



Telemetry Membrane Bezel Kit



Model: T600e w/Telemetry

This kit includes the necessary parts to replace a defective membrane control board with telemetry technology. Kit installation must be performed by Tennant *True* service or an authorized service provider.

INSTALLATION INSTRUCTIONS:

Installation Time: 1 Hour

Tools Required: 9/16" Wrench, T-25 Torque Screwdriver

Kit Installation Requirement: Tennant ServiceLINK computer or a computer with Wi-Fi connection to access the Tennant Service Diagnostics Application Software.

Kit Contents:

- Telemetry Membrane Bezel Assembly
- USB cable (1071235)
- * Electrical Harness (1077063)
- * 4G Telemetry Antenna (1247522)
- * FCC Label (1252880)

* **NOTE:** Parts required on models manufactured before serial number T600e- 11015347 or equipped with the discontinued bezel membrane.



Discontinued membrane



New membrane

Note visual difference

INSTALL NEW BEZEL ASSEMBLY:

FOR SAFETY: Before servicing machine, stop on level surface, turn off machine, and set parking brake if equipped.

1. Disconnect battery cables from machine.

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

2. Remove the two lower torque screws at bottom of control console and carefully lower console cover (Figure 1)

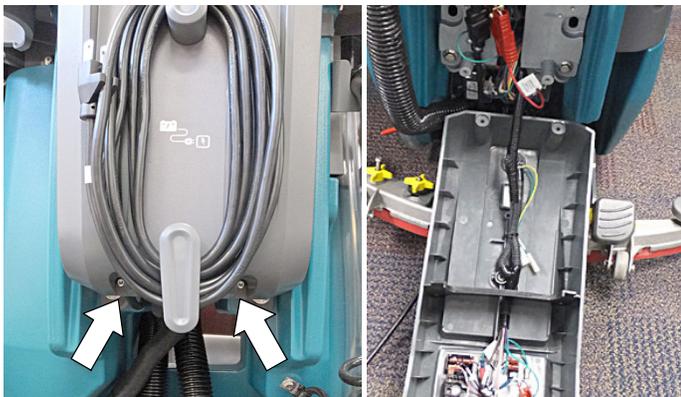


Fig. 1

3. Remove the two upper torque screws from old bezel assembly and lower the bezel as shown (Figure 2)

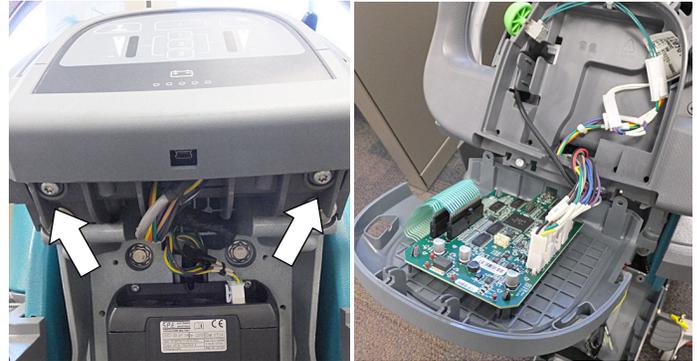


Fig. 2

4. Disconnect the electrical connections and the telemetry antenna wire from the defective bezel assembly and discard bezel assembly (Figure 3).

The new bezel kit comes equipped with SIM card factory installed, so there is no need to remove old SIM card from defective bezel assembly.



Fig. 3

5. See * **NOTE:** Replace the electrical harness located in the control console to adapt to the new redesigned replacement bezel assembly (Figure 4). Secure harness with wire-ties.

