



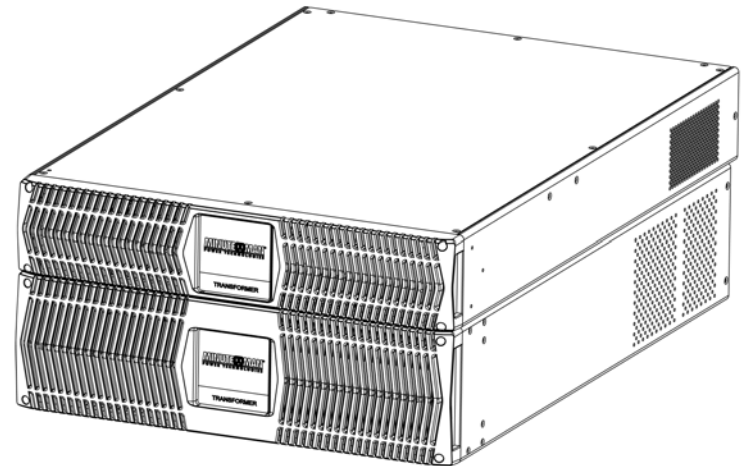
This product complies with the Restriction of certain Hazardous Substances (RoHS) Directive as conceived by the European Union committee in 2002. Products that meet the RoHS standard have been redesigned to remove the lead, mercury, cadmium, hexavalent chromium where applicable. As part of our efforts to maintain a healthy environment, Para Systems has proactively adopted these standards for our Minuteman<sup>®</sup> brand products.

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## Endeavor 5 - 10KVA Step Down Transformer

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### User's Manual



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# Chapter 1: Introduction

Thank you for purchasing this power protection product. It has been designed and manufactured to provide many years of trouble free service. Please read this manual before installing your Endeavor Series step down transformer (ED-XFR), models [ED5000RT-XFR](#), [ED6000RT-XFR](#), [ED8000RT-XFR](#) and [ED10000RT-XFR](#) as it provides important information that should be followed during installation and maintenance of the ED-XFR allowing you to correctly set up your system for the maximum safety and performance. Included is information on customer support and factory service if it is required. If you experience a problem with the ED-XFR please refer to Obtaining Service section in this manual to collect enough information so that the Technical Support Department can rapidly assist you.

**IMPORTANT SAFETY INSTRUCTIONS  
SAVE THESE INSTRUCTIONS !**

**CAUTION!** This ED-XFR series is **ONLY** intended to be installed in an indoor temperature controlled environment that is free of conductive contaminants. This ED-XFR series is not intended for use in a computer room as defined in the Standard for the Protection of Electronic Computer/Data Processing Equipment ANSI/NFPA 75. The AC inputs of these Step Down Transformers are **ONLY** intended to be connected to the output of their respective UPS models. The ED-XFR's input voltage setting must be the same as the UPS's output voltage setting.

**CAUTION!** The maximum ambient operating temperature for this ED-XFR series is 40°C ("0 ~ 40°C" for Ambient Operation).

- The external vents and openings on the unit are provided for ventilation. To ensure reliable operation of the unit and to protect the unit from overheating, these vents and openings must not be blocked or covered. Do not insert any object into any of the vents or openings that may hinder the ventilation.
- Install the unit in a well ventilated area, away from excess moisture, heat, dust, flammable gas or explosives.
- Leave adequate space (at least 15cm) around all sides of the unit for proper ventilation.
- Do not mount the unit with its front or rear panel facing down at any angle.
- Before usage, you must allow the unit to adjust to room temperature (20°C~25°C or 68°F~77°F) for at least one hour to avoid moisture condensing inside the unit.

**WARNING:** This ED-XFR contains potentially hazardous voltages. Do not attempt to disassemble the unit. This unit contains no user serviceable parts. Repairs must be performed by **QUALIFIED SERVICE PERSONNEL ONLY**.

**CAUTION!** The ED5000RT-XFR and ED6000RT-XFR come with an attached #10 AWG input power cord. Connect the input power cord to the output terminal block on the UPS. The AC inputs of these Step Down Transformers are **ONLY** intended to be connected to the output of their respective UPS models. Do not use extension cords, adapter plugs, or surge strips. The installation of upstream and downstream protective devices is highly recommended when the UPS system is connected to the mains and the load.

**CAUTION!** The ED8000RT-XFR and ED10000RT-XFR come with an #6 AWG input power cable in the box. The pins for the input and output cables are included. Connect one end of the input power cable to the input terminal block on the ED-XFR. Connect the other end of the input power cable to the output terminal block on the UPS. The AC inputs of these Step Down Transformers are **ONLY** intended to be connected to the output of their respective UPS models. Do not use extension cords, adapter plugs, or surge strips. The installation of upstream and downstream protective devices is highly recommended when the UPS system is connected to the mains and the load.

**CAUTION!** To reduce the risk of electrical shock with the installation of this unit and the connected equipment, the user must ensure that the ED-XFR is properly grounded due to a possible risk of AC current leakage.

