

# Basic Diagnostic Procedure

IMMOBILIZER (DIAGNOSTICS)

## 1. Basic Diagnostic Procedure

### A: PROCEDURE

#### 1. MODEL WITHOUT KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM

##### CAUTION:

When the body integrated unit is replaced, registration of the immobilizer system is required. For details, refer to the “REGISTRATION MANUAL FOR IMMOBILIZER”.

| Step   | Check  | Yes   | No   |
|--|--|---|--|
| <b>1 CONFIRM NUMBER OF REGISTERED IMMOBILIZER KEY.</b><br>Confirm the number of registered immobilizer key. For details, refer to the “REGISTRATION MANUAL FOR IMMOBILIZER”. | Is the number of registration 0?                   | Register the immobilizer system.  | Go to step 2.  |
| <b>2 CHECK SECURITY INDICATOR LIGHT.</b><br>1) Remove the ignition key from ignition switch.<br>2) Wait at least 60 seconds.   | Does the security indicator light blink?           | Go to step 3.   | Check the security indicator light circuit. <Ref. to IM(diag)-11, CHECK SECURITY INDICATOR LIGHT CIRCUIT, INSPECTION, Diagnostics Chart for Security Indicator Light.> |
| <b>3 CHECK KEY SWITCH.</b><br>Insert the ignition key in the ignition switch. (OFF or ACC)   | Does the security indicator light remain blinking? | Check the key switch circuit. <Ref. to IM(diag)-13, CHECK KEY SWITCH CIRCUIT, INSPECTION, Diagnostics Chart for Security Indicator Light.>              | Go to step 4.  |
| <b>4 CHECK SECURITY INDICATOR LIGHT.</b><br>Check the security indicator light status in the condition of step 3.  | Does the security indicator light go off?          | Go to step 7.   | Go to step 5.  |
| <b>5 CHECK SECURITY INDICATOR LIGHT.</b><br>Turn the ignition switch to ON.  | Does the security indicator light go off?          | Go to step 7.   | Go to step 6.  |
| <b>6 CHECK ENGINE START.</b><br>Turn the ignition switch to START.   | Does the starter operate?                          | Check the LAN communication system. <Ref. to LAN(w/o HEV)(diag)-2, Basic Diagnostic Procedure.> <Ref. to LAN(HEV)(diag)-2, Basic Diagnostic Procedure.> | Go to step 8.  |
| <b>7 CHECK ENGINE START.</b><br>Turn the ignition switch to START.   | Does the engine start?                             | Immobilizer system is normal.   | Go to step 9.  |

# Basic Diagnostic Procedure

## IMMOBILIZER (DIAGNOSTICS)

| Step   | Check                           | Yes  | No   |
|--|---------------------------------|--|--|
| <b>8 CHECK DTC.</b><br>Read the DTC of body integrated unit and ECM and time stamp using Subaru Select Monitor.<br>NOTE:<br>For time stamp, refer to "LAN SYSTEM". <Ref. to LAN(w/o HEV)(diag)-6, TIME STAMP, CAUTION, General Description.> <Ref. to LAN(HEV)(diag)-6, TIME STAMP, CAUTION, General Description.> | Is the DTC displayed on screen? | Go to step 10.   | Replace the body integrated unit. <Ref. to SL-87, Body Integrated Unit.>   |
| <b>9 CHECK DTC.</b><br>Read the DTC of body integrated unit and ECM and time stamp using Subaru Select Monitor.<br>NOTE:<br>For time stamp, refer to "LAN SYSTEM". <Ref. to LAN(w/o HEV)(diag)-6, TIME STAMP, CAUTION, General Description.> <Ref. to LAN(HEV)(diag)-6, TIME STAMP, CAUTION, General Description.> | Is the DTC displayed on screen? | Go to step 10.   | Perform the diagnosis for engine system. <Ref. to EN(H4DO w/o HEV)(diag)-73, PROCEDURE, Diagnostics for Engine Starting Failure.> <Ref. to EN(H4DO HEV)(diag)-70, PROCEDURE, Diagnostics for Engine Starting Failure.> |
| <b>10 CHECK FREEZE FRAME DATA.</b><br>Using the Subaru Select Monitor, check the Freeze Frame Data.  | Are the data recorded?          | Record the data. Go to step 11.  | Go to step 11.   |
| <b>11 PERFORM DIAGNOSIS.</b><br>1) Inspect using the "Diagnostic Procedure with Diagnostic Trouble Code (DTC)". <Ref. to IM(diag)-16, Diagnostic Procedure with Diagnostic Trouble Code (DTC).><br>2) Repair the trouble cause.<br>3) Perform the Clear Memory Mode.<br>4) Read DTCs again.                        | Is the DTC displayed on screen? | Inspect using the "Diagnostic Procedure with Diagnostic Trouble Code (DTC)". <Ref. to IM(diag)-16, Diagnostic Procedure with Diagnostic Trouble Code (DTC).> | Finish the diagnosis.  |

## 2. MODEL WITH KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM

### NOTE:

For immobilizer diagnosis of model with the keyless access with push button start system, refer to "Keyless Access with Push Button Start System". <Ref. to KPS(diag)-2, Basic Diagnostic Procedure.>