

CAUTION: TURN OFF POWER TO THE ELECTRIC SERVICE OR PANEL AND TO EQUIPMENT TO BE PROTECTED BEFORE INSTALLING ANY SURGE PROTECTION DEVICE. ALL WIRING SHOULD COMPLY WITH THE NATIONAL ELECTRIC CODE AND LOCAL ELECTRIC CODES.

UNPACKING and INSPECTION

1. INSPECT the shipping carton for damage or signs of mishandling before opening.
2. Remove the unit and the mounting brackets from the shipping carton. Inspect for obvious shipping damage.
3. If any shipping damage is observed, immediately file a claim with the shipping agency and notify your distributor.

INSTALLATION

1. TEST and verify system voltage to assure proper selection of the Surge Protection Device (SPD) in accordance with the wiring diagrams shown on page 2. Turn off the electric power to the panel.
2. CONFIRM that the Surge Protection Device is the proper voltage configuration for this installation. Refer to the installation diagrams for additional information.
3. SELECT a location to mount the UG Modular cabinet. Mount as close as possible to the electric panel or individual piece of equipment to be protected. The UG Modular device should be mounted on a flat vertical surface that can support the weight of the device. Consideration should be given to the available knockout positions in the panel when deciding where to locate the UG Modular device. All wire leads should be kept as short as possible to insure optimum operation.
4. The internal 100 KAIC fuses are the prime current protection devices for the UG Modular device. While the lead wires may be connected to either a bus bar or a multi-pole breaker, installation to a 30 amp breaker with the appropriate number of poles is preferred. Circuit breakers will not trip from transient surge activity due to their inherent slow response.

MOUNTING

1. Attach the upper and lower mounting rails to the UG Modular Cabinet using the screws provided.
2. Pre-drill holes in the surface on which the UG Modular Cabinet will be mounted. Use at least four (4) appropriate size mounting screws or bolts.
3. Select and remove the proper size knockout from the UG Modular Cabinet cabinet. Install conduit, sealtite or other proper wire protection between the panel and the UG Modular device.

WIRING

1. For installations using less than three feet of wire for each lead, use 10 AWG stranded wire.
2. Measure and cut all leads to proper length, keeping in mind that leads should be as short and straight as possible.
3. Tape all wires together to minimize inductive coupling.
4. Route the wire lead bundle through the conduit to the panel.
5. Connect the GROUND (green) lead to the ground bus in both the UG Modular unit and the electric panel.
6. If used, connect the NEUTRAL (white) to the neutral fuse terminal in the UG Modular unit and the neutral bus in the electric panel. If installing at the main distribution panel, the neutral and ground leads could terminate at a common bus bar in the panel.
7. Connect the phase leads to the fuse block terminals in the UG Modular unit. Connect each phase lead to the appropriate breaker or bus connections in the electric panel. NOTE: For HIGH LEG DELTA, make certain that the high leg is connected to the middle fuse terminal position.(Refer to Figure 3) For GROUNDED PHASE DELTA, make certain that the grounded phase is connected to the middle fuse terminal position in the UG Modular unit.(Refer to Figure 4)
8. CHECK all connections for tightness or torque. Observe the suggested torque values published by the device manufacturer when breakers or disconnect switches are used.

