

## INSTRUCTIONS FOR THE RELIANCE *Panel/Link*<sup>®</sup> - XR Series For Separately Derived Systems Only

**THE RELIANCE *Panel/Link*<sup>®</sup> IS NOT FOR "DO-IT-YOURSELF" INSTALLATION. It must be installed by a qualified electrician thoroughly familiar with all applicable electrical and building codes.**

The Reliance *Panel/Link*<sup>®</sup> is designed to provide, in the event of a utility power outage, a safe and simple method of powering designated branch circuits from a portable generator. The unique mechanical interlock between the "GENERATOR SUPPLY" and "UTILITY SUPPLY" circuit breakers, which supply power to the panel bus, prevents feedback by prohibiting these breakers from being in the "ON" position at the same time. The mechanical interlock also switches the neutrals between the two sources in a sequence that avoids any voltage variations that result from not having the neutral connected when supply breakers are connected.

Generally, a small portable generator will not have sufficient capacity to power a large number of circuits at the same time. The Reliance *Panel/Link*<sup>®</sup> allows you to power selectively any number or combination of branch circuits wired into the panel, up to the capacity of the generator.

### INSTALLING THE PANEL/LINK<sup>®</sup>

**WARNING: Be sure the power from both the main panel and the generator is turned off before starting this procedure. Failure to do so could result in serious injury or death.**

1. Mount the transfer panel next to the main load center (circuit breaker or fuse box).
2. Install a large diameter nipple (2 inch trade size recommended) between the two panels. If the main load center does not have sub-feed lugs, install a double pole circuit breaker that is the same ampacity as the Utility Supply breaker in the transfer panel
3. Run the proper ampacity wires between the breaker or sub-feed lugs in the main panel and the Utility Supply breaker in the transfer panel.
4. Run an insulated neutral wire between the neutral bar in the main panel to the Utility Neutral Switch (position 2) in the transfer panel . The neutral wire must be the same ampacity as the wires in 3 above.
5. If a non-metallic nipple was used in step 1 or if required by local codes, run a ground wire between the two panels.
6. Select the circuits to be powered by the generator. Determine if the branch circuit breakers for the selected circuits can be moved from the main panel into the transfer panel. Reliance transfer panels are UL listed for a number of interchangeable breakers (see label on the inside cover of the transfer panel). If the main panel has this type of breaker, relocate the selected branch circuit breakers to the transfer panel. If the breakers cannot be moved, other breakers of the same ampacity must be installed in the transfer panel. Wire as described in Step 7. **Be sure the openings created by removing the breakers from the main panel are fitted with appropriate covers.**
7. If the branch circuit conductor is long enough, you may want to pull it from the main panel and reinstall it in the transfer panel. If not possible or desirable, wire-nut an extension to the branch conductor in the main panel and run it through the 2 inch nipple to the transfer panel. Connect to the appropriate branch circuit breaker. Repeat for each of the selected circuits. **The branch conductors must be connected to the same ampacity breakers as in the main panel.**
8. For transfer panel models without the optional power inlet or watt meters, connect the two hot feeds from the generator directly to the Generator Supply breaker in the transfer panel. Go to Step 10.
9. For transfer panel models with the optional watt meters and no power inlet, thread one of the two hot wires coming from the generator through the center of the left meter's current transformer (small doughnut-shaped object connected to the meter) and connect it the bottom

lug (position 3) of the generator breaker. Thread the other hot wire coming from the generator through the right meter's current transformer and connect it the top lug (position 5) of the generator breaker. The meters will now register when the wires carry sufficient current from the generator.

10. Connect the neutral wire from the generator to the Generator Neutral Switch (position 1) in the transfer panel and the ground wire from the generator to the grounding bar in the transfer panel

## KEY COMPONENTS OF THE PANEL/LINK®

**POWER INPUT SELECTOR (MAIN) BREAKERS.** These breakers select either utility line (UTILITY SUPPLY) or generator (GENERATOR SUPPLY) as the power source for all branch circuits that have been wired into the Panel/Link®.

**BRANCH CIRCUIT BREAKERS.** For overcurrent protection of each branch circuit wired into the Panel/Link®. These breakers may all be in the "ON" position when on utility power, and selectively "ON" or "OFF" when on generator power.

**WATTMETERS (Optional).** Indicate the circuit loads when the generator is supplying power.

	<b>Left Meter Feeds Circuits:</b>	<b>Right Meter Feeds Circuits:</b>
XRC	7, 8, 11, 12, 15, and 16	5, 6, 9, 10, 13, and 14
XRR	5, 6, 9, 10, 13, 14, 17, 18, 21, 22, 25, 26, 29 and 30	7, 8, 11, 12, 15, 16, 19, 20, 23, 24, 27 and 28

Two current transformers, each of which encircle a hot wire coming from the generator, power the meters.

To insure that your generator will always be ready when you need it, it is very important to run it under load on a regular basis and to keep the tank filled with fresh fuel. Perform the following steps at least once a month to keep the generator properly exercised.

## TRANSFERRING FROM UTILITY POWER TO GENERATOR POWER

1. Move "UTILITY SUPPLY" handles to the "OFF" position.
2. Move all branch circuit breaker handles to the "OFF" position.
3. Move "GENERATOR SUPPLY" handles to the "ON" position.
4. Insert the male power cord connector plug into the appropriate outlet on the generator. Rotate to lock.
5. Plug the female end of the power cord from the generator into the power inlet that is either located on the face of the Panel/Link® or, depending upon the model, remotely from the Panel/Link®. Rotate to lock.
6. Start the generator, following the procedures described in the generator owner's manual furnished by the generator manufacturer.
7. Select the circuits to be powered by the generator by moving the corresponding branch circuit breaker handles to the "ON" position. Alternate use of larger loads such as furnace motors, well pumps, freezers, etc., so that the capacity of the generator is not exceeded. **Do not attempt to operate any loads in excess of the capacity of the generator.**

## TRANSFERRING FROM GENERATOR POWER BACK TO UTILITY POWER

1. Follow the procedures in the generator owner's manual to turn off the generator.
2. Unplug the power cord.
3. Move "GENERATOR SUPPLY" handles to the "OFF" position.
4. Move "UTILITY SUPPLY" handles to the "ON" position.
5. Return all branch circuit breaker handles to the "ON" position.



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