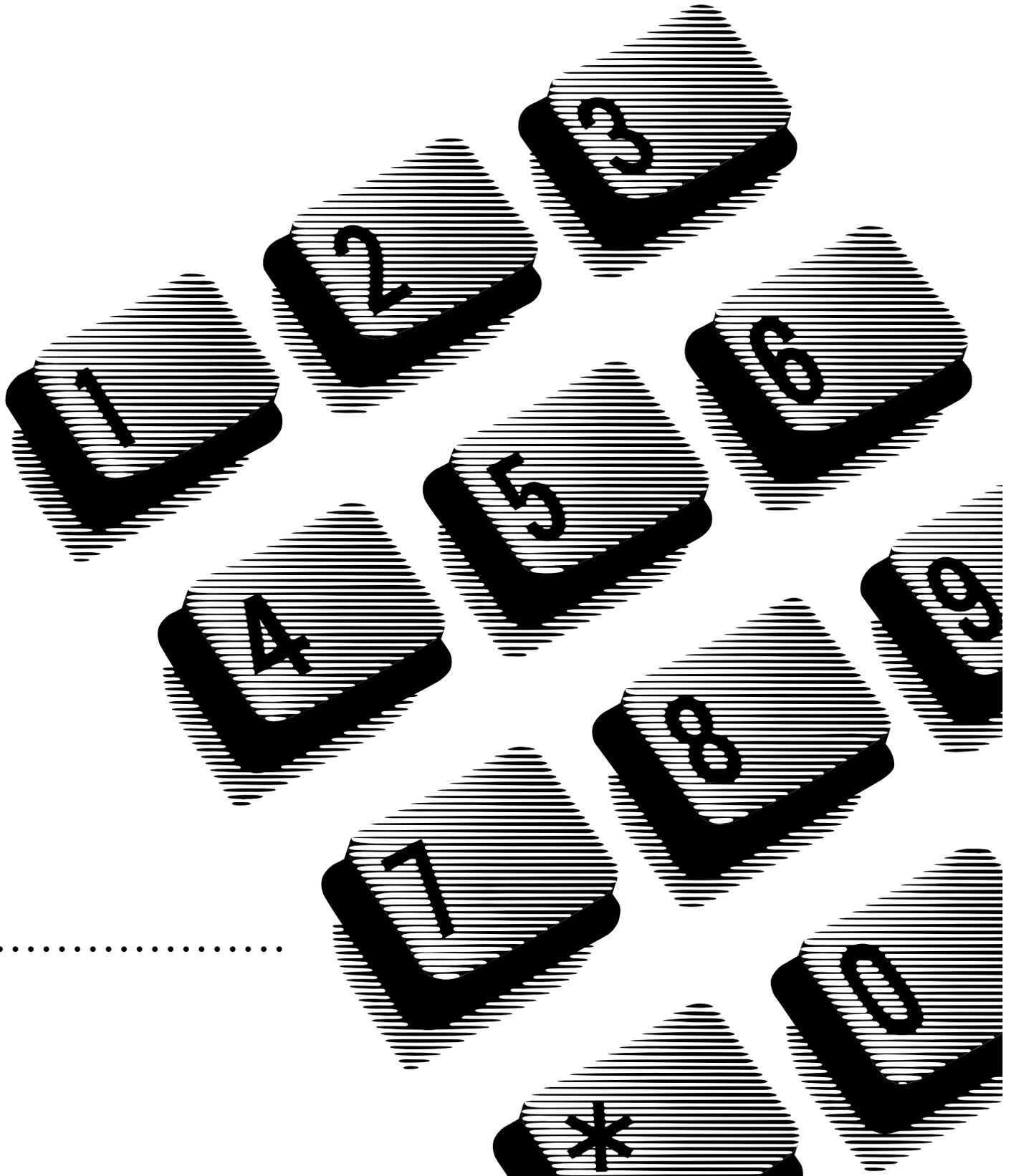

NORTEL NORSTAR

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Norstar Voice Mail 4.0 Installation Guide



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Norstar Voice Mail is a fully automated receptionist service that offers call routing and message taking services. This document is intended for the installer of the Norstar Voice Mail system and describes how the system should be installed and prepared for operation.

This guide is designed to assist you in installing the Norstar Applications Module (NAM) and initializing the Norstar Voice Mail software.

Before initializing the Norstar Voice Mail software, the NAM must be:

- mounted on the wall or a floor stand.
- connected to a Norstar Key Service Unit (KSU).
- powered up and running.

