

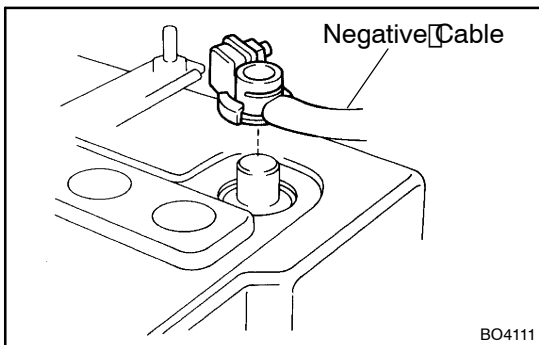
FOR ALL OF VEHICLES PRECAUTION

1. FOR VEHICLES EQUIPPED WITH SRS AIRBAG AND SEAT BELT PRETENSIONER

- (a) The HIACE is equipped with an SRS (Supplemental Restraint System), such as the driver airbag and front passenger airbag.

Failure to carry out service operations in the correct sequence could cause the supplemental restraint system to unexpectedly deploy during servicing, possibly leading to a serious accident.

Further, if a mistake is made in servicing the supplemental restraint system, it is possible the SRS may fail to operate when required. Before servicing (including removal or installation of parts, inspection or replacement), be sure to read the following items carefully, then follow the correct procedure described in this manual.



(b) GENERAL NOTICE

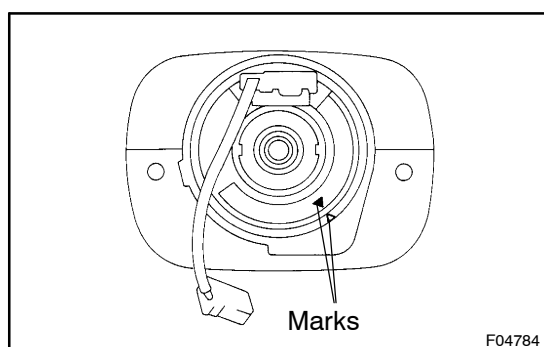
- (1) Malfunction symptoms of the supplemental restraint system are difficult to confirm, so the diagnostic trouble codes become the most important source of information when troubleshooting. When troubleshooting the supplemental restraint system, always inspect the diagnostic trouble codes before disconnecting the battery ([See page DI-97](#)).

- (2) Work must be started after 90 seconds from the time the ignition switch is turned to the "LOCK" position and the negative (-) terminal cable is disconnected from the battery.

(The supplemental restraint system is equipped with a back-up power source so that if work is started within 90 seconds of disconnecting the negative (-) terminal cable from the battery, the SRS may deploy.)

When the negative (-) terminal cable is disconnected from the battery, memory of the clock and audio systems will be cancelled. So before starting work, make a record of the contents memorized by the each memory system. Then when work is finished, reset the clock and audio systems as before. To avoid erasing the memory of each memory system, never use a back-up power supply from outside the vehicle.

- (3) Even in cases of a minor collision where the SRS does not deploy, the passenger's airbag assembly and the steering wheel pad should be inspected (See page RS-10, RS-24).
- (4) Never use SRS parts from another vehicle. When replacing parts, replace them with new parts.
- (5) Before repairs, remove the airbag sensor if shocks are likely to be applied to the sensor during repairs.
- (6) Never disassemble and repair the airbag sensor assembly, steering wheel pad or front passenger airbag in order to reuse it.
- (7) If the airbag sensor assembly, steering wheel pad or front passenger airbag have been dropped, or if there are cracks, dents or other defects in the case, bracket or connector, replace them with new ones.
- (8) Do not expose the airbag sensor assembly, steering wheel pad directly to hot air or flames.
- (9) Use a volt/ohmmeter with high impedance (10 k Ω /V minimum) for troubleshooting of the electrical circuit.
- (10) Information labels are attached to the periphery of the SRS components. Follow the instructions on the notices.
- (11) After work on the supplemental restraint system is completed, check the SRS warning light (See page DI-97).



