

# Recall 23E-045

## Installation Instructions

### SAF Tire Pilot Plus™ (TPP) Tire Inflation System

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Tire Pilot Plus (TPP) system produced on trailers after November 2022 until June 2023 with the Electronic Controlled Module (ECM) have been recalled due to specific conditions where they can slowly deflate all 8 tires on a trailer.

The following instructions provide the necessary information to be able to install the proper components to re-enable the Tire Pilot Plus system. It is required to obtain the proper SRK kit as identified in XL-AA20131SB-en-US depending on the current TPP components on the trailer, number of axles, and tire configuration.

The following instructions reference a disabled system per the procedure previously published in XL-AA20125SB-en-US. At the end of this document, other potential configurations of the system are discussed.

SAF-HOLLAND® will reimburse 1 hour of labor for this reactivation procedure per trailer. Once the procedure is done, you will need to supply:

- trailer make
- trailer VIN
- trailer in-service date
- both axle serial numbers
- suspension serial number
- TPP ECM Serial number
- date of repair
- authorization number

to SAF-HOLLAND warranty at [service@safholland.com](mailto:service@safholland.com) for labor reimbursement.

If other warrantable issues are found during the reactivation of the TPP (ECM), a separate claim must be filed for those items.

We apologize for any inconvenience this may have caused. SAF-HOLLAND is committed to serving our customers with quality products.

**⚠️ WARNING**

Failure to properly support and secure the vehicle and axles prior to commencing work could create a crush hazard which, if not avoided, could result in death or serious injury.

## Tire Pilot Plus Recall Kit Installation Process

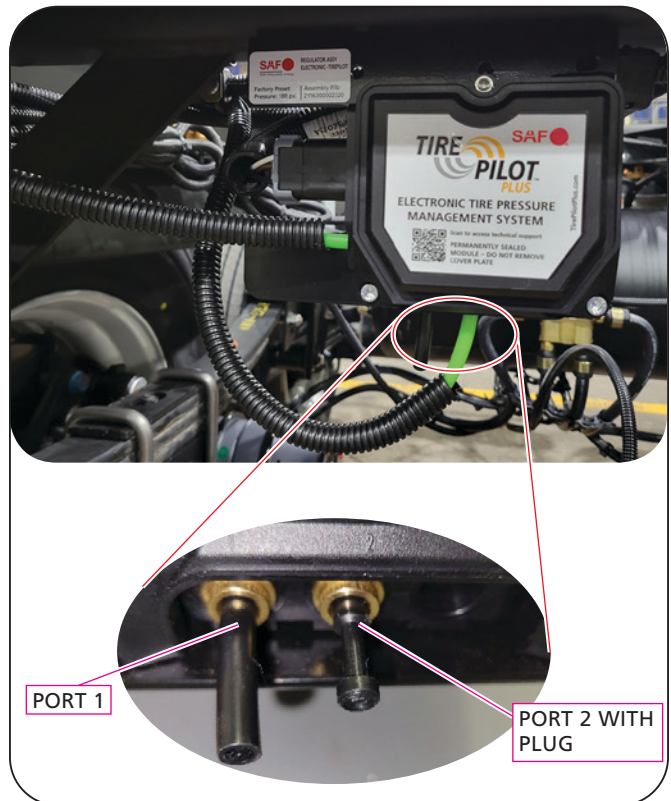
### ECM Plumbing and Wiring

1. Find the ECM assembly usually located on the first suspension cross-member (**Figure 1**).
2. Determine if the ECM port 2 is plugged or has a 1/4" air line installed (**Figure 2**).
  - a. If the ECM is plugged a new air line will need to run from port 2 to the pressure protection valve with a 1/4" push to connect (PTC) fitting. Remove the plug by pressing in on the PTC sleeve and pulling the plug out of the fitting. Discard the plug.
  - b. If the ECM has an air line connected, the existing air line will need to be removed and a new air line will need to run from port 2 to the pressure protection valve. Remove the air line by pressing in on the PTC sleeve and pulling the air line out of the fitting. Discard the air line.
3. Install the 1/4" DOT air line into port 2 by pushing the line firmly into the PTC fitting. The air line should install approximately 1/2" into the PTC fitting. Secure the air line to the suspension subframe while routing the line back to the pressure protection valve (PPV). Protective loom can be used over the air line if desired. Leave extra air line at the PPV until steps 5-6 are completed.

