T300 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

Kit Installation Requirements:

- Tennant ServiceLink computer or a computer with Wi-Fi connection to access the Tennant Service Application Software, and USB cable (supplied with kit).

Computer System Requirements: Windows® 7 OS, Microsoft .NET Framework 4.5 or later, USB Port.

- The IRIS technology MUST be reactivated after replacing control board as described on page 6.

Special Tools Required: T-25 torque screwdriver

PREPARE MACHINE FOR KIT INSTALL:

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. If model is equipped with the red quick disconnect connector, disconnect connector (Figure 1).

NOTE: If model is equipped with the optional battery lift-out tray, the batteries and tray must be removed from machine to allow space to replace the control board.

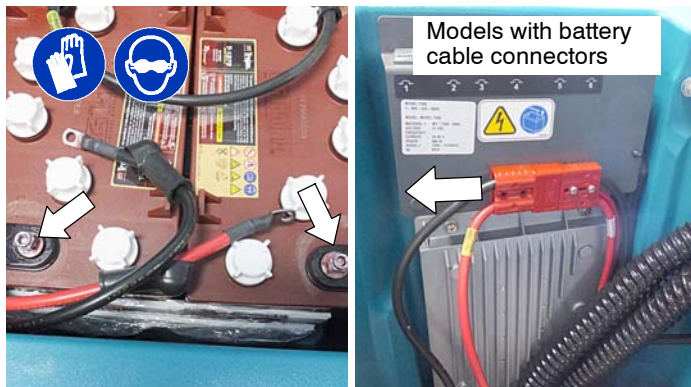⚠ **WARNING: Always disconnect battery cables from machine before working on electrical components.**

Fig. 1

4. Cut the three cable-ties that secure the vacuum hose, drain hose, and battery cables to the heat- sink panel (Figure 2).
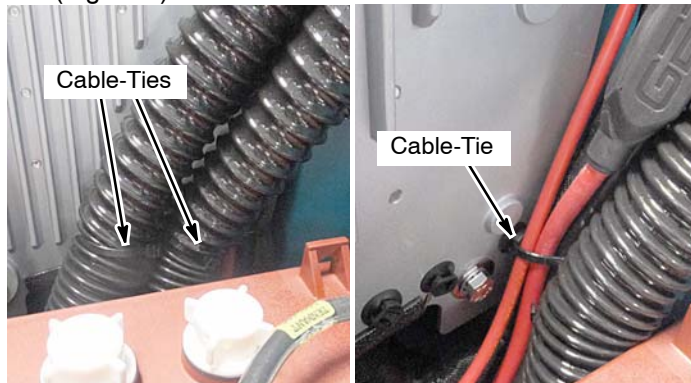

Cable-Ties

Cable-Tie

Fig. 2

9014185 Kit Contents

Ref	Part No.	Description	Qty.
1	1215340	Circuitboard, Assy [Vw, Cntrl, Telem]	1
2	27964	Strap, Ground, Static	1
3	130773	Cable-tie	3
4	1071235	USB Cable,	1
5	1227812	Bracket, SMA Connector [Antenna]	1
6	1227815	Spacer, unthreaded, Alum. [Bracket]	2

5. Remove the top two screws from the heat-sink panel and carefully lower panel as shown (Figure 3). Place a piece of cardboard over the battery terminals to prevent contact with metal heat-sink panel.

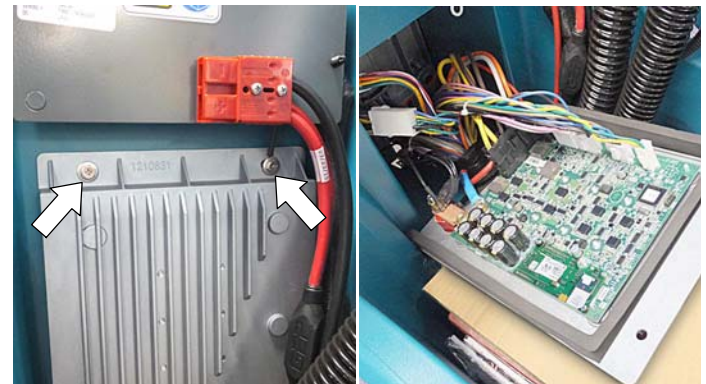**FOR SAFETY: When servicing machine, keep all metal objects off batteries.**

