

## DIAGNOSIS FOR EACH SYMPTOM

OnStar (R) (Diagnostics)

### 11. Diagnosis for Each Symptom

#### A: LIST

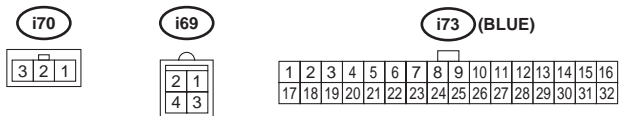
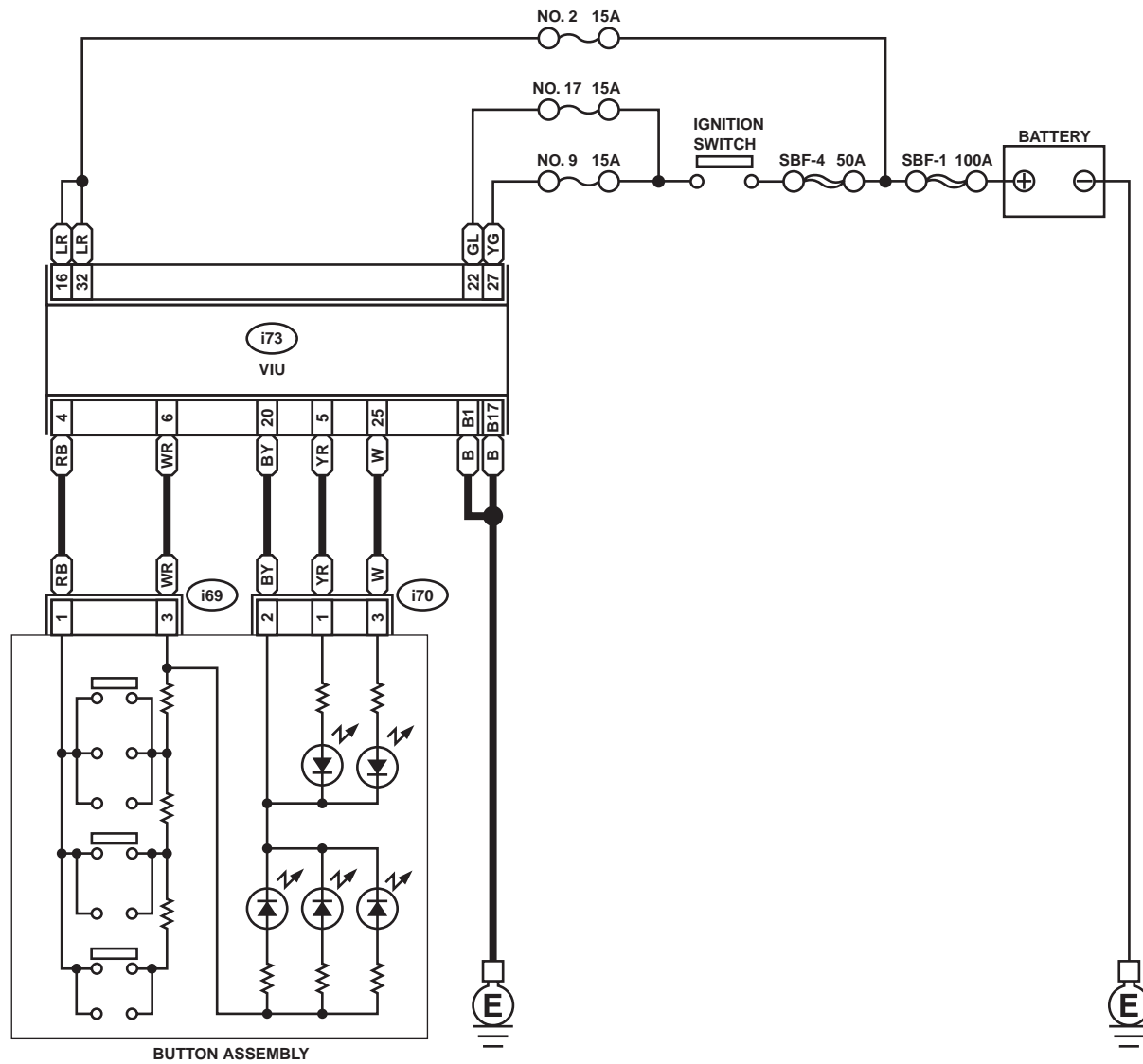
Content of diagnosis	Index No.
One or more OnStar (R) buttons do not operate.	<Ref. to OS-34, ONE OR MORE OnStar (R) BUTTONS DO NOT OPERATE., Diagnosis for Each Symptom.>
Contact to OnStar (R) call center is impossible.	<Ref. to OS-38, CONTACT TO OnStar (R) CALL CENTER IS IMPOSSIBLE., Diagnosis for Each Symptom.>
OnStar (R) call center cannot setup OnStar (R) system.	<Ref. to OS-44, OnStar (R) CALL CENTER CANNOT SETUP OnStar (R) SYSTEM., Diagnosis for Each Symptom.>
OnStar (R) audio does not operate.	<Ref. to OS-46, OnStar (R) AUDIO DOES NOT OPERATE., Diagnosis for Each Symptom.>
OnStar (R) button LED does not operate.	<Ref. to OS-50, OnStar (R) LED DOES NOT OPERATE., Diagnosis for Each Symptom.>

## DIAGNOSIS FOR EACH SYMPTOM

OnStar (R) (Diagnostics)

### **B: ONE OR MORE ONSTAR (R) BUTTONS DO NOT OPERATE.**

DEFINITION: OnStar (R) does not operate by pressing button.



