

SUBARU SELECT MONITOR

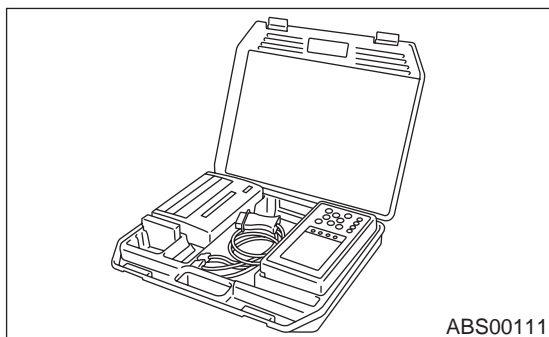
ABS (DIAGNOSTICS)

6. Subaru Select Monitor

A: OPERATION

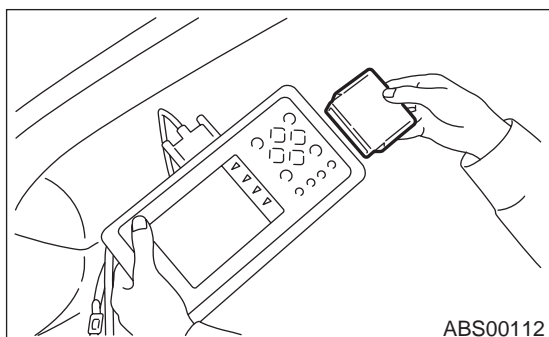
1. READ DIAGNOSTIC TROUBLE CODE (DTC)

1) Prepare Subaru Select Monitor kit.



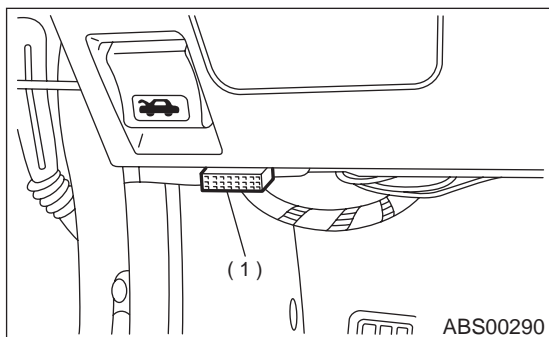
2) Connect diagnosis cable to Subaru Select Monitor.

3) Insert cartridge into Subaru Select Monitor. <Ref. to ABS-9, SPECIAL TOOLS, PREPARATION TOOL, General Description.>



4) Connect Subaru Select Monitor to data link connector.

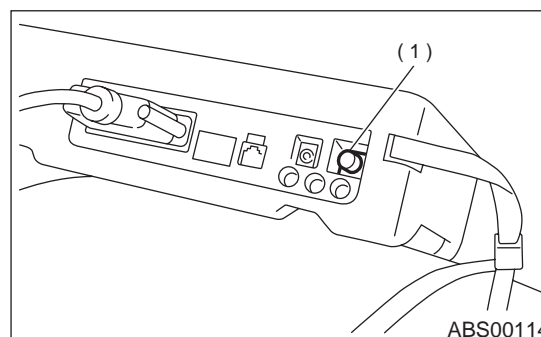
(1) Data link connector located in the lower portion of the instrument panel (on the driver's side).



(1) Data link connector

(2) Connect diagnosis cable to data link connector.

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



(1) Power switch

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

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

8) Press the [YES] key after displayed the information of ABS type.

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

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

NOTE:

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

- For detailed concerning diagnostic trouble codes, refer to the LIST OF DIAGNOSTICS TROUBLE CODE. <Ref. to ABS-24, List of Diagnostics Trouble Code (DTC).>

- A maximum of 3 DTC 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 select monitor display. This shows it may be an unreliable reading.

Display screen	Contents to be monitored
Latest	The most recent trouble code appears on the select monitor display.
Old	The second most recent trouble code appears on the select monitor display.
Older	The third most recent trouble code appears on the select monitor display.
Reference	A specified period of time preceding trouble code appears on the select monitor display.

ABS-16

SUBARU SELECT MONITOR

ABS (DIAGNOSTICS)

2. READ CURRENT DATA

- 1) On the «Main Menu» display screen, select the {Each System Check} and press the «YES» key.
 - 2) On the «System Selection Menu» display screen, select the {Brake Control System} and press the «YES» key.
 - 3) Press the «YES» key after displayed the information of ABS type.
 - 4) On the «Brake Control Diagnosis» display screen, select the {Current Data Display & Save} and press the «YES» key.
 - 5) On the «Data Display Menu» display screen, select the {Data Display} and press the «YES» key.
 - 6) Using the scroll key, move the display screen up or down until the 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 Right ABS sensor is displayed	km/h or MPH
FL Wheel Speed	Wheel speed detected by the Front Left ABS sensor is displayed	km/h or MPH
RR Wheel Speed	Wheel speed detected by the Rear Right ABS sensor is displayed	km/h or MPH
RL Wheel Speed	Wheel speed detected by the Rear Left ABS sensor 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	Refers to vehicle acceleration detecting by the analog G sensor. It appears on the select monitor display in volts.	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 Lamp	ON operation of the ABS warning light is displayed.	ON or OFF
Motor Relay Monitor	Operating condition of the 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 procedure, refer to the SUBARU SELECT MONITOR OPERATION MANUAL.

3. CLEAR MEMORY MODE

- 1) On the «Main Menu» display screen, select the {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 displayed the information of ABS type.
- 4) On the «Brake Control Diagnosis» display screen, select the {Clear Memory} and press the «YES» key.

Display screen	Contents to be monitored
Clear memory?	Function of clearing trouble code.

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

NOTE:

For detailed operation procedure, 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-9, ABS Sequence Control.>

SUBARU SELECT MONITOR

ABS (DIAGNOSTICS)

5. FREEZE FRAME DATA

NOTE:

- Data stored at the time of trouble occurrence is shown on display.
- Each time trouble occurs, the latest information is stored in the freeze frame data in memory.
- If 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 select monitor display. This shows it may be an unreliable reading.
- In case of no trouble code, the initial value of freeze frame data will be displayed.

Display screen	Contents to be monitored	Initial value
FR wheel speed	Wheel speed detected by the Front Right ABS sensor is displayed in km/h or mile/h.	255 km/h [158 mile/h]
FL wheel speed	Wheel speed detected by the Front Left ABS sensor is displayed in km/h or mile/h.	↑
RR wheel speed	Wheel speed detected by the Rear Right ABS sensor is displayed in km/h or mile/h.	↑
RL wheel speed	Wheel speed detected by the Rear Left ABS sensor is displayed in km/h or mile/h.	↑
ABSCM power voltage	Power (in volts) supplied to ABSCM&H/U appears on the select monitor display.	18 V
G sensor output voltage	Refers to vehicle acceleration detected by the analog G sensor. It appears on the select monitor display in volts.	5 V
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 ARE DISPLAYED.

Display screen	Contents to be monitored
FR wheel speed	Wheel speed detected by the Front Right ABS sensor is displayed in km/h or mile/h.
FL wheel speed	Wheel speed detected by the Front Left ABS sensor is displayed in km/h or mile/h.
RR wheel speed	Wheel speed detected by the Rear Right ABS sensor is displayed in km/h or mile/h.
RL wheel speed	Wheel speed detected by the Rear Left ABS sensor is displayed in km/h or mile/h.
Stop light switch	Stop light switch monitor voltage is displayed.
G sensor output voltage	Refers to vehicle acceleration detecting by the analog G sensor. It appears on the select monitor display in volts.

7. ON/OFF DATA ARE DISPLAYED.

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