Fig. 3

6. Remove the existing SIM card from the old control board and save for new board (Figure 4).
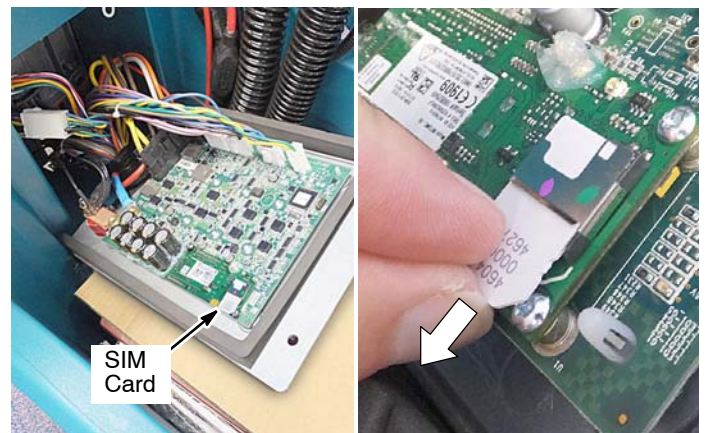

SIM Card

Fig. 4

New SIM Card Replacement Kits if needed (Figure 5).

USA SIM Card
Replacement Kit (Yellow)
p/n 9014186

International SIM Card
Replacement Kit (White)
p/n 9014187

Fig. 5

7. Disconnect all wire connections from old control board
    and remove board from the heat-sink panel (Figure 6).
    The control board is mounted to panel with eight
    torque head screws and five standoffs. Squeeze
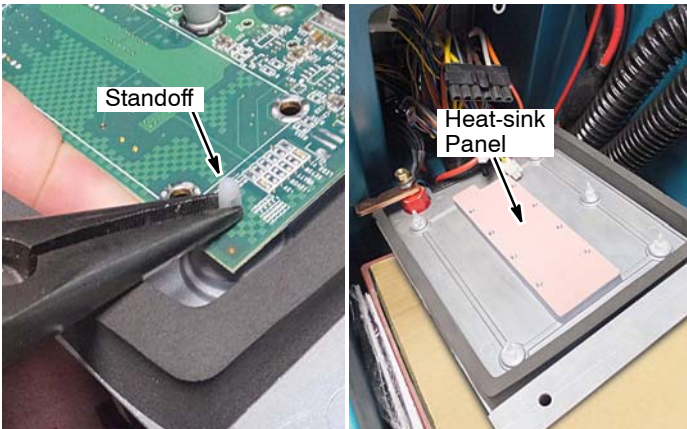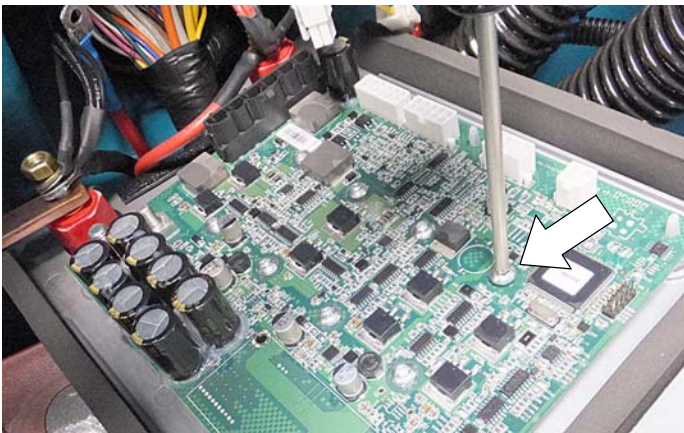   standoff flange to release control board from panel.

