TENNANT

INSTRUCTION BULLETIN

No. 9008412
Machine: 7300 / 8300
Published: 08–2012
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 9008411: 7300 (serial numbers 000000 - 005351), 8300 (serial numbers 000000 - 007093)**

Installation instructions for **kit number 9009493: 7300 (serial numbers 005352 –   ), 8300 (serial numbers 007094 –   ) – Installing kit 9009493 should not require replacing the memory flash card.**

Serial Number Breaks (TNV manufactured machines ONLY):

Installation instructions for **kit number 9008411: 7300 (serial numbers 0000 – 1781), 8300 (serial numbers 0000 – 1252)**

Installation instructions for **kit number 9009493: 7300 (serial numbers 1782 –   ), 8300 (serial numbers 1253 –   ) – Installing kit 9009493 should not require replacing the memory flash card.**
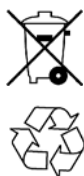
SYNOPSIS:

> This kit contains the parts needed to replace the circuit board and memory flash card on 7300 / 8300 machines.
> Please follow step-by-step instructions.

SPECIAL TOOLS / CONSIDERATIONS: NONE

> (Estimated time to complete: 1 hour)

PROTECT THE ENVIRONMENT

Please dispose of packaging materials, old machine components, and hazardous fluids in an environmentally safe manner according to local waste disposal regulations.

Always remember to recycle.

PREPARATION:

1. Park the machine on a clean level surface, turn off the machine, and engage the parking brake.

FOR SAFETY: Before leaving or servicing machine, stop on level surface, turn off machine, and engage the parking brake.

2. To access the first diagnostic menu, simultaneously turn the key switch ON while holding down the TENNANT Logo button (Fig. 1). Hold the button for 5 seconds before releasing it. Use the logo button to scroll through diagnostic menus. **Scroll through each menu and record each programmable machine mode.**
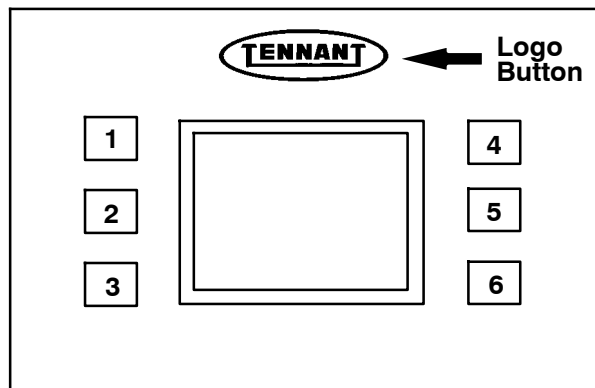

FIG. 1

*NOTE: If a light is on adjacent to the selectable mode, that mode is active. The programmable modes are: ENABLE LEFT SIDE BRUSH, ENABLE EDGE SCRUB, ENABLE MAINT., LANGUAGE, ENABLE SWEEP, RESTRICT PRESSURE, SCRUB SIDE BRUSH, GEL-BATTERY, REST. DET., and ENABLE LOW SOL. **All settings must be reprogrammed after the new new circuit board (1) is installed.***

3. Record the machine hours. The hour meter will reset to zero if the software is an earlier revision.

NOTE: If the machine has software revision KSC 021904, the hour meter will not be accurate if the machine has more than 100 hours. Call Tech Services for instructions how to reset the hour meter to zero. Refer to Fig. 1 for locations of buttons on instrument panel.

4. Turn the key switch OFF and remove the key.

FOR SAFETY: Before leaving or servicing machine, remove the key.

