FCC STATEMENT:

This device complies with Part 15 of the FCC Rules and ISED License-exempt RSS standard(s). Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by Leviton could void the user's authority to operate the equipment.

These limits are designed to provide reasonable protection against harmful interference in a commercial installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the
following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

This Class A digital apparatus complies with Canadian CAN ICES-3(A)/NMB-3(A).

FCC SUPPLIER'S DECLARATION OF CONFORMITY:

Models R, B, P, and M Series Surge Protective Devices are sold by Leviton Manufacturing Inc. 201 N Service Rd, Melville, NY 11747. This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

TRADEMARK DISCLAIMER:

Use herein of third party trademarks, service marks, trade names, brand names and/or product names are for informational purposes only, are/may be the trademarks of their respective owners; such use is not meant to imply affiliation, sponsorship, or endorsement.

FOR CANADA ONLY:

For warranty information and/or product returns, residents of Canada should contact Leviton in writing at **Leviton Manufacturing of Canada ULC** to the attention of the **Quality Assurance Department, 165 Hymus Blvd, Pointe-Claire (Quebec), Canada H9R 1E9 or by telephone at 1-800-405-5320.**

LIMITED 5 YEAR WARRANTY AND EXCLUSIONS

Leviton warrants to the original consumer purchaser and not for the benefit of anyone else that this product at the time of its sale by Leviton is free of defects in materials and workmanship under normal and proper use for five years from the purchase date. Leviton's only obligation is to correct such defects by repair or replacement, at its option. **For details visit www.leviton.com or call 1-800-824-3005.** This warranty excludes and there is disclaimed liability for labor for removal of this product or reinstallation. This warranty is void if this product is installed improperly or in an improper environment, overloaded, misused, opened, abused, or altered in any manner, or is not used under normal operating conditions or not in accordance with any labels or instructions. **There are no other or implied warranties of any kind, including merchantability and fitness for a particular purpose**, but if any implied warranty is required by the applicable jurisdiction, the duration of any such implied warranty, including merchantability and fitness for a particular purpose, is limited to five years. **Leviton is not liable for incidental, indirect, special, or consequential damages, including without limitation, damage to, or loss of use of, any equipment, lost sales or profits or delay or failure to perform this warranty obligation**. The remedies provided herein are the exclusive remedies under this warranty, whether based on contract, tort or otherwise.

For Technical Assistance Call: 1-800-824-3005 (USA Only) or 1-800-405-5320 (Canada Only)
www.leviton.com

WARNINGS:

- **HAZARD OF ELECTROCUTION AND SHOCK. CAREFULLY READ AND FOLLOW INSTRUCTIONS.**
- Only electricians should install or service Surge Protective Devices (SPDs).
- Hazardous voltages exist within SPDs.
- SPDs should never be installed or serviced when energized.
- Use appropriate safety precautions including Personal Protection Equipment.
- Failure to follow these instructions can result in death, serious injury, and/or equipment damage.
- Read this manual in its entirety prior to installing.

Bonding and Grounding Hazard

Verify that the neutral conductor in the service entrance equipment is bonded to ground in accordance with the National Electric Code (NEC®) and all applicable codes. During installation into an electrical system the SPD must not be energized until the electrical system is completely installed, inspected and tested. All conductors must be connected and functional including the neutral (if required).

The voltage rating of the SPD and system must be verified before energizing the SPD. Failure to follow these guidelines can lead to abnormally high voltages at the SPD. This may cause the SPD to fail. The warranty is voided if the SPD is incorrectly installed and/or if the neutral conductor in the service entrance equipment or downstream of separately derived systems is not bonded to ground in accordance with the NEC.

Do Not Hi-Pot Test SPDs

Any factory or on-site testing of power distribution equipment that exceeds normal operating voltage such as high-potential insulation testing, or any other tests where the suppression components will be subjected to higher voltage than their rated Maximum Continuous Operating Voltage (MCOV) must be conducted with the SPD disconnected from the power source. For 4-wire systems, the neutral connection at the SPD must also be disconnected prior to performing high-potential testing. Failure to disconnect the SPD and associated components during elevated voltage testing will damage the SPD and will void the warranty.

