

TECHNICAL BULLETIN
 JTB00230NAS2
 28 JAN 2013



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NOTE: The information in Technical Bulletins is intended for use by trained, professional Technicians with the knowledge, tools, and equipment required to do the job properly and safely. It informs these Technicians of conditions that may occur on some vehicles, or provides information that could assist in proper vehicle service. The procedures should not be performed by 'do-it-yourselfers'. If you are not a Retailer, do not assume that a condition described affects your vehicle. Contact an authorized Jaguar service facility to determine whether this bulletin applies to a specific vehicle.

This reissue replaces all previous versions. Please destroy all previous versions.

SECTION: 307-05

Transmission Control Switch Module DTC Diagnostics

AFFECTED VEHICLE RANGE:

| | | |
|------------------------|--------------------|-----------------------|
| XF (X250) | Model Year: | 2009 Onwards |
| | VIN: | R00001 Onwards |
| XJ Range (X351) | Model Year: | 2010 Onwards |
| | VIN: | V00001 Onwards |
| XK Range (X150) | Model Year: | 2010 Onwards |
| | VIN: | B32753 Onwards |

MARKETS:

NAS

CONDITION SUMMARY:

Situation:

The Transmission Control Switch (TCS) may fail to rise, fail to rotate out of Park (P), and/or fail to rotate between gears. This bulletin is to aid in diagnosing of Diagnostic Trouble Codes (DTC) for the Transmission Control Switch (TCS) module.



NOTE: The Transmission Control Switch (TCS) may also be referred to as:

- Electronic Transmission Switch (ETS)
- Gear Selector Module (GSM)
- JaguarDrive Selector
- Transmission Range Selector (TRS)
- Transmission Rotary Switch (TRS)
- Transmission Shift Module (TSM)



NOTE: Use the table below to assist with the diagnosing of the various Diagnostic Trouble Codes (DTC).

Cause: These may be caused by various issues which make the TCS fail to operate.



NOTE: Repairs to be carried out as a separate claim.

Action: In the event of a customer concern of the above, refer to the Diagnostic Procedure outlined below.

PARTS:

No Parts Required

TOOLS:


IDS with latest IDS-DVD and Calibration File

Jaguar Land Rover-approved Midtronics Vehicle Power Supply

WARRANTY:

 **NOTE: Repairs to be carried out as a separate claim.**

 **NOTE: 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 TOPIx to obtain the latest repair time.**

 **NOTE: DDW requires the use of causal part numbers. Labor only claims must show the causal part number with a quantity of zero.**

| DESCRIPTION | SRO | TIME (HOURS) | CONDITION CODE | CAUSAL PART |
|---|----------|--------------|----------------|-------------|
| Transmission Control Switch Module - DTC Diagnostics - XF | 10.10.99 | 0.20 | 42 | C2Z22516 |
| Transmission Control Switch Module - DTC Diagnostics - XJ | 10.10.99 | 0.20 | 42 | C2D17959 |
| Transmission Control Switch Module - DTC Diagnostics - XK | 10.10.99 | 0.20 | 42 | C2P20671 |


 **NOTE: Normal Warranty procedures apply.**

DIAGNOSTIC PROCEDURE:

Use the Diagnostic Trouble Codes (DTC) table below for the Transmission Control Switch (TCS) module fault diagnosis.

 **NOTE: 'X' = DO NOT REPLACE TCS module - Perform the diagnostics specified in SDD/TOPIx Workshop Manual section 100-00 Diagnostics.**

 **NOTE: 'Y' = Replace the TCS module.**

 **NOTE: '0' = Step 1: Perform diagnostics specified in SDD/TOPIx Workshop Manual section 100-00 Diagnostics. Step 2: clear all DTCs; cycle the ignition; engage Drive (D); return to the Park (P) position; test with SDD. Step 3: If Steps 1 and 2 do not resolve issue, replace TCS module.**

