## MANUAL TRANSMISSION AND DIFFERENTIAL (DIAGNOSTICS)

## **1. Basic Diagnostic Procedure**

## A: PROCEDURE

|   | Step  | Check   | Yes   | No  |
|---|---|---|---|---|
| 1 | <ul> <li>CHECK PRE-INSPECTION.</li> <li>1) Ask the customer when and how trouble occurred using the check list for interview.</li> <li><ref. 6mt(diag)-4,="" check="" for="" interview.="" list="" to=""></ref.></li> <li>2) Before performing diagnosis, inspect the unit which might influence the driver's control center differential. <ref. 6mt(diag)-5,="" description.="" general="" inspection,="" to=""></ref.></li> </ul>   | Is unit that might influence the<br>driver's control center differen-<br>tial problem normal? | Go to step 2.   | Repair the faulty<br>unit.  |
| 2 | CALLING UP THE DTC.<br>Check the DTC. <ref. 6mt(diag)-20,="" to="" with<br="">SUBARU SELECT MONITOR, OPERATION,<br/>Read Diagnostic Trouble Code (DTC).&gt;<br/>NOTE:<br/>• For DTC, refer to "List of Diagnostic Trouble<br/>Code (DTC)". <ref. 6mt(diag)-25,="" list="" of<br="" to="">Diagnostic Trouble Code (DTC).&gt;<br/>• If the communication function of the Subaru<br/>Select Monitor cannot be executed normally,<br/>check the communication circuit.</ref.></ref.>  | Is the DTC called up?   | Go to step <b>3.</b><br>NOTE:<br>Record all DTC.  | Go to step <b>4</b> .   |
| 3 | <ul> <li>PERFORM THE DIAGNOSIS.</li> <li>1) Inspect and repair the all DTC using "Diagnostic Procedure with Diagnostic Trouble Code (DTC)". <ref. (dtc).="" 6mt(diag)-27,="" code="" diagnostic="" procedure="" to="" trouble="" with=""></ref.></li> <li>NOTE:</li> <li>For DTC, refer to "List of Diagnostic Trouble Code (DTC)". <ref. (dtc).="" 6mt(diag)-25,="" code="" diagnostic="" list="" of="" to="" trouble=""></ref.></li> <li>2) Start the engine.</li> <li>3) Read the DTC using Subaru Select Monitor. <ref. 6mt(diag)-20,="" monitor.="" select="" subaru="" to="" with=""></ref.></li> </ul> | Is the DTC displayed?   | Record all DTC,<br>and inspect using<br>"Diagnostic Proce-<br>dure with Diagnos-<br>tic Trouble Code<br>(DTC)" <ref. to<br="">6MT(diag)-27,<br/>Diagnostic Proce-<br/>dure with Diagnos-<br/>tic Trouble Code<br/>(DTC).&gt; Repeat<br/>"PERFORM THE<br/>DIAGNOSIS" until<br/>normal code called<br/>up.</ref.> | Go to step 4.   |
| 4 | READ THE DTC WITH COMBINATION<br>METER.<br>Check DTC with combination meter. <ref. to<br="">6MT(diag)-20, READ DIAGNOSTIC TROU-<br/>BLE CODE (DTC) WITH DIAGNOSTIC INDI-<br/>CATOR LIGHT&gt;<br/>NOTE:<br/>For details concerning DTCs refer to the "List of<br/>Diagnostic Trouble Code (DTC)". <ref. to<br="">6MT(diag)-25, List of Diagnostic Trouble Code<br/>(DTC).&gt;</ref.></ref.>  | Is the DTC called up?   | Go to step <b>5.</b><br>NOTE:<br>Record all DTC.  | Inspect using "Can<br>not calling up<br>DTC".<br>NOTE:<br>After the inspec-<br>tion, read the DTC<br>again. |

## Basic Diagnostic Procedure MANUAL TRANSMISSION AND DIFFERENTIAL (DIAGNOSTICS)

| Step  | Check                 | Yes  | No                |
|---|-----------------------|--|-------------------|
| 5 PERFORM THE DIAGNOSIS.  | Is the DTC displayed? | Record all DTC,                            | Inspect using     |
| 1) Inspect and repair the all DTC using "Diag-  |                       | and inspect using                          | "General Diagnos- |
| nostic Procedure with Diagnostic Trouble Code   |                       | "Diagnostic Proce-                         | tic Table".       |
| (DTC)". <ref. 6mt(diag)-27,="" diagnostic="" pro<="" th="" to=""><th>-</th><th>dure with Diagnos-</th><th></th></ref.>    | -                     | dure with Diagnos-                         |                   |
| cedure with Diagnostic Trouble Code (DTC).>   |                       | tic Trouble Code                           |                   |
| NOTE  |                       | (DTC)" <ref. th="" to<=""><th></th></ref.> |                   |
| For DTC, refer to "List of Diagnostic Trouble   |                       | 6MT(diag)-27,                              |                   |
| Code (DTC)". <ref. 6mt(diag)-25,="" di<="" list="" of="" th="" to=""><td>-</td><td>Diagnostic Proce-</td><td></td></ref.> | -                     | Diagnostic Proce-                          |                   |
| agnostic Trouble Code (DTC).>   |                       | dure with Diagnos-                         |                   |
| 2) Perform the inspection mode < Bef to   |                       | tic Trouble Code                           |                   |
| 6MT(diag)-22 Inspection Mode >  |                       | (DTC).> Repeat                             |                   |
|   |                       | <b>"PERFORM THE</b>                        |                   |
|   |                       | DIAGNOSIS" until                           |                   |
|   |                       | normal code called                         |                   |
|   |                       | up.  |                   |

## 2. Check List for Interview

## A: CHECK

Check the following items when problem has occurred.

NOTE:

Use copies of this page for interviewing customers.

| Customer's name   |   |  |              |   |  |  |
|---|---|--|--------------|---|--|--|
| Date of purchase  |   |  |              |   |  |  |
| Date of repair  |   |  |              |   |  |  |
| Trans. model  | TRANSMISSION VIN  |  |              |   |  |  |
| Odometer reading  | km c  |  |              |   |  |  |
| Frequency   | Continuous D Intermitter  | nt ( times a   | day)         |   |  |  |
| Weather   | □ Fine □ Cloudy □ Rainy □ Snowy<br>□ Various/Others<br>( )                            |  |              |   |  |  |
| Place   | □ High □ Suburbs □ Inner city □ Uphill □ Rough road<br>□ Others<br>( )                |  |              |   |  |  |
| Outdoor temperature                                       | □ Hot □ Warm □ Cool □ Cold  |  |              |   |  |  |
| Vehicle speed   |   |  |              | km/h (MPH)  |  |  |
| Driver's control center differential indi-<br>cator light | Flashing  |  | Except flash | ning  |  |  |
| Driving condition   | <ul> <li>Not affected</li> <li>While decelerating</li> </ul>                          | <ul> <li>At starting</li> <li>While accel</li> </ul> | erating      | □ While turning (□ RH / □ LH)<br>□ While cruising |  |  |
| Symptoms  | No change to AUTO or MA   | NUAL   |              |   |  |  |
|   | No change of front and rear torque distribution                                       |  |              |   |  |  |
|   | No change to differential free  |  |              |   |  |  |
|   | □ No change to differential lock  |  |              |   |  |  |
|   | □ Tight cornering condition is occurred in AUTO or MANUAL mode with differential free |  |              |   |  |  |
|   | Noise or vibration  |  |              |   |  |  |
|   | ❑ Others<br>(         )   |  |              |   |  |  |

## 3. General Description

## A: CAUTION

Supplemental restraint system airbag wiring harness is routed near the driver's control center differential control module.

#### CAUTION:

• All airbag system wiring harness and connectors are colored yellow. Do not use the electrical test equipment on these circuits.

• Be careful not to damage the airbag system wiring harness when performing diagnostics and servicing the driver's control center differential control module. • When measuring the voltage or resistance of each control unit or each sensor, use a tapered pin with diameter of less than 0.64 mm (0.025 in) in order to avoid poor contact. Do not insert the pin with diameter of more than 0.65 mm (0.026 in).

### **B: INSPECTION**

### **1. POWER SUPPLY**

1) Measure battery voltage and specific gravity of electrolyte.

#### Standard of voltage: More than 12 V

#### Standard of gravity: More than 1.260

2) Check the condition of fuse.

3) Check the condition of harness and harness connector.

## **C: PREPARATION TOOL**

### 1. SPECIAL TOOL

| ILLUSTRATION | TOOL NUMBER | DESCRIPTION | REMARKS                                |
|--------------|-------------|-------------|--|
| ST24082AA260 | 24082AA260  | CARTRIDGE   | Troubleshooting for electrical system. |
|              | 2277144010  |             | Traublachapting for algoritical system |
| ST22771AA010 | 22111A010   | MONITOR KIT |  |

### 2. GENERAL TOOL

| TOOL NAME      | REMARKS  |
|----------------|--|
| Circuit tester | Used for measuring resistance, voltage and ampere. |
| Oscilloscope   | Used for measuring sensor.                         |

## 4. Electrical Component Location

## A: LOCATION



- (1) Engine control module (ECM)
- (2) ABS control module & hydraulic control unit (ABSCM&H/U)
- (3) Driver's control center differential control module
- (4) Accelerator position sensor
- (5) Yaw rate & lateral G sensor
- (6) Center differential control dial

- (7) Center differential
- (8) Manual mode switch
- (9) Driver's control center differential relay
- (10) Driver's control center differential indicator light (driver's control center differential diagnostic indicator light)
- (11) Parking brake switch
- (12) Brake light switch
- (13) Rear differential oil temperature switch
- (14) Data link connector
- (15) Neutral position switch



### Electrical Component Location MANUAL TRANSMISSION AND DIFFERENTIAL (DIAGNOSTICS)



## Electrical Component Location



# 5. Driver's Control Center Differential Control Module I/O Signal A: ELECTRICAL SPECIFICATION



| Check with ignition switch ON.                   |                    |                   |  |               |                                |  |
|--|--------------------|-------------------|--|---------------|--------------------------------|--|
| Content  | Connec-<br>tor No. | Termi-<br>nal No. | Measuring conditions                     | Voltage (V)   | To body<br>resistance<br>(ohm) |  |
| Back-up power supply                             | B381               | 17                | Ignition switch ON or OFF                | 10 — 13       | —                              |  |
| Ignition power supply                            | B381               | 5                 |  | 10 — 13       | _                              |  |
|  | B381               | 6                 | Ignition switch ON (engine OFF)          |               | _                              |  |
| Driver's control center differential             | B381               | 7                 |  |               | —                              |  |
| power supply                                     | B381               | 8                 |  |               | _                              |  |
| Driver's control relay                           | B381               | 10                | Ignition switch ON                       | Less than 1   | _                              |  |
|  | B380               | 2                 | Accelerator pedal is released.           | 0.3 — 1.8     |                                |  |
| Accelerator position sensor                      |                    |                   | Accelerator pedal is fully<br>depressed. | 2.8 — 4.7     |                                |  |
| Center differential control dial<br>power supply | B380               | 23                | Ignition switch ON                       | Approx. 5     | _                              |  |
| Center differential control dial ground line     | B381               | 14                | Ignition switch ON                       | 0             | _                              |  |
| Center differential control dial                 | B380               | 3                 | When differential is locked              | Approx. 5     |                                |  |
| input signal                                     | B380               | 3                 | When differential is free                | Less than 0.5 |                                |  |

### Driver's Control Center Differential Control Module I/O Signal MANUAL TRANSMISSION AND DIFFERENTIAL (DIAGNOSTICS)

| Check with ignition switch ON.   |                    |                   |  |  |                                |  |
|--|--------------------|-------------------|--|--|--------------------------------|--|
| Content  | Connec-<br>tor No. | Termi-<br>nal No. | Measuring conditions   | Voltage (V)                                    | To body<br>resistance<br>(ohm) |  |
| Driver's control center differential output                            | B381               | 9                 | When differential is locked (When<br>driver's control center differential<br>indicator light is in differential<br>lock) | 6.0 — 7.0                                      | 1.0 — 2.0<br>(between          |  |
|  |                    |                   | When differential is free (When<br>parking brake is applied)   | Less than 0.5                                  | connector<br>terminals)        |  |
| Driver's control center differential ground line                       | B381               | 24                | When differential is free  | Less than 0.5                                  |                                |  |
| Parking brake switch   | B380               | 5                 | When parking brake is applied<br>When parking brake is released  | Less than 0.4<br>More than 8                   | —                              |  |
| Driver's control center differential indicator light (Lock ratio 0%)   | B381               | 4                 | When illuminates   | Less than 1<br>More than 8                     |                                |  |
| Driver's control center differential indicator light (Lock ratio 15%)  | B381               | 3                 | When illuminates<br>When turned off  | Less than 1<br>More than 8                     |                                |  |
| Driver's control center differential indicator light (Lock ratio 35%)  | B381               | 2                 | When illuminates<br>When turned off  | Less than 1<br>More than 8                     |                                |  |
| Driver's control center differential indicator light (Lock ratio 65%)  | B381               | 1                 | When illuminates<br>When turned off  | Less than 1<br>More than 8                     |                                |  |
| Driver's control center differential indicator light (Lock ratio 85%)  | B381               | 13                | When illuminates<br>When turned off  | Less than 1<br>More than 8                     |                                |  |
| Driver's control center differential indicator light (Lock ratio 100%) | B381               | 12                | When illuminates   | Less than 1<br>More than 8                     |                                |  |
| AUTO indicator light   | B381               | 11                | When illuminates   | Less than 1                                    |                                |  |
| Stop light switch  | B380               | 4                 | Brake pedal depressed.   | More than 8                                    |                                |  |
| Poor differential ail temperature                                      |                    |                   | Rear differential oil temperature  | More than 8                                    |                                |  |
| switch   | B380               | B380              | B380 14 -  | Rear differential oil temperature<br>switch ON | Less than 0.4                  |  |
| Manual mode switch   | B380               | 13                | Switch is released<br>Switch is depressed  | More than 4.3<br>Less than 0.1                 |                                |  |
| Data link signal (Subaru Select<br>Monitor)                            | B380               | 9                 | —  | _  | —                              |  |
|  | B381               | 16                |  |  |                                |  |
|  | B381               | 22                | 1  |  | —                              |  |
| control module ground line   | B381               | 23                | 1 —  | 0  |                                |  |
| sonaoi modulo ground line  | B380               | 20                |  |  |                                |  |
|  | B381               | 15                |  |  |                                |  |

## Driver's Control Center Differential Control Module I/O Signal

| MANUAL | TRANSMISSION | AND DIFFERENT | IAĒ (DIAGNOSTICS) |
|--------|--------------|---------------|-------------------|
|--------|--------------|---------------|-------------------|

| Check with ignition switch ON. |                             |                    |                   |   |  |                                |
|--------------------------------|-----------------------------|--------------------|-------------------|---|--|--------------------------------|
| Content                        |                             | Connec-<br>tor No. | Termi-<br>nal No. | Measuring conditions  | Voltage (V)  | To body<br>resistance<br>(ohm) |
|                                | Input (lateral G<br>sensor) | B380               | 1                 | Ignition switch ON<br>(When vehicle on the level)                               | 2.35 — 2.65<br>When vehicle on the<br>level  | _                              |
|                                | Battery voltage             | B380               | 22                | Ignition switch ON  | more than 8  | _                              |
| Yaw rate & lat-                | Input (Yaw rate<br>sensor)  | B380               | 10                | Ignition switch ON<br>(engine OFF, when stopped, ABS<br>is in normal condition) | Waveform<br><ref. 6mt(diag)-<br="" to="">13, WAVEFORM,<br/>MEASUREMENT,<br/>Driver's Control<br/>Center Differential<br/>Control Module I/O<br/>Signal.&gt;</ref.> | _                              |
|                                | Standard (Yaw rate sensor)  | B380               | 19                | Ignition switch ON  | 2.1 — 2.9  | _                              |
|                                | Test                        | B380               | 21                | Ignition switch ON<br>(engine OFF, when stopped, ABS<br>is in normal condition) | Waveform<br><ref. 6mt(diag)-<br="" to="">13, WAVEFORM,<br/>MEASUREMENT,<br/>Driver's Control<br/>Center Differential<br/>Control Module I/O<br/>Signal.&gt;</ref.> | _                              |
|                                | Ground                      | B380               | 10                | _   | —  |                                |
|                                |                             | B380               | 18                | lanition switch ON  | Pulse signal   |                                |
| CAR communication signal       |                             | B380               | 24                |   |  |                                |
| Neutral position switch        |                             | B380               | 15                | Neutral   | less than 0.1  |                                |
|                                |                             |                    | -                 | Except neutral  | more than 8  |                                |
| Engine speed signal            |                             | B380               | 6                 | Ignition switch ON<br>(engine OFF)  | less than 1  |                                |
| Engine speed signal            |                             |                    | U                 | Ignition switch ON<br>(engine ON)   | Less than 1 $\leftarrow \rightarrow$<br>More than 8  |                                |

## **B: WIRING DIAGRAM**



MT-01238

#### Driver's Control Center Differential Control Module I/O Signal MANUAL TRANSMISSION AND DIFFERENTIAL (DIAGNOSTICS)

- (1) Battery
- (2) Ignition relay
- (3) Stop light switch
- (4) Driver's control center differential relay
- Combination meter (5)
- Driver's control center differential (6) indicator light (Lock ratio 0%)
- Driver's control center differential (7) indicator light (Lock ratio 15%)
- (8) Driver's control center differential indicator light (Lock ratio 35%)

## C: MEASUREMENT

Measure input and output signal voltage.

### 1. WAVEFORM

- (9) Driver's control center differential indicator light (Lock ratio 65%)
- Driver's control center differential (10) indicator light (Lock ratio 85%)
- Driver's control center differential (11)indicator light (Lock ratio 100%)
- AUTO indicator light (12)
- Neutral position switch (13)
- (14) ABS control module & hydraulic control unit (ABSCM&H/U)
- (15) Data link connector
- (16) Accelerator position sensor

- Engine control module (ECM) (17)
- (18) Driver's control center differential
- (19) Parking brake switch
- (20) Manual mode switch
- (21) Rear differential oil temperature switch
- (22)Center differential control dial
- (23) Yaw rate & lateral G sensor
- (24) Driver's control center differential control module



(2) Terminal No.

- OFF, ABS is in normal condition)
- (5)Approx. 6 V

## 6. Subaru Select Monitor

## A: OPERATION

## 1. READ DIAGNOSTIC TROUBLE CODE (DTC)

1) Prepare the Subaru Select Monitor kit. <Ref. to 6MT(diag)-5, SPECIAL TOOL, PREPARATION TOOL, General Description.>



2) Connect the diagnosis cable to Subaru Select Monitor.

3) Insert the cartridge to Subaru Select Monitor. <Ref. to 6MT(diag)-5, SPECIAL TOOL, PREPA-RATION TOOL, General Description.>



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

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



(1) Data link connector

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

#### **CAUTION:**

#### Do not connect the scan tools except for Subaru Select Monitor or general scan tool.

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



(1) 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 {Center Differential Control} is displayed.

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

NOTE:

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

• For details concerning DTCs, refer to the "List of Diagnostic Trouble Code (DTC)". <Ref. to 6MT(diag)-25, List of Diagnostic Trouble Code (DTC).>

10) If transmission and Subaru Select Monitor cannot communicate, check the communication circuit. <Ref. to 6MT(diag)-17, COMMUNICATION FOR INITIALIZING IMPOSSIBLE, INSPECTION, Subaru Select Monitor.>

11) On the «Check DTC» display screen, select the {Latest Code} or {Memory Code} and press the [Yes] key.

| Display     | Contents to be monitored  |
|-------------|---|
| Latest      | Indicate the latest DTC on the Subaru Select Monitor display.                     |
| Memory Code | Indicate the latest DTC in previous trouble on the Subaru Select Monitor display. |

### 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 {Center Differential Control} is displayed.

4) On the «Transmission Diagnosis» screen, select the {Current Data Display/Save}, and then press the [YES] key.

5) On the «Data Display Menu» screen, select the data display style and press the [YES] key.

6) Using a scroll key, move the display screen up or down until necessary data is shown.

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

| Display                                 | Contents to be monitored  | Unit of measure |
|---|---|-----------------|
| Lateral G Sensor                        | Lateral G sensor voltage is displayed.                                | V               |
| Center Differential Switch Volt-<br>age | Center differential switch voltage is displayed.                      | V               |
| Center Differential Actual Cur-<br>rent | Actual current of center differential is displayed.                   | A               |
| Center Differential Set Current         | Set current of center differential is displayed.                      | A               |
| FR Wheel Speed                          | Wheel speed detected by front ABS wheel speed sensor RH is displayed. | km/h or MPH     |
| FL Wheel Speed                          | Wheel speed detected by front ABS wheel speed sensor LH is displayed. | km/h or MPH     |
| RR Wheel Speed                          | Wheel speed detected by rear ABS wheel speed sensor RH is displayed.  | km/h or MPH     |
| RL Wheel Speed                          | Wheel speed detected by rear ABS wheel speed sensor LH is displayed.  | km/h or MPH     |
| Sub-Accelerator Sensor                  | Accelerator pedal position sensor voltage is displayed.               | V               |
| Yaw rate sensor voltage                 | Voltage detected by yaw rate sensor is displayed.                     | V               |
| Yaw rate & G sensor ref. V              | Reference voltage of yaw rate & lateral G sensor is displayed.        | V               |
| Engine Speed                            | Current engine speed is displayed.                                    | rpm             |
| ABS Signal                              | ON/OFF of ABS signal is displayed.                                    | ON or OFF       |
| Stop Light SW                           | ON/OFF of stop light switch is displayed.                             | ON or OFF       |
| Rear differential Oil Temperature       | ON/OFF of rear differential oil temperature switch is displayed.      | ON or OFF       |
| Module Identification Signal            | ON/OFF of module identification signal is displayed.                  | ON or OFF       |
| Center Differential Light 1             | ON/OFF of center differential light 1 is displayed.                   | ON or OFF       |
| Center Differential Light 2             | ON/OFF of center differential light 2 is displayed.                   | ON or OFF       |
| Center Differential Light 3             | ON/OFF of center differential light 3 is displayed.                   | ON or OFF       |
| Center Differential Light 4             | ON/OFF of center differential light 4 is displayed.                   | ON or OFF       |
| Center Differential Light 5             | ON/OFF of center differential light 5 is displayed.                   | ON or OFF       |
| Center Differential Light 6             | ON/OFF of center differential light 6 is displayed.                   | ON or OFF       |
| Parking SW                              | ON/OFF of parking switch is displayed.                                | ON or OFF       |
| Center Differential Relay               | ON/OFF of center differential relay is displayed.                     | ON or OFF       |
| AUTO/MANUAL Mode Change<br>SW           | ON/OFF of AUTO/MANUAL mode change switch is displayed.                | ON or OFF       |
| AUTO Mode Light                         | ON/OFF of AUTO mode light is displayed.                               | ON or OFF       |
| Neutral Switch                          | Neutral switch condition (neutral/except neutral) is displayed.       | ON or OFF       |

NOTE:

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

### 3. CLEAR MEMORY MODE

1) On the «Main Menu» display screen, select the

{2. 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 {Center Differential Control} is displayed.

4) On the «Transmission Diagnosis» display screen, select the {Clear Memory} and press the [YES] key.

| Display                          | Contents to be monitored  |
|----------------------------------|---------------------------|
| Is a memory clearance performed? | Function of clearing DTC. |

5) When "Done" and "Turn ignition switch OFF" are shown on the display screen, turn the Subaru Select Monitor and ignition switch to OFF.

NOTE:

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

### 4. FREEZE FRAME DATA

NOTE:

• Data stored at the time of trouble occurrence is shown on display.

• Each time trouble occurs, the latest information is stored in the freeze frame data in memory.

• Freeze frame data will be memorized up to seven.

| DTC   | Content  | Contents be monitored   |
|-------|--|---|
| P1720 | DCCD CAN<br>system circuit                                 | CAN communication circuit<br>condition is displayed.                        |
| P1721 | DCCD engine<br>rpm signal sys-<br>tem                      | Engine speed signal circuit condition is displayed.                         |
| P1759 | Lateral G sen-<br>sor                                      | Lateral G sensor circuit condi-<br>tion is displayed.                       |
| P1764 | Yaw rate sen-<br>sor system cir-<br>cuit                   | Yaw rate sensor circuit condi-<br>tion is displayed.                        |
| P1765 | Yaw rate side G<br>sensor refer-<br>ence system<br>circuit | Yaw rate reference circuit con-<br>dition is displayed.                     |
| P1875 | Center differen-<br>tial                                   | Center differential circuit condi-<br>tion is displayed.                    |
| P2125 | Accelerator<br>pedal position<br>sensor                    | Accelerator pedal position sen-<br>sor circuit condition is dis-<br>played. |

### **B: INSPECTION**

### **1. COMMUNICATION FOR INITIALIZING IMPOSSIBLE**

#### **DETECTING CONDITION:**

Faulty harness connector.

