INSTRUCTION BULLETIN

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 9015634/9015635/9015041**

SYNOPSIS:

This kit contains the parts needed to replace standard pod assembly on M20/M30/T20/M17 machines. Please follow step-by-step instructions.

SPECIAL TOOLS / CONSIDERATIONS: NONE

(Estimated time to complete: 45-90 minutes)

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 (M20/M30/T20 Only):

1. If steering pod assembly on machine is operable, connect service computer to the pod, turn the key to the ON position, but do not start the machine, start the Capture application, and note machine settings. The new steering pod assembly (1) will need to be configured to the same settings.

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

2. Disconnect the battery cables from the machine.

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

3. Open the front shroud to access the steering mechanism components.

INSTALLATION (M20/M30/T20 Only):

1. Disconnect the steering pod cables from the main wire harness. (Fig. 1)
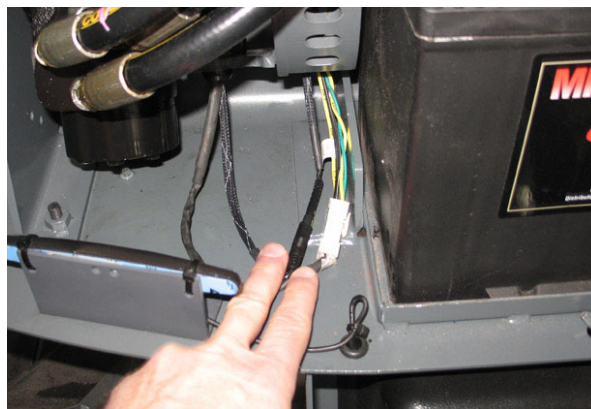

FIG. 1

2. Loosen the socket screws (Qty. 2) securing the steering pod assembly into the steering tilt bracket. (Fig. 2/Fig. 3)
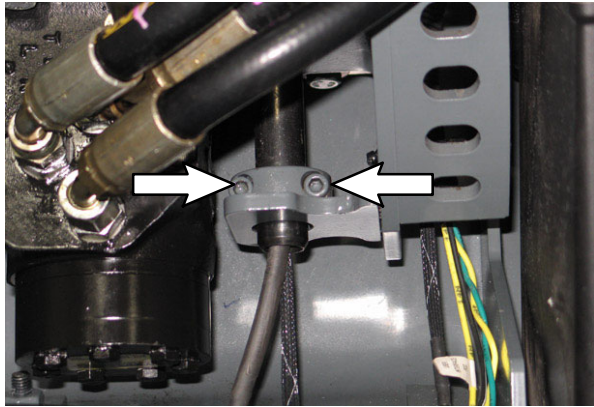

FIG. 2

3. Pull the steering pod assembly out from the steering assembly. (Fig. 3)

4. Remove the two thrust washers from the steering pod assembly. Set the thrust washers aside. Discard the removed steering pod assembly. (Fig. 3)

5. Slide the thrust washers onto the new steering pod assembly (1). (Fig. 3)

6. Insert the new steering pod assembly (1) into the steering assembly. (Fig. 3)

7. Orient the steering pod assembly (1) so the display is positioned correctly in the steering wheel and tighten the two socket screws to secure the steering pod assembly into the steering tilt bracket. (Fig. 2/Fig. 3)

8. Connect the steering pod assembly (1) to the main wire harness.
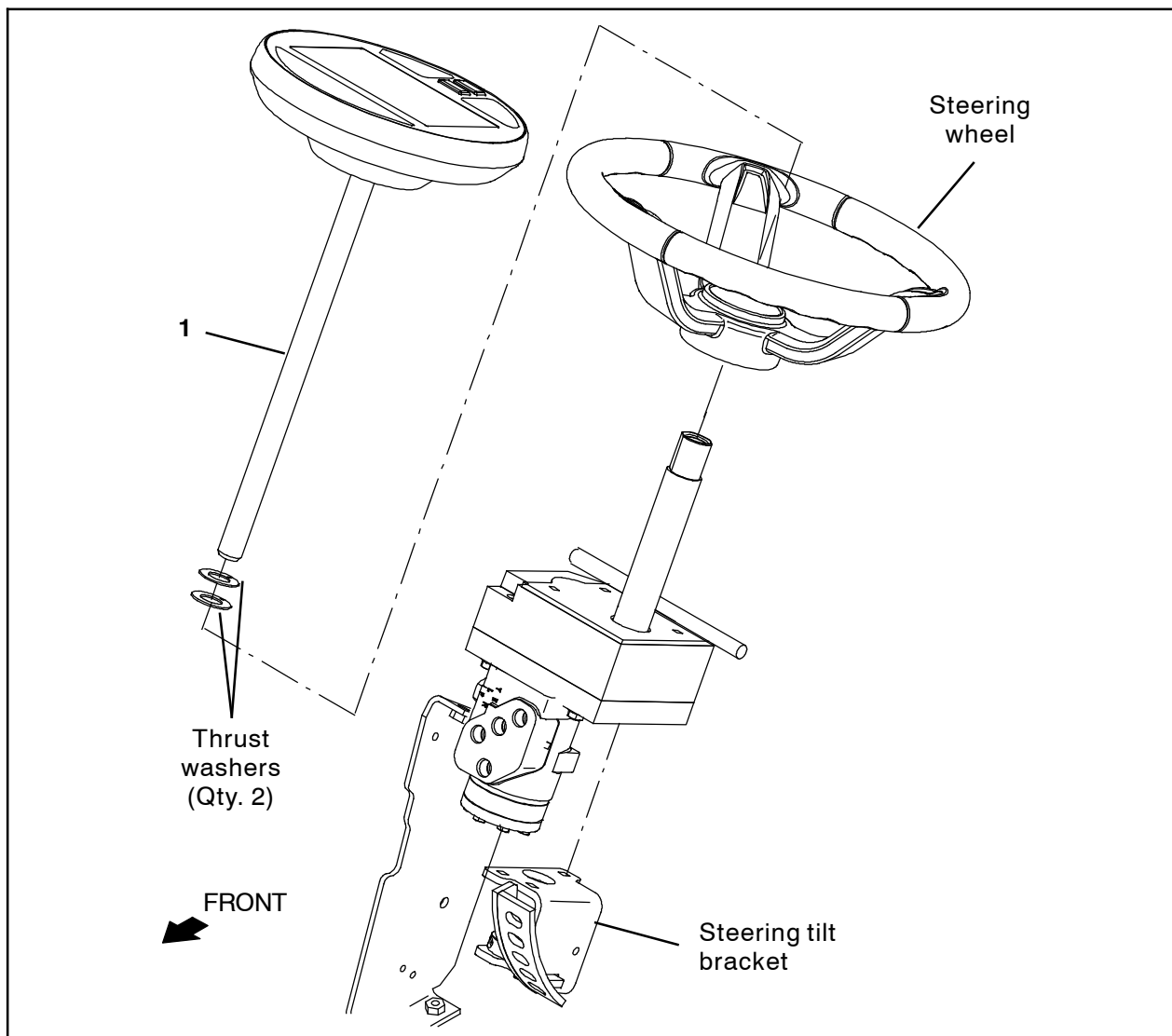
9. Reconnect the battery cables to the machine.