**WARNING: Qualified Service Personnel ONLY** must perform the Installation and Servicing of these ED-XFR. MINUTEMAN accepts no liabilities and is not limited to: injury to the Service Personnel, or damages to; the Step Down Transformer, the UPS, the Battery Pack, or the connected equipment caused by the incorrect installation or servicing of the UPS system. These ED-XFR **MUST** be operated with their respective UPS models, see the table below:

ED-XFR	ED5000RT-XFR ED6000RT-XFR	ED8000RT-XFR ED10000RT-XFR
UPS	ED5000RT-CU ED6000RT-CU	ED8000RT-CU ED10000RT-CU

**WARNING:** When using these Step Down Transformers with their respective UPS models, the load capacity of the UPS **MUST** be derated as follows:

ED5000RT-CU ED5000RT-XFR	ED6000RT-CU ED6000RT-XFR	ED8000RT-CU ED8000RT-XFR	ED10000RT-CU ED10000RT-XFR
456VA 4100Watts	556VA 5000Watts	6889VA 6200Watts	8889VA 8000Watts

**CAUTION! DO NOT USE THE MOUNTING BRACKETS TO LIFT THE STEP DOWN TRANSFORMER.** The mounting brackets are **ONLY** for securing the unit to the rack.

**CAUTION!** To de-energize the outputs of the ED-XFR:

1. Turn off the Load breakers on the rear panel of the ED-XFR.
2. If the UPS is on press and release the On/Off/Test button after the second beep.
2. Turn off the input circuit breaker on the rear panel of the UPS.
3. Turn off the DC breaker on the rear panel of the Battery Pack.
4. Disconnect the UPS from the AC source.

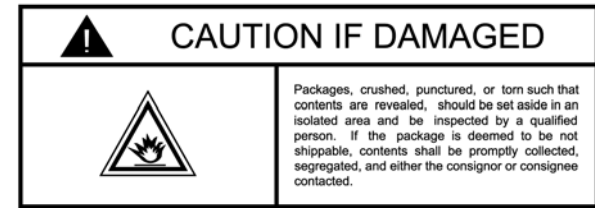
**NOTICE:** This equipment has been tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules and the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference of the Canadian Department of Communications. These limits are designed to provide reasonable protection against such interference in a residential installation. This equipment generates and uses radio frequency and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, this equipment may cause interference to radio and television reception. If this equipment does cause 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:

- Re-orient the receiving antenna.
- Relocate the computer with respect to the receiver.
- Move the computer away from the receiver.
- Plug the computer into a different outlet so that the computer and receiver are on different branch circuits.
- Shielded communications interface cables must be used with this product.

**WARNING:** Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**RECEIVING INSPECTION**

Once you receive the product it should be visually inspected for damage that may have occurred in shipping. Immediately notify the carrier and place of purchase if any damage is found. Warranty claims for damage caused by the carrier will not be honored by the manufacturer. The packing materials that the product was shipped in were carefully designed to minimize any shipping damage. In the unlikely case that the product needs to be returned to the manufacturer, use the original packing material. Since the manufacturer is not responsible for shipping damage incurred when the product is returned, the original packing material is inexpensive insurance. **PLEASE SAVE THE PACKING MATERIALS!**



**LIFE SUPPORT POLICY**

As a general policy, Para Systems does not recommend the use of any of our products in life support applications where failure or malfunction of the product can be reasonably expected to cause failure of the life support device or to significantly affect its safety or effectiveness. We do not recommend the use of any of our products in direct patient care. We will not knowingly sell our products for use in such applications unless it receives in writing assurances satisfactory to us that (a) the risks of injury or damage have been minimized, (b) the customer assumes all such risks, and (c) our liability is adequately protected under the circumstances.

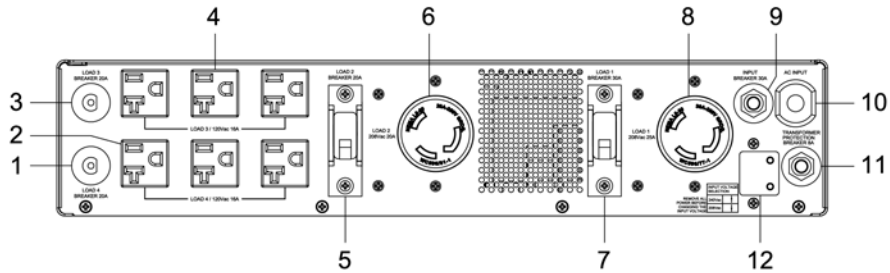
Examples of devices considered to be life support devices are neonatal oxygen analyzers, nerve stimulators (whether used for anesthesia, pain relief, or other purposes), auto transfusion devices, blood pumps, defibrillators, arrhythmia detectors and alarms, pacemakers, hemodialysis systems, peritoneal dialysis systems, neonatal ventilator incubators, ventilators for both adults and infants, anesthesia ventilators, and infusion pumps as well as any other devices designated as "critical" by the United States FDA.