#### **TROUBLE SYMPTOM:**

Communication is impossible between driver's control center differential control module and Subaru Select Monitor.

#### WIRING DIAGRAM:



## Subaru Select Monitor MANUAL TRANSMISSION AND DIFFERENTIAL (DIAGNOSTICS)

|   | Step   | Check   | Yes   | No   |
|---|--|---|---|--|
| 1 | CHECK IGNITION SWITCH.   | Does the ignition switch turn to ON?  | Go to step 2.   | Turn the ignition<br>switch to ON, and<br>select transmis-<br>sion mode using<br>Subaru Select<br>Monitor.   |
| 2 | <ul><li>CHECK BATTERY.</li><li>1) Turn the ignition switch to OFF.</li><li>2) Measure the battery voltage.</li></ul>   | Is the voltage more than 10 V?  | Go to step 3.   | Charge or replace the battery.   |
| 3 | CHECK BATTERY TERMINAL.  | Is there poor contact at battery terminal?  | Repair or tighten<br>the battery termi-<br>nal.   | Go to step 4.  |
| 4 | CHECK INSTALLATION OF DRIVER'S CON-<br>TROL CENTER DIFFERENTIAL CONTROL<br>MODULE CONNECTOR.<br>Turn the ignition switch to OFF.   | Is the driver's control center<br>differential control module con-<br>nector inserted into driver's<br>control center differential con-<br>trol module until it is locked by<br>clamps? | Go to step <b>5</b> .   | Insert driver's con-<br>trol center differen-<br>tial control module<br>connector into<br>driver's control<br>center differential<br>control module. |
| 5 | <ul> <li>CHECK SUBARU SELECT MONITOR COM-<br/>MUNICATION.</li> <li>1) Turn the ignition switch to ON.</li> <li>2) Using Subaru Select Monitor, check<br/>whether communication to other system can<br/>be executed normally.</li> </ul>  | Is the system name displayed<br>on Subaru Select Monitor?   | Go to step <b>9.</b>  | Go to step 6.  |
| 6 | <ul> <li>CHECK SUBARU SELECT MONITOR COM-<br/>MUNICATION.</li> <li>1) Turn the ignition switch to OFF.</li> <li>2) Disconnect the driver's control center differ-<br/>ential control module connector.</li> <li>3) Turn the ignition switch to ON.</li> <li>4) Check whether communication to other<br/>systems can be executed normally.</li> </ul>   | Is the system name displayed<br>on Subaru Select Monitor?   | Replace driver's<br>control center dif-<br>ferential control<br>module. <ref. to<br="">6MT(diag)-6,<br/>LOCATION, Elec-<br/>trical Component<br/>Location.&gt;</ref.> | Go to step 7.  |
| 7 | <ul> <li>CHECK HARNESS CONNECTOR BETWEEN<br/>EACH CONTROL MODULE AND DATA LINK<br/>CONNECTOR.</li> <li>1) Turn the ignition switch to OFF.</li> <li>2) Disconnect driver's control center differen-<br/>tial control module connector, ECM connector<br/>and ABSCM connector.</li> <li>3) Measure the resistance between data link<br/>connector and chassis ground.</li> <li>Connector &amp; terminal<br/>(B40) No. 10 — Chassis ground:</li> </ul> | Is the resistance more than 1 $M\Omega$ ?   | Go to step 8.   | Repair harness<br>and connector<br>between each con-<br>trol module and<br>data link connec-<br>tor.   |
| 8 | <ul> <li>CHECK OUTPUT SIGNAL FOR DRIVER'S<br/>CONTROL CENTER DIFFERENTIAL CON-<br/>TROL MODULE.</li> <li>1) Turn the ignition switch to ON.</li> <li>2) Measure the voltage between data link con-<br/>nector and chassis ground.</li> <li>Connector &amp; terminal<br/>(B40) No. 5 (+) — Chassis ground (-):</li> </ul>   | Is the voltage less than 1 V?   | Go to step <b>9</b> .   | Repair harness<br>and connector<br>between each con-<br>trol module and<br>data link connec-<br>tor.   |

Subaru Select Monitor MANUAL TRANSMISSION AND DIFFERENTIAL (DIAGNOSTICS)

|    | Step  | Check   | Yes                        | No  |
|----|---|---|----------------------------|---|
| 9  | <ul> <li>CHECK HARNESS CONNECTOR BETWEEN<br/>DRIVER'S CONTROL CENTER DIFFEREN-<br/>TIAL CONTROL MODULE AND DATA LINK<br/>CONNECTOR.</li> <li>1) Turn the ignition switch OFF.</li> <li>2) Disconnect the driver's control center differ-<br/>ential control module connector.</li> <li>3) Measure the resistance between driver's<br/>control center differential control module con-<br/>nector and data link connector.</li> <li>Connector &amp; terminal<br/>(B380) No. 9 — (B40) No. 10:</li> </ul>     | Is the resistance less than 1<br>Ω?   | Go to step <b>10.</b>      | Repair harness<br>and connector<br>between driver's<br>control center dif-<br>ferential control<br>module and data<br>link connector.   |
| 10 | <ul> <li>CHECK POWER SUPPLY CIRCUIT.</li> <li>1) Turn the ignition switch to ON. (engine OFF)</li> <li>2) Measure the ignition power supply voltage between driver's control center differential control module connector and chassis ground.</li> <li>Connector &amp; terminal <ul> <li>(B381) No. 15 (+) — Chassis ground (-):</li> <li>(B381) No. 16 (+) — Chassis ground (-):</li> </ul> </li> </ul>  | Is the voltage more than 10 V?  | Go to step 11.             | Repair open circuit<br>in harness<br>between driver's<br>control center dif-<br>ferential control<br>module and bat-<br>tery.   |
| 11 | CHECK HARNESS CONNECTOR BETWEEN<br>DRIVER'S CONTROL CENTER DIFFEREN-<br>TIAL CONTROL MODULE AND CHASSIS<br>GROUND.<br>1) Turn the ignition switch to OFF.<br>2) Measure the resistance of harness<br>between driver's control center differential con-<br>trol module and chassis ground.<br><i>Connector &amp; terminal</i><br>(B380) No. 20 — Chassis ground:<br>(B381) No. 15 — Chassis ground:<br>(B381) No. 21 — Chassis ground:<br>(B381) No. 22 — Chassis ground:<br>(B381) No. 23 — Chassis ground: | Is the resistance less than 1<br>Ω?   | Go to step 12.             | Repair open circuit<br>in harness<br>between driver's<br>control center dif-<br>ferential control<br>module and inhibi-<br>tor side connector,<br>and poor contact<br>in coupling con-<br>nector. |
| 12 | CHECK POOR CONTACT IN CONNECTOR.  | Is there poor contact in control<br>module power supply, ground<br>circuit and data link connector? | Repair the con-<br>nector. | Replace the<br>driver's control<br>center differential<br>control module<br>only. <ref. to<br="">6MT(diag)-6,<br/>LOCATION, Elec-<br/>trical Component<br/>Location.&gt;</ref.>                   |

## 7. Read Diagnostic Trouble Code (DTC)

## A: OPERATION

#### 1. READ DIAGNOSTIC TROUBLE CODE (DTC) WITH DIAGNOSTIC INDICATOR LIGHT.

#### NOTE:

Perform the following step 4) to 8) within 30 sec.

1) Securely apply the parking brake.

2) Set the center differential control dial to differential free.

3) Start the engine.

4) Set the center differential control dial to differential lock.

5) Release the parking brake.

6) Set the center differential control dial to differential free.

7) Securely apply the parking brake.

8) Repeat the step 4) to 7) for twice.

#### NOTE:

Repeat the step from the beginning when diagnostic indicator light does not blink.

9) Execute inspection mode. <Ref. to 6MT(diag)-22, Inspection Mode.>

#### NOTE:

Refer to "HOW TO READ DIAGNOSTIC TROU-BLE CODE (DTC)" for reading DTC. <Ref. to 6MT(diag)-21, HOW TO READ DIAGNOSTIC TROUBLE CODE (DTC), OPERATION, Read Diagnostic Trouble Code (DTC).>

#### 2. WITH SUBARU SELECT MONITOR

Detail procedure for reading DTC, refer to "SUBA-RU SELECT MONITOR". <Ref. to 6MT(diag)-14, Subaru Select Monitor.>

### 3. HOW TO READ DIAGNOSTIC TROUBLE CODE (DTC)

DTC for faulty part is indicated by blinking of driver's control center differential indicator. Long blink (1.2 sec.) means ten's place, short blink (0.2 sec.) means one's place.



(B) DTC 11

NOTE:

• The codes which are memorized in control module, and the codes which are appeared to inform the trouble to driver in normal driving condition; are only "21", "22", "23", "25", "26", "27" and "28".

• For details of DTC, refer to "List of Diagnostic Trouble Code (DTC)". <Ref. to 6MT(diag)-25, List of Diagnostic Trouble Code (DTC).>

## 8. Inspection Mode

## A: PROCEDURE

#### WARNING:

#### Observe the road traffic law.

1) Call up the Self-diagnosis diagnostic trouble code (DTC). <Ref. to 6MT(diag)-20, READ DIAG-NOSTIC TROUBLE CODE (DTC) WITH DIAG-NOSTIC INDICATOR LIGHT., OPERATION, Read Diagnostic Trouble Code (DTC).>

2) A brake pedal is stepped on and a brake pedal is returned.

3) Operate the Manual mode switch once or more, and then set to Manual mode.

4) Turn the center differential control dial to differential lock and differential free for once, and turn it to differential lock, and then wait three seconds.

5) With the vehicle parked, shift the gear position to 1st then neutral.

## 9. Clear Memory Mode

## A: OPERATION

Detail procedure for clearing DTCs, refer to "SUB-ARU SELECT MONITOR". <Ref. to 6MT(diag)-14, Subaru Select Monitor.>

## **10.Driver's Control Center Differential Indicator Light Display**

## A: INSPECTION

When the malfunction occurs on part or unit, the control module performs self diagnosis and driver's control center differential indicator light (at the bottom differential free light) keep blinking until detect the malfunction and the ignition switch is turned to OFF. Faulty part or unit can be identified by calling up DTC. Indicator display is as shown in the figure.



- (C) Ignition switch ON
- (D) 1 sec.

- Driver's control center differential indicator light illuminates
- tial free position
- (H) Malfunction is detected

## 11.List of Diagnostic Trouble Code (DTC)

## A: LIST

### 1. SUBARU SELECT MONITOR DISPLAY

| DTC   | Connect   | Content of diagnosis   | Index   |
|-------|---|--|---|
| P1720 | DCCD CAN system cir-<br>cuit                    | CAN communication circuit is open or shorted.                    | <ref. 6mt(diag)-32,="" dccd<br="" dtc="" p1720="" to="">CAN SYSTEM CIRCUIT, Diagnostic Procedure<br/>with Diagnostic Trouble Code (DTC).&gt;</ref.>                               |
| P1721 | DCCD engine rpm signal system circuit           | Engine speed signal circuit is open or shorted.                  | <ref. 6mt(diag)-34,="" dccd<br="" dtc="" p1721="" to="">ENGINE RPM SIGNAL SYSTEM CIRCUIT,<br/>Diagnostic Procedure with Diagnostic Trouble<br/>Code (DTC).&gt;</ref.>             |
| P1759 | Lateral Acceleration<br>Sensor Circuit          | Lateral G sensor circuit is open or shorted.                     | <ref. 6mt(diag)-37,="" dtc="" lateral<br="" p1759="" to="">ACCELERATION SENSOR CIRCUIT, Diag-<br/>nostic Procedure with Diagnostic Trouble Code<br/>(DTC).&gt;</ref.>             |
| P1764 | Yaw rate sensor system circuit                  | Yaw rate sensor circuit is open or shorted.                      | <ref. 6mt(diag)-40,="" dtc="" p1764="" to="" yaw<br="">RATE SENSOR SYSTEM CIRCUIT, Diagnos-<br/>tic Procedure with Diagnostic Trouble Code<br/>(DTC).&gt;</ref.>                  |
| P1765 | Yaw rate side G sensor reference system circuit | Yaw rate reference circuit is open or shorted.                   | <ref. 6mt(diag)-43,="" dtc="" p1765="" to="" yaw<br="">RATE SIDE G SENSOR REFERENCE SYS-<br/>TEM CIRCUIT, Diagnostic Procedure with<br/>Diagnostic Trouble Code (DTC).&gt;</ref.> |
| P1875 | Circuit of Center Diff.                         | Driver's control center differential circuit is open or shorted. | <ref. 6mt(diag)-46,="" circuit<br="" dtc="" p1875="" to="">OF CENTER DIFF., Diagnostic Procedure with<br/>Diagnostic Trouble Code (DTC).&gt;</ref.>                               |
| P2125 | Accelerator Position<br>Sensor E                | Accelerator pedal position circuit is open or shorted.           | <ref. 2125="" 6mt(diag)-52,="" accelera-<br="" dtc="" to="">TOR POSITION SENSOR E, Diagnostic Pro-<br/>cedure with Diagnostic Trouble Code (DTC).&gt;</ref.>                      |

### 2. COMBINATION METER INDICATOR LIGHT

| DTC | Connect                                | Content of diagnosis  | Index   |
|-----|--|---|---|
| 21  | Accelerator Position<br>Sensor E       | Accelerator pedal position circuit is open or shorted.            | <ref. 2125="" 6mt(diag)-52,="" accelera-<br="" dtc="" to="">TOR POSITION SENSOR E, Diagnostic Pro-<br/>cedure with Diagnostic Trouble Code (DTC).&gt;</ref.>                |
| 22  | Lateral Acceleration<br>Sensor Circuit | Lateral G sensor circuit is open or shorted.                      | <ref. 6mt(diag)-37,="" dtc="" lateral<br="" p1759="" to="">ACCELERATION SENSOR CIRCUIT, Diag-<br/>nostic Procedure with Diagnostic Trouble Code<br/>(DTC).&gt;</ref.>       |
| 23  | Circuit of Center Diff.                | Driver's control center differential circuit is open or shorted.  | <ref. 6mt(diag)-46,="" circuit<br="" dtc="" p1875="" to="">OF CENTER DIFF., Diagnostic Procedure with<br/>Diagnostic Trouble Code (DTC).&gt;</ref.>                         |
| 24  | Center differential control dial       | Center differential control dial cir-<br>cuit is open or shorted. | <ref. 24="" 6mt(diag)-55,="" cen-<br="" check="" dtc="" to="">TER DIFFERENTIAL CONTROL DIAL., Diag-<br/>nostic Procedure with Diagnostic Trouble Code<br/>(DTC).&gt;</ref.> |
| 25  | DCCD CAN system cir-<br>cuit           | CAN communication circuit is open or shorted.                     | <ref. 6mt(diag)-32,="" dccd<br="" dtc="" p1720="" to="">CAN SYSTEM CIRCUIT, Diagnostic Procedure<br/>with Diagnostic Trouble Code (DTC).&gt;</ref.>                         |
| 26  | DCCD engine rpm signal system          | Engine speed signal circuit is open or shorted.                   | <ref. 6mt(diag)-34,="" dccd<br="" dtc="" p1721="" to="">ENGINE RPM SIGNAL SYSTEM CIRCUIT,<br/>Diagnostic Procedure with Diagnostic Trouble<br/>Code (DTC).&gt;</ref.>       |

## List of Diagnostic Trouble Code (DTC) MANUAL TRANSMISSION AND DIFFERENTIAL (DIAGNOSTICS)

| DTC | Connect   | Content of diagnosis                                | Index   |
|-----|---|---|---|
| 27  | Yaw rate side G sensor reference system circuit | Yaw rate reference circuit is open or shorted.      | <ref. 6mt(diag)-43,="" dtc="" p1765="" to="" yaw<br="">RATE SIDE G SENSOR REFERENCE SYS-<br/>TEM CIRCUIT, Diagnostic Procedure with<br/>Diagnostic Trouble Code (DTC).&gt;</ref.> |
| 28  | Yaw rate sensor system circuit                  | Yaw rate sensor circuit is open or shorted.         | <ref. 6mt(diag)-43,="" dtc="" p1765="" to="" yaw<br="">RATE SIDE G SENSOR REFERENCE SYS-<br/>TEM CIRCUIT, Diagnostic Procedure with<br/>Diagnostic Trouble Code (DTC).&gt;</ref.> |
| 31  | Manual mode switch                              | Manual mode switch circuit is open or shorted.      | <ref. 31="" 6mt(diag)-57,="" dtc="" manual<br="" to="">MODE SWITCH, Diagnostic Procedure with<br/>Diagnostic Trouble Code (DTC).&gt;</ref.>                                       |
| 32  | Parking brake switch                            | Parking brake switch circuit is open or shorted.    | <ref. 32="" 6mt(diag)-61,="" check="" dtc="" park-<br="" to="">ING BRAKE SWITCH, Diagnostic Procedure<br/>with Diagnostic Trouble Code (DTC).&gt;</ref.>                          |
| 33  | Stop light switch                               | Brake switch circuit is open or shorted.            | <ref. 33="" 6mt(diag)-63,="" dtc="" light<br="" stop="" to="">SWITCH, Diagnostic Procedure with Diagnos-<br/>tic Trouble Code (DTC).&gt;</ref.>                                   |
| 37  | Neutral position switch                         | Neutral position switch circuit is open or shorted. | <ref. 37="" 6mt(diag)-65,="" dtc="" neutral<br="" to="">POSITION SWITCH, Diagnostic Procedure<br/>with Diagnostic Trouble Code (DTC).&gt;</ref.>                                  |

## 12.Diagnostic Procedure with Diagnostic Trouble Code (DTC) A: DTC CANNOT BE CALLED UP

WIRING DIAGRAM:



MT-01242

| Step   | Check   | Yes   | No  |
|--|---|---|---|
| 1 CHECK THE AUTO INDICATOR LIGHT.<br>Turn the ignition switch to ON.   | Does the AUTO indicator light illuminate?   | Go to step 5.   | Go to step 2.   |
| <ul> <li>CHECK THE GROUND CIRCUIT OF DRIV-<br/>ER'S CONTROL CENTER DIFFERENTIAL<br/>CONTROL MODULE.         <ol> <li>Turn the ignition switch to OFF.</li> <li>Disconnect the connector of driver's control<br/>center differential control module.</li> <li>Measure the resistance between driver's<br/>control center differential control module har-<br/>ness connector and chassis ground.</li> <li>Connector &amp; terminal<br/>(B380) No. 20 — Chassis ground:<br/>(B381) No. 15 — Chassis ground:<br/>(B381) No. 22 — Chassis ground:<br/>(B381) No. 23 — Chassis ground:</li> </ol> </li> </ul> | Is the resistance less than 1<br>Ω?   | Go to step 3.   | Repair the open<br>circuit of driver's<br>control center dif-<br>ferential control<br>module ground cir-<br>cuit.   |
| 3 CHECK FUSE (No. 11).<br>Remove the fuse (No. 11).  | Is the fuse (No. 11) is blown<br>out?   | Replace fuse<br>(No.11). If the<br>replaced fuse<br>(No.11) is blown<br>out easily, repair<br>short circuit in har-<br>ness between fuse<br>(No.11) and<br>driver's control<br>center differential<br>control module. | Go to step 4.   |
| <ul> <li>CHECK IGNITION POWER SUPPLY CIRCUIT<br/>OF DRIVER'S CONTROL CENTER DIFFER-<br/>ENTIAL CONTROL MODULE.</li> <li>1) Turn the ignition switch to ON. (engine<br/>OFF)</li> <li>2) Measure the voltage between driver's con-<br/>trol center differential control module and chas-<br/>sis ground.</li> <li>Connector &amp; terminal<br/>(B381) No. 5 (+) — Chassis ground (-):<br/>(B381) No. 6 (+) — Chassis ground (-):</li> </ul>   | Is the voltage more than 10 V?  | Go to step 5.   | Repair the open<br>circuit in harness<br>between fuse (No.<br>11) and driver's<br>control center dif-<br>ferential control<br>module, or fuse<br>(No. 11) and bat-<br>tery.   |
| <ul> <li>5 CHECK MANUAL MODE SWITCH.</li> <li>1) Turn the ignition switch to OFF.</li> <li>2) Connect all connectors.</li> <li>3) Turn the ignition switch to ON.</li> <li>4) Push the manual mode switch to enter the manual mode.</li> </ul>   | Is the manual mode obtained?  | Go to step <b>6</b> .   | Repair the switch.<br><ref. to<br="">6MT(diag)-57,<br/>DTC 31 MANUAL<br/>MODE SWITCH,<br/>Diagnostic Proce-<br/>dure with Diagnos-<br/>tic Trouble Code<br/>(DTC).&gt;</ref.> |
| 6 CHECK DRIVER'S CONTROL CENTER DIF-<br>FERENTIAL INDICATOR LIGHT.<br>Operate the center differential control dial.  | Does the center differential<br>indicator light illuminate<br>according to center differential<br>control dial? | Go to step 8.   | Go to step 7.   |
| 7 CHECK THE CENTER DIFFERENTIAL CON-<br>TROL DIAL<br><ref. 24="" 6mt(diag)-55,="" cen-<br="" check="" dtc="" to="">TER DIFFERENTIAL CONTROL DIAL., Diag-<br/>nostic Procedure with Diagnostic Trouble Code<br/>(DTC).&gt;</ref.>   | Is the center differential control dial circuit normal?   | Go to step <b>8</b> .   | Repair it.  |

|    | Step  | Check   | Yes  | No  |
|----|---|---|--|---|
| 8  | CHECK THE PARKING BRAKE SWITCH<br><ref. 32="" 6mt(diag)-61,="" check<br="" dtc="" to="">PARKING BRAKE SWITCH, Diagnostic Pro-<br/>cedure with Diagnostic Trouble Code (DTC).&gt;</ref.>   | Is the parking brake switch cir-<br>cuit normal?  | Go to step <b>9.</b>   | Repair it.  |
| 9  | READ THE DTC.<br>Read the DTC. <ref. 6mt(diag)-20,="" oper-<br="" to="">ATION, Read Diagnostic Trouble Code<br/>(DTC).&gt;</ref.>   | Is the DTC called up?   | Go back to the<br>Basic Diagnostic<br>Procedure. <ref.<br>to 6MT(diag)-2,<br/>PROCEDURE,<br/>Basic Diagnostic<br/>Procedure.&gt;</ref.<br> | Go to step <b>10.</b>   |
| 10 | <ul> <li>CHECK THE DRIVER'S CONTROL CENTER<br/>DIFFERENTIAL INDICATOR LIGHT.</li> <li>1) Turn the ignition switch to OFF.</li> <li>2) Disconnect harness connector from combination meter.</li> <li>3) Turn the ignition switch to ON. (engine OFF)</li> <li>4) Short between the combination meter harness connector and chassis ground.</li> <li>Connector &amp; terminal<br/>(i12) No. 6 — Chassis ground:</li> </ul>  | Does the lowest light of driver's<br>control center differential indi-<br>cator illuminate? | Go to step 11.   | Check the combi-<br>nation meter.   |
| 11 | <ul> <li>CHECK THE HARNESS BETWEEN COMBINATION METER AND DRIVER'S CONTROL CENTER DIFFERENTIAL CONTROL MODULE.</li> <li>1) Turn the ignition switch to OFF.</li> <li>2) Disconnect the harness connector from driver's control center differential control module.</li> <li>3) Measure the resistance of harness between combination meter harness connector for and driver's control center differential control module harness connector.</li> <li>Connector &amp; terminal (i12) No. 6 — (B381) No. 4:</li> </ul> | Is the resistance less than 1<br>Ω?   | Go to step 12.   | Repair the open<br>circuit and connec-<br>tor of harness<br>between combina-<br>tion meter har-<br>ness connector<br>and driver's control<br>center differential<br>control module<br>harness connec-<br>tor. |
| 12 | CHECK THE HARNESS BETWEEN COMBI-<br>NATION METER AND DRIVER'S CONTROL<br>CENTER DIFFERENTIAL CONTROL MOD-<br>ULE.<br>Measure the resistance of harness between<br>driver's control center differential control mod-<br>ule harness connector and chassis ground.<br>Connector & terminal<br>(B381) No. 4 — Chassis ground:  | Is the resistance more than 1 $M\Omega$ ?   | Go to step <b>13.</b>  | Repair the short of<br>harness between<br>combination meter<br>harness connec-<br>tor and driver's<br>control center dif-<br>ferential control<br>module harness<br>connector.                                |
| 13 | CHECK THE POOR CONTACT IN HARNESS<br>CONNECTOR  | Is there any poor contact in<br>harness connectors of each<br>circuit?                      | Repair the poor contact.   | Replace the<br>driver's control<br>center differential<br>control module.   |

#### **B: CHECK REAR DIFFERENTIAL OIL TEMPERATURE SWITCH** DIAGNOSIS:

Input signal circuit of rear differential oil temperature switch is open or shorted. **TROUBLE SYMPTOM:** 

- Center differential stays free.
- Handling tends to oversteer.
- · Rear differential oil temperature switch warning light illuminates.