CAUTIONS:

SPDs on Ungrounded Systems

Ungrounded systems are inherently unstable and can produce excessively high line-to-ground voltages during certain fault conditions. During these fault conditions, any electrical equipment, including an SPD, may be subjected to voltages which exceed their designated ratings. An SPD designated specifically for ungrounded systems should be used.

Unpacking and Preliminary Inspection

Inspect the entire shipping container for damage or signs of mishandling. Remove the packing materials and further inspect the unit for any obvious shipping damages. If any damage was found, and is a result of shipping or handling, immediately file a claim with the shipping company and forward a copy to Leviton at industrial@leviton.com.

Storage Environment

This SPD should be stored in a clean, dry environment. Storage temperature range is -49°F to 140°F (-45°C to 60°C). Avoid exposure to high condensation.

INSTALLATION INSTRUCTIONS **ENGLISH**

Pre-Installation

Operating Environment

Series R, P, and B are NEMA 4X enclosures and Series M is NEMA 4 enclosure. Before installing, ensure that your enclosure type and application are appropriate with regard to moisture, dirt, excessive dust, flammable materials or atmospheres, corrosive vapors, etc. Please consult factory if enclosure needs to be changed. The R and P Series are designed to work in a temperature range of -31°F to +185°F (-35°C to +85°C), and the B and M Series -40°F to +185°F (-40°C to +85°C) with a relative humidity of 0% to 95% (noncondensing). Excessive temperature may inadvertently operate internal thermal over-temperature protectors.

Line Side versus Load Side Installation

The R and P Series SPDs are Type 1, and the B and M Series SPDs are Type 2, as defined in UL 1449 and the National Electrical Code. Type 1 SPDs are intended to be installed on the line side of the service disconnect overcurrent device but may also be installed on the load side. Type 2 SPDs are intended to be installed on the load side of the service disconnect overcurrent device.

NOTE: Devices with UL1293 Filtering are qualified to the same standards, but can only be installed as Type 2 devices per UL specification.

Audible Noise

SPD background noise is negligible or non-existent, and does not restrict the location of installation.

WEB VERSION

Pre-Installation Continued

Lead Lengths and Maximizing SPD Performance

SPDs must be located as close to the circuit as possible to minimize parasitic losses. Use the shortest and straightest possible leads for pre-plan installations and ensure that nearest breaker positions are used. If new construction, adjust breaker locations as appropriate. When longer leads are unavoidable, gently twist leads together (one to two twists per foot), or tie-wrap leads together.

Voltage Rating

Before installing the SPD, verify that it has the same voltage rating as the power distribution system. Compare the SPDs nameplate voltage or model number and ensure that SPD configuration matches the intended power source.

Circuit Breaker Connected

When connected on the load side of the main disconnect, we suggest connecting via a circuit breaker. The circuit breaker is the intended disconnect switch and provides short circuit protection to the connecting conductors. These SPDs have internal overload protection elements within the product. These SPDs have demonstrated 200kA Short Circuit Current Ratings (SCCRs).

Operating Environment Continued

System Grounding

An equipment grounding conductor must be used on all electrical circuits connected to the SPD. For the best performance, use a single point ground system where the service entrance grounding electrode system is connected to and bonded to all other available electrodes, building steel, metal water pipes, driven rods, etc. (For reference see, IEEE Std 142-2007.) For sensitive electronics and computer systems, we recommend that the ground impedance measurement be as low as possible.

When metallic raceway is used as an additional grounding conductor, an insulated grounding conductor should be run inside the raceway. Adequate electrical continuity must be maintained at all raceway connections. A separate isolated ground for the SPD is NOT recommended. Proper equipment connections to the grounding system and ground grid continuity should be verified via inspections and testing on a regular basis, as part of a comprehensive electrical maintenance program. On 4-Wire Power Systems, neutral to ground bonding (Main Bonding Jumper) must be installed per the NEC. Failure to do so, WILL damage SPDs.

