

INITIALIZATION

1. AFS ECU INITIALIZATION

NOTICE:

Steering neutral point automatic correction (AFS ECU INITIALIZATION) is necessary under the following condition.

- **Disconnecting the battery.**
 - **Replacing the steering sensor or AFS ECU.**
- (a) Run the vehicle on the place where few curve or traffic congestion exist at least 100 m at the speed between 20 km/h (12 mph) and 80 km/h (48 mph).
- HINT:**
- Steering neutral point correction begins automatically when starting the engine immediately after installing the battery.
 - Steering neutral point correction is automatically performed by vehicle running. AFS operation is prohibited when steering neutral point automatic correction is not performed or during automatic correction.
 - AFS operation restarts when steering neutral point automatic correction is completed normally.

2. AFS ECU RE-INITIALIZATION (WHEN NOT USING INTELLIGENT TESTER)

NOTICE:

This operation manually initializes the steering sensor when AFS operation is not normal due to abnormal automatic correction after completion of AFS INITIALIZATION.

HINT:

- If it is necessary to initialize the steering sensor when not disconnecting the battery, it is also possible to re-set the signal from the steering sensor.
- When the centering point memorized in the steering sensor differs from the normal point, the AFS ECU malfunctions. In the case, re-initialize it.
- If the operation does not finish within a specified time period, the system goes off the AFS indicator light and starts steering neutral point automatic correction.

1	SHIFT TO INITIALIZATION
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- (a) Engine is running and shift range is in the P position.
- (b) Press the AFS OFF switch eight times at approximately one-second interval (once for ON and once more for OFF, i.e. 4 times ON and 4 times OFF).

HINT:

- The AFS OFF indicator light starts to blink twice per second.
- Initialization can be started when the AFS OFF switch is either in the "ON" or "OFF" position.
- When the AFS OFF switch is pressed eight times, it will return to its original state.

NEXT

2 INITIALIZATION OF AFS ECU

- (a) Turn the steering wheel to adjust the tires so that they point straight ahead.
- (b) Do not change the steering wheel position. Press the AFS OFF switch twice (once ON and once OFF).
HINT:
 - The AFS OFF indicator light stays lit for two seconds.
 - When the AFS OFF switch is pressed twice, it will return to its original state.
- (c) Do not change the steering wheel position and press the AFS OFF switch twice within 3 to 10 seconds.
HINT:
 - The AFS OFF indicator light stays lit for two seconds.
 - When the AFS OFF switch is pressed twice, it will return to its original state.
- (d) Do not change the steering wheel position and press the AFS OFF switch twice again within 3 to 10 seconds.



NEXT

3 CHECK COMPLETION OF AFS ECU INITIALIZATION

- (a) When the initialization of the steering sensor signal is completed normally, the AFS OFF indicator light goes off, comes on, or blinks depending on the specific condition 3 second after the indicator light goes off.

Result

Proceed to	Result
A	Goes off: Initialization is started with the AFS OFF switch OFF (not pressed) Comes on: Initialization is started with the AFS OFF switch ON (pressed)
B	Blinks: Blinks twice per second

HINT:

- Failure to complete initialization. Proceed to step 2 within 10 seconds.
- If 10 seconds elapse, the system starts steering neutral point automatic correction.

B

GO TO STEP 2

A

END

3. AFS ECU RE-INITIALIZATION (WHEN USING INTELLIGENT TESTER)

NOTICE:

This operation manually initializes the steering sensor when AFS operation is not normal due to abnormal automatic correction after completion of AFS INITIALIZATION.

HINT:

- If it is necessary to initialize the steering sensor when not disconnecting the battery, it is also possible to re-set the signal from the steering sensor.
 - When the centering point memorized in the steering sensor differs from the normal point, the AFS ECU malfunctions. In the case, re-initialize it.
 - If the operation does not finish within a specified time period, the system goes off the AFS indicator light and starts steering neutral point automatic correction.
- (a) Connect the intelligent tester to the DLC3.
 - (b) Turn the ignition switch to the ON position and press the intelligent tester main switch ON.
 - (c) Select "STEER SENS INIT" on "DIAGNOSTICS MENU AFS" display.
 - (d) Turn the steering wheel with the engine starting until the tires face straight ahead, and press "ENTER".
 - (e) Check "CONFIRM" display and press "YES".

NOTICE:

Do not turn the steering wheel while initializing and keep the tires facing straight ahead.

- (f) Check the display for completion of the operation.

HINT:

If the operation above cannot be completed after several attempts, a malfunction in the steering sensor circuit is suspected.