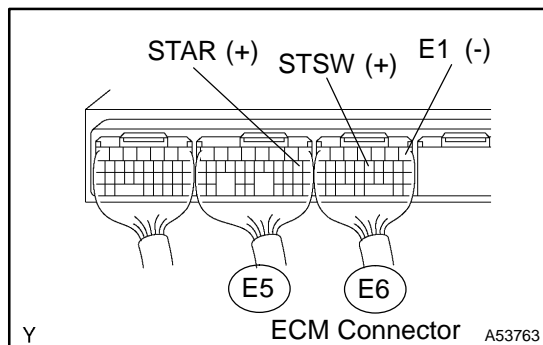


OK

Go to step 5

NG

3 INSPECT ECM(STAR AND STSW VOLTAGE)

- (a) Measure the voltage between the terminals of the E5 and E6 ECM connectors, while cranking the engine (ignition switch START position).

Standard:

Symbols (Terminal No.)	Specified condition
STAR (E5-9) ⇔ E1 (E6-1)	9 - 14 V
STSW (E6-12) ⇔ E1 (E6-1)	9 - 14 V

Result:

Terminal STAR	Terminal STSW	Proceed to
9 - 14 V	9 - 14 V	A
0 V	9 - 14 V	B
0 V	0 V	C

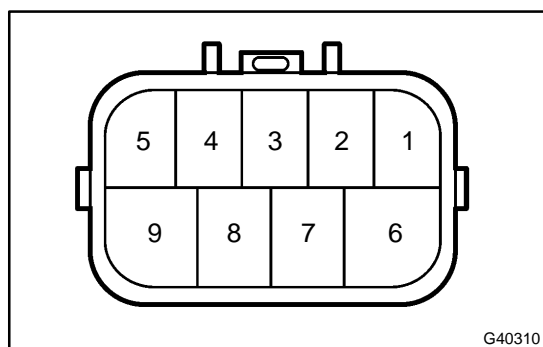
B

CHECK AND REPLACE ECM
 (See page 01-35)

C

Go to step 9

A

4 INSPECT PARK/NEUTRAL POSITION SWITCH ASSY

- (a) Disconnect the park/neutral position switch connector.
 (b) Check continuity between each terminal shown below when the shift lever is moved to each range.

Standard:

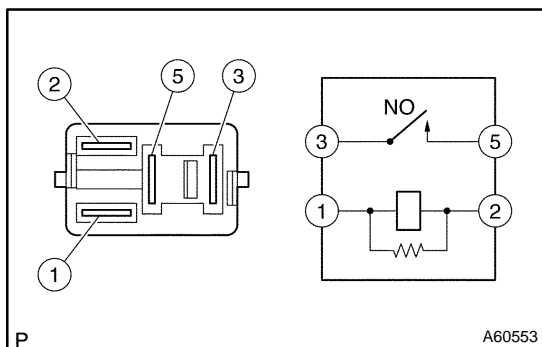
Shift range	Terminal No.	Specified condition
P	1 ⇔ 3	Continuity
	6 ⇔ 9	
R	2 ⇔ 3	
N	3 ⇔ 5	
	6 ⇔ 9	
D, 4	3 ⇔ 7	
3	3 ⇔ 4	
2, L	3 ⇔ 8	

NG

REPLACE PARK/NEUTRAL POSITION SWITCH ASSY

OK

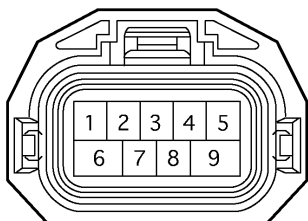
CHECK AND REPAIR HARNESS AND CONNECTOR (PARK/NEUTRAL POSITION SWITCH - ECM)

5 INSPECT STARTER RELAY ASSY

- (a) Remove the starter relay from the engine room R/B.
 (b) Inspect the starter relay.

Standard:

Terminal No.	Condition	Specified condition
1 ⇔ 2	Constant	Continuity
3 ⇔ 5	Usually	No Continuity
	Apply B+ between Terminals 1 and 2	Continuity

NG**REPLACE STARTER RELAY ASSY****OK****6 CHECK HARNESS AND CONNECTOR(PARK/NEUTRAL POSITION SWITCH - STARTER RELAY, STARTER RELAY - BODY GROUND)****Wire Harness Side**

- (a) Check the harness and connector between the park/neutral position switch connector and starter relay.

- (1) Disconnect the park/neutral position switch connector.
 (2) Remove the starter relay from the engine room R/B.
 (3) Check the continuity between the wire harness side connectors.

