HOW TO USE THIS MANUAL

IN01O-08

GENERAL INFORMATION

1. INDEX

An INDEX is provided on the first page of each section to guide you to the item to be repaired. To assist you in finding your way through the manual, the section title and major heading are given at the top of every page.

2. PRECAUTION

At the beginning of each section, a PRECAUTION is given that pertains to all repair operations contained in that section.

Read these precautions before starting any repair task.

3. TROUBLESHOOTING

TROUBLESHOOTING tables are included for each system to help you diagnose the problem and find the cause. The fundamentals of how to proceed with troubleshooting are described on page IN-17 .

Be sure to read this before performing troubleshooting.

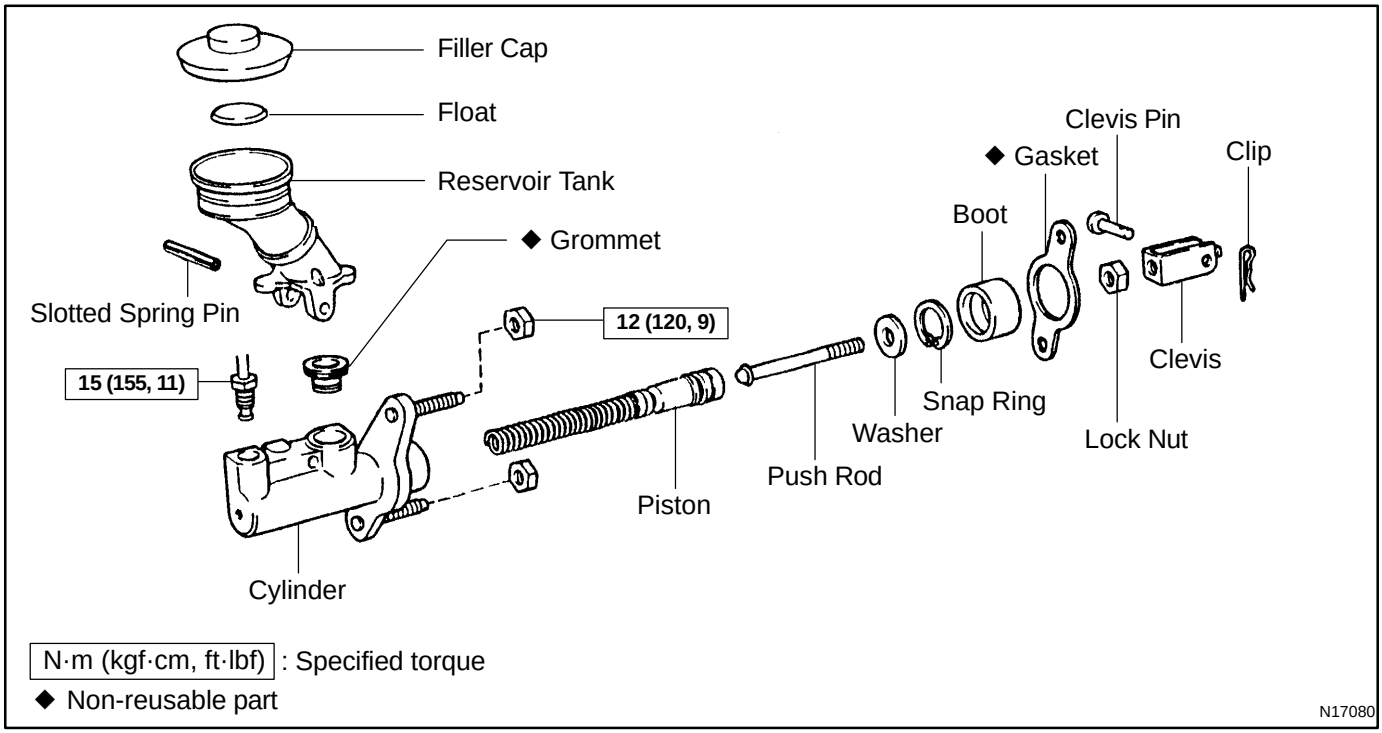
4. PREPARATION

Preparation lists the SST (Special Service Tools), recommended tools, equipment, lubricant and SSM (Special Service Materials) which should be prepared before beginning the operation and explains the purpose of each one.

5. REPAIR PROCEDURES

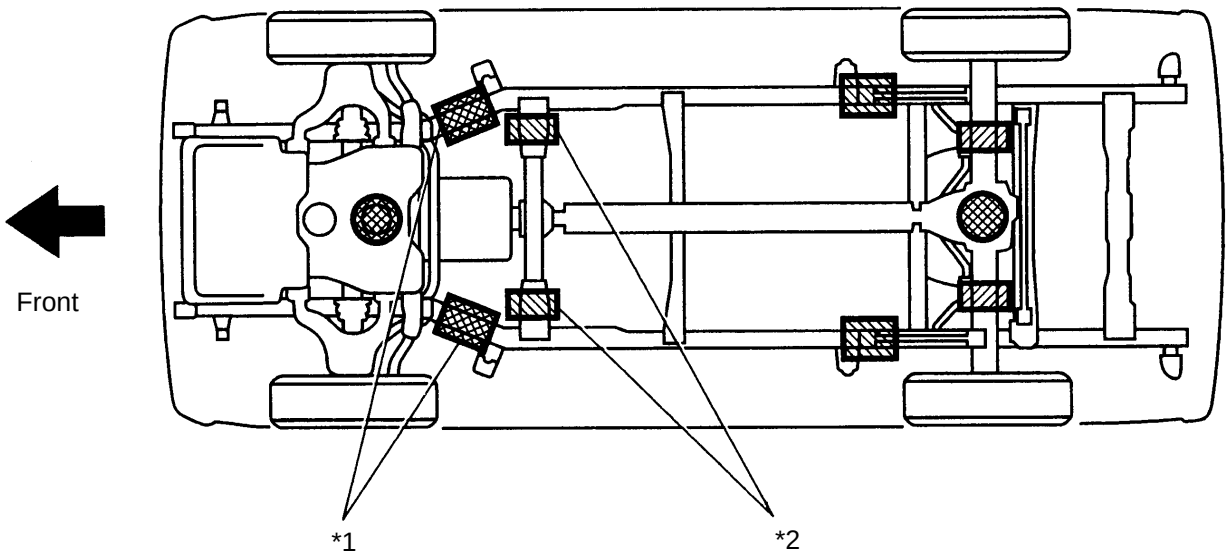
Most repair operations begin with an overview illustration. It identifies the components and shows how the parts fit together.

