

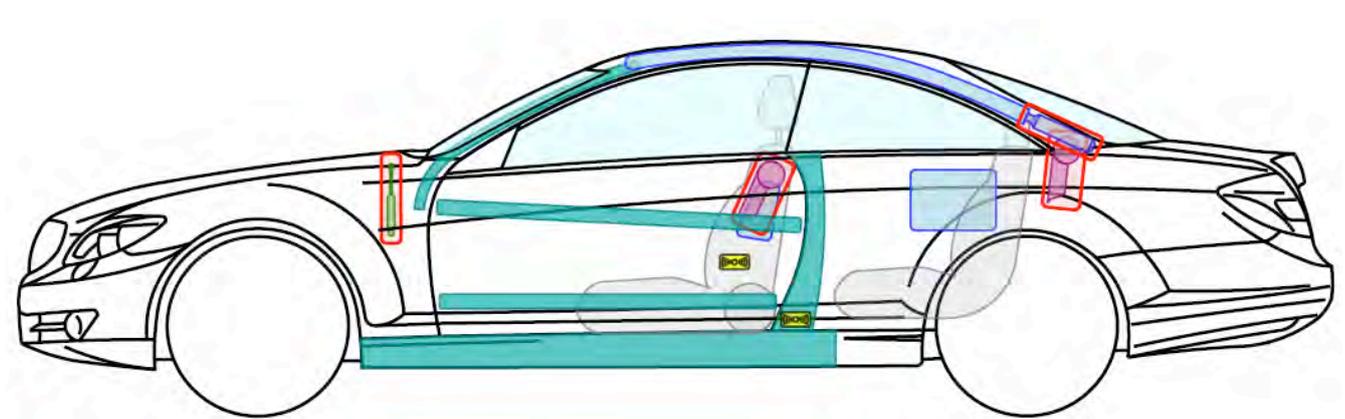
Why is it better to know what's inside!

- Available technical information about the equipment of the vehicle involved in a crash can reduce extrication time and increase overall safety.
- Vehicle specific information can reduce the necessary training, because people do not need to learn details about the different mounting locations for relevant components (battery, inflators).
- Vehicle specific training makes no sense because nobody can ever remember all possible locations.
- Information supplements training and equipment.
- Handling information need to be trained as well.
- It's much better to know what's inside then to search for it.

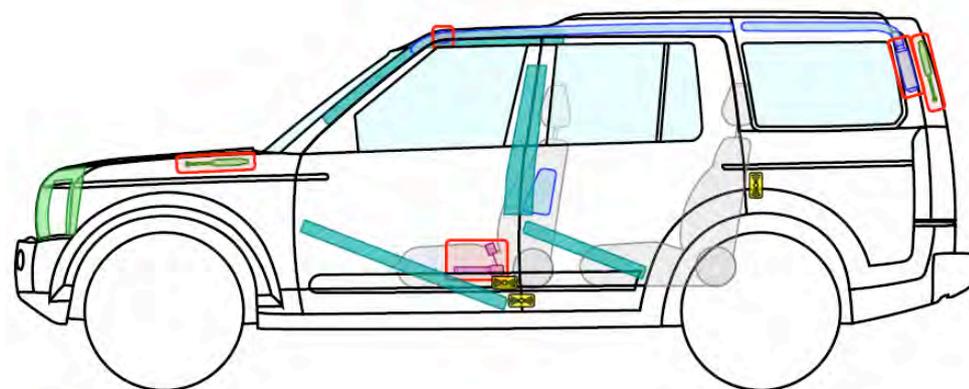
All Screenshots from taken from "Crash Recovery System".

Examples:

**Body construction and reinforcements:**



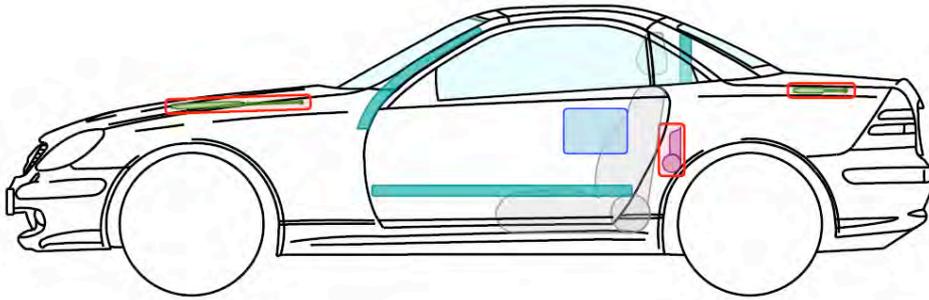
Mercedes-Benz CL. Reinforcement pipe in A-post. If you know where it is located, you can work around it or adapt your tactics (flap the roof to the front).