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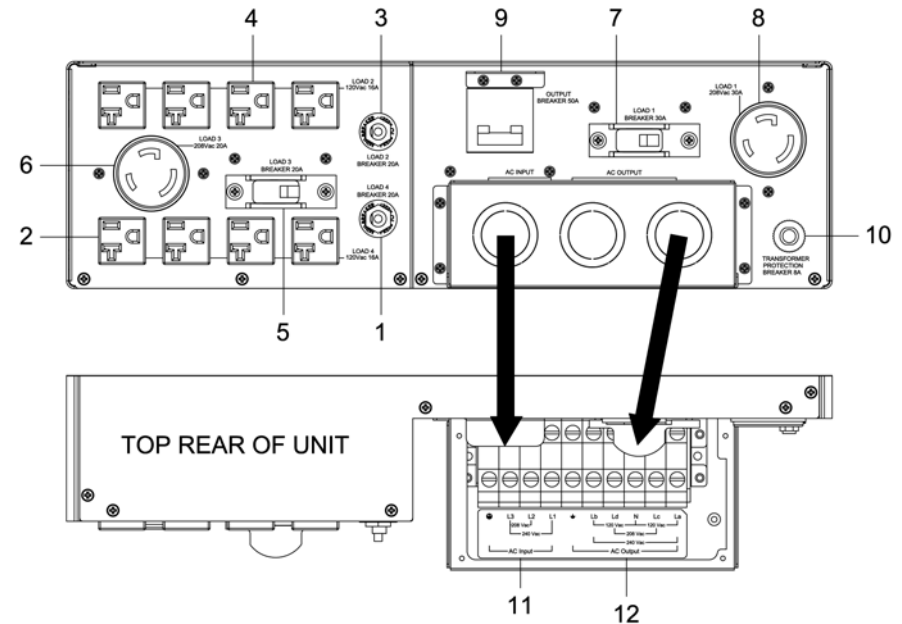
## Chapter 2: Rear Panels

ED5000RT-XFR / ED6000RT-XFR



1. The Load 4 circuit breaker will trip in the event the load exceeds the power rating.
2. Load 4: 120V output receptacles (3 - 5-15/20R).
3. The Load 3 circuit breaker will trip in the event the load exceeds the power rating.
4. Load 3: 120V output receptacles (3 - 5-15/20R).
5. The Load 2 circuit breaker will trip in the event the load exceeds the power rating.
6. Load 2: 208V output receptacle (1 - L6-20R). **NOTE:** The default output voltage is 208V. 240V is available, but must be configured at the factory.
7. The Load 1 circuit breaker will trip in the event the load exceeds the power rating.
8. Load 1: 208V output receptacle (1 - L6-30R).
9. The input circuit breaker will trip in the event the load exceeds the ED-XFR's power rating.
10. The input power cord is for connecting to the output terminal block on the UPS.
11. ED-XFR's circuit breaker will trip in the event that the ED-XFR becomes overheated.
12. Input voltage selection switch (208 / 240V). The default setting is 208V.

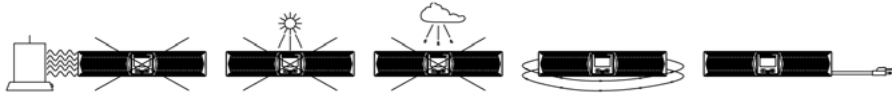
ED8000RT-XFR / ED10000RT-XFR



1. The Load 4 circuit breaker will trip in the event the load exceeds the power rating.
2. Load 4: 120V output receptacles (4 - 5-15/20R).
3. The Load 2 circuit breaker will trip in the event the load exceeds the power rating.
4. Load 2: 120V output receptacles (4 - 5-15/20R).
5. The Load 2 circuit breaker will trip in the event the load exceeds the power rating.
6. Load 3: 208V output receptacle (1 - L6-20R).
7. The Load 1 circuit breaker will trip in the event the load exceeds the power rating.
8. Load 1: 208V output receptacle (1 - L6-30R).
9. The input circuit breaker will trip in the event the load exceeds the ED-XFR's power rating.
10. ED-XFR's circuit breaker will trip in the event that the ED-XFR becomes overheated.
11. Input terminal block (208V / 240V) is for connecting the input power cable that comes from the output terminal block of the UPS.
12. Output terminal block for optional hardwiring the load. The available output voltages are 120V / 208V / 240V. **NOTE:** The two 120V outputs are individual 5KVA outputs and they **CANNOT** be paralleled.

## Chapter 3: Installation

### INSTALLATION PLACEMENT



This ED-XFR series is **ONLY** intended to be installed in an indoor temperature controlled environment that is free of conductive contaminants. **DO NOT** operate the unit in: extremely dusty and/or unclean areas, locations near heating devices, water or excessive humidity, or where the unit is exposed to direct sunlight. Select a location, which will provide good air circulation for the unit at all times. Route power cords so they cannot be walked on or damaged. The AC inputs of these Step Down Transformers are **ONLY** intended to be connected to the output of their respective UPS models. This ED-XFR series is not intended for use in a computer room as defined in the Standard for the Protection of Electronic Computer/Data Processing Equipment ANSI/NFPA 75.

Operating Temperature (Maximum): 0 to 40°C (+32 to +104°F)  
 Operating Elevation: 0 to 2,000m (0 to +6,562 ft)  
 Operating and Storage Relative Humidity: 95%, non-condensing  
 Storage Temperature: -15 to +50°C (+5 to +122°F)  
 Storage Elevation: 0 to 15,000m (0 to +49,213 ft)

### INSTALLATION

Be sure to read the installation placement and all the cautions before installing the ED-XFR. Place the unit in the final desired location and complete the rest of the installation procedure. See the "Rackmount Configuration" to install the unit into the rack. **USE CAUTION:** The ED-XFR, UPS and Battery Pack are extremely heavy. Use the appropriate number of personnel when installing the UPS system.