WIRING DIAGRAMS

120/240 VAC Single Phase

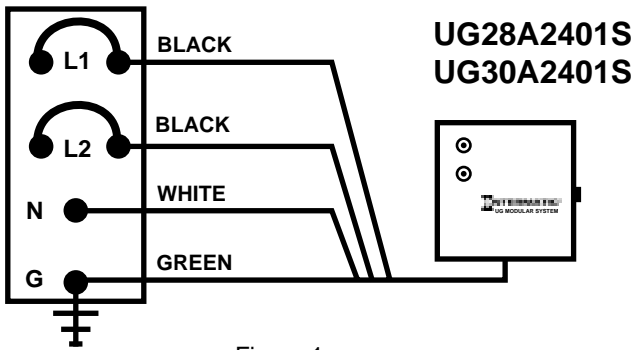


Figure 1

240 VAC Three Phase Delta 240 VAC Grounded Phase Delta

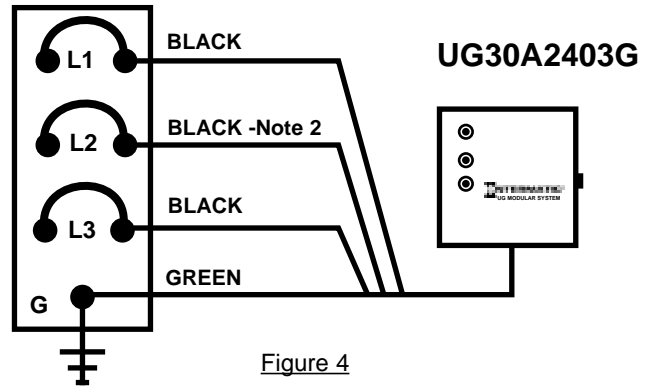


Figure 4

120/208 VAC Three Phase Wye

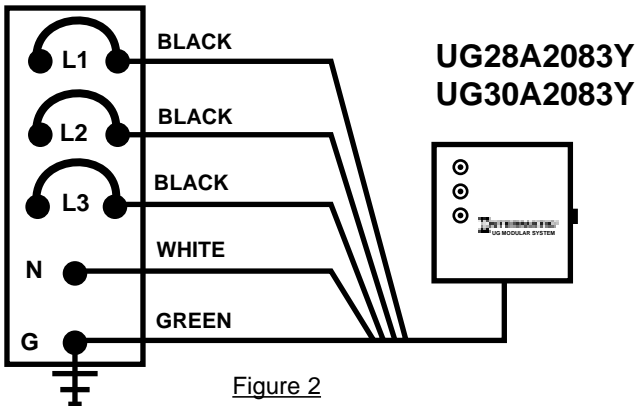


Figure 2

277/480 VAC Three Phase Wye

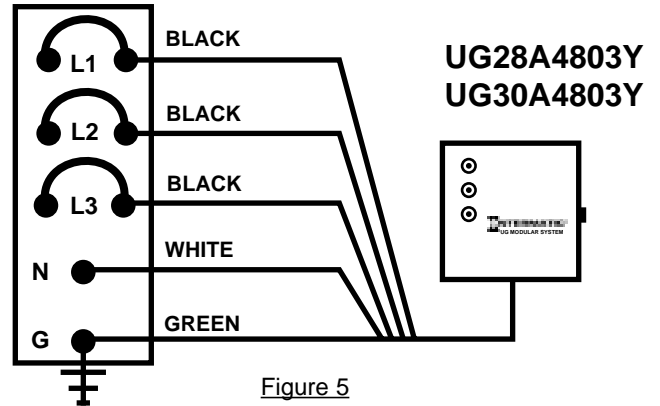


Figure 5

120/240 VAC Three Phase High Leg Delta

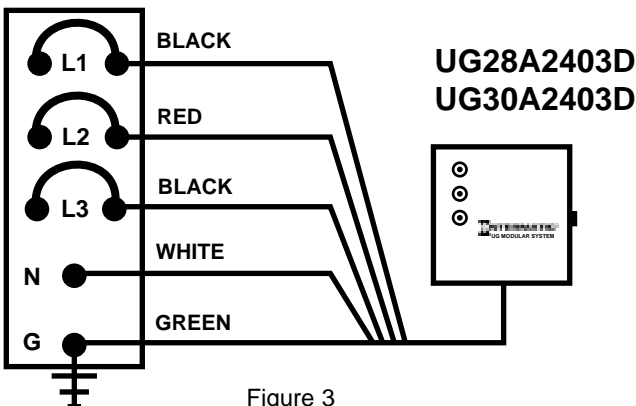


Figure 3

480 VAC Three Phase Delta

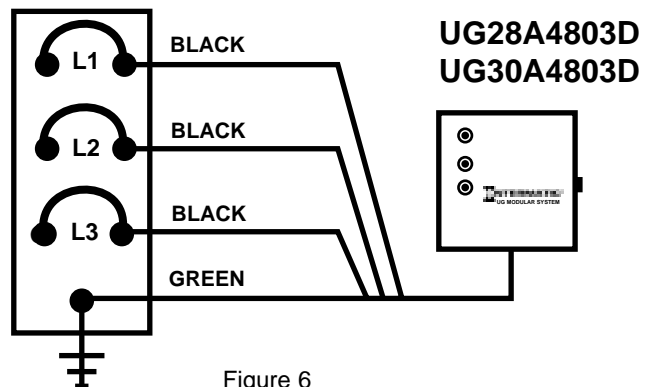


Figure 6

NOTE:

Use a 30 amp breaker with both the U28 and UG30 Series units. (2) L2 will be grounded in a 240 VAC Grounded Phase or Corner Grounded Delta.

