Air Bag Systems: Pinpoint Tests
Test R: LFC 29/DTC C1414 - Incorrect Model Design Level
PINPOINT TEST R: LFC 29/DTC C1414 - INCORRECT MODEL DESIGN LEVEL

PINPOINT TEST R: LFC 29/DTC C1414 — INCORRECT MODULE DESIGN LEVEL

NOTE: Most faults are due to connector and/or wiring concerns. Carry out a thorough Inspection and Verification before proceeding with the Pinpoint Test.

Test Step		Result / Action to Take
R1	CHECK FOR ON-DEMAND AND CONTINUOUS DTCs	
	⚠ WARNING: Restraint system diagnostic tools are for service only. Tools must be removed prior to operating the vehicle over the road. Failure to remove restraint system diagnostic tools could result in injury and possible violation of vehicle safety standards. **⚠ WARNING: Never probe the connectors on the air bag module. Doing so can result in air bag deployment, which can result in personal injury.** **NOTE:** After diagnosing or repairing a supplemental restraint system (SRS), **the restraint system diagnostic tools must be removed before operating the vehicle over the road.** **NOTE:** The SRS must be fully operational and free of faults before releasing the vehicle to the customer. • Enter the following diagnostic mode on the scan tool: On-Demand Self Test/Retrieve and Record Continuous Memory DTCs. • **Was on-demand DTC C1414 retrieved?**	**Yes** This is a hard fault. The fault condition is still present. This fault cannot be cleared until it is corrected and the DTC is no longer retrieved during the on-demand self test. GO to **R2**. **No** This is an intermittent fault when present as a continuous memory DTC only (DTC not retrieved on demand). The fault condition is not present at this time. GO to **R3**.
R2	CHECK THE VEHICLE IDENTIFICATION PIDS	
	• Enter the following diagnostic mode on the scan tool: PID/Data Monitor and Record. • Select Vehicle ID PID. **F-Superduty** C2041 / Vehicle ID / Expected PID: Pin 10 / 1 / Open Pin 13 / 2 / Ignition Pin 14 / 3 / Open • **Is PID correct for the vehicle configuration?**	**Yes** INSTALL and CONFIGURE a new RCM. GO to **R4**. **No** REPAIR the associated circuit or no connect condition. GO to **R4**.
R3	CHECK FOR AN INTERMITTENT FAULT	
	• Key in OFF position. • Enter the following diagnostic mode on the scan tool: On-Demand Self Test/Retrieve and Record Continuous Memory DTCs. • **Was on-demand DTC C1414 retrieved?**	**Yes** This is a hard fault. The fault condition is now present. This fault cannot be cleared until it is corrected and the DTC is no longer retrieved during the on-demand self test. GO to **R2**. **No** CHECK for causes of an intermittent open on vehicle ID (VEHID) circuits. ATTEMPT to recreate the hard fault by flexing the wire harness and cycling the ignition key frequently. REPAIR any intermittent concerns found. GO to **R4**.

(Continued)

PINPOINT TEST R: LFC 29/DTC C1414 — INCORRECT MODULE DESIGN LEVEL (Continued)

Test Step		Result / Action to Take
R4	CHECK FOR ADDITIONAL DTCs	
	• Refer to continuous memory DTCs recorded during Step R1. • **Were any continuous memory DTCs retrieved during Step R1?**	**Yes** Do not clear any DTCs until all DTCs have been resolved. GO to the Restraints Control Module (RCM) Diagnostic Trouble Code (DTC) Priority Table for pinpoint test direction. **No** RECONNECT the system. If previously directed to deactivate the system, REACTIVATE the system. REPOWER the system. PROVE OUT the system. CLEAR all DTCs.

R4

Normal Operation

The restraint control module (RCM) monitors the electrical condition at C2041 pin 10, 13 and 14 to determine if it is installed on the correct vehicle. Each vehicle configuration will have a unique vehicle ID. If the RCM detects other than the expected programmed condition on any of these pins, it will store diagnostic trouble code (DTC) C1414 in memory and flash a lamp fault code (LFC) 29 (or higher priority code if one exists) on the air bag indicator.

Possible Causes

An incorrect vehicle identification code can be caused by:

- internal RCM fault or an RCM installed on the wrong vehicle.
- an incorrectly programmed RCM.
- vehicle ID pins not connected as expected.