# INTRODUCTION

# Durango/Aspen

This manual has been prepared for use by all body technicians involved in the repair of the Dodge Durango.

## This manual shows:

- Typical unibody panels contained in these vehicles
- The weld locations for these panels

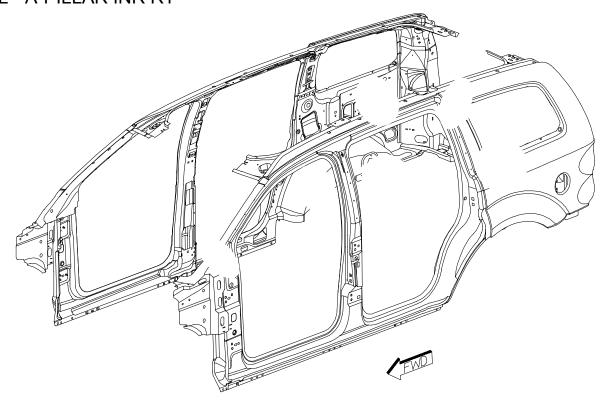
- The types of welds for the panel
- Proper sealer types and correct locations

DaimlerChrysler Motors Corporation reserves the right to make improvements in design or to change specifications to these vehicles without incurring any obligation upon itself.

**Back to Index** 

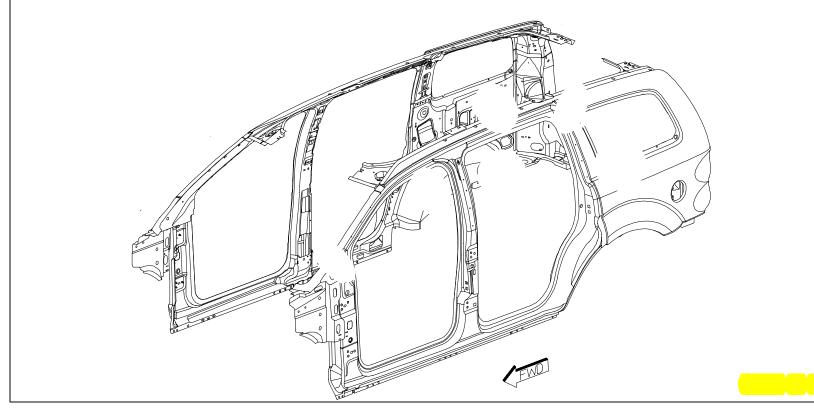


- AA PANEL BODY SIDE APERTURE RT -
- AA PANEL BODY SIDE APERTURE LT -
- AB PANEL BODY SIDE INR RT -
- AB PANEL BODY SIDE INR LT -
- AC REINF BODY SIDE APERTURE EXTENSION RT -
- AC REINF BODY SIDE APERTURE EXTENSION LT -
- AD TAPPING PLATE FRT DOOR HINGE UPR RT -
- AD TAPPING PLATE FRT DOOR HINGE UPR LT -
- AE TAPPING PLATE DOOR HINGE FRT LWR -
- AF PANEL A-PILLAR INR RT -





- AF PANEL A-PILLAR INR LT -
- AG PANEL B-PILLAR RT -
- AG PANEL B-PILLAR LT -
- AH REINF DOGLEG EXTENSION RT -
- AH REINF DOGLEG EXTENSION LT -
- AJ PANEL WHEELHOUSE OTR RT -
- AJ PANEL WHEELHOUSE OTR LT -
- AK REINF C-PILLAR STRIKER RT -
- AK REINF C-PILLAR STRIKER LT -
- AL REINF C-PILLAR ADJUSTABLE TURNING LOOP RT -





AL REINF - C-PILLAR ADJUSTABLE TURNING LOOP LT -

AM REINF - D-PILLAR UPR RT -

AM REINF - D-PILLAR UPR LT -

AN REINF - D-PILLAR LWR RT -

AN REINF - D-PILLAR LWR LT -

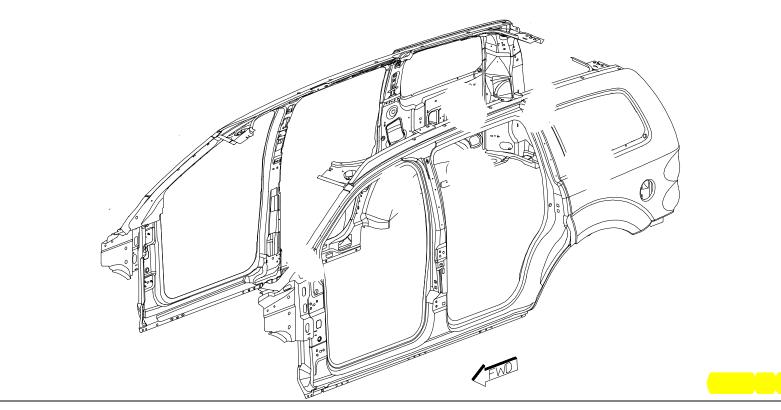
AP PANEL - TAIL LAMP MOUNTING RT -

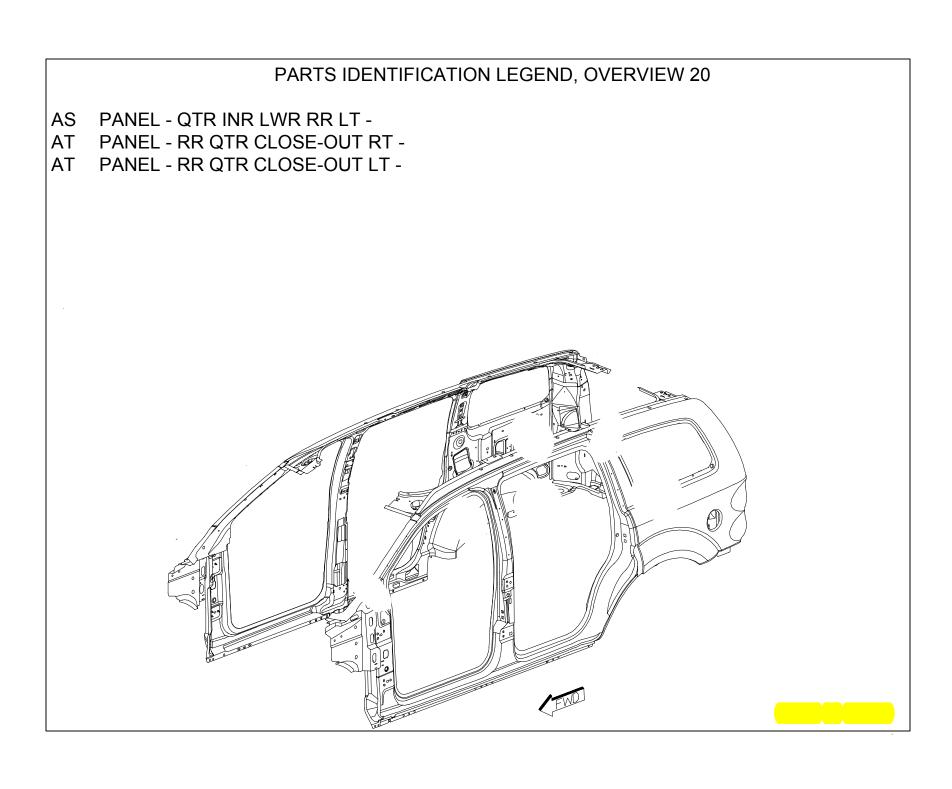
AP PANEL - TAIL LAMP MOUNTING LT -

AR PANEL - LIFTGATE OPENING DRAIN TROUGH RT -

AR PANEL - LIFTGATE OPENING DRAIN TROUGH LT -

AS PANEL - QTR INR LWR RR RT -

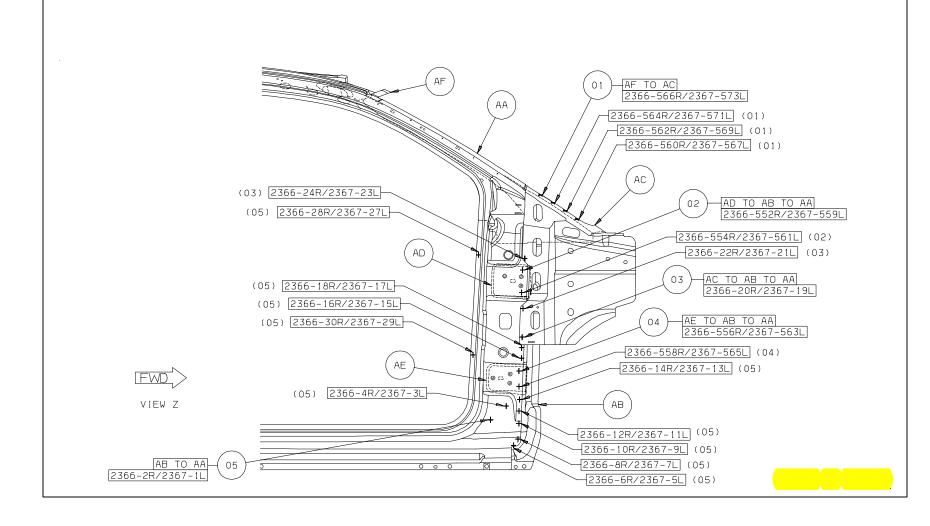




# WELD LAYOUT LOCATION GUIDE

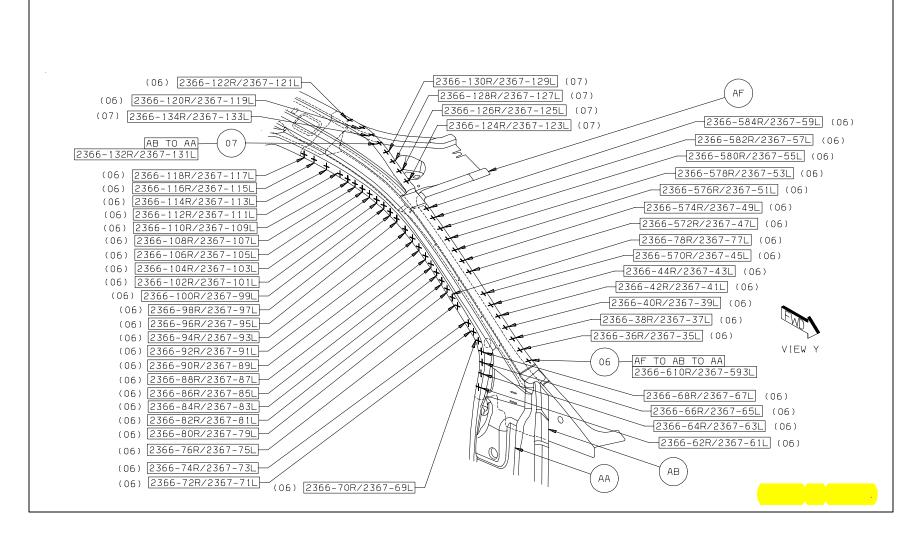


- 2. AD TO AB TO AA 2/SD S/WELD
- 3. AB TO AA 1/SD S/WELD
- 4. AE TO AB TO AA 2/SD S/WELD
- 5. AB TO AA 11/SD S/WELD



# 6. AF TO AB TO AA 43R & 42L S/WELD

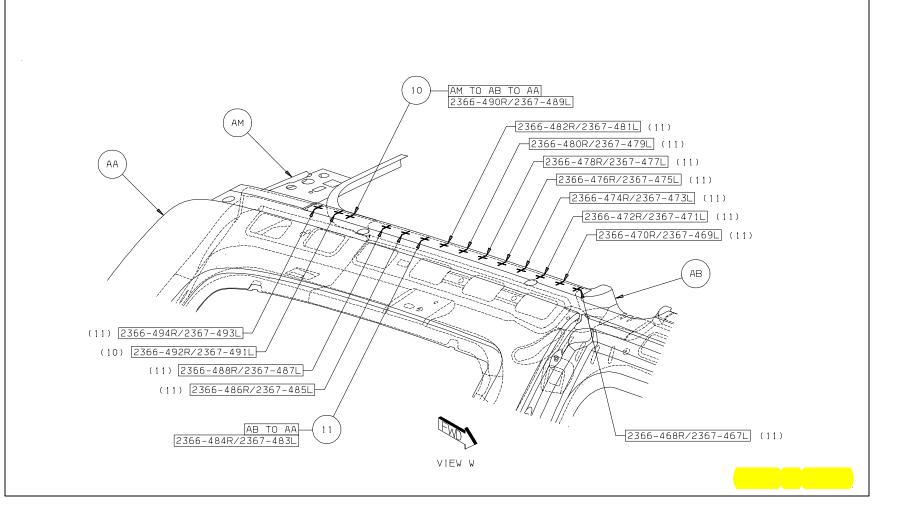
# AB TO AA 4/SD S/WELD



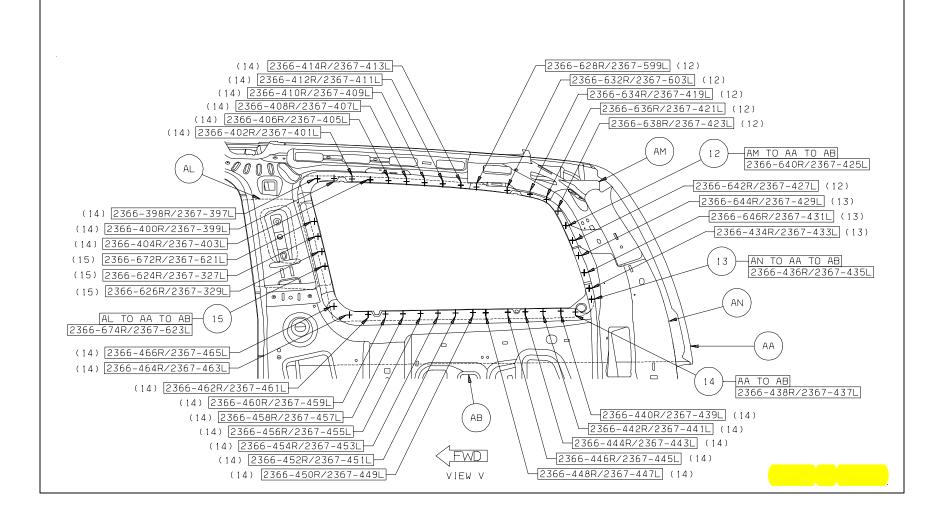
# AG TO AB TO AA 3/SD S/WELD 8. AB TO AA 34/SD S/WELD 2366-256R/2367-255L (09) (09) 2366-258R/2367-257L (09) 2366-260R/2367-259L 2366-254R/2367-253L (09) (09) 2366-262R/2367-2261 2366-252R/2367-251L (09) (09) 2366-266R/2367-265L 2366-250R/2367-249L (09) 2366-248R/2367-247L (09) 2366-246R/2367-245L (09) 2366-270R/2367-269L 2366-244R/2367-243L (08) 2366-154R/2367-153L (08) (09) 2366-268R/2367-267L AG TO AB TO AA 2366-152R/2367-151L (09) 2366-264R/2367-263L (09) 2366-308R/2367-307L 2366-142R/2367-141L (09) 2366-140R/2367-139L (09) 2366-138R/2367-137L (09) (09) 2366-306R/2367-305L 2366-136R/2367-135L (09) (09) 2366-304R/2367-303L (09) 2366-302R/2367-301L (09) 2366-300R/2367-299L (09) 2366-298R/2367-297L (09) 2366-296R/2367-295L (09) 2366-294R/2367-293L (09) 2366-292R/2367-291L (09) 2366-290R/2367-289L 2366-276R/2367-275L (09) (09) 2366-288R/2367-287L -2366-278R/2367-277L (09) AΑ (09) 2366-286R/2367-285L 2366-280R/2367-279L (09) VIEW X (09) 2366-284R/2367-283L 2366-282R/2367-281L (09)



# 11. AB TO AA 11/SD S/WELD

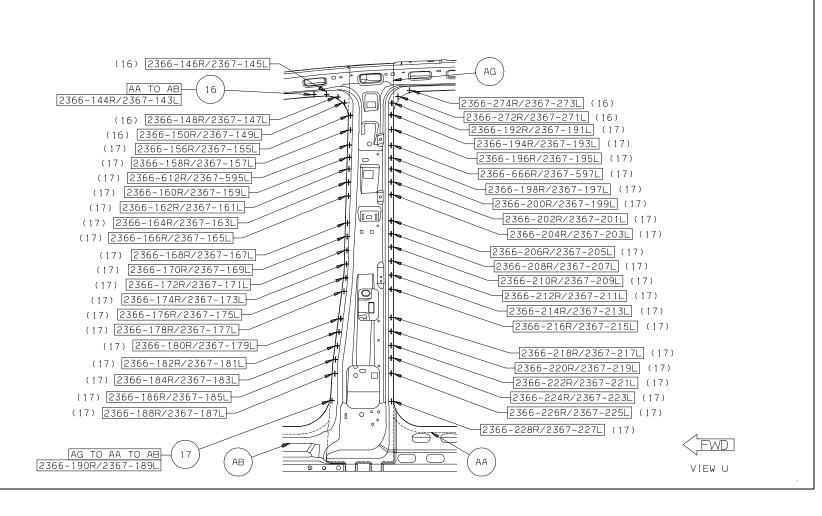


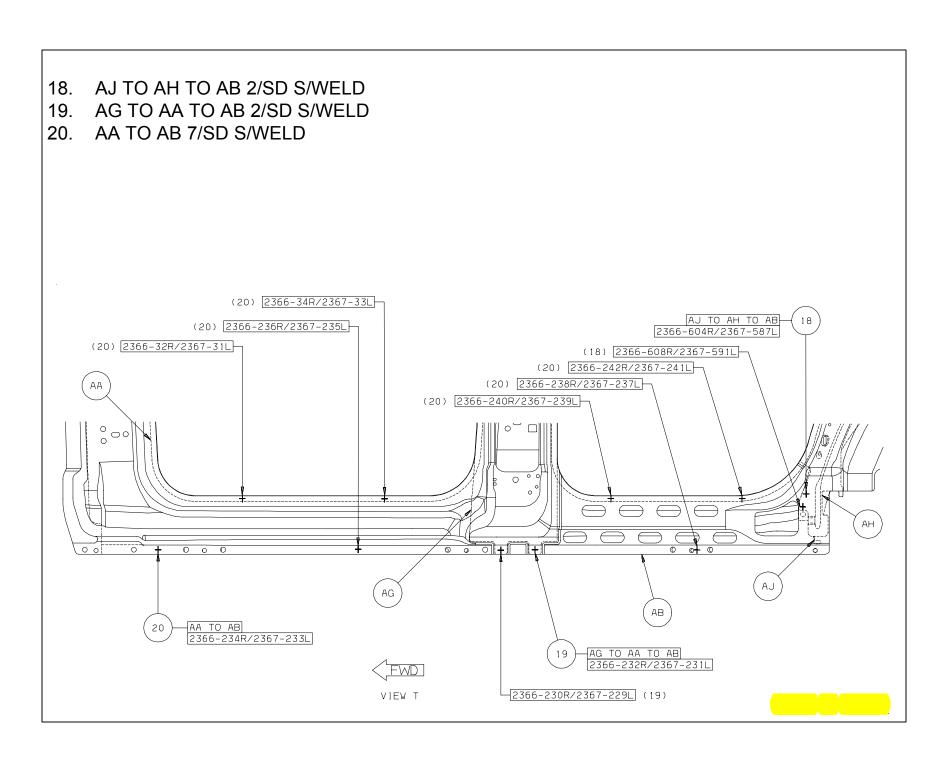
- 12. AM TO AA TO AB 7/SD S/WELD
- 13. AN TO AA TO AB 4/SD S/WELD
- 14. AA TO AB 24R & 22L S/WELD
- 15. AL TO AA TO AB 4/SD S/WELD



## 16. AA TO AB 6/SD S/WELD

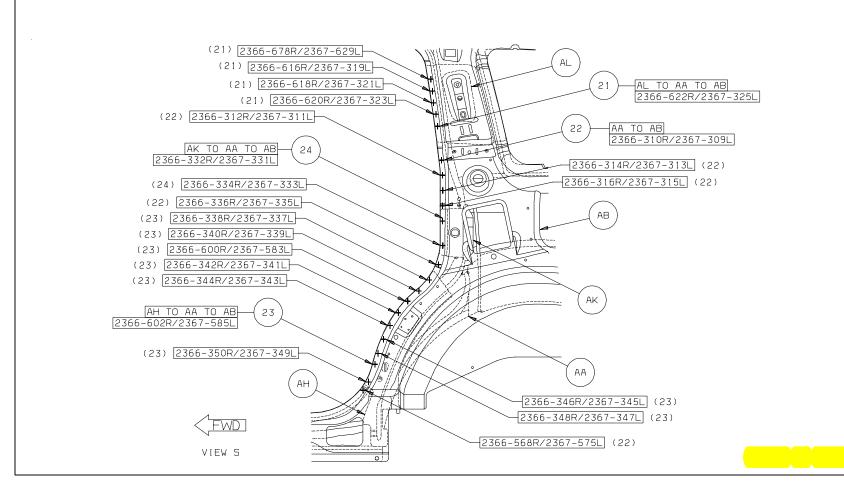
# 17. AG TO AA TO AB 39 S/D S/WELD







- 22. AA TO AB 6/SD S/WELD
- 23. AH TO AA TO AB 9/SD S/WELD
- 24. AK TO AA TO AB 2/SD S/WELD



# 25. AJ TO AB 23/SD S/WELD 26. AH TO AB 7/SD S/WELD (25) 2366-372R AJ TO AB 2366-376R (25) 2366-370R (25) 2366-368R (25) 2366-588R -2366-380R (25) (25) 2366-586R (25) 2366-360R AH TO AB-2366-598R

(26) 2366-358R (26) 2366-356R (26) 2366-596R (26) 2366-354R (26) 2366-594R (26) 2366-352R 2366-384R (25)

2366-388R (25)

-2366-390R (25) -2366-392R (25)

2366-394R (25) -2366-648R (25)

AB

2366-386R (25)

FWD

VIEW R

(RT SD ONLY)

-2366-378R (25)

2366-374R (25)

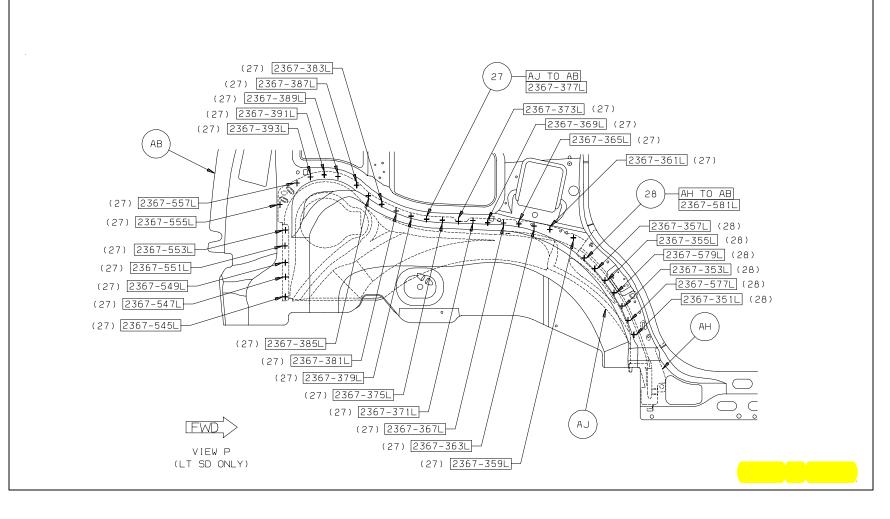
2366-592R (25) 2366-590R (25)

2366-366R (25) -2366-364R (25)

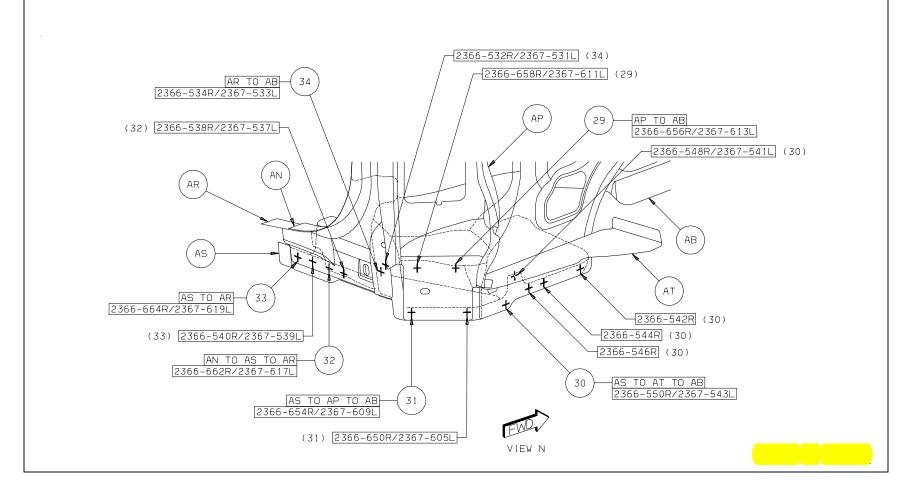
2366-362R (25)

# 27. AJ TO AB 25/SD S/WELD

# 28. AH TO AB 7/SD S/WELD

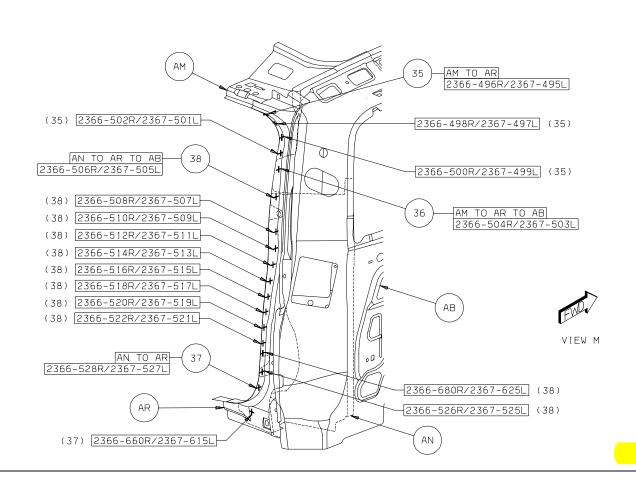


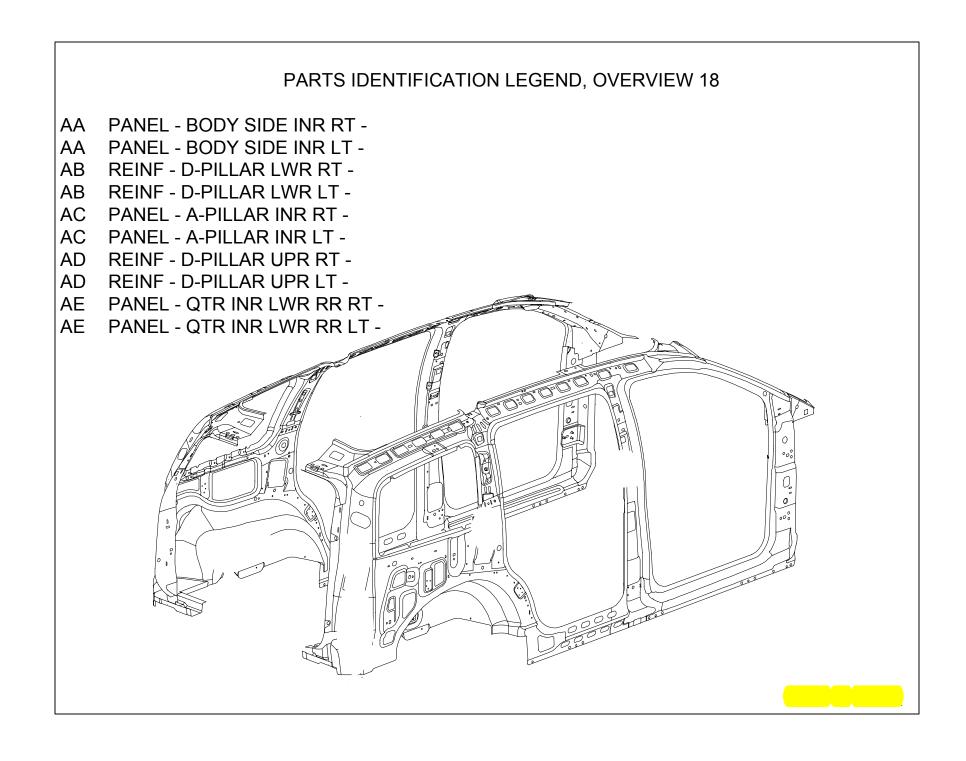
- 29. AP TO AB 2/SD S/WELD
- 30. AS TO AT TO AB 5R/2L S/WELD
- 31. AS TO AP TO AB 2/SD S/WELD
- 32. AN TO AS TO AR 2/SD /SWELD
- 33. AS TO AR 2/SD S/WELD
- 34. AR TO AB 2/SD S/WELD





- 36. AM TO AR TO AB 1/SD S/WELD
- 37. AN TO AR 2/SD S/WELD
- 38. AN TO AR TO AB 11/SD S/WELD





# PARTS IDENTIFICATION LEGEND, OVERVIEW 18

AF REINF - C-PILLAR ADJUSTABLE TURNING LOOP RT -

AF REINF - C-PILLAR ADJUSTABLE TURNING LOOP LT -

AG REINF ASSY - B-PILLAR W/ADJUSTABLE TURNING LOOP RT -

AG REINF ASSY - B-PILLAR W/ADJUSTABLE TURNING LOOP LT -

AH TAPPING PLATE - FRT DOOR HINGE UPR RT -

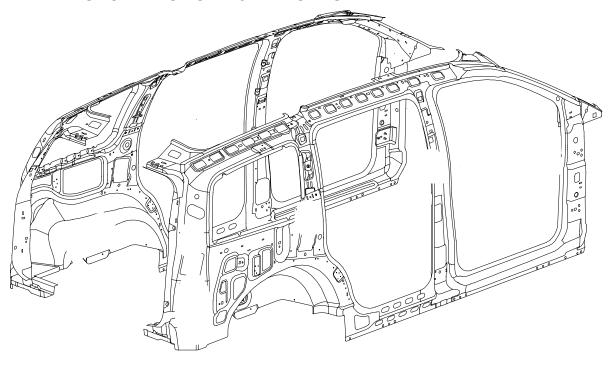
AH TAPPING PLATE - FRT DOOR HINGE UPR LT -

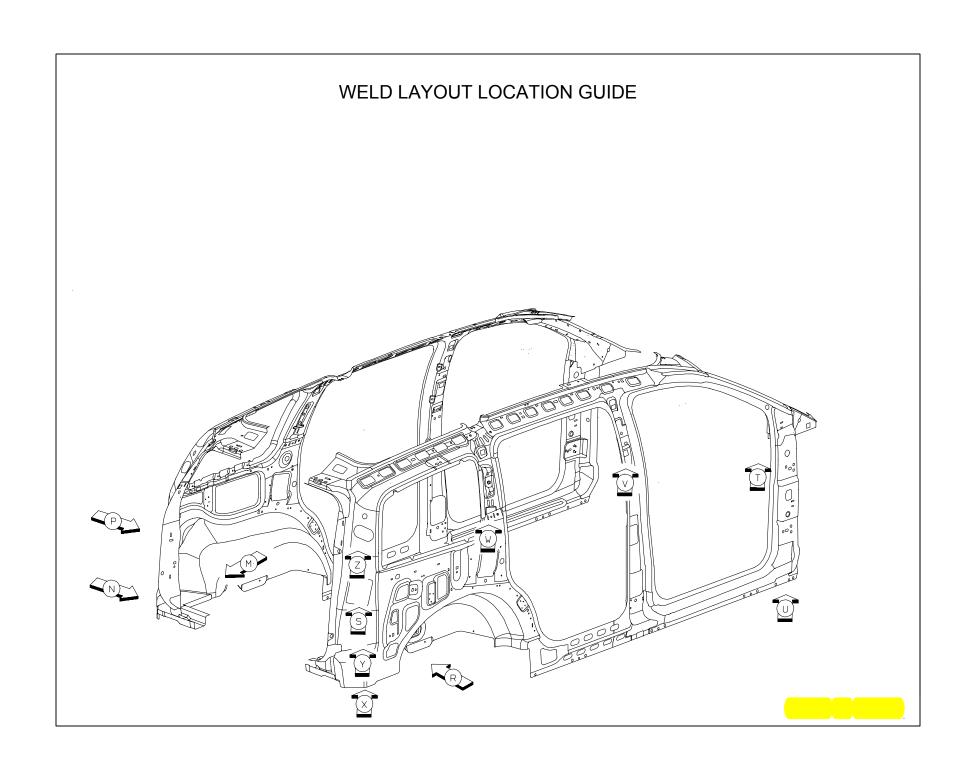
AJ TAPPING PLATE - DOOR HINGE FRT LWR -

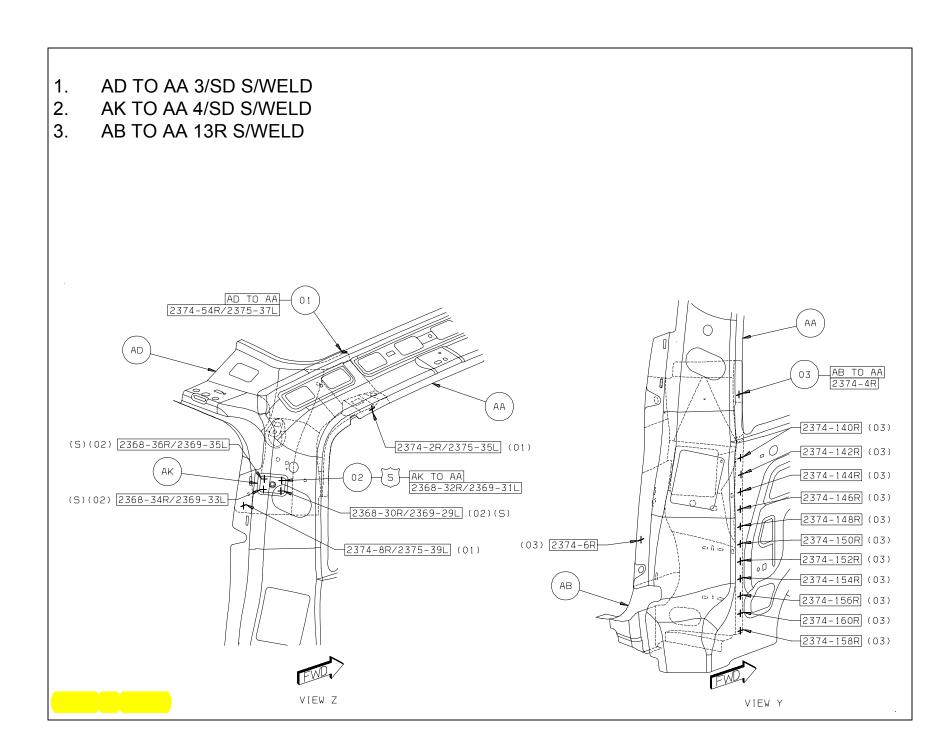
AK TAPPING PLATE - QTR INR D-PILLAR TURNING LOOP -

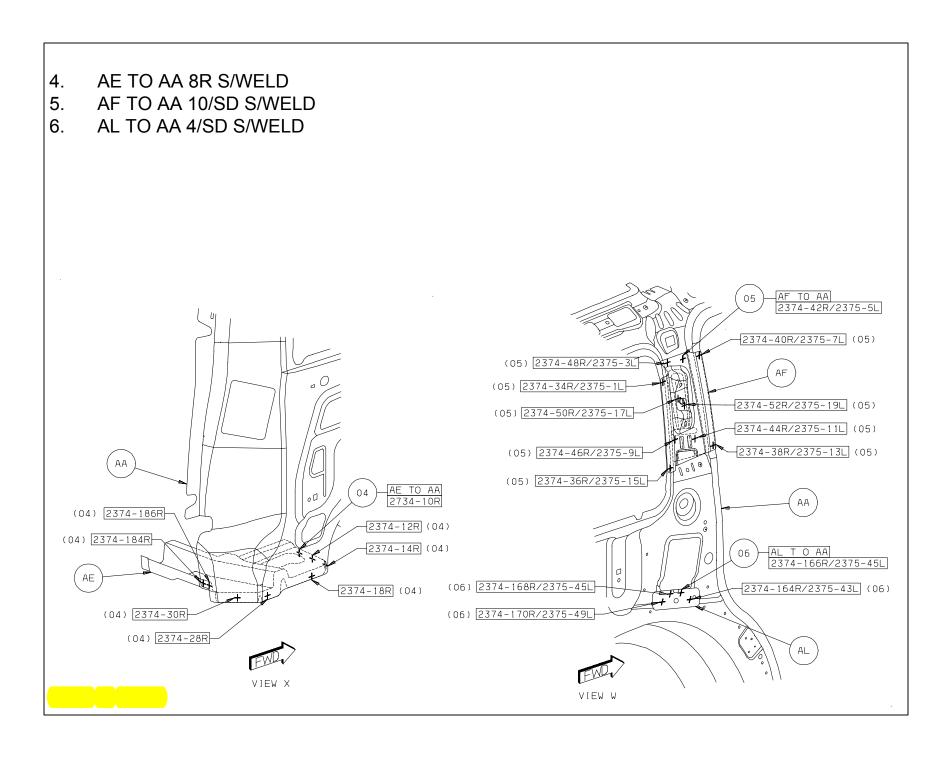
AL PLATE - RETRACTOR ANCHOR - REAR SEAT

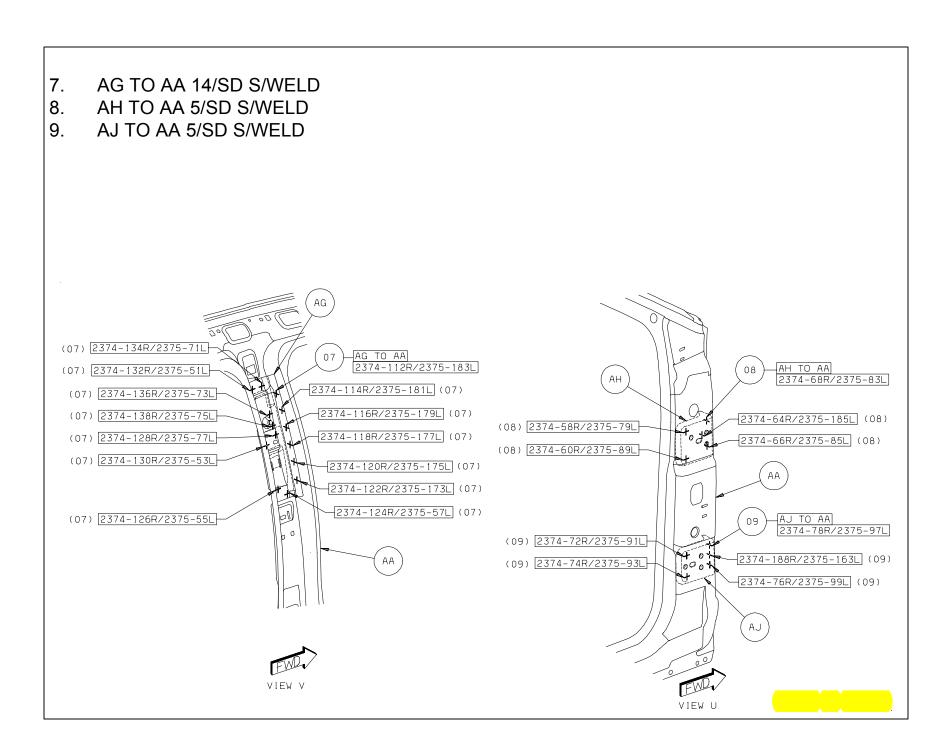
AL PLATE - RETRACTOR ANCHOR - 3RD ROW SEAT



