

PCD7.LR-TR40 and PCD7.LR-TR42 LCD and non-LCD Wall Modules

BEFORE INSTALLATION



Fig. 1. PCD7.LR-TR42

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 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 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.

MOUNTING DIMENSIONS

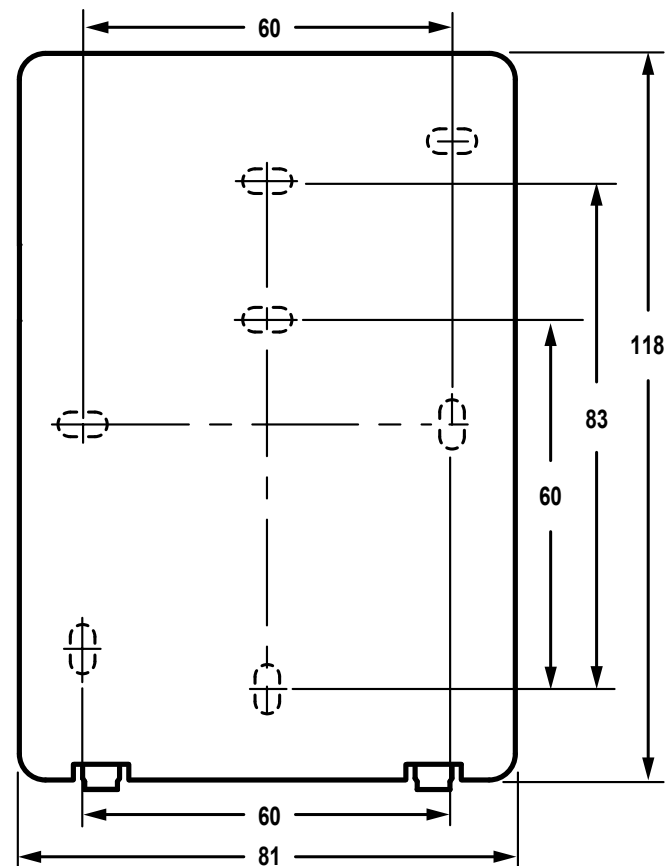


Fig. 2. Subbase mounting holes and locking tabs (in mm).



MOUNTING

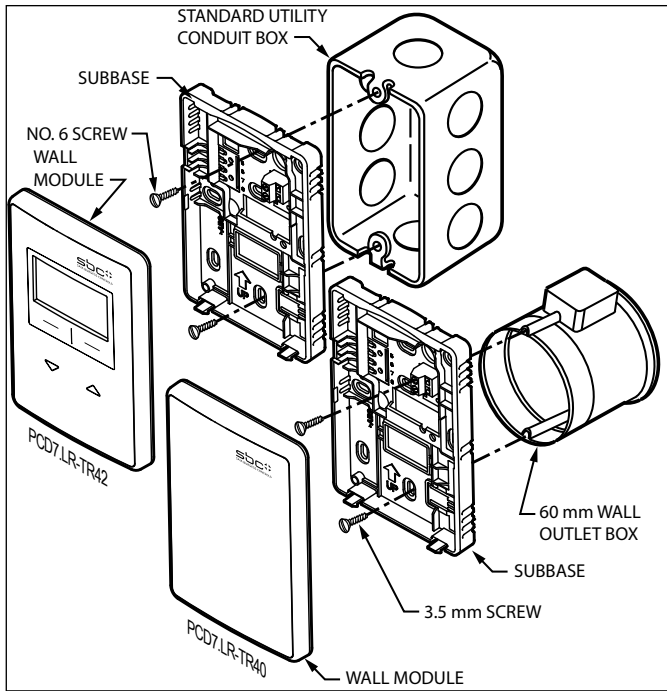


Fig. 3. Mounting on standard utility conduit box or 60 mm wall outlet box.