Example:



IN004-04

VEHICLE LIFT AND SUPPORT LOCATIONS



JACK POSITION . . . . . 

Front . . . . . Center of crossmember

Rear . . . . . Center of rear axle housing

CAUTION: When jacking-up the front and rear make sure the car is not carrying any extra eight.

SUPPORT POSITION

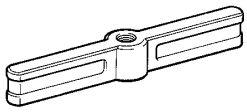
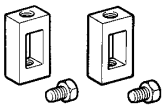
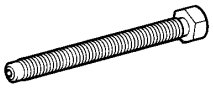
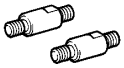
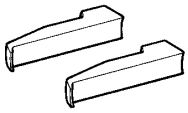
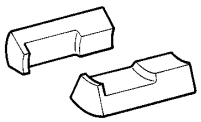
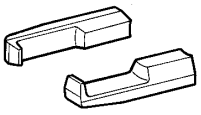
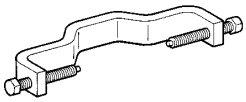
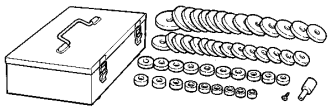
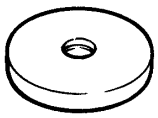
Safety stand . . . . . 

Swing arm type lift . . . . . 

*1: Support position when equipping without side step.

*2: Support position when equipping with side step.

B01542

	(09951-04020)	Hanger 200	Front axle
	(09952-04010)	Slide Arm	Front axle Front suspension Front differential Rear differential
	(09953-04020)	Center Bolt 150	Front axle Front suspension Front differential Rear differential
	(09954-04010)	Arm 25	Front axle Front suspension Front differential Rear differential
	(09955-0401 1)	Claw No.1	Front differential
	(09955-04031)	Claw No.3	Front axle Front suspension
	(09955-04061)	Claw No.6	Front differential Rear differential
	(09957-04010)	Attachment	Front axle Front suspension Front differential Rear differential
	(09958-0401 1)	Holder	Front axle Front suspension Front differential Rear differential
	09950-60010	Replacer Set	
	(09951-00380)	Replacer 38	Front differential
	(09951-00480)	Replacer 48	Front differential Rear differential
	(09951-00540)	Replacer 54	Front differential

DI8XJ-01

DTC	P0441	Evaporative Emission Control System Incorrect Purge Flow

DTC	P0446	Evaporative Emission Control System Vent Control Malfunction

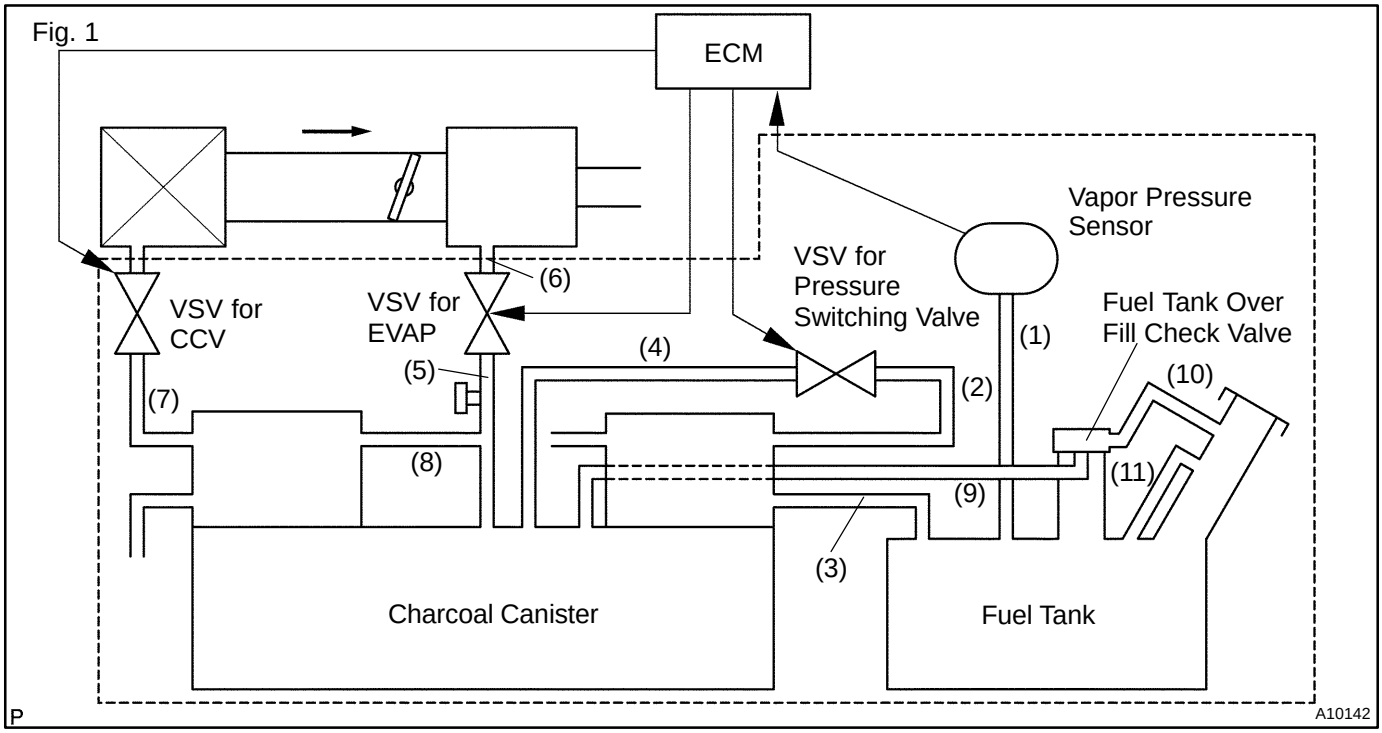
CIRCUIT DESCRIPTION

The vapor pressure sensor, VSV for canister closed valve (CCV), VSV for pressure switching valve are used to detect abnormalities in the evaporative emission control system.

