## **BODY CONSTRUCTION CHARACTERISTICS**

Definitions of Steels used in the Jeep Liberty:

- 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.
- MS82-1228 Represent a coated high strength low alloy (HSLA) hot or cold rolled sheet steel used in applications where structural integrity is critical.

#### PARTIAL LIST OF STEEL APPLICATIONS

#### **Galvannealed Steel**

Body Side Aperture Rear Door - Inner Panel
Cowl Plenum Panel Rear Door - Outer Panel

Cowl Side Panel Rear Floor Pan

Dash Panel Rear Floor Pan Front Crossmember

Front Door - Inner Panel Rear Floor Pan Side Rail

Front Door - Outer Panel Rear Suspension Crossmember

Front Fender Rear Quarter Panel - Inner
Front Floor Pan Rear Quarter Panel - Outer
Front Hinge Pillar Rear Wheelhouse - Inner

Front Rail Roof Panel

Front Strut Mounting Tower UpperLoad Path Beam

Front Wheelhouse (Front and Rear)

Upper Radiator Crossmember

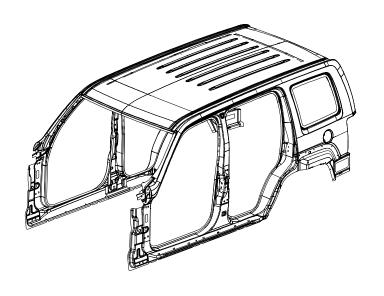
Lower Radiator Crossmember

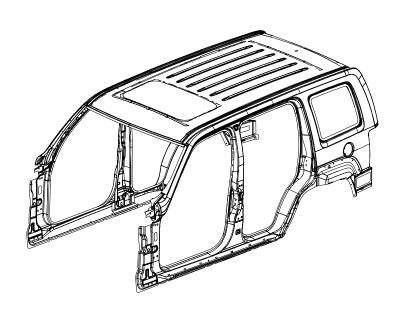
# **BODY CONSTRUCTION CHARACTERISTICS**

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.

### JEEP LIBERTY BODY IN WHITE COMPLETE SECTION





- AA PANEL ROOF OTR -
- AB HEADER ROOF FRT LWR –
- AC REINF A-PILLAR INR LWR RT -
- AC REINF A-PILLAR INR LWR LT –
- AD PANEL BODY SIDE INR RT -
- AD PANEL BODY SIDE INR LT -
- AF REINF B-PILLAR RT –
- AF REINF B-PILLAR LT -
- AG PANEL BODY SIDE OTR RT -
- AG PANEL BODY SIDE OTR LT -
- AH TROUGH LIFTGATE OPENING RT -
- AH TROUGH LIFTGATE OPENING LT –

- AJ HEADER ROOF RR UPR -
- AK PAN -
- AL BOW ROOF -
- AM REINF ROOF W/SUNROOF -
- AN REINF ROOF W/SUNROOF -
- AP REINF ROOF PANEL W/SUNROOF OPENING -
- AR BOW ROOF-
- AS REINF ROOF SIDE RAIL INR RT AS REINF ROOF SIDE RAIL INR LT AT REINF ROOF W/SUNROOF AU PANEL ROOF W/SUNROOF -

## **PARTS IDENTIFICATION LEGEND, OVERVIEW 22**

AA PANEL - ROOF OTR -

AB HEADER – ROOF FRT LWR –

AC REINF – A-PILLAR INR LWR RT –

AC REINF – A-PILLAR INR LWR LT –

AD PANEL - BODY SIDE INR RT -

AD PANEL - BODY SIDE INR LT -

AF REINF – B-PILLAR RT –

AF REINF – B-PILLAR LT –

AG PANEL – BODY SIDE OTR RT –

AG PANEL - BODY SIDE OTR LT -

AH TROUGH – LIFTGATE OPENING RT –

AH TROUGH - LIFTGATE OPENING LT -

AJ HEADER - ROOF RR UPR -

AK PAN -

AL BOW - ROOF -

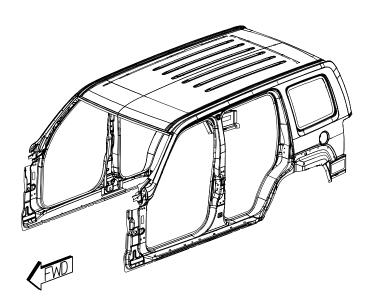
AM REINF - ROOF W/SUNROOF -

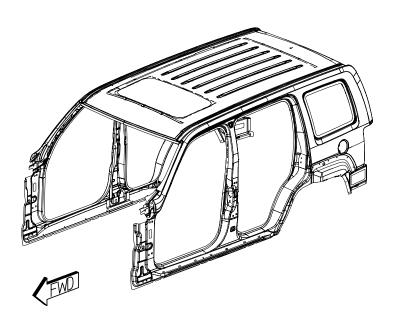
AN REINF - ROOF W/SUNROOF -

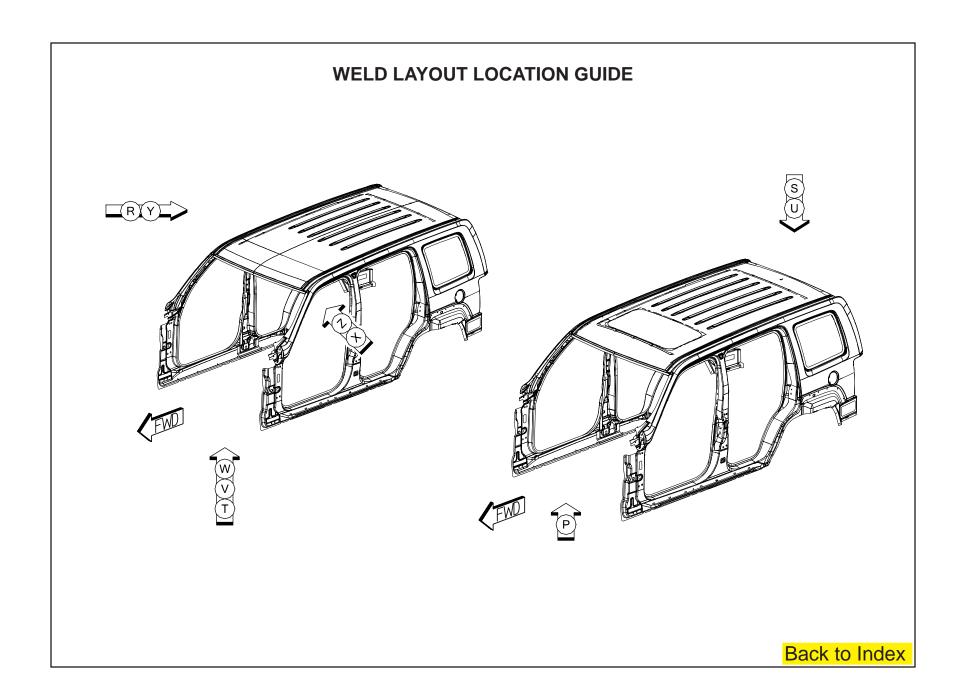
AP REINF - ROOF PANEL W/SUNROOF OPENING -

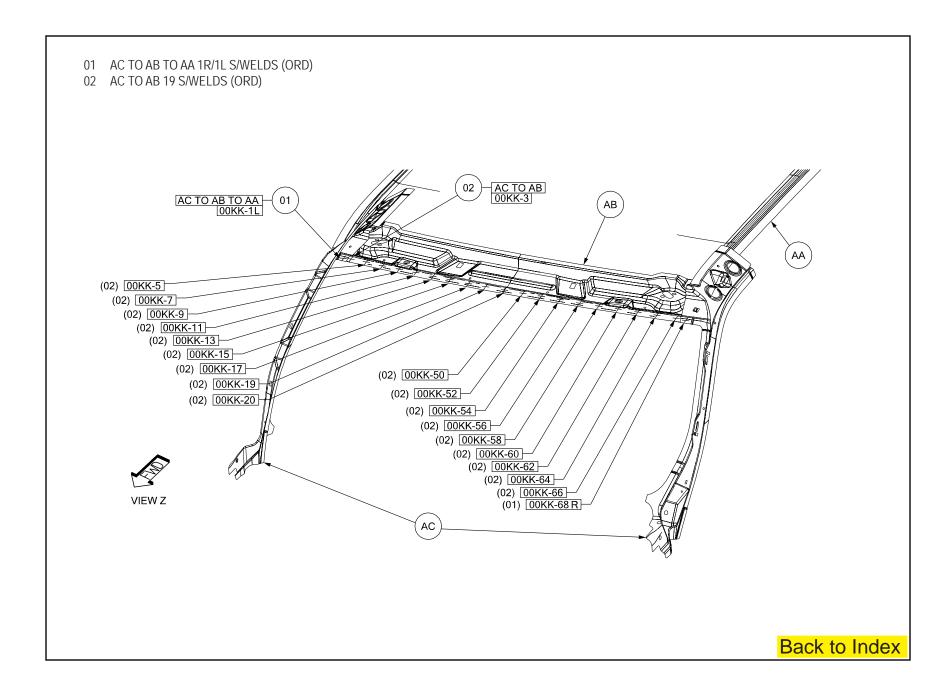
AR BOW – ROOF-

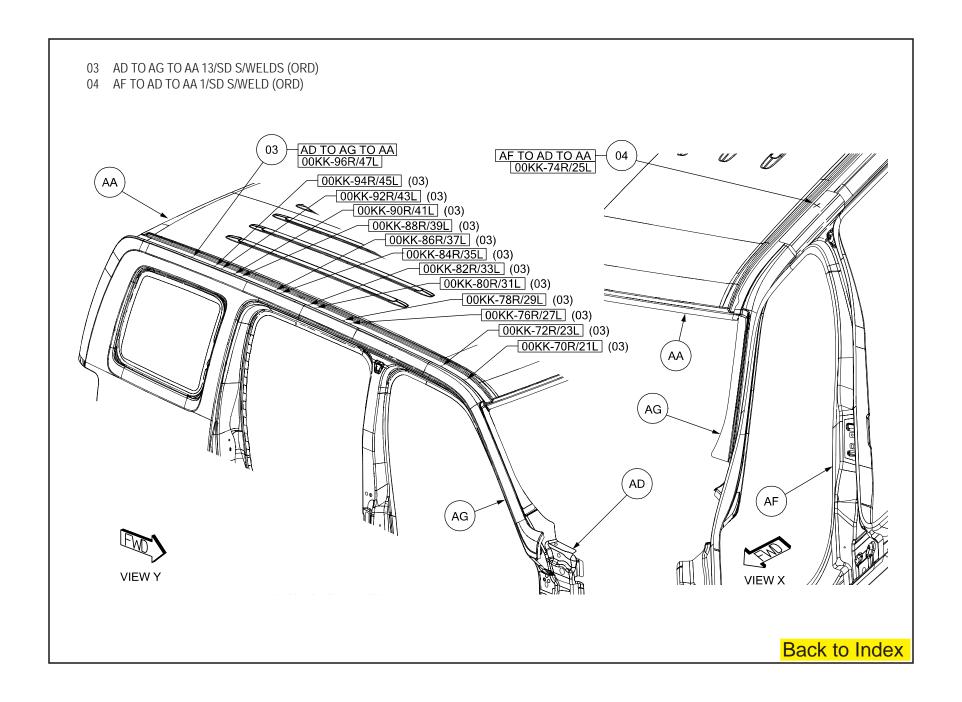
AS REINF - ROOF SIDE RAIL INR RT AS REINF - ROOF SIDE RAIL INR LT AT REINF - ROOF W/SUNROOF AU PANEL - ROOF W/SUNROOF -

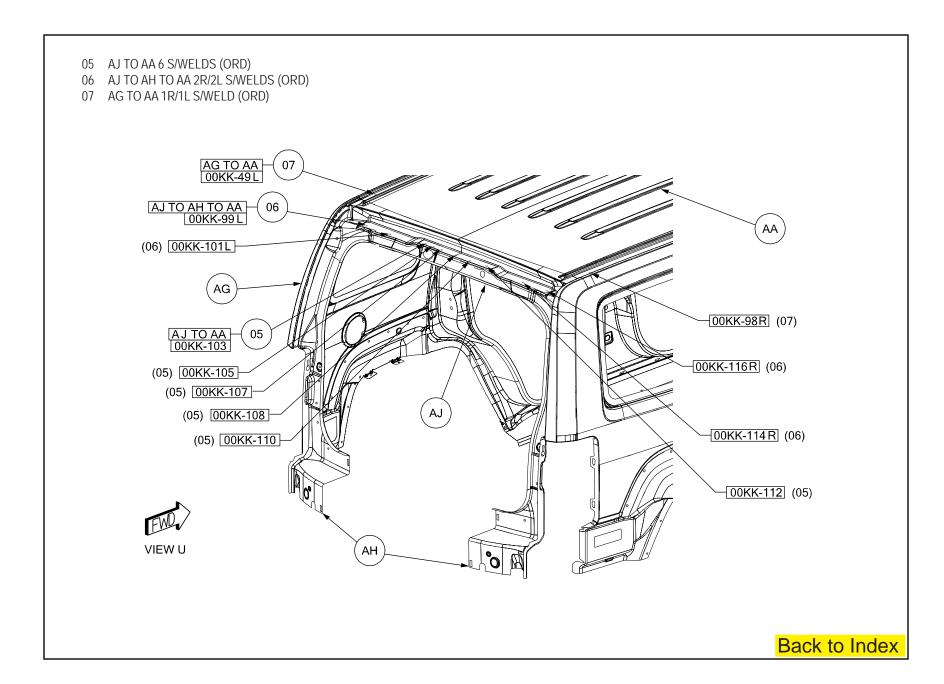


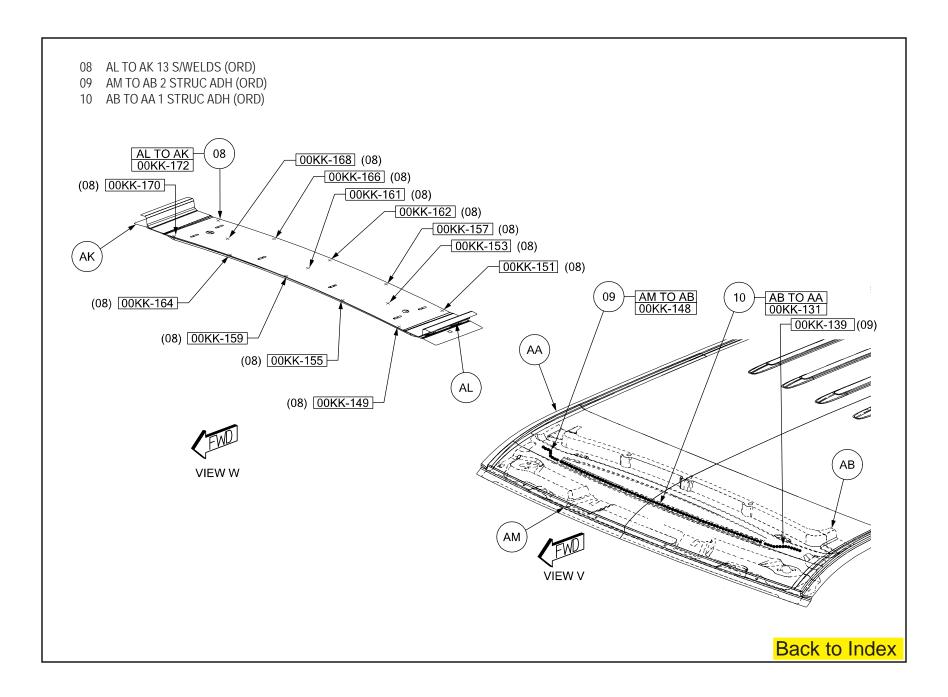


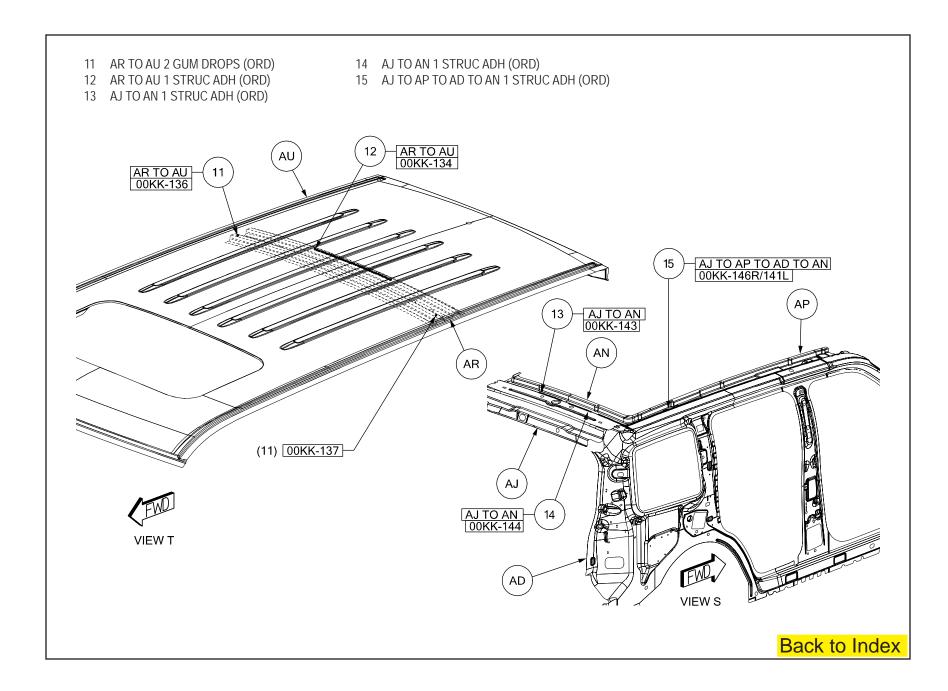






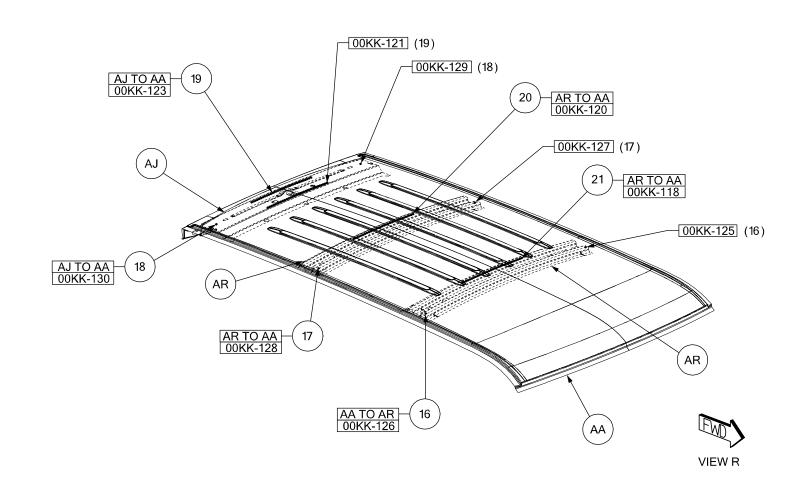


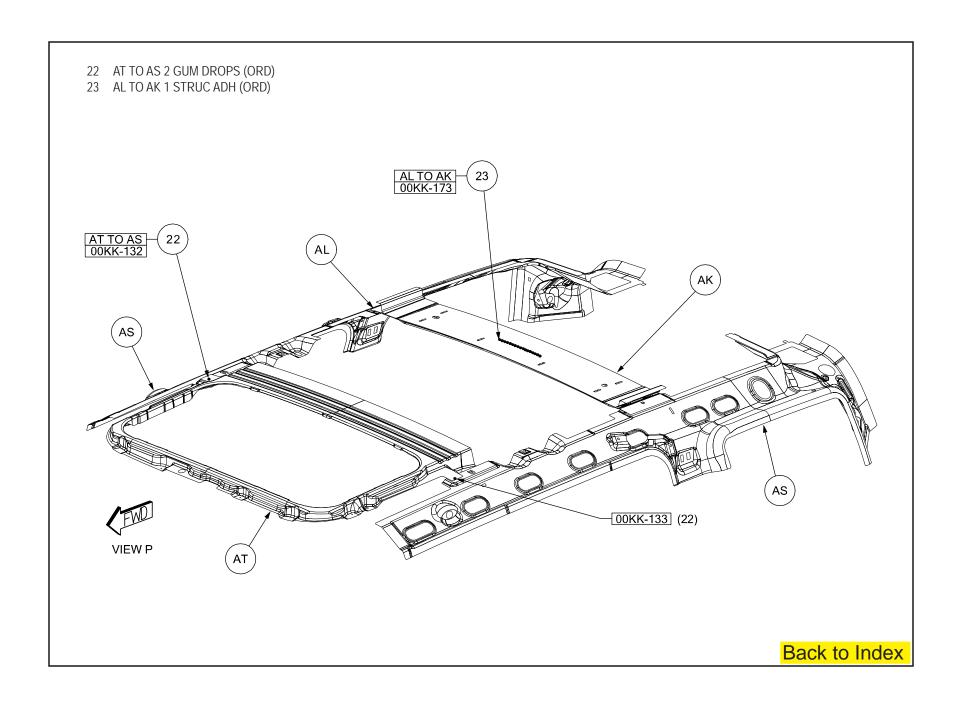




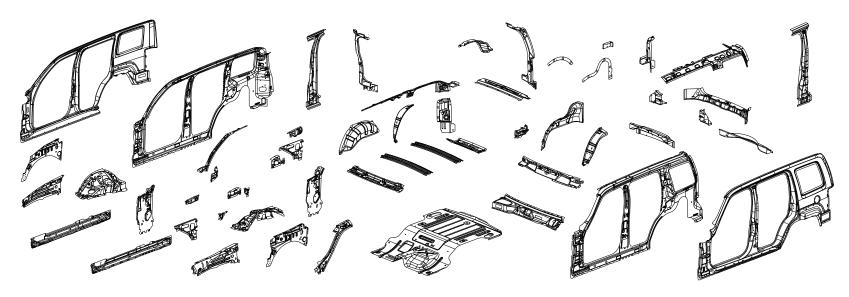


- 17 AR TO AA 2 GUM DROPS (ORD)
- 18 AJ TO AA 2 GUM DROPS (ORD)
- 19 AJ TO AA 2 STRUC ADH (ORD)
- 20 AR TO AA 1 STRUC ADH (ORD)
- 21 AR TO AA 1 STRUC ADH (ORD)









AA	REINF -	FENDER	INR RT –
----	---------	--------	----------

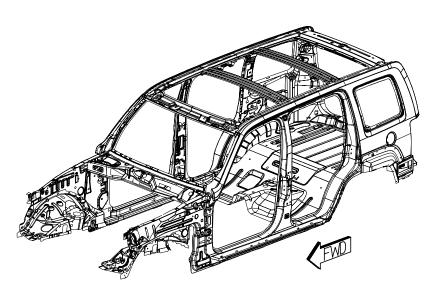
- REINF FENDER INR LT -
- BRACKET MODULE MTG UPR -
- PANEL FENDER INR RT -
- PANEL FENDER INR LT -
- BRACKET GAS PROP MOUNTING RT -
- BRACKET GAS PROP MOUNTING LT -
- PANEL COWL SIDE RT -
- PANEL COWL SIDE LT -
- GUSSET FRT FENDER INR RT -
- GUSSET FRT FENDER INR LT -
- WHEELHOUSE FRT INR RT -
- AG WHEELHOUSE FRT INR LT -
- EXTENSION UPR FENDER ATTACH RT -
- EXTENSION UPR FENDER ATTACH LT -
- PANEL PLENUM CLOSURE RT -
- PANEL PLENUM CLOSURE LT -
- PANEL BODY SIDE INR RT -
- PANEL BODY SIDE INR LT -
- PANEL PLENUM BAFFLE -

- REINF BODY SIDE APERTURE EXTENSION RT -
- REINF BODY SIDE APERTURE EXTENSION LT -
- PANEL BODY SIDE OTR RT -
- PANEL BODY SIDE OTR LT -
- REINF A-PILLAR INR LWR RT -
- REINF A-PILLAR INR LWR LT -
- PANEL PLENUM RR -
- SILL BODY SIDE RT -
- AS SILL BODY SIDE LT -
- AT REINF B-PILLAR RT -
- AT REINF B-PILLAR LT –
- PANEL RR WHEELHOUSE INR RT -
- AU PANEL RR WHEELHOUSE INR LT -
- AV EXTENSION RR WHEELHOUSE INR RT -
- ΑV EXTENSION - RR WHEELHOUSE INR LT -
- AW PAN FLOOR RR -
- AX HEADER ROOF FRT LWR -
- AY REINF ROOF SIDE RAIL INR RT -

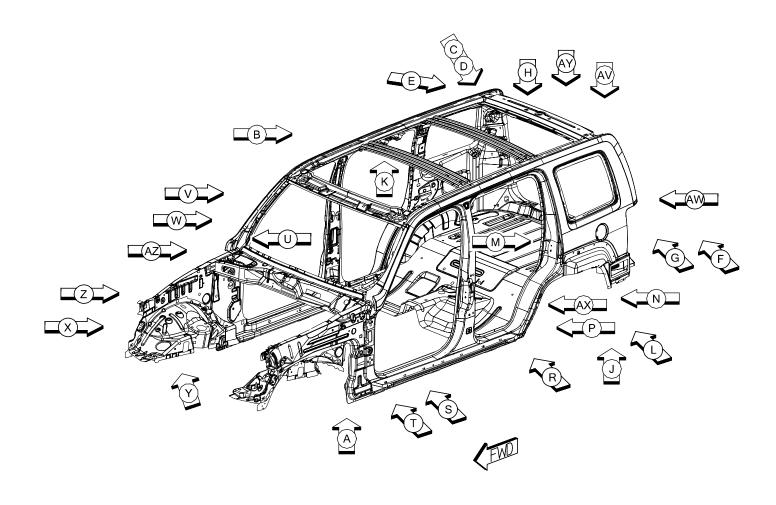
- REINF ROOF SIDE RAIL INR LT -
- BOW ROOF -
- CROSSMEMBER GATE OPENING -
- BB TROUGH LIFTGATE OPENING RT -
- TROUGH LIFTGATE OPENING LT -
- REINF D-PILLAR RT -BC
- BC REINF D-PILLAR LT -
- CROSSMEMBER RR OTR -
- BULKHEAD CROSSMEMBER RR RT -
- BULKHEAD CROSSMEMBER RR LT -
- BF PANEL - TAIL LAMP MOUNTING RT -
- PANEL TAIL LAMP MOUNTING LT -
- CROSSMEMBER RR INNER RT -
- HEADER ROOF RR UPR -
- HEADER ROOF RR LWR -
- BK REINF - BODY SIDE DOOR HINGE UPR RT -
- BM PANEL - RR WHEELHOUSE OTR FRT RT -
- PANEL RR WHEELHOUSE OTR FRT LT -
- PANEL RR WHEELHOUSE OTR RR RT -
- PANEL RR WHEELHOUSE OTR RR LT -

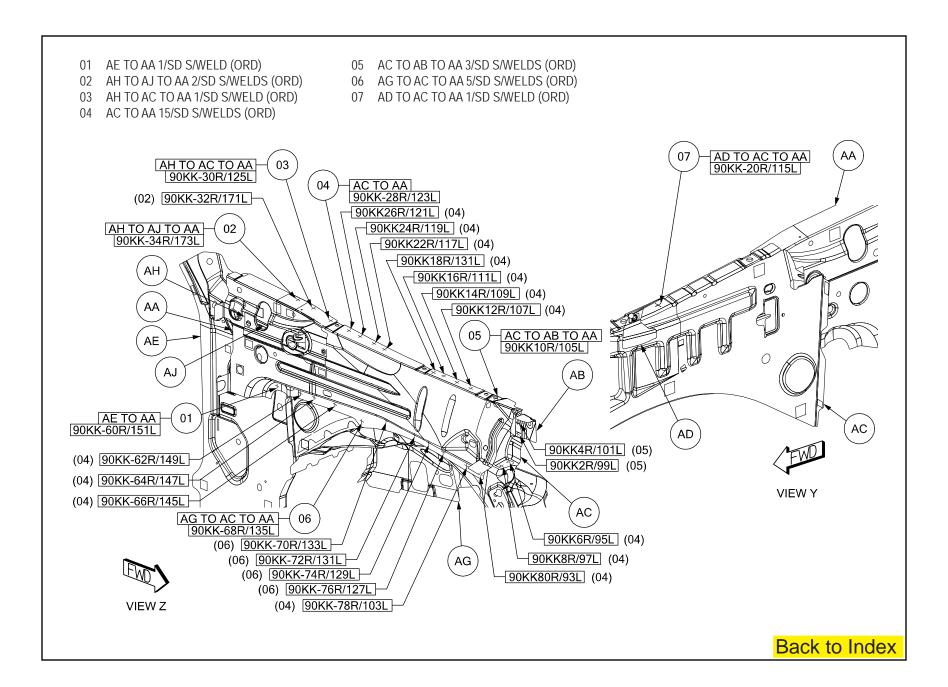
# PARTS IDENTIFICATION LEGEND, OVERVIEW 20

AA	REINF – FENDER INR RT –	AM	REINF – BODY SIDE APERTURE	AY	REINF – ROOF SIDE RAIL INR LT –
AA	REINF – FENDER INR LT –		EXTENSION RT –	ΑZ	BOW – ROOF –
AB	BRACKET - MODULE MTG UPR -	AM	REINF – BODY SIDE APERTURE	BA	CROSSMEMBER – GATE OPENING –
AC	PANEL – FENDER INR RT –		EXTENSION LT -	BB	TROUGH – LIFTGATE OPENING RT –
AC	PANEL – FENDER INR LT –	AN	PANEL - BODY SIDE OTR RT -	BB	TROUGH - LIFTGATE OPENING LT -
AD	BRACKET - GAS PROP MOUNTING RT -	AN	PANEL - BODY SIDE OTR LT -	BC	REINF – D-PILLAR RT –
AD	BRACKET – GAS PROP MOUNTING LT –	AP	REINF – A-PILLAR INR LWR RT –	BC	REINF – D-PILLAR LT –
ΑE	PANEL - COWL SIDE RT -	AP	REINF – A-PILLAR INR LWR LT –	BD	CROSSMEMBER - RR OTR -
ΑE	PANEL - COWL SIDE LT -	AR	PANEL – PLENUM RR –	BE	BULKHEAD - CROSSMEMBER RR RT -
AF	GUSSET - FRT FENDER INR RT -	AS	SILL – BODY SIDE RT –	BE	BULKHEAD - CROSSMEMBER RR LT -
AF	GUSSET – FRT FENDER INR LT –	AS	SILL – BODY SIDE LT –	BF	PANEL – TAIL LAMP MOUNTING RT –
AG	WHEELHOUSE - FRT INR RT -	AT	REINF – B-PILLAR RT –	BF	PANEL – TAIL LAMP MOUNTING LT –
AG	WHEELHOUSE - FRT INR LT -	ΑT	REINF – B-PILLAR LT –	BG	CROSSMEMBER - RR INNER RT -
AH	EXTENSION – UPR FENDER ATTACH RT –	ΑU	PANEL - RR WHEELHOUSE INR RT -	BH	HEADER – ROOF RR UPR –
AH	EXTENSION – UPR FENDER ATTACH LT –	ΑU	PANEL – RR WHEELHOUSE INR LT –	BJ	HEADER – ROOF RR LWR –
AJ	PANEL - PLENUM CLOSURE RT -	ΑV	EXTENSION - RR WHEELHOUSE INR RT -	BK	REINF - BODY SIDE DOOR HINGE UPR RT -
AJ	PANEL - PLENUM CLOSURE LT -	ΑV	EXTENSION - RR WHEELHOUSE INR LT -	BM	PANEL - RR WHEELHOUSE OTR FRT RT -
AK	PANEL - BODY SIDE INR RT -	AW	PAN – FLOOR RR –	BM	PANEL - RR WHEELHOUSE OTR FRT LT -
AK	PANEL - BODY SIDE INR LT -	AX	HEADER – ROOF FRT LWR –	BN	PANEL - RR WHEELHOUSE OTR RR RT -
AL	PANEL – PLENUM BAFFLE –	AY	REINF - ROOF SIDE RAIL INR RT -	BN	PANEL - RR WHEELHOUSE OTR RR LT -



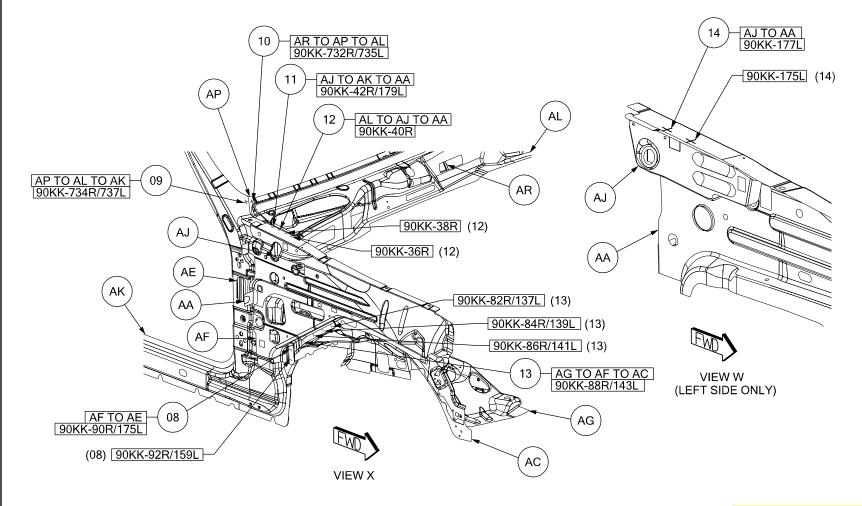
# WELD LAYOUT LOCATION GUIDE







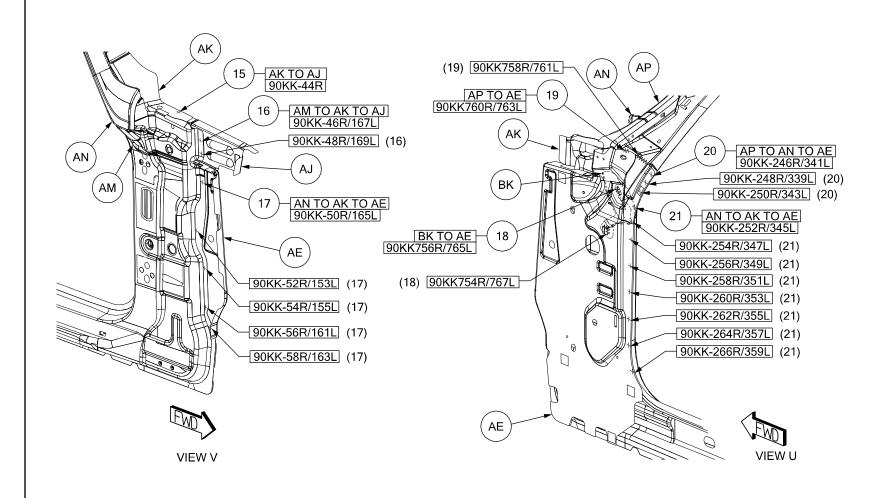
- 09 AP TO AL TO AK 1/SD S/WELD (ORD)
- 10 AR TO AP TO AL 1/SD S/WELD (ORD)
- 11 AJ TO AK TO AA 1/SD S/WELD (ORD)
- 12 AL TO AJ TO AA 3R S/WELDS (ORD)
- 13 AG TO AF TO AC 4/SD S/WELDS (ORD)
- 14 AJ TO AA 2L S/WELDS (ORD)

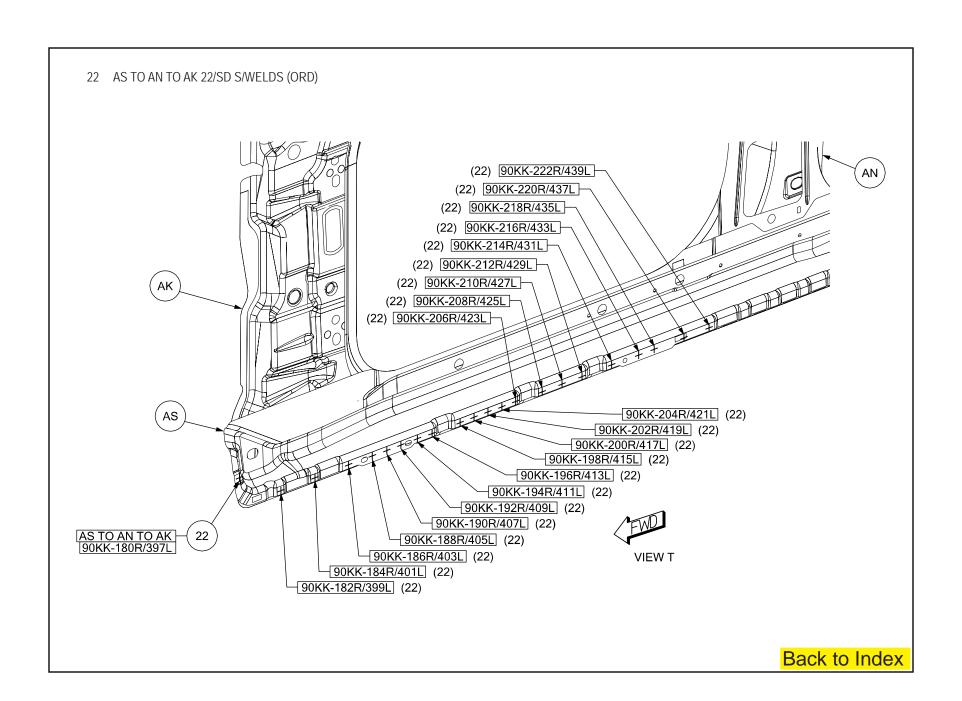




- 16 AM TO AK TO AJ 2/SD S/WELDS (ORD)
- 17 AN TO AK TO AE 5/SD S/WELDS (ORD)
- 18 BK TO AE 2/SD S/WELDS (ORD)

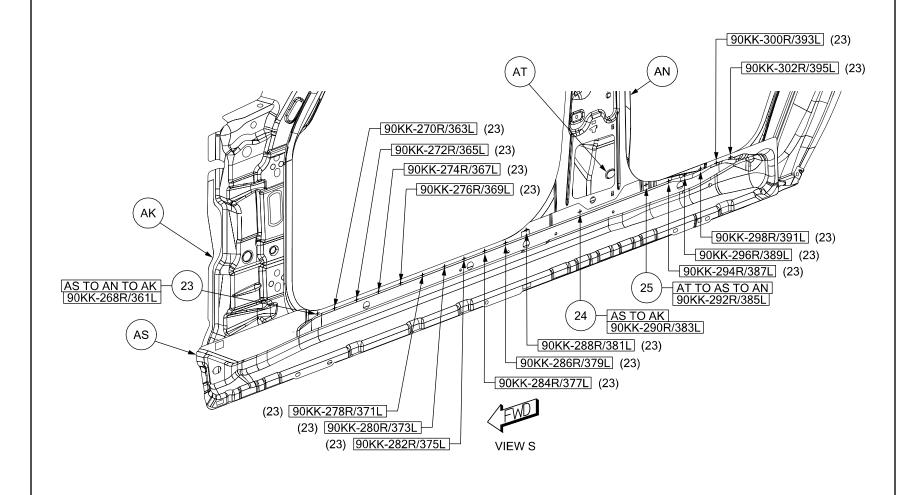
- 19 AP TO AE 2/SD S/WELDS (ORD)
- 20 AP TO AN TO AE 3/SD S/WELDS (ORD)
- 21 AN TO AK TO AE 8/SD S/WELDS (ORD)

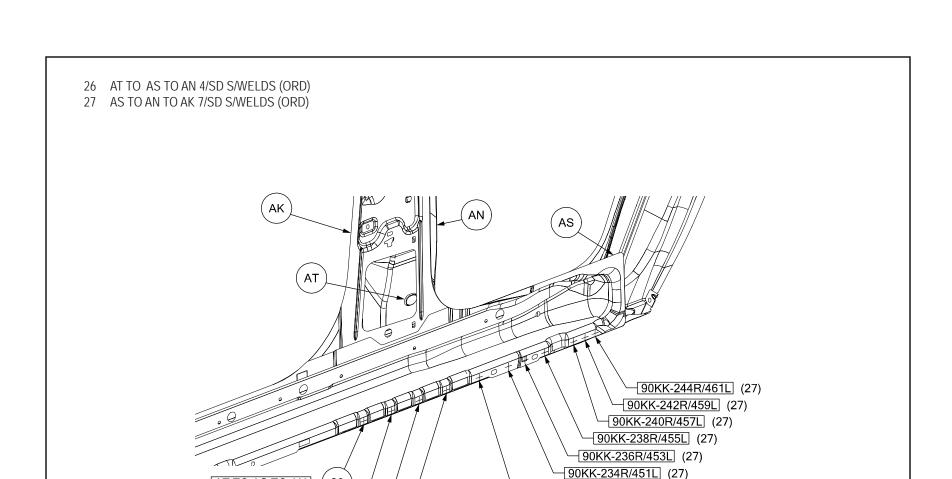






- 24 AS TO AK 1/SD S/WELD (ORD)
- 25 AT TO AS TO AN 1/SD S/WELD (ORD)





VIEW R

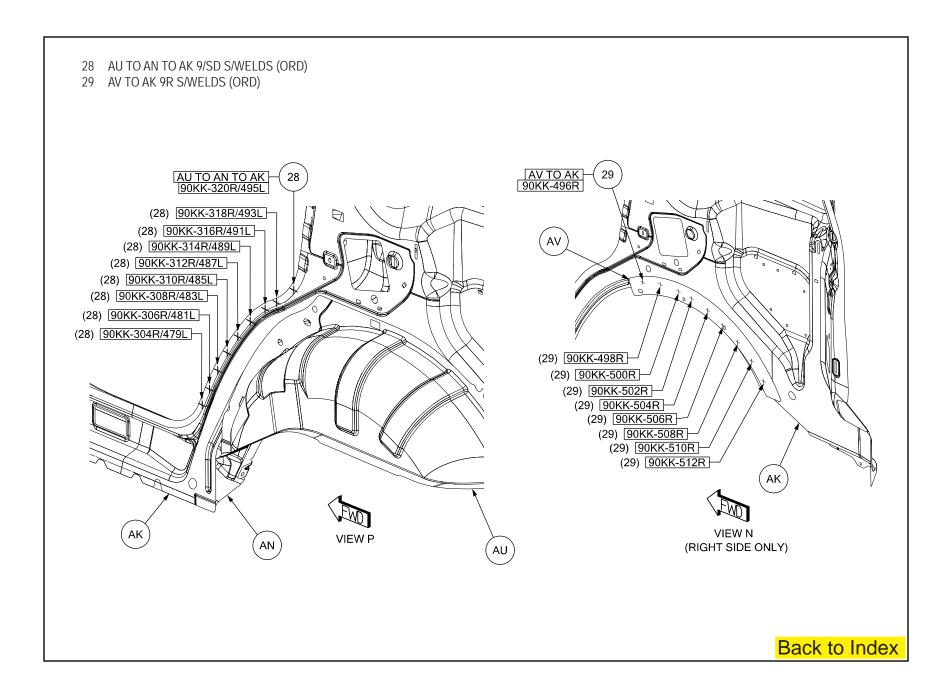
AS TO AN TO AK 90KK-232R/449L

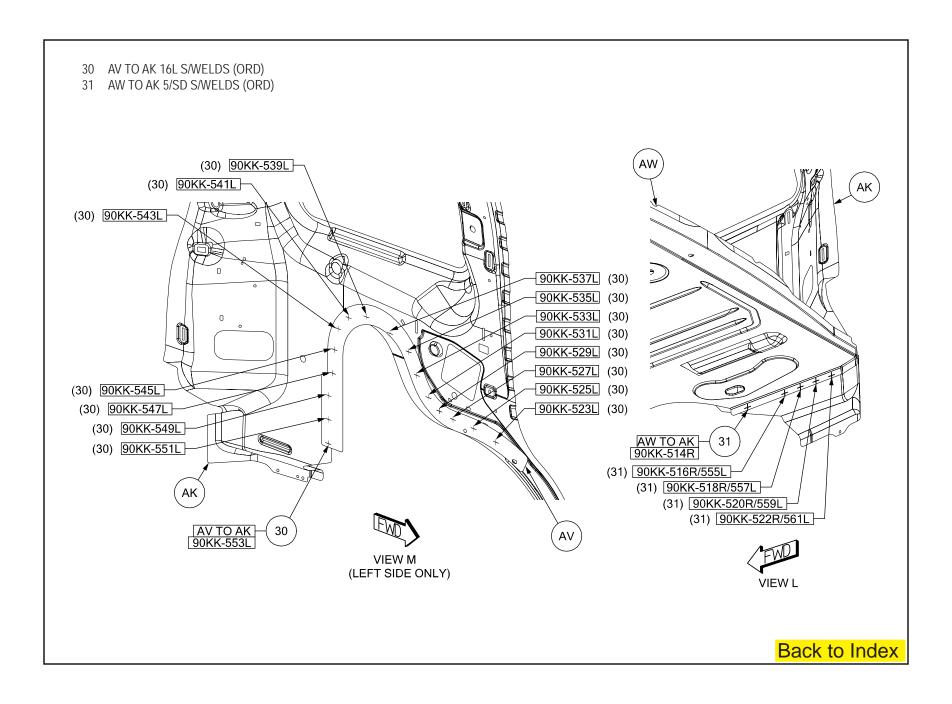
AT TO AS TO AN 90KK-224R/441L

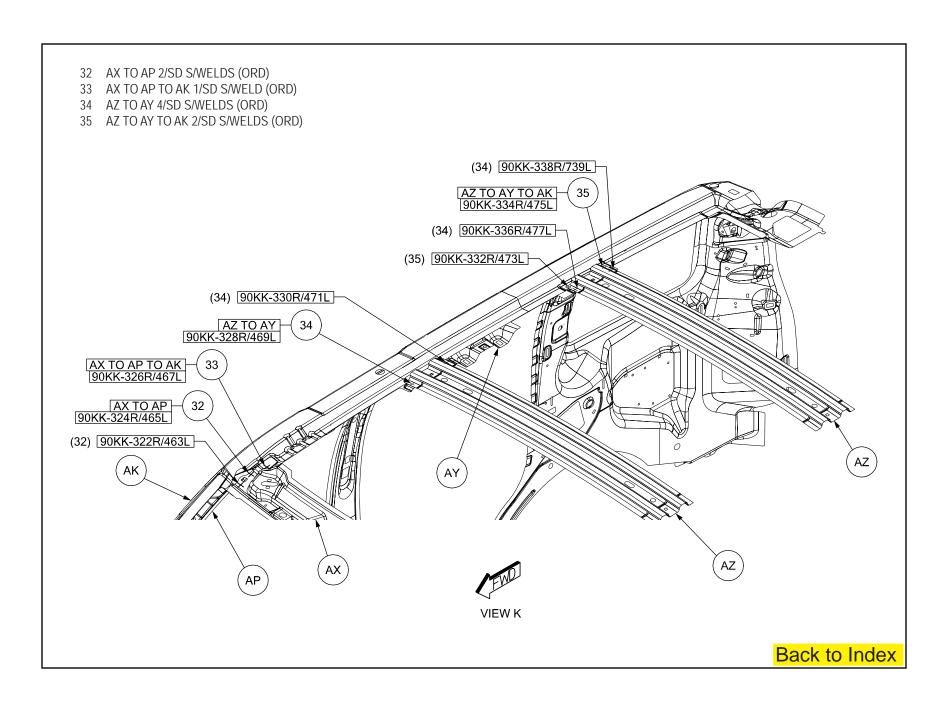
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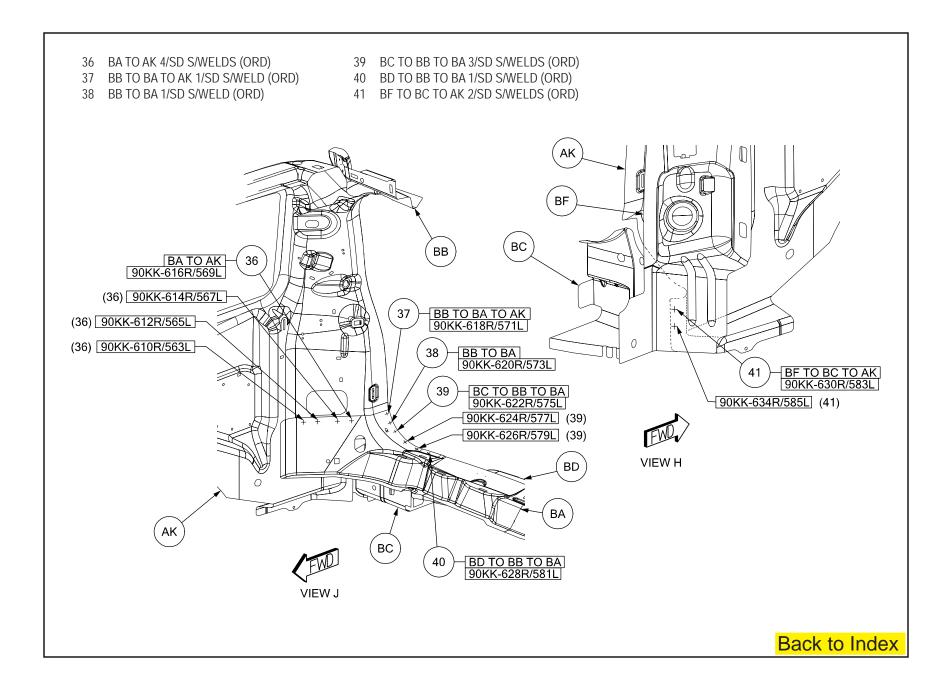
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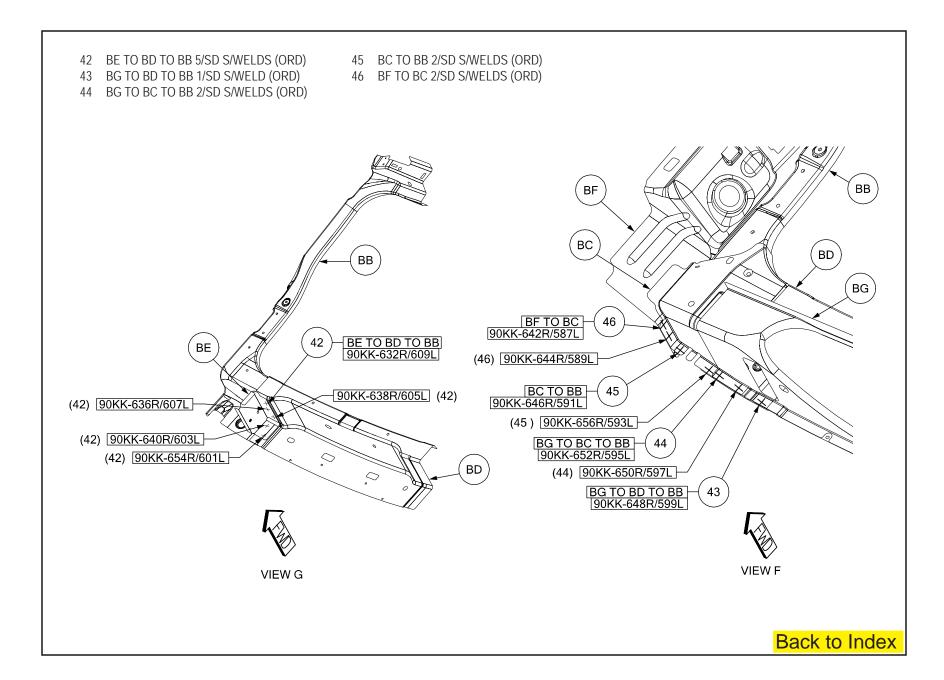
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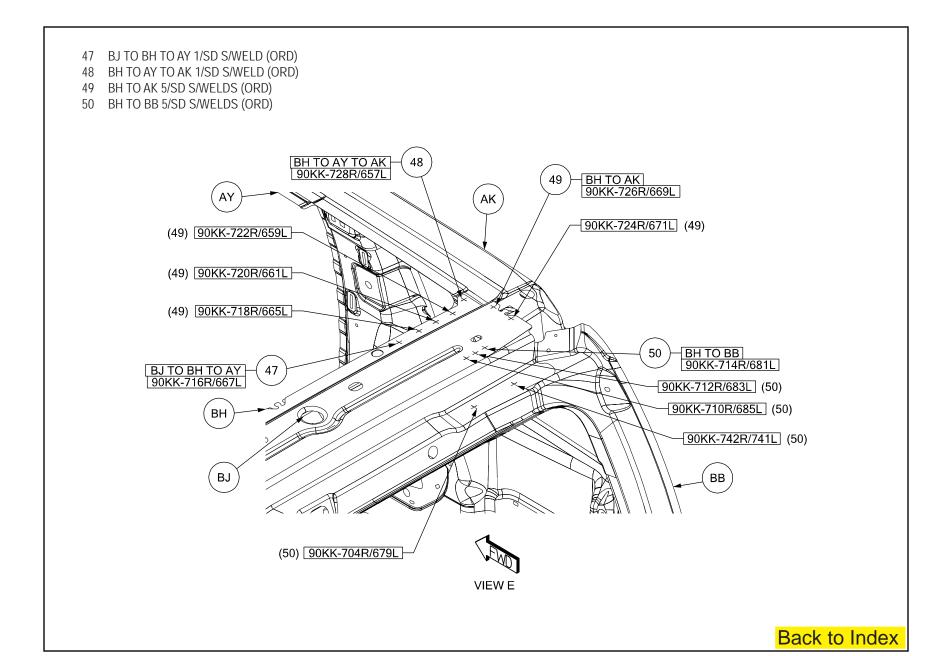


