

# Installing the ILC LightSync 4.3" or 7.0" Touch Screen Station



**Overview:**

The ILC LightSync Touch Screen Station (LS-TSS) is available with 4.3" or 7.0" screens. Each assembly is provided with a galvanized NEMA-1 enclosure, which includes a 120V power supply and controller electronics. It also includes the touch screen assembly and magnet mounted bezel. The screen can be oriented in either a landscape or portrait position, with landscape being the most common. The enclosure is provided with conduit holes for the required 120 VAC power and the CAT5 data line from the lighting controller.

The touch screen 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.

**Specifications:**

## Physical:

- Flush mount compact design
- Galvanized 16 GA enclosure
  - 4.3": 6.50" W x 3.45"H x 2.75" D
  - 7.0": 7.95" W x 4.30"H x 2.75" D
- Black, White, or Ivory ABS bezel:
  - 4.3": 5.75" W x 4.13"H x .25" D
  - 7.0": 8.22" W x 5.51"H x .25" D
- Resistive touch screen
- Digital addressing switches
- RJ45 connectors for data line

## Electrical:

- 120 VAC
- 1 Amp

## Operating Environment:

- Location: Interior space
- Operating Temp: 0-50 degrees Celsius
- Humidity: 10% to 95% non-condensing
- Atmosphere: Non-explosive/corrosive

## Certification and Approvals:

- UL
- CUL

## Enclosure Installation Procedure

The installations of the 4.3" or 7.0" touch screen assemblies are very similar, besides the physical size. The enclosures are mount in the same manner for each size. Figure 1 and Figure 2 show the screens prior to installation.

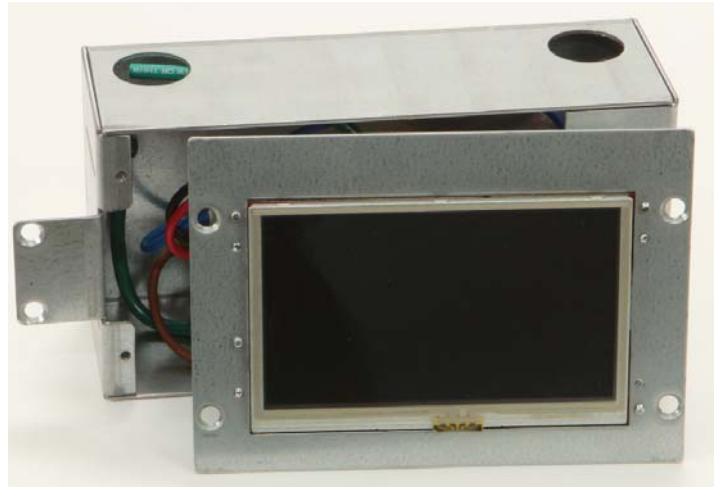


Figure 1

4.3" Touch Screen and Enclosure

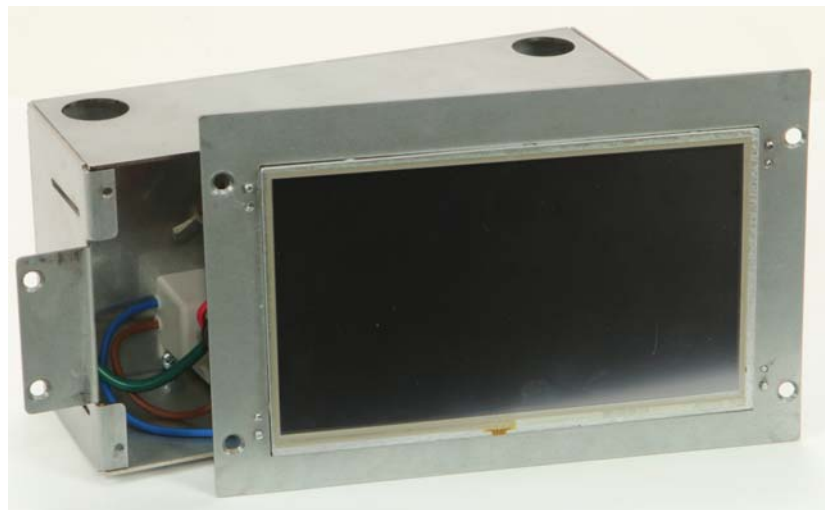


Figure 2

7.0" Touch Screen and Enclosure

1. See building plans and details to determine location and mounting height. The touch screen is typical mounted like a wall switch at eye level between 42" and 52" from the floor. See the plans for the designated mounting height.

The Touch Screen Station will support a Landscape or Portrait orientation, be sure to consult with the owner and ILC start-up programmer when choosing a Portrait orientation so that the programming can be adjusted accordingly.