Fig. 6

INSTALL REPLACEMENT BOARD KIT:

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

Fig. 7

2. Fully re-insert the existing SIM card into the new control
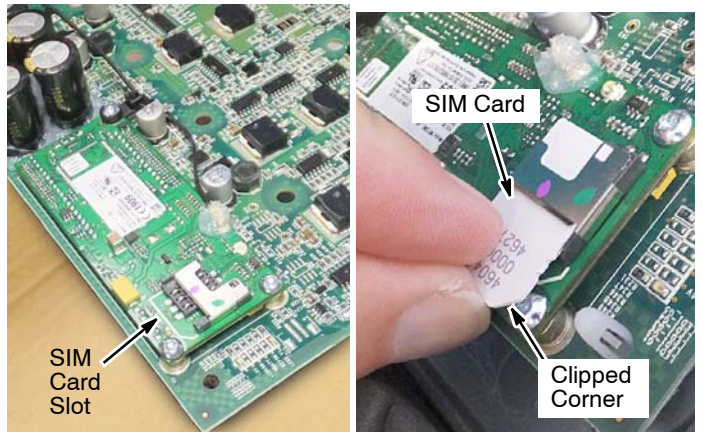   board (Figure 8).

Fig. 8

3. Mount the new control board to the heat-sink panel
    using existing hardware. Install the antenna bracket with
    two spacers as shown (Figure 9). Reconnect the five
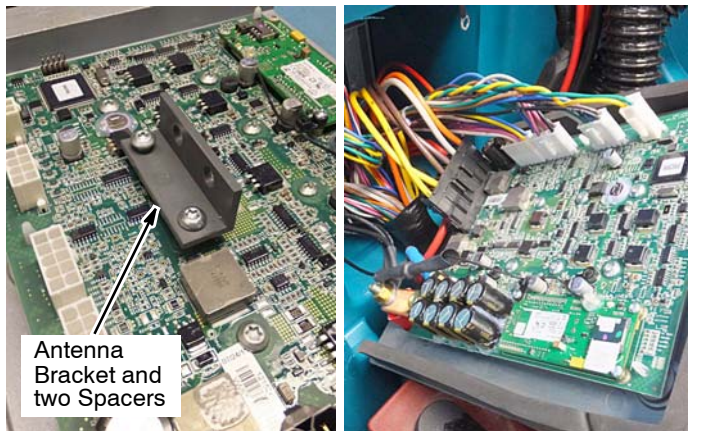   wire harness connectors to the new control board.

Fig. 9

4. Reconnect the bus-bar and red battery cable to new control board. To allow clearance to remount panel to machine, position the wires that are connected to the stand-off as shown (Figure 10).
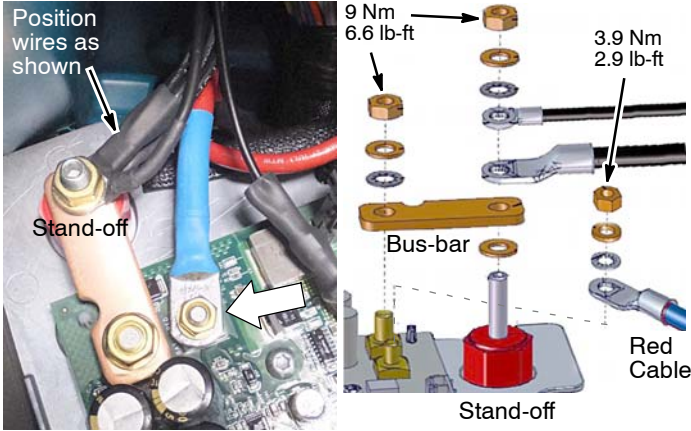

