



### FEATURE DEFINITION MANUAL

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#### 1. INTRODUCTION

1.01 GENERAL. This practice provides definitions and descriptions of the features available to the Ericsson Prodigy PABX system. Table 1-1 contains an index to all Prodigy features, classified under four sections: Station, Attendant, System and Service Features. Each section is subdivided according to feature package, with the

features listed generally alphabetically, and in ascending numerical order. Prodigy features are further classified as either Basic or Optional. Basic features come standard with all Prodigy PABXs, while Optional features are custom-ordered for each system. Basic and Optional features are further defined in the General Description Manual, EC Publication Number 7700-GD, Tables 2-1 and 2-2.

TABLE 1-1 Prodigy Feature Index

#### I. A. STATION FEATURES — BASIC

FEATURE NUMBER	FEATURE	
0001	Abbreviated Local Dialing	
0290	Call Hold	
0314	Terminating Call Waiting	
0315	Distinctive Tone Signals	
0530	Dial Access to Attendant	
0570	Direct-In Lines (DIL)	
0580	Direct Outward Dialing (DOD)	
0630	Distinctive Ringing	
0641	DTMF and/or DC Key Pulsing	
0650	DTMF Calling	
0690	Executive Feature Access	
0700	First Party Release	
0750	Fully Restricted Station	
0790	Hot-Line Station	
0810	Immediate Ring and Ringback	
0900	Line Lockout With Warning	
0940	Loudspeaker Paging	
0942	Loudspeaker Paging, Dial Access	
0943	Loudspeaker Paging, Multizone Paging	
1210	Recall Dial Tone	
1280	Rotary Dial Calling	
1370	Single Digit Dialing	
1480	Station-to-Station Calling	
1540	Three-Way Conference Transfer	
1550	Through Dialing	
1630	Trunk Answer From Any Station	
1740	WATS Access	

### I. B. STATION FEATURES — OPTIONAL

Feature Number		F	Business Feature Package			
Number	Feature	1	2	3	*Enh.	
1410	Station Forced Busy	X		_		
1640	Trunk Forced Busy	X	-	_	_	
0160	Automatic Callback, Calling		X			
0240	Call Forwarding, All Calls	_	X			
0250	Call Forwarding, Busy, Don't Answer		X			
0260	Call Forwarding, Busy Line	1_	X		_	
0270	Call Forwarding, Don't Answer	1_	X		_	
0280	Call Forwarding, Secretary Callback	i	X	-	_	
0300	Call Pick-up (Group)	-	X	_	_	
0313	Originating, Call Waiting (Camp-On)	-	X	-	_	
0560	Direct Inward Dialing (DID)	-	X	_	_	
0620	Selective Call Pick-up		X	_	_	
0621	Call Park, Hold for Pick-up	_	1	_	_	
0944	Page Answer		X X	_	_	
0220	Busy Varification of Station 1 in-	-				
0680	Busy Verification of Station Line Executive Override	-		X	_	
1175		-	-	X	-	
* E. 1	Priority Call	-		$\mathbf{X}$	_	

<sup>\*</sup> Enhancement

### II. A. ATTENDANT FEATURES — BASIC

Feature Number	Feature
0010	Alarm Indications
0020	Alphanumeric Display on Attendant Position
0060	Attendant Console
0080	Attendant Direct Station Select (DSS) with Busy Lamp Field
0110	Attendant Overflow Facility
0120	Attendant Position
0130	Attendant Restriction
0140	Attendant Transfer, All Calls
0150	Automatic Call Distribution to Attendant
0180	Automatic Queueing to Attendant Position
0210	Busy Lamp Field
0310	Call Waiting Services
0311	Attendant Call Waiting
0312	Attendant Originating, Call Waiting
0320	Calling Number Display to Attendant

### II. A. ATTENDANT FEATURES — BASIC (continued)

FEATURE NUMBER	FEATURE
0340	Call Waiting Indication at Attendant Position
0390	Class of Service Display to Attendant
0540	Digital Clock, Attendant
0590	Direct Termination of Miscellaneous Circuits on Attendant Position
0610	Direct Trunk Group Operation, Attendant
0640	DTMF on Attendant Position
0720	Forced Release (Attendant)
0820	Incoming Call Identification
0850	Intercept Treatment
0851	Attendant Intercept
0852	Intercept Tones
0941	Loudspeaker Paging, Direct Access by Attendant
1180	Priority Queue
1490	Straightforward Outward Completion
1510	Switched-Loop Operation
1580	Timed Reminders (Attendant Recall)
1680	Trunk-to-Trunk Connections
1710	Two-Party Hold on Console

### II. B. ATTENDANT FEATURES — OPTIONAL

Feature			Business Feature Package			
Number	Feature	1	2	3	Enh	
0070	Attendant Control of Trunk Group Access	X	_	_	-	
0480	Controlled Total Restriction	X		_		
0600	Direct Trunk Group Selection	-	X	_	-	
1320	Selective Cancellation	-	X	_	<u> </u>	
1650	Trunk Group Busy Indicators on Attendant Position	_	X	_		
0100	Attendant Lockout			X	_	

### III. A. A SYSTEM FEATURES — BASIC

FEATURE NUMBER	FEATURE
0400	Class of Service Definitions
0670	DTMF to Dial Pulse Conversion
0710	Flexible Numbering of Stations
0730	Foreign Exchange Access (FX)
0880	Inward Restriction
0920	Listed Directory Number Service
0942	Loudspeaker Paging, Dial Access
0943	Loudspeaker Paging, Multizone Paging
0980	Message Waiting
1000	Multiple Listed Directory Numbers
1010	Multiple Trunk Groups
1020	Music on Hold
1070	Night Station Service (Fixed)
1130	Outward Restriction
1140	Overload Protection
1150	Power Failure Transfer, Attendant
1160	Power Failure Transfer, Station
1350	Sharing, Tenant Service
1360	Shared Attendant Service
1380	Speed Calling
1420	Station Hunting
1421	Terminal Hunting
1422	Circular Hunting
1740	WATS Access
2060	Station Condition Indicators (PABX)
2130	Standard Ground-Start Trunk Facilities
2140	Standard Loop-Start Line Facilities
2150	Standard Loop-Start Trunk Facilities
2240	Tone Characteristics on Line/Trunk Circuits

### III. B. SYSTEM FEATURES — OPTIONAL

To a decision of the second		Business Feature Package			
Feature Number	Feature	1	2	3	Enh.
0420	Code Restriction	X	_		_
0990	Miscellaneous Trunk Restriction	X	_	_	_
1530	Termination Restriction	X	_		_
1590	Toll Restriction	X	_	_	_
1592	Toll Restriction, 0/1 Access	X	<u> </u>	<del>-</del>	_
1593	Toll Restriction, Three Digits, CO Codes	X	-		_
1594	Toll Restriction, Three Digits, Area Codes	X	-	-	
1595	Toll Restriction, Six Digits, Area/CO Codes	X	_	-	_
1596	Absorb Digit(s)	X	_	-	-
1597	Ignore Digit(s)	X	_	_	_
1598	Deny Digit(s)	X	_	_	_
1599	Allow Digit(s)	X	— 		
1120	Outgoing Trunk Queueing	_	X	_	-
1121	Outgoing Trunk Call Waiting	_	X	-	
1190	Privacy and Lockout	_	_	X	_
1390	Splitting	_	_	X	_
1394	One-way Auto/Manual Splitting	_	—	X	-
1395	Two-way Auto/Manual Splitting	-	-	X	_
1690	Trunk Verification by Customer	-	-	X	_
1700	Trunk Verification by Station	-	-	X	-
0100	Automatic Route Selection (ARS)	_	_	_	X
0190 0325	Calling Number Display to Station	-		1 —	X
0325	Check In/Check Out	_	-	_	X
1390	Splitting		_	X	_
1394	One-way Auto/Manual Splitting	\	_	X	-
1394	Two-way Auto/Manual Splitting	_		X	-
1430	Station Message Detail Recording (SMDR)	-	-	-	X
1610	Traffic Measurement	-	-	-	X
1730	Wake-Up Service, Automatic		—	—	X
1800	Room Status Update	-	—	-	X
1810	Room Status Audit	-	-	-	X
1820	Direct Inward System Access (DISA)	—	-		X

#### IV. A. SERVICE FEATURES — BASIC

FEATURE NUMBER	FEATURE
2010	Power Failure Restart, ROM/PROM

#### IV. B. SERVICE FEATURES — OPTIONAL

Feature Number	Feature		Business Feature Package			
	r eacure	1	2	3	Enh.	
2000	Maintenance Facility		† —	<del> </del>	<del> </del> -	
2020	Directory Number/COS Changes	]—	-	-	X	
2050	Remote Maintenance Facility	-	_	—	X	
	Transcrance Facility		_	] —	X	

1.02 Feature Identification. The Prodigy has four types of features, all designed to provide a flexible and powerful PABX system.

Each feature type is defined in its own section, listed below.

FEATURE	SECTION
Station Features	2
Attendant Features	3
System Features	4
Service Features	5

1.03 Feature Indexing. Each section listed above has a numerically indexed table preceding the feature descriptions. These tables list the features in ascending numerical, and generally alphabetical order.

1.04 Feature Format. The feature description format used in this manual is defined below.

FEATURE TYPE	Identifies the section where the feature belongs.
FEATURE NUMBER	Identifies the feature.
DESIGNATION	Defines the feature as it applies to the Prodigy PABX.
APPLICATIONS/ BENEFITS	Provides benefits and identifies feature uses/applications.
CONDITIONS/ PREREQUISITES	Identifies the prerequisite condi- tions, equipments, and software/- hardware necessary for feature implementation.
PROGRAMMING	Provides a guide to feature programming.
OPERATION	Provides step-by step procedures for feature implementation.
NOTES	Provides data pertinent to the feature and its implementation.

2.01 General. This section contains descriptions of all the Prodigy Station Features. Table
 2-1 provides a quick reference guide to this section.

Refer to Table 1-1, Section 1 of this manual for the index to all the Prodigy PABX features.

TABLE 2-1 Station Features

FEATURE NUMBER	FEATURE DESIGNATION
0001	Abbreviated Local Dialing
0160	Automatic Callback, Calling
0220	Busy Verification of Station Line
0240	Call Forwarding, All Calls
0250	Call Forwarding, Busy, Don't Answer
0260	Call Forwarding, Busy Line
0270	Call Forwarding, Don't Answer
0280	Call Forwarding, Secretary Callback
0290	Call Hold
0300	Call Pickup-up (Group)
0313	Originating Call Waiting (Camp-On)
0314	Terminating Call Waiting
0315	Distinctive Tone Signals
0530	Dial Access to Attendant
0570	Direct-In Lines (DIL)
0580	Direct Outward Dialing (DOD)
0600	Direct Trunk Group Selection
0620	Selective Call Pick-up
0621	Call Park, Hold for Pick-up
0630	Distinctive Ringing
0641	DTMF and/or DC Key Pulsing
0650	DTMF Calling
0680	Executive Override
0690	Executive Feature Access
0700	First Party Release
0750	Fully Restricted Station
0790	Hot-Line Stations
0810	Immediate Ring and Ringback
0900	Line Lockout with Warning
0940	Loudspeaker Paging
0944	Page Answer
1175	Priority Call
1210	Recall Dial Tone
1280	Rotary Dial Calling
1370	Single Digit Dialing
1410	Station Forced Busy
1480	Station-to-Station Calling
1540	Three-way Conference Transfer
1550	Through Dialing
1630	Trunk Answer From Any Station (TAFAS)
1640	Trunk Forced Busy
1740	WATS Access

### ABBREVIATED LOCAL DIALING

DESCRIPTION	Abbreviated codes are assigned to selected internal stations or attendant groups to enable station users to dial fewer digits when calling these stations or attendants.
	When a station user or an attendant dials an abbreviated dialing code, consisting of one up to four digits, and does not follow with more numbers within the designated timeout period, the system interprets these digits as a dialing code. The call is then automatically completed.
	Abbreviated dialing codes and the stations or attendant groups to which these codes are assigned, are defined in the configuration data.
	A maximum of eight abbreviated dialing codes at a time are available for assignment.
	Attendant groups are normally assigned the single digit dialing code of zero (0).
APPLICATIONS/	Used in Hotel/Motel applications for guest services.
BENEFITS	Allows interpositional attendant dialing.
	Allows faster access to individual extensions and hunt groups.
CONDITION	Abbreviated codes may overlap extension numbers/feature access codes, but will require a timeout to terminate dialing.
PROGRAMMING	Timeout period: 0-31 seconds.
	Basic System.
	Feature Access Codes/Class of Service (COS) option numbers 60-67.
	Abbreviated Dialing Codes 1 to 8.
	Add Destination Equipment (Extension Equipment — Number).
	Default 601 used for Abbreviated Dialing Code 1 = Attendant Group 1.
OPERATION	TO ACCESS:
	1. Go off-hook: dial tone is heard.
	2. Dial the Abbreviated Dialing Code assigned to the destination station.
	3. Wait for timeout period: ringback tone is heard.
NOTES	The configuration data can be defined to enable tenants (refer to Feature 1350, Sharing) in the same PABX to call common stations or attendant groups without using trunk facilities. This is accomplished by dialing either the same or different abbreviated dialing codes.
	Single Digit Dialing (Feature 1370) is a special case of Abbreviated Local Dialing.

0160

### AUTOMATIC CALLBACK, CALLING

#### **Business Feature Package 2**

#### DESCRIPTION

This feature enables an authorized station user, upon encountering a busy extension or trunk group, to have the call completed when the called station or trunk becomes idle.

After feature activation, the switch continuously monitors both calling and called stations. When both become idle, the calling station receives distinctive ringing. When the calling station goes off-hook, the called station or trunk is rung, and the calling station hears ringback tone.

This feature is released when the connection is established, or when the callback timeout period, set by configuration data, expires.

The calling subscriber can receive and initiate other calls while waiting for Automatic Callback.

#### APPLICATIONS/ BENEFITS

Maximizes the use of trunk circuits.

Saves time and effort, prevents misdialing.

#### CONDITIONS

An unlimited number of callback requests can be activated simultaneously in the system.

Callback requests are processed according to their order of entry if more than one request is stored for a busy station.

Both the calling station and the called station must be idle before Automatic Callback can take effect.

A callback request cannot be cancelled by the calling station or the attendant.

If the called station is idle and the calling station is busy, the call is tried again when the calling station goes on-hook. The calling station receives distinctive ringing.

If the called party is idle, and the calling party is busy, then the call is tried again when the calling party hangs up. Before the calling party goes idle, if the called party goes off-hook, a busy tone is returned to the called party. The Automatic Callback feature has to be activated once more.

If any of the following features are active at the initiating station, they are ignored when the callback occurs:

- Call Forwarding
- Station Hunting
- Call Forwarding, No Answer

This feature is rejected if the called station is busy from features such as Station Forced Busy and Data Privacy.

Duplicated callback requests are ignored. The last callback request overrides all others.

A callback that is not answered within 300 seconds is automatically cancelled.

AUTOMATIC CAL	LBACK, CALLING 016
PROGRAMMING	Feature access code/COS option number 400.  Timing Parameters:  1. Auto-callback Timer 1: Default is normally 300 seconds.  Timer values can be set from 0 to 7620 seconds (Busy Station/Trunk).  2. Auto-callback Timer 2: Default is normally 300 seconds.  Timer values can be set from 0 to 7620 seconds (Busy Trunk).  3. Auto-callback Timer 3: Default is normally 300 seconds.  Timer values can be set from 0 to 7620 seconds (Originating Station).  4. Auto-callback Timer 4: Default is normally 300 seconds.
OPERATION	Timer values can be set from 0 to 7620 seconds (Ringing of Originating Station).  TO ACTIVATE:
	<ol> <li>Hookflash: dial tone is heard.</li> <li>Dial the Automatic Callback access code: confirmation tone is heard.</li> <li>Go on-hook. Distinctive ringing will be heard when called station is free.</li> </ol>
NOTES	Refer to Feature 0313 for Originating, Call Waiting (Camp-On).  Refer to Feature 1410 for Station Forced Busy condition.

### BUSY VERIFICATION OF STATION LINE

#### **Business Feature Package 3**

#### DESCRIPTION

This feature enables an authorized attendant or station user to verify the actual status of an apparently busy internal station line.

By activating this feature, the verifying party can determine whether the station is actually busy, or falsely busy due to equipment problems or failure of the user to go on-hook.

#### APPLICATION/ BENEFIT

Attendants or authorized stations can verify busy stations for other callers.

#### CONDITIONS

If the station to be verified is idle, it is rung normally.

If the station being verified is busy but not in a talking connection:

• The verifying party is placed in the Call Waiting mode and continues to receive a busy tone.

If the station being verified is busy in conversation:

- The verifying party breaks in and talks exclusively to the station.
- Both the station being verified and the party it is connected to hear an override tone to warn them of the attendant break-in.
- The station connected to the station being verified is placed on hold during the break-in.
- When the verifying party disconnects, the station returns automatically to the call on hold.

Busy Verification of Station Line overrides the following features that are in effect in the station to be verified:

- Call Forwarding, Busy Line (Feature 0260)
- Controlled Total Restriction (Feature 0480)
- Station Forced Busy (Feature 1410)
- Station Hunting (Feature 1420)

#### **OPERATION**

#### TO INITIATE THIS FEATURE FROM THE CONSOLE:

- 1. Go off-hook: dial tone is heard.
- 2. Dial extension number which appears busy on BLF/DSS: busy tone is heard.
- 3. Press Sender key, then dial Busy Verification access code: connection is established.

#### TO INITIATE THIS FEATURE FROM A STATION:

- 1. Go off-hook: dial tone is heard.
- 2. Dial number of station to be verified: busy tone is heard.
- 3. Hookflash, then dial Busy Verification access code: connection is established.

### CALL FORWARDING, ALL CALLS

### Business Feature Package 2

	- The state of the
DESCRIPTION	All calls to a station that has this feature in effect are automatically rerouted to another internal station, an attendant, or a hunt group, regardless of the busy or idlestate of the forwarding station.
	The station activating this feature receives a splash ring before a call is forwarded Calls can still be originated normally from the forwarding station.
APPLICATION/ BENEFIT	Provides flexibility to the station user. A station user who cannot answer incoming calls can assign another station to receive them.
CONDITIONS	The forwarding station, if idle, receives a short ring to indicate that a call has been forwarded.
	A call forwarded to a station that has already activated this feature is not forwarded again, but is placed to that station.
	A station can activate only one type of call forwarding at a time.
	If the station forwarded to is authorized for Call Forwarding, Secretary Callback (Feature 0280), it may call the forwarding station. Otherwise, busy tone is returned.
	Calls directed via hunting to the forwarding station are not forwarded, but continue in the hunt pattern.
	Calls forwarded to a station which is the master of a hunt group do not hunt, unless the station is busy.
	Any call forwarding feature activation is cancelled after recovery from power failure.
	A station cannot reforward calls unless it is authorized to do so. However, a station not authorized to reforward calls can request an attendant to perform the reforwarding.
	Reforwarding is performed at a single level: the new call forwarding command simply replaces the previous command to the station initially forwarded to.
	This feature can be released by either an authorized station user or attendant who dials the Selective Cancellation feature access code (Feature 1320), followed by the directory number of the station. Confirmation tone is returned if the feature cancellation is accepted, rejection tone if denied.
	This feature is also released by reforwarding a station to itself.
	An unlimited number of call forwarding capabilities are available in the system.
PROGRAMMING	Feature Access Codes/COS Option Number 401.
	Call Forwarding Timer — Timer Parameters can be set between 20 seconds and 7620 seconds.

CALL FORWARDING, ALL CALLS	
OPERATION	<ol> <li>TO INITIATE:</li> <li>Go off-hook: dial tone is heard.</li> <li>Dial Call Forwarding, All Calls access code and extension number of station forwarded to: confirmation tone is heard.</li> </ol>
	<ol> <li>TO CANCEL:</li> <li>Go off-hook: dial tone is heard.</li> <li>Dial selective cancellation code: Confirmation tone followed by dial tone are heard.</li> <li>Go on-hook or proceed to next call.</li> </ol>

# CALL FORWARDING, BUSY, DON'T ANSWER Business Feature Package 2

	Dusiness reature rackage 2
DESCRIPTION	Calls to a busy station, or to a station that fails to answer within a predetermined period of time, are routed to another station or attendant. This feature can be activated or cancelled by the station user or by an attendant.
APPLICATION/ BENEFIT	Prevents calls to busy stations or stations that fail to answer, from being missed.
CONDITIONS	Calls to a busy station, or to a station that does not answer within the period of time specified in the configuration data, are rerouted to a designated alternate station of attendant.
	Calls directed to the busy station through station hunting are not forwarded but continue in the hunt pattern.
	Calls forwarded to a station which is the master of a hunt group are forwarded (do not hunt).
	Calls forwarded to a busy station continue to hunt for an idle station only if the station forwarded to is the master of the hunt group.
	The originating station user may be reforwarded to another station or attendant from any of the following, if authorized:
	<ul> <li>Originating Station</li> <li>Secondary location (forwarded to)</li> <li>Attendant.</li> </ul>
PROGRAMMING	Feature Access Codes/COS Option 401.
	Call Forwarding Timer: Timer Parameters can be set between 20 seconds and 7620 seconds.
OPERATION	TO ACTIVATE:
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial Call Forwarding, Busy, Don't Answer access code and the number of the station forwarded to: confirmation tone is heard.</li> <li>Go off-hook.</li> </ol>
	TO CANCEL:
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial selective cancellation code: confirmation tone, followed by dial tone are heard.</li> <li>Go on-hook, or proceed to next call.</li> </ol>

## CALL FORWARDING, BUSY LINE

### **Business Feature Package 2**

DESCRIPTION	Calls destined for a busy station that has activated this feature are automatically rerouted to a designated alternate station or attendant. When the station is idle, calls are processed normally, even if the feature is in effect.
APPLICATIONS/ BENEFITS	An alternate station user or attendant answers calls to a busy station, providing faster response to incoming calls.
	Calls to busy stations are not lost.
CONDITIONS	All conditions of Call Forwarding, All Calls apply except for the access code used which is Call Forwarding, Busy Line access code.
	The station user or an attendant can activate or cancel this feature.
	The originating station user may be reforwarded to another station, or to an attendan from any of the following, if authorized:
	<ul> <li>Originating station</li> <li>Secondary location (station forwarded to)</li> <li>Attendant position.</li> </ul>
PROGRAMMING	Feature Access Codes/COS — Option 402.
OPERATION	TO ACTIVATE:
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial Call Forwarding, Busy Line access code and extension number (station forwarded to): confirmation tone, followed by dial tone are heard.</li> <li>Go on-hook, or proceed to new call.</li> </ol>
	TO CANCEL:
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial Selective Cancellation code: confirmation tone, followed by dial tone are heard.</li> </ol>

### CALL FORWARDING, DON'T ANSWER

### Business Feature Package 2

All calls to a station that are not answered within a predetermined time period are forwarded to an attendant or another extension. The calls forwarded to an attendant are indicated on the console alphanumeric display as: NA (No Answer), number of the station the call was forwarded from, and the number of the calling party. The operator receives the call on the operator button.
All calls to station users who are away from their telephones are forwarded to a secretary or co-worker. The feature is totally flexible and the destinations can be changed according to the station user's needs.
All calls to a station which does not answer within the period of time specified in the configuration data are rerouted to an attendant or a designated station.
All conditions listed in Call Forwarding, All Calls apply.
Unlimited access to Call Forwarding, Don't Answer feature available.
Feature Access Codes/COS — Option 404.
Call Forwarding Timer 1: 20 seconds — 7620 seconds (length of time prior to forwarding call).
TO ACTIVATE THIS FEATURE:
<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial Call Forwarding, Don't Answer access code and number of the station for warded to: confirmation tone, followed by dial tone are heard.</li> <li>Go on-hook, or proceed to new call.</li> </ol>
TO CANCEL:
<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial the selective cancellation code: confirmation tone, followed by dial tone ar heard.</li> <li>Go on-hook or proceed to new call.</li> </ol>

0280

# CALL FORWARDING, SECRETARY CALLBACK

<b>Business</b>	Feature	Pack	kage	2
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DESCRIPTION	This feature enables an authorized station user or attendant to call a station directly, overriding any call forwarding feature (Features 0240, 0250, 0260, 0270) activated on that station.
APPLICATIONS/	Allows a secretary or a co-worker to relay accumulated messages.
BENEFITS	Allows a secretary or the station user, to whom calls are forwarded, to remind the forwarding station that the feature is still in effect.
CONDITIONS	Does not require a feature access code.
	The called station receives distinctive ringing.
PROGRAMMING	None.
OPERATION	TO ACTIVATE:
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial call forwarding station: ringback tone is heard, call is processed normally.</li> </ol>

### **CALL HOLD**

DESCRIPTION	This feature enables a station user to maintain an established telephone connection by placing the call on hold, thus making the same line available for either originating another call, returning to another call which had been previously placed on hold, or for using another facility provided by the Prodigy system.
APPLICATIONS/ BENEFITS	Provides flexibility, eliminates the need for multi-line telephones, since up to three parties can be placed on hold while conversing with a fourth party.
	Held calls are easy to retrieve: the same access code used to place the call on hold is dialed to retrieve it.
	This feature is available to any authorized station user.
CONDITIONS	A call placed in the hold mode must be retrieved within a predetermined time period (set by configuration data). Otherwise, the station that activated this feature receives a splash ring every minute until the call is retrieved.
	Any authorized station user can place a call on hold by dialing a Call Hold access code. This same access code is used to retrieve the call from the hold queue.
	A station user can place up to three calls into separate hold queues. Each hold queue is unique for each station on hold.
	A party on hold may not hookflash, but can disconnect anytime.
	If two of the parties in a three-way conference are placed on hold, both parties are placed in one hold queue.
	Conferencing between held parties is not allowed.
	Recall dial tone, which lasts for a preset time period, is returned after placing a call on hold. Dialing must be initiated within this time period, otherwise dial tone is removed.
	A subsequent hookflash returns the recall dial tone.
	A station user can toggle between an active party and a party it has placed on hold.
	One call at a time is retrieved.
	Music is heard by the party on hold if the Music on Hold feature is provided in the system.
PROGRAMMING	• Hold 1 — Feature Access Codes/COS — Option 36.
	• Hold 2 — Feature Access Codes/COS — Option 37.
	• Hold 3 — Feature Access Codes/COS — Option 38.

