

COMMANDER BODY REPAIR MANUAL



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.



INTRODUCTION Jeep Commander



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

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.

BODY CONSTRUCTION CHARACTERISTICS

Definitions of Steels used in the Jeep Commander:

- 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 minimum 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 minimum 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 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 Beam Upper Radiator Crossmember

BODY CONSTRUCTION CHARACTERISTICS

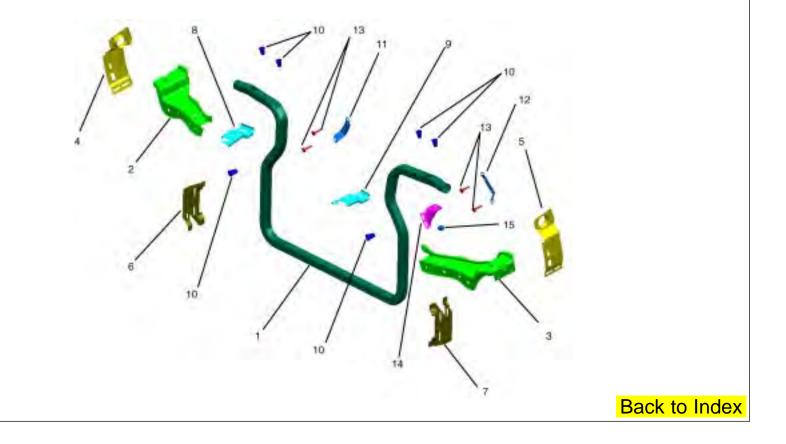
The following measures have been implemented in order to provide maximum corrosion prevention and protection.

- 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.

COMMANDER RADIATOR SUPPORT LOWER ASSEMBLY

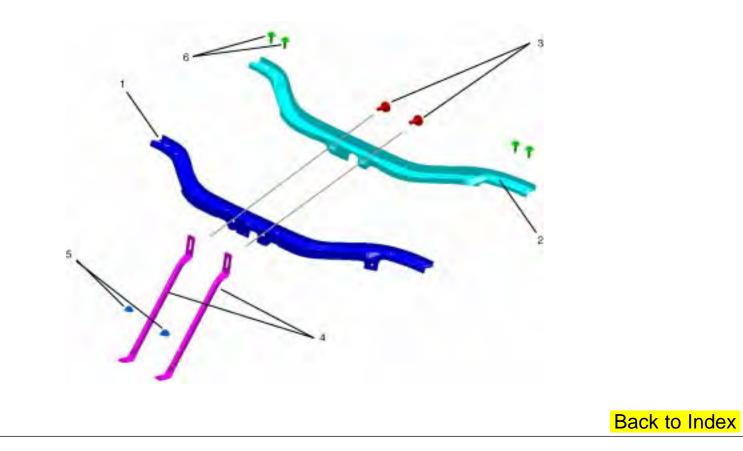
No.	Part Name	Qty	Material	Gage
1	CRSMBR - RAD SUPT FRT	1	MS-67	1.10
2	BRKT - FENDER ATTACH RT	1	MS-67	1.30
3	BRKT - FENDER ATTACH LT	1	MS-67	1.30
4	BRKT - RAD SUPT/COWL RT	1	MS-67	1.20
5	BRKT - RAD SUPT/COWL LT	1	MS-67	1.20
6	BRKT - RAD SUPT/RAIL RT	1	MS-67	1.30
7	BRKT - RAD SUPT/TRAIL LT	1	MS-67	1.30
8	BRKT - HEADLAMP RT	1	MS-67	1.50

No.	Part Name	Qty	Material	Gage
9	BRKT - HEADLAMP LT	1	MS-67	1.50
10	RIV-NUT M6	6		
11	BRKT - AIR BAG SENSOR RT	1	MS-67	1.80
12	BRKT - AIR BAG SENSOR LT	1	MS-67	1.80
13	WELD NUT - M6	4		
14	BRKT - BATTERY SUPT	1	MS-67	2.00
15	BRKT - M6	1		



COMMANDER UPPER FRONT CROSSMEMBER

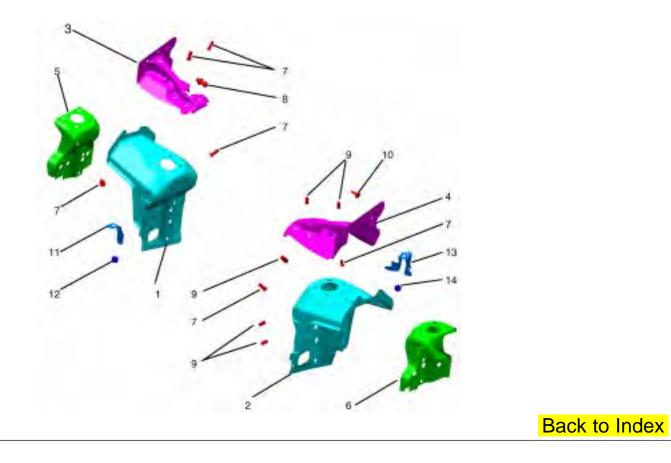
No.	Part Name	Qty	Material	Gage
1	CRSMBR - UPR RAD UPR	1	MS-6000 44A	1.10
2	CRSMBR - UPR RAD LWR	1	MS-6000 4A	1.10
3	WELD STUD - M8	2		
4	BRACE - RAD CRSMBR	2	MS-6000 55	1.83
5	NUT & WASHER - M8	2		
6	SCREW/WA - M6	4		



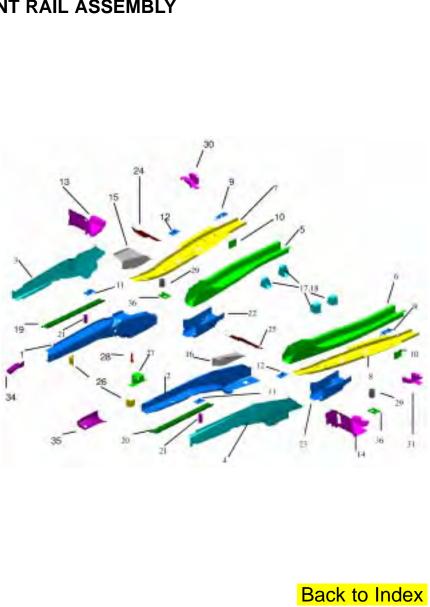
COMMANDER FRONT SHOCK TOWER ASSEMBLY

No.	Part Name	Qty	Material	Gage
1	PNL - SUSPENSION FRT RT	1	MS-6000 44VA-025SK	2.67
2	PNL - SUSPENSION FRT LT	1	MS-6000 44VA-025SK	2.67
3	GUSSET - FRT SUSP SUPT RT	1	MS-264 050XK	1.70
4	GUSSET - FRT SUSP SUPT LT	1	MS-264 050XK	1.70
5	REINF - SHOCK ABSORB RT	1	MS-6000 55V 600DT	1.4
6	REINF - SHOCK ABSORB LT	1	MS-6000 55V 600DT	1.4
7	WELD STUD - M5	6		

No.	Part Name	Qty	Material	Gage
8	STUD SPECIAL - M7	1		
9	WELD STUD - M6	5		
10	WELD STUD - M8	1		
11	BRKT - AIR INTAKE	1	MS-6000 44A	1.70
12	WELD NUT	1		
13	BRKT - ABS W/BRKT	1	MS-6000 44A	2.01
14	WELD NUT - M5	1		



			OMMANDER	ГК
No.	Part Name	Qty	Material	Gage
1	SILL - FRT INNER RT	1	MS-6000 44VA-600DT	1.95
2	SILL - FRT INNER LT	1	MS-6000 44VA-600DT	1.95
3	SILL - FRT OUTER RT	1	MS-6000 44VA-600DT	1.85
4	SILL - FRT OUTER LT	1	MS-6000 44VA-600DT	1.85
5	RAIL - FRT RR RT	1	MS-6000 44VA-600DT	2.21
6	RAIL - FRT RR LT	1	MS-6000 44VA-600DT	2.21
7	REINF - FRT RAIL U CHANNEL RT	1	MS-6000 44VA-600DT	1.80
8	REINF - FRT RAIL U CHANNEL LT	1	MS-6000 44VA-600DT	1.80
9	TAP PLATE - CRSMBR TRANS	2	SPRING STEEL	1.52
10	TUBE - TRANS CRSMBR CRUSH	2	MS-6000 44A	2.03
11	TAP PLATE M14 FLOAT	2		
12	TAP PLATE M12 FLOAT	2	MS-6000 55	1.45
13	TORQUE BOX - FRONT RT	1	MS-6000 44VA-050	1.80
14	TORQUE BOX - FRONT LT	1	MS-6000 44VA-050	1.80
15	SILL INNER REINF RT	1	MS-6000 44VA-600DT	2.01
16	SILL INNER REINF LT	1	MS-6000 44VA-600DT	2.01
17	BRKT - TRANS TO CRSMBR MTG	4	MS-6000 44A	3.00
18	WELD NUT - M10	4		
19	BRKT - CRADLE MTG FRT RR RT	1	MS-6000 44VA-600DT	1.40
20	BRKT - CRADLE MTG FRT RR LT	1	MS-6000 44VA-600DT	1.40
21	TUBE - FRT CRADLE CRUSH	2	MS-345	3.00
22	REINF - KICKDOWN RT	1	MS-6000 44VA-050	2.70
23	REINF - KICKDOWN RT	1	MS-6000 44VA-050	2.70
24	REINF - SILL UPPER RT	1	MS-6000 44VA-050	1.80
25	REINF - SILL UPPER LT	1	MS-6000 44VA-050	1.80
26	BRKT - FRT CMBR ATTACH RT	2	MS-6000 44A	1.30
27	SUPPORT - BATTERY TRAY	1	MS-6000 44VA-050	1.52
28	STUD - M6.0X30	1		
29	TUBE - CRADLE CRUSH	2	MS-345	8.30
30	REINF - TRANS TORQUE BOX	1	MS-6000 44VA-050	1.80
31	REINF - TRANS TORQUE BOX	1	MS-6000 44VA-050	1.80
32	WELD NUT M6 X 1.00	6		
33	WELD NUT M8 X 1.25	1		
34	REINF - FRT SILL INNER RT	1	MS-6000 44VA-050	1.50
35	REINF - FRT SILL INNER LT	1	MS-6000 44VA-050	1.50
36	REINF - PLATE RT	2	MS-6000 44VA-050	2.01

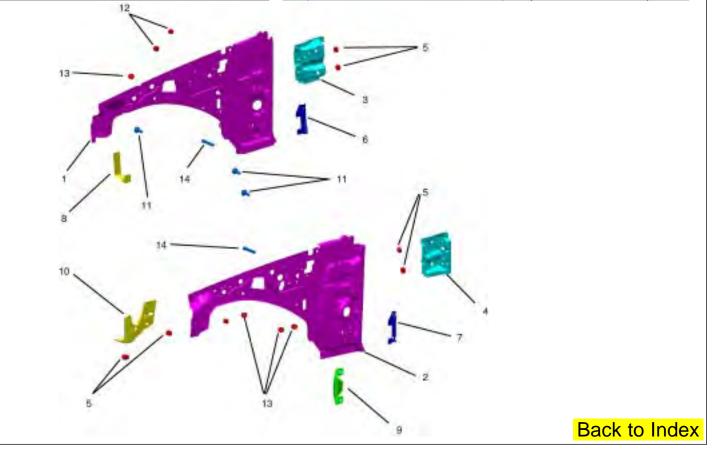


COMMANDER FRONT RAIL ASSEMBLY

COMMANDER COWL SIDE ASSEMBLY

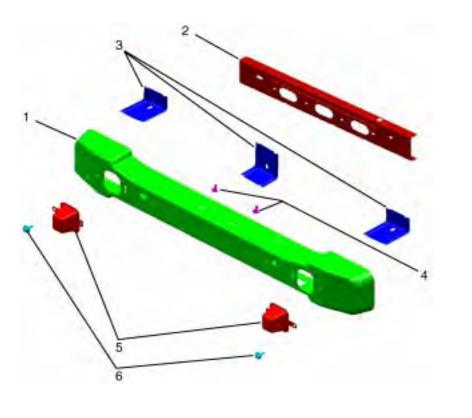
No.	Part Name	Qty	Material	Gage
1	PANEL - COWL SIDE RT	1	MS-6000 44A	0.89
2	PANEL - COWL SIDE LT	1	MS-6000 44A	0.89
3	BRACKET - I/P MTG RT	1	MS-66	1.52
4	BRACKET - I/P MTG LT	1	MS-66	1.52
5	WELD NUT - M6	6		
6	BRKT - COWL SIDE TRIM RT	1	MS-67	0.84
7	BRKT - COWL SIDE TRIM LT	1	MS-67	0.84

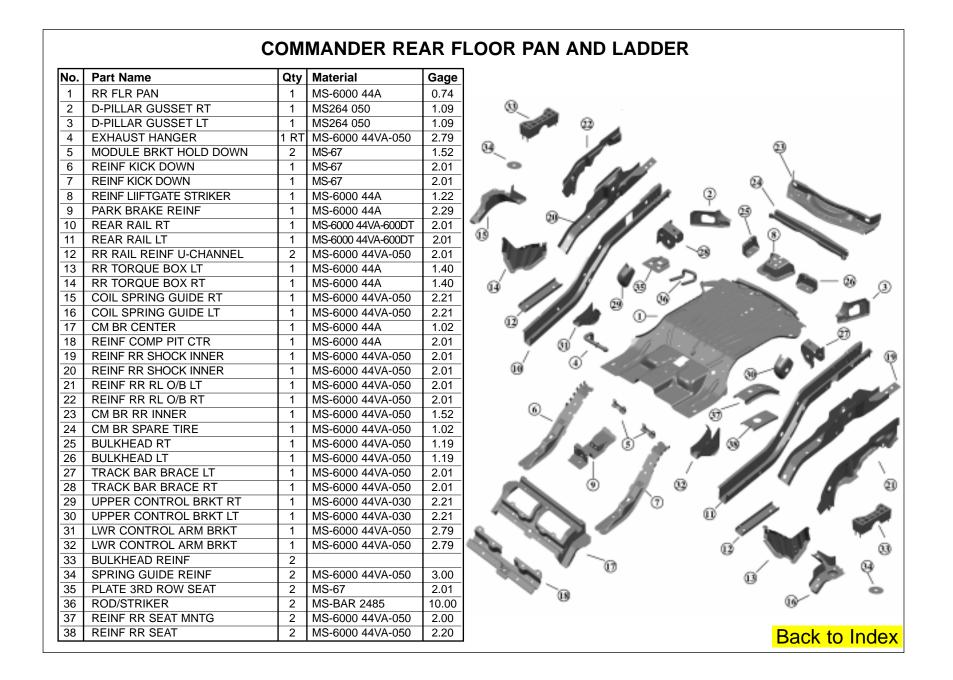
No.	Part Name	Qty	Material	Gage
8	BRKT - AIR CLEANER BOX	1	MS-6000 44A	1.5
9	BRKT - ELEC CONNECTOR	1	MS-66	1.5
10	BRKT - BATTERY TRAY SUPT	1	MS-6000 44A	1.5
11	WELD STUD - M6	3		
12	WELD NUT - M5	2		
13	WELD NUT RD - M5	4		
14	WELD STUD - M5	2		



COMMANDER LOWER FRONT CROSSMEMBER

No.	Part Name	Qty	Material	Gage
1	CRSMBR - FRT LWR FRT	1	MS-6000 44VAXK-050	1.30
2	CRSMBR - FRT LWR RR	1	MS-6000 44VAXK-025	0.81
3	BRKT - FASCIA SUPPORT	3	MS-6000 44A	1.52
4	STUD.WELD/INT M8x1.25x20	2		
5	REINF - CRUSH CAN	2	MS-264 050XK	1.20
6	SC&WA.CA/HEX.HD - M6x1.0	2		

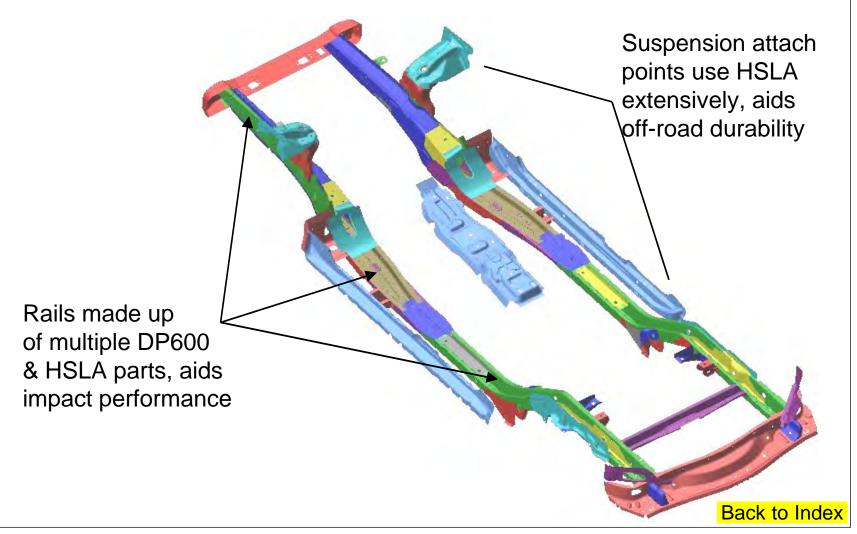




BODY CONSTRUCTION CHARACTERISTICS Commander Body Structure Overview

- Greater use of HSLA steel
- Extensive use of Dual Phase (DP600) steel (primarily for improved impact performance)
- Continued application of structural adhesive
- Stiffer vehicle structure for improved NVH performance & better suspension response
- Use of laminate steel for dash & wheelhouses
- Aluminum hood and hood reinforcements
- Multiple laser welded panels
- Bake Hardenable steel used in door outer skins

Underbody High Strength Steel Applications



Upperbody High Strength Steel Applications

A Pillar reinforcements

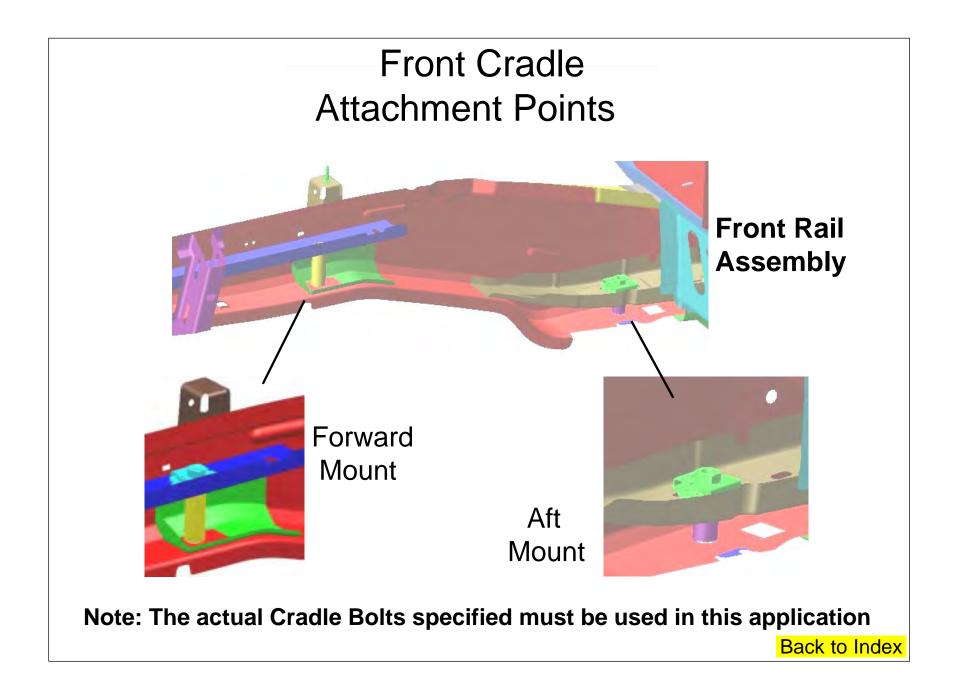
are DP600 for impact

DP600 Notes:

Typical yield strength as high as 90 – 100 ksi
Material work hardens during forming
Material bake hardens
Weldability similar to HSLA steel

HSLA used in sill reinforcement & shotgun

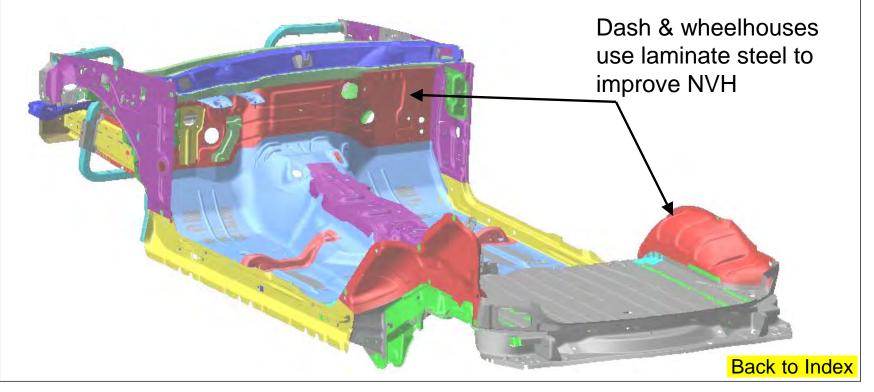
Seat Back reinforcement uses HSLA



Laminate Steel Applications

•Laminate steel consists of a pair of steel outer skins sandwiching a viscoelastic polymer. It substantially benefits NVH performance.

•Repair procedures should not be significantly different from regular steel.



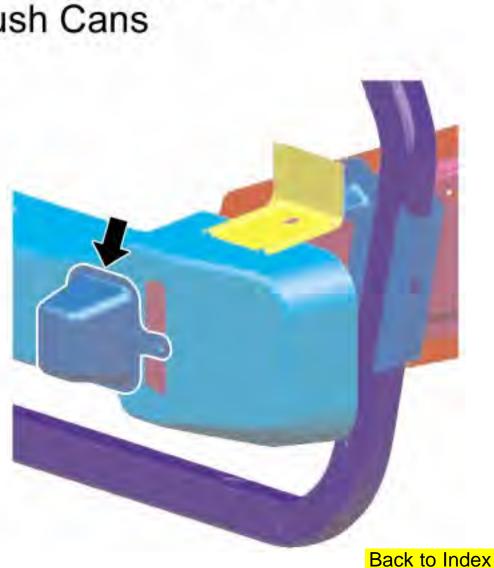
Energy Absorption Parts Crush Cans

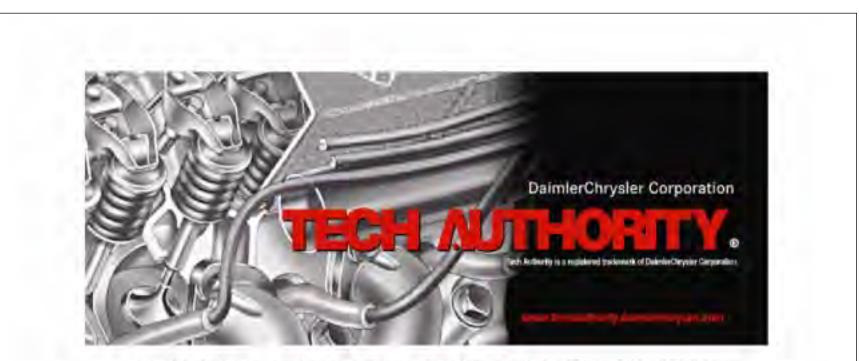
Crush cans are common with Jeep Liberty, Grand Cherokee
Cans are non-handed
Replace if damaged
Installation is accomplished with a single fastener & a location tab in the front crossmember

Other notable EA parts;

Stroking steering column

Stroking prop shaft





Tech Authority Website contains the most complete listings, descriptions, and ordering information for DaimlerChrysler Corporation service information materials. The materials included in Tech Authority cover every aspect of repairing and maintaining Chrysler, Plymouth, Dodge, Dodge Truck and Jeep® vehicles.

Tech Authority is an extensive online catalogue of Diagnostic procedure manuals, student reference Books, tech training programs, owner's manuals, Service manuals, and technical service bulletin Manuals. The materials range from written and Illustrated books to the highly acclaimed Master Tech Video series.

By Telephone: Monday - Friday, 8:00-4:30 E.S.T.

Telephone orders may be placed at the number below. Credit cards are accepted (no COD's), Please have your Order information available at time of call.

By Phone: (800) 890-4038 By Fax: (440) 572-0815

Visit our website at: www.techauthority.daimlerchrysler.com

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 develop 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.

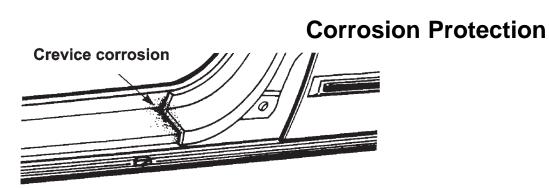


Factory Applied Corrosion Protection

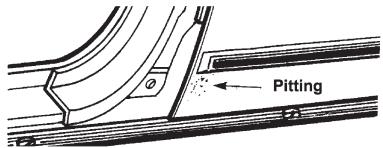
During the manufacturing of the unibody car, the manufacturer applies "corrosion protection" using specialized manufacturing processes. This system is not duplicated in the collision repair body shop. However, the body shop still has a responsibility to apply corrosion protection to the unibody vehicle.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

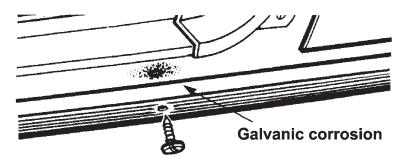
An understanding of the types of corrosion which affect the unibody vehicles will assist in understanding why the factory protection systems are important, how the factory protection systems consist of and how the systems' protection is replaced after collision and electrolytic corrosion. Some of the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



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.

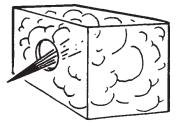
Collision Repair Corrosion Protection Materials

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.

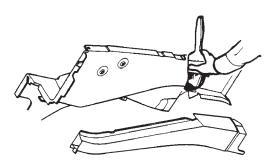
Materials containing silicones will cause paint conditions such as fish eyes if they are applied before the repaired vehicle is painted. So no silicone containing material is to be used. As many of the repair areas are more accessible before final assembly and painting, the non-silicone type materials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

"They helped us reduce our cycle time by



...And I thought, 'Wow, they don't want to just sell me paint." -Brad Shelton, Shop Owner-Shelton Collision, Derby, Kansas

Constantly searching for ways to do things better and faster without sacrificing quality is what sets Sikkers and Akro Nobel apart. From the formulation of the paint to breakthrough management methods, you can see Sikkers technology at work in many of today's successful bodythops.

But don't take our word for it. Our customers say it best. Find out about the results that can be gained when Sikkens is used. Go to www.akzonobeltamefinishes.net, or call 1-800-25ikkens and

request your FREE copy of the Sikkens Success Story, or schedule a visit from an Akzo Nobel representative



TECHNOLOGY

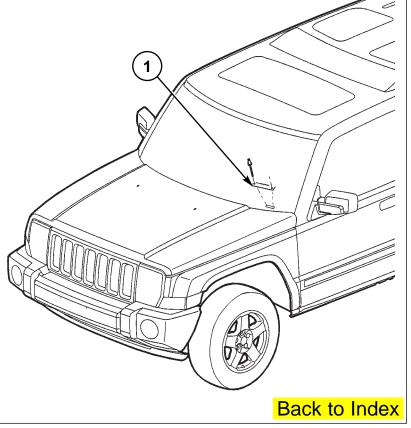
Back to Index

PROFIT

COMMANDER VEHICLE IDENTIFICATION NUMBER DESCRIPTION

The Vehicle Identification Number (VIN) can be viewed through the windshield at the upper left corner of the instrument 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.

1 - VEHICLE IDENTIFICATION NUMBER (VIN)



POSITION	INTERPRETATION	CODE = DESCRIPTION
1	Country of Origin	1 = Manufactured by Daimler Chrysler Corporation
2	Make	J = Jeep
3	Vehicle Type	4 = MPV Less Side Air Bags
		8 = MPV With Side Air Bags
4	Gross Vehicle Weight Rating	G = 5001 - 6000 lbs.
5	Vehicle Line (XK)	G = Commander Left Hand Drive (4X4)
		H = Commander Left Hand Drive (4X2)
5	Vehicle Line (XH)	3 = Grand Cherokee Left Hand Drive (4X4)
		1 = Grand Cherokee Right Hand Drive (4X4)
6	Series	4 = Commander
		5 = Commander Limited
7	Body Style	8 = Sport Utility 4 Door
8	Engine	K = 3.7K 6 cyl. MPI Gasoline
		N = 4.7K 8 cyl. MPI Gasoline
		2 = 5.7L 8 cyl. HEMI Multiple Displacement Gasoline
		M = 3.0L 6 cyl. Turbo Diesel
9	Check Digit	0 through 9 or X
10	Model Year	6 = 2006
11	Assembly Plant	C = Jefferson North Assembly
		Y = Chrysler Steyer Assembly
2 through 17		Vehicle Build Sequence
		Back to

VEHICLE CERTIFICATION LABEL

DESCRIPTION

A vehicle certification label is attached to every DaimlerChrysler Corporation vehicle. The label certifies that the vehicle conforms to all applicable Federal Motor Vehicle Standards. The label also lists:

- Month and year of vehicle manufacture.
- Gross Vehicle Weight Rating (GVWR). The gross front and rear axle weight ratings (GAWR's) are based on a minimum rim size and maximum cold tire inflation pressure.
- Vehicle Identification Number (VIN).
- Type of vehicle.
- Type of rear wheels.
- Bar code.
- Month, Day and Hour (MDH) of final assembly.
- Paint and Trim codes.
- Country of origin.

The label is located on the driver-side door shut-face.





JEEP COMMANDER PAINT CODES

EXTERIOR

CODE	COLOR
PGV	Deep Beryl Green
PJC	Light Khaki Metallic Clear Coat
PJT	Dark Khaki Pearl Coat
PSB	Bright Silver Metallic Clear Coat
PB8	Midnight Bluse Pearl Coat
ARJ/ARH	Inferno Red Crystal Pearl Coat
PW1	Stone White Clear Coat
PX8	Black Clear Coat

BUMPER/CLADDING/FASCIA/TRIM

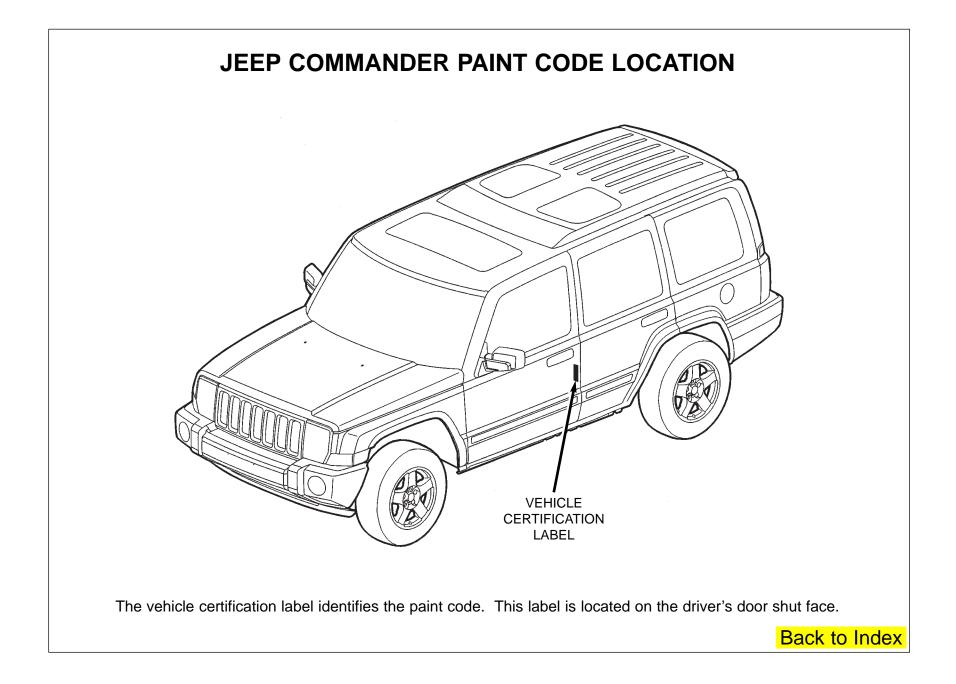
CODE	COLOR
VF7	Driftwood
WLP	Taupe
YBM	Dark Blue
YR8	Dark Red Garnet
ZJQ	Onyx Green
ZSP	Deep Gray
PEL	Inferno Red
PSB	Bright Silver

INTERIOR

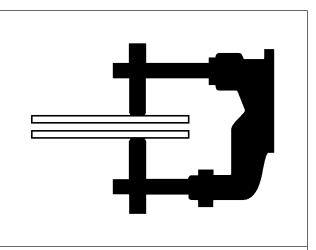
CODE	COLOR
BD1	Light Graystone
BD5	Medium Slate Gray
ZJ3	Medium Khaki
ZJ8	Dark Khaki

WHEEL

CODE	COLOR
YZB	Super Silver



WELD PANEL REPLACEMENT Jeep Commander



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.

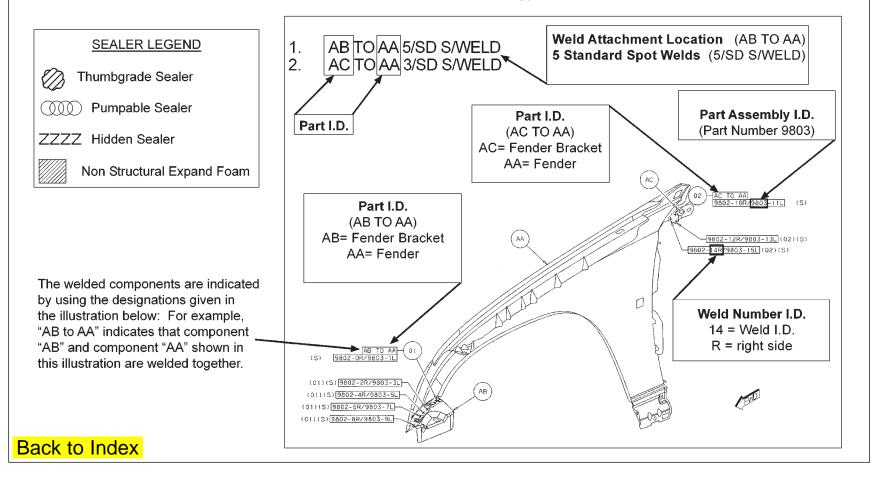
Note: Diagrams do not show all of the parts.

Explanation of Manual Contents	Hood
Front Rails	Front Door
Engine Box	Rear Door
Rear Floor	Liftgate
Rear Floor and Ladder	Front Floor/Dash/Plenum
Miscellaneous Underbody	Underbody Complete
Miscellaneous Body	Body Side Inner
Dash/Cowl/Plenum	Body Side Outer
Engine Box	Body Side Complete
Front Floor	Body in White Complete without Roof
Body Side Inner	Body in White Complete
Miscellaneous Body	Back to Index

Explanation of Welding/Sealer Information

The major construction of a unibody vehicle consists of welded panels that create the supporting structure for all components 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.



Explanation of Welding Abbreviations

Definitions

Weld Type

(ORD)=Ordinary Weld or Standard (CRT)=Critical Weld or Diamond (SAF)=Safety Weld PROJ=Projection Weld FCAW=Flex Core Arc Weld MFG=Manufacturing Weld S/WELD=Spot Welds /SD=Per Side

Examples

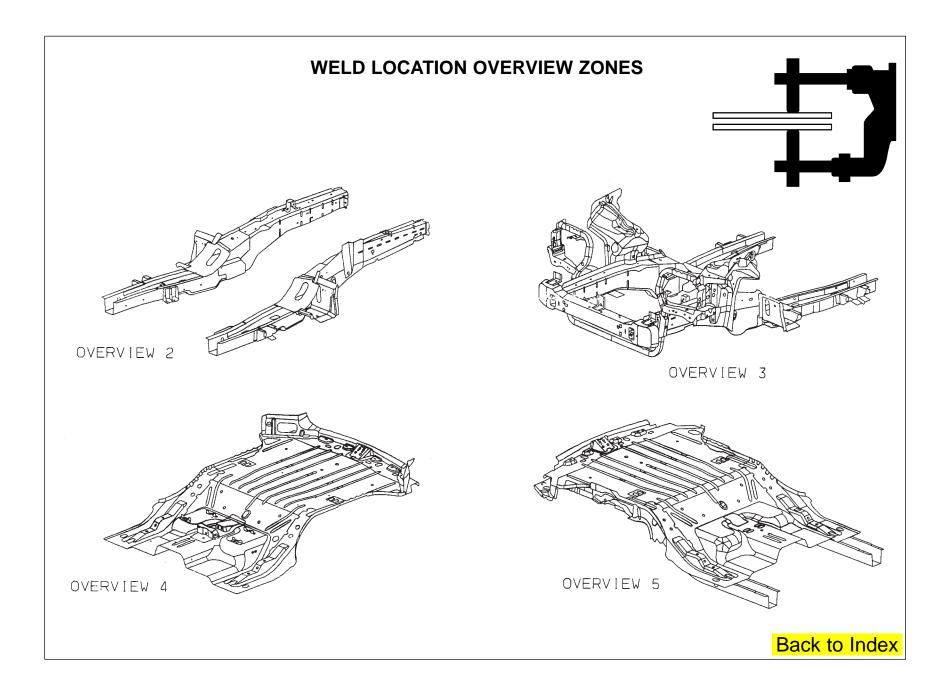
AA TO AB 5/SD S/WELDS (ORD)= PART AA WELDED TO PART AB 5 PER SIDE (5 RIGHT/5 LEFT) SPOT WELDS STANDARD

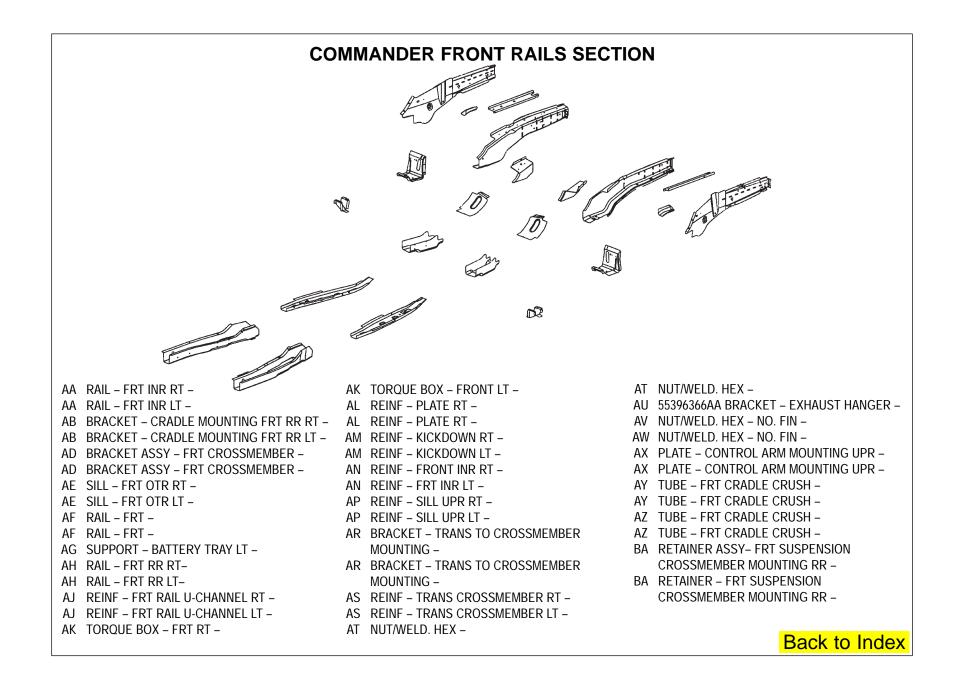
AA TO AB 12 PROJ WELDS (CRT)= PART AA WELDED TO PART AB 12 PROJECTION WELDS CRITICAL OR DIAMOND

Adhesives

STRUCT ADH (ORD) = Ordinary Structural Adhesive ADH (ORD) = Ordinary Adhesive

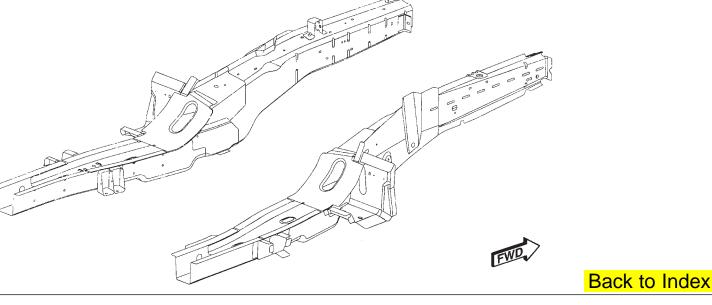
Back to Index

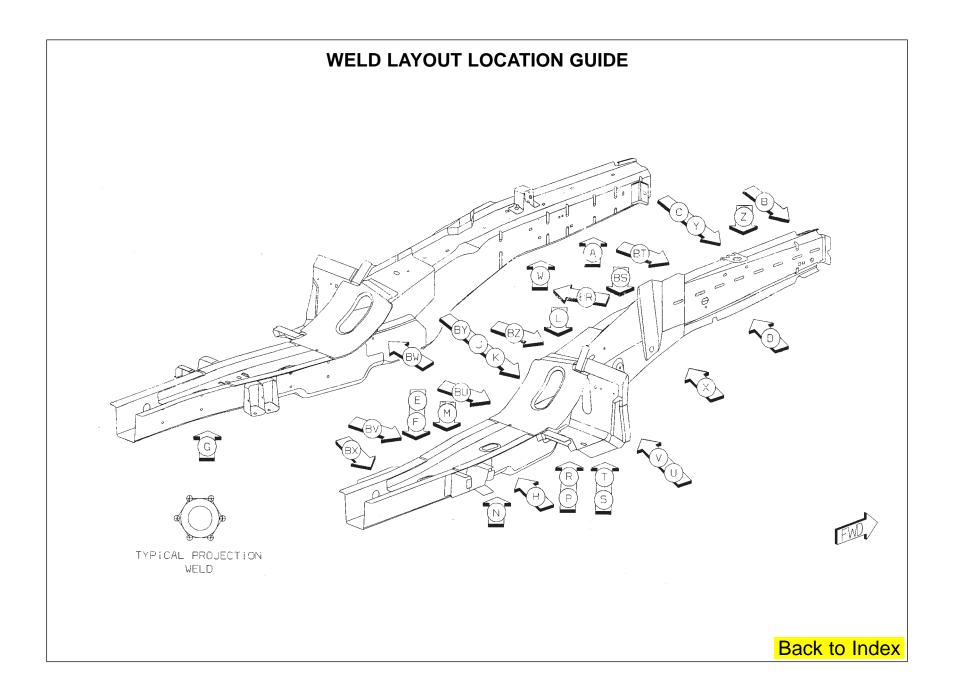


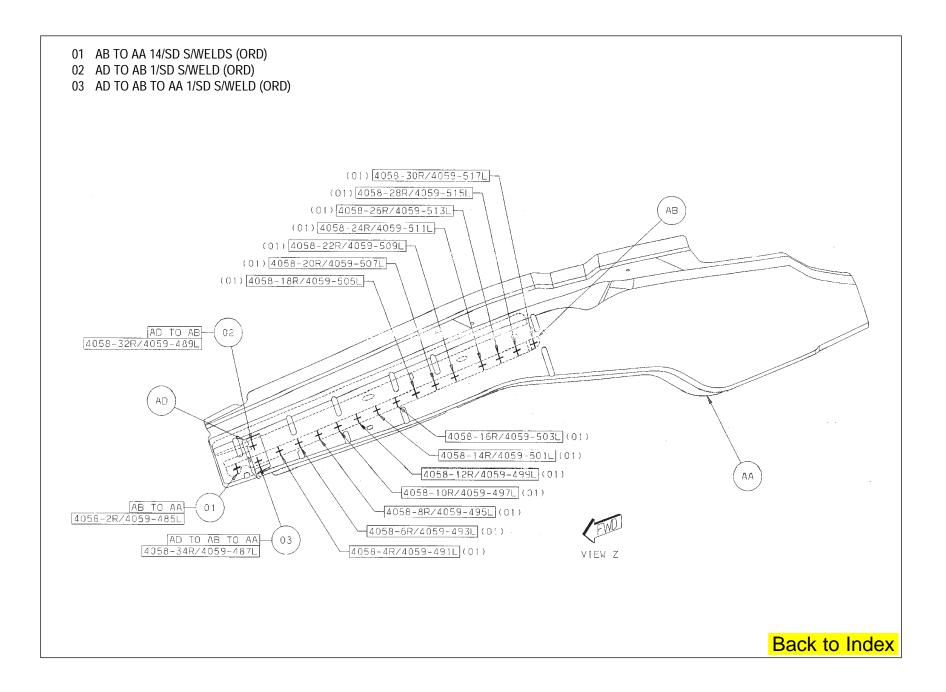


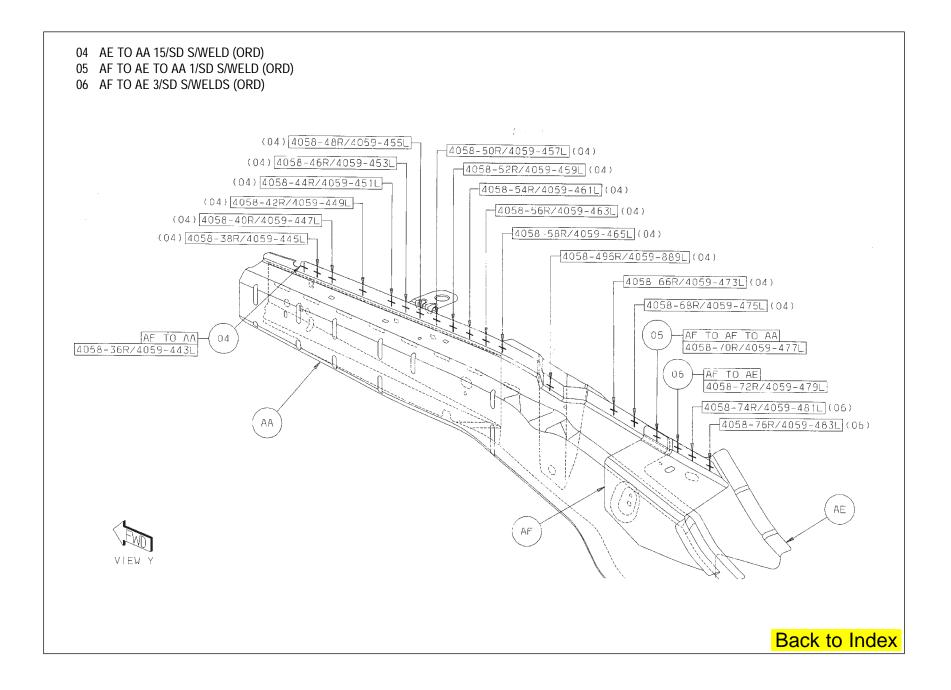
PARTS IDENTIFICATION LEGEND, OVERVIEW 2

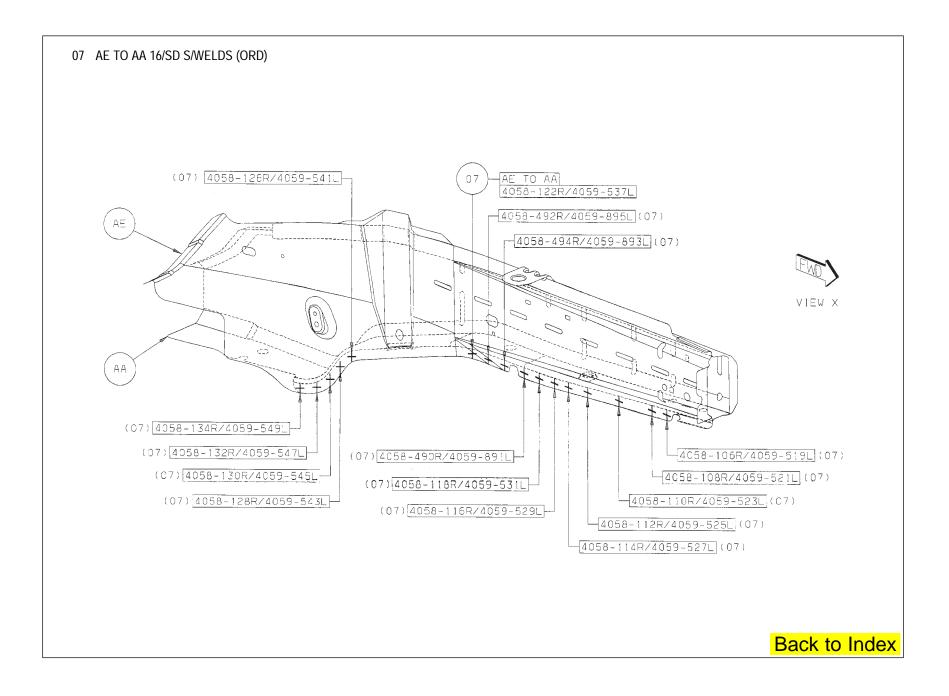
- AA RAIL FRT INR RT -AA RAIL - FRT INR LT -AB BRACKET – CRADLE MOUNTING FRT RR RT – AB BRACKET - CRADLE MOUNTING FRT RR LT -AD BRACKET ASSY - FRT CROSSMEMBER -AD BRACKET ASSY - FRT CROSSMEMBER -AE SILL – FRT OTR RT – AE SILL - FRT OTR LT -AF RAIL - FRT -AF RAIL – FRT – AG SUPPORT - BATTERY TRAY LT -AH RAIL - FRT RR RT-AH RAIL - FRT RR LT-AJ REINF - FRT RAIL U-CHANNEL RT -AJ REINF - FRT RAIL U-CHANNEL LT -AK TORQUE BOX - FRT RT -
- AK TORQUE BOX FRONT LT AL REINF - PLATE RT -AL REINF – PLATE RT – AM REINF - KICKDOWN RT -AM REINF - KICKDOWN LT -AN REINF - FRONT INR RT -AN REINF - FRT INR LT -AP REINF - SILL UPR RT -AP REINF - SILL UPR LT -AR BRACKET – TRANS TO CROSSMEMBER MOUNTING -AR BRACKET - TRANS TO CROSSMEMBER MOUNTING -AS REINF - TRANS CROSSMEMBER RT -AS REINF - TRANS CROSSMEMBER LT -AT NUT/WELD. HEX -
- AT NUT/WELD. HEX -
- AU 55396366AA BRACKET EXHAUST HANGER -
- AV NUT/WELD. HEX NO. FIN -
- AW NUT/WELD. HEX NO. FIN -
- AX PLATE CONTROL ARM MOUNTING UPR -
- AX PLATE CONTROL ARM MOUNTING UPR -
- AY TUBE FRT CRADLE CRUSH -
- AY TUBE FRT CRADLE CRUSH -
- AZ TUBE FRT CRADLE CRUSH -
- AZ TUBE FRT CRADLE CRUSH -
- BA RETAINER ASSY- FRT SUSPENSION CROSSMEMBER MOUNTING RR -
- BA RETAINER FRT SUSPENSION CROSSMEMBER MOUNTING RR –

