



## INFINITY series RPDU

### Operation and Installation Manual



# Table of Contents

<b><u>1.0 Installation Instructions</u></b> .....	<b>Page 2</b>
1.1	Unpacking and Installation
1.1.1	Unpacking and Initial Inspection
1.1.2	Handling
1.1.3	RPDU Preparation
1.1.4	Location Considerations
1.2	Power and Control Wiring
1.2.1	Input Power Connections
1.2.2	Output Power Connections
<b><u>2.0 Equipment Inspection and Start-Up</u></b> .....	<b>Page 10</b>
2.1	Internal Inspection
2.2	Start-Up
<b><u>3.0 Inspection and Start-Up Checklist</u></b> .....	<b>Page 12</b>
3.1	Inspection
3.2	Start-Up
3.3	Monitoring System Check Out
3.4	Equipment Connection Check Out (For Units With Distribution Cables)
<b><u>4.0 Operating Instructions</u></b> .....	<b>Page 14</b>
4.1	Start-Up Procedures
4.1.1	Emergency Shutdown
4.1.2	Normal System Shutdown
4.1.3	Normal System Start-Up
4.2	Units Without Monitoring
4.3	Power Monitor Panel
<b><u>5.0 Corrective Maintenance (Repair)</u></b> .....	<b>Page 15</b>
<b><u>5.1 Preventive Maintenance (Inspection &amp; Cleaning)</u></b>	

# 1.0 Installation Instructions

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## 1.1 Unpacking and Installation

**Note** *The installer of the Rack Mountable Power Distribution Unit (RPDU) should read the installation and operating manual before installing this product.*

### 1.1.1 Unpacking and Initial Inspection

1. **Inspect the package** for damage or signs of mishandling before unpacking the unit(s).
2. **Open the package** carefully, and avoid using sharp objects to open the box.
3. **Check the Unit** for any shipping damages.

**If the Unit is damaged**, immediately file a damage claim with the shipping agency and forward copy to:

Trilogy, Inc.  
27068 La Paz Road # 701  
Aliso Viejo, CA 92656  
Tel: (888) 514-4200

### 1.1.2 Handling

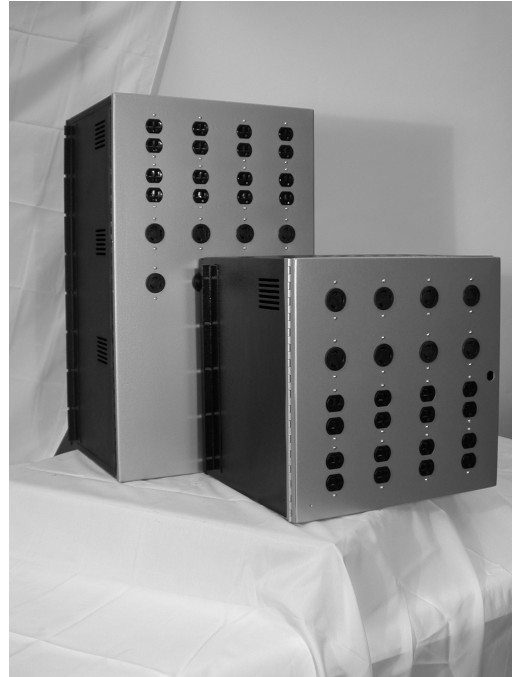
**Packaging** - The Rack Mount Power Distribution Unit (RPDU) is packed in a protective cardboard box.

**Check size and weight** - Refer to the cabinet drawings furnished with the unit for size and weight information. The Unit is designed to be installed in a 19" rack.

**Plan the route** – The RPDU should be moved to the final location on rolling cart.

**Move and set in place** – In order to prevent physical injury or damage to the Unit, handle with care. A lift should be used to set the unit in the rack.

### 1.1.3 RPDU Preparation



The Rack Mount Power Distribution Unit may be easily removed from the shipping pallet and set in place by customer personnel. A typical procedure is as follows:

1. Set the Package in a level area, where there is enough room to unpack the box.
2. Cut the shipping straps.



**WARNING: THE STRAPS MAY BE UNDER TENSION. USE PROTECTIVE EYE, FACE, AND HAND GEAR TO PREVENT INJURY FROM STRAP BACKLASH.**

3. Remove the straps and cardboard package.
4. Prepare the location on the rack.
5. Set the unit in place (Utilizing a lift) secure the unit on the rack with the provided screws.

(Please see the next steps described in section 1.1.4)

### 1.1.4 Location Considerations

The Rack Mount Power Distribution Unit should be placed in the most middle rack; this will allow all power strips on each rack to reach the RPDU receptacles located on the back of the unit. (With an average 15' power strip cord, nine racks can be powered without extension power cord)

**Equipment Location** – The unit should be mounted on the top or bottom of the rack. (1/2" knockouts are provided on both top and bottom for additional external circuits use)



**Operating Environment** - Ambient temperatures of 0°C to 40°C with a relative humidity of 0% to 95% (non-condensing).

**Bottom or Top Clearance** of 6 inches is required for exit of cables/ conduit and/or for cooling airflow.

Units with top cable exit provisions and side vents do not require bottom clearance.

