



# **TRI-PORT/SPEECH INSTALLATION GUIDE (MODEL 96XX)**

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## Updates:

December 17, 2010 Braille sticker updated to #07000-38801.

### **\* NOTE \***

The 9XXX Software required with this upgrade may be obtained from the Triton partner web site. Always use the latest version of software.



### **\*\* Important \*\***

The upgrade procedures require removal and replacement of electrostatic sensitive devices such as integrated circuits, boards, and assemblies. ESD wrist straps should be worn and connected to a common ground point to prevent hazardous electrostatic discharge to sensitive components. Failure to follow proper handling or use of these items may result in damage from ESD.

# TRI-PORT/SPEECH INSTALLATION GUIDE

## INTRODUCTION

This guide covers the steps for installing a speech (headphone jack) kit for Model 96XX ATMs. This procedure includes a list of tools and hardware required for the upgrade as well as the steps involved.

## SCOPE

This procedure applies to all service personnel involved in the process of maintaining or converting Triton ATMs.

## REQUIRED PARTS AND TOOLS

TOOLS REQUIRED		
Drill and drill bits (1/8" and 3/8")	#2 Phillips Screwdriver (Magnetic)	
Tape Measure or Ruler	7/16" (11 mm) Nut Driver	
	Marker (Pencil)	
96XX SPEECH INSTALLATION KIT (P/N 06200-00023)		
PARTS SUPPLIED		
PART NUMBER	DESCRIPTION	QUANTITY
09110-00235	Tri-Port Speech Module	1
09120-00410	Headphone Cable	1
03011-01055	Speech Jack Retainer Clip	1
02072-00002	Clip, Extruded Wire Harness	1
09120-07015	Ground Wire Adapter	1
03072-00009	Clip, Panduit Adhesive	2
01030-00010	Ferrite	1
09130-01025	Eprom, Version SD04.01	1
07000-38801	Label, Braille	1

### \* IMPORTANT \*

The Speech upgrade for the 96XX ATM requires:

- **SD04.01 EPROM** or higher installed in the **Memory Module (SS-2)**.
- **Tri-Port Speech** module (new).
- \* 1 Mbyte or greater **Memory Expansion** module.

\* This item is **NOT** included in the kit. You may already have this installed.

## Installation

Follow these steps to install the speech installation kit for the Model 96XX ATM:

**\* Important \***

When routing the headphone cables in the control panel, it is critical that cables are isolated from the main ribbon cable that runs from the card cage to the keypad. **DO NOT ROUTE/SECURE HEADPHONE CABLE WITH THIS RIBBON CABLE!**

1. Unlock and open the control panel. Verify that the power switch is in the OFF (0) position. Close the control panel.
2. Using a tape measure/ruler, mark a point 1- 1/2" from the bottom left edge shown in Figure 1. From that mark, measure 1-1/2" down and place another mark (Figure 2). This will be the drill point. Erase the previous mark. Figure 3 shows the drill point location.



*Figure 1. Measure 1-1/2" across.*



*Figure 2. Measure 1-1/2" down.*



*Figure 3. Drill point location.*

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3. Drill a pilot hole using the 1/8" drill bit and finish using the 3/8" bit (Figures 4 and 5).



*Figure 4. Drill pilot hole.*



*Figure 5. Finish with 3/8" bit.*

4. Open the control panel and feed the headphone cable (audio jack side first, Figure 6) through the hole (exterior) until the headphone plug is flush in the hole (Figure 7).



*Figure 6. Feed cable in hole.*



*Figure 7. Headphone plug flush.*

5. (Inside control panel) Secure the headphone plug with the retainer clip shown in Figure 8. Fully insert the retainer clip.



*Figure 8. Insert retainer clip to secure.*

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- Using a 7/16" nutdriver, remove the bolt shown in Figure 9. Install the ground wire adapter and secure with bolt previously removed (Figure 10). Connect the ground wire from the headphone cable to this adapter.



*Figure 9. Remove bolt.*



*Figure 10. Install ground wire adapter.*

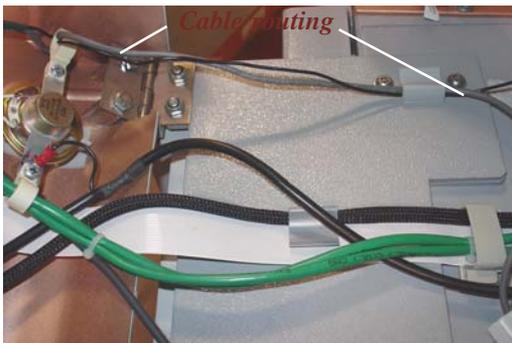
- Install an extruded wire harness clip to the speaker screw shown in Figure 11. Route the cable under and through the clip so cable has a “bow”. Next, install the adhesive-backed clip between the 2 center-pin torx screws (figure 12). Figure 13 shows the headphone cable routing.