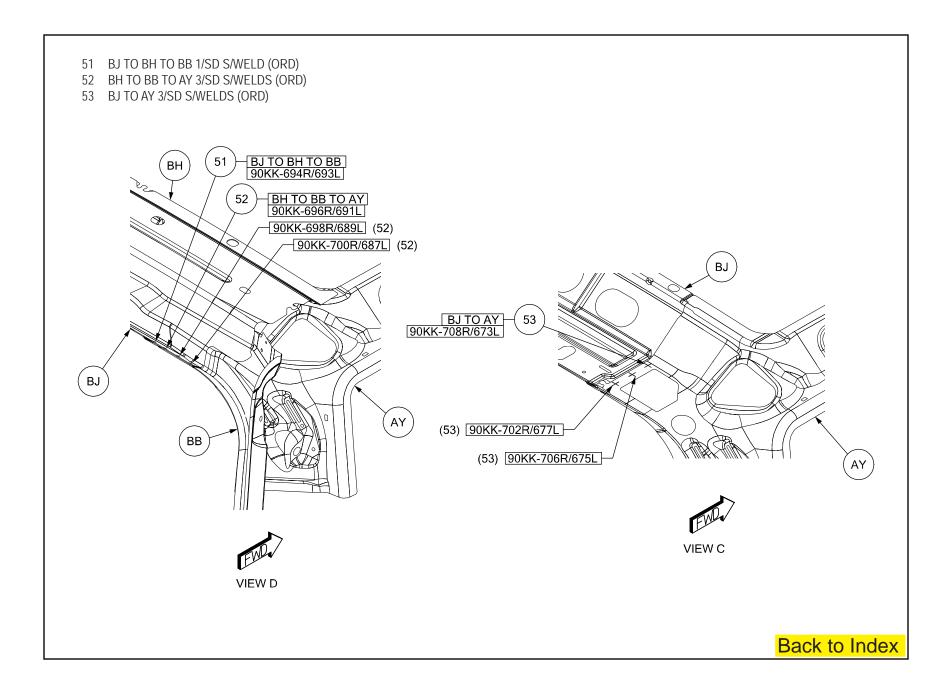


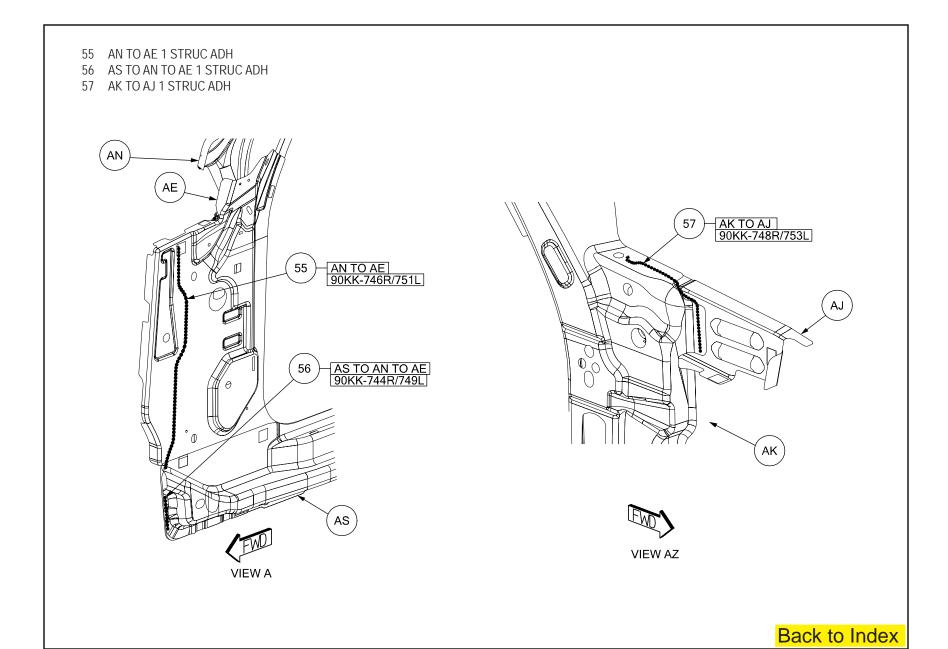


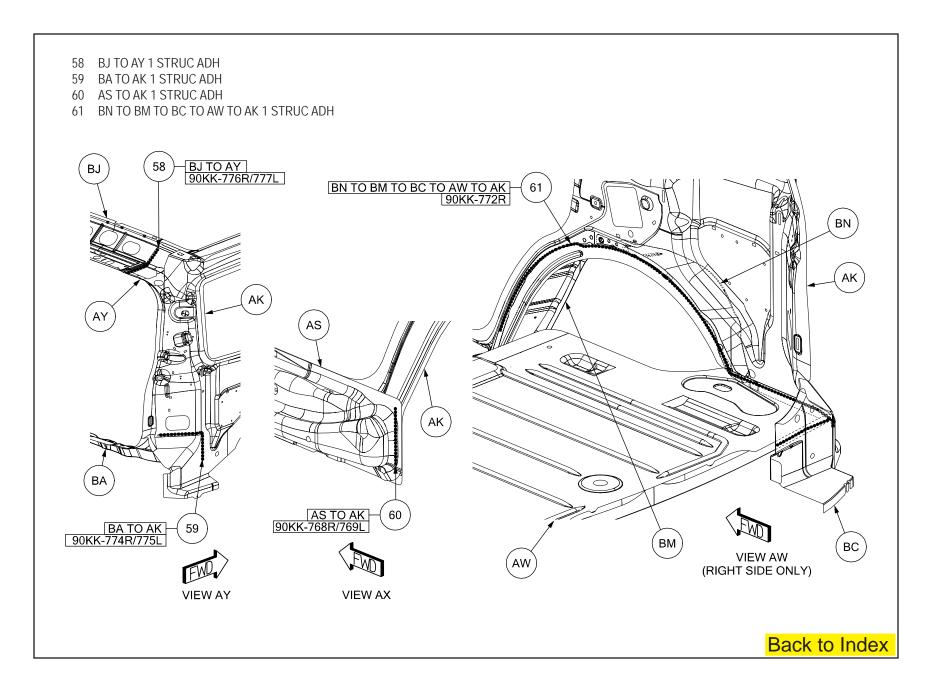


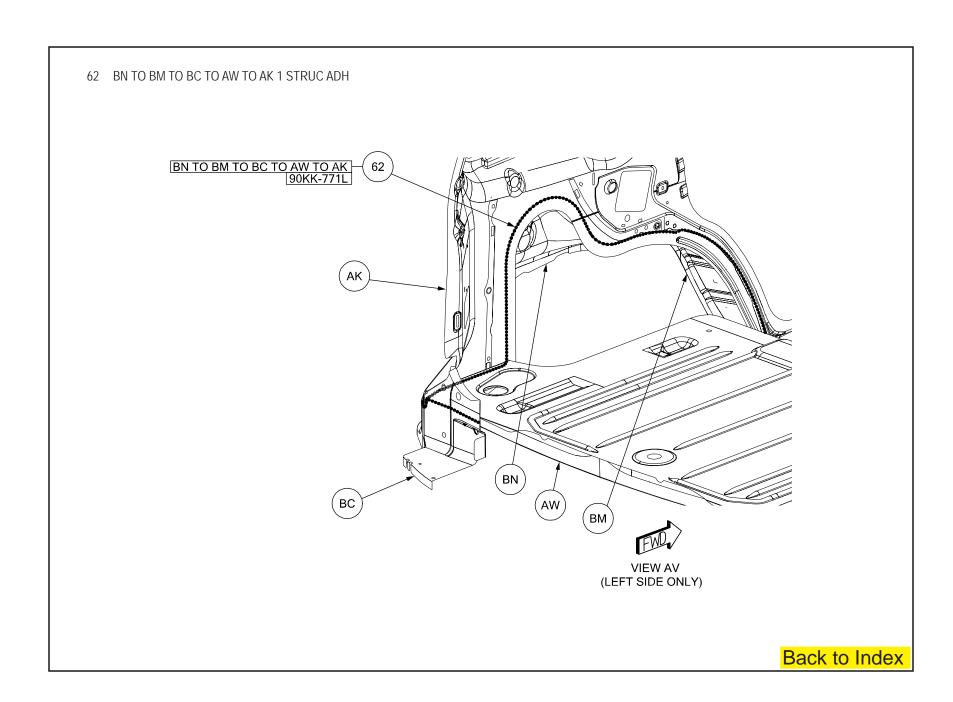






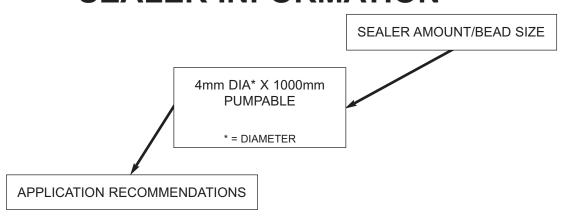








# **SEALER INFORMATION**



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

#### SEALER LEGEND

THUMBGRADE SEALER

PUMPABLE SEALER

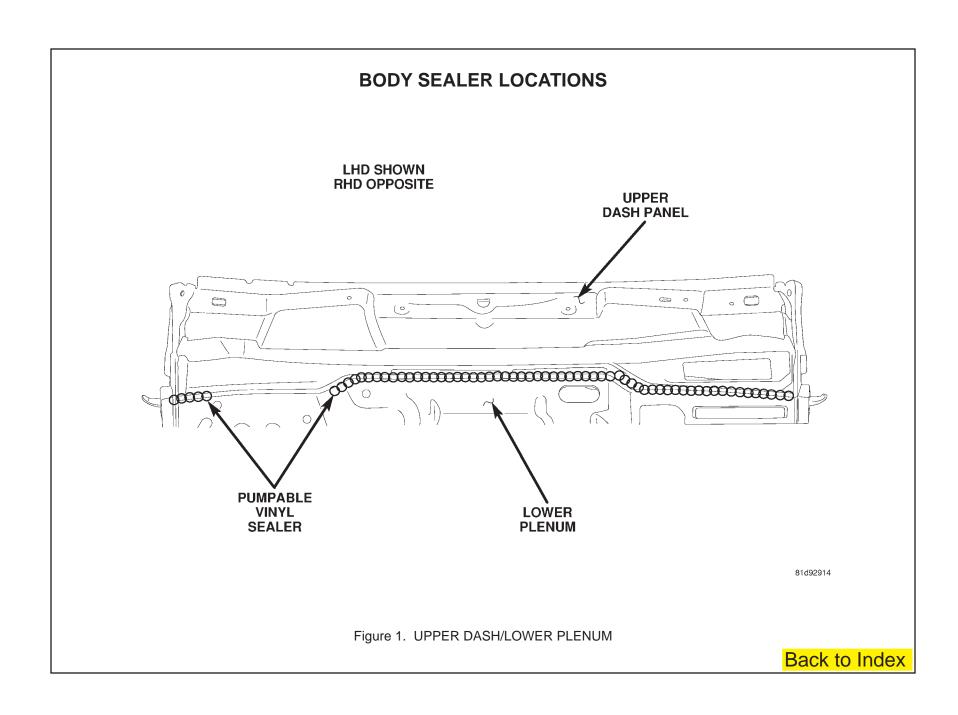
ZZZZ HIDDEN SEALER

# **BODY SEALER LOCATIONS**

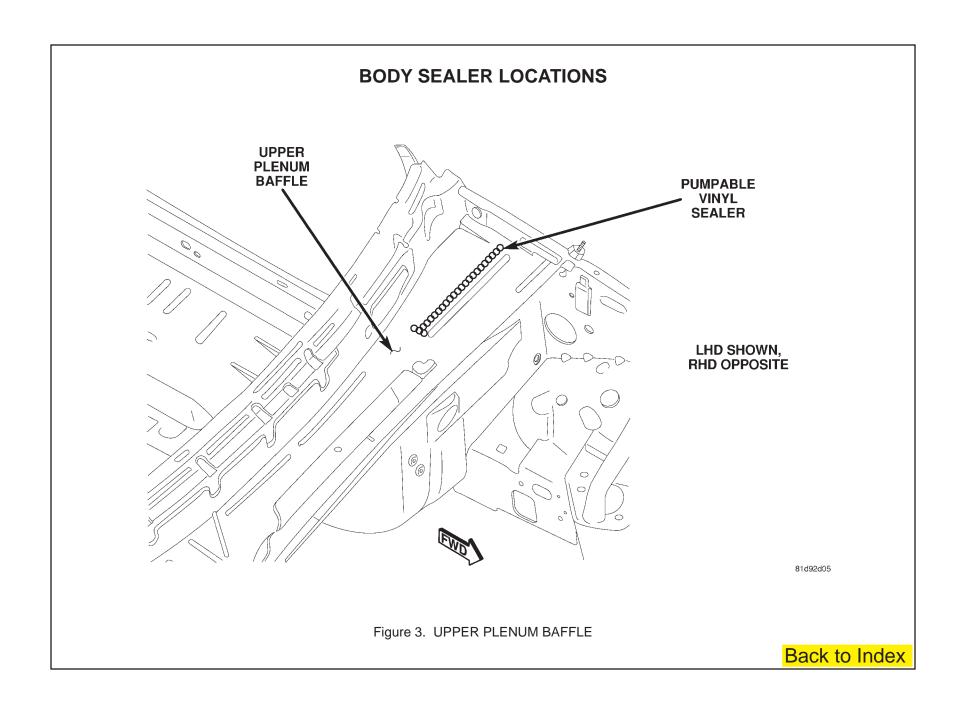
DESCRIPTION				
UPPER DASH/LOWER PLENUM	1			
A-PILLAR REINFORCEMENT/INNER BODY SIDE APERTURE/PLENUM	2			
UPPER PLENUM BAFFLE	3			
DASH/FRONT FLOOR PAN	4			
DASH AND LOWER PLENUM/COWL SIDE	5			
COWL SIDE/BODY SIDE SILL	6			
LOWER DASH/FRONT FLOOR PAN AND COWL SIDE	7			
FLOOR PAN/BODY SIDE SILL	8			
FRONT FLOOR PAN/REAR FLOOR PAN	9			
REAR FLOOR PAN/REAR WHEELHOUSES	10			
OUTER WHEELHOUSE/OUTER BODY SIDE	11			
OUTER WHEELHOUSE/INNER BODY SIDE INNER AND OUTER PANEL	12			
REAR FLOOR PAN/INNER BODY SIDE/D-PILLAR REINFORCEMENT	13			
ROOF/BODY SIDE APERTURES				
ROOF/REAR HEADER				
DRAIN TROUGH/BODY SIDE APERTURE/TAIL LAMP	16			

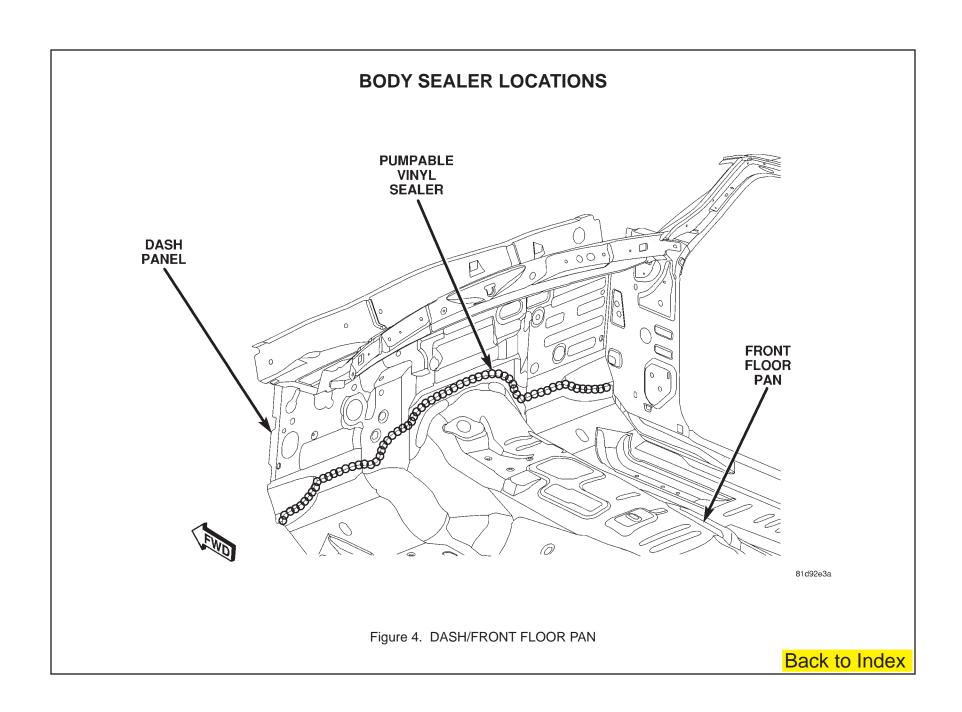
# **Preferred Mopar Product:**

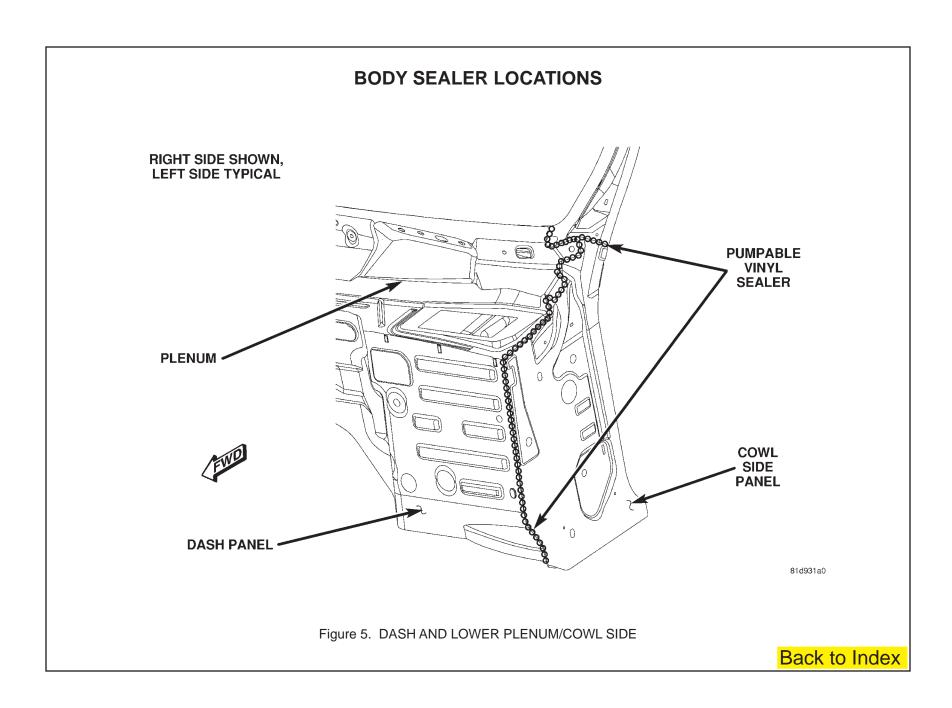
• Paintable Seam Sealer-Part No. 04318026



# **BODY SEALER LOCATIONS PUMPABLE** VINYL **SEALER BODY SIDE** A-PILLAR **APERTURE** REINFORCEMENT **PLENUM** LEFT SIDE SHOWN, RIGHT SIDE TYPICAL 81d92c32 Figure 2. A-PILLAR REINFORCEMENT/INNER BODY SIDE APERTURE/PLENUM Back to Index







# **BODY SEALER LOCATIONS**

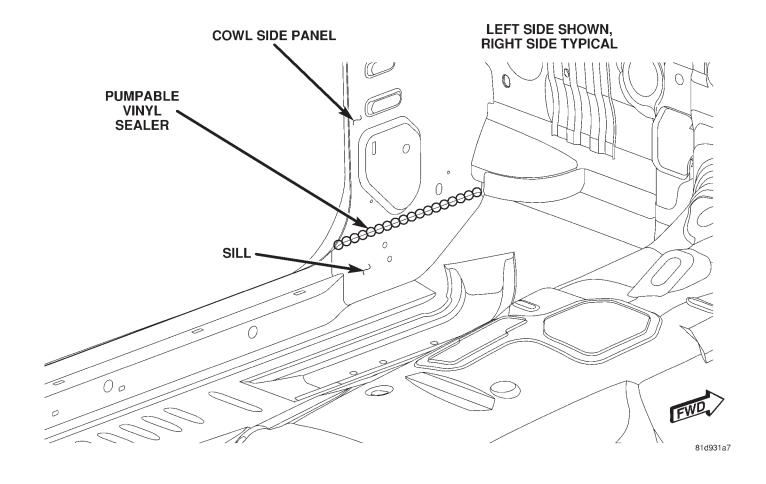
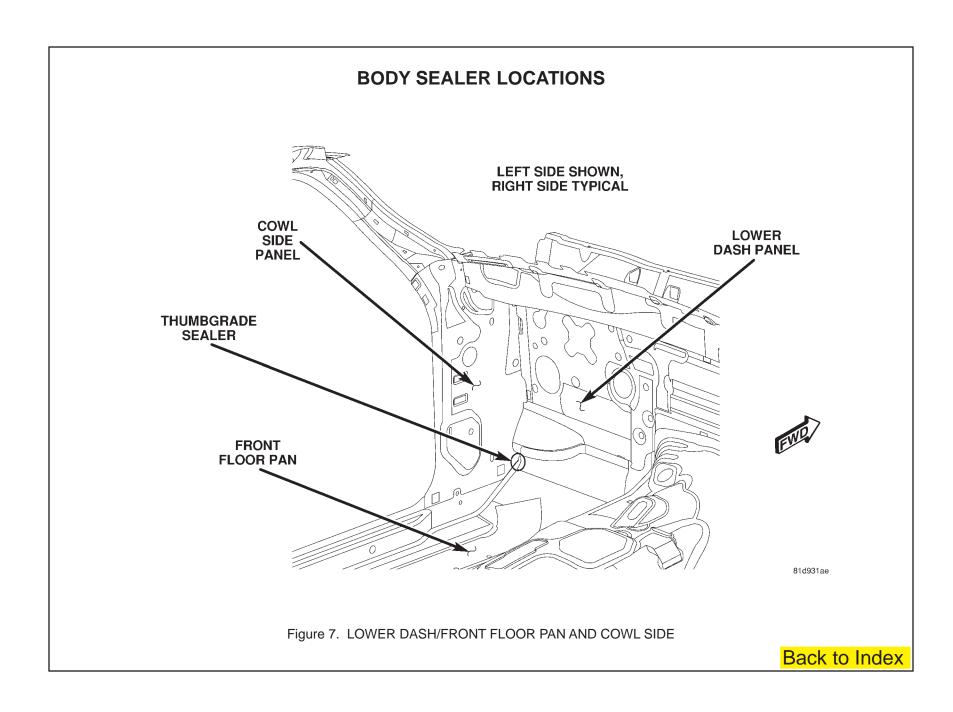
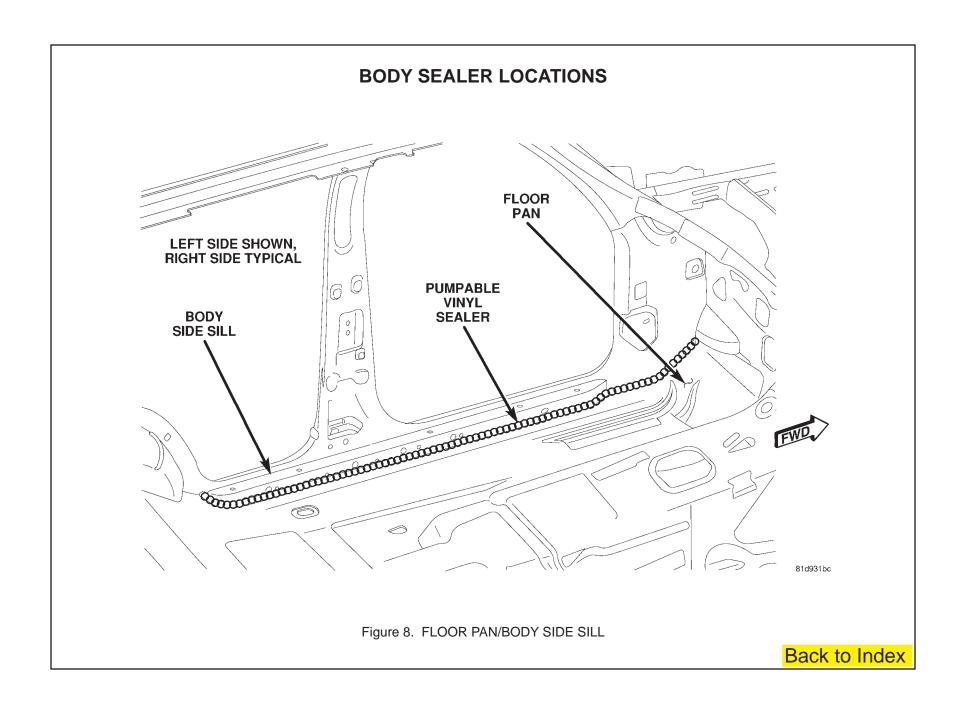
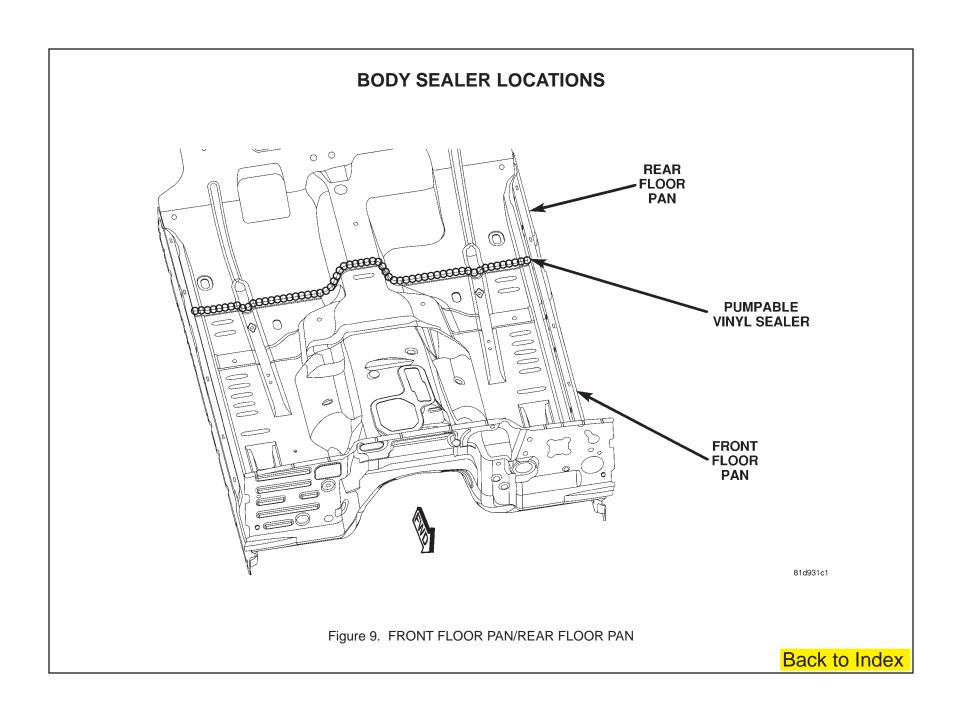


Figure 6. COWL SIDE/BODY SIDE SILL







# **BODY SEALER LOCATIONS**

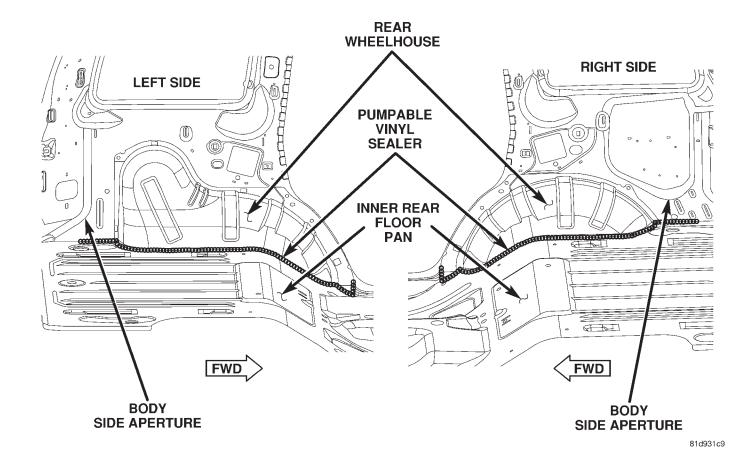
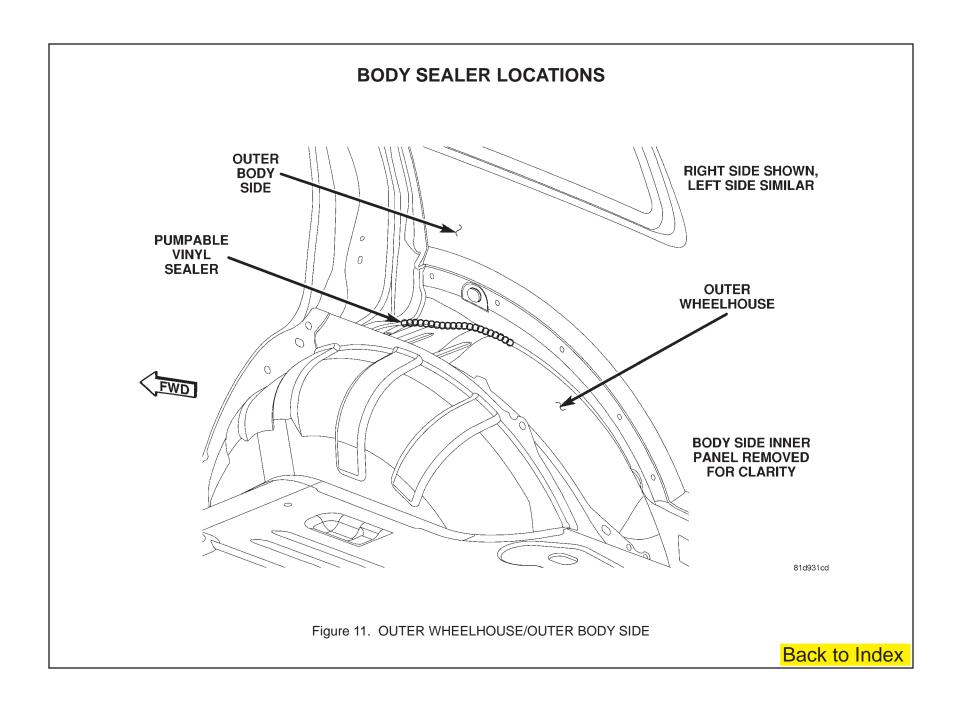
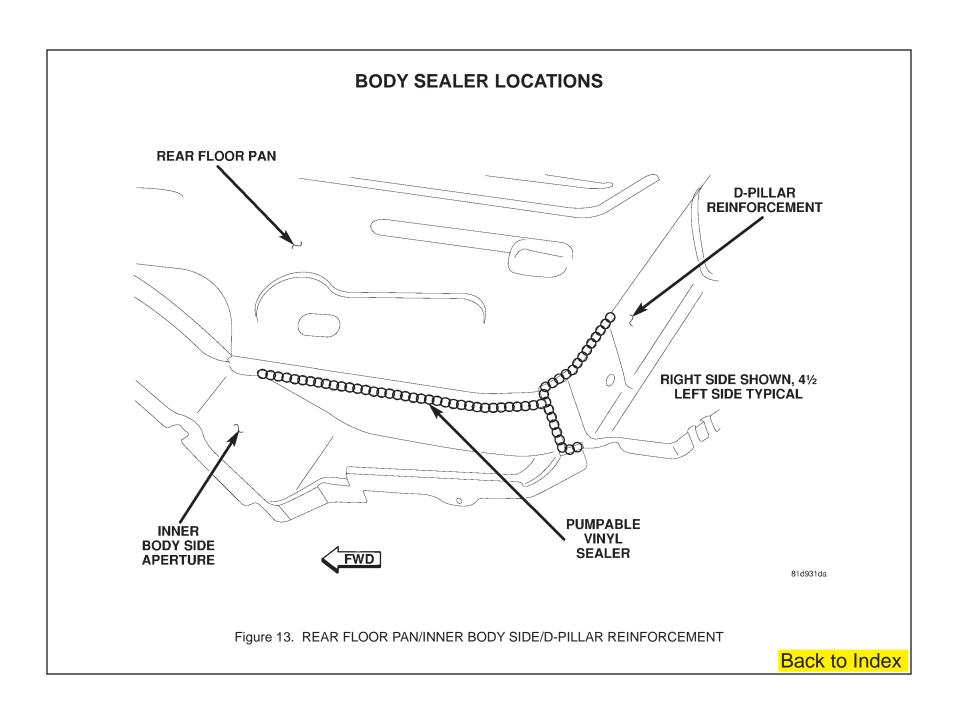
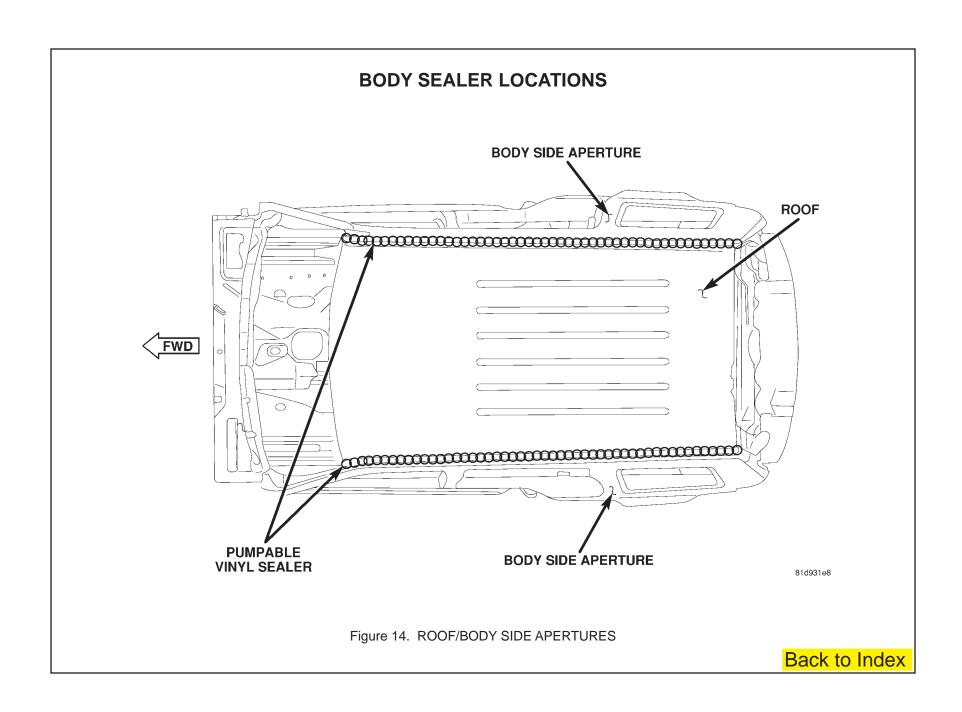


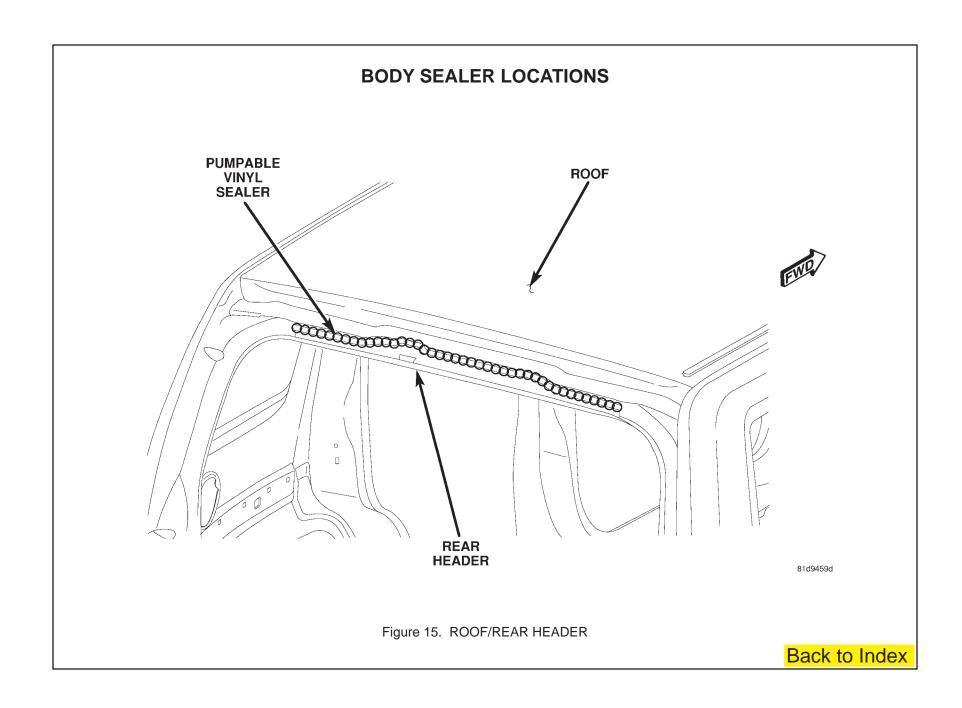
Figure 10. REAR FLOOR PAN/REAR WHEELHOUSE

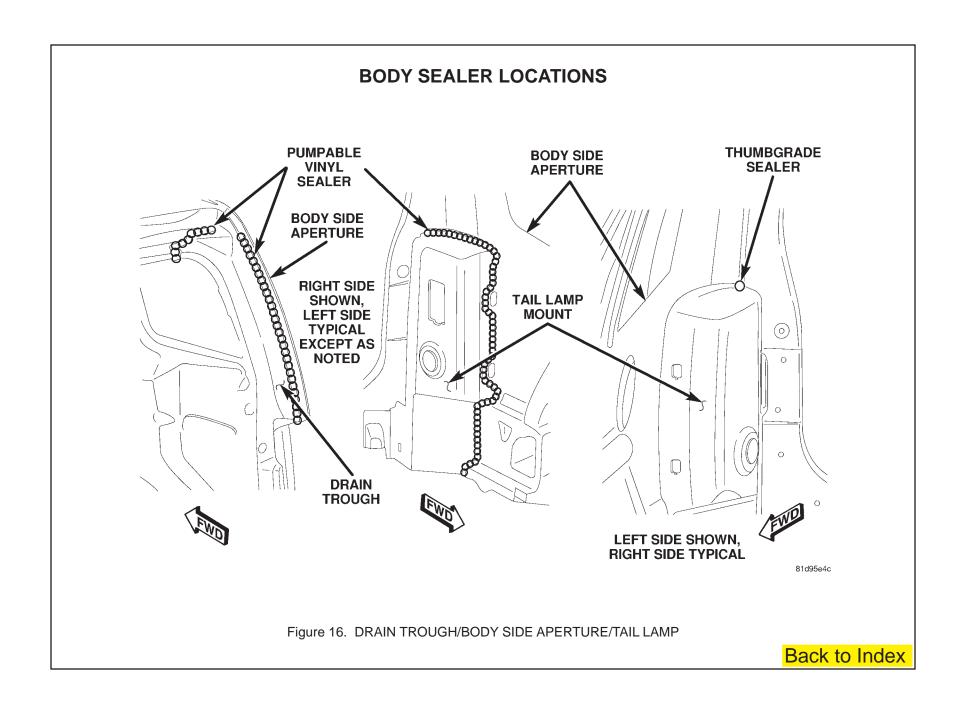


# **BODY SEALER LOCATIONS PUMPABLE OUTER** VINYL RIGHT SIDE SHOWN, LEFT SIDE SIMILAR WHEELHOUSE **SEALER** 0 FWD INNER **WHEELHOUSE** REAR FLOOR PAN 81d931d6 Figure 12. OUTER WHEELHOUSE/INNER BODY SIDE INNER AND OUTER PANEL Back to Index

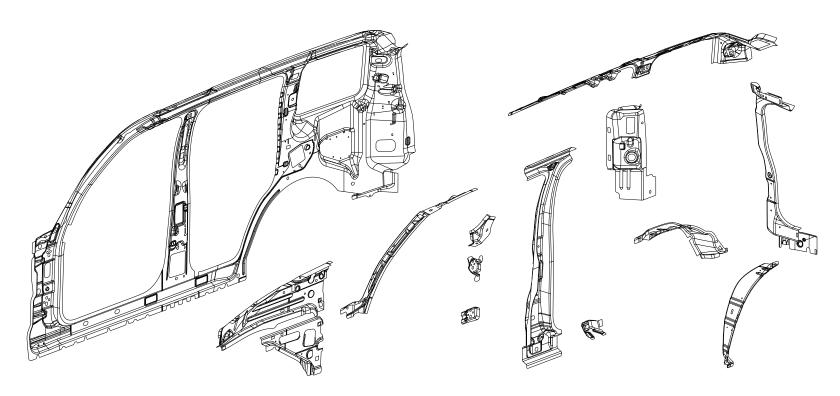








### JEEP LIBERTY BODY SIDE APERTURE COMPLETE SECTION



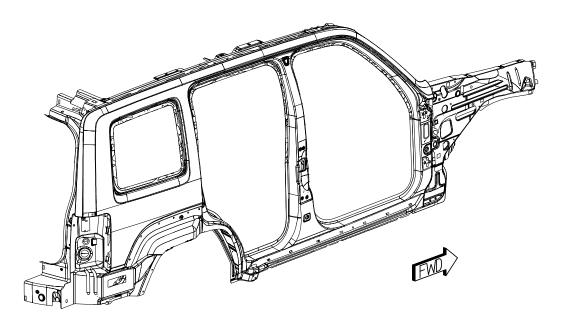
- PANEL BODY SIDE INR RT -
- PANEL BODY SIDE INR LT -
- AB PANEL CLOSE-OUT RT -
- AB PANEL CLOSE-OUT LT -
- AC REINF A-PILLAR INR LWR RT -
- AC REINF A-PILLAR INR LWR LT -
- AD REINF FENDER INR RT -
- AD REINF FENDER INR LT -
- AE PANEL BODY SIDE OTR RT -
- PANEL BODY SIDE OTR LT -
- REINF BODY SIDE DOOR HINGE UPR RT

- REINF BODY SIDE DOOR HINGE UPR LT
- AG REINF BODY SIDE FRT DOOR LWR HINGE RT -
- AG REINF BODY SIDE FRT DOOR LWR
- HINGE LT -
- AH GUSSET FRT FENDER INR RT -
- AH GUSSET FRT FENDER INR LT -
- AJ REINF B-PILLAR RT –
- AJ REINF B-PILLAR LT –
- AK REINF ROOF SIDE RAIL INR RT -

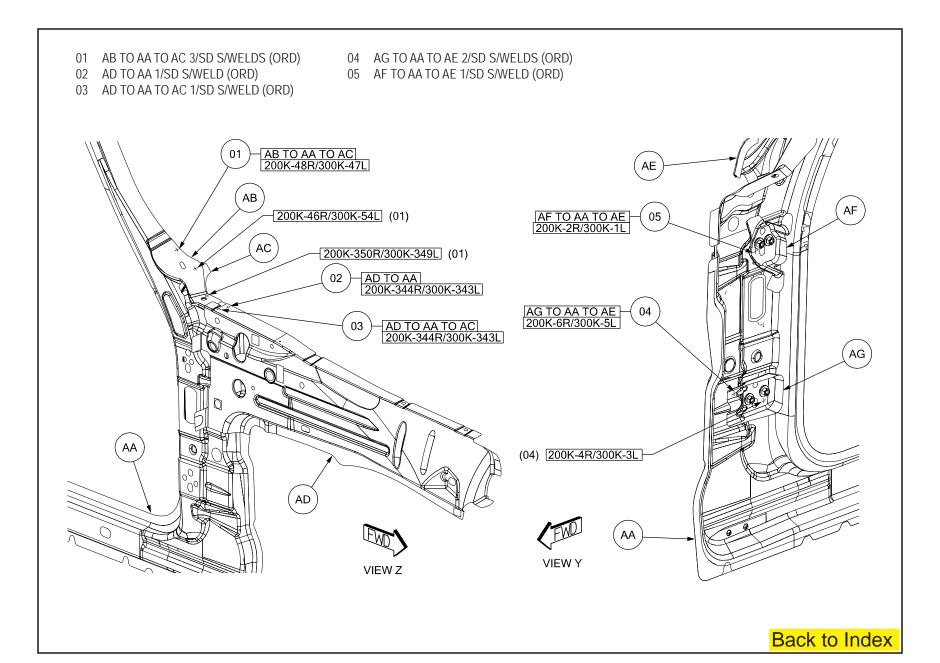
- REINF ROOF SIDE RAIL INR LT -
- AL PANEL RR WHEELHOUSE OTR RR RT -
- AL PANEL RR WHEEL HOUSE OTR RR LT -
- AM PANEL TAIL LAMP MOUNTING RT -
- AM PANEL TAIL LAMP MOUNTING LT -
- AN PANEL RR WHEELHOUSE OTR FRT RT -
- AN PANEL RR WHEELHOUSE OTR FRT LT -
- AP BRACKET SILL MOLDING MTG RT -
- AP BRACKET SILL MOLDING MTG LT -
- AR TROUGH LIFTGATE OPENING RT -
- AR TROUGH LIFTGATE OPENING LT -

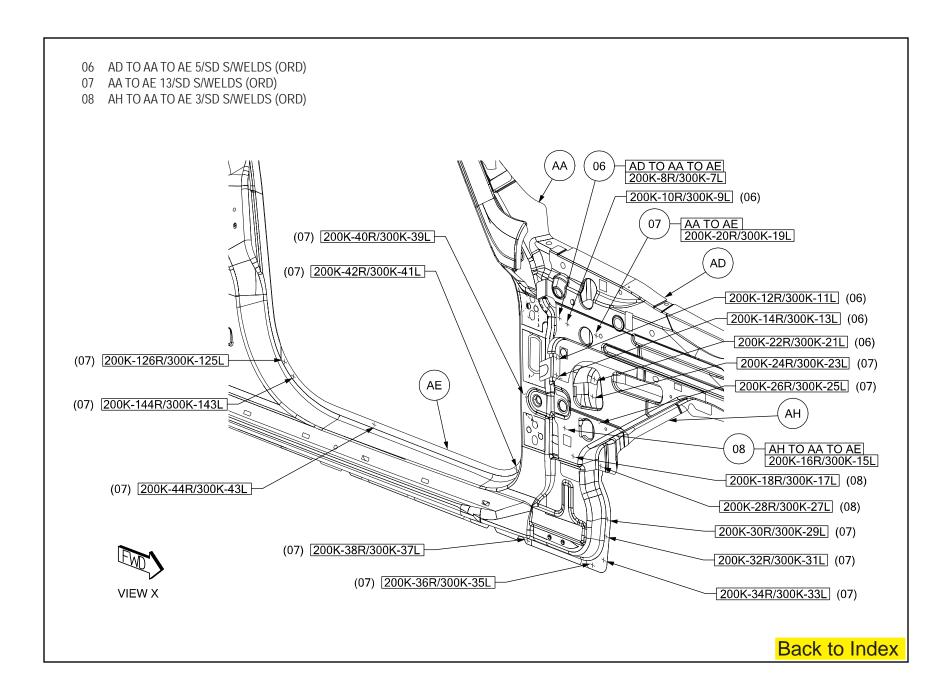
# PARTS IDENTIFICATION LEGEND, OVERVIEW 19

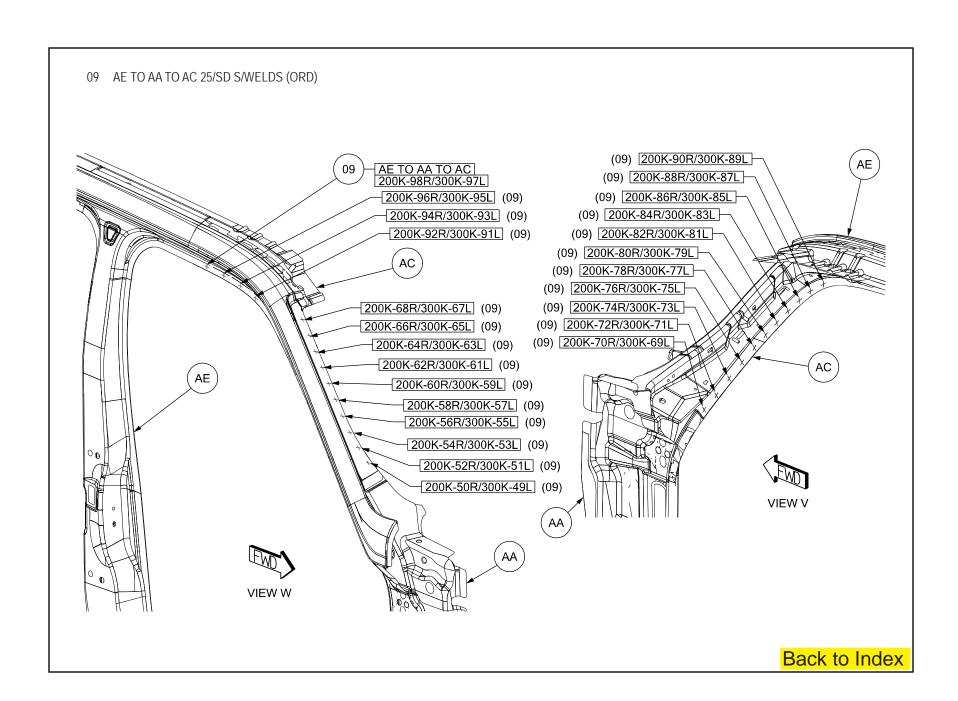
AA	PANEL - BODY SIDE INR RT -	AF	REINF – BODY SIDE DOOR HINGE UPR LT	AK	REINF – ROOF SIDE RAIL INR LT –
AA	PANEL – BODY SIDE INR LT –		_	AL	PANEL - RR WHEELHOUSE OTR RR RT -
AB	PANEL - CLOSE-OUT RT -	AG	REINF – BODY SIDE FRT DOOR LWR	AL	PANEL - RR WHEEL HOUSE OTR RR LT -
AB	PANEL - CLOSE-OUT LT -		HINGE RT –	AM	PANEL - TAIL LAMP MOUNTING RT -
AC	REINF – A-PILLAR INR LWR RT –	AG	REINF – BODY SIDE FRT DOOR LWR	AM	PANEL – TAIL LAMP MOUNTING LT –
AC	REINF – A-PILLAR INR LWR LT –		HINGE LT –	AN	PANEL - RR WHEELHOUSE OTR FRT RT -
AD	REINF – FENDER INR RT –	AH	GUSSET - FRT FENDER INR RT -	AN	PANEL - RR WHEELHOUSE OTR FRT LT -
AD	REINF – FENDER INR LT –	AH	GUSSET - FRT FENDER INR LT -	AP	BRACKET - SILL MOLDING MTG RT -
ΑE	PANEL - BODY SIDE OTR RT -	AJ	REINF – B-PILLAR RT –	AP	BRACKET – SILL MOLDING MTG LT –
ΑE	PANEL - BODY SIDE OTR LT -	AJ	REINF – B-PILLAR LT –	AR	TROUGH - LIFTGATE OPENING RT -
AF	REINF – BODY SIDE DOOR HINGE UPR RT	AK	REINF – ROOF SIDE RAIL INR RT –	AR	TROUGH - LIFTGATE OPENING LT -

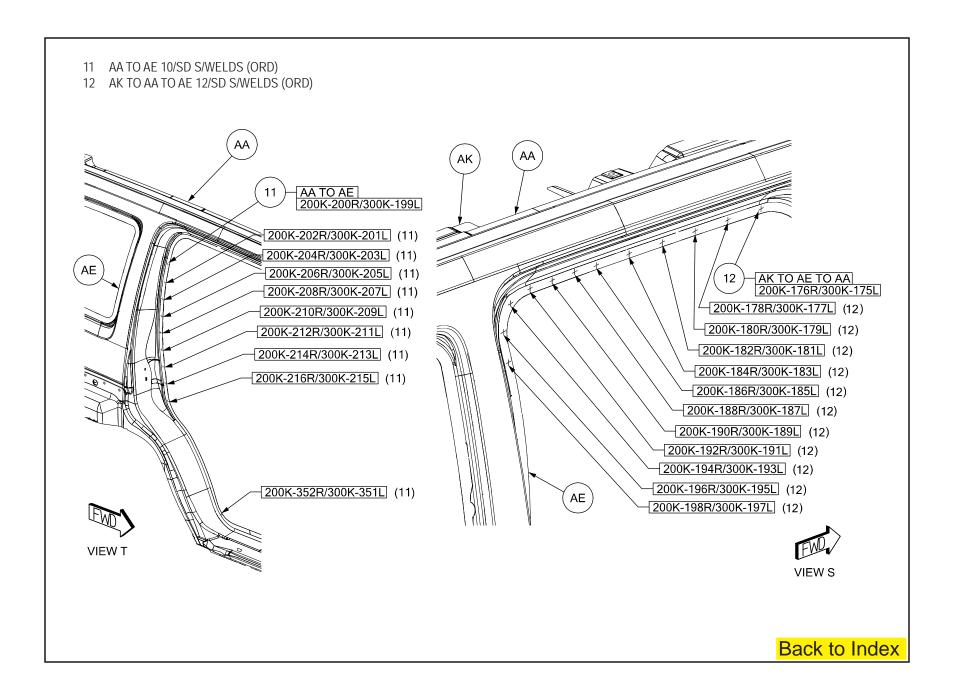


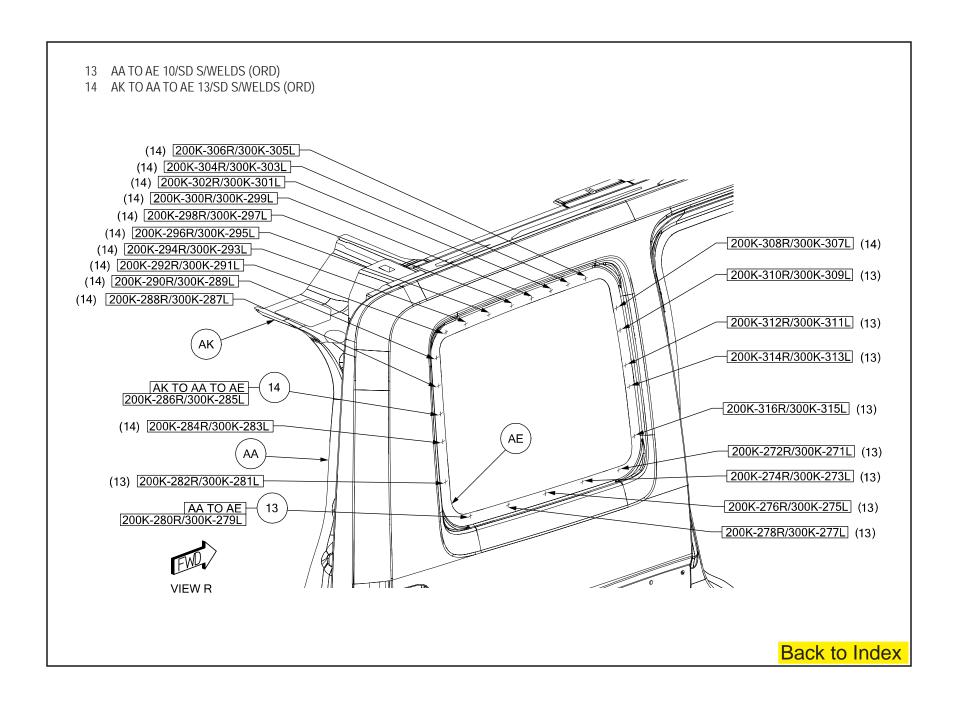
# **WELD LAYOUT LOCATION GUIDE** Back to Index





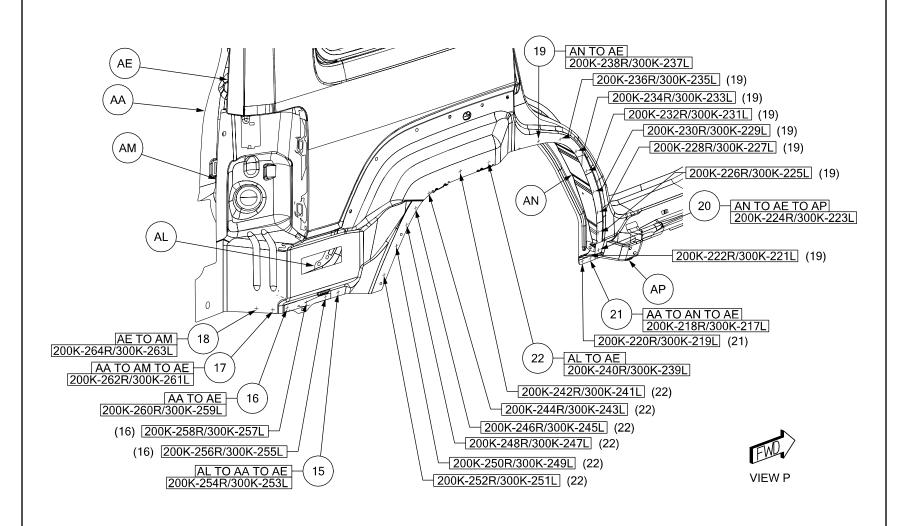


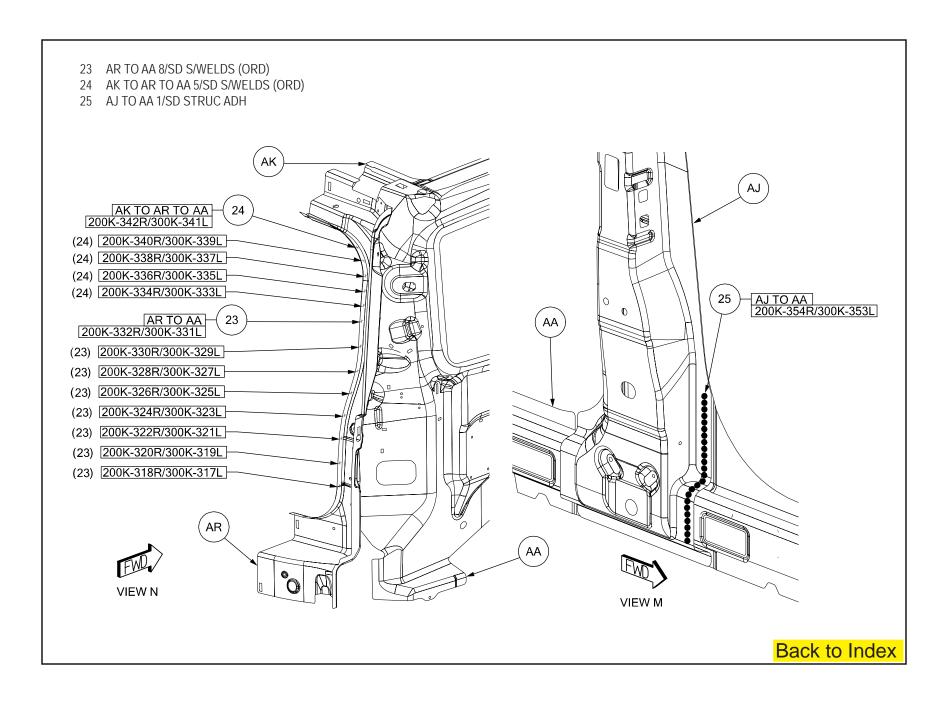


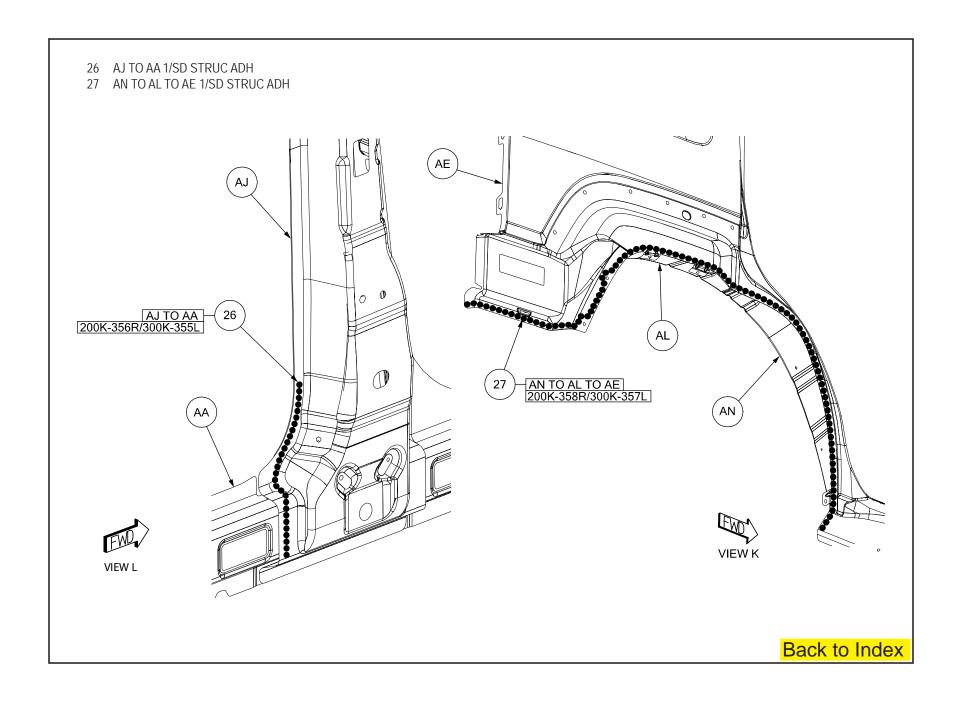


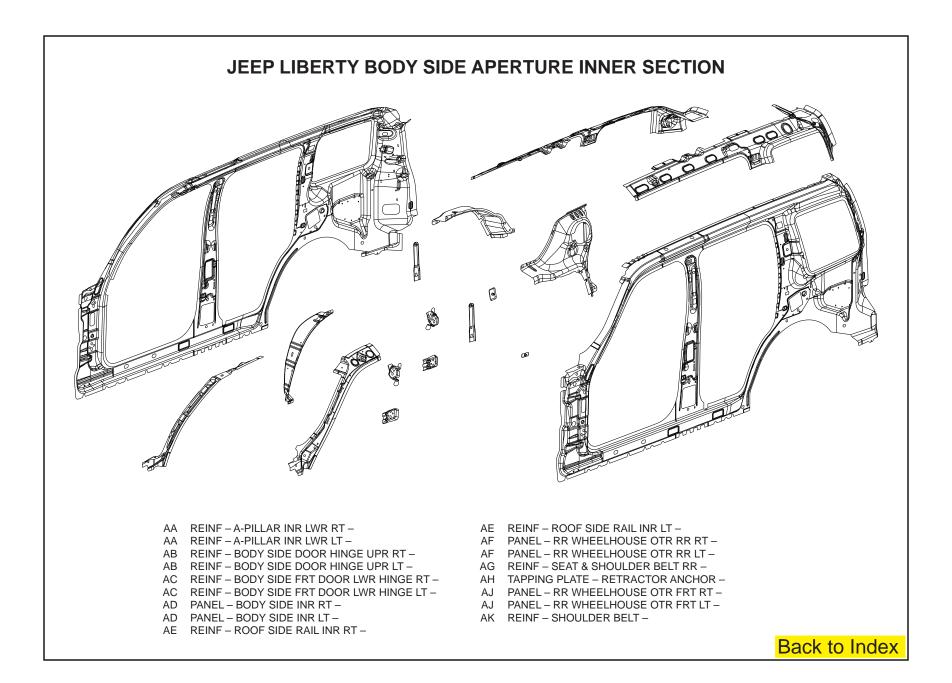


- 16 AA TO AE 3/SD S/WELDS (ORD)
- 17 AA TO AM TO AE 1/SD S/WELD (ORD)
- 18 AE TO AM 1/SD S/WELD (ORD)
- 19 AN TO AE 8/SD S/WELDS (ORD)
- 20 AN TO AE TO AP 1/SD S/WELD (ORD)
- 21 AA TO AN TO AE 2/SD S/WELDS (ORD)
- 22 AL TO AE 7/SD S/WELDS (ORD)









