

OWNER'S MANUAL

MUNRO SMARTBOX SERIES



Installation - Operation - Parts

Part Number	Description	External Packaged Components
MPLC24	Pump protection from low pressure or run-dry. Blue, powder-coated steel, UL-50 Type 3R listed enclosure	20 PSI pressure sensor
MPLC24T	Pump protection from low pressure, run-dry and high temperature due to dead head. Blue, powder-coated steel, UL-50 Type 3R listed enclosure	20 PSI pressure sensor and 130°F / 54°C temperature sensor
MPLC24S	Pump protection from low pressure or run-dry. Stainless steel, UL-50 Type 3R listed enclosure	20 PSI pressure sensor
MPLC24TS	Pump protection from low pressure, run-dry and high temperature due to dead head. Stainless steel, UL-50 Type 3R listed enclosure	20 PSI pressure sensor and 130°F / 54°C temperature sensor
Replacement Parts		
ELRELAY1D	Contactor – 24V, 40amp, din rail mount	
ELTIMER1	Timer – On delay, 0s-10m	
ELSWITCH2	Pressure Sensor - 20 PSI	
ELTEMP5	Temperature Sensor - 130°F / 54°C	

1.800.942.4270
www.munropump.com



Typical SmartBox Installation

NOTE:
Refer to specific wiring diagram located on inside cover of enclosure.

Step 1

Turn Breaker "OFF"

- Never work with electrical wiring on a live circuit.

WARNING

Step 2

Plumb for Sensors

- Pressure Sensor - 1/4" NPT
 - Install directly in the pump case or on the discharge line. If on the discharge line, place the pressure sensor after the y-strainer, or before the check valve.
- Optional High Temperature Sensor - 1/4" NPT
 - Install directly on pump case or within 12" of the pump.

Step 3

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.
- NOTE - RED & BLUE lead wires can be placed on either terminal of the pressure sensor and high temperature sensor.*

Step 4

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 5

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 6

Wire Power Supply

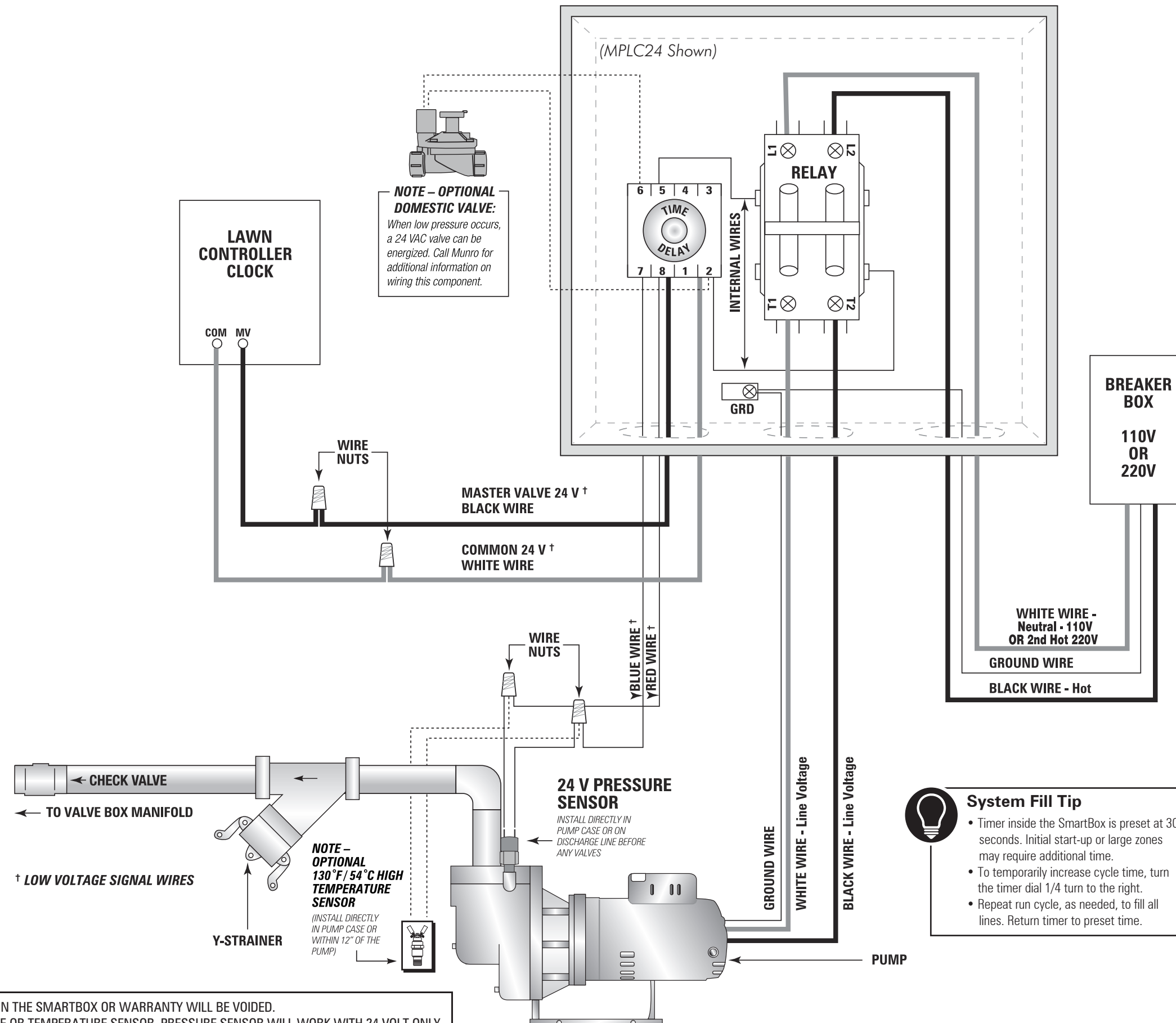
- Run power supply wires from breaker box (110 v or 220 v).
- Attach GREEN grounding wire.
- Attach BLACK HOT to L2 on relay.
- Attach WHITE Neutral (110 v) / second HOT (220 v) to L1 on relay.

