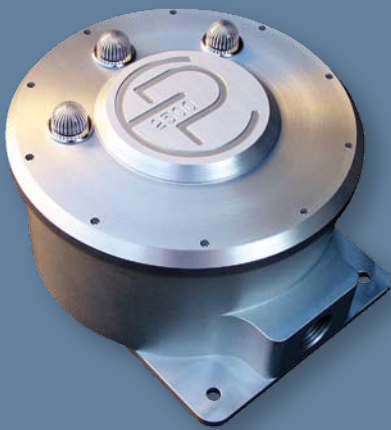




Environmental Potentials

Power Quality For The Digital Age



EP-2000 Series Wall Mounted Waveform Corrector

Installation and Maintenance Manual

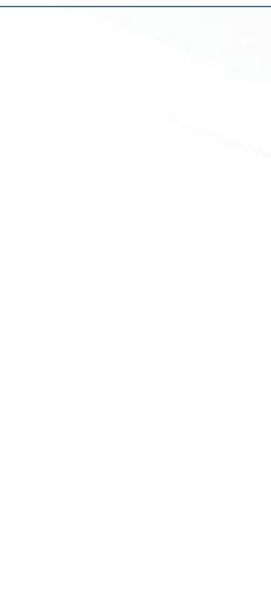
EP-2000 • EP-2050 • EP-2500



EP-2000 Series Wall Mounted Waveform Corrector Installation and Maintenance Manual

Table of Contents

3	-	Safety First
3	-	Pre-Installation Preparations
4	-	Voltage Ratings & Power Source Configurations
6	-	Mounting
7	-	Wiring
7	-	Maintenance
7	-	Servicing



FIVE YEAR WARRANTY

- Environmental Potentials will replace or repair any product from the EP-2000 product line as long as it was not damaged during installation or damaged from faulty installation.
- EP warranty registration card must be filled out and received by Environmental Potentials within 15 days of installation.
- This warranty is for the repair or replacement of damaged EP products only. Environmental Potentials accepts no liability, written or expressed, for the damage that may have occurred to any other equipment; nor does Environmental Potentials warranty cover any labor cost associated with replacement of such product.

Contact Us: warranty@ep2000.com • 800.500.7436



EP Technical Support: techsupport@ep2000.com • 800.500.7436

Mailing Address: 1802 N. Carson Street, Suite 108-2132, Carson City, NV 89701

Safety First

Even though EP units are designed for common installation, electricity is dangerous and only qualified personnel should attempt installation.

1. Read and understand entire contents of installation manual prior to installation.
2. Measure voltage of the electrical panel where the installation is taking place.
3. Verify that voltage and electrical configuration matches the model of the EP unit being installed.
4. If the model number does not match DO NOT install.
5. Turn off electrical supply prior to any installation in electrical panel.
6. Verify with voltage meter that electricity is off.
7. Ensure all connections in electrical panel are secure and all tools and equipment have been removed from electrical panel before re-energizing system.



WARNING



ALWAYS have a professional electrician with proper safety equipment perform installation.

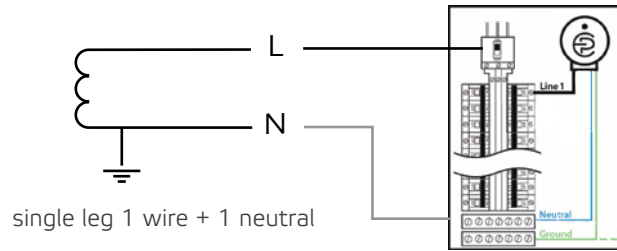
Do NOT install waveform corrector on the output of a variable frequency drive

Pre-Installation Preparations

1. Read entire contents before performing installation.
2. Verify the voltage rating of the system before installing the EP unit. Make sure the electrical system operates at or below the maximum continuous operating voltage of EP product. It should not exceed five (5) percent of the rated nominal voltage of the unit.
Note: If you have questions regarding voltage ratings, contact EP.
3. Check all the fuses of the electrical system before installing EP unit.
4. Make sure the power distribution configuration of the EP unit matches with the configuration of your electrical system (Delta or WYE).
5. Make sure your EP product is suitable for your application.
Note: Call EP to confirm the product application.