Land Rover LR4, Reinforcement in B-pillar. It's easy to see how you can work around it.

However, there may also be vehicles, where the complete B-post is reinforced. That's where the knowledge of the tool user comes into play. Using the tool right is essential. Anyway, for late-model vehicles you need dedicated late-model cutters.

Vehicle information can also be helpful while determining Plan A, B and C. Tactics can be tailored to the actual equipment of the vehicle.



Mercedes-Benz SLK, Convertible. If roof needs to be removed there are several Plans to consider:

Plan A: Use the electric release

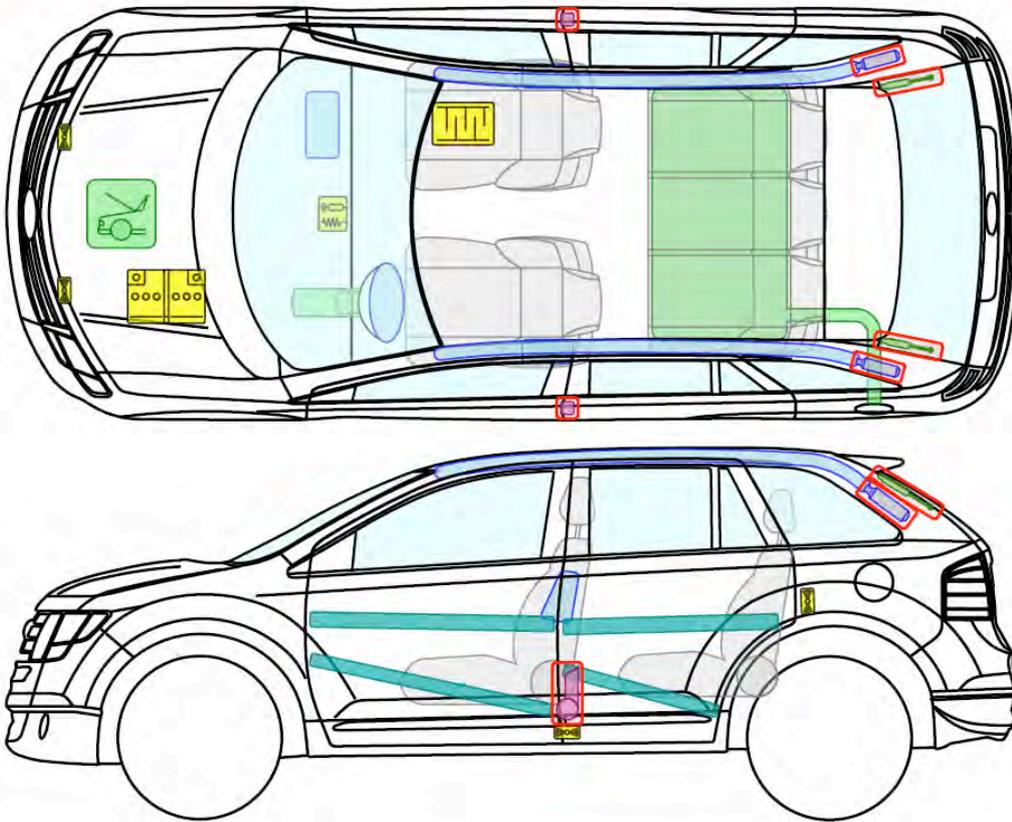
Plan B: Release the roof from the windshield frame and cut the C-post.

