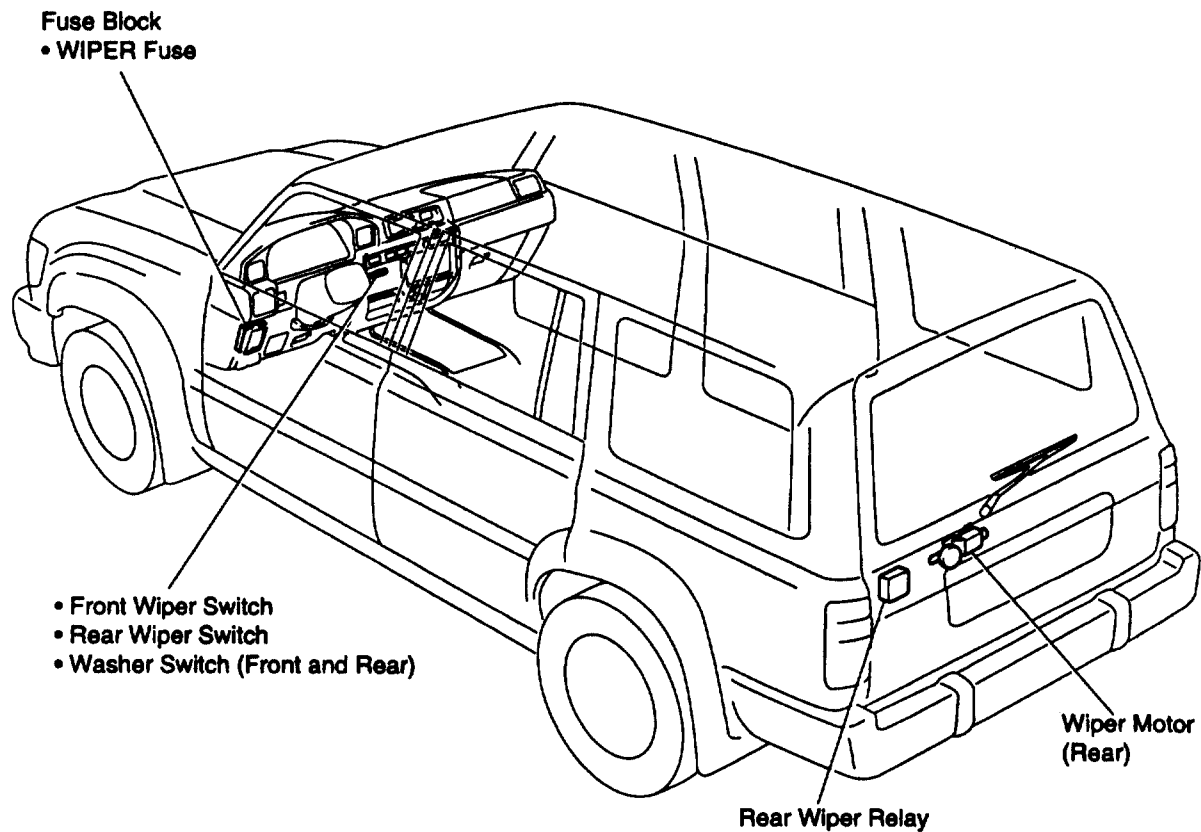
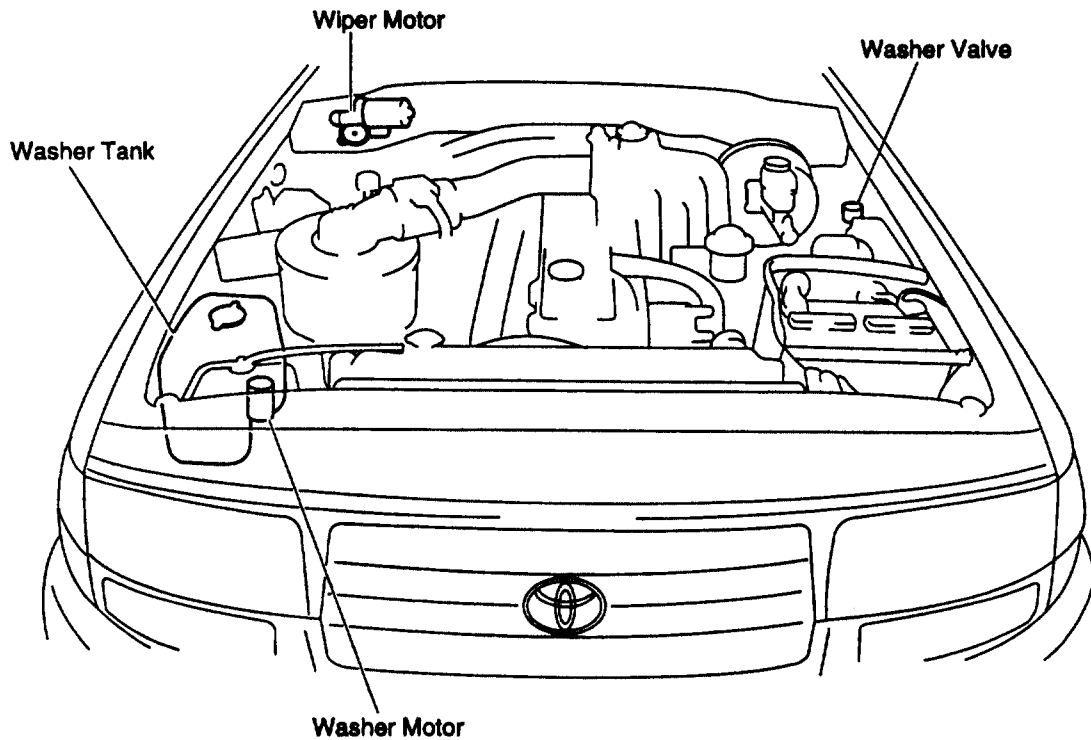