The ECM decides whether there is an abnormality in the evaporative emission control system based on the vapor pressure sensor signal.

DTCs P0441 and P0446 are recorded by the ECM when evaporative emissions leak from the components within the dotted line in Fig. 1 below, or when there is a malfunction in either the VSV for EVAP, the VSV for pressure switching valve, or in the vapor pressure sensor itself.

Fig. 1



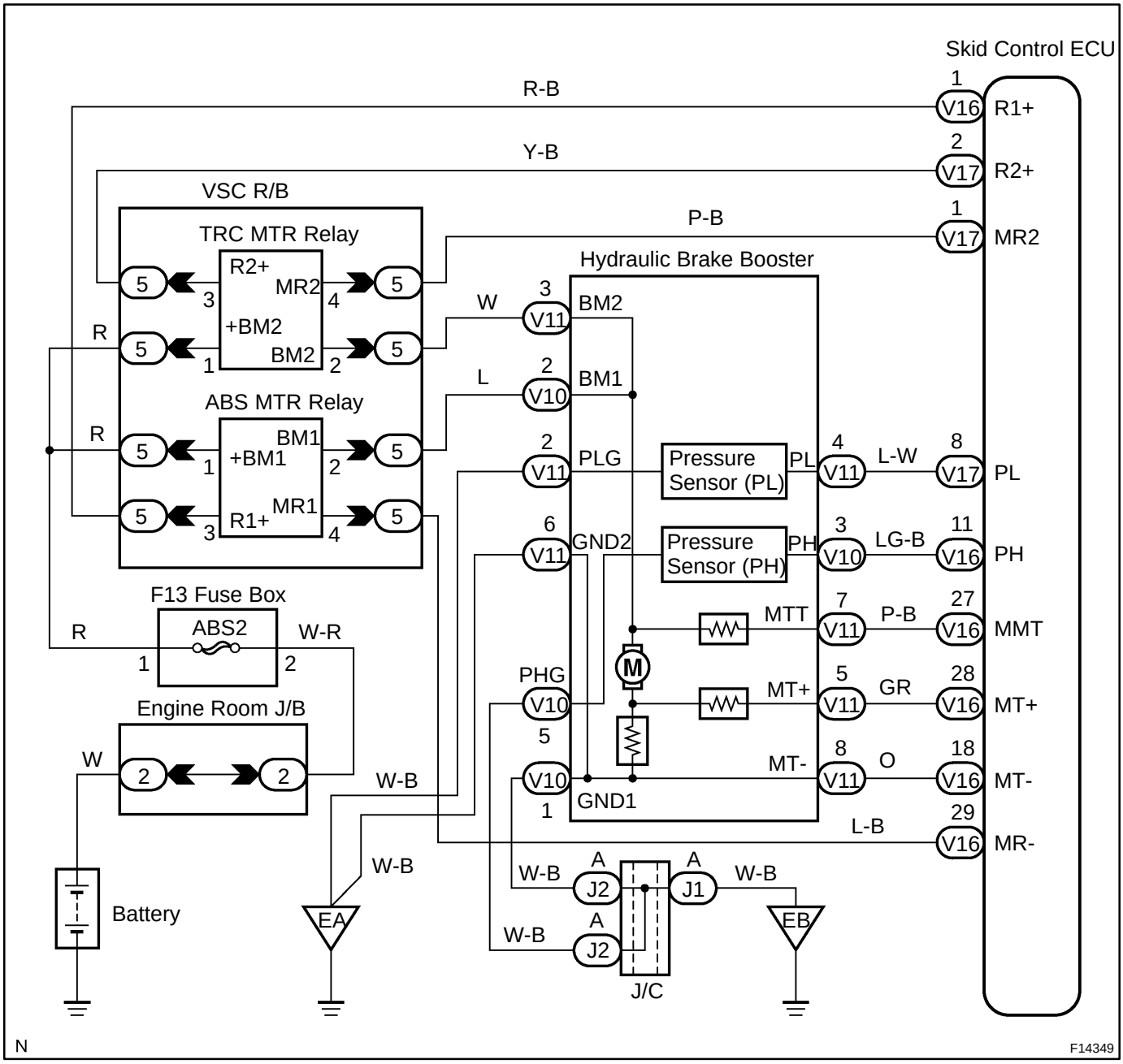
DI6BV-08

DTC	C1254 / 54	Pressure Switch Circuit

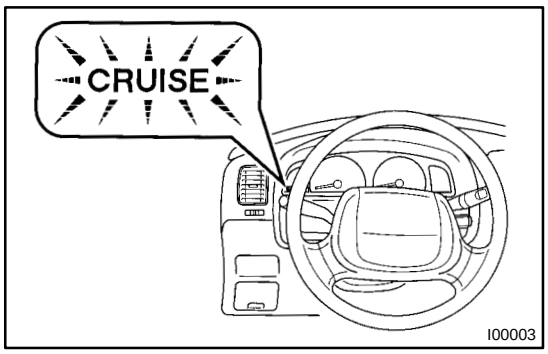
CIRCUIT DESCRIPTION

DTC No.	DTC Detecting Condition	Trouble Area
C1254 / 54	Either of the condition 1. or 2. is detected: 1. After the ignition switch is turned ON, short or open circuit in pressure switch (PL) continues for more than 1 sec. 2. After the ignition switch is turned ON, open circuit in pressure switch (PH) continues for more than 1 sec.	• Pressure switch (PH or PL) • Pressure switch circuit

