

# Please Read this Completely Before Proceeding!!!

Thank you for your purchase of the Empeg/ RioCar display extender set. Before shipping, your boards were thoroughly tested to assure proper operation if correctly installed. Please be sure to install them properly to avoid equipment damage as we cannot be responsible for user error.

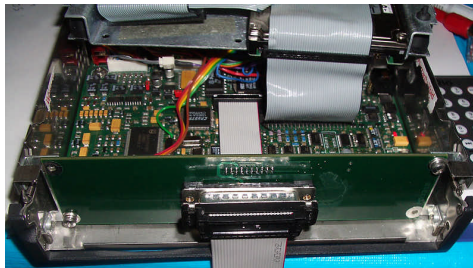
Each set includes:

- 1 – Receiver board
- 1 – Transmitter board
- 1 – 20 foot pre-crimped ribbon cable (unless otherwise specified)
- 4 – Cable screwlocks
- 8 – M3 lock washers
- 8 – M3 washers
- 4 – 10mm female standoffs
- 4 – M3x6mm panhead screws

When installing the extenders, the only critical steps are the connection of the transmitter board to the Empeg/RioCar and the connection of the display to the receiver board. How you physically mount these parts is up to you, but suggestions are below. Before removing the boards from their packaging locate a static-free area to perform the installation.

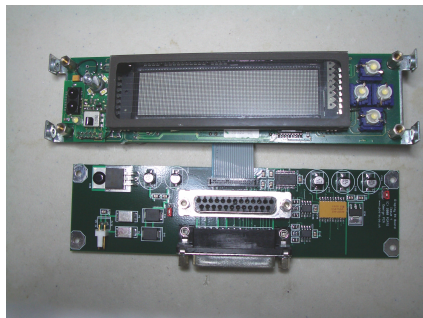
## Transmitter to Empeg/ RioCar

1. After removing the fascia, lens, buttons, lid, and hard drive(s) with tray, Remove the display board from the Empeg/RioCar by unscrewing the four standoffs securing it to the display mounting brackets. Leave the brackets in place. Disconnect the display cable, noting how the connector is positioned on the motherboard connector.
2. In place of the display board, install the transmitter board. Secure it using one panhead screw, one lock washer and one flat washer per hole of the display mounting bracket.
3. Connect the 20-conductor ribbon cable to the 20-pin header on the Empeg/RioCar motherboard in the same fashion the display board cable was attached. Make sure no pins are misaligned or you may damage something. It should look like below.

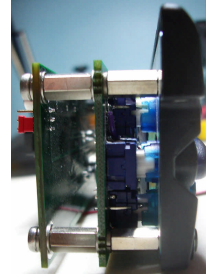
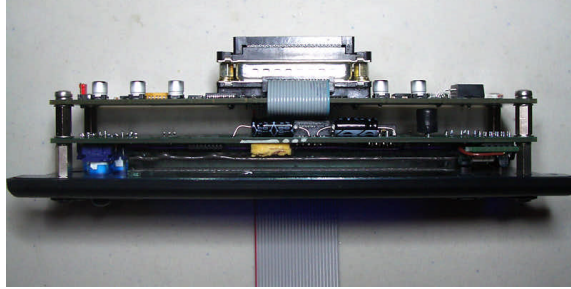


## Receiver to Display Board

1. On a flat static-free surface with the receiver board positioned such that the 20-pin header is near the top of the board, have the display board above this with the buttons on the right and the rotary shaft on the left.
2. Extend the display cable such that it is heading toward the receiver board and its 20-pin header.
3. Engage the display cable into the 20-pin header with no misaligned pins. Be certain of this as you will likely damage something if they are misaligned. The stripe on the cable corresponding to pin 1 should be on the left side (with an OEM or aftermarket Eutronix cable). It should look like this.



4. You may now position the two boards any way you like, but below is one suggestion.



### **Transmitter to Receiver**

1. Using the supplied ribbon cable, plug one end of the cable into the DB-25 connector on the transmitter board and the other end of the cable into EITHER DB-25 connector on the receiver board. After this has been done, you should be ready to use your Empeg/RioCar as you always have.
2. Before reinstalling the hard drive(s), double-check your connections and then apply power to your Empeg/RioCar. You should now see an image on the display as you normally would. If all is well, shutdown and reinstall the hard drive(s).

### **Other Features**

Normally, power for the display comes from the Empeg/RioCar itself and is carried over the ribbon cable. The receiver board is equipped with on board voltage regulators that will allow the use of an external 12-volt power source to operate the display. This allows for much longer cable runs to be used.

Should you need to employ this option, simply move the two jumpers on the receiver board to the position closest to the labeling "PL16" and "PL17" respectively. This removes the power from the Empeg/RioCar from the receiver outputs and places the regulators in circuit. Next, attach a proper connector to the two pin right angle header on the left side of the receiver board, assuring that '-' is on the right pin and '+' is on the left.

If you have opted to crimp your own ribbon cables, be sure to observe proper polarity when doing so! Improper polarity will damage the boards and possibly the Empeg/RioCar as well.