OS-00025

## DIAGNOSIS FOR EACH SYMPTOM

OnStar (R) (Diagnostics)

Step	Value	Yes	No
<b>1 CHECK BUTTON ASSEMBLY.</b> <b>IMPORTANT</b> Before pressing button, call OnStar (R) call center to notify the inspection. 1) Turn ignition switch to ON (do not let the engine run). 2) Press each OnStar (R) button. Does the LED illuminate in green?	—	Go to step 3.	Go to step 2.
<b>2 CHECK BUTTON.</b> Does any button malfunction intermittently?	—	Go to step 7.	Poor contact of connection/Repair poor contact.
<b>3 CHECK HARNESS.</b> 1) Turn ignition switch to OFF. 2) Disconnect VIU connector. 3) Disconnect button assembly connector. 4) Measure resistance between VIU connector and button assembly connector. <b>Connector &amp; Terminal</b> <i>(i73) No. 4 — (i69) No. 1:</i> <i>(i73) No. 6 — (i69) No. 3:</i> Is the measured value less than the specified value?	0.5 Ω	Go to step 4.	Repair open harness.
<b>4 CHECK HARNESS.</b> Measure resistance between VIU connector and chassis ground. <b>Connector &amp; Terminal</b> <i>(i73) No. 4 (+) — Chassis ground (-):</i> <i>(i73) No. 6 (+) — Chassis ground (-):</i> Does the measured value exceed the specified value?	1 MΩ	Go to step 5.	Repair ground short of harness.
<b>5 CHECK HARNESS.</b> 1) Turn the ignition switch to ON. 2) Measure voltage between VIU connector and chassis ground. <b>Connector &amp; Terminal</b> <i>(i73) No. 4 (+) — Chassis ground (-):</i> <i>(i73) No. 6 (+) — Chassis ground (-):</i> Does the measured value exceed the specified value?	1 V	Go to step 6.	Repair battery short of harness.
<b>6 CHECK VOLTAGE OF POWER SUPPLY.</b> 1) Turn ignition switch to OFF. 2) Connect VIU connector. 3) Turn the ignition switch to ON. 4) Measure voltage between button assembly connector and chassis ground. <b>Connector &amp; Terminal</b> <i>(i69) No. 3 (+) — Chassis ground (-):</i> Is the measured value within the specified range?	9 — 16 V	Go to step 7.	REFERENCE: Perform OnStar (R) setup procedure. Replace VIU. <Ref. to OS-4, Vehicle Interface Unit VIU.>
<b>7 CHECK EMERGENCY BUTTON.</b> Measure resistance between terminals of button assembly. <b>Terminal</b> <b>No. 1 —No. 3:</b> Is the measured value within the specified range by pressing emergency button?	3.0 KΩ	Go to step 8.	Replace button assembly. <Ref. to OS-6, Button Assembly.>

## DIAGNOSIS FOR EACH SYMPTOM

OnStar (R) (Diagnostics)

Step	Value	Yes	No
<b>8 CHECK OnStar (R) BUTTON.</b> Measure resistance between terminals of button assembly. <i>Terminal</i> <b>No. 1 — No. 3:</b> Is the measured value within the specified range by pressing OnStar (R) button?	13.0 K $\Omega$	Go to step <b>9</b> .	Replace button assembly. <Ref. to OS-6, Button Assembly.>
<b>9 CHECK CALL ANSWER/END BUTTON.</b> Measure resistance between terminals of button assembly. <i>Terminal</i> <b>No. 1 — No. 3:</b> Is the measured value within the specified range by pressing call answer/end button?	470 $\Omega$	Go to step <b>10</b> .	Replace button assembly. <Ref. to OS-6, Button Assembly.>
<b>10 POOR CONNECTION OF BUTTON ASSEMBLY/REPAIR POOR CONNECTION.</b> Check, if there is any poor contact in harness connector of button assembly. Was the condition confirmed or repaired?	—	Go to step <b>12</b> .	Go to step <b>11</b> .
<b>11 CHECK IF THERE IS ANY POOR CONTACT IN VIU HARNESS CONNECTOR.</b> Was the condition confirmed or repaired?	—	Go to step <b>12</b> .	Go to step <b>13</b> .
<b>12 CHECK SYSTEM.</b> Run the system and confirm the result of repair. Was the trouble repaired?	—	System is OK.	Go to step <b>13</b> .
<b>13 CHECK BUTTON ASSEMBLY.</b> 1) Replace button assembly. <Ref. to OS-6, Button Assembly.> 2) Run the system and confirm the result of repair. Was the trouble repaired?	—	System is OK.	Go to step <b>14</b> .
<b>14 CHECK VIU.</b> REFERENCE: Perform OnStar (R) setup procedure. 1) Replace VIU. <Ref. to OS-4, Vehicle Interface Unit VIU.> 2) Run the system and confirm the result of repair. Was the trouble repaired?	—	System is OK.	Go to step <b>1</b> .

## DIAGNOSIS FOR EACH SYMPTOM

OnStar (R) (Diagnostics)