**Figure 1**



**Figure 2**

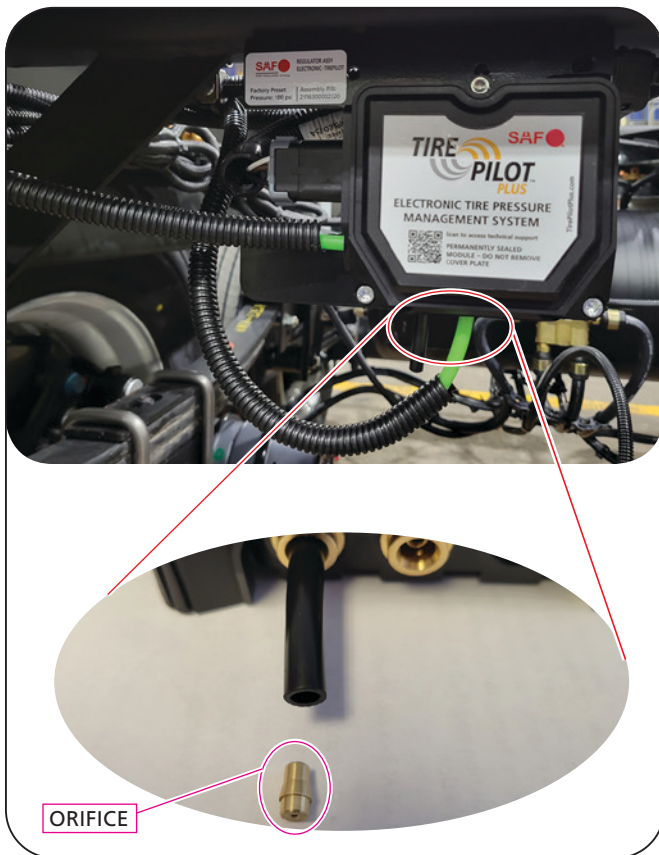


4. Install the 1/4" push to connect orifice. Locate port 1 on the ECM. Install the orifice into the open air line end approximately 1/2" as illustrated in **Figure 3**. It will be helpful to use a small allen wrench or punch to get the orifice into the air line 1/2".

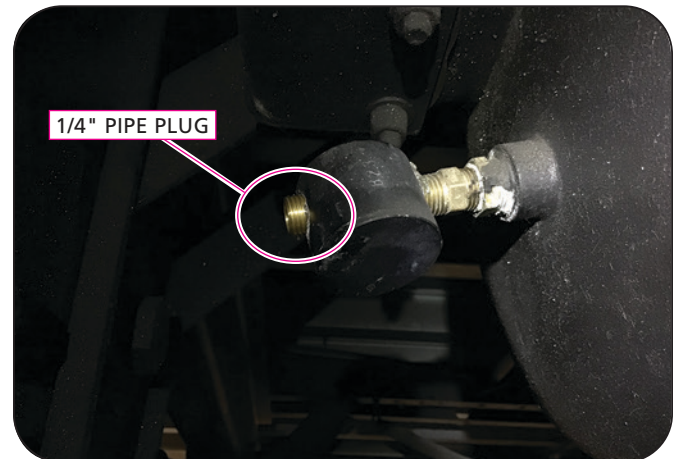
**CAUTION** Prior to performing Step 5, you must release the air pressure from the air tank by loosening the air tank drain. Failure to do so may cause injury.

