Other Information

NOTE:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS PRODUCT TO RAIN OR ANY TYPE OF MOISTURE.

CAUTION:

To assure continued compliance with FCC rules, do not make any unauthorized modifications. When programming emergency numbers and/or making test calls to emergency numbers:

- 1) Remain on the line and briefly explain to the dispatcher the reason for the call before hanging up.
- 2) Perform such activities in the off-peak hours, such as early morning hours or late evenings.

If there is any trouble, disconnect the unit from the extension line and connect a known working phone. If the known working phone operates properly, have it repaired by one of the specified Panasonic Factory Service Centers. If the known working phone does not operate properly, check the Electronic Modular Switching System and the internal extension wiring.

- Keep the unit away from heating appliances and electrical noise generating devices such as fluorescent lamps and motors.
- The unit should be kept free of dust, moisture and vibration, and should not be exposed to direct sunlight.
- Do not use benzine, thinner, or the like, or any abrasive powder to clean the cabinet. Wipe it with a soft cloth.
- Do not use any handset other than Panasonic handset.

This telephone provides magnetic coupling to hearing aids.

Important Safety Instructions (contd.)

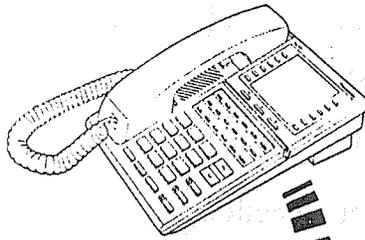
7. Do not allow anything to rest on the telephone cord. Do not locate this product where the cord will be abused by persons walking on it.
8. Do not overload wall outlets and extension cords as this can result in the risk of fire or electric shock.
9. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock. Never spill liquid of any kind on the product.
10. To reduce the risk of electric shock, do not disassemble this product, but take it to a qualified serviceman when some service or repair work is required. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect reassembly can cause electric shock when the appliance is subsequently used.
11. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - A. When the power supply cord or plug is damaged or frayed.
 - B. If liquid has been spilled into the product.
 - C. If the product has been exposed to rain or water.
 - D. If the product does not operate normally by following the operating instructions. Adjust only those controls, that are covered by the operating instructions because improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
 - E. If the product has been dropped or the cabinet has been damaged.
 - F. If the product exhibits a distinct change in performance.
12. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
13. Do not use the telephone to report a gas leak in the vicinity of the leak.

SAVE THESE INSTRUCTIONS

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Location of Controls



Display (Liquid Crystal Display)

A 24-character/6-line readout: Shows the date, time, dialed number or name, call duration time, etc. In Programming mode, it shows the Programming messages.

PROGRAM Button
Used to enter/exit Programming mode.

Flexible CO Buttons (CO 01 through CO 12)
Can be assigned as any CO or can be used to access one of several features.

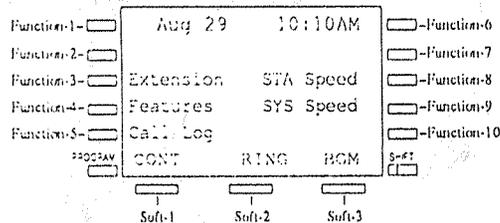
Function Buttons (F1 through F10)
Pressing a button performs the displayed function/operation.

SHIFT Button
Used to access the second level of Soft Button functions.

Soft Buttons (S1 through S3)
Pressing a Soft button performs the function/operation appearing on the bottom line of the display.

The Display and Buttons

Initial Menu



Accessory Order Information

- Replacement parts and accessories are available through your local authorized parts distributor.
- For ordering the accessory, call toll free: 1-800-332-5368

Part No.	Picture	Description	Comment
KX-J07W/B		Handset cord	7 feet
KX-J15W/B			15 feet
KX-J25W/B			25 feet

W: White

B: Black

Important Safety Instructions

When using your telephone equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons, including the following:

1. Read and understand all instructions.
2. Follow all warnings and instructions marked on the product.
3. Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
4. Do not use this product near water, for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool.
5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
6. Slots and openings in the cabinet and the back or bottom are provided for ventilation, to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the product on the bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation unless proper ventilation is provided.

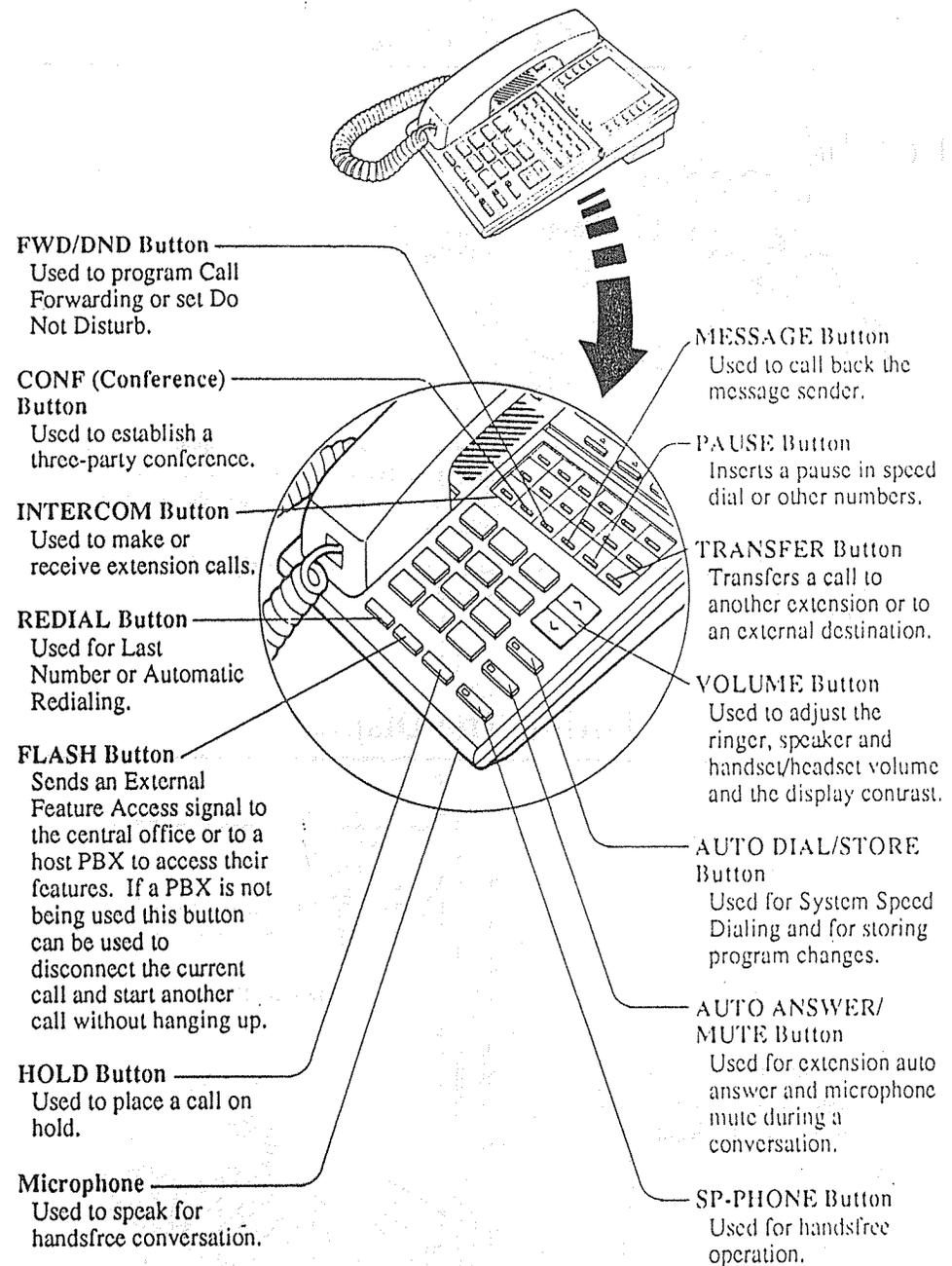
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*1 Feature Descriptions

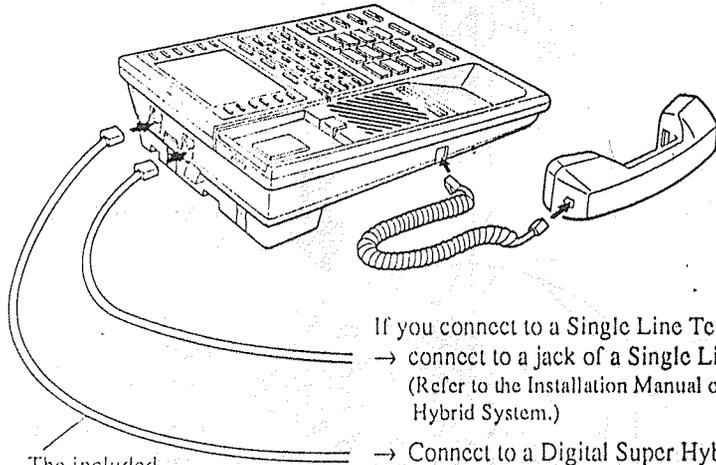
*2 Operating Instructions

Location of Controls (contd.)



Connection

Connect as shown.



If you connect to a Single Line Telephone (SLT),
→ connect to a jack of a Single Line Telephone (SLT).
(Refer to the Installation Manual of the Digital Super Hybrid System.)

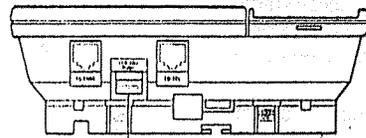
→ Connect to a Digital Super Hybrid System.

The included telephone line cord

Tilting the Display

-To lift the display:

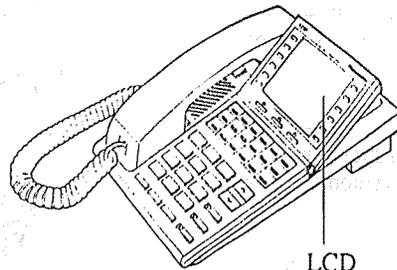
- 1 Push the LCD ADJ button.
- 2 Lift up the display.



LCD ADJ Button

-To set down the display:

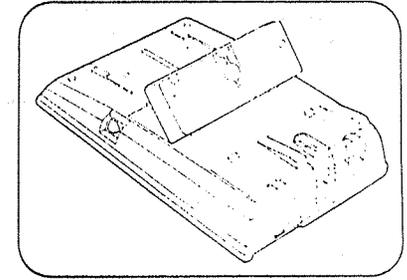
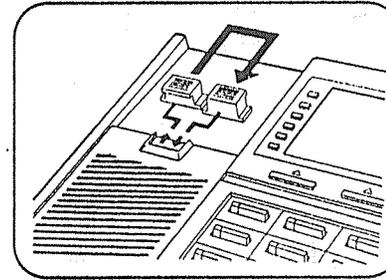
- 1 Push the LCD ADJ button.
- 2 Press down the display.



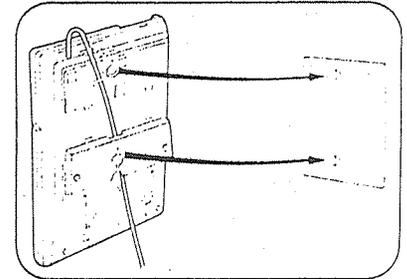
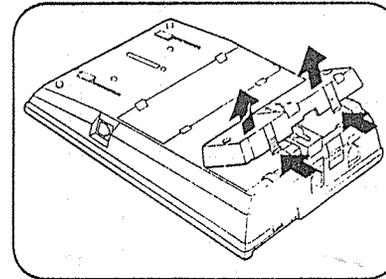
LCD

Wall Mounting

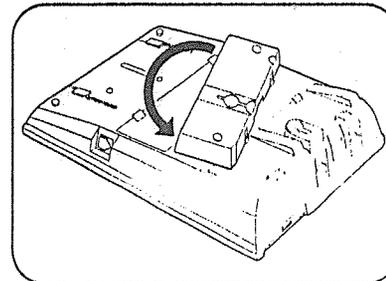
- 1 Remove the handset hook by pulling it toward the top of the unit. Turn it around. Re-insert.
- 4 Place the stand on the center line.



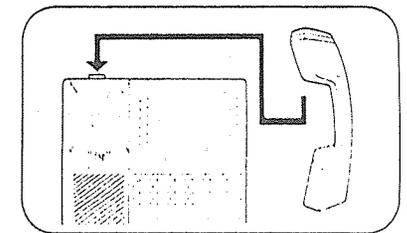
- 2 Remove the attaching stand.
- 5 Mount the unit on the wall.



- 3 Turn it around 180 degrees.



To temporarily place the handset down during a conversation, hook it over the top edge of the phone as shown.



Station Programming

Before entering programming, you need to enter Programming mode.

When the telephone is idle and on-hook;

- Press : **PROGRAM** **9** **9**.

To exit Programming mode.

- Press : **PROGRAM**.

or

- Lift the handset.

■ Station Speed Dial Number/Name Assignment

- To store dial numbers

- Press a **Function** button (F1-F10).
- Enter **Phone number**.
- Press **STORE** button.

- To store names

- Press **Function** button (F1-F10).
- Press **NEXT** (S3) button.
- Enter **names**.

