ILC LightSync 3.5"
Touch Screen Station 2
Installation Guide

Rev. A

Overview:

The ILC 3.5" LightSync Touch Screen Station 2 is a 320x240 TFT resistive touch screen designed to be installed in a standard single gang junction box. The touch screen(s) are provided with a separately mounted LS-Touch Screen Power Injector (LS-TSPI) that provides power over a data line simplifying installation.

The LS-TSS2 device is designed to be connected to the local bus of a LightLEEDer panel and requires addressing as a series of LightSync devices depending on the number of controls intended to be displayed, see ILC project riser and addressing information for more detail. Programming is done with the ILC Touch Screen 2 Pro software provided with the device and saved on the supplied micro SD memory card, refer to the programming guide for more detail.

Refer to the plan page details, and electrical engineers specified operation for details on screen layout, the loads to be controlled and the desired operations.

Contact ILC at Technical Department at 952-842-2588 with additional questions or for scheduling a site visit to program the touch screen

Specifications

Physical:
- **Touch Screen Station:**
  3.25" W x 4.75" H x 1.50" D (.44" D Bezel)
- **Touch Screen Power Injector Enclosure:**
  NEMA-1, 9.25" W x 6.50" H x 2.50" D

Electrical:
- **120/277VAC power supply**
- **12VDC, 1.6Amp output**

Operating Environment:
- **Location: Interior space**
- **Operating Temp: 0-50°C**
- **Humidity: 10% to 95% non-condensing**
- **Atmosphere: Non-explosive/corrosive**

The 3.5" Touch Screen 2 is designed to surface mount directly to a standard single gang switch box or mud-ring and is normally used in the portrait operation.
If landscape operation is required, the junction box or mud-ring should be installed in to provide a horizontal or landscape opening.

1. **Install the mounting bracket to the junction box in the same manner as a standard switch as shown in Figure 1**

Figure 1 3.5" TSS2 Mounting Bracket

2. **Install the 3.5"LS-Touch Screen Power Injector (LS-TSPI) assembly in an accessible location above the ceiling or nearby electrical closet. See Figure 2**
Note: Refer to table 1 for mounting distance range to the Touch Screen.
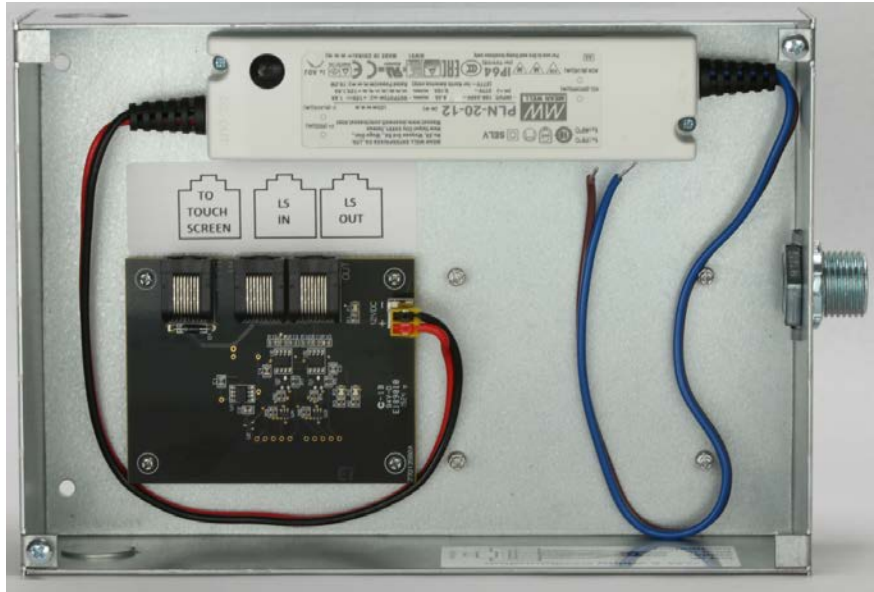