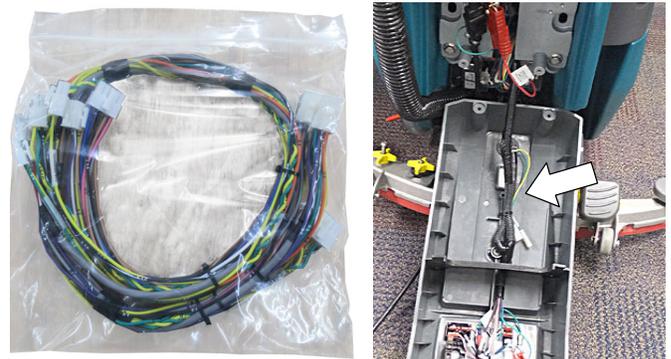


Fig. 4

- See * **NOTE** on page 1: Install the supplied telemetry antenna to tank as shown (Figure 5). Remove the old antenna(s) from machine and discard.

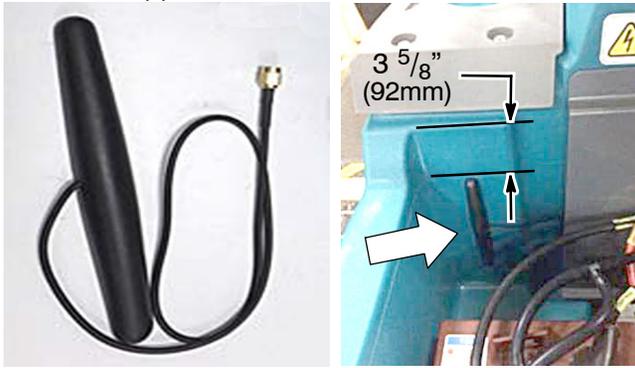


Fig. 5

- Connect the wire harness connectors and antenna to the new bezel assembly and attach bezel to machine (Figure 6). When handling the new bezel control board, it is recommended to use a static wrist strap to protect the control board from damage.

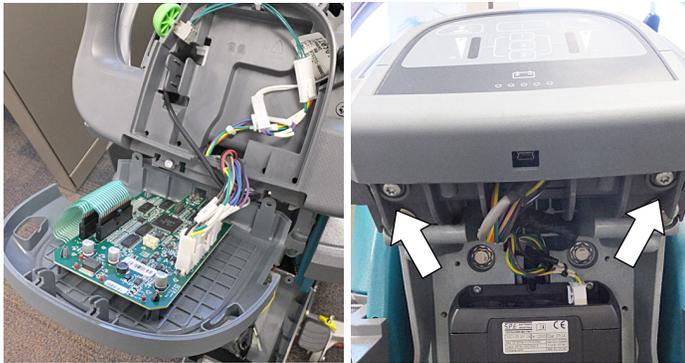


Fig. 6

- Replace the lower console cover on machine.
- See * **NOTE** on page 1: Replace the existing FCC label with new FCC label as shown (Figure 7).



Fig. 7

- Program the new bezel control board as described in the next section.

PROGRAM THE BEZEL CONTROL BOARD:

The Tennant Service Application Software is required to program the new bezel control board. See **TENNANT SERVICE APPLICATION SOFTWARE** on page 4 to access software .

If the Tennant Service Application Software (Service Diagnostics Tool) is currently installed on your computer, ensure the latest software version is installed.

If you encounter any problems during the programming process please contact the Technical Service Department for support.

- Reconnect the battery cables to machine.
- Start the Service Software Application program “Service Diagnostics tool”(Figure 8). Refer to Figure 22 for further details to access software.



Icon on Desktop

Fig. 8

- After software start up, the following screen will appear (Figure 9).

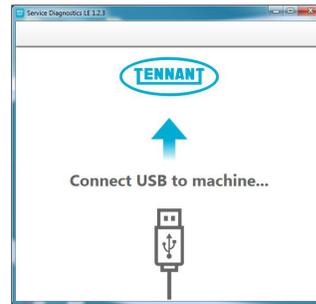


Fig. 9

- Connect the USB cable, supplied with kit, to computer and to the USB port on machine as shown. Turn the key switch to the on position (Figure 10).
- The Service Diagnostics Tool will then connect to the machine (Figure 10). If the application remains on the “Connecting to Machine...” screen for an extended period, cycle key or reconnect USB cord. If it still fails to connect, restart software or computer.