---

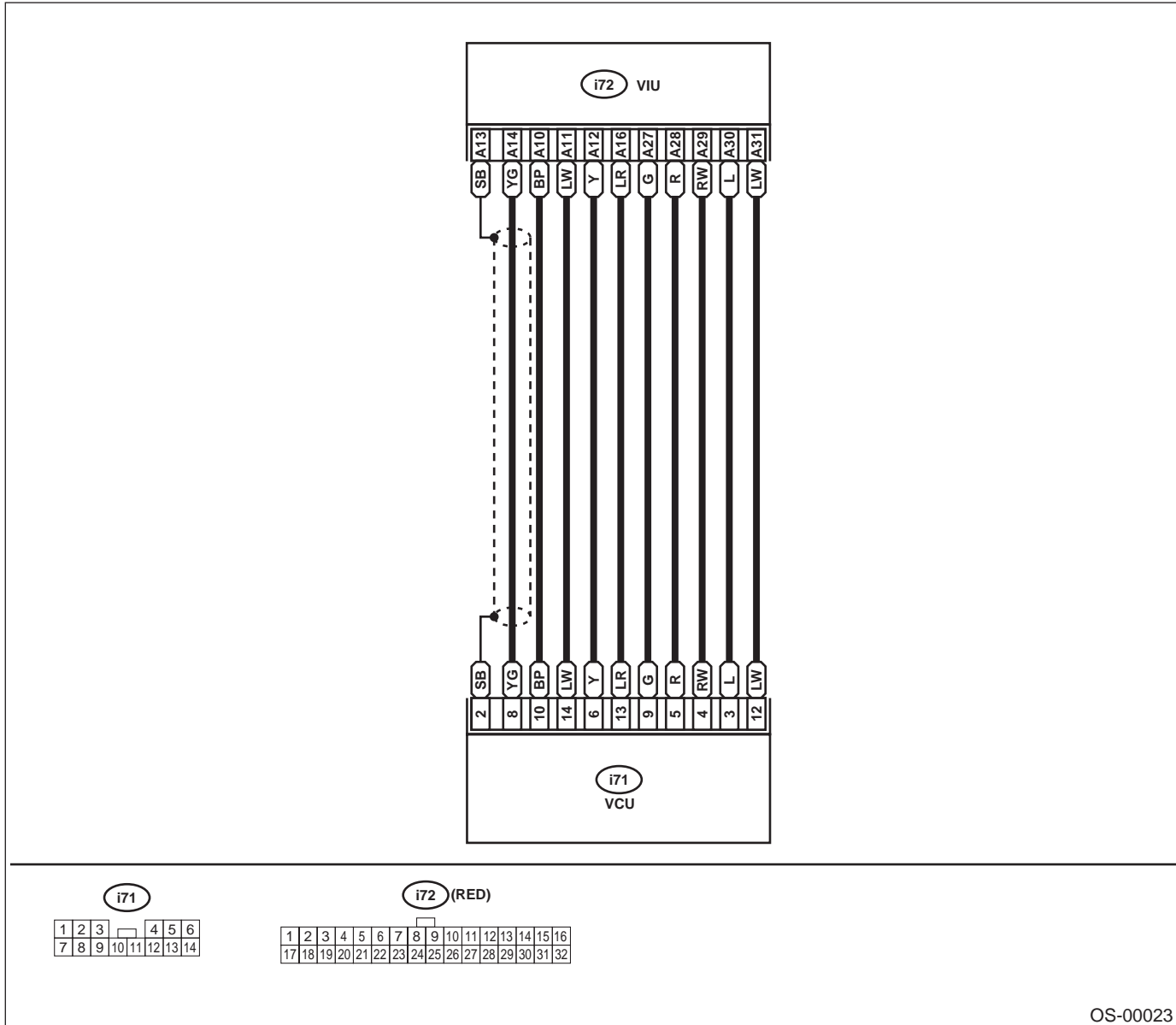
**MEMO:**

## DIAGNOSIS FOR EACH SYMPTOM

OnStar (R) (Diagnostics)

### **C: CONTACT TO ONSTAR (R) CALL CENTER IS IMPOSSIBLE.**

DEFINITION: When OnStar (R) call button is pressed, audio prompt “Connected to OnStar (R)” or “Impossible to connect to OnStar (R)” will be announced and connection is not performed.



OS-00023

## DIAGNOSIS FOR EACH SYMPTOM

OnStar (R) (Diagnostics)

Step	Value	Yes	No
<b>1</b> <b>CHECK FOR CONNECTION TO OnStar (R) Call Center.</b> 1) Turn ignition to ON (do not let the engine run). 2) Press OnStar (R) button. Is connection to OnStar (R) call center completed?	—	Repair temporary poor connection of wiring.	Go to step 2.
<b>2</b> <b>CHECK OnStar (R) SERIAL DATA RETURN CIRCUIT.</b> 1) Turn ignition switch to OFF. 2) Disconnect connection from vehicle communication unit (VCU). 3) Turn ignition switch to ON (do not let the engine run). 4) Measure resistance between OnStar (R) serial data return circuit and ground. <b>Connector &amp; Terminal</b> <i>(i71) No. 9 (+) — Chassis ground (-):</i> Is the value of voltage near to the specified value?	5 V	Go to step 3.	Go to step 6.
<b>3</b> <b>CHECK OnStar (R) SERIAL DATA (-) CIRCUIT.</b> Measure voltage between OnStar (R) serial data (-) circuit and ground. <b>Connector &amp; Terminal</b> <i>(i71) No. 5 (+) — Chassis ground (-):</i> Is the value of voltage near to the specified value?	0.17 V	Go to step 4.	Go to step 9.
<b>4</b> <b>CHECK CIRCUIT BETWEEN OnStar (R) SERIAL DATA (-) CIRCUIT AND TRANSCIEVER LOW REFERENCE CIRCUIT.</b> Measure voltage between OnStar (R) serial data (-) circuit and transceiver low reference circuit. <b>Connector &amp; Terminal</b> <i>(i71) No. 5 (+) — (i71) No. 3 (-):</i> Is the value of voltage near to the specified value?	5 V	Go to step 5.	Go to step 15.
<b>5</b> <b>CHECK OnStar (R) SERIAL DATA (+) CIRCUIT.</b> Measure voltage between OnStar (R) serial data (+) circuit and ground. <b>Connector &amp; Terminal</b> <i>(i71) No. 4 (+) — Chassis ground (-):</i> Is the value of voltage near to the specified value?	0.17 V	Go to step 18.	Go to step 12.
<b>6</b> <b>CHECK SERIAL DATA RETURN HARNESS.</b> 1) Turn ignition switch to OFF. 2) Disconnect VIU connector. 3) Disconnect VCU connector. 4) Measure resistance between VIU connector and VCU connector. <b>Connector &amp; Terminal</b> <i>(i72) No. 27 — (i71) No. 9:</i> Is the measured value less than the specified value?	0.5 Ω	Go to step 7.	Repair open harness.