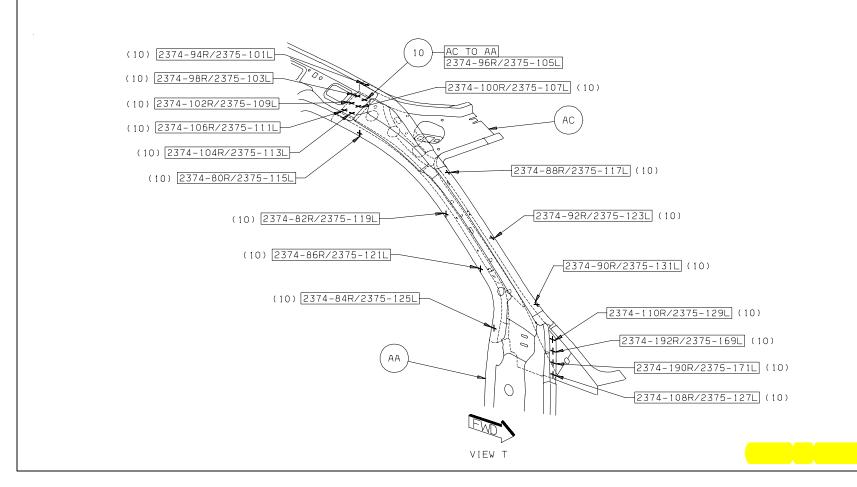


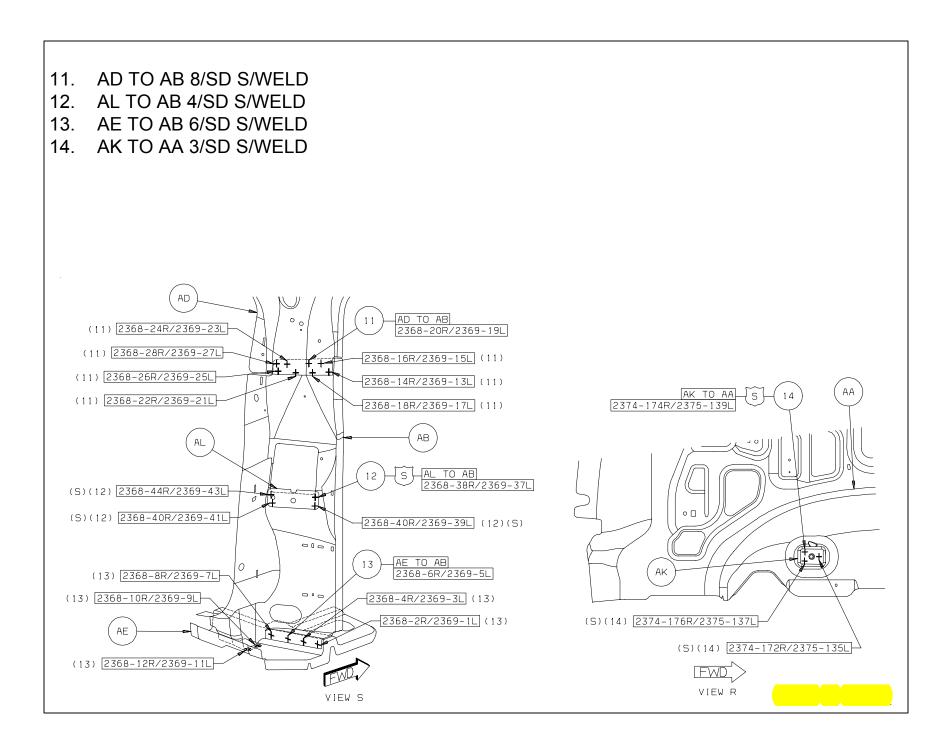






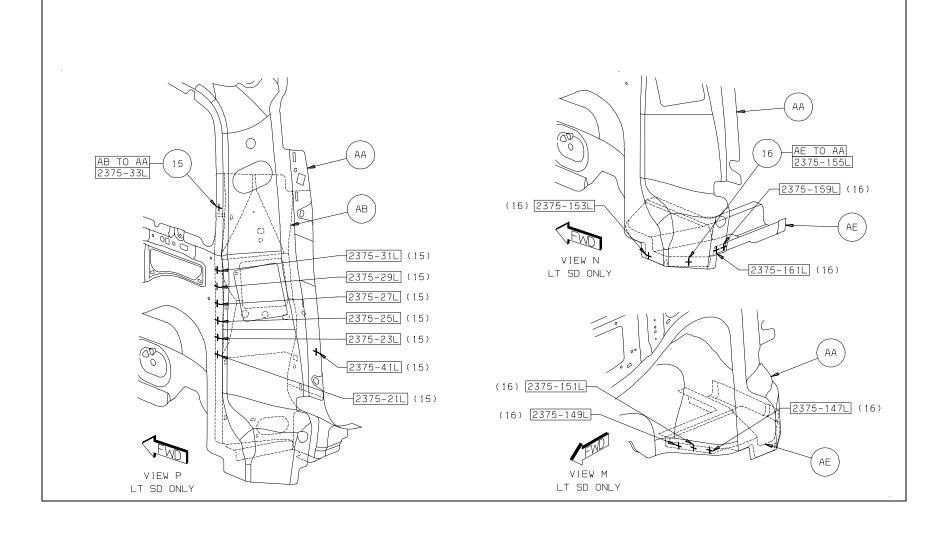
# 10. AC TO AA 18/SD S/WELD

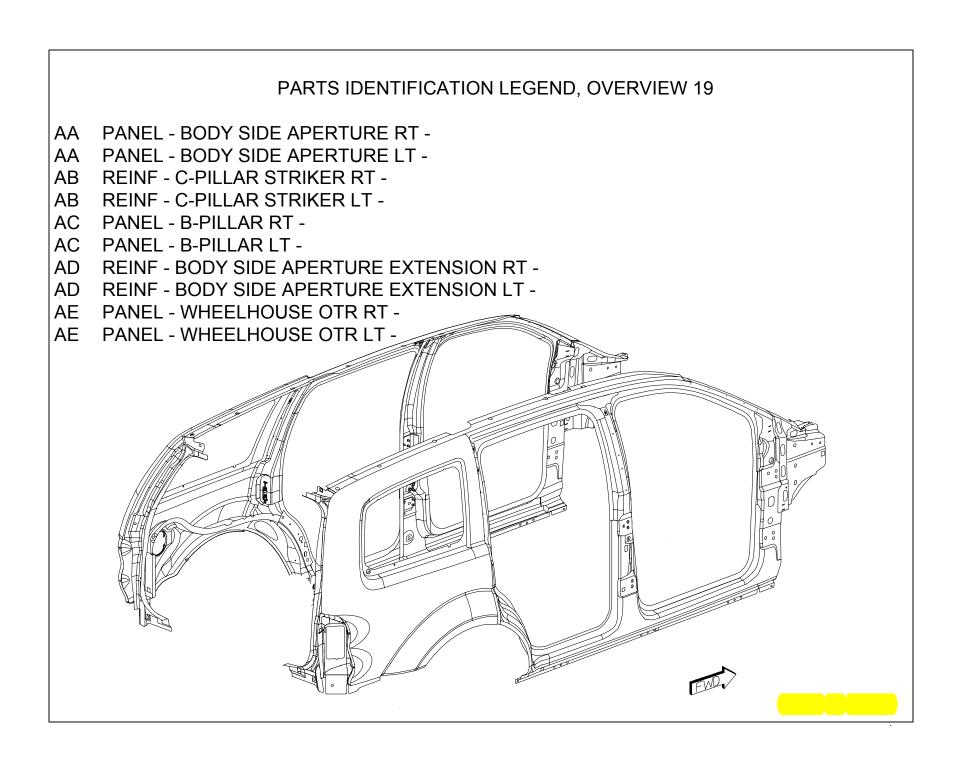


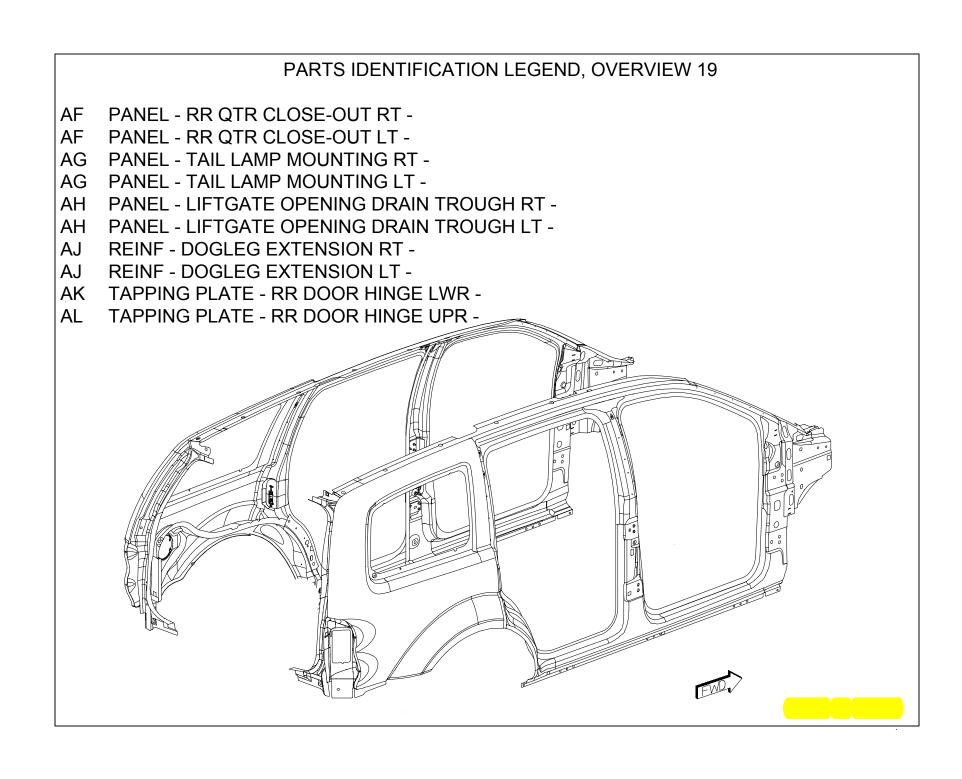


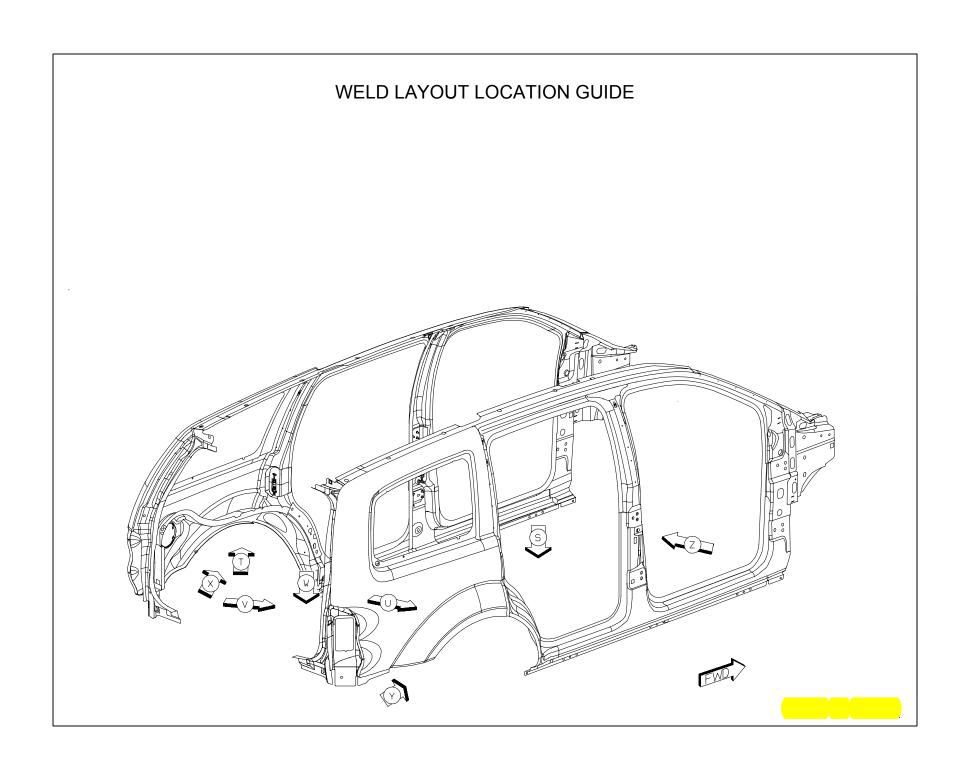
# 15. AB TO AA 8L S/WELD

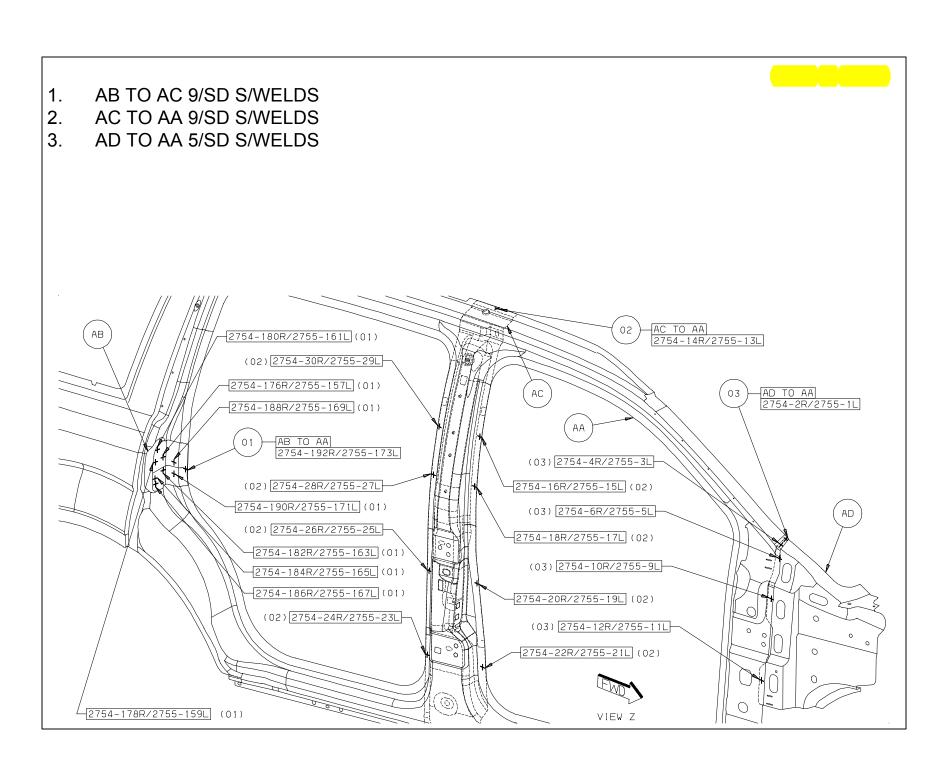
# 16. AE TO AA 7L S/WELD









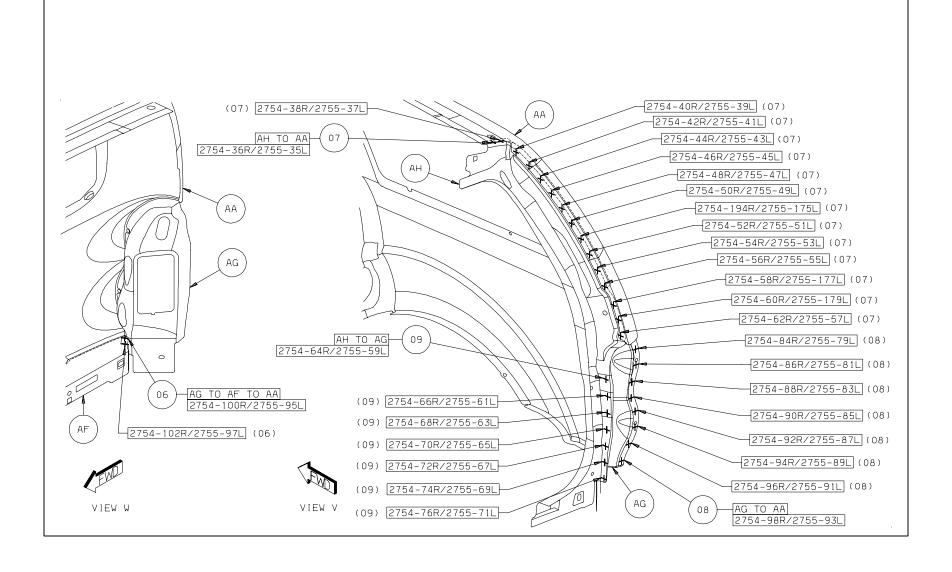


# AE TO AA 27R S/WELDS AE TO AA-2754-160R 2754-144R (04) (04) 2754-162R 2754-142R (04) (04) 2754-164R 2754-140R (04) (04) 2754-166R 2754-138R (04) (04) 2754-168R (04) 2754-170R 2754-136R (04) (04) 2754-172R (04) 2754-174R ΑА (04) 2754-196R (04) 2754-158R 2754-134R (04) (04) 2754-156R 2754-132R (04) (04) 2754-154R 2754-130R (04) (04) 2754-152R 2754-124R (04) (04) 2754-150R VIEW Y 2754-126R (04) (RT SIDE ONLY) (04) 2754-148R (04) 2754-146R 2754-128R (04)

# AE TO AA 32L S/WELDS 5. (05) 2755-123L 2755-125L (05) (05) 2755-121L 2755-127L (05) 2755-129L (05) (05) 2755-119L 2755-131L (05) (05) 2755-117L 2755-133L (05) (05) 2755-115L 2755-135L (05) (05) 2755-113L 2755-137L (05) (05) 2755-111L -2755-139L (05) (05) 2755-109L 2755-141L (05) (05) 2755-107L (05) 2755-187L (05) 2755-143L AE TO AA 2755-185L (05) 2755-145L (05) 2755-147L (05) 2755-149L (05) 2755-151L (05) 2755-189L АА (05) 2755-153L (05) 2755-191L (05) 2755-155L (05) 2755-193L VIEW X (05) 2755-195L (05) 2755-105L (LT SIDE ONLY)

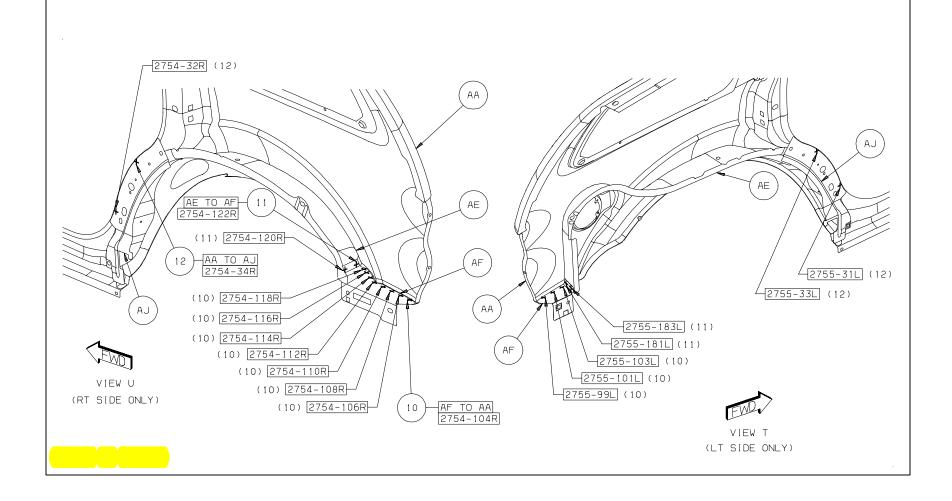


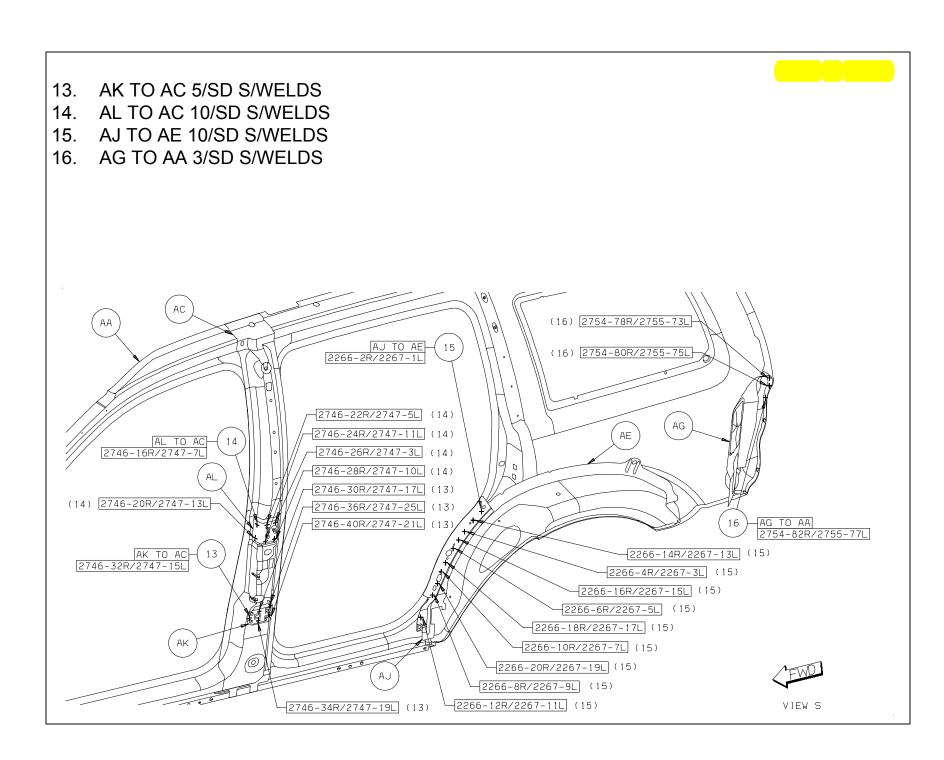
- 7. AH TO AA 15/SD S/WELDS
- 8. AG TO AA 8/SD S/WELDS
- 9. AH TO AG 7/SD S/WELDS





- 11. AE TO AF 4 S/WELDS
- 12. AJ TO AA 4 S/WELDS





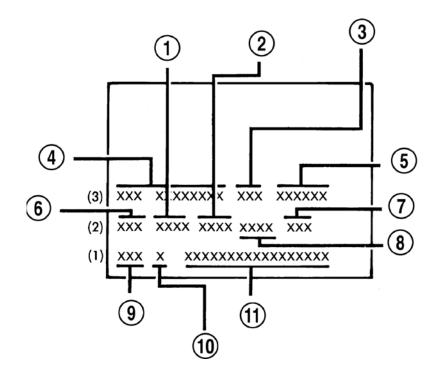
# WELD LOCATION OVERVIEW ZONES OVERVIEW 20 OVERVIEW 21

#### **BODY CODE PLATE DESCRIPTION**

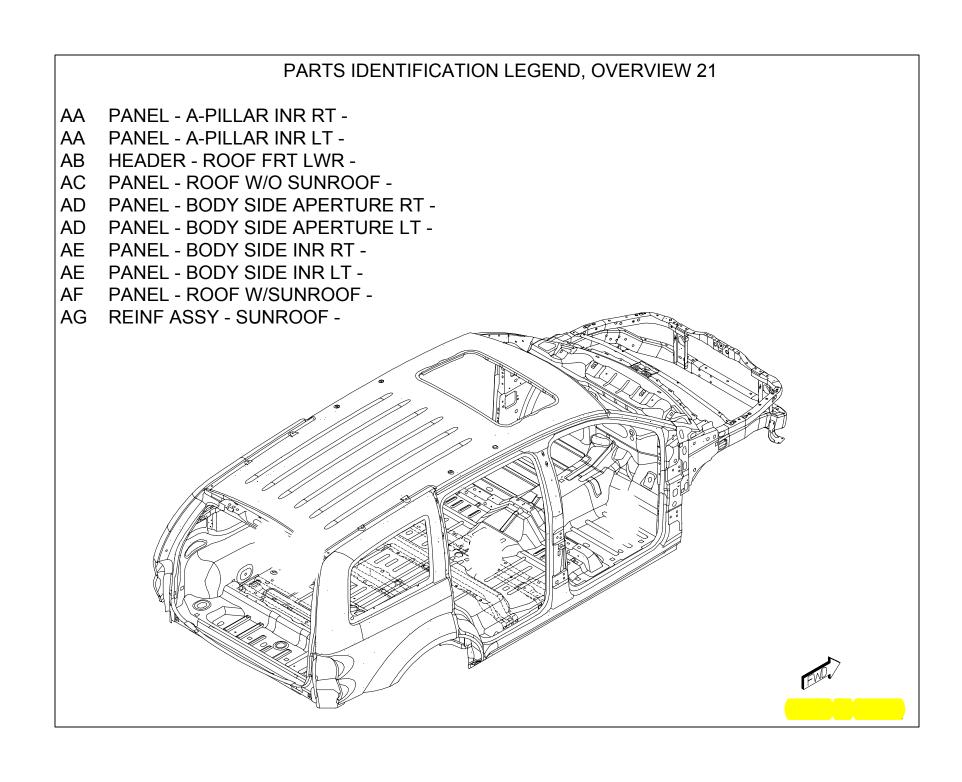
The Body Code Plate is located in the passenger side front wheel well. There are seven lines of information on the body code plate. Lines 4, 5, 6, and 7 are not used to define service information. Information reads from left to right, starting with line 3 in the center of the plate to line 1 at the bottom of the plate.

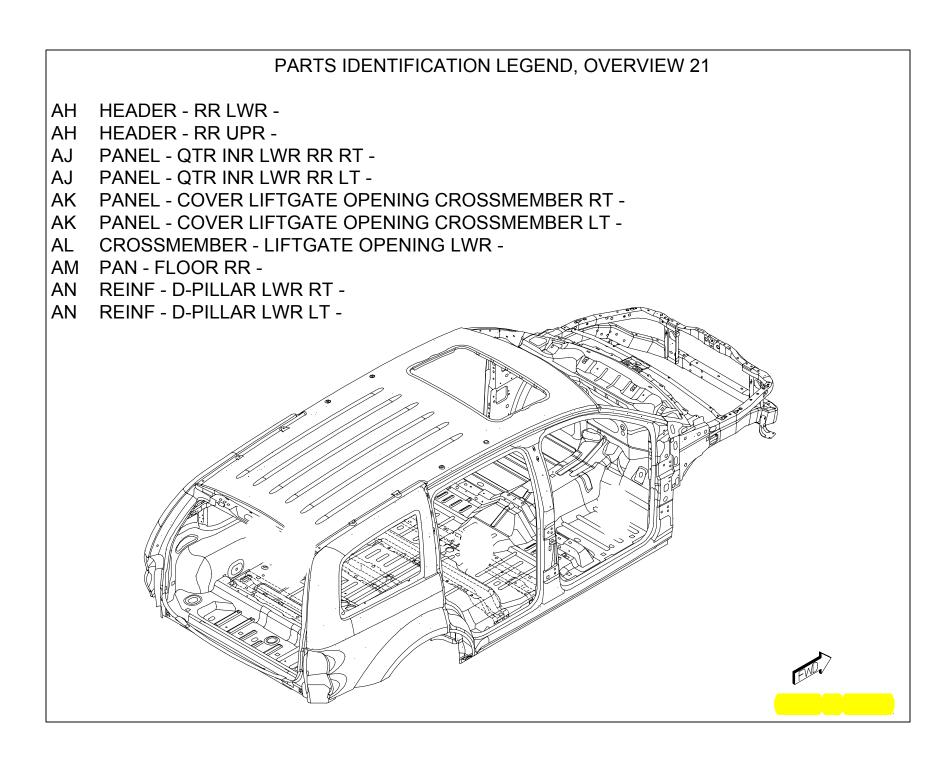
#### **BODY CODE PLATE**

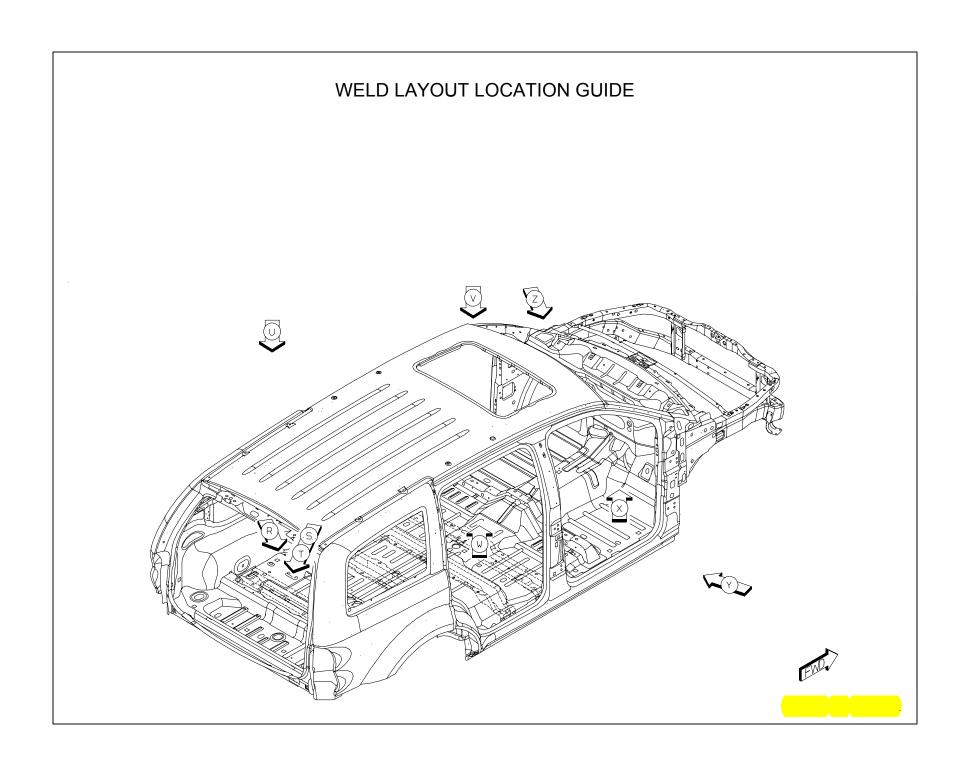
- 1 PRIMARY PAINT
- 2 SECONDARY PAINT
- 3 VINYL ROOF
- 4 VEHICLE ORDER NUMBER
- 5 CAR LINE SHELL
- 6 PAINT PROCEDURE
- 7 ENGINE
- 8 TRIM
- 9 TRANSMISSION
- 10 MARKET
- 11 VIN



**NOTE:** Paint Code may also be found on safety certification label on inside of driver side door jamb.

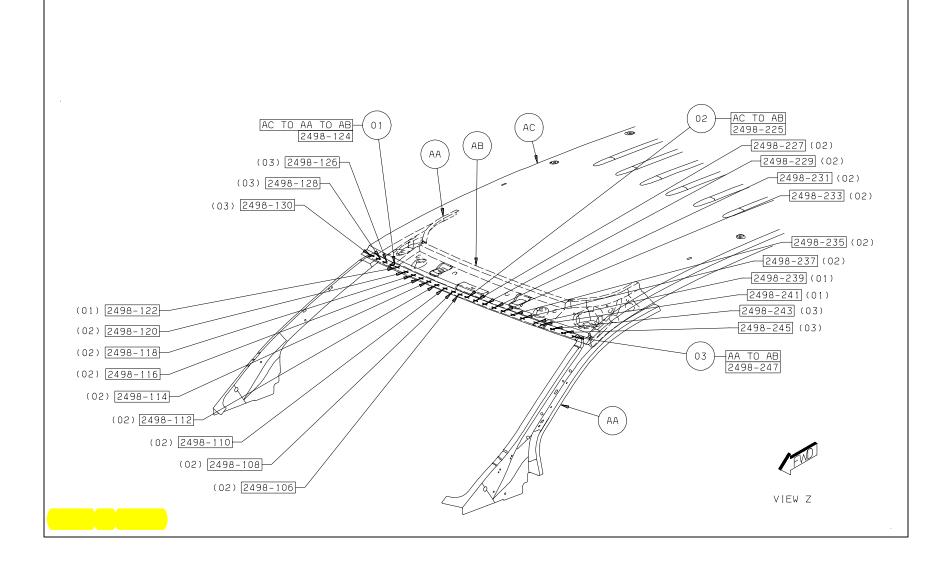


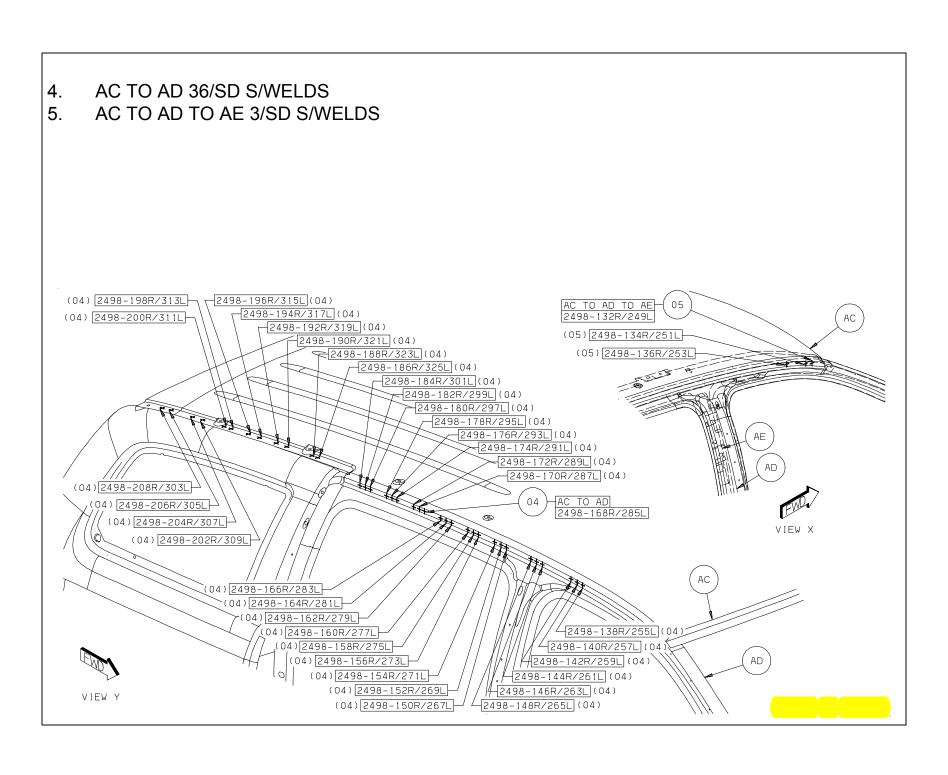


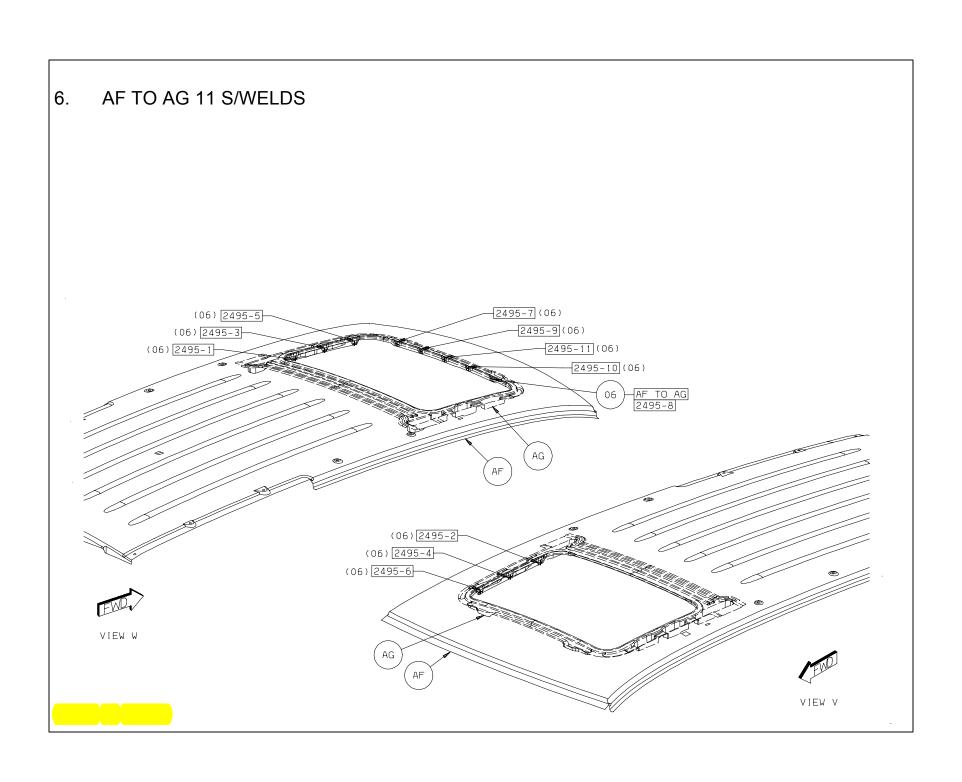


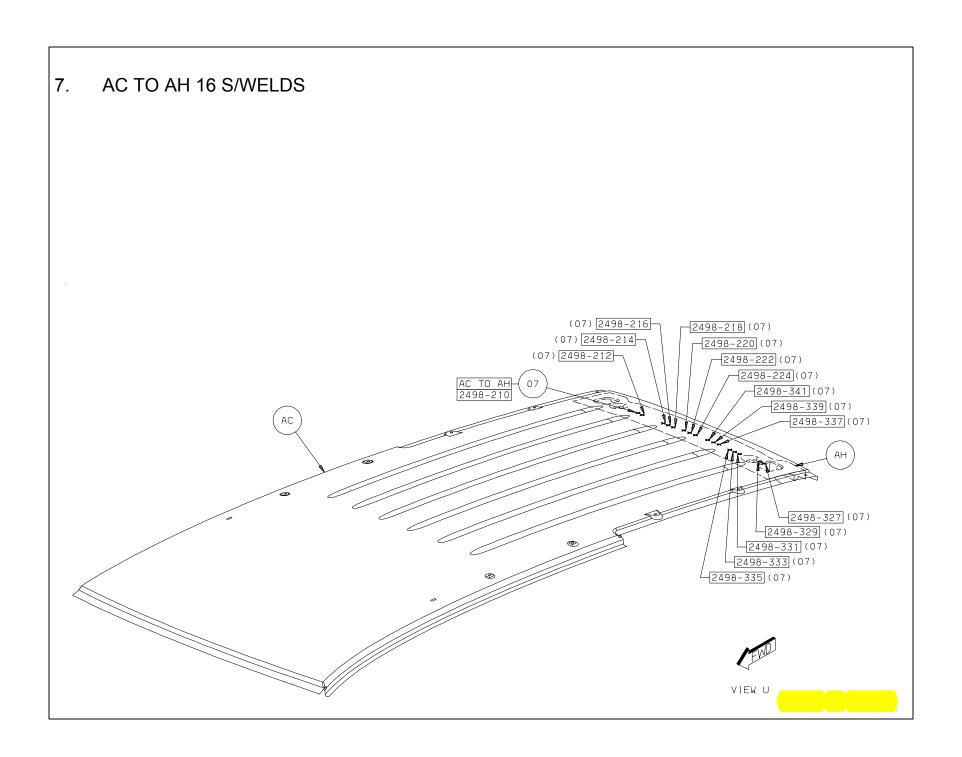


- 2. AC TO AB 15 S/WELDS
- 3. AA TO AB 6 S/WELDS

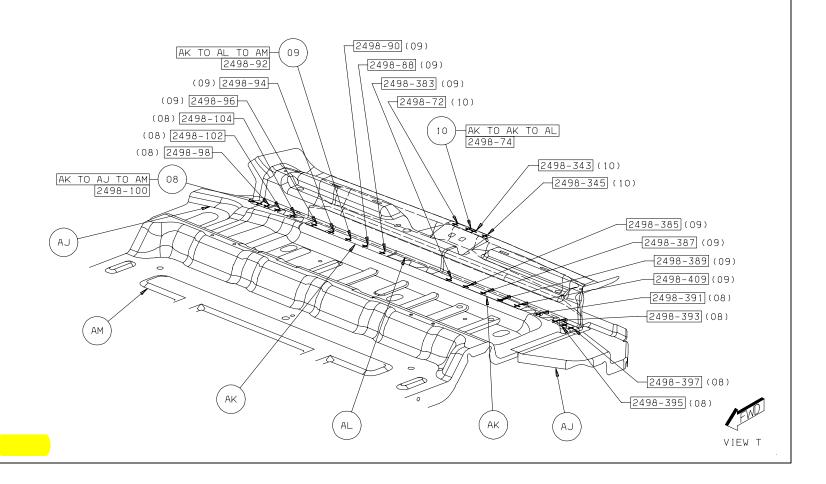






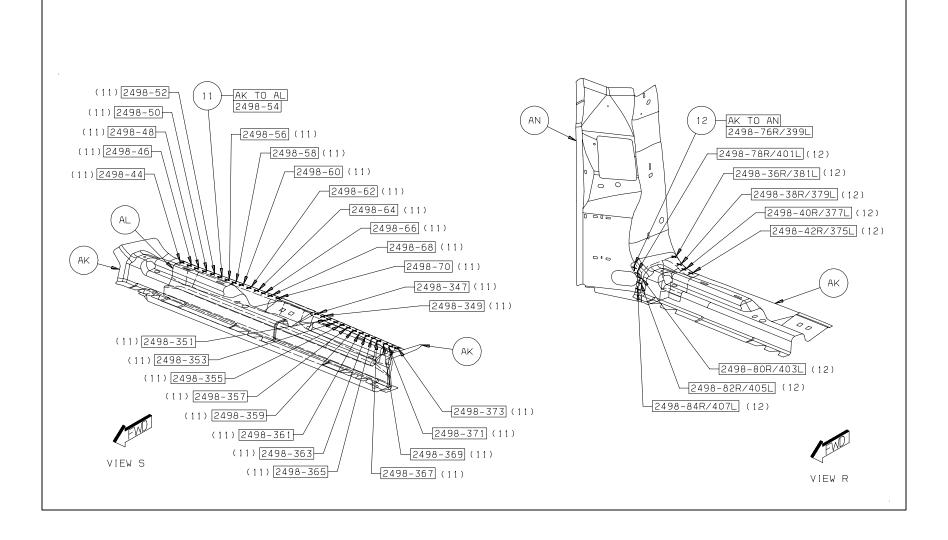


- 8. AK TO AJ TO AM 8 S/WELDS
- 9. AK TO AL TO AM 10 S/WELDS
- 10. AK TO AK TO AL 4 S/WELDS

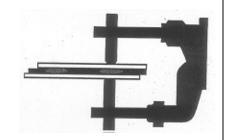


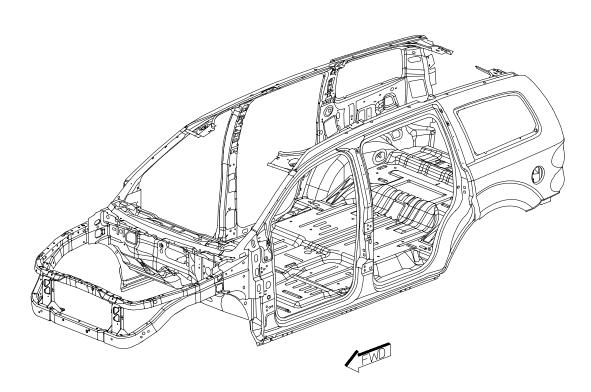
#### 11. AK TO AL 28 S/WELDS

#### 12. AK TO AL 9/SD S/WELDS



# WELD LOCATION OVERVIEW ZONES







AA PANEL - A-PILLAR INR RT -

AA PANEL - A-PILLAR INR LT -

AB HEADER - ROOF FRT LWR -

AC PANEL - COWL SIDE RT -

AC PANEL - COWL SIDE LT -

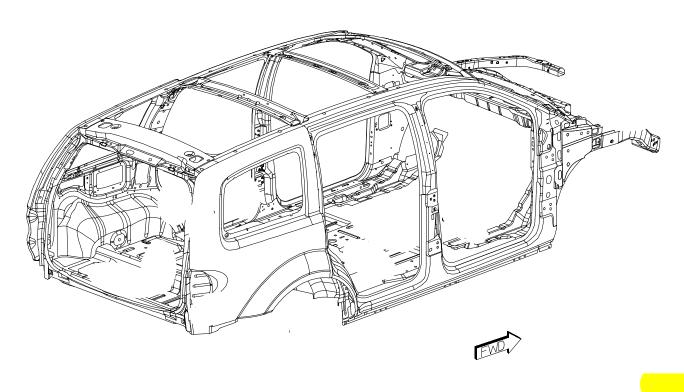
AD PANEL - BODY SIDE INR RT -

AD PANEL - BODY SIDE INR LT -

AE SILL - INR RT -

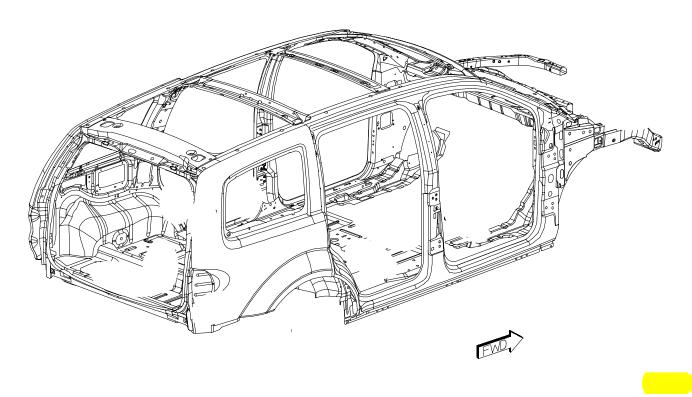
AE SILL - INR LT -

AF SUPPORT - UNDERBODY HOLD-DOWN FRT RT -



## PARTS IDENTIFICATION LEGEND, OVERVIEW 22

- AF SUPPORT UNDERBODY HOLD-DOWN FRT LT -
- AG REINF BODY SIDE APERTURE EXTENSION RT -
- AG REINF BODY SIDE APERTURE EXTENSION LT -
- AH PANEL PLENUM LWR -
- AJ PANEL COWL BAR -
- AK TUBE FRT FENDER SUPPORT RT -
- AK TUBE FRT FENDER SUPPORT LT -
- AL TUBE RADIATOR & FRT FENDER RT -
- AL TUBE RADIATOR & FRT FENDER LT -
- AM PANEL BODY SIDE APERTURE RT -