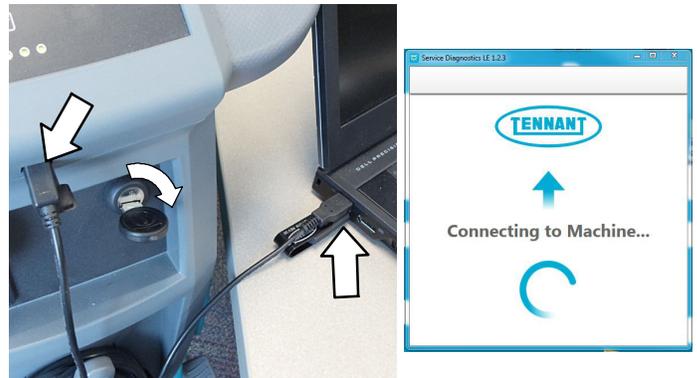


Fig. 10

- 6. The following screen will appear when the Service Diagnostics tool is connected to machine (Figure 11). Enter the machine serial number (ex. T600e- 12345678). Select the appropriate model from the drop-down menu. Press the arrow button to advance to next screen.

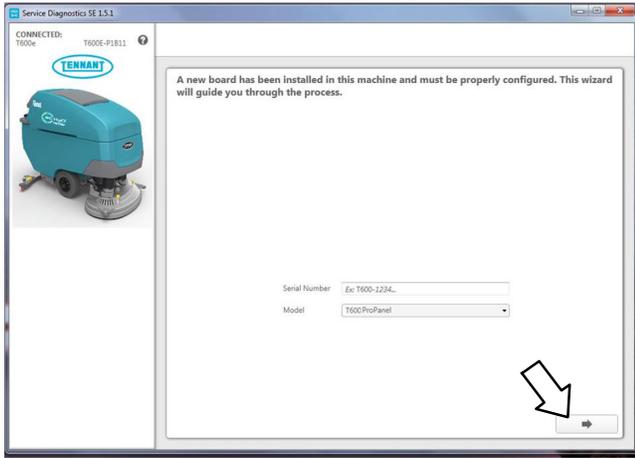


Fig. 11

- 7. Carefully select the configurable options that apply from the drop down menus, then click the arrow button to begin programming the machine (Figure 12).

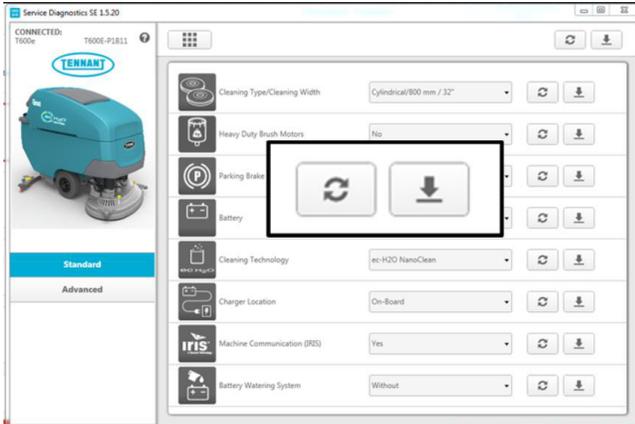


Fig. 12

- 8. The Service diagnostics tool will begin the process of configuring the new control board. The following screen will appear (Figure 13). During this process, the software may prompt for key cycles. Turn off key, wait a few seconds and turn key back on to continue. The process will also automatically update any machine firmware as needed.