WIRING DIAGRAM



DI0QV-04



PRE-CHECK

1. DIAGNOSIS SYSTEM

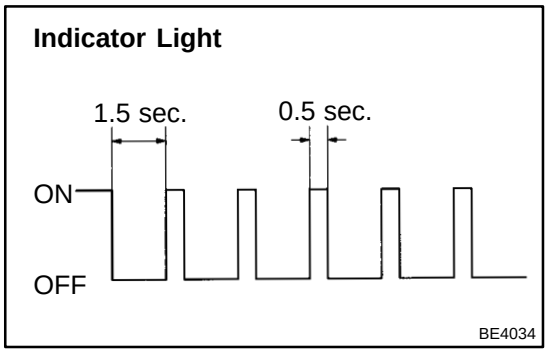
(a) Check the indicator.

(1) Turn the ignition switch ON.

(2) Check that the CRUISE MAIN indicator light comes on when the cruise control main switch is turned on, and that the indicator light goes off when the main switch is turned OFF.

HINT:

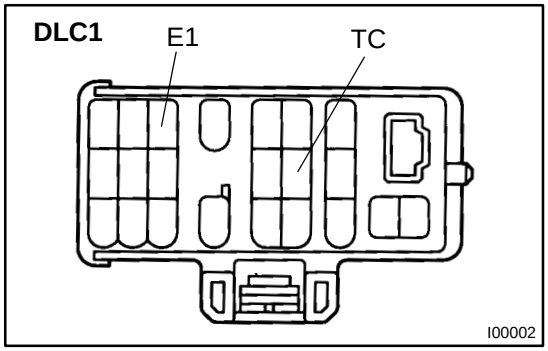
If the indicator check result is not normal, proceed to trouble-shooting (See page BE-2) for the combination meter section.



(b) Check the DTC.

HINT:

If a malfunction occurs in the No. 1 vehicle speed sensor or actuator, etc. during cruise control driving, the ECU actuates AUTO CANCEL of the cruise control and turns ON and OFF the CRUISE MAIN indicator light to inform the driver of a malfunction. At the same time, the malfunction is stored in memory as a diagnostic trouble code.



(c) Using diagnosis check wire, check the output of DTC.

(1) Turn the ignition switch ON.

(2) Using SST, connect terminals Tc and E_1 of DLC1.

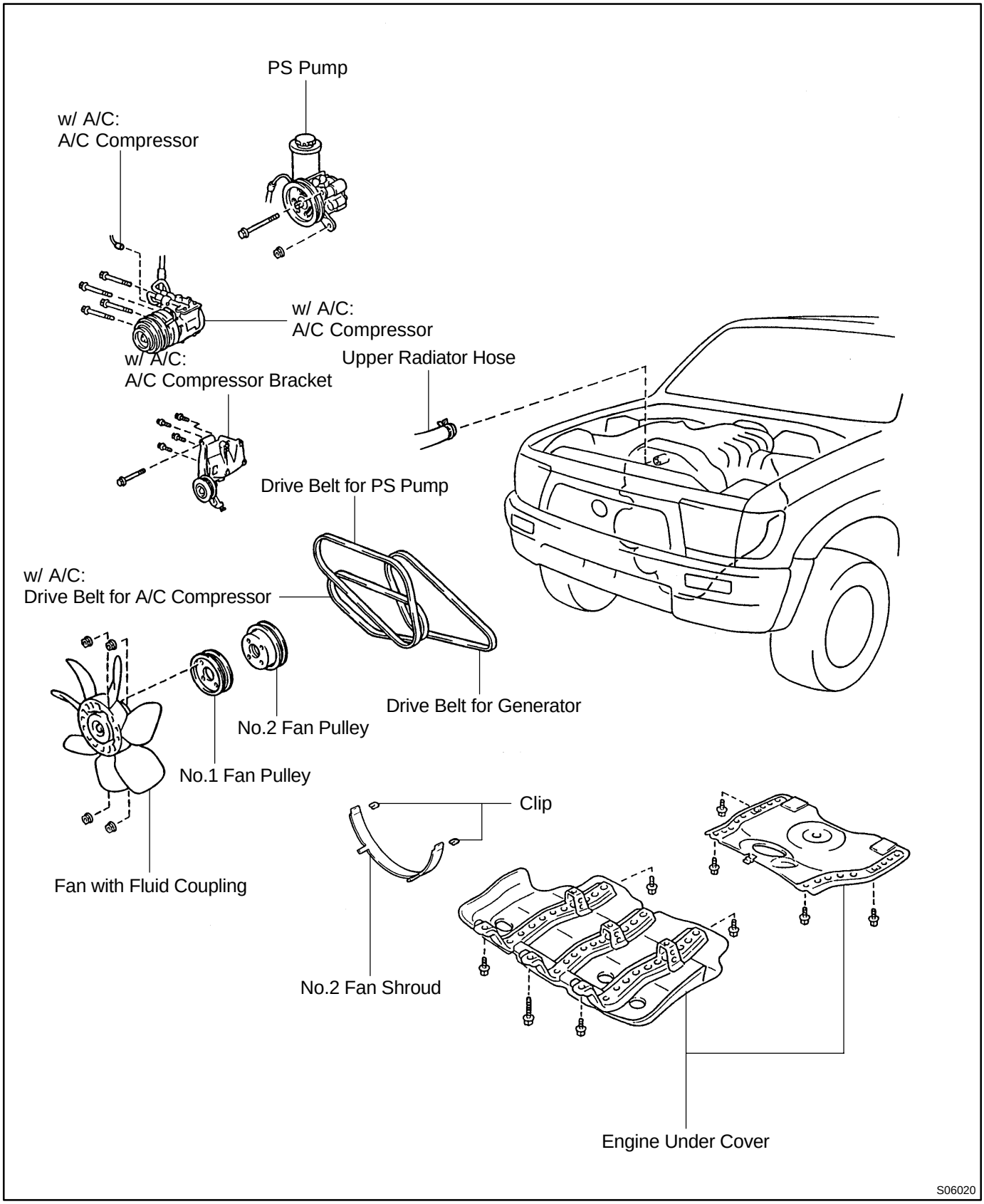
SST 09843-18020

(3) Read the DTC on the CRUISE MAIN indicator light.