#### WIRING DIAGRAM:



MT-01253

## 6MT(diag)-30

| 1 |   |   |   |                                     |
|---|---|---|---|-------------------------------------|
|   | Step  | Check   | Yes                                     | No                                  |
| 1 | CHECK REAR DIFFERENTIAL OIL TEMPER-<br>ATURE SWITCH WARNING LIGHT CIRCUIT.<br>1) Turn the ignition switch to OFF. | Is the voltage less than 0.4 V?                           | Go to step 7.                           | Go to step 2.                       |
|   | 2) Disconnect the connector of driver's control center differential control module barness con-                   |   |   |                                     |
|   | nector.   |   |   |                                     |
|   | <ol> <li>Turn the ignition switch to ON. (engine OFF)</li> </ol>  |   |   |                                     |
|   | 4) Measure the voltage of rear differential oil   |   |   |                                     |
|   | Connector & terminal  |   |   |                                     |
|   | (B290)  No.  14(1)  Change a ground  (1)  |   |   |                                     |
|   | (B360) No. 14 (+) — Chassis ground (-):   |   |   |                                     |
| 2 | CHECK THE HARNESS BETWEEN DRIV-   | Is the resistance less than 1                             | Go to step 3.                           | Repair the open                     |
|   | ER'S CONTROL CENTER DIFFERENTIAL  | Ω?  |   | circuit between                     |
|   | CONTROL MODULE AND COMBINATION  |   |   | driver's control                    |
|   | METER.  |   |   | center differential                 |
|   | 1) Iurn the ignition switch to OFF.   |   |   | control module                      |
|   | 2) Disconnect the harness connector from the  |   |   | and combination                     |
|   | combination meter.  |   |   | meter.                              |
|   | 3) Disconnect the connector from the rear dif-  |   |   |                                     |
|   | terential oil temperature switch.   |   |   |                                     |
|   | 4) Measure the resistance between combina-  |   |   |                                     |
|   | tion meter and driver's control center differen-  |   |   |                                     |
|   | tial control module harness connector.  |   |   |                                     |
|   | Connector & terminal  |   |   |                                     |
|   | (B380) No. 14 — (110) No. 4:  |   |   |                                     |
| 3 | CHECK THE HARNESS BETWEEN DRIV-   | Is the resistance less than 1                             | Go to step 4.                           | Repair the open                     |
|   | ER'S CONTROL CENTER DIFFERENTIAL  | Ω?  |   | circuit between                     |
|   | CONTROL MODULE AND REAR DIFFEREN-   |   |   | driver's control                    |
|   | TIAL OIL TEMPERATURE SWITCH.  |   |   | center differential                 |
|   | Measure the resistance between driver's con-  |   |   | control module                      |
|   | trol center differential control module harness   |   |   | and rear differen-                  |
|   | connector and rear differential oil temperature   |   |   | tial oil tempera-                   |
|   | switch harness connector.   |   |   | ture switch.                        |
|   | Connector & terminal  |   |   |                                     |
|   | (B380) NO. 14 — (R148) NO. 1:   |   |   |                                     |
| 4 | CHECK REAR DIFFERENTIAL OIL TEMPER-<br>ATURE SWITCH GROUND CIRCUIT.   | Is the resistance more than 1 $M\Omega$ ?                 | Repair the open<br>circuit of rear dif- | Go to step 5.                       |
|   | <ol> <li>Disconnect the harness connector from</li> </ol>   |   | ferential oil tem-                      |                                     |
|   | bracket ground of rear differential.  |   | perature switch                         |                                     |
|   | <ol><li>Measure the resistance between the rear</li></ol>   |   | ground circuit and                      |                                     |
|   | differential oil temperature switch ground har-   |   | poor contact of                         |                                     |
|   | ness connector and chassis ground.  |   | harness connec-                         |                                     |
|   | Connector & terminals   |   | tor.                                    |                                     |
|   | (R159) No. 1 — Chassis ground:  |   | -                                       | _                                   |
| 5 | CHECK REAR DIFFERENTIAL OIL TEMPER-   | Is the resistance less than 1                             | Go to step 6.                           | Replace the rear                    |
|   | ATURE SWITCH.   | Ω?  |   | differential oil tem-               |
|   | Measure the resistance between rear differen-   |   |   | perature switch.                    |
|   | tial oil temperature switch terminal and rear dif-  |   |   |                                     |
|   | ferential oil temperature switch body.  |   |   |                                     |
|   | Ierminals   |   |   |                                     |
|   | (R148) No. 1 — Rear differential oil tem-   |   |   |                                     |
|   | perature switch body:   |   |   |                                     |
| 6 | CHECK REAR DIFFERENTIAL OIL TEMPER-<br>ATURE SWITCH WARNING LIGHT.  | Does the rear differential oil temperature switch warning | Go to step 7.                           | Replace the com-<br>bination meter. |
|   | 1) Turn the ignition switch to ON.  | light turn OFF?   |   |                                     |
|   | 2) Short between the combination meter har-   |   |   |                                     |
|   | ness connector and chassis ground   |   |   |                                     |
|   | Terminals   |   |   |                                     |
|   | (R148) No. 4 (+) — Chassis around (–):  |   |   |                                     |
| 1 | · · · · · · · · · · · · · · · · · · ·   |   |   |                                     |

| Step                  | Check   | Yes                      | No  |
|-----------------------|---|--------------------------|---|
| 7 CHECK POOR CONTACT. | Is there any poor contact in the<br>circuit of rear differential oil<br>temperature switch? | Repair the poor contact. | Replace the<br>driver's control<br>center differential<br>control module. |

## C: DTC P1720 DCCD CAN SYSTEM CIRCUIT

#### **DIAGNOSIS:**

Open or short circuit in CAN communication circuit

#### **TROUBLE SYMPTOM:**

- Tight corner braking phenomenon is occurred.
- ABS does not operate. ٠

#### • ABS warning light illuminates.

#### WIRING DIAGRAM:



|   | Step  | Check   | Yes   | No   |
|---|---|---|---|--|
| 1 | CHECK HARNESS CONNECTOR BETWEEN<br>DRIVER'S CONTROL CENTER DIFFEREN-<br>TIAL CONTROL MODULE AND ABSCM.<br>1) Turn the ignition switch to OFF.<br>2) Disconnect the connectors from driver's<br>control center differential control module and<br>ABSCM&H/U.<br>3) Measure the resistance of harness connec-<br>tor between driver's control center differential<br>control module and ABSCM&H/U.<br><i>Connector &amp; terminal</i><br>(B380) No. 18 — (B301) No. 26:<br>(B380) No. 24 — (B301) No. 11: | Is the resistance less than 1<br>Ω?                                 | Go to step 2.   | Repair the open<br>circuit in harness<br>between driver's<br>control center dif-<br>ferential control<br>module and<br>ABSCM&H/U.  |
| 2 | CHECK HARNESS CONNECTOR BETWEEN<br>DRIVER'S CONTROL CENTER DIFFEREN-<br>TIAL CONTROL MODULE AND ABSCM.<br>Measure the resistance between driver's con-<br>trol center differential control module and chas-<br>sis ground.<br>Connector & terminal<br>(B380) No. 18 — Chassis ground:<br>(B380) No. 24 — Chassis ground:  | Is the resistance more than 1 $M\Omega$ ?                           | Go to step 3.   | Repair the short<br>circuit in harness<br>between driver's<br>control center dif-<br>ferential control<br>module and<br>ABSCM&H/U. |
| 3 | CHECK HARNESS CONNECTOR BETWEEN<br>DRIVER'S CONTROL CENTER DIFFEREN-<br>TIAL CONTROL MODULE AND ABSCM.<br>1) Turn the ignition switch to ON.<br>2) Measure the voltage between driver's con-<br>trol center differential control module connector<br>and chassis ground.<br>Connector & terminal<br>(B380) No. 18 (+) — Chassis ground (-):<br>(B380) No. 24 (+) — Chassis ground (-):  | Is the voltage less than 1 V?                                       | Go to step 4.   | Repair the short<br>circuit in harness<br>between driver's<br>control center dif-<br>ferential control<br>module and<br>ABSCM&H/U. |
| 4 | CHECK POOR CONTACT.   | Is there poor contact in CAN communication circuit?                 | Repair the poor contact.  | Go to step 5.  |
| 5 | <ul> <li>CHECK ABSCM.</li> <li>1) Turn the ignition switch to OFF.</li> <li>2) Connect all the connectors.</li> <li>3) Clear DTCs.</li> <li>4) Check DTC of ABSCM.</li> </ul>   | Is the DTC of CAN communi-<br>cation circuit displayed on<br>ABSCM? | Replace the<br>driver's control<br>center differential<br>control module.<br><ref. 6mt-125,<br="" to="">Driver's Control<br/>Center Differential<br/>Control Module.&gt;</ref.> | Check ABSCM.   |

## D: DTC P1721 DCCD ENGINE RPM SIGNAL SYSTEM CIRCUIT DIAGNOSIS:

DCCD Open or short in engine speed output signal circuit

#### TROUBLE SYMPTOM:

The dendency of oversteer occurred when high speed cornering.

WIRING DIAGRAM:



| Step  | Check   | Yes                      | No  |
|---|---|--------------------------|---|
| <ol> <li>CHECK HARNESS CONNECTOR BETWEEN<br/>DRIVER'S CONTROL CENTER DIFFEREN-<br/>TIAL CONTROL MODULE AND ECM.</li> <li>1) Turn the ignition switch to OFF.</li> <li>2) Disconnect the connectors from driver's<br/>control center differential control module, Com-<br/>bination Meter and ECM.</li> <li>3) Measure the resistance of harness connec-<br/>tor between driver's control center differential<br/>control module and ECM.</li> <li>Connector &amp; terminal<br/>(B380) No. 6 — (B134) No. 23:</li> </ol> | Is the resistance less than 1 $\Omega$ ?  | Go to step 2.            | Repair the open<br>circuit in harness<br>between driver's<br>control center dif-<br>ferential control<br>module and ECM.  |
| 2 CHECK HARNESS CONNECTOR BETWEEN<br>DRIVER'S CONTROL CENTER DIFFEREN-<br>TIAL CONTROL MODULE AND ECM.<br>Measure the resistance between driver's con-<br>trol center differential control module and chas-<br>sis ground.<br><i>Connector &amp; terminal</i><br>(B380) No. 6 — Chassis ground:   | Is the resistance more than 1<br>MΩ?  | Go to step <b>3</b> .    | Repair the short<br>circuit in harness<br>between driver's<br>control center dif-<br>ferential control<br>module and ECM. |
| <ul> <li>CHECK HARNESS CONNECTOR BETWEEN<br/>DRIVER'S CONTROL CENTER DIFFEREN-<br/>TIAL CONTROL MODULE AND ECM.</li> <li>1) Turn the ignition switch to ON.</li> <li>2) Measure the resistance between driver's<br/>control center differential control module and<br/>chassis ground.</li> <li>Connector &amp; terminal<br/>(B380) No. 6 (+) — Chassis ground (-):</li> </ul>  | Is the voltage less than 1 V?   | Go to step 4.            | Repair the short<br>circuit in harness<br>between driver's<br>control center dif-<br>ferential control<br>module and ECM. |
| <ul> <li>CHECK INPUT SIGNAL FOR DRIVER'S<br/>CONTROL CENTER DIFFERENTIAL CON-<br/>TROL MODULE.</li> <li>1) Turn the ignition switch to OFF.</li> <li>2) Connect all connectors.</li> <li>3) Start the engine and let it idle.</li> </ul>  | Does the tachometer in the combination meter operate?   | Go to step 5.            | Check ECM.  |
| <ul> <li>5 CHECK INPUT SIGNAL FOR DRIVER'S<br/>CONTROL CENTER DIFFERENTIAL CON-<br/>TROL MODULE.</li> <li>1) Turn the ignition switch to OFF.</li> <li>2) Connect the Subaru Select Monitor to data<br/>link connector.</li> <li>3) Start the engine and Subaru Select Monitor<br/>switch to ON.</li> <li>4) Idle the engine.</li> <li>5) Read the data of engine speed using Sub-<br/>aru Select Monitor.</li> </ul>   | Is the revolution value about<br>the same as tachometer read-<br>ing shown in the combination<br>meter? | Go to step 7.            | Go to step 6.   |
| 6 CHECK POOR CONTACT.   | speed signal circuit?   | Repair the poor contact. | GO TO STEP 7.   |

| Step  | Check                    | Yes   | No   |
|---|--------------------------|---|--|
| 7 CHECK DTC.<br>Perform the inspection mode and read DTC. | Is the DTC 26 displayed? | Replace the<br>driver's control<br>center differential<br>control module.<br><ref. 6mt-125,<br="" to="">Driver's Control<br/>Center Differential<br/>Control Module.&gt;</ref.> | Even if the center<br>differential indica-<br>tor light (differen-<br>tial free position)<br>blinks, the circuit is<br>in normal condi-<br>tion. Temporary<br>poor contact<br>occurs.<br>Repair the har-<br>ness or connector<br>between driver's<br>control center dif-<br>ferential control<br>module and ECM. |

## E: DTC P1759 LATERAL ACCELERATION SENSOR CIRCUIT

**DIAGNOSIS:** 

Open or short in lateral G sensor circuit

#### **TROUBLE SYMPTOM:**

The dendency of understeer occurred when high speed cornering.

#### WIRING DIAGRAM:



| 1 | Step  | Check                          | Yes                  | No                  |
|---|---|--------------------------------|----------------------|---------------------|
| 1 | CHECK YAW RATE & LATERAL G SENSOR                 | Is the voltage more than 8 V?  | Go to step 4.        | Go to step 2.       |
| - | VOLTAGE.  |                                | 0.0 10 0.0p          |                     |
|   | 1) Turn the ignition switch to OFF.               |                                |                      |                     |
|   | 2) Disconnect the connectors from yaw rate &      |                                |                      |                     |
|   | lateral G sensor.                                 |                                |                      |                     |
|   | 3) Turn the ignition switch to ON. (engine        |                                |                      |                     |
|   | OFF)  |                                |                      |                     |
|   | 4) Measure the voltage between yaw rate &         |                                |                      |                     |
|   | sis around (_)                                    |                                |                      |                     |
|   | Connector & terminal                              |                                |                      |                     |
|   | (B230) No. 3 (+) — Chassis around (–):            |                                |                      |                     |
| 2 | CHECK OUTPUT SIGNAL OF DRIVER'S                   | Is the voltage more than 8 V?  | Repair the open      | Go to step 3.       |
|   | CONTROL CENTER DIFFERENTIAL CON-                  |                                | circuit in harness   |                     |
|   | TROL MODULE.                                      |                                | between driver's     |                     |
|   | Measure the voltage between driver's control      |                                | control center dif-  |                     |
|   | center differential control module and chassis    |                                | ferential control    |                     |
|   | ground.   |                                | module and yaw       |                     |
|   | Connector & terminal                              |                                | rate & lateral G     |                     |
|   | (B380) No. 22 (+) — Chassis ground (-):           |                                | sensor.              |                     |
| 3 | CHECK BATTERY.                                    | Is the voltage more than 10 V? | Go to step 10.       | Charge or replace   |
| 4 |   |                                | Cata star E          | line ballery.       |
| 4 |   |                                | Go to step <b>5.</b> | Repair the open     |
|   | 1) Turn the ignition switch to OFF                | 22:                            |                      | between driver's    |
|   | 2) Disconnect the connectors from driver's        |                                |                      | control center dif- |
|   | control center differential control module.       |                                |                      | ferential control   |
|   | 3) Measure the resistance between driver's        |                                |                      | module and yaw      |
|   | control center differential control module and    |                                |                      | rate & lateral G    |
|   | yaw rate & lateral G sensor.                      |                                |                      | sensor.             |
|   | Connector & terminal                              |                                |                      |                     |
| - | (B380) NO. 10                                     |                                | O a ta atau C        | Danain tha a bant   |
| 5 |   | Is the resistance more than 1  | Go to step <b>b.</b> | Repair the short    |
|   | Measure the resistance between driver's con-      | 10122:                         |                      | between driver's    |
|   | trol center differential control module connector |                                |                      | control center dif- |
|   | and Chassis ground (-).                           |                                |                      | ferential control   |
|   | Connector & terminal                              |                                |                      | module and yaw      |
|   | (B380) No. 10 — Chassis ground:                   |                                |                      | rate & lateral G    |
|   |   |                                |                      | sensor.             |
| 6 | CHECK HARNESS CONNECTOR BETWEEN                   | Is the resistance less than 1  | Go to step 7.        | Repair the open     |
|   | DRIVER'S CONTROL CENTER DIFFEREN-                 | Ω?                             |                      | circuit in harness  |
|   |   |                                |                      | between driver's    |
|   | A LATERAL & SENSOR.                               |                                |                      | forential control   |
|   | trol center differential control module and vaw   |                                |                      | module and vaw      |
|   | rate & lateral G sensor.                          |                                |                      | rate & lateral G    |
|   | Connector & terminal                              |                                |                      | sensor.             |
|   | (B380) No. 1 — (B230) No. 5:                      |                                |                      |                     |
| 7 | CHECK HARNESS CONNECTOR BETWEEN                   | Is the resistance more than 1  | Go to step 8.        | Repair the short    |
|   | DRIVER'S CONTROL CENTER DIFFEREN-                 | ΜΩ?                            |                      | circuit in harness  |
|   | TIAL CONTROL MODULE AND YAW RATE                  |                                |                      | between driver's    |
|   | & LAIERAL G SENSOR.                               |                                |                      | control center dif- |
|   | weasure the resistance between driver's con-      |                                |                      | nerential control   |
|   | connector and Chassis ground (_)                  |                                |                      | rate & lateral G    |
|   | Connector & terminal                              |                                |                      | sensor.             |
|   | (B380) No. 1 — Chassis ground:                    |                                |                      |                     |

|    | Step  | Check   | Yes   | No   |
|----|---|---|---|--|
| 8  | <ul> <li>CHECK LATERAL G SENSOR.</li> <li>1) Turn the ignition switch to OFF.</li> <li>2) Connect all the connectors.</li> <li>3) Connect the Subaru Select Monitor to data link connector.</li> <li>4) Turn the ignition switch to ON, and Subaru Select Monitor switch to ON.</li> <li>5) Read the data of "Lateral G sensor signal" using Subaru Select Monitor. <ref. 6mt(diag)-15,="" current="" data,="" monitor.="" operation,="" read="" select="" subaru="" to=""></ref.></li> </ul> | Is the data 2.35 — 2.65 V?                            | Go to step 11.  | Go to step <b>9</b> .  |
| 9  | CHECK LATERAL G SENSOR.<br>Measure the voltage yaw rate & lateral G sen-<br>sor connector.<br>Connector & terminal<br>(B230) No. 5 (+) — (B230) No. 6 (-):  | Is the voltage 2.35 — 2.65 V?                         | Go to step <b>10</b> .  | Replace the yaw<br>rate & lateral G<br>sensor.   |
| 10 | CHECK POOR CONTACT.   | Is there poor contact in lateral<br>G sensor circuit? | Repair the poor<br>contact.   | Go to step 11.   |
| 11 | <ul> <li>CHECK DTC.</li> <li>1) Perform the "clear memory". <ref. to<br="">6MT(diag)-23, Clear Memory Mode.&gt;</ref.></li> <li>2) Start the engine.</li> <li>3) Read the DTC using Subaru Select Moni-<br/>tor. <ref. 6mt(diag)-20,="" diagnostic<br="" read="" to="">Trouble Code (DTC).&gt;</ref.></li> </ul>  | Is the DTC P1759 displayed?                           | Replace the<br>driver's control<br>center differential<br>control module. | Go to step 12.   |
| 12 | CHECK FOR OTHER DTC ON DISPLAY.   | Is there any DTC other than<br>P1759 displayed?       | Perform the diag-<br>nosis according to<br>DTC.                           | Lateral G sensor<br>circuit is in normal<br>condition. Tempo-<br>rary poor contact<br>occurs.<br>Repair the har-<br>ness or connector<br>between driver's<br>control center dif-<br>ferential control<br>module and yaw<br>rate & lateral G<br>sensor. |

### F: DTC P1764 YAW RATE SENSOR SYSTEM CIRCUIT

#### **DIAGNOSIS:**

Open or short in yaw rate sensor circuit

#### **TROUBLE SYMPTOM:**

The dendency of understeer occurred when high speed cornering.