CALL HOLD	0290
OPERATION	TO PLACE A CALL ON HOLD:
	<ol> <li>Hookflash: stutter tone/dial tone is heard.</li> <li>Dial call hold code: dial tone is heard.</li> <li>The caller on hold hears either music (if provided), or continuous beeps (if it is not).</li> <li>A call may now be placed, another feature activated, or a new call received.</li> </ol>
	TO RETRIEVE A CALL ON HOLD:
	<ol> <li>Dial the same call hold access code used when placing the call on hold.</li> <li>Resume conversation.</li> </ol>

### CALL PICKUP (GROUP)

### **Business Feature Package 2**

DESCRIPTION	This feature enables a station of
	This feature enables a station user to answer any incoming calls directed to anothe station within the station user's predefined pickup group.
APPLICATION/ BENEFIT	A ringing telephone in a pickup group can be answered from any pickup group member's station. The station user does not have to get up and go to the ringing telephone. This feature is usually assigned to office departments such as Sales or Personnel.
CONDITIONS	Members of the call pickup group are determined by the configuration data.
	A station can belong to only one pickup group.
	The Prodigy has a maximum of 32 pickup groups.
	There are a maximum of 63 members in one pickup group.
	One feature access code is provided for all groups.
	If more than one station user within the pickup group attempts to answer a ringing station, the first station user who dialed picks up the call and the other members receive dial tones.
	Any station that is a member of a call pickup group can be programmed so that while it can perform Call Pickup, calls directed to it cannot be picked up by the other members of the pickup group.
PROGRAMMING	Feature Access Codes/COS: Option 406.
	Station pickup group definition — (pickup group member) station equipment numbers.
OPERATION	TO ACCESS:
	<ol> <li>Hear ringing extension in your group.</li> <li>Dial call pickup group access code.</li> <li>Talk to calling party.</li> </ol>
	TO CANCEL:
	1. Go on-hook.

0313

### ORIGINATING, CALL WAITING (CAMP-ON)

Basic Feature (For Attendant Console)
Business Feature Package 2 (For Stations)

#### A station calling a busy station, trunk, or trunk group is held in a special waiting mode DESCRIPTION while a tone burst is directed to the busy destination. A station is automatically placed in a Call Waiting mode after receiving a busy tone from a busy station or trunk for a period of time (predefined in the configuration data). The applications/benefits provided in Feature 0310, Call Waiting Services, apply. APPLICATION/ BENEFIT Originating, Call Waiting is a Basic Feature for the attendant console and requires the CONDITIONS Business Feature Package 2 for stations. More than one station can call wait a busy station, trunk, or trunk group at a time. Stations that are call waiting are answered on a first-in/first-out basis. The busy called station receives a warning tone when the Call Waiting feature is activated. Call Waiting has priority over Automatic Callback, Calling (Feature 0160). Calling stations are allowed access to this feature by class of service. Call Waiting is rejected if a station is busy from Station Forced Busy (Feature 1410). After receiving the Call Waiting tone, the called station who wants to maintain its current telephone connection, invokes Call Hold (Feature 0290) before answering the waiting call. Only the called station hears the distinctive Call Waiting tone signals. TO ACTIVATE: **OPERATION** 1. Go off-hook: dial tone is heard. Dial station number or trunk group access code: busy tone is heard. Remain off-hook for preset time needed to activate this feature. Speak to called party, or dial out on the trunk in the normal manner. TO CANCEL:

Go on-hook.

STATION FEATURE 0314 TERMINATING CALL WAITING **Basic Feature (For Attendant Console) Business Feature Package 2 (For Stations)** DESCRIPTION This feature provides the station user, who is busy on another call, with Call Waiting Service and distinctive tone signals which indicate that a call is attempting to terminate on the user station. APPLICATION/ A busy station user is made aware not only of any incoming call that is waiting to be BENEFIT answered, but also whether the call is internal or external. CONDITIONS Refer to Features 0310, 0311, 0312 and 0313 for more information. **PROGRAMMING** None. **OPERATION** TO ACCESS: Upon hearing the Call Waiting tone, the called station user can connect to a waiting call by either: · Going on-hook, thus terminating the existing call, or

established.

 Invoking Call Hold, to maintain the existing call, then going on-hook, after which the called station is rung and connection to the waiting call is

### DISTINCTIVE TONE SIGNALS

Distinctive tone signals are provided to indicate to a busy station user the source of a call that is waiting to be answered.
Two distinctive tone signals are provided, typically consisting of:
<ul> <li>One burst of tone, indicating a waiting station call.</li> <li>Two bursts of tone, indicating a waiting attendant or trunk call.</li> </ul>
The station user is made aware of the source of the waiting call, and knows how to answer.
Distinctive tone signal patterns are defined in the configuration data.
None.
None.

### DIAL ACCESS TO ATTENDANT

DESCRIPTION	This feature enables any internal station user to reach an attendant by dialing a single-digit code, usually "0."
APPLICATION BENEFIT	A station user is immediately connected to an attendant through a single-digit dialing code.
CONDITIONS	The attendant who is reached through the single-digit dialing code is a member of the attendant group serving the dialing party, as defined in the configuration data.
	The single-digit dialing code is usually defined in the configuration data so that one access code allows all station users to reach an attendant.
	The code to reach an attendant is usually defined in the configuration data as Single Digit Dialing Code "0."
PROGRAMMING	None.
OPERATION	TO ACCESS:
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial attendant access code: ringback tone is heard.</li> </ol>

### **DIRECT-IN LINES**

DESCRIPTION	This feature allows separate incoming central office lines to bypass the attendant con sole and directly terminate to a station or hunt group. Direct-In Lines (DIL) have ful capability of being transferred to other stations within the system and are provided with unanswered call intercept to the attendant. A station assigned a DIL caractivate all normal PABX features.
APPLICATIONS/ BENEFITS	This feature provides an inexpensive alternative to Direct Inward Dialing.  Alleviates traffic at the attendant console, since the customer can place or receive call without attendant assistance.  Allows direct access to stations at night, when the attendant is not present.  Calls directed to various departments with stations which are hunt group member avoid operator delay.
CONDITIONS	All normal PABX features can be activated from an extension assigned a DIL.  Camp-on indication is not heard when the DIL is directed to a hunt group.  Trunks can be programmed for attendant intercept treatment.
PROGRAMMING	<ul> <li>Trunk Equipment Definition: Define Origination Type = can either be:</li> <li>Origination Type 2 = Incoming Only — direct line, or</li> <li>Origination Type 4 = Bothway — direct line, or</li> <li>Origination Type 3 = Bothway — manual line (if DIL is activated during position busy only).</li> <li>Define the station equipment number under direct line directory number category.</li> <li>Define the station equipment number under Assigned Night Answer.</li> </ul>
OPERATION	None.

### DIRECT OUTWARD DIALING

DECORIDEROS	
DESCRIPTION	This feature enables authorized stations users to originate external calls by dialing a specific access code. No attendant assistance is required to complete the call. Different types of toll restrictions can be applied to the stations, even if the same trunk circuits are used.
APPLICATION/ BENEFIT	Allows the customer direct access to outgoing trunks without any attendant assistance.
CONDITIONS	A maximum of six trunk group access codes is available.
	Access to individual trunk groups is determined by class of service and toll restrictions applicable to that trunk group.
	There are 31 trunk groups available system-wide.
	The 32nd trunk group is used for the Trunk Select button on the attendant console.
	If toll restriction is applied, Business Feature Package 1 is required.
PROGRAMMING	Feature Access Codes/COS — Options 50-55 (trunk group access codes and COS allocations).
	Trunk Equipment Definition — all categories.
	Trunk Group Definition — add trunk equipment numbers for group members.
	Timeouts — system — trunk dial done $0-310$ seconds, trunk first digit $0-310$ seconds.
	Trunk Access Assignments.
OPERATION	TO ACCESS:
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial trunk group access code: central office dial tone is heard.</li> <li>Dial the desired external number.</li> </ol>

### DIRECT TRUNK GROUP SELECTION

### **Business Feature Package 2**

DESCRIPTION	This feature enables the attendant to easily access a specific trunk group through the Direct Trunk Group Select Module (DTGSM).
APPLICATIONS/ BENEFITS	The attendant can see at a glance if the trunk groups are busy or idle.  Dial tone is obtained more quickly by simply pressing the individual trunk group number, rather than by dialing access codes.
CONDITIONS	Only trunk groups 01-15 are displayed on the Direct Trunk Select Module.  The Direct Trunk Group Select Module is optional.
	The lamp associated with each trunk group lights when all trunk circuits within the group are busy and/or out of service.
	The attendant can use the Direct Trunk Selection Module in order to access a specific trunk circuit.
OPERATION	TO ACCESS A TRUNK GROUP:  1. Go off-hook. 2. Press trunk group number on DTGSM: dial tone is heard.  TO CANCEL REQUEST:
	Press CANCEL key.

### SELECTIVE CALL PICKUP

### **Business Feature Package 2**

DESCRIPTION	This feature enables a station user to answer calls directed to any station within the Prodigy PABX by dialing an access code and the called station's directory number.
APPLICATIONS/ BENEFITS	A station user does not have to go to a ringing telephone on another desk to pick up the call.
	Enables the station user to answer a specific ringing telephone, unlike group pickup
CONDITIONS	An unlimited number of simultaneous call pickups is possible.
	A station user who dials the Selective Call Pickup access code and the directory number of a station which is not ringing, receives a dial tone.
	If more than one station user dials the Selective Call Pickup code, the first station that dialed intercepts the call.
PROGRAMMING	Feature Access Codes/COS: Option 407.
OPERATION	TO ACCESS:
	1. Go off-hook: dial tone is heard.
	2. Dial the Selective Call Pickup code: dial tone is heard.
	3. Dial the number of the ringing station: call is completed.

### CALL PARK, HOLD FOR PICKUP

**Business Feature Package 2** 

#### The Call Park, Hold for Pickup feature enables a station user or attendant to place up DESCRIPTION to 10 callers on hold systemwide. The attendant or station user can then page the called party, then allow the paged party to intercept the held call from a remote location. Saves time when trying to locate personnel who are away from their telephones. APPLICATIONS/ The paged party can pickup the call from any station number authorized for this BENEFITS feature. A maximum of ten Call Park access codes per system are available. CONDITIONS The attendant must have a Direct Trunk Select Module for Call Park activation. If the console does not have a Direct Trunk Select Module, the attendant can activate Call Park by keying the Call Park, Hold for Pickup access code, then dialing any digit between 0 and 9. Calls can be originated from or received in the normal manner at a station that has this feature in effect. Trunk calls recall the attendant after timeout. Feature Access Codes/COS: Option 408. **PROGRAMMING** Timer parameters: 0 to 7620 seconds (time allotted to trunk prior to recall to the attendant). TO ACTIVATE CALL PARK: **OPERATION** 1. Go off-hook: answer incoming call. 2. Hookflash: dial tone is heard.

3. Dial Call Park code and any digit between 0-9: confirmation tone is heard.

#### PAGING CAN NOW PROCEED:

- 1. Dial page access code: dial tone is heard.
- 2. Make announcement, including Call Park pickup code.

#### TO RETRIEVE REMOTELY FROM STATION:

- 1. Go off-hook: dial tone is heard.
- 2. Dial Call Park Pickup access code and park number
- 3. Connection with the held party is established.

### DISTINCTIVE RINGING

DESCRIPTION	Unique patterns of station ringing are provided to enable station users to distinguish between different types of calls.
APPLICATION/ BENEFIT	Enables station users to know the types of incoming calls, such as internal, external or priority calls.
CONDITIONS	If Immediate Ring and Ring Back (Feature 0810) is not activated, ringing in the Prodigy system is synchronized so that all ringing stations are either in the ringing part or the silent part of the ringing cycle at any one time.
	Up to 10 ringing patterns can be defined in the Prodigy system.
	Typical sets of ringing patterns available with the system are:
	One-burst ringing: indicates station-to-station call.
	Two-burst ringing: indicates either an external or attendant call.
	<ul> <li>Three-burst ringing: indicates special types of calls, such as Automatic Callback.</li> </ul>
	Without Immedicate Ringing, the silent part of the ringing cycle is used to activate Message Waiting lamps, since ringing and Message Waiting indication cannot take place simultaneously in the PABX system. Ringing has priority if the Message Waiting feature is in effect and Immediate Ringing occurs during the Lamp On interval.
PROGRAMMING	None.
OPERATION	None.
NOTES	1. Refer to Feature 0160, Automatic Callback, Calling.
	2. Refer to Feature 0810, Immediate Ring and Ringback.
	3. Refer to Feature 0980, Message Waiting.

## DTMF AND/OR KEY PULSING ON STATIONS

#### **Basic Feature**

DESCRIPTION	The Prodigy PABX accommodates both rotary and dual tone multifrequency (DTMF) dial stations.
	The Prodigy PABX automatically performs station-DTMF-to-central office-rotary pulse conversion on all outgoing trunks.
APPLICATION/ BENEFIT	The Prodigy PABX provides the convenience and speed of a touch-tone telephone, while saving the customer money by using rotary pulse trunk circuits.
CONDITIONS	Feature implementation requires a DTMF card.
	When using a touch-tone telephone and accessing a touch-tone trunk, the touch-tone decoder stays on after the trunk access code is dialed, if the call being processed is a toll call or if the SMDR feature is in effect.
	When using a rotary telephone and accessing a touch-tone trunk, the touch-tone decoder stays on-line until the last digit is dialed.
PROGRAMMING	Trunk define. Under the DTMF or rotary category, use Digit 1.
OPERATION	None.

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## **DTMF CALLING**

OPERATION	None.
PROGRAMMING	Trunk define. Under the DTMF or rotary category, use Digit 1.
CONDITION	Feature implementation requires a DTMF card.
APPLICATION/ BENEFIT	The speed and convenience of a touch-tone telephone is provided at a lesser cost by using rotary pulse trunk circuits.
DESCRIPTION	This feature utilizes pushbutton-operated audible tones at a calling station. A series of these audible tones represent either the address of a called facility, or an instruction to a dial-controlled device.

0680

## EXECUTIVE OVERRIDE

## **Business Feature Package 3**

DESCRIPTION	An authorized station user or attendant who encounters a busy signal on a call to an internal station can break into the existing conversation by activating the Executive Override feature. An override tone, consisting of three short tone bursts, warns the overridden station of the break-in.
APPLICATION/ BENEFIT	In case of an emergency, management personnel or an attendant can have an immediate connection to a busy internal station. By placing the party that the called station is connected to on hold, the overridden station user is spared of any awkward situations.
CONDITIONS	One override at a time per station is allowed.
	Overriding stations are not allowed to hookflash.
	The overridden station can hookflash to disconnect the overriding station or attendant.
	An extension that is locked out cannot be overridden.
PROGRAMMING	Feature Access Codes/COS: Option 500.
OPERATION	TO ACCESS EXECUTIVE BUSY OVERRIDE FROM EXTENSION:
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial extension number: busy tone is heard.</li> <li>Hookflash: dial tone is heard.</li> <li>Dial access code: connection to overridden extension is established.</li> </ol>
	TO ACCESS EXECUTIVE BUSY OVERRIDE FROM CONSOLE:
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial extension number: busy tone is heard.</li> <li>Press sender button: dial tone is heard.</li> <li>Dial access code: connection to overridden extension is established.</li> </ol>

## **EXECUTIVE FEATURE ACCESS**

## Business Feature Package 3

	<del></del>
DESCRIPTION	A station user authorized for Executive Feature Access can place an existing call connection or a ringing sttion on hold, then initiate other authorized dialing operations
APPLICATION/ BENEFIT	An executive who activates this feature can initiate a three-way conference by connecting the party on hold with a new party.
CONDITIONS	An executive who hookflashes and dials a second station while the first station is still ringing places the first station on hold. Ringing continues at the first station until it goes off-hook, then it receives a hold tone.
	The executive station user must dial the Call Split Access Code after hookflashing, otherwise the party to be placed on hold is disconnected.
	If the executive station user hookflashes and dials the Call Split Code after initiating a three-way conference, the two members of the conference who are placed on hold can continue to talk while in the hold mode.
	An executive station cannot transfer a three-way conference.
	Hookflash attempts by the parties on hold are ignored by the system.
	A maximum of two ringing or talking parties, including a three-way conference, can be placed on hold at a time.
	An executive station user can place a ringing station on hold by hookflashing and dialing the Call Split Access Code.
	Recall timeout for the party on hold applies.
	A hookflash attempt by the executive station user who is in conversation with the attendant is ignored by the system.
	If the access code dialed is unauthorized or the called station is busy, the executive station user can hookflash to receive dial tone again. Another directory number or feature access code can then be dialed, otherwise, another hookflash retrieves the party previously placed on hold.
	If the executive station user goes on-hook without retrieving a held party, the executive station is rung. Connection is re-established when the executive station answers. However, a held call that is in the ringing state is released if the executive station user goes on-hook without retrieving it.
PROGRAMMING	Feature Access Codes/COS Option 503 (Conference Merge), Option 504 (Call Splitting Talk Extension), Option 505 (Call Splitting Talk City), and applicable access codes.
PERATION	TO SET-UP:
	A. Conference Merge
	1. Go off-hook: either answer incoming call, or originate a call.
	2. Hookflash: dial tone is heard.
	<ol> <li>Dial Call Split Access Code — either city or extension: dial tone is heard.</li> <li>Either go on-hook to receive a second call or dial a second party.</li> </ol>
	5. Hookflash: dial tone is heard.
<u> </u>	6. Dial Conference Merge Access Code: connection to both parties is established.

#### **EXECUTIVE FEATURE ACCESS**

0690

# OPERATION (continued)

#### B. To Place a Station on Hold

- 1. Hookflash: dial tone is heard.
- 2. Dial Call Split Station Access Code: dial tone is heard (party placed on hold receives hold tone).
- 3. Either dial another party or initiate other authorized dialing operations.

#### C. To Place an External Incoming Call on Hold

- 1. Hookflash: dial tone is heard.
- 2. Dial Call Split City Access Code: dial tone is heard.
- 3. Either dial another party or initiate other authorized dialing operations.

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## FIRST PARTY RELEASE

## Basic Feature Package

DESCRIPTION	A call connection between two parties is released by the first party that hangs up.
APPLICATION/ BENEFIT	A call connection is released as soon as one party goes on-hook and the line becomes available immediately.
CONDITIONS	Either one of two parties engaged in a station-to-station call can go on-hook and release the connection. The party that remains off-hook receives dial tone.
	A trunk connection is released if the station party in a station-to-trunk call goes on hook first.
	If the trunk party in a station-to-trunk call goes on-hook first and trunk release signaling is provided from the central office, then the station connection is released. It the station remains off-hook, it receives PABX dial tone.
	If trunk release signaling is not provided from the central office, the station party in a station-to-trunk call must go on-hook before the call can be released, regardless of whether the trunk party has gone on-hook or not.
	In a PABX trunk-to-trunk connection, where both trunks provide release signaling the connection is released when either party goes on-hook.
	In a PABX trunk-to-trunk connection where both trunks do not provide release signaling, a third party, such as an authorized station or an attendant, is required to break the connection.
	The configuration data defines the type of trunk release signaling.
PROGRAMMING	Trunk Signal — Trunk Signaling Parameters:
	<ul> <li>Timer Parameter 2 = Disconnect</li> <li>Timer Parameter 7 = CO Release</li> </ul>
OPERATION	Go on-hook.

0750

STATION FEATURE

## **FULLY RESTRICTED STATION**

DESCRIPTION	This feature denies selected stations the ability to place or receive all, except internal PABX, calls. Access to and from the attendants, however, is allowed if access to other features is desired.
APPLICATION/ BENEFIT	This feature is usually applied to the operations or back office areas to avoid abuse of the telephone and waste of company time.
CONDITIONS	Incoming/outgoing trunk calls to/from restricted stations are intercepted (Feature 0850, Intercept Treatment).
	Full restrictions can be applied to an unlimited number of stations.
	Fully Restricted Station feature is defined in the configuration data for each station line.
PROGRAMMING	Station Define — Station Equipment Definition:
	Origination Type 1 = Outward Calls Restricted (Outgoing trunk)
	Origination Type 2 = Deny Origination (No dial tone)
	Termination Type 4 = Trunk Terminations Restricted
	Feature Access Codes/COS: Option 8 = No hookflash capability.
OPERATION	None.

## **HOT-LINE STATIONS**

DESCRIPTION	This feature allows stations to be programmed so that upon going off-hook, direct connection to an attendant or a pre-assigned station is automatically established.
APPLICATION/ BENEFIT	This feature is most frequently used in hotel/motel applications where courtesy tele phones (such as lobby or house telephones) are required.
CONDITIONS	Hot-line calls can be directed either to stations or an attendant group.
	Each Prodigy cabinet can have a maximum of 128 Hot-lines.
	A Hot-line call is forwarded if the called station or attendant group has either Call Forwarding (Features 0240-0270) or Group Forwarding (Feature 0770) invoked.
	Hot-line stations can receive incoming calls.
	A Hot-line station and its destination station or attendant group are defined in the configuration data.
PROGRAMMING	Station Equipment Definition:
	• Origination Type 4 = Hot-line, internal.
	Hot-line Station Destination Directory Number = Extension number the Hot-line is destined to go to.
OPERATION	TO ACCESS HOT-LINE:
	<ol> <li>Go off-hook: ringback tone is heard.</li> <li>Connection is established when called party goes off-hook.</li> </ol>

#### IMMEDIATE RING AND RINGBACK

DESCRIPTION	On all calls to station lines within the PABX (except where ringing comes from a source other than the PABX), the start of the ringing cycle is synchronized to initiate ringing within 200 ms after line tests indicate idle status.
CONDITIONS	The station set begins ringing immediately after the connection is made. The calling party hears ringback independent of the station ring cycle.
	If message waiting is a part of the system and if ringing occurs during the "Lamp On" interval, the ringing has priority over Message Waiting.
OPERATION	None.

#### LINE LOCK-OUT WITH WARNING

#### **Basic Feature**

#### DESCRIPTION A station line that remains off-hook without any dialing activity after a predetermined period of time receives a high volume, distinctive tone (howler tone). The attendant receives an alarm at the console and is able to hear and speak with the off-hook station before placing it out of service. APPLICATIONS/ This feature is especially useful in hospitals, nursing homes, or hotel rooms, where BENEFITS the attendant is able to hear and communicate with the station user in case of an emergency. Receivers (dial tone generators) are not tied up accidentally; other stations do not receive delayed dial tone. The following events occur if a station remains off-hook after a predetermined period CONDITIONS of time without any dialing activity: 1. Howler tone is received. 2. Calls cannot be originated. 3. Howler tone is removed after a predetermined time and the station is connected to the attendant console through the lock-out queue. 4. An alarm at the console alerts the attendant of the off-hook station. The attendant can then determine the off-hook station's condition. 5. The station is placed out of service if it does not go on-hook before the attendant disconnects. Station calls to the locked-out station receives reorder tone. Incoming trunk calls to the out-of-service station receive busy tone. 7. When locked-out stations go on-hook, service is immediately restored. An unlimited number of simultaneous lock-outs are allowed in the system. PROGRAMMING Timeouts — System Timeouts: Off-hook = .3 second to 12 hours, 7 seconds. Howler = 0 second to 310 seconds. **OPERATION** TO ACTIVATE FEATURE FROM THE STATION: 1. Go off-hook: dial tone is heard. Remain off-hook: howler tone is heard. Attendant receives lock-out alarm visually and audibly. TO CANCEL LOCK-OUT FROM THE ATTENDANT CONSOLE: 1. Go off-hook: press lock-out button. 2. Alphanumeric display shows class of service and extension number. 3. Press CNCL (cancel) button. TO CANCEL LOCK-OUT FROM STATION: Go on-hook.