## DIAGNOSIS FOR EACH SYMPTOM

OnStar (R) (Diagnostics)

Step	Value	Yes	No
<b>7</b> <b>CHECK SERIAL DATA RETURN HARNESS.</b> Measure resistance between VIU connector and chassis ground. <b>Connector &amp; Terminal</b> <b>(i72) No. 27 — Chassis ground:</b> Does the measured value exceed the specified value?	1 M $\Omega$	Go to step <b>8</b> .	Repair ground short of harness.
<b>8</b> <b>CHECK SERIAL DATA RETURN HARNESS.</b> 1) Turn the ignition switch to ON. 2) Measure voltage between VIU connector and chassis ground. <b>Connector &amp; Terminal</b> <b>(i72) No. 27 (+) — Chassis ground (-):</b> Does the measured value exceed the specified value?	1 V	Go to step <b>19</b> .	Repair battery short of harness.
<b>9</b> <b>CHECK HARNESS (-).</b> 1) Turn ignition switch to OFF. 2) Disconnect VIU connector. 3) Disconnect VCU connector. 4) Measure resistance between VIU connector and VCU connector. <b>Connector &amp; Terminal</b> <b>(i72) No. 28 — (i71) No. 5:</b> Is the measured value less than the specified value?	0.5 $\Omega$	Go to step <b>10</b> .	Repair open harness.
<b>10</b> <b>CHECK HARNESS (-).</b> Measure resistance between VIU connector and chassis ground. <b>Connector &amp; Terminal</b> <b>(i72) No. 28 — Chassis ground:</b> Does the measured value exceed the specified value?	1 M $\Omega$	Go to step <b>11</b> .	Repair ground short of harness.
<b>11</b> <b>CHECK HARNESS (-).</b> 1) Turn the ignition switch to ON. 2) Measure voltage between VIU connector and chassis ground. <b>Connector &amp; Terminal</b> <b>(i72) No. 28 (+) — Chassis ground (-):</b> Does the measured value exceed the specified value?	1 V	Go to step <b>19</b> .	Repair battery short of harness.
<b>12</b> <b>CHECK SERIAL DATA (+) HARNESS.</b> 1) Turn ignition switch to OFF. 2) Disconnect VIU connector. 3) Disconnect VCU connector. 4) Measure resistance between VIU connector and VCU connector. <b>Connector &amp; Terminal</b> <b>(i72) No. 29 — (i71) No. 4:</b> Is the measured value less than the specified value?	0.5 $\Omega$	Go to step <b>13</b> .	Repair open harness.
<b>13</b> <b>CHECK SERIAL DATA (+) HARNESS.</b> Measure resistance between VIU connector and chassis ground. <b>Connector &amp; Terminal</b> <b>(i72) No. 29 — Chassis ground:</b> Does the measured value exceed the specified value?	1 M $\Omega$	Go to step <b>14</b> .	Repair ground short of harness.



## DIAGNOSIS FOR EACH SYMPTOM

OnStar (R) (Diagnostics)

Step	Value	Yes	No
<b>14 CHECK SERIAL DATA (+) HARNESS.</b> 1) Turn the ignition switch to ON. 2) Measure voltage between VIU connector and chassis ground. <b>Connector &amp; Terminal</b> <b>(i72) No. 29 (+) — Chassis ground (-):</b> Does the measured value exceed the specified value?	1 V	Go to step 19.	Repair battery short of harness.
<b>15 CHECK TRANSCEIVER LOW REFERENCE HARNESS.</b> 1) Turn ignition switch to OFF. 2) Disconnect VIU connector. 3) Disconnect VCU connector. 4) Measure resistance between VIU connector and VCU connector. <b>Connector &amp; Terminal</b> <b>(i72) No. 30 — (i71) No. 3:</b> Is the measured value less than the specified value?	0.5 Ω	Go to step 16.	Repair open harness.
<b>16 CHECK TRANSCEIVER LOW REFERENCE HARNESS.</b> Measure resistance between VIU connector and chassis ground. <b>Connector &amp; Terminal</b> <b>(i72) No. 30 — Chassis ground:</b> Does the measured value exceed the specified value?	1 MΩ	Go to step 17.	Repair ground short of harness.
<b>17 CHECK TRANSEAVER LOW REFERENCE HARNESS.</b> 1) Turn the ignition switch to ON. 2) Measure voltage between VIU connector and chassis ground. <b>Connector &amp; Terminal</b> <b>(i72) No. 30 (+) — Chassis ground (-):</b> Does the measured value exceed the specified value?	1 V	Go to step 19.	Repair battery short of harness.
<b>18 CHECK VCU HARNESS CONNECTOR.</b> Check if there is any poor contact in VCU harness connector.	—	Go to step 20.	Repair poor contact in connector.
<b>19 CHECK VIU HARNESS CONNECTOR.</b> Check if there is any poor contact in VIU harness connector. Was the condition confirmed or repaired?	—	Go to step 21.	Repair poor contact in connector.
<b>20 CHECK VCU.</b> <b>IMPORTANT</b> Perform OnStar (R) setup procedure.  Replace VCU. <Ref. to OS-5, Vehicle Communication Unit VCU.> Is replacement completed?	—	Go to step 22.	—
<b>21 CHECK VIU.</b> <b>IMPORTANT</b> Perform OnStar (R) setup procedure.  Replace VIU. <Ref. to OS-4, Vehicle Interface Unit VIU.> Is replacement completed?	—	Go to step 22.	—

## DIAGNOSIS FOR EACH SYMPTOM

OnStar (R) (Diagnostics)

	Step	Value	Yes	No
22	<b>CHECK SYSTEM.</b> Run the system and confirm the result of repair. Was the trouble repaired?	—	System is OK.	Go to step 1.