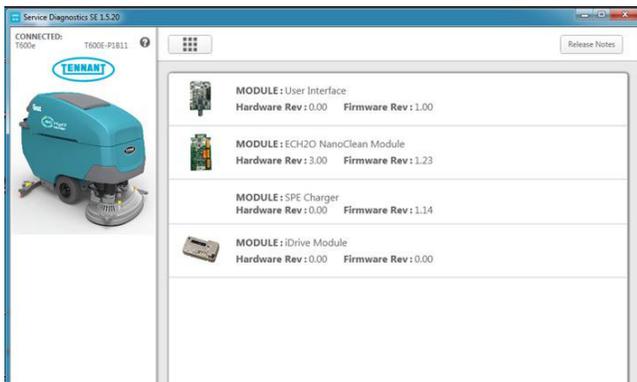


Fig. 13

- 9. The following screen will appear when the process has completed (Figure 14). Press the arrow button to return to the Home Screen.



Fig. 14

- 10. Press the Provisioning button to register the machine's telemetry technology to cloud (Figure 15).

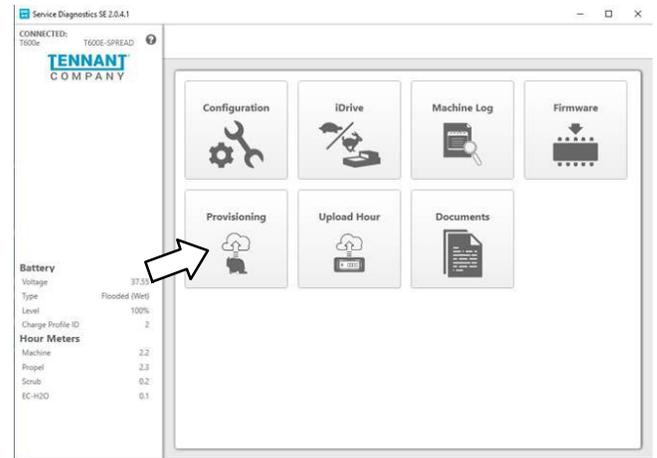


Fig. 15

- 11. Enter the model and serial number and click the Provision Device button (Figure 16). After "Success" appears return to the home page.

