

SYSTEM DESCRIPTION

1. AFS (Adaptive Front-Lighting System)

- (a) The AFS operates to illuminate the best position for smooth driving by projecting the low beam depending on the vehicle speed and steering angle.
- (b) Standard Operation
 - (1) The AFS ECU moves the low beam in the headlight considering the vehicle running condition, etc.

Vehicle Turning Condition	Head Light (Right Side)	Head Light (Left Side)
Right turn while driving	Turns to right by maximum 5°	Does not turn
Left turn while driving	Does not turn	Turns to left by maximum 15°

(c) Start-up Conditions

- (1) The AFS starts operating when the following conditions are met:

Items	Conditions
Shift Position	Other than R and N
Engine	Running
Headlight	Comes on
Vehicle Speed	30 km/h (19 mph) or more
Steering Angle	12° or more (varies depending on the vehicle speed)
AFS OFF Switch	Not pushed in

HINT:

- The AFS continues operation as long as vehicle speed is kept above 6 km/h (3.6 mph) when operation has started once after vehicle speed reaches 30 km/h (19 mph) or more.
- The AFS continues operation as long as steering angle is kept at 10° or more when operation has started once after steering angle reaches 12° or more.

(d) Operation Stop Condition

- (1) The AFS stops operating if any of the following condition are met:

Items	Conditions
Shift Position	R or N
Engine	Stops
Headlight	Goes Off
Vehicle Speed	5 km/h (3 mph) or less
Steering Angle	9° or less
AFS OFF Switch	Pushed in

HOW TO PROCEED WITH TROUBLESHOOTING

The intelligent tester can be used at step 4, 5, 6, 12.

1 VEHICLE BROUGHT TO WORK SHOP

NEXT

2 CUSTOMER PROBLEM ANALYSIS

(a) Confirm problem symptoms.

NEXT

3 PROBLEM SYMPTOM CONFIRMATION



SYMPTOM DOES NOT OCCUR (GO TO STEP 4)



SYMPTOM OCCURS (GO TO STEP 5)

4 CHECK BODY MULTIPLEX COMMUNICATION SYSTEM

(a) Check for the DTC outputs.



MULTIPLEX DTC OUTPUTS (PROCEED TO "BODY MULTIPLEX COMMUNICATION SYSTEM")



NO MULTIPLEX DTC (GO TO STEP 5)

5 DTC CHECK (OTHER THAN MULTIPLEX DTC)



MALFUNCTION CODE (GO TO STEP 6)



NORMAL CODE (GO TO STEP 7)

6 DTC CHART



GO TO STEP 9

7 PROBLEM SYMPTOMS TABLE

NEXT

8 TERMINALS OF ECU

NEXT

9 CIRCUIT INSPECTION

NEXT

10 IDENTIFICATION OF PROBLEM

NEXT

11 REPAIR OR REPLACE

NEXT

12 CONFIRMATION TEST

NEXT

END

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