*Figure 11. Install clip and route cable.*



*Figure 12. Install flat clip and secure cable.*



*Figure 13. Cable routing.*

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- Pull the **Memory** module from the card cage (SS-2) and verify the EPROM version is **04.01** or higher (Figure 14). If not, install the required upgraded EPROM (included in kit) following ESD precautions and correct orientation of the chip (see **pages 8 and 9 for Chip Replacement Procedures**). Reinstall the memory module after completion.
- The required **Memory Expansion** module will be installed in **slot 4** (SS-4) beneath the Modem/LCD module. Before installing, verify that the jumpers on **J1 and J2** are connected on **pins 1 and 2**. If not, move the jumpers to connect Pins 1 and 2 together (Figure 15). Install the Memory Expansion module.



Figure 14. Memory module EPROM location.

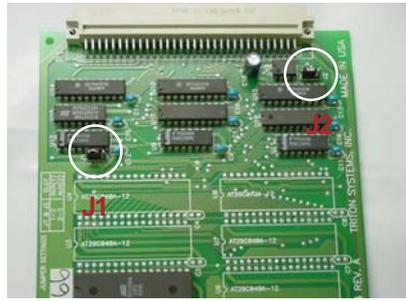


Figure 15. Memory Expansion module J1 and J2 jumper location (pins 1 and 2).

- The required **Tri-Port/Speech** module will be installed in **slot 5** (SS-5) beneath the Memory Expansion module. Figure 16 shows the card cage configuration.



Figure 16. Card cage configured.

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11. Open the ferrite included in kit. Wrap the headphone cable in the ferrite as shown in Figure 17. Position the ferrite as close as possible to the headphone jack and snap ferrite together. Plug the headphone jack into the jack provided on the Tri-Port/Speech module shown in Figure 18.



*Figure 17. Install cable in ferrite.*

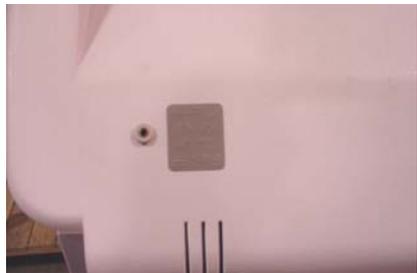


*Figure 18. Connect cable to Tri-Port module.*

12. Secure any excess cable to the cable clip shown in Figure 19.
13. Affix the Braille label approximately 1/4" to the right of the headphone plug as shown in Figure 20. Ensure correct orientation of label .



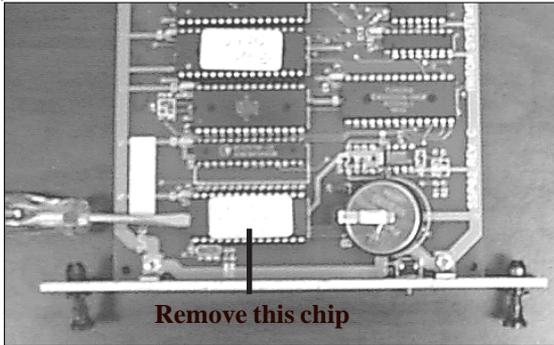
*Figure 19. Secure excess cable.*



*Figure 20. Affix Braille label.*

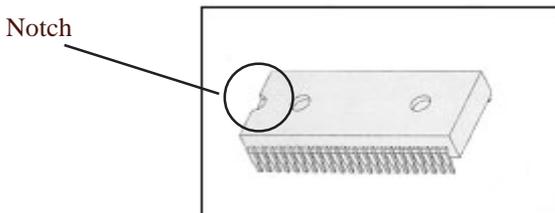
## Removal/Replacement of EPROM Chip

1. Remove the SS-2 card (**Memory** module) from its slot in the card cage. Place the memory module on a flat surface (preferably on an ESD mat). Position the card so that the front of the module is facing towards you (Figure 1).



*Figure 1. Memory module.*

2. Remove the EPROM chip that is immediately to the left of the circular battery (see Figure 1). The use of an IC chip puller to perform this step is recommended; however, a small flat-blade screwdriver can be used. Place the tip of the screwdriver between the chip and its socket, and twist the tip slightly to begin lifting the chip from the socket. Move the tip of the screwdriver to the opposite end of the chip and repeat. By alternating sides and lifting the chip a small amount each time, you will eventually release the chip from its socket. At this point, carefully remove the chip from the memory card.
3. Take the new EPROM (SD04.01) and place it lightly on the chip socket, ensuring that the half-circle notch on the chip is positioned to the left (see Figure 2). Align the pins of the chip with the insertion holes of the socket.

