T500 IRIS Control Board Replacement Kit

This kit includes the necessary parts to replace a defective control board with IRIS telemetry technology.

INSTALLATION INSTRUCTIONS:

Installation Time: 1 Hour

Special Tools Required: None

ATTENTION: To ensure machine operates at peak performance, update machine with latest FIRMWARE version after installing new board (See page 3 for details).

Kit Contents

Ref	Part No.	Description	Qty.
1	1217885	Control board, Assy [Cntrl, Telem]	1
2	27964	Strap, Ground, Static	1
3	130773	Cable-tie	3
4	1071235	USB Cable,	1

1. Drain the solution and recovery tanks.

2. Park the machine on a level surface and remove key.

3. Disconnect battery cables from battery pack (Figure 1).

FOR SAFETY: Before servicing machine, stop on level surface, turn off machine, remove key and disconnect battery cables.

Fig. 1

4. Remove the top two screws from the heat-sink panel and carefully lower panel as shown (Figure 2). Place a piece of cardboard over the battery terminals to prevent contact with metal heat-sink panel.
To fully lower panel, it may be necessary to some cut cable-ties near bottom of panel.

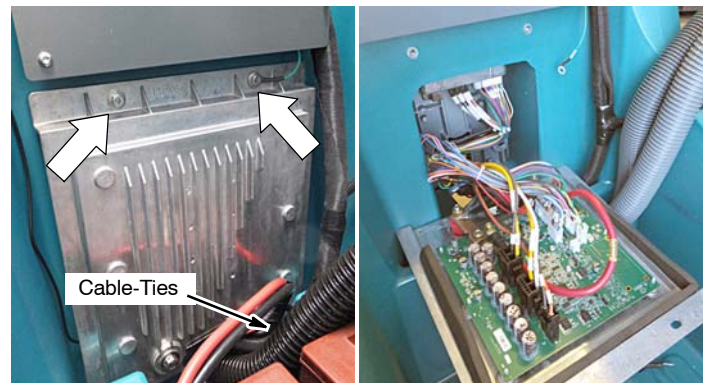**FOR SAFETY: When servicing machine, keep all metal objects off batteries.**

Cable-Ties

Fig. 2

5. Remove the telemetry SIM card from the defective control board and save (Figure 3).

Fig. 3
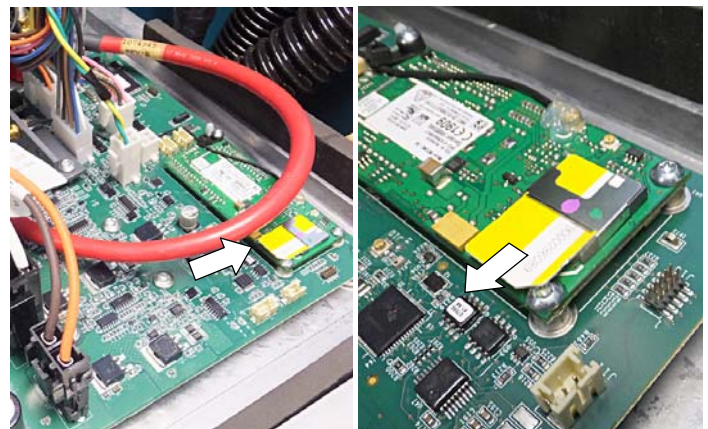
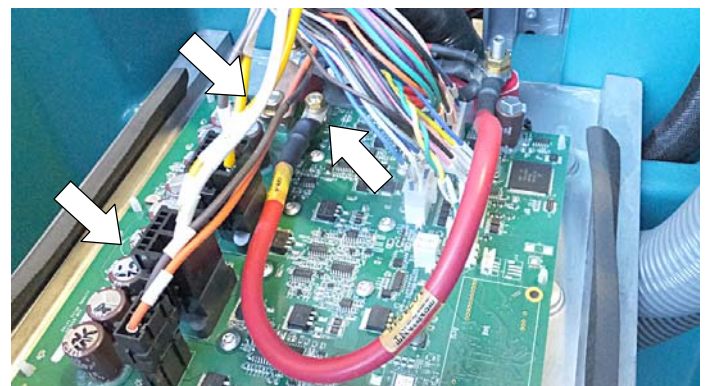6. Disconnect seven wire connectors, bus-bar and red cable from defective control board (Figure 4).