WIPER AND WASHER SYSTEM PARTS LOCATION

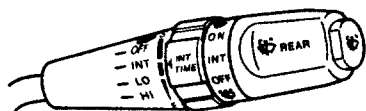


TROUBLESHOOTING

The table below will be useful for you in troubleshooting these electrical problems. The most likely causes of the malfunction are shown in the order of their probability. Inspect each part in the order shown, and replace the part when it is found to be faulty.

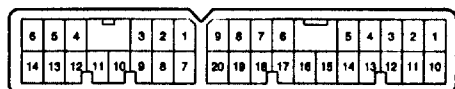
Trouble	Parts name	(See page)	
		(Front)	(Rear)
Wipers do not operate or return to off position.	1. WIPER Fuse	(BE-5)	(BE-5)
	2. Wiper Switch	(BE-28)	(BE-28)
	3. Wiper Motor	(BE-30)	(BE-31)
	4. Wiper Relay	(BE-29)	(BE-30)
	5. Wire Harness		
Wipers do not operate in MIST.	1. Wiper Switch	(BE-28)	(BE-28)
	2. Wiper Motor	(BE-30)	(BE-31)
	3. Wiper Relay	(BE-29)	(BE-30)
	4. Wire Harness		
Wipers do not operate in INT.	1. Wiper Switch	(BE-28)	(BE-28)
	2. Wiper Motor	(BE-30)	(BE-31)
	3. Wiper Relay	(BE-29)	(BE-30)
	4. Wire Harness		
Washer does not operate.	1. Washer Hose or Nozzle Clogged		
	2. Washer Switch	(BE-28)	(BE-28)
	3. Washer Motor	(BE-32)	(BE-32)
	4. Wire Harness		

Wiper with Intermittent time adjuster



Connector "A"

Connector "B"

N14307
V-34-2

Y Z15385

COMBINATION SWITCH INSPECTION

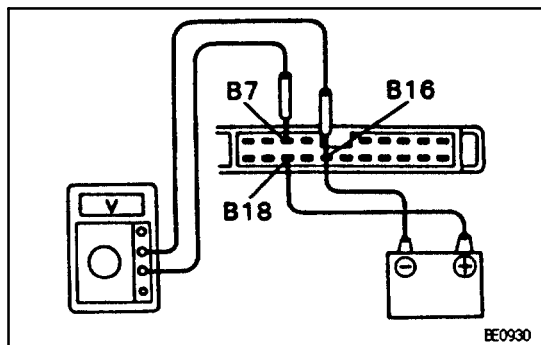
INSPECT FRONT WIPER AND WASHER SWITCH CONTINUITY

Switch position	Tester connection to terminal number	Specified condition
Wiper OFF	B4 – B7 (L – R) – (L – B)	Continuity
Wiper INT	B4 – B7 (L – R) – (L – B)	Continuity
Wiper LO	B7 – B18 (L – B) – (L – W)	Continuity
Wiper HI	B13 – B18 (L – O) – (L – W)	Continuity
Washer OFF	–	No continuity
Washer ON	B8 – B16 (L) – (B)	Continuity

