

# BASIC DIAGNOSTIC PROCEDURE

Engine

## 1. Basic Diagnostic Procedure

S008501

### A: PROCEDURE S008501E45

#### 1. ENGINE S008501E4501

No.	Step	Check	Yes	No
1	<b>CHECK ENGINE START FAILURE.</b> 1) Ask the customer when and how the trouble occurred using the interview check list. <Ref. to EN-4 CHECK, Check List for Interview.> 2) Start the engine.	Does the engine start?	Go to step 2.	Inspection using "Diagnostics for Engine Starting Failure". <Ref. to EN-71 PROCEDURE, Diagnostics for Engine Starting Failure.>
2	<b>CHECK ILLUMINATION OF CHECK ENGINE MALFUNCTION INDICATOR LAMP (MIL).</b>	Does CHECK ENGINE malfunction indicator lamp illuminate?	Go to step 3.	Inspection using "General Diagnostic Table". <Ref. to EN-532 INSPECTION, General Diagnostic Table.>
3	<b>CHECK INDICATION OF DTC ON DISPLAY.</b> 1) Turn ignition switch to OFF. 2) Connect the Subaru Select Monitor or the OBD-II general scan tool to data link connector. 3) Turn ignition switch to ON and the Subaru Select Monitor or OBD-II general scan tool switch to ON. 4) Read DTC on the Subaru Select Monitor or OBD-II general scan tool.	Does the Subaru Select Monitor or OBD-II general scan tool indicate DTC?	Go to step 4.	Repair the related parts. <b>NOTE:</b> If DTC is not shown on display although the MIL illuminates, perform diagnostics of MIL (CHECK ENGINE malfunction indicator lamp) circuit or combination meter. <Ref. to EN-63 ACTIVATION OF CHECK ENGINE MALFUNCTION INDICATOR LAMP (MIL), Engine Malfunction Indicator Lamp (MIL) Illumination Pattern.>

No.	Step	Check	Yes	No
4	<b>PERFORM THE DIAGNOSIS.</b> 1) Inspect using "List of Diagnostic Trouble Code (DTC)". NOTE: ● 2200 cc Models: <Ref. to EN-93 LIST, List of Diagnostic Trouble Code (DTC) for 2200 cc Models.> ● 2500 cc Models: <Ref. to EN-300 LIST, List of Diagnostic Trouble Code (DTC) for 2500 cc Models.> NOTE: Carry out the basic check, only when DTC about automatic transmission is shown on display. <Ref. to EN-63 ACTIVATION OF CHECK ENGINE MALFUNCTION INDICATOR LAMP (MIL), Engine Malfunction Indicator Lamp (MIL) Illumination Pattern.> 2) Repair the trouble cause. 3) Perform the clear memory mode. <Ref. to EN-60 OPERATION, Clear Memory Mode.> 4) Perform the inspection mode. <Ref. to EN-57 OPERATION, Inspection Mode.>	Does the Subaru Select Monitor or OBD-II general scan tool indicate DTC?	Inspect using "List of Diagnostic Trouble Code (DTC)". NOTE: ● 2200 cc Models: <Ref. to EN-93 LIST, List of Diagnostic Trouble Code (DTC) for 2200 cc Models.> ● 2500 cc Models: <Ref. to EN-300 LIST, List of Diagnostic Trouble Code (DTC) for 2500 cc Models.>	Complete the diagnosis.

## 2. AUTOMATIC TRANSMISSION S008501E4502

When trouble code about automatic transmission is shown on display, carry out the following basic check. After that, carry out the replacement or repair work.

- 1) ATF level check <Ref. to AT-9 REPLACEMENT, Automatic Transmission Fluid.>
- 2) Differential gear oil level check <Ref. to AT-10 REPLACEMENT, Differential Gear Oil.>
- 3) ATF leak check <Ref. to AT-9 REPLACEMENT, Automatic Transmission Fluid.>
- 4) Differential gear oil leak check <Ref. to AT-10 REPLACEMENT, Differential Gear Oil.>
- 5) Stall test <Ref. to AT-12 INSPECTION, Stall Test.>
- 6) Line pressure test <Ref. to AT-15 MEASUREMENT, Line Pressure Test.>
- 7) Transfer clutch pressure test <Ref. to AT-17 INSPECTION, Transfer Clutch Pressure Test.>
- 8) Time lag test <Ref. to AT-14 INSPECTION, Time Lag Test.>
- 9) Road test <Ref. to AT-11 INSPECTION, Road Test.>
- 10) Shift characteristics <Ref. to AT-17 INSPECTION, Transfer Clutch Pressure Test.>