5. Disconnect the battery cables from the batteries.

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

INSTALLATION:

1. Remove the hardware holding the circuit board assembly in the operator compartment and carefully pull the circuit board assembly from the operator compartment. Set the hardware aside. (Fig. 2 / Fig. 3)
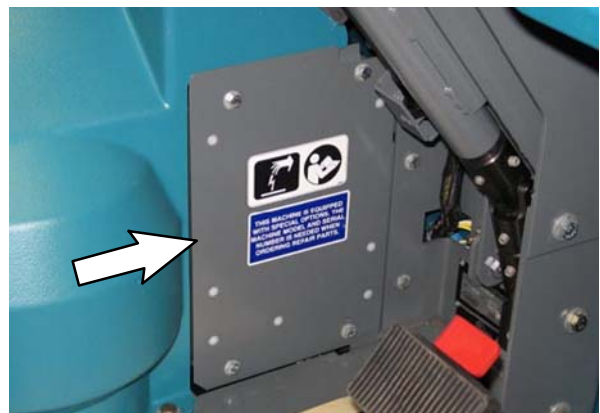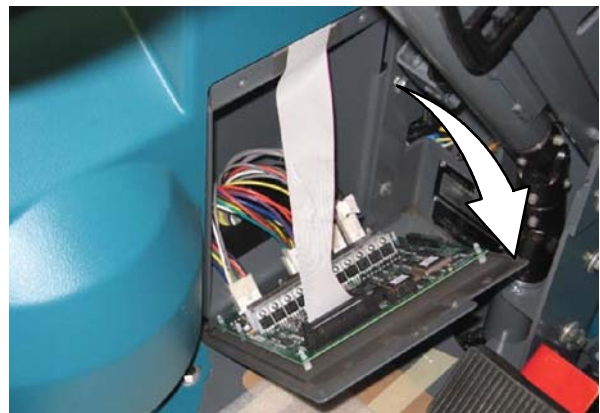

FIG. 2

FIG. 3

NOTE: Take care to not damage or break any wire / cable connections when removing the circuit board assembly from the operator compartment.

2. Put on the static ground strap (3) and connect the ground strap to a grounded surface.

NOTE: *The ground strap (3) prevents static electricity from damaging the circuit board. Failure to use the ground strap correctly can result in damage to electronic devices / assemblies. Keep the ground strap attached to wrist and ground through Step 9.*

3. **8300 Only:** Remove the top board from the circuit board assembly. Set removed items aside. (Fig. 4 / Fig. 6)
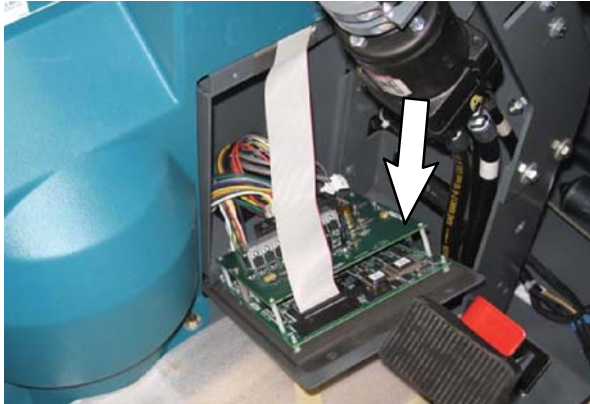

FIG. 4

4. Disconnect the wire harnesses and ribbon cable from the circuit board assembly. (Fig. 6)

5. Carefully remove the circuit board from the cover and gasket. Do not break the prong pins when removing the circuit board from the cover and gasket. (Fig. 6)

6. Install the new circuit board (1) onto the cover and gasket and connect the ribbon cable and wire harness to the circuit board. (Fig. 6)

7. **8300 Only:** Reinstall the top board onto the circuit board assembly. (Fig. 4 / Fig. 6)

8. Be sure the tape molds around the ribbon cable on the cover side and the ribbon cable seals tight against the foam seal for a waterproof fit. Use a bead of silicone sealer around the ribbon cable if needed.

