

Subaru Select Monitor

AUTOMATIC TRANSMISSION (DIAGNOSTICS)

6. Subaru Select Monitor

A: OPERATION

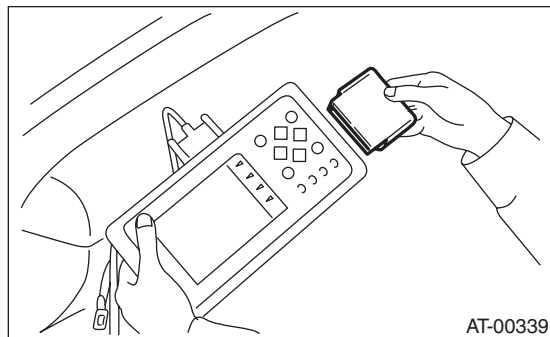
1. READ DIAGNOSTIC TROUBLE CODE (DTC)

1) Prepare the Subaru Select Monitor kit.



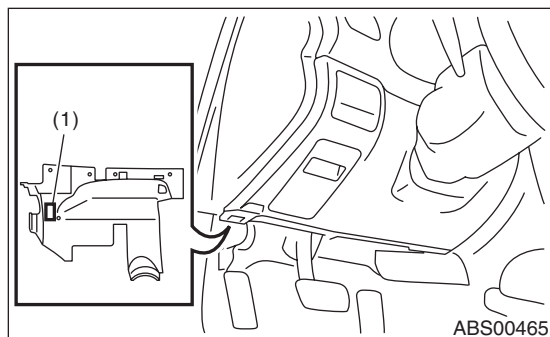
2) Connect the diagnosis cable to the Subaru Select Monitor.

3) Insert the cartridge to the Subaru Select Monitor.
<Ref. to 4AT(diag)-6, PREPARATION TOOL, General Description.>



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

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



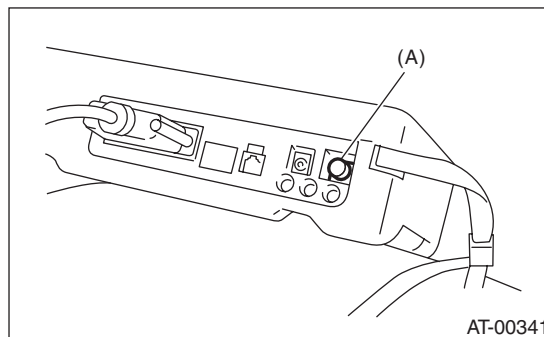
(1) Data link connector

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

NOTE:

Do not connect scan tools except for Subaru Select Monitor or OBD-II general scan tool.

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



(A) 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 {Transmission} and press the [YES] key.

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

9) On the «Transmission Diagnosis» screen, select {DTC Display}, and then press the [YES] key.

NOTE:

- For details concerning the operation procedure, refer to the "SUBARU SELECT MONITOR OPERATION MANUAL".

- For details concerning DTC, refer to "List of Diagnostic Trouble Code (DTC)".<Ref. to 4AT(diag)-27, List of Diagnostic Trouble Code (DTC).>

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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 {Transmission} and press the [YES] key.
- 3) Press the [YES] key after the information of transmission type is displayed.
- 4) On the «Transmission Diagnosis» display screen, select the {Current Data Display & Save} and press the [YES] key.
- 5) On the «Transmission Diagnosis» display screen, select the {Data Display} and press the [YES] key.
- 6) Using the scroll key, scroll the display screen up or down until the desired data is shown.

A list of the support data is shown in the following table.