Steering wheel

1

Thrust washers (Qty. 2)

FRONT

Steering tilt bracket

FIG. 3

PREPARATION (M17 ONLY):

1. If the pod assembly on machine is operable, connect service computer to the pod, turn the key to the ON position, start the Capture application, and note machine settings. The new pod assembly (1) must be configured to the same settings.

NOTE: If pod assembly is completely inoperable, the machine configuration settings will need to be set to the optional equipment on the machine and /or set to the standard default settings. Contact TAC (Technical Assistance Center) for further assistance/additional information.

2. If pod assembly on machine is operable, record the hours from the hour meter.

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

3. Disconnect the battery cable from the machine.

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

4. Remove the access panel from the machine. Set the access panel and all hardware aside.

INSTALLATION (M17 ONLY):

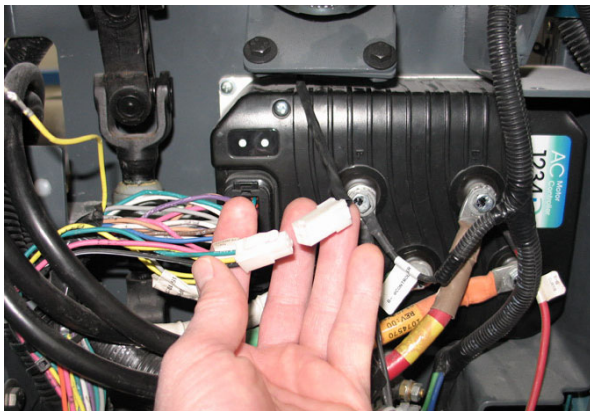1. Disconnect the main wire harness from the pod assembly. (Fig. 4)

FIG. 4

2. Loosen the socket set screws in the bearing plate securing the pod assembly to the steering column assembly. (Fig. 5/Fig. 6)
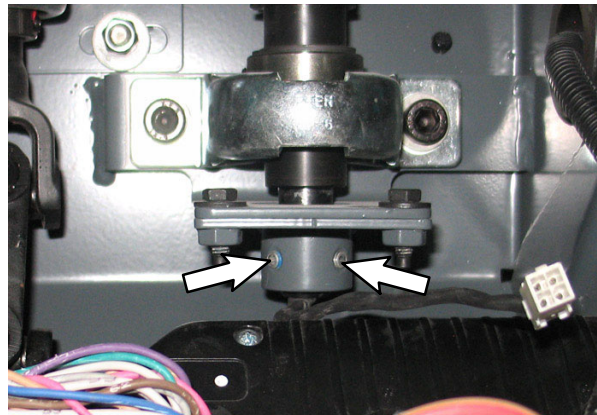

FIG. 5

3. Pull the pod assembly out from the steering wheel/steering column assembly. (Fig. 6)

4. Remove the thrust washers from the removed pod assembly and slide the thrust washers onto the new pod assembly (1). Discard the removed pod assembly. (Fig. 6)

5. Insert the new pod assembly (1) into the steering assembly. (Fig. 6)

6. Orient the pod assembly (1) so the display is positioned correctly in the steering wheel and tighten the socket screws to secure the pod assembly into the bearing plate. (Fig. 5/Fig. 6)

