

## 9. Select Monitor Function Mode

Applicable cartridge of select monitor: No. 498349601

### A: LIST OF FUNCTION MODE

#### 1. F MODE (ROM ID, ANALOG DATA ARE DISPLAYED.)

Function code		Measuring items	Contents to be monitored	Scroll	Ref. to 4-4b
Code	Abbreviation				
F00	ROM	ECM identification	ROM ID number of ECM is read and enabled communication state is displayed.	Possible	[T9B0]
F01	FR	FR wheel speed (mile/h)	Wheel speed detected by the FR wheel speed sensor is displayed in mile/h.	Possible	[T9C0]
F02	FL	FL wheel speed (mile/h)	Wheel speed detected by the FL wheel speed sensor is displayed in mile/h.	Possible	[T9D0]
F03	RR	RR wheel speed (mile/h)	Wheel speed detected by the RR wheel speed sensor is displayed in mile/h.	Possible	[T9E0]
F04	RL	RL wheel speed (mile/h)	Wheel speed detected by the RL wheel speed sensor is displayed in mile/h.	Possible	[T9F0]
F05	FR	FR wheel speed (km/h)	Wheel speed detected by the FR wheel speed sensor is displayed in km/h.	Possible	[T9C0]
F06	FL	FL wheel speed (km/h)	Wheel speed detected by the FL wheel speed sensor is displayed in km/h.	Possible	[T9D0]
F07	RR	RR wheel speed (km/h)	Wheel speed detected by the RR wheel speed sensor is displayed in km/h.	Possible	[T9E0]
F08	RL	RL wheel speed (km/h)	Wheel speed detected by the RL wheel speed sensor is displayed in km/h.	Possible	[T9F0]
F09	PSS	Pedal stroke sensor output	The number of output steps of the pedal stroke sensor is displayed.	Possible	[T9G0]

**2. FA MODE (ON/OFF DATA ARE DISPLAYED.)**

If the system is in normal condition with the engine run at idle speed (when the brake pedal is off), the LED of EC (AEC signal) of FA2 will come on, the LED of EM (EAM signal) blink and all other LED's go out.

Function code		Measuring items	Contents to be monitored	Scroll	Ref. to 4-4b
Code	Abbreviation				
FA0	OF	OFF.SW	LED 1 comes on with the OFF switch on.	Possible	[T9H0]
	B1	Stop light switch	LED 2 comes on with the switch on (with the brake pedal down).		
	VR	Valve relay signal	LED 3 comes on with the valve relay off.		
	VM	Valve relay monitor	LED 4 comes on with the valve relay off.		
	MR	Motor relay signal	LED 5 comes on with the motor on.		
	MS	Motor sensor	LED 6 comes on with the motor on.		
	FS	Fluid level sensor	LED 7 comes on with the sensor on (the fluid level is lowered).		
FA1	FI	FR.IN valve	LED 1 comes on when the FR.IN valve is operating.	Possible	[T9I0]
	RO	FR.OUT valve	LED 2 comes on when the FR.OUT valve is operating.		
	FL	FL.IN valve	LED 3 comes on when the FL.IN valve is operating.		
	LO	FL.OUT valve	LED 4 comes on when the FL.OUT valve is operating.		
	T1	TCS1 valve	LED 5 comes on when the TCS1 valve is operating.		
	RI	RR.IN valve	LED 6 comes on when the RR.IN valve is operating.		
	RO	RR.OUT valve	LED 7 comes on when the RR.OUT valve is operating.		
	RI	RL.IN valve	LED 8 comes on when the RL.IN valve is operating.		
	LO	RL.OUT valve	LED 9 comes on when the RL.OUT valve is operating.		
	T2	TCS2 valve	LED 10 comes on when the TCS2 valve is operating.		
FA2	AW	ABS warning light	LED 1 comes on when the warning light is on.	Possible	[T9J0]
	TW	TCS warning light	LED 2 comes on when the warning light is on.		
	TO	TCS OFF indicator light	LED 3 comes on when the indicator light is on.		
	TI	TCS operation indicator light	LED 4 comes on when the indicator light is on.		
	EC	AEC signal	With the engine run at idle speed, LED 6 (AEC) comes on and LED 7 (AEB) goes out (They go on and off depending on the behavior of a vehicle.)		
	EB	AEB signal			
	ET	AET signal	LED 8 comes on with the TCS control on.		
	EM	EAM signal	LED 9 comes on or blinks when the engine control is enabled.		
AT	AAT signal	LED 10 comes on when ABS control is on.			

