# **AIR BAG RESTRAINT SYSTEM**

1994 Jaguar XJ12

1994 ACCESSORIES/SAFETY EQUIPMENT Jaguar Air Bags

XJS, XJ6 & XJ12

#### \* PLEASE READ THIS FIRST \*

WARNING: To avoid injury from accidental air bag deployment, read and carefully follow all WARNINGS and SERVICE PRECAUTIONS.

#### **IDENTIFICATION**

All models are equipped with driver-side and passenger-side air bags. and is identified by an AIR BAG symbol in front of Vehicle Identification Number (VIN). The VIN is located on top of instrument panel, near lower left corner of windshield.

The letters SRS (Supplemental Restraint System) is embossed on the steering wheel center hub and on the instrument panel above the glove box. A label denoting that vehicle is equipped with air bags is affixed to driver-side and passenger-side sun visors.

#### DESCRIPTION

The Supplemental Restraint System (SRS) is designed to provide increased accident protection for driver and passenger by deploying air bags in a front-end collision. The air bags, stored in the steering wheel module and in the instrument panel above the glove box, deploy in about 40 milliseconds after the impact sensors close. The SRS is designed to be used with the 3-point safety belts.

SRS includes following components: steering wheel, driver-side air bag module, passenger-side air bag module (air bag modules contain inflator/sensor assembly), upper steering column assembly, knee bolster (passenger-side and driver-side), body components and arming/disarming sensors

#### OPERATION

vehicles.

### DRIVER-SIDE AIR BAG MODULE

Steering wheel houses driver-side air bag module and arming/disarming mechanism. Steering wheel also transmits crash pulse (from inflator/sensor housing) to air bag sensor. Air bag module contains air bag, inflator/sensor assembly and inflator/sensor housing. Module is protected by a cover which splits as air bag begins to inflate. See Fig. 1.

Upper steering column assembly transmits crash pulse to steering wheel/air bag module sensors. During a crash, steering column collapses and absorbs impact energy (of driver) on steering wheel. Knee bolster replaces underdash panel used on non-air bag

Body components will deform and absorb impact energy. Crash pulse is transmitted through body and steering column mounting brackets to steering column. From steering column, crash pulse is transmitted to steering wheel hub, air bag module and sensor.

Arming/disarming mechanism is used to ensure safety when servicing steering-related components.



91C12908 Fig. 1: Identifying Driver-Side Air Bag Module Components Courtesy of Jaguar Cars, Inc.

## SERVICING

Manufacturer recommends replacing air bag module assemblies every 10 years. When air bag module assembly is replaced, a door jamb sticker must be filled out and adhered to door jamb. Air bag door sticker can be obtained through dealer parts department.

# SERVICE PRECAUTIONS

Observe these precautions when working with air bag systems:

Disable air bag system before servicing any air bag system or

steering column component. See DISABLING & ACTIVATING AIR BAG SYSTEM.

- \* Because of critical operating requirements of system, DO NOT attempt to service air bag components.
- \* DO NOT attempt to dismantle air bag module. DO NOT puncture, incinerate or bring into contact with electricity or electrical devices.
- \* DO NOT remove steering column mountings or steering wheel from vehicle before disarming and removing air bag module.
- \* Air bag module must be stored in its original special container until used for service. It must be stored in a clean, dry place, away from sources of extreme heat, sparks and high electrical energy.
- \* To prevent inadvertently arming module, DO NOT tamper with safety shaft in center on rear of module after removal.
- \* DO NOT cut open inflator/sensor assembly or in any way repair module.
- \* DO NOT hit module or apply force on steering wheel.
- \* DO NOT install module to steering wheel and arm module until column and wheel are firmly installed into vehicle.
- \* DO NOT store module at temperatures above 168° F (75° C).
- \* DO NOT transfer air bag module to another vehicle.
- \* When carrying air bag module, hold module to one side of your body with deployment side of module facing either to front or rear.

### **DISABLING & ACTIVATING AIR BAG SYSTEM**

NOTE: Use the following procedure to disable air bag module for steering column or steering wheel service.

#### Driver-Side Air Bag

1) Disconnect negative battery cable. To disable air bag module, open disarming mechanism cover on back of steering wheel. Using Torx screwdriver, turn arming screw counterclockwise until it stops (approximately 12 turns). See Fig. 2. Air bag module is now disabled.

2) To activate air bag module, turn arming screw clockwise approximately 12 turns until it stops. Tighten screw to specification. See TORQUE SPECIFICATIONS TABLE at the end of this article. Reconnect negative battery cable.



Fig. 2: Disabling Driver-Side Air Bag Module Courtesy of Jaguar Cars, Inc.

module mounting nuts. See Fig. 3. Lift catch plates and carefully pivot air bag module downwards to disarmed position.

