

# INSTRUMENT CLUSTER INPUT/OUTPUT CHECK MODE

B3E092255430W05

## Note

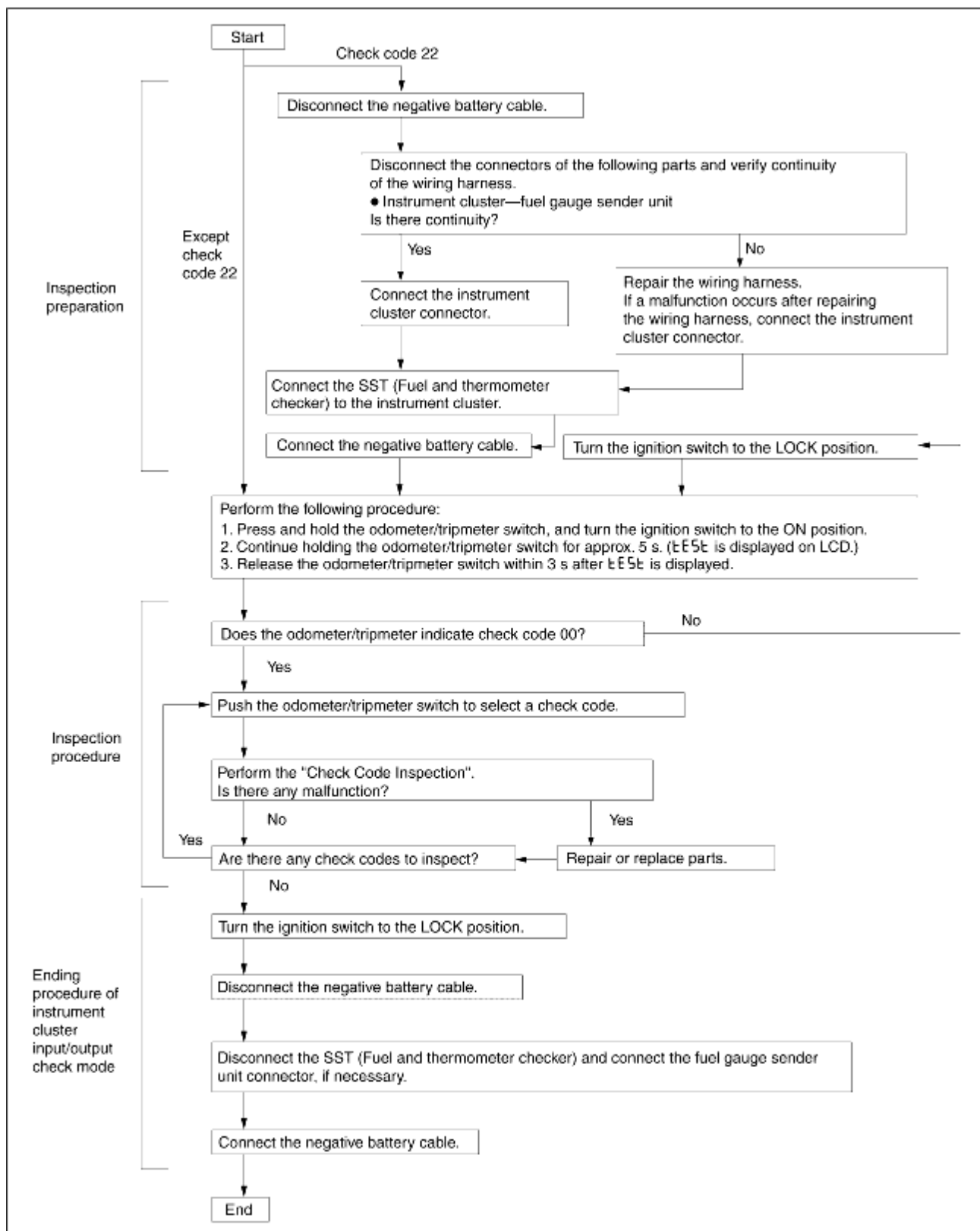
- In this mode, it is possible to verify the items in the following chart.