# PARTS IDENTIFICATION LEGEND, OVERVIEW 17

AA REINF – A-PILLAR INR LWR RT – AA REINF – A-PILLAR INR LWR LT –

AB REINF – BODY SIDE DOOR HINGE UPR RT –

AB REINF – BODY SIDE DOOR HINGE UPR LT –

AC REINF – BODY SIDE FRT DOOR LWR HINGE RT –

AC REINF – BODY SIDE FRT DOOR LWR HINGE LT –

AD PANEL - BODY SIDE INR RT -

AD PANEL - BODY SIDE INR LT -

AE REINF - ROOF SIDE RAIL INR RT -

AE REINF - ROOF SIDE RAIL INR LT -

AF PANEL - RR WHEELHOUSE OTR RR RT -

AF PANEL - RR WHEELHOUSE OTR RR LT -

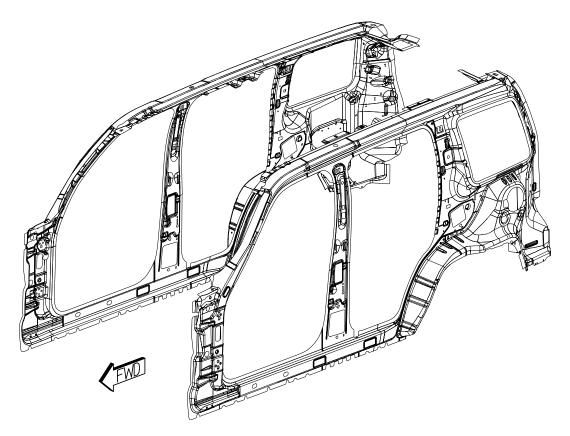
AG REINF - SEAT & SHOULDER BELT RR -

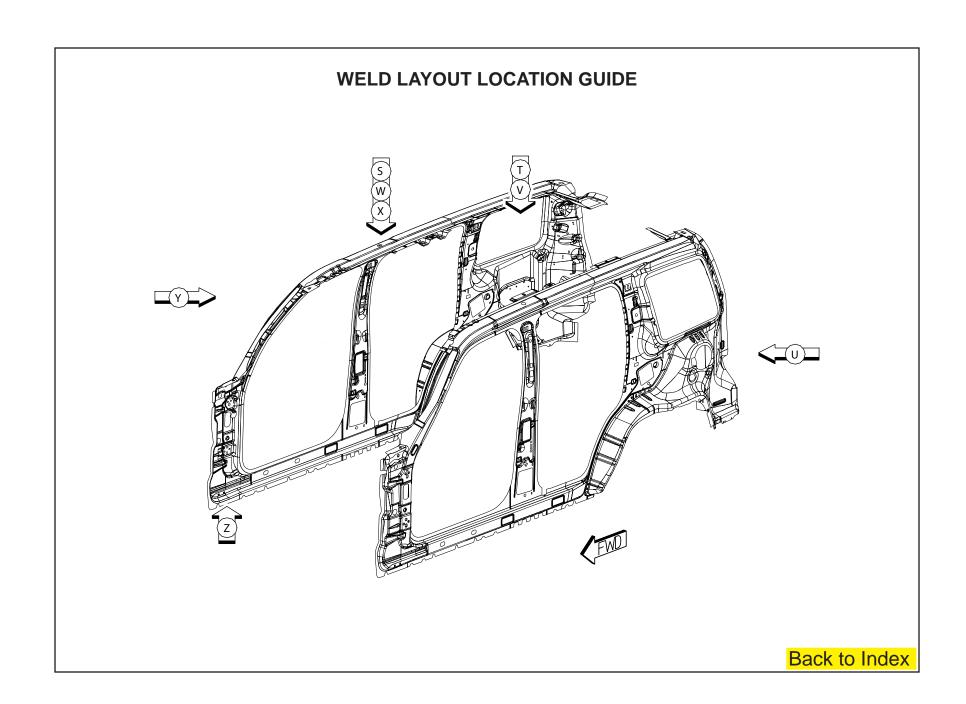
AH TAPPING PLATE - RETRACTOR ANCHOR -

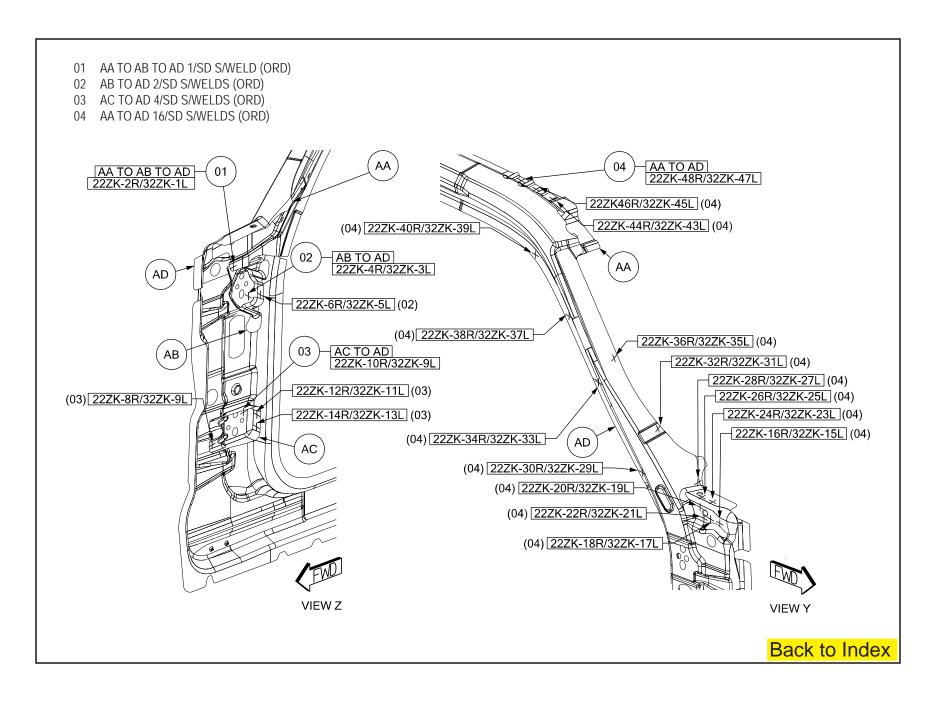
AJ PANEL - RR WHEELHOUSE OTR FRT RT -

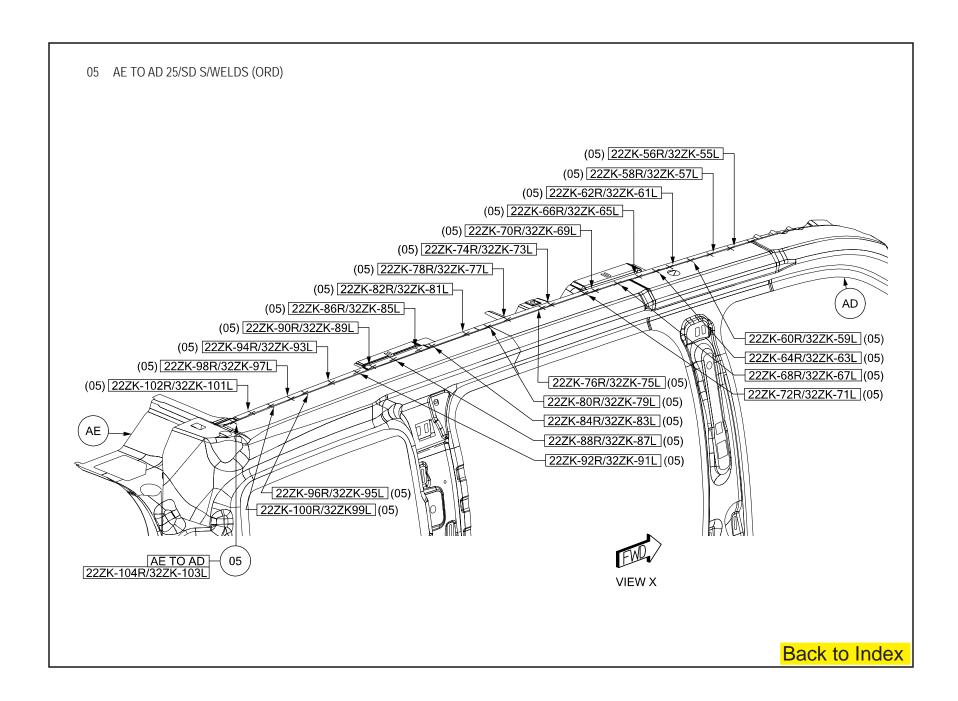
AJ PANEL - RR WHEELHOUSE OTR FRT LT -

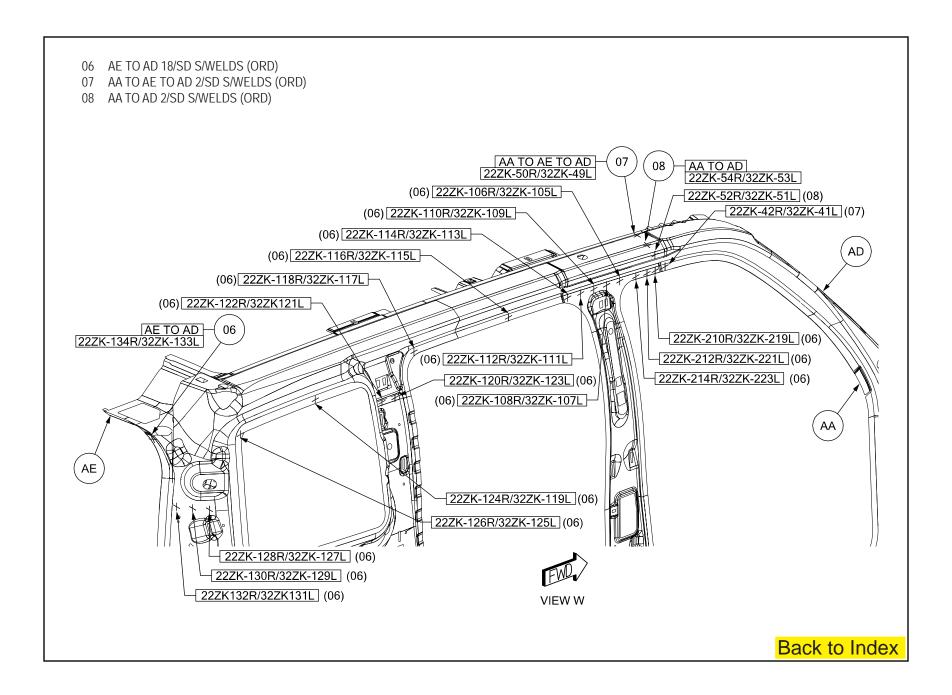
AK REINF - SHOULDER BELT -

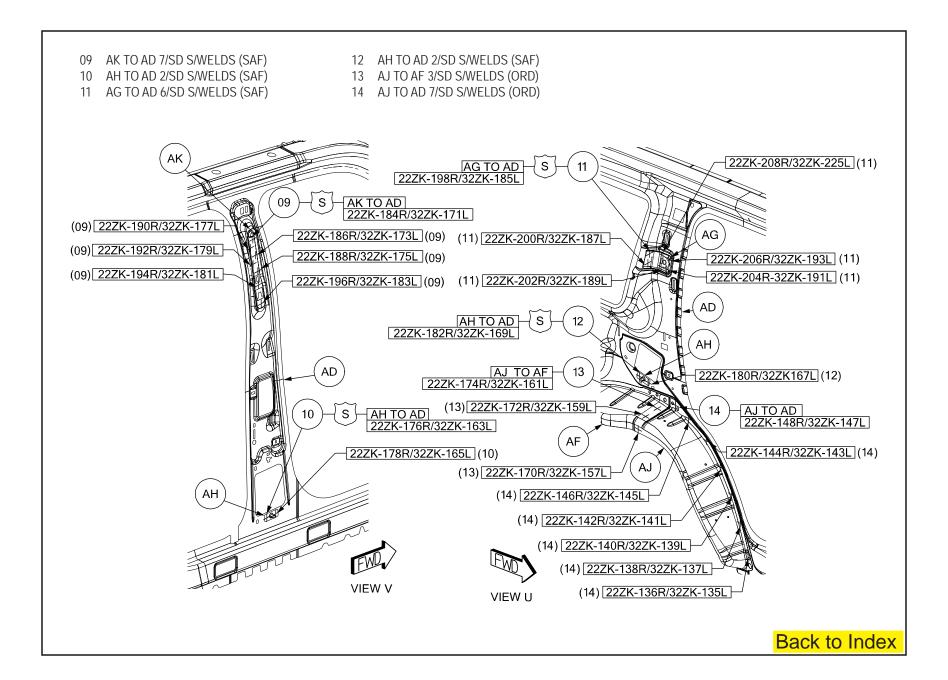


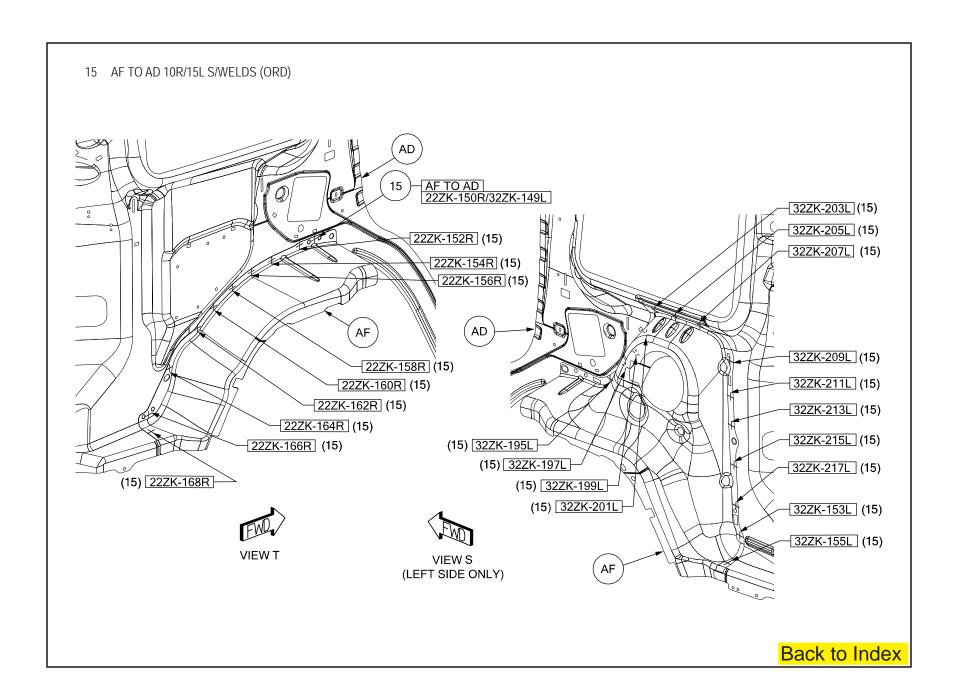


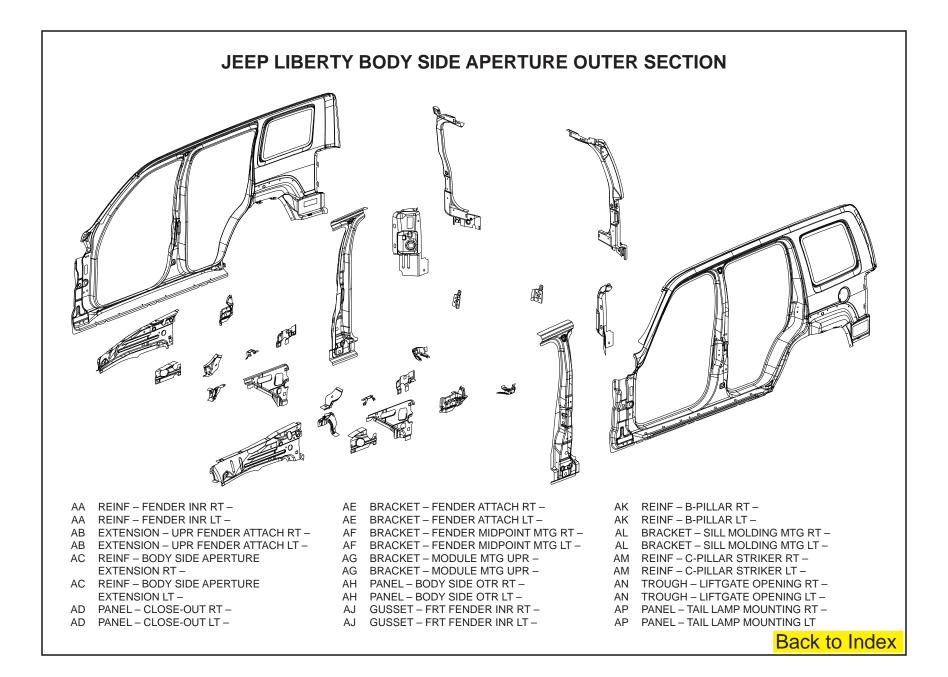












# **PARTS IDENTIFICATION LEGEND, OVERVIEW 18**

AA REINF – FENDER INR RT – AE BRACKET – FENDER ATTACH RT – AK REINF – B-PILLAR LT –

AB EXTENSION – UPR FENDER ATTACH RT – AF BRACKET – FENDER MIDPOINT MTG RT – AL BRACKET – SILL MOLDING MTG RT – AB EXTENSION – UPR FENDER ATTACH LT – AF BRACKET – FENDER MIDPOINT MTG LT – AL BRACKET – SILL MOLDING MTG LT –

AC REINF – BODY SIDE APERTURE AG BRACKET – MODULE MTG UPR – AM REINF – C-PILLAR STRIKER RT –

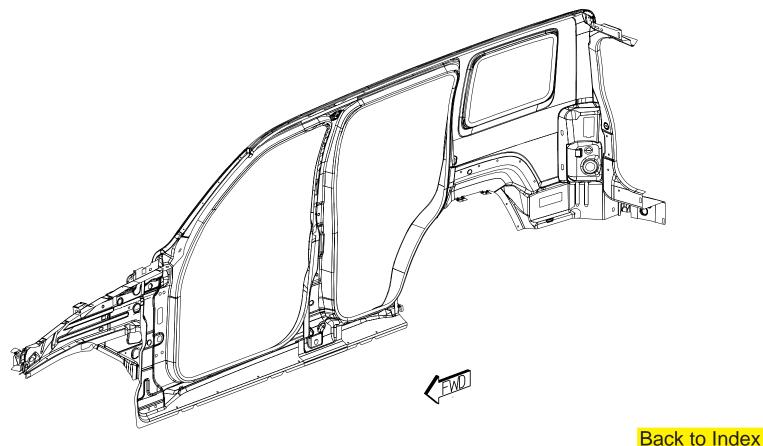
EXTENSION RT – AG BRACKET – MODULE MTG UPR – AM REINF – C-PILLAR STRIKER LT –
AC REINF – BODY SIDE APERTURE AH PANEL – BODY SIDE OTR RT – AN TROUGH – LIFTGATE OPENING RT –

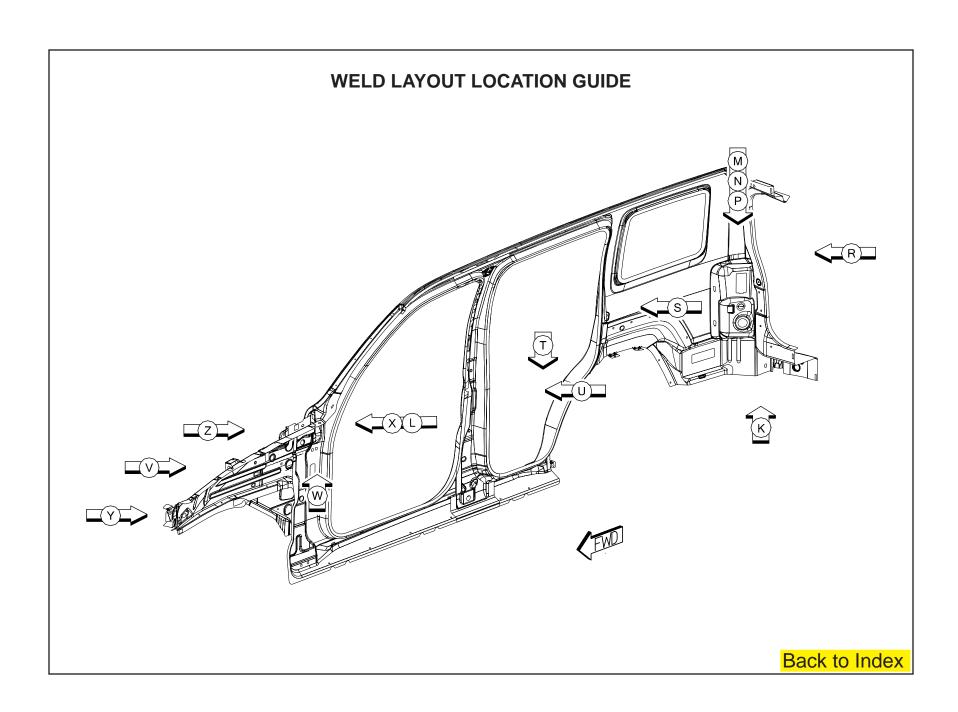
EXTENSION LT – AH PANEL – BODY SIDE OTR LT – AN TROUGH – LIFTGATE OPENING LT –

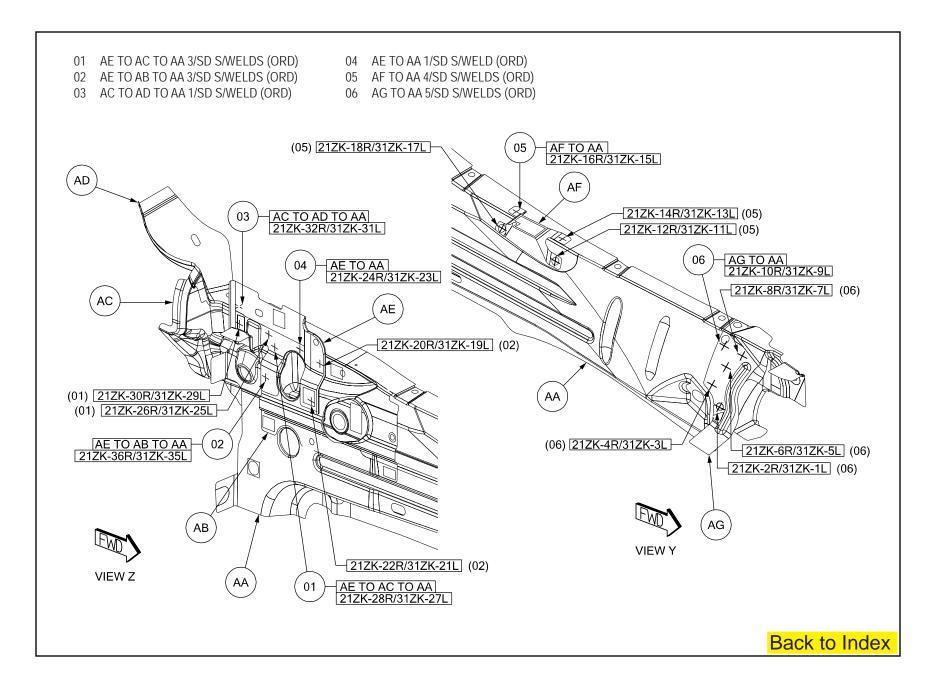
AN TROUGH – LIFTGATE OPENING LT –

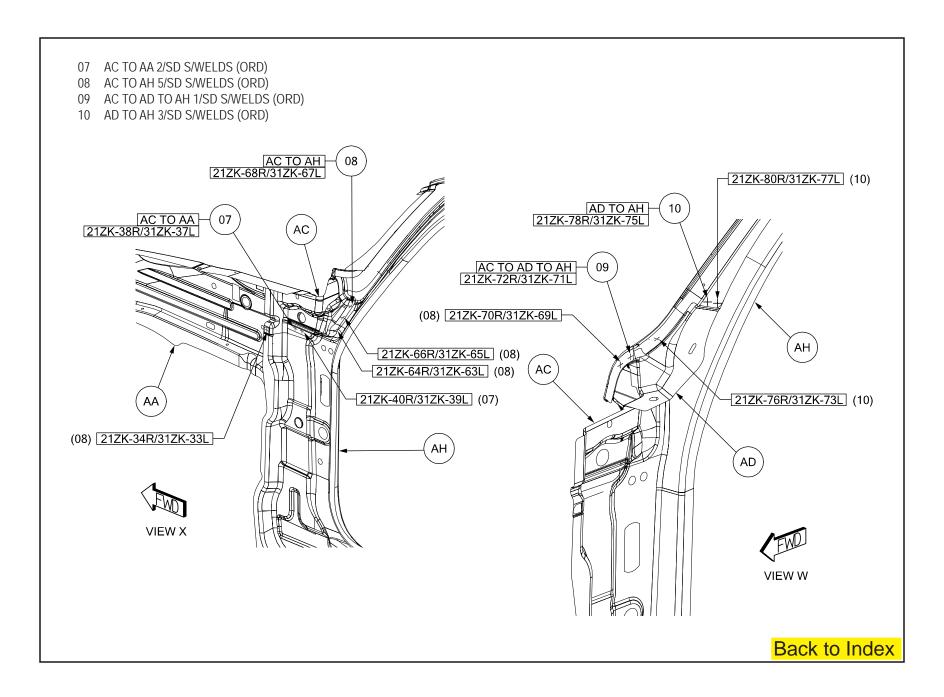
AD PANEL - CLOSE-OUT RT - AJ GUSSET - FRT FENDER INR RT - AP PANEL - TAIL LAMP MOUNTING RT -

AD PANEL - CLOSE-OUT LT - AJ GUSSET - FRT FENDER INR LT - AP PANEL - TAIL LAMP MOUNTING LT



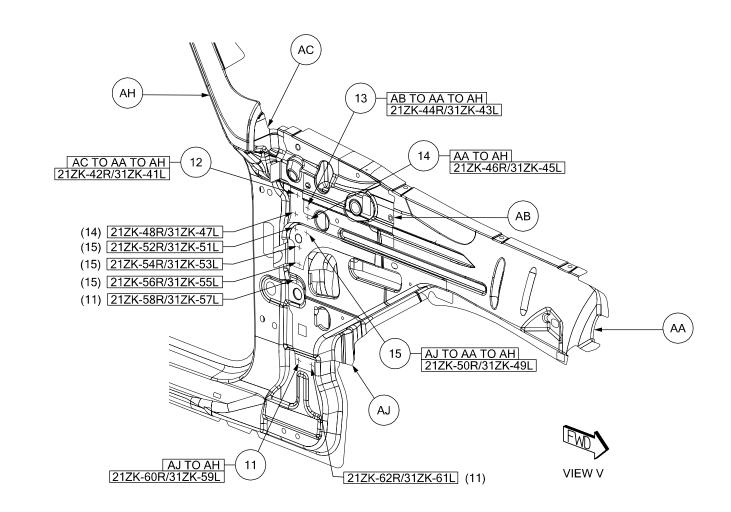


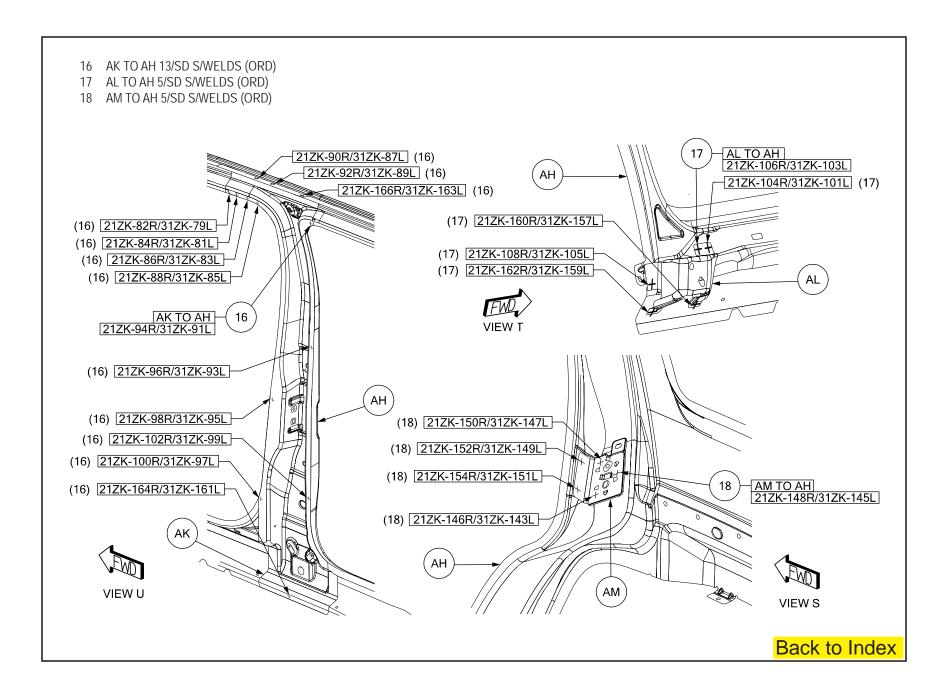


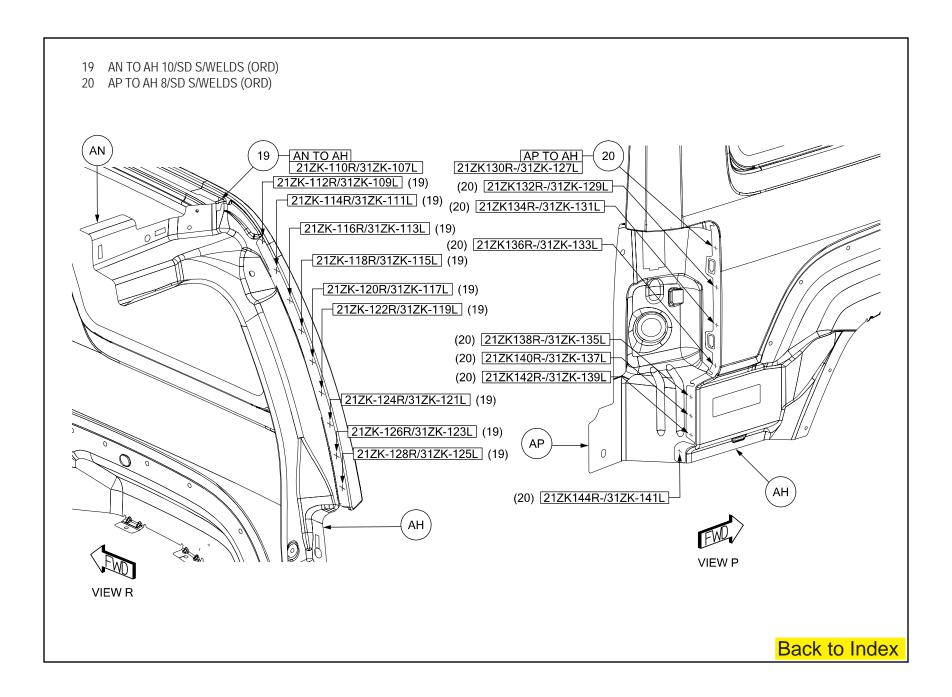


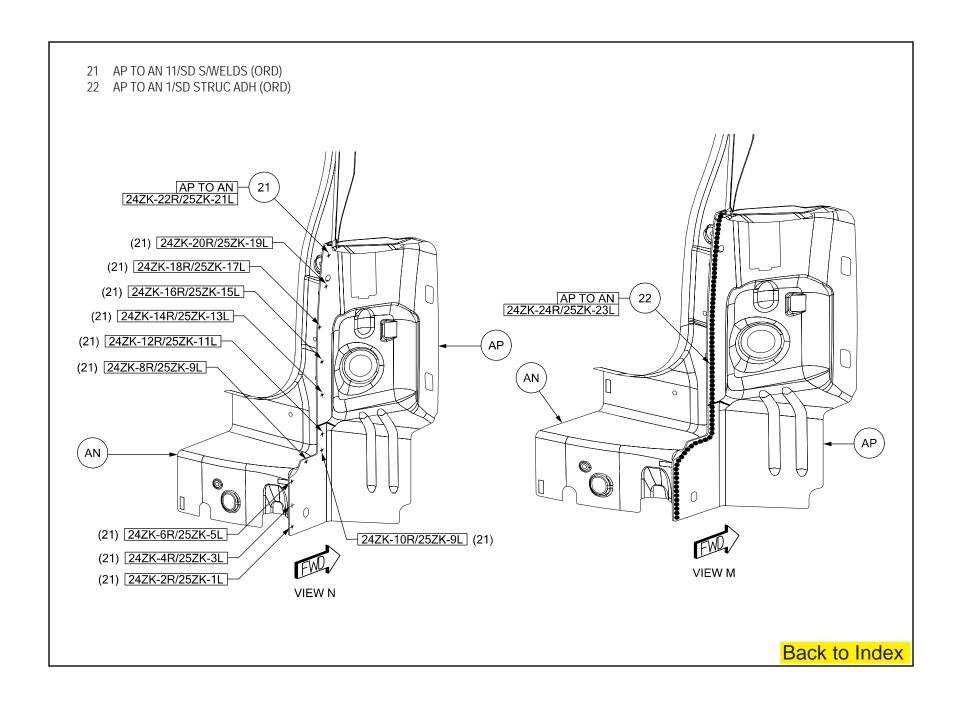


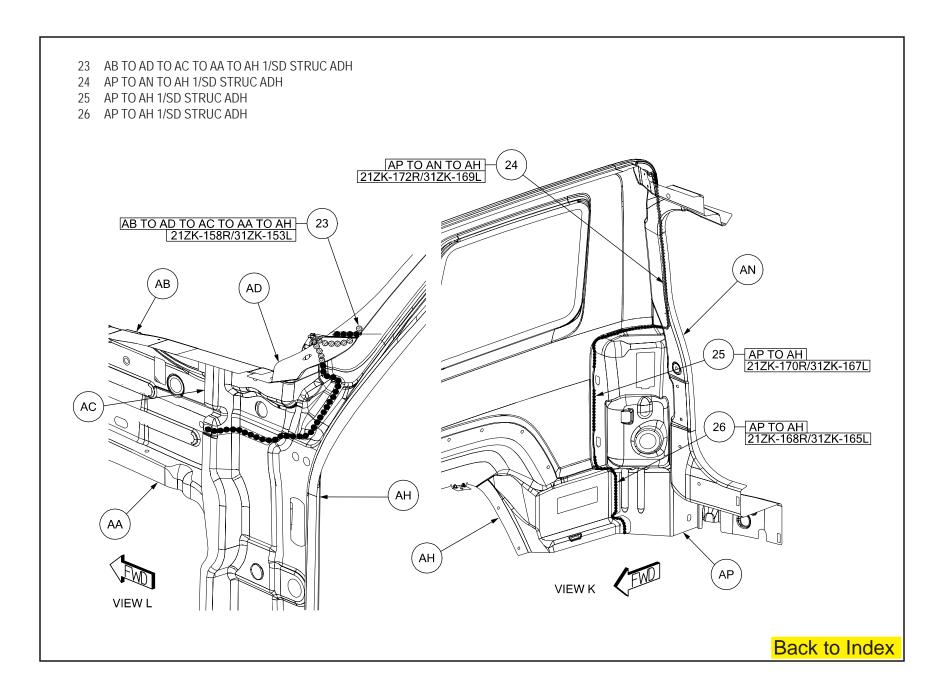
- 12 AC TO AA TO AH 1/SD S/WELD (ORD)
- 13 AB TO AA TO AH 1/SD S/WELD (ORD)
- 14 AA TO AH 2/SD S/WELDS (ORD)
- 15 AJ TO AA TO AH 4/SD S/WELDS (ORD)











### **BODY SIDE REPAIR SUPPLEMENT**

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STANDARD PROCEDURE - BODY SIDE	
REPAIR	

### **Body Side Repair Supplement**

### **Sectioning Procedures**

### STANDARD PROCEDURE - BODY SIDE REPAIR

Partial replacement guidelines for the body side outer panel, the body side inner panel, and the b-pillar reinforcement.

These repairs are for collision damaged vehicles which DO NOT have pillar damage above the midpoint of the hinge pillars – more seriously damaged vehicles will require full panel replacement procedures into the roofline

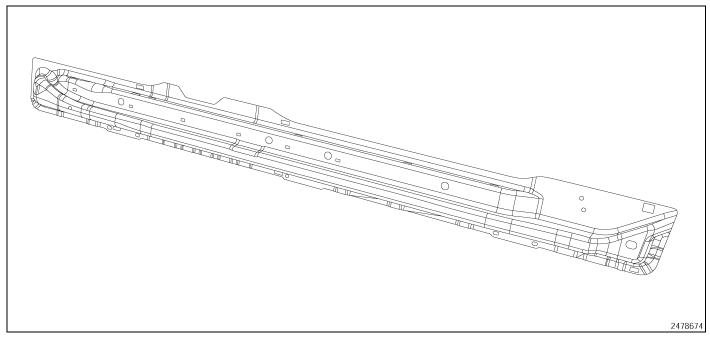
For the 2007 and up Nitro and 2008 and up Liberty, be aware that the inner sill panel between the body side inner and the floor pan is hotstamped boron and cannot be repaired or sectioned

2008 and up Liberty has a hot-stamped boron inner A-pillar reinforcement

Inner body side panel and B-pillar reinforcement sectioning locations have been chosen where they are the simplest to perform based on component shape and where the repair minimizes any affect on the body structure

### **CAUTION:**

- All restraint systems should be disabled before beginning repairs.
- · Electronic modules located within 305 mm (12 in.) of any welding should be isolated.
- · Protect vehicle from weld spatter damage.
- Vehicle service manual should be referenced for guidelines and warnings.



Inner Sill Panel

Sandwiched between the inner body side panel and the floor. For 2002–2007 Liberty, this panel is high strength steel, but may be sectioned, using the described lap joint, providing holes & formations are avoided, and the repair joint is at least 203 mm (8 in.) from any other repair joint. For 2007 and up Nitro, and 2008 and up Liberty, this panel is hot-stamped boron and is not repairable or sectionable.

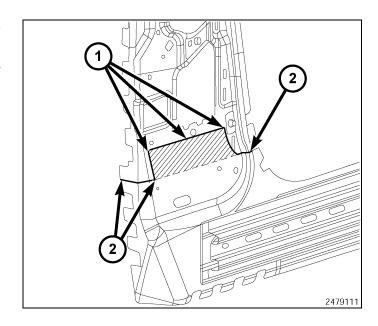
### Joining Methods

Partial replacement of the inner body side panel and B-pillar reinforcement requires using a modified lap-joint in which flat surfaces are lapped after a step is manually formed in the "tab", and a butt joint is used in "shaped" areas.

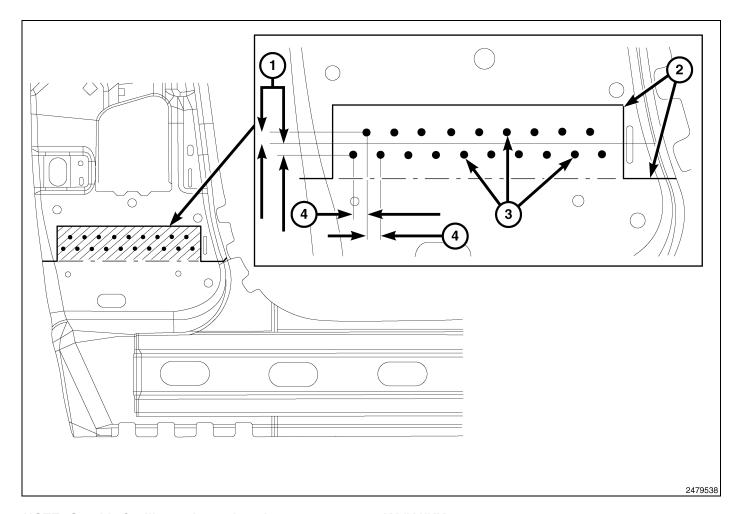
Small weld backers may be added behind the butt joints to improve weldability if needed, and in all cases 100% weld penetration is required.

### NOTE: Graphic for illustration only – does not represent KA/KJ/KK structure

The repair joint is a combination **lap-joint** and **butt-joint** – the panels are lapped in the flat areas and butted in contoured locations and at weld flanges.



- 1 LAP-JOINT WELDS
- 2 BUTT-JOINT WELDS



### NOTE: Graphic for illustration only - does not represent KA/KJ/KK structure

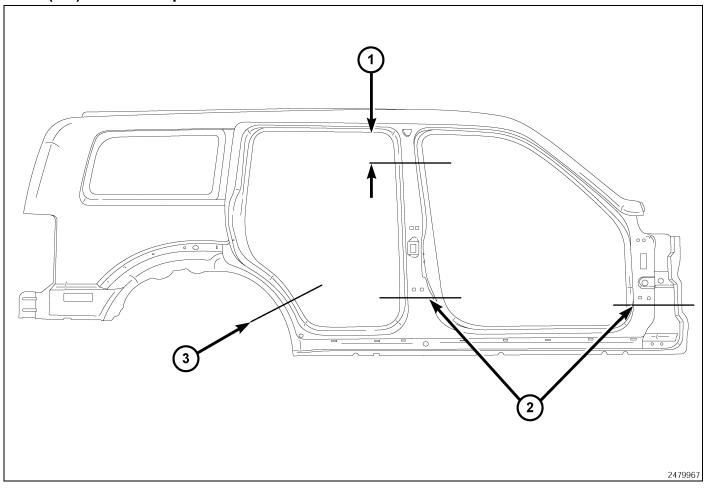
In the lap-jointed area, staggered arc ring fillet welds are used to augment the joint and both edges of the lapped panels should be welded.

The arc ring fillet welds, or "puddle welds", should be spaced 13 mm (0.5 in.) apart following the centerline of the lap and should be staggered above and below the centerline 9.5 mm (0.375 in.).

CAUTION: Use Mopar Cavity wax kit part # 68042969AA, or equivalent, AFTER all welding is complete as material is flammable.

When all welding is completed, the welds should all be thoroughly cleaned and corrosion protection applied to all enclosed cavities. Two coats should be applied, allowing 30-minutes flash time between coats.

### Nitro (KA) 2007 and Up

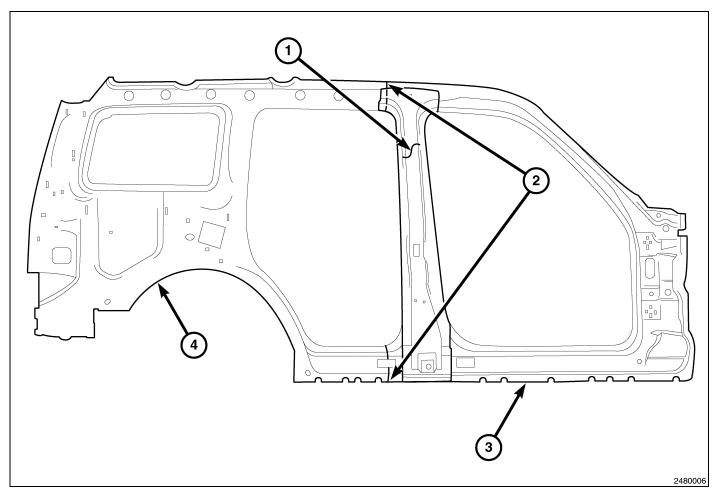


Nitro (KA)

- 1 203 mm (8 in.)
- 2 Lower A-pillar and B-pillar installation locations 4-inches below lower door hinge locations when only the sill is being replaced
- 3 Normal installation location in the dogleg area as defined by the Mopar service part

The body side outer panel should be sectioned 203 mm (8 in.) below the upper door opening pinch weld flange when the B-pillar reinforcement and/or the inner body side are being partially replaced.

The outer body side panel may also be sectioned 102 mm (4 in.) below the lower door hinge if only the sill is being replaced. All outer body side panel joints should be butt-welded.

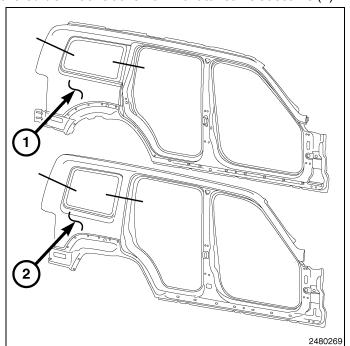


Nitro (KA)

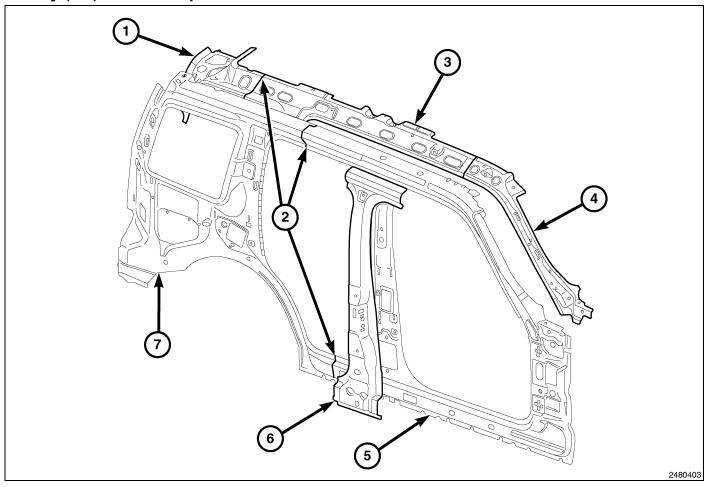
B-pillar Reinforcement (1) is 1.5 mm high-strength steel (345 MPa).

Inner body side panel is a tailored blank with .74 mm low-strength steel in the rear portion (4), and 1.5 mm high-strength steel in the forward portion (3) (345 MPa). The location the tailored blank transitions from front to rear is at seams (2).

The same body side outer panel replacement procedures and locations may be used for Liberty (2) as for Nitro (1).



### Liberty (KK) 2008 and Up



LIBERTY (KK)

CAUTION: The A-pillar inner (4) and the inner sill panel (not shown) on KA and KK are hot-stamped boron. DO NOT SECTION THESE PARTS.

NOTE: For Liberty (KK) cut locations see Nitro (KA) locations.

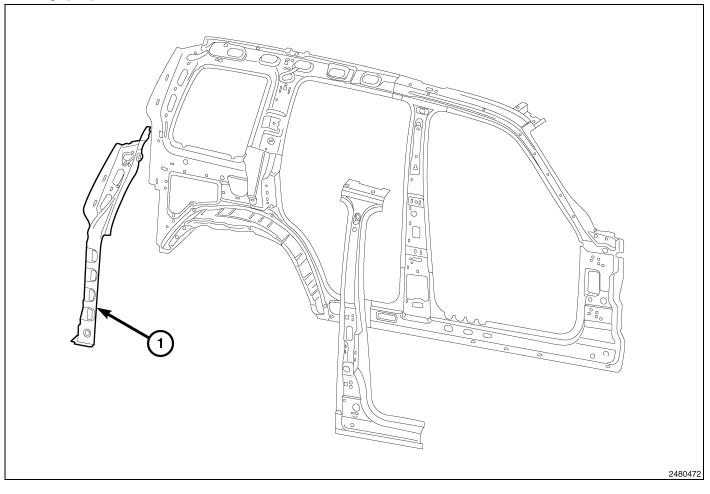
Roof rail is a tailored blank with 1.2 mm low-strength steel in the rear portion (1) and 2.0 mm high-strength steel in the mid-body portion (3) (345 MPa).

Inner body side panel is a tailored blank with 0.8 mm low-strength steel in the rear portion (7) and 1.5 mm high-strength steel in the front portion (5) (345 MPa).

The locations the tailored blanks transition from front to rear is at seams (2).

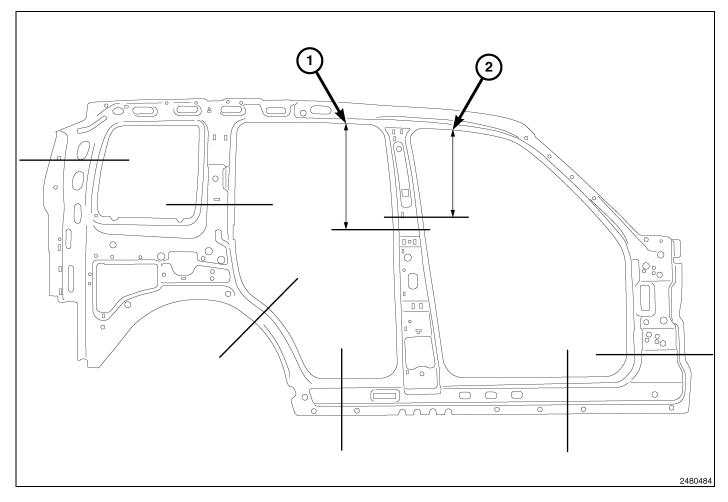
B-pillar reinforcement (6) is 1.5 mm high-strength steel (345 MPa).

### Liberty (KJ) 2002 - 2006



LIBERTY (KJ)

D-pillar reinforcement (1) is 1.5 mm low-strength steel and may be sectioned as is the inner body side panel.

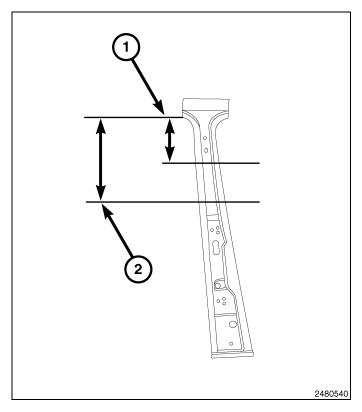


LIBERTY (KJ)

- 1 482.5 mm (19 in.)
- 2 432 mm (17 in.)

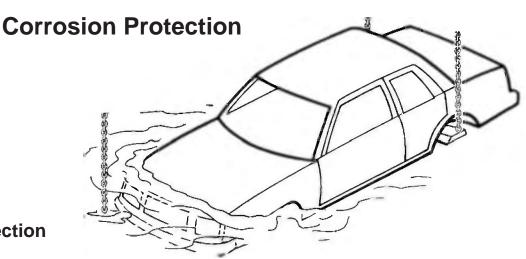
2002-2007 Liberty inner body side panel may be sectioned as shown. The B-pillar location is absolute, while remaining pillars and the two sill locations are somewhat flexible depending upon the damage which must be repaired – remember to section where there are no holes or formations and at least 25 mm (1 in.) from laser welds

B-pillar reinforcement may be sectioned, using a modified lap joint with 51 mm (2 in.) of overlap, anywhere within the area shown.



LIBERTY (KJ)

- 1 355.5 mm (14 in.)
- 2 482.5 mm (19 in.)



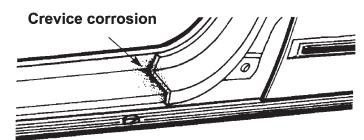
### **Factory Applied Corrosion Protection**

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.

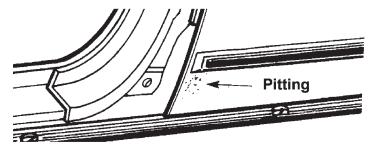
This corrosion protection is required regardless of the environment and weather conditions the vehicle will be operated in. Corrosion protection is as important in the desert as it is at the seaside. Corrosion damage can literally destroy the structural integrity of a unibody vehicle from within. Many 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**.

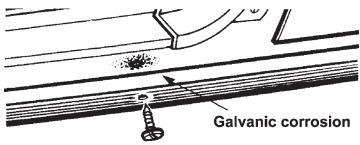
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**Crevice corrosion** is a form of localized attack that occurs in areas on metal surfaces exposed to the elements. Examples include spot weld lap joints, threaded or riveted connections, gasket fittings, porous welds, valve seats.



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.

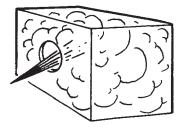
### **Collision Repair Corrosion Protection Materials**

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.

