



EZ-Connect

Manual Transfer Switch



Installation & Operating Manual

Model Numbers

EZC-50 (100/200 amp by 30 amp)
EZC-100 (100/200 amp by 50 amp)
EZC-200 (100/200 amp no outlet)

This manual should remain with the unit.



Global Power Products

www.globalpowerproducts.com

225 Arnold Road, Lawrenceville, GA 30044 Phone: 800-886-3837 Fax: 770-736-8231

Terms and Conditions of Usage

TERMS AND CONDITIONS. Upon breaking the seal attached to the installed EZ-Connect™, you expressly agree that usage is restricted and subject to the following terms and conditions (“Terms and Conditions”).

INSTALLATION AND CARE OF PROPERTY. The EZ-Connect™ unit must be installed by an Approved Installer and may not be removed or modified by anyone other than an Approved Installer. An Approved Installer is defined as a licensed electrician or a technician approved by your local electric utility (“Utility”). As a user of EZ-Connect™, you further agree to follow the EZ-Connect™ Start-Up Procedure provided in this Operating Manual, incorporated herein by reference. At all times, the EZ-Connect™ unit shall be used solely for the purpose intended, in accordance with the Instructions and “Safety Tips,” contained in this Operating Manual, incorporated herein by reference. You understand that any installation, removal, or modification by anyone other than an Approved Installer is dangerous and is expressly prohibited under the terms of this agreement.

DELIVERY AND ACCEPTANCE OF PROPERTY. Within Thirty (30) days of its installation, you are required to test the EZ-Connect™ unit with a generator. Written notice of any defects or concerns with the operation of the EZ-Connect™ unit must be received within Forty-Five (45) days from the installation date of the EZ-Connect™ unit by Global Power Products at 225 Arnold Road, Lawrenceville, GA 30044 specifying any defects, or it shall be conclusively presumed that you have accepted the EZ-Connect™ unit and found it to be in good operating condition and repair. This provision shall not be applicable to latent defects of which you could not reasonably be aware.

SAFETY. You understand and agree that once the EZ-Connect™ unit is installed, it is the only safe and allowable method for connecting a generator to your home. You grant the Utility the right to enter the site where the EZ-Connect™ unit is installed, to temporarily disconnect the generator, and to physically “lock out” the EZ-Connect™ unit at any time if the Utility determines that a potential hazard exists and that such temporary action is necessary to protect the Utility’s electric system, its customers, and/or its employees.

INSPECTION, REMOVAL AND REPAIR. You acknowledge that the EZ-Connect™ unit shall not be removed or removal by anyone other than an Approved Installer. If the EZ-Connect™ unit requires inspection, removal, repair, or replacement, immediately contact an Approved Installer to request that the EZ-Connect™ unit be removed. Contact Global Power Products at 225 Arnold Road, Lawrenceville, GA 30044, or call at 1.800.886.3837 to receive instructions on how to have the EZ-Connect™ unit repaired and/or replaced.

CLAIMS AND EXPENSES. You expressly agree to hold the Utility, the Authorized EZ-Connect Reseller, and Global Power Products harmless from any and all claims, costs, expenses, damages, and liabilities, including reasonable attorney’s fees, resulting from, or alleged to be caused by, directly or indirectly, use, operation, or failure of the EZ-Connect™ unit.

TERMS TO BE EXCLUSIVE. You acknowledge that the Terms and Conditions constitute the final and entire agreement regarding the use and purchase of the EZ-Connect™ device.

GOVERNING LAW. It is expressly understood and agreed that the Terms and Conditions are to be interpreted according to the laws of Georgia.

WARNING!

Read and understand the instructions contained herein-after before attempting to unpack, assemble, operate, or maintain this equipment.

Hazardous voltages are present inside the EZ-Connect enclosure that can cause death or severe personal injury. Follow proper installation, operation, and maintenance procedures to avoid these voltages.

The transfer switch equipment covered but this instruction book is designed and tested to operate within its nameplate ratings. Operation outside of these ratings may cause the equipment to fail resulting in death, serious bodily harm, and/or property damage. All responsible personnel should locate the door mounted equipment nameplate and be familiar with the information provided on the nameplate.

