

PS4085 Power Supply Module

Installation Manual

This installation sheet shall be used in conjunction with the installation manual of the DSC equipment to which the PS4085 is connected.

The PS4085 provides up to 1.5A of additional current, up to 4-hour standby time and 15 minutes alarm time from a rechargeable 12V rated battery.

General

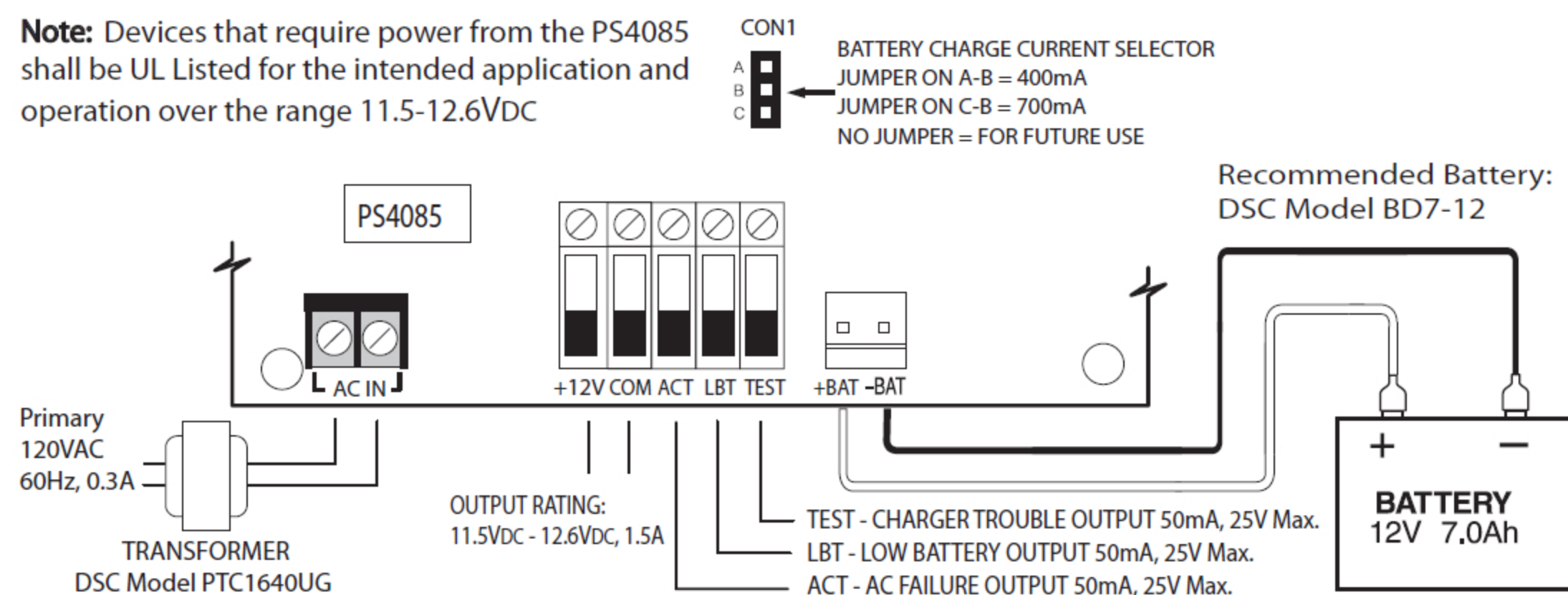
This product meets the requirements of UL603 Standard for Power Supplies used with Burglar-Alarm Systems and can be used in Mercantile Alarm installations in accordance with the following UL Standards: UL365, UL609, UL1076, UL1610.

Specifications

- Temperature range: 0°C to +49°C (32°F to +120°F)
- Relative humidity: 93% non condensing
- Input ratings: 120Vac, 60Hz, 300mA
- Transformer required: Plug-in adapter model DSC PTC1640UG
- Transformer secondary ratings: 16.5Vac, 40VA
- Board current draw: 30mA
- Board dimensions: 145 mm x 83 mm
- Output rating: 11.5 -12.6VDC, 1.5A (max.)
- Resettable fuse (PTC) used on circuit board instead of replaceable fuses
- Output ripple voltage: 180mVpp
- No overvoltage protection devices required on the outputs
- Storage device: rechargeable, sealed, lead-acid batteries, rated 12VDC. Replace every 3-5 years
- Battery capacity: 7Ah
- Battery derating factor: minimum 10%
- Maximum standby time: 4h and 15 min alarm
- Recharging time: less than 24 hours
- Low battery trouble indication threshold: 11.2VDC
- Battery deep discharge protection (cut-off at 9.5VDC)
- Supervision for loss or degradation of primary power source (ACT), battery fail or battery low voltage (LBT) and charger circuitry failure (TEST)

Figure 1 PS4085 Wiring

Note: Devices that require power from the PS4085 shall be UL Listed for the intended application and operation over the range 11.5-12.6VDC



Terminal Descriptions

AC - Supervised input. Connect the secondary of the transformer to these terminals. Connect the primary of the transformer to a dedicated electrical circuit (commercial fire installations) or to an unswitched AC source (other applications).

+12V/COM - Special applications output circuit, power limited. Connect to devices that require power. Connect the positive lead of powered devices to the +12V terminal and the negative lead to the COM terminal.

ACT - This open collector output activates when an AC Trouble is detected: Rated 50mA.

LBT - This open collector output activates when a Battery Trouble condition is detected: Rated 50mA.

TEST - This open collector output activates when the charging circuit is in a trouble condition: Rated 50mA. These outputs may be used to activate an indicating device, such as an LED, or a relay to activate devices requiring more current. The terminals may also be connected to a control panel zone input to generate an alarm and to have the system report trouble conditions.

To report AC failure and low battery conditions with individual reporting codes, connect the ACT and LBT to individual alarm zones. The ACT and LBT terminals may also be connected to a single alarm zone. When so connected, both trouble conditions are reported with a single reporting code.

+BAT/-BAT - Used to connect the standby battery, non-power limited. Use single or dual lead battery wire assembly.

Battery Charge Current

Select the battery charge current using jumper "CON1". To avoid damage to the battery, do not select a battery charge rate greater than 0.1 times the battery AHr rating.

Jumper Setting	Charge Current	Battery Size
A-B	400mA	4Ah
B-C	700mA	7Ah, 14Ah
None	Future Use	N/A

Note: For UL Listed installations use only 700mA setting.

Applying Power

After all wiring is complete, connect the battery leads to the battery, then connect the AC transformer. For information on the power requirements of specific devices, refer to the instructions supplied with the device.

IMPORTANT! Do not connect power until all wiring is complete.

Mounting the Cabinet

When mounting the cabinet, select a dry location within 1m/3.3ft of the control panel.

To mount the cabinet:

1. Press 4 white circuit board stand-offs into the raised mounting holes at the back of the cabinet.
2. Hold the cabinet in position and pull all wiring through the holes in the back.
3. Using the provided mounting screws and appropriate wall anchors, mount the cabinet securely to the wall.
4. Press the PS4085 module onto the plastic stand-offs.

Enclosures

The PS4085 can be installed in the metal enclosure described below. Tamper protection switches can be installed on all enclosures, including door opening protection and/or removal from the mounting position. Doors can be secured using screws or keylock.

Internal and/or external wiring for this module shall be routed, supported, clamped or secured in a manner that reduces the likelihood of the following:

- excessive strain on wire and on terminal connections.
- loosening of terminal connections.
- damage of conductor insulation.