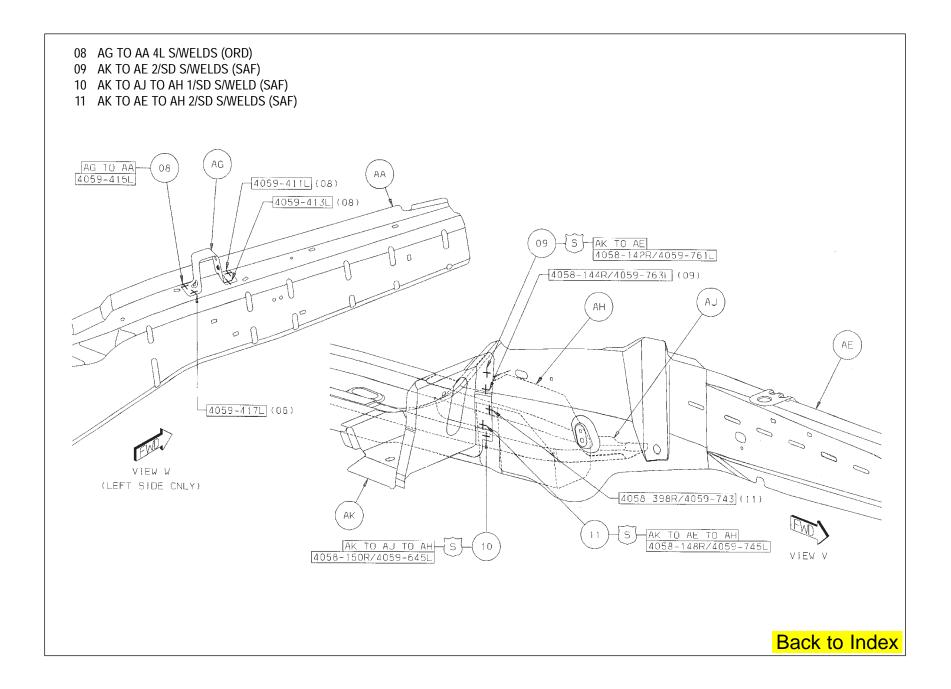


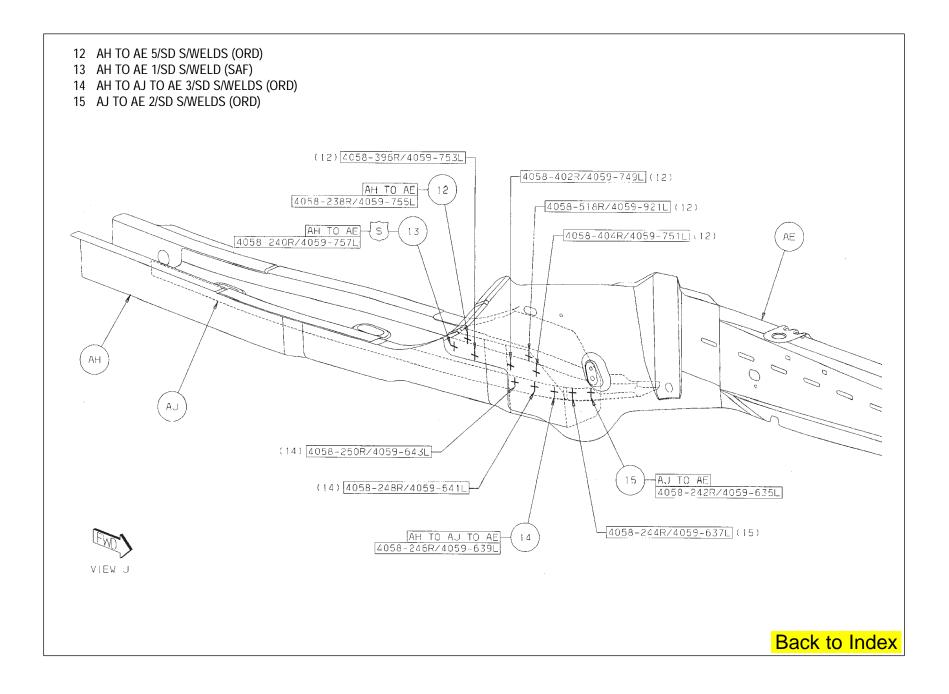


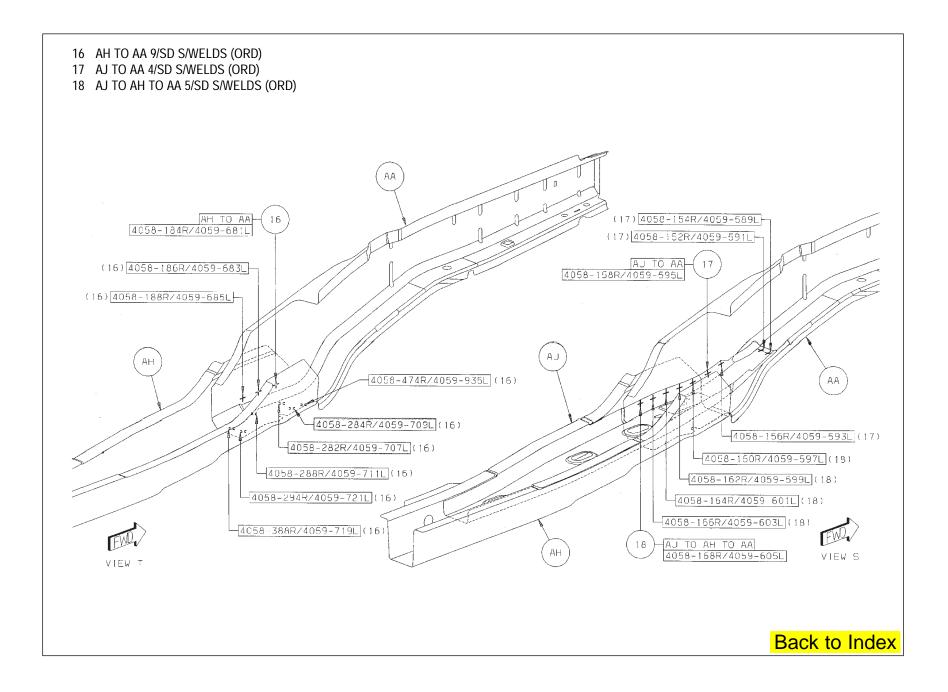


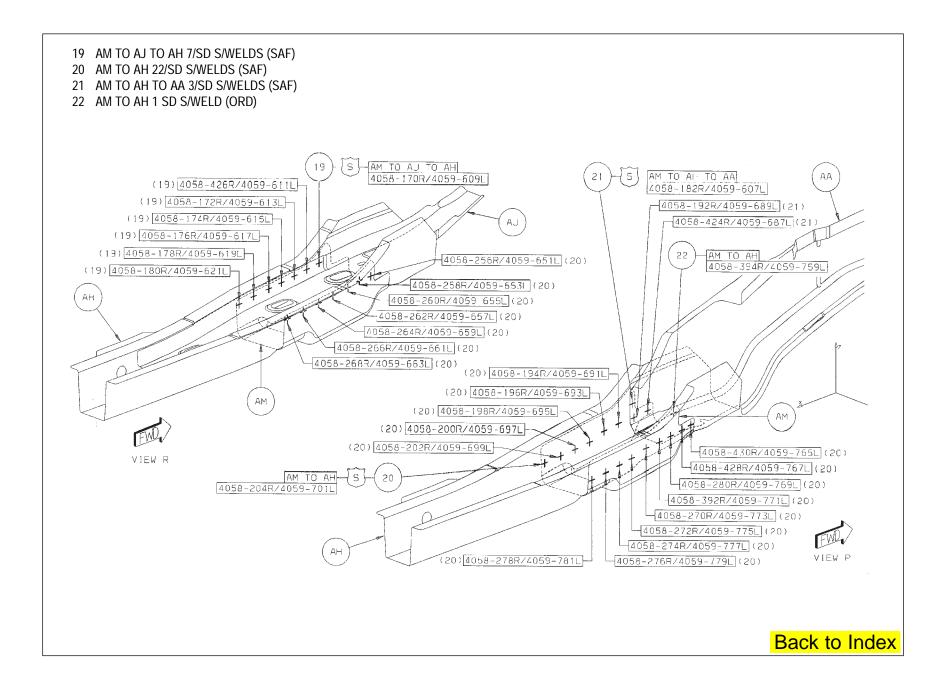


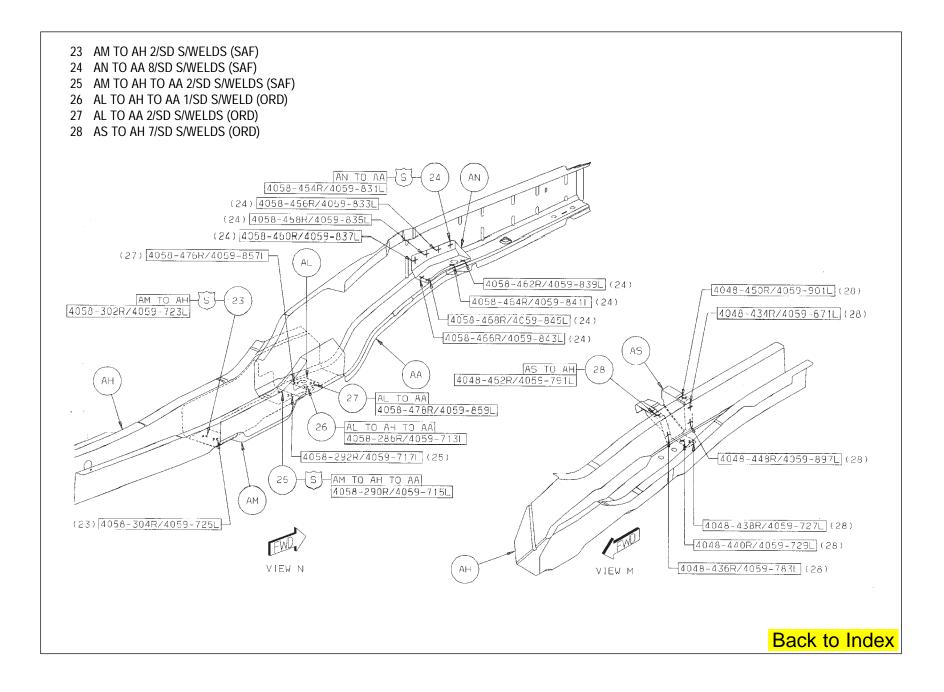


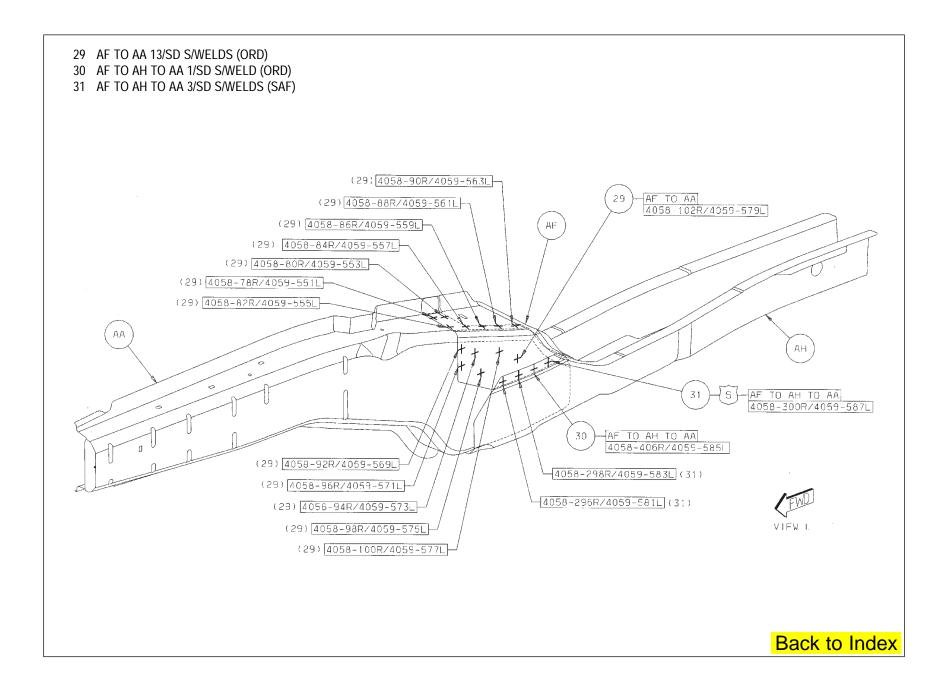


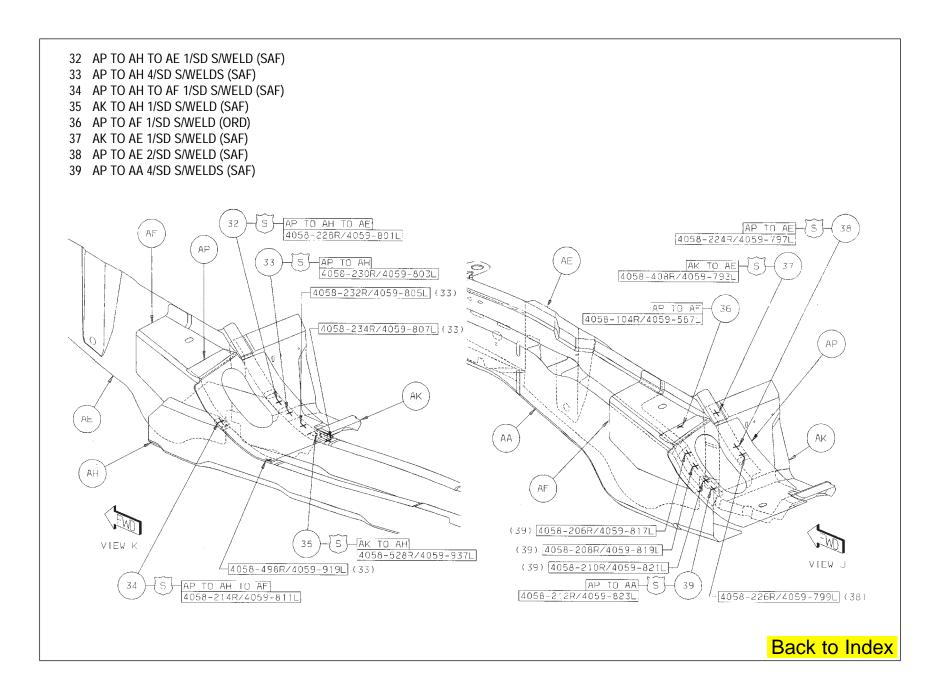


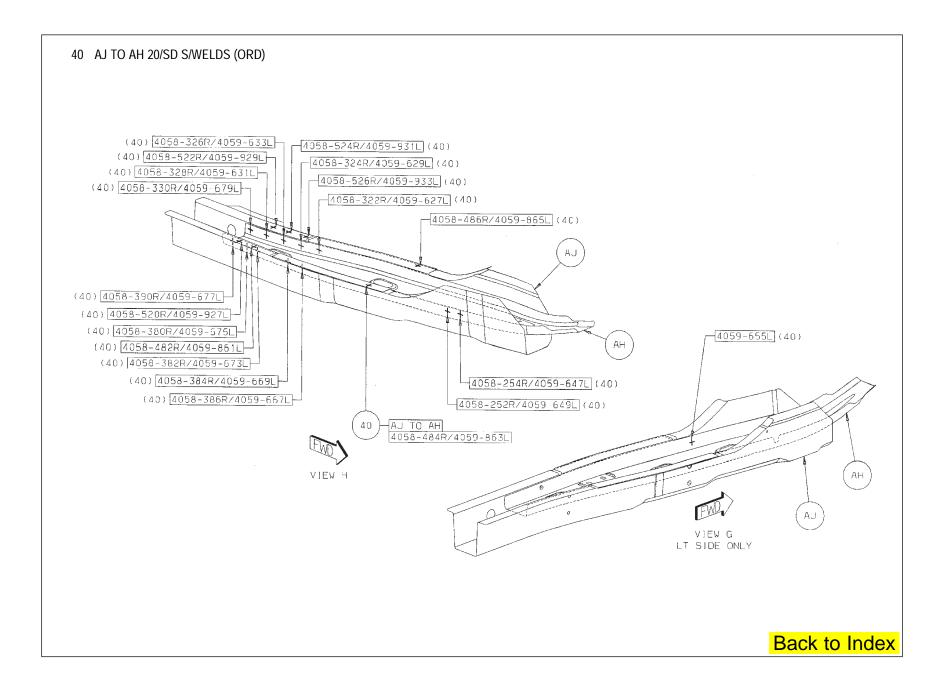


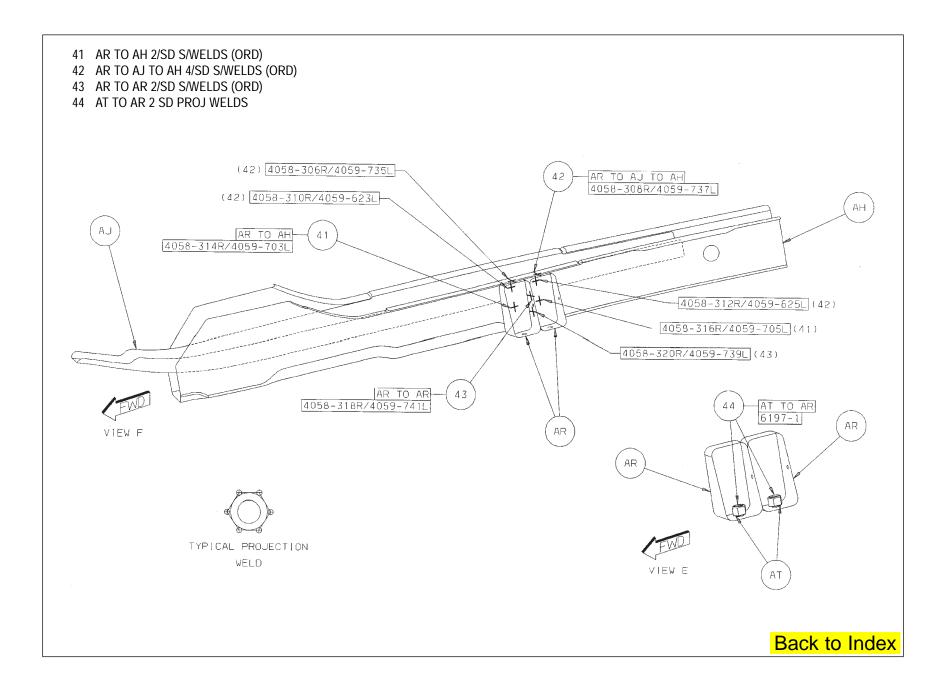


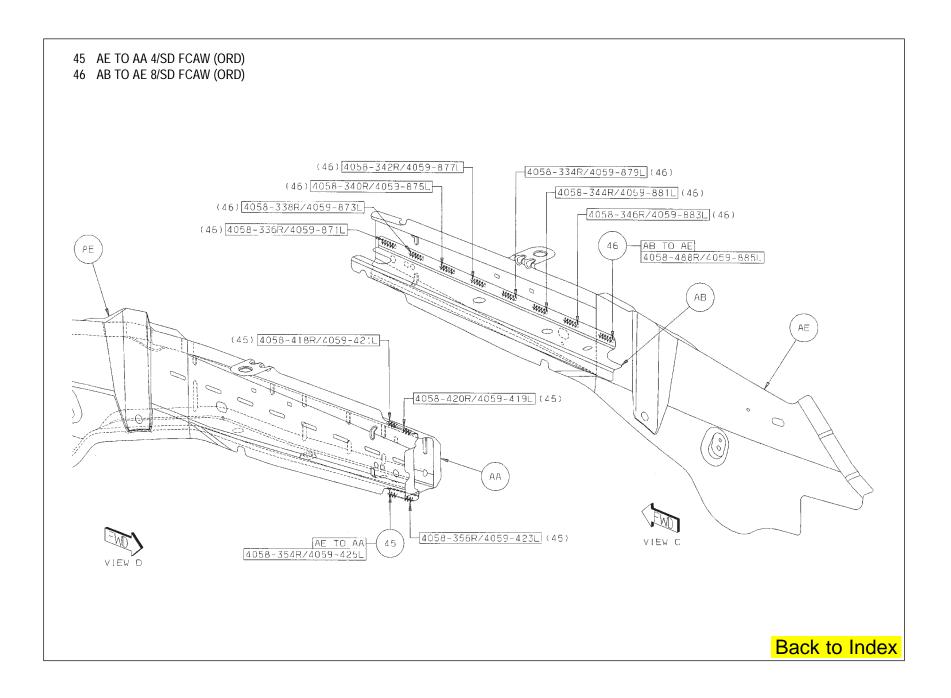


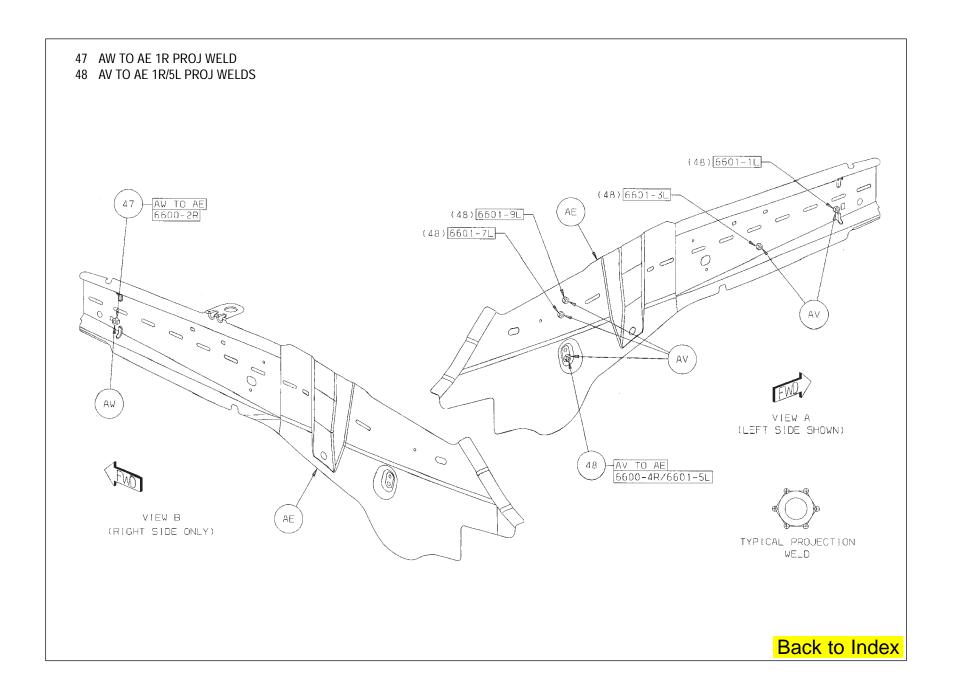


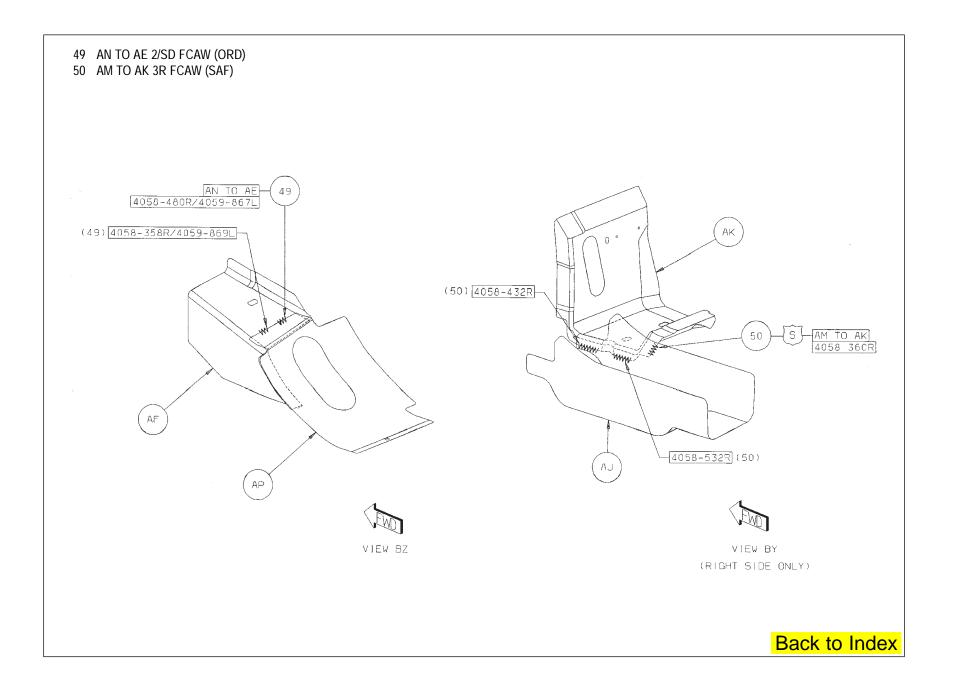


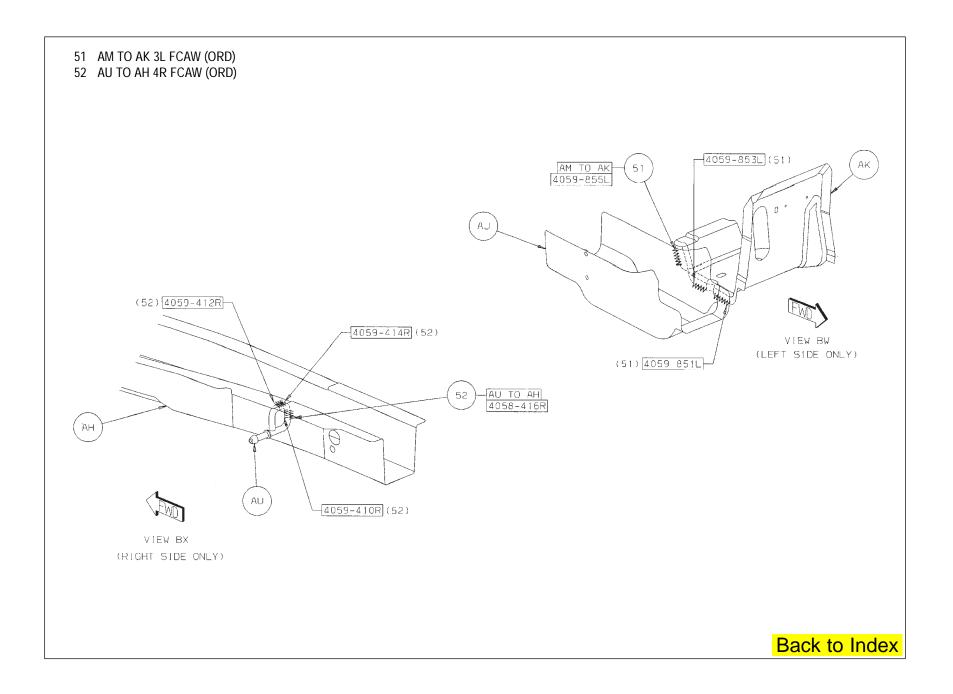


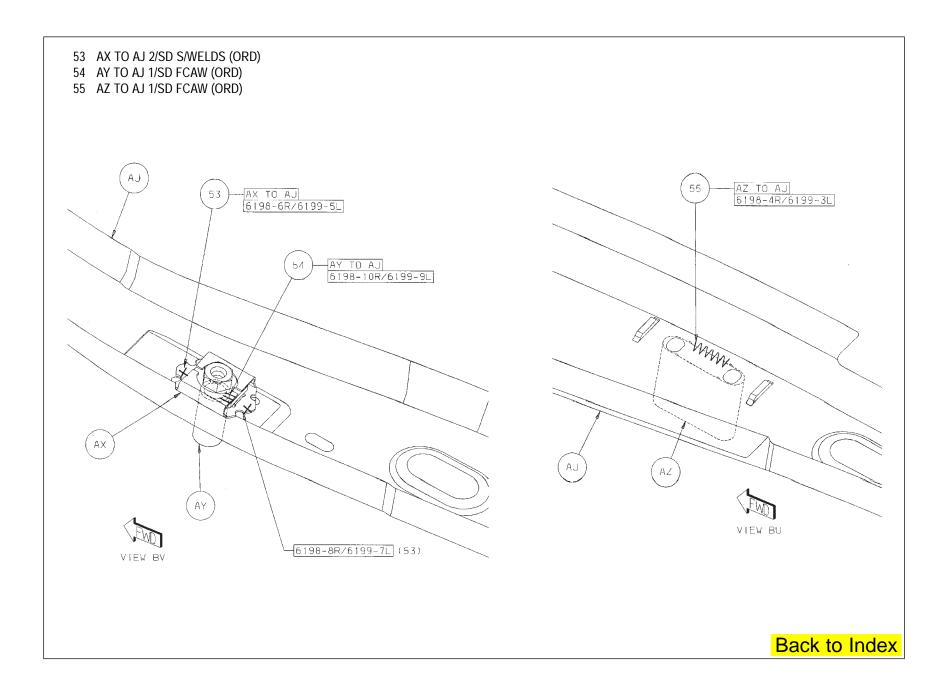


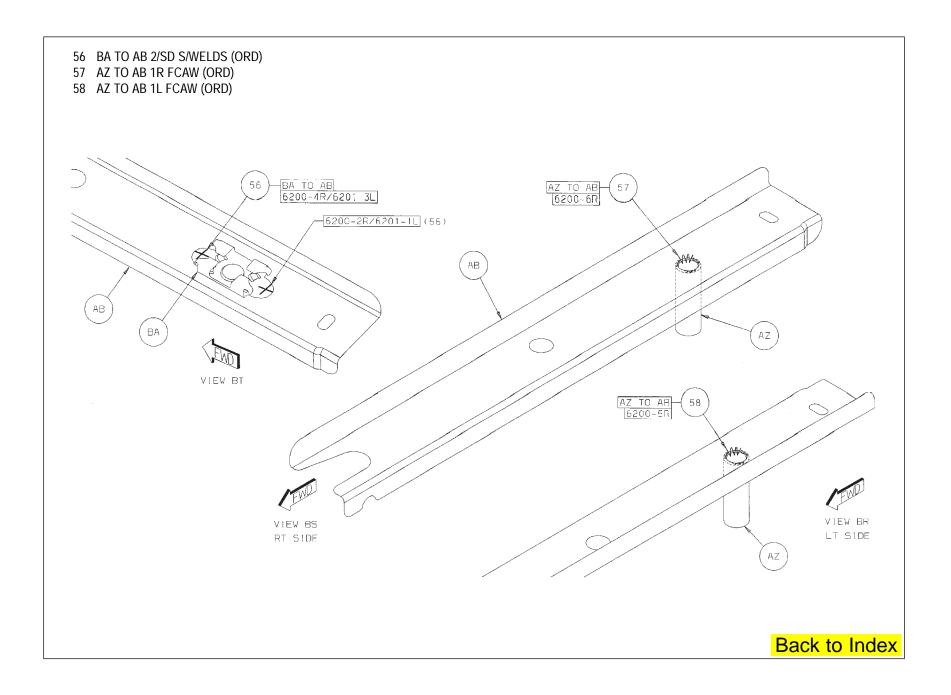


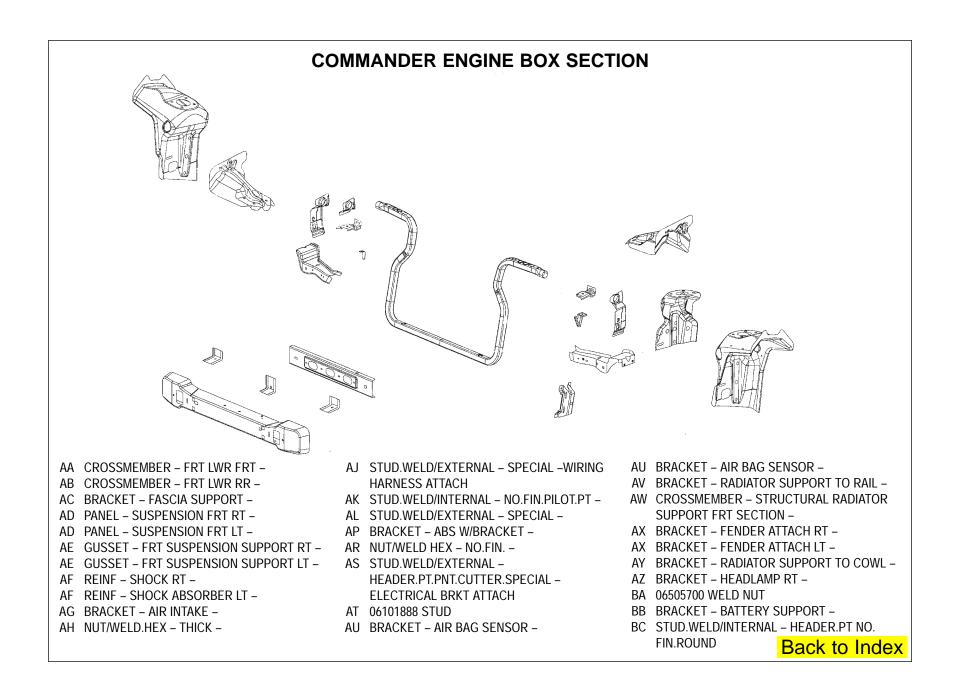


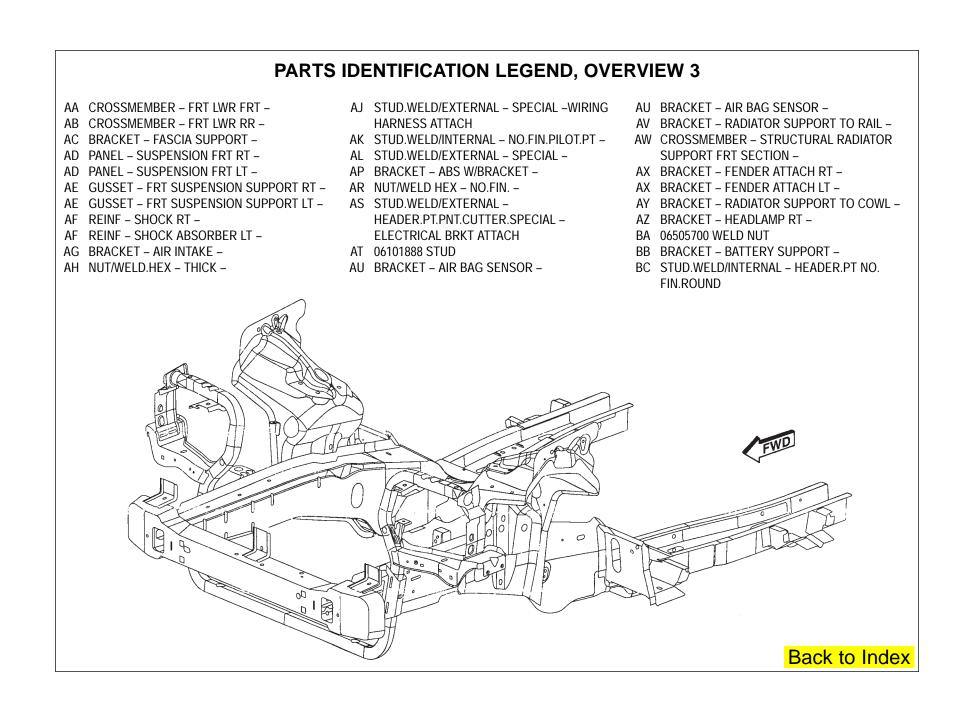


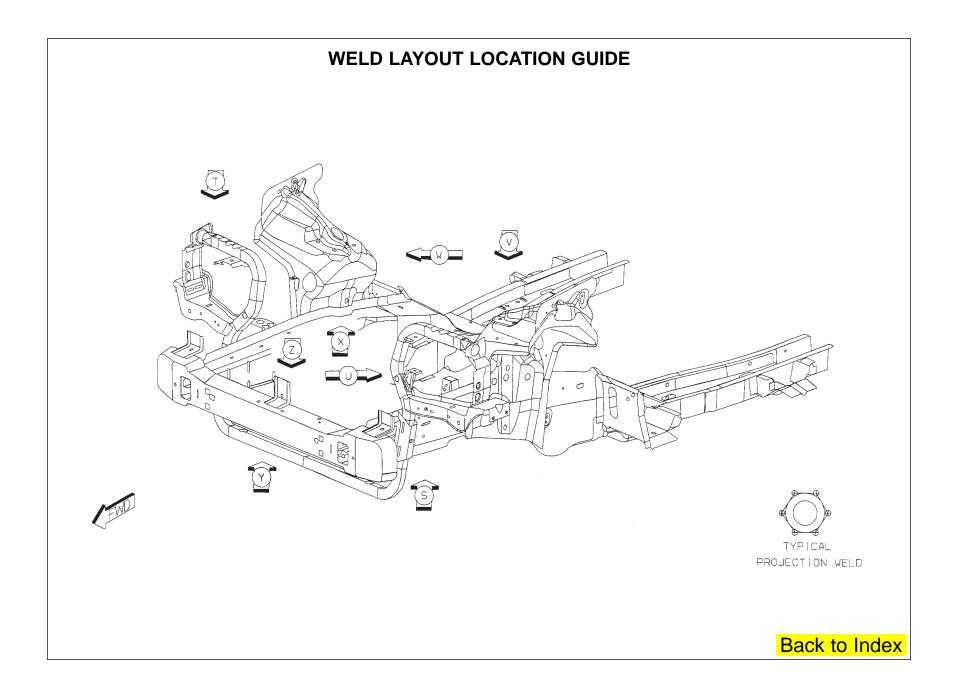


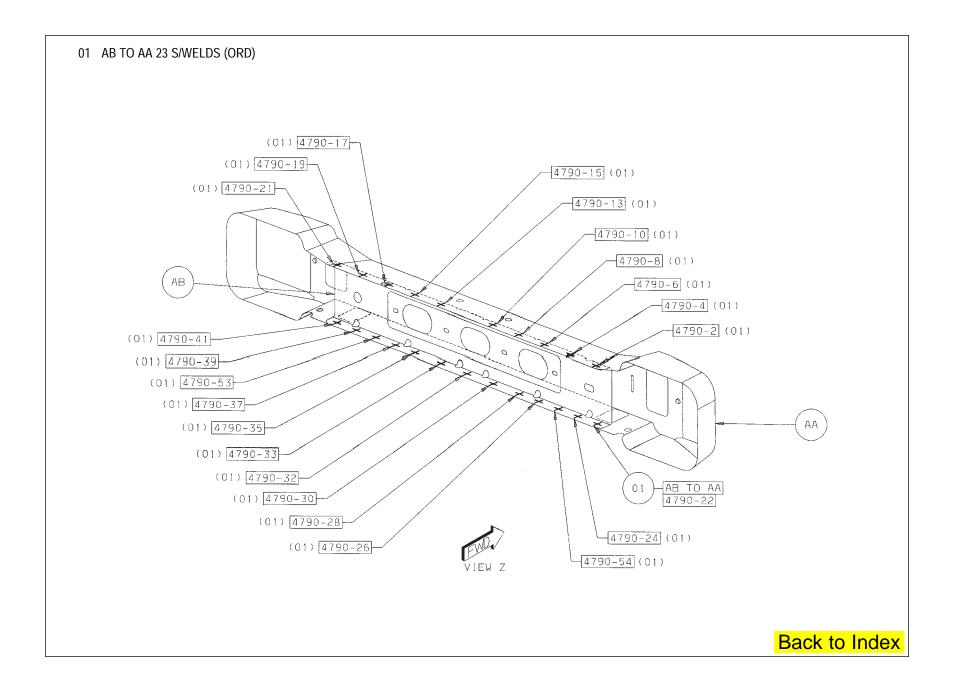


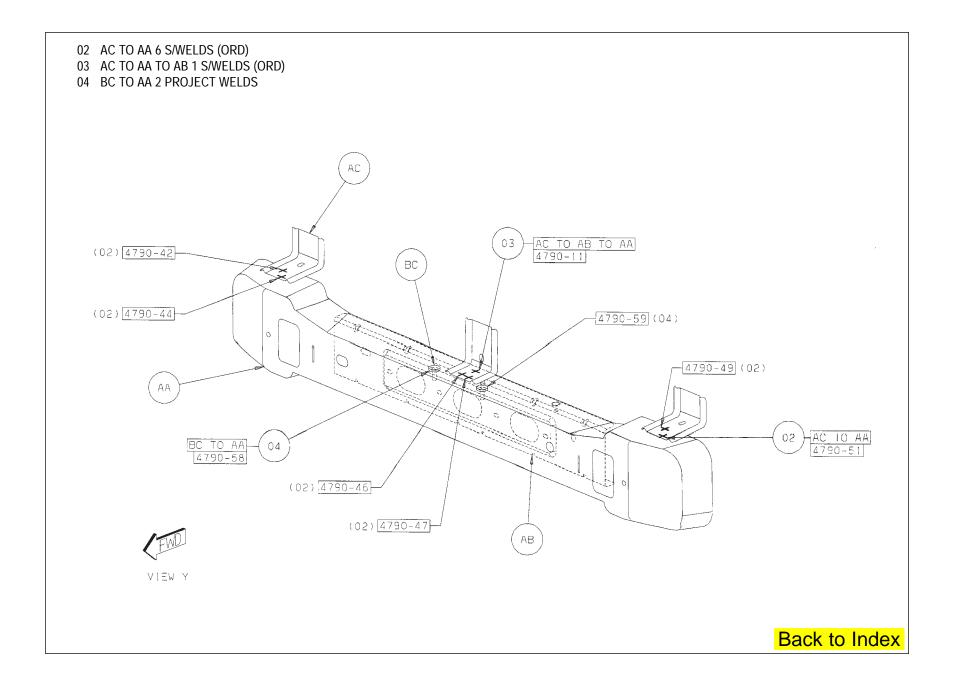


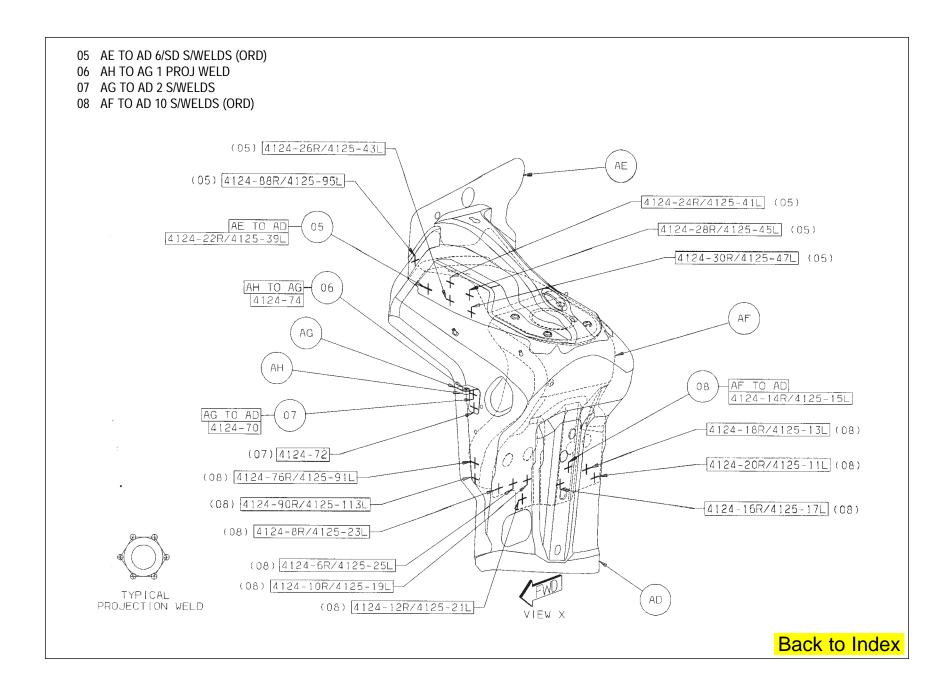


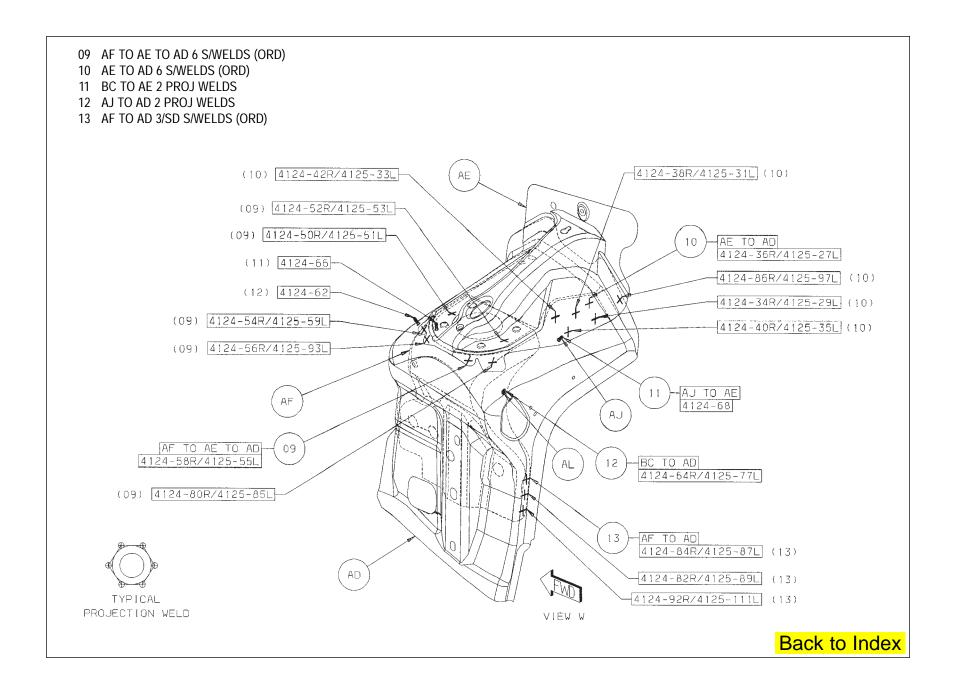


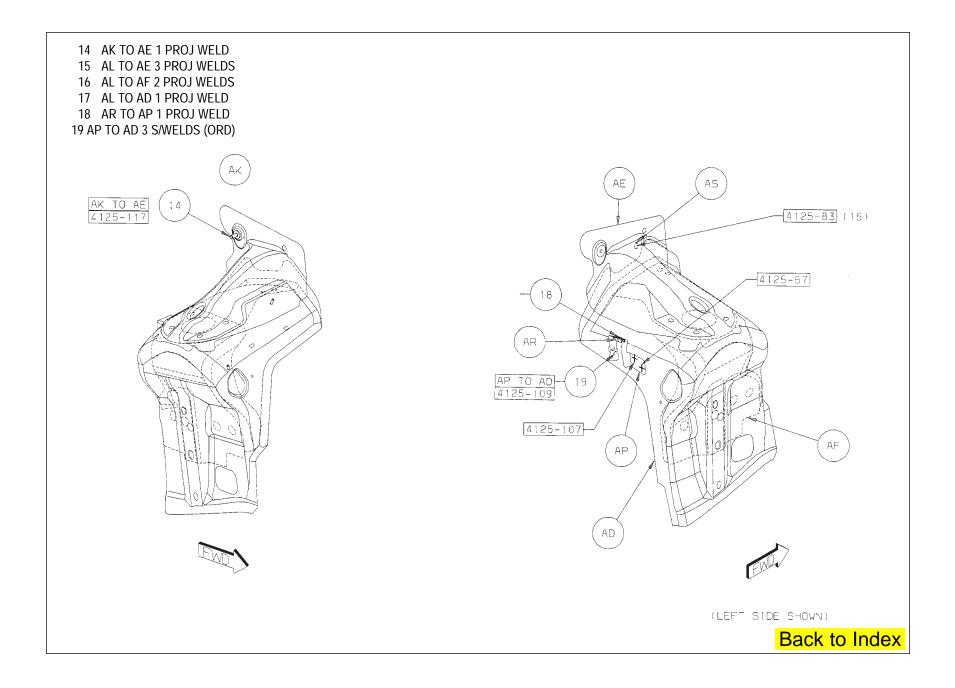


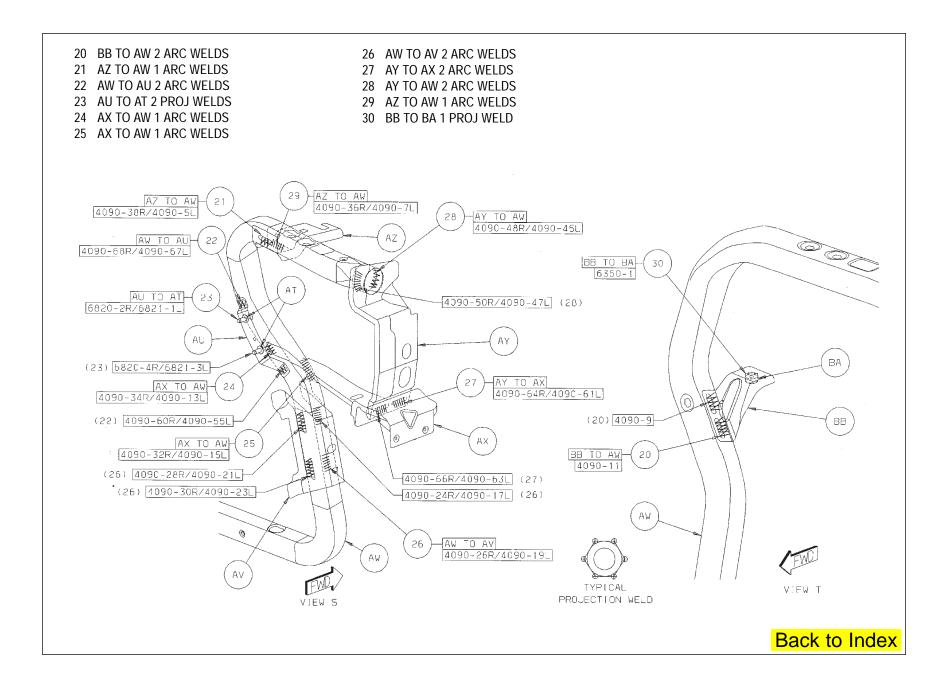


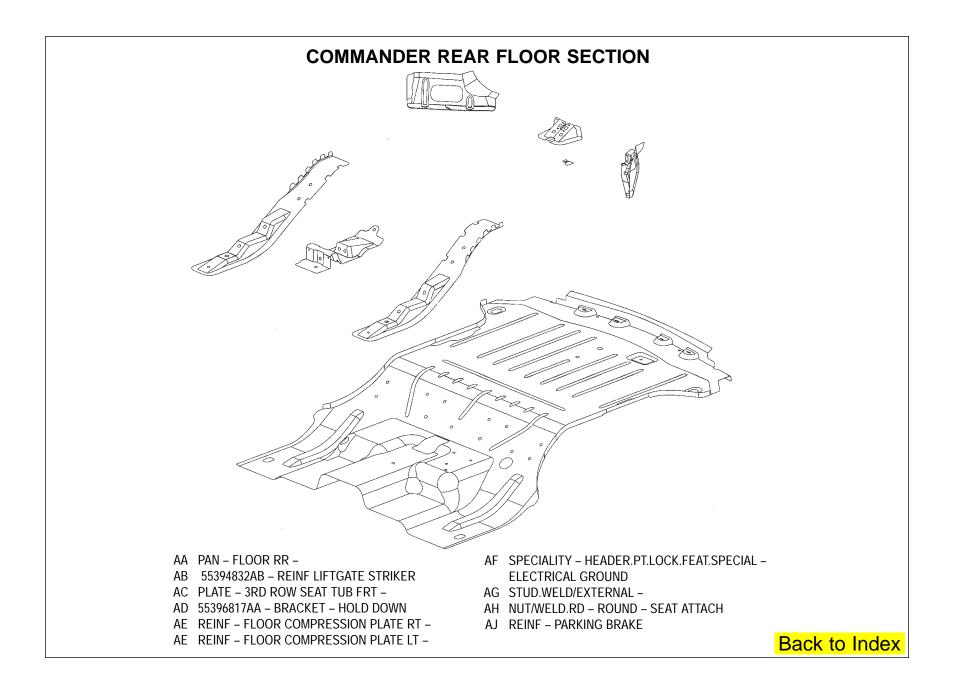


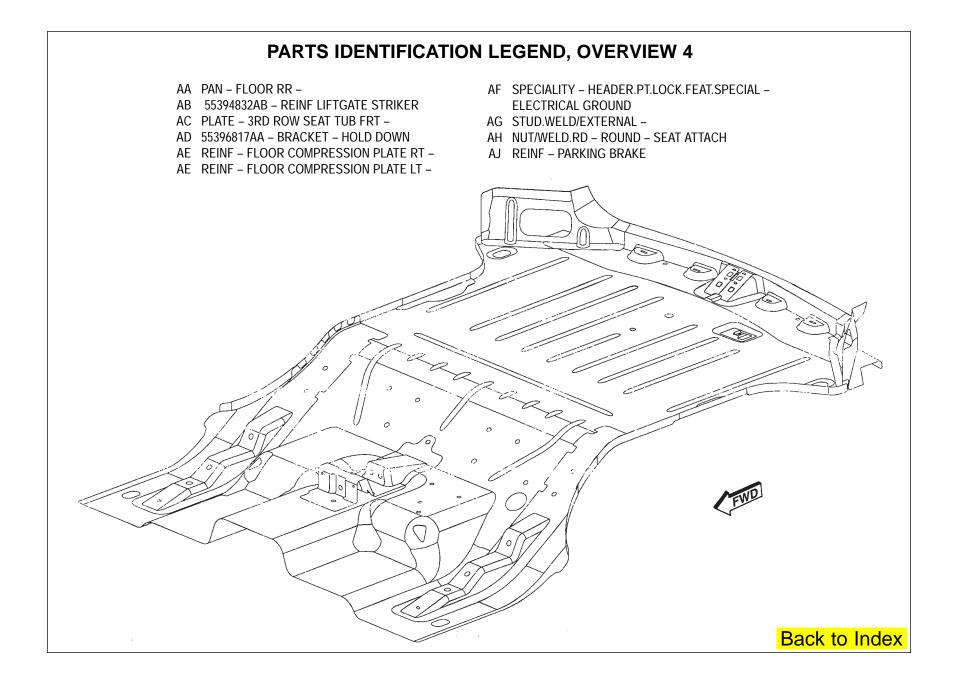


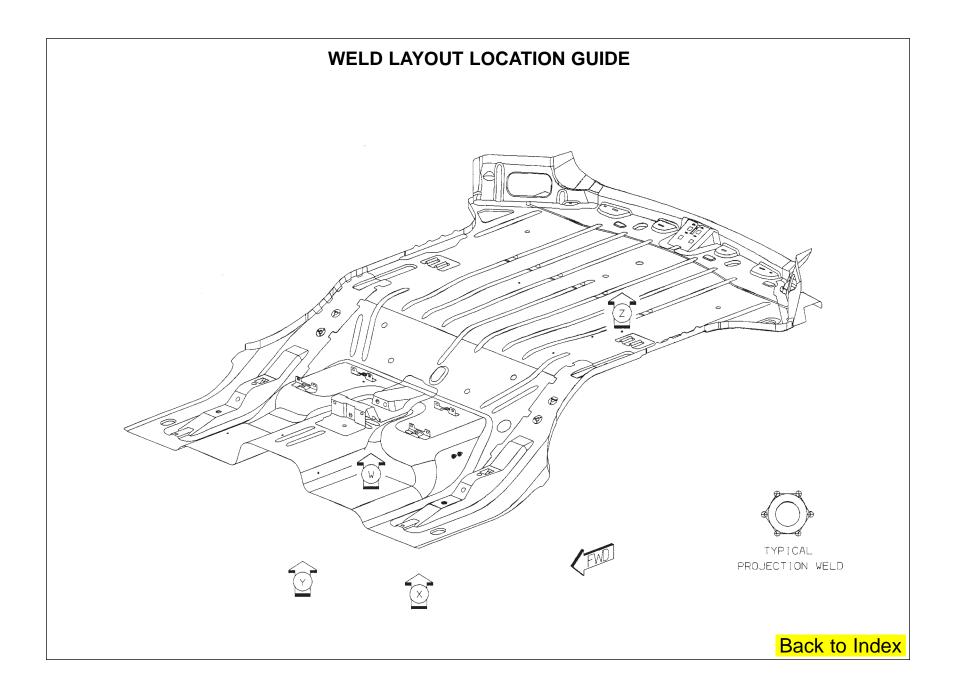


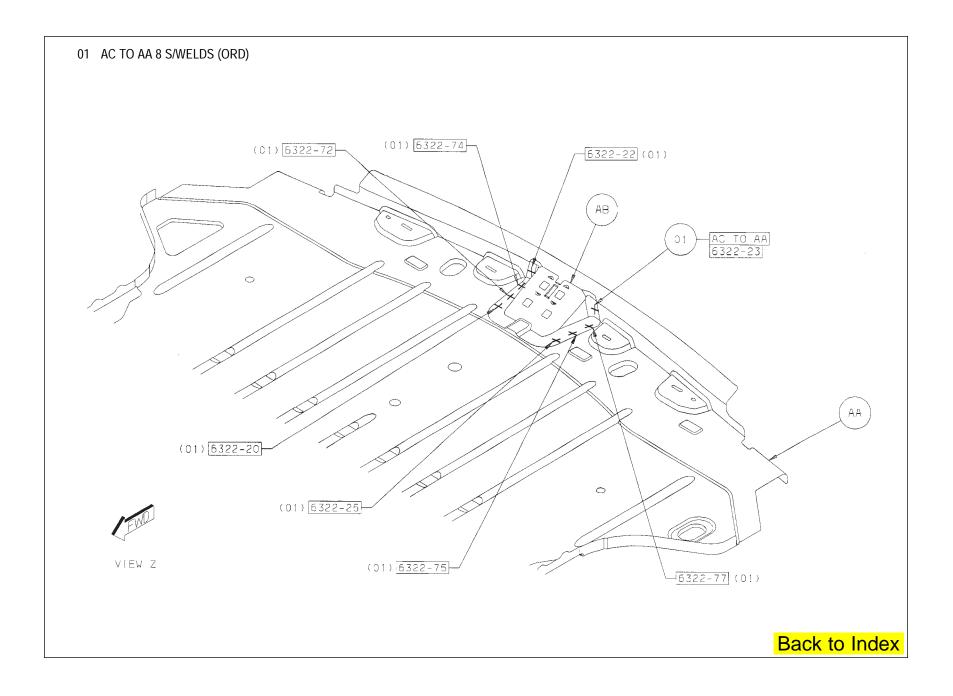


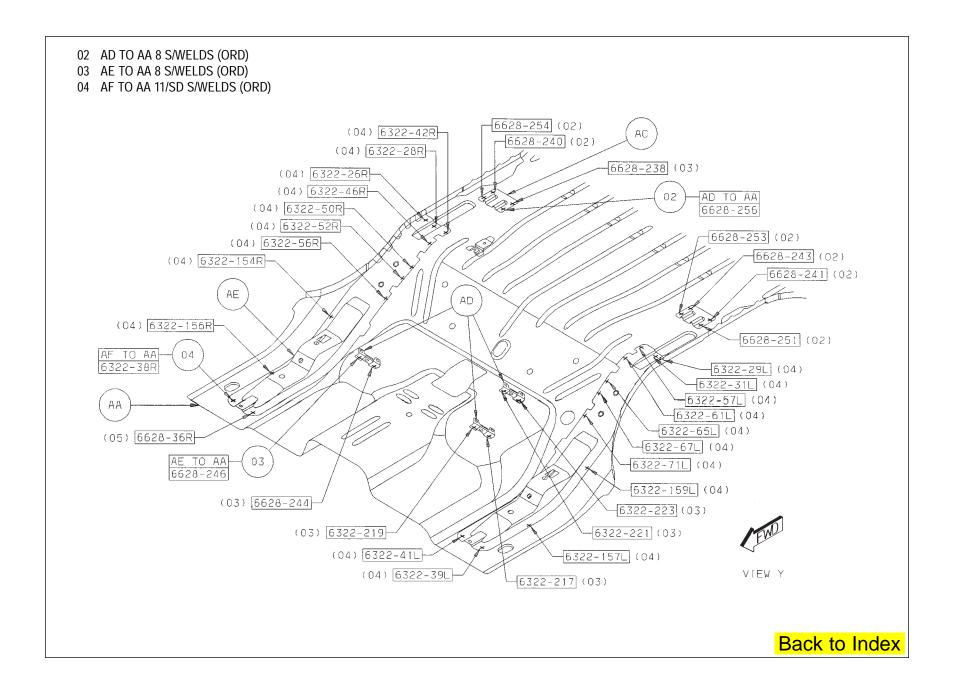


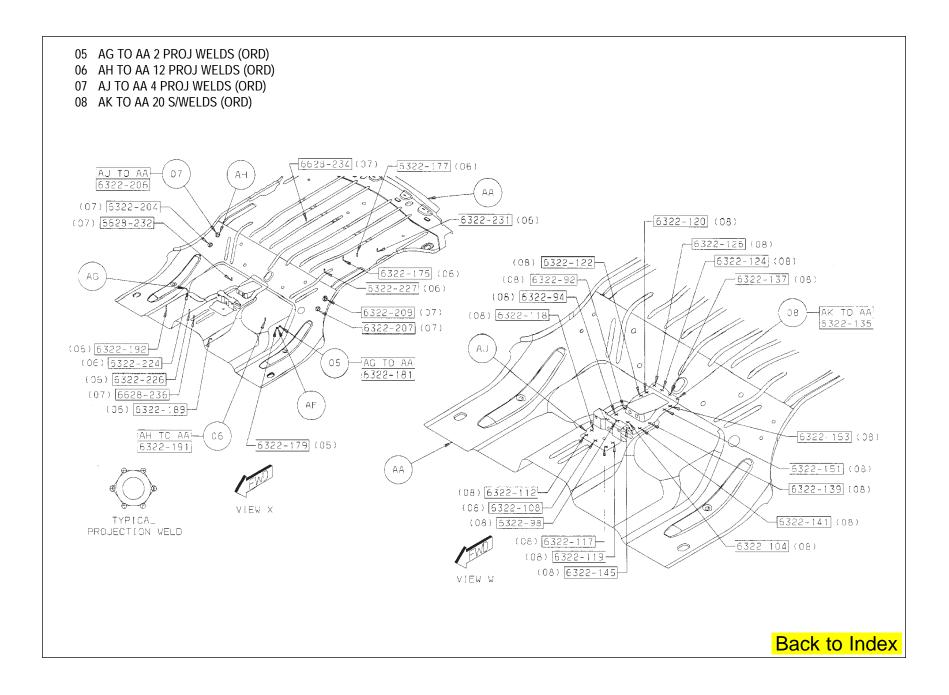












"They helped us reduce our cycle time by



...And I thought, 'Wow, they don't want to just sell me paint." -Brad Shelton, Shop Owner-Shelton Collision, Derby, Kansas

Constantly searching for ways to do things better and faster without sacrificing quality is what sets Sikkens and Akzo Nobel apart. From the formulation of the paint to breakthrough management methods, you can see Sikkens technology at work in many of today's successful bodyshops.

But don't take our word for it. Our customers say it best. Find out about the results that can be gained when Sikkers is used. Go to www.akconobelcarrefinishes.net, or call

1-800-25ikkens and request your FREE copy of the Sikkens Success Story, or schedule a visit from an Akzo Nobel representative.

sikkens

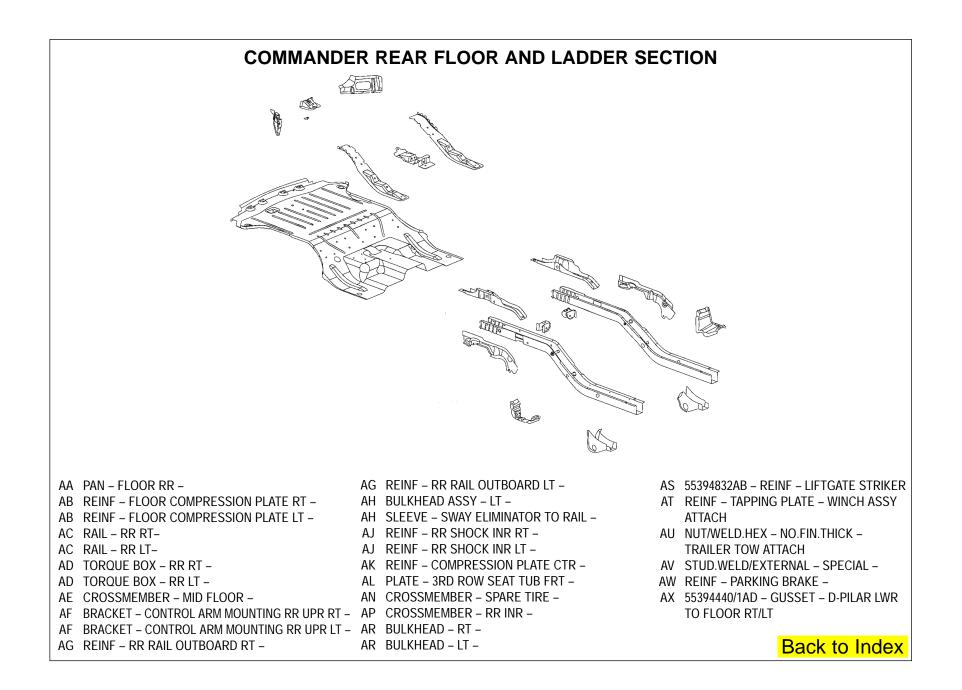
TECHNOLOGY

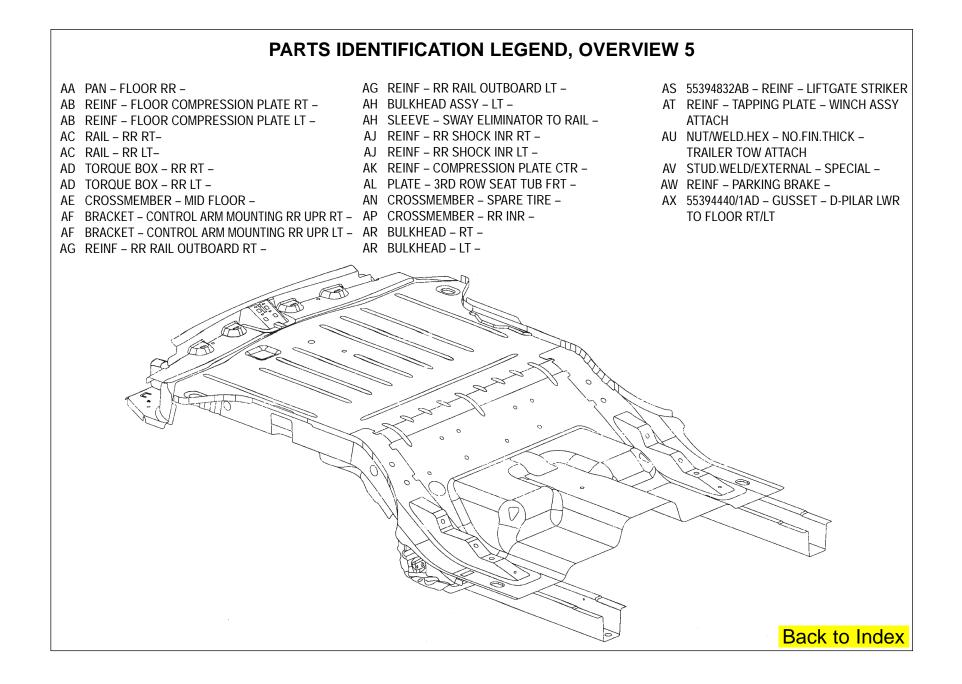
Back to Index

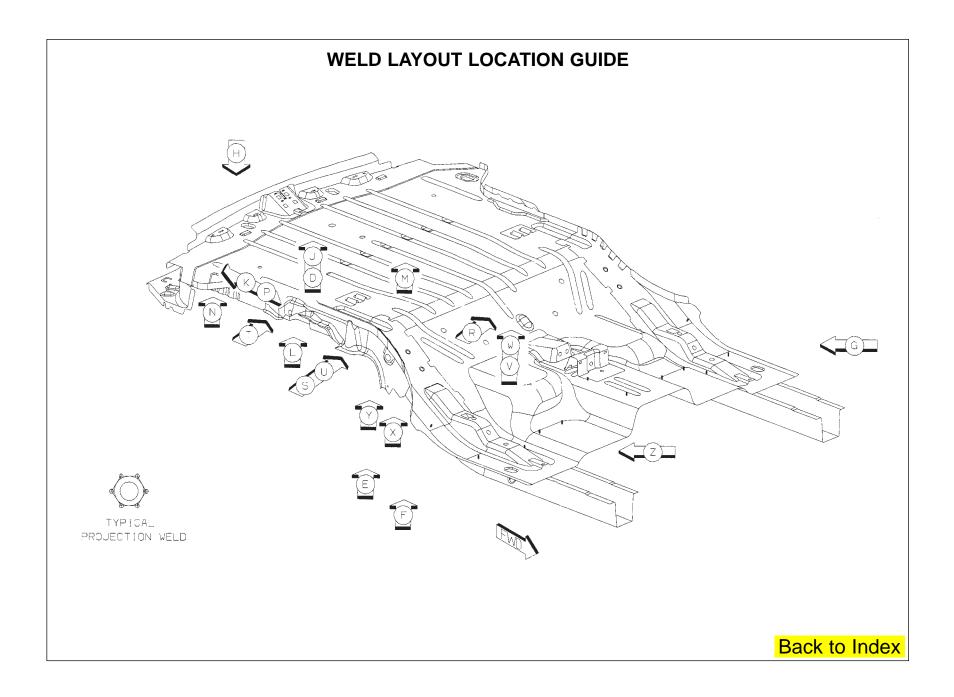
PASSION

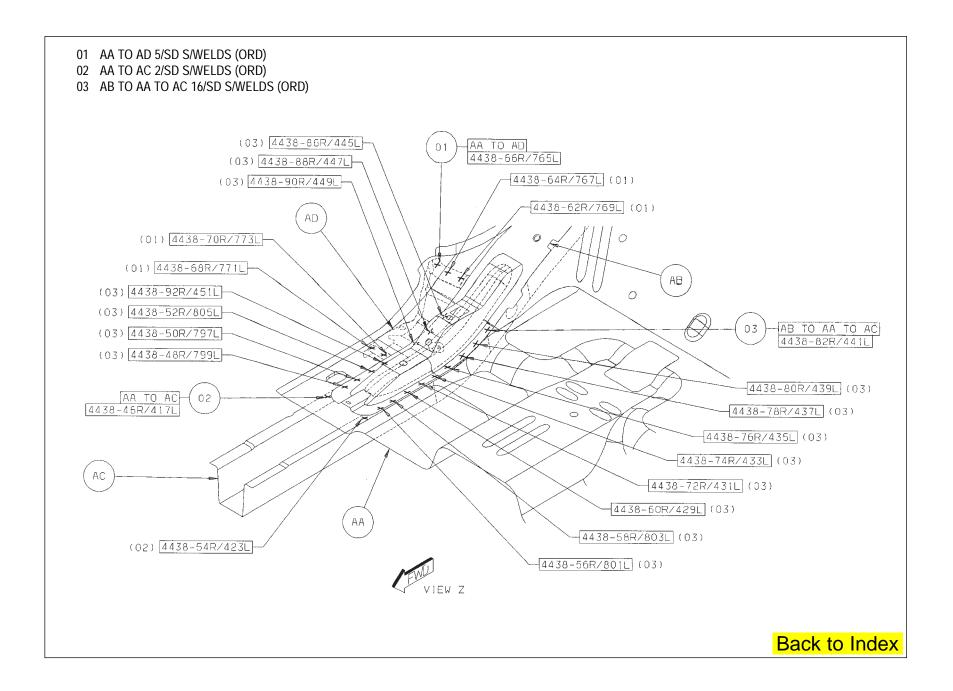
ART

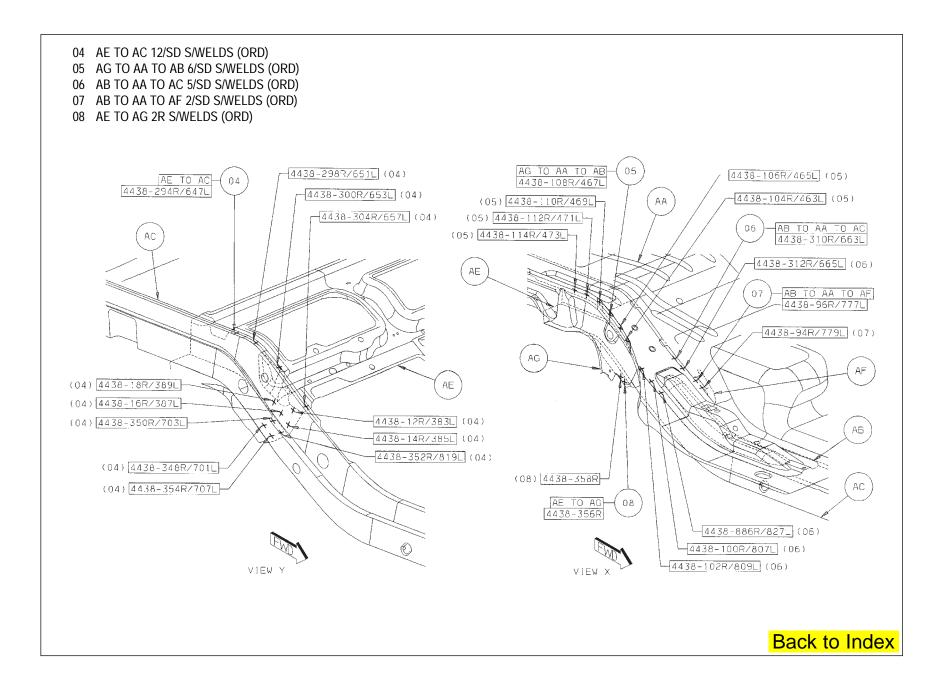
PROFIT

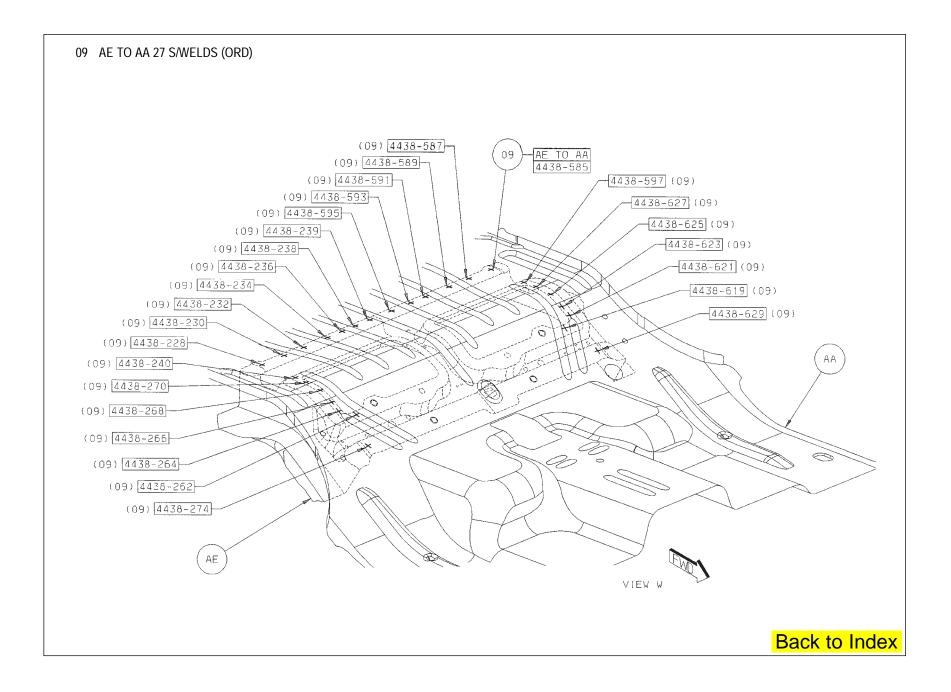


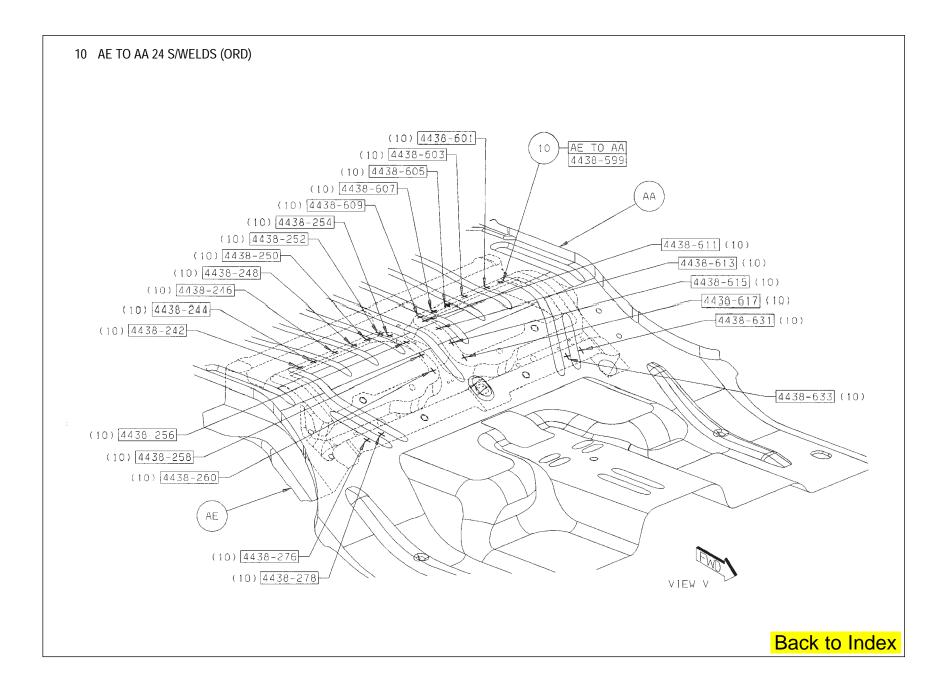


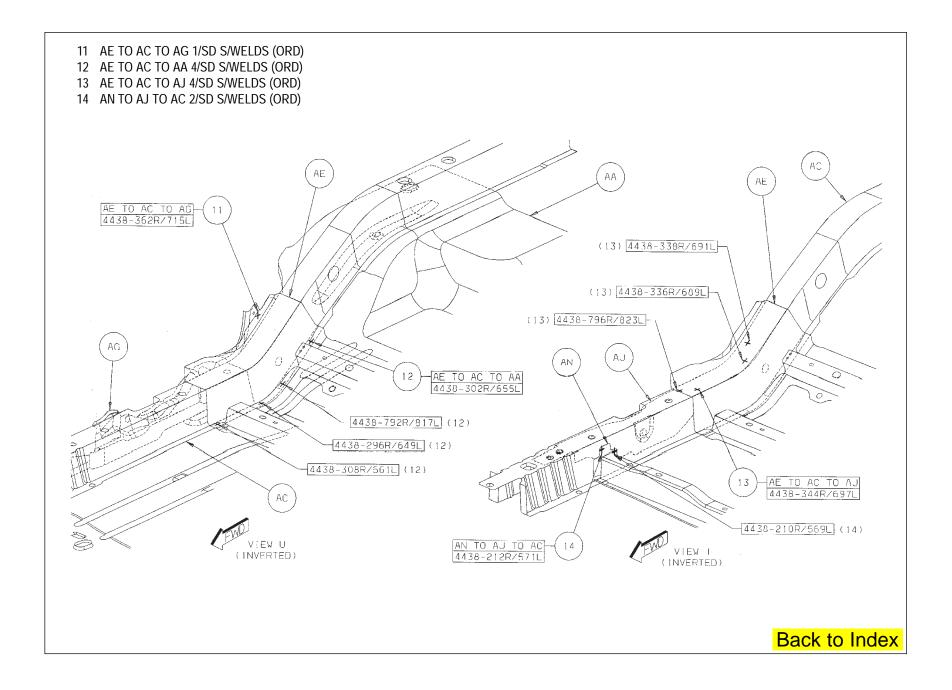


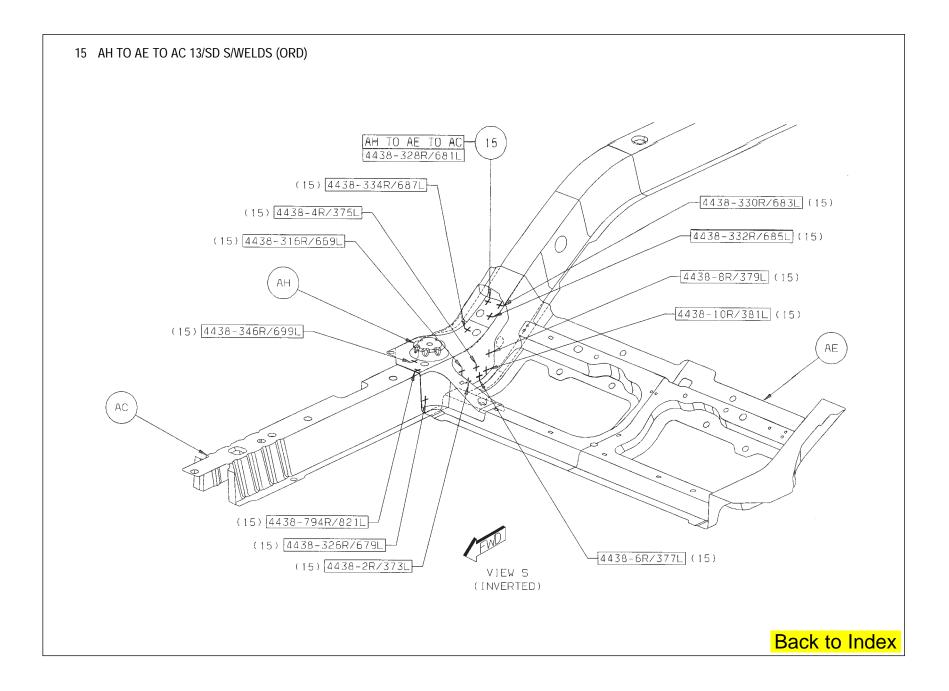


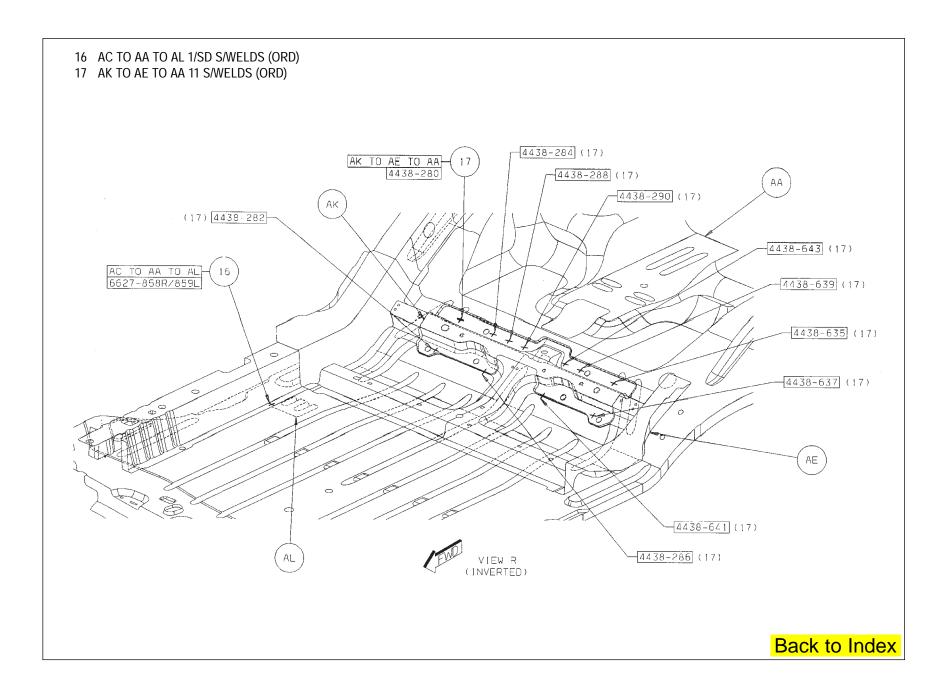


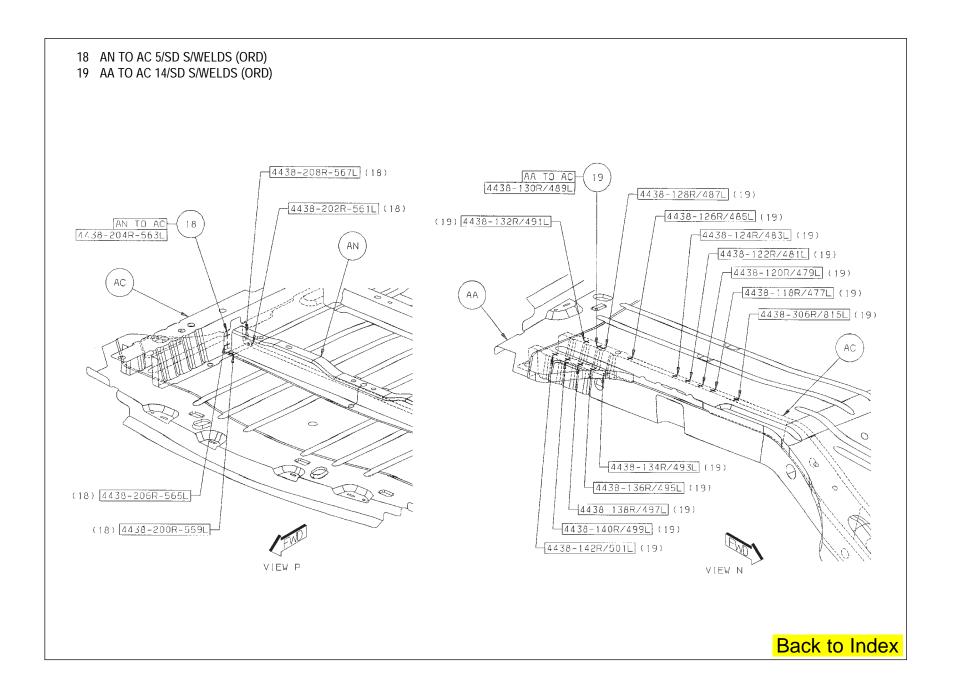


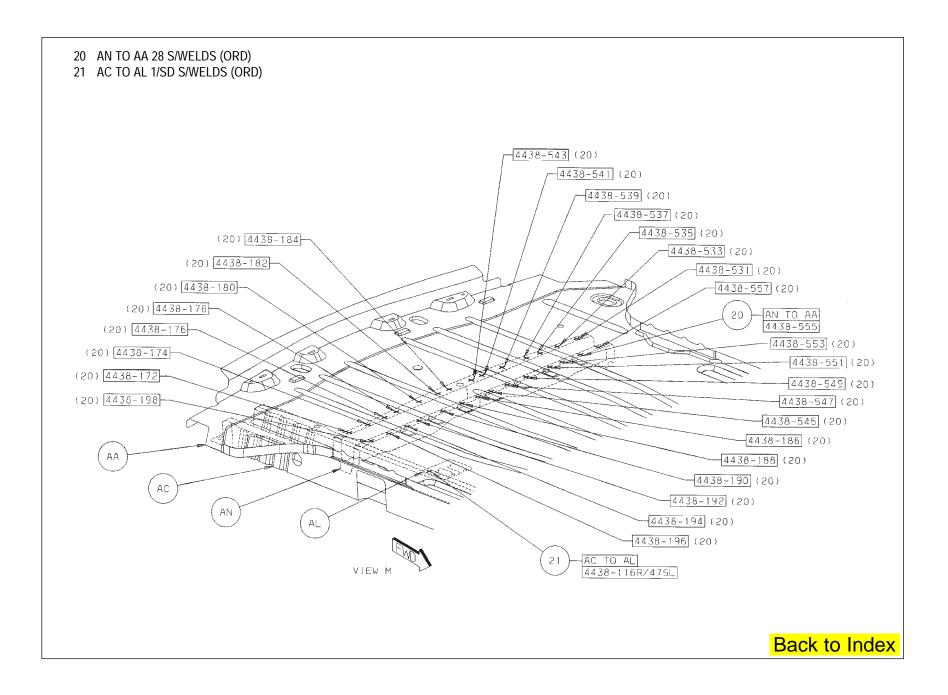


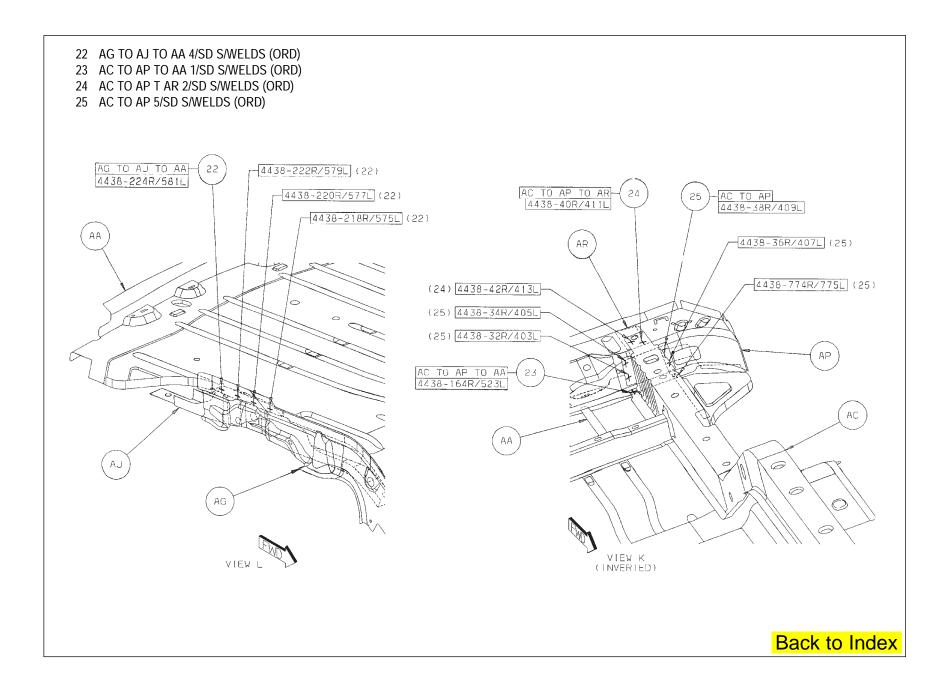


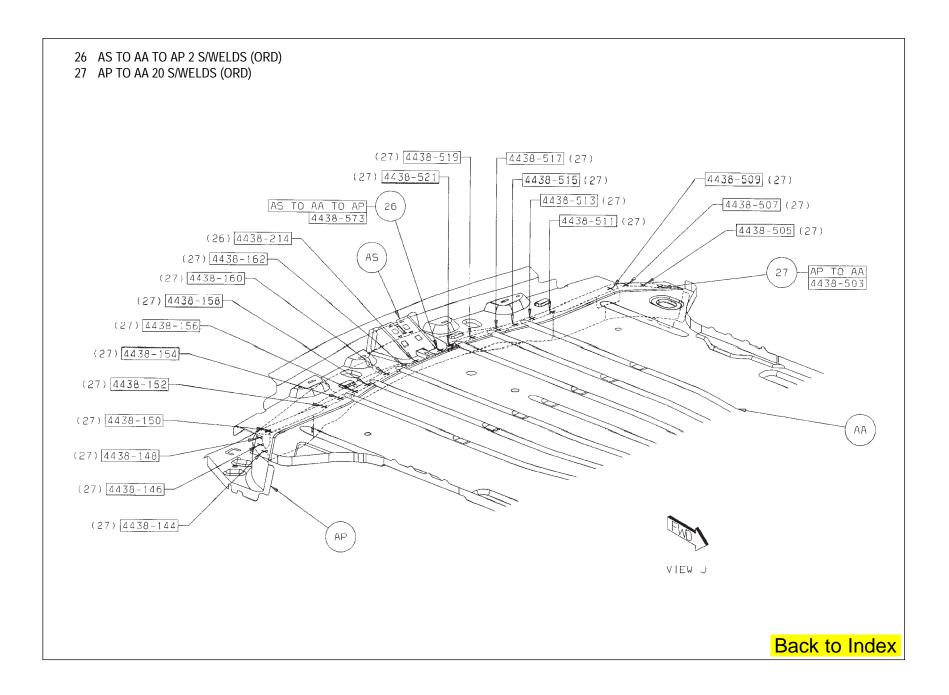


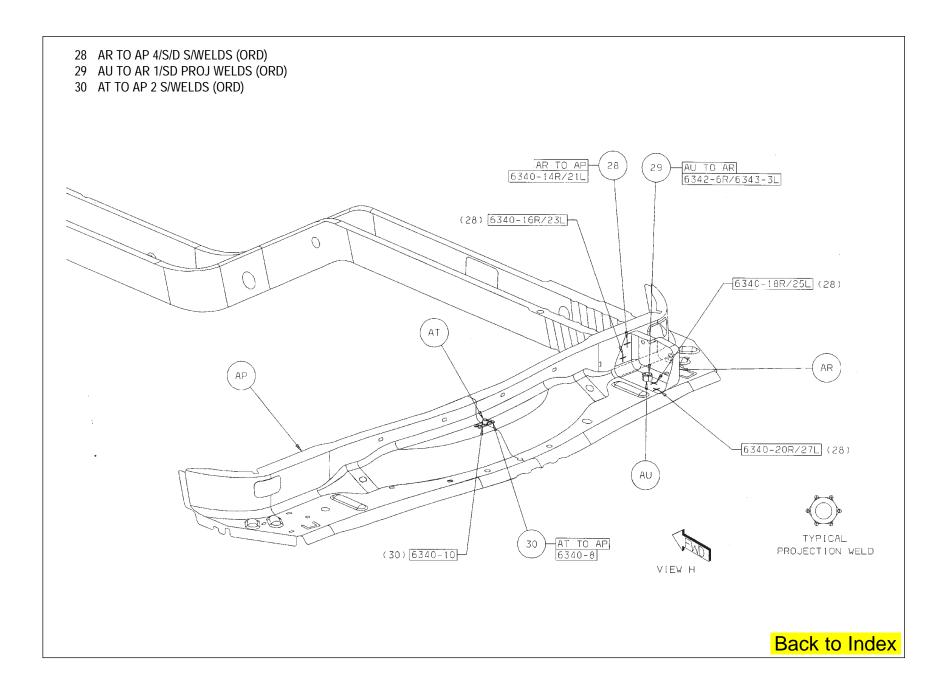


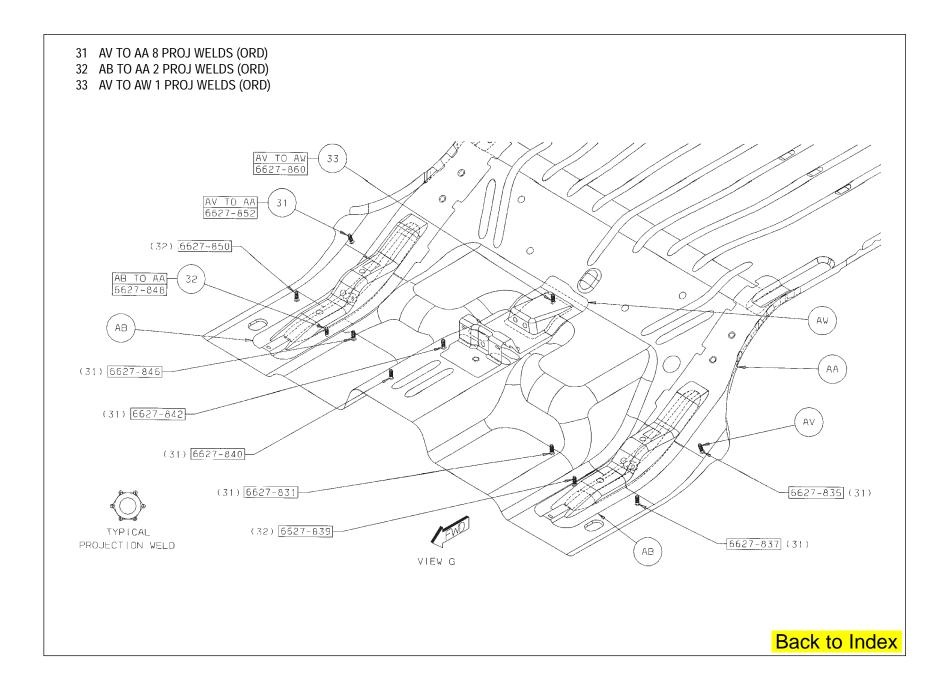


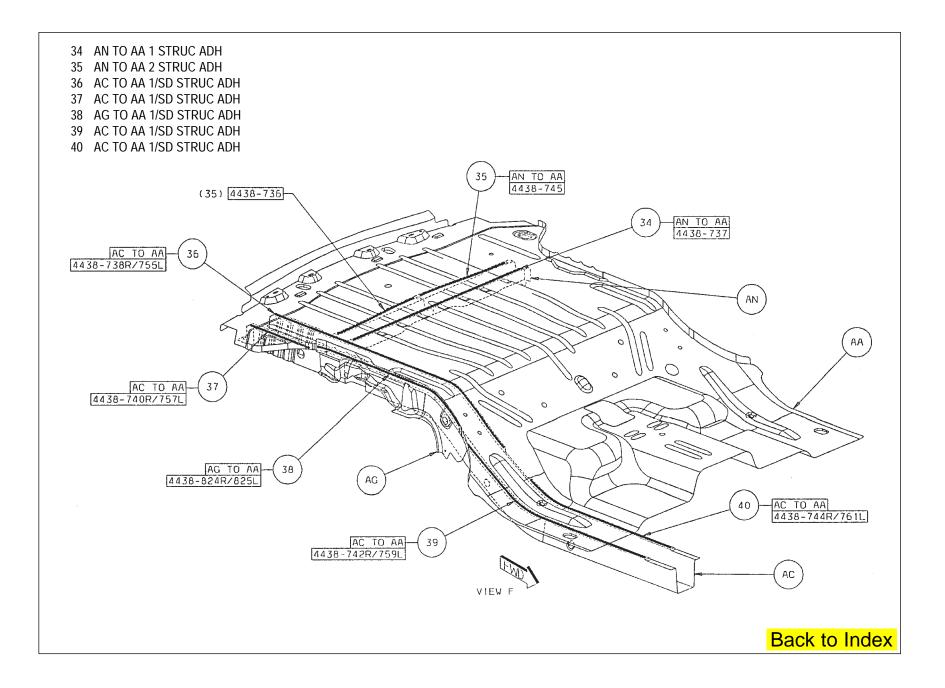


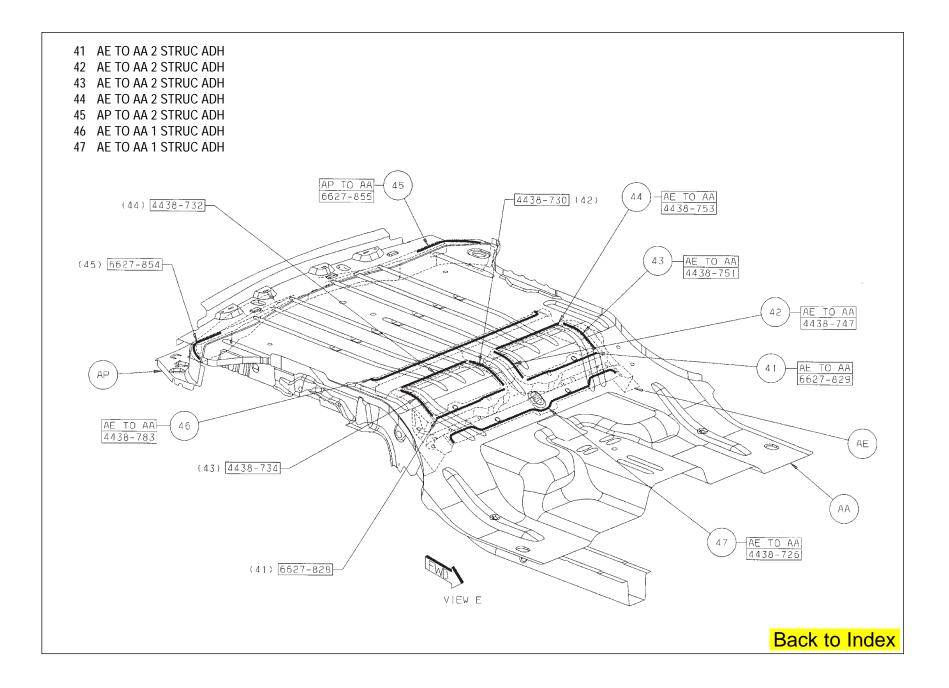


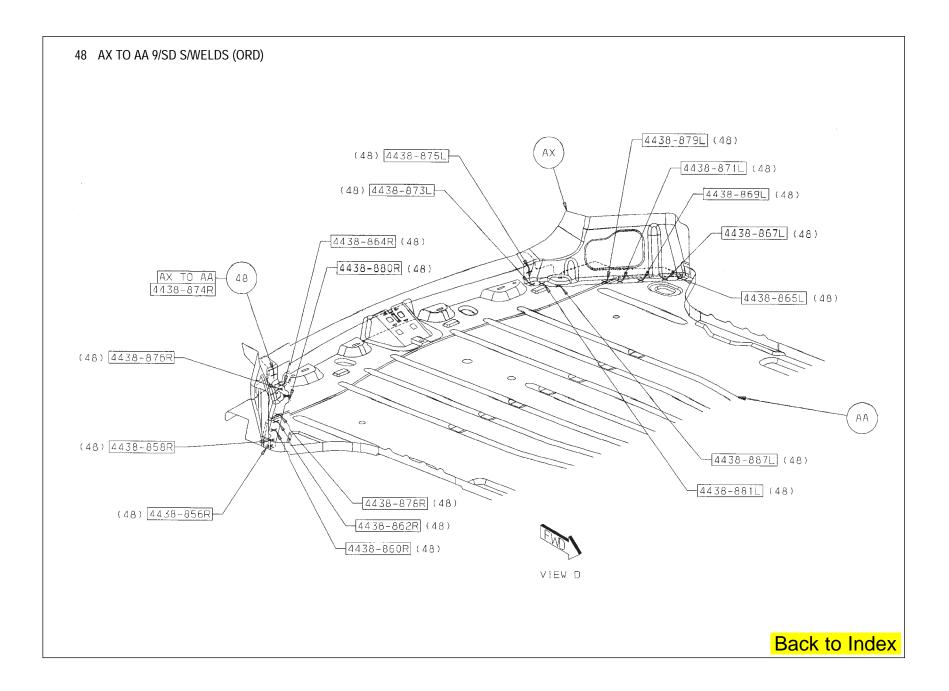


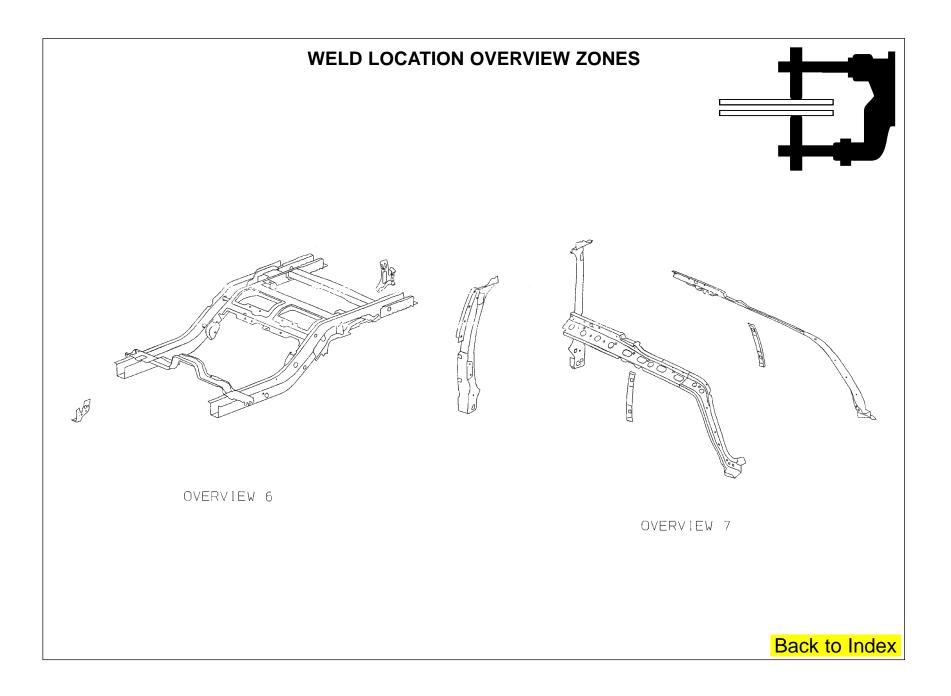


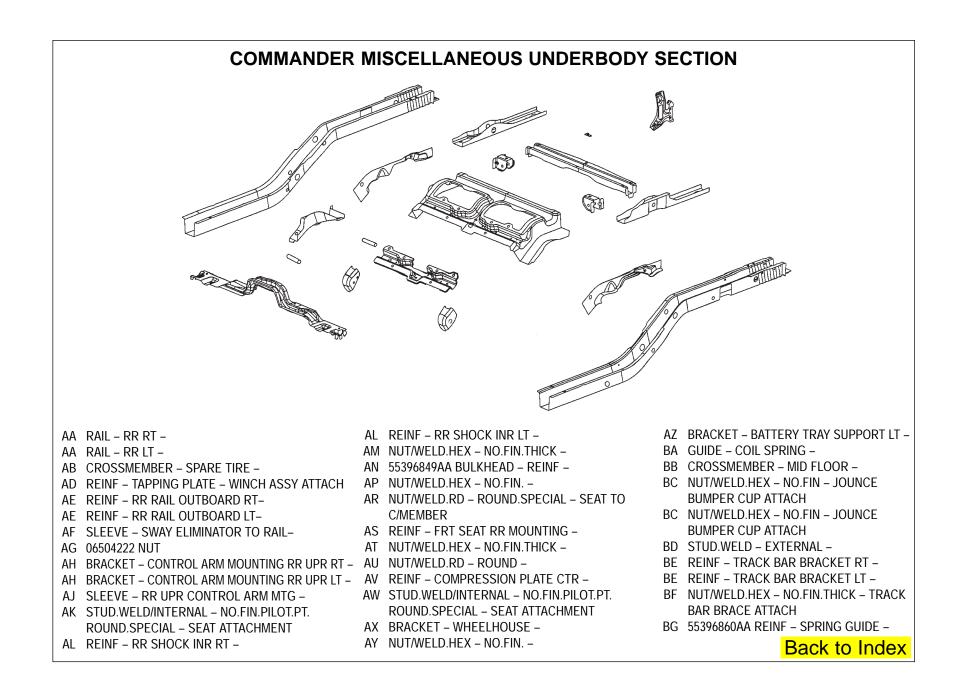












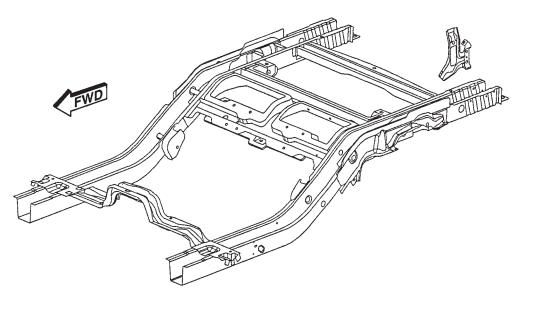
PARTS IDENTIFICATION LEGEND, OVERVIEW 6

- AA RAIL RR RT -
- AA RAIL RR LT –
- AB CROSSMEMBER SPARE TIRE -
- AD REINF TAPPING PLATE WINCH ASSY ATTACH
- AE REINF RR RAIL OUTBOARD RT-
- AE REINF RR RAIL OUTBOARD LT-
- AF SLEEVE SWAY ELIMINATOR TO RAIL-
- AG 06504222 NUT
- AH BRACKET CONTROL ARM MOUNTING RR UPR RT AU NUT/WELD.RD ROUND -
- AH BRACKET CONTROL ARM MOUNTING RR UPR LT AV REINF COMPRESSION PLATE CTR -
- AJ SLEEVE RR UPR CONTROL ARM MTG -
- AK STUD.WELD/INTERNAL NO.FIN.PILOT.PT. ROUND.SPECIAL – SEAT ATTACHMENT
- AL REINF RR SHOCK INR RT -

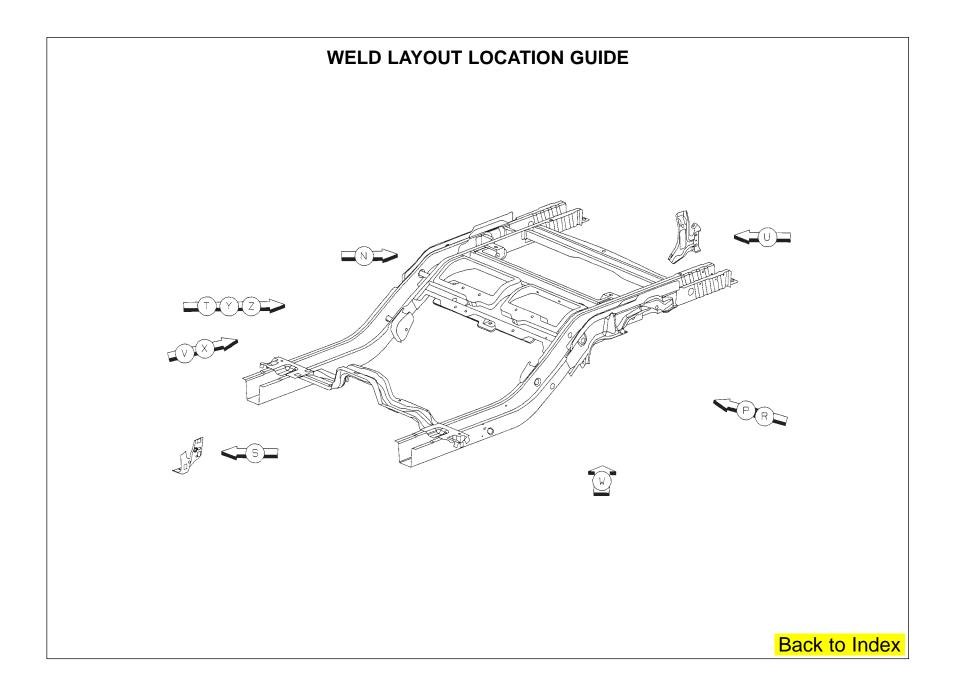
- AL REINF RR SHOCK INR LT -
- AM NUT/WELD.HEX NO.FIN.THICK -
- AN 55396849AA BULKHEAD REINF -
- AP NUT/WELD.HEX NO.FIN. –
- AR NUT/WELD.RD ROUND.SPECIAL SEAT TO C/MEMBER
- AS REINF FRT SEAT RR MOUNTING -
- AT NUT/WELD.HEX NO.FIN.THICK -