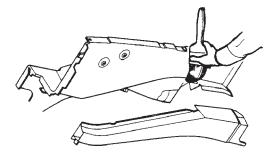
Materials containing silicones will cause paint conditions such as fish eyes if they are applied before the repaired vehicle is painted. So no silicone containing material is to be used. As many of the repair areas are more accessible before final assembly and painting, the non-silicone type materials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

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### **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

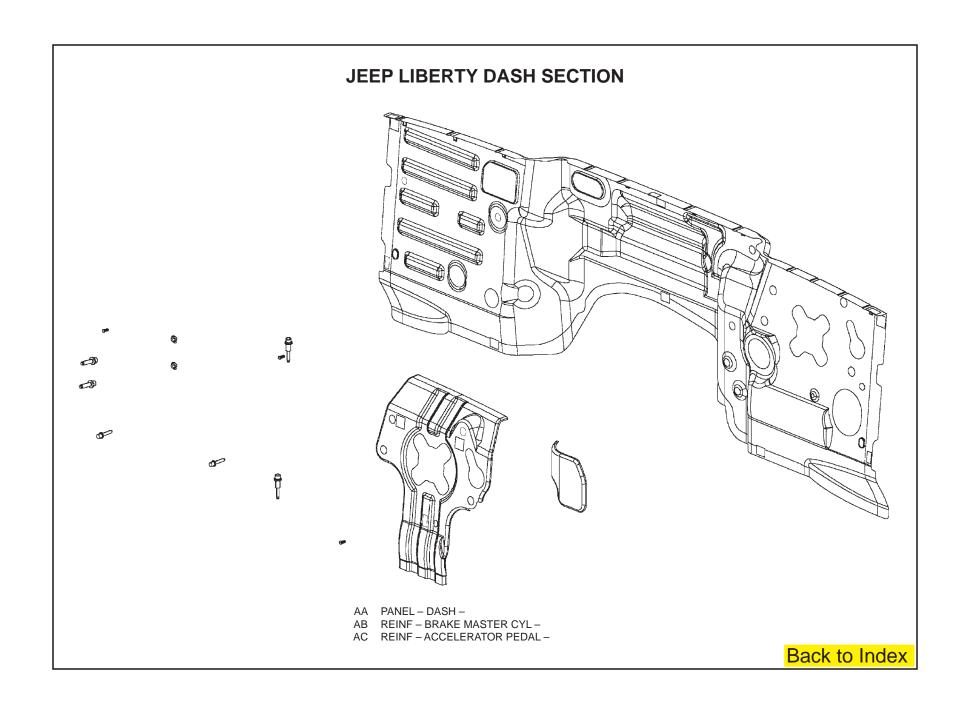
Fretting - Deterioration of metal at contact surfaces due to motion and corrosive elements

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

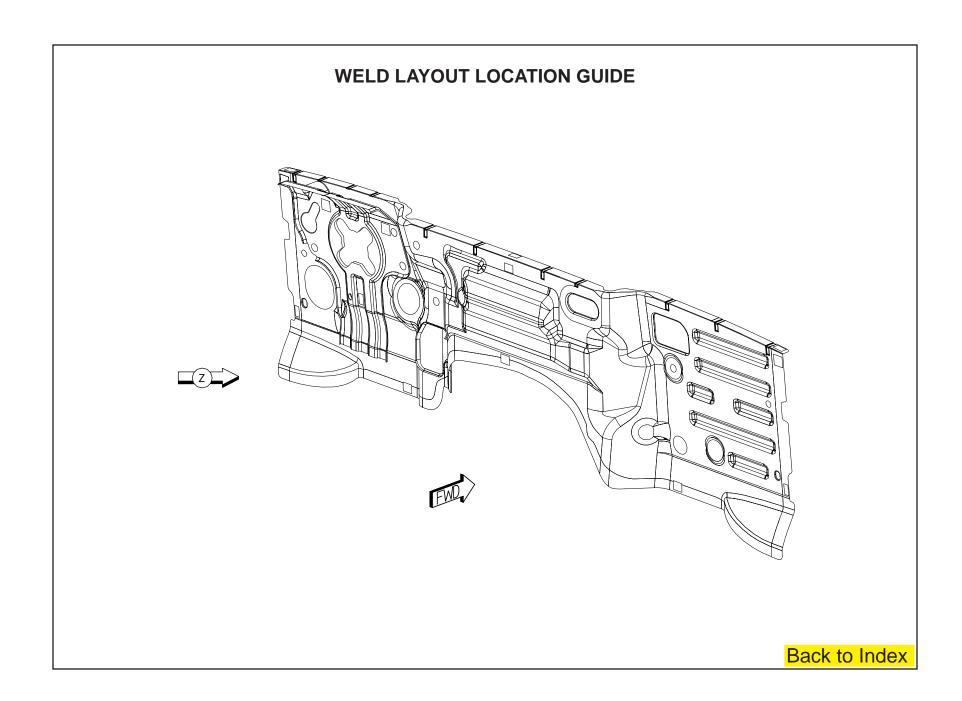
Hot Spot - An unprotected area subject to corrosion

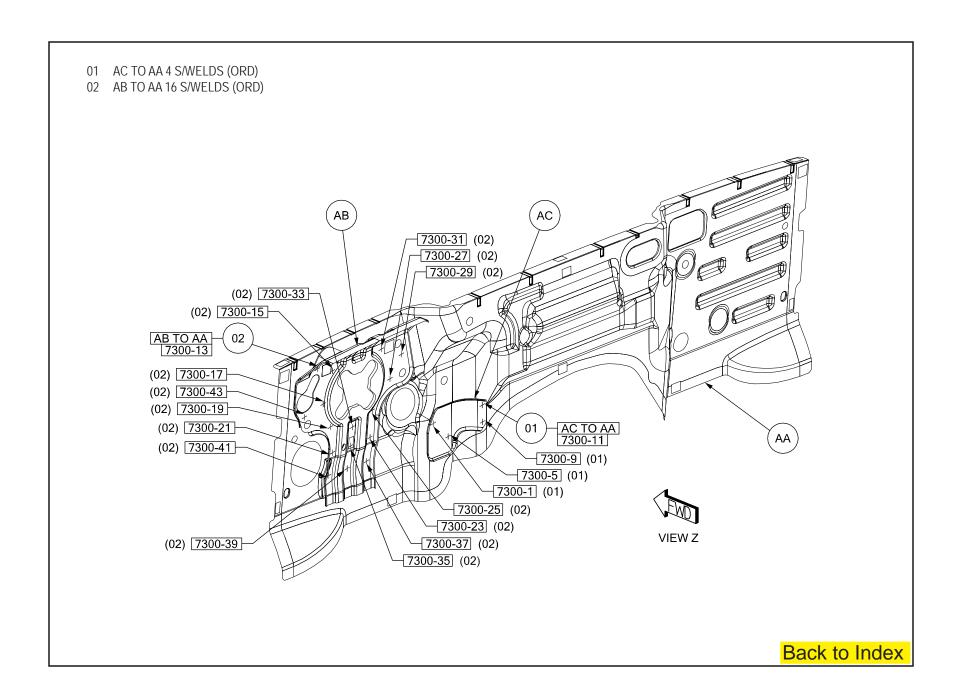
Pitting Corrosion - Corrosion on a surface the results in a small "specks" or "pinholes"

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



## PARTS IDENTIFICATION LEGEND, OVERVIEW 9 AA PANEL - DASH -AB REINF - BRAKE MASTER CYL -AC REINF - ACCELERATOR PEDAL -





### **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.



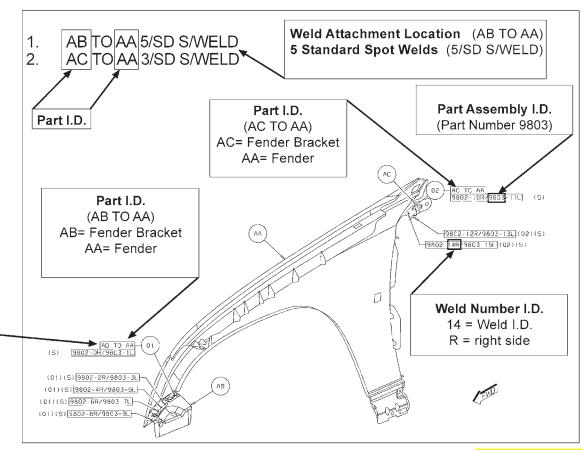
Thumbgrade Sealer

Pumpable Sealer

7777 Hidden Sealer

Non Structural Expand Foam

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



### **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



### JEEP LIBERTY FRAME/BODY DIMENSIONS

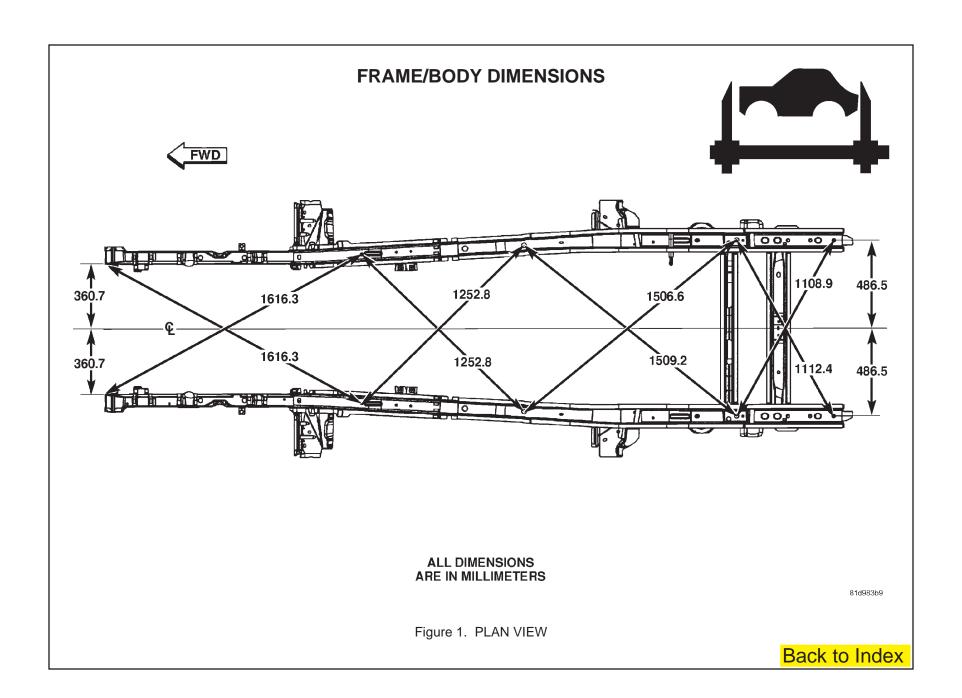


### **FRAME DIMENSIONS**

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
PLAN VIEW	1
SIDE VIEW	2



# FRAME/BODY DIMENSIONS FWD FWD 621.5

DATUM

ALL DIMENSIONS ARE IN MILLIMETERS

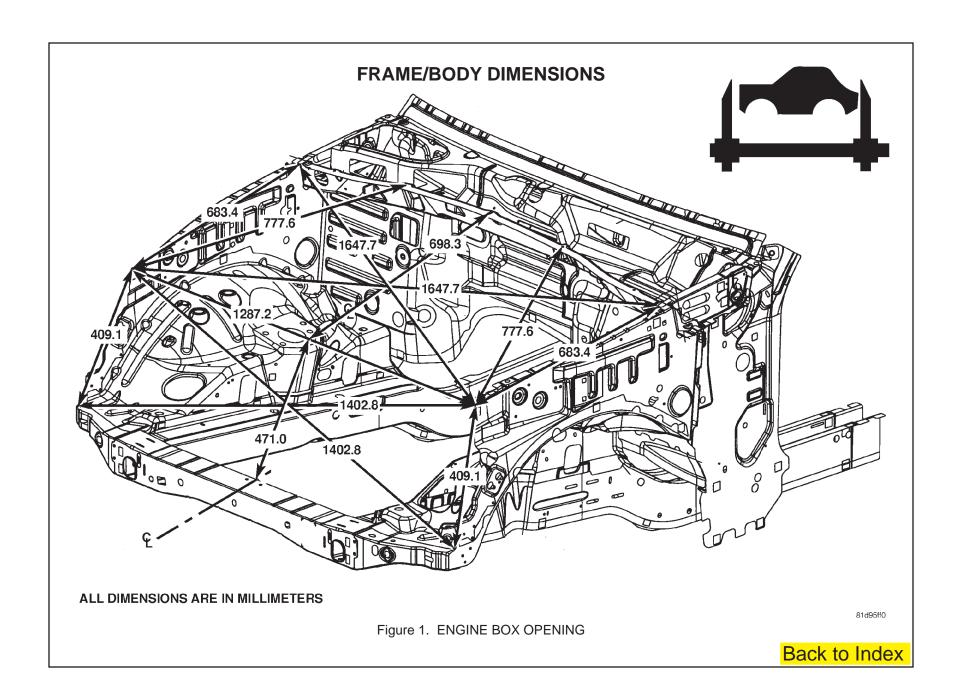
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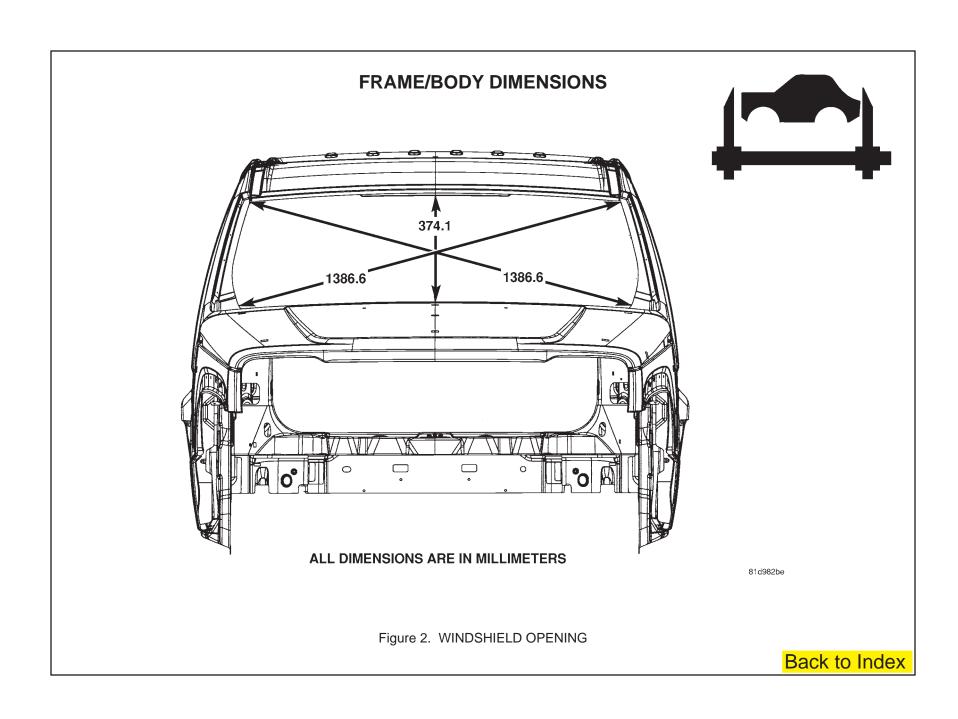
Figure 2. SIDE VIEW

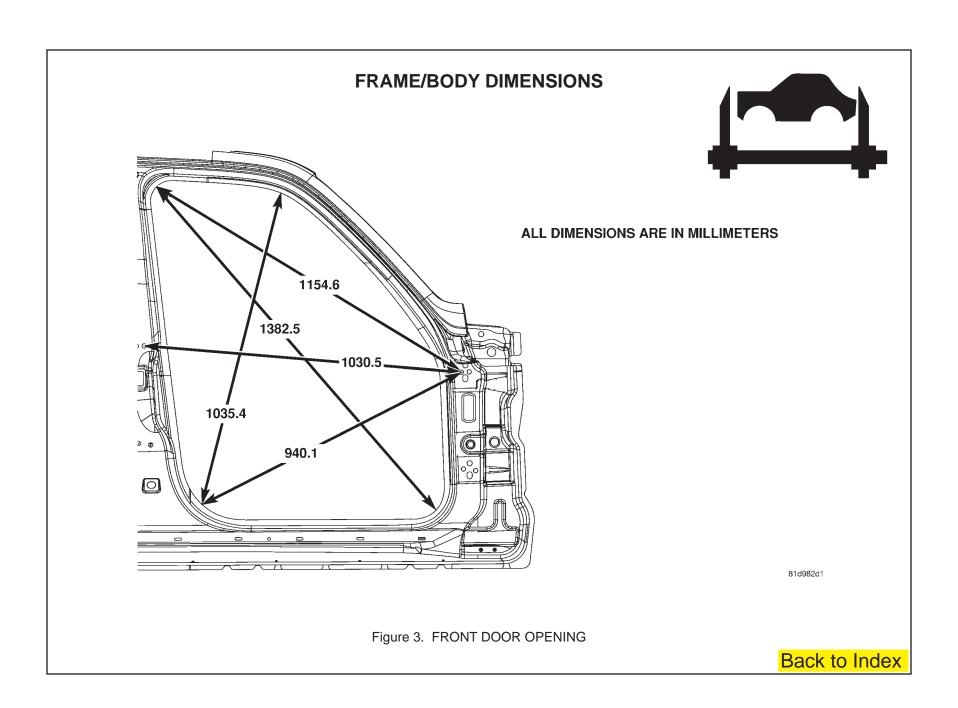


### **OPENING DIMENSIONS**

DESCRIPTION	FIGURE
ENGINE BOX OPENING	1
WINDSHIELD OPENING	2
FRONT DOOR OPENING	3
REAR DOOR OPENING	4
QUARTER WINDOW OPENING	5
LIFTGATE OPENING	6
LIFTGATE WINDOW OPENING	7

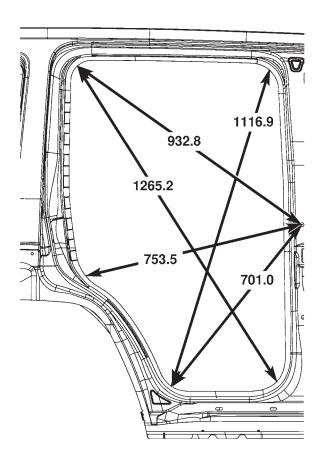






# FRAME/BODY DIMENSIONS





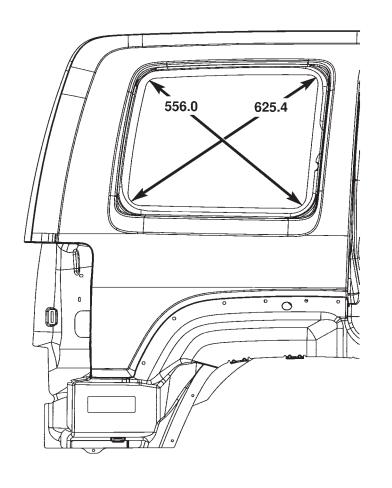
#### **ALL DIMENSIONS ARE IN MILLIMETERS**

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Figure 4. REAR DOOR OPENING

# FRAME/BODY DIMENSIONS





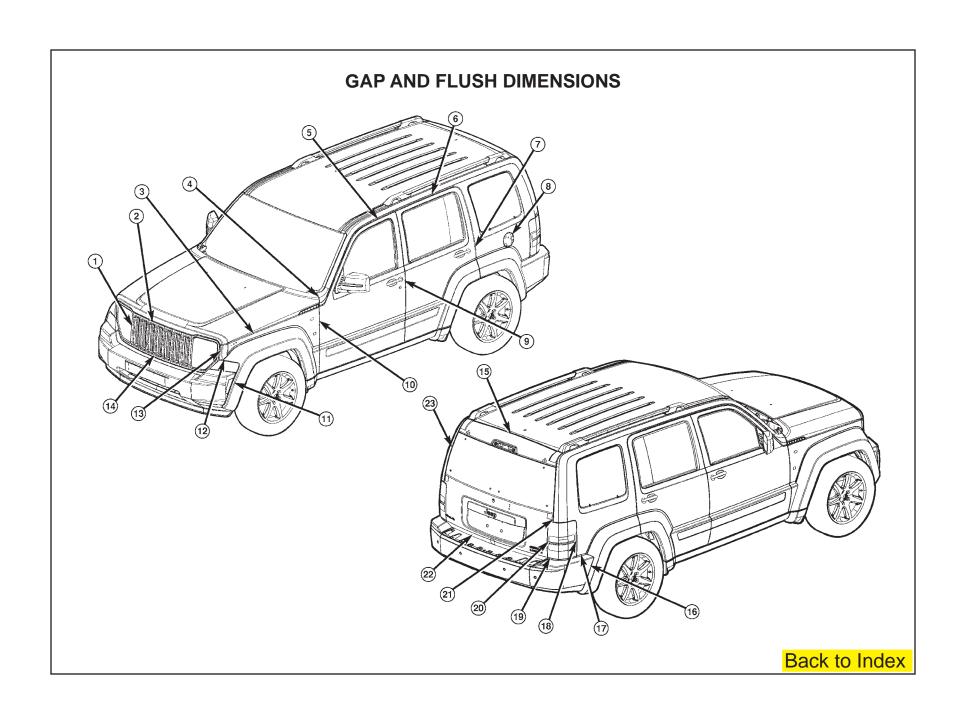
**ALL DIMENSIONS ARE IN MILLIMETERS** 

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Figure 5. QUARTER WINDOW OPENING

# FRAME/BODY DIMENSIONS 834.1 1309.9 1309.9 **ALL DIMENSIONS ARE IN MILLIMETERS** 81d982e2 Figure 6. LIFTGATE OPENING Back to Index

# FRAME/BODY DIMENSIONS **↑** 359.1 1024.7 1024.7 0 0 **ALL DIMENSIONS ARE IN MILLIMETERS** 81d982e6 Figure 7. LIFTGATE WINDOW OPENING Back to Index



## **GAP AND FLUSH DIMENSIONS**

DIMENSION DESCRIPTION		GAP	FLUSH	
1	Headlamp to Grille	3.0 +/- 2.0	-	
		Parallel within 2.0		
2	Hood to Grille	8.0 +/- 2.0	O/F -2.0 +/- 2.0	
		Parallel within 2.0	Parallel within 2.0	
3~	Hood to Fender	7.0 +/- 1.5	O/F 1.0 +/- 1.5	
		Parallel within 1.5	Parallel within 1.5	
4	Hood to	4.5 +/- 1.5	O/F 0.5 +/- 1.5	
	Body Side Aperture	Parallel within 1.5	Parallel within 1.5	
5	Front Door to	4.5 +/- 1.5	U/F -1.5 +/- 1.5	
	Body Side Aperture	Parallel within 1.0	Parallel within 1.5	
		Except 7.25 +/- 1.25		
		@ A-pillar U/D		
6	Rear Door to	4.5 +/- 1.5	U/F 1.5 +/- 1.5	
	Body Side Aperture	Parallel within 1.5	Parallel within 1.5	
	(above belt)			
7	Rear Door to	4.5 +/- 1.5	0.0 +/- 1.5	
	Body Side Aperture	Parallel within 1.5	Parallel within 1.5	
	(below belt)			
8	Fuel Door to	3.25 +/- 1.0	U/F 0.75 +/-1.0	
	Body Side Aperture	Parallel within 1.0	Parallel within 1.0	
9	Front Door to	4.5 +/- 1.5	0.0 +/- 1.5	
	Rear Door	Parallel within 1.5	Parallel within 1.5	
10	Fender to Door	4.5 +/- 1.5	O/F 1.0 +/- 1.5	
		Parallel within 1.5	Parallel within 1.5	
11	Fascia to	3.0 +/- 2.0		
	Fender Flare	Parallel within 2.0		
		Centered within 2.0		
12	Side Marker to Fender	3.0 +/- 2.0		
13	Grille to	5.5 +/- 2.0	U/F -1.0 +/- 2.0	
	Fender	Parallel within 2.0	Parallel within 2.0	
		Centered within 2.0		
14	Fascia to	4.0 +/- 2.0		
	Grille	Parallel within 2.0		
15	Lift Gate to	9.0 +/- 1.5	U/F -1.5 +/- 1.5	
	Roof	Parallel within 1.5	Parallel within 1.5	
16	Fascia to	3.0+/- 2.0		
	Rear Wheel Flare	Centered within 2.0		
17	Fascia to	0.0 +/- 1.0 -0.0		
	Body Side Aperture			
18	Tail Lamp to	2.0 +/- 1.5	U/F 0.75 +/-2.0	
	Body Side Aperture	Parallel within 1.5 F/A	Parallel within 2.0	
		4.0 +/- 1.5	Centered within 2.0	
		Centered within 2.0 U/D		
19	Tail Lamp to	3.0 +/- 2.0		
	Fascia	Parallel within 2.0		
		Centered within 2.0		
20	Tail Lamp to	4.0 +/- 2.0	O/F 1.0 +/- 2.0	
	Lift Gate	Parallel within 2.0	Parallel within 2.0	
		Centered within 2.0		
21	Lift Gate to	4.0 +/- 1.0	U/F 1.75 +/- 1.5	
	Body Side Aperture	Parallel within 1.0	Parallel within 1.5	
22	Fascia to	Cross/Car: 4.0 +/- 2.0		
	Lift Gate	Centered within 2.0		
	Liit Gate			
	Liit Gate	U/D: 8.0 +/- 2.0		
		Parallel within 2.0		
23	Lift Gate Glass to	Parallel within 2.0 4.0 +/- 2.0	U/F -2.5 +/- 2.0	
23		Parallel within 2.0	U/F -2.5 +/- 2.0 Parallel within 2.0	

#### 2008 KK

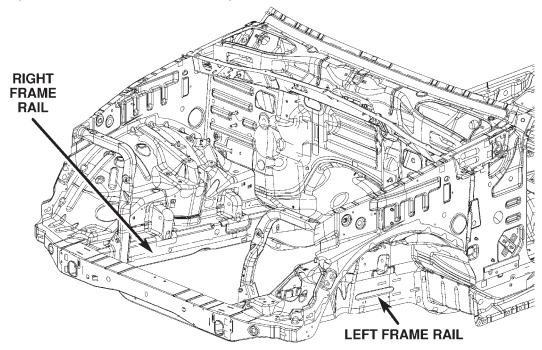
NOTE:

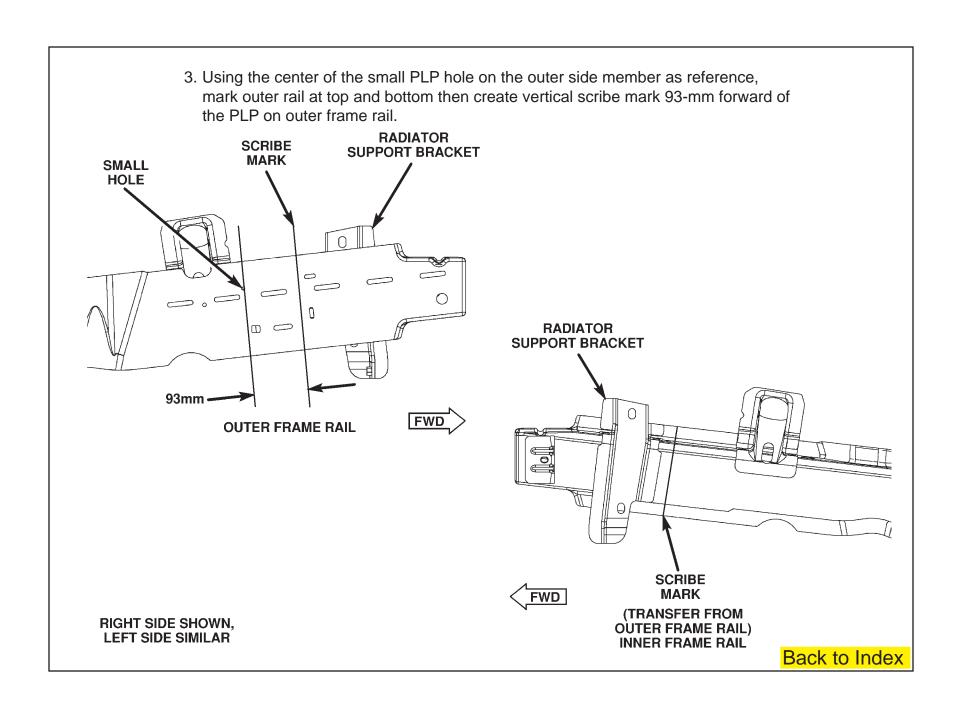
All measurements are in millimeters. O/F = Over Flush U/F = Under Flush U/D = Up/Down F/A = Fore/Aft

# JEEP LIBERTY FRONT FRAME RAIL SECTIONING PROCEDURE

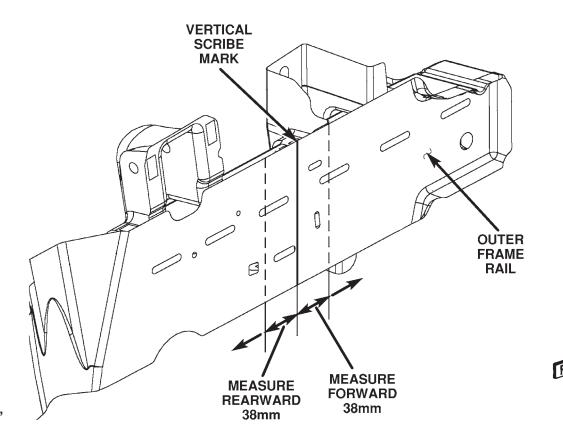
Damage to the frame rail, rearward of the area covered by this procedure, which is not eliminated during preliminary structural corrections and pulls, necessitates complete rail replacement to restore the vehicle to pre-loss condition.

- 1. With vehicle mounted to appropriate pulling and 3-dimensional measuring equipment, complete the following procedure paying particular attention to body dimensions while fitting and welding panels.
- 2. Remove bumper components, cooling module, headlamps, and all other components for clear access to repair area.



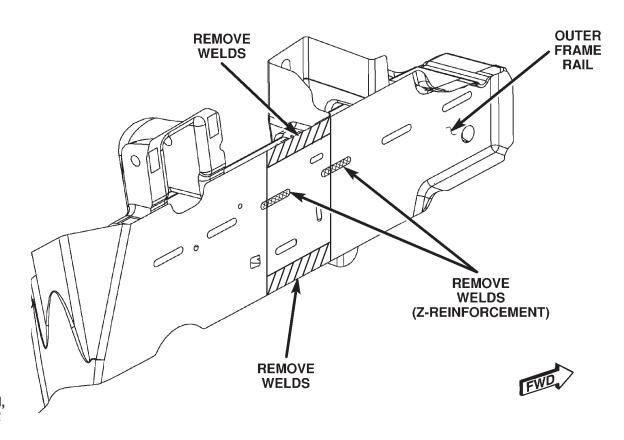


4. Using the scribe mark on the outer side member as reference, measure rearward 38mm and forward 38mm and mark outer rail at top and bottom then create vertical scribe mark on outer frame rail.



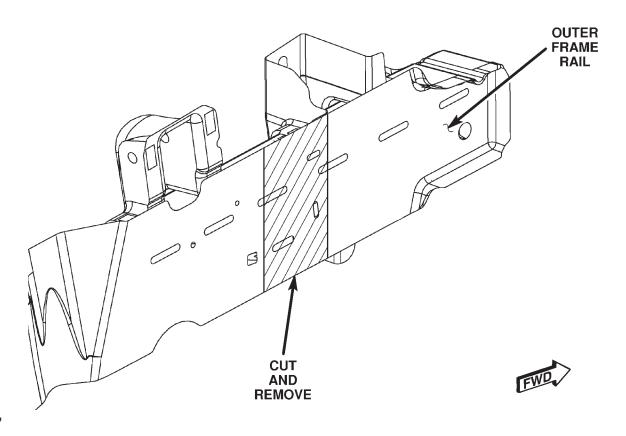
RIGHT SIDE SHOWN, LEFT SIDE SIMILAR

- 5. Remove welds holding the inner and outer side members together between the two scribe lines on the outer rail.
- 6. Remove the welds holding the internal z-reinforcement to the outer rail between the two scribe lines.

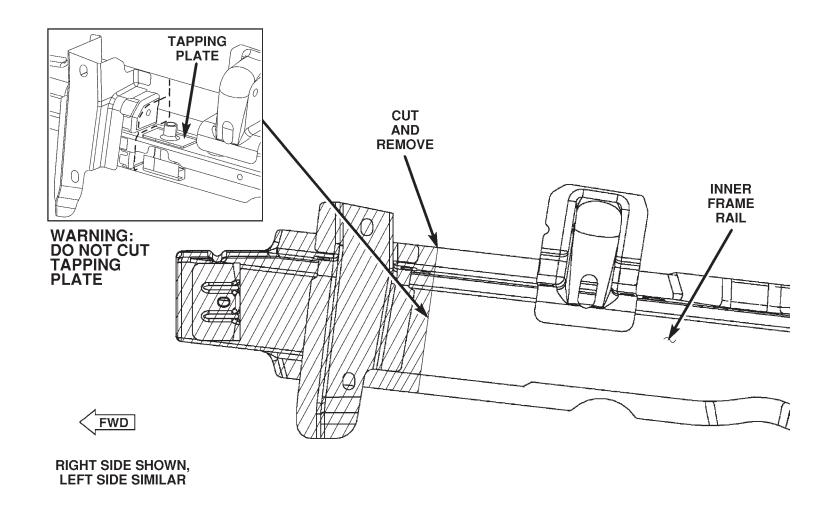


RIGHT SIDE SHOWN, LEFT SIDE SIMILAR

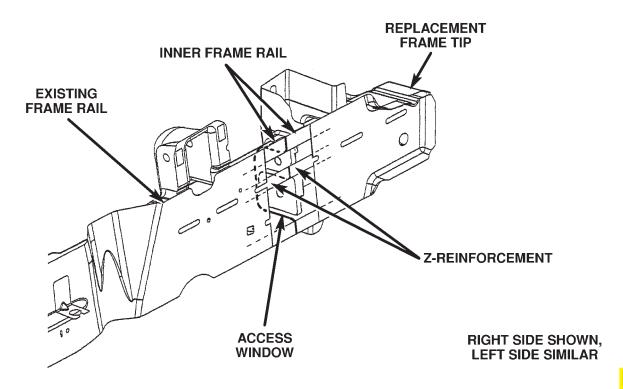
7. Carefully cut the outer side member top to bottom at the scribe lines without damaging the inner side member or the Z-reinforcement inside the rail and remove the access panel or "window".



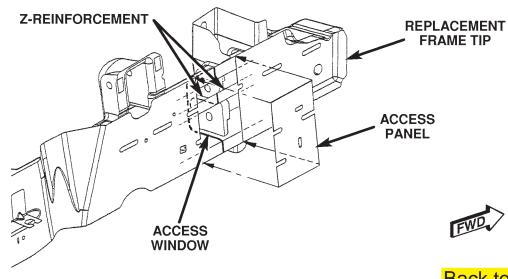
RIGHT SIDE SHOWN, LEFT SIDE SIMILAR 8. Using a reciprocating saw, cut vertically down through the inner frame rail and Z-reinforcement at the scribe location on the inner rail.



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

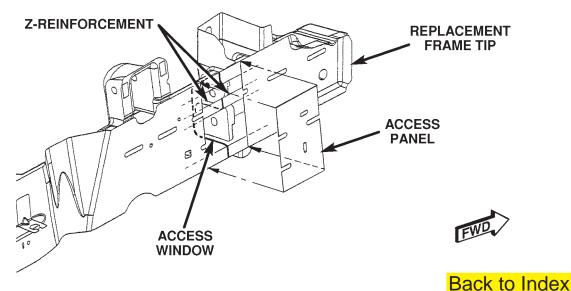


- 16. Weld inner frame rail in the following sequence.
  - a. Upper half from the access window.
  - b. Lower half from exterior of rail
  - c. Clean backside of above two welds in preparation for welding.
  - d. Upper half from exterior.
  - e. Lower half from access window.
- 17. Weld Z-reinforcement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



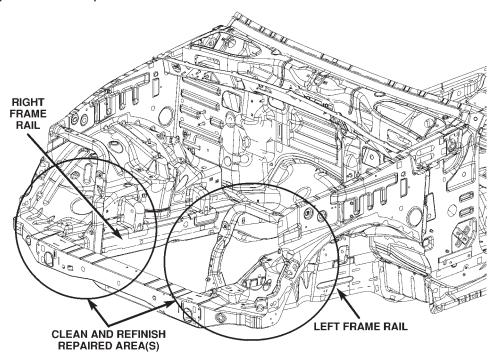
RIGHT SIDE SHOWN, LEFT SIDE SIMILAR

- 16. 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.
- 17. Weld Z-reinforcement from top and from bottom, from inner side rail to outer side rail.
- 18. Prepare access panel for reinstallation.
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- 22. Install clamp to snug gap between outer rail and inner Z-reinforcements and MIG weld the outer rail back to the Z-reinforcement through the slots in the outer rail.



RIGHT SIDE SHOWN, LEFT SIDE SIMILAR

- 23. Dress the welded area and apply corrosion resistant coatings inside and out.
  - a. Apply etch-primer to the inside of the frame rail repair area.
  - b. Inside the rail, inject a creeping wax based rust inhibitor compound through the existing holes in the frame ensuring 100% coverage including the space between the original frame rail and the reinforcing sleeve; using Mopar Cavity wax kit (part # 68042969AA) / Undercoating kit (part # 68042967AA) or equivalent.
  - c. Apply a durable top coat to the outside of the repair area.
- 24. Complete other repairs.



NOTE: Use Mopar Cavity wax kit (part # 68042969AA) / Undercoating kit (part # 68042967AA) or equivalent.

# COLLISION AND FIELD REPAIR FUSION ARC WELDING PROCEDURE SPECIFICATIONS

COMPONENT PARTS	TRUCK	FRAME	BODYSHELL EXTERIOR & UNDERBODY PANELS				
Material Type	Chrysler MS 264 (High Strength and Structural Quality Steels which includes HSLA, Martensitic, and Dual Phase materials) Chrysler MS 6000 (Zinc and Zinc Iron Alloy coated sheet steels)						
Material Thickness Range WELDING PROCESS	2 mm - 4 mm		0.6 mm - 1.02 mm		>1.02 mm - 3.0 mm		
	GAS METAL ARC (Note: 1)	FLUX CORED ARC	GAS METAL ARC (Note: 1)	MIG BRAZE (Note: 2)	GAS METAL ARC (Note: 1)	FLUX CORED ARC	
ELECTRODE TYPE (AWS SPEC. A5.18)	AWS CLASS. ER70S-6	AWS CLASS. E71T-11 (Note 3)	AWS CLASS. ER70S-6	AWS CLASS. ERCuSi - A Silicon Bronze	AWS CLASS. ER70S-6	AWS CLASS. E71T-11 (Note 3)	
ELECTRODE SIZE	0.035	0.045	0.023 - 0.025	0.035	0.035	0.045	
ELECTRODE MAKER	Lincoln	Lincoln NR-211-MP	Lincoln		Lincoln	Lincoln NR-211-MP	
WIRE FEED SPEED (in/min)	245-250 Vertical Down 70-90 Flat & Horizontal	110 Vertical Down 70-90 Flat & Horizontal	95-115 All Welds	150-155 Flat & Horizontal	245-250 Vertical Down 70-90 Flat & Horizontal	110 Vertical Down 70-90 Flat & Horizontal	
TRAVEL SPEED (in/min)			10				
VOLTAGE	19-20	15-18	16-19	18-19	19-20	15-18	
POLARITY	DCEP	DCEN	DCEP	DCEP	DCEP	DCEN	
GAS FLOW (cfh)	25-35	N/A	25-35	25-35	25-35	N/A	
ELECTRICAL STICKOUT (in)	1/2 - 5/8	3/8 - 1/2	1/2 - 5/8	5/8 - 3/4	1/2- 5/8	3/8 - 1/2	
GAS TYPE	75% Ar 25% CO2	N/A	75% Ar 25% CO2	100% Ar	75% Ar 25% CO2	N/A	
TYPE OF ARC TRANSFER	Short Circuit		Short Circuit	Spray	Short Circuit		

#### NOTES:

Caution: All welds should conform to the Chrysler vehicle engineering process standard PS 9472

These Procedure Specifications are appropriate as of this publication date 8/1/2007. Procedures may be superceeded with new spec's at a later date.

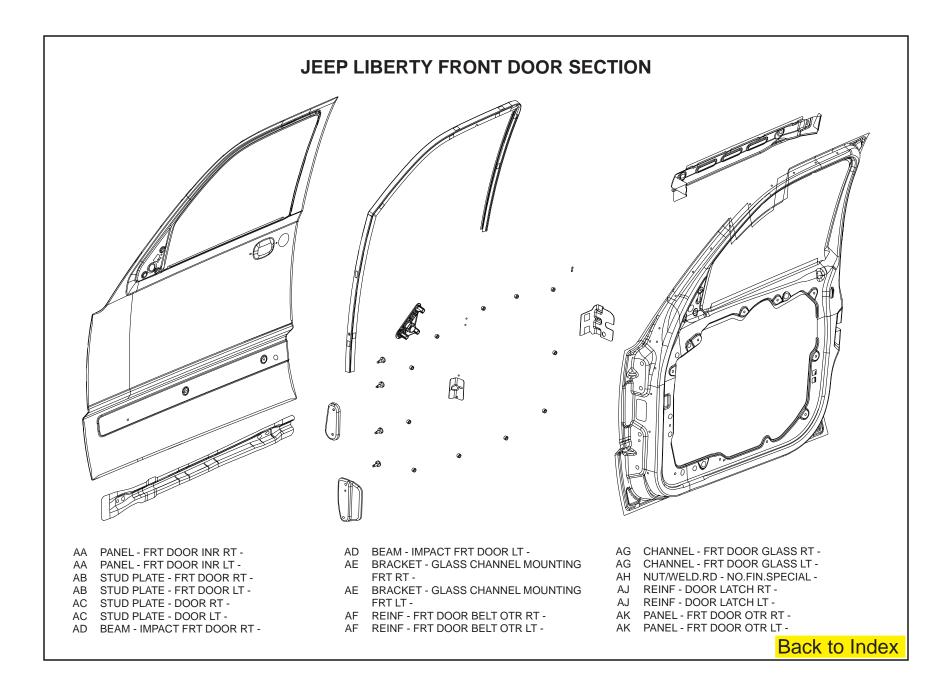
Always process to the thinner material thickness (TMT)

All persons performing welding must be qualified to weld in all positions.

- (1) Must remove Zinc Coating on both sides of metal at the weld zone.
- (2) MIG Braze welding process requires use of Pulse Arc or STT welding machine.
- (3) Must use Lincoln product since E 71T-11 product differs from other suppliers.

#### **Additional Information and Guidelines**

- Chrysler highly recommends all repairers obtain weld training and demonstrate weld proficiency through testing programs such as I-CAR or the American Welding Society (AWS).
- As vehicle designs incorporate increasing amounts of advanced high strength steel (AHSS), at thinner thicknesses to reduce vehicle weight, engineers are in effect designing to the limits of the base materials and electrodes. The repair person job increases in importance when performing panel replacements. Especially when the repair weld differs from the production weld (resistance weld versus fusion weld). For this reason it is imperative that the technician not only be highly trained, and be able to demonstrate his abilities to follow both the original equipment manufacturer's and weld equipment manufacturer's recommendations. In addition, he should be provided with quality welding equipment and welding consumables. Ensure that all electrodes purchased meet AWS specifications and that there is a certification program in place to guarantee their quality. Cheap, inferior electrodes will compromise the integrity of the repair.
- Welding information may be obtained from:
  - AWS (http://www.aws.org/w/a/)
  - Lincoln Equipment (http://www.lincolnelectric.com/)
  - Miller Equipment (<u>http://www.millerwelds.com/</u>)
  - o ESAB (http://www.esabna.com/us/en/)
  - Local welding and trade schools
  - Public and university libraries
  - Many other sources



## **PARTS IDENTIFICATION LEGEND, OVERVIEW 24**

AA PANEL - FRT DOOR INR RT -

AA PANEL - FRT DOOR INR LT -

AB STUD PLATE - FRT DOOR RT -

AB STUD PLATE - FRT DOOR LT -

AC STUD PLATE - DOOR RT -

AC STUD PLATE - DOOR LT -

AD BEAM - IMPACT FRT DOOR RT -

AD BEAM - IMPACT FRT DOOR LT -

AE BRACKET - GLASS CHANNEL MOUNTING

FRT RT -

AE BRACKET - GLASS CHANNEL MOUNTING

FRT LT -

AF REINF - FRT DOOR BELT OTR RT -

AF REINF - FRT DOOR BELT OTR LT -

AG CHANNEL - FRT DOOR GLASS RT -

AG CHANNEL - FRT DOOR GLASS LT -

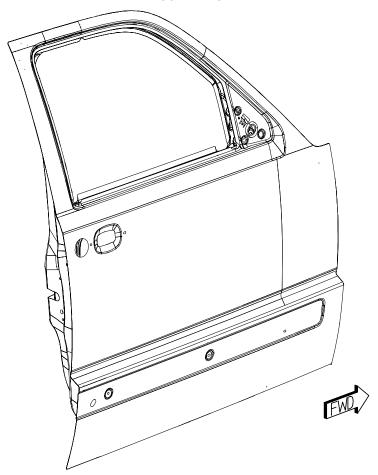
AH NUT/WELD.RD - NO.FIN.SPECIAL -

AJ REINF - DOOR LATCH RT -

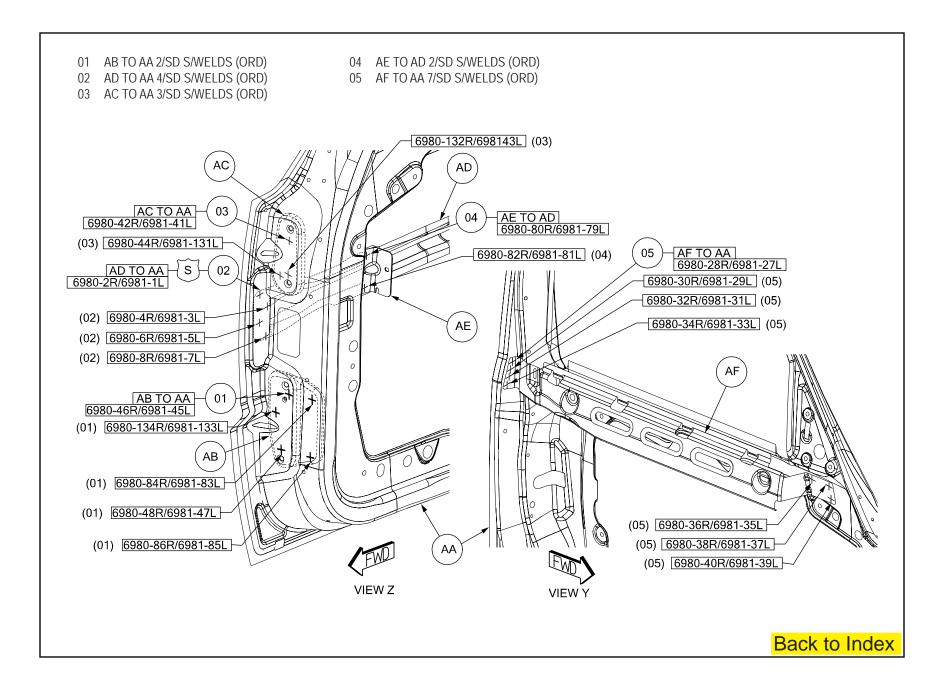
AJ REINF - DOOR LATCH LT -

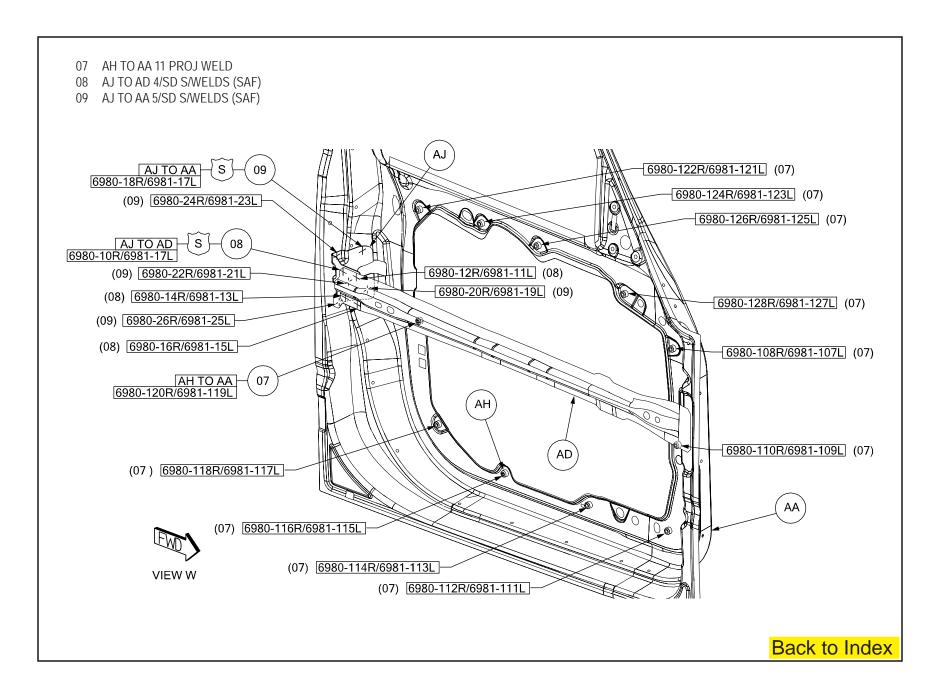
AK PANEL - FRT DOOR OTR RT -

AK PANEL - FRT DOOR OTR LT -



# WELD LAYOUT LOCATION GUIDE Back to Index





10 AD TO AK 1 STRUC ADH 11 AF TO AK 4 STRUC ADH

12 AG TO AK 1 STRUC ADH

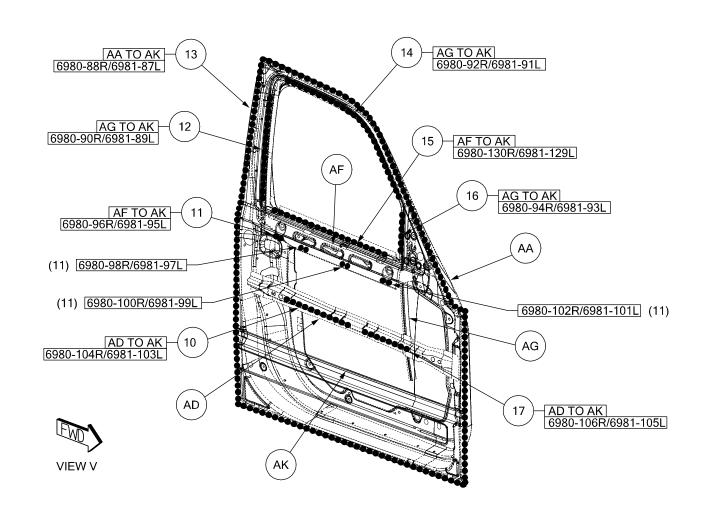
13 AA TO AK 1 STRUC ADH

14 AG TO AK 1 STRUC ADH

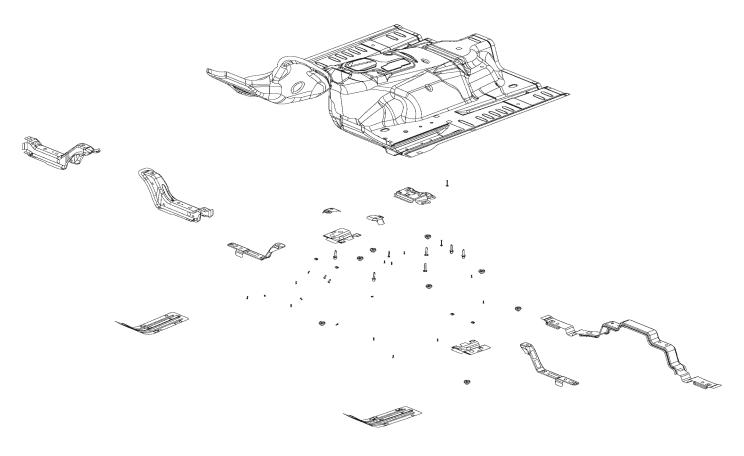
15 AF TO AK 1 STRUC ADH

16 AG TO AK 1 STRUC ADH

17 AD TO AK 1 STRUC ADH



#### JEEP LIBERTY FRONT FLOOR ASSEMBLY SECTION



- AA CROSSMEMBER FRT SEAT RR –
- AB PAN FLOOR FRT –
- AC CROSSMEMBER FRT SEAT FRT RT
- AC CROSSMEMBER FRT SEAT FRT LT
- AD PLATE COMPRESSION FRT FLOOR CTR RT -
- AD PLATE COMPRESSION FRT FLOOR CTR LT -
- AE REINF FRT SEAT FRT RT -

- AE REINF FRT SEAT FRT LT -
- AF PLATE COMPRESSION FRT FLOOR RT -
- AF PLATE COMPRESSION FRT FLOOR LT -
- AG BRACKET OCCUPANT RESTRAINT CONTROLLER MODULE –
- AH REINF TUNNEL FRT –

# PARTS IDENTIFICATION LEGEND, OVERVIEW 11

AA CROSSMEMBER - FRT SEAT RR -

AB PAN - FLOOR FRT -

AC CROSSMEMBER – FRT SEAT FRT – RT

AC CROSSMEMBER – FRT SEAT FRT – LT

AD PLATE - COMPRESSION FRT FLOOR CTR RT -

AD PLATE - COMPRESSION FRT FLOOR CTR LT -

AE REINF - FRT SEAT FRT RT -

AE REINF - FRT SEAT FRT LT -

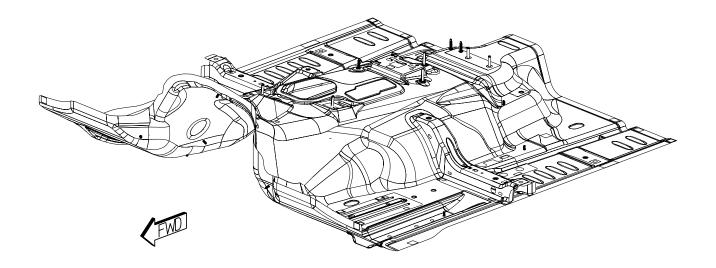
AF PLATE - COMPRESSION FRT FLOOR RT -

AF PLATE - COMPRESSION FRT FLOOR LT -

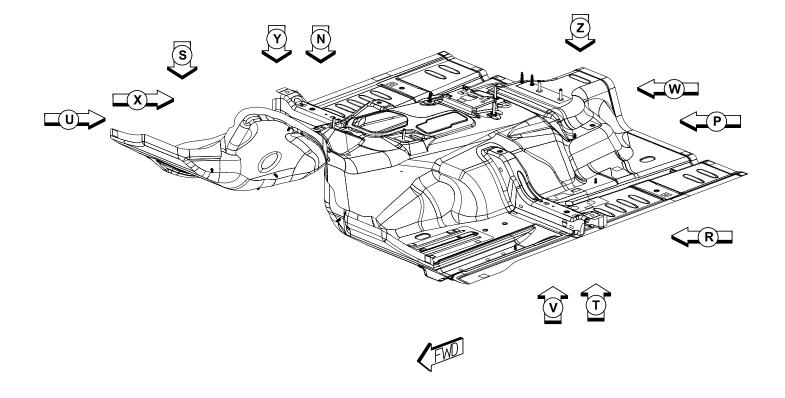
AG BRACKET – OCCUPANT RESTRAINT CONTROLLER

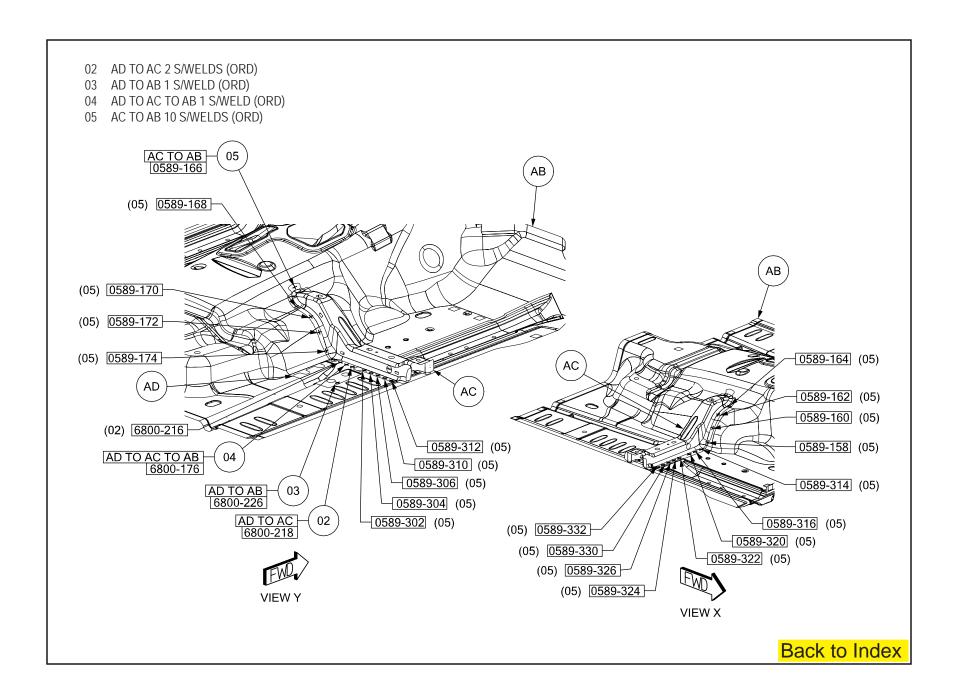
MODULE -

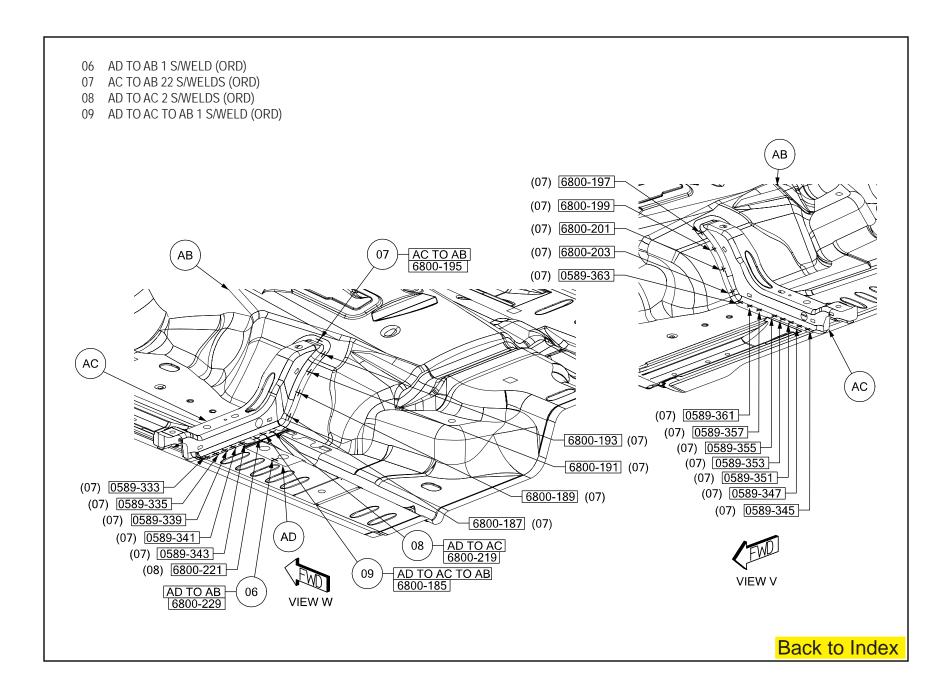
AH REINF – TUNNEL FRT –



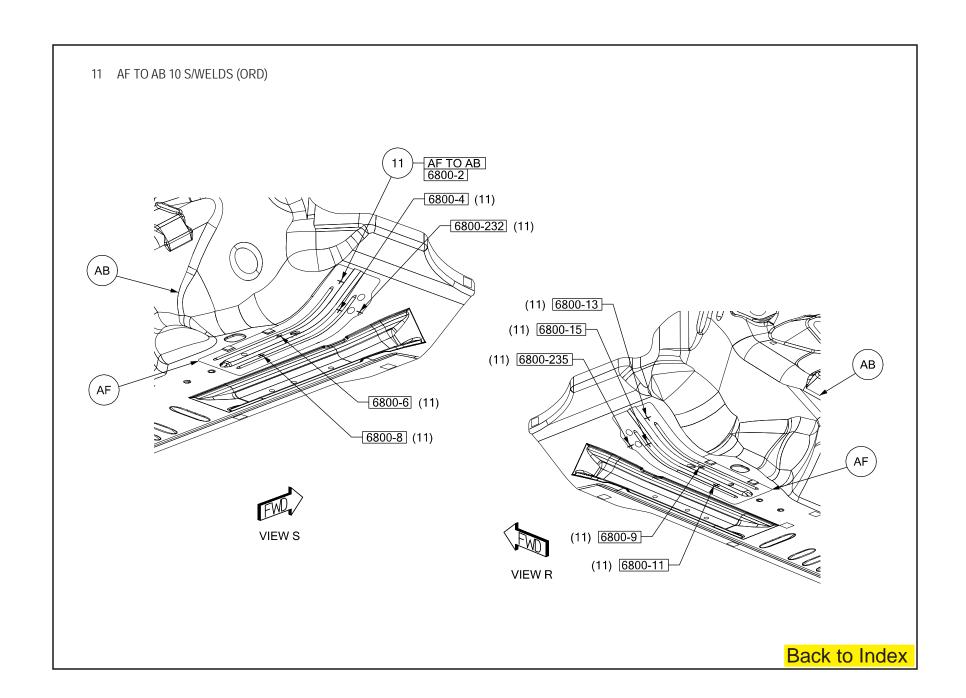
## **WELD LAYOUT LOCATION GUIDE**

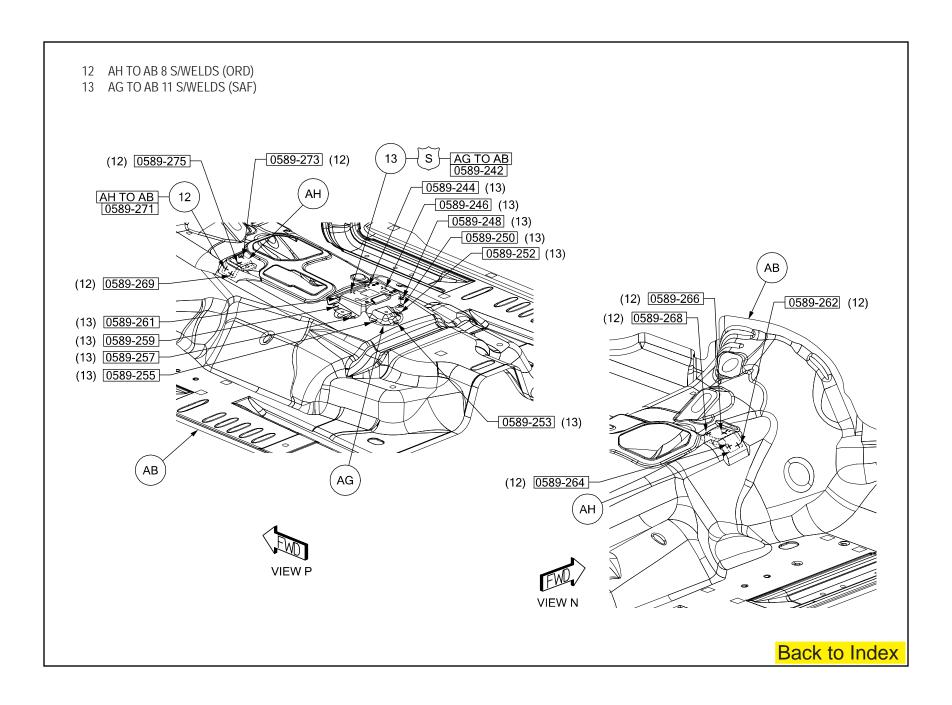


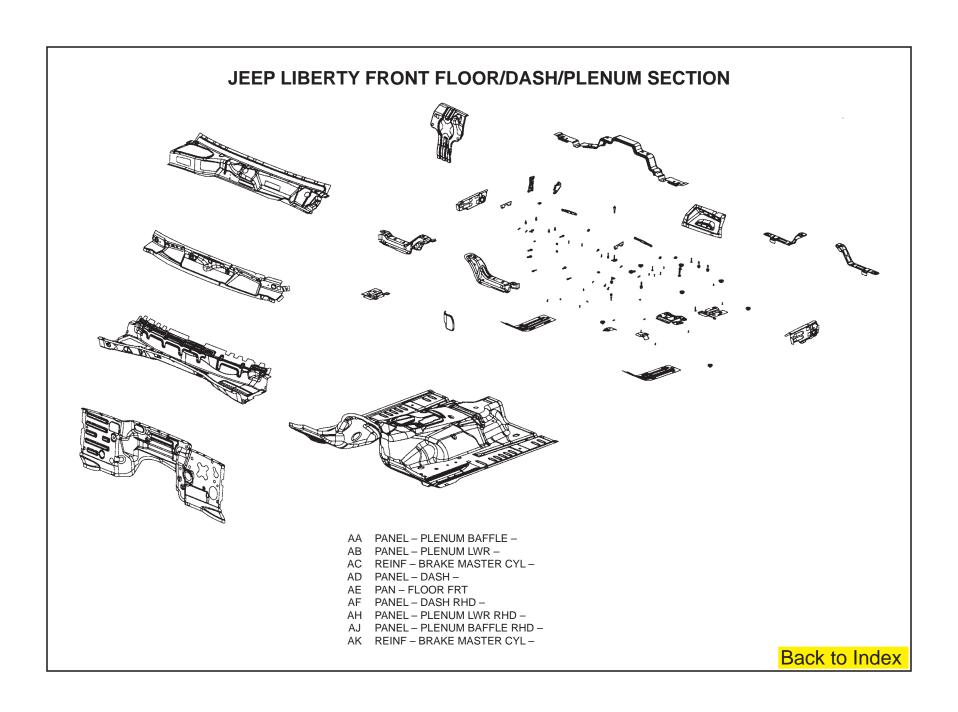


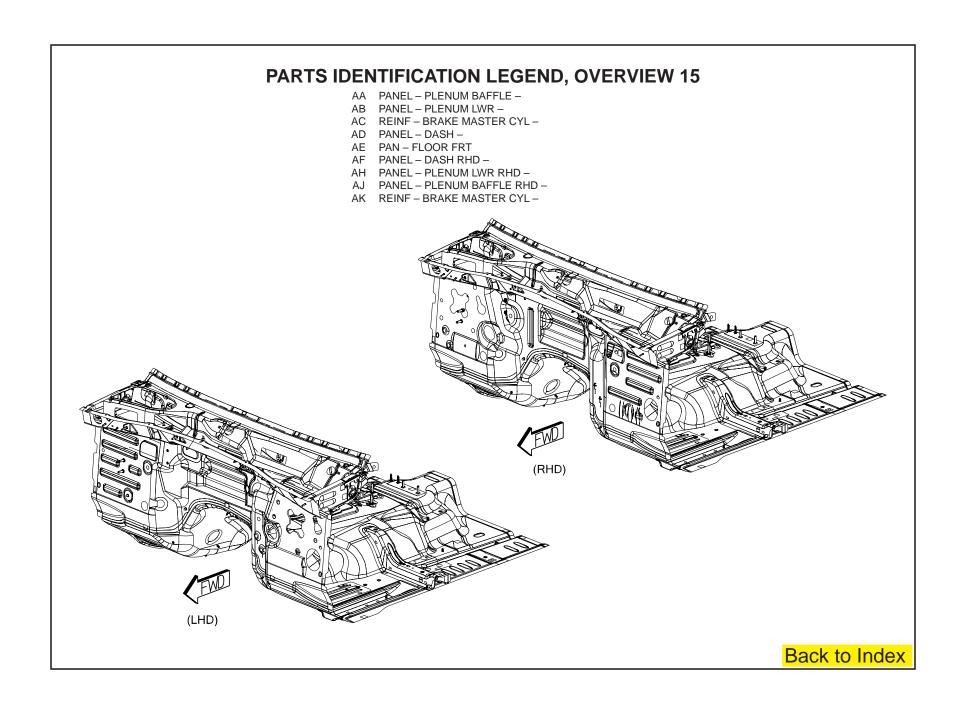


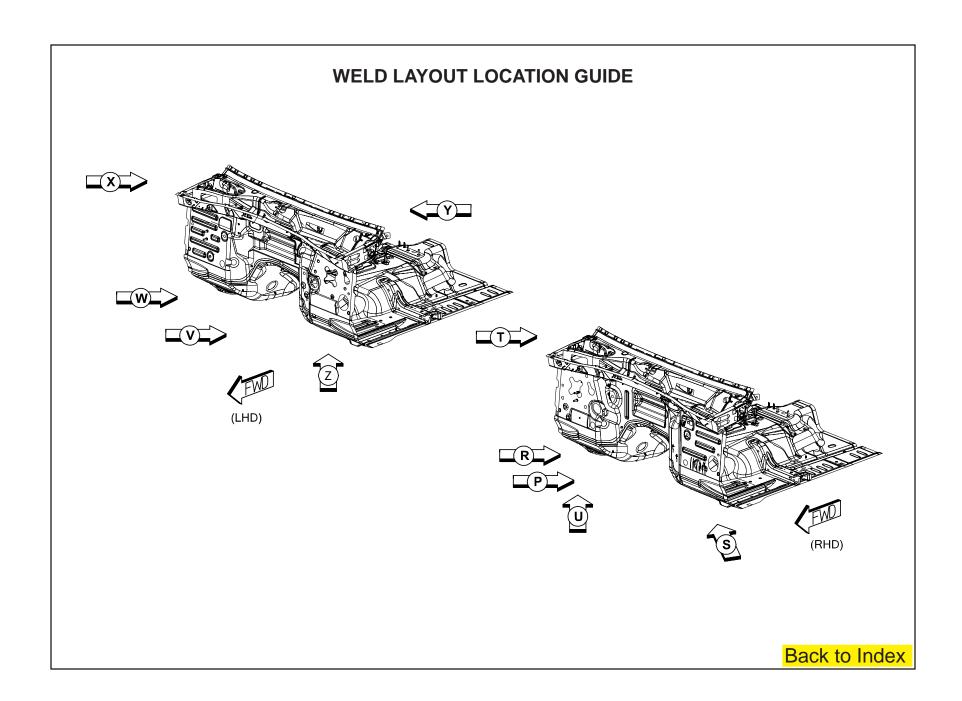
# 10 AE TO AC 14 S/WELDS (ORD) 0589-289 (10) (10) 0589-288 0589-291 (10) (10) 0589-286 0589-293 (10) (10) 0589-284 (10) 0589-282 0589-299 (10) AE TO AC 0589-280 0589-301 (10) 0589-278 (10) AC (10) 0589-295 0589-276 (10) AC (10) 0589-297 ΑE AE VIEW T VIEW U Back to Index