| Diagnostic Trouble Code (DTC) | Transmission Control Switch (TCS) Module - Intermittent DTC | Transmission Control Switch (TCS) Module - Permanent DTC | Transmission Control Module (TCM) - Intermittent DTC | Transmission Control Module (TCM) - Permanent DTC |
|-------------------------------|---|--|--|---|
| P176A-01 | X | Y | X | X |
| P176A-13 | X | Y | X | X |
| P176A-19 | X | Y | X | X |
| P176A-94 | X | Y | X | X |
| P176C-07 | X | 0 | X | X |
| P176C-11 | X | Y | X | X |
| P176C-12 | X | Y | X | X |
| P176B-71 | X | Y | X | X |
| P176C-73 | X | 0 | X | X |
| B1087-87 | X | X | X | 0 |
| U101B-87 | X | X | X | 0 |
| P0814-01 | X | Y | X | X |
| P0850-02 | X | X | X | X |
| P1707-07 | X | X | X | X |
| P1707-77 | X | X | X | X |
| P1707-72 | X | X | X | X |
| P0606-47 | X | X | X | X |
| P0919-93 | X | X | X | X |

| Diagnostic Trouble Code (DTC) | Transmission Control Switch (TCS) Module - Intermittent DTC | Transmission Control Switch (TCS) Module - Permanent DTC | Transmission Control Module (TCM) - Intermittent DTC | Transmission Control Module (TCM) - Permanent DTC |
|-------------------------------|---|--|--|---|
| C1B00-68 | X | X | X | X |
| P0850-29 | X | X | X | X |
| P081C-64 | X | X | X | X |

The following DTCs may be generated by Brake Pedal pressure or Brake Pedal Switch DTCs. Follow the Diagnostic Procedure below for Brake Pedal Switch/Brake Pedal Pressure Diagnostics.



NOTE: The Diagnostic Procedure below does not apply to XF vehicles built prior to VIN R47154.



NOTE: X = DO NOT REPLACE TCS Module- Perform the diagnostics specified in SDD/TOPIx Workshop Manual Section 100-00 Diagnostics.

| Diagnostic Trouble Codes (DTC) | Transmission Control Switch (TCS) Module - Intermittent DTC | Transmission Control Switch (TCS) Module - Permanent DTC | Transmission Control Module (TCM) - Intermittent DTC | Transmission Control Module (TCM) - Permanent DTC |
|--------------------------------|---|--|--|---|
| C1D15-64 | X | X | X | X |
| P1571-64 | X | X | X | X |
| P0571-68 | X | X | X | X |
| P0504-62 | X | X | X | X |

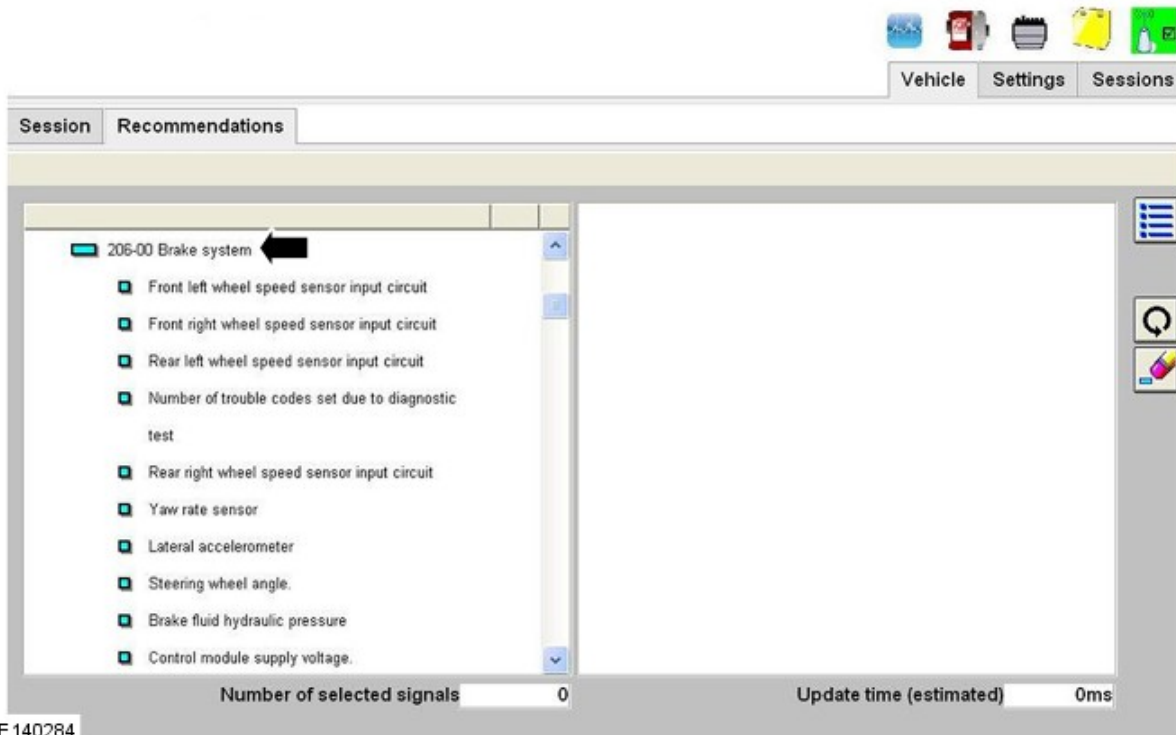
-  **CAUTION: Ensure all ignition 'ON' / ignition 'OFF' requests are carried out; failure to perform these steps may cause damage to control modules in the vehicle.**



