# PRECAUTION FOR VEHICLES EQUIPPED WITH SRS AIRBAG

The 1993 MR2 specifications is equipped with an SRS (Supplemental Restraint System) airbag.

Failure to carry out service operations in the correct: sequence could cause the airbag system to unex– pectedly deploy during servicing, possibly leading to a serious accident.

Further, if a mistake is made in servicing the airbag system, it is possible the airbag may fail to operate when required. Before performing servicing (including removal or installation of parts, inspection or re– placement), be sure to read the following items care– fully, then follow the correct procedure described in this manual.

# **Locations of Airbag Components**





- Malfunction symptoms of the airbag system are difficult to confirm, so the diagnostic codes become the most important source of information when troubleshooting. When troubleshooting the airbag system, always inspect the diagnostic codes before disconnecting the battery (See page AB-25).
- 2. Work must be started after approx. 20 seconds or longer from the time the ignition switch is turned to the LOCK position and the negative (-) terminal cable is disconnected from the battery. (The airbag system is equipped with a back-up power source so that if work is started within 20 seconds of disconnecting the negative (-) terminal cable of the battery, the airbag may be deployed.) 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 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.

- Even in cases of a minor collision where the airbag does not deploy, the front airbag sensors and the steering wheel pad should be inspected (See page AB-11).
- 4. Never use airbag parts from another vehicle. When replacing parts, replace them with new parts.
- 5. Before repairs, remove the airbag sensors if shocks are likely to be applied to the sensors during repairs.
- 6. The center airbag sensor assembly contains mercury. After performing replacement, do not destroy the old part. When scrapping the vehicle or- replacing the center airbag sensor assembly itself, remove the center airbag sensor assembly and dispose of it as toxic waste.
- 7. Never disassemble and repair the front airbag sensors, center airbag sensor assembly or steering wheel pad in order to reuse it.
- If the front airbag sensors, center airbag sensor as– sembly or steering wheel pad have been dropped, or if there are cracks, dents or other defects in the case, bracket or connector, replace them with new ones.
- 9. Do not expose the front airbag sensor–s, center airbag sensor assembly or steering wheel pad directly to hot air or flames.
- 10. Use a volt/ohmmeter with high impedance (10  $k\Omega/V$  minimum) for troubleshooting of the electrical circuit.

- 11. Information labels are attached to the periphery of the airbag components. Follow the notices.
- After work on the airbag system is completed, perform the airbag warning light check (See page AB-30).



## Front Airbag Sensor

- 1. Never reuse the front airbag sensors involved in a collision when the airbag has deployed. (Replace both left and right airbag sensors.)
- 2. Install the front airbag sensor with the arrow on the sensor facing toward the front of the vehicle.
- 3. The front airbag sensor set bolts have been anti–rust treated. When the sensor is removed, always replace the set bolts with new ones.
- The front airbag sensor is equipped with an electrical connection check mechanism. Be sure to lock this mechanism securely when connecting the connector. If the connector is not securely locked, a malfunction code will be detected by the diagnosis system (See page AB-9).



# **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 page **AB–16** concern–ing correct steering wheel installation.



### **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 this case, the twin–lock type connector lock lever should be in the locked state and care should be taken to place it so the connector will not be damaged. And do not store a steering wheel pad on top of another one. (Storing the pad with its metallic surface up 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.)



- Grease should not be applied to the steering wheel pad and the pad should not be cleaned with detergents of any kind.
- Store the steering wheel pad where the ambient temperature remains below 90\* 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 con– nector 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 AB–83). Perform the operation in a place away from electrical noise.

#### **Center Airbag Sensor Assembly**

The connector to the center airbag sensor assembly should be connected or disconnected with the sensor mounted on the floor. If the connector is connected or disconnected while the center airbag sensor as– sembly is not mounted to the floor, it could cause undesired ignition of the airbag system.

#### Wire Harness and Connector

The airbag system's wire harness is integrated with the cowl wire harness assembly. The wires for the airbag wire harness are encased in a yellow corruga– ted tube. All the connectors for the system are also a standard yellow color. If the airbag system wire har– ness becomes disconnected or the connector bec– omes broken due to an accident, etc., repair or replace it as shown on page AB–22.

# FOR VEHICLES EQUIPPED WITH A CATALYTIC CONVERTER

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

#### 1. Use only unleaded gasoline.

2. Avoid prolonged idling.

Avoid running the engine at idle speed for more than 20 minutes.

- 3. Avoid spark jump test.
  - (a) Perform spark jump test only when absolutely necessary. Perform this test as rapidly as possible.
  - (b) While testing, never race the engine.
- 4. Avoid prolonged engine compression measurement.

Engine compression tests must be done as rapidly as possible.

5. 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.

- 6. Avoid coasting with ignition turned off and prolonged braking.
- 7. Do not dispose of used catalyst along with parts contaminated with gasoline or oil.



# FOR VEHICLES WITH AN AUDIO SYSTEM WITH BUILT-IN ANTI-THEFT SYSTEM

Audio System displaying the sign "ANTI – THEFT SYSTEM" shown on the left has a built–in anti–theft system which makes the audio system soundless if stolen.

If the power source for the audio system is cut even once, the anti-theft system operates so that even if the power source is reconnected, the audio system will not produce any sound unless the ID number selected by the customer is input again. Accordingly, when performing repairs on vehicles equipped with this system, before disconnecting the battery terminals or removing the audio system the customer should be asked for the ID number so that the technician can input the ID number afterwards, or else a request made to the customer to input the ID number. For the method to input the ID number or cancel the anti-theft system, refer to the Owner's Manual.



# FOR VEHICLES EQUIPPED WITH VISCOUS COUPLING TYPE LIMITED SLIP DIFFERENTIAL

In the El 53 transaxle in the 1993 MR2, a viscous coupling type limited slip differential is offered as option. To determine whether the vehicle has this type of differential, refer to the Certification Label. On the bottom line of the label, if the last digit of the axle code is "5", the vehicle is equipped with limited slip differential. A variation in the rotation between the drive wheels creates viscous torque which results in decreased difference in driving rotation. For durability of the differential and safety reasons, observe the following procedures when performing on-the-car wheel balancing on the rear wheels of vehicles equipped with this transaxle:

- NOTICE:
- (a) Lift the vehicle, making sure that all wheels are completely off the floor.
- (b) Drive the wheels with the vehicle's own engine, without the aid of any exterior power source.
- (e) Release the parking brake lever completely.



- (d) Do not allow any of the brakes to drag.
- (e) Avoid sudden acceleration, deceleration, and bra-king.
- (f) Drive the wheels with transmission in 3rd or 4th gear.



1. LIFT THE VEHICLE, MAKE SURE ALL WHEELS ARE OFF THE FLOOR, READY TO SPIN

Make sure the vehicle is firmly supported on stands, as the wheels will be spinning at high speed. **2. RELEASE THE PARKING LEVER COMPLETELY**  ..a



#### 3. PLACE THE WHEEL BALANCER AGAINST THE WHEEL TO BE BALANCED

Follow the procedures specified by the manufacturer of the wheel balancer.

- 4. INSTALL THE PICK UP STANDS UNDER THE REAR SUSPENSION
- 5. START THE ENGINE
- 6. PUT TRANSMISSION INTO 3RD OR 4TH GEAR
- 7. ENGAGE CLUTCH SLOWLY, AND GRADUALLY ACCELERATE TO TEST SPEED

NOTICE: Be careful of the other wheel which will be spinning at the same time.