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Warranty and Service Information

EZ-Connect™ Manufacturers Limited Warranty

Global Power Products warrants EZ-Connect for a period of one (7) year after delivery of goods, where specified that the goods are, under normal use and service, free from defects in materials, and workmanship. No other warranties or representations, whether written or oral, shall be binding upon Global Power Products. If any unit provided by Global Power Products does not comply with any of the expressed warranties set forth above and customer provides Global Power Products notice of such noncompliance within the one (7) year warranty period, Global Power Products shall at its discretion repair or replace the nonconforming unit after receipt of the nonconforming unit for its inspection. Global Power Products' sole liability to customer for goods not conforming to any of the express warranties is limited to repair or replacement of such units. Warranty on the repaired unit or any component thereof is limited to the balance of the original warranty period.

Surge Protection Manufacturers Limited Warranty

Fifteen Year Product Coverage

GPP will repair or replace any Surge Protection Device that is defective in material or workmanship or is damaged by an electrical surge (including those caused by lightning) for a period of fifteen (15) years from the date of installation or fifteen years and six (6) months from the date of manufacture, whichever comes first.

Lifetime White Goods Coverage

GPP will repair or replace residential "White Goods Appliances" which sustain surge damage provided the Surge Protection Device was: fully functional immediately prior to the claim event, still under warranty and damaged by the claim event. Maximum coverage is \$1,000 per appliance, \$10,000 per residence.

A "White Goods Appliance" is defined as a washer, dryer, stove, refrigerator, freezer, HVAC unit, dishwasher or garbage disposal. Coverage is secondary to any applicable product warranties, service contracts and insurance policies. This coverage applies to the end-user at the residence where the product is installed and is the exclusive remedy under this warranty, whether based on contract, tort, including negligence or otherwise. GPP reserves the right to audit damage, site and/or cost of repairs and may require a notarized proof of loss.

Claims must be made within 30 days of damage. This warranty does not cover damage associated with sustained over voltages, vandalism, theft, normal wear and tear, obsolescence, abuse, unauthorized modification, misuse, improper installation, or catastrophic events. Except as expressed previously in this warranty, GPP disclaims liability of any incidental, indirect, special, or consequential damage arising out of the sale, lease, or use of any GPP product (including without limitation, lost business profits, loss of data and all freight, mileage, travel time, and insurance charges associated with the warranty coverage claims). Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above does not apply to you. This warranty gives you specific legal rights and you may have other rights which vary from state to state. This warranty is valid in the United States and Canada only.

Surge Protection Warranty Assistance: Call 1-800-886-3837

Important Safety Instructions

Read the following information carefully before attempting to install, operate or service this equipment. Also read the instructions and information on tags, decals, and labels that may be affixed to the EZ-Connect manual transfer switch.

DANGER! Connection of a generator to an electrical system normally supplied by an electric utility shall be by means of suitable transfer equipment so as to isolate the electric system from utility distribution system when the generator is operating (Article 701 Legally Required Standby Systems or Article 702 Optional Standby Systems, as applicable). Failure to isolate electric systems by these means may result in damage to generator and may result in injury or death to utility workers due to back-feeding of the electrical lines.

Global Power Products cannot anticipate every possible circumstance that might involve a hazard. The warnings in this manual, and on tags and decals affixed to the unit are, not all inclusive. If using a procedure, work method or operating technique Global Power Products does not recommend, ensure that it is safe for others. Also make sure the procedure, work method or operating technique utilized does not render the EZ-Connect transfer switch unsafe.

Throughout this manual, and on tags and decals affixed to the EZ-Connect, DANGER, WARNING, CAUTION and NOTICE blocks are used to alert personnel to special instructions about a particular operation that may be hazardous if performed incorrectly or carelessly. These safety warnings cannot eliminate the hazards that they indicate. Common sense and strict compliance with the special instructions while performing the service are essential to preventing accidents. Please observe them.

NOTICE

By breaking this seal, you agree to the following

- You will not attempt to remove, repair, or in any way modify this EZ-Connect unit.
- You will allow authorized utility representatives to access this EZ-Connect unit as determined by them to be necessary.
- You accept and agree to all Terms and Conditions set forth in the Operating Manual relating to EZ-Connect.

If you do not accept the Terms and Conditions, do not break this seal and follow the instructions in the Operating Manual to arrange for removal of the EZ-Connect.

DANGER!

After this heading, read instructions that, if not strictly complied with, will result in personal injury or property damage.

WARNING!

After this heading, read instructions that, if not strictly complied with, may result in personal injury or property damage.