Norstar Voice Mail models

All Norstar Voice Mail systems are shipped from the factory with two Voice Channels enabled. Additional Voice Channels are enabled by performing a Voice Channel Upgrade. Norstar Voice Mail can have a maximum of 16 Voice Channels.

For more information about enabling Voice Channels, refer to the *Norstar Voice Mail Voice Channel Upgrade Guide*.

Documentation package

Make sure the shrink-wrapped documentation package you received contains the *Programming Record, Set Up and Operation Guide, Reference Guide and Quick Reference Guides*.

Introduction

This section is intended for the installer of the NAM and describes how the system should be installed and prepared for operation.

Before you start

Before you start the installation, ensure that you read this guide and understand the installation process and verify that all conditions are met in the checklists.

Packaging Checklist

Make sure the package you received contains the following items:

- the NAM
- the NAM wall mounting bracket
- an AC power cord
- a fiber connector

Environment Checklist

The installation area must be:

- at least 4 m (approximately 13 feet) from equipment such as copiers, electrical motors and other equipment that could produce electromagnetic, radio frequency and electrostatic interferences
- within 2 m (6.5 ft) of the Key Service Unit (KSU)
- within 1.5 m (approximately 5 feet) of a three-wire grounded electrical outlet
- clean, free of traffic and excess dust, dry and well ventilated
- between 10° and 40° Celsius (approximately 50° to 104° Fahrenheit)
- between 8% and 80% non-condensing relative humidity
- a wall area approximately 1 m square (approximately 10 sq feet)
- a minimum of 16 cm (6 inches) from a corner wall or other component
- a minimum of 46 cm (18 inches) from the floor, to prevent water damage

The NAM does not require a dedicated circuit. **Do not** connect the NAM to an AC outlet on a circuit that is likely to be overloaded or used by large office equipment or power tools.

Special parts and equipment

For the installation, you need the following equipment:

- Phillips #2 screwdriver
- power drill
- flat blade screwdriver
- antistatic grounding strap
- four #10 X 2.5 cm (#10 X 1 inch) round head wood screws
- plywood backboard 2 cm (3/4 inch) thick
- surge protector (recommended)

Other documentation

In addition to the documentation included in the package you received, the *Norstar Installation Guide* that came with your Norstar KSU may also be necessary.

You may also need the *Norstar Applications Module Installation and Maintenance Manual*. The *Norstar Applications Module Installation and Maintenance Manual* is included on the Norstar Voice Mail 4.0 Documentation and Client Software CD-ROM. All the Norstar Voice Mail Installation Manuals on the CD-ROM are protected by the password: Norstar99.

Installation overview

Installing a NAM involves the following:

- power supply switch setting (if required)
- mounting the unit on the wall or floor mount stand
- connecting the NAM to the Norstar KSU
- connecting the power cord

Changing the power supply voltage

The power supply on the NAM is set at the factory to operate at 115 volts. If you plan to use 115 volts to power the NAM, do not change the voltage switch. If you plan to use 230 volts to power the NAM, you **must** change the power supply voltage setting before mounting the unit on the wall. For more information on changing the power supply voltage, refer to the *Norstar Applications Module Installation and Maintenance Manual*.

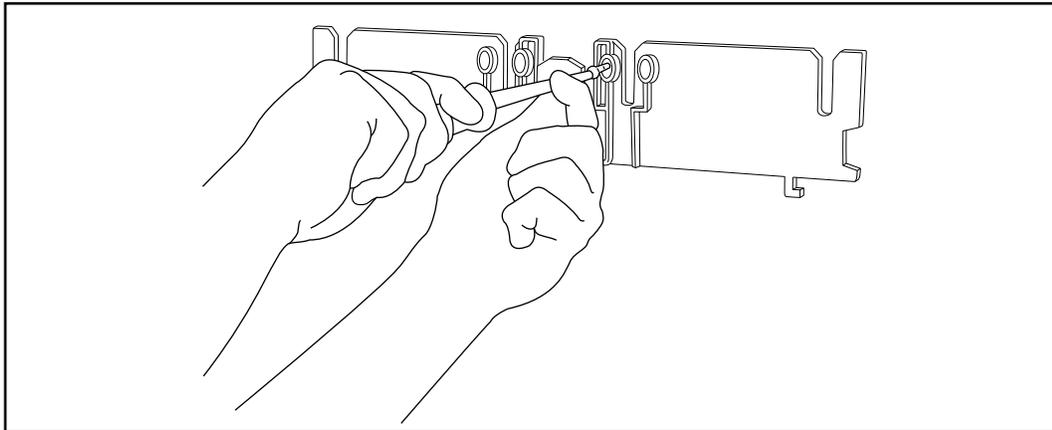
Mounting the NAM on the wall

**Caution**

The NAM contains fragile electronic components. Do not drop or bump the module. The NAM weighs 13.6 kg (30 lbs). You must fasten the back of the module to the backboard to fully support the weight of the NAM.