Fig. 4

7. Disconnect the antenna wire and remove the antenna bracket with two spacers from defective board (Figure 5). Save bracket and spacers.
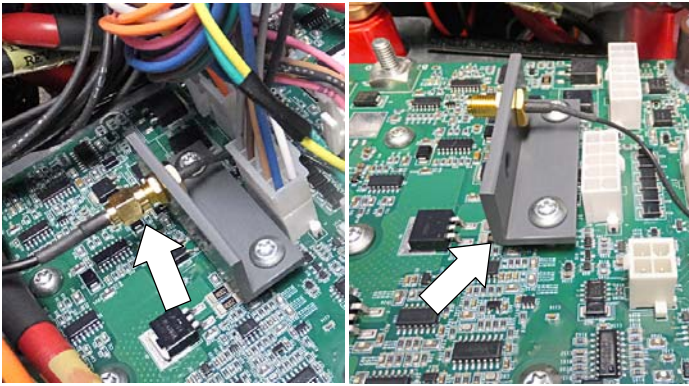

Fig. 5

8. Remove the defective control board from the heat-sink panel. The control board is mounted to the heat-sink panel with eight torque head screws and six standoffs. Squeeze the standoff flange to release control board from panel (Figure 6).
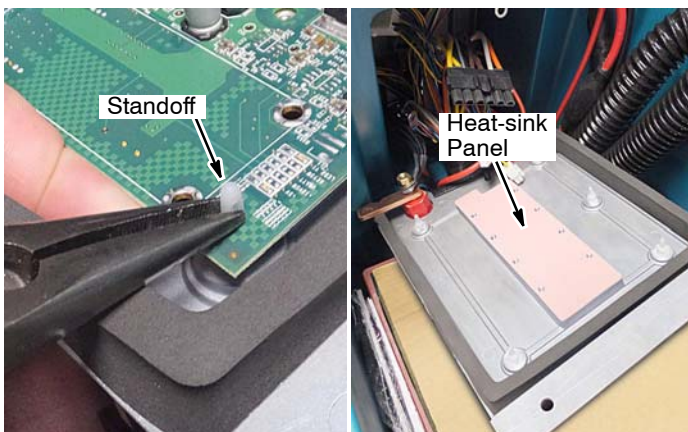

Standoff

Heat-sink Panel

Fig. 6

9. Use the supplied static ground strap as instructed when handling the new control board (Figure 7).

Fig. 7

10. Mount the new circuit board to the heat-sink panel using existing hardware (Figure 8). Reinstall the antenna bracket with two spacers as shown. Reconnect the antenna wire to the new control board.
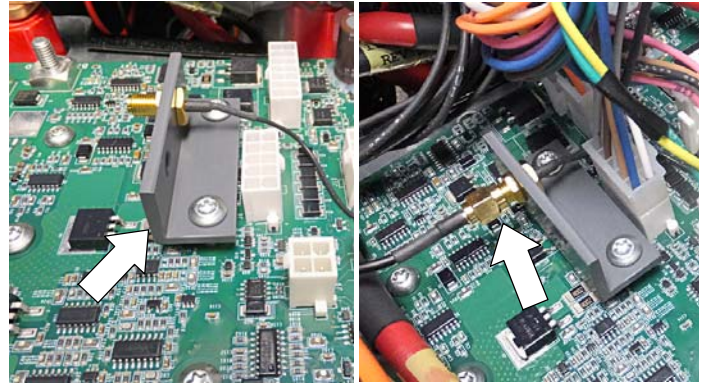