Position wires as shown

9 Nm 6.6 lb-ft

3.9 Nm 2.9 lb-ft

Stand-off

Bus-bar

Stand-off

Red Cable

Fig. 10

5. Connect the new control board's antenna wire to the antenna bracket as shown. Then reconnect the antenna wire (Figure 11).
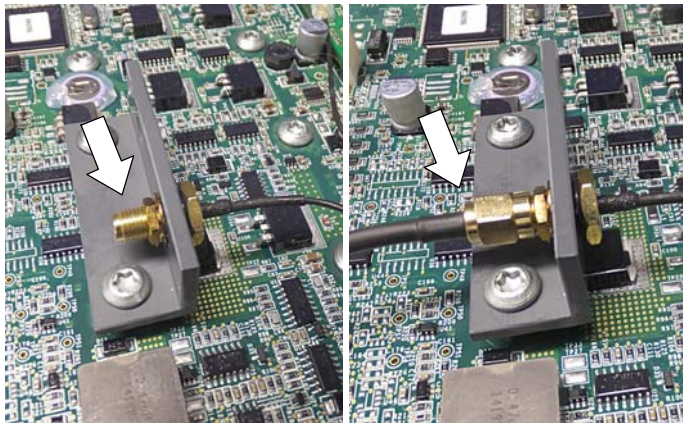

Fig. 11

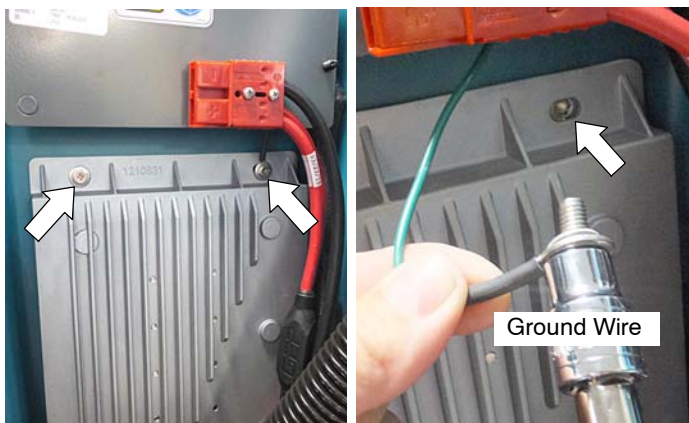6. Re-install the heat-sink panel to machine. Make sure to reconnect ground wire to panel (Figure 12).

Ground Wire

Fig. 12

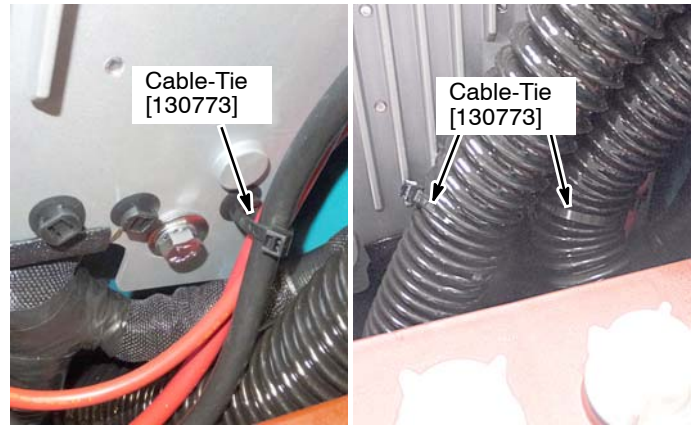7. Reconnect cables, vacuum hose and drain hose to the heat-sink panel with cable-ties (Figure 13).

Cable-Tie [130773]

Cable-Tie [130773]