Standard (Check for open):

Symbols (Terminal No.)	Specified condition
Park/neutral position switch (6) ⇔ Starter relay (1)	Continuity

Standard (Check for short):

Symbols (Terminal No.)	Specified condition
Park/neutral position switch (6) or Starter relay (1) ⇔ Body ground	No continuity

- (b) Check the harness and connector between the starter relay and body ground.

- (1) Remove the starter relay from the engine room R/B.
 (2) Check the continuity between the starter relay and body ground.

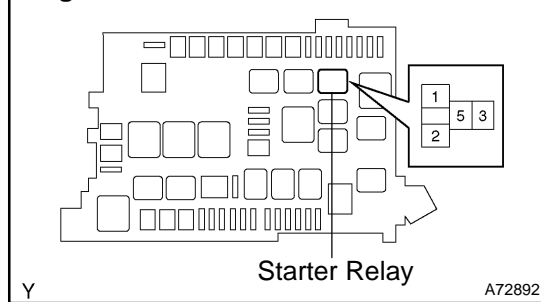
Standard (Check for open):

Symbols (Terminal No.)	Specified condition
Starter relay (2) ⇔ Body ground	Continuity

NG**REPAIR OR REPLACE HARNESS OR CONNECTOR****OK**

7 INSPECT ENGINE ROOM RELAY BLOCK(STARTER RELAY VOLTAGE)

Engine Room R/B



- Remove the starter relay from the engine room R/B.
- Measure the voltage between the terminal of the engine room R/B and body ground.

Standard:

Symbols (Terminal No.)	Specified condition
Starter relay (5) ↔ Body ground	9 - 14 V

NG

CHECK AND REPAIR HARNESS AND CONNECTOR (STARTER RELAY - BATTERY)

OK

8 INSPECT STARTER ASSY (See page 19-1)

NG

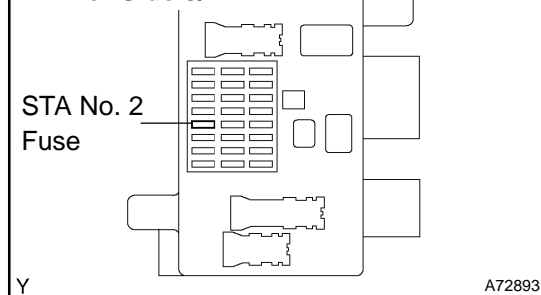
REPAIR OR REPLACE STARTER ASSY

OK

CHECK AND REPAIR HARNESS AND CONNECTOR (STARTER RELAY - STARTER, STARTER - BATTERY)

9 CHECK FUSE(STA NO.2)

Driver Side J/B



- Remove the STA No. 2 fuse from the driver side J/B.
- Check the continuity of STA No. 2 fuse.

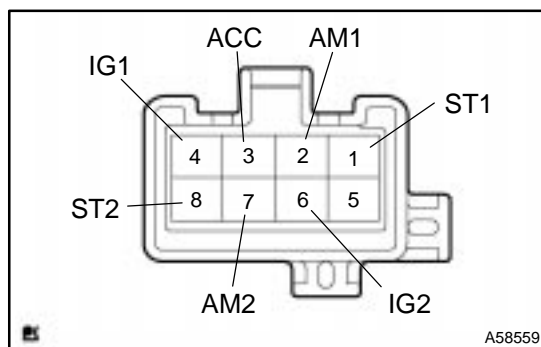
Standard: Continuity

NG

CHECK FOR SHORT IN ALL HARNESS AND COPONENTS CONNECTED STA NO.2 FUSE

OK

10 INSPECT IGNITION OR STARTER SWITCH ASSY



- Check continuity between the connector terminals shown in the chart below.

Standard:

Switch position	Terminal No.	Specified condition
LOCK	All terminal to terminal	No continuity
ACC	2 ↔ 3	Continuity
ON	2 ↔ 3 ↔ 4 6 ↔ 7	Continuity
START	1 ↔ 2 ↔ 4 6 ↔ 7 ↔ 8	Continuity

NG

REPLACE IGNITION OR STARTER SWITCH ASSY

OK

CHECK AND REPAIR HARNESS AND CONNECTOR (ECM - IGNITION SWITCH, IGNITION SWITCH - BATTERY)

OBD II scan tool (excluding hand-held tester):

1 CHECK OPERATION OF ENGINE CRANKING

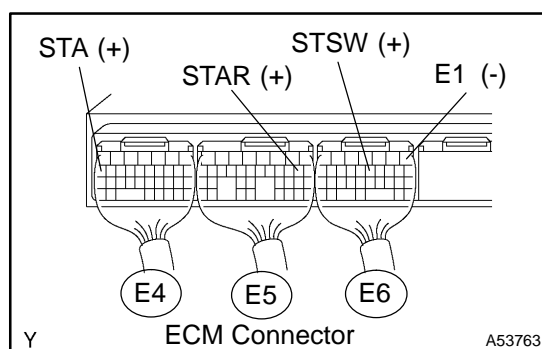
- (a) When turning the ignition switch to the ST position, check whether the starter motor starts.