**Recommended Minimum Service Clearances** - The indicated clearances at the front and rear of the unit are required for service access by the National Electrical Code (NEC) (Article 110-16).

**Heat Output** - As all electrical devices, the Rack Mount Power Distribution Unit produces heat under normal operation. (See table 1) This heat output should be included when calculating the environmental conditions of the room.

**Table 1 Heat Output**

Full Load Heat Output - BTU/Hr (kW)		
kVA	BTU/Hr	(kW)
16	100	0.084
30	100	0.084
43	100	0.084

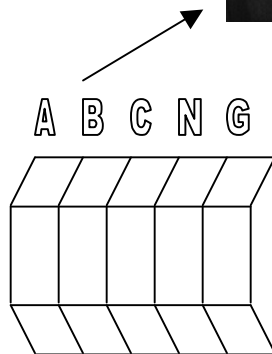
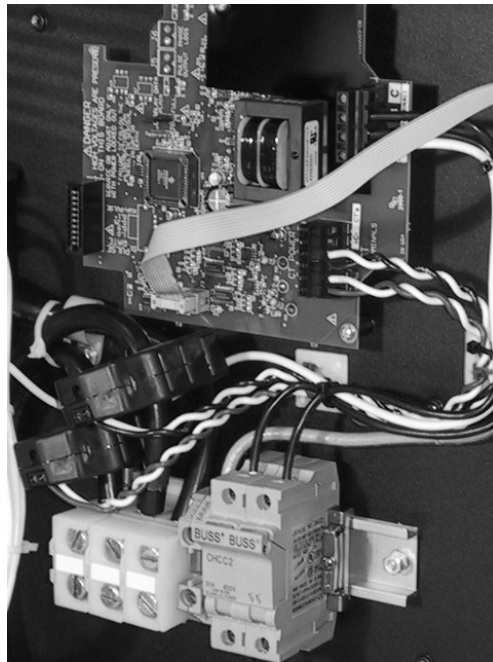
## 1.2 Power and Control Wiring

The power and control wiring should be installed by a licensed electrician. All power and control wiring must comply with the NEC and applicable local codes.

### 1.2.1 Input Power Connections

The input power feeder is connected to the input power lugs or blocks located behind the back door inside the unit. For 3-phase PDUs connect to A, B, C, Neutral, and Ground, and for single phase PDUs connect to A, B, Neutral and Ground (See **Figure below.**)

#### *Input power connection*



**WARNING: VERIFY THAT ALL INCOMING LINE VOLTAGE (POWER) AND LOW VOLTAGE (CONTROL) CIRCUITS ARE DE-ENERGIZED AND LOCKED OUT BEFORE INSTALLING CABLES OR MAKING CONNECTIONS, WHETHER IN THE JUNCTION BOX OR IN THE UNIT.**

**To minimize disturbances** caused by other loads in the building, the 3-phase or single-phase power input to the unit should be supplied directly from the service entrance or other power source (a dedicated power feeder).

**The input feeder circuit** should be sized in accordance with the NEC and any local building codes to assure the feeder's ability to safely carry the system's full load current, including losses.

**Input feeder conductors** should be sized for no more than 2% voltage drop. If operation at under-voltage conditions for extended periods of time is desired, the input feeders must be oversized.

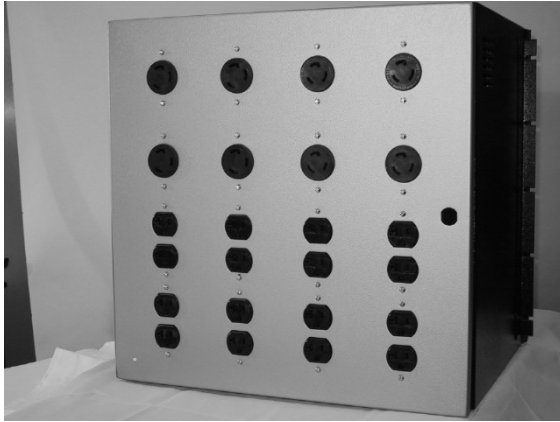
**Typical conductor size data** is shown in Table 2 all connections must comply with the NEC and all other applicable codes.