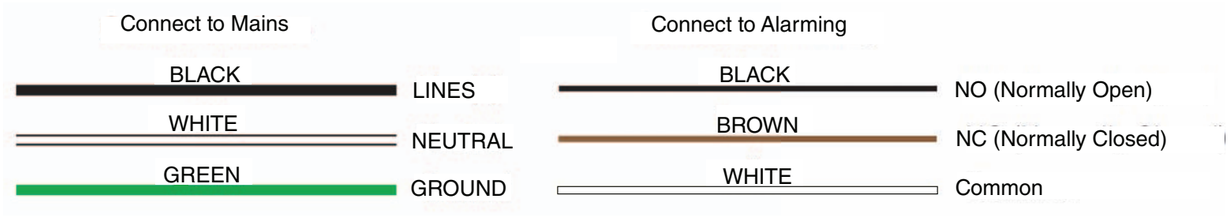
Retrofit into Existing Panel with No Available Breaker Positions

Follow all applicable codes: Consider consolidating loads that might free breaker positions. A 10 ft tap rule in NEC 240.21(B)(1), allows you to tap the bus as long as the tap conductors are rated at least 10% of the ampacity of the panel. In the case where the ampacity of the panel is larger than the wires of the SPD, consider tapping the bus per NEC 240.21(B)(1) and running appropriate size conductors to a safety switch fused to 30A. Mount the SPD immediately adjacent to the safety switch.

Installation

Pre-Plan Your Installation

- Meet all National and Local codes (NEC Article 285 addresses SPDs).
- Mount SPD as close to panel or equipment as possible to keep leads short.
- Ensure leads are as short and straight as possible, including neutral and ground.
- Consider breaker positions that are closest to the SPD and the panel's neutral and ground wires.
- Suggested breaker size for the R, P, and B Series is 20A, and 30A for the M Series.
- Make sure system is grounded per NEC and clear of faults before energizing SPD.



Installation Instructions

1. Use a voltmeter to check all voltages to ensure correct SPD.

2. If SPD has Dry Contact, pre-plan its installation.

3. Turn OFF power at panel. Confirm panel is de-energized.

4. Identify connection and breaker location and SPD location.

5. Make sure leads are short.

6. Remove an appropriately-sized knockout from panel.

7. Mount SPD. Connect to equipment using an approved wiring method, including seals appropriate for the enclosure rating.

8. Connect conductors as appropriate – short and straight as possible.

NOTE: Hi-Legs are Phase B (ORANGE).

9. Label or mark conductors, as appropriate.
Energized: BLACK
Neutral: WHITE
Ground: GREEN
Hi-Leg (Delta units only): ORANGE

10. Make sure system is bonded per NEC and is clear of hazards or faults before energizing. (N-G bonding, not per NEC, will fail SPDs.)

11. Energize and confirm proper operation of indicators and/or options. If Audible Alarm cycles, turn OFF power immediately and contact Leviton at 1-800-824-3005 for help.

Operation

LED Operation

- When the LEDs are GREEN, complete protection is present.
- Upon a MOV stack failure, the LED that corresponds to the failed mode turns OFF.

Audible Alarm

Similar to the LEDs, the audible alarm will sound upon a suppression element failure. The alarm can be silenced only by removing power to the SPD via the breaker. Removing power leaves the system unprotected.

Dry Contacts

Three, #22 AWG wires are included through the nipple as dry contacts. Dry contacts change state when any suppression element reaches end of life, including the loss of power. Any change in status can be monitored elsewhere via the dry contacts.

NOTES:

- Dry contacts are designed for low-voltage or control signals only.
- Maximum switching current is 2A.
- Maximum switching voltage is 240V AC.
- Higher energy applications require additional relay implementation outside the SPD.
- WHITE is Common, BLACK is Normally Open, and BROWN is Normally Closed.
- If the dry contacts are not used, insulate the lead ends, coil, and secure.

Maintenance

SPDs require minimal maintenance. We recommend periodic inspection of diagnostic indicators to ensure proper operation. We also recommend keeping the SPD clean, as appropriate.

Troubleshooting

Please contact Leviton for any service-related issues at 1-800-824-3005.