

15. System Operation Check Mode

A: OPERATION

CAUTION:

After System Operation Check Mode is run, perform the Clear Memory Mode.

NOTE:

For detailed operation procedures, refer to “PC application help for Subaru Select Monitor”.

1. HYBRID POWERTRAIN CONTROL SYSTEM

- 1) On «Main Menu» display, select {Each System Check}.
- 2) On «Each System Check» display, select {HEV System}.
- 3) On «HEV System» display, select {Hybrid Powertrain Control System}.
- 4) On «Hybrid Powertrain Control System» display, select {Work Support}.
- 5) On «Work Support» display, select {System Operation Check Mode}.

NOTE:

A communication error will be displayed if any other modes are run while performing {System Operation Check Mode}.

Items under system operation check mode	Display	Note
ISG Cranking Operation	—	Perform engine cranking with integrated starter generator (ISG). Example of use: Used to check engine start with integrated starter generator (ISG).
ISG Voltage Control	Mid High ExtraHigh	Perform generated voltage control with the integrated starter generator (ISG). Example of use: Used to check electrical charge with integrated starter generator (ISG).
Brake Vacuum Pump System Check	—	Brake vacuum pump operates. Example of use: Used to check brake vacuum pump as a single unit.
12V Battery Relay Operation	—	Switch the 12V battery relay on/off. Example of use: Used to check operation of the 12V battery relay.
DCDC Converter Output Voltage Control	Mid High	Perform DC/DC converter output voltage control. Example of use: Used to check DC/DC converter as a single unit.
Engine only Drive Mode*	—	Drive vehicle without motor operation. Example of use: Used to check influence by motor for diagnosing noise or vibration problem.
Auto Start Stop Cancel Drive Mode (Engine only or Engine + Motor)*	—	Drive vehicle without operating Auto Start Stop or motor. (Transition of mode is possible in the operation described in Notes in the margin.) Example of use: Used to check influence by engine and motor for diagnosing noise or vibration problem. It is also used to drive vehicle or perform inspection with Auto Start Stop deactivated.

*: During this mode, the hybrid fail lamp blinks and the message “Hybrid system service mode is active” is displayed in MFD. The maintenance mode will end after 30 seconds or more have passed since the ignition switch is OFF.

NOTE:

In «Auto Start Stop Cancel Drive Mode (Engine only or Engine + Motor)», transition of mode is enabled by performing the following operation.

System Operation Check Mode

HYBRID ELECTRIC VEHICLE (DIAGNOSTICS)

1. Turn the ignition switch to ON and perform the following procedures while depressing the brake pedal before starting the engine.
2. Set the shift lever to "N" and depress the accelerator pedal twice. (Fully closed → Fully open → Fully closed → Fully open)
3. Set the shift lever to "P" and depress the accelerator pedal twice. (Fully closed → Fully open → Fully closed → Fully open)
4. Set the shift lever to "N" and depress the accelerator pedal twice. (Fully closed → Fully open → Fully closed → Fully open)
5. Shift into P range.
(The hybrid fail lamp in the combination meter blinks, indicating that the service mode is active in MFD.)
6. Start the engine.
7. The maintenance mode will end after 30 seconds or more have passed since the ignition switch is OFF.
 - *: This operation must be performed within 60 seconds after the ignition is turned ON.
 - *: If the accelerator pedal is operated too fast, the operation may not be accepted.
 - *: If any procedures are performed improperly, they are not accepted until the ignition switch is turned OFF.
 - *: If any abnormal conditions are detected, cancel the procedure.

System Operation Check Mode

HYBRID ELECTRIC VEHICLE (DIAGNOSTICS)

2. DRIVE MOTOR CONTROL SYSTEM

- 1) On «Main Menu» display, select {Each System Check}.
- 2) On «Each System Check» display, select {HEV System}.
- 3) On «HEV System» display, select {Drive Motor Control System}.
- 4) On «Drive Motor Control System» display, select {Work Support}.
- 5) On «Work Support» display, select {System Operation Check Mode}.

Items under system operation check mode	Display		Note
High Voltage Battery Cooling Fan	Target Output Mode	Stop Step1 Step2 Step3	Perform high voltage battery cooling fan compulsory drive. Example of use: Used to check high voltage battery cooling fan circuits.
	High Voltage Battery Cooling Fan Speed	0 — 6000 rpm	
Drive Motor Inverter power supply relay	Target Output Mode	OFF ON	Perform high voltage battery cooling fan/drive motor inverter power supply relay compulsory drive. Example of use: Used to check operation of high voltage battery cooling fan/drive motor inverter power supply relay.
	Drive Motor Inverter Operation Update Signal Count (Serial)	0 — 255 Count	

NOTE:

The conditions listed below must be met to perform the mode.

Display of current data	Value
Ignition switch	ON
ECU ACC	11.0 V or more
Drive Motor Inverter Operation Signal(HPCM)	OFF
Contactors Open Status	Open
High Voltage Battery Cooling Fan Duty Target (HPCM)	0%