7. Connect the pod assembly (1) to the main wire harness. (Fig. 4)

8. Reinstall the access panel onto the machine

9. Reconnect the battery cable to the machine.

Note: Steering wheel/steering column assembly/bearing plate do not need to be removed from machine when replacing standard panel assembly. These items are shown disassembled to better show part locations.
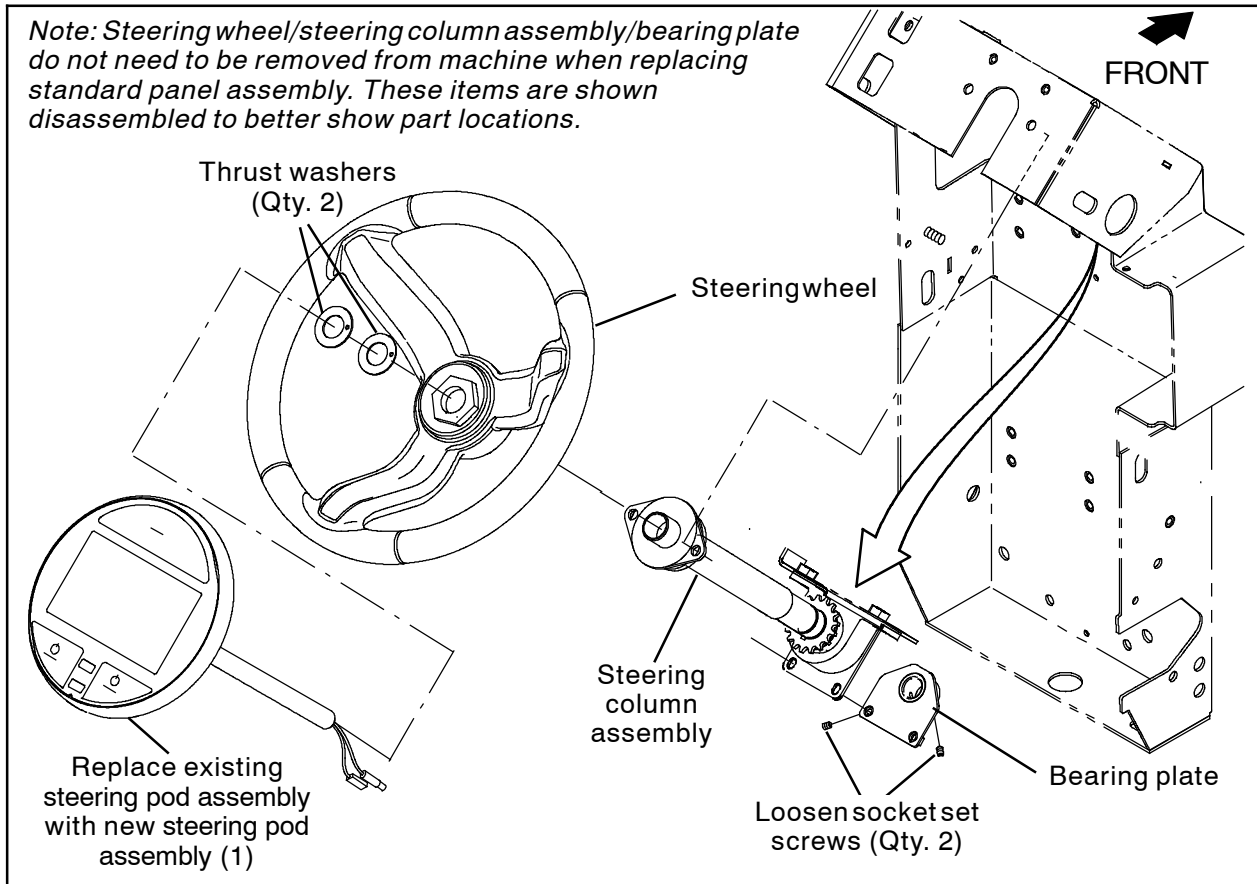
FRONT

Thrust washers (Qty. 2)

Steering wheel

Replace existing steering pod assembly with new steering pod assembly (1)

Steering column assembly

Loosen socket set screws (Qty. 2)

Bearing plate

FIG. 6

TENNANT SERVICE APPLICATION SOFTWARE (ALL MACHINES):

The service application software can be accessed or downloaded as described below.

For Tennant service personnel equipped with ServiceLink computers, the software is already installed on the service computer. The software application is titled **"Service Diagnostics"**. (Fig. 7)

Icon on Desktop

From Start menu
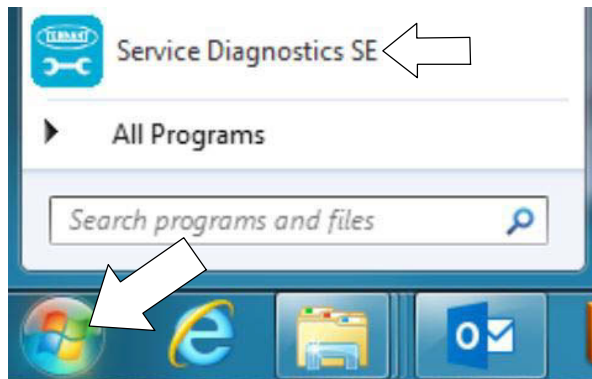
From Start menu > All Programs > Tennant Company > Tennant Service Diagnostics
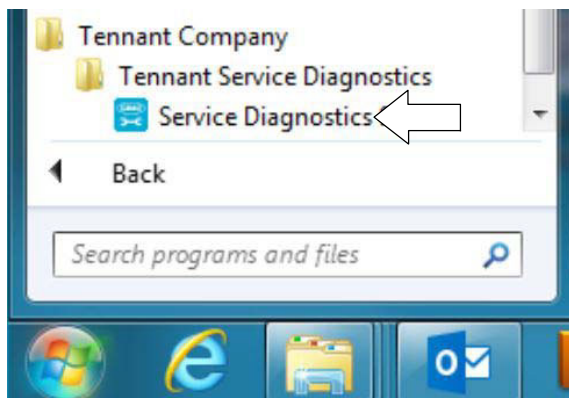
FIG. 7

For other Service Groups, the Service Application Software can be downloaded from the Tennant Public website as described below.

NOTE: If the Service Application Software is currently installed on the service computer, confirm or reinstall the software to ensure latest software version is installed.

To access the Service Application Software, go to www.tennantco.com. Depending on geographic location, the website may have a "Log in/Sign Up" button at the upper right or a "My Tennant Customer Sign In" tab at the upper right of the Tennant website. (Fig. 8)

Proceed with the software download instructions as described on the following pages.

Website with "Log In / Sign Up" button (Access to "My Account")

OR

Website with "My Tennant Customer Sign In" tab (Access to My Tennant)
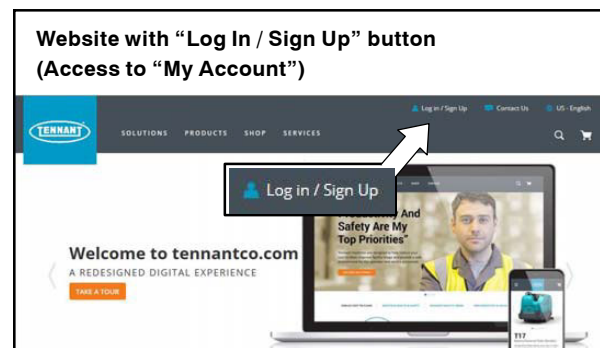
FIG. 8