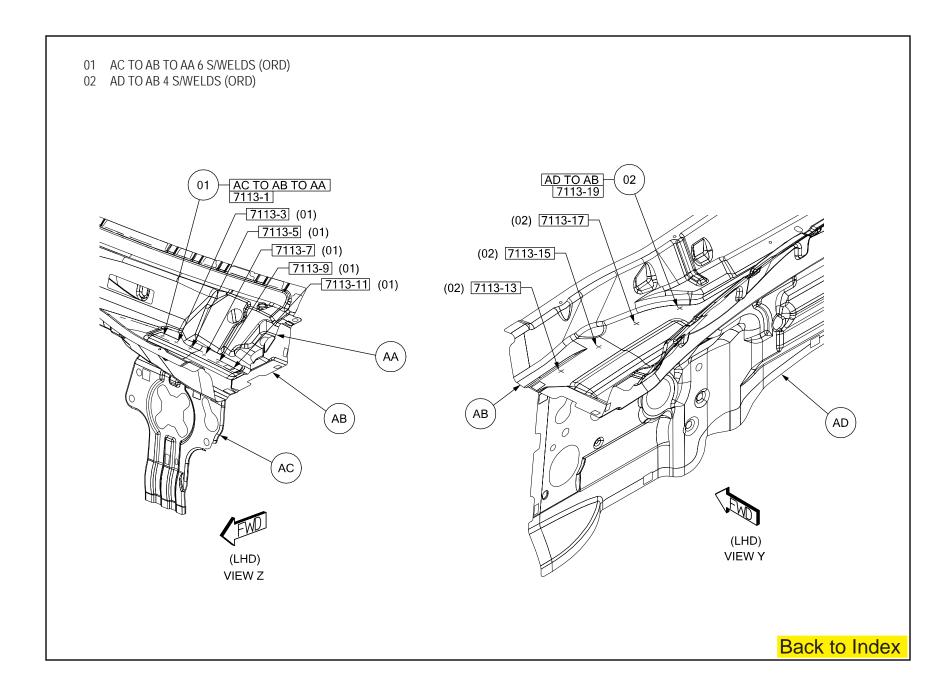


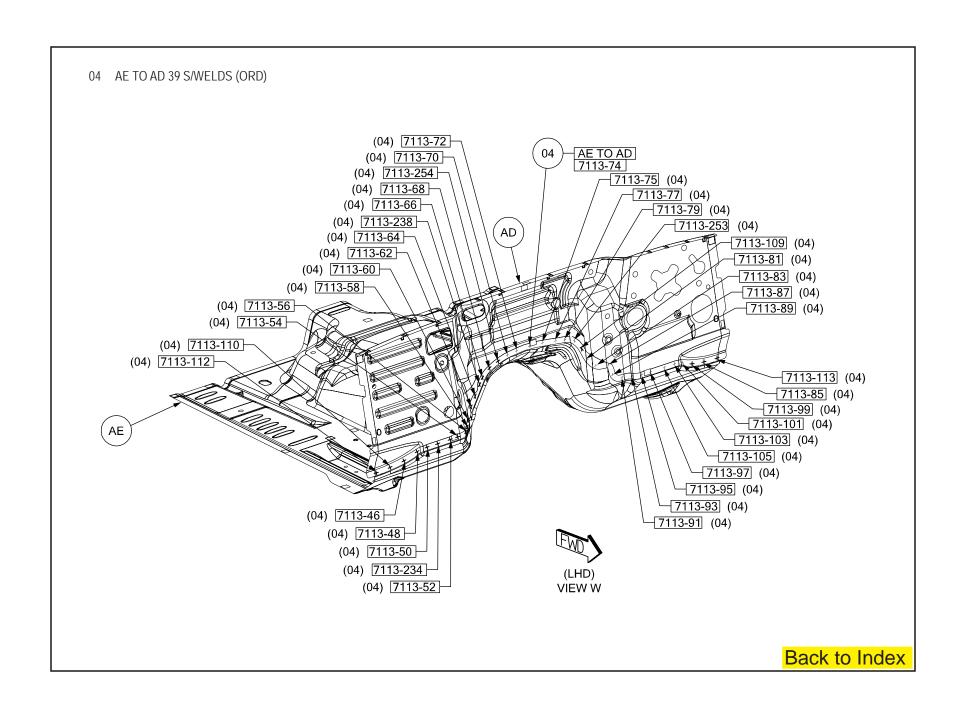


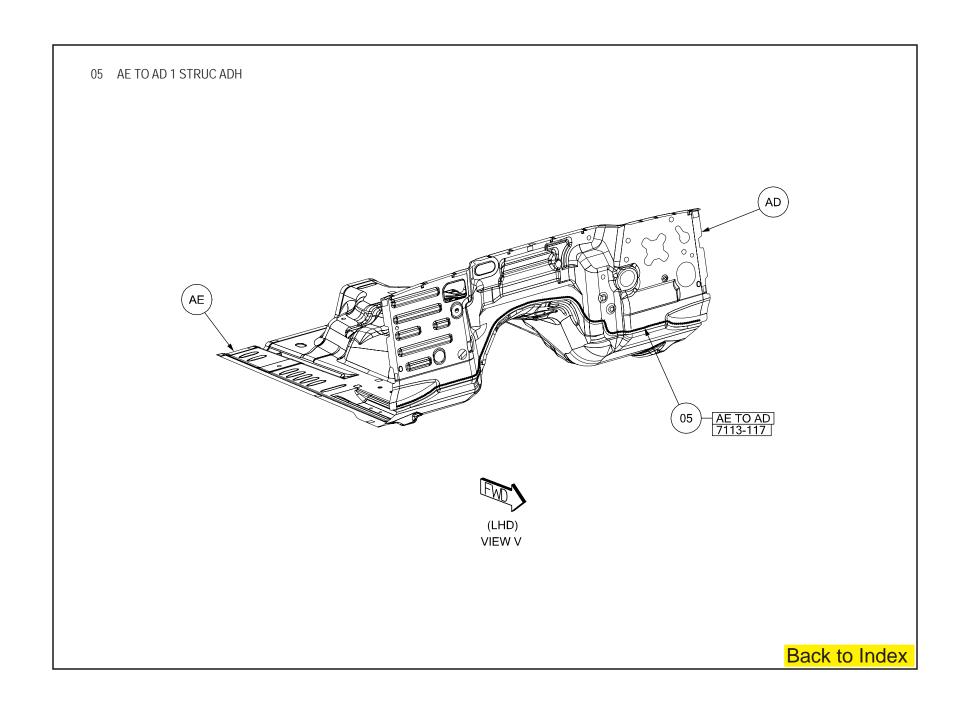


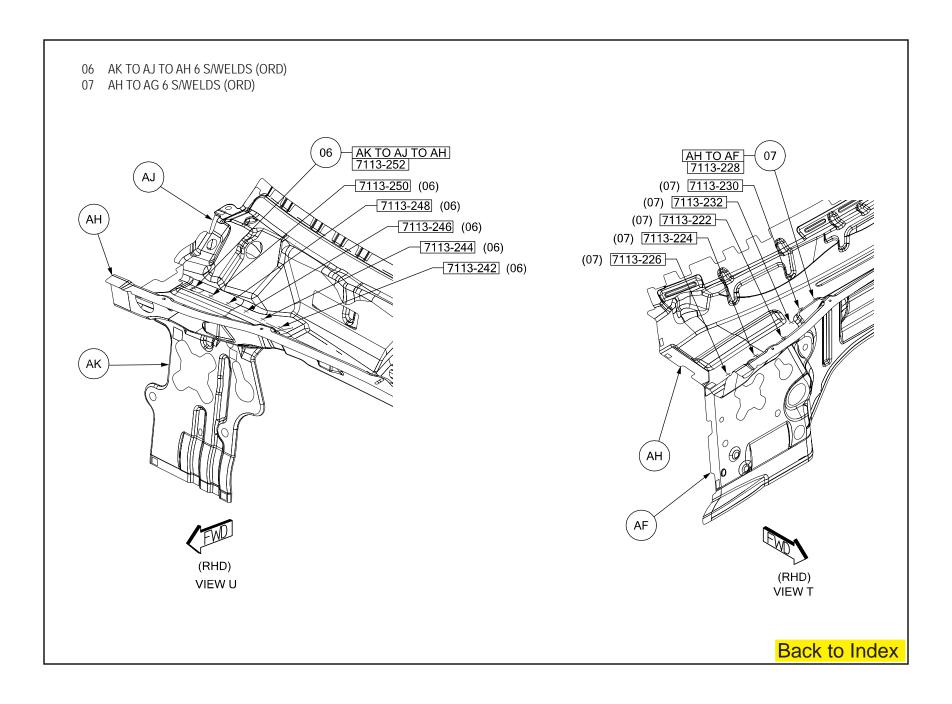


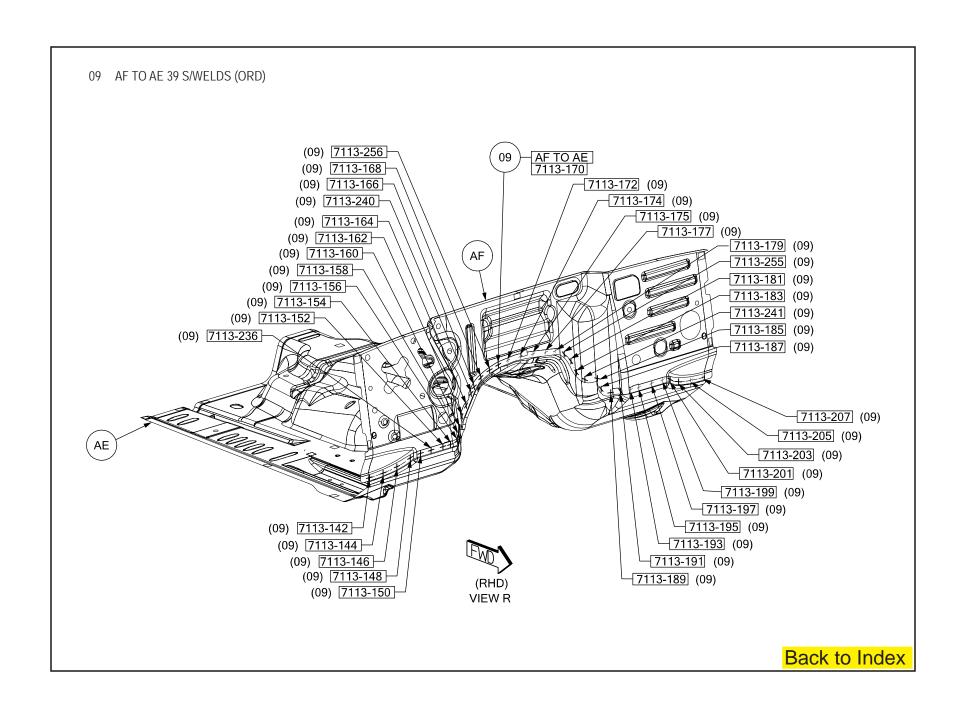


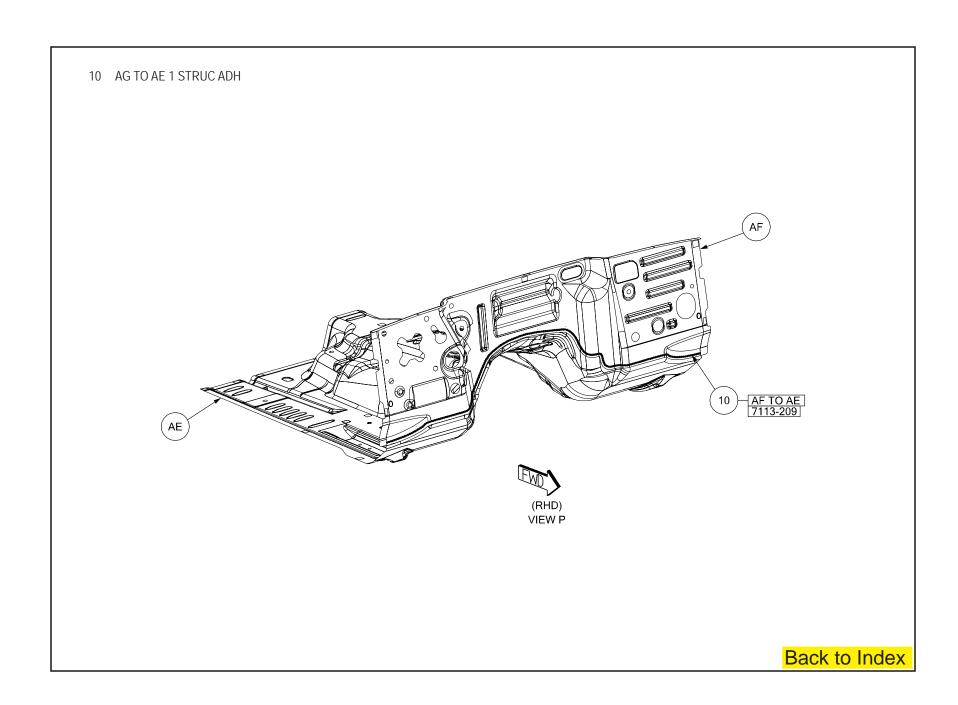




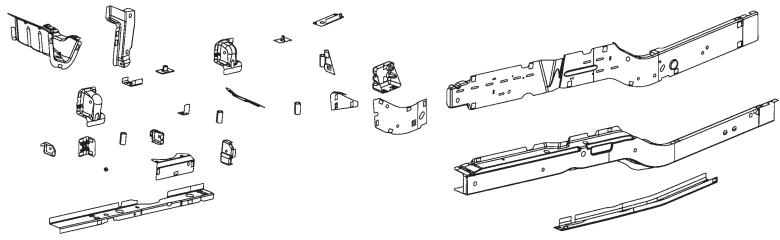












- AA REINF FRT RAIL TIP RT -
- AA REINF FRT RAIL TIP LT -
- RAIL FRT INR RT -
- RAIL FRT INR LT –
- AC BRACKET CONTROL ARM MOUNTING FRT UPR FRT RT -
- AC BRACKET CONTROL ARM MOUNTING FRT UPR FRT LT -
- AD BRACKET CONTROL ARM MOUNTING FRT UPR RR - RT
- BRACKET CONTROL ARM MOUNTING FRT UPR RR -
- AE BRACKET RADIATOR SUPPORT TO RAIL
- AE BRACKET RADIATOR SUPPORT TO RAIL
- BRACKET FRT RAIL TO CROSSMEMBER
- BRACKET FRT RAIL TO CROSSMEMBER
- AG REINF U-CHANNEL RT -
- REINF U-CHANNEL LT –
- REINF FRT RAIL INR RT -
- REINF FRT RAIL INR LT -
- BRACKET SPACER -

- BRACKET SPACER -
- AK NUT/WELD.HEX THICK FUEL LINE COVER
- AK NUT/WELD.HEX THICK FUEL LINE COVER
- REINF FRT RAIL INR DOUBLE RT -
- AL REINF FRT RAIL INR DOUBLE LT -
- BRACKET SPACER -
- AM BRACKET SPACER -
- BULKHEAD UPR RR RT -
- BULKHEAD UPR RR LT -
- TAPPING PLATE RAIL FRT -
- AS SPACER - CRUSH TUBE -
- SPACER CRUSH TUBE -AS
- NUT/WELD.RD ROUND.SPECIAL RR TRANS X-MBR ATTACH
- AT NUT/WELD.RD ROUND.SPECIAL RR TRANS X-MBR BRACKET MOUNTING
- AT NUT/WELD.RD ROUND.SPECIAL RR TRANS X-MBR ATTACH
- AT NUT/WELD.RD ROUND.SPECIAL RR TRANS X-MBR BRACKET MOUNTING

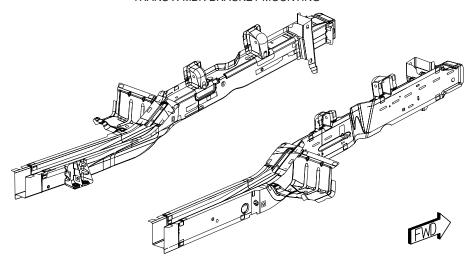
- BULKHEAD UPR FRT RT –
- BULKHEAD UPR FRT LT -BULKHEAD - LWR FRT RT -
- BULKHEAD LWR FRT LT -
- AW GUSSET TRANS CROSSMEMBER BRACKET RR -
- AW GUSSET TRANS CROSSMEMBER BRACKET RR -
- AX BRACKET TRANS CROSSMEMBER MOUNTING RR RT -
- AX BRACKET TRANS CROSSMEMBER MOUNTING RR LT -
- AZ NUT/WELD.HEX THICK FEM ATTACH
- AZ NUT/WELD.HEX THICK FEM ATTACH
- BA RAIL - FRT OTR RT -
- BA RAIL FRT OTR LT -
- BB REINF FLOOR FRT RT -
- REINF FLOOR FRT LT -
- TORQUE BOX FRT RT -
- BC TORQUE BOX FRT LT -
- BD BRACKET - TRUCK TIE DOWN RT -
- BRACKET TRUCK TIE DOWN LT -
- BRACKET BRAKE HOSE MOUNTING -
- BRACKET BRAKE HOSE MOUNTING -

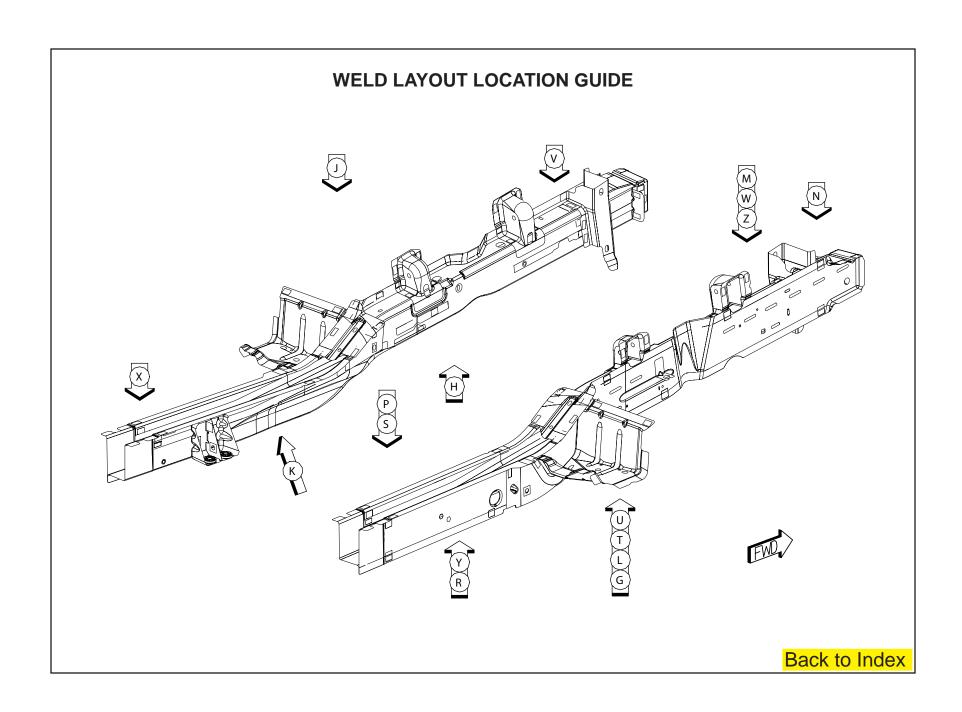
## PARTS IDENTIFICATION LEGEND, OVERVIEW 2

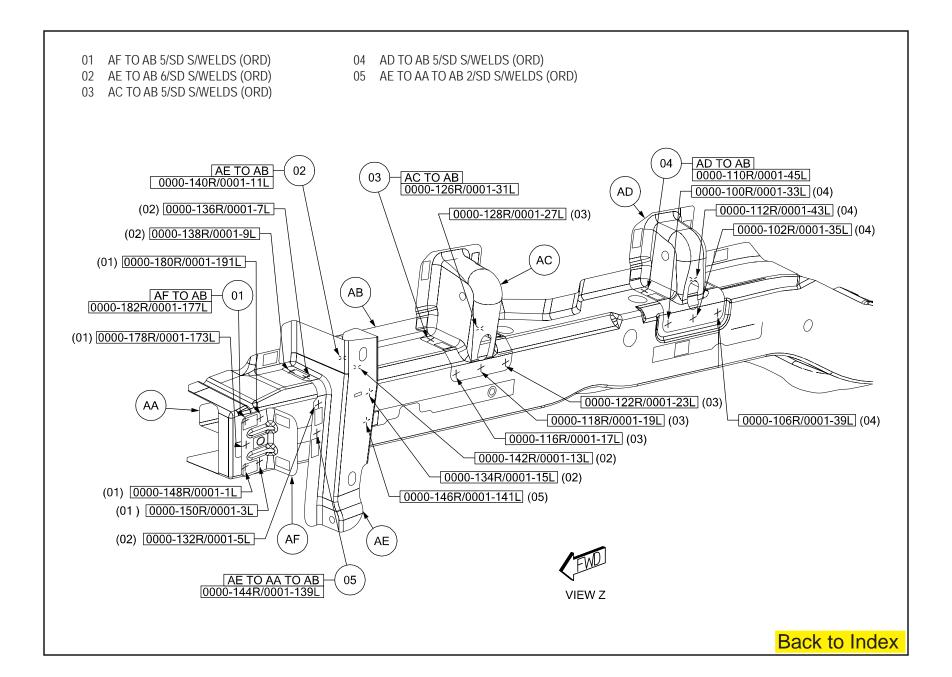
- AA REINF FRT RAIL TIP RT –
- AA REINF FRT RAIL TIP LT -
- AB RAIL FRT INR RT -
- AB RAIL FRT INR LT -
- AC BRACKET CONTROL ARM MOUNTING FRT UPR FRT RT –
- AC BRACKET CONTROL ARM MOUNTING FRT UPR FRT LT –
- AD BRACKET CONTROL ARM MOUNTING FRT UPR RR – RT
- AD BRACKET CONTROL ARM MOUNTING FRT UPR RR –
- AE BRACKET RADIATOR SUPPORT TO RAIL
- AE BRACKET RADIATOR SUPPORT TO RAIL
- AF BRACKET FRT RAIL TO CROSSMEMBER
- AF BRACKET FRT RAIL TO CROSSMEMBER
- AG REINF U-CHANNEL RT -
- AG REINF U-CHANNEL LT -
- AH REINF FRT RAIL INR RT -
- AH REINF FRT RAIL INR LT -
- AJ BRACKET SPACER -

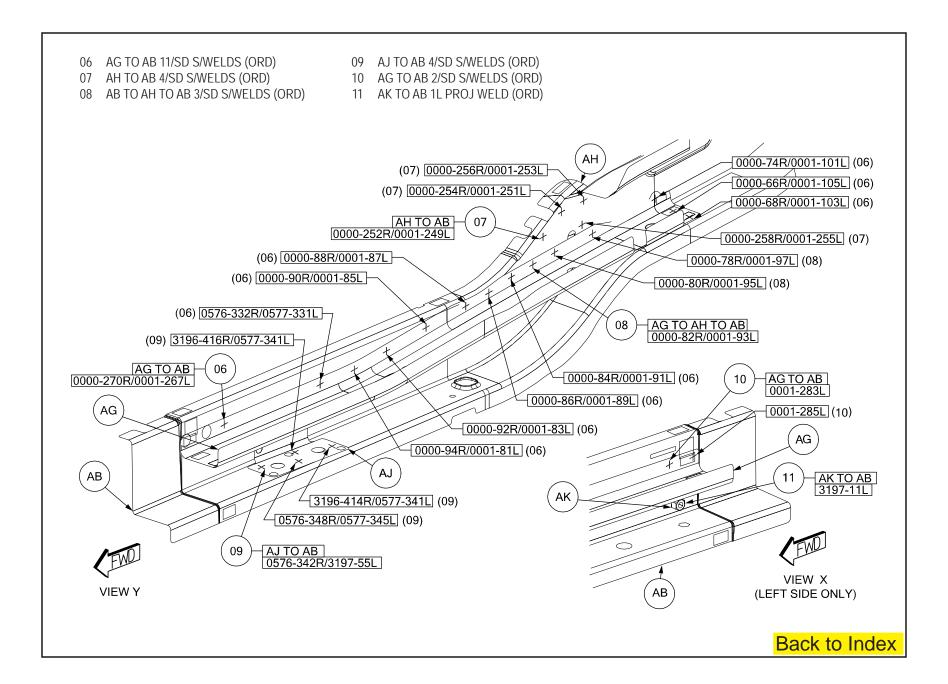
- AJ BRACKET SPACER -
- AK NUT/WELD.HEX THICK FUEL LINE COVER
- AK NUT/WELD.HEX THICK FUEL LINE COVER
- AL REINF FRT RAIL INR DOUBLE RT -
- AL REINF FRT RAIL INR DOUBLE LT -
- AM BRACKET SPACER -
- AM BRACKET SPACER -
- AN BULKHEAD UPR RR RT -
- AN BULKHEAD UPR RR LT -
- AP TAPPING PLATE RAIL FRT -
- AP TAPPING PLATE RAIL FRT –
- AR TAPPING PLATE RAIL FRT -
- AR TAPPING PLATE RAIL FRT –
- AS SPACER CRUSH TUBE -
- AS SPACER CRUSH TUBE -
- AT NUT/WELD.RD ROUND.SPECIAL RR TRANS X-MBR ATTACH
- AT NUT/WELD.RD ROUND.SPECIAL RR TRANS X-MBR BRACKET MOUNTING
- AT NUT/WELD.RD ROUND.SPECIAL RR TRANS X-MBR ATTACH
- AT NUT/WELD.RD ROUND.SPECIAL RR TRANS X-MBR BRACKET MOUNTING

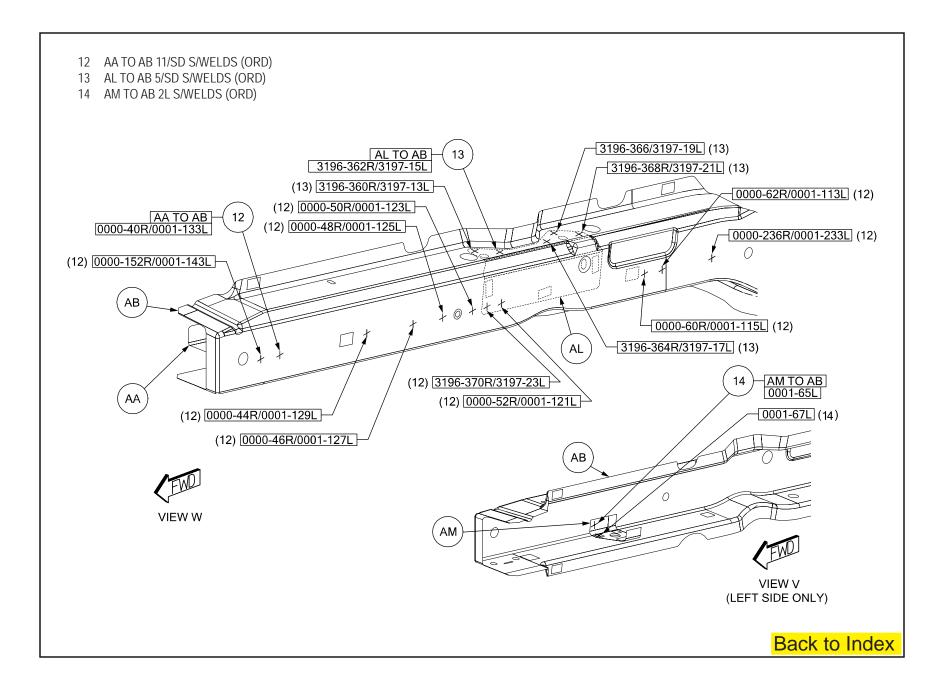
- AU BULKHEAD UPR FRT RT -
- AU BULKHEAD UPR FRT LT –
- AV BULKHEAD LWR FRT RT -
- AV BULKHEAD LWR FRT LT -
- AW GUSSET TRANS CROSSMEMBER BRACKET RR –
- AW GUSSET TRANS CROSSMEMBER BRACKET RR –
- AX BRACKET TRANS CROSSMEMBER MOUNTING RR RT –
- AX BRACKET TRANS CROSSMEMBER MOUNTING RR LT –
- AZ NUT/WELD.HEX THICK FEM ATTACH
- AZ NUT/WELD.HEX THICK FEM ATTACH
- BA RAIL FRT OTR RT -
- BA RAIL FRT OTR LT -
- BB REINF FLOOR FRT RT -
- BB REINF FLOOR FRT LT -
- BC TORQUE BOX FRT RT –
  BC TORQUE BOX FRT LT –
- BD BRACKET TRUCK TIE DOWN RT -
- BD BRACKET TRUCK TIE DOWN LT -
- BE BRACKET BRAKE HOSE MOUNTING -
- BE BRACKET BRAKE HOSE MOUNTING -



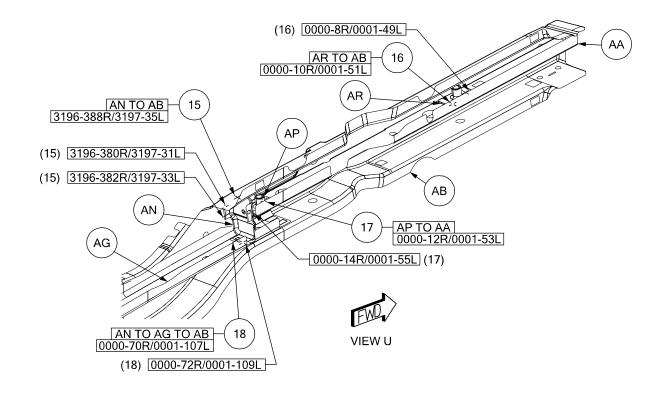


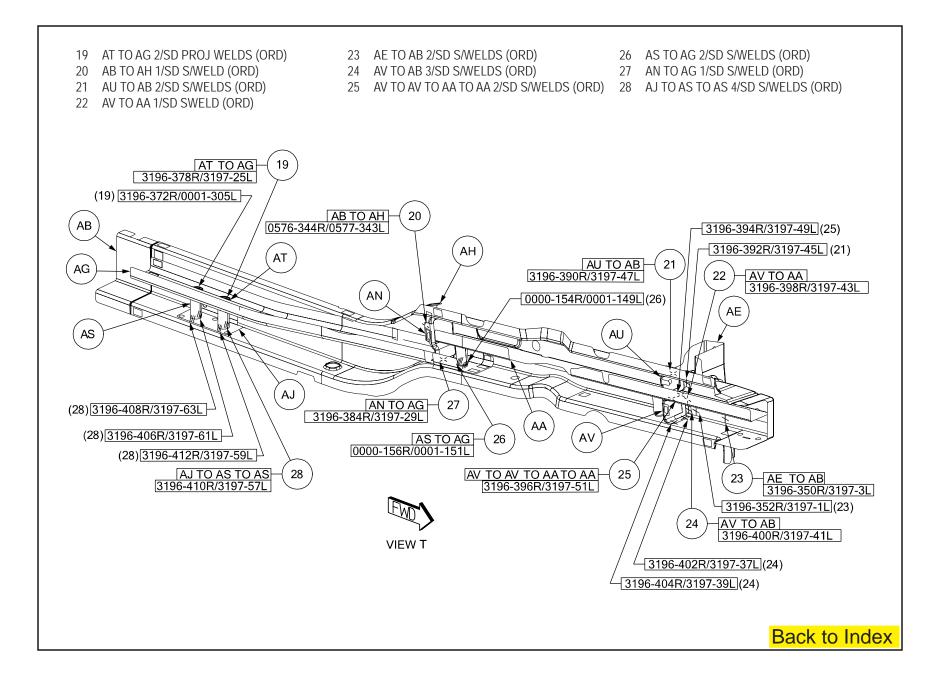


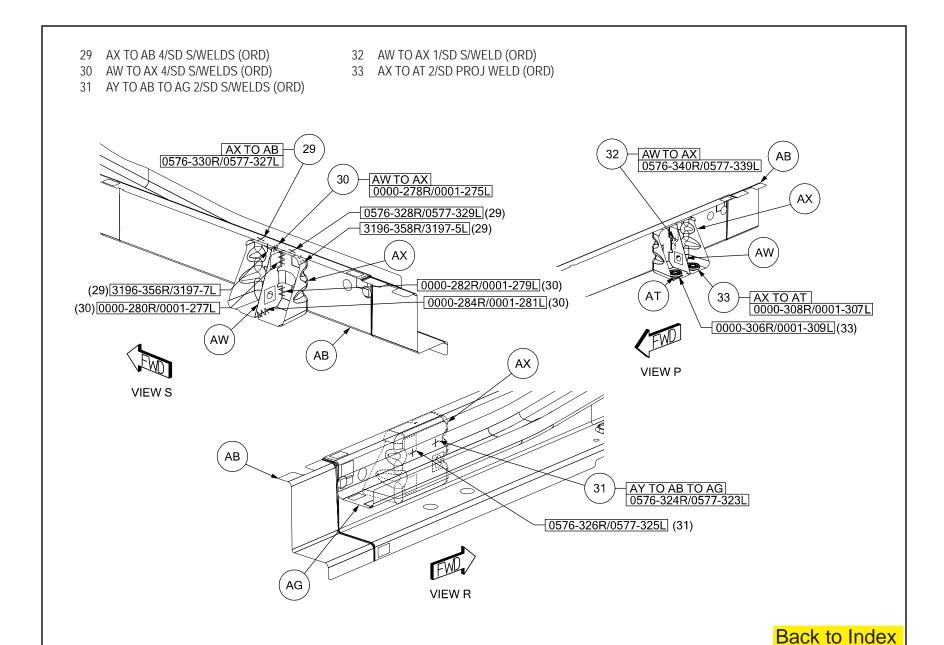


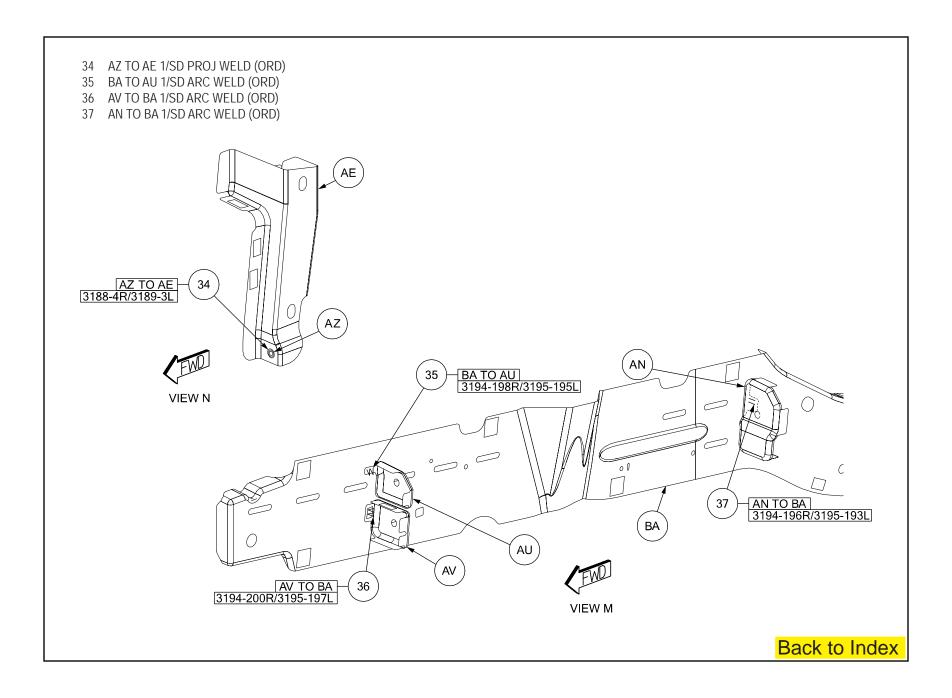


- 15 AN TO AB 3/SD S/WELDS (ORD)
- 16 AR TO AB 2/SD S/WELDS (ORD)
- 17 AP TO AA 2/SD S/WELDS (ORD)
- 18 AN TO AG TO AB 2/SD S/WELDS (ORD)

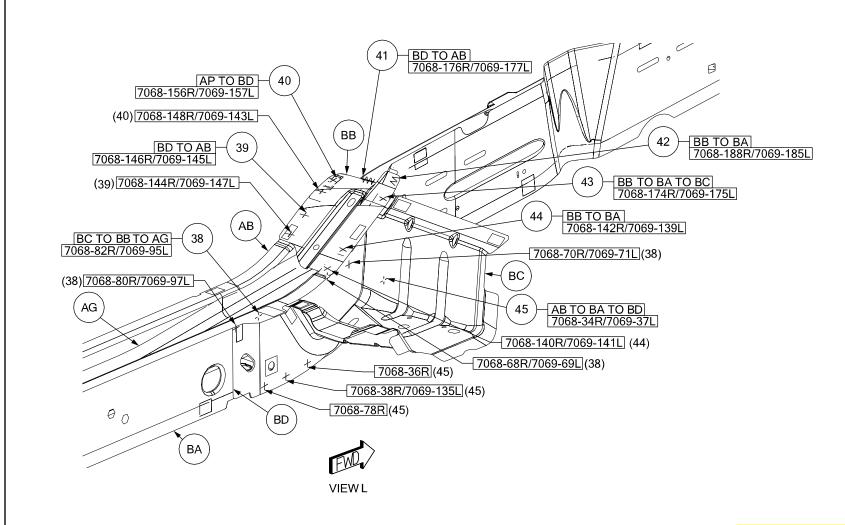


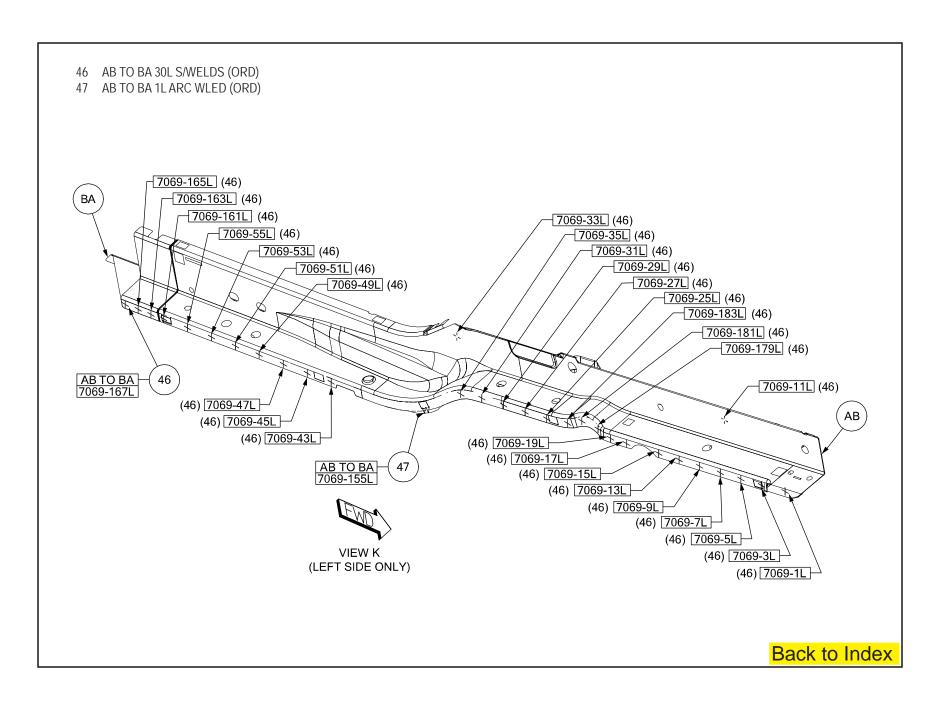


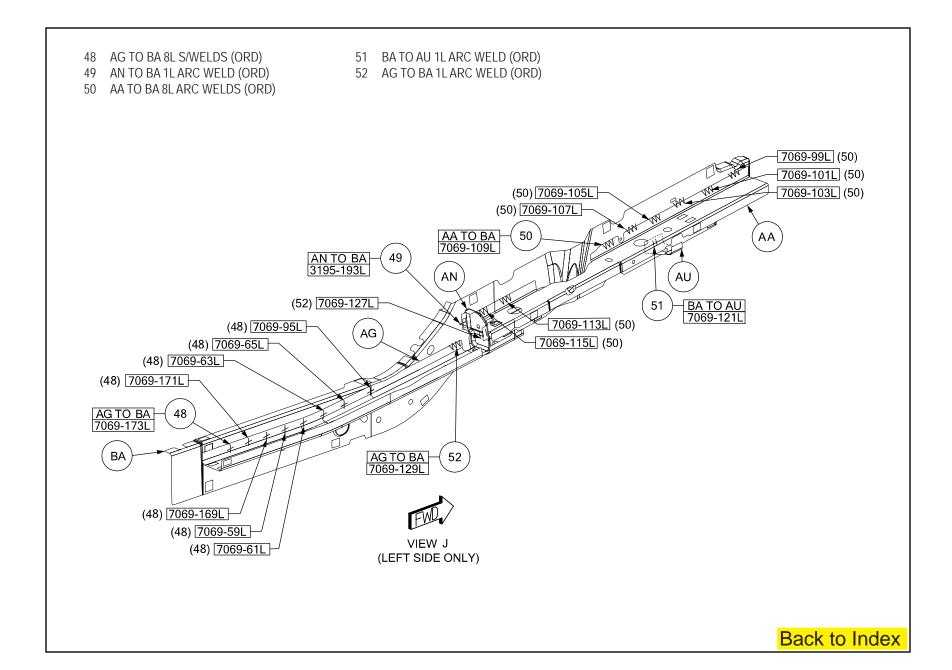


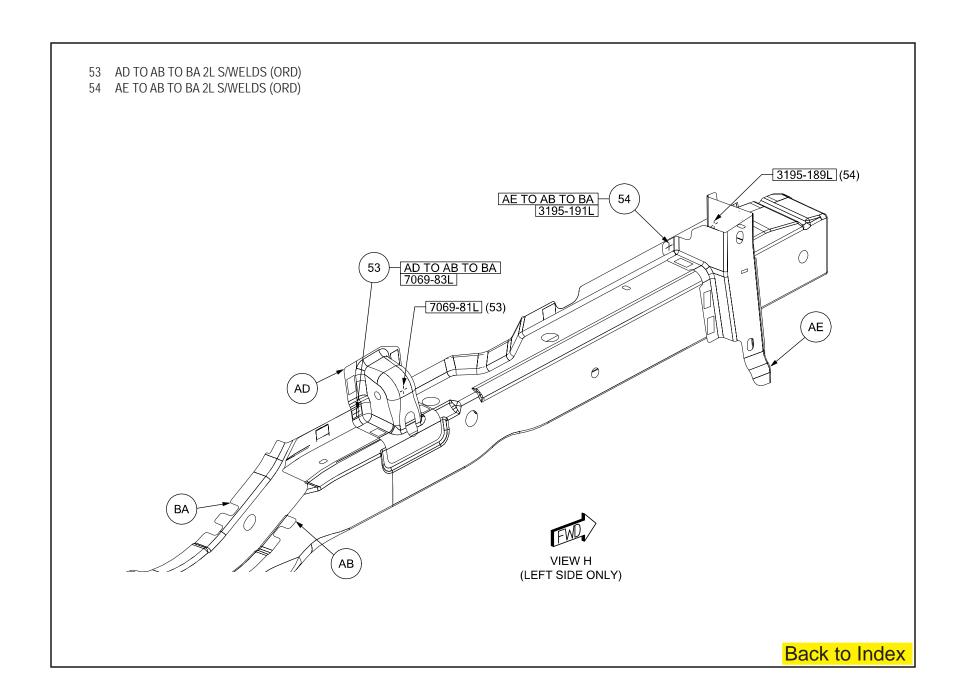


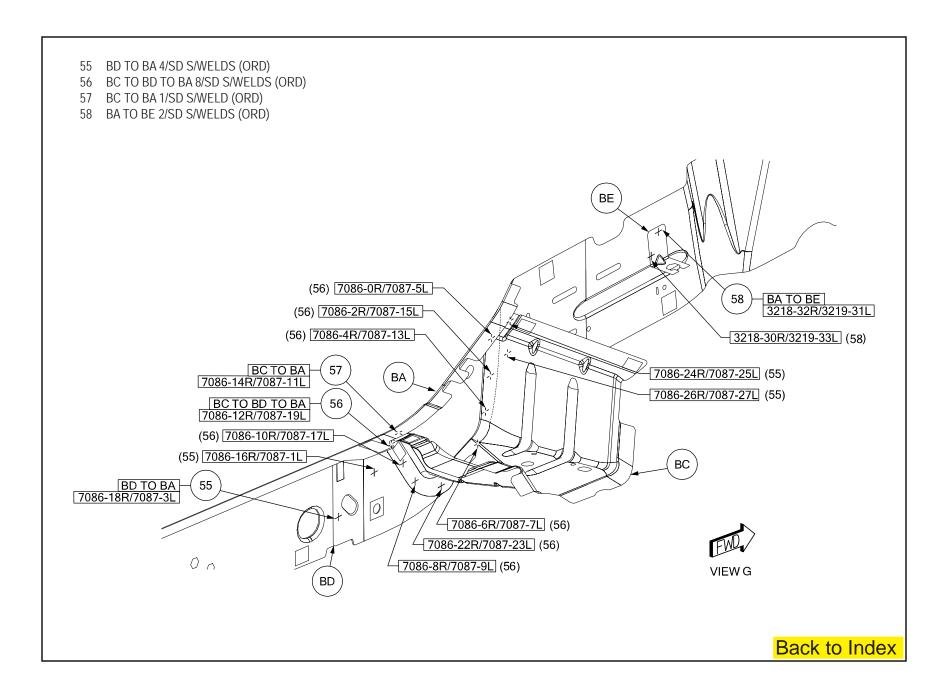
- 38 BC TO BB TO AG 4/SD S/WELDS (ORD)
- 39 BD TO AB 2/SD S/WELDS (ORD)
- 40 AP TO BD 2/SD S/WELDS (ORD)
- 41 BD TO AB 1/SD ARC WELD (ORD)
- 42 BB TO BA 1/SD ARC WELD (ORD)
- 43 BB TO BA TO BC 1/SD S/WELD (ORD)
- 44 BB TO BA 2/SD S/WELDS (ORD)
- 45 AB TO BA TO BD 4R/2L S/WELDS (ORD)

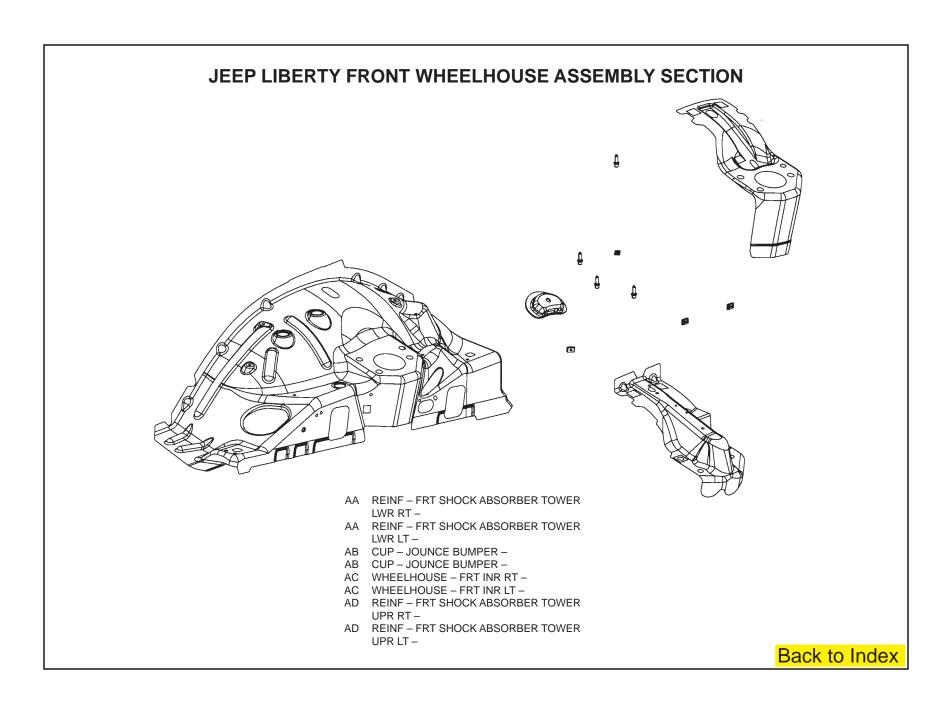


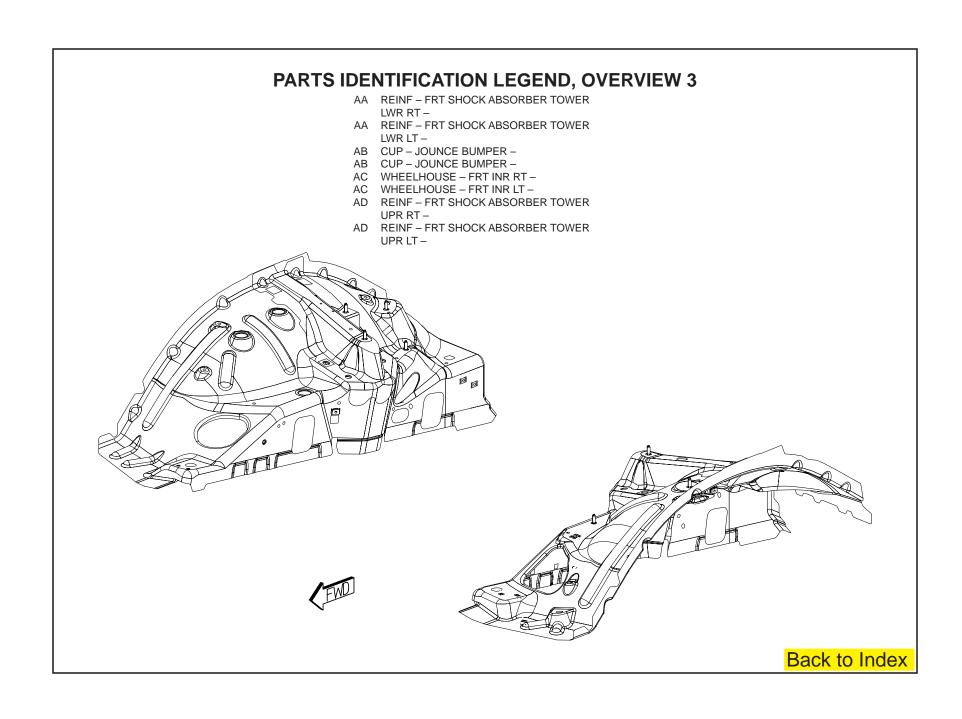


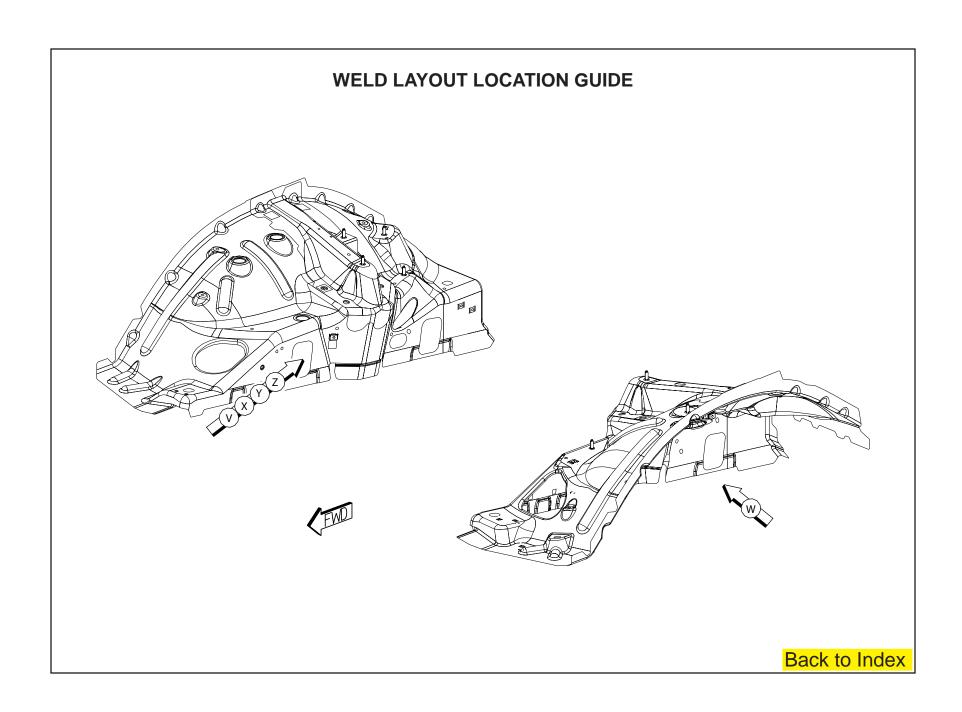


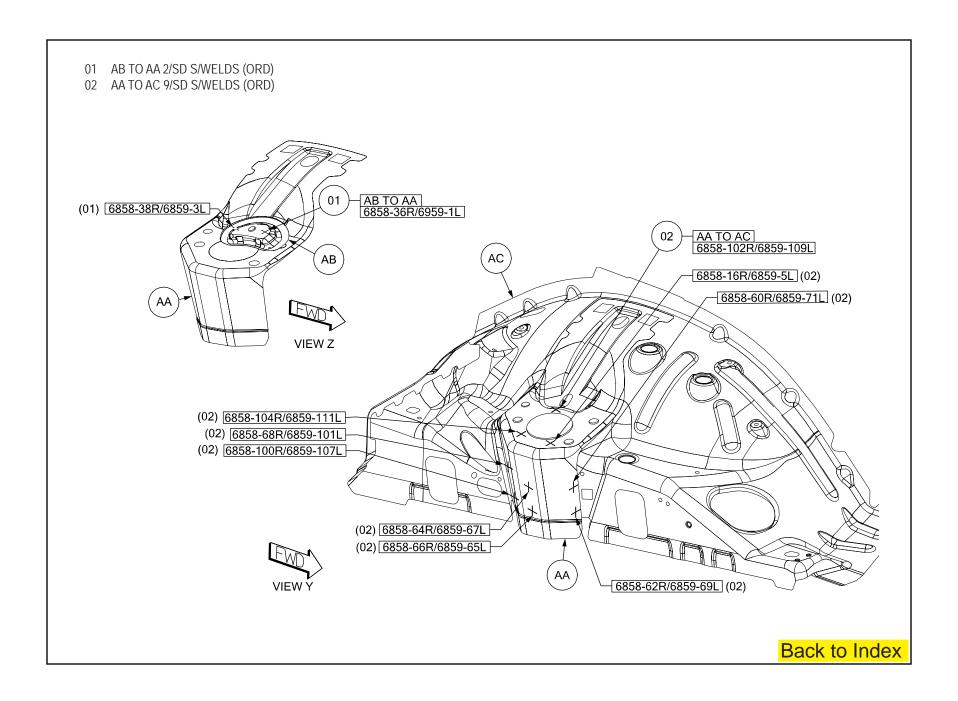


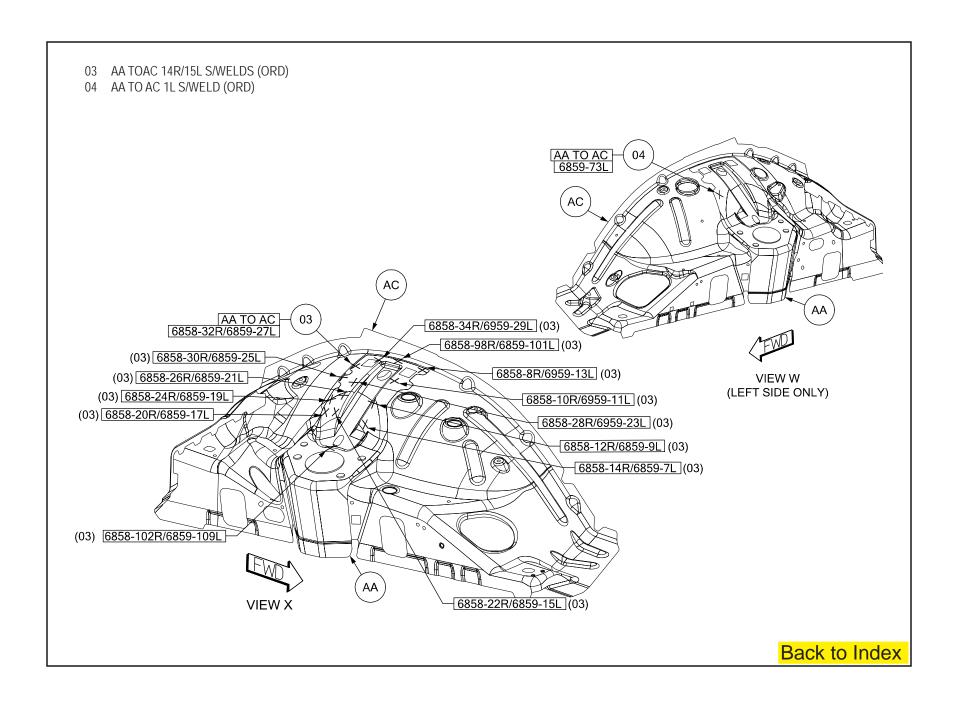












## **HISTORY OF COLLISION REPAIR**

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!

