

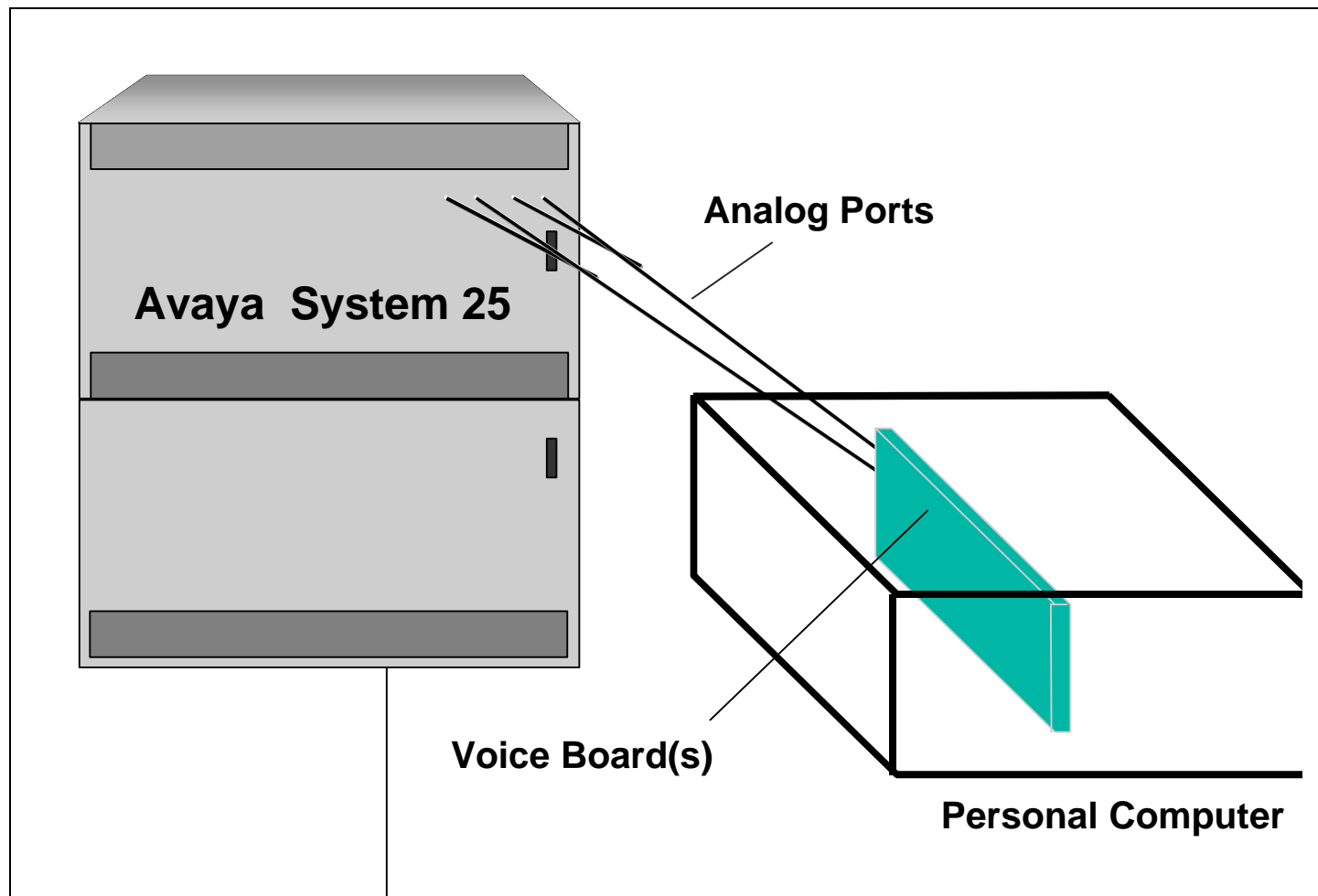
Octel® 100

Messaging Server

Configuration Note 7020

Avaya / AT&T System 25*

Revised 08/30/01



Inband signaling is used for integration

1.0 METHOD OF INTEGRATION

Inband. Call forward to personal greeting is achieved via DTMF signals passed from the System 25 to Octel 100, hereafter identified by (O100). Message waiting indicators are set and canceled by dialing a feature access code followed by the extension number. A hookflash followed by the extension transfers the caller to the operator.

