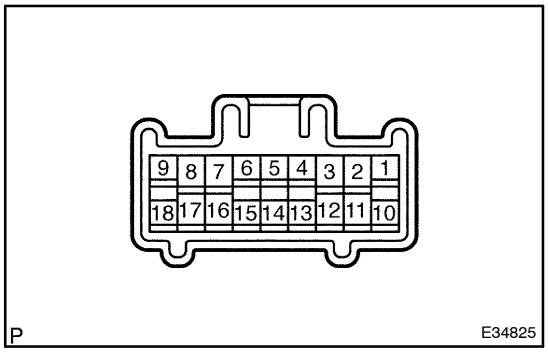
6609U–01

INSPECTION



1. WINDSHIELD WIPER SWITCH ASSY

(a) Continuity Check

(1) Check the continuity of each terminal of the windshield wiper switch.

Front Wiper Switch (LH Wiper Lever Type)

Switch position	Tester connection	Specified condition
OFF	12 (+S) – 3 (+1)	Continuity
INTO	12 (+S) – 3 (+1)	Continuity
LO	11 (+B) – 3 (+1)	Continuity
HI	11 (+B) – 2 (+2)	Continuity

Front Wiper Switch (RH Wiper Lever Type)

Switch position	Tester connection	Specified condition
OFF	16 (+S) – 7 (+1)	Continuity
INTO	16 (+S) – 7 (+1)	Continuity
LO	17 (+B) – 7 (+1)	Continuity
HI	17 (+B) – 8 (+2)	Continuity

Rear Wiper Switch (LH Wiper Lever Type)

Switch position	Tester connection	Specified condition
OFF	–	No Continuity
INT	2 (EW) – 13 (C1R)	Continuity
ON	2 (EW) – 10 (+1R)	Continuity

Rear Wiper Switch (RH Wiper Lever Type)

Switch position	Tester connection	Specified condition
OFF	–	No Continuity
INTO	8 (EW) – 15 (C1R)	Continuity
ON	8 (EW) – 18 (+1R)	Continuity

Front Washer Switch (LH Wiper Lever Type)

Switch position	Tester connection	Specified condition
OFF	17 (WF) – 8 (EW)	No continuity
ON	17 (WF) – 8 (EW)	Continuity

Front Washer Switch (RH Wiper Lever Type)

Switch position	Tester connection	Specified condition
OFF	11 (WF) – 2 (EW)	No continuity
ON	11 (WF) – 2 (EW)	Continuity

Rear Washer Switch (LH Wiper Lever Type)

Switch position	Tester connection	Specified condition
OFF	–	No continuity
ON (OFF position side)	2 (EW) – 12 (WR)	Continuity
ON (ON position side)	2 (EW) – 10 (+1R) – 12 (WR)	Continuity

Rear Washer Switch (RH Wiper Lever Type)

Switch position	Tester connection	Specified condition
OFF	–	No continuity
ON (OFF position side)	8 (EW) – 16 (WR)	Continuity
ON (ON position side)	8 (EW) – 18 (+1R) – 16 (WR)	Continuity

Headlight Cleaner Switch

Switch position	Tester connection	Specified condition
OFF	3 (B) – 15 (L)	No continuity
ON	3 (B) – 15 (L)	Continuity

(b) Intermittent Operation Check (LH Wiper Lever Type)

(1) Connect the voltmeter (+) terminal to terminal 3 (+1) of the connector, the voltmeter (–) terminal to terminal 8 (EW) of the connector.

(2) Connect the battery (+) to terminal 11 (+B) of the connector, the battery (–) to terminal 8 (EW) and 12 (+S) of the connector.

(3) Turn the wiper switch to INT.

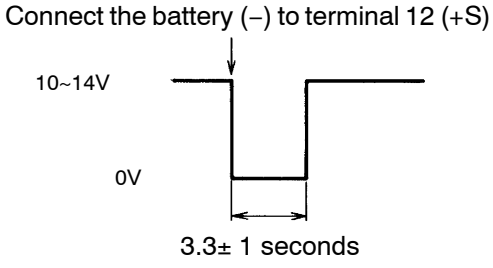
(4) Connect the battery (+) to terminal 12 (+S) of the connector for 5 seconds.

(5) Connect the battery (–) to terminal 12 (+S) of the connector. Operate the intermittent wiper relay and check voltage between terminal 3 (+1) and terminal 8 (EW).