DIMENSIONS

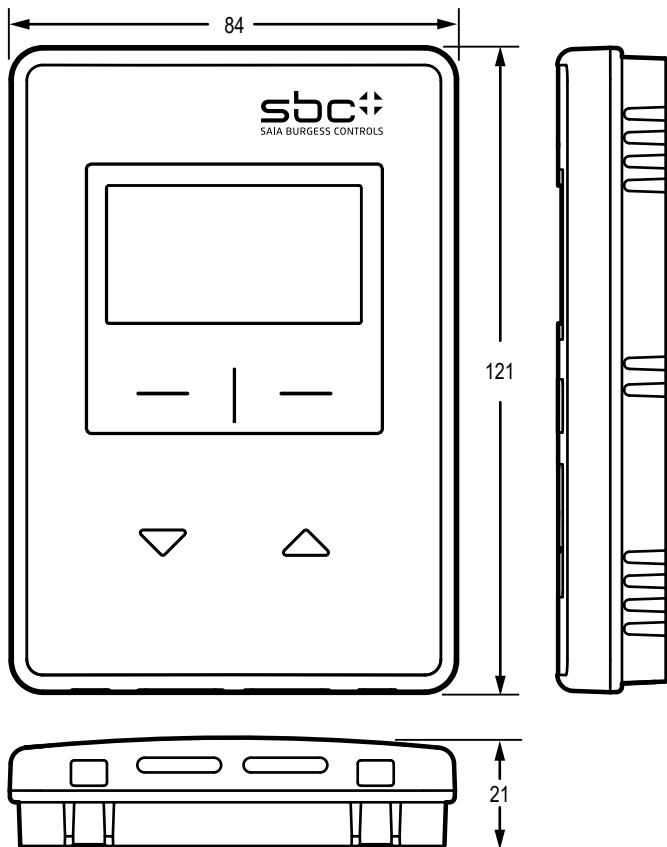


Fig. 4. Large housing, with terminal protection covers, dimensions (in mm)

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 2.5 mm² conductor.

Connect multiple wires that are 2.5 mm² 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 5 mm; for multiple wires going into one terminal, strip 13 mm insulation from the conductor. See Fig. 5 for wiring multiple PCD7.LR-TR4x.
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 Sylk device

Quantity of device ^a	Single twisted pair, non-shielded, stranded or solid ^b		Standard thermostat wire, (non-twisted), shielded or nonshielded, stranded or solid ^{c,d}
	0.3...1 mm ²	0.25 mm ²	0.25...1 mm ²
Up to 4 wall modules, any type	150 m	120 m	30 m

^a For the configurable PCD7.LRxx it can only connect 1 wall module to the controller. For the programmable PCD7.LRxx-P5 please refer to the PCD7.LRxx-P5 manual for the maximum quantity of wall modules which can be connected to 1 controller.

^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.