- See table down below for information on how to enter each character.

- Press **STORE** button.

Step 1. Press	Step 2. Press	Soft-1 (SHIFT)	Soft-2 (SHIFT)	Soft-3 (SHIFT)
1		Q	Z	!
2		A	B	C
3		D	E	F
4		G	H	I
5		J	K	L
6		M	N	O
7		P	R	S
8		T	U	V
9		W	X	Y
0		.	,	:
		'	;	'
x		/	-	<
		+	=	>
#		\$	&	(
		%	@)

* Press SHIFT to alternate between capital and small letters.

<Example>

To enter the letter "K," press each button as follows;

- Press **5**.
- Press **Soft 2** button.

■ Full One-Touch Dialing Setting

- Dial **3**.
- Dial **1** or **2**.
- 1 : Off
- 2 : On
- Press **STORE** button.

■ One-Touch Dialing Button Assignment

- Press the desired **CO** button.
- Dial **2** + the **desired number** (phone numbers or feature numbers, etc.).
- Press **STORE** button.

■ Preferred Line Assignment-Incoming

- Dial **2** + **line number** (1, 2, or 3 + CO number).
- 1 : for No Line Preference
- 2 : for Ringing Line Preference
- 3 + CO number : for Prime Line Preference (CO : 01-24)
- Press **STORE** button.

■ Preferred Line Assignment-Outgoing

- Dial **1** + **line number** (1, 2, or 3 + CO number) or press **INTERCOM**.
- 1 : for No Line Preference
- 2 : for Idle Line Preference
- 3 + CO number : for Prime Line Preference (CO : 01-24)
- INTERCOM ; for Prime Line Preference (INTERCOM) Preference
- Press **STORE** button.

■ SAVE Button Assignment

- Press the desired **CO** button.
- Dial **5**.
- Press **STORE** button.

Volume Control

You can adjust the volume by pressing the VOLUME button. The number of *'s on the display shows the volume level.

<Example>

Contrast ***

-Speaker Volume Control

- 1 Press the SP-PHONE button.
- 2 Press the **^** (UP) or **v** (DOWN) button.

-Handset/Headset Volume Control

- 1 Lift the handset (for Handset Volume). Press the SP-PHONE button (for Headset Volume).
- 2 Press the **^** (UP) or **v** (DOWN) button.

-Ringer Volume Control

During on-hook status;

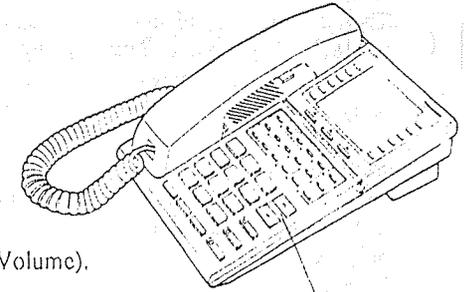
- 1 Press the RING (S2) button.
- 2 Press the **^** (UP) or **v** (DOWN) button.

While the telephone is ringing;

- 1 Press the **^** (UP) or **v** (DOWN) button.

-Display Contrast Control

- 1 Press the CONT (S1) button.
- 2 Press the **^** (UP) or **v** (DOWN) button.

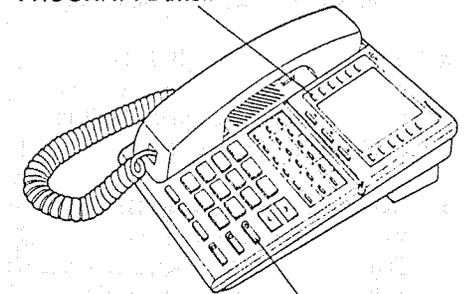


VOLUME Button

Handset/Headset Selection

- 1 Press the PROGRAM button.
- 2 Dial 999.
- 3 Dial 1 or 2.
 - 1: Handset
 - 2: Headset (optional)
- 4 Press the STORE button.
- 5 Press the PROGRAM button.

PROGRAM Button



AUTO DIAL/STORE Button

Feature Descriptions

■ Absent Message Capability

There are nine flexible absent messages available. If you select a message it will be shown on the display of the calling party's telephone.

■ Account Code Entry

Used to identify incoming and outgoing CO calls, for accounting and billing purposes. If required, you can be forced to enter an account code before dialing.

■ Alternate Calling-Ring/Voice

Allows you to select ring or voice calling when making an intercom call. In Ring-Calling mode, you can call the other party with a ring tone. While in Voice-Calling mode, you can talk to the other party immediately after a confirmation tone.

■ Automatic Callback Busy (Camp-On)

When the selected CO line or extension you have dialed is busy, dial the camp-on code and hang up. Your telephone will ring when the called party is idle. When you answer, their phone rings.

■ Background Music (BGM)

Background music, from an external source, is heard through the built-in speaker of the telephone.

■ Busy Station Signaling (BSS)

You can inform a busy extension, which Call Waiting has been set, that you are waiting. The extension hears three beeps.

■ Call Forwarding (FWD)

Automatically transfers incoming calls to another extension or to an external destination. The following types are available:

- All Calls

All incoming calls are forwarded to another extension.

- Busy

All incoming calls are forwarded to another extension, when your extension is busy.

- No Answer

All incoming calls are forwarded to another extension, if you don't answer the call.

- Busy/No Answer

All incoming calls will be forwarded to another extension, if you don't answer or your extension is busy.

- To CO Line*

All incoming calls are forwarded to a CO line.

- Follow Me

Allows you to remotely set Call Forwarding-All Calls from another extension.

■ Call Hold

Allows you to hold an extension or a CO call.

■ Call Park

Allows you to "park a call" so that any extension can retrieve it.

■ Call Pickup

Allows you to answer a call ringing at another extension.

■ Call Transfer to Extension

Transfers incoming CO or extension calls to another extension (screened or unscreened).

Feature Numbers

This Manual uses the initial factory settings (default value) for feature descriptions. If you change the feature number, use new one you programmed instead.

Feature Numbers	Default	Your #	Additional Required Digits
Call Park/Call Park retrieve	52		0-9
Call Pickup, CO Line	4 *		
Call Pickup, Directed	41		EXT.
Call Pickup Deny set/cancel	720		1/0
Call Waiting set/cancel	731		1/0
Data Line Security set/cancel	730		1/0
Door Opener	55		1-4
Doorphone Call	31		1-4
Electronic Station Lockout set/cancel	77		lock code (000-999)
Executive Busy Override Deny set/cancel	733		1/0
Line Access, Automatic/ARS	9		
Line Access, CO Line (Trunk) Group	8		1-8
Operator Call	0		(0,1)
Paging-All	32 or 33		x
Paging-External	32		0/1-4
Paging-External Answer/TAFAS Answer	42		1-4
Paging-Group	33		0/1-8
Paging-Group Answer	43		
Paralleled Telephone Connection	39		1/0
Station Feature Clear	790		
Timed Reminder set	76		1+*hhmm+(0/1+0/1
Timed Reminder cancel/confirm	76		0/2

*hhmm

hh : hour (00-12)

mm : minute (00-59)

System Feature Access Menu

1. Press Feature (F4).

F1	Aug 29 10:10AM	F6
F2		F7
F3	Extension STA Speed	F8
F4	Features SYS Speed	F9
F5	Call Log	F10
CONT RING BGM		
S1	S2	S3

2. Press the desired Fx button.

F1	External Paging (→1-4)	F6
F2	Group Paging (→C-8)	F7
F3	Group Pickup	F8
F4	Answer Ext-Page (→1-4)	F9
F5	Answer GRP-Page	F10
MENU PREV NEXT		
S1	S2	S3

Press S3 and S2 to toggle the display.

F1	Parallel On/Off (→1/C)	F6
F2	Message On (→ext)	F7
F3	Message Off (→ext)	F8
F4	Absent MSG On (→1-9)	F9
F5	Absent MSG Off	F10
MENU PREV NEXT		
S1	S2	S3

The third display appears on the operator telephone only. (See page 17.)

3. Dial additional numbers (if required).
See Operation Instructions for each feature.

Note:
Call Forwarding (FWD) and Do Not Disturb (DND) can be operated by the display operation. See Operating Instructions for each feature.

System Speed Dialing

1. Press SYS Speed (F9).

F1	Aug 29 10:10AM	F6
F2		F7
F3	Extension STA Speed	F8
F4	Features SYS Speed	F9
F5	Call Log	F10
CONT RING BGM		
S1	S2	S3

-After pressing Fx button;

2. Press the desired Fx button.
<Example> To select J, press F5.

F1	AK	KL	F6
F2	C	MN	F7
F3	DE	OPQR	F8
F4	FG	S	F9
F5	HIJ	T-Z	F10
MENU			
S1	S2	S3	

-After pressing Fx button;

3. Press the desired Fx button.
<Example> To select Jack, press F1.

F1	Jack	Ken	F6
F2	Janny	Keth	F7
F3	Jimmy	Kim	F8
F4	John	K's shop	F9
F5	Johes	Kohjl	F10
MENU PREV NEXT			
S1	S2	S3	

-After pressing Fx button;

Jack's no. is dialed out.

F1	3333333	F6
F2		F7
F3	Extension STA Speed	F8
F4	Features SYS Speed	F9
F5	Call Log	F10
CONT EFA ACQNT		
S1	S2	S3

Call Waiting

Informs you with three beeps that there is a call waiting.

Conference

Allows you to make a three-party conference.

Do Not Disturb (DND)

The extension will not receive extension or CO calls.

Do Not Disturb (DND) Override*

Allows you to call an extension even though Do Not Disturb is set.

Executive Busy Override

- CO Line
Allows you to enter into an existing CO call or to add a third party to your existing conversation.

- Extension*

Allows you to enter into an existing extension conversation.

External Feature Access

Allows you to access special functions (e.g. Call Waiting) offered by a PBX, Centrex or the central office.

Full One-Touch Dialing

This feature automatically activates the handsfree speakerphone and dials a phone number or accesses a system feature at the touch of a button.

Intercom Calling

Allows you to make a call to another extension.

Line Access, Automatic

Allows you to select an available CO line automatically.

Line Access, CO Line Group (Trunk Group)

Allows each extension to select an idle CO line within the designated CO Line Group.

Line Access, Individual

Allows you to select the desired CO line without dialing the line access code.

Message Waiting

Allows you to leave a message for another extension. The message waiting lamp gives a visual indication that a message has been received.

Paging

Provides an announcement (page), through the built-in speaker of the telephone or by the external speakers.

- All

- Page through both built-in speakers and external pagers.

- External

- Page through all the external pagers simultaneously.
- Paging to a specific external pager.

- Group

- Page to all groups (all extensions) simultaneously.
- Page to a particular group of extensions using the built-in speakers.

Paging and Transfer

Allows you to transfer a call to the paged person.

Paralleled Telephone Connection

This unit can be connected in parallel with a single line telephone. When this connection is made, either telephone can be used.

Feature Descriptions (contd.)

■ Pulse to Tone Conversion

Allows you to change from Pulse mode to Tone mode.

■ Redial

- Automatic

Without lifting the handset, redialing can be activated automatically and repeated until the called party answers. The number and time between retries is programmable.

- Last Number

Automatically saves the last CO call number you dialed and allows you to make the same outgoing call again.

- Saved Number

The desired CO call number can be stored and then redialed.

■ Station Feature Clear

Allows you to reset all station features you programmed, which gives two beeps before dialing, to the default settings.

■ Trunk (CO Line) Answer from Any Station (TAFAS)

Ringling through the external paging system indicates an incoming CO call. TAFAS allows this call to be answered from any extension.

■ Voice Mail Integration

When you are busy or absent, your calls can be forwarded to a mail box of the Voice Processing System.

*These features must first be enabled through System Programming. See the Installation Manual of the Digital Super Hybrid System.

Display Features

Allows you to make the following calls:

■ Call Log

Redials by selecting one of your last numbers of CO calls.

■ Extension Dialing

Calls another extension by selecting a name.

■ Station Speed Dialing

Each station can store up to 10 speed dial numbers which are only available to that extension user. The display feature makes a one-touch call by selecting a name or number.

■ System Feature Access Menu

Allows you to access following services by pressing Function buttons.

- Absent Message Capability
- Call Forwarding (FWD)
- Call Pickup - Group
- Do Not Disturb (DND)
- Message Waiting
- Paging
- Paralleled Telephone Connection

- for operator only
- Background Music (BGM) - External
- Call Park
- Night Service
- Outgoing Message (OGM)

■ System Speed Dialing

The system supports 100 speed dial numbers which are available to all extension users.

The display feature makes a CO call from names stored with system speed dial numbers.

Operating Instructions (contd.)