CAUTION: A Jaguar Land Rover-approved Midtronics Vehicle Power Supply must be connected to the vehicle battery during IDS/SDD diagnosis / module programming.

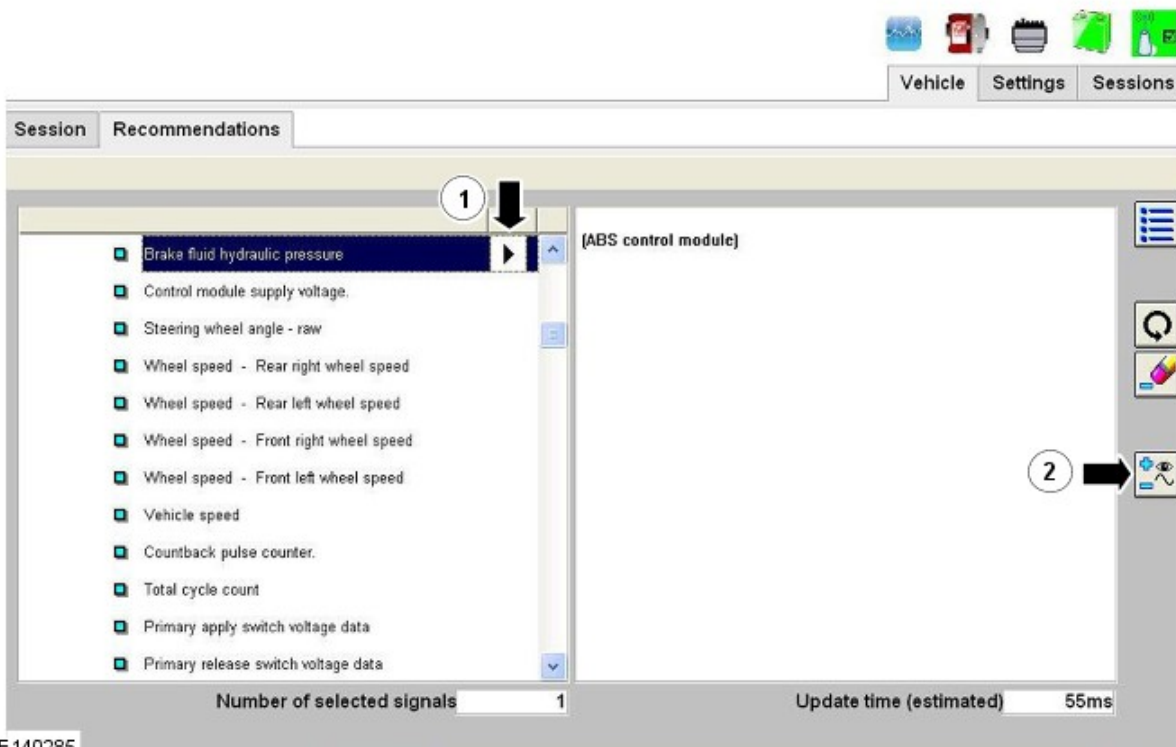
Connect a Jaguar Land Rover-approved power supply to the vehicle.