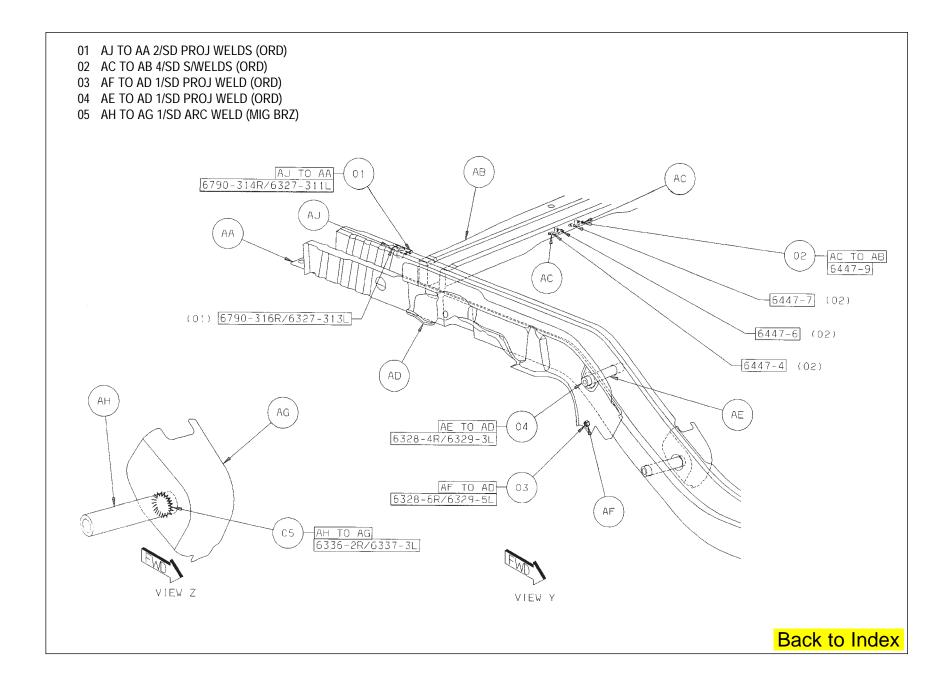
- AW STUD.WELD/INTERNAL NO.FIN.PILOT.PT. ROUND.SPECIAL - SEAT ATTACHMENT
- AX BRACKET WHEELHOUSE –
- AY NUT/WELD.HEX NO.FIN. -

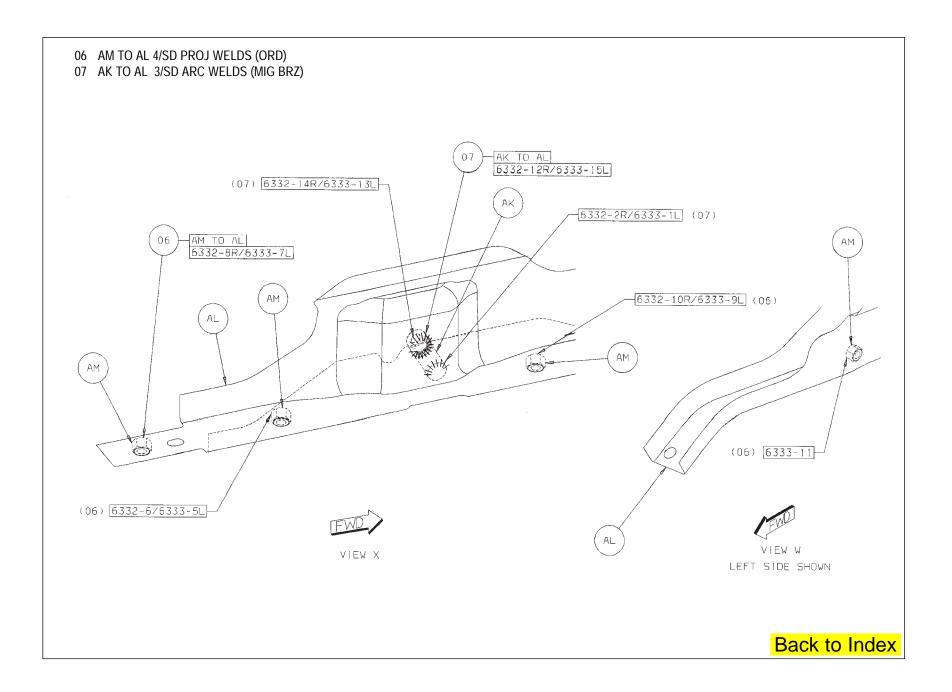
- AZ BRACKET BATTERY TRAY SUPPORT LT -
- BA GUIDE COIL SPRING -
- BB CROSSMEMBER MID FLOOR -
- BC NUT/WELD.HEX NO.FIN JOUNCE **BUMPER CUP ATTACH**
- BC NUT/WELD.HEX NO.FIN JOUNCE **BUMPER CUP ATTACH**
- BD STUD.WELD EXTERNAL -
- BE REINF TRACK BAR BRACKET RT -
- BE REINF TRACK BAR BRACKET LT –
- BF NUT/WELD.HEX NO.FIN.THICK TRACK BAR BRACE ATTACH
- BG 55396860AA REINF SPRING GUIDE -

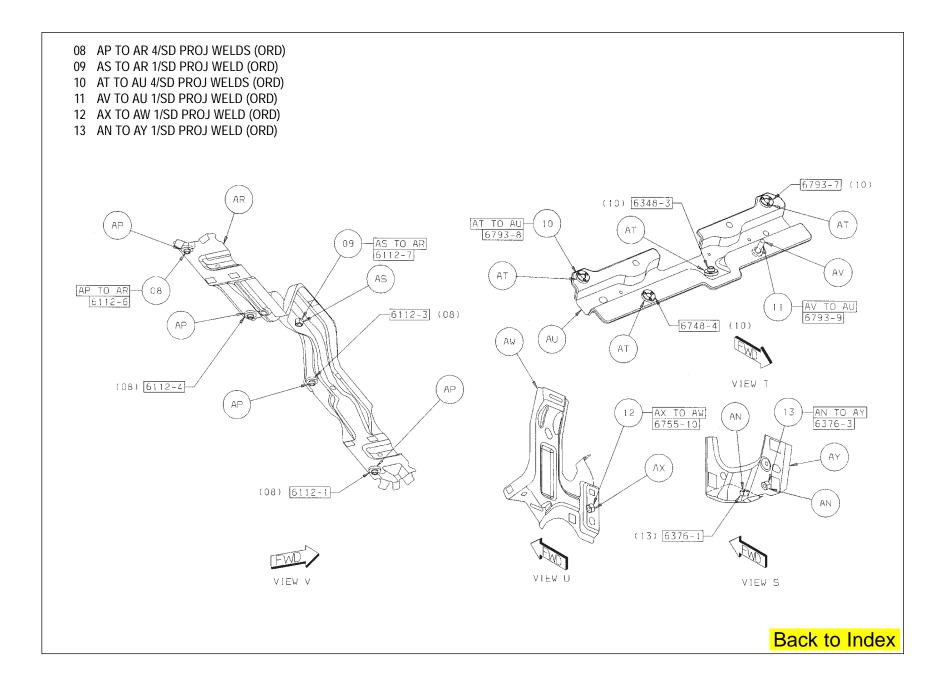


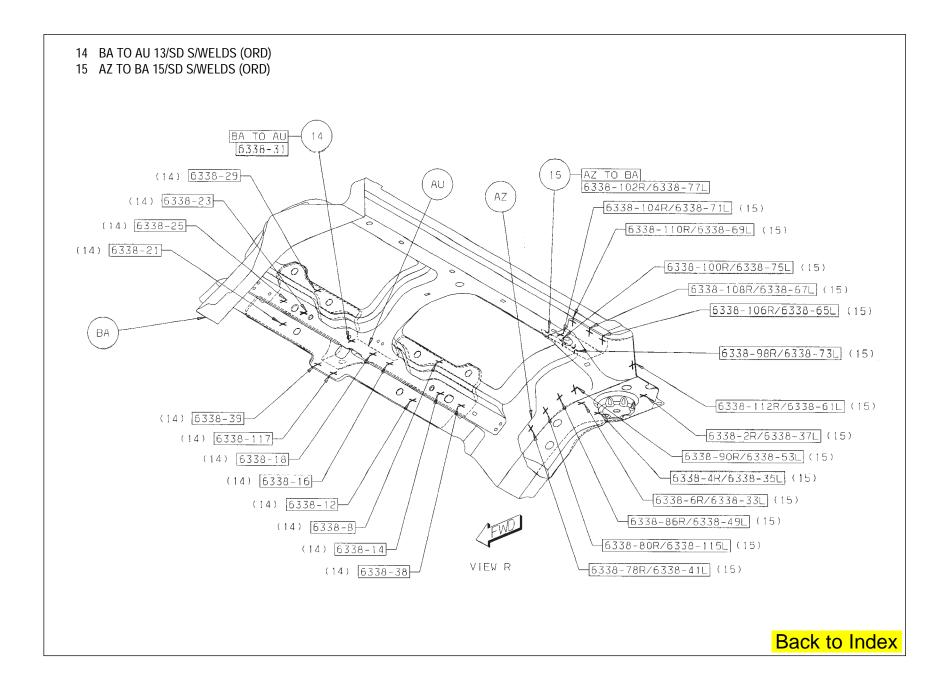
Back to Index

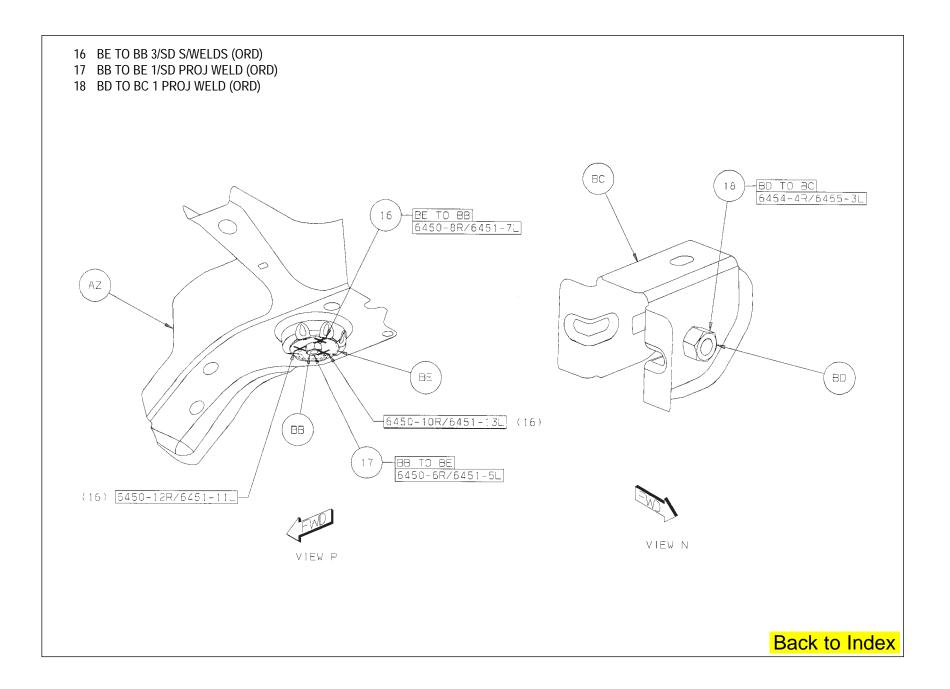


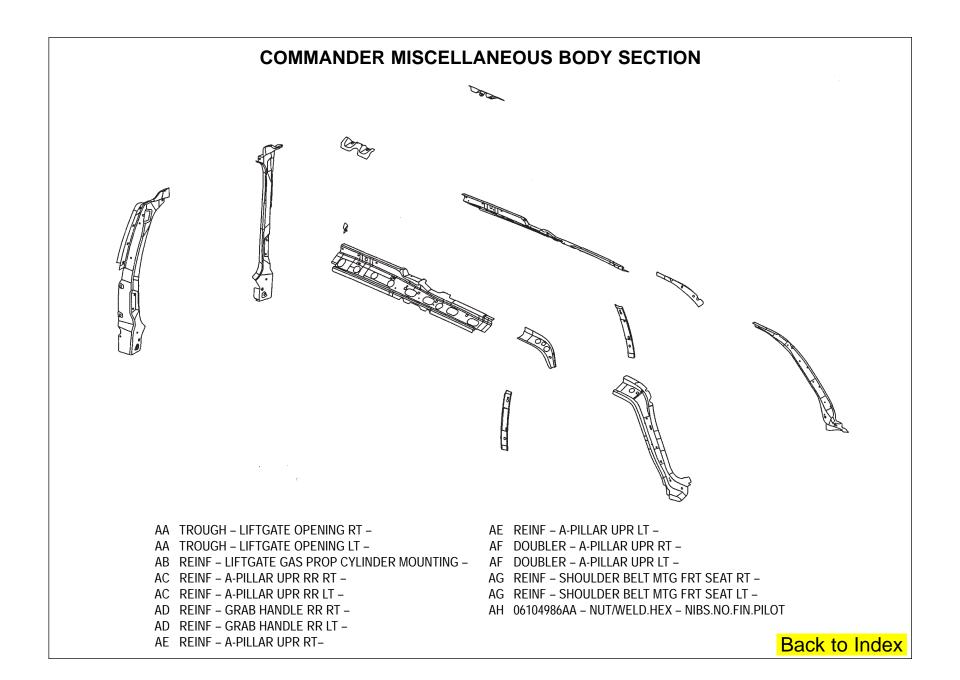


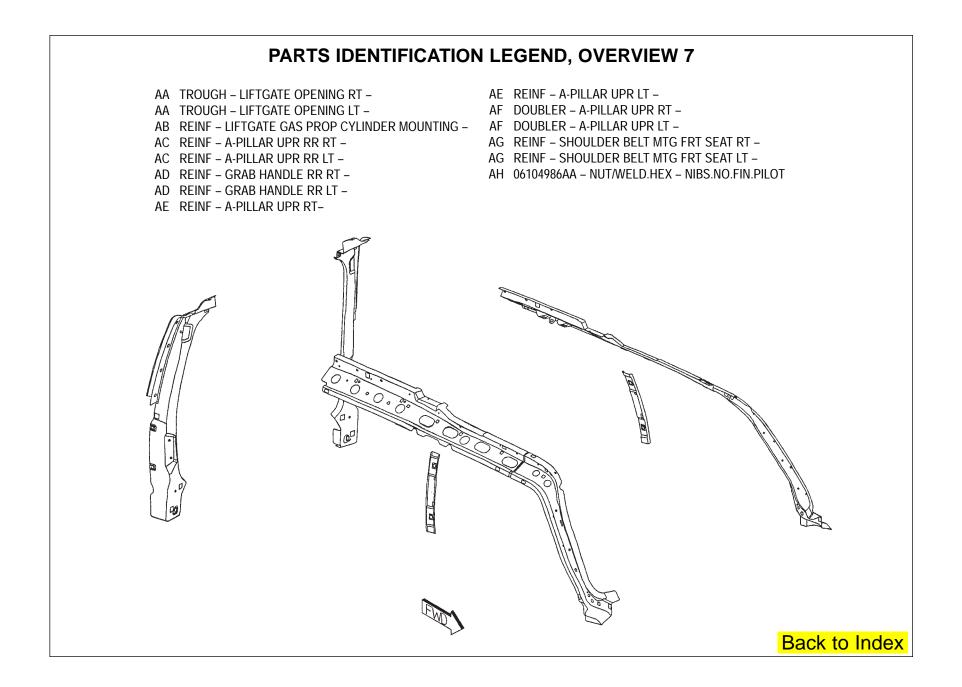


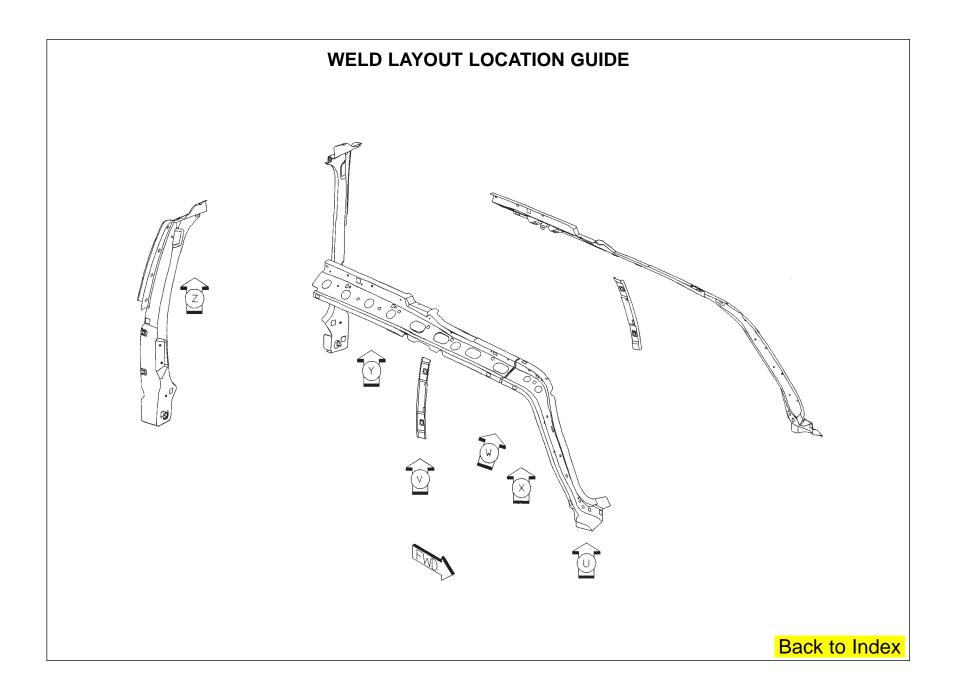


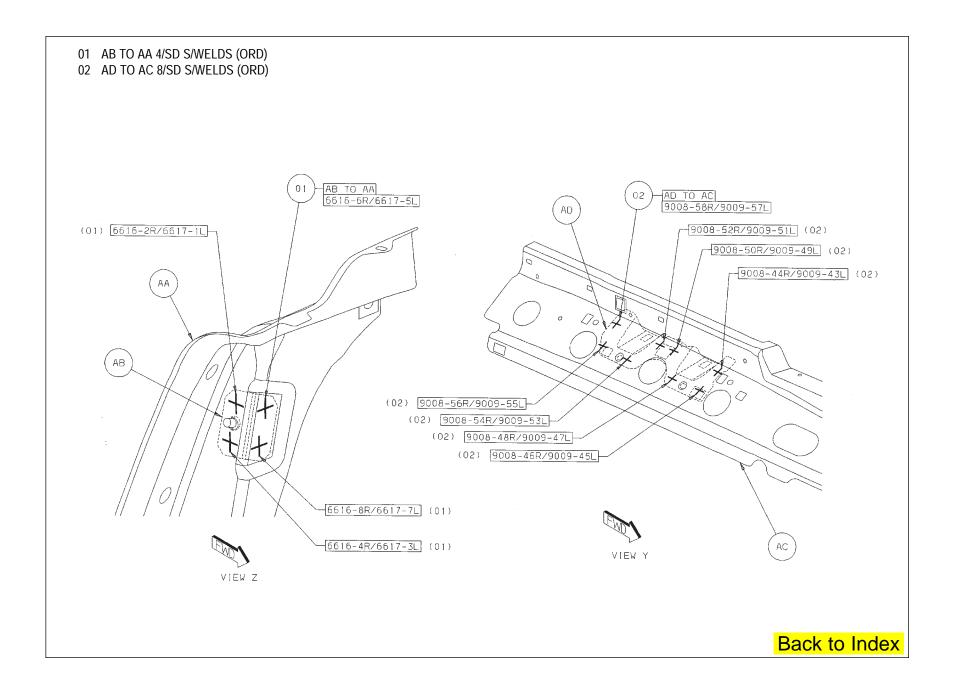


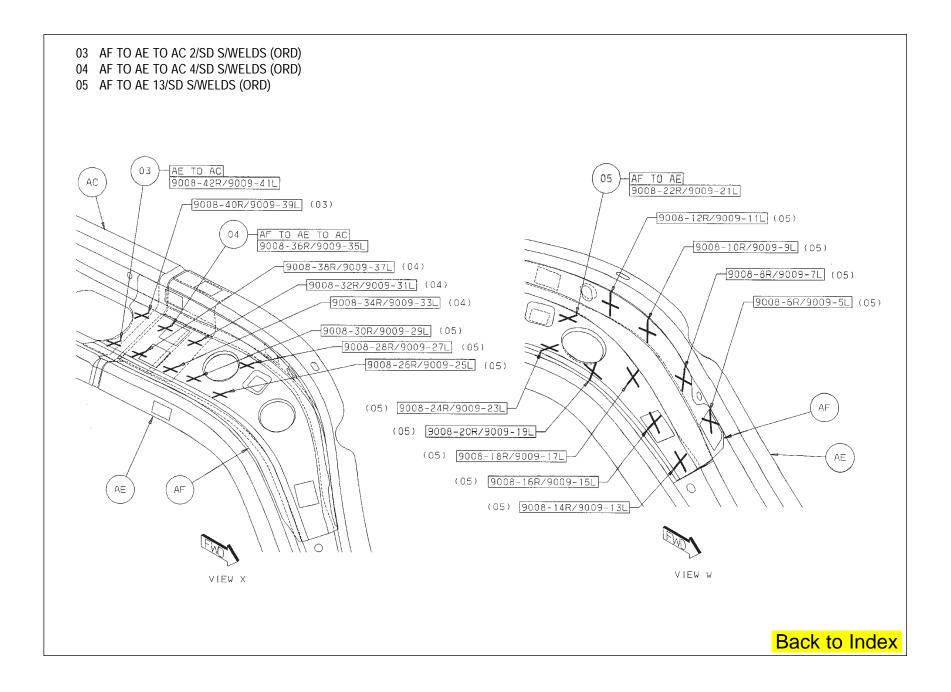


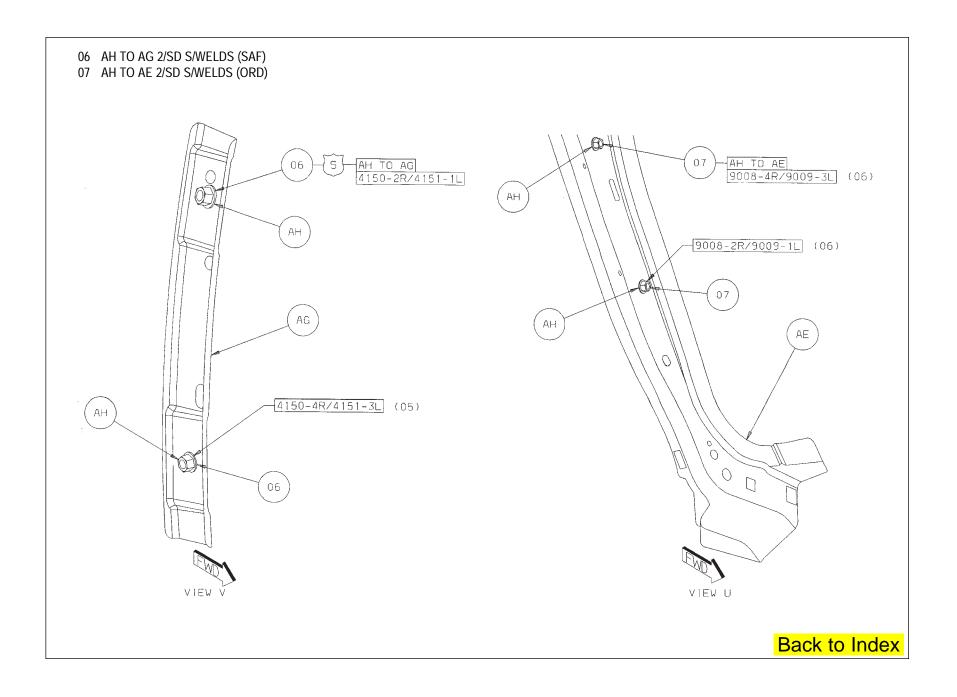


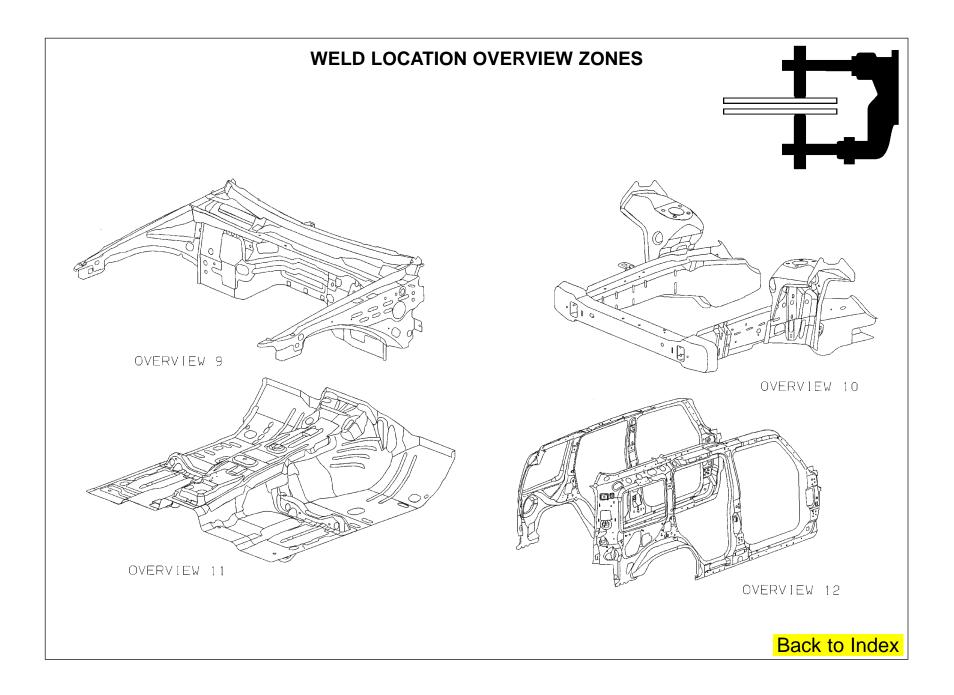












"They helped us reduce our cycle time by

...And I thought, 'Wow, they don't want to just sell me paint." -Brad Shalton, Shop Owner—Shelton Collision, Derby, Kansas

Constantly searching for ways to do things better and faster without sacrificing quality is what sets Sikkens and Akzo Nobel apart. From the formulation of the paint to breakthrough management methods, you can see Sikkens technology at work in many of today's successful bodyshops.

But don't take our word for it. Our customers say it best. Find out about the results that can be gained when Sikkers is used. Go to www.akconobelcarrefinishes.net, or call 1-800-25ikkers and request your FREE copy of the Sikkers Success Story, or schedule a visit from an Akzo Nobel representative.



