**Troubleshooting Guide - SmartBox (MPLC24 Shown)**

**Did You Know?**

During a normal run cycle, no lights should be lit on the time delay. Should a sensor detect a possible system problem, the “on” light will engage. If the system is shut down during a cycle both the “on” and “up” lights will be lit for the duration of the lawn controller cycle.

*Checking the Time Delay!*

Turn the time delay down to 5 seconds. Next, cross the red and blue wire. The “on” light should turn on. After 5 seconds the system should shut off and both the “on” and “up” lights should be on.

Note: Filling system lines may require multiple run cycles to build enough pressure to initiate the sensor.

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**Installation - Operation - Parts**

**Owner’s Manual**

**MUNRO SMARTBOX SERIES**

- **Part Number**
  - MPLC24: Pump protection from low pressure or run-dry
  - MPLC24T: Pump protection from low pressure, run dry and high temperature due to dead head
  - MPLC24R: System shut-down from low pressure sensor, adjustable 10 minute timer will automatically restart pump to check if problem has been resolved
  - MPLC24RT: System shut-down from low pressure or high temperature sensor, an adjustable 10 minute timer will automatically restart pump to check if problem has been resolved

- **Description**
  - 20 PSI Sensor
  - 20 PSI Sensor and 105° temperature sensor

1.800.942.4270

www.munropump.com
**NOTE:**
Refer to specific wiring diagram located on inside cover of enclosure.

**Turn Breaker “OFF”**
- Never work with electrical wiring on a live circuit.

**WARNING**

**Step 1**

**Plumb for Sensors**
- Pressure Sensor - 1/4" NPT
  - Install on discharge side of pump. Place the pressure sensor after the y-strainer, or before a check valve.
- Optional High Temperature Sensor - 1/4" NPT
  - Install directly on pump case or within 12" of the pump.

**Step 2**

**Wire Sensor(s)**
- Wire sensor(s) to RED & BLUE leads in the SmartBox, secure with wire nuts.
  - Optional temperature sensor is wired in parallel with pressure sensor.
  - RED & BLUE lead wires can be placed on either terminal of the pressure sensor and high temperature sensor.

**Step 3**

**Wire Lawn Controller**
- Locate the Master Valve (mv) and Common (com) inside Lawn Controller.
  - Wire MV to BLACK wire lead in SmartBox, secure with wire nuts.
  - Wire COM to WHITE wire lead in SmartBox, secure with wire nuts.

**Step 4**

**Wire Relay to Pump**
- Refer to wiring diagram on motor plate for proper voltage and wire placement.
- Refer to NEC wire cable chart for proper size of wire. Undersized wire can affect pump performance.

**Step 5**

**Wire Power Supply**
- Run power supply wires from breaker box (110 v or 220 v).
  - Attach GREEN grounding wire.
  - Attach BLACK HOT to L2 on relay.
  - Attach WHITE Neutral (110 v) / second HOT (220 v) to L1 on relay.

**Step 6**

**Turn Breaker “On”**

**WARNING**

**System Fill Tip**
- Timer inside the SmartBox is preset at 30 seconds. Initial start-up or large zones may require additional time.
- Turn dial 1/4 turn to the right.
- Repeat run cycle, as needed, to fill all lines. Return timer to preset time.

**Effective January, 2002. For models built prior to January, 2002, contact manufacturer for instructions.**