

8.5"



INSTALLATION INSTRUCTIONS and OPERATIONS MANUAL

PanelGuard® PG60 - PG80 - PG100 Series Electrical Panel Extension Hardwired Surge

INTRODUCTION

The PG60-80-100 Series is designed to be installed in very close proximity to the power bus of an electric distribution panel or electric panelboard. It can be used with most panels or panelboards in distribution today. The PG60-80-100 Series offers peak surge amperage protection levels of 60 kA to 100 kA per mode. It is designed to be easily mounted above or below the panelboard. Provisions have been made with a reversible cover plate to keep the instructions and indicators in a user friendly position. Standard features include all mode protection, multi-mode LED indicators that show full protection, diminished protection and lost protection for all phases. A form C relay for remote alarm indication, audible trouble alarm with test and silence switch are also standard equipment.

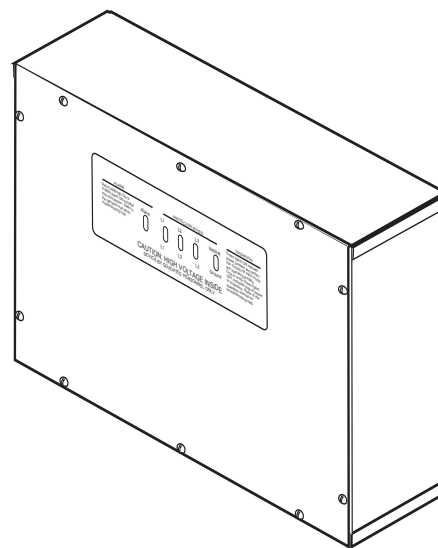
The system is comprised of three sections; outer housing, cover plate and inner module. Each section is engineered to make the installer/service technician's task as easy as possible. A description of each section and the function follows.

Outer Housing - Metal housing measuring 20" wide x 16" high x 6" deep. The outer housing contains the inner housing, connection lugs for each phase, neutral and ground, connections for the form C alarm relay and the audible alarm test and silence switch.

A 5/8" flange on the forward side of the housing has ten (10) threaded holes that are used to attached the cover plate. Four (4) mounting holes are located in the back surface of the housing for mounting. It is suggested that all four (4) fasteners be used to secure the outer housing.

Cover Plate - Metal plate measuring 19 13/16" wide x 15 13/16" high. The cover plate contains ten (10) holes located around the edges that matched the threaded holes in the outer housing and are used to secure the cover plate to the outer housing. The cover plate is reversible and has an identification label on both front and reverse sides. The labels are mirror images of each other and selection of which side to use depends upon the placement of the outer housing. (This process will be explained in the installation section that follows.)

Inner Module - Metal box measuring 13 3/16" wide x 9 3/4" high x 4 15/16" deep including the mounting rails that are part of the module. The inner module is fastened to the outer housing with four (4) bolts through the mounting rails. Module identification and wiring diagram labels are attached to the inner module. The inner module contains all of the surge suppression, noise filtering, fusing, monitoring and reporting components. Grounding bars and terminal bus extend from the inner



Model # PG100 - 208 - 3Y

PEAK SURGE RATING

PG60	60 kA per Mode
PG80	80 kA per Mode
PG100	100 kA per Mode

SUPPLY VOLTAGE AND CONFIGURATION

240-2S	120/240 Single Phase
208-3Y	120/208 Three Phase Wye
240-3HLD	120/240 Three Phase H. L. Delta
480-3Y	277/480 Three Phase Wye
480-3D	480 Three Phase Delta



20.0"

6.0"

FINAL CHECKOUT PROCEDURE

1. CHECK all connections for correct location and torque.
2. Make sure that the electrical panel and the SPD are clear of all tools, metal parts and personnel.
3. Turn power ON to the electrical panel.
4. Place Alarm Switch in the NORMAL position.
5. Turn the power ON to the SPD.
6. Check all PROTECTION STATUS Line indicator lights for proper illumination.
PROTECTION MODE indicators ON.
ALARM indicator OFF.
7. Check output continuity for the Alarm Relay if used.
(a) Common to Normally Open = greater than 10 M ohms, (b) Common to Normally Closed = 0 ohms.
8. The Audible Alarm should be silent.
9. Place Alarm Switch in SILENCE position: Audible alarm should sound. Return Alarm Switch to normal position.
10. Place Alarm Switch in TEST position. Audible alarm should sound, the Red Alarm Indicator LED should be ON and the alarm relay outputs should reverse state. Return the switch to the NORMAL position.

