

SUBARU SELECT MONITOR

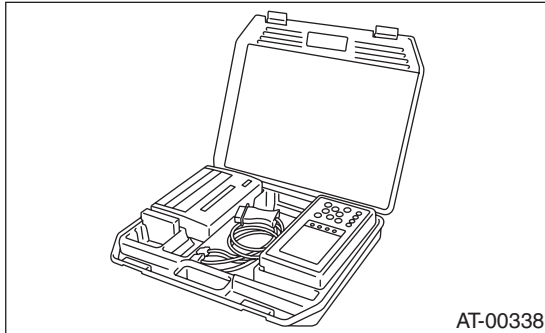
AUTOMATIC TRANSMISSION (DIAGNOSTICS)

6. Subaru Select Monitor

A: OPERATION

1. READ DIAGNOSTIC TROUBLE CODE

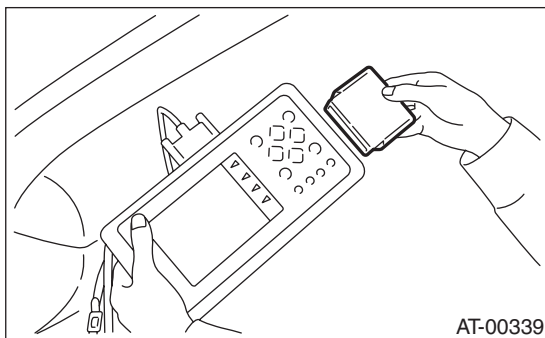
1) Prepare the Subaru Select Monitor kit.



2) Connect the diagnosis cable to Subaru Select Monitor.

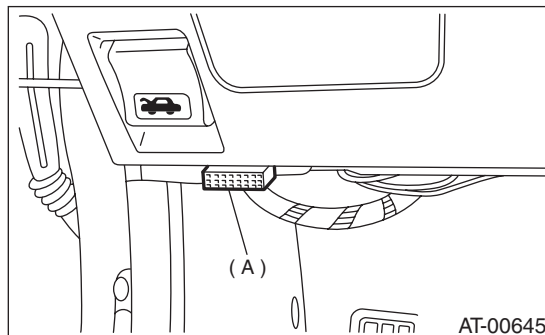
3) Insert the cartridge into Subaru Select Monitor.

<Ref. to 4AT(D)-6, PREPARATION TOOL.>



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

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



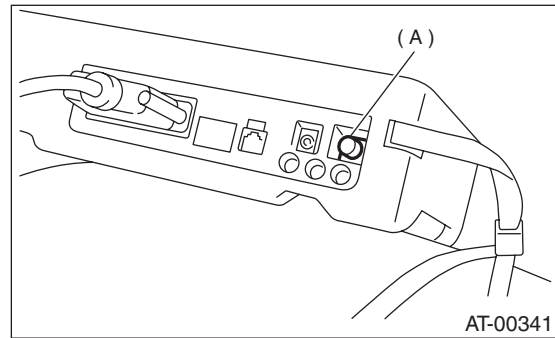
(A) Data link connector

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

NOTE:

Do not connect scan tools except for Subaru Select Monitor.

5) Turn the ignition switch to ON (engine OFF) and Subaru Select Monitor switch to 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 Control System} and press the [YES] key.

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

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

NOTE:

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

- For details concerning the DTC, refer to the DTC LIST. <Ref. to 4AT(D)-21, 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 Control System} 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, move the display screen up or down until 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
ATF temperature signal	ATF Temp.	°C or °F
Throttle position signal	Throttle Sensor Voltage	V
Gear position	Gear Position	—
Throttle opening angle	Throttle Opening Angle	%
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	%
Power supply for throttle position sensor	Throttle Power Supply	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	%
Stop light switch signal	Stop Light Switch	ON or OFF
ABS 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
3rd range signal	3rd Range Signal	ON or OFF
2nd range signal	2nd Range Signal	ON or OFF
1st range signal	1st Range Signal	ON or OFF
AT diagnosis indicator lamp	Diagnosis Lamp	ON or OFF
Shift up signal	Up Switch	ON or OFF
Shift down signal	Down Switch	ON or OFF
Tip signal	Tip Mode Switch	ON or OFF
Shift lock solenoid signal	Shift Lock solenoid	ON or OFF
ATF temperature warning light	ATF temperature light	ON or OFF

NOTE:

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

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AUTOMATIC TRANSMISSION (DIAGNOSTICS)

3. CLEAR MEMORY MODE

- 1) On the «Main Menu» display screen, select the {2. Each System Check}.
- 2) On the «System Selection Menu» display screen, select the {Transmission Control System}.
- 3) Select the {OK} after the information of transmission type is displayed.
- 4) On the «Transmission Diagnosis» display screen, select the {Clear Memory}.
- 5) When the “Done” is shown on 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.
- When {Clear Memory 2} is selected and executed, DTC and learned control memory is cleared. If Clear Memory 2 is performed, execute the learning control. <Ref. to 4AT(D)-16, FACILITATION OF LEARNING CONTROL, OPERATION, Subaru Select Monitor.>

4. FACILITATION OF LEARNING CONTROL

- 1) Shift the select lever to “P” range, and apply parking brake.
- 2) Lift-up the vehicle.
- 3) Connect the Subaru Select Monitor to data link connector, and then turn the ignition switch to ON.
- 4) Perform the {Clear Memory 2} using Subaru Select Monitor.<Ref. to 4AT(D)-16, CLEAR MEMORY MODE, OPERATION, Subaru Select Monitor.>
- 5) Using Subaru Select Monitor, check that the DTC is not output. <Ref. to 4AT(D)-14, READ DIAGNOSTIC TROUBLE CODE, OPERATION, Subaru Select Monitor.>
- 6) Warm-up the engine until the ATF temperature which is displayed on the Subaru Select Monitor is within 60 - 90 °C (140 - 194 °F). <Ref. to 4AT(D)-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. to OFF.
- 9) Turn the ignition switch to OFF.
- 10) Depress the brake pedal fully until the facilitation of learning control is completed when the “Communication Failed!” is displayed on Subaru Select Monitor.
- 11) Turn the ignition switch to ON.
- 12) Read the current data to check that the Subaru Select Monitor is returned to normal operation. <Ref. to 4AT(D)-15, READ CURRENT DATA, OPERATION, Subaru Select Monitor.>
- 13) Shift the select lever to “P” range, and then wait for more than 3 seconds.

- 14) Shift the select lever to “R” range, and then wait for more than 3 seconds.
- 15) Shift the select lever to “N” range, and then wait for more than 3 seconds.
- 16) Shift the select lever to “D” range, and then wait for more than 3 seconds.
- 17) Shift the select lever to “N” range, and then wait for more than 3 seconds.
- 18) Slowly depress the accelerator pedal fully.
- 19) Slowly release the accelerator pedal fully.
- 20) Start the engine, and idle it.
- 21) Shift the select lever to “D” range.
- 22) Start the facilitation of learning control. At this time, the AT OIL TEMP warning light in combination meter blinks at 2 Hz. When the AT OIL TEMP warning light does not blink, turn the ignition switch to OFF and repeat the procedures from step 4). When the AT OIL TEMP warning light which blinking at 2 Hz changes to blink at 0.5 Hz, facilitation of learning control is completed.

NOTE:

- When blinking of AT OIL TEMP warning light changes from 2 Hz to 4 Hz during facilitation of learning control, repeat the procedure from step 4).
- 23) Shift the select lever to “N” range, and then turn the ignition switch to OFF.
 - 24) Shift the select lever to the “P” range, and then complete the facilitation of learning control.