Disclaimer: Configuration Notes are designed to be a general guide reflecting AVAYA Inc.'s experience configuring its systems. These notes cannot anticipate every configuration possibility given the inherent variations in all hardware and software products. Please understand that you may experience a problem not detailed in a Configuration Note. If so, please notify the TAC/TSO at (408) 922-1822 and if appropriate we will include it in our next revision. AVAYA Inc. accepts no responsibility for errors or omissions contained herein.

**Supported Voice Processing
Module**

1.1 SUPPORTED VOICE PROCESSING MODULE

The Octel 100 is a Year 2000 (Y2K) compliant, PC based, enhanced voice messaging product release intended to replace the OPC, Signature Performer, CEO, CP, and CP+ product lines. For installed systems that have port capacities above 16 ports contact your Avaya representative for the proper solution

O100 Ordering Information

2.0 O100 ORDERING INFORMATION

There are many options available for this product, depending on the application. Voice Boards supported:

Dialogic DIALOG/4™

Fax Boards supported:
Brooktrout TruFax® 200

Optional Remote Service
Internal Modem

Please consult with your sales representative.

**This integration will support 16
ports**

2.1 VOICEMAIL PORTS SUPPORT

Standard configuration for this integration is 16 ports Max. Provision has been made that based on the type of Platform and Sentinel, that a max 32 ports may be achieved. Contact your Avaya Inc representative if more then 16 ports are required.

**System 25 Hardware
Requirements**

3.0 SYSTEM 25 HARDWARE REQUIREMENTS

- One analog port (on TN742) for each O100 port.

**System 25 Software
Requirements**

3.1 SYSTEM 25 SOFTWARE REQUIREMENTS

- R2,V1
- R3,V1 & V3

Note: *R1 on the AT&T 25 does not support Voice Mail integration. See section 7.3 for R3,V3 considerations.*

Additional Material Requirements

3.2 ADDITIONAL MATERIAL REQUIREMENTS

- When using the DIALOG/4 you will need:
 - One RJ-14 jack with 4-conductor line cord for every two O100 ports
- One analog line for remote service access
 - One RJ-11 Jack for above and 2-conductor modular telephone cord.
- If FaxMail is installed.
 - One analog line per FAX port.

Supported Integration Features

- One RJ-11 Jack for every Brooktrout TruFax[®] 200, along with 4-conductor modular telephone cords.

4.0 SUPPORTED FEATURES

[✓] Items are supported

System Forward to Personal Greeting		Multiple Return to Operator	[✓]
All Calls	[]	Direct Call	[✓]
Ring/no answer	[✓]	Auto Attendant	[✓]
Busy	[✓]	Outcalling	[✓]
Busy/No Answer	[]	Personal Greeting of Original-Called Party	[]
Do Not Disturb	[]	Multiple Call Forward	[]
Station Forward to Personal Greeting		Double Call Forward	[]
All Calls	[✓]	Call Coverage	[✓]
Ring/no answer	[]	Intercom Paging	[]
Busy	[]	Supervised Transfers	[]
Busy/No Answer	[]	Call Screening	[✓]
Do Not Disturb	[]	Call Queuing	[✓]
Flexible Forwarding		Intercom Paging	[✓]
Forward to No Answer Greeting	[]	Identify Calling Party (Ver. 1.5 and up)	[]
Forward to Busy Greeting	[]	System Forward to Personal Greeting	[]
Intercom/CO Forwarding	[]	Station Forward to Personal Greeting	[]
Message Waiting		Flexible Forwarding (NA with CO)	[]
LCD Display	[]	Record Telephone Conversation	[]
LED	[]		
Lamp	[✓]		
Audible / Stutter Dial Tone	[]		

Disconnect Type

4.1 DISCONNECT TYPE

Disconnect is achieved by a hang-up string sent from the switch. For proper external disconnect supervision, Ground start trunks or Supervised loop start CO lines are recommended. System 25 starting with R3,V1 allows the administrator to turn off the sending of a hang-up string; if this is done disconnect is achieved by silence detection. *Note: See section 7.1*

**Two Different Ways to Program
Switch System Parameters**

5.0 CONFIGURING THE AT&T SYSTEM 25

Two methods of switch administration are outlined below. You will be using one or the other. Section 5.1 provides instructions for using the System Administration Terminal (SAT). Section 5.2 explains how to use the Advanced Administration.