1. Install the 2 cm inch plywood backboard on the wall.
2. Position the NAM mounting bracket on the backboard. Place the smooth side flush against the backboard, with the screw holes near the top. Ensure the bracket is level.
3. Fasten the bracket to the backboard. Use two #10 X 2.5 cm (#10 X 1 inch) round head wood screws through the inner pair of holes.

Figure 1 The NAM mounting bracket



4. Slide the NAM down onto the center bracket flange. Line up the notches on the far sides of the bracket to the flanges on the NAM.
5. Open the front cable trough door. Fasten the bottom of the NAM to the backboard. Use two #10 X 2.5 cm (#10 X 1 inch) round head wood screws through the screw holes on each side of the cable trough.

Figure 2 Hanging the NAM

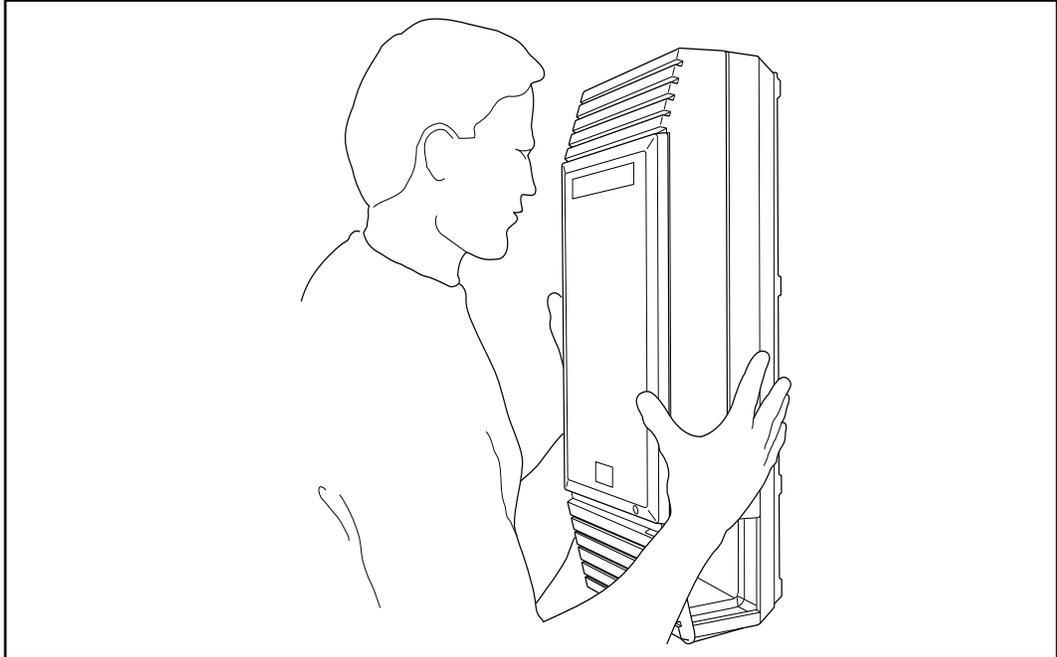
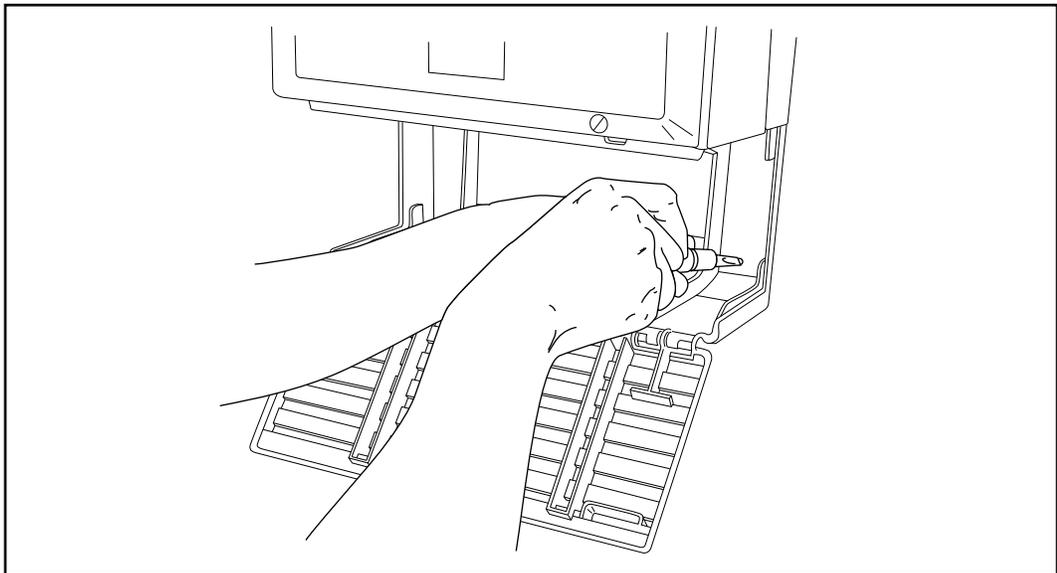