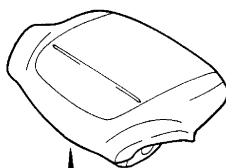
- (c) SPIRAL CABLE (in Combination Switch)
- The steering wheel must be fitted correctly to the steering column with the spiral cable at the neutral position, otherwise cable disconnection and other troubles may result. Refer to SR-5 of this manual concerning correct steering wheel installation.

(d) STEERING WHEEL PAD (with Airbag)

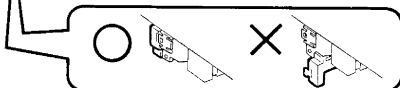
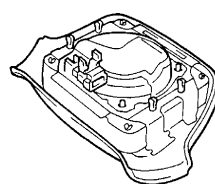
- (1) When removing the steering wheel pad or handling a new steering wheel pad, it should be placed with the pad top surface facing up.
In addition, do not store a steering wheel pad on top of another one. Storing the pad with its metallic surface facing upward may lead to a serious accident if the airbag inflates for some reason.
- (2) Never measure the resistance of the airbag squib. (This may cause the airbag to deploy, which is very dangerous.)
- (3) Grease should not be applied to the steering wheel pad and the pad should not be cleaned with detergents of any kind.
- (4) Store the steering wheel pad where the ambient temperature remains below 93°C (200°F), without high humidity and away from electrical noise.
- (5) When using electric welding, first disconnect the airbag connector (yellow color and 2 pins) under the steering column near the combination switch connector before starting work.
- (6) When disposing of a vehicle or the steering wheel pad alone, the airbag should be deployed using an SST before disposal. [See page RS-12](#).
Carry out the operation in a safe place away from electrical noise.

Example:

Correct

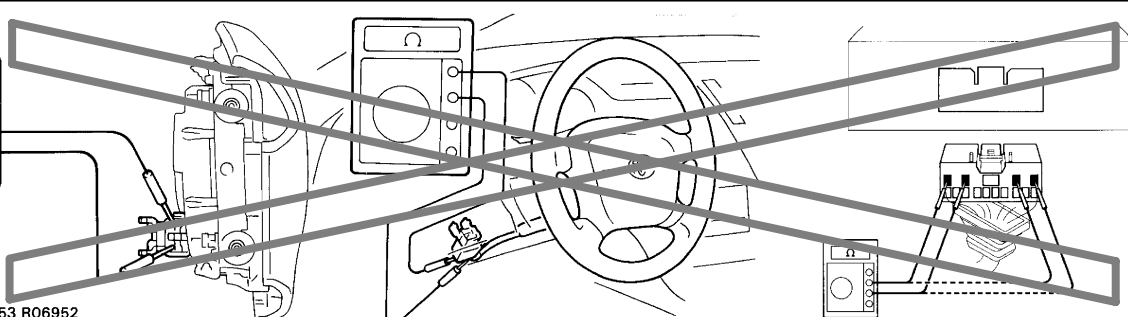
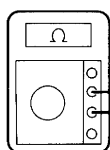


Wrong



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Example:



R05643 R06953 R06952

Z13950

(e) FRONT PASSENGER AIRBAG ASSEMBLY

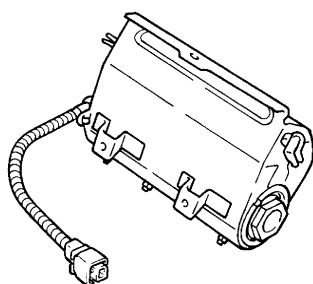
- (1) Always store a removed or new front passenger airbag assembly with the airbag deployment direction facing up.

Storing the airbag assembly with the airbag deployment direction facing down could cause a serious accident if the airbag inflates.

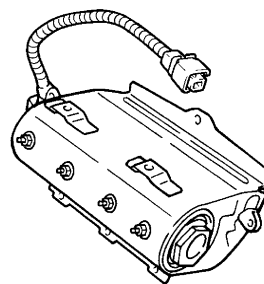
- (2) Never measure the resistance of the airbag squib. (This may cause the airbag deploy, which is very dangerous.)
- (3) Grease should not be applied to the front passenger airbag assembly and the airbag door should not be cleaned with detergents of any kind.
- (4) Store the airbag assembly where the ambient temperature remains below 93°C (200°F), without high humidity and away from electrical noise.
- (5) When using electric welding, first disconnect the airbag connector (yellow color and 2 pins) installed on the glove compartment finish plate at the left side of the glove compartment before starting work.
- (6) When disposing of a vehicle or the airbag assembly alone, the airbag should be deployed using an SST before disposal (See page RS-25). Perform the operation in a safe place away from electrical noise.