9. Reinstall the circuit board assembly into the operator compartment. (Fig. 2)

10. Reconnect the battery cables to the batteries.

11. Simultaneously turn the key switch ON while holding down the TENNANT Logo button to access the diagnostic menu. If the language is scrambled, press the logo button three additional times to access Diagnostic Menu #4. Press the upper left button. The language will reset to English. If the display is clear, proceed to the following step. If the display is not clear or the text and graphics appear poorly placed or overlap, proceed to the **MEMORY FLASH CARD REPLACEMENT INSTRUCTIONS (Kit 9008411)**. (Fig. 5)
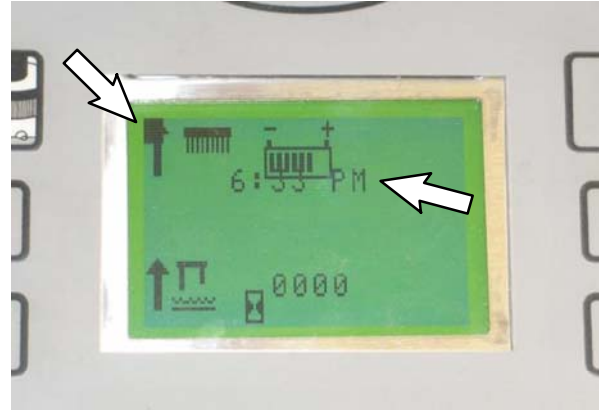

FIG. 5

12. If the machine is equipped with GEL batteries, access Diagnostic Menu #6 and select the GEL-BAT option to reinitiate the battery gauge. Deactivate this option if the machine is not equipped with GEL batteries.

13. Access each of the diagnostic menus and turn on or off the software selectable modes recorded earlier in this procedure. Reset the machine clock.

14. Turn off the machine.

15. Start and test the machine. Operate all the controls on the touch panel to ensure the machine functions properly.
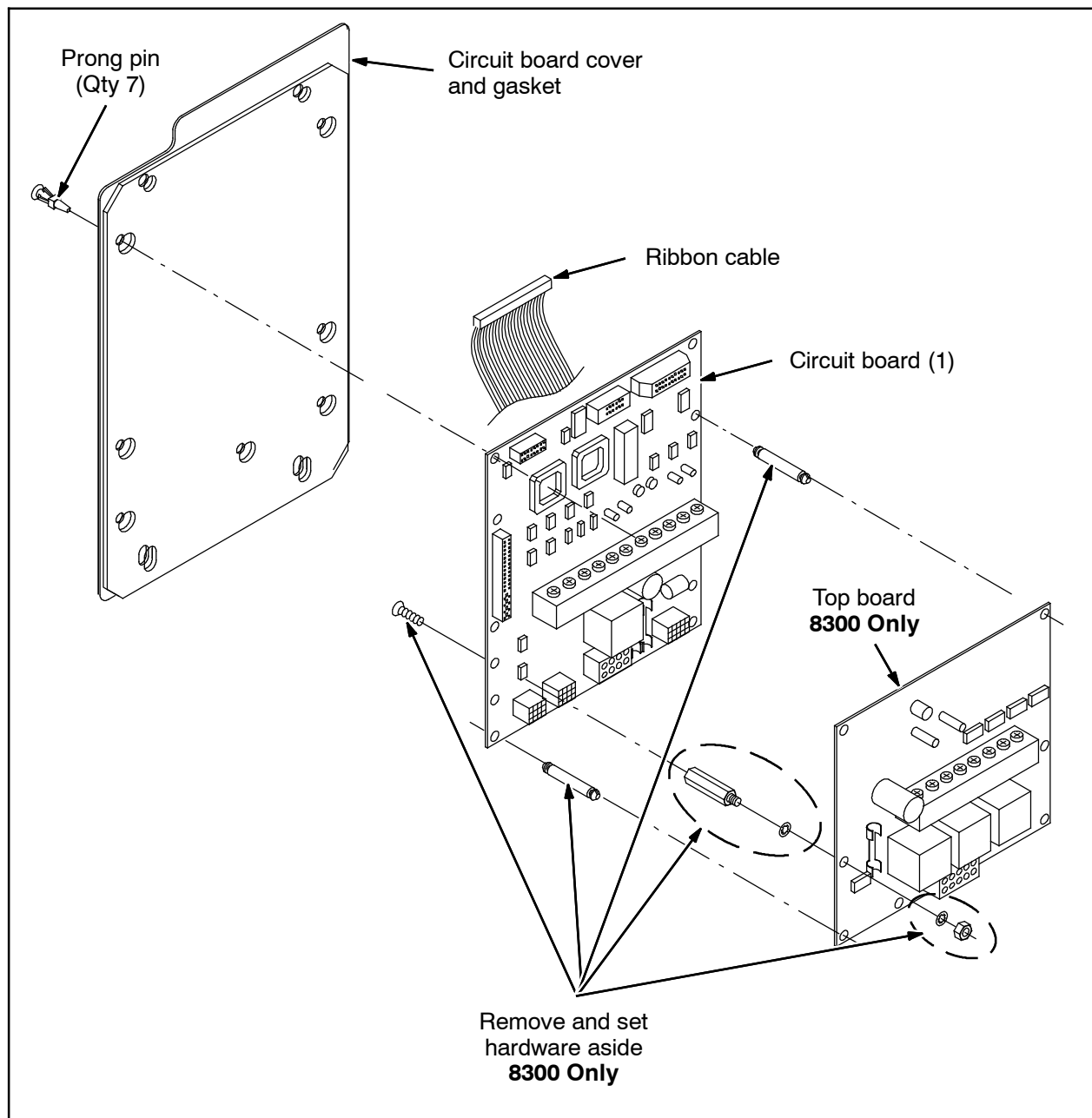
Prong pin
(Qty 7)