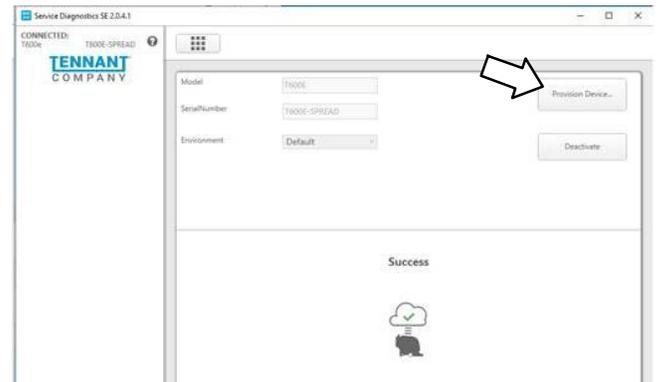


Fig. 16

12. Press the Upload Hour button to verify the machine is connected to the cloud (Figure 18).

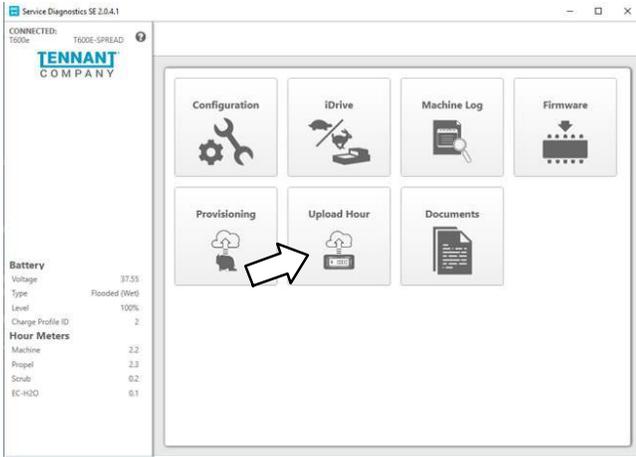


Fig. 17

13. Press the Start Loading Hour button (Figure 18).

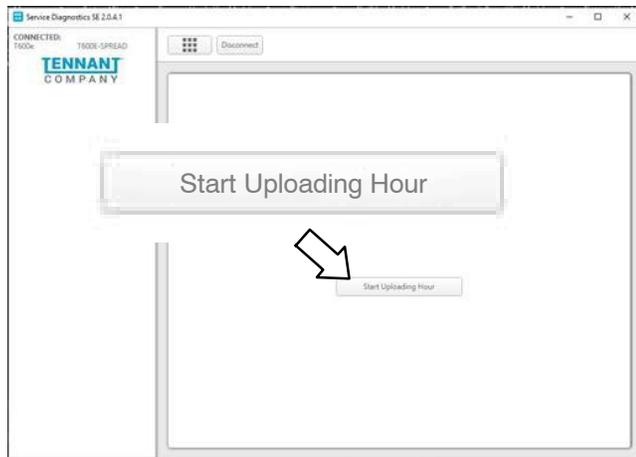


Fig. 18

14. Wait for the Upload Hour to complete (Figure 19).

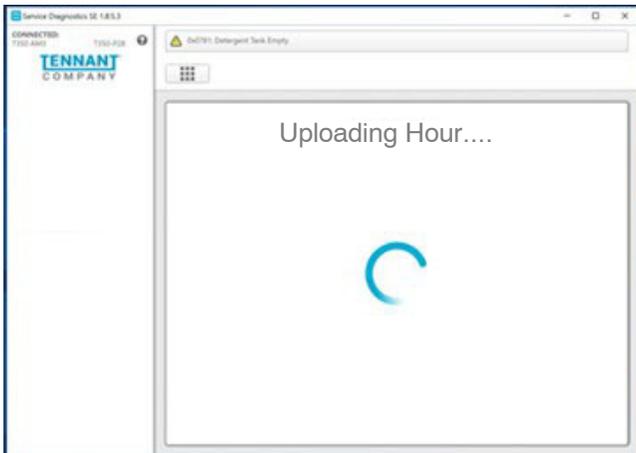


Fig. 19

15. Once the payload is ready; the screen will display all the information about the board as you can see below. Scroll down to see all the events happening in the machine (Figure 20).

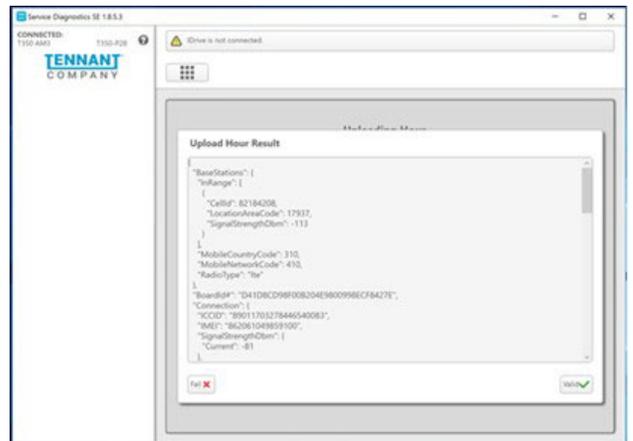


Fig. 20

16. Check for important fields in the payload for e.g. machine serial number, endpoints, and machine events type (scrub, propel, charging...). Click the Valid button to complete the process (Figure 21)



Fig. 21

17. Remove the USB cable and cycle key.
 18. Test the machine to ensure all the installed options are functioning and no fault codes appear. If a fault code appears proceed, check for loose wire connectors at new control board. Reconnect the application software to machine and check the machine configuration selections for an incorrect installed option.

TENNANT SERVICE APPLICATION SOFTWARE:

The Tennant Service Application Software is required to program the new Bezel kit. The software can be accessed or downloaded as described below.

