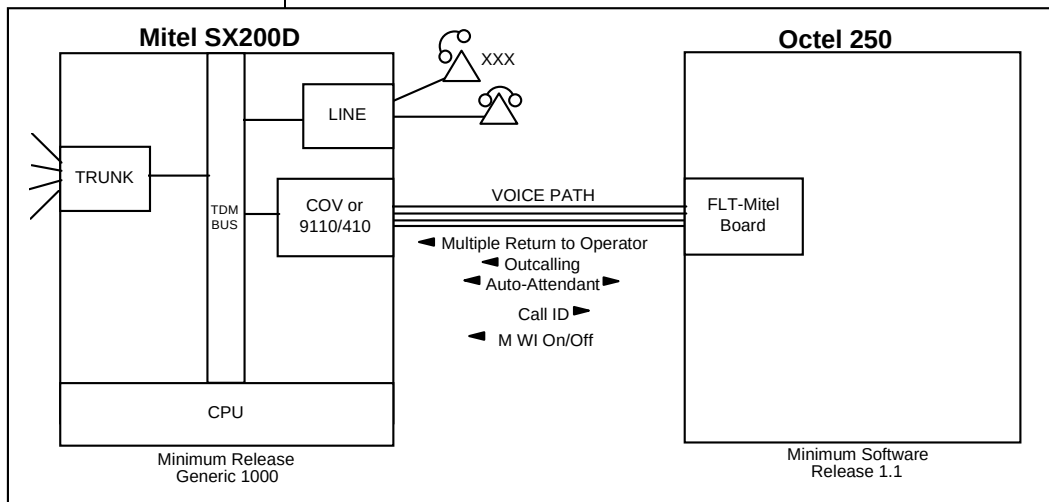


Mitel SX-200D*/SX-200 Light*



With set emulation integration, Mitel Intelligent Telephone Interface Cards (FLT-MITELs) within the Octel system emulate display sets of the PBX

Octel 250 requirements

PBX requirements

1.0 METHOD OF INTEGRATION

With set emulation integration, Mitel Intelligent Telephone Interface Cards (FLT-MITELs) within the Octel 250™ emulate display sets of the PBX. When a call is sent to the hunt group of Octel ports, the display is read and provides the call information to the Octel 250. The call is then answered with the appropriate greeting. Message-waiting indicator is set and canceled by the Octel 250, using the messaging feature of the PBX.

2.0 OCTEL 250 ORDERING INFORMATION

- FLT-MITELs (8 ports/board), including those for dedicated message waiting
- Disk drives
- Mitel Limited/Set Emulation Software feature (Feature Bit 33)
- Inband Integration Software feature (Feature Bit 35), if non-silent message waiting is used. *See section 5.1 for more detail.*

3.0 PBX HARDWARE REQUIREMENTS

- Superset 4* line appearances, one per Octel port
- 25-pair, male-Amphenol cables, one per FLT-MITEL
- One single-line channel for remote service access

3.1 PBX SOFTWARE REQUIREMENTS

- Message-waiting feature
- ARS
- Supported Mitel SX-200D software:
 - Generic 1000 - all versions except B79.41
 - Generic 1001 - below B57.5, above B57.7, B79.5
 - Generic 1002 - C74.1, C85.2
 - Generic 1003 - D03.9, D08.1, D08.2, D09.3, D11.2, D13.1, D14.0
 - Generic 1004 - E16.1, E17.1, E19.2, E20.0
- Supported Mitel SX-200 Light software:
 - Generic 1005 (LightWare 15) - F16.01, F16.02, F17.0, F32.0

Note: The software releases listed above have been successfully tested and validated with Octel products.

4.0 SUPPORTED FEATURES

Supported integration features

- Station forward to personal greeting
 - don't answer
 - busy
 - busy/don't answer
 - follow me
- Message-Waiting Indicator - *see section 5.0*
 - lights
 - rings
- Automated Attendant
- Outcalling/Paging
- Networking
- Multiple return-to-operator
- Direct Call
- Reply to message left by subscriber in internal telephone-answering mode
- Personal greeting of original-called party on double-call forward (*Generic 1004 is required. Verify your PBX's capabilities with your Mitel representative.*)

**Message waiting on the
Mitel PBX****5.0 MESSAGE WAITING ON THE MITEL PBX**

Standard message waiting on the Mitel PBX provides the following types of notification:

- On the Superset 4, the station will ring and then a message indicator flashes on the LCD display when a message arrives.
- On 2500 sets with lamps, the station will ring and then the Octel 250 will light the lamp.
- On 2500 sets without lamps, the extension will ring briefly every 20 minutes indicating the arrival of a new message.