OK

CHECK FOR INTERMITTENT PROBLEMS
(See page 05-5)

NG

2 INSPECT ECM(STA, STAR AND STSW VOLTAGE)



- (a) Measure the voltage between the terminals of the E4, E5 and E6 ECM connectors, while cranking the engine (ignition switch START position).

Standard:

Symbols (Terminal No.)	Specified condition
STA (E4-17) ⇔ E1 (E6-1)	9 - 14 V
STAR (E5-9) ⇔ E1 (E6-1)	9 - 14 V
STSW (E6-12) ⇔ E1 (E6-1)	9 - 14 V

Result:

Terminal STA	Terminal STAR	Terminal STSW	Proceed to
9 - 14 V	9 - 14 V	9 - 14 V	A
0 V	9 - 14 V	9 - 14 V	B
0 V	0 V	9 - 14 V	C
0 V	0 V	0 V	D

B

Go to step 7

C

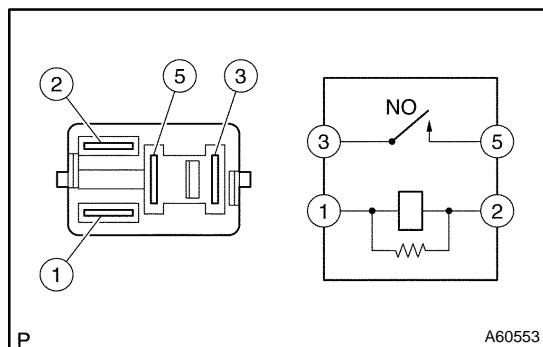
CHECK AND REPLACE ECM
(See page 01-35)

D

Go to step 8

A

3 INSPECT STARTER RELAY ASSY



- (a) Remove the starter relay from the engine room R/B.
 (b) Inspect the starter relay.

Standard:

Terminal No.	Condition	Specified condition
1 ⇔ 2	Constant	Continuity
3 ⇔ 5	Usually	No Continuity
	Apply B+ between Terminals 1 and 2	Continuity

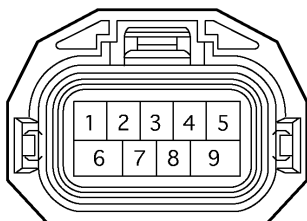
NG

REPLACE STARTER RELAY ASSY

OK

4 CHECK HARNESS AND CONNECTOR(PARK/NEUTRAL POSITION SWITCH - STARTER RELAY, STARTER RELAY - BODY GROUND)

Wire Harness Side



Park/neutral position switch Connector

O

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- (a) Check the harness and connector between the park/neutral position switch connector and starter relay.

- (1) Disconnect the park/neutral position switch connector.
 (2) Remove the starter relay from the engine room R/B.
 (3) Check the continuity between the wire harness side connectors.

Standard (Check for open):

Symbols (Terminal No.)	Specified condition
Park/neutral position switch (6) ⇔ Starter relay (1)	Continuity

Standard (Check for short):

Symbols (Terminal No.)	Specified condition
Park/neutral position switch (6) or Starter relay (1) ⇔ Body ground	No continuity

- (b) Check the harness and connector between the starter relay and body ground.

- (1) Remove the starter relay from the engine room R/B.
 (2) Check the continuity between the starter relay and body ground.

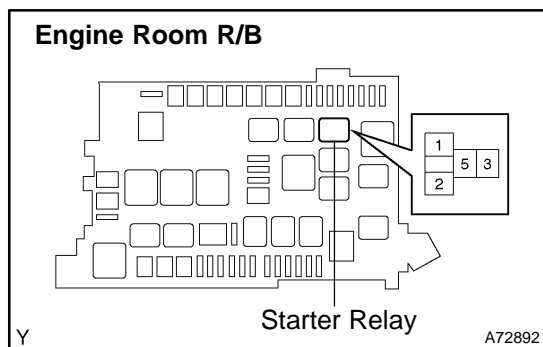
Standard (Check for open):

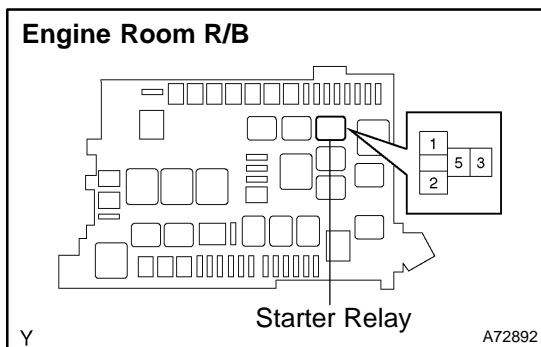
Symbols (Terminal No.)	Specified condition
Starter relay (2) ⇔ Body ground	Continuity