Plan C: Cut A- and C-pillar. Cut above the reinforcement



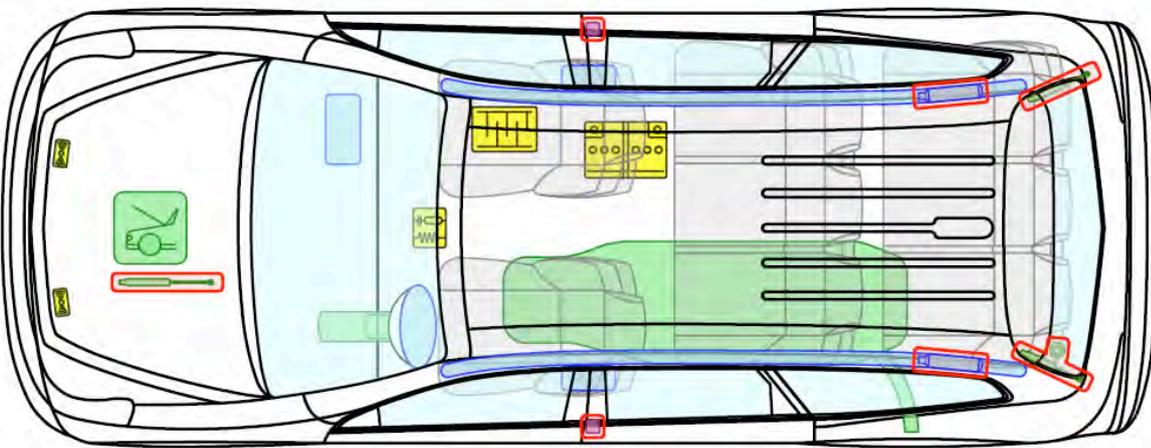
Again: Information will not replace the need to train with the tool and to be creative! But it can be helpful to find the best Plan, because the Plan can be tailored to the actual equipment.

**Airbags:**

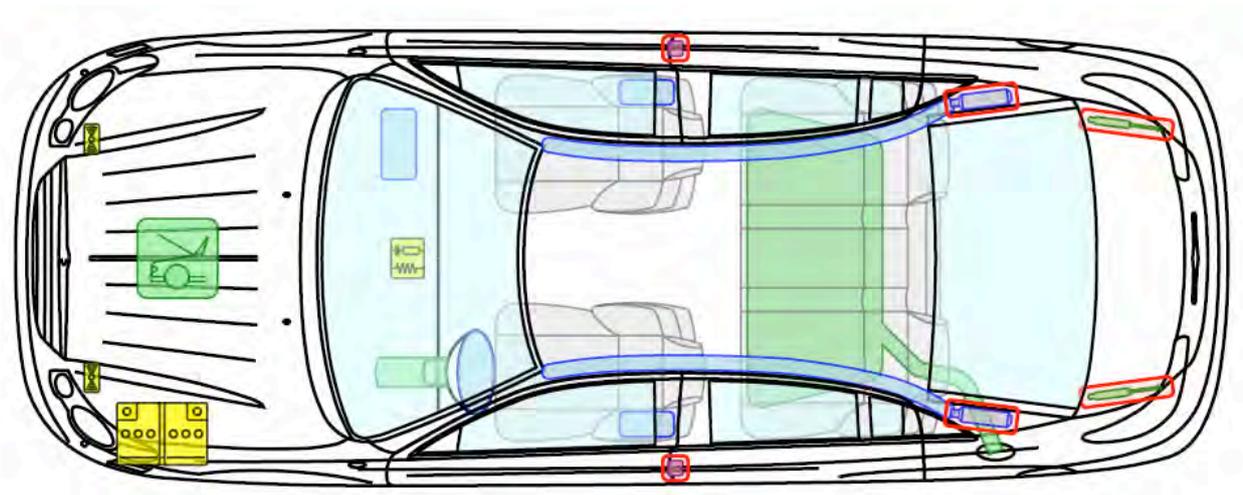


Ford Edge, Equipped with Frontal Airbags for the Driver and Passenger, Seat mounted side airbags and a curtain airbag on both sides of the vehicle and for all rows of seating. Additionally the airbag control unit can be found on the center tunnel of the vehicle under the dashboard.

