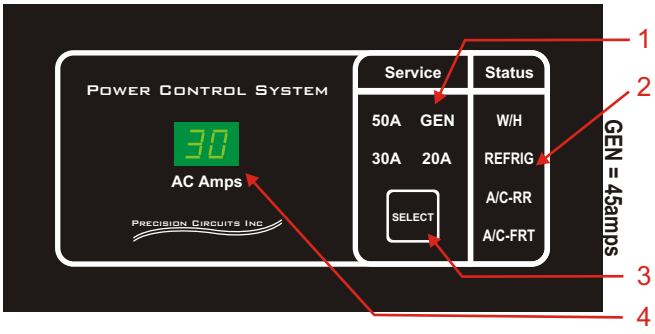
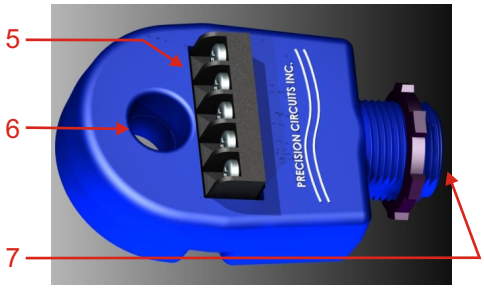
MINI POWER CONTROL SYSTEM

Overview: Fully automatic system which requires little to no owner interface. The Display is there to help the RV Owner understand Power Management and how Mini-PCS is helping. The Mini-PCS monitors the total AC current of an RV and prevents circuit breaker tripping by momentarily shedding up to four loads. As the owner turns on additional appliances such as a Microwave, Coffee Pot, or Hair Dryer, the Mini-PCS can shed the Loads that it controls such as Water Heater & Air conditioner. As the owner selected appliances are turned off, the Mini-PCS will automatically turn power back on to each of the shed loads in reverse sequence. The Mini-PCS will constantly monitor 120VAC RV power and shed and restore power to the four controlled loads.

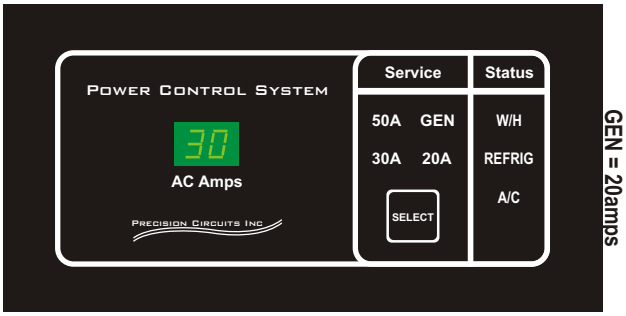
Display Panel: PCI # 00-10025-401 Winn# 174295-06-000



I/O Module: PCI# 00-10024-100 Winn # 174295-03-000



Display Panel: PCI # 00-10025-420 Winn# 174295-07-000



The Display Panel has all the brains, has a Data connector to the I/O Module and also another connector to control the air conditioner units through low voltage signals. (1) In the Service Type Window, Mini-PCS automatically detects and displays the type of Power the RV is connected to. When "30A" is illuminated, the owner can press the (3) "Select" button and toggle between 30A and 20A service. (2) The Status Window illuminates each of the appliances that it controls. If the indicator is out, that means Mini-PCS has temporarily removed power to prevent the circuit breaker from tripping. Power will be automatically restored and the indicator illuminated, once other appliances in the RV have been turned off, and 2 minutes has passed. (4) The AC Amps displays the total current being drawn by the RV. It will be blank when the RV is plugged into "50A" service.

The I/O Module is installed inside the circuit breaker panel. (5) The screw terminals are used to make the 120VAC connections. (6) It has a built in Current Sensor to Monitor Total RV Power. (7) Outside the circuit breaker panel a data cable is connected which goes to the Display Panel.

Automatic Operation:

30-amp Service - PCS senses 0VAC between L1 and L2. The I/O Module has a current sensor which monitors the current on the neutral wire. When the current exceeds the 30-amp limit, because possibly the owner has turned on the Microwave, the **MINI-PCS** will limit the current by shedding appliances. Once the total RV current has dropped, for example because an owner operated appliance has been turned off, the **MINI-PCS** will reverse the above procedure, returning power to appliances whose operation was not immediately critical. Appliance shed order is easily determined by the manufacturer by wiring the appliances to the appropriate number relay.

20-amp Service - MINI-PCS senses 0VAC between L1 and L2, and the owner selects 20A on the Remote Display. **MINI-PCS** performs the same functions as above except that it limits total current to 20amps.

Generator - MINI-PCS senses power to the Generator Hour Meter. In this mode **MINI-PCS** performs the same functions as above except that it limits the total current to the size of the Generator, see above to find the matching Monitor and associated GEN= for generator size and max current threshold.

50-amp Service - MINI-PCS senses 240VAC between L1 and L2 to determine this mode of operation. In this mode **MINI-PCS** assumes enough power is available and goes to sleep. It displays the fact that 50-amp Service is available and that all Loads are powered. The AC Amps display will be blank because current is not being measured.