Figure 2 LS-TSPI

3. **120V or 277VAC power is required for the LS-TSPI. Connect the Blue - Neutral and Brown - Line Voltage leads to a unswitched branch circuit. The 12VDC output power wire should be pre-installed to the LS-TSPI board.**
Note: the LED power light should come on when energized as shown in Figure 3
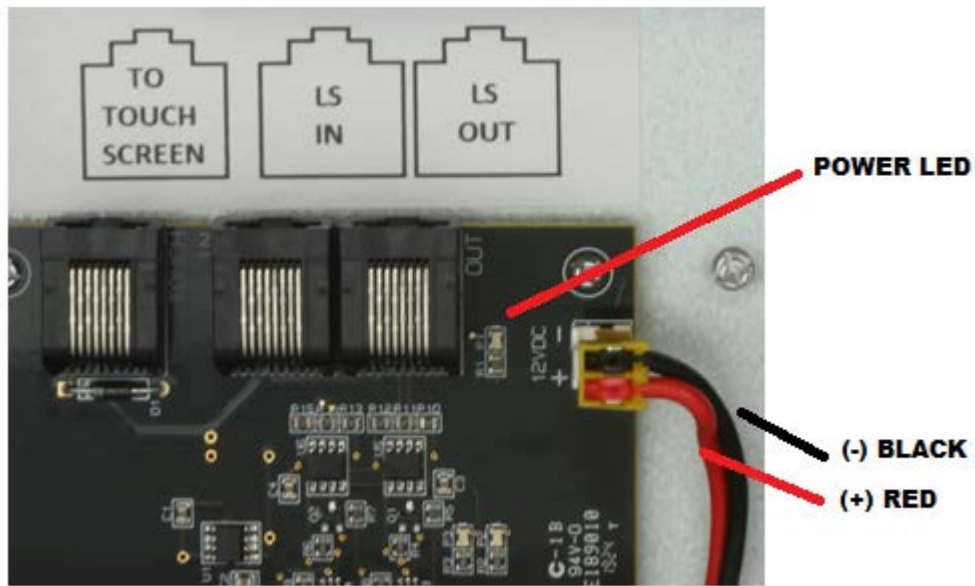

Figure 3

4. Route the ILC CAT-5 data cable from the LightSync local-bus of a LightLEEDer panel or EVO panel to the "LS IN" port of the LS-TSPI. A CAT-5 data cable is run from the output labeled "To Touch Screen" and routed to the 3.5" TSS location, this cable will carry both Data and Power to the 3.5" TSS2.

   Note: Test the CAT-5 data cables after installing the RJ-45 ends, prior to installing the touch screen.

5. Reference the ILC LightSync data cable Pin-out information for more detail. Mark the cable for In & Out connection to the next device in-line from the LS-TSPI. This touch screen may be at the end of a run or in-line with other LightSync devices on the local bus of a LightLEEDer or EVO panel.

6. The Touch screen cable is then plugged into the 3.5" TSS2 "LightSync IN" port as shown in Figure 4

Figure 4

7. The LightSycn OUT port is for feeding a 2nd TSS2 location that is within the power range of the LS-TSPI. See Table 1 for power injector range distance examples.

Table 1: LS-TSS2 Power Injector Distance Range

LS-TSPI	3.5" TSS	2nd TSS	3rd TSS
Distance:	20'	65'	60'
Acc Dist:	20'	105' total	250' total
	(20)	(20+20+65)	(105+20+65+60)

Note: Power is calculated in accumulative distance from LS-TSPI to each 3.5" TSS2 accumulated together for a maximum of 250' total.

8. Confirm that a SD card is installed in the Touch Screen as shown in Figure 5. The device may have come pre-configured with a display set-up and address settings, look for any labels indicating the program and address configuration. This can easily be field modified by re-programming the SD card using the ILC LightSync Touch Screen 2 Pro software.