Voltage Ratings & Power Source Configurations

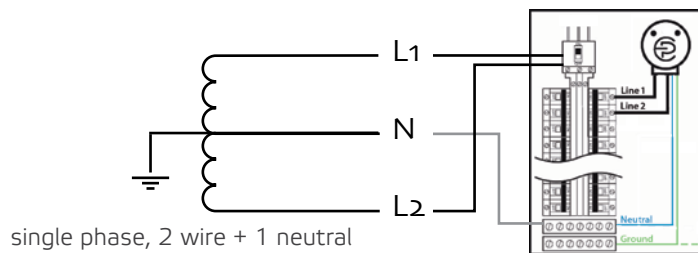
Single Leg 1 Wire, 1 Neutral + Ground Installation



SINGLE PHASE WYE	
PRODUCTS	
EP-2000	
EP-2050	
EP-2500	
EP-2550	
VOLTAGE ID#	MCOV
1L120	132 V
1L290	264 V

1. Connect white neutral to neutral bus bar.
2. Next connect black phase A to phase A of the 30 A breaker.
3. **Last connect green ground to ground bus bar or panel. Ground is case ground only and should NOT be connected to neutral bus bar.**

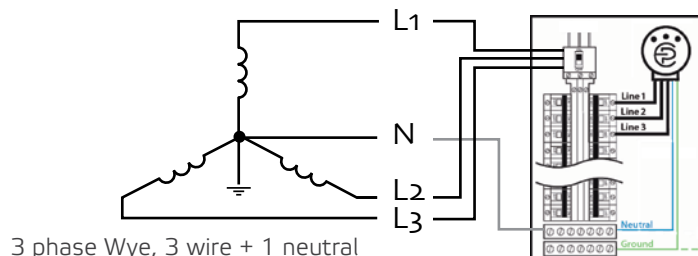
Single Phase Installation



TWO PHASE WYE	
PRODUCTS	
EP-2000	
EP-2050	
EP-2500	
EP-2550	
VOLTAGE ID#	MCOV
1S240	132 V

1. Connect white neutral to neutral bus bar.
2. Next connect black phase A to phase A of the 30 A breaker.
3. Then connect black phase B to phase B of 30 A breaker.
4. **Last connect green ground to ground bus bar or panel. Ground is case ground only and should NOT be connected to neutral bus bar.**

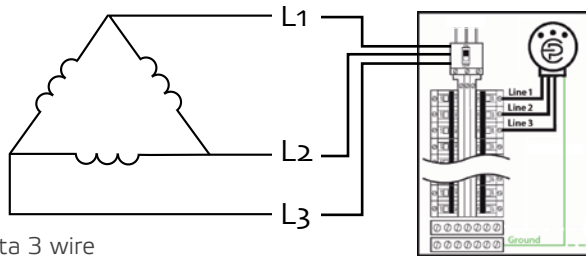
Three Phase Wye Installation



THREE PHASE WYE	
PRODUCTS	
EP-2000	
EP-2500	
VOLTAGE ID#	MCOV
3Y208	132 V
3Y240	132V
3Y480	304V
3Y600	380V

1. Connect white neutral to neutral bus bar.
2. Next connect black phase A to phase A of the 30 A breaker.
3. Then connect black phase B to phase B of 30 A breaker.
4. Then connect black phase C to phase C of 30 A breaker.
5. **Last connect green ground to ground bus bar or panel. Ground is case ground only and should NOT be connected to neutral bus bar.**

Three Phase Delta Installation



3 phase delta 3 wire

1. Connect black phase A to phase A of the 30 A breaker.
2. Next connect black phase B to phase B of 30 A breaker.
3. Then connect black phase C to phase C of 30 A breaker.
4. ***Last connect green ground to ground bus bar or panel. Ground is case ground only and should NOT be connected to neutral bus bar.***

