WORK PROCEDURE (ADDITIONAL SE...

Work Procedure

WARNING:

Never move the vehicle during "DAST CALIBRATION (MODE1)" because the steering gear is held in neutral position until ignition switch is turned OFF.

CAUTION:

- Be careful for the moving parts, steering wheel and front wheels are steered automatically when start "DAST CALIBRATION (MODE1)".
- Do not rotate road wheels during the DAST calibration because the system is detected the vehicle running.

1. CHECK OFF-CENTER (1)

- (I) With CONSULT
 - 1. Set the vehicle to the straight-ahead position.
 - 2. Turn the ignition switch ON.

CAUTION:

Never start the engine.

3. On the CONSULT screen, select "EPS/DAST 3">>"DATA MONITOR">>"ST ANGLE SENSOR", and then and then check the value.

Monitor item	Standard value
ST ANGLE SENSOR	ST ANGLE SENSOR ≤±120 deg

Is the inspection result normal?

YES>>

GO TO 2.

NO>>

• Refer to <u>Diagnosis Procedure</u> to correct off-center and then, <u>GO TO 2</u> .

CAUTION:

Proceeding to the next step with off-center bigger than 120 deg causes the spiral cable to be torn off.

2. PREPARATION

1. Set the front wheel on the turn table.



Do not lift up the vehicle during "DAST CALIBRATION (MODE1)"

2. Connect the battery charger to protect the battery.



Much electricity is used in "DAST CALIBRATION (MODE1)".

- 3. Connect the CONSULT.
- 4. Turn the ignition switch ON.

CAUTION:

Never start the engine.

>>

GO TO 3.

3. ECU CONFIGURATION

- (I) With CONSULT
 - 1. Perform configuration for steering force control module. Refer to Work Procedure.



The replacement of control module included in configuration is not required.

2. Perform configuration for steering angle main control module. Refer to Work Procedure.



The replacement of control module included in configuration is not required.

3. Perform configuration for steering angle sub control module. Refer to Work Procedure.



The replacement of control module included in configuration is not required.

>>

GO TO 4.

4. DAST CALIBRATION (MODE1) [CLUTCH PHASE LEARNING]

- (II) With CONSULT
 - 1. Perform "DAST CALIBRATION (MODE1)". Refer to Description .
 - 2. Turn the ignition switch OFF.

CAUTION:

Be sure to perform this step.

>>

GO TO 5.

5. CHECK OFF-CENTER (2)

(II) With CONSULT



This confirmation is procedure to confirm that the steering wheel is not rotated 360 deg when performing the DAST calibration.

CAUTION:

Proceeding to the next step with the steering wheel rotated 360 deg causes the spiral cable to be torn off.

1. Turn the ignition switch ON.

CAUTION:

Never start the engine.

2. On the CONSULT screen, select "EPS/DAST 3">>"DATA MONITOR">>"ST ANGLE SENSOR", and then and then check the value.

Monitor item	Standard value
ST ANGLE SENSOR	ST ANGLE SENSOR ≤±20 deg

Is the inspection result normal?

YES>>

GO TO 7.

NO>>

GO TO 6.

6. CORRECT STEERING WHEEL NEUTRAL POSITION

- (I) With CONSULT
 - 1. Separate steering upper shaft from steering clutch assembly. And then, turn the steering wheel to the direction that the value returns to 0 deg with checking "ST ANGLE SENSOR" on "DATA MONITOR".
 - 2. Connect steering clutch assembly and steering upper shaft. Refer to Removal and Installation .

>>

Re-perform the work from configuration to reset the learning infromation of clutch phaze learning. GO TO 3.

7. DAST CALIBRATION (MODE1) [STEERING RACK NEUTRAL POSITION LEARNING]

(I) With CONSULT

Perform "DAST CALIBRATION (MODE1)". Refer to <u>Description</u>.

>>

GO TO 8.

8. ADJUSTMENT OF STEERING ANGLE SENSOR NEUTRAL POSITION

- (I) With CONSULT
 - 1. On the CONSULT screen, select "ABS">>"WORK SUPPORT">>"ST ANGLE SENSOR ADJUSTMENT".
 - 2. Touch START.

CAUTION:

Never touch steering wheel while adjusting steering angle sensor.

- 3. After approx. 10 seconds, select "END".
- 4. Turn ignition switch OFF, and then turn it ON again.

CAUTION:

Be sure to perform this step.

GO TO 9.

9. PERFORM SELF-DIAGNOSIS

(I) With CONSULT

- 1. Turn ignition switch OFF and wait at least 10 seconds.
- 2. Start the engine.

CAUTION:

Never drive the vehicle.

3. Perform self-diagnosis for "EPS/DAST 3", "DAST 1" and "DAST 2".

Is any DTC detected?

YES>>

When other than above DTC is detected, perform Perform trouble diagnosis for the detected DTC. Refer to DTC Index (DAST 1), DTC Index (DAST 2).

NO>>

GO TO 10.

10. FINAL CONFIRMATION

(I) With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Never start the engine.

2. On the CONSULT screen, select "EPS/DAST 3">>"DATA MONITOR">>"ANGLE 1", and then and then check the value.

Monitor item	Standard value
ANGLE 1	-4.4 ≤ ANGLE 1 ≤ 4.4

Is the confirmation result normal?

YES>>

WORK END

NO>>

Slightly lower the tilt position, and then re-perform "DAST CALIBRATION (MODE1)". GO TO 3 .

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