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SPEECH UPGRADE INSTALLATION GUIDE (MODEL 9100)

TDN 07100-00062 07/2006

INTRODUCTION

This guide covers the steps for installing a speech-capable kit for Model 91XX ATMs with monochrome or color displays. 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.

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* NOTE *

The 9XXX Software CD included in kit contains Install Guides and software for various upgrade kits. Refer to the **"README"** and **"UPGRADE KIT IN-DEX"** to locate your kit, guide, and software P/Ns required for your upgrade installation.

** 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.

TOOLS REQUIRED		
Rotary drill and drill bit (5/16") #2 Screwdriver (Flat-tip and phillips) Nutdriver (1/4") Diagonal cutter		

TOOLS RECOMMENDED		
Emory board/file Brush/portable vacuum		

91XX SPEECH INSTALLATION KITS (P/N 06200-00203 - Color) (P/N 06200-00204 - Mono)		
PARTS SUPPLIED		
PART NUMBER	**DESCRIPTION**	**QUANTITY**
[1] 09100-00216	Mainboard PCB assembly, color	1
[2] 09100-00215	Mainboard PCB assembly, mono	1
09100-00085	Audio headphone PCB assembly	1
03011-00323	Bracket, audio assembly	1
09120-00107	Cable, ribbon	1
02054-00077	Screw, K40 x 12	3
02054-00018	Screw, 4-40	3
02309-00026	Nut, 4-40	3
03072-00013	Ty-wrap, red	1
03072-00030	Clip, Ty-wrap	1
09120-00630	Cable, SPED	1
03072-00002	Clip, loop, cable routing	1
05200-00399	9XXX Software CD (includes kit #'s, installation guides, software)	1
[1] Assembly included in color upgrade kit (06200-00203)		
[2] Assembly included inmono upgrade kit (06200-00204)		
Note: Mainboard assemblies will have the battery (P/N 01300-00002) and EPROM chip (P/N 09130-01030) factory installed.		

Installation

Follow these steps to install the speech installation kit and terminal software for the Model 9100 ATM:

IMPORTANT: Before installation, unlock and open the control panel. Verify that the power switch is in the **OFF** (0) position!

REMOVE / REPLACE MAIN BOARD PCB

1. Locate the Main board assembly shown below. Disconnect all the cables/ wires located on each side of this assembly. *Note the location/orientation of the cables before removal.*

2. Remove the phillip-head screws that secure the Main board assembly to the control panel (Figures below). Set screws aside. *Note: There may be a ground wire attached under the screw for the L-bracket.*

3. Remove the Main board assembly from the control panel and place on a flat surface. Remove the top and bottom screws from the Main board assembly using either a flat-tip screwdriver or 1/4" nut driver. Set screws aside.

4. The following steps involve separating the Main board housing. The housing for the Main board is actually two (2) panels that fit together.

   A. Place the Main board assembly on one end. Holding the housing assembly as shown, *gently* apply pressure outward on the green circuit board connectors until the panels start to separate.

   B. Repeat the procedure on the other end of the assembly. Once panels have started to separate, work the sides alternately until the 2 panels are completely separate. ***Caution: Avoid handling the small contrast adjust component at top of circuit board.***

   C. Place the front panel aside. Place the other panel (one with main circuit board PCB attached) on a flat surface.

5. Using the diagonal cutters, cut the Ty-wrap (if applicable) that secures the dial-up modem module as shown. Discard the Ty-wrap. Remove the modem module by unseating from its pin holders and set modem aside. *Note the orientation of the modem module before removal!*

6. Remove the two (2) screws (and Ty-wrap clip holder, if applicable) that secure the Mainboard PCB to the back panel. Remove the circuit board (this will be replaced).

7. Install the Mainboard PCB included in kit and secure with the 2 screws removed in the previous step. *Remember to reinstall the Ty-wrap clip holder under the upper left screw! If your replaced board did not have a clip holder, there is one included in kit.*

8. Slip the *red* Ty wrap included through the clip but **DO NOT** secure at this time. Reinstall the modem module and secure the Ty-wrap around the module. *Note: Ensure the orientation of the modem module is correct and pins are seated in the pin holder.*
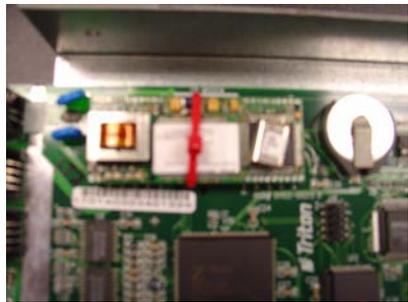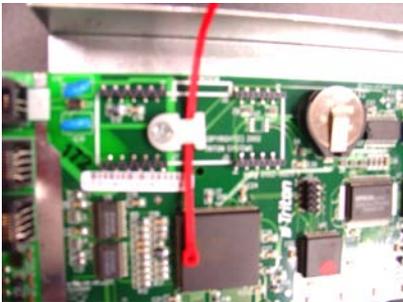
9. Reinstall the front panel over the back panel. Secure Mainboard assembly with screws removed in **step 3.** Set Main board assembly aside.