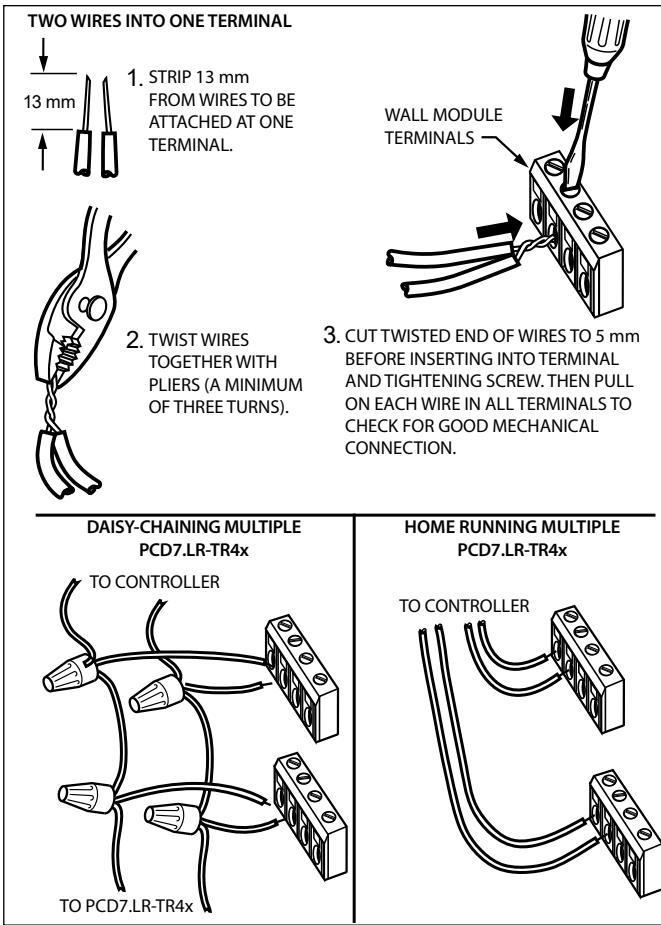


Fig. 5. Options for Wiring Multiple PCD7.LR-TR4x

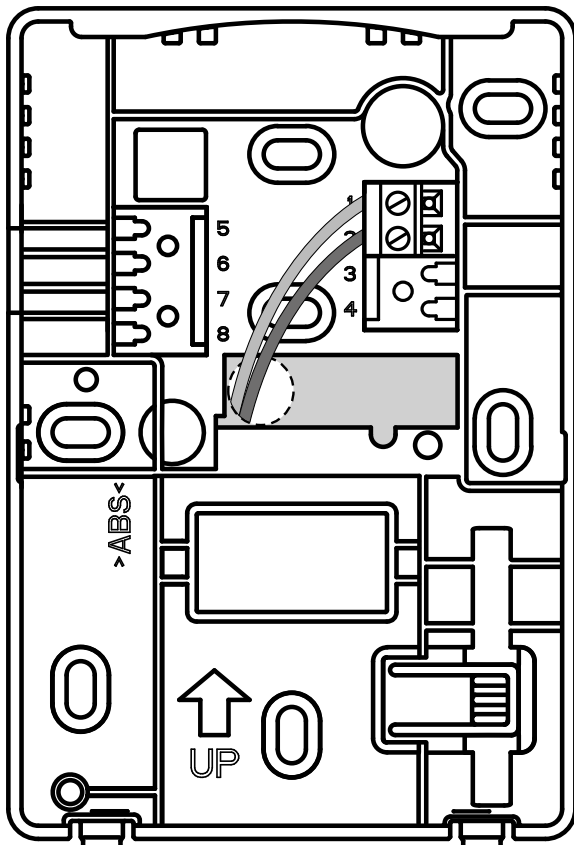


Fig. 6. Terminal connections.

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 PCD7.LR-TR4x 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 PCD7.LR-TR40 and PCD7.LR-TR42 is 1. The address on the wall module must match the address in the configuration tool.

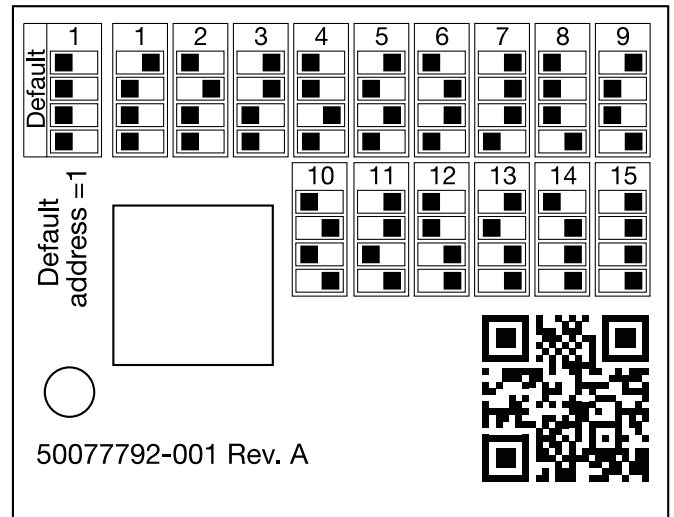


Fig. 7. Bus address settings label.

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:

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

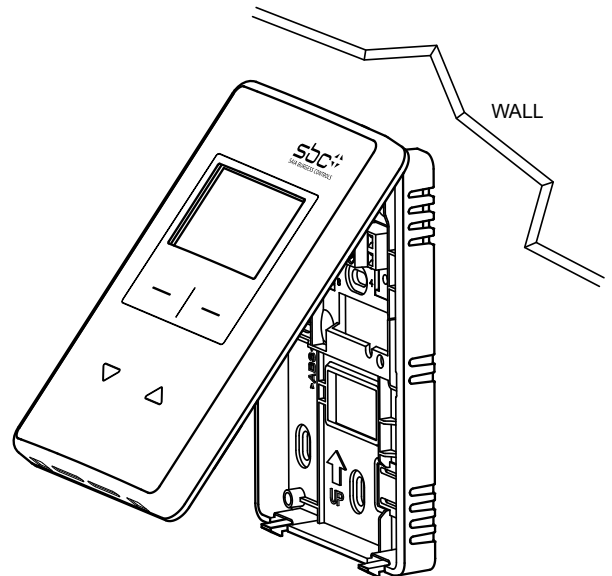


Fig. 8. Removing Wall Module from Subbase

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 PG5 config tool.