CAUTION!

After this heading, read instructions that, if not strictly complied with, could result in damage to equipment and/or property.

NOTICE!

After this heading, read instructions that, if not strictly complied with, could result in damage to equipment and/or property.

Important Safety Instructions

General Hazards

- Any AC generator that is used for backup power if a normal (utility) power source failure occurs, must be isolated from the normal (utility) power source by means of an approved transfer switch. Failure to properly isolate the normal and standby power sources from each other may result in injury or death to electric utility workers, due to backfeed of electrical power.
- Improper or unauthorized installation, operation, service or repair of the equipment is extremely dangerous and may result in death, serious personal injury, or damage to equipment and/or personal property.
- Extremely high and dangerous power voltages are present inside an installed transfer switch. Any contact with high voltage terminals, contacts or wires will result in extremely hazardous, and possibly lethal, electric shock. **DO NOT WORK ON THE EZ-CONNECT TRANSFER SWITCH UNTIL ALL POWER VOLTAGE SUPPLIES TO THE SWITCH HAVE BEEN POSITIVELY TURNED OFF.**
- Competent, qualified personnel should install, operate and service this equipment. Adhere strictly to local, state and national electrical and building codes. When using this equipment, comply with regulations the National Electrical Code (NEC), CSA Standard; C22.1 Canadian Electric Code and Occupational Safety and Health Administration (OSHA) have established.
- Keep the transfer switch enclosure door closed at all times. Only qualified personnel should be permitted access to the switch interior.
- In case of an accident caused by electric shock, immediately shut down the source of electrical power.

Safety Tips

- Do not wait for an emergency to learn how to connect you generator and select loads to the EZ-Connect. (See Setup Procedures for detailed information.)
- Never connect or disconnect the power cord to/from your portable generator while the generator is operating. Turn off the portable generator and turn off all circuits in your breaker panel before connecting or disconnecting the power cord.
- Keep the power cord stored in a dry, safe location when not in use.
- Never attempt to remove, repair, dismantle, modify, or alter EZ-Connect once it has been installed.

 **CAUTION!**

Always locate and operate your generator in accordance with the manufacturer's instructions as outlined in the generator owner's manual.

 **CAUTION!**

Check the equipment nameplate for rated voltage. It should be the same as the utility and generator line voltages. Operating the equipment on improper voltage can cause equipment damage.

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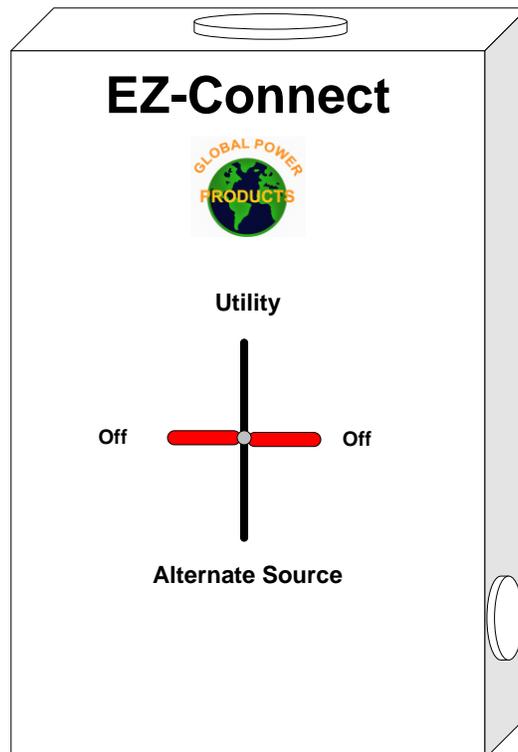
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Section 1 – General Information

1.1 Introduction

Thank you for purchasing a Global Power Products EZ-Connect manual transfer switch to safely connect a portable generator to your home during a power outage. This manual has been prepared especially for the purpose of familiarizing personnel with the design, application, installation, operation and servicing of the applicable equipment. Carefully read all instructions before using EZ-Connect. This will help to prevent accidents or damage to equipment that might otherwise be caused by carelessness, incorrect application, or improper procedures. Product features include:

- Generator and Utility Mains mechanically interlocked preventing utility or generator power back feed.
- Flexibility of selecting the appliances you want to run from your home's breaker panel, up to the capacity of your generator.
- Mechanical lockout that safely prohibits power from any source when servicing device.
- Type 3R enclosure which is rated for outdoor or indoor installations.
- Rated for up to a 200 Amp service.

