

# BASIC DIAGNOSTIC PROCEDURE

Engine (DIAGNOSTICS)

## 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(H4)-4 CHECK, Check List for Interview.> 2) Start the engine.	Does the engine start?	Go to step 2.	Inspection using "Diagnostics for Engine Start Failure". <Ref. to EN(H4)-77 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 Diagnostics Table". <Ref. to EN(H4)-562 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. NOTE: 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(H4)-66 Engine Malfunction Indicator Lamp (MIL).>
4	<b>PERFORM THE DIAGNOSIS.</b> 1) Inspect using "Diagnostics Procedure with Diagnostic Trouble Code (DTC)". NOTE: ● MT vehicles: <Ref. to EN(H4)-106 Diagnostic Procedure with Diagnostic Trouble Code (DTC) for MT Vehicles.> ● AT vehicles: <Ref. to EN(H4)-310 Diagnostic Procedure with Diagnostic Trouble Code (DTC) for AT Vehicles.> NOTE: Carry out the basic check, only when DTC about automatic transmission is shown on display. <Ref. to EN(H4)-59 Read Diagnostic Trouble Code.> 2) Repair the trouble cause. 3) Perform the clear memory mode. <Ref. to EN(H4)-63 Clear Memory Mode.> 4) Perform the inspection mode. <Ref. to EN(H4)-60 Inspection Mode.>	Does the Subaru Select Monitor or OBD-II general scan tool indicate DTC?	Inspect using "Diagnostics Procedure with Diagnostic Trouble Code (DTC)". NOTE: ● MT vehicles: <Ref. to EN(H4)-106 Diagnostic Procedure with Diagnostic Trouble Code (DTC) for MT Vehicles.> ● AT vehicles: <Ref. to EN(H4)-310 Diagnostic Procedure with Diagnostic Trouble Code (DTC) for AT Vehicles.>	Complete the diagnosis.

## 2. AUTOMATIC TRANSMISSION S00B501E4502

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