WATER PUMP

COMPONENTS

CO00Q-03

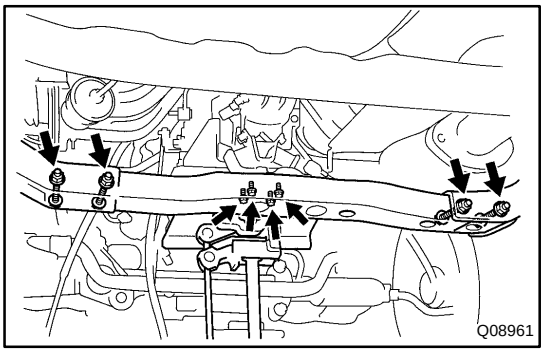


SENSOR ROTOR (A340E)

AT0YM-01

ON-VEHICLE REPAIR

1. **REMOVE PROPELLER SHAFT (See page PR-4)**
2. **REMOVE NO.2 VEHICLE SPEED SENSOR (See page AT-7)**



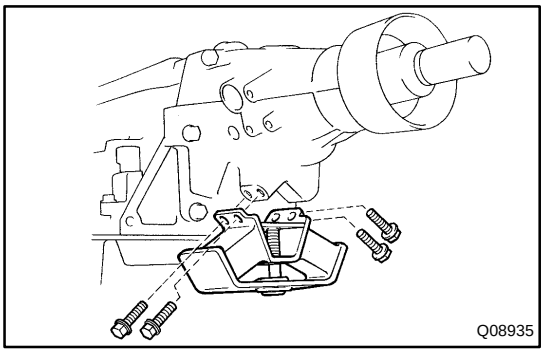
3. JACK UP TRANSMISSION SLIGHTLY

Securely support the transmission on a transmission jack. Lift the transmission slightly from the crossmember.

4. REMOVE CROSSMEMBER

(a) Remove the 4 bolts on the rear mounting side from the rear mounting bracket.

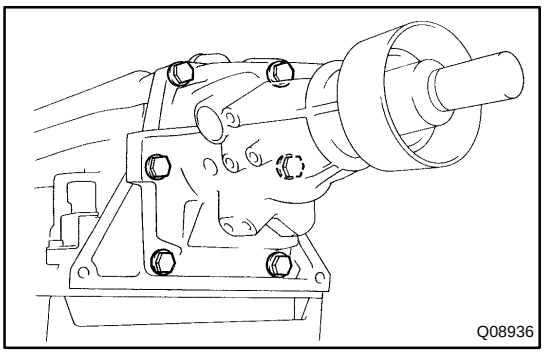
(b) Remove the 4 nuts, bolts and crossmember.



5. REMOVE ENGINE REAR MOUNTING

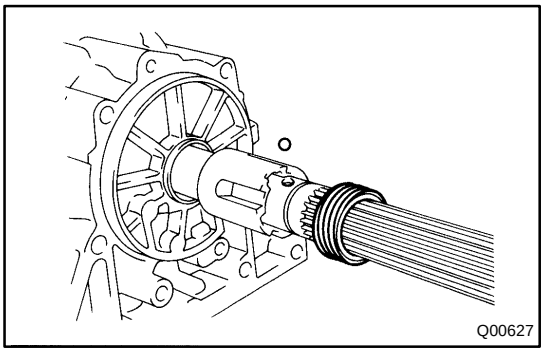
Remove the 4 bolts and engine rear mounting from the transmission.

Torque: 65 N·m (660 kgf·cm, 48 ft·lbf)



6. REMOVE EXTENSION HOUSING AND GASKET

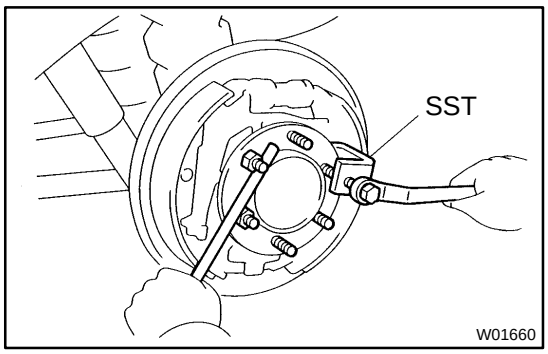
Remove the 6 bolts and extension housing. If necessary, tap the extension housing with a plastic hammer or a block of wood to loosen it.



7. REMOVE SPEEDOMETER DRIVE GEAR AND BALL

(a) Using a snap ring expander, remove the snap ring.

(b) Remove the speedometer drive gear and ball.



REAR WHEEL HUB BOLT

SA06D-01

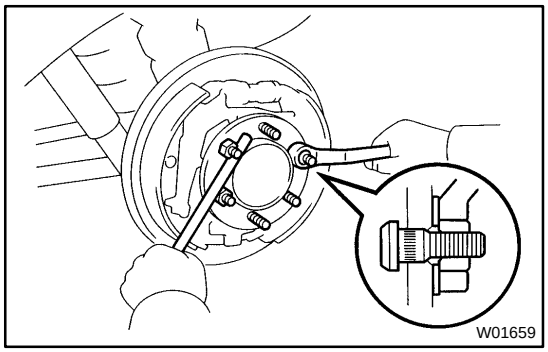
REPLACEMENT

1. REMOVE WHEEL AND BRAKE DRUM

2. REMOVE HUB BOLT

Using SST, remove the hub bolt.