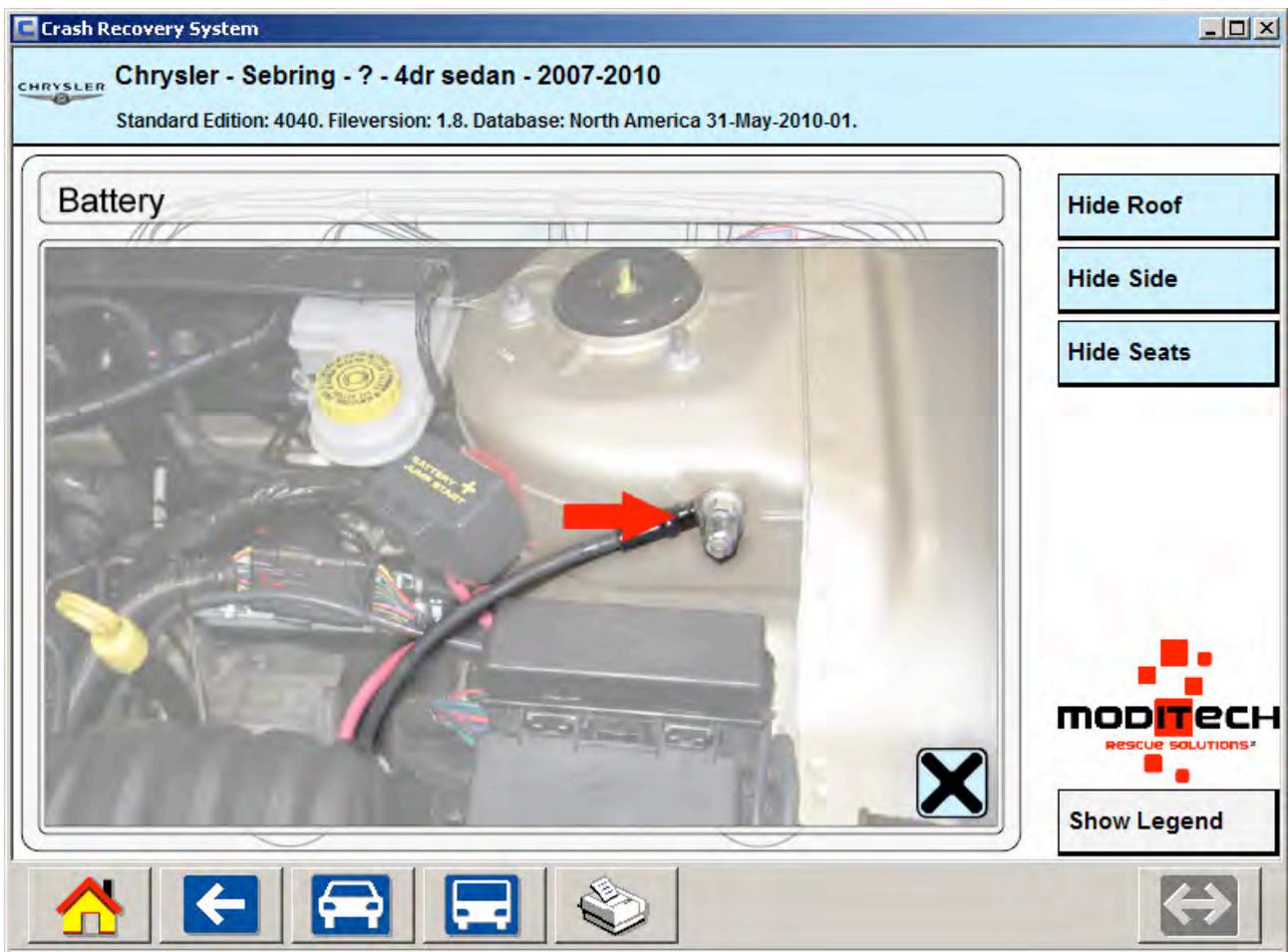
No further scanning for undeployed airbags necessary, deployed airbags can be found quite easy.



