

## WARNING

- **SAFETY INSTRUCTIONS TO BE FOLLOWED FOR OPERATIONS ON CARS EQUIPPED WITH AIRBAG SYSTEMS**

**NOTE:** The following instructions **MUST BE FOLLOWED** for any operation involving cars equipped with Air Bag safety systems.

### **Preliminary instructions**

**NOTE:** Remember that **Air Bag modules must be handled with care. Their use, transportation and storage are regulated by the procedures for handling such components, which are given below.**

Before carrying out any repair operations on the bodywork, welding or operations that involve removing the AirBag modules or the AirBag control unit: Go to Key-OFF condition. Always disconnect the battery, i.e. disconnect the two terminals (positive and negative) from their poles and carefully insulate them with tape. Wait for at least one minute before disconnecting the electrical connections of the airbag system components. Position the devices with the cover upwards in a locked metal cupboard. This cupboard, intended exclusively for this purpose, must not, under any circumstances, be used to store any other types of material, particularly if they are flammable. The cupboard must be designed to store pyrotechnic charges (metal, impact resistant cupboard with grates to allow natural internal ventilation) and must have the markings required by law (DANGER PYROTECHNICS - NO OPEN FLAMES - NOT TO BE OPENED BY UNAUTHORIZED PERSONNEL).

**NOTE:** The continuity of the system components can only be measured after the modules have been replaced with specific dummy resistances.

**A system component that has not been activated during an accident is considered to still be "active". Therefore, non-deployed pyrotechnic components that have to be removed from the vehicle (for defects, if the warranty has expired, or other reasons) should be returned to the appropriate center following the procedure described below.**

**NOTE:** The safety system components must **ONLY** be installed and dismantled by skilled, authorized personnel. Failure to follow the procedures described below could result in the accidental activation of the system, personal injury or unnecessary repairs to the system. **AIRBAG MODULES MUST NOT, UNDER ANY CIRCUMSTANCES, BE DISMANTLED.**

All the system components have been specifically designed to work on a specific make and type of vehicle, therefore airbags cannot be adapted, reused or installed on other vehicles, only the ones for which they have been designed and produced.

**NOTE:** Any attempt to reuse, adapt or install one on a different type of vehicle could result in serious injury or could even be fatal for the occupants of the vehicle in the event of an accident.

- **Check on system components** Correct operation of pyrotechnic components (Air Bag, Side Air Bag and tensioners) of Air Bag system must NOT be checked using a tester, but only through the diagnosis equipment which detects any failures. Since sensors (front and side) are located in impact areas, they must always be

replaced in case of activation of their Air Bag modules, even if they do not show any sign of damage or deformation.

- **Interventions on system components** After every repair, the system must be checked using the diagnostic equipment. The system pyrotechnic components have a timed validity, thus it is recommended to replace them after expiration.
- **Air Bag module replacement** To replace an Air Bag module, it is necessary to: Remove the detachable part of the adhesive label from the new module and place it in a special file that contains the vehicle data (model, registration date, chassis no.) and the serial number of the old control unit. This file should be kept for future checks. Together with the new module, a new adhesive plate is provided which should be attached on the existing plate on the vehicle. First, it should be pierced at the corresponding expiry month and year

**NOTE:** This also applies to clock springs.

- **Air Bag control unit replacement** After each activation of one of the controlled systems (tensioners, front Air Bags, Side Air Bags), the control unit stores the activation in its permanent memory and controls activation of the fault warning light on the instrument panel. In this case, the Air Bag control unit needs to be replaced with a new one even if it doesn't show any sign of damage or deformation. If the control unit is being replaced, the detachable part of the adhesive label must also be removed and placed in the file mentioned above.