## DIAGNOSIS FOR EACH SYMPTOM

OnStar (R) (Diagnostics)

---

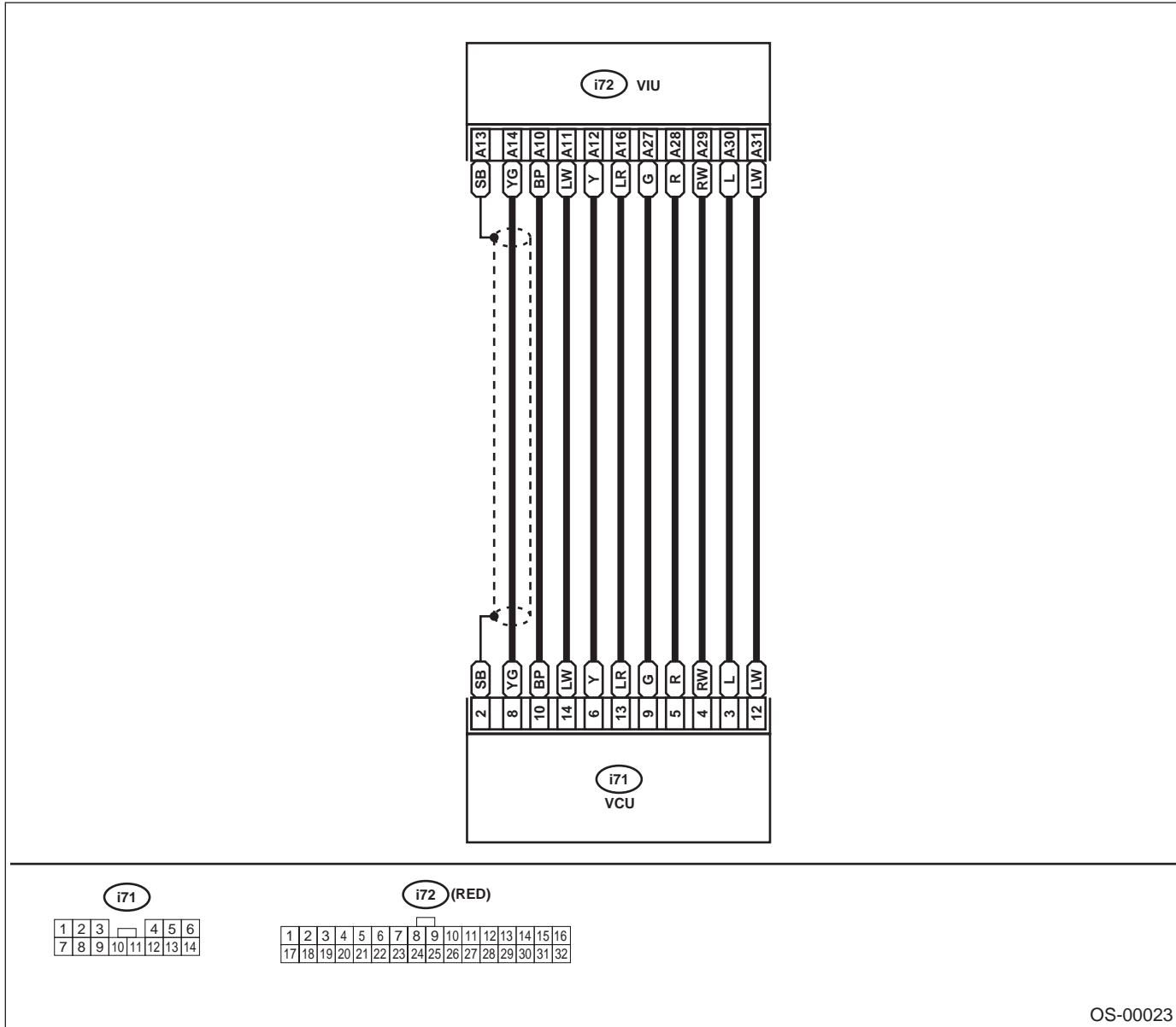
**MEMO:**

## DIAGNOSIS FOR EACH SYMPTOM

OnStar (R) (Diagnostics)

### **D: ONSTAR (R) CALL CENTER CANNOT SETUP ONSTAR (R) SYSTEM.**

DEFINITION: OnStar (R) Operator notifies to receiver that the required setup of the OnStar (R) system is impossible.



OS-00023

## DIAGNOSIS FOR EACH SYMPTOM

OnStar (R) (Diagnostics)