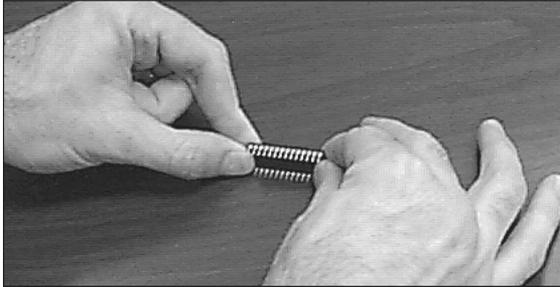


*Figure 2. Eprom chip (Memory module).*

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- It may be necessary to bend the pins on one or both edges of the chip inward very slightly to achieve this alignment. To do this, grasp the left and right-hand edges of the chip and orient the chip so that the pins are facing you (Figure 3). Place the pins on one side of the chip on a flat surface and apply mild pressure to bend the pins by angling the top edge of the chip toward you. Check the alignment of the pins with the socket as before. If necessary, bend the pins on the opposite edge of the chip.



*Figure 3. Rotate chip to bend pins inward.*

- Once the pins of the chip line up with the socket holes, insert the chip into the socket by applying an even pressure to the chip to seat it firmly in the socket. Make sure the chip is oriented properly (notch to the left). Make sure the pins are inserted correctly and that none are bent.
- Reinstall the memory module into the card cage slot.

## SOFTWARE DOWNLOAD

The terminal software must be loaded using the TriComm for Windows® executable program included on the Software CD (P/N 05200-00399). The following procedures describe accessing the terminal Eprom Diagnostic screen and running the TriComm for Windows program.

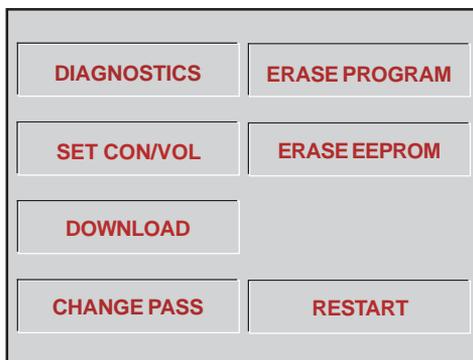
**\* IMPORTANT \***

**The EPROM chip and all associated hardware required must be installed and the EPROM must be erased prior to downloading the operating software included in the kit. DO NOT load an update file over current Triton Standard software running the machine.**

### ACCESSING THE EPROM DIAGNOSTICS

The **EPROM DIAGNOSTICS** menu will be used to prepare the terminal for the software download. To access the EPROM main menu you will need the EPROM Access Code.

1. While holding down the “1” key on the Terminal main keypad, reset the unit by turning the AC Power Switch OFF for a few seconds, then back ON again. The terminal will perform a series of boot-up diagnostics. At the conclusion of the boot-up sequence the unit should now display a screen requesting an EPROM access code. Release the “1” key. *Consult with your distributor for the access code for the terminal.*
2. Enter the EPROM access code. The unit will display an EPROM Diagnostics menu:



3. Press the **ERASE PROGRAM** option. A warning screen is displayed:

**\*\* WARNING \*\***

**This selection will erase part of the unit's memory and should be used only with caution!**

**Enter the erase code to proceed or cancel to end.**

4. Enter the Erase Program code of **2455**. When the erase operation is completed the main menu will appear.
5. Press the **ERASE EEPROM** option. A warning screen is displayed, as in step 3.
6. Enter the Erase EEPROM code of **2455**. When the erase operation is completed the main menu will appear.
7. Press the key next to the **DOWNLOAD PROGRAM** option. The next screen will present a message prompting you to connect the PC to the Terminal and begin the software transfer:

**\*\* PROGRAMLOAD \*\***

**Connect the PC to the unit or connect phone line.**

**Begin the transfer on the PC.**

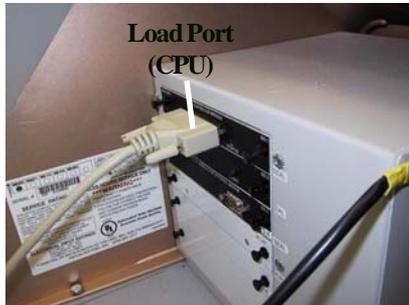
### CONNECT THE DOWNLOAD CABLE

1. Connect the 9-pin adapter end of the download cable to the selected serial port on the PC. Note the serial port you are using (COM1 or COM2 ) for use in configuring the TriComm for Windows program. See the figures below for connector location:



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2. Unlock and open the control panel of the terminal. Connect the other end of the download cable to the load port located on the **CPU module** shown below.



