



# Electronic Products

## MAINTENANCE

### Pumptec-Plus

Pumptec-Plus is a pump/motor protection device designed to work on any 220V single-phase induction motor (PSC, CSCR, CSIR, and split-phase) ranging in size from 1/2 to 5 horsepower. Pumptec-Plus uses a micro-computer to continuously monitor motor power and line voltage to provide protection against dry well, water logged tank, high and low voltage and mud or sand clogging.

#### Pumptec-Plus - Trouble During Installation

Symptom	Possible Cause	Solution
<b>Unit Appears Dead (No Lights)</b>	No Power to Unit	Check wiring. Power supply voltage should be applied to L1 and L2 terminals of the Pumptec-Plus. In some installations the pressure switch or other control device is wired to the input of the Pumptec-Plus. Make sure this switch is closed.
	Unit Needs To Be Calibrated	Pumptec-Plus is calibrated at the factory so that it will overload on most pump systems when the unit is first installed. This overload condition is a reminder that the Pumptec-Plus unit requires calibration before use. See step 7 of the installation instructions.
<b>Flashing Yellow Light</b>	Miscalibrated	Pumptec-Plus should be calibrated on a full recovery well with the maximum water flow. Flow restrictors are not recommended.
	Two Wire Motor	Step C of the calibration instructions indicate that a flashing green light condition will occur 2 to 3 seconds after taking the SNAPSHOT of the motor load. On some two-wire motors the yellow light will flash instead of the green light. Press and release the reset button. The green should start flashing.
<b>Flashing Yellow Light During Calibration</b>	Power Interruption	During the installation of Pumptec-Plus power may be switched on and off several times. If power is cycled more than four times within a minute Pumptec-Plus will trip on rapid cycle. Press and release the reset button to restart the unit.
	Float Switch	A bobbing float switch may cause the unit to detect a rapid cycle condition on any motor or an overload condition on two wire motors. Try to reduce water splashing or use a different switch.
<b>Flashing Red and Yellow Lights</b>	High Line Voltage	The line voltage is over 242 volts. Check line voltage. Report high line voltage to the power company.
	Unloaded Generator	If you are using a generator the line voltage may become too high when the generator unloads. Pumptec-Plus will not allow the motor to turn on again until the line voltage returns to normal. Over voltage trips will also occur if line frequency drops too far below 50 Hz.
<b>Flashing Red Light</b>	Low Line Voltage	The line voltage is below 198 volts. Check line voltage.
	Loose Connections	Check for loose connections which may cause voltage drops.
	Loaded Generator	If you are using a generator the line voltage may become too low when the generator loads. Pumptec-Plus will trip on undervoltage if the generator voltage drops below 198 volts for more than 2.5 seconds. Undervoltage trips will also occur if the line frequency rises too far above 50 Hz.
<b>Solid Red Light</b>	Low Line Voltage	The line voltage is below 198 volts. Check line voltage.
	Loose Connections	Check for loose connections which may cause voltage drops.
	Loaded Generator	If you are using a generator the line voltage may become too low when the generator loads. Pumptec-Plus will trip on undervoltage if the generator voltage drops below 198 volts for more than 2.5 seconds. Undervoltage trips will also occur if the line frequency rises too far above 50 Hz.