

PLC-2SDC installation guide

The Three-phase Slave (PLC-2SDC) is designed to work with the PLC-1 or PLC-2 Programmable Lighting Control. You can use one or more slaves together with the master control to increase the capacity of your lighting control system. All slave units follow the lighting programs of the master control.

The PLC-2SDC has one variable AC stage for dimming incandescent lamps and a light-level-controlled disconnect relay. The high-capacity internal relay eliminates the requirement for an external disconnect switch.

The Three-phase Slave can control lighting connected to any phase. This gives you the ability to distribute lighting loads between all phases on a three-phase system. The more basic PSU-20 Single-phase Slave must be on the same phase as the master.

What you need to know before installing your PLC-2SDC



The PLC-2SDC must be installed by a qualified electrician.

Before installing or servicing the PLC-2SDC, switch OFF the power at the source.

Install the PLC-2SDC and all equipment connected to it according to local electrical codes.



Refer to the PLC user manual for cleaning and maintenance information.

Mount the control on a sheltered, vertical surface, with the electrical knockouts facing down.

Use a screwdriver to tighten the screws in the enclosure. Do not use a drill or over tighten the screws; this can crack the enclosure and ruin the watertight seal.

Use the electrical knockouts for bringing wires or cables into or out of the enclosure. Use watertight strain reliefs or conduit connectors at all cable-entry points.

Do not make additional holes in the enclosure; this can damage the watertight seal or control components and void the warranty.

Routing data wires

Routing data wires in the same conduit as, or beside AC power cables, can cause electrical interference, erratic readings, and/or improper control. Data wires include **all** of the following:

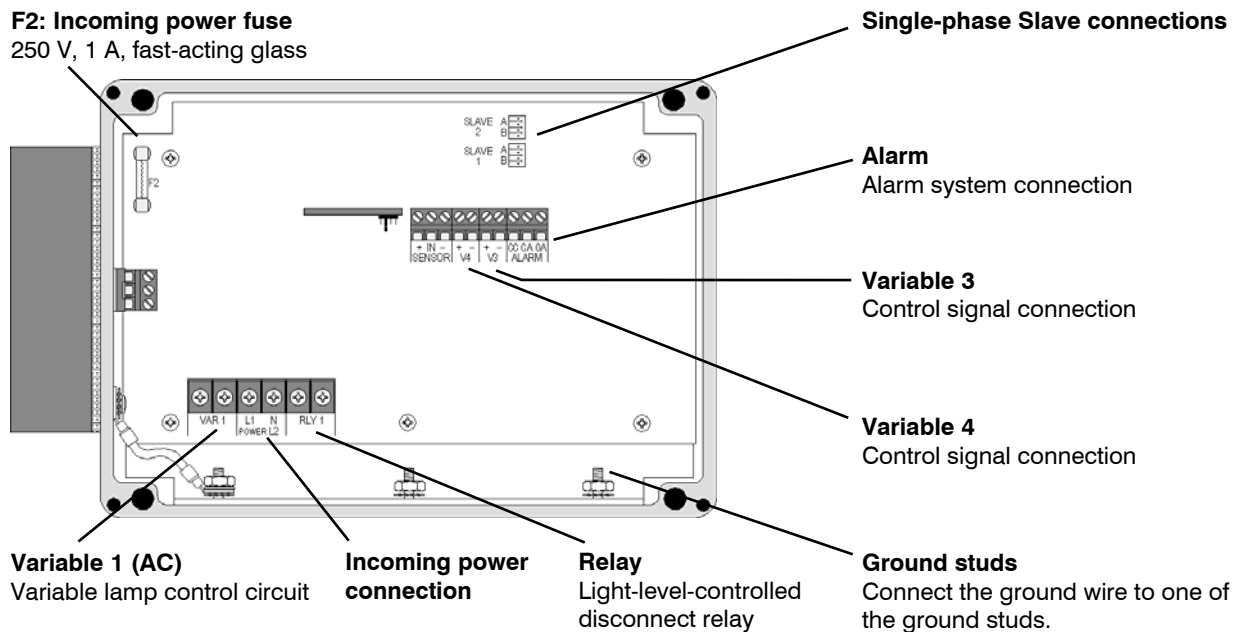
- ◆ Temperature probe and humidity sensor cables
- ◆ Actuator feedback (potentiometer) wires
- ◆ Data communication wires, including RS-232/RS-485 and PLC-2SDC signal wires
- ◆ Any cable or wire that does not provide AC power

Guidelines for routing data wires

- ◆ Do not run the wires in the same conduit as AC power cables.
- ◆ Do not run the wires beside AC power cables or near electrical equipment.
- ◆ When crossing other cables or power lines, cross them at a 90-degree angle.

If in doubt, **do not run any wire or cable that is not an AC-power wire** inside the same conduit or beside other AC-power wires.