**CAUTION! DO NOT USE THE MOUNTING BRACKETS TO LIFT THE STEP DOWN TRANSFORMER.** The mounting brackets are **ONLY** for securing the unit to the rack.

**NOTE:** The ED-XFR, UPS and Battery Pack are extremely heavy. Use the following placement when rack mounting:

1. The ED-XFR should be installed close to the bottom of the rack.
2. Then install the Battery Pack right above the ED-XFR.
3. Then install the UPS right above the Battery Pack.

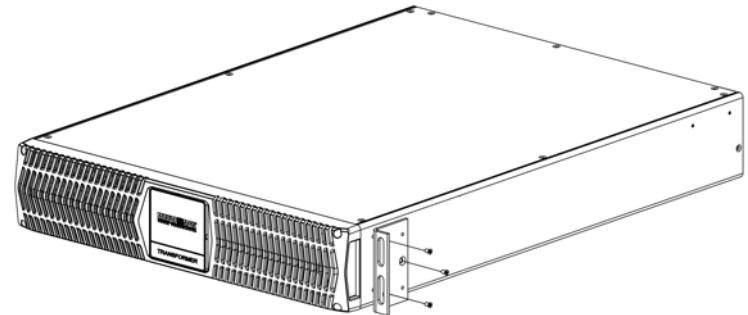
### RACKMOUNT CONFIGURATION

Use the included rackmount brackets and screws to mount the ED-XFR in a rack by following the steps below.

**USE CAUTION:** The ED-XFR is extremely heavy. Use the appropriate number of personnel when installing the UPS system.

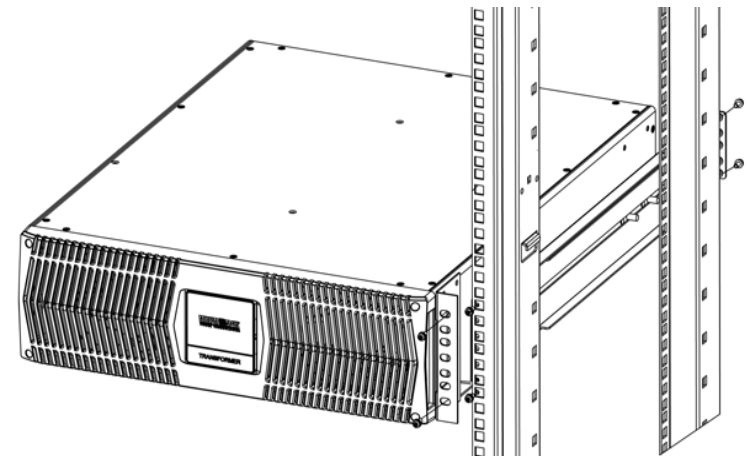
**CAUTION! DO NOT USE THE MOUNTING BRACKETS TO LIFT THE STEP DOWN TRANSFORMER.** The mounting brackets are **ONLY** for securing the unit to the rack.

1. Attach the rackmount brackets to the mounting holes on the side panel of the ED-XFR as shown below.



2. Follow steps 1 through 4 to install the ED-XFR into the Rail kit. See the figure below.

- Step 1: Adjust the length of the rail according to the rack.
- Step 2: Securely tighten the wing nuts.
- Step 3: Secure the rail to the rack with the enclosed screws.
- Step 4: Slide the ED-XFR onto the rail and secure to the rack with the enclosed screws.



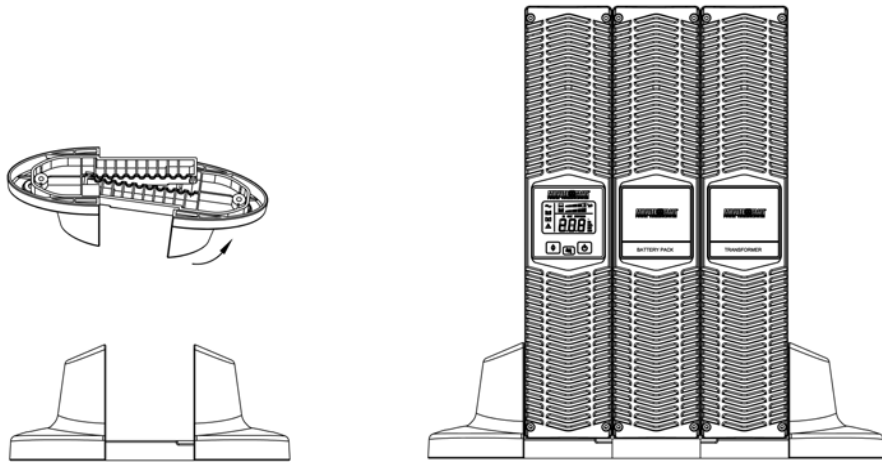
## TOWER CONFIGURATION

The tower configuration allows the user to install the ED-XFR in the up-right position. The tower stands are provided with the UPS. The tower stand extenders are provided with the ED-XFR. **WARNING:** Use two or more people when installing the ED-XFR. **USE CAUTION:** The ED-XFR is extremely heavy. Use the appropriate number of personnel when installing the UPS system.

1. Once the location of the ED-XFR has been determined, place the tower stands in the desired location.

**WARNING:** The ED-XFR must be installed in the proper up-right position. Once the ED-XFR is placed in the tower stands, the vent holes on the side panels must be facing upwards to provide proper ventilation.

