The UTP cab bus panel provides a low cost means of adding walk around capability to your layout.

A front panel plate and two #6 screws for attaching it to the UTP printed circuit board are supplied. Note that if you want the LED at the top of the panel you should install the UTP "upside down". This will also keep dust from building on (and inside) the RJ-12 connectors

The panel has 4 RJ-12 connectors wired in parallel, two on the front and two on the rear. Your cab bus can be "daisy chained" from one panel to the next using the rear connectors. One or two cabs can then be plugged in to the front connectors. **Please note the "Command Station" side versus the "More UTP panels" side in the figure below** when wiring your panels.



Warning: This product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm





NCE Corporation 82 E Main Street Webster, NY 14580 The UTP cab bus panel provides a low cost means of adding walk around capability to your layout.

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INSTALLING AN LED AS A PANEL LOCATOR LIGHT

If you wish an LED can be installed <u>between</u> the two front RJ-12 connectors on the panel to serve as a panel locator light. We recommend using a T1 sized (.100 inch diameter) LED. Solder the LED to the <u>bottom</u> of the PC board. Leave enough lead length to bend the LED over and fit it through the hole in the front panel. You will also need to solder a 1K ¼ watt resistor in the two holes marked "1K".

PROPER CAB BUS CABLING

The cables that connect the command station to the UTP and from UTP to UTP must be wired "straight through" meaning Pin 1 of one connector must be connected to Pin 1 of the other connector (see figures below). Please note that this is not the normal telephone cable wiring. The normal wire gauge for RJ-12 cables is #28 or #26. This wire size is sufficient for cab bus lengths of up to about 30 or 40 feet (10-13 meters).



If your layout requires a cab bus longer than this we suggest adding extra power to the bus at about 30-40 foot intervals. This is easily done by plugging a 12-14V<u>DC</u> power supply in to the 5.5/2.5mm jack on the back of the UTP. The center pin is positive (+) and the sleeve is negative. We recommend the NCE P114 (p/n 5240221) or other power supply in the range of 12 to 14 volts DC with a capability of at least $\frac{1}{2}$ to 1 Amp.

IMPORTANT: When adding a power supply to the UTP you MUST cut the circuit trace marked with an "X" on top of the circuit board.

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