**3. FB MODE (TROUBLE CODES ARE DISPLAYED.)**

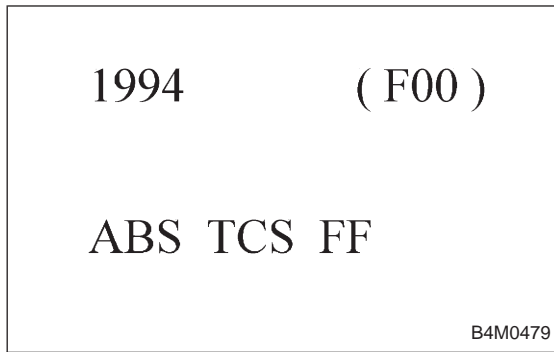
Function code		Measuring items	Contents to be monitored	Scroll	Ref. to 4-4b
Code	Abbreviation				
FB0	D-NEW	The most recent failures are displayed.	Trouble codes, trouble spots and symptoms for the most recent failure are displayed.	Possible	[T10B0]
FB1	D-ALL	Historical troubles are displayed.	Trouble codes, trouble spots and symptoms for all historical failures are displayed.	Possible	[T10B0]

**4. FC MODE (TROUBLE CODES ARE ERASED.)**

Function code		Measuring items	Contents to be monitored	Scroll	Ref. to 4-4b
Code	Abbreviation				
FC0	D-CLR	Trouble codes are erased.	Function of clearing trouble code stored in memory.	Possible	[T9K0]

**5. FD MODE (SEQUENCE CHECK AND AIR RELEASE MODE)**

Function code		Measuring items	Contents to be monitored	Scroll	Ref. to
Code	Abbreviation				
FD1	A-CHK	ABS sequence control	Perform ABS sequence control by operating valve and pump motor sequentially.	Impossible	4-4 [W20D0]
FD2	T-CHK	TCS sequence control	Perform TCS sequence control by operating the valve and pump motor sequentially.	Impossible	4-4 [W20F0]
FD3	AIR	Air bleeding control	Manually operate the valve and pump motor to bleed air.	Impossible	4-4 [W19A0]



**B: MODE F00  
— ROM ID NUMBER (ROM) —**

**CONDITION:**

Ignition switch ON

**SPECIFIED DATA:**

Presentation display

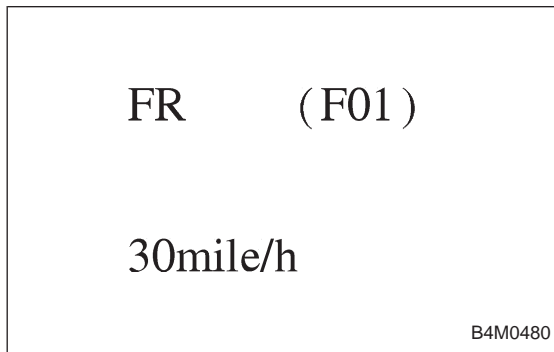
- Probable cause (Item outside “specified data”)

1. Error 1

Check for loose or disconnected connector, and discontinued circuit, etc.

2. Error 2

Check for poor contact of cartridge, or different type cartridge.

