

# *Installation Instructions for VMP( )-U30 ETU*

Control No. 750257-0 (Document Revision 1)

## **DESCRIPTION**

The EliteMail VMP( )-U30 ETU, is a 2-port, 4-port, or 8-port interface that can be installed in any interface slot in the Electra Elite system. The 2-port or 4-port configuration includes one digital signal processor (DSP); the 8-port configuration requires an additional DSP-U30 Unit.

This electronic telephone unit is a PC-platform installed in the Electra Elite system, and contains disk space for voice recording storage and application software.

The major changes include:

- Faster running 486-based processor allows noticeably quicker boot and faster operation.
- Cosession direct connection speed is increased to 57,600 baud. This is the only supported direct connection speed for all U30 ETUs.
- An external modem is the only remote programming solution for this ETU. The jumper and dip switch setting table shows how to configure the card to use an external modem.
- Port upgrades are performed by changing the current flash drive to a new drive with the needed port configuration.

The voice mail application has been changed to work on this new platform, but the feature set for each is unchanged. There is only one Q revision for all flash drive-based VMP( )-U30 voice mails:

- ① Q21631 database version 6.69

A digital signal processor/voice processing section handles the following functions:

- ① DTMF detection
- ① DTMF generation
- ① General tone detection
- ① FAX CNG tone detection
- ① PCM compression for audio recording/playback
- ① Automatic gain control (AGC)
- ① A serial port capable of direct connect speeds up to 57.6 Kbps.

The number of EliteMail ports installed has a direct impact on the total number of system ports available.

## INSTALLATION PRECAUTIONS

---



**Observe the following precautions when installing the ETU to avoid damage to hardware due to static electricity or to being exposed to hazardous voltages.**

The ETUs used in this system make extensive use of CMOS technology that is very susceptible to static electricity. **Static discharge must be avoided** when handling ETUs. Always use the following precautions:

- Ⓒ Wear a grounded wrist strap anytime you handle an ETU.
- Ⓒ Make all ETU DIP switch setting changes before inserting the ETU in the KSU.
- Ⓒ Carry ETU in a conductive polyethylene bag to prevent static electricity damage.

## ENVIRONMENTAL CONDITIONS

---

The following temperature and humidity variances apply for VMP( )-U30 ETU operation:

- Ⓒ Operating temperature: +41° ~ 85° F (5° ~ 29.5° C)
- Ⓒ Long-term temperature: +50° ~ 80° F (10° ~ 26.7° C)
- Ⓒ Operating humidity: 10% to 90% (noncondensing)

## PROPER INSTALLATION PROCEDURE OF THE VMP( )-U30 ETU

---

**Warning:** This procedure must be followed every time the VMP( )-U30 is to be inserted into the KSU.

1. Turn off the KSU system power.
2. Place Switch S3 on the voice mail ETU in the **RUN** position.
3. Wearing a ground strap, install the voice mail ETU in the KSU.
4. Turn on the power to the KSU.

## PROPER SHUTDOWN PROCEDURE OF THE VMP( )-U30 ETU

---

**Warning:** This procedure must be followed every time the VMP( )-U30 is to be rebooted or removed from the KSU.

1. From console programming, connect the PC to the VMP( )-U30 voice mail using a direct connection. Refer to [INSTALLING COSESSION REMOTE SOFTWARE \(7.X\) on page 9](#).
2. From the banner screen, shut down the voice mail application by pressing the **[ESC]** key.
3. Then enter [Y] for yes and enter the password (default is **nec**).
4. From the Utility menu, enter **[x]** to exit to DOS.
5. Place Switch S3 on the voice mail ETU in the **SHUT DOWN** position.
6. Verify that the Shutdown LED is on. If the unit is to be rebooted you can now put the shutdown switch in the run position. If the unit is to be removed from the system continue with step 7.
7. Turn off the power on the KSU.
8. Wearing a ground strap, remove the ETU from the KSU.

## UPGRADING Q REVISION USING BRU UTILITY

---

Please follow the procedure below to perform the upgrade.