DRILL / INSTALL SPEECH AUDIO BOARD

1. Locate the "dimpled" area on the control panel front shown in the Figure below. This area will be drilled out.

> **** CAUTION ****
> Before proceeding, open the control panel and check /move any cables that may be in the path of the drill location.

2. Center the 5/16" drill bit in this dimple and drill through the panel. You may want to drill a pilot hole first for centering purposes.


3. Clean/smooth any burrs or rough edges on the inside and back of the hole. Vacuum or brush any shavings on the inside of control panel.
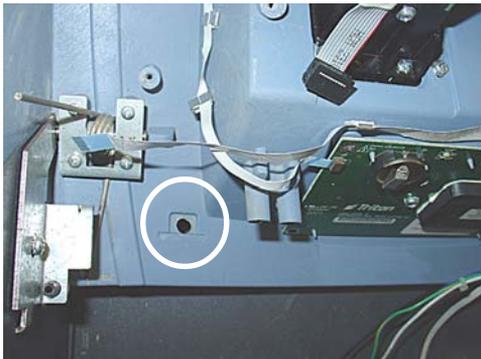
4. Assemble the audio PCB to the bracket using the #4-40 screws/nuts provided. The screws are inserted (2) on the back side of the board with the nuts secured to the bracket as shown below.

5. Connect one end of the ribbon cable included to the audio board as shown (blue tracer visible).
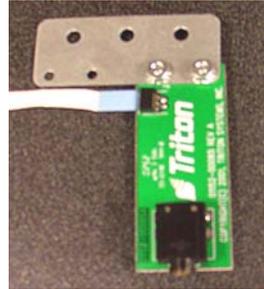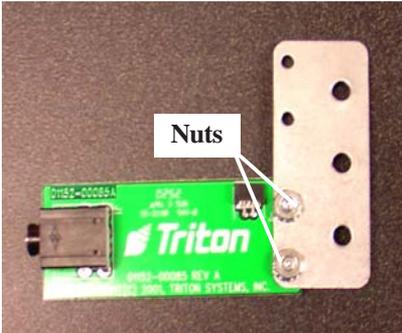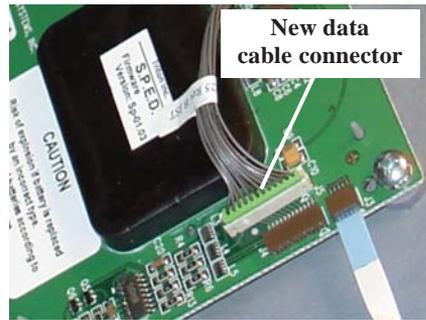

6. Insert audio board assembly to the control panel and start the right side screw using the K40x12 screws included. Connect/secure the cable routing clip shown on the left side screw hole. Tighten both screws.
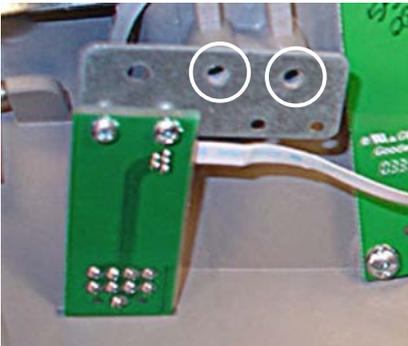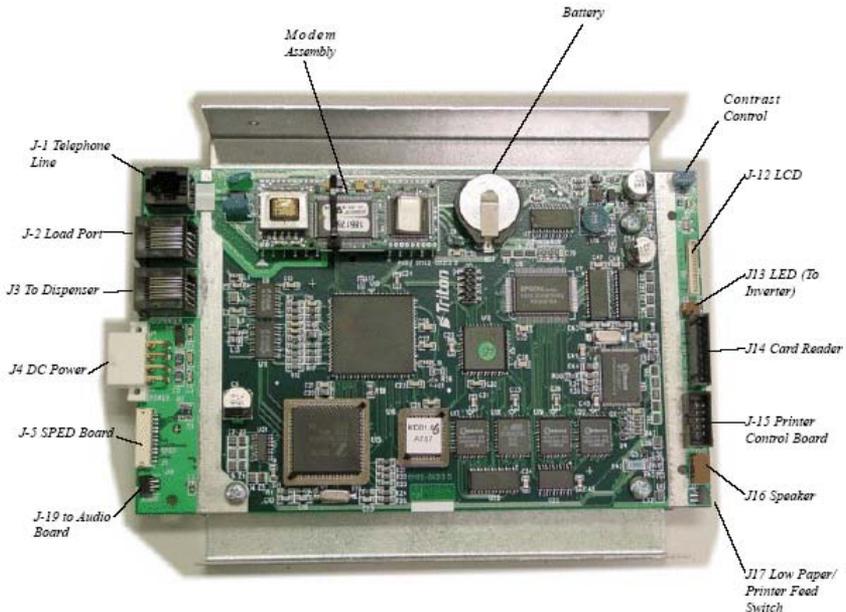
SPED CABLE REPLACEMENT

1. See figures below. If you currently have a ribbon-type SPED data cable, this must be replaced. Remove this cable. Connect one end of the multi-strand data cable (P/N 09120-00630) included in kit. The connection for this cable is shown in figure.