For PCD7.LRxx and RoomUp users, the user interface and parameters are downloaded automatically from the RoomUp tool. Refere also to the PCD7.LRxx INSTALLATION & COMMISSIONING INSTRUCTIONS (PP31-401). For PCD7.LRxx-P5 users, the user interface and parameters are downloaded from PG5 FBoxes. Refere also to the PCD7.LRxx-P5 Manual (27-653).

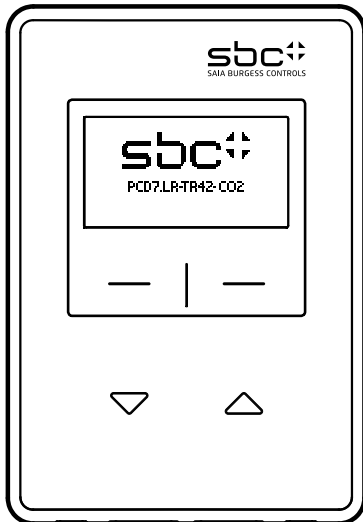


Fig. 9. PCD7.LR-TR42 Wall Module LCD display startup screen 1.

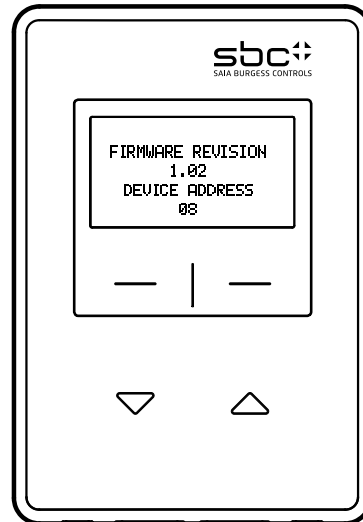


Fig. 10. PCD7.LR-TR42 Wall Module LCD display startup screen 2.

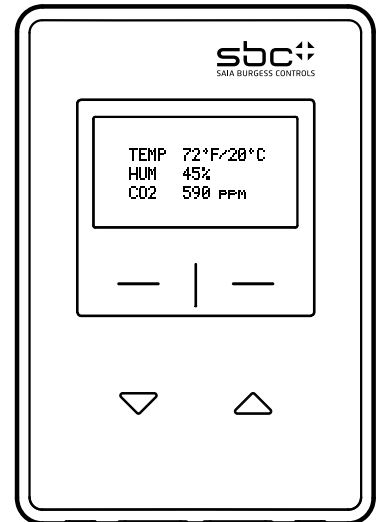


Fig. 11. PCD7.LR-TR42 Wall Module LCD display startup screen 3.

Table 2. Part Descriptions

Part number	Description	Sensors	Communication
PCD7.LR-TR40	Wall Module, Temp only, Sylk	Temperature	Sylk
PCD7.LR-TR40-H	Wall Module, Temp and Humidity, Sylk	Temp, Humidity	Sylk
PCD7.LR-TR40-CO2	Wall Module, Temp and CO2, Sylk	Temp, CO2	Sylk
PCD7.LR-TR40-H-CO2	Wall Module, Temp, Humidity, CO2, Sylk	Temp, Hum, CO2	Sylk
PCD7.LR-TR42	LCD Wall Module, Temp only, Sylk	Temperature	Sylk
PCD7.LR-TR42-H	LCD Wall Module, Temp and Humidity, Sylk	Temp, Humidity	Sylk
PCD7.LR-TR42-CO2	LCD Wall Module, Temp and CO2, Sylk	Temp, CO2	Sylk
PCD7.LR-TR42-H-CO2	LCD Wall Module, Temp, Humidity, CO2, Sylk	Temp, Hum, CO2	Sylk

Trademark Information

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