1.2 Equipment Description

The EZ-Connect manual transfer switch is used for transferring critical electrical loads from a UTILITY (NORMAL) power source to an ALTERNATE (GENERATOR) power source. The transfer switch prevents electrical feedback between the UTILITY and ALTERNATE sources. For that reason, electrical codes require a transfer switch in all standby electric system installations.

1.3 EZ-Connect Enclosure

The standard switch enclosure is a National Electrical Manufacturer's Association (NEMA) and UL 3R type enclosure primarily provide a degree of protection against falling rain and sleet; undamaged by the formation of ice on the enclosure.

1.4 Important Installation Information

A model label is permanently affixed to the transfer switch enclosure. Use this transfer switch only with the specific limits shown on model label and on other decals and labels that may be affixed to the switch. This will prevent damage to equipment and property.

You MUST have this information should the unit need repair or replacement. Please complete the information from the model label affixed to EZ-Connect and keep this information for future reference

Installation Date:	
Model Number:	
Serial Number:	

EZ-Connect shall not be removed or uninstalled by anyone other than a licensed electrical contractor. If the EZ-Connect requires inspection, removal, repair, or replacement, immediately contact the licensed electrical contractor to request that the EZ-Connect be removed. Once the unit is removed, contact Global Power Products at 225 Arnold Road, Lawrenceville, GA 30044, or call at 1.800.886.3837 to receive instructions on how to have the EZ-Connect unit repaired and/or replaced.

Section 1 – General Information

1.5 Selecting A Portable Generator

What Kind of Generator Do I Need?

There are a wide variety of portable generators available for purchase. Some are more suitable than others for connecting to your house. When selecting a portable generator to connect to your house, you should ensure the generator:

- Will not damage sensitive electronic appliances/equipment
- Provides the capacity to start needed motor loads, such as a well or sump pump
- Has the necessary four-wire 20-amp, 30-amp or 50-amp receptacle required to connect the EZ-Connect
- Required 120/240 outlets are either the L14-20, L12-40, or the 14-50 straight blade NEMA outlets

The quality of power produced by a portable generator is also an important factor to consider when selecting your generator. If the voltage output is too low, it could cause motors, such as your refrigerator or furnace motor, to overheat. If the voltage output is too high, it could damage sensitive electronic equipment such as your computer or the digital controls on your heating system.

To maximize your generator's power quality, it is recommended that your generator have automatic voltage regulation. Electronic voltage regulation is preferred over capacitor or condenser type regulation in instances where sensitive electronic equipment is being operated.

What Size Generator Do I Need?

During a power outage, MTS allows you to select the combination of loads/appliances you want to operate by simply switching breakers in the household breaker panel. This flexibility makes generator sizing easy.

You will want a generator that can run the largest appliances and motors you will need during an outage. You can always run other smaller loads/appliances by rotating them on and off as necessary.

For example, if you have a generator with 9600 continuous watts of capacity, during a power outage, you can run the hot water heater (typically 4800 watts) by simply turning off the majority of other household breakers until the water tanks heats up. Once the water is heated, shut off the water heater breaker and switch the other household circuit breakers back on.

To determine the loads you can support with a portable generator, you must consider both the "running watt" and the "starting watt" requirements of the loads you want to operate.

You can purchase or use a generator of any size provided the generator is equipped with a 4 wire, 120/240-volt receptacle rated at 20-amps, 30-amps and/or 50-amps. MTS is designed to be compatible with 20-amp, 30-amp and 50-amp connectors. MTS is not rated to be compatible with larger current outputs and will electronically disconnect if you are generating outputs larger than 40-amps.

 **NOTICE!**

The installation must fully comply with all applicable codes, standards, and regulations.

Section 2 – Installation

⚠ DANGER!

Verify both UTILITY and ALTERNATE power supplies are OFF before trying to connect power source and load lines to the transfer switch. Supply voltages are extremely high and dangerous. Move handle on EZ-Connect into OFF position.

⚠ WARNING!

Power conductors and sending wires may have voltage present that can cause severe personal injury or death. De-energize all power or control circuit conductors before beginning to perform any wiring activity to or within the transfer switch.

