

### 6. Subaru Select Monitor

#### A: OPERATION

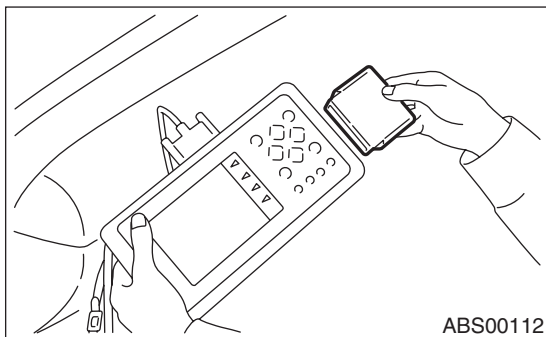
##### 1. READ DIAGNOSTIC TROUBLE CODE (DTC)

1) Prepare the Subaru Select Monitor kit.



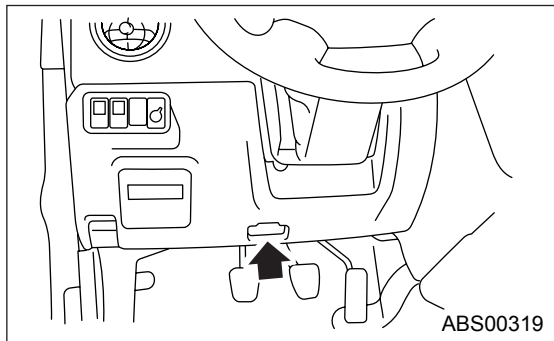
2) Connect the diagnosis cable to Subaru Select Monitor.

3) Insert the cartridge into Subaru Select Monitor.  
<Ref. to ABS-11, SPECIAL TOOLS, PREPARATION TOOL, General Description.>



4) Connect the Subaru Select Monitor to data link connector.

(1) Data link connector located in the lower portion of instrument panel (on the driver's side).

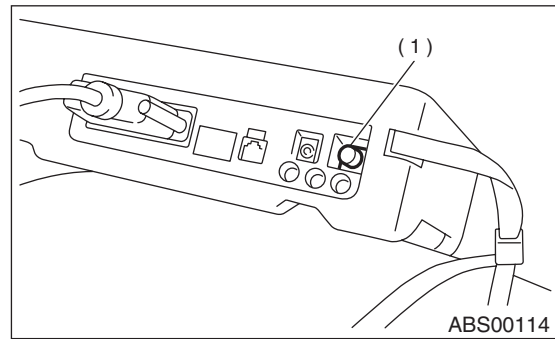


(2) Connect the diagnosis cable to data link connector.

#### CAUTION:

**Do not connect scan tools other than the Subaru Select Monitor or an OBD-II general scan tool.**

5) Turn the ignition switch to ON (engine OFF) and Subaru Select Monitor switch to ON.



(1) Power switch

6) On the «Main Menu» display screen, select {Each System Check} and press the [YES] key.

7) On the «System Selection Menu» display screen, select {Brake Control System} and press the [YES] key.

8) Press the [YES] key after engine type information is displayed.

9) On the «ABS Diagnosis» display screen, select {Diagnostic Code(s) Display} and press the [YES] key.

10) On the «Diagnostic Code(s) Display» display screen, select {Current Diagnostic Code(s)} or {History Diagnostic Code(s)} and press the [YES] key.

#### NOTE:

- For detailed operation procedures, refer to the SUBARU SELECT MONITOR OPERATION MANUAL.
- For details concerning diagnostic trouble codes (DTCs), refer to the List of Diagnostic Trouble Codes (DTC). <Ref. to ABS-26, List of Diagnostic Trouble Codes (DTC).>
- A maximum of 3 DTCs are displayed in order of occurrence.
- If a particular DTC is not properly stored in memory (due to a drop in ABSCM & H/U power supply, etc.) when a problem occurs, the DTC, followed by a question mark "?" appears on the Subaru Select Monitor display. This shows it may be an unreliable reading.

Display screen	Contents to be monitored
Latest	The most recent DTC appears on the Subaru Select Monitor display.
Old	The second most recent DTC appears on the Subaru Select Monitor display.
Older	The third most recent DTC appears on the Subaru Select Monitor display.
Reference	DTC issued after elapse of a specified period of time.

## 2. READ CURRENT DATA

- 1) On the «Main Menu» display screen, select {Each System Check} and press the [YES] key.
  - 2) On the «System Selection Menu» display screen, select {Brake Control System} and press the [YES] key.
  - 3) Press the [YES] key after the ABS type information is displayed.
  - 4) On the «Brake Control Diagnosis» display screen, select {Current Data Display & Save} and press the [YES] key.
  - 5) On the «Data Display Menu» display screen, select {Data Display} and press the [YES] key.
  - 6) Using the scroll key, move the display screen up or down until desired data is shown.
- A list of the support data is shown in the following table.