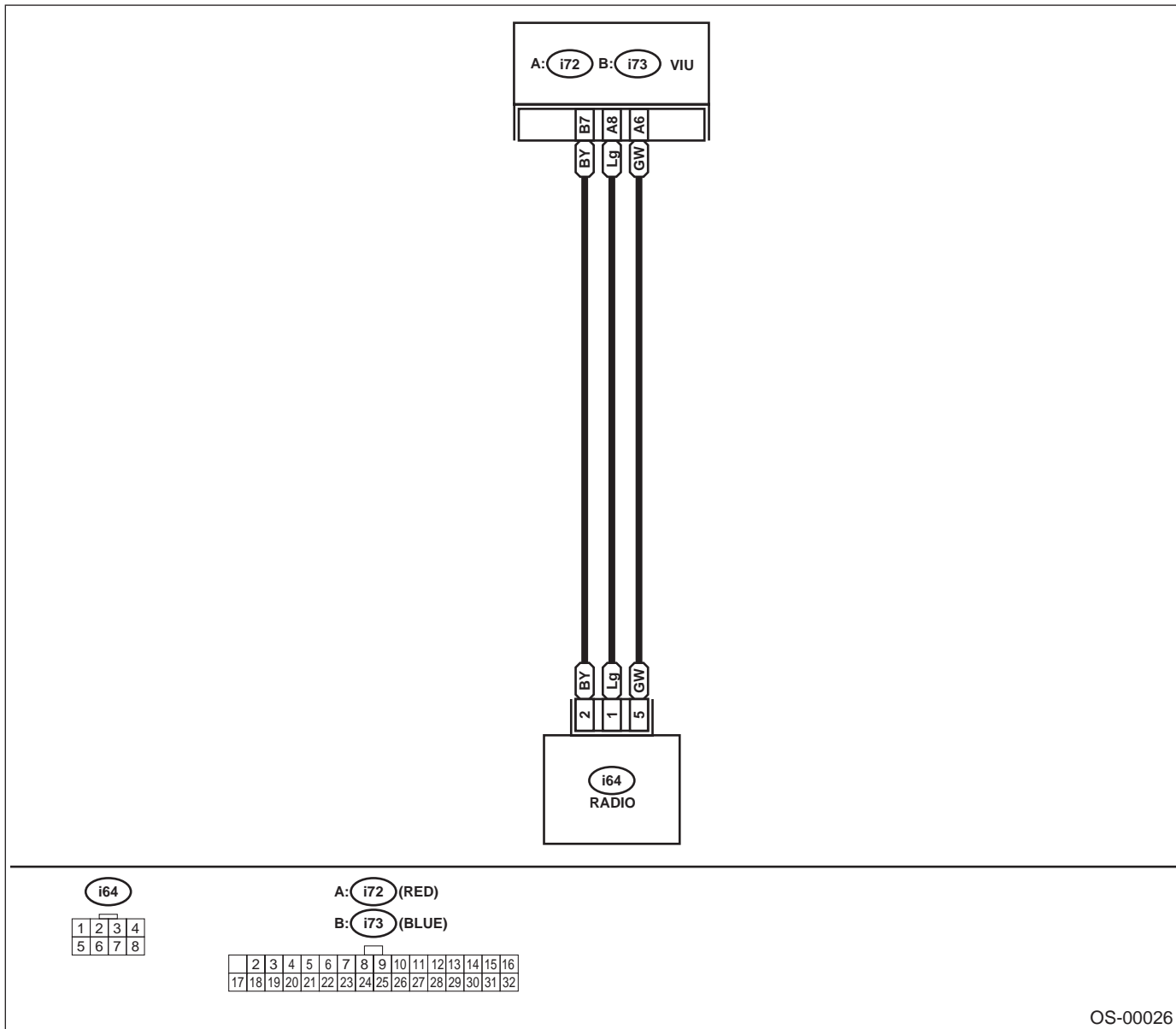
Step	Value	Yes	No
<b>1</b> <b>CHECK IGNITION ON SIGNAL CIRCUIT.</b> 1) Turn ignition switch to OFF. 2) Disconnect connection from VCU. 3) Turn ignition switch to ON (do not let the engine run). 4) Measure voltage between ignition ON signal circuit and ground. <b>Connector &amp; Terminal</b> <b>(i72) No. 31 (+) — Chassis ground (-):</b> Is the value of voltage near to the specified value?	9 — 16 V	Go to step 4.	Go to step 2.
<b>2</b> <b>CHECK IGNITION ON SIGNAL HARNESS.</b> 1) Turn ignition switch to OFF. 2) Disconnect VIU connector. 3) Disconnect VCU connector. 4) Measure resistance between VIU connector and VCU connector. <b>Connector &amp; Terminal</b> <b>(i72) No. 31 — (i71) No. 12:</b> Is the measured value less than the specified value?	0.5 Ω	Go to step 3.	Repair open harness.
<b>3</b> <b>CHECK IGNITION ON SIGNAL HARNESS.</b> Measure resistance between VIU connector and chassis ground. <b>Connector &amp; Terminal</b> <b>(i72) No. 31 — Chassis ground:</b> Does the measured value exceed the specified value?	1 MΩ	Go to step 5.	Repair ground short of harness.
<b>4</b> <b>CHECK VCU HARNESS CONNECTOR.</b> Check if there is any poor contact in VCU harness connector.	—	Go to step 6.	Repair poor contact in connector.
<b>5</b> <b>CHECK VIU HARNESS CONNECTOR.</b> Check if there is any poor contact in VIU harness connector.	—	Go to step 7.	Repair poor contact in connector.
<b>6</b> <b>CHECK VCU.</b> <b>IMPORTANT</b> Perform OnStar (R) setup procedure.  Replace VCU. <Ref. to OS-5, Vehicle Communication Unit VCU.> Is replacement completed?	—	Go to step 8.	—
<b>7</b> <b>CHECK VIU.</b> <b>IMPORTANT</b> Perform OnStar (R) setup procedure.  Replace VIU. <Ref. to OS-4, Vehicle Interface Unit VIU.> Is replacement completed?	—	Go to step 8.	—
<b>8</b> <b>CHECK SYSTEM.</b> Run the system and confirm the result of repair. Was the trouble repaired?	—	System is OK.	Go to step 1.

## DIAGNOSIS FOR EACH SYMPTOM

OnStar (R) (Diagnostics)

### **E: ONSTAR (R) AUDIO DOES NOT OPERATE.**

DEFINITION: Audio system display does not change into "Call", even if all buttons are pressed.



OS-00026

## DIAGNOSIS FOR EACH SYMPTOM

OnStar (R) (Diagnostics)

