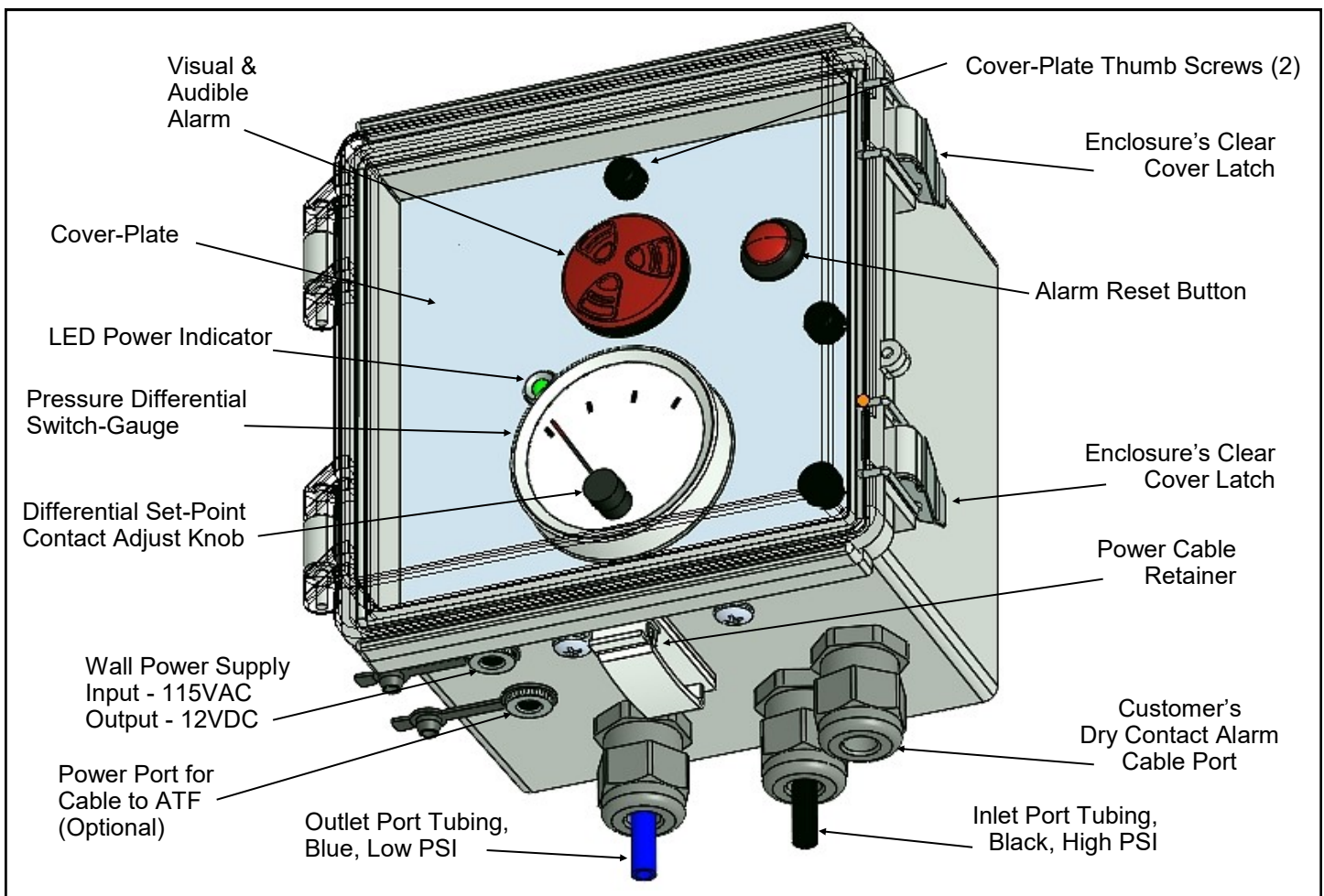


## I. PRESSURE DIFFERENTIAL ALARM PACKAGE (PDA2)

**Description:** The pressure differential alarm package continually monitors and displays the strainer's inlet and outlet differential pressure. When the strainer element (conical strainer basket) becomes significantly clogged, the pressure differential switch-gauge will trigger an audible siren and a visual flashing alarm light. These alarms are intended to alert maintenance personnel that the strainer element must be removed and cleaned (see your *Thompson Strainer Owner's Manual* for complete strainer element cleaning instructions).