AM PANEL - BODY SIDE APERTURE LT -

AN HEADER - RR LWR -

AP REINF - D-PILLAR UPR RT -

AP REINF - D-PILLAR UPR LT -

AR BOW - ROOF #2 -

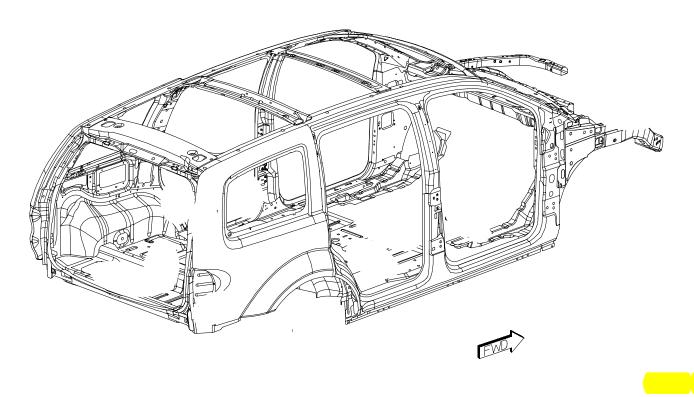
AS BOW - ROOF #1 -

AT HEADER - RR UPR -

AU PANEL - LIFTGATE OPENING DRAIN TROUGH RT -

AU PANEL - LIFTGATE OPENING DRAIN TROUGH LT -

AV PAN - FLOOR RR -





AW CROSSMEMBER - C-PILLAR RT -

AW CROSSMEMBER - C-PILLAR LT -

AX REINF - DOGLEG EXTENSION RT -

AX REINF - DOGLEG EXTENSION LT -

AY CROSSMEMBER - RR SEAT SUPPORT TRIM -

AZ REINF - RR FLOOR PAN RT -

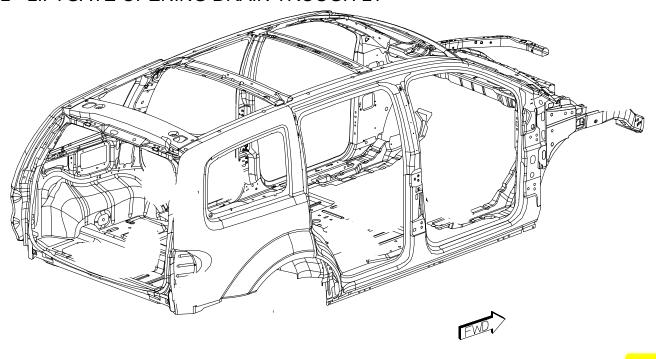
BA PANEL - QTR INR LWR RR RT -

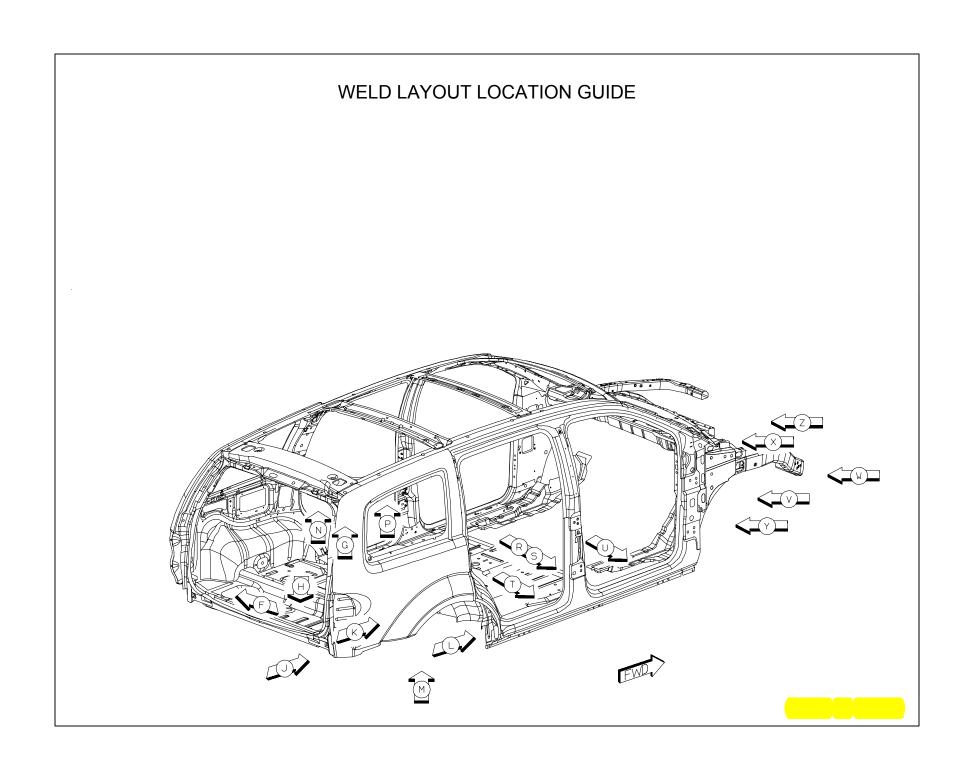
BA PANEL - QTR INR LWR RR LT -

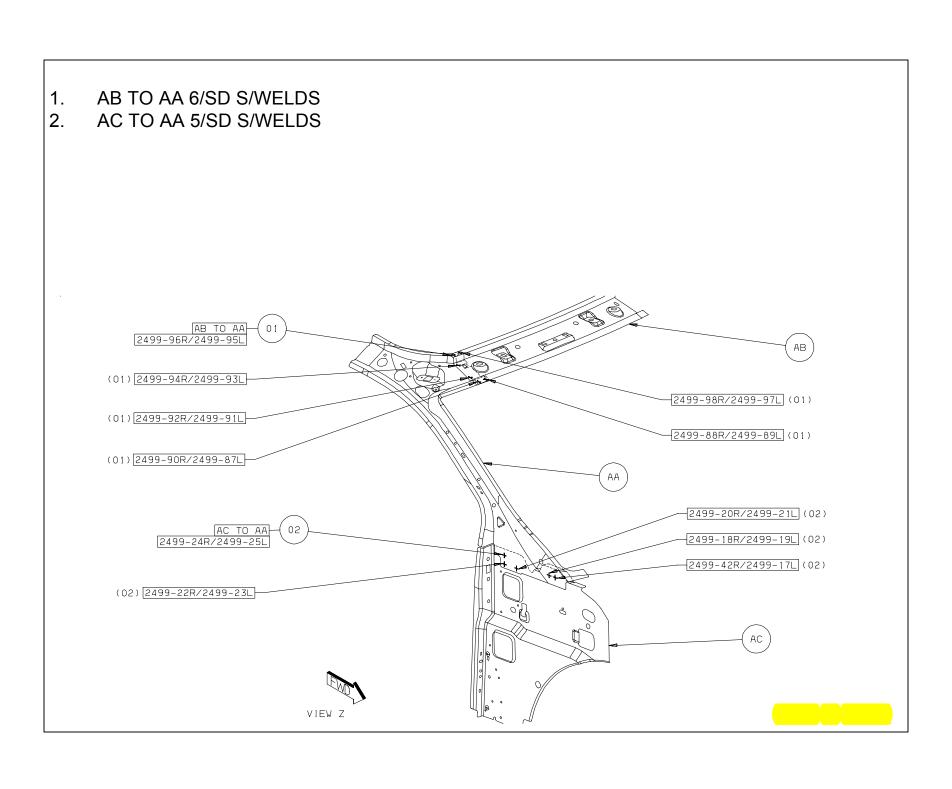
BB CROSSMEMBER - LIFTGATE OPENING LWR -

BC PANEL - LIFTGATE OPENING DRAIN TROUGH RT -

BC PANEL - LIFTGATE OPENING DRAIN TROUGH LT -

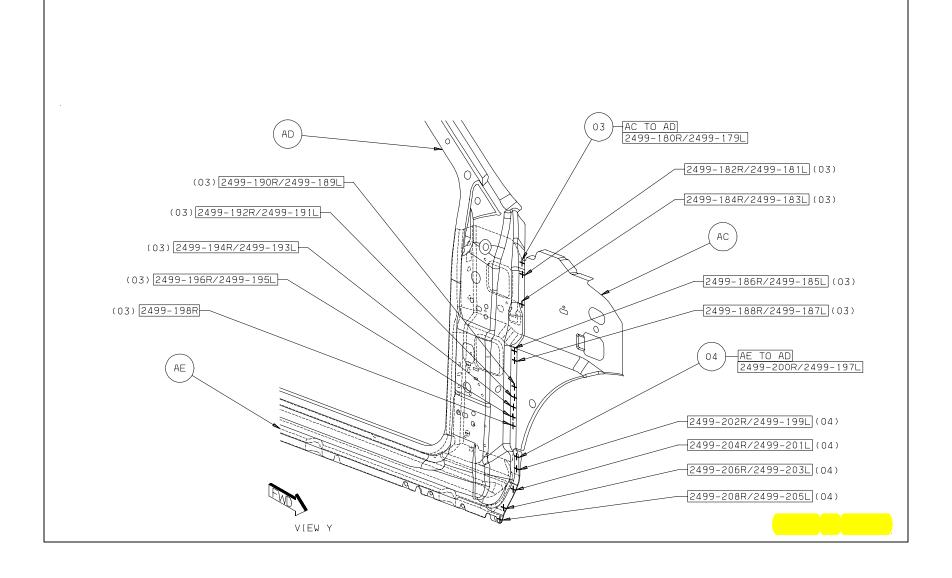


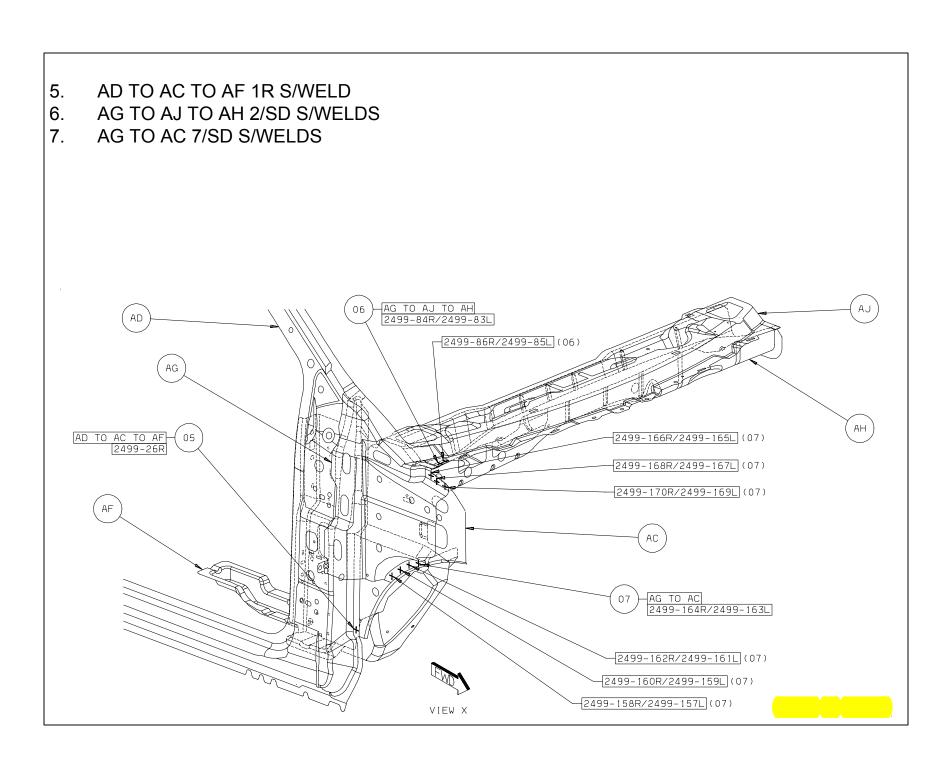


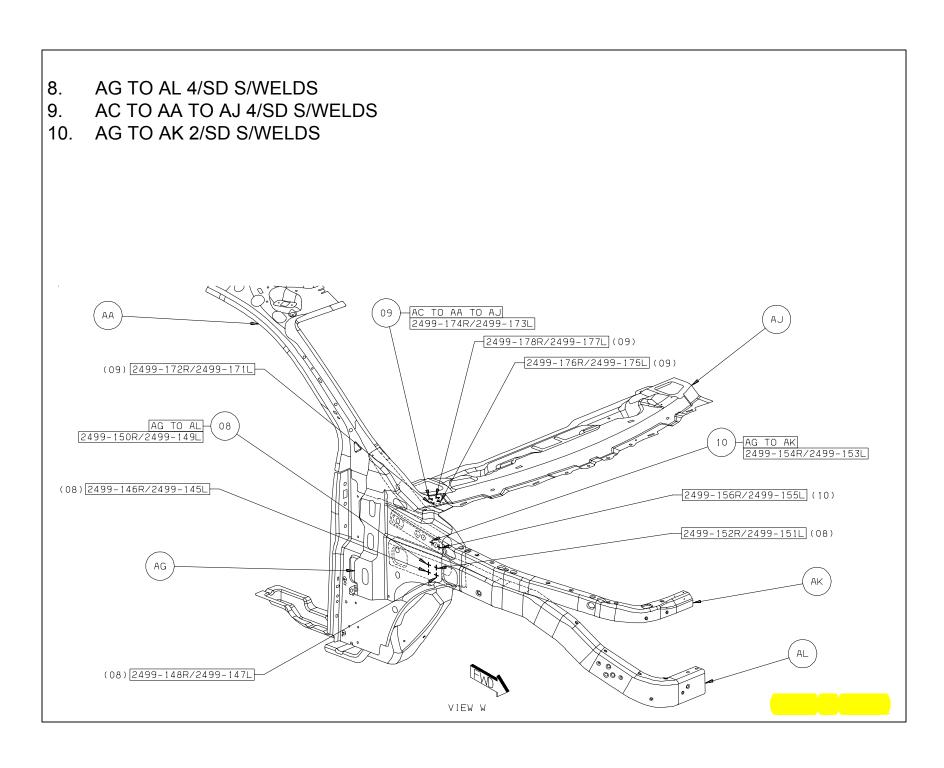


# 3. AC TO AD 10R & 9L S/WELDS

#### 4. AE TO AD 5/SD S/WELDS





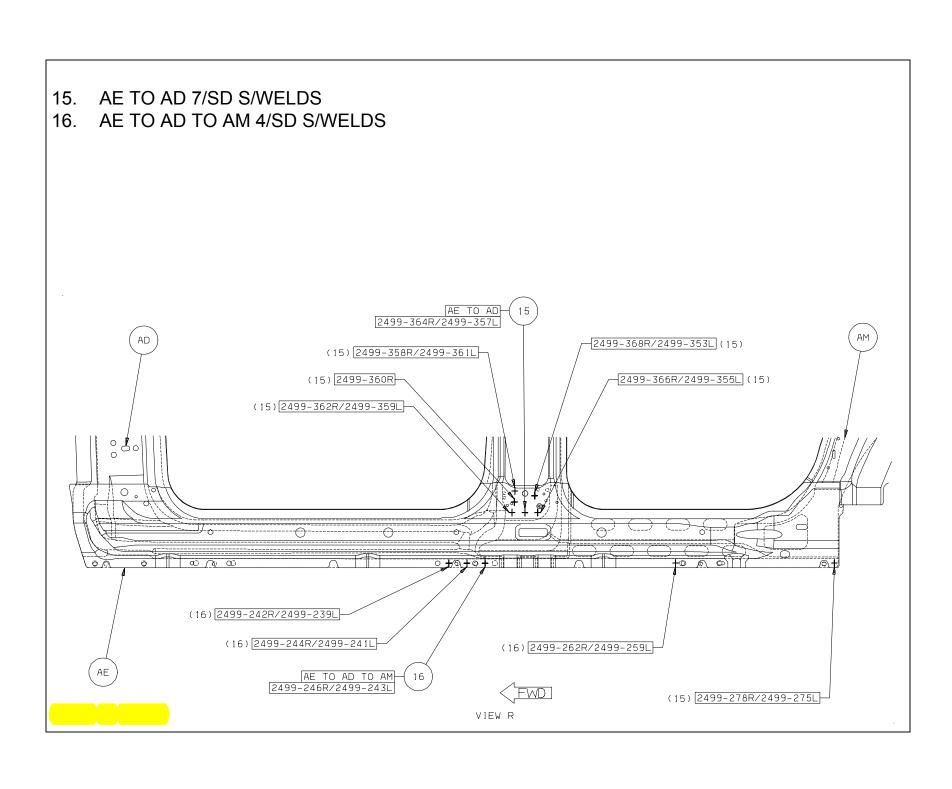


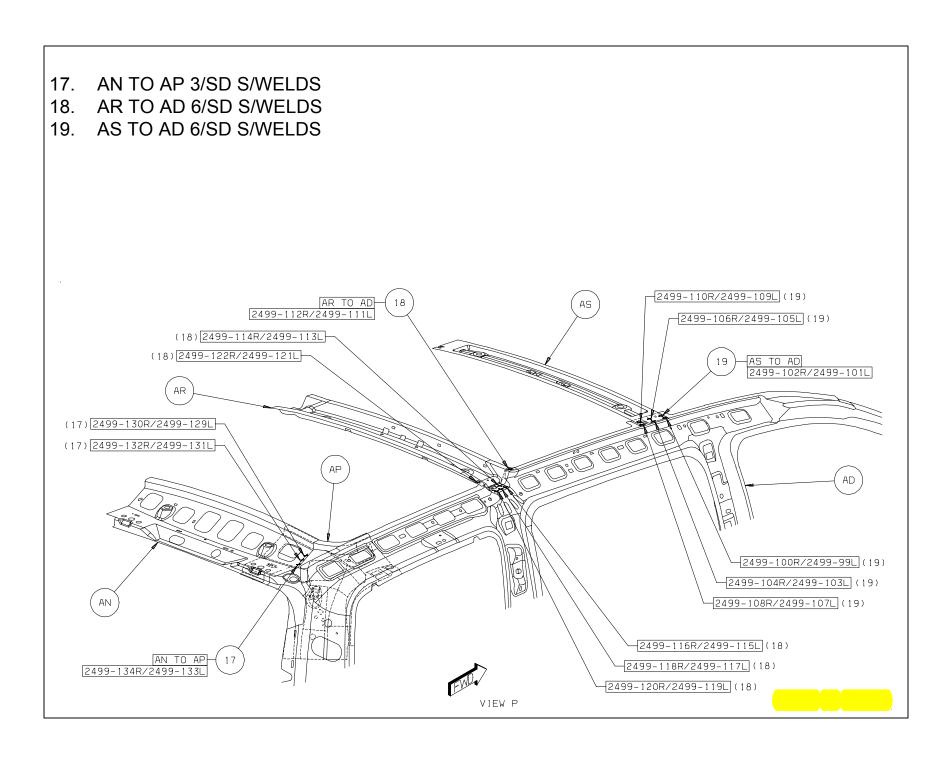
# 11. AM TO AD TO AC 19/SD S/WELDS AM TO AD TO AC 2499-280R/2499-277L (11) 2499-288R/2499-285L (11) 2499-290R/2499-287L 2499-282R/2499-279L (11) (11) 2499-292R/2499-289L 2499-284R/2499-281L (11) (11) 2499-294R/2499-291L 2499-286R/2499-283L (11) (11) 2499-296R/2499-293L (11) 2499-298R/2499-295L (11) 2499-300R/2499-297L (11) 2499-302R/2499-299L (11) 2499-304R/2499-301L 2499-308R/2499-305L (11) (11) 2499-306R/2499-303L 2499-310R/2499-81L (11) 2499-312R/2499-307L (11) 2499-314R/2499-309L (11) 2499-316R/2499-311L (11)

# 12. AE TO AD TO AM 17/SD S/WELDS (12) 2499-332R/2499-327L AE TO AD TO AM 2499-334R/2499-329L (12) 2499-330R/2499-325L (12) 2499-328R/2499-323L 2499-336R/2499-331L (12) (12) 2499-326R/2499-321L 2499-338R/2499-333L (12) (12) 2499-324R/2499-319L 2499-340R/2499-335L (12) 2499-342R/2499-337L (12) (12) 2499-322R/2499-317L -2499-344R/2499-339L (12) (12) 2499-320R/2499-315L 2499-346R/2499-341L (12) (12) 2499-318R/2499-313L -2499-348R/2499-343L (12) 2499-350R/2499-345L (12) AD 000 0 000 VIEW U

# 13. AE TO AD TO AM 16/SD S/WELDS (13) 2499-376R/2499-369L -2499-378R/2499-371L (13) (13) 2499-374R/2499-367L -2499-380R/2499-373L (13) (13) 2499-372R/2499-365L -2499-382R/2499-375L (13) 2499-384R/2499-377L (13) (13) 2499-370R/2499-363L 2499-386R/2499-379L (13) (13) 2499-356R/2499-351L 2499-388R/2499-381L (13) (13) 2499-354R/2499-349L 2499-390R/2499-383L (13) 2499-392R/2499-385L (13) 2499-394R/2499-387L (13) AE TO AD TO AM-2499-352R/2499-347L VIEW T

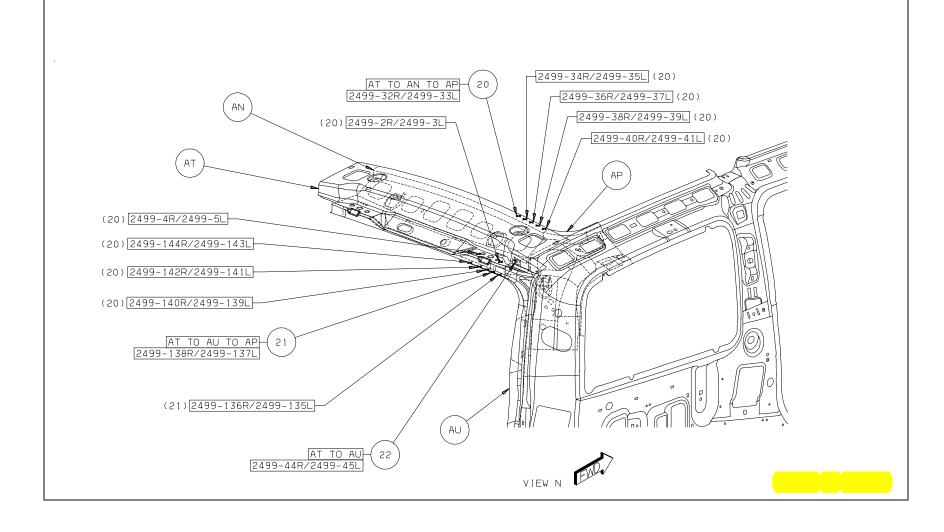
# 14. AE TO AD TO AM 29/SD S/WELDS 2499-212R/2499-209L (14) (14) 2499-276R/2499-273L AE TO AD TO AM-2499-210R/2499-207L 2499-214R/2499-211L (14) (14) 2499-274R/2499-271L 2499-216R/2499-213L (14) (14) 2499-272R/2499-269L (14) 2499-270R/2499-267L 2499-218R/2499-215L (14) (14)2499-268R/2499-265L 2499-220R/2499-217L (14) 2499-222R/2499-219L (14) AD (14) 2499-266R/2499-263L 2499-224R/2499-221L (14) (14) 2499-226R/2499-223L 2499-260R/2499-257L (14) AE ` (14) 2499-228R/2499-225L -2499-258R/2499-255L (14) (14) 2499-230R/2499-227L 2499-256R/2499-253L (14) (14) 2499-232R/2499-229L 2499-254R/2499-251L (14) (14) 2499-234R/2499-231L 2499-252R/2499-249L (14) (14) 2499-236R/2499-233L 2499-250R/2499-247L (14) (14) 2499-238R/2499-235L 2499-248R/2499-245L (14) (14) 2499-240R/2499-237L VIEW S



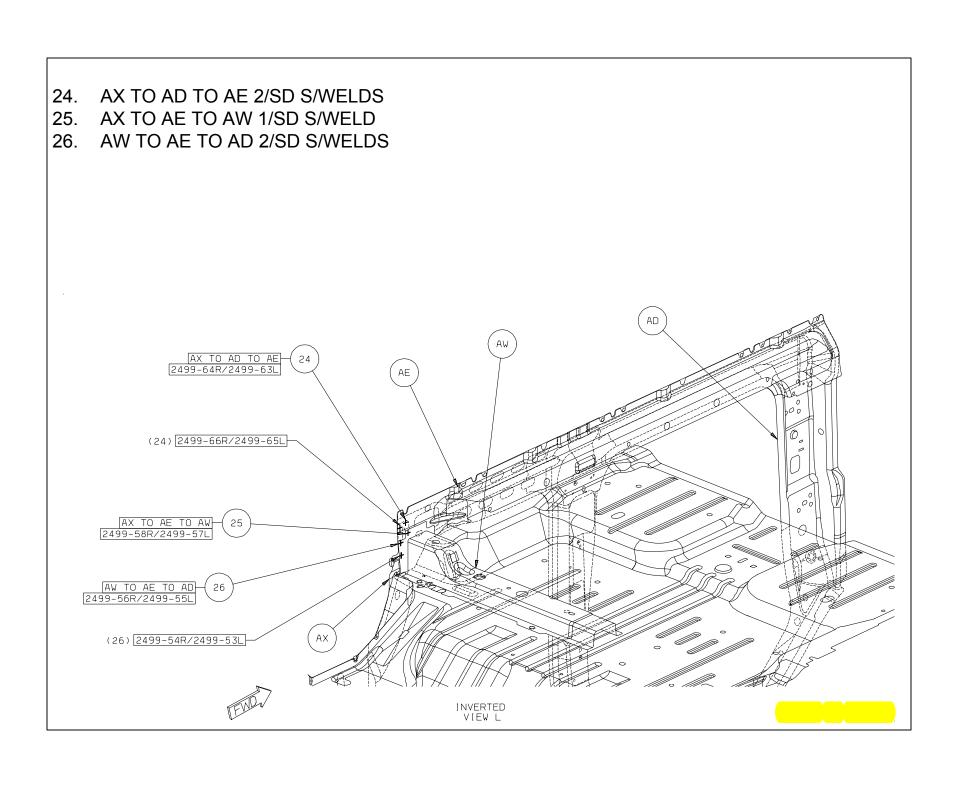


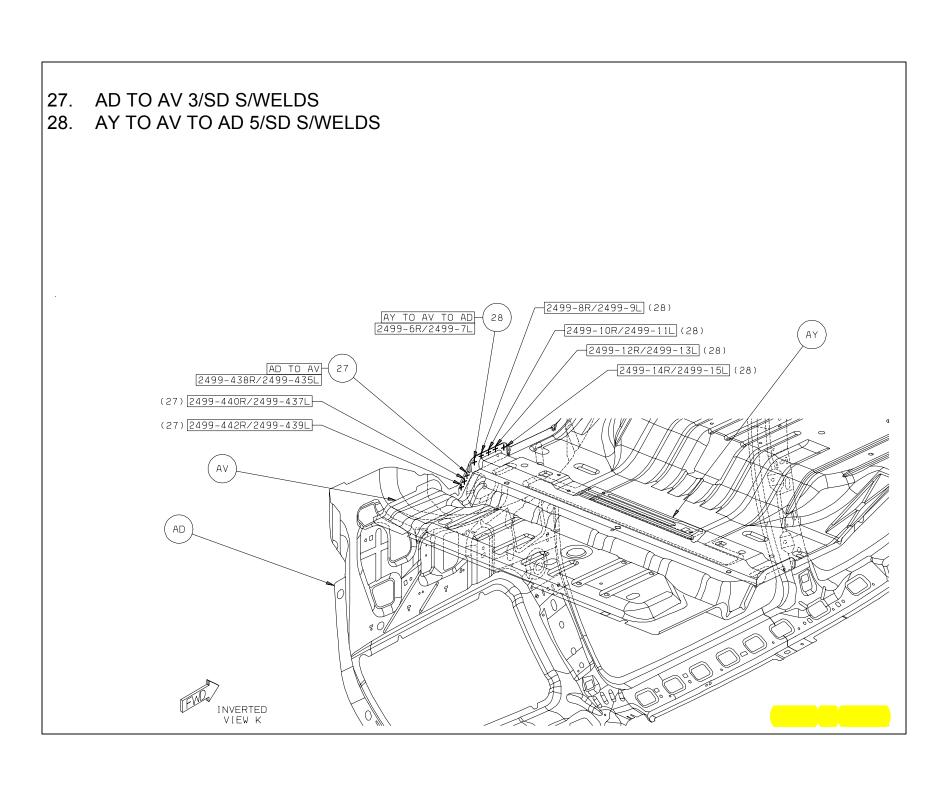


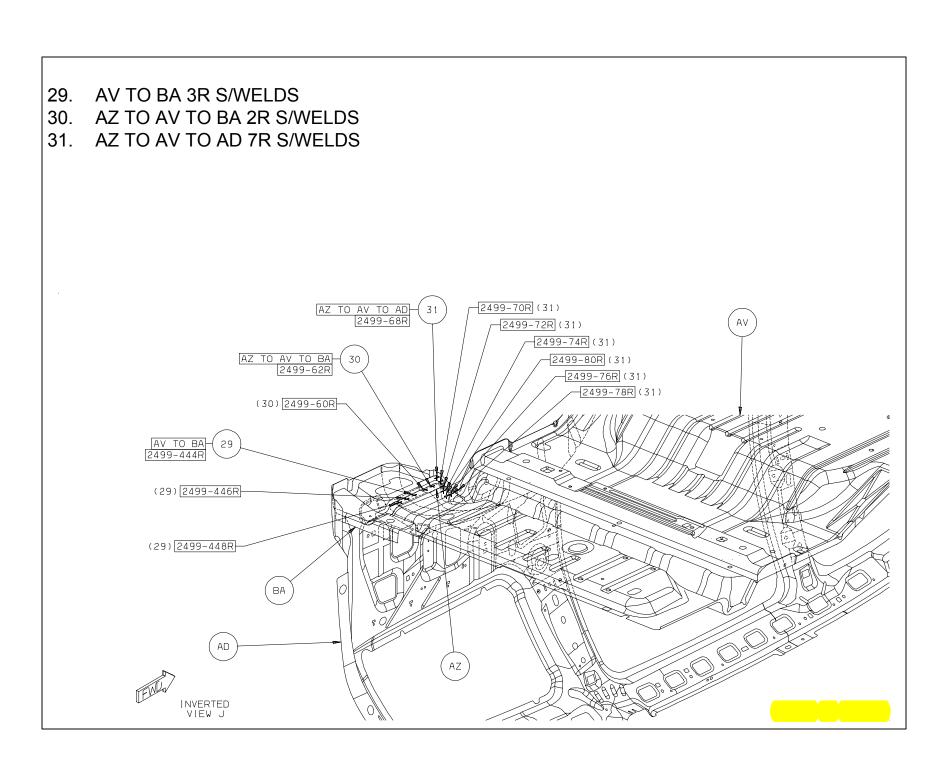
- 21. AT TO AU TO AP 2/SD S/WELDS
- 22. AT TO AU 1/SD S/WELD



# 23. AV TO AD 21/SD S/WELDS 2499-412R/2499-409L (23) 2499-410R/2499-407L (23) 2499-408R/2499-405L (23) 2499-406R/2499-403L (23) 2499-404R/2499-401L (23) AV TO AD 2499-396R/2499-1L 2499-398R/2499-395L (23) (23) 2499-436R/2499-433L 2499-400R/2499-397L (23) (23) 2499-434R/2499-431L 2499-402R/2499-399L (23) (23) 2499-432R/2499-429L (23) 2499-430R/2499-427L 2499-414R/2499-411L (23) (23) 2499-428R/2499-425L 2499-416R/2499-413L (23) (23) 2499-426R/2499-423L -2499-418R/2499-415L (23) (23) 2499-424R/2499-421L 2499-420R/2499-417L (23) (23) 2499-422R/2499-419L

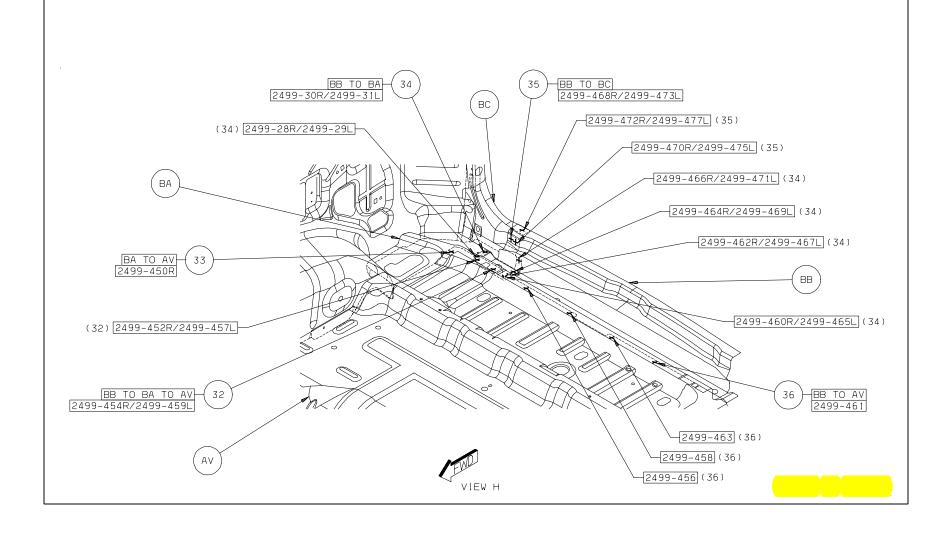








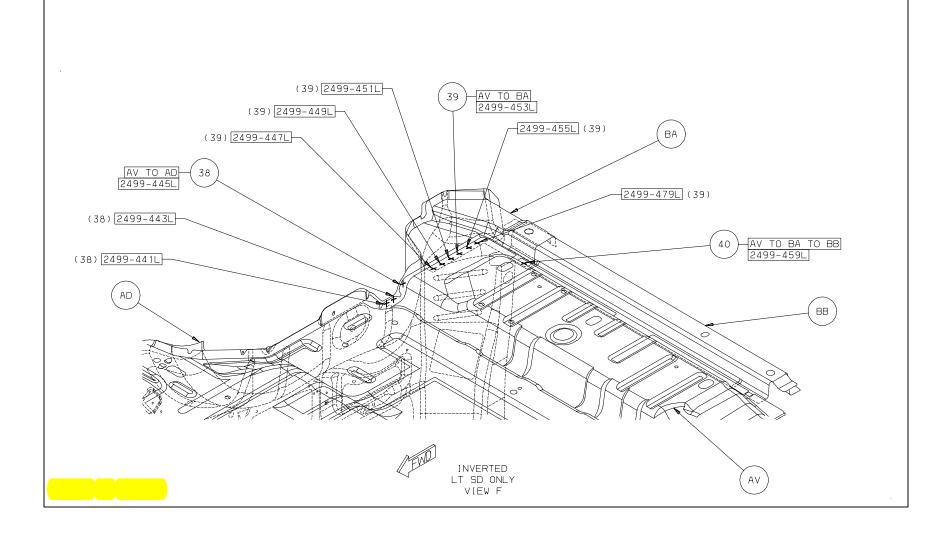
- 33. BA TO AV 1R S/WELD
- 34. BB TO BA 6/SD S/WELDS
- 35. BB TO BC 3/SD S/WELDS
- 36. BB TO AV 4 S/WELDS



# 37. AT TO AD TO AP 3/SD S/WELDS (37) 2499-126R/2499-125L 2499-128R/2499-127L (37) AT TO AD TO AP 2499-123L



- 39. AV TO BA 6L S/WELDS
- 40. AV TO BA TO BB 1L S/WELD



### **BODY CONSTRUCTION CHARACTERISTICS**

Definitions of Steels used in the Dodge Durango:

- MS 66 Represents an uncoated Hot Rolled Steel Sheet used mainly for interior braces and reinforcements.
- MS 67 Represents an uncoated Cold Rolled Sheet structural steel used in areas where structural integrity is critical. EG., the type of steel used for the "A" pillar.
- MS 264 Represents an uncoated high strength low alloy (HSLA) steel used in applications where structural integrity is critical.
- MS 6000-44A Low carbon, hot dipped galvanneal (or EGA) with 45 g/m² minimun coating weight on both sides.
  - Most common Sheet Steel product used by Chrysler
- MS 6000-44VA 50 ksi min. yield strength, HSLA, killed steel, with 44 g/m² minimun coating weight on both sides. -
  - Most common high strength coated steel product used by Chrysler

# PARTIAL LIST OF STEEL APPLICATIONS Galvannealed Steel

Body Side Aperture Cowl Plenum Panel

Cowl Side Panel

Dash Panel

Front Door - Inner Panel Front Door - Outer Panel

Front Fender Front Floor Pan Front Hinge Pillar

Front Rail

Front Strut Mounting Tower

Front Wheelhouse (Front and Rear)

Lower Radiator Crossmember

Rear Door - Inner Panel Rear Door - Outer Panel

Rear Floor Pan

Rear Floor Pan Front Crossmember

Rear Floor Pan Side Rail

Rear Suspension Crossmember

Rear Quarter Panel - Inner Rear Quarter Panel - Outer Rear Wheelhouse - Inner

Roof Panel

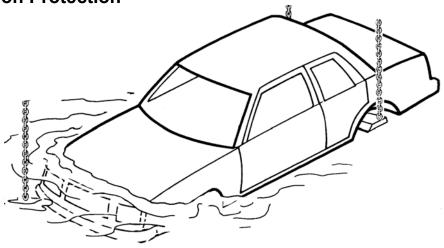
UpperLoad Path beem

**Upper Radiator Crossmember** 

### **BODY CONSTRUCTION CHARACTERISTICS**

The following measures have been implemented in order to provide maximum corrosion prevention and protection.

- 1. The use of galvannealed coatings throughout the body structure.
- 2. Ecoat is used on the complete body in all instances.
- 3. Body sealing.
- 4. Stone-chipping resistant primer application.
- 5. Underbody corrosion prevention.

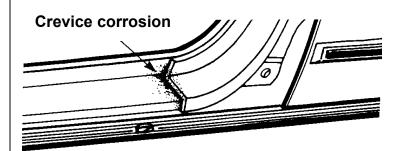


### **Factory Applied Corrosion Protection**

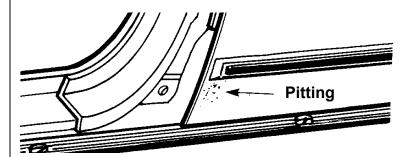
During the manufacturing of the unibody car, the manufacturer applies "corrosion protection" using specialized manufacturing processes. This system is not duplicated in the collision repair body shop. However, the body shop still has a responsibility to apply corrosion protection to the unibody vehicle. So, the collision repair shop must use alternative materials to do the corrosion protection job after the repair.

This corrosion protection is required regardless of the environment and weather conditions the vehicle will be operated in. Corrosion protection is as important in the desert as it is at the seaside. Corrosion damage can literally destroy the structural integrity of a unibody vehicle from within. Many corrosion protection systems are destroyed during collision repair operations. Metal finishing, metal working and fatigue can cause the breakdown of many of the corrosion barriers installed at the factory. The use of heat for stress relief and welding also destroys factory installed corrosion barriers. These corrosion barriers and corrosion protection systems must be replaced after collision repair to ensure that the structural integrity of the unibody will remain intact throughout its life. In the past, only vehicles with aftermarket or after-delivery corrosion protection systems installed were serviced after collision repair to restore the corrosion protection system.

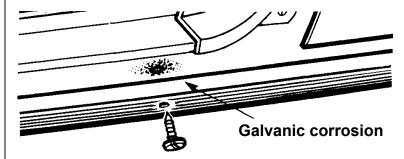
An understanding of the types of corrosion which affect the unibody vehicles will assist in understanding why the factory protection systems are important, how the factory protection systems consist of and how the systems' protection is replaced after collision and electrolytic corrosion. Some of the more common types of corrosion are **crevice corrosion**, **pitting**, **galvanic corrosion**, **stress corrosion**, **cracking**, **fretting**, and **erosion corrosion**.



**Crevice corrosion** is a form of localized attack that occurs in areas on metal surfaces exposed to the elements. Examples include spot weld lap joints, threaded or riveted connections, gasket fittings, porous welds, valve seats.



**Pitting** is the corrosion of a metal surface at points or small areas which look like a small hole in the metal.



**Galvanic corrosion** is the type that occurs when dissimilar metals are in electrical contact while immersed in an electrolyte.

The penetration of corrosive solutions into these small areas, with widths that are typically a few thousandths of an inch, can result in various types of failures: the metal surface may become rusty in appearance, operating components may seize when protective coatings may have been removed from the metal surface. The coating of zinc on steel, known as galvanized, is an example of sacrificial cathodic protection.

An example of galvanic corrosion on the automobile is a stainless steel trim molding on a painted mild steel. When the paint becomes damaged, a galvanic corrosion cell is formed between the passive stainless steel (cathode) and the steel (anode). The corrosion leads to what would look like a rust stain. Methods of reducing galvanic corrosion include the use of compatible materials, minimizing of cathode-to-anode areas, the insulation of dissimilar metal contacts and the use of thick, replaceable sections.

### Stress corrosion, cracking, fretting, and erosion corrosion.

Corrosion cracking is the early cracking of metals produced by the combined action of tensile stress and a corrosive atmosphere.

Corrosion fatigue is cracking due to the action of stresses and corrosion. Methods of reducing corrosion fatigue include the reduction in stress and the use of coatings.

Fretting is the deterioration of a metal at contact surfaces due to the presence of a corrosive and relative motion between the surfaces. The two metal surfaces initially are covered with an oxide film that becomes abraded during vibration. The results are oxide particles that become corroded. During the collision repair process, the factory protection materials become damaged from working the metals, or from the use of heat in the repair operations. If these factory protection materials are not replaced with some similar protection material after repair, a corrosion hot spot is formed. A corrosion hot spot is a small unprotected area surrounded by a protected area throughout the rest of the vehicle. the hot spot effect causes rapid deterioration of the unprotected area. This deterioration takes place at a much faster rate, sometimes 10-12 times faster than if the entire car were unprotected. The hot spot effect is created because all the corrosive factors are channeled to the unprotected area much the same way all material flowing through a funnel is concentrated in a small area. This hot spot effect means that corrosion failures to the unibody structure could occur in a short period of time even in an atmosphere normally not subject to corrosion. The hot spot effect can cause rapid deterioration of unibody structures from corrosion damage in a desert as well as seaside.

The types of materials used in rustproofing application include oil based materials, wax base materials, primers and color coats. The most important properties of rustproofing materials are adhesion, toughness, and the resistance to the environment. The best coating in the world is not effective unless it is present in the right place at the right time.

### **Corrosion Protection Information**

When making the collision repair, refer to the manufacturer's information on where corrosion protection and sealants are applied. Be sure to follow the recommendations. The application process is usually included with the material manufacturer's information so be sure to read and understand it before proceeding with the repair.

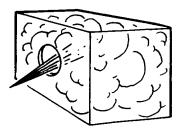
### **Collision Repair Corrosion Protection Materials**

The materials must provide good **electrolyte barriers**. The material must also be able to penetrate **tiny crevices** and prevent **abrasive corrosion**. The material must be **compatible** with **paint systems** as many areas of the car must be treated before paint is applied.

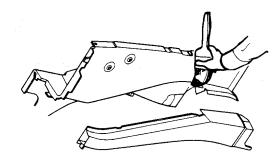
Materials containing silicones will cause paint conditions such as fish eyes if they are applied before the repaired vehicle is painted. So no silicone containing material is to be used. As many of the repair areas are more accessible before final assembly and painting, the non-silicone type materials are a must for this type of application.

When protecting an enclosed area, fog type properties for the corrosion protection material are a plus. The fog properties make the material much less susceptible to operator error or misapplication. With a fog type material, once the material is introduced inside of an enclosure, the fog spreads rapidly and evenly into all areas including tiny crevices. The fog type materials do not require direct spray application to be effective. Fog type materials are also very effective in coating over any existing rusted or corrosion damaged areas and preventing further corrosion of these areas. This is especially important on repairs of older vehicles.

### Spray Accessibility to the Repair



Being able to achieve fog spray penetration into enclosed cavities as well as open areas requires application equipment, which includes an assortment of wands of various lengths and design.



Some areas are more effectively treated by brush application of corrosion protection material before they are assembled. A good example of this is an inner and outer engine compartment side rail area. Brush application to the inside of these areas as individual pieces is easy before assembly and can be followed by a light fog application to the weld areas and the crevices formed during assembly after the rails are assembled. Brush application keeps the foreign material from getting between welded joints during assembly yet gives good coverage to general areas with easy application. The material selected in addition to paint compatibility features and fog application features is also an excellent brush application material. Repaired areas, boxed in or closed in are more easily treated during assembly using fog and brush on techniques. Care must be taken to keep the corrosion materials away from the welding areas as welding contamination might take place. Brush-on applications are used before welding and fog in applications are used after welding assemblies together.

### **Desired Characteristics of Corrosion Protection Material**

- **1. Corrosion prevention material-** The material must displace water to prevent corrosion. This can be tested by spraying water on an open panel on the floor, then spraying the corrosion preventative material over the watered panel and observing if the material displaces the water.
- **2. Creepage of material-** To insure thorough and complete protection coverage, the material should have a "creep" capability, approximately 1/4 inch per minute while drying. This assures protective penetration of pinch welds, cracks, etc.
- **3. Safe material-** Material should be non-combustible when dried and when wet unable to support a fire after ignition.
- **4. Clean-up-** The material should be of a viscosity which inhibits runs or drips. Overspray on a vehicle's painted surface should wipe off easily without solvent when wet, with solvent when dry. The material should also dry clean off clothing.
- **5. Guarantee/Warranty-** The corrosion protection has to be done to maintain factory corrosion warranty. Manufacturer's recommendations must be followed.

### Glossary:

**Abrasion Corrosion -** Rubbing or hitting of one material by another

**Corrosion Protection - Material applied to deter corrosion (oxidation)** 

Crevice Corrosion - Oxidation when two metals are joined

**Electrolytic Corrosion** - Electrical action taking place between two materials in the presence of an electrolyte (liquid)

Fogging - Applying material in a mist form

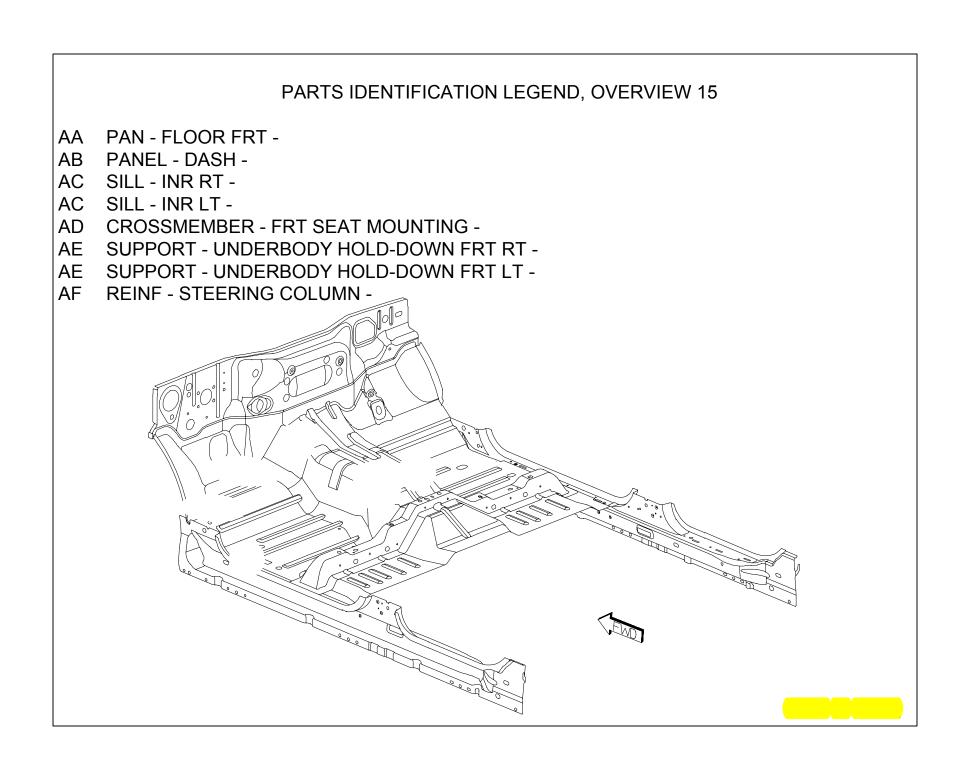
Fretting - Deterioration of metal at contact surfaces due to motion and corrosive elements

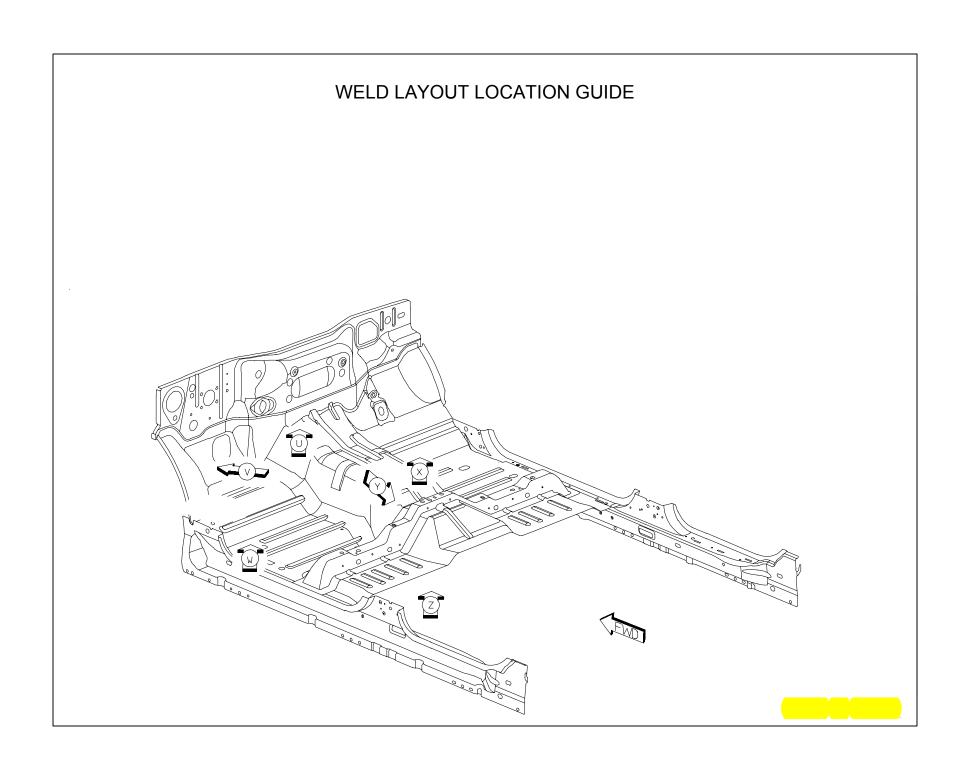
Galvanic Corrosion - Electrical action (electrolysis) between two dissimilar metals in the presence of electrolyte (liquid)

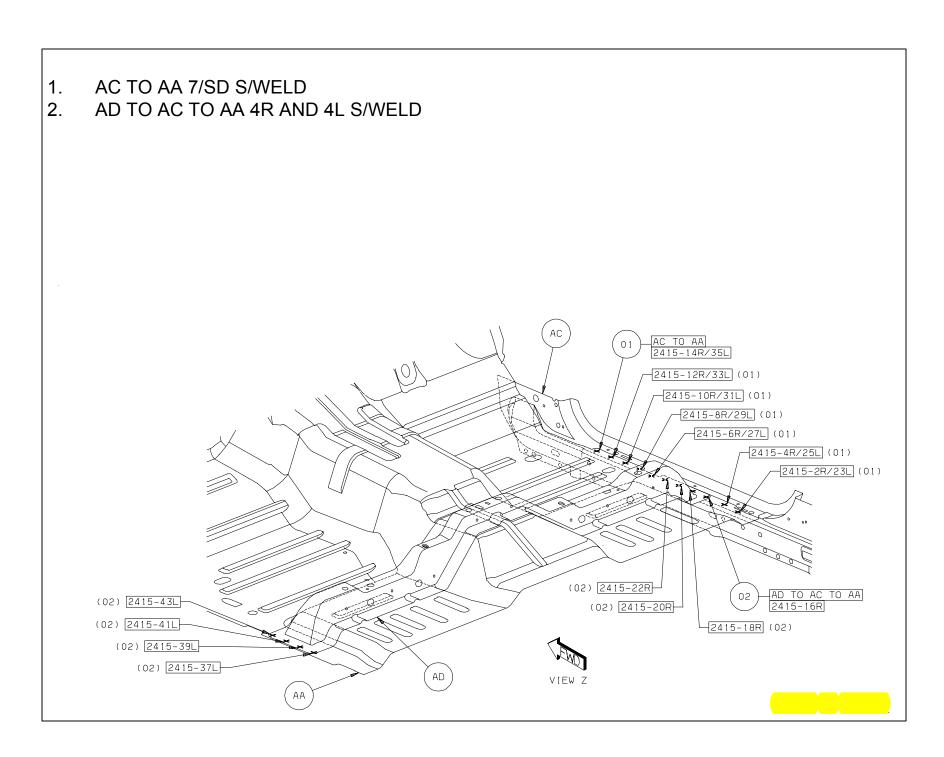
Hot Spot - An unprotected area subject to corrosion

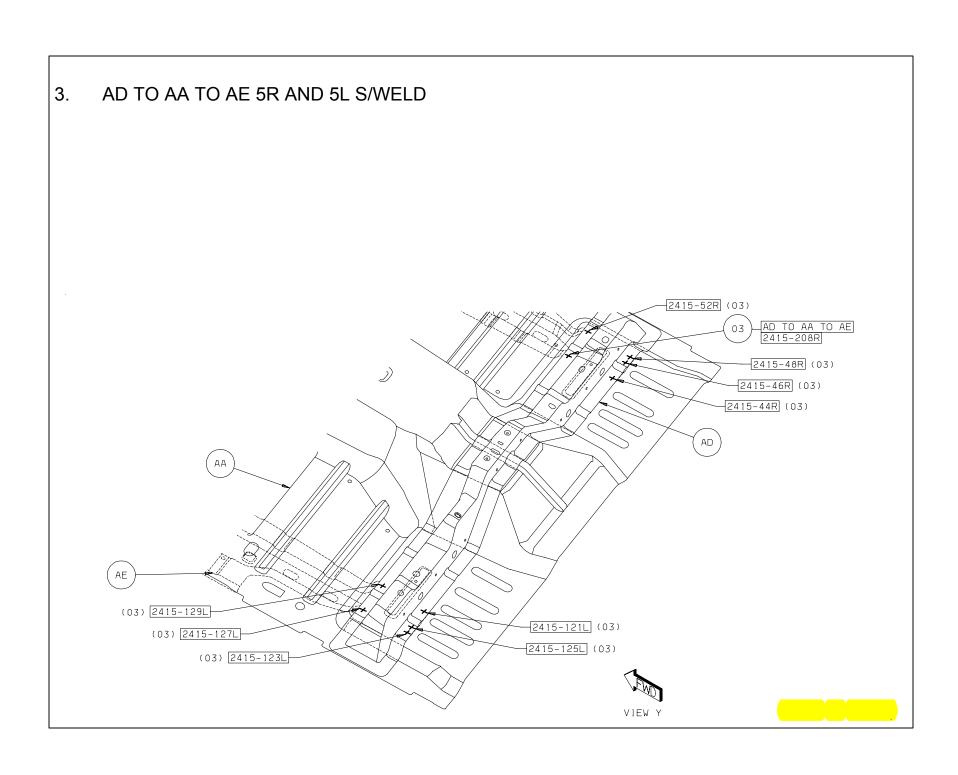
Pitting Corrosion - Corrosion on a surface the results in a small "specks" or "pinholes"

Stress of Fatigue, Cracking Corrosion - Cracking due to stress and atmospheric elements

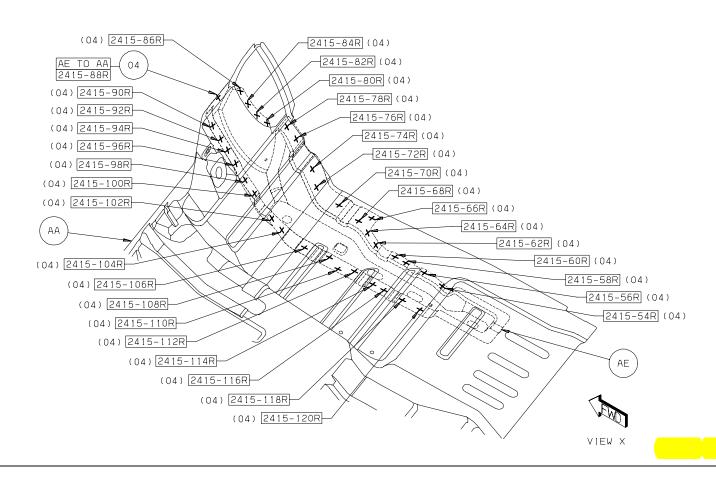








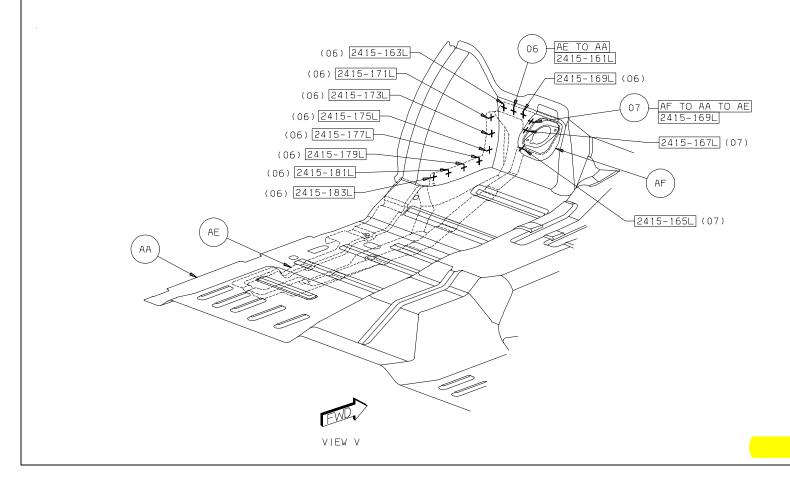
### 4. AE TO AA 34R S/WELD



### AE TO AA 26L S/WELD 5. AE TO AA 2415-157L 2415-155L (05) 2415-153L (05) 2415-151L (05) 2415-149L (05) 2415-147L (05) 2415-145L (05) AA 2415-143L (05) 2415-141L (05) (05) 2415-187L -2415-139L (05) (05) 2415-185L 2415-137L (05) 2415-135L (05) (05) 2415-191L (05) 2415-189L 2415-133L (05) 2415-131L (05) (05) 2415-195L (05) 2415-193L (05) 2415-197L (05) 2415-199L (05) 2415-201L (05) 2415-203L (05) 2415-205L ΑE (05) 2415-207L VIEW W

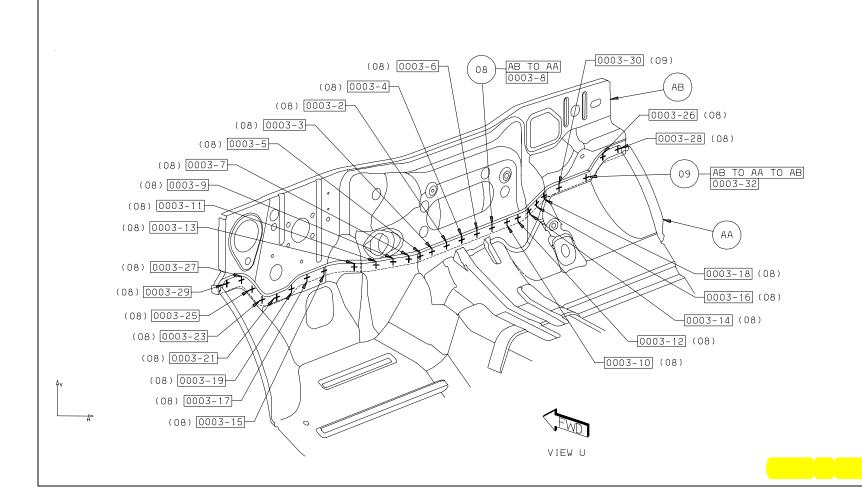


### 7. AF TO AA TO AE 3L S/WELD





### 9. AB TO AA TO AB 2 S/WELD



## WELD LOCATION OVERVIEW ZONES OVERVIEW 16 OVERVIEW 17

### PARTS IDENTIFICATION LEGEND, OVERVIEW 2

AA TUBE - RADIATOR & FRT FENDER RT -

AA TUBE - RADIATOR & FRT FENDER LT -

AB BRACKET ASSY - RADIATOR CLOSURE FRAME MOUNTING RT -

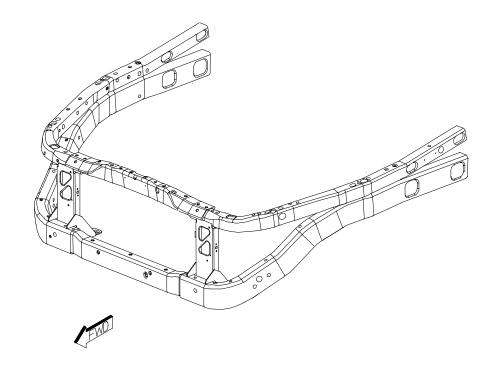
AB BRACKET ASSY - RADIATOR CLOSURE FRAME MOUNTING LT -

AC TUBE - FRT FENDER SUPPORT RT -

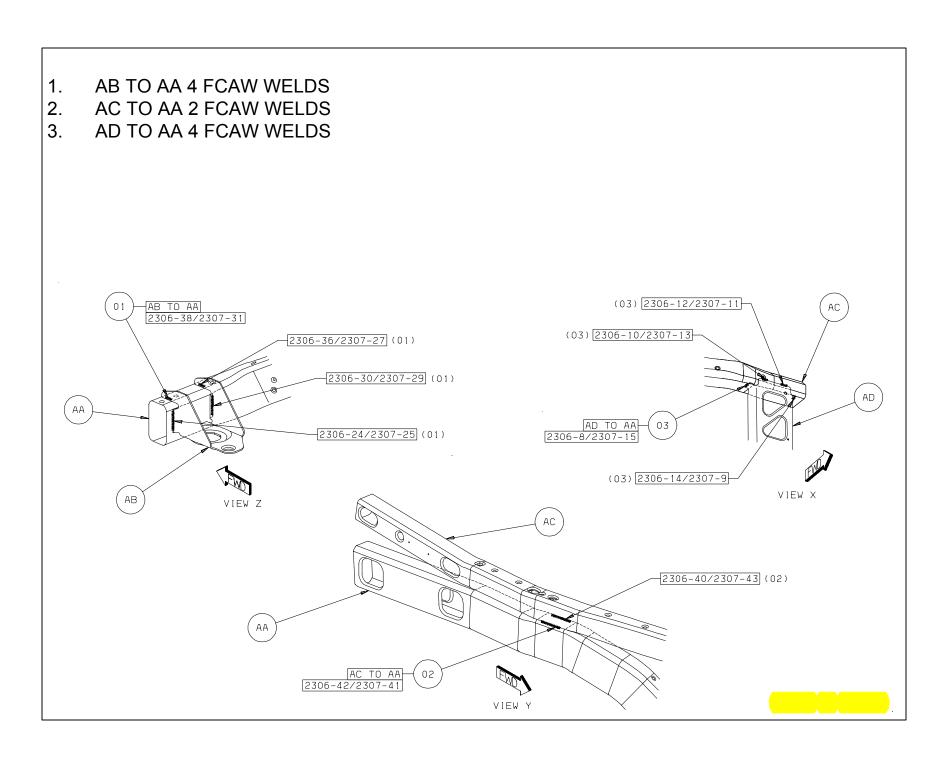
AC TUBE - FRT FENDER SUPPORT LT -

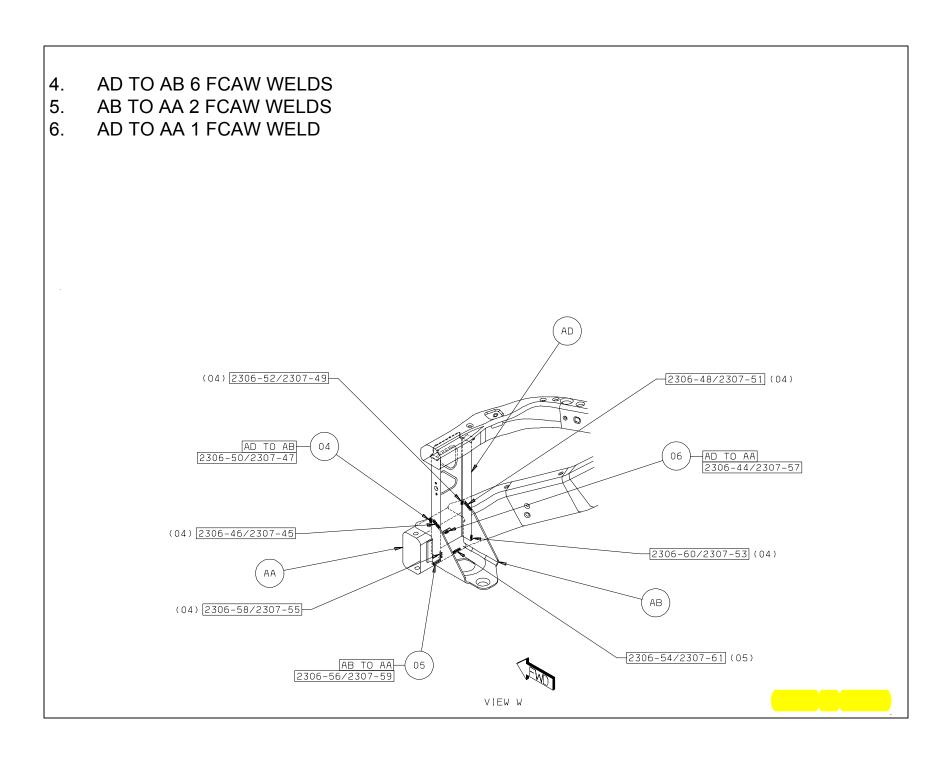
AD TUBE - VERTICAL RADIATOR CLOSURE RT -

AD TUBE - VERTICAL RADIATOR CLOSURE RT -



# WELD LAYOUT LOCATION GUIDE





### **Explanation of Welding/Sealer Information**

The major construction of a unibody vehicle consists of welded panels that create the supporting structure for all componets and assemblies of the vehicle. Here are some examples for replacement of these parts.