## Check Code Table

Check code	Check item	Related items
08	TNS relay	• Lights-on reminder warning alarm • Each illumination light
12	Speedometer	Speedometer
13	Tachometer	Tachometer
14	Buzzer	Buzzer
16	Fuel-level warning light	Fuel-level warning light
22	Fuel gauge sender unit	Fuel gauge
23	Fuel gauge	Fuel gauge
25	Water temperature gauge	Water temperature gauge
26	• Odometer/tripmeter (LCD) • Warning and indicator light	• Odometer/tripmeter (LCD) • Warning and indicator light
31	Key reminder switch	Key reminder warning alarm
32	Indicator buzzer	Indicator buzzer
55	Dimmer switch	-

## Note

- Check codes which are not listed may be indicated, but they cannot be inspected.
- The check codes are displayed in numerical order. (While performing the inspection, if you want to inspect a check code with a number smaller than the code number you are currently inspecting, terminate the check mode then repeat the inspection from the beginning.)
- If a speed signal is input to the instrument cluster (the wheels are rotated) while a code other than check code 50 or 51 is displayed, the input/output check mode will be cancelled.
- The check codes can be fast-forwarded by pushing and holding the odometer/tripmeter switch for **1 s or more**.



CHU0922W004

## Checking Order

### Note

- When inspecting more than two check codes, begin with the code with the highest ranking.

Priority order of inspection	Ignition switch position	Check code
1	ON	22
2		08, 12, 13, 14, 16, 23, 25, 26, 55
3	LOCK	31, 32

## Check Code Inspection

### Check code 08



Check code 08		TNS relay ON/OFF signal	
STEP	INSPECTION CONDITION	DISPLAY	ACTION
1	Turn the headlight switch to the TNS position. (TNS relay ON)	□ □	Go to the next step.
		□ OFF	<p>Verify that the voltage of instrument cluster terminal 1L is <b>B+</b>.</p> <ul style="list-style-type: none"> <li>• If the voltage is as specified, replace the instrument cluster.</li> <li>• If the voltage is not as specified, inspect the following parts:</li> </ul> <ul style="list-style-type: none"> <li>- TNS relay</li> <li>- Wiring harness (Battery-TNS relay-instrument cluster)</li> </ul>
2	Turn the headlight switch off. (TNS relay OFF)	□ □	<p>Verify that the voltage of the instrument cluster terminal 1L is <b>1.0 V or less</b>.</p> <ul style="list-style-type: none"> <li>• If the voltage is as specified, replace the instrument cluster.</li> <li>• If the voltage is not as specified, inspect the following parts:</li> </ul> <ul style="list-style-type: none"> <li>- TNS relay</li> <li>- Wiring harness (TNS relay-instrument cluster)</li> </ul>
		□ OFF	Input signal to the instrument cluster is normal.

### Check code 12


Check code 12		Speedometer display signal	
INSPECTION CONDITION	DISPLAY	ACTION	
After selecting check code 12, wait for <b>approx. 2 s</b> .	□ □	The speedometer needle moves full scale then returns to <b>approx. 60 km/h</b> .	The speedometer is normal.
		Except above	Replace the instrument cluster.
	Err	-	

### Check code 13

Check code 13		Tachometer operation signal	
INSPECTION CONDITION	DISPLAY	ACTION	

After selecting check code 13, wait for <b>approx. 2 s.</b>		The tachometer needle moves full scale then returns to <b>approx. 3,000 rpm.</b>	The tachometer is normal.
		Except above	Replace the instrument cluster.




**Check code 14**


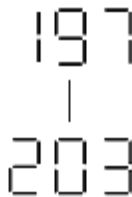
Check code 14	Buzzer operation signal		
INSPECTION CONDITION	DISPLAY	ACTION	
After selecting check code 14, wait approx. 2 s.		The buzzer sounds.	The buzzer is normal.
		The buzzer does not sound.	Replace the instrument cluster.

**Check code 16**


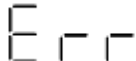
Check code 16	Fuel-level warning light flashing signal		
INSPECTION CONDITION	DISPLAY	ACTION	
After selecting check code 16, wait <b>approx. 2 s.</b>	<div><div></div><div></div><div>(FLASHING)</div></div>	Fuel-level warning light flashes <b>three times.</b>	The fuel-level warning light is normal.
		Except above	Replace the instrument cluster.

**Check code 22**


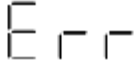
Check code 22		Fuel level signal	
STEP	INSPECTION CONDITION	DISPLAY	ACTION
1	Select check code 22 with the fuel gauge sender unit connector disconnected.		Go to the next step.
		Except above	Replace the instrument cluster.
2	Connect terminals 2U and 2W of the instrument cluster.		Go to the next step.
		Except above	Replace the instrument cluster.
3	Using the <b>SST</b> (Fuel and thermometer checker) or resistor, input <b>20 ohms</b> between instrument cluster terminals 2U and 2W.		Go to the next step.