5. Drain the air tank, then remove the 1/4" pipe plug from the PPV that is dedicated for the TPP system (**Figure 4**).
6. Install the 1/4" 90° push to connect fitting in the PPV. The fitting contains pre-applied thread sealant to minimize leaks. Make sure to align the output in the direction of the air line routing to the ECM (**Figure 5**).
7. Connect the air line to the 90° push to connect fitting. Trim the air line with a quality air tubing cutter making a clean square end without crushing the air line and insert fully into the fitting, approximately 1/2". (**Figure 5**).

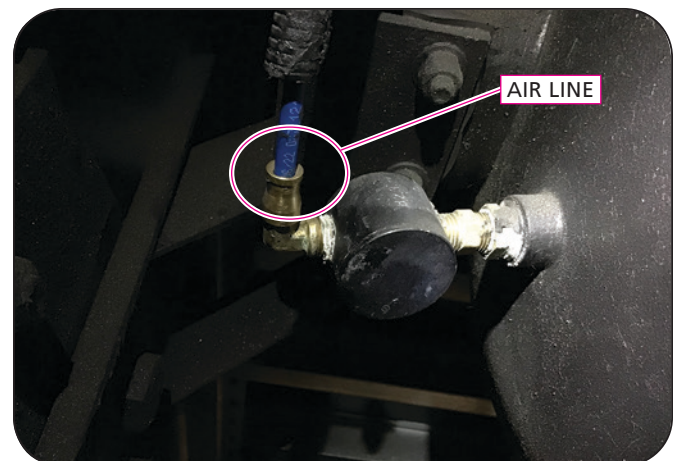
**Figure 3**



**Figure 4**



**Figure 5**

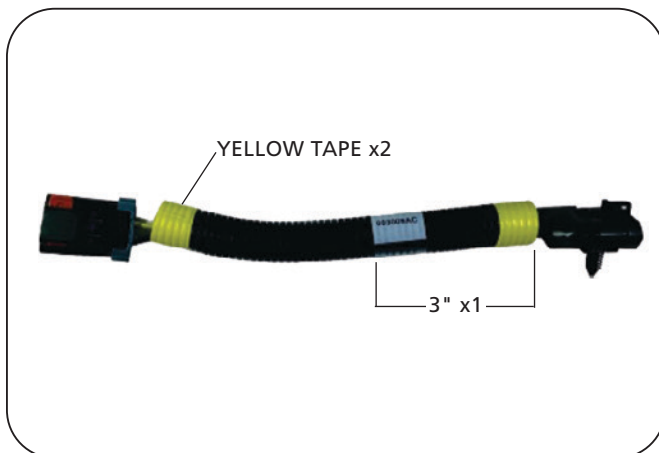


8. Replace the ECM harness that connects the ECM to the main TPP harness (**Figure 6**). Remove the harness from the ECM by sliding the red lock tab vertically up and press the connector as illustrated to release (**Figure 7**). Remove the 3 pin weatherpack connector from the main harness by detaching the lock and separating the harness (**Figure 8**). Cut or remove the push in fastener attached to the mounting bracket. The new harness can be identified by the yellow tape located at both ends of the harness.
9. Close the air tank drain.

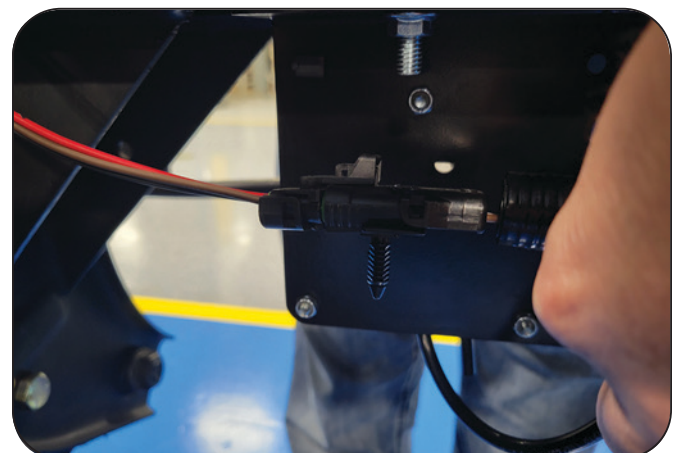
**Figure 7**



**Figure 6**



**Figure 8**





## ECM Firmware Update

1. Download or update to the latest Tire Pilot Plus App from either the Apple Store or the Android Play Store (**Figure 9**).
2. Supply power to the trailer.
3. Connect to the module through the app (**Figure 10**). Make sure to connect to the correct module by verifying the serial number on the side of the module (**Figure 11**). If located in an area with lots of Bluetooth devices, it may take several attempts to connect to the module through the app.