Extension Dialing

1. Press Extension (F3).

F1	Aug 29 10:10AM	F6
F2		F7
F3	Extension STA Speed	F8
F4	Features SYS Speed	F9
F5	Call Log	F10
CONT RING BGM		
S1	S2	S3

2. Press the desired Fx button. <Example> To select B, press F1.

F1	AB	KL	F6
F2	C	MN	F7
F3	DE	OPQR	F8
F4	FG	S	F9
F5	HIJ	T-Z	F10
MENU			
S1	S2	S3	

-After pressing Fx button;

3. Press the desired Fx button. <Example> To select Billy Jane, press F5.

F1	Agness	Bob	F6
F2	Alice	Carol	F7
F3	Ann Margly	Casey	F8
F4	Ben Johns	Ched Ely	F9
F5	Billy Jane	Chris	F10
MENU PREV NEXT			
S1	S2	S3	

-After pressing Fx button;

F1	222: Billy Jane	F6
F2		F7
F3	Extension STA Speed	F8
F4	Features SYS Speed	F9
F5	Call Log	F10
CONT		
S1	S2	S3

Station Speed Dialing

1. Press STA Speed (F8).

F1	Aug 29 10:10AM	F6
F2		F7
F3	Extension STA Speed	F8
F4	Features SYS Speed	F9
F5	Call Log	F10
CONT RING BGM		
S1	S2	S3

2. Press the desired Fx button. <Example> To select Panasonic, press F7.

F1	Bob	XXXXXXXX	F6
F2	Jim Kopp	Panasonic	F7
F3	Parola	Police	F8
F4	Zangrid	Louisa	F9
F5	Nancy	Home	F10
MENU NEXT			
S1	S2	S3	

Press S3 to see the programmed telephone numbers.

F1	9-123-4567	9-98-8888	F6
F2	9111111	9999999	F7
F3	9333333	9-999	F8
F4	9777777	Not Stored	F9
F5	100	9-1000000	F10
MENU NEXT			
S1	S2	S3	

-After pressing Fx button with the name list on display;

F1	222: Billy Jane	F6
F2		F7
F3	Extension STA Speed	F8
F4	Features SYS Speed	F9
F5	Call Log	F10
CONT EPA ACNT		
S1	S2	S3

■ Outgoing Message (OGM)

Allows to record a message for play back with various message services.

Recording

- Press **[OGM Recording]** (F5) button.
- Dial **[OGM number]** (1-4).
 - 1 : for Direct Inward System Access (DISA) message 1
 - 2 : for Direct Inward System Access (DISA) message 2*
 - 3 : for Timed Reminder
 - 4 : not assigned
- *Confirmation tone is audible.*
- Record your message.
- Press **[STORE]** button.
- *Recorded message plays back.*
- Press **[STORE]** button or wait until playback is finished.
- On-hook.

Playing back

- Press **[OGM Playback]** (F4) button.
 - Dial **[OGM number]** (1-4).
 - *Confirmation tone and the message are audible.*
 - Press **[STORE]** button or wait until playback is finished.
 - On-hook.
- * The initial setting recording time for a DISA message 2 is zero. You can change the time through System Programming. See the Installation Manual of the Digital Super Hybrid System.

Display Operation

Call Log

1. Press Call Log (F5).

F1	Aug 29 10:10AM	F6
F2		F7
F3	Extension STA Speed	F8
F4	Features SYS Speed	F9
F5	Call Log	F10
	CONT RING BGM	
	S1 S2 S3	

2. Press the desired Fx button.
<Example> To select 111, press F2.

↓

F1	1234567890	F6
F2	111	F7
F3	0987654	F8
F4	000111222333	F9
F5	100200300400500	F10
	MENU	
	S1 S2 S3	

—After pressing Fx button;

↓

F1	111	F6
F2		F7
F3	Extension STA Speed	F8
F4	Features SYS Speed	F9
F5	Call Log	F10
	CONT EFA ACCNT	
	S1 S2 S3	

<NOTE>

- Off-hook: Lift the handset or press the SP-PHONE button.
- On-hook: Replace the handset or press the SP-PHONE button.
- Fx: Press Function button "x."
- Sy: Press Soft button "y."

Helpful hints for Handsfree operation:

- **If it is difficult to hear the other party's voice;**
Raise the sound level using the Speaker Volume Control.
- **If the other party has difficulty hearing you;**
Lower the sound level.
- **Absorbing echoes;**
Use this unit in a room which has curtains and/or carpeting.
- **To avoid missing part of the conversations;**
If you and the other party speak at the same time, parts of your conversation will be lost.
To avoid this, speak alternately.

The various features can be performed by pressing Function buttons (System Feature Access Menu). Refer to Feature Descriptions on page 10.

The following features can be performed by pressing a Soft button.

- Account Code Entry
- Alternate Calling – Ring/Voice
- Automatic Callback Busy (Camp-On)
- Background Music (BGM)
- Busy Station Signaling (BSS)
- Do Not Disturb (DND) Override
- Executive Busy Override
- External Feature Access

—For more information see the detailed descriptions for each feature.

Basic Operation

■ Making Calls

- Intercom Calling
 - Off-hook.
 - Dial **[extension number]**.
 - or
 - Press **[Extension]** (F3) button. (See page 19).
- Outward Dialing
 - Off-hook.
 - Dial **[9]** or **[81]** - **[88]**, or press a **[CO]** button.
 - 9 : Line Access, Automatic
 - 81-88 : Line Access, CO Line Group (Trunk Group)
 - CO : Line Access, Individual
 - Dial **[phone number]**.

■ Receiving Calls

- Off-hook.
- or
- Press a flashing **[CO]** or **[INTERCOM]** button directly.

Operating Instructions (contd.)

Standard Operation

■ Absent Message Capability

Setting

- Press **Feature** (F4) button.
- Press **NEXT** (S3) button.
- Press **Absent MSG On** (F4) button.
- Dial a **message number** (1-9) + parameter (if required).
 - 1: "Will Return Soon"
 - 2: "Gone Home"
 - 3: "At Ext (number)"
 - + **extension number**.
 - 4: "Back at (time)"
 - + Enter **hour** (00-23) + **minute** (00-59).
 - 5: "Out Until date"
 - + Enter **month** (01-12) + **day** (01-31).
 - 6: "In a Meeting"
 - 7-9: for unassigned messages.
- On-hook.

Cancelling

- Press **Feature** (F4) button.
- Press **NEXT** (S3) button.
- Press **Absent MSG Off** (F5) button.
- On-hook.

■ Account Code Entry

When hearing dial tone or during a conversation with an outside party;

- Press **ACCNT** (S3) button.
- Enter **account code** + **#**.

■ Alternate Calling-Ring/Voice

When calling an extension;

To change to Ring mode

- Press **Tone** (S2) button.

To change to Voice mode

- Press **Voice** (S3) button.

■ Automatic Callback Busy (Camp-On)

While hearing busy tone;

- Press **C. BCK** (S3) button.
- Confirmation tone is audible.
- On-hook.

■ Background Music (BGM), Setting/Cancelling

While on-hook;

- Press **BGM** (S3) button.

■ Busy Station Signaling (BSS)

If a busy tone is heard;

- Press **BSS** (S1) button.
- Wait for an answer.

■ Call Forwarding (FWD)

Setting

- All Calls
 - Off-hook.
 - Press **FWD/DND** button.
 - Press **FWD-All Calls** (F3) button + **extension number**.
 - On-hook.

- Busy

- Off-hook.
- Press **FWD/DND** button.
- Press **FWD-Busy** (F4) button + **extension number**.
- On-hook.

- No Answer

- Off-hook.
- Press **FWD/DND** button.
- Press **FWD-No Answer** (F5) button + **extension number**.
- On-hook.

Operating Instructions (contd.)

■ Voice Mail Integration Setting Call Forwarding to the Voice Processing System

- Off-hook.
- Press **FWD/DND** button.
- Dial **2-5**.
 - 2: FWD-All Calls
 - 3: FWD-Busy
 - 4: FWD-No Answer
 - 5: FWD-Busy/No Answer
- Dial **extension number** of the Voice Processing System.
- Confirmation tone is audible.
- On-hook.

Playing back a recorded message

- Off-hook.
- Press **MESSAGE** button.

Operator Operation

The operator 1 can access following features by display operation. The display below is the third one which appears on the operator telephone only.

F1	Call Park (→0-9)	F6
F2	Night On/Off (→1/0)	F7
F3	Extrn BGM On/Off	F8
F4	OGM Playback (→1-4)	F9
F5	OGM Recording (→1-4)	F10
	MENU PREV NEXT	
	S1 S2 S3	

To get the display;

- Press **Features** (F4) button.
- Press **NEXT** (S3) button twice.

■ Background Music (BGM)- External

Allows the system to play BGM through the external pagers.

Turning on/off

- Press **External BGM On/Off** (F3) button.
- On-hook.

■ Call Park

Allows to park a call so that any extension can retrieve it.

- Press **Call Park** (F1) button.
- Dial a **parking zone number** (0-9).
- On-hook.

■ Night Service

Supports both NIGHT and DAY modes of operation.

- Press **Night On/Off** (F2) button.
- Dial **1** or **0**.
 - 1: from Day mode to Night mode
 - 0: from Night mode to Day mode
- On-hook.

■ Remote Station Lock Control

Allows to control Electronic Station Lockout on any station.

- Press **PROGRAM** button.
- Dial **99**.
- Dial **0** + **extension number** or **X**.
 - extension: lock or unlock one extension
 - X: lock or unlock all extensions
- Dial **1** or **2**.
 - 1: Unlock
 - 2: Lock
- Press **STORE** button.
- Press **PROGRAM** button.

■ Paging and Transfer

To transfer

- Press **TRANSFER** button before dialing the paging feature number (32 or 33).

- All

- Dial **32** (or **33**) + **X**.
- Confirmation tone is audible (optional).
- Announce.

- External

To access all external pagers

- Dial **320**.
- Confirmation tone is audible (optional).
- Announce.

To access a particular pager only

- Dial **32** + **extension pager number** (1-4).
- Confirmation tone is audible (optional).
- Announce.

- Group

To access all groups simultaneously

- Dial **330**.
- Confirmation tone is audible (optional).
- Announce.

To access a particular group of extensions

- Dial **33** + **extension group number** (1-8).
- Confirmation tone is audible (optional).
- Announce.

■ Paralleled Telephone Connection

Setting / Cancelling

- Press **Features** (F4) button.
- Press **NEXT** (S3) button.
- Press **Parallel On/Off** (F1) button.
- Dial **1** or **0**.
 - 1 : for setting
 - 0 : for cancelling
- Confirmation tone is audible.

■ Pulse to Tone Conversion

- Dial **phone number** (Pulse mode).
- Dial **X** + **#**.
- Dial **phone number** (Tone mode).

■ Redial

- Automatic

- Off-hook with **SP-PHONE** button.
- Press **REDIAL** button.

- Last Number

- Off-hook.
- Press **REDIAL** button.

- Saved Number

- Assign a CO button as the SAVE button.
- See Station Programming (page 22).

Storing

While having a conversation or when hearing busy tone;

- Press **AUTO DIAL/STORE** button.
- Press **SAVE** (CO) button.
- On-hook.

Dialing

- Off-hook.
- Press **SAVE** (CO) button.

■ Station Feature Clear

- Off-hook.
- Dial **790**.
- Confirmation tone is audible.
- On-hook.

■ Trunk (CO Line) Answer from Any Station (TAFAS) Answer

Same operation as Paging-External Answer. (See page 15).

- Busy/No Answer

- Off-hook.
- Press **FWD/DND** button.
- Press **NEXT** (S3) button.
- Press **FWD-BSY/NA** (F1) button + **extension number**.
- On-hook.

- to CO Line

- Off-hook.
- Press **FWD/DND** button.
- Press **NEXT** (S3) button.
- Press **FWD-CO Line** (F2) button + **line access code** (9, 81-88) + **phone number** + **#**.
- On-hook.

- Follow Me

- Off-hook.
- Press **FWD/DND** button.
- Press **NEXT** (S3) button.
- Press **FWD-From** (F3) button + **your extension number**.
- On-hook.

Cancelling

- At the original extension
 - Off-hook.
 - Press **FWD/DND** button.
 - Press **FWD/DND Cancel** (F1) button.
 - On-hook.
- At the destination extension (Follow Me)
 - Off-hook.
 - Press **FWD/DND** button.
 - Press **NEXT** (S3) button.
 - Press **FWD-From Cancel** (F4) button.
 - Dial **your extension number**.
 - On-hook.

■ Call Hold

- Press **HOLD** button.

Retrieving

(Intercom Call)

- At the holding extension

- Press **INTERCOM** button.

- At another extension

- Off-hook.
- Dial **51** + holding **extension number** (CO Call)

- At the holding extension

- Press the green **CO** button that is slowly flashing.

- At another extension

- Press the red **CO** button that is slowly flashing.

■ Call Park

Setting

While having a conversation;

- Press **TRANSFER** button.
- Confirmation tone is audible.
- Dial **52** + **parking zone number** (0-9).
- Confirmation tone is audible.
- On-hook.

Retrieving

- Off-hook.
- Dial **52** + **parking zone number** (0-9).
- Confirmation tone is audible (optional).
- Talk.

Operating Instructions (contd.)

■ Call Pickup

- CO Line

- Off-hook.
- Dial **4 ***.
- Confirmation tone is audible (optional).
- Talk

- Directed

- Off-hook.
- Dial **41** + **extension number**.
- Confirmation tone is audible (optional).
- Talk.

- Group

- Off-hook.
- Press **Features** (F4) button.
- Press **Group Pickup** (F3) button.
- Talk.

■ Call Transfer to Extension

- Screened

While having a conversation;

- Press **TRANSFER** button.
- Dial **extension number**.
- Wait for an answer and announce.
- On-hook.

