

Zio[®] Lite TR40/42 LCD and non-LCD Wall Modules

INSTALLATION INSTRUCTIONS

BEFORE INSTALLATION



Fig. 1. LCD Wall Module.



CAUTION

Erratic System Operation Hazard.
Failure to follow proper wiring practices can introduce disruptive electrical interference (noise).
 Keep wiring at least one foot away from large inductive loads such as motors line starters, lighting ballasts, and large power distribution panels. Shielded cable is required in installations where these guidelines cannot be met. Ground the shield only to the grounded controller case.

IMPORTANT

All wiring must comply with local electrical codes and ordinances or as specified on installation wiring diagrams.

- For information on Sylk bus distance limitations, see Table 1 on page 2.
- All wiring is polarity insensitive.

INSTALLATION

Mount the wall module on an inside wall approximately 54 in. (1372 mm) from the floor (or in the specified location), to allow exposure to the average zone temperature. Do not mount the wall module on an outside wall, on a wall containing water pipes, or near air ducts. Avoid locations that are exposed to discharge air from registers or radiation from appliances, lights, or the sun.

The wall module can be mounted on a wall, on a standard utility conduit box using No. 6 (3.5 mm) screws or on a 60 mm wall outlet box (see Fig. 3). When mounting directly on a wall, use the type of screws appropriate for the wall material.

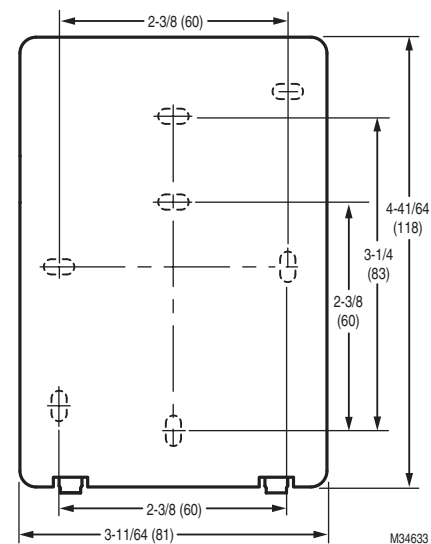


Fig. 2. Subbase mounting holes and locking tabs.



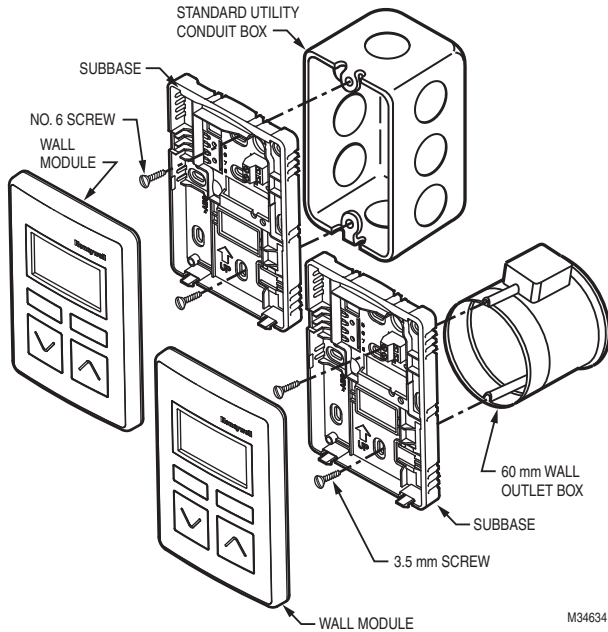


Fig. 3. Mounting on standard utility conduit box or 60 mm wall outlet box.

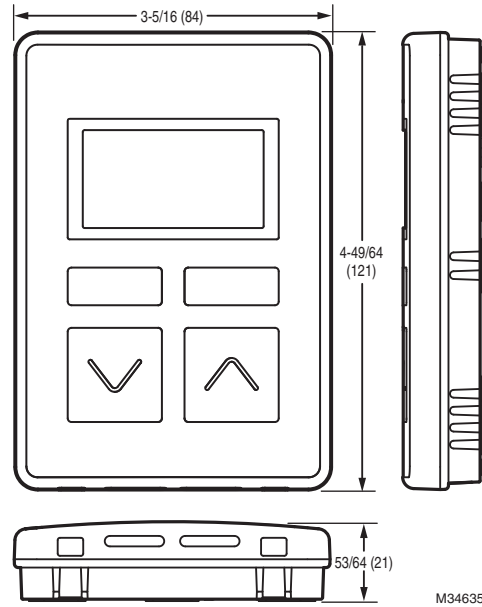


Fig. 4. LCD Wall Module dimensions in inches (mm).

Wiring

All terminal connections can be made to the backside of the module. There are no field adjustable/replaceable components inside the module.