SST 09650-1701 1

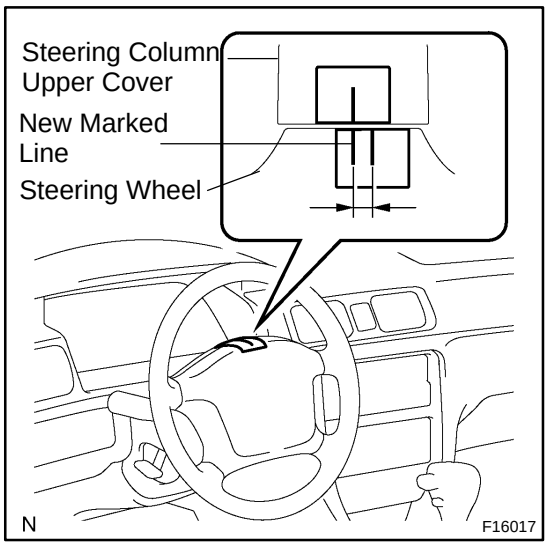


3. INSTALL HUB BOLT

Install a washer and nut to a new hub bolt, as shown in the illustration, and install the hub bolt with torquing the nut.

4. INSTALL BRAKE DRUM AND WHEEL

Torque: 110 N·m (1,150 kgf·cm, 83 ft·lbf)



(d) Turn the steering wheel to its straight position.

HINT:

Refer to the upper surface of the steering wheel, steering spoke and SRS airbag line for the straight position.

(e) Draw a new line on the masking tape of the steering wheel as shown in the illustration.

(f) Measure the distance between the 2 lines on the masking tape of the steering wheel.

(g) Convert the measured distance to steering angle.
Measured distance 1 mm (0.04 in.) = Steering angle approximately 1 deg.

HINT:

Make a note of the steering angle.

2. ADJUST STEERING ANGLE

(a) Lift up the vehicle.

NOTICE:

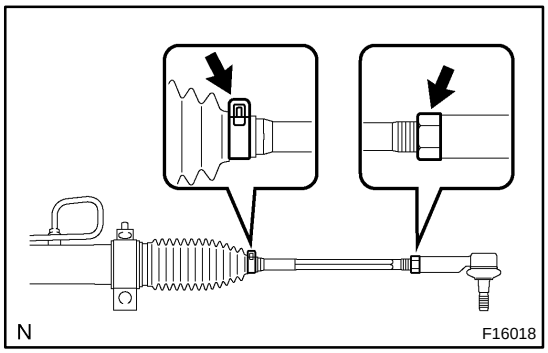
The adjustment method for steering angle is different depending on the models. Check whether it is type A or B.

(b) Draw a line on the RH and LH tie rod and rack ends where it can easily be seen.

(c) Using a paper gauge, measure the distance from RH and LH tie rod ends to the rack end screws.

HINT:

- Measure the RH side and LH side.
- Make a note of the measured values.



(d) Remove the RH and LH boot clips from the rack boots.

(e) Loosen the RH and LH lock nuts.

(f) Turn the RH and LH rack end by the same amount (but in different directions) according to the steering angle.
1 turn 360 deg. of rack end (1.5 mm (0.059 in.) horizontal movement) = 12 deg. of steering angle

(g) Tighten the RH and LH lock nuts by the specified torque.

NOTICE:

Make sure that the difference in length between RH and LH tie rod ends and rack end screws are within 1.5 mm (0.059 in.).

(h) Install the RH and LH boot clips.

BE0CI-08

PRE-CHECK

1	**Only wireless function (Remote control) will not operate.** **(If a new transmitter or a transmitter of the same type that works properly with the vehicle is not available.)**

Put the vehicle in the following conditions (Pre requisite).
(1) Key plate has not been inserted in the ignition key cylinder.
(2) All the doors are closed. (Door warning light is off.)
(3) All the doors are locked.

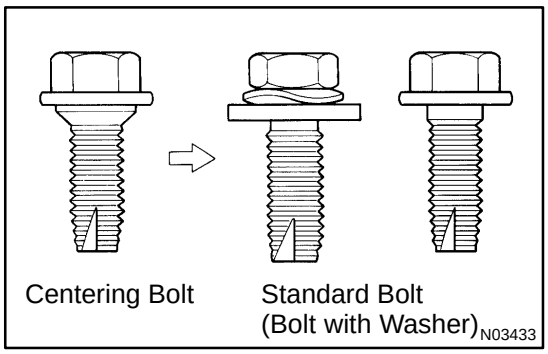
Basic function check:

Under the standard operation, when repeating the operation of UNLOCK and LOCK switch 3 times or more alternately, check the UNLOCK-LOCK operation from 3rd time onward.
● Following procedures are standard operation.
(1) Keep about 1 M away in the right direction from the outside handle of a driver's seat.
(2) Face the transmitter to the vehicle and press one of transmitter switches for about 1 second

No

Yes

Normal
<Reference>
● Operative distance may differ according to an operator, the way of holding the transmitter or position.
● As weak electric wave is used, when there is strong wave or noise in the used frequency, operation distance might be shortened.



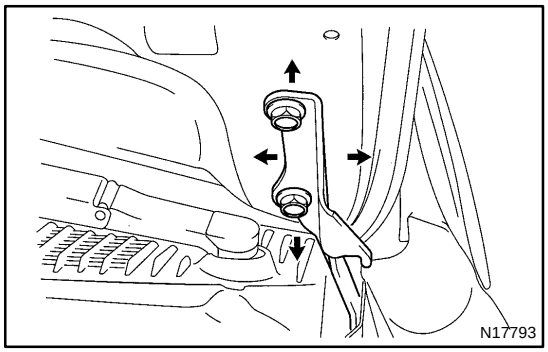
HOOD

ADJUSTMENT

BO0BN-02

1. SUBSTITUTE BOLT WITH WASHER FOR CENTERING BOLT

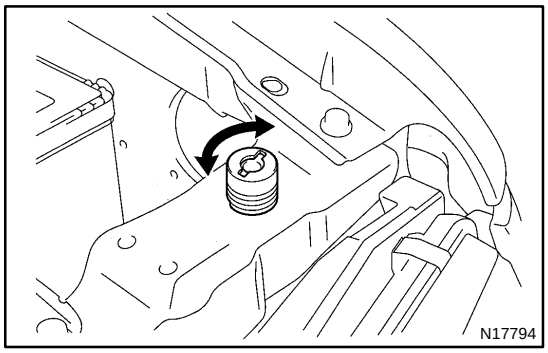
Since the centering bolt is used as the hood hinge set bolt, the hood cannot be adjusted with it on. Substitute the bolt with the washer for the centering bolt.



