

9109 FXO Analog Voice Application Module (APM) Installation Instructions

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Select *Library* → *Technical Manuals* → *NextEDGE Multiservices Access System*.

Select the following document:

9191-A2-GH30

NextEDGE Multiservices Access System Technical Reference

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- Within the U.S.A., call 1-800-PARADYNE (1-800-727-2396)
- Outside the U.S.A., call 1-727-530-8623

Before You Begin

Make sure you have:

- The housing and any associated hardware installed and powered up.
- A Network Access Module (NAM) installed in Slot 01 and connected to the network.
- Applicable cables.
- An M66 block.
- A small Phillips screwdriver (#1 or #2) to install the APM
- A small, flat-blade screwdriver to install the I/O card and cable connections

See the Technical Reference for additional information on:

- *Troubleshooting*
- *Technical Specifications*
- *Cables, Connectors, and Pin Assignments*

Package Checklist

Verify that your package contains the following:

- FXO Analog Voice Application Module (APM)
- Voice I/O card
- Cable tie and anchor
- Affidavit Requirements for Connection to Digital Service

When your equipment arrives, inspect it for physical damage and tighten any screws that may have worked loose. Contact your sales representative immediately if there are any signs of shipping damage or if anything is missing from your package. Otherwise, proceed with the installation.

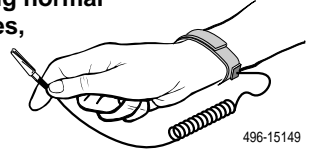
Cables You May Need to Order

The following cables and cable assemblies are specifically for this product. See the Technical Reference for cable pinout information.

If connecting an M66 block to . . .	Order a . . .	Feature No.
A device located within three feet of the system	Voice Cable, amphenol plug-to-amphenol plug, 25 twisted pairs (6 feet/1.9 meters)	9008-F1-531
A device located within 25 feet of the system	Voice Cable, amphenol plug-to-amphenol plug, 25 twisted pairs, and	9008-F1-531
	Extension Cable, amphenol socket-to-amphenol plug (25 feet/7.6 meters)	9008-F1-532
Three FXO cards	Cable Assembly for FXS and FXO APMs, 3-amphenol plug-to-1-amphenol plug (6 feet/1.9 meters)	9008-F1-534
	Extension Cable, amphenol socket-to-amphenol plug, if needed (25 feet/7.6 meters)	9008-F1-532

⚠ HANDLING PRECAUTIONS FOR STATIC-SENSITIVE DEVICES

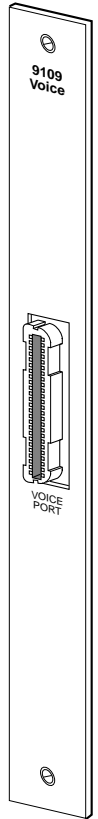
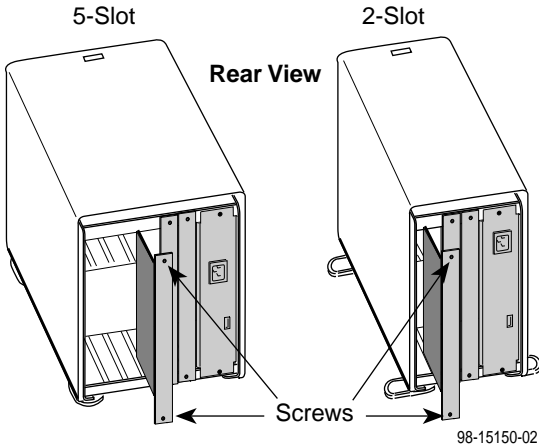
This product is designed to protect sensitive components from damage due to electrostatic discharge (ESD) during normal operation. When performing installation procedures, however, take proper static control precautions to prevent damage to equipment. If you are not sure of the proper static control precautions, contact your nearest sales or service representative.



Installing the I/O Card

The I/O card provides the APM with voice channel connectivity. The I/O card inserts directly behind the APM that it supports. Slot numbers are identical to facilitate correct installation.