Figure 3 Installing the cable trough screws



Floor mount stand

The floor mount stand is an alternative to wall-mounting the NAM. The stand allows the module to sit on any horizontal surface. The floor mount stand is useful when you are attaching a monitor and keyboard to the NAM and want it situated near a desk.

**CAUTION**

Refer to the "Environment Checklist" for acceptable environmental conditions before selecting a location for the NAM.

Assembling the floor mount stand

Before you can attach the floor mount stand to the NAM, you must first assemble the stand.

To assemble the floor mount stand:

1. Align the two halves of the floor mount stand back to back.
2. Using the four screws provided, fasten the two sides together. Refer to [Figure 4](#) on page 8 for an illustration of an assembled floor mount stand. You must use all four screws.

Attaching the floor mount stand to the NAM

To fasten the floor mount stand to the NAM:

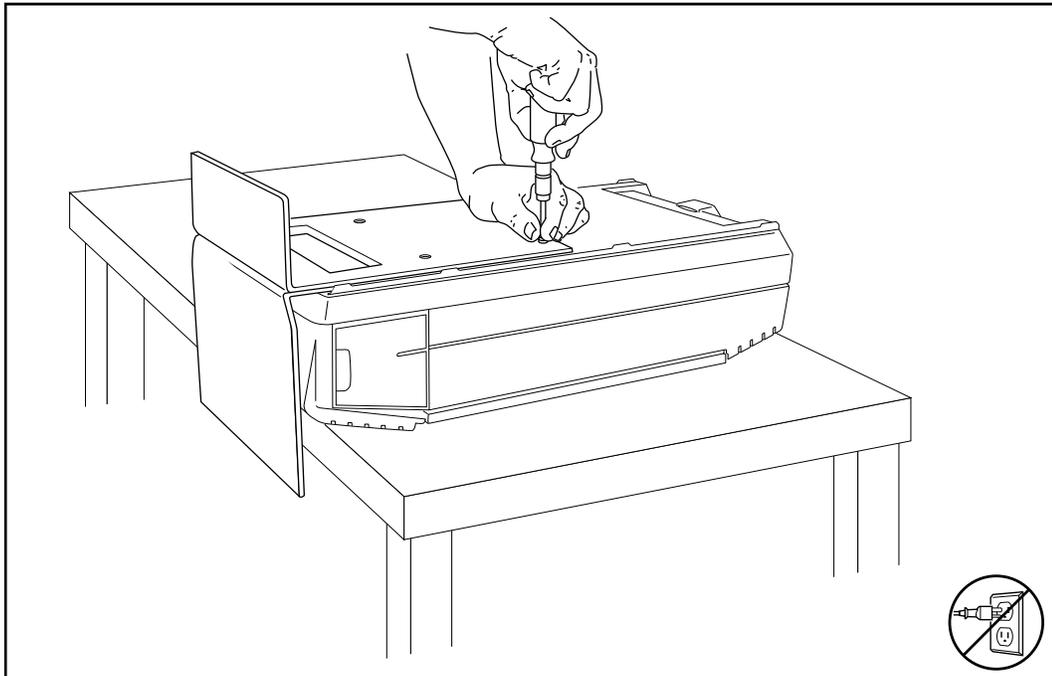
1. Rest the module on a tabletop with the door facing down. The cable trough should hang over the edge of the table. If a table is not available, rest the module on the floor mount stand carton.
2. Remove the top screws at the back of the module. Leave the washers in place. You will need them if you want to hang the module on the wall later.
3. Rest the floor mount stand on top of the module, aligning the stand into the groove on the back of the module. The longer of the two feet on the stand must be pointing down, towards the front of the module.
4. Align the four screw holes between the module and the stand.
5. Fasten the screws into the module.