Fig. 13

8. Reconnect battery cables to battery pack (Figure 14).

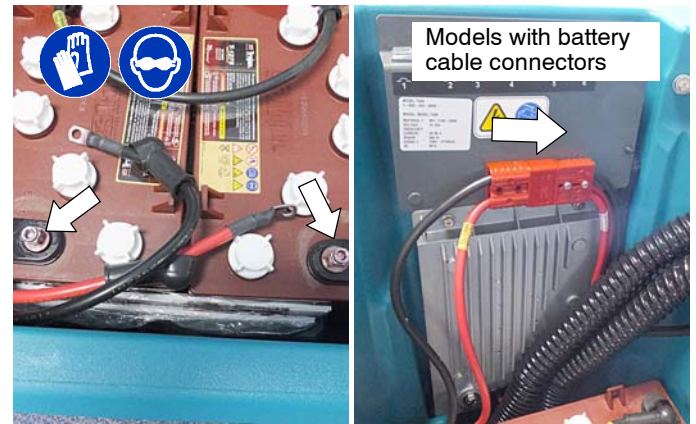Models with battery cable connectors

Fig. 14

9. To ensure new control board operates at peak performance, confirm if machine's firmware requires updates (See **FIRMWARE VERSION UPDATE** on page 5).

10. Reactivate the IRIS Telemetry System (See **REACTIVATE IRIS TELEMETRY SYSTEM** on page 6).

TENNANT SERVICE APPLICATION SOFTWARE:

The Tennant Service Application Software is required to update the machine's firmware version. The software application can be accessed or installed as described below.
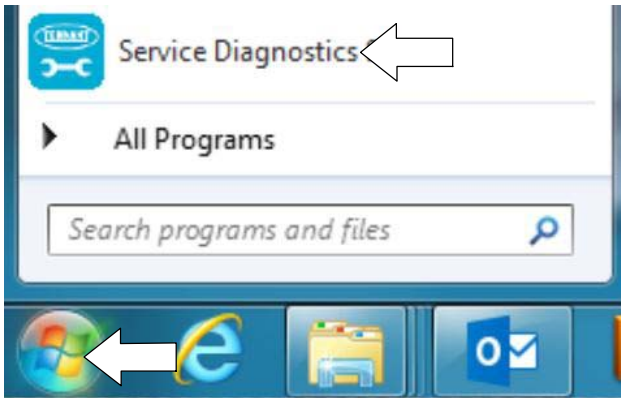
For Tennant service personnel equipped with ServiceLink computers, the software is pre-installed with latest version on your computer and accessible as described below.

The software application is titled **"Service Diagnostics"**. (Figure 15).

Icon on Desktop

From Start menu

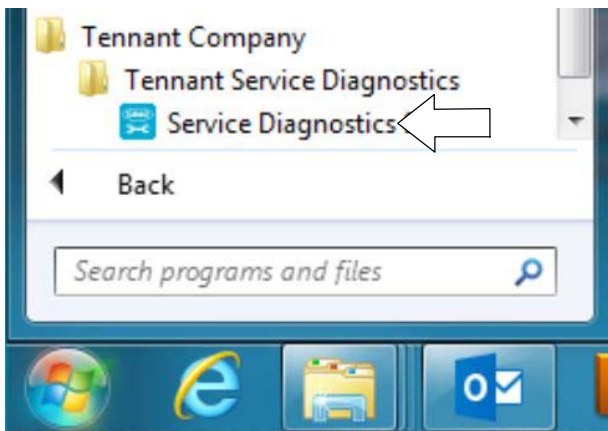**From Start menu > All Programs > Tennant Company > Tennant Service Diagnostics**

Fig. 15

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

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

1. Go to www.tennantco.com and click on the **"My Tennant Customer Sign In"** tab in the upper left corner (Figure 16).

Fig. 16

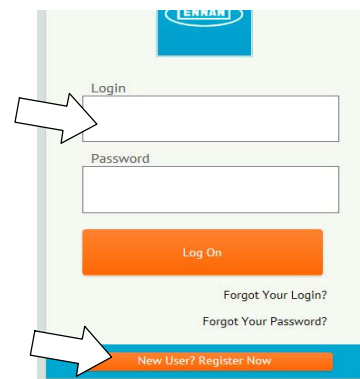2. Log on to the "My Tennant" website or register as a new user (Figure 17).

Fig. 17

3. 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 18).