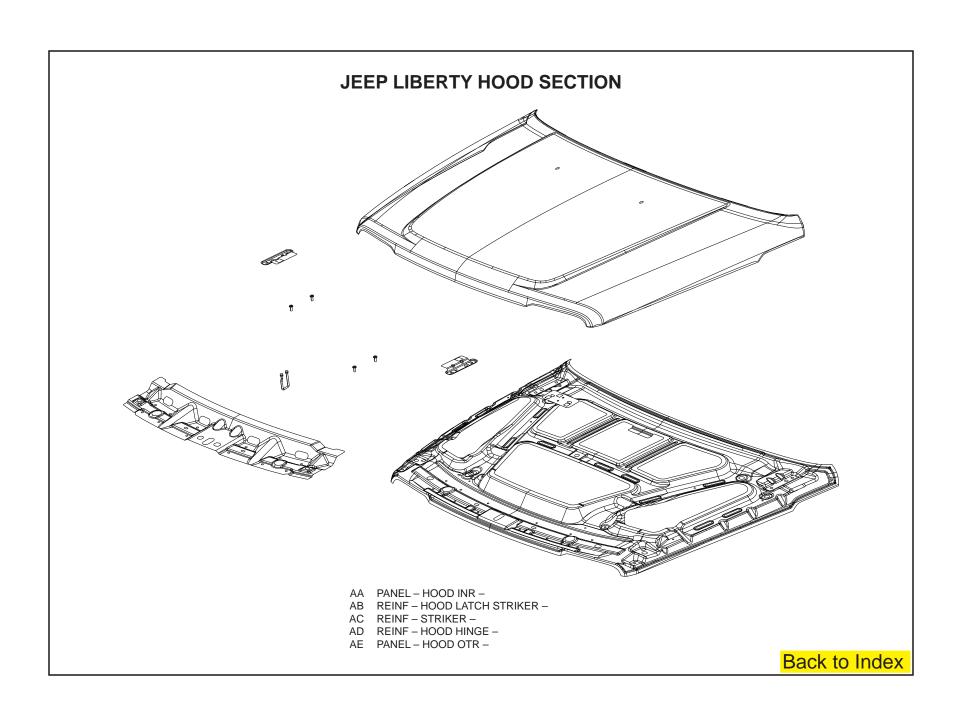
But then came the problem! The collision repair industry wasn't given the luxury of taking their time to train people in thenew technology - or take time to plan for new equipment.

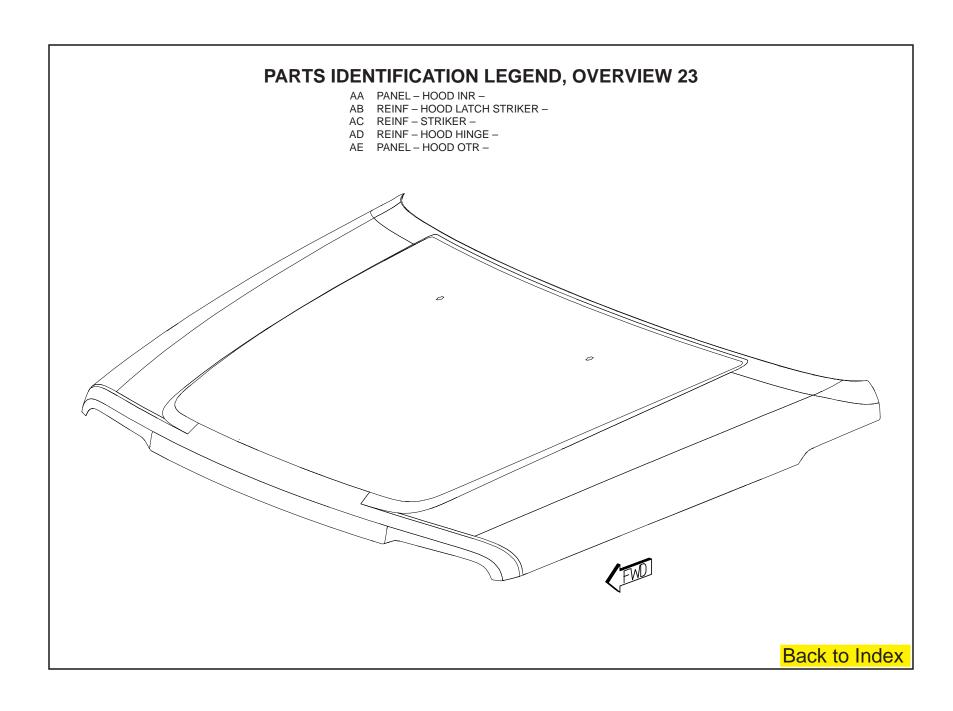
The collision happened and the vehicle had to be fixed. Cars that were repairable were being totalled.

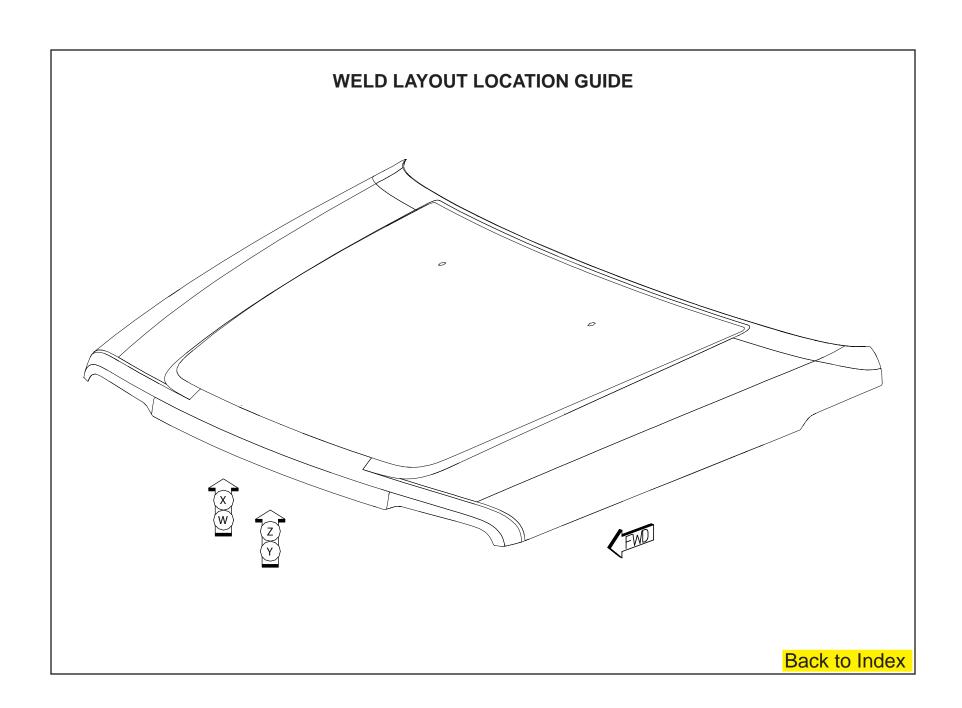
Cars that were repaired were not repaired correctly. Everybody was in a **quandary** - auto manufacturer - insurance company - repair equipment people - body shops - and repair technicians.

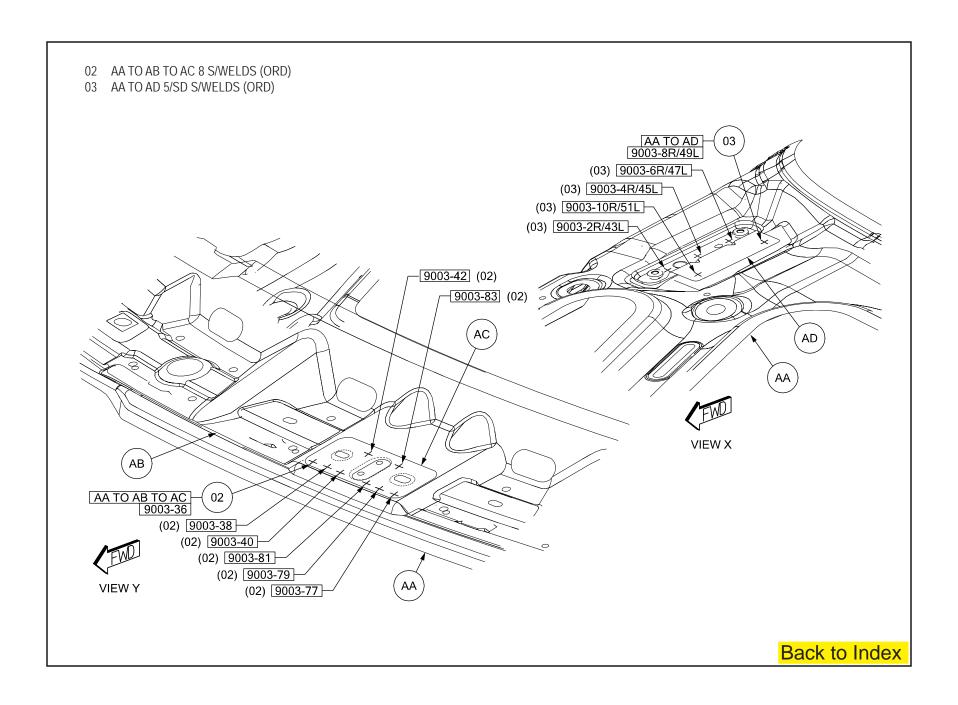
The problem started in the early '70s and body shops are still catching up today. Yesterday's "ding" is today's "crash". It takes trained technicians and sophisticated equipment to do the repair today.

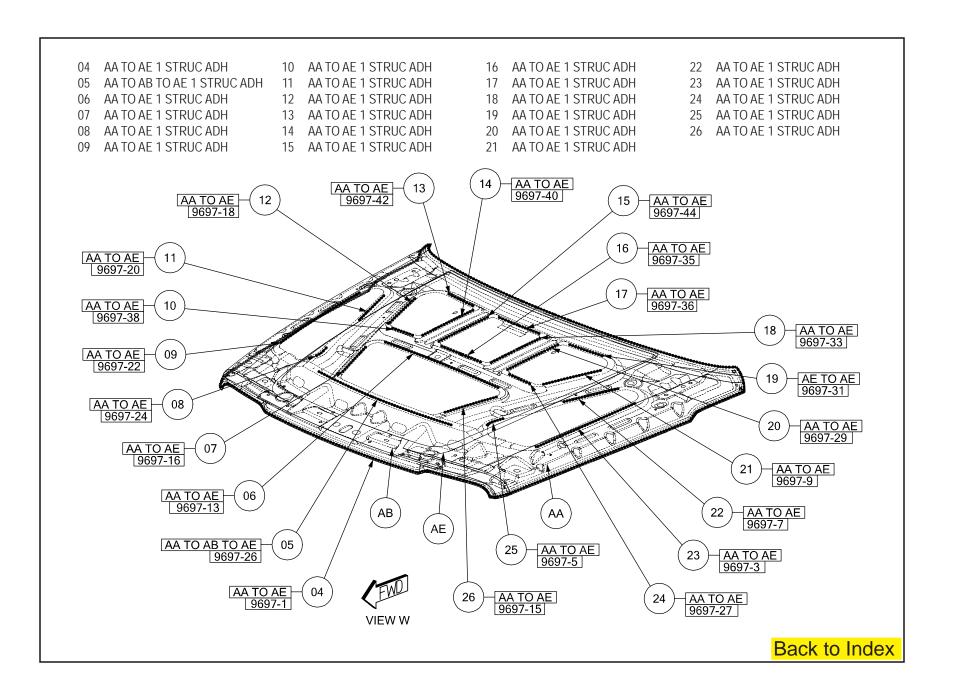
That's why Chrysler LLC is taking the time and effort to get the right information into the hands of the people that handle the repair job.











# INTRODUCTION

# Jeep Liberty



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

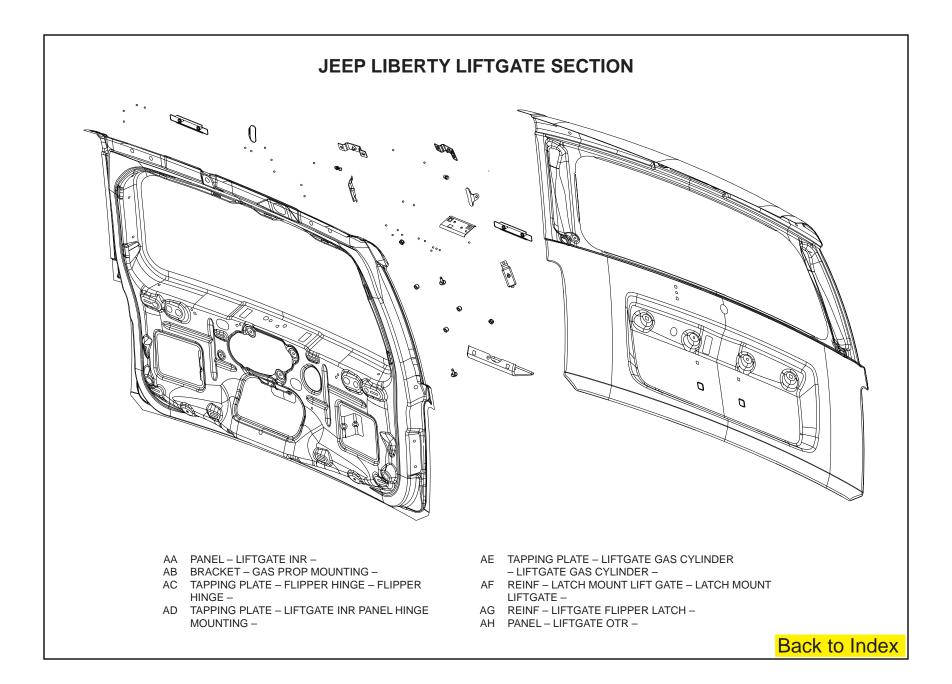
### This manual shows:

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

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

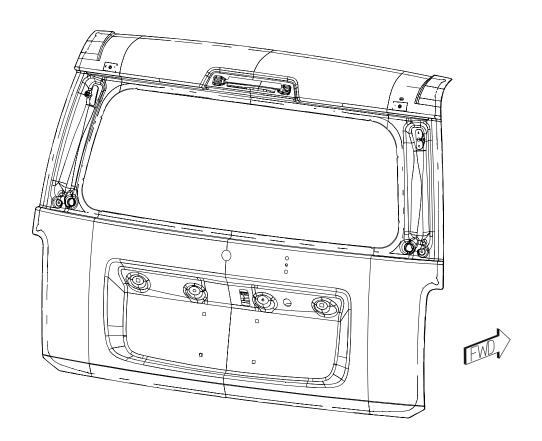
Body Construction Characteristics
History of Collision Repair
Corrosion Protection
Vehicle Identification Number Information
Paint Codes Information
Welded Panel Replacement
Sealer Locations
Structural Adhesive Locations
Sound Deadener Locations
Frame/Body Dimensions
Frame Rail Sectioning Procedure
Manufacturer Advertisements.

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

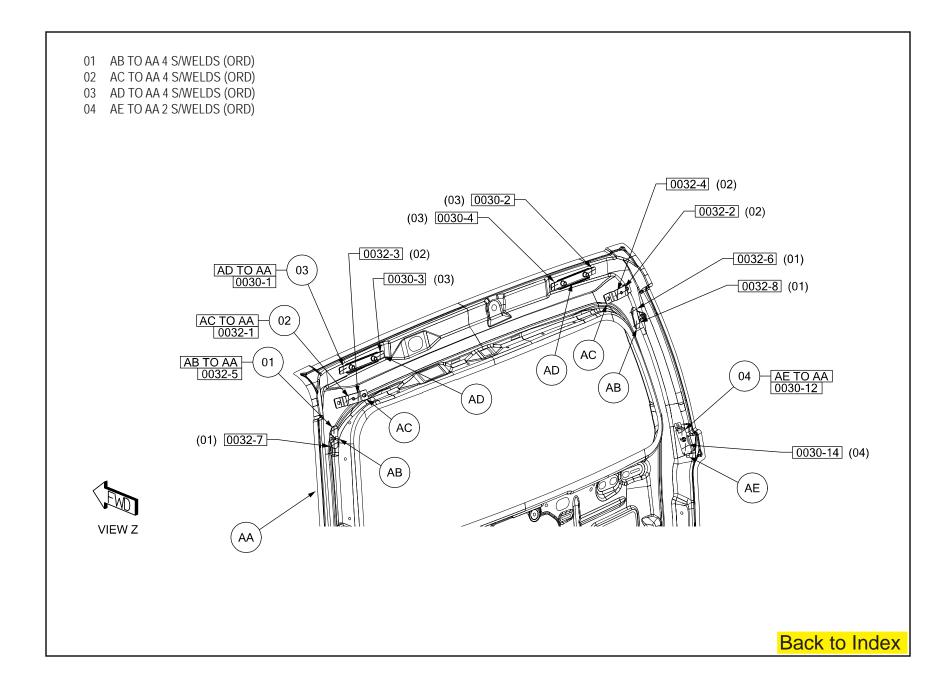


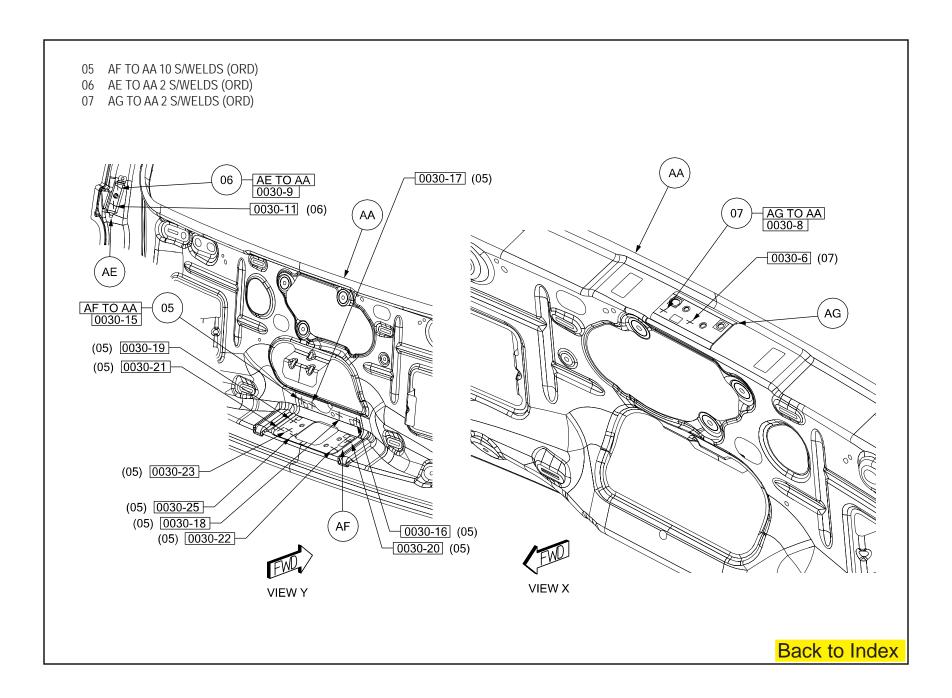
### PARTS IDENTIFICATION LEGEND, OVERVIEW 26

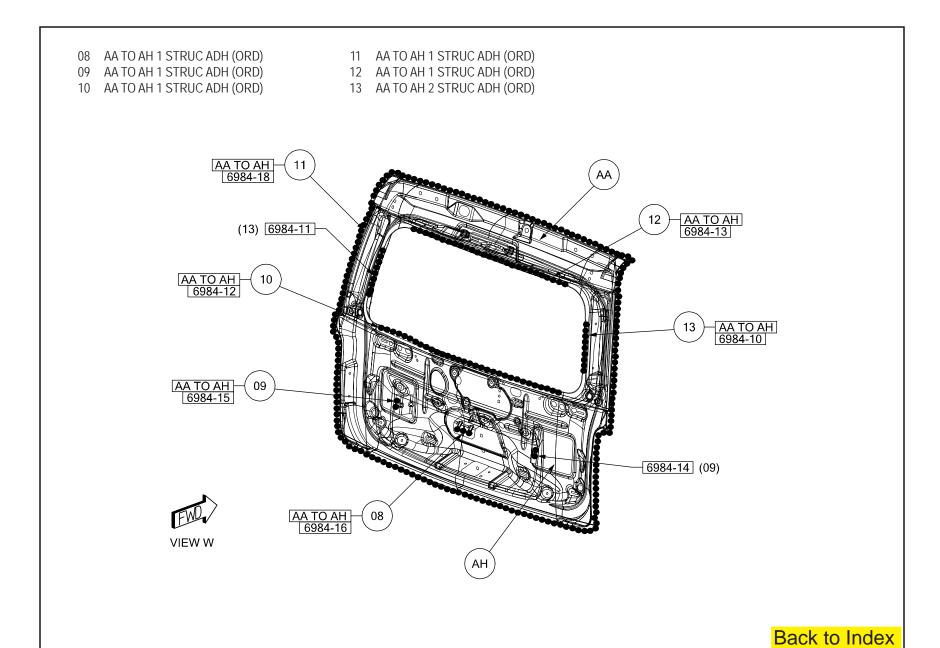
- AA PANEL LIFTGATE INR -
- AB BRACKET GAS PROP MOUNTING -
- AC TAPPING PLATE FLIPPER HINGE FLIPPER HINGE –
- AD TAPPING PLATE LIFTGATE INR PANEL HINGE MOUNTING –
- AE TAPPING PLATE LIFTGATE GAS CYLINDER
  - LIFTGATE GAS CYLINDER -
- AF REINF LATCH MOUNT LIFT GATE LATCH MOUNT LIFTGATE –
- AG REINF LIFTGATE FLIPPER LATCH -
- AH PANEL LIFTGATE OTR -



# **WELD LAYOUT LOCATION GUIDE** Back to Index















### MANUFACTURER ADVERTISEMENTS

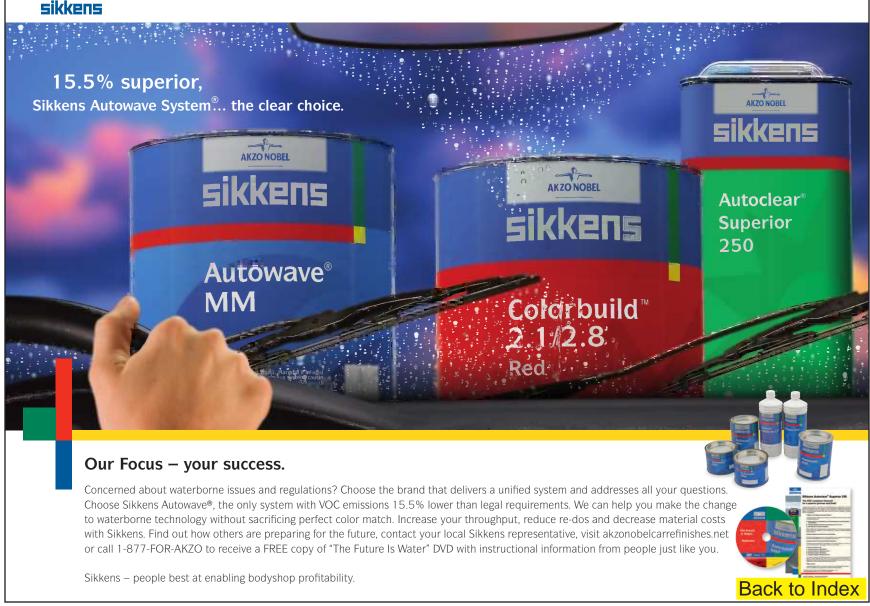
- AKZO NOBEL
- CHRYSLER LLC NON-STRUCTURAL SHEET METAL REPAIR MANUAL
- CHRYSLER LLC PAINT CONDITION DECK, SEALER SOUND DEADENER REPAIR GUIDE
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- PPG HIGH PERFORMANCE COATINGS
- TEAM PSE FACILITY PLANNING SERVICES, CHRYSLER LLC REFINISH PAINT SUPPLIERS AND PAINT MATERIALS/SYSTEMS
- TECH AUTHORITY

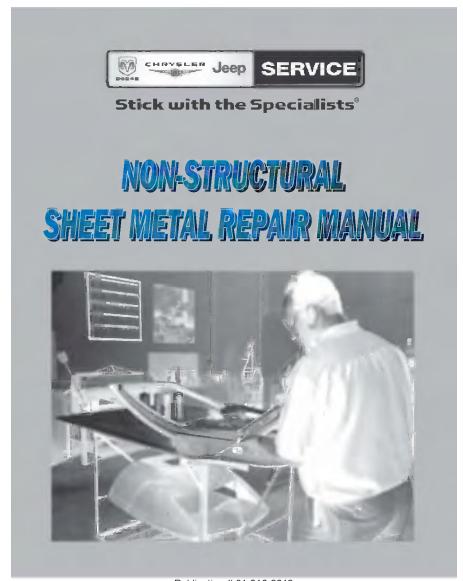
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- Dodge Caliber (81-316-0737CD)
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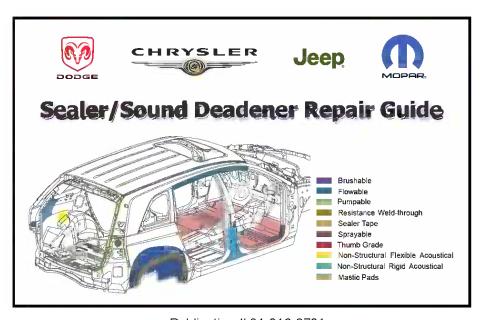
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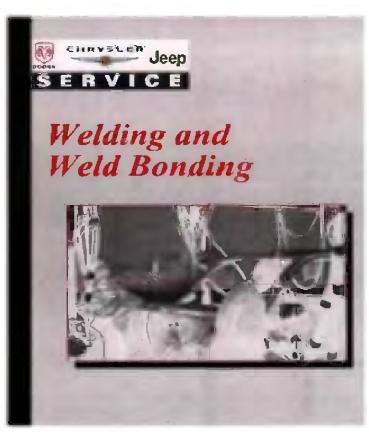


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### Jeep



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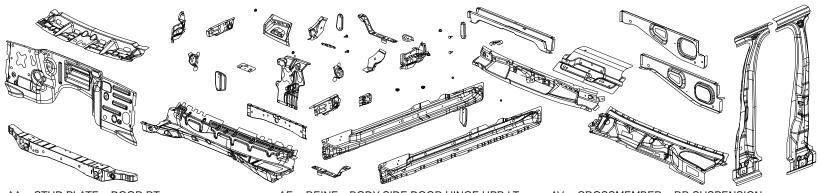
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- AA STUD PLATE DOOR RT -
- AA STUD PLATE DOOR LT -
- AA STUD PLATE DOOR LT -
- AB STUD.WELD/INTERNAL MAT.PT.PIA. SPECIAL.SHOULDER – DR STUD PLATE HINGE ATTACH
- AB STUD.WELD/INTERNAL MAT.PT.PIA. SPECIAL.SHOULDER –
- AB STUD.WELD/INTERNAL MAT.PT.PIA. SPECIAL.SHOULDER – DOOR HINGE TO DOOR
- AB STUD.WELD/INTERNAL MAT.PT.PIA. SPECIAL.SHOULDER – DOOR HINGE TO DOOR
- AB STUD.WELD/INTERNAL MAT.PT.PIA. SPECIAL.SHOULDER – DOOR HINGE TO DOOR
- AB STUD.WELD/INTERNAL MAT.PT.PIA. SPECIAL.SHOULDER – DOOR HINGE TO DOOR
- AC STUD PLATE FRT DOOR RT -
- AC STUD PLATE FRT DOOR LT -
- AD REINF FRT SEAT FRT RT -
- AD REINF FRT SEAT FRT LT -
- AE NUT/WELD.RD NO.FIN.ROUND -
- AE NUT/WELD.RD NO.FIN.ROUND -
- AF REINF BODY SIDE DOOR HINGE UPR RT

- AF REINF BODY SIDE DOOR HINGE UPR LT
- AG REINF BODY SIDE FRT DOOR LWR HINGE RT –
- AG REINF BODY SIDE FRT DOOR LWR HINGE LT –
- AH NUT/WELD.HEX.FLG NIBS.NO.FIN –
- AH NUT/WELD.HEX.FLG NIBS.NO.FIN UPR HINGES
- AH NUT.WELD.HEX.FLG NIBS.NO.FIN LOWER HINGES
- AJ CROSSMEMBER FRT BUMPER FRT -
- AK 55113332 REINF FRT BUMPER
- AL 55113330 CROSSMEMBER FRT –BUMPER RR
- AM REINF B-PILLAR RT -
- AM REINF B-PILLAR LT –
- AN PANEL CLOSE-OUT RT -
- AN PANEL CLOSE-OUT LT -
- AP REINF BODY SIDE APERTURE EXTENSION RT –
- AP REINF BODY SIDE APERTURE EXTENSION LT –
- AR 06105016 STUD
- AS REINF HOOD LATCH STRIKER -
- AT REINF STRIKER -
- AU CROSSMEMBER RR SUSPENSION TRACK BAR TO RAIL –

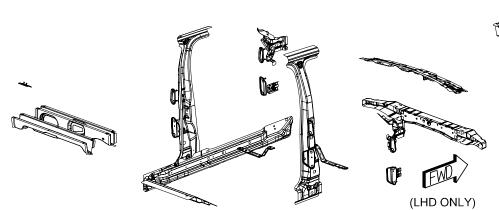
- AV CROSSMEMBER RR SUSPENSION TRACK BAR TO RAIL –
- AW TUBE SPACER -
- AX REINF COMPRESSION PLATE CTR -
- AY REINF RR FLOOR PAN SEAT BELT INBOARD ANCHOR –
- AZ NUT/WELD.HEX.FLG NIBS.NO.FIN FUEL TANK ATTACH
- AZ NUT/WELD.HEX.FLG NIBS.NO.FIN WINCH ATTACH
- BA REINF LIFTGATE FLIPPER LATCH -
- BB STUD.WELD/INTERNAL NO.FIN.PILOT.PT FLIPPER LATCH ATTACH
- BC CROSSMEMBER -SPARE TIRE -
- BD SILL BODY SIDE LT
- BE 06102051 NUT
- BF PANEL PLENUM LWR RHD –
- BG PANEL PLENUM RR RHD -
- BH REINF STEERING COLUMN MOUNTING RHD –
- BJ TAPPING PLATE PLENUM -
- BK PANEL PLENUM BAFFLE RHD -
- BL PANEL PLENUM CLOSURE RT -
- BL PANEL PLENUM CLOSURE LT -
- BM PANEL DASH RHD -
- BN REINF BRAKE MASTER CYL -
- BP STUD.WELD/EXTERNAL HEAD. PT.SPECIAL – NVH PAD ATTACHMENT

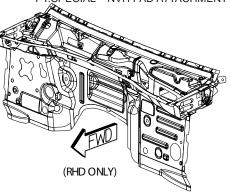
### PARTS IDENTIFICATION LEGEND, OVERVIEW 7

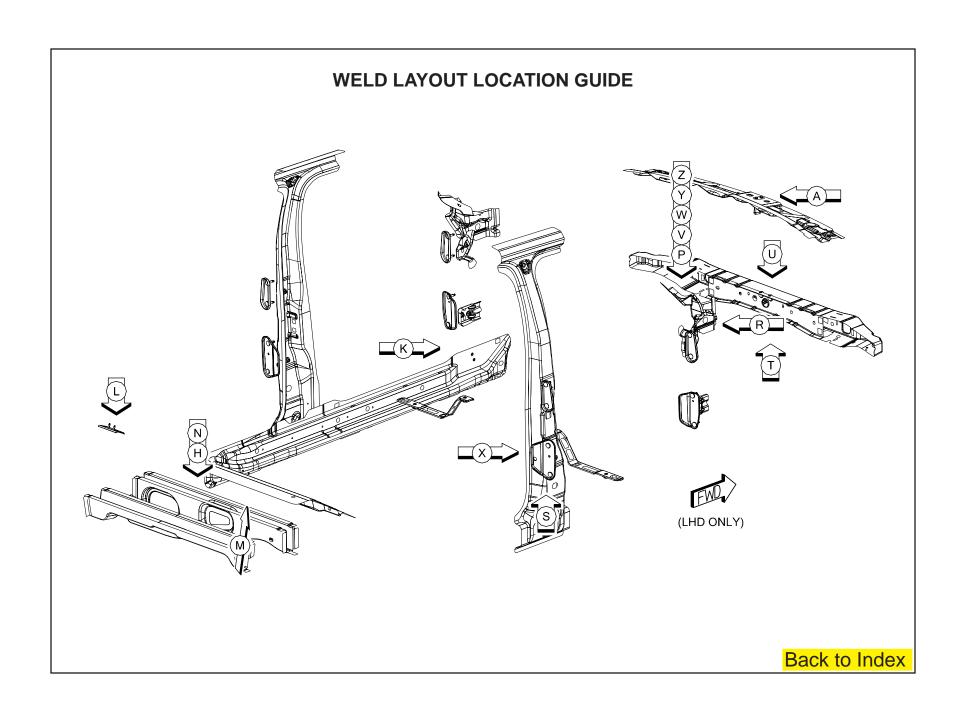
- AA STUD PLATE DOOR RT -
- AA STUD PLATE DOOR RT -
- AA STUD PLATE DOOR LT -
- AA STUD PLATE DOOR LT -
- AB STUD.WELD/INTERNAL MAT.PT.PIA. SPECIAL.SHOULDER – DR STUD PLATE HINGE ATTACH
- AB STUD.WELD/INTERNAL MAT.PT.PIA. SPECIAL.SHOULDER –
- AB STUD.WELD/INTERNAL MAT.PT.PIA. SPECIAL.SHOULDER – DOOR HINGE TO DOOR
- AB STUD.WELD/INTERNAL MAT.PT.PIA. SPECIAL.SHOULDER – DOOR HINGE TO DOOR
- AB STUD.WELD/INTERNAL MAT.PT.PIA. SPECIAL.SHOULDER – DOOR HINGE TO DOOR
- AB STUD.WELD/INTERNAL MAT.PT.PIA. SPECIAL.SHOULDER – DOOR HINGE TO DOOR
- AC STUD PLATE FRT DOOR RT -
- AC STUD PLATE FRT DOOR LT -
- AD REINF FRT SEAT FRT RT -
- AD REINF FRT SEAT FRT LT –
- AE NUT/WELD.RD NO.FIN.ROUND -
- AE NUT/WELD.RD NO.FIN.ROUND -
- AF REINF BODY SIDE DOOR HINGE UPR RT

- AF REINF BODY SIDE DOOR HINGE UPR LT
- AG REINF BODY SIDE FRT DOOR LWR HINGE RT –
- AG REINF BODY SIDE FRT DOOR LWR HINGE LT –
- AH NUT/WELD.HEX.FLG NIBS.NO.FIN -
- AH NUT/WELD.HEX.FLG NIBS.NO.FIN UPR HINGES
- AH NUT.WELD.HEX.FLG NIBS.NO.FIN LOWER HINGES
- AJ CROSSMEMBER FRT BUMPER FRT -
- AK 55113332 REINF FRT BUMPER
- AL 55113330 CROSSMEMBER FRT –BUMPER RR
- AM REINF B-PILLAR RT -
- AM REINF B-PILLAR LT -
- AN PANEL CLOSE-OUT RT -
- AN PANEL CLOSE-OUT LT -
- AP REINF BODY SIDE APERTURE EXTENSION RT –
- AP REINF BODY SIDE APERTURE EXTENSION LT –
- AR 06105016 STUD
- AS REINF HOOD LATCH STRIKER -
- AT REINF STRIKER -
- AU CROSSMEMBER RR SUSPENSION TRACK BAR TO RAIL –

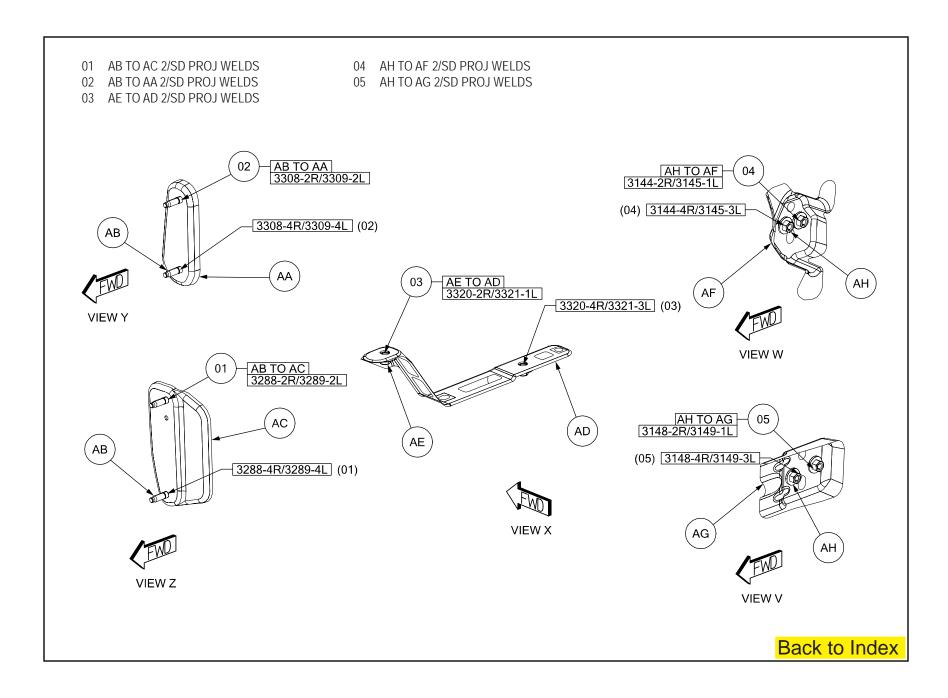
- AV CROSSMEMBER RR SUSPENSION TRACK BAR TO RAIL –
- AW TUBE SPACER -
- AX REINF COMPRESSION PLATE CTR -
- AY REINF RR FLOOR PAN SEAT BELT INBOARD ANCHOR –
- AZ NUT/WELD.HEX.FLG NIBS.NO.FIN FUEL TANK ATTACH
- AZ NUT/WELD.HEX.FLG NIBS.NO.FIN WINCH ATTACH
- BA REINF LIFTGATE FLIPPER LATCH –
- BB STUD.WELD/INTERNAL NO.FIN.PILOT.PT FLIPPER LATCH ATTACH
- BC CROSSMEMBER -SPARE TIRE -
- BD SILL BODY SIDE LT
- BE 06102051 NUT
- BF PANEL PLENUM LWR RHD -
- BG PANEL PLENUM RR RHD -
- BH REINF STEERING COLUMN MOUNTING RHD –
- BJ TAPPING PLATE PLENUM -
- BK PANEL PLENUM BAFFLE RHD -
- BL PANEL PLENUM CLOSURE RT -
- BL PANEL PLENUM CLOSURE LT -
- BM PANEL DASH RHD -
- BN REINF BRAKE MASTER CYL -
- SP STUD.WELD/EXTERNAL HEAD. PT.SPECIAL – NVH PAD ATTACHMENT

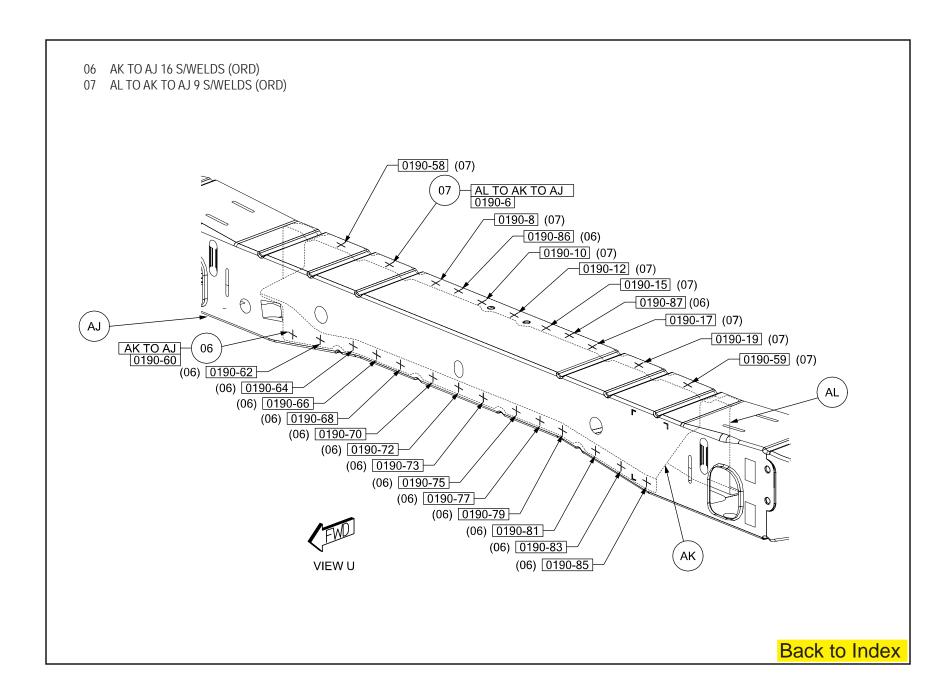


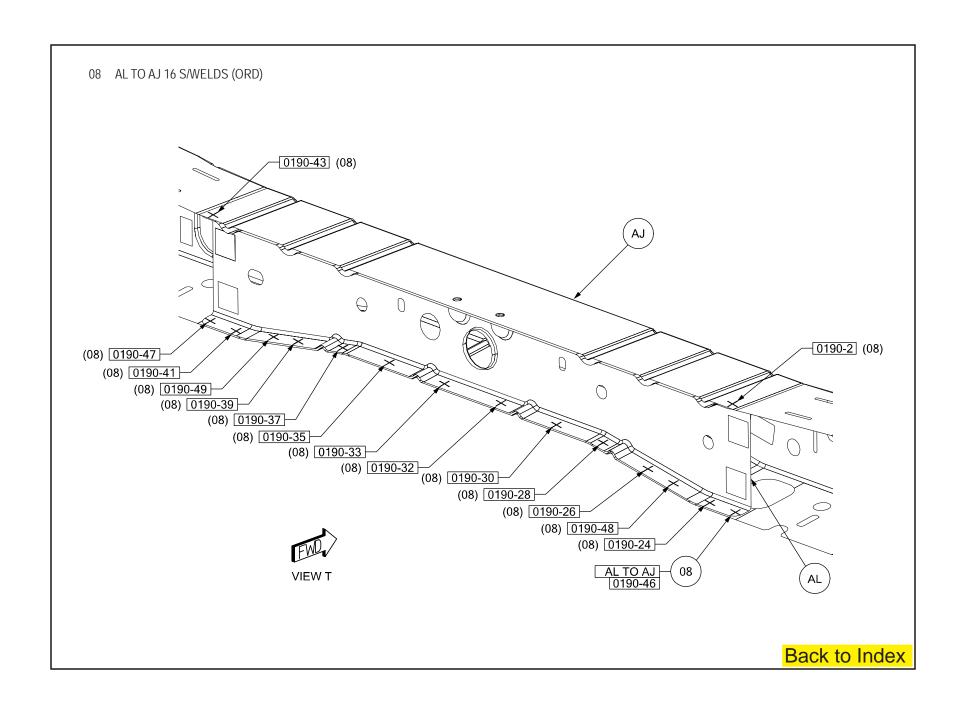


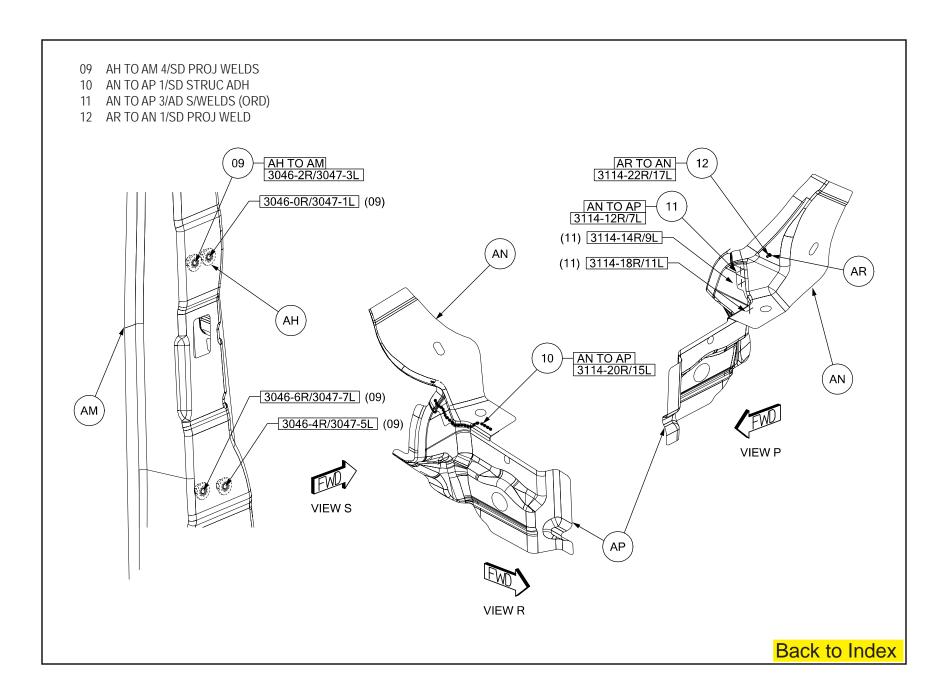


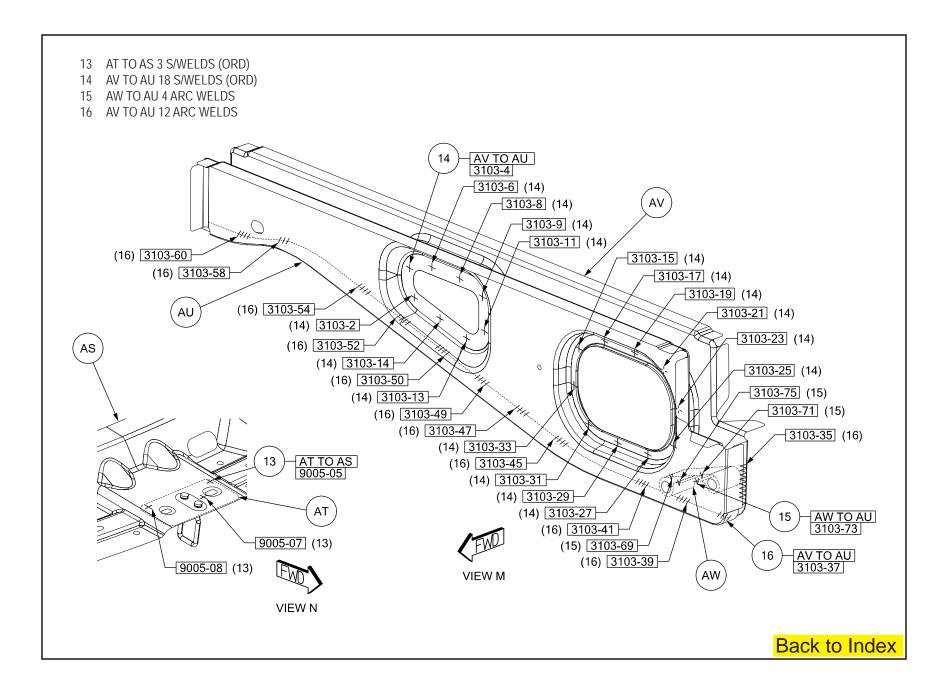
# WELD LAYOUT LOCATION GUIDE (RHD ONLY) Back to Index

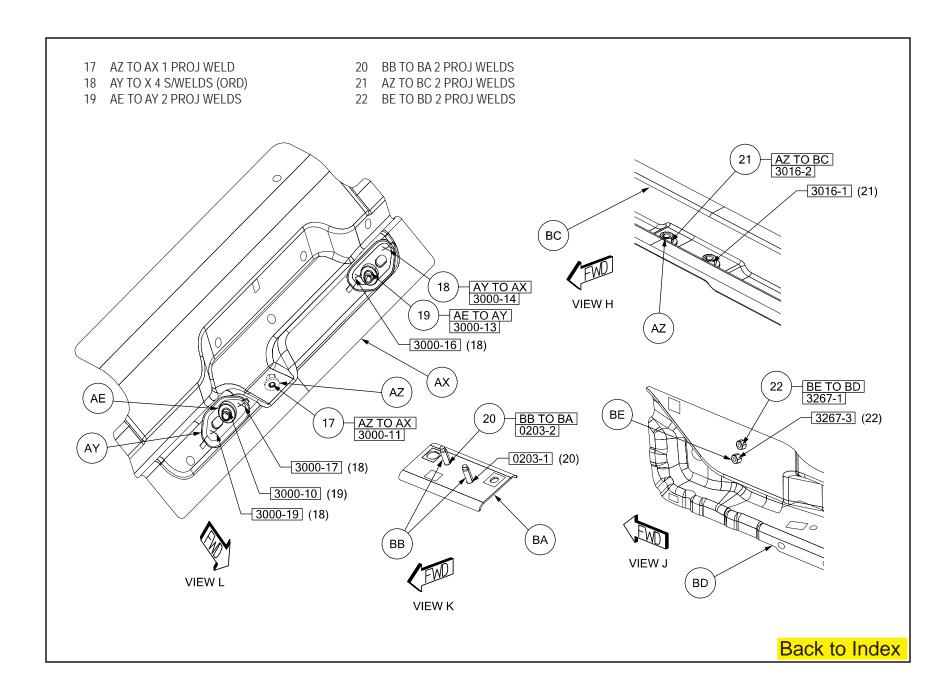






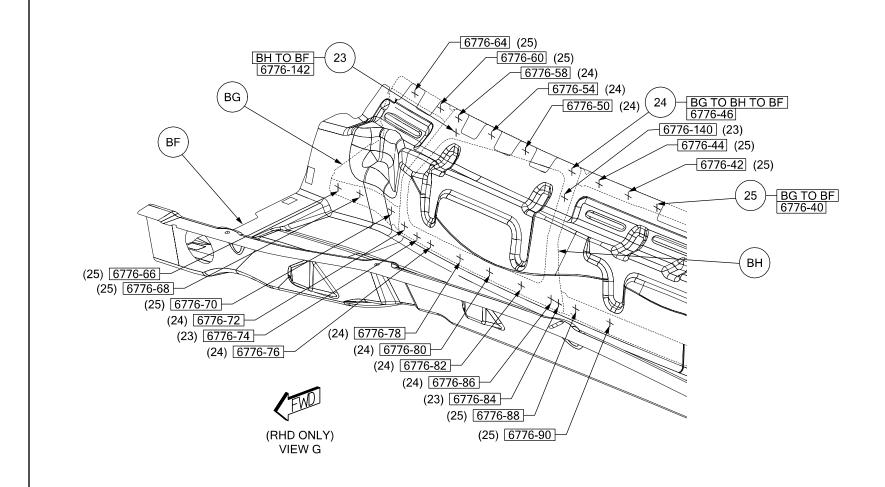


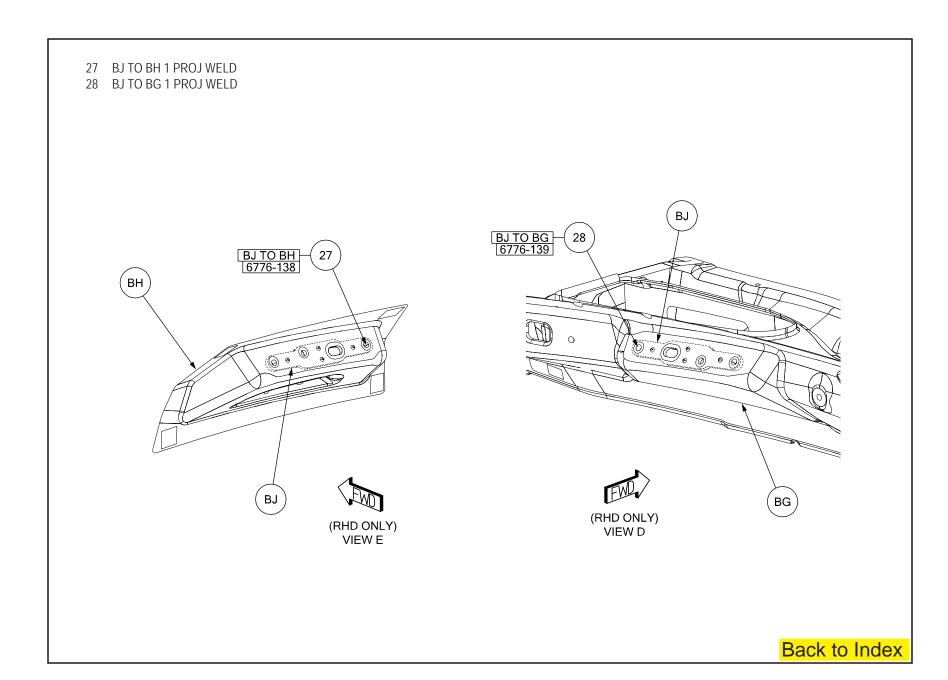


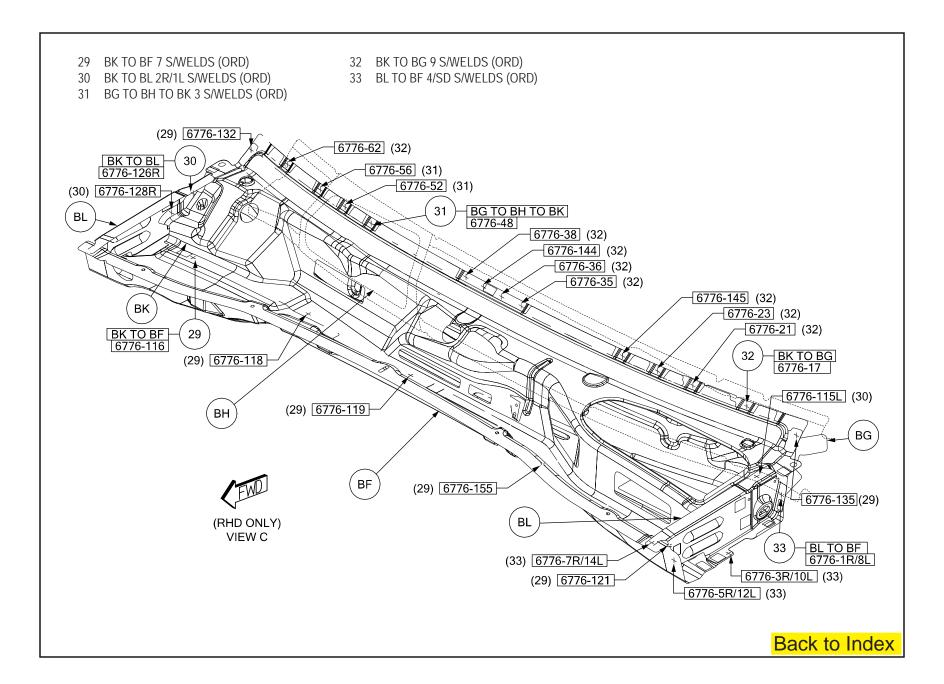


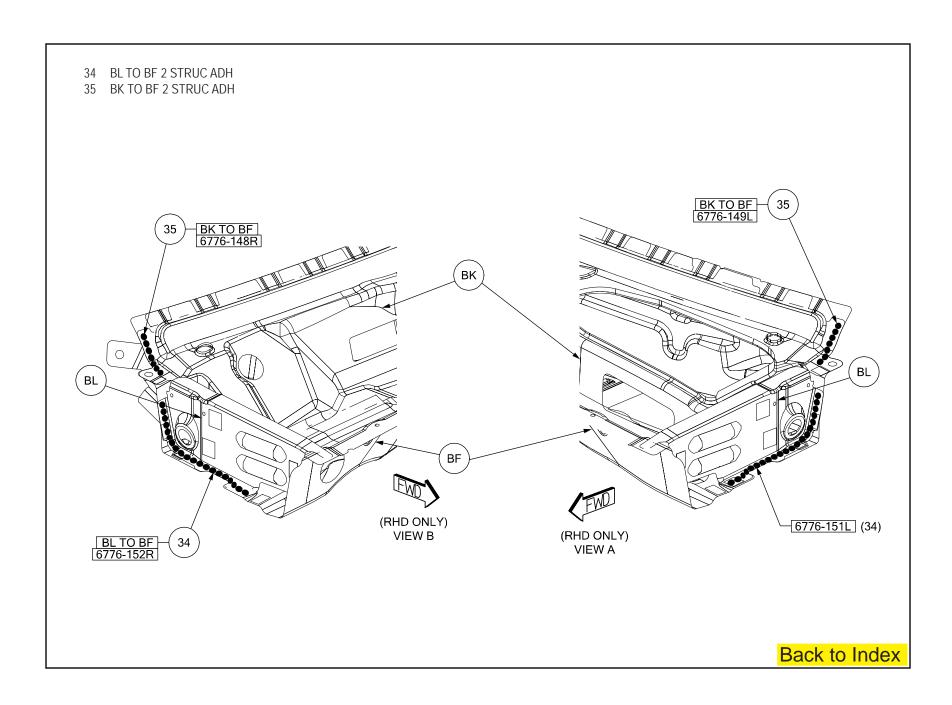


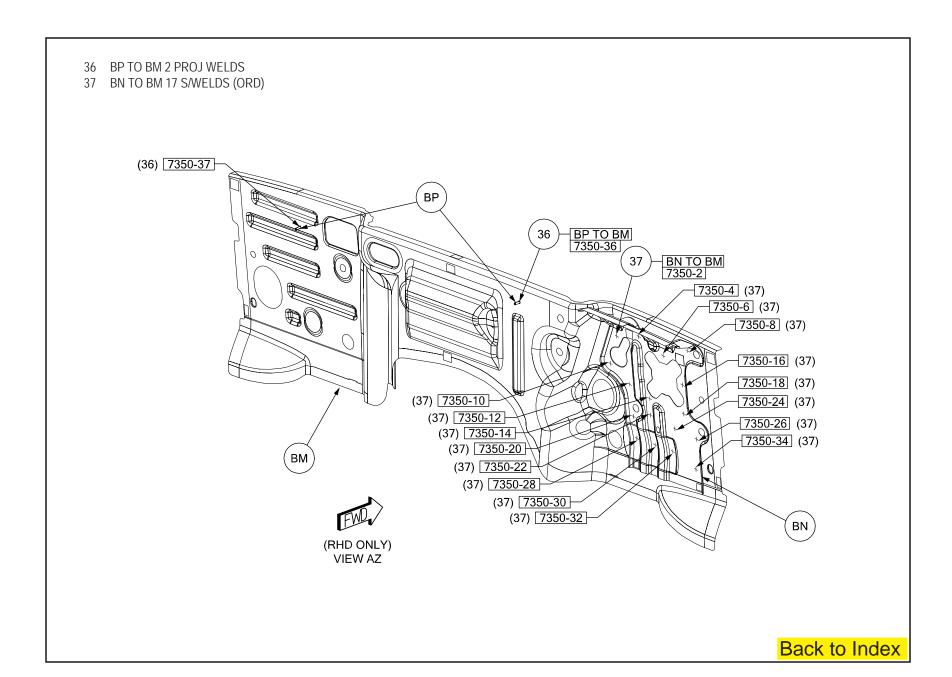
- 24 BG TO BH TO BF 10 S/WELDS (ORD)
- 25 BG TO BF 10 S/WELDS (ORD)