Caution

Use only the screws that came with the floor mount stand or are on the back of the unit. **Do not substitute screws.** Substitute screws can damage the module.

Figure 4 Fastening the floor mount stand to the module



6. Put the module in the location you want.

7. Reconnect the cables

Note: You can run the cables through the ends of the cable trough or through the back.

8. Plug the power cord into the AC outlet. If you are installing the monitor package, do not plug the NAM in until the installation is complete.

Installing the end-caps

To install the end-caps:

1. Make sure the front cable trough door is open.
2. Place the bottom of the end-cap into the slot in the bottom of the trough. There are two end-caps, one for the left side, and one for the right side of the cable trough.
3. Slide the end-cap straight back to the end of the slot.

Connecting the NAM to the KSU

A NAM can only be connected to a Norstar KSU that supports fiber connections. To verify the compatibility of your KSU, refer to [Table 1](#).

Table 1 KSU fiber connection compatibility

KSU Version	SP Software Number
Modular ICS Release 1 - T1	All version numbers are compatible
Modular ICS Release 1 - Centrex	All version numbers are compatible
USA-MICS-XL 1.0	All version numbers are compatible
USA-MICS-XC 1.0	All version numbers are compatible
CDA-MICS-XC 1.0	All version numbers are compatible
USA-MICS-XC 1.1	All version numbers are compatible
CDA-MICS-XC 1.1	All version numbers are compatible
NA-MICS-DR 1.1	All version numbers are compatible
NA-MICS-DR 2.0	All version numbers are compatible
NA-MICS-DR 3.0	All version numbers are compatible
NA-MICS-DR 4.0	All version numbers are compatible

Note: If the Norstar KSU does not support fiber connections, a DS30/Station Port Adapter must be installed. For more information, talk to your service representative.

Fiber cable precautions

To avoid damage that can affect the signal transmitted by the fiber cable, observe the following guidelines when connecting the NAM to the KSU:

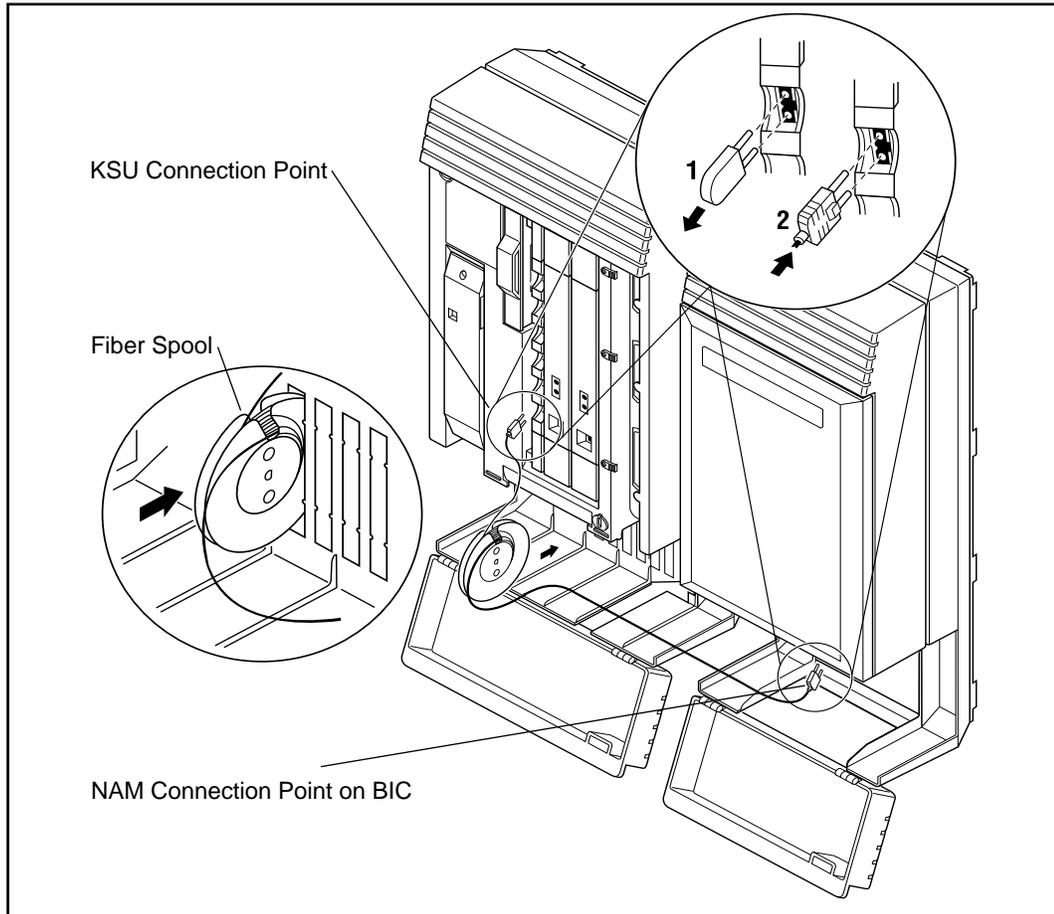
- Coil excess fiber on the spool provided for the installation.
- Secure the fiber cable spool in the KSU cable trough.
- Ensure the bends in the cable are no tighter than 100 mm (4 in) in diameter.
- When using cable ties, bundle fiber cable loosely.
- Avoid excessive pulling, compression or impact.
- Do not grasp the fiber cable or the clasp where the cable joins the plug, when connecting or disconnecting a fiber cable plug to or from a port.
- Do not leave the fiber cable in an environment with excessively high temperature (for example, on top of radiators).