OPERATION

1. The ALARM SWITCH should be in the NORMAL position for standard operating conditions.
2. The COVER PLATE must be in position with all bolts secured to prevent access by unauthorized personnel.
3. The PROTECTION MODE indicator lights should be ON.
4. The ALARM indicator light should be OFF.
5. Periodic functional checks of the system as required by local codes or procedures are conducted by performing steps 9 and 10 of the FINAL CHECKOUT PROCEDURE.

COVER PLATE INSTALLATION

The cover plate has labels on the front and back. One side has the labels positioned for use when the SPD is located at the top of the electrical panel. The second side of the cover plate is used when the SPD is positioned at the bottom of the electric panel. MAKE SURE THAT THE PROPER SIDE IS PLACED FORWARD AND ALL INDICATOR LIGHTS ARE VISIBLE.

SPD mounted above the Panelboard

1. Position the cover plate on the face of the outer housing so that the mounting holes align with the threaded holes and the indicator light positions in the label align with the indicator lights in the inner module.

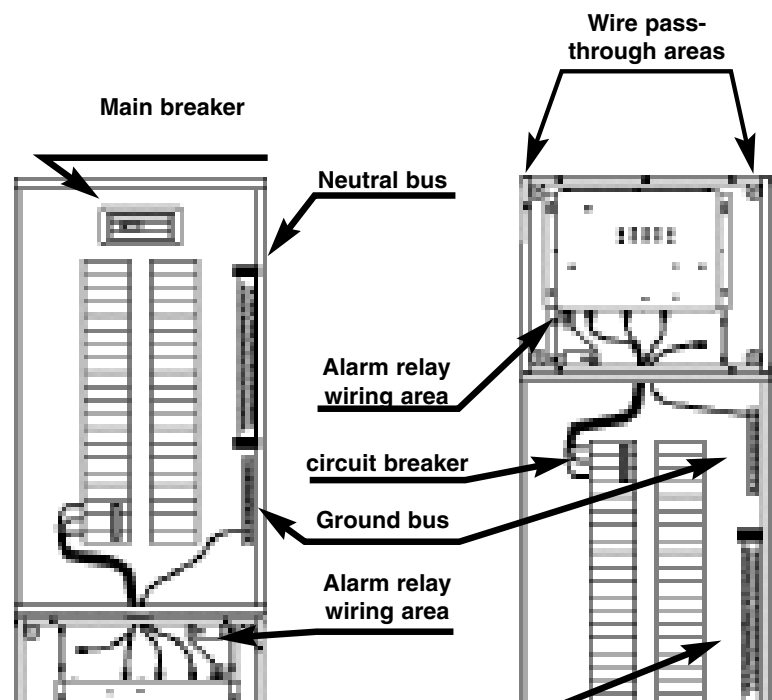
NOTE: In this application, the label with the LED indicators will be at the top of the cover plate.

SPD mounted under the Panelboard

1. Position the cover plate on the face of the outer housing so that the mounting holes align with the threaded holes and the indicator light positions in the label align with the indicator lights in the inner module.

NOTE: In this application, the label with the LED indicators will be at the bottom of the cover plate.