With *Silent Message Waiting*, the extension does not ring when a message arrives. A visual indicator is shown on the user's telephone. See *section 5.2 for details and requirements*.

NOTES REGARDING MESSAGE WAITING:

- The Octel 250 uses the message-waiting feature to notify callers of new unheard messages. If users on the PBX also use the message-waiting feature on a station-to-station basis, a situation might occur where a subscriber's message-waiting light is activated when there are no new unheard messages in her/his mailbox. To resolve this situation, the attendant console can be configured with the Attendant Console Review feature which allows the console operator to see who has actually set the message-waiting indication at a given station.
- If the PBX is set to light message-waiting lamps, single-line phones may inadvertently 'ding' as their message-waiting lamps flash. This condition can be corrected by reversing the phone's tip and ring wires at the main distribution frame.
- With standard message waiting, if subscribers use follow-me or busy forwarding for their extensions, message-waiting indication might be delayed. When forwarding is activated, the "set message-waiting" command from the Octel 250 forwards to the target extension. (This does not apply to Silent Message Waiting.) The Octel 250 detects that message waiting has forwarded to another extension and cancels the indication. The Octel 250 can be configured to retry the attempt. If it is set to not retry, it will attempt to set message waiting when the next new message arrives. In either case, if follow-me or busy forwarding is activated, message waiting might be delayed. There are two programming options within the voice-processing module:

Continuously retry message waiting attempts until call forward-follow me or -busy is no longer present.

Discontinue all further attempts until another new message arrives. With this option, subscribers might lose message-waiting indication while Follow-Me Forwarding is enabled.

**If subscribers use follow-me or
busy forwarding for their
extensions, message-waiting
indication might be delayed**

- In Generic 1004 software, the PBX supports double-call forwarding which may allow the Octel 250 to set message waiting when busy or follow-me forwarding is active for a subscriber's telephone. *Octel only suggests this scenario as a workaround and cannot guarantee its functionality.* Program the Mitel system as follows: forward the message-waiting port to the Octel hunt group. Then, forward subscribers' telephones to the message-waiting port instead of the Octel hunt group. When a call forwards from a user's telephone, it should still double-call forward to personal greeting and the message-waiting port will now be able to set message waiting.

5.1 CONFIGURING THE PBX WITHOUT SILENT MESSAGE WAITING

- ☐ Make sure Feature bit 35 (Inband Integration) is enabled. Without this feature bit, access to Menu 6.2 is denied.
- ☐ Set **"PBX Type"** in **Menu 1.1** to **"K"** (Mitel SX100/200) instead of **"L"** (Mitel SX200D).
- ☐ Set **"Dialing Sequence to Activate Message Waiting"** and **"Dialing Sequence to Deactivate Message Waiting"** in **Menu 6.2** to **"002N"**.
- ☐ Create the Superset 4 channels in the PBX to be connected to the FLT-MITEL ports using Customer Data Entry Form 09.
- ☐ Place all of the Superset channels **except the message-waiting port(s)** in a circular hunt group. Do *not* include the message-waiting port(s). Use Customer Data Entry Form 17.

The pilot number of this hunt group is the Octel System Access Number. It is used by subscribers to retrieve their messages. It is also used by subscribers to forward their phones to the Octel 250.

- ☐ Forward the Superset channel(s) not in the hunt group, i.e. the message-waiting channel(s), to the Octel pilot number. Simply plug the modular jack of this port into a standard Superset 4 telephone and manually forward all-calls to the pilot number.
- ☐ Configure all Octel ports with class of service that has option 604 enabled. If the Mitel has software version 1003 or higher, also assign option 229 (COV Voicemail Port) to the COS. Class of service definition is performed using Customer Data Entry Form 03.

5.2 CONFIGURING THE PBX WITH SILENT MESSAGE WAITING

With silent message waiting, the extension does not ring when a message arrives. A visual indicator is shown on the user's telephone.