## LOUDSPEAKER PAGING

DESCRIPTION	This feature allows attendants or authorized station users to access system paging equipment, such as a loudspeaker.
APPLICATIONS/ BENEFITS	Can be used to locate personnel quickly.
	Can be used to page or announce in specific areas if multi-zone paging equipment is used.
CONDITIONS	Paging equipment such as amplifiers and speakers are not provided by Ericsson.
	All voice paging facilities use the telephone transmitter as a microphone.
	Access to loudspeaker paging is either allowed or denied by class of service.
	A station or attendant trying to access the paging equipment receives busy tone if the equipment is in use.
	Call Waiting services can be applied to the page.
	Either a one-line circuit or a trunk circuit is used for paging capability.
PROGRAMMING	Feature Access Codes/COS: Option 35.
	Station Equipment Definition: program assigned equipment number as Passive Option 2, Termination Type 1.
OPERATION	TO PAGE FROM A STATION:
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial Page access code: ringback tone is heard, followed by silence.</li> <li>Proceed with paging.</li> </ol>
	TO CANCEL FROM A STATION:
	Go on-hook.
	TO PAGE FROM AN ATTENDANT CONSOLE, USING THE TRUNK GROUP SELECT MODULE:
	<ol> <li>Go off-hook: ringback tone is heard.</li> <li>Press Trunk Select Module Page 1, 2, 3, or 4.</li> <li>Make announcement.</li> </ol>
	OR:
	TO PAGE FROM THE ATTENDANT CONSOLE (SINGLE ZONE):
	Go off-hook, press PAGE Button: ringback tone is heard.
	TO PAGE FROM THE ATTENDANT CONSOLE KEYPAD (MULTI-ZONE):
	<ol> <li>Go off-hook, then press PAGE Button.</li> <li>Dial zone number* on the keypad: ringback tone is heard.</li> <li>Make announcement.</li> <li>Press Release key.</li> </ol>
	* 0 = All zones

## **PAGE ANSWER**

## Business Feature Package 2

DESCRIPTION	The paged party can establish connection to the calling party by dialing an answer code from any station in the PABX.
APPLICATION/ BENEFIT	A paged party is able to answer immediately from the closest telephone.
CONDITIONS	To answer a page, the authorized station user must first dial a Page Answer access code.
	The calling party is placed on hold (Call Park, Hold for Pickup, Feature 0621) while waiting to be answered by the paged party.
	Every Page Answer access code has a corresponding Call Park, Hold for Pickup feature access code.
	Each Page Answer feature access code answers a call in a specific Hold for Pickup mode.
	Busy tone is returned if there is no call in the Hold for Pickup position.
PROGRAMMING	Feature Access Codes/COS: Option 408.
	Timer parameters: 30 seconds to 7620 seconds (time allotted to trunk prior to recall to the attendant).
OPERATION	TO ANSWER PAGE:
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial Page Answer access code and the Call Park slot number (0-9): connection with the party on hold is established.</li> </ol>
NOTE	Refer to Feature 0621, Call Park, Hold for Pickup.

#### PRIORITY CALL

#### **Business Feature Package 3**

DESCRIPTION	A station user can signal, with three short bursts of tone, a called busy station to indicate that a priority call is waiting to be answered.
APPLICATIONS/ BENEFITS	This feature informs a station user that the incoming call is from an executive, as indicated by the three bursts of tone.
	One burst of tone indicates that the incoming call is from other non-management personnel.
CONDITION	If the busy station is called while it is in the process of dialing a call, priority call waiting tones are heard after the called station finishes dialing.
PROGRAMMING	Priority Calling Definition.
OPERATION	None.

## RECALL DIAL TONE

DESCRIPTION	This feature, when invoked, provides a means of indicating to an authorized station user who is engaged in an established call connection that the hookflash operation has been successful in gaining access to a service feature, instead of having caused a reorigination to occur.
APPLICATION/ BENEFIT	Informs a station user that access to a service feature (such as Call Forwarding), by hookflashing while engaged in a call connection, is successful.
CONDITION	The authorized station user hookflashes. Authorization is determined by class of service.
	An on-hook of 300 msec. to 1.2 seconds is interpreted as a hookflash. An on-hook of 150 to 300 msec. can be ignored or interpreted as a flash. An on-hook of 1.2 seconds to 1.5 seconds can be interpreted as either a flash or disconnect signal. An on-hook of 1.5 seconds or greater is interpreted as a disconnect.
	Recall Dial Tone, which consists of one second of Call Waiting tone followed by normal dial tone, is returned indicating that the user can dial and access system features.
	If normal dial tone with no Call Waiting tone is returned, then the hookflash was too long, causing a disconnect and an origination to take place.
	Stations which have Attendant Recall class of service do not receive Recall Dial Tone.
OPERATION	TO ACCESS:
	<ol> <li>Hookflash (on-hook of 300 msec. to 1.2 seconds) while on a call connection: recall dial tone, followed by normal dial tone is heard.</li> <li>Proceed with dialing access code of desired service feature.</li> </ol>

## ROTARY DIAL CALLING

DESCRIPTION	A calling station utilizes a rotary dial to generate DC pulses which represent digits when no DTMF decoders are contained in the PABX system.
APPLICATION/ BENEFIT	Rotary dial instruments can be used when the PABX does not have DTMF decoders.
CONDITION	Only rotary dial instruments can be used.  Trunks connected to the PABX must be dial pulse signaling trunks.

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## SINGLE DIGIT DIALING

DESCRIPTION	An authorized station user can call any station in a preselected group by dialing a single-digit code.		
APPLICATION/ BENEFIT	This feature enables single-digit codes to be assigned to a frequently called destination station, such as the operator.		
CONDITIONS	Single Digit Dialing codes are one-digit abbreviated Local Dialing codes.  Refer to Feature 0001, Abbreviated Local Dialing, for a complete description.		

## STATION FORCED BUSY

#### **Business Feature Package 1**

DESCRIPTION	An authorized station can busy-out all internal station calls and incoming trunk calls. While activated, this feature does not prevent the station from initiating calls.		
APPLICATION/ BENEFIT	Any authorized station user who does not want to be disturbed can activate this feature.		
CONDITIONS	Station Forced Busy is invoked by dialing the appropriate feature access code.		
	Normal station service can be restored by dialing the Station Forced Busy Release feature access code.		
	All calls directed to a station with Forced Busy invoked receive busy tone.		
	Any attempt to perform Call Waiting Service (Features 0311, 0312, 0313) to a forced busy station is denied.		
	Invocation of Station Forced Busy cancels existing Call Forwarding features invoked for the station.		
	If the forced busy station is a station hunt group (Feature 1420) member, calls are not directed to it while this feature is activated.		
PROGRAMMING	Feature Access Codes/COS: Option 300 = Station Forced Busy Invoke; Option 301 = Station Forced Busy Cancel.		
	Station Define - Station Equipment Definition: Termination Types.		
	<ul> <li>4 = Trunk Termination Restricted</li> <li>5 = Attendant Terminations Restricted</li> <li>6 = Station Termination Restricted</li> </ul>		
OPERATION	TO ACTIVATE:		
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial Forced Busy access code: confirmation tone is returned.</li> <li>Go on-hook.</li> </ol>		
	TO CANCEL:		
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial Station Forced Busy Release feature access code.</li> </ol>		

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## STATION-TO-STATION CALLING

DESCRIPTION	This feature allows calling between stations by direct dialing. The call is completed without operator assistance.
APPLICATIONS/ BENEFITS	This feature enables calls to be made faster, since attendant assistance is bypassed. Call processing via the attendant is minimized.
CONDITIONS	This feature is invoked by dialing the desired station directory number.
	The number of digits required depends on the station numbering plan (Feature 0710, Flexible Numbering of Stations).
	The station user can directly dial other stations within the same tenant group.
	Access may be permitted or denied to specific stations by class of service and access code.
OPERATION	TO ACCESS:
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial desired station number.</li> </ol>

## THREE-WAY CONFERENCE TRANSFER

#### **Basic Feature**

DESCRIPTION	Any authorized station can, by hookflashing while on any two-party call, establish a three-way conference or transfer.			
APPLICATIONS/	Authorized stations can transfer calls without attendant assistance.			
BENEFITS	Call transfer destination station users are able to consult privately with the station user initiating the transfer and thus screen the incoming call.			
CONDITIONS	After hookflashing, the station receives recall dial tone, then dials the third party (station, trunk or attendant) for private consultation while the second party is held. By hookflashing a second time, the held party is added on and a three-way conference is established. A transfer is accomplished when the initiator disconnects after dialing the third party.			
OPERATION	After the initial hookflash, the second party is put on hold, and receives hold tone. Any attempt by the party on hold to hookflash is ignored.			
	If recall dial tone is not received, the initiator can:			
	1. Stay off-hook and wait for recall dial tone.			
	2. Hookflash to return to the held call.			
	3. If the initiator disconnects, the held call rings back the initiator while the held party continues to receive hold tone. When the initiator answers, the held party is reconnected.			
	After receiving recall dial tone, if the initiator dials a busy party or unauthorized number, the actions described under (2) or (3), above, can be performed.			
	If an idle party is dialed (station, trunk or attendant), ringback tone is received and the initiator can:			
	<ol> <li>Disconnect in order to transfer the held party to the ringing third party. The initiator is released from the call and the held party receives ringback tone. When the third party answers, the transfer is complete:</li> </ol>			
	<ul> <li>If the third party does not answer before the transfer recall timeout, the held party also rings back (recalls) the initiator.</li> </ul>			
	<ul> <li>The first to answer talks to the held party and the other ringing party is released.</li> </ul>			
	<ul> <li>If the held party is a trunk call and neither party answers before the attendant recall timeout, the held party is recalled to the attendant. The initiator con- tinues ringing, and the third party is released.</li> </ul>			
	2. Hookflash to return to the held call and release the third party.			
	If the initiator waits until the third party answers, the initiator can consult privately with the third party, then:			
	Disconnect in order to transfer the third party to the held party.			
	<ul> <li>Hookflash to add on the held party, thus forming a three-way conference.</li> </ul>			
	<ul> <li>Wait for the third party to disconnect. The initiator is then returned to the held call.</li> </ul>			

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## OPERATION (continued)

If the three-way conference is formed, any authorized station in the conference can hookflash. The initiating station obtains recall dial tone. Meanwhile, the two parties in conference are held and can continue to talk, but any attempt to hookflash is ignored. The initiator can then dial any authorized feature access code. While the conference is held, the initiator can:

- 1. Hookflash at any time to return to the three-way conference and release the consulted party.
- 2. Wait for the consulted party to disconnect. The initiator automatically returns to the three-way conference.
- 3. If the initiator disconnects, the held conference rings back to the initiator. The initiator returns to the three-way conference when the recall is answered.

If a station attempts to hookflash while talking to the attendant in a two-party or three-way connection, the hookflash is ignored.

If a station attempts to transfer or disconnect from a three-way conference with two trunk parties, neither of which provides class of service authorization, both trunk parties are released (refer to Feature 0700, First Party Release).

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## THROUGH DIALING

DESCRIPTION	This feature overrides all toll restrictions on a station by allowing the station user to complete dialing a call after the attendant has selected the outgoing trunk.			
APPLICATION/ BENEFIT	This feature is usually used for courtesy telephones where, if allowed by the attendant console operator, a restricted station user can call long distance.			
CONDITIONS	To initiate a call from a station which is restricted from outgoing access, the station user must first dial the attendant.			
	A station calling an attendant is indicated on the TALK EXT key when the attendant answers.			
PROGRAMMING	Feature Access Codes/COS: Option 1 (Override Dialing Restrictions).			
OPERATION	TO INITIATE THROUGH DIALING FROM THE CONSOLE:			
	<ol> <li>Restricted station calls the attendant: attendant goes off-hook, connection is established (indicator on the TALK EXT key is on).</li> <li>Attendant presses SENDER key, followed by the trunk access code: the station is put on hold and the attendant receives dial tone from the central office.</li> <li>Press the SENDER key: call is transferred to the station.</li> <li>Station receives central office dial tone: Direct Outward Dialing can be initiated from the station.</li> </ol>			

## TRUNK ANSWER FROM ANY STATION

DESCRIPTION	This feature allows a station user to answer incoming trunk calls, which are normally directed to the console, during the evening hours or when Position Busy is activated. A common alerting device (bell or chimes) and an access code are used.
APPLICATION/ BENEFIT	An attendant stationed at the console in the evening is not required. Any authorized station user can use Trunk Answer From Any Station (TAFAS) to pick-up a call.
CONDITIONS	Peripheral equipment is required for common alerting devices.
	All trunks that are not associated with a specific overflow station are directed to the alerting device when Position Busy is activated.
	All trunks which are assigned a specific overflow station during Position Busy, ring the alerting device after a timeout.
	During the Night Mode, any incoming trunk which is not directed to a specific station, rings the common alerting device if it is configured for it.
	Unanswered incoming trunk calls to the attendant go to a common alerting device after timeout.
	If more than one extension attempts to answer the incoming trunk call, the first to dial the access code intercepts it. Others receive busy tone.
	Common alerting equipment requires a dedicated line circuit.
PROGRAMMING	Feature Access Code/COS — Option 34.
	Station Equipment Definition — passive.
OPERATION	TO ANSWER COMMON ALERTING EQUIPMENT:
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial TAFAS access code: connection is established.</li> </ol>

### TRUNK FORCED BUSY Business Feature Package 1

DESCRIPTION	This feature enables an attendant or authorized station user to busy out a trunk.  If a trunk circuit is not functioning properly, all access to it is busied out until the problem is corrected.			
APPLICATION/ BENEFIT				
CONDITIONS	The trunk appears busy to the PABX, but not to the central office.			
	Existing connections are not disrupted. A trunk is placed out of service only if it is idle.			
	Incoming calls on the trunk are processed normally.			
OPERATION	TO SET UP A TRUNK FORCED BUSY:			
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial Trunk Forced Busy access code and the last four digits of the listed directory number.</li> <li>Go on-hook.</li> </ol>			
	TO CANCEL A TRUNK FORCED BUSY:			
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial Cancel Trunk Forced Busy access code and the last four digits of the listed directory number.</li> <li>Go on-hook.</li> </ol>			

#### 3. ATTENDANT FEATURES

3.01 General. This section contains descriptions of all Prodigy Attendant Features. Table3-1 provides a quick reference guide to this section.

Refer to Table 1-1, Section 1 of this manual, for the index to all the Prodigy PABX features.

TABLE 3-1 Attendant Features

FEATURE NUMBER	FEATURE DESIGNATION
0010	Alarm Indications
0020	Alphanumeric Display on Attendant Position
0060	Attendant Console
0070	Attendant Control of Trunk Group Access
0080	Attendant Direct Station Selection With Busy Lamp Field
0100	Attendant Lockout
0110	Attendant Overflow Facility
0120	Attendant Position
0130	Attendant Restriction
0140	Attendant Transfer of All Calls
0150	Automatic Call Distribution to Attendant
0180	Automatic Queueing to Attendant Position
0210	Busy Lamp Field
0310	Call Waiting Services (Camp-on)
0311	Attendant Call Waiting
0312	Attendant Originating, Call Waiting
0320	Calling Number Display to Attendant
0340	Call Waiting Indication at Attendant Position
0390	Class of Service Display to Attendant
0440	Controlled Outward Restriction
0480	Controlled Total Restriction
0540	Digital Clock, Attendant
0590	Direct Termination of Miscellaneous Circuits on Attendant Positions
0600	Direct Trunk Group Selection, Attendant
0640	DTMF On Attendant Position
0720	Forced Release (Attendant)
0820	Incoming Call Identification
0850	Intercept Treatment
0851	Attendant Intercept
0852	Intercept Tones
0941	Loudspeaker Paging, Direct Access By Attendant
1180	Priority Queue
1320	Selective Cancellation
1490	Straightforward Outward Completion
1510	Switched-Loop Operation
1580	Timed Reminders (Attendant Recall)
1650	Trunk Group Busy Indicators On Attendant Position
1680	Trunk-to-Trunk Connection
1710	Two-Party Hold (On Console)

## **ALARM INDICATIONS**

	Dusic Feature
DESCRIPTION	Visual indicators on the attendant console provide signals initiated by a fault in the PABX.
APPLICATION/ BENEFIT	Alarm lamps on the console immediately identify to the attendant any minor or major failure in the system.
CONDITIONS	The PABX automatically updates the alarm lamps.
	Three types of red alarm lamps are provided on the attendant console:
	1. Major alarm lamp — when lighted, indicates that there is a major failure and notifies the attendant that the system has shut down.
	2. Minor alarm lamp — when lighted, indicates that there is a loss of service somewhere in the system.
	When the minor alarm lamp lights steadily, it indicates that there is a minor failure, such as a faulty card.
	The minor alarm lamp, when lighted, indicates any of the following:
	<ul> <li>Interprocessor link failure</li> <li>Traffic degradation</li> <li>Power supply voltage failure</li> <li>Switch matrix memory failure</li> <li>Trunk card failure</li> <li>Communications line failure</li> <li>Line card failure</li> <li>Temporary storage cleared</li> </ul>
	3. Attendant console alarm lamp — when lighted, indicates that the console has failed. This failure can indicate either of two causes:
	<ul> <li>Failure in the communications line between the console and the PABX, or,</li> <li>Failure within the console</li> </ul>
_	The green power lamp is on when power is on in both the PABX and the console.
PROGRAMMING	None.
OPERATION	None.

#### ATTENDANT FEATURE

0020

# ALPHANUMERIC DISPLAY ON ATTENDANT POSITION

DESCRIPTION	A 15-character visual display is an integral part of the attendant console. This visual display indicates digits, letters or symbols, including calling number, class of service and the last four digits of a listed directory trunk number.
APPLICATION/ BENEFIT	This display enables the attendant to identify the calling party's class of service.
CONDITIONS	The display reflects the current call at the attendant position.
	When the attendant alternates between the station and trunk, the appropriate data is displayed.
	When the attendant talks to two parties at the same time, the display reflects both parties.
	The display appears as soon as a call is answered.
	For calls originated by the attendant, the display occurs as the connection is made.
	Trunks appear with their class of service and last four digits of their directory number.
PROGRAMMING	None.
OPERATION	None.

## ATTENDANT CONSOLE

DESCRIPTION	The Prodigy attendant console is equipped with the following standard features:
	15-digit alphanumeric display
	• Alarm indicators
	• 12-digit keypad • Mode indicators
	Required function keys.
	Optional features which can be added to the attendant console are:
	A trunk module     Busy Lown Field/Direct Station C. L. C. D. D. D. C. D. D. D. C. D.
	Busy Lamp Field/Direct Station Selection module (BLF/DSS).
APPLICATIONS/ BENEFITS	Addition of modules to the console is easy and is done when needed, thus, unnecessary expense is avoided.
	The Busy Lamp Field provides easy operation and the busy/idle status of each line at a glance.
CONDITIONS	In a multiple console configuration, the maximum distance of the last console in serial from the PABX is 1,000 feet.
	Each Prodigy cabinet can have a maximum of three attendant consoles.
	Multi-console cable must be used for the connection of additional attendant consoles.
	Consoles can be assigned to eight separate attendant groups.
	Optional equipment:
	Trunk group module (trunk groups 01 - 15)
	<ul> <li>Direct Station Select modules (00 - 39, 40 - 79, 80 - 99)</li> <li>Or, full DSS assembly (00 - 99).</li> </ul>
	Pin connections are required on the console processor board and the DSS modules.
	Each console uses a station equipment port.
	The first three station equipment numbers available on the first line card slot must be assigned to the attendant console.
	If the sytem provides Music On-hold feature, the console cable must be brought out to the main distribution frame (MDF).
PROGRAMMING	Feature Access Codes/COS: all options that are applicable to the attendant console.
	Attendant group definition.
	Abbreviated Dialing Codes 600 - 608.
OPERATION	Refer to the Prodigy Attendant Manual.

#### ATTENDANT FEATURE

0070

# ATTENDANT CONTROL OF TRUNK GROUP ACCESS Business Feature Package 1

DESCRIPTION	This feature enables an attendant to restrict all station lines any dial access to central office, Foreign Exchange, WATS, and/or tie-trunk groups.
	Calls to restricted stations are routed to the attendant for completion.
APPLICATIONS/ BENEFITS	Access to WATS lines can be restricted after 5 P.M., when Direct Dialing rates are reduced.
	During heavy traffic, the attendant can reserve bothway trunks for incoming calls only.
CONDITIONS	If a station user attempts to access a restricted trunk group, a busy tone is received
	This feature can override any other feature which requires station dial access to the specified trunk group.
	All trunk groups can be busied out.
PROGRAMMING	Feature Access Codes/COS: Options 304 and 305.
OPERATION	TO INITIATE:
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial Attendant Control of Trunk Group Access feature access code.</li> <li>Dial trunk group access code: confirmation tone is heard.</li> <li>Go on-hook.</li> </ol>
	TO CANCEL:
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial Attendant Control of Trunk Group Access feature cancel code.</li> <li>Dial trunk group access code: confirmation tone is heard.</li> <li>Go on-hook.</li> </ol>

# ATTENDANT DIRECT STATION SELECTION WITH BUSY LAMP FIELD

Dasic reature
An attendant at the console can place or complete calls to any station within the PABX by pressing a key associated with the desired station line. The busy or idle status of the station is indicated by a lamp associated with each Direct Station Selection (DSS) key.
The busy lamp field makes console operation easy. The busy or idle status of each line is seen immediately.
The DSS operates in conjunction with the operator field select keys to provide direct station selection in the range of 000 to 999.
Each position in the DSS contains a busy lamp.
The attendant answers a waiting call by pressing a key that corresponds to the station. The busy lamp lights steadily in either the call or recall pattern if a call is waiting in a queue. When the attendant presses a key associated with a flashing busy lamp, the call is answered regardless of its position in the queue.
The station busy lamp flashes when the attendant presses the key to answer the call.
If the attendant answers another call via the DSS, the first call is placed on hold, and its busy lamp flashes in the hold pattern. The busy lamp of the second call lights steadily.
If a party remains in the hold mode too long, the audible recall tone is generated, and the busy lamp flashes in the faster hold pattern.
The attendant can override a connection between two parties by pressing the DSS key when its busy lamp is on. The attendant can then break into the call and talk with the selected party by pressing the Override key.
This feature requires an attendant console with a Direct Station Selection module.
Feature Access Codes/COS: all options that are applicable to the attendant console.  Attendant group definition.
Abbreviated Dialing Codes 600 - 608.
Refer to the Prodigy Attendant Manual (EC Publication No. 7700-AT).

#### ATTENDANT FEATURE

0100

## ATTENDANT LOCKOUT Business Feature Package 3

DESCRIPTION	An attendant is denied the ability to reenter a connection established from an attendant position, unless recalled by a station user.
APPLICATION/ BENEFIT	This feature provides privacy to station users.
CONDITIONS	This feature is authorized by class of service.
	If an attendant attempts Executive Override (Feature 0680), a call waiting tone is sent to the station and the attendant call is processed as Attendant Call Waiting (Feature 0311) by the system.
PROGRAMMING	Station Define: Station Equipment Definition.
	Termination Type 2: attendant break-in restricted.
OPERATION	None.

0110

## ATTENDANT OVERFLOW FACILITY

DESCRIPTION	This feature provides each trunk with an associated station where incoming calls are directed when the attendant is busy or in the overflow condition. A common alerting system is activated if no overflow station is assigned to the trunk.
APPLICATIONS/ BENEFITS	This feature enables other employees to assist the attendant in processing incoming trunk calls during heavy traffic hours.
	Enables the attendant to leave the console for a short period of time.
CONDITIONS	All attendant consoles in the group ring as long as there are calls in queue for the group.
	Attendant Overflow is cancelled if any attendant in an attendant group presses the Position Busy key again. The console then reverts to the normal mode of operation.
	All calls to an attendant group are queued in a first-in, first-out manner by priority, according to the type of call. All calls remain in the queue until answered or disconnected.
	All other calls which are normally handled by the attendant activate the common alerting system as well as each attendant in the group.
	Calls routed to the common alerting system can be answered from any authorized station by dialing the Trunk Answer From Any Station (Feature 1630) feature access code.
	A call which is not answered by a busy/overflow station within a predefined period of time, while continuing to ring the station, also activates the common alerting system (Timed Reminders, Feature 1580).
	Several calls routed to a busy overflow station automatically activate the Originating, Call Waiting (Feature 0313).
	The assignment of busy/overflow stations is set by system configuration.
	The common alerting equipment uses a one-line circuit.
	Direct-in Lines are not affected by the activation of this feature.
PROGRAMMING	Attendant Queue Priorities (operator call, incoming trunks, intercepts operator recalls, automatic recalls, holds, and lockouts).
	Trunk equipment definition — Position Busy Field:  * = UNA, may be used either in conjunction with the overflow station number, or alone.
OPERATION	TO ACTIVATE:
	Press Position Busy key: light is on.
	TO CANCEL:
	• Press Position Busy key: light is off.

#### ATTENDANT FEATURE

0120

## ATTENDANT POSITION

DESCRIPTION	An attendant position is either a console or station from where listed directory numbers and other calls requiring assistance can be answered and completed by an attendant.
APPLICATION/ BENEFIT	Call processing functions which require attendant assistance are performed at the attendant position.
CONDITIONS	Refer to the Prodigy Attendant Manual (EC Publication No. 7700-AT) for conditions and console operation.

## ATTENDANT RESTRICTION

DESCRIPTION	This feature restricts attendants from originating or completing any outgoing calls.
APPLICATION/ BENEFIT	This feature is used to prevent any misuse of the telephone, either from the attendant position or from a station user requesting the attendant to complete an unauthorized call.
CONDITIONS	To originate or complete a call, the attendant must obtain a trunk by dialing a Direct Trunk Select or Direct Trunk Group Select feature access code. The use of the Direct Trunk Select, or the Direct Trunk Group Select keys, is the same as dialing a feature access code.
	The configuration data can be defined so that attendants are not authorized to dial these trunk or trunk group select feature access codes. Thus, attendants are prevented from originating or completing any outgoing call.
OPERATION	TO ORIGINATE A CALL (IF ALLOWED TO ACCESS A TRUNK):
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial either a trunk access code or a trunk group select access code: if allowed, dial tone is heard. Complete the call.</li> </ol>
	NOTE: The Direct Trunk Select key or the Direct Trunk Group Select key can be used instead of an access code.

