

## **INSTRUCTION BULLETIN**

No. 340382 Machine: 830-II Published: 08-2015 Rev. 01

## NOTE: DO NOT DISCARD the Parts List from the Instruction Bulletin. Place the Parts List in the appropriate place in the machine manual for future reference. Retaining the Parts List will make it easier to reorder individual parts and will save the cost of ordering an entire kit.

NOTE: Numbers in parenthesis () are reference numbers for parts listed in Bill of Materials.

Installation instructions for kit number 768573

### SYNOPSIS:

This kit contains the parts needed to install an instrument panel assembly kit on 830- II sweepers. Please follow step-by-step instructions.

SPECIAL TOOLS / CONSIDERATIONS: 4mm allen wrench, phillips screwdriver, 7mm wrench, 7mm nut driver, 1/4 in. nut driver, 10mm socket and rachet, terminal crimper, soldering iron, and solder. (Estimated time to complete: 4 hours)

The new control panel in this kit has several software updates. The processor will now control the low oil pressure shut down. As soon as the machine is shifted into the forward position with the brushes off, the processor will also lift the main brush, side brushes, and conveyor. Sweeping speed can now be increased to 2200 RPM before the processor will shut off the sweeping system.



### PROTECT THE ENVIRONMENT

Please dispose of packaging materials, used machine components such as batteries and fluids in an environmentally safe way according to local waste disposal regulations.

Always remember to recycle.

#### **PREPARATION:**

FOR SAFETY: Before leaving or servicing machine, stop on level surface, turn off machine, and remove key.

1. Disconnect the battery cables from the battery.



WARNING: Always disconnect battery cables from machine before working on electrical components.

#### **INSTALLATION:**

NOTE: The hourmeter and odometer will be at zero after the new control panel assembly is installed. Record the current numbers before disconnecting the control panel assembly.

1. Remove the eight screws along the sides and top of the instrument shroud, and pull the instrument case bezel out towards you. Set the eight screws aside. (Fig. 1)



FIG. 1

2. Disconnect the flat ribbon cable from the back of the touch panel.

NOTE: Observe the orientation of the red strip on the ribbon cable. Red strip on ribbon cable must be in same positon / location when the ribbon cable is reinstalled.

- Remove the two wire connector (1 green, 1 black) from the power supply circuit board. (Fig. 2)
- 4. Disconnect the main wire harness from the control panel assembly. There are two connectors, each held in place with a 0.25 in. hex screw. Remove the instrument case bezel and place it face down on a smooth padded workbench surface that is free of debris that may damage the face of the control panel.
- 5. Disconnect the control panel fiber optic wire from the power supply circuit board. (Fig. 2)

NOTE: To remove this wire, first clip the tie strap that holds it to the circuit board. When the wire is reinstalled, the longer end goes to the left (A side) and the shorter end goes to the right (C side). The letters A and C are located on the back side of the circuit board. Secure it with a cable tie (2). To remove the power supply circuit board for access, depress the locking tabs on the three standoffs. Be sure the power supply circuit board is oriented the same when reinstalled.

6. Remove the four M4 nyloc nuts (two on the left and two on the right) that hold the L brackets on. Set the M4 nyloc nuts aside.

NOTE: The L brackets will be loose and the control panel may drop from the housing. Use caution to avoid damage to the control panel and fiber optic cables.

- 7. Pull the control panel assembly through the front of the instrument case bezel.
- 8. Disconnect the two touch panel fiber optic wires from the power supply circuit board.

NOTE: Observe the position and orientation of these wires for reinstallation. To remove the wires, first clip the tie straps that hold them to the circuit board. When the wires are reinstalled, the longer end goes to the left (A side) and the shorter end goes to the right (C side). The letters A and C are located on the back side of the circuit board. Secure them with cable ties (2). To remove the power supply circuit board for access, depress the locking tabs on the three standoffs. Be sure the circuit board is oriented the same when reinstalled.

- Remove the eight M4 nyloc nuts and washers that secure the touch panel. Remove the touch panel from the instrument case bezel. Use caution to avoid damaging the touch panel and fiber optic cables. Set the eight M4 nyloc nuts and washers aside.
- 10. Install the new touch panel and new control in the reverse order in which items were disassembled.

NOTE: Torque the M4 nyloc nuts to 45-68 Ncm (4-6 in/lb.). Over torquing can pull the studs from the circuit board.



FIG. 2





## FIG. 4

#### OIL PRESSURE SWITCH AND WIRE HARNESS CHANGE: (Machines Serial Numbers 000000 through 003123 Only)

- On the engine, disconnect the sealed connector from the oil pressure switch (not the oil pressure sender) and secure or tape to a nearby object (these wires will no longer be used). (Fig. 3)
- 2. Remove the oil pressure switch.
- 3. Apply thread sealant onto the brass fitting (3) and install the brass fitting where the oil pressure switch was previously installed.
- 4. Unplug and discard the red diode plug labeled D28 located in the center compartment of the cab.

- 5. Unfasten the fuse/relay panel and position it so the underside is accessible.
- 6. Disconnect wire 166/PUR from relay M5 terminal 87. (Fig. 4)
- Reconnect wire 166/PUR from the previous step to the M5 relay terminal 30, where wire 3/BRN is also attached. Remove wire 3/BRN, clip the terminals from wire 3/BRN and 166/PUR. Crimp both of the wires into a new terminal (5). (Fig. 4)
- Disconnect wire 4/YEL from at relay M5 terminal 87a and insulate the wire with tape. (Fig. 4)
- Splice the jumper wire (4) to the 27F/GRY wire in relay M5 terminal 86 and connect other end of the jumper wire to relay M5 terminal 87a. (Fig. 4)
- 10. Reinstall the fuse/relay panel.
- 11. Reconnect the battery cables to the the battery.
- 12. Turn on the machine and check for proper operation.

# OIL PRESSURE SWITCH: (Machines Serial Numbers 003124 through 003708 Only)

- 1. On the engine, disconnect the sealed connector from the oil pressure switch (not the oil pressure sender). (Fig. 3)
- 2. Cut off the sealed connector close to the plug.
- 3. Strip 0.25 in. of insulation from the 27J/GRY and 4/YEL wires and crimp them together with the connector (7). Solder the connection and heat shrink on the sleeve (8).
- 4. Reconnect the battery cables to the the battery.
- 5. Turn on the machine and check for proper operation.

# OIL PRESSURE SWITCH: (Machines Serial Numbers 003709 and Above Only)

1. Replace the control panel. These machines do not have an oil pressure switch.

### Bill Of Materials For Panel Assy Kit, Instmt [830II] - 768573

⊋ty.
1
1
3
1
1
1
1
1
_

## TENNANT COMPANY P. O. Box 1452 Minneapolis, MN 55440-1452