Circuit board cover
and gasket

Ribbon cable

Circuit board (1)

Top board
8300 Only

Remove and set
hardware aside
8300 Only

FIG. 6

MEMORY FLASH CARD REPLACEMENT INSTRUCTIONS (Kit 9008411 Only):

1. Turn the key switch off and remove the key.

FOR SAFETY: Before leaving or servicing machine, turn off machine and remove the key.

2. Disconnect the battery cables from the batteries.

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

3. Remove the hardware holding the circuit board assembly in the operator compartment and carefully pull the circuit board assembly from the operator compartment. Set the hardware aside. (Fig. 7)

FIG. 7

NOTE: *Take care to not damage or break any wire / cable connections when removing the circuit board assembly from the operator compartment.*

4. Put on the static ground strap (3) and connect the ground strap to a grounded surface.

NOTE: *The ground strap (3) prevents static electricity from damaging the circuit board. Failure to use the ground strap correctly can result in damage to electronic devices/ assemblies. Keep the ground strap attached to wrist and ground through Step 9.*

5. **8300 Only:** If necessary, remove the top board to make access to the bottom board easier. (Fig.8 / Fig. 6)
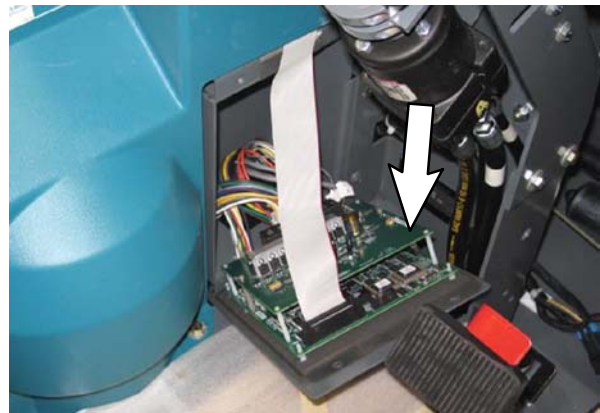