Fig. 8

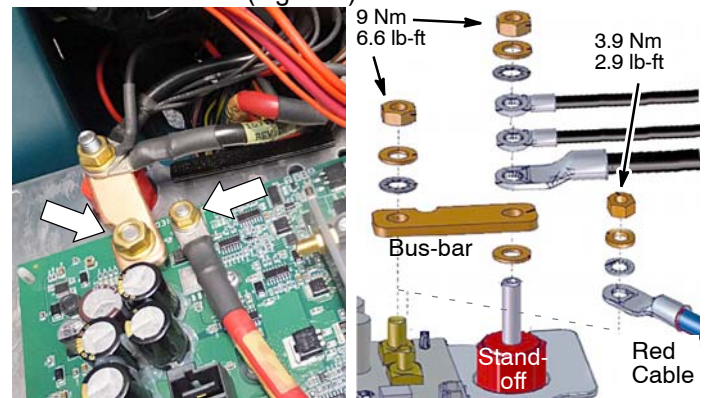11. Reconnect the bus-bar and red cable to the new control board as shown (Figure 9).

9 Nm
6.6 lb-ft

3.9 Nm
2.9 lb-ft

Bus-bar

Stand-off

Red Cable

Fig. 9

12. Fully insert the existing SIM card into the new control board (Figure 10).
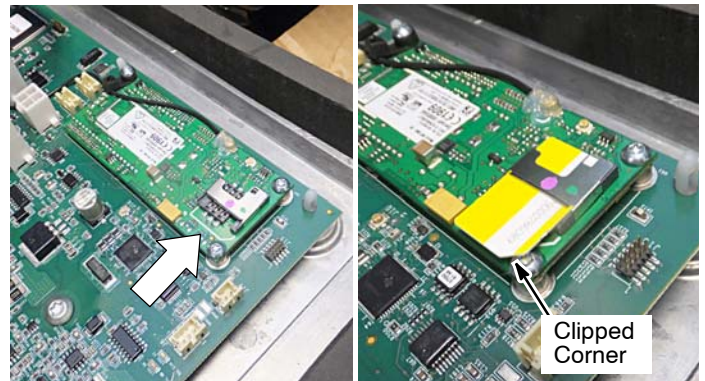

Clipped Corner

Fig. 10

13. Reconnect the seven wire connectors to the new control board as shown (Figure 11).

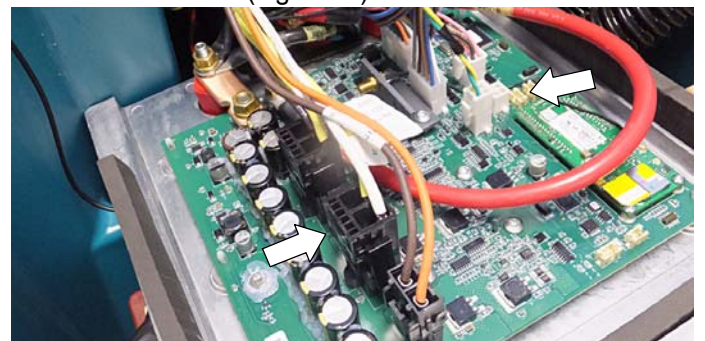**Fig. 11**

14. Carefully lift panel into position and re-fasten. Make sure to reconnect the ground wire to panel (Figure 12).
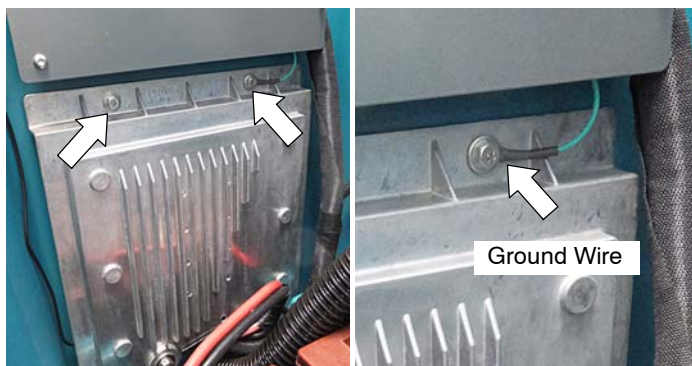

Ground Wire

Fig. 12

15. Reconnect battery cables to battery pack.

16. Update the machine with the latest firmware version.

17. Reactive IRIS Telemetry system as described below.

REACTIVATE IRIS TELEMETRY SYSTEM

NOTE: The IRIS telemetry system must be reactivated to complete the control board replacement. The system will not function until it is reactivated.