<b>Input Voltage</b>	<b>KVA (80%)</b>	<b>Max Input Feeder</b>	<b>Suggested feeder wire size (AWG)</b>	<b>Max at 80% Output Amps</b>
208V	16	100	AWG # 3	80
	28	100		80
	36	125		100
	43	150		120
240V	18	100	AWG # 3	80
	33	100		80

<b>Input OPD</b>	<b>Standard Interrupting Rating *</b>
	<b>208V</b>
Up to 110 A	10 - 22kA
125 to 250 A	Depending on the building circuit breaker coordination

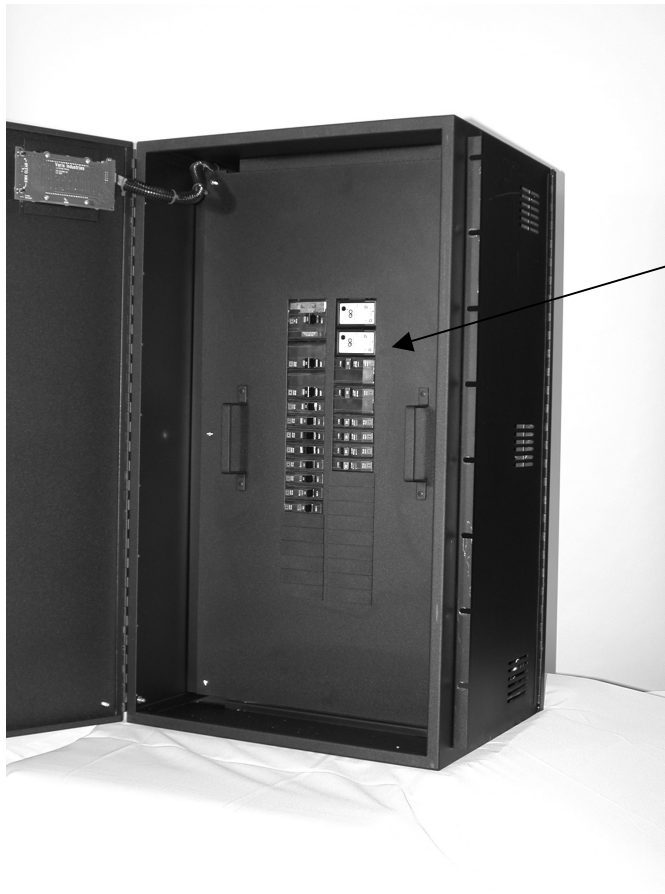
## 1.2.2 Output Power Connections

**Output receptacles** are provided on the back of the RPDU to simplify power delivery to the rack power strips. Simply plug each rack power strip into the RPDU and turn on the corresponding circuit breaker (Located inside the front door panel). It is recommended to run all power strip cables in a plastic track system.



**Output circuit breaker(s) and/or panel boards** with ground and neutral provisions are provided inside the unit for connecting receptacle, hard wired, and external load(s) as required.





**Output circuit breakers**

**Flexible output distribution cables** for use in data processing areas under a raised floor are optional and may be factory supplied. Cable lengths and layout should be well planned:

- **Cable access** - Cable routes should follow aisles between equipment. This will facilitate access to cables for installation, routine inspection, and future changes.
- **Cable length** - Measure the distance to the load equipment following right-angle paths, rather than diagonally or directly. Always measure to the extreme far side of the equipment with respect to the unit to insure adequate cable length.
- **Air circulation** - Prevent restriction of airflow under the raised floor by running the flexible conduits flat on the sub-floor, in parallel paths.

**For best performance**, the Rack Mount Power Distribution Unit should be located as close to the load as practical.

**Initial system output loading** should be between 50% and 75% of rated capacity. This allows the addition of future loads without immediately investing in another distribution unit.

**Keep the load balanced** - Balancing of loads is good design practice on any 3-phase system. Accordingly, each distribution panel is load-balanced at the factory, based on output branch circuit breaker sizes. All additions to the system should be arranged so as to preserve this balance.