1. From console programming, connect the PC to the VMP( )-U30 ETU voice mail using a direct connection. Refer to [INSTALLING COSESSION REMOTE SOFTWARE \(7.X\) on page 9](#).
2. From the banner screen, shut down the voice mail application by pressing the **[ESC]** key.
3. Enter [Y] for yes and enter the password (default is **nec**).
4. From the Utility menu, enter [3] to start Backup, Restore, Update - BRU Utility.
5. Choose **Hang Up** from the Cosession main menu.
6. Start BRU Utility on support PC, refer to [INSTALLING THE BRU REMOTE on page 9](#).
7. Set BRU Utility to use the appropriate COM port on the support PC and set for a baud rate of 115, 200. Make sure to save any configuration changes.
8. Verify that Channel LEDs 1 and 4 are on.
9. Connect to VMP( )-U30 ETU voice mail using "Connect to BRU Host via null modem cable".

10. When connection is successful, choose **update** from the main BRU menu.
11. Put the Q revision upgrade System diskette in drive A of the support PC.
12. When prompted by the BRU Utility for the location of the update files, enter **a:\**.
13. After confirming the that upgrade is correct for this unit, answer **[Y]** for yes to the two warning messages.
14. If the upgrade is more than one diskette, you will be prompted for the other diskettes as needed.
15. After the upgrade files have been transferred, choose **5** from the main BRU Utility menu to disconnect and reboot the voice mail unit.
16. Voice mail should reboot automatically. Note after an upgrade, the voice mail may take longer than usual to boot. This is normal, as some of the upgrade is done during the boot process.
17. When the APP1 LED has turned green, connect to voice mail using Cosession direct connect and verify the Q revision by pressing **[F5]** at the banner screen.

## INSTALLING FLASH DRIVE ON THE VMP( )-U30 ETU

---

Please use the following instructions to install the Flash Drive.

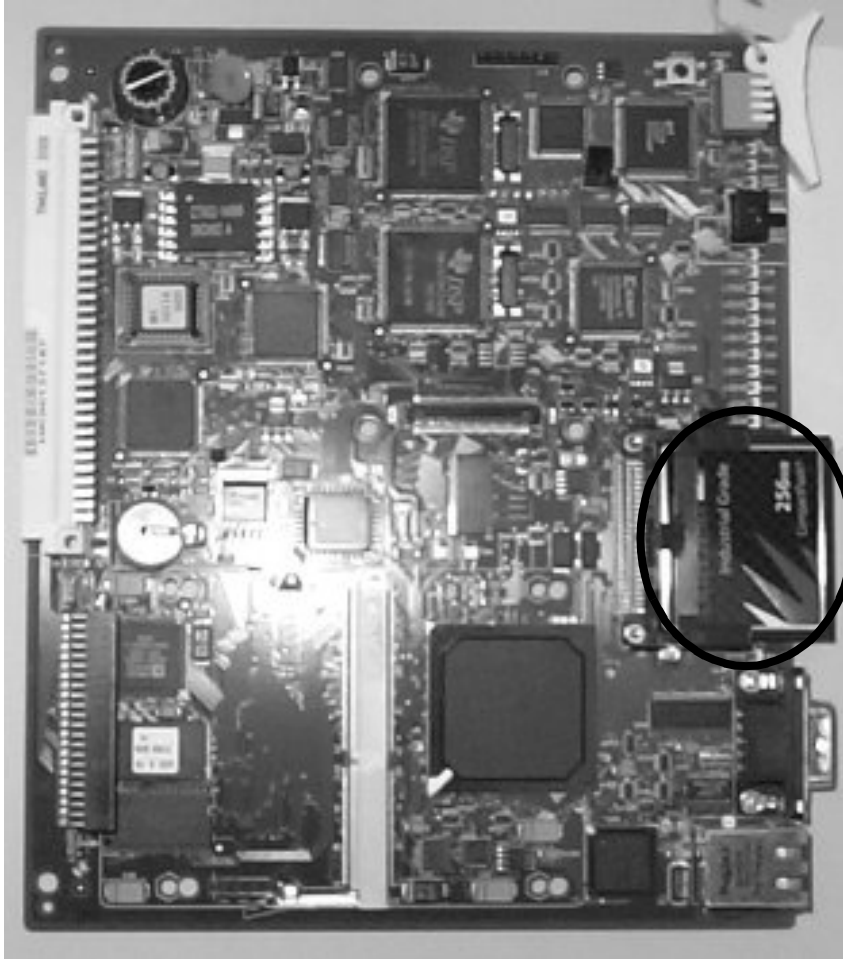
1. Remove the VMP( )-U30 ETU and selected Flash Drive from the box.
2. Locate slot J6 on VMP( )-U30 ETU.
3. The side with the SanDisk name in large red letters should be facing up, as shown in Figure 1 [Installing the Flash Drive on the VMP\( \)-U30 ETU](#).



