

# Basic Diagnostic Procedure

## ENGINE (DIAGNOSTICS)

### 1. Basic Diagnostic Procedure

#### A: PROCEDURE

##### 1. ENGINE

| Step                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Check                                                                              | Yes                                                                                                                               | No                                                                                                                                                                                                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1 CHECK ENGINE START FAILURE.</b><br>1) Ask the customer when and how the trouble occurred using the interview check list. <Ref. to EN(H6DO)(diag)-4, CHECK, Check List for Interview.><br>2) Start the engine.                                                                                                                                                                                                                                                                                                                        | Does the engine start?                                                             | Go to step 2.                                                                                                                     | Inspection using "Diagnostics for Engine Start Failure". <Ref. to EN(H6DO)(diag)-65, Diagnostics for Engine Starting Failure.>                                                                                                                                                 |
| <b>2 CHECK ILLUMINATION OF MALFUNCTION INDICATOR LIGHT.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Does the malfunction indicator light illuminate?                                   | Go to step 3.                                                                                                                     | Inspection using "General Diagnostic Table". <Ref. to EN(H6DO)(diag)-352, INSPECTION, General Diagnostic Table.>                                                                                                                                                               |
| <b>3 CHECK COMMUNICATION STATUS.</b><br>1) Turn the ignition switch to OFF.<br>2) Connect the Subaru Select Monitor or general scan tool to data link connector.<br>3) Turn the ignition switch to ON, and run the Subaru Select Monitor or general scan tool.<br><b>NOTE:</b><br>• Subaru Select Monitor<br>For detailed procedures, refer to "Subaru Select Monitor". <Ref. to EN(H6DO)(diag)-34, Subaru Select Monitor.><br>• General scan tool<br>For detailed operation procedures, refer to the general scan tool operation manual. | Does Subaru Select Monitor or general scan tool communicate with vehicle normally? | Go to step 4.                                                                                                                     | Inspection using LAN system "Diagnostic Procedure with Diagnostic Trouble Code (DTC)". <Ref. to LAN(diag)-48, COMMUNICATION FOR INITIALIZING IMPOSSIBLE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>                                                             |
| <b>4 CHECK DTC.</b><br>Read DTC using Subaru Select Monitor or general scan tool.<br><b>NOTE:</b><br>• Subaru Select Monitor<br>Refer to "Read Diagnostic Trouble Code" for detailed operation procedure. <Ref. to EN(H6DO)(diag)-42, Read Diagnostic Trouble Code (DTC).><br>• General scan tool<br>For detailed operation procedures, refer to the general scan tool operation manual.                                                                                                                                                  | Is DTC displayed on Subaru Select Monitor or general scan tool?                    | Record the DTC.<br>Repair the trouble cause. <Ref. to EN(H6DO)(diag)-78, List of Diagnostic Trouble Code (DTC).><br>Go to step 5. | Repair the related parts.<br><b>NOTE:</b><br>If DTC is not shown on display although the malfunction indicator light illuminates, perform the diagnosis of malfunction indicator light circuit or combination meter. <Ref. to EN(H6DO)(diag)-56, Malfunction Indicator Light.> |

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| Step                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Check                                                                         | Yes                                                                                                                                                            | No                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| <b>5</b><br><b>CHECK FREEZE FRAME DATA.</b><br>Check the freeze frame data using the Subaru Select Monitor or general scan tool.<br>NOTE:<br><ul style="list-style-type: none"> <li>Subaru Select Monitor</li> </ul> For detailed procedures, refer to “Subaru Select Monitor”. <Ref. to EN(H6DO)(diag)-34, Subaru Select Monitor.><br><ul style="list-style-type: none"> <li>General scan tool</li> </ul> For detailed operation procedures, refer to the general scan tool operation manual. | Is freeze frame data displayed on Subaru Select Monitor or general scan tool? | Record the freeze frame data. Repair the cause of fault, and go to the next step. Go to step 6.                                                                | Go to step 6.         |
| <b>6</b><br><b>PERFORM DIAGNOSIS.</b><br>1) Perform the Clear Memory Mode. <Ref. to EN(H6DO)(diag)-54, Clear Memory Mode.><br>2) Perform the Inspection Mode or drive cycle. <Ref. to EN(H6DO)(diag)-43, Inspection Mode.> <Ref. to EN(H6DO)(diag)-48, Drive Cycle.>                                                                                                                                                                                                                           | Is DTC displayed on Subaru Select Monitor or general scan tool?               | Inspect using “Diagnostic Procedure with Diagnostic Trouble Code (DTC)”. <Ref. to EN(H6DO)(diag)-87, Diagnostic Procedure with Diagnostic Trouble Code (DTC).> | Finish the diagnosis. |