#### ATTENDANT FEATURE

0140

## ATTENDANT TRANSFER, ALL CALLS

DESCRIPTION	A station user who is a participant in a two-party connection can recall an attendant for assistance in transferring the call.
APPLICATIONS/ BENEFITS	Stations with limited dialing capabilities, such as those in hotel/motel PABXs, are able to transfer calls to the attendant.
	This feature is also used to transfer calls to parties who belong to another tenant group.
CONDITIONS	Calls can be transferred from a restricted station via the attendant. The station user hookflashes, recalls the attendant, then disconnects to transfer the call to the console.
	The Three-way Conference Transfer (Feature 1540) or the Executive Feature access code (Feature 0690) can be used by some stations to transfer calls to the attendant.
	While a station user is recalling the attendant, the party it is connected to is placed on hold and receives the hold tone until the attendant answers.
	After receiving ringback tone from the console, the station user who recalled the attendant can do any of the following:
	<ol> <li>Disconnect, so that the held call is transferred to the attendant.</li> <li>Hookflash, so that connection to the attendant is terminated, and the party on hold is retrieved.</li> <li>Wait for the attendant to answer. A three-way conference is established with</li> </ol>
	the attendant, the held party and the station user as members. The station user can then go on-hook and the call transfer to the attendant is accomplished.
OPERATION	TO TRANSFER CALLS TO THE ATTENDANT:
	1. A station user in a two-party connection hookflashes: ringback tone is heard; the other party is placed on hold.
	2. The station user can:
	<ul> <li>a. Go on-hook: party on hold is connected to the attendant.</li> <li>b. Wait for the attendant to answer, thus establishing a three-way connection when the attendant answers, then go on-hook.</li> <li>c. Hookflash: connection to the attendant is terminated; the party on hold is retrieved.</li> </ul>

0150

# AUTOMATIC CALL DISTRIBUTION TO ATTENDANT Basic Feature

<del></del>	Dasic reacure
DESCRIPTION	This feature allows the attendant to more easily and quickly answer extended incoming calls. The attendant receives one beep for an internal call and two beeps for an external call, without having to first press a button. In addition, by using the Direct Station Select (DSS) field, the attendant is not required to press the release button. The call is automatically released. The feature automatically distributes incoming traffic to attendant positions.
APPLICATIONS/ BENEFITS	An attendant can process calls faster under a heavy traffic load.  Calls are distributed automatically to consoles in an attendant group.
CONDITIONS	Any attendant in an attendant group can set automatic distribution to activate this feature.
	The system automatically queues calls on a first-come, first-served basis.
	Individual queue buttons light, so the type of call the attendant is on is shown.
	Priority Queue (Feature 1180) defines which incoming calls are served first.
	The system automatically places a call to an attendant whose console is free.
	Calls are assigned to attendants within the same attendant group in a circular manner, if each has the feature activated.

0180

## AUTOMATIC QUEUEING TO ATTENDANT POSITION

#### **Basic Feature**

#### DESCRIPTION

By presenting only one new (unanswered) call to each attendant position at a time, the system automatically determines the order in which calls are answered.

#### CONDITIONS

Calls to an attendant group are ordered on a first-come, first-served basis per type of call.

The party waiting for attendant assistance can disconnect at any time.

There are six queues (or lists), listed below:

- 1. Operator Recall (Station)
  - Call Transfer
- 2. Automatic Recall (Trunk)
  - Call Waiting Time Out
  - Unanswered Call
- 3. Intercept (Trunk/Station)
  - Unassigned Number
  - Do Not Disturb
  - Inward Restriction
  - Call Forward
- 4. Lockout (Station)
  - Station Receiver Off-hook
- 5. Incoming Trunk Call (Trunk)
- 6. Operator Call (Station)
  - Station Dial "0"

By pressing the appropriate queue key, any attendant within the attendant group can remove a party from a queue.

The attendant is made aware of waiting calls by the audible call indication and the key lamp flashing pattern. The key legend tells the attendant what type of call is waiting.

#### **BUSY LAMP FIELD**

DESCRIPTION	modate more st	D lamp associat ation lines that	ed with each sta n available, lam	n of the busy or idle condition of station ation line. When it is desired to accom up capacity and group select keys are tation line group.	
APPLICATION/ BENEFIT	This feature im station lines.	mediately provi	ides the attenda	ant with the busy or idle condition of	
CONDITIONS	The PABX auto	matically upda	tes the busy lar		
	The attendant of CHANGE key.	can select one o	of two types of	displays with the console DISPLAY	
	With the DISPLAY CHANGE key off, the lamp field is set to normal display. The following shows the flashing patterns that are possible:				
	BUSY LAMP FLASHING PATTERN		NORMAL CALL STATUS DISPLAY		
	Pattern	ON (Seconds)	OFF (Seconds)	Other Station/Trunk	
	Off		Constant	No Call in Progress	
	On	Constant	_	Call in Progress	
	Slow Flash	1.0	1.0	Call Waiting for Attendant Incoming Trunk Operator Call Receiver Off-Hook Auto Recall Operator Recall Intercept	
	Fast Flash	0.3	0.2	Call Holding Placed on Hold by Attendant	
	With the DISPLAY CHANGE key on, the lamp field is set to alternate display. The following shows the flashing patterns that are possible:				
	BUSY LAMP FLASHING PATTERN			ALTERNATE DISPLAY	
	Pattern	ON (Seconds)	OFF (Seconds)	Other Station/Trunk	
	Off	_	Constant	No Feature Active	
	On	_	_	Out of Service	
	Slow Flash	1.0	1.0	Do Not Disturb	
	Fast Flash	.2	.2	Message Waiting	
REREQUISITE	Station busy lam	n module for th	e attendent ee	anala.	

0310

#### CALL WAITING SERVICES (CAMP-ON)

Basic Feature (For Attendant) Business Feature Package 2 (For Stations)

#### DESCRIPTION

When an attendant or station user reaches a busy station, hunt group, or trunk group and remains off-hook, the call is camped-on to the busy station. The called busy station user hears either one burst of call waiting tone (indicating an internal calling party), or two bursts of tone (indicating an outside or attendant-extended call).

When the called station becomes idle, the attendant or calling station hears ringback tone, then the called station is rung.

Call Waiting Services come under four categories:

- Attendant Call Waiting (0311)
- Attendant Originating, Call Waiting (0312)
- Originating Call Waiting (0313)
- Terminating Call Waiting (0314)

#### APPLICATIONS/ BENEFITS

A busy station user is notified of calls waiting and is informed of whether the waiting call is internal or external.

The station user is not bothered with hearing repeated beeps because the next camp-on tone is generated only after the trunk caller completes the recall cycle.

This feature enables the attendant to process calls quickly.

#### CONDITIONS

An unlimited number of callers can camp-on to a busy station trunk. Camped-on calls are answered on a first-in, first-out basis.

Only the busy station user hears the camp-on indication; the party he is talking to does not.

Call Waiting is disconnected if the calling station hookflashes.

Call Waiting has priority over Automatic Callback.

Call Waiting does not override Station Forced Busy (Do Not Disturb) or Data Privacy.

Call Waiting indication is heard by a slave station in a hunt group but not by a master station.

#### **PROGRAMMING**

Feature Access Code/COS: Option 4

Timer parameters — Call Waiting timer 1 = 2 seconds — 2.12 hours, for stations only.

#### **OPERATION**

Refer to procedures provided with any of the four Call Waiting Services descriptions (Features 0311, 0312, 0313, 0314).

0311

### ATTENDANT CALL WAITING

#### **Basic Feature**

**Business Feature Package 2** 

#### DESCRIPTION

This feature allows all calls directed by an attendant to a busy station, trunk, or trunk group to be held in a special waiting mode until the desired station or trunk becomes available. A call waiting tone to indicate that a calling party is waiting to be answered is heard at the called station when the attendant leaves the connection.

If, after a predefined period of time, the called station, trunk or trunk group remains busy, the calling party enters the recall attendant queue.

#### APPLICATIONS/ BENEFITS

A busy station user is notified of calls waiting and is informed of whether the waiting call is internal or external.

A caller does not have to wait indefinitely for the called station to answer since the call is rerouted to the attendant after a preset period of time.

Allows attendant to quickly process calls.

#### CONDITIONS

Refer to Call Waiting Services (0310).

The attendant, who has a party on hold, invokes the feature by pressing the CWAIT key on the console while receiving a busy tone.

Attendant Call Waiting is released when any of the following events occur:

- Called party becomes idle
- Calling party disconnects
- Attendant takes the calling party off the recall queue.

When the calling party enters the recall attendant queue, Call Waiting is still in effect on the called station, trunk or trunk group. Call Waiting is released if the attendant takes the call from the attendant queue first. However, if the station, trunk or trunk group responds ahead of the attendant, then the queue entry is removed from the attendant group.

#### PROGRAMMING

The same programming data provided in Feature 0310 apply.

#### **OPERATION**

## TO CAMP-ON FROM THE ATTENDANT POSITION USING THE DIRECT STATION SELECT MODULE:

- 1. Answer incoming call.
- 2. Press associated direct station select key.
- 3. Attend to next call.

## TO CAMP-ON FROM THE ATTENDANT POSITION USING THE CONSOLE KEYPAD:

- 1. Answer incoming call.
- 2. Dial destination number on console keypad: busy tone is heard.
- 3. Press Call Wait key.
- 4. Press Release key.
- 5. Attend to next call.

0312

## ATTENDANT ORIGINATING, CALL WAITING

Basic Feature (For Attendant Consoles)
Business Feature Package 2 (For Stations)

DESCRIPTION	This feature enables attendants to apply two bursts of a uniquely distinctive call waiting tone to a busy station to signify that a high priority, attendant-originated call is waiting to be answered.
APPLICATION/ BENEFIT	A busy station user is immediately notified that a high priority, attendant-originated call is awaiting his attention.
CONDITIONS	The same conditions provided in Feature 0310 apply.
	The distinctive tone signal pattern used in this feature is defined in the configuration data.
	The called station user may use the Call Hold feature (0290) to hold the current call so that the priority call can be answered.
PROGRAMMING	The same programming data provided in Feature 0310 apply.
OPERATION	TO ACTIVATE ATTENDANT ORIGINATING CALL WAITING:
	1. Dial destination number on console: busy tone is heard.
	2. Press Call Wait (CWAIT) key.
	3. Release CWAIT key: distinctive tone is heard.
	4. Wait for station response.

## CALLING NUMBER DISPLAY TO ATTENDANT

DESCRIPTION	Through this feature, attendants are provided a visual display of the station number of the calling PABX station line that is seeking attendant assistance. Aside from the station number, the Class of Service, Message Waiting (M) and Do Not Disturb (D) indicators are also displayed.	
APPLICATION/ BENEFIT	This display enables the attendant to know who the calling party is when the call is answered.	
CONDITIONS	The calling number display occurs when the attendant answers a call.  The display is maintained until the calling party disconnects, or when the attendant dials another station or trunk.	
PROGRAMMING	None.	
OPERATION	None.	
NOTE	Refer to Feature 0020, Alphanumeric Display on Attendant Position.	

0340

# CALL WAITING INDICATION ON ATTENDANT POSITION

DESCRIPTION	Visual and audible signals on the attendant console are provided to indicate that calls are waiting to be answered by the attendant.	
APPLICATIONS/ BENEFITS	Makes the attendant aware of the calls on queue that are waiting to be answered.  Enables the attendant to respond more quickly and have more flexibility in processing calls.	
CONDITION	The attendant console has seven call waiting queues, each associated with a queue key.	
PROGRAMMING	None.	
OPERATION	None.	
NOTE	Refer to Feature 0180, Attendant Alphanumeric Display.	

## CLASS OF SERVICE DISPLAY TO ATTENDANT

DESCRIPTION	This feature provides attendants with a numerical code display which represents the class of service of the calling PABX station line seeking attendant assistance.	
APPLICATION/ BENEFIT	The attendant immediately knows what features are allowed or denied to the calling station.	
CONDITION	The display occurs whenever the attendant answers a call.	
OPERATION	None.	
NOTE	Refer to Alphanumeric Display on Attendant Position (Feature 0020) for more information.	

0440

## CONTROLLED OUTWARD RESTRICTION

#### **Enhancement Feature Package**

DESCRIPTION	This feature enables an attendant to prevent origination of outgoing central office calls from selected stations.	
APPLICATION/ BENEFIT	A temporarily unoccupied office's or hotel/motel guest room's telephone can be restricted from originating outgoing calls. This prevents unauthorized personnel from using the telephone.	
CONDITION	Any attempt to dial a Direct Outward Dialing access code (Feature 0580) from a restricted station is intercepted.	
PROGRAMMING	Feature Access Codes/COS — Options 306 and 307.	
OPERATION	TO ACTIVATE:  1. Go off-hook. 2. Dial Controlled Outward Restriction feature access code. 3. Dial station number to be restricted: confirmation tone is heard. 4. Go on-hook. TO RELEASE:	
	<ol> <li>Go off-hook.</li> <li>Dial Controlled Outward Restriction Release feature access code, followed by the directory number of the station to be released.</li> <li>Go on-hook.</li> </ol>	
NOTE	Refer to Feature 0850 for Intercept Treatment procedure.	

## CONTROLLED TOTAL RESTRICTION

## **Business Feature Package 1**

DESCRIPTION	An attendant, by dialing an access code, can prevent calls from being originated or received from selected stations.
APPLICATION/ BENEFIT	A telephone in an office or guest room that is temporarily vacant can be placed out of service until the room is occupied. This prevents unauthorized personnel from using the telephone.
CONDITIONS	A restricted station cannot receive dial tone and cannot place any calls.  All calls directed to the restricted station are intercepted.  Message Waiting is cancelled when this feature is activated.
PROGRAMMING	Feature Access Codes/Class of Service Options 306 and 307.
OPERATION	TO ACTIVATE CONTROLLED TOTAL RESTRICTION:  1. Go off-hook. 2. Dial controlled total restriction access code. 3. Dial number of station to be restricted: confirmation tone is heard. 4. Go on-hook.  TO CANCEL CONTROLLED TOTAL RESTRICTION CODE:
	<ol> <li>Go off-hook.</li> <li>Dial Controlled Total Restriction Cancellation Access Code, followed by the number of the restricted station: confirmation tone is heard.</li> <li>Go on-hook.</li> </ol>

0540

## DIGITAL CLOCK, ATTENDANT

DESCRIPTION	When in the idle mode, the attendant console alphanumeric display provides the time, date and the first four letters of the day.	
APPLICATIONS/ BENEFITS	The operator is always aware of the time, date and day when taking messages.  Used in hotels/motels for wake-up calls.	
CONDITION	In case of power outage, a battery provides back-up power supply to maintain the information.	
PROGRAMMING	Feature Access Codes/COS: Option 32.	
OPERATION	None.	
NOTE	Refer to the Attendant Manual to change time/day/date information.	

ATTENDANT FEATUR
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0590

# DIRECT TERMINATION OF MISCELLANEOUS CIRCUITS ON ATTENDANT POSITIONS

DESCRIPTION	This feature provides the capability for directly assigning a limited number of miscellaneous trunks on a switched-loop attendant position. Thus, the attendant is allowed direct access to the trunks and visual supervision of the trunks at all times.	
APPLICATIONS/ BENEFITS	Allows an attendant to call a trunk directly through the trunk directory number. Enables an attendant to visually determine which trunks are busy and thus route calls accordingly.	
NOTE	Refer to Feature 0610, Direct Trunk Operation, for additional information.	

0600

# DIRECT TRUNK GROUP SELECTION, ATTENDANT Business Feature Package 2

	Duamesa I carate I acresso -
DESCRIPTION	This feature enables the attendant to directly access an outgoing trunk or trunk group through the attendant console Direct Trunk Group Select (DTGS) module.
APPLICATION/ BENEFIT	The attendant immediately sees which trunk groups are idle or busy. A simple tap on the membrane switch representing the individual trunk group number provides the attendant with dial tone faster than access codes can.
CONDITIONS	Only trunk groups 00 to 14 are displayed on the DTGS module.  A maximum number of 15 direct trunk groups is allowed per console.  Each trunk group is represented by a direct trunk selection membrane switch and an associated LED indicator.

0640

## DTMF ON ATTENDANT POSITION

DESCRIPTION	Dual tone multifrequency pushbuttons are provided on the attendant position(s) for origination and completion of calls.
APPLICATION/ BENEFIT	Provides ease of operation.
CONDITION	The attendant uses the keypad on the console to send dialing information to the PABX. The PABX (in the event of an outgoing trunk) allows the DTMF tones to be directly sent to the central office (CO), if it is able to receive DTMF. If the CO is unable to receive DTMF, then the PABX intercepts the DTMF tones and converts them to DCKP.

0720

### FORCED RELEASE

DESCRIPTION	An attendant who is a member of a conference call can automatically disconnection by pressing the Cancel key.			
APPLICATION/ BENEFIT  An attendant can release a busy trunk in case of an emergency.				
CONDITION	Pressing the CNCL (Cancel) key on the attendant console disconnects all parties to a call connection only if the attendant is a member of the connection.			
PROGRAMMING	None.			
OPERATION	TO RELEASE FROM THE ATTENDANT CONSOLE:			
	Press CNCL key: parties that are disconnected receive dial tone if they remain off-hook.			

## INCOMING CALL IDENTIFICATION

	Dasic 1 catale		
DESCRIPTION	The attendant console is provided with an Alphanumeric Display which visually identifies the class of service, directory number and the specific active features of an incoming call directed to the console for processing.		
APPLICATION/ BENEFIT	The attendant is immediately provided with information necessary to know how to process the call.		
CONDITIONS	The display occurs whenever the attendant answers a call.		
	The display on calls from stations consists of:		
	<ul> <li>Class of service</li> <li>Directory number</li> <li>Message Waiting indicators</li> <li>Do Not Disturb indicators</li> </ul>		
	The display on trunk calls consists of:		
	<ul> <li>Class of service</li> <li>Trunk directory number</li> </ul>		
PROCEDURE	None.		
NOTES	<ol> <li>Refer to Feature 0020 for information on Alphanumeric Display on Attendant Position.</li> </ol>		
	2. Refer to Feature 0320 for Calling Number Display to Attendant operation.		

#### INTERCEPT TREATMENT ATTENDANT INTERCEPT INTECEPT TONES

0850 0851

0852

#### **Basic Features**

#### Calls that cannot be completed by the PABX are automatically routed either to an DESCRIPTION attendant or to an intercept tone, depending on the type of call and the conditions for its non-completion. Mis-dialed calls are handled by the attendant for further assistance. APPLICATIONS/ A caller is informed of specific features or trunks that are not allowed to be accessed BENEFITS from that station. There are two types of Intercept Treatments: CONDITIONS Attendant Intercept Tone Intercept ATTENDANT INTERCEPT: The following calls are intercepted and routed to an attendant:

- 1. A trunk call to an unassigned number.
- A trunk call to a station with Controlled Termination Restriction/Do Not Disturb (Feature 0470) activated.
- A trunk call to an inward restricted station (Feature 0750, Fully Restricted Station).
- Any trunk call which would have received any one of the Intercept Tones if it were a station call.

Calls which are intercepted and routed to the attendant are answered by pressing the INCP (Intercept) key on the attendant console.

#### TONE INTERCEPT:

Depending on the reason for non-completion, a call which cannot be completed is intercepted by any of the following tone signals:

- Rejection Tone
- Reorder Tone 2.
- 3. Busy Tone

Rejection Tone Intercept is returned to the calling party when an invalid call request is made. The digit dialed can be any of the following:

- 1. Unauthorized or unassigned feature access code.
- 2. Unassigned station directory number.
- 3. Directory number (in trunk dialing) which does not pass the Code Restriction (Feature 0420) or Toll Restriction (Feature 1590) check.

#### INTERCEPT TREATMENT

0850, 0851, 0852

## CONDITIONS (continued)

Reorder Tone is returned to the calling party:

- 1. When, temporarily, the call cannot be completed due to system blocking.
- 2. When the called station, trunk, or common facility is out of service.
- When a code-restricted or toll-restricted station dials a station it is not allowed to access.

Busy tone is returned to the calling party as an Intercept Tone:

- 1. When a feature that is accessed for another station is not allowed because it conflicts with a feature that is already in effect on that station.
- When access to either Call Waiting Services (Feature 0310) or Automatic Callback (Feature 0160) is attempted for a station which already has Feature 1410, Station Forced Busy, active.
- 3. When Executive Override (Feature 0680) is attempted for a station that is locked out.
- 4. When access to a restricted trunk group is attempted.

#### **PROGRAMMING**

None.

#### **OPERATION**

None.

0941

# LOUDSPEAKER PAGING, DIRECT ACCESS BY ATTENDANT

DESCRIPTION	This feature enables attendants to page in all zones via the voice paging equipment.			
APPLICATION/ BENEFIT	This feature is used to locate personnel immediately and make general announcements.			
CONDITIONS	The attendant has direct access to the paging equipment through the console keys.			
	Busy tone is returned to the attendant if the paging system is in use.			
	Camp-on can be applied to gain access to the paging system when it becomes available.			
PREREQUISITE	A loudspeaker paging system and an attendant console are required.			
PROGRAMMING	Feature Access Codes/COS: Option 35.			
	Station equipment definition — program assigned equipment number as Passive Option 2, Termination Type 1.			
OPERATION	TO PAGE FROM THE ATTENDANT POSITION, SINGLE ZONE:			
	Go off-hook, then press PAGE key: ringback tone is heard.			
	TO PAGE FROM THE ATTENDANT POSITION USING THE KEYPAD (MULTI-ZONE):			
	<ol> <li>Go off-hook and press PAGE key.</li> <li>Dial Zone* Number on the keypad: ringback tone is heard, followed by silence.</li> <li>Make announcement.</li> <li>Press RELEASE key: connection is terminated.</li> </ol>			
	* 0 = all zones.			

## PRIORITY QUEUE

## (Used With Automatic Call Distribution) Basic Feature

<del></del>	Basic Feature			
DESCRIPTION	When Automatic Call Distribution is activated, specific incoming calls are given preference over any other call which is waiting to be answered by the attendant.  Incoming calls can be answered according to the priorities programmed in the system.			
APPLICATION/ BENEFIT				
CONDITIONS	The following is a list of types of calls and the order of priorities in which they are programmed.  1. Operator Recall (Station)  • Call Transfer  2. Automatic Recall (Trunk)  • Camp-on Busy Timeout  • Unanswered Call  3. Intercept (Trunk/Station)  • Unassigned Number  • Do Not Disturb  • Stations With Inward Restriction  • Call Forward  4. Lockout Queue (Station)  • Receiver Off-hook			
	<ul> <li>5. Incoming Trunk Call</li> <li>6. Operator Call (Station)</li> <li>• Dial "0"</li> </ul>			
	7. Hold Queue  • Trunks or extension on hold queue button			
	The order of priorities can be re-programmed to fit the application.			
	Based on the order of priorities listed above, calls are automatically placed to the attendant without pressing an operator key.			
	If there is more than one attendant in a group, the calls are placed in a circular order to distribute the calls.			
PROGRAMMING	Attendant queue priorities.			
OPERATION	See Automatic Call Distribution To Attendant (Feature 0150).			

1320

# SELECTIVE CANCELLATION Business Feature Package 2

DESCRIPTION	This feature enables an attendant or an authorized station to cancel the following features that are in effect on any internal station:			
	<ul> <li>Call Forwarding (Feature 0240 - 0270)</li> <li>Controlled Total Restriction (Feature 0480)</li> <li>Station Forced Busy (Feature 1410)</li> </ul>			
APPLICATION/ BENEFIT	Any feature in effect on a station can be cancelled by the attendant if the station user is away from the office and does not want the feature to be in effect anymore.  The attendant has to dial an access code to initiate this feature.  The attendant receives rejection tone if the station number dialed is not valid.			
CONDITIONS				
PROGRAMMING	Feature Access Codes/COS: Option 405.			
OPERATION	<ol> <li>TO INITIATE FROM THE CONSOLE OR AUTHORIZED STATION:</li> <li>Go off-hook: dial tone is heard.</li> <li>Dial Selective Cancellation access code: dial tone is heard.</li> <li>Dial station number: confirmation tone is heard.</li> </ol>			

1490

## STRAIGHTFORWARD OUTWARD COMPLETION

	Basic Feature			
DESCRIPTION	This feature enables attendants to complete outgoing calls without requiring the calling station user to hang up, and then be called back. The attendant can dial the called number for the station user, or (if Through Dialing, Feature 1550, is provided) allow the station user to complete the dialing after the outgoing trunk has been seized.			
APPLICATION/ BENEFIT	A station user seeking attendant assistance in completing a call need not go on-hook, thus saving time.			
CONDITIONS	A station calling an attendant is indicated on the TALK EXT key when the station and attendant are conversing. The attendant can initiate a call over a trunk by pressing the Sender (SNDR) key and dialing the trunk access code. The station is put on hold and the attendant is active on the TALK CITY side of the loop. At this time, dial tone is returned from the central office. The attendant has two options:			
	1. Complete the call. When the distant party answers, press the Release (RLSE) key; or,			
	2. Press the END key, to allow the station to complete the call (Feature 1550, Through Dialing).			
	The station user is provided with the attendant group class of service for Direct Outward Dialing.			
OPERATION	TO ACTIVATE:			
	1. While connection between station and console is indicated on the TALK EXT key, attendant presses SNDR key, then dials trunk access code: station is put on hold, attendant is active on TALK CITY side of loop, and CO dial tone is returned to attendant.			
	2. Attendant either:			
	<ul><li>a. Completes the call for internal station user, then presses RLSE key when called party answers; or,</li><li>b. Presses RLSE key to allow internal station user to complete call.</li></ul>			

ATTENDANT FEATURE	
	SWITCHED-LOOP OPERATION Basic Feature
DESCRIPTION	With this attendant position arrangement, each call requiring assistance is switched to an "idle loop" on an attendant position. Queueing provides an "idle loop" for each call.
	Refer to Automatic Queueing to Attendant Position (Feature 0180) for additional information.

