

# INSTRUCTIONS FOR THE RELIANCE *PowerBack*™

Model THP108\_

## Non-Contact Utility Power Return Alert

**THE RELIANCE *PowerBACK* IS NOT FOR “DO-IT-YOURSELF” INSTALLATION. It must be installed by a qualified electrician in accordance with all applicable electrical and building codes.**

This Reliance PowerBACK is a non-contact utility power return sensor with audible alert. If the main circuit breaker in a generator-ready load center or manual transfer panel, has to be turned the OFF position in order for the standby generator to supply power to the circuits within the panel, the PowerBACK, when activated, will sound a 100dB audible alert when utility power is restored.

The Reliance PowerBACK! will indicate that utility power has returned and the standby generator may be manually shut down.

### KEY COMPONENTS OF THE PowerBack POWER RETURN ALERT

1. Audible alert and battery enclosure with “System Armed” and “Low Battery” lights.
2. 23” flexible insulated cable attached to an 8” flexible current-sensing antenna.
1. A 36” ground wire

### INSTALLATION

**CAUTION! The PowerBACK! is an isolated low-voltage device that is intended to come in contact with insulated conductors feeding a residential or light commercial load center (circuit breaker panel). It is not intended for use on uninsulated conductors such as busbars**

**DANGER! HAZARDOUS VOLTAGE! TURN MAIN CIRCUIT BREAKER TO THE OFF POSITION BEFORE INSTALLATION.**

**DANGER! THE LINE TERMINALS ON THE MAIN CIRCUIT BREAKER MAY BE LIVE DURING THE INSTALLATION PROCESS. TAKE ALL APPROPRIATE SAFETY MEASURES DURING INSTALLATION. IT IS RECOMMENDED THAT INSTALLERS CONTACT THE LOCAL POWER UTILITY TO DEENERGIZE THE LOAD CENTER BEFORE INSTALLING THE PowerBACK.**



1. Install a fresh 9V alkaline battery in the PowerBACK battery compartment.
2. Move Main (Utility) circuit breaker handle to the “OFF” position.
3. Remove panel cover.
4. Locate and remove a ½” knockout within 20 inches of the incoming utility power conductors.
5. Remove the retaining nut from the PowerBACK threaded nipple.
6. Feed the flexible cable (the black part) and antenna (the white part) through the knockout from the outside.
7. Feed the flexible cable and antenna through the retaining nut.
8. Fasten the PowerBACK to the enclosure with the retaining nut.
9. Carefully wrap the 8-inch flexible antenna like a snake around one of the main power cables feeding the main circuit breaker. The antenna should hold itself in place, however, it can be secured with electrical tape if desired. **DANGER! IF THEY HAVE NOT BEEN DEENERGIZED, THE LINE TERMINALS ON THE MAIN CIRCUIT BREAKER WILL BE LIVE DURING THE INSTALLATION PROCESS.**

10. Strip the ground (green) wire and connect it to the ground bus in the loadcenter.

11. Replace panel cover, turn the main circuit breaker ON, and reenergize the loadcenter.

### TESTING

1. Simply turn the PowerBACK on/off switch to the ON position. The 100dB alert will sound.

2. Turn the main breaker to the OFF position. The alert tone will cease.
3. Energize the standby generator, and operate the transfer switch to power the emergency circuits from the generator. Verify that the alert tone remains off.
4. Return the loadcenter to normal utility operation and de-energize the generator.
5. Return the Power BACK on/off switch to the OFF position.

The red "Low Battery Indicator" will light when the battery needs to be replaced.

## OPERATION

1. When utility power fails, turn the PowerBACK on/off switch to the ON position. The green "System Armed" light will come on.
2. Follow the instructions on the generator-ready load center or manual transfer panel for activating the link to the standby power system.
3. When utility power is available to the panel, the PowerBACK will emit a 100dB audible signal.
4. Turn the PowerBACK on/off switch to the OFF position.
5. Follow the instructions on the generator-ready load center or manual transfer panel to return utility power.

## TROUBLESHOOTING

1. PowerBACK will not sound alert when utility mains power is available
  - a. Replace 9v battery with known good battery.
  - b. Assure that the sensing antenna is wound tightly around the main feeder cable. Reposition sensing antenna if necessary.
2. PowerBACK alerts when loadcenter is being supplied by generator power.
  - a. Assure that the ground wire is properly connected.
  - b. Assure that the sensing antenna (the white part) is not near any conductors that are energized by the generator
  - c. Re-route the flexible cable (the black part) as far away as possible from any conductors that are energized by the generator.

**CAUTION: Do not operate any generator in an enclosed area, where the exhaust fumes can accumulate in an enclosed area, or near open doors and windows.**

## SPECIFICATIONS

- Voltage range: 120 VAC maximum
- Frequency range: 50-60 Hz
- Installation/overvoltage category III. Suitable for installation on insulated conductors of residential and light commercial load centers and panel boards.
- Pollution degree: 2
- Environmental condition: normal
- Altitude: 2,000 m (6,561 feet) maximum
- For indoor use only
- Operating temperature range: 5 °C to 40 °C (41 °F to 104 °F)
- Operating relative humidity: 80% RH or less
- UL Listed



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