**IMPORTANT:** THIS STEP MUST BE COMPLETED AS SOON AS THE MODULE IS POWERED ON. IF THE ATTEMPT FAILS, DISCONNECT POWER AND TRY AGAIN.

**IMPORTANT:** FOR BEST CONNECTION RESULTS VIA BLUETOOTH, BE SURE TO REMOVE NON-USED BLUETOOTH DEVICES, ESPECIALLY PREVIOUSLY CONNECTED ECM'S. AFTER CLEARING DEVICES, POWER OFF THE ECM AND TRY RECONNECTING VIA THE APP. IF PROBLEMS CONNECTING CONTINUE, IT MAY BE REQUIRED TO RESTART YOUR PHONE AND CONNECT MANUALLY THROUGH THE PHONES BLUETOOTH SETTINGS MENU.

Figure 10

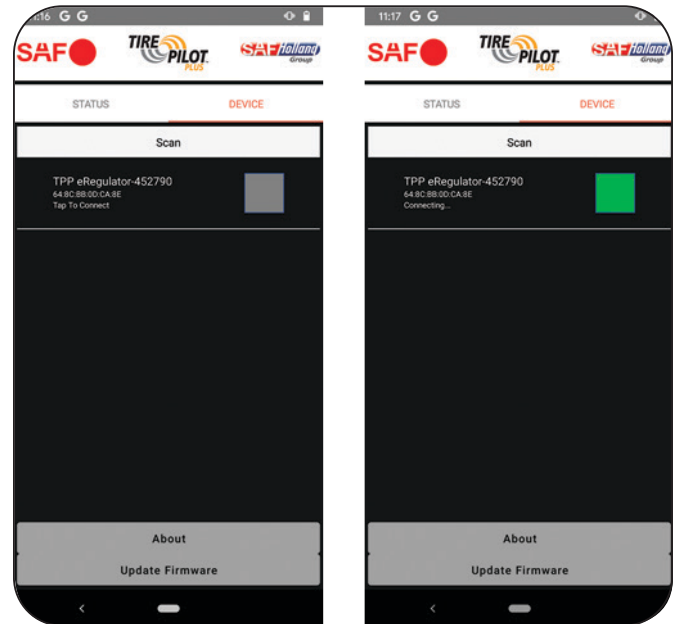


Figure 9

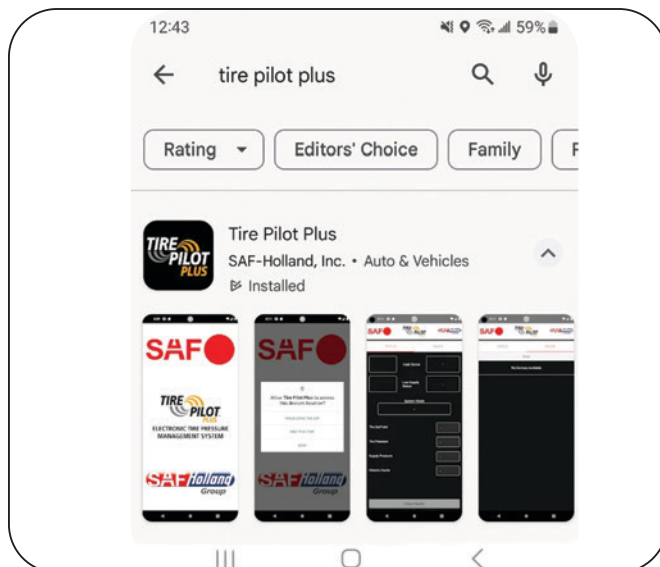


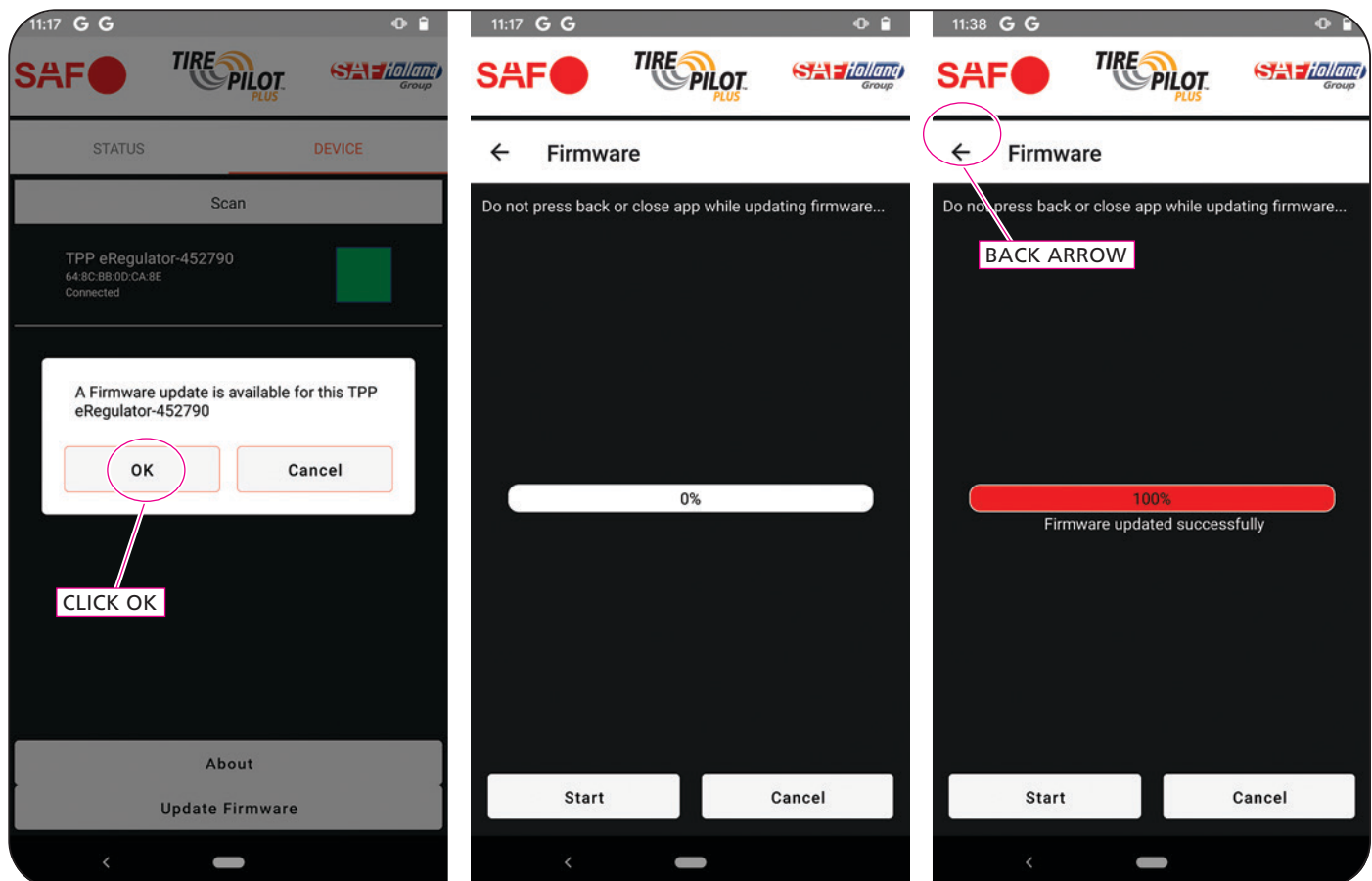
Figure 11



4. Click on the OK button within the app to upload the latest firmware (**Figure 12**).