1580

# TIMED REMINDERS (ATTENDANT RECALL) Basic Feature

DESCRIPTION	If a trunk call remains unanswered after a predefined period of time, it automatically recalls the attendant to obtain further assistance.	
CONDITIONS	Recall to the attendant applies to trunk calls only.	
	Any trunk call which has been placed on hold by the attendant while the destination station is busy automatically recalls the attendant after a timeout period.	
	Any trunk call which has been transferred to an idle station, but has remained unanswered after a timeout period, automatically recalls the attendant.	
PROGRAMMING	Attendant group definition — Operator Recall Timeout: 2 to 254 seconds.	
OPERATION	None.	

1650

# TRUNK GROUP BUSY INDICATORS ON ATTENDANT POSITION

## **Business Feature Package 2**

DESCRIPTION	A distinctive visual signal is provided on the attendant console(s) when all trunks in a trunk group are busy.		
APPLICATION/ BENEFIT	The Direct Trunk Group Select Module (DTGS) immediately provides the attendant with the trunk group status.		
CONDITION	When all trunks in a group are busy, the lamp is illuminated; otherwise, the lamp is off.		
PREREQUISITE A trunk group status display DTGS module is required for each atter			
OPERATION	None.		

## TRUNK-TO-TRUNK CONNECTIONS

	_ was 1 cause		
DESCRIPTION	This feature enables attendants and authorized stations to connect two outside trunks then leave the connection.		
APPLICATIONS/ BENEFITS	Incoming callers who need to speak with a party in another branch of the office can be connected via a tie-line.		
	This feature enables an attendant or an authorized station to connect two outside parties then leave the connection immediately.		
CONDITIONS	Disconnect supervision must be provided by the central office so the two parties are not released when the connecting party leaves the connection.		
	The attendant can place both parties on hold.		
	This feature applies to central office, WATS, FX and tie-trunks.		
PROGRAMMING	Feature Access Codes/COS: Option 5.		
	Trunk equipment definition.		
	Trunk group definition.		
	Trunk group access assignments.		
OPERATION	TO ESTABLISH A TRUNK-TO-TRUNK CONNECTION:		
	1. Answer incoming trunk call.		
	2. Hookflash: stutter tone is heard.		
	3. Dial second external party: party answers.		
	4. Hookflash: three-way connection is established.		
	5. Go on-hook.		

1710

## TWO-PARTY HOLD (ON CONSOLE)

DESCRIPTION	The attendant can put on hold, for later retrieval, any two-party call (with both a ing and called station or trunk) or two called parties, then initiate further operations.				
APPLICATION/ BENEFIT	An attendant can be in conversation with two trunks that cannot return the disconnect signal. The attendant can put this call into a hold position, then monitor the line for disconnect.				
CONDITIONS	A station can hold a two-party call by using Three-way Conference Transfer (Feature 1540), Executive Feature Access (Feature 0690), or Call Hold (Feature 0290).				
	The two-party hold is invoked on the attendant console by pressing one of the operator circuit keys.				
	The held parties are retrieved by pressing the operator circuit key on the console that was used to hold the call.				
	A maximum of three two-party holds can be invoked concurrently on each console by using the three operator circuit keys.				
	The operator circuit key flashes in the hold pattern when a call is placed on hold in the circuit.				
	If two parties were connected in conversation, they can continue to talk while held by the attendant. If not connected, they receive hold tone.				
	While held by the attendant, hookflash attempts by either party are ignored by the system.				
OPERATION	TO ACCESS FEATURE:				
	• The attendant presses any available Hold key while connected to the two partie to be placed in hold mode: circuit key pressed flashes in hold pattern. Parties of hold either receive hold tone or continue to talk.				
	TO RETRIEVE HELD PARTIES:				
	Press the Hold key that was used to place parties on hold.				

#### 4. SYSTEM FEATURES

4.01 General. This section contains descriptions of all Prodigy System features. Table 4-1 provides a quick reference guide to this section.

Refer to Table 1-1, Section 1 of this manual, for a numerical index to all the Prodigy PABX features.

TABLE 4-1 System Features

FEATURE	FEATURE
NUMBER	DESIGNATION
0190	Automatic Route Selection (ARS)
0325	Calling Number Display to Station
0380	Check In/Check Out
0400	Class of Service Definitions
0420	Code Restriction
0560	Direct Inward Dialing (DID)
0670	DTMF To Dial Pulse Conversion
0710	Flexible Numbering of Stations
0730	Foreign Exchange (FX) Access
0880	Inward Restriction
0920	Listed Directory Number Service
0942	Loudspeaker Paging, Dial Access
0943	Loudspeaker Paging, Multizone Paging
0980	Message Waiting
0990	Miscellaneous Trunk Restriction
1000	Multiple Listed Directory Numbers
1010	Multiple Trunk Groups
1020	Music on Hold
1070	Night Station Service (Fixed)
1120	Outgoing Trunk Queueing
1121	Outgoing Trunk Call Waiting
1130	Outward Restriction
1140	Overload Protection
1150	Power Failure, Attendant
1160	Power Failure, Station
1190	Privacy and Lockout
1350	Sharing, Tenant Service
1360	Shared Attendant Service
1380	Speed Calling
1390	Splitting
1394	One-Way Auto/Manual Splitting
1395	Two-Way Auto/Manual Splitting
1420	Station Hunting
1421	Terminal Hunting
1422	Circular Hunting
1430	Station Message Detail Recording (SMDR)
1530	Termination Restriction
1590	Toll Restriction (see 0420, Code Restriction)
1592	Toll Restriction, 0/1 Access (see 0420, Code Restriction)

TABLE 4-1 System Features (continued)

FEATURE NUMBER	FEATURE DESIGNATION
1593	Toll Restriction, Three Digits, CO Codes (see 0420, Code Restriction)
1594	Toll Restriction, Three Digits, Area Codes (see 0420, Code Restriction)
1595	Toll Restriction, Five Digits (see 0420, Code Restriction)
1596	Absorb Digit(s) (see 0420, Code Restriction)
1597	Ignore Digit(s) (see 0420, Code Restriction)
1598	Deny Digit(s) (see 0420, Code Restriction)
1599	Allow Digit(s) (see 0420, Code Restriction)
1610	Traffic Measurement
1690	Trunk Verification by Customer
1700	Trunk Verification by Station
1730	Wake-Up Service, Automatic
1740	WATS Access
1800	Room Status Update
1810	Room Status Audit
1820	Direct Inward System Access (DISA)
2060	Station Condition Indicators (PABX)
2130	Standard Ground-Start Trunk Facilities
2140	Standard Loop-Start Line Facilities
2150	Standard Loop-Start Trunk Facilities
2240	Tone Characteristics on Line/Trunk Circuits

#### SYSTEM FEATURE

0190

#### AUTOMATIC ROUTE SELECTION

#### **Enhancement Feature Package**

#### DESCRIPTION

This feature enables the Prodigy PABX to direct outgoing calls to the least expensive trunk route. The PABX analyzes the directory number that is dialed after the Automatic Route Selection (ARS) access code, then makes the route selection based on the "look-up" tables programmed in the system memory. The originating station's class of service determines the level it can advance through the system analysis, to the eventual point of being allowed to originate a toll call over the public exchange network.

#### APPLICATION/ BENEFIT

Automatic Route Selection reduces communication costs, since outgoing calls are processed via the least expensive trunk groups.

#### CONDITIONS

ARS is invoked via an access code.

ARS can maintain a call queue of up to 10 calls. For each calling station in the queue, ARS maintains the dialed number, ARS processing state, route table index (if any), current route index (if any), and the modification table pointer.

Once the route table index is determined after analysis of the dialed number, ARS issues a resource request for the trunk of the first route option:

- If the trunk request fails (trunk is not free), the next alternative route selection is attempted. A flag is set to indicate that all equipments of a route selection are busy.
- If the trunk is seized, ARS transfers control to toll restriction (dialed number and trunk group).

Toll restriction determines whether the call is authorized or not. If the call is authorized, ARS uses the modification table pointer to generate the digits to be outpulsed on the trunk.

A station user who is attempting to access ARS receives either confirmation or busy tone, depending upon the overflow condition of the queue.

A station user who is in the ARS queue has two options:

- 1. Stay off-hook and wait for the call to be completed; or,
- 2. Dial a Call Waiting access code, then go on-hook. The system rings the calling station before processing the call.

Each station can place only one call at a time in the ARS queue.

A station, or attendant, if authorized by class of service, can place local or long distance calls by directly dialing a trunk group access code.

ARS is defined in the configuration data.

To reduce user efforts significantly in setting the required ARS configuration data, the default values and tables for all area codes must be preset to select routes based on national averages. Tie-line and FX usage are omitted from the default values.

The default data can be defined either completely or partially, and can incorporate tielines and FX trunks based on local tariffs.

ARS is capable of placing a call over eight possible routes, which range from the least to the most expensive. The order of routes can change during the time of day and/or day of week, according to rate schedules.

#### CONDITIONS (continued)

The Call Waiting feature is invoked when all ARS routes are busy and the caller remains off-hook upon receiving a busy tone. Call Waiting has the highest resource allocation priority. Call-back is activated by dialing an access code. The station user can then go on-hook, or place station-to-station calls. Call-back has the lowest resource allocation priority.

The physical resources (ports) associated with a given route, such as MCI, WATS, DDD, are addressed by trunk groups. A trunk group can be either all or part of the physical resources of a route.

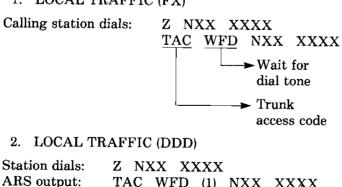
Listed below are the route selections available in the system. Route selection is determined by the directory number dialed by the calling station user.

ROUTE	LOCAL CALL (NXX XXXX)	LONG DISTANCE CALL (NAX NXX XXXX)
Tie-line	<b>∠</b>	~
FX	~	~
WATS	~	~
MCI (EXECUNET)	-	~
SPC (SPRINT)	•	~
ITT (CITY CALL)	-	~
DDD	~	~
Where: $ ightharpoonup = Route a$ $ ightharpoonup = Route no$ $ ightharpoonup = Route a$ $ ightharpoo$		
X = 0  to  9		

ARS can add a prefix (1), delete the area code, and insert digits to the dialed directory number, depending upon the route selected, as shown by the following examples:

```
Legend:
               Z = ARS access code
               N = 2 \text{ to } 9
               A = 0 \text{ or } 1
               X = 0 \text{ to } 9
```

#### 1. LOCAL TRAFFIC (FX)



TAC WFD (1) NXX XXXX

Route depending on prefix

#### AUTOMATIC ROUTE SELECTION

#### CONDITIONS (continued)

3. DDD (Long Distance)

Station dials:

Z NXX XXXX

ARS output:

TAC WFD (1) NAX NXX XXXX

4. FX (Long Distance)

Station dials:

Z NAX NXX XXXX

ARS output:

TAC WFD (1) (NAX) NXX XXXX

Route depending on area code

5. WATS

Station dials:

Z NAX NXX XXXX

ARS output:

TAC WFD 1 NAX NXX XXXX

6. MCI

Station dials:

Z NAX NXX XXXX

ARS output:

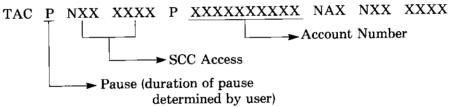
TAC WFD NAX NXX XXXX

7. SPRINT

Station dials:

Z NAX NXX XXXX

ARS output:



8. ITT (City Call)

Station dials:

Z NAX NXX XXXX

ARS output:

TAC P NXX XXXX P NAX NXX XXXX XXXXXXXXX ITT Access

Account Number -

9. Other (e.g., Military)

Station dials:

Z NAX NXX XXXX TAC (user-defined format)

ARS output:

#### **OPERATION**

#### TO ACCESS ARS:

- 1. Go off-hook: dial tone is heard.
- 2. Dial ARS access code: confirmation tone is heard.
- 3. Dial desired directory number.

SYSTEM FEATURE 0325

### CALLING NUMBER DISPLAY TO STATION Enhancement Feature Package

Emancement reature Package		
DESCRIPTION	This feature provides the called station, through a proprietary station instrument's alphanumeric display, with the calling internal station's number.	
APPLICATIONS/ BENEFITS	In hotels and motels, locations of certain stations, such as rooms and lounges, are immediately identified when calling the registration or service desk.	
	In executive offices, this feature enables the station user to screen incoming internal calls.	
CONDITIONS	This feature requires a station with a proprietary station instrument for DTMF to ASCII digit conversion and alphanumeric display.	
	This feature applies to the display of calling internal station numbers only.	
	The calling station's number is automatically sent by the system to the authorized called station.	
	The system transmits the calling station's number to the called station where it is displayed on the proprietary station instrument prior to ringing.	
	The proprietary station display device converts incoming DTMF tones to ASCII digits and displays the digits.	
PROCEDURES	None.	

SYSTEM FEATURE

0380

### CHECK IN/CHECK OUT

## **Enhancement Feature Package**

DESCRIPTION	This feature enables an authorized station or attendant to set or reset various system controls according to the vacancy or new occupancy of a hotel/motel guest room.		
APLICATIONS/ BENEFITS	Access to various features can be denied to stations in temporarily vacant guest rooms, thus avoiding origination of unauthorized calls.		
	Room status information is available and kept current at an authorized station of attendant position.		
CONDITIONS	To activate this feature, the authorized station user or attendant must dial the access code for either Check In or Check Out, followed by the room number.		
	Confirmation tone signifies that the system accepted the feature access command otherwise, a rejection tone is returned.		
	The following system controls are changed when the Check In access code is activated		
	<ul> <li>Controlled Outward Restriction (Feature 0440) is removed.</li> </ul>		
	<ul> <li>Room Status (Feature 1800) is changed to indicate that the room is occupied.</li> </ul>		
	The following system controls are changed when the Check Out access code i activated:		
	Controlled Outward Restriction (Feature 0440) is activated.		
	• Room status (Feature 1800) is changed to indicate that the room is vacant.		
	<ul> <li>Message Waiting (Feature 0980) indication to the station is cleared.</li> </ul>		
	• Call Forwarding (Feature 0240 — 0270) is cleared.		
	Wake-up Call Request (Feature 1730) is cleared.		
	Station Forced Busy (Feature 1410) is cleared.		
OPERATION	TO ACTIVATE:		
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial access code for either Check In or Check Out: dial tone is heard.</li> <li>Dial room number: either confirmation tone or rejection tone is heard.</li> <li>Go on-hook.</li> </ol>		
NOTES	1. Refer to Feature 0440 for Controlled Outward Restriction operation.		
	2. Refer to Feature 1800 for Room Status Update operation.		
	3. Refer to Feature 0980 for Message Waiting operation.		
	4. Refer to Features $0240 - 0270$ for Call Forwarding operation.		
	5. Refer to Feature 1730 for Wake-up Service — Automatic operation.		
	6. Refer to Feature 1410 for Station Forced Busy operation.		

#### CLASS OF SERVICE DEFINITIONS

#### **Basic Feature**

### DESCRIPTION

Classes of Service (COS) are collections of features and capabilities allowed or denied to stations, attendant consoles and incoming trunks (when the incoming trunk is used in Remote System Access operations).

#### APPLICATION/ BENEFIT

Enables the customer to define the system feature capabilities and restrictions.

#### CONDITIONS

Classes of Service are defined with system configuration procedures.

Each individual COS is used by the system in making decisions during call processing and during attempts to activate features.

A maximum of 16 Classes of Service is available to the Prodigy system.

#### **OPERATION**

COS affects the operation of a port in the following cases:

- 1. Dialing an Access Code. Access codes are either allowed or denied, depending on the COS assigned to a port. Access codes are used to access:
  - Stations
  - Trunk Groups
  - Features
  - Abbreviated Dialing Codes
- 2. Hookflash Operations. Hookflashing is either allowed or denied.
- 3. Consultation Hold/Executive Hold. Consultation Hold enables the station user to dial a third party after hookflashing and placing an existing connection on hold. A second hookflash places the third party on hold and resumes conversation with the second party. A third hookflash invokes a three-way conference.

Executive Hold enables the station user to dial special Executive Access codes after hookflashing.

4. Trunk to Trunk Transfer. Either allowed or denied.

An internal station user can initiate a three-way conference with external parties. The trunks are disconnected and the three-way conference is cancelled when the internal station user goes on-hook.

5. Trunk to Trunk Transfer. Either allowed or denied.

An internal station user can call up to two external parties and, upon going onhook, allow the two external parties to remain in the talk state.

6. Automatic Call Waiting. Either allowed or denied.

A station user authorized for Automatic Call Waiting receives busy tone upon calling a busy station, and thereafter a camp-on tone. The calling party must stay off-hook for a set period of time before the called party is automatically rung upon going on-hook.

7. Automatic Trunk Queueing. Either allowed or denied.

After dialing an access code to a trunk that is busy, an authorized station is automatically camped-on to the busy trunk via a queue mechanism. When the trunk becomes idle, the first camped-on party in the queue gets a central office dial tone.

- 3. Toll Restriction.
  - Toll restriction based on the toll restriction table is performed.
  - Toll restriction checks are skipped.

CODE RESTRICTION	0420
TOLL RESTRICTION	1590
TOLL RESTRICTION, 0/1 ACCESS	1592
TOLL RESTRICTION, THREE DIGITS, CO CODES	1593
TOLL RESTRICTION, THREE DIGITS, AREA CODES	1594
TOLL RESTRICTION, FIVE DIGITS	1595
ABSORB DIGIT(S)	1596
IGNORE DIGIT(S)	1597
DENY DIGIT(S)	1598
ALLOW DIGIT(S)	1599
	2000
Business Feature Package 1	

#### DESCRIPTION

The Prodigy system can selectively identify three-digit and six-digit area/office codes. through this feature, selected stations are either allowed or denied completion of dialed outgoing exchange network calls to those specific area/office codes.

#### APPLICATION/ BENEFIT

Abuse of long distance calling can be controlled by denying stations the capability to make them.

#### CONDITIONS

Code Restriction is applied to trunk groups. Each trunk circuit can be associated with any or all trunk groups in the system.

Restriction can be fully implemented within the PABX and does not require special signaling from the central office.

When a restricted digit is dialed, the station receives rejection tone and the trunk connection is released.

All restrictions are based on an allowed or denied basis.

International direct dialing can be restricted by three-digit or six-digit area code restrictions (allow/deny continent/country).

Digit absorption is available for central offices not requiring seven-digit directory numbers (one digit, digit repeat, three digits). Sequences of digits to be ignored for restriction purposes (one digit, digit repeat, three digits) are available for central offices requiring an office prefix.

Stations with code restriction can request the attendant to supersede the restriction (see Through Dialing).

For central offices which do not provide Called Party Disconnect Signaling, a timeout between digits is used to detect the end of dialing (prevents dialing to defeat code restriction after the called party disconnects).

Stations can be programmed to override all trunk code restrictions (Feature Access Codes/COS - Option 1).

Six-digit Code Restrictions apply to seven digits + 1 (prefix) or just seven digit dialing as well as 10 digits + or 10-digit dialing.

Three-digit Code Restrictions apply to seven digits + 1 (prefix) or just seven-digit dialing.

Maximum of 64 tables.

Unlimited number of entries for each special treatment table.

0/1 Code Restriction and Ignore/Absorb functions are done in special treatment tables for programming.
Maximum of 66 entries for each of Table Types 3 and 6.
CODE RESTRICTION TABLES — Toll Tables (use 1-64), Table Types (1 or 3 or 6) Type 1 = Special Treatment Tables = ignore repeat digit, absorb digit, absorb repeat digit, ignore three-digit sequence, absorb three-digit sequence, allow three-digit sequence, deny three-digit sequence, Type 3 = Allow/Deny three-digit area/office codes.
Table Entries — insert area codes, office codes (# = 0-9 range: example, 20 # = area codes 200-209).
CODE SETS — Trunk group 1-32, C.O. Dialing methods (1 or 2 or 3).
Method $1 = $ Second digit dialed for an exchange is never 0 or 1. A prefix may or may not be used.
Method 2 = Area Codes and office restrictions both use 0 and 1 as the second digit. A prefix may or may not be used. Code restriction is based on 10 digits or seven digits dialed.
Method 3 = Prefix determines area code. Absence of a prefix identifies an office exchange.
Area code (Type 3) — insert table number for allow or $1 + \text{table}$ for deny.
Area office (Type 6) — insert table number for allow or 1 + table number for deny office code — insert table number for allow or 1 + table number for deny, special treatment insert table number for allow or 1 + table number for deny.

**OPERATION** 

None.

SYSTEM FEATURE	0560
	DIRECT INWARD DIALING Business Feature Package 2
DESCRIPTION	This feature allows Direct Inward Dialing (DID) trunks to be used in the system. An incoming call from the public telephone network, except for Foreign Exchange (FX) or Wide Area Telephone Service (WATS) lines, can reach a specific station/line without attendant assistance or intervention.
APPLICATION/ BENEFIT	Incoming calls can be directly connected to stations without operator interception or assistance, thus maximizing the use of trunks.
CONDITIONS	Direct Inward Dialing is specified by configuration data.
	Calls completed to vacant codes, or permanently restricted stations, are intercepted to the attendant.
	DID trunk circuits can be used for outgoing as well as incoming service.
	The incoming caller receives busy tone if all DID trunk circuits are busy, or if the called station is busy.
	The incoming caller receives ringback tone if the called DID trunk circuit and extension are idle.
	The number of address digits received from DID trunks is established per trunk by configuration data. Extra digits sent are ignored. If fewer digits than expected are received, the trunk is given reorder tone after interdigit timeout.
	DID circuits are both DTMF and rotary dial.
	Termination restrictions on stations apply.
PREREQUISITE	To implement this feature, special trunks must be installed.
PROGRAMMING	Trunk signaling parameters.
	Trunk equipment definition.
	Trunk group define.
OPERATION	None.

SYSTEM FEATURE 0670	
	DTMF TO DIAL PULSE CONVERSION Basic Feature
DESCRIPTION	This feature enables the system to convert signals from dual tone multifrequency (DTMF) to the required dial pulse signals if the called station is not equipped to receive DTMF.
APPLICATION/ BENEFIT	This feature enables DTMF to dial pulse conversion.
CONDITION	The configuration data for each trunk in the PABX system defines whether or not that trunk is equipped for DTMF signaling, in addition to dial pulse signaling.
	Specifying in the configuration data that a trunk is not equipped for DTMF signaling causes DTMF signals from PABX stations or attendants to be converted to dial pulse signals before these signals are sent to the trunk.
PROGRAMMING	Station Define — Station equipment definition: Valid DTMF/Rotary Option 2 = if station is rotary only.
OPERATION	Follow normal dialing procedure.

## FLEXIBLE NUMBERING OF STATIONS

#### **Basic Feature**

	Basic Feature
DESCRIPTION	Station numbers, based on a customer-specified numbering plan, can be assigned during the Prodigy PABX installation, then reassigned while the PABX is in service, to permit personnel moves without corresponding directory number changes.
	Station numbers assigned in the same PABX can vary in length and can consist of either one, two, three or four digits.
APPLICATIONS/ BENEFITS	Station numbers can be changed or reassigned without placing the PABX out of service.
DEINDI 115	Provides flexibility and conserves numbers, since 1, 10, 100 and 1000 can be used in the same system for the station numbering plan. Can be used as an internal speed calling facility, since one or two digits can be assigned to stations which are called most often.
CONDITIONS	Either a timeout, an end of dialing code (with DTMF), or the use of a prefix, resolves any conflict that can result from the use of the same first digit for station numbers with variable lengths.
	Station numbering plans are defined in the configuration data.
	A one- to four-digit access code can prefix the station number.
	Two types of station numbering can be mixed in a PABX system if the first digits (or access codes) are not the same.
	<ol> <li>Fixed Length. The first digit (or access code) determines the number of digits in the station number.</li> </ol>
	Overlapping numbering sequences are not allowed.
	<ol> <li>Variable Length. The first digit (or access code) determines the maximum number of digits in the station number. Overlapping numbering sequences are allowed and require a timeout to terminate short dialing sequences.</li> </ol>
	The timeout duration is specified in the configuration data.
	Station numbering is tenant-based. The numbering plan of different tenants can be the same as, or different from, each other.
	Feature access codes cannot conflict with numbering plans.
	Modifications to station numbers and class of service information can be done through the attendant console. These modifications can be:
	<ul> <li>a. Station number and class of service addition</li> <li>b. Station number change</li> <li>c. Class of service change</li> <li>d. Station number deletion</li> </ul>
	If using a DTMF telephone, a station user can dial "#" after dialing the last digit instead of waiting for the timeout period.
PROGRAMMING	System timeouts: station dial tone.
	Station directory plan.
OPERATION	Follow normal dialing procedure.