Configuring the Mitel PBX
without Silent Message Waiting

Configuring the PBX for Silent
Message Waiting

The silent message-waiting option is available in Mitel software Generic 1003, Version D03.9 or higher. It requires a minimum of one dedicated port for message waiting. To configure the PBX for silent message waiting, follow these steps.

- ☐ Create the Superset 4 channels in the PBX to be connected to the FLT-MITEL ports using Customer Data Entry Form 09.
- ☐ Place all of the Superset channels created above in a circular hunt group using Customer Data Entry Form 17, except those channel(s) to be used for the dedicated message waiting port(s). This hunt group must not include the message waiting port(s).

The pilot number of this hunt group is the Octel System Access Number. It is used by subscribers to retrieve their messages. It is also used by subscribers to forward their phones to the Octel 250.

- ☐ Place the Superset channels assigned to the dedicated message waiting port(s) into a separate circular hunt group.
- ☐ The class of service for the message-waiting port(s) should be configured with options 209, 229, 604, and 605 enabled. Class of Service definition is performed using Customer Data Entry Form 03.
- ☐ Configure the non-message-waiting ports with class of service option 604 enabled. If the Mitel software is Generic 1003 or higher, also assign option 229 (COV Voicemail Port).
- ☐ Next, forward the individual message-waiting port(s) to the Octel System Access Number. To do so, simply plug the modular jack of the message-waiting port(s) into a standard Superset 4 telephone and manually forward all-calls to the Octel pilot number.
- ☐ The message-waiting ports must be programmed for “Message Waiting” only, both in the PBX and the Octel 250. On the Octel 250, in Menu 4, do not configure the message waiting ports for “Incoming” and “Telephone Answering”.
- ☐ On the Octel 250, configure Menu 1.1, “PBX Type: L - Mitel SX200D”. Do not configure menu 6.2.

5.3 ADDITIONAL REQUIRED PBX PROGRAMMING

- ☐ A transfer target for the Octel 250 is used by the attendant console and others to place callers in mailboxes. To establish the transfer target, create a single-line station in the PBX. Use the Follow-Me Forwarding feature to forward the station to the pilot number of the hunt group. Do not create a voice mailbox for this station. Indicate to the customer that this is the transfer target extension.

A transfer target for the Octel system is used by the attendant console and others to place callers in mailboxes

Programming Superset 4 name fields

- ❑ For PBXs with software versions 1002 or below, each subscriber Superset 4 telephone must be re-programmed to include the subscriber's extension number in the name field. This can be done from the Superset 4 using the Program key. Since a maximum of 10 characters will appear in Superset 4 displays, some abbreviation may be required. Examples of acceptable entries are as follows:

Dave G 783 or 783 Dave G

WF Cox 123 or 123 WF Cox

For PBXs with software Generic 1003 and higher, subscribers' Superset 4 name displays do not need to include the extension number. All Octel ports must be configured with COS, option 229 (COV Voicemail Port) using Customer Data Entry Form 03.

- ❑ Configure each line with the Automatic Route Select (ARS) feature if outcalling or networking is to be used. Class of Service definition is performed using Customer Data Entry Form 03.
- ❑ If your PBX has message-waiting software, the following parameters must be set:
 - Activate the message-waiting capability by enabling either Class of Service option 231 or 232 for the subscribers' telephones. Option 231 provides audible message waiting and Option 232 provides message-waiting lights. For single-line sets equipped with message lamps, choose Class of Service Option 232, otherwise, choose Class of Service Option 231. To provide notification via the display on a Superset 4, enable Class of Service Option 232.
- ❑ Voltage settings on the Analog Superset 4 card are critical to the proper functioning of the ports. The -10V adjustment on the SX-200D power supply must be at the proper setting. Place the -10V Rail voltage indicator between 10.2 and 10.3. Verify the voltage first if problems are encountered.

6.0 CONFIGURING THE OCTEL 250

Configuring the Octel 250

- ❑ Menu 1.1 - System Parameters
 - Type of PBX: L - Mitel SX200D
- ❑ Menu 4.1 - Port Assignments
 - Extension/Phone No.: Extension number of Superset 4 channel
 - Line type: 32 Retry on unsuccessful message waiting attempt
 - 31 No retry on unsuccessful message waiting attempt

NOTE: Line type 32 allows the Octel 250 to recognize when an extension is forwarded as it calls that extension to set message waiting. Instead of setting message waiting on the forwarding target, the Octel 250 will retry the original extension later. If you do not want it to retry message-waiting attempts, use line type 31.