Note: Before you connect the NAM to the KSU, ensure the NAM is installed within 2 m (6.5 ft) of the KSU. 2 m (6.5 ft) is the maximum length of the fiber cable.

To connect the NAM to the KSU:

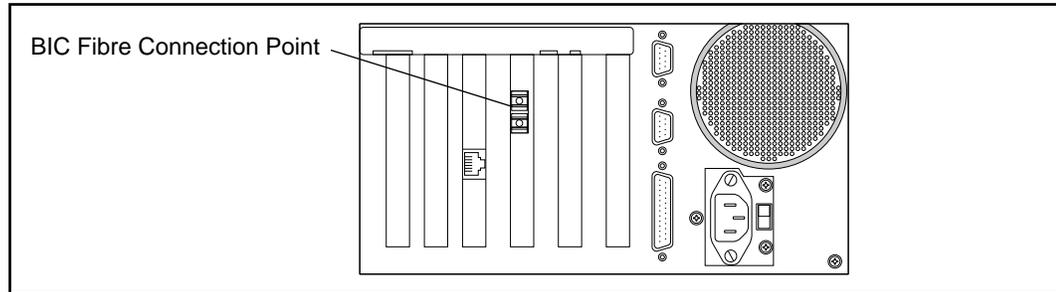
1. Ensure there is one expansion port capable of supporting a Station Module or a Trunk Module available at the KSU. For instructions about installing an Expansion Cartridge, refer to the *Norstar Installation Guide* that came with the Norstar KSU.

Figure 5 Connecting the KSU to the NAM



2. Connect one end of the fiber connector in an available expansion port on the KSU. The fiber connector is keyed and can be inserted only one way. Ensure the connector snaps into place.
3. Locate the Media Services Base Interface Card (BIC) fiber connection point on the bottom of the NAM. The BIC will be located in slot 4. Remove the two rubber protectors from the fiber connection points on the BIC. For the location of the NAM connection points, refer to [Figure 5](#) on page 11.

Figure 6 Fiber Connection Points - Bottom view



4. Connect the other end of the fiber connector into the BIC. The fiber connector is keyed and can be inserted only one way. Ensure the connector snaps into place.
5. Ensure all the excess fiber cable is on the spool provided and the spool is in the KSU cable trough. All the cabling should be run through the bottom or sides of the cable trough.



CAUTION

Do not place any other components, such as a power bar, into the NAM cable trough. Obstructions in the cable trough restrict a cooling air flow and may cause the unit to overheat.

Starting the NAM

Read the power supply warning label, covering the AC power plug, before starting NAM.