The following administration steps must be performed to prepare the System 25 for VoiceMail Coverage.

- ☐ Configure the number of rings before calls are sent to coverage.
- ☐ Configure the analog extensions as dial accessible voice mail ports.
- ☐ Configure a Direct Group Calling (DGC) pilot number.
- ☐ Assign each of the O100 ports to the DGC group.

Programming Switch System
Parameters Using the SAT

- ☐ Configure the DGC pilot number as the call coverage target for each subscriber extension.
- ☐ Programming Night Service to be answered by O100.

5.1 CONFIGURING THE AT&T SYSTEM 25 TO INTEGRATE USING THE SYSTEM ADMINISTRATION TERMINAL (SAT)

NOTE: *It is important to note that when making changes (changing values of parameters) in the System 25, first delete or change the value to 0. Then, change it to the new value. This will prevent any problems with the new values not taking effect.*

Figure 1 is an example of the Main Menu when using the System Administration Terminal

Main Menu	
1) PORT	7) TOLL ALLOWED LIST
2) PDC	8) SEARCH
3) reserved	9) SAVE/RESTORE
4) SYSTEM	10) RS232
5) FPDC	11) ARS
6) DGC	12) reserved

Make one selection from menu ->

Figure 1

5.1.1 CONFIGURE THE NUMBER OF RINGS BEFORE CALLS ARE SENT TO COVERAGE

From the Main Menu prompt, enter **4**.

At Action =, enter **41**

The following will print out:

SYSTEM Action=41 Data=0

At the > prompt, type **D** followed by the **number of rings**.

For example, enter **D 3**

The following will print out:

SYSTEM Action=41 Data=3

5.1.2 CONFIGURE THE TN742 ANALOG EXTENSIONS AS DIAL ACCESSIBLE VOICE MAIL PORTS

From the Main Menu prompt, enter **1**

At Port =, enter the **port number in the form CSSPP**

where C=cabinet, SS=slot number, and PP=port number

At Action=, enter **1**

The following will print out:

Port=CSSPP Action=1 Data=0

At the > prompt, type **D**, enter **261**.

The following will print out:

Port=CSSPP Action=1 Data=261

Port=CSSPP Action=2 Data=0

At the > prompt, type **D**, enter the **PDC**. (PDC=Personal Dial Code (extension)).

For example, enter **400**.

The following will print out:

Port=CSSPP Action=2 Data=400(PDC)

At the > prompt, type **A**, enter **5** (*VMS Port dial-accessible*).

The following will print out:

Port=CSSPP Action=5 Data=0

At the > prompt, type **D**, enter **1** (*VMS Port dial-accessible*)

The following will print out:

Port=CSSPP Action=5 Data=1

Repeat the above step for each O100 port.

5.1.3 CONFIGURE A DIRECT GROUP CALLING (DGC) PILOT NUMBER

From the Main Menu prompt, enter **6**.

At DGC=, enter the **DGC group number**, from 1-32.

For example, enter **1**.

At Action=, enter **1**.

The following will print out:

DGC=1 Action=1 Data=0

At the > prompt, type **D**, enter the **DGC access code**.

For example, enter **700**.

The following will print out:

DGC=1 Action=1 Data=700(entered value)

5.1.4 ASSIGN EACH OF THE O100 PORTS TO THE DGC

From the Main Menu, enter **6**

At DGC=, enter the **DGC group number**, from 1-32.

For example, enter **1**.

At Action=, enter **1**.

The following will print out:

DGC=1 Action=12 Data=0

At the > prompt, type **D**, enter the **PDC to dial to access this group**.

For example, enter **400**.

The following will print out:
DGC=1 Action=12 Data=400
At Action=, enter **14**

The following will print out:
DGC=1 Action=14 Data=

At the > prompt, type **D**, enter **11 characters or less to assign a Display**.
For example, enter **VOICEMAIL**.

Repeat action 12 for each O100 port.

5.1.5 CONFIGURE THE DGC PILOT NUMBER AS THE CALL COVERAGE TARGET FOR EACH SUBSCRIBER EXTENSION

From the Main Menu, enter 2.

At PDC=, *enter the PDC of the station to which you want to assign the call coverage*.

For example, enter **210**.

At Action=, enter **7**.

The following will print out:
PDC=210 Action=7 Data=0

At the >prompt, type **D**, then *enter the DGC coverage group number 101-132*.
For example, enter **101**.