- M column: Y only for the message-waiting port(s)
- I and T columns: Y for all ports *except* the message-waiting port(s)
- O, P, N, F columns: Define based on your site specific need

NOTE: If the message-waiting port are configured for incoming and outgoing calls, delays in message-waiting notification may occur.

☐ Menu 6.1 - Transfer Dialing Sequences

- Flash time: 500 ms
- Pause time: 1000 ms
- Transfer sequence: FPN
- Reconnect sequence: F

NOTE: Verify these dialing sequences on your PBX.

☐ Menu 8/9.1 - Subscriber Mailbox Profile

- Subscriber Extension: Enter subscriber's extension number
- Message Waiting Allowed: Enter "Y" only for those mailboxes associated with extensions allowing for message waiting notification

7.0 CONNECTING SUPERSET 4 CHANNELS

Each FLT-MITEL supports eight COV voice ports. Each FLT-MITEL connects to the switch via a single male-Amphenol connector cable. The first port uses the first pair of the cable, every other pair is used by the remaining ports.

- ☐ Physically connect the lines used for the voice path between the switch and the Octel 250. Each FLT-MITEL provides the amphenol connector on the front edge of the board. See *Figure 1*.

Connecting the Superset 4 channels

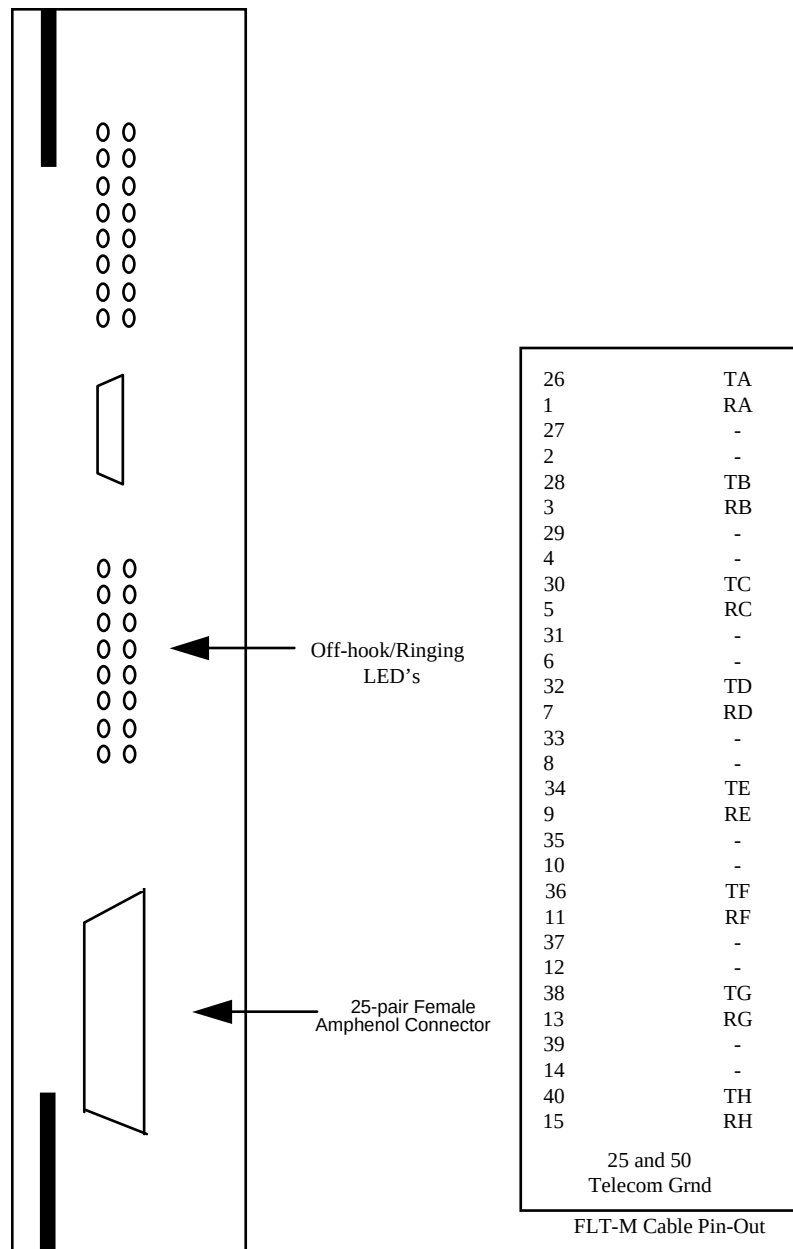


Figure - 1

7.1 TESTING THE INSTALLATION

Testing the integration when
installation is complete

- ☐ Create two mailboxes associated with two test extensions. Record a name and personal greeting for each mailbox.
- ☐ System forward one test extension to the Octel System Access Number.

Important notes regarding this integration

- ☐ Using one test extension, call the other test extension. You should hear the personal greeting. Leave a message. Verify that message waiting indication turns on.
- ☐ Verify that return-to-operator works properly.
- ☐ Call the Octel 250 from a test extension. You should immediately hear the recorded name and be asked to enter your password.
- ☐ Review the message in the mailbox. Verify the direct reply feature works by pressing 8 at the end of the message.
- ☐ Delete the message. Verify that message waiting indication turns off.
- ☐ Set up all ports busy situation. Place a forwarded call and a direct call into the Octel system. Verify the Octel 250 correctly handles the call.

8.0 CONSIDERATIONS

8.1 With Mitel software older than Generic 1003, subscriber's extension numbers must be included as part of the name on Superset 4 stations.

8.2 At least one Octel port must be dedicated to the message-waiting feature.

8.3 If your application requires outcalling or networking, the Automatic Route Select (ARS) feature must be enabled. ARS provides a DTMF generator for dialing the necessary DTMF tones to complete the call. If the PBX does not have the ARS feature, analog FLTs are required for outcalling and networking.