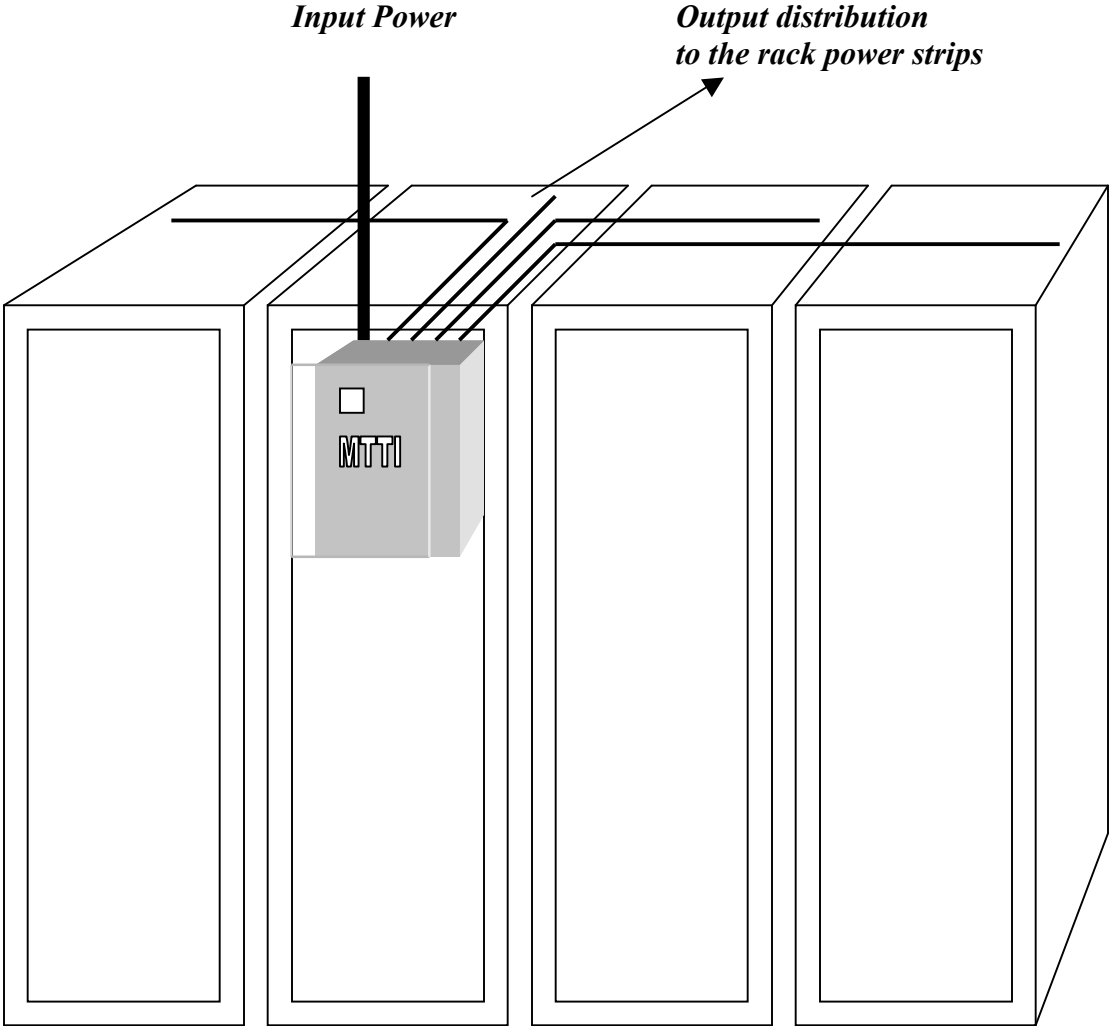


**Warning : VERIFY THAT INCOMING LINE VOLTAGE CIRCUITS ARE DE-ENERGIZED AND LOCKED OUT BEFORE INSTALLING OUTPUT BREAKERS AND CABLES.**

**Code compliance** - All output cables and connections must comply with the NEC and all other applicable codes.

**Padlock-off provisions** - All output cables without receptacles that are hard-wired to the load equipment must be equipped with a padlock-off accessory for the output circuit breaker. The padlock-off accessory is to be used to lockout and tag the circuit breaker when service is performed on the hard-wired load equipment in accordance with OSHA safety rules.

Figure 10 Typical Rack Mount Power Distribution Unit (RPDU) Equipment Arrangement



## 2.0 Equipment Inspection and Start-Up

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### 2.1 Internal Inspection

A **detailed internal inspection** should be performed after the unit is in place and before it is energized, to ensure trouble free start-up. The same internal inspection should be carried out when performing preventive maintenance.



#### WARNING

**VERIFY THAT ALL INCOMING POWER AND CONTROL CIRCUITS ARE DE-ENERGIZED AND LOCKED OUT BEFORE PERFORMING THE INTERNAL INSPECTION.**

**Open the unit** - Gain access to the internal components of the Rack Mount Power Distribution Unit (RPDU) by removing / opening the front and back doors.

**Visually inspect** - Be sure wiring and components are not damaged.

**Check power connections** - Check **all** power connections for tightness. Refer to [table 6](#) for torque requirements of all electrical connections.

**Perform formal detailed inspection** - Follow the procedures described according to 3.0.

### 2.2 Start-Up

**Checklists** - Follow the detailed step-by-step checklist (**Section 3.0**) when installing and starting up the Rack Mount Power Distribution Unit (RPDU).

**Initial system start-up** - A qualified electrician should be employed to perform the equipment inspection and start-up. Should there be any questions please contact TRILOGY at (888) 514-4200.