- Unscreened

While having a conversation;

- Press **TRANSFER** button.
- Dial **extension number**.
- On-hook.

■ Call Waiting

Setting

- Off-hook.
- Dial **7311**.
- Confirmation tone is audible.
- On-hook.

Cancelling

- Off-hook.
- Dial **7310**.
- Confirmation tone is audible.
- On-hook.

To talk to the new caller, terminating the current call

While hearing call waiting tone;

- Press the flashing **CO** or **INTERCOM** button.

To talk to the new caller, holding the current call

While hearing call waiting tone and the CO or INTERCOM indicator is flashing rapidly;

- Press **HOLD** button.
- Press the flashing **CO** or **INTERCOM** button. (If both the current call and new call are extension calls, you can skip this step.)

■ Conference

While having a conversation;

- Press **CONF** button.
- Dial the **third party's number**.
- Talk to the third party.
- Press **CONF** button.

■ Do Not Disturb (DND)

Setting

- Off-hook.
- Press **FWD/DND** button.
- Press **Do Not Disturb** (F2) button.
- Confirmation tone is audible.
- On-hook.

Cancelling

- Off-hook.
- Press **FWD/DND** button.
- Press **FWD/DND Cancel** (F1) button.
- Confirmation tone is audible.
- On-hook.

■ Do Not Disturb (DND) Override

While hearing DND tone;

- Press **Over** (S2) button.

Operating Instructions (contd.)

■ Executive Busy Override

- CO Line

- Off-hook.
- Press the red **CO** button.

- Extension

When a line is busy;

- Press **Over** (S2) button.

■ External Feature Access

While having a conversation;

- Press **EFA** (S2) button.
- Dial the code for the desired service.

■ Full One-Touch Dialing

You need to change a CO button to function as an One-Touch or SAVE button beforehand. See Station Programming (page 22).

- Press a **One-Touch** (CO), **REDIAL** or **SAVE** (CO) button.

■ Message Waiting

Setting

When the called extension is busy or does not answer;

- Press **Features** (F4) button.
- Press **NEXT** (S3) button.
- Press **Message On** (F2) button.
- Dial **extension number**.
- On-hook.

Cancelling

- Press **Features** (F4) button.
- Press **NEXT** (S3) button.
- Press **Message Off** (F3) button.
- Dial **extension number**.
- On-hook.

Selecting a message from the messages waiting

- Press **MESSAGE** button repeatedly until the desired message sender appears on the display.

Responding to a message

- Off-hook.
- Press **MESSAGE** button.

■ Paging

- All

- Press **Features** (F4) button.
- Press **External Paging** (F1) button or **Group Paging** (F2).
- Dial *****.
- Announce.

- External

To access all external pagers

- Press **Features** (F4) button.
- Press **External Paging** (F1) button.
- Dial **0**.
- Announce.

To access a particular pager

- Press **Features** (F4) button.
- Press **External Paging** (F1) button.
- Dial desired **pager number** (1-4).
- Announce.

Answer

- Press **Features** (F4) button.
- Press **Answer Ext-Page** (F4) button.
- Dial external **pager number** (1-4).

- Group

To access all groups simultaneously

- Press **Features** (F4) button.
- Press **Group Paging** (F2) button.
- Dial **0**.
- Announce.

To access a particular group of extensions

- Press **Features** (F4) button.
- Press **Group Paging** (F2) button.
- Dial **extension group number** (1-8).
- Announce.

Answer

- Press **Features** (F4) button.
- Press **Answer GRP-Page** (F5) button.

Panasonic

Digital Proprietary Telephone
For Digital Super Hybrid System

Model **KX-T7220**

Reference Guide



With Speakerphone

This is a picture of white color model.

Panasonic Company,
Division of Matsushita Electric Corporation of America
One Panasonic Way, Secaucus, New Jersey 07094

Panasonic Company (West) of America,
Division of Matsushita Electric Corporation of America
6550 Katella Avenue, Cypress, California 90630

Panasonic Sales Company ("PSC"),
Division of Matsushita Electric of Puerto Rico, Inc.
San Gabriel Industrial Park, 65th Infantry Avenue, KM 9.5, Carolina, P.R. 00630

The KX-T7220 is compatible with the KX-TD816/KX-TD1232, Panasonic Digital Super Hybrid Systems and can perform most of the functions of the systems.

Please read before using this telephone.

Thank you for purchasing this Panasonic Telephone.

Please read **IMPORTANT SAFETY INSTRUCTIONS** on pages 24-25 before use. Read and understand all instructions.

Introduction

This KX-T7220 Digital Proprietary Telephone is designed for use with the Digital Super Hybrid System.

The telephone has the following convenient features:

- Speakerphone

With a speakerphone, you can establish handsfree conversation.

- Twenty-four Flexible CO Buttons

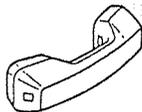
These buttons are totally flexible allowing you to re-assign them as another buttons, such as One-Touch Dialing or SAVE.

- Electronic Volume Control

The electronic volume control provides a desirable level of the speaker and the handset/headset volume.

Included Accessories

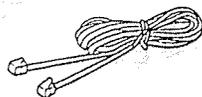
Handsetone



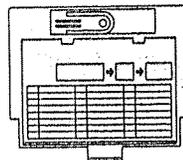
Handset cordone



Telephone line cordone



Card holder with memory station card.....one



When you ship the product

Carefully pack and send it prepaid, adequately insured and preferably in the original carton. Attach a postage-paid letter, detailing the symptom, to the outside of the carton. **DO NOT** send the product to the Executive or Regional Sales offices. They are **NOT** equipped to make repairs.

Product service

Panasonic Servicenters for this product are listed in the servicenter directory. Consult your authorized Panasonic dealer for detailed instructions.

For your future reference

SERIAL NO. _____ DATE OF PURCHASE _____
(found on the bottom of the unit)

NAME OF DEALER _____

DEALER'S ADDRESS _____

NOTE:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS PRODUCT TO RAIN OR ANY TYPE OF MOISTURE.

CAUTION:

To assure continued compliance with FCC rules, do not make any unauthorized modifications.

When programming emergency numbers and/or making test calls to emergency numbers:

- 1) Remain on the line and briefly explain to the dispatcher the reason for the call before hanging up.
- 2) Perform such activities in the off-peak hours, such as early morning hours or late evenings.

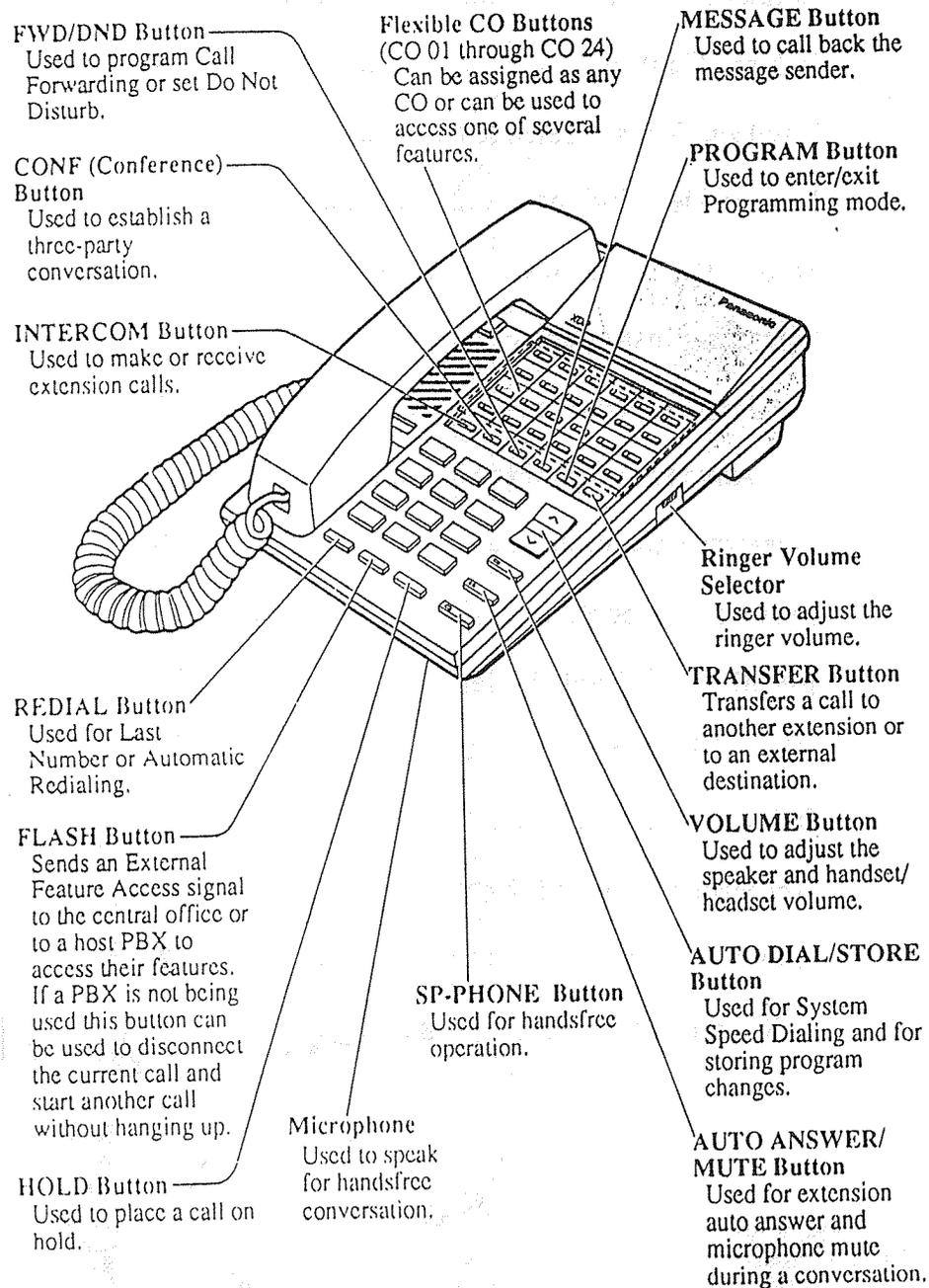
If there is any trouble, disconnect the unit from the extension line and connect a known working phone. If the known working phone operates properly, have it repaired by one of the specified Panasonic Factory Service Centers. If the known working phone does not operate properly, check the Electronic Modular Switching System and the internal extension wiring.

- Keep the unit away from heating appliances and electrical noise generating devices such as fluorescent lamps and motors.
- The unit should be kept free of dust, moisture and vibration, and should not be exposed to direct sunlight.
- Do not use benzine, thinner, or the like, or any abrasive powder to clean the cabinet. Wipe it with a soft cloth.
- Do not use any handset other than Panasonic handset.

This telephone provides magnetic coupling to hearing aids.

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Location of Controls



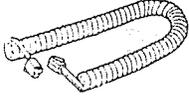
Important Safety Instructions (contd.)

7. Do not allow anything to rest on the telephone cord. Do not locate this product where the cord will be abused by persons walking on it.
8. Do not overload wall outlets and extension cords as this can result in the risk of fire or electric shock.
9. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock. Never spill liquid of any kind on the product.
10. To reduce the risk of electric shock, do not disassemble this product, but take it to a qualified serviceman when some service or repair work is required. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect reassembly can cause electric shock when the appliance is subsequently used.
11. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - A. When the power supply cord or plug is damaged or frayed.
 - B. If liquid has been spilled into the product.
 - C. If the product has been exposed to rain or water.
 - D. If the product does not operate normally by following the operating instructions. Adjust only those controls, that are covered by the operating instructions because improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
 - E. If the product has been dropped or the cabinet has been damaged.
 - F. If the product exhibits a distinct change in performance.
12. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
13. Do not use the telephone to report a gas leak in the vicinity of the leak.

SAVE THESE INSTRUCTIONS

Accessory Order Information

- Replacement parts and accessories are available through your local authorized parts distributor.
- For ordering the accessory, call toll free: 1-800-332-5368

Part No.	Picture	Description	Comment
KX-J07W/B		Handset cord	7 feet
KX-J15W/B			15 feet
KX-J25W/B			25 feet

W: White

B: Black

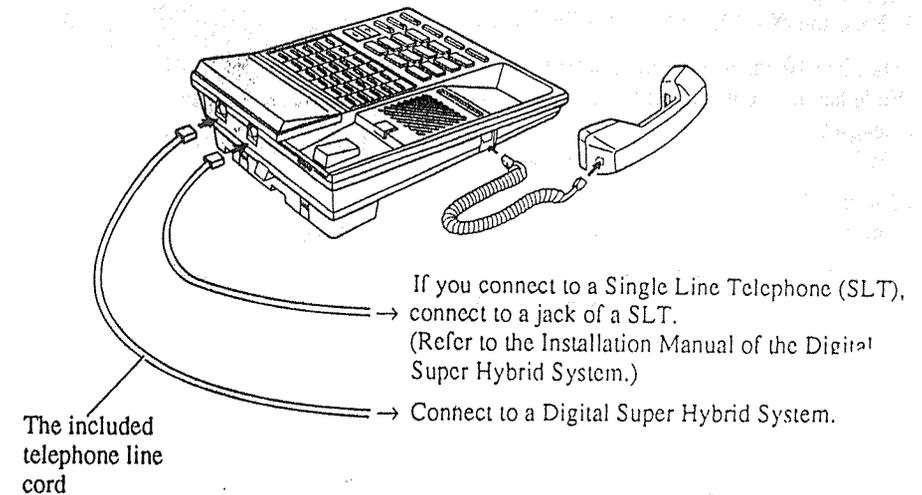
Important Safety Instructions

When using your telephone equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons, including the following:

1. Read and understand all instructions.
2. Follow all warnings and instructions marked on the product.
3. Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
4. Do not use this product near water, for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool.
5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
6. Slots and openings in the cabinet and the back or bottom are provided for ventilation, to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the product on the bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation unless proper ventilation is provided.