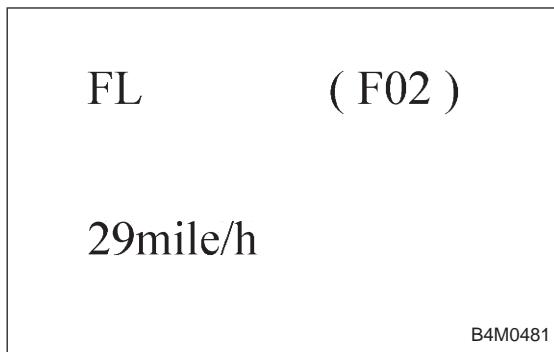


**C: MODE F01 AND F05  
— FRONT RIGHT WHEEL SPEED SIGNAL (FR) —**

- Compare speedometer with monitor indications.
- F01: FR wheel speed is indicated in mile per hour (mile/h).
- F05: FR wheel speed is indicated in kilometer per hour (km/h).

**NOTE:**

The monitor as shown, indicates that FR wheel speed is 30 mile/h.

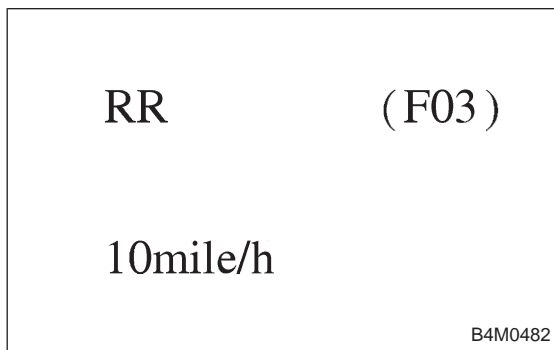


**D: MODE F02 AND F06**  
**— FRONT LEFT WHEEL SPEED SIGNAL**  
**(FL) —**

- Compare speedometer with monitor indications.
- F02: FL wheel speed is indicated in mile per hour (mile/h).
- F06: FL wheel speed is indicated in kilometer per hour (km/h).

**NOTE:**

The monitor as shown, indicates that FL wheel speed is 29 mile/h.

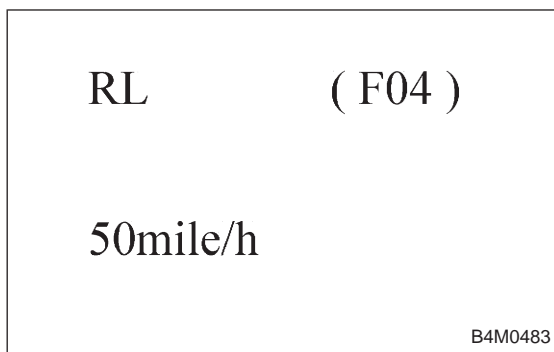


**E: MODE F03 AND F07**  
**— REAR RIGHT WHEEL SPEED SIGNAL**  
**(RR) —**

- Compare speedometer with monitor indications.
- F03: RR wheel speed is indicated in mile per hour (mile/h).
- F07: RR wheel speed is indicated in kilometer per hour (km/h).

**NOTE:**

The monitor as shown, indicates that RR wheel speed is 10 mile/h.



**F: MODE F04 AND F08**  
**— REAR LEFT WHEEL SPEED SIGNAL (RL)**  
**—**

- Compare speedometer with monitor indications.
- F04: RL wheel speed is indicated in mile per hour (mile/h).
- F08: RL wheel speed is indicated in kilometer per hour (km/h).

**NOTE:**

The monitor as shown, indicates that RL wheel speed is 50 mile/h.



**G: MODE F09**  
**— PEDAL STROKE SENSOR SIGNAL (PSS)**  
**—**

- Indicates the output step number of the pedal stroke sensor.

