Step 8 *Holding E! firmly against the DM board, carefully flip the DM board over once again and place it back in its original position.*

Reconnect all cables that were disconnected for the installation. Using the two longer screws included with E!, screw the E! board through the DM board. Now, screw down the entire DM board. Before replacing the back panel, you should flip the DX7II over, connect it to a power source, and turn it on. If the opening message appears on the LCD and then changes to the normal Voice select screen, the E! board is working properly and the back panel can be replaced.

Step 9 *IMPORTANT!!! To properly initialize the E!quipped DX7II:*

First load a RAM 4 Cartridge into E!'s four memory banks (see pages 5 & 6 of the User's manual.) Be sure to load **WITH** System. [On a DX7IIFD, you can also load an ERAM disk after you have loaded at least one bank with a cartridge. If there is already SE!quencer data stored in the ERAM, there will be no need to continue with the rest of this initializing procedure.]

Next, **press button 14 until the screen says "Load Program?"** Move the cursor over to **select SE!quencer** and **press YES (twice.)** Once you are at the SE!quencer main menu, **press button 4 to enter the Utilities mode.** You want to **press button 4 again to enter the Global Utilities. Press button 1 to erase all SE!quencer memory and then press YES (this initializes all SE!quencer memory banks; if this is not done, SE!quencer's RAM will be corrupt!)** Press NO repeatedly to Exit and return to the DX7II Edit mode (when the LCD says "Are you sure?", answer YES.)

Finally, select any PERFORMANCE from Internal RAM to clear the Edit buffers. And that's it!

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Proper installation of E! for the DX7IID & FD

This installation guide is meant for E! boards that are being installed into the Yamaha DX7IID & FD (the E! board for the DX7S requires separate instructions). Please note that while this procedure is fairly straightforward, improper installation could jeopardize your Grey Matter Response, inc. Limited Warranty. *GREY MATTER strongly recommend that you defer installation to a qualified service technician.* Certain knowledge is taken for granted regarding installation instructions. If, therefore, the instructions appear vague and unclear, you should not attempt the installation of E! yourself. Grey Matter Response, inc. assume no responsibility for any damage that installation of the E! system may cause.

Before you even THINK of installing the E! board, you should note that all of the voices that are currently in the machine will be lost as consequence of the installation process. You should back up all voices in the machine before continuing.

You will need the following:

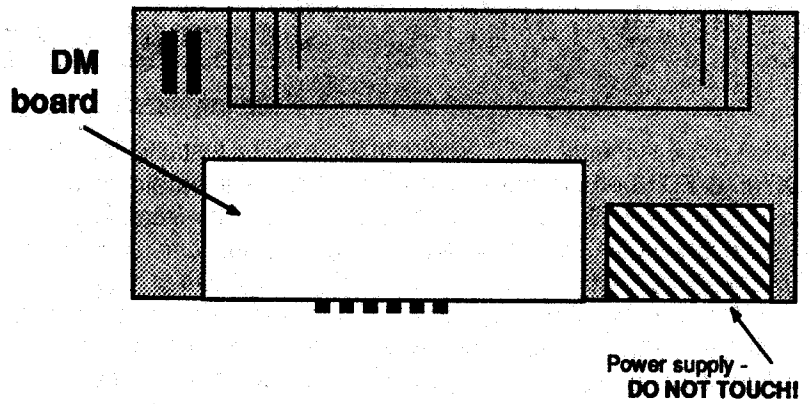
1. a phillips-head screwdriver
2. a regular screwdriver
3. a low-power soldering device
4. some solder
5. You may also find it useful to refer to Yamaha's DX7II service manual.

Step 1 *Unplug the DX7II and remove metal bottom.*

Step 2 *Remove the screws that hold the DM board and disconnect the two ribbon cables*

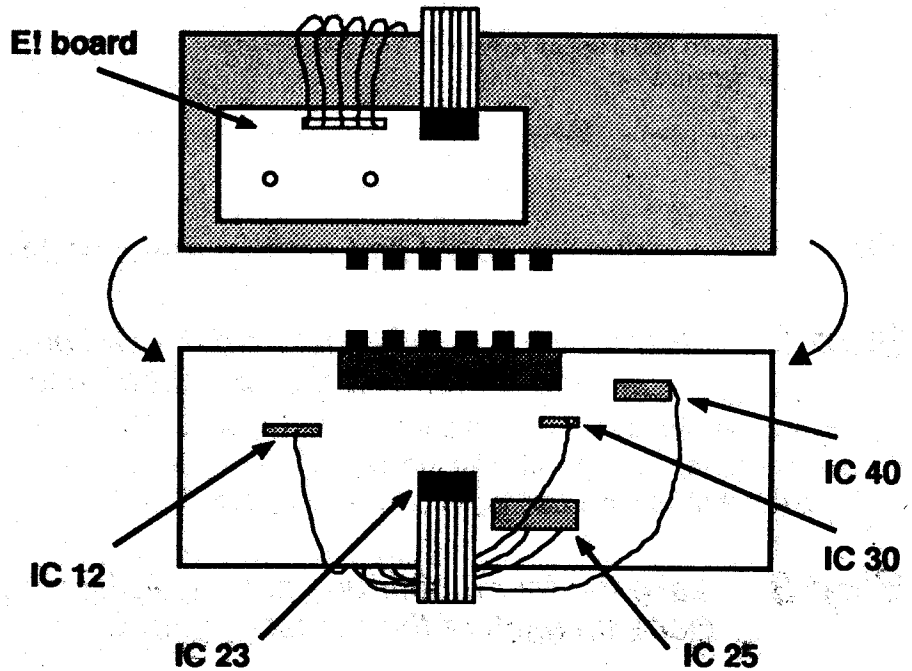
There are three screws on the face of the DM board, three more on the back panel (with the YAMAHA logo), and two others that hold the cartridge connector in place.

Step 3 *Take the four rubber bumpers and place one beneath each of the corners of the E! board.*



Step 4 *Place the E! board onto the exposed back of the DM board. Holding both the DM and E! boards firmly, carefully flip the DM over.*

E!'s screw holes will fit into two of the DM's screw holes (where the cartridge connector is.) E!'s ribbon cable and the five wires should wrap around the DM just like the example:



Step 5 *Locate the following IC's and solder the five wires to their proper pin location.*

Wire color (name on E! board)	IC #	Pin #
GREEN (A15)	IC 40	1
BROWN (R/W)	IC 12	1
ORANGE (*PON)	IC 25	20
BLACK (EN)	IC 30	5
RED (VBATT)	IC 25	28

If you find that some of these pin locations on the DM board are obstructed or already have another wire soldered to them, you can solder E!'s wires to the correct pin on the ***back*** of the DM board.

Step 6 *Remove IC 23 and carefully install E!'s ribbon cable into the socket, making sure that all pins are making contact.*

Be sure to keep the original IC 23 chip in a safe place, just in case you need it in the future. If you find that IC 23 has been previously soldered onto the DM board, you will need to remove and replace it with a 28-pin socket. This is a delicate procedure and should be done only by an experienced technician.

Step 7 *Inspect all connections. Check all wire locations, solder points, and the ribbon cable connection.*