**NOTE:**

**Before disconnecting or reconnecting the control unit electrical connectors, the operator should run out any static energy which could cause inadvertent activations of the Air Bag modules which are still connected.**

**NOTE:**

**Before connecting the control unit electrical connectors, ensure the control unit is correctly installed on the vehicle; otherwise its sensor could trigger inadvertent activations of Air Bag modules which are still connected.**

- **Replacing the clock spring** The clock spring for connecting the driver's airbag module is equipped with a device that automatically stops it rotating when the steering wheel is removed. This is designed to prevent the upper plate, no longer secured to the steering wheel, from turning freely and unwinding or winding the cables inside the device and possibly causing them to break. The device is automatically released when the steering wheel is installed. In case of replacement, installation must be carried out with the wheels straight because this is the corresponding position of the new device. The new device is equipped with a safety system which keeps it locked; this must be removed at steering wheel installation to allow the clock spring to correctly rotate.
- **Painting operations** There are no special safety regulations to follow for painting and subsequent drying operations in an oven because the modules in particular have been designed in such a way that they are not damaged when the outside surfaces of the vehicle get hot from normal paint drying systems.

**NOTE:**

**It is forbidden to use naked flames near the modules. All the electronic control units (including the Air Bag system) need to be removed if their temperature in certain environments could reach or exceed 85°C (185°F).**

- **Interventions after an accident** If any of the safety system components is damaged following an accident it **MUST** be replaced. Do not attempt to repair the control unit, clockspring or airbag modules. Accidents with or without activation of the airbags Some of the system components must be inspected after an accident whether the system has been activated or it has NOT been activated. These components are: Steering column; Steering column supports; Electronic control unit and module anchoring area; Clock spring; Dashboard (in the area of the passenger Air Bag module). If the component shows signs of distortion, breaks or bends it **MUST** be replaced. Accidents with activation of the airbags Several of the system components should be replaced if the vehicle is subject to a frontal impact that has fully or partially activated the system. In the event of partial activation (tensioners or Side Air Bags only), these components are: Tensioners or Side Air Bags; Electronic control unit. In the event of total activation (Air Bag, Side Air Bag and tensioners), these components are: Front Air Bag modules; Tensioners or Side Air Bags;

Occupant Restraint Controller module. As far as the wiring and connectors are concerned, they must be inspected for any signs of burning, melting of the outside insulation or damage from excessive heat. Any signs of damage to the clock spring or in the area where the electronic control unit and airbag modules are mounted means that the damaged components MUST be replaced

- **Dangers to health** The following precautions should be observed when handling activated airbag modules: Wear polythene protective gloves and safety goggles; Wash your hands and other exposed parts of the body with soap and water after touching triggered Air Bag units. There is no potential danger of exposure to the propellants used, as the system is completely sealed. The propellant mixture is in a solid state; therefore it is impossible to inhale it even if the gas generator cartridge is broken. There is no danger to human health if the gas escapes. Contact with the skin should be avoided and the propellant should not be swallowed. In the case of: Contact with skin: wash immediately with soap and water. Contact with eyes: wash eyes immediately with running water for at least 15 minutes. Inhalation: take the affected person into the open air immediately. Swallowing: induce vomiting if the person is conscious. A doctor must always be called in these situations. In normal conditions the driver and passenger Air Bags are activated by the electronic control which enables during the impact. The gases that develop in these conditions are not toxic.
- **SAFETY INSTRUCTIONS FOR HANDLING AIRBAG MODULES** It is important that the personnel who work on devices installed on the car follow the obligatory safety regulations listed below. The personnel working on the devices must have received suitable training and must observe the following precautions: When removing and replacing open (deployed) Air Bags, move the modules one at a time and wear protective gloves and goggles for the removal. Always rest the Air Bag module with the opening flap and the pre-breaking serration facing upwards. Never place anything on top of this flap. At the end of the operations, wash your hands thoroughly with mild soap and, if there is any contact between the device residual powders and your eyes, rinse immediately with plenty of running water. On all versions with Air Bag it is forbidden to work from the front seats before having rendered the system inoperative by disconnecting the two battery cables and having waited for 1 minute. The Air Bag metal components are very hot just after it has been deployed. Avoid touching these components for 10 minutes after the Air Bag has been activated. Never carry out repair operations on Air Bag modules. Send all defective modules to the supplier. Never heat the Air Bag module (e.g. through welding, striking, drilling, mechanical machining, etc.). Never install on the vehicle Air Bag units that have been dropped or show signs of any type of damage.

