

## Brake control/VSC system / Work support

### Yaw rate sensor & G sensor zero point acquisition and system information storage (TaSCAN)

**Note: The following table shows the results of the survey.**

- If the yore sensor (with built-in G-sensor) is replaced, acquire the yore sensor & G-sensor 0 point.
- If the skid control computer assembly has been replaced, perform yorette sensor & G sensor zero point acquisition and system information storage.
- Once system information is stored, it is not retrieved until the data is erased, so if system information is already stored, it is stored after the system information is erased.
- Once a zero point is stored, it is not retrieved until the data is erased. Therefore, when the yore sensor is replaced, the zero point is acquired after the zero point is erased.
- Zero point acquisition must always be conducted on a flat surface (slope rate of 1% or less), and the vehicle should not be shaken, doors should not be opened or closed, etc. while the test is in progress. To avoid idling vibration, do not start the engine.

**a. Erase zero point memory and system information of Yolet&G sensor**

**Note: The following table shows the results of the survey.**

Perform the following operations to simultaneously erase the zero point of the YOLET&G sensor and the system information.

- i. Turn IG OFF and connect SST (TaSCAN) to DLC3.  
**SST**  
**09991-70200**
- ii. Set the shift lever to the P position.
- iii. Turn IG ON and follow the SST (TaSCAN) screen display to select "Work Support" → "ABS-VSC-ECB" → "Erase Backup Memory Select "Work Support" → "ABS-VSC-ECB" → "Erase Backup Memory" and execute it. At this time, confirm that "VSC system check" is displayed on the multi-information display.
- iv. Turn IG OFF.

**Note: The following table shows the results of the survey.**

When the backup memory is erased, the system information stored in the skid control computer is also erased, so the C1203 is detected, the ABS warning light and slip indicator light come on, and the multi-information display shows "VSC System Check. Check" is displayed on the multi-information display. When driving in this state, the system remembers that the G sensor zero point has not been corrected.

**b. Acquisition of zero point of Yolet&G sensor and storage of system information**

**Note: The following table shows the results of the survey.**

Performing the following operations simultaneously acquires the zero point of the Yoret & G sensor and stores the system information.

- i. Turn IG OFF and connect SST (TaSCAN) to DLC3.  
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- ii. With the shift lever in the P position, turn IG ON, wait for about 3 seconds, and confirm that the initial check of the indicator lamp is completed.
- iii. Select "Diagnostics", "System Diagnostics/Chassis", "System Name/ABS-VSC", and then "Mode

Switch" on the SST(TaSCAN) screen. Select "Diagnostics", "System Diagnostics/Chassis", "System Name/ABS-VSC", and then "Mode Switch" to switch to the test m o d e .

- iv.** After entering t h e test mode, the vehicle remains stationary for approximately 2 seconds and the m u l t i - i n f o r m a t i o n display shows "VSC

Confirm that "Test mode" is displayed.

**Note: The following table shows the results of the survey.**

- When running with the zero point erased, the yaw and G sensor zero point uncorrected error codes are stored.
- If a zero point uncorrected error code or an engine ECU communication line error code (C1203) is stored, the process starts again from zero point and system information memory deletion.
- When the test mode is entered, the diagnosis code C1203 is erased, but the test mode code C1270 is detected. When the system information memory is retrieved, test mode code C1270 is erased.

## Reference

After the acquisition of 0 point is completed, the display in the meter shifts to the test mode display.

- v. Select "Diagnostics" → "System Diagnostics/Chassis" → "System Name/ABS-VSC" → "Switch to Normal Mode" from the SST(TaSCAN) screen display. Select "Diagnostics", "System Diagnostics/Chassis", "System Name/ABS-VSC", then "Change Modes" to switch to the normal mode.

## Yaw rate sensor & G sensor zero point acquisition and system information storage (DLC3 short circuit)

**Note: The following table shows the results of the survey.**

- If the yore sensor (with built-in G-sensor) is replaced, acquire the yore sensor & G-sensor 0 point.
- If the skid control computer assembly has been replaced, perform yorette sensor & G sensor zero point acquisition and system information storage.
- Once system information is stored, it is not retrieved until the data is erased, so if system information is already stored, it is stored after the system information is erased.
- Once a zero point is stored, it is not retrieved until the data is erased. Therefore, when the yore sensor is replaced, the zero point is acquired after the zero point is erased.
- Zero point acquisition must always be conducted on a flat surface (slope rate of 1% or less), and the vehicle should not be shaken, doors should not be opened or closed, etc. while the test is in progress. To avoid idling vibration, do not start the engine.