INSPECT REAR WIPER AND WASHER SWITCH CONTINUITY

Switch position	Tester connection to terminal number	Specified condition
Washer ON	B2 – B16 (V) – (B)	Continuity
Wiper OFF	–	No continuity
Wiper INT	B10 – B16 (O) – (B)	Continuity
Wiper ON	B1 – B16 (G) – (B)	Continuity
Washer ON	B1 – B2 – B16 (G) – (V) – (B)	Continuity

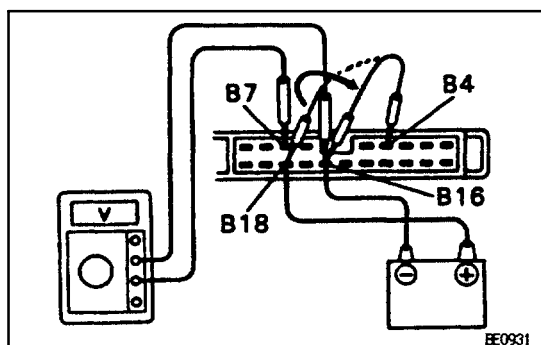
If continuity is not as specified, replace the switch.



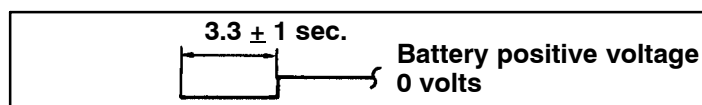
FRONT WIPER RELAY INSPECTION

1. INSPECT INTERMITTENT WIPER OPERATION

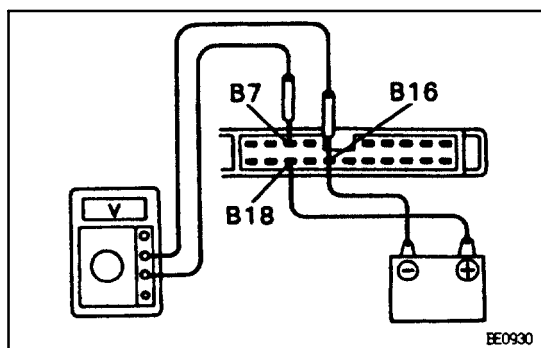
- Turn the wiper switch to INT position.
- Turn the intermittent time control switch to FAST position.
- Connect the positive (+) lead from the battery to terminal B18 and the negative (-) lead to terminal B16.



- Connect the positive (+) lead from the voltmeter to terminal B7 and the negative (-) lead to terminal B16, and check that the meter needle indicates battery positive voltage.
- After connecting terminal B4 to terminal B18, connect B18 to terminal B16. Then, check that the voltage rises from 0 volt to battery positive voltage within time as follows.

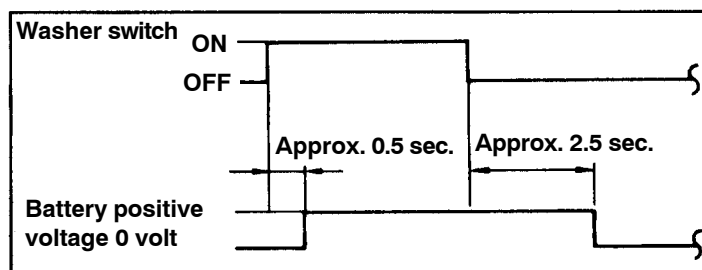


If operation is not as specified, replace the switch.

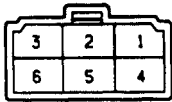


2. INSPECT WASHER LINKED OPERATION

- Connect the positive (+) lead from the battery to terminal B18 and the negative (-) lead to terminal B16.
- Connect the positive (+) lead from the voltmeter to terminal B7 and the negative (-) lead to terminal B16.
- Push in the washer switch. Check that the voltage changes, as shown in the table.



If operation is not as specified, replace the switch.

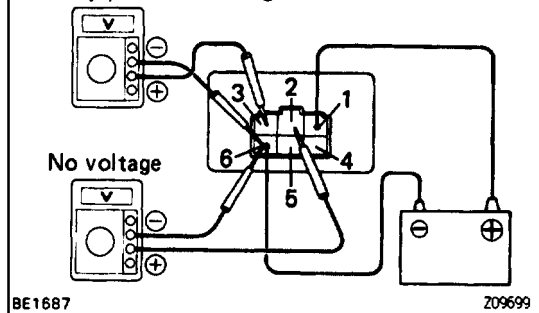
Relay Side

H-6-2

Z06843

REAR WIPER RELAY INSPECTION**1. INSPECT RELAY CONTINUITY**

- (a) Check that there is no continuity between terminals 1 and 3.
 - (b) Check that there is continuity between terminals 2 and 3.
- If continuity is not as specified, replace the relay.