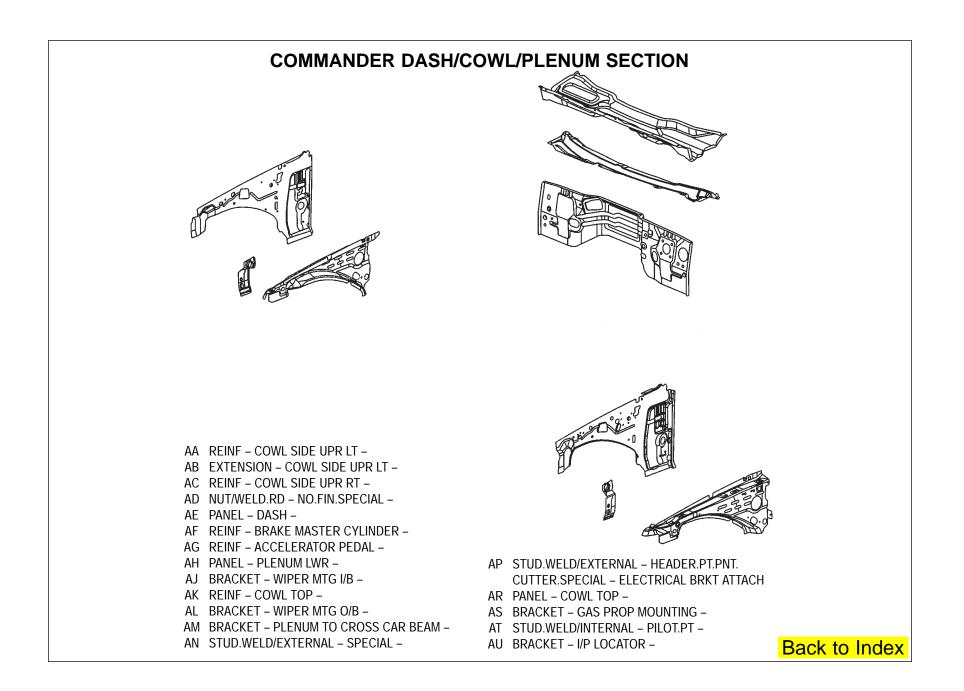
TECHNOLOGY

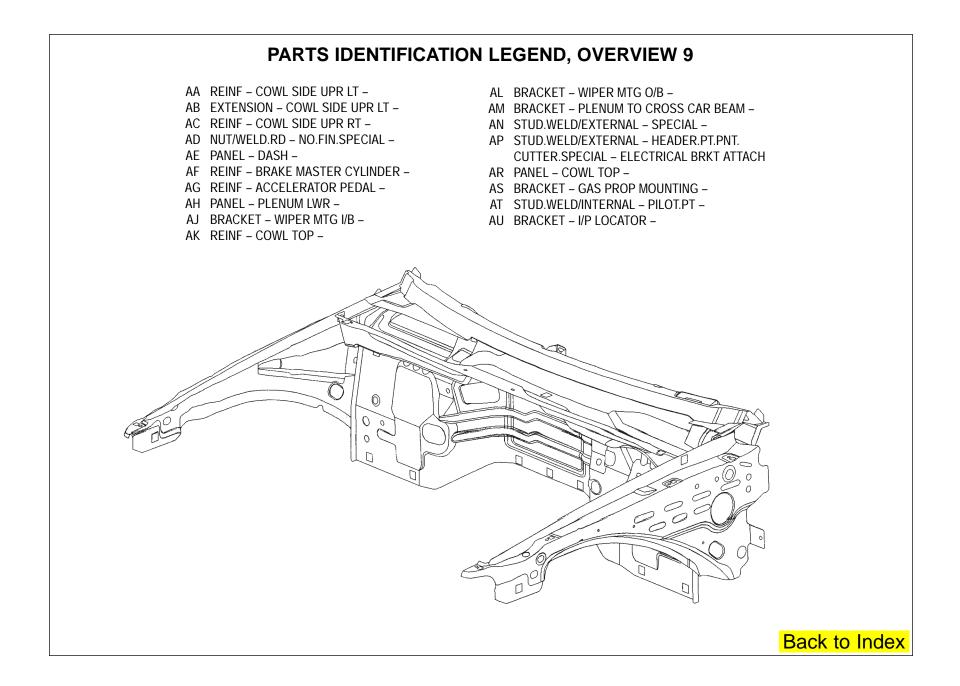
Back to Index

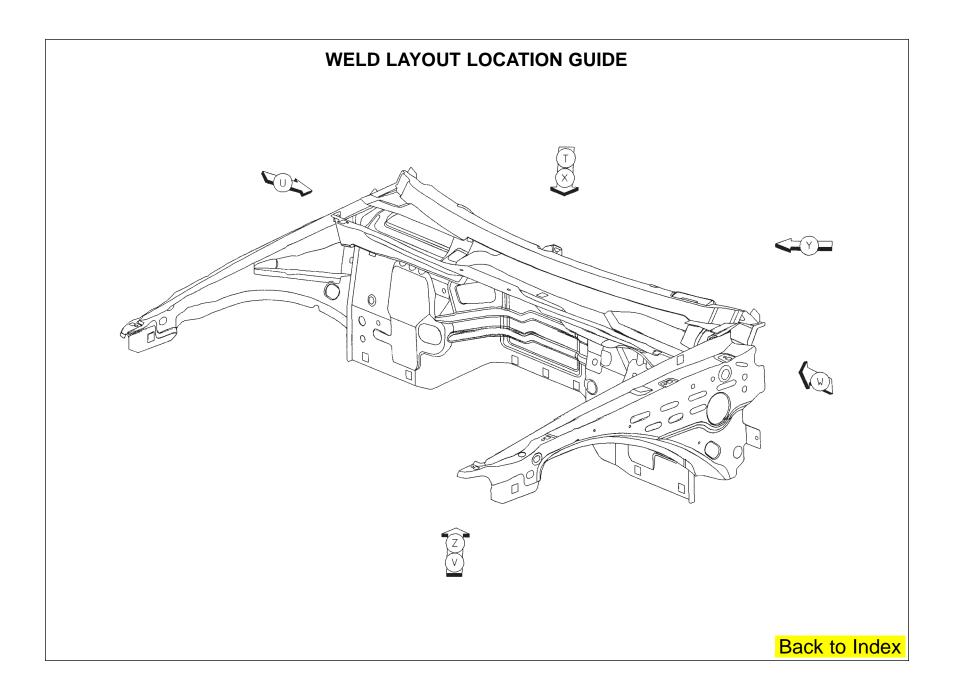
ART

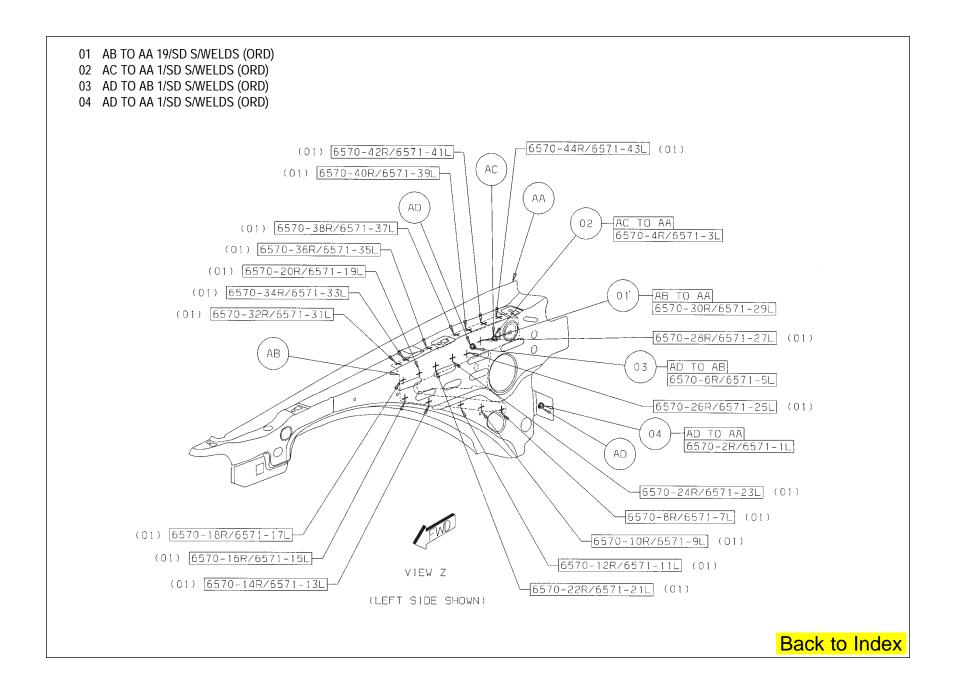
PASSION

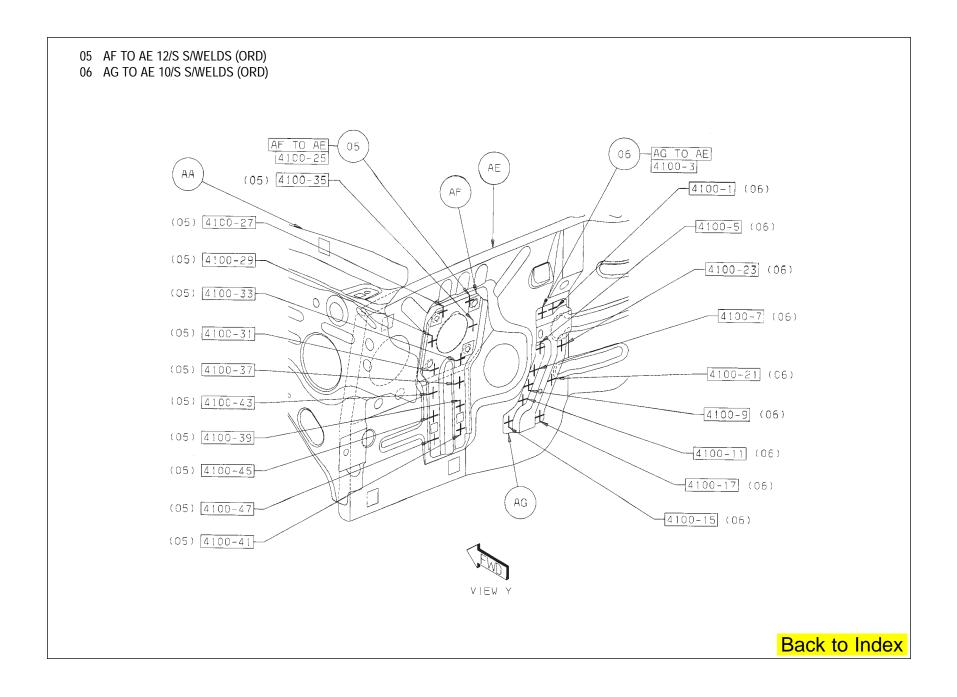
PROFIT

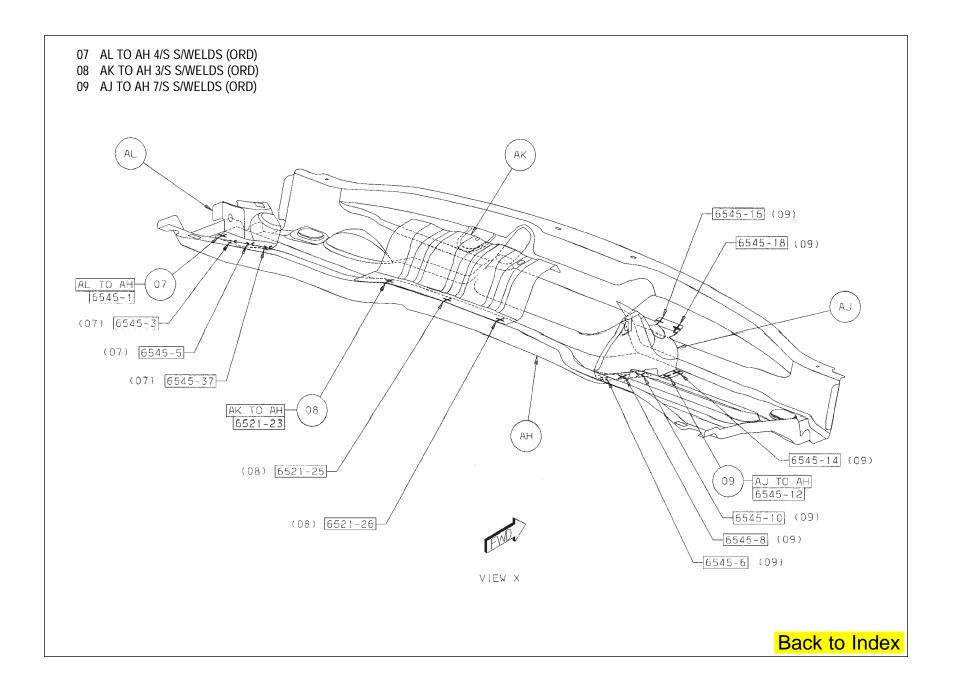


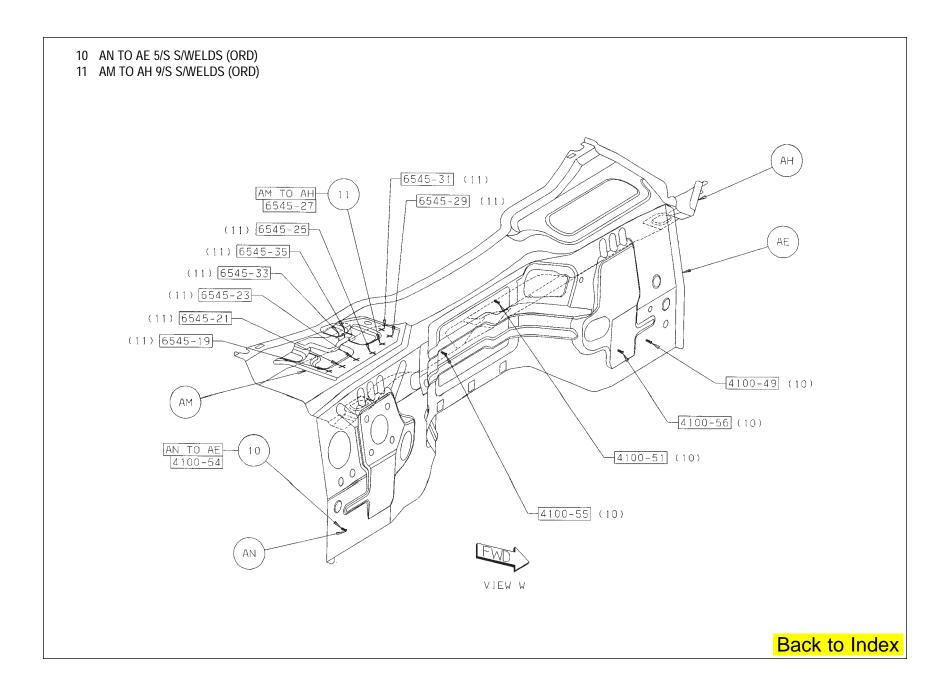


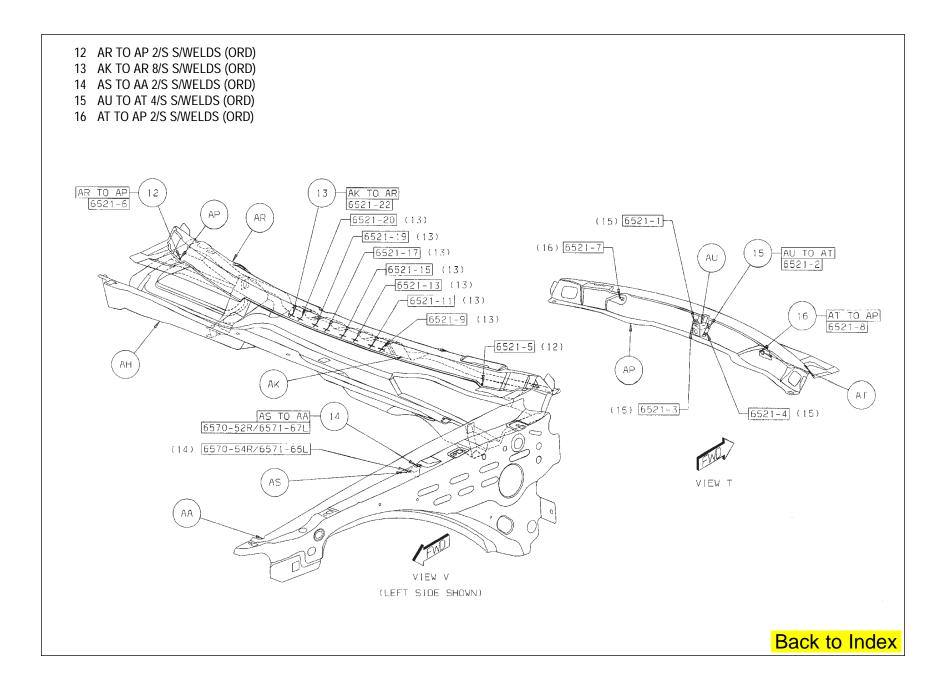


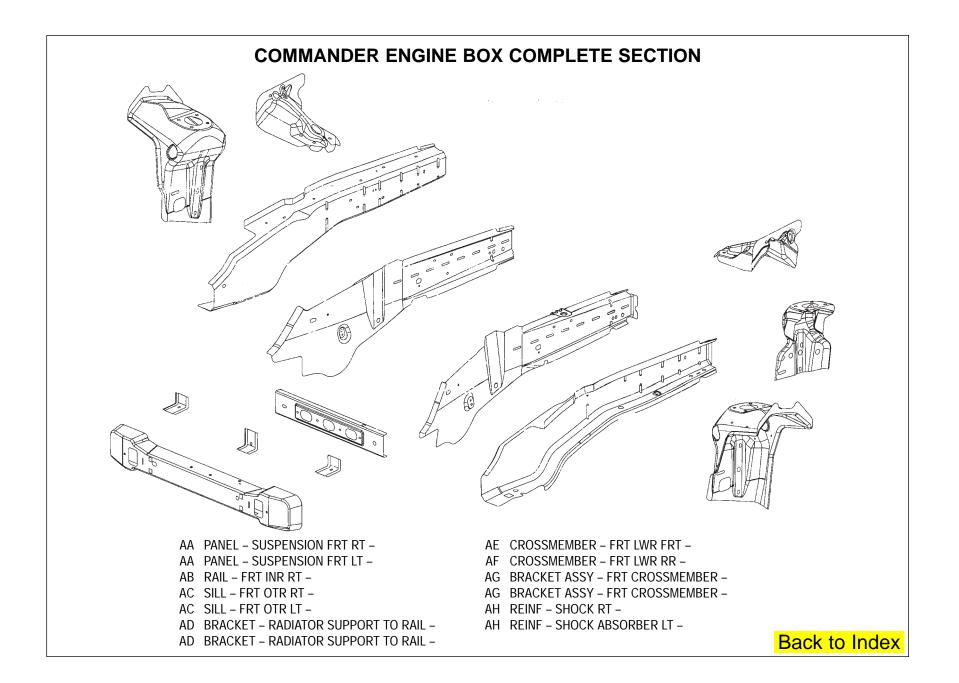


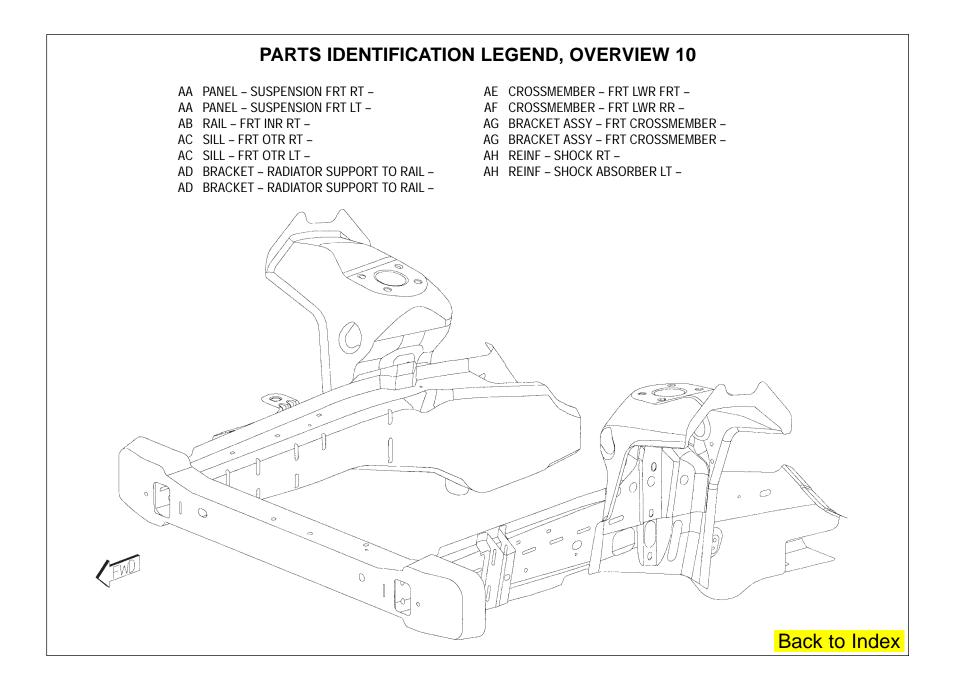


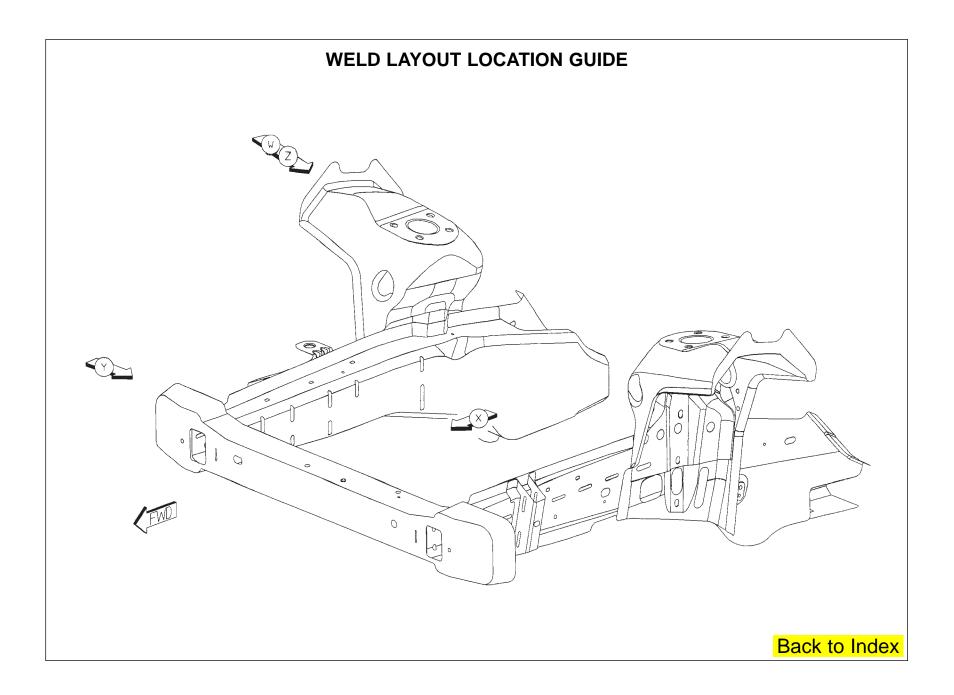


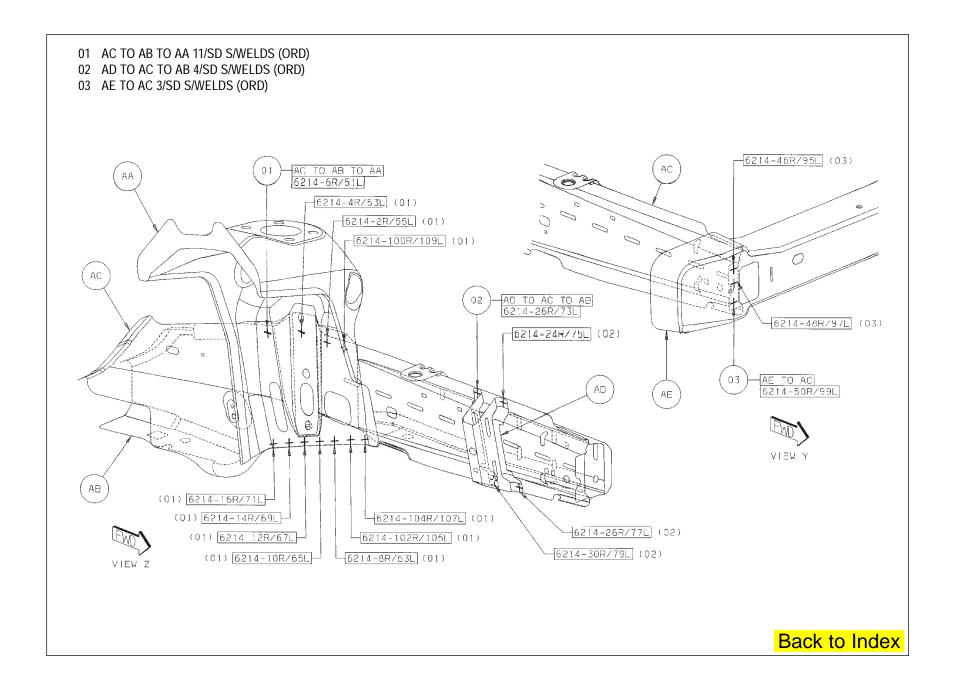


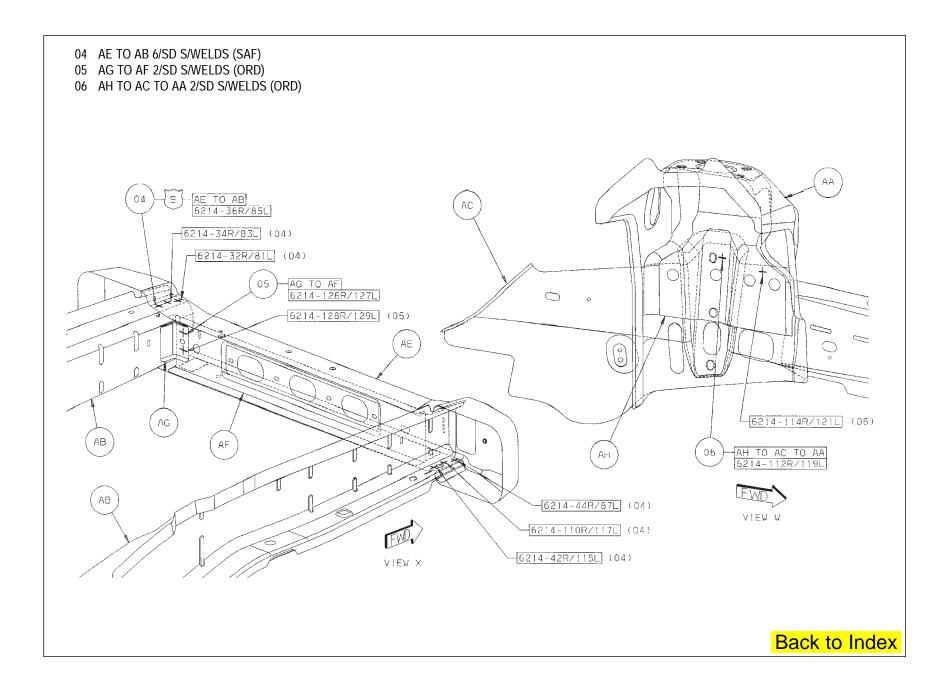


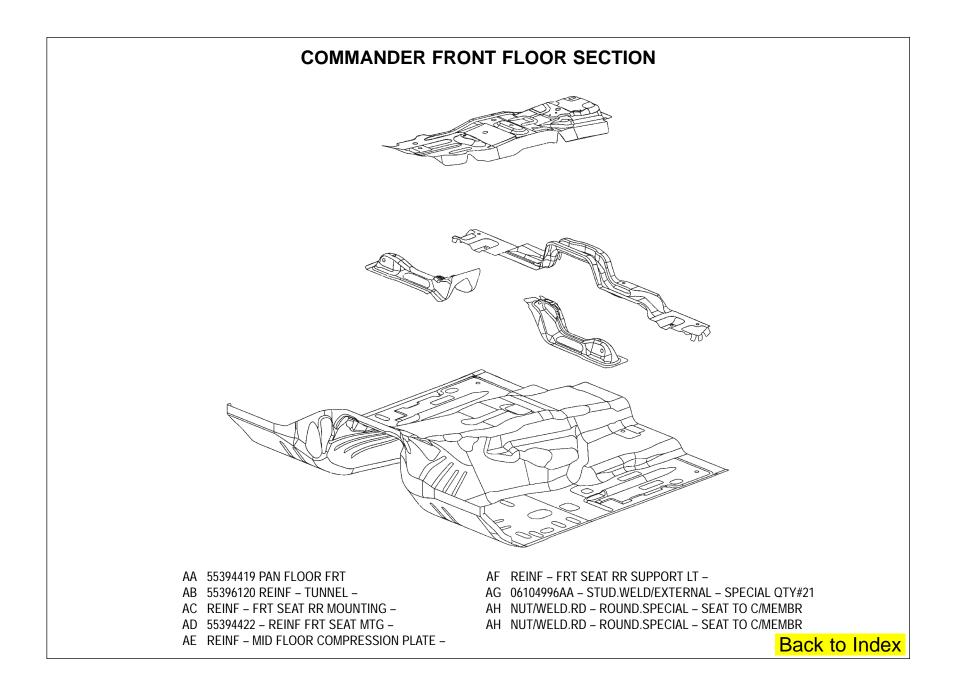


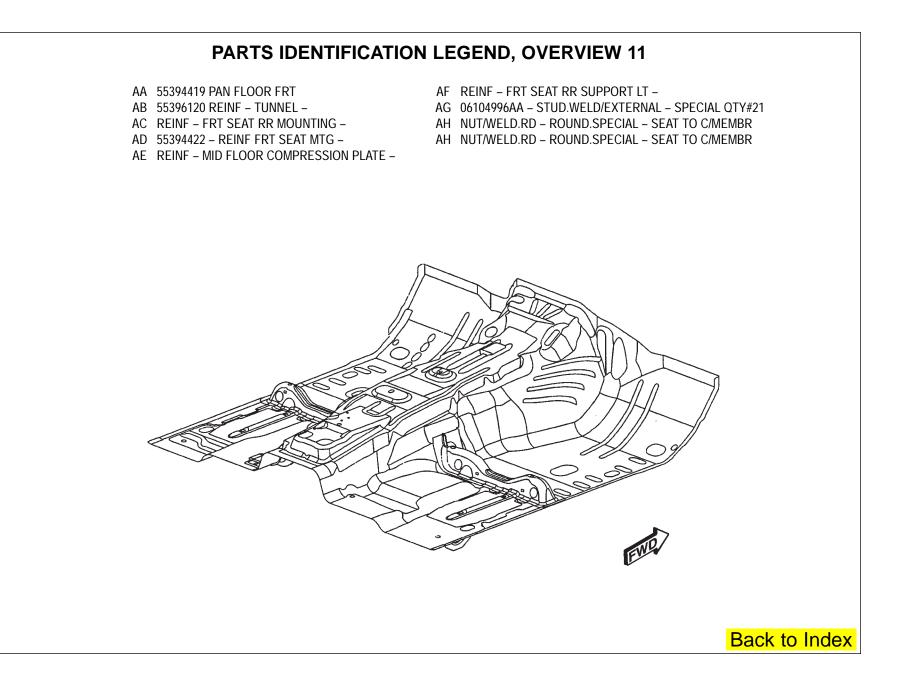


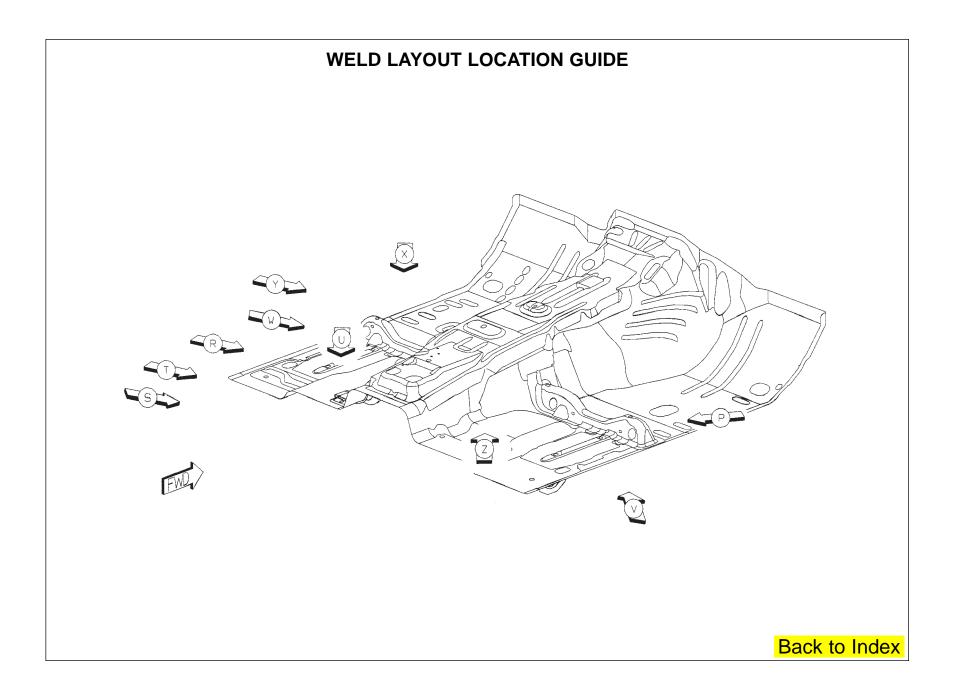


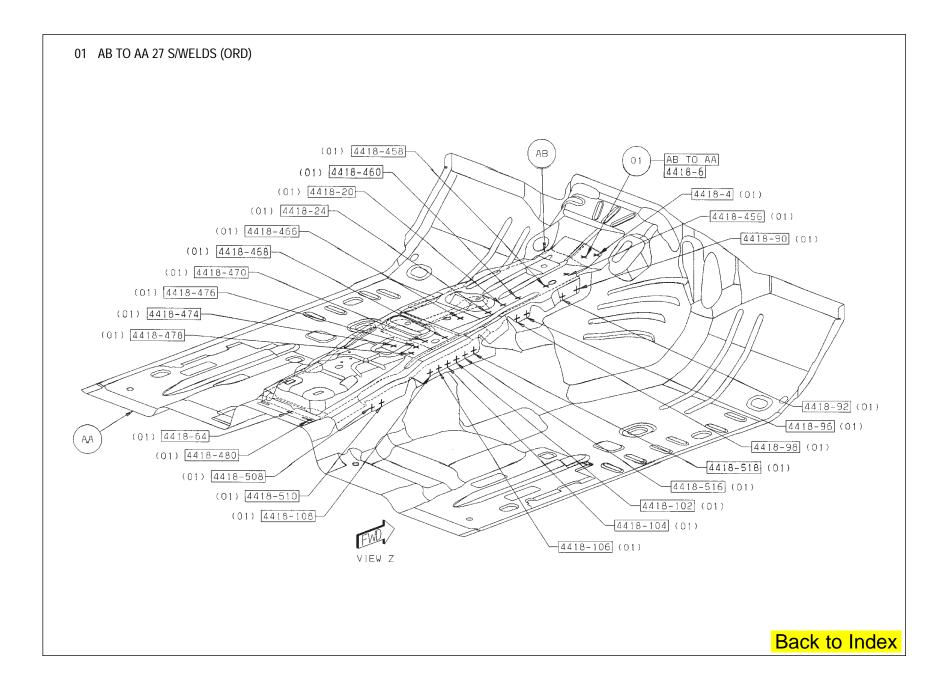


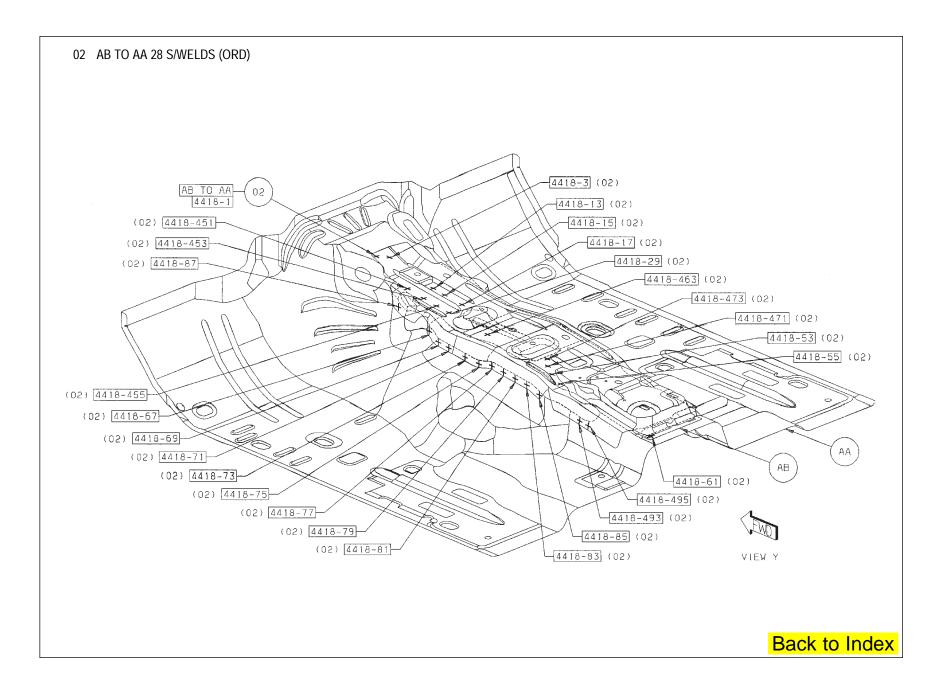


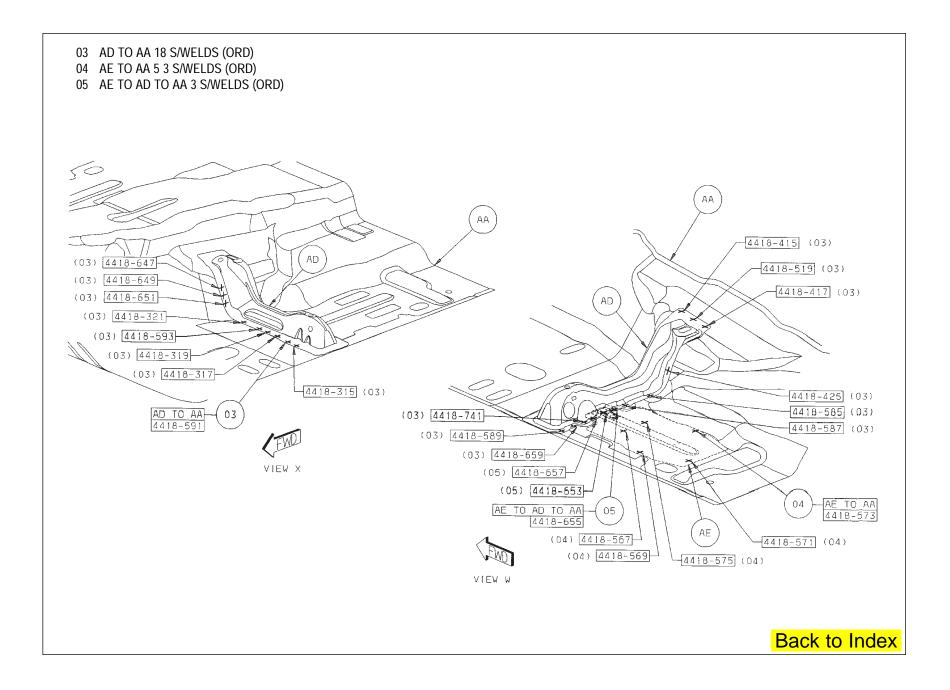


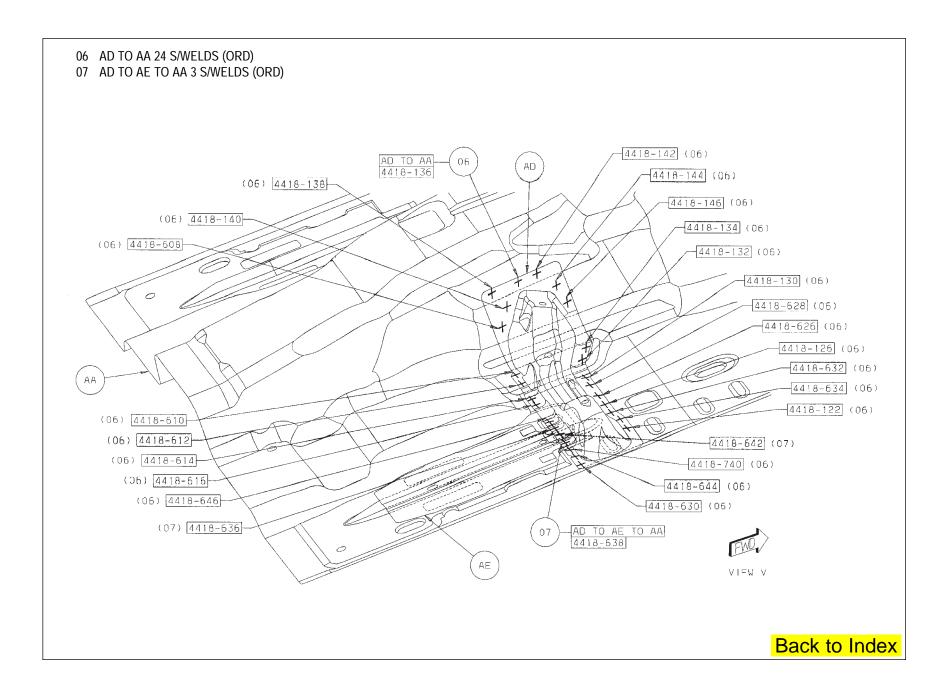


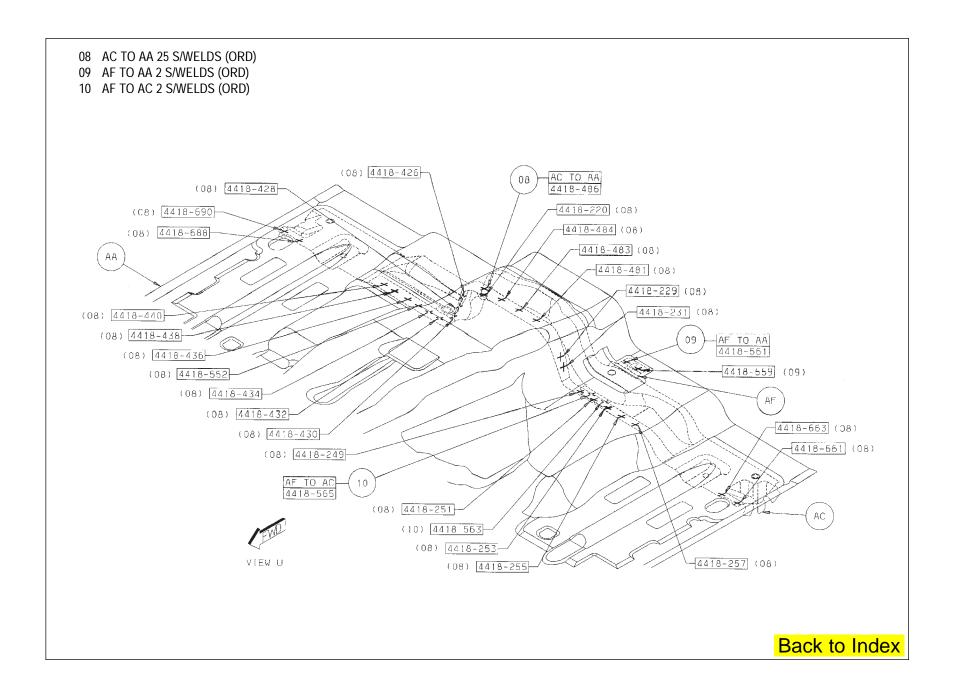


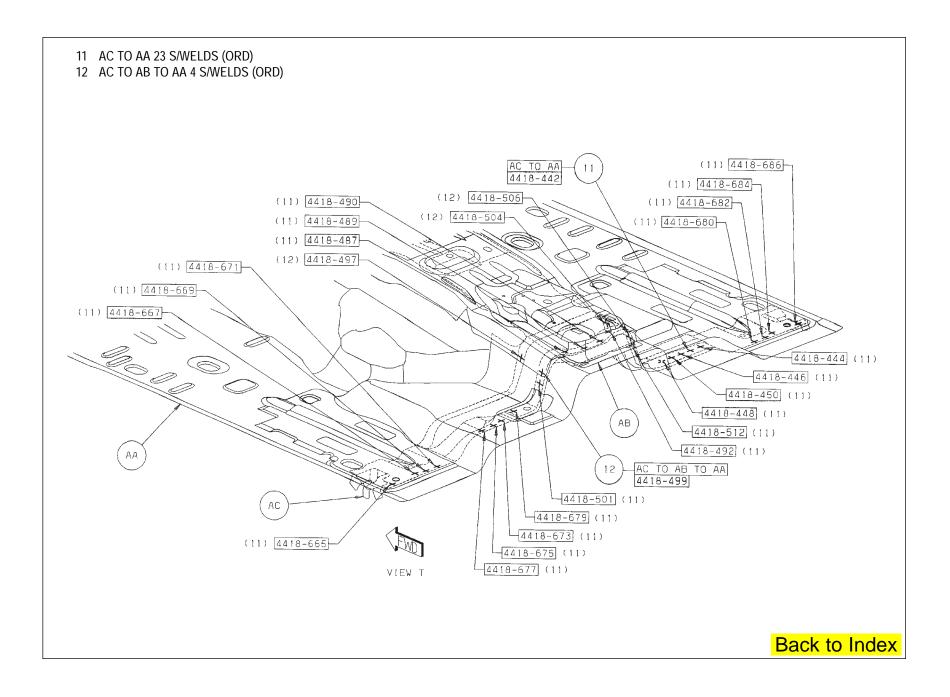


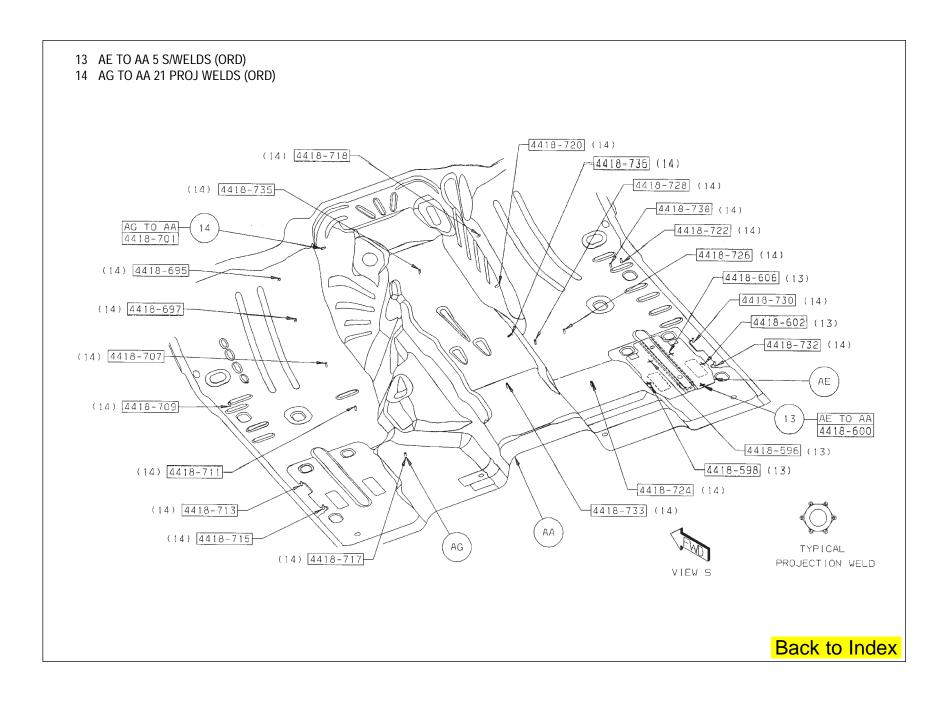


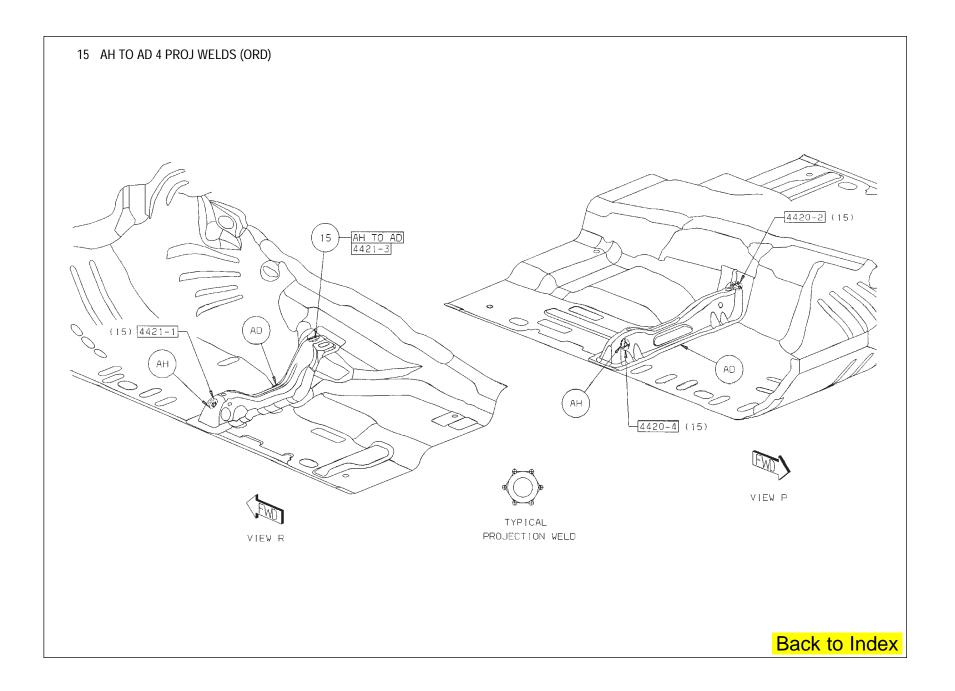


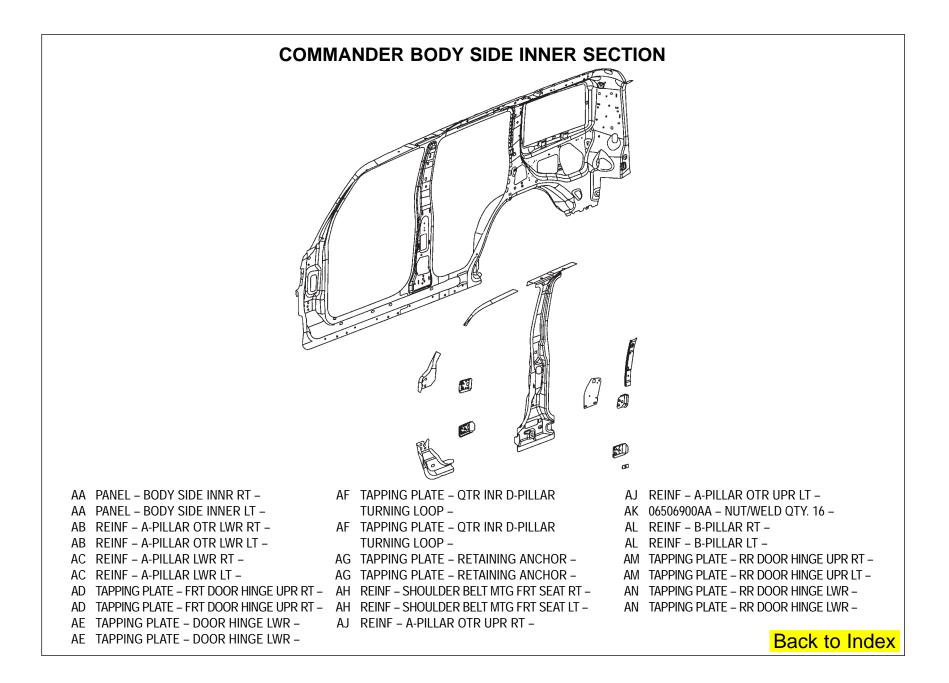


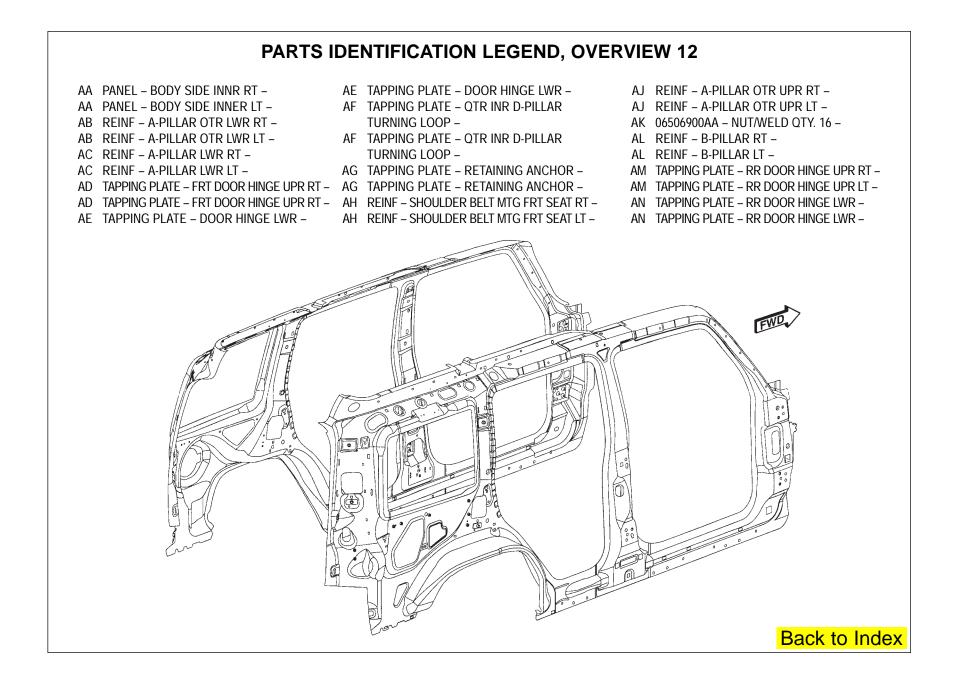


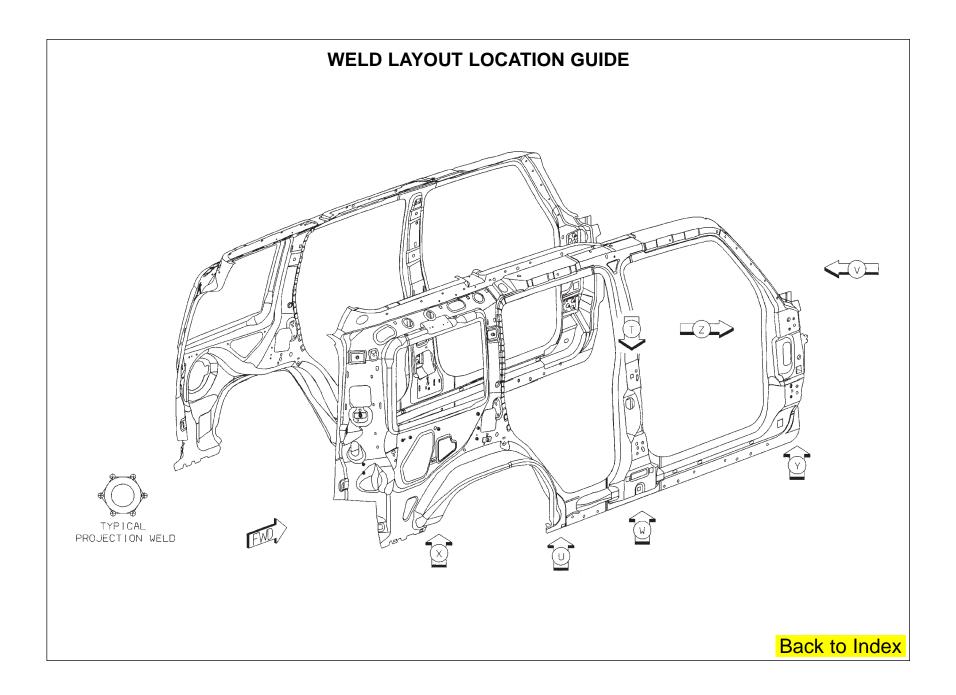


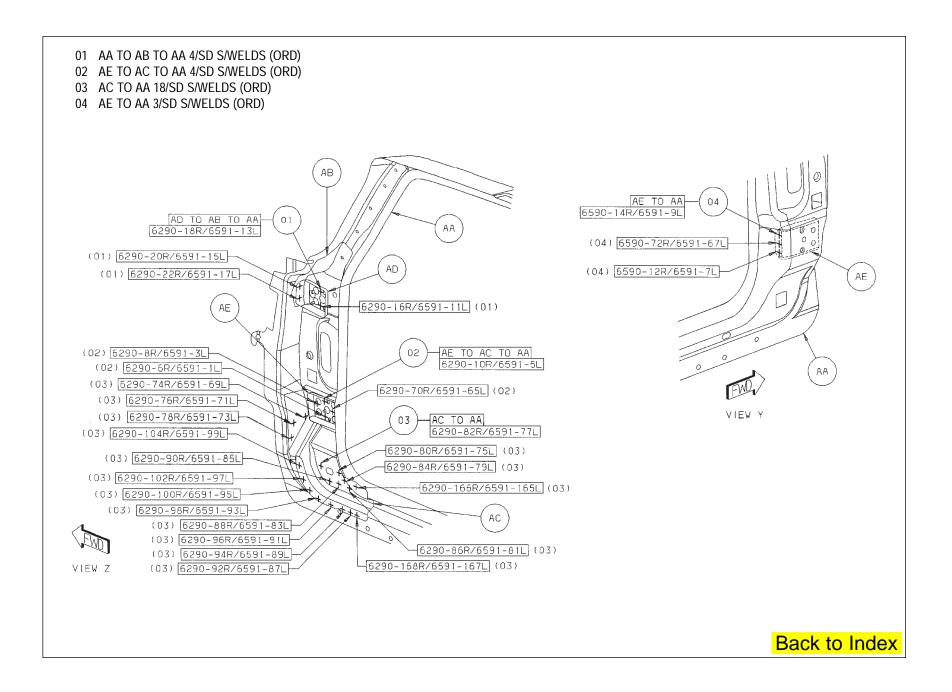


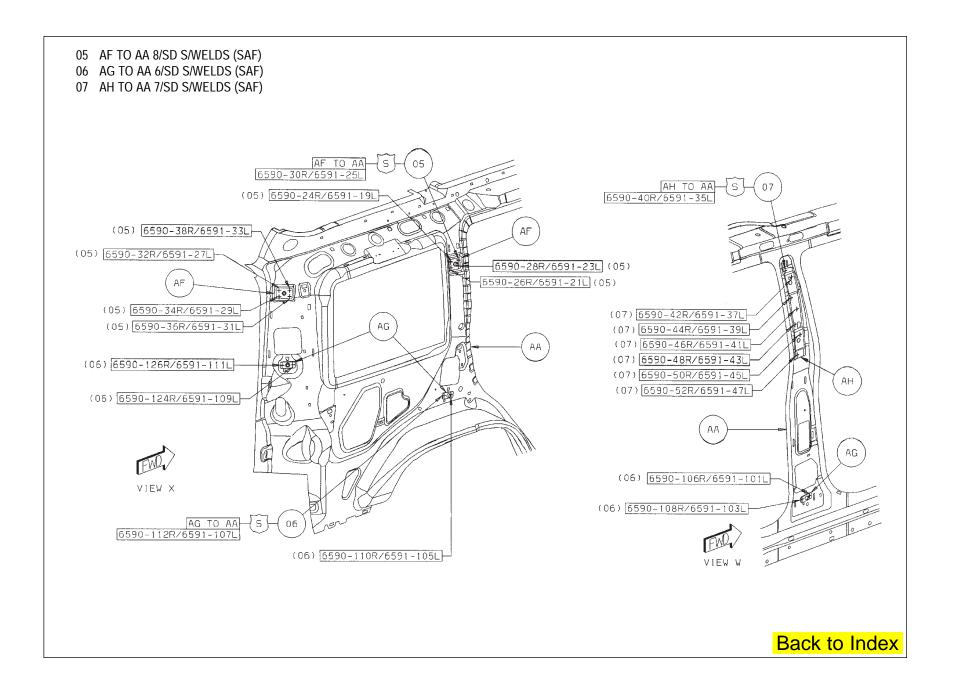


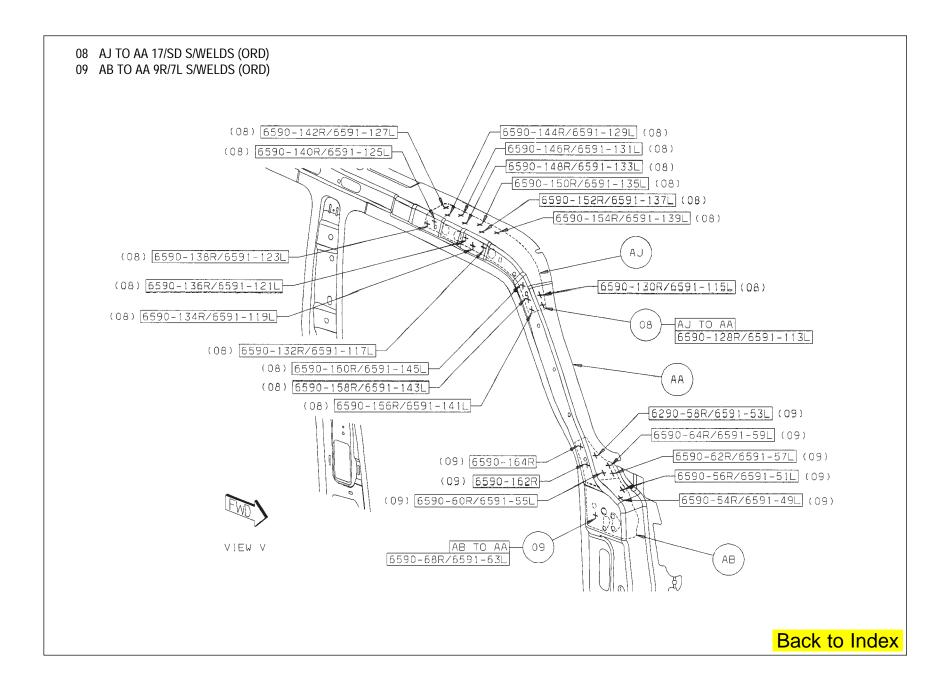


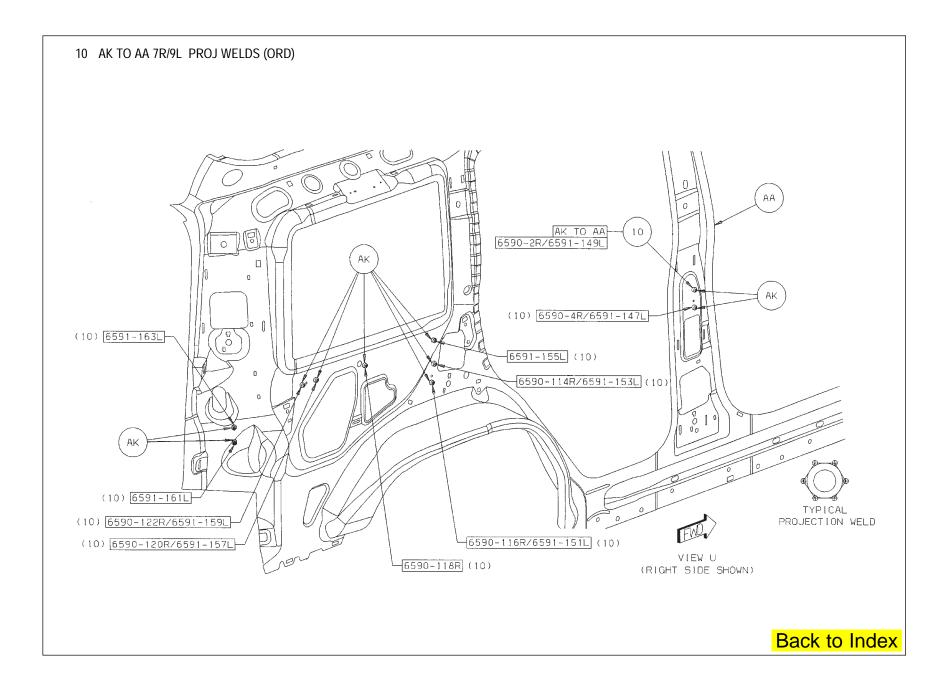


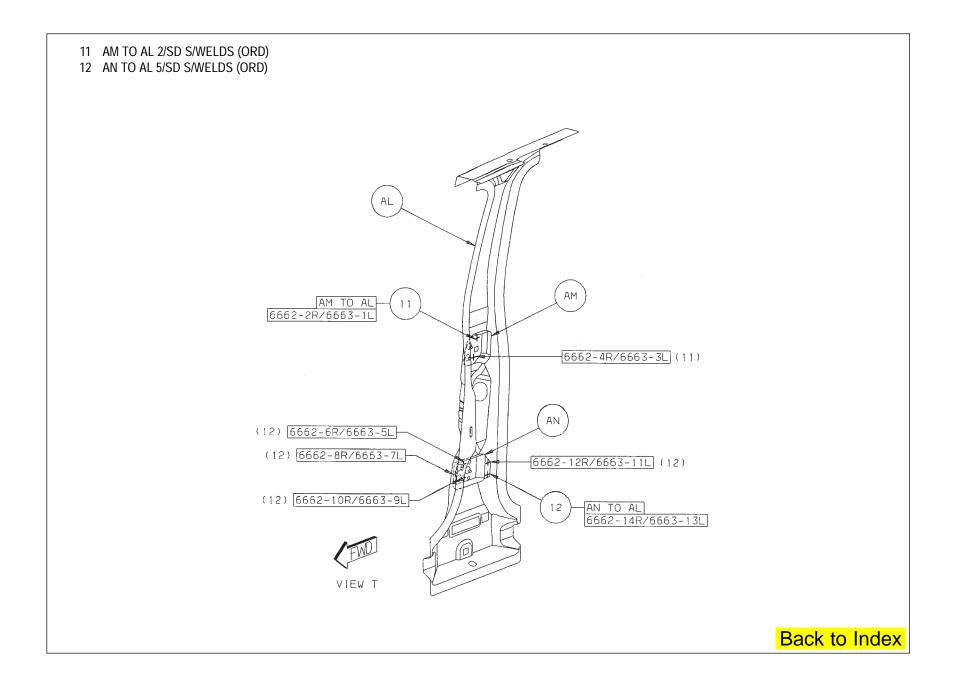


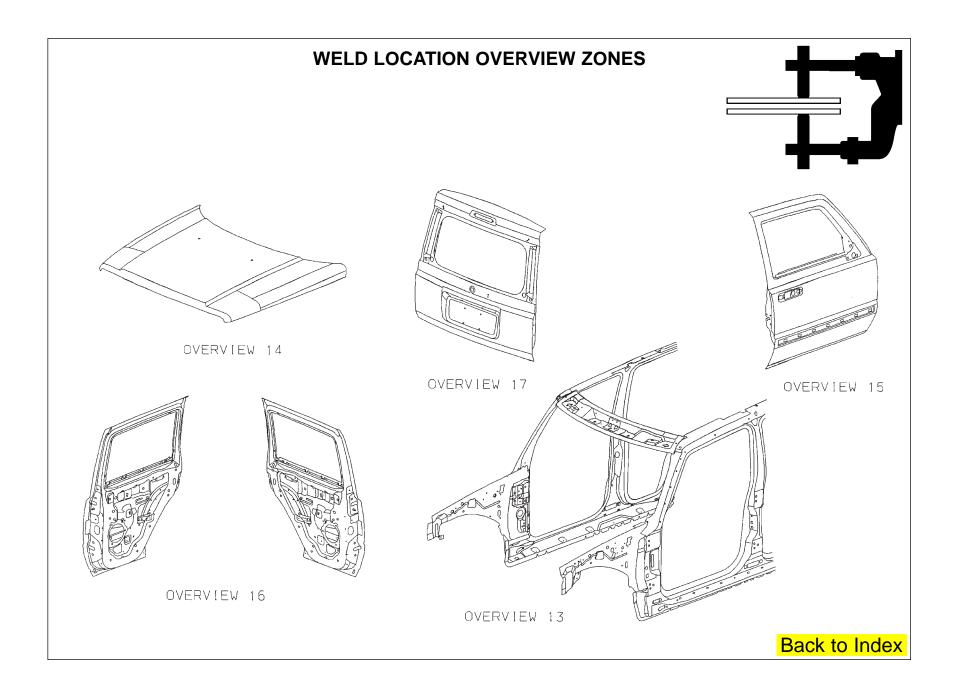


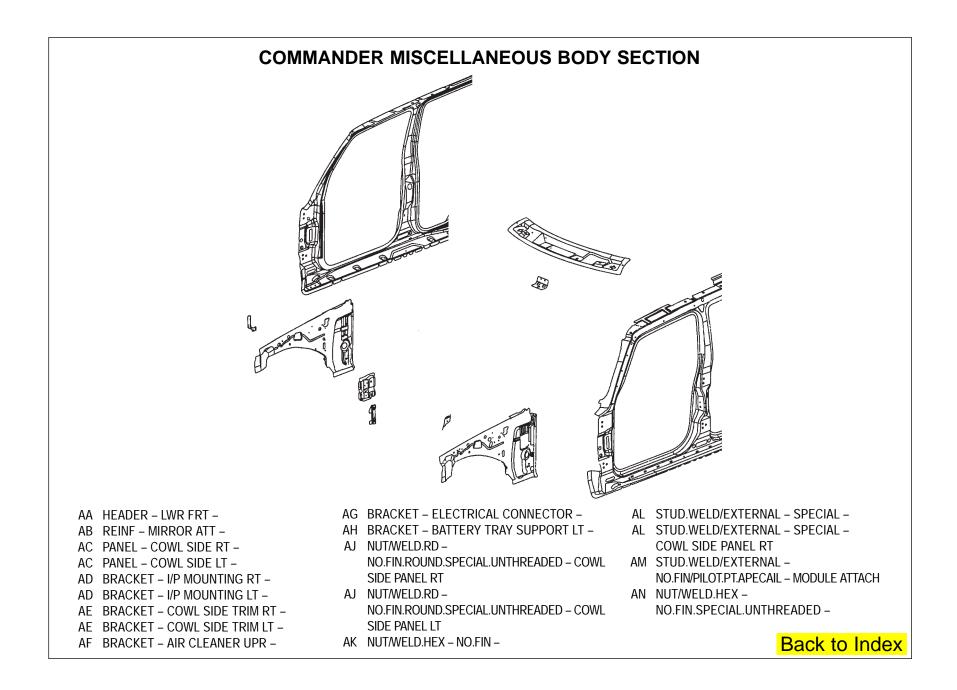


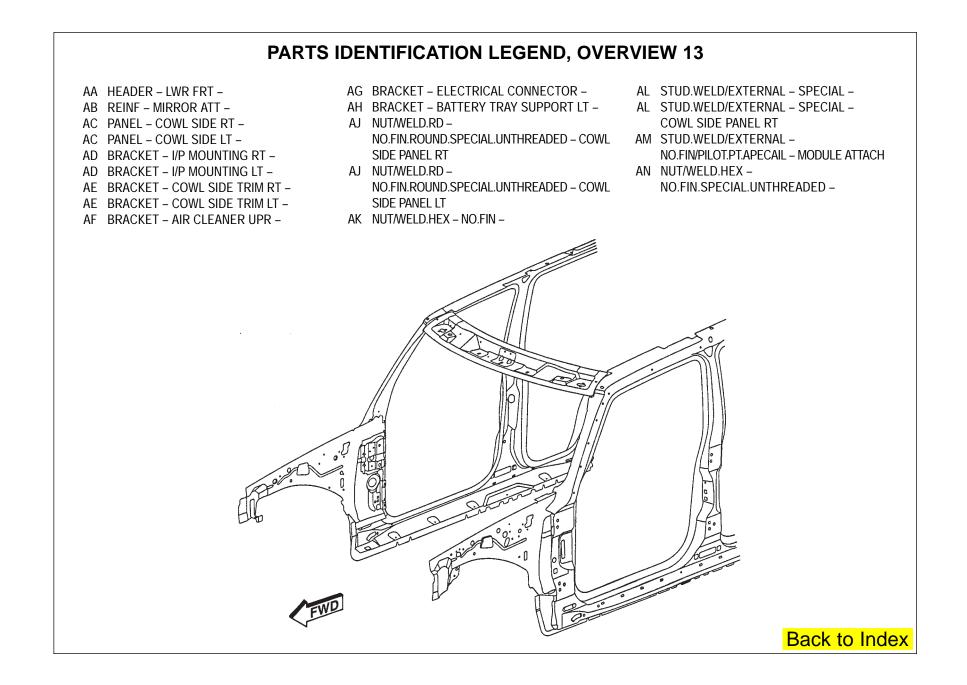


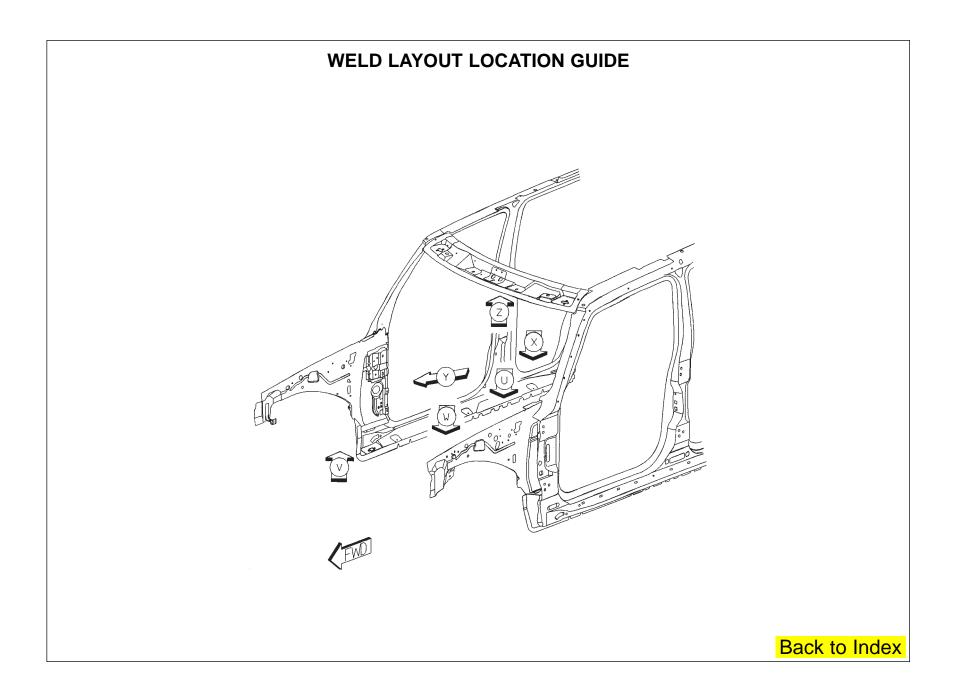


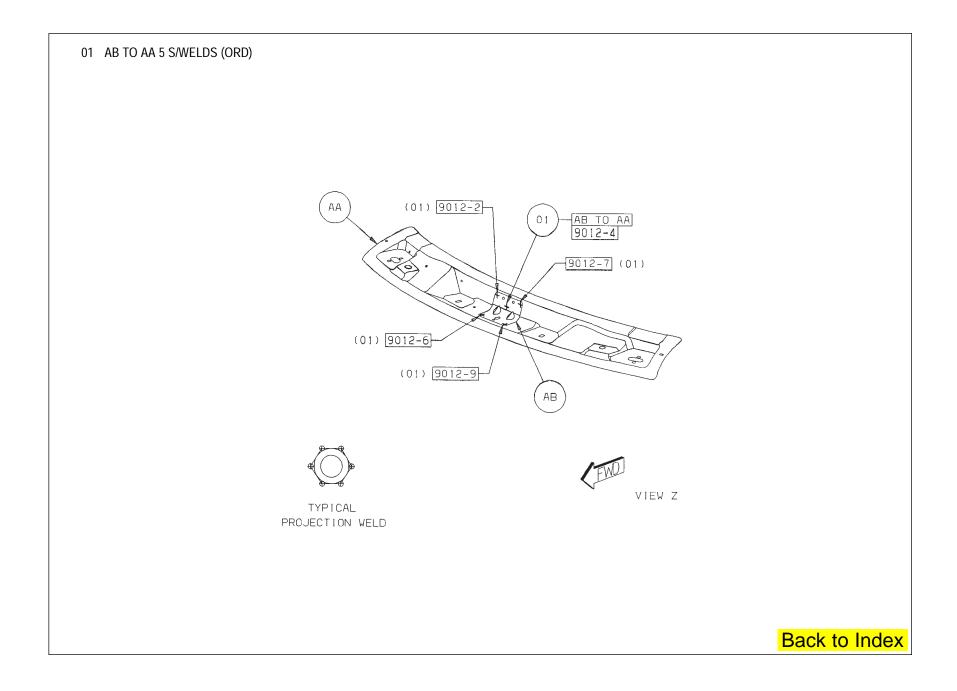


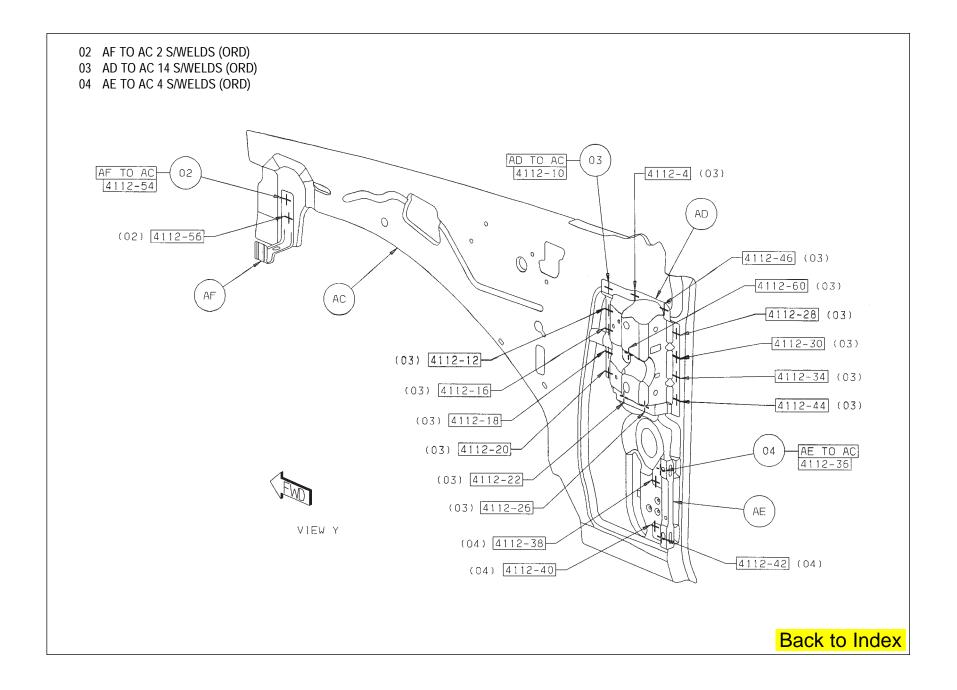


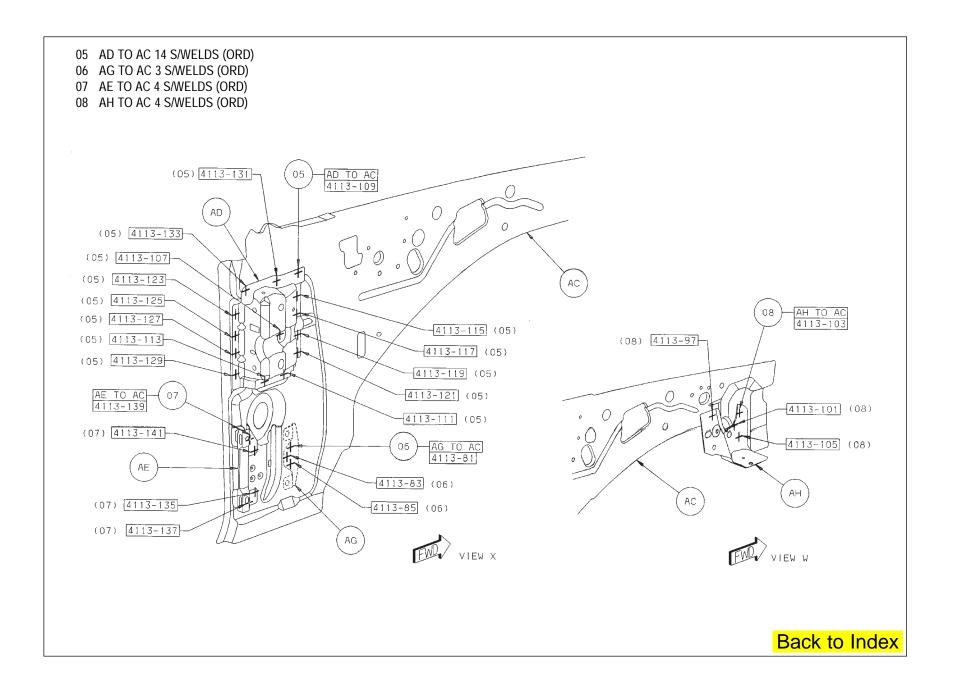


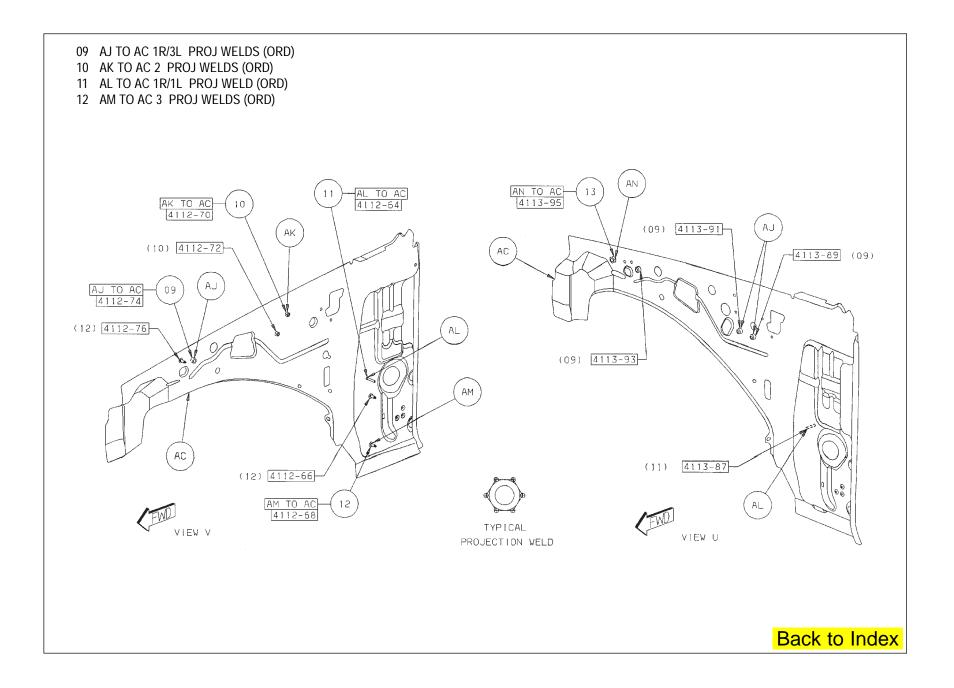


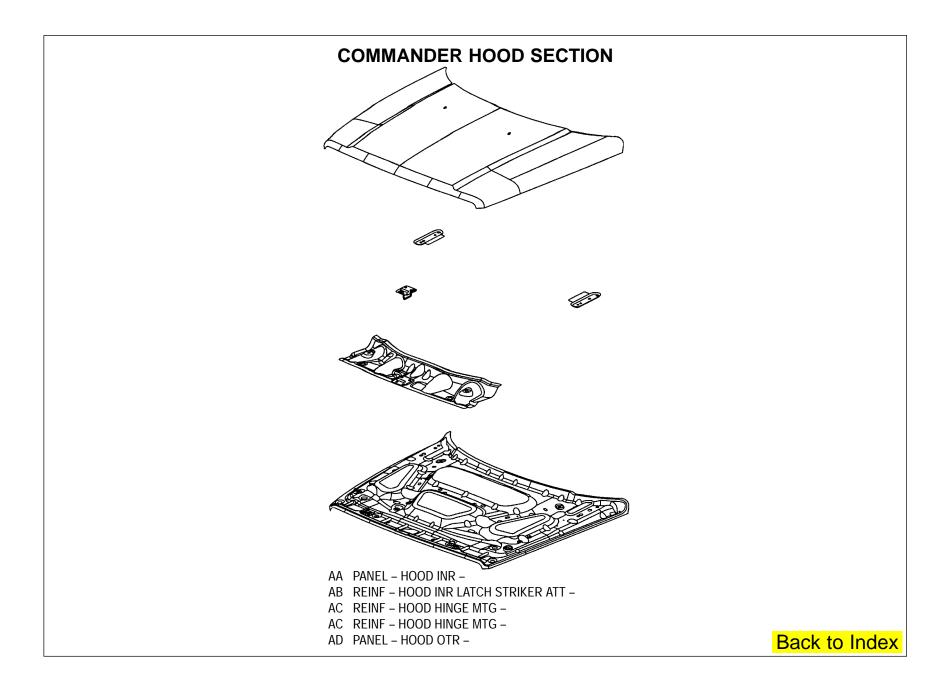


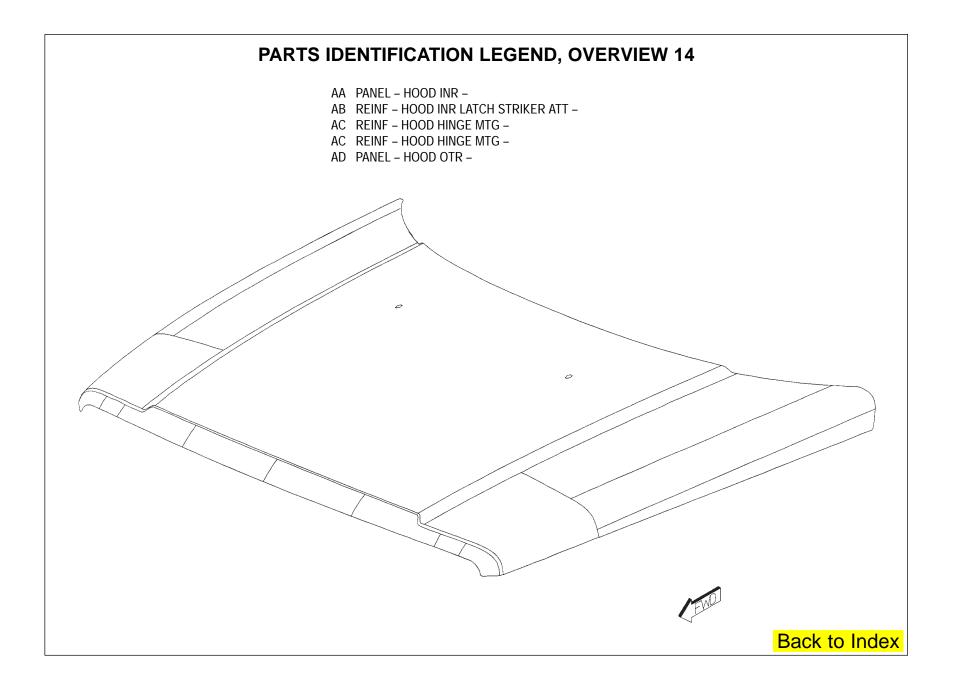


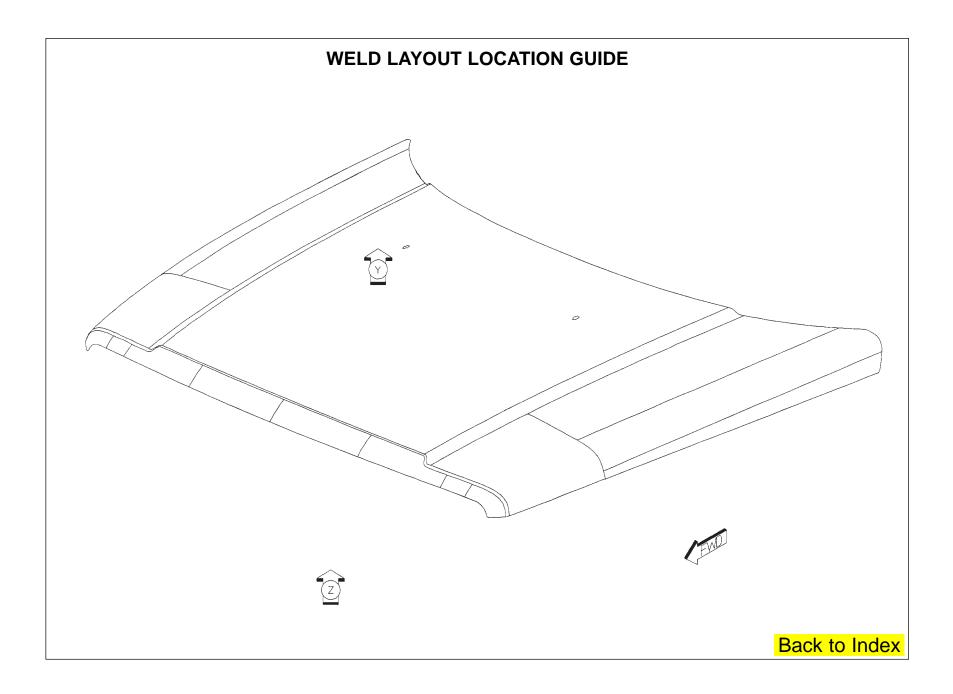


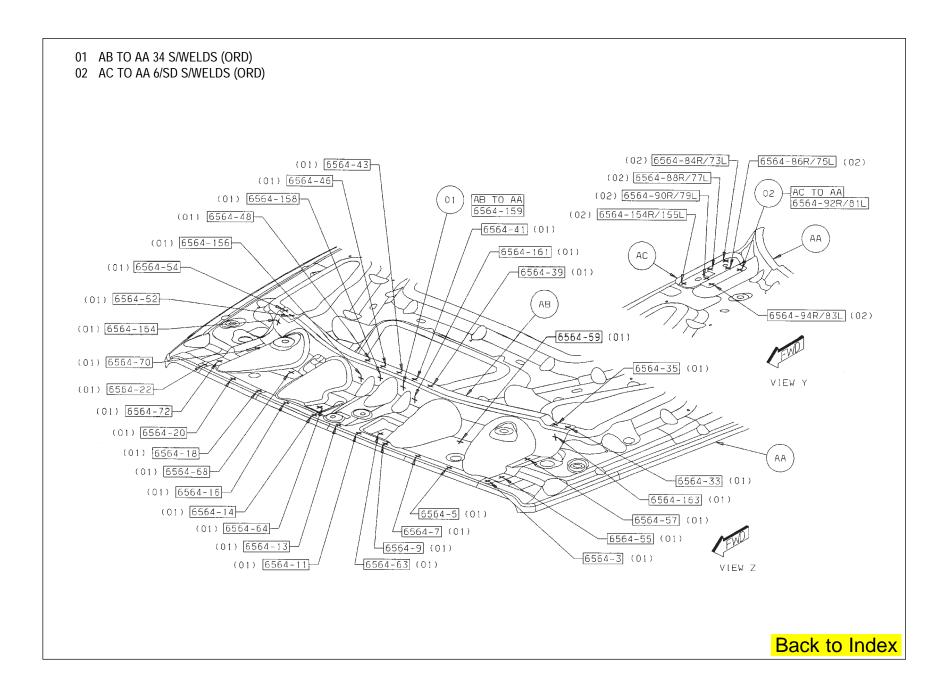


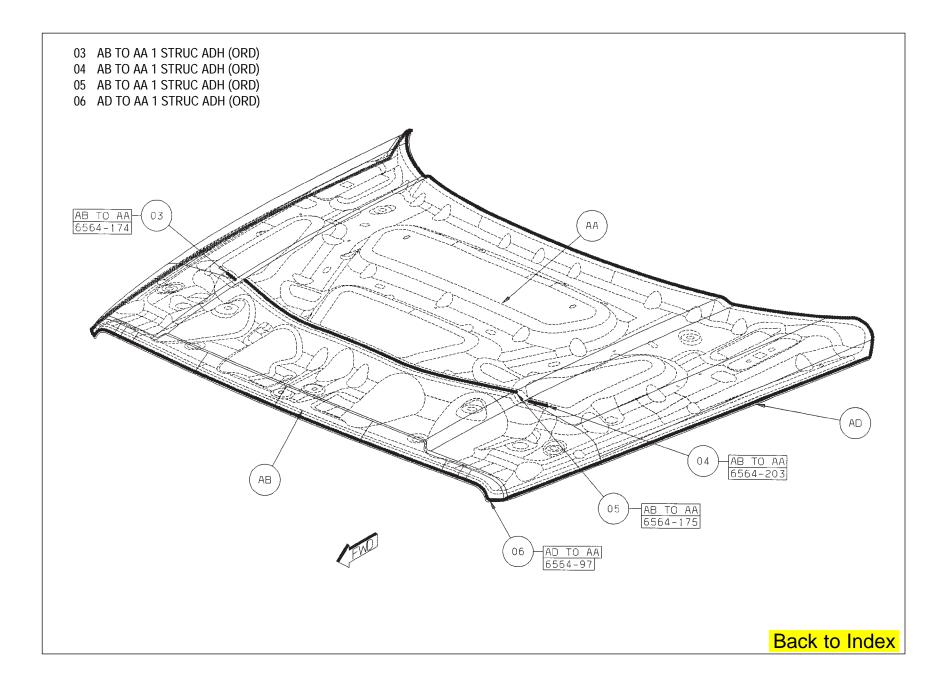


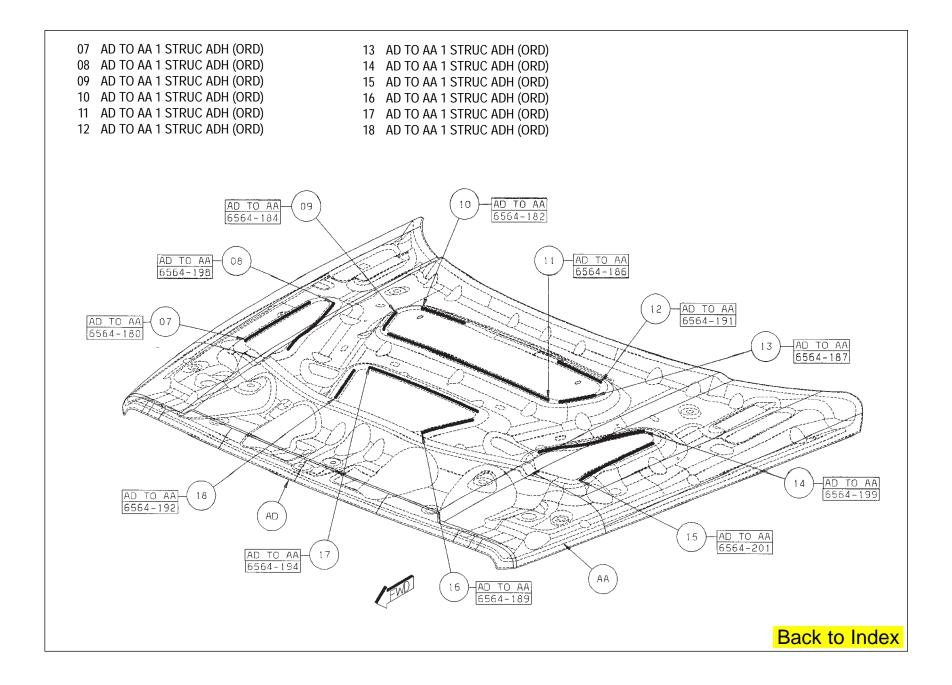


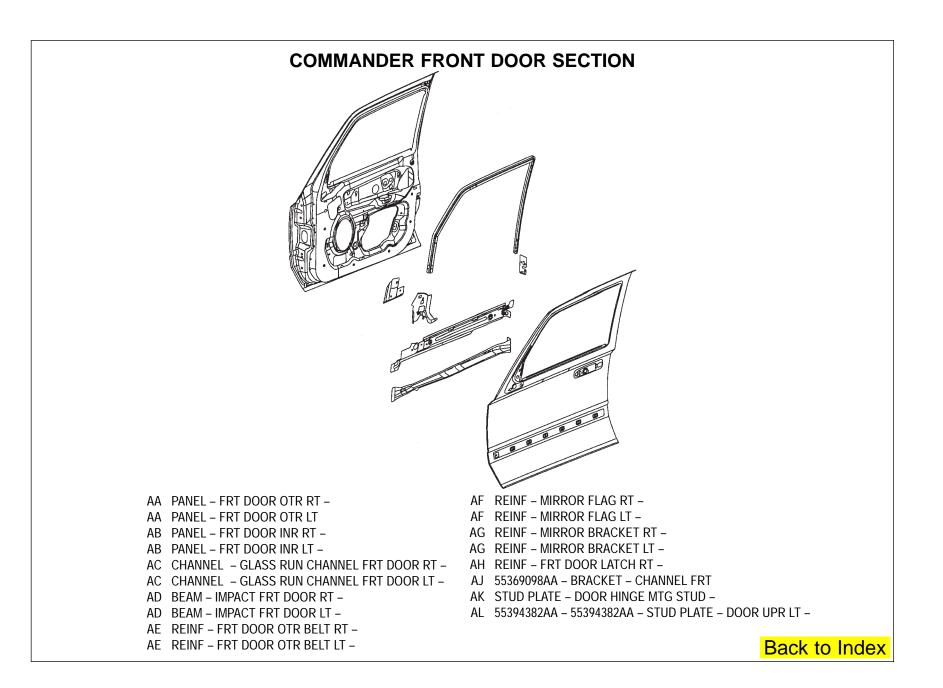


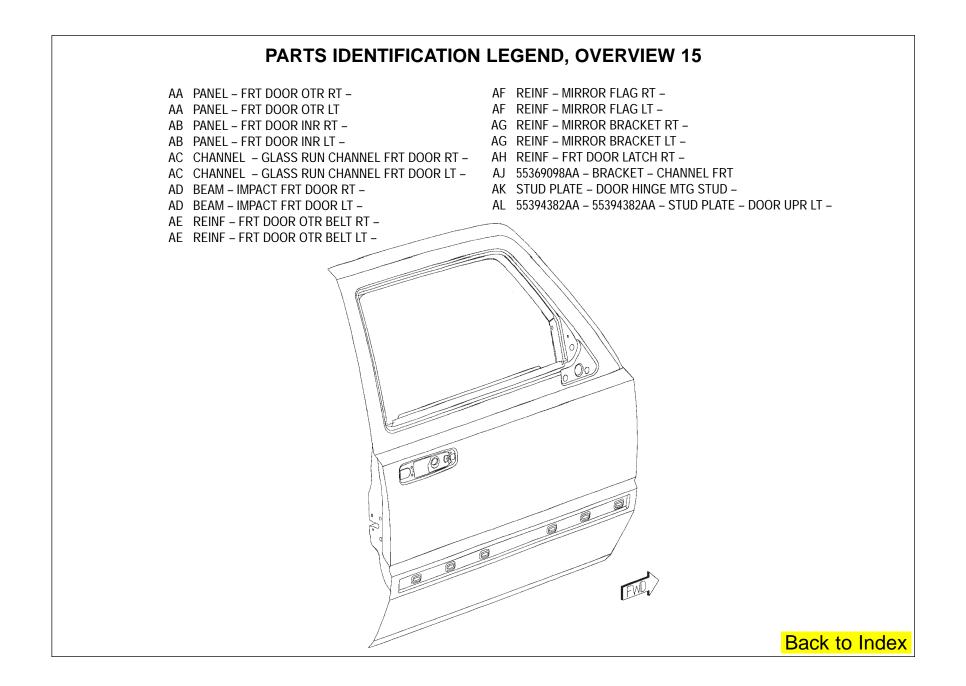


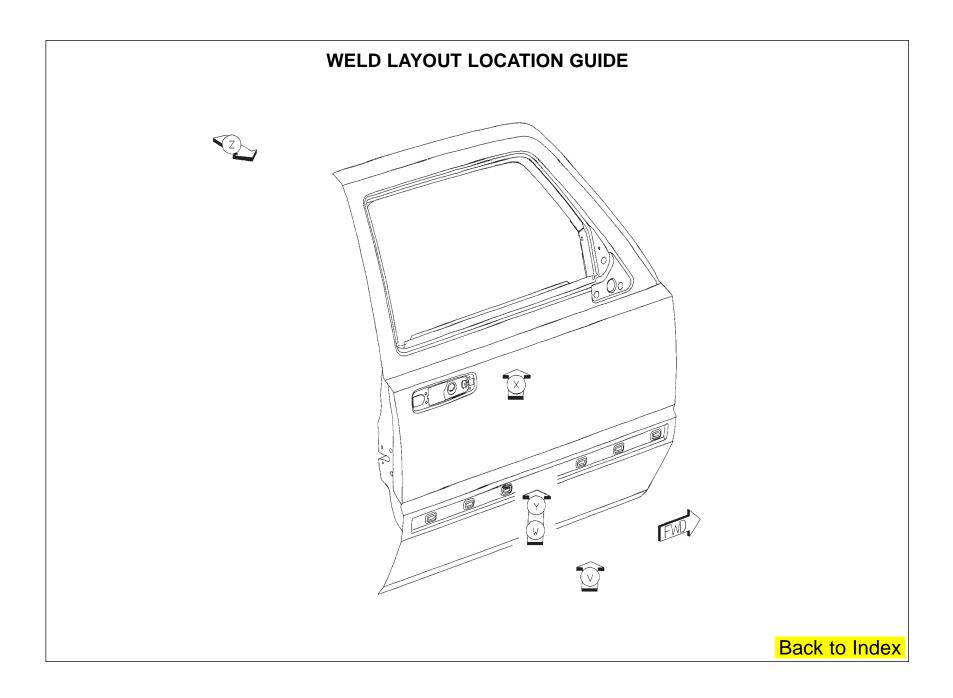


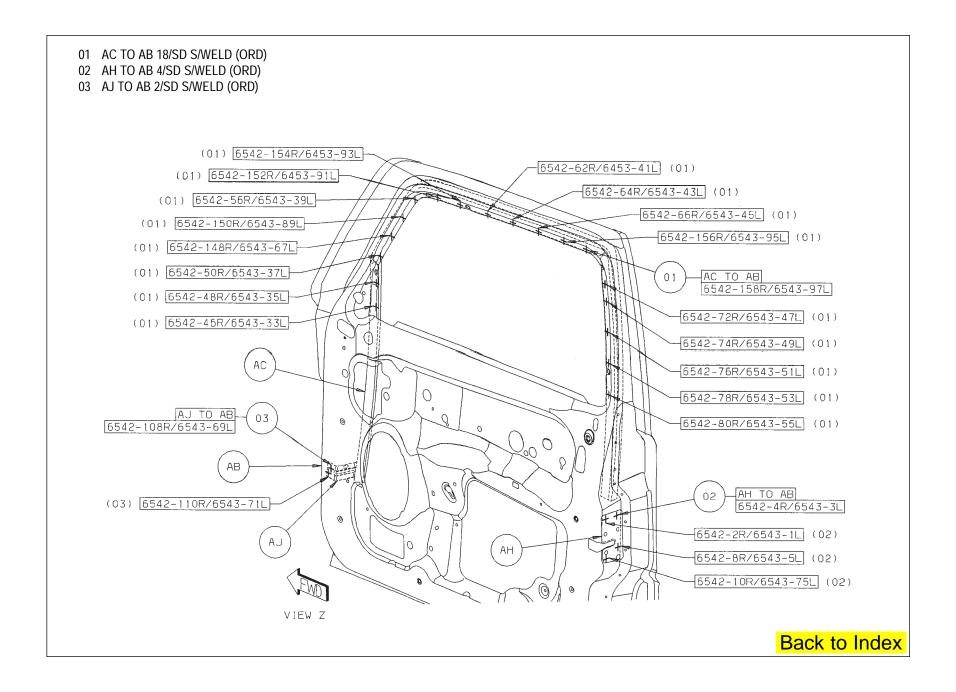


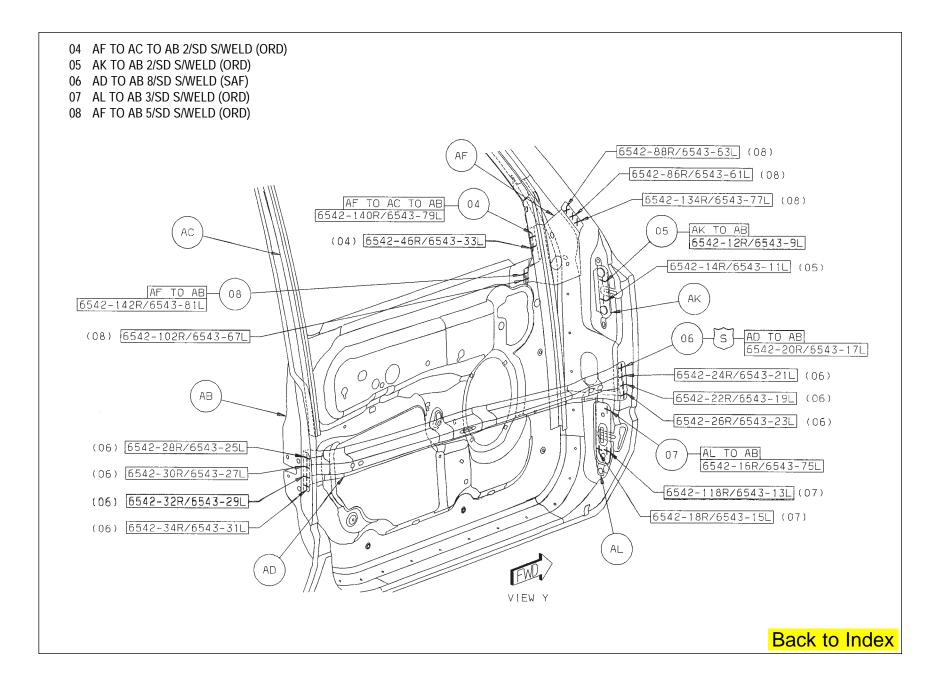


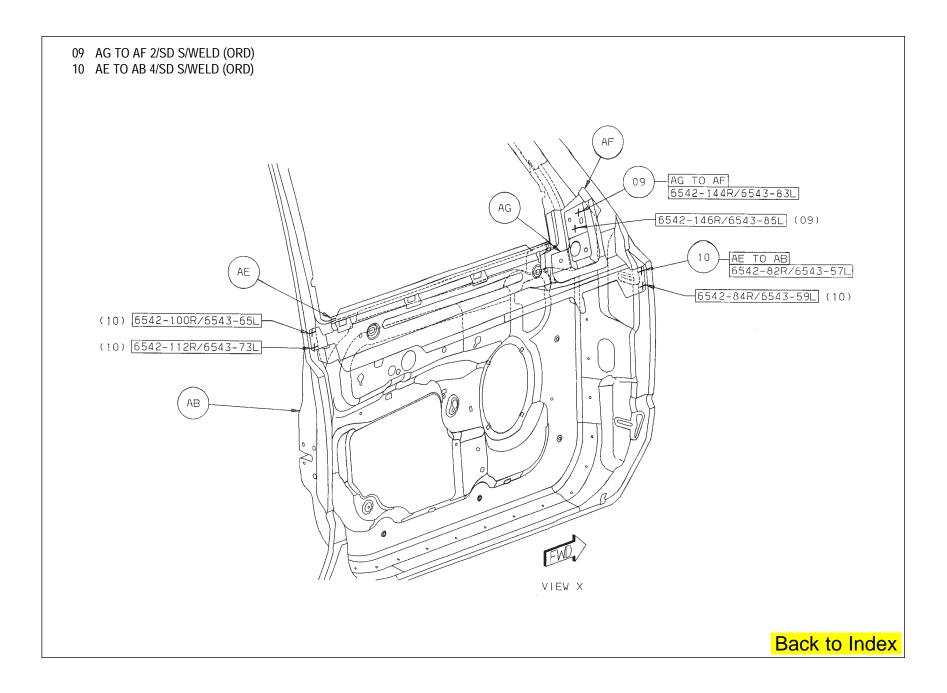


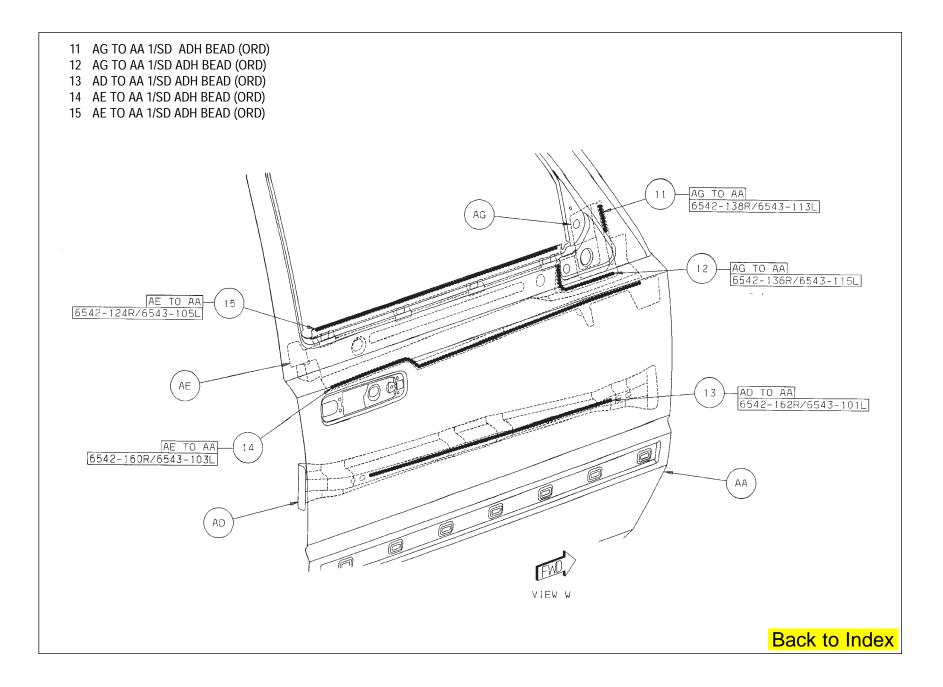


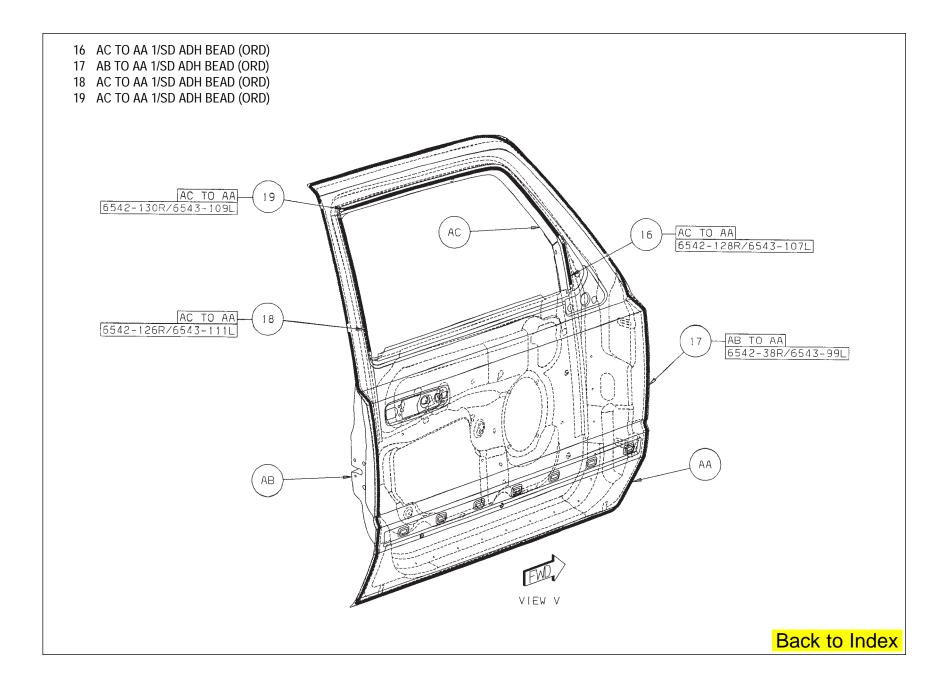


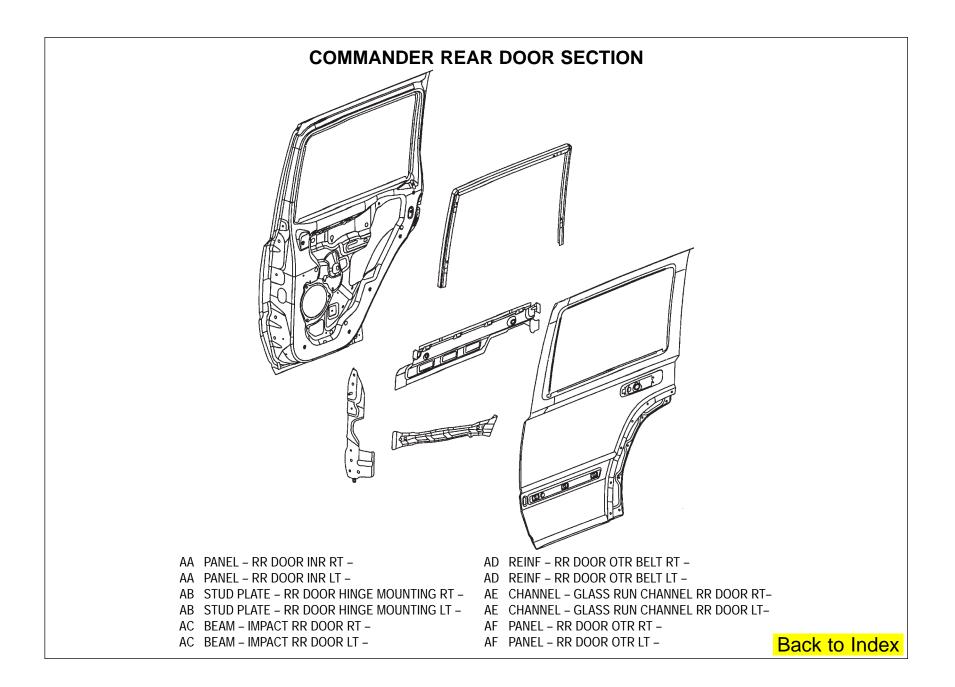


