



INSTRUCTIONS FOR DISPLAY MODULE AND INTERCONNECT BOX BOARD SERVICING

Manual No. 577013-953 Rev. A

New software and hardware is not interchangeable with older EMR hardware

These instructions will assist you in avoiding Hardware-Software compatibility problems when servicing EMR Display Modules and EMR Interconnect Box circuit boards.

What you need to know

To service EMR hardware older than April 2006, the Display Module (or display modules for a 2-head system) and the Interconnect Box circuit board need to be replaced.

If the hardware date code is after April 2006 but before May 20, 2008, order the appropriate Upgrade Kit depending on what hardware needs replacing.

- If only the display module needs to be changed and the IB Board is okay, use Display Module Upgrade Kit Nos. 846000-051 through 846000-062 that includes a new firmware chip for the IB Board.
- If only the IB Board needs to be changed, replace the new firmware chip on the replacement IB with the FB2 chip from the old IB board. Upgrade Kit No. 846000-063 contains a new IB board with a chip puller.

Kit Part No.	Kit Description
846000-051	Display Upgrade – English Volume Only
846000-052	Display Upgrade – English Volume and Temp Comp
846000-053	Display Upgrade – English Volume and Currency
846000-054	Display Upgrade – English Volume, Currency and Temp Comp
846000-055	Display Upgrade – French Volume Only
846000-056	Display Upgrade – French Volume and Temp Comp
846000-057	Display Upgrade – French Volume and Currency
846000-058	Display Upgrade – French Volume, Currency and Temp Comp
846000-059	Display Upgrade – Spanish Volume Only
846000-060	Display Upgrade – Spanish Volume and Temp Comp
846000-061	Display Upgrade – Spanish Volume and Currency
846000-062	Display Upgrade – Spanish Volume, Currency and Temp Comp
846000-063	IB Board Upgrade with software





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Warning: When using an FB2 chip on an IB Board, the Display used in this EMR System must also have FB2 Software. Installing FB2 software on a Display with a May 20, 2008 date code (or later) is not possible.

Note: Information on how to identify the date code of existing equipment is on pages 4 and 5.

If replacing all EMR components due to equipment with date codes prior to April 2006

Replace the wiring shield with the new one included in the IB Board Upgrade Kit as some of the wiring connection locations are different.

Replacing IB Board only (display is okay)

If the IB Board has an FB2 chip and you are replacing the IB Board only but not the Display, follow the IB Board Chip Changing instructions for the new IB Board including battery removal on the new board and installing the FB2 chip in the new board as shown on the next page.

Display Module Upgrade Kits contain new IB Firmware

Each Display Upgrade Kit has an IB Firmware chip and a chip puller. If you have an existing IB Board with firmware chip 784-FB2, follow the instructions on the next page.





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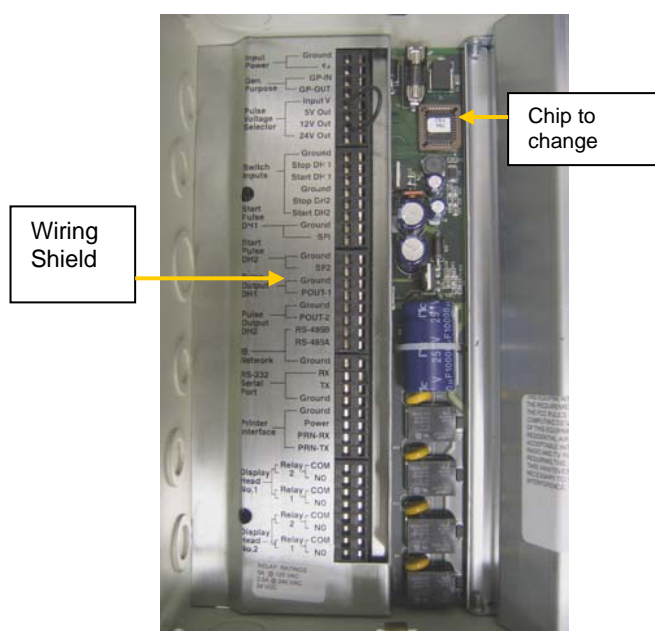
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IB Board Firmware and memory clearing instructions

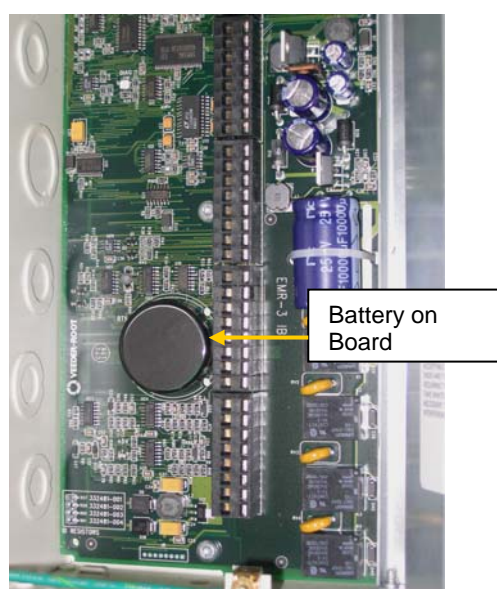
On the IB Board with 784-FB2 firmware locate the battery under the wiring shield as shown below. Pull the battery off of the board for 30 seconds and then reinstall it. Removing the battery is necessary to clear out the memory on the IB Board as the newer firmware has a different data structure.