**Figure 1** Installing the Flash Drive on the VMP( )-U30 ETU

👉 The Flash Drive will only go in one way, and does not take much force to insert it.

4. Push the drive in until it's fully seated, as shown in Figure 2 [Flash Drive seated on VMP\( \)-U30 ETU](#).



**Figure 2 Flash Drive seated on VMP( )-U30 ETU**

5. Make sure that jumper J7 is set across pins 1 and 2, and your system is ready for installation.

## INSTALLING DSP()-U30 ON VMP()-U30 ETU

---

To create an 8-port VMP( )-U30 ETU, the DSP-U30 must be installed. Refer to [Figure 3 Installing the DSP-U30 on the VMP\( \)-U30 ETU](#).

1. Wearing a grounding strap, remove the VMP( )-U30 and DSP-U30 from the box and lay on a flat work surface.
2. Locate connector J12 in the center of the ETU and position the DSP-U30 over it. Press down firmly on the DSP-U30 unit until a secure connection is made. Ensure that all the standoffs are snapped completely.
3. Place Switch S3 in **RUN** position.
4. Install the ETU in the KSU.
5. Turn on the KSU system power.
6. Wait for the APP1 LED to turn green, then connect the support PC to the VMP(8)-U30 ETU.
7. Verify there are eight ports shown on the banner screen.
8. If the unit is to be installed at another location, shut down the voice mail application by pressing the [ESC] key.
9. Enter [Y] for yes and enter the password (default is **nec**).
10. From the Utility menu enter [x] to exit to DOS.
11. Disconnect from the system.
12. Place SW3 in the **Shut Down** position.
13. Wait for the Shutdown LED to light red.
14. Turn off the KSU power and remove the card from the KSU.
15. Make sure to transport the card in the original packaging.