1. Plug in the NAM. Wait until the self-diagnostics are completed. This can take up to five minutes.



CAUTION

The power supply default setting is 115 volts. For more information about changing the power supply voltage setting, refer to the *Norstar Applications Module Installation and Maintenance Manual*.

Initializing the Norstar Voice Mail software

3

Initialization prerequisites

Before initializing the Norstar Voice Mail software, the NAM must be:

- mounted on the wall or a floor stand.
- connected to a Norstar Key Service Unit (KSU).
- powered up and running.

Preparing

To prepare for Norstar Voice Mail initialization:

- review the *Norstar Voice Mail Programing Record* to determine and record the required programing settings.
- make sure you have a Norstar telephone with a two-line display available to perform the procedure.
- determine the Norstar KSU software version.

Determining the KSU software version

The KSU software version must be compatible with the Norstar Voice Mail. To verify the compatibility of your KSU version with Norstar Voice Mail, refer to [Table 2](#) on page 15.

To determine the KSU software version:

1. Enter the Norstar Configuration access code.

Feature * * 2 6 6 3 4 4

(CONFIG).

Password: RETRY

2. Enter the Installer password. The password does not appear on the display as you enter it. The default password is **CONFIG (266344)**.

Note: You must have a Norstar Programing Overlay. For more information on Configuration programing, refer to the *Norstar Installation Guide*.

A. Configuration

3. Press Next three times.

`D. Maintenance` 4. Press `Show` .

`1. System Version` 5. Press `Show` .

`SP: 30NCG12 NAT` 6. Press `Rls` to end this installation session.

The Software Version Feature allows you to check the software version number of the System Processor (SP) in your Norstar system. The System Processor software resides in the Feature Cartridge.

When the display shows: `SP: 30MUL07 DR5
RTP`

this series of letters and numbers denotes the software version. For example, if the display shows `SP: 30MUL07 DR5` the version is DR5 11.7. Norstar uses letters of the alphabet to designate version numbers. The letter A represents 0, the letter B Represents 1 and so on. The third character to the right of the colon (M) indicates the kind of KSU software and the next character (U) indicates the language combination of the KSU software.

If your software is DR5 version, the display shows the System Processor (SP) software version number. You can view the Real Time Processor (RTP) software version number by pressing `RTP`. If the display shows the RTP software version number, you can view the SP software version number by pressing `SP`. The SP software resides in the Feature Cartridge and the RTP software resides in the KSU.

KSU software version compatibility

Table 2 Norstar Software Compatibility

KSU Version	SP Software Number
Compact Disconnect Supervision English/French English/Spanish	SP: 30NSE04 DR5 or greater SP: 30NTE04 DR5 or greater
Compact Non-disconnect English/French English/Spanish	SP: 30MJJ21 DR5 or greater SP: 30MKJ21 DR5 or greater
Modular DR5 English/French English/Spanish	SP: 30MUL07 DR5 or greater SP: 30MVL07 DR5 or greater
Centrex + English/French English/Spanish	SP: 30MGJ22 DR5 or greater SP: 30MHJ22 DR5 or greater
3X8	SP: 30NPE07 DR5 or greater
Modular ICS Release 1 - T1	All version numbers are compatible
Modular ICS Release 1 - Centrex	All version numbers are compatible
USA-MICS-XL 1.0	All version numbers are compatible
USA-MICS-XC 1.0	All version numbers are compatible
CDA-MICS-XC 1.0	All version numbers are compatible
USA-MICS-XC 1.1	All version numbers are compatible
CDA-MICS-XC 1.1	All version numbers are compatible
NA-MICS-DR 1.1	All version numbers are compatible
NA-MICS-DR 2.0	All version numbers are compatible
NA-MICS-DR 3.0	All version numbers are compatible
NA-MICS-DR 4.0	All version numbers are compatible
NA-CICS-DR1.0	All version numbers are compatible
NA-CICS-DR 2.0	All version numbers are compatible

Initializing the software

You must initialize the Norstar Voice Mail software before you can set up and program the Norstar Voice Mail system.

To initialize Norstar Voice Mail:

1. Press .

Log:
QUIT RE TRY

2. Enter the installer password (CONFIG) and press .

First lang?
ENG SPA FRE

3. Press ENG.

Note: After you accept the two languages, the other languages are deleted. You will not be able to load the other languages even if you re-initialize Norstar Voice Mail.