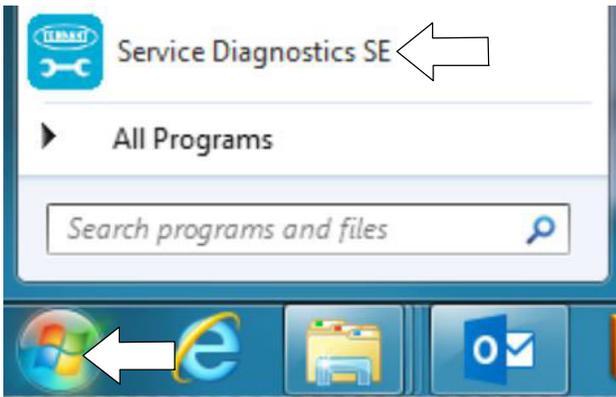
Tennant True Service with ServiceLINK computers:

The software is pre-installed on your computer as shown below. The software application is titled “Service Diagnostics” (Figure 22).

Icon on Desktop



From Start menu



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

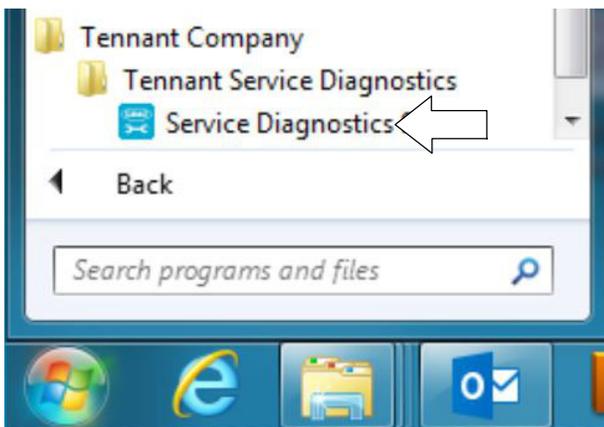


Fig. 22

Authorized Tennant Service Providers:

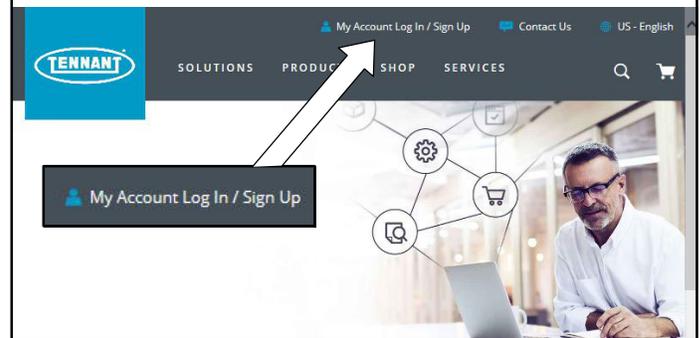
The Service Application Software can be downloaded from the Tennant Public website as described below.

NOTE: If the Service Application Software is currently installed on your computer, confirm or re-download the software to ensure latest software version is installed.

To access the Service Application Software, go to www.tennantco.com. Depending on your geographical location, the website may have a “My Account 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 as shown below (Figure 23).

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

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



OR

Website with “My Tennant Customer Sign In” tab (Access to My Tennant)

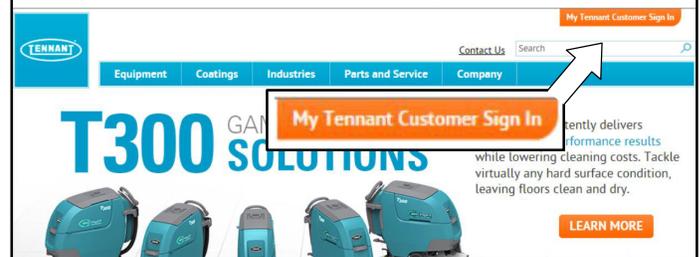


Fig. 23

Website with “My Account Log In/Sign Up” button:

