

# Isolation Station™

500VA - 1000VA

Instruction Manual

S1

  
Worldwide Power Solutions

## INTRODUCTION

Thank you for your purchase of a POWERTRONIX Power Isolation Unit and congratulations on your choice. The *Isolation Station* series of power isolation units is ideal for applications where medical and dental devices require improved electrical isolation and/or reduced leakage current in order to comply with existing safety standards, and where sensitive electronic systems require protection from electrical power disturbances.

## INSPECTION

Remove the power isolation unit from the shipping container and inspect it for shipping damage. Do not install or operate the product if it appears to be damaged in any way. If the unit is damaged, notify the carrier, and the company that sold you the unit, Immediately.

## ENVIRONMENTAL ISSUES

This power isolation unit has environmental requirements similar to other electronic equipment. It has been designed for indoor use only, in areas where it will not be exposed to excessive dust or moisture. Make certain there is adequate airflow around the unit. Do not place objects on top of or near the unit, which could obstruct the air vents.

- CAUTION:** This product requires convection cooling. Adequate ventilation is required. When installing this product, a minimum clearance of 2.0" must be provided to all sides with air ventilation holes, except the mounting surface.
- DANGER:** Risk of explosion exists if used in the presence of flammable anesthetics, or other flammable gases or liquids.
- CAUTION:** Grounding continuity should be checked periodically.
- NOTE:** **USA and Canada**, grounding reliability can only be achieved when this equipment is connected to a matching receptacle marked "Hospital Only", or "Hospital Grade".
- CAUTION:** To reduce the risk of electrical shock, do not open enclosure. There are no servicable parts inside. Refer service to POWERTRONIX Corporation or its authorized agent only.



**WARNING: TO PREVENT ELECTRICAL SHOCK, DO NOT REMOVE THE POWER ISOLATION UNIT COVER.**



The exclamation point with an equilateral triangle is intended to alert the user(s) to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

This apparatus is a Class 1 equipment.

## POWER CORD REQUIREMENTS

**Input:** All power cords must be appropriately approved by testing agencies in the country where the *Isolation Station* is Used, such as UL/CSA/VDE/SEMKO, etc. For the US and Canadian market, a HOSPITAL GRADE plug is required for medical applications.

One end (plug) must be appropriate for the wall receptacle, while the other end is made to fit into the power inlet of the *Isolation Station*, this end must be of appliance type, IEC-320 female plug. All power cords must have grounding.

<u>Power</u>	<u>Minimum Wire Diameter</u>	<u>Recommended Length</u>
500VA	AWG 18 (0.75mm) <sup>2</sup>	Less Than 12 Feet
1000VA	AWG 16 (1.00mm) <sup>2</sup>	Less Than 12 Feet

## FUSE REQUIREMENTS

The *Isolation Station* series of power isolation units has been tested and deemed to be safe under certain conditions. The fuses used with the power entry module or power inlet are protecting the *Isolation Station* from overload and short-circuit conditions. If the wrong fuses are used, there may be danger to the person(s) operating equipment connected to it, or, potential damage to equipment hooked up to the *Isolation Station*. The fuses must be UL and CSA approved and marked for North American use and VDE (and EN) approved and marked for European use. Use only SLOW BLOW type (T-type) fuses in the equipment.

<u>Power</u>	<u>100/110/120V Input Setting</u>	<u>200/220/240V Input Setting</u>
500VA	2 x 8.00 AT (5x20mm)	2 x 8.00AT (5x20mm)
1000VA	2 x 15.00 AT (1/4" x 1.25")	2 x 15.0AT (1/4"x1.25")

**DO NOT USE FUSES WITH HIGHER CURRENT RATING.**

## MOUNTING

The *Isolation Station* may be placed horizontally on any flat and stable surface, such as a floor or table top. For high traffic areas, carts and unstable surfaces, use of the mounting brackets for all mounting locations is recommended to insure the stability of the *Isolation Station*. Some versions of the *Isolation Station* may also be vertically mounted to a wall.

For wall mounting, please use appropriate wall anchors unless fastened into wall stud(s) or other forms of enforcement available to support the weight of the enclosure. For dry wall mounting, use minimum 3.0" long 1/4"-20 Phillips Button-Head or Hex-Head Bolts and 1/4"-20 Toggle Bolts. user assumes all responsibility for the integrity of the installation.