2. Slide the ED-XFR into the tower stands. Make sure that the ED-XFR is stable.
3. The name plate panel can be rotated to read in the up-right position. Remove the front panel from the ED-XFR. On the backside of the front panel, push the name plate panel outwards, the panel will pop out. Rotate the name plate panel counter clockwise so that it reads in the upright position. Re-install the front panel on the ED-XFR.



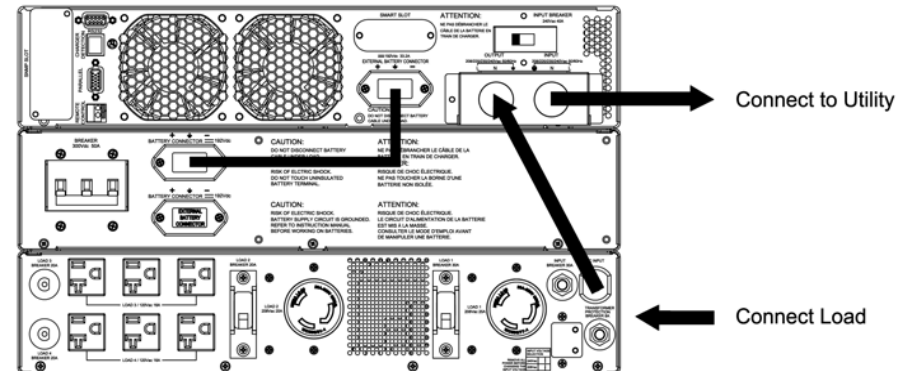
## CONNECTING THE STEP DOWN TRANSFORMER TO THE UPS

**WARNING: Qualified Service Personnel ONLY** must perform the Installation and Servicing of these ED-XFR.

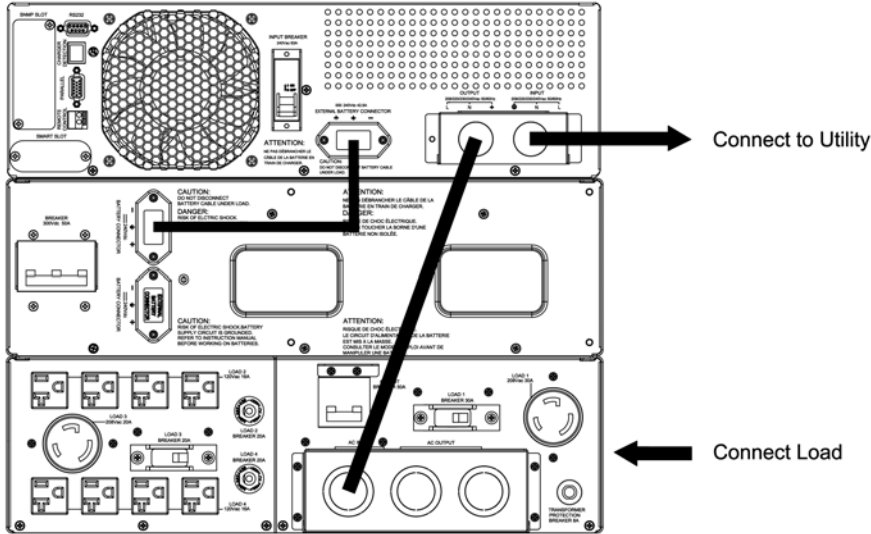
1. Before connecting to the input / output terminals read all of the Cautions and Warning, then observe the following:
  - a) Ensure that the UPS is turned off and not connected to the AC source or the battery source before any connections are made.
  - b) Calculate the power consumption of the load to ensure that an overload condition does not occur.
  - c) Ensure that the terminal block screws are secured after connecting the input / output wires. The terminal block screws should be torque to  $18 \pm 2 \text{Kgf.cm}$  (requires a 3/16" flat-head screwdriver).
  - d) Ensure that the ED-XFR and the UPS are properly grounded.
2. The input power for the ED-XFR must be single-phase in accordance with its rating label and the specifications in this manual. The ED-XFR's input voltage setting must be the same as the UPS's output voltage setting.
 

**NOTE:** The AC inputs of these Step Down Transformers are **ONLY** intended to be connected to the output of their respective UPS models.

The ED5000RT-XFR and ED6000RT-XFR come with an attached #10 AWG input power cord. Connect the input power cord to the output terminal block on the UPS. The AC inputs of these Step Down Transformers are **ONLY** intended to be connected to the output of their respective UPS models. Do not use extension cords, adapter plugs, or surge strips. The installation of upstream and downstream protective devices is highly recommended when the UPS system is connected to the mains and the load.



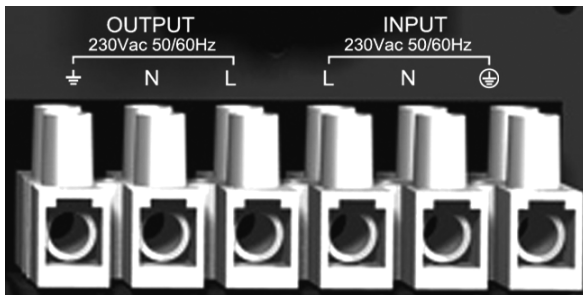
The ED8000RT-XFR and ED10000RT-XFR come with an #6 AWG input power cable in the box. The pins for the input cable are included. Connect one end of the input power cable to the input terminal block on the ED-XFR. Connect the other end of the input power cable to the output terminal block on the UPS. The AC inputs of these Step Down Transformers are **ONLY** intended to be connected to the output of their respective UPS models. Do not use extension cords, adapter plugs, or surge strips. The installation of upstream and downstream protective devices is highly recommended when the UPS system is connected to the mains and the load.