#### WIRING DIAGRAM:



|    | Step  | Check                          | Yes                 | No                    |
|----|---|--------------------------------|---------------------|-----------------------|
| 1  | CHECK YAW RATE & LATERAL G SENSOR                               | Is the voltage more than 8 V?  | Go to step 4.       | Go to step 2.         |
|    | POWER SUPPLY.   |                                |                     |                       |
|    | 1) Turn the ignition switch to OFF.                             |                                |                     |                       |
|    | 2) Disconnect the connectors from yaw rate &                    |                                |                     |                       |
|    | 3) Turn the ignition switch to ON (engine                       |                                |                     |                       |
|    | OFF)  |                                |                     |                       |
|    | 4) Measure the voltage between yaw rate &                       |                                |                     |                       |
|    | lateral G sensor and chassis ground.                            |                                |                     |                       |
|    | Connector & terminal  |                                |                     |                       |
|    | (B230) No. 3 (+) — Chassis ground (-):                          |                                | Densis the ener     | Cata star 2           |
| 2  | FERENTIAL CONTROL MODULE POWER                                  | is the voltage more than 8 v?  | circuit in harness  | Go to step <b>3</b> . |
|    | SUPPLY OUTPUT.  |                                | between driver's    |                       |
|    | Measure the resistance between driver's con-                    |                                | control center dif- |                       |
|    | trol center differential control module and chas-               |                                | ferential control   |                       |
|    | sis ground.   |                                | module and yaw      |                       |
|    | Connector & terminal<br>(B380) No. 22 (+) — Chassis ground (-): |                                | rate & lateral G    |                       |
| 3  |   | Is the voltage more than 10 V2 | Go to sten 11       | Charge or replace     |
| J. |   | is the voltage more than to v: |                     | the battery.          |
| 4  | CHECK YAW RATE & LATERAL G SENSOR                               | Is the resistance less than 1  | Go to step 5.       | Repair the open       |
|    | GROUND CIRCUIT.   | $\Omega$ ?                     |                     | circuit in narness    |
|    | <ol> <li>Disconnect the connectors from driver's</li> </ol>     |                                |                     | control center dif-   |
|    | control center differential control module.                     |                                |                     | ferential control     |
|    | 3) Measure the resistance between driver's                      |                                |                     | module and yaw        |
|    | control center differential control module and                  |                                |                     | rate & lateral G      |
|    | yaw rate & lateral G sensor.                                    |                                |                     | sensor.               |
|    | (B380) No. 11 — (B230) No. 6:                                   |                                |                     |                       |
| 5  | CHECK YAW RATE & LATERAL G SENSOR                               | Is the resistance more than 1  | Go to step 6.       | Repair the short      |
|    | GROUND CIRCUIT.<br>Measure the resistance between driver's con- | IVI22?                         |                     | circuit in narness    |
|    | trol center differential control module and chas-               |                                |                     | control center dif-   |
|    | sis ground.   |                                |                     | ferential control     |
|    | Connector & terminal  |                                |                     | module and yaw        |
|    | (B380) No. 11 — Chassis ground:                                 |                                |                     | rate & lateral G      |
| c  |   | In the registered lass than 1  | Cata atan 7         | sensor.               |
| 0  | FERENTIAL CONTROL MODULE AND YAW                                | $\Omega^2$                     | Go to step 7.       | circuit in harness    |
|    | RATE & LATERAL G SENSOR GROUND                                  |                                |                     | between driver's      |
|    | CIRCUIT.  |                                |                     | control center dif-   |
|    | Measure the resistance between driver's con-                    |                                |                     | ferential control     |
|    | trol center differential control module and yaw                 |                                |                     | module and yaw        |
|    | Connector & terminal  |                                |                     | sensor                |
|    | (B380) No. 10 — (B230) No. 4:                                   |                                |                     |                       |
| 7  | CHECK DRIVER'S CONTROL CENTER DIF-                              | Is the resistance more than 1  | Go to step 8.       | Repair the short      |
|    | FERENTIAL CONTROL MODULE AND YAW                                | ΜΩ?                            |                     | circuit in harness    |
|    | RATE & LATERAL G SENSOR GROUND                                  |                                |                     | between driver's      |
|    | Measure the resistance between driver's con-                    |                                |                     | ferential control     |
|    | trol center differential control module and chas-               |                                |                     | module and vaw        |
|    | sis ground.   |                                |                     | rate & lateral G      |
|    | Connector & terminal  |                                |                     | sensor.               |
|    | (B380) No. 10 — Chassis ground:                                 |                                |                     |                       |

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|    | Step   | Check  | Yes   | No  |
|----|--|--|---|---|
| 8  | <ul> <li>CHECK INPUT SIGNAL FOR DRIVER'S<br/>CONTROL CENTER DIFFERENTIAL CON-<br/>TROL MODULE.</li> <li>1) Connect all the connectors.</li> <li>2) Connect the Subaru Select Monitor to vehi-<br/>cle.</li> <li>3) Turn the ignition switch to ON.</li> <li>4) Subaru Select Monitor switch to ON.</li> <li>5) Read the data of "Yaw rate sensor signal"<br/>using Subaru Select Monitor. <ref. to<br="">6MT(diag)-14, OPERATION, Subaru Select<br/>Monitor.&gt;</ref.></li> </ul> | Is the voltage of 2.0 V $\leftarrow \rightarrow 2.5$<br>V $\leftarrow \rightarrow 3.0$ V displayed?  | Go to step 12.  | Go to step <b>9</b> .   |
| 9  | <ul> <li>CHECK OUTPUT SIGNAL OF YAW RATE &amp; LATERAL G SENSOR.</li> <li>1) Turn the ignition switch to OFF.</li> <li>2) Check the oscilloscope signal pattern between driver's control center differential control module connector terminals.</li> <li>Connector &amp; terminal Positive test lead: (B380) No. 10 Ground harness: (B380) No. 20</li> <li>3) Turn the ignition switch to ON.</li> </ul>  | Is the oscilloscope pattern the<br>same waveform as shown in<br>the figure? <ref. 6mt(diag)-<br="" to="">13, WAVEFORM, MEASURE-<br/>MENT, Driver's Control Center<br/>Differential Control Module I/O<br/>Signal.&gt;</ref.> | Go to step <b>10.</b>   | Replace the yaw<br>rate & lateral G<br>sensor.  |
| 10 | <ul> <li>CHECK OUTPUT SIGNAL OF DRIVER'S</li> <li>CONTROL CENTER DIFFERENTIAL CONTROL MODULE.</li> <li>1) Turn the ignition switch to OFF.</li> <li>2) Check the oscilloscope signal pattern between driver's control center differential control module connector terminals.</li> <li>Connector &amp; terminal</li> <li>Positive lead: (B380) No. 19</li> <li>Ground harness: (B380) No. 20</li> <li>3) Turn the ignition switch to ON.</li> </ul>                                | Is the oscilloscope pattern the<br>same waveform as shown in<br>the figure? <ref. 6mt(diag)-<br="" to="">13, WAVEFORM, MEASURE-<br/>MENT, Driver's Control Center<br/>Differential Control Module I/O<br/>Signal.&gt;</ref.> | Go to step 11.  | Replace the<br>driver's control<br>center differential<br>control module.   |
| 11 | CHECK POOR CONTACT.  | Is there poor contact in yaw rate sensor circuit?  | Repair the poor<br>contact.   | Go to step 12.  |
| 12 | <ul> <li>CHECK DTC.</li> <li>1) Perform the "clear memory". <ref. 6mt(diag)-23,="" clear="" memory="" mode.="" to=""></ref.></li> <li>2) Start the engine.</li> <li>3) Read the DTC using Subaru Select Monitor. <ref. (dtc).="" 6mt(diag)-20,="" code="" diagnostic="" read="" to="" trouble=""></ref.></li> </ul>  | Is the DTC P1764 displayed?  | Replace the<br>driver's control<br>center differential<br>control module. | Go to step 13.  |
| 13 | DETECTING CHECK FOR OTHER DTC.   | Is there any DTC other than P1764 displayed?   | Perform the diag-<br>nosis according to<br>DTC.                           | Yaw rate sensor<br>circuit is in normal<br>condition. Tempo-<br>rary poor contact<br>occurs.<br>Repair the har-<br>ness or connector<br>between driver's<br>control center dif-<br>ferential control<br>module and yaw<br>rate & lateral G<br>sensor. |

### G: DTC P1765 YAW RATE SIDE G SENSOR REFERENCE SYSTEM CIRCUIT **DIAGNOSIS:**

Open or short in yaw rate & lateral G sensor reference circuit **TROUBLE SYMPTOM:** 

The dendency of understeer occurred when high speed cornering.

WIRING DIAGRAM:



