DTC INSPECTION [ADAPTIVE FRONT LIGHTING SYSTEM (AFS)]

id09021n960300

CMDTC Self Test

1. Connect the M-MDS to the DLC-2.
2. After the vehicle is identified, select the following items from the initialization screen of the M-MDS.
   (1) Select “Self Test”.
   (2) Select “All CMDTCs”.
3. Verify the DTC according to the directions on the screen.
   • If any DTCs are displayed, perform troubleshooting according to the corresponding DTC inspection.
4. After completion of repairs, clear all DTCs stored in the AFS control module. (See CLEARING DTC [ADAPTIVE FRONT LIGHTING SYSTEM (AFS)].)

ODDTC Self Test

1. Connect the M-MDS to the DLC-2.
2. After the vehicle is identified, select the following items from the initialization screen of the M-MDS.
   (1) Select “Self Test”.
   (2) Select “Modules”.
   (3) Select “AFS”.
3. Verify the DTC according to the directions on the screen.
   • If any DTCs are displayed, perform troubleshooting according to the corresponding DTC inspection.
4. After completion of repairs, clear all DTCs stored in the AFS control module. (See CLEARING DTC [ADAPTIVE FRONT LIGHTING SYSTEM (AFS)].)

Snapshot data

• The data for all DTCs currently detected is stored.

—: Not applicable

Snapshot data item	Unit	Data contents	Data read/use method	Corresponding data monitor items
AAT	°C °F	Ambient temperature	—	—
APP_STATUS	Accelerator Pedal Off/ Under20%/ Over20%/FAIL	Accelerator pedal position status	—	—
CFG_STATUS	Config Complete/Not Configured/ Config Error	Instrument cluster configuration status	—	—
ECT_STATUS	Under 0 degrees C/0 - Under 80 degrees C/Over 80 degrees C/ FAIL	Engine coolant temperature status	—	—
IC_VPWR	V	Instrument cluster power supply voltage	• The AFS control module constantly receives the power supply voltage value of the instrument cluster sent via CAN signal from the instrument cluster. • If a DTC is detected, the AFS control module records the power supply voltage of the instrument cluster when the DTC was detected, and it is displayed in the M-MDS.	VPWR*1

Snapshot data item	Unit	Data contents	Data read/use method	Corresponding data monitor items
IG-ON_TIMER	hh:mm:ss*2	Elapsed time since ignition was switched ON (engine off or on) **Note** • The instrument cluster records the elapsed time since the ignition was switched ON (engine off or on).	• The AFS control module constantly receives the elapsed time since the ignition was switched ON (engine off or on) sent via CAN signal from the instrument cluster. • If a DTC is detected, the AFS control module records the elapsed time since the ignition was switched ON (engine off or on) when the DTC was detected, and it is displayed in the M-MDS.	—
PWR_MODE_KEY	Key Out/Key Recently Out (Position 0)/ Accessory (Position 1)/ Post Ignition (Position 2)/ Ignition On (Position 2)/ Running (Position 2)/ Running - Starting	• Key Out: Ignition switched off • Key Recently Out (Position 0): Elapsed time **within 3 s** since ignition was switched off • Accessory (Position 1): Ignition is switched to ACC • Post Ignition (Position 2): Elapsed time **within 3 s** since ignition was switched ON (engine off or on) • Ignition On (Position 2): Ignition switched ON (engine off) • Running (Position 2): Ignition switched ON (engine on) • Running - Starting: Cranking condition	• The AFS control module constantly receives the ignition switch status sent via CAN signal from the instrument cluster. • If a DTC is detected, the AFS control module records the ignition switch status when the DTC was detected, and it is displayed in the M-MDS.	—
RPM_STATUS	Engine Stop/ Under1500rpm/ Over1500rpm/ FAIL	Engine speed status	• The AFS control module constantly receives the engine speed sent via CAN signal from the instrument cluster. • If a DTC is detected, the AFS control module records the engine speed when the DTC was detected, and it is displayed in the M-MDS.	TACHOMTR*1
SHIFT_STATUS	P/N/D/R/FAIL	Selector lever position status	• The AFS control module constantly receives the selector lever position sent via CAN signal from the instrument cluster. • If a DTC is detected, the AFS control module records the selector lever position when the DTC was detected, and it is displayed in the M-MDS.	—

Snapshot data item	Unit		Data contents	Data read/use method	Corresponding data monitor items
TOTAL_DIST	km	Miles	Accumulated total traveled distance from completion of vehicle until AFS control module detects DTC (Odometer value in instrument cluster)	The total traveled distance from which the AFS control module detects DTCs to the present can be calculated by performing the following procedure. 1. Verify the odometer value in the instrument cluster. 2. Verify the snapshot data item TOTAL_DIST. 3. Subtract 2 from 1.	—
TOTAL_TIME	hh:mm:ss*2		Accumulated total elapsed time since vehicle completion until AFS control module detects a DTC **Note** • When the ROOM fuse is removed, and the ignition is switched off, the time is not included in the elapsed time.	The elapsed time from which the AFS control module detects DTCs to the present can be calculated by performing the following procedure. 1. Verify the instrument cluster PID item TOTAL_TIME. 2. Verify the snapshot data item TOTAL_TIME. 3. Subtract 2 from 1.	TOTAL_TIME*1
VPWR	V		AFS control module power supply voltage	—	VPWR_IG
VSPD_STATUS	Stop/0-10km/h/ Over10km/h/ FAIL		Vehicle speed status	• The AFS control module constantly receives the vehicle speed sent via CAN signal from the instrument cluster. • If a DTC is detected, the AFS control module records the vehicle speed when the DTC was detected, and it is displayed in the M-MDS.	SPEEDOMTR*1

*1 : Instrument cluster PID (See PID/DATA MONITOR TABLE [INSTRUMENT CLUSTER].)

*2 : The seconds may be indicated after the decimal point.