**NOTE:**

**The storage of airbag modules together with flammable or combustible materials is prohibited.**

Gas generators must not come into contact with acid, grease or heavy metal: contact with these substances could cause the formation of gases that are poisonous or harmful, or explosive compounds. Replacement parts must be stored in their original packaging and the same procedures as for airbag modules that have not been activated and have been removed from the car must be followed for their temporary storage, i.e. in a specially designed, locked, metal cupboard (impact resistant metal cupboard with grates for natural internal ventilation). The cupboard must have special warning signs (DANGER: EXPLOSIVES - NO OPEN FLAMES - NOT TO BE OPENED BY UNAUTHORIZED PERSONNEL).

- **SCRAPPING AIRBAG MODULES** The airbag modules installed on the car must not be scrapped with the car itself, but removed first. The airbag units cannot be scrapped unless they have been activated first. If the airbag module has not been deployed during an accident it should be considered as still charged. All non-deployed pyrotechnic material SHOULD NOT BE ACTIVATED, but should be sent to a specialist center with the following written on the accompanying docket: "AIRBAG CONTAINING PYROTECHNIC CHARGE TO BE DEACTIVATED". The local laws in force must be observed in all cases. The devices must be sent in the packaging that the replacement parts are received in and, if it is not available, the packaging only can be ordered from the SPARE PARTS department. Obviously, if airbags are being replaced, the original packaging must be kept intact for dispatching devices which have not been activated.

**NOTE:**

**FAILURE to follow the procedures described here may cause the accidental activation of Air Bag units and result in personal injury. Airbag units that have not been activated must NOT be disposed of through normal waste disposal methods. Air Bag units that have not been activated contain substances that can cause personal injury if the sealed container is damaged during disposal. The disposal of airbag units not carried out in accordance with this procedure may be in violation of regulations in force on this subject. The local laws in force must be observed in all**

cases.

- **ORDERING METHODS** If necessary, the devices can be ordered, as and when required, from the Spare Parts Department through the V.O.R. procedure since Dealers do not keep these parts in stock. In any case, a record should be kept of internal movements, recording the module identification numbers and vehicle details (chassis number, registration date, model, etc.).

**WARNING:**

To avoid serious or fatal injury on vehicles equipped with the Supplemental Restraint System (SRS), never attempt to repair the electrically conductive circuits or wiring components related to the SRS for which there is no Mopar® wiring repair kit. It is important to use **ONLY** the recommended splicing kit and procedure. For applicable and available Mopar® wiring repair kits, please visit the Mopar® Connection Repair Kit Web Site. Inappropriate repairs can compromise the conductivity and current carrying capacity of those critical electrical circuits, which may cause SRS components not to deploy when required, or to deploy when not required. Only minor cuts or abrasions of wire and terminal insulation where the conductive material has not been damaged, or connector insulators where the integrity of the latching and locking mechanisms have not been compromised may be repaired using appropriate methods.

**WARNING:**

To avoid serious or fatal injury during and following any seat belt or child restraint anchor service, carefully inspect all seat belts, buckles, mounting hardware, retractors, tether straps, and anchors for proper installation, operation, or damage. Replace any belt that is cut, frayed, or torn. Straighten any belt that is twisted. Tighten any loose fasteners. Replace any belt that has a damaged or ineffective buckle or retractor. Replace any belt that has a bent or damaged latch plate or anchor plate. Replace any child restraint anchor or the unit to which the anchor is integral that has been bent or damaged. Never attempt to repair a seat belt or child restraint component. Always replace damaged or ineffective seat belt and child restraint components with the correct, new and unused replacement parts listed in the Mopar® Parts Catalog. Failure to follow these instructions may result in possible serious or fatal injury.