1. Remove the I/O card from the shipping box. Handle only by the top and bottom edges to avoid damaging the card.
2. At the rear of the housing, align the I/O card with the upper and lower tracks of the slot. Push gently towards the midplane until it stops and you cannot push the card any further.



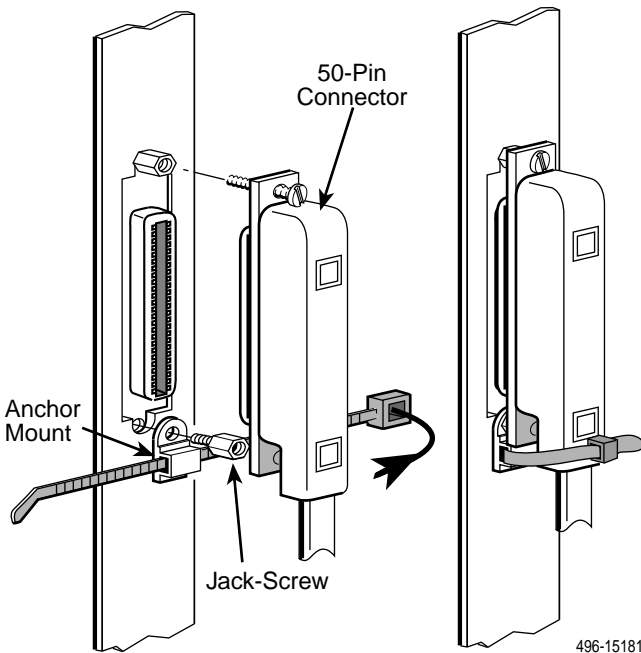
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3. There are two captive screws on the I/O card. Alternately tighten each screw until both are snug.

Connecting to Analog Voice Equipment

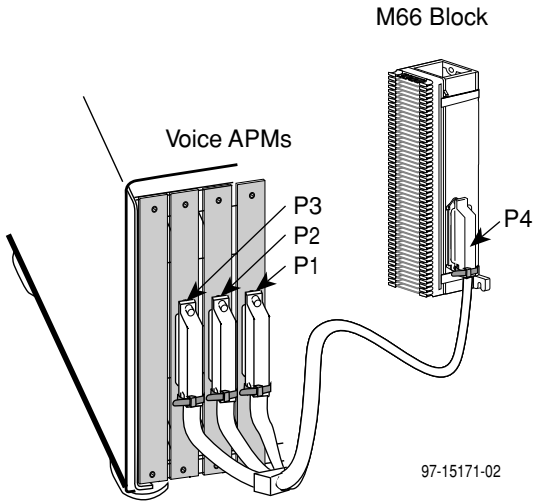
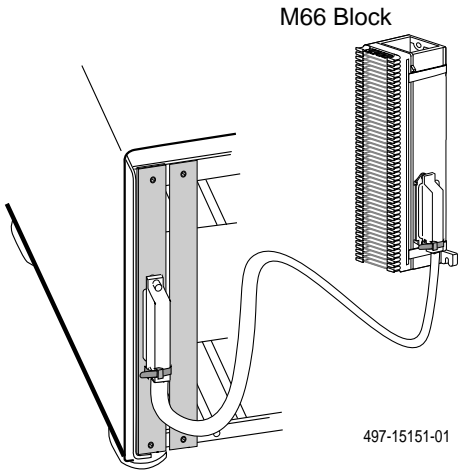
The eight FXO ports support only 2-wire voice circuits. Connect the cables as described below.