Certain body components must use sealers to ensure proper assembly. Be sure to check the **Body Sealing Locations** and **Structural Adhesive Sections** for location and sealer type.

### SEALER LEGEND

Thumbgrade Sealer

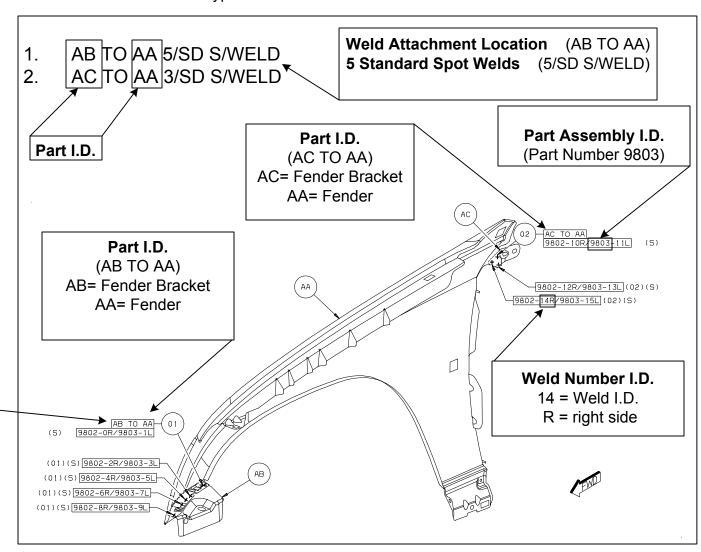
Pumpable Sealer

7777 Hidden Sealer



Non Structural Expand Foam

The welded componets are indicated by using the designations given in the illustration below: For example, "AB to AA" indicates that component "AB" and component "AA" shown in this illustration are welded together.



## WELD LOCATION OVERVIEW ZONES OVERVIEW 2 OVERVIEW 3 OVERVIEW 4

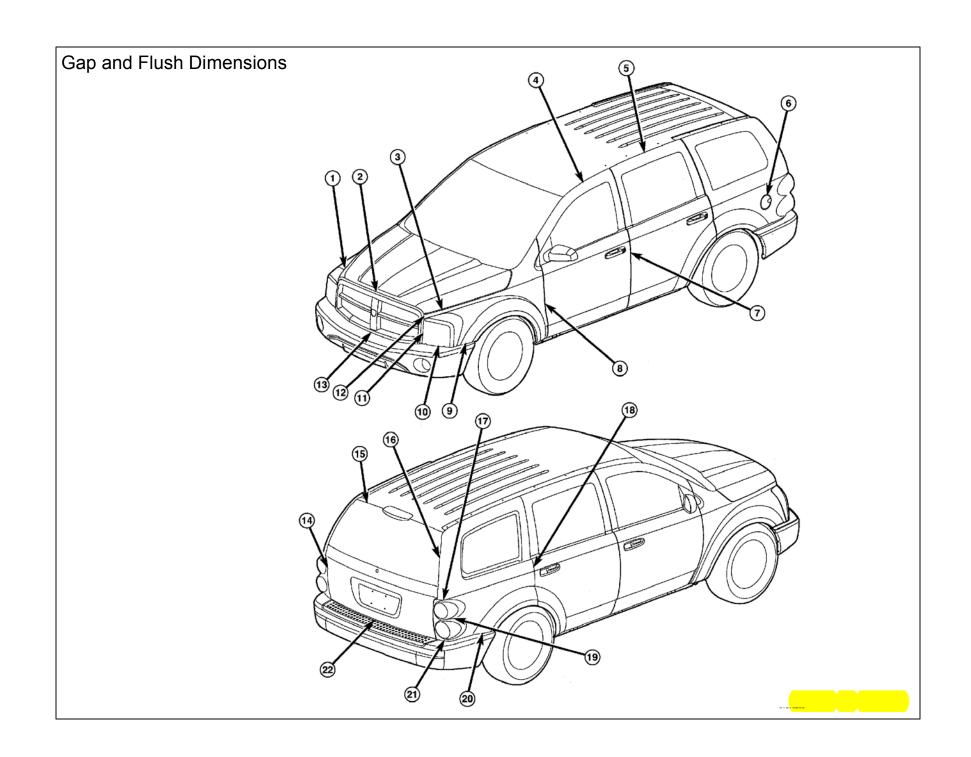


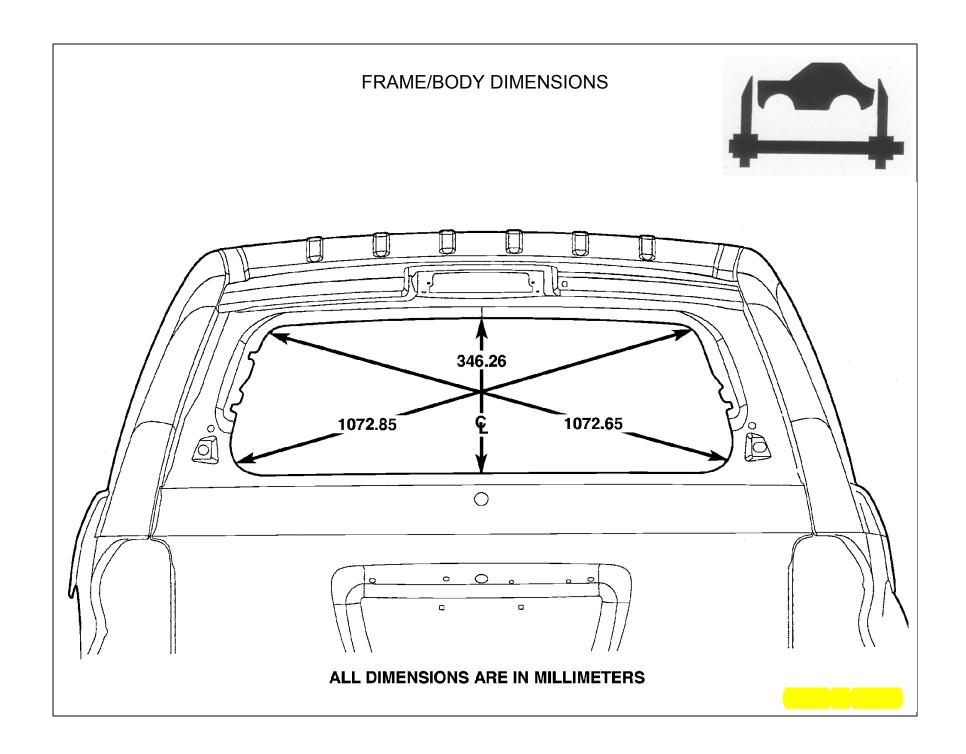
### DURANGO FRAME/BODY DIMENSIONS

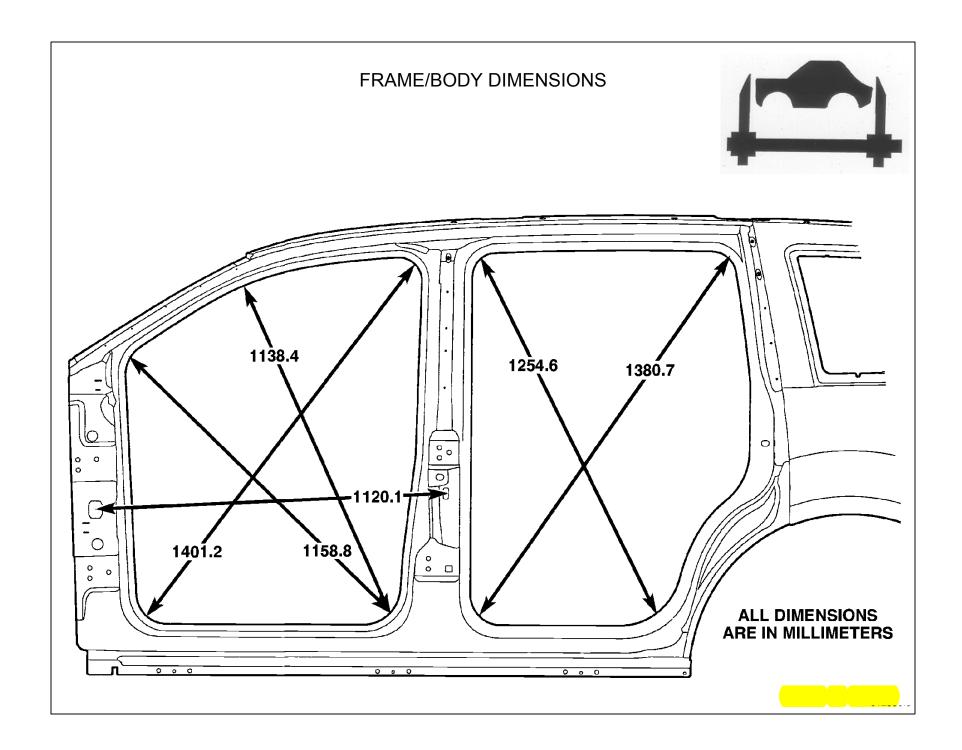
### GAP AND FLUSH DIMENSIONS

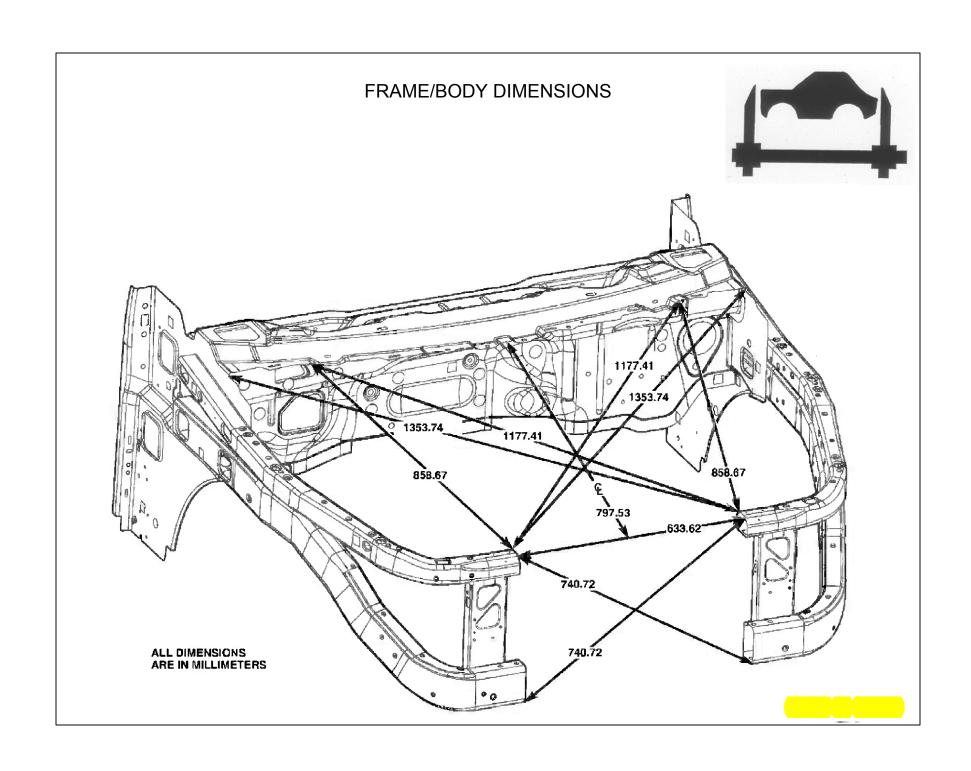
### NOTE: ALL DIMENSIONS ARE IN MILLIMETERS.

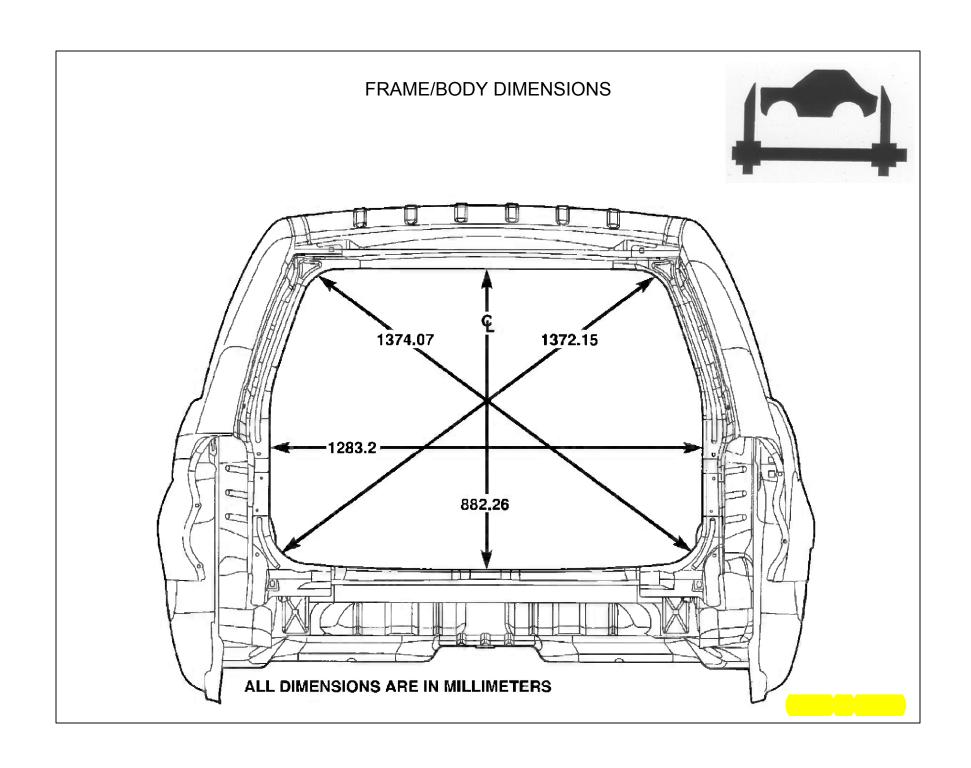
DIMENSION	LOCATION	GAP	FLUSH
1	HEADLAMP TO FENDER	$3.0 \pm 2.5$	HEADLAMP OVERFLUSH 0.9 ± 2.25
2	GRILLE TO HOOD	$8.0 \pm 2.75$ PARALLEL WITHIN $4.0$	-
3	HOOD TO FENDER	$4.5 \pm 1.25$ PARALLEL WITHIN 2.0	$0.0 \pm 1.25$ (REAR) OVERFLUSH $2.0 \pm 1.25$ (FRONT/MIDDLE)
4	FRONT DOOR TO ROOF	-	OVERFLUSH 0.25 ± 1.25
5	REAR DOOR TO ROOF	-	$0.0 \pm 1.25$
6	FUEL FILLER DOOR TO QUARTER PANEL	$3.2 \pm 1.25$	0.0 ± 1.25
7	FRONT DOOR TO REAR DOOR	$4.5 \pm 1.25$ PARALLEL WITHIN 1.0	0.0±2.5
8	FRONT DOOR TO FENDER	$4.5 \pm 1.25$ PARALLEL WITHIN 1.0	0.0±1.25
9	FRONT FASCIA TO FENDER	12.8 ± 3.0 PARALLEL WITHIN 2.5	0.0±2.5
10	HEADLAMP TO FASCIA	$13.0 \pm 3.0$ PARALLEL WITHIN 2.5	-
11	HEADLAMP TO GRILLE	$6.3 \pm 3.0$	-
12	GRILLE TO FENDER	$6.4 \pm 3.0$	-
13	FRONT FASCIA TO GRILLE	13.0 ± 3.0 PARALLEL WITHIN 2.5	-
14	TAILLAMP TO LIFTGATE	$4.5 \pm 2.0$	OVERFLUSH 1.4±2.5
15	LIFTGATE TO ROOF	8.0 ± 1.5 PARALLEL WITHIN 1.0	0.0 ± 1.5
16	LIFTGATE TO APERTURE	$4.5 \pm 1.25$ PARALLEL WITHIN 1.0	$0.0 \pm 1.25$
17	TAILLAMP TO APERTURE- TOP	$2.0 \pm 1.5$	0.0±1.5
18	REAR DOOR TO QUARTER PANEL	$4.5 \pm 1.25$ PARALLEL WITHIN 1.0	$0.0 \pm 1.25$
19	TAILLAMP TO APERTURE- MIDDLE	$1.5 \pm 1.5$	0.0 ± 1.5
20	REAR FASCIA TO APERTURE	13.5±3.0 PARALLEL WITHIN 2.5	-
21	REAR FASCIA TO TAILLAMP	13.5±3.0 PARALLEL WITHIN 2.5	-
22	REAR FASCIA TO LIFTGATE	13.5±3.0 PARALLEL WITHIN 2.5	-



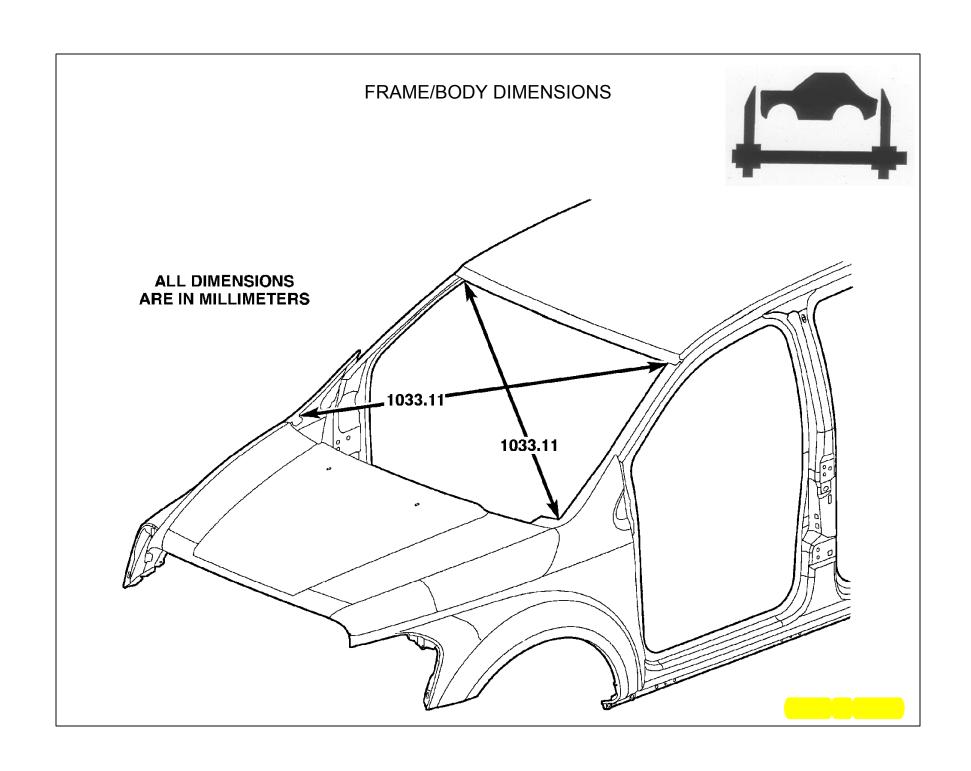








### FRAME/BODY DIMENSIONS **ALL DIMENSIONS ARE IN MILLIMETERS** 820.31 640.14



### PARTS IDENTIFICATION LEGEND, OVERVIEW 12

AA PANEL - FENDER OTR RT -

AA PANEL - FENDER OTR LT -

AB REINF - FENDER LWR RT -

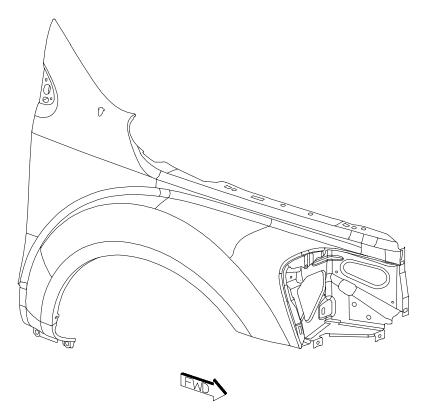
AB REINF - FENDER LWR LT -

AC REINF - FENDER RR UPR RT -

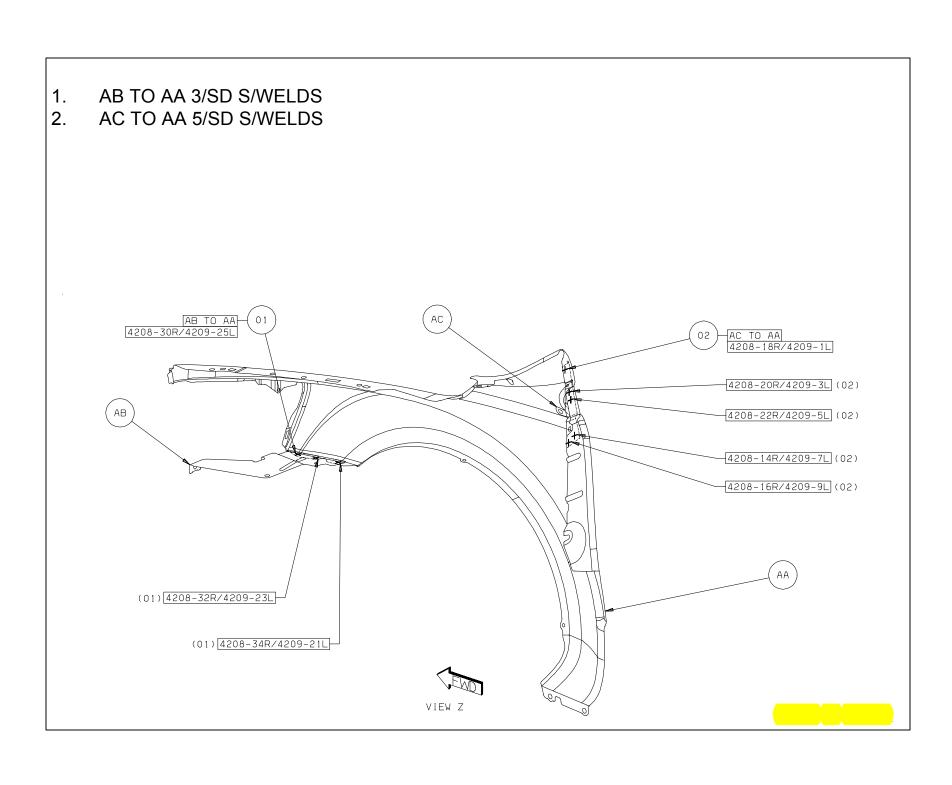
AC REINF - FENDER RR UPR LT -

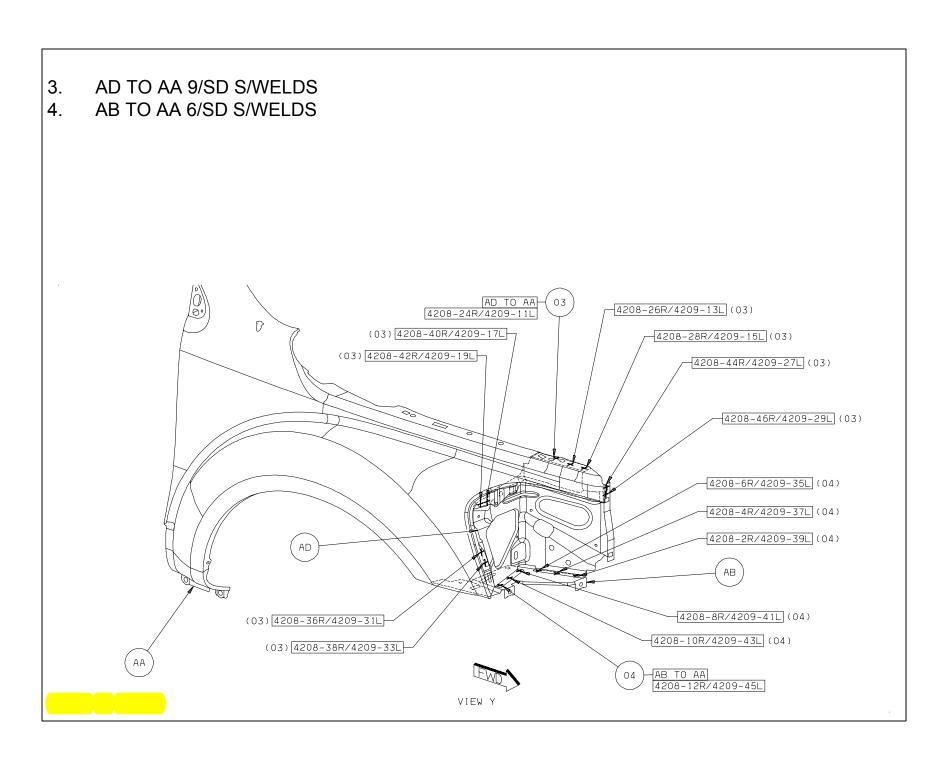
AD REINF - FENDER FRT UPR RT -

AD REINF - FENDER FRT UPR LT -



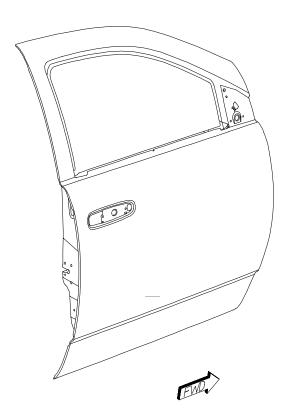
## WELD LAYOUT LOCATION GUIDE





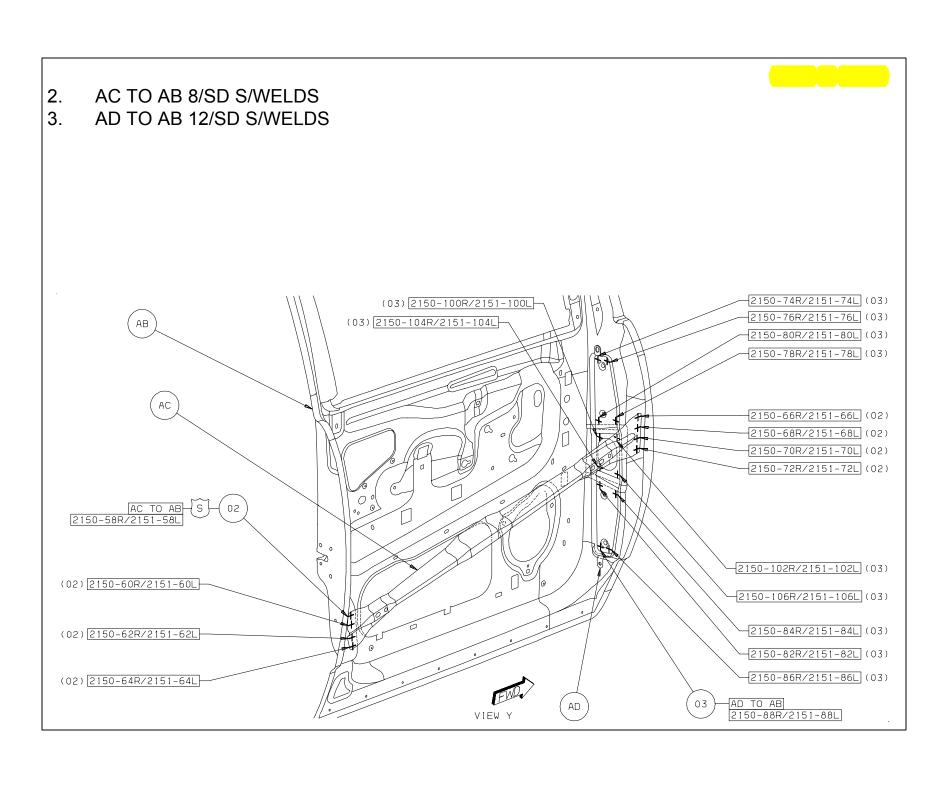
### PARTS IDENTIFICATION LEGEND, OVERVIEW 7

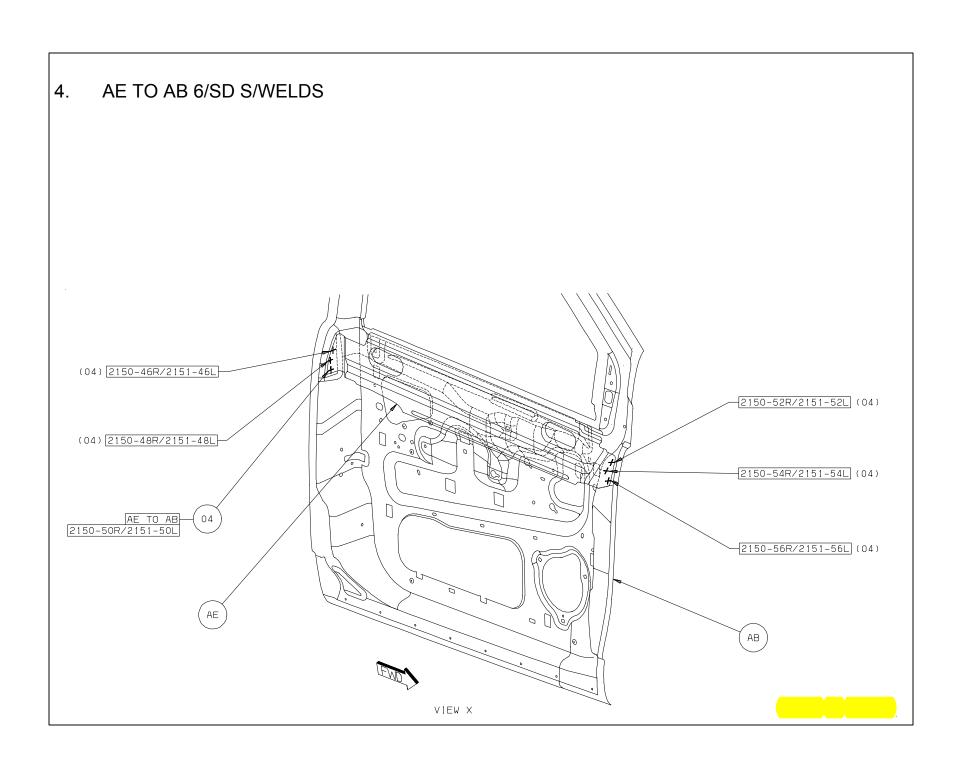
- AA PANEL FRT DOOR OTR RT -
- AA PANEL FRT DOOR OTR LT -
- AB PANEL FRT DOOR INR RT -
- AB PANEL FRT DOOR INR LT -
- AC BEAM IMPACT FRT DOOR RT -
- AC BEAM IMPACT FRT DOOR LT -
- AD STUD PLATE FRT DOOR HINGE -
- AD STUD PLATE FRT DOOR HINGE -
- AE REINF FRT DOOR OTR BELT RT -
- AE REINF FRT DOOR OTR BELT LT -

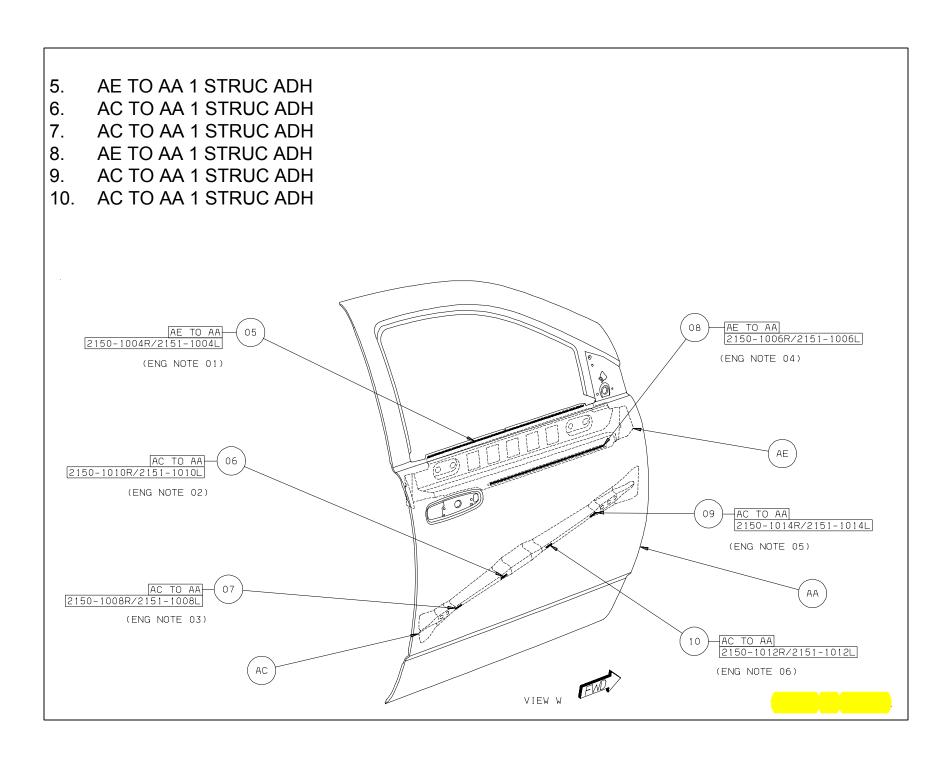


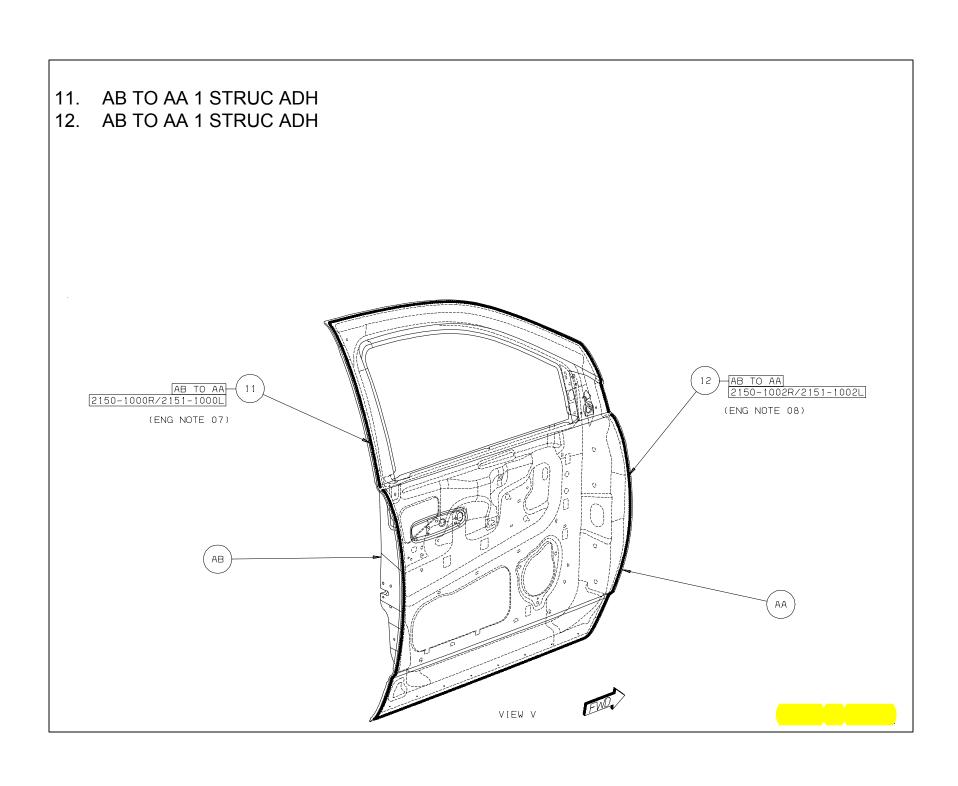
# WELD LAYOUT LOCATION GUIDE

### AB TO AA 22/SD SWELDS (01) 2150-24R/2151-24L 2150-26R/2151-26L (01) (01) 2150-22R/2151-22L 2150-28R/2151-28L (01) (01) 2150-20R/2151-20L -2150-30R/2151-30L (01) (01) 2150-18R/2151-18L 2150-32R/2151-32L (01) 2150-34R/2151-34L (01) (01) 2150-16R/2151-16L 2150-36R/2151-36L (01) (01) 2150-14R/2151-14L 2150-38R/2151-38L (01) (01) 2150-12R/2151-12L (01) 2150-10R/2151-10L 2150-40R/2151-40L (01) (01) 2150-8R/2151-8L 2150-42R/2151-42L (01) (01) 2150-6R/2151-6L 2150-44R/2151-44L (01) (01) 2150-4R/2151-4L AB TO AA-2150-2R/2151-2L









### PARTS IDENTIFICATION LEGEND, OVERVIEW 13

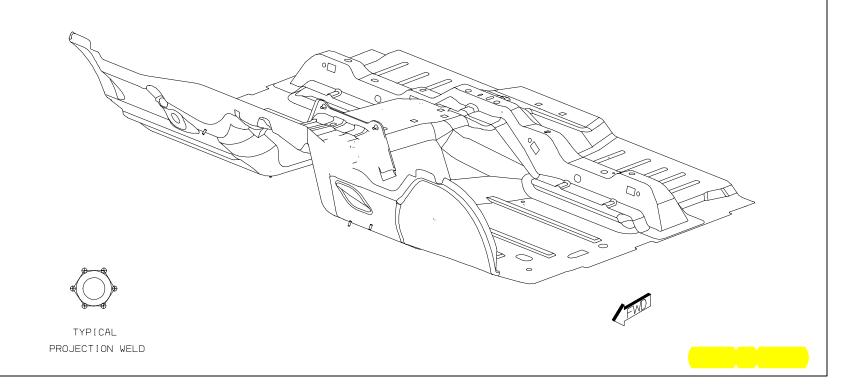
AA PAN - FLOOR FRT -

AB CROSSMEMBER - FRT SEAT MOUNTING -

AC REINF - STEERING COLUMN -

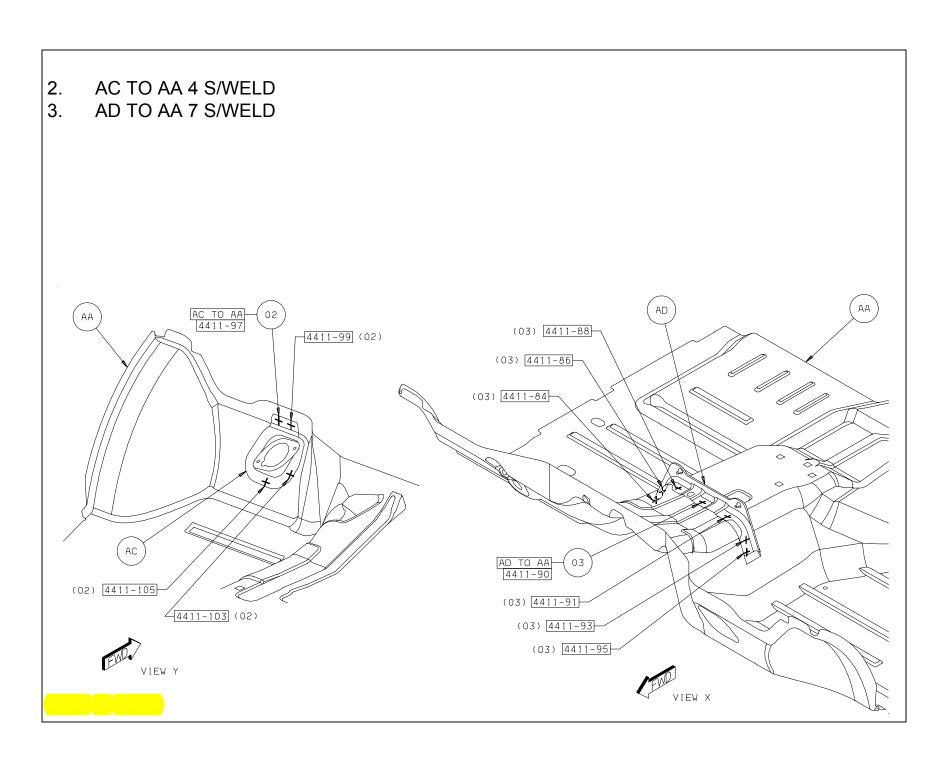
AD BRACKET - DASH -

AE STUD.WELD/EXTERNAL - HEADER.PT.SPECIAL - SILENCER TO FLOOR



# WELD LAYOUT LOCATION GUIDE TYPICAL PROJECTION WELD

### AB TO AA 41 S/WELD 4411-2 (01) 4411-6 (01) AB AB TO AA 4411-8 (01) 4411-4 4411-10 (01) 4411-12 (01) 4411-14 (01) 4411-16 (01) (01) 4411-42 4411-18 (01) (01) 4411-40 4411-20 (01) (01) 4411-38 4411-22 (01) 4411-63 (01) (01) 4411-36 4411-61 (01) (01) 4411-34 4411-59 (01) (01) 4411-32 4411-57 (01) (01) 4411-30 4411-55 (01) (01) 4411-28 4411-53 (01) (01) 4411-26 4411-51 (01) (01) 4411-24 4411-49 (01) (01) 4411-65 4411-47 (01) (01) 4411-67 4411-43 (01) (01) 4411-69 (01) 4411-71 (01) 4411-73 (01) 4411-75 (01) 4411-77 (01) 4411-79 VIEW Z (01) 4411-81 (01) 4411-83 (01) 4411-45



# AE TO AA 10 PROJ WELD 4. 4411-126 (04) 4411-125 (04) 4411-117 (04) 4411-115 (04) AE TO AA-4411-130 (04) 4411-132 4411-119 (04) (04) 4411-127 4411-121 (04) (04) 4411-123 TYPICAL PROJECTION WELD

# DURANGO FRONT FRAME TIP REPAIR

### INSTRUCTION SHEET K6855432 FRONT FRAME RAIL TIP REPLACEMENT

Each repair package contains the following components:

Quantity	<b>Description</b>
Quantity	Description

1 HB Collision Repair Tip Assembly

### **SAFETY PRECAUTIONS AND WARNINGS**

WARNING: BEFORE PERFORMING ANY WELDING OPERATINS, DISCONNECT AND ISOLATE THE BATTERY NEGATIVE (GROUND) CABLE AND DISCONNECT ALL WIRE HARNESS CONNECTORS FROM THE AIRBAG CONTROL MODULE (ACM). FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND OTHER POSSIBLE DAMAGE TO THE SUPPLEMENTAL RESTRAINT SYSTEM CIRCUITS AND COMPONENTS.

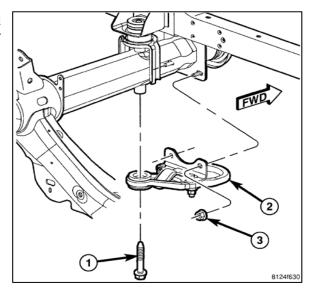
- USE EYE PROTECTION WHEN GRINDING OR WELDING METAL, SERIOUS EYE INJURY CAN RESULT.
- BEFORE PROCEEDING WITH FRAME REPAIR INVOLVING GRINDING OR WELDING, VERIFY THAT THE VEHICLE FUEL SYSTEM IS NOT LEAKING OR IN CONTACT WITH REPAIR AREA, PERSONAL INJURY CAN RESULT.
- DO NOT ALLOW OPEN FLAME OR HEAT AND METAL SPATTER FROM ARC WELDING, TO CONTACT PLASTIC BODY PANELS. FIRE OR EXPLOSION CAN RESULT.
- WHEN WELDED FRAME COMPONENTS ARE REPLACED, ENSURE COMPLETE PENETRATION WELD IS ACHIEVED DURING INSTALLATION. IF NOT, DANGEROUS OPERATING CONDITIONS CAN RESULT.
- STAND CLEAR OF CABLES OR CHAINS ON PULLING EQUIPMENT DURING FRAME STRAIGHTENING OPERATIONS, PERSONAL INJURY CAN RESULT.
- NO HEAT MAY BE USED IF FRAME STARIGHTENING IS REQUIRED. THE USE OF HEAT IS ACCEPTABLE IN THOSE SITUATIONS WHERE THE PART BEING HEATED WILL BE REPLACED. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY.