**WARNING:**

To avoid serious or fatal injury on vehicles equipped with side curtain or seat (pelvic and thorax) airbags, disable the Supplemental Restraint System (SRS) before attempting any Occupant Restraint Controller (ORC) diagnosis or service. The ORC contains a rollover sensor, which enables the system to deploy the side curtains or seat airbags in the event of a vehicle rollover event. If an ORC is accidentally rolled during service while still connected to battery power, the side curtain and seat airbags will deploy. Disconnect and isolate the battery negative (ground) cable, then wait two minutes for the system capacitor to discharge before performing further diagnosis or service. This is the only sure way to disable the SRS. Failure to take the proper precautions could result in accidental airbag deployment.

**WARNING:**

To avoid serious or fatal injury on vehicles equipped with airbags, disable the Supplemental Restraint System (SRS) before attempting any steering wheel, steering column, airbags, airbag curtains, knee blocker, seat belt tensioner, impact sensor or instrument panel component diagnosis or service. Disconnect the Intelligent Battery Sensor (IBS)/negative battery cable assembly from the negative battery post, then wait two minutes for the system capacitor to discharge before performing further diagnosis or service. This is the only sure way to disable the SRS. Failure to take the proper precautions could result in accidental airbag deployment.

**WARNING:**

To avoid potential physical injury or damage to sensitive electronic circuits and systems, always disconnect and isolate the battery negative (ground) cable and the positive cable, then ground the positive cable to discharge the Occupant Restraint Controller (ORC) capacitor before performing any welding operations on the vehicle. Failure to take the proper precautions could result in accidental airbag deployment, possible damage to the Supplemental Restraint System (SRS) circuits and components, and possible damage to other electronic circuits and components. Whenever a welding process is being performed within 12 inches (30 centimeters) of an electronic module or wiring harness, then that module or harness should be relocated out of the way, or disconnected. Always protect against component or vehicle damage from weld spatter by using weld blankets and screens.

**WARNING:**

To avoid serious or fatal injury, do not attempt to dismantle an airbag unit or tamper with its inflator. Do not puncture, incinerate or bring into contact with electricity. Do not store at temperatures exceeding 93° C (200° F). An airbag inflator unit may contain sodium azide and potassium nitrate. These materials are poisonous and extremely flammable. Contact with acid, water, or heavy metals may produce harmful and irritating gases (sodium hydroxide is formed in the presence of moisture) or combustible compounds. An airbag inflator unit may also contain a gas canister pressurized to over 17.24 kPa (2500 psi). Failure to follow these instructions may result in possible serious or fatal injury.

**WARNING:**

To avoid serious or fatal injury when handling a seat belt tensioner retractor or buckle, proper care should be exercised to keep fingers out from under the retractor or buckle cover and away from the seat belt webbing or cable where it exits from the retractor or buckle cover.

**WARNING:**

To avoid serious or fatal injury, replace all Supplemental Restraint System (SRS) components only with parts specified in the Mopar® Parts Catalog. Substitute parts may appear interchangeable, but internal differences may result in inferior occupant protection.

**WARNING:**

To avoid serious or fatal injury, the fasteners, screws, and bolts originally used for the Supplemental Restraint System (SRS) components must never be replaced with any substitutes. These fasteners have special coatings and are specifically designed for the SRS. Anytime a new fastener is needed, replace it with the correct fasteners provided in the service package or specified in the Mopar® Parts Catalog.

**WARNING:**

To avoid serious or fatal injury when a steering column has an airbag unit attached, never place the column on the floor or any other surface with the steering wheel or airbag unit face down. Failure to follow these instructions may result in possible serious or fatal injury.