For assistance to reactivate the IRIS telemetry system, call your customer service location:

Before calling, be sure to have the machine serial number ready for reactivation (Figure 13).

USA Customer Service Location: Call Technical Support between hours 7:00 am and 5 pm CST, Monday through Friday.

Australia Customer Service Location: Call CCC between hours 8:00 am and 5 pm AEST, Monday through Friday. Ask to be routed to the IRIS expert for assistance.

Canada, Europe, Middle East, Africa Customer Service Location: Call local IRIS expert between hours 8:00 am and 5 pm, Monday through Friday.

Machine Serial Number

Fig. 13

FIRMWARE VERSION UPDATE INSTRUCTIONS:

The Tennant Service Application Software is required to update the machine's FIRMWARE VERSION. See **SERVICE APPLICATION SOFTWARE** on page 4 to access software .

1. Start the Service Software Application program **"Service Diagnostics..."**(Figure 14).

Icon on Desktop

Fig. 14

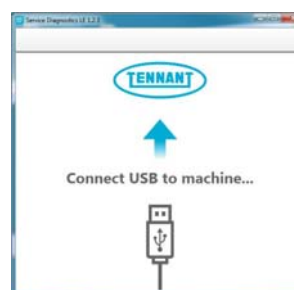2. After start up, the following screen will appear (Figure 15).

Fig. 15

3. Connect the USB cable to computer and to the USB port on machine as shown. Turn the key switch to the on position (Figure 16).
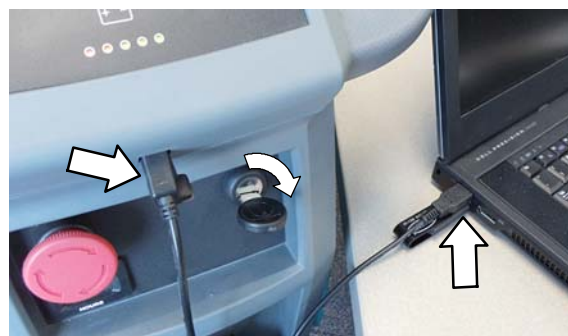

Fig. 16

4. The application software will then connect to the machine (Figure 17). 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.

Fig. 17

5. Once connected, the home screen will appear (Figure 18). If firmware updates are required, the "Firmware" button will be highlighted in yellow as shown. Press the button to update the machine's firmware.
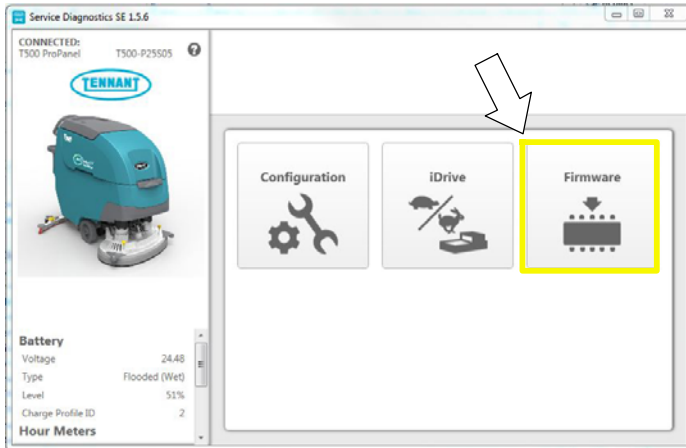