Battery positive voltage

BE1687

Z09699

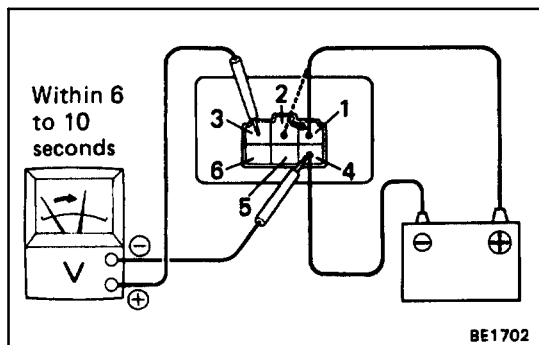
2. INSPECT RELAY OPERATION

- (a) Connect the positive (+) lead from the battery to terminal 1 and the negative (-) lead to terminal 6.
 - (b) Connect the positive (+) lead from the voltmeter to terminal 2 and the negative (-) lead to terminal 6, and check that the meter needle indicates to 0 V.
 - (c) Connect the positive (+) lead from the voltmeter to terminal 3 and the negative (-) lead to terminal 6, and check that the meter needle indicates to battery positive voltage.
- If operation is not as specified, replace the relay.

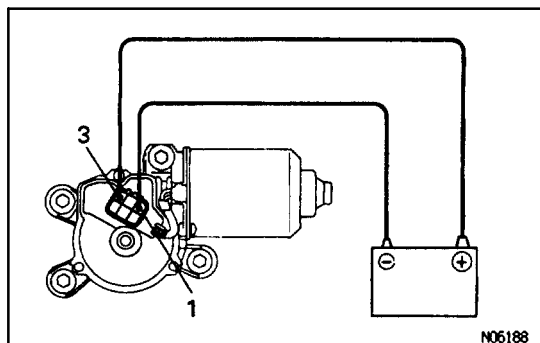
3. INSPECT RELAY INTERMITTENT OPERATION

- (a) Connect the positive (+) lead from the battery to terminal 2 and the negative (-) lead to terminal 4.
- (b) Connect the positive (+) lead from the voltmeter to terminal 3 and the negative (-) lead to terminal 4.
- (c) After disconnecting the positive (+) lead from terminal 2, connect it to terminal 1, and then, check that the meter needle rises from 0 V to battery positive voltage within 6 to 10 seconds.

If operation is not as specified, replace the relay.



BE1702

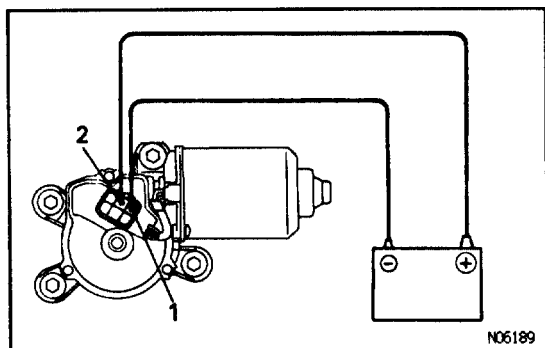


N06188

FRONT WIPER MOTOR INSPECTION**INSPECT MOTOR OPERATION****Low Speed**

Connect the positive (+) lead from the battery to terminal 3 and negative (-) lead to terminal 1, and check that the motor operates at low speed.

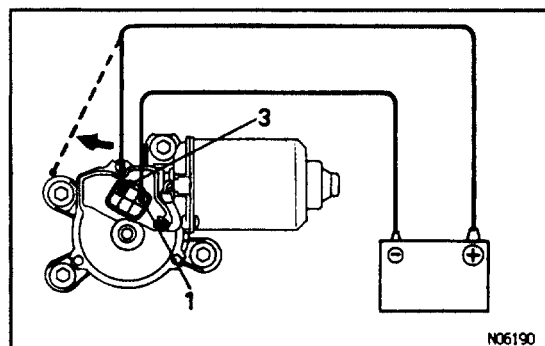
If operation is not as specified, replace the motor.