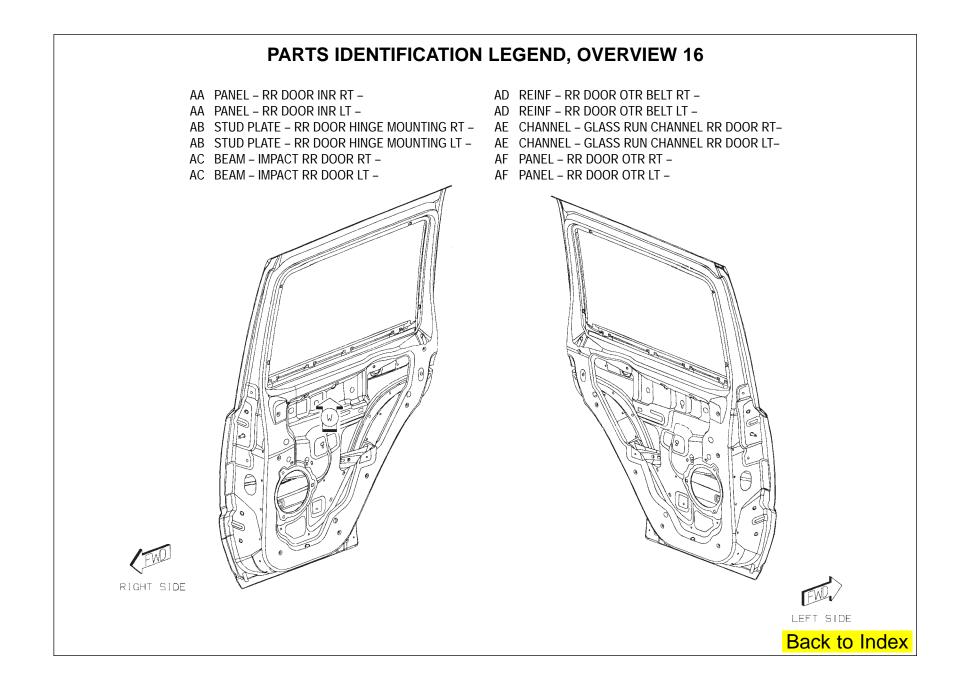


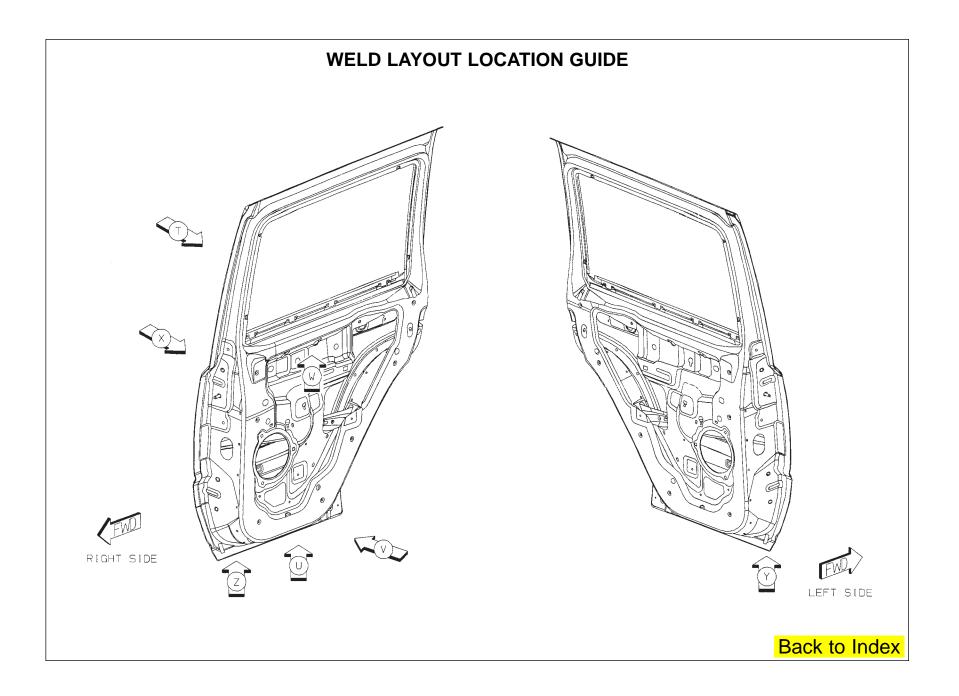


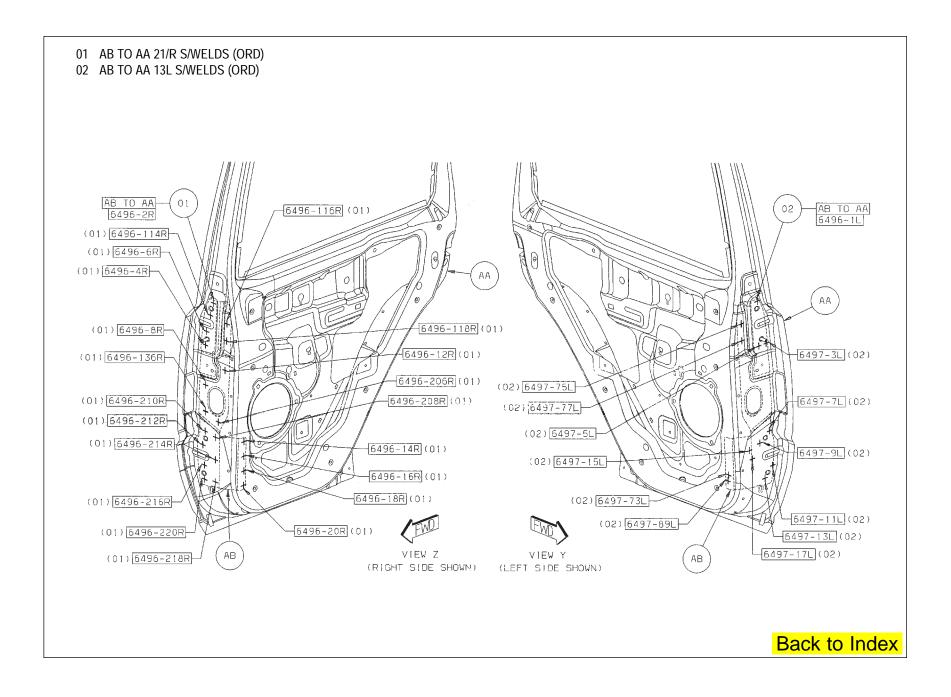


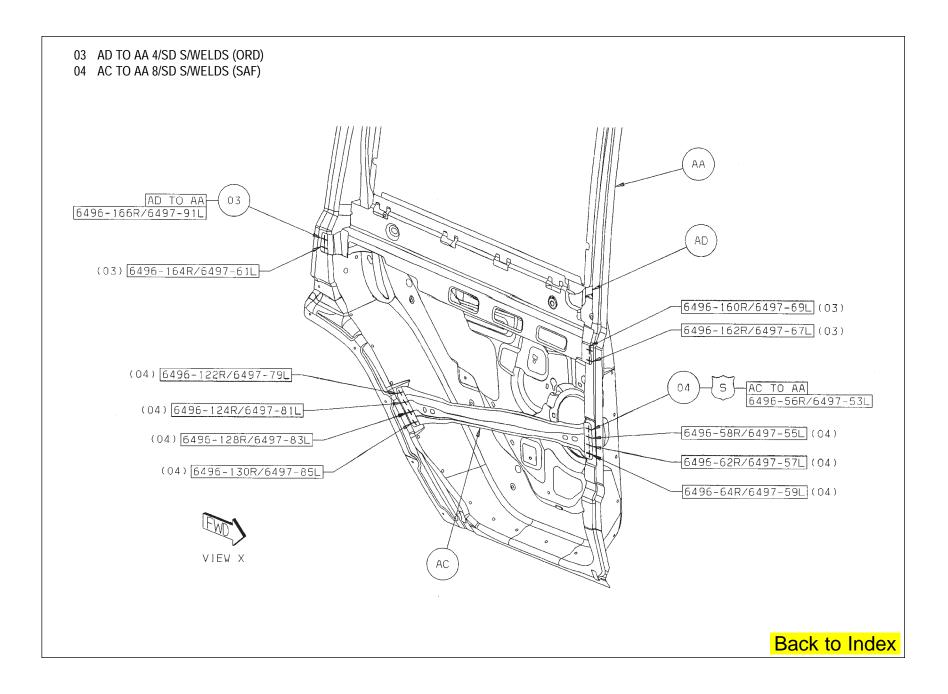


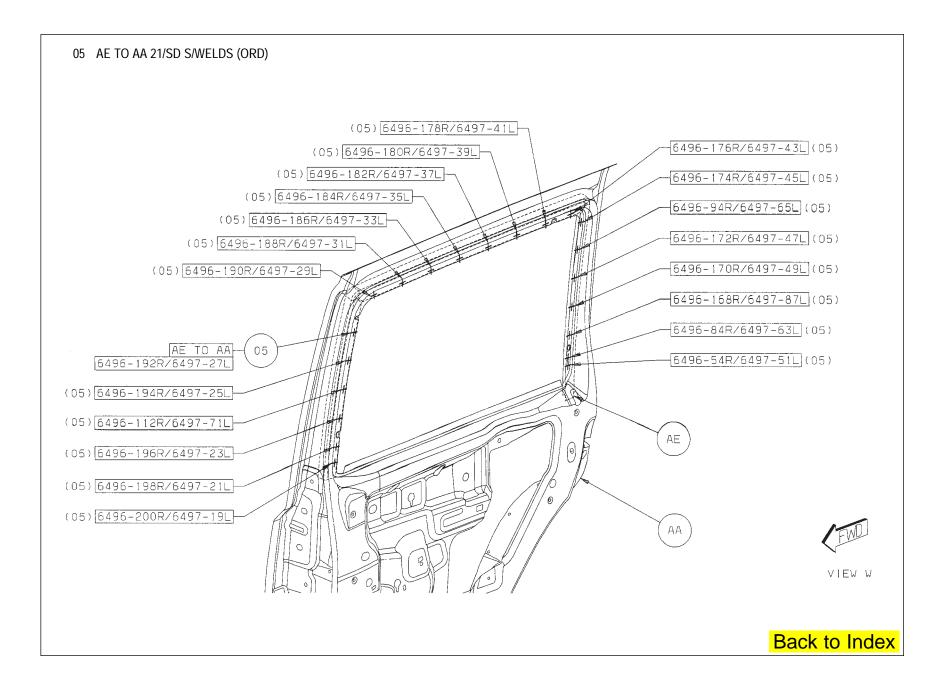


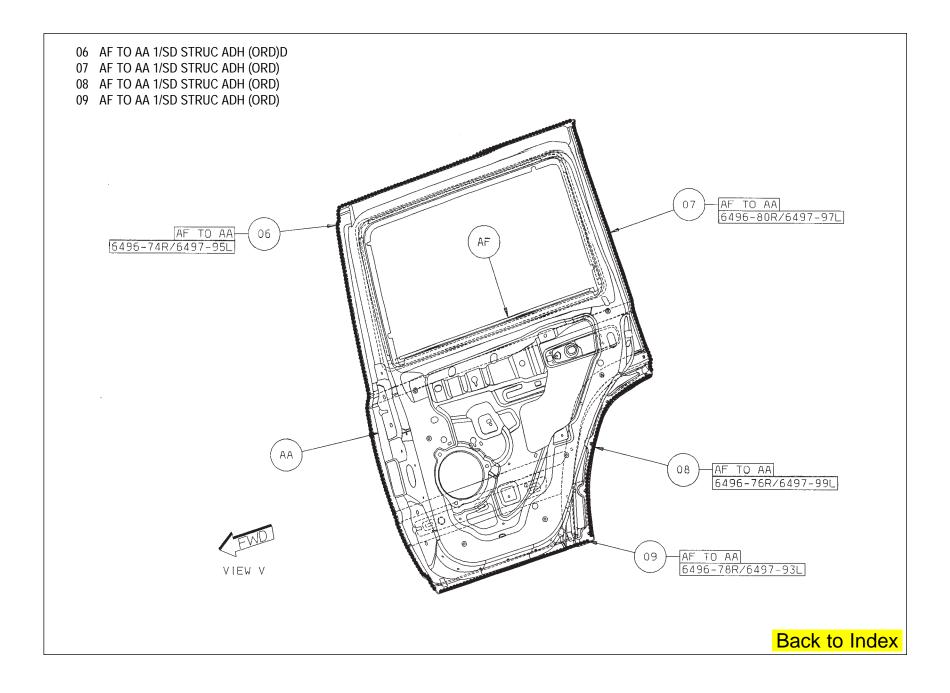


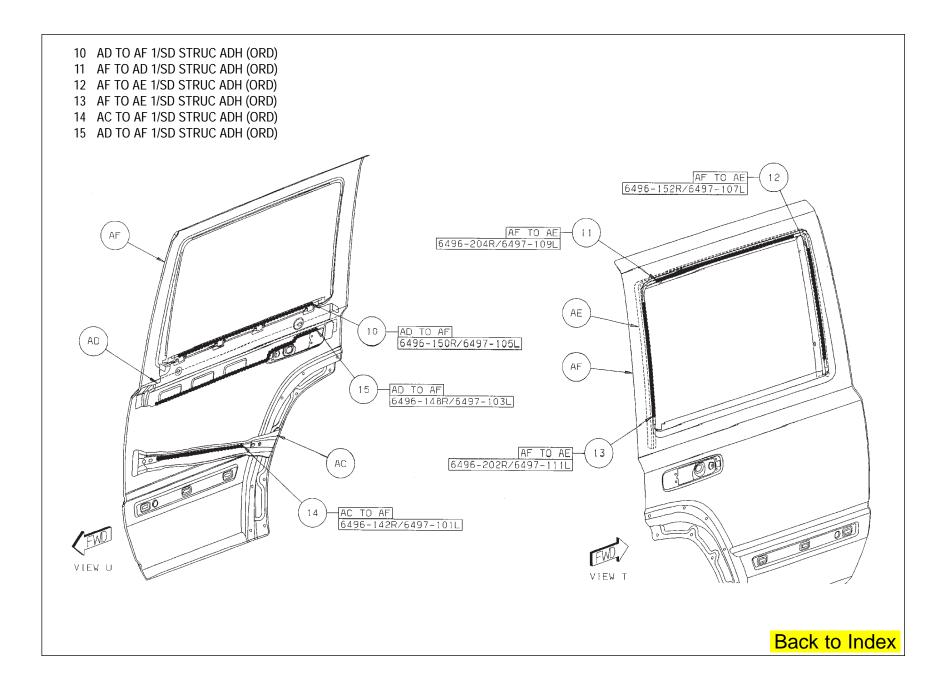


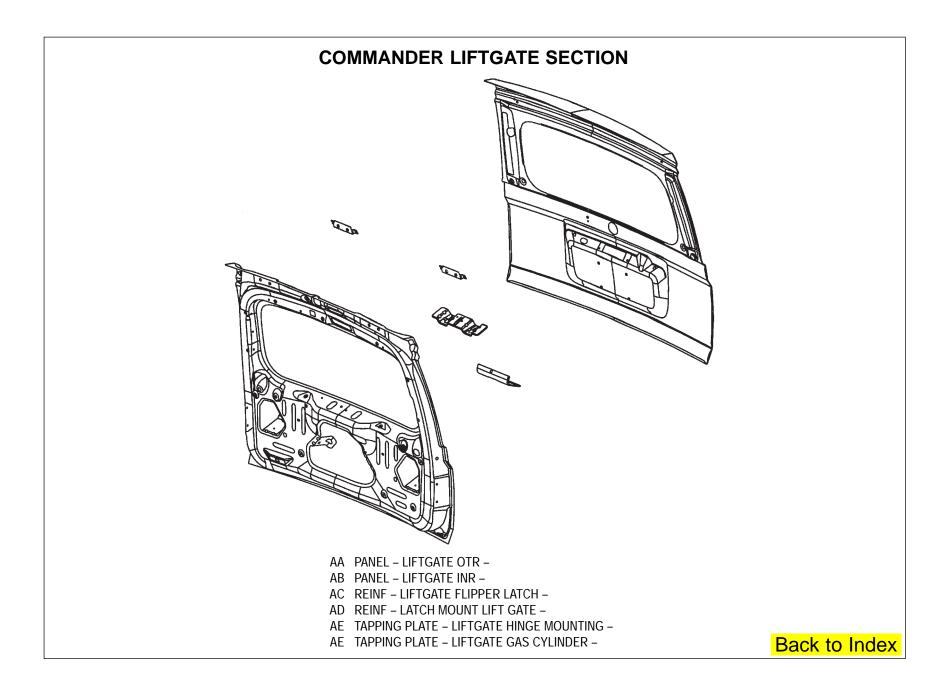


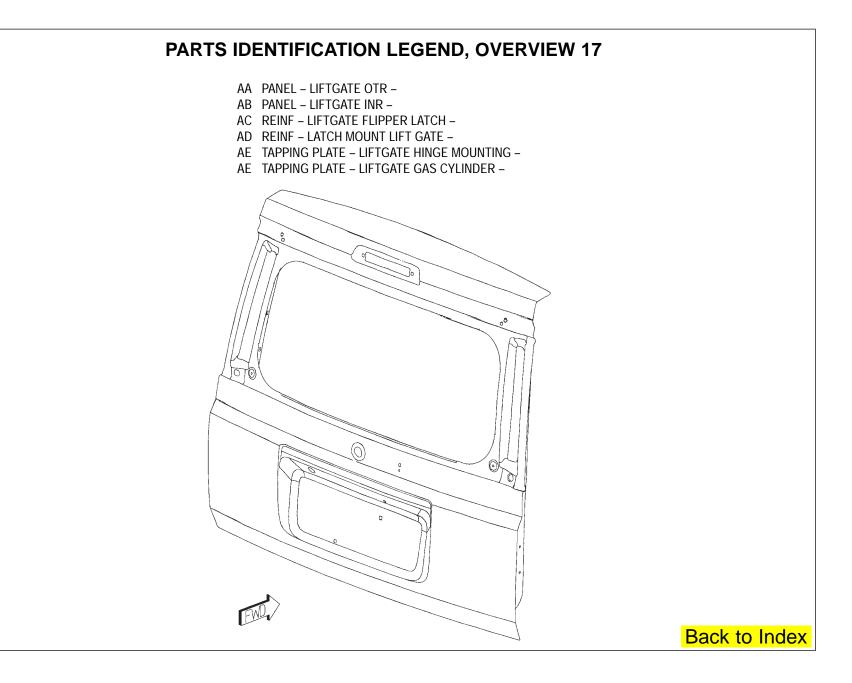


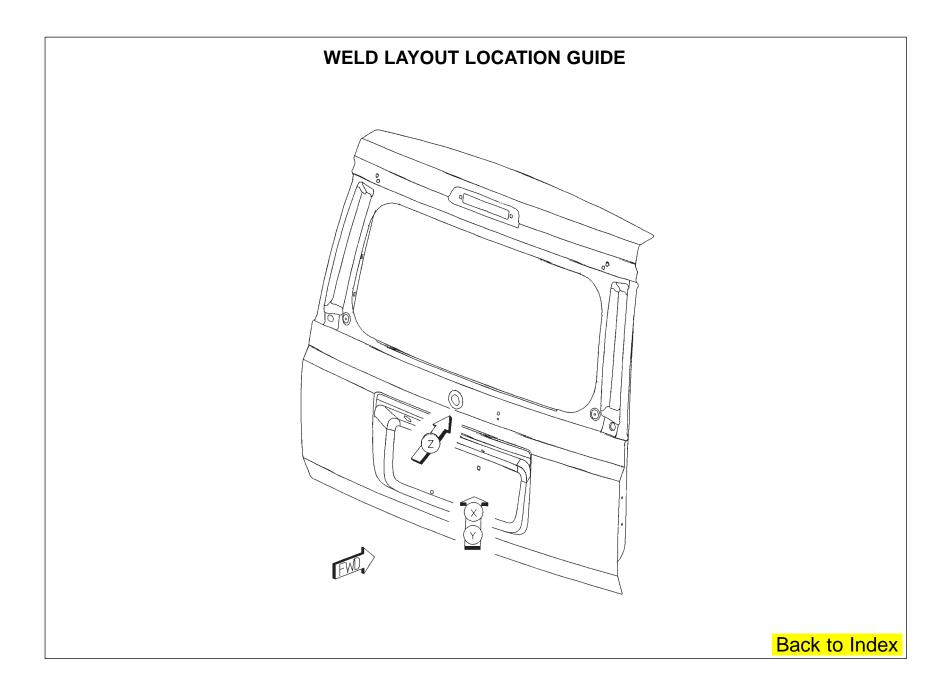


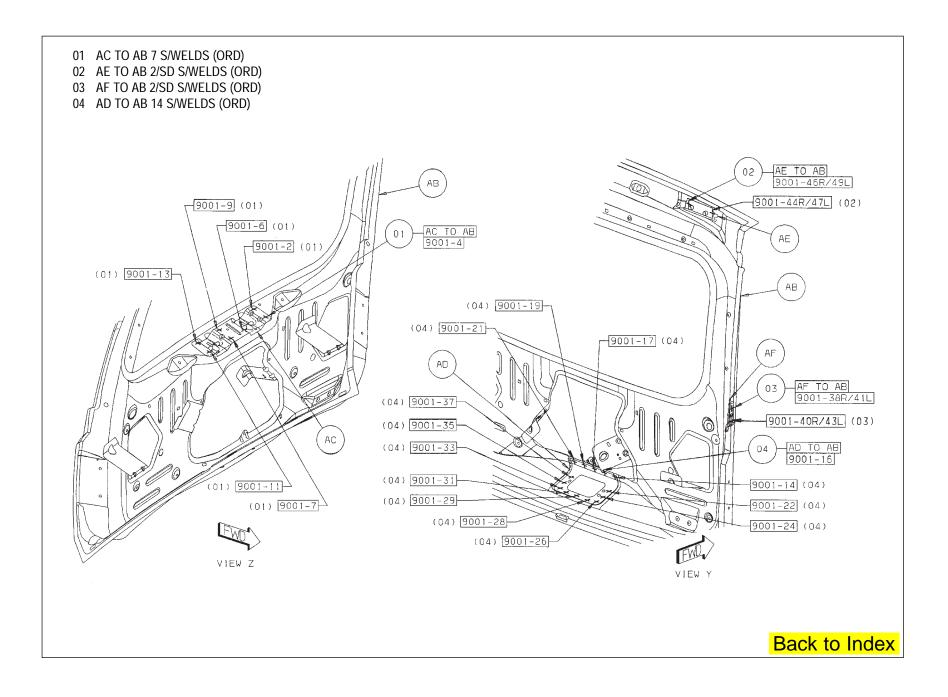


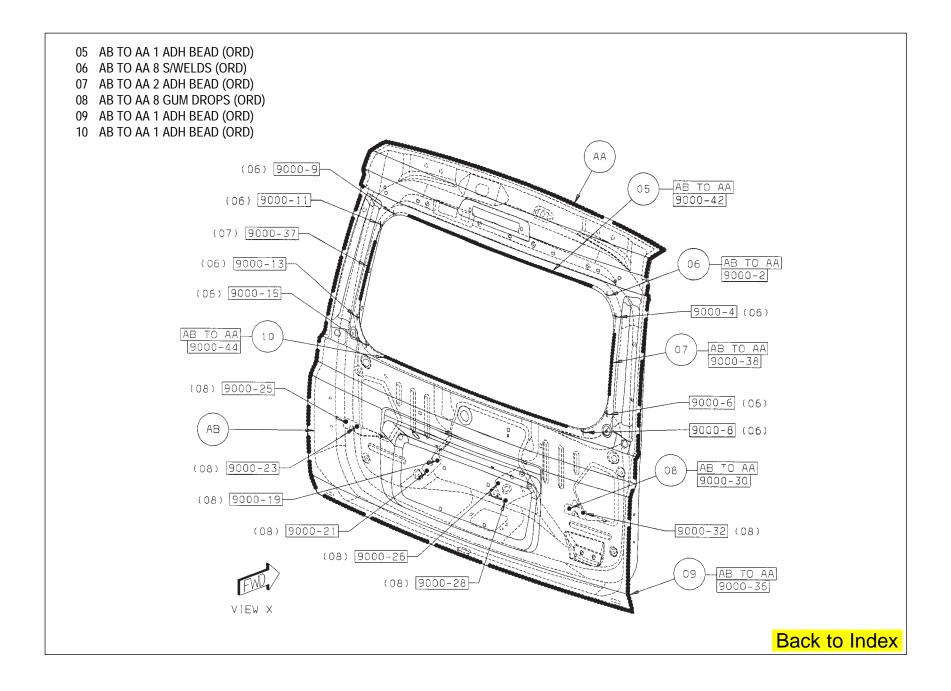




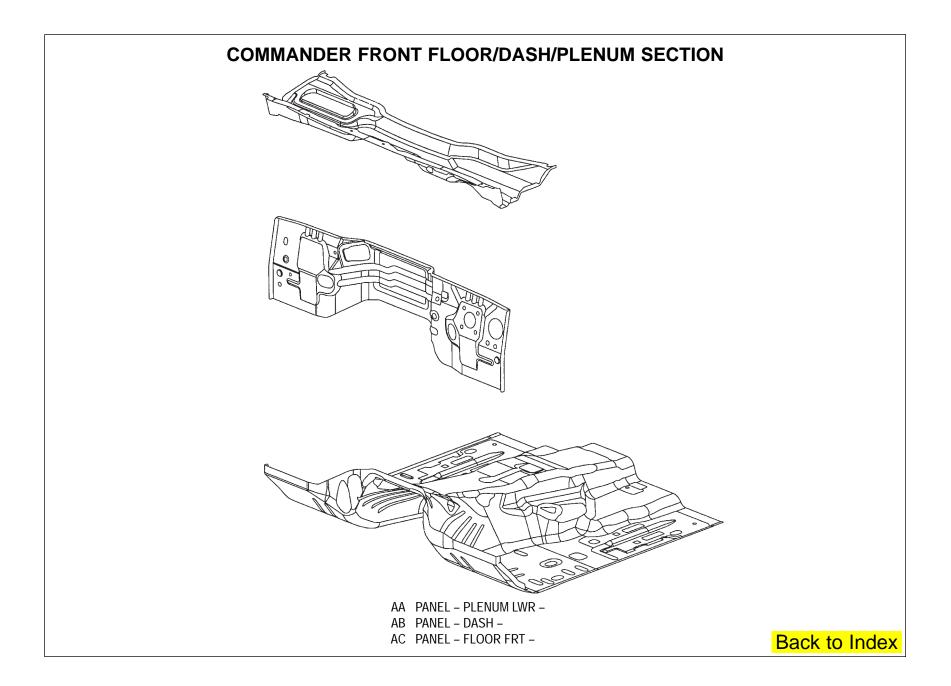


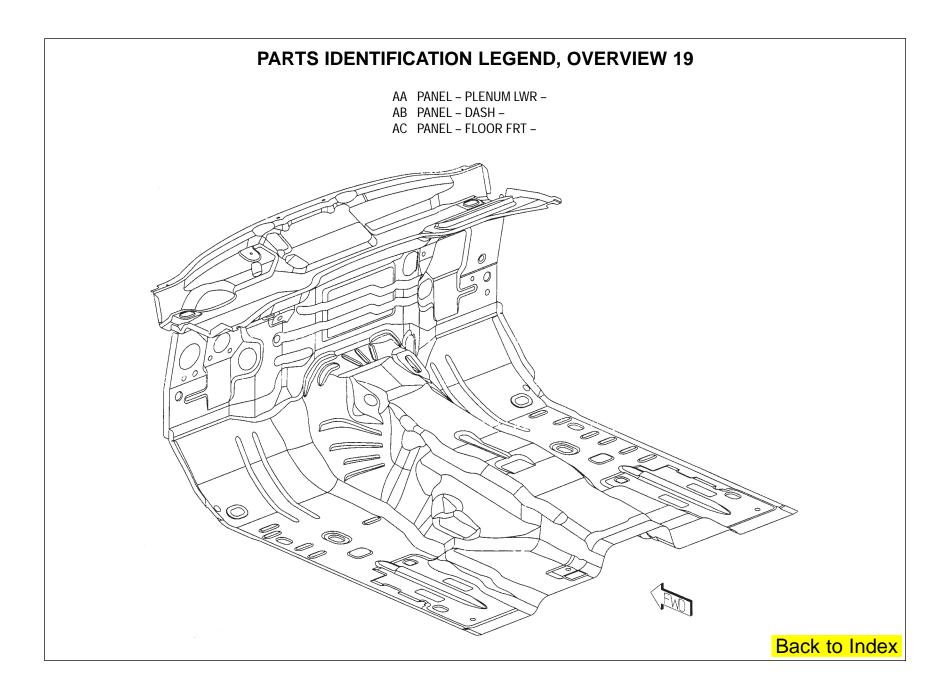


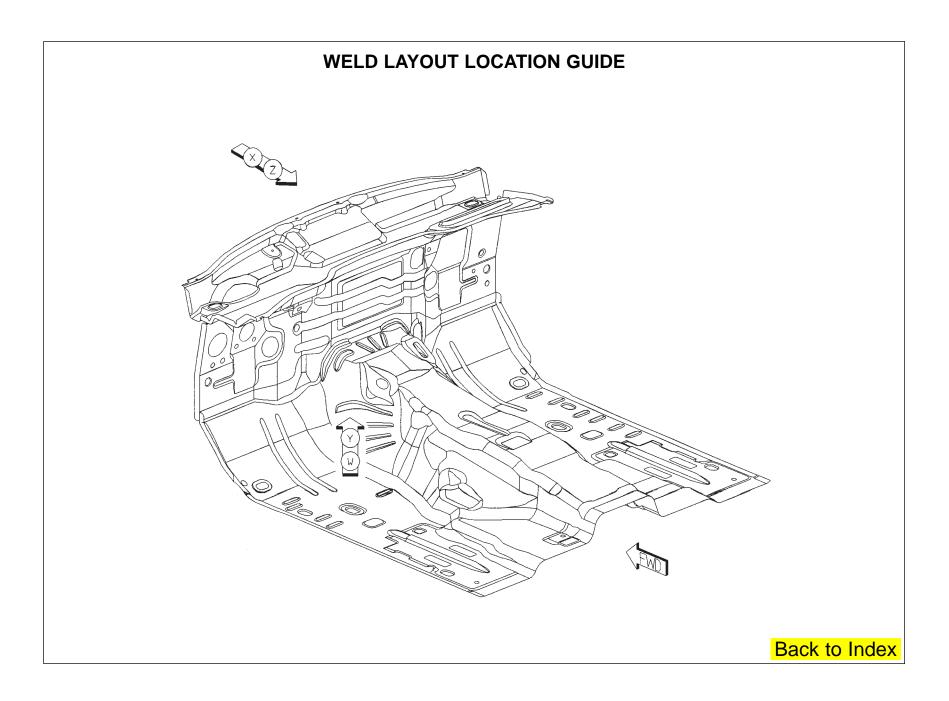


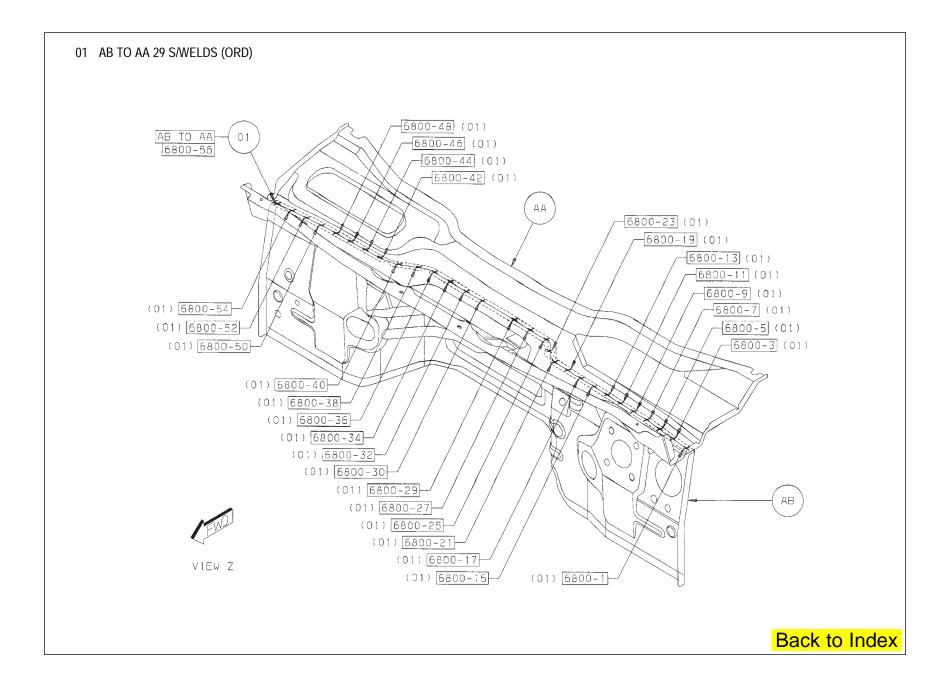


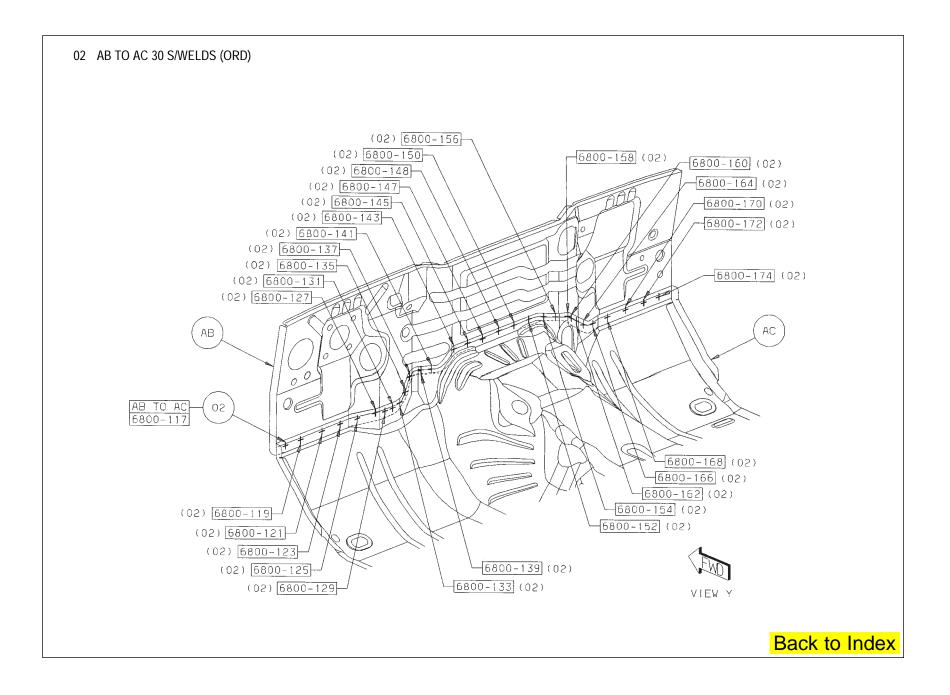


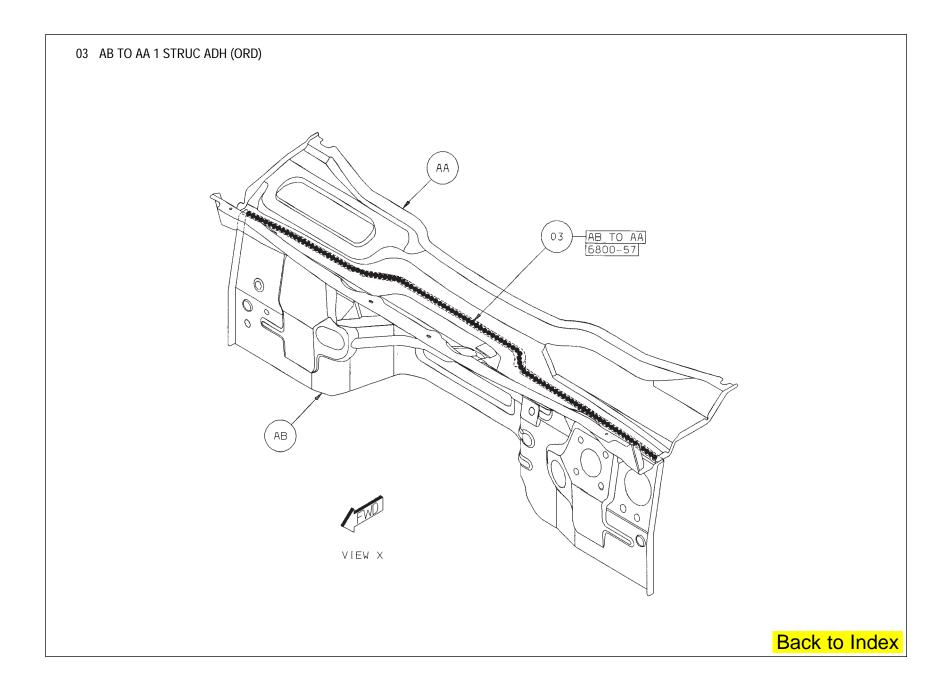


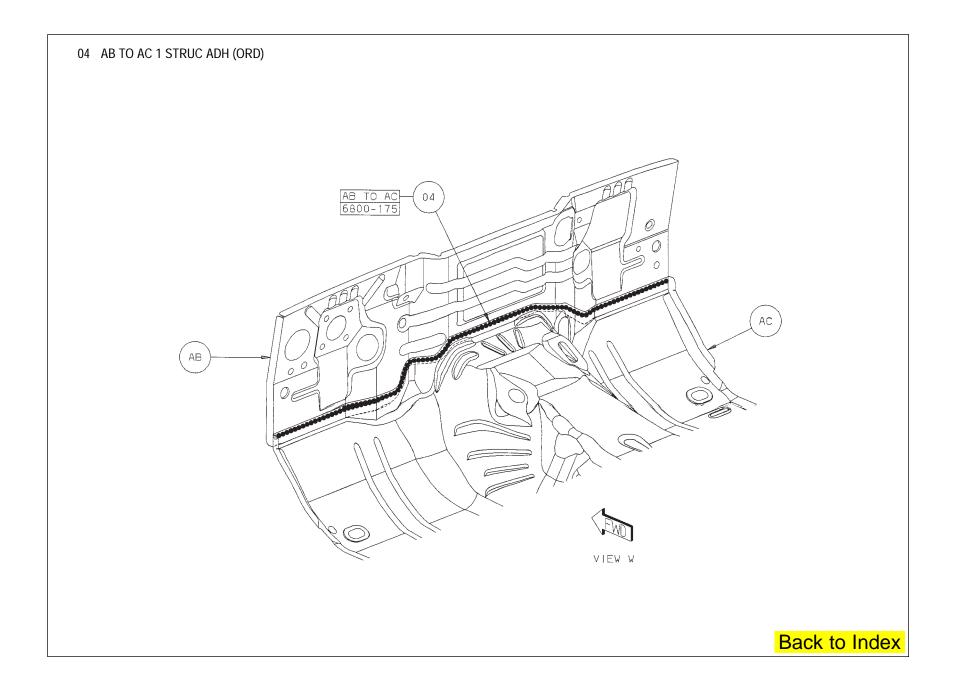


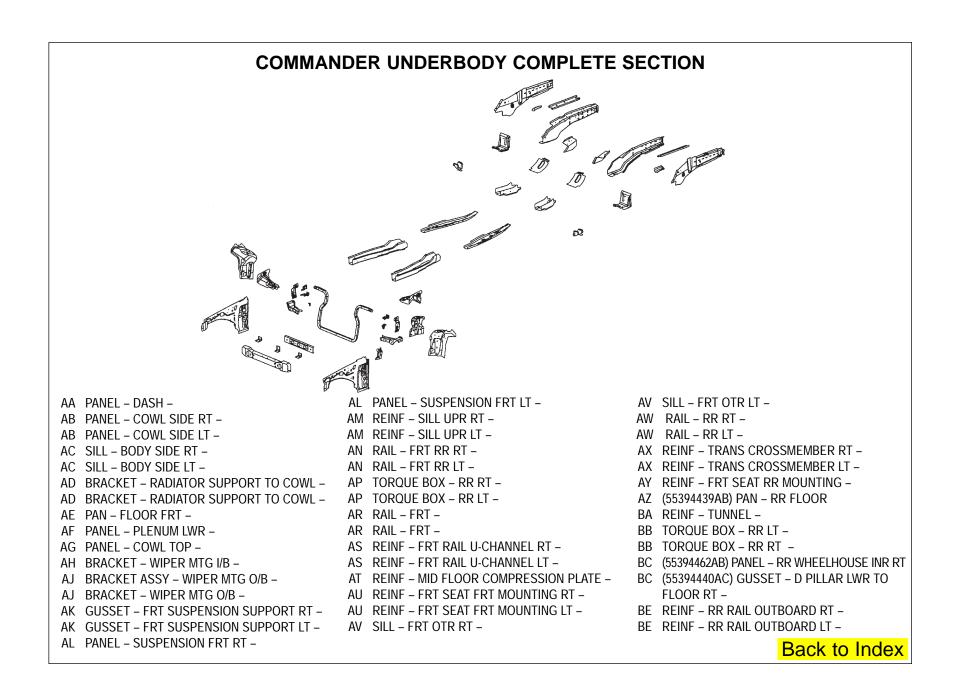










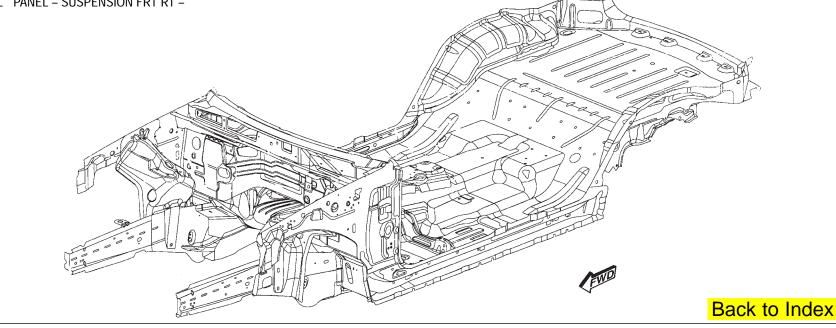


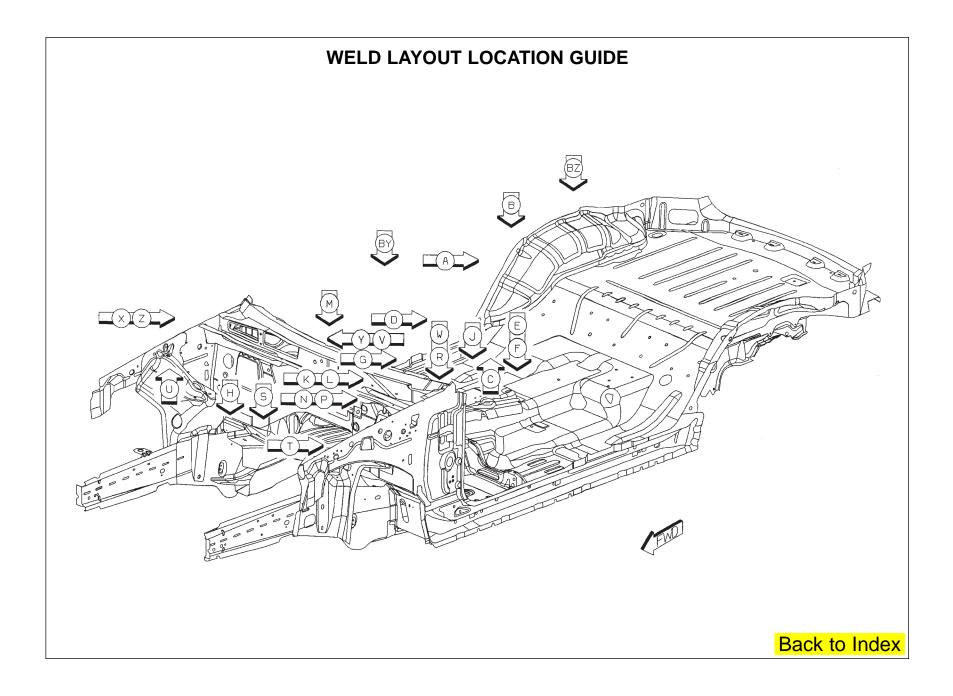
PARTS IDENTIFICATION LEGEND, OVERVIEW 20

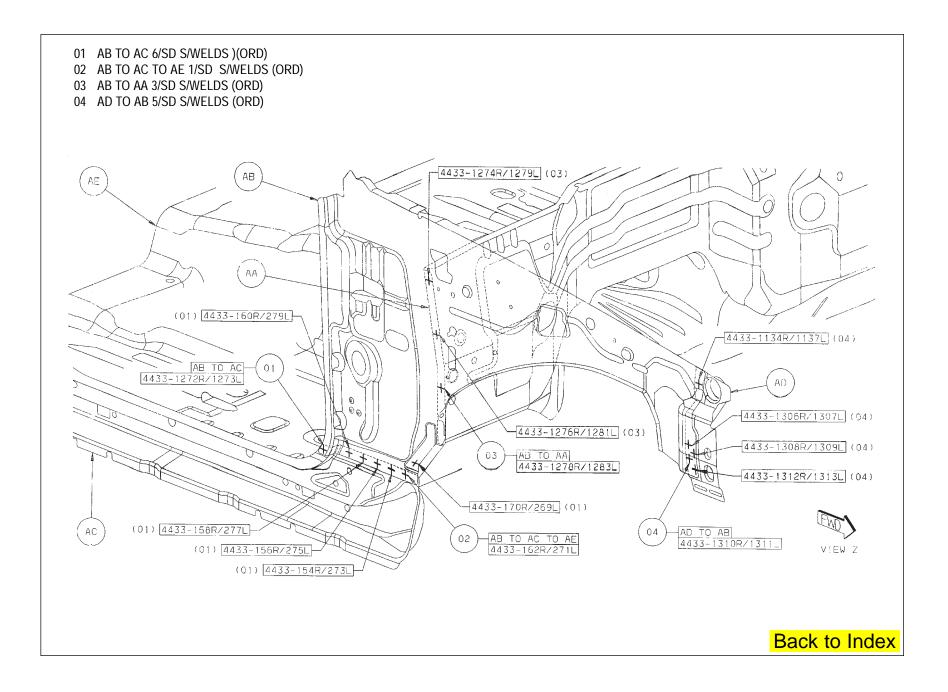
AA PANEL – DASH – AB PANEL - COWL SIDE RT -AB PANEL – COWL SIDE LT – AC SILL - BODY SIDE RT -AC SILL - BODY SIDE LT -AD BRACKET - RADIATOR SUPPORT TO COWL - AP TORQUE BOX - RR RT -AD BRACKET – RADIATOR SUPPORT TO COWL – AE PAN – FLOOR FRT – AF PANEL – PLENUM LWR – AG PANEL - COWL TOP -AH BRACKET – WIPER MTG I/B – AJ BRACKET ASSY – WIPER MTG O/B – AJ BRACKET – WIPER MTG O/B – AK GUSSET – FRT SUSPENSION SUPPORT RT – AK GUSSET – FRT SUSPENSION SUPPORT LT – AL PANEL - SUSPENSION FRT RT -

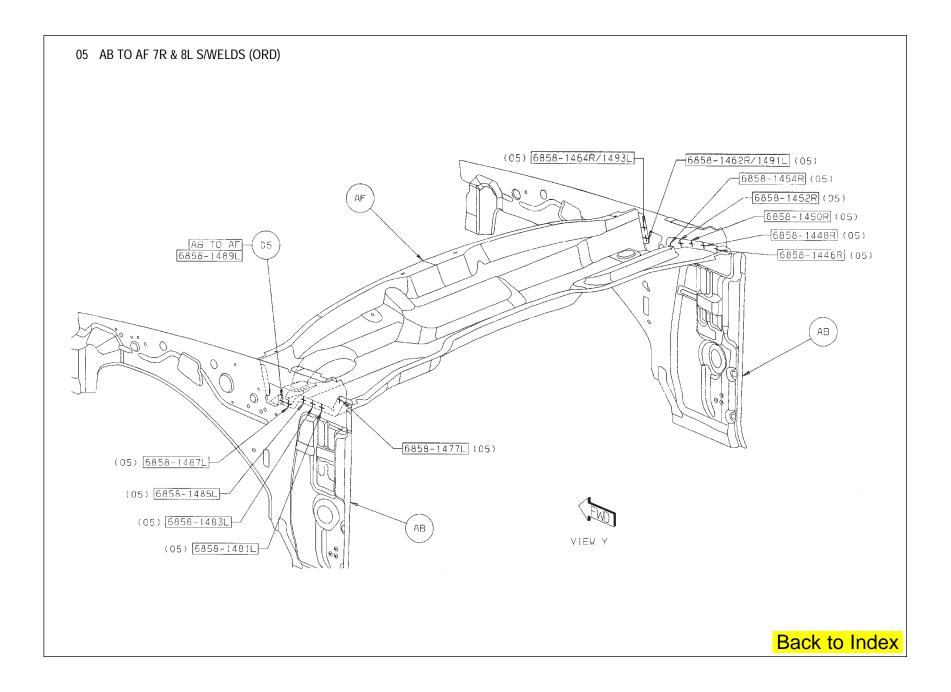
AL PANEL – SUSPENSION FRT LT – AM REINF - SILL UPR RT -AM REINF – SILL UPR LT – AN RAIL – FRT RR RT – AN RAIL – FRT RR LT – AP TORQUE BOX – RR LT – AR RAIL - FRT -AR RAIL - FRT -AS REINF - FRT RAIL U-CHANNEL RT -AS REINF - FRT RAIL U-CHANNEL LT -AS REINF - TRI RAIL COMPRESSION PLATE -AU REINF – FRT SEAT FRT MOUNTING RT – AU REINF - FRT SEAT FRT MOUNTING LT -AV SILL - FRT OTR RT -

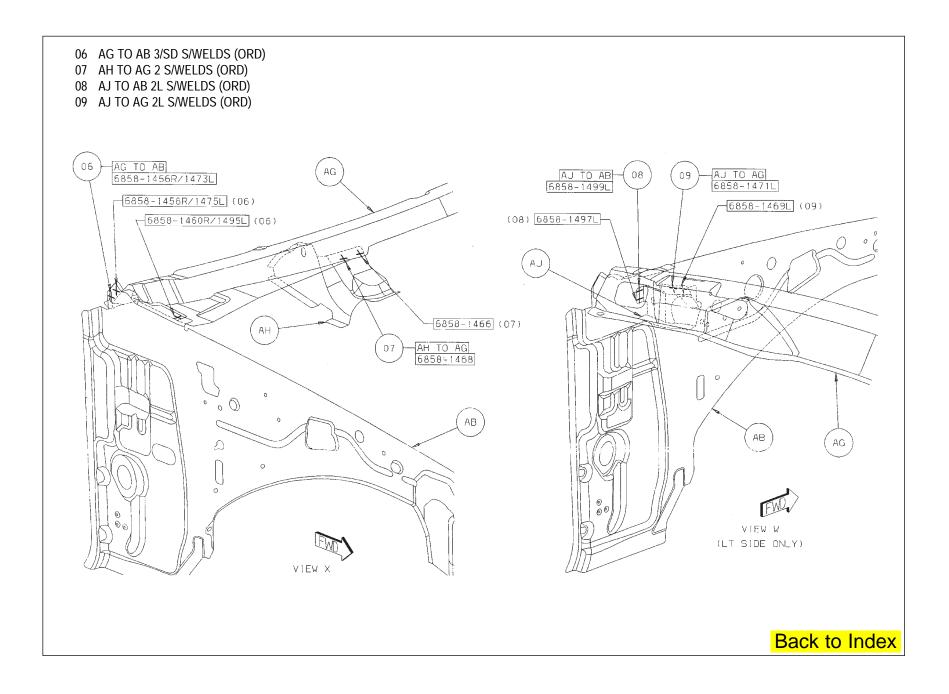
AV SILL - FRT OTR LT -AW RAIL - RR RT -AW RAIL - RR LT -AX REINF - TRANS CROSSMEMBER RT -AX REINF – TRANS CROSSMEMBER LT – AY REINF - FRT SEAT RR MOUNTING -AZ (55394439AB) PAN – RR FLOOR BA REINF - TUNNEL -BB TORQUE BOX - RR LT -BB TORQUE BOX - RR RT -BC PANEL - RR WHEELHOUSE INR RT BC GUSSET - D PILLAR LWR TO FLOOR RT -BE REINF - RR RAIL OUTBOARD RT -BE REINF - RR RAIL OUTBOARD LT -

