

BRAVO

COMMUNICATIONS, INC.

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BRAVO SURGE-PROTECTED PATCH PANELS

INSTALLATION INSTRUCTIONS

Bravo Surge-Protected Patch Panels are designed to take a minimum of vertical unit space in an industry standard 19.0-inch rack. These products provide the convenience of single-point grounding of all patch panel ports to your 19.0-inch rack earth/chassis ground.

Simply insert the Bravo Surge-Protected Patch Panel into your rack and fasten with screws on both sides to your rack. Typically, you will need to attach the supplied grounding from the supplied Bravo panel to a convenient bare metal location of your rack. The ground wire would not be necessary if you scrape off the painted surface of where the panel screws penetrate thru the Bravo panel holes and into the rack so that the Bravo bare metal surface has electrical continuity to your 19.0-inch rack metal structure.

You should check with a multi-meter for electrical continuity from the Bravo Patch Panel GROUND to your rack's metal structure/chassis GROUND. In addition, you should always verify that your 19.0-inch metal rack has electrical continuity to your AC earth ground at your AC outlet ground or at your rack's AC power strip ground pin of your AC cord that powers the rack equipment.

The Bravo patch panel has installed typically four 4-port cards mounted on grounding studs to the patch panel. All these grounding studs are threaded and can be used as grounding locations by connecting where convenient with a #6 screw. If you use your own grounding wire instead of the one Bravo supplies, you should use a 12 gauge or heavier gauge wire and it is best to keep the wire length as short as possible and as straight as possible (Not more than about 10-feet long). Note: some models have right-angle grounding terminals on the end panel cards for alternate grounding.

The Surge-Protected Patch Panels are installed at the factory, REAR-PANEL PROTECTED as our standard, meaning that unprotected lines enter thru the FRONT PANEL (unprotected network lines), and the protected lines exit thru the REAR PANEL (protected network lines/load). If you wish to reverse this panel protection orientation, you can do so by unscrewing and reversing the direction of the 4-port cards and then securing tightly the cards to the spare set of holes in the panel's bottom tray. There is a label on the bottom of the Bravo patch panel that tells you what model you have and other relevant details. Please reference this label before installation. Please note that if your label indicates a "+" symbol that this means you have extra protection installed in your Bravo panel for both primary & secondary protection.

If your Bravo patch panel has blue color terminal block connectors (4-position TB connectors) on both front and rear sides, please note that their wire hook-up orientation is always left-to-right so that signal pin #1 is always the left-most position; and that signal pin #4 is always the right-most position. You will need to install your signal wires remembering this orientation to match-up your signals properly from front-to-rear of your patch panel.

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Under extreme conditions exceeding the protector's energy handling capabilities, a Bravo patch panel port may sacrifice itself to save your equipment in which case you can simply disconnect the associated 4-port card and replace with a spare card. If your specific Bravo patch panel includes diagnostic test LEDs and you have a blown Bravo port, than the 4-port panel LEDs will not illuminate either when performing a LED test, or continuously if they are normally illuminated (may be normally lit or not lit unless performing LED test, depending on your application).

A blown port on the Bravo patch panel can be easily indentified using the LED feature and also indicates proper grounding and that protection is still active. Bravo LAN & DATACOM Patch Panel Test LEDs will illuminate typically when you apply between 3 to 9 volts DC to any signal of a connector port. You can do this with any low voltage/current instrument or battery in this range by touching the ground wire lead to any ground location of the Bravo panel and then touching the positive lead wire to any signal pin of the connector port. Telecom patch panel LEDs will flash on a Ringer Voltage (when someone is calling the port).

If you have any installation questions or need consultation, you can contact us as follows:

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