<u>CAUTION</u>: This procedure is designed to replace the front frame rail tips that have been damaged in the crush initiator zones. Prior to any cutting, the vehicle must be mounted on the appropriate frame repair equipment ("frame rack"), checked with three dimensional measuring equipment, and the necessary pull corrections made without the use of heat

- If the damage remains in the frame beyond the area covered by this service part after the pull, the frame must be replaced in its entirety.
- If damage to the front body structure is evident, repair the Front End Sheet Metal (FESM) fender rails as necessary Inspect all body mount bolts for damage and repair if necessary. Do not reuse damaged fasteners; quality of repair would be suspect. Failure to use only production fasteners or fasteners of equivalent hardness can result in loosening or failure. Do not drill any holes in the frame that are not specifically outlined in this, or other, DaimlerChrysler procedure as frame rail failure can result.

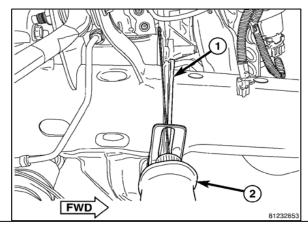
### <u>CAUTION</u>: Inspect the tire winch assembly for damage. If any one or more of the following are evident, replace the winch assembly.

- Indications of cracked or bulging plastic.
- Housing flanges are bent or cracked.
- If winch was loose before repair.
- If the rivet heads are separated from the housing in any way.
- 1. Before proceeding with this repair procedure review the required service warnings and precautions.
- 2. Disconnect and isolate the battery negative cable.
- 3. Remove the front wheelhouse splash shield.
- 4. Remove the front bumper if required.
- 5. Remove the washer bottle, if required.
- 6. Remove the front cab mount bolt (1) to the Front End Sheet Metal (FESM) bracket and the lower bumper support nuts (3) attaching the tow hook (2), if equipped.

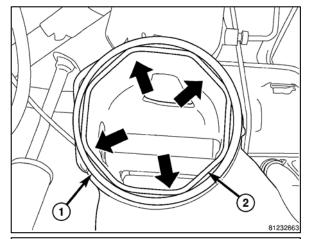


7. Using a reciprocating saw (2) or equivalent, carefully cut and remove the damaged frame rail tip behind the stop bracket (1).

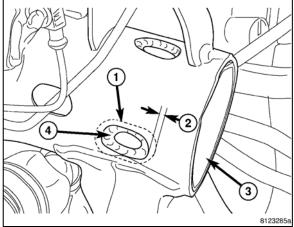
<u>CAUTION</u>: Do not use any flame or plasma cutting equipment to cut the frame in step 7. This is due to the inaccurate nature of the cut-line and the fact that the high temperatures achieved during the flame or plasma cutting will change the metal characteristics and may weaken the frame and/or repair location.



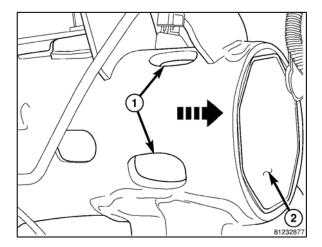
- 8. Remove the brake lines as necessary, to gain access to the upper fillet welds.
- 9. For the right side rail tip, remove the oil filter to gain access to the inner fillet weld.
- 10. Remove the four puddle welds attaching the remaining frame tip section (2) to the frame (1) at the locations indicated. (Right side shown, left side similar.)



11. Using a plasma cutter, remove the welds (4) by cutting along the outside edge of the weld (1) approximately 1/8 in. (2).



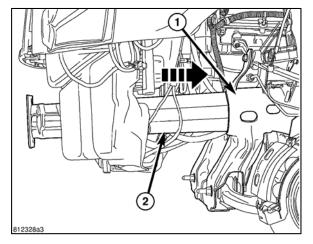
- 12. With the puddle welds (1) removed, remove the remaining piece of the frame tip (2) from within the frame rail and discard.
- 13. Smooth and square the cut edges of the original frame.
- 14. Remove any burrs at the holes (1) and frame edges.



- 15. Dry fit the new rail (2) to verify alignment, fit and make any adjustments as necessary.
- 16. Remove all internal and external OEM e-coat within 51 MM (2.0 in.) of the weld joint on the replacement tip and the existing frame rail.

NOTE: Any burned surface coatings will need to be removed prior to application of corrosion preventative coatings.

<u>CAUTION</u>: Shield the surrounding area and components from exposure to the welding spatter and heat.

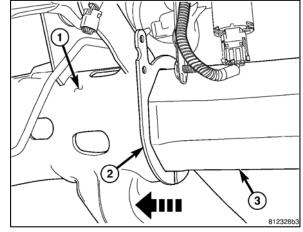


- 17. Loosely install the lower FESM insulator and cab mounting bolt.
- 18. Position the stop bracket (2) against the frame rail (1).

NOTE: If replacing the driver's side tip, the stop bracket mounting tab will not be utilized. The stop bracket may be rotated about the narrow end of the tip and repositioned so interference of tab with other parts is avoided. The mounting tab my also be cut off.

If replacing the passenger's side tip, the stop bracket mounting tab may be utilized if the vehicle is equipped with optional rear AC system.

<u>CAUTION</u>: Shield the surrounding area and components from exposure to the welding spatter and heat.



19. Using the appropriate measuring equipment, verify the front end sheet metal bracket's location in all three (X,Y, and Z) planes of space, and adjust if required (?Chart supplied at end of instruction sheet).

20. When correctly fitted, tack the three upper ring fillet welds (1) to hold the tip (3) in position, and then complete the ring fillet welds (1).

NOTE: Ring-fillet welds may be filled in with weld material if an improved cosmetic appearance is desired. (\*Welding process standard "ps 9472" chart included at end)

- 21. Confirm alignment of the replacement frame rail tip.
- 22. Final welding should be performed in a skip (stitch) type method to minimize the heat buildup and frame distortion, utilizing the Weld Process Specifications at the end of this section. The preferred method is

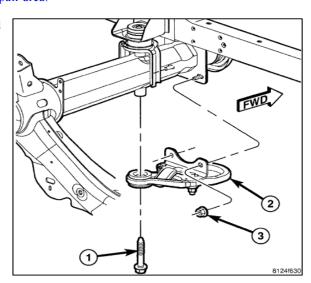
GMAW (MIG).

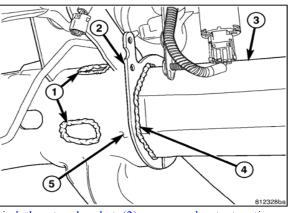


- (b) Apply root pass welds to the root joint in front (4) of the stop bracket (2), one quadrant at a time, switching to the opposite side of the frame for each quadrant.
- (c) Clean the welds of any flux and other impurities before proceeding with the cover pass welds.
- (d) Apply the cover pass welds in the same manner as described above.
- 23. Confirm alignment of the replacement frame rail tip.

### NOTE: Any burned surface coatings will need to be removed prior to application of corrosion preventative coatings.

- 24. Dress the welded area and apply corrosion resistant coatings inside and out.
  - (a) Apply etch-primer to the inside of the frame rail repair area.
  - (b) Inside the rail, inject a creeping wax based rust inhibitor compound through the existing holes in the frame ensuring 100% coverage including the space between the original frame rail and the reinforcing sleeve.
  - (c) Apply a durable top coat to the outside of the repair area.
- 25. Install the tow hook assembly (2), if equipped, and install the two lower bumper support nuts (3).
- 26. Tighten the nuts (3) to 108 N·m (80 ft. lbs.).
- 27. Install the front body mount bolt (1) and tighten to 81  $N\!\cdot\!m$  (60 ft. lbs.).





- 28. Install the front bumper.
- 29. Install the front wheelhouse splash shield.

### CAUTION: All welds should conform to DaimlerChrysler vehicle engineering process standard "PS 9472".

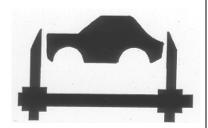
\*

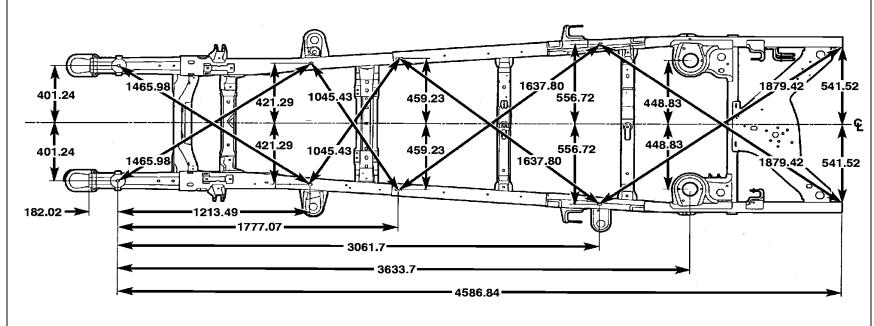
WELDING PROCESS	FLUX CORED ARC	GAS METAL ARC (MIG)*	SHIELDED METAL ARC (STICK)
Material Thickness	3.7 mm to 4.2 mm	3.7 mm to 4.2 mm	3.7 mm to 4.2 mm
Electrode Type	Lincoln Electrical Co.	AWS ER70S-3	**AWS E 7018
	Product #: NR-211 MP	(Do Not Substitute)	
	(Do Not Substitute)		
Electrode Size Inches	0.045 Tubular	0.035 Solid	3/32"
Electrode Stick Out	$3/8" - \frac{1}{2}"$	$\frac{1}{2}$ " - 5/8"	N/A
Polarity	Electrode "-"	Electrode "+"	Electrode "+"
	Work Piece "+"	Work Piece "-"	Work Piece "-"
Shielding Gas	Self Shielded	75% Ar	Self Shielded
		25% CO <sub>2</sub>	
Gas Flow Rate	N/A	25-35 CFM	N/A
Wire Feed Speed	110-130 Vertical Down	245-250 Vertical Down	N/A
(inches per minute)	70-90 Flat & Overhead	210-225 Flat & Overhead	
Approximate Amperage			
Vertical	110-130	175	85 (3/32" Diameter)
Flat & Overhead	70-90	155	90 (3/32" Diameter)
Voltage	15-18	19-20	N/A
Direction of Welding			
Vertical	Vertical Down Hill (only)	Vertical Down Hill (only)	Vertical Up Hill (only)
Flat & Overhead	Flat – Push or Drag	Flat – Push or Drag	Flat – Drag

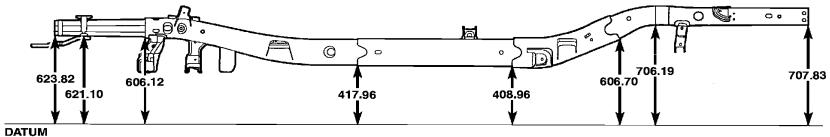
<sup>\*</sup> First choice – Gas Metal Arc Welding Process: Butt joints – apply two layers (passes) of weld metal. First pass should only fill approximately ½ the thickness. Vertical position welds – maintain electrode wire at leading edge of weld puddle while traveling down hill to produce maximum penetration into the sleeve. These techniques work for FCAW as well.

<sup>\*\*</sup> **E7018** new electrodes may be exposed to the atmosphere for up to ten hours with no harmful effect. Reconditioning schedules should come from the manufacturer.

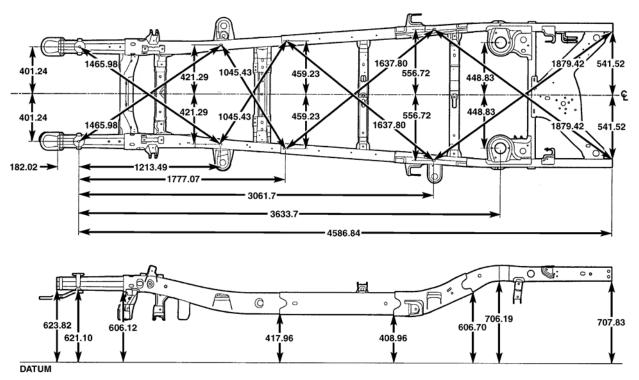
### FRAME/BODY DIMENSIONS







**NOTE: ALL DIMENSIONS ARE IN MILLIMETERS** 



NOTE: ALL DIMENSIONS ARE IN MILLIMETERS

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### HISTORY OF COLLISION REPAIR

Time was, if you had an accident, the call went out to the insurance company - to the collision shop - or several shops - get the lowest bid and in no time at all, the vehicle was repaired.

The facilities, training, and equipment were simple. Use a torch to cut, shape, and bend. Use something substantial as an anchoring point - maybe a tree and then just pull.

Use plenty of solder or body putty to make it look good. With the frame and body vehicle, the job was easy; first straighten the frame - then fix the mechanical components and the body work was cosmetic. This was all well and good until the mid - '70s.

Then, the designers, engineers, and manufacturers had to find ways to make the vehicles energy efficient - and that meant unibody cars. The unibody concept wasn't new - back in the '30s the Chrysler Air Flow had it - race cars have it - and now the driving public worldwide has it.

The change came quickly. Manufacturers devoted time, money, and talent to delvelop the unibody car.

The public was ready to buy and did!

But then came the problem! The collision repair industry wasn't given the luxury of taking their time to train people in the new technology - or take time to plan for new equipment.

The collision happened and the vehicle had to be fixed. Cars that were repairable were being totalled.

Cars that were repaired were not repaired correctly. Everybody was in a quandary- auto manufacturer - insurance company - repair equipment people - body shops - and repair technicians.

The problem started in the early '70s and body shops are still catching up today. Yesterday's "ding" is today's "crash". It takes trained technicians and sophisticated equipment to do the repair today.

That's why DaimlerChrysler is taking the time and effort to get the right information into the hands of the people that handle the repair job.

### PARTS IDENTIFICATION LEGEND, OVERVIEW 6

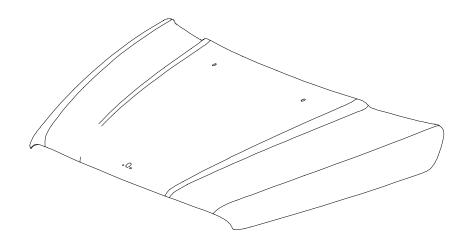
AA PANEL - HOOD INR -

AB REINF - HOOD HINGE RT -

AB REINF - HOOD HINGE LT -

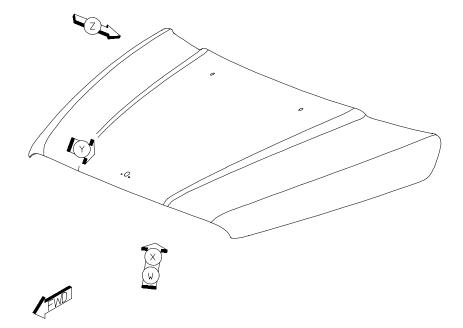
AC REINF - HOOD LATCH -

AD PANEL - HOOD OTR -

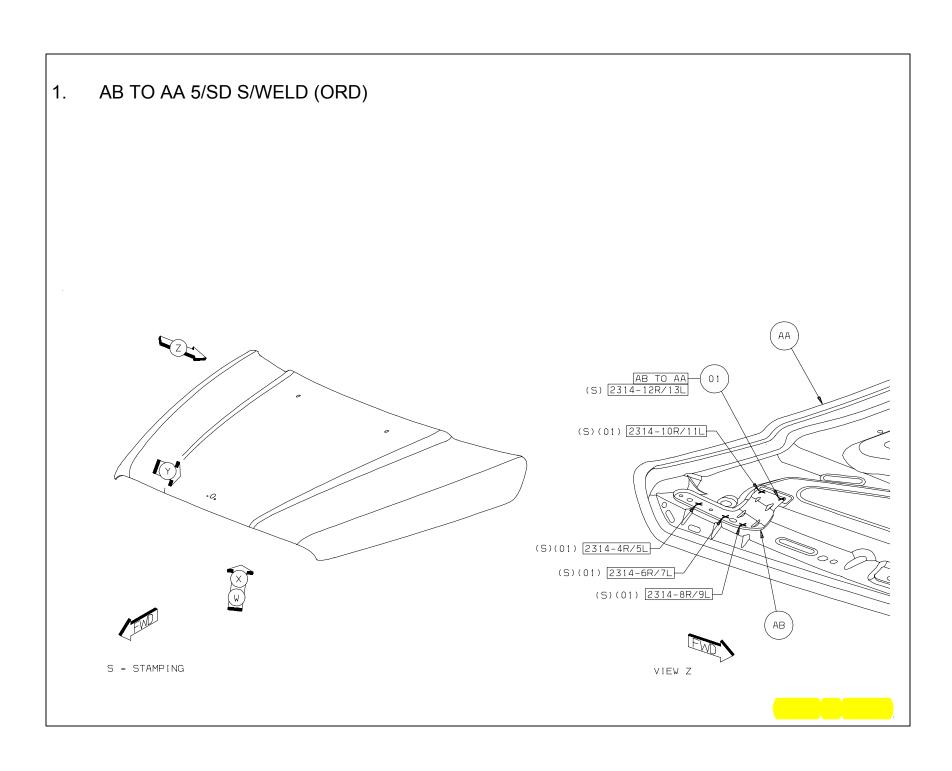




### WELD LAYOUT LOCATION GUIDE

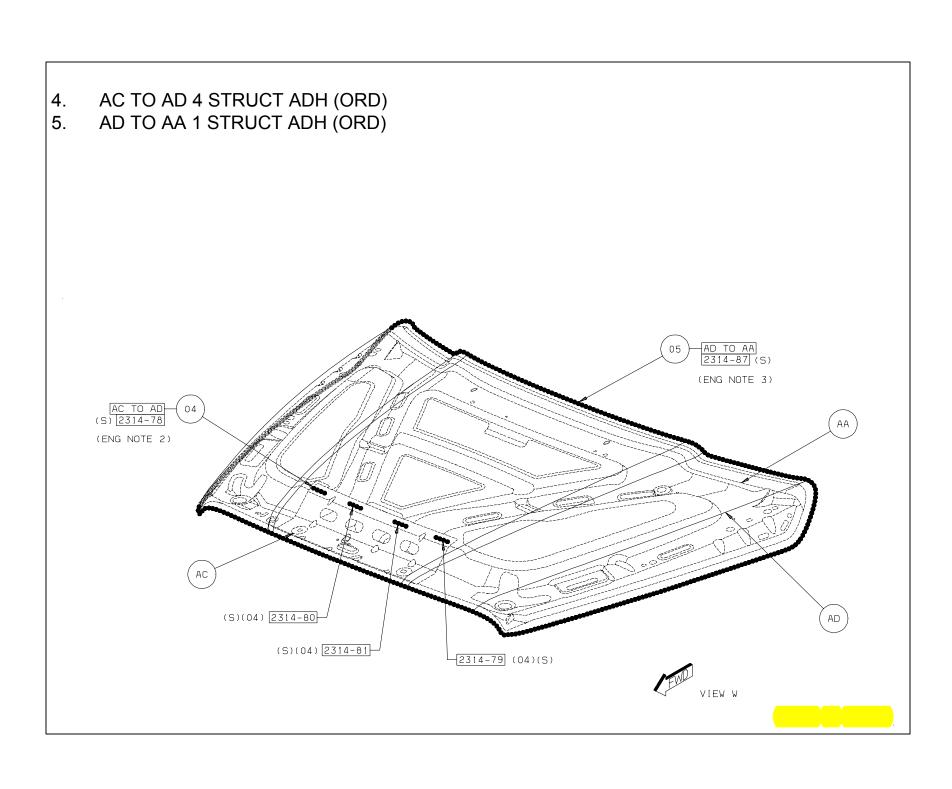


S = STAMPING



### AC TO AA 24 S/WELD (ORD) 2. 2314-33 (02)(S) (S)(02) 2314-21 2314-16 (02)(S) (S)(02) 2314-31 -2314-15 (02)(S) (S)(02) 2314-20 (S)(02) 2314-30 (S)(02) 2314-26 (S)(02) 2314-24 (S)(02) 2314-16 AC TO AA (S) 2314-14 -2314-23 (02)(S) 2314-43 (02)(S) -2314-41 (02)(S) 2314-25 (02)(S) 2314-39 (02)(S) 2314-27 (02)(S) -2314-35 (02)(S) 2314-32 (02)(S) -2314-38 (02)(S) VIEW Y 2314-40 (02)(5) 2314-42 (02)(5) (S)(02) 2314-22

### AD TO AA 35 STRUCT ADH (ORD) 2314-60R/61L (03)(S) AD TO AA (S)(03) 2314-44R/45L 2314-88 (03)(S) (ENG NOTE 1) 2314-68 (03)(S) (S)(03) 2314-58R/59L 2314-70 (03)(S) (S)(03) 2314-46R/47L -2314-66 (03)(S) 2314-83 (03)(S) (S)(03) 2314-90R/91L 2314-67 (03)(S) (S)(03) 2314-48R/49L <del>2314-71</del> (03)(S) (S)(03) 2314-54R/55L (S)(03) 2314-50R/51L (S)(03) 2314-52R/53L (S)(03) 2314-64 (S)(03) 2314-74 (S)(03) 2314-76 -2314-69 (03)(S) (S)(03) 2314-72 2314-89 (03)(S) (S)(03) 2314-77 2314-65 (03)(S) (S)(03) 2314-73 2314-75 (03)(S)





AA SILL - INR RT -

AA SILL - INR LT -

AB SUPPORT - UNDERBODY HOLD-DOWN FRT RT -

AB SUPPORT - UNDERBODY HOLD-DOWN FRT LT -

AC CROSSMEMBER - C-PILLAR RT -

AC CROSSMEMBER - C-PILLAR LT -

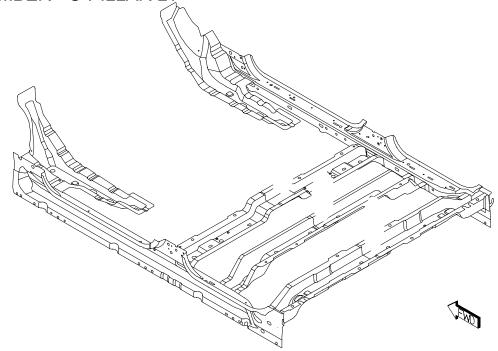
AD CROSSMEMBER - SEAT MTG 2ND ROW FRT I/B RT -

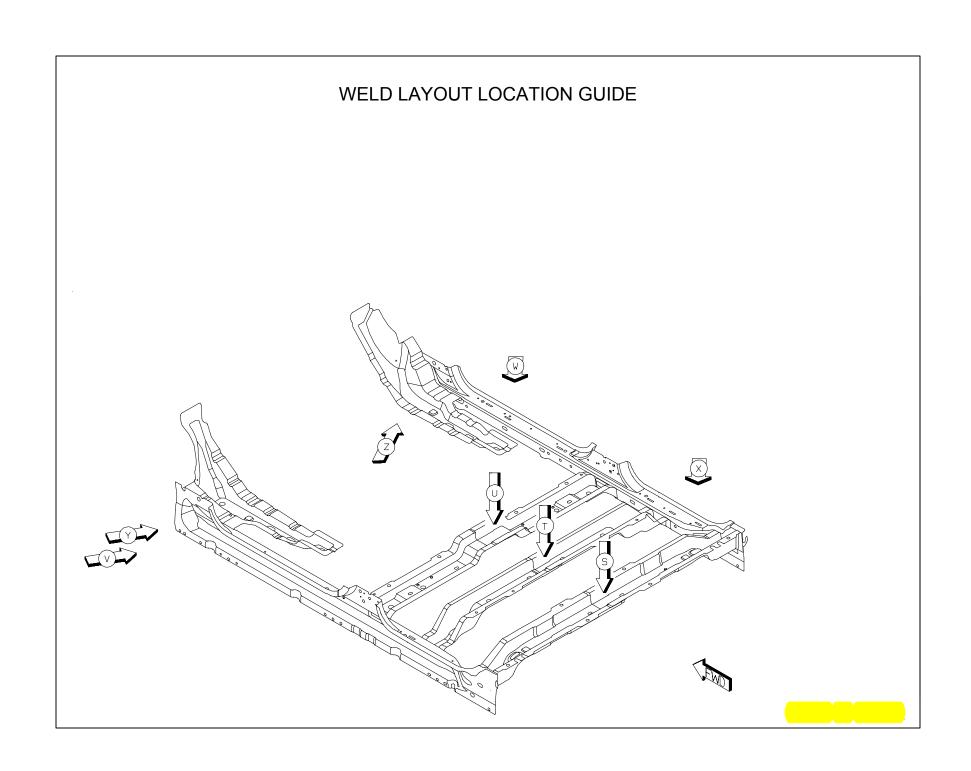
AE CROSSMEMBER - B-PILLAR RT -

AF CROSSMEMBER - B-PILLAR LT -

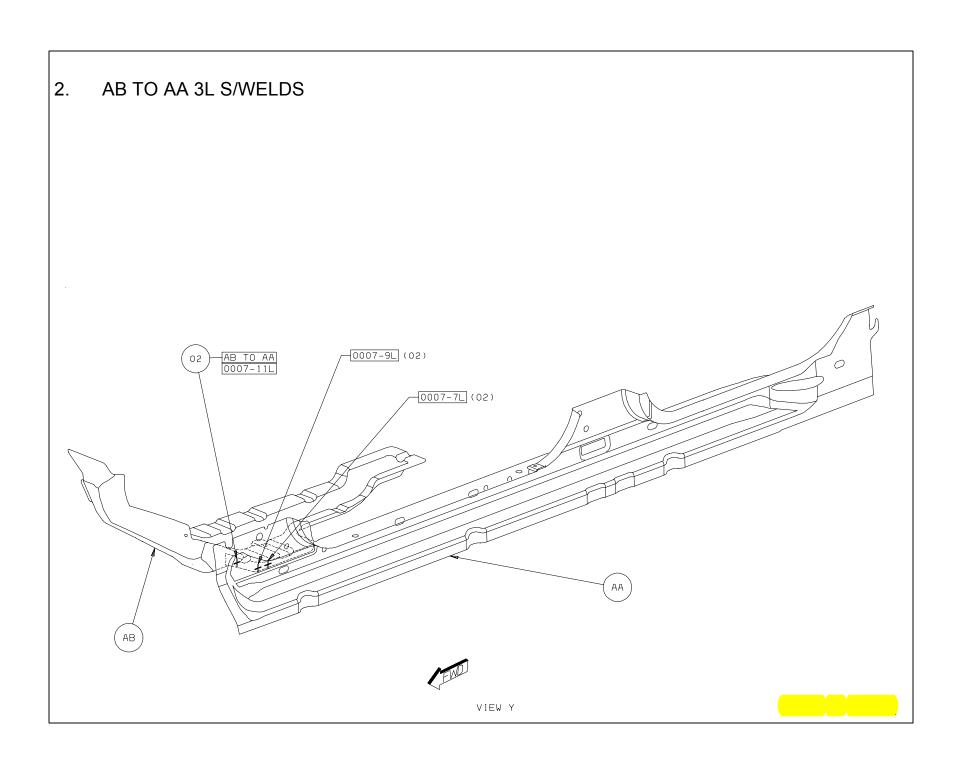
AG CROSSMEMBER - SEAT MTG 2ND ROW FRT I/B LT -

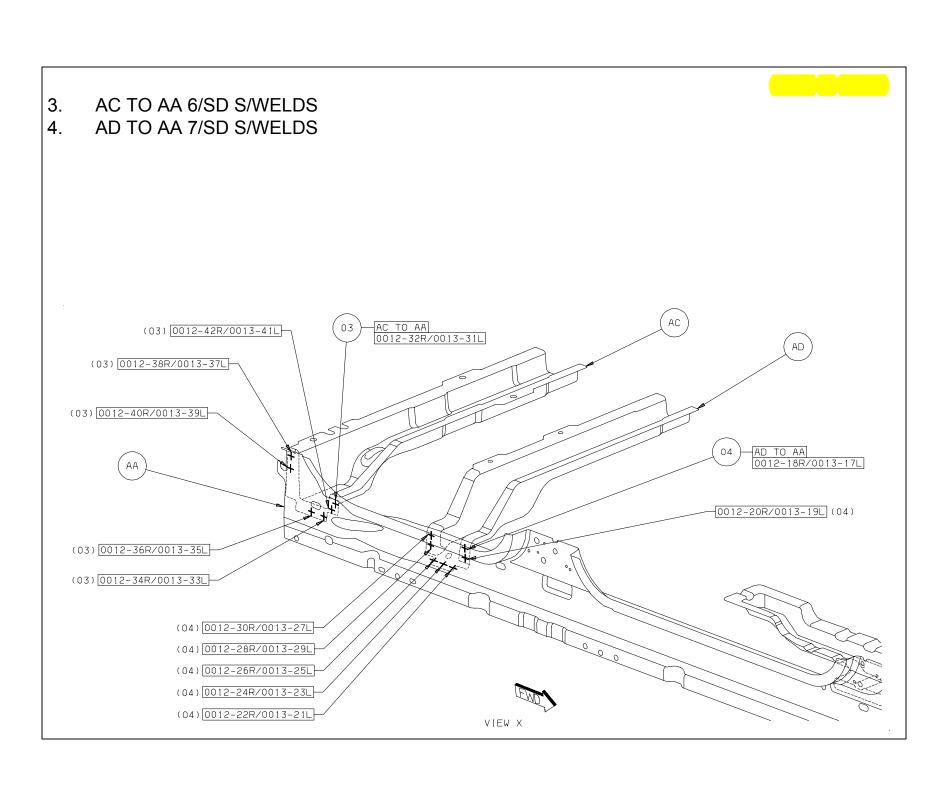
AH CROSSMEMBER - C-PILLAR LT -

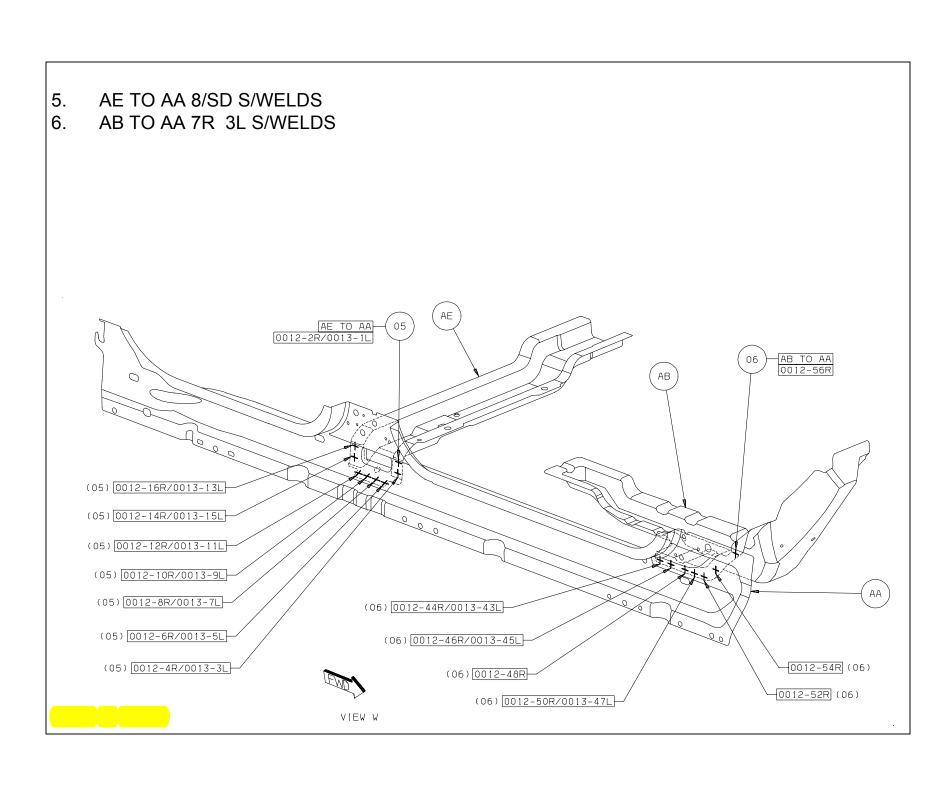


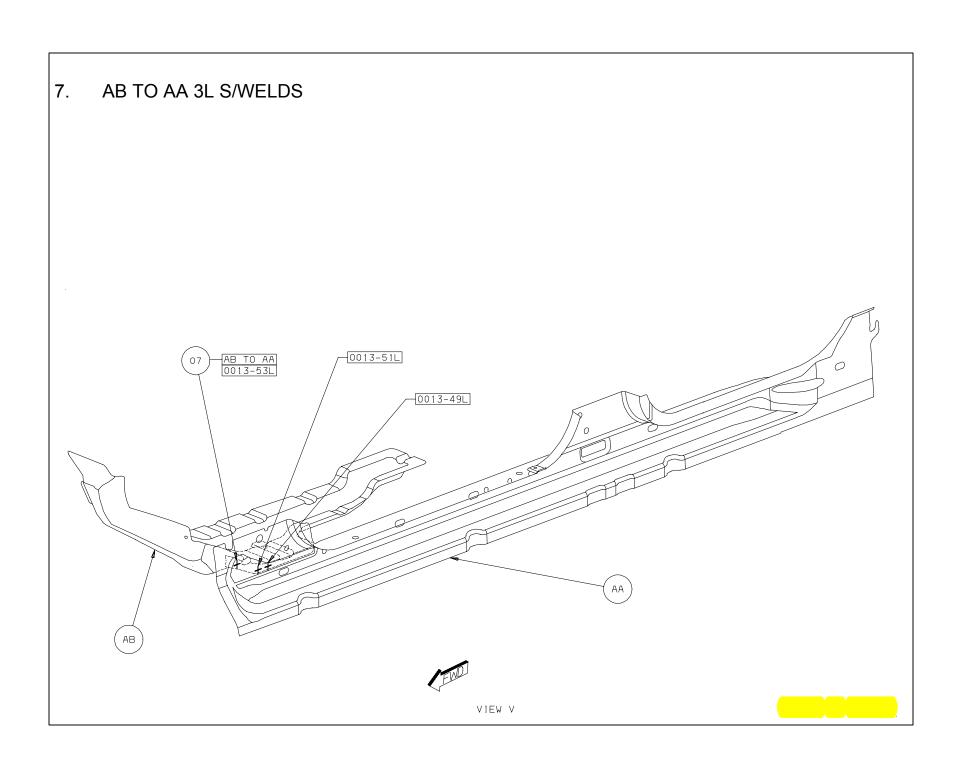


# AB TO AA 7R & 2L S/WELDS AB TO AA 0006-14R 0006-12R (01) 0006-10R (01) 0006-8R (01) 0006-6R (01) (01) 0006-4R/0007-3 (01) 0006-2R/0007-1 VIEW Z









# AF TO AE 6 S/WELDS ]。。\_\_ °\_\_ U ∘ ⊙ □ 0 000 8493-4 (08) AF TO AE-8493-2 ' lo 0 0 8493-6 (08) (08) 8493-23 (08) 8493-21 8493-25 (08) 0 VIEW U

## AG TO AD 6 S/WELDS 9. . . . ~\_. U ∘ ⊙ □ AD $\bigcirc$ $\circ$ 8493-32 0 AG TO AD-8493-30 8493-14 8493-8 0 8493-37 8493-39 FWD AG VIEW T

## 10. AH TO AC 6 S/WELDS ]。⊙ \_\_\_\_ 。 \_\_\_ $^{\circ}$ $^{-}$ $^{\circ}$ $^{\bigcirc}$ 0 AH TO AC 8493-18 (10) 8493-16 000 0 0 8493-19 (10) (10) 8493-15 8493-35 (10) (10) 8493-33 0 AH Ì VIEW S

### PARTS IDENTIFICATION LEGEND, OVERVIEW 9

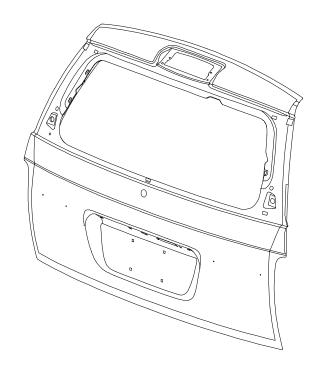
AA PANEL - LIFTGATE INR -

AB PANEL - LIFTGATE OTR -

AC REINF - LATCH MOUNT LIFT GATE -

AD TAPPING PLATE - LIFTGATE HINGE MOUNTING -

AE TAPPING PLATE - LIFTGATE INR PANEL & TROUGH PROP -



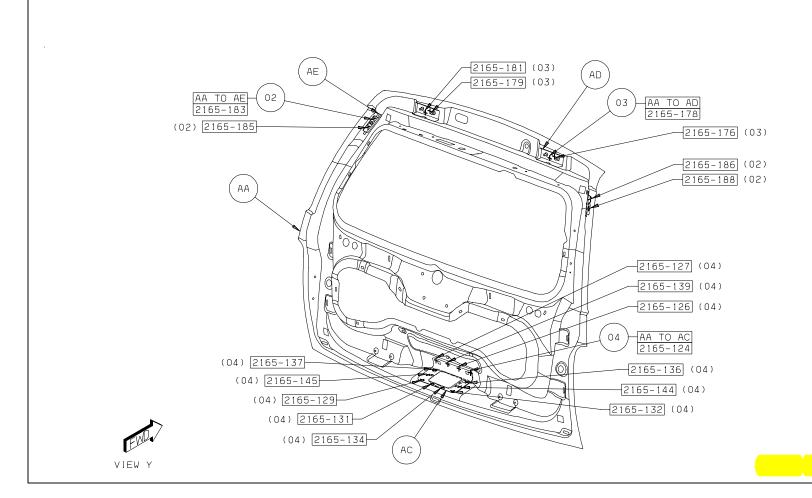


# WELD LAYOUT LOCATION GUIDE

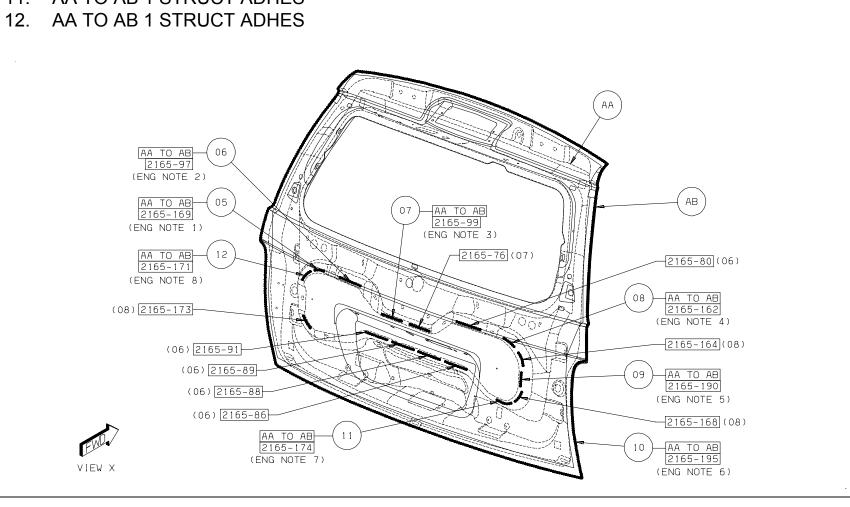
### AA TO AB 40 S/WELDS 2165-51 (01) (01) 2165-105 AA TO AB-2165-53 2165-49 (01) (01) 2165-55 2165-47 (01) (01) 2165-57 2165-45 (01) (01) 2165-121 2165-74 (01) (01) 2165-123 2165-18 (01) (01) 2165-59 2165-20 (01) (01) 2165-147 2165-22 (01) (01) 2165-61 2165-26 (01) 2165-24 (01) AB 2165-108 (01) (01) 2165-107 (01) 2165-63 (01) 2165-65 (01) 2165-67 2165-28 (01) (01) 2165-69 2165-30 (01) (01) 2165-71 2165-118 (01) (01) 2165-72 2165-120 (01) (01) 2165-44 2165-32 (01) (01) 2165-42 (01) 2165-40 2165-146 (01) (01) 2165-38 2165-34 (01) (01) 2165-36 2165-104 (01)



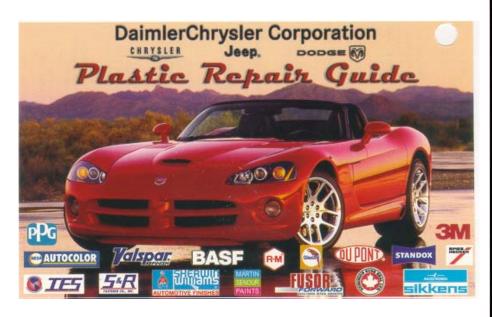
- 3. AA TO AD 4 S/WELDS
- 4. AA TO AC 12 S/WELDS



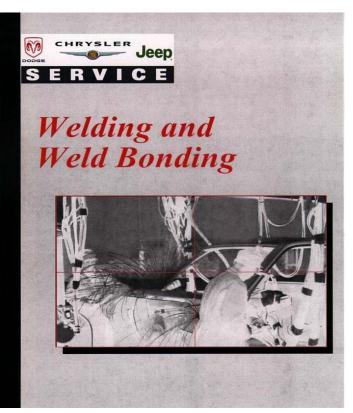
- 5. AA TO AB 1 STRUCT ADHES
- 6. AA TO AB 6 STRUCT ADHES
- 7. AA TO AB 2 STRUCT ADHES
- AA TO AB 4 STRUCT ADHES
- 9. AA TO AB 1 STRUCT ADHES
- 10. AA TO AB 1 STRUCT ADHES
- 11. AA TO AB 1 STRUCT ADHES



### **Additional Support and Technical Information**



Publication Number 81-170-0012



Publication Number 81-170-03005

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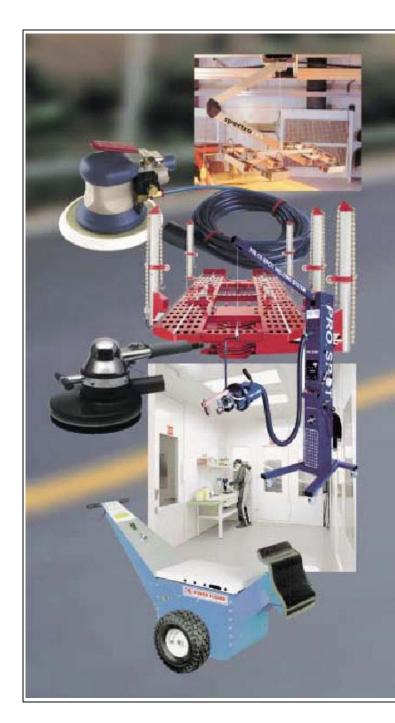




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		SIZES		APPLICATIONS	WORK TIME	DCX APPROVALS
SECONDARY METAL 80DY PANEL STALLATION	108B/109B/T30 MEDIUM-SET FORMULA	108B: 109B: T30:	7.6 oz (225 ml) 1.7 oz (50 ml) 7.6 oz (225 ml)	Secondary panel bonding of bare metals including aluminum. Quarter panels, rear body panels, roof panels and door skins.	40 to 50 min. @ 70°F 0:15 0:30 0:45 1:00 1:15+	Weld bonding per #81-170-03005
	112B/113B SLOW-SET FORMULA Mopar #05083855AA	112B: 113B:	7.6 oz (225 ml) 1.7 oz (50 ml) 7.6 oz (225ml)	Secondary panel bonding of bare metals including aluminum. Quarter panels, rear body panels, roof panels and door skins.	35 to 40 min. @ 90°F 70 min. @ 70°F 0:15 0:30 0:45 1:00 1:15+	Weld bonding per #81-170-03005, meets MS-CD507, TSB#23-026-02, TSB#23-044-02
SMC AND FIBERGLASS STALLATION AND REPAIR	114/TR9 FAST-SET FORMULA	114: TR9:	5.1 oz (150 ml) 5.1 oz (150 ml)	Finishing adhesive for minor scratches and gouges for all plastic including TPO, TEO, PP and urethane.  Hrs.Min	3 to 5 min. @ 70°F 0:15 0:30 0:45 1:00 1:15+	
	100EZ/101EZ/T10 HEAT-SET FORMULA	100EZ: 101EZ: T10:	10.1 oz (300 ml) 1.7 oz (50 ml) 10.1 oz (300 ml)	Structural and cosmetic repair of all types of rigid body plastics such as body panels, hoods, decks and doors.  Hrs:Min	40 min. @ 70°F 0:15 0:30 0:45 1:00 1:15+	
SEAM SEALING	129 CONTROLLED FLOW FORMULA	129:	10.1 oz (300 ml)	Two-component, controlled flow cosmetic sealer is excellent for standing and sloping seams. No tooling needed.	5 to 8 min. @ 70°F 0:15 0:30 0:45 1:00 1:15+	
	NON-SAG FORMULA	800: 801: 803:	10.3 oz (305 ml) 10.3 oz (305 ml) 10.3 oz (305 ml)	Single-component sealer/adhesive duplicates factory look on seams and bonds to all primed or painted metals and most plastics.	30 min. @ 70°F 0:15 0:30 0:45 1:00 1:15+	
FOAM PPLICATION	121/124 FLEXIBLE FORMULA	121: 124:	10.1 oz (300 ml) 1.7 oz (50 ml)	Sound deadening, sealing and filling of door skins to crash bar; hood panel to supports; trunk panel to supports; gas tank filler area.	5 to 10 sec. @ 70°F 0:15 0:30 0:45 1:00 1:15+	_
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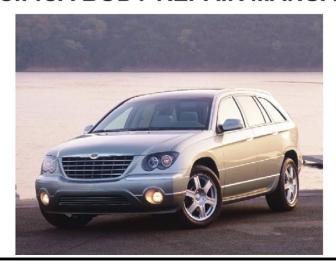








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AA PANEL - COWL SIDE LT -

AB NUT/WELD.HEX - NO.FIN.UNTHREADED - GROUND

AB NUT/WELD.HEX - NO.FIN.UNTHREADED - GROUND

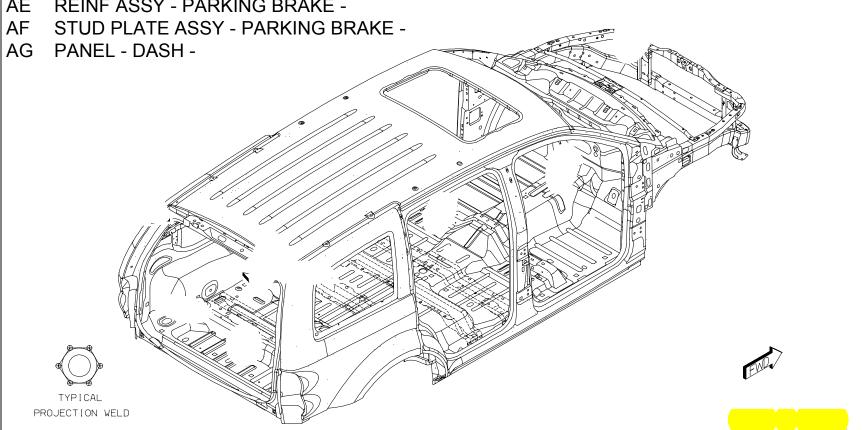
AC NUT/WELD.HEX - NO.FIN - LOWER I/P ATTACH