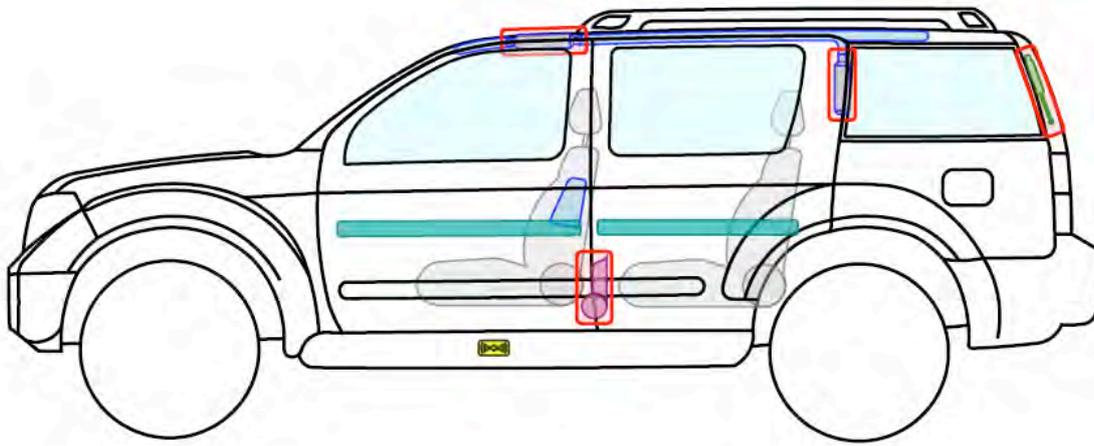
Performing electrical shutdown is much easier if the location of the battery is known. On this Chevrolet Traverse the battery is located below the passengers seat and can be accessed through an opening in the floor of the vehicle.



The battery of this Chrysler Sebring is located in the wheel well area of the vehicle. Even if you know where it is, it is very difficult to disconnect it. Additional information may be helpful. As you can see, the negative battery terminal can be disconnected from the body of the vehicle on the strut tower in the engine compartment.



Furthermore CRS can guide you to the battery by giving information how to open the hood and trunk etc.

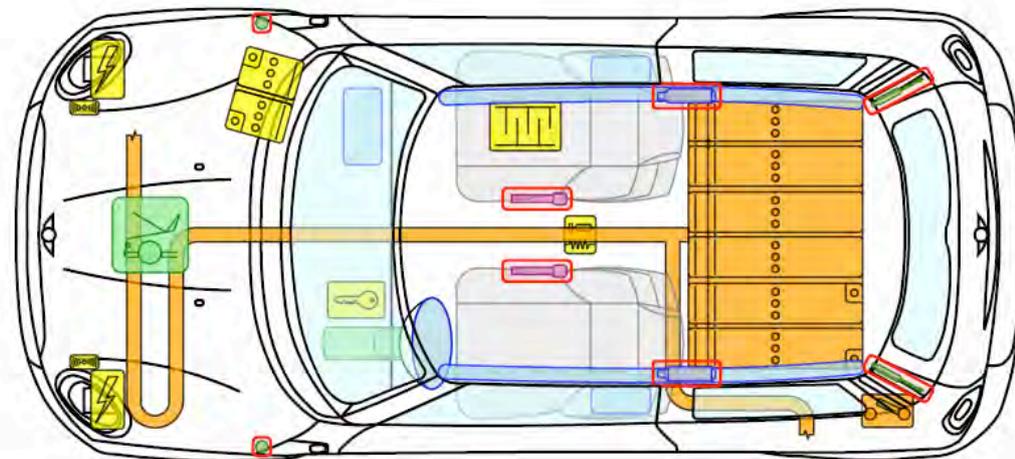


Looking at the side view of this Nissan Pathfinder the mounting positions of the inflators for the curtain airbags gets obvious. Cutting points can be selected with this knowledge. Removing the interior trim is not necessary anymore, however, it can be helpful in case the post have to be cut in close proximity to one of the mounting locations. Furthermore this schematic reveals that a seatbelt pretensioner is mounted at the base of the b-post and a pressurized strut is supporting the rear hatch.

With these information all the vehicle specific problems when dealing with airbags are solved. All you need to do is to maintain distances from the undeployed ones, don't damage the inflators and shutdown the electrical system (after considering if it may be of help before disconnecting).

### Alternative Propulsion:

Every vehicle has some components that you better do not damage (like inflators). This is similar on vehicles with alternative propulsion, while they can have more of those components.