Ribbon data cable

New data cable connector

REINSTALL / CONNECT MAIN BOARD PCB

1. Reinstall the Mainboard assembly to the control panel and secure with the phillips-head screws previously set aside. Route the cables/wires through the cable routing loop and reconnect to the Mainboard assembly (including the audio board ribbon cable and new SPED cable). The figure below shows the connections for the Mainboard.

Modem Assembly

Battery

Contrast Control

J-1 Telephone Line

J-12 LCD

J-2 Load Port

J13 LED (To Inverter)

J3 To Dispenser

J14 Card Reader

J4 DC Power

J-15 Printer Control Board

J-5 SPED Board

J16 Speaker

J-19 to Audio Board

J17 Low Paper/ Printer Feed Switch

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.

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* IMPORTANT *

The EPROM chip and all associated hardware required must be installed and the EPROM <u>must</u> be erased <u>prior</u> to downloading the operating software included in the kit. <u>DO NOT</u> 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. *Note: The factory default access code is '123456'. Remember to change this code to prevent unauthorized access to the Eprom diagnostics!*

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.

2. Enter the EPROM access code. The unit will display an EPROM Diagnostics menu:

DIAGNOSTICS	ERASE PROGRAM
SET CON/VOL	ERASE EEPROM
DOWNLOAD	
CHANGE PASS	RESTART
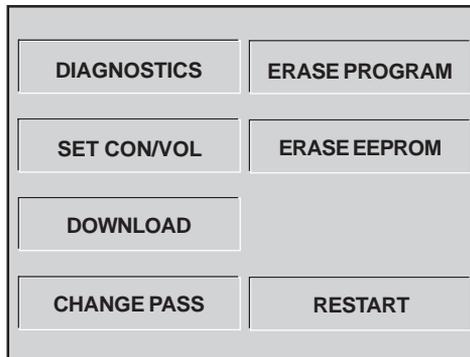
3. Press the **ERASE PROGRAM** option. A warning screen is displayed:

> **** 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:

> **** PROGRAM LOAD ****
>
> **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:

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 **Mainboard** assembly shown below.


Load Port

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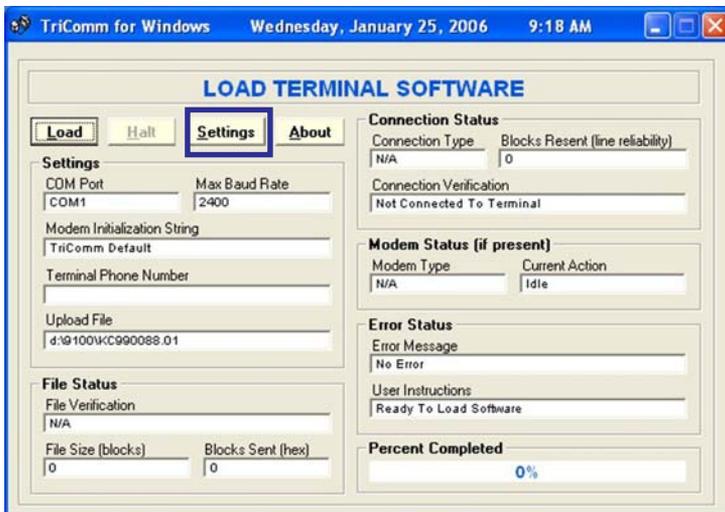
3. Click the **Settings** button. The following dialog window will be displayed:

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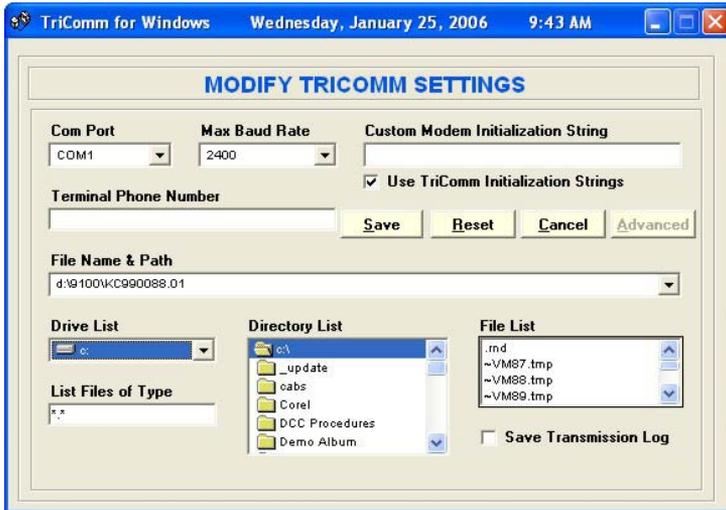
4. Choose a Com Port setting that matches the port on the PC. Click the down arrow on the **Com Port** control to see additional selections, as shown here:

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:

6. 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:

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

8. 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 FROM THE ATM** 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.

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