**Warranty** - A copy of the appropriate checklist (furnished with the equipment) must be completed, signed, dated, and returned to TRILOGY Corporation. **Warranty coverage of the equipment is not effective unless the factory receives the Checklist.**



#### WARNING

**ONLY TRAINED PERSONNEL SHOULD PERFORM EQUIPMENT INSPECTION AND START-UP.**

**HAZARDOUS VOLTAGES ARE PRESENT DURING START-UP PROCEDURES.**

**ELECTRICAL SAFETY PRECAUTIONS MUST BE FOLLOWED THROUGHOUT INSPECTION AND START-UP.**

**Table 6 Torque Specifications (Unless Otherwise Labeled)**

<b>A. Nut and Bolt Combinations</b>				
<b>Bolt Shaft Size</b>	<b>Grade 2 Standard</b>		<b>Electrical Connections with Belleville Washers</b>	
	<b>lb-in</b>	<b>N-m</b>	<b>lb-in</b>	<b>N-m</b>
1/4	53	6.0	46	5.2
5/16	107	12.1	60	6.8
3/8	192	21.7	95	10.7
1/2	528	60.0	256	28.9
<b>B. Main Input Circuit Breaker</b>				
<b>Breaker Size</b>	<b>Wire Size</b>	<b>Compression Lug</b>		
		<b>lb-in</b>	<b>N-m</b>	
Up to 110 Amp	#14 - #10	35	4.0	
	#8 - #3	100	11.4	
	#2 - #3/0	150	17.1	
<b>C. Branch Circuit Breakers</b>				
	<b>lb-in</b>	<b>N-m</b>		
Up to 30 Amp	35	4.0		
40 to 100 Amp	45	5.1		
<b>D. Terminal Block Compression Lug</b>				
<b>AWG Wire Size or Range</b>	<b>lb-in</b>	<b>N-m</b>		
#14 - #10	35	4.0		
#8	40	4.5		
#6 - #00	120	13.6		
AWG #2 Main RPDU lugs	45-50	5.0 - 5.6		

### 3.0 Inspection and Start-Up Checklist

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

Unit Model Number: \_\_\_\_\_

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

#### 3.1 Inspection



**WARNING**

**ALL EQUIPMENT INSPECTION PROCEDURES ARE TO BE PERFORMED WITH POWER TO THE UNIT TURNED OFF AND LOCKED OUT.**

##### Exterior Inspection

- \_\_\_ 1. Confirm that the exterior of unit is undamaged (including cables and receptacles, if furnished).
- \_\_\_ 2. Confirm that service and ventilation clearances are adequate.

##### Interior Inspection

- \_\_\_ 3. Inspect all wire and conductor insulation for damage.
- \_\_\_ 4. Check all breaker connections for tightness. Re-torque if necessary.
- \_\_\_ 5. Check all terminal block connections for tightness. Re-torque if necessary.
- \_\_\_ 6. Remove any foreign objects from the components or the interior area of the unit.
- \_\_\_ 7. Check that the side air screens are clean and free of obstructions.

#### 3.2 Start-Up



**WARNING**

**ONLY QUALIFIED PERSONNEL SHOULD PERFORM START-UP PROCEDURES. HAZARDOUS VOLTAGES ARE PRESENT IN THE EQUIPMENT THROUGHOUT THE MAJORITY OF THE START-UP PROCEDURE. USE PROPER SAFETY EQUIPMENT. PROCEED WITH CAUTION.**

- \_\_\_ 8. Make certain that all circuit breakers are in the OFF position and that power to the unit is locked out.
- \_\_\_ 9. Verify proper input power connections to unit, including proper grounding conductor.
- \_\_\_ 10. Turn ON the building input power to the unit.
- \_\_\_ 11. Check the phase rotation at the main input Lugs. Phase rotation should be A, B, C, left-to-right. (On three phase units)
- \_\_\_ 12. Check and record the input voltage at the main input breaker/lugs. Measured voltages should correspond to the unit's nameplate input voltage.

**Volts, phase A to phase B = \_\_\_\_\_**

**Volts, phase B to phase C = \_\_\_\_\_**

**Volts, phase C to phase A = \_\_\_\_\_ (On 3-phase units)**

- \_\_\_ 13. Turn ON the main input breaker (Located behind the front door, upper left), should the breaker trips check for proper wiring. Contact TRILOGY or the location factory representative for assistance.

- \_\_\_ 14. Check the phase rotation at the line side terminals located behind the back door of the unit.  
(On 3-phase units)

### 3.3 Monitoring System Check Out

- \_\_\_ 15. **BASIC INDICATORS:**  
\_\_\_ a. Turn ON the building power to the unit, then turn the main input breaker ON.
- \_\_\_ 16. **POWER MONITOR PANEL. If unit is equipped with a Power Monitor Panel:**  
Turn the unit ON. Ensure that the voltage values indicated by the Monitor Panel correspond to the voltage values measured at the input.

### 3.4 Equipment Connection Check Out (For Units With Distribution Cables)



#### CAUTION

All loads should be disconnected or turned off before proceeding with the following steps.

For units with output distribution cables, be sure that there are **NO** output receptacles connected to load equipment plugs, and that the receptacles are not in contact with foreign objects.