Connection

Connect as shown.



Volume Control

You can adjust the volume by pressing the VOLUME button.

-Speaker Volume Control

While having a handsfree conversation with a speakerphone,

- 1 Press the \wedge (UP) or \vee (DOWN) button.

-Handset/Headset Volume Control

While having a conversation with a handset or a headset,

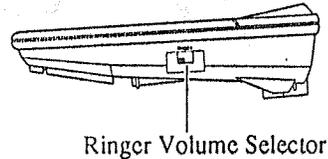
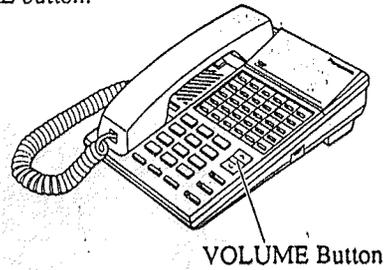
- 1 Press the \wedge (UP) or \vee (DOWN) button.

-Ringer Volume Selector

- 1 Slide lever (HIGH/LOW/OFF).

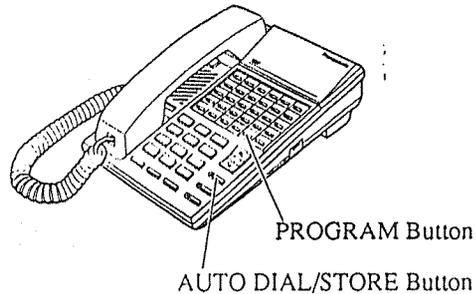
HIGH/LOW : Sets the desired ringer volume.

OFF : The telephone will not ring.



Handset/Headset Selection

- 1 Press the PROGRAM button.
- 2 Dial 999.
- 3 Dial 1 or 2.
 - 1 : Handset
 - 2 : Headset (optional)
- 4 Press the STORE button.
- 5 Press the PROGRAM button.



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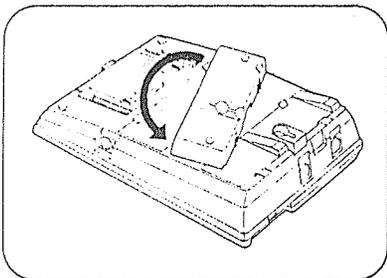
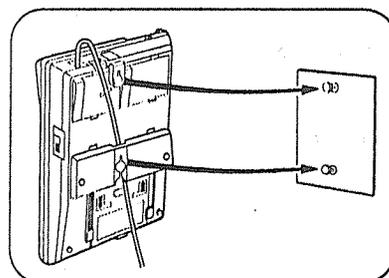
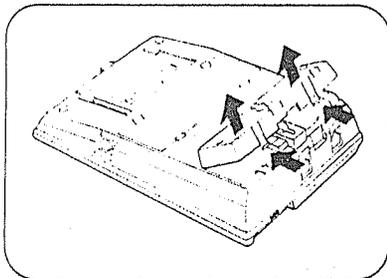
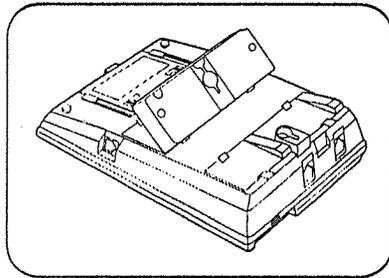
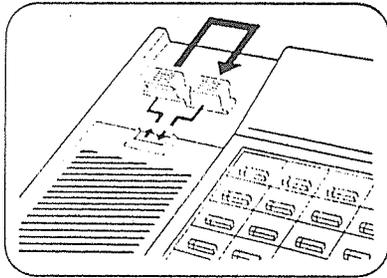
*1 Feature Descriptions

*2 Operating Instructions

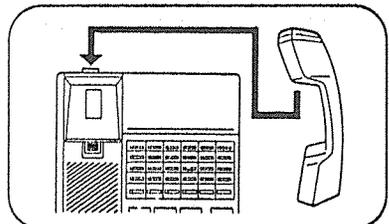
Wall Mounting

To mount your KX-T7220 model telephone onto a wall consider the following instructions:

- 1 Remove the handset hook by pulling it toward the top of the unit. Turn it around and re-insert.
- 2 Remove the attached stand.
- 3 Turn it around 180 degrees.
- 4 Place the stand on the center line.
- 5 Attach the unit to the wall.



To temporarily place the handset down during a conversation, hook it over the top edge of the phone as shown.



Feature Descriptions

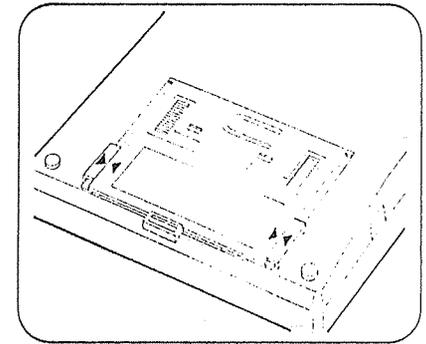
- **Absent Message Capability**
There are nine flexible absent messages available. If you select a message it will be shown on the display of the calling party's telephone.
 - **No Answer**
All incoming calls are forwarded to another extension if you don't answer the call.
 - **Busy/No Answer**
All incoming calls will be forwarded to another extension if you don't answer or your extension is busy.
 - **to CO Line***
All incoming calls are forwarded to a CO Line.
 - **Follow Me**
Allows you to remotely set Call Forwarding-All Calls from another extension.
- **Account Code Entry**
With the Account Code Entry feature, you can identify incoming and outgoing CO calls for accounting and billing purposes.
- **Automatic Callback Busy (Camp-On)**
When the selected CO line or extension you have dialed is busy, dial the camp-on code and hang up. Your telephone will ring when the called party is idle. When you answer, their phone rings.
- **Background Music (BGM)**
Background music, from an external source, is heard through the built-in speaker of the telephone.
- **Busy Station Signaling (BSS)**
With the Busy Station Signaling feature, the busy extension that you called hears three beeps and knows that you are waiting.
- **Call Forwarding (FWD)**
Automatically transfers incoming calls to another extension or to an external destination. The following types are available:
 - **All Calls**
All incoming calls are forwarded to another extension.
 - **Busy**
All incoming calls are forwarded to another extension when your extension is busy.
- **Call Hold**
Allows you to hold an extension or a CO call.
- **Call Park**
Allows you to "park a call" so that any extension can retrieve it.
- **Call Pickup**
Allows you to answer a call ringing at another extension.
 - **CO Line**
Allows you to answer an incoming CO call that is ringing at another's telephone.
 - **Directed**
Allows you to answer an incoming call ringing at any other extension.
 - **Group**
Allows you to answer a call that is ringing at another telephone within your extension group.

Feature Descriptions (contd.)

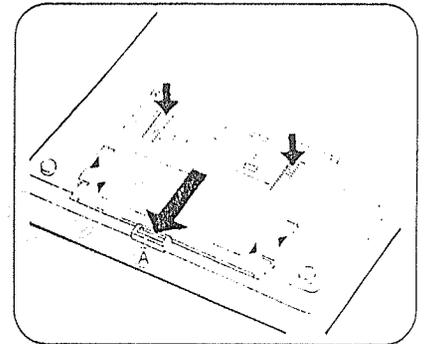
- **Call Transfer to Extension**
Transfers incoming CO or extension calls to another extension (screened or unscreened).
- **Call Waiting**
Informs you with three beeps that there is a call waiting.
- **Conference**
Allows you to make a three-party conference.
- **Do Not Disturb (DND)**
The extension will not receive extension or CO calls.
- **Do Not Disturb (DND) Override***
Allows you to call an extension even though Do Not Disturb is set.
- **Electronic Station Lockout**
Allows you to lock your extension so that other users cannot make outgoing CO calls from your extension.
- **Executive Busy Override***
 - CO Line
Allows you to enter into an existing CO call or to add a third party to your existing conversation.
 - Extension
Allows you to enter into an existing extension conversation.
- **Full One-Touch Dialing**
This feature automatically activates the handsfree speakerphone and dials a phone number or accesses a system feature at the touch of a button.
- **Handsfree Answerback**
Allows you to answer an intercom call without lifting the handset.
- **Intercom Calling**
Allows you to make a call to another extension.
- **Line Access, Automatic**
Allows you to select an available CO line automatically.
- **Line Access, CO Line Group**
Allows each extension to select an idle CO line within the designated CO Line Group.
- **Line Access, Individual**
Allows you to select the desired CO line without dialing the line access code.
- **Message Waiting**
Allows you to leave a message for another extension. The message waiting lamp gives a visual indication that a message has been received.
- **Microphone Mute**
Allows you to turn off the microphone so that you can consult privately with other in the room.

Installing the Card Holder

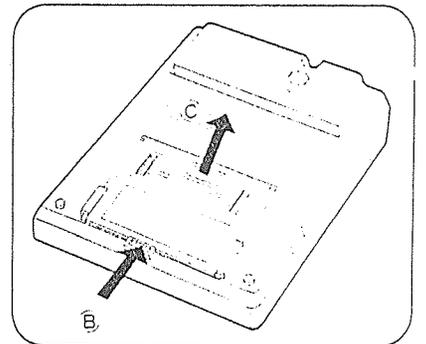
- 1 Line up the arrow (▶) marks on the card holder with the arrow marks on the slide rails of the unit.



- 2 Push the two shaded portions and insert the edges of the card holder under the slide rails; slide down toward "A".



- Removing the card holder:**
Push the card holder in the direction of arrow "B" while keeping the tip of the holder pulling in the direction of arrow "C".



< Fixed Feature Numbers >

-While hearing busy tone

Feature	Dial
Automatic Callback Busy (Camp-On)	6
Busy Station Signaling (BSS)	1
Executive Busy Override	2

-While on-hook (idle)

Feature	Dial
Background Music (BGM)	1

-While calling

Feature	Dial
Pulse to Tone Conversion	x #

-While hearing DND tone

Feature	Dial
Do Not Disturb (DND) Override	1

< For Operator Operation >

Feature	Dial		Additional Required Digits	
	Default	Your #	KX-TD816	KX-TD1232
Background Music (BGM) External on/off	35			
Night Service set/cancel	78		1/0	1/0

■ **Paging**

Provides an announcement (page), through the built-in speaker of the telephone or by the external speakers.

- **All**

Page through both built-in speakers and external pagers.

- **External**

• Page through all the external pagers simultaneously.

• Paging to a specific external pager.

- **Group**

• Page to all groups (all extensions) simultaneously.

• Page to a particular group of extensions using the built-in speakers.

- **Answer**

A page sent to the built-in speakers or the external pagers can be answered by any extension in the system.

■ **Paging and Transfer**

Allows you to transfer a call to the paged person.

■ **Paralleled Telephone Connection**

Allows you to connect this unit in parallel with a Single Line Telephone (SLT). This unit can be connected with a SLT by inserting another telephone line cord to a jack. (For connection, see page 5.) When a parallel connection is made, either telephone can be used.

■ **Pulse to Tone Conversion**

Allows you to change from Pulse to Tone mode so that you can access special services such as computer-accessed long distance.

■ **Redial**

- **Automatic**

Without lifting the handset, redialing can be activated automatically and repeated until the called party answers. The number and time between retries is programmable.

- **Last Number**

Automatically saves the last CO call number you dialed and allows you to make the same outgoing call again.

- **Saved Number**

The desired CO call number can be stored and then redialed.

■ **Station Feature Clear**

Allows you to reset all station features you programmed to the default settings.

■ **Station Speed Dialing**

Each extension can store up to 10 speed dial numbers which are only available to that extension user.

■ **System Speed Dialing***

The system supports 100 speed dial numbers which are available to all extension users.

■ **Trunk (CO Line) Answer from Any Station (TAFAS)**

Ringling through the external paging system indicates an incoming CO call. TAFAS allows this call to be answered from any extension.

■ **Voice Mail Integration**

When you are busy or absent, your calls can be forwarded to a mail box of the Voice Processing System.

* These features must first be enabled through System Programming. See the Installation Manual of the Digital Super Hybrid System.

Station Programming

Station Programming allows you to assign the following features or buttons from your telephone individually if necessary.

- Before entering Programming, you need to enter Programming mode.

When the telephone is idle and on-hook;

• Press : **PROGRAM** **9** **9**.

- To exit Programming mode.

• Press : **PROGRAM**.

or

• Lift the handset.