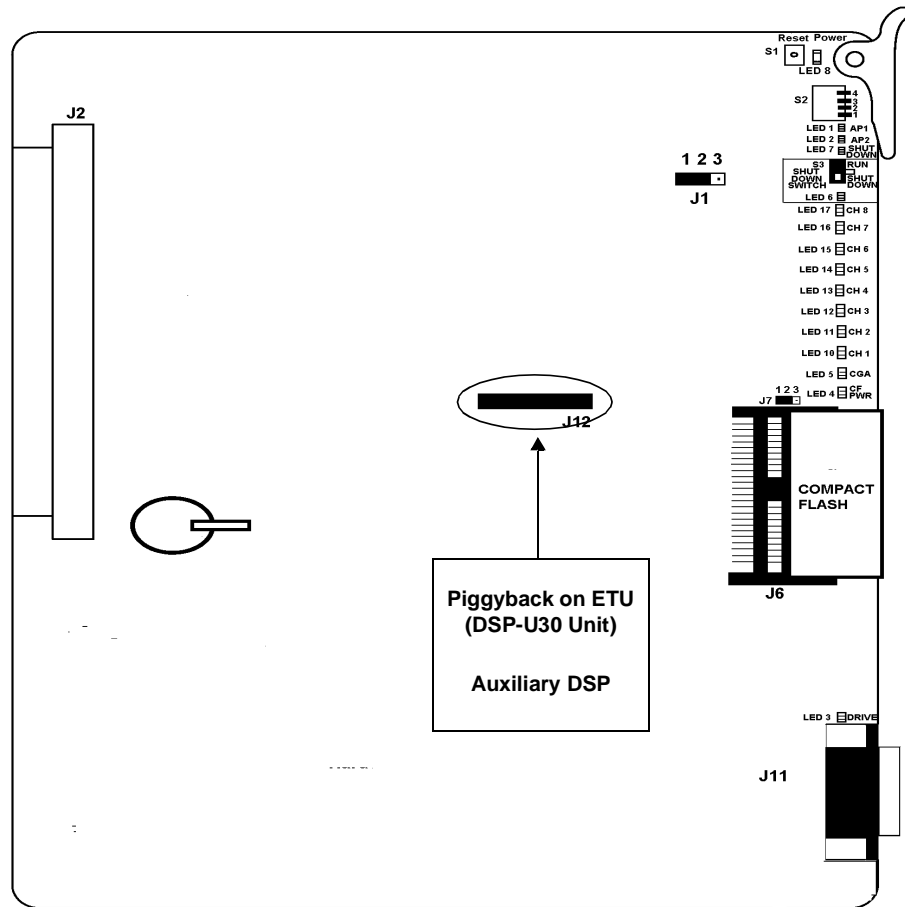


Figure 3 Installing the DSP-U30 on the VMP( )-U30 ETU



## INSTALLING COSESSION REMOTE SOFTWARE (7.X)

---

1. When your unit includes Cosession diskettes, Insert disk 1 of 3 into drive A:\ then double-click on **setup.exe**. When your unit includes Cosession CD, go to the folder on the CD labeled CD then double-click on **setup.exe**.
2. Choose **Custom Install**.
3. Choose to install the **remote** only, not the host.
4. Choose **modem/serial** only.
5. When prompted, choose the default direct connection COM port and set the baud rate to 57,600.
6. Make an icon on the desktop, and connect to voice mail.

## INSTALLING THE BRU REMOTE

---

To install the BRU Remote, use the procedure below.


1. Insert the BRU Remote diskette in the support computer's drive A.
2. If the support computer is running Windows, restart the PC in DOS mode.
3. At the command prompt, type **A:\INSTALL** and press ENTER.
4. Follow the on-screen instructions to complete the installation.

## CONFIGURING ELITEMAIL VMP( )-U30 FOR REMOTE CONSOLE PROGRAMMING

---

1. From console programming, connect the PC to the VMP(2)-U30 ETU voice mail a using direct connection. Refer to the Installing Cosession Remote Software (7.X) section.
2. From the Banner screen, shut down the voice mail application by pressing the **[ESC]** key.
3. Enter [Y] for yes and enter the password (default is **nec**).
4. From the Utility menu, enter **[x]** to exit to DOS.
5. Place Switch S3 on the voice mail ETU in the **SHUT DOWN** position.
6. Verify that the Shutdown LED is on.

7. Turn off the KSU system power.
8. Wearing a ground strap, remove the ETU from the KSU.
9. Set jumper J1 to the 2-3 position.
10. Set dip switch SW2 position 3 to on.
11. Place Switch S3 on the voice mail ETU to the **RUN** position.
12. Install the voice mail ETU in the KSU.
13. The CoSession host initializes the modem on start up, so make sure the modem is connected to the VMP( )-U30 ETU and powered on.
14. Turn on the power to the KSU.
15. Verify the correct modem type and the baud rate are set for the modem used on the remote/ technician PC.

 No login name or password is required to remotely connect to these ETUs.