Fixed Time Type:

3 (+1) ⇔ 8 (EW)

Voltage between terminals

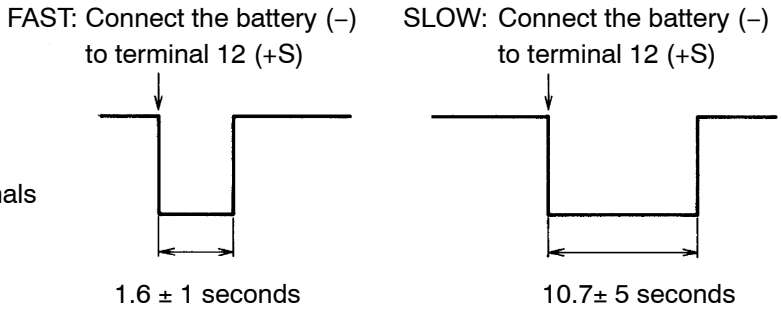


I30006

Adjustable Time Type:

3 (+1) ⇔ 8 (EW)

Voltage between terminals



E56399

(c) Intermittent Operation Check (RH Wiper Lever Type)

(1) Connect the voltmeter (+) terminal to terminal 7 (+1) of the connector, the voltmeter (–) terminal to terminal 2 (EW) of the connector.

(2) Connect the battery (+) to terminal 17 (+B) of the connector, the battery (–) to terminal 2 (EW) and 16 (+S) of the connector.

(3) Turn the wiper switch to INT.

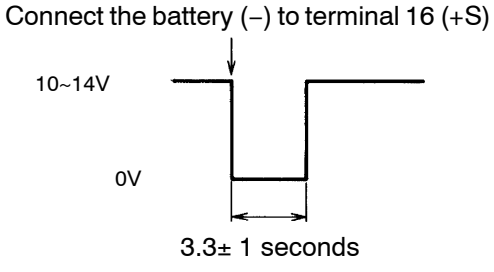
(4) Connect the battery (+) to terminal 16 (+S) of the connector for 5 seconds.

(5) Connect the battery (–) to terminal 16 (+S) of the connector. Operate the intermittent wiper relay and check voltage between terminal 7 (+1) and terminal 2 (EW).

Fixed Time Type:

7 (+1) ⇔ 2 (EW)

Voltage between terminals

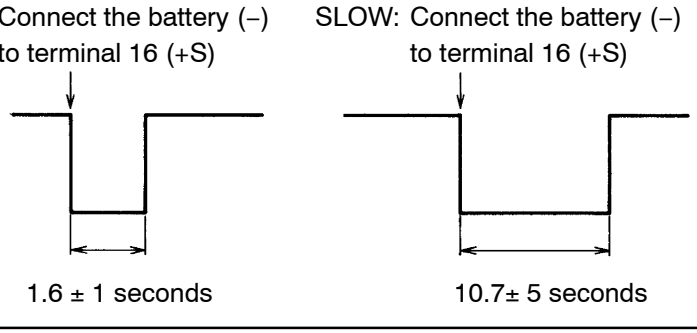


I30006

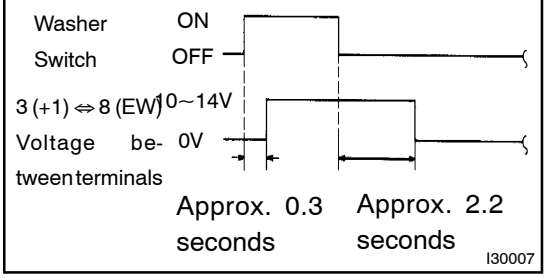
Adjustable Time Type:

7 (+1) ⇔ 2 (EW)

Voltage between terminals



E56399



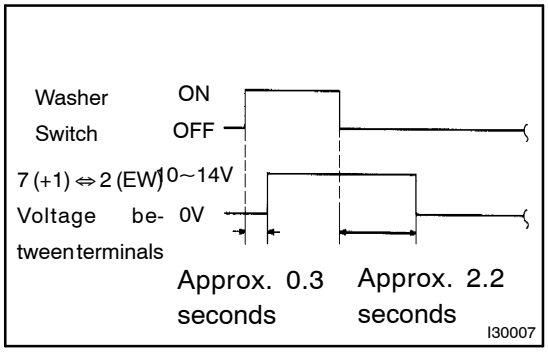
I30007

(d) Operation Check (Front Wiper) (LH Wiper Lever Type)

(1) Turn the wiper switch to OFF.

(2) Connect the battery (+) to terminal 11 (+B) of the connector, the battery (–) to terminal 12 (+S) and 8 (EW) of the connecter.