Website with "Log In / Sign Up" button:
(Access to "My Account") (ALL MACHINES):
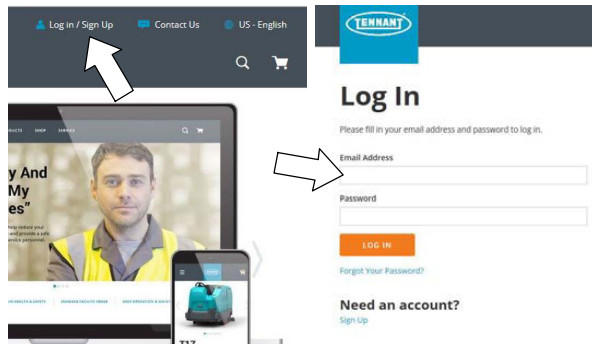
1. Log in or Sign Up to create an account. (Fig. 9)

FIG. 9

2. Once logged in to the "My Account" website, click on the **"INTERNAL RESOURCES"** link. (Fig. 10)
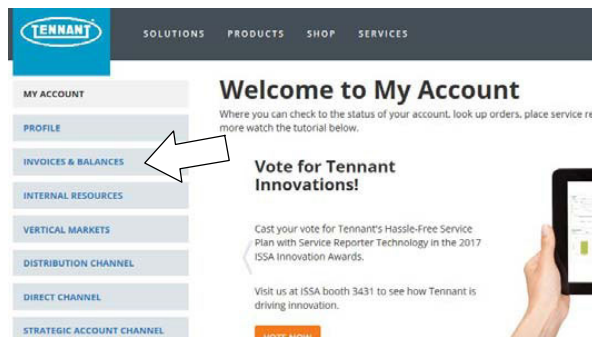

FIG. 10

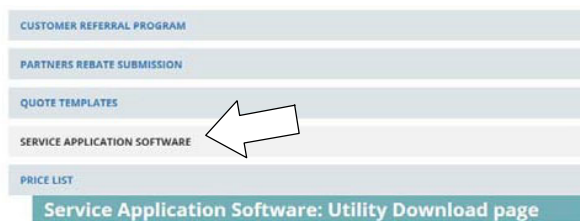3. Click on the **"SERVICE APPLICATION SOFTWARE"** link. (Fig. 11)

FIG. 11

4. Within the Service Application Software page, click on the link titled **"Service Diagnostics LE version 1.5.12" or later.** (Fig. 12)

FIG. 12

5. To download the service software continue to click as instructed then click the Save button. (Fig. 13)
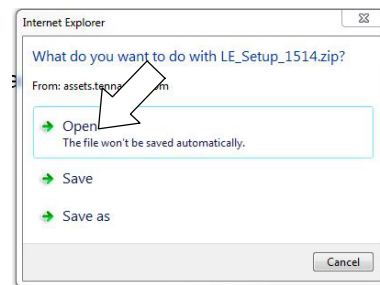
FIG. 13

6. Open the "Downloads" folder and locate the "LE_Setup_xxxx" zip file. Open the zip file and double click on the "LE_Setup_xxx" file to install the application software on service computer. Follow instructions on screen to install. (Fig. 14)
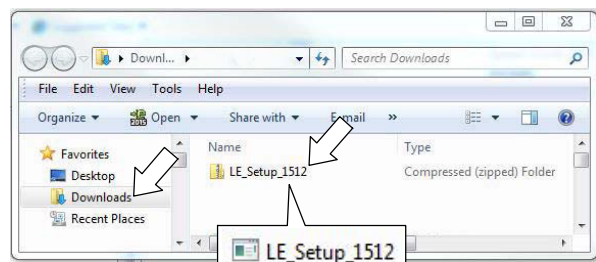

FIG. 14

7. Proceed to *PROGRAM THE CONTROL BOARD*.

PROGRAM THE CONTROL BOARD (ALL MACHINES):

If any problems are encountered during the programming process, contact the Technical Service Department for support.

1. Access the software through either the desktop icon or the Start Menu. The software application is titled **"Service Diagnostics"**. (Fig. 15/Fig. 16/Fig. 17)
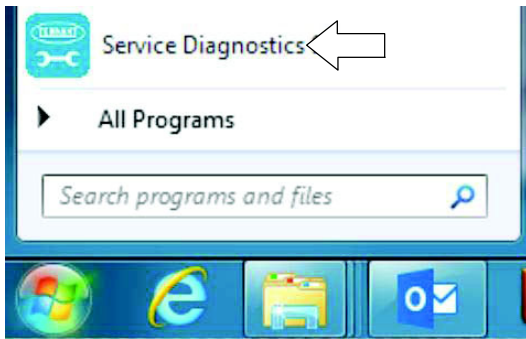

FIG. 15

From Start menu

FIG. 16

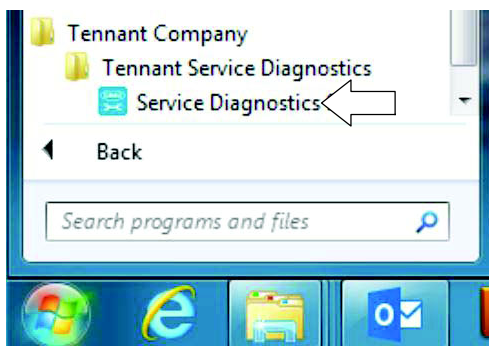**Start menu > All Programs > Tennant Company > Tennant Service Diagnostics**

FIG. 17

2. Start the Service Software Application program. The following screen will appear. (Fig. 18)
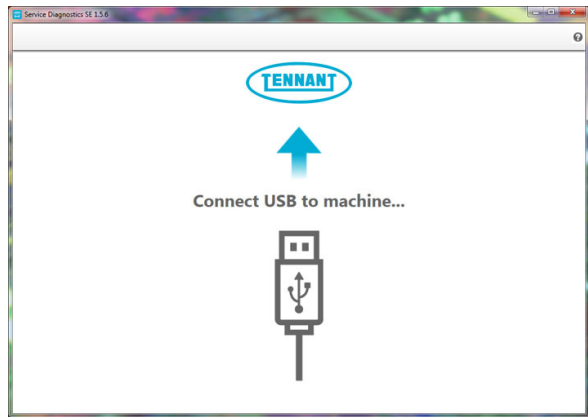
FIG. 18