Fig. 18

Continue with the firmware update by pressing the yellow "Update" button as shown (Figure 19).
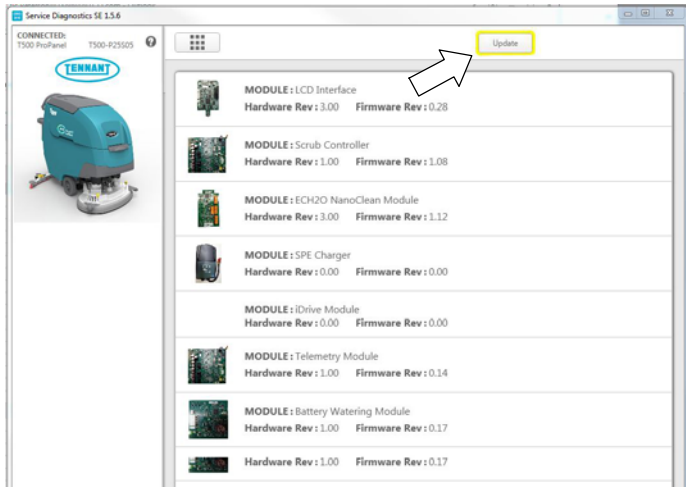

Fig. 19

6. Cycle the key to apply the new firmware updates. Disconnect the USB cable.
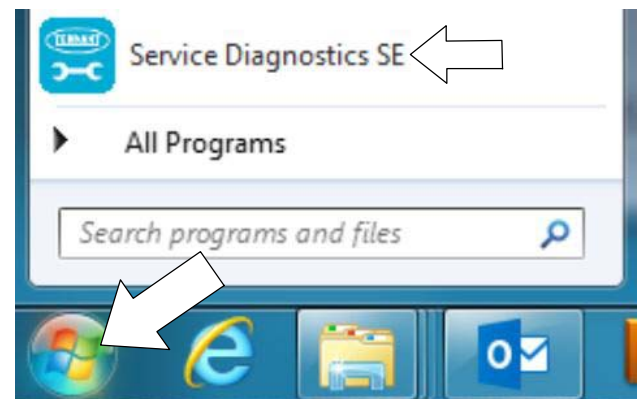
SERVICE APPLICATION SOFTWARE:

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

For Tennant service personnel equipped with ServiceLink computers, the software is pre-installed on your computer as shown below. The software application is titled **"Service Diagnostics"** (Figure 20).

Icon on Desktop

From Start menu

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

Fig. 20

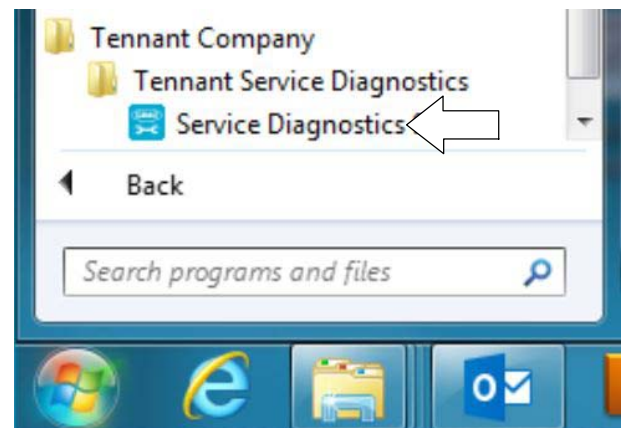**For other Service Groups,** the Service Application Software can be downloaded from the Tennant Public website as described below.

NOTE: If the Service Application Software is currently installed on your computer, confirm or re-install 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 **"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 21).

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)
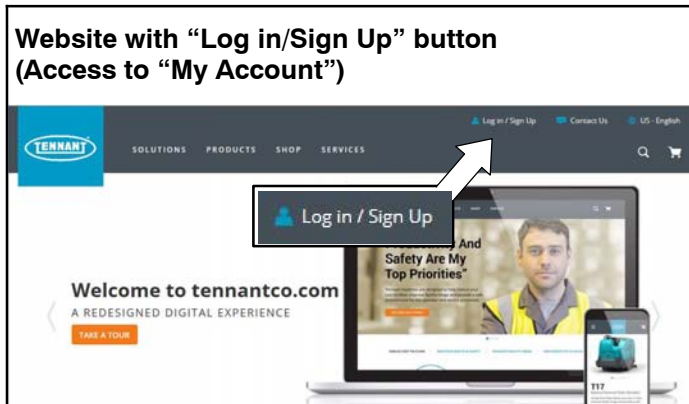
Fig. 21