(3) Connect the voltmeter (+) terminal to terminal 3 (+1) of the connector and the voltmeter (–) terminal to terminal 8 (EW) of the connector. Turn the washer switch to ON and OFF, and check voltage between terminal 3 (+1) and terminal 8 (EW).



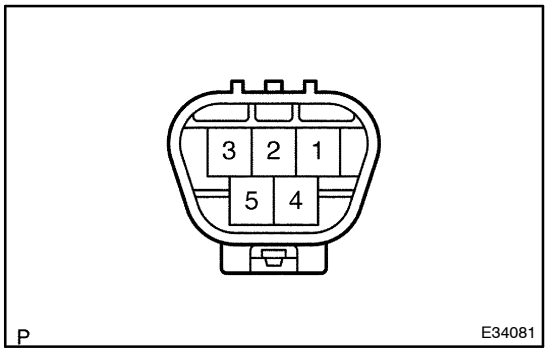
(e) Operation Check (Front Wiper) (RH Wiper Lever Type)
(1) Turn the wiper switch to OFF.
(2) Connect the battery (+) to terminal 17 (+B) of the connector, the battery (–) to terminal 16 (+S) and 2 (EW) of the connecter.
(3) Connect the voltmeter (+) terminal to terminal 7 (+1) of the connector and the voltmeter (–) terminal to terminal 2 (EW) of the connector. Turn the washer switch to ON and OFF, and check voltage between terminal 7 (+1) and terminal 2 (EW).

2. WINDSHIELD WIPER MOTOR ASSY (LHD STEERING POSITION TYPE)

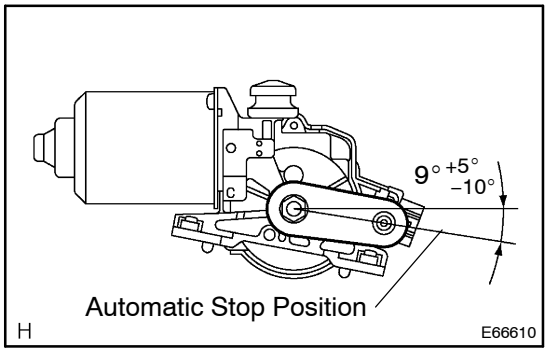
(a) LO Operation Check
(1) Connect the battery (+) to terminal 1 (+1) of the connector, the battery (–) to terminal 5 (E) of the connector, and check that the motor operates with low speed (LO).

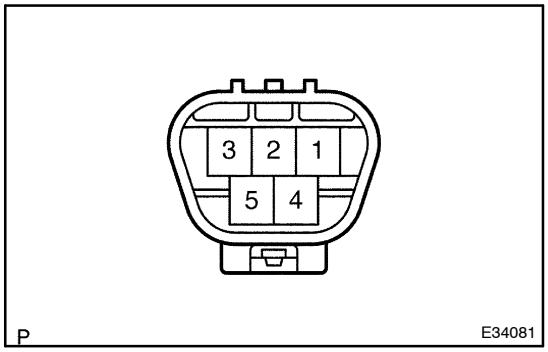
(b) HI Operation Check
(1) Connect the battery (+) to terminal 4 (+2) of the connector, the battery (–) to terminal 5 (E) of the connector, and check that the motor operates with high speed (HI).

(c) Automatic Stop Operation Check
(1) Connect the battery (+) to terminal 1 (+1) of the connector, the battery (–) to terminal 5 (E) of the connector. With the motor being rotated at low speed (LO), disconnect terminal 1 (+1) to stop the wiper motor operation at any position except the automatic stop position.
(2) Using a SST, connect terminal 1 (+1) and 3 (S), and the battery (+) to terminal 2 (B) to restart the motor operation at low speed.
SST 09843–18040



(3) Check the automatic stop position.
Standard: See the illustration.





3. WINDSHIELD WIPER MOTOR ASSY (RHD STEERING POSITION TYPE)

(a) LO Operation Check

(1) Connect the battery (+) to terminal 5 (+1) of the connector, the battery (–) to terminal 4 (E) of the connector, and check that the motor operates with low speed (LO).

(b) HI Operation Check

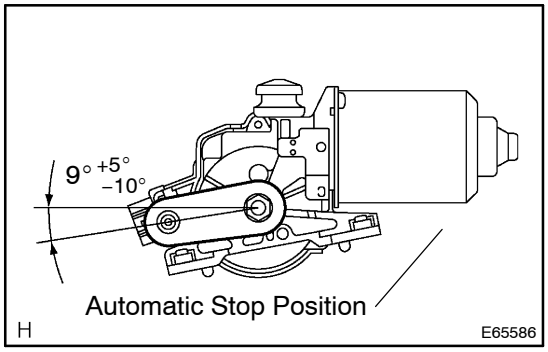
(1) Connect the battery (+) to terminal 3 (+2) of the connector, the battery (–) to terminal 4 (E) of the connector, and check that the motor operates with high speed (HI).