Figure 5 - SD Card

Figure 6 - Address

9. Set the LightSync device "Address" switches for the first LS device the screen will utilize, and the "Count" dial for the total number of devices it will utilize as shown in Figure 6. Refer to Table 2 for count value information, this must match the "Node Range" set in the programming software.

intelligent
lighting controls

Simplifying Lighting Controls from Installation to Use

5229 Edina Industrial Blvd.
Minneapolis, MN 55439
952.829.1900 | ilc-usa.com

Count	Value
0	4
1	8
2	12
3	16
4	20
5	24

Table 2
LightSync Device count

10. **Test the Touch Screen operation before installing in the wall, make any adjustments to the Touch Screen configuration or the LightLEEDer panel programming as needed.**
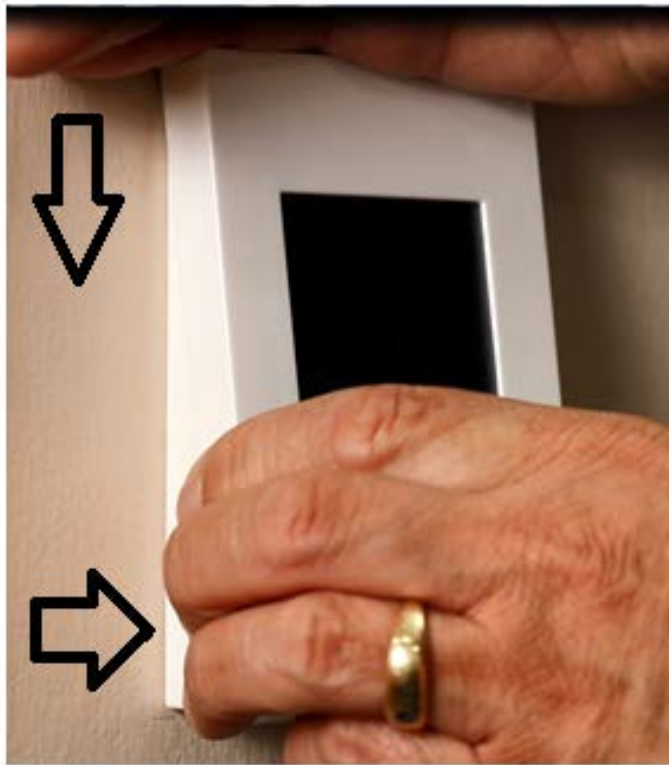
11. **Install the Touch Screen by aligning the device and pressing firmly until the top and bottom tabs snap into place as shown in Figure 7**
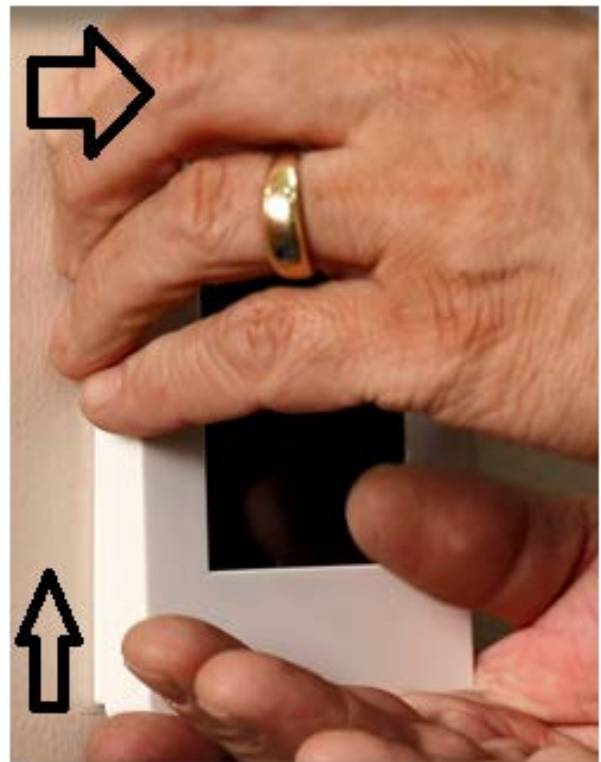

Figure 7

Note: The Touch Screen is designed not to be easily removed so a fairly large amount of force is required to remove the station, this is done to ensure the safety and reliability of the Touch screen station.

12. **To Remove a 3.5" TSS2, press firmly down on the top of the bezel and pull out the bottom, the tab will release with a click as shown in Figure 8.**
  Then while keeping the bezel close to the back bracket firmly press up on the bottom of the bezel and pull out at the top to release the tab with a click as shown in Figure 9.

Figure 8

Figure 9