AC NUT/WELD.HEX - NO.FIN - LOWER I/P ATTACH

AD TAPPING PLATE - I/P MOUNTING -

AD TAPPING PLATE - I/P MOUNTING -

AE REINF ASSY - PARKING BRAKE -



### PARTS IDENTIFICATION LEGEND, OVERVIEW 10

AH STUD.WELD/EXTERNAL - HEADER.PT.SPECIAL - DASH SILENCER

AJ STUD.WELD/INTERNAL - HEADER.PT.NO.FIN.ROUND - MAG BRACKET ATTACH

AK PANEL - PLENUM LWR -

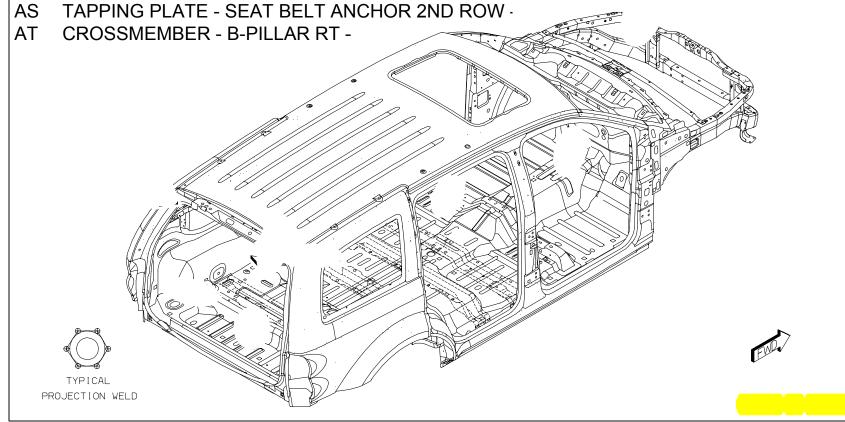
AL REINF - WIPER MOTOR MTG -

AM STUD.WELD/HDLESS - CHART.SPECIAL - HVAC TUB ATTACH

AP NUT/PIERCE - LOOSE.NO.FIN.RECTANGLE.SLF.PIERCE - MTG BRKT ATTACH

AR NUT/PIERCE - LOOSE.NO.FIN.RECTANGLE.SLF.PIERCE - WIPER ATTACH

AS TAPPING PLATE - SEAT BELT ANCHOR 2ND ROW -





AT CROSSMEMBER - B-PILLAR LT -

AU REINF - C-PILLAR CROSSMEMBER BODY MOUNTING -

AU REINF - C-PILLAR CROSSMEMBER BODY MOUNTING -

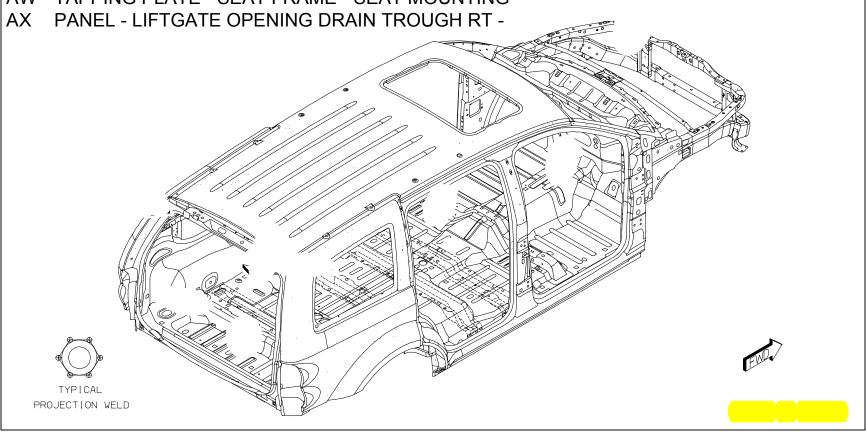
AV CROSSMEMBER - SEAT MTG 2ND ROW FRT I/B RT -

AV CROSSMEMBER - SEAT MTG 2ND ROW FRT I/B LT -

AW TAPPING PLATE - SEAT FRAME -

AW TAPPING PLATE - SEAT FRAME - SEAT MOUNTING

AW TAPPING PLATE - SEAT FRAME - SEAT MOUNTING



### PARTS IDENTIFICATION LEGEND, OVERVIEW 10

AY TAPPING PLATE - C-PILLAR STRIKER

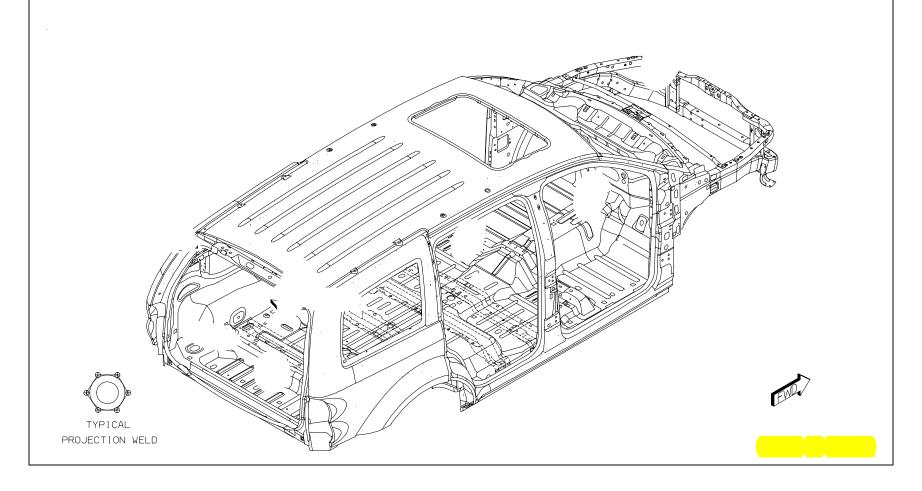
AZ CROSSMEMBER - RR SEAT SUPPORT TRIM -

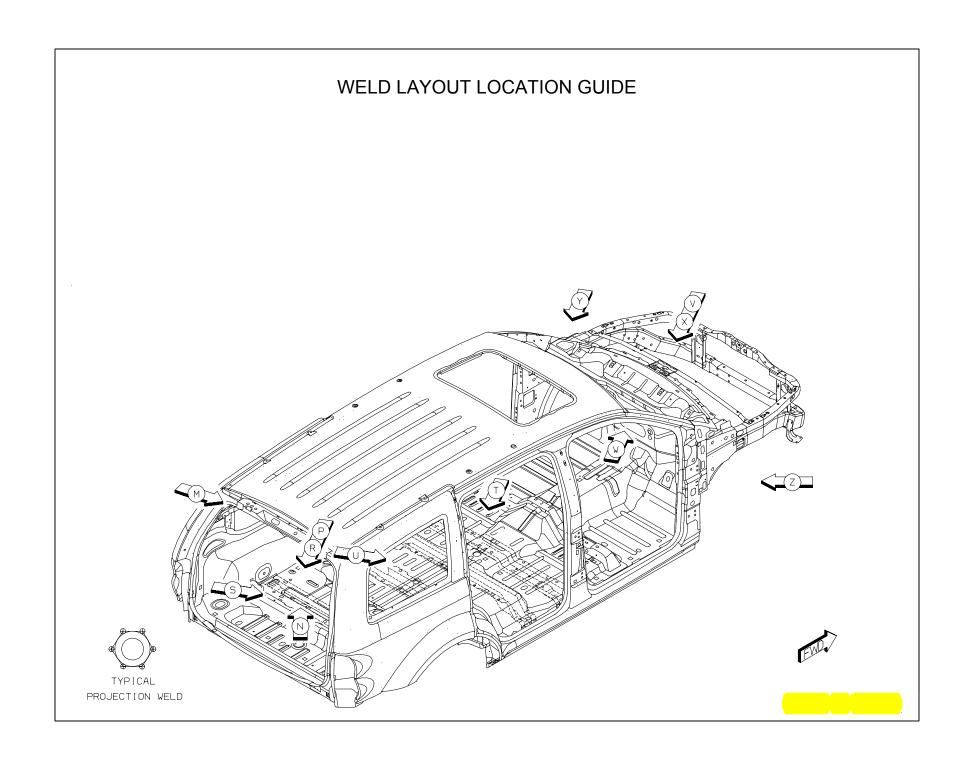
BA CROSSMEMBER - LIFTGATE OPENING LWR -

BB REINF - C-PILLAR CROSSMEMBER BODY MOUNTING -

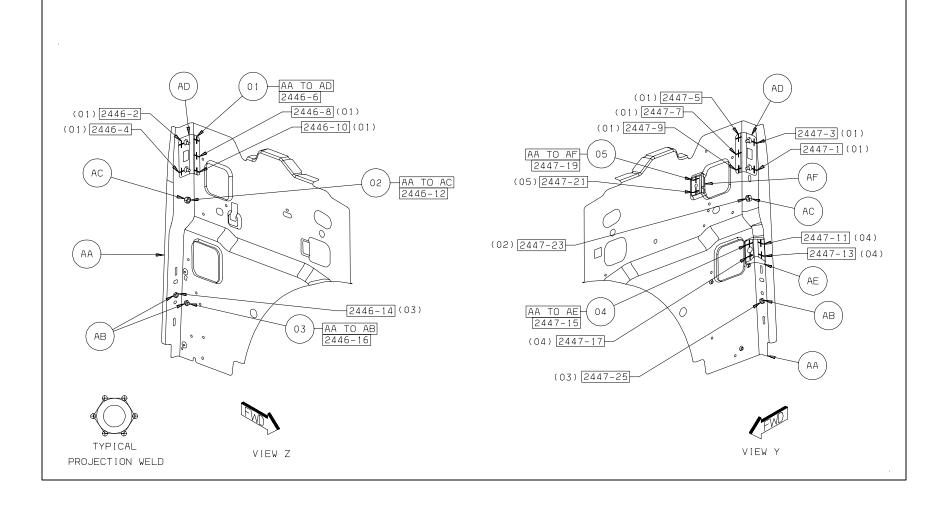
BC HEADER - RR UPR -

BD HEADER - RR LWR -



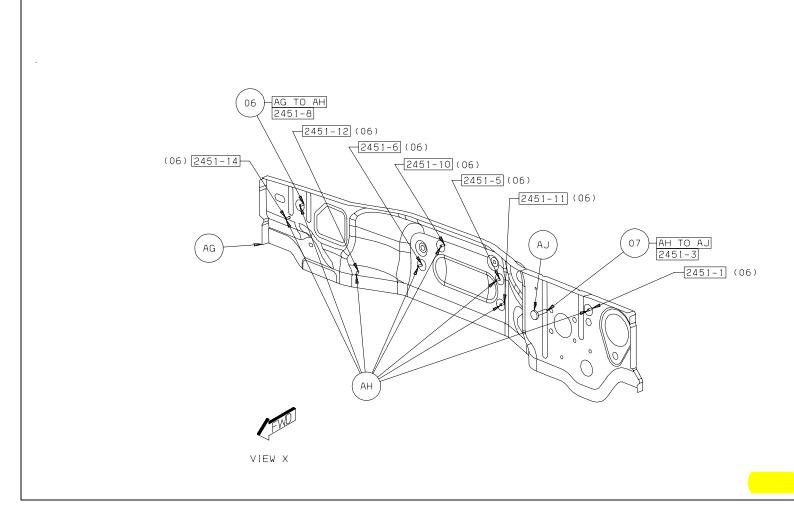


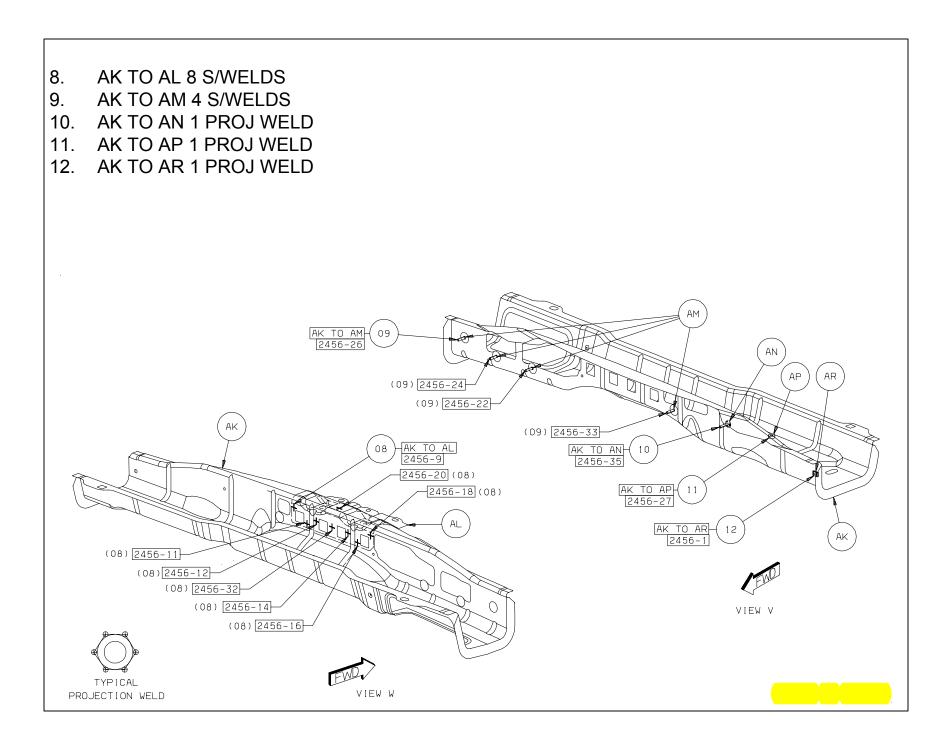
- 1. AA TO AD 10 S/WELDS
- 2. AA TO AC 2 PROJ WELDS
- 3. AA TO AB 3 PROJ WELDS
- 4. AA TO AE 4 S/WELDS
- 5. AA TO AF 2 S/WELDS





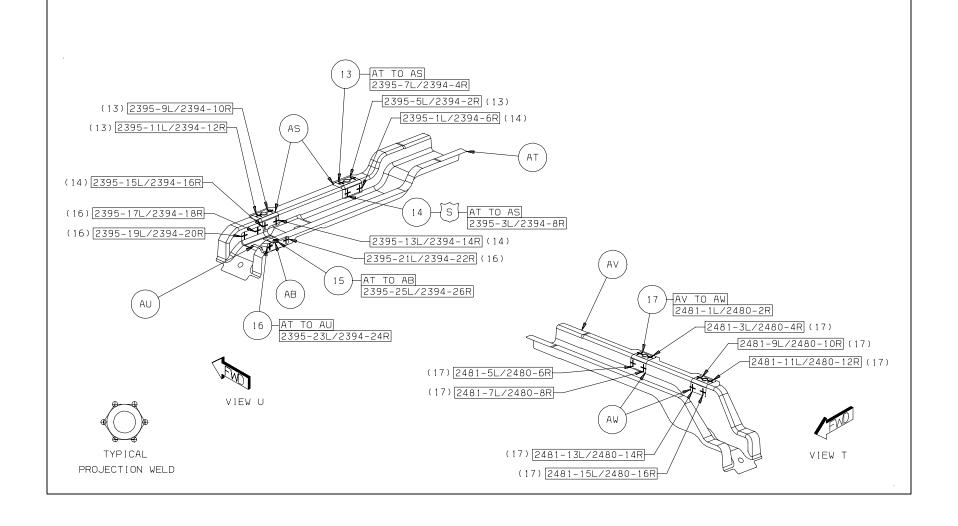
### 7. AH TO AJ 1 S/WELD

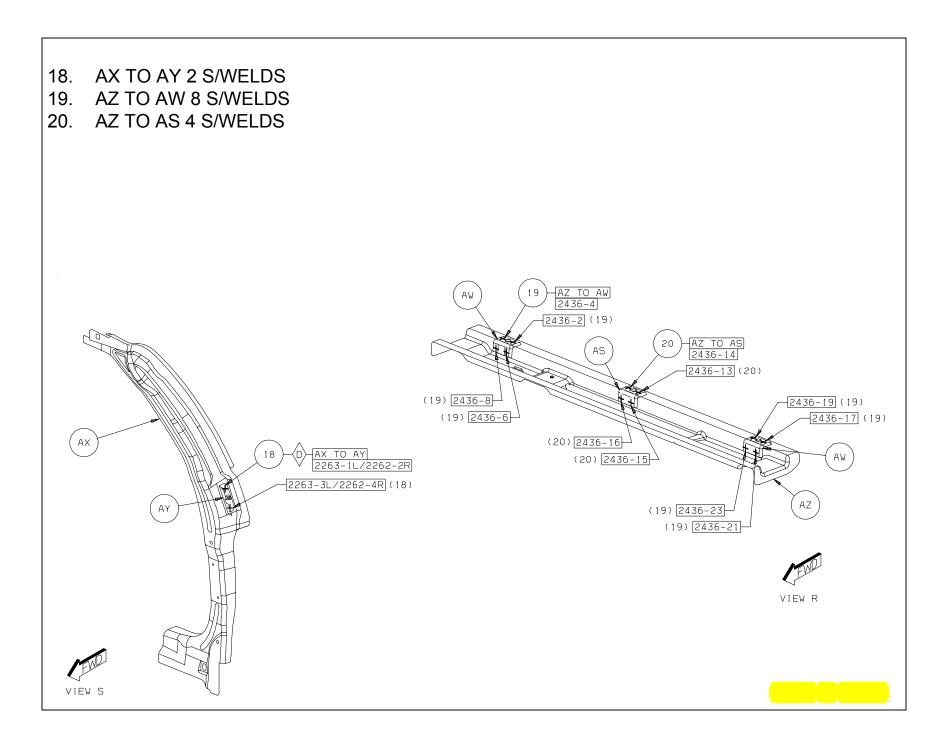






- 14. AT TO AS 4 S/WELDS
- 15. AT TO AB 1 PROJ WELD
- 16. AT TO AU 4 S/WELDS
- 17. AV TO AW 8 S/WELDS

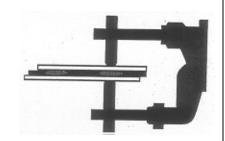


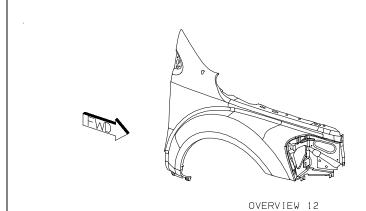


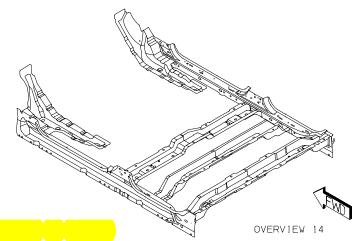
## 21. BA TO BB 8 S/WELDS BA TO BB 2443-6 2443-4 (21) (21) 2443-8 2443-3 (21) (21) 2443-10 2443-1 (21) 2443-13 (21) VIEW P 2443-11 (21)

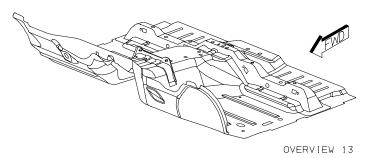
### 22. BC TO BD 29 S/WELDS (22) 2485-19 2485-21 (22) 2485-23 (22) (22) 2485-17 2485-25 (22) 2485-27 (22) 2485-29 (22) 2485-30 (22) 2485-28 (22) 2485-26 (22) (22) 2485-2 2485-24 (22) (22) 2485-4 2485-22 (22) (22) 2485-6 2485-20 (22) (22) 2485-8 BC TO BD 2485-18 (22) 2485-10 (22) 2485-12 (22) 2485-14 BD (22) 2485-15 (22) 2485-13 (22) 2485-11 (22) 2485-9 (22) 2485-7 VIEW N (22) 2485-5 (22) 2485-3 (22) 2485-1 VIEW M

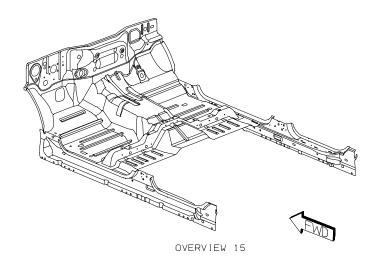
### WELD LOCATION OVERVIEW ZONES

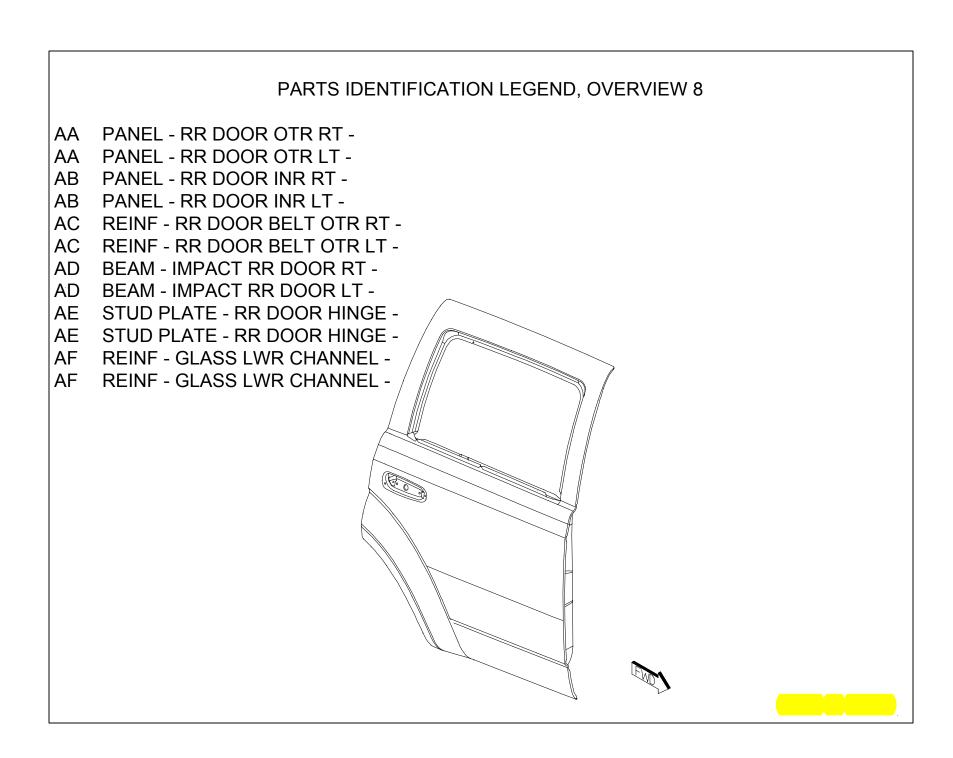






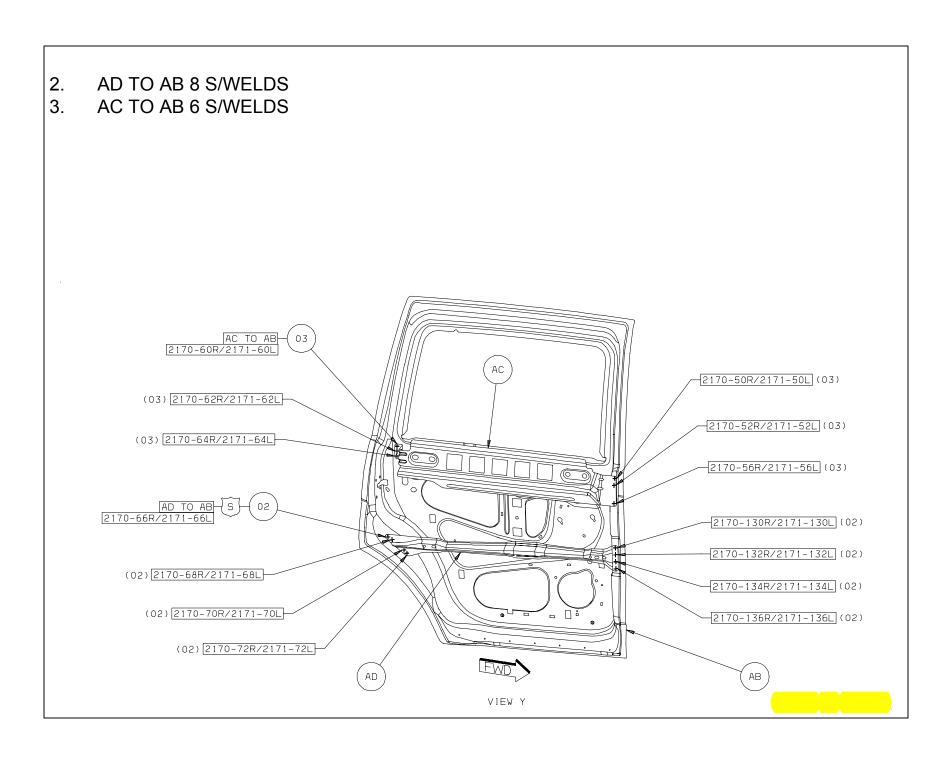


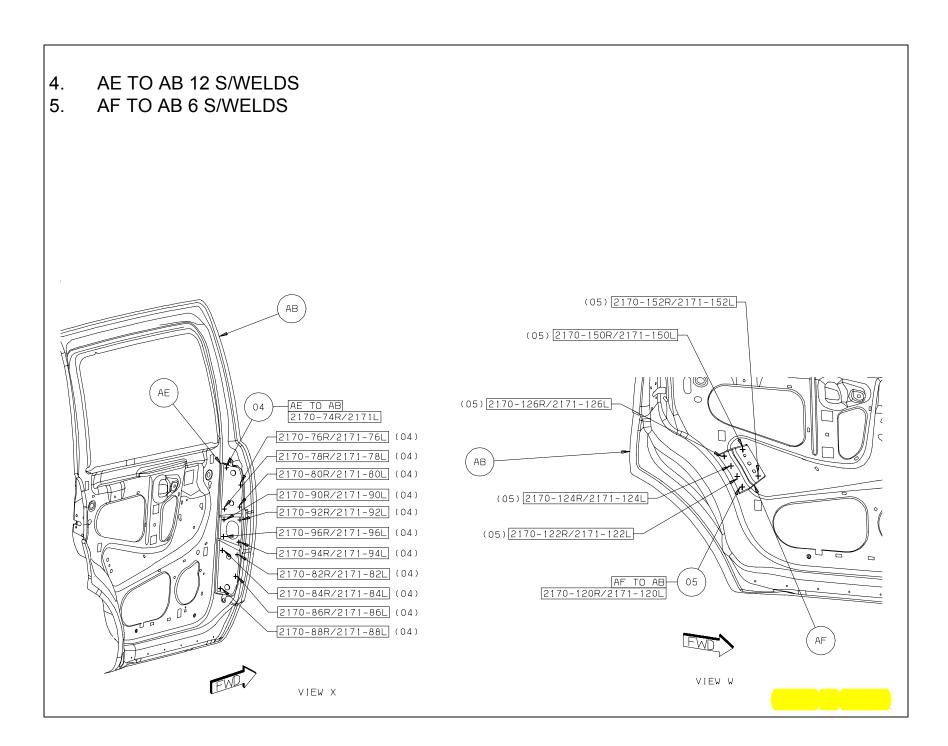




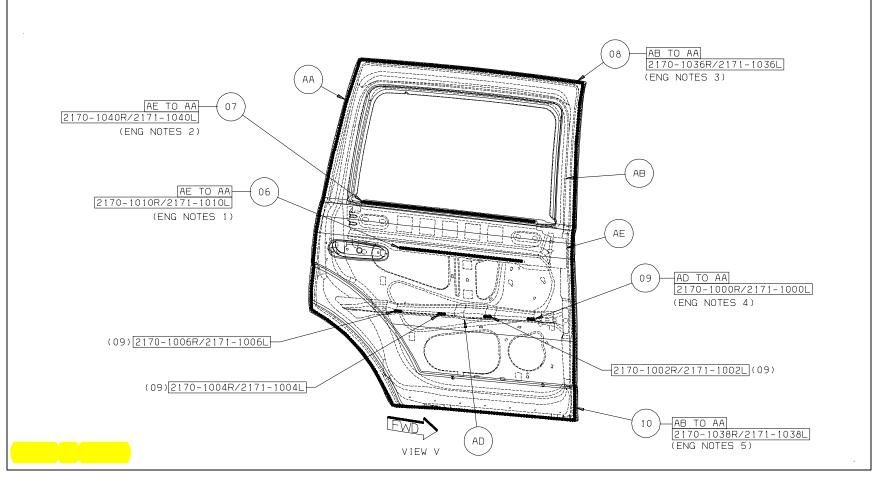
# WELD LAYOUT LOCATION GUIDE

### AA TO AB 22 S/WELDS 2170-28R/2171-28L (01) (01)2170-24R/2171-24L 2170-26R/2171-26L (01) (01) 2170-22R/2171-22L 2170-30R/2171-30L (01) (01) 2170-20R/2171-20L 2170-32R/2171-32L (01) 2170-34R/2171-34L (01) (01) 2170-18R/2171-18L (01) 2170-16R/2171-16L (01) 2170-14R/2171-14L (01) 2170-12R/2171-12L 2170-36R/2171-36L (01) (01) 2170-10R/2171-10L 2170-38R/2171-38L (01) (01) 2170-8R/2171-8L 2170-40R/2171-40L (01) 2170-42R/2171-42L (01) AA TO AB 2170-6R/2171-6L 2170-44R/2171-44L (01) 2170-46R/2171-46L (01) 2170-48R/2171-48L (01) VIEW Z





- 6. AE TO AA 1 STRUCT ADHES
- 7. AE TO AA 1 STRUCT ADHES
- 8. AB TO AA 1 STRUCT ADHES
- AD TO AA 4 STRUCT ADHES
- 10. AB TO AA 1 STRUCT ADHES



### PARTS IDENTIFICATION LEGEND, OVERVIEW 16

AA PAN - FLOOR RR -

AB REINF - RR FLOOR PAN RT -

AC 55364063AA BRACKET - JACK HOLD-DOWN

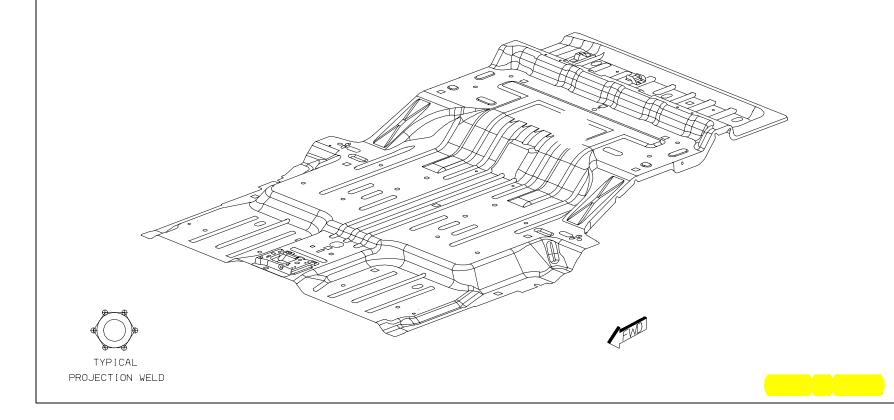
AD 55362428AA BRACKET - JACK MTG

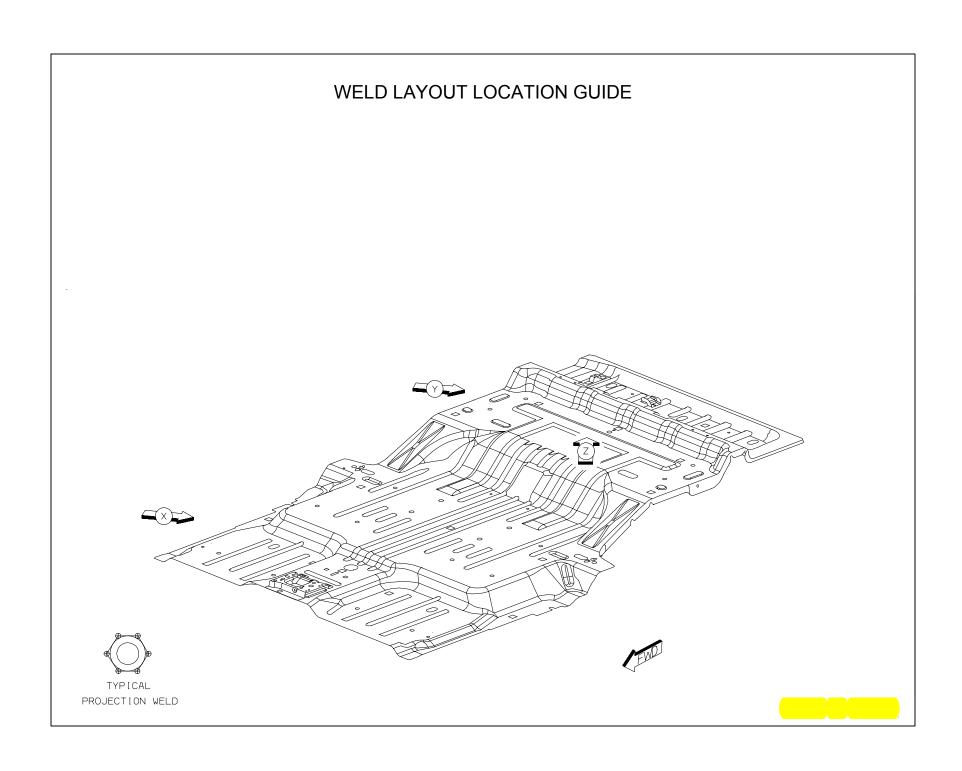
AE CROSSMEMBER - RR SEAT SUPPORT TRIM -

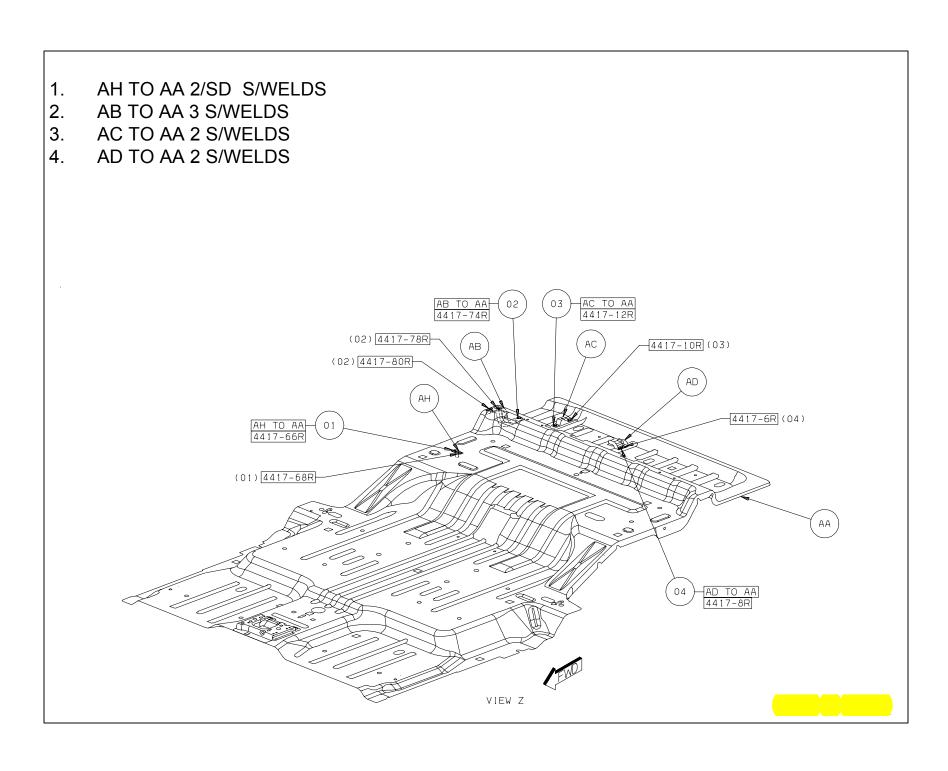
AF STUD.WELD/EXTERNAL - HEADER.PT.SPECIAL - DASH SILENCER

AG BRACKET - AIR BAG ELECTRICAL CONTROL MODULE -

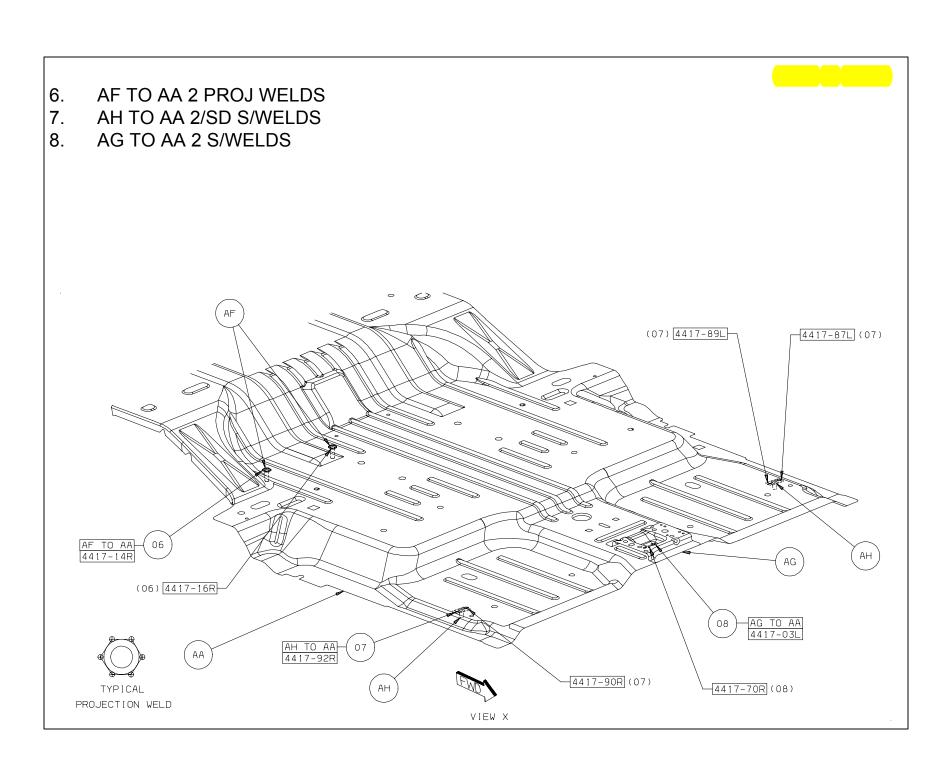
AH 04780682AA TAPPING PLATE - SEAT BELT RETRACTOR ANCHOR RR CTR







### 5. AE TO AA 21/SD S/WELDS 4417-39 (05) (05) 4417-37 (05) 4417-25 (05) 4417-33 4417-43 (05) (05) 4417-21 (05) 4417-20 (05) 4417-29 4417-47 (05) 4417-57 (05) (05) 4417-24 4417-51 (05) 4417-55 (05) (05) 4417-28 4417-83 (05) (05) 4417-32 (05) 4417-36 4417-53 (05) (05) 4417-38 4417-49 (05) (05) 4417-42 4417-45 (05) (05) 4417-46 4417-41 (05) (05) 4417-50 4417-35 (05) (05) 4417-82 4417-31 (05) AE TO AA-05 4417-27 (05) 4417-23 (05) AE Ì 4417-19 (05) 4417-18 (05) 4417-22 (05) (05) 4417-54 4417-26 (05) (05) 4417-52 4417-30 (05) ΑА (05) 4417-48 4417-34 (05) (05) 4417-44 VIEW Y 4417-40 (05)



### **SAFETY NOTICE**

#### **CAUTION**

All SERVICE AND REBUILDING INSTRUCTIONS CONTAINED HEREIN ARE APPLICABLE TO, AND FOR THE CONVENIENCE OF, THE AUTOMOTIVE TRADE ONLY. All test and repair procedures on components or assemblies in non-automotive applications should be repaired in accordance with instructions supplied by the manufacturer of the total product.

Proper service and repair is important to the safe, reliable operation of all motor vehicles. The service produces recommended and described in this publication were developed for professional service personnel, and are effective methods for performing vehicle repair. Following these procedures will help ensure efficient economical vehicle performance and service reliability. Some service procedures require the use of special tools designed for specific procedures. These special tools should be used as recommended throughout this publication.

Special attention should be exercised when working with spring-or tension-loaded fasteners and devices such as E-Clips, Circlips, Snap rings, etc., since careless removal may cause personal injury. Always wear safety goggles when working on vehicles or vehicle components.

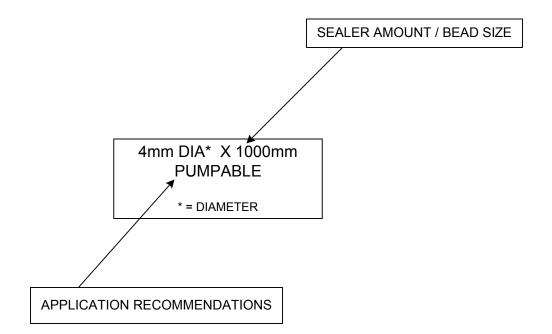
It is important to note that this publication contains various Cautions and Warnings. These should be read carefully in order to minimize risk of personal injury or the possibility that improper service methods may damage the vehicle or render it unsafe. It is important to note that these Cautions and Warnings cover only the situations and procedures DaimlerChrysler Corporation has encountered and recommended. DaimlerChrysler Corporation cannot possibly know, evaluate, and advise the service trade of all conceivable ways in which service may be performed, or of the possible hazards of each. Consequently, DaimlerChrysler has not undertaken any such broad service review. Accordingly, anyone uses a service procedure or tool that is not recommended in this publication must be certain that neither personal safety, nor vehicle safety, will be jeopardized by the service methods they select.



# DURANGO SEALER LOCATIONS



## **BODY SHOP** SEALER REFERENCE



ALL REPAIRS WHERE PANELS WERE REPLACED HAVE VOIDS THAT MUST BE FILLED WITH SEALANT. SEALANT SHOULD BE APPLIED TO ALL SKIPS,PIN HOLES,IN SEALERS AND WELD BURN THROUGH HOLES ON THE INTERIOR AND EXTERIOR OF THE VEHICLE THAT WOULD PERMIT LEAKAGE OF WATER.AIR OR EXHAUST FUMES. TYPICAL AREAS OF THE EXTERIOR THAT MUST BE SEALED ARE LISTED IN THIS SECTION. AREAS OF THE INTERIOR THAT MUST BE SEALED ARE FLOOR PANS. WHEEL-HOUSES, DASH PANEL, AND COWL SIDES

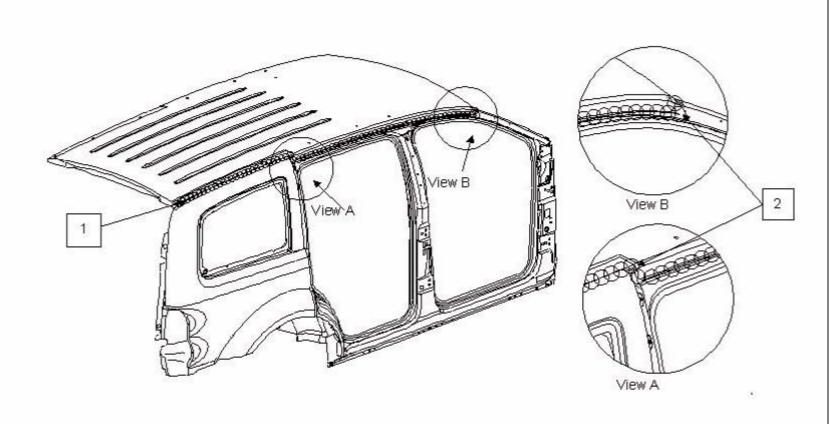
#### SEALER LEGEND



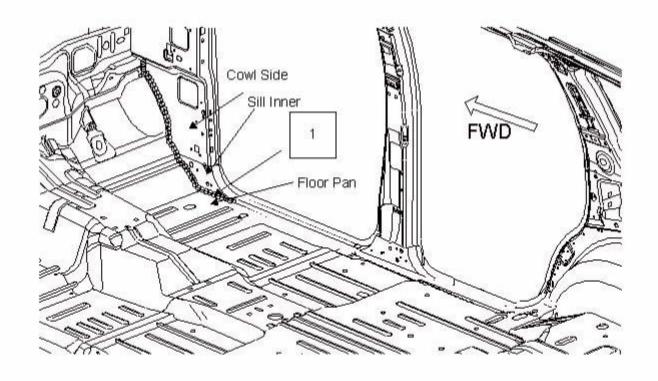
THUMBGRADE SEALER

PUMPABLE SEALER

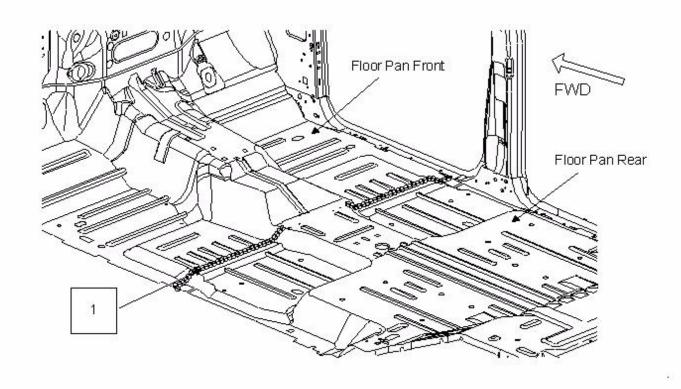
ZZZZ HIDDEN SEALER



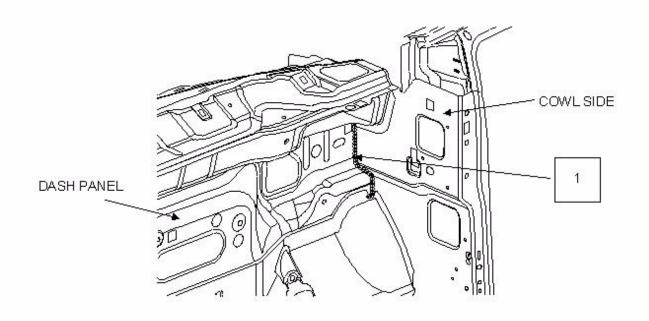
- 1. PUMPABLE VINYL SEALER LENGTH: 4MM X 2754MM BOTH SIDES. TO: ROOF PANEL/BODY SIDE APERTURE AS SHOWN IN ILLUSTRATION.
- 2. WIPE WRAP AREAS AT A-PILLAR AND C-PILLAR AS NOTED IN ILLUSTRATION FOR SMOOTH APPEARANCE.



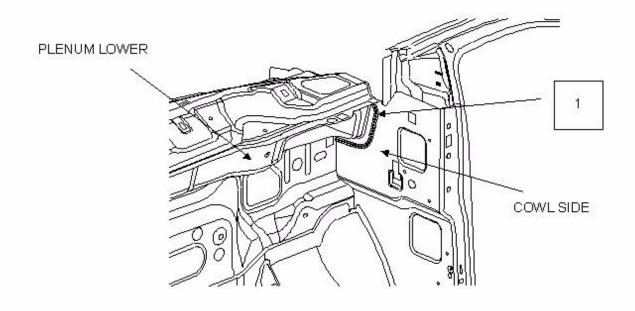
1. PUMPABLE VINYL SEALER LENGTH: 10MM X 692MM PER SIDE. TO: FLOOR PAN TO SILL INNER AND COWL SIDE AS SHOWN IN ILLUSTRATION.



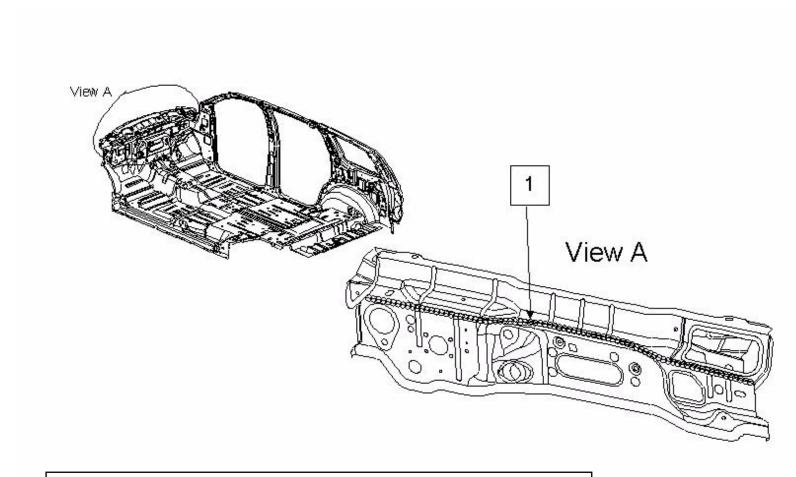
1. PUMPABLE VINYL SEALER LENGTH: 16MM X 3MM X 1483MM. TO: FLOOR PAN FRONT TO FLOOR PAN REAR OVERLAP SEAM.



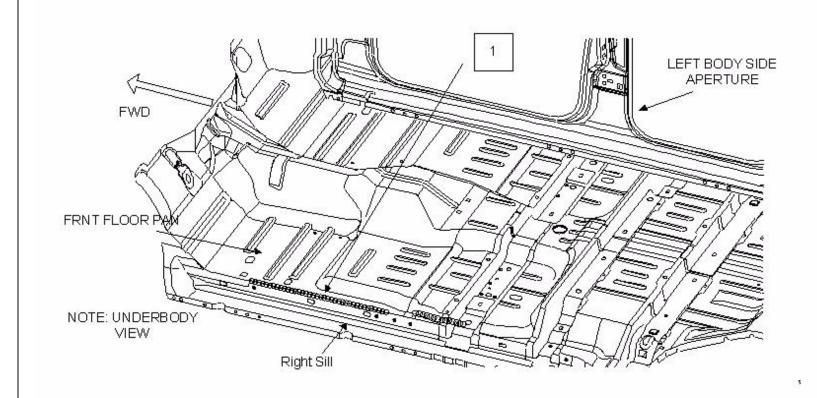
1. PUMPABLE VINYL SEALER LENGTH: 16MM X 3MM X 220MM PER SIDE. TO: DASH TO COWL SIDE AS SHOWN IN THE ILLUSTRATION.