3. Turn the key switch to the ON position.

4. Connect the USB cable to the computer and the USB port on machine.

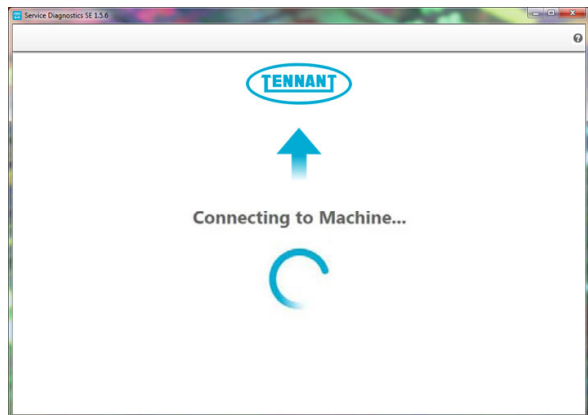5. The application software will connect to the machine. (Fig. 19)

FIG. 19

If the application remains on the "Connecting to Machine..." screen for an extended period, cycle key or close and restart the application software. If it still fails to connect, restart the computer.

6. The following screen appears when the application software is connected to machine (Fig. 20). Enter the machine serial number from the label on machine (ex. M17-12345678). Select the appropriate model from the drop‑down menu. Press the arrow button to advance to next screen.
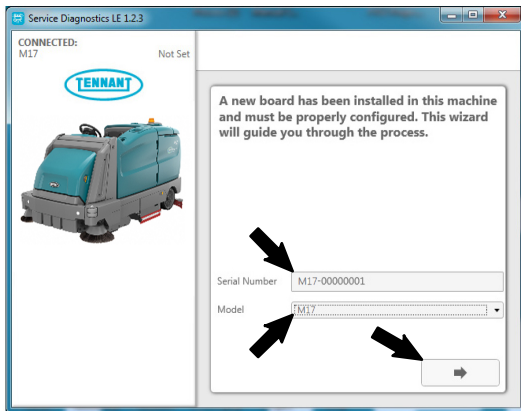

FIG. 20

7. Carefully select the correct installed options on the machine (Fig. 21). This may require visually inspecting the machine to confirm all installed options. Press the arrow button to advance to next screen.

NOTE: If the machine is configured with an option it does not have, a fault code may appear during machine start up.
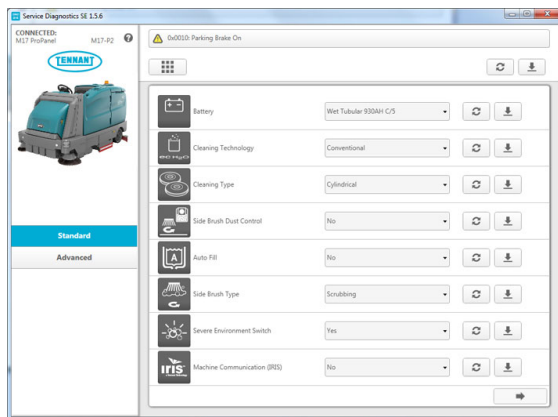

FIG. 21

8. The application will begin configuring the new control board. Allow the configuration process to be completed. (Fig. 22)
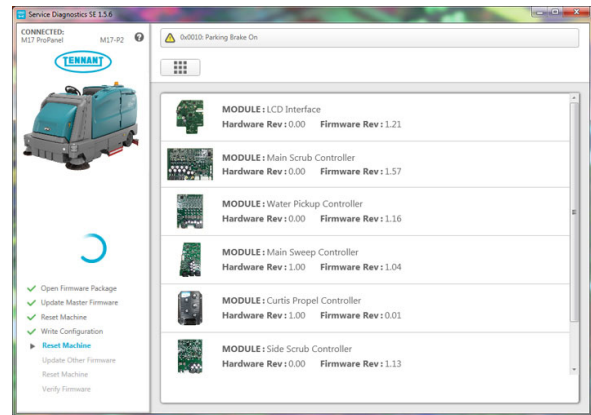

FIG. 22

9. The Machine Setup Complete screen appears after configuration is complete. (Fig. 23)
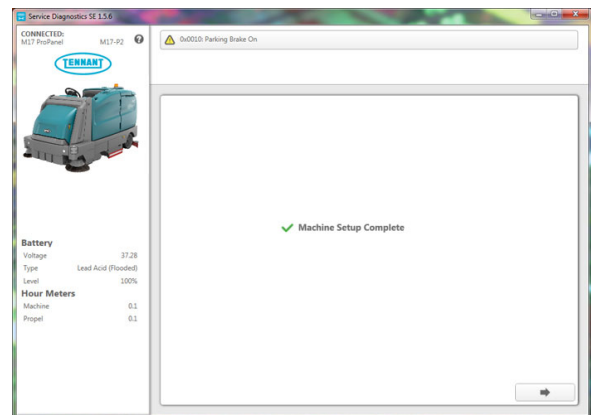

FIG. 23

10. Disconnect the USB cable from the machine and turn key off. The machine is now ready for operation.

11. Test machine to ensure all installed options are functioning and no fault codes appear. If a fault code appears, proceed to next step.