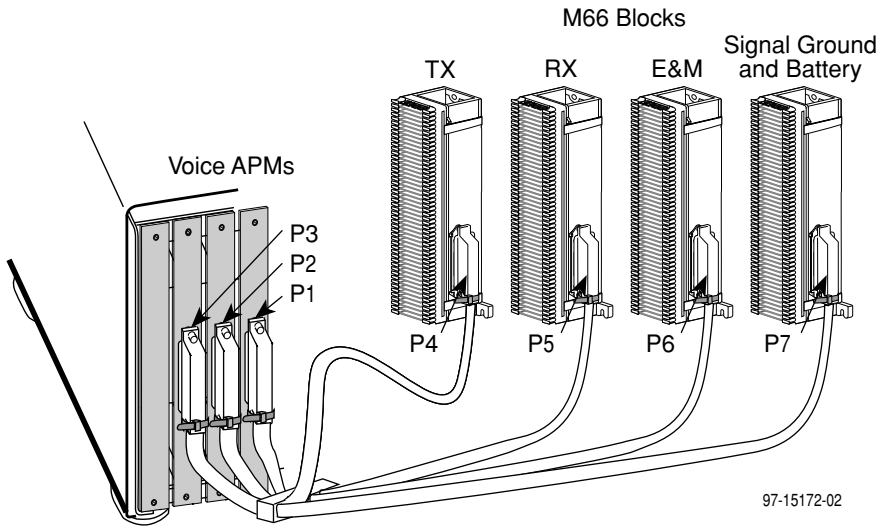
1. Remove the bottom Jack-screw from the I/O card, below the 50-position interface.
2. Align the anchor mount (provided) with the screw hole, reinsert the Jack-screw, and tighten it securely.
3. Feed the cable tie provided through the anchor mount, about 2/3 of the way.
4. Plug in the 50-pin end of the cable, and secure the connector by screwing the top cable screw into the top Jack-screw.
5. Wrap the long end of the cable tie around the cable, and feed it through the other end of the cable tie, tightening the cable to the anchor mount, then clipping the excess.



6. Connect the other end of the cable to the M66 block.

The following illustrations show fully connected voice ports.





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⚠ WARNING:

In order to maintain compliance with Part 68, FCC Rules and Industry Canada's CS-03 Specification, the transmit gain settings associated with the FXO Voice APM must be set to ensure that:

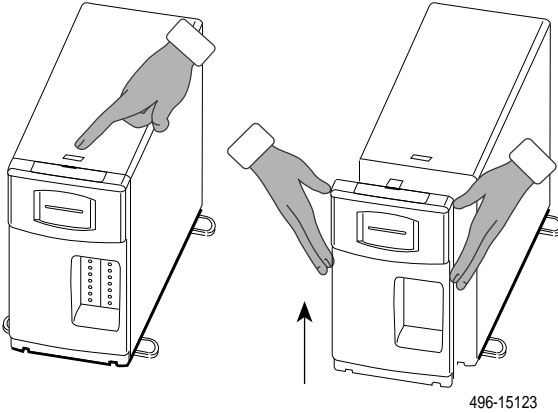
- The absolute signal power of the encoded analog signals, other than live voice and network control signaling, will not exceed -12 dBm when averaged over any 3-second interval.
- For network control signals (such as DTMF), the level will not exceed -3 dBm.

The FXO voice lines are to be connected to locally attached equipment only. Under no circumstances should voice lines be used on exposed (outside) plant lines.

See the Technical Reference to configure for a voice application.

Removing the Housing's Bezel

1. Depress the latch at the top of the housing to open the bezel.
2. Lift upward to remove the bezel from the two slots at the bottom of the housing.



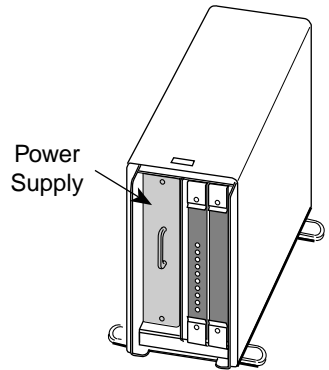
Save the bezel so it can be reattached once the APM has been installed.

NOTE:

The power supply is visible once the bezel is removed. It provides low voltage power to the housing and its cards.

WARNING:

If you need to remove the power supply module, you *must* unplug the power cord from the power receptacle and from the rear of the housing before attempting to remove the module.



