

Keeping up with new repair techniques

Compiled by Robert Renwick, CRA I-Car course coordinator

In this issue of PanelTalk we look at some more of the continuing changes that are evident in all of today's modern motor vehicles. It pays to remember that failure to comply with the manufacturers' recommendations can result in costly comebacks.

Although all manufacturers are introducing new technology and different construction methods, in this issue we look at some of those specific to Mitsubishi Motors.

The introduction of, and your awareness of, new electronics in the 2004 Pajero is most important as this affects not only the performance, but also the handling of the vehicle.

This new 2004 model has introduced Active Stability and Traction Control (A.S.T.C). This system works by applying the brakes to individual wheels or reducing engine power when any of the vehicles driving wheels spin freely or loose traction with the ground. For example, when rounding a curve in slippery conditions or when taking rapid steering action to avoid an obstacle. It works by controlling the engine output or the brake on each wheel.

So how does this involve the repairer?

When repairs being carried out on the vehicle require the removal of wiring or electric circuitry, the functions of this A.S.T.C. require checking and resetting to prevent malfunction of this system eg. losing engine power when pulling out suddenly to overtake another vehicle. This will require the service of an authorised agent.

Foams

Urethane foam and foam materials are now used in all vehicles and they come in many different consistencies. These foams are used to prevent the penetration of noise into the passenger compartment of the vehicle, while some are used to add cross sectional rigidity and others control panel vibration. The Collision Repair Industry is responsible for reinstating this when repairs are

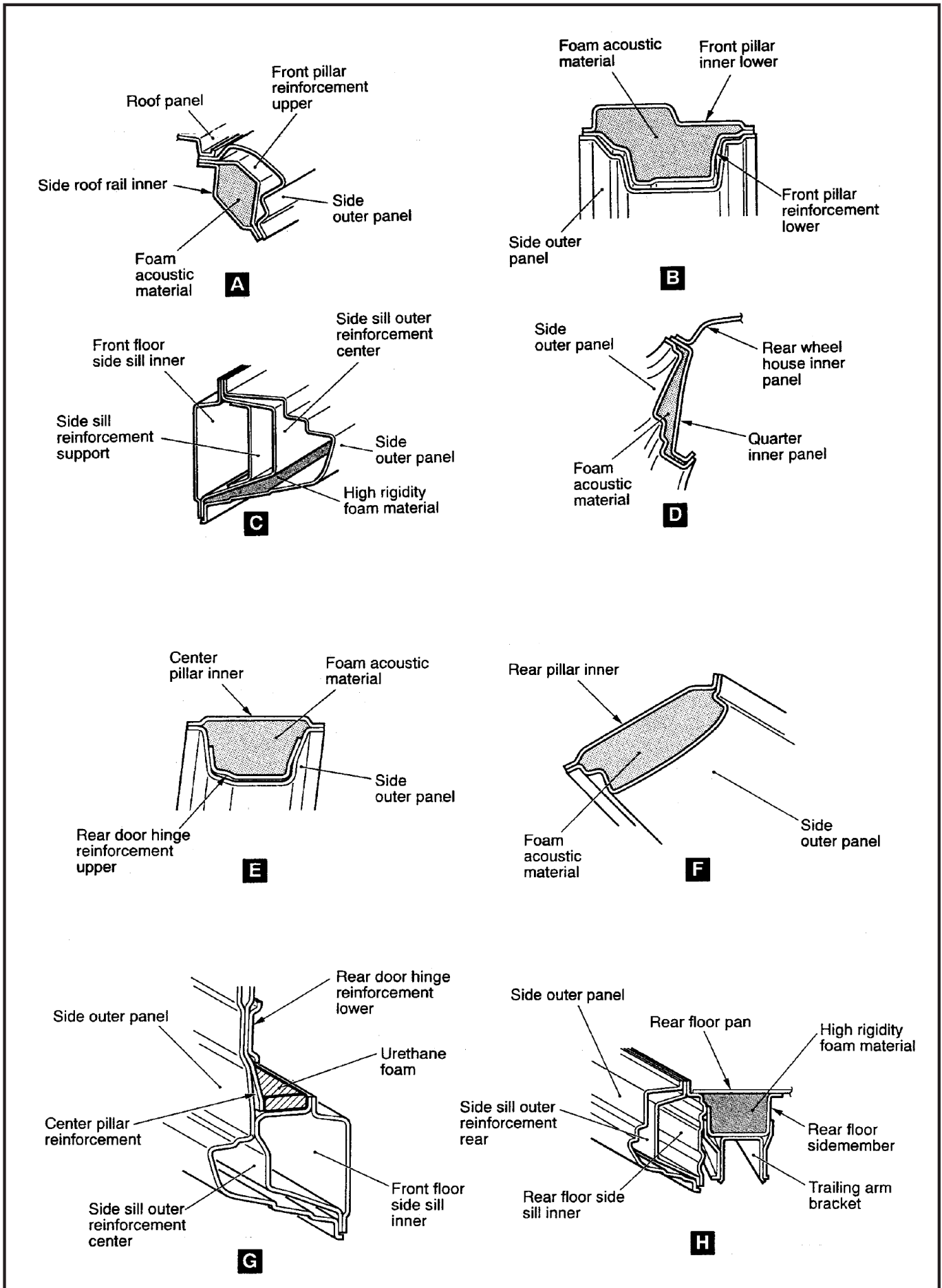
Foam material	Type	Brand used
Foam acoustic material	Foam hard polyurethane foam	Semedain hi-span foam
High rigidity foam material	Two fluid mix type foaming urethane	3M Super panel filler

Figure 1. Mitsubishi repair manual reference on products used.