FIG. 8

6. Use the chip removal tool (4) to carefully remove the memory flash card from the circuit board. Take care to not damage circuit board when removing the card. Refer to instructions included with chip removal tool for additional information. (Fig. 9 / Fig. 10)
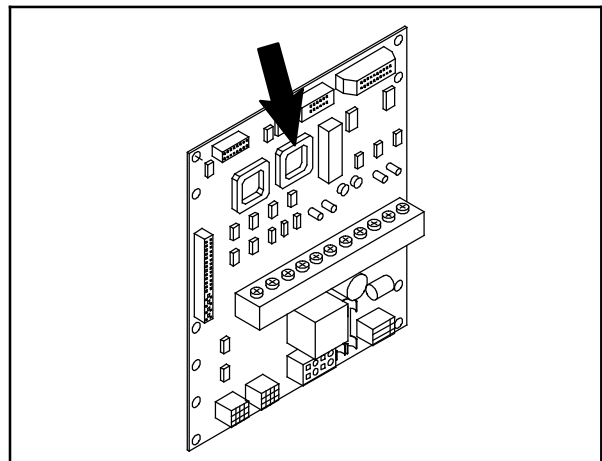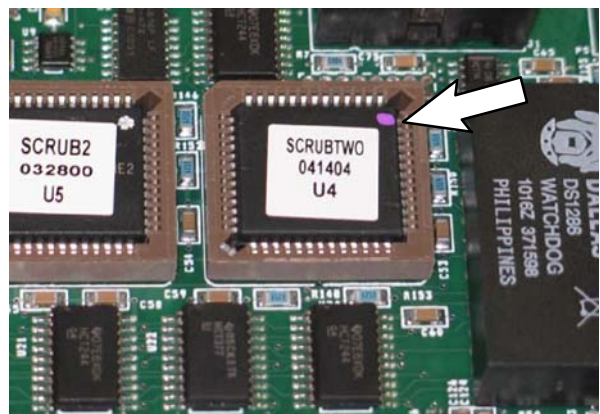

FIG. 9

FIG. 10

7. Install the new memory flash card (2) onto the circuit board where the old memory flash card was previously located. Be sure the edge of the memory flash card with the indentation is positioned in the side of the socket with the arrow or dot. (Fig. 11)
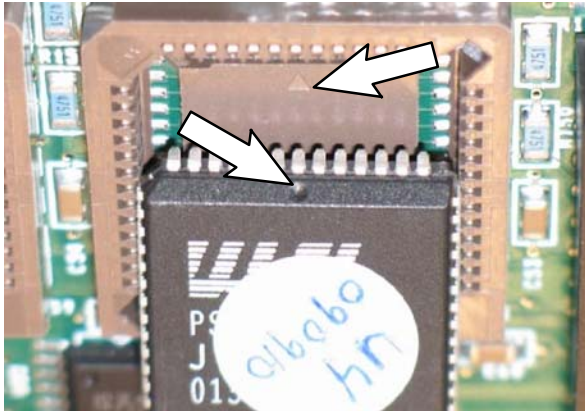

FIG. 11

8. **8300 Only:** Reinstall the top board onto the circuit board assembly if the top board was removed to access the circuit board. (Fig. 8 / Fig. 6)

9. Reinstall the circuit board assembly into the operator compartment.

10. Reconnect the battery cables to the batteries.

11. Proceed to Step 11 in the **INSTALLATION** section to finish installing the circuit board assembly kit.

Bill Of Materials For Circuit Board Assy Kit [7300/8300] – 9008411

Ref.	Tennant Part No.	Description	Qty.
▽	9008411	Circuit Board Assy Kit [7300/8300]	1
▲ 1	1065190	Circuit Board Assy [7300/8300][Imp]	1
▲ 2	374206	Memory, Flash [7300/8300]	1
▲ 3	27964	Strap, Ground, Static, Disposable	1
▲ 4	1009521	Tool, Micro, Removal	1

Bill Of Materials For Circuit Board Assy Kit [7300/8300] – 9009493

Ref.	Tennant Part No.	Description	Qty.
▽	9009493	Circuit Board Assy Kit [7300/8300]	1
▲ 1	1065190	Circuit Board Assy [7300/8300][Imp]	1
▲ 3	27964	Strap, Ground, Static, Disposable	1

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