WARNING: As catch plates are released, air bag arming mechanism will apply considerable force. DO NOT allow air bag assembly to snap down. Fully support air bag module with both hands and ease module downward to disarmed position.

2) Remove mounting bolts and reposition relay module aside. Remove outer bracket-to-dash rail and crossbar assembly fasteners. Remove air bag module mounting nuts. Remove air bag module and outer bracket assembly from vehicle. Ensure arming mechanism slide is fully down in the disarmed position. See Fig. 3.

3) If air bag module is not in the disarmed position, place air bag module on work bench with air bag module and trim cover is facing up, away from surface. Using finger pressure, slide arming mechanism downwards. If arming mechanism will not slide downwards, place air bag module in a safe place and contact manufacturer for further instructions.

4) On disarmed air bag modules only, remove split cap bolts and carefully remove arming mechanism from air bag module. To activate air bag module, reverse disarming procedure.



Fig. 3: Disabling Passenger-Side Air Bag Module Courtesy of Jaguar Cars, Inc.

### **DISPOSAL PROCEDURES**

#### DEPLOYED AIR BAG

Deployed air bag modules can be disposed of as any other part. Handle air bag module with gloves and wear safety glasses.

#### UNDEPLOYED AIR BAG

1) Visually inspect module to determine whether safety shaft/arming mechanism slide is in armed or disarmed position. See Fig. 3 or 4. If safety shaft/arming mechanism slide is in armed position, handle module with care. Avoid subjecting module to any sudden movements.

2) Place module in a locked cabinet with cover facing upward. DO NOT place module on a shelf with cover next to a side wall. Contact manufacturer for disposal procedure.



Fig. 4: Identifying Air Bag Module Arming Position Courtesy of Jaguar Cars, Inc.

# **POST-COLLISION INSPECTION**

When a vehicle has been involved in a collision, certain components of the passive restraint system must be inspected or replaced. See PASSIVE RESTRAINT SYSTEM INSPECTION article in the GENERAL INFORMATION section for post-collision inspection information.

# **REMOVAL & INSTALLATION**

#### \* PLEASE READ THIS FIRST \*

WARNING: Failure to follow air bag service precautions may result in air bag deployment and personal injury. See SERVICE PRECAUTIONS.

#### DRIVER-SIDE AIR BAG MODULE

Removal

1) Before proceeding, follow air bag service precautions. See SERVICE PRECAUTIONS. Disable air bag system. See DISABLING & ACTIVATING AIR BAG SYSTEM.

2) Air bag module is located on steering wheel. Remove Black protective caps on rear of steering wheel and remove nuts. See Fig. 5. Slide arming screw access plate and hold in position. Using Torx screwdriver, turn arming screw clockwise approximately 2 turns to lock, providing access to module securing bolt. See Fig. 2. Remove module securing bolt and module. See Fig. 6.

#### Installation

1) Apply light force to module and install module mounting nuts. Ensure module pulls down squarely by pressing down on top spoke area. Tighten module mounting nuts to specification. See TORQUE SPECIFICATIONS TABLE at the end of this article.

2) Using Torx screwdriver, turn arming screw counterclockwise approximately 2 turns to release sliding access plate. Reactivate air bag module. See DISABLING & ACTIVATING AIR BAG SYSTEM.



Fig. 5: Removing Black Protective Cap (Driver-Side Air Bag) Courtesy of Jaguar Cars, Inc.



91H12911 Fig. 6: Removing Driver-Side Air Bag Module Courtesy of Jaguar Cars, Inc.

# PASSENGER-SIDE AIR BAG MODULE

Removal & Installation Before proceeding, follow air bag service precautions. See SERVICE PRECAUTIONS. For passenger-side air bag module removal and installation procedures see DISABLING & ACTIVATING AIR BAG SYSTEM.

# **TORQUE SPECIFICATIONS**

TORQUE SPECIFICATIONS TABLE

Application	INCH	Lbs.	(N.m)
Driver-Side Air Bag Arming Screw Module-To-Steering Wheel Nut		8-18 106 (1	(1-2) .0-12)
Passenger-Side Air Bag Air Bag Mounting Plate-To-Stud Air Bag Mounting-To-Inner & Outer Bracket . Air Bag Mounting-To-Inner & Outer Bracket & Catch Plate Air Bag-To-Mounting Plate Arming Mechanism-To-Module	22-31 15-20	44-62 •••••• 1 (2.5 44-62 0 (1.7	(5-7) (1) 5-3.5) (5-7) 7-2.3)
(1) - Tighten 13-15 ft. lbs. (18-20 N.m).			