Example:

Correct

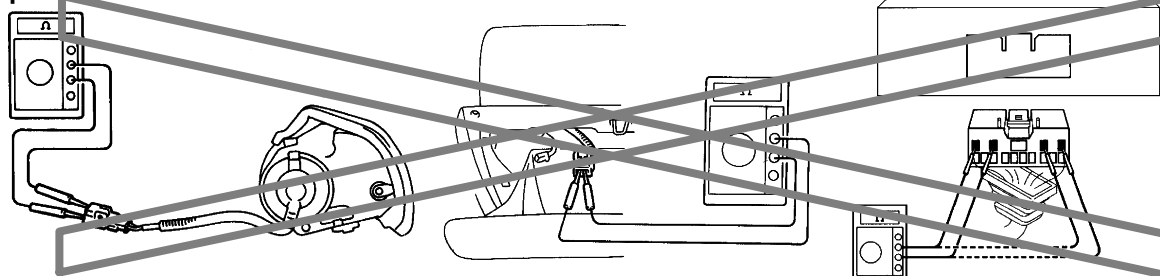


Wrong



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Example:



R05648 R05649 R06952

Z13951

(f) AIRBAG SENSOR ASSEMBLY

- (1) Never reuse the airbag sensor assembly involved in a collision when the SRS has deployed.
- (2) The connectors to the airbag sensor assembly should be connected or disconnected with the sensor mounted on the floor. If the connectors are connected or disconnected while the airbag sensor assembly is not mounted to the floor, it could cause undesired ignition of the supplemental restraint system.
- (3) Work must be started after 90 seconds from the time the ignition switch is turned to the "LOCK" position and the negative (–) terminal cable is disconnected from the battery, even if only loosening the set bolts of the airbag sensor assembly.

(g) WIRE HARNESS AND CONNECTOR

The SRS wire harness is integrated with the cowl wire harness assembly and floor wire harness assembly. The wires for the SRS wire harness are encased in a yellow corrugated tube. All the connectors for the system are also a standard yellow color. If the SRS wire harness becomes disconnected or the connector becomes broken due to an accident, etc., repair or replace it.

2. WHEN SERVICING ALL-TRAC/4WD VEHICLES

When carrying out any kind of servicing or testing on a full-time 4WD in which the front or rear wheels are made to rotate (braking test, speedometer test, on vehicle wheel balancing, etc.) or when towing the vehicle, be sure to observe the precautions given below.

If incorrect preparations or test procedures are used, the test will not only be unsuccessful, but may be dangerous as well.

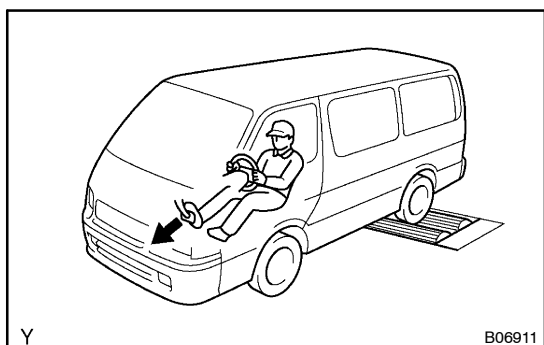
Therefore, before beginning any such servicing or test, be sure to check the following items:

- Whether wheels should be touching ground or jacked up
- Transmission gear position
- Maximum testing vehicle speed
- Maximum testing time

Also, make sure the following are observed:

CAUTION:

- **Never accelerate or decelerate the vehicle suddenly**
- **Observe the other cautions given for each individual test**