Contents	Display	Unit of measure
Battery voltage	Battery Voltage	V
Rear vehicle speed sensor signal	Rear Wheel Speed	km/h or MPH
Front vehicle speed sensor signal	Front Wheel Speed	km/h or MPH
Engine speed signal	Engine speed	rpm
Automatic transmission fluid temperature signal	ATF Temp.	°C or °F
Accelerator pedal position sensor	Throttle voltage	V
Gear position	Gear Position	—
Line pressure control duty ratio	Line Pressure Duty Ratio	%
Lock up clutch control duty ratio	Lock Up Duty Ratio	%
Transfer clutch control duty ratio	Transfer Duty Ratio	%
Accelerator pedal position sensor power supply	Throttle sensor voltage	V
Torque converter turbine speed signal	Turbine Revolution Speed	rpm
2 — 4 brake timing pressure control duty ratio	Brake Clutch Duty Ratio	%
Low clutch duty ratio	L/C Duty	%
High clutch duty ratio	H/C Duty	%
Low & reverse brake duty ratio	L&R/B Duty	%
Accelerator position	Acceleration Opening Angle	%
FWD switch signal	FWD SW	ON or OFF
Stop light switch signal	Stop Light SW	ON or OFF
Anti lock brake system signal	ABS signal	ON or OFF
Parking range signal	P Range Signal	ON or OFF
Neutral range signal	N Range Signal	ON or OFF
Reverse range signal	R Range Signal	ON or OFF
Drive range signal	D Range Signal	ON or OFF
AT diagnosis light output signal	Diagnosis Light	ON or OFF
Cruise control signal	Cruise Control Signal	ON or OFF
ATF temperature light	ATF temperature light	ON or OFF
Up shift signal	Up SW	ON or OFF
Down shift signal	Down SW	ON or OFF
Sport mode signal	Tiptronic Mode Switch	ON or OFF
Shift lock solenoid signal	Shift Lock Solenoid	ON or OFF

NOTE:

For details concerning the operation procedure, refer to the “SUBARU SELECT MONITOR OPERATION MANUAL”.

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3. CLEAR MEMORY MODE

- 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 {Transmission} and press the [YES] key.
- 3) Press the [YES] key after the information of transmission type is displayed.
- 4) On the «Transmission Diagnosis» display screen, select the {Clear Memory} and press the [YES] key.

NOTE:

If {Clear Memory 2} is selected and performed, DTC and learned control memory are cleared. If Clear Memory 2 is performed, execute the advance operation of learning control. <Ref. to 4AT(diag)-16, FACILITATION OF LEARNING CONTROL, OPERATION, Subaru Select Monitor.>

4. FACILITATION OF LEARNING CONTROL

- 1) Shift the select lever to “P” range, and apply the parking brake.
- 2) Lift-up the vehicle.
- 3) Connect the Subaru Select Monitor to the data link connector, and then turn the ignition switch to ON.
- 4) Perform {Clear Memory 2} using the Subaru Select Monitor. <Ref. to 4AT(diag)-16, CLEAR MEMORY MODE, OPERATION, Subaru Select Monitor.>
- 5) Using the Subaru Select Monitor, check that there is no DTC displayed.<Ref. to 4AT(diag)-14, READ DIAGNOSTIC TROUBLE CODE (DTC), OPERATION, Subaru Select Monitor.>
- 6) Warm-up the engine until the ATF temperature displayed on the Subaru Select Monitor reaches 60 — 90°C (140 — 194°F). <Ref. to 4AT(diag)-15, READ CURRENT DATA, OPERATION, Subaru Select Monitor.>
- 7) Shift the select lever to “R” range.
- 8) Turn all switches including headlight, air conditioner, seat heater, rear defogger and etc. OFF.
- 9) Wait for 30 seconds or more with the ignition key turned to OFF.
- 10) When “Communication Failed!” is displayed on Subaru Select Monitor, press the brake pedal fully until the learning control promotion is completed.
- 11) Turn the ignition switch to ON.
- 12) Change Subaru Select Monitor to «Transmission Diagnosis» display screen.<Ref. to 4AT(diag)-14, OPERATION, Subaru Select Monitor.>
- 13) Check that the Subaru Select Monitor is returned to normal operation.

- 14) Shift the select lever to “P” range, and then wait for more than 3 seconds.
- 15) Shift the select lever to “R” range, and then wait for more than 3 seconds.
- 16) Shift the select lever to “N” range, and then wait for more than 3 seconds.
- 17) Shift the select lever to “D” range, and then wait for more than 3 seconds.
- 18) Shift the select lever to “N” range, and then wait for more than 3 seconds.
- 19) Slowly depress the accelerator pedal to full throttle.
- 20) Slowly release the accelerator pedal completely.
- 21) Start the engine, and idle it.
- 22) Shift the select lever to “D” range.
- 23) Start learning control promotion. At this time, the SPORT indicator light in the combination meter will start blinking at 2 Hz. When the SPORT indicator light does not blink, turn the ignition switch to OFF and repeat the procedures from step 4). When the SPORT indicator light blinking at 2 Hz goes OFF, facilitation of learning control is completed.

NOTE:

When blinking of SPORT indicator light changes from 2 Hz to 4 Hz during learning control promotion, repeat the procedure from step 4).

- 24) Shift the select lever to “N” range, and then turn the ignition switch to OFF.
- 25) Shift the select lever to “P” range to complete the learning control promotion.