■ Call Waiting Tone Type Assignment

• Dial **5**.

• Dial **1** or **2**.

-1 : Call Waiting Tone 1

-2 : Call Waiting Tone 2

• Press **STORE** button.

■ Flexible Button Assignment

- Account Button

• Press the desired **CO** button.

• Dial **6**.

• Press **STORE** button.

- One-Touch Dialing Button

• Press the desired **CO** button.

• Dial **2** + the **desired number** (phone numbers or feature numbers, etc.).

• Press **STORE** button.

- SAVE Button

• Press the desired **CO** button.

• Dial **5**.

• Press **STORE** button.

■ Full One-Touch Dialing Assignment

• Dial **3**.

• Dial **1** or **2**.

-1 : Off

-2 : On

• Press **STORE** button.

■ Preferred Line Assignment-Incoming

• Dial **2**.

• Dial **line number** (1, 2, or 3 + CO number).

-1 : for No Line Preference

-2 : for Ringing Line Preference

-3 + CO number : for Prime Line

Preference (CO : 01-24)

If your telephone is connected to the KX-TD816,

-3 + CO number : for Prime Line

Preference (CO : 01-08)

• Press **STORE** button.

■ Preferred Line Assignment-Outgoing

• Dial **1**.

• Dial **line number** (1, 2, or 3 + CO number) or press **INTERCOM** button.

-1 : for No Line Preference

-2 : for Idle Line Preference

-3 + CO number: for Prime Line

Preference (CO : 01-24)

- INTERCOM : for Prime Line

(INTERCOM) Preference

If your telephone is connected to the KX-TD816,

-3 + CO number : for Prime Line

Preference (CO : 01-08)

• Press **STORE** button.

Feature Numbers

This Manual uses the initial factory settings (default value) for feature descriptions. If you change the feature number, use the new one you programmed instead. Additional Required Digits are different depending on model of the Digital Super Hybrid System, KX-TD816 or KX-TD1232 your telephone is connected to.

< Flexible Feature Numbers >

Feature	Dial		Additional Required Digits	
	Default	Your #	KX-TD816	KX-TD1232
Absent Message Capability set/cancel	750		1-9/0	1-9/0
Account Code Entry	49		Acct. code + #	Acct. code + #
Call Forwarding set/cancel	710		2-6/0	2-6/0
Call Forwarding - Follow Me set/cancel	710		7/8	7/8
Call Park/Call Park retrieve	52		0-9	0-9
Call Pickup, CO Line	4 X			
Call Pickup, Directed	41		ENTN.	ENTN.
Call Pickup, Group	40			
Call Pickup Deny set/cancel	720		1/0	1/0
Call Waiting set/cancel	731		1/0	1/0
Data Line Security set/cancel	730		1/0	1/0
Do Not Disturb set/cancel	710		1/0	1/0
Doorphone Call calling/door open	31/55		1 or 2	1-4
Electronic Station Lockout lock	77		000-999 twice	000-999 twice
Electronic Station Lockout unlock	77		000-999	000-999
Executive Busy Override Deny set/cancel	733		1/0	1/0
Line Access, Automatic/ARS	9			
Line Access, CO Line Group	8		1-8	1-8
Message Waiting set/cancel/call back	70		1-0-2	1-0-2
Operator Call	0		0 or 1	0 or 1
Paging-All	32 or 33		/	/
Paging-External	32		0/1	0/1-4
Paging External Answer/TAFAS Answer	42		1	1-4
Paging-Group	33		0/1-8	0/1-8
Paging-Group Answer	43			
Paralleled Telephone Connection set/cancel	39		1/0	1/0
Station Feature Clear	790			
Station Speed Dialing	3 X		0-9	0-9

Operator Operation

< Feature Descriptions and Operating Instructions >

<NOTES>

Only the Operator 1 can perform the following operations.

■ Background Music (BGM)-

External

Allows the system to play BGM through the external pagers.

Turning on/off

- Off-hook.
- Dial **[35]**.
- On-hook.

■ Night Service

Supports both NIGHT and DAY modes of operation.

• Setting

- Off-hook.
- Dial **[781]** or **[780]**.
- 781 : to Night mode
- 780 : to Day mode
- On-hook.

■ Remote Station Lock Control

Allows to control Electronic Station Lockout on any extension.

- Press **[PROGRAM]** button.
- Dial **[99]**.
- Dial **[0]**.
- Dial **[extension number]** or **[*]**.
 - extension number : to lock or unlock one extension
 - * : to lock or unlock all extensions
- Dial **[1]** or **[2]**.
 - 1 : to unlock
 - 2 : to lock
- Press **[STORE]** button.
- Press **[PROGRAM]** button.

Operating Instructions

<NOTE>

- Off-hook : Lift the handset or press the SP-PHONE button.
- On-hook : Replace the handset or press the SP-PHONE button.

Helpful hints for Handsfree operation:

- **If it is difficult to hear the other party's voice;**
Raise the sound level using the Speaker Volume Control.
- **If the other party has difficulty hearing you;**
Lower the sound level.
- **Absorbing echoes;**
Use this unit in a room which has curtains and/or carpeting.
- **To avoid missing part of the conversations;**
If you and the other party speak at the same time, parts of your conversation will be lost. To avoid this, speak alternately.

Basic Operation

■ Making Calls

-- Intercom Calling

- Off-hook.
- Dial **[extension number]**.

- Outward Dialing

- Off-hook.
- Dial **[y]** or **[81] - [88]**, or press a **[CO]** button.
 - 9 : Line Access, Automatic
 - 81-88 : Line Access, CO Line Group
 - CO : Line Access, Individual
- Dial **[phone number]**.

■ Receiving Calls

- Off-hook.
- or
- Press a flashing **[CO]** or **[INTERCOM]** button directly.

Operating Instructions

Advanced Operation

■ Absent Message Capability

- Setting

Message 1. "Will Return Soon"

- Off-hook.
- Dial **7501**.
- On-hook.

Message 2. "Gone Home"

- Off-hook.
- Dial **7502**.
- On-hook.

Message 3. "At EXT (number)"

- Off-hook.
- Dial **7503** + **extension number**.
- On-hook.

Message 4. "Back at (time)"

- Off-hook.
- Dial **7504**.
- Enter **hour** (00-23).
- Enter **minute** (00-59).
- On-hook.

Message 5. "Out Until (date)"

- Off-hook.
- Dial **7505**.
- Enter **month** (01-12).
- Enter **day** (01-31).
- On-hook.

Message 6. "In a Meeting"

- Off-hook.
- Dial **7506**.
- On-hook.

Message 7, 8 or 9. (Unassigned)

- Off-hook.
- Dial **7507** through **7509**.
 - 7507 : for Message 7
 - 7508 : for Message 8
 - 7509 : for Message 9
- Enter parameters (if required).
- On-hook.

- Cancelling

- Off-hook.
- Dial **7500**.
- On-hook.

■ Account Code Entry

Assign a CO button as the Account button beforehand. See Station Programming (page 10).

When hearing dial tone or during a conversation with an outside party;

- Press **Account** (CO) button.
- Enter **account code** + **#**.

■ Automatic Callback Busy (Camp-On)

While hearing busy tone;

- Dial **6**.
- *Confirmation tone is audible.*
- On-hook.

■ Background Music (BGM)

- Setting/Cancelling

While on-hook;

- Dial **1**.

■ Busy Station Signaling (BSS)

If a busy tone is heard;

- Dial **1**.
- Wait for an answer.

Operating Instructions (contd.)

■ Pulse to Tone Conversion

- Dial **phone number** (Pulse mode).
- Dial *** + #**.
- Dial **phone number** (Tone mode).

■ Redial

- Automatic

- Off-hook with **SP-PHONE** button.
- Press **REDIAL** button.

- Last Number

- Off-hook.
- Press **REDIAL** button.

- Saved Number

- Assign a CO button as the SAVE button beforehand. See Station Programming (page 10).

Storing

While having a conversation or when hearing busy tone;

- Press **AUTO DIAL/STORE** button.
- Press **SAVE** (CO) button.
- On-hook.

Dialing

- Off-hook.
- Press **SAVE** (CO) button.

■ Station Feature Clear

- Off-hook.
- Dial **790**.
- *Confirmation tone is audible.*
- On-hook.

■ Station Speed Dialing

- Storing phone numbers

- Off-hook.
- Dial **30** + **station speed dial number** (0-9) + **line access code** (9, 81-88) + **phone number** + **#**.
- *Confirmation tone is audible.*
- On-hook.

- Dialing

- Off-hook.
- Dial **3 X** + **station speed dial number** (0-9).

■ System Speed Dialing

- Off-hook.
- Press **AUTO DIAL/STORE** button.
- Dial **System Speed Dial number** (00-99).

■ Trunk (CO Line) Answer from Any Station (TAFAS)

- Answer
- Same operation as Paging-External Answer. (See page 16).

■ Voice Mail Integration

- Setting Call Forwarding to Voice Processing System

- Off-hook.
- Press **FWD/DND** button.
- Dial **2** - **5**.

- 2: FWD-All Calls
- 3: FWD-Busy
- 4: FWD-No Answer
- 5: FWD-Busy/No Answer

• Dial **extension number** of the Voice Processing System.

- *Confirmation tone is audible.*
- On-hook.

- Playing back a recorded message

- Off-hook.
- Press **MESSAGE** (CO) button.

■ Microphone Mute

- Setting

While having a conversation in handsfree mode:

- Press **[MUTE]** button.
- The MUTE indicator light flashes red.

- Cancelling

When microphone mute is established:

- Press **[MUTE]** button.
- The MUTE indicator light turns off.

■ Paging

- All

- Off-hook.
- Dial **[32]** (or **[33]**) + **[x]**.
- Confirmation tone is audible (optional).
- Announce.

- External

To access all external pagers

- Off-hook.
- Dial **[320]**.
- Confirmation tone is audible (optional).
- Announce.

To access a particular pager

- Off-hook.
- Dial **[32]** + **[external pager number]**(1-4).

If your telephone is connected to the KX-TD816,

- Dial **[32]** + **[external pager number]**(1).
- Confirmation tone is audible (optional).
- Announce.

- Group

To access all groups simultaneously

- Off-hook.
- Press **[330]**.
- Confirmation tone is audible (optional).
- Announce.

To access a particular group of extensions

- Off-hook.
- Dial **[33]** + **[extension group number]**(1-8).
- Confirmation tone is audible (optional).
- Announce.

- Answer

- Off-hook.
- Dial **[42]** + **[external pager number]**(1-4), or **[43]**.

If your telephone is connected to the KX-TD816,

- Dial **[42]** + **[external pager number]**(1), or **[43]**.

-42 + external pager number :

To answer a page sent from the external pager/TAFAS.

-43 : To answer a page sent from the built-in speaker.

- Confirmation tone is audible (optional).
- Talk.

■ Paging and Transfer

- To transfer

- Press **[TRANSFER]** button before dialing the paging feature number (**[32]** or **[33]**).

■ Paralleled Telephone Connection

- Setting/Cancelling

- Off-hook.
- Dial **[39]**.
- Dial **[1]** or **[0]**.
 - 1 : for setting
 - 0 : for cancelling
- Confirmation tone is audible.

■ Call Forwarding (FWD)

Setting

- All Calls

- Off-hook.
- Press **[FWD/DND]** button.
- Dial **[2]** + **[extension number]**.
- On-hook.

- Busy

- Off-hook.
- Press **[FWD/DND]** button.
- Dial **[3]** + **[extension number]**.
- On-hook.

- No Answer

- Off-hook.
- Press **[FWD/DND]** button.
- Dial **[4]** + **[extension number]**.
- On-hook.

- Busy/No Answer

- Off-hook.
- Press **[FWD/DND]** button.
- Dial **[5]** + **[extension number]**.
- On-hook.

- to CO Line

- Off-hook.
- Press **[FWD/DND]** button.
- Dial **[6]** + **[line access code]** (9, 81-88) + **[phone number]** + **#**.
- On-hook.

- Follow Me

- Off-hook.
- Press **[FWD/DND]** button.
- Dial **[7]** + **[your extension number]**.
- On-hook.

Cancelling

- At the original extension

- Off-hook.
- Press **[FWD/DND]** button.
- Dial **[0]**.
- On-hook.

- At the destination extension (Follow Me)

- Off-hook.
- Press **[FWD/DND]** button.
- Dial **[8]** + **[your extension number]**.
- On-hook.

■ Call Hold

While having a conversation;

- Press **[HOLD]** button.

- Retrieving

(Intercom Call)

- At the holding extension

- Press **[INTERCOM]** button.

- At another extension

- Off-hook.
- Dial **[51]** + holding **[extension number]**.

(CO Call)

- At the holding extension

- Press the green **[CO]** button that is slowly flashing.

- At another extension

- Press the red **[CO]** button that is slowly flashing.

Operating Instructions (contd.)

■ Call Park

- Setting

While having a conversation;

- Press **[TRANSFER]** button.
- Confirmation tone is audible.
- Dial **[52]** + **[parking zone number]** (0-9).
- Confirmation tone is audible.
- On-hook

- Retrieving

- Off-hook.
- Dial **[52]** + **[parking zone number]** (0-9).
- Confirmation tone is audible (optional).
- Talk.