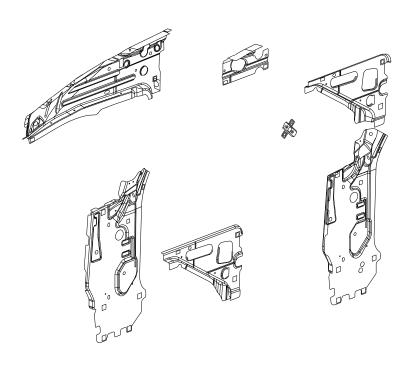












- AA BRACKET GAS PROP MOUNTING RT –
  AA BRACKET GAS PROP MOUNTING LT –
- AB PANEL FENDER INR RT -
- AB PANEL FENDER INR LT -
- AC GUSSET FRT FENDER INR RT –
- AC GUSSET FRT FENDER INR LT -
- AD EXTENSION UPR FENDER ATTACH RT –
- AD EXTENSION UPR FENDER ATTACH LT –
- AE REINF FENDER INR RT -
- AE REINF FENDER INR LT -
- AL KLINI I LINDLK INK LI
- AF TAPPING PLATE I/P AF TAPPING PLATE I/P –
- AG PANEL COWL SIDE RT -
- AG PANEL COWL SIDE LT -

- AH REINF TAPPING PLATE PROP ATTACH
- AH REINF TAPPING PLATE PROP ATTACH
- AJ TROUGH LIFTGATE OPENING RT -
- AJ TROUGH LIFTGATE OPENING LT -
- AK NUT/WELD.RD NO.FIN.SPECIAL REAR LAMP ATTACH
- AK NUT/WELD.RD NO.FIN.SPECIAL BUMPER ATTACH
- AK NUT/WELD.RD NO.FIN.SPECIAL FASCIA ATTACH
- AK NUT/WELD.RD NO.FIN.SPECIAL REAR LAMP ATTACH
- AK NUT/WELD.RD NO.FIN.SPECIAL BUMPER ATTACH
- AK NUT/WELD.RD NO.FIN.SPECIAL FASCIA ATTACH

## **PARTS IDENTIFICATION LEGEND, OVERVIEW 13**

AA BRACKET – GAS PROP MOUNTING RT –

AA BRACKET – GAS PROP MOUNTING LT –

AB PANEL – FENDER INR RT –

AB PANEL - FENDER INR LT -

AC GUSSET - FRT FENDER INR RT -

AC GUSSET – FRT FENDER INR LT –

AD EXTENSION – UPR FENDER ATTACH RT –

AD EXTENSION – UPR FENDER ATTACH LT –

AE REINF – FENDER INR RT –

AE REINF – FENDER INR LT –

AF TAPPING PLATE - I/P -

AF TAPPING PLATE - I/P -

AG PANEL - COWL SIDE RT -

AG PANEL - COWL SIDE LT -

AH REINF - TAPPING PLATE - PROPATTACH

AH REINF - TAPPING PLATE - PROP ATTACH

AJ TROUGH - LIFTGATE OPENING RT -

AJ TROUGH - LIFTGATE OPENING LT -

AK NUT/WELD.RD – NO.FIN.SPECIAL – REAR LAMP ATTACH

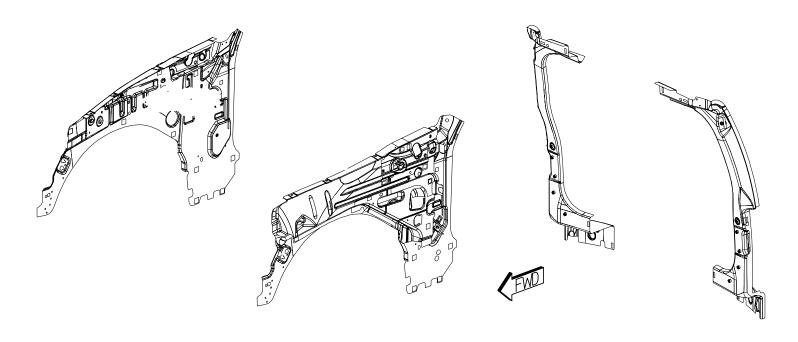
AK NUT/WELD.RD – NO.FIN.SPECIAL – BUMPER ATTACH

AK NUT/WELD.RD - NO.FIN.SPECIAL - FASCIA ATTACH

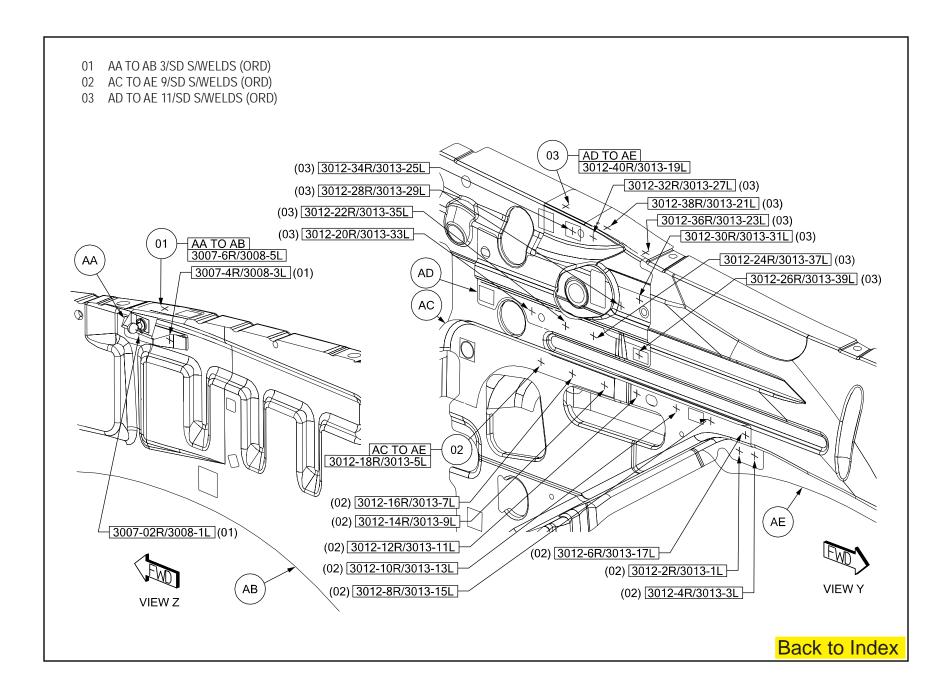
AK NUT/WELD.RD – NO.FIN.SPECIAL – REAR LAMP ATTACH

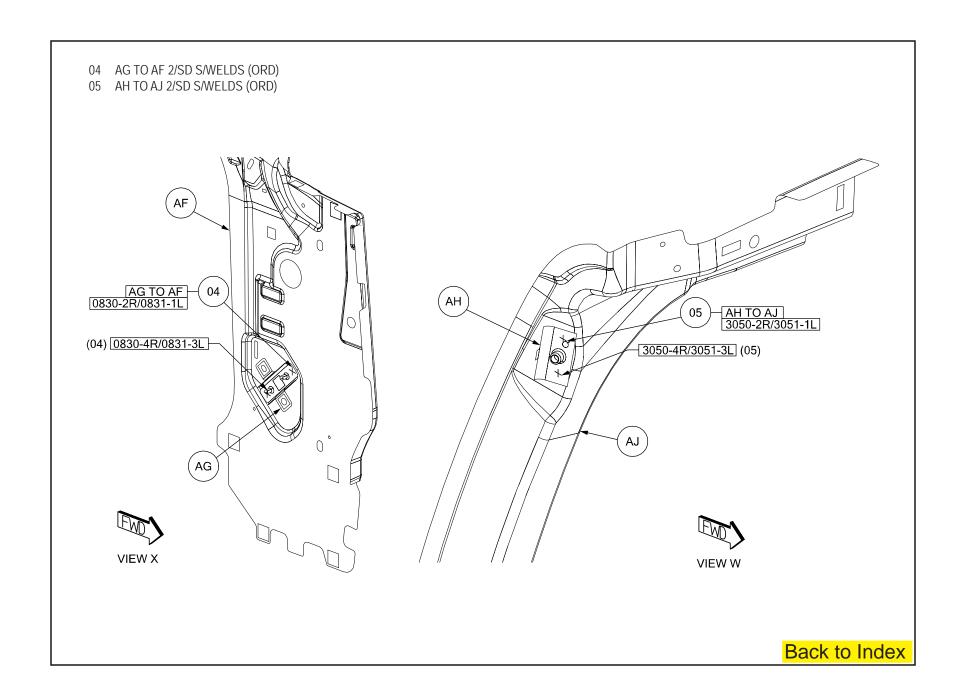
AK NUT/WELD.RD – NO.FIN.SPECIAL – BUMPER ATTACH

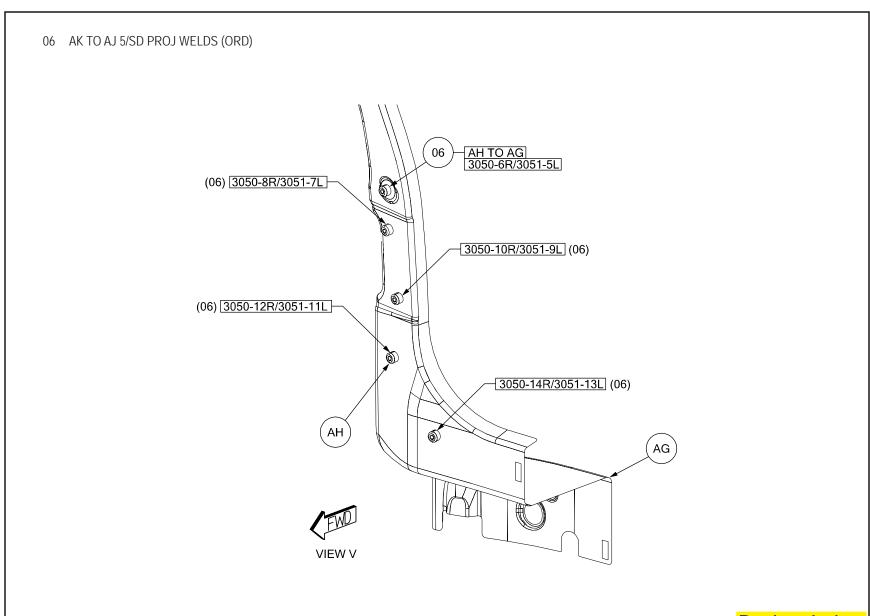
AK NUT/WELD.RD - NO.FIN.SPECIAL - FASCIA ATTACH



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## **JEEP LIBERTY PAINT CODES**

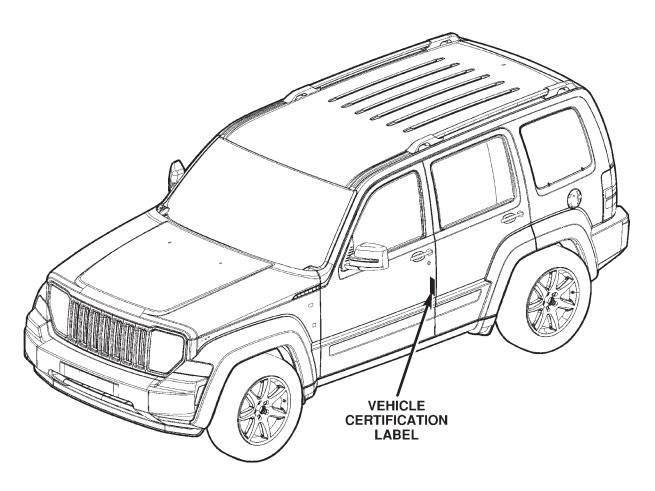
## **EXTERIOR**

CODE	COLOR
ARH	Inferno Red Crystal Pearl Coat
EDL	Light Graystone Pearl Coat
EBL	Modern Blue Pearl Coat
WS2	Bright Silver Metallic Clear Coat
AXR	Brilliant Black Crystal Pearl Coat
SW1	Stone White Clear Coat
EEM	Red Rock Crystal Pearl Coat
EGJ	Jeep Green Metallic Clear Coat

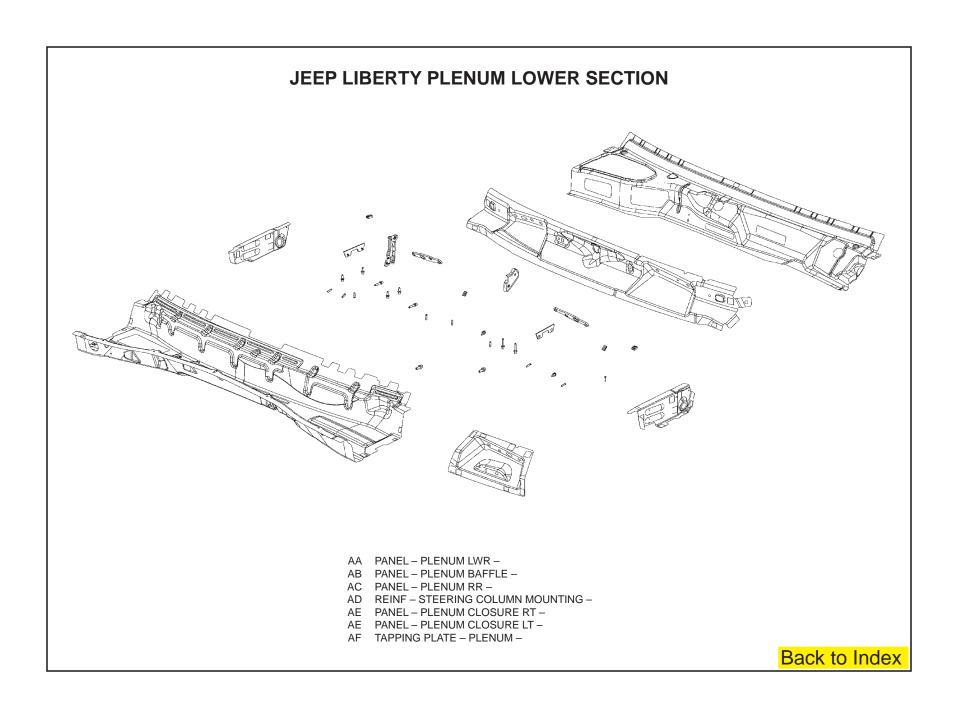
### **INTERIOR**

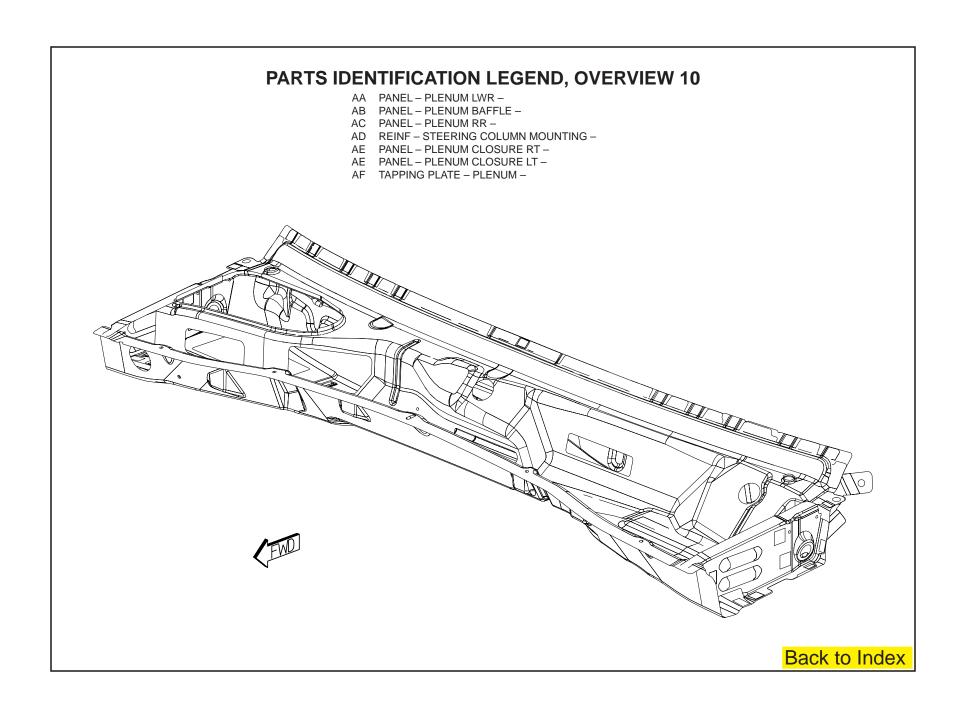
CODE	COLOR
DA	Slate Gray/Pastel Slate Gray
KA	Dark Pebble Beige/Pastel Pebble Beige

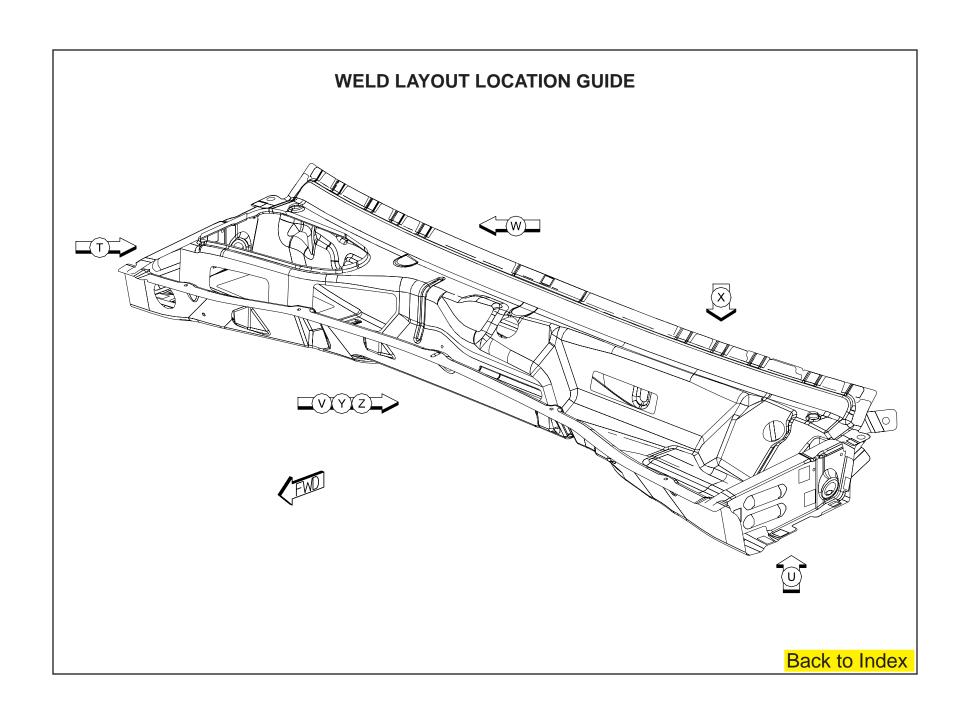
## **JEEP LIBERTY PAINT CODE LOCATION**

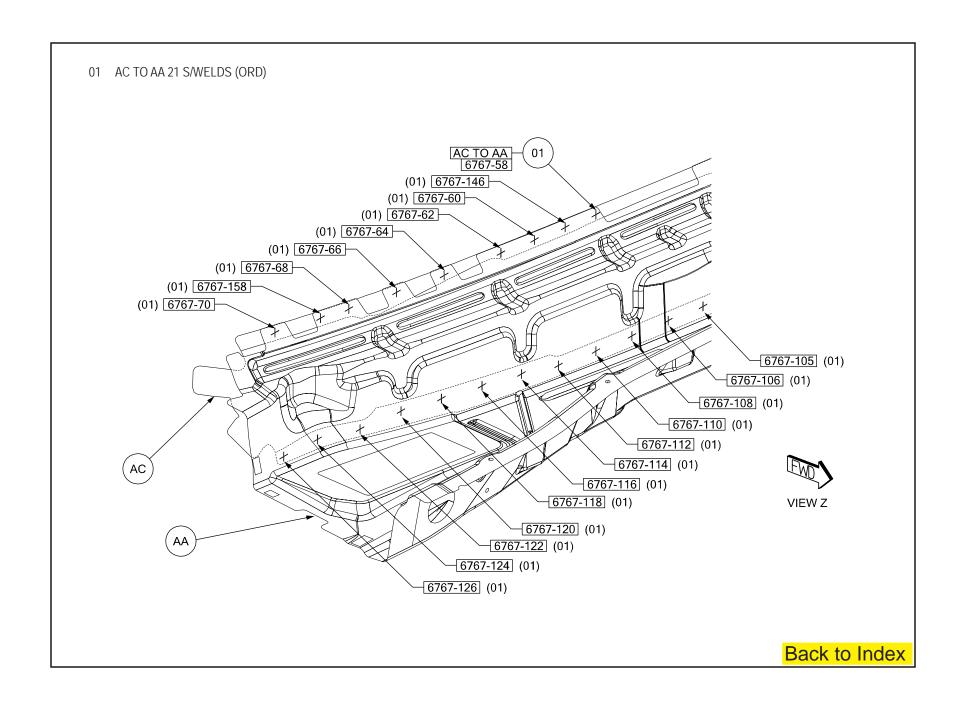


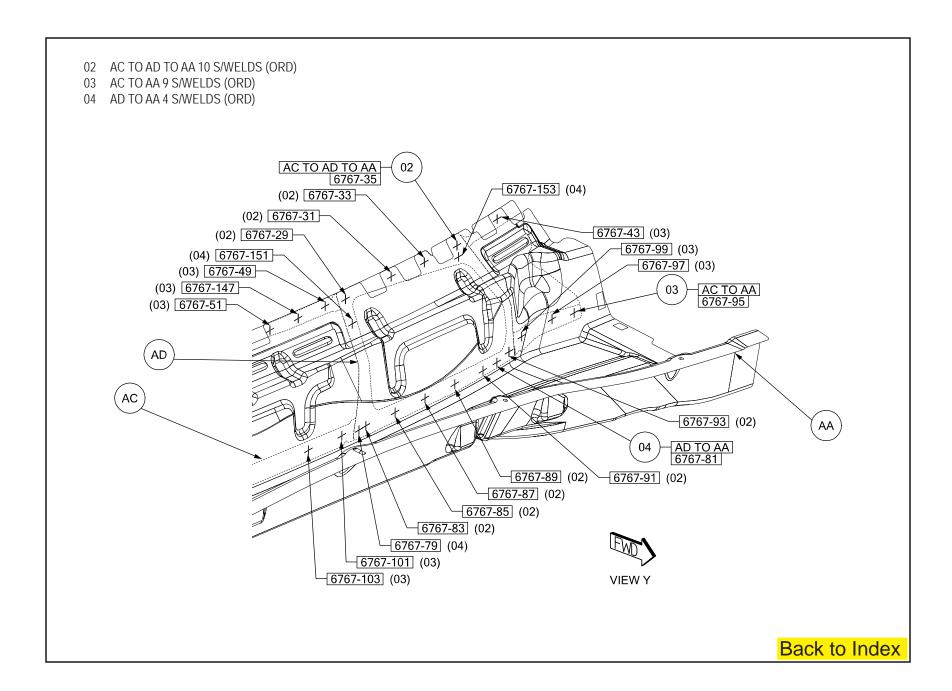
The vehicle certification label identifies the paint code. This label is located on the driver's door shut face.

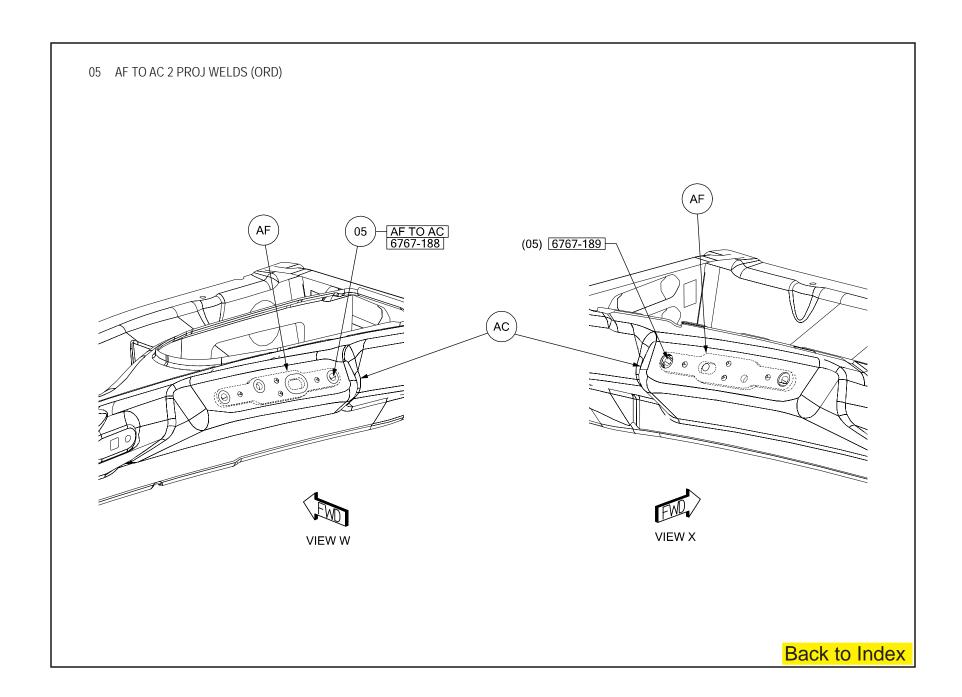


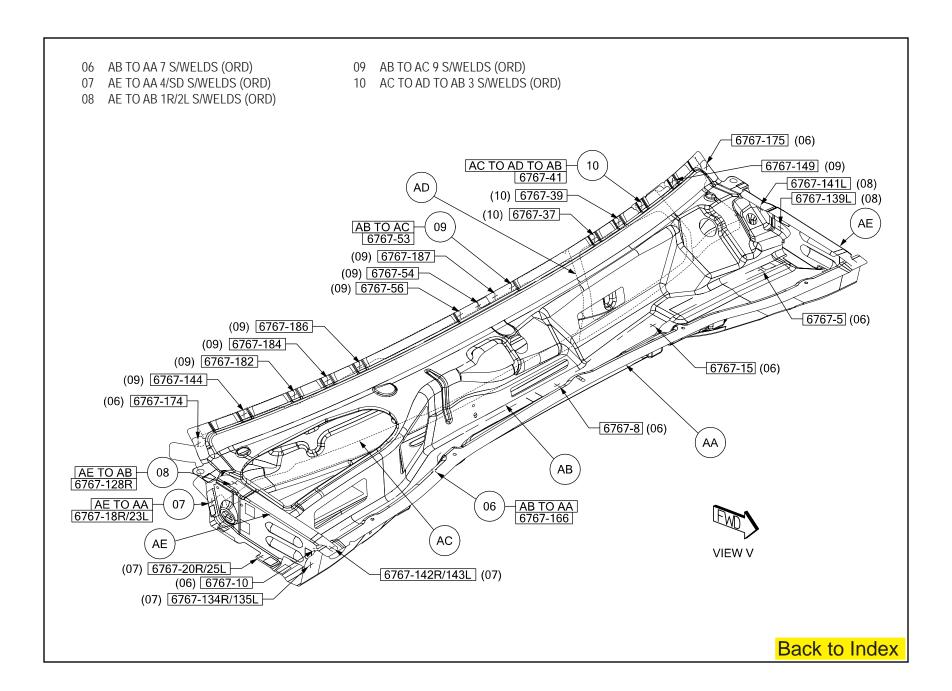


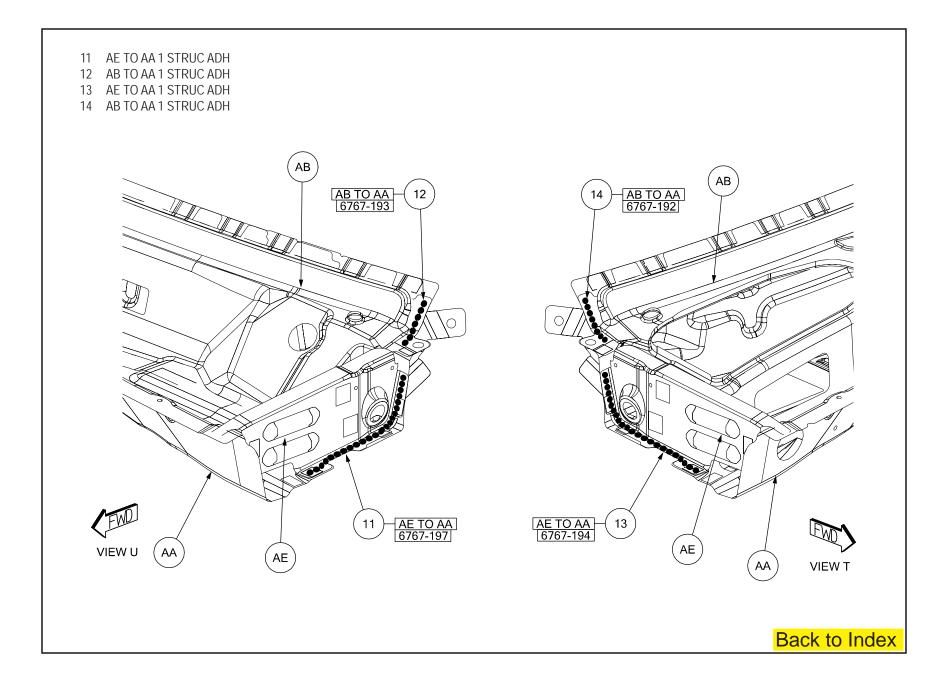




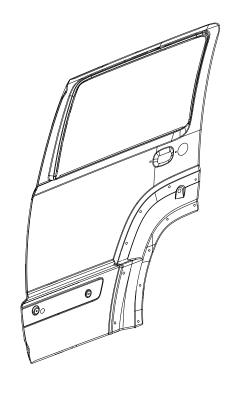


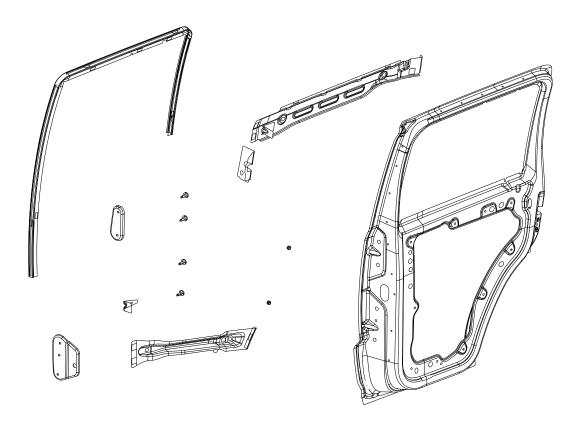












- AA PANEL RR DOOR INR RT -
- AA PANEL RR DOOR INR LT –
- AB CHANNEL RR DOOR GLASS -
- AB CHANNEL RR DOOR GLASS -
- AC REINF RR DOOR BELT OTR RT -
- AC REINF RR DOOR BELT OTR LT -
- AD STUD PLATE DOOR RT -
- AD STUD PLATE DOOR LT -

- AE STUD PLATE RR DOOR RT -
- AE STUD PLATE RR DOOR LT -
- AF NUT/WELD.RD NO.FIN.SPECIAL -
- AF NUT/WELD.RD NO.FIN.SPECIAL -
- AG BEAM IMPACT RR DOOR RT -
- AG BEAM IMPACT RR DOOR LT –
- AH BRACKET GLASS CHANNEL MOUNTING
- AH BRACKET GLASS CHANNEL MOUNTING
- AJ REINF RR DOOR LATCH RT -
- AJ REINF RR DOOR LATCH LT -
- PANEL RR DOOR OTR RT -
- AK PANEL RR DOOR OTR LT -

## PARTS IDENTIFICATION LEGEND, OVERVIEW 25

AA PANEL – RR DOOR INR RT –

AA PANEL – RR DOOR INR LT –

AB CHANNEL - RR DOOR GLASS -

AB CHANNEL - RR DOOR GLASS -

AC REINF – RR DOOR BELT OTR RT –

AC REINF – RR DOOR BELT OTR LT –

AD STUD PLATE - DOOR RT -

AD STUD PLATE - DOOR LT -

AE STUD PLATE - RR DOOR RT -

AE STUD PLATE - RR DOOR LT -

AF NUT/WELD.RD - NO.FIN.SPECIAL -

AF NUT/WELD.RD – NO.FIN.SPECIAL –

AG BEAM – IMPACT RR DOOR RT –

AG BEAM – IMPACT RR DOOR LT –

AH BRACKET - GLASS CHANNEL MOUNTING

\_

AH BRACKET - GLASS CHANNEL MOUNTING

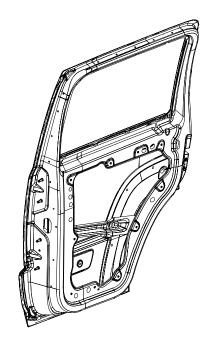
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AJ REINF - RR DOOR LATCH RT -

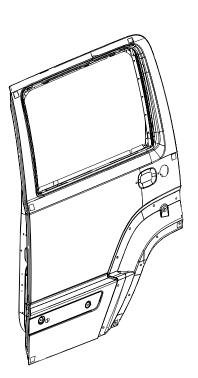
AJ REINF - RR DOOR LATCH LT -

AK PANEL - RR DOOR OTR RT -

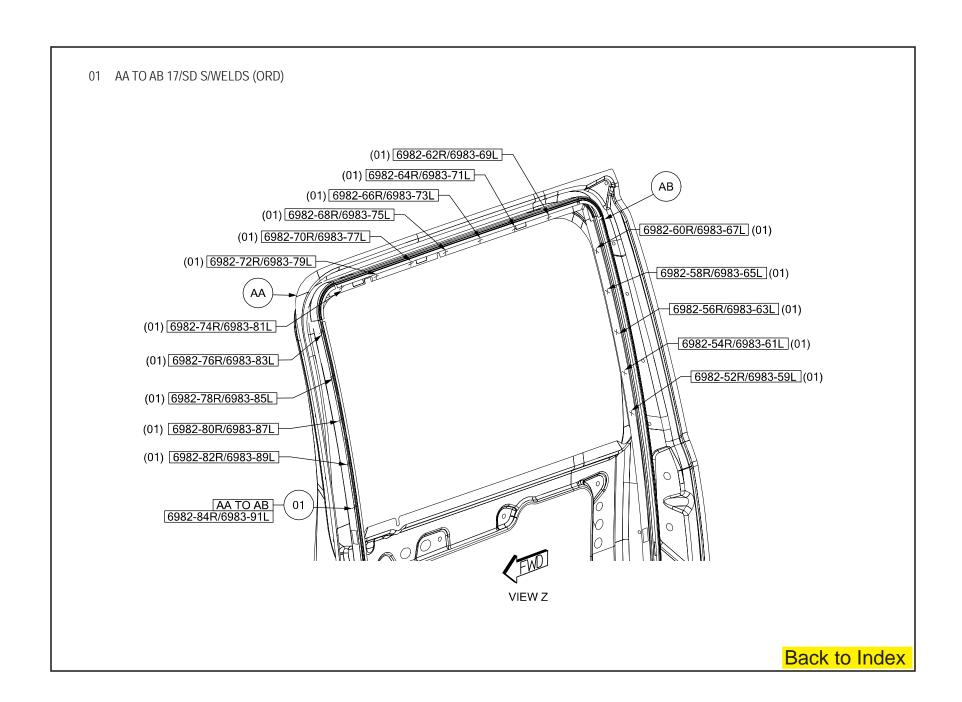
AK PANEL - RR DOOR OTR LT -

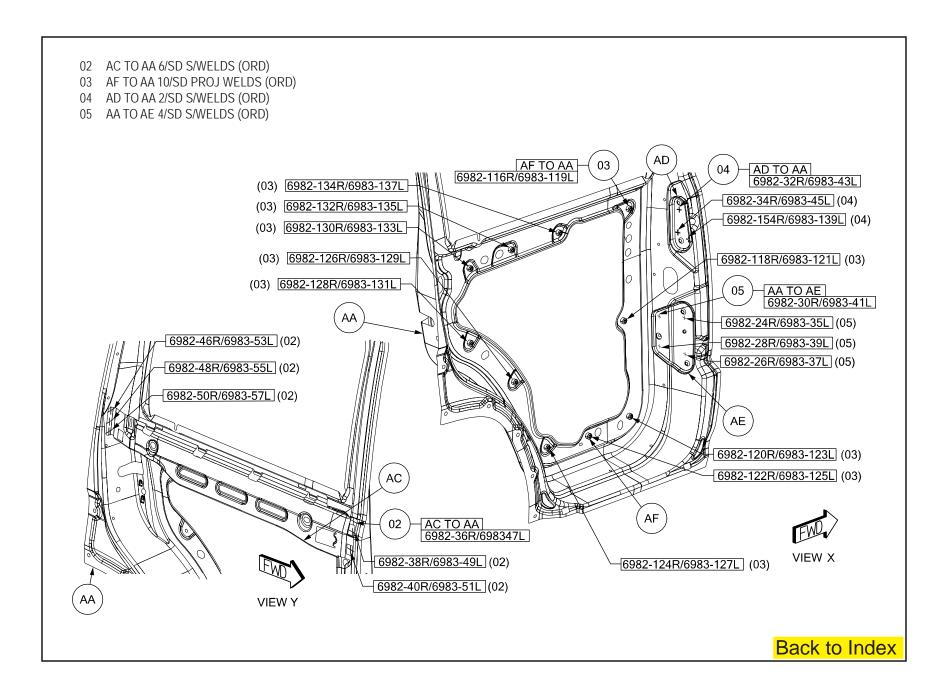


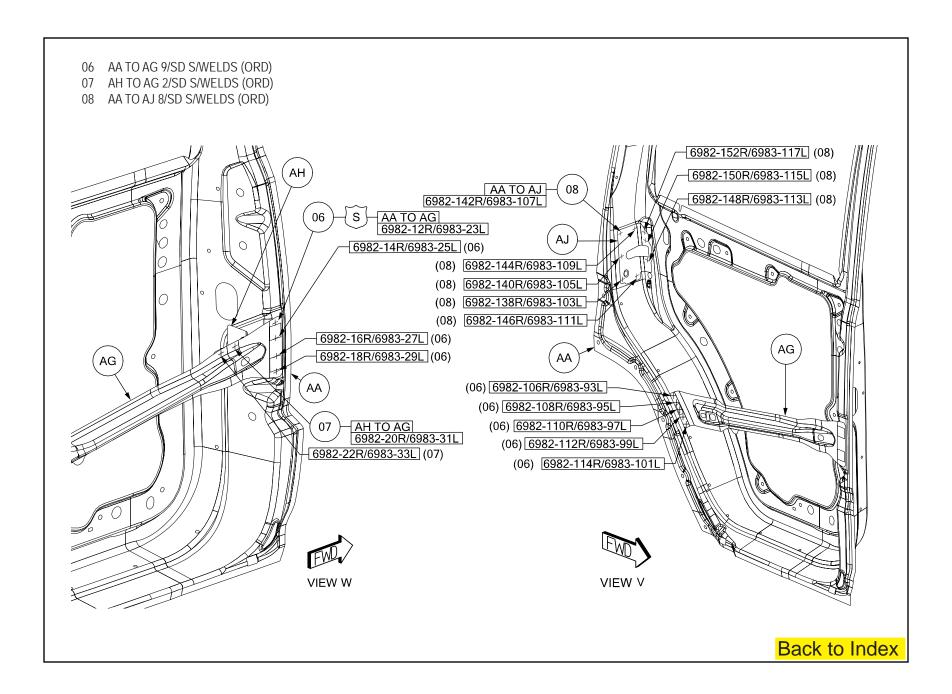


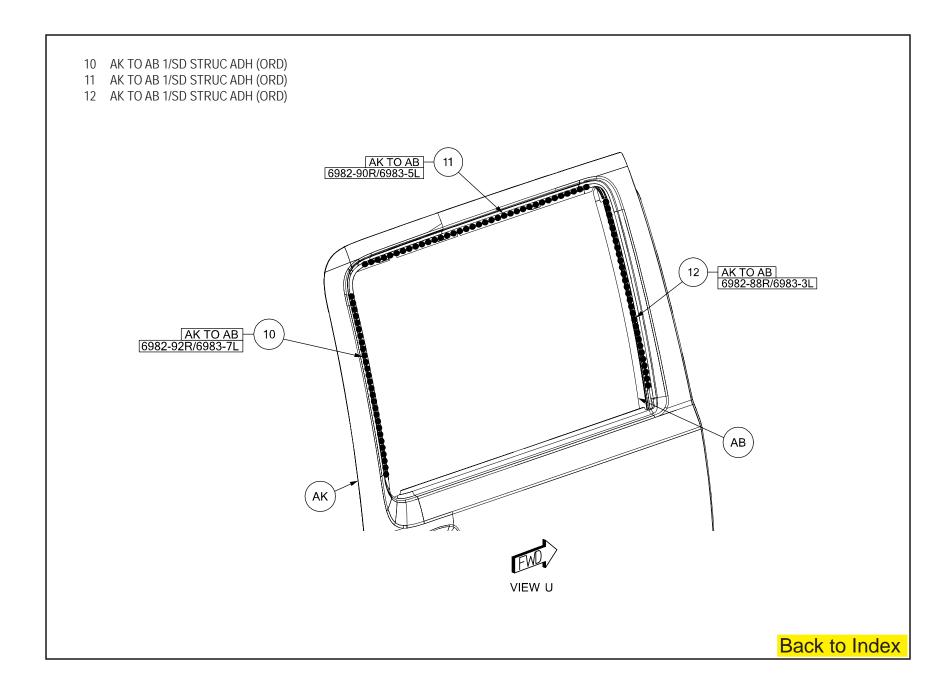


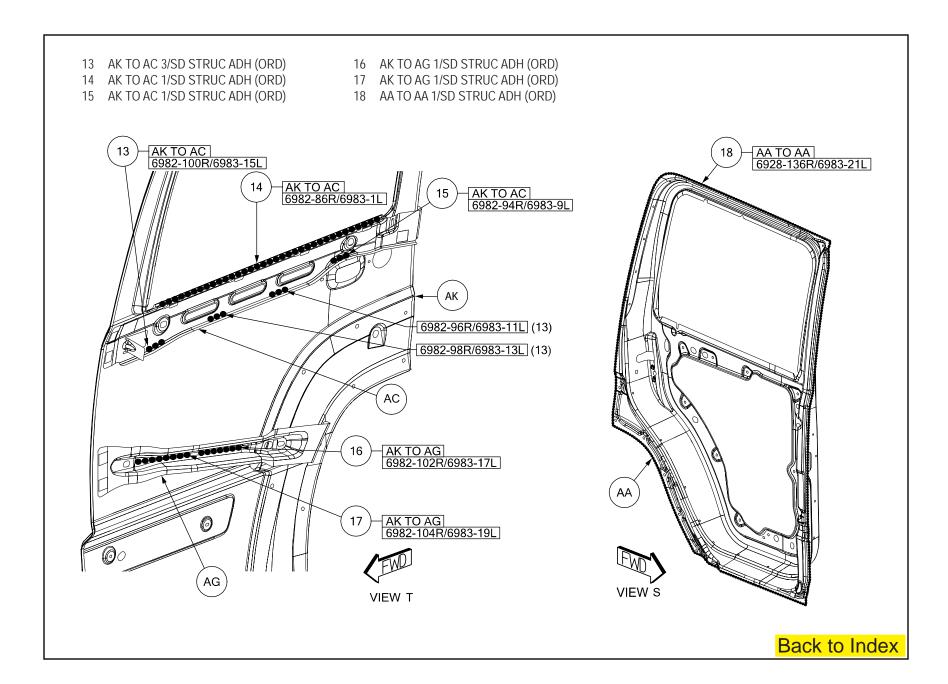
# WELD LAYOUT LOCATION GUIDE Back to Index

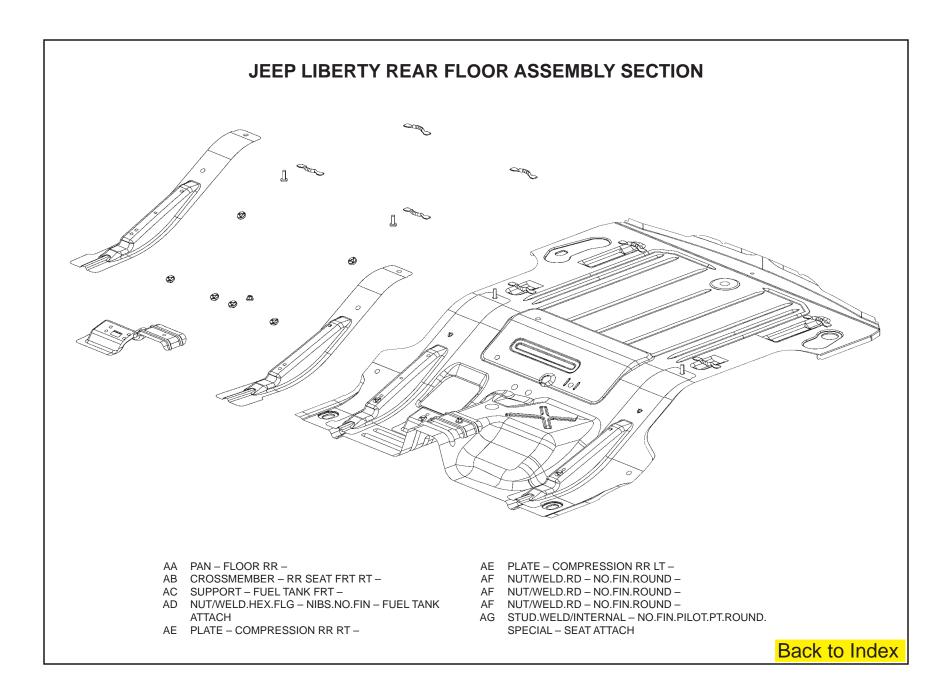












## PARTS IDENTIFICATION LEGEND, OVERVIEW 5

AA PAN – FLOOR RR –

AB CROSSMEMBER - RR SEAT FRT RT -

AC SUPPORT – FUEL TANK FRT –

AD NUT/WELD.HEX.FLG – NIBS.NO.FIN – FUEL TANK ATTACH

AE PLATE - COMPRESSION RR RT -

AE PLATE - COMPRESSION RR LT -

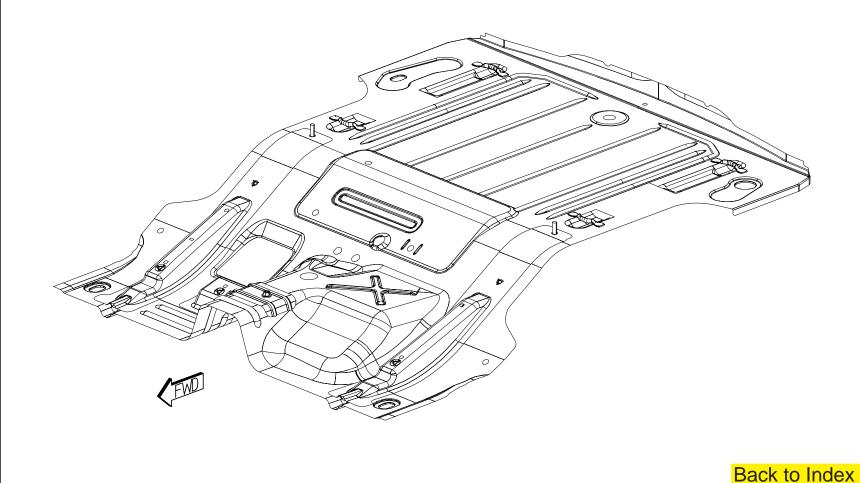
AF NUT/WELD.RD - NO.FIN.ROUND -

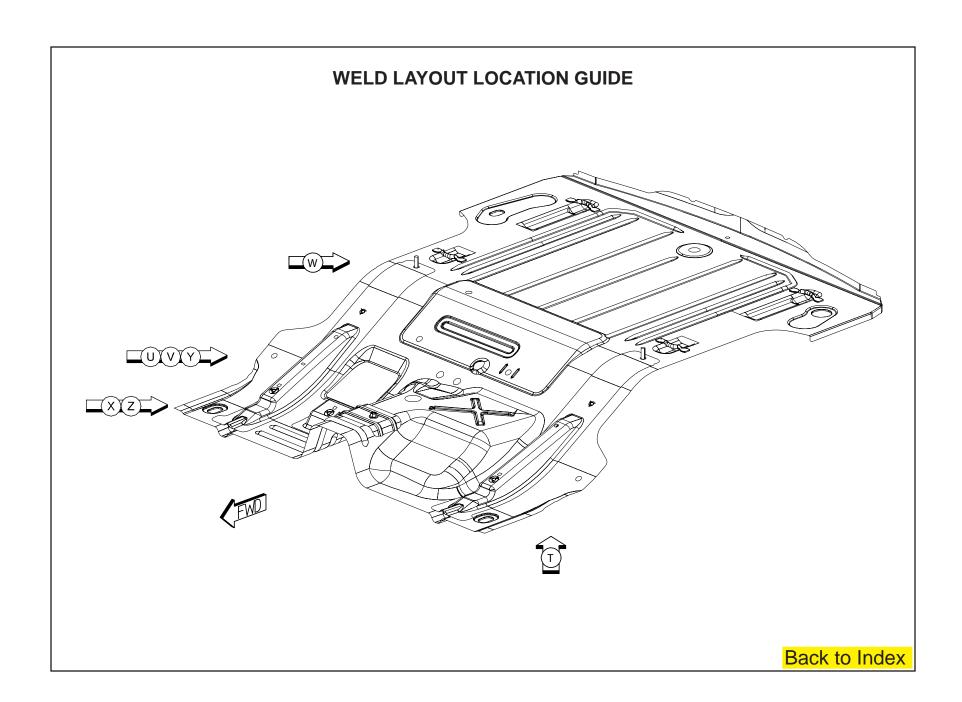
AF NUT/WELD.RD - NO.FIN.ROUND -

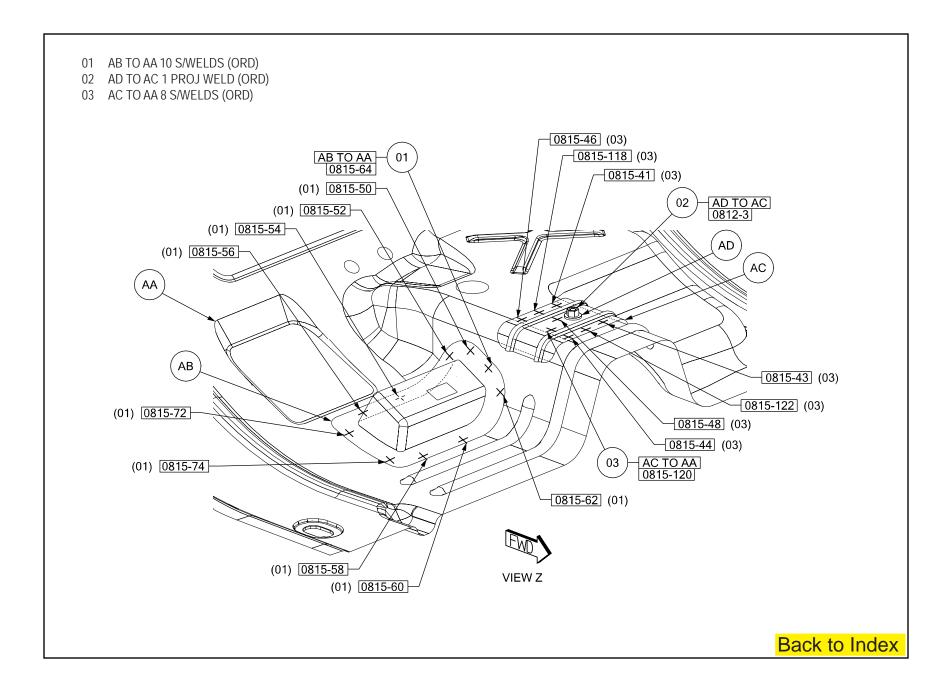
AF NUT/WELD.RD – NO.FIN.ROUND –

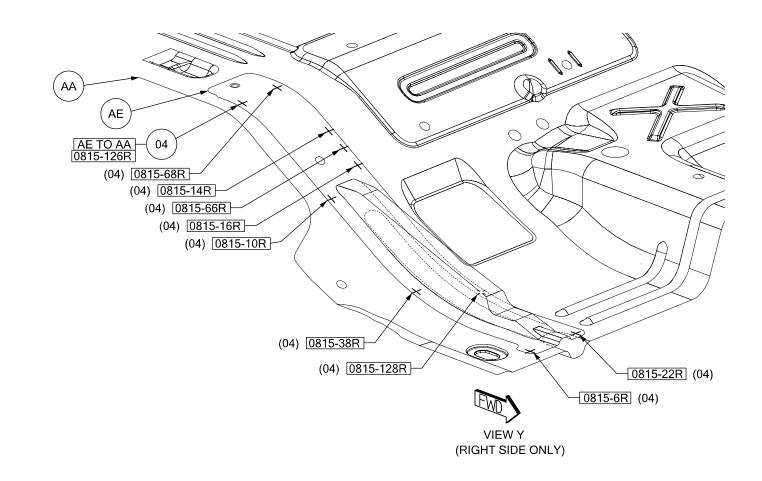
AG STUD.WELD/INTERNAL – NO.FIN.PILOT.PT.ROUND.