Page 4-13

SYSTEM FEATURE 0730 FOREIGN EXCHANGE (FX) ACCESS **Basic Feature** This feature provides access to distant central offices via foreign exchange trunks. All DESCRIPTION calls to the PABX from the Foreign Exchange (FX) central office area are placed to the listed foreign exchange directory number, and are answered by the attendant as a Listed Directory Number (LDN) call. APPLICATION/ Provides a significantly inexpensive service if there is heavy traffic to destinations BENEFIT which are not within the local calling area. CONDITIONS All incoming calls to the PABX from the FX central office area are placed to the listed FX directory number. These calls are answered by the attendant or Direct-In Line (Feature 0570). Station access to FX trunks is either allowed or denied by class of service. FX incoming trunks appear on the attendant console's Answer key. Outgoing calls are made through the attendant (via direct or dial access) and/or by station direct dialing. FX trunk grouping conforms to Multiple Trunk Groups' (Feature 1010) rules. PROGRAMMING Feature Access Codes/COS: Options 50-55. Trunk signaling parameters: 1-16. Trunk definition: Trunk Equipment Definition. Trunk access assignments. **OPERATION** TO ACCESS AN FX TRUNK FROM THE CONSOLE: Go off-hook: dial tone is heard.

2. Dial access code: central office dial tone is heard.

#### OR

- Go off-hook: dial tone is heard.
- Press Trunk Group Status (associated trunk group number 1-15): central office dial tone is heard.

#### TO ACCESS AN FX TRUNK FROM AN AUTHORIZED STATION:

- 1. Go off-hook: dial tone is heard.
- 2. Dial access code: central office dial tone is heard.

## INWARD RESTRICTION

DESCRIPTION	This feature prevents selected station lines from receiving trunk calls.
	Incoming trunk calls to restricted stations are intercepted (refer to Intercept Treatment, Feature 0850).
APPLICATION/ BENEFIT	Certain stations, like those in the production area, can be restricted from receiving trunk calls, thus avoiding work disruption and misuse of the telephone.
CONDITIONS	Only an attendant can override this feature and transfer calls to restricted station lines. Station transfers to restricted station lines are not allowed.
	Inward Restriction is specified in the configuration data.
PROGRAMMING	Trunk Define — Trunk Equipment Definition:
	• Origination Type 5 = Outgoing only
	Station Define — Station Equipment Definition:
	• Termination Type 4 = Trunk terminations restricted
OPERATION	None.
NOTE	Refer to Feature 0850 for Intercept operation.

## LISTED DIRECTORY NUMBER SERVICE Basic Feature

_	
DESCRIPTION	Incoming trunk calls to the PABX via the assigned local telephone directory number are directed to an attendant. The attendant can complete these calls either to station lines within the system, or to certain trunk facilities. If an attendant console is present, a display indicates the trunk on which each incoming call is being received.
APPLICATIONS/ BENEFITS	This feature enables the attendant to choose the trunks to be used, and thus test the trunk's quality.
	Upon receiving a call, the attendant is provided the incoming trunk number, and therefore is able to answer correctly when using tenant service.
CONDITIONS	Each trunk circuit in the PABX is assigned a four-digit directory number in the configuration data.
	The directory number for a trunk is normally, although not necessarily, the last four digits of the central office directory number for that trunk.
	An incoming trunk call is identified on the attendant console by a display of the trunk

 ${\bf Trunk\ Equipment\ Definition-directory\ number.}$ 

directory number, as described in Feature 0820, Incoming Call Identification.

**PROGRAMMING** 

None.

**OPERATION** 

0942

## LOUDSPEAKER PAGING, DIAL ACCESS

DESCRIPTION	Attendants and authorized station users can access loudspeaker paging equipment and page all zones.
APPLICATIONS BENEFITS	This feature is used for immediate location of personnel.
	Announcements to specific areas can be made.
CONDITIONS	Access to loudspeaker paging is restricted by class of service.
	This feature is invoked by dialing an access code.
	Busy tone is returned if access to a busy paging system is attempted.
	Camp-on service can be applied to a busy paging system.
	Ericsson does not provide amplifiers and speakers.
	Paging capability uses either a one-line or a trunk circuit.
PROGRAMMING	Feature Access Codes/COS: Option 35.
	Station Equipment Definition — Program assigned equipment number as Passive Option 2, Termination Type 1.
OPERATION	TO SET UP PAGE FROM A STATION:
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial Page access code: ringback tone is heard, followed by silence.</li> <li>Proceed with paging.</li> </ol>
	TO CANCEL FROM A STATION:
	Go on-hook.
	TO PAGE FROM AN ATTENDANT CONSOLE, USING THE TRUNK GROUP SELECT MODULE:
	<ol> <li>Go off-hook: ringback tone is heard.</li> <li>Press Trunk Select Module Page 1, 2, 3, or 4.</li> <li>Make announcement.</li> </ol>
	OR:
	TO PAGE FROM THE ATTENDANT CONSOLE (SINGLE ZONE):
	Go off-hook, press PAGE button: ringback tone is heard.
	TO PAGE FROM THE ATTENDANT CONSOLE KEYPAD (MULTI-ZONE):
	<ol> <li>Go off-hook, then press PAGE button.</li> <li>Dial Zone Number* on the keypad: ringback tone is heard.</li> <li>Make announcement.</li> <li>Press Release key.</li> </ol>
	* 0 = all zones

# LOUDSPEAKER PAGING, MULTIZONE PAGING Basic Feature

DESCRIPTION	Attendants and authorized station users can page in more than one location or area within a building or facility served by the PABX.
APPLICATION/ BENEFIT	Paging or special announcements that apply only to specific areas can be made via the multizone equipment.
CONDITIONS	A specific access code is assigned to each zone.
	An "all zones" page access code and key are provided.
	The attendant can directly access this feature through the console. Authorized station users activate this feature by dialing an access code.
	Four page zones are provided.
	Refer to Loudspeaker Paging, Dial Access, Feature 0942, for other conditions.
NOTE	Refer to Loudspeaker Paging, Dial Access, Feature 0942, for PROGRAMMING and OPERATION procedures.

0980

## MESSAGE WAITING Business Feature Package 1

DESCRIPTION	This feature enables an attendant or an authorized station user to turn on a lamp on a telephone set served by the PABX to indicate that a message is waiting to be picked up by the station user.
APPLICATIONS/ BENEFITS	A station user knows immediately that a message is waiting, without having to ask the attendant or secretary.
	The attendant is able to keep track of which stations have Message Waiting applied.
CONDITIONS	Message Waiting can be applied on an unlimited number of stations.
	Station equipment and associated lamps are not provided by Ericsson.
	Voice wire pairs control lamp activation.
	The Message Waiting Lamp, when activated, blinks at the rate defined in the configuration data. Message Waiting Lamp blinking is synchronized with all activated lamps in the PABX so that they are either ON or OFF at the same time.
	The Message Waiting blink rate is set to coincide with the silent part of the ringing cycle (refer to Feature 0630, Distinctive Ringing).
	The Message Waiting lamp lights during the silent part of the ringing cycle. Business Feature Package 1 is required for Station Message Waiting origination capability.
	The lamp is OFF when the station is either off-hook or is ringing.
	The Station Busy Lamp Field of the attendant console displays which stations have the Message Waiting effect.
	Confirmation tone follows if the dialed Message Waiting access code is accepted Otherwise, rejection tone is received, indicating that the feature activation is denied
	A Message Waiting Lamp which is either part or independent of each telephone set is required for this feature.
PROGRAMMING	Feature Access Codes/COS: Option 308 (Station Message Waiting activation capability).
OPERATION	TO ACTIVATE FROM AN AUTHORIZED STATION:
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial Message Waiting access code, followed by the station number the feature i to be applied to.</li> <li>Confirmation tone is heard if feature access is accepted. Otherwise, rejection ton is received.</li> </ol>
	4. Go on-hook.

SYSTEM FEATUR	SYSTEM FEATURE 0990	
	MISCELLANEOUS TRUNK RESTRICTION Business Feature Package 1	
DESCRIPTION	Preselected station lines (and dial repeating tie trunks) are denied access to preselected miscellaneous trunk groups which can include FX, WATS, Private Switched Network (e.g., CCSA), Tie Trunk, Recorded Telephone Dictation, and Paging. Restricted call attempts receive rejection tone.	
APPLICATION/ BENEFIT	Provides flexibility in assigning trunk feature restrictions.	
CONDITIONS	Trunk group access is controlled by class of service (Feature 0400, Classes of Service), trunk group access codes, and toll restriction, as defined in the configuration data.	
	See Direct Outward Dialing (Feature 0580) for a description of trunk group access restriction.	
	Paging and dictation facilities can appear as trunks to the PABX. Access to these facilities is also controlled by class of service and feature access codes.	

**OPERATION** 

None.

1000

## MULTIPLE LISTED DIRECTORY NUMBERS

DESCRIPTION	This service allows more than one listed directory number (LDN) to be associated with a single PABX installation.
APPLICATION/ BENEFIT	Through this feature, more incoming trunk calls can be processed by the system.
CONDITION	An incoming trunk call to any of the listed directory numbers assigned to the installation is identified and handled, as described in Feature 0920, Listed Directory Number (LDN) service.

SYSTEM FEATURE	
	MULTIPLE TRUNK GROUPS Basic Feature
DESCRIPTION	The PABX system provides flexibility in the grouping of trunks in order to control their use. Outgoing trunks of similar characteristics can be grouped as required, to control accessibility and use through classes of service, access codes and toll restrictions.
APPLICATION/ BENEFIT	Classification of trunks according to their characteristics provides flexibility and better control of their use.
CONDITIONS	A specific type of trunk is obtained by dialing a predefined access code.  The access codes are defined in the system configuration data.  Up to 32 trunk groups can be defined.  A trunk group can be a partial or complete subset of another trunk group (or groups).  Any given trunk can appear in any number of different (but not necessarily overlapping) trunk groups.  The total number of all trunk group entries is 128.  Area code, office code and toll restrictions (see Feature 1590, Toll Restriction) are applied on a trunk group basis.
OPERATION	<ol> <li>TO ACCESS A SPECIFIC TRUNK:</li> <li>Go off-hook: dial tone is heard.</li> <li>Dial trunk group access code: CO dial tone is heard.</li> <li>Dial desired destination number.</li> </ol>

1020

## **MUSIC ON HOLD**

## **Basic Feature**

DESCRIPTION	A music source can be connected to the Prodigy system via the cross-connect field and applied to calls that are placed on hold. If music is not provided, calls that are placed on hold continuously receive short beeps (hold tone).
APPLICATION/ BENEFIT	Calling parties can be provided with music instead of beeps, thus providing a more soothing and professionally appealing hold mode.
CONDITIONS	Peripheral equipment for separate music source must be maximum output — 13 dB, less than 1000 Ohm resistance.
	Proper jumper connection required on switch/tone card must be set to 2/3 position on pin connection W1.
PROGRAMMING	None.
OPERATION	None.

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## NIGHT STATION SERVICE (FIXED)

DESCRIPTION	This feature allows each trunk to have an associated night station to which incoming trunk calls are routed when the attendant group is in the Night Mode. A commor alerting device, such as a night bell, is activated by the incoming call, which can ther be answered from any authorized station via Feature 1630, Trunk Answer From Any Station (TAFAS).
APPLICATIONS/	This feature eliminates the need for an attendant console operator after office hours
BENEFITS	A station user who is working after office hours can receive incoming calls directly at his extension or by TAFAS.
CONDITIONS	All attendants in an attendant group must be in the Night Mode. From the sttendant console, Night Mode is entered via a switch. From an attendant station, Night Mode is entered by dialing an access code.
	This feature is released if any attendant in the group switches to the Day Mode whether by dialing an access code from an attendant station, or via the switch on the console.
	The assignment of a night station to individual trunks is done during system configuration. Any change in assignments can only be made by reconfiguring the system.
	Incoming trunks are not required to have a night station assigned.
	Incoming calls from each trunk with an associated night station are routed directly to the station.
	Camp-on tone is provided if an incoming trunk call's destination station is busy.
	All calls from incoming trunks without an associated night station, and all other calls which are normally processed by an attendant, activate the night bell, but only if programmed to do so.
	All calls are held in a common queue until answered.
	Incoming calls which are not answered are diverted to a common queue.
	To retrieve the next call from the common queue, an authorized station must dial an access code, consult with the calling party, then either:
	<ol> <li>Perform a call transfer operation; or,</li> <li>Perform a call hold operation and page the called party.</li> </ol>
	In both cases, if the incoming call remains unanswered after a timeout period, it is automatically routed back to the station which retrieved it from the queue.
	A station user who answers a TAFAS call can activate any feature the station is authorized to access.
	Dial tone is returned if a station user dials the TAFAS access code and there is no call waiting in the queue.
PROGRAMMING	Feature Access Code/COS: Option 34 (TAFAS).

NIGHT STATION SERVICE		1070
OPERATION	TO ANSWER A CALL FROM TAFAS:	
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial TAFAS access code: talk to calling party.</li> </ol>	
	TO ANSWER A CALL DIRECTED TO YOUR STATION:	
	Go off-hook: talk to calling party.	

# OUTGOING TRUNK QUEUEING Business Feature Package 2

DESCRIPTION	This feature provides a means for authorized station users (or attendants) to dial a busy outgoing trunk group, be placed in a queue, and be called back when a trunk in the group is available.
APPLICATION/ BENEFIT	This feature enables station users to place other calls or access other features while waiting for an outgoing trunk to become available.
CONDITIONS	This feature is invoked by a station user who hookflashes and dials a feature access code after receiving busy tone from the trunk group.
	When the connection is established or the callback timeout elapses, the feature is released.
	After the feature access code is dialed, the system tries to establish the call again. If the trunk group is still busy, a confirmation tone is sent to the calling party.
	When a trunk in the called group becomes idle, the calling station's line is given a distinctive ring. As soon as the calling party answers, the trunk is seized and connection is established.
	Both the trunk and the calling party must be idle before Automatic Callback is activated.
	If the trunk is idle, and the calling party is busy, then the call is tried again when the calling party hangs up.
	If the calling party answers the phone and the trunk is again busy, a busy tone is returned to the calling party and Outgoing Trunk Queueing is initiated once more.
	Outgoing Trunk Queueing exists until a timeout (set by configuration data) expires. The calling party is not given notice of expiration.
	Outgoing Trunk Queueing has lower priority than Outgoing Trunk Call Waiting (Feature 1121).
	The calling party is free to initiate or receive calls, as per normal operation.
	A station can be queued on only one outgoing trunk at a time. Queued trunk group requests are processed on a first-in, first-out basis.
OPERATION	TO ACCESS:
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial outgoing trunk group access code: busy tone is returned.</li> <li>Hookflash: dial tone is heard.</li> <li>Dial feature access code, then go on-hook: distinctive ring is returned when a trunk in the called group becomes available before the timeout.</li> </ol>

1121

## **OUTGOING TRUNK CALL WAITING**

## **Business Feature Package 2**

DESCRIPTION	If all trunks within a trunk group are busy, a calling party can wait (camp-on) until a trunk becomes available. The call is then connected to the trunk and receives central office dial tone.
APPLICATION/ BENEFIT	An authorized station user trying to access an outgoing trunk group that is busy has priority in getting a trunk over a station user who is in an Outgoing Trunk Queue. (Feature 1120).
CONDITIONS	After receiving busy tone for a period of time specified by configuration data, Call Waiting starts automatically.
	Call Waiting is released if the calling party hookflashes or disconnects.
	More than one station (and/or attendant) can call wait on the same trunk group. Requests are placed in a queue, and trunks are allocated on a first-in, first-out basis
	Stations are allowed Call Waiting by class of service. Outgoing Trunk Call Waiting has priority over Outgoing Trunk Queueing.
OPERATION	TO ACCESS:
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial outgoing trunk group access code: busy tone is heard.</li> <li>Stay off-hook: call waiting starts automatically.</li> </ol>

## **OUTWARD RESTRICTION**

	Dasie I catale
DESCRIPTION	Preselected station lines within the PABX are denied the ability to access outgoing trunks without the assistance of the attendant. Restricted calls are given rejection tone.
APPLICATION/ BENEFIT	This feature can be used to restrict hotel/motel room telephones and certain office telephones.
CONDITION	Outgoing trunk access is controlled by Class of Service (Feature 0400).
	Any station can be defined so that the station user is not authorized for Direct Outward Dialing (Feature 0580).
	The station user can request outgoing trunk access from the attendant (Feature 1490, Straightforward Outward Completion).

1140

## OVERLOAD PROTECTION

DESCRIPTION	The PABX operating software continuously monitors user demand for system resources and automatically provides limited service when the traffic load becomes abnormally high.
APPLICATION/ BENEFIT	The system automatically maintains quality of service and alerts the attendant to any degradation in service.
CONDITIONS	PABX software determines overload conditions by monitoring available processing time, RAM, and switch matrix utilization. These parameters are compared with overload limits for each, defined in the configuration data. Exceeding the limit for any one parameter causes service degradation.
	Service degradation due to overloading is gradual and occurs in three levels of severity:
	1. All new station originations are denied.
	2. All new station originations or dialing by previous origination stations are denied.
	3. Only disconnects are allowed. All other attendant or station operations are denied.
	Current conversations are maintained during all three levels of service degradation.
	During service degradation, the PABX minor alarm lamp and attendant console alarm indicator (Feature 0010, Alarm Indications) flash in the traffic degradation pattern to alert the attendant.
	When all three overload parameters decrease below an overload level limit for at least five seconds, the denied services are restored automatically.
OPERATION	None.

# POWER FAILURE TRANSFER, ATTENDANT POWER FAILURE TRANSFER, STATION

1150 1160

]

DESCRIPTION	During a power outage, this feature provides incoming and outgoing service to a predetermined single telephone station. Each Prodigy cabinet controls one power failure transfer relay.
APPLICATION/ BENEFIT	This feature enables calls to be received and originated during a power outage.
CONDITIONS	Power failure transfer of the station to the central office is automatic when power outage occurs.
	The failure transfer station becomes a direct connection to the central office trunk for originating outgoing calls and receiving incoming calls.
	The assignment of the specific trunk to be used for failure transfer is done during system configuration.
	If ground-start trunks are used in the system, a ground-start key must be used to allow call origination on the power failure transfer station.
	All transfer and switching capabilities are lost during a power failure.
	Two types of battery back-up are available: a one-hour or two-hour reserve battery.
	A rotary station must be used if the trunk it is connected to is rotary.
PROGRAMMING	Station definition.
	Trunk definition.
OPERATION	TO ORIGINATE A CALL (USING POWER FAILURE TRANSFER):
	<ol> <li>Go off-hook.</li> <li>Press ground key.</li> <li>Dial external number.</li> </ol>
	Calls are received in the normal manner.

SYSTEM FEATURE 119	
	PRIVACY AND LOCKOUT Business Feature Package 3
DESCRIPTION	This feature automatically splits a call connection between two or more parties whenever an authorized attendant or station overrides it. This feature is inherent in the Attendant Position (Feature 0120).
CONDITIONS	Attendant Lockout (Feature 0100) is provided.  Refer to Executive Override (Feature 0680) and Splitting (Features 1390, 1394, 1395) for additional information.

## SHARING, TENANT SERVICE

DESCRIPTION	This feature enables the PABX system to provide service to a maximum of eight customers (tenants). Each tenant has separate attendant facilities, trunk groups, station numbering plans, and class of service assignments.
APPLICATION/ BENEFIT	This feature can be used by any type of business or hotel that wants to share the expense of PABX service. Each tenant has total control over its part of the PABX.
CONDITIONS	Two or more tenants, located in close proximity, can be simultaneously served by the same PABX switching equipment.
	Each tenant is provided with separate attendant facilities, trunk groups, station numbering plans and class of service assignments.
	Up to eight tenants can be served by the same PABX system, as defined by the configuration data.
	A tenant can contain another tenant as a subset. This allows different tenants to share common attendants, trunk groups, or station numbering plans.
	The total number of PABX facilities (lines, trunk, classes of service, and attendants) for all tenants is limited by system maximums.
	Station numbers may be the same for tenants served by different attendants. Station numbers must be unique for tenants served by the same attendants.
	Calls between exclusive tenants are normally made using trunk facilities and not by station-to-station dialing. A limited number of stations may be called using Abbreviated Local Dialing (Feature 0001) or Single Digit Dialing (Feature 1370).
PROGRAMMING	Tenant Service — all sections of programming.
OPERATION	None.

1360

## SHARED ATTENDANT SERVICE

DESCRIPTION	This feature allows one attendant position, or a common team of attendant positions, to provide attendant service to two or more PABX customer groups (tenants) served by the same switching system.
APPLICATION/ BENEFIT	This feature enables customers to enjoy full PABX and attendant services while sharing with another tenant the expenses involved.
CONDITIONS	Attendants and tenants served by the same system are defined in the configuration data.
	The configuration data can be specified so that two or more tenants appear as a subset of a larger tenant, which is then served by a common attendant or attendants.
	In addition, each tenant can have separate attendants, as defined in the configuration data.
	See Sharing, Tenant Service (Feature 1350) for additional information.
PROGRAMMING	Tenant Service — all sections of programming.

#### SPEED CALLING

#### **Enhancement Feature Package**

#### DESCRIPTION

This feature allows selected DTMF or rotary users and attendants to expedite the dialing process by assigning abbreviated codes to frequently called numbers. These codes are programmed into either common or personal tables. In addition, the station user has the capability of saving a number for redialing in case there is no answer, or a busy tone is encountered at the directory number which was dialed.

#### APPLICATIONS/ BENEFITS

This feature is usually used for common carriers which require a local number, a security code and a ten-digit long distance number to be dialed. Using a three- or four-digit code saves dialing time. In addition, the station user can also program home numbers, branch numbers and customer numbers.

The Saved Number Redial allows storage of digits in a "temporary memory" which can be changed, thus avoiding redialing of busy and no answer telephone numbers.

#### CONDITIONS

A maximum of one Saved Number Redial is allowed per station.

Rotary stations cannot use Saved Number Redial because the "#" and "\*" keys are not available.

A speed call number consists of the outgoing trunk group access number and the specific digits assigned to the desired party.

Station users receive hold tone between the first and the last digit dialed.

After dialing a speed call number, the station receives busy tone if all trunks are busy.

If a station not authorized for speed calling attempts to access a speed call number, it receives rejection tone.

An attendant can design common and personal speed calling tables for a station.

Station users can design only their own personal tables.

Speed call tables (common or personal use) contain a maximum of five separate speed call numbers or entries (16 digits each). If a speed call number exceeds 16 digits, then this speed call number uses up two or more entries in that table (increments of 16). A speed dial or redial number can represent up to a maximum of 64 digits.

The speed call common use area consists of a maximum of 16 common use tables. Access to common use tables is restricted by class of service.

Personal use tables are dedicated to selected stations. A maximum of 10 entries are allowed for each station.

If a station wishes to use the redial facility, then the number of personal table entries is reduced to allow space for the redial number.

Rotary stations' personal speed call numbers must be designed by the attendant.

Speed call numbers are subject to toll restriction and automatic route selection programming.

Feature Access Codes/COS: Options 1300, 1301 and 1302.
Regione Access Codes/COS: Oblions 1500, 1501 and 1504.
Speed Calling: Speed Dialing Common Table access 1-16.
Speed Calling: Stations with speed dial.
Speed Calling: Stations with re-dial.
Speed Calling: Timing parameters:  No redial from 2 minutes to 254 minutes (4 hours, 23 minutes)
DTMF digits: 2 to 254 milliseconds
Pause delay: 2 to 300 seconds
Dial tone delay: 100 to 1,000 milliseconds
TO DIAL A SPEED CALLING NUMBER:
<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial Speed Calling access code, followed by a speed call entry code (00-09 for Personal Calling Table, or 10-89 for Common Speed Calling Table): connection is established.</li> </ol>
TO DESIGN AN ATTENDANT CONSOLE'S SPEED CALLING NUMBER:
<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial Speed Calling Access Code.</li> <li>Dial Speed Calling Entry Code (00-09 Personal) or (10-89 Common).</li> <li>Dial Speed Calling Special Code (station number), only if setting up a personal number for a station.</li> <li>Dial Option Code (1 = insert, 0 = delete).</li> <li>Dial Trunk Access Code (normally 9).</li> <li>Dial "#" (wait for dial tone).</li> <li>Dial subscriber's telephone number including pauses (*) in appropriate areas.</li> </ol>
* Note: "#" = dial tone detect, "*" = pause
TO CANCEL A SPEED CALLING NUMBER (STATION OR CONSOLE):
<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial Speed Calling Entry Code (00-09 Personal) or (10-89 Common).</li> <li>Dial Special Code station number only if the attendant set-up the Personal Speed Calling Table.</li> <li>Dial Option Code 0: confirmation tone is heard.</li> </ol>

SYSTEM FEATUR	RE			
	SPLITTING ONE-WAY AUTO/MANUAL SPLITTING TWO-WAY AUTO/MANUAL SPLITTING Business Feature Package 3			
DESCRIPTION	Splitting enables an attendant, who is in connection with an outside party and an internal station user, to speak privately with the internal station user by pressing a console key.			
	One-way Auto/Manual Splitting automatically goes into effect whenever an attendant, who extends an incoming call to an internal station, remains connected to the circuit. The attendant is then able to:			
	<ol> <li>Converse privately with the internal party,</li> <li>Merge and reinstate a split condition.</li> </ol>			
	Two-Way Auto/Manual Splitting enables the attendant to:			
	<ol> <li>Converse privately with either the internal or external party,</li> <li>Merge and reinstate a split condition,</li> <li>Change the direction of the split.</li> </ol>			
APPLICATION/ BENEFIT	This feature enables the internal station to screen incoming calls.			
CONDITIONS	An attendant has the use of three keys on the console:			
	1. BOTH TALK: allows the attendant to talk to both the extension and city connection at the same time.			
	2. TALK EXT (Talk Extension): allows an attendant to talk with the extension only.			
	3. TALK CITY: allows the attendant to talk with the city trunk only.			
	An authorized station performs the same functions by dialing three feature access codes corresponding to BOTH TALK, TALK EXT, and TALK CITY.			
PROGRAMMING	Feature Access Codes/COS: Options 504 and 505			
OPERATION	TO ACTIVATE:			
	<ol> <li>When a call is split, the external party is put on hold. The party can disconnect at any time.</li> <li>The TALK CITY key can be used to talk with a trunk (or a station, if both parties are stations).</li> <li>The TALK EXT key can be used to talk with a station (or a trunk if both parties are outside the PABX).</li> <li>When the call split is performed, the attendant (or station) is put into immediate conversation.</li> </ol>			

## STATION HUNTING TERMINAL HUNTING CIRCULAR HUNTING

1420

1421

1422

## Business Feature Package 1

#### DESCRIPTION

These features enable several internal stations to form a group in order to share the answering of calls directed to any member of the group.

