

TECHNICAL SERVICE BULLETIN No.LTB00300/2010

08 July 2010

Circulate to:	Service Manager	Parts Manager	Warranty Administrator	Service Reception	Technicians

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Subject/Concern:	Non-Start Temperature Gauge In The Red				
Model:					
Defender (LD) - 2.4L Puma Diesel Only	VIN Range: 7A732615-AA790554				
Markets:	All except NAS				
Section:	303-00				

Summary

A customer may report an intermittent concern that the Starter Motor rotates the engine at normal cranking speed, however the Engine will not start and the Instrument Pack Temperature Gauge needle is in the red segment. During diagnosis a Diagnostic Trouble Code (DTC) P068A-00 may be stored in the Powertrain Control Module (PCM).

Cause: A small percentage of microprocessors in certain PCM's can lock-up during data storage, after engine shutdown, this leads to a non-start on the following drive cycle. **Suggested Customer Concern Code D02.**

Action: Should a customer express a concern that the engine will crank but not start with the Instrument pack temperature gauge displayed in the red, follow the Service Instruction outlined below. If the vehicle symptoms are that the engine will crank but not start with the Instrument pack temperature gauge reading normal, please view Special Service Message 44410 for further guidance and do not follow the Service Instruction below.

Parts Required

Description	Part Number	Quantity
Powertrain Control Module	NNN501630	1

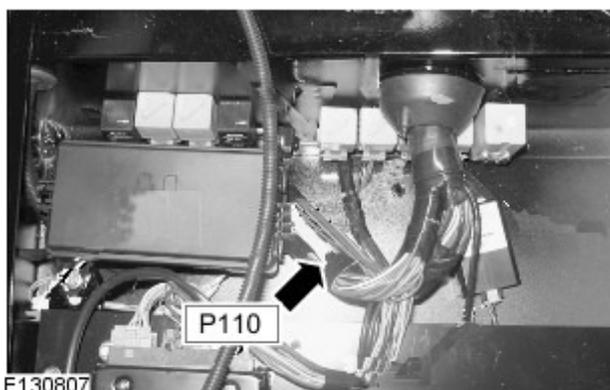
Repair procedures are under constant review, and therefore times are subject to change; those quoted here must be taken as guidance only. Always refer to DDW to obtain the latest repair time.

Labor Time

Operation Description	Operation No.	Time
Powertrain Control Module Ignition Renew	18.30.02	0.3 hours
Check - PCM - Wiring - Fuse and Relay Inspection	86.71.89.28	0.3 hours
Check - Wiring - Fuse and Relay Inspection	86.71.89.29	0.2 hours
Check - Wiring - Fuse inspection	86.71.89.30	0.1 hours
Read and Clear Fault Codes	12.90.16	0.2 hours
Engine Management System Diagnosis Includes Configuration Of New PCM	18.90.04	0.6 hours

Repair/Claim Coding

Causal Part:	NNN501630
ACES Condition Code:	42

Service Instruction

1. Fuse P110 is secured to the harness (see graphic E130807).

Check continuity of inline fuse P110 fuse, located under the RH front seat (see graphic E130807). If the fuse has failed, replace as necessary and check related wiring circuit for any signs of a potential cause, paying particular attention to the harness route around the red colored engine lifting eye at rear of engine and the area around the exhaust gas re-circulation valve for signs of abrasion, rectify as necessary.

2. Check the integrity of the under bonnet earth points located

on and around the bulkhead. If a fault was identified and repaired, then return the vehicle to the customer, if not continue to next step.

3. Check for correct operation of the main relay located under RH front seat. In addition look for any signs of arcing or loose terminal connections to the relay. If a fault was identified repair as necessary and return the vehicle to the customer. If not continue to next step.

4. An associated fault code U0100 may also be stored in the instrument pack (IPK). As a result of lost communications between the IPK and PCM.

Connect SDD to the vehicle and check for any stored fault codes in the PCM. If the code P068A-00 only is present continue to next step. Any additional codes should be diagnosed - rectified before continuing to next step with reference to GTR for any applicable Service Actions or TSBS. If there is evidence that code P068A-00 was stored and subsequently cleared (i.e. by Roadside Assistance) continue to next step, otherwise return the vehicle to the customer.

5. For PCM date code reference see examples below.



Remove the engine cover, reference GTR 501-05 interior trim, using a mirror to read the 4/5 digit number on the top right corner of the PCM. Note the batch code reference number and identify the build date of the PCM (see graphic E130664). If the build date is earlier than 14th October 2009, replace the powertrain control module reference GTR 303-00 and continue to step 7.

1. Year 8 = 2008/9 = **2009**/0 = 2010.

2. Month C = March/ **D = April**/ F = June.

3. 044 = Day 44/ **98 = Day 98**/304 = Day 304.

6. If the build date is the 14th October 2009 onwards, there is no need to replace the PCM. Refit the engine cover and clear the fault codes and re-assess the vehicle for the concern, if the concern does not re-appear return vehicle to the customer. If the concern re-appears continue with diagnosis with reference to GTR and SDD.

7.  Please ensure that you carry out all the ignition on/off requests to ensure correct module configuration, if this is not done it can cause damage to the modules on the vehicle.

• IDS must be loaded with IDS-DVD121_V6.09 and Calibration File 38 loaded or later.

Connect a Midtronic battery conditioner/power supply to the vehicle.

8. Follow the SDD prompts.

9. Select session type 'Diagnosis' tab.

10. Select 'selected symptoms' tab.

11. Select the Symptoms tab and enter any of the following Symptom (s).

1. Electrical / Instruments / Gauges / Temperature gauge / Display above normal. And/or.

2. Powertrain / Engine system / Starting system / Will not start / Cranking speed normal.

12. Select 'Recommendations' tab.
13. Configure new modules 'Powertrain Control Modules' then select run.
14. Follow all on-screen instructions to complete this task. When the task is completed, exit the current session.
15. Disconnect a Midtronic battery conditioner/power supply to the vehicle.