NOTE: Check with your product supplier for the correct replacement foam to use.

carried out. Failure to do so can cause variation to an expensive audio systems sound, resulting in customer dissatisfaction, or the body structure not reacting as designed to if involved in another collision. Figure 2 states the type of foam and shows where foam is used in the 2001 (CS0A) Mitsubishi Lancer.

Figure 2. Location of foam in the 2001(CS0A) Mitsubishi Lancer.



Precautions when performing work at locations using foam material.

As foam may burn when heated, observe the following precautions:

1. Do not perform heating work using gas burners at locations using foam material.
2. When cutting locations using foam material, use tools (air saw etc.) which do not generate heat.
3. If leftover foam material is present at the area to be cut, remove the foam around the area to be welded before proceeding with welding.

Figures 3 and 4 shows an example of Mitsubishi recommendations of how to reinstate the foam to the welded panels after repair.

After attaching the centre pillar outer, seal the holes and flanges with bolts and plate tape, and fill with foam material from the A and B holes.

About two hours after filling with the foam material remove the bolts and plate tape. Using a soldering iron, melt the foam to allow access so a clip can be reinserted.

Radiator coolants

The correct replacement coolant **MUST** be used if the radiator has been drained. Failure to do so

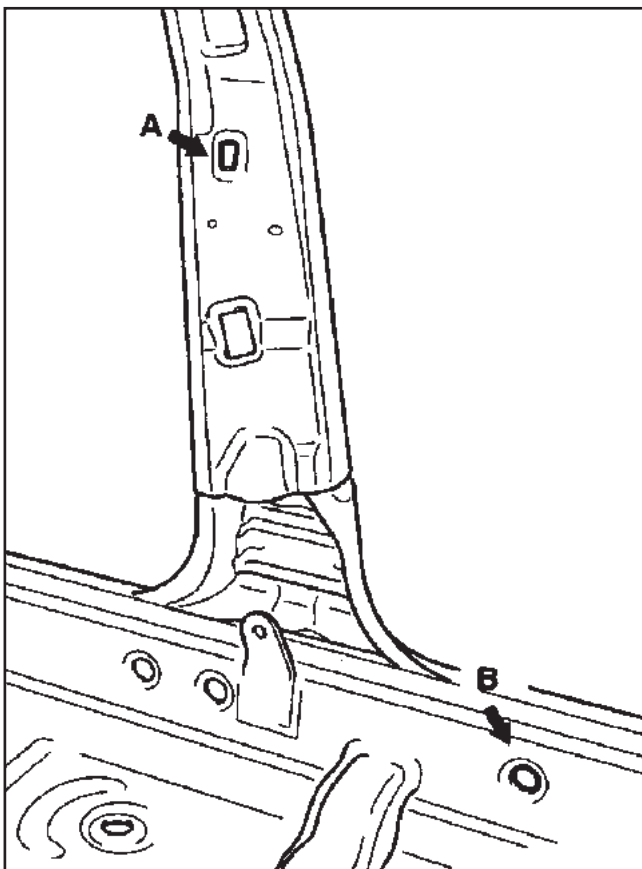


Figure 3. A and B show locations to insert the foam material into the centre pillar region.

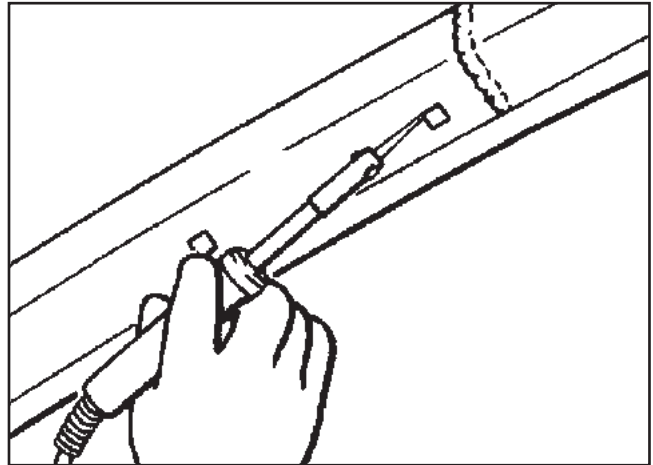


Figure 4. Reinstating the foam.

can lead to expensive mechanical damage due to engine or water pump corrosion.

REMEMBER: This problem can come back and haunt you many months down the track and unless you can produce documented evidence of using the correct product, the problem is yours.