| 1         CHECK YAW PATE & LATERAL G SENSOR         Is the voltage more than 8 V?         Go to step 4.         Go to step 2.           1) Turn the ignition switch to CN. (engine OFF)         All socontext the connectors from year vate & lateral G sensor.         Sint mut the ignition switch to CN. (engine OFF)         Passure the voltage between year vate & lateral G sensor.         Repair the open (Go to step 2.         Go to step 2.           2         Connector A terminal (Go to step 7.)         Connector A terminal (Go to step 7.)         Go to step 7.         Go to step 7.           2         CHECK DRIVER'S CONTROL CENTER DF. Is the voltage more than 8 V?         Repair the open (Go to step 7.)         Go to step 7.           2         CHECK DRIVER'S CONTROL CENTER DF. Is the voltage more than 8 V?         Repair the open (Go to step 7.)         Go to step 7.           3         CHECK PATERY.         Is the voltage more than 10 V?         Go to step 1.         Charge or replace the battery.           4         GROVID CICCUT.         Is the voltage more than 10 V?         Go to step 5.         Repair the open (Go to step 7.)           3         CHECK YAW RATE & LATERAL G SENSOR (S 10.)         Is the resistance less than 1         Go to step 5.         Repair the open (Go to step 7.)           4         GROVID CICCUT.         Go to step 6.         Repair the open (Forula control module harness connector and year vate & lateral G sensor.         Go to step 7.  |   | Step  | Check                          | Yes                 | No                  |
|--|---|---|--------------------------------|---------------------|---------------------|
| VOLTAGE.       1) Turn the ignition switch to OFF.         1) Turn the ignition switch to OFF.       2) Disconnect the connectors from yaw rate & lateral G sensor.         3) Turn the ignition switch to ON. (engine OFF)       4) Measure the voltage between yaw rate & lateral G sensor.         4) Measure the voltage between yaw rate & lateral G sensor.       5         2) CHECK DRIVER'S CONTROL CENTER DIF.       1s the voltage more than 10 V?         4) Measure the voltage onthread on the sensor.       1s the voltage more than 10 V?         3) CHECK BATTERY.       1s the voltage more than 10 V?       Go to step 10.         3) CHECK BATTERY.       1s the voltage more than 10 V?       Go to step 10.         4) CHECK WAW RATE & LATERAL G SENSOR       1s the voltage more than 10 V?       Go to step 10.       Charge or replace the battery.         4) CHECK WAW RATE & LATERAL G SENSOR       1s the resistance less than 1       Go to step 5.       Repair the open circuit in harness connectors from driver's control center differential control module harness connector and yaw rate & lateral G sensor.       Connector & terminal (B380) No. 11 – (B230) No. 6:       1s the resistance more than 1       Go to step 6.       Repair the short direver the resistance between driver's control center differential control module harness connector and yaw rate & lateral G sensor.       Go to step 7.       Repair the short direver theresistance between driver's control center differential control module harness connector and yaw rate & lateral G sensor.       Go to step 7. </th <th>1</th> <th>CHECK YAW RATE &amp; LATERAL G SENSOR</th> <th>Is the voltage more than 8 V?</th> <th>Go to step 4.</th> <th>Go to step 2.</th>  | 1 | CHECK YAW RATE & LATERAL G SENSOR                           | Is the voltage more than 8 V?  | Go to step 4.       | Go to step 2.       |
| 1) Turn the ignition switch to OFF.         2) Disconnect the connectors from yaw rate & lateral G sensor.         3) Turn the ignition switch to ON. (engine OFF)         4) Measure the voltage between yaw rate & lateral G sensor harness connector and chass is ground (-).         2       CHECK DRIVER'S CONTROL CENTER DIF.         2       CHECK DRIVER'S CONTROL CENTER DIF.         4) Measure the voltage between driver's control center differential control module harness connector and chassis ground (-).         2       CHECK DRIVER'S CONTROL CENTER DIF.         4       CHECK BATTERY.         5       CHECK BATTERY.         6       CHECK YAW RATE & LATERAL G SENSOR Is the voltage more than 1       Go to step 5.         7       CHECK YAW RATE & LATERAL G SENSOR Is the resistance less than 1       Go to step 5.         7       CHECK YAW RATE & LATERAL G SENSOR Is the resistance less than 1       Go to step 5.         8       Is the voltage more than 10 YP       Go to step 5.         7       CHECK YAW RATE & LATERAL G SENSOR Is the resistance less than 1       Go to step 5.         8       Is the resistance less than 1       Go to step 5.         9       CHECK YAW RATE & LATERAL G SENSOR Is the resistance less than 1       Main and yaw rate 8. lateral G sensor.         7       CHECK YAW RATE & LATERAL G SENSOR IS (CHECK YAW RATE & LATERAL G SENSOR IS (CHECK YAW RATE & LATERAL   |   | VOLTAGE.  |                                |                     |                     |
| 2) Disconnect the connectors from yaw rate & lateral G sensor.         3) Turn the ignition switch to DN. (engine OFF)         4) Measure the voltage between yaw rate & lateral G sensor.         2       CHECK DRIVER'S CONTROL CENTER DIF-<br>FERENTIAL CONTROL MODULE VOLTAGE.         Measure the voltage between driver's control center differential control module harmess connector at driver's control center differential control module harmess connector at chassis ground (-):         3       CHECK NAW RATE & LATERAL G SENSOR         4       GROUND CIRCUIT.         4       CHECK YAW RATE & LATERAL G SENSOR         5       CHECK YAW RATE & LATERAL G SENSOR         6       CHECK YAW RATE & LATERAL G SENSOR         7       CHECK YAW RATE & LATERAL G SENSOR         8       Is the resistance less than 1         9       Go to step 5.         10       Turn the ignition switch to OFF.         2)       Disconnect the connectors from driver's control center differential control module harmess connector at draw rate & lateral G sensor.         6       CHECK YAW RATE & LATERAL G SENSOR         6       CHECK YAW RATE & LATERAL G SENSOR         7       CHECK YAW RATE & LATERAL G SENSOR         8       Is the resistance more than 1         Measure the resistance between driver's control center differential control module harmess connector at lerminal (m380) No. 11 – (B230) No. 6:   |   | <ol> <li>Turn the ignition switch to OFF.</li> </ol>        |                                |                     |                     |
| atteral G sensor.     atteral G sensor.       3) Turn the ignition switch to ON. (engine OFF)       4) Measure the voltage between yaw rate & lateral G sensor harness connector at chassis ground (-):       2     CHECK DRVER'S CONTROL CENTER DIF-<br>FERENTAL CONTROL MODULE AND YOU TAGE.       Measure the voltage between driver's control central differential control module harness connector at dramatia control module harness connector at chassis ground (-):       3     CHECK BATTERY.       4     CHECK BATTERY.       4     CHECK VAW RATE & LATERAL G SENSOR GROUND CIRCUIT.       7) Turn the ignition switch to OFF.       2) Disconnect the connectors from driver's control center differential control module harness connector at graninal (d330) No. 17 (d230) No. 61       5     CHECK WAW RATE & LATERAL G SENSOR GROUND CIRCUIT.       Num the ignition switch to OFF.       2) Disconnect the connectors from driver's control center differential control module harness connector at graninal (d330) No. 11 - (d230) No. 61       5     CHECK VAW RATE & LATERAL G SENSOR GROUND CIRCUIT.       Measure the resistance between driver's control center differential control module harness connector at graninal (d330) No. 11 - (d230) No. 61       6     CHECK VAW RATE & LATERAL G SENSOR GROUND CIRCUIT.       Measure the resistance between driver's control center differential control module harness connector at the minal (d330) No. 11 - (d230) No. 61       6     CHECK VAW RATE & LATERAL G SENSOR MARTER (d100) No. 61       6     CHECK HARNESS CONNECTO   |   | 2) Disconnect the connectors from yaw rate &                |                                |                     |                     |
| 3) Turn the ignition switch to ON. (engine OFF)       4) Measure the voltage between yaw rate & lateral G sensor harmess connector and chassis ground (-):       Connector & terminal (8230) No. 3 (+) — Chassis ground (-):       Is the voltage more than 8 V?       Repair the open circuit in harmess connector and chassis ground (-):       Go to step 3.         2       CHECK DRIVEFS CONTEOL CENTER DIF-IGENTIAL CONTROL MODULE VOLTAGE. Measure the voltage between drive's control center differential control module harness connector and chassis ground (-):       Is the voltage more than 8 V?       Repair the open circuit in harmess connector a terminal (B380) No. 22 (+) — Chassis ground (-):       Is the voltage more than 10 V?       Go to step 10.       Charge or replace the battery.         4       CHECK YAW RATE & LATERAL G SENSOR (GROUND CIRCUIT.       Is the voltage more than 10 V?       Go to step 5.       Charge or replace the battery.         4       CHECK YAW RATE & LATERAL G SENSOR (GROUND CIRCUIT.       Is the resistance less than 1       Go to step 5.       Charge or replace the battery.         5       CHECK YAW RATE & LATERAL G SENSOR (GROUND CIRCUIT.       Is the resistance more than 1       Go to step 6.       Repair the short circuit in harmess connectors and yaw rate & lateral G sensor.         5       CHECK YAW RATE & LATERAL G SENSOR (GROUND CIRCUIT.       Is the resistance more than 1       Mú?       Go to step 6.       Repair the short circuit in harmess connector and Yaw rate & lateral G sensor.         6       CHECK YAW RATE & LATERAL G SENSOR.   |   | lateral G sensor.   |                                |                     |                     |
| 4)       Measure the voltage between yaw rate & lateral G sensor harness connector at chassis ground (-);       Connector & terminal (g230) No. 3(-) — Chassis ground (-);       Go to step 3.         2       CHECK DRIVER'S CONTROL CENTER DIF. Is the voltage more than 8 V? FERENTIAL CONTROL MOULE VOLTAGE. Measure the voltage between driver's control center differential control module harness connector and chassis ground (-);       Go to step 1.       Go to step 3.         3       CHECK BATTERY.       Is the voltage more than 10 V?       Go to step 10.       Charge or replace the battery.         4       CHECK WARTE & LATERAL G SENSOR GROUND CIRCUIT.       Is the resistance less than 1       Go to step 5.       Criticul in harness between driver's control center differential control module. and yaw rate & lateral G sensor.         3       CHECK NAW RATE & LATERAL G SENSOR GROUND CIRCUIT.       Is the resistance less than 1       Go to step 5.       Criticul in harness between driver's control center differential control module. and yaw rate & lateral G sensor.         5       CHECK YAW RATE & LATERAL G SENSOR GROUND CIRCUIT.       Is the resistance more than 1       Go to step 6.       Repair the short driver's control center differential control module harness connector and yaw rate & lateral G sensor.         5       CHECK WAW RATE & LATERAL G SENSOR GROUND CIRCUIT.       Is the resistance less than 1       Go to step 6.       Repair the short driver in harness between driver's control center differential control module harness connector and Chasis ground (-).       Mare       Mar   |   | 3) Turn the ignition switch to ON. (engine                  |                                |                     |                     |
| <ul> <li>4) Mediaure the voltage between driver's control canter differential control module harness connector at terminal (B230) No. 3 (+) — Chassis ground (-):</li> <li>CHECK DRIVER'S CONTROL EXOUTED DIF-<br/>FERENTIAL CONTROL MODULE VOLTAGE is the voltage more than 8 V? Repair the option of the battery of the battery.</li> <li>CHECK BATTERY.</li> <li>Is the voltage more than 10 V? Go to step 10. Charge or replace the battery of the battery.</li> <li>CHECK BATTERY.</li> <li>Is the voltage more than 10 V? Go to step 10. Charge or replace the battery.</li> <li>CHECK WAW RATE &amp; LATERAL G SENSOR Is the resistance less than 1 (2)?</li> <li>Check WAW RATE &amp; LATERAL G SENSOR Is the resistance less than 1 (2)?</li> <li>Connector &amp; terminal (B380) No. 11 — (B230) No. 6:</li> <li>CHECK YAW RATE &amp; LATERAL G SENSOR Is the resistance less than 1 (B380) No. 11 — (B230) No. 6:</li> <li>CHECK YAW RATE &amp; LATERAL G SENSOR Is the resistance less than 1 (B380) No. 11 — (B230) No. 6:</li> <li>CHECK YAW RATE &amp; LATERAL G SENSOR Is the resistance less than 1 (B380) No. 11 — (B230) No. 6:</li> <li>CHECK YAW RATE &amp; LATERAL G SENSOR Is the resistance less than 1 (B380) No. 11 — (B230) No. 6:</li> <li>CHECK YAW RATE &amp; LATERAL G SENSOR Is the resistance less than 1 (B380) No. 11 — (B230) No. 6:</li> <li>CHECK YAW RATE &amp; LATERAL G SENSOR Is the resistance less than 1 (B380) No. 11 — (B230) No. 6:</li> <li>CHECK HARNESS CONNECTOR BETWEEN Is the resistance less than 1 (B380) No. 11 — (B230) No. 6:</li> <li>CHECK HARNESS CONNECTOR BETWEEN Is the resistance less than 1 (B380) No. 11 — (B230) No. 6:</li> <li>CHECK HARNESS CONNECTOR BETWEEN Is the resistance less than 1 (B380) No. 11 — (B230) No. 6:</li> <li>CHECK HARNESS CONNECTOR BETWEEN Is the resistance less than 1 (B380) No. 11 — (B230) No. 6:</li> <li>CHECK HARNESS CONNECTOR BETWEEN Is the resistance more than 1 (B380) No. 11</li></ul>   |   | OFF)  |                                |                     |                     |
| Initial Status       Sensor Tailmess Connector & Ierminal<br>(B230) No. 3 (+) = Chassis ground (-):       Is the voltage more than 8 V?       Repair the open<br>circuit in harness<br>between driver's<br>control center differential control module harness<br>connector at erminal<br>(B380) No. 22 (+) = Chassis ground (-):       Is the voltage more than 8 V?       Repair the open<br>circuit in harness<br>between driver's<br>control center differential control module harness<br>control center differential control module harness<br>between driver's<br>control center different   |   | 4) Measure the voltage between yaw rate &                   |                                |                     |                     |
| Connector & terminal<br>(B230) No. 3 (+) — Chassis ground (-):       Is the voltage more than 8 V?       Repair the open<br>circuit in harness<br>between driver's<br>control center differential control module harness con-<br>nector and chassis ground (-):       Is the voltage more than 8 V?       Repair the open<br>circuit in harness<br>between driver's<br>control center differential control<br>module and yaw<br>rate & lateral G<br>sensor.       Go to step 3.         3       CHECK BATTERY.       Is the voltage more than 10 V?       Go to step 10.       Charge or replace<br>the battery.         4       CHECK VAW RATE & LATERAL G SENSOR<br>GROUND CIRCUIT.<br>1) Turn the ignition switch to OFF.<br>2) Disconnect the connectors from driver's<br>control center differential control module<br>an ses connector and yaw rate & lateral G sen-<br>sor.<br>Connector & terminal<br>(B380) No. 11 – (B320) No. 6:       Is the resistance less than 1<br>Ω?       Go to step 6.       Repair the short<br>circuit in harness<br>between driver's<br>control center differential control module<br>and yaw<br>rate & lateral G<br>sensor.         5       CHECK YAW RATE & LATERAL G SENSOR<br>GROUND CIRCUIT.<br>Neasure the resistance between driver's<br>connector at terminal<br>(B380) No. 11 – (B230) No. 6:       Is the resistance more than 1<br>M2?       Go to step 6.       Repair the short<br>circuit in harness<br>connector at Chassis ground (-).         6       CHECK HARNESS CONTRECTOR BETWEEN<br>Neasure the resistance between driver's<br>control center differential control<br>module and yaw<br>rate & lateral G<br>sensor.       Go to step 7.       Repair the open<br>circuit in harness<br>between driver's<br>control center differential<br>control module harness<br>connector at terminal<br>(B380) No. 11 – Chassis ground (-).       So to step 7. <td< th=""><th></th><th>sis ground ( )</th><th></th><th></th><th></th></td<>   |   | sis ground ( )  |                                |                     |                     |
| (B230) No. 3 (+) — Chassis ground (-):       CHECK DRIVER'S CONTROL CENTER DIF.       Is the voltage more than 8 V?       Repair the open circuit in harness between driver's control center differential control module harness connector and chassis ground (-):       Is the voltage more than 8 V?       Go to step 3.         3       CHECK BATTERY.       Is the voltage more than 10 V?       Go to step 10.       Charge or replace the battery.         4       CHECK YAW RATE & LATERAL G SENSOR GROUND CIRCUIT.       Is the voltage more than 10 V?       Go to step 5.       Repair the open circuit in harness between driver's control center differential control module.         1) Turn the ignition switch to OFF.       Disconnect the connectors from driver's control center differential control module harness connector at urg warate & lateral G sensor.       Go to step 5.       Repair the short circuit in harness between driver's control center differential control module harness connector at terminal (B380) No. 11 – (B230) No. 6:       Is the resistance between driver's control center differential control module harness connector at terminal (B380) No. 11 – (CB200) No. 6:       Is the resistance less than 1       Go to step 6.       Repair the short circuit in harness between driver's control center differential control module harness connector at terminal (B380) No. 11 – (CB200) No. 6:       Is the resistance less than 1       Go to step 7.       Repair the open circuit in harness between driver's control center differential control module harness connector at terminal (B380) No. 11 – (CB200) No. 1:       Is the resistance less than 1       Go to step 7.       Repair the open circuit   |   | Connector & terminal  |                                |                     |                     |
| 2         CHECK DRIVER'S CONTROL CENTER DIF-<br>FERENTIAL CONTROL MODULE VOLTAGE.<br>Measure the voltage between driver's control<br>center differential control module harness con-<br>nector and chassis ground (-):         Is the voltage more than 8 V?         Repair the open<br>circuit in harness<br>between driver's<br>control center differential control<br>module and yaw<br>rate & lateral G<br>sensor.         Go to step 3.           3         CHECK BATTERY.         Is the voltage more than 10 V?         Go to step 10.         Charge or replace<br>the battery.           4         CHECK YAW RATE & LATERAL G SENSOR<br>(SCOUND CIRCUIT.<br>************************************  |   | (B230) No. 3 (+) — Chassis ground (–):                      |                                |                     |                     |
| FERENTIAL CONTROL MODULE VOLTAGE.<br>Measure the voltage between driver's control<br>center differential control module harmess con-<br>nector and chassis ground (-).       circuit in harmess<br>between driver's<br>control center dif-<br>ferential control<br>module and yaw<br>rate & lateral G<br>sensor.         3       CHECK BATTERY.       Is the voltage more than 10 V?       Go to step 10.       Charge or replace<br>the battery.         4       CHECK YAW RATE & LATERAL G SENSOR<br>GROUND CIRCUIT.       Is the voltage more than 10 V?       Go to step 5.       Charge or replace<br>the battery.         3       CHECK YAW RATE & LATERAL G SENSOR<br>GROUND CIRCUIT.       Is the voltage more than 10 V?       Go to step 5.       Charge or replace<br>the battery.         4       CHECK YAW RATE & LATERAL G SENSOR<br>GROUND CIRCUIT.       Is the resistance less than 1<br>(3) Measure the resistance between driver's<br>control center differential control module har-<br>ness connector at terminal<br>(B380) No. 11 – (B230) No. 6:       Is the resistance more than 1<br>(B380) No. 11 – (B230) No. 6:       Is the resistance more than 1<br>(Connector & terminal<br>(B380) No. 11 – Chassis ground (-).       Is the resistance between driver's<br>control center differential control module har-<br>sor.       Go to step 6.       Repair the short<br>circuit in harness<br>between driver's<br>control center differential control module har-<br>sor.       Go to step 7.       Repair the short<br>circuit in harness<br>between driver's<br>control center differential control<br>module and yaw<br>rate & lateral G<br>sensor.       Go to step 7.       Repair the short<br>circuit in harness<br>between driver's<br>control center differential control<br>module and yaw<br>rate & lateral G<br>sensor.   | 2 | CHECK DRIVER'S CONTROL CENTER DIF-                          | Is the voltage more than 8 V?  | Repair the open     | Go to step 3.       |
| Measure the voltage between driver's control<br>center differential control module harness con-<br>nector and chassis ground (-):       between driver's<br>control center diff-<br>ferential control<br>module and yaw<br>rate & lateral G         3       CHECK BATTERY.       Is the voltage more than 10 V?       Go to step 10.       Charge or replace<br>the battery.         4       CHECK YAW RATE & LATERAL G SENSOR<br>GROUND CIRCUIT.       Is the resistance less than 1<br>Ω?       Go to step 5.       Repair the open<br>circuit in harness:<br>between driver's<br>control center differential control module.         3)       Measure the resistance between driver's<br>control center differential control module.       Is the resistance less than 1<br>Ω?       Go to step 5.       Repair the open<br>circuit in harness:<br>between driver's<br>control center differential control module.         3)       Measure the resistance between driver's<br>control center differential control module harness<br>connector at terminal<br>(B380) No. 11 — (B230) No. 6:       Is the resistance more than 1<br>MΩ?       Go to step 6.       Repair the short<br>circuit in harness<br>between driver's<br>control center differential control module harness<br>connector and Chassis ground (-).         6       CHECK HARNESS CONNECTOR BETWEEN<br>ITAL CONTROL CENTER DIFFEREN-<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.       Is the resistance less than 1<br>Q?       Go to step 7.       Repair the open<br>circuit in harness<br>connector and yaw rate & lateral G sensor.         7       CHECK HARNESS CONNECTOR BETWEEN<br>ITAL CONTROL CENTER DIFFEREN-<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.       Is the resistance more than 1<br>MΩ?   | - | FERENTIAL CONTROL MODULE VOLTAGE.                           |                                | circuit in harness  |                     |
| center differential control module harness connector and chassis ground (-):       control center differential control module and yaw rate & lateral G         3       CHECK BATTERY.       Is the voltage more than 10 V?       Go to step 10.       Charge or replace the battery.         4       CHECK YAW RATE & LATERAL G SENSOR GROUND CIRCUT.       Is the voltage more than 10 V?       Go to step 10.       Charge or replace the battery.         1       Turn the ignition switch to OFF.       2) Disconnect the connectors from driver's control center differential control module harness connector and yaw rate & lateral G sensor.       Is the resistance less than 1       Go to step 5.       Repair the open circuit in harness between driver's control center differential control module harness connector and yaw rate & lateral G sensor.       Is the resistance more than 1       Go to step 6.       Repair the short circuit in harness between driver's control center differential control module harness connector and Chassis ground (-).       Is the resistance more than 1       Go to step 6.       Repair the short circuit in harness between driver's control center differential control module harness connector and Chassis ground (-).       Is the resistance less than 1       Go to step 7.       Repair the short circuit in harness between driver's control center differential control module harness connector and yaw rate & lateral G sensor.         6       CHECK HARNESS CONNECTOR BETWEEN TIAL CONTROL MODULE AND YAW RATE & LATERAL G SENSOR.       Is the resistance between driver's control center differential control module harness connector and yaw rate & lateral G sensor. <th></th> <th>Measure the voltage between driver's control</th> <th></th> <th>between driver's</th> <th></th>  |   | Measure the voltage between driver's control                |                                | between driver's    |                     |
| nector and chassis ground (-).       Image: Connector & terminal (B380) No. 22 (+) - Chassis ground (-):       Image: Charge or replace (Charge or replac   |   | center differential control module harness con-             |                                | control center dif- |                     |
| Connector & terminal<br>(B380) No. 22 (+) — Chassis ground (-):       Image: mark & lateral G<br>sensor.         3       CHECK BATTERY.       Is the voltage more than 10 V?       Go to step 10.       Charge or replace<br>the battery.         4       CHECK YAW RATE & LATERAL G SENSOR<br>(ROUND CIRCUIT.       Is the resistance less than 1       Go to step 5.       Repair the open<br>circuit in harness<br>between driver's<br>control center differential control module.         3)       Measure the resistance between driver's<br>control center differential control module harn-<br>ness connector & terminal<br>(B380) No. 11 — (B230) No. 6:       Is the resistance more than 1<br>(B380) No. 11 — (B230) No. 6:       Go to step 6.       Repair the short<br>driver's<br>control center differential control module harness<br>connector at terminal<br>(B380) No. 11 — Chassis ground (-).       Is the resistance more than 1<br>MΩ?       Go to step 6.       Repair the short<br>driver's<br>control center differential control<br>module and yaw<br>rate & lateral G<br>sensor.         6       CHECK HARNESS CONNECTOR BETWEEN<br>TIAL CONTROL CONTER DIFFEREN<br>TIAL CONTROL CONTER DIFFEREN<br>TIAL CONTROL CENTER DIFFEREN<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.       Is the resistance more than 1<br>M2?       Go to step 8.       Repair the short<br>driver's control center differential control<br>module and yaw<br>rate & lateral G  |   | nector and chassis ground (–).                              |                                | ferential control   |                     |
| (B380) No. 22 (+) — Chassis ground (-):       rate & lateral G         3       CHECK BATTERY.       Is the voltage more than 10 V?       Go to step 10.       Charge or replace the battery.         4       CHECK YAW RATE & LATERAL G SENSOR       Is the resistance less than 1       Go to step 5.       Repair the open circuit in harness         1) Turn the ignition switch to OFF.       2) Disconnect the connectors from driver's control center differential control module harness connector and yaw rate & lateral G sensor.       Go to step 5.       Repair the open circuit in harness between driver's control center differential control module harness connector at terminal (B380) No. 11 — (B230) No. 6:       Is the resistance between driver's control center differential control module harness connector at terminal (B380) No. 11 — (B230) No. 6:       Is the resistance more than 1       Go to step 6.       Repair the short circuit in harness between driver's control center differential control module harness connector at Chassis ground:         6       CHECK HARNESS CONNECTOR BETWEEN IN REPRISENCE ALATERAL G SENSOR, IG380) No. 11 — Chassis ground:       Is the resistance less than 1       Go to step 7.       Repair the open circuit in harness between driver's control center differential control module harness connector at terminal (B380) No. 11 — Chassis ground:       Is the resistance less than 1       Go to step 7.       Repair the open circuit in harness between driver's control center differential control module harness connector at varea (B gasor).       Go to step 8.       Repair the short circuit in harness between driver's control center differential control   |   | Connector & terminal  |                                | module and yaw      |                     |
| 3       CHECK BATTERY.       Is the voltage more than 10 V?       Go to step 10.       Charge or replace the battery.         4       CHECK YAW RATE & LATERAL G SENSOR GROUND CIRCUIT.       Is the resistance less than 1       Go to step 5.       Repair the open circuit in harness between driver's control center differential control module.       Go to step 5.       Repair the open circuit in harness between driver's control center differential control module harness connector at terminal (B380) No. 11 — (B230) No. 6:       Is the resistance more than 1       Go to step 6.       Repair the short circuit in harness between driver's control center differential control module harness connector and Chassis ground (-).       So to step 7.       Repair the short circuit in harness between driver's control center differential control module harness connector and Chassis ground (-).       So to step 7.       Repair the short circuit in harness between driver's control center differential control module harness connector and Chassis ground (-).       So to step 7.       Repair the open circuit in harness between driver's control center differential control module harness connector and Chassis ground (-).       So to step 7.       Repair the open circuit in harness between driver's control center differential control module harness connector and yaw rate & lateral G sensor.       Go to step 7.       Repair the open circuit in harness between driver's control center differential control module harness connector and yaw rate & lateral G sensor.       Go to step 7.       Repair the open circuit in harness between driver's control center differential control module harness connector and yaw rate S lateral G sensor.       So to step 8.  |   | (B380) No. 22 (+) — Chassis ground (–):                     |                                | rate & lateral G    |                     |
| 3       CHECK BATTERY.       Is the voltage more than 10 V? Go to step 10.       Charge or replace the battery.         4       CHECK YAW RATE & LATERAL G SENSOR GROUND CIRCUIT.       Is the resistance less than 1       Go to step 5.       Repair the open circuit in harness control center differential control module.       Repair the open circuit in harness control center differential control module harness connector and yaw rate & lateral G sensor.       Connector & terminal (B380) No. 11 — (B230) No. 6:       So to step 6.       Repair the short circuit in harness connector and yaw rate & lateral G sensor.         5       CHECK YAW RATE & LATERAL G SENSOR GROUND CIRCUIT.       Is the resistance between driver's control center differential control module harness connector and Chassis ground (-).       So to step 6.       Repair the short circuit in harness between driver's control center differential control module harness connector and Chassis ground (-).       Connector & terminal (B380) No. 11 — Chassis ground:       Is the resistance less than 1       Go to step 7.       Repair the open circuit in harness between driver's control center differential control module harness connector and yaw rate & lateral G sensor.         6       CHECK HARNESS CONNECTOR BETWEEN TIAL CONTROL MODULE AND YAW RATE & LATERAL G SENSOR.       Is the resistance less than 1       Go to step 7.       Repair the open circuit in harness between driver's control center differential control module hard yaw rate & lateral G sensor.         7       CHECK HARNESS CONNECTOR BETWEEN TIAL CONTROL MODULE AND YAW RATE & LATERAL G SENSOR.       Is the resistance heresistance between driver's  |   |   |                                | sensor.             |                     |
| 4       CHECK YAW RATE & LATERAL G SENSOR<br>GROUND CIRCUIT.       Is the resistance less than 1<br>Ω?       Go to step 5.       Repair the open<br>circuit in harness<br>between driver's<br>control center differential control module<br>3) Measure the resistance between driver's<br>control center differential control module har-<br>ness connector and yaw rate & lateral G sen-<br>sor.       Go to step 5.       Repair the open<br>circuit in harness<br>between driver's<br>control center differential control module<br>and yaw<br>rate & lateral G<br>sensor.         5       CHECK YAW RATE & LATERAL G SENSOR<br>GROUND CIRCUIT.       Is the resistance more than 1<br>(B380) No. 11 – (B230) No. 6:       Go to step 6.       Repair the short<br>circuit in harness<br>between driver's<br>control center differential control module harness<br>connector at terminal<br>(B380) No. 11 – Chassis ground (–).<br>Connector & terminal<br>(B380) No. 11 – Chassis ground:       Is the resistance less than 1<br>Q?       Go to step 7.       Repair the short<br>circuit in harness<br>between driver's<br>control center differential control<br>module and yaw<br>rate & lateral G<br>sensor.         6       CHECK HARNESS CONNECTOR BETWEEN<br>DRIVER'S CONTROL CENTER DIFFEREN-<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.       Is the resistance less than 1<br>Q?       Go to step 7.       Repair the short<br>circuit in harness<br>between driver's<br>control center differential control<br>module and yaw<br>rate & lateral G<br>sensor.         7       CHECK HARNESS CONNECTOR BETWEEN<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.       Is the resistance more than 1<br>MQ?       Go to step 8.       Repair the short<br>circuit in harness<br>between driver's<br>control center differential control<br>module and yaw<br>rate & lateral G<br>sensor.   | 3 | CHECK BATTERY.  | Is the voltage more than 10 V? | Go to step 10.      | Charge or replace   |
| <ul> <li>CHECK YAW HATE &amp; LATERAL G SENSOR<br/>GROUND CIRCUIT.<br/>1 Turn the ignition switch to OFF.<br/>2) Disconnect the connectors from driver's<br/>control center differential control module.<br/>3) Measure the resistance between driver's<br/>control center differential control module har-<br/>ness connector at terminal<br/>(B380) No. 11 — (B230) No. 6:<br/>CHECK YAW RATE &amp; LATERAL G SENSOR<br/>GROUND CIRCUIT.         Measure the resistance between driver's con-<br/>trol center differential control module har-<br/>ness connector at Chassis ground (–).<br/>Connector A terminal<br/>(B380) No. 11 — Chassis ground:<br/>Connector at Chassis ground:<br/>Connector at Lateral G sensor.<br/>Connector at Chassis ground:<br/>Connector at terminal<br/>(B380) No. 11 — Chassis ground:<br/>Connector at terminal<br/>(B380) No. 12 — Chassis ground:<br/>Connector at terminal<br/>(B380) No. 12 — (B230) No. 1:<br/>Check HARNESS CONNECTOR BETWEEN<br/>THE KINFER DIFFEREN-<br/>TIAL CONTROL CENTER DIFFEREN-<br/>TIAL CONTROL CENTER DIFFEREN-<br/>TIAL CONTROL CENTER DI</li></ul>   |   |   |                                | <b>•</b> • • •      | the battery.        |
| <ul> <li>1) Turn the ignition switch to OFF.</li> <li>2) Disconnect the connectors from driver's control center differential control module.</li> <li>3) Measure the resistance between driver's control center differential control module harness connector at terminal (B380) No. 11 — (B230) No. 6:</li> <li>CHECK YAW RATE &amp; LATERAL G SENSOR GROUND CIRCUIT.</li> <li>Measure the resistance between driver's control center differential control module harness connector and Chassis ground (–).</li> <li>CONTROL CENTER DIFFERENTIAL CONTROL MODULE AND YAW RATE &amp; LATERAL G SENSOR.</li> <li>Measure the resistance between driver's control center differential control module harness connector and yaw rate &amp; lateral G sensor.</li> <li>CHECK HARNESS CONNECTOR BETWEEN Measure the resistance between driver's control center differential control module harness connector and yaw rate &amp; lateral G sensor.</li> <li>CHECK HARNESS CONNECTOR BETWEEN Measure the resistance between driver's control center differential control module harness connector and yaw rate &amp; lateral G sensor.</li> <li>CHECK HARNESS CONNECTOR BETWEEN Measure the resistance between driver's control center differential control module harness connector and yaw rate &amp; lateral G sensor.</li> <li>CHECK HARNESS CONNECTOR BETWEEN Measure the resistance between driver's control center differential control module harness connector at terminal (B380) No. 19 — (B230) No. 11:</li> <li>CHECK HARNESS CONNECTOR BETWEEN Measure the resistance between driver's control center differential control module harness connector at driver's control center differential control module harness connector at drivers control center differential control</li></ul>   | 4 | CHECK YAW RATE & LATERAL G SENSOR                           | Is the resistance less than 1  | Go to step 5.       | Repair the open     |
| <ul> <li>1) full the glinitol STC.</li> <li>2) Disconnect the connectors from driver's control center differential control module harness connector and yaw rate &amp; lateral G sensor.</li> <li>Connector &amp; terminal (B380) No. 11 – (B230) No. 6:</li> <li>5 CHECK YAW RATE &amp; LATERAL G SENSOR GROUND CIRCUIT.</li> <li>Measure the resistance between driver's control center differential control module harness connector and Chassis ground (-).</li> <li>Connector &amp; terminal (B380) No. 11 – Chassis ground:</li> <li>6 CHECK HARNESS CONNECTOR BETWEEN. TIAL CONTROL CENTER DIFFERENTIAL CONTROL CENTER DIFFERENTIAL CONTROL CENTER DIFFERENTIAL CONTROL CONTROL CENTER DIFFERENTIAL CONTROL MODULE AND YAW RATE &amp; LATERAL G SENSOR. Measure the resistance between driver's control center differential control module harness connector and yaw rate &amp; lateral G sensor.</li> <li>6 CHECK HARNESS CONNECTOR BETWEEN. Measure the resistance between driver's control center differential control module harness connector and yaw rate &amp; lateral G sensor.</li> <li>6 CHECK HARNESS CONNECTOR BETWEEN. Measure the resistance between driver's control center differential control module harness connector and yaw rate &amp; lateral G sensor.</li> <li>7 CHECK HARNESS CONNECTOR BETWEEN. Measure the resistance between driver's control center differential control module harness connector and yaw rate &amp; lateral G sensor.</li> <li>7 CHECK HARNESS CONNECTOR BETWEEN. Measure the resistance between driver's control center differential control module harness connector and Chassis ground (-).</li> <li>7 CHECK HARNESS CONNECTOR BETWEEN. Measure the resistance between driver's control center differential control module harness connector and Chassis ground (-).</li> <li>7 CHECK HARNESS CONNECTOR BETWEEN. Measure the resistance between driver's control center differential control module harness connector and Chassis ground (-).</li> <li>7 CHECK HARNESS CONNECTOR BETWEEN. Measure the resistance between driver's control center</li></ul>   |   | 1) Turn the ignition quitch to OFF                          | \$2?                           |                     | circuit in narness  |
| control center differential control module.       ifferential control module.         3) Measure the resistance between driver's control center differential control module harness connector and yaw rate & lateral G sensor.       ferential control module harness.         connector & terminal (B380) No. 11 — (B230) No. 6:       is the resistance more than 1       Go to step 6.         5       CHECK YAW RATE & LATERAL G SENSOR GROUND CIRCUIT.       Is the resistance more than 1       Go to step 6.         Measure the resistance between driver's control center differential control module harness connector and Chassis ground (-).       Connector & terminal (B380) No. 11 — Chassis ground:       Is the resistance less than 1       Go to step 7.       Repair the short circuit in harness between driver's control center differential control module harness connector and yaw rate & lateral G sensor.         6       CHECK HARNESS CONNECTOR BETWEEN INTIC CONTROL CENTER DIFFERENTIAL CONTROL MODULE AND YAW RATE & LATERAL G SENSOR.       Is the resistance less than 1       Go to step 7.       Repair the open circuit in harness between driver's control center differential control module harness connector and yaw rate & lateral G sensor.         7       CHECK HARNESS CONNECTOR BETWEEN INTICE CONTROL CENTER DIFFERENTIAL CONTROL MODULE AND YAW RATE & LATERAL G SENSOR.       Is the resistance more than 1       Go to step 8.       Repair the short circuit in harness between driver's control center differential control module harness connector and yaw rate & lateral G sensor.         7       CHECK HARNESS CONTROL CENTER DIFFERENTIAL CONTROL MODULE  |   | <ol> <li>Disconnect the connectors from driver's</li> </ol> |                                |                     | control center dif- |
| <ul> <li>3) Measure the resistance between driver's control center differential control module harness connector and yaw rate &amp; lateral G sensor.</li> <li>Connector &amp; terminal (B380) No. 11 – (B230) No. 6:</li> <li>CHECK YAW RATE &amp; LATERAL G SENSOR GROUND CIRCUIT.</li> <li>Measure the resistance between driver's control center differential control module harness connector and Chassis ground (-).</li> <li>Connector &amp; terminal (B380) No. 11 – Chassis ground:</li> <li>Is the resistance less than 1</li> <li>Go to step 6.</li> <li>CHECK HARNESS CONNECTOR BETWEEN IS the resistance less than 1</li> <li>Connector &amp; terminal (B380) No. 11 – Chassis ground:</li> <li>Is the resistance less than 1</li> <li>Connector &amp; terminal (B380) No. 11 – Chassis ground:</li> <li>Is the resistance less than 1</li> <li>Control center differential control module harness connector and Chassis ground:</li> <li>Is the resistance less than 1</li> <li>Co to step 7.</li> <li>Repair the open circuit in harness between driver's control center differential control module harness connector a terminal (B380) No. 19 – (B230) No. 1:</li> <li>CHECK HARNESS CONTROL CENTER DIFFERENTIAL CON</li></ul>  |   | control center differential control module                  |                                |                     | ferential control   |
| control center differential control module harness connector and yaw rate & lateral G sensor.       rate & lateral G         connector & terminal       (B330) No. 11 - (B230) No. 6:       is the resistance more than 1       Go to step 6.       Repair the short         circuit in harness       connector & terminal       MΩ?       Go to step 6.       Repair the short         GROUND CIRCUIT.       MΩ?       MΩ?       Go to step 6.       Repair the short         circuit in harness       connector and Chassis ground (-).       Connector & terminal       Go to step 7.       Repair the open         6       CHECK HARNESS CONNECTOR BETWEEN       Is the resistance less than 1       Go to step 7.       Repair the open         DRIVER'S CONTROL CENTER DIFFERENTIAL CONTROL MODULE AND YAW RATE       LATERAL G SENSOR.       Is the resistance less than 1       Go to step 7.       Repair the open         Trol center differential control module harness       connector and yaw rate & lateral G sensor.       Go to step 7.       Repair the open         Tral CONTROL MODULE AND YAW RATE       & LATERAL G SENSOR.       Is the resistance more than 1       Go to step 8.       Repair the short         7       CHECK HARNESS CONNECTOR BETWEEN       Is the resistance more than 1       Go to step 8.       Repair the short         7       CHECK HARNESS CONTROL CENTER DIFFERENTIAL CONTROL MODULE AND YAW RATE       Is the r   |   | 3) Measure the resistance between driver's                  |                                |                     | module and vaw      |
| ness connector and yaw rate & lateral G sen-<br>sor.       Sensor.       Sensor.         Connector & terminal<br>(B380) No. 11 — (B230) No. 6:       Is the resistance more than 1<br>M62?       Go to step 6.       Repair the short<br>circuit in harness<br>between driver's con-<br>trol center differential control module harness<br>connector & terminal<br>(B380) No. 11 — Chassis ground:       Is the resistance more than 1<br>M52?       Go to step 6.       Repair the short<br>circuit in harness<br>between driver's<br>control center differential control<br>module and yaw<br>rate & lateral G<br>sensor.         6       CHECK HARNESS CONNECTOR BETWEEN<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.       Is the resistance less than 1<br>Ω?       Go to step 7.       Repair the open<br>circuit in harness<br>between driver's<br>control center differential control<br>module and yaw<br>rate & lateral G<br>sensor.         7       CHECK HARNESS CONNECTOR BETWEEN<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.       Is the resistance more than 1<br>(B380) No. 19 — (B230) No. 1:       St he resistance more than 1       Go to step 8.       Repair the short<br>circuit in harness<br>between driver's<br>control center differential control<br>module and yaw<br>rate & lateral G<br>sensor.         7       CHECK HARNESS CONNECTOR BETWEEN<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.       Is the resistance more than 1       Go to step 8.       Repair the short<br>circuit in harness<br>between driver's<br>control center differential control<br>module and yaw<br>rate & lateral G<br>sensor.         7       CHECK HARNESS CONNECTOR BETWEEN<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.       Is the resistance more than 1<br>MΩ?       Go to step 8.   |   | control center differential control module har-             |                                |                     | rate & lateral G    |
| Sor.       Connector & terminal<br>(B380) No. 11 (B230) No. 6:       Is the resistance more than 1       Go to step 6.       Repair the short<br>circuit in harness<br>between driver's<br>connector and Chassis ground (-).         Connector & terminal<br>(B380) No. 11 Chassis ground:       Is the resistance less than 1       Go to step 7.       Repair the open<br>circuit in harness<br>between driver's<br>control center dif-<br>ferential control<br>module and yaw<br>rate & lateral G<br>sensor.         6       CHECK HARNESS CONNECTOR BETWEEN<br>DRIVER'S CONTROL CENTER DIFFEREN-<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.       Is the resistance less than 1<br>Ω?       Go to step 7.       Repair the open<br>circuit in harness<br>between driver's<br>control center dif-<br>ferential control<br>module and yaw<br>rate & lateral G<br>sensor.         7       CHECK HARNESS CONNECTOR BETWEEN<br>DRIVER'S CONTROL CENTER DIFFEREN-<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.       Is the resistance more than 1       Go to step 8.       Repair the open<br>circuit in harness<br>between driver's<br>control center dif-<br>ferential control<br>module and yaw<br>rate & lateral G<br>sensor.         7       CHECK HARNESS CONNECTOR BETWEEN<br>DRIVER'S CONTROL CENTER DIFFEREN-<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.       Is the resistance more than 1       Go to step 8.       Repair the short<br>circuit in harness<br>between driver's<br>control center differential control<br>module and yaw<br>rate & lateral G<br>sensor.         7       CHECK HARNESS CONNECTOR BETWEEN<br>DRIVER'S CONTROL CENTER DIFFEREN-<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.       MΩ?       Go to step 8.       Repair the short<br>circuit in harness<br>between driver's<br>cont  |   | ness connector and yaw rate & lateral G sen-                |                                |                     | sensor.             |
| Connector & terminal<br>(B380) No. 11 - (B230) No. 6:       Is the resistance more than 1<br>(B380) No. 11 - (B230) No. 6:       Is the resistance more than 1<br>(B380) No. 11 - (Connector & terminal<br>(B380) No. 11 - Chassis ground (-).<br>Connector & terminal<br>(B380) No. 11 - Chassis ground:       Is the resistance less than 1<br>(B380) No. 11 - Chassis ground:       Go to step 6.       Repair the short<br>circuit in harness<br>between driver's<br>control center dif-<br>ferential control<br>module and yaw<br>rate & lateral G<br>sensor.         6       CHECK HARNESS CONNECTOR BETWEEN<br>TIAL CONTROL CENTER DIFFEREN-<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.<br>Measure the resistance between driver's con-<br>trol center differential control module harness<br>connector and yaw rate & lateral G sensor.<br>Connector & terminal<br>(B380) No. 19 - (B230) No. 1:       Is the resistance more than 1<br>(B380) No. 19 - (B230) No. 1:       Go to step 8.       Repair the short<br>circuit in harness<br>between driver's<br>control center dif-<br>ferential control module harness<br>connector and yaw rate & lateral G sensor.<br>Connector & terminal<br>(B380) No. 19 - (B230) No. 1:       Is the resistance more than 1       Go to step 8.       Repair the short<br>circuit in harness<br>between driver's<br>control center dif-<br>ferential control<br>module and yaw<br>rate & lateral G<br>sensor.         7       CHECK HARNESS CONNECTOR BETWEEN<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.<br>Measure the resistance between driver's con-<br>trol center differential control module harness<br>connector and Chassis ground (-).<br>Connector & terminal       Go to step 8.       Repair the short<br>circuit in harness<br>between driver's<br>control center dif-<br>ferential control<br>module and yaw<br>rate & lateral G<br>sensor.  |   | sor.  |                                |                     |                     |
| (B380) No. 11 (B230) No. 6:       Is the resistance more than 1       Go to step 6.       Repair the short circuit in harness between driver's control center differential control module harness connector and Chassis ground (-).       Connector & terminal       Go to step 6.       Repair the short circuit in harness between driver's control center differential control module harness connector and Chassis ground (-).       Connector & terminal       Go to step 7.       Repair the open circuit in harness between driver's control center differential control module harness connector at terminal       Go to step 7.       Repair the open circuit in harness between driver's control center differential control module harness connector at generating and yaw rate & lateral G sensor.         6       CHECK HARNESS CONNECTOR BETWEEN TIAL CONTROL CENTER DIFFERENTIAL CONTROL MODULE AND YAW RATE & LATERAL G SENSOR.       Is the resistance less than 1       Go to step 7.       Repair the open circuit in harness between driver's control center differential control module harness connector at yaw rate & lateral G sensor.       Connector & terminal       Go to step 7.       Repair the short circuit in harness between driver's control center differential control module harness connector at yaw rate & lateral G sensor.       Go to step 8.       Repair the short circuit in harness between driver's control center differential control module harness   |   | Connector & terminal  |                                |                     |                     |
| <ul> <li>5 CHECK YAW RATE &amp; LATERAL G SENSOR<br/>GROUND CIRCUIT.<br/>Measure the resistance between driver's control center differential control module harness<br/>connector and Chassis ground (–).<br/>Connector &amp; terminal<br/>(B380) No. 11 — Chassis ground:</li> <li>6 CHECK HARNESS CONNECTOR BETWEEN<br/>DRIVER'S CONTROL CENTER DIFFEREN-<br/>TIAL CONTROL MODULE AND YAW RATE<br/>&amp; LATERAL G SENSOR.</li> <li>7 CHECK HARNESS CONNECTOR BETWEEN<br/>DRIVER'S CONTROL CENTER DIFFEREN-<br/>TIAL CONTROL MODULE AND YAW RATE<br/>&amp; LATERAL G SENSOR.</li> <li>7 CHECK HARNESS CONNECTOR BETWEEN<br/>DRIVER'S CONTROL CENTER DIFFEREN-<br/>TIAL CONTROL MODULE AND YAW RATE<br/>&amp; LATERAL G SENSOR.</li> <li>7 CHECK HARNESS CONNECTOR BETWEEN<br/>DRIVER'S CONTROL CENTER DIFFEREN-<br/>TIAL CONTROL MODULE AND YAW RATE<br/>&amp; LATERAL G SENSOR.</li> <li>7 CHECK HARNESS CONNECTOR BETWEEN<br/>DRIVER'S CONTROL CENTER DIFFEREN-<br/>TIAL CONTROL MODULE AND YAW RATE<br/>&amp; LATERAL G SENSOR.</li> <li>7 CHECK HARNESS CONNECTOR BETWEEN<br/>DRIVER'S CONTROL CENTER DIFFEREN-<br/>TIAL CONTROL MODULE AND YAW RATE<br/>&amp; LATERAL G SENSOR.</li> <li>7 CHECK HARNESS CONNECTOR BETWEEN<br/>DRIVER'S CONTROL CENTER DIFFEREN-<br/>TIAL CONTROL MODULE AND YAW RATE<br/>&amp; LATERAL G SENSOR.</li> <li>7 CHECK HARNESS CONNECTOR BETWEEN<br/>DRIVER'S CONTROL CENTER DIFFEREN-<br/>TIAL CONTROL MODULE AND YAW RATE<br/>&amp; LATERAL G SENSOR.</li> <li>7 CHECK HARNESS CONNECTOR BETWEEN<br/>DRIVER'S CONTROL CENTER DIFFEREN-<br/>TIAL CONTROL MODULE AND YAW RATE<br/>&amp; LATERAL G SENSOR.</li> <li>7 CHECK HARNESS CONNECTOR BETWEEN<br/>DRIVER'S CONTROL CENTER DIFFEREN-<br/>TIAL CONTROL CONTROL CENTER DIFFEREN-<br/>TIAL CONTROL CONTROL CATER DIFFEREN-<br/>TIAL CONTROL CONTROL CATER DIFFEREN-<br/>TIAL CONTROL CONTROL CENTER DIFFEREN-<br/>TIAL CONTROL CONTROL CONTROL CONTROL CONTO conter differential control module harness<br/>connector and Chassis ground (–).</li> <li>7 CHECK HARNESS GONNECTOR METWER'S CON-<br/>trol center differential control module harness<br/>connector and Chassis ground (–).</li> <li>8 the resistance between driver's con-<br/>trol center differential control module harness<br/>connector</li></ul> |   | (B380) No. 11 — (B230) No. 6:                               |                                |                     |                     |
| GROUND CIRCUIT.       MΩ?       Circuit in harness         Measure the resistance between driver's control center differential control module harness       between driver's         connector and Chassis ground (-).       Connector & terminal       ferential control         Connector & terminal       Is the resistance less than 1       Go to step 7.         Repair the open circuit in harness       control center differential control       circuit in harness         TIAL CONTROL MODULE AND YAW RATE & LATERAL G SENSOR.       Is the resistance less than 1       Go to step 7.       Repair the open circuit in harness         to connector & terminal       M2?       Is the resistance less than 1       Go to step 7.       Repair the open circuit in harness         to connector & terminal       Measure the resistance between driver's control center differential control module harness       connector & terminal       Go to step 7.       Repair the short         7       CHECK HARNESS CONNECTOR BETWEEN       Is the resistance more than 1       Go to step 8.       Repair the short         TIAL CONTROL MODULE AND YAW RATE       Is the resistance more than 1       Go to step 8.       Repair the short         7       CHECK HARNESS CONNECTOR BETWEEN       Is the resistance more than 1       Go to step 8.       Repair the short         7       CHECK HARNESS CONTROL CENTER DIFFERENTIAL CONTROL MODULE AND YAW RATE       Is the r  | 5 | CHECK YAW RATE & LATERAL G SENSOR                           | Is the resistance more than 1  | Go to step 6.       | Repair the short    |
| Measure the resistance between driver's control center differential control module harness connector and Chassis ground (-).       Detween driver's control center differential control module and yaw rate & lateral G sensor.         6       CHECK HARNESS CONNECTOR BETWEEN DRIVER'S CONTROL CENTER DIFFERENTIAL CONTROL MODULE AND YAW RATE & LATERAL G SENSOR.       Is the resistance less than 1       Go to step 7.       Repair the open circuit in harness between driver's control center differential control module harness connector and yaw rate & lateral G sensor.         7       CHECK HARNESS CONNECTOR BETWEEN I (B380) No. 19 – (B230) No. 1:       Is the resistance more than 1       Go to step 8.       Repair the short circuit in harness between driver's control center differential control module harness connector and yaw rate & lateral G sensor.         7       CHECK HARNESS CONNECTOR BETWEEN DRIVER'S CONTROL CENTER DIFFERENTIAL CONTROL MODULE AND YAW RATE & LATERAL G SENSOR.       Is the resistance more than 1       Go to step 8.       Repair the short circuit in harness between driver's control center differential control module harness connector and CAMPARATE & LATERAL G SENSOR.         7       CHECK HARNESS CONNECTOR BETWEEN TIAL CONTROL MODULE AND YAW RATE & LATERAL G SENSOR.       Is the resistance more than 1       Go to step 8.       Repair the short circuit in harness between driver's control center differential control module harness connector and Chassis ground (-).       Connector & terminal       So to step 8.       Repair the short circuit in harness control center differential control module harness connector and Chassis ground (-).       So to step 8.       So to step 8.<   |   | GROUND CIRCUIT.   | ΜΩ?                            |                     | circuit in harness  |
| troi center differential control module namess<br>connector and Chassis ground (-).       Connector & terminal<br>(B380) No. 11 — Chassis ground:       Connector & terminal<br>(B380) No. 11 — Chassis ground:       Is the resistance less than 1       Go to step 7.       Repair the open<br>circuit in harness<br>between driver's<br>control center differential control<br>module and yaw<br>rate & lateral G<br>sensor.         6       CHECK HARNESS CONNECTOR BETWEEN<br>DRIVER'S CONTROL CENTER DIFFEREN-<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.       Is the resistance less than 1       Go to step 7.       Repair the open<br>circuit in harness<br>between driver's<br>control center differential control<br>module and yaw<br>rate & lateral G<br>sensor.         7       CHECK HARNESS CONNECTOR BETWEEN<br>(B380) No. 19 — (B230) No. 1:       Is the resistance more than 1<br>DRIVER'S CONTROL CENTER DIFFEREN-<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.       Is the resistance more than 1<br>MΩ?       Go to step 8.       Repair the short<br>circuit in harness<br>between driver's<br>control center differential control<br>module and yaw<br>rate & lateral G<br>sensor.         7       CHECK HARNESS CONNECTOR BETWEEN<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.       Is the resistance more than 1<br>MΩ?       Go to step 8.       Repair the short<br>circuit in harness<br>between driver's<br>control center differential control<br>module and yaw<br>rate & lateral G<br>sensor.  |   | Measure the resistance between driver's con-                |                                |                     | between driver's    |
| Connector & terminal<br>(B380) No. 11 — Chassis ground:       Is the resistance less than 1       Go to step 7.       Repair the open<br>circuit in harness<br>between driver's con-<br>trol center differential control module harness<br>connector and yaw rate & lateral G sensor.       Go to step 7.       Repair the open<br>circuit in harness<br>between driver's con-<br>trol center differential control module harness<br>connector and yaw rate & lateral G sensor.       Go to step 7.       Repair the open<br>circuit in harness<br>between driver's<br>control center differential control module harness<br>connector and yaw rate & lateral G sensor.       Go to step 7.       Repair the open<br>circuit in harness<br>between driver's<br>control center differential control module harness<br>connector and yaw rate & lateral G sensor.       Sensor.         7       CHECK HARNESS CONTROL CENTER DIFFEREN-<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.       Is the resistance more than 1       Go to step 8.       Repair the short<br>circuit in harness<br>between driver's<br>control center differential control module harness<br>connector and Chassis ground (-).         7       CHECK HARNESS CONRECTOR BETWEEN<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.       Is the resistance more than 1       Go to step 8.       Repair the short<br>circuit in harness<br>between driver's<br>control center differential control module harness<br>connector and Chassis ground (-).         Connector & terminal       Connector & terminal       Sensor.       Sensor.   |   | trol center differential control module harness             |                                |                     | control center dif- |
| (B380) No. 11 — Chassis ground:       Infodule and yaw         6       CHECK HARNESS CONNECTOR BETWEEN<br>DRIVER'S CONTROL CENTER DIFFEREN-<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.       Is the resistance less than 1       Go to step 7.       Repair the open<br>circuit in harness<br>between driver's<br>control center differential control module harness<br>connector and yaw rate & lateral G sensor.       Ω?         7       CHECK HARNESS CONNECTOR BETWEEN<br>(B380) No. 19 — (B230) No. 1:       Is the resistance more than 1       Go to step 8.       Repair the short<br>circuit in harness<br>between driver's<br>control center differential control module harness<br>connector & terminal<br>(B380) No. 19 — (B230) No. 1:         7       CHECK HARNESS CONNECTOR BETWEEN<br>DRIVER'S CONTROL CENTER DIFFEREN-<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.       Is the resistance more than 1       Go to step 8.       Repair the short<br>circuit in harness<br>between driver's<br>control center differential control module harness<br>connector and Chassis ground (-).         Connector & terminal<br>(Connector & terminal)       Connector & terminal       Sensor.   |   | Connector and Chassis ground (–).                           |                                |                     | modulo and yow      |
| 6       CHECK HARNESS CONNECTOR BETWEEN<br>DRIVER'S CONTROL CENTER DIFFEREN-<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.       Is the resistance less than 1       Go to step 7.       Repair the open<br>circuit in harness<br>between driver's<br>control center dif-<br>ferential control module harness<br>connector and yaw rate & lateral G sensor.       Go to step 7.       Repair the open<br>circuit in harness<br>between driver's<br>control center dif-<br>ferential control module harness<br>connector & terminal<br>(B380) No. 19 — (B230) No. 1:       Go to step 8.       Repair the short<br>circuit in harness<br>between driver's<br>control center dif-<br>ferential control module harness<br>connector at terminal<br>(B380) No. 19 — (B230) No. 1:         7       CHECK HARNESS CONNECTOR BETWEEN<br>TIAL CONTROL CENTER DIFFEREN-<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.       Is the resistance more than 1<br>MΩ?       Go to step 8.       Repair the short<br>circuit in harness<br>between driver's<br>control center dif-<br>ferential control module harness<br>connector and Chassis ground (–).         Connector & terminal<br>(-).       Connector & terminal       Sensor.   |   | (B380) No. 11 — Chassis around:                             |                                |                     | rate & lateral G    |
| 6       CHECK HARNESS CONNECTOR BETWEEN<br>DRIVER'S CONTROL CENTER DIFFEREN-<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.       Is the resistance less than 1<br>Ω?       Go to step 7.       Repair the open<br>circuit in harness<br>between driver's<br>control center differential control module harness<br>connector and yaw rate & lateral G sensor.       Go to step 7.       Repair the open<br>circuit in harness<br>between driver's<br>control center differential control module harness<br>connector & terminal<br>(B380) No. 19 — (B230) No. 1:       Go to step 7.       Repair the open<br>circuit in harness<br>between driver's<br>control center differential control<br>module and yaw<br>rate & lateral G<br>sensor.         7       CHECK HARNESS CONNECTOR BETWEEN<br>DRIVER'S CONTROL CENTER DIFFEREN-<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.       Is the resistance more than 1<br>MΩ?       Go to step 8.       Repair the short<br>circuit in harness<br>between driver's<br>control center dif-<br>ferential control module harness<br>connector and Chassis ground (–).         Connector & terminal<br>(Domector & terminal)       Connector & terminal       Go to step 8.       Repair the short<br>circuit in harness<br>between driver's<br>control center dif-<br>ferential control module harness<br>connector and Chassis ground (–).   |   |   |                                |                     | sensor.             |
| DRIVER'S CONTROL CENTER DIFFEREN-<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.       Ω?       circuit in harness<br>between driver's<br>control center dif-<br>ferential control module harness<br>connector and yaw rate & lateral G sensor.       Connector & terminal<br>(B380) No. 19 — (B230) No. 1:       Ω?         7       CHECK HARNESS CONNECTOR BETWEEN<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.       Is the resistance more than 1       Go to step 8.       Repair the short<br>circuit in harness<br>between driver's<br>control center dif-<br>ferential control module harness<br>connector and Chassis ground (–).         Connector & terminal<br>(B380) No. 19 — (B230) No. 1:       Is the resistance more than 1       Go to step 8.       Repair the short<br>circuit in harness<br>between driver's<br>control center dif-<br>ferential control module harness<br>connector and Chassis ground (–).  | 6 | CHECK HARNESS CONNECTOR BETWEEN                             | Is the resistance less than 1  | Go to step 7.       | Repair the open     |
| TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.<br>Measure the resistance between driver's con-<br>trol center differential control module harness<br>connector and yaw rate & lateral G sensor.<br>Connector & terminal<br>(B380) No. 19 — (B230) No. 1:between driver's<br>control center dif-<br>ferential control<br>module and yaw<br>rate & lateral G<br>sensor.7CHECK HARNESS CONNECTOR BETWEEN<br>DRIVER'S CONTROL CENTER DIFFEREN-<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.<br>Measure the resistance between driver's con-<br>trol center differential control module harness<br>connector and Chassis ground (-).<br>Connector & terminalIs the resistance more than 1<br>MΩ?Go to step 8.Repair the short<br>circuit in harness<br>between driver's<br>control center differential control<br>module harness<br>consector and Chassis ground (-).  | - | DRIVER'S CONTROL CENTER DIFFEREN-                           | Ω?                             |                     | circuit in harness  |
| & LATERAL G SENSOR.<br>Measure the resistance between driver's con-<br>trol center differential control module harness<br>connector and yaw rate & lateral G sensor.control center dif-<br>ferential control<br>module and yaw<br>rate & lateral G<br>sensor.7CHECK HARNESS CONNECTOR BETWEEN<br>DRIVER'S CONTROL CENTER DIFFEREN-<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.<br>Measure the resistance between driver's con-<br>trol center differential control module harness<br>connector and Chassis ground (-).Is the resistance more than 1Go to step 8.Repair the short<br>circuit in harness<br>between driver's<br>control center differential control<br>module harness<br>connector and Chassis ground (-).  |   | TIAL CONTROL MODULE AND YAW RATE                            |                                |                     | between driver's    |
| Measure the resistance between driver's control center differential control module harness connector and yaw rate & lateral G sensor.       ferential control module and yaw rate & lateral G sensor.         Connector & terminal (B380) No. 19 — (B230) No. 1:       Is the resistance more than 1       Go to step 8.       Repair the short circuit in harness between driver's control center differential control module harness between driver's control center differential control module harness connector and Chassis ground (–).       Is the resistance more than 1       Go to step 8.       Repair the short circuit in harness between driver's control center differential control module harness connector and Chassis ground (–).   |   | & LATERAL G SENSOR.   |                                |                     | control center dif- |
| trol center differential control module harness<br>connector and yaw rate & lateral G sensor.       module and yaw<br>rate & lateral G<br>sensor.         Connector & terminal<br>(B380) No. 19 — (B230) No. 1:       sensor.         CHECK HARNESS CONNECTOR BETWEEN<br>DRIVER'S CONTROL CENTER DIFFEREN-<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.       Is the resistance more than 1<br>MΩ?       Go to step 8.       Repair the short<br>circuit in harness<br>between driver's<br>control center differential control module harness<br>connector and Chassis ground (–).       MΩ?   |   | Measure the resistance between driver's con-                |                                |                     | ferential control   |
| connector and yaw rate & lateral G sensor.       rate & lateral G         Connector & terminal       (B380) No. 19 – (B230) No. 1:         7       CHECK HARNESS CONNECTOR BETWEEN         DRIVER'S CONTROL CENTER DIFFEREN-         TIAL CONTROL MODULE AND YAW RATE         & LATERAL G SENSOR.         Measure the resistance between driver's con-         trol center differential control module harness         connector and Chassis ground (–).         Connector & terminal  |   | trol center differential control module harness             |                                |                     | module and yaw      |
| Connector & terminal<br>(B380) No. 19 — (B230) No. 1:       sensor.         7       CHECK HARNESS CONNECTOR BETWEEN<br>DRIVER'S CONTROL CENTER DIFFEREN-<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.<br>Measure the resistance between driver's con-<br>trol center differential control module harness<br>connector and Chassis ground (–).       Is the resistance more than 1<br>MΩ?       Go to step 8.       Repair the short<br>circuit in harness<br>between driver's<br>control center dif-<br>ferential control<br>module and yaw<br>rate & lateral G<br>sensor.   |   | connector and yaw rate & lateral G sensor.                  |                                |                     | rate & lateral G    |
| 7       CHECK HARNESS CONNECTOR BETWEEN<br>DRIVER'S CONTROL CENTER DIFFEREN-<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.<br>Measure the resistance between driver's con-<br>trol center differential control module harness<br>connector and Chassis ground (–).       Is the resistance more than 1<br>MΩ?       Go to step 8.       Repair the short<br>circuit in harness<br>between driver's<br>control center differential control module harness<br>connector and Chassis ground (–).   |   | Connector & terminal  |                                |                     | sensor.             |
| <ul> <li>CHECK HARNESS CONNECTOR BETWEEN Is the resistance more than 1</li> <li>DRIVER'S CONTROL CENTER DIFFEREN-<br/>TIAL CONTROL MODULE AND YAW RATE<br/>&amp; LATERAL G SENSOR.</li> <li>Measure the resistance between driver's con-<br/>trol center differential control module harness<br/>connector and Chassis ground (–).</li> <li>Connector &amp; terminal</li> <li>Go to step 8.</li> <li>Hepair the short<br/>circuit in harness<br/>between driver's<br/>control center differential control module harness<br/>connector and Chassis ground (–).</li> </ul>  | L | (B380) NO. 19 — (B230) NO. 1:                               |                                | <u> </u>            |                     |
| DRIVER'S CONTROL CENTER DIFFEREN-<br>TIAL CONTROL MODULE AND YAW RATE<br>& LATERAL G SENSOR.       IND?       Circuit in harness<br>between driver's<br>control center dif-<br>ferential control module harness<br>connector and Chassis ground (–).         Connector & terminal       Sensor.  | 7 | CHECK HARNESS CONNECTOR BETWEEN                             | Is the resistance more than 1  | Go to step 8.       | Repair the short    |
| & LATERAL G SENSOR.       control center dif-         Measure the resistance between driver's control center differential control module harness connector and Chassis ground (–).       module and yaw         Connector & terminal       sensor.   |   |   | IVIS 2 ?                       |                     | between driver's    |
| Measure the resistance between driver's con-<br>trol center differential control module harness<br>connector and Chassis ground (–).   |   |   |                                |                     | control center dif  |
| trol center differential control module harness<br>connector and Chassis ground (–).   |   | Measure the resistance between driver's con-                |                                |                     | ferential control   |
| connector and Chassis ground (–).  |   | trol center differential control module harness             |                                |                     | module and vaw      |
| Connector & terminal   |   | connector and Chassis ground (–).                           |                                |                     | rate & lateral G    |
|  |   | Connector & terminal  |                                |                     | sensor.             |
| (B380) No. 19 — Chassis ground:  |   | (B380) No. 19 — Chassis ground:                             |                                |                     |                     |