Eng lang?
CDN US

4. Press US to select United States English. To select Canadian English, press CDN. There are two differences between the US English and Canadian English voice prompts. In US English, is referred to as “pound” and is pronounced “zee”. In Canadian English, is referred to as “number sign” and is pronounced “zed”.

Second lang?
FRE SPA

5. Press SPA to select Spanish. To select French as the Second Language, press FRE.

1:ENG-US 2:SPA
RE TRY

6. Press to accept the two languages. Press RETRY to change the languages.

Note: Make sure the two languages shown on this display are the languages you want to keep before you accept the language choice. After you accept these two languages, the other languages are deleted. You will not be able to load the other languages even if you re-initialize Norstar Voice Mail.

Bilingual?
YES NO

7. Press YES.

Primary lang?
ENG SPA

8. Press ENG to accept English as your primary language. Press SPA if you want Spanish as the primary language.

```
Group lists? Y
CHNG          OK
```

9. Press **OK** to enable System Group Lists. Press **CHNG** to disable the System Group Lists.

Note: The System Group List leading digit can be any number from 0 to 9. The Special Mailbox numbers automatically begin with 1, so if you select a Group List leading digit of 1, the Special Mailbox numbers begin with 2. For example, the System Coordinator Mailbox is 22.

```
GList lead dig:9
CHNG          OK
```

10. Press **OK** to accept the leading digit. Press **CHNG** to enter a different leading digit.

```
System config
RETRY        OK
```

11. Press **OK** to complete the initialization. Press **RETRY** to change the system configuration. The display continues to change to show:

```
Configuring
```

```
System ready
```

```
Exit
```

The system is now initialized and ready for use.

Voice Channel Upgrades

If you have ordered a Norstar Voice Mail Voice Channel Upgrade, you should proceed with enabling the Voice Channels after the software has been initialized. For information about enabling Voice Channels, refer to the *Norstar Voice Mail Voice Channel Upgrade Guide*.

Determining the Norstar Voice Mail Directory Number

After the Norstar Voice Mail software has been initialized, you must determine the Norstar Voice Mail Directory Number (DN).

To determine the Norstar Voice Mail DN:

1. Enter the Norstar Voice Mail Directory Number Code.
The default is .

Note:

2. Press or to end this Norstar Voice Mail session.

Note: XXXX represents the DN. Record this number.

Naming the Norstar Voice Mail Directory Number

After initialization is completed, use Norstar Configuration programming to rename the Norstar station port that you connected the BIC fiber cable to. We recommend you name the port **NSTARUM**

To name the Norstar Voice Mail DN:

1. Enter the Norstar Configuration access code

(CONFIG).

2. Enter the Installer password.
The default password is CONFIG (266344).

3. Press .

4. Press .

5. Press .

6. Press twice.

7. Enter the Norstar Voice Mail Directory Number (DN).

XXXX:XXXX
CHANGE

8. Press **CHANGE** .

Note: XXXX:XXXX will be the Norstar Voice Mail DN and DN name.

XXXX: -
-->

9. Enter the name **NSTARVM** on the telephone dialpad.

Note: Press **-->** to move the cursor to the next position.

10. Press **[Ris]** to end this Norstar session.

For more information about Norstar Configuration, refer to the *Installation Guide* that came with your Norstar KSU.

Norstar Voice Mail Directory Number length

For Norstar Voice Mail to work properly, the mailbox number length must match the Norstar KSU DN length. When you change the KSU DN length, the Norstar Voice Mail system automatically reboots itself. When the system completes its reboot, you must re-initialize and reprogram Norstar Voice Mail. For more information about the KSU DN length, refer to the *Installation Guide* that came with your Norstar KSU.

Using Norstar Voice Mail with Norstar Plus Modular ICS Release 1 - Centrex and Norstar Centrex+

When you use a Norstar Voice Mail system with Norstar Modular ICS Release 1 - Centrex and Norstar Centrex+ software, you must program Norstar parameters to ensure that the Norstar Voice Mail system operates properly. Assigning the Norstar Voice Mail DN type and setting Centrex thresholds are the two most important parameters.

When you are using Norstar Voice Mail with Norstar Modular ICS Release 1 - Centrex and Norstar Centrex+ software, you must designate all ports as 'Norstar only'. For instructions about assigning the Norstar Voice Mail DN type, refer to the *Norstar Plus Modular ICS Release 1 - Centrex or Centrex+ Installer Guide*.

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