



Toledo Integrated Systems Brake Monitor

Limited Warranty

The software and sensors are warranted by the manufacturer, Toledo Integrated Systems, to be free from defects in workmanship for one year from the date of manufacturer's shipment. This warranty is limited to the functions of the Brake Monitor as stated in this manual. If modifications are made to the software, Toledo Integrated Systems will not be responsible for the Brake Monitor.

All products subject to this warranty must be returned for examination, repair or replacement to:

F.O.B. Toledo Integrated Systems
6834 Spring Valley Dr.
Holland, OH 43528

The express warranty set forth herein is in lieu of all other warranties, expressed or implied, including without limitation any warranties of merchant-ability or fitness for particular purpose. All such warranties are hereby disclaimed and excluded by the manufacturer.

Repair or replacement of defective products as provided above is the sole and exclusive remedy provided thereunder. The manufacturer shall not be liable for any further loss, damages, or expenses, including incidental or consequential damages, directly or indirectly arising from the sale or use of this product. This includes any failure inside other manufacturers' units that the Brake Monitor is tied into.

Any unauthorized repairs or changes to the program will void this warranty.

There are no warranties that extend beyond those expressly set forth herein.

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SECTION 1 BRAKE MONITOR DESCRIPTION

The Brake Monitor monitors the stopping time of the press on every stop. It has two settings to display problems with the brake stopping time. The Alarm setting, when exceeded will open a relay and not allow the press to cycle. It will display Brake Fault on the LCD display and the ALARM Light will light. The Warning setting, when exceeded will display Brake Warning and the WARNING Light will light. The warning fault will not open the stop relay. It will however continue to flash the yellow light until it is acknowledged, even if the next stop is below the warning time.

1A Resetting Alarms

- 1 When any alarm occurs, investigate the cause of the problem.
- 2 Press RESET

SECTION 2 SETTING THE SET POINTS

- 1 Turn the key switch to SET
- 2 Press either the alarm light or the warning light (depending on the set point desired to set.
- 3 The display will now display the setting that you are working with and the appropriate light will flash
- 4 Press and hold the increase or decrease button until the setting is correct for your application
- 5 The other setting can be set by simply pressing the other light.
- 6 When both settings are done, turn the key switch back to RUN.
- 7 NOTE: While the key switch is in SET, the alarm relay will open up preventing the press from running except during a brake test.

SECTION 3 DRIFT FAULT

This fault is caused by the unit seeing motion on the encoder without the clutch valve engaged.

When this is sensed, the unit will open up the stop relay and display DRIFT FAULT on the display as well as turning on the red ALARM light.

To reset this fault press the RESET pushbutton.

SECTION 4 NO MOTION FAULT

This fault is caused by the unit not seeing motion on the encoder while the clutch is engaged. The press has 1 second to start seeing motion from the time the clutch is engaged. Once motion is sensed with the clutch engaged, the unit will fault if motion is lost again before the clutch is disengaged.

If motion is not achieved or motion is lost, the unit will open up the stop relay and display NO MOTION FAULT on the display as well as turning on the red ALARM light.