The following will print out:
PDC=210 Action=7 Data=101

Note: This number actually corresponds to a DGC group number 1-32.

Repeat the above step for each subscriber extension.

5.1.6 PROGRAMMING NIGHT SERVICE TO BE ANSWERED BY O100

The O100 can be used to answer calls after hours for the attendant console. To do so, be sure that a "night button" has been programmed on the console in the Attendant Station Menu.

Program Night button:

If system is programmed with cold start default values key 15 should be **NIGHTS**. If not perform the following instructions:

From the Main Menu prompt, enter **2**

At PDC =, *enter the Attendant Console PDC*

At Action=, enter **100**

At Data=, enter **15 (example only)**

At Action=, enter **101**

At Data=, enter **17**

Prompt Action=102

At Data=, enter **810** (enter the Night service access code (default is 810))
Any trunks that are to be directed to the O100 after hours must be programmed for "Directed Night Service" in the Trunk Directory.

Directed Night Service:

Determine which trunks are to be answered by O100 during Night Service.
Define which COS is to be assigned (8-15) to the trunks for Night Service.

From the Main Menu prompt, enter **1**

At Port =, enter **first trunk port to assign COS in the form CSSPP.**

At Action=, enter **3**

At Data=, enter **8** (example only; range is 8 to 15 see administration manual

for more details)

At Action=, enter **7**

At Data=, enter **1**

Repeat for each trunk that will be answered by O100 during Night Service.

For Directed Night Service, trunk must be added to the "Night Service Trunk List" in the Voice Message System Options.

Night Service Trunk List:

From the Main Menu prompt, enter **1**

At Port =, enter **first O100 physical port in the form CSSPP**

At Action=, enter **52**

At Data=, enter **four digit number of the first trunk to be answered in the night mode.**

Enter **t**, then the **next O100 physical port in the form CSSPP**

At Action=, enter **52**

At Data=, enter **four digit number of the second trunk to be answered in the night mode.**

Continue to assign trunks in this manner over all O100 ports until all Trunks have been assigned.

5.2 CONFIGURING THE AT&T SYSTEM 25 TO INTEGRATE USING ADVANCED ADMINISTRATION

NOTE: It is important to note that when making changes (changing values of parameters) in the System 25, first delete or change the value to 0. Then, change it to the new value. This will prevent any problems with the new values not taking effect.

Figure 2 is an example of the Main Menu when using the Advanced Administration PC (refer to your AT&T System 25 Advanced Administration User's Guide).