1. Press “My Account Log In/Sign Up” to open or create an account (Figure 24).

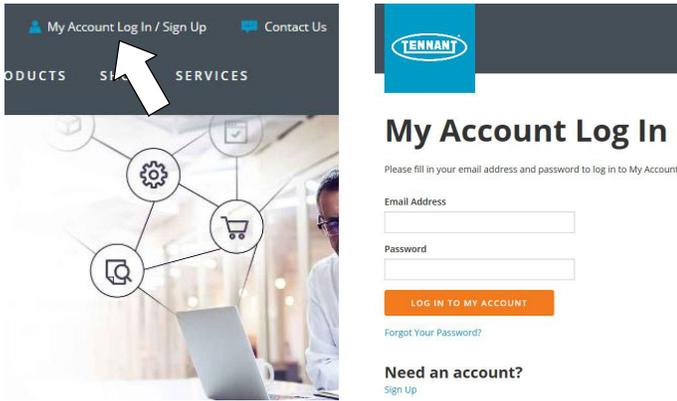


Fig. 24

2. Once logged in to the “My Account” website, click on the “DISTRIBUTOR RESOURCES” link as shown below (Figure 25).

NOTE: For internal customers, the link will be titled “INTERNAL RESOURCES”.

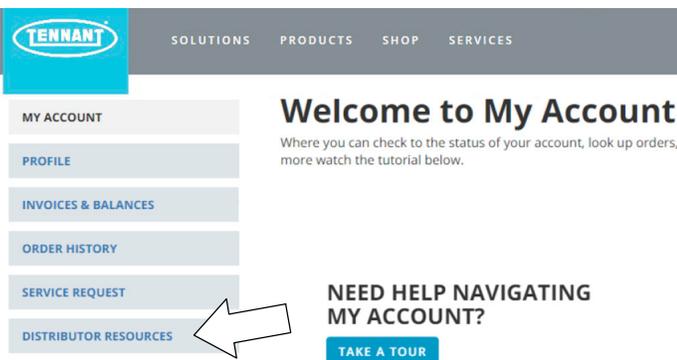


Fig. 25

3. Click on the “SERVICE APPLICATION SOFTWARE” link as shown below (Figure 26).

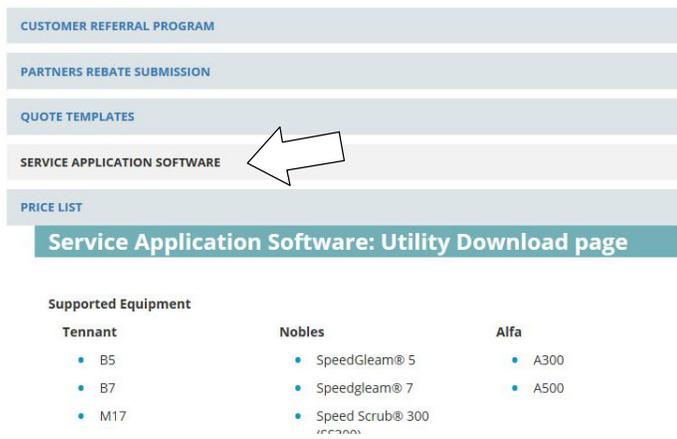


Fig. 26

Website with “My Tennant Customer Sign in” tab:

1. Log in to the “My Tennant” website or register as a new user (Figure 27).

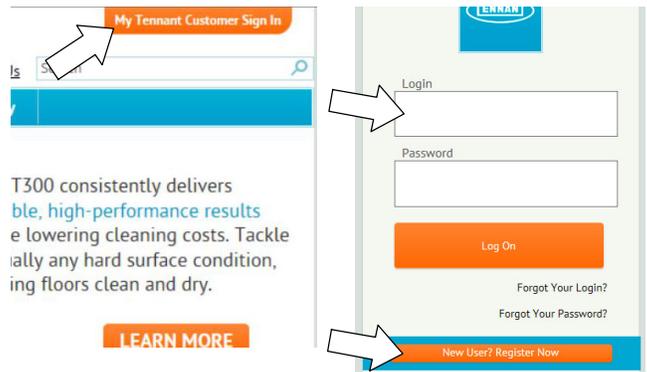


Fig. 27

2. Once logged on to the “My Tennant” website, click on the “Service Application Software” link under the “Product Support & Solution” section as shown below (Figure 28).