PLC-2SDC layout



Electrical ratings

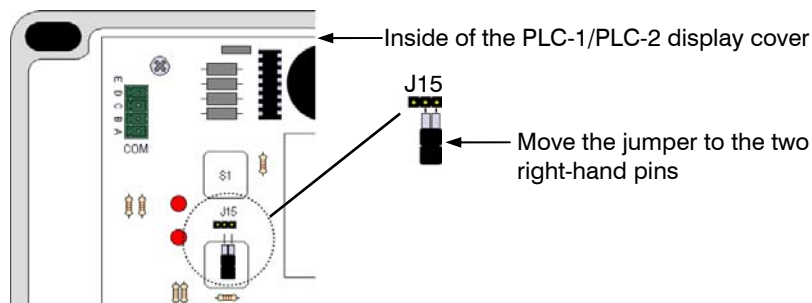
- ◆ Input: 120 VAC, 50/60 Hz
- ◆ Input fuse: 250 V, 1 A fast-acting glass
- ◆ Variable AC output: 2300 W at 120 VAC
20 A at 120 VAC, general-purpose (resistive)
- ◆ Disconnect relay: 1 HP at 120 VAC, 2 HP at 230 VAC
20 A at 120 V tungsten, 20 A at 230 V ballast
- ◆ Control signal: 0 to 10 VDC
- ◆ Alarm relay: 0.4 A at 125 VAC; 2 A at 30 VDC, resistive load
0.2 A at 125 VAC; 1 A at 30 VDC, inductive load

Installing the PLC-2SDC

Mount the control in the desired location and then complete the following steps in the order they are listed.

Setting the control signal jumper on the master control

Set the signal jumper on the master control display board as shown below.

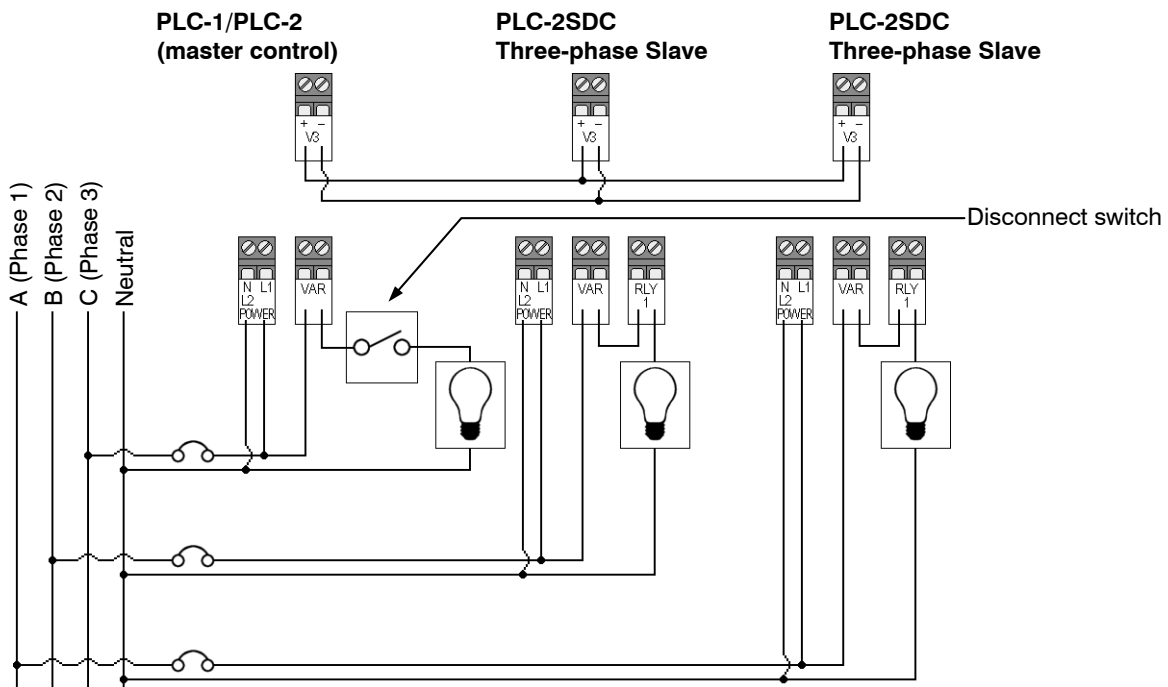


NOTE If you are using the PLC-1 or PLC-2 to control Three-phase Slave units, you cannot use it to control fluorescent ballasts. The DC signal for controlling slaves is not the same as the signal for controlling fluorescent ballasts.

Connecting the PLC-2SDC to the control system

The variable AC connection is for controlling incandescent lights. The Variable DC connection (V3 or V4) is the control signal output for Three-phase Slaves. The relay connection is for the disconnect switch.

Connect the equipment as shown below. Use 22 AWG or larger wire for the control signal output.



NOTE

Refer to the PLC user manual for information about installing a disconnect switch on the PLC-1 or PLC-2.

Fasten the cover to the PLC-2SDC

1. Verify all wires are connected properly to their correct locations.
2. Fasten the cover to the PLC-2SDC using the four cover screws.

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