2.1 Introduction to Installation

This EZ-Connect transfer switch has been wired and tested at the factory. Installing the switch includes the following procedure:

- Mounting the enclosure
- Connecting utility and generator power source leads
- Connecting the load leads
- Installing/connecting any options and accessories
- Testing the EZ-connect with portable generator

Carefully remove the EZ-Connect from carton and inspect device before installation. The purchaser must file with carrier any claims for loss or damage incurred while in transit.

Included with EZ-Connect transfer Switch

- The EZ-Connect transfer switch, housed in a NEMA 3R enclosure
- Power cord with the specified plug type on the end
- Surge Safe surge protection (optional)
- Instruction/operation manual

2.2 Tools Required

Drill, drill bits, hole saw (type and length will be determined by material you will be drilling and cutting), open ended wrenches or adjustable wrenches, socket wrenches, standard and Phillips head screw drivers, sledge hammer, pencil, channel lock pliers, spade shovel, rake, flexible conduit, silicon caulk, and safety goggles.

2.3 Additional Equipment

2.4 Mounting

Mounting dimensions for EZ-Connect enclosure are located below. Find a suitable location to mount the EZ-Connect transfer switch. The type 3R Enclosure is outdoor rated but can also be used for indoor installation. Indoor installations however, may require additional wiring expenses. Mount the switch vertically to a rigid supporting structure. To prevent switch distortion, level all mounting points.

EZ-Connect Model	Enclosure Dimensions
EZC23	18x12x6
EZC25	18x12x6
EZC22	18x12x6

Section 2 – Installation

2.5 Opening the Door

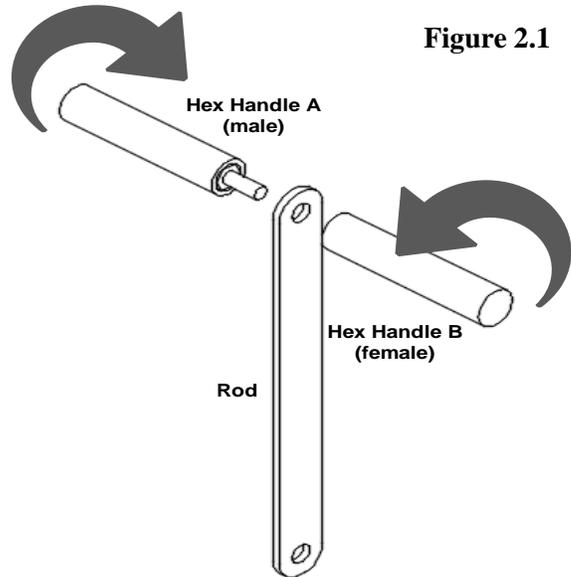
Depress the padlock-able catch at the bottom of the door and pull the door towards you to open. It will detach as you slide the door toward the ground.

2.6 Removing Inner Cover

This should only be attempted by a certified electrical contractor.

Refer to Figure 2.1

Once you have opened the front cover you will gain access to the handle. To remove the handle twist each half of the handle in opposite directions to back the male end out of the threaded female end. Once apart you can use the metal loop on the lower center of the cover to slide the metal cover out of the enclosure.



2.7 Connecting Power Source and Load Lines

This should only be attempted by a certified electrical contractor.

Follow the wiring diagrams and electrical schematics provided in this manual to wire the EZ-Connect. See Figure 2.2 on the next page.

⚠ DANGER!

Verify both **UTILITY** and **ALTERNATE** power supplies are **OFF** before trying to connect power source and load lines to the transfer switch. Supply voltages are extremely high and dangerous. Move handle on EZ-Connect into **OFF** position.

⚠ CAUTION!

Extreme care should be taken to protect the EZ-Connect from drill chips, filings, and other contaminants when marking the cable entry holes (if applicable) and mounting the enclosure to prevent component damage or a future malfunction.

⚠ WARNING!

Power conductors and sending wires may have voltage present that can cause severe personal injury or death. De-energize all power or control circuit conductors before beginning to perform any wiring activity to or within the transfer switch.

⚠ NOTICE!

The installation must fully comply with all applicable codes, standards, and regulations.

Section 2 – Installation

⚠ DANGER!