		Except above	Replace the instrument cluster.
4	Using the <b>SST</b> (Fuel and thermometer checker) or resistor, input <b>100 ohms</b> between instrument cluster terminals 2U and 2W.		Go to the next step.
		Except above	Replace the instrument cluster.
5	Using the <b>SST</b> (Fuel and thermometer checker) or resistor, input <b>200 ohms</b> between instrument cluster terminals 2U and 2W.		Inspect the fuel gauge sender unit.
		Except above	Replace the instrument cluster.

### Check code 23


Check code 23	Fuel gauge operation signal		
INSPECTION CONDITION	DISPLAY	ACTION	
After selecting check code 23, wait <b>approx. 2 s.</b>		The fuel gauge indicates status in the following order <b>approx. every 2 s.</b> • F → 1/2 → E → F (fixed)	The fuel gauge is normal.
		Except above	Replace the instrument cluster.
		Replace the instrument cluster.	

### Check code 25


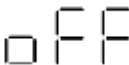

Check code 25	Water temperature gauge operation signal		
INSPECTION CONDITION	DISPLAY	ACTION	
After selecting check code 25, wait approx. <b>2 s.</b>		The water temperature gauge indicates status in the following order <b>approx. every 2 s.</b> • H → Center → C → H (fixed)	The water temperature gauge is normal.
		Except above	Replace the instrument cluster.
		Replace the instrument cluster.	

### Check code 26

Check code 26	Odometer/tripmeter display signal		
INSPECTION CONDITION	DISPLAY	ACTION	

Select check code 26.		<ul style="list-style-type: none"> <li>• Display is normal.</li> <li>• Warning and indicator light illuminated.</li> </ul> <ul style="list-style-type: none"> <li>- Generator warning light</li> <li>- AT warning light</li> <li>- DSC indicator light</li> <li>- DSC OFF light</li> <li>- ABS warning light</li> <li>- Brake system warning light</li> <li>- Selector indicator light</li> <li>- MIL</li> <li>- EHPAS warning light</li> <li>- Fuel-level warning light</li> <li>- Security light</li> <li>- Door ajar warning light</li> <li>- Air bag system warning light</li> <li>- Turn indicator light</li> <li>- Seat belt warning light</li> <li>- High-beam indicator light</li> </ul>	<ul style="list-style-type: none"> <li>• The odometer/tripmeter is normal.</li> <li>• Warning and indicator is normal.</li> </ul>
		Except above	Replace the instrument cluster.

**Check code 31**

Check code 31		Key reminder switch ON/OFF signal	
STEP	INSPECTION CONDITION	DISPLAY	ACTION
1	Remove the key from the steering lock, then reinsert the key into the steering lock after selecting check code 31. (The key reminder switch is on.)		Go to the next step.
			Verify that the voltage of instrument cluster terminal 2C is <b>B+</b> . <ul style="list-style-type: none"> <li>• If the voltage is as specified, replace the instrument cluster.</li> <li>• If the voltage is not as specified, inspect the following parts:               <ul style="list-style-type: none"> <li>- Key reminder switch (Ignition switch)</li> <li>- Wiring harness (Battery-ignition switch-instrument cluster)</li> </ul> </li> </ul>
2	Remove the key from the steering lock. (The key reminder switch is off.)		Verify that the voltage of instrument cluster terminal 2C is <b>1.0 V or less</b> . <ul style="list-style-type: none"> <li>• If the voltage is as specified, replace the instrument cluster.</li> <li>• If the voltage is not as specified, inspect the following parts:               <ul style="list-style-type: none"> <li>- Key reminder switch (Ignition switch)</li> <li>- Wiring harness (Ignition switch-instrument cluster)</li> </ul> </li> </ul>

		OFF	Input signal to the instrument cluster is normal.
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**Check code 32**

Check code 32	Indicator buzzer		
INSPECTION CONDITION	DISPLAY	ACTION	
After selecting check code 32, wait <b>approx. 2 s.</b>	ON	Indicator buzzer sounds <b>three times.</b>	The buzzer is normal.
		The buzzer does not sound.	Replace the instrument cluster.

**Check code 55**

Check code 55		Dimmer switch ON/OFF signal	
STEP	INSPECTION CONDITION	DISPLAY	ACTION
1	After selecting the check code 55, press and hold the dimmer switch. (Dimmer switch ON)	ON	Go to the next step.
		OFF	Replace the instrument cluster.
2	Release the dimmer switch. (Dimmer switch OFF)	ON	Replace the instrument cluster.
		OFF	Input signal to the instrument cluster is normal.