2. ADJUST HOOD IN FORWARD/REARWARD AND LEFT/RIGHT DIRECTIONS

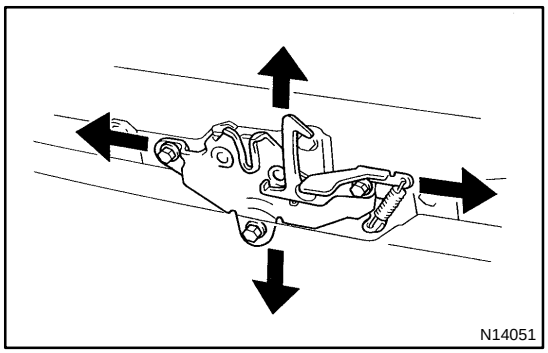
Adjust the hood by loosening the hood side hinge bolts.

Torque: 13 N·m (130 kgf·cm, 9 ft·lbf)



3. ADJUST FRONT EDGE OF HOOD IN VERTICAL DIRECTION

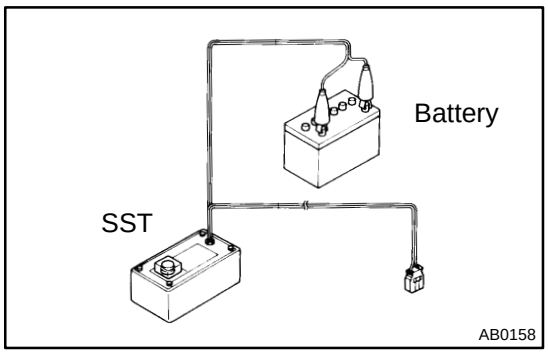
Adjust the hood by turning the cushions.



4. ADJUST HOOD LOCK

Adjust the lock by loosening the bolts.

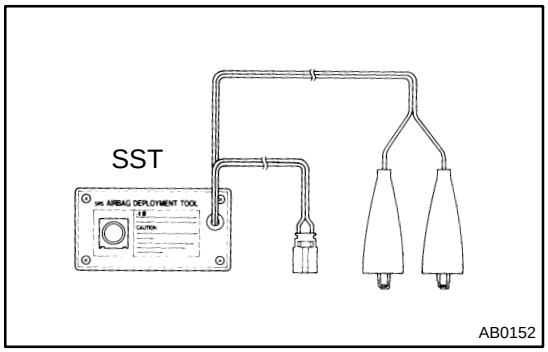
Torque: 7.8 N·m (80 kgf·cm, 69 in.·lbf)



1. SEAT BELT PRETENSIONER ACTIVATION WHEN SCRAPPING VEHICLE

HINT:

Have a battery ready as the power source to activate the seat belt pretensioner.

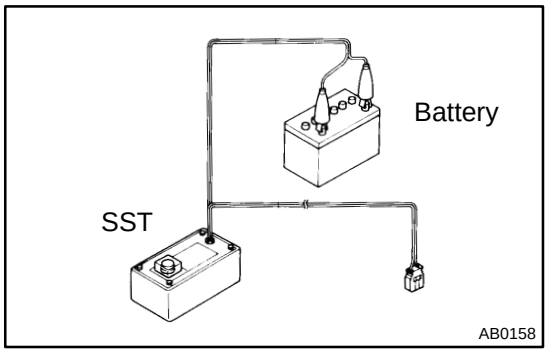


(a) Check functioning of SST.

CAUTION:

When activate the seat belt pretensioner, always use the specified SST: SRS Airbag Deployment Tool.

SST 09082-00700, 09082-00740

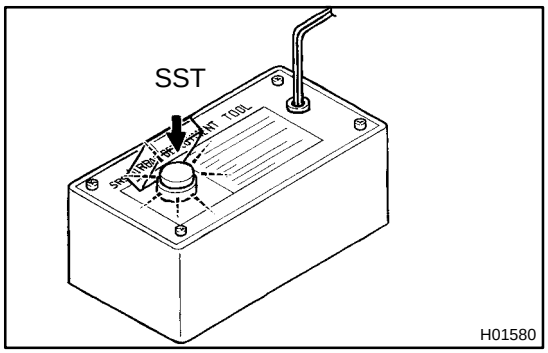


(1) Connect the SST to battery.

Connect the red clip of the SST to the battery positive (+) terminal and the black clip to the battery negative (-) terminal.

HINT:

Do not connect the yellow connector which will be connected with the seat belt pretensioner.



(2) Check functioning of SST.

Press the SST activation switch, and check the LED of the SST activation switch lights up.

