

TB006 (Rev1) - Replacing the LCD Backlight & Inverter

Xentek Inverter replacement - OLDER M400 & M15 controls

Overview

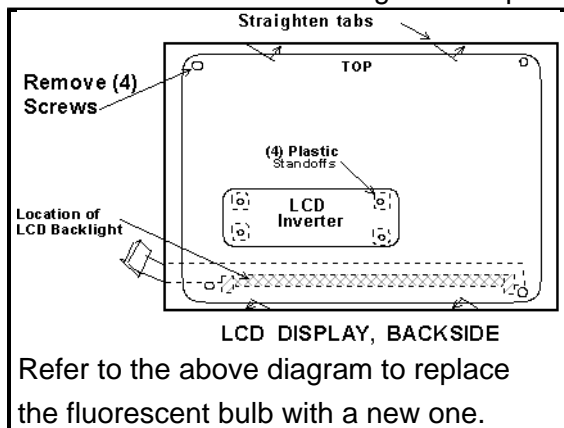
This document describes the steps needed to replace the fluorescent tube in the LCD display, and replace the Allus brand inverter with the Xentek inverter included with these instructions. This procedure is intended for qualified Centroid Technicians only.

Dates Allus inverters were in use: M400 - 08/96 to 06/97
M15 - 02/96 to 07/97

Disassemble the Front of the Control

- Remove all the screws from the front panel.
- Loosen the front panel. Shift slightly to the right and then lean forward.
- Remove the ribbon cable from the LCD descrambler board, and the power cables from the inverter board.
- Remove the keyboard cable, MPG cable, and the jog pic cable.
- Lay the front panel down on the table in front of you and remove the old inverter by squeezing the plastic standoffs with needle nose pliers.

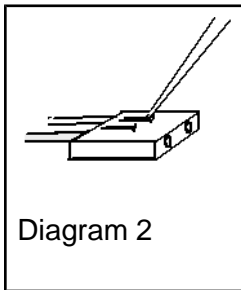
Remove the defective backlight and replace



- Straighten the tabs that secure the back plate of the LCD.
- Remove the four (4) screws that secure the back plate.
- Gently lift the back plate off the LCD. Pay particular attention to the way the reflective material around the bulb is to be replaced.
- Remove the old backlight and replace with the new one. The new bulb comes mounted in a false LCD case for shipping purposes. Follow steps 1-3 to secure the new bulb from the false LCD panel.
- Replace the back plate and secure it with the tabs and four (4) screws.
- Mount the replacement inverter assembly to the existing standoffs.
- CONTINUE WITH THE REPLACEMENT OF THE XENTEK INVERTER. See page two.

Mounting the new inverter

The replacement inverter is manufactured by Xentek, and is already mounted on a card that is the same size as the Allus inverter. Snap the new Xentek onto the existing standoffs mounted on the back of the LCD display.



Wiring / Connection

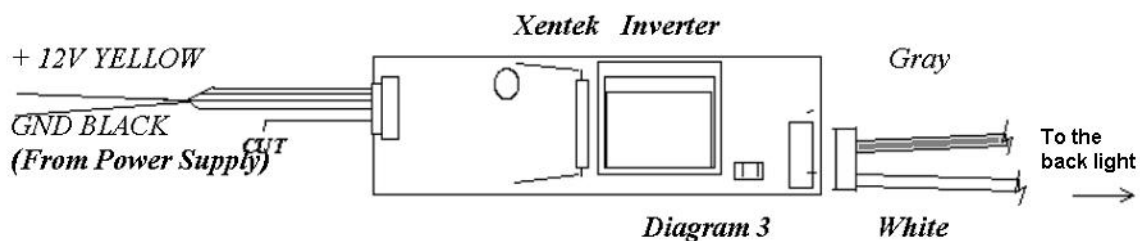
Plug the LCD display cable into the inverter; making sure that the white wire (hot) is oriented as shown below.

* **IMPORTANT**- you may need to reverse the white and gray wires in the plug in order to align the white wire with the edge of the inverter and closest to the surface mount capacitor. Carefully swap the wires within the plug with a pick by gently lifting the plastic tabs on the plug (which holds the wires in place) and tug on the wire. After the wires have been swapped and plugged in, make sure they are secure by gently pulling on each wire and seeing that the wire doesn't pull out of the plug.

*Cut the red, black, and yellow twisted wires that connect the power supply to the Allus Inverter that you're removing.

*Seal the bare ends with the enclosed heat shrink tubing; a lighter or other heat source will work great to seal the wires with the tubing.

*Lastly, make sure that the **BLACK** power wire goes to the PC power supply inside the console on one of the two GND terminals. The **YELLOW** power wire goes to the +V terminal (+12 Vdc). This replacement cable has been modified at Centroid and is included with the inverter.



You are ready to reassemble the control in reverse of the disassemble instructions.

Document History

Rev1 Created on **1998-02-26**