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

1. Log in or Sign Up to create an account (Figure 22).
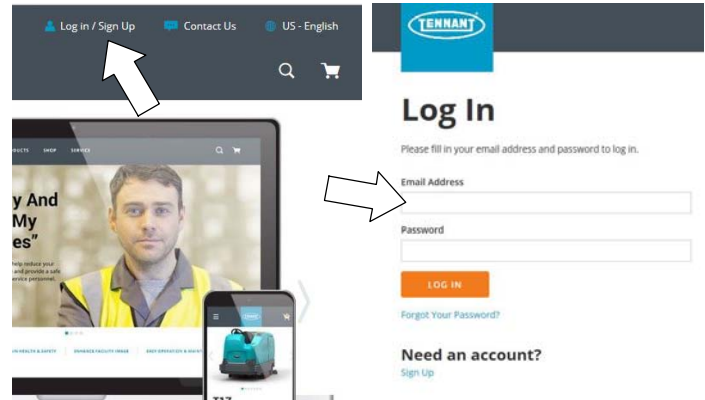

Fig. 22

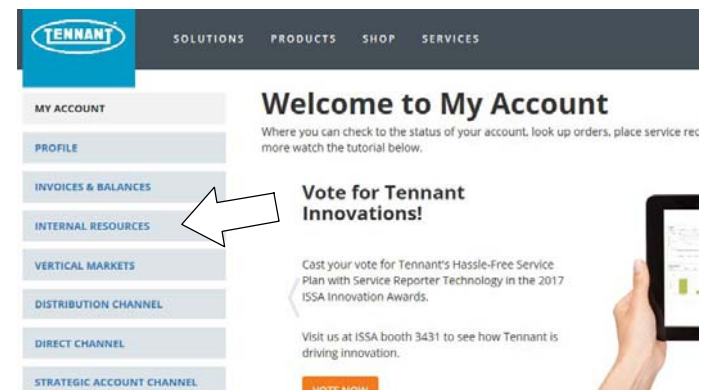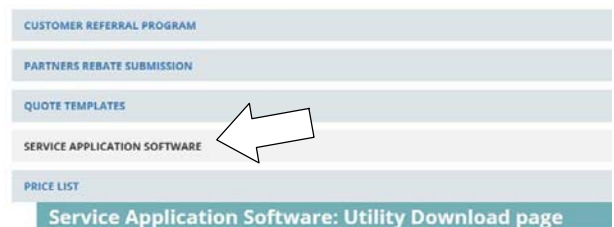2. Once logged in to the "My Account" website, click on the **"INTERNAL RESOURCES"** link as shown below (Figure 23).

Fig. 23

3. Click on the **"SERVICE APPLICATION SOFTWARE"** link as shown below (Figure 24).

Fig. 24

4. Within the Service Application Software page, click on the link titled **"Service Diagnostics LE version 1.5.12" or later** (Figure 25).

Documents

📄 Service Diagnostics LE Version 1.5.14
56.2 KB

📄 Service Diagnostics LE Change Log
220.6 KB

📄 Service Diagnostic User Manual 1.6 MB

Fig. 25

5. To download the service software continue to click as instructed then click the Save button (Figure 26).

Service Diagnostics LE Version 1.5.14

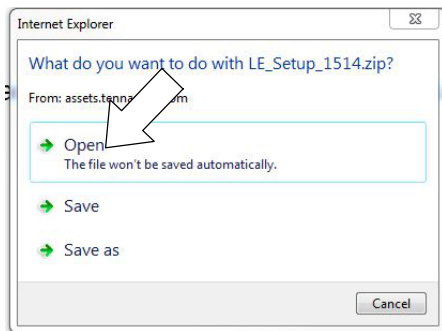To access Service Diagnostics LE Version 1.5.14, CLICK HERE

Internet Explorer

What do you want to do with LE_Setup_1514.zip?

From: assets.tenna...m

→ Open
The file won't be saved automatically.

→ Save

→ Save as

Cancel

Fig. 26

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 your computer (Figure 31). Follow instructions on screen to install.