For IB Board replacement (where displays are okay) when re-using the FB2 chip, perform the battery removal and reinstall procedure on the new IB Board prior to installing your old FB2 chip on the new IB Board.

Battery Under Wiring Shield

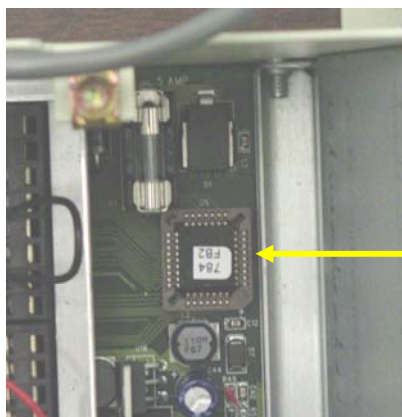


Battery on Board



Remove the IB chip and install replacement

The chip that will be changed is the “784-FB2” chip located in the upper center of the IB Board as shown in the picture above.

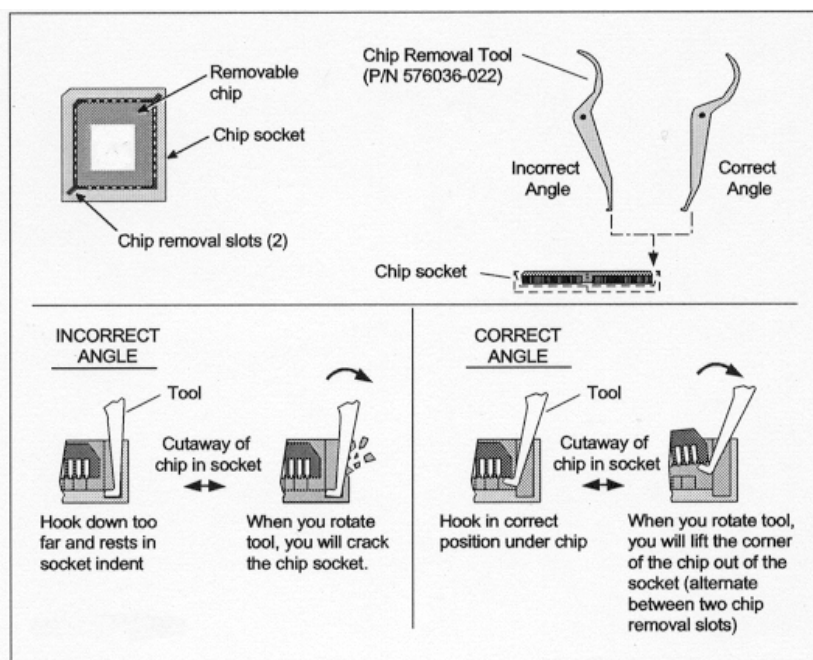




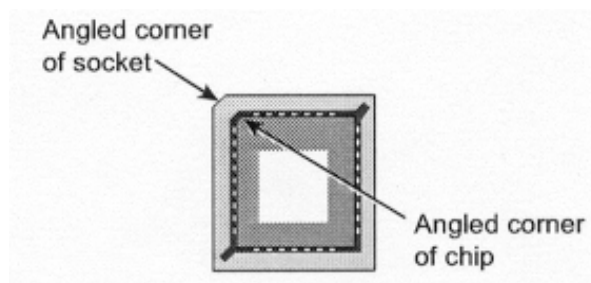
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1. Remove the current chip using the chip removal tool provided.



2. Carefully insert the new chip paying attention to the “flat/angled” corner. Push the chip into the socket to seat it completely.



How to check the date code of the EMR for firmware compatibility prior to installation

In order to determine if the installed hardware is older than April 2006, you must check the serial number or date on the IB Box or the Display as follows:

- If either the IB or Display are not working, then looking for the software version on the display when the system boots up is not possible.
- If the IB Serial Number on the end of the IB starts with G04 or later, then it should be usable with a new firmware chip (G is year code for 2006, 04 is April). If the serial number begin with G03, or an earlier date code, (like F05 for example) the IB box will not work with new displays.

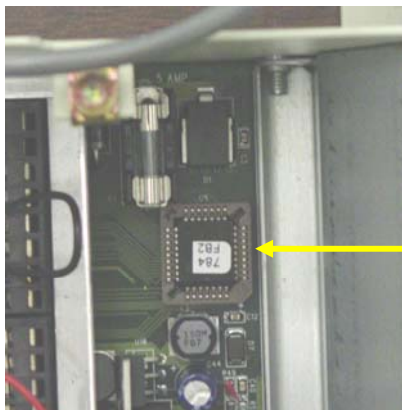




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- If the IB Serial Number is not visible due to the mounting location, open the IB box by removing the two screws located on the top and bottom of the right side of the box. Swing open the lid. If the firmware chip is not visible in the upper center location of the PC Board, then the hardware is from before 2006. If the chip is there but does not have "FB2" (or above) written on it, it is also not compatible and not upgradeable. If the firmware chip says 784-FB2, the IB can be upgraded with a new F04 (or newer) chip.



The 784 firmware chip is located in an IC socket. If the chip is not visible or is not marked FB2 (or above) on the chip, then the IB Board is older and is not compatible with the latest available firmware.

How to check for Display Firmware compatibility prior to connection

- Open the Display Head enclosure to view the display head label. The best way to determine the age of a display is the date located on the back of the display in the format of Month/Day/Year. Usable Displays need to have a date of 5/20/2008 or newer to be usable with the latest firmware.



Date on back of display module inside Display Head Housing with Month/Day/Year format.