(c) Automatic Stop Operation Check

(1) Connect the battery (+) to terminal 5 (+1) of the connector, the battery (–) to terminal 4 (E) of the connector. With the motor being rotated at low speed (LO), disconnect terminal 5 (+1) to stop the wiper motor operation at any position except the automatic stop position.

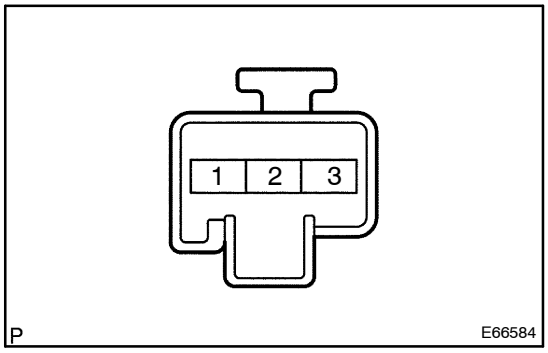
(2) Using a SST, connect terminal 5 (+1) and 1 (S), and the battery (+) to terminal 2 (B) to restart the motor operation at low speed.

SST 09843–18040



(3) Check the automatic stop position.

Standard: See the illustration.



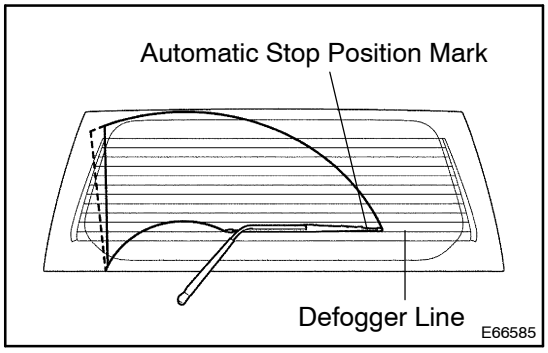
4. REAR WIPER MOTOR ASSY (BACK DOOR MOUNTED SPARE TIRE)

(a) Operation Check

(1) Connect the battery (+) to terminal 1 (+B) of the connector, the battery (–) to terminal 2 (C1) of the connector, and check that the rear wiper motor operates.

NOTICE:

The body earth should be connected.



(b) Automatic Stop Position Operation Check

(1) Connect the battery (+) to terminal 1 (+B) of the connector, the battery (–) to terminal 2 (C1) of the connector.

NOTICE:
The body earth should be connected.

(2) With the motor being rotated, disconnect terminal 1 (+B) and terminal 2 (C1) to stop the motor operation at any position except the automatic stop position.

(3) Connect the battery (+) to terminal 1 (+B). Check that the motor is restarted and automatically stopped.

(c) Intermittent Operation Check

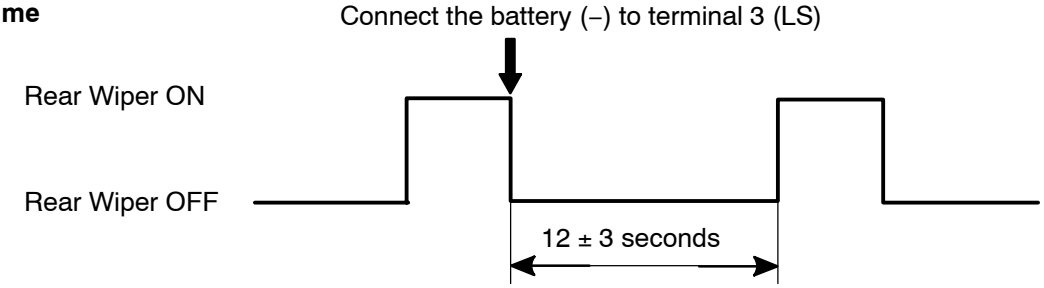
(1) Connect the battery (+) to terminal 1 (+B) of the connector, the battery (–) to terminal 3 (LS) of the connector.