Step	Value	Yes	No
<b>1</b> <b>CHECK LED.</b> <b>IMPORTANT</b> Before pressing button, call OnStar (R) call center to notify the inspection. 1) Turn ignition to ON (do not let the engine run). 2) Does LED illuminate, when all of buttons are pressed one to another?	Illuminates.	Go to step <b>2</b> .	Perform inspection of One or more OnStar (R) button does not operate. <Ref. to OS-34, ONE OR MORE OnStar (R) BUTTONS DO NOT OPERATE., Diagnosis for Each Symptom.>
<b>2</b> <b>CHECK AUDIO SYSTEM</b> 1) Turn ignition to ON (do not let the engine run). 2) Turn radio ON. 3) Set the volume to comfortable level. 4) Activate all buttons Does the audio system display "Call"?	Call is displayed.	Go to step <b>11</b> .	Go to step <b>3</b> .
<b>3</b> <b>CHECK HARNESS.</b> 1) Turn ignition switch to OFF. 2) Disconnect VIU connector. 3) Disconnect audio connector. 4) Measure resistance between VIU connector and audio connector. <b>Connector &amp; Terminal</b> <i>(i72) No. 6 — (i69) No. 5:</i> <i>(i72) No. 8 — (i69) No. 1:</i> <i>(i73) No. 7 — (i69) No. 2:</i> Is the measured value less than the specified value?	0.5 Ω	Go to step <b>4</b> .	Repair open harness.
<b>4</b> <b>CHECK HARNESS.</b> Measure resistance between VIU connector and chassis ground. <b>Connector &amp; Terminal</b> <i>(i72) No. 6 — Chassis ground:</i> <i>(i72) No. 8 — Chassis ground:</i> <i>(i73) No. 7 — Chassis ground:</i> Does the measured value exceed the specified value?	1 MΩ	Go to step <b>5</b> .	Repair ground short of harness.
<b>5</b> <b>CHECK HARNESS.</b> 1) Turn the ignition switch to ON. 2) Measure voltage between VIU connector and chassis ground. <b>Connector &amp; Terminal</b> <i>(i72) No. 6 (+) — Chassis ground (-):</i> <i>(i72) No. 8 (+) — Chassis ground (-):</i> <i>(i73) No. 7 (+) — Chassis ground (-):</i> Does the measured value exceed the specified value?	1 V	Go to step <b>6</b> .	Repair battery short of harness.
<b>6</b> <b>CHECK VIU HARNESS CONNECTOR.</b> Check if there is any poor contact in VIU harness connector.	—	Go to step <b>7</b> .	Repair connector.
<b>7</b> <b>CHECK VIU.</b> <b>IMPORTANT</b> Perform OnStar (R) setup procedure.  Replace vehicle interface unit (VIU). <Ref. to OS-4, Vehicle Interface Unit VIU.> Is repair work completed?	—	Go to step <b>8</b> .	—

## DIAGNOSIS FOR EACH SYMPTOM

OnStar (R) (Diagnostics)

Step	Value	Yes	No
<b>8</b> <b>CHECK SYSTEM.</b> Run the system and confirm the result of repair. Was the trouble repaired?	—	System is OK.	Go to step <b>8</b> .
<b>9</b> <b>CHECK AUDIO HARNESS CONNECTOR.</b> Check if there is any poor contact in audio harness connector.	—	Go to step <b>9</b> .	Repair connector.
<b>10</b> <b>CHECK AUDIO.</b> Replace audio. <Ref. to ET-3, Radio System.> Is repair work completed?	—	Go to step <b>11</b> .	—
<b>11</b> <b>CHECK SYSTEM.</b> Run the system and confirm the result of repair. Was the trouble repaired?	—	System is OK.	Go to step <b>1</b> .



## DIAGNOSIS FOR EACH SYMPTOM

OnStar (R) (Diagnostics)

---

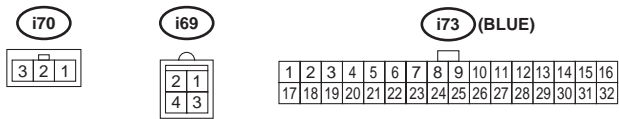
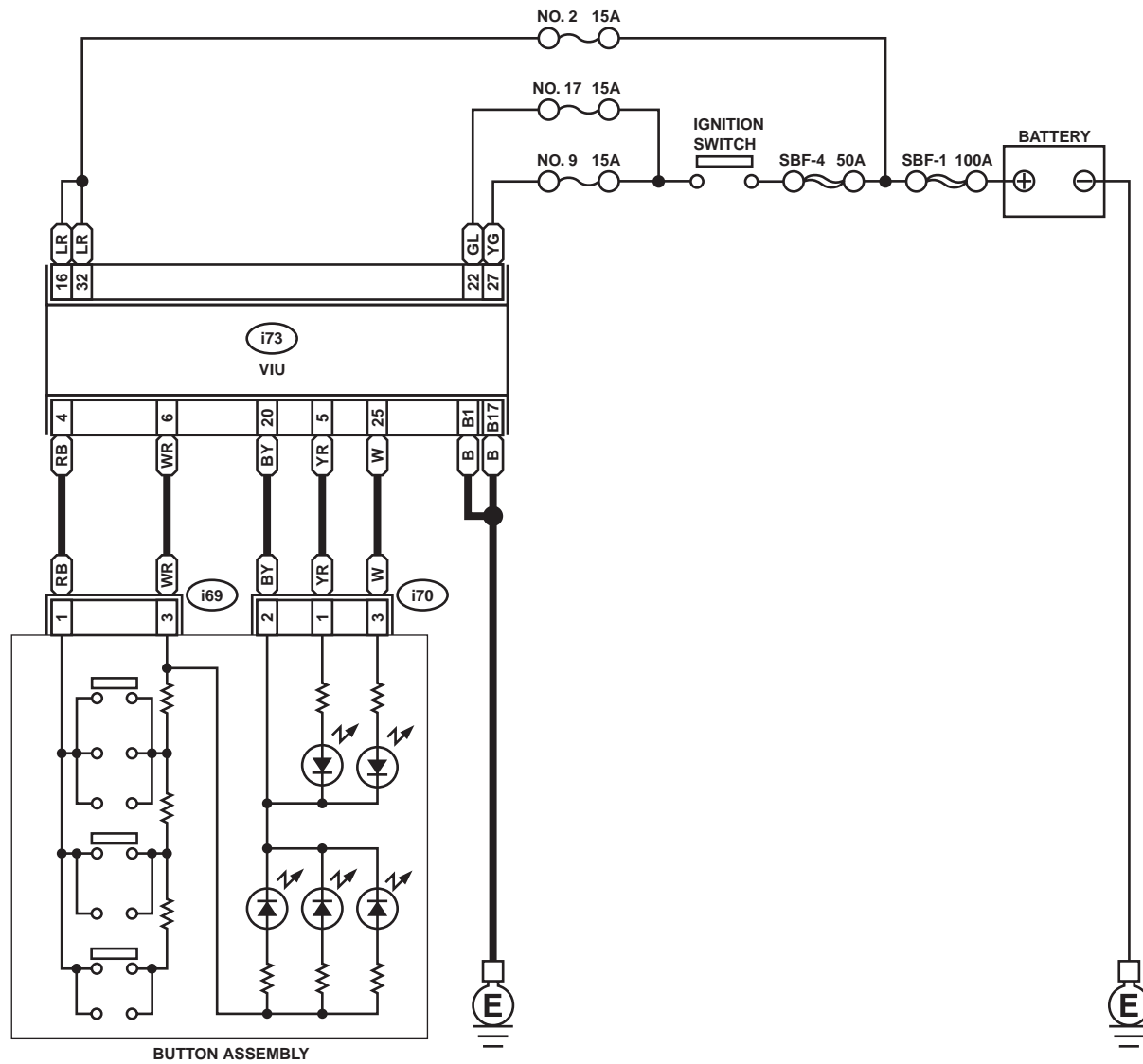
**MEMO:**