Attach the wires from the programmable controller and network to the appropriate wall module terminals, as indicated in Fig. 6 on page 3.

CAUTION

Improper Electrical Contact Hazard.
Screw-type terminal blocks are designed to accept no more than one 14AWG (2.5mm sq) conductor. Connect multiple wires that are 14AWG (2.5mm sq) with a wire nut. Include a pigtail with this wire group and attach the pigtail to the individual terminal block.

Wiring Wall Modules

Wire the terminal block shown in Fig. 6 as follows:

1. For single wires, strip 3/16 in. (5 mm); for multiple wires going into one terminal, strip 1/2 in. (13 mm) insulation from the conductor. See Fig. 5 for wiring multiple TR40/42s.
2. Insert the wire in the required terminal location and tighten the screw to complete the termination.
3. Review and verify the terminal connection wiring illustrated in Fig. 6.

Table 1.

Recommended maximum distance from controller to any Sylk device			
Quantity and type of device ^a	Single twisted pair, non-shielded, stranded or solid ^b		Standard thermostat wire, (non-twisted), shielded or non-shielded, stranded or solid ^{c,d}
	18-22 AWG	24 AWG	
10 wall modules, any type	500 ft (150 m)	400 ft (120 m)	100 ft (30 m)
4 Sylk field devices of any type (including Zelix)	400 ft (120 m)	300 ft (100 m)	100 ft (30 m)
10 Sylk field devices of any type (excluding Zelix)	400 ft (120 m)	300 ft (100 m)	100 ft (30 m)

^a For Spydys, use the Resource Usage View in the Spyder Tool to determine the maximum number of devices. For ComfortPoint™ Open controllers, there is a maximum of 3 TR40/42s.

^b As a rule of thumb, single twisted pair (2 wires per cable only), thicker gauge, non-shielded cable yields best results for longer runs.

^c The 30 m distance for standard thermostat wire is conservative, but meant to reduce the impact of any sources of electrical noise (including but not limited to VFDs, electronic ballasts, etc). Shielded cable recommended only if there is a need to reduce the effect of electrical noise.

^d These distances also apply for shielded twisted pair.

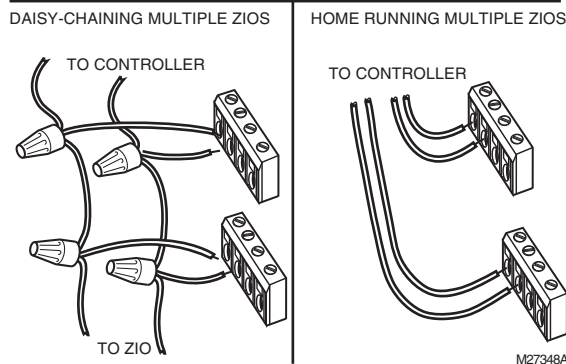
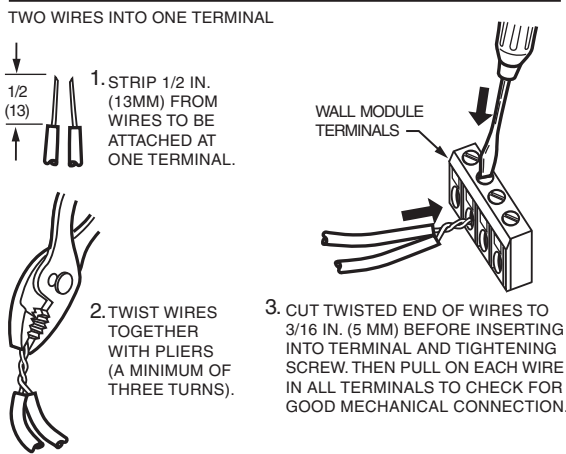


Fig. 5. Options for Wiring Multiple TR40/42s.

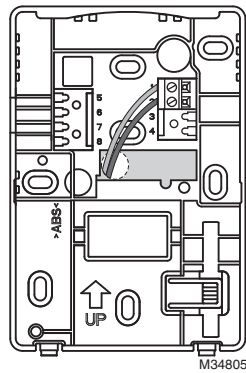
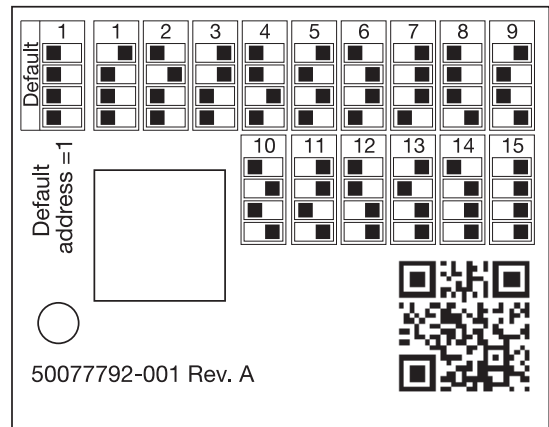


Fig. 6. Terminal connections.