**INPUT / OUTPUT CONNECTIONS:**

**WARNING: Qualified Service Personnel ONLY** must perform the Installation and Servicing of these ED-XFR.

1. Remove the terminal block cover box from the rear panel of the UPS (requires a phillips screwdriver). Refer to the figure below for the input / output connections for the UPS. See the UPS user's manual for connecting the UPS's input and output cables.



2. Input / Output cable selection:

Temperature Rating	5/6KVA	8/10KVA
60°C / 75°C	#10 AWG (Cu)	#6 AWG (Cu)

(In accordance with National Electrical Code (NEC), install suitable conduit and bushing.) **NOTE:** Use copper wire only.

3. Before connecting to the input / output terminals read all of the Cautions and Warning. The AC inputs of these Step Down Transformers are **ONLY** intended to be connected to the output of their respective UPS models. **NOTE:** The ED-XFR's input voltage setting must be the same as the UPS's output voltage setting.

**ED5000RT-XFR and ED6000RT-XFR:**

See the UPS users manual for UPS input and output connections. Connect the attached #10 AWG input power cord on the ED-XFR to the output terminal block on the UPS.

1. Connect the black wire labeled L on the attached input power cord to the UPS output terminal block labeled L and secure.
2. Connect the white wire labeled N on the attached input power cord to the UPS output terminal block labeled N and secure.
3. Connect the green wire labeled G on the attached input power cord to the UPS output terminal block ground terminal and secure.
4. Before re-installing the terminal block cover box on the UPS, see the UPS users manual for the UPS input and output connections.
5. Set the input voltage select switch on the rear panel of the ED-XFR to the appropriate voltage (208V / 240V). **NOTE:** The default setting is 208V. The ED-XFR's input voltage setting must be the same as the UPS's output voltage setting.
6. Plug the equipment into the output receptacles on the rear panel of the ED-XFR.

**NOTE:** Default voltages for the output receptacles are 120V and 208V. Load 2 output receptacle can be changed to supply 240V, but this change must be done at the factory.

**ED8000RT-XFR and ED10000RT-XFR:**

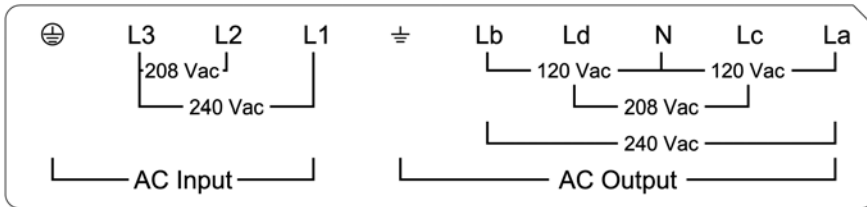
1. Remove the terminal block cover plate from the rear panel of the ED-XFR (requires a phillips screwdriver). Refer to the figure below for the input / output connections for the ED8000RT-XFR / ED10000RT-XFR. Connect the end of the #6 AWG input power cable labeled "TO XFR" to the appropriate terminals on the AC input terminal block on the ED-XFR and secure. The pins for their input cable are included.
  - a) Connect the black wire labeled L1 / L2 on the input power cable to the ED-XFR AC input terminal block labeled L1 for 240V or L2 for 208V and secure. **NOTE:** The ED-XFR's input voltage setting must be the same as the UPS's output voltage setting.
  - b) Connect the white wire labeled L3 on the input power cable to the ED-XFR AC input terminal block labeled L3 and secure.



- c) Connect the green wire labeled G on the input power cable to the ED-XFR AC input terminal block ground terminal and secure.
2. Connect the other end of the #6 AWG input power cable labeled "TO UPS" to the output terminal block on the UPS and secure.
  - a) Connect the black wire labeled L on the input power cable to the UPS output terminal block labeled L and secure.
  - b) Connect the white wire labeled N on the input power cable to the UPS output terminal block labeled N and secure.
  - c) Connect the green wire labeled G on the input power cable to the UPS output terminal block ground terminal and secure.
3. Re-install the terminal block cover plate on the ED-XFR.
4. Before re-installing the terminal block cover box on the UPS, see the UPS users manual for the UPS input and output connections.
5. Plug the equipment into the output receptacles on the rear panel of the ED-XFR. The ED8000RT-XFR and ED10000RT-XFR have a terminal block for hardwiring the output. Refer to the figure below for the input / output connections. The pins for the output cable are included.

**NOTE:** The two 120V outputs are individual 5KVA outputs and they **CANNOT** be paralleled.

Input / Output terminal block for the ED8000RT-XFR and ED10000RT-XFR:



120V outputs:

La - N: 50A max, Lb - N: 50A max, the combined total for both: 83.4A max

208V output: Lc - Ld: 48.1A max

240V output: La - Lb: 41.7A max

**NOTE:** Default voltages for the output receptacles are 120V and 208V. 240V is available, but only as a hardwire option at the output terminal block.