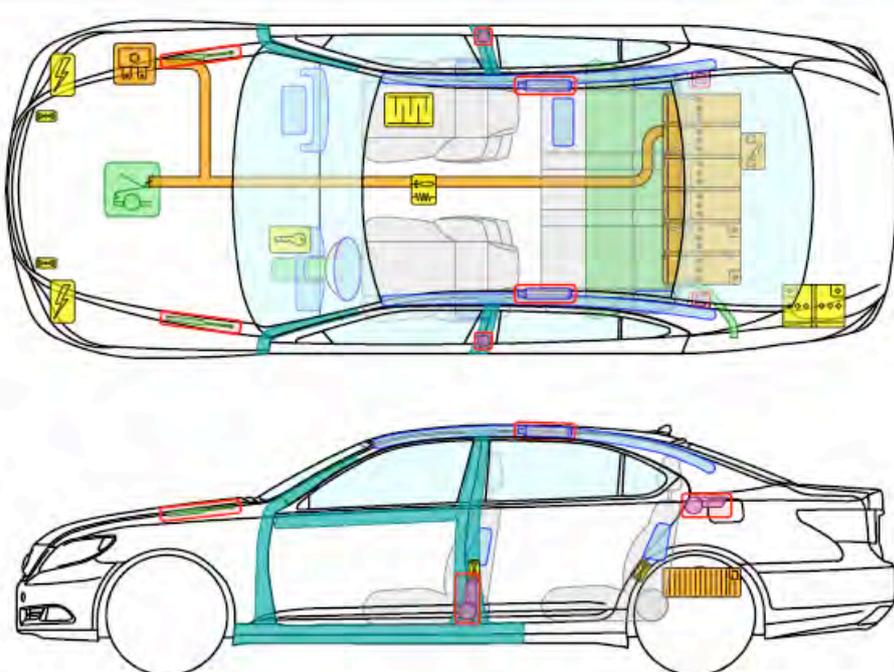
This Mini E carries a li-ion battery instead of the rear seats. The high voltage cabling running to the motor and to the charging point is also obvious. It's important to know where these components are to avoid damaging them.

Furthermore, it's important to know how the propulsion system can be disabled. Built-in safety devices should normally shut-down the propulsion system in case an accident is detected. However, in some occasions airbags will not deploy because of the crash characteristics. It's difficult to determining whether the system has been deactivated or not. Responders should know the procedure to disable the propulsion system, while this procedure is again vehicle specific.

Disconnecting the 12 V battery without switching of the ignition may not be appropriate. Step-by-step instructions may be helpful:

**Crash Recovery System**

**Lexus - LS Hybrid - 600hL - 4dr sedan - 2007-2010**  
Standard Edition: 4040. Fileversion: 1.7. Database: North America 31-May-2010-01.



Hide Roof  
Hide Side  
Hide Seats  
Show Deactivation  
Show Info



Show Legend

Home, Back, Car, Truck, Printer, Forward

Crash Recovery System

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### Deactivation

Always assume the vehicle is powered, even if it is silent!

Immobilize vehicle:

- Block wheels and set parking break.
- Move the shift lever to P (park) position.

Deactivate propulsion system:

- When the 'Ready' indicator in the instrument cluster is illuminated, press the Start/Stop button once (see link 1).
- If possible remove the electronic key and keep at least 16 ft. (5 m) away from the vehicle.
- Disconnect the 12 Volt battery (see link 2).

If Start/Stop button is not accessible click arrow to the right for more information.

Caution! After deactivation the high voltage circuit requires 10 minutes to deplete.

fig. 1   link 1   link 2   ▶   ✕

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Hide Side  
Hide Seats  
**Hide Deactivation**  
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Crash Recovery System

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 Standard Edition: 4040. Fileversion: 1.7. Database: North America 31-May-2010-01.

### Deactivation

If Start/Stop button is not accessible:

- Remove the indicated fuse from the fusebox (see link 1).
- Disconnect the 12 Volt battery (see link 2).

Caution! After deactivation the high voltage circuit requires 10 minutes to deplete.

If either of the deactivation methods could not be performed use extreme caution when working around high voltage components.

link 1   link 2   ◀   ✕

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These are just a few examples why it is better to know what's inside! CRS contains vehicle schematics for all vehicles on the market and you'll be surprised about the variety of mounting locations for all sorts of components. Information can never replace training, it can help tailoring the extrication and increase overall safety.