### PRESSURE DIFFERENTIAL ALARM PACKAGE OVERVIEW (PDA2)



#### Installation Instructions:

The following instructions are to be used as a guide when installing the PDA on to an existing Thompson Strainer

1. Place the PDA enclosure with the black bracket over the high and low gauge ports on the side of the strainer housing.
2. While applying pressure to the enclosure and bracket, tighten the (2) 10-24 stainless steel set screws to secure the bracket on the gauge ports.
3. Connect the blue 1/4" tube into the upper gauge port.
4. Connect the black 1/4" tube into the lower gauge port.

### **Operation Instructions:**

Remove the power supply from the box and insert the connector end into the socket on the bottom of the PDA housing, as indicated in the drawing above. Plug the power supply into a nominal 120VAC power outlet. Standard systems are supplied with a Wall Plug-In 12VDC Power Supply, with an input power of 120VAC.

**Please Note - In the case of an “Outdoor” use application, where there is a chance that the unit could get wet, it is the Customer’s responsibility to provide a safe power outlet, in terms of being water proof, and physically able to accept the plug-in power supply we provide. Miller - Leaman, Inc. also recommends that the installation be only performed by a qualified electrician, and that all Local, State, and National Electrical Codes be followed.**

The pressure differential switch-gauge is factory set to 7-8 PSI. Since the *Thompson Strainer* operates with less than 1 PSI loss during maximum flow when the strainer screen is clean, the differential shown on the switch-gauge will be 1 PSI. Therefore, by the time the differential pressure rises to 7-8 PSI, the strainer element will have become significantly clogged and will require immediate removal and cleaning.

To adjust the pressure differential switch-gauge to a lower setting, simply turn the small black knob to move the differential set-point contact (see illustration above) to the desired location.

**WE DO NOT RECOMMEND SETTING THE DIFFERENTIAL SWITCH-GAUGE HIGHER THAN 10 PSI. DISABLING THE ALARM OR INCREASING THE ALARM SET POINT COULD RESULT IN DAMAGE TO THE STRAINER ELEMENT AND ALLOW DEBRIS TO PASS INTO THE SYSTEM.**

The alarm will latch-ON when the differential set point is reached and will stay latched until the Reset button is pressed. (If the Reset button is pressed but the strainer remains beyond the acceptable differential pressure, the alarm will re-latch immediately). The purpose of the alarm package is to alert maintenance personnel that the strainer element requires cleaning. Therefore, if the Alarm Light is flashing, and has sounded, the strainer needs to be taken off-line and the strainer element needs to be cleaned as instructed in the *STRAINER ELEMENT CLEANING* section of the *Thompson Strainer Owner’s Manual*.

After the strainer is cleaned and put back in service, the differential pressure should be back to 1 PSI. If the switch-gauge indicates a 1 PSI differential but the alarm is still sounding, press the Reset button.

If you have any questions about the Pressure Differential Alarm Package, please call our product specialists at (386) 248-0500. You can also e-mail your questions to support@millerleaman.com.

## **II. GENERAL INFORMATION**

### **Alarm Output - Customer’s Dry Contact:**

See illustration on front page. The PC Board has been factory set up for a 12 VDC Output to the Relay 2 coil when the alarm activates. Relay 2 provides a Dry Contact for the optional use by the Customer. A cable strain relief port has been provided for the Customer’s wiring to this Dry Contact Alarm signal. A maximum switching power of 24VDC 0.5 Amp is recommended. (Please see the PDA2 Electrical Schematic below, on page 3 of this manual. If you have any additional questions please contact MLI at 386-248-0500 or e-mail support@millerleaman.com.)

### **Water Resistance:**

The Pressure Differential Alarm Controller is water-proof, but not submersible. Do not install below ground level where the box can be submerged in water. Keep the enclosure’s Clear cover latched during normal operation. Insure all strain reliefs have be properly tightened to maintain this Nema 4X integrity. Periodically check inside the enclosure, with the power disconnected, and the cover plate opened, for any signs of leakage.