Fig. 27

6. After the service application software is installed on your computer, refer to figure 20 to access the program.

Website with "My Tennant Customer Sign in" tab:

1. Log in to the "My Tennant" website or register as a new user (Figure 28).
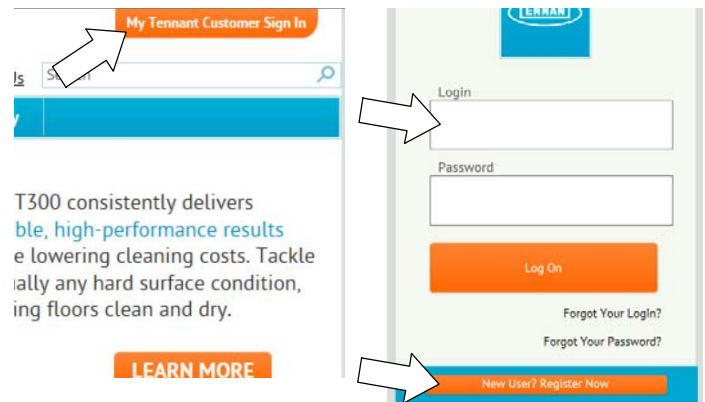

Fig. 28

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 29).

Fig. 29

3. Within the Service Application Software page, click on the link titled **"Service Diagnostics LE version 1.5.12" or later** to download the application installer then click the Save button (Figure 30).
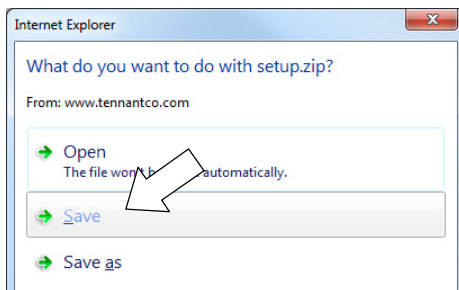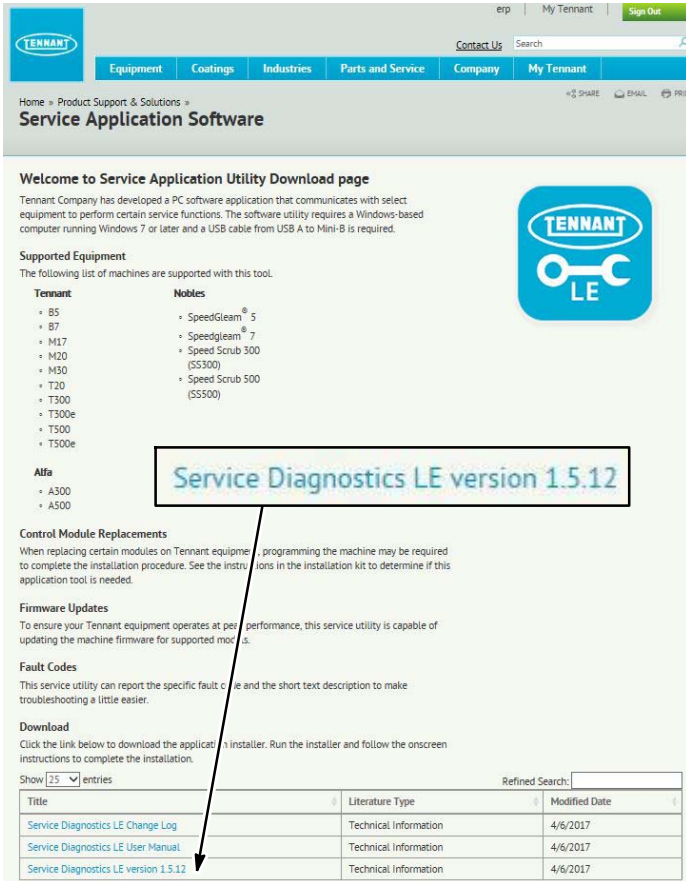

Fig. 30

4. 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 your computer (Figure 31). Follow instructions on screen to install.

Fig. 31

5. After the application software is installed on your computer, refer to figure 20 to access the program.