2. Mark the center of the mounting tab and wall stud for the location of the screen based on center of screen mounting height.
3. Remove the touch screen electronics and fish paper from the enclosure prior to installation. Remove the power cable and the 4 machine screws to remove the electronics. Note: Protect and store the electronics from damage and debris, as it will be re-installed after the wall finishing is complete.
4. Position the enclosure on the wall stud and fasten using the screw holes provided. Keeping the enclosure level, fasten to the face of the stud with 2 screws through the tabs provided as shown in Figure 3. From the inside of the enclosure, add 2 more fasteners through the slots provided and into the stud.



Figure 3 Securing the Enclosure

5. Route conduit from the circuit breaker panel to the high voltage section near the mounting tab on the enclosure. This will be used for the 120 VAC power connection to the touch screen power supply.
6. If conduit is used for the data cable, route from the lighting controller to the right side ½" conduit opening. If conduit is not used, protect the cable with a KO bushing at the enclosure opening as shown in Figure 5.

**Note: Do not run data lines next to or in the line voltage conduit, as voltages may be induced onto the data line which could cause issues.**

7. Pull the proper wires from the circuit breaker panel to the touch screen enclosure and terminate to the power supply under the fish paper. The touch screen requires a 120 VAC and needs to be protected with the proper circuit breaker for the application.
8. Connect the line voltage power to the 120VAC power supply. Brown= Line, Blue= Neutral, and Green= Ground. Once powered up, 5 VDC should be present on the black and red wires. Replace the black fish paper as shown in Figure 4.

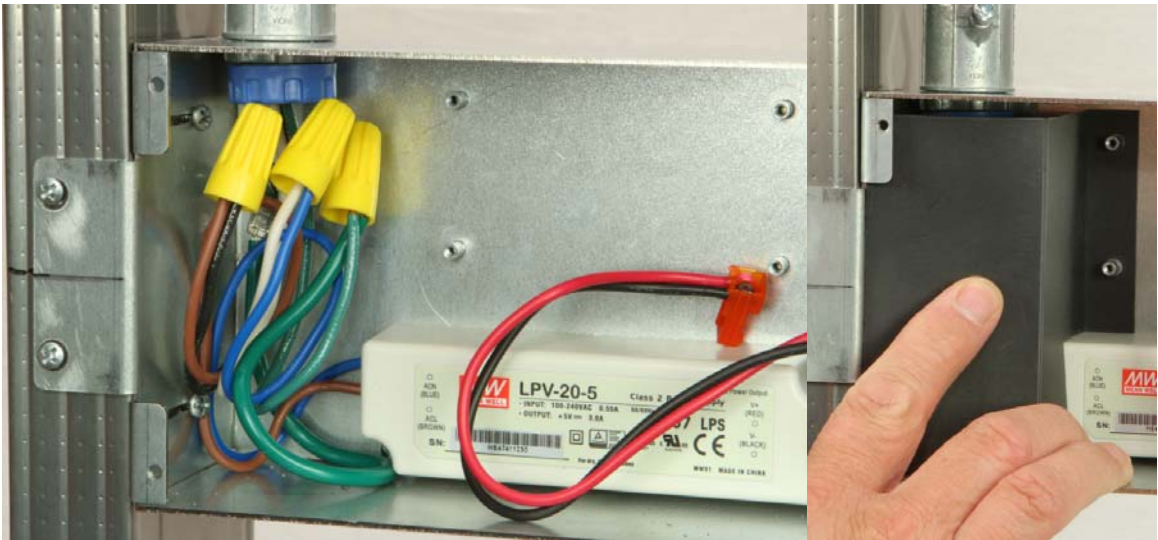


Figure 4 Power Connections/ Fish Paper

9. Install the Cat-5 data cable from the lighting control panel local bus, or from the previous LightSync device as shown on the ILC riser layout. Leave plenty of wire at the lighting controller enclosure, and 5-6 inches at the touch screen enclosure. Terminate the Cat-5 data cable with RJ-45 connectors and test as shown in Figure 5. Be sure to mark the cable for in and out connection to the next device in line.



Figure 5 Testing Data Line

10. Install wall covering and cut out the opening for the touch screen. **Note: DO NOT cut out the hole to the outside of the enclosure.** Cut to Inside edge top and bottom and  $\frac{1}{4}$ " beyond the left and right inside edge exposing the two mounting screw holes left and right. Do not install the electronics and touch screen assembly until the wall is finished to insure no paint or dust damage to the electronics. Refer to Figures 6, 7, and 8.