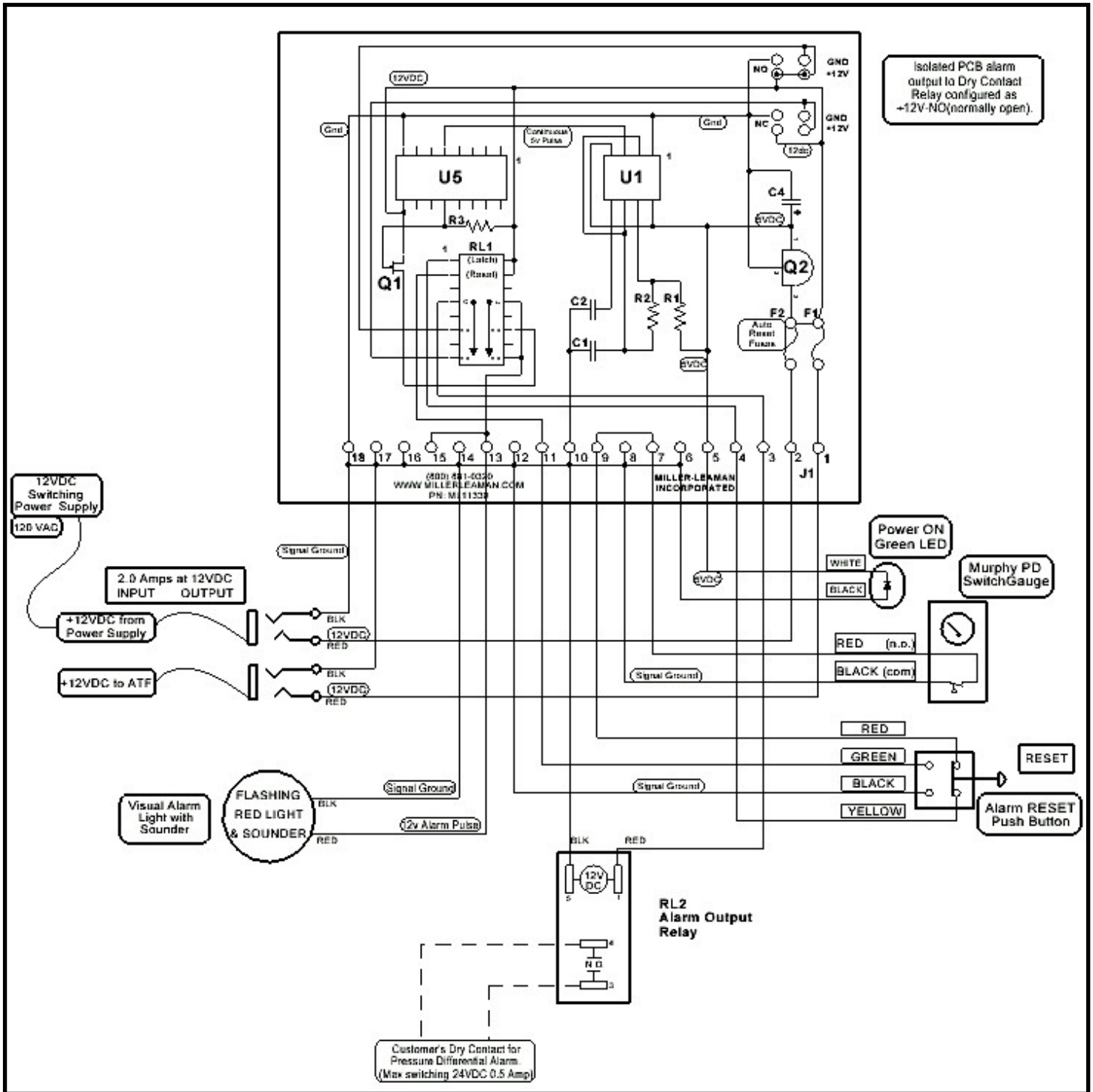
### **Miller-Leaman, Inc. Return Policy:**

Units in need of warranty repair and less than 90-days old, must be returned to MLI accompanied by a Return Material Authorization (RMA) number. To request a RMA number call (386) 248-0500.

### **Maintenance:**

The PDA alarm should be checked on a routine basis by contacting the differential set-point (see illustration on first page) so that the audible and visual alarm engages and the alarm-reset button deactivates the alarms.

### III. PDA2 WIRING SCHEMATIC



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