FINAL CHECKOUT PROCEDURE

1. Inspect the complete installation.
 - a. Make sure that the UG Modular cabinet is properly secured to the mounting surface.
 - b. Make sure that conduit is securely connected and all fittings have been correctly tightened.
 - c. Make sure that the door has been replaced on the UG Modular cabinet.
2. CHECK all leads for proper placement. Make sure that the high leg in 'High Leg Delta' units is connected to the center fuse terminal identified with the red lead.
2. CHECK all connections for proper tightness.
3. CHECK the AC power feed for proper voltage.
4. CHECK each module for correct installation. Each module should sit flat against the back-plate with the locking clips firmly engaged in the T-slots on each side of the module.
5. Make sure that the replaceable fuses are properly seated and the fuse insulator panel is in place and properly secured.
6. CLOSE and secure the cabinet door.
7. RESTORE electric power to the UG Modular unit circuit or equipment circuit.
8. Check all indicator lights for proper illumination.
9. If all indicator lights are not illuminated, turn off power and repeat Final Checkout Procedure steps 1 through 8. If all indicator lights are still not illuminated, contact Intermatic at 800-391-4555.

OPERATION

1. The cabinet door should be closed and secured to prevent access by unauthorized personnel.
2. The STATUS INDICATOR lights should be ON and visible through the viewing ports when the door is closed.
3. The UG28 and UG30 Modular systems automatically react to transient surges and require no interaction by local personnel unless one or more indicator lights are out.

ALARM CONDITIONS

1. Unit is in alarm condition of one or more indicator lights are not illuminated.
2. Contact your electrical contractor if you are not authorized to work on line voltage equipment.
3. Inspect the UG Modular unit for obvious signs of catastrophic failure.
4. Check breaker(s) or disconnect switch to make sure that power is being supplied to the UG Modular unit. A blown fuse or tripped breaker would indicate failure of one or more surge modules.
5. Turn power OFF.
6. Perform the 'Final Checkout Procedure' to insure that fuses or connections have not worked loose.
7. If at least one module indicator light is illuminated, follow the sequence below to determine if remaining modules are working.
 - a. Turn power to the UG Modular unit OFF.
 - b. Exchange a 'good' module and a 'questionable' module by placing each in the other's socket position.
 - c. Reapply power to the UG Modular unit. If the indicator in the 'good' module still illuminates and the questionable module's indicator light does not illuminate, the questionable module should be replaced.
 - d. Repeat step c. until all modules have been tested and qualified.
 - e. Contact your electrical contractor or Intermatic Technical Assistance for replacement information.

TECHNICAL ASSISTANCE

For application or technical assistance contact Intermatic at **1-800-391-4555** or on the web at **www.intermatic.com**.

TEN YEAR LIMITED PRODUCT WARRANTY

For

INTERMATIC® MODULAR 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 UG28A2401S, UG28A2083Y, UG28A2403D, UG28A4803Y, UG28A4803D or UG30A2401S, UG30A2083Y, UG30A2403D, UG30A2403G, UG30A4803Y, UG30A4803D, UG40A2401S, UG40A2083Y, UG40A2403D, UG40A2403G, UG40A4803Y, UG40A4803D 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, at its sole option, shall correct any defect in material or workmanship by 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, or (f) damage caused by electrical disturbances exceeding published product specifications, (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.

(6) No Other Warranties

Unless modified in writing signed by both parties, this agreement is understood to be the complete and exclusive agreement between the parties, superseding all prior agreements, oral or written, and all other communications between the parties relating to the subject matter of this agreement. No employee of Intermatic or any other party is authorized to make any warranty in addition to those made in this agreement.

INTERMATIC INCORPORATED

SPRING GROVE, ILLINOIS

<http://www.intermatic.com>