5. Wait approximately 8-10 minutes until the status bar reaches 100%. Do not stop the update while in progress. Click on the back arrow when completed to 100%.  
It is important to monitor the status of update around 46% and 90% (**Figure 12**). If your phone prompts you to pair to the module again at 46% it must be done to avoid stopping the firmware update progress. If the update fails, it may be necessary to start the update again.
6. While the update is on-going it is possible to move to the next section, while continuing to monitor the firmware update progress.

**IMPORTANT:** ONCE THE STATUS BAR REACHES 100%, THE UPDATE IS COMPLETE. IF THE APP DOESN'T UPDATE TO THE 1.6.0 BCP AND 1.6.0 MCP VERSIONS IN THE ABOUT SECTION, IT WILL BE REQUIRED TO REMOVE THE DEVICE FROM YOUR BLUETOOTH SETTINGS, POWER OFF THE ECM FOR 30 SECONDS, POWER UNIT BACK ON AND RE-PAIR.

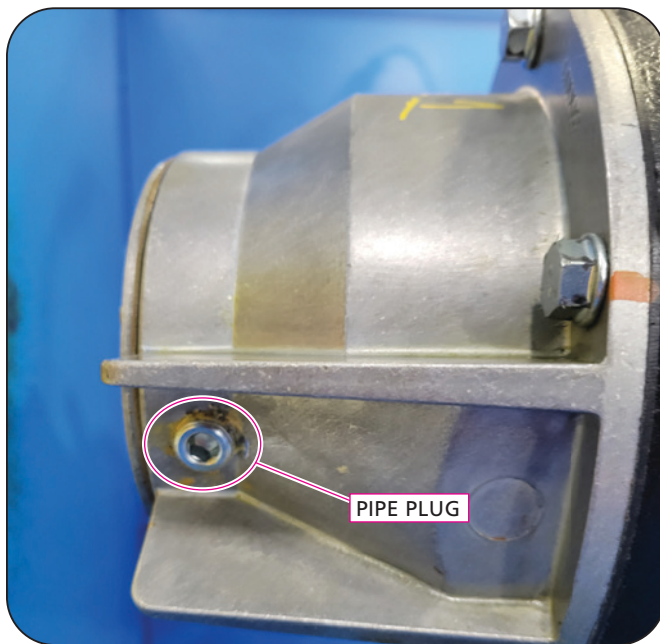
Figure 12



## Tire Hose Re-installation

1. Remove the 1/4" pipe plugs installed in the hubcap assemblies (**Figure 13**).
2. Install the 1/4" tire hose fittings in the hubcap assemblies. Use of thread sealant is recommended to help eliminate air leaks. Torque fittings to 16-18 lb-ft or until only 2-3 threads are visible (**Figure 14**).
3. Remove the valve stem caps (**Figure 15**). Make sure the threads are clean of any debris.
4. Install the tire hose assemblies to the valve stem hand tight only (**Figure 16**).
5. Connect the hubcap end of the tire hose assembly to the hubcap fitting hand tight only (**Figure 17**).