Fig. 28

3. Within the Service Application Software page, click on the link titled “Service Diagnostics LE version x.x.xx” to download the application installer (Figure 29).

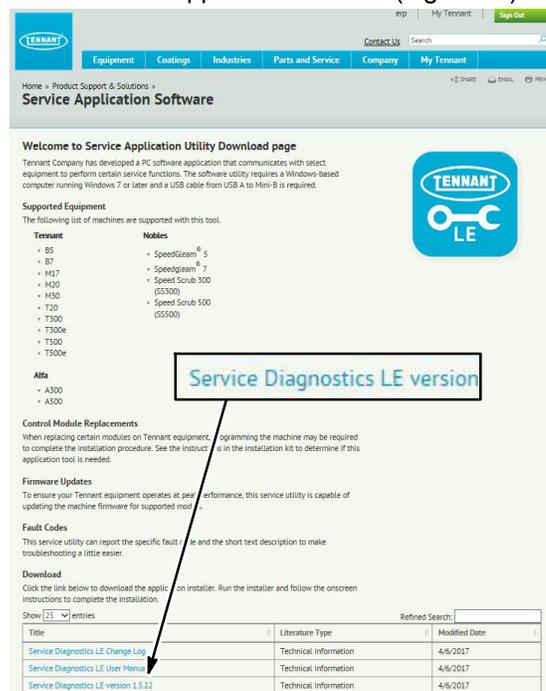
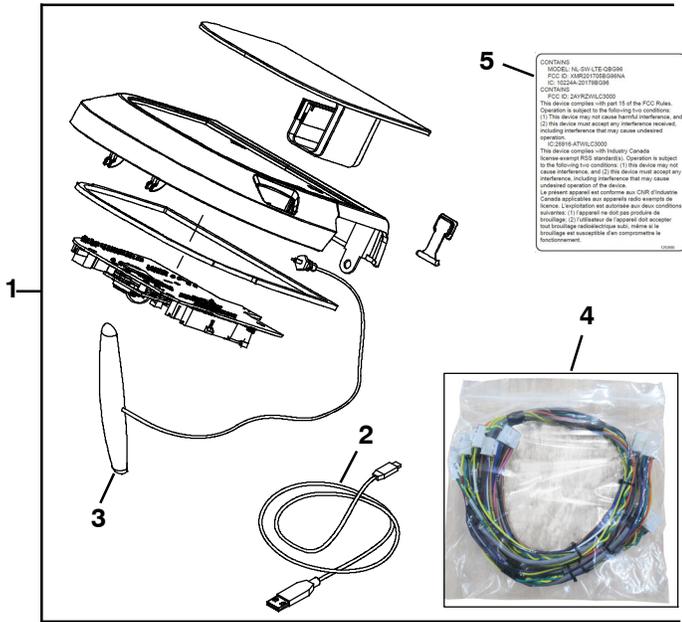


Fig. 29

Telemetry Membrane Bezel Kit Parts List



Ref.	Part No.	Description	Qty.
1	9021604	Bezel Kit, Membrane, Telem, Ci [T600e]	1
2	1071235	Cable, USB	1
3	*1247522	Antenna, Telem [4G, 72"]	1
4	*1077063	Harness, Ele [OP. STATION]	1
5	*1252880	Label, Mach, Telem, Universal	1

* Parts required on models manufactured before serial number T600e- 11015347 or equipped with the discontinued bezel membrane.



Discontinued membrane



New membrane

Note visual difference