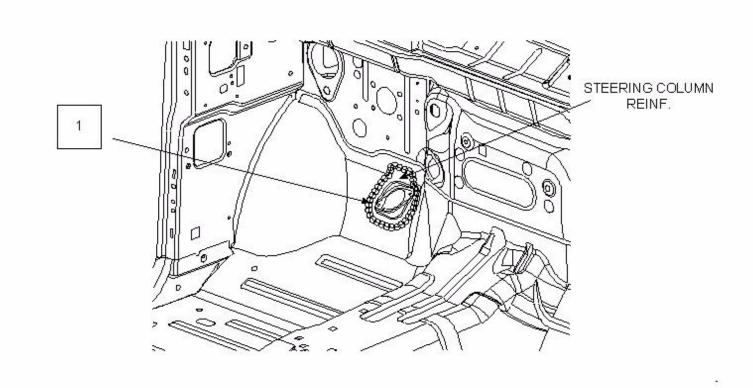
1. PUMPABLE VINYL SEALER LENGTH: 16MM X 3MM X 232MM PER SIDE. TO: PLENUM LOWER TO COWL SIDE AS SHOWN IN THE ILLUSTRATION.



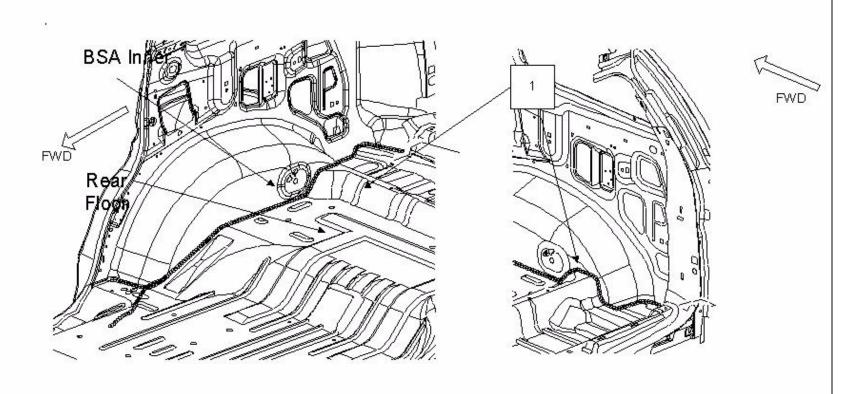
1. PUMPABLE VINYL SEALER LENGTH: 16MM X 3MM X 1435MM. TO: DASH PANEL TO PLENUM LOWER AS SHOWN IN ILLUSTRATION.



1. PUMPABLE VINYL SEALER LENGTH: 16MM X 3MM X 648MM PER SIDE. TO: FLOOR PAN FRONT TO SILL INNER- UNDERBODY.

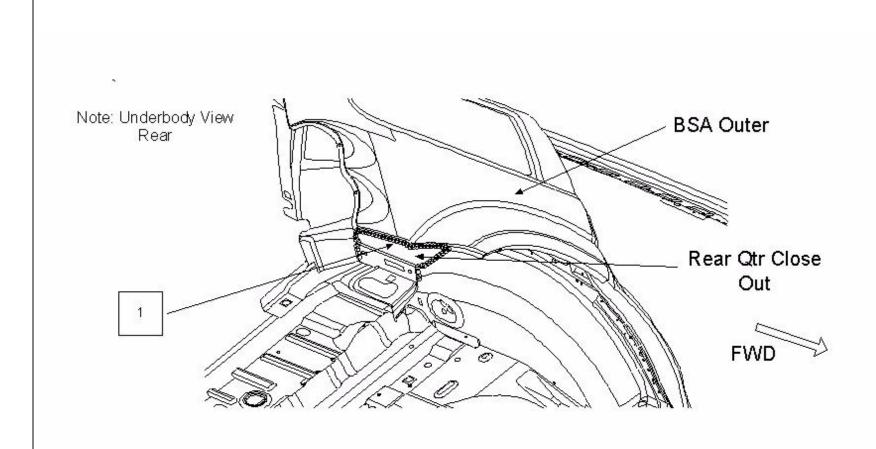


1. PUMPABLE VINYL SEALER LENGTH: 16MM X 3MM X 472MM. TO: STEERING COLUMN REINF. TO FRONT FLOOR PAN AS SHOWN IN THE ILLUSTRATION.

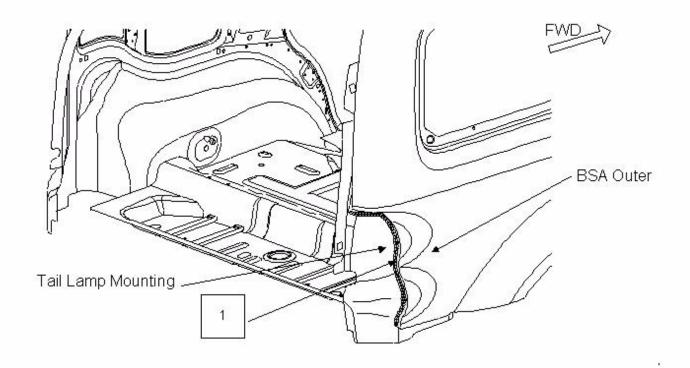


1. PUMPABLE VINYL SEALER LENGTH: 16MM X 3MM X 1456MM RIGHT SIDE 16MM X 3MM X 1464MM LEFT SIDE.

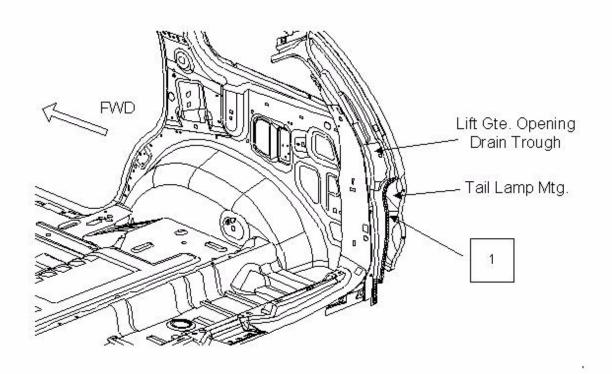
TO: BODY SIDE INNER TO REAR FLOOR PAN AS SHOWN IN ILLUSTRATION.



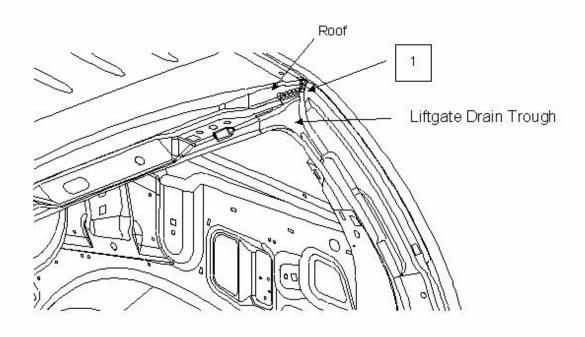
1. PUMPABLE VINYL SEALER LENGTH: 16MM X 3MM X 649MM LEFT AND RIGHT SIDE. TO: REAR QUARTER CLOSE OUT TO BSA OUTER UNDERBODY.



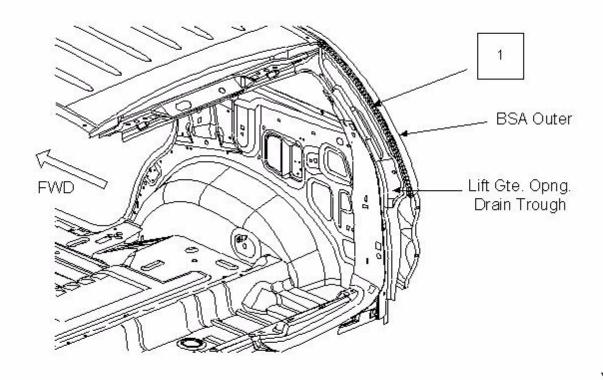
1. PUMPABLE VINYL SEALER LENGTH: 4MM X 513MM PER SIDE.
TO: TAIL LAMP MOUNTING TO BODY SIDE OUTER AS SHOWN IN ILLUSTRATION.



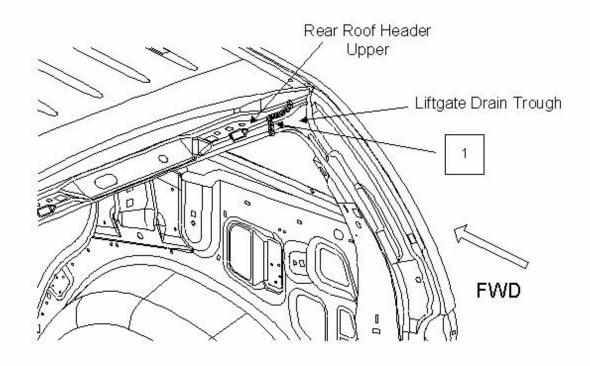
1. PUMPABLE VINYL SEALER LENGTH: 4MM X 313MM PER SIDE. TO: TAIL LAMP MOUNTING TO LIFTGATE OPENING DRAIN TROUGH.



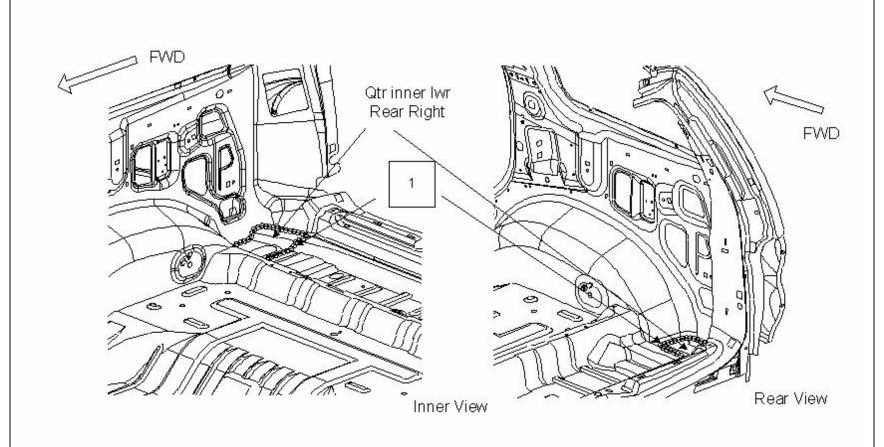
1. PUMPABLE VINYL SEALER LENGTH: 4MM X 80MM PER SIDE. TO: ROOF TO LIFTGATE OPENING DRAIN TROUGH.



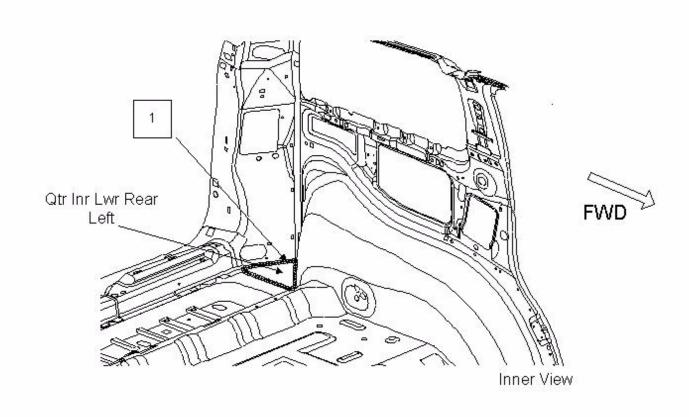
1. PUMPABLE VINYL SEALER LENGTH: 4MM X 638MM PER SIDE. TO: BODY SIDE APERTURE TO LIFTGATE OPENING DRAIN TROUGH.



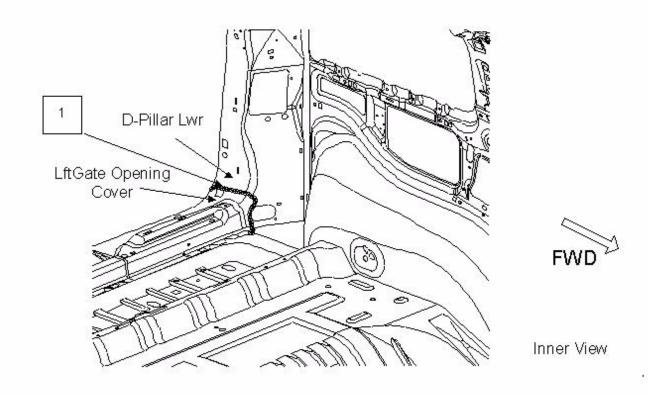
1. PUMPABLE VINYL SEALER LENGTH: 4MM X 183MM PER SIDE. TO: REAR ROOF HEADER TO LIFTGATE OPENING DRAIN TROUGH.



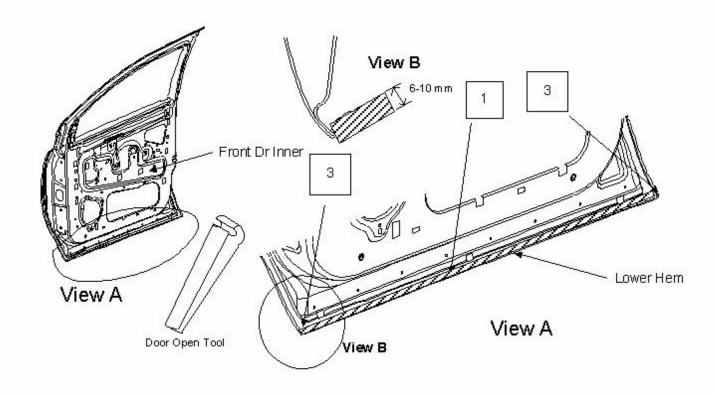
1. PUMPABLE VINYL SEALER LENGTH: 16MM X 3MM X 857MM. TO: REAR FLOOR PAN TO QUARTER INNER LOWER REAR RIGHT.



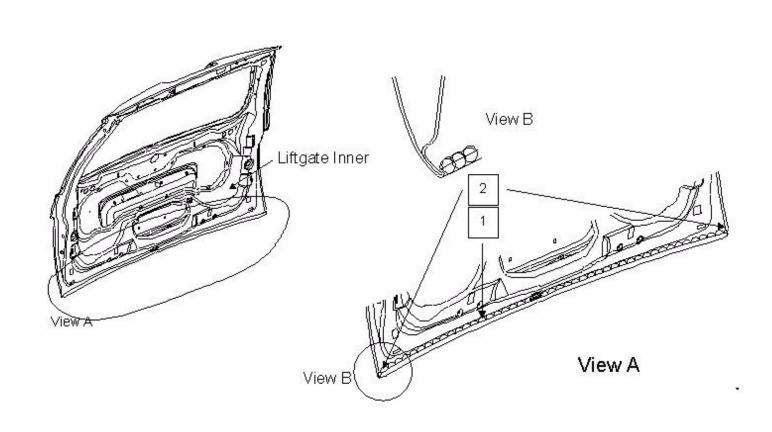
1. PUMPABLE VINYL SEALER LENGTH: 16MM X 3MM X 585MM. TO: REAR FLOOR PAN TO QUARTER INNER LOWER REAR LEFT.



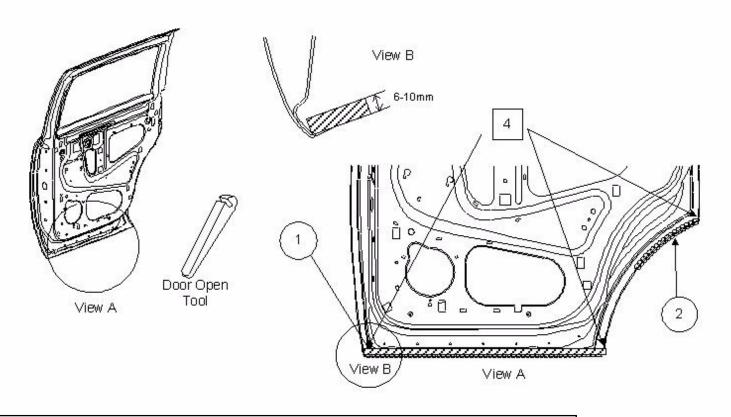
1. PUMPABLE VINYL SEALER LENGTH: 16MM X 3MM X 296MM PER SIDE. TO: D-PILLAR LOWER TO LIFTGATE OPENING COVER PANEL.



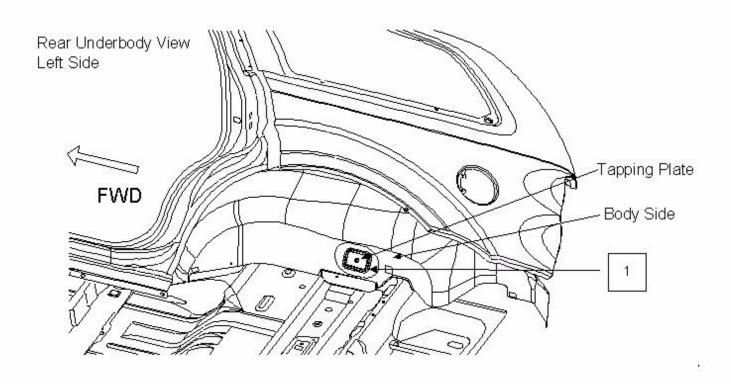
- 1. PUMPABLE VINYL SEALER LENGTH: 6-10MM X 2MM X 1017MM PER SIDE.
- TO: FRONT DOOR LOWER HEM FLANGE.
- 2. OPEN FRONT DOOR AS NECESSARY USING DOOR OPEN TOOL. TOOL MAY BE NEEDED AS THE DOOR IS OPENED FROM DECK BELOW VEHICLE.
- 3. WIPE CORNERS OF HEM FOR A SMOOTH APPEARANCE.



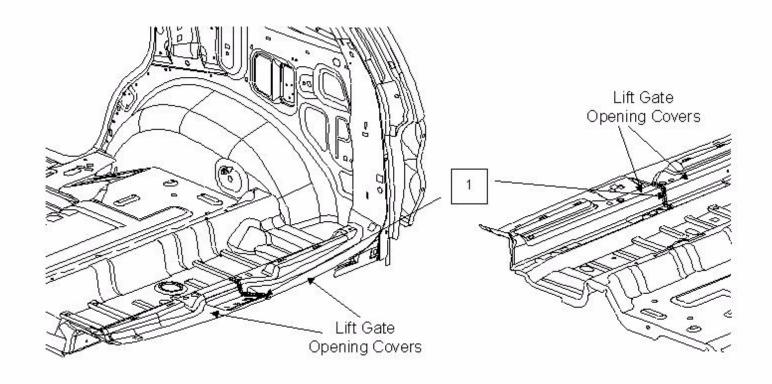
1. PUMPABLE VINYL SEALER LENGTH: 6-10MM X 2MM X 1422MM. TO: LIFT GATE LOWER HEM FLANGE.
2 WIPE CORNERS OF HEM FOR A SMOOTH APPEARANCE.



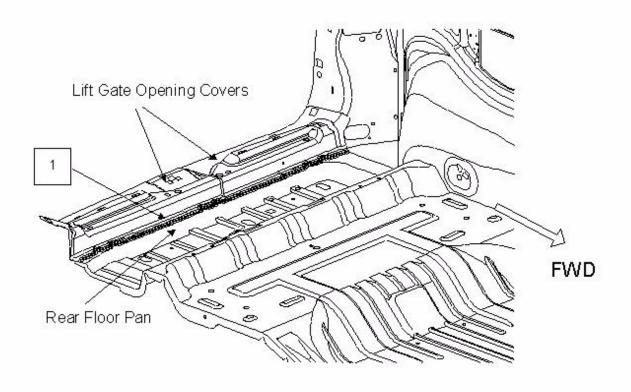
- 1. PUMPABLE VINYL SEALER LENGTH: 6-10MM X 2MM X 750MM PER SIDE. TO: REAR DOOR LOWER HEM FLANGE.
- 2. PUMPABLE VINYL SEALER LENGTH: 6-10MM X 2MM X 320MM PER SIDE. TO: DOG LEG PORTION OF RR DOOR HEM FLANGE.
- 4. WIPE CORNERS OF HEM FOR A SMOOTH APPEARANCE.



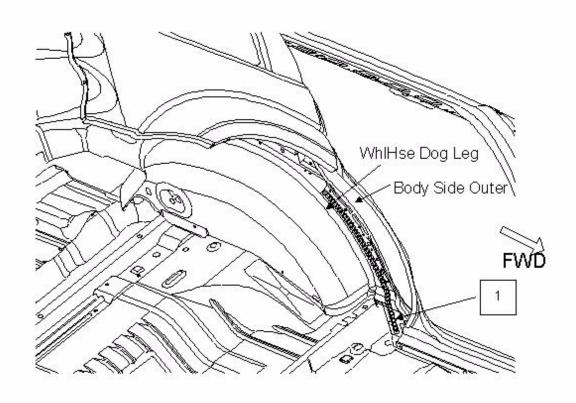
1. PUMPABLE VINYL SEALER LENGTH: 16MM X 3MM X 257MM PER SIDE. TO: REAR SEATBELT TAPPING PLATE TO BODY SIDE.



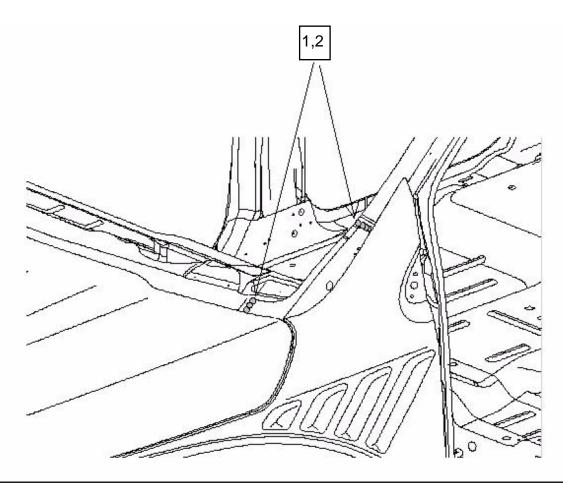
1. PUMPABLE VINYL SEALER LENGTH: 10MM X 290MM.
TO: CENTER OVERLAP SEAM LIFTGATE OPENING COVER PANELS AS IN ILLUSTRATION.



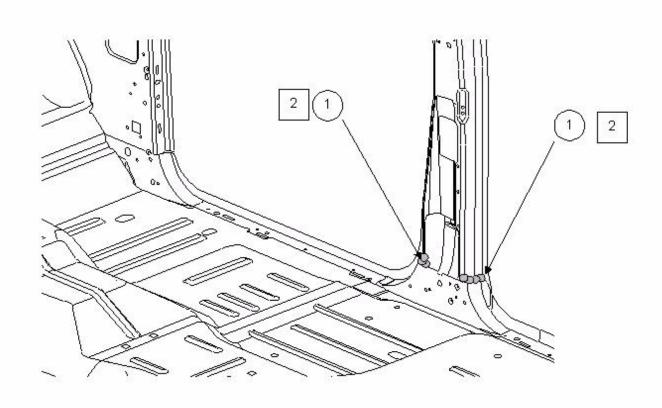
1. PUMPABLE VINYL SEALER LENGTH: 10MM X 290MM. TO: CENTER OVERLAP SEAM LIFTGATE OPENING COVER PANELS AS IN ILLUSTRATION.



1. PUMPABLE VINYL SEALER LENGTH: 16MM X 3MM X 543MM PER SIDE. TO: WHEELHOUSE DOG LEG TO BODY SIDE OUTER AS IN ILLUSTRATION.



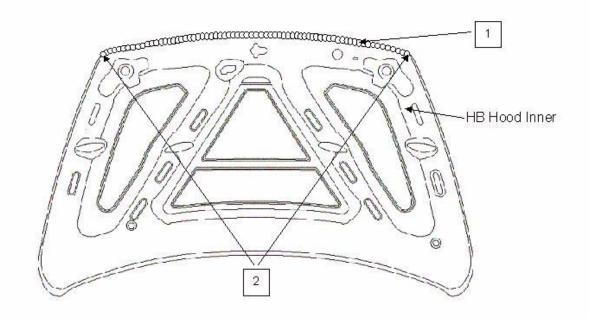
- 1. PUMPABLE VINYL SEALER LENGTH: 4MM X3MM X 80MM PER SIDE.
- TO: BSA OUTER TO BSA EXTENSION AT A-PILLAR AND BSA EXTENSION TO COWL BAR AS SHOWN IN ILLUSTRATION.
- 2. APPLY SEALER WITH PENCIL TIP AND FINESSE INTO SEAM TO PROVIDE SMOOTH TRANSITION BETWEEN PANELS.



1. PUMPABLE VINYL SEALER LENGTH: 16MM X 3MM X 187MM PER SIDE.

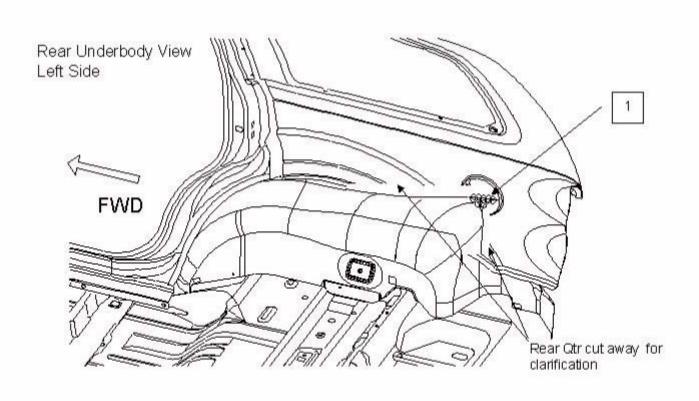
TO: SILL INNER TO BSA INNER AT B-PILLAR AS SHOWN IN ILLUSTRATION.

2. APPLY SEALER WITH FLOW BRUSH AND FORCE INTO SEAM FILLING GAP BETWEEN PANELS.

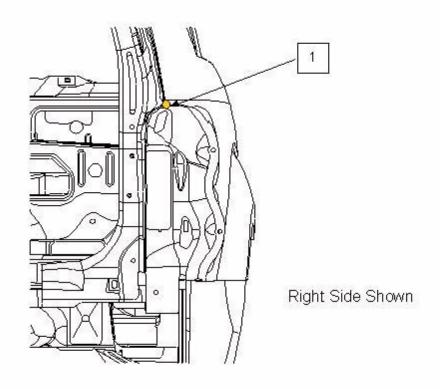


1. PUMPABLE VINYL SEALER LENGTH: 4MM X 2MM X 1192MM. TO: HOOD FRONT HEM FLANGE.

2. WIPE CORNERS OF HEM FOR A SMOOTH APPEARANCE.

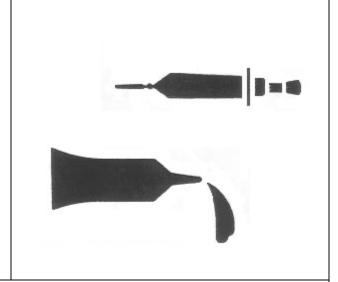


1. PUMPABLE VINYL SEALER LENGTH: 16MM X 3MM X 76MM. TO: WHEELHOUSE RELIEF NOTCH UNDERBODY AT FUEL DOOR OPENING.



1. APPLY THUMBABLE DIA: 15 MM BOTH SIDES. TO: UPPER TAIL LAMP MOUNTING AS SHOWN IN ILLUSTRATION.

# Sealer/Sound Deadner/ Structural Adhesive Locations Durango/Aspen

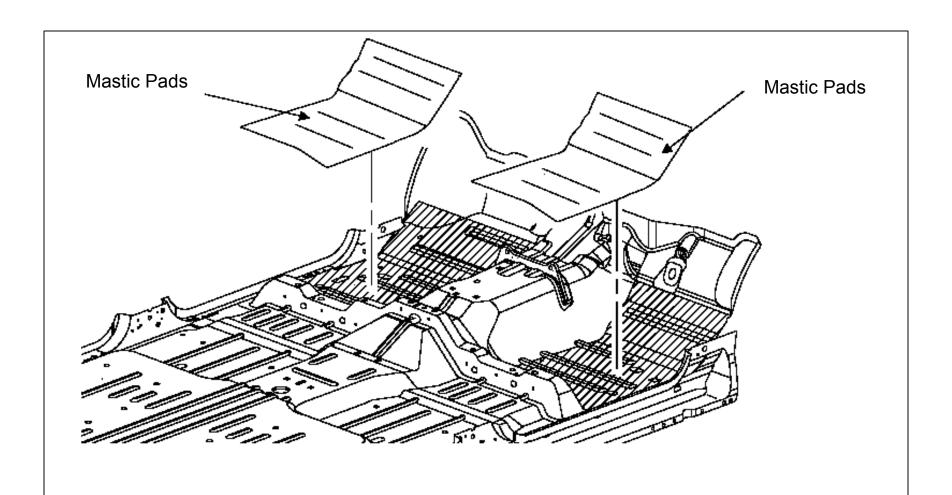


This section shows the different locations for Sealers, Sound Deadners and Strutural Adhesives and has been prepared for use by all body technicians involved in the repair of the Dodge Durango.

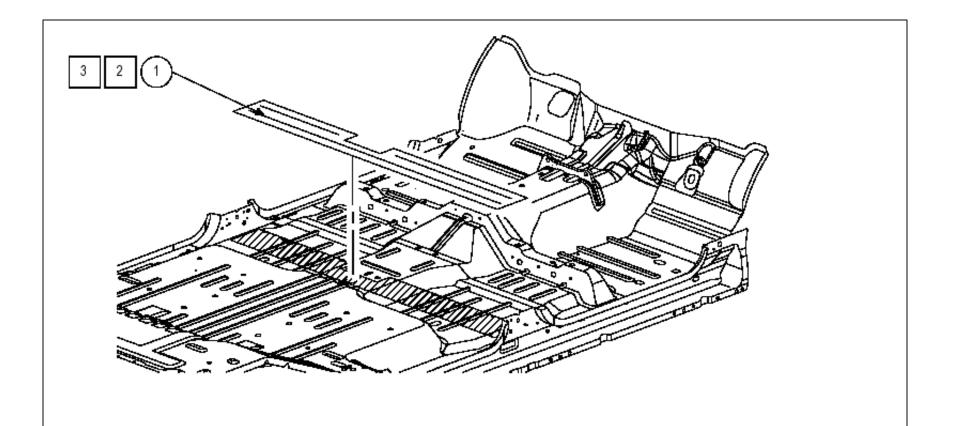
Sealer Locations......Sound Deadner Locations......Structural Adhesive Locations.....

DaimlerChrysler Motors Corporation reserves the right to make improvements in design or to change specifications to these vehicles without incurring any obligation upon itself.

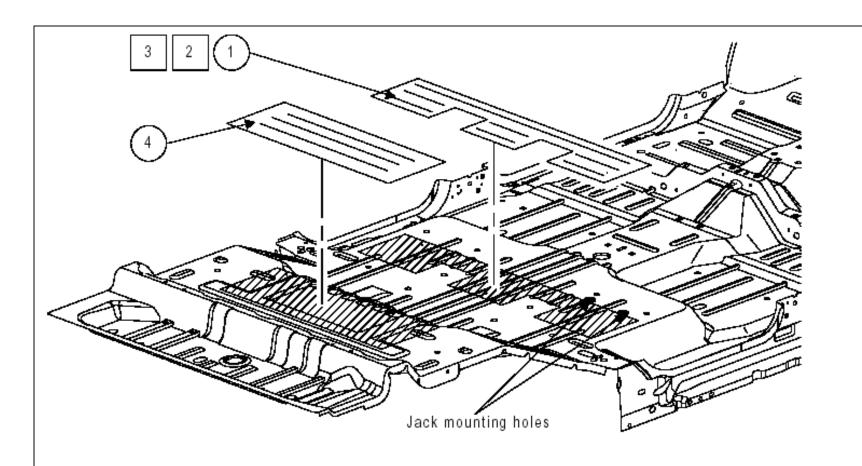
# DURANGO BODY SOUND DEADNER LOCATIONS



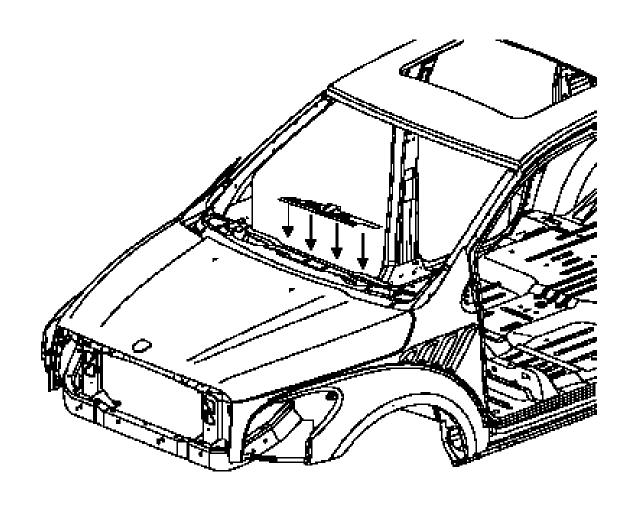
ROBOTICALLY APPLY LIQUID APPLIED SOUND DEADENER (LASD) TO FRONT FLOOR PAN AREASAS SHOWN IN ILLUSTRATION. APPLY FOR 3.5MM FILM BUILD AT 17.3 SEC, DISPENSE TIME.



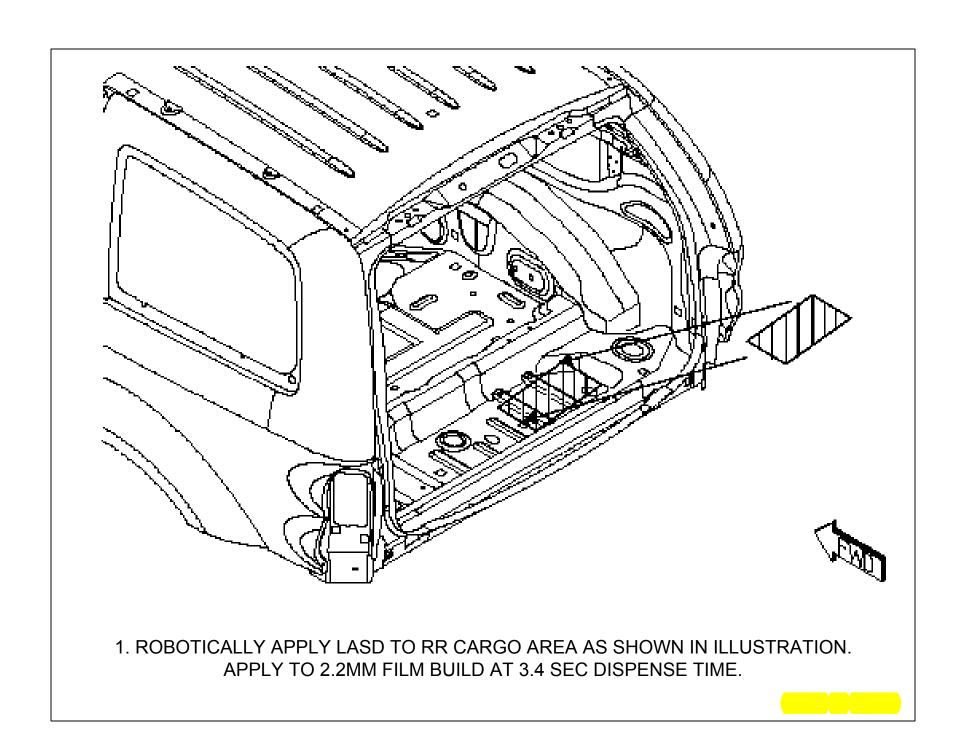
- 1. ROBOTICALLY APPLY LASD TO REAR FLOOR PAN AREA AS SHOWN IN ILLUSTRATION. APPLY TO 3.5MM FILM BUILD AT 6.6 SEC DISPENSE TIME USE THE FOLLOWING PROCEDURE FOR INSTALLING BACK-UP MASTIC PAD.
  - 2. OBTAIN MASTIC PAD AND REMOVE ADHESIVE BACKING PAPER AND/OR TAPE.
  - 3. LOCATE AND POSITION MASTIC PAD TO REAR FLOOR PAN WITH ADHESION SIDE FACING DOWNWARD AND APPLY AS SHOWN IN ILLUSTRATION.
    - 4 PRESS PAD DOWN TO CONFORM TO THE CONFIGURATION AND TO SECURE TO BODY SURFACE.

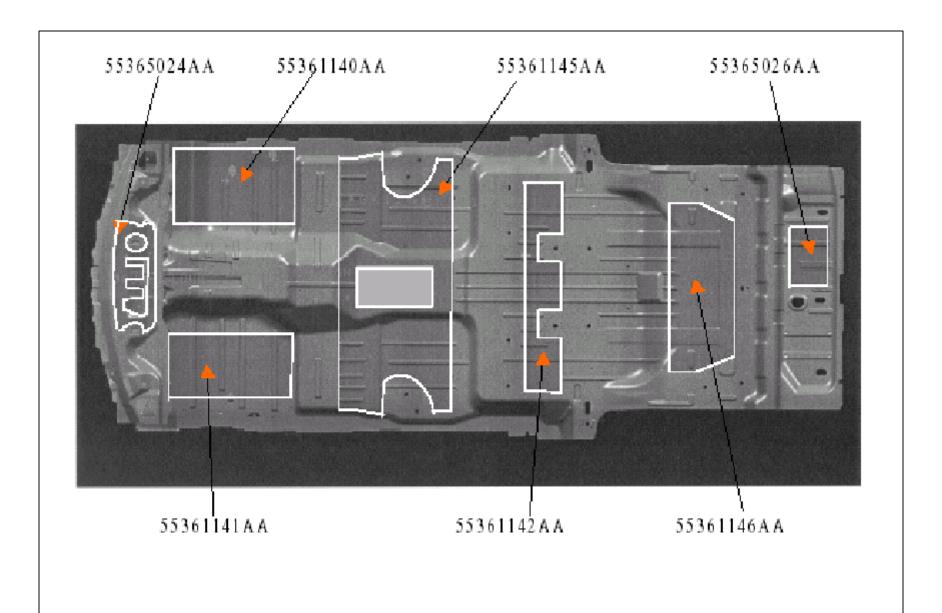


- 1. ROBOTICALLY APPLY LASD TO 3RD SEAT AND REAR FLOOR PAN AREAS AS SHOWN ON ILLUSTRATION. APPLY TO 2.2MM FILM BUILD AT 6.1 SEC DISPENSE TIME FOR 3RD SEAT AREA AND 9.1 SEC DISPENSE TIME FOR REAR FLOOR PAN AREA. USE THE FOLLOWING PROCEDURE FOR INSTALLING BACK-UP MASTIC PAD.
  - 2. OBTAIN MASTIC PAD AND REMOVE ADHESIVE BACKING PAPER AND/OR TAPE.
- 3. LOCATE AND POSITION MASTIC PAD TO 3RD ROW SEAT WITH ADHESION SIDE FACING DOWNWARD AND APPLY AS SHOWN IN ILLUSTRATION.
  - 4. PRESS PAD DOWN TO CONFORM TO THE CONFIGURATION AND TO SECURE TO BODY SURFACE.

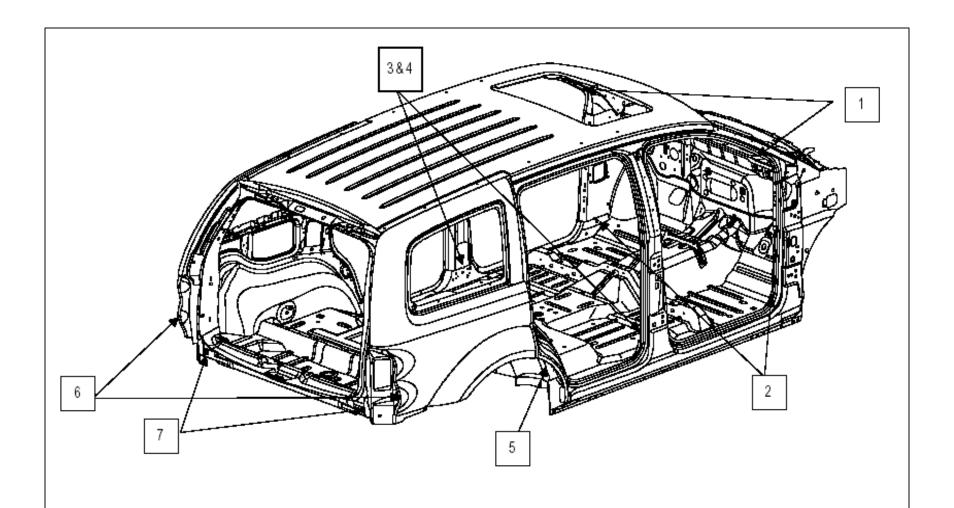


1. ROBOTICALLY APPLY LASD TO COWL TOP AS SHOWN IN ILLUSTRATION. APPLY TO 2.2MM FILM BUILD AT 6.1 SEC. DISPENSE TIME.

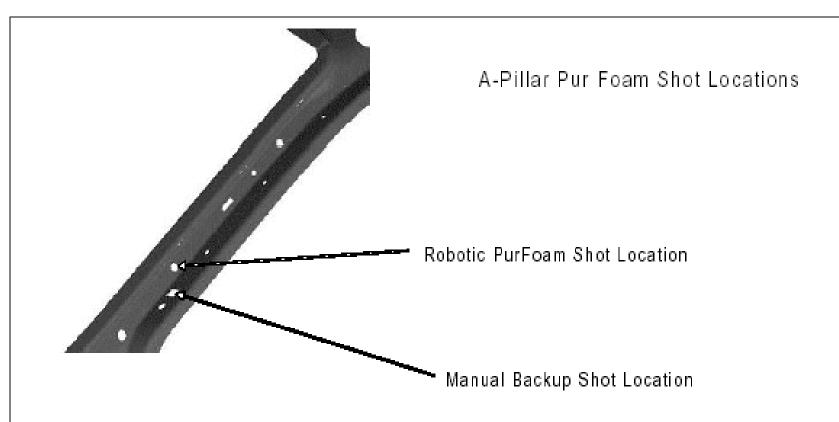




1. MASTIC PAD LOCATIONS AND PART#S.
SEE ILLUSTRATION LASD APPLIED TO SAME LOCATIONS WHEN MASTIC NOT USED.



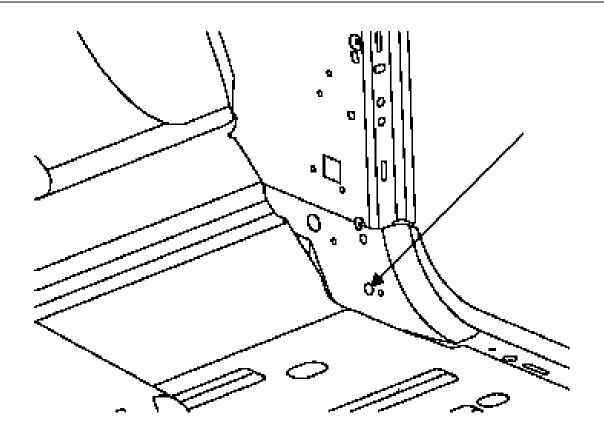
SHOT #1-A-PILLAR 25 GRAM SHOT EACH SIDE.
 SHOT #2-HINGE PILLAR 120 GRAM SHOT EACH SIDE.
 SHOT #3&4-B-PILLAR 2 SHOTS 25GR FRONT & DOWNWARD BOTH SIDES.
 SHOT #5-WHEELHOUSE 75 GRAM SHOT EA. SIDE.
 SHOT #6-LEFT & RIGHT TAIL LAMP 40 GRAM SHOT EACH SIDE.
 SHOT #7-LEFT & RIGHT LOWER D-PILLAR 100 GRAM SHOT EACH SIDE.



NOTE: Right A-Pillar Shown, Left equal and opposite.

- 1. OPEN FRONT DOOR TO GAIN ACCESS TO A-PILLAR HOLE INSERT PUR-FOAM GUN TIP INTO A-PILLAR HOLE SHOWN IN ILLUSTRATION.
  - 2. PULL GUN TRIGGER TO SHOOT PRE-PROGRAMMED 25 GRAM SHOT BOTH LEFT AND RIGHT SIDE.
  - 3. WHEN SHOT PROGRAM IS COMPLETE, REMOVE GUN TIP FROM HOLE.
    4 CLOSE FRONT DOOR ENSURING THAT THE DOOR IS SECURE TO UPPER DOOR CLIP WITHOUT SLAMMING.

5 CLEAN PUR FOAM GUN TIP AS NECESSARY.



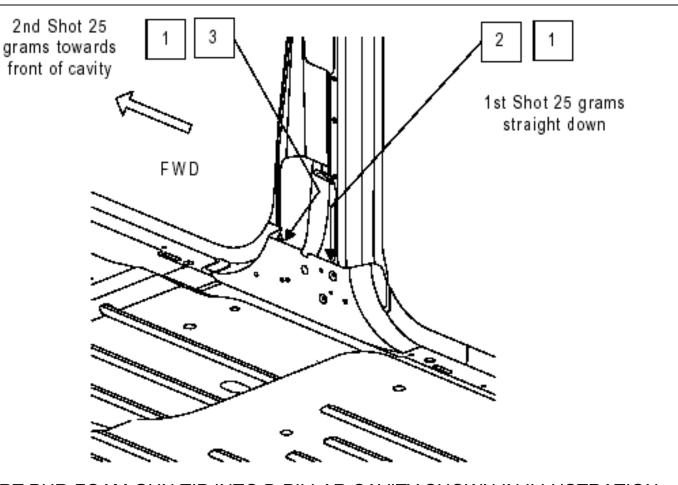
1. OPEN FRNT DOOR TO GAIN ACCESS TO FRNT HINGE PILLAR.

2. INSERT PUR FOAM GUN INTO LOWER HINGE PILLAR HOLE SHOWN IN ILLUSTRATION. PULL GUN TRIGGER TO SHOOT ONE (1) PRE-PROGRAMMED 120 GRAM SHOT. WHEN SHOT IS COMPLETE, RELEASE TRIGGER AND REMOVE GUN TIP FROM HOLE.

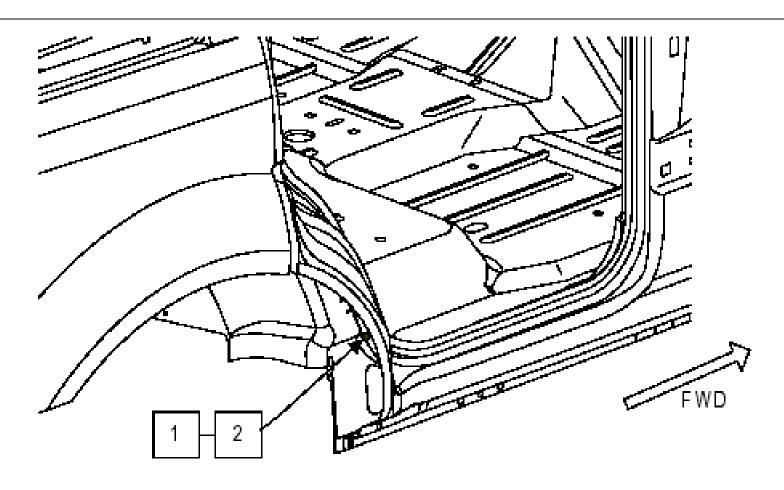
3. REPEAT FOR OTHER SIDE PUR FOAM GUN.

4. CLOSE FRONT DOORS ENSURING DOOR IS SECURE TO UPPER DOOR CLIP WITHOUT SLAMMING.

5. CLEAN PUR FOAM GUN TIP AS NECESSARY.



- 1. INSERT PUR-FOAM GUN TIP INTO B-PILLAR CAVITY SHOWN IN ILLUSTRATION.
  2. AIM GUN TOWARDS REAR AND STRAIGHT DOWN. SHOOT FIRST PRE-PROGRAMMED
  25 GRAM SHOT.
  - 3. RELEASE TRIGGER, RELOCATE GUN TIP IN B-PILLAR TO POINT TOWARDS FRONT OF VEHICLE. SHOOT SECOND 25 GRAM SHOT.
    - 4. REPEAT FOR OPPOSITE SIDE.
    - 5. REMOVE GUN FROM B-PILLAR AND CLOSE DOOR CAREFULLY.
      - 6. CLEAN GUN TIP AS NECESSARY.

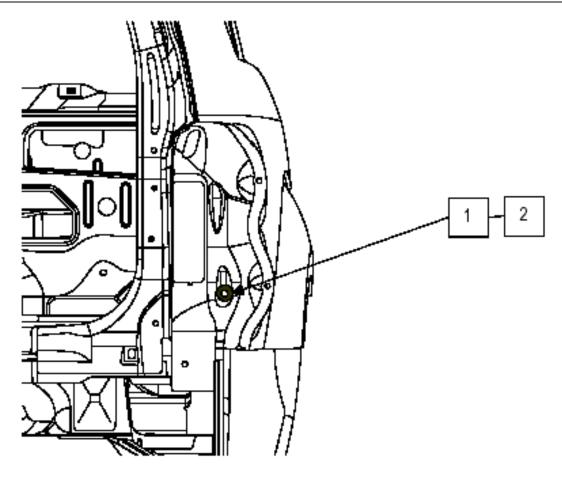


 INSERT PUR-FOAM GUN TIP INTO WHEEL HOUSE HOLE SHOWN IN ILLUSTRATION.
 PULL GUN TRIGGER TO SHOOT PRE-PROGRAMMED 75 GRAM SHOT BOTH LEFT AND RIGHT SIDE.