- Turn the ignition 'ON' (engine not running).
- Connect the Integrated Diagnostics System (IDS) to the vehicle and begin a new Symptom Driven Diagnostics (SDD) session.
- Follow the on-screen prompts, allowing SDD to read the VIN and identify the vehicle.
- From the Session Type selection screen, select 'Measurement Applications'.
- Select the 'Recommendations' tab.
- From the Recommendations tab run 'Complete data logger'.
- Select / expand the '206-00 Brake system' tab.



E 140284

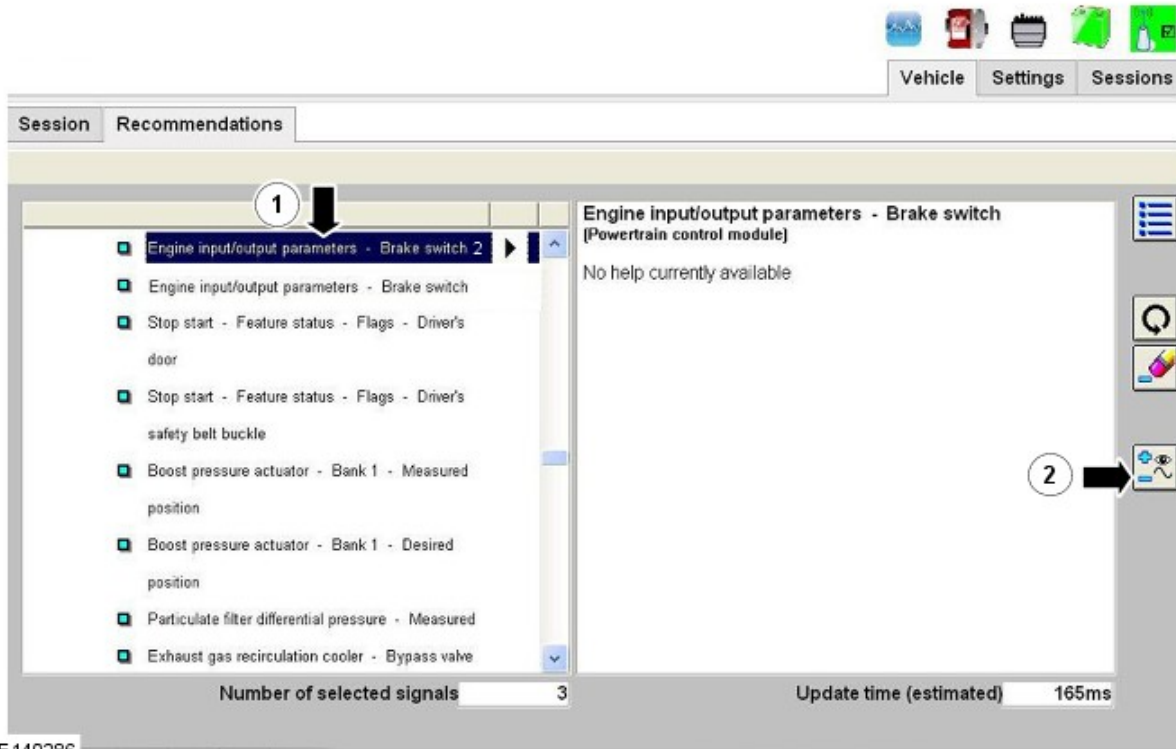
9. Select 'Brake fluid hydraulic pressure' and click on the icon (1) shown.