## Chapter 4: Operation

### START-UP IN THE NORMAL AC MODE:

The UPS must be connected to utility power and there must be an acceptable AC voltage present. The Battery Pack(s) must be connected to the UPS and the DC breaker(s) on the rear panel of the Battery Pack(s) must be in the on position. The input of the ED-XFR must be connected to the output of the UPS. The equipment is plugged into the output receptacles on the ED-XFR.

1. Turn on the input breaker on the rear panel of the UPS. The fans will turn on, the AC normal icon will flash off/on and the LCD will display 'bPS'. The UPS is now in the Bypass mode. **NOTE:** If there is a power interruption while the UPS is in the Bypass mode the load will not be backed up.
2. Turn on all of the Load breakers on the rear panel of the ED-XFR.
3. Turn on the connected equipment one at a time.
4. Press and release the On/Off/Test Button after the first beep to turn the UPS on.
5. The UPS will start-up and perform a self-diagnosis for approximately 10-seconds. The UPS system is ready for normal operation. See the UPS user's manual for more information.

### START-UP IN THE BATTERY MODE:

The Battery Pack(s) must be connected to the UPS and the DC breaker(s) on the rear panel of the Battery Pack(s) must be in the on position. The input of the ED-XFR must be connected to the output of the UPS. The equipment must be plugged into the output receptacles on the ED-XFR.

1. Turn on the input breaker on the rear panel of the UPS.
2. Press and release the On/Off/Test Button after the first beep to turn the UPS on.
3. The fans will turn on, then the UPS will start-up and perform a self-diagnosis for approximately 10-seconds.
4. Turn on all of the Load breakers on the rear panel of the ED-XFR.
5. Turn on the connected equipment one at a time. See the UPS user's manual for more information.

### TURNING OFF THE STEP DOWN TRANSFORMER IN THE NORMAL AC MODE:

1. Press and release the On/Off/Test Button on the front panel of the UPS after the second beep to transfer the UPS to the Bypass mode.
2. Turn off all of the connected equipment.
3. Turn off all of the Load breakers on the rear panel of the ED-XFR.
4. Turn off the input breaker on the rear panel of the UPS.
5. Turn off the DC breaker(s) on the rear panel of the Battery Pack(s).

### TURNING OFF THE STEP DOWN TRANSFORMER IN THE BATTERY MODE:

1. Turn off all of the connected equipment.
2. Turn off all of the Load breakers on the rear panel of the ED-XFR.
3. Press and release the On/Off/Test Button after the second beep to turn the UPS off.
4. Turn off the input breaker on the rear panel of the UPS.
5. Turn off the DC breaker(s) on the rear panel of the Battery Pack(s).

## Chapter 5: Obtaining Service

### IF THE STEP DOWN TRANSFORMER REQUIRES SERVICE

1. Use the Troubleshooting section in the UPS user's manual to eliminate obvious causes.
2. Verify there are no tripped circuit breakers. A tripped circuit breaker is the most common issue.
3. Call your dealer for assistance. If you cannot reach your dealer, or if they cannot resolve the issue call or fax the Technical Support department at the following numbers; Voice phone (972) 446-7363, FAX line (972) 446-9011 or visit our Web site at [www.minutemanups.com](http://www.minutemanups.com) the "Discussion Board". Before calling the Technical Support Department have the following information available:
  - a) Contact name and address.
  - b) Where and when the unit was purchased.
  - c) All of the model information about your unit.
  - d) The serial number of your unit.
  - e) Any information on the failure, including LEDs that may be illuminated or error codes displayed.
  - f) A description of the protected equipment including model numbers, if possible.
  - g) A technician will ask you for the above information and if possible, help solve the issue over the phone. In the event that the unit requires factory service, the technician will issue you a Return Material Authorization Number (RMA #).
  - h) If the unit is under warranty, the repairs will be done at no charge. If the unit is not under warranty there will be a charge for the repair.
4. Pack the unit in its original packaging. If the original packaging is no longer available, ask the Technical Support Technician about obtaining a new set. It is important to pack the unit properly in order to avoid damage in transit. Never use Styrofoam beads for a packing material.
  - a) Include a letter with your name, address, day time phone number, RMA number, a copy of your original sales receipt, and a brief description of the problem.
5. Mark the RMA # on the outside of all packages. The factory cannot accept any package without the RMA # marked on the outside.
6. Return the unit by insured, prepaid carrier to:

Para Systems Inc.  
 MINUTEMAN UPS  
 1809 W. Frankford Road, Suite 150  
 Carrollton, TX 75007  
 ATTN: RMA # \_\_\_\_\_

