

# Installation Instructions

## PTK – ACVD Kit Voltage Detection Kit

**Utility Voltage Detection** – The voltage detection sensor is used to sense the presence or absence of Utility AC Voltage. This sensor can be installed on any conductor that is supplying utility AC voltage such as the battery charger, block heater input circuit or Utility AC leads from the transfer switch. This will signal “Utility Power On” and “Utility Power Off” to the monitoring unit.

**Generator Voltage Detection** – The voltage detection sensor is used to sense the presence or absence of generator voltage on the output side of the generator breaker. This kit will signal a “Generator Breaker Open” condition to the monitoring unit when the engine is running, and no AC voltage is present after 60 seconds. When used in conjunction with Utility Voltage Detection, the alert condition of “Site Without Power” is signaled when voltage is absent from both the Utility Voltage AND the Generator Voltage for 60 seconds.

Before installing this detector, AC power should be disconnected (turned off) for all connection points!

- **Note** - The sensor is designed to sense ONLY one (1) phase/leg of AC voltage. If the sensor is too close to another phase/leg, the sensor may pick up the voltage from the other phase and “cancel out” the signal. Be sure to put the AC sensor on the opposite side of the conductor away from any other phases.
- **Utility Voltage Sensing** - Attach the AC voltage sensor to an insulated “hot” conductor that is supplying normal utility voltage. Typical connection points are the utility power source for the battery charger, the block heater, utility power sensing from the ATS or a load center in the generator enclosure.
- **Generator Voltage Sensing** - Attach the AC voltage sensor to any insulated “hot” conductor on the **OUTPUT** side of the generator main line circuit breaker.
- Position the sensor onto the outside of the conductor as shown on below and secure with cable ties and the sensor with electrical tape. **Do not use zip ties directly on the sensor as it may damage the sensor board.**
- Connect the **RED** wire of the AC voltage sensor to the appropriate **INPUT LEAD** on the I/O harness (see input configuration data sheet) with supplied spade connectors or a connector of your choice.
- Connect the **BLACK** wire of the AC voltage sensor to any of the monitor ground leads on the harness with supplied spade connectors or a connector of your choice.
- You can cut the wire on the I/O harness or the voltage detector to a shorter length if desired.



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