**Table 1 Switch Settings for EliteMail VMP( )-U30 ETU**

<b>Reset Power Switch S1</b>				Used for development only.
<b>DIP Switch S2</b>				
<b>DIP SW 1</b>	<b>DIP SW 2</b>	<b>DIP SW 3</b>	<b>DIP SW 4</b>	<b>Description</b>
ON				Enable HostKey and run Manufacturing Test (NEC Production use only)
ON	ON			Enable HostKey with floppy disk redirection and run Manufacturing Test (NEC Production use only)
		ON		Connect to CoSession using modem instead of direct cable connection
			ON	Start BRU Host with direct cable connection
		ON	ON	Start BRU Host with modem connection
	ON		ON	Connect to CoSession using direct cable connection, but do not start the voice mail software (for troubleshooting and maintenance only)
<b>SHUT DOWN Switch S3</b>				Used to identify the position of SW3
RUN Position				LED 6 is on Red
SHUT DOWN Position				LED 7 is on Red

**Table 2 Jumper Settings**

<b>J1</b>	
1 - 2	No external modem connected <b>(default)</b>
2 - 3	External modem connected
<b>J7</b>	
1 - 2	Compact Flash is master drive
2 - 3	HDD is master drive <b>(default)</b>

**Table 3 Connector Definitions**

<b>Jumper</b>	<b>Definition</b>
J2	Backplane connector
J6	User for compact flash drive for FMS Not currently used on VMS
J8	Harddrive connector
J9	For VMS only. Not currently used.
J10	Not used
J11	COM port for console programming connection.
J12	Port expansion connector for DSP-U30 Unit to support ports 5-8.

**Table 4 VMP( )-U30 ETU LED Indications**

<b>LED</b>	<b>Description</b>	<b>On</b>	<b>Flashing</b>	<b>Off</b>
LED 1, AP1 Application Software:	Running without errors Running with errors Not Running	Green Amber Red	Not Used	Not Used
LED 2, AP2	Not Used	Not Used	Not Used	Not Used
LED 3, DRIVE	Hard Drive Access	Red if accessed	Not Used	When not accessed
LED 4, CF PWR	Power to the ETU	Red if power is on	Not Used	No power to ETU
LED 5, ICGA	Live LED	Not Used	Red every 125ms during operation	Operation is shut down

**Table 4 VMP( )-U30 ETU LED Indications**

<b>LED</b>	<b>Description</b>	<b>On</b>	<b>Flashing</b>	<b>Off</b>
LED 6, Switch S3 Indication	Do not remove Voice Mail from KSU	Red when S3 in RUN	Not Used	S3 not in RUN position
LED 7, SHUT DOWN	Safe to remove Voice Mail from KSU	Red when S3 in SHUT DOWN	Not Used	S3 not in SHUT DOWN position
LED 8, Power	Receiving KSU power	Red if power is on	Not Used	No KSU power
LED 9, FED DSP	For development only	Not Used	Not Used	Not Used
LED 10, CH1	OFF/ON HOOK status	Red for Off Hook	Not Used	On Hook
LED 11, CH2	OFF/ON HOOK status	Red for Off Hook	Not Used	On Hook
LED 12, CH3	OFF/ON HOOK status	Red for Off Hook	Not Used	On Hook
LED 13, CH4	OFF/ON HOOK status	Red for Off Hook	Not Used	On Hook
LED 14, CH5	OFF/ON HOOK status	Red for Off Hook	Not Used	On Hook
LED 15, CH6	OFF/ON HOOK status	Red for Off Hook	Not Used	On Hook
LED 16, CH7	OFF/ON HOOK status	Red for Off Hook	Not Used	On Hook
LED 17, CH8	OFF/ON HOOK status	Red for Off Hook	Not Used	On Hook

The first four channel LEDs are also used during startup to signify:

LED 1, BICOM driver loaded

LED 2, Scandisk completed successfully

LED 3, CoSession Host loaded successfully

LED 4, Voice Mail started successfully

After system is up and running these LEDs are turned off, and all channels are ready to receive calls.

When Voice Mail fails to start, all eight channel LEDs and the BCLR LED (AP1) are on.