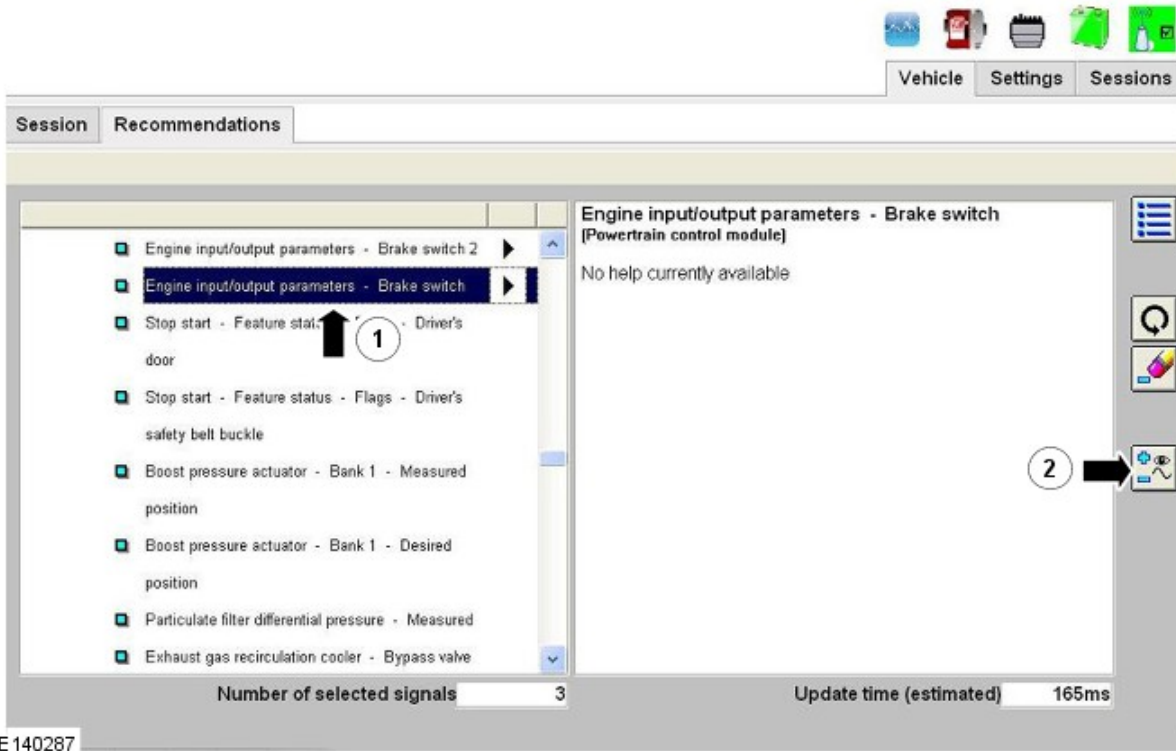
E 140285

10. Expand Engine system.

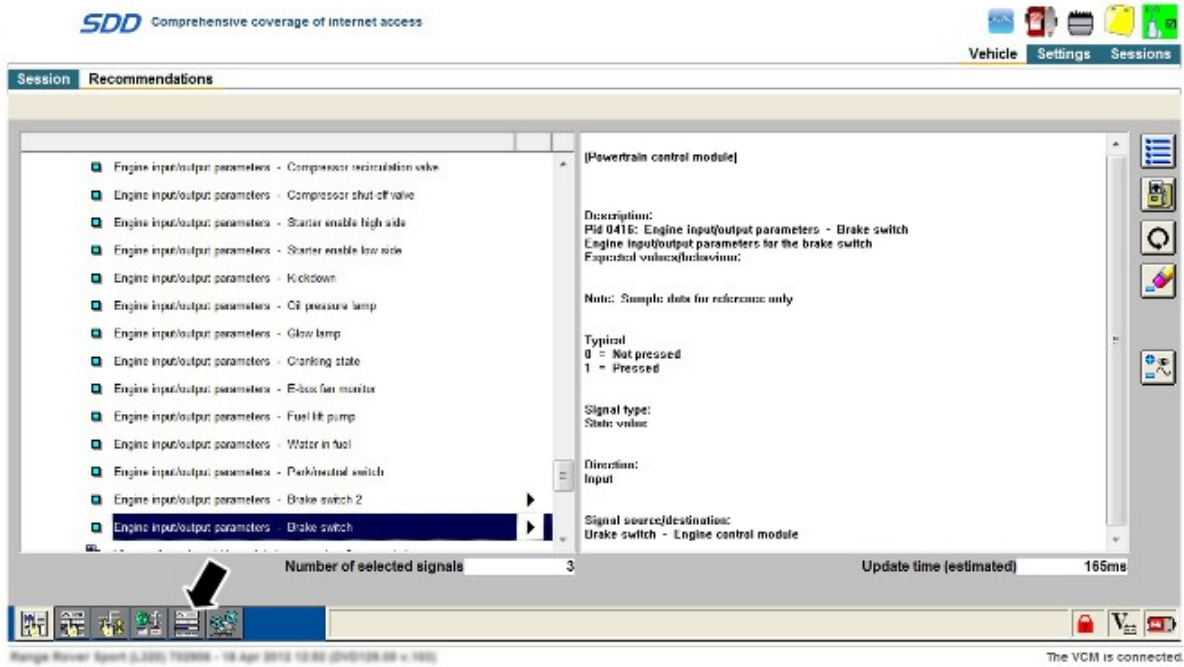
- Select 'Engine input/output parameter - Brake switch 2' then click on the icon shown (2).