Calls to the group are routed to any idle member station. A call to a member station that is not answered within a preset time period is routed to another member.

There are three types of hunting methods:

- 1. Station Hunting. If stations in a hunt group are consecutively numbered, an incoming call to any member station, if busy, prompts a progressive search through the remaining stations within the group. Connection is established to the first available member station.
- 2. Terminal Hunting. This feature applies to either consecutive (where station numbers are assigned in ascending numerical sequence), or non-consecutive hunting sequence. An incoming call to a busy hunt group member station searches for an available station in an upward direction, ending with the last station in the group. Thus, any incoming call which is directed to a station other than the first station line in the hunt group does not make a complete search for an available line.
- 3. Circular Hunting. The search for an available line starts with the called hunt group member station, regardless of whether the rotary hunt group is arranged for consecutive or nonconsecutive hunting. The search then proceeds to test all the members of the group in a prearranged order, ending with the first idle station line encountered.

#### APPLICATION/ BENEFIT

Calls to busy stations, or stations that do not answer are not missed, since they are automatically routed to an available station.

#### CONDITIONS

Stations in hunt groups are assigned as masters/slaves by the configuration data.

The first station in the hunt group is referred to as a master, and the other members are slaves.

A call to a busy master station activates hunting, but a call to a slave station does not.

There can be a maximum of 64 members in a hunt group.

A station can be a member of more than one hunt group, either as a slave in one group or a master in another.

A maximum of 31 hunt groups are available in the system.

The type of hunting assigned to each group is specified in the configuration data.

A slave station can activate Call Forwarding. When this feature is activated, the slave station is temporarily taken out of the hunt pattern until Call Forwarding is cancelled.

#### PROGRAMMING

Station Hunt Group Definition.

#### **OPERATION**

None.

# STATION MESSAGE DETAIL RECORDING (SMDR) Enhancement Feature Package

#### DESCRIPTION

Station Message Detail Recording (SMDR) enables data to be collected and printed for each outgoing and, optionally, incoming trunk call. Data output to a printer or recording device is at 600 or 9600 baud.

#### APPLICATION/ BENEFIT

The SMDR printout provides a hard copy of all trunk activities systemwide.

#### CONDITIONS

Records outgoing and/or incoming trunk calls (all types).

A multiplexer is recommended if a multi-cabinet configuration is used.

Optional format selections — Bell System Dimension FP15 Format, modified two-line FP15 Bell System format (for use with forced account codes), or short format (without account codes).

Additional line feeds.

Call record origination 0-255 seconds programmable.

Inhibit local calls (7 digits and below).

Forced account codes (1-15 digits).

Account codes on incoming calls (1-15 digits).

Long duration calls -599/10 of a minute - automatically produces new record.

Tenant differentiation.

Printer alarm.

Figure 1 provides the call record format for FP15 for direct output SMDR.

Requires additional equipment (printer or SMDR unit).

Interface to the printer is serial, 8-bit word, 2-stop bits, odd parity, ASCII.

If other than 600 or 9600 baud is required, a multiplexer can be used.

A minimum of one digit and "#" are required for forced account codes.

Trunk to trunk transfer activates an additional call record.

J7 cable must be cross-connected on main distribution frame (MDF) to bring out RS232 connector.

If a monitored call is transferred, a new call record is initiated and applied to the new extension involved.

An unanswered transfer is associated with the transferee.

Lost call record alarm directs trunk calls to the operator in the event of printer failure or if the buffer is full (approximately 30 call records).

The printout consists of one-to-15 digit numbers (forced account code), one-to-four digit extension number, dialed one-to-three access code, another one-to-three digit access code (used for trunk to tie trunk consultatins), A = Attendant or I = Incoming call, call duration (hour, minutes, minute lengths), and call termination time (two digits for hours, two digits for minutes), specific attendant numbers one-to-eight appear in the extension column if the call is attendant originated.

Figure 1. CALL RECORD FORMAT FOR FP15 FOR DIRECT OUTPUT SMDR

00	Space	– Blank
01	Space	– Blank
02	Space	– Blank
03	Time-Hr. Tens	— (Time Call Terminated — Hours)
04	Time-Hr. Unit	— (Time Call Terminated — Hours)
		— (Time Call Terminated — Minutes)
05	Time-Minute, Tens	- (Time Call Terminated - Minutes)  - (Time Call Terminated - Minutes)
06	Time-Minute, Units	— (Time Call Terminated — Windles)
0.7	Change	_ Space
07	Space	_ Space
08	Duration-Hour	— (Duration-Hour)
09	Duration-Minute, Tens	— (Duration-Minute)
10	Duration-Minute, Units	- (Duration-Minute)
11	Duration-Minute, Tenths	(Duration-Tenths of Min.)
	2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	
12	Space	- Space
		Ţ
13	Condition Code	— (Attendant Incoming or Outgoing Trunk)
14	Space	_ Space
15	Access Code 1 -1	— (Trunk Access Code)
16	Access Code 1 -2	— (Trunk Access Code)
17	Access Code 1 -3	— (Trunk Access Code)
		(Out d Thursday Access Code)
18	Access Code 2 -1	— (2nd Trunk Access Code)
19	Access Code 2 -2	- (2nd Trunk Access Code)
20	Access Code 2 -3	— (2nd Trunk Access Code)
01	S	Space
21	Space	
22	Dialed Number -1	
23	Dialed Number -2	— (Dialed Number)
$\frac{23}{24}$	Dialed Number -3	— (Dialed Number)
2 <del>5</del>	Dialed Number -4	- (Dialed Number)
26	Dialed Number -5	— (Dialed Number)
27	Dialed Number -6	— (Dialed Number)
28	Dialed Number -7	— (Dialed Number)
29	Dialed Number -8	— (Dialed Number)
30	Dialed Number -9	— (Dialed Number)
00		·

#### Figure 1. CALL RECORD FORMAT FOR FP15 FOR DIRECT OUTPUT SMDR (continued)

31	Dialed Number -10		- (Dialed	Number)	)		
32	Dialed Number -11		- (Dialed	,			
33	Dialed Number -12		- (Dialed	,			
34	Dialed Number -13		- (Dialed	,			
35	Dialed Number -14		- (Dialed	,			
36	Dialed Number -15		- (Dialed	r			
37	Space		- Space				
38	Calling Number -1	_	- (Ext. N	umber or	Attend	ant Numl	
39	Calling Number -2		- (Ext. N				
40	Calling Number -3		- (Ext. Ni				
41	Calling Number -4		- (Ext. Ni				
42	Space		- Space	umber of	Attenu	ant Num	er)
43	Account Code -1		- (Forced	Account l Incomir	-	-	
44	Account Code -2		_ ''	"	g	k Code)	
45	Account Code -3		_ ,,	,,	,,	,,	
46	Account Code -4		_ ,,	,,	,,	,,	
47	Account Code -5	<del>-</del>	_ ,,	,,	,,	,,	
48	Account Code -6		,,	,,	,,	,,	
49	Account Code -7	_	- ,,	,,	,,	,,	
50	Account Code -8		,,	,,	,,	,,	
51	Account Code -9		. ,,	,,	"	,,	
52	Account Code -10		. ,,	,,	,,	,,	
53	Account Code -11		,,,	**	,,	,,	
54	Account Code -12		,,,	,,	,,	,,	
55	Account Code -13		,,	,,	,,	,,	
56	Account Code -14	_	,,	,,	,,	,,	
57	Account Code -15		,,	,,	,,	,,	
58	Carriage Return		Carriage	Return			
59	Line Feed		Line Fee				
60	Null		Null	~~			
61	Null		Null				
62	Null						
62	Null		Null				

#### STATION MESSAGE DETAIL RECORDING (SMDR)

1430

#### **PROGRAMMING**

Feature Access Codes/COS Incoming Account Code Entry = Option 800, Outgoing Account Code Entry = Option 801, Clear Alarm = Option 802.

SMDR - No local call reports - specify tenants.

SMDR - Account classes - which classes of service require account codes.

SMDR - Trunk groups with SMDR applied.

SMDR — Station equipment numbers.

SMDR — Incoming trunks with SMDR.

SMDR - Secondary trunk access codes (tie-lines).

SMDR — Call record parameters record formats, line feeds, directory number format, no SMDR blocks, answer time.

SMDR — Minimum call duration per tenant (0-255 seconds).

#### **OPERATION**

#### TO SET UP WITHOUT FORCED ACCOUNT CODES:

- 1. Go off-hook: dial tone is heard.
- 2. Dial external number desired.

#### TO SET UP WITH FORCED ACCOUNT CODES:

- 1. Go off-hook: dial tone is heard.
- 2. Dial forced accont code access code receive confirmation tone.
- 3. Dial 1-15 digit account code and "#" (indicates end of account code): receive confirmation tone.
- 4. Dial external number desired.

#### TO ADD OPTIONAL ACCOUNT CODE DURING CONVERSATION:

- 1. Receive incoming trunk call.
- 2. Hookflash: receive stutter tone.
- 3. Dial optional account code incoming access code: receive confirmation tone.
- 4. Dial 1-15 digit account code and "#" (indicates end of account code): receive confirmation tone.
- 5. Hookflash: connection to original party is established.

## TERMINATION RESTRICTION

## **Business Feature Package 1**

DESCRIPTION	Station lines with this restriction cannot receive any calls. Terminating calls are given intercept treatment. Calls can be originated normally from this station.
APPLICATION/ BENEFIT	This feature is usually applied to stations in conference rooms or offices where the station user must not be disturbed.
CONDITION	All calls directed to the restricted station are routed to the attendant group.  The busy lamp field on the attendant console flashes in the Do Not Disturb pattern.  Termination restriction is established via configuration data.
PROGRAMMING	Station Define — Station Equipment Definition: Termination Type  4 = Trunk Terminations Restricted  6 = Station Terminations Restricted
OPERATION	None.

SYST	EM	FEA	TU	RE

1610

#### TRAFFIC MEASUREMENT

#### **Enhancement Feature Package**

#### DESCRIPTION

This feature allows the identification of the adequacies and deficiencies of the system configuration and usage. Traffic data can be accumulated for one hour, and then automatically printed out. This process is done via the attendant console and/or authorized station.

#### APPLICATION/ BENEFIT

This feature aids the maintenance craftspersons to understand the changing trunk and DTMF hardware requirements of the PABX.

#### CONDITIONS

The following is a list of traffic data printed out:

- Trunk group peg counts
- · Trunk group usage by trunk group
- Trunk attempts by trunk circuit
- All trunk busy rejects, by trunk group
- · All trunks busy time, by trunk group
- Incoming trunk attempts
- Incoming trunk usage
- Outgoing trunk attempts
- Outgoing trunk usage
- DTMF receivers all busy time.

#### TRAFFIC REGISTER DESCRIPTION

#### Trunk Group Peg Count

This register is incremented every time the trunk group's access code is dialed, and the trunk is actually seized. Only the register in the cabinet where the seized trunk is located is incremented. Thus, the sum of all the registers (a total of four cabinets) is the hourly total trunk group peg count. Each of the 32 trunk groups is assigned to one of the 32 registers in each cabinet.

#### Trunk Group Usage

If any trunk in the group is found to be in outgoing use when it is scanned, this register is incremented. Each of the 32 trunk groups is assigned to one of the 32 registers in each cabinet.

#### Trunk Group All Busy Peg Count

This register is incremented in all cabinets every time the access code is dialed and all trunks in the group are assigned to the 32 registers in each cabinet.

#### **Outgoing Trunk Peg Count**

This register is incremented every time the trunk for an outgoing call is seized. Each configured trunk is allotted a register.

#### **Outgoing Trunk Usage**

If a trunk is found to be in outgoing use when it is scanned, this register is incremented. The hourly total thus reflects the duration of outgoing usage of this particular trunk. Each configured trunk is allotted a register.

#### **Incoming Trunk Peg Count**

This register is incremented each time a trunk is seized for an incoming call. Each configured trunk is allotted a register.

TRAFFIC MEASU	REMENT 1610		
CONDITIONS (continued)	Incoming Trunk Usage		
	If a trunk is in incoming use when it is scanned, this register is incremented. The hourly total thus reflects the duration of incoming usage of this particular trunk. Each configured trunk is allotted a register.		
	DTMF Decoder All Busy Usage		
	If all the DTMF decoders in a cabinet are found to be in use when it is scanned, this register is incremented. The hourly total reflects the duration of use of all the DTMF decoders in this cabinet. Each cabinet is allotted a register.		
PROGRAMMING	Feature Access Codes/COS: Option 1400.		
OPERATION	TO ACTIVATE:		
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial Traffic Measurement access code: confirmation tone is heard.</li> <li>Dial entry code to determine which cabinet (1-4) is to be scanned, or dial "*" for all cabinets.</li> <li>Dial one of the command codes (1-8):         <ul> <li>Code 1 — to cancel traffic measurement</li> <li>Code 2 — re-activate traffic measurement</li> <li>Code 3 — manual report printout</li> <li>Code 4 — abort printout</li> <li>Code 5 — stop hourly report</li> <li>Code 6 — continue hourly report</li> <li>Code 7 — select factory scale (CCS)</li> <li>Code 8 — select Erlang Scale.</li> </ul> </li> <li>Go on-hook.</li> </ol>		

# TRUNK VERIFICATION BY CUSTOMER TRUNK VERIFICATION BY STATION

1690 1700

### **Business Feature Package 3**

An authorized attendant or station user can access individual trunks of a group to make test calls for supervision and transmission verification. When a busy trunk is encountered, an automatic break-in is performed to verify trunk use.
Specific trunks can be tested for transmission and supervision either from an authorized station or attendant console.
The Trunk Verification access code is dialed, followed by the trunk directory number An attendant with a console can use the direct trunk select (DTS) module (if available to select the specific trunk.
If an idle trunk is called, it is seized normally for outward dialing.
If the trunk is busy in conversation, a burst of override tone is sent to the trunk and the party it is connected to, warning them of the break-in.
The party breaking in is placed in conversation with the trunk, and the party connected to the trunk is split from the conversation. If a single party is split from the trunk, it receives hold tone during the verification break-in. If a three-way conference is split, the other two parties can continue to talk.
When the party breaking in disconnects, the trunk is returned to the original call connection.
If a break-in occurs prior to or during Direct Outward Dialing (Feature 0580), the spli party is disconnected.
If a break-in attempt occurs during an incoming trunk origination, busy tone i returned.
If a trunk is found to be defective, it is placed temporarily out of service by using Trunk Forced Busy (Feature 1640).
Trunk verification can be performed on a trunk with Trunk Forced Busy (Featur 1640) invoked.
TO ACTIVATE:
<ol> <li>Go off-hook and dial Trunk Verification access code. (Note: An attendant with console can use a Direct Trunk Group Select Module.)</li> <li>Dial trunk directory number:         <ol> <li>If the trunk is idle, it is seized normally for outward dialing.</li> <li>If the trunk is busy, override tone is sent to parties in conversation and th station being verified is split from the connection.</li> <li>If the trunk is defective, it is placed out of service.</li> </ol> </li> </ol>

## WAKE-UP SERVICE, AUTOMATIC

### **Enhancement Feature**

DESCRIPTION	This feature allows either an authorized station or an attendant to program into the system the time of day that a specific station is to be automatically alerted for a Wake up Call. When the called station answers, the Wake-up Call is announced either by music or a recorded message.
APPLICATION/ BENEFIT	Automatic Wake-up Service relieves the attendant or desk clerk of personally providing wake-up service. A printout of all attempted Wake-up Calls, successful or not provides proof of call.
CONDITIONS	If idle, the station requesting Wake-up Service receives distinctive ringing in a pattern consisting of three ring-bursts.
	If the called station is busy or does not answer within 30 seconds, the call is auto matically tried again after five minutes. If after three attempts the called station is still busy or does not answer, the Wake-up Service feature is cancelled.
	All attempts by the system, whether successful or not, to ring stations with Wake-up Service requests are supported by printouts.
	If a set time command is entered on an extension where a previous set command has been entered, the time of the new command takes precedence.
	The duration of time set for Wake-up Call is a maximum of 24 hours.
	The Wake-up Call Service feature overrides Station Forced Busy (Do not Disturb).
PREREQUISITE	A hard copy device or printer is required.
OPERATION	TO INITIATE:
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial Wake-up Service access code: dial tone is heard.</li> <li>Enter requested Wake-up time: either a confirmation or reject tone is heard.</li> <li>Go on-hook.</li> </ol>
	TO CANCEL:
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial Wake-up access code followed by "9999".</li> <li>Go on-hook.</li> </ol>
NOTES	1. Check In/Check Out (Feature 0380) clears wake-up call requests.
	2. Room Status Audit (Feature 1810) can be used to provide printouts of the wake-up status information on individual or on all rooms.

SYSTEM	FEATURE

### WATS ACCESS

### **Basic Feature**

DESCRIPTION	This service provides access to or from a Wide Area Telephone Service (WATS) office. All incoming calls to the PABX are placed to the assigned INWATS number and are answered by the PABX attendant, similar to Listed Directory Number (LDN) service. OUTWATS calls to various geographic areas are made on an attendant-handled basis via direct or dial access, and/or on a direct dial basis by station.
APPLICATION/ BENEFIT	Provides wide area telephone service at a reduced rate.
CONDITIONS	All incoming calls to the PABX are placed to the assigned INWATS number and are answered by the attendant.
	Access to outgoing WATS trunks is limited by class of service (see Feature 0400).
	Outgoing WATS calls are made on an attendant-handled basis via direct or dial access, and/or on a direct dial basis by authorized stations.
	WATS trunk grouping conforms to the rules of multiple trunk groups (see Feature 1010).
PREREQUISITE	The customer must lease WATS trunks from the common carrier.
OPERATION	TO ACCESS WATS LINE:
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial WATS access code (if station is authorized): dial tone is heard. Dial desired directory number.</li> <li>OR:</li> </ol>
	Dial attendant: request assistance.

### **ROOM STATUS UPDATE**

### **Enhancement Feature Package**

	Ennancement reature Package
DESCRIPTION	This feature enables an authorized station user or attendant to change and update the status of hotel/motel guest rooms by dialing any of the following Room Status Codes:
	<ul> <li>1 — Room is clean and vacant</li> <li>2 — Room is clean and occupied</li> <li>3 — Room needs cleaning and is vacant</li> <li>4 — Room needs cleaning and is occupied</li> <li>5 — Maid in room</li> </ul>
	6 — Room is clean and ready for inspection 7 — Room is reserved
APPLICATION/ BENEFIT	Room status is immediately provided to hotel/motel personnel when checking in new guests.
CONDITIONS	Room status information is printed out through the Room Status Audit feature (Feature 1810).
	A maximum of seven feature access codes are defined (listed above) for the corresponding Room Status Codes.
	A new Room Status Update command cancels any existing Room Status Code in effect on a room.
OPERATION	TO ACTIVATE:
	<ol> <li>Go off-hook: dial tone is hear.</li> <li>Dial Room Status Update Access Code: dial tone is heard.</li> <li>Dial room number: confirmation tone is heard if feature activation is accepted; otherwise, rejection tone is returned.</li> <li>Go on-hook.</li> </ol>

1810

#### ROOM STATUS AUDIT

#### **Enhancement Feature Package**

### DESCRIPTION

This feature provides an authorized station or attendant with a printout stating the status of the following:

- · All rooms
- A specific room
- · All rooms with a specific status.

#### APPLICATION/ BENEFIT

 ${\bf Enables\ hotel/motel\ personnel\ to\ immediately\ determine\ room\ availability\ and\ status.}$ 

#### CONDITIONS

The Room Status Audit printout format is shown below.

First line:

mn/dd hh:mm

Where:

mn is month

dd is day of month

hh is hour (24-hour clock)

mm is minute.

Second line:

Where:

ROOM\_\_\_STATUS\_\_\_DND\_\_\_MSG\_\_\_RSTN\_\_\_WAKEUP

DND is heading for Do Not Disturb activated.

MSG is heading for Message Waiting activated.

RSTN is heading for Controlled Outward Restriction activated.

WAKEUP is heading for Wake-up Call activated.

#### Third and subsequent lines:

RRRR S X X hh:mm

Where:

RRRR is the room (extension) number

S is the status where

- 1 Room is clean and vacant
- 2 Room is clean and occupied
- 3 Room needs cleaning and is vacant
- 4 Room needs cleaning and is occupied
- 5 Maid in room
- 6 Room is clean and ready for inspection
- 7 Room is reserved

"X" is changed to "Y" if the feature is activated.

"X" is changed to "N" if the feature is not activated.

hh:mm is hour and minute (24-hour clock) if a wake-up call is pending.

hh:mm field is blank if no wake-up call is pending.

Three separate access codes are defined for this feature. Each access code corresponds to a printout request for any of the following information:

- Status of all rooms
- Status of a specific room
- All rooms with a specific status.

ROOM STATUS AU	U <b>DIT</b>	1810			
PREREQUISITE	A printer is required for this feature.				
OPERATION	TO REQUEST A PRINTOUT OF THE STATUS OF ALL ROOMS:				
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial the access code to request the printout of the status of all rooms:         <ul> <li>If the request is accepted, confirmation tone is returned.</li> <li>If the request is not accepted by the system, rejection tone is returned.</li> </ul> </li> <li>Go on-hook. Printout is provided if request is accepted.</li> </ol>				
	TO REQUEST A PRINTOUT OF THE STATUS OF A SPECIFIC ROOM:				
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial access code: dial tone is heard.</li> <li>Dial room number:         <ul> <li>If request is accepted, confirmation tone is returned.</li> <li>If request is rejected by the system, rejection tone is received.</li> </ul> </li> </ol>				
	4. Go on-hook. Printout is provided if request is accepted by the system.  TO REQUEST A PRINTOUT OF ALL ROOMS WITH A SPECIFIC STATUS:				
	<ol> <li>Go off-hook: dial tone is heard.</li> <li>Dial access code: dial tone is heard.</li> <li>Dial status code desired:         <ul> <li>If request is accepted, confirmation tone is heard.</li> <li>If request is not accepted, rejection tone is heard.</li> </ul> </li> <li>Go on-hook. Printout is provided if request is accepted by the system.</li> </ol>				
NOTE	Refer to Feature 1800 for Room Status Update.				

## DIRECT INWARD SYSTEM ACCESS

### **Enhancement Feature Package**

DESCRIPTION	Direct Inward System Access (DISA) enables an authorized caller to dial directly into the Prodigy system via selected trunk or trunks, and gain access to the various features of the PABX. These features include dialing an internal station, access to external trunks, Automatic Route Selection, Speed Calling, and other features which do not require hookflashing.
APPLICATION/ BENEFIT	Authorized personnel, or executives, who are away from the office are able to place important calls, or access system features without attendant assistance. Calls are treated by the system as though they were originated internally.
CONDITIONS	Feature access is controlled by the class of service assigned to the user.  The switch can be configured so that either all incoming trunks in a dedicated trunk group are treated as DISA calls during day and night modes, or incoming calls are treated as DISA calls only when the system is in the night mode.  The user identification is shown in the calling number field of SMDR records.
OPERATION	<ol> <li>Dial into Prodigy system via a trunk configured for DISA: dial tone is heard.</li> <li>Dial eight-digit account code (first three digits represent the user ID, next five digits represent user authorization code): second dial tone is heard if authorization code entered is correct. Access to system features can now proceed. If authorization code is incorrect, rejection tone is returned.</li> </ol>
NOTE	Due to battery backed memory limitation, it is not possible to configure a switch to have the full five hundred-user account codes plus large speed calling tables.

## STATION CONDITION INDICATORS (PABX)

### **Basic Feature**

DESCRIPTION	A busy lamp indicator for every station and trunk is contained on each corresponding line and trunk card in the PABX mainframe cabinet.
APPLICATION/ BENEFIT	This feature indicates station and trunk status or activity to service personnel.
CONDITIONS	Station lamps indicate any of the following:
	<ol> <li>Lamp OFF = station is on-hook</li> <li>Lamp ON = station is off-hook, or ringing</li> <li>Lamp flickering = corresponds to dial pulsing during rotary dialing.</li> </ol>
	Trunk lamp indicators are OFF when the PABX loop to the central office is open; ON when the PABX loop is closed; and flicker to follow outpulsing of digits to the central office.
OPERATION	None.

2130

## STANDARD GROUND-START TRUNK FACILITIES

#### **Basic Feature**

#### DESCRIPTION

Ground-start PABX-central office trunks provide any of the following:

- Two-way (combination) Direct Outward Dialing (DOD) and attendant-handled incoming call service
- One-way DOD service
- One-way, attendant-handled incoming service, including night-answer arrangements on the incoming type trunks.