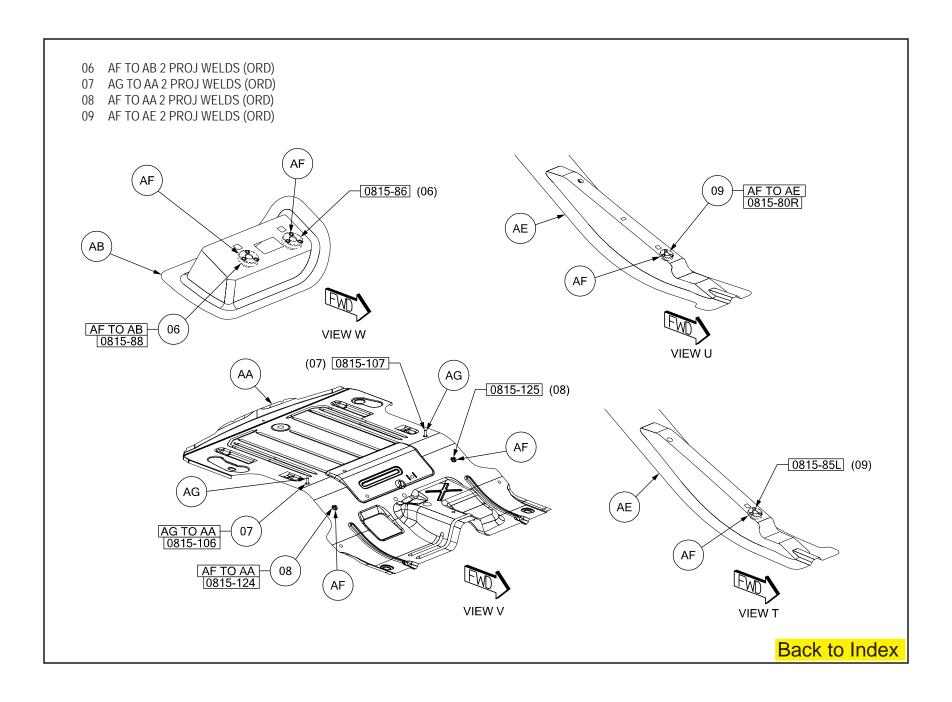
SPECIAL – SEAT ATTACH



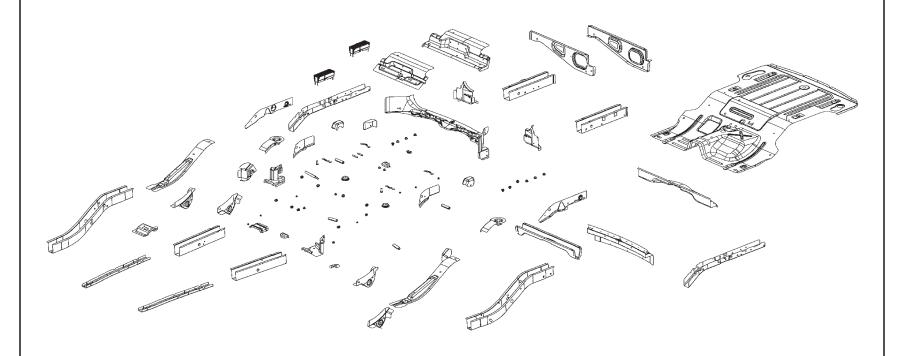








### JEEP LIBERTY REAR FLOOR COMPLETE SECTION



- AA PAN FLOOR RR -
- AB RAIL RR RT -
- AB RAIL RR LT -
- AC PLATE COMPRESSION RR RT -
- AC PLATE COMPRESSION RR LT -
- AD RAIL RR RAIL SHORT RR RT -
- AD RAIL RR RAIL SHORT RR LT -
- AE BRACKET CONTROL ARM UPR -
- AE BRACKET CONTROL ARM UPR -
- AF TORQUE BOX RR RT -
- AF TORQUE BOX RR LT -
- AG REINF RR RAIL RR -
- AG REINF RR RAIL RR-

- AH CROSSMEMBER RR SEAT RR -
- AJ REINF COMPRESSION PLATE CTR -
- AK CROSSMEMBER RR SUSPENSION TRACK BAR TO RAIL –
- AL CROSSMEMBER RR SUSPENSION
- TRACK BAR TO RAIL -
- AM CROSSMEMBER SPARE TIRE -
- AN CROSSMEMBER GATE OPENING -
- AP CROSSMEMBER RR OTR -
- AR CROSSMEMBER RR INNER RT -
- AS REINF D-PILLAR RT -
- AS REINF D-PILLAR LT -
- AT BULKHEAD CROSSMEMBER RR RT -

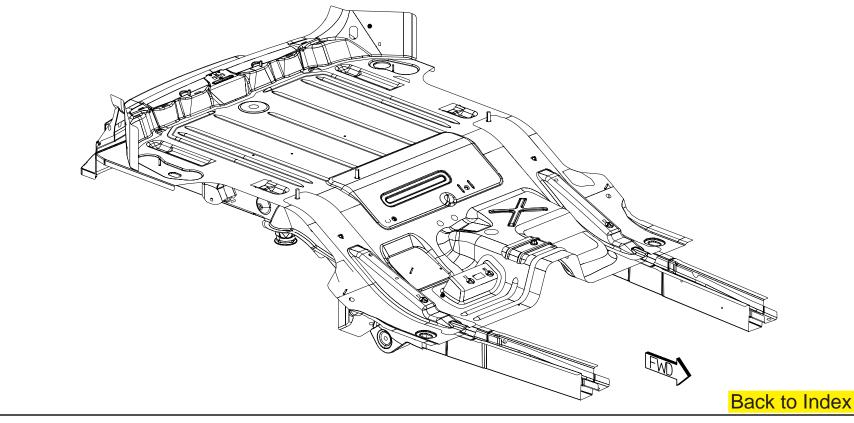
- AT BULKHEAD CROSSMEMBER RR LT -
- AU NUT/WELD.HEX NO.FIN BRAKE BRACKET ATTACH
- AU NUT/WELD.HEX NO.FIN BRAKE LINE ATTACH
- AU NUT/WELD.HEX NO.FIN BRAKE LINE ATTACH
- ${\sf AV-STUD.WELD/EXTERNAL-SPECIAL}$
- WIRING CLIP ATTACH
  AW STUD.WELD/EXTERNAL FREE.HEADER.
- PT.SPECIAL GROUND ATTACH
- AX STUD.WELD/EXTERNAL HEADER.PT.PNT. CUTTER.SPECIAL – LOAD FLOOR ATTACH

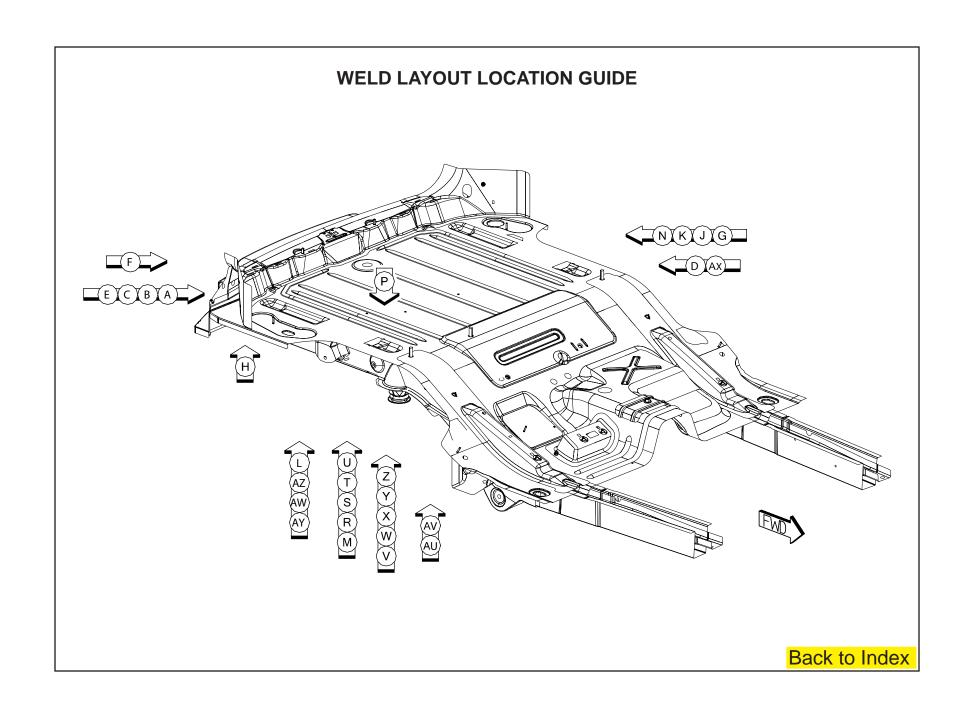


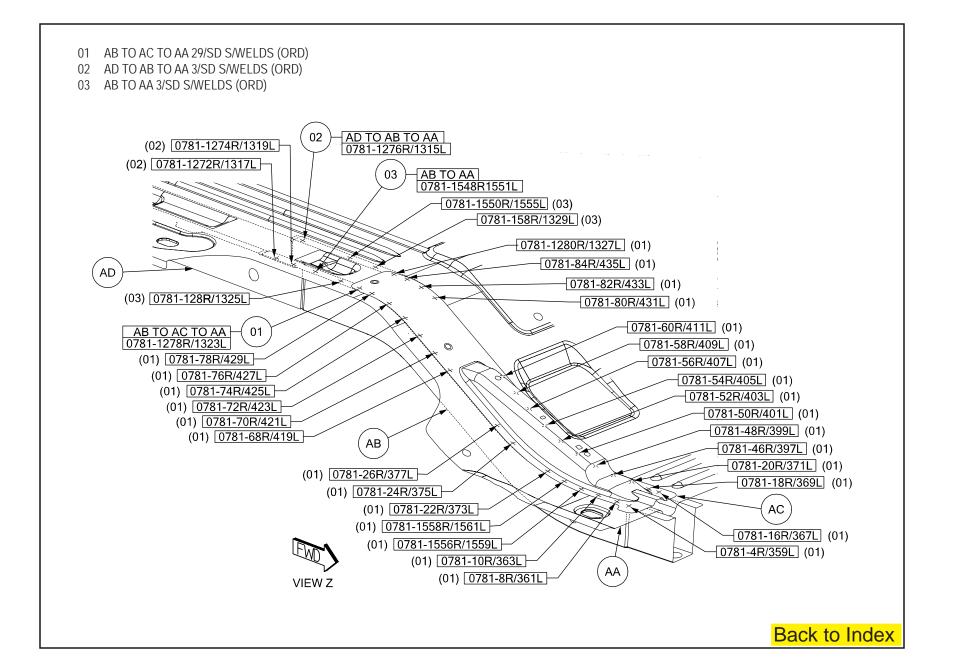
- AA PAN FLOOR RR –
- AB RAIL RR RT -
- AB RAIL RR LT -
- AC PLATE COMPRESSION RR RT -
- AC PLATE COMPRESSION RR LT -
- AD RAIL RR RAIL SHORT RR RT -
- AD RAIL RR RAIL SHORT RR LT -
- AE BRACKET CONTROL ARM UPR -
- AE BRACKET CONTROL ARM UPR -
- AF TORQUE BOX RR RT –
- AF TORQUE BOX RR LT -
- AG REINF RR RAIL RR -
- AG REINF RR RAIL RR-

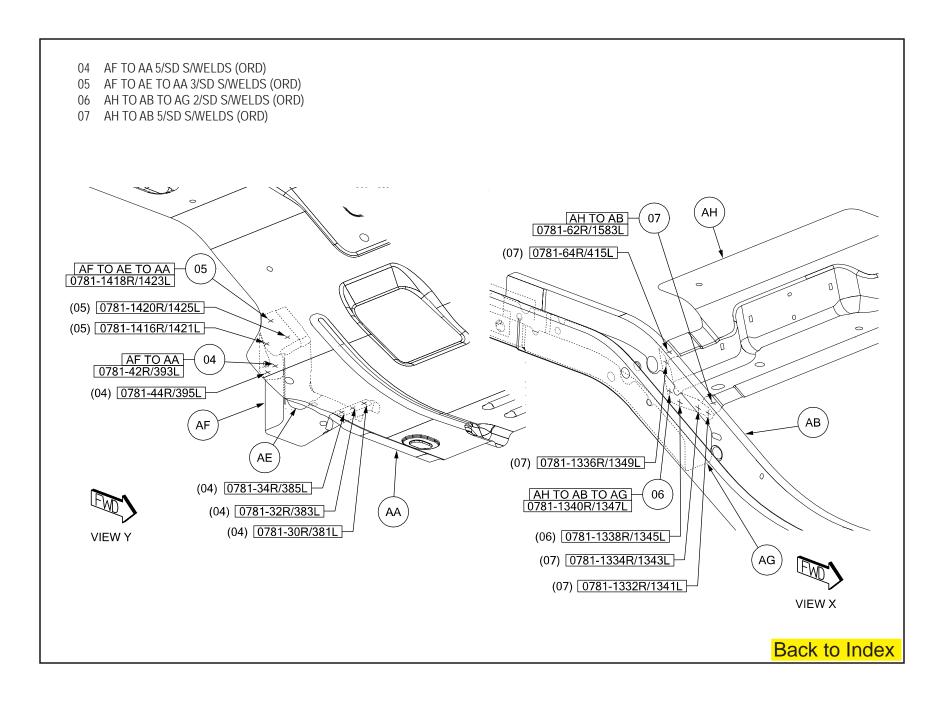
- AH CROSSMEMBER RR SEAT RR -
- AJ REINF COMPRESSION PLATE CTR -
- AK CROSSMEMBER RR SUSPENSION TRACK BAR TO RAIL –
- AL CROSSMEMBER RR SUSPENSION TRACK BAR TO RAIL –
- AM CROSSMEMBER SPARE TIRE -
- AN CROSSMEMBER GATE OPENING -
- AP CROSSMEMBER RR OTR -
- AR CROSSMEMBER RR INNER RT –
- AS REINF D-PILLAR RT –
- AS REINF D-PILLAR LT -
- AT BULKHEAD CROSSMEMBER RR RT -

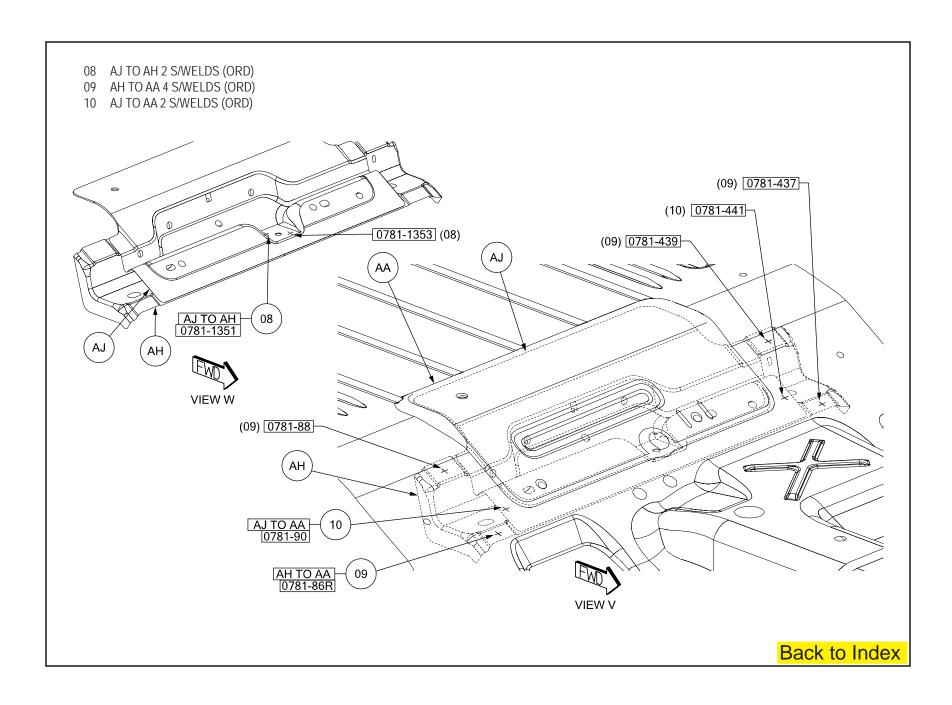
- AT BULKHEAD CROSSMEMBER RR LT -
- AU NUT/WELD.HEX NO.FIN BRAKE BRACKET ATTACH
- AU NUT/WELD.HEX NO.FIN BRAKE LINE ATTACH
- AU NUT/WELD.HEX NO.FIN BRAKE LINE ATTACH
- AV STUD.WELD/EXTERNAL SPECIAL WIRING CLIP ATTACH
- AW STUD.WELD/EXTERNAL FREE.HEADER. PT.SPECIAL – GROUND ATTACH
- AX STUD.WELD/EXTERNAL HEADER.PT.PNT. CUTTER.SPECIAL – LOAD FLOOR ATTACH

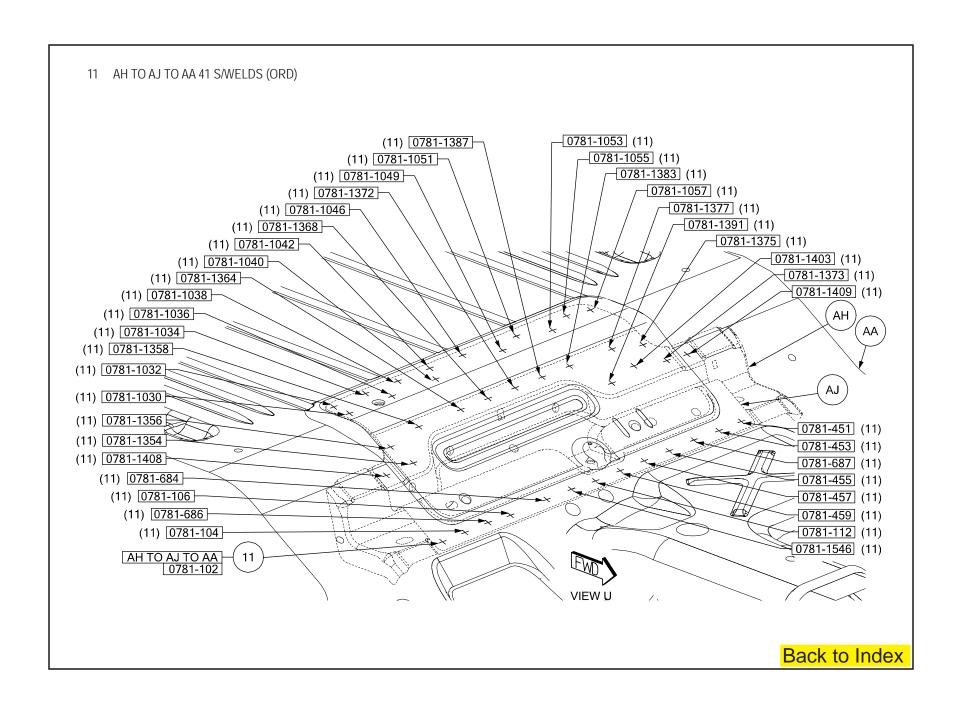


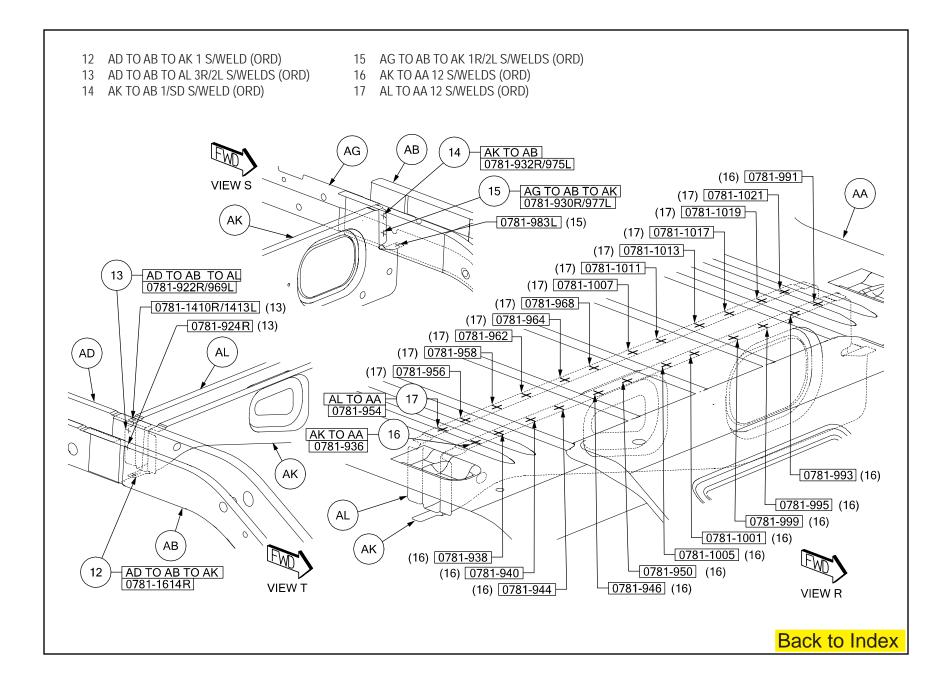


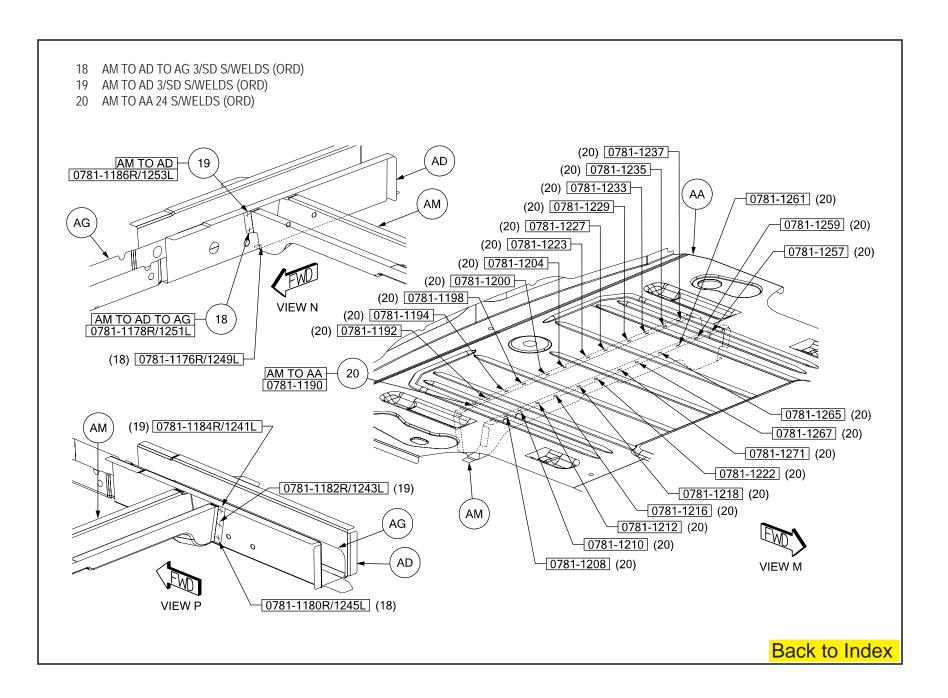


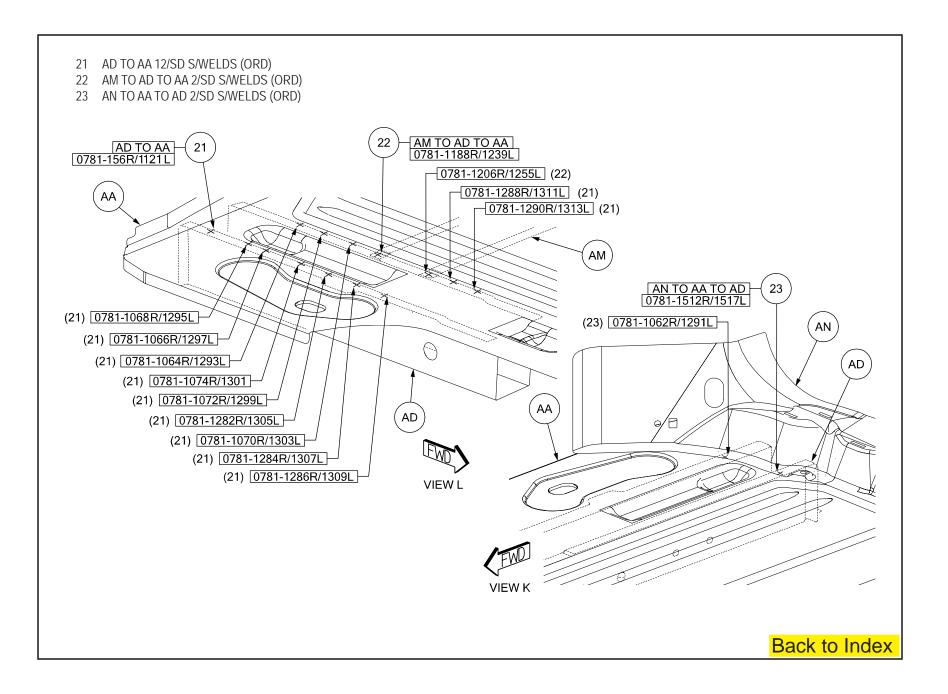


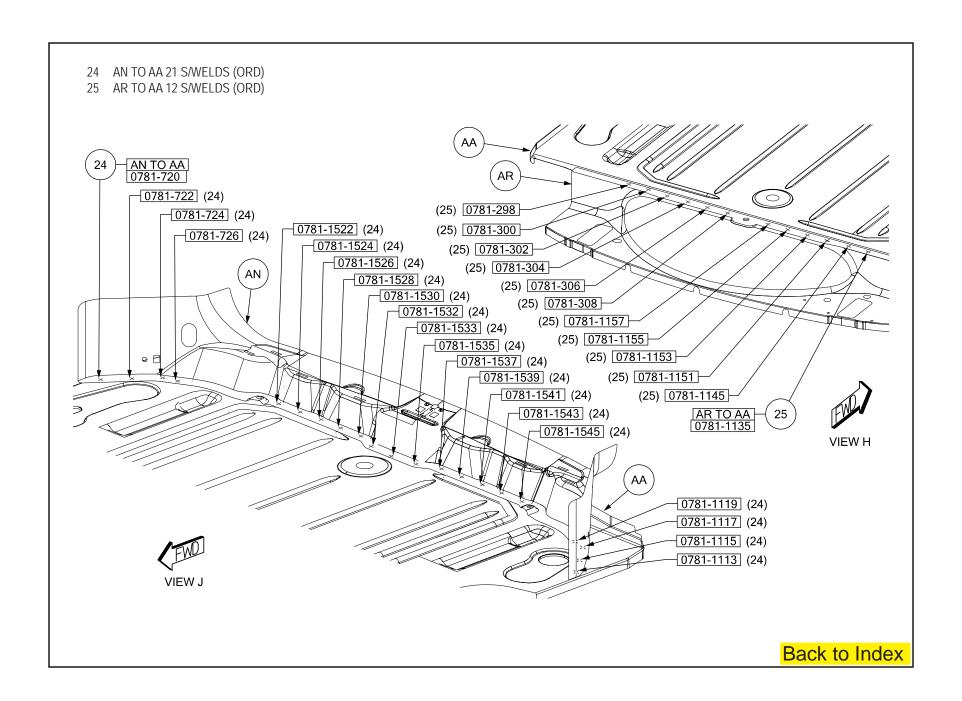


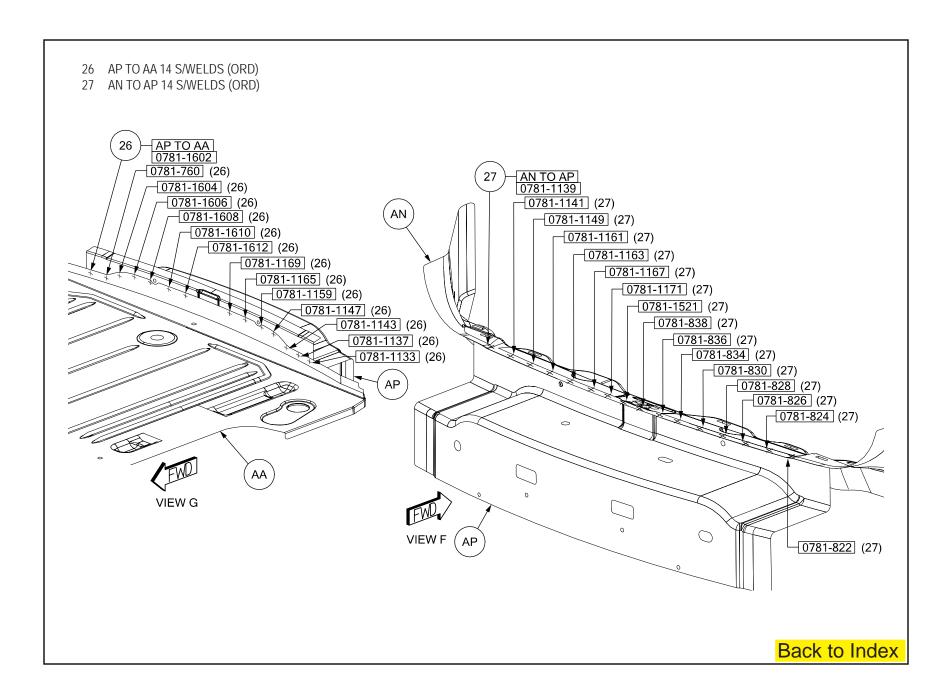


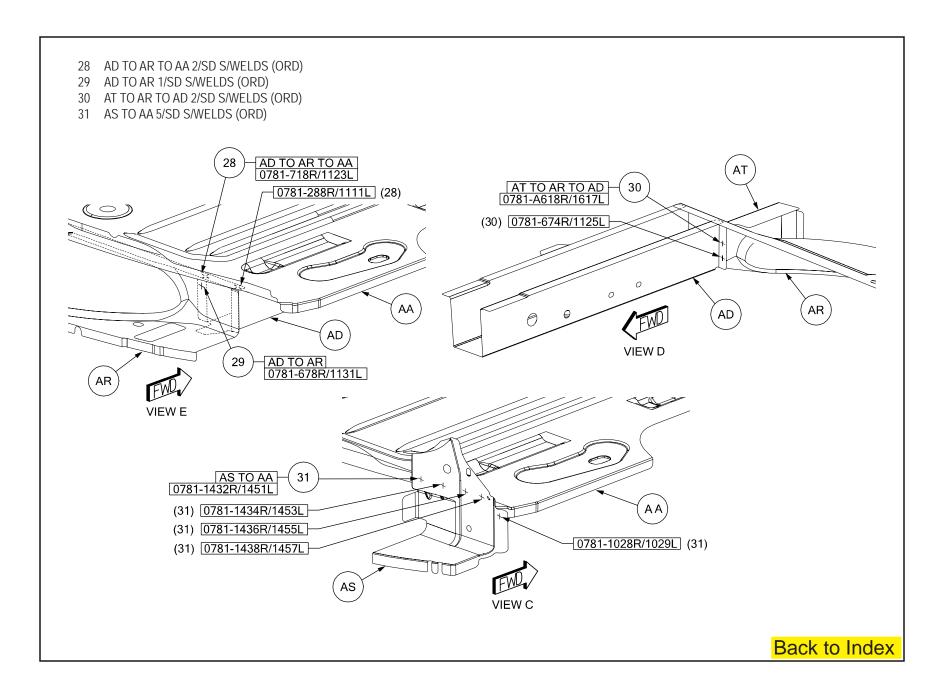


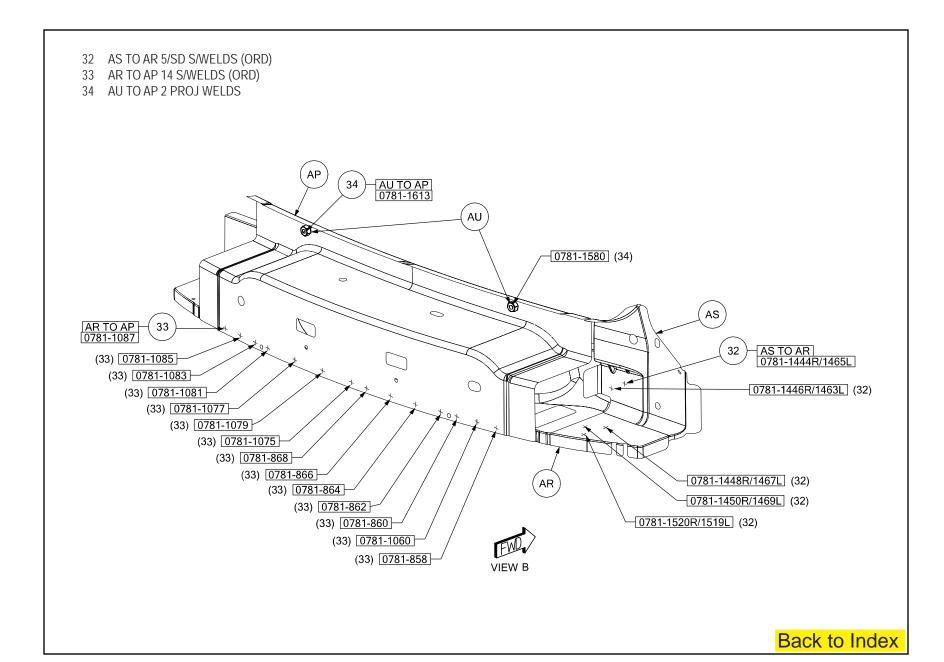


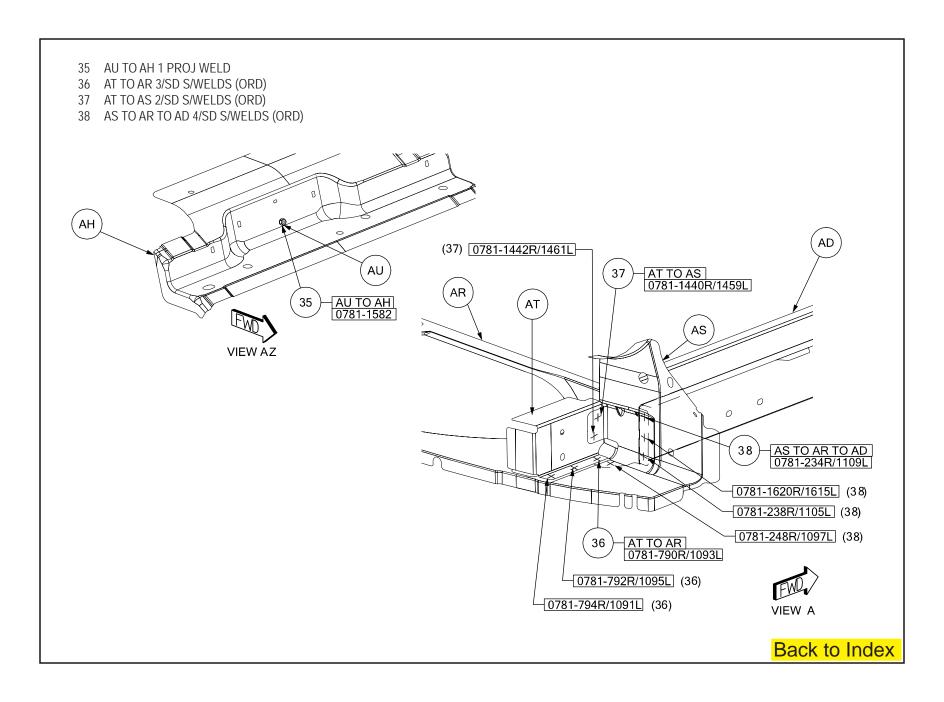


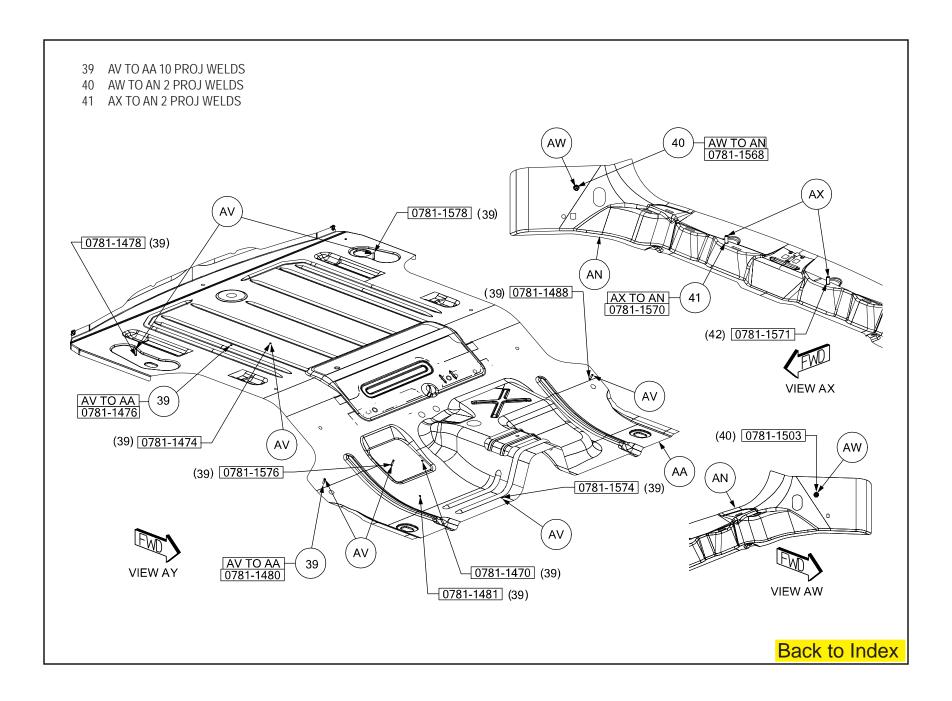












42 AA TO AC TO AH TO AK TO AD 1 STRUC ADH 46 AP TO AA TO AS 1 STRUC ADH

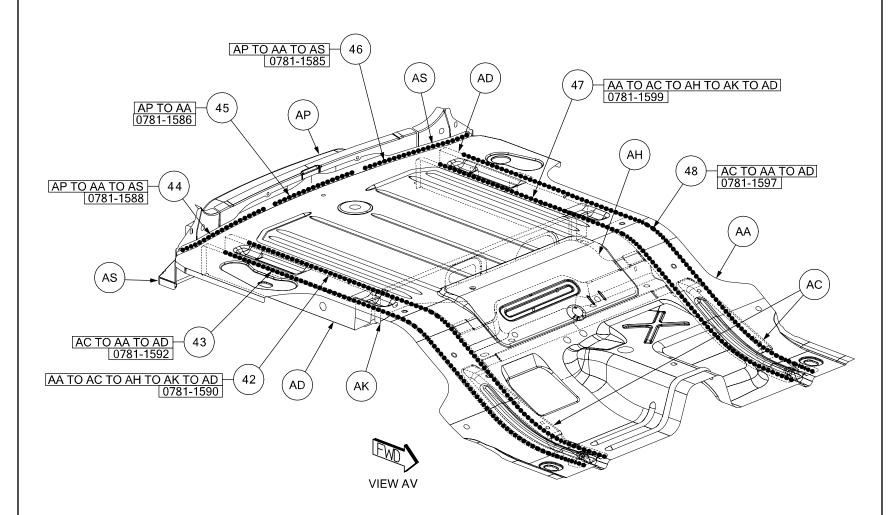
43 AC TO AA TO AD 1 STRUC ADH

44 AP TO AA TO AS 1 STRUC ADH

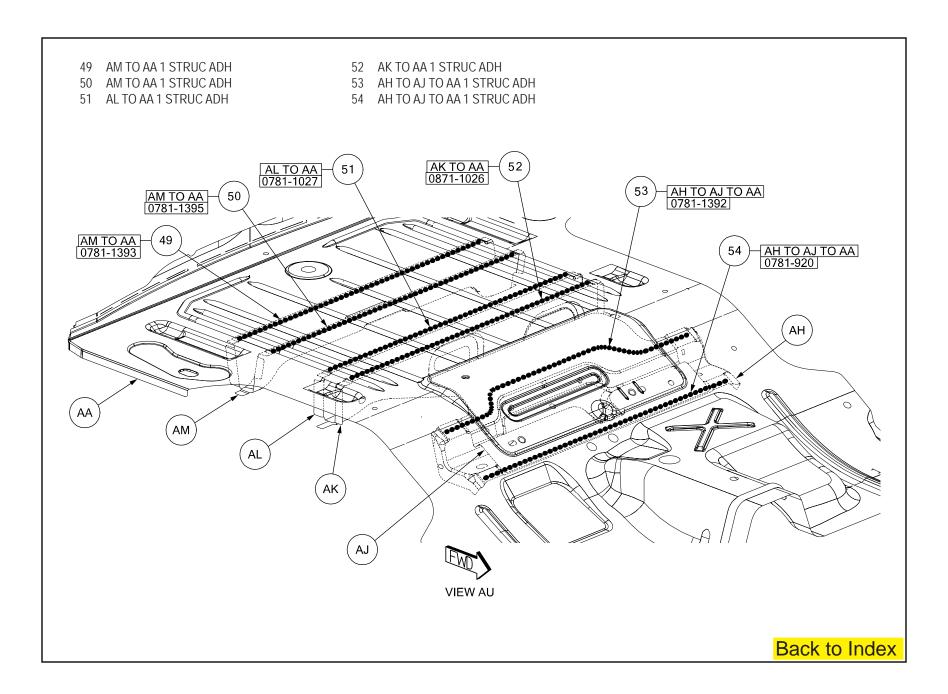
45 AP TO AA 1 STRUC ADH

47 AA TO AC TO AH TO AK TO AD 1 STRUC ADH

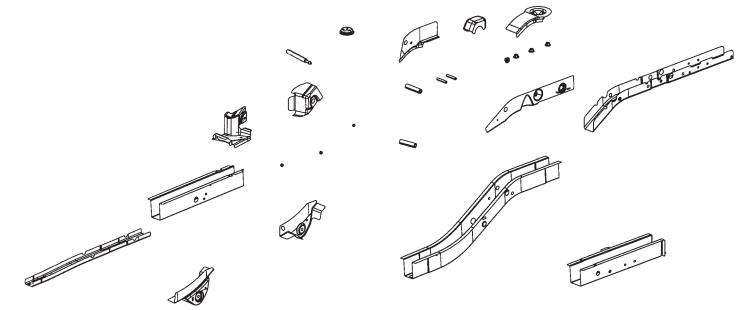
48 AC TO AA TO AD 1 STRUC ADH



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- AA RAIL RR RAIL FRT RT -
- AA RAIL RR RAIL FRT LT -
- AB REINF RR RAIL CTR -
- AC RAIL RR RT -
- AC RAIL RR LT -
- AD NUT/WELD.HEX NO.FIN EXHAUST HANGER ATTACH
- AD NUT/WELD.HEX NO.FIN EXHAUST HANGER ATTACH
- AE NUT/WELD.HEX.FLG NIBS.NO.FIN TIRE WINCH ATTACH
- AE NUT/WELD.HEX.FLG NIBS.NO.FIN FUEL TANK ATTACH
- AE NUT/WELD.HEX.FLG NIBS.NO.FIN FUEL TANK ATTACH
- AF BRACKET CONTROL ARM MOUNTING RR LWR OTR RT –
- AF BRACKET CONTROL ARM MOUNTING RR LWR OTR LT –

- AG TORQUE BOX RR RT -
- AG TORQUE BOX RR LT –
- AH BRACKET CONTROL ARM MOUNTING RR LWR INR RT –
- AH BRACKET CONTROL ARM MOUNTING RR LWR INR LT –
- AJ BRACKET CONTROL ARM UPR -
- AJ BRACKET CONTROL ARM UPR –
- AK NUT/WELD.HEX NO.FIN -
- AL REINF RR RAIL RR -
- AL REINF RR RAIL RR –
- AM REINF SPRING MTG -
- AM REINF SPRING MTG -
- AN BRACKET COIL SPRING SEAT RT -
- AN BRACKET COIL SPRING SEAT LT -
- AP RAIL RR RAIL SHORT RR RT -
- AP RAIL RR RAIL SHORT RR LT -

MOUNTING RR RT -

AR BRACKET – SHOCK ABSORBER

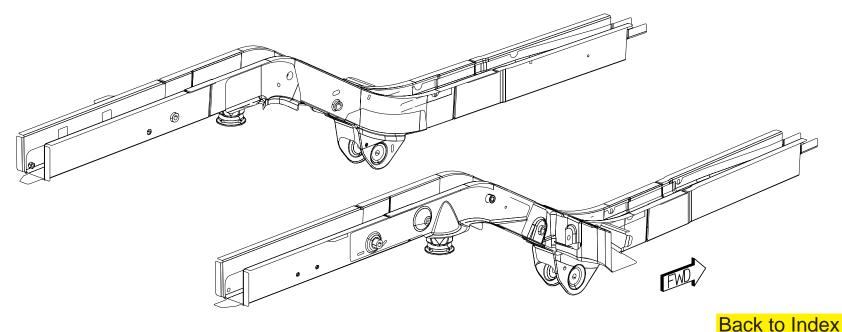
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- AS REINF SHOCK MOUNTING RR RT -
- AS REINF SHOCK MOUNTING RR LT -
- AT SLEEVE SUSPENSION -
- AT SLEEVE SUSPENSION -
- AU SLEEVE SHOCK & EXHAUST MTG -
- AV SLEEVE SUSPENSION -
- AV SLEEVE SUSPENSION -
- AW TUBE SPACER -
- AX NUT/WELD.HEX.FLG NIBS.NO.FIN TRAILER HITCH ATTACH
- AX NUT/WELD.HEX.FLG NIBS.NO.FIN TRAILER HITCH ATTACH

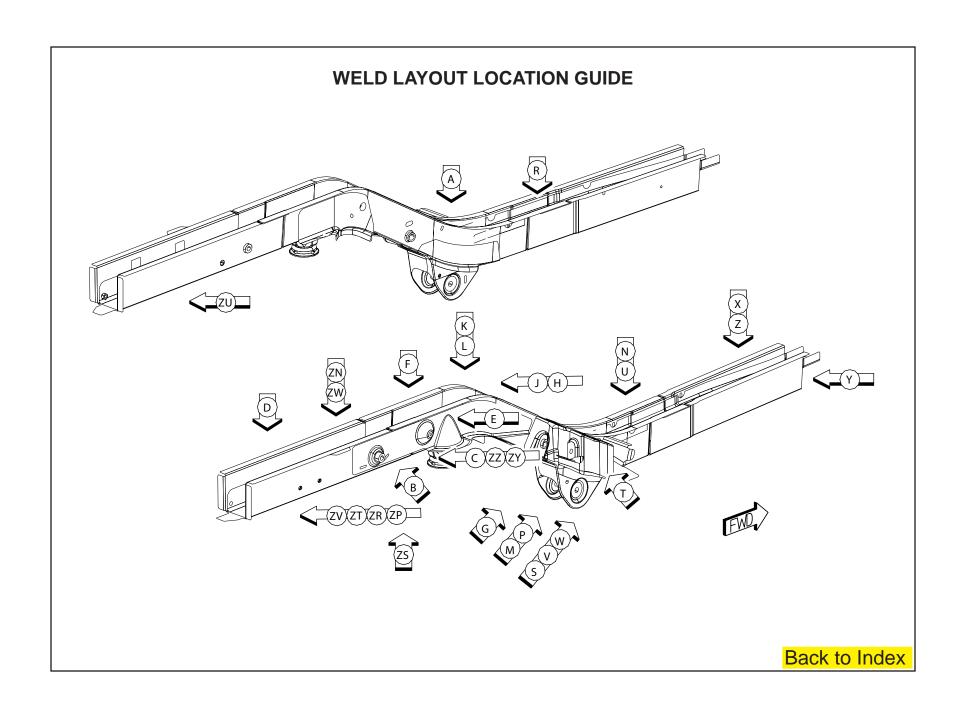
## PARTS IDENTIFICATION LEGEND, OVERVIEW 4

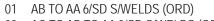
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- AA RAIL RR RAIL FRT LT –
- AB REINF RR RAIL CTR -
- AC RAIL RR RT -
- AC RAIL RR LT -
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- AD NUT/WELD.HEX NO.FIN EXHAUST HANGER ATTACH
- AE NUT/WELD.HEX.FLG NIBS.NO.FIN TIRE WINCH ATTACH
- AE NUT/WELD.HEX.FLG NIBS.NO.FIN FUEL TANK ATTACH
- AE NUT/WELD.HEX.FLG NIBS.NO.FIN FUEL TANK ATTACH
- AF BRACKET CONTROL ARM MOUNTING RR LWR OTR RT –
- AF BRACKET CONTROL ARM MOUNTING RR LWR OTR LT –

- AG TORQUE BOX RR RT -
- AG TORQUE BOX RR LT -
- AH BRACKET CONTROL ARM MOUNTING RR LWR INR RT –
- AH BRACKET CONTROL ARM MOUNTING RR LWR INR LT –
- AJ BRACKET CONTROL ARM UPR –
- AJ BRACKET CONTROL ARM UPR -
- AK NUT/WELD.HEX NO.FIN -
- AL REINF RR RAIL RR -
- AL REINF RR RAIL RR –
- AM REINF SPRING MTG -AM REINF - SPRING MTG -
- AN BRACKET COIL SPRING SEAT RT –
- AN BRACKET COIL SPRING SEAT LT -
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- AP RAIL RR RAIL SHORT RR LT -
- AR BRACKET SHOCK ABSORBER MOUNTING RR RT –

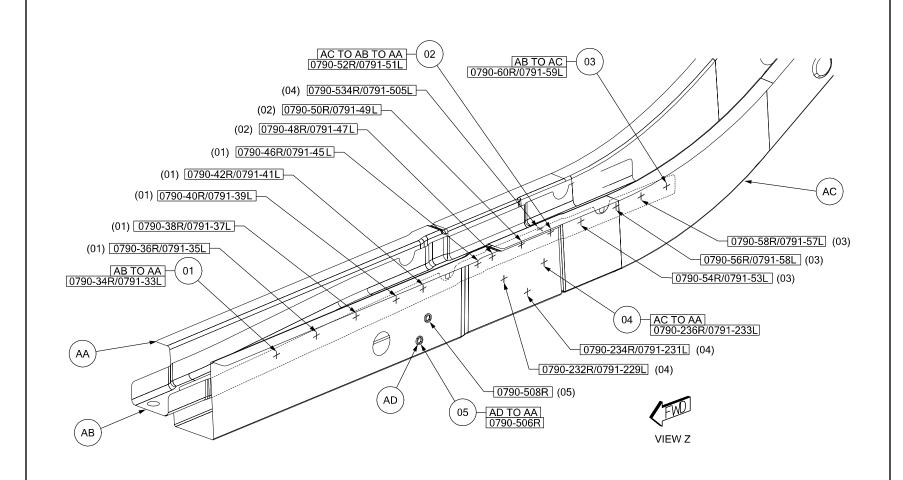
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- AT SLEEVE SUSPENSION -
- AU SLEEVE SHOCK & EXHAUST MTG -
- AV SLEEVE SUSPENSION -
- AV SLEEVE SUSPENSION -
- AW TUBE SPACER -
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- AX NUT/WELD.HEX.FLG NIBS.NO.FIN
- TRAILER HITCH ATTACH



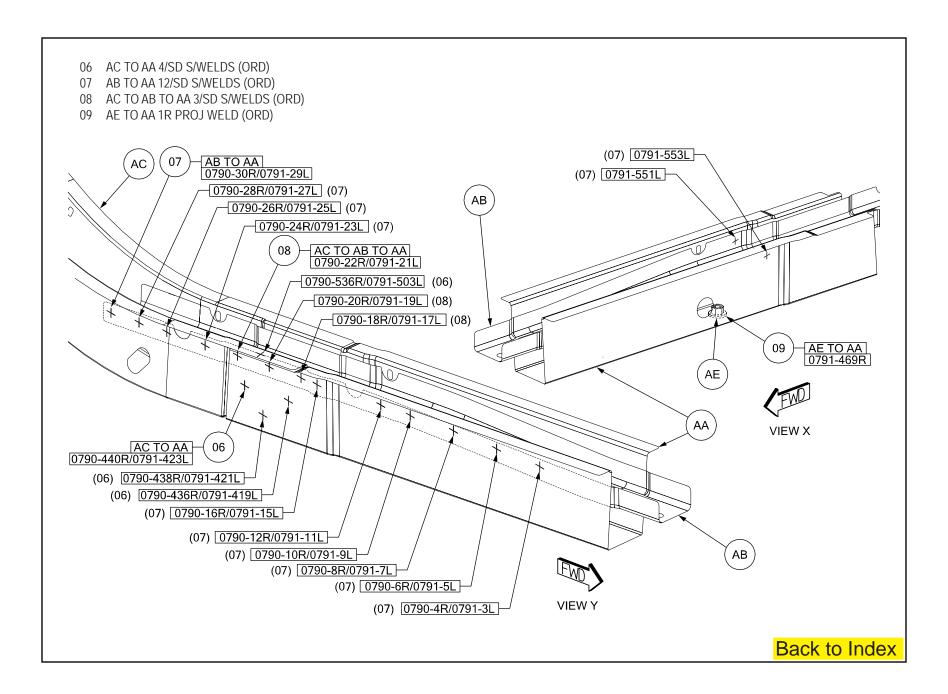


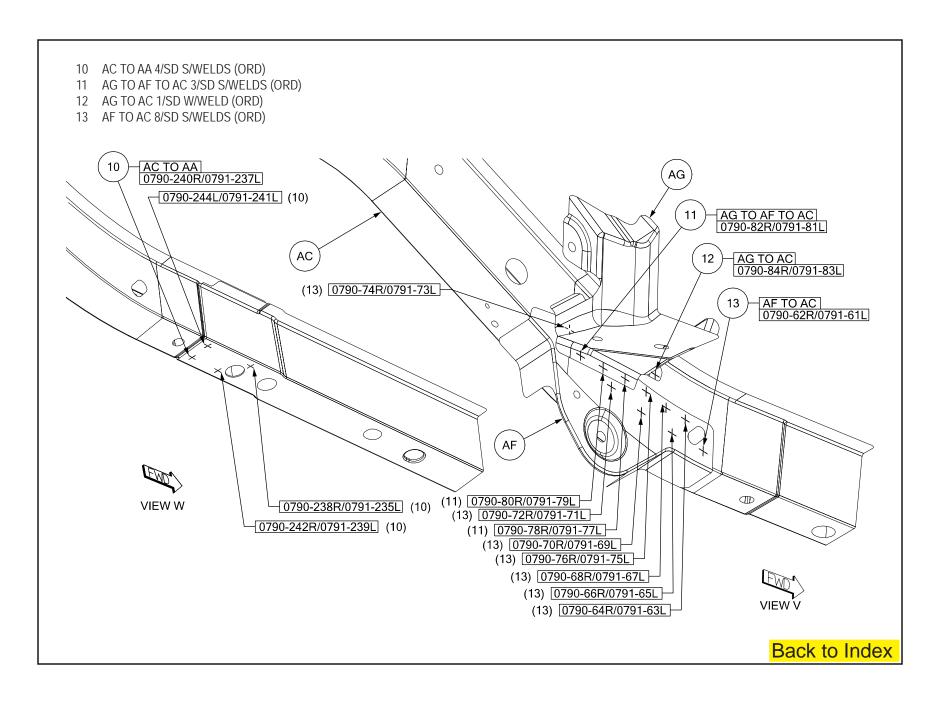


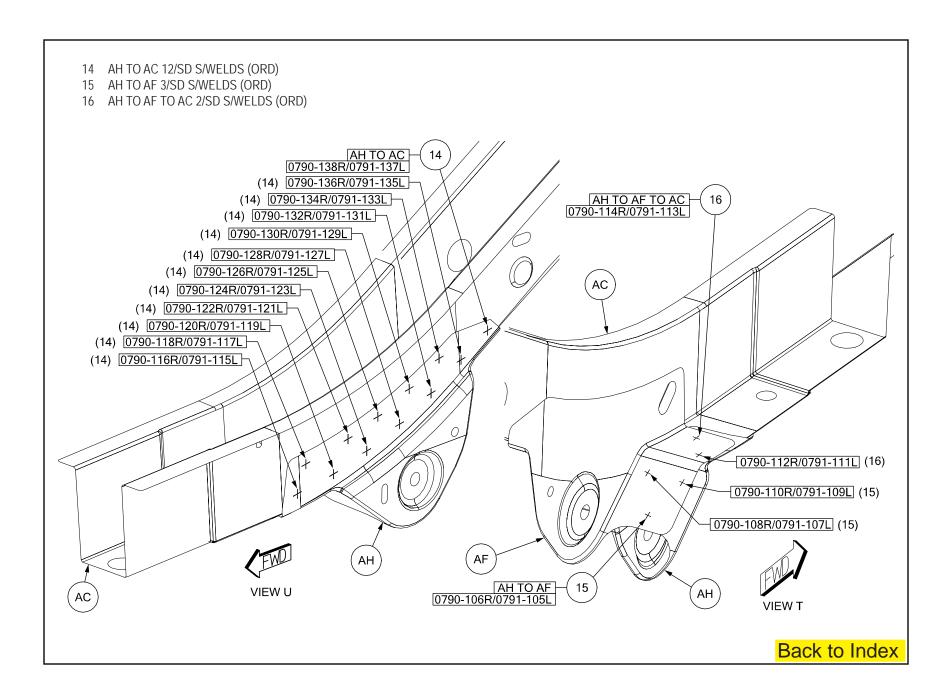
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- 02 AC TO AB TO AA 3/SD S/WELDS (ORD)03 AB TO AC 4/SD S/WELDS (ORD)
- 05 AD TO AA 2 PROJ WELDS (ORD)

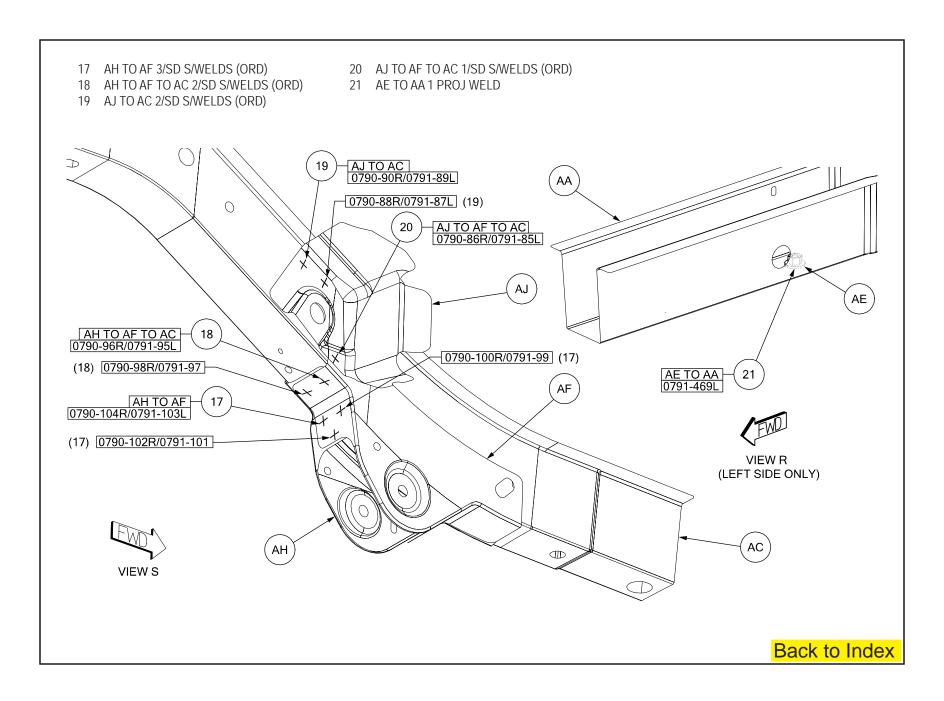


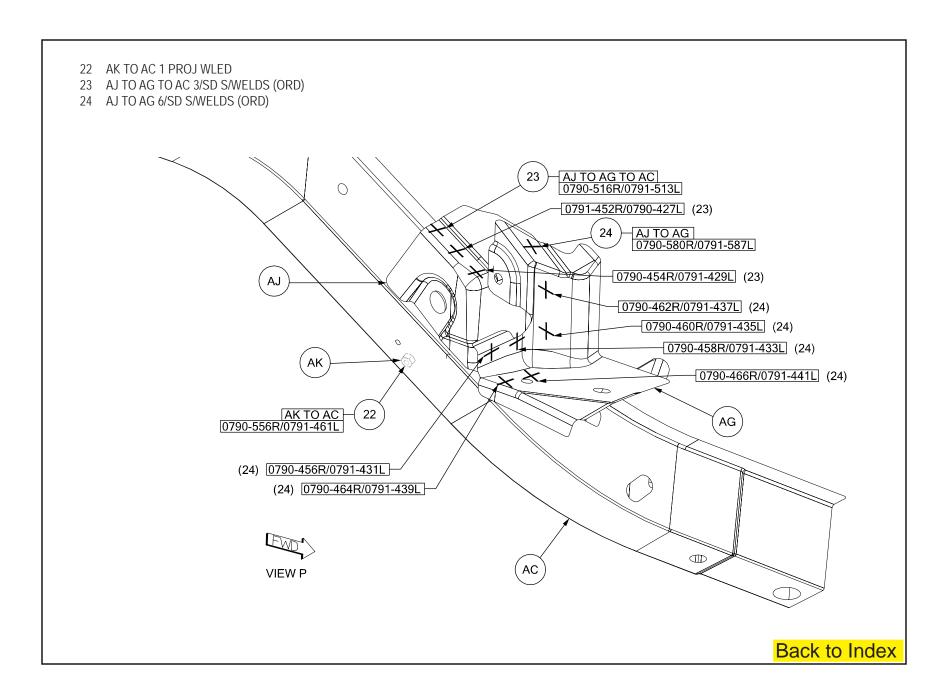
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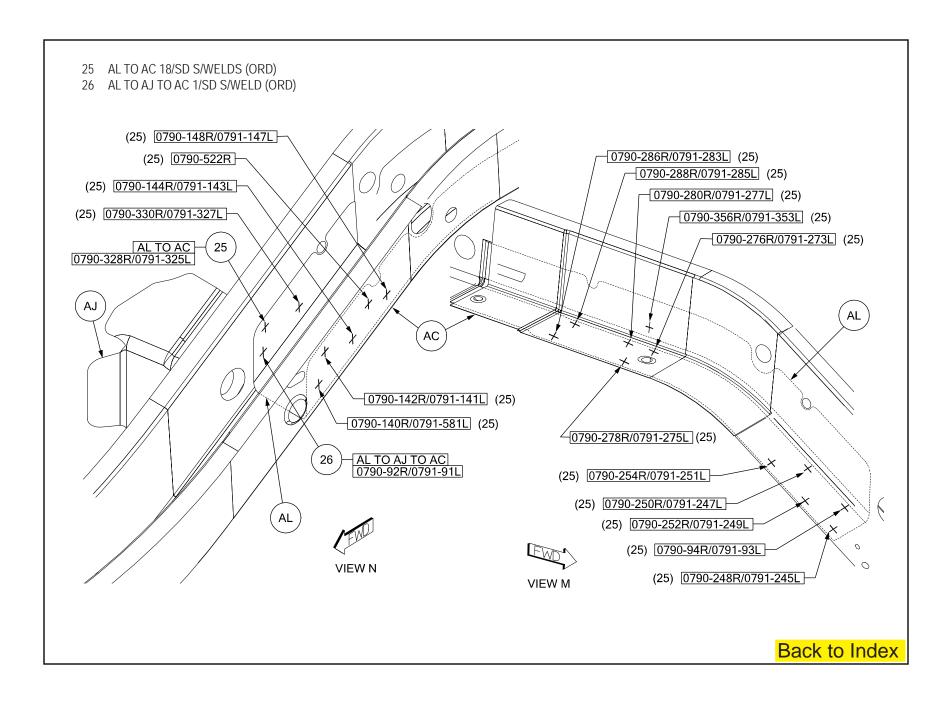