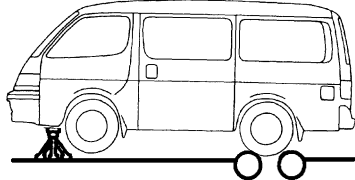
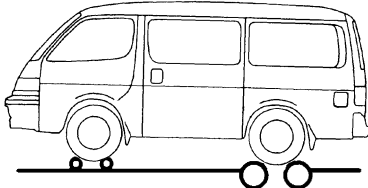
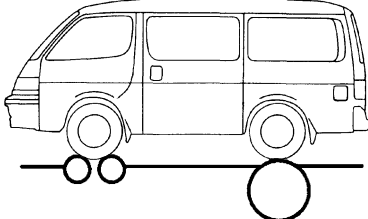
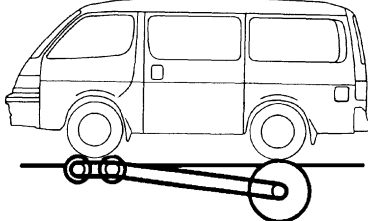
(a) Braking Force Test (Vehicle Speed: Below 0.5 km/h or 0.3 mph):

When performing low-speed type brake tester measurements, observe the following instructions.

- (1) Position the wheels to be tested (front or rear) on the tester.
- (2) Shift the transmission shift lever to Neutral (or "N" range).
- (3) Idle the engine, operate the brake booster and perform the test.

(b) Speedometer Test or Other Tests (Using Speedometer Tester or Chassis Dynamometer):

When performing test at high speed or high load, use the methods shown below.

No.	Chassis Dynamometer Type	Vehicle Condition	Vehicle Speed and Test Time
1	2-Wheel Chassis Dynamometer	Front wheels lifted free by safty stands 	Low speed (50 km/h or less) and 1minute or less
		Front wheels on rollerrs 	No restriction on vehicle speed or duration of test
2	4-Wheel Free Chassis Dynamometer		Low speed (50 km/h or less) and 1minute or less
3	4-Wheel Driven Chassis Dynamometer		No restriction on vehicle speed or duration of test

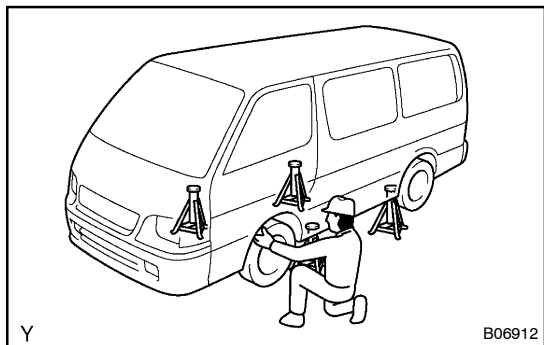
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NOTICE:

- **Confirm that the vehicle is securely immobilized.**
- **Never operate the clutch or brakes to drive the wheels or stop them suddenly.**

(c) On-Vehicle Wheel Balancing:

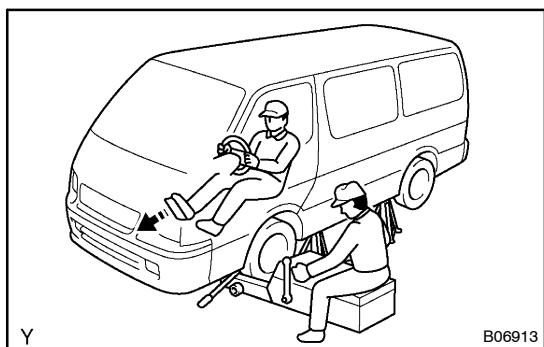
When doing on-vehicle wheel balancing on a full-time 4WD vehicle, to prevent the wheels from rotating at different speeds in different directions from each other (which could damage the center differential), always be sure to observe the following precautions:



- (1) All 4 wheels should be jacked up, clearing the ground completely.
- (2) The parking brake lever should be fully released.
- (3) None of the brakes should be allowed to drag.
- (4) The wheels should be driven with both the engine and the wheel balancer.

HINT:

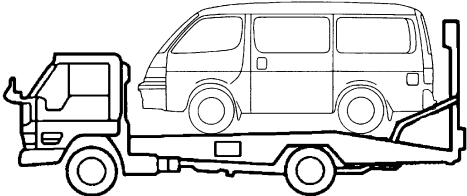
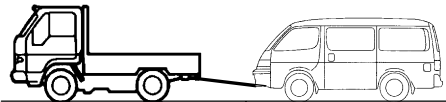
When doing this, be careful of the other wheels, which will rotate at the same time.