## Chapter 6: Specifications

SYSTEM SPECIFICATIONS		
Model Number	ED5000RT-XFR ED6000RT-XFR	ED8000RT-XFR ED10000RT-XFR
Topology	Isolation, Step Down Transformer, Sine Wave	
INPUT		
Number of Phase	Single (1Ø2W +G)	
Voltage (Selectable)	208 (default) / 240VAC	
Frequency	50 / 60Hz	
Current (Max)	208VAC - 24Amps 240VAC - 21Amps	208VAC - 49Amps 240VAC - 42.5Amps
Protection	Resettable Circuit Breaker	
Connection	Attached 2' open-end #10 AWG power cord	Terminal Block Hardwire only
OUTPUT		
Voltage (Selectable)	208 & 120VAC (Default) / 240VAC (Optional)	
Voltage Regulation	Nominal +/-3%	
Frequency	50 / 60Hz	
Power (Max)	5KVA / 5K Watts	10KVA / 10K Watts
Harmonic Distortion	≤3% (Full Linear Load)	
Efficiency	≥95% (Full Load)	
Waveform Type	True Sine Wave	
Protection	Resettable Circuit Breaker	
ENVIRONMENTAL		
Operating Temperature (max)	0 to 40°C (+32 to +104°F)	
Storage Temperature	-15 to +50°C (+5 to +122°F)	
Operating/Storage Humidity	0 ~ 95% Non-Condensing	
Operating Elevation	0 to 2,000m (0 to +6,562 ft)	
Storage Elevation	0 to 15,000m (0 to +49,213 ft)	
Audible Noise at 1 m (3 ft.)	≤50 dBA	≤60 dBA
PHYSICAL		
Size - Net L X W X H	26.2 x 17.3 x 3.5" 665 x 440 x 88.5 mm	25.9 x 17.3 x 5.14" 659 x 440 x 130.6 mm
Weight - Net	82.7 lbs / 35.5 Kgs	158.7 lbs / 72.0 Kgs
Size - Shipping L X W X H	31.6 x 24.4 x 9.1" 802 x 620 x 230 mm	30.7 x 23.6 x 10.9" 780 x 600 x 276 mm
Weight - Shipping	123.5 lbs / 56.0 Kgs	196.2 lbs / 89.0 Kgs
REGULATORY COMPLIANCE		
Safety and Approvals	cTUVus (Conforms to UL60950-1:2007 R12.11, CSA-C22.2 No.60950-1-07-A1:2011)	
EMC Verification	FCC Class B, CE certified	

**NOTE:** Specifications are subject to change without notice.

## Chapter 7: Limited Product Warranty

Para Systems, Inc. (Para Systems) warrants this equipment, when properly applied and operated within specified conditions, against faulty materials or workmanship for a period of three years from the date of purchase. For equipment sites within the United States and Canada, this warranty covers depot repair or replacement of defective equipment at the discretion of Para Systems. Depot repair will be from the nearest authorized service center. The customer pays for shipping the product to Para Systems. Para Systems pays ground freight to ship the product back to the customer. Replacement parts and warranty labor will be borne by Para Systems. For equipment located outside of the United States and Canada, Para Systems only covers faulty parts. Para Systems products that are depot repaired or replaced pursuant to this warranty shall only be warranted for the unexpired portion of the warranty applying to the original product. This warranty applies only to the original purchaser who must have properly registered the product within 10 days of purchase.

The warranty shall be void if (a) the equipment is damaged by the customer, is improperly used, is subjected to an adverse operating environment, or is operated outside the limits of its electrical specifications; (b) the equipment is repaired or modified by anyone other than Para Systems or Para Systems approved personnel; or (c) has been used in a manner contrary to the product's User's Manual or other written instructions.

Any technical advice furnished before or after delivery in regard to use or application of Para Systems' equipment is furnished without charge and on the basis that it represents Para Systems' best judgment under the circumstances, but it is used at the recipient's sole risk.

EXCEPT AS PROVIDED HEREIN, PARA SYSTEMS MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Some states do not permit limitation of implied warranties; therefore, the aforesaid limitation(s) may not apply to the purchaser.

EXCEPT AS PROVIDED ABOVE, IN NO EVENT WILL PARA SYSTEMS BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OF THIS PRODUCT, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. Specifically, Para Systems is not liable for any costs, such as; labor for on-site installation, on-site maintenance or on-site service, lost profits or revenue, loss of equipment, loss of use of equipment, loss of software, loss of data, cost of substitutes, claims by third parties, or otherwise. The sole and exclusive remedy for breach of any warranty, expressed or implied, concerning Para Systems' products and the only obligation of Para Systems hereunder, shall be depot repair or replacement of defective equipment, components, or parts; or, at Para Systems' option, refund of the purchase price or substitution with an equivalent replacement product. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

No employee, salesman, or agent of Para Systems is authorized to add to or vary the terms of this warranty.

## A1. DECLARATION OF CONFORMITY

Application of Council Directive(s): 2004/108/EC

Standard(s) to which Conformity is declared:

EN 50091-2:1995 Class A, IEC61000-4-2: level4, IEC61000-4-3: level3, IEC61000-4-4: level4, IEC61000-4-5: level4, IEC61000-4-6: level3, IEC61000-4-8: level3, IEC 62040-2: 2005, IEEE C62.41 Category A1

Manufacturer's Name: Para Systems, Inc. (MINUTEMAN UPS)

Manufacturer's Address: 1455 LeMay Drive  
Carrollton, Texas 75007 USA

Type of Equipment: Uninterruptible Power Supplies (UPS)

Model No: ED5000RT-XFR, ED6000RT-XFR,  
ED8000RT-XFR, ED10000RT-XFR

Year of Manufacture: Beginning April 1, 2014

I hereby declare that the equipment specified above conforms to the above Directive(s).

Robert Calhoun  
(Name)

Manager Engineering  
(Position)

Place: Carrollton, Texas, USA

Date: April 1, 2014



Notes:



Notes: