

FUNCTIONAL TEST INSTRUCTIONS

1. Plug in the following connectors; J5, J6, J8, J9, J10.
2. Connect power supply ground to J7 (Stud).
3. Connect power supply 24 Volts to J11 (Stud).
4. Perform the five Operation Modes to complete test.

1st

Display Software Revision Mode:

To Begin Testing in Display Software Revision

1. CLOSE switch SW 1.
2. CLOSE switch SW 9 (Turn ON Power)
3. Confirm all panel LED's illuminate momentarily after power up. (D1 through D17)
4. Confirm the blinking illumination, either LED D4 or LED D7.
5. OPEN switch SW 1.
6. Open SW9. (Turn OFF Power)

2nd

Normal Mode:

To Begin Testing in Normal Mode:

1. Insure all input signals are in start positions.
  - SW10 = CLOSED
  - SW8 = CLOSED
  - SW11 = CLOSED
  - SW12 = OPEN
  - SW13 = CLOSED
  - SW15 = OPEN
  - SW14 = OPEN
  - J6-34 < 0.9v
  - 0.3v < J6-33 < 0.9v
2. SW 9 = CLOSE (Turn on Power)
3. All panel LED's illuminate momentarily after power up. (D1 through D17).
4. Turn OFF D2 if it remains illuminated. Do this by momentarily closing SW2.
5. Momentarily close SW6.
6. Momentarily close SW7. . One of three LEDs (D7, D8, D9) must turn OFF.
7. Momentarily close SW4.
8. Momentarily close SW5. One of three LEDs (D4, D5, D6) must turn OFF.
9. Open SW10.
10. Confirm the beeper is repeating an EIGHT beep sequence.
11. Close SW10. EIGHT beep sequences continue.
12. Turn ON D2. Do this by momentarily closing SW2.
13. Open SW9. (Turn off Power)

3rd Self Test Mode:

To Begin Testing in Self Test Mode:

1. CLOSE switches SW 2 and SW3.
2. SW 9 = CLOSE (Turn on Power)
3. Two seconds after Main contactor turns on, OPEN switches SW 2 and SW 3.
4. Wait, while Self- Test operates automatically. Test takes about 40-sec.
5. After Self- Test has finished, one of two things will happen.
  - a. System OK = D1 willliaht also LED's D12 through D16 remain on.
  - b. System NOT OK = Error Codes will be displayed using other panel LEDs.
6. If System NOT OK -See Error Codes below.
  1. If System OK, Open SW 9. (Turn off Power)Error Codes will be displayed with either flashing or solid illuminated LED.

Flash LED = OPEN fault.

Solid LED = SHORT fault

Self Test Error Codes

LED (Flashing = OPEN, Solid = SHORT) System at Fault

1. D2 Fast Pump
2. D3 Vacuum-Fan
3. D4 Right Brush
4. D5 Left Brush
5. D 6 H ead Actu ator
6. D1 Water Valve
1. D8 Squeegee Actuator
8. D9 Brake
9. D11 Beeper/Horn

4th Input Display Mode:

To Begin Testing in Input Display Mode:

1. CLOSE switch SW 7.
2. CLOSE SW 9 switch.
3. Open switch SW 7 after LED D13 starts to blink.
4. Confirm that HOUR METER light turns on momentarily after power up.
5. OPEN SW 11 = LED D12 is ON
6. CLOSE SW 11 = LED D12 is OFF
7. CLOSE SW 12 for 5 – 7 seconds. = LED D11 latches ON
8. OPEN SW 12 = LED D11 remains ON
9. OPEN SW 13 for 5 – 7 seconds. = LED D10 latches ON
10. CLOSE SW 13 = LED D10 remains ON
11. CLOSE SW 14 = Beeper ON (sounds)
12. OPEN SW 14 = Beeper OFF (silent)
13. CLOSE SW 15 = Beeper ON (One second on and one off.)
14. If silent. Jump to: (Enable Reverse Alarm) and then restart Input Display Mode.
15. OPEN SW 15 = Beeper OFF (silent)
16. OPEN Forward Switch = NOT USED
17. CLOSE Forward Switch = NOT USED
18. Confirm that SW 8 is CLOSED and LED D2 is ON.
19. OPEN SW 8 = LED D2 must turn OFF and beeper repeats a NINE beep sequence.
20. CLOSE SW 8 = LED D2 remains off and beeper continues.
21. Open SW 9. (Turn off Power)

Enable Reverse Alarm



1. Power up machine in REVERSE while holding the HORN button.
2. Continue to hold the HORN button:
  - If HORN sounds, reverse alarm is enabled.
  - If HORN is silent, reverse alarm is disabled.
3. Shut off machine, setting is stored.

5th Propel Test Mode:

To Begin Testing in Propel Test Mode:

1. CLOSE switches SW2 and SW4.
2. CLOSE SW9 switch.
3. Two seconds after main relay is energized, OPEN switches SW2 and SW4.
4. Momentarily increase voltage on J6-34 for two seconds, from 0.9 volts To 2.0 volts.
- 5.OBSERVE TWO LEDS ILLUMINATE, (D15 AND D16). POWER SUPPLY AMP DRAW MUST MEASURE BETWEEN, 5 & 10 AMPS OF CURRENT

6. Return voltage on J6-34 to 0.9 volts.
- 7 .Momentarily increase voltage on J6-33 for 3 seconds, from 0.9 volts To 3.0 volts.
8. Observe LED's illuminate in sequence (D6, D5, D4) No LED's indicates the pedal is released. 3 LED's indicates that the pedal is fully depressed.
9. Return voltage on J6-33 back to 0.9 volts and observe LED's turn off in sequence (D4, D5, and D6).
10. Open SW9. (Turn off Power)
11. End ofTest.

MATERIAL SPECIFICATIONS: NOTED			PAINT - COLOR			02	19348	SCS	08/08/2011
OTHER TREATMENTS AND FINISHES NOTED			PAINT - GLOSS	PAINT - PERFORMANCE	PAINT - ACCEPTANCE	REV	ECO	BY	DATE
SCALE: NONE		DO NOT SCALE DWG	TOLERANCES UNLESS OTHERWISE SPECIFIED			<div></div>			
DWN: RICK ELUSHIK 08/13/2009		<div><div>METRIC TOLERANCES</div><div>INCH EQUIVALENT</div></div>							
MDR:		<div><div>LINEAR</div><div>SLOT WIDTH</div><div>HOLE DIA</div><div>ANGULAR</div></div>							
DES: STACEY CLEMENS 10/28/2008		<div><div>±.075</div><div>±.010</div><div>±.010</div><div>±.010</div><div>±2°</div></div>							
PART NAME:		CIRCUITBOARD, LOGIC, [CYL T7/SSR-REV 17]							
GENERAL NOTES						<div></div>			
PRIMARY DIMENSIONS ARE METRIC. SECONDARY DIMENSIONS WITH BRACKETS ARE INCH. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE AFTER TREATMENTS AND FINISHES.									
PROPRIETARY INFORMATION MAY NOT BE REPRODUCED OR DISCLOSED TO OTHERS WITHOUT WRITTEN PERMISSION OF TENNANT COMPANY.									
DWG D SIZE						PART NUMBER 1058101			