

# TECHNICAL PROCEDURE

## HENDRICKSON TIRE INFLATION SYSTEM

**SUBJECT:** HTIS Tire Inflation Pressure  
Programming

**LIT NO:** L827

**DATE:** May 2003

This document focuses on a particular technical procedure regarding the Hendrickson Tire Inflation System (HTIS). Before conducting any work on the HTIS, read and understand Hendrickson publication L786, *HTIS Installation, Service and Troubleshooting Procedures* (available at [www.hendrickson-intl.com](http://www.hendrickson-intl.com)), for additional instructions and safety information.

### SYSTEM SETUP INTRODUCTION

After the HTIS installation is complete, the system must be programmed before it is put into service. On power-up, the lamp will remain on as an indication that the target pressure has not yet been programmed.

There are two methods for setting the system's target tire pressure:

**System Learn Method:** All tire pressures are manually adjusted to the recommended cold tire pressure and the system "reads" this tire pressure.

**Service Tool Method:** A service tool (PC-based or hand-held) is used to "download" the target pressure over a data link.

### SYSTEM LEARN METHOD

To accurately set the target tire pressure using this method, all tires must be at the desired pressure before beginning this procedure. First check the current tire pressure. Refer to page six of Hendrickson publication L786, *HTIS Installation, Service and Troubleshooting Procedures*, for complete tire pressure checking instructions. Then manually add or remove air (if necessary) until the desired pressure is reached. Repeat for all tires.

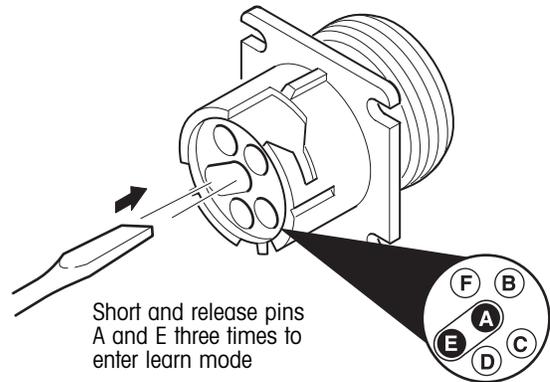


Figure 1. Entering learn mode

1. Apply 12 volt power to the trailer at the SAE J560 connector.
2. Provide adequate pressure to the brake supply tank (115 psi minimum).
3. Remove the weather cap from the diagnostic connector on the HTIS harness (figure 1). Using a screwdriver, short pins "A" and "E" together three consecutive times for the following durations: maintain the short for approximately one second, then release the short for approximately one second. The pins to be shorted are easily identified by the slot in the diagnostic connector shell. This slot allows convenient use of a coin or screwdriver tip to short the pins together.
4. Upon entering learn mode, the warning lamp will illuminate for two seconds twice and then will flash once every 10 seconds to acknowledge that the learn mode is active.

5. The system will pressurize the air lines for several seconds, and then will wait for the pressure to stabilize.
6. The current tire pressure will now be stored as the target pressure. Once the target pressure is established, the warning lamp will illuminate for five seconds and then blink the target pressure. For example if the tire pressure is 102 psi; the warning lamp will illuminate for five seconds and then blink one time, pause, blink 10 more times (0 is represented by 10 blinks), pause, and then blink two more times. If the value communicated by the blink codes is lower than the desired target pressure, verify that all the tires are set to the proper pressure and that no line leaks are present.
7. After the system has determined the target pressure, it will remain pressurized for up to two minutes (or until power is cycled). During this time, manually check for air leaks. If an air leak is detected, the system will not program a target pressure and the warning lamp will illuminate continuously. If this occurs, correct the leak(s) and then set all tires to the desired target pressure and conduct the learn sequence again.

**NOTE:** The system is only pressurized during the actual pressure check. A leak will only be audible during the few seconds the system is attempting to determine the target tire pressure.

## TROUBLESHOOTING LEARN MODE

Several conditions may prevent the system from "learning" the target pressure. The following table outlines the most common causes of failure.

## SERVICE TOOL METHOD

When using a PC or other supported service tool connected to the diagnostic port, follow the instructions included with the service tool.

1. Apply 12 volt power to the trailer at the SAE J560 connector.
2. Using the PC or service tool, enter the desired cold temperature target tire pressure into the ECU. Then remove power from the trailer.
3. Reapply power and verify proper operation by selecting the manual operation mode with the diagnostic tool. Select pressure check and hold to check for air leaks in the system.
4. Watch for a drop in manifold pressure and listen for any audible leaks. If a leak is detected, take corrective actions.
5. If any faults have occurred during programming, clear all historical faults.

| Condition   | Possible Cause   |
|---|--|
| Lamp does not illuminate during power-up          | Poor electrical connection, power below nine volts or burned out lamp              |
| System remains in learn mode                      | Ensure supply pressure is above 115 psi  |
| The lamp remains illuminated after the learn mode | A fault has occurred. Refer to the blink code diagnostics or use a diagnostic tool |
| The system reads the tire pressure slightly low   | Verify there are no leaks within the system  |



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