Front View
(without Bezel)

98-15174-01

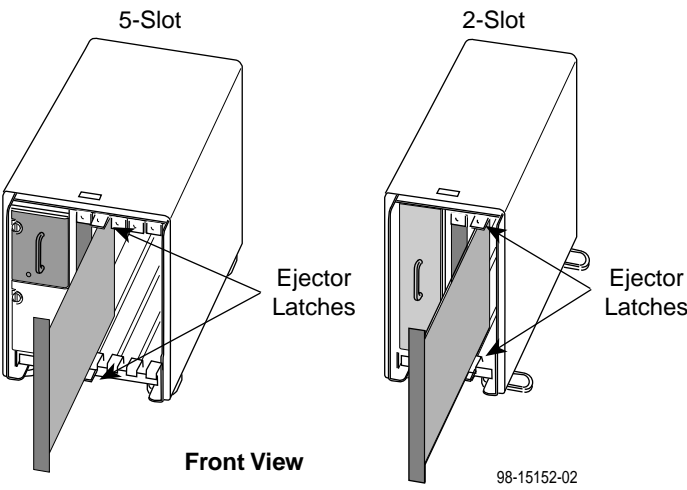
Installing the APM

The APM can be installed in any slot *except* Slot 01.

CAUTION:

You must insert the FXO APM in the correct slot so that it mates with its matching I/O card. APMs are keyed so that they mate only with their matching I/O cards.

1. Remove the filler panel, if applicable. See the installation instructions that came with your housing for information.
2. Remove the APM from the shipping box. Handle only by the top and bottom edges to avoid damaging the card.
3. At the front of the housing, align the APM with the upper and lower tracks of the selected slot.



4. Slide the APM into the tracks until it seats with the midplane connectors. Be careful not to force the card or bend any pins.
5. Close both the upper and lower ejector latches on the housing to lock in place, then tighten the captive screws.

Reinstalling the Bezel

1. Insert the bezel into the two slots at the bottom of the front of the housing.
2. Snap the bezel in place using the latch at the top.

Removing/Replacing a Card

Card removal procedures differ, depending on whether you are removing the APM or I/O card.

NOTE:

You can insert or remove the APM and its associated I/O card without powering off the equipment and interrupting data flow through other cards in the network.

Removing/Replacing an APM

1. Remove the housing's bezel, if applicable. See the installation instructions that came with your housing for information.
2. Remove the captive screws from the ejector latches on the housing.
3. Press open the ejector latches to disengage the card from the midplane.
4. Supporting the card by its edges, pull straight out until the card clears the housing.
5. Refer to Steps 3–5 of *Installing the APM* on page 8.

If the slot . . .	Then the . . .
Was previously unassigned	Configuration settings are the factory defaults and are accessible from SNMP and the user interface.
Was previously assigned	Existing configuration settings are used and are accessible from SNMP and the user interface.
Previously contained a different type of APM	System generates a Module Misconfiguration alarm for the given slot. See the Technical Reference for procedures in this situation.

Removing/Replacing an I/O Card

1. Remove the APM from the housing (see *Removing/Replacing an APM* on page 9).
2. Remove the cables from the I/O card.
3. Using a small flat-blade screwdriver, loosen the upper and lower captive screws fastening the card to the housing's frame.
4. Gently pull the I/O card away from the midplane until it clears the housing.
5. Align the replacement card with the upper and lower tracks of the slot. Push gently towards the midplane until it stops and you cannot push the card any further.
6. Alternately tighten each captive screw until the screws are all the way in.
7. Reattach the cables as appropriate.

Power-On

Refer to the installation instructions that came with your housing to power on the equipment.

Warranty, Sales, Service, and Training Information

Contact your local sales representative, service representative, or distributor directly for any help needed. For additional information concerning warranty, sales, service, repair, installation, documentation, training, distributor locations, or Paradyne worldwide office locations, use one of the following methods:

- **Internet:** Visit the Paradyne World Wide Web site at **www.paradyne.com**. (Be sure to register your warranty there. Select *Service & Support* → *Warranty Registration*.)
- **Telephone:** Call our automated system to receive current information by fax or to speak with a company representative.
 - Within the U.S.A., call 1-800-870-2221
 - Outside the U.S.A., call 1-727-530-2340

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