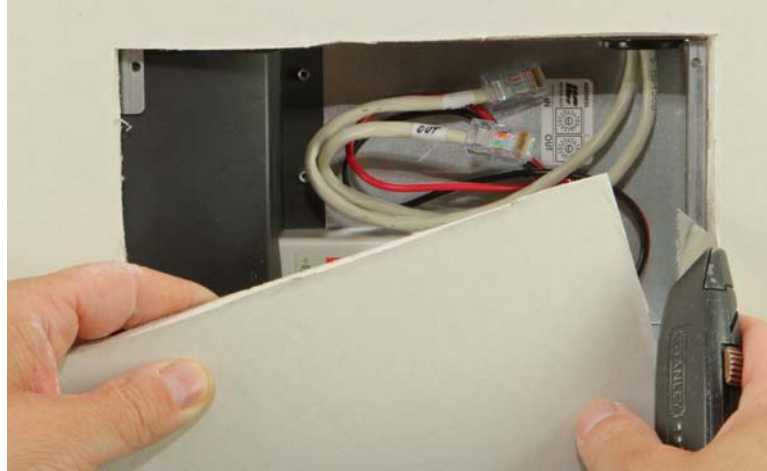


Figure 6 Wall Covering Opening

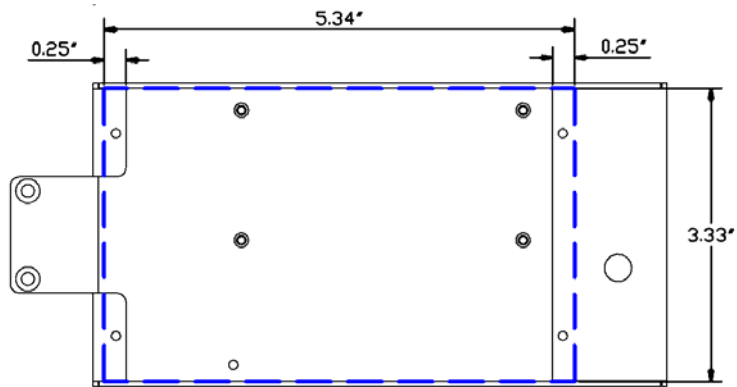


Figure 7 Cut-out for 4.3" Screen

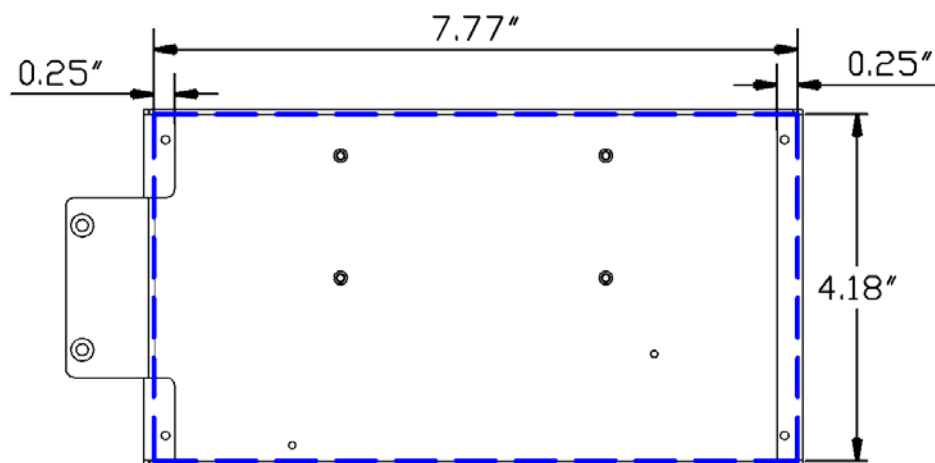


Figure 8 Cut-out for 7.0" Screen

11. Once all finish work has been completed, clean out sheetrock dust and debris from the installed enclosure. Also verify the 4 mounting holes on the enclosure tabs are accessible and clean.
12. Install the touch screen controller electronics removed in step 3 with the 4 - #4 machine screws provided as shown in Figure 9.



Figure 9 Installing Electronics

13. Connect the power MTA connector to the controller module as shown in Figure 10



Figure 10 Power Connector

14. Connect the CAT-5 data cable noting the in and out RJ-45 ports as shown in Figure 10.
15. Set the LightSync starting address (base address) as designated in the ILC riser. See Figure 11 showing an example of starting address of 24.



Figure 11 Address Setting

16. The touch screen assembly is provided with a gray ribbon data cable for connecting to the touch screen controller module. This cable has a keyed connector that only installs in one direction. See Figure 12.



Figure 12 Data Connection

17. Place the touch screen in the opening, orientated so the touch screen cable coming out of the screen is in the lower area as shown in Figure 13 for landscape orientated, or on the right side for portrait orientation.
18. Fasten the touch screen assembly using the 4 - #6 flathead screws provided, the bezel plate should fit snugly to the wall. **Do not overtighten the screws, as damage may occur.**





Figure 13 Touch Screen Assembly Installation

19. Install the plastic bezel provided to the bezel plate using the magnets affixed to the bezel.



Figure 14 Installing Plastic Bezel

The LightSync Touch Screen Station will require programming with the ILC Touch Screen Configuration Software to operate, which is provided with the device. Refer to the software ILC Touch Screen Configuration Software Manual for details on programming. Since the touch screen is a LightSync device, it will need to be configured in the lighting control panel. Also refer to the plan page details for electrical engineers specified operation, and the owner for additional information as to how the touch screen operation is intended to work.

Contact ILC at 1-800-922-8004 with additional questions or for scheduling a site visit to program the touch screen.