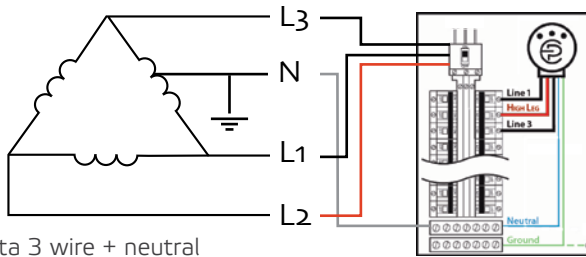
THREE PHASE DELTA

PRODUCTS

EP-2000
EP-2500

VOLTAGE ID#	MCOV
3D240	264V
3D480	528V

Three Phase High Leg Delta Installation



3 phase delta 3 wire + neutral

1. Connect black phase A to phase A of the 30 A breaker.
2. Next connect red phase B to phase B of the 30 A breaker.
WARNING: Please confirm that phase B is the HIGH LEG
3. Then connect black phase C to phase C of the 30 A breaker.
4. ***Last connect green ground to ground bus bar or panel. Ground is case ground only and should NOT be connected to neutral bus bar.***

3 PHASE HL DELTA

PRODUCTS

EP-2000
EP-2500

VOLTAGE ID#	MCOV
3H240	132V 234V

Mounting

For optimal performance, mount EP product as close to electrical panel as possible. Longer wire increases inductance in the system and the EP unit may not function properly. Make sure the EP product is mounted in a dry and clean environment. The EP unit can be mounted in any secure area above, below, beside or inside the electrical panel.

For optimal performance:

- EP-2000 should be connected no more than 6 inches from electrical panel.
- EP-2500 should be connected no more than 12 inches from electrical panel.

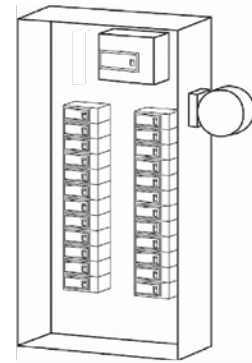
Although internal mounting can be preferred mounting for shorter lead lengths and optimal performance, it poses two problems:

1. IEEE does not recommend internal mounting of Waveform Corrector in the event of end of life termination of the unit that may cause damage to the internal distribution panel.
2. On internal installation the panel must be opened for visual verification of units' functional status.

Ensure you have considered all of these options before attempting internal installation.

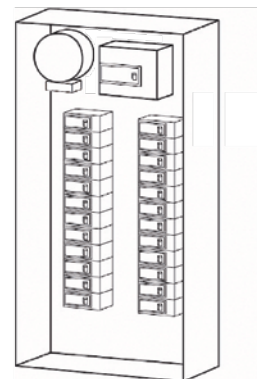
SIDE MOUNTING

EP units are designed for installation to ½ inch panel knockout on side, top or bottom of panel. Unit may also be secured with #8 self tapping or wood screws.



INTERNAL MOUNTING

Ensure a minimum of 1 inch clearance to all electrical surfaces before attempting an internal mounting.



⚠ WARNING ⚠

- ALWAYS have a professional electrician with proper safety equipment perform installation.
- Any attempt to open unit voids warranty.

Wiring

1. Requires a dedicated 30 A circuit breaker to connect Waveform Corrector to the electrical system.
2. Wire should be connected straight to the power source. Avoid sharp bends and refrain from splicing the wires as this will reduce the effectiveness of the unit.
3. Do not twist wires.

NOTE: It is good electrical practice to tighten all of the bolts in the electrical panel. Electrical leads should be connected securely to prevent fire or electrical damage.

Maintenance

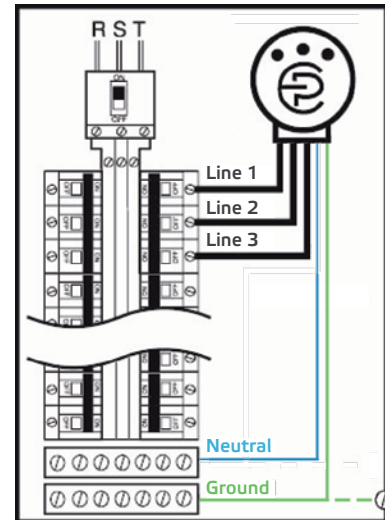
EP products do NOT require periodic maintenance. The units have LED lights to provide visual indication of the unit's functional status. It is also good practice to inspect the connections of the power supply wiring to the EP unit monthly.

Servicing

EP units contain no serviceable parts and require no adjustments. All EP products are designed to provide many years of electrical protection without any need for servicing.

If the EP unit does malfunction, have a professional electrician inspect the wire connections. If the problem persists, contact your EP sales representative to discuss obtaining a replacement unit.

WYE INSTALLATION



DELTA INSTALLATION