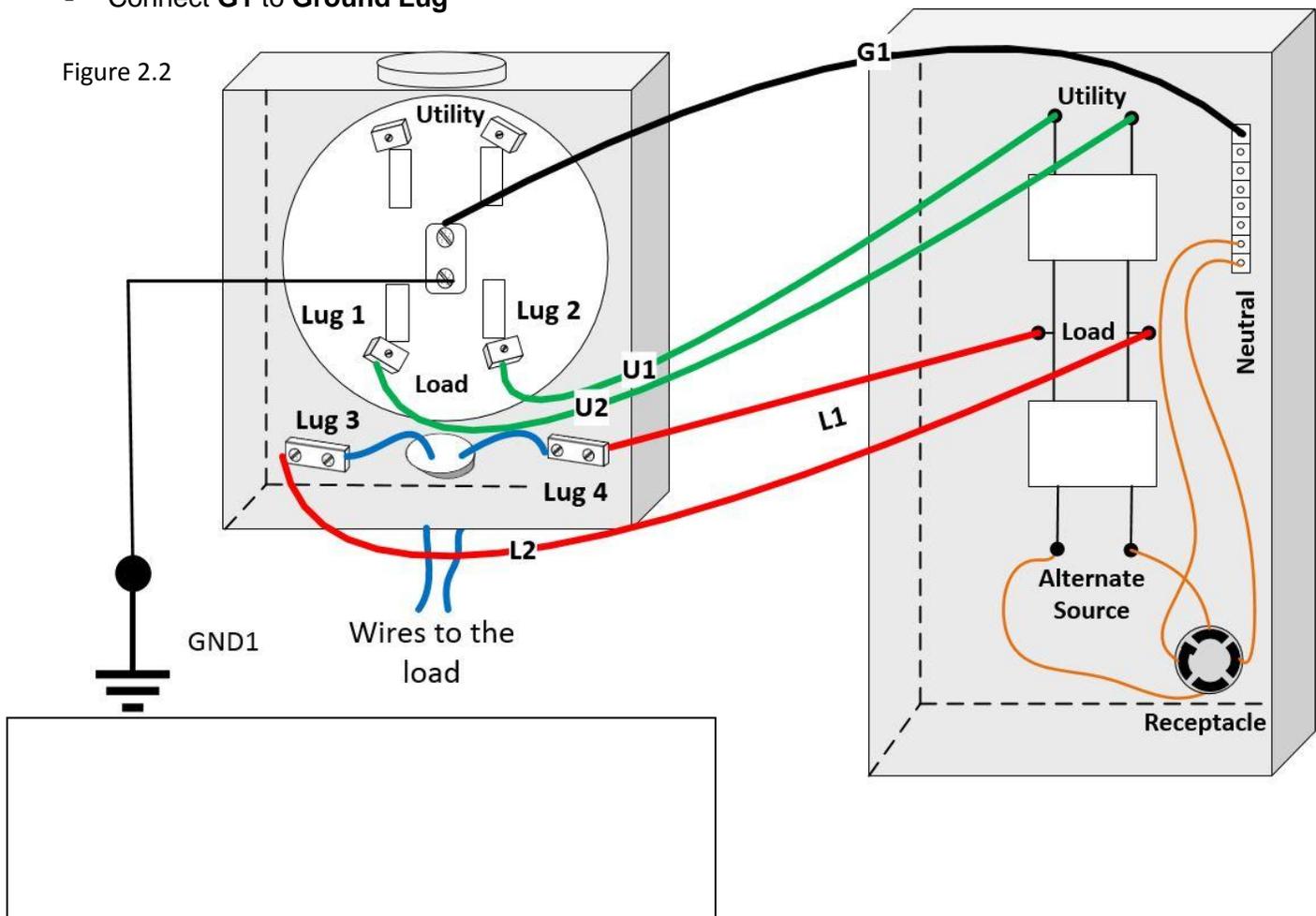
Verify both **UTILITY** and **ALTERNATE** power supplies are **OFF** before trying to connect power source and load lines to the transfer switch. Supply voltages are extremely high and dangerous. Move handle on EZ-Connect into **OFF** position.

⚠ NOTICE!

The installation must fully comply with all applicable codes, standards, and regulations.