Step 7

Turn Breaker "On"

WARNING

DO NOT ATTEMPT TO REWIRE OR ALTER WIRING IN THE SMARTBOX OR WARRANTY WILL BE VOIDED.
DO NOT WIRE POWER DIRECTLY TO THE PRESSURE OR TEMPERATURE SENSOR. PRESSURE SENSOR WILL WORK WITH 24 VOLT ONLY.

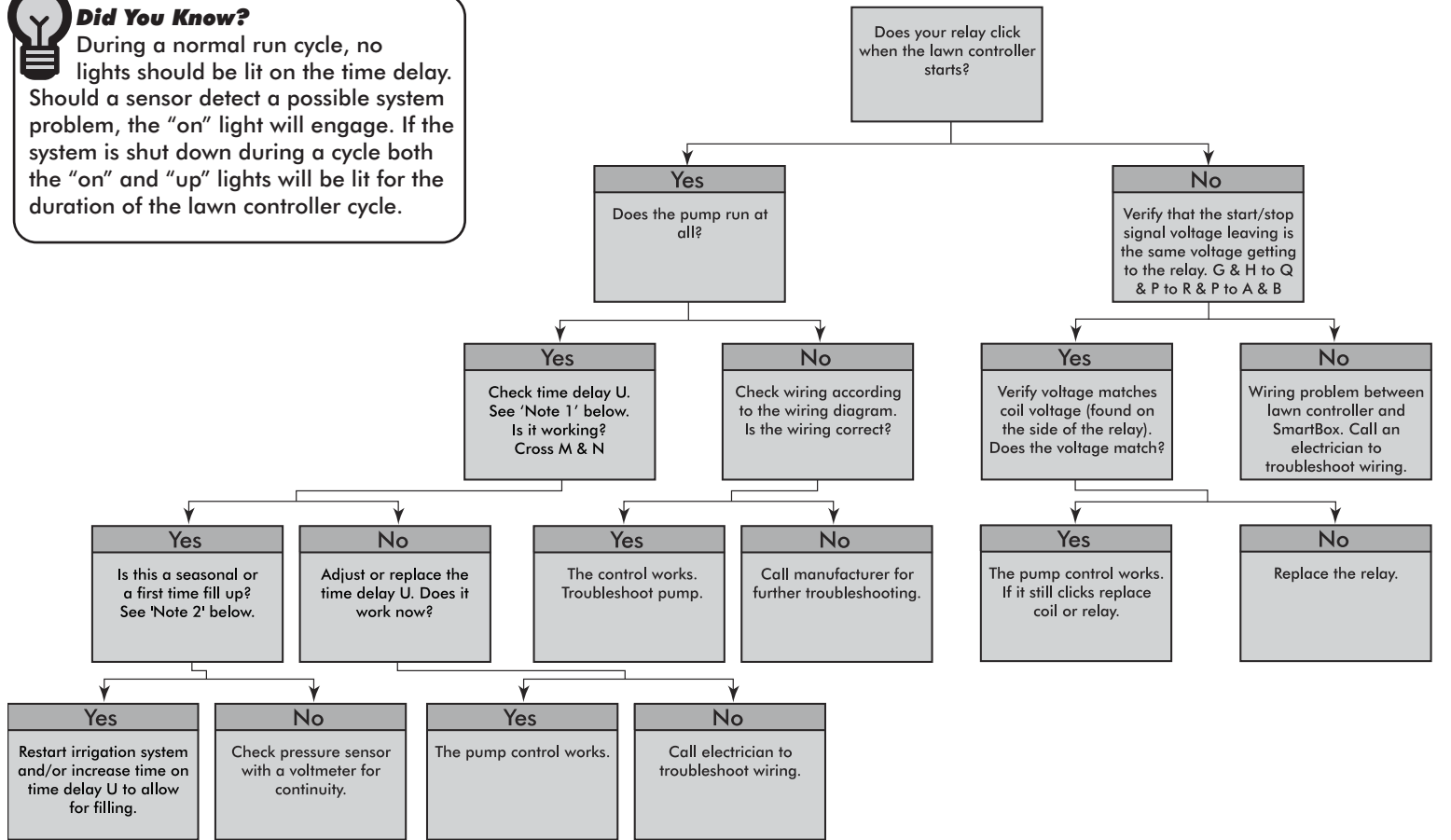


Troubleshooting Guide - SmartBox (MPLC24 Shown)



Did You Know?

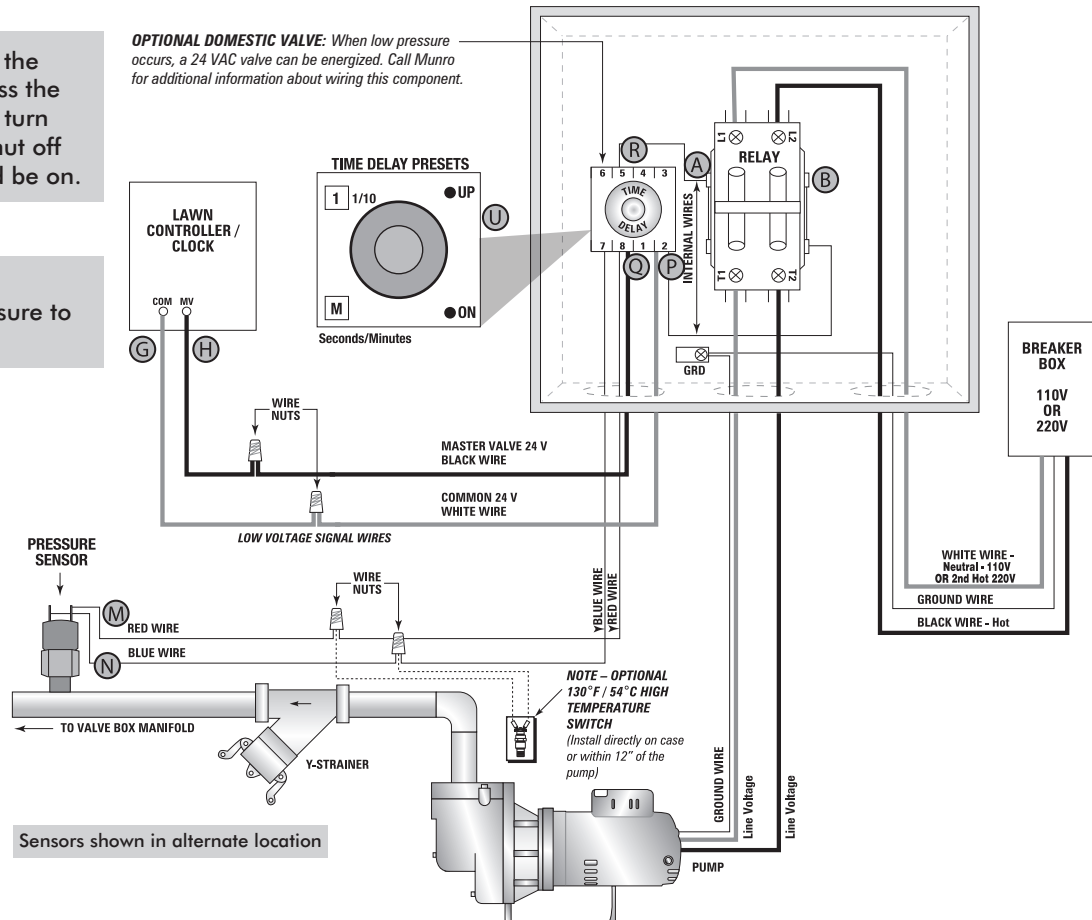
During a normal run cycle, no lights should be lit on the time delay. Should a sensor detect a possible system problem, the "on" light will engage. If the system is shut down during a cycle both the "on" and "up" lights will be lit for the duration of the lawn controller cycle.



Note 1: 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 2: Filling system lines may require multiple run cycles to build enough pressure to initiate the sensor.

OPTIONAL DOMESTIC VALVE: When low pressure occurs, a 24 VAC valve can be energized. Call Munro for additional information about wiring this component.



Call Munro technical support for any questions relating to this product.
Toll Free: 1.800.942.4270