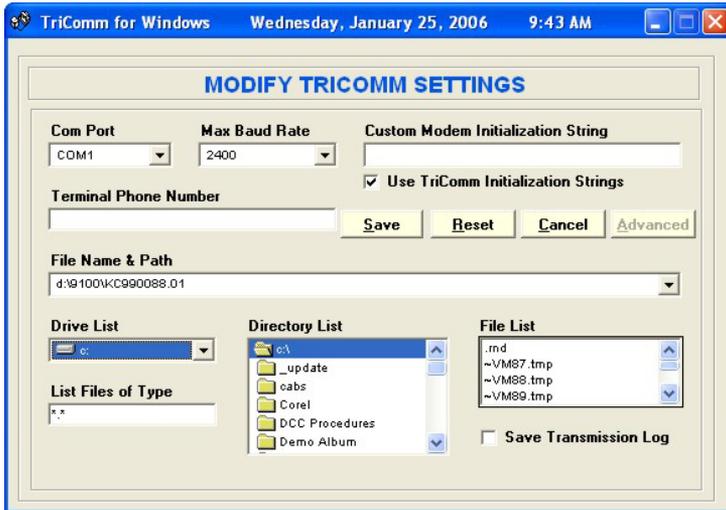
## CONFIGURE TRI-COMM FOR WINDOWS PROGRAM

1. Insert the Software CD load disk into the CD drive of the PC.
2. Access the **Windows Start\Programs** menu and select the **TriComm** option. Select the **WTriComm.exe** file. The program will start. The program's main window will be displayed:

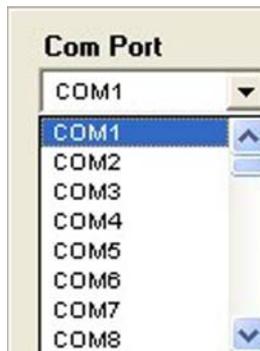


3. Click the **Settings** button. The following dialog window will be displayed:

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4. Choose a Com Port setting that matches the port on the PC. Click the down arrow on the **Com Port** control to see additional selections, as shown here:



5. Use the **Drive List** control to select the CD drive, which should contain the Software CD load disk. This will usually be the <d:> or <e:> drive, as shown here:



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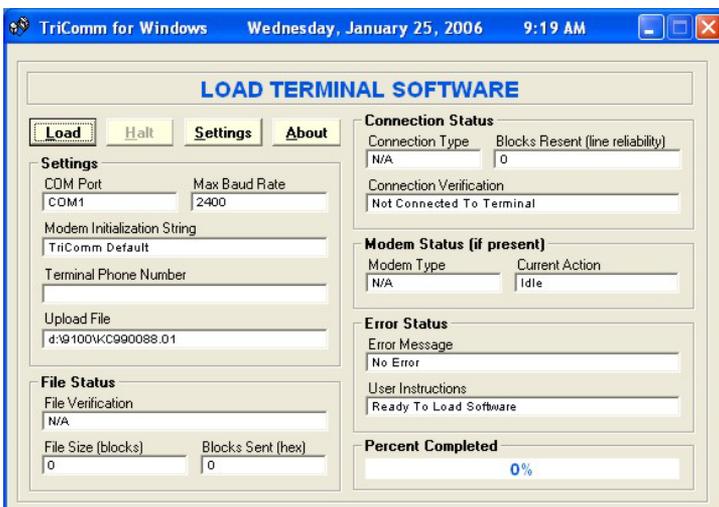
- Once the drive is selected, the **Directory List** box will show what directories are present on the disk. In most cases, additional directories below the root directory (i.e. d:\) will be present, as shown here:



- The **File List** box will show the contents of the currently selected directory on the drive. Here is an example:



- The kinds of load files that will be displayed in the list will depend upon the ATM model type and the type of load file (Full Load or Update Load) present on the disk. Highlight the appropriate file and click the **Save** button to save the current settings and return to the TriComm main window.



## Start Software Download

1. Click the **Load** button on the TriComm main window. The software loading process begins. The Percent Completed progress bar will indicate the degree of completion of the file transfer. A corresponding progress indicator will appear on the terminal display during the file transfer, along with the words, "TRANSFER INITIATED."
2. Once the file transfer is complete (has reached 100%), the terminal will perform a check of the received data, as indicated by the words, "CHECKING FLASH CRC" on the unit's display.
3. When the words, "DOWNLOAD COMPLETED" appear on the terminal display, the software load is complete. **REMOVE THE DOWNLOAD CABLE** and close the control panel of the terminal.
4. Press the **Cancel** key on the keypad to exit the diagnostics menu area and run the terminal program. The terminal will run a series of verification tests, after which the terminal's Top Menu will be displayed.
5. Close the TriComm for Windows program by clicking on the close button in the upper-right corner of the program window, or by clicking on the title bar icon in the upper-left corner of the program window and selecting the Close option from the pop-up menu. Remove the download cable connection from the PC Com Port. Remove the software load disk from the CD drive of the PC.