- Remove existing load wires coming from the home.
- Add two double wire lugs to the meter pan which are represented by **Lugs 3** and **Lug 4** in Figure 2.2
- Connect the two existing load wires coming from the home to **Lug 3** and **Lug 4**
- Connect **L1** wire to **Lug 4**
- Connect **L2** wire to **Lug 3**
- Connect **U1** to **Lug 1**
- Connect **U2** wire to **Lug 2**
- Connect **G1** to **Ground Lug**

Figure 2.2



Section 3 – Operation

3.1 Setup Procedures

Carefully read all instructions before using the EZ-Connect. This will help to prevent accidents or damage to equipment that might otherwise be caused by carelessness, incorrect application, or improper procedures. The best time to prepare for a power outage is before there is an actual interruption of utility-supplied power. The following are suggested steps to prepare for an actual power outage using your portable generator with the EZ-Connect.

- Determine which appliances are on each circuit breaker.
Note: circuit breakers may control more than one appliance. We recommend you affix labels to each circuit breaker listing its appliances.
- Familiarize yourself with the typical power requirements of the appliances you expect to use during an outage, always taking into consideration the capacity (start-up watts and running watts) of your generator. See Sample Worksheets located in this manual.
- To ensure that your generator will work properly when you need it, it is important to start and run your generator under load regularly. Please refer to the generator owner's manual for proper testing and maintenance.

3.2 Status Lights

3.3 Manual Operation of the Handle

A manual handle is shipped with the EZ-Connect. Manual operation must be checked BEFORE the transfer switch is operated electrically. Do not use excessive force when operating the EZ-Connect transfer switch, as the handle could be damaged. To check manual operation, proceed as follows:

STEP 1. Turn the generator's AUTO/OFF/MANUAL switch to OFF.

STEP 2. Turn OFF both UTILITY and ALTERNATE power supplies to the transfer switch, with whatever means provided (such as the main line circuit breakers).

3.4 Start-Up Procedures

The following are the start-up procedures for the EZ-Connect. For generator start-up procedures, please refer to the generator manufacturer owner's manual.

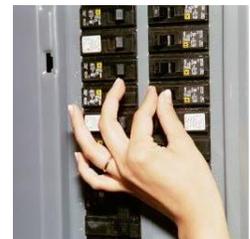


Diagram 3.1

STEP 1. Turn off all the circuit breakers in your breaker panel. (See Diagram 3.1)

STEP 2. Move your generator into position to be connected to EZ-Connect. Remember, generator exhaust gases contain deadly carbon monoxide. The generator should never be operated inside, this includes basements, crawl spaces and/or attached garages. Please consult your generator owner's manual for complete instructions on the safe location for and operation of your generator.

Section 3 – Operation

STEP 3. Insert the male plug of the power cord into the correct NEMA 120/240 volt outlet on the generator.

STEP 4. Plug in the female end of the power cord into the receptacle on the EZ-Connect transfer switch.

STEP 5. Turn off the idle setting (if present) on your generator. This will ensure that your generator will operate at the correct speed and voltage.

STEP 6. Start the generator, following the procedures described in the generator owner's manual furnished by the manufacturer.

STEP 7. Move the handle of the EZ-Connect to the GENERATOR position.

STEP 8. Select the appliances that require emergency power. Note the capacity of your generator, the start-up watts and running watts to know what you are able to run off your portable generator.

Locate the circuit breakers in your home's breaker panel (See Diagram 3.2) for the appliances you can support and turn them on one at a time. Start with large motor loads first, such as refrigerators. Motors require 2 to 3 times more power to start than other electrical appliances. Allow generator operation to stabilize before starting the next load. Next, start smaller motors such as a ceiling or ventilating fan. Then start smaller appliances with no motors such as lights.



Diagram 3.2

STEP 9. When it is time to refuel your generator, turn off all of your home's circuit breakers before turning off the generator, and refuel according to your generator owner's manual. Then begin with Step 1 of the start-up procedures to reconnect loads/appliances.

STEP 10. If the generator's circuit breaker trips off during operation or setup, turn off all circuit breakers in the breaker panel, reset the circuit breaker on the generator, and restart the generator if necessary. Select and reconnect loads following the procedures summarized in step 8.

STEP 11. To determine when utility power has been restored, check the status lights of the LEDs to determine if you have utility power present at the meter and can transfer the power back to the utility source.

Transferring From Generator Power to Utility Power

STEP 1. Shut down the generator, following the procedures in the generator owner's manual.

STEP 2. Move the handle to the UTILITY position.

STEP 3. On your breaker panel, set all circuit breakers to the 'ON' position.

STEP 4. You can now unplug the generator from the EZ-connect transfer switch.

For Questions Call: 800-886-3837





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