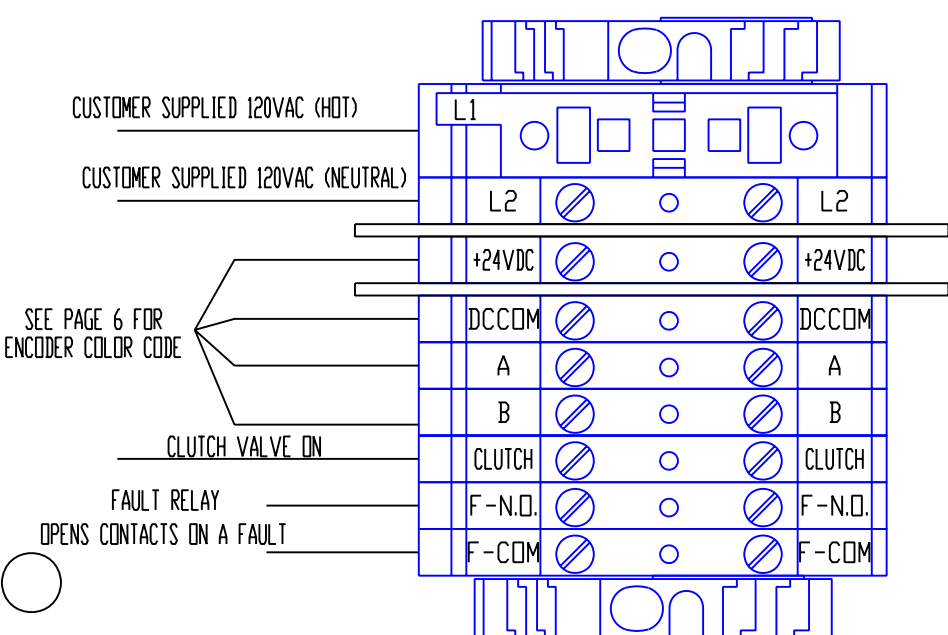
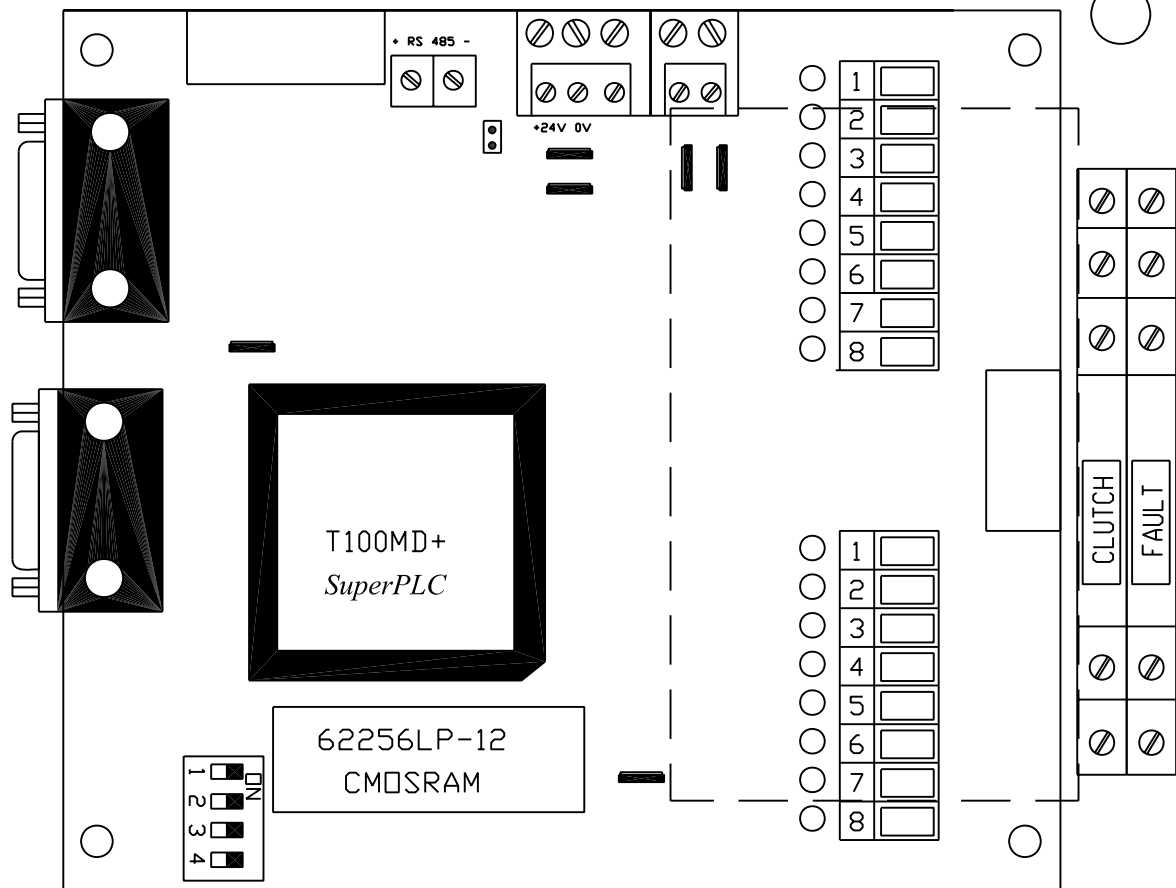
To reset this fault press the RESET pushbutton