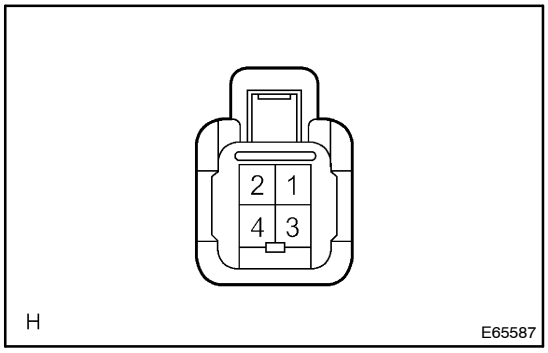
NOTICE:
The body earth should be connected.

(2) Check the time of the rear wiper relay intermittent operation.

Standard: See the illustration.

Intermittent Operation Time



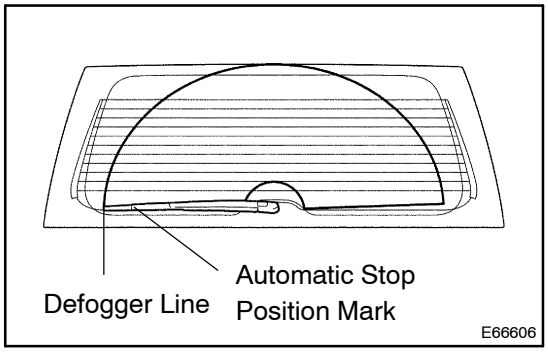


5. REAR WIPER MOTOR ASSY (UNDER FLOOR MOUNTED SPARE TIRE)

(a) Operation Check

(1) Connect the battery (+) to terminal 1 (+B) of the connector, the battery (–) to terminal 3 (C1) of the connector, and check that the rear wiper motor operates.

NOTICE:
The body earth should be connected.



(b) Automatic Stop Position Operation Check

(1) Connect the battery (+) to terminal 1 (+B) of the connector, the battery (–) to terminal 3 (C1) of the connector.

NOTICE:
The body earth should be connected.

(2) With the motor being rotated, disconnect terminal 1 (+B) and terminal 3 (C1) to stop the motor operation at any position except the automatic stop position.

(3) Connect the battery (+) to terminal 1 (+B). Check that the motor is restarted and automatically stopped.

(c) Intermittent Operation Check

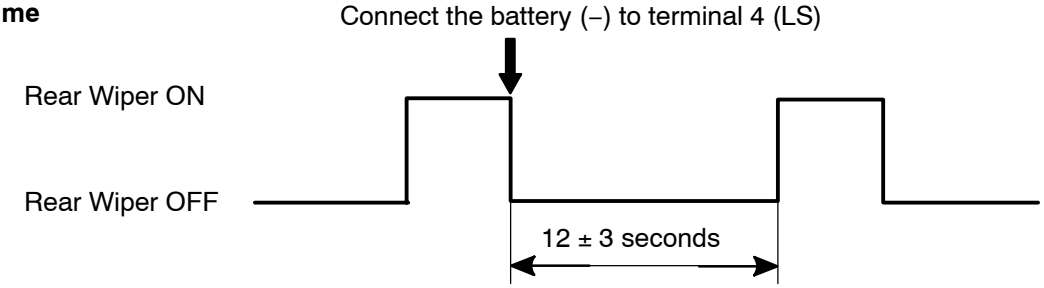
(1) Connect the battery (+) to terminal 1 (+B) of the connector, the battery (–) to terminal 4 (LS) of the connector.

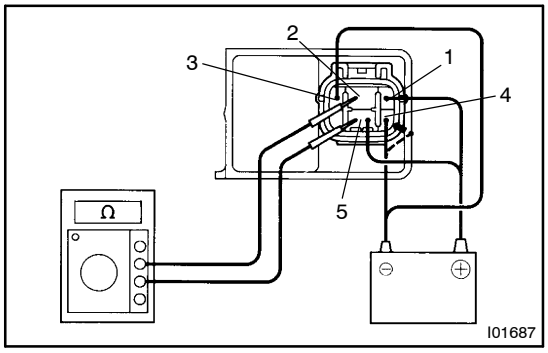
NOTICE:
The body earth should be connected.

(2) Check the time of the rear wiper relay intermittent operation.

Standard: See the illustration.

Intermittent Operation Time





6. HEADLAMP CLEANER RELAY ASSY

(a) Inspect headlamp cleaner control relay operation.

(1) Check that no continuity exists between terminals 2 and 5.

(2) Connect the positive (+) lead from the battery to terminals 1 and 5, and the negative (–) lead to terminal 3.

(3) Connect the negative (–) lead from the battery to terminal 4, and check that continuity exists between terminals 2 and 5 for 0.8 – 0.9 seconds, then no continuity exists.