Pay special attention to those output cables intended for direct-wiring connection; the exposed conductor ends of these cables must not be in contact with each other or with any foreign objects.

- \_\_\_ 17. Individually turn on each branch circuit breaker and check the output voltage (also phase rotation, if a 3-phase circuit) at the receptacle or cable end.
- \_\_\_ 18. Turn OFF all branch circuit breakers.
- \_\_\_ 19. Connect the load equipment per equipment manufacturer's specifications and recommendations.
- \_\_\_ 20. Turn on branch circuit breakers to the load equipment.  
**Observe the power-up sequence recommended by the equipment manufacturer.**
- \_\_\_ 21. Verify that all load equipment operates properly.

After Inspection and Start-Up procedure is complete, the completed Start-Up and Inspection form furnished with the unit should be signed and returned to:

Trilogy, Inc.  
27068 La Paz Road # 701  
Aliso Viejo, CA 92656



#### NOTE

*Warranty is not in effect unless the factory receives inspection and start-up form.*

Customer Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## 4.0 Operating Instructions

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### 4.1 Start-Up Procedures

**Before unit is placed into service after initial installation**, after equipment relocation, or after equipment has been de-energized for an extended period of time, perform equipment inspection and start-up procedures.

**After initial system start-up**, the following guidelines can be used for standard equipment operation. These guidelines should be reviewed for any special equipment modifications, special site considerations, or company policies, which may require changes to the standard equipment operation.

#### 4.1.1 Emergency Shutdown

To perform an immediate system shutdown during emergency conditions, open the front door, and turn **OFF** the upper left Breaker marked “**Main Breaker, Circuits 1, 3, & 5**”.

#### 4.1.2 Normal System Shutdown

To perform a normal system shutdown, perform an orderly load equipment (computer system) shutdown according to the load equipment manufacturer’s recommended shutdown sequence. The load equipment can be turned **OFF** at each piece of load equipment or at the PDU’s output distribution (circuit breaker) panels located behind the unit’s front door. Turn **OFF** all unit output breakers, and then turn **OFF** the unit’s main input circuit breaker. To remove all power from the unit, turn **OFF** the building power to the unit’s input breaker.

#### 4.1.3 Normal System Start-UP

**Check that all circuit breakers are in the OFF position.** All unit circuit breakers are located behind the front doors. Turn **ON** building power to the unit. Turn **ON** the unit’s main input circuit breaker. If the circuit breaker has been tripped **OFF** (instead of being turned **OFF**), the circuit breaker handle must be moved to the **OFF** position before being turned **ON**. If the unit has a voltage meter panel, verify proper output voltages before turning **ON** output circuit breakers. Turn **ON** each output circuit breaker following the load equipment manufacturer’s start-up sequence.

### 4.2 Units Without Monitoring

On all units without monitoring, verification of all voltages by a hand held meter is required before powering any of the load equipment.

### 4.3 Power Monitor Panel

**Monitored Parameters** – Is an LCD display is provided to indicate the input./output voltages (line-to-line and line-to-neutral), output currents (each phase), output kVA, kW, kW-Hours, power factor, and output frequency. All monitored parameters are sequentially displayed automatically.



## 5.0 Corrective Maintenance (Repair)

Even the most reliable equipment may fail. TRILOGY support is at your service to assure fast repair of your unit and minimum downtime of your installation.



### WARNING

**ONLY QUALIFIED SERVICE PERSONNEL SHOULD PERFORM MAINTENANCE ON THE RACK MOUNT POWER DISTRIBUTION UNIT SYSTEM.**

**Standard electrical troubleshooting procedures** should be used to isolate problems in the unit. *If there are questions, don't hesitate to contact TRILOGY International support.*

**Repair or replacement of standard items**, such as circuit breakers, fuses, receptacles and indicator lights can be either handled by qualified electricians or referred to TRILOGY International support.

**Repairs related to the monitoring system** should be referred to TRILOGY International support.

**To contact TRILOGY International support for information or repair service in the USA,**

**call 1-888-514-4200.**

## 5.1 Preventive Maintenance (Inspection & Cleaning)

Air circulation through the cabinet may cause dust to accumulate on internal components. Cleaning should be done as necessary during electrical inspections.

Annual general system inspections, cleaning, and operation checks are recommended to ensure system performance and long service life.