12. Reconnect the USB cable to the computer and the machine. The Main Menu will appear on the computer screen.

13. Check the machine configuration selections for incorrect installed options. Select the Configuration button. (Fig. 24)
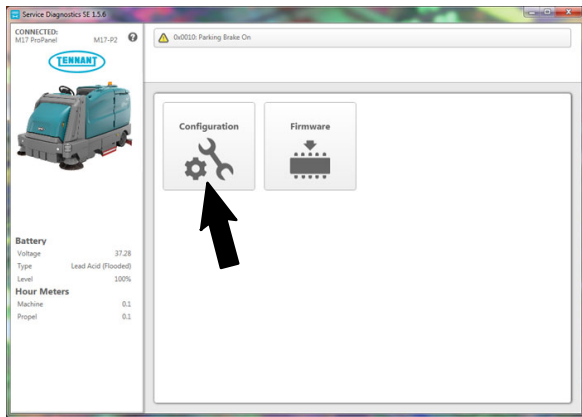

FIG. 24

14. Correct the installed options. (Fig. 25)

FIG. 25

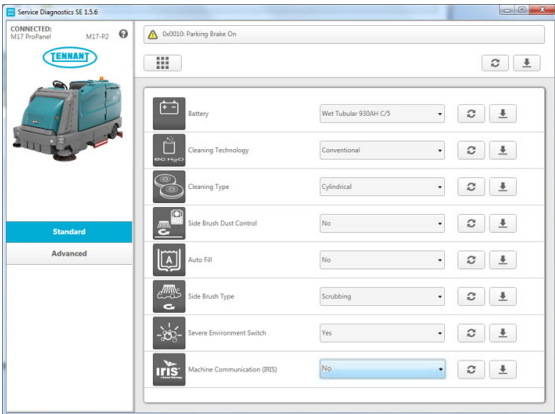15. Press the down arrow button to program the machine. A green check appears next to the down arrow button when programmed. (Fig. 25)

16. Cycle key to apply the corrected configuration setting.

NOTE: The hour meter on Gas/LPG machines does not need to be reset. The newly installed pod will automatically reset to the correct hour meter reading based on the hour setting (engine run time) from the engine.

17. Disconnect the USB cable from the machine.

RESET THE HOUR METER (ALL MACHINES):

NOTE: Displays included in this section of the IB are from the M17. The same displays exist for the M20/M30/T20 machines but may have slightly different nomenclature.

1. Press and hold the right arrow key and turn the key switch to the ON position. (Fig. 26)
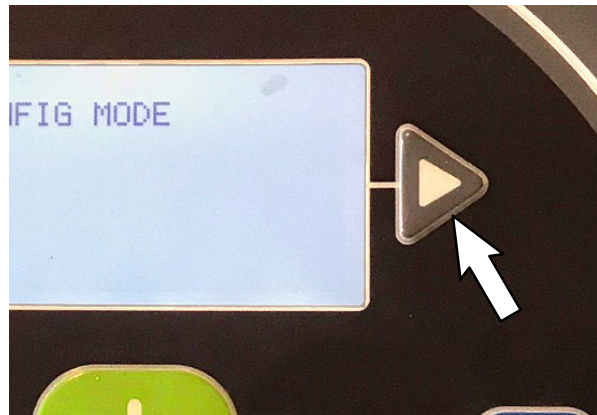

FIG. 26

2. The pod assembly (1) should boot to the Service Modes menu. Press the right arrow button/left arrow button to scroll to the CONFIG MODE menu from the Service Modes menu. (Fig. 27)
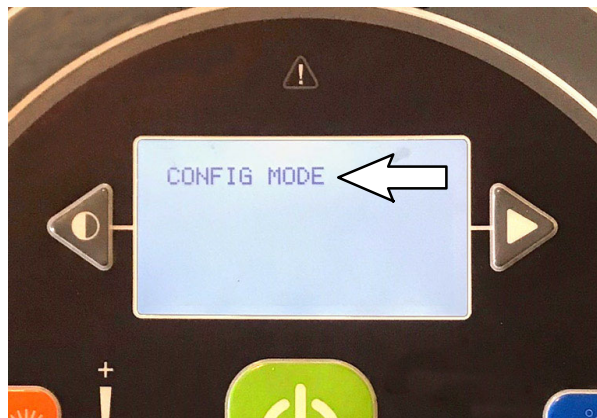

FIG. 27

3. Press the main scrub brush pressure button to enter the CONFIG MODE. (Fig. 28)
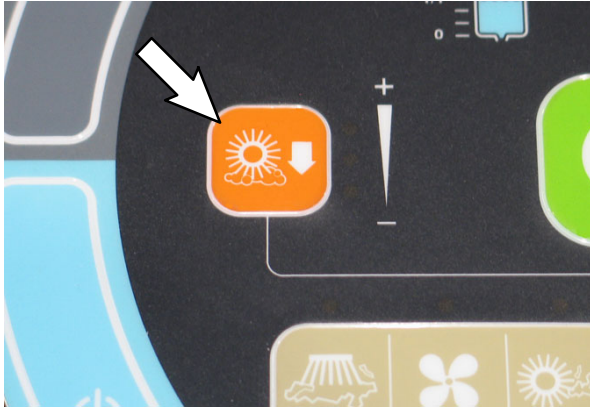
FIG. 28

4. Press either the right arrow button or the left arrow button to scroll to C15: PROPEL H. M. Press the main scrub brush pressure button to enter the C15: Propel H.M. Log in screen. (Fig. 29)
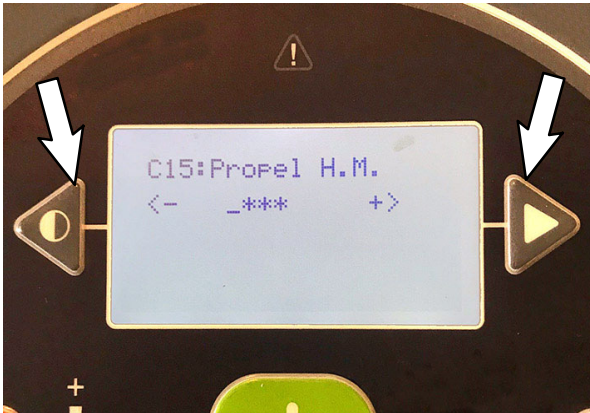
FIG. 29