SECTION 5 BRAKE TEST MODE

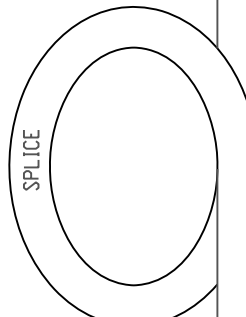
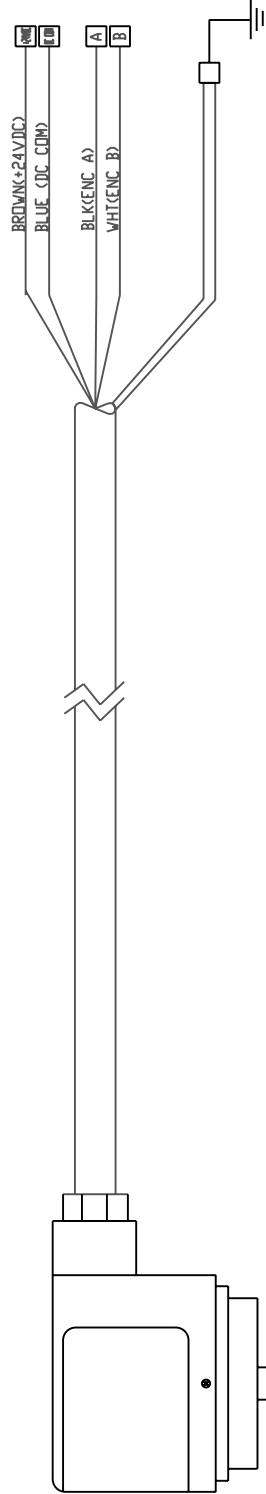
The unit comes equipped with a built in 90 degree stop test. This will initiate a stop when the press moves 90 degrees from the time the clutch is engaged during the test. When the press is stopped it will display the stopping time of the test.

RUN BRAKE TEST

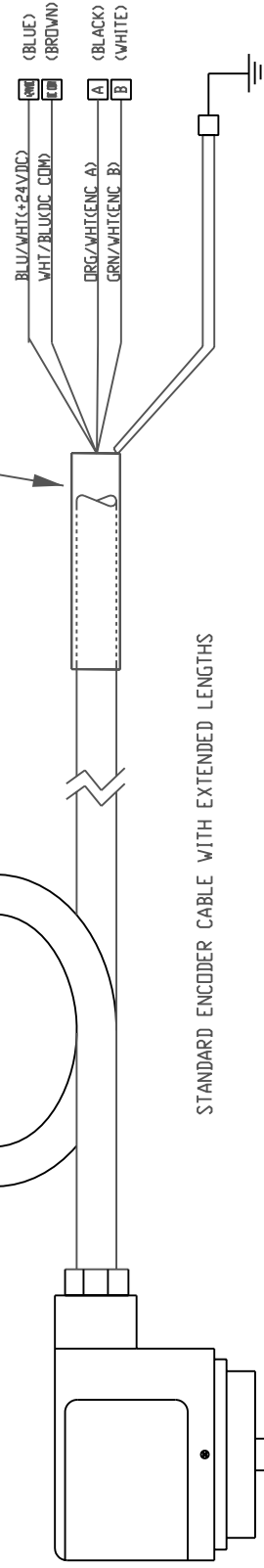
- 1 Run the press to the starting position of the test (usually 0 degrees TDC).
- 2 Turn the key switch to SET
- 3 Press the RESET button.
- 4 The display will now read BRAKE TEST READY RUN PRESS.
- 5 The stop relay will close allow the press to cycle.
- 6 Cycle the press
- 7 When the unit senses that it has moved 90 degrees, it will open up it's stop relay to stop the press
- 8 The stop time will be displayed.
- 9 The only way to exit this test is to move the key switch back to RUN.



STANDARD ENCODER CABLE 6'



PLACE TUBE 1/2 INCH PAST CABLE INSULATION



STANDARD ENCODER CABLE WITH EXTENDED LENGTHS



Designed By: S. Steinhart	Date: 2/2/04	Part Number: PP100w/BH
Drawn By: S. Steinhart	Date: 2/2/04	File Name: encoder cable
Approved By:	Date:	Doc No: encoder cable

Press Pilot 100
Encoder Cable
Toledo Int. Sys.
Holland, Oh

Drng. Size: B
Drng. Type: ELEC.
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