

General Description

The **PD404** dimmer pack contains four solid-state dimmers rated each for a maximum load of **480 Watts at 120 VAC**. Power is fed to the **PD404** from **One 20 AMPS breaker**. The dimmers are triggered by a separate firing board (**INT04**). The **INT04** is a microprocessor based control board with a nonvolatile memory chip, a communications chip, and a regulated DC power supply. The **INT04** also contains, address selectors, LED output monitors and other support circuitry. The microprocessor is driven by powerful distributed intelligence software which handles all control and communications functions. The memory chip holds all of the **PD404's** pertinent information and settings which include low and high trim levels for each of the four outputs. The **PD404 does not rely on any shared data source and functions independently** of any other system component and without a central system controller. The **PD404** communicates with Protocol system stations and controllers over a single twisted-pair of wires and **can be connected anywhere on the system network bus**. This adds convenience and versatility by allowing **PD404** dimmers to be installed close to their loads and/or service panels.

General Features

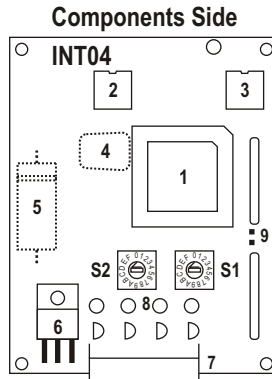
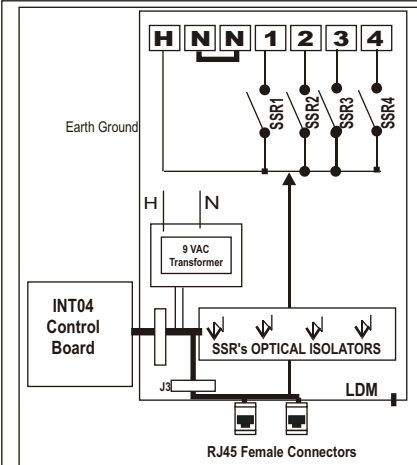
- Distributed Intelligence.
- Modular and Compact Design.
- Twisted-pair Balanced Line Communications.
- Daisy Chain, T-tap, or Star Data Configurations.
- Software Configurable.
- Automatic 50/60 Hz Detection.
- Dimming Disable Jumper.
- Powerful Built-in Diagnostics.

Control & Diagnostics

- Set Load Intensity Level.
- Save/Recall Presets.
- Blink Load.
- Set Load Max. & Min. Trims.
- View Max. & Min. Trim Settings
- View Current Output Levels.
- View ID and Code Version.
- Default to Factory settings.
- Save Settings in memory.
- Download Configuration File.
- Check Status.

Physical and Electrical Specifications

- Enclosure: 11.5"x4.6"x3.3"/ .090 Aluminum
- Weight: 3 Lbs. (1.35 Kgs.)
- Power Feed: 1 x 20 Amp. Feeds.
- Voltage Feed: 120 VAC, 50/60Hz, Single Phase.
- Output Rating: 4 x 480 Watts @120 VAC.Fused
- Output Triacs: Max. Rating 25 A-600 VAC
- Connector: 7-position screw terminal block.
- Data Network: RS485 Compliant, Proprietary Protocol.
- Data Retention: 10 years, no batteries required.
- ESD Protection: 15 KV on data input and output.



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|---|---------------------------|
| 1 | Microprocessor. |
| 2 | Nonvolatile Memory. |
| 3 | Communications Chip. |
| 4 | Quartz Crystal. |
| 5 | Power Supply Capacitor. |
| 6 | Voltage Regulator. |
| 7 | Signal & Power Connector. |
| 8 | Output LED Monitors. |
| 9 | Jumper for switches only |
- S1-S2** Address Selectors.

FUNCTIONAL BLOCK DIAGRAM

Mounting Requirements

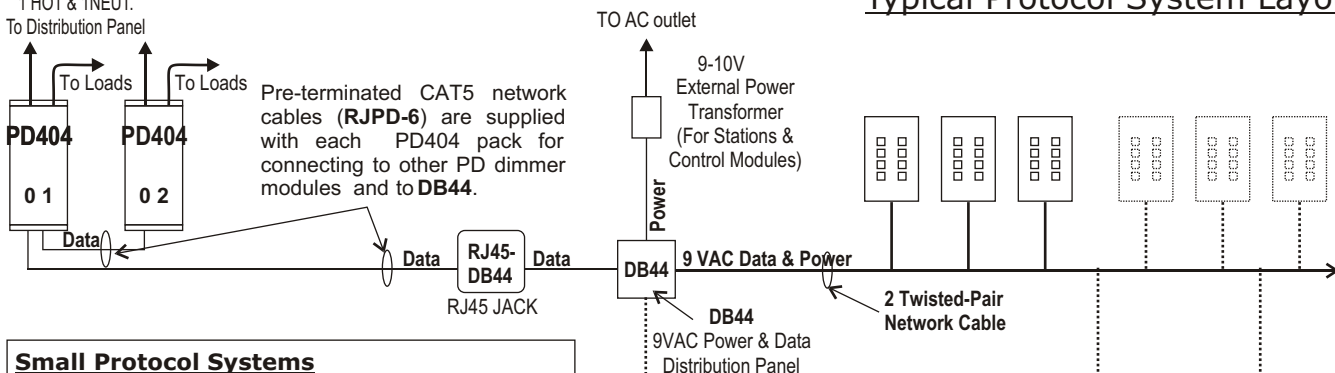
Surface mount the dimmer pack in a well ventilated area. Allow 2" of side clearance for proper air circulation. Installation clearance shall meet local and/or NEC code requirements. Enclosures may be attached to the wall or other mounting surface by holes in the heat sink flanges. Refer to the drawing on the front side of this sheet for the proper dimensions. Conduit shall be pulled to the top of the dimmer packs.

Wiring Notes

- DO NOT EXCEED 480 W** per dimmer output.
- All wiring (network bus) between the control stations, dimmers, and other system components is low voltage (NEMA Class 2) and may be run with two twisted pair #18 AWG wire. Control network bus may be Carol Cable #C3362 unless otherwise required. Consult the Protocol Hardware Installation manual, appendix E, for maximum wire length.
- Multiple PD404s could be fed from 120V/208V three phase service Breaker panel.
- PD404** Needs One 20 A. breaker and shall have up to four separately dimmed loads.
- Please refer to the **PD404** and Protocol system installation manuals for complete wiring information.
- CAUTION: DO NOT** attempt to parallel outputs to increase capacity.
- INSTALLATION must be performed by a certified Electrician** and must conform to local and/or NEC code requirements.
- PD404** Does not have any user serviceable parts.
- RJPD-6' - RJ45** Daisy-Chain Network Cable is supplied with each **PD404** to connect to other **PD Series** units.

Refer to PROTOCOL installation manual for connecting Pd404 to PS control stations and other PROTOCOL components

2 #12 AWG Typical
1 HOT & 1 NEUT.
To Distribution Panel



Small Protocol Systems

A small Protocol system can be built using only one **PD404** and one station. The station gets its power from the **PD404**'s transformer by installing jumpers W1 & W2 on the load driver module (LDM). The **DB44** and external transformer are not required in small systems. (See the Protocol and the **PD404** installation manuals for more details.)