CAUTION:

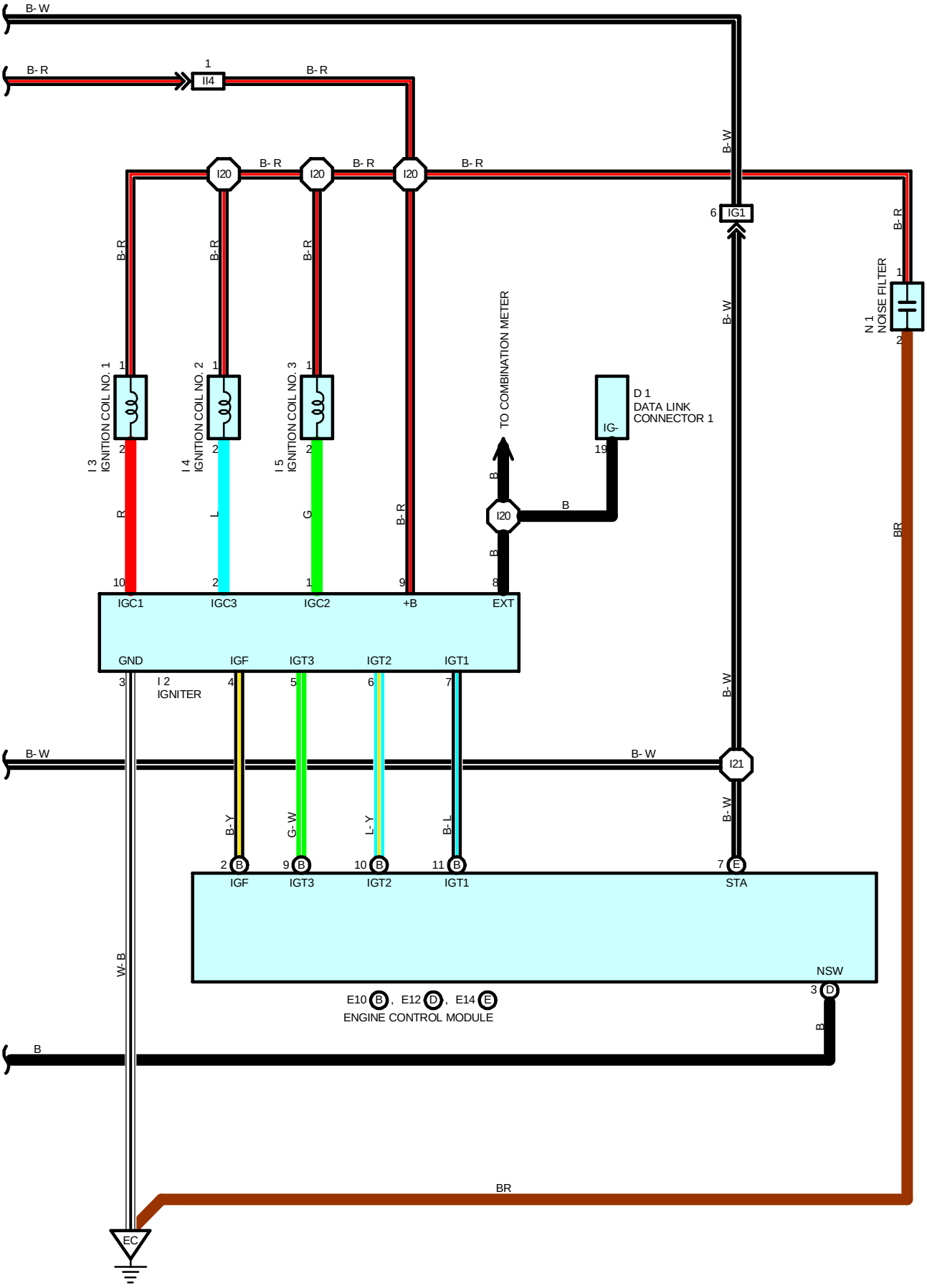
If the LED lights up when the activation switch is not being pressed, SST malfunction is probable, so definitely do not use the SST.

(b) Disconnect the pretensioner connector.

(1) Remove the front door scuff plate.

(2) Remove the rear door scuff plate.

(3) Remove the center pillar lower garnish.


B- W
B- R
1
II4
B- R
I20
B- R
I20
B- R
I20
B- R
B- W
6
IG1
B- R
1
N 1
NOISE FILTER
2
B- R
B- R
B- R
B- W
I 3
IGNITION COIL NO. 1
I 4
IGNITION COIL NO. 2
I 5
IGNITION COIL NO. 3
1
2
TO COMBINATION METER
D 1
DATA LINK
CONNECTOR 1
IG-
19
B
I20
B
B
B- R
R
L
G
B- R
10
2
1
9
8
IGC1
IGC3
IGC2
+B
EXT
GND
IGF
IGT3
IGT2
IGT1
3
4
5
6
7
I 2
IGNITER
B- W
B- W
I21
B- W
B- Y
G- W
L- Y
B- L
2
B
9
B
10
B
11
B
7
E
IGF
IGT3
IGT2
IGT1
STA
NSW
3
D
B
W- B
E10 B , E12 D , E14 E
ENGINE CONTROL MODULE
B
BR
EC

SERVICE HINTS

R1 (A) RADIO AND PLAYER (BUILT-IN TYPE AMPLIFIER) OR STEREO POWER AMPLIFIER (SEPARATE TYPE AMPLIFIER)

(A) 3-GROUND : Approx. **12** volts with ignition SW at **ON** or **ACC** position
(A) 4-GROUND : Always approx. **12** volts
(A) 7-GROUND : Always continuity

: PARTS LOCATION

Code	See Page	Code		See Page	Code	See Page
A23	30	R1	A	31	R12	33
F8	32	R2	B	31		
F9	32	R11		33		

: RELAY BLOCKS

Code	See Page	Relay Blocks (Relay Block Location)
2	22	Engine Room R/B (Engine Compartment Left)

: JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

Code	See Page	Junction Block and Wire Harness (Connector Location)
1E	24	Engine Room Main Wire and Driver Side J/B (Lower Finish Panel)
1F	24	Cowl Wire and Driver Side J/B (Lower Finish Panel)
1G		
3B	26	Cowl Wire and Center J/B (Near the Steering Column Tube)
3C		

: CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

Code	See Page	Joining Wire Harness and Wire Harness (Connector Location)
IF1	38	Front Door LH Wire and Cowl Wire (Left Kick Panel)
IK1	40	Front Door RH Wire and Cowl Wire (Right Kick Panel)
BW1	42	Rear Door LH Wire and Cowl Wire (Left Center Pillar)
BX1	42	Rear Door RH Wire and Cowl Wire (Right Center Pillar)

: GROUND POINTS

Code	See Page	Ground Points Location
ID	38	Left Kick Panel