■ Call Pickup

- CO Line

- Off-hook.
- Dial **[4 *]**.
- Confirmation tone is audible (optional).
- Talk.

- Directed

- Off-hook.
- Dial **[41]** + **[extension number]**.
- Confirmation tone is audible (optional).
- Talk.

- Group

- Off-hook.
- Dial **[40]**.
- Confirmation tone is audible (optional).
- Talk.

■ Call Transfer to Extension

- Screened

While having a conversation;

- Press **[TRANSFER]** button.
- Dial **[extension number]**.
- Wait for an answer and announce.
- On-hook.

- Unscreened

While having a conversation;

- Press **[TRANSFER]** button.
- Dial **[extension number]**.
- On-hook.

■ Call Waiting

- Setting/Cancelling

- Off-hook.
- Dial **[731]**.
- Dial **[1]** or **[0]**.
 - 1 : for setting
 - 0 : for cancelling
- Confirmation tone is audible.
- On-hook.

- To talk to the new caller, terminating the current call

While hearing call waiting tone;

- Press the flashing **[CO]** or **[INTERCOM]** button.

- To talk to the new caller, holding the current call

While hearing call waiting tone and the CO or INTERCOM indicator is flashing rapidly;

- Press **[HOLD]** button.
- Press the flashing **[CO]** or **[INTERCOM]** button. (If both the current call and new call are extension calls, you can skip this step.)

Operating Instructions (contd.)

■ Conference

While having a conversation;

- Press **[CONF]** button.
- Dial the **[third party's number]**.
- Talk to the third party.
- Press **[CONF]** button.

■ Do Not Disturb (DND)

- Setting/Cancelling

- Off-hook.
- Press **[FWD/DND]** button.
- Dial **[1]** or **[0]**.
 - 1 : for setting
 - 0 : for cancelling
- Confirmation tone is audible.
- On-hook.

■ Do Not Disturb (DND) Override

While hearing DND tone:

- Dial **[1]**.

■ Electronic Station Lockout

- Locking

- Off-hook.
- Dial **[77]**.
- Dial **[lock code]** (000-999).
- Dial the same **[lock code]** again.
- Confirmation tone is audible.
- On-hook.

- Unlocking

- Off-hook.
- Dial **[77]**.
- Dial the same **[lock code]** as you used to lock the extension.
- Confirmation tone is audible.
- On-hook.

■ Executive Busy Override

- CO Line

- Off-hook.
 - Press the red **[CO]** button.
- #### - Extension
- When a line is busy;
- Dial **[2]**.

■ Full One-Touch Dialing

Change a CO button to function as an One-Touch or SAVE button beforehand. See Station Programming (page 10).

- Press **[One-Touch]** (CO), **[REDIAL]** or **[SAVE]** (CO) button.

■ Handsfree Answerback

- Setting/Cancelling

- Press **[AUTO ANSWER]** button.

■ Message Waiting

- Setting

- Off-hook.
- Dial **[701]** + **[extension number]**.
- Confirmation tone is audible (optional).
- On-hook.

If the called extension is busy or does not answer;

- Press **[MESSAGE]** button.
 - Confirmation tone is audible.
 - On-hook.
- #### - Cancelling
- Off-hook.
 - Dial **[700]** + **[extension number]**.
 - Confirmation tone is audible.
 - On-hook.

- Responding to a message

- Off-hook.
- Press **[MESSAGE]** button or dial **[702]**.

Operating Instructions (contd.)

■ Call Forwarding (FWD) (contd.)

- Busy/No Answer

- Off-hook.
- Press **[FWD/DND]** (CO) button.
- Dial **[5]** + **[extension number]**.
- On-hook.

- to CO Line

- Off-hook.
- Press **[FWD/DND]** (CO) button.
- Dial **[6]** + **[line access code]** (9 or 81-88) + **[phone number]** + **#**.
- On-hook.

- Follow Me

- Off-hook.
- Press **[FWD/DND]** (CO) button.
- Dial **[7]** + **[your extension number]**.
- On-hook.

Cancelling

- At the original extension

- Off-hook.
- Press **[FWD/DND]** (CO) button.
- Dial **[0]**.
- On-hook.

- At the destination extension (Follow Me)

- Off-hook.
- Press **[FWD/DND]** (CO) button.
- Dial **[8]** + **[your extension number]**.
- On-hook.

■ Call Hold

While having a conversation;

- Press **[HOLD]** button.

Retrieving

(Intercom Call)

- At the holding extension

- Press **[INTERCOM]** button.

- At another extension

- Off-hook.
- Dial **[51]** + holding **[extension number]**.

(CO Call)

- At the holding extension

- Press the green **[CO]** button that is slowly flashing.

- At another extension

- Press the red **[CO]** button that is slowly flashing.

■ Call Park

Setting

While having a conversation;

- Press **[TRANSFER]** button.
- Confirmation tone is audible.
- Dial **[52]** + **[parking zone number]** (0-9).
- Confirmation tone is audible.
- On-hook

Retrieving

- Off-hook.
- Dial **[52]** + **[parking zone number]** (0-9).
- Confirmation tone is audible (optional).
- Talk.

■ Call Pickup

- CO Line

- Off-hook.
- Dial **[4 *]**.
- Confirmation tone is audible (optional).
- Talk.

- Directed

- Off-hook.
- Dial **[41]** + **[extension number]**.
- Confirmation tone is audible (optional).
- Talk.

- Group

- Off-hook.
- Dial **[40]**.
- Confirmation tone is audible (optional).
- Talk.

Operating Instructions (contd.)

■ Call Transfer to Extension

- Screened

While having a conversation;

- Press **[TRANSFER]** button.
- Dial **[extension number]**.
- Wait for an answer and announce.
- On-hook.

- Unscreened

While having a conversation;

- Press **[TRANSFER]** button.
- Dial **[extension number]**.
- On-hook.

■ Call Waiting

Setting / Cancelling

- Off-hook.
- Dial **[731]**.
- Dial **[1]** or **[0]**.
 - 1 : for setting
 - 0 : for cancelling
- Confirmation tone is audible.
- On-hook.

To talk to the new caller, terminating the current call

While hearing call waiting tone;

- Press the flashing **[CO]** or **[INTERCOM]** button.

To talk to the new caller, holding the current call

While hearing call waiting tone and the CO or INTERCOM indicator is flashing rapidly;

- Press **[HOLD]** button.
- Press the flashing **[CO]** or **[INTERCOM]** button. (If both the current call and new call are extension calls, you can skip this step.)

■ Conference

While having a conversation;

- Press **[CONF]** button.
- Dial the **[third party's number]**.
- Talk to the third party.
- Press **[CONF]** button.

■ Do Not Disturb (DND)

For KX-T7050 and KX-T7055, assign a CO button as the FWD/DND button beforehand. See Station Programming (page 5).

Setting / Cancelling

- Off-hook.
- Press **[FWD/DND]** (CO) button.
- Dial **[1]** or **[0]**.
 - 1 : for setting
 - 0 : for cancelling
- Confirmation tone is audible.
- On-hook.

■ Do Not Disturb (DND) Override

While hearing DND tone:

- Dial **[1]**.

■ Executive Busy Override

- CO Line

- Off-hook.
- Press the red **[CO]** button.

- Extension

When a line is busy;

- Dial **[2]**.

■ Full One-Touch Dialing

Change a CO or PF button to function as an One-Touch or SAVE button beforehand. See Station Programming (page 5).

- Press **[One-Touch]** (CO or PF), **[REDIAL]** or **[SAVE]** (CO or PF) button.

■ Message Waiting

For KX-T7055, assign a CO button as the MESSAGE button beforehand. See Station Programming (page 5).

Setting

- Off-hook.
- Dial **701** + **extension number**.
- Confirmation tone is audible (optional).
- On-hook.

If the called extension is busy or does not answer;

- Press **MESSAGE** (CO) button.
- Confirmation tone is audible.
- On-hook.

Cancelling

- Off-hook.
- Dial **700** + **extension number**.
- Confirmation tone is audible.
- On-hook.

Checking and Selecting a message from the messages waiting

- Press **MESSAGE** (CO) button repeatedly until the desired message sender appears.

Responding to a message

- Off-hook.
- Press **MESSAGE** (CO) button or dial **702**.

■ Paging

- All

- Off-hook.
- Dial **32** (or **33**) + **X**.
- Confirmation tone is audible (optional).
- Announce.

- External

To access all external pagers

- Off-hook.
- Dial **320**.
- Confirmation tone is audible (optional).
- Announce.

To access a particular pager

- Off-hook.
- Dial **32** + **external pager number** (1-4).
- Confirmation tone is audible (optional).
- Announce.

- Group

To access all groups simultaneously

- Off-hook.
- Press **330**.
- Confirmation tone is audible (optional).
- Announce.

To access a particular group of extensions

- Off-hook.
- Dial **33** + **extension group number** (1-8).
- Confirmation tone is audible (optional).
- Announce.

- Answer

- Off-hook.
- Dial **42** + **external pager number** (1-4), or **43**.
 - 42 + external pager number (1-4): To answer a page sent from the external pager/TAFAS.
 - 43: To answer a page sent from the built-in speaker.
- Confirmation tone is audible (optional).
- Talk.

■ Paging and Transfer

To transfer

- Press **TRANSFER** button before dialing the paging feature number (**32** or **33**) + **additional number**.

■ Pulse to Tone Conversion

- Dial **phone number** (Pulse mode).
- Dial **X** + **#**.
- Dial **phone number** (Tone mode).

Standard Operation

■ Absent Message Capability Setting

Message 1. "Will Return Soon"

- Off-hook.
- Dial **7501**.
- On-hook.

Message 2. "Gone Home"

- Off-hook.
- Dial **7502**.
- On-hook.

Message 3. "At EXT (number)"

- Off-hook.
- Dial **7503** + **extension number**.
- On-hook.

Message 4. "Back at (time)"

- Off-hook.
- Dial **7504**.
- Enter **hour** (00-23).
- Enter **minute** (00-59).
- On-hook.

Message 5. "Out Until (date)"

- Off-hook.
- Dial **7505**.
- Enter **month** (01-12).
- Enter **day** (01-31).
- On-hook.

Message 6. "In a Meeting"

- Off-hook.
- Dial **7506**.
- On-hook.

Message 7, 8 or 9. (Unassigned)

- Off-hook.
- Dial **7507** through **7509**.
 - 7507: for Message 7
 - 7508: for Message 8
 - 7509: for Message 9
- Enter parameters (if required).
- On-hook.

Cancelling

- Off-hook.
- Dial **7500**.
- On-hook.

■ Automatic Callback Busy (Camp-On)

While hearing busy tone;

- Dial **6**.
- Confirmation tone is audible.
- On-hook.

■ Background Music (BGM) Setting/Cancelling

While on-hook;

- Dial **1**.

■ Busy Station Signaling (BSS)

If a busy tone is heard;

- Dial **1**.
- Wait for an answer.

■ Call Forwarding (FWD)

For KX-T7050 and KX-T7055, assign a CO button as the FWD/DND button beforehand. See Station Programming (page 5).

Setting

- All Calls

- Off-hook.
- Press **FWD/DND** (CO) button.
- Dial **2** + **extension number**.
- On-hook.

- Busy

- Off-hook.
- Press **FWD/DND** (CO) button.
- Dial **3** + **extension number**.
- On-hook.

- No Answer

- Off-hook.
- Press **FWD/DND** (CO) button.
- Dial **4** + **extension number**.
- On-hook.

Station Programming (contd.)

- Full One-Touch Dialing Assignment
 - Dial **3**.
 - Dial **1** or **2**.
 - 1: Off
 - 2: On
 - Press **STORE** button.
- Preferred Line Assignment-Incoming
 - Dial **2**.
 - Dial **line number** (1, 2, or 3 + CO number).
 - 1: for No Line Preference
 - 2: for Ringing Line Preference
 - 3 + CO number: for Prime Line Preference (CO : 01-24)
 - Press **STORE** button.
- Preferred Line Assignment-Outgoing
 - Dial **1**.
 - Dial **line number** (1, 2, or 3 + CO number) or press **INTERCOM**.
 - 1: for No Line Preference
 - 2: for Idle Line Preference
 - 3 + CO number: for Prime Line Preference (CO : 01-24)
 - INTERCOM: for Prime Line Preference (INTERCOM)
 - Press **STORE** button.

Operating Instructions

<NOTE>

Off-hook: Lift the handset or press the SP-PHONE (or MONITOR) button.
On-hook: Replace the handset or press the SP-PHONE (or MONITOR) button.

Helpful hints for Handsfree operation:

- If it is difficult to hear the other party's voice;
 - Raise the sound level using the Speaker Volume Control.
- If the other party has difficulty hearing you;
 - Lower the sound level.
- Absorbing echoes;
 - Use this unit in a room which has curtains and/or carpeting.
- To avoid missing part of the conversations;
 - If you and the other party speak at the same time, parts of your conversation will be lost. To avoid this, speak alternately.