Fig. 18

4. The application software is titled "Service Diagnostics LE version 1.3.4". **The software version (ex. 1.3.4) will increase as updates are released.** To download, double click on "Service Diagnostics LE version..." (Figure 19). Click the Save button to download the app to your "Downloads" folder.
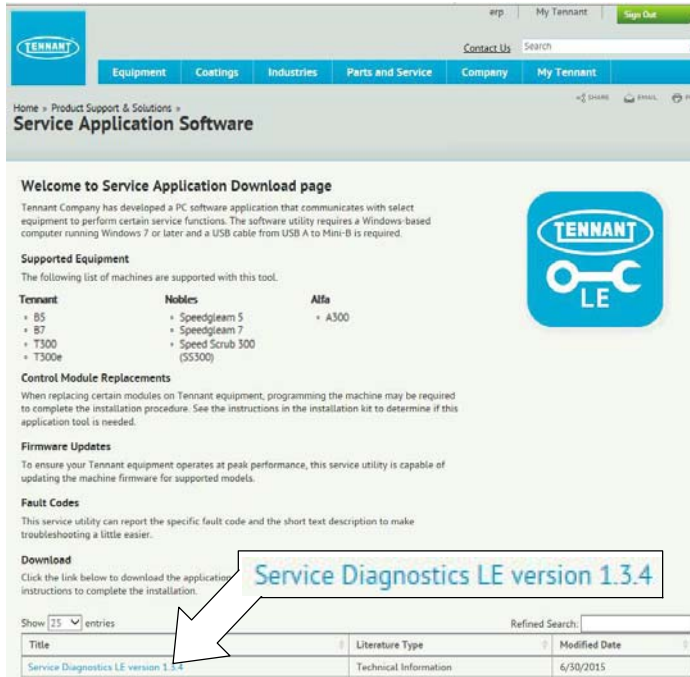

Fig. 19

5. Open the "Downloads" folder and locate the "LE_134_setup" zip file. Open the zip file and click on the "LE_134_setup" file to install the application software on your computer (Figure 20).
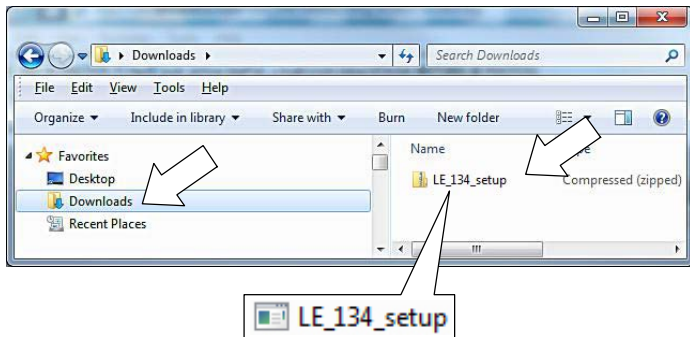

Fig. 20

6. After the application software is installed on your computer, refer to figure 15 to access the program.

FIRMWARE VERSION UPDATE:

Tennant Service Application Software is required to update the machine's firmware version. If the Service Application Software is currently installed on your computer, confirm or re-install the software to ensure latest software version is installed. The software version is listed at top of app window as shown in figure 22. See **TENNANT SERVICE APPLICATION SOFTWARE** to install application or to confirm latest version**.**

1. Start the Service Software Application program **"Service Diagnostics..."**(Figure 21).

Icon on Desktop

Fig. 21

2. After start up, the following screen will appear (Figure 22). Confirm if latest version is installed.
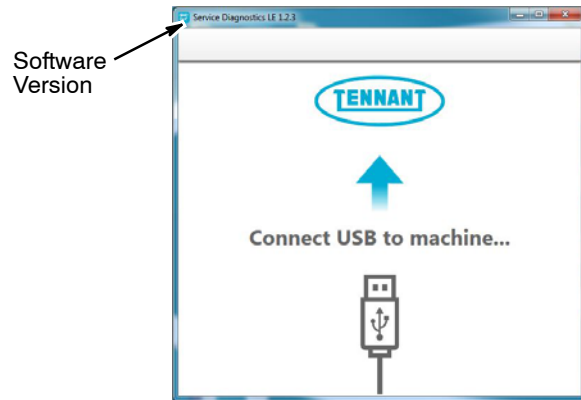
Software Version