5. Log in to C15: Propel H.M. (hour meter reset password is 0000): Press the minus (-) button to enter 0 (zero) at first asterisk. Press the right arrow button to move to next asterisk and again press the minus (-) button to enter 0 (zero). Repeat for the remaining asterisks. Press the main scrub brush pressure button when finished. (Fig. 30/Fig. 31)
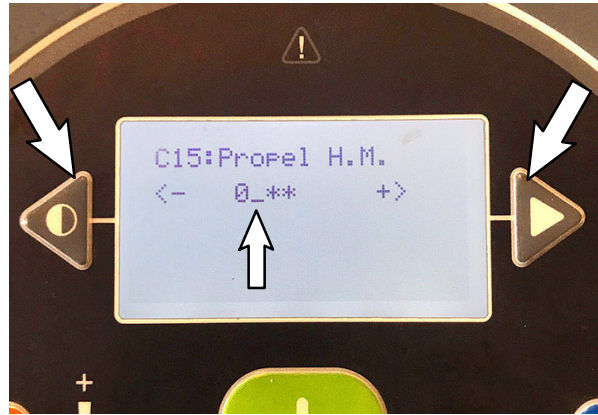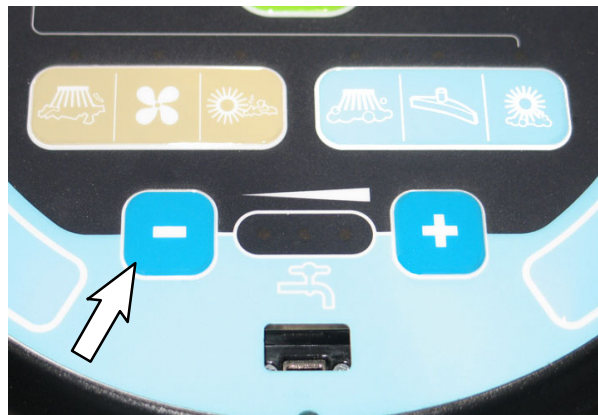
FIG. 30

FIG. 31

6. Reset the hour meter at the C16: Chg Prpl Hr screen: Use the minus (-) button and plus (+) button to set/reset numbers and the right arrow button to move to the next number. If necessary, use left arrow to move back to previous number. (Fig. 32/Fig. 33)
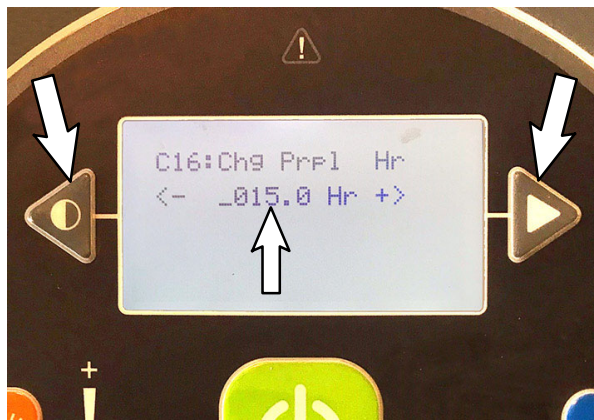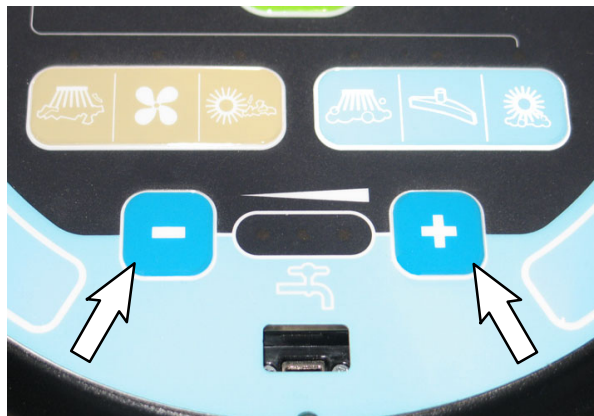

FIG. 32

FIG. 33

NOTE: If hour meter was inaccessible due to pod being inoperable contact TAC (Technical Assistance Center) for the hour meter time from the last time the machine was serviced.

7. Press the main scrub brush pressure button when finished entering the time for the hour meter.

8. Press either the right arrow button or the left arrow button to scroll to C17: Scrub H. M. Press the main scrub brush pressure button to enter the C17: Scrub H.M. Log in screen. (Fig. 34)
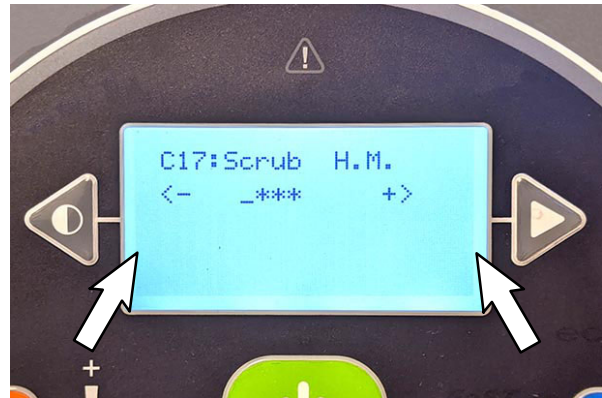

FIG. 34

9. Log in to C17: Scrub H.M. (hour meter reset password is 0000): Press the minus (-) button to enter 0 (zero) at first asterisk. Press the right arrow button to move to next asterisk and again press the minus (-) button to enter 0 (zero). Repeat for the remaining asterisks. Press the main scrub brush pressure button when finished. (Fig. 35/Fig. 36)
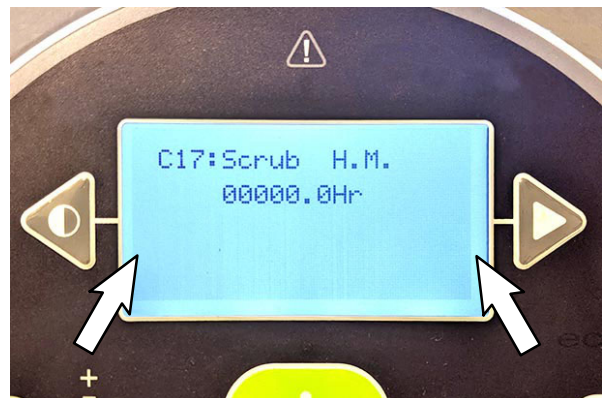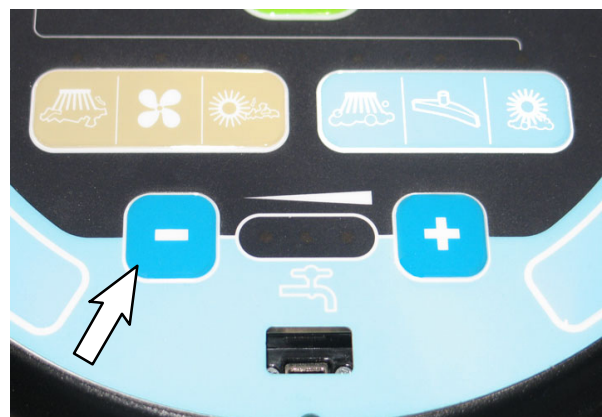