- a. Erase zero point memory and system information of Yolet&G sensor

**Note: The following table shows the results of the survey.**

Perform the following operations to simultaneously erase the zero point of the YOLET&G sensor and the system information.

- i. Turn IG OFF and shift lever to P position.
- ii. Turn IG ON, wait for about 3 seconds, and confirm that the initial check of the indicator lamp is completed.
- iii. Using SST, short-circuit ↔ open between terminals 12 (TS) ↔ 4 (CG) of DLC3 at least 4 times in 8 seconds.

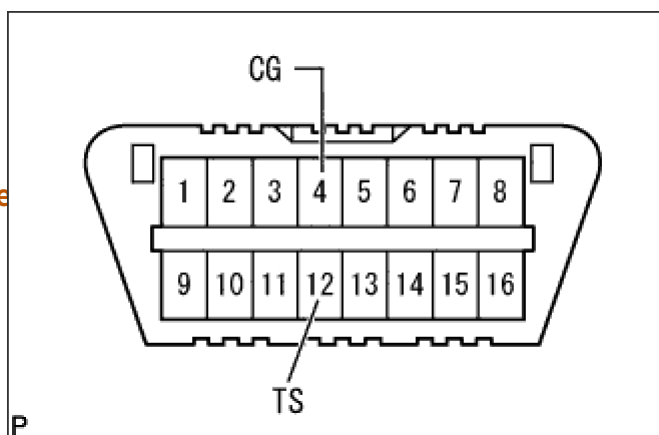
**SST**

**09843-18040**

**Note: The following table shows the re**

- Never misplace the connectors to avoid malfunction.
- When the zero point of the Yoretto & G sensor and the system information memory is erased, the system information stored in the skid control computer is also erased, so the C1203 is detected and the ABS warning lamp and slip indicator are displayed.

The VSC system check lamp will light and "VSC system check" will appear on the multi-information display. When the car is driven in this state, the G sensor 0 point uncorrected is



stored.

- b. Acquisition of zero point of Yolet&G sensor and storage of system information

**Note: The following table shows the results of the survey.**

Performing the following operations simultaneously acquires the zero point of the Yoret & G sensor and stores the system information.

- i. Turn IG OFF and shift lever to P position.

- ii. Short 12 (TS)  $\longleftrightarrow$  4 (CG) terminals of DLC3 using SST.

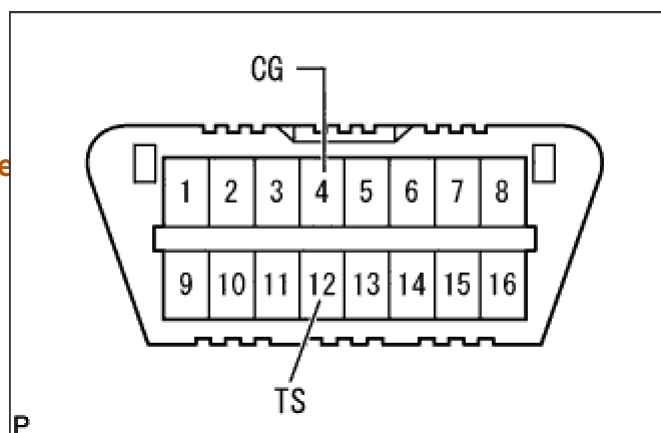
**SST**

**09843-18040**

**Note: The following table shows the re**

Never misplace the connectors as this may cause malfunction.

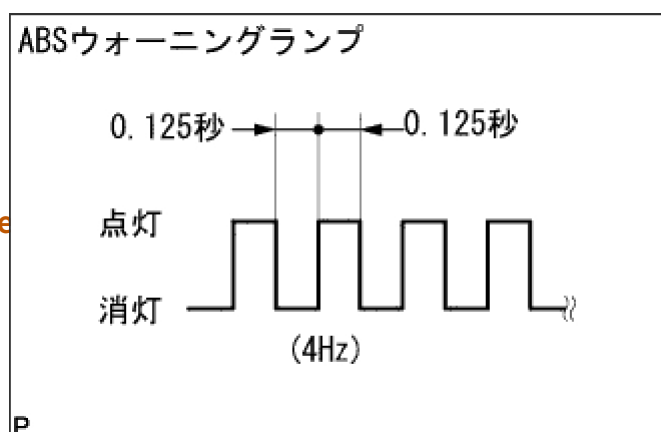
- iii. Turn IG ON.