Display screen	Contents to be monitored	Unit of measure
FR Wheel Speed	Wheel speed detected by the front ABS sensor RH is displayed	km/h or MPH
FL Wheel Speed	Wheel speed detected by the front ABS sensor LH is displayed	km/h or MPH
RR Wheel Speed	Wheel speed detected by the rear ABS sensor RH is displayed	km/h or MPH
RL Wheel Speed	Wheel speed detected by the rear ABS sensor LH is displayed	km/h or MPH
Stop light switch	Stop light switch signal	ON or OFF
Stop light switch	Stop light switch monitor voltage is displayed.	V
G sensor output Signal	Voltage equivalent to vehicle acceleration detected by analog G sensor is displayed.	V
Valve Relay Signal	Valve relay signal	ON or OFF
Motor Relay Signal	Motor relay signal	ON or OFF
ABS Signal to TCM	ABS operation signal from ABS control module to TCM	ON or OFF
ABS warning light	ON operation of ABS warning light is displayed.	ON or OFF
Motor Relay Monitor	Operating condition of motor relay is displayed.	ON or OFF
Valve Relay Monitor	Operating condition of the valve relay is displayed.	ON or OFF
CCM Signal	ABS operation signal from ABS control module to TCM	ON or OFF

### NOTE:

For detailed operation procedures, refer to the SUBARU SELECT MONITOR OPERATION MANUAL.

## 3. CLEAR MEMORY MODE

- 1) On the «Main Menu» display screen, select {2. Each System Check} and press the [YES] key.
- 2) On the «System Select Menu» display screen, select {Brake System} and press the [YES] key.
- 3) Press the [YES] key after engine type information is displayed.

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## ABS (DIAGNOSTICS)

4) On the «Brake Control Diagnosis» display screen, select {Clear Memory} and press the [YES] key.

Display screen	Contents to be monitored
Clear memory?	DTC clear function

5) When “Done” and “turn ignition switch to OFF” are shown on the display screen, turn the Subaru Select Monitor and ignition switch to OFF.

### NOTE:

For detailed operation procedures, refer to the SUBARU SELECT MONITOR OPERATION MANUAL.

## 4. ABS SEQUENCE CONTROL

Display screen	Contents to be monitored	Index No.
ABS sequence control	Perform ABS sequence control by operating valve and pump motor sequentially.	<Ref. to ABS-11, ABS Sequence Control.>

## 5. FREEZE FRAME DATA

### NOTE:

- Data stored at the time of trouble occurrence is shown on display.
- Each time a trouble occurs, the latest information is stored in the freeze frame data in memory.
- Up to three freeze frame data will be stored.
- If a freeze frame data is not properly stored in memory (due to a drop in ABSCM power supply, etc.), a DTC preceded by a question mark “?” appears on the Subaru Select Monitor display. This shows it may be an unreliable reading.

Display screen	Contents to be monitored	Initial value
FR wheel speed	Wheel speed detected by front ABS sensor RH is displayed in km/h or MPH.	255 km/h (158 MPH)
FL wheel speed	Wheel speed detected by front ABS sensor LH is displayed in km/h or MPH.	255 km/h (158 MPH)
RR wheel speed	Wheel speed detected by rear ABS sensor RH is displayed in km/h or MPH.	255 km/h (158 MPH)
RL wheel speed	Wheel speed detected by rear ABS sensor LH is displayed in km/h or MPH.	255 km/h (158 MPH)
ABSCM power voltage	Power (in volts) supplied to ABSCM & H/U appears on the Subaru Select Monitor display.	18V
G sensor output voltage	Voltage equivalent to vehicle acceleration detected by analog G sensor is displayed.	5V
Motor relay monitor	Motor relay operation monitor signal	ON:
Stop light switch	Stop light switch signal	OFF
ABS signal to TCM	ABS operation signal from ABS control module to TCM	OFF:
ABS-AT control	ABS operation signal from ABS control module to TCM	OFF:
ABS operation signal	ABS operation signal	ON

## 6. ANALOG DATA DISPLAY

Display screen	Contents to be monitored
FR wheel speed	Wheel speed detected by front ABS sensor RH is displayed in km/h or MPH.
FL wheel speed	Wheel speed detected by front ABS sensor LH is displayed in km/h or MPH.
RR wheel speed	Wheel speed detected by rear ABS sensor RH is displayed in km/h or MPH.
RL wheel speed	Wheel speed detected by rear ABS sensor LH is displayed in km/h or MPH.
Stop light switch	Stop light switch monitor voltage is displayed.
G sensor output voltage	Refers to vehicle acceleration detected by analog G sensor. It appears on the Subaru Select Monitor display in volts.

**7. ON/OFF DATA DISPLAY**

Display screen	Contents to be monitored
Stop light switch	Stop light switch signal
Valve relay signal	Valve relay signal
Motor relay signal	Motor relay signal
ABS signal to TCM	ABS operation signal from ABS control module to TCM
ABS warning light	ABS warning light
Valve relay monitor	Valve relay operation monitor signal
Motor relay monitor	Motor relay operation monitor signal
CCM signal	ABS operation signal from ABS control module to TCM