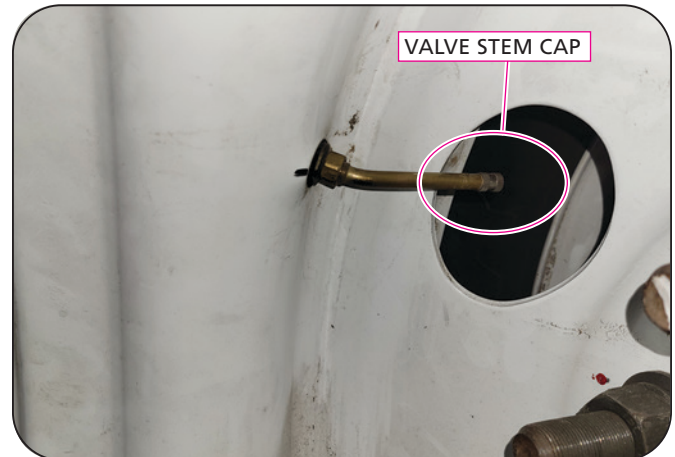
**Figure 13**



**Figure 14**



**Figure 15**



**Figure 16**



**Figure 17**





6. New tire hose assemblies can be identified by the yellow spiral wrap around the stainless steel braid (**Figure 18**). Make sure the hubcap to rim clocking is correct to be able to assemble the hoses in Step 5. If the trailer has had tires serviced, these could be incorrect.

## Installation of Identification Labels

1. Install the new yellow label over the existing white label on the front of the module which will indicate the firmware is updated (**Figure 19**). It will be necessary to wipe the existing white label clean with a rag, prior to installation.
2. Install the new LED label over the existing label above the light on the front roadside corner of the trailer (**Figure 20**). If a second removable label was added (**Figure 21**) stating the system was disabled, remove that label first and then add the new label.
3. Cycle the power to the module before starting the next section of these instructions.

Figure 19



Figure 20

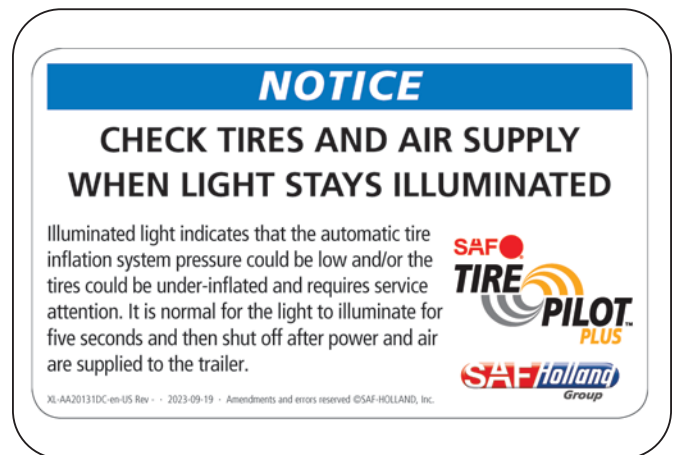


Figure 18



Figure 21





## System Startup and Verification

1. Supply power and air to the trailer.
2. Check for air leaks at the connection points at the PPV, tire hoses, hubcap fittings, and PTC fittings by spraying the connections with a mild soap and water solution or by using the Tire Pilot Plus APP. If operational for approximately 5-7 minutes, the Tire Pilot Plus system will report a Fast Leak or Slow Leak in the diagnostic portion of the APP, if a leak is present.
3. Verify through the Tire Pilot Plus App that the system is operational and tire pressures are near the desired pressure. You may let the Tire Pilot Plus system adjust the tire pressure to the programmed setpoint at this time.
4. Within the TPP App on the status page, press the Light Test button near the bottom of the page. The LED light at the front of the trailer should come on for 5 seconds, and then go off. This will verify the light is functioning correctly. If the light does not come on, verification of the light wiring will need to be completed.
5. Disconnect the power and air from the trailer and return the trailer to service.

## Other Configurations of the TPP system

1. If your system was never disabled per XL-AA20125SB-en-US, or the hardware configuration is different from the instructions in this document, please make sure to follow the instructions above to replace the following components:
  - Replace all tire hoses connecting the hubcap to the valve stems. (Tire Hose Re-installation Steps 4 through 6)
  - Replace the ECM wiring harness. (ECM Plumbing and Wiring Step 8)
  - Update the ECM firmware. (ECM Firmware Update Steps 1 through 6)
  - Install the push to connect orifice on the ECM port 1 short air line. (ECM Plumbing and Wiring Step 4)
2. Please contact SAF-HOLLAND Customer Service for support if you have questions about your TPP system configuration.









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