|    | Step   | Check   | Yes   | No   |
|----|--|---|---|--|
| 8  | <ul> <li>CHECK LATERAL G SENSOR.</li> <li>1) Turn the ignition switch to OFF.</li> <li>2) Connect all the connectors.</li> <li>3) Connect the Subaru Select Monitor to data link connector.</li> <li>4) Turn the ignition switch to ON, and Subaru Select Monitor switch to ON.</li> <li>Read the data of "Yaw rate &amp; lateral G sensor" using Subaru Select Monitor. <ref. 6mt(diag)-15,="" current="" data,="" monitor.="" operation,="" read="" select="" subaru="" to=""></ref.></li> </ul> | Is the data 2.1 — 2.9?  | Go to step 11.  | Go to step <b>9</b> .  |
| 9  | CHECK YAW RATE & LATERAL G SENSOR.<br>Measure the driver's control center differential<br>control module harness connector voltage.<br><i>Connector &amp; terminal</i><br>(B380) No. 19 (+) — No. 20 (–):  | Is the voltage 2.1 — 2.9 V?   | Go to step <b>10.</b>   | Replace the yaw<br>rate & lateral G<br>sensor.   |
| 10 | CHECK POOR CONTACT.  | Is there poor contact in yaw<br>rate & lateral G sensor refer-<br>ence circuit? | Repair the poor contact.  | Go to step 11.   |
| 11 | <ol> <li>CHECK DTC.</li> <li>1) Perform the "clear memory". <ref. to<br="">6MT(diag)-23, Clear Memory Mode.&gt;</ref.></li> <li>2) Start the engine.</li> <li>3) Read the DTC. <ref. 6mt(diag)-20,<br="" to="">Read Diagnostic Trouble Code (DTC).&gt;</ref.></li> </ol>   | Is the DTC P1765 displayed?   | Replace the<br>driver's control<br>center differential<br>control module. | Go to step 12.   |
| 12 | DETECTING CHECK FOR OTHER DTC.   | Is there any DTC other than P1765 displayed?                                    | Perform the diag-<br>nosis according to<br>DTC.                           | Lateral G sensor<br>circuit is in normal<br>condition. Tempo-<br>rary poor contact<br>occurs.<br>Repair the har-<br>ness or connector<br>between driver's<br>control center dif-<br>ferential control<br>module and yaw<br>rate & lateral G<br>sensor. |

## H: DTC P1875 CIRCUIT OF CENTER DIFF.

### DIAGNOSIS:

Output signal circuit of center differential is open or shorted. **TROUBLE SYMPTOM:** 

- Center differential does not operate.
- Lock ratio of center differential does not variation, or malfunction occurs.
- Tight corner braking condition occurs.
- Handling tends to oversteer.
- The dendency of understeer occurred when high speed cornering.