High Speed

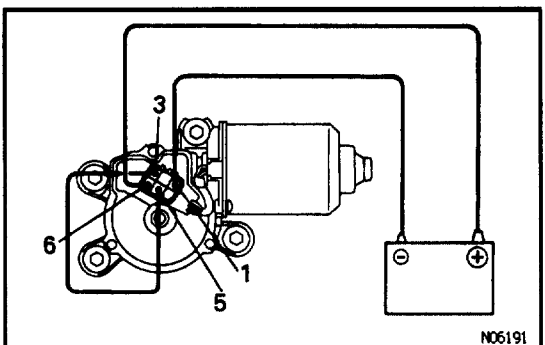
Connect the positive (+) lead from the battery to terminal 2 and the negative (-) lead to terminal 1, and check that the motor operates at high speed.

If operation is not as specified, replace the motor.



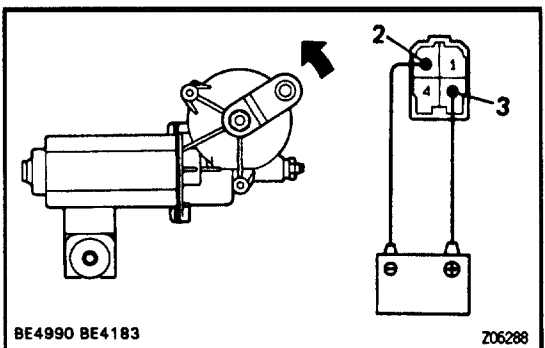
Stopping at Stop Position

- (a) Operate the motor at low speed and stop the motor operation anywhere except at the stop position by disconnecting positive (+) lead from terminal 3.



- (b) Connect terminal 3 and 5.
(c) Connect the positive (+) lead from the battery to terminal 6 and the negative (-) lead to terminal 1, and check that the motor stops running at the stop position after the motor operates again.

If operation is not as specified, replace the motor.



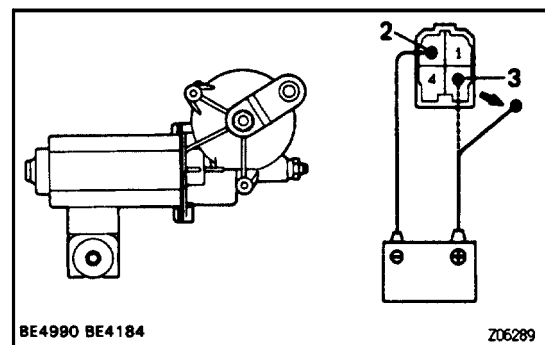
REAR WIPER MOTOR INSPECTION

INSPECT MOTOR OPERATION

Low Speed

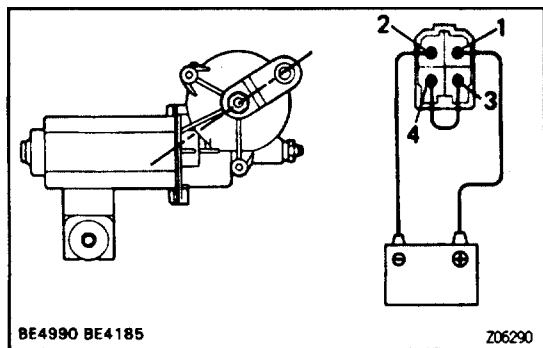
Connect the positive (+) lead from the battery to terminal 3 and negative (-) lead to terminal 2, and check that the motor operates at low speed.

If operation is not at specified, replace the motor.

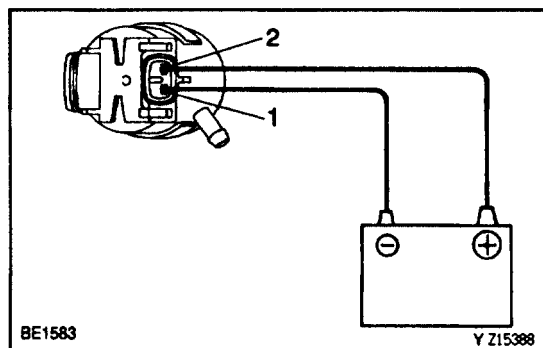


Stopping at Stop Position

- (a) Operate the motor at low speed and stop the motor operation anywhere except at the stop position by disconnecting positive (+) lead from terminal 3.



- (b) Connect terminal 3 and 4.
 - (c) Connect the positive (+) lead from the battery to terminal 1 and the negative (-) lead to terminal 2, and check that the motor stops running at the stop position after the motor operates again.
- If operation is not as specified, replace the motor.



WASHER MOTOR INSPECTION

INSPECT MOTOR OPERATION

Connect the positive (+) lead from the battery to terminal 2 and the negative (-) lead to terminal 1, and check that the motor operates.

NOTICE: These tests must be performed quickly (within 20 seconds) to prevent the coil from burning out.

If operation is not as specified, replace the motor.