TYPICAL INSTALLATIONS



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TEN YEAR LIMITED PRODUCT WARRANTY

For

Intermatic PG60-80-100 Series SURGE PROTECTION DEVICES

(1) What Is Covered By This Limited Warranty

Repair or Replacement of Product

Intermatic Incorporated ("Intermatic") warrants to the original purchaser only, the Intermatic model PG60-240-2S, PG60-208-3Y, PG60-240-3HLD, PG60-480-3Y, PG60-480-3DLL, PG80-240-2S, PG80-208-3Y, PG80-240-3HLD, PG80-480-3Y, PG80-480-3DLL, PG100-240-2S, PG100-208-3Y, PG100-240-3HLD, PG100-480-3Y and PG100-480-3DLL, PanelGuard® Surge Protection Devices (each a "Product") shall be free from defects in material or workmanship for a period of ten years (120 months) from date of purchase or 126 months from date of manufacture. If the purchaser discovers a defect in material or workmanship, the purchaser must promptly submit a warranty claim. Upon a determination by Intermatic that the Product is defective, Intermatic shall correct any defect in material or workmanship by, at Intermatic's option, either repairing or replacing the defective Product. Any repair, including both parts and labor, shall be at Intermatic's expense. The foregoing remedies are the purchaser's exclusive remedies for a breach of warranty.

For purposes of this Limited Warranty, a Power Transient shall mean over-voltage resulting from momentary voltage spikes or surges on an AC power line of magnitude that the Product, according to its specifications, is designed to stop before such spikes or surges affect downstream equipment.

The Product must be installed in the appropriate application in complete accordance with the installation instructions. All building wiring and other connections to the Product must conform to all applicable national, state and local electrical codes; the Product must not be opened, modified, exposed to extreme heat or cold, submerged or subjected to abnormal use or service. All products must be used in accordance with the instructions provided with the Product and the purchaser shall be solely responsible for selecting a Product model with specifications appropriate for the equipment to be protected. Intermatic shall determine, in its sole discretion, whether any Product returned by a purchaser has been used in accordance with its instructions, is an appropriate model for the purchaser's use thereof, and whether the Product is defective.

(2) What Is Not Covered By This Warranty

Intermatic does not warrant (a) defects in the Product or damage to any equipment caused by the failure to properly install the Product; (b) damage caused by use of the Product for purposes other than those for which it was designed; (c) damage caused by disaster such as fire, flood and wind; (d) damage caused by unauthorized attachments or modification of the Product; (e) damage to the Product occurring during shipment; (f) damage caused by electrical disturbances exceeding published product specifications or (g) damage to the Product caused by any other abuse or misuse by the purchaser.

(3) Disclaimer of Warranty

THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER EXPRESSED WARRANTIES. TO THE EXTENT ALLOWED BY LAW, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED IN DURATION TO THE DURATION OF THIS LIMITED WARRANTY.

(4) Limitation of Remedies

IN NO CASE SHALL INTERMATIC BE LIABLE FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES BASED UPON BREACH OF WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, STRICT TORT, OR ANY OTHER LEGAL THEORY. SUCH EXCLUDED DAMAGES INCLUDE, BUT ARE NOT LIMITED TO, DAMAGE TO SOFTWARE, LOSS OF DATA, LOSS OF PROFITS, LOSS OF SAVINGS OR REVENUE, LOSS OF USE OF THE PRODUCT OR ANY ASSOCIATED EQUIPMENT, COST OF CAPITAL, COST OF ANY SUBSTITUTE EQUIPMENT, FACILITIES OR SERVICES, DOWNTIME, THE CLAIMS OF THIRD PARTIES INCLUDING CUSTOMERS, DAMAGE TO PROPERTY AND PERSONAL INJURY. SOME STATES DO NOT ALLOW LIMITS ON WARRANTIES OR ON REMEDIES FOR BREACH IN CERTAIN TRANSACTIONS. IN SUCH STATES, THE LIMITS IN THIS PARAGRAPH AND IN PARAGRAPH (3) MAY NOT APPLY.

(5) Time Limit for Bringing Suit

No action arising out of any claimed breach of warranty may be brought more than one year after the cause of action has occurred.