LED No.	Signal name	Display
1	TCS OFF switch	OF
2	Stop light switch	B1
3	Valve relay signal	VR
4	Valve relay monitor	VM
5	Motor relay signal	MR
6	Motor sensor	MS
7	Brake fluid level sensor	FS
8	—	—
9	—	—
10	—	—

**H: MODE FA0**  
**— ON ↔ OFF SIGNAL —**

Requirement for LED "ON"

- LED No. 1 T.C.S OFF switch is turned ON.
- LED No. 2 Stop light switch is turned ON. (With brake pedal depressed.)
- LED No. 3 Valve relay is turned OFF.
- LED No. 4 Valve relay is turned OFF.
- LED No. 5 Motor relay is turned ON.
- LED No. 6 Motor is rotating.
- LED No. 7 Brake fluid level sensor is turned ON. (Brake fluid is insufficient.)

OF	B1	VR	VM	MR
MS	FS	—	—	—

1	2	3	4	5
6	7	8	9	10

LED No.	Signal name	Display
1	Front right inlet solenoid valve	FI
2	Front right outlet solenoid valve	RO
3	Front left inlet solenoid valve	FI
4	Front left outlet solenoid valve	LO
5	Traction control solenoid valve 1	T1
6	Rear right inlet solenoid valve	RI
7	Rear right outlet solenoid valve	RO
8	Rear left inlet solenoid valve	RI
9	Rear left outlet solenoid valve	LO
10	Traction control solenoid valve 2	T2

FI	RO	FI	LO	T1
RI	RO	RI	LO	T2

1	2	3	4	5
6	7	8	9	10

LED No.	Signal name	Display
1	ABS warning light	AW
2	TCS warning light	TW
3	TCS OFF indicator light	TO
4	TCS operating indicator light	TI
5	—	—
6	AEC signal	EC
7	AEB signal	EB
8	AET signal	ET
9	EAM signal	EM
10	AAT signal	AT

AW	TW	TO	TI	—
EC	EB	ET	EM	AT

1	2	3	4	5
6	7	8	9	10

**I: MODE FA1**

**— ON ↔ OFF SIGNAL —**

Requirement for LED “ON”

- LED No. 1 Front right inlet solenoid valve is in function.
- LED No. 2 Front right outlet solenoid valve is in function.
- LED No. 3 Front left inlet solenoid valve is in function.
- LED No. 4 Front left outlet solenoid valve is in function.
- LED No. 5 Traction control solenoid valve 1 is in function.
- LED No. 6 Rear right inlet solenoid valve is in function.
- LED No. 7 Rear right outlet solenoid valve is in function.
- LED No. 8 Rear left inlet solenoid valve is in function.
- LED No. 9 Rear left outlet solenoid valve is in function.
- LED No. 10 Traction control solenoid valve 2 is in function.

**J: MODE FA2**

**— ON ↔ OFF SIGNAL —**

Requirement for LED “ON”

- LED No. 1 ABS warning light is on.
- LED No. 2 TCS warning light is on.
- LED No. 3 TCS OFF indicator light is on.
- LED No. 4 TCS operating indicator light is on.
- LED No. 6 Engine is running at idle. (LED comes on or goes off depending on vehicle movement.)
- LED No. 7 Engine is running at idle. (LED comes on or goes off depending on vehicle movement.)
- LED No. 8 TCS control operates.
- LED No. 9 Engine control is permitted.
- LED No. 10 ABS control operates.

**NOTE:**

If the system is normal when idling the engine without depressing brake pedal, LED No. 6 comes on, LED No. 9 blinks and all other LED’s are off.

D . CLR      ( FC0 )

0 : YES      1 : NO

B4M0485

**K: MODE FC0****— CLEAR MEMORY MODE (D·CLR) —**

- Deletes the recorded trouble codes in ABS/TCS control module.

F C O ENT

B4M0736

1) Use function keys to put in F C O ENT.

D . CLR      ( FC0 )

0 : YES      1 : NO

B4M0487

2) System indicates as shown.

D . CLR      ( FC0 )

※0 : YES      1 : NO

B4M0488

3) Key in 0, to clear memories. The indication of ※ is added to screen.

PLEASE

KEY OFF

B4M0489

4) Key in ENT. System indicates as shown.

5) Turn the key OFF.