Fig. 22

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 23).
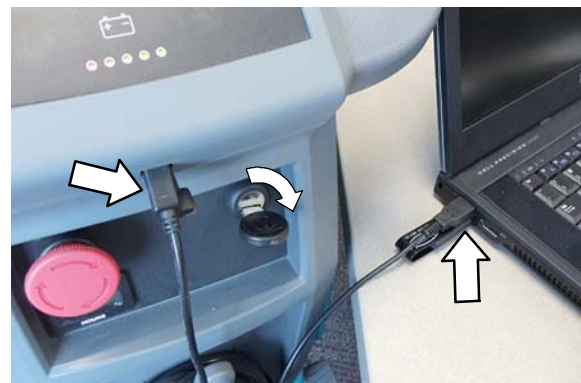

Fig. 23

4. The application software will then connect to the machine (Figure 24). 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. 24

5. Once connected, the home screen will appear (Figure 25). If firmware updates are required, the "Firmware" button will be highlighted in yellow as shown. Press the button to update the machine's firmware.
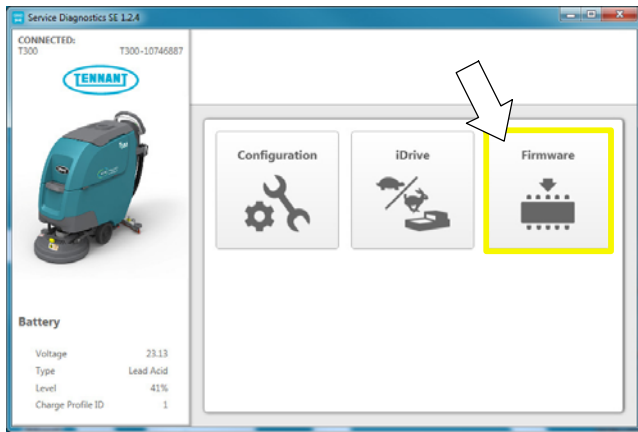

Fig. 25

If the following screen appears, continue the firmware update by pressing the yellow "Update" button (Figure 26).
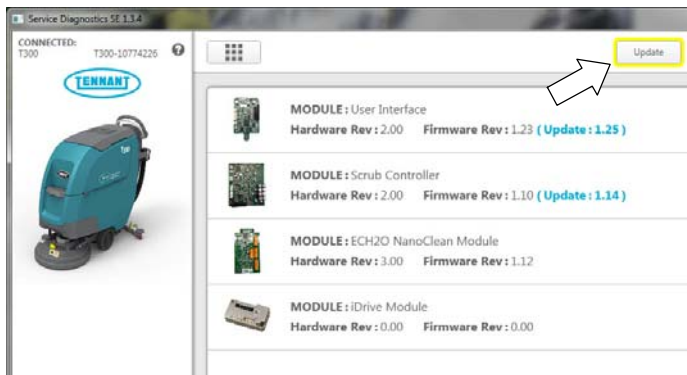

Fig. 26

6. Cycle the key to apply the firmware updates when prompted. Disconnect the USB cable.

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 27).

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.
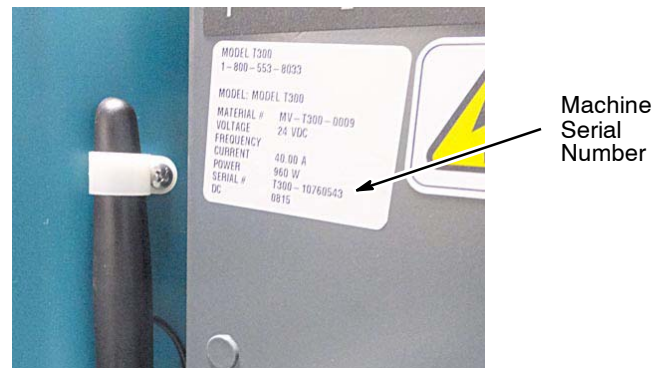

Machine Serial Number

Fig. 27