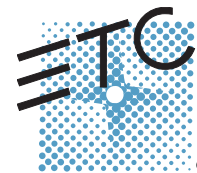# ETC® Setup Guide
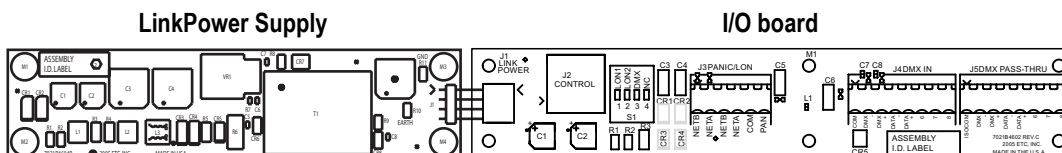## SmartLink™ Station Power Module S-SPM4

The SmartLink Station Power Module (kit part number 7024K1100) provides a SmartPack portable dimmer pack with a centralized termination point of SmartLink, DMX, and an Emergency contact input. The LinkPower Supply provides power for up to four SmartLink wall stations for remote preset and sequence activation. Only one LinkPower supply per segment (system) allowed.

Power is provided from the SmartPack to the SmartLink Station Power Module via the RJ45-patch cable, provided in the kit. Additional cable requirements may include:

| Purpose | Cable Type / Description | Note |
|---|---|---|
| DMX | Belden 9729 (recommended) | or equivalent |
| SmartLink | Belden 8471 plus one 2,50mm$^2$ (14AWG) ESD drain wire recommended (drain wire not required if installed in grounded metal conduit). | For use with wall stations. SmartLink is FTT-10A topology-free and polarity independent. |
| Emergency | 2 - 1,5mm$^2$ (16AWG), twisted | Contact input for emergency lighting loads. |

## Installation
### Connect Control Wiring
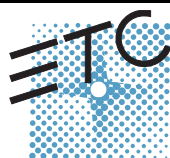
**LinkPower Supply**          **I/O board**



The six position pluggable screw terminal, labeled J3 Panic/LON, is provided as the termination point for both Emergency and SmartLink control. The two remaining eight position pluggable screw terminals, labeled J4 and J5, are for DMX In and DMX Pass-Thru. The RJ45 receptacle, labeled J2 Control, on the I/O board is provided as the connection point between the SmartPack product and the SmartLink Station Power Module.

### Connect Emergency

Step 1:    Strip 6,35mm (1/4") of insulation from the ends of the two 1,5mm$^2$ (16AWG) emergency wires.
Step 2:    Remove the 6 position pluggable screw terminal from the I/O board.
Step 3:    Twist the two wires together as close to the connector as possible.
Step 4:    Insert one wire each into pins 5 and 6.
Step 5:    Tighten the screw firmly for each wire.

### Connect SmartLink (LON)

Step 1:    If pulling two Belden 8471 cables, label each pair with the data type and the run designation. Example SL1 and SL2.
Step 2:    Strip 6,35mm (1/4") of insulation from the ends of the Belden 8471 wires.
Step 3:    Insert the white wire from SL1 data run into pin 1 (Net B) terminal on the pluggable connector. Tighten the screw firmly.
Step 4:    Insert the associated SL1 black wire into pin 2 (Net A) terminal on the pluggable connector. Tighten the screw firmly.
Step 5:    Repeat steps 3 and 4 for the remaining data run (SL2) if required to the remaining pins 3 and 4 terminal on the connector. Tighten the screw firmly for each wire.
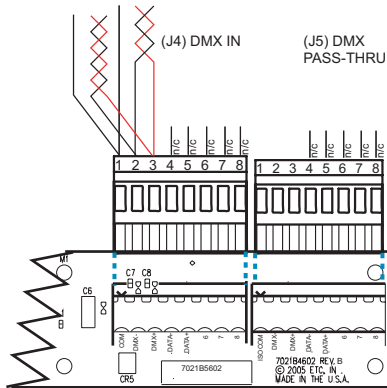Step 6:    Reinstall the 6 position pluggable connector to J3 on the I/O board.

# ETC Setup Guide

## SmartLink™ Station Power Module

### Connect DMX

Prior to connecting DMX, follow the instructions for Belden 9729 cable preparation as defined on the single sheet instructions packaged with the pluggable screw connector. A cable preparation kit for installation of CAT5 cable is available, contact ETC for assistance.

As shown with Belden 9729 color code:

Pin 1 - Com

Pin 2 - DMX - (Black)

Pin 3 - DMX + (Red)

DMX In and Pass-Thru on the same pluggable screw connector as shown.

Step 1: Using the 8 position pluggable screw connector provided in the cable preparation kit, connect Shield (Com), DMX- and DMX+ as directed in the graphic above.

Step 2: DMX Pass-Thru using Belden 9729 can utilize the same pluggable screw connector as DMX In. Connect Shield (Com), DMX- and DMX+ for DMX Pass-Thru as indicated in the graphic above.

### Connect the RJ45-Patch Cable

Connect one end of the RJ45-patch cable to receptacle J2 on the SmartLink Station Power Module and the other end of the RJ45-patch cable to a SmartPack Portable dimmer pack.

### Data Termination

- When using **SmartLink with** a LinkPower Supply installed in the segment (system), SmartLink is automatically terminated at the LinkPower Supply. No further termination is required and LON switches 1 and 2 should be set to Off.

- When using **SmartLink without** a LinkPower Supply installed in the segment (system), and SmartLink is utilized only for pack to pack synchronization, select one SmartLink enabled product in the segment and set LON switches 1 and 2 On. All other SmartLink enabled products should set LON switches 1 and 2 Off.

- When using **DMX** connected **In and Thru** the SmartLink Station Power Module and daisy-chained to the RJ45 connectors on the rear of the SmartPack Portable dimmer pack, not via the XLR connectors on the front of the SmartPack Portable dimmer pack, set switch 3 Off. You must provide your own DMX termination at the last DMX device on the data run.

### Connect ESD Ground

For installations with SmartLink data runs (Belden 8471) **installed in grounded metal conduit** there is no requirement to run or terminate an additional ESD drain wire. For installations **not installed in grounded metal conduit**, follow the instruction below for ESD termination.

Step 1: Locate the grounding lug on the right side of the I/O panel, next to the I/O board.

Step 2: Loosen, but do not remove, the set screw on the grounding lug.

Step 3: Strip 6,35mm (1/4") of insulation from the ends of the 2,50mm$^2$ (14AWG) ESD drain wire(s) and twist together.

Step 4: Insert the 2,50mm$^2$ (14AWG) wires into the grounding lug and secure.

## Final Installation

Step 1: Locate the grounding pigtail and secure it to the rack at an available grounding point.

Step 2: Install the SmartLink Station Power Module into a standard 19" EIA rack and secure (hardware not provided).

Reference the related SmartPack Portable documentation for setup and configuration details. Please contact ETC Technical Services for assistance if needed.