Appropriate air clearance for ventilation of the *Isolation Station* is required (see the CAUTION paragraph on the previous page).

## PRODUCT SPECIFICATION

The sticker on the top cover, above the rear panel, lists the power isolation unit's operating voltages, frequencies and current ratings. Make sure the input current rating is not exceeded when connecting single and multiple loads to the power isolation unit receptacles.

## INSTALLATION

Ensure that the unit's input and output voltage has been set accurately, and that the proper fuses have been installed on the input (see previous page for further details).

Install the power isolation unit as close as possible to the load equipment. Do not use extension cords or surge or filtration devices with the power isolation unit.

Place all load equipment power switches in the OFF position. Plug the power isolation unit into an appropriately sized AC power source.

Plug the load equipment into the power isolation unit receptacles. The load equipment must be connected to the power isolation station unit with a three conductor grounded power cord.

If in doubt about how to properly connect this power isolation unit, please consult the connection diagram shown at the end of this section.

## OPERATION

Once the power isolation unit has been properly installed, the power switches of the load equipment may be turned ON.

Please note that the power consumption of the *Isolation Station* equals the sum of power usage of each device connected to the *Isolation Station*, in simultaneous operation. It is important that the total power in use at one time does not exceed the maximum power rating of the *Isolation Station* as shown on the product identification label.

All *Isolation Station* models described in this document are voltage selectable; intended for 100/110/120/200/220/240 VAC input voltage (50/60 Hz frequency, and 115/230 V output. **DO NOT USE OTHER VOLTAGES OR FREQUENCIES.**

**DO NOT ATTEMPT TO CHANGE THE INPUT OR OUTPUT VOLTAGE SELECTOR SETTING WHILE THE POWER ISOLATION UNIT IS IN USE .**

After shutting down the power isolation unit, it is recommended to let the *Isolation Station* "cool down" for approximately 1 minute. There may otherwise be a risk of blowing a fuse in the power inlet or possibly tripping the wall outlet circuit breaker.

This equipment may generate, use and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to other devices in the vicinity. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to other devices, 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 equipment.
- Increase the separation between the equipment.
- Connect the equipment into an outlet on a circuit different from that to which the other device(s) are connected.
- Consult the manufacturer or field service technician for help.

## **TRANSPORTATION**

Do not expose to temperatures below 0 Degree Celsius (32°F) or above 65 Degree Celsius (149°F)

Do not expose this apparatus to relative humidity in excess of 95% RH (non-condensing).

## **LIMITED WARRANTY**

POWERTRONIX warrants its power isolation units (known hereafter as the "product") to be free from defects in materials and workmanship, under normal use, service, and maintenance, for a period of 24 months from the date of purchase and/or shipment.

During the warranty period, the product will be repaired or replaced (at POWERTRONIX' option) at no charge. (This warranty does not apply to fuses)

To obtain service under warranty you must obtain a returned material authorization (RMA) number from customer support. Products must be returned with transportation charges prepaid and must be accompanied by a brief description of the problem encountered, as well as a purchase receipt or other proof of date and place of purchase.

Please keep your sales receipt or other document showing proof of purchase. Attach it to this owners manual, and keep both nearby. Also, keep the original box and packaging material, in case you need to return the product for repair work.

**This warranty is extended only to the original purchaser.**

After 24 months from the date of original purchase, or shipment of the product, the user must pay for the replacement or repair of all parts, and for all labor charges. All parts, including repaired or replaced parts are covered only for the original warranty period. When the warranty on the product expires, the warranty on all replaced and repaired parts also expires.

POWERTRONIX makes no warranties, expressed or implied, of merchantability, fitness for a particular purpose, performance, condition, capacity or otherwise. The manufacturer is not liable for any incidental or consequential damages, monetary loss, loss of sales or loss of business resulting from the use, failure or malfunction of the product.

Warranty is void on any product that is misused, misapplied, abused, altered, repaired by unauthorized personnel, or where evidence of tampering exists. The foregoing constitutes the sole and exclusive remedy of the purchaser and is in lieu of all other warranties. No greater degree of liability is imposed on the manufacturer.