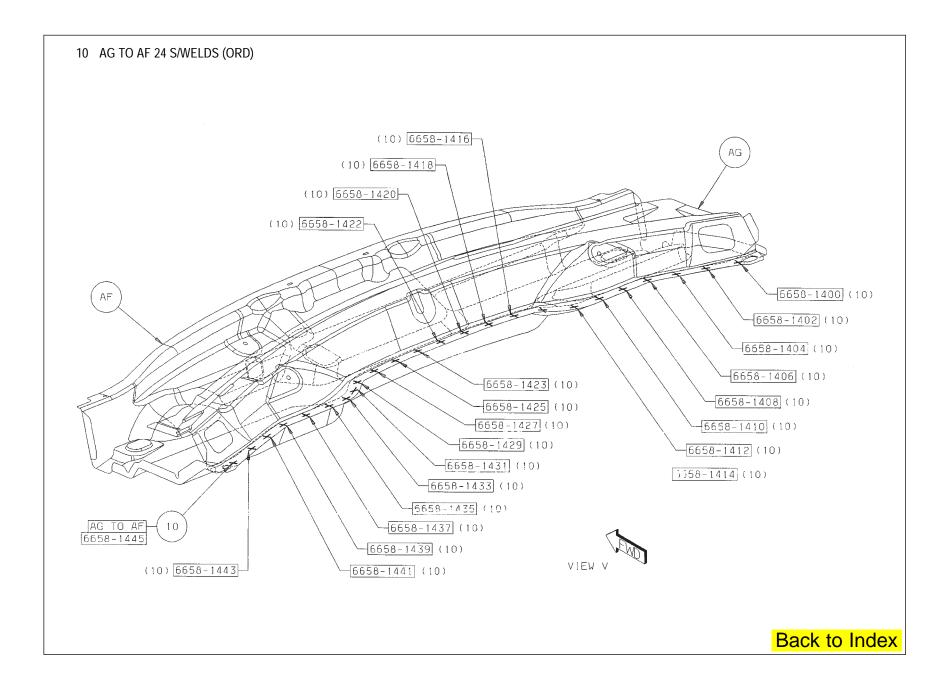


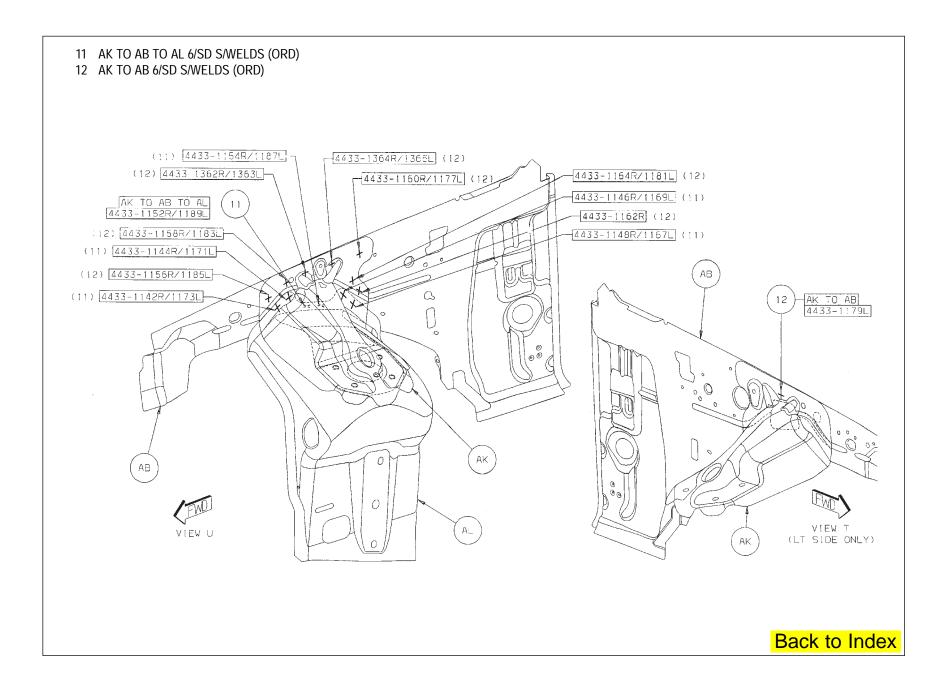


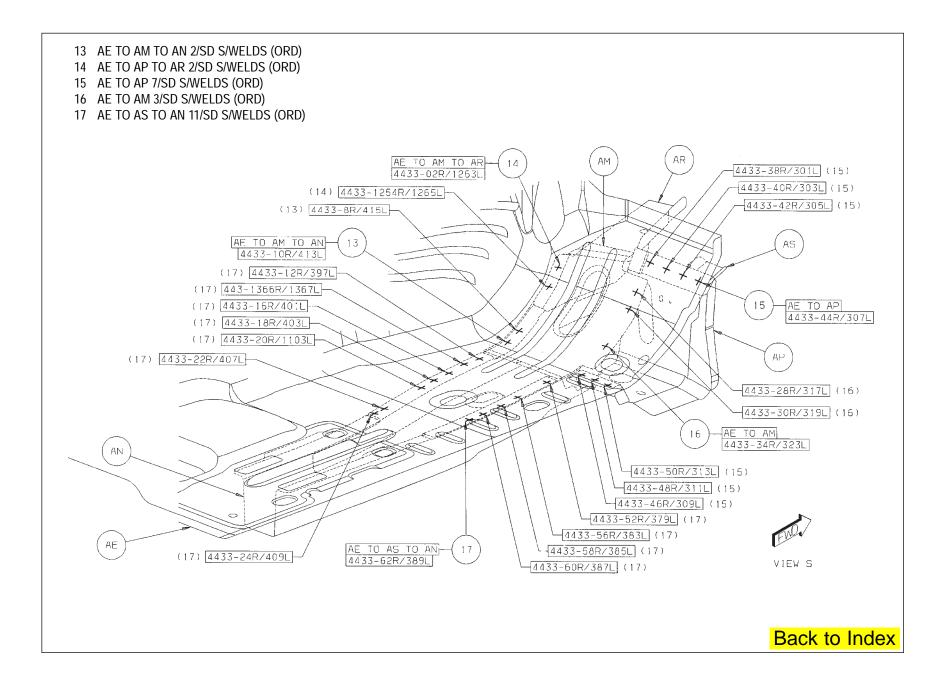


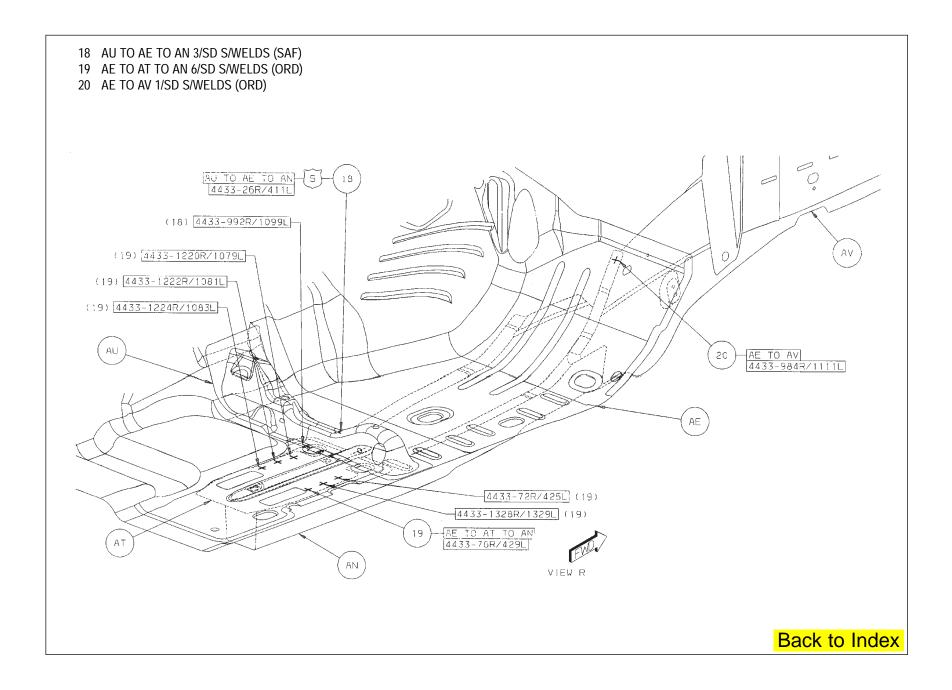


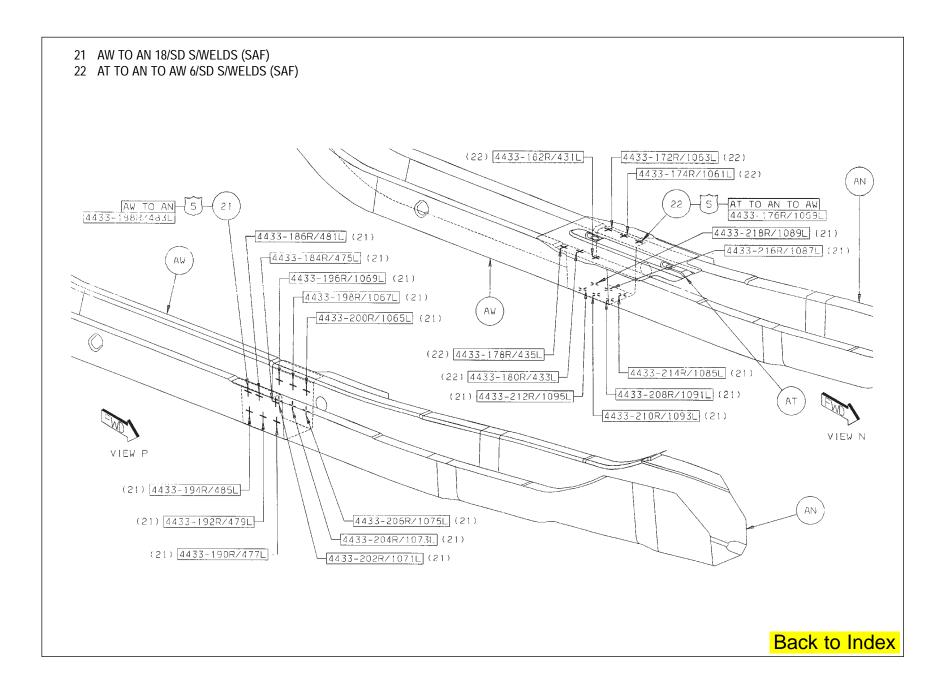


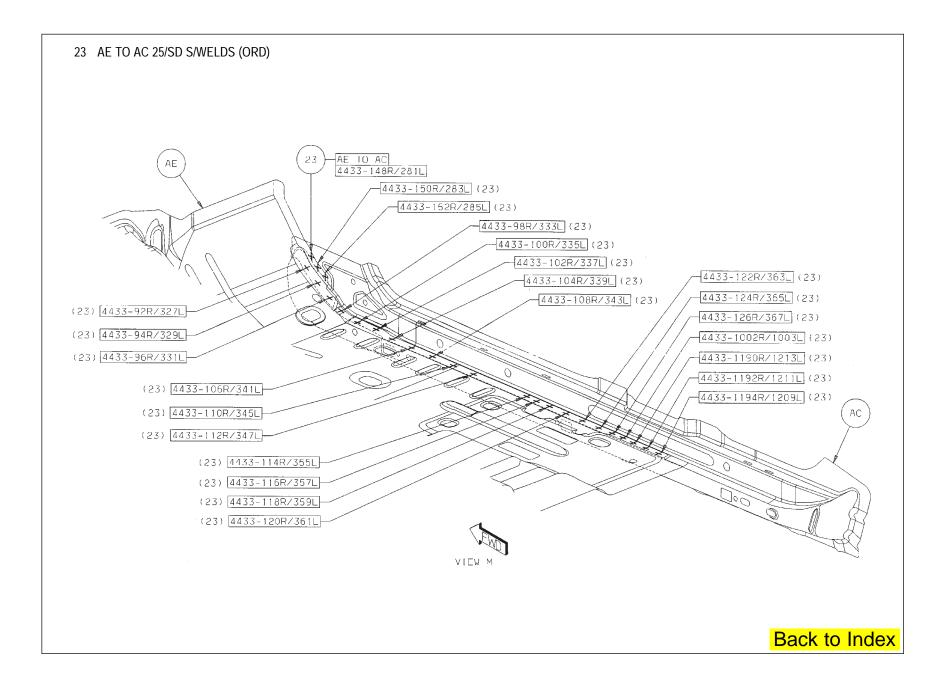


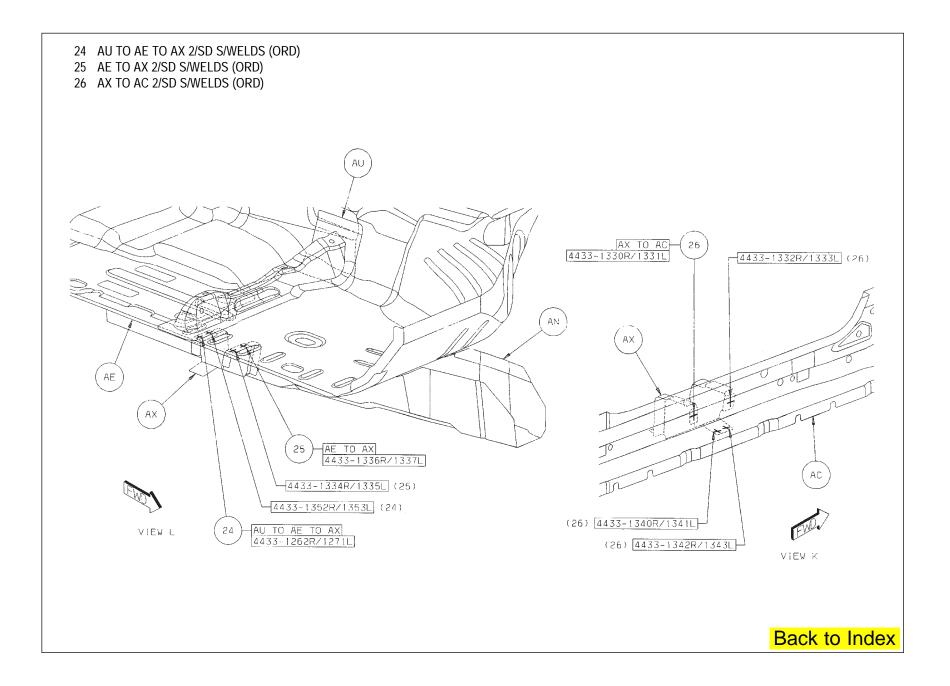


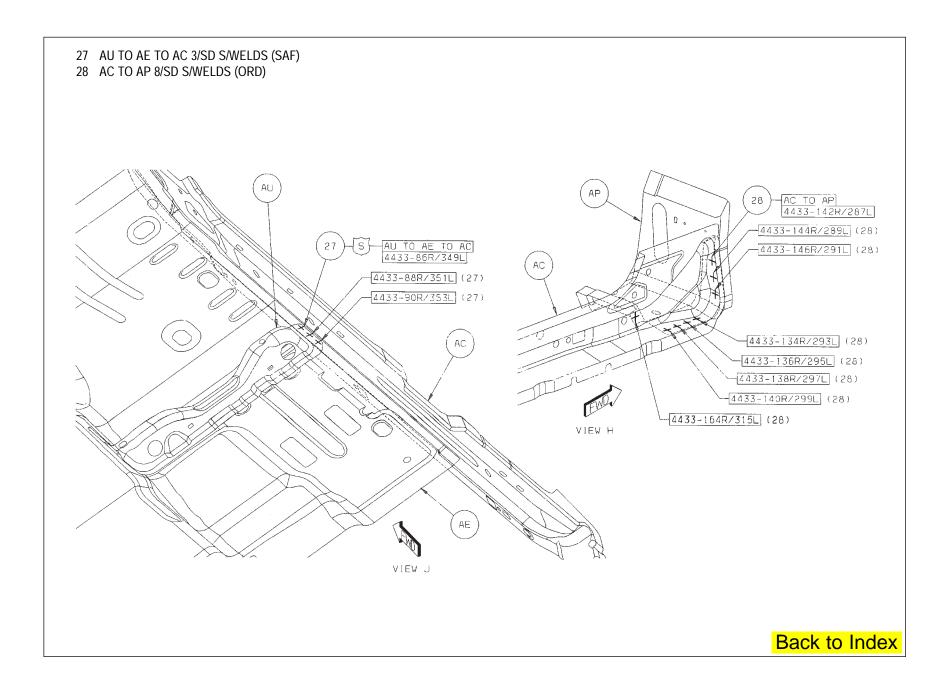


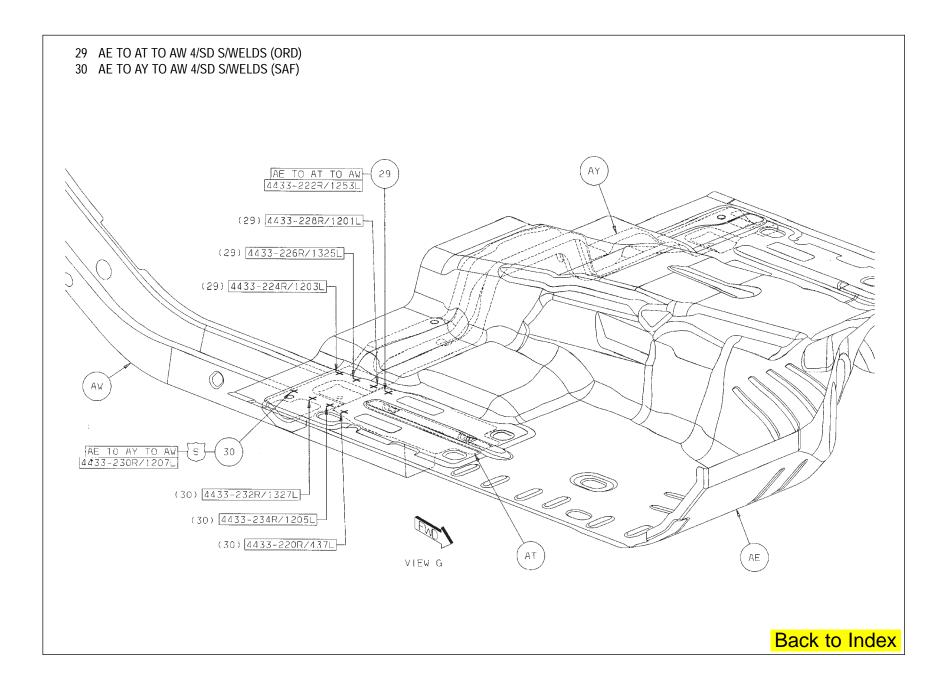


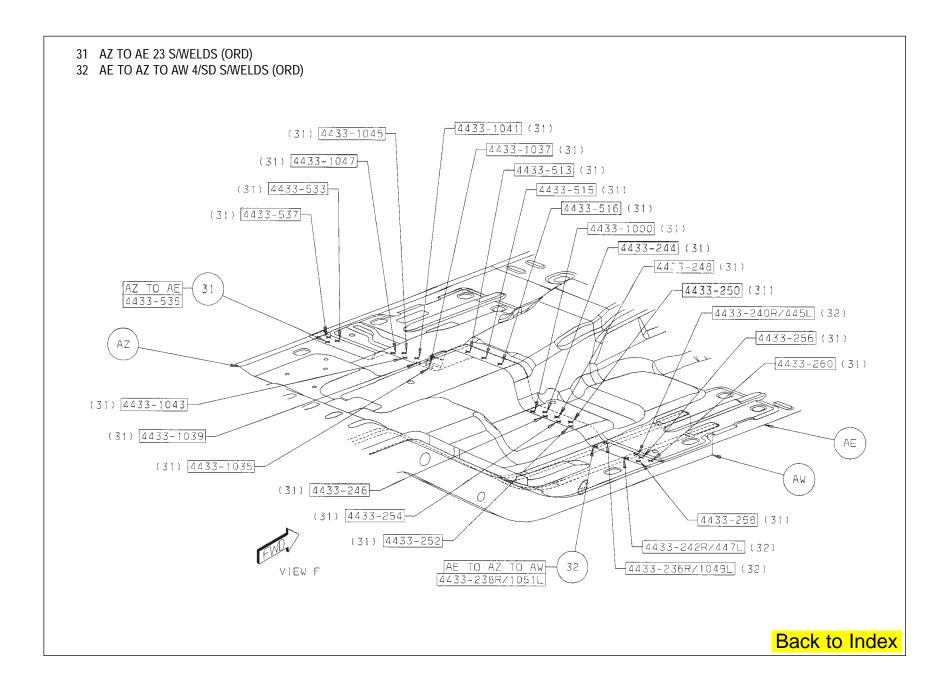


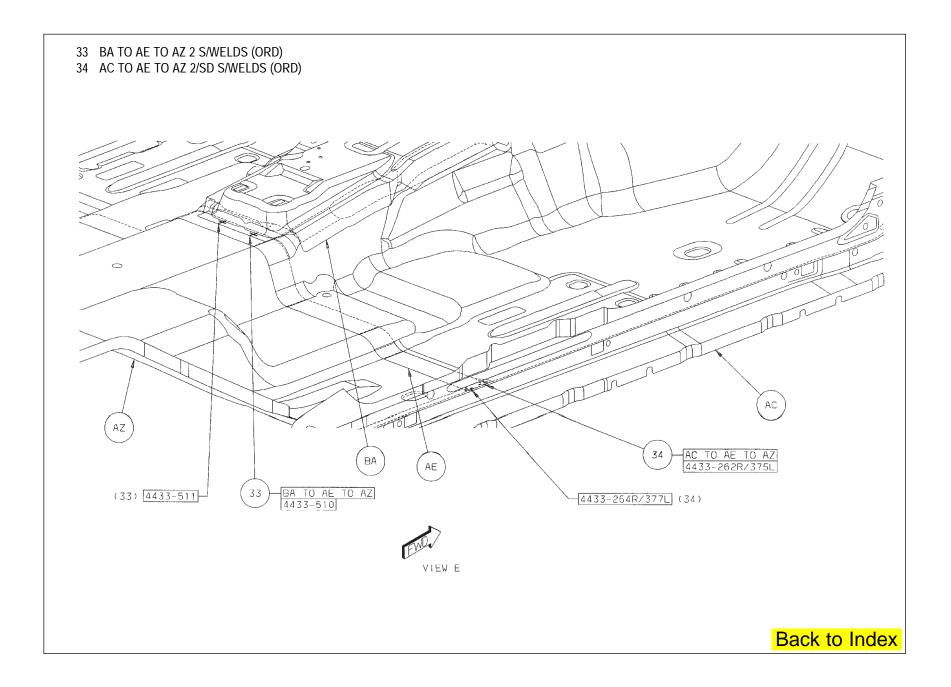


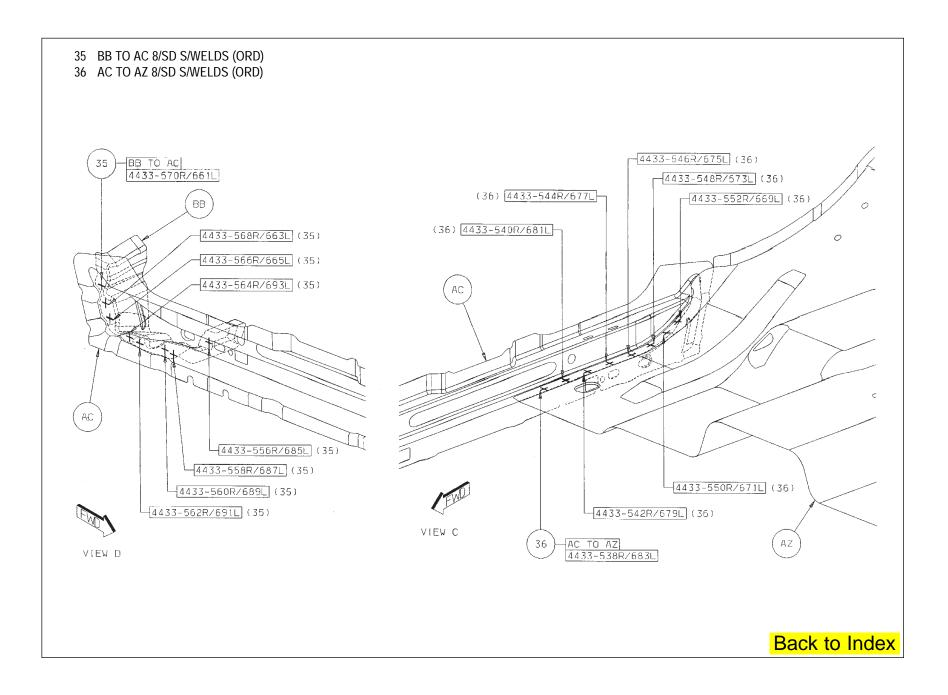


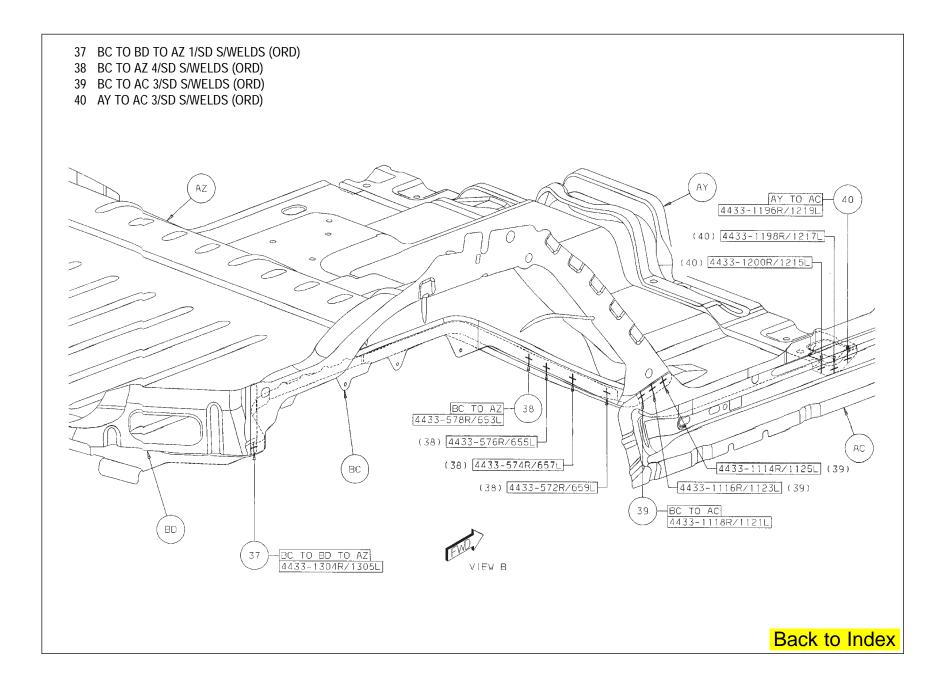


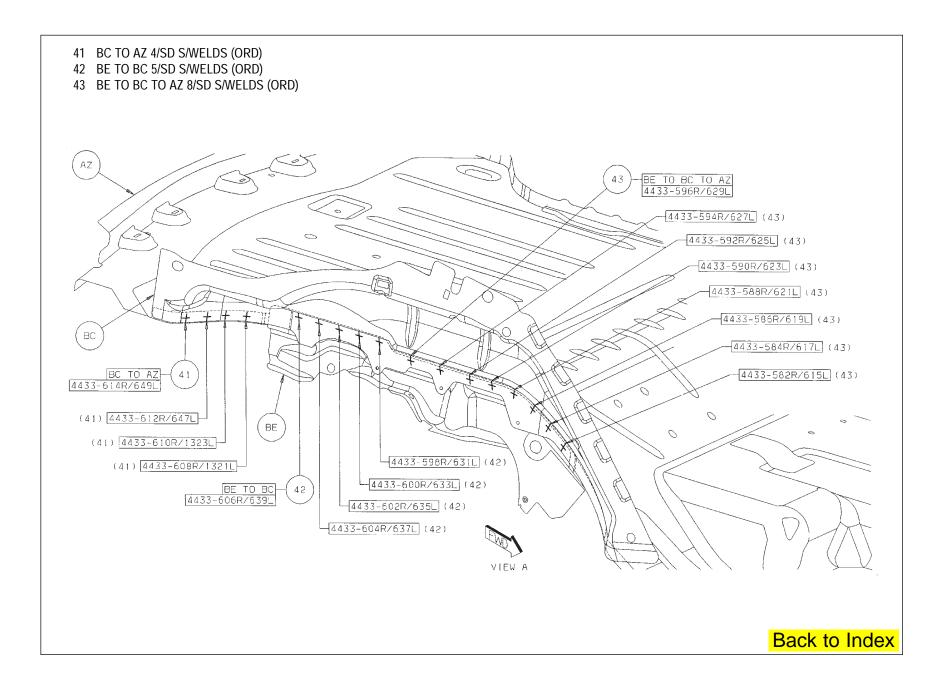


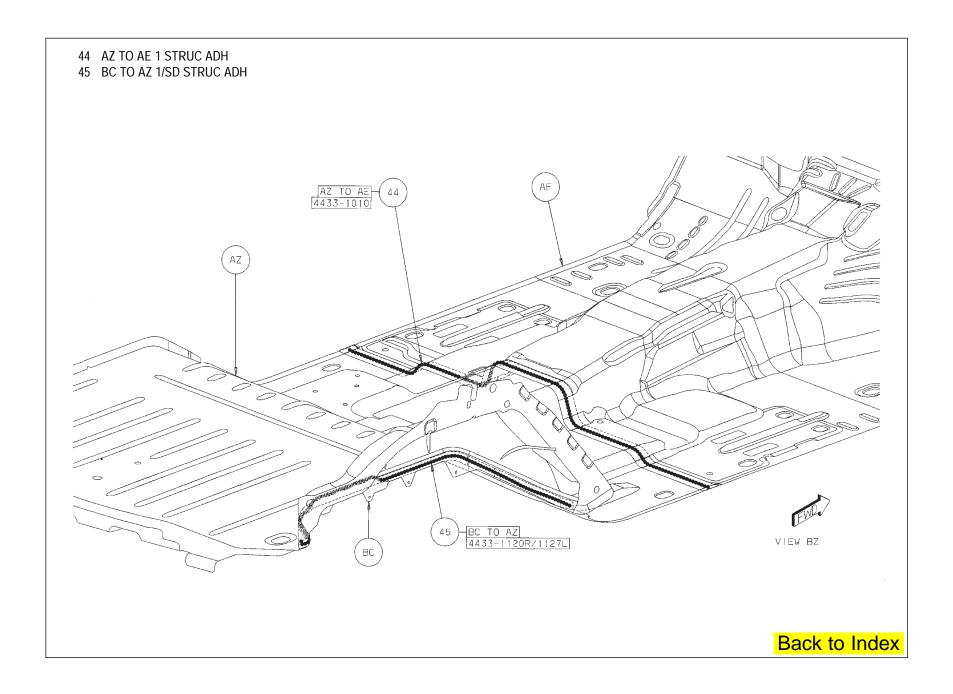


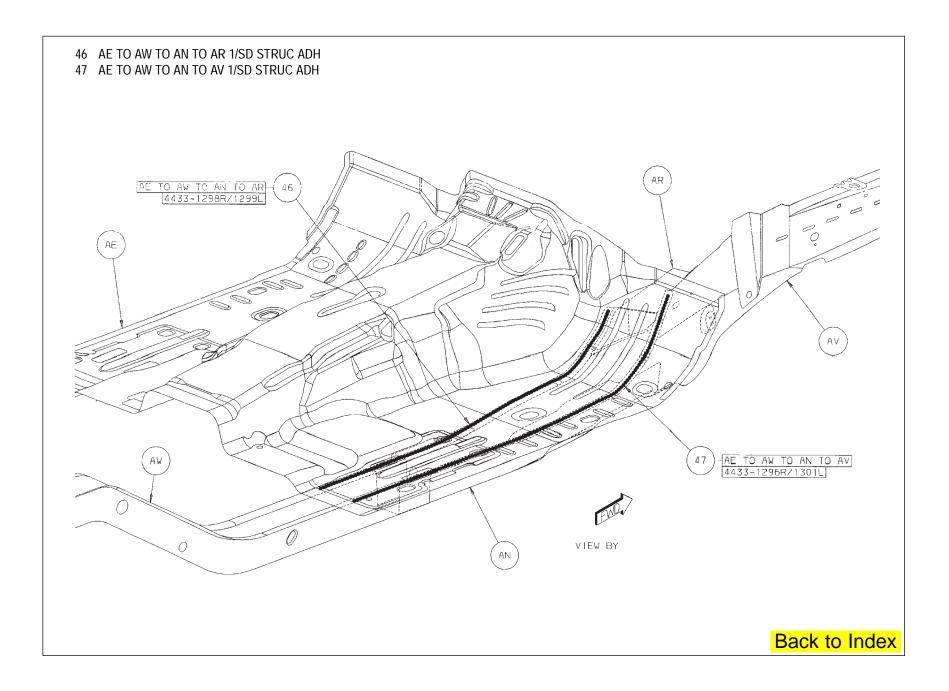


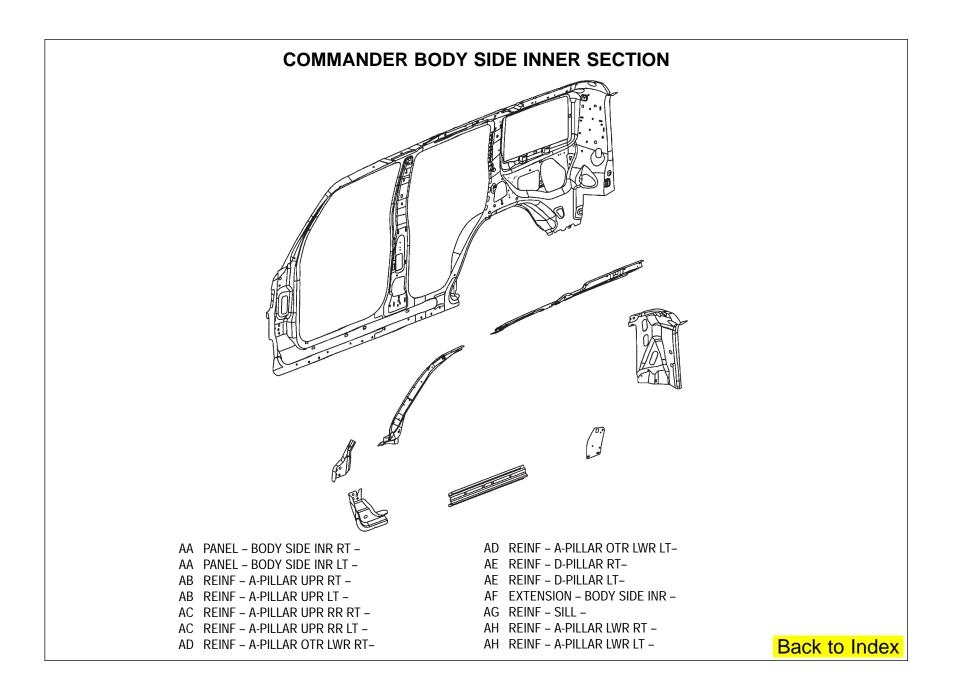


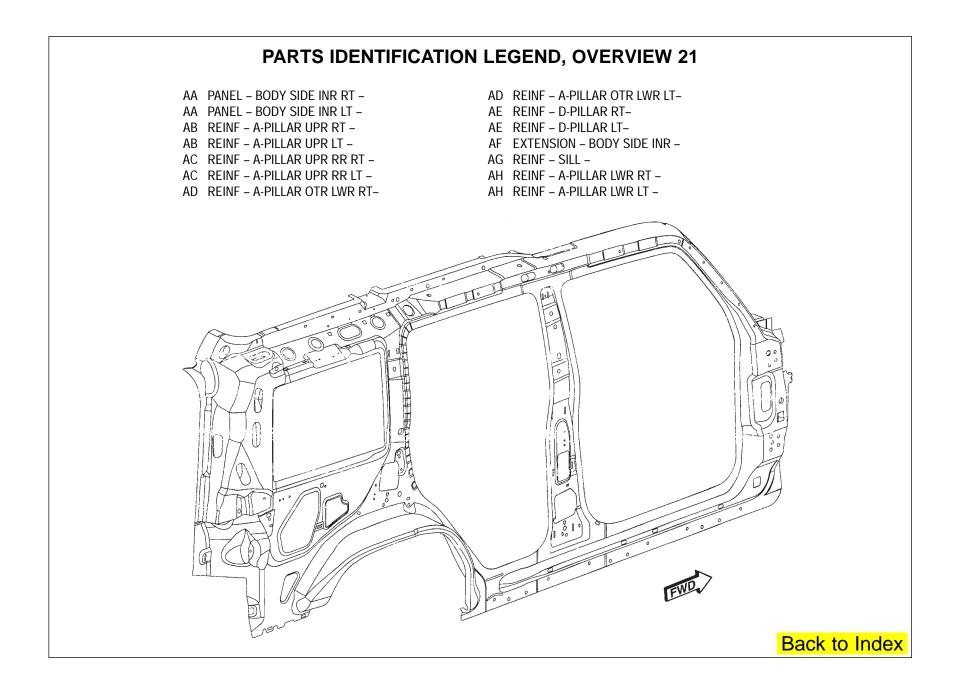


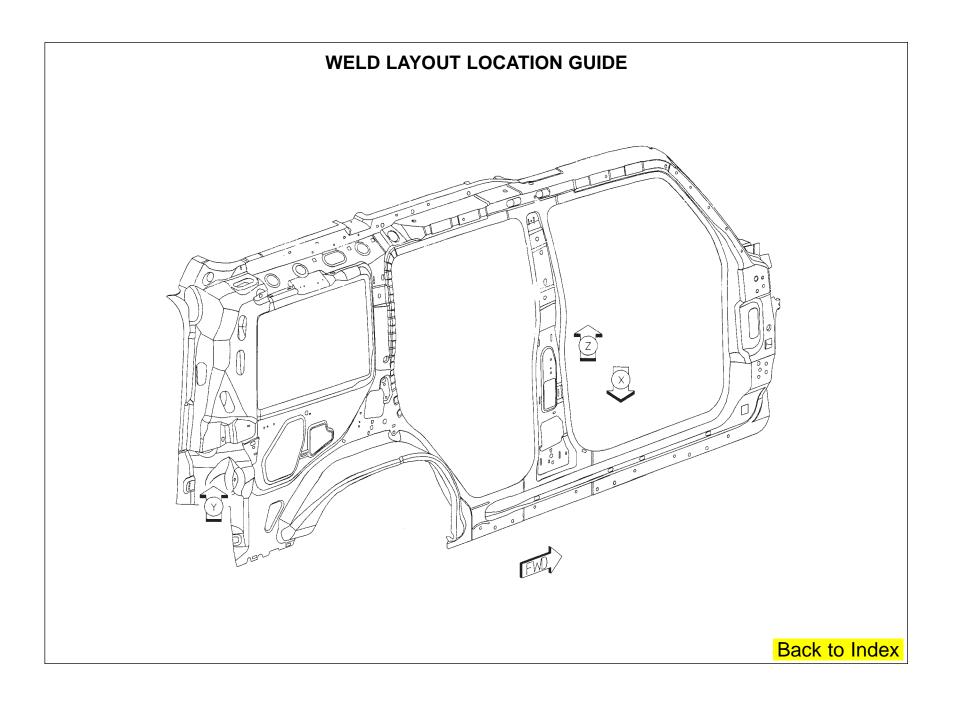


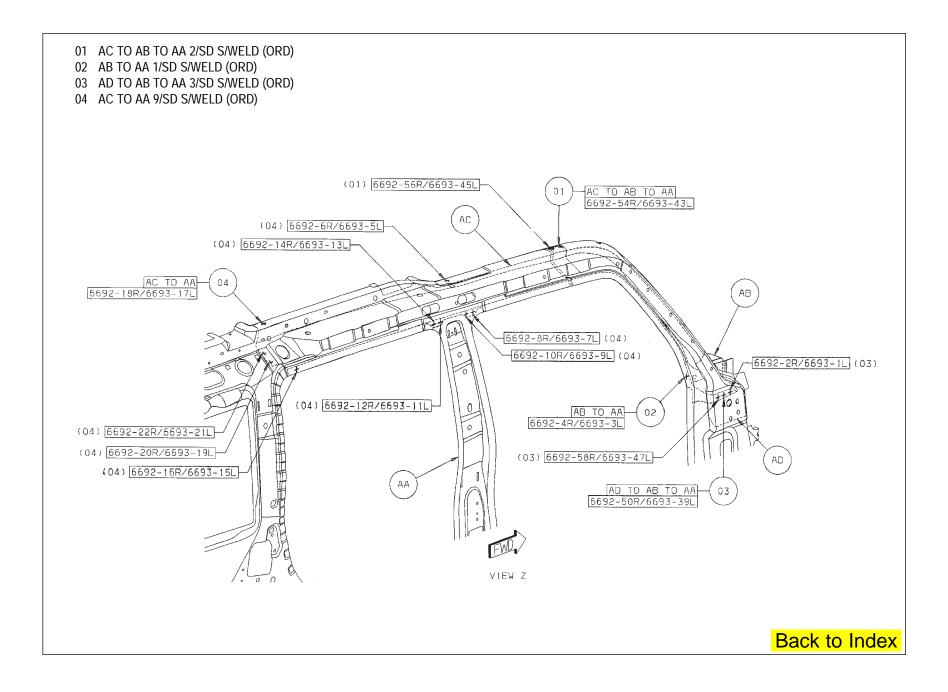


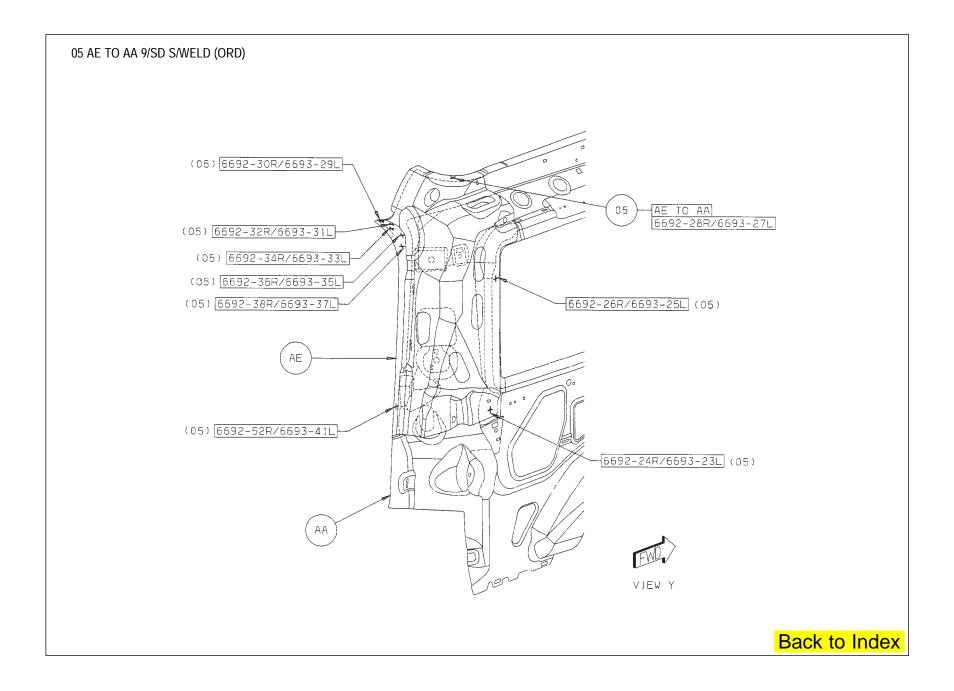


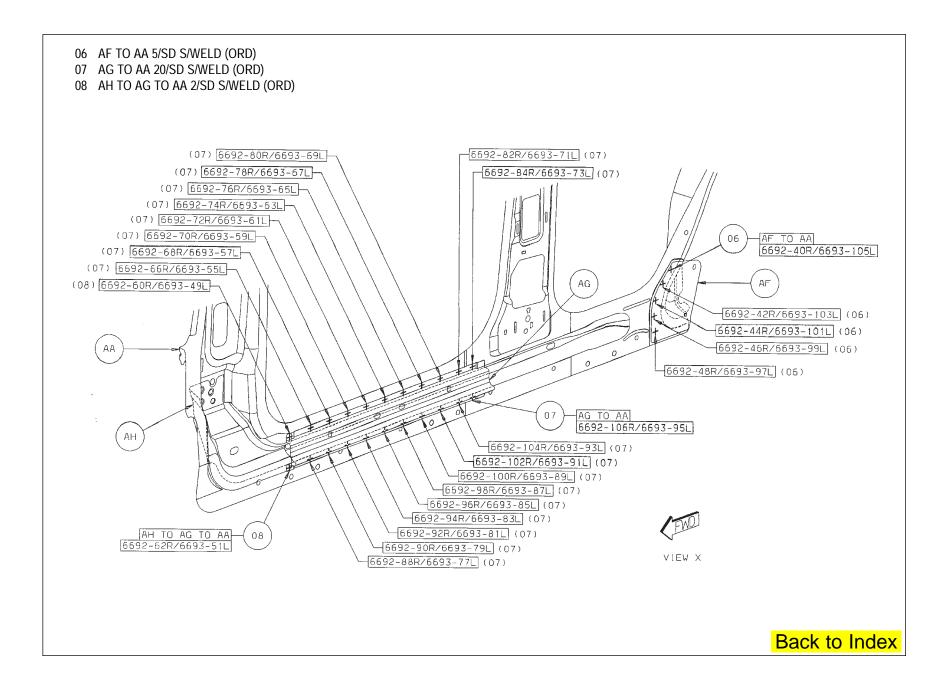


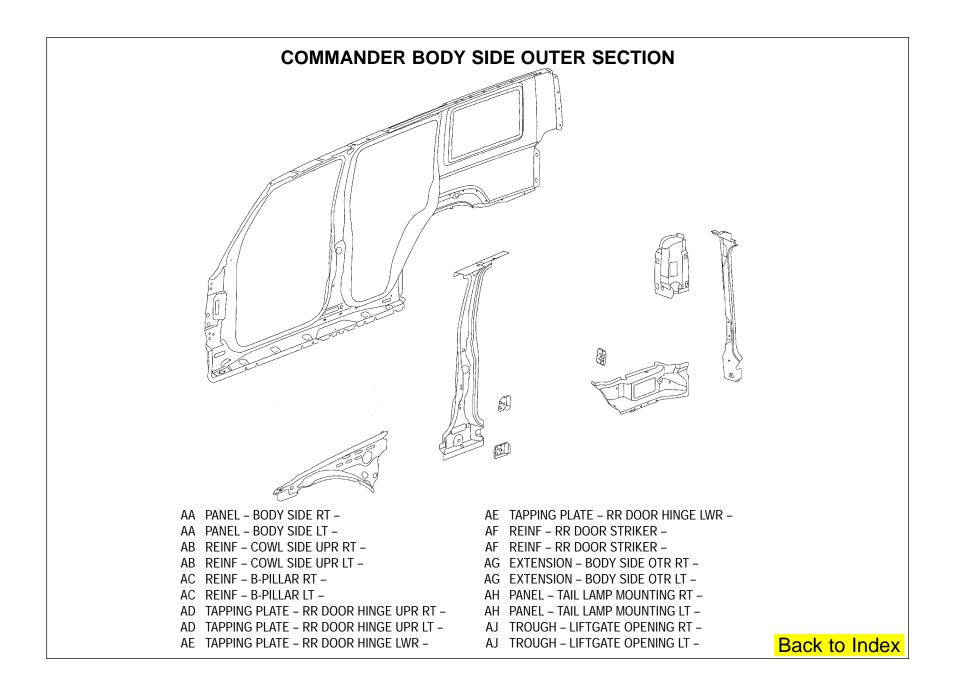


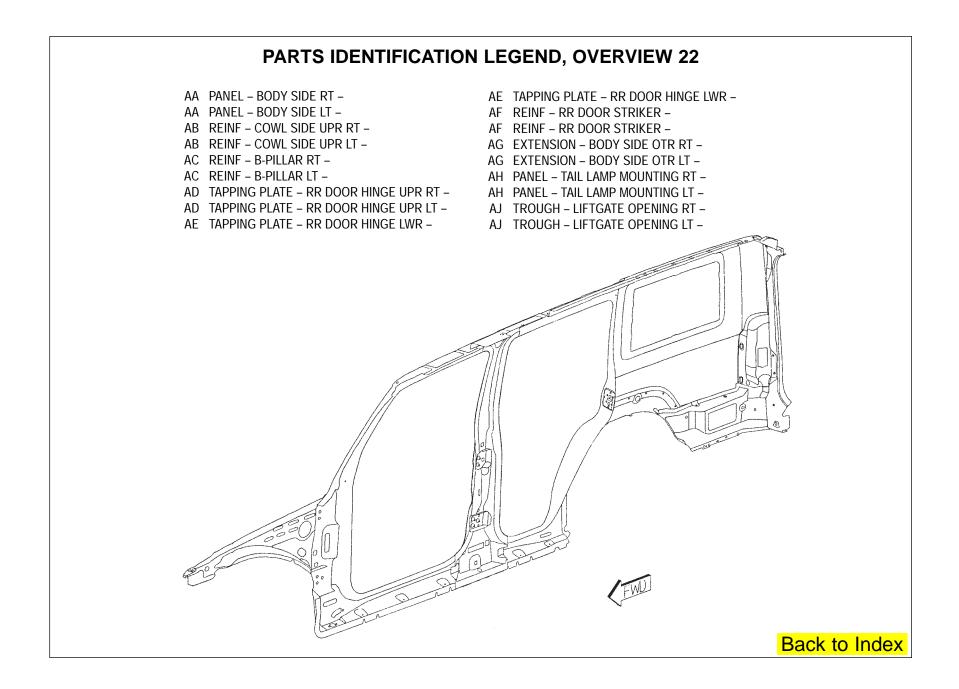


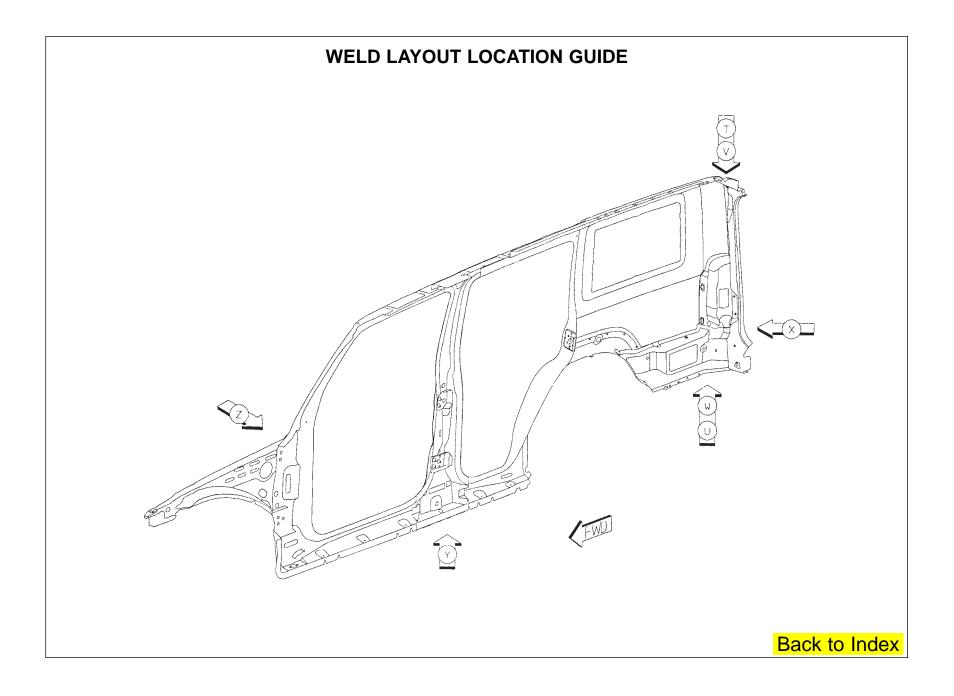


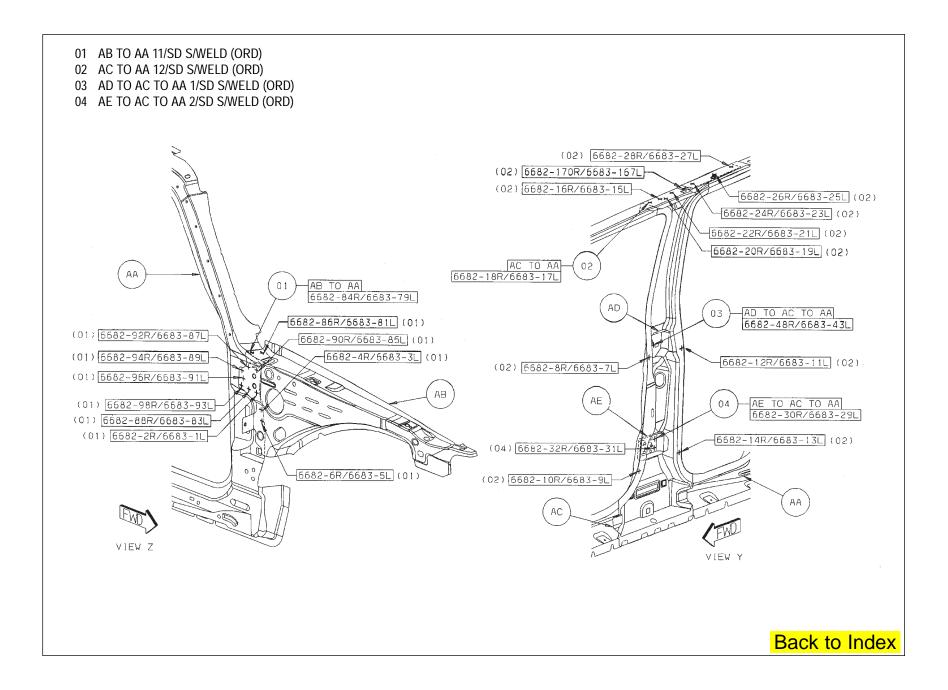


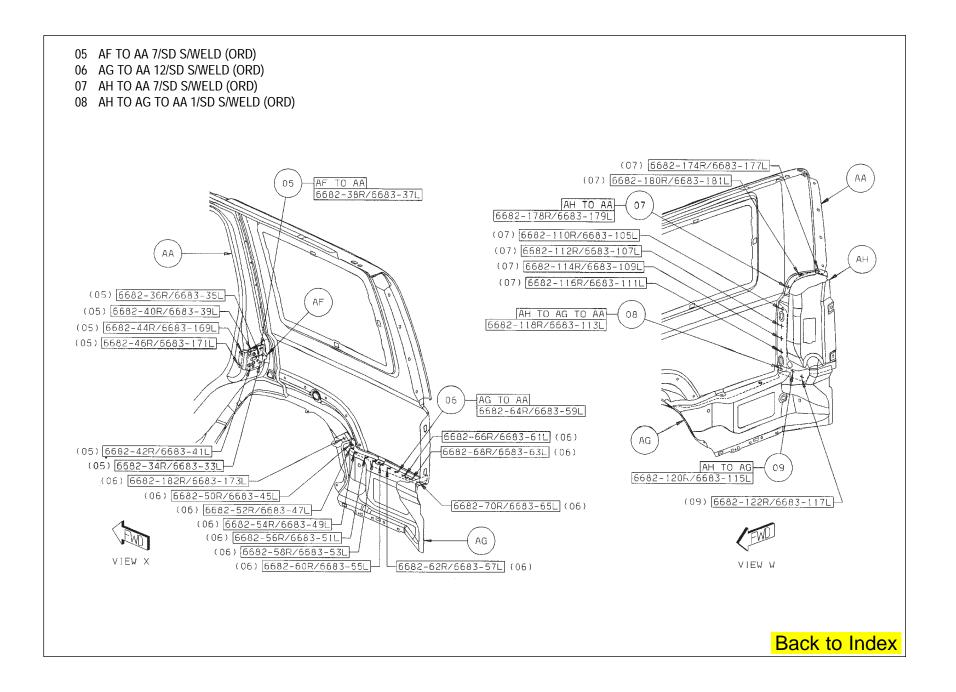


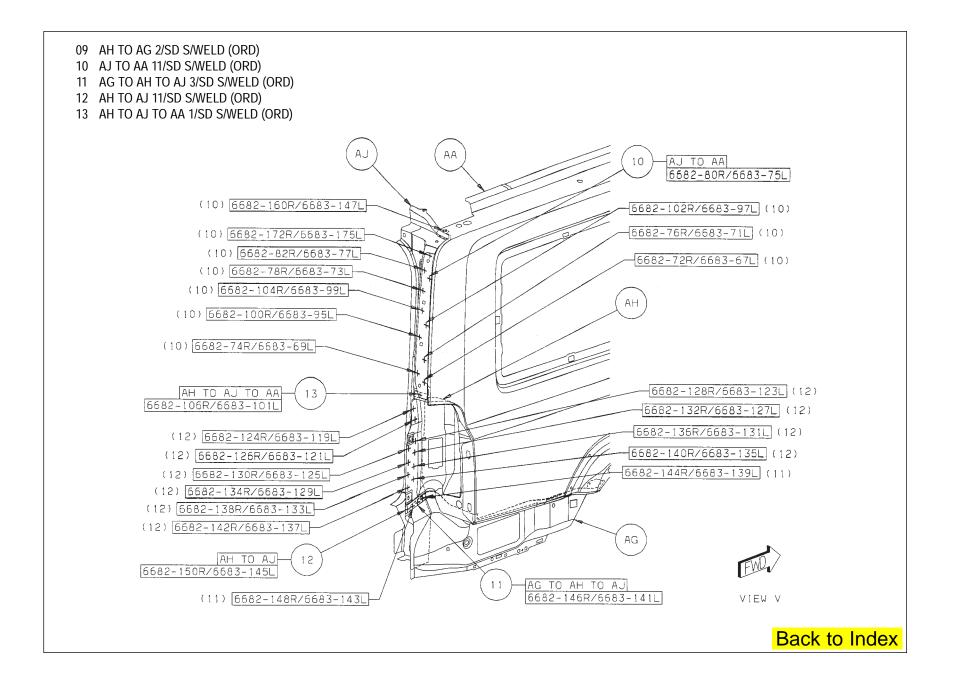


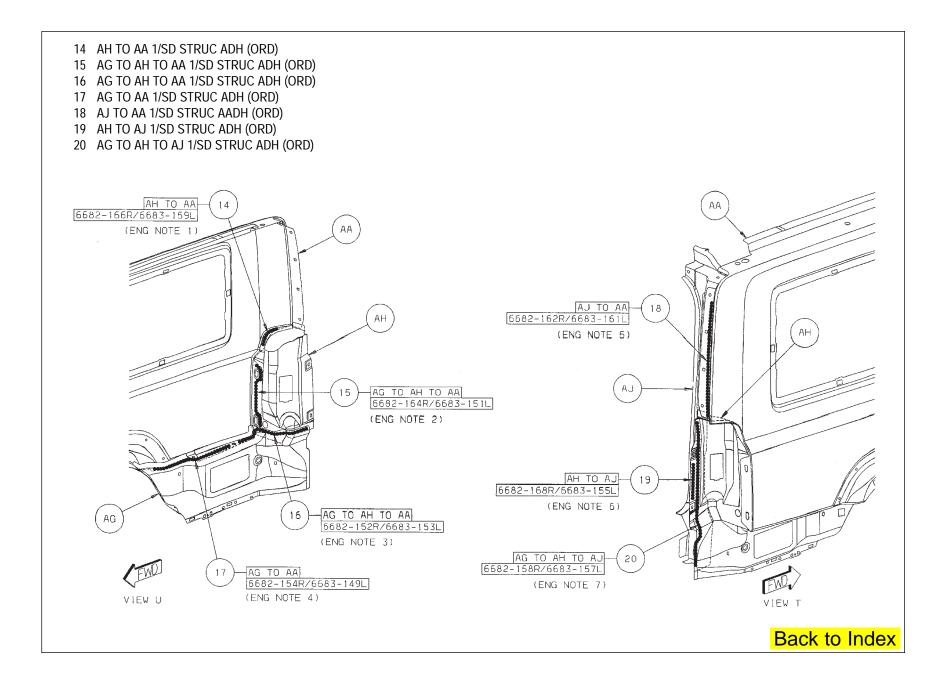


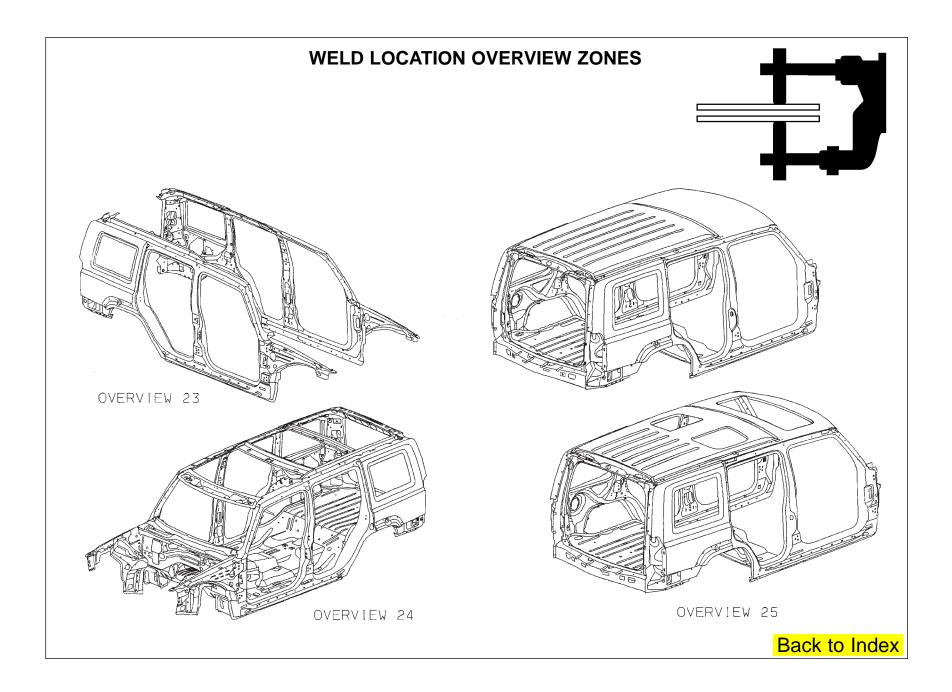












"They helped us reduce our cycle time by



...And I thought, 'Wow, they don't want to just sell me paint." -Brad Shelton, Shop Owner-Shelton Collision, Derby, Kansas

Constantly searching for ways to do things better and faster without sacrificing quality is what sets Sickens and Akzo Nobel apart. From the formulation of the paint to breakthrough management methods, you can see Sildens technology at work in many of today's successful bodyshops.

But don't take our word for it. Our customers say it best. Find out about the results that can be gained when Sikkers is used. Go to www.akzonobelcarrefinishes.net, or call

1-800-25ikkens and request your FREE copy of the Sikkens Success Story, or schedule a visit from an Akao Nobel representative. TECHNOLOGY

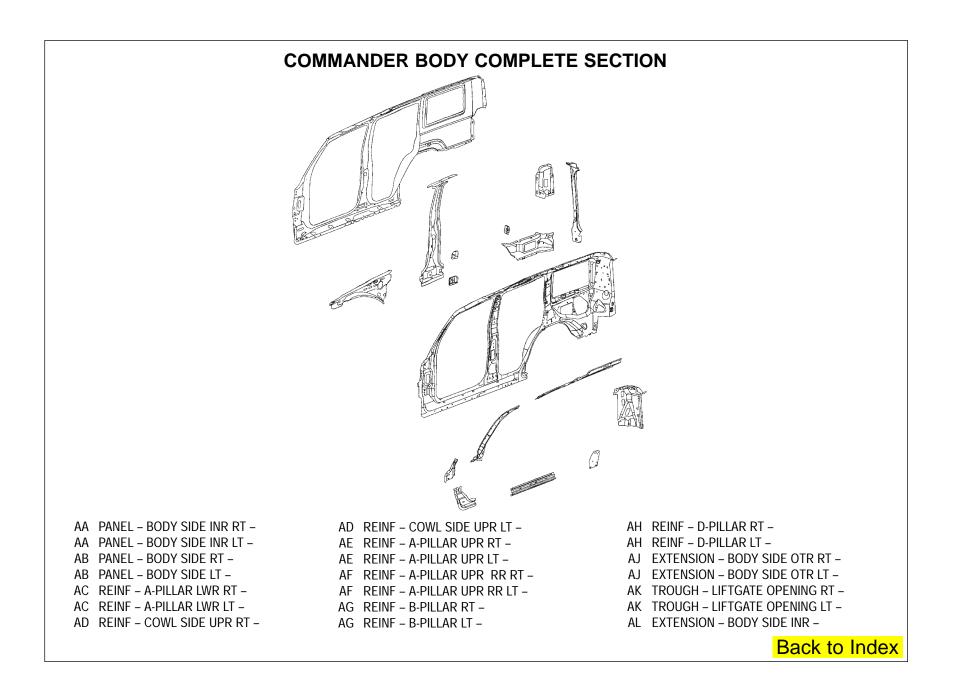
ART

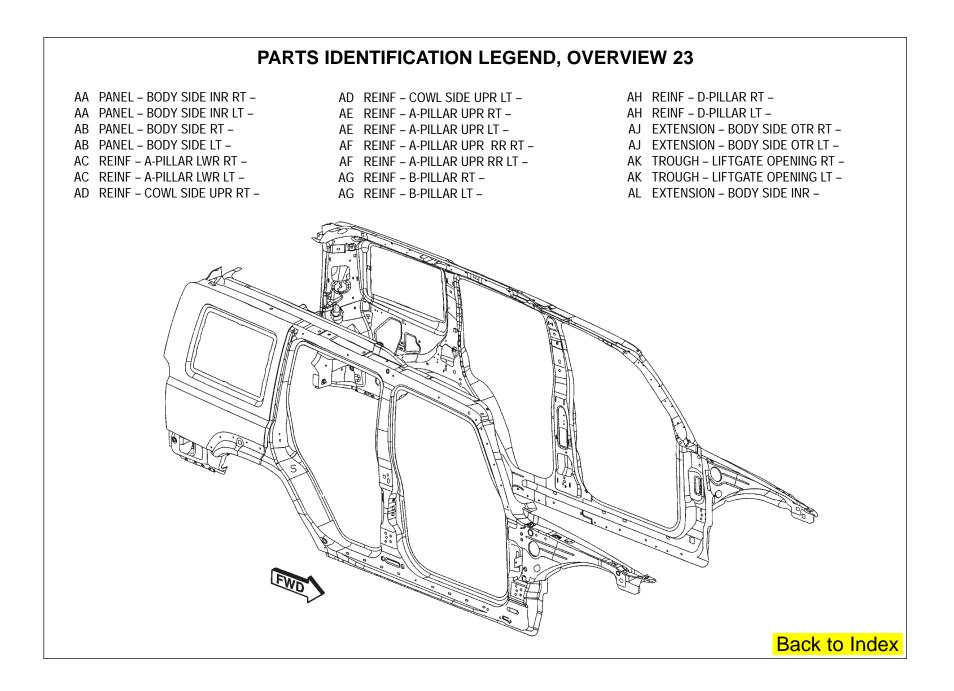
PASSION

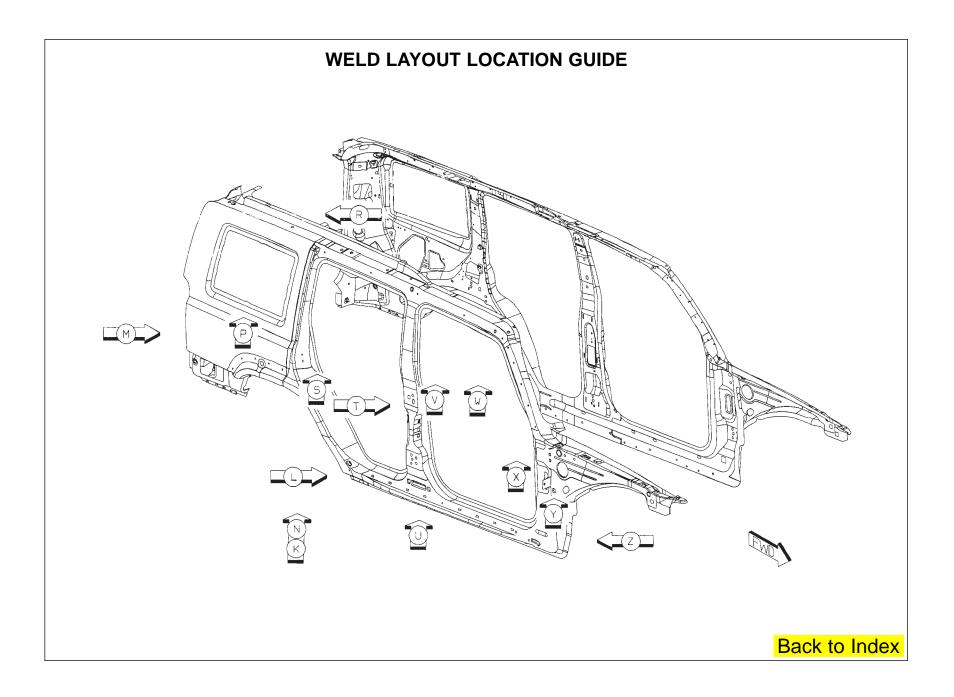
PROFIT

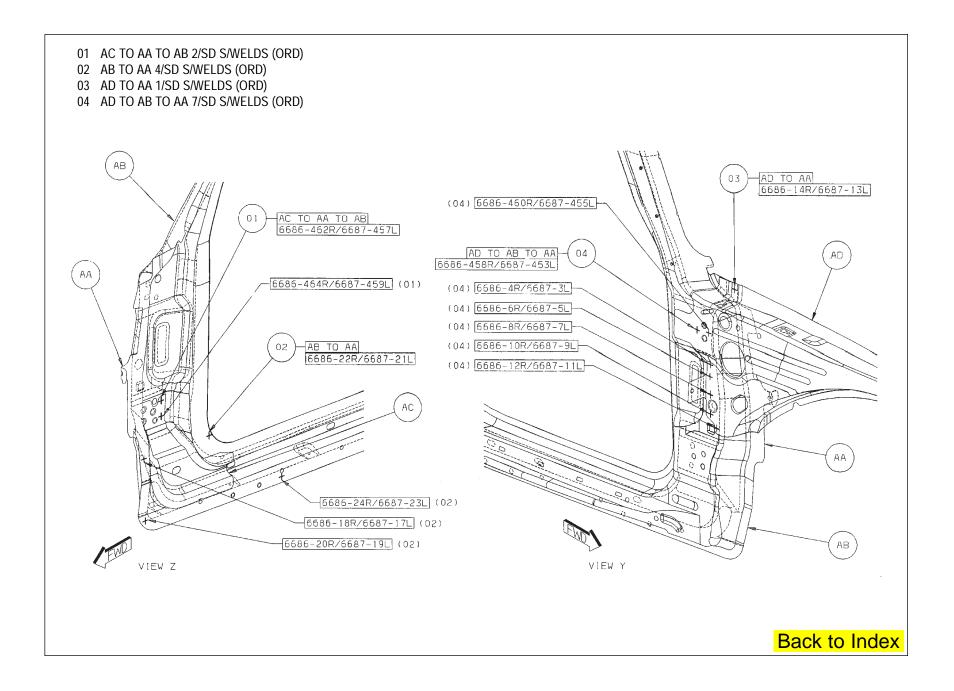
sikkens

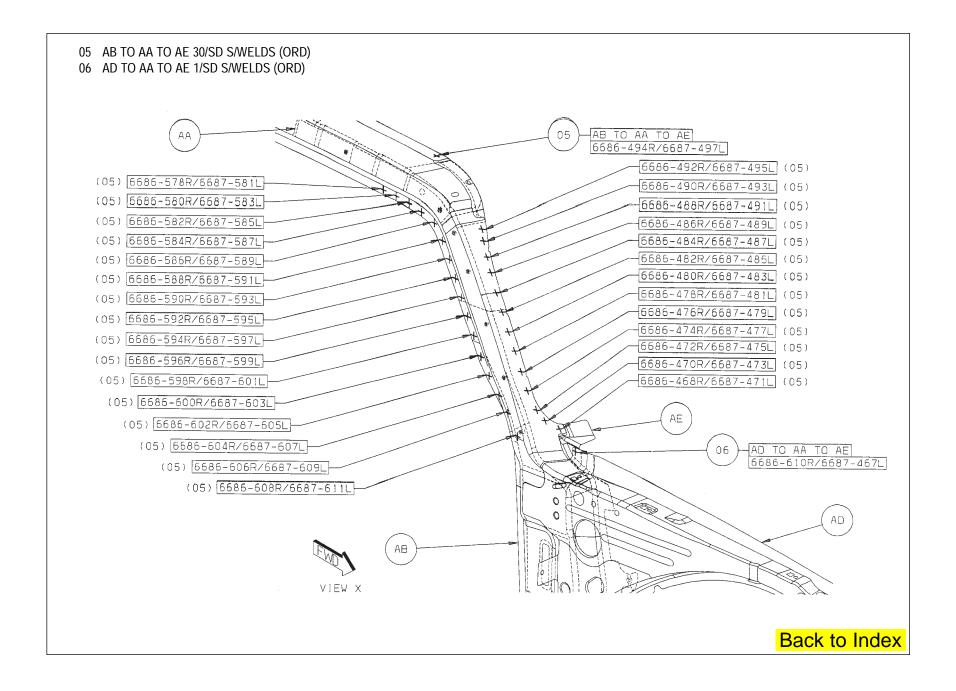
Back to Index

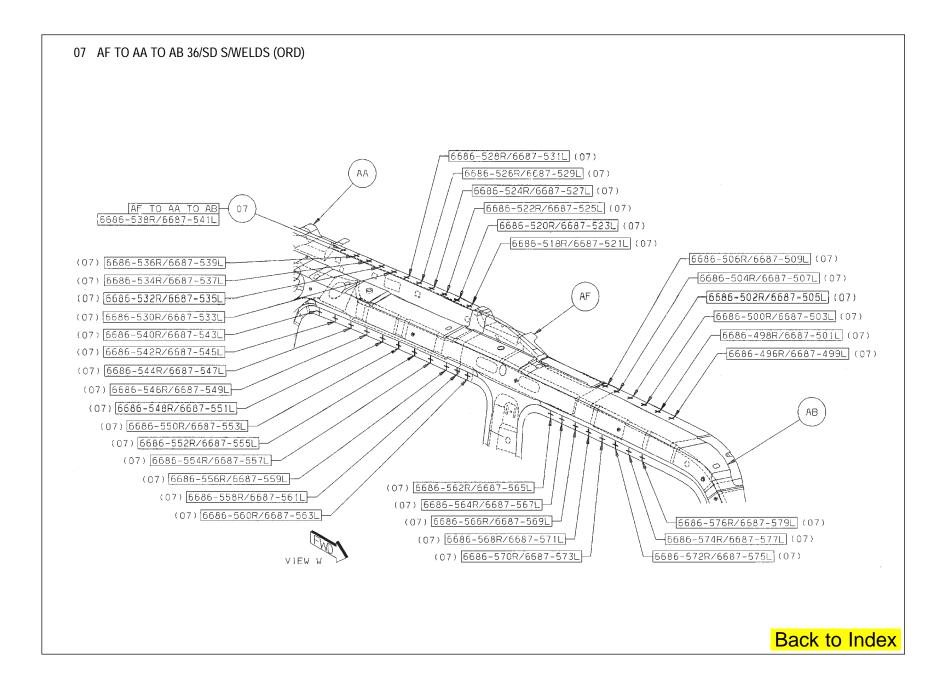


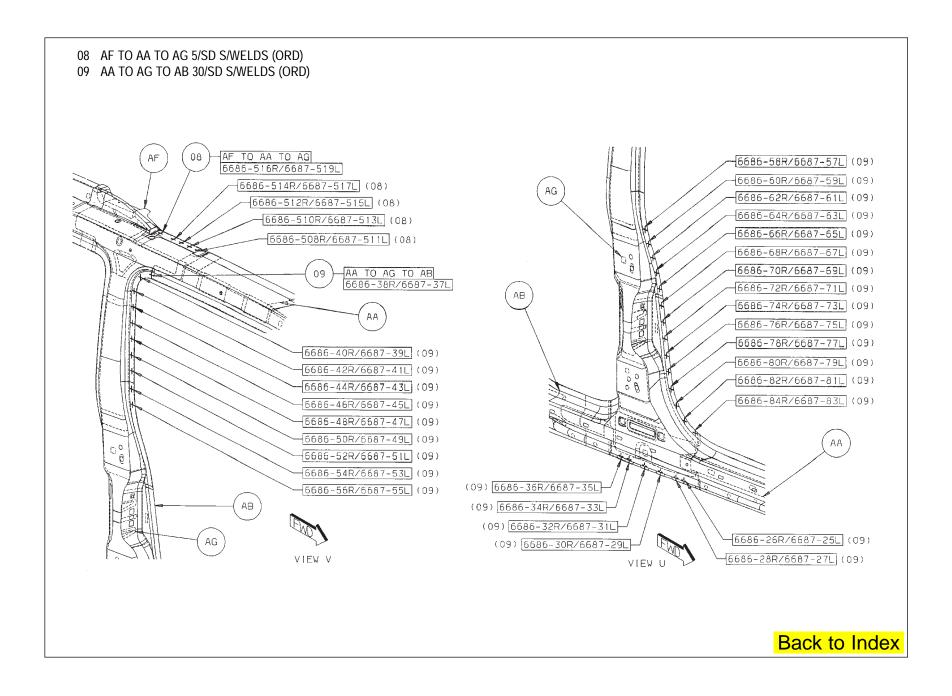


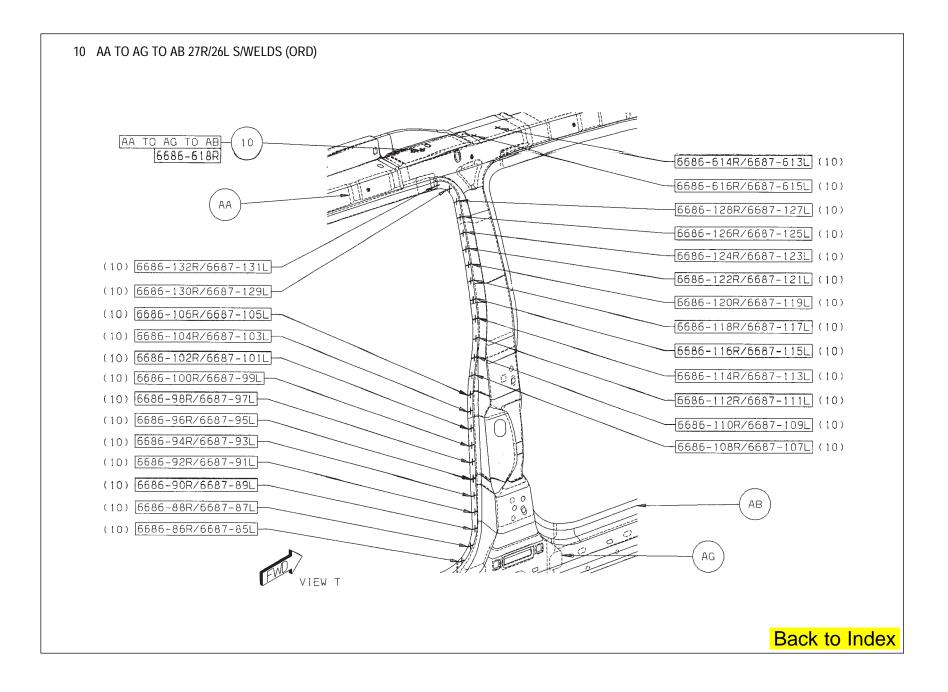


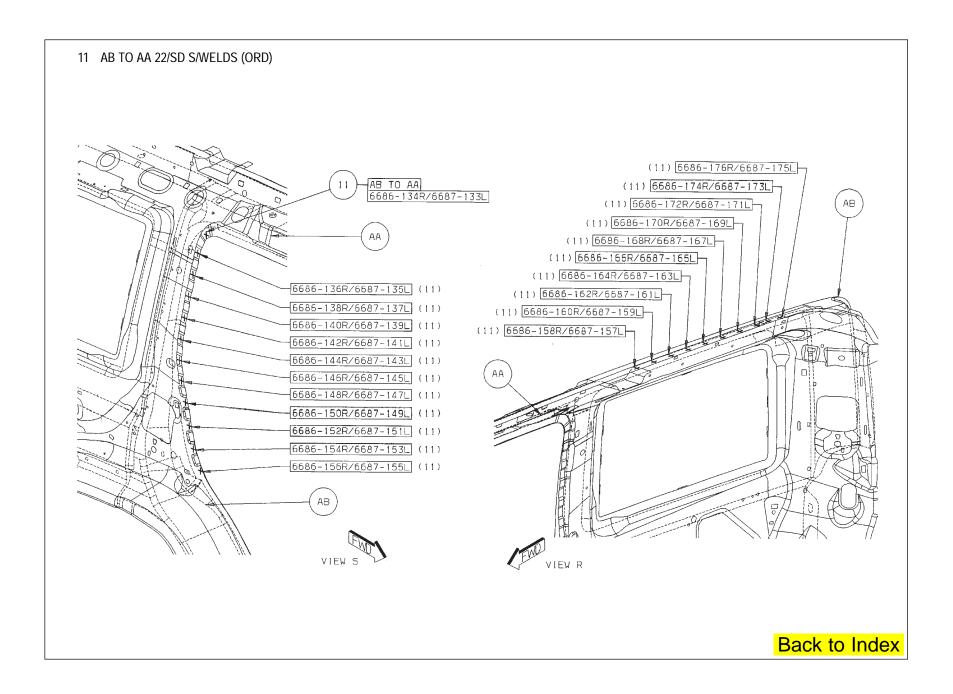


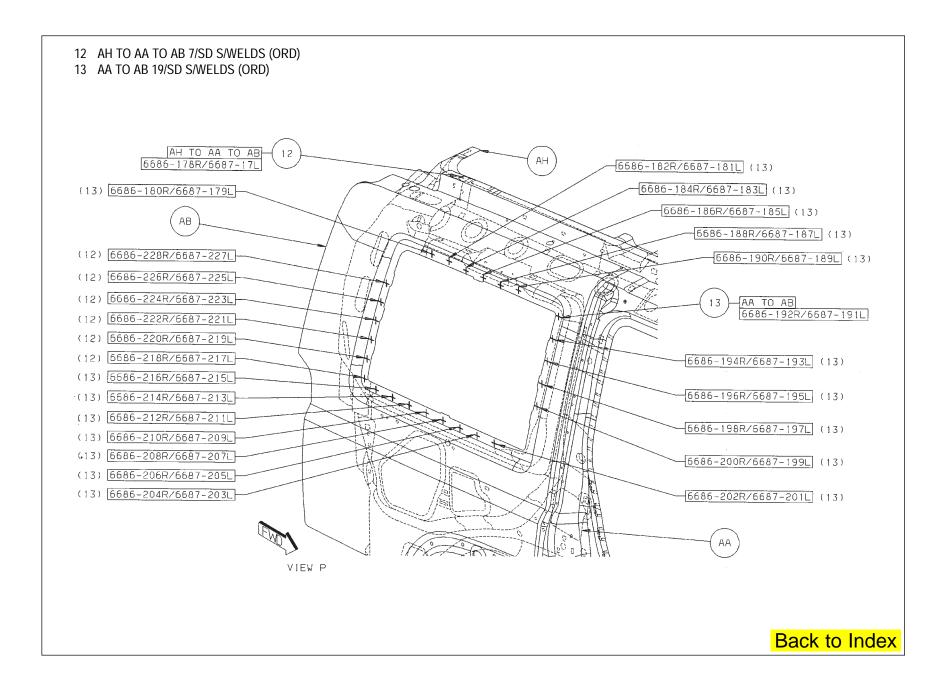


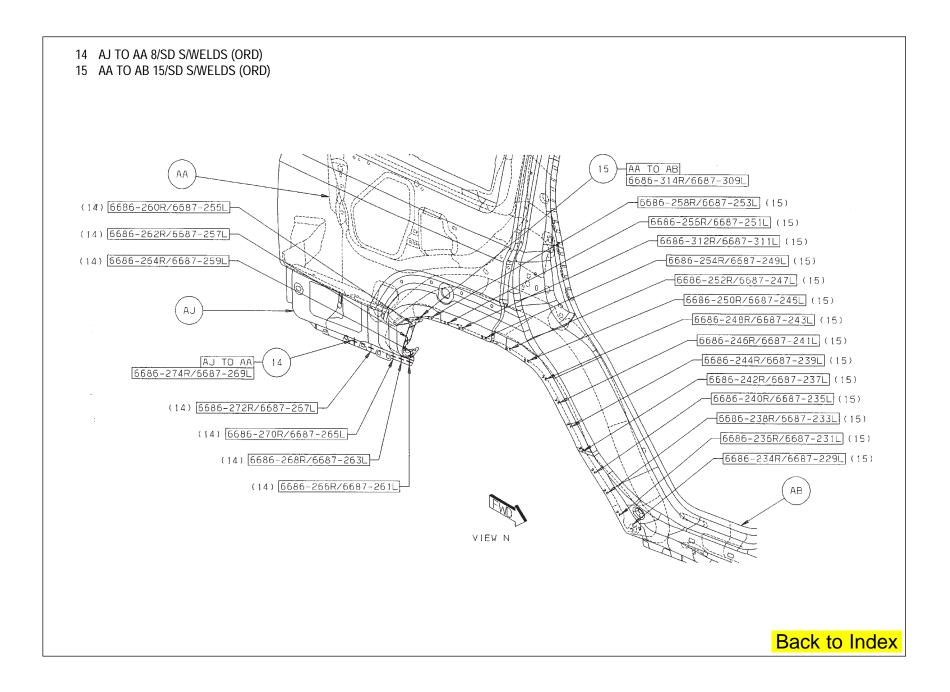


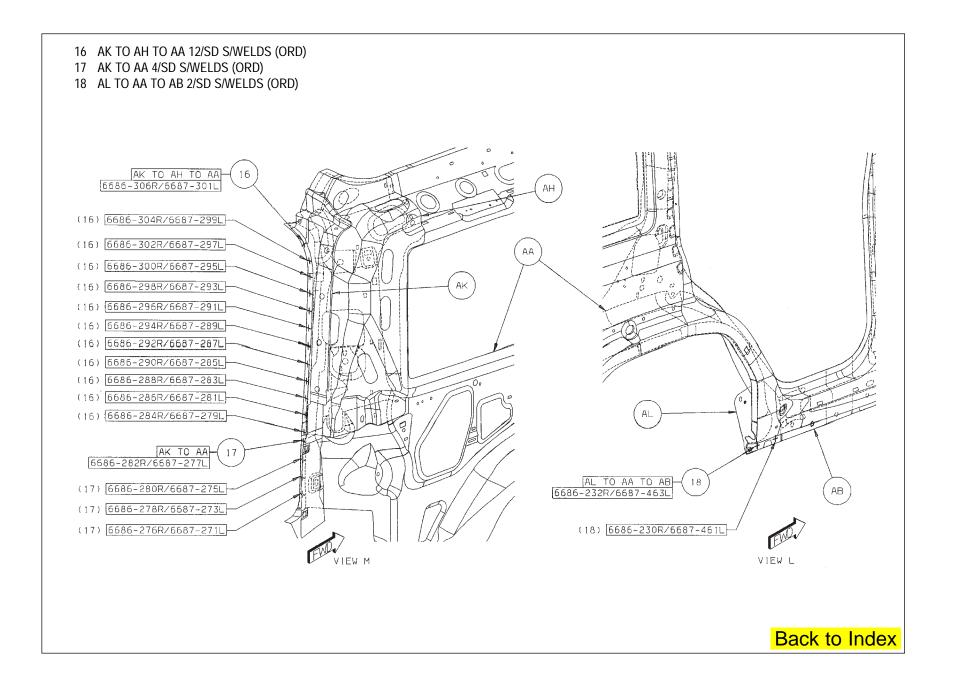


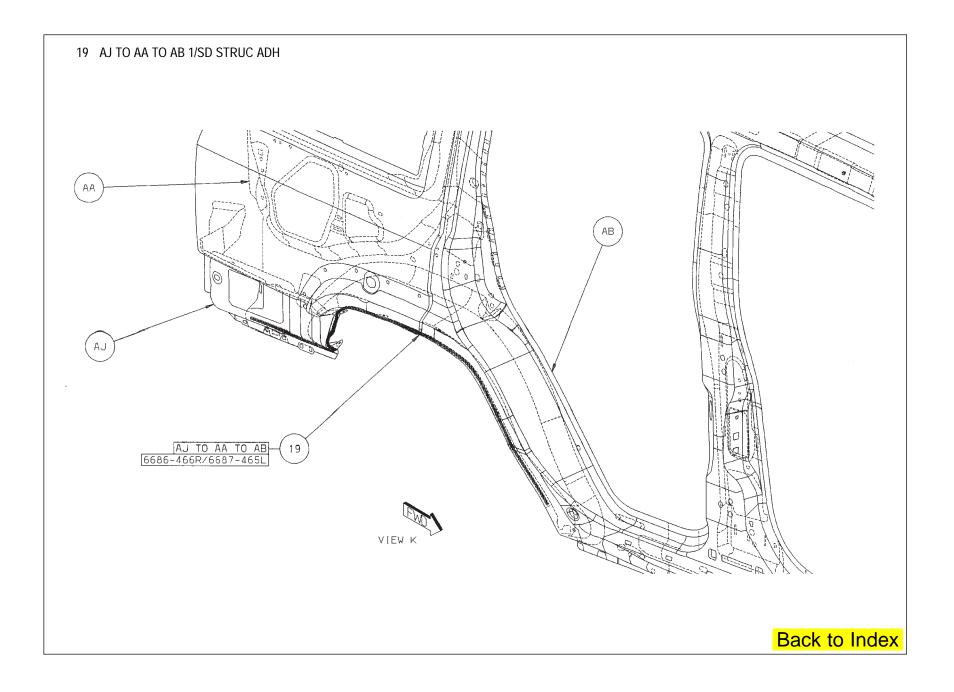


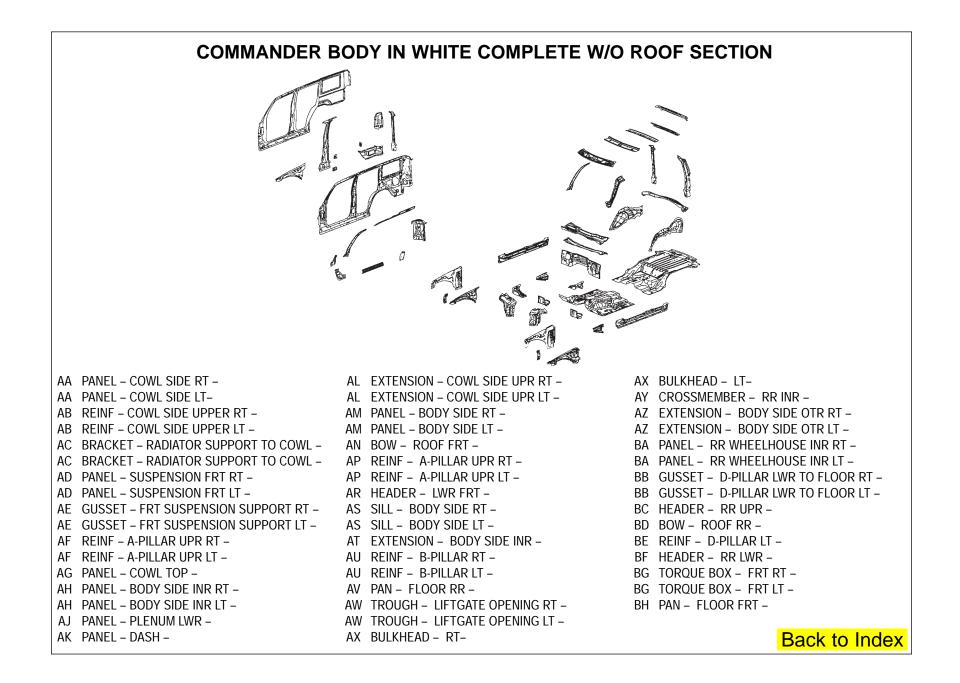










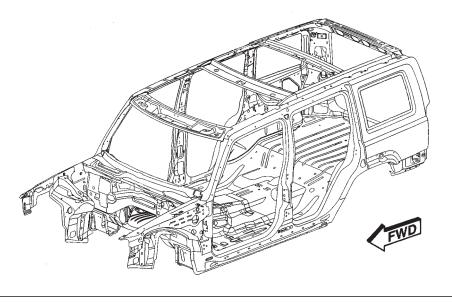


PARTS IDENTIFICATION LEGEND, OVERVIEW 24

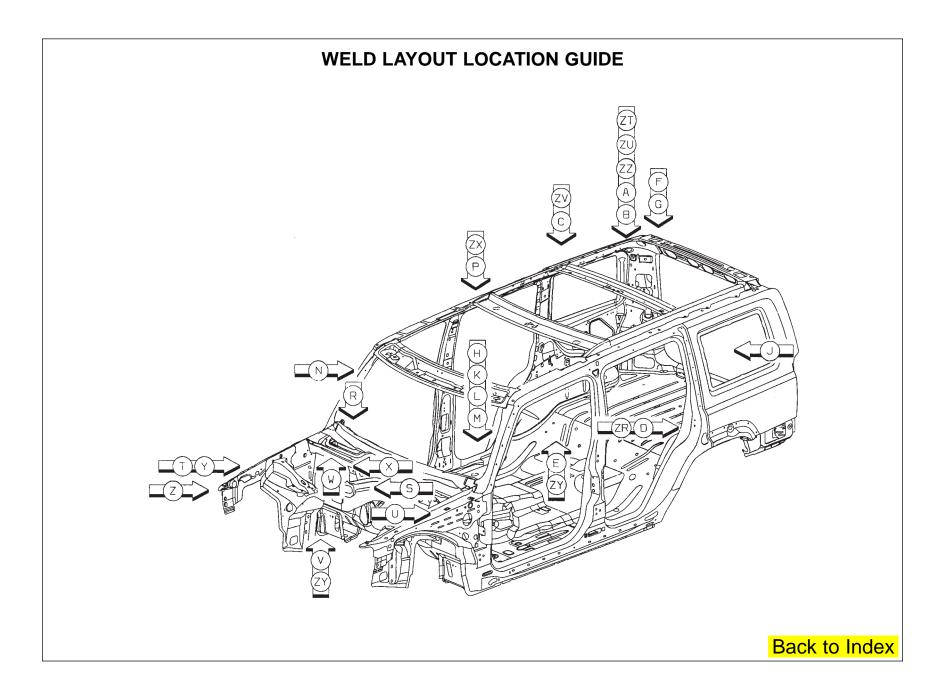
AA PANEL - COWL SIDE RT -AA PANEL - COWL SIDE LT-AB REINF - COWL SIDE UPPER RT -AB REINF - COWL SIDE UPPER LT -AC BRACKET - RADIATOR SUPPORT TO COWL -AC BRACKET - RADIATOR SUPPORT TO COWL -AD PANEL - SUSPENSION FRT RT -AD PANEL - SUSPENSION FRT LT -AE GUSSET - FRT SUSPENSION SUPPORT RT -AE GUSSET - FRT SUSPENSION SUPPORT LT -AF REINF – A-PILLAR UPR RT – AF REINF - A-PILLAR UPR LT -AG PANEL - COWL TOP -AH PANEL - BODY SIDE INR RT -AH PANEL – BODY SIDE INR LT – AJ PANEL - PLENUM LWR -AK PANEL - DASH -

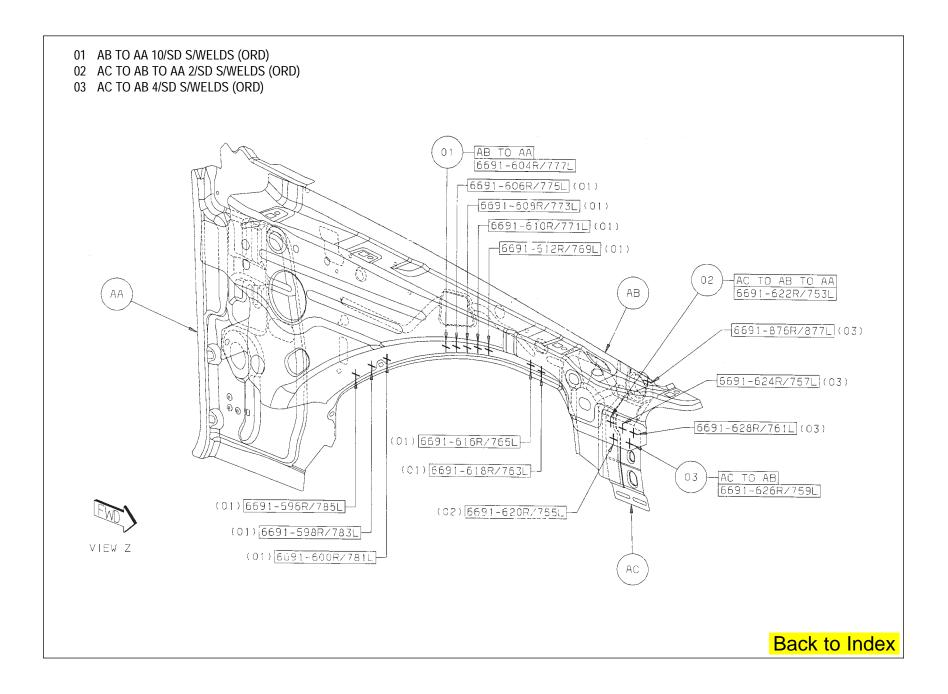
AL EXTENSION - COWL SIDE UPR RT -AL EXTENSION – COWL SIDE UPR LT – AM PANEL - BODY SIDE RT -AM PANEL - BODY SIDE LT -AN BOW - ROOF FRT -AP REINF – A-PILLAR UPR RT – AP REINF - A-PILLAR UPR LT -AR HEADER - LWR FRT -AS SILL - BODY SIDE RT -AS SILL - BODY SIDE LT -AT EXTENSION - BODY SIDE INR -AU REINF - B-PILLAR RT -AU REINF - B-PILLAR LT -AV PAN – FLOOR RR – AW TROUGH - LIFTGATE OPENING RT -AW TROUGH - LIFTGATE OPENING LT -AX BULKHEAD - RT-

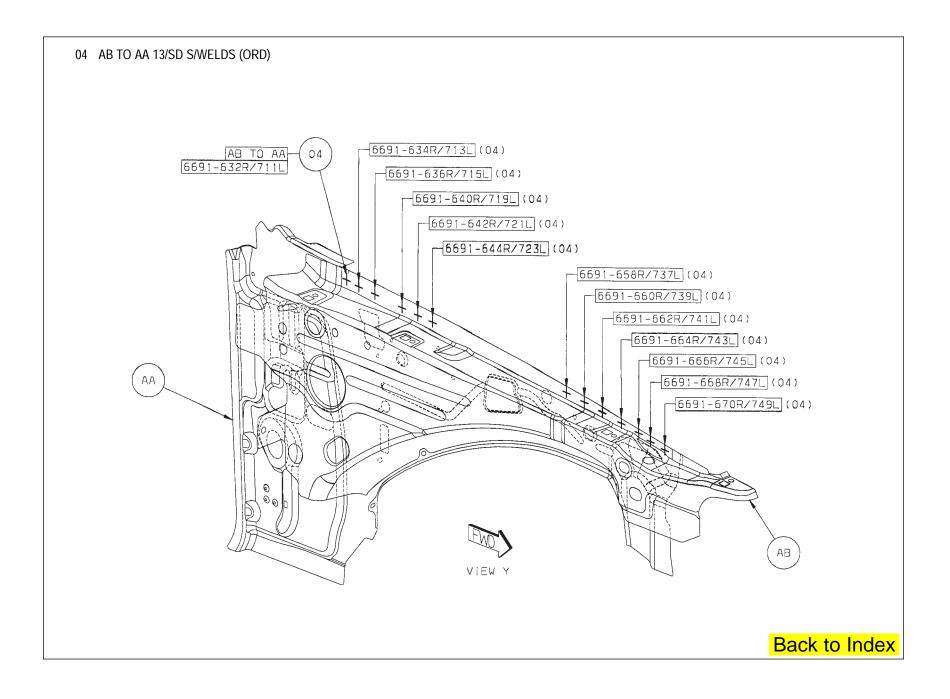
AX BULKHEAD - LT-AY CROSSMEMBER - RR INR -AZ EXTENSION - BODY SIDE OTR RT -AZ EXTENSION - BODY SIDE OTR LT -BA PANEL - RR WHEELHOUSE INR RT -BA PANEL - RR WHEELHOUSE INR LT -BB GUSSET - D-PILLAR LWR TO FLOOR RT -BB GUSSET - D-PILLAR LWR TO FLOOR LT -BC HEADER - RR UPR -BD BOW - ROOF RR -BE REINF - D-PILLAR LT -BF HEADER - RR LWR -BG TORQUE BOX - FRT RT -BG TORQUE BOX - FRT LT -BH PAN - FLOOR FRT -