**Programming Switch System
Parameters Using Advanced
Administration**

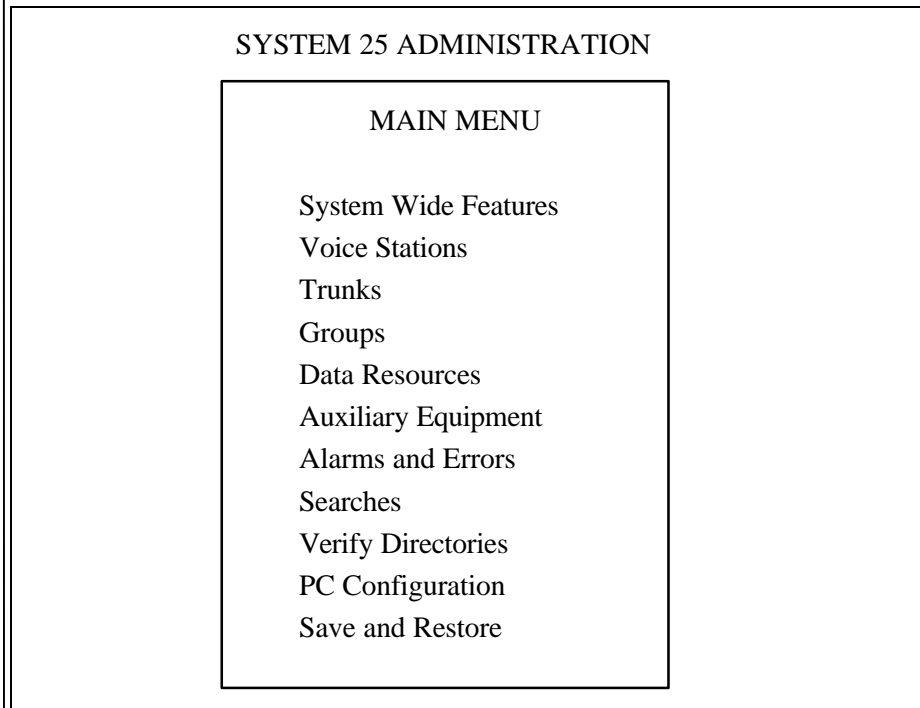


Figure 2

5.2.1 CONFIGURE THE NUMBER OF RINGS BEFORE CALLS ARE SENT TO COVERAGE

At the Main Menu, move cursor to **System Wide Features** and press return.
Then cursor down to **Coverage Options** and press return.

Complete Screen by:
allowing **Coverage for internal calls**
Change number of rings to **3**.
Press **F3 SUBMIT**.

5.2.2 ADD THE ANALOG STATIONS TO BE USED AS O100 PORTS

At the Main Menu, cursor down to **Auxiliary Equipment** and press return.

Move cursor to **VOICE POWER** and press return.

Complete Screen by:
Assign the type of station as **Coverage/Auto-Attendant**.
Enable **VMS Port to be Dial-Accessible**.
Enter **11 characters or less to assign a Display**.
For example, enter **VOICEMAIL**.
Press **F3 SUBMIT**.

Complete Pop-up
Enter in O100 **physical port in the form CSSPP**.

Enter in **PDC** for each O100 port.
Press **F3 SUBMIT** after each entry is complete.

5.2.3 CREATE A DIRECT GROUP CALLING (DGC) PILOT NUMBER WITH THE ABOVE EXTENSIONS AS MEMBERS

At the Main Menu, cursor down to **Groups** and press return.

Then move the cursor down to **Groups** and press return.

Complete the screen,

Enter *the group number* (1-32)

Enter *the pilot directory number*.

For example, enter *1 for group number and 400 for the pilot Public Directory Number for the Group.*

Enter the Display Id: *VoiceMail* for example.

Press **F3 SUBMIT**.

At Group Members

add *the first PDC* (extension number) for O100

Press **F3 SUBMIT**.

Repeat the above for all O100 ports.

5.2.4 CONFIGURE THE CALL COVERAGE FOR EACH EXTENSION

At the Main Menu, move cursor down to **Groups** and press return.

Move cursor down to **Coverage** and press return.

Select your DGC Group:

At Coverage Group List: Select group 101- 132 and press return

For example, enter **101**.

Add to senders list all extensions that forward to this group:

enter **810** (enter the Night service access code. The default is 810 if O100 is to answer trunks in Night mode.)

Press **F3 SUBMIT**

Enter **221** (extension number of the first subscriber 221 for example.)

Press **F3 SUBMIT**

Continue to add all extensions that are to be covered by O100.

Definition Of Integration Digit Packet

5.3 DEFINITION OF INTEGRATION PACKET

The following defines the integration packet sent from the AT&T System 25:

SSS = 3 digit source extension / DDD = 3 digit Destination extension

Call Type 1-4	Source 5-8	Destination 9-12	Description Digit position
#00#	SSS#	#	Direct Call Internal
#01#	#	#	Direct Call External
#02#	SSS#	DDD#	Call Coverage Internal
#03#	#	DDD#	Call Coverage External
#08#	#	400#	System Initialization extension of called port or DCG PDN 400 for example.
##99			Disconnect

Notes: *Direct Call Internal code is seen as the “source destination” by the switch but the same digits are seen as the “receiving mailbox” information by the voicemail system in section 6.1*
See section 7.1 about disconnect code..
Starting with R3,V3 system initialization has been added. See section 7.3 about System Initialization

O100 Configuration

6.0 CONFIGURING THE O100

Sections 6.1 show the integration codes which should already be configured for your switch. Appropriate O100 Setup sections may be checked to verify that this is done. If the integration codes are not correct, run the Integrator program and select the AT&T System 25 switch.