FIG. 35

FIG. 36

10. Reset the hour meter at the C18: Chg Scrub Hr screen: Use the minus (-) button and plus (+) button to set/reset numbers and the right arrow button to move to the next number. If necessary, use left arrow to move back to previous number. (Fig. 37/Fig. 38)
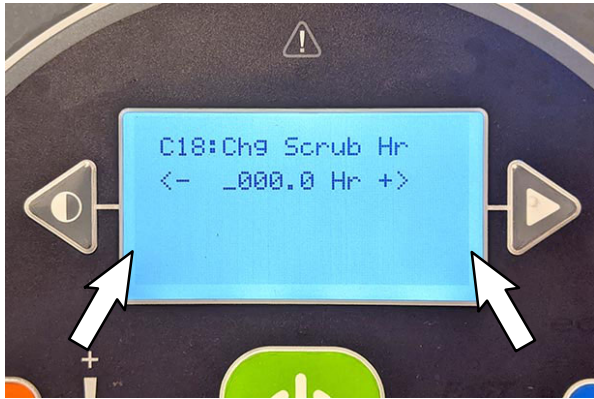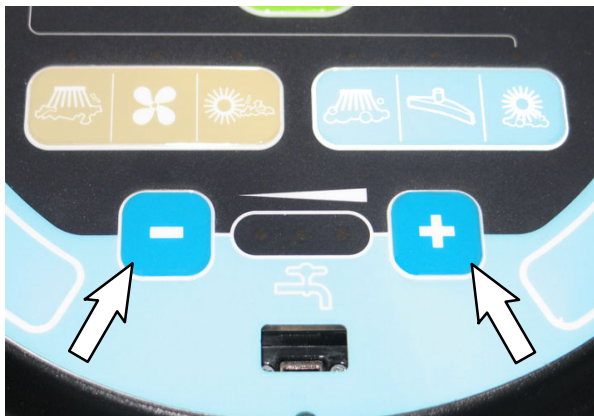

FIG. 37

FIG. 38

NOTE: *If scrub hour meter was inaccessible due to pod being inoperable contact TAC (Technical Assistance Center) for the hour meter time from the last time the machine was serviced.*

11. Press the main scrub brush pressure button when finished entering the time for the hour meter.

12. Press either the right arrow button or left arrow button to scroll to Exit Config Mode. Yes should appear under the top line of text. Press the main scrub brush pressure button. (Fig. 39)
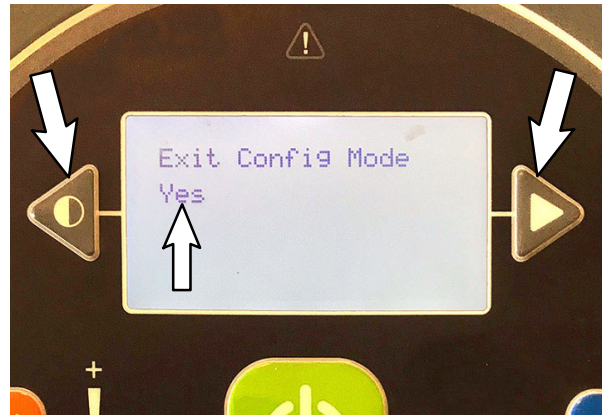

FIG. 39

13. The Exit Config Mode menu should open. <Yes   > should appear under the top line of text. Press the main scrub brush pressure button again to exit the Configuration Mode. (Fig. 40)
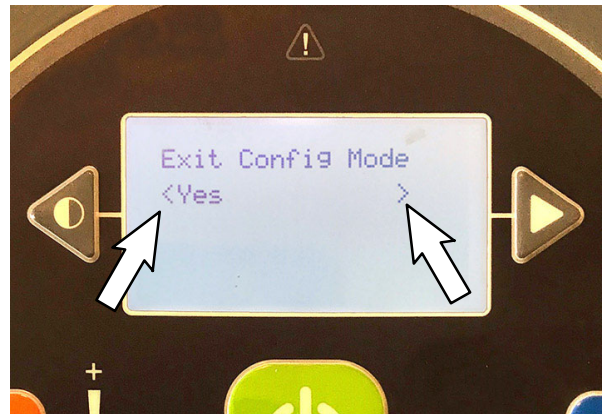

FIG. 40

14. Turn key switch to OFF position to turn off the machine/exit the Config Mode.

15. **M17 Sweeper Scrubbers only:** Reset the hopper roll out. See *PROGRAMMING/ ADJUSTING THE ROLL OUT ACTUATOR* in the M17 Service Manual for detailed instructions how to reset the hopper roll out.

Bill Of Materials For Panel Kit, Pod, Afmkt [Std, M20/M30] - 9015634

Ref.	Tennant Part No.	Description	Qty.
1	1223006	Panel Assy, Console [Std M20/M30]	1

Bill Of Materials For Panel Kit, Pod, Afmkt [Std, T20] - 9015635

Ref.	Tennant Part No.	Description	Qty.
1	1223007	Panel Assy, Console [Std T20]	1

Bill Of Materials For Panel Kit, Pod, Afmkt [M17,Standard LCD] - 9015041

Ref.	Tennant Part No.	Description	Qty.
1	1219319	Panel Assy [M17, UL, Standard LCD]	1

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Eden Prairie, MN 55344- 2650