## DIAGNOSIS FOR EACH SYMPTOM

OnStar (R) (Diagnostics)

### F: ONSTAR (R) LED DOES NOT OPERATE.

DEFINITION: When ignition switch is turned to ON, OnStar (R) green LED does not illuminate.



OS-00025

## DIAGNOSIS FOR EACH SYMPTOM

OnStar (R) (Diagnostics)

Step	Value	Yes	No
<b>1 CHECK LED SIGNAL.</b> 1) Turn ignition switch to OFF. 2) Disconnect connection from button assembly connector. 3) Turn ignition to ON (do not let the engine run). 4) Measure voltage of key pad green LED signal circuit. <b>Connector &amp; Terminal</b> <i>(i73) No. 5 (+) — Chassis ground:</i> <i>(i73) No. 25 (+) — Chassis ground (-):</i> Is the value of voltage near to the specified value?	7 — 9 V	Go to step 10.	Go to step 2.
<b>2 CHECK HARNESS.</b> 1) Turn ignition switch to OFF. 2) Disconnect VIU connector. 3) Disconnect button assembly connector. 4) Measure resistance between VIU connector and button assembly connector. <b>Connector &amp; Terminal</b> <i>(i73) No. 5 — (i70) No. 1:</i> <i>(i73) No. 20 — (i70) No. 2:</i> <i>(i73) No. 25 — (i70) No. 3:</i> Is the measured value less than the specified value?	0.5 Ω	Go to step 2.	Repair open harness.
<b>3 CHECK HARNESS.</b> Measure resistance between VIU connector and chassis ground. <b>Connector &amp; Terminal</b> <i>(i73) No. 5 — Chassis ground:</i> <i>(i73) No. 20 — Chassis ground:</i> <i>(i73) No. 25 — Chassis ground:</i> Does the measured value exceed the specified value?	1 MΩ	Go to step 4.	Repair ground short of harness.
<b>4 CHECK LED SIGNAL HARNESS.</b> 1) Turn the ignition switch to ON. 2) Measure voltage between VIU connector and chassis ground. <b>Connector &amp; Terminal</b> <i>(i73) No. 5 (+) — Chassis ground (-):</i> <i>(i73) No. 25 (+) — Chassis ground (-):</i> Does the measured value exceed the specified value?	1 V	Go to step 5.	Repair battery short of harness. Replace button assembly. <Ref. to OS-6, Button Assembly.>
<b>5 CHECK VIU POWER SUPPLY.</b> 1) Turn the ignition switch to ON. 2) Measure voltage between VIU connector and chassis ground. <b>Connector &amp; Terminal</b> <i>(i73) No. 16 (+) — Chassis ground (-):</i> <i>(i73) No. 32 (+) — Chassis ground (-):</i> <i>(i73) No. 22 (+) — Chassis ground (-)</i> <i>(i73) No. 27 (+) — Chassis ground (-):</i> Does the measured value exceed the specified value?	9 V	Go to step 6.	Check fuse or repair open circuit in harness.

## DIAGNOSIS FOR EACH SYMPTOM

OnStar (R) (Diagnostics)

Step	Value	Yes	No
<b>6</b> <b>CHECK VIU GROUND.</b> 1) Turn ignition switch to OFF. 2) Measure resistance between VIU connector and chassis ground. <b>Connector &amp; Terminal</b> <i>(i73) No. 1 — Chassis ground:</i> <i>(i73) No. 7 — Chassis ground:</i> Is the measured value less than the specified value?	0.5 Ω	Go to step 7.	Repair open circuit in harness.
<b>7</b> <b>CHECK BUTTON ASSEMBLY HARNESS CONNECTOR.</b> Check if there is any poor contact in button assembly connector.	—	Go to step 8.	Repair poor contact in connector.
<b>8</b> <b>CHECK BUTTON ASSEMBLY.</b> Replace button assembly. <Ref. to OS-6, Button Assembly.> Is repair work completed?	—	Go to step 9.	—
<b>9</b> <b>CHECK SYSTEM.</b> Run the system and confirm the result of repair. Was the trouble repaired?	—	System is OK.	Go to step 8.
<b>10</b> <b>CHECK VIU HARNESS CONNECTOR.</b> Check if there is any poor contact in VIU harness connector.	—	Go to step 11.	Repair poor contact in connector.
<b>11</b> <b>CHECK VCU.</b> <b>IMPORTANT</b> Perform setup procedure of OnStar (R).  Replace vehicle interface unit (VIU). <Ref. to OS-4, Vehicle Interface Unit VIU.> Is repair work completed?	—	Go to step 12.	—
<b>12</b> <b>CHECK SYSTEM.</b> Run the system and confirm the result of repair. Was the trouble repaired?	—	System is OK.	Go to step 1.