### WARNING

**ONLY QUALIFIED SERVICE PERSONNEL SHOULD PERFORM MAINTENANCE ON THE RACK MOUNT POWER DISTRIBUTION UNIT SYSTEM. ALL VOLTAGE SOURCES TO THE UNIT MUST BE DISCONNECTED BEFORE INSPECTING OR CLEANING WITHIN THE CABINET.**

### Inspection Schedule

- It is difficult to establish a schedule for periodic cleanings since conditions vary from site to site. Inspections after the first 24 hours, 30 days and 6 months of operation should help determine a pattern for the inspection schedule.
- Electrical connections and component mountings should be inspected after the first 24 hours, 30 days, and 6 months of operation. Inspections should be conducted annually thereafter.
- Ventilation openings and grilles should be inspected and cleaned every six months to one year.
- A complete inspection and operational checkout should be performed annually
- TRILOGY International support offers a complete range of preventive maintenance services. These include thorough equipment performance checks, and calibration of electronics. Contact TRILOGY International support in the USA (**1-888-514-4200**) for details.

## Important Safety Instructions

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### NOTE

*Read the entire manual before installing or operating the system.*



### WARNING

**THE SHIPPING BANDS MAY BE UNDER TENSION. USE APPROPRIATE EYE, FACE, AND HAND PROTECTION TO SAFEGUARD AGAINST INJURY FROM BAND BACKLASH.**



### WARNING

**VERIFY THAT ALL INCOMING LINE VOLTAGE (POWER) AND LOW VOLTAGE (CONTROL) CIRCUITS ARE DE-ENERGIZED AND LOCKED OUT BEFORE INSTALLING CABLES OR MAKING CONNECTIONS, WHETHER IN THE JUNCTION BOX OR IN THE UNIT.**

**EQUIPMENT INSPECTION AND START-UP SHOULD BE PERFORMED ONLY BY TRAINED PERSONNEL. LETHAL VOLTAGES ARE PRESENT DURING START-UP PROCEDURES. ELECTRICAL SAFETY PRECAUTIONS MUST BE FOLLOWED THROUGHOUT INSPECTION AND START-UP.**

**ONLY QUALIFIED SERVICE PERSONNEL SHOULD PERFORM MAINTENANCE ON THE RACK MOUNT POWER DISTRIBUTION UNIT SYSTEM. ALL VOLTAGE SOURCES TO THE UNIT MUST BE DISCONNECTED BEFORE INSPECTING OR CLEANING WITHIN THE CABINET.**

**LETHAL VOLTAGES EXIST WITHIN THE EQUIPMENT DURING OPERATION. OBSERVE ALL WARNINGS AND CAUTIONS IN THIS MANUAL. FAILURE TO COMPLY MAY RESULT IN SERIOUS INJURY OR DEATH. OBTAIN QUALIFIED SERVICE FOR THIS EQUIPMENT AS INSTRUCTED.**



### NOTE

*All power and control wiring should be installed by licensed electricians and must comply with the NEC and applicable codes.*

# LIMITED WARRANTY FOR POWER CONDITIONING AND DISTRIBUTION SYSTEM PRODUCTS

This Warranty is given **ONLY** to purchasers who buy for commercial or industrial use in the ordinary course of each purchaser's business.

## **General:**

TRILOGY Corporation products and systems are in our opinion the finest available. We take pride in our products and are pleased that you have chosen them. Under certain circumstances we offer with our products the following One Year Warranty Against Defects in Material and Workmanship.

Please read your Warranty carefully. This Warranty sets forth our responsibilities in the unlikely event of defect and tells you how to obtain performance under this Warranty.

## **ONE YEAR LIMITED WARRANTY**

### **AGAINST DEFECTS IN MATERIAL AND WORKMANSHIP**

#### **TRILOGY PRODUCTS COVERED:**

Rack Mount Power Distribution Unit (RPDU) Infinity series.

#### **Terms of Warranty:**

As provided herein, the TRILOGY product is warranted to be free of defects in material and workmanship for a period of one year from the start-up date provided start-up occurs within six (6) months of the TRILOGY shipping date or from the bill of lading date (whichever is earlier), and the product has been stored in a suitable environment prior to start-up. If TRILOGY performs the start-up of the TRILOGY product, the start-up date will be determined from TRILOGY records. In all other instances, the TRILOGY product start-up date will be determined from appropriate User records. If any part or portion of the TRILOGY product fails to conform to the warranty within the warranty period, TRILOGY, at its option, will furnish new or factory remanufactured part for repair or replacement of that portion or part.

#### **Warranty Extends to First Purchaser for Use, Non-transferable:**

This Warranty is extended to the first person, firm, association or corporation for whom the TRILOGY product specified herein is originally installed for use in the United States (the "User"). This Warranty is not transferable or assignable without the prior written permission of TRILOGY.

#### **Assignment of Warranties:**

TRILOGY assigns to User any warranties which are made by manufacturers and suppliers of components of the TRILOGY product and which are assignable, but TRILOGY makes **NO REPRESENTATIONS** as to the effectiveness or extent of such warranties, assumes **NO RESPONSIBILITY** for any matters which may be warranted by such manufacturers or suppliers and extends no coverage under this warranty to such components.