Common (CO) battery loop supervision, loop dial pulse or dual tone address signaling, alerting signals and electrical voiceband energy are transmitted via the two-wire ground-start trunk interface.

#### CONDITIONS

Specific trunk signaling and timing characteristics are part of the system configuration data.

The PABX conforms to the Bell System requirements, as defined in Technical Publication 48002, titled Functional Product Class Criteria — PBX. Section 2.4.3.1 of that publication specificies the interface requirements for ground-start trunks and includes the following topics:

- 1. Idle State
- 2. Incoming Seizure
- 3. Answer Supervision
- 4. Outgoing Seizure
- 5. Outgoing Address Signaling
- 6. Call Supervision
- 7. Transmission of PBX Disconnect
- 8. Detection of CO Disconnect

Page 4-53

## STANDARD LOOP-START LINE FACILITIES

#### **Basic Feature**

#### DESCRIPTION Station interface is a conductor loop which connects a key telephone system, telephone set, or auxiliary equipment. PABX battery is transmitted across the two-wire station interface for supervision and talking, PABX ringing for alerting, remote terminal loop supervision signals and loop dial pulse address signals, and electrical voiceband energy. CONDITION The PABX conforms to the Bell System requirements, as defined in Technical Publication 48002, titled Functional Product Class Criteria - PBX. Section 2.4.2 of that publication specifies the station interface requirements. Subsection 2.4.2.3 pertains to loop supervision and includes the following topics: 1. Idle Condition 2. Call Origination 3. Incoming Address Signaling 4. Termination of Calls 5. Flash Timing Detection of Disconnect

Transmission of Disconnect

2150

### STANDARD LOOP-START TRUNK FACILITIES

#### **Basic Feature**

#### DESCRIPTION

Loop-start PABX-central office (CO) trunks are used to provide manual attendant-handled two-way call service, attendant-handled one-way incoming call service, and attendant- or direct-dialed one-way outgoing call service. Loop-start operates two-wires at the interface, across which are transmitted common (CO) battery loop supervision, loop dial pulse or dual tone address signaling, alerting signals (ringing), and electrical voiceband energy.

#### CONDITIONS

Specific trunk signaling and timing characteristics are part of the system configuration data.

The PABX conforms to the Bell System requirements, as defined in Technical Publication 48002, titled Functional Product Class Criteria — PBX. Section 2.4.3.2 of that publication specifies the interface requirements for loop-start trunks and includes the following topcis:

- 1. Idle State
- 2. Incoming Seizure
- 3. Answer Supervision
- 4. Outgoing Seizure
- 5. Outgoing Address Signaling
- 6. Call Supervision
- 7. Transmission of PBX Disconnect
- 8. Detection of CO Disconnect

# TONE CHARACTERISTICS ON LINE/TRUNK CIRCUITS

#### **Basic Feature**

#### DESCRIPTION

The Prodigy PABX provides the following tones:

Dial Tone. Returned to the calling party when the PABX is ready to accept dialed digits.

Ring Back (Audible Ring) Tone. Returned to the calling party to indicate that the called station is being alerted.

#### **Busy Tone**

- 1. Returned to the calling party when the called party is busy.
- 2. Returned to the calling party to indicate that a feature being invoked for another station is not allowed because of a feature already active on that station (see Feature 0852 Intercept Tones).

Reorder (Equipment Busy) Tone. Returned to the calling party to indicate that temporarily the call cannot be completed due to system blocking, or that the called station is out of service (see Feature 0852, Intercept Tones).

Intercept (Rejection) Tone. Returned to the calling party to indicate that an invalid call request has been made (see Feature 0852, Intercept Tones).

Override Tone. Sent to the parties in a call to indicate that an overriding party is breaking into the call (see Feature 0680, Executive Override).

Busy Verification Tone. Sent to the parties in a call to indicate that another party has entered the call connection (see Feature 0220 Busy Verification of Station Lines; Feature 1690, Trunk Verification by Station).

Call Waiting Tone. Sent to the busy station user to indicate that a call is waiting to be answered by that station (see Feature 0310, Call Waiting Services).

Confirmation Tone. Returned to the calling party to indicate that a system feature has been successfully activated or deactivated.

Recall Dial Tone. Returned to the flashing party in an established connection to indicate that a switchhook has been successfully performed (see Feature 1210, Recall Dial Tone).

Hold Tone. Returned to the party placed on hold in a two-party call (see Feature 0140 Attendant Transfer, All Calls; Feature 0690, Executive Feature Access; Feature 1540, Three-way Conference Transfer).

Test Tone. Used for system test purposes.

#### **OPERATION**

The operation parameters of this feature are summarized in Table 2240.

#### TONE CHARACTERISTICS ON LINE/TRUNK CIRCUITS

## OPERATION (continued)

### TABLE 2240. Tone Characteristics Summary

TONE	FREQUENCY (Hz)	TONE LEVELS (dBm)	INTERRUPTION RATE
Dial	350 + 440	-13 to 14.5 dB	Steady
Ring Back (Audible)	440 + 480	$-19 \pm 1.5 \text{ dB}$	1 sec. ON/OFF 3 sec. ON/OFF
Busy	480 + 620	$-24 \pm 1.5 \text{ dB}$	.5 sec. ON/OFF .5 sec. ON/OFF
Reorder (Equip. Busy)	480 + 620	$-24 \pm 1.5 \text{ dB}$	.25 sec. ON/OFF .25 sec. ON/OFF
Intercept (Rejection) Override Busy Verification	440/620	-20 ± 1.5 dB/Frequency	.25 sec. Alternate
Howler	440/620	−13 ± dB/Frequency	.25 sec. Alternate
Call Waiting Confirmation Recall Dial	440	$-20 \pm 1.5 \text{ dB}$	5 mins. ON/OFF 995 mins. ON/OFF
Hold	1000	$-19 \pm 1.5 \text{ dB}$	5 mins. ON/OFF 995 mins. ON/OFF
Test	1000	$-19 \pm 1.5 \text{ dB}$	Steady
NOTE	All tones excep	ot those listed below, continue u	intil the call connection is released.
	Tone	Duration	
	Override Busy Verific *Call Waiting Confirmatio Recall Dial	g 0.1 - 0.3 sec.	
	*Distinctive cal	l waiting tone signals are one, tw	o or three bursts of Call Waiting ton

#### 5. SERVICE FEATURES

5.01 General. This section contains descriptions of all Prodigy Service Features. Table 5-1 provides a quick reference guide to this section.

Refer to Table 1-1, Section 1 of this manual, for the index to all the Prodigy PABX features.

TABLE 5-1 Service Features

FEATURE NUMBER	FEATURE DESIGNATION
2000	Maintenance Facility
2010	Power Failure Restart, ROM/PROM
2020	Directory Number/COS Changes
2050	Remote Maintenance Facility

Page 5⋅1

SERVICE FEATURE 2000

# REMOTE MAINTENANCE AND OTHER MAINTENANCE SERVICES

#### **Enhancement Feature Package**

#### DESCRIPTION

Self-diagnostic programs continuously monitor the Prodigy PABX. Upon request, based on the type of service, the correct operation of the Prodigy can be verified and faulty equipment can be diagnosed. Various services can be performed at the attendant console and/or remotely, as listed below.

A. MINOR ALARM STATUS TEST/RESULTS. When performed from the attendant console, minor alarm conditions on each card, feature packages, and on the PABX system are displayed each time the white blank console key is pressed. This function terminates when the last minor alarm condition is displayed. The format for display is shown in Table 2000A.

TABLE 2000A. Minor Alarm Status Test Results From Console (Read from left to right)

CABINET	CARD SLOT NUMBER	CARD TYPE	TEST RESULT BY POSITION
(If appli- cable) Cabi- nets 1-4	1-16	Line = if blank, indicates line circuit in service.	1 thru 8 corresponds to line circuits 1 thru 8 on line card.
1 thru 4	1-16	Trunk = if blank, indicates trunk circuit in service.	1 thru 4 corresponds to trunk circuits 1 thru 4 on each trunk card
1 thru 4	17	SWT (Card Switchtone) (7700-64 = If blank, indicates in service.	1 = Switch Memory Fail 2 = Tone Generator Fail 3 = Tone Detector Fail 4 = Time Slot Fail
1 thru 4	18	XMM (Memory Expansion Card) (7700-70)	<ul> <li>1 = Any Feature Package Fail</li> <li>2 = Configuration Change Data Fail</li> <li>3 = Message Registration Data Fail</li> </ul>
1 thru 4	19	CMP Processor Card (7700-63) = If blank, indicates no failure	1 = Communication Link 1 Fail 2 = Communication Link 2 Fail 3 = Voice/Tone Power Supply
1 thru 4	21/21	DTM DTMF card (7700-67 = If blank, indicates DTMF card in service	1 = DTMF Decoder 1 Fail 2 = DTMF Decoder 2 Fail 3 = DTMF Decoder 1 Fail 4 = DTMF Decoder 1 Fail 5 = DTMF Decoder 2 Fail 6 = DTMF Dial Tone Detect on full
1 thru 4	22	IPL Card interprocessor (7700-73) = If blank, no failure	1 = Interprocessor Link Failure

#### REMOTE MAINTENANCE AND OTHER MAINTENANCE SERVICES

2000

## Table 2000A. (continued). Minor Alarm Status Test Results From Console (Read from left to right)

CABINET	CARD SLOT NUMBER	CARD TYPE	TEST RESULT BY POSITION
1 thru 4	23	CPM ROM Card Configura- tion = (7700-66) If blank, no failure	1 = Configuration PROM Failure
1 thru 4	24	STS Status = If blank, no failure	<ul> <li>1 = Service Degradation</li> <li>2 = Trunk Configuration Fail</li> <li>3 = Line Configuration Fail</li> <li>4 = Line/Trunk Transmission Fail</li> </ul>
1 thru 4	25	FPK Package Feature = If blank, no failure	1 = Feature Package 1 Fail 2 = Feature Package 2 Fail 3 = Feature Package 3 Fail 4 = Feature Package 4 Fail 5 = Feature Package 5 Fail 6 = Feature Package 6 Fail 7 = Feature Package 7 Fail 8 = Feature Package 8 Fail
1 thru 4	_	CPC Configuration Processor (cabinet) = If blank, cabinet does not exist	1 = Cabinet 1 Exists 2 = Cabinet 2 Exists 3 = Cabinet 3 Exists 4 = Cabinet 4 Exists
1 thru 4	_	END End of Display = If blank, cabinet does not exist	1 = Cabinet 1 Exists 2 = Cabinet 2 Exists 3 = Cabinet 3 Exists 4 = Cabinet 4 Exists

## DESCRIPTION (continued)

The technician who is away from the PABX location can perform remote maintenance through a 12-key telephone set. The system automatically performs self-diagnostic procedures every 24 hours at a pre-programmed starting time (see Table 2000B).

TABLE 2000B. Complete Alarm Status (Single Cabinet)
(Read from left to right)

	CARD TYPE	FAILURE TYPE ALARM INDICATION (Beep Sequence A)	ALARM TYPE PER CARD  1 Beep per Failure (Beep Sequence B)  1 to 16 Beeps
1.	Line Card(s) (7700-62)	1 beep	1 to 16 beeps
2.	Trunk Card(s) (7700-61)	2 beeps	1 to 8 beeps
3.	Switchtone Card (7700-64)	3 beeps	1 beep
4.	Memory Expansion Card (7700-70)	4 beeps	1 beep
5.	Processor Card (Voice/Tone Power Supply Card Communi- cations Link 1 and 2) (7700-63)	5 beeps	1 beep
6.	DTMF Card (7700-67)	6 beeps	1 to 2 beeps
7.	Interprocessor Card	7 beeps	1 beep
8.	Configuration PROM Card (7700-66)	8 beeps	1 beep
9.	Status	9 beeps	1 beep
10.	Feature Package	10 beeps	1 beep
11.	Priority Port	_	1 beep

#### REMOTE MAINTENANCE AND OTHER MAINTENANCE SERVICES

2000

## DESCRIPTION (continued)

- B. DIAGNOSTIC MAINTENANCE (Basic Feature). Maintenance software is automatically activated at power-up time to perform the following:
  - Self-diagnostics
  - Hardware operation verification
  - Faulty equipment determination

The system verification tests include:

- 1. Temporary storage (RAM) Read/Write
- 2. Internal timer circuit operation
- 3. Switch memory Read/Write
- 4. Tone Generation
- 5. Line/Trunk Card Placement vs. Configuration PROM
- 6. PROM Checksum
- 7. Line/Trunk Card Voice Transmission
- 8. Power supply status

Any self-diagnostic failure detected during start-up is indicated on the PABX alarm lamps or attendant console alarm indicators.

A failure of Test 1 or 2 is considered a major failure and all PABX services are halted.

Line and trunk cards are continuously monitored for removal or insertion. If any card is removed, Self Tests 5 and 7 (listed above) are performed.

Any failure causes individual line or trunk circuits to remain out of service.

If all tests are passed, the line or trunk circuits remain in service. An internal PABX Stall Alarm Interrupt is implemented to recover from random hardware or software failures. Stall Alarm software automatically attempts to isolate the fault and PABX services. Priority is given to maintaining current conversation.

- C. DIRECTORY NUMBER/COS CHANGES. Can be performed from a remote site utilizing a 12-key telephone set, whereby changes can be made in any class of service (COS) and/or directory number. Temporary Storage (RAM) can be cleared. The following operations are provided:
  - 1. Set COS for a part number (line/trunk).
  - 2. Set Station or trunk directory number by port number.
  - 3. Clear temporary Storage/RAM memory.
  - 4. Permission to enter pass-code.

#### APPLICATION/ BENEFIT

Maintenance services can be performed from various locations. The use of a 12-key telephone set from a remote location provides great savings since costly maintenance equipment is not required.

SERVICE FEATUR	RE 2010
	POWER FAILURE RESTART ROM/PROM Basic Feature
DESCRIPTION	This feature enables the customer's configuration data to be contained in non-volatile memory (ROM/PROM). The configuration data is not lost after a power outage, thus making reprogramming unnecessary.
APPLICATIONS/ BENEFITS	Customer data is not lost after a power outage. The switch is fully operational when power is restored.
	The use of PROMS enables the Prodigy to tolerate a wider temperature range (between 0° and 35°C) than it otherwise could if a magnetic tape were used.
CONDITIONS	Temporary classes of service and directory changes are stored in volatile RAM and are lost after power failure.
	All features activated by stations are lost after power failure.
PROGRAMMING	None.
OPERATION	None.

SERVICE FEATURE

2020

# DIRECTORY AND CLASS OF SERVICE CHANGES UTILIZING 12-KEY TELEPHONE SET

#### **Basic Feature**

#### DESCRIPTION

This feature provides a facility whereby a service call from a remote site, utilizing a 12-key telephone set, enables system directory number and class of service (COS) entries to be changed and temporary storage/RAM to be cleared.

The following operations are provided:

- Set COS for a port number (line/trunk)
- Set station or trunk directory number by port number (Note: Directory numbers are not assigned to attendant consoles.)
- Set COS for a station/trunk by directory number
- · Change station/trunk directory number

#### APPLICATION/ BENEFIT

This feature enables directory number and COS entries to be performed from a remote site.

#### CONDITIONS

Three modes of access are proposed:

- 1. Through a 12-key touch-tone telephone set, dial into the Prodigy PABX from the service center. Either an attendant connects the incoming call to the feature, or a dedicated trunk/directory number is allocated for this service. A pass or unlock code is entered to gain operation status.
- 2. The Prodigy attendant initiates a call to the service center and connects to the feature. This mode requires an attendant/service person to be on site, but no pass code is used.
- 3. The Prodigy system can initiate a call to the service center at defined intervals and/or upon command (remote or local). This provides a certain level of security which does not require a password.

Once connection is established between the key telephone/service center and the feature, the system returns a steady confirmation tone (see Feature 2240) for five seconds, followed by a steady tone.

No special code/procedure is necessary to release the feature. Call disconnect releases the feature. Any directory or COS changes entered are completed by the feature.

#### **PREREQUISITE**

The standard 12-key telephone set is utilized from the remote service center.

#### **OPERATION**

Upon receipt of the feature connect confirmation tone and dial tone, the following OP codes are entered by the service-person to designate the operation to be performed:

OP CODE	
COMMAND	OPERATION
1	Set COS for a port number (line/trunk)
2	Set station/trunk directory number by port
3	Set COS for a station/trunk directory number
4	Change station directory number
#	Cancel current operation
5,6,7,	Unused
8,9,0	

## OPERATION (continued)

For each operation to be performed, the OP code command is entered. The system returns the confirmation tone (CT). Depending on the specific operation to be performed, the port number, directory number(s) and/or COS are entered in the prescribed manner. The formats are described below.

Each key entry field entered must be concluded by a "\*" delimiter. The confirmation tone is returned upon receipt of the delimiter "\*". The system automatically anticipates the end of the parameter list for a specific operation.

The five-second confirmation tone followed by the dial tone (DT) indicates successful completion of the operation. If an additional operation is to be performed, the appropriate OP code command is entered and the procedure continues as above. Multiple operations can be performed without disconnecting and re-invoking the feature.

If an illegal OP code command or key entry parameter field is entered, the system returns a rejection tone, which is repeated for five seconds. No operation is performed and all fields entered are deleted. Dial tone indicates that the system is ready to accept the next command.

After invoking the feature, the procedure for each of the operations designated is outlined below:

#### 1. Set COS for a port number (line/trunk):

Step No.	Key Entry	System Response	Explanation
1		$\mathbf{DT}$	System ready; enter OP code.
2	1	CT	Enter OP code.
3	PPP*	CT	PPP = port number (0-127)
4	CC*	CT (5 sec)	CC = COS  number (0-15)
5		DT	End OP code; proceed to select next OP.

#### 2. Set station/trunk directory number by port:

Step No.	Key Entry	System Response	Explanation
1		$\mathbf{DT}$	System ready; enter OP code.
2	2	CT	Enter OP code.
3	PPP*	CT	PPP = port number (0-127)
4	DDDD*	CT (5 sec)	DDDD = directory number (0-9999)
5		DT	End OP code; proceed to select next OP.

#### **DIRECTORY NUMBER/COS CHANGES**

2020

## OPERATION (continued)

3. Set COS for a station/trunk directory number:

Step No.	Key Entry	System Response	Explanation
1		$\mathbf{DT}$	System ready; enter OP code.
2	3	CT	Enter OP code.
3	DDDD*	$\mathbf{CT}$	DDDD = directory number (0-9999)
4	CC*	CT (5 sec)	CC = COS  number (0-15)
5		DT	End OP code; proceed to select next OP.

#### 4. Change station directory number:

Step No.	Key Entry	System Response	Explanation
1		$\mathbf{DT}$	System ready; enter OP code.
2	4	$\mathbf{CT}$	Enter OP code.
3	DDDD*	$\mathbf{CT}$	Old/current directory no.
4	DDDD*	CT (5 sec)	New directory number DDDD = (0-9999)
5		DT	End OP code; proceed to select next OP.

#### SERVICE FEATURE

# REMOTE MAINTENANCE FACILITY UTILIZING 12-KEY TELEPHONE SET

#### **Enhancement Feature**

#### DESCRIPTION

This feature enables a call to be placed from a remote site utilizing a 12-key telephone set to obtain the minor alarm status results from standard on-line maintenance testing. Alarm status results indicate the following failures by audible signals:

- Line/trunk cards
- Switch/tone card
- DTMF cards
- Power supply voltage level
- Service degradation
- SIO communications lines
- Temporary storage cleared
- Extended Memory
- Processor Card (voice/tone power supply and communication link 1 and 2)
- Interprocessor Card
- Configuration PROM

The feature can also be used to place the system in Level 1 Restart.

#### APPLICATION/ BENEFIT

Remote Maintenance can be performed using a 12-key telephone set, thus saving the customer time and expense.

#### CONDITIONS

Three modes of access are proposed. (Refer to the three modes discussed in Feature 2020).

No special code/procedure is necessary. Call disconnect releases the feature.

#### **OPERATION**

Upon receipt of the feature connect confirmation tone, proceed to select dial tone. The following key codes are entered to designate the operation to be performed.

OP CODE COMMAND	OPERATION
1	Report failure of line cards
2	Report failure of trunk cards
3	Report failure of switch/tone card
4	Report failure of DTMF card
5	Report failure of SIO communication line/console
6	Report service degradation
7	Report temporary storage cleared
8	Restart system
9,0,*	Unused
For each operat	ion to be performed, the OP code command is ente

For each operation to be performed, the OP code command is entered. The system returns either the confirmation tone (CT) or the rejection tone (RT), depending on the results of the specific operation. For some operations, additional options are provided. The formats and system responses are described in the section below.

Completion of the operation is indicated by the receipt of the dial tone (DT). If an additional operation is to be performed, the appropriate OP code command is entered and the procedure continues as above. Multiple operations can be performed without disconnecting and re-invoking the feature.

#### REMOTE MAINTENANCE FACILITY

2050

## OPERATION (continued)

If an illegal OP code command or parameter field is entered, the system returns a rejection tone (RT) which is repeated for one second. No operation is performed and all fields entered are deleted. The dial tone indicates that the system is ready to accept the next command.

#### **PREREQUISITE**

The standard 12-key telephone set is utilized from the remote service center.

## OPERATION (continued)

After invoking the feature, the procedure for each of the designated operations is outlined below:

#### 1. Report failure of line cards:

Step No.	Key Entry	System Response	Explanation
1		$\mathbf{D}\mathbf{T}$	System ready; enter OP code.
2	1	RT (5 sec)	Line card(s) failure; proceed to Step 3: OR,
		CT (5 sec)	Line card(s) O.K.; proceed to Step 4.
3	LL	CT (5 sec)	Line "LL" is O.K.; proceed to Step 4: OR,
4		DT	End OP No. 1; proceed to select next OP.

The above procedure (upon detection of line card(s) which has failed) allows the option of selecting a single line card for testing. The line card number is indicated by "LL" where: 0 LL 15.

To terminate the operation: set LL = 99.

If no line card has failed, the operation is terminated automatically with the return of a dial tone.

#### 2. Report failure of trunk cards:

Step No.	Key Entry	System Response	Explanation
1		$\mathbf{DT}$	System ready; enter OP code.
2		RT (5 sec) CT	Trunk card(s) failure; proceed to Step 3: OR,
		CT (5 sec)	Trunk card(s) O.K.; proceed to Step 4.
3	TT	CT (5 sec)	Trunk "TT" is O.K.; proceed to Step 4: OR,
		RT (5 sec)	Trunk "TT" failure.
4		DT	End OP No. 2; proceed to select next OP.

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## OPERATION (continued)

The above procedure (upon detection of a trunk card(s) which has failed) allows the option of selecting a single trunk card for testing. The trunk card number is indicated by "TT" where: 0 LL 15.

To terminate the operation: set TT = 99.

If no trunk card has failed, the operation is terminated automatically with the return of a dial tone.

#### 3. Report failure of switch/tone card:

Step No.	Key Entry	System Response	Explanation
1		$\mathbf{DT}$	System ready; enter OP code.
2	3	RT (5 sec)	Switch/tone card failure: OP,
		CT (5 sec)	Switch/tone card O.K.
3		DT	End OP No. 3; proceed to select next OP.

This operation signals the failure of switch memory or the tone generator. No options are provided. A dial tone terminates the operation automatically.

#### 4. Report failure of DTMF card:

Step No.	Key Entry	System Response	Explanation
1		$\mathbf{DT}$	System ready; enter OP code.
2	4	RT (5 sec) CT	DTMF card(s) failure; proceed to Step 3, OR:
		CT (5 sec)	DTMF card(s) O.K.; proceed to Step 4.
3	E	CT (5 sec)	Equipment No. "E" is O.K.: proceed to Step 4, OR:
4		DT	End OP No. 4; proceed to select next OP.

The above procedure (upon detection of a failure in any of the DTMF equipment) allows the option of selecting a specific type of equipment "E" for testing where:

- E = 1, Decoder
  - 2, Encoder
  - 3, Dial tone detector

If no DTMF card has failed, the operation is terminated automatically with the return of a dial tone.

## OPERATION (continued)

#### 5. Report failure of SIO communication line or console:

Step No.	Key Entry	System Response	Explanation
1		$\mathbf{DT}$	System ready; enter OP code.
2	5	RT (5 sec)	SIO failure detected,
			OR:
		CT (5 sec)	SIO all right
3		DT	End OP No. 5; proceed to select next OP.

This operation signals the failure/non-failure of the SIO channel or console. No options are provided to determine the specific failure. A dial tone terminates the operation automatically.

#### 6. Report service degradation:

Step No.	Key Entry	System Response	Explanation
1		$\mathbf{DT}$	System ready; enter OP code.
2	6	RT (5 sec)	Service degradation detected,
			OR:
		CT (5 sec)	Service normal.
3		$\mathbf{DT}$	End OP No. 6; proceed to select next OP.

This operation signals that the system is either operating in a degraded service level or a normal load. No options are provided. A dial tone terminates the operation automatically.

#### 7. Report temporary storage/RAM memory cleared:

Step No.	Key Entry	System Response	Explanation
1		DT	System ready; enter OP code.
2	8	CT (5 sec)	System restart confirmation.
3		$\mathbf{DT}$	End OP No. 6; proceed to select next OP.

Use of this operation causes the system to enter Level 1 Restart. If CMOS-RAM memory is not a system option, temporary storage RAM memory is destroyed.

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