- iv. The vehicle remains stationary for approximately 2 seconds, the ABS warning lamps display a test mode, and the multi-information display shows "VSC". Confirm that "Test mode" is displayed.

**Note: The following table shows the re**

If a zero point uncorrected error code or an engine ECU communication line error code (C1203) is stored, the process starts again from zero point and system information memory deletion.



## Reference

- After acquiring the zero point of the YORET&G sensor, the display in the meter shifts to the test mode.
- Immediately after the IG is turned on, a zero point is acquired from the stretch & G sensor at the same time as the initial check of the warning lamps, so the ABS warning lamps display the test mode and the multi-information display shows "VSC test mode". If the ABS warning lamp displays the test mode and the multi-information display shows "VSC test mode," the acquisition of the zero point is considered to have been completed.

- v. Turn IG OFF and open the 12(TS)  $\longleftrightarrow$  4(CG) terminal of DLC3.

## Entering and exiting maintenance mode (using TaSCAN)

**Note: The following table shows the results of the survey.**

- The mode is not shifted to the maintenance mode even if the operation to shift to the maintenance mode is performed during the test mode.
- If the test mode is selected by SST (TaSCAN) during the maintenance mode, the maintenance mode is canceled.

## Reference

By entering the "maintenance **m o d e** " , the VSC and TRC are disabled.

**a.** Maintenance mode migration

**Warning**

**When using a** drum tester in the "maintenance mode," secure the vehicle with **a** lock chain for safety.

**Note: The following table shows the results of the survey.**

- Since the "maintenance m o d e " is terminated when the IG is turned off, if the IG is turned off during the inspection and the inspection is continued, the "maintenance m o d e " shift operation must be performed again.
- Never drive the car in the " maintenance mode.

- i. With IG OFF, connect SST (TaSCAN) to DLC3.

**SST**  
**09991-70200**

- ii. Turn IG ON and select "Work Support" > "ABS-VSC-ECB" > "Maintenance M o d e " on the SST (TaSCAN) screen display. Select "Work Support", "ABS-VSC-ECB", and then "Maintenance Mode".
- iii. Follow the SST (TaSCAN) display to the "Maintenance Mode" . **A t t h i s t i m e ,** confirm that the slip indicator light on t h e combination meter illuminates. (Confirmation of "maintenance m o d e ")

**b. Maintenance mode release**

- i. Turn the IG OFF and disengage the "Service **M o d e "** . **A t t h i s t i m e ,** make sure that the slip indicator light on the combination meter is off. (Confirmation of "maintenance mode" release)

<b>Entering and exiting maintenance mode (TaSCAN not used)</b>
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**Note: The following table shows the results of the survey.**

The mode is not shifted to the maintenance mode even if the operation to shift to the maintenance mode is performed during the test m o d e .

**Reference**

By entering the "maintenance m o d e " , the VSC and TRC are disabled.

**a. Maintenance mode migration**

**Warning**

**When using a** drum tester in the "maintenance mode," secure the vehicle with **a** lock chain for safety.

**Note: The following table shows the results of the survey.**

- Since the "maintenance m o d e " is terminated when the IG is turned off, if the IG is turned off during the inspection and the inspection is continued, the "maintenance m o d e " shift operation must be performed again.
- Never drive the car in the " maintenance mode.
- From engine start, parking and brake pedal inputs must be made within 30 seconds.

- i. The engine is stopped.
- ii. Disengage the parking brake.
- iii. Start the engine while depressing the brake pedal and hold the pedal depressed.
- iv. Step on the parking brake pedal to activate the parking brake.

- v. **W i t h t h e** parking brake engaged, release the brake pedal and step on the brake pedal

at least twice, and keep the brake pedal depressed.

- vi. With the brake pedal depressed, operate the parking brake pedal and press "Release→Act" 2.



Repeat at least three times to allow the parking brake to work.

- vii. With the parking b r a k e engaged, release the brake pedal and step on the brake pedal at least twice.
- viii. Check that the slip indicator light on t h e combination meter illuminates. (Confirm that the "maintenance mode" has been established.)

**b. Maintenance mode release**

- i. Turn the IG OFF and disengage the "Service **M o d e**". **A t t h i s t i m e**, make sure that the slip indicator light on the combination meter is off. (Confirmation of "maintenance mode" release)