**Drawings, Descriptions:**

TRILOGY warrants for the period and on the terms of the Warranty set forth herein that the TRILOGY product will conform to the descriptions contained in the certified drawings, if any, applicable thereto, and to TRILOGY's final invoices, orders, proposals (as modified) and other TRILOGY descriptive documents ("Descriptions"). TRILOGY does not control the use of any TRILOGY product. Accordingly, it is understood that the Descriptions are NOT WARRANTIES OF PERFORMANCE and NOT WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE.

**Warranty Claims Procedure:**

Within a reasonable time, but in no case to exceed ninety (90) days, after User's discovery of a defect, User shall contact TRILOGY International support at (888) 514-4200. Subject to the limitations specified herein, a TRILOGY International support field service representative will repair the non-conforming TRILOGY product warranted hereunder, without charge for material or labor, provided TRILOGY International support personnel performed start-up of the TRILOGY product. In all other instances, User will be charged for labor performed at TRILOGY's then current rates, or User may elect to perform the necessary labor at User's own expense using materials provided by TRILOGY. If replacement parts or components are shipped or caused to be shipped by TRILOGY prior to inspection of the product claimed to be defective, the replacement part or portion shall be invoiced in the full current price amount and shipped freight collect F.O.B. the TRILOGY facility. Warranty coverage will be extended only after TRILOGY's inspection discloses the claimed defect and shows no signs of treatment or use, which would void the coverage of this Warranty.

**Warranty Performance of Component Manufacturers:**

It is TRILOGY's practice, consistent with its desire to remedy warranty defects in the most prompt and effective manner possible, to cooperate with and utilize the services of component manufacturers and their authorized representatives in the performance of work to correct defects in the TRILOGY products. Accordingly, TRILOGY may utilize third parties in the performance of warranty work, including repair or replacement hereunder, where, in TRILOGY's opinion, such work can be performed in less time, with less expense and in closer proximity to the TRILOGY product.

**Items Not Covered By Warranty:**

THIS WARRANTY DOES NOT COVER DAMAGE OR DEFECT CAUSED BY misuse, improper application, wrong or inadequate electrical current or connection, inadequate water or drain services, negligence, repair by non-TRILOGY designated personnel, accident in transit, tampering, alterations, a change in location or operating use, exposure to the elements, acts of nature, theft or installation contrary to TRILOGY's recommendations, or in any event if the TRILOGY serial number tag has been altered, defaced, or removed.

THIS WARRANTY DOES NOT COVER shipping costs, installation costs, circuit breaker resetting or maintenance or service items and further, except as may be provided herein, does NOT include labor costs or transportation charges arising from the replacement of the TRILOGY product or any part thereof or charges to remove the same from any premises of User.

REPAIR OR REPLACEMENT OF A DEFECTIVE PRODUCT OR PART THEREOF DOES NOT EXTEND THE ORIGINAL WARRANTY PERIOD.

### **Limitations**

. THIS WARRANTY IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

. USER'S SOLE AND EXCLUSIVE REMEDY IS REPAIR OR REPLACEMENT OF THE TRILOGY PRODUCT AS SET FORTH HEREIN.

. IF USER'S REMEDY IS DEEMED TO FAIL OF ITS ESSENTIAL PURPOSE BY A COURT OF COMPETENT JURISDICTION, TRILOGY'S RESPONSIBILITY FOR PROPERTY LOSS OR DAMAGE SHALL NOT EXCEED ONE TIMES THE NET PRODUCT PURCHASE PRICE.

. IN NO EVENT SHALL TRILOGY ASSUME ANY LIABILITY FOR INDIRECT, SPECIAL, INCIDENTAL EXEMPLARY OR CONSEQUENTIAL DAMAGES OF ANY KIND WHATSOEVER, INCLUDING WITHOUT LIMITATION LOST PROFITS, BUSINESS INTERRUPTION OR LOSS OF DATA, WHETHER ANY CLAIM IS BASED UPON THEORIES OR CONTRACT, NEGLIGENCE, STRICT LIABILITY, TORT, OR OTHERWISE.

### **Miscellaneous:**

. NO SALESPERSON, EMPLOYEE OR AGENT OF TRILOGY IS AUTHORIZED TO ADD TO OR VARY THE TERMS OF THIS WARRANTY.

. This Warranty is effective as of the date of TRILOGY receipt of full payment and supersedes all previous warranties. TRILOGY reserves the right to supplement or change the terms of this Warranty in any subsequent warranty offering to User or others.

. In the event that any provision of this Warranty should be or becomes invalid and/or unenforceable during the warranty period, the remaining terms and provisions shall continue in full force and effect.

. This Warranty is given in and performance hereunder is to be construed under the laws of the State of California.

. This Warranty represents the entire agreement between TRILOGY and User with respect to the subject matter herein and supersedes all prior or contemporaneous oral or written communications, representations, understandings or agreements relating to this subject.