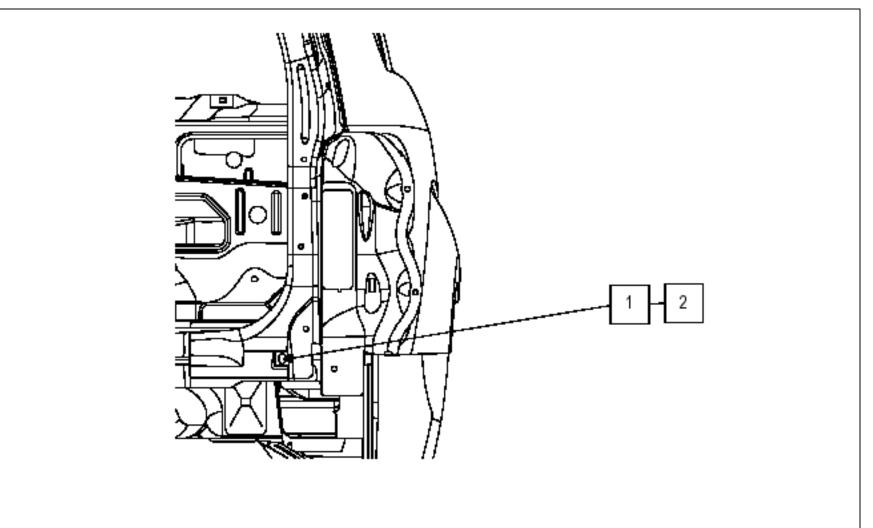
3. RELEASE TRIGGER WHEN SHOT IS COMPLETE.

4. REMOVE GUN TIP FROM HOLE.

5. CLEAN GUN TIP AS NECESSARY.



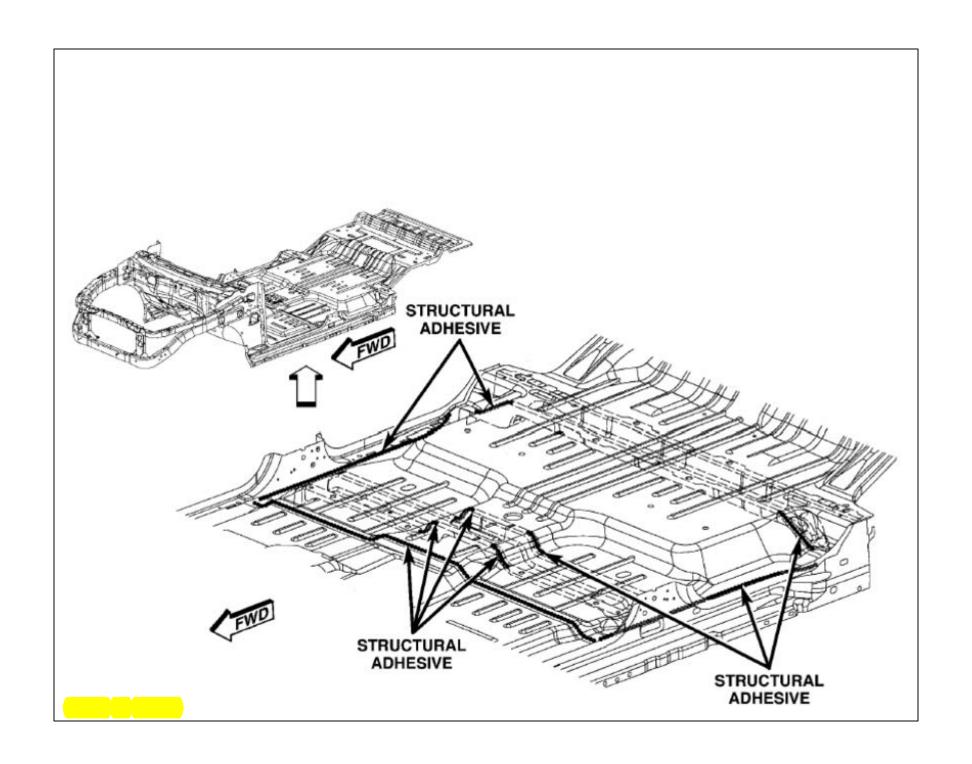
- 1. INSERT PUR-FOAM GUN TIP INTO TAIL LAMP HOLE SHOWN IN ILLUSTRATION.
  - 2. PULL GUN TRIGGER TO SHOOT PRE-PROGRAMMED 40 GRAM SHOT INTO TAIL LAMP CAVITY.
    - 3. RELEASE TRIGGER AFTER SHOT IS COMPLETE.
      - 4. REMOVE GUN TIP FROM TAIL LAMP HOLE.
        - 5. REPEAT FOR OPPOSITE SIDE.
        - 6. CLEAN GUN TIP AS NECESSARY.



- 1. INSERT PUR-FOAM GUN TIP INTO LOWER D-PILLAR HOLE SHOWN IN ILLUSTRATION.
  2. PULL GUN TRIGGER TO SHOOT PRE-PROGRAMMED 100 GRAM SHOT.
  - 3. RELEASE TRIGGER WHEN SHOT IS COMPLETE.
    - 4. REPEAT PROCESS FOR OPPOSITE SIDE.
      - 5. CLEAN GUN TIP AS NECESSARY



# DURANGO STRUCTURAL ADHESIVE LOCATIONS



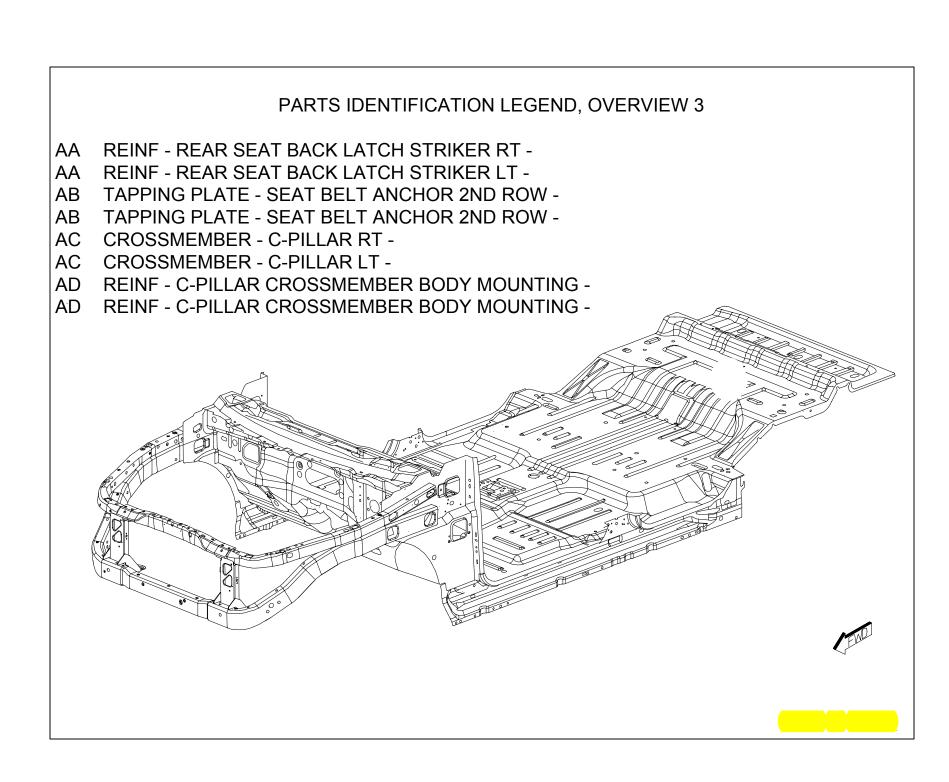








## **DURANGO/ASPEN**





AE PLATE - RETRACTOR ANCHOR - 3RD ROW SEAT

AF NUT/WELD.HEX - NO.FIN.UNTHREADED - GROUND

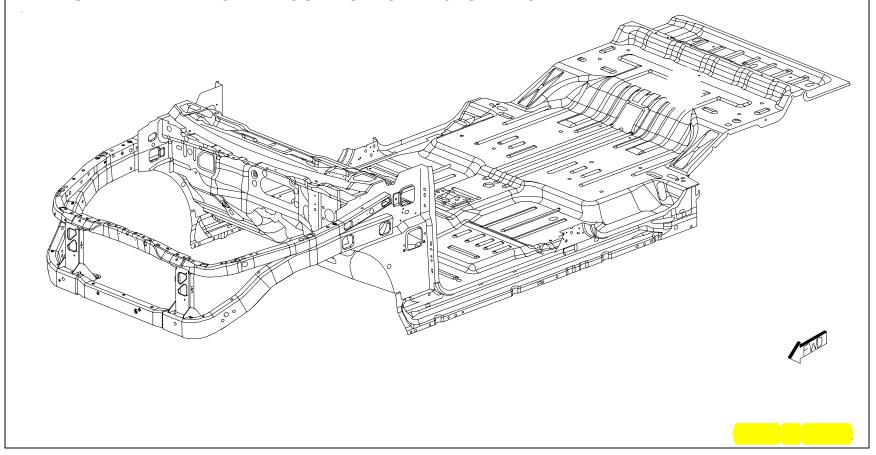
AF NUT/WELD.HEX - NO.FIN.UNTHREADED - GROUND

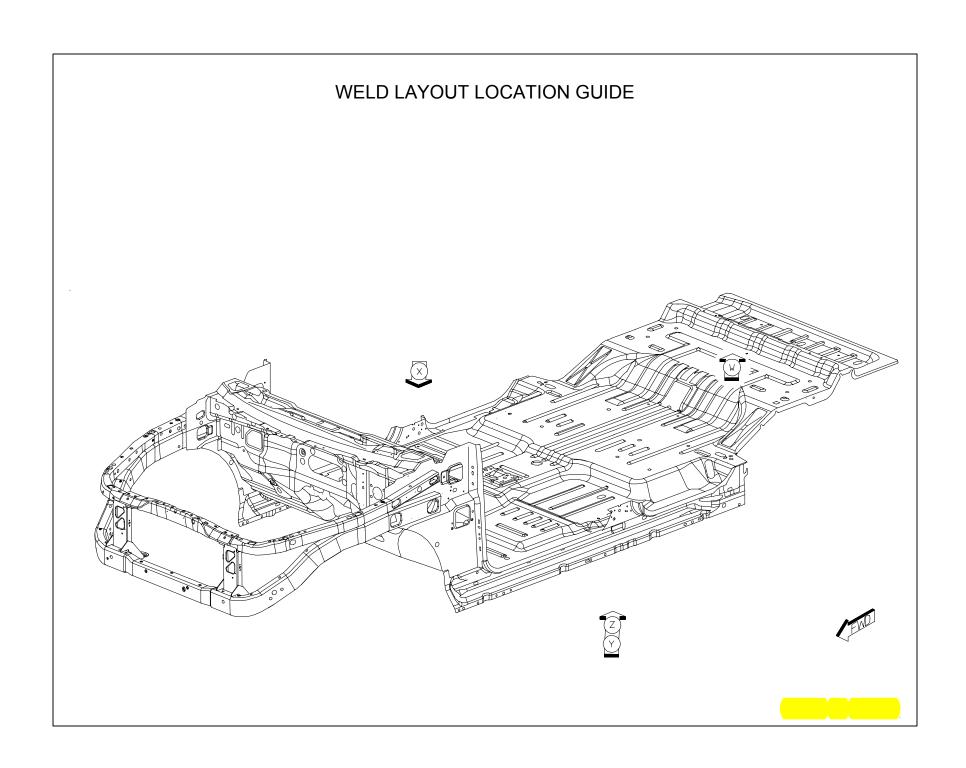
AG REINF - STEERING COLUMN -

AH PAN - FLOOR FRT -

AJ 55364063AA BRACKET - JACK HOLD-DOWN ((CANCELLED))

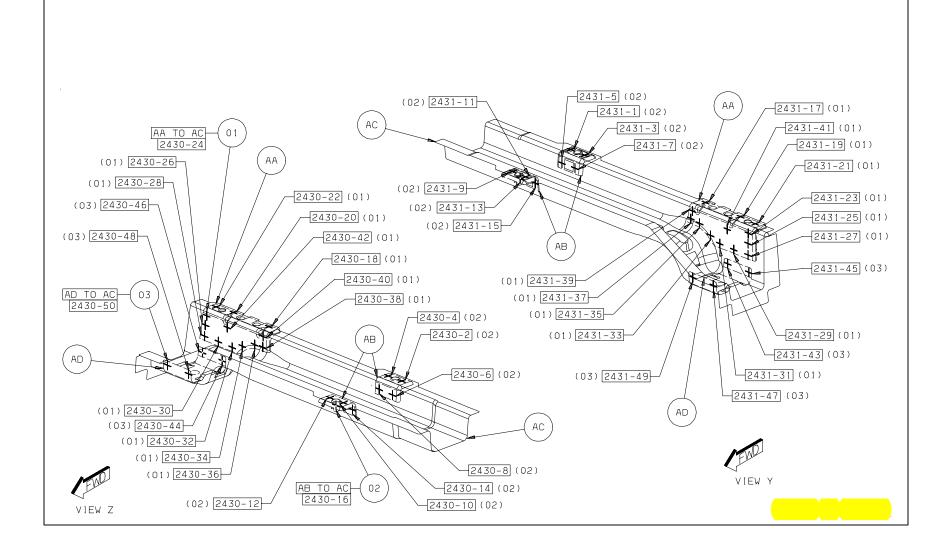
AK NUT/WELD.RD - NO.FIN.ROUND.SPECIAL - JACK MTG

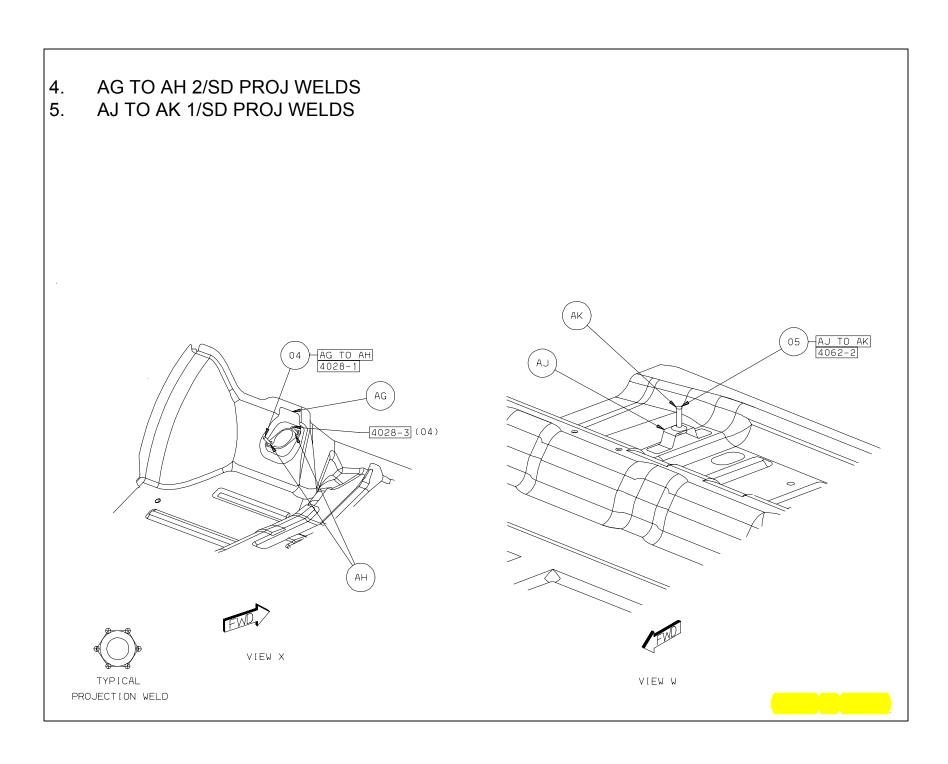




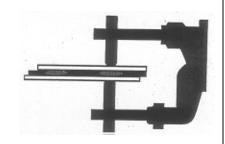


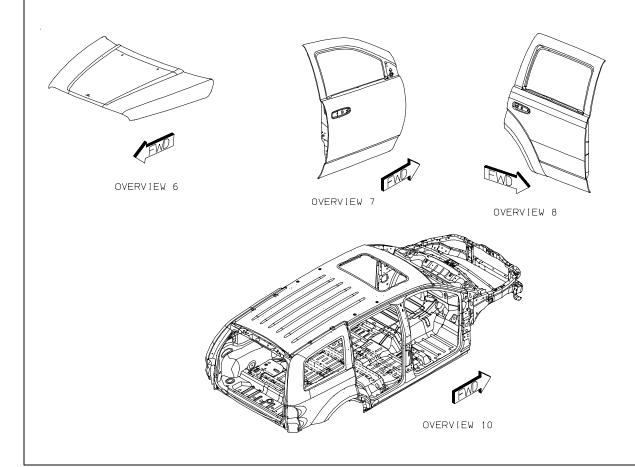
- 2. AB TO AC 16 S/WELDS
- AD TO AC 8 S/WELDS



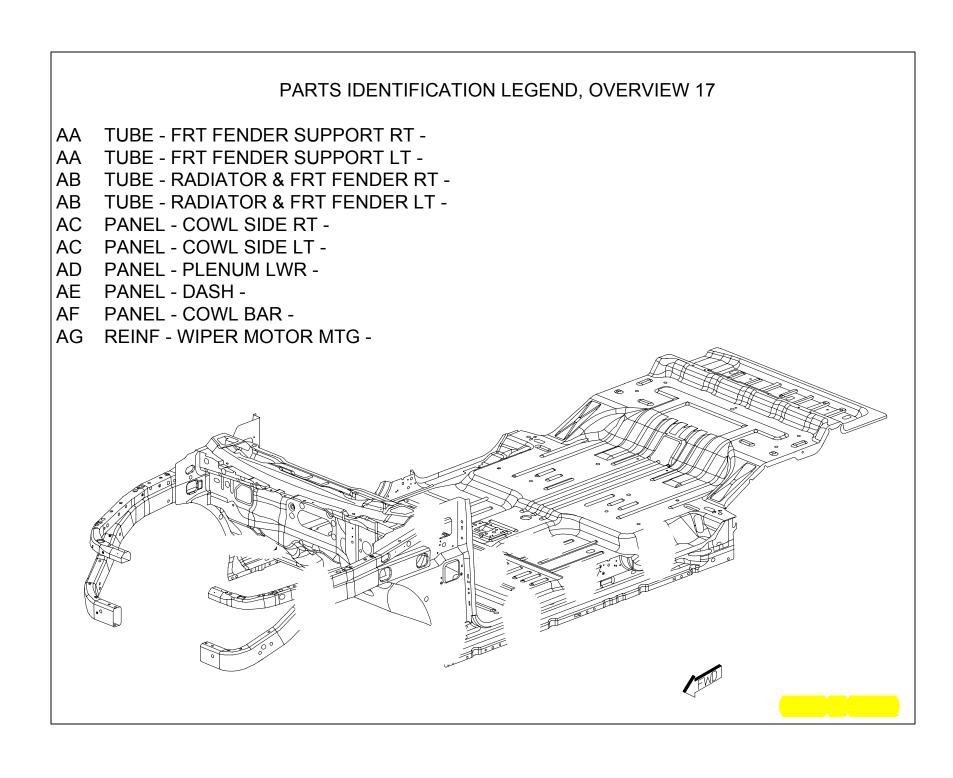


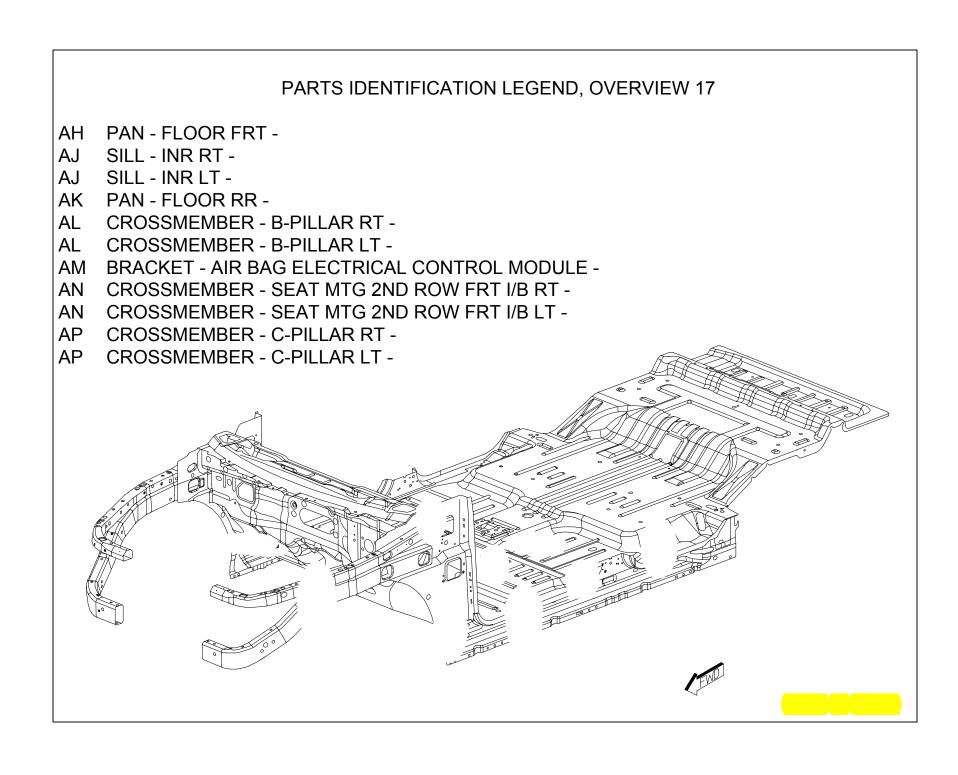
#### WELD LOCATION OVERVIEW ZONES

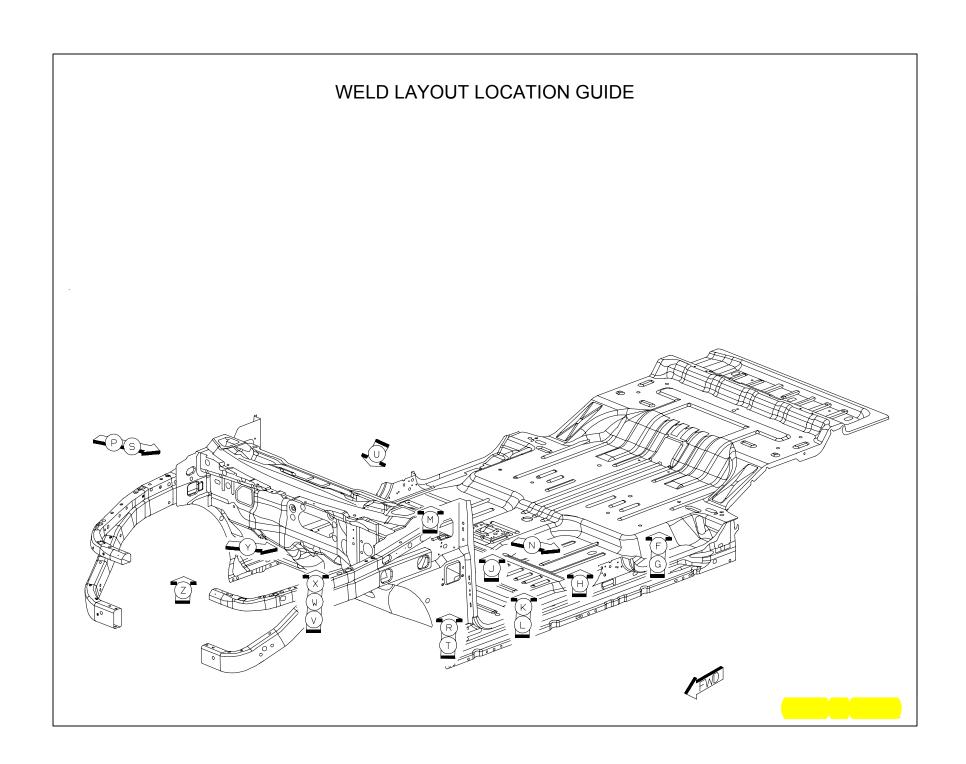


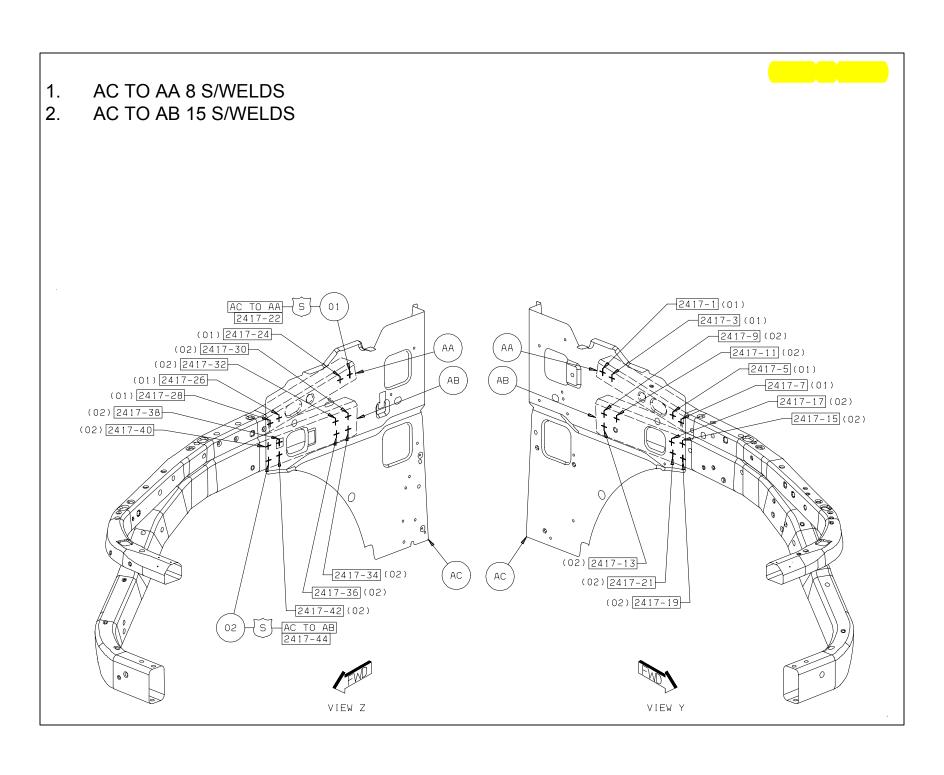


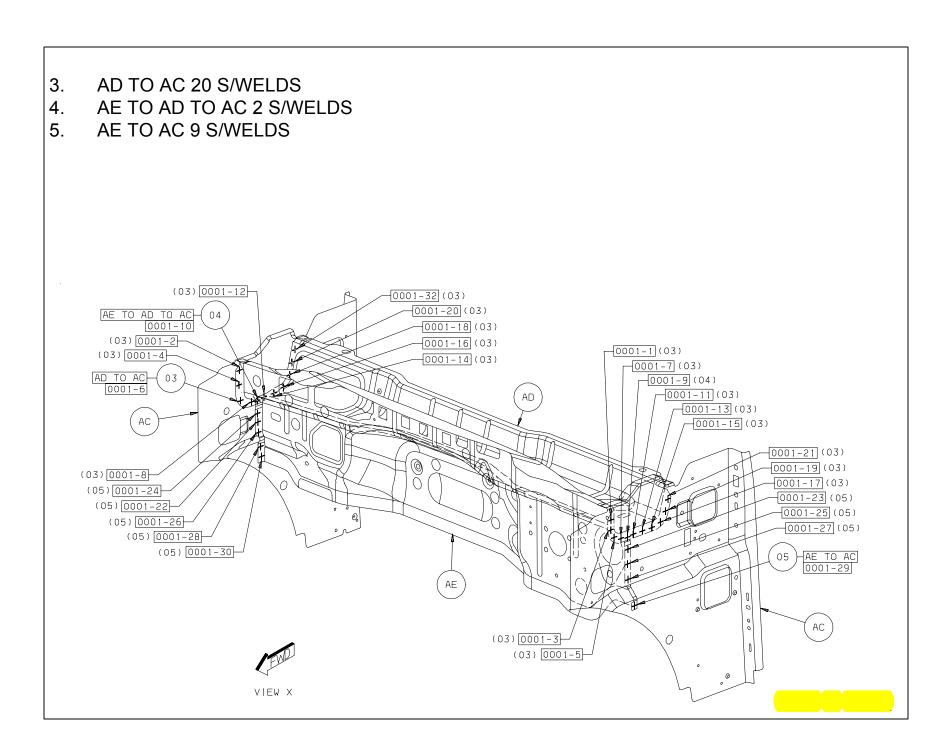


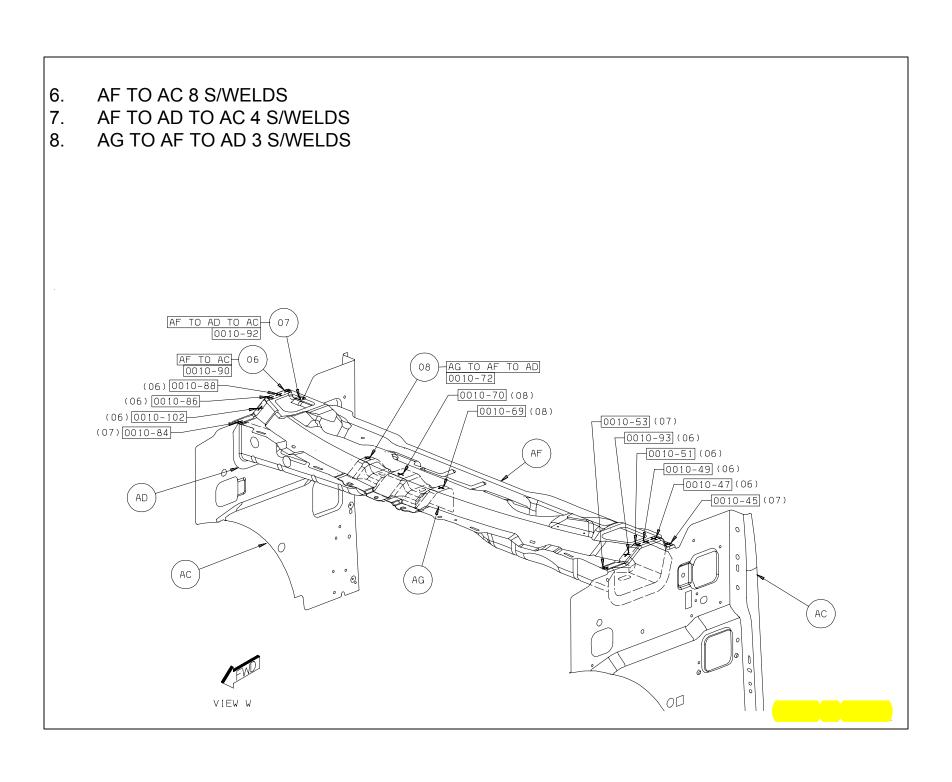




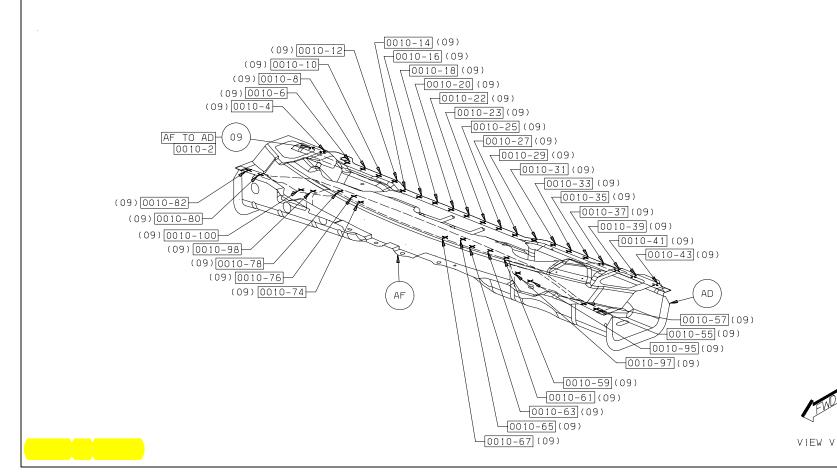








#### 9. AF TO AD 38 S/WELDS

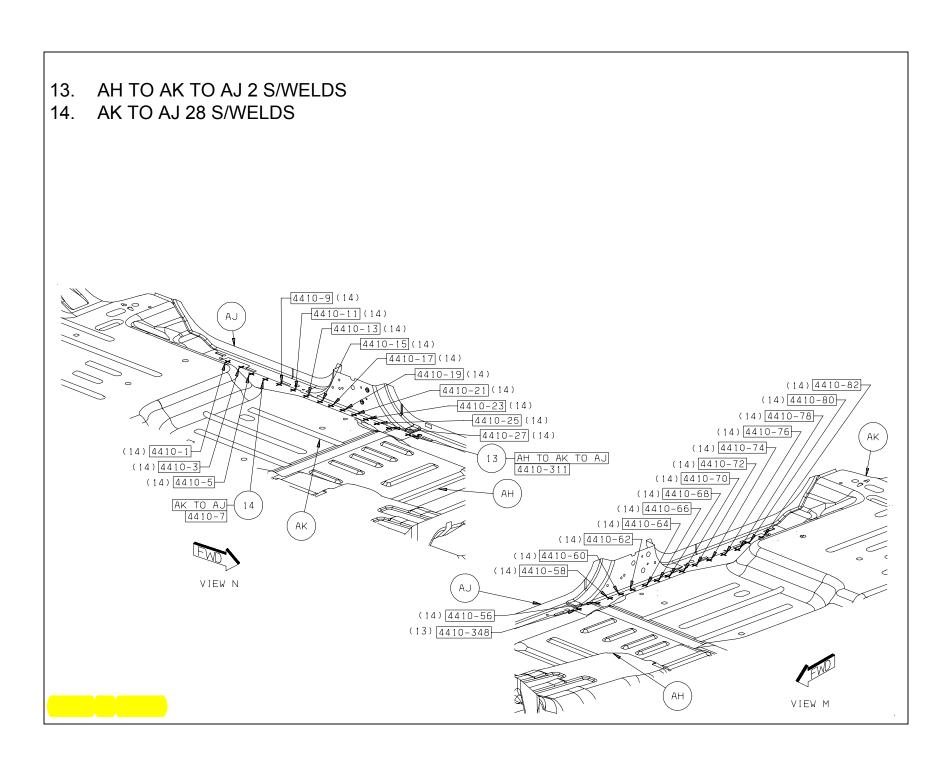




#### 10. AD TO AE 25 S/WELDS 0002-2 (10) 0002-4 (10) 0002-6 (10) 0002-8 (10) 0002-10 (10) AD TO AE 0002-27 0002-12 (10) 0002-14 (10) (10) 0002-29 0002-16 (10) (10) 0002-31 0002-18 (10) (10) 0002-33 0002-20 (10) (10) 0002-35 0002-22 (10) (10) 0002-37 0002-24 (10) (10) 0002-39 0002-26 (10) (10) 0002-41 (10) 0002-43 (10)0002-45 (10) 0002-47 (10) 0002-49 VIEW U

# 11. AC TO AH 9 S/WELDS AC TO AH 0001-77 (11) 0001-34 0001-79 (11) (11) 0001-36 0001-81 (11) (11) 0001-38 0001-83 (11) (11) 0001-40 0001-85 (11) VIEW T VIEW S

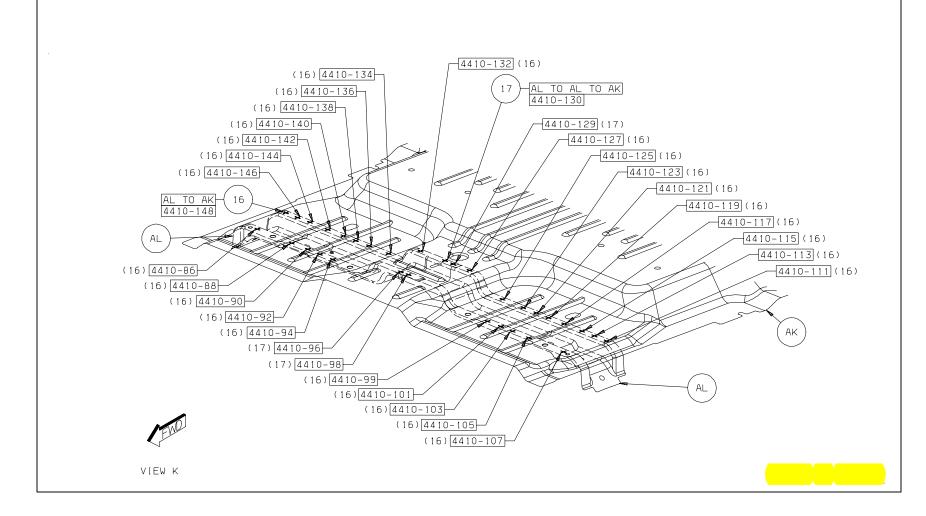
### 12. AC TO AJ 14 S/WELDS AC TO AJ 0001-65 (12) 0001-52 (12) 0001-54 0001-69 (12) 0001-73 (12) (12) 0001-58 (12) 0001-60 (12) 0001-63 0001-50 (12) (12)0001-67 0001-56 (12) (12) 0001-71 0001-62 (12) (12) 0001-75 VIEW R VIEW P



#### 15. AK TO AH 27 S/WELDS 4410-41 (15) 4410-39 (15) 4410-50 (15) 4410-319 (15) (15) 4410-346 4410-344 (15) 4410-37 (15) (15) 4410-52 4410-48 (15) 4410-371 (15) AK TO AH-4410-54 4410-373 (15) 4410-317 (15) (15) 4410-342 (15) 4410-370 (15) 4410-368 (15) 4410-46 (15) 4410-340 4410-31 (15) (15) 4410-44 4410-29 (15) (15) 4410-42 4410-313 (15) (15) 4410-338 4410-33 (15) 4410-315 (15) 4410-35 (15) VIEW L

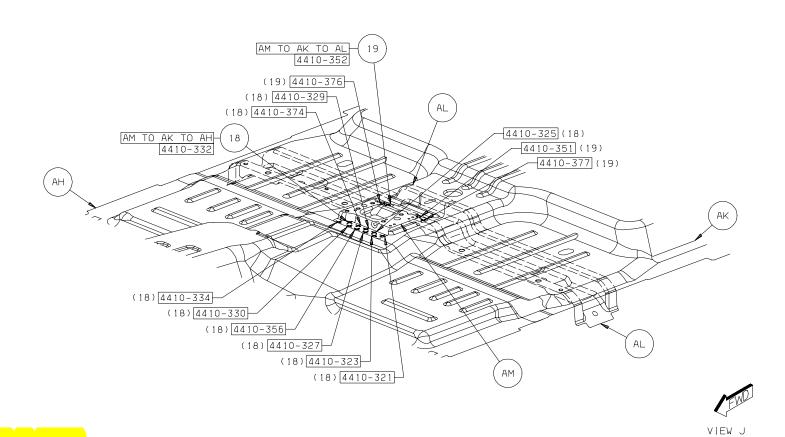


#### 17. AL TO AL TO AK 4 S/WELDS



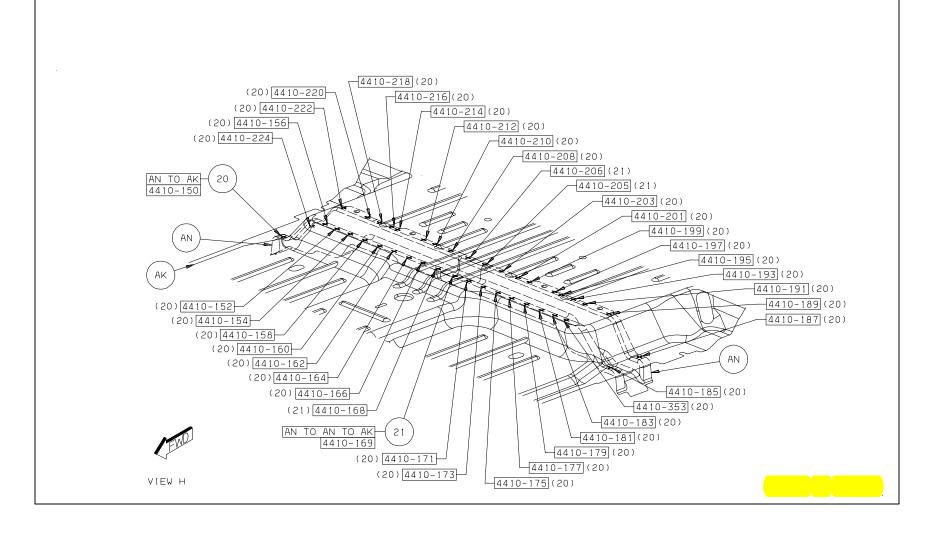


#### 19. AM TO AK TO AL 4 S/WELDS



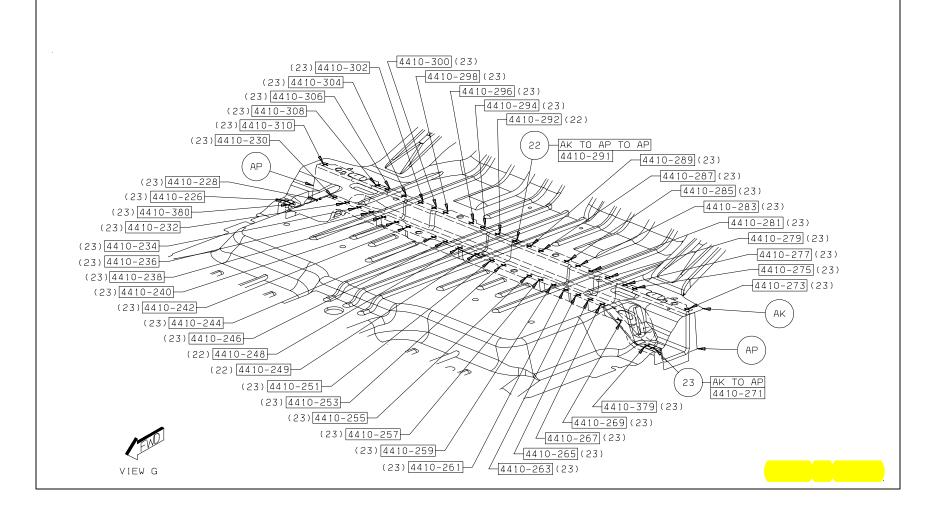


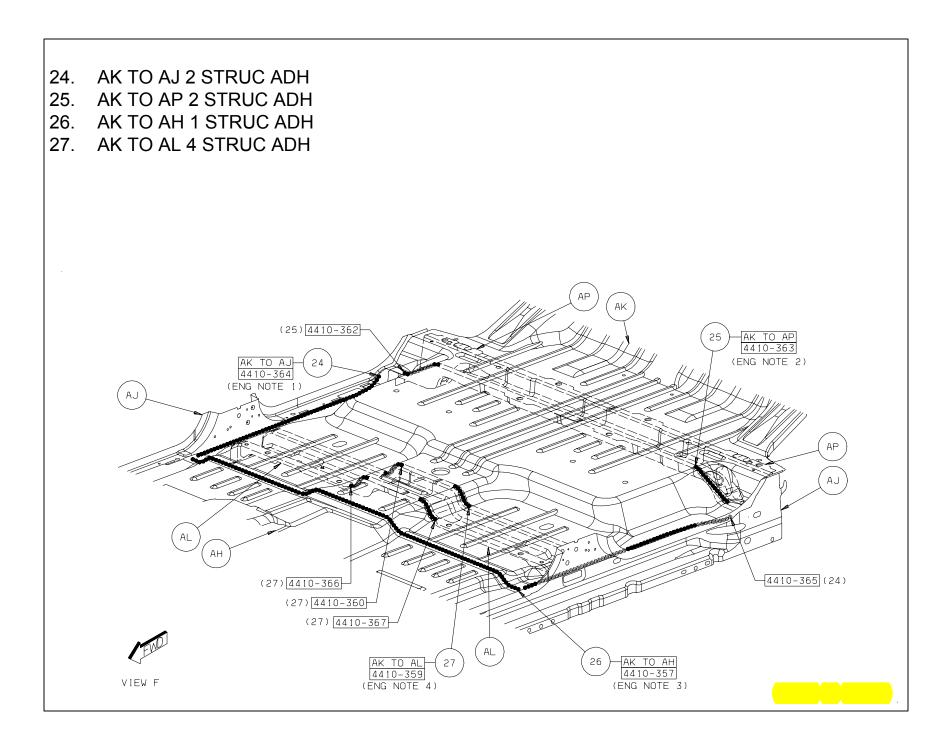
#### 21. AN TO AN TO AK 4 S/WELDS



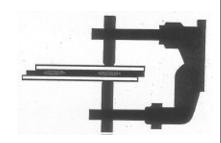
#### 22. AK TO AP TO AP 4 S/WELDS

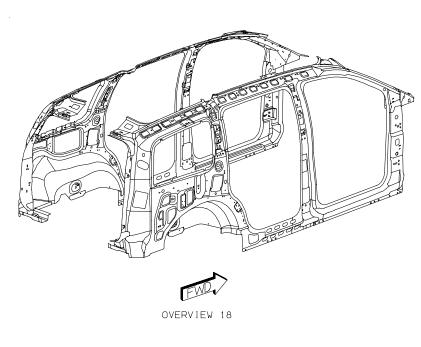
#### 23. AK TO AP 42 S/WELDS

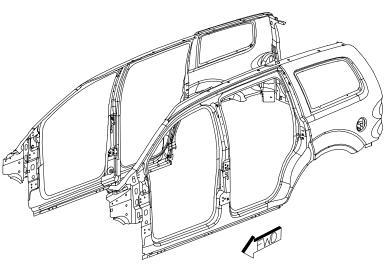




#### WELD LOCATION OVERVIEW ZONES





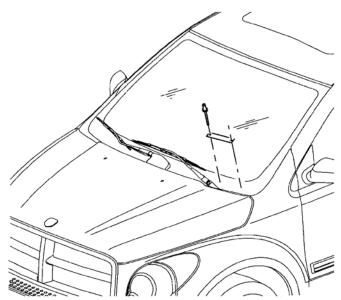


OVERVIEW 19

#### **DURANGO/ASPEN VIN INFORMATION**

The Vehicle Identification Number (VIN) can be viewed through the windshield at the upper left corner of the in-strument panel, near the left windshield pillar. The VIN consists of 17 characters in a combination of letters and numbers that provide specific information about the vehicle. Refer to VIN Code Breakdown Chart for decoding information. To protect the consumer from theft and possible fraud the manufacturer is required to include a Check Digit at the ninth position of the vehicle identification number. The check digit is used by the manufacturer and government agencies to verify the authenticity of the vehicle and official documentation. The formula to use the check digit is not released to the general public.

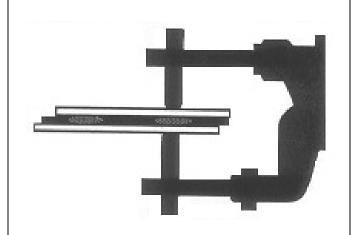
**VEHICLE IDENTIFICATION NUMBER (VIN)** 



#### VIN DECODING INFORMATION

POSITION	INTERPRETATION	CODE = DESCRIPTION
1	Country of Origin	1 = Manufactured by DaimlerChrysler Corporation
2	Make	A = ChryslerD = Dodge
3	Vehicle Type	4 = Multipurpose Passenger Vehicle less Side Airbags8 = Multipurpose Passenger Vehicle with Side Airbags
4	Gross Vehicle Weight Rating	H = 6001-7000 lbs.
5	Vehicle Line	B = Durango 4x4D = Durango 4x2W = Aspen 4x4X = Aspen 4x2
6	Series	3 = M  (Medium) 4 = H  (High) 5 = P  (Premium)
7	Body Style	8 = Sport Utility 4 Door
8	Engine	K = 3.7L 6 cyl. Magnum Gasoline Sales Code (EKG)N = 4.7L 8 cyl. Magnum Gasoline Sales Code (EVA)P = 4.7L 8 cyl. Flex Fuel Sales Code (EVD)2 = 5.7L 8 cyl. HEMI Multiple Displacement Gasoline Sales Code (EZB)
9	Check Digit	0 through 9 or X
10	Model Year	7 = 2007
11	Assembly Plant	F = Newark Assembly
12 Thru 17		Vehicle Build Sequence

# WELDED PANEL REPLACEMENT Dodge Durango



The basic parts of the body structure are the welded panels. This section contains a brief description of the placement of some of the panels and their weld locations.

Note: To ensure the strongest, most durable and cleanest welds possible, perform testing before and during all weld procedures. Always follow American Weld Society specifications and procedures.

Note: Diagrams do not show all of the parts.

Explanation of Manual Contents
Engine Box
Underbody
Hood
Front Door Assembly
RR Door Assembly
Lift Gate Assembly
Misc. Welds
Front Assembly
Front Floor Assembly

Ladder Assembly
Dash To Floor Assembly
RR Floor Assembly
Underbody Complete
B/S/A Inner Complete
B/S/A Outer Complete
B/S/A Complete
Body Complete W/ Sun Roof
Body Complete W/Out Roof