Setting the Wall Module Bus Address Dial

Each wall module on a Sylk bus must use a different bus address, and there may be multiple TR40/42s wired on a single Sylk bus. To change the bus address of a wall module, adjust the address dipswitches to match that of the desired

bus address (1-15). Use the bus address label, shown in Fig. 7, as a reference. The default address for both TR40 and TR42 is 1. The address on the wall module must match the address in the configuration tool.



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Fig. 7. Bus address settings label.

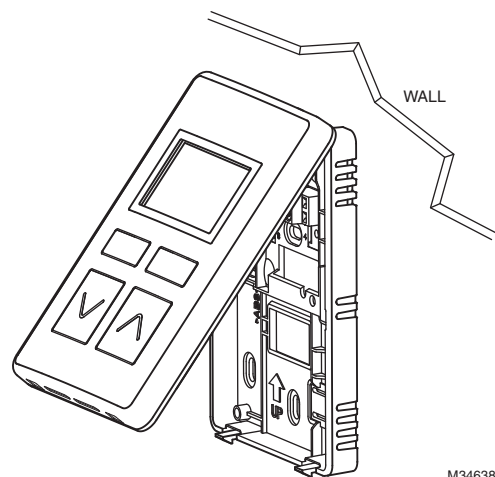
Attaching the Wall Module to the Subbase

When all wiring is complete, hook the top side, and then snap down like on a hinge. See Fig. 8.

Removing the Wall Module from Subbase

To remove the wall module from its subbase:

1. Locate the two snaps on the bottom of the IFC .
2. Push a screwdriver into each snap to release the IFC from the subbase.
3. Pull the wall module up and away from the subbase. See Fig. 8.



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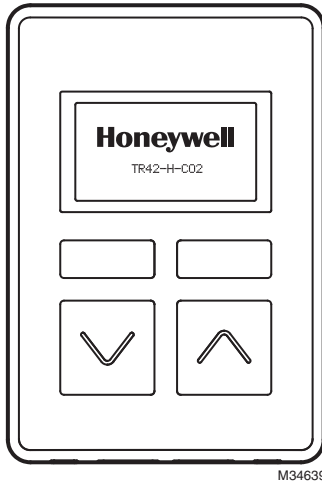
Fig. 8. Removing Wall Module from Subbase.

POWER UP

After the wall module is properly wired to the controller, it will power up. Upon initial power up, the wall module's LCD panel displays three screens for two seconds each, shown in Figs. 9-11, while the configuration file is being loaded. Once the configuration file has been loaded and the startup screens have cycled through, the LCD panel will then display the home screen. If these screens continuously cycle, this indicates there is no program downloaded to the controller, or the bus addresses don't match between the wall module and the workbench config tool.

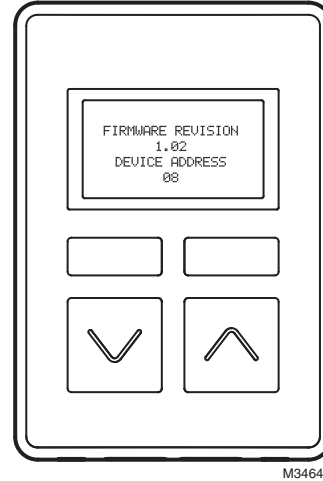
For Spyder/Niagara tool users, refer to the *TR40/42/TR40/42 Plus LCD Wall Modules Operating Guide* (Form 63-2741) to configure and load the desired user interface and parameters into the wall module.

For ComfortPoint™ Open users, the user interface and parameters are downloaded automatically from the ComfortPoint Open controller. There is no configuration required at the wall module.



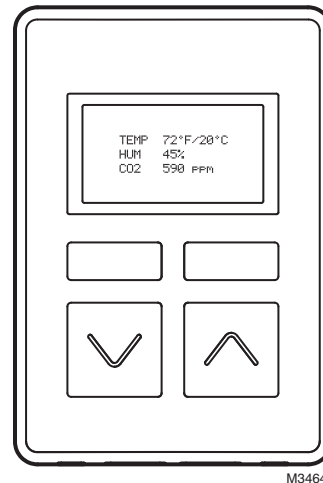
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Fig. 9. TR42 Wall Module LCD display startup screen 1.



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Fig. 10. TR42 Wall Module LCD display startup screen 2.



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Fig. 11. TR42 Wall Module LCD display startup screen 3.

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