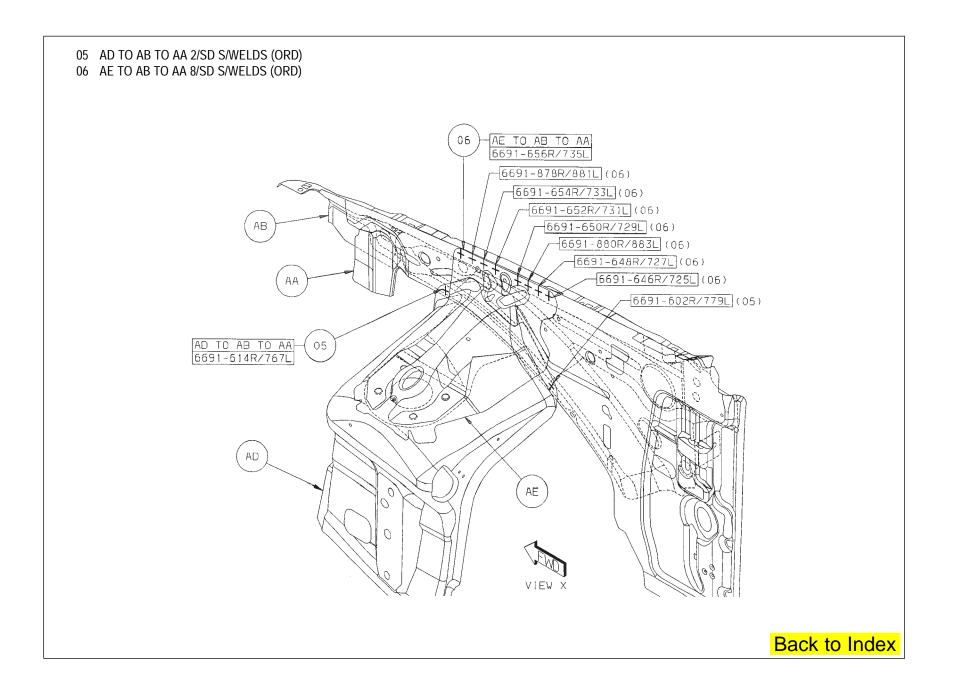


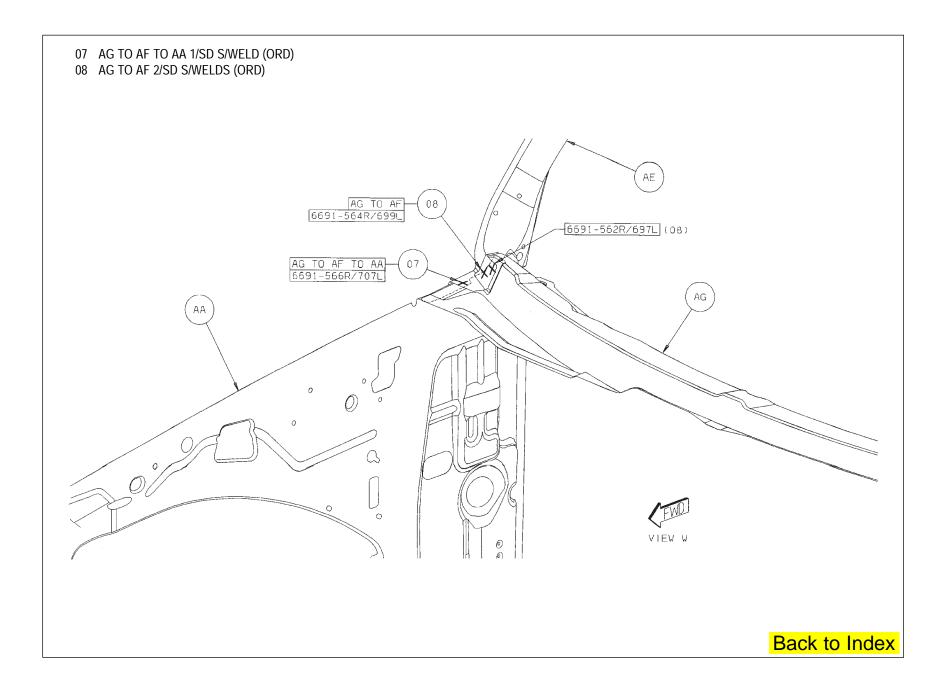
Back to Index

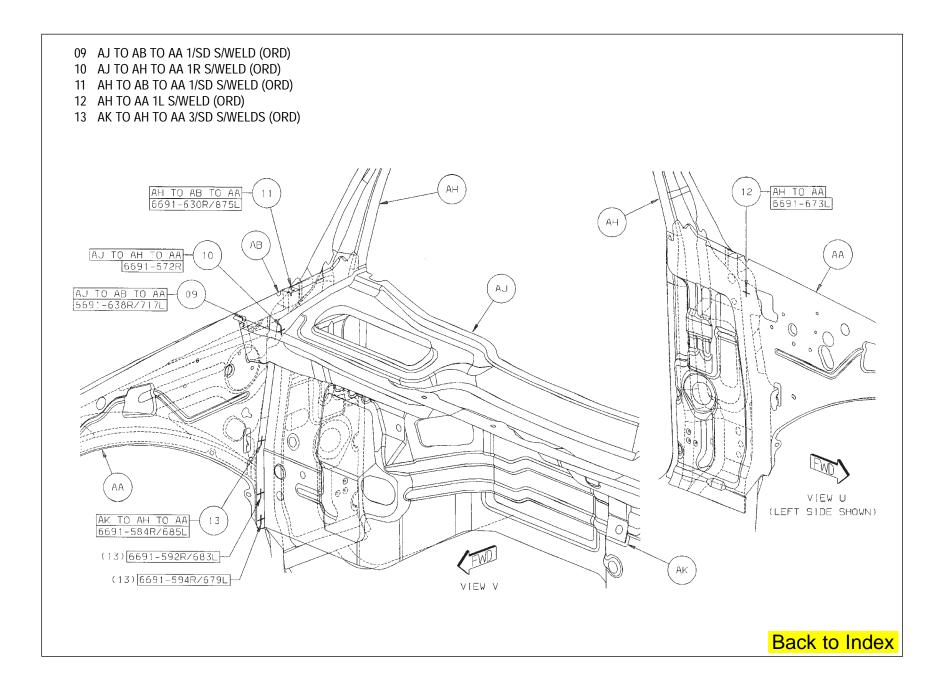


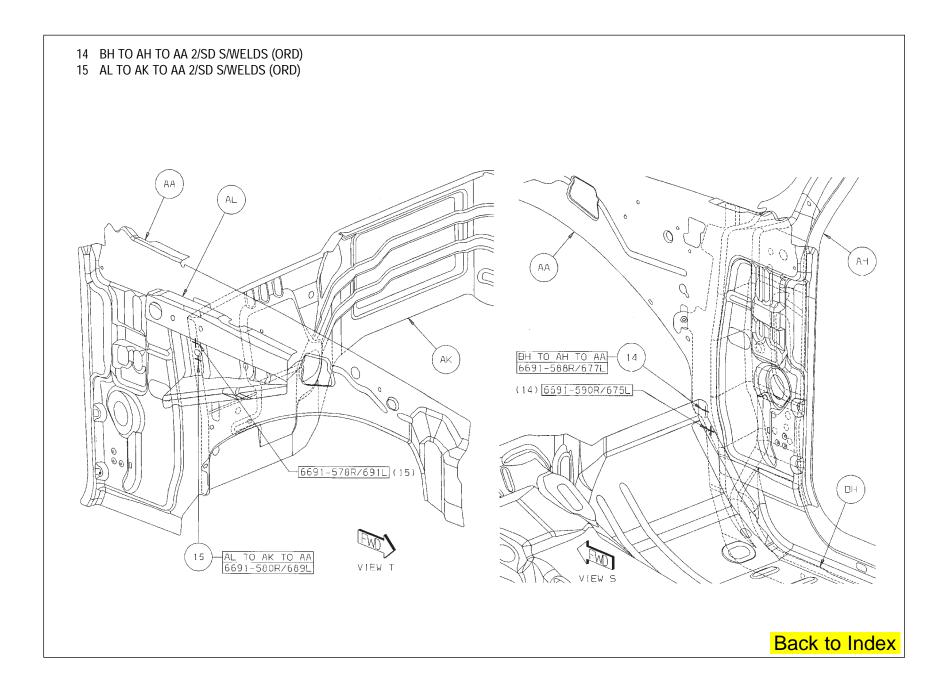


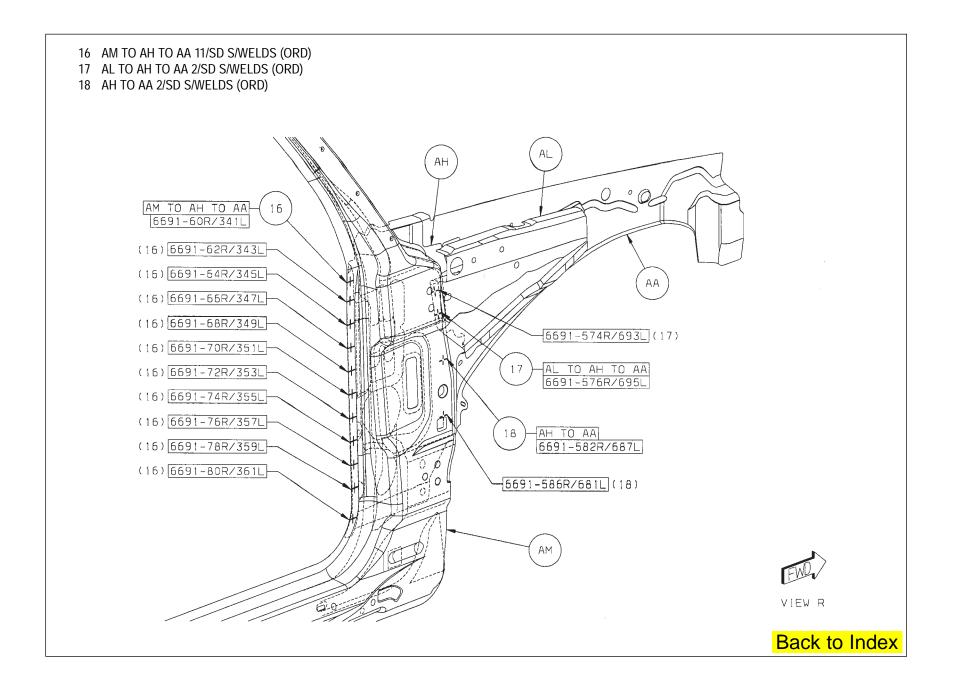


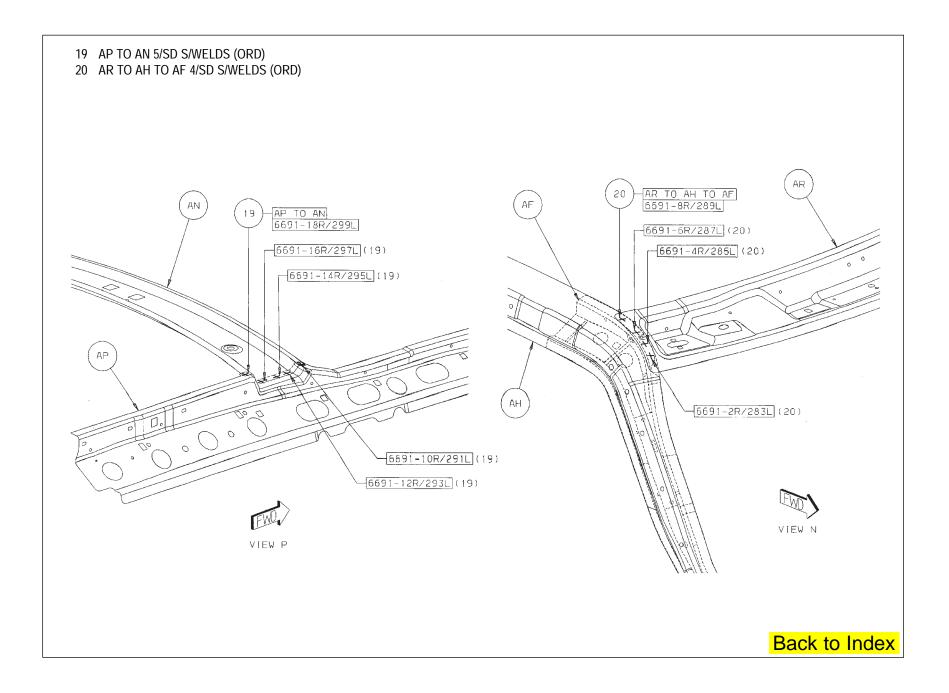


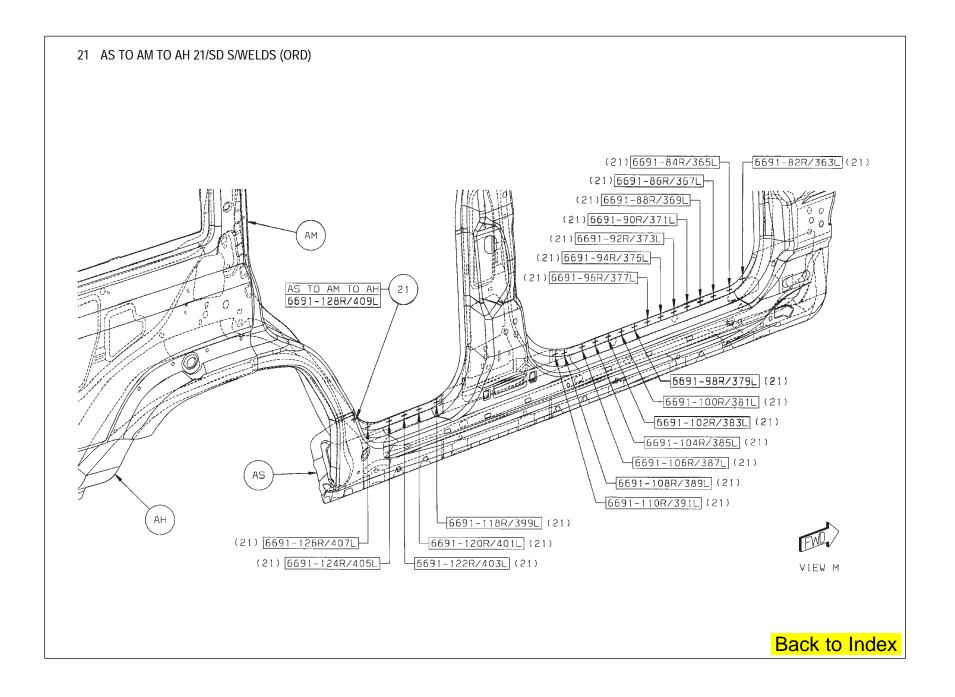


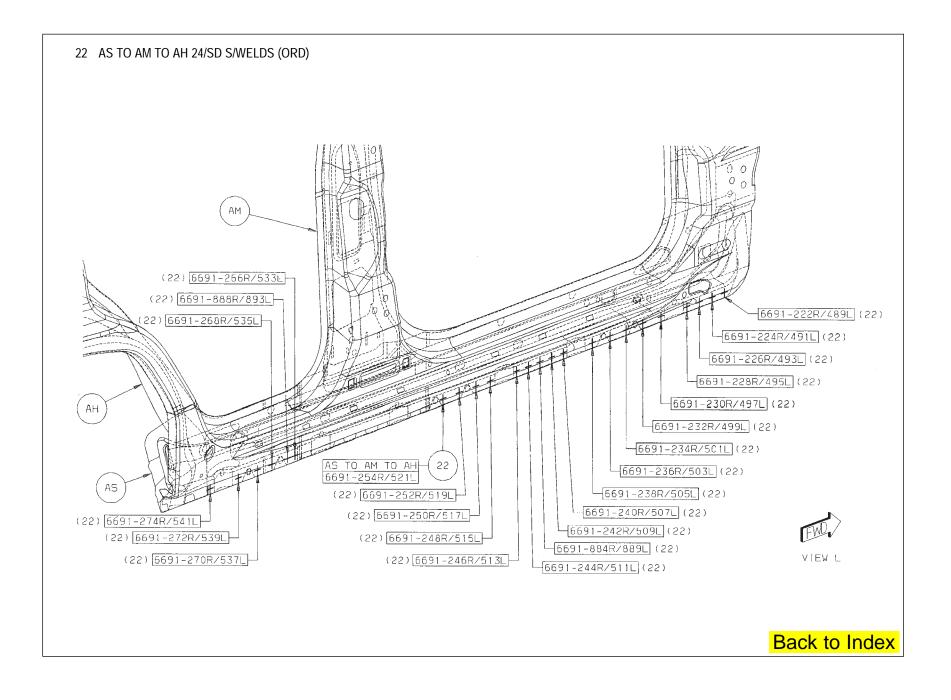


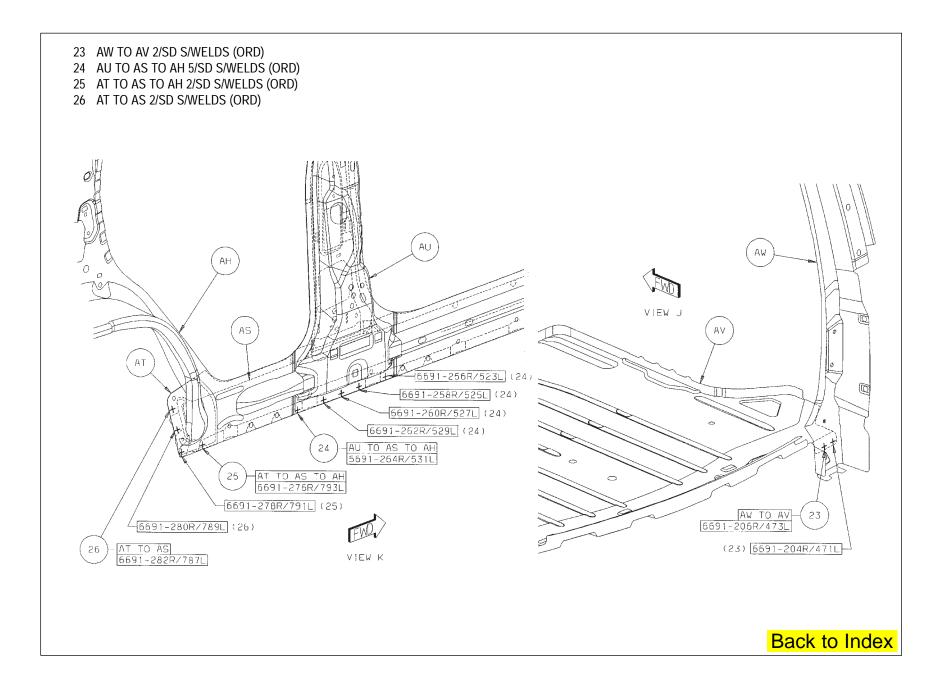


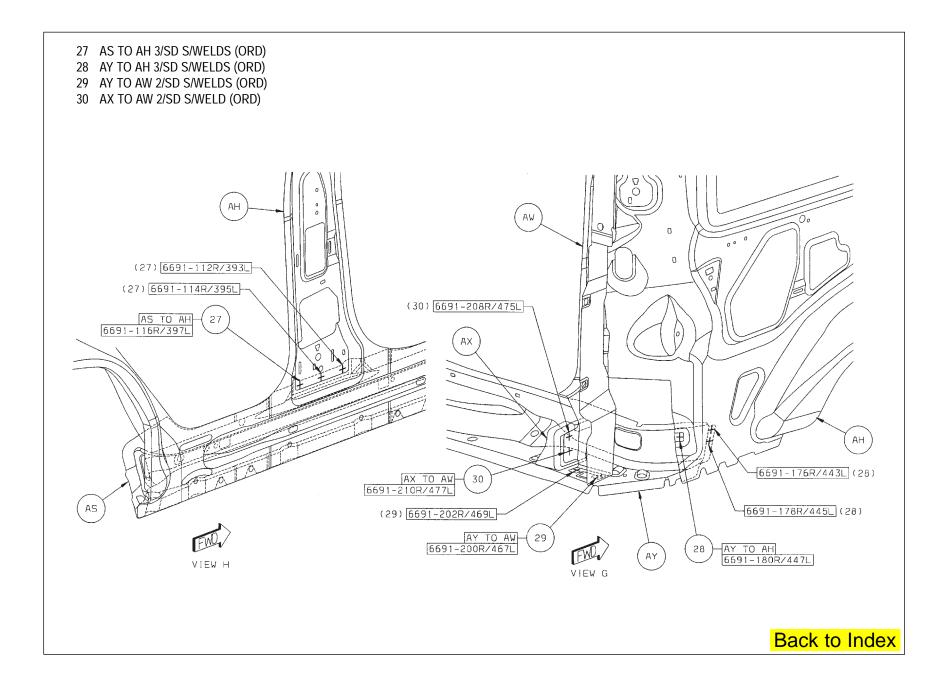


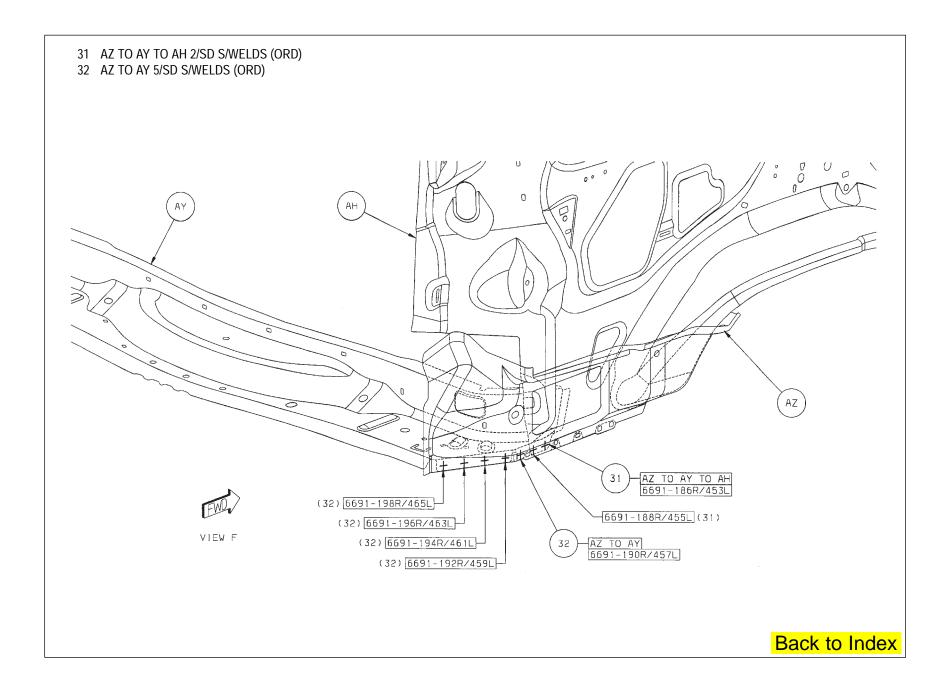


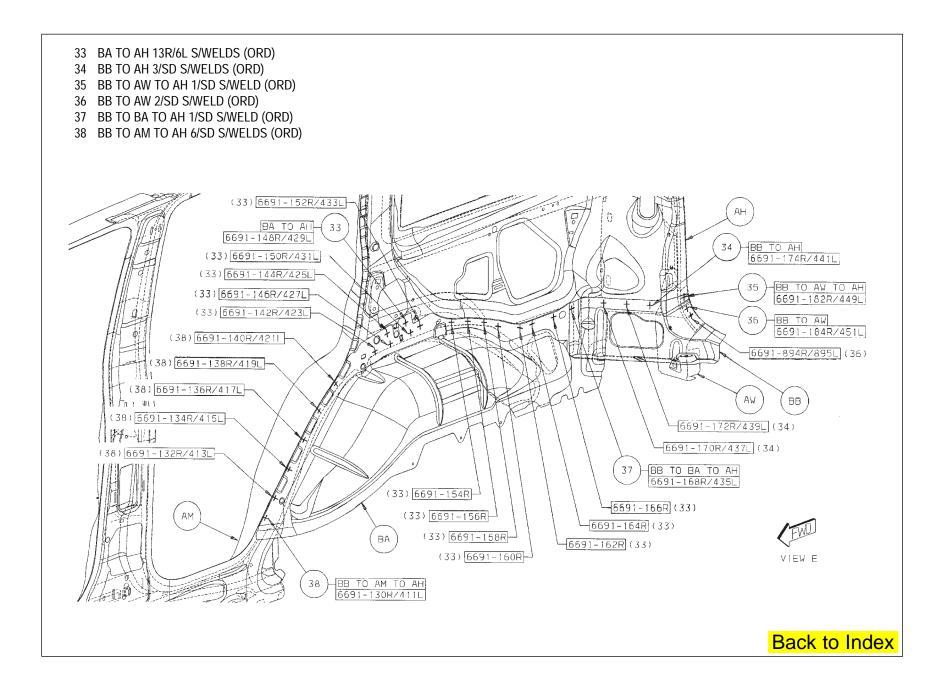


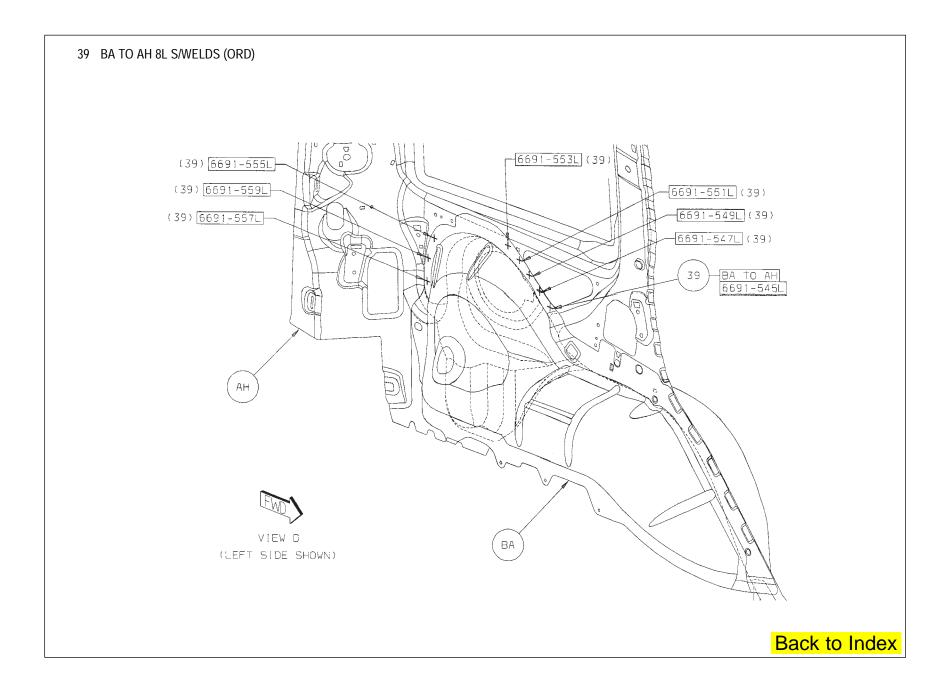


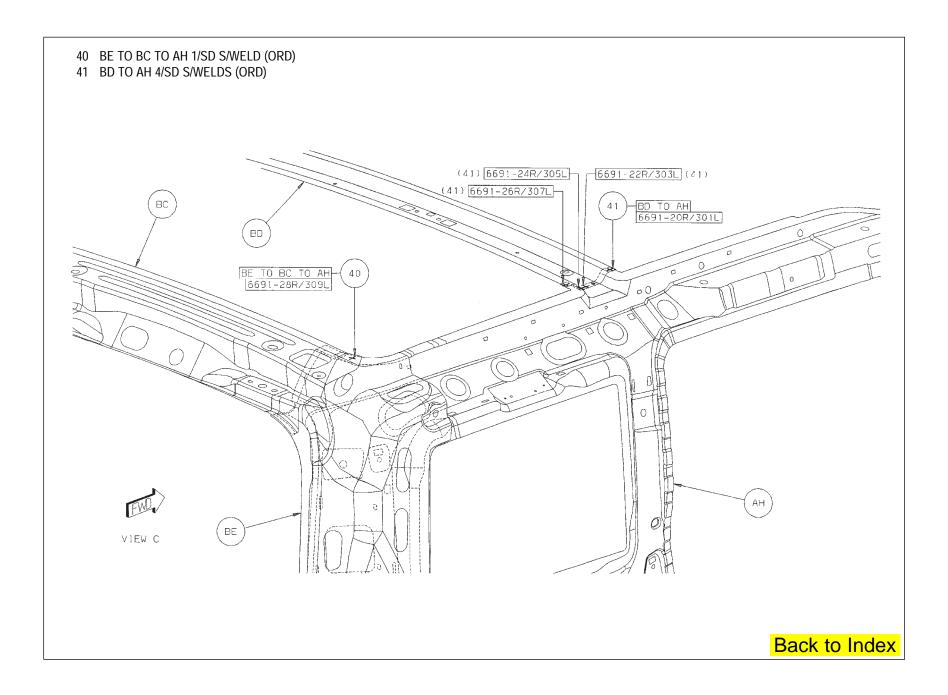


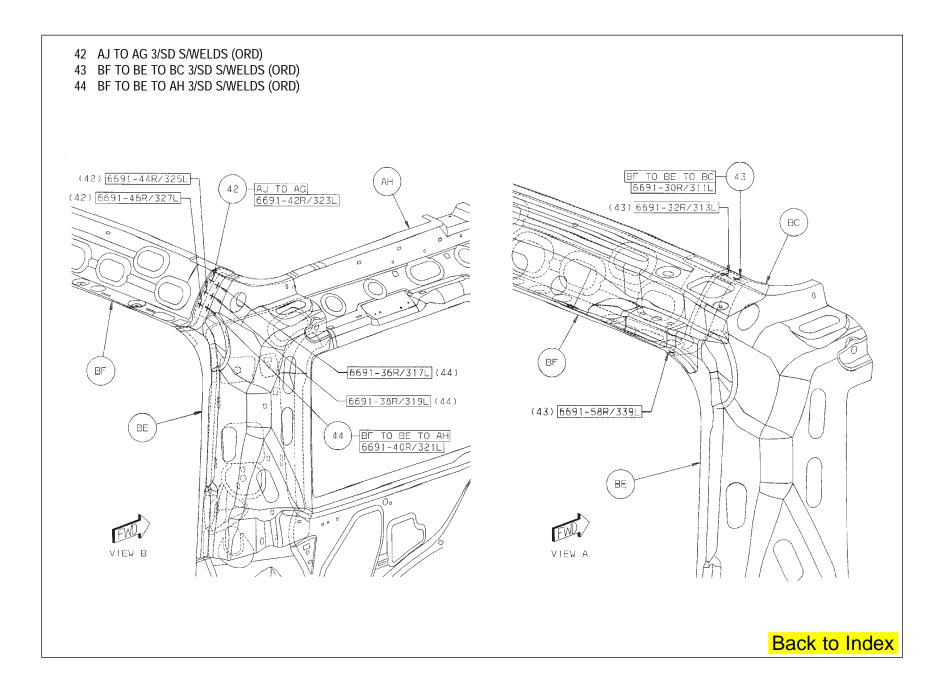


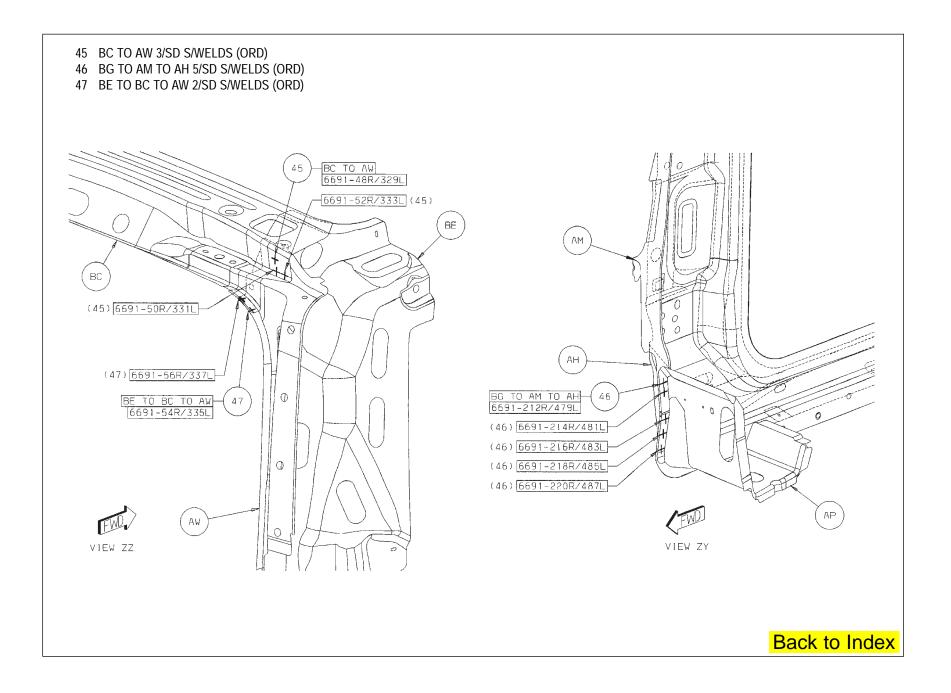


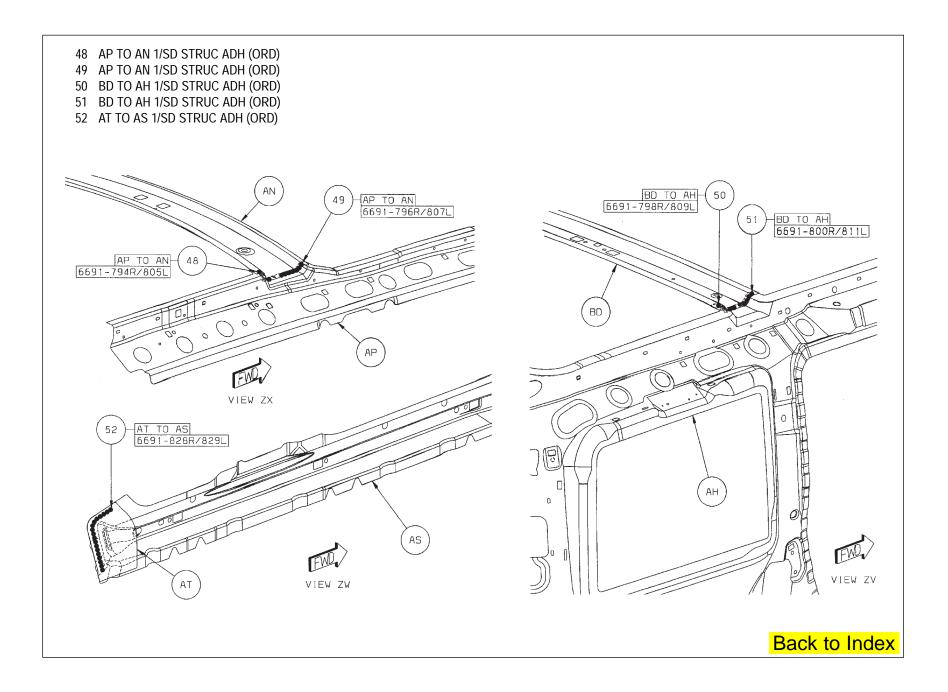


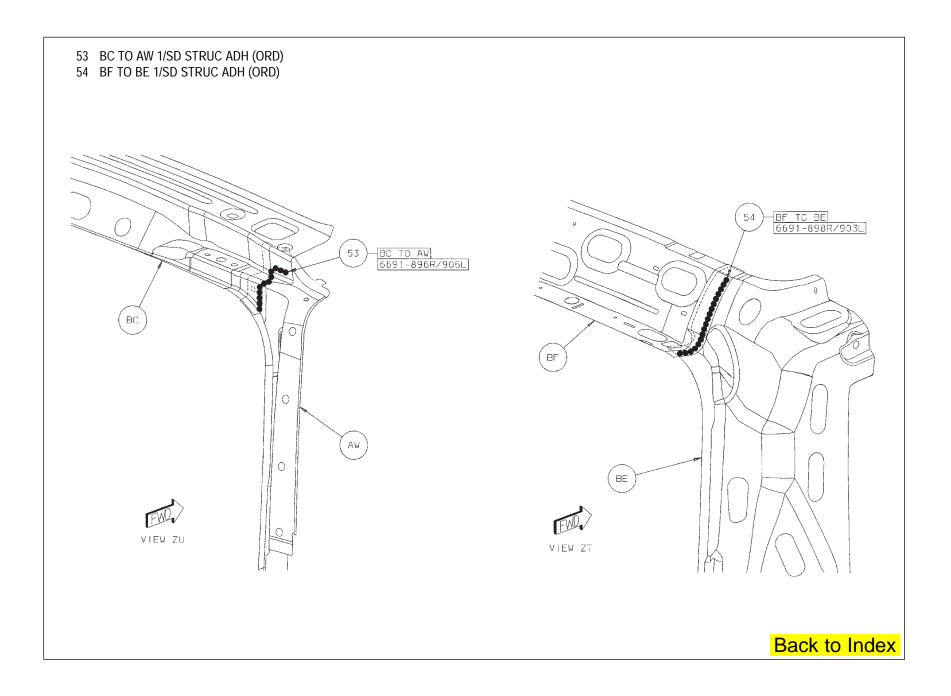


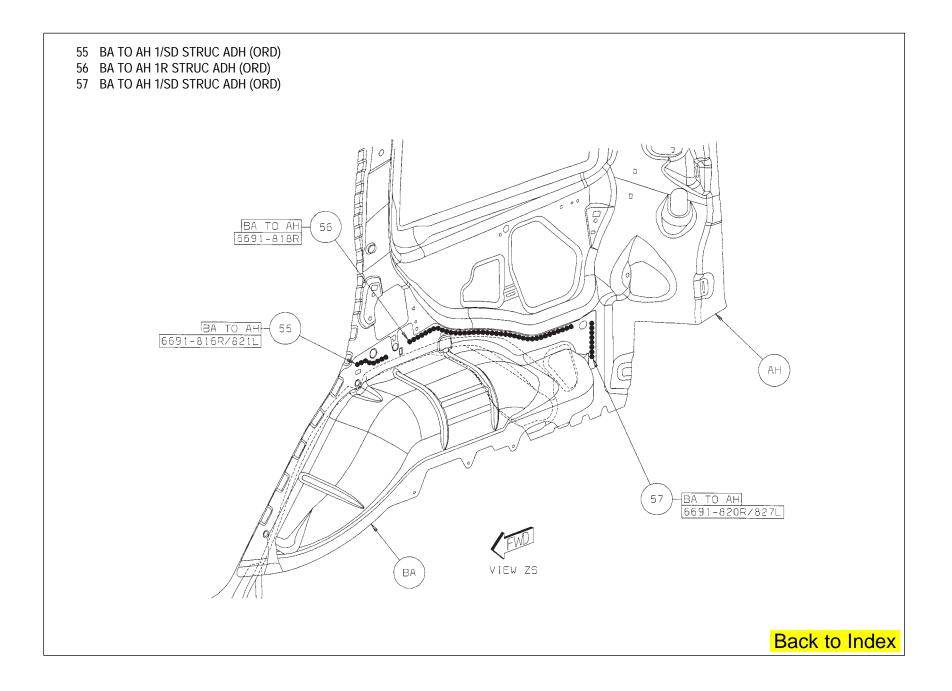


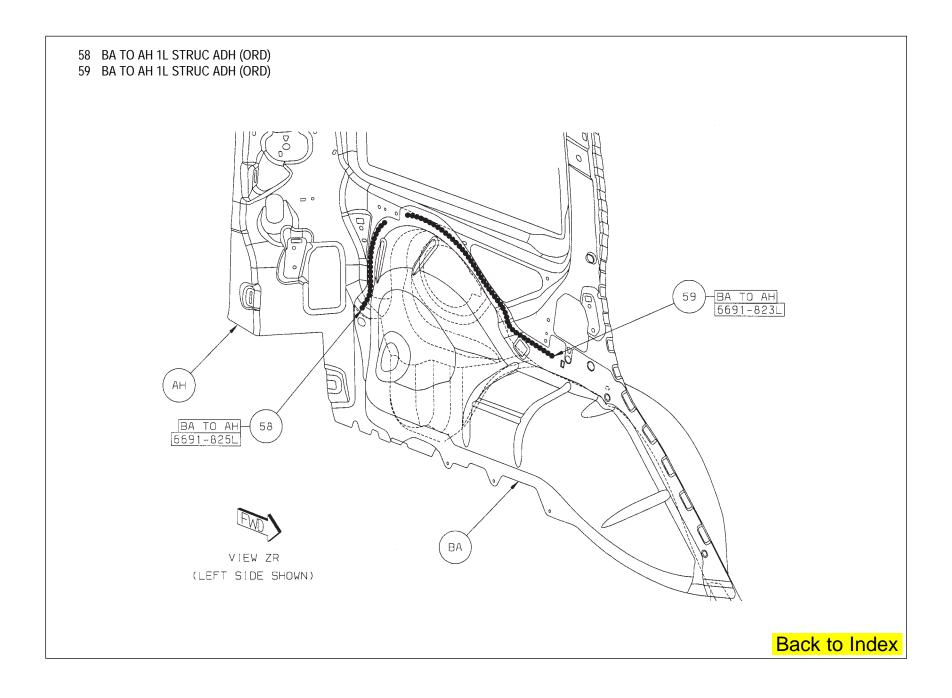






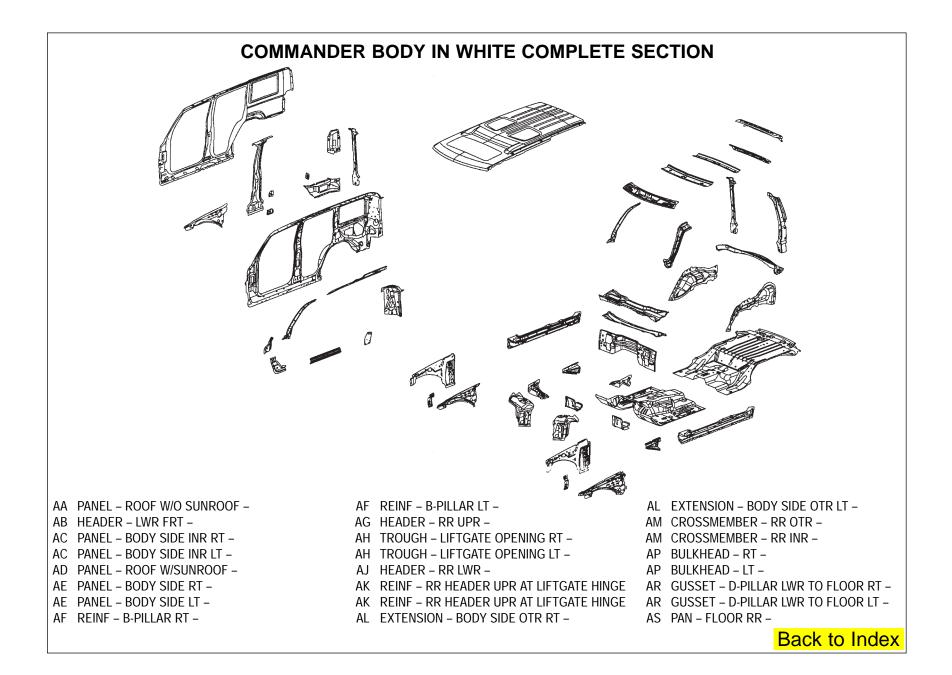


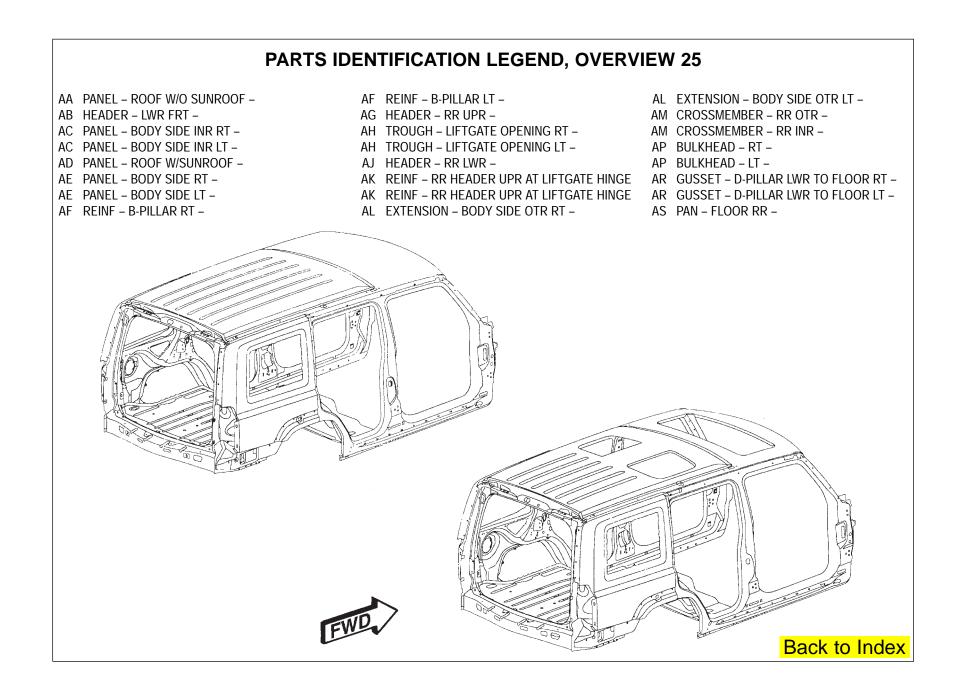


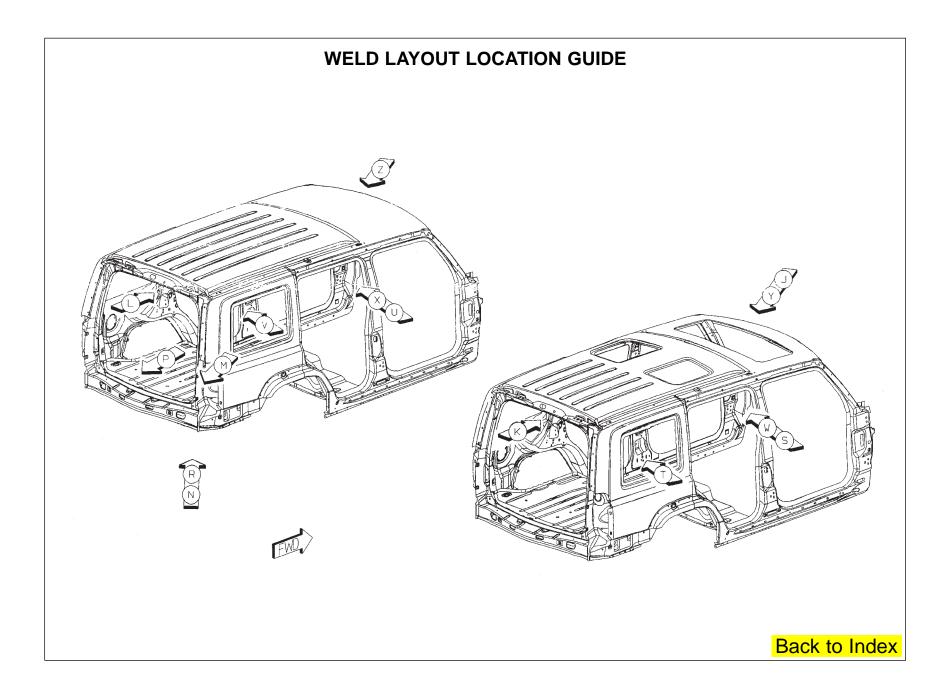


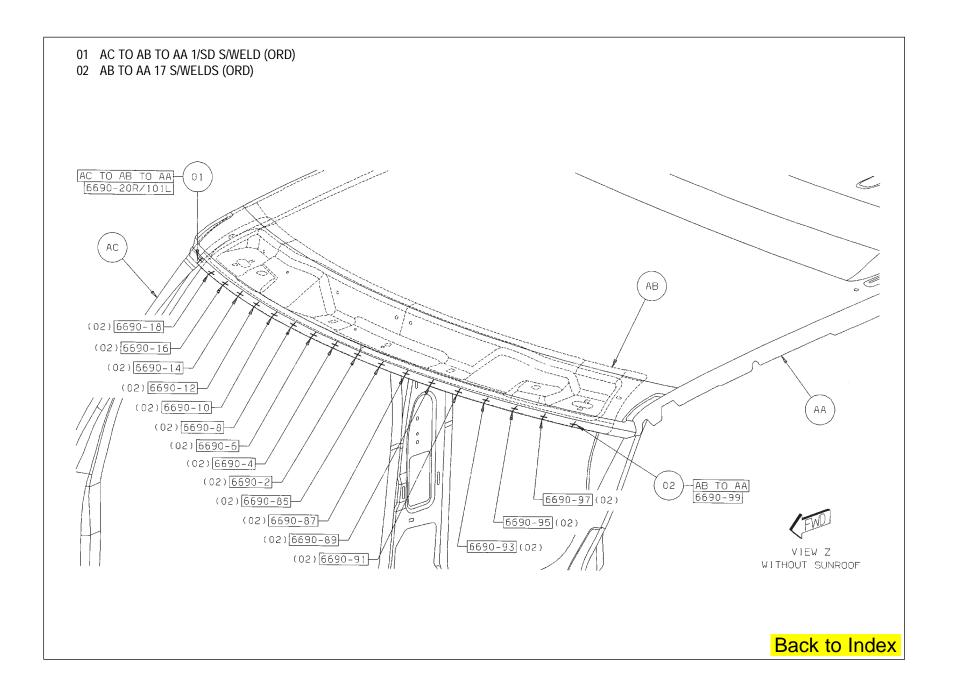


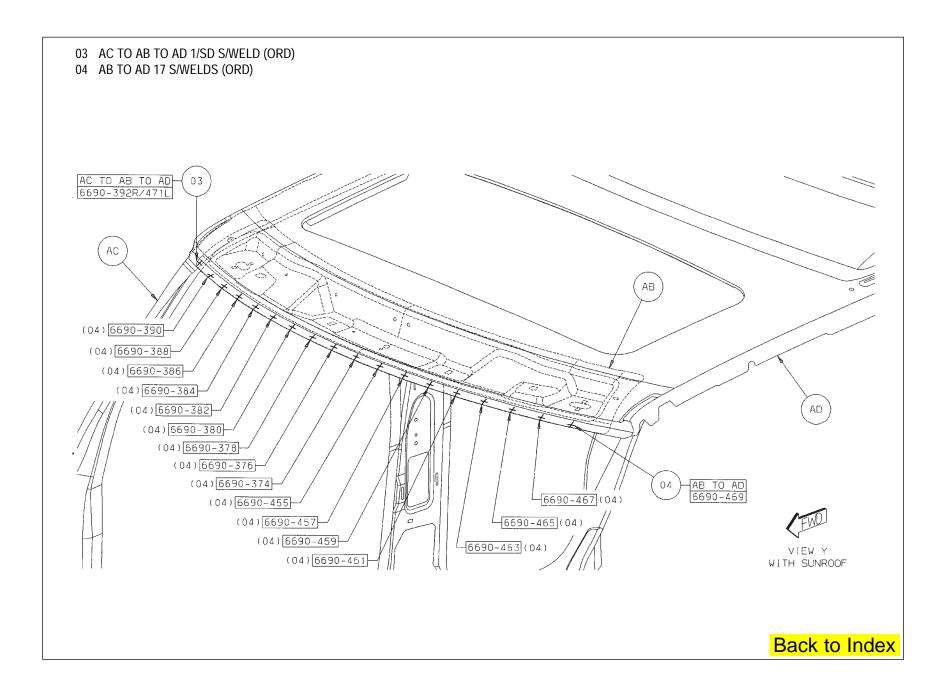
Back to Index

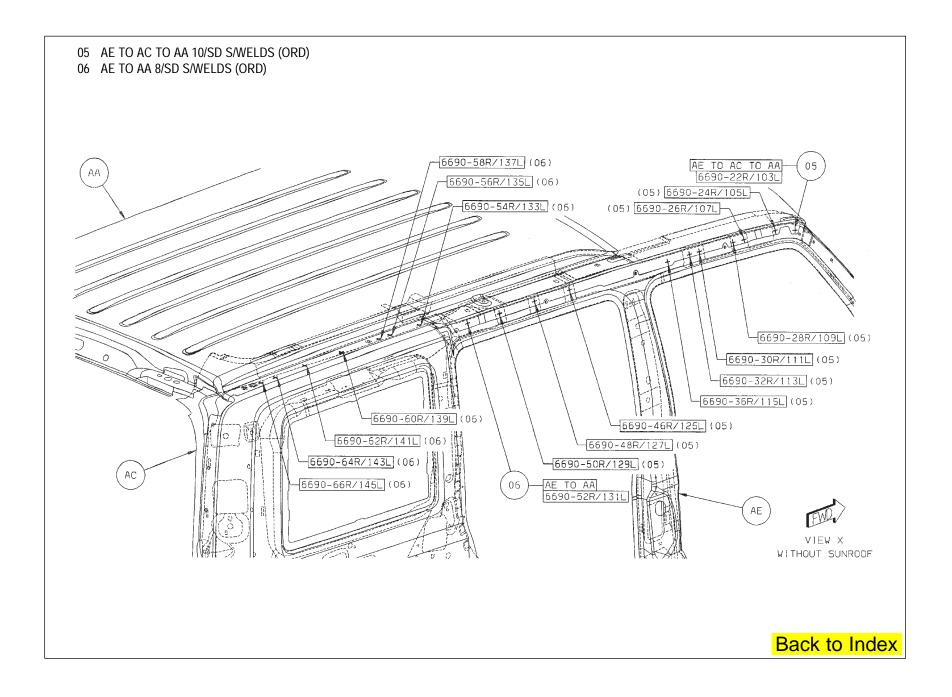


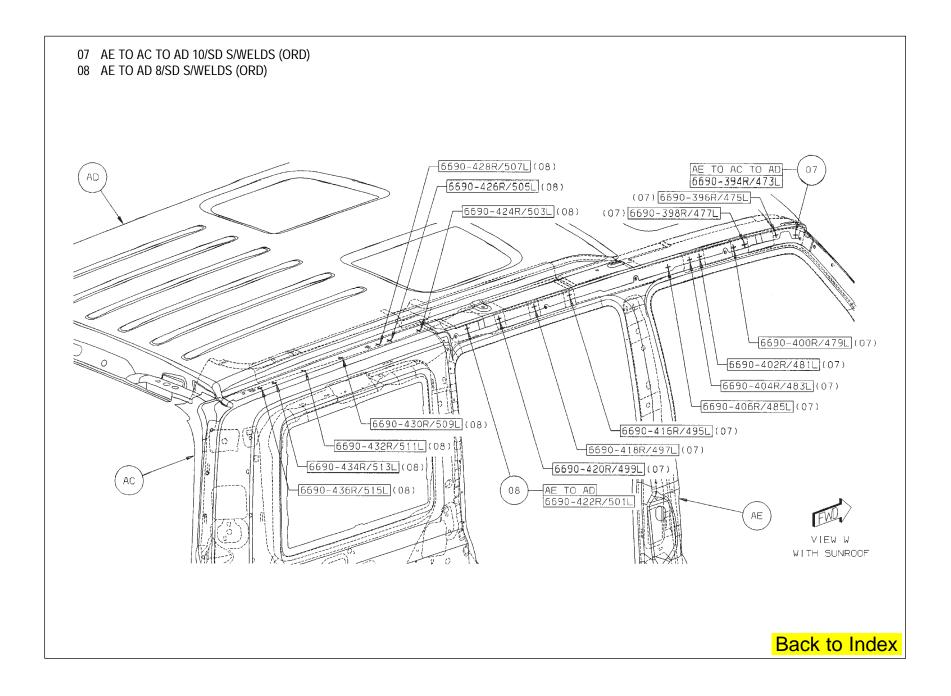


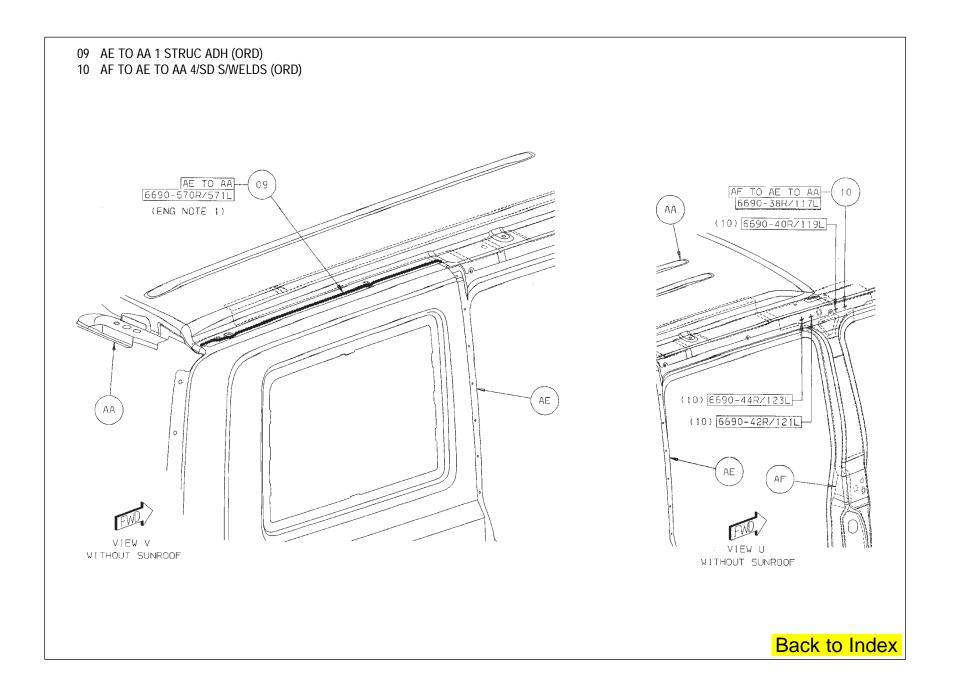


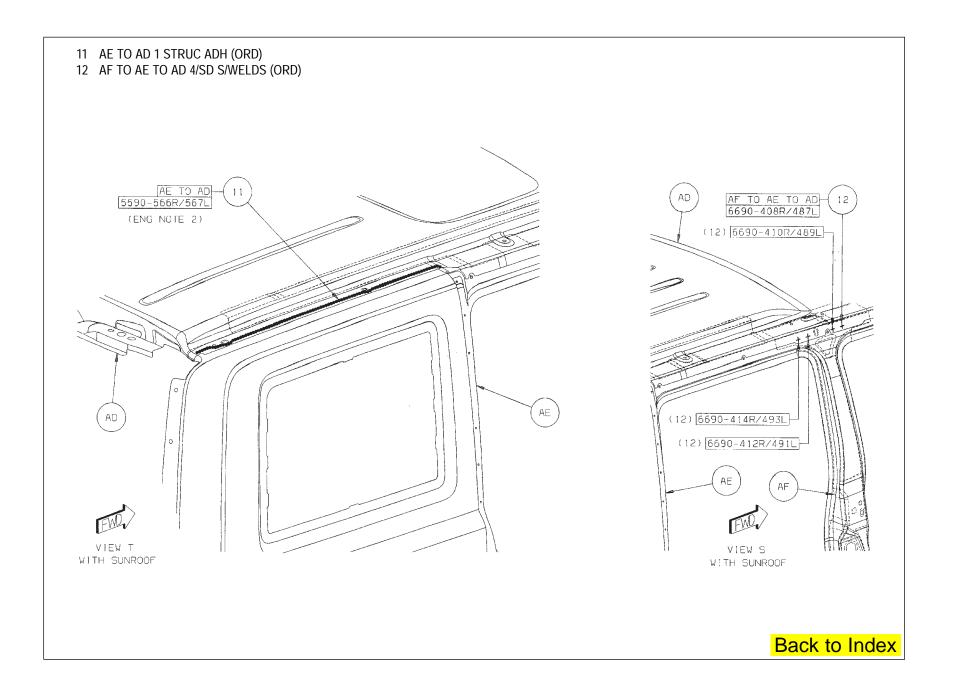


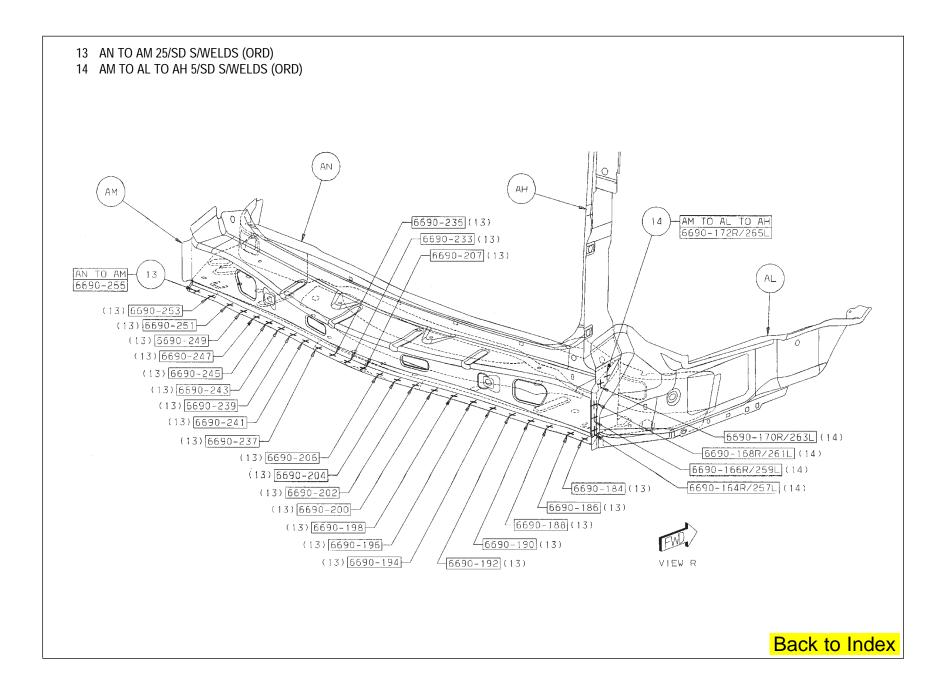


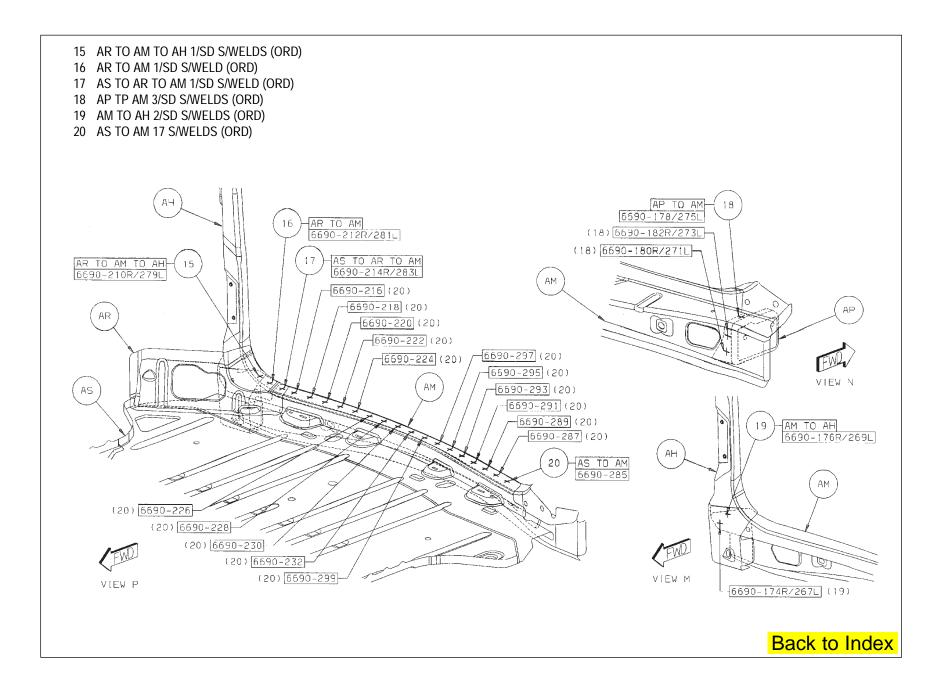


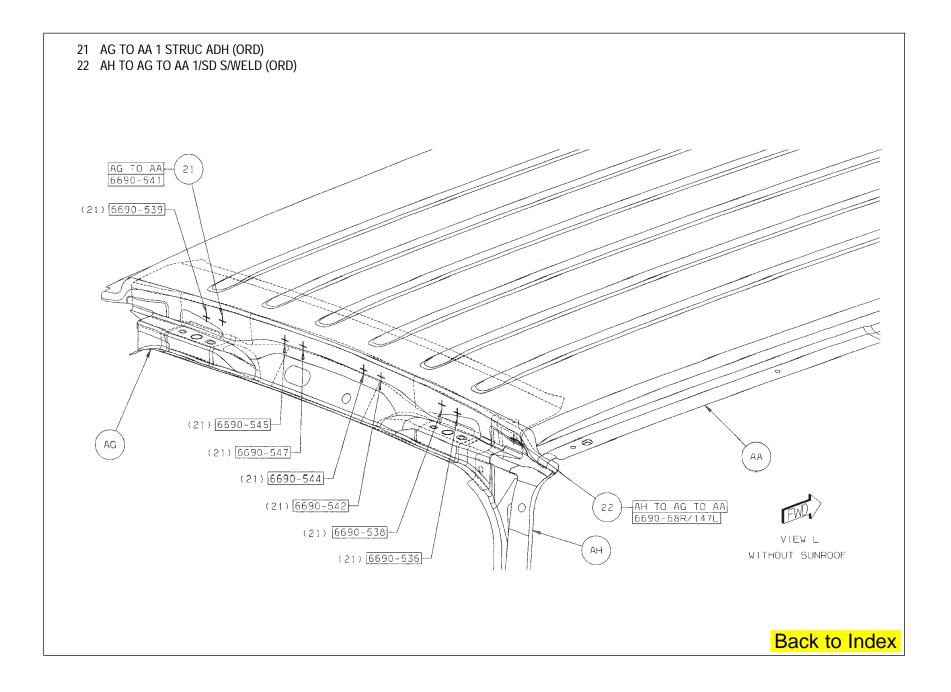


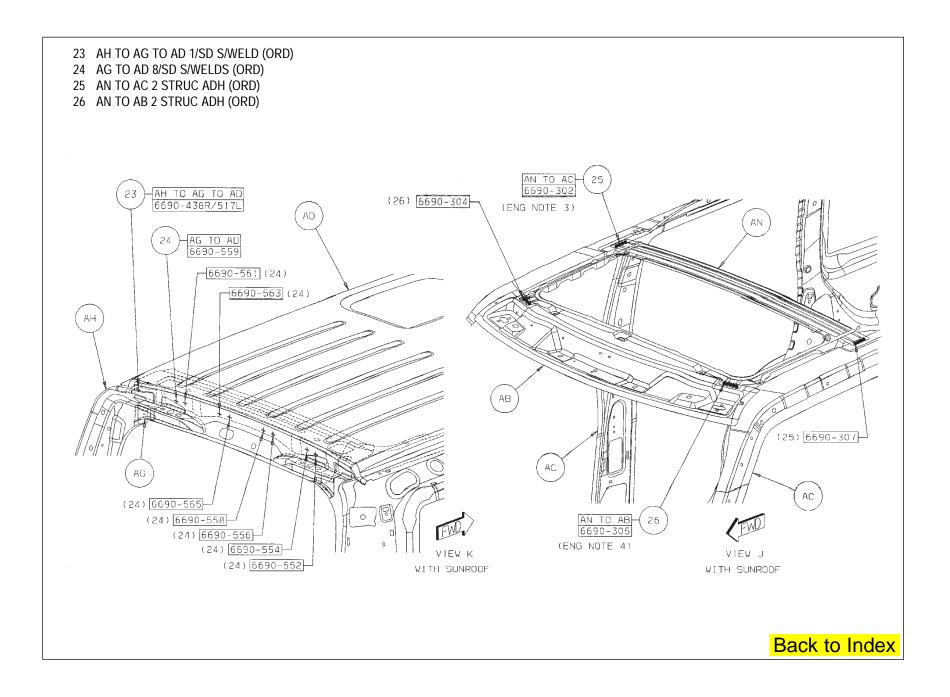










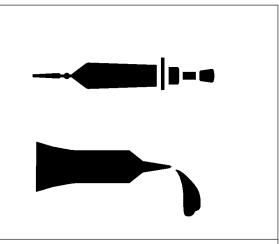




teamPSE eStore on DealerCONNECT (located under the eStoreMarketCenter tab)

Back to Index

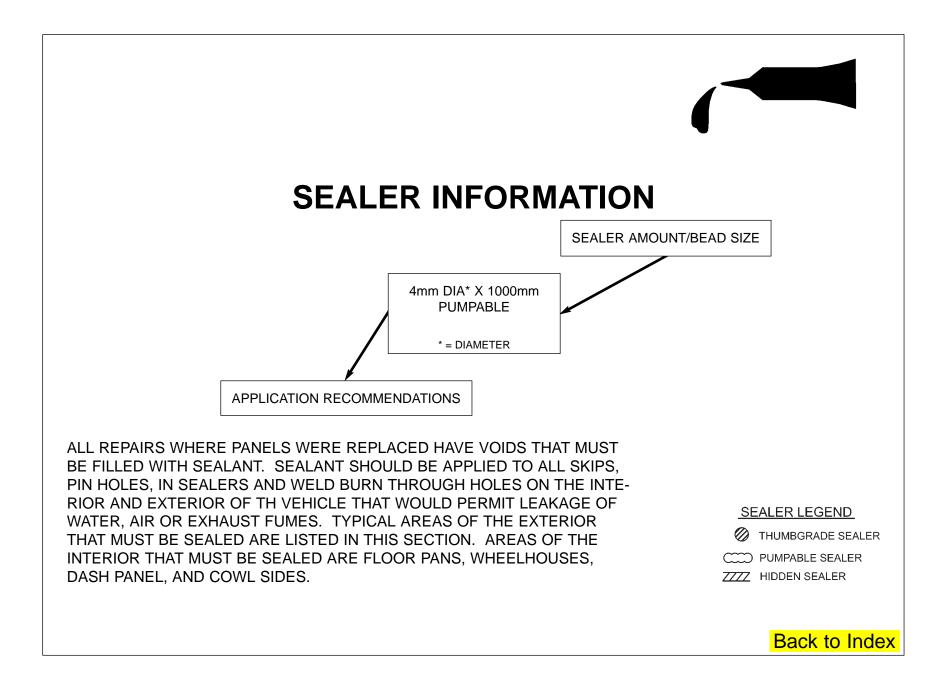
Sealer/Sound Deadener/ Structural Adhesive/ Foam Locations Jeep Commander



This section shows the different locations for Sealers, Sound Deadeners and Structural Adhesives and has been prepared for use by all body technicians involved in the repair of Jeep Commander.

Body/Paint Sealer Locations
Structural Adhesive Locations
NVH/Structural Foam Locations
Sound Deadener 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.



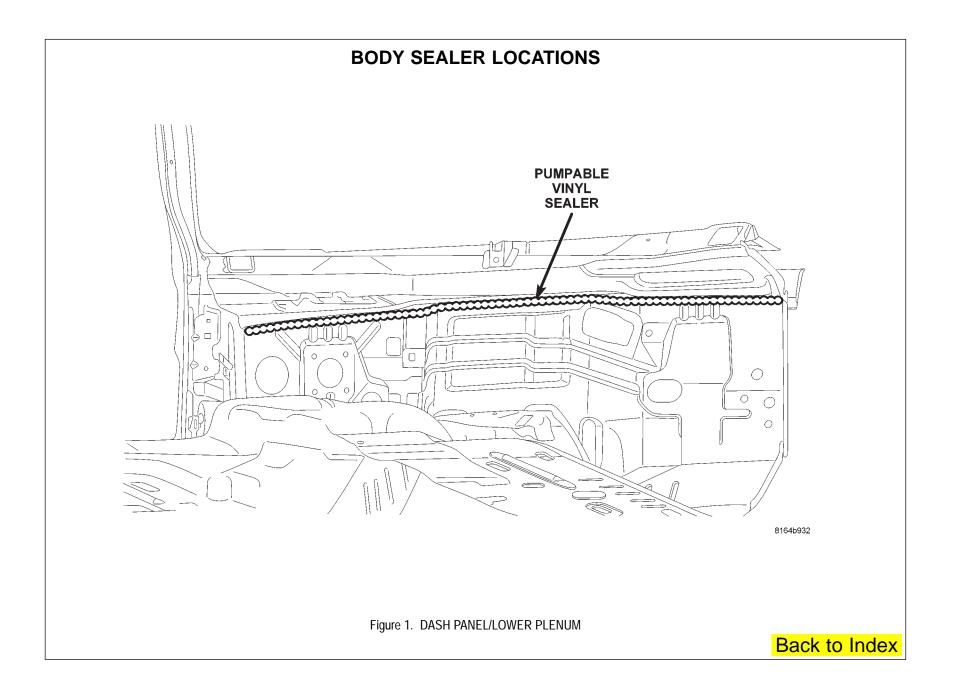
BODY SEALER LOCATIONS

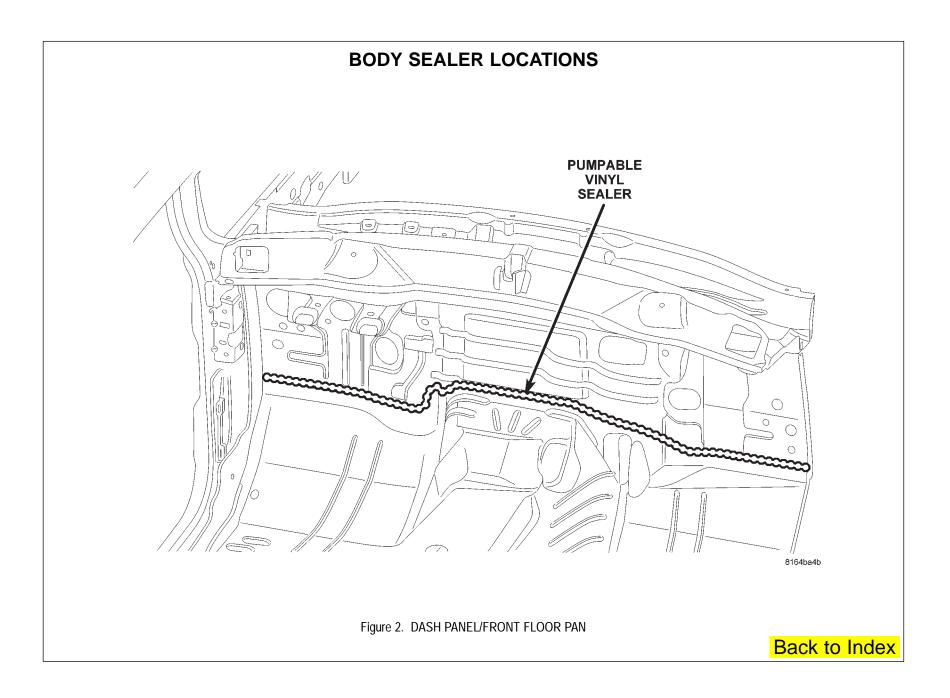
DESCRIPTION	FIGURE
DASH PANEL/LOWER PLENUM	1
DASH PANEL/FRONT FLOOR PAN	2
COWL SIDE/LOWER PLENUM (UNDERSIDE)	3
STEERING COLUMN	4
COWL SIDE/DASH PANEL AND SILL	5
COWL TOP A-PILLAR REINFORCEMENT	6
FRONT FLOOR PAN/REAR FLOOR PAN	7
FLOOR PAN/SILL AND PARKING BRAKE	8
FLOOR PAN/B-PILLAR	9
REAR FLOOR PAN/REAR WHEELHOUSE	10
REAR WHEELHOUSE (UNDERSIDE)	11
D-PILLAR GUSSET	12
ROOF/BODY SIDE WINDSHIELD HEADER	13
REAR ROOF/BODY SIDE APERTURE	14
D-PILLAR/REAR HEADER	15
TAIL LAMP CAN/BODY SIDE EXTENSION	16

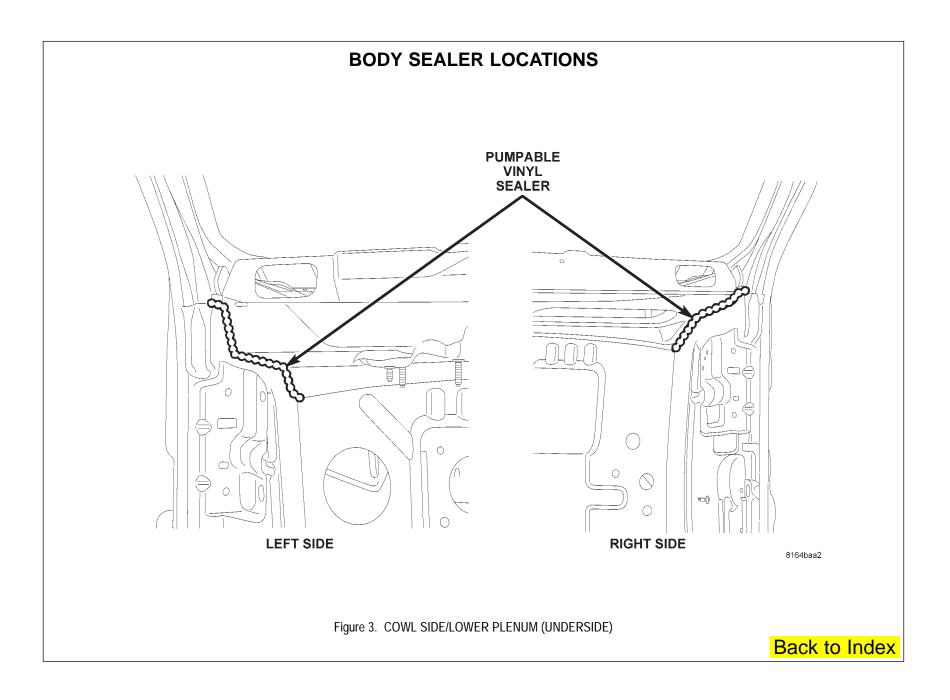
Preferred Mopar Product:

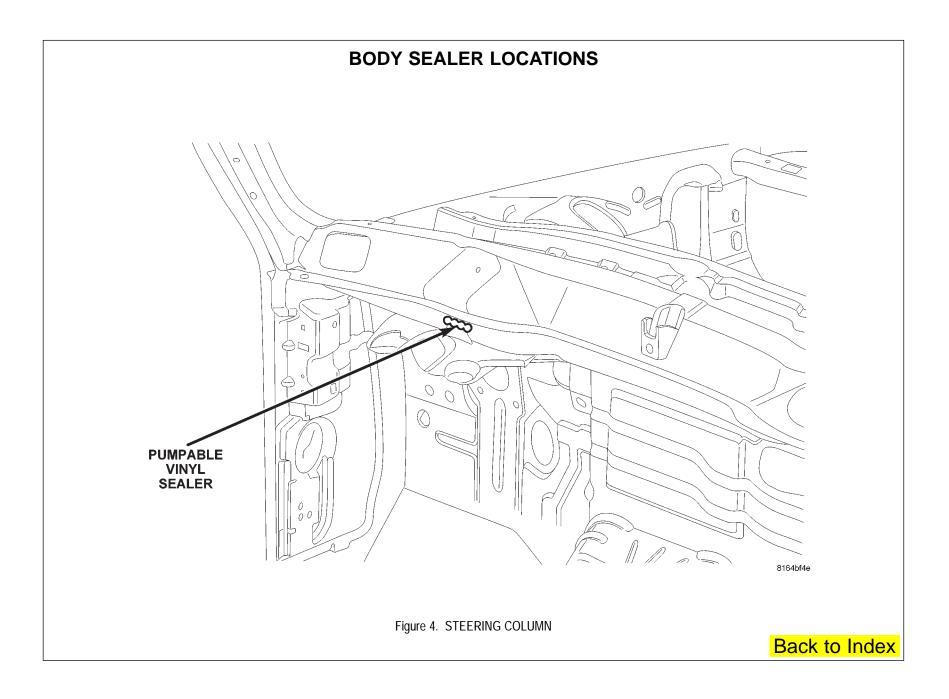
• Paintable Seam Sealer – Part No. 04318026

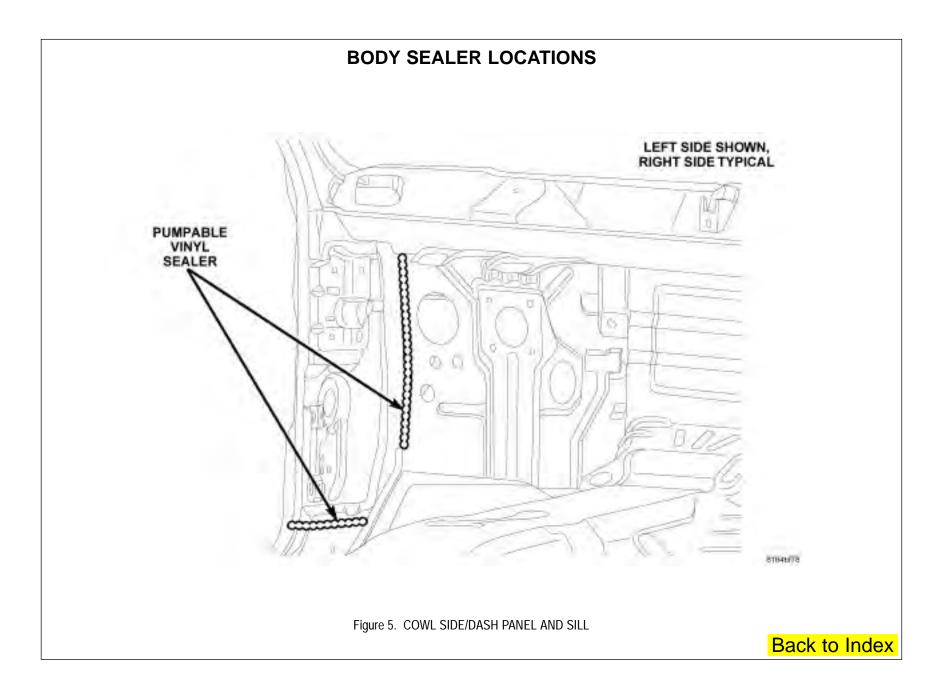
Back to Index

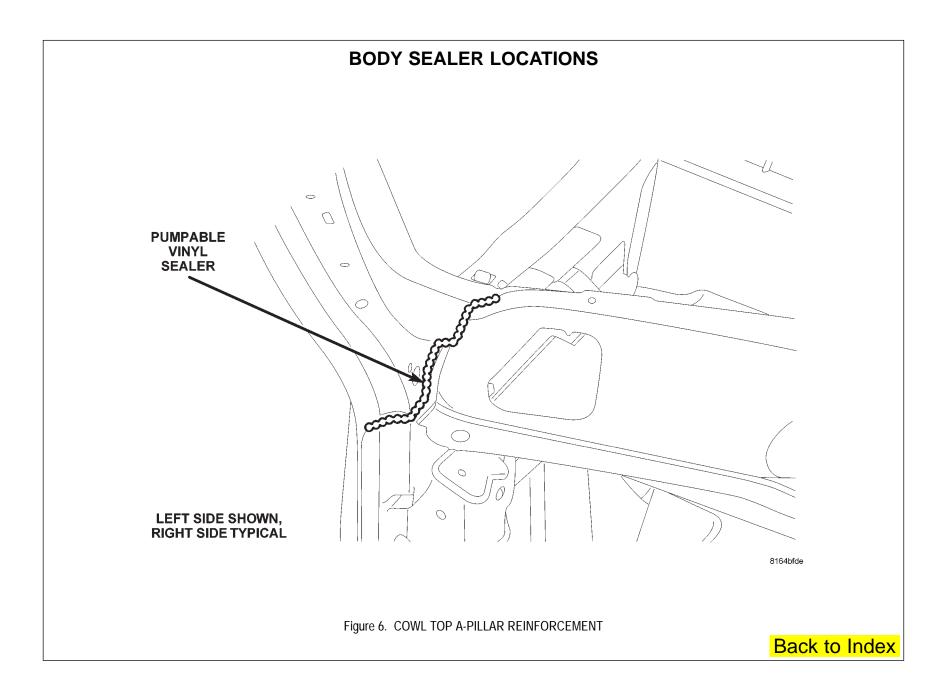


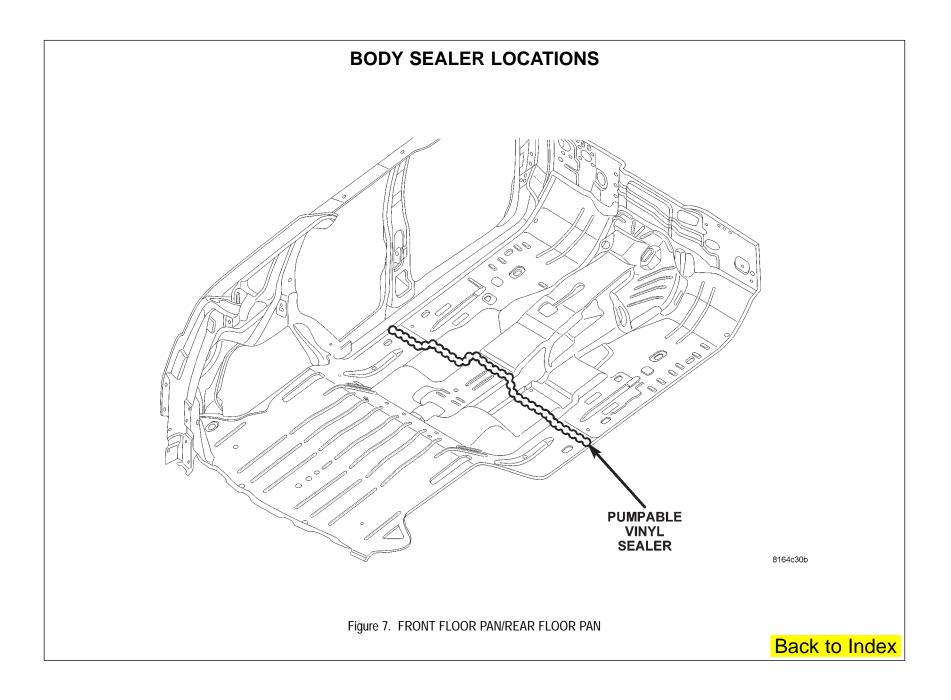


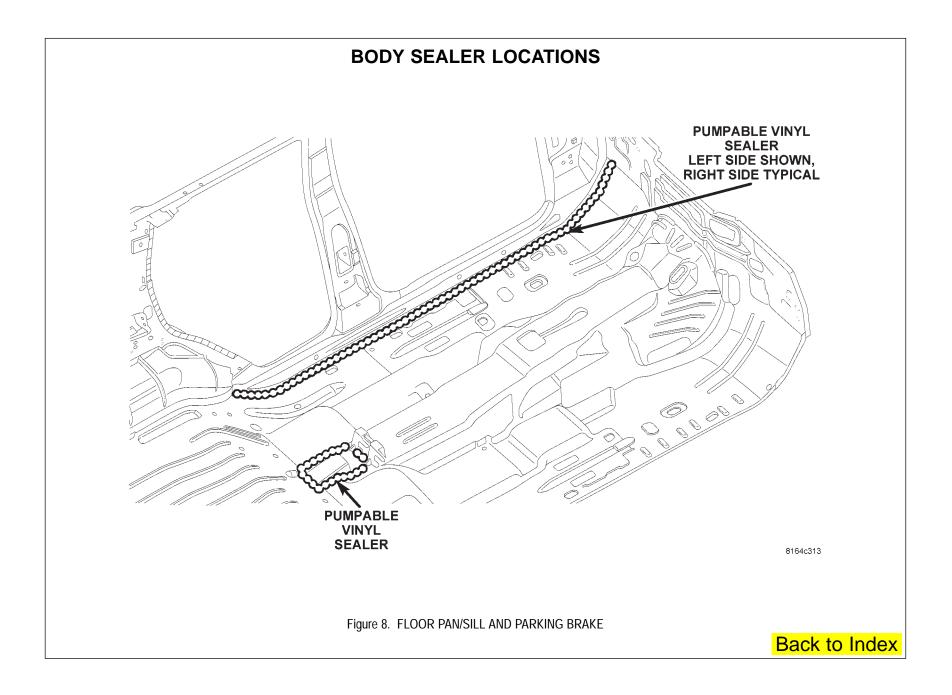


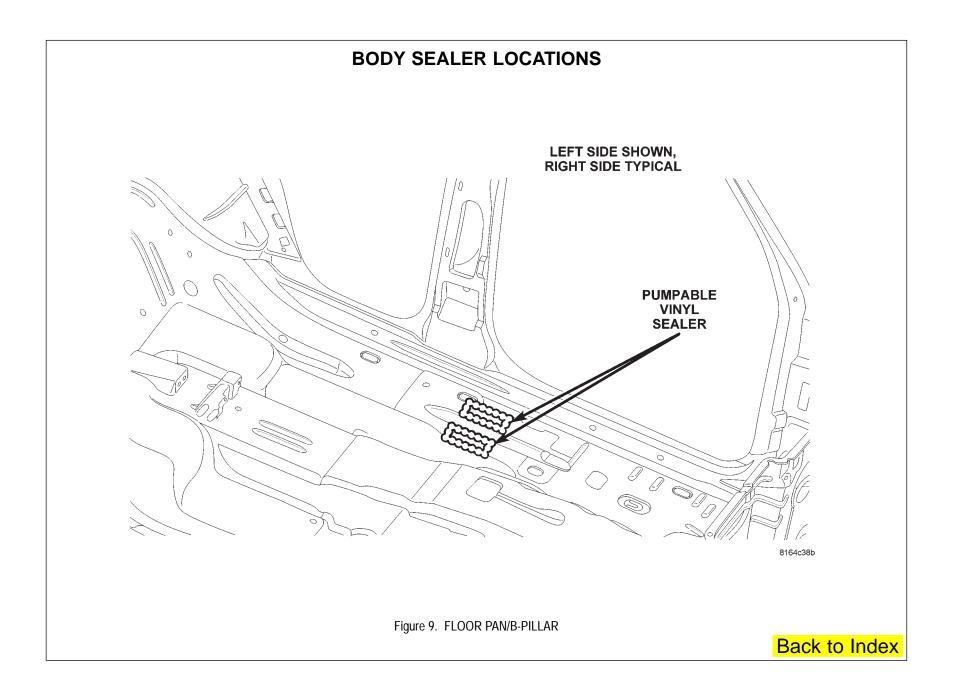


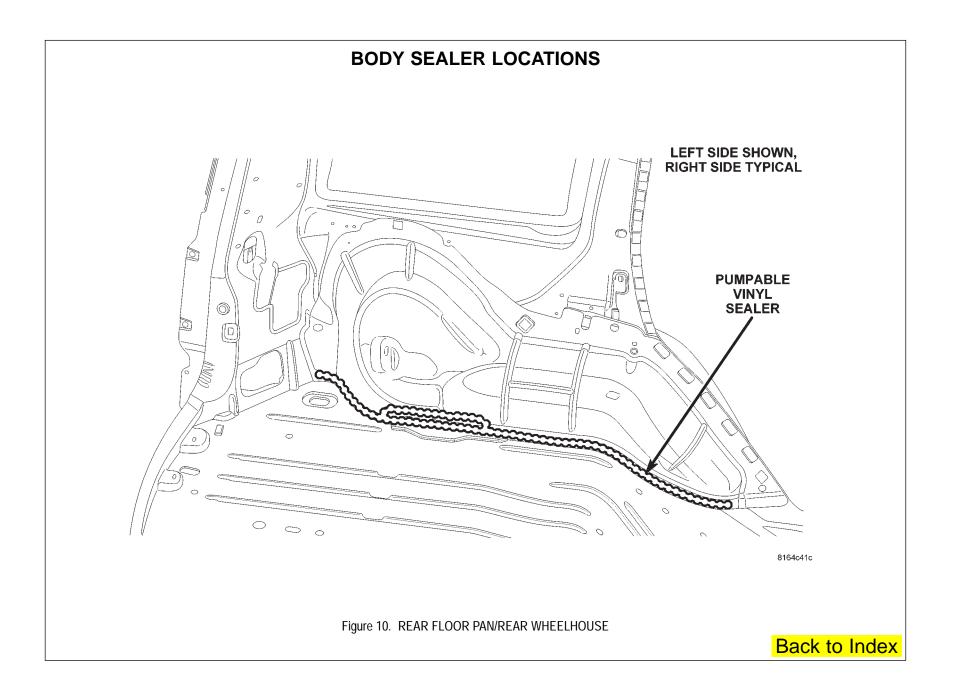


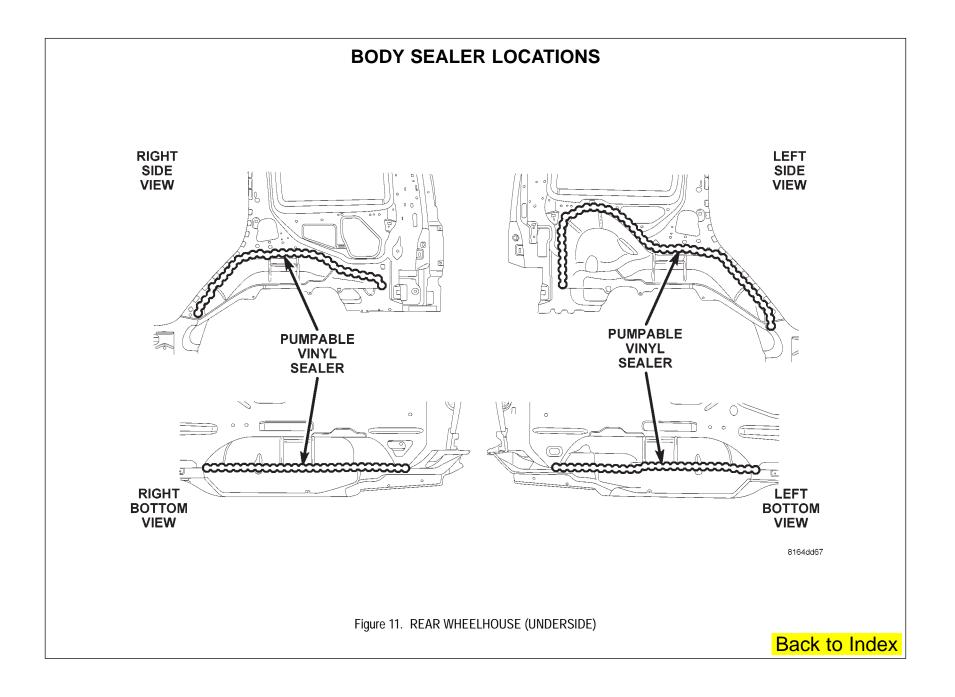


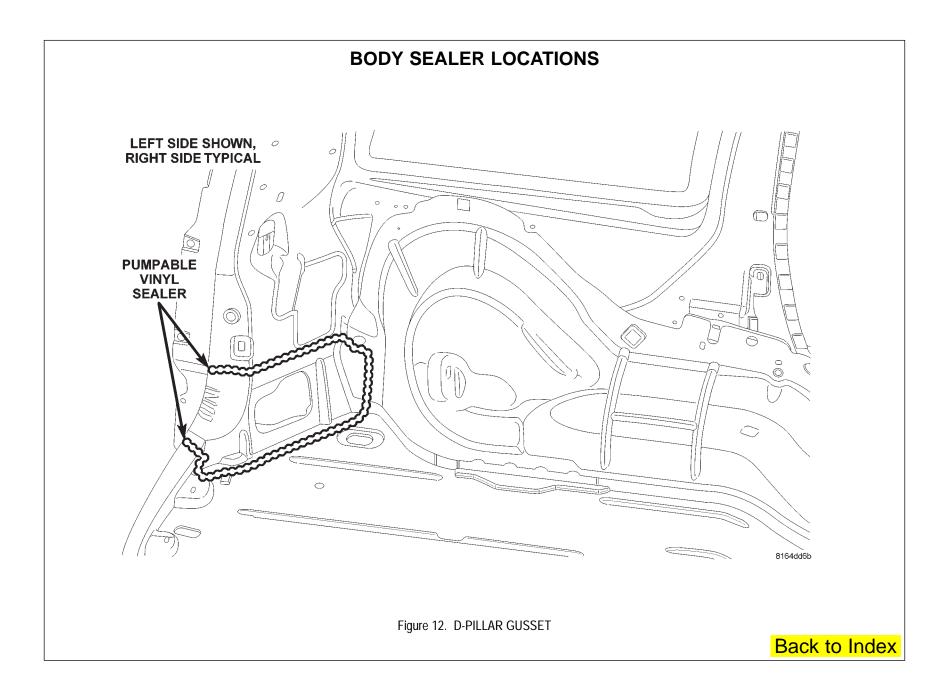


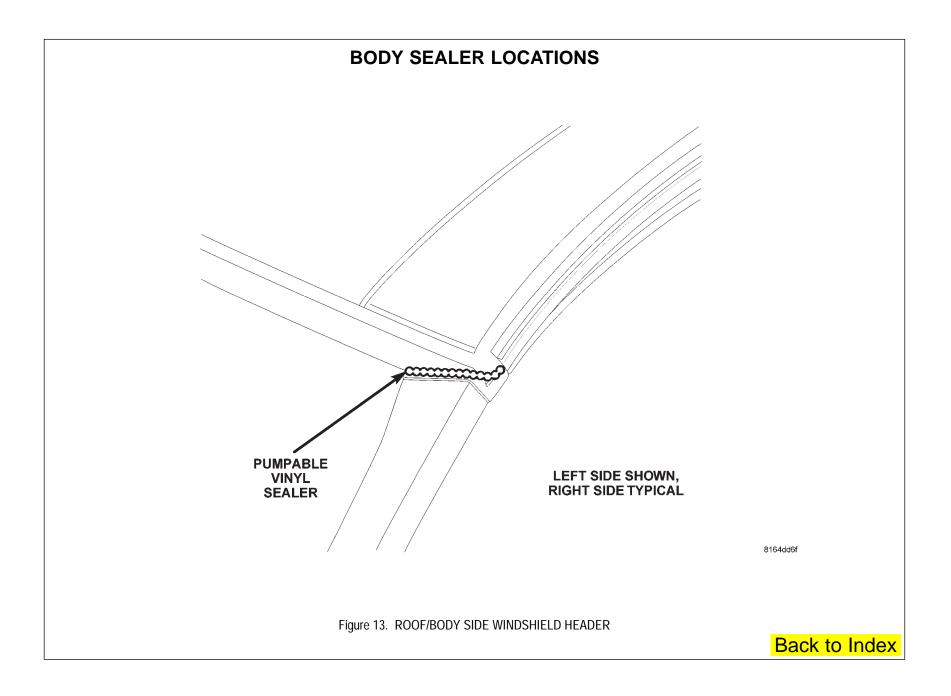


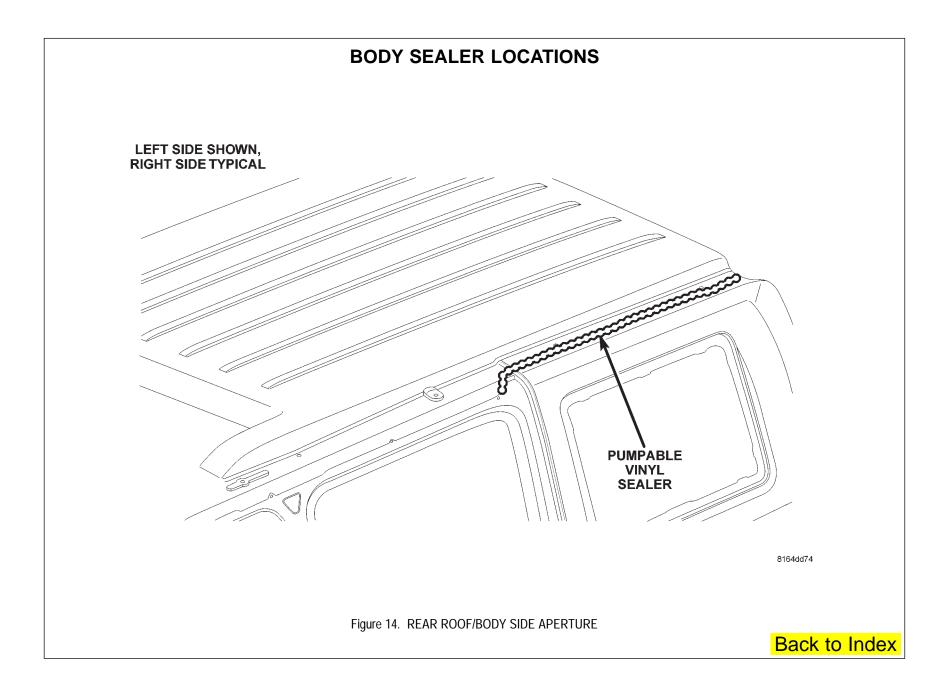


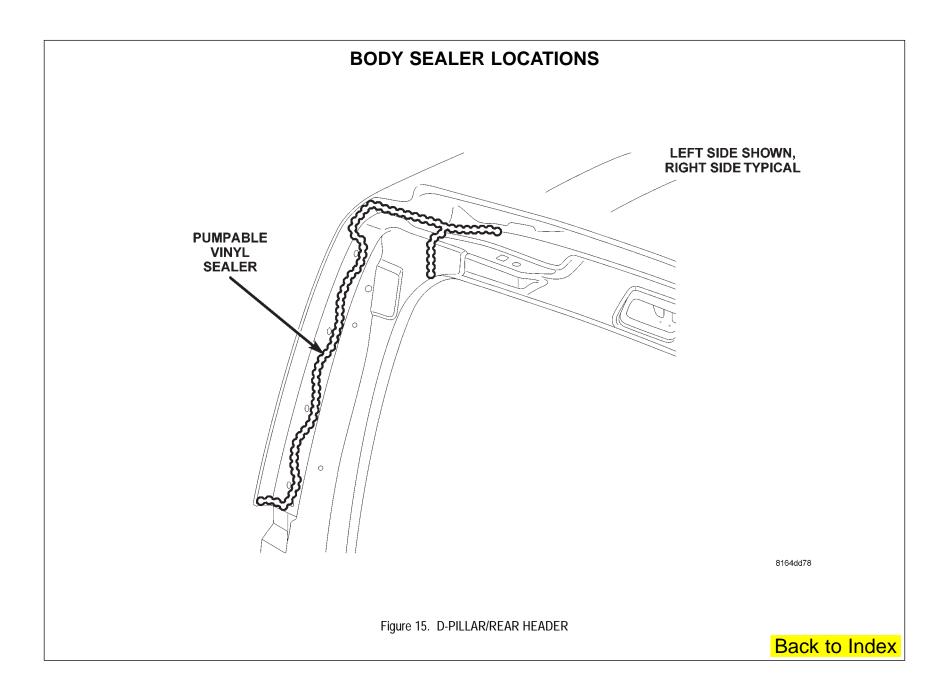


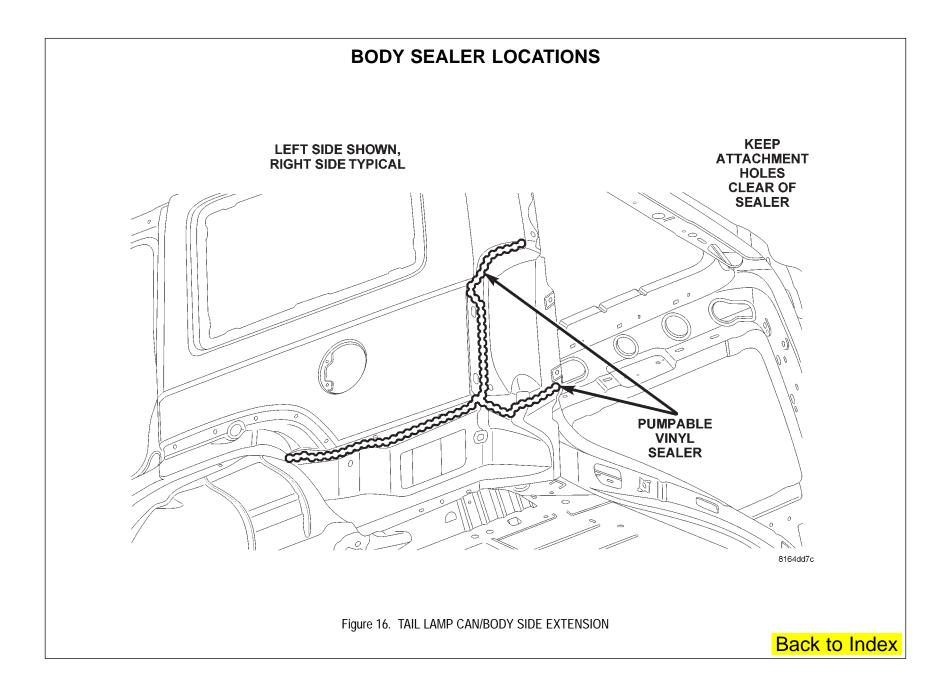












COMMANDER STRUCTURAL ADHESIVE LOCATIONS

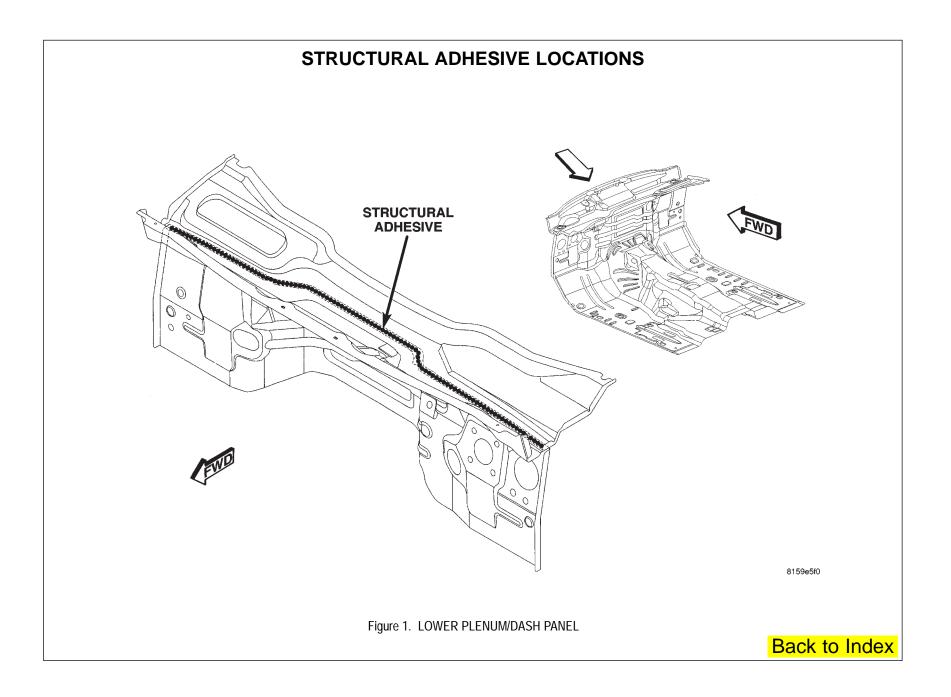
STRUCTURAL ADHESIVE LOCATION INDEX

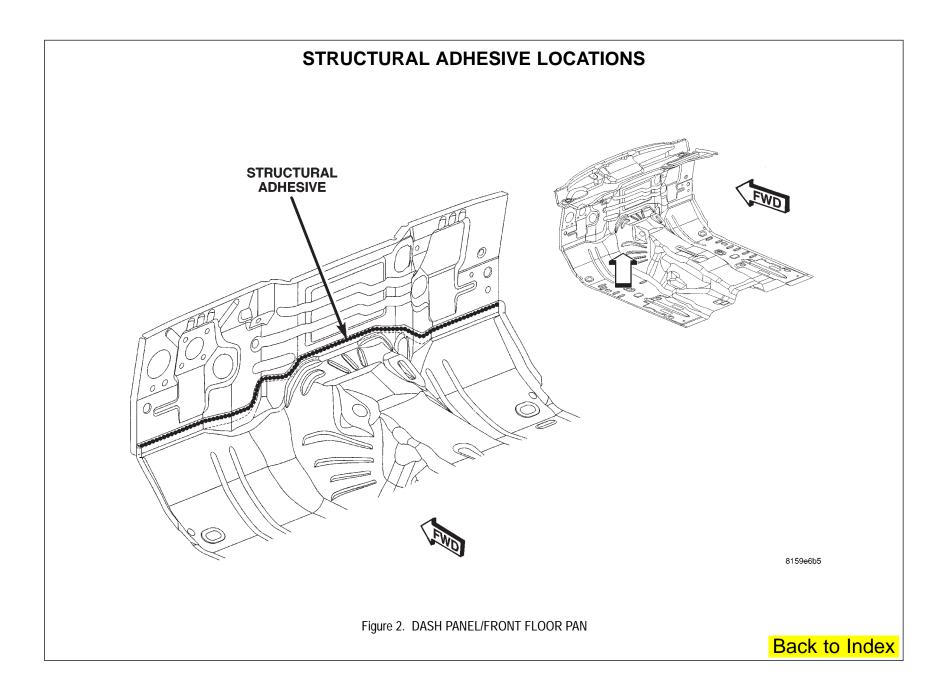
NOTE: Structural Adhesives used are a high strength epoxy and a high expansion lower strength antiflutter material. High strength epoxy is used on all areas.