- (5) Avoid sudden acceleration, deceleration and braking.
- (6) Carry out the wheel balancing with the transmission in 3rd or 4th gear (automatic transmission in D range).

3. WHEN TOWING FULL-TIME 4WD VEHICLES

- Use one of the methods shown below to tow the vehicle.
- If the vehicle has trouble in the chassis and drive train, use method 1 (flat bed truck).
- Recommended Method: No. 1
Emergency Method: No. 2

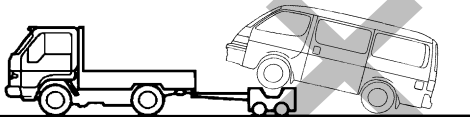
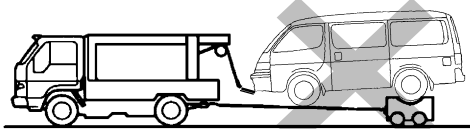
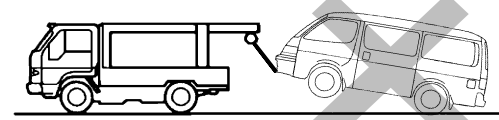
Conditions Towing Method	Parking Brake	Transmission Shift Lever Position
1. Flat Bed Truck 	Applied	Any Position
2. Towing with a Rope 	Released	Neutral (N range)

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NOTICE:

Do not use any towing method other than those shown above.

For example, the towing methods shown below are dangerous or damage the vehicle, so do not use them.

No 	<ul style="list-style-type: none"> • During towing with this towing method, there is a danger of the drivetrain heating up and causing breakdown, or of the front wheels flying off the dolly. • Never perform towing using a method where the lifted-up wheel cannot rotate.
No 	<ul style="list-style-type: none"> • Do not perform sling type towing as this method causes damage to the bumper, engine undercover, suspension lower arm bushing and the air conditioning condensor during towing.
No 	

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4. FOR VEHICLES EQUIPPED WITH A CATALYTIC CONVERTER**CAUTION:**

If large amount of unburned gasoline flows into the converter, it may overheat and create a fire hazard. To prevent this, observe the following precautions and explain them to your customer.

- (a) Use only unleaded gasoline.
- (b) Avoid prolonged idling.
Avoid running the engine at idle speed for more than 20 minutes.
- (c) Avoid spark jump test.
 - (1) Perform spark jump test only when absolutely necessary. Perform this test as rapidly as possible.
 - (2) While testing, never race the engine.
- (d) Avoid prolonged engine compression measurement.
Engine compression tests must be done as rapidly as possible.
- (e) Do not run engine when fuel tank is nearly empty.
This may cause the engine to misfire and create an extra load on the converter.
- (f) Avoid coasting with ignition turned off and prolonged braking.
- (g) Do not dispose of used catalyst along with parts contaminated with gasoline or oil.

5. IF VEHICLE IS EQUIPPED WITH MOBILE COMMUNICATION SYSTEM

For vehicles with mobile communication systems such as two-way radios and cellular telephones, observe the following precautions.

- (a) Install the antenna as far as possible away from the ECU and sensors of the vehicle's electronic system.
- (b) Install the antenna feeder at least 20 cm (7.87 in.) away from the ECU and sensors of the vehicle's electronics systems. For details about ECU and sensors locations, refer to the section on the applicable component.
- (c) Do not wind the antenna feeder together with the other wiring as much as possible, also avoid running the antenna feeder parallel with other wire harnesses.
- (d) Confirm that the antenna and feeder are correctly adjusted.
- (e) Do not install powerful mobile communications system.

6. FOR USING HAND-HELD TESTER**CAUTION:**

Observe the following items for safety reasons:

- **Before using the hand-held tester, the hand-held tester's operator manual should be read thoroughly.**
- **Be sure to route all cables securely when driving with the hand-held tester connected to the vehicle. (i.e. Keep cables away from feet, pedals, steering wheel and shift lever.)**
- **Two persons are required when test driving with the hand-held tester, one person to drive the vehicle and one person to operate the hand-held tester.**