WIRING DIAGRAM:



MT-01246

| Step  | Check                                  | Yes                   | No  |
|---|--|-----------------------|---|
| <ol> <li>CHECK THE HARNESS BETWEEN DRIVER'S CONTROL CENTER DIFFERENTIAL<br/>CONTROL MODULE AND TRANSMISSION<br/>HARNESS.</li> <li>Turn the ignition switch to OFF.</li> <li>Disconnect the harness connector of<br/>driver's control center differential control mod-<br/>ule.</li> <li>Disconnect the transmission harness con-<br/>nector and bulk harness connector.</li> <li>Measure the resistance of harness<br/>between driver's control center differential con-<br/>trol module harness connector and transmis-<br/>sion harness connector.</li> <li><i>Connector &amp; terminal</i><br/>(B381) No. 9 — (B128) No. 1:<br/>(B381) No. 24 — (B128) No. 4:</li> </ol>     | Is the resistance less than 1<br>Ω?    | Go to step 2.         | Repair the open<br>circuit of bulk har-<br>ness between<br>driver's control<br>center differential<br>control module<br>and transmission<br>harness.  |
| 2 CHECK THE HARNESS BETWEEN DRIV-<br>ER'S CONTROL CENTER DIFFERENTIAL<br>CONTROL MODULE AND TRANSMISSION<br>HARNESS.<br>Measure the resistance between driver's con-<br>trol center differential control module harness<br>connector and chassis ground.<br><i>Connector &amp; terminal</i><br>(B381) No. 9 — Chassis ground:<br>(B381) No. 24 — Chassis ground:  | Is the resistance more than 1<br>MΩ?   | Go to step 3.         | Repair the short<br>circuit of bulk har-<br>ness between<br>driver's control<br>center differential<br>control module<br>and transmission<br>harness. |
| 3 CHECK THE CENTER DIFFERENTIAL.<br>Measure the resistance between transmission<br>harness connector terminals.<br>Connector & terminals<br>(T9) No. 1 — No. 4:   | Is the resistance $1.0 - 2.0 \Omega$ ? | Go to step 4.         | Replace the center differential.  |
| <ul> <li>4 CHECK THE OUTPUT SIGNAL OF DRIVER'S<br/>CONTROL CENTER DIFFERENTIAL CON-<br/>TROL MODULE.</li> <li>1) Connect all the harness connectors.</li> <li>2) Turn the ignition switch to ON. (engine<br/>OFF)</li> <li>3) Release the parking brake.</li> <li>4) Set the driver's control center differential to<br/>manual mode by pressing manual mode<br/>switch.</li> <li>5) Set the center differential control dial to dif-<br/>ferential lock.</li> <li>6) Measure the voltage between driver's con-<br/>trol center differential control module and har-<br/>ness connector.</li> <li>Connector &amp; terminal<br/>(B381) No. 9 (+) — (B381) No. 24 (-):</li> </ul> | Is the voltage 6.0 — 7.0 V?            | Go to step <b>5</b> . | Go to step <b>6</b> .   |

| Step  | Check                           | Yes                   | No                    |
|---|---------------------------------|-----------------------|-----------------------|
| 5 CHECK THE OUTPUT SIGNAL OF DRIVER'S                         | Does the voltage change         | Circuit is already    | Go to step 6.         |
| CONTROL CENTER DIFFERENTIAL CON-                              | smoothly?                       | returned to nor-      |                       |
| TROL MODULE.  |                                 | mal condition this    |                       |
| 1) Turn the center differential control dial from             |                                 | time though the       |                       |
| differential lock to differential free position.              |                                 | indicator blink illu- |                       |
| 2) Measure the voltage between driver's con-                  |                                 | minates. A tempo-     |                       |
| trol center differential control module and har-              |                                 | rary poor             |                       |
| ness connector.   |                                 | connector or har-     |                       |
| Connector & terminal  |                                 | ness may be the       |                       |
| (B381) No. 9 (+) — (B381) No. 24 (–):                         |                                 | case. Repair the      |                       |
|   |                                 | poor contact in       |                       |
|   |                                 | connector or har-     |                       |
|   |                                 | ness of driver's      |                       |
|   |                                 | control center dif-   |                       |
|   |                                 | ferential control     |                       |
|   |                                 | module and trans-     |                       |
|   |                                 | mission harness.      |                       |
|   |                                 | Check the poor        |                       |
|   |                                 | contact in power      |                       |
|   |                                 | supply circuit, too.  |                       |
| 6 CHECK FUSE (No. 4).   | Is the fuse (No. 4) is blown    | Replace fuse          | Go to step 7.         |
| Remove the fuse (No. 4).                                      | out?                            | (No.4). If the        |                       |
|   |                                 | replaced fuse         |                       |
|   |                                 | (No.4) is blown out   |                       |
|   |                                 | easily, repair short  |                       |
|   |                                 | circuit in harness    |                       |
|   |                                 | between fuse          |                       |
|   |                                 | (No.4) and driver's   |                       |
|   |                                 | control center dif-   |                       |
|   |                                 | rerential control     |                       |
|   |                                 | module.               | <b>D</b>              |
| 7 CHECK POWER SUPPLY CIRCUIT OF DRIV-                         | Is the voltage more than 10 V?  | Go to step 8.         | Repair the open or    |
| ER'S CONTROL CENTER DIFFERENTIAL                              |                                 |                       | short circuit         |
| RELAY.  |                                 |                       | between fuse (No.     |
| 1) Fuse installation.   |                                 |                       | 4) and driver's       |
| 2) Disconnect the harness connector of                        |                                 |                       | forential relay bet   |
| 2) Massure the veltage between driver's con                   |                                 |                       | terenilai relay, bal- |
| 5) Measure the voltage between driver's con-                  |                                 |                       | tery.                 |
| and chassis ground  |                                 |                       |                       |
| Connector & terminal  |                                 |                       |                       |
| (B288) No. 4 (+) — Chassis around (-):                        |                                 |                       |                       |
|   | le the voltage more than 10.1/2 | Go to stop <b>0</b>   | Popair the open       |
|   |                                 |                       | circuit between       |
|   |                                 |                       |                       |
| ENTIAL RELAT.<br>Measure the voltage between driver's control |                                 |                       | driver's control      |
| center differential relay and chassis ground                  |                                 |                       | center differential   |
| Connector & terminal  |                                 |                       | control module        |
| (B288) No $3(+)$ — Chassis around $(-)$                       |                                 |                       | control module.       |
|   |                                 |                       |                       |

|    | Step   | Check                                      | Yes                   | No   |
|----|--|--|-----------------------|--|
| 9  | CHECK HARNESS BETWEEN DRIVER'S<br>CONTROL CENTER DIFFERENTIAL CON-<br>TROL MODULE AND DRIVER'S CONTROL<br>RELAY.<br>1) Turn the ignition switch to OFF.<br>2) Disconnect the driver's control center differ-<br>ential control unit connector.<br>3) Measure the resistance of harness<br>between driver's control center differential con-<br>trol module harness connector and driver's<br>control relay harness connector.<br><i>Connector &amp; terminal</i><br>(B381) No. 18 — (B288) No. 2:<br>(B381) No. 21 — (B288) No. 1: | Is the resistance less than 1<br>Ω?        | Go to step <b>10.</b> | Repair the open<br>circuit between<br>driver's control<br>center differential<br>control module<br>harness connec-<br>tor and driver's<br>control relay har-<br>ness connector.                |
| 10 | CHECK HARNESS BETWEEN DRIVER'S<br>CONTROL CENTER DIFFERENTIAL CON-<br>TROL MODULE AND DRIVER'S CONTROL<br>RELAY.<br>Measure the resistance of harness between<br>driver's control center differential control mod-<br>ule harness connector and chassis ground.<br><i>Connector &amp; terminal</i><br>(B381) No. 7 — Chassis ground:<br>(B381) No. 8 — Chassis ground:<br>(B381) No. 10 — Chassis ground:  | Is the resistance more than 1 M $\Omega$ ? | Go to step 11.        | Repair the short<br>circuit between<br>driver's control<br>center differential<br>control module<br>harness connec-<br>tor and driver's<br>control relay, bat-<br>tery harness con-<br>nector. |
| 11 | CHECK DRIVER'S CONTROL RELAY.<br>Measure the resistance between driver's con-<br>trol relay terminals.<br><i>Terminals</i><br>(B288) No. 4 — No. 2:  | Is the resistance more than 1 $M\Omega$ ?  | Go to step 12.        | Replace the<br>driver's control<br>relay.  |
| 12 | CHECK DRIVER'S CONTROL RELAY.<br>Connect the terminal No. 3 to battery positive<br>side, and terminal No.1 to battery negative<br>side, and then measure the resistance<br>between driver's control relay terminals.<br><i>Terminals</i><br>(B288) No. 4 — No. 2:  | Is the resistance less than 1<br>Ω?        | Go to step 13.        | Replace the<br>driver's control<br>relay.  |
| 13 | CHECK IGNITION POWER SUPPLY CIRCUIT<br>FOR DRIVER'S CONTROL CENTER DIFFER-<br>ENTIAL CONTROL UNIT.<br>1) Connect all the connectors.<br>2) Turn the ignition switch to ON.<br>3) Measure the voltage between driver's con-<br>trol center differential control unit and chassis<br>ground.<br>Connector & terminal<br>(B381) No. 10 (+) — Chassis ground (-):  | Is the voltage less than 1 V?              | Go to step 14.        | Go to step <b>16</b> .   |
| 14 | CHECK IGNITION POWER SUPPLY CIRCUIT<br>FOR DRIVER'S CONTROL CENTER DIFFER-<br>ENTIAL CONTROL UNIT.<br>Measure the voltage between driver's control<br>center differential control unit and chassis<br>ground.<br>Connector & terminal<br>(B381) No. 7 (+) — Chassis ground (-):<br>(B381) No. 8 (+) — Chassis ground (-):  | Is the voltage more than 8 V?              | Go to step 15.        | Go to step 16.   |

|    | Step  | Check   | Yes  | No   |
|----|---|---|--|--|
| 15 | <ul> <li>CHECK CENTER DIFFERENTIAL.</li> <li>1) Turn the ignition switch to OFF.</li> <li>2) Connect the Subaru Select Monitor to the data link connector.</li> <li>3) Turn the ignition switch and Subaru Select Monitor switch to ON.</li> <li>4) Set the driver's control center differential to manual mode by pressing manual mode switch.</li> <li>5) Release the parking brake.</li> <li>6) Set the center differential control dial to lock position.</li> <li>7) Read the data of "center differential indicator current" and "center differential actual current" using Subaru Select Monitor.</li> </ul> | Are both of the "center differen-<br>tial indicator current" and "cen-<br>ter differential actual current"<br>approx. 4.3 — 4.5A? | Go to step <b>16</b> .   | Go to step 17.   |
| 16 | <ul> <li>CHECK CENTER DIFFERENTIAL.</li> <li>1) Operate the center differential control dial<br/>so that the "2A" is displayed for "center differ-<br/>ential indicator current" on the Subaru Select<br/>Monitor.</li> <li>2) Read the data of "center differential actual<br/>current" using Subaru Select Monitor.</li> </ul>  | Is the "center differential actual<br>current" almost same as "cen-<br>ter differential indicator cur-<br>rent"?                  | The center differ-<br>ential circuit is in<br>normal condition.<br>A temporary poor<br>contact of connec-<br>tor or harness may<br>be the cause.<br>Repair harness or<br>connector in<br>driver's control<br>center differential<br>circuit. | Go to step 17.   |
| 17 | CHECK POOR CONTACT IN HARNESS<br>CONNECTOR.   | Is there poor contact in har-<br>ness connector?  | Repair the poor contact.   | Go to step 18.   |
| 18 | <ul> <li>CHECK DTC.</li> <li>1) Erase the memory. <ref. 6mt(diag)-20,<br="" to="">Read Diagnostic Trouble Code (DTC).&gt;</ref.></li> <li>2) Read the DTC using Subaru Select Moni-<br/>tor. <ref. 6mt(diag)-20,="" diagnostic<br="" read="" to="">Trouble Code (DTC).&gt;</ref.></li> </ul>  | Is P1875 displayed?   | Replace the<br>driver's control<br>center differential<br>control unit.  | Go to step <b>19.</b>  |
| 19 | CHECK OTHER DTC DETECTION.  | Is any DTC except P1875 displayed?  | Diagnose accord-<br>ing to DTC.  | The center differ-<br>ential circuit is in<br>normal condition.<br>A temporary poor<br>contact of connec-<br>tor or harness may<br>be the cause.<br>Repair harness or<br>connector in<br>driver's control<br>center differential<br>circuit. |

#### **DTC 2125 ACCELERATOR POSITION SENSOR E** 1:

#### **DIAGNOSIS:**

The accelerator position sensor input signal circuit is open or shorted.

### **TROUBLE SYMPTOM:**

- Tight corner braking condition occurs.
- Handling tends to oversteer. ٠

#### WIRING DIAGRAM:



|   | Step   | Check  | Yes  | No  |
|---|--|--|--|---|
| 1 | CHECK DTC.   | Is the DTC displayed on<br>engine self diagnosis test<br>mode? | Check with refer-<br>ring to DTC sec-<br>tion of engine.<br><ref. to<br="">EN(H4DOTC)(diag<br/>)-73, LIST, List of<br/>Diagnostic Trou-<br/>ble Code (DTC).&gt;</ref.> | Go to step 2.   |
| 2 | CHECK THE HARNESS BETWEEN DRIV-<br>ER'S CONTROL CENTER DIFFERENTIAL<br>CONTROL MODULE AND ACCELERATOR<br>POSITION SENSOR.<br>1) Turn the ignition switch to OFF.<br>2) Disconnect the harness connector of<br>driver's control center differential control mod-<br>ule, ECM and accelerator position sensor.<br>3) Measure the resistance of harness<br>between driver's control center differential con-<br>trol module harness connector and accelerator<br>position sensor.<br>Connector & terminal<br>(B380) No. 2 — (B135) No. 2: | Is the resistance less than 1<br>Ω?                            | Go to step 3.  | Repair the open<br>circuit of harness<br>between driver's<br>control center dif-<br>ferential control<br>module and accel-<br>erator position<br>sensor.          |
| 3 | CHECK THE HARNESS BETWEEN DRIV-<br>ER'S CONTROL CENTER DIFFERENTIAL<br>CONTROL MODULE AND ECM.<br>Measure the resistance of harness between<br>driver's control center differential control mod-<br>ule harness connector and ECM harness con-<br>nector.<br>Connector & terminal<br>(B380) No. 2 — (B136) No. 28:   | Is the resistance less than 1 $\Omega$ ?                       | Go to step 4.  | Repair the open<br>circuit of harness<br>between driver's<br>control center dif-<br>ferential control<br>module and ECM.  |
| 4 | CHECK THE HARNESS BETWEEN DRIV-<br>ER'S CONTROL CENTER DIFFERENTIAL<br>CONTROL MODULE AND ACCELERATOR<br>POSITION SENSOR.<br>Measure the resistance of harness between<br>driver's control center differential control mod-<br>ule harness connector and chassis ground.<br>Connector & terminal<br>(B380) No. 2 — Chassis ground:   | Is the resistance more than 1<br>MΩ?                           | Go to step <b>5</b> .  | Repair the short<br>circuit of harness<br>between driver's<br>control center dif-<br>ferential control<br>module and accel-<br>erator position<br>sensor and ECM. |
| 5 | <ul> <li>CHECK INPUT SIGNAL OF DRIVER'S CONTROL CENTER DIFFERENTIAL CONTROL<br/>MODULE.</li> <li>1) Connect all connectors.</li> <li>2) Connect the Subaru Select Monitor to data<br/>link connector.</li> <li>3) Turn the ignition switch to ON (engine<br/>OFF), and Subaru Select Monitor switch to<br/>ON.</li> <li>4) Read the data of sub accelerator sensor<br/>signal using Subaru Select Monitor.</li> <li>Check the measured value is within specifica-<br/>tion without depressing the accelerator pedal.</li> </ul>        | Is the voltage 0.3 — 1.8 V?                                    | Go to step <b>6</b> .  | Go to step 7.   |

|    | Step   | Check  | Yes   | No  |
|----|--|--|---|---|
| 6  | <ul> <li>CHECK INPUT SIGNAL OF DRIVER'S CONTROL CENTER DIFFERENTIAL CONTROL<br/>MODULE.</li> <li>1) Fully depress the accelerator pedal.</li> <li>2) Read the data of sub accelerator sensor signal using Subaru Select Monitor.</li> <li>Check the measured value is within specification the accelerator pedal depressed.</li> </ul> | Is the data 2.8 — 4.7 V?   | Go to step 10.  | Go to step 7.   |
| 7  | <ul> <li>CHECK ACCELERATOR PEDAL POSITION<br/>SENSOR.</li> <li>1) Turn the ignition switch to OFF.</li> <li>2) Disconnect the connector of accelerator<br/>pedal position sensor.</li> <li>3) Measure the resistance of accelerator<br/>pedal position sensor.</li> <li>Terminal<br/>No. 1 - No. 6:</li> </ul>                         | Is the resistance 0.75 k — 3.15 kΩ?                                    | Go to step 8.   | Replace the accel-<br>erator pedal posi-<br>tion sensor.  |
| 8  | CHECK ACCELERATOR PEDAL POSITION<br>SENSOR.<br>Measure the resistance of accelerator pedal<br>position sensor.<br>Terminal<br>No. 2 — No. 6:   | Is the resistance 0.15 k — 0.63 kΩ?                                    | Go to step <b>9</b> .   | Replace the accel-<br>erator pedal posi-<br>tion sensor.  |
| 9  | CHECK THE POOR CONTACT.  | Is there any poor contact in accelerator position sensor cir-<br>cuit? | Repair the poor contact.  | Go to step <b>10.</b>   |
| 10 | CHECK DTC.<br>1) Perform the "clear memory". <ref. to<br="">6MT(diag)-23, Clear Memory Mode.&gt;<br/>2) Read the DTC using Subaru Select Moni-<br/>tor. <ref. 6mt(diag)-20,="" diagnostic<br="" read="" to="">Trouble Code (DTC).&gt;</ref.></ref.>  | Is the DTC P2125 displayed?  | Replace the<br>driver's control<br>center differential<br>control module. | Go to step 11.  |
| 11 | DETECTING CHECK FOR OTHER DTC  | Is there any DTC other than P2125 displayed?                           | Perform the diag-<br>nosis according to<br>DTC.                           | Accelerator posi-<br>tion sensor circuit<br>is in normal condi-<br>tion. Temporary<br>poor contact<br>occurs.<br>Repair the har-<br>ness or connector<br>between driver's<br>control center dif-<br>ferential control<br>module, accelera-<br>tor pedal position<br>sensor and ECM. |

## J: DTC 24 CHECK CENTER DIFFERENTIAL CONTROL DIAL.

### **DIAGNOSIS:**

Input signal circuit of center differential control dial is open or shorted.

#### **TROUBLE SYMPTOM:**

- Indicator light does not operate though setting the center differential control dial.
- Torque characteristics do not change. ٠

#### WIRING DIAGRAM:



| Step  | Check  | Yes                  | No  |
|---|--|----------------------|---|
| Step           1         CHECK THE HARNESS BETWEEN DRIV-<br>ER'S CONTROL CENTER DIFFERENTIAL<br>CONTROL MODULE AND CENTER DIFFER-<br>ENTIAL CONTROL DIAL.           1)         Turn the ignition switch to OFF.           2)         Disconnect the connector of driver's control<br>center differential control module and center<br>differential control dial.           3)         Measure the resistance of harness<br>between driver's control center differential con-<br>trol module and center different differential con-<br>trol module and center differential | Check<br>Is the resistance less than 1<br>Ω? | Yes<br>Go to step 2. | No<br>Repair the open<br>circuit between<br>driver's control<br>center differential<br>control module<br>and center differ-<br>ential control dial. |
| harness connector.<br><i>Connector &amp; terminal</i><br>(B380) No. 3 — (B258) No. 2:<br>(B380) No. 23 — (B258) No. 3:<br>(B381) No. 14 — (B258) No. 1:   |  |                      |   |

| Step  | Check   | Yes                         | No   |
|---|---|-----------------------------|--|
| 2 CHECK THE HARNESS BETWEEN DRIV-<br>ER'S CONTROL CENTER DIFFERENTIAL<br>CONTROL MODULE AND CENTER DIFFER-<br>ENTIAL CONTROL DIAL.<br>Measure the resistance between driver's con-<br>trol center differential control module harness<br>connector and chassis ground.<br><i>Connector &amp; terminal</i><br>(B380) No. 3 — Chassis ground:<br>(B380) No. 23 — Chassis ground:<br>(B381) No. 14 — Chassis ground: | Is the resistance more than 1<br>MΩ?  | Go to step <b>3</b> .       | Repair the short<br>circuit between<br>driver's control<br>center differential<br>control module<br>and center differ-<br>ential control dial.   |
| <ul> <li>3 CHECK THE CENTER DIFFERENTIAL CONTROL DIAL.</li> <li>1) Remove the center differential control dial.</li> <li>2) Measure the resistance between center differential control dial connectors.</li> <li><i>Terminals</i></li> <li>(B258) No. 1 — No. 3:</li> </ul>   | ls the resistance 7.5 — 12.5<br>kΩ?   | Go to step <b>4</b> .       | Replace the<br>driver's control<br>dial.   |
| 4 CHECK THE CENTER DIFFERENTIAL CON-<br>TROL DIAL.<br>Measure the resistance between center differ-<br>ential control dial connectors.<br><i>Terminals</i><br>(B258) No. 1 — No. 2:   | Dose the resistance change<br>smoothly when setting the dial<br>from differential lock to differ-<br>ential free? | Go to step 5.               | Replace the center<br>differential control<br>dial.  |
| <ul> <li>5 CHECK THE OUTPUT POWER SUPPLY OF<br/>DRIVER'S CONTROL CENTER DIFFEREN-<br/>TIAL CONTROL MODULE.</li> <li>1) Connect all the harness connectors.</li> <li>2) Turn the ignition switch to ON. (engine<br/>OFF)</li> <li>3) Measure the voltage driver's control center<br/>differential control module harness connector.</li> <li>Connector &amp; terminal<br/>(B380) No. 23 — (B381) No. 14</li> </ul> | Is the voltage approx. 5 V?   | Go to step 6.               | Replace the<br>driver's control<br>center differential<br>control module.  |
| 6 CHECK POOR CONTACT.   | Is there poor contact in center<br>differential control dial circuit?   | Repair the poor<br>contact. | Center differential<br>control dial circuit<br>is in normal condi-<br>tion. Temporary<br>poor contact<br>occurs.<br>Repair the har-<br>ness or connector<br>between driver's<br>control center dif-<br>ferential control<br>module and<br>driver's control<br>center differential. |

## K: DTC 31 MANUAL MODE SWITCH

### **DIAGNOSIS:**

Input signal circuit of manual mode switch circuit is open or shorted.