Basic Operation

- Making Calls
 - Intercom Calling
 - Off-hook.
 - Dial **extension number**.
 - Outward Dialing
 - Off-hook.
 - Dial **9** or **81 - 88**, or press a **CO** button.
 - 9 : Line Access, Automatic
 - 81-88 : Line Access, CO Line Group (Trunk Group)
 - CO : Line Access, Individual
 - Dial **phone number**.
- Receiving Calls
 - Off-hook.
 - or
 - Press a flashing **CO** or **INTERCOM** button directly.

Operating Instructions (contd.)

- Redial
 - Automatic
 - Off-hook with **SP-PHONE** (or **MONITOR**) button.
 - Press **REDIAL** button.
 - Last Number
 - Off-hook.
 - Press **REDIAL** button.
 - Saved Number
 - For KX-T7020/KX-T7030/KX-T7050/KX-T7055, assign a CO or PF button as the SAVE button beforehand. See Station Programming (page 5).
- Storing
 - While having a conversation or when hearing busy tone;*
 - Press **AUTO DIAL/STORE** button.
 - Press **SAVE** (CO or PF) button.
 - On-hook.
- Dialing
 - Off-hook.
 - Press **SAVE** (CO or PF) button.
- Station Feature Clear
 - Off-hook.
 - Dial **790**.
 - Confirmation tone is audible.
 - On-hook.
- Station Speed Dialing
 - Storing phone numbers
 - Off-hook.
 - Dial **30** + **station speed dial number** (0-9) + **phone number** + **#**.
 - Confirmation tone is audible.
 - On-hook.
 - Dialing
 - Off-hook.
 - Dial **3 *** + **station speed dial number** (0-9).
- System Speed Dialing
 - Off-hook.
 - Press **AUTO DIAL/STORE** button.
 - Dial **System Speed Dial number** (00-99).
- Trunk (CO Line) Answer from Any Station (TAFAS) Answer
 - Same operation as Paging-External Answer. (See page 10).
- Voice Mail Integration
 - Setting Call Forwarding to Voice Processing System
 - For KX-T7050 and KX-T7055, assign a CO button as the FWD/DND button beforehand. See Station Programming (page 5).
 - Off-hook.
 - Press **FWD/DND** (CO) button.
 - Dial **2 - 5**.
 - 2: FWD-All Calls
 - 3: FWD-Busy
 - 4: FWD-No Answer
 - 5: FWD-Busy/No Answer
 - Dial **extension number** of the Voice Processing System.
 - Confirmation tone is audible.
 - On-hook.
 - Playing back a recorded message
 - For KX-T7055, assign a CO button as the MESSAGE button beforehand. See Station Programming (page 5).
 - Off-hook.
 - Press **MESSAGE** (CO) button.

<Feature Descriptions and Operating Instructions>

<NOTE>

Only the operator 1 can perform the following operations.

■ Background Music (BGM)- External

Allows the system to play BGM through the external pagers.

Turning on/off

- Off-hook.
- Dial [3].
- On-hook.

■ Night Service

Supports both NIGHT and DAY modes of operation.

Setting

- Off-hook.
- Dial [781] or [780].
- 781 : from Day mode to Night mode
- 780 : from Night mode to Day mode
- On-hook.

■ Outgoing Message (OGM)

Allows to record a message for play back with various message services.

Recording

- Off-hook.
- Dial [361] + [OGM number] (1-4).
- 1 : for Direct Inward System Access (DISA) message 1
- 2 : for Direct Inward System Access (DISA) message 2*
- 3 : for Timed Reminder message
- 4 : not assigned
- Confirmation tone is audible.
- Record your message.
- Press [STORE] button.

- Recorded message plays back.

- Press [STORE] button or wait until playback is finished.
- On-hook.

Playing back

- Off-hook.
- Dial [362] + [OGM number] (1-4).
- Confirmation tone and the message are audible.
- Press [STORE] button or wait until playback is finished.
- On-hook.

* The initial setting recording time for a DISA message 2 is zero. You can change the time through System Programming. See the Installation Manual of the Digital Super Hybrid System.

■ Remote Station Lock Control

Allows to control Electronic Station Lockout on any extension.

- Press [PAUSE] button.
- Dial [99].
- Dial [0] + [extension number] or [*].
- extension number : to lock or unlock one extension
- * : to lock or unlock all extensions
- Dial [1] or [2].
- 1 : to unlock
- 2 : to lock
- Press [STORE] button.
- Press [PAUSE] button.

■ Station Speed Dialing

Each extension can store up to 10 speed dial numbers which are only available to that extension user.

■ System Speed Dialing*

The system supports 100 speed dial numbers which are available to all extension users.

■ Trunk (CO Line) Answer from Any Station (TAFAS)

Ringling through the external paging system indicates an incoming CO call. TAFAS allows this call to be answered from any extension.

■ Voice Mail Integration

When you are busy or absent, your calls can be forwarded to a mail box of the Voice Processing System.

* These features must first be enabled through System Programming. See the Installation Manual of the Digital Super Hybrid System.

Station Programming

Station Programming allows you to assign the following features or buttons from your telephone individually if necessary.

- Before entering Programming, you need to enter Programming mode.

When the telephone is idle and on-hook;

- Press : [PAUSE] [9] [9].

- To exit Programming mode.

- Press : [PAUSE].
- or
- Lift the handset.

■ Call Waiting Tone Type Assignment

- Dial [5].
- Dial [1] or [2].
- 1 : Call Waiting Tone 1
- 2 : Call Waiting Tone 2
- Press [STORE] button.

■ Flexible Button Assignment

- Account Button
- Press the desired [CO] or [PF] button.

- Dial [6].

- Press [STORE] button.

- FWD/DND Button (for KX-T7050, KX-T7055)

- Press the desired [CO] or [PF] button.

- Dial [4].

- Press [STORE] button.

- One-Touch Dialing Button

- Press the desired [CO] or [PF] button.

• Dial [2] + the [desired number] (phone numbers or feature numbers etc.).

- Press [STORE] button.

- SAVE Button (for KX-T7020, KX-T7030, KX-T7050, KX-T7055)

- Press the desired [CO] or [PF] button.

- Dial [5].

- Press [STORE] button.

- MESSAGE Button (for KX-T7055)

- Press the desired [CO] button.

- Dial [3].

- Press [STORE] button.

Feature Descriptions (contd.)

- **Do Not Disturb (DND) Override***
Allows you to call an extension even though Do Not Disturb is set.
- **Executive Busy Override***
 - CO Line
Allows you to enter into an existing CO call or to add a third party to your existing conversation.
 - Extension
Allows you to enter into an existing extension conversation.
- **Full One-Touch Dialing**
This feature automatically activates the handsfree speakerphone and dials a phone number or accesses a system feature at the touch of a button.
- **Intercom Calling**
Allows you to make a call to another extension.
- **Line Access, Automatic**
Allows you to select an available CO line automatically.
- **Line Access, CO Line Group (Trunk Group)**
Allows each extension to select an idle CO line within the designated CO Line Group.
- **Line Access, Individual**
Allows you to select the desired CO line without dialing the line access code.
- **Message Waiting**
Allows you to leave a message for another extension. The message waiting lamp gives a visual indication that a message has been received.
- **Paging**
Provides an announcement (page), through the built-in speaker of the telephone or by the external speakers.
 - All
Page through both built-in speakers and external pagers.
 - External
 - Page through all the external pagers simultaneously.
 - Paging to a specific external pager.
 - Group
 - Page to all groups (all extensions) simultaneously.
 - Page to a particular group of extensions using the built-in speakers.
 - Answer
A page sent to the built-in speakers or the external pagers can be answered by any extension in the system.
- **Paging and Transfer**
Allows you to transfer a call to the paged person.
- **Pulse to Tone Conversion**
Allows you to change from Pulse to Tone mode so that you can access special services such as computer-accessed long distance.
- **Redial**
 - Automatic
Without lifting the handset, redialing can be activated automatically and repeated until the called party answers. The number and time between retries is programmable.
 - Last Number
Automatically saves the last CO call number you dialed and allows you to make the same outgoing call again.
 - Saved Number
The desired CO call number can be stored and then redialed.
- **Station Feature Clear**
Allows you to reset all station features you programmed to the default settings.

Feature Numbers

This Manual uses the initial factory settings (default value) for feature descriptions. If you change the feature number, use the new one you programmed instead.

< Flexible Feature Numbers >

Feature Numbers	Default	Your #	Additional Required Digits
Absent Message Capability set/cancel	750		1-9/0
Account Code Entry	49		Account code + #
Call Forwarding set/cancel	710		2-6/0
Call Forwarding -- Follow Me set/cancel	710		7/8
Call Park/Call Park retrieve	52		0-9
Call Pickup, CO Line	4 *		
Call Pickup, Directed	41		EXT.
Call Pickup, Group	40		
Call Pickup Deny set/cancel	720		1/0
Call Waiting set/cancel	731		1/0
Data Line Security set/cancel	730		1/0
Do Not Disturb (DND) set/cancel	710		1/0
Doorphone Call calling/door open	31/55		1-4
Electronic Station Lockout set	77		lock code (000-999) twice
Electronic Station Lockout cancel	77		lock code (000-999)
Executive Busy Override Deny set/cancel	733		1/0
Line Access, Automatic/ARS	9		
Line Access, CO Line (Trunk) Group	8		1-8
Message Waiting set/cancel/call back	70		1/0/2
Operator Call	0		(0.1)
Paging-All	32 or 33		*
Paging-External	32		0/1-4
Paging External Answer/TAFAS Answer	42		1-4
Paging-Group	33		0/1-8
Paging-Group Answer	43		
Paralleled Telephone Connection set/cancel	39		1/0
Station Feature Clear	790		
Station Speed Dialing	3 *		0-9
Station Speed Dialing store	30		(0-9)+phone number+#
Timed Reminder set	76		1+*hhmm+0/1+0/1
Timed Reminder cancel/confirm	76		0/2

*hhmm
hh : hour (00-12)
mm: minute (00-59)

< Fixed Feature Numbers >

While hearing busy tone	Dial
Automatic Callback Busy (Camp-On)	6
Busy Station Signaling (BSS)	1
Executive Busy Override	2
While on-hook (Idle)	Dial
Background Music (BGM)	1
While calling	Dial
Pulse to Tone Conversion	phone number + *# + phone number
While hearing DND tone	Dial
Do Not Disturb (DND) Override	1

< For Operator Operation >

Feature Numbers	Default	Your #	Additional Required Digits
Background Music (BGM) External on/off	35		
Night Service set/cancel	78		1/0
OGM record	361		1-4
OGM playback	362		1-4

■ Absent Message Capability

There are nine flexible absent messages available. If you select a message it will be shown on the display of the calling party's telephone.

- to CO Line*

All incoming calls are forwarded to a CO Line.

- Follow Me

Allows you to remotely set Call Forwarding-All Calls from another extension.

■ Automatic Callback Busy (Camp-On)

When the selected CO line or extension you have dialed is busy, dial the camp-on code and hang up. Your telephone will ring when the called party is idle. When you answer, their phone rings.

■ Call Hold

Allows you to hold an extension or a CO call.

■ Call Park

Allows you to "park a call" so that any extension can retrieve it.

■ Background Music (BGM)

Background music, from an external source, is heard through the built-in speaker of the telephone.

■ Call Pickup

Allows you to answer a call ringing at another extension.

■ Busy Station Signaling (BSS)

You can inform a busy extension, which Call Waiting has been set, that you are waiting. The extension hears three beeps.

- CO Line

Allows you to answer an incoming CO call that is ringing at another's telephone.

■ Call Forwarding (FWD)

Automatically transfers incoming calls to another extension or to an external destination. The following types are available:

- Directed

Allows you to answer an incoming call ringing at any other extension.

- Group

Allows you to answer a call that is ringing at another telephone within your extension group.

- All Calls

All incoming calls are forwarded to another extension.

■ Call Transfer to Extension

Transfers incoming CO or extension calls to another extension (screened or unscreened).

- Busy

All incoming calls are forwarded to another extension, when your extension is busy.

■ Call Waiting

Informs you with three beeps that there is a call waiting.

- No Answer

All incoming calls are forwarded to another extension, if you don't answer the call.

■ Conference

Allows you to make a three-party conference.

- Busy/No Answer

All incoming calls will be forwarded to another extension, if you don't answer or your extension is busy.

■ Do Not Disturb (DND)

The extension will not receive extension or CO calls.

Panasonic

Proprietary Telephones
For Digital Super Hybrid System, KX-TD1232

MODEL NO. **KX-T7020/KX-T7030**
KX-T7050/KX-T7055/KX-T7130

Feature Descriptions and Operating Instructions

Matsushita Consumer Electronics Company,
Division of Matsushita Electric Corporation of America
One Panasonic Way, Secaucus, New Jersey 07094

Panasonic Sales Company ("PSC"),
Division of Matsushita Electric of Puerto Rico, Inc.
Ave. 65 de Infanteria, Km. 9.5, San Gabriel Industrial Park, Carolina, Puerto Rico 00985

Please read before using these telephones.

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Thank you for purchasing these Panasonic Telephones.

Introduction

These Proprietary Telephones, KX-T7020/KX-T7030/KX-T7050/KX-T7055/KX-T7130 can be used with the Digital Super Hybrid System, KX-TD1232 and can perform most of the functions of the system.

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*1 Feature Descriptions

*2 Operating Instructions