O100 Integration Software setup

6.1 O100 INTEGRATION SOFTWARE SETUP

Outside Line Access Code	9,
Off Hook Delay (OFFHDLY)	15
Hook Flash Interval (FLINTVL)	50
DTMF Tone Length (TONELEN)	8
Transfer and Screening Parameters	
Custom Transfer Code	&,XDR
Transfer Release Code when Busy	&,&
Transfer Release Code when No Answer	&,&
Call Screening Release Code when Busy	&,&
Call Screening Release Code when No Answer	&,&
Call Screening Release Code when Reject	&,&
Call Screening Release Code When Transfer	&,&
Message Waiting Parameters	
Permit Message Waiting Lights	✓
Message Waiting Light Prefix ON	#90
Message Waiting Light Prefix OFF	#91

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Hangup Detection Parameters

Hangup String (HANGUPSTR)	##99 (See 7.1)
Hangup String Timeout (HANGUPDLY)	50

Inband Parameters

Total Number of DID Digits	15
DID Terminating Character	*
Seconds to Wait for First Digit	2
Millisecs to Wait for Next Digit	850

Inband Templates

#02#S#R#	Go to Voice Mail	
#03##R#	Go to Voice Mail	
#00#R##	Auto Login	
#02#XXX#R#	Go to Voice Mail	
#02#XXXX#R#	Go to Voice Mail	
#08#?	Go AA, get MB	(See Section 7.3)

Note: Some versions of the Integrator Utility added an Inband Code that resembled Go AA,Get M~ox instead of Go to AA Get Mailbox, note M~ox instead of Mail Box, as above. This integration will fail if the Inband Information is not corrected. To correct this Open the System Setup and verify the Inband information is as described in Inband Templates above.

These Codes apply to the Inband Template:

R = Receiving Mailbox X = Ignore Character
S = Sending Mailbox ? = Ignore one or more Chars
Valid Characters are: ~ \$ * # 0-9 A-D F N T

Note: Verify all these dialing sequences for your switch

7.0 CONSIDERATIONS/ALTERNATIVES

The following items should be considered, below:

- ☐ Using AT&T System 25 / HANGUPSTR
- ☐ Supervised Transfers
- ☐ System 25 Initialization Test of O100
- ☐ Supported AT&T Line Cards are TN742 and TN746B
- ☐ Calls May Receive System Greeting or the Incorrect Personal Greeting.
- ☐ Service Problems Reported with R3,V1 & V2.

7.1 USING AT&T SYSTEM 25 / HANGUPSTR

The AT&T System 25 sends a DTMF string (##99) to O100 when an internal caller hangs up. Starting with version 1.01 of O100 the entire string may be entered and the Integrator will insert it. On earlier versions, if the entire string is entered into O100 System Setup, it will cause improper hangup detection and messages and will not be sent. To alleviate

Important notes concerning this integration

this problem, it may be necessary for the O100 system to disconnect on silence. If disconnect on silence is used, caller prompting and subscriber training is recommended to encourage both callers and subscribers to exit the system completely when finished.

7.2 SUPERVISED TRANSFER

When the system is programmed to perform a supervised transfer, ensure that the Subscriber's Coverage Path is for No Answer only and that the ring timer is greater than Max Rings in the Mailbox Class of Service.

7.3 SYSTEM 25 INITIALIZATION TEST OF O100

Starting with System 25 software release R3,V3, the System 25 will perform an initialization test to ensure that it is ready to receive calls as soon as the DGC has been programmed as a Auto Attendant and coverage group. It will seize one of the members and then send #08# extension number of the group or the extension of the port it is calling in on. O100 will trap this by routing the call to Auto Attendant and get Mailbox. The System 25 will accept this action as a ready and start to send calls. This test will take place after the System 25 is restarted.

7.4 SUPPORTED AT&T LINE CARDS ARE TN742 AND TN746B

The TN742 and the TN746B both are -48V analog circuit packs. The ZTN78 and the TN746 cards are -24V cards. If either of these is used, only 2500 sets can be connected to these ports. Modems, facsimiles, or other -48V devices draw more current which will cause the ring voltage to decrease, resulting in the voice module not detecting the ringing voltage. For this reason we recommend only using the -48V circuit packs for O100 ports.

7.5 CALL MAY RECEIVE SYSTEM GREETING OR THE INCORRECT PERSONAL GREETING.

If users call the O100 access number but hang-up before the system answers, the subsequent call into that O100 port may receive system greeting or the incorrect personal greeting. This is caused by the System 25 buffering the inband digits until the next call on the port. Subscriber training can be used to address this issue.

7.6 SERVICE PROBLEMS REPORTED WITH R3,V1 &V2.

There have been reports from the field that AT&T recommends upgrading to R3,V3 due to problems encountered in V1 and V2.

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