## MAINTENANCE

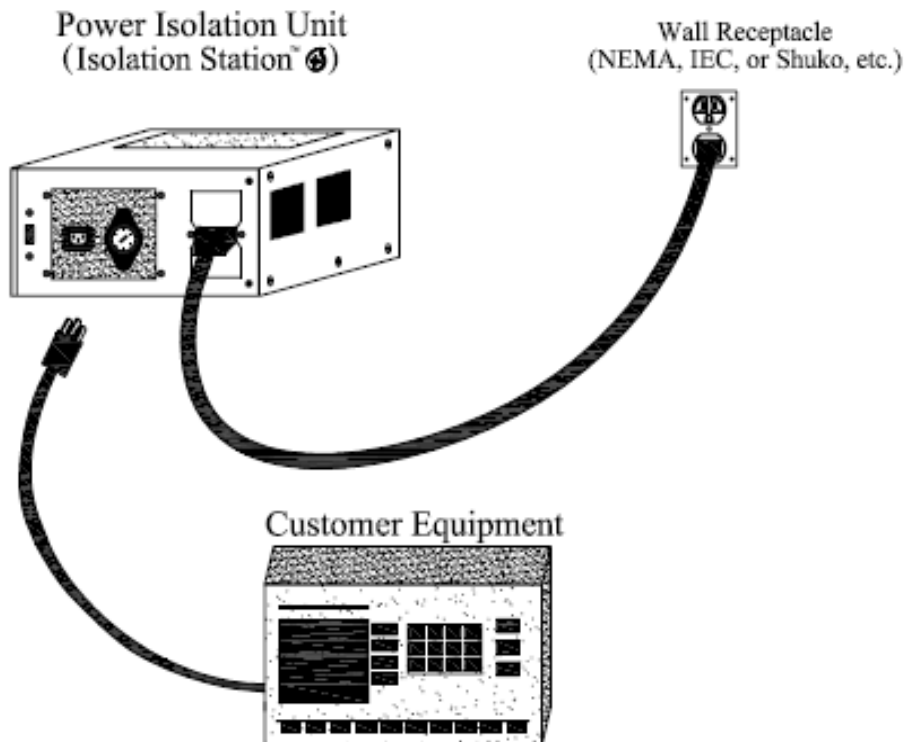
Clean the power isolation unit surface with a soft, slightly dampened, lint-free cloth. Do not use any cleaning agent as they may have a corrosive effect. Use a soft lint-free cloth or the dusting attachment or your vacuum cleaner to dust your power isolation unit.

Do not expose the power isolation unit to humidity, rain, sand or excessive heat (caused by heating equipment or direct sunlight).

**Storage Temperature:** +32°F to +149°F  
(0 °C to +65 °C)

**Operating Temperature:** +41°F to +104°F  
(+5 °C to +40 °C)

## CONNECTION DIAGRAM



PRODUCT INFORMATION

Date Purchased: \_\_\_\_\_

Part Number: \_\_\_\_\_

Serial Number: \_\_\_\_\_

Where  
Purchased: \_\_\_\_\_



Copyright © POWERTRONIX Corp. 2009  
All rights reserved.

**POWERTRONIX** and Isolation Station™ are trademarks  
of POWERTRONIX Corp., Foster City, CA.

Other trademarks may be pending.

No part of this manual may be reproduced or distributed either electronically or in printed form  
without the express written permission of POWERTRONIX Corp.

Information in this manual is subject to change without notice. POWERTRONIX Corp. may make improvements and/or changes in this manual, or in the product, described in this manual, at any time without prior notice. Changes may periodically be made to the information herein, and such changes may be incorporated in new editions of the product and its accompanying documentation without obligating POWERTRONIX to update information and/or product that has been delivered earlier.

POWERTRONIX assumes no liability for typographical errors in this documentation. POWERTRONIX shall not be liable for technical or editorial errors or omissions contained herein, nor for incidental or consequential damages resulting from our furnishing of this material and/or documentation to any user, nor for the performance or use of this product.

In interest of continuous product improvement, POWERTRONIX Corp. reserves the right to change product and/or documentation, and/or specifications without prior notice.



---

In North America:  
1120 Chess Drive,  
Foster City, CA 94404, USA

Phone: (650) 345-6800  
Fax: (650) 345-7240

E-Mail: [support@powertronix.com](mailto:support@powertronix.com)

Access additional product information and support on the web, at:

<http://www.powertronix.com>