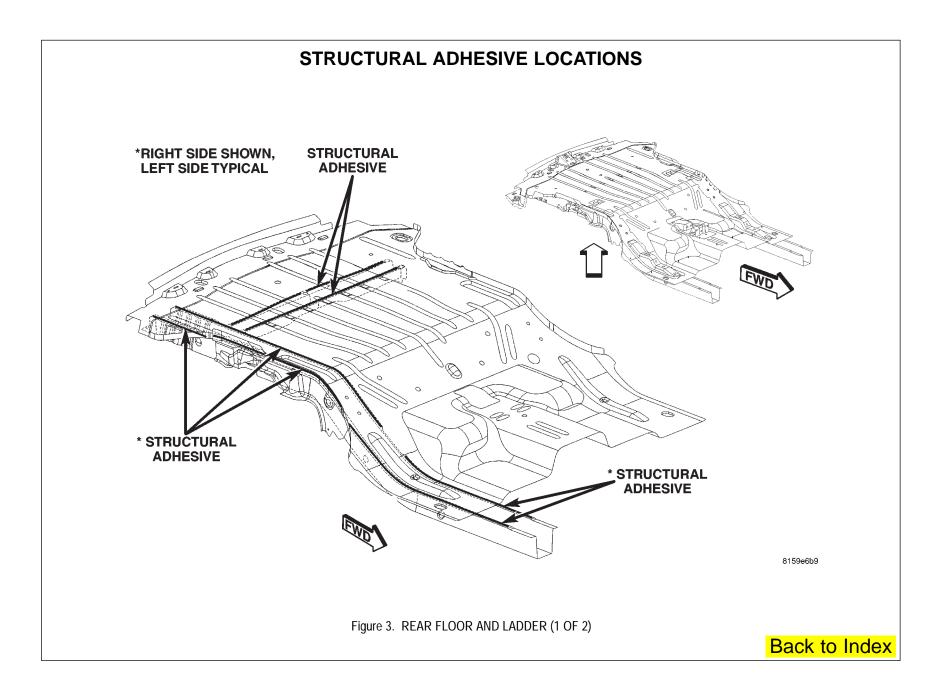
DESCRIPTION	FIGURE
LOWER PLENUM/DASH PANEL	1
DASH PANEL/FRONT FLOOR PAN	2
REAR FLOOR AND LADDER (1 OF 2)	3
REAR FLOOR AND LADDER (2 OF 2)	4
FRONT AND REAR FLOOR PAN	5
FRONT FLOOR PAN	6
OUTER BODY SIDE APERTURE/TAIL LAMP	7
INNER/OUTER BODY SIDE APERTURE-REAR	8
ROOF BOWS/BODY SIDE SILL	9
LIFTGATE HEADER/ "D" PILLAR	10
INNER RIGHT REAR WHEELHOUSE	11
INNER LEFT REAR WHEELHOUSE	12
LIFTGATE HEADER/ROOF WITHOUT SUNROOF	13
ROOF BOWS/LIFTGATE HEADER/ROOF WITH SUNROOF	14

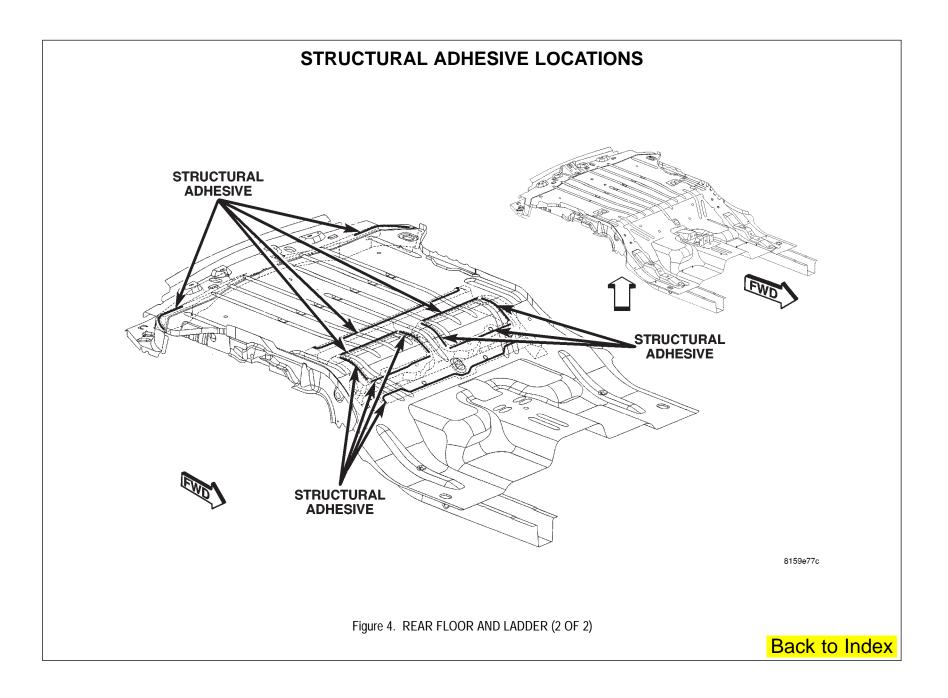
Preferred Mopar Products:

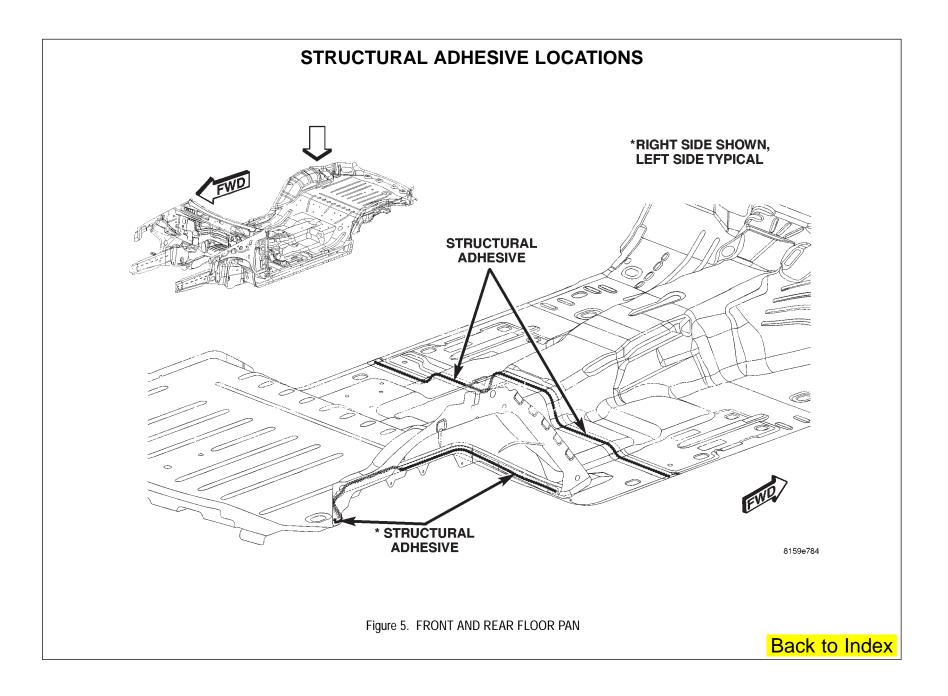
- Mopar 147 Part No. 05017147AA
- Mopar 112B Part No. 05083855AA
- Dispenser Part No. 05016570AA

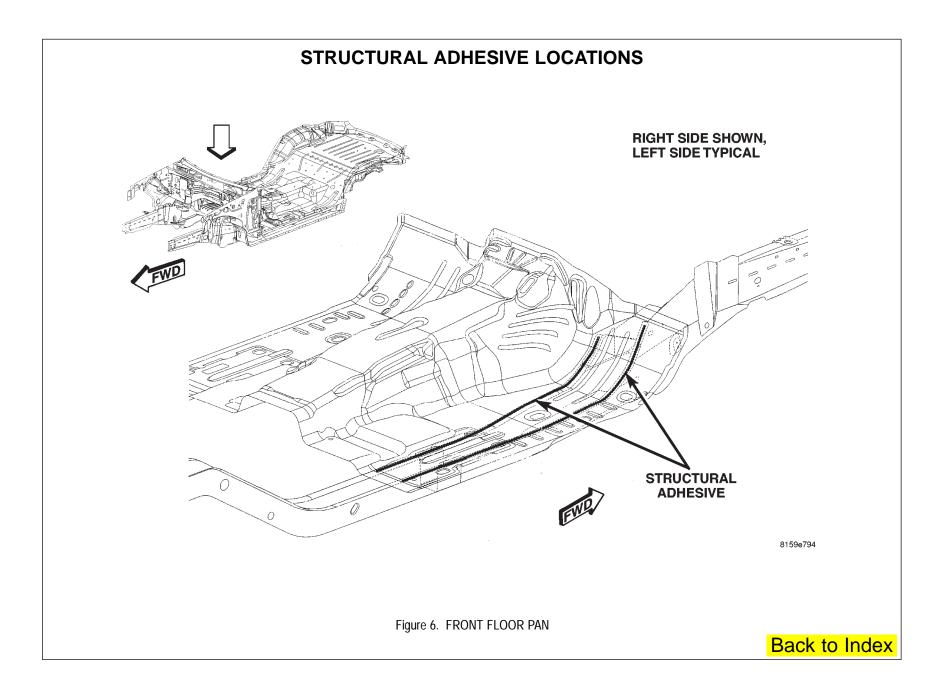


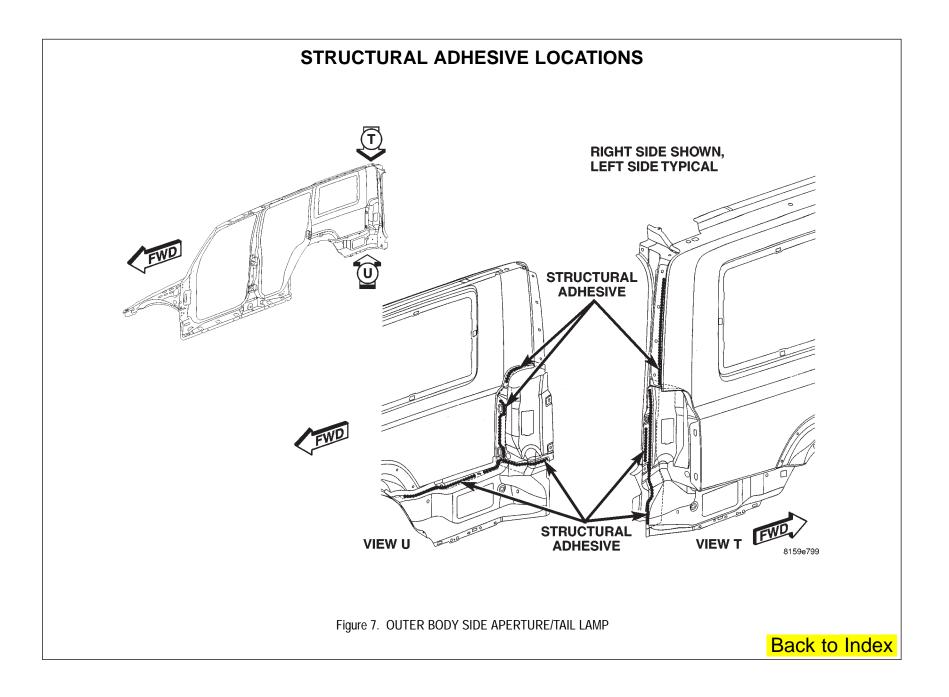


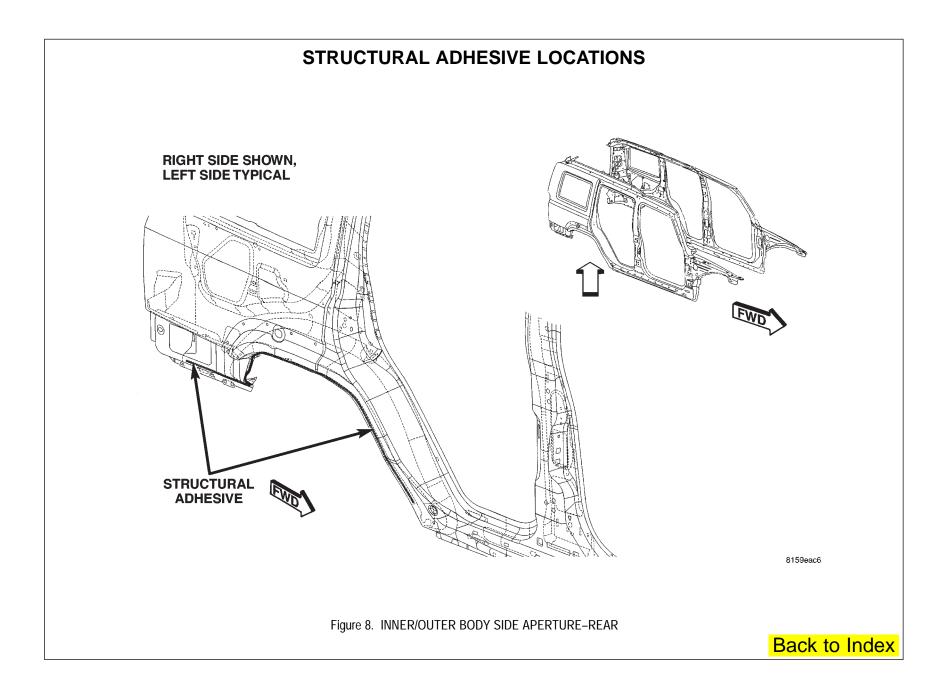


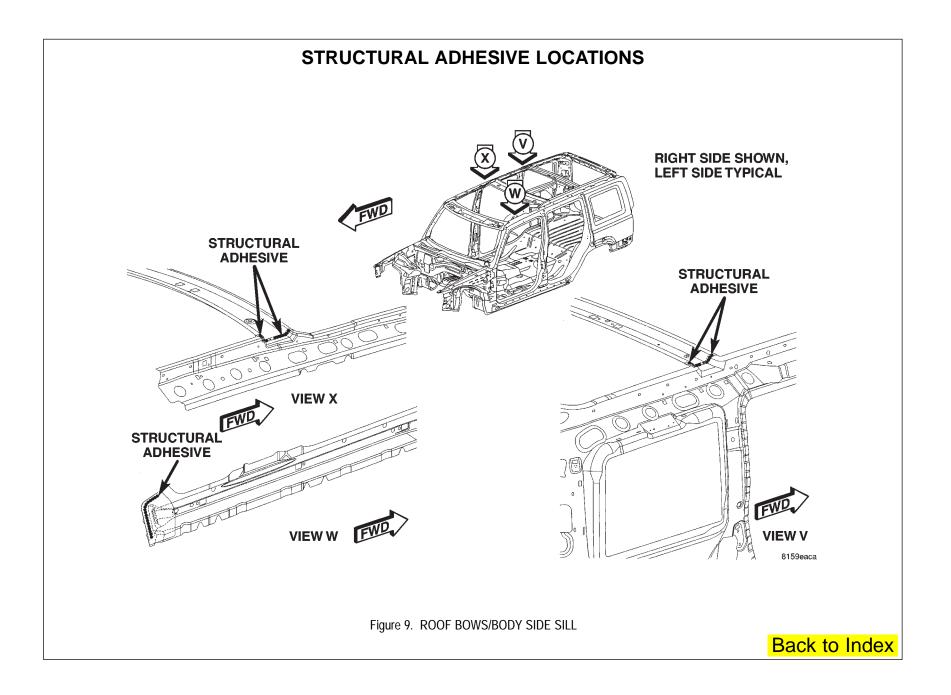


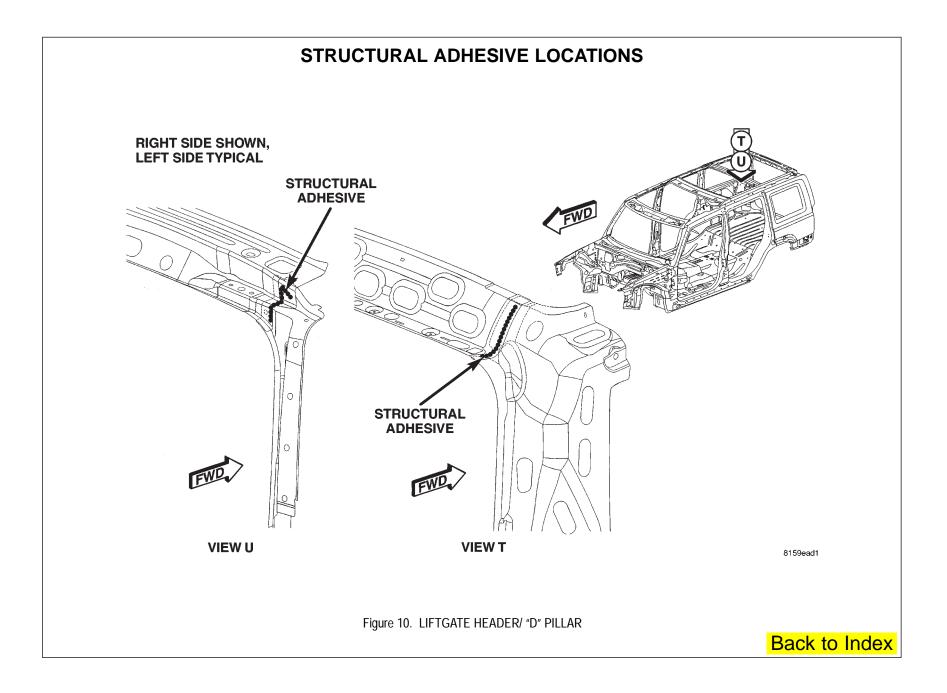


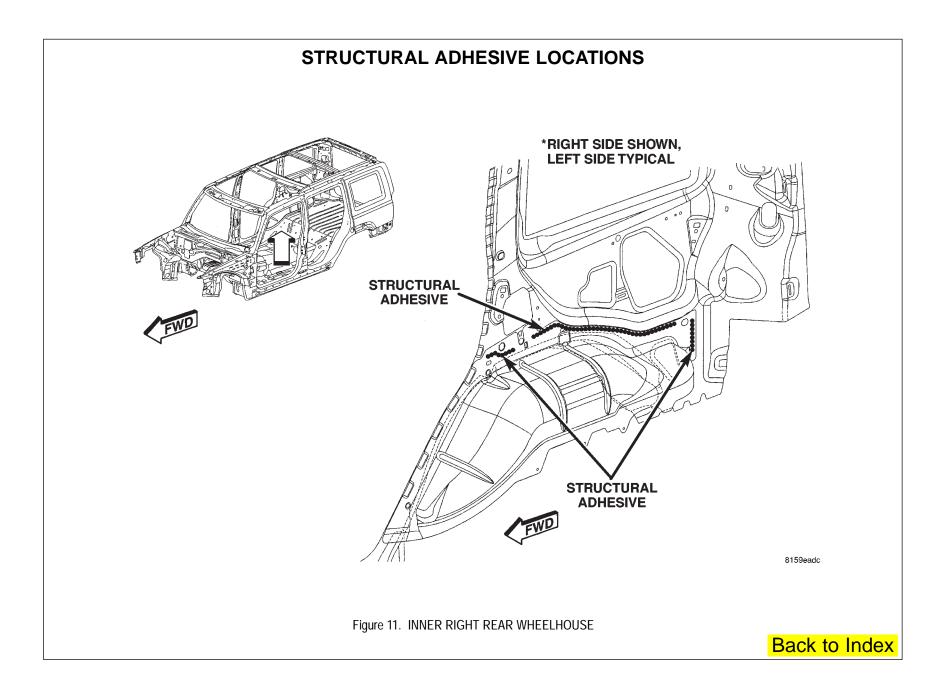


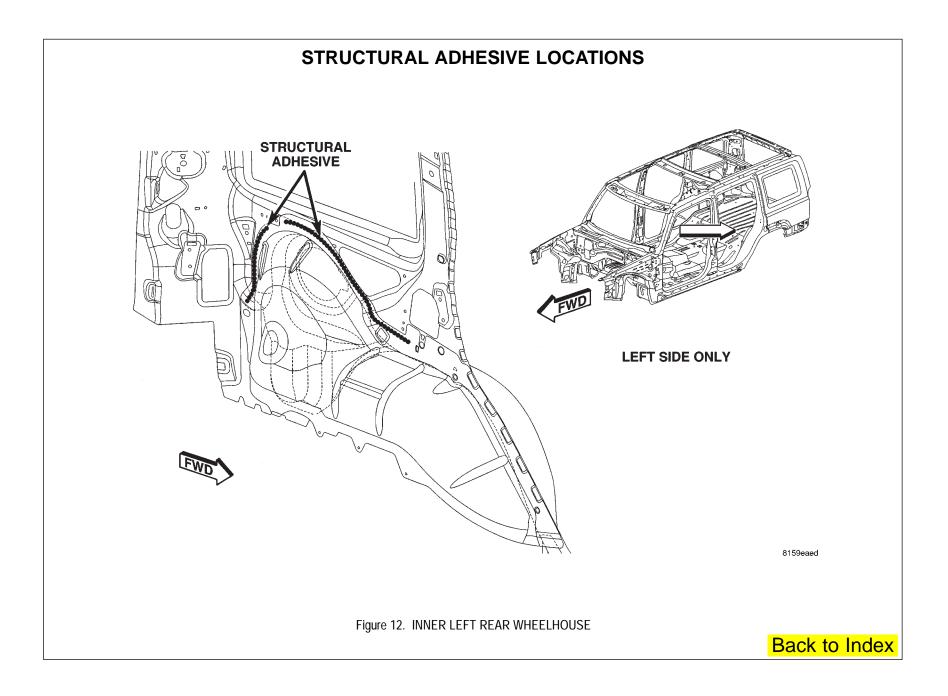


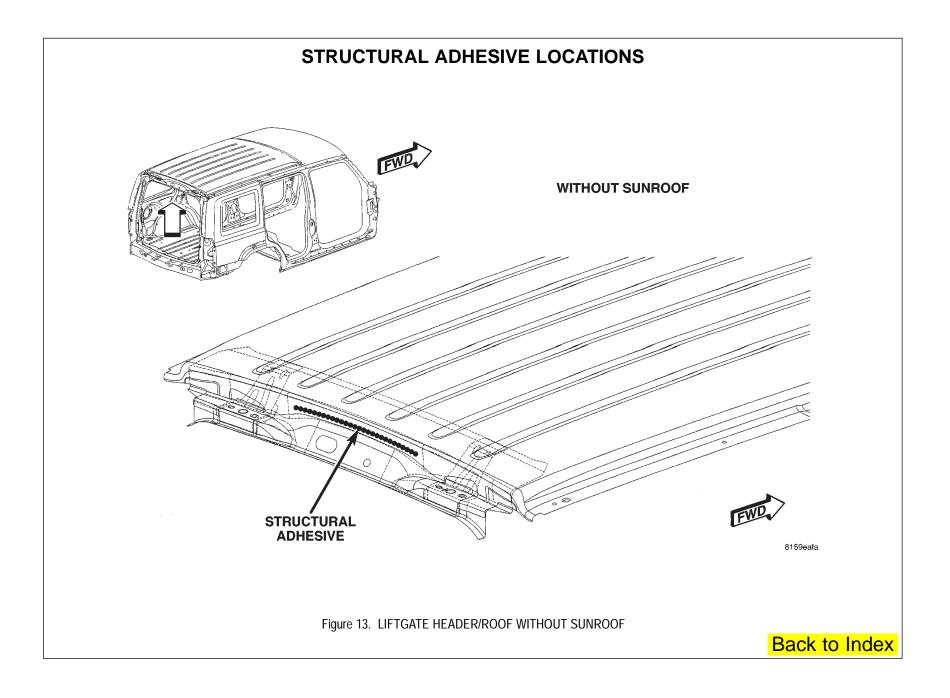


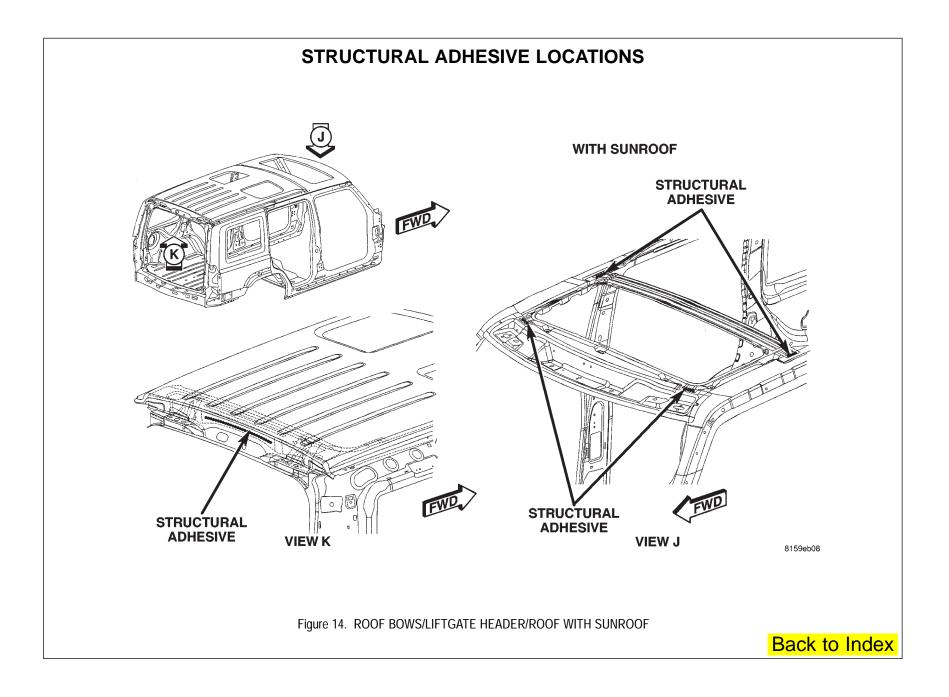












Jeep Commander

NVH/STRUCTURAL FOAM INFORMATION

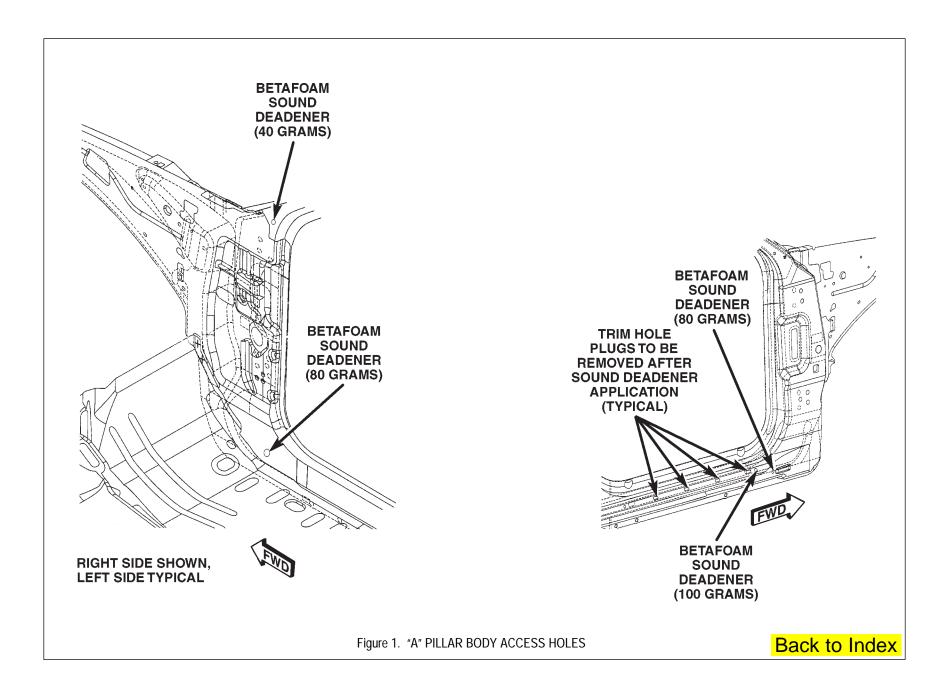
SOUND DEADENER

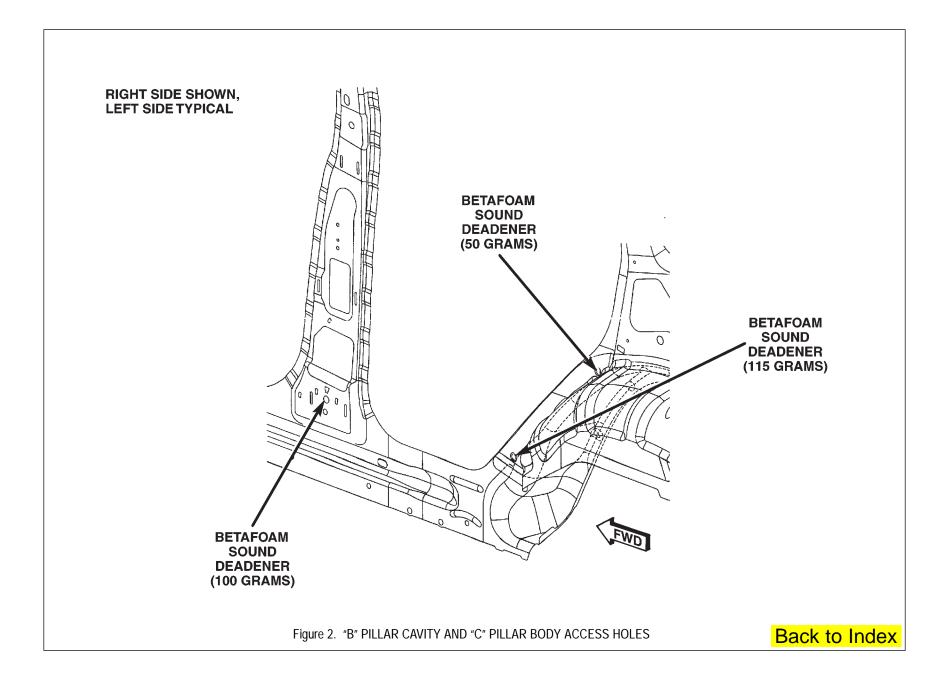
JEEP COMMANDER NVH/STRUCTURAL FOAM/ SOUND DEADENER LOCATIONS

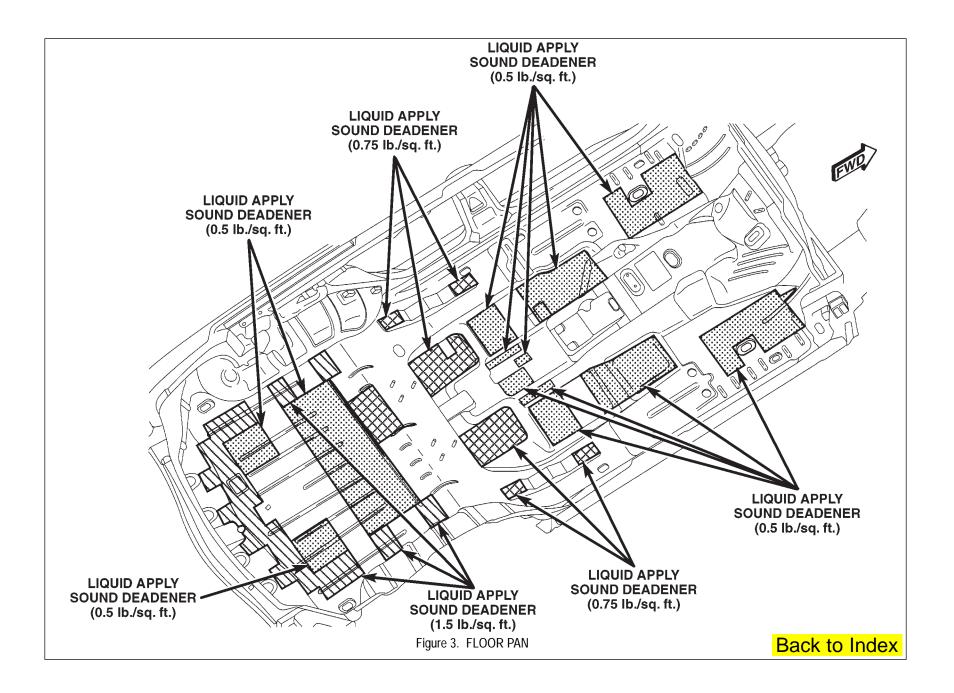
FIGURE	DESCRIPTION
1	"A" Pillar Body Access Holes
2	"B" Pillar Cavity and "C" Pillar Body Access Holes
3	Floor Pan
4	Right Side Rear Wheelhouse
5	Left Side Rear Wheelhouse
6	"D" Pillar Body Access Holes

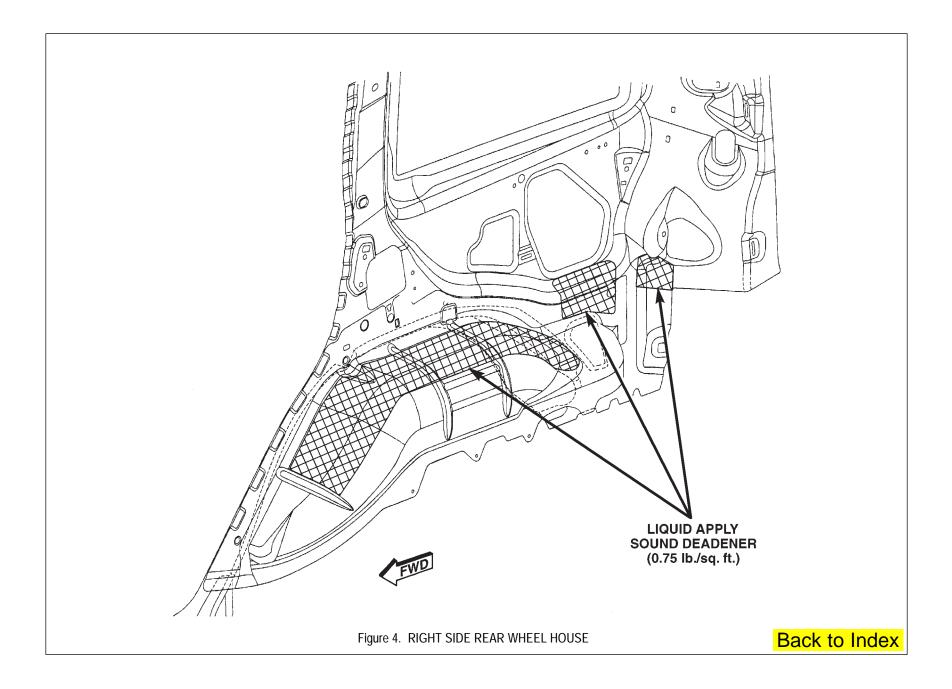
Preferred Mopar Products:

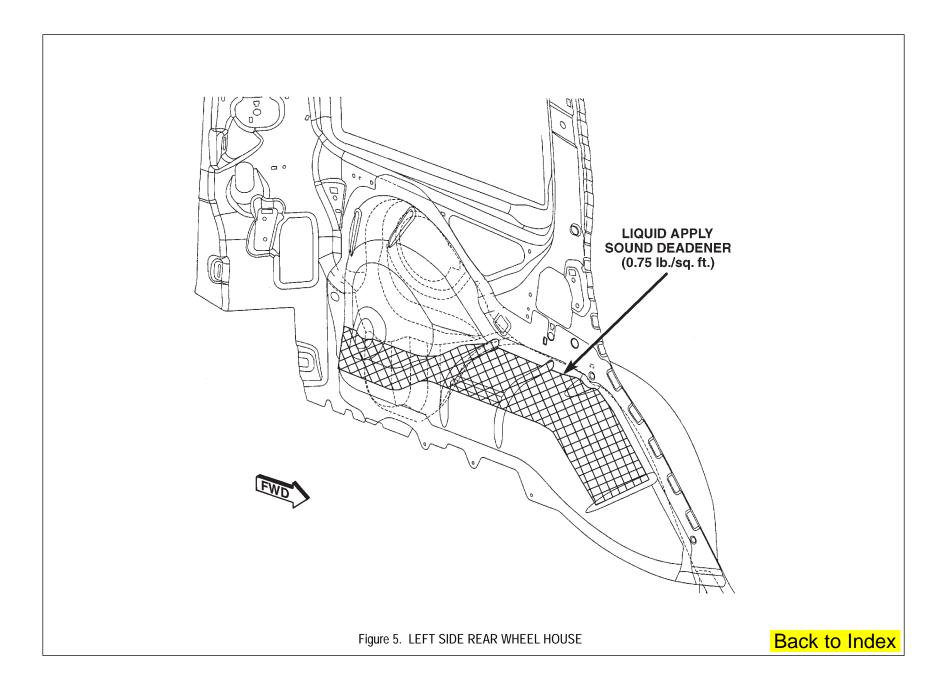
- Expandable Foam Part No. 05142864AA
- Dispenser Part No. 05016570AA

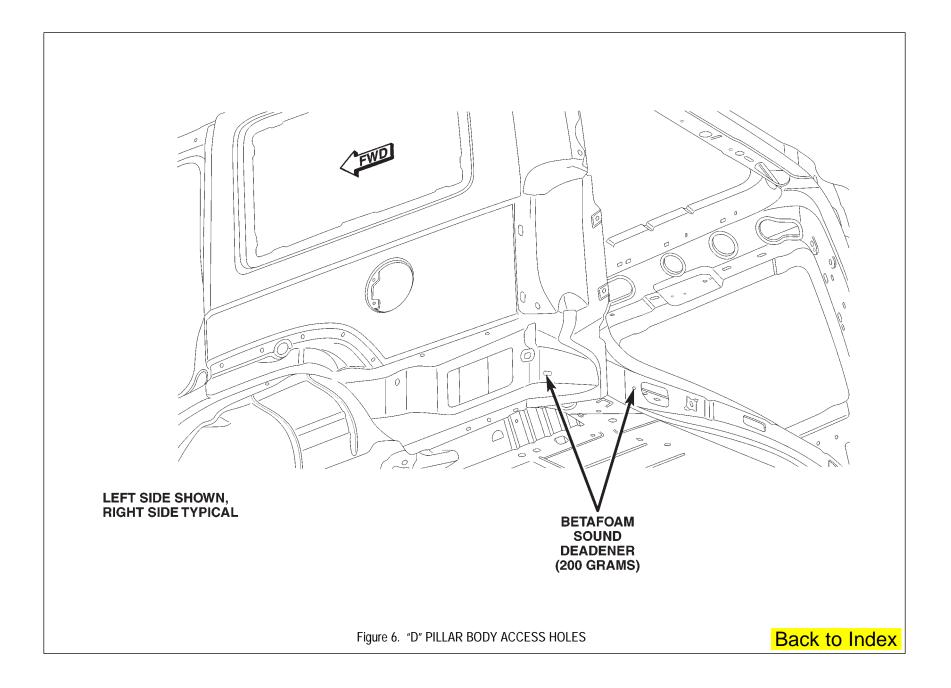




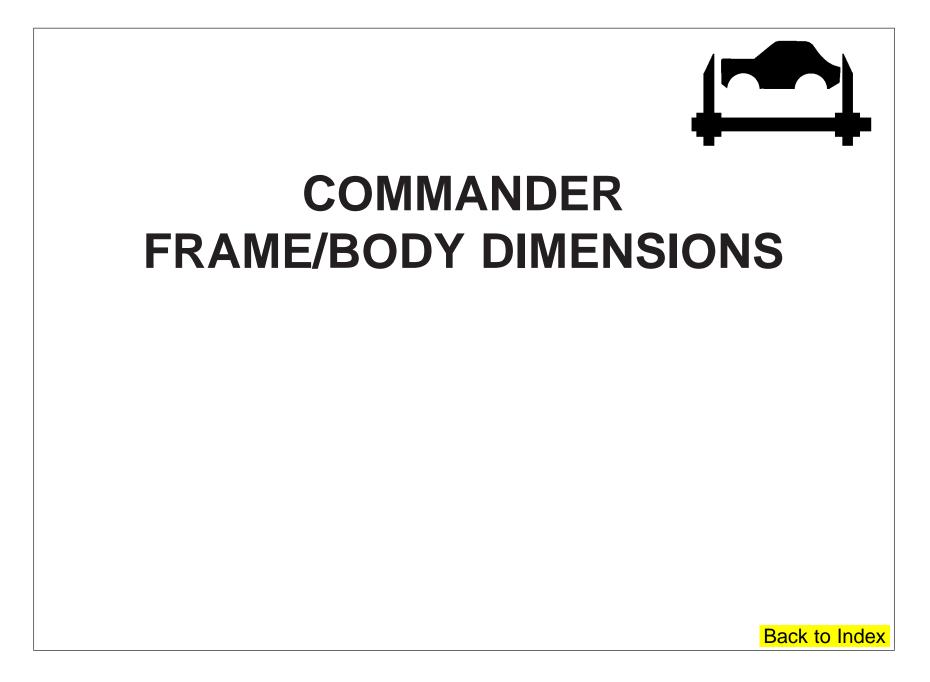












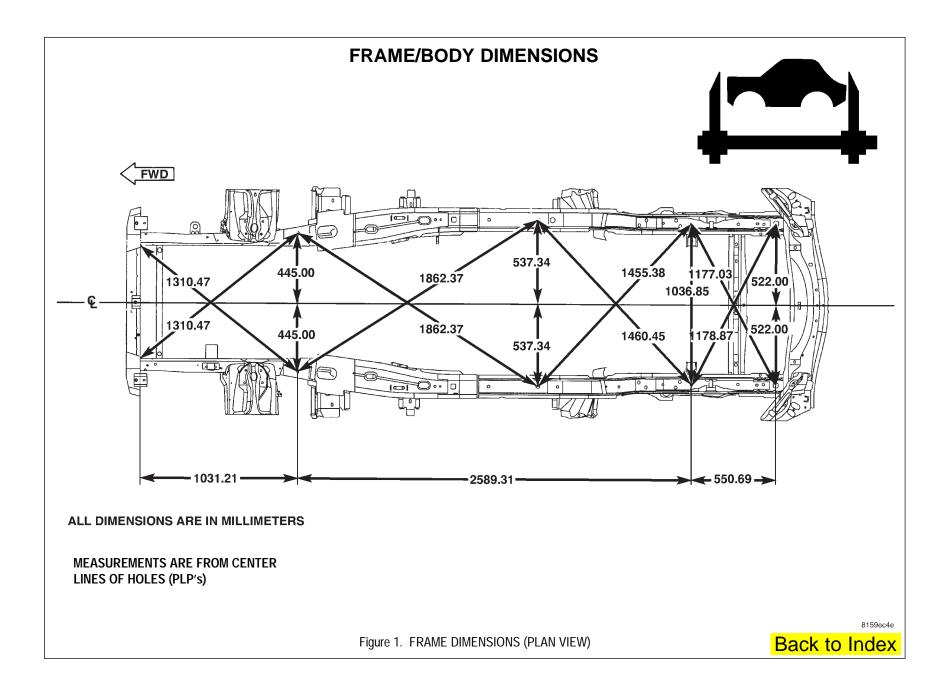


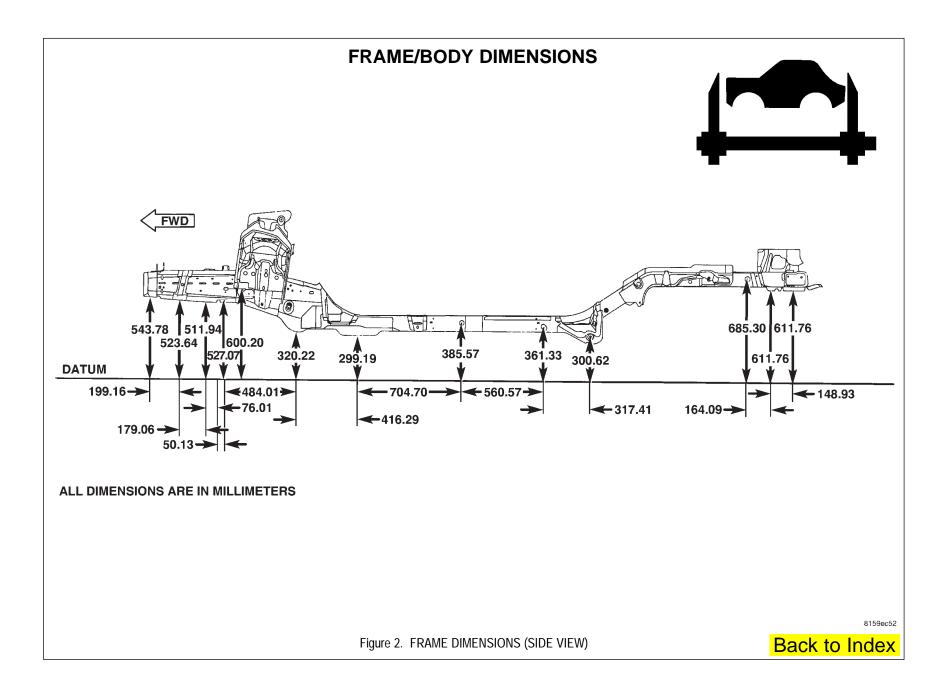
FRAME DIMENSIONS

Frame dimensions are listed in metric scale. All dimensions are from center of Principal Locating Point (PLP), or from center to center of PLP and transfer location. Vertical dimensions can be taken from the work surface to the locations indicated.

INDEX

DESCRIPTION	FIGURE
FRAME DIMENSIONS (PLAN VIEW)	1
FRAME DIMENSIONS (SIDE VIEW)	2



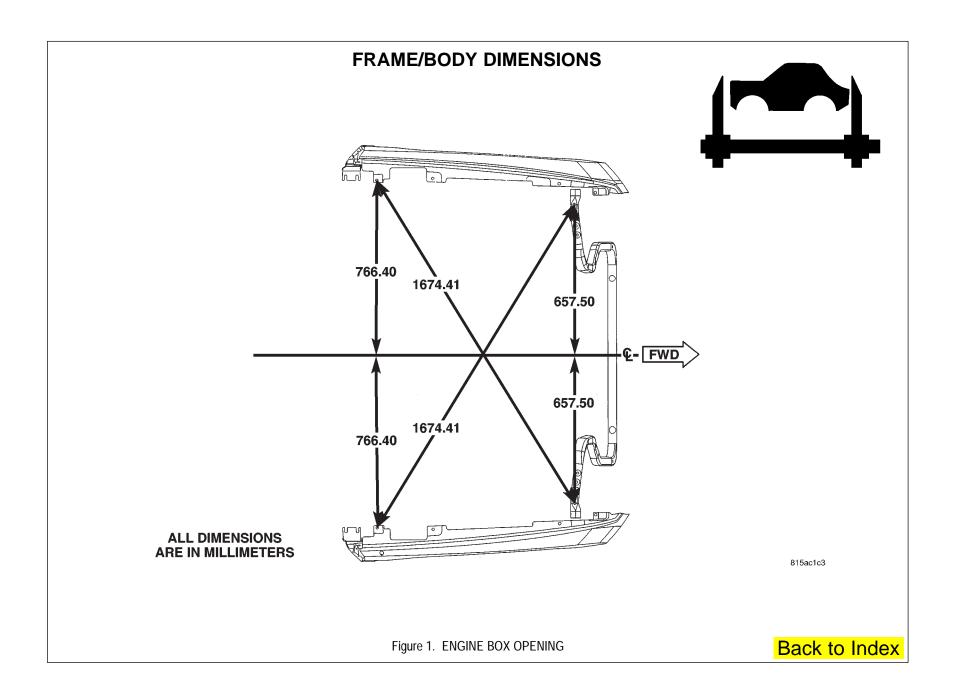


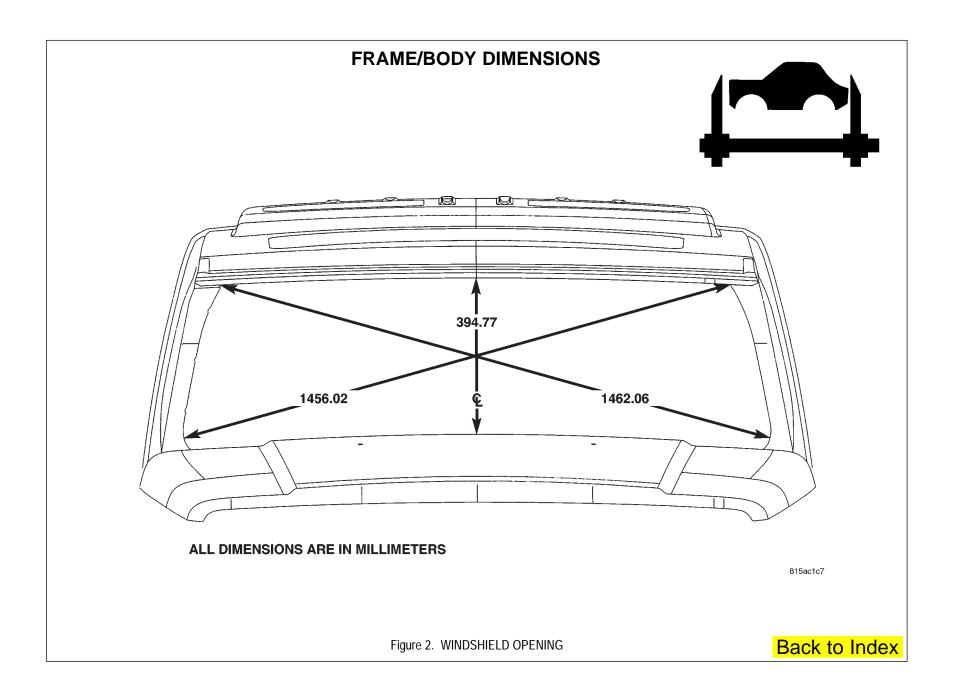


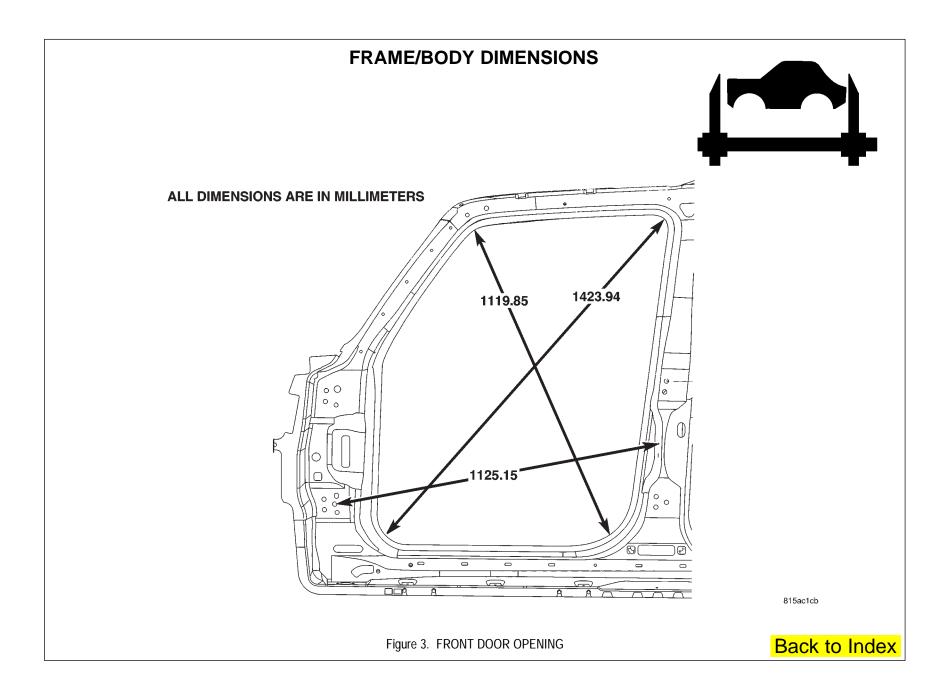
OPENING DIMENSIONS

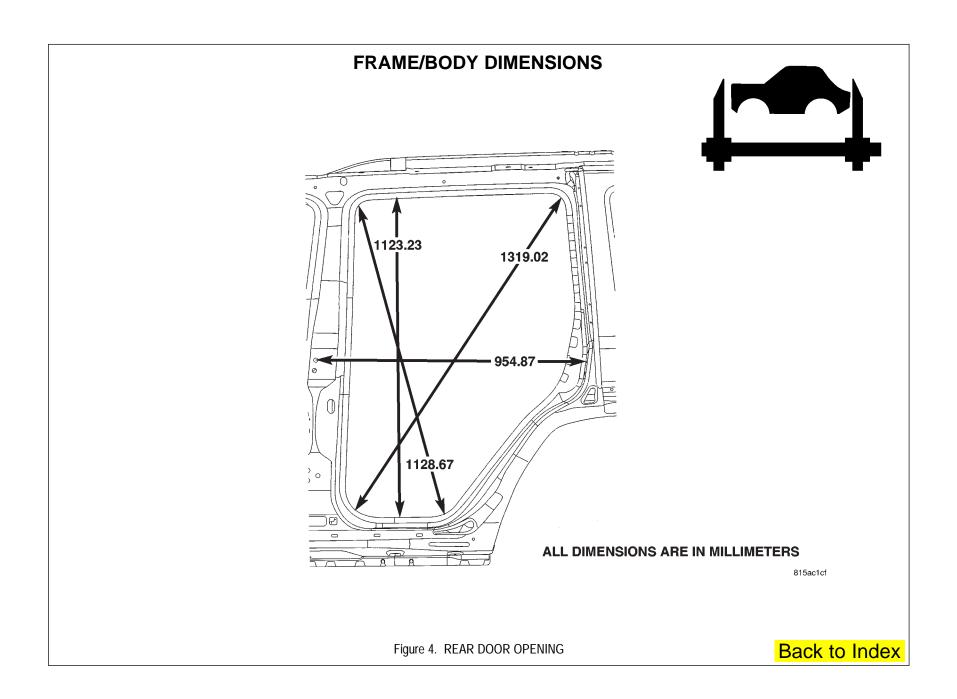
DESCRIPTION	FIGURE
ENGINE BOX OPENING	1
WINDSHIELD OPENING	2
FRONT DOOR OPENING	3
REAR DOOR OPENING	4
QUARTER WINDOW OPENING	5
LIFTGATE OPENING	6

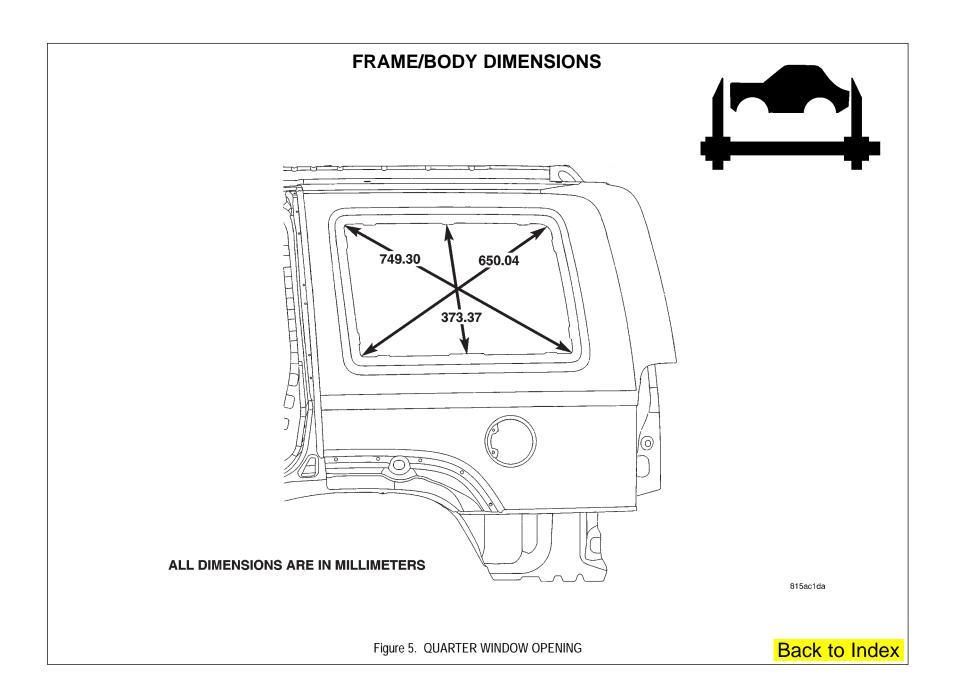
Back to Index

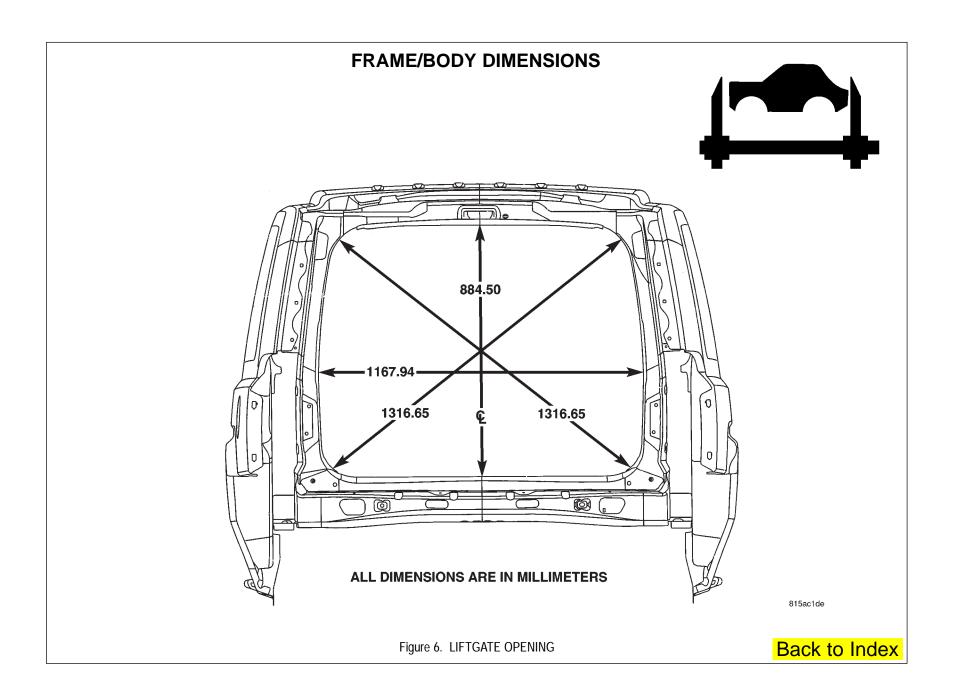


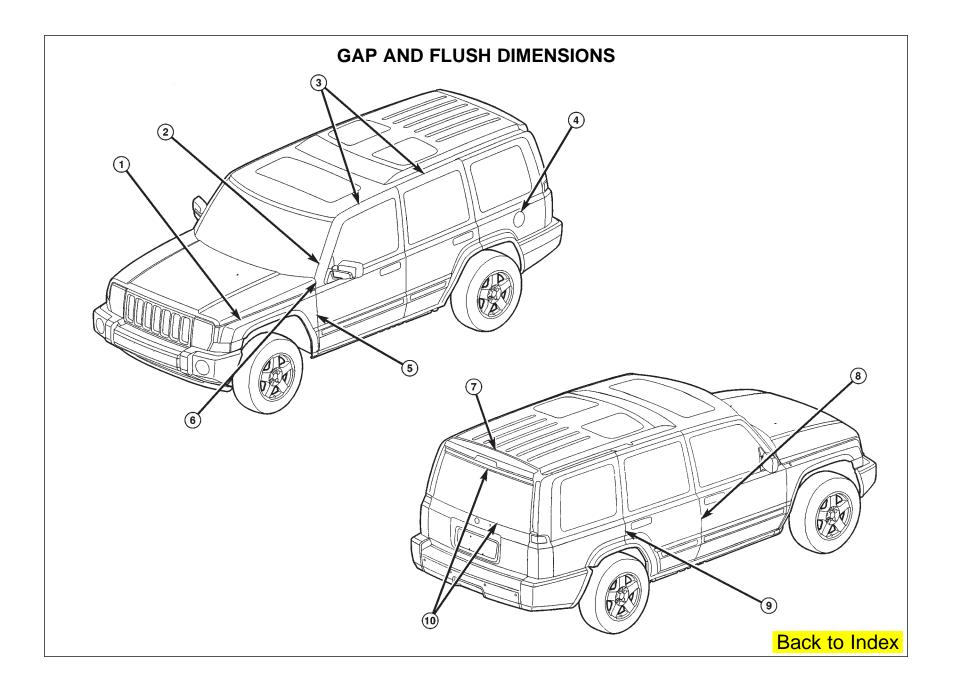












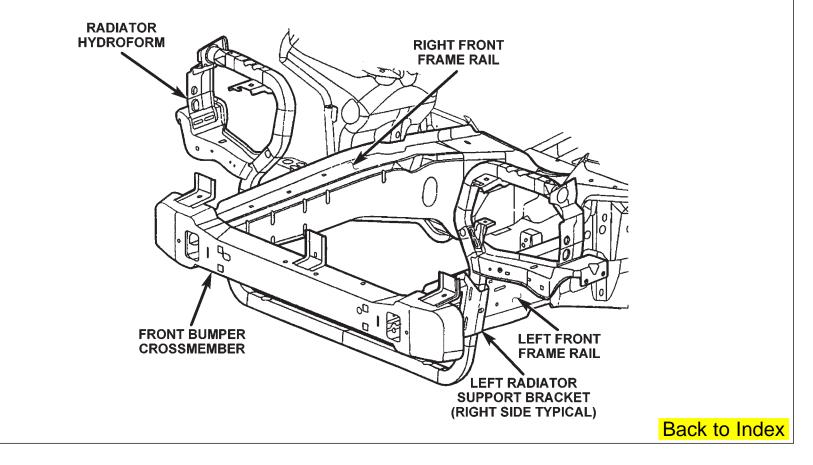
	DESCRIPTION	GAP	FLUSH
1	HOOD TO FENDER	6.0 +/- 2.0 PARALLEL WITHIN 2.0	HOOD OVERFLUSH -0.75 +/- 1.5 (FRONT ONLY)
2	WINDSHIELD MOULDING TO FRONT DOOR	6.0 +/- 2.0 PARALLEL WITHIN 1.5	MOULDING OVERFLUSH 3.0 +/- 1.0
3	FRONT AND REAR DOORS TO ROOF	6.0 +/- 1.5 PARALLEL WITHIN 2.5	DOORS OVERFLUSH 3.0 +/- 1.5
4	FUEL DOOR TO BODY SIDE	3.0 +/- 1.0	FUEL DOOR UNDERFLUSH -0.5 +/- 1.0
5	FENDER TO FRONT DOOR	4.5 +/- 1.25 PARALLEL WITHIN 1.25	FENDER OVERFLUSH 0.5 +/- 1.0
6	HOOD TO FRONT DOOR	6.0 +/- 2.0 PARALLEL WITHIN 1.25	
7	LIFTGATE TO ROOF	9.0 +/- 2.0	LIFTGATE UNDERFLUSH -1.0 +/- 1.5 PARALLEL WITHIN 1.5
8	FRONT DOOR TO REAR DOOR	4.5 +/- 1.0 PARALLEL WITHIN 1.0	0.0 +/- 1.0 PARALLEL WITHIN 1.5
9	REAR DOOR TO BODY SIDE	4.5 +/- 1.0 PARALLEL WITHIN 1.0	0.0 +/- 1.0 PARALLEL WITHIN 1.5
0	FLIPPER GLASS TO LIFTGATE	5.0 +/- 1.5 PARALLEL WITHIN 1.0	GLASS UNDERFLUSH -2.0 +/- 2.0 PARALLEL WITHIN 2.0

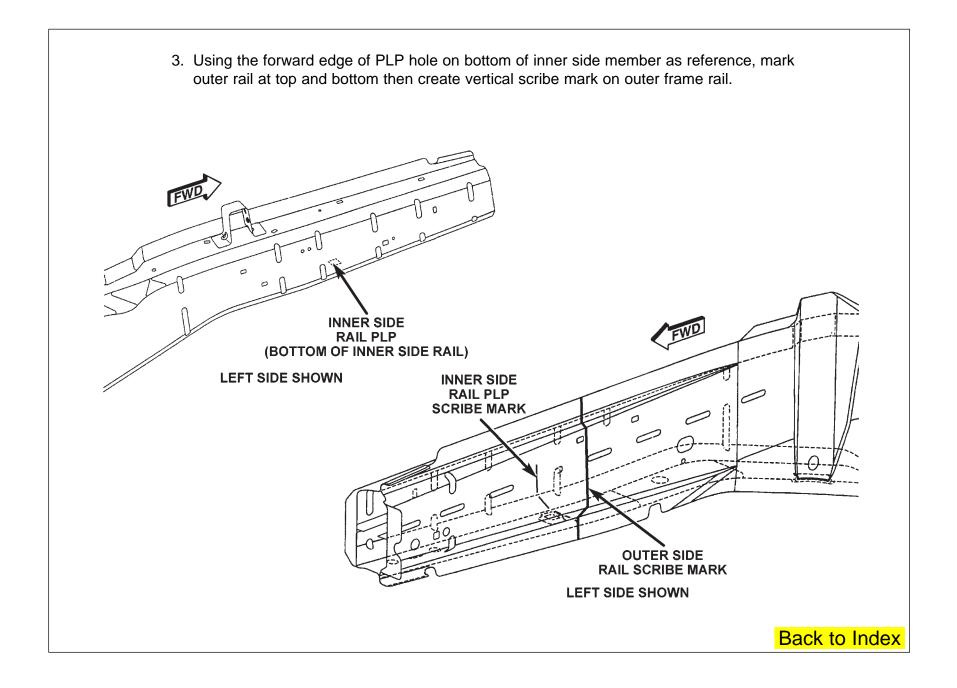
GAP AND FLUSH

Back to Index

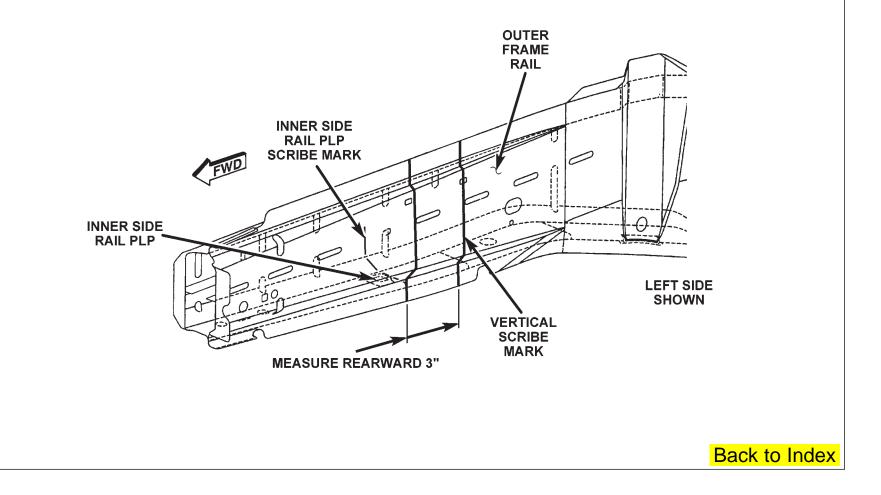
JEEP COMMANDER FRONT FRAME RAIL SECTIONING PROCEDURE

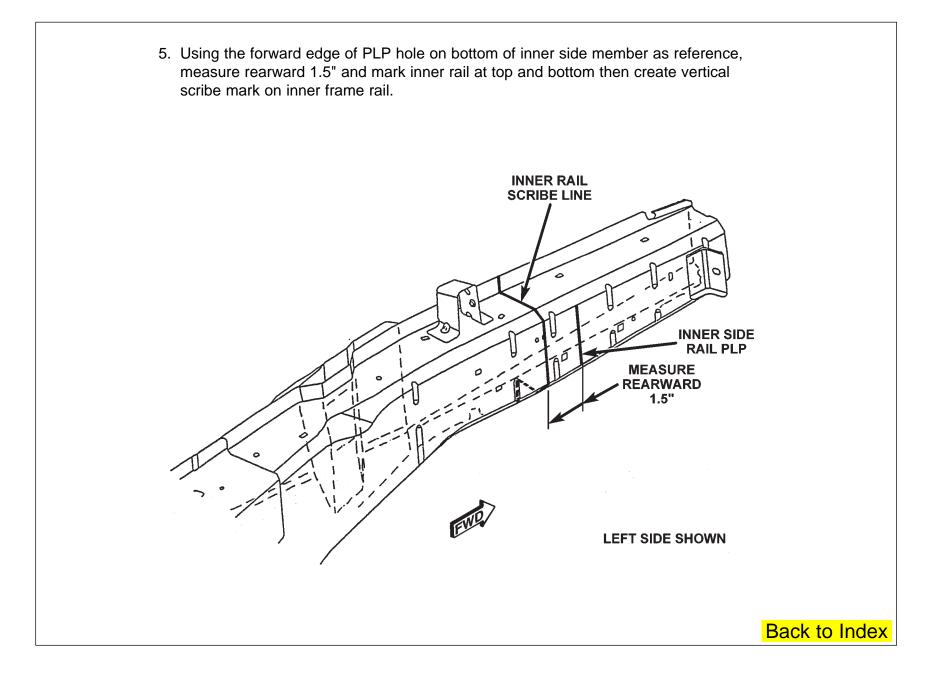
- 1. Remove front bumper cross member using a Rotabroach (hole saw).
- 2. Release welds securing radiator support brackets to the side of outer frame rails using a Rotabroach (hole saw) and only mill through the bracket if possible. If replacing one frame rail, replacing part of radiator hydroform can be done.



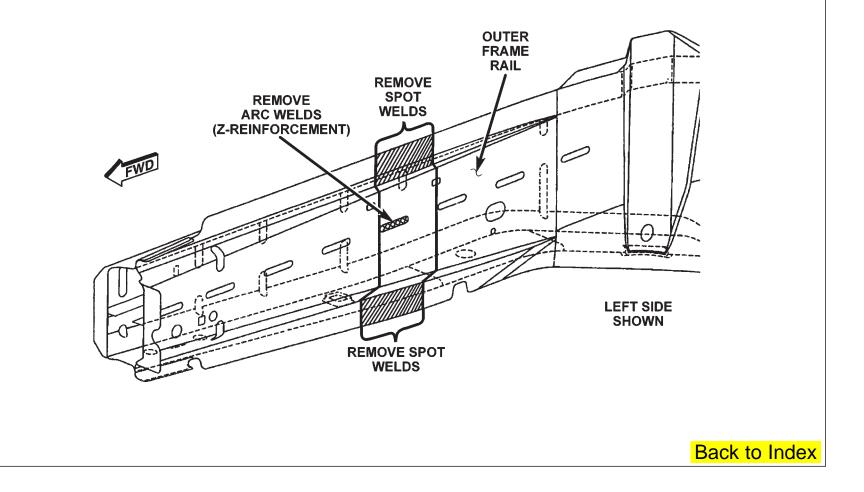


4. Using the forward edge of PLP hole on bottom of inner side member as reference, measure rearward 3" and mark outer rail at top and bottom then create vertical scribe mark on outer frame rail.

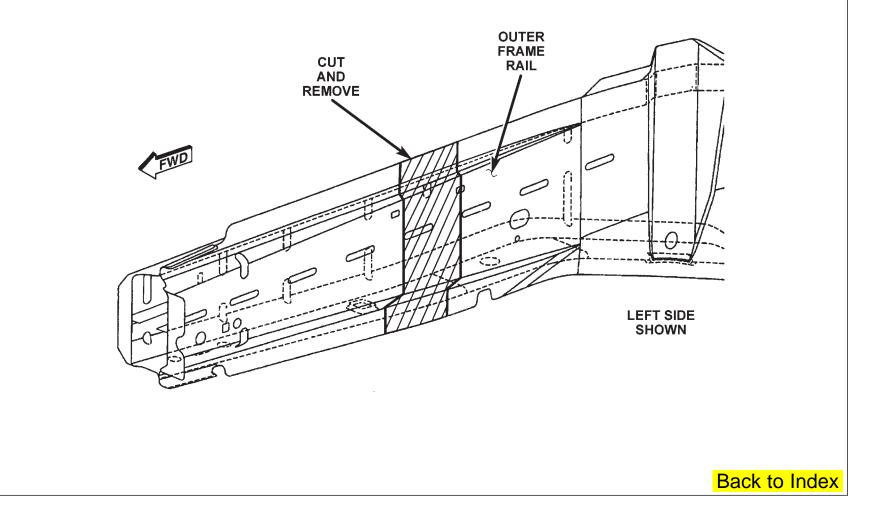


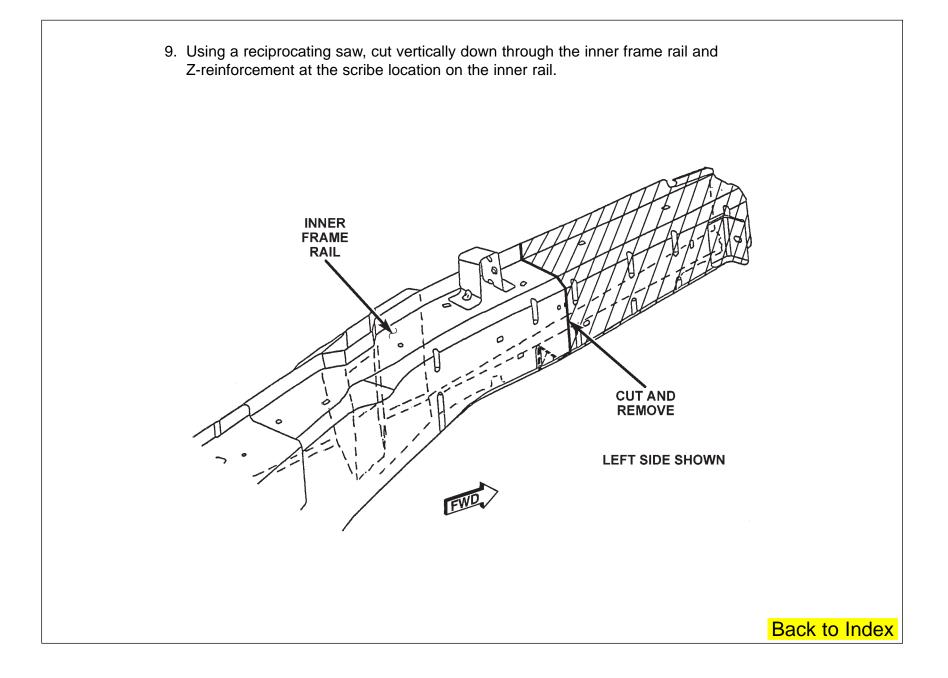


- 6. Remove spot welds holding the inner and outer side members together between the two scribe lines on the outer rail.
- 7. Remove the MIG welds holding the internal Z-reinforcement to the outer rail between the two scribe lines.

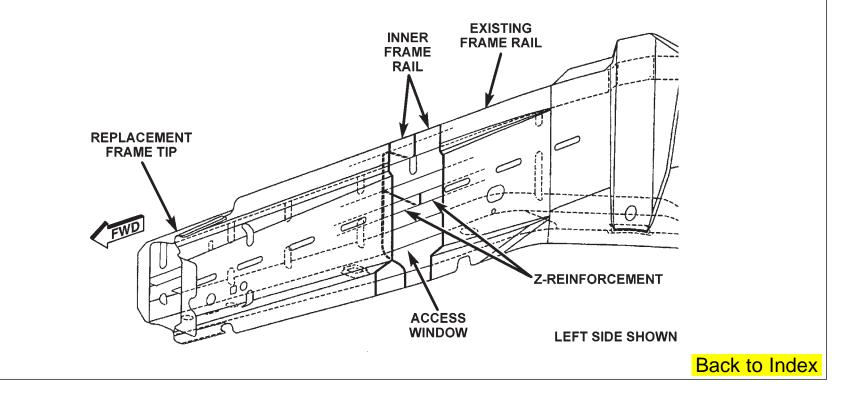


8. Carefully cut the outer side member top to bottom at the scribe lines using a cut-off wheel without damaging the inner side member or the Z-reinforcement inside the rail and remove the access panel or "window".

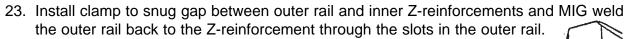


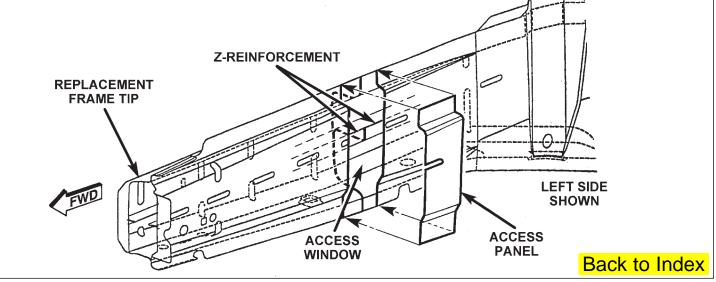


- 10. Carefully clean and de-burr all cut edges and prepare for welding.
- 11. Remove any paint, e-coat, or other coatings within 1-inch of any weld area.
- 12. Using the same procedures previously described, prepare the service rail tip for installation.
- 13. Fit and position the new rail tip to the vehicle using xyz dimensions and measurement equipment.
- 14. Confirm good joint fit-up with inner frame rail and Z-reinforcement and root gap equal to width of saw cut.
- 15. Tack weld the new tip into position using the weld chart located at the end of repair procedure section.
- 16. Reconfirm proper tip location.

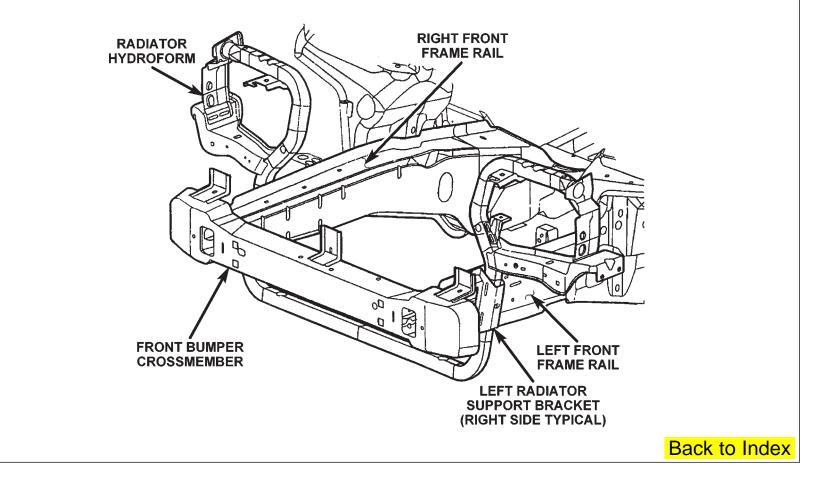


- 17. Weld inner frame rail in the following sequence.
 - a. Upper half from the access window.
 - b. Lower half from exterior of rail
 - c. Clean backside of above two welds in preparation for welding.
 - d. Upper half from exterior.
 - e. Lower half from access window.
- 18. Weld Z-reinforcement from top and from bottom, from inner side rail to outer side rail.
- 19. Prepare access panel for reinstallation.
- 20. Clamp the access panel back to rail assembly.
- 21. Weld the butt-joints completely using a skip/stitch method to reduce the heat affected zone and distortion.
- 22. Weld the access window at the top and bottom to the inner frame rail using ring filet (puddle) welds.





- 24. Install the radiator hydroform with four MIG welds holding each bracket to the outer frame rails at the location of the original welds.
- 25. Ensure that the cut-off location of the hydroform is the same as that removed earlier and modify if not.
- 26. Install the front bumper crossmember using MIG welds where the original spot welds were removed.



WELD PROCESS

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

WELDING PARAMETERS

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. Product #: NR-211 MP (Do Not Substitute)	AWS ER70S-3 (Do Not Substitute)	** AWS E 7018		
Electrodes Size Inches	.045 Tubular	.035 Solid	3/32″		
Electrode Stick Out	3/8" - 1/2"	1/2" - 5/8"	N/A		
Polarity	Electrode "-" Work Piece "+"	Electrode "+" Work Piece "-"	Electrode "+" Work Piece "-"		
Shielding Gas	Self Shielded	75% Ar 25% CO2	Self Shielded		
Gas Flow Rate	N/A	25 - 35 CFM	N/A		
Wire Feed Speed (inches per minute)	110 - 130 Vertical Down 70 - 90 Flat & Overhead	245 - 250 Vertical Down 210 - 225 Flat & Overhead	N/A		
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		

*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.

Back to Index