11. Select 'Engine input/output parameter - Brake switch' (1) then click on the icon shown (2).

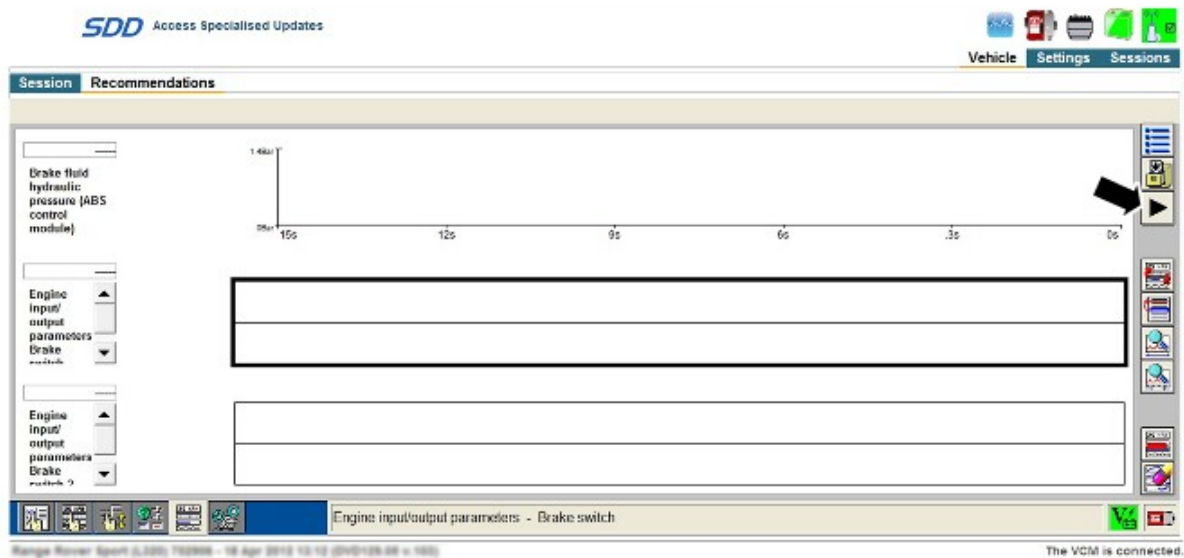


12. Click on the icon shown.



E 144838

13. Click on the icon shown.



E 144839

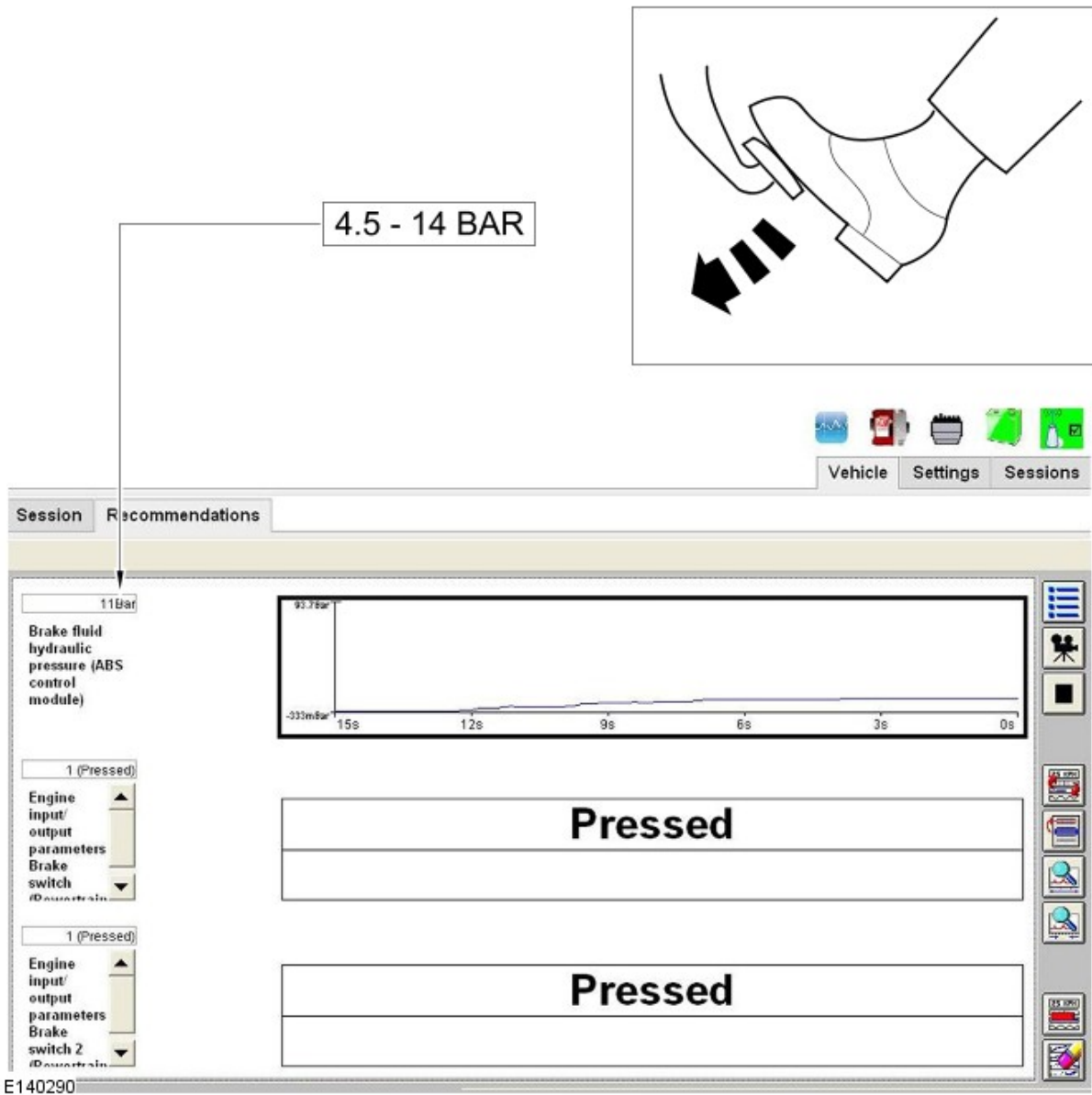
14. Press the brake pedal.

- The first graph to change must be the brake light switch (confirm by asking someone to watch brake lights come on). The brake pressure applied, shown in the top bar chart, should be between 1 and 7 BAR.

The screenshot displays a diagnostic software interface. At the top right, there is a hand icon with a downward arrow, indicating the application of pressure. Below this, a box labeled "1 - 7 BAR" has an arrow pointing to a graph. The graph shows "Brake fluid hydraulic pressure (ABS control module)" with a y-axis ranging from -300mBar to 63.7Bar and an x-axis from 15s to 0s. The graph shows a sharp spike in pressure. Below the graph, there are two large boxes labeled "Pressed" and "Not pressed". The interface also includes a sidebar with various diagnostic tools and a top navigation bar with "Vehicle", "Settings", and "Sessions" tabs.