8.4 If users have call-forward follow-me or call-forward-busy activated for their extension, the "set message-waiting" command from the Octel 250 will be sent to the forwarding target extension. Using line type 32 for the message-waiting port allows the Octel 250 to detect that message-waiting is being set at the incorrect extension and cancels the indication. Use line type 31 for all other FLT-MITEL ports. If you do not want the Octel 250 to retry message-waiting, use line type 31 for the message-waiting port.

8.5 Calls released too quickly by the attendant console to a station that is busy or all calls forwarded to the Octel 250 pass the trunk ID instead of the extension ID. Callers hear system greeting instead of personal greeting. To avoid this problem, the console operator should be instructed to wait approximately one second before releasing the call.

8.6 In order for the Superset 4 to function properly, the -10V adjustment on the SX-100/200 power supply must be at the proper setting. Place the -10V Rail voltage indicator between 10.2 and 10.3. Check the indicator occasionally to verify that movement has not occurred.

8.7 Use of "Advisory Messages" on SuperSet 4 telephone sets will cause extra rings on message waiting attempts. When not using Silent Message Waiting, if the Octel 250 attempts to turn on/off message waiting indicators to SuperSet 4 telephone sets with any "Advisory Messages" enabled, the set will ring 1-2 extra times.

8.8 If the O250 is used to support subscribers on remote Mitel SX-200D/SX-200 LIGHT switches, message waiting notification must be performed using dedicated FLT-M port(s). This is because the remote switch must provide dial tone as confirmation that the message waiting command was accepted. If the device on the local PBX that sends the message waiting command goes back on-hook before dial tone is provided by the remote PBX, the message waiting command is ignored. When using FLT-M ports for message waiting notification, a "pause" can be configured in menu 6.2 parameters "Dialing Sequence to Activate Message Waiting" and "Dialing Sequence to Deactivate Message Waiting" that will keep the port off-hook even after the message waiting feature access code and extension number have been dialed.

CHANGE HISTORY		
Revision	Issue Date	Reason for Change
I	02/01	GA Release
J	06/05	Updated Consideration 8.8 section

©2005 AVAYA Inc. All rights reserved. All trademarks identified by the ®, SM and TM are registered trademarks, servicemarks or trademarks respectively. All other trademarks are properties of their respective owners. The above information is based on knowledge available at the time of publication and is subject to change without notice. Printed in U.S.A.

AVAYA

1033 Murphy Ranch Road

Milpitas, CA 95035-7912

(408) 577-7000

<http://www.avaya.com>