### TROUBLE SYMPTOM:

- Driver's control center differential can not be manual mode. Or can not be auto mode.
- AUTO indicator does not illuminate, or does not go off.

#### WIRING DIAGRAM:



MT-01249

## 6MT(diag)-57

Step Check Yes No CHECK OPERATION OF MANUAL MODE Does the AUTO indicator light Go to step 8. Go to step 2. 1 in combination meter illumi-SWITCH. Set the manual mode switch to auto mode. nate? 2 CHECK AUTO INDICATOR LIGHT. Does the AUTO indicator light Replace the Go to step 3. 1) Turn the ignition switch to OFF. in combination meter illumidriver's control center differential 2) Disconnect the harness connector of nate? driver's control center differential control modcontrol module. ule 3) Turn the ignition switch to ON. (engine OFF) 4) Short between the driver's control center differential control module and chassis ground. **Connector & terminal** (B381) No. 11 — Chassis ground: CHECK POWER SUPPLY OF COMBINA-Is the voltage more than 10 V? Go to step 4. Check and repair 3 TION METER. the open and short 1) Turn the ignition switch to OFF. of harness 2) Disconnect the harness connector of combetween battery bination meter. and combination 3) Turn the ignition switch to ON. (engine meter, and poor OFF) contact of har-4) Measure the voltage between combination ness connector. meter harness connector and chassis ground. **Connector & terminal** (i11) No. 7 (+) — Chassis ground (-): CHECK THE HARNESS BETWEEN COMBI- Is the resistance less than 1 4 Go to step 5. Repair the open NATION METER AND DRIVER'S CONTROL  $\Omega$ ? circuit of harness **CENTER DIFFERENTIAL CONTROL MOD**between combina-ULE. tion meter har-1) Turn the ignition switch to OFF. ness connector 2) Disconnect the harness connector of comand driver's control bination meter. center differential 3) Measure the resistance between combinacontrol module tion meter harness connector and driver's conharness connectrol center differential control module harness tor, and poor conconnector. tact of harness **Connector & terminal** connector. (i12) No. 16 — (B381) No. 11: CHECK THE HARNESS BETWEEN COMBI-Repair the short 5 Is the resistance more than 1 Go to step 6. NATION METER AND DRIVER'S CONTROL  $M\Omega?$ circuit of harness **CENTER DIFFERENTIAL CONTROL MOD**between combina-ULE. tion meter har-Measure the resistance between driver's conness connector trol center differential control module harness and driver's control center differential connector and chassis ground. Connector & terminal control module (B381) No. 11 — Chassis ground: harness connector. CHECK HARNESS CONNECTOR POOR Is there any poor contact in the Repair the poor Go to step 7. 6 CONTACT. circuit between combination contact. meter and driver's control module? 7 CHECK AUTO INDICATOR LIGHT. Does the AUTO indicator light Replace the Replace the com-1) Connect the harness connector of combilight up? driver's control bination meter. nation meter. center differential 2) Short between the driver's control center control module.

differential control module harness connector

(B381) No. 11 — Chassis ground:

and chassis ground. Connector & terminal

|    | Step   | Check                                     | Yes   | No  |
|----|--|---|---|---|
| 8  | <ul> <li>CHECK GROUND CIRCUIT OF MANUAL<br/>MODE SWITCH.</li> <li>1) Turn the ignition switch to OFF.</li> <li>2) Disconnect the manual mode switch connector.</li> <li>3) Measure the resistance between manual mode switch harness connector and chassis ground.</li> <li>Connector &amp; terminal<br/>(B339) No. 4 — Chassis ground:</li> </ul>   | Is the resistance more than 1 $M\Omega$ ? | Repair the open<br>circuit of harness<br>between manual<br>mode switch har-<br>ness connector<br>and chassis<br>ground. | Go to step <b>9</b> .   |
| 9  | CHECK THE HARNESS BETWEEN DRIV-<br>ER'S CONTROL CENTER DIFFERENTIAL<br>CONTROL MODULE AND MANUAL MODE<br>SWITCH.<br>1) Disconnect the driver's control center differ-<br>ential control module harness connector.<br>2) Measure the resistance of harness<br>between driver's control center differential con-<br>trol module and manual mode switch.<br>Connector & terminal<br>(B380) No. 13 — (B339) No. 5:   | Is the resistance less than 1<br>Ω?       | Go to step 10.  | Repair the open<br>circuit of harness<br>between driver's<br>control center dif-<br>ferential control<br>module and man-<br>ual mode switch.  |
| 10 | CHECK THE HARNESS BETWEEN DRIV-<br>ER'S CONTROL CENTER DIFFERENTIAL<br>CONTROL MODULE AND MANUAL MODE<br>SWITCH.<br>Measure the resistance of harness between<br>driver's control center differential control mod-<br>ule and chassis ground.<br>Connector & terminal<br>(B380) No. 13 — Chassis ground:   | Is the resistance more than 1 $M\Omega$ ? | Go to step 11.  | Repair the short<br>circuit of harness<br>between driver's<br>control center dif-<br>ferential control<br>module and man-<br>ual mode switch. |
| 11 | <ul> <li>CHECK THE MANUAL MODE SWITCH.</li> <li>1) Remove the manual mode switch.</li> <li>2) Measure the resistance of between manual mode switch connectors.</li> <li>Terminals <ul> <li>(B339) No. 4 — No. 5:</li> </ul> </li> </ul>  | Is the resistance more than 1 $M\Omega$ ? | Go to step 12.  | Replace the man-<br>ual mode switch.  |
| 12 | <ul> <li>CHECK THE MANUAL MODE SWITCH.</li> <li>1) Keep depressing the manual mode switch.</li> <li>2) Measure the resistance of between manual mode switch connectors.</li> <li>Terminals</li> <li>(B339) No. 4 - No. 5:</li> </ul>   | Is the resistance less than 1 $\Omega$ ?  | Go to step 13.  | Replace the man-<br>ual mode switch.  |
| 13 | <ul> <li>CHECK THE INPUT SIGNAL OF DRIVER'S CONTROL CENTER DIFFERENTIAL CONTROL MODULE.</li> <li>1) Install the manual mode switch.</li> <li>2) Connect the harness connector of driver's control center differential control module.</li> <li>3) Connect the Subaru Select Monitor to data link connector.</li> <li>4) Turn the ignition switch to ON. (engine OFF)</li> <li>5) Subaru Select Monitor switch to ON.</li> <li>6) Read the data of AUTO/MANUAL mode switch signal using Subaru Select Monitor.</li> </ul> | Is the data OFF?                          | Go to step 14.  | Replace the<br>driver's control<br>center differential<br>control module.   |

|    | Step  | Check   | Yes   | No   |
|----|---|---|---|--|
| 14 | <ul> <li>CHECK THE INPUT SIGNAL OF DRIVER'S<br/>CONTROL CENTER DIFFERENTIAL CON-<br/>TROL MODULE.</li> <li>1) Keep depressing the manual mode switch.</li> <li>2) Read the data of AUTO/MANUAL mode<br/>switch signal using Subaru Select Monitor.</li> </ul> | Is the data ON?   | Go to step 15.  | Replace the<br>driver's control<br>center differential<br>control module.  |
| 15 | CHECK POOR CONTACT IN HARNESS<br>CONNECTOR.   | Is there any poor contact in<br>manual mode switch circuit? | Repair the poor<br>contact.   | Go to step 16.   |
| 16 | CHECK DTC.<br>Read the DTC from combination meter. <ref.<br>to 6MT(diag)-20, Read Diagnostic Trouble<br/>Code (DTC).&gt;</ref.<br>  | Is the DTC 31 displayed?                                    | Replace the<br>driver's control<br>center differential<br>control module. | Go to step 17.   |
| 17 | DETECTING CHECK FOR OTHER DTC.  | Is there any DTC other than 31 displayed?                   | Perform the diag-<br>nosis according to<br>DTC.                           | Center differential<br>control dial circuit<br>is in normal condi-<br>tion. Temporary<br>poor contact<br>occurs.<br>Repair the har-<br>ness or connector<br>between driver's<br>control center dif-<br>ferential control<br>module, manual<br>mode switch and<br>chassis ground. |

## L: DTC 32 CHECK PARKING BRAKE SWITCH

### **DIAGNOSIS:**

Input signal circuit of parking brake switch is open or shorted. **TROUBLE SYMPTOM:** 

- Differential does not tend to be free though apply the parking brake.
- Differential stays free by releasing the parking brake.

#### WIRING DIAGRAM:



MT-01250

|   | Step   | Check   | Yes           | No  |
|---|--|---|---------------|---|
| 1 | <ul> <li>CHECK THE PARKING BRAKE SWITCH<br/>CIRCUIT.</li> <li>1) Turn the ignition switch to ON.</li> <li>2) Start the engine.</li> <li>3) Apply the parking brake.</li> </ul> | Does the parking brake warn-<br>ing light illuminate? | Go to step 2. | Check the parking<br>pilot & brake fluid<br>warning light cir-<br>cuit.                           |
| 2 | CHECK THE PARKING BRAKE SWITCH<br>CIRCUIT.<br>Release the parking brake.   | Does the parking brake warn-<br>ing light turn OFF?   | Go to step 3. | Check the brake<br>fluid level, parking<br>pilot & brake fluid<br>level warning light<br>circuit. |

|   | Step   | Check  | Yes   | No  |
|---|--|--|---|---|
| 3 | <ul> <li>CHECK THE HARNESS BETWEEN DRIVER'S CONTROL CENTER DIFFERENTIAL</li> <li>CONTROL MODULE AND PARKING BRAKE</li> <li>SWITCH.</li> <li>1) Turn the ignition switch to OFF.</li> <li>2) Disconnect the harness connector of driver's control center differential control module, combination meter and parking brake switch.</li> <li>3) Measure the resistance of harness between driver's control center differential control module and parking brake switch.</li> <li>Connector &amp; terminal (B380) No. 5 – (R4) No. 1:</li> </ul> | Is the resistance less than 1<br>Ω?  | Go to step 4.   | Repair the open<br>circuit of harness<br>and poor contact<br>of connector.  |
| 4 | CHECK THE HARNESS BETWEEN DRIV-<br>ER'S CONTROL CENTER DIFFERENTIAL<br>CONTROL MODULE AND PARKING BRAKE<br>SWITCH.<br>Measure the resistance between driver's con-<br>trol center differential control module harness<br>connector and chassis ground.<br><i>Connector &amp; terminal</i><br>(B380) No. 5 — Chassis ground:  | Is the resistance more than 1 $M\Omega$ ?                                      | Go to step <b>5</b> .                                 | Repair the short circuit of harness.  |
| 5 | <ul> <li>CHECK THE INPUT SIGNAL OF DRIVER'S<br/>CONTROL CENTER DIFFERENTIAL CON-<br/>TROL MODULE.</li> <li>1) Connect all the harness connectors.</li> <li>2) Connect the Subaru Select Monitor to data<br/>link connector.</li> <li>3) Turn the ignition switch to ON, and Subaru<br/>Select Monitor switch to ON.</li> <li>4) Release the parking brake.</li> <li>5) Read the data of parking switch signal<br/>using subaru Select Monitor.</li> </ul>  | Is the data OFF?   | Go to step <b>6</b> .                                 | Replace the<br>driver's control<br>center differential<br>control module.   |
| 6 | <ul> <li>CHECK THE INPUT SIGNAL OF DRIVER'S</li> <li>CONTROL CENTER DIFFERENTIAL CONTROL MODULE.</li> <li>1) Apply the parking brake.</li> <li>2) Read the data of parking switch signal using subaru Select Monitor.</li> </ul>   | Is the data ON?  | Go to step 7.   | Replace the<br>driver's control<br>center differential<br>control module.   |
| 7 | CHECK POOR CONTACT IN HARNESS<br>CONNECTOR.  | Is there any poor contact in<br>harness connector of parking<br>brake circuit? | Repair the poor<br>contact of har-<br>ness connector. | Center differential<br>control dial circuit<br>is in normal condi-<br>tion. Temporary<br>poor contact<br>occurs.<br>Repair the har-<br>ness or connector<br>between driver's<br>control center dif-<br>ferential control<br>module and neu-<br>tral switch. |

## M: DTC 33 STOP LIGHT SWITCH

**DIAGNOSIS:** Open or short circuit in stop light switch circuit **TROUBLE SYMPTOM:** 

Wheels are locked while the ABS operates.

WIRING DIAGRAM:



|   | Step       | Check   | Yes                         | No            |
|---|------------|---|-----------------------------|---------------|
| 1 | CHECK DTC. | Is the stop light switch related<br>DTC displayed during ABS<br>self-diagnosis test mode? | Check according to ABS DTC. | Go to step 2. |

|   | Step  | Check  | Yes   | No   |
|---|---|--|---|--|
| 2 | <ul> <li>CHECK DRIVER'S CONTROL CENTER DIF-<br/>FERENTIAL CONTROL MODULE.</li> <li>1) Turn the ignition switch to OFF.</li> <li>2) Connect the Subaru Select Monitor to data<br/>link connector.</li> <li>3) Turn the ignition switch to ON, and Subaru<br/>Select Monitor switch to ON.</li> <li>4) Read the data of "Stop Light Switch" using<br/>Subaru Select Monitor.</li> </ul>   | Is the "OFF" displayed?                                | Go to step 3.   | Replace the<br>driver's control<br>center differential<br>control module.  |
| 3 | <ul> <li>CHECK DRIVER'S CONTROL CENTER DIF-<br/>FERENTIAL CONTROL MODULE.</li> <li>1) Drepress the brake pedal and hold it.</li> <li>2) Read the data of "Stop Light Switch" using<br/>Subaru Select Monitor.</li> </ul>  | Is the "ON" displayed?                                 | Go to step 6.   | Go to step 4.  |
| 4 | CHECK INPUT SIGNAL FOR DRIVER'S<br>CONTROL CENTER DIFFERENTIAL CON-<br>TROL MODULE.<br>1) Turn the ignition switch to OFF.<br>2) Disconnect the harness connector of<br>driver's control center differential control mod-<br>ule.<br>3) Drepress the brake pedal and hold it.<br>4) Measure the voltage between driver's con-<br>trol center differential control module and chas-<br>sis ground.<br>Connector & terminal<br>(B380) No. 4 (+) — Chassis ground (-): | Is the voltage more than 8 V?                          | Go to step 5.   | Repair the open<br>circuit in harness<br>between driver's<br>control center dif-<br>ferential control<br>module and stop<br>light switch.  |
| 5 | CHECK POOR CONTACT.   | Is there poor contact in stop<br>light switch circuit? | Repair the poor<br>contact in harness<br>connector.                       | Replace the<br>driver's control<br>center differential<br>control module.  |
| 6 | CHECK DTC.<br>Read the DTC from combination meter. <ref.<br>to 6MT(diag)-20, Read Diagnostic Trouble<br/>Code (DTC).&gt;</ref.<br>  | Is the DTC 33 displayed?                               | Replace the<br>driver's control<br>center differential<br>control module. | Go to step 7.  |
| 7 | CHECK FOR OTHER DTC ON DISPLAY.   | Is there any DTC other than 33 displayed?              | Perform the diag-<br>nosis according to<br>DTC.                           | Stop light switch<br>circuit is in normal<br>condition. Tempo-<br>rary poor contact<br>occurs.<br>Repair the har-<br>ness or connector<br>between driver's<br>control center dif-<br>ferential control<br>module and stop<br>light switch. |

## N: DTC 37 NEUTRAL POSITION SWITCH

### **DIAGNOSIS:**

Open or short in neutral position switch circuit **TROUBLE SYMPTOM:** 

• Handling tende to oversteer.

• The dendency of understeer occurred when high speed cornering.

#### WIRING DIAGRAM:



|   | Step   | Check                                     | Yes                   | No   |
|---|--|---|-----------------------|--|
| 1 CHE<br>CON<br>TRC<br>SWI<br>1) 7<br>2) [<br>cont<br>and<br>3) M<br>cont<br>neut<br>CC | CK HARNESS BETWEEN DRIVER'S<br>NTROL CENTER DIFFERENTIAL CON-<br>DL MODULE AND NEUTRAL POSITION<br>ITCH.<br>Turn the ignition switch to OFF.<br>Disconnect the connectors from driver's<br>trol center differential control module, ECM<br>in neutral position switch.<br>Measure the resistance between driver's<br>trol center differential control module and<br>tral position switch.<br>Disconnector & terminal<br>B380) No. 15 — (B128) No. 2: | Is the resistance less than 1 $\Omega$ ?  | Go to step 2.         | Repair the open<br>circuit in harness<br>between neutral<br>position switch<br>connector and<br>Engine ground (–).                           |
| 2 CHE<br>CON<br>TRC<br>SWI<br>Mea<br>trol o<br>and<br><i>Co</i>                         | ECK HARNESS BETWEEN DRIVER'S<br>NTROL CENTER DIFFERENTIAL CON-<br>DL MODULE AND NEUTRAL POSITION<br>ITCH.<br>asure the resistance between driver's con-<br>center differential control module connector<br>Chassis ground (–).<br>connector & terminal<br>B380) No. 15 — Chassis ground:   | Is the resistance more than 1<br>MΩ?      | Go to step <b>3</b> . | Repair the short<br>circuit in harness<br>between neutral<br>position switch and<br>driver's control<br>center differential<br>control unit. |
| 3 CHE<br>CON<br>TRO<br>Mea<br>tion<br>Co  | ECK HARNESS BETWEEN DRIVER'S<br>NTROL CENTER DIFFERENTIAL CON-<br>DL MODULE AND ENGINE GROUND.<br>asure the resistance between neutral posi-<br>switch connector and Engine ground (–).<br>Donnector & terminal<br>B128) No. 5 — Engine ground:  | Is the resistance less than 1<br>Ω?       | Go to step 4.         | Repair the open<br>circuit in harness<br>between neutral<br>position switch<br>connector and<br>Engine ground (–).                           |
| 4 CHE<br>1) M<br>2) M<br>sion<br>Co<br>(  | ECK NEUTRAL POSITION SWITCH.<br>Move the shift lever to "N".<br>Measure the resistance between transmis-<br>harness connector terminals.<br>Connector & terminal<br>T9) No. 2 — No. 5:   | Is the resistance less than 1 $\Omega$ ?  | Go to step <b>5</b> . | Replace the neu-<br>tral position switch.  |
| 5 CHE<br>1) M<br>2) M<br>sion<br>Co<br>(  | ECK NEUTRAL POSITION SWITCH.<br>Move the shift lever to other than "N".<br>Measure the resistance between transmis-<br>harness connector terminals.<br>Connector & terminal<br>T9) No. 2 — No. 5:  | Is the resistance more than 1 $M\Omega$ ? | Go to step <b>6.</b>  | Replace the neu-<br>tral position switch.  |
| 6 CHE<br>CON<br>TRC<br>1) (<br>2) T<br>3) S<br>4) M<br>5) F<br>Sub                      | ECK INPUT SIGNAL FOR DRIVER'S<br>NTROL CENTER DIFFERENTIAL CON-<br>DL MODULE.<br>Connect all the connectors.<br>Turn the ignition switch to ON.<br>Subaru Select Monitor switch to ON.<br>Move the shift lever to "N".<br>Read the data of "Neutral switch" using<br>aru Select Monitor.   | Is the "ON" displayed?                    | Go to step 7.         | Go to step 8.  |

| ĺ  | Step   | Check   | Yes   | No   |
|----|--|---|---|--|
| 7  | <ul> <li>CHECK INPUT SIGNAL FOR DRIVER'S<br/>CONTROL CENTER DIFFERENTIAL CON-<br/>TROL MODULE.</li> <li>1) Move the shift lever to other than "N".</li> <li>2) Read the data of "Neutral switch" using<br/>Subaru Select Monitor.</li> </ul> | Is the "OFF" displayed?                                       | Neutral switch cir-<br>cuit is in normal<br>condition. Tempo-<br>rary poor contact<br>occurs.<br>Repair the har-<br>ness or connector<br>between driver's<br>control center dif-<br>ferential control<br>module, neutral<br>switch and ECM. | Go to step <b>8</b> .  |
| 8  | CHECK POOR CONTACT.  | Is there any poor contact in neutral position switch circuit? | Repair the poor<br>contact.   | Go to step 9.  |
| 9  | CHECK DTC.<br>Read the DTC from combination meter. <ref.<br>to 6MT(diag)-20, Read Diagnostic Trouble<br/>Code (DTC).&gt;</ref.<br>   | Is DTC 33 displayed?  | Replace the<br>driver's control<br>center differential<br>control unit.   | Go to step 10.   |
| 10 | CHECK OTHER DTC DETECTION.   | Is any DTC except DTC 33 dis-<br>played?                      | Diagnose accord-<br>ing to DTC.   | The neutral posi-<br>tion switch circuit<br>is in normal condi-<br>tion. A temporary<br>poor contact of<br>connector or har-<br>ness may be the<br>cause. Repair har-<br>ness or connector<br>in neutral position<br>switch circuit. |

## 13.General Diagnostic Table

## A: INSPECTION

| Symptom   | Abnormal units/parts  |
|---|---|
| Tight cornering condition                                       | ABSCM&H/U   |
|   | ABS wheel speed sensor  |
|   | Accelerator position sensor   |
|   | • ECM   |
|   | Center differential   |
|   | Center differential control dial  |
|   | Manual mode switch  |
|   | Tire/Wheel  |
|   | Driver's control center differential control module   |
| Tendency to oversteer   | Accelerator position sensor   |
|   | • ECM   |
|   | Center differential control dial  |
|   | Manual mode switch  |
|   | Tire/Wheel  |
|   | Driver's control center differential control module   |
|   | Center differential   |
|   | Driver's control center differential relay  |
|   | Rear differential oil temperature switch  |
|   | Neutral position switch   |
|   | Yaw rate & lateral G sensor   |
|   | Center differential   |
| Tendency to understeer at high speed cornering                  | • ECM   |
|   | Engine speed signal   |
|   | Neutral position switch   |
| No change in the center differential torque character           | Center differential control dial  |
|   | Driver's control center differential relay  |
|   | Center differential   |
|   | Driver's control center differential control module   |
|   | Combination meter   |
| Driver's control center differential indicator does not operate | Driver's control center differential control module   |
|   | Center differential control dial  |
| Driver's control center differential indicator does not operate | Combination meter   |
| though setting the center differential control dial             | Driver's control center differential control module   |
|   | Manual made switch  |
| No change to AUTO or MANUAL                                     | Combination mater   |
|   | Combination meter   |
|   | Driver's control center differential control module   |
| AUTO indicator light does not illuminate                        |   |
|   | Combination meter     Driveria control constant differential constant and determined as a study     |
|   | Driver's control center differential control module   |
| Differential does not become free, or stays free                | Parking brake switch  |
|   | Center differential   |
|   | Manual mode switch  |
|   | Center differential control dial  |
|   |   |
|   |   |
|   | Driver's control center differential relay  |
|   | Teal unierential on temperature switch     Driver's control contex differential context interactive |
|   |   |
| ABS does not operation  | ABSCM&H/U     ADA a second size a size all  |
|   | CAIN communication signal     Chan light quittee  |
|   | • Stop light switch   |
|   | Driver's control center differential control module   |

General Diagnostic Table MANUAL TRANSMISSION AND DIFFERENTIAL (DIAGNOSTICS)

| Symptom  | Abnormal units/parts  |
|--|---|
| Differential does not become lock, or stays lock | <ul> <li>ABSCM&amp;H/U</li> <li>ABS wheel speed sensor</li> <li>Accelerator position sensor</li> <li>ECM</li> <li>Center differential</li> <li>Center differential control dial</li> <li>Manual mode switch</li> <li>Tire/Wheel</li> <li>Driver's control center differential control module</li> <li>Driver's control center differential relay</li> </ul> |

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