NG

REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

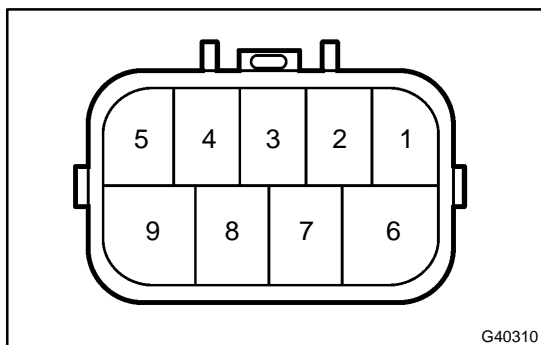


5 INSPECT ENGINE ROOM RELAY BLOCK(STARTER RELAY VOLTAGE)**Engine Room R/B**

- Remove the starter relay from the engine room R/B.
- Measure the voltage between the terminal of the engine room R/B and body ground.

Standard:

Symbols (Terminal No.)	Specified condition
Starter relay (5) ↔ Body ground	9 - 14 V

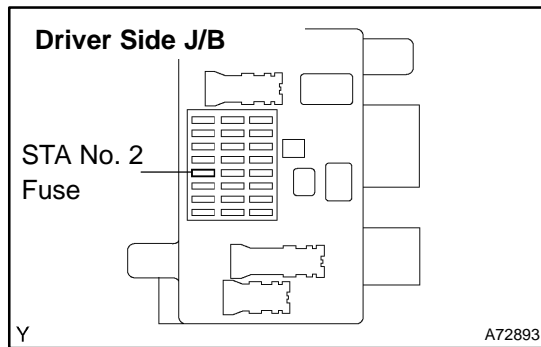
NG**CHECK AND REPAIR HARNESS AND CONNECTOR (STARTER RELAY - BATTERY)****OK****6 INSPECT STARTER ASSY (See page 19-1)****NG****REPAIR OR REPLACE STARTER ASSY****OK****CHECK AND REPAIR HARNESS AND CONNECTOR (STARTER RELAY - STARTER, STARTER - BATTERY)****7 INSPECT PARK/NEUTRAL POSITION SWITCH ASSY**

- Disconnect the park/neutral position switch connector.
- Check continuity between each terminal shown below when the shift lever is moved to each range.

Standard:

Shift range	Terminal No.	Specified condition
P	1 ↔ 3	Continuity
	6 ↔ 9	
R	2 ↔ 3	
N	3 ↔ 5	
	6 ↔ 9	
D, 4	3 ↔ 7	
3	3 ↔ 4	
2, L	3 ↔ 8	

NG**REPLACE PARK/NEUTRAL POSITION SWITCH ASSY****OK****CHECK AND REPAIR HARNESS AND CONNECTOR (PARK/NEUTRAL POSITION SWITCH - ECM)**

8 CHECK FUSE(STA NO.2)

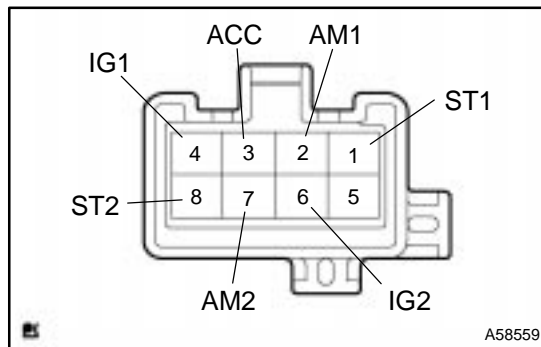
- (a) Remove the STA No. 2 fuse from the driver side J/B.
 (b) Check the continuity of STA No. 2 fuse.

Standard: Continuity

NG

CHECK FOR SHORT IN ALL HARNESS AND COPONENTS CONNECTED STA NO.2 FUSE

OK

9 INSPECT IGNITION OR STARTER SWITCH ASSY

- (a) Check continuity between the connector terminals shown in the chart below.

Standard:

Switch position	Terminal No.	Specified condition
LOCK	All terminal to terminal	No continuity
ACC	2 ↔ 3	Continuity
ON	2 ↔ 3 ↔ 4 6 ↔ 7	Continuity
START	1 ↔ 2 ↔ 4 6 ↔ 7 ↔ 8	Continuity

NG

REPLACE IGNITION OR STARTER SWITCH ASSY

OK

CHECK AND REPAIR HARNESS AND CONNECTOR (ECM - IGNITION SWITCH, IGNITION SWITCH - BATTERY)