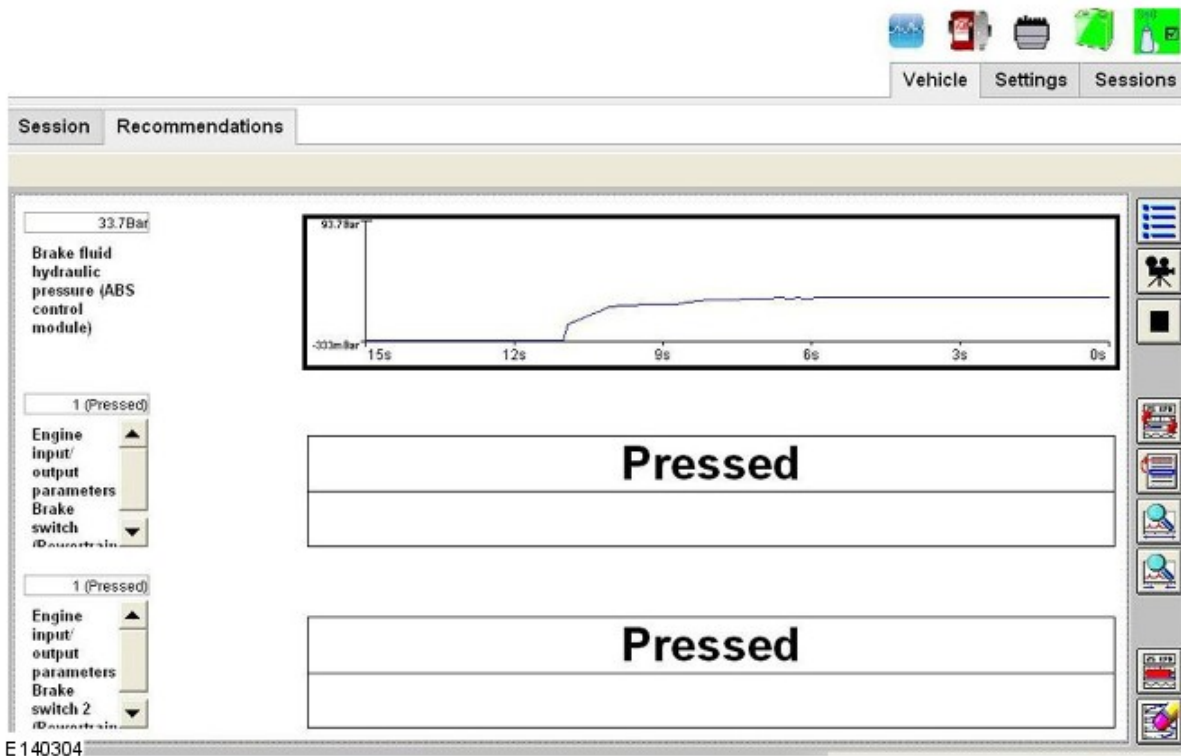
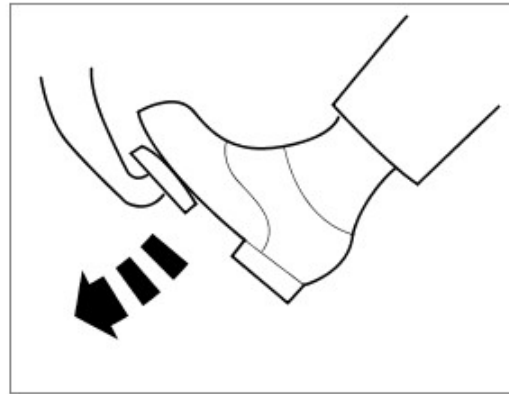
15. The next graph to change should be the cruise cancel switch.

- The brake pressure applied, shown in the top bar chart, should be between 4.5 and 14 BAR.



16. Last graph to move should be brake pressure.

- This reading will vary depending on whether the engine is running and foot pressure applied.



17. Switch the data logger off before disconnecting the SDD from the vehicle.

- If the results show that the brake pedal switch is working as expected do not replace the switch. It will be necessary to investigate the cause of the issue. Contact the Technical HelpLine for additional support if necessary.
- If the results show that the brake switch is not working correctly, remove the brake pedal switch and refit.
- Run the above tests again.
- If the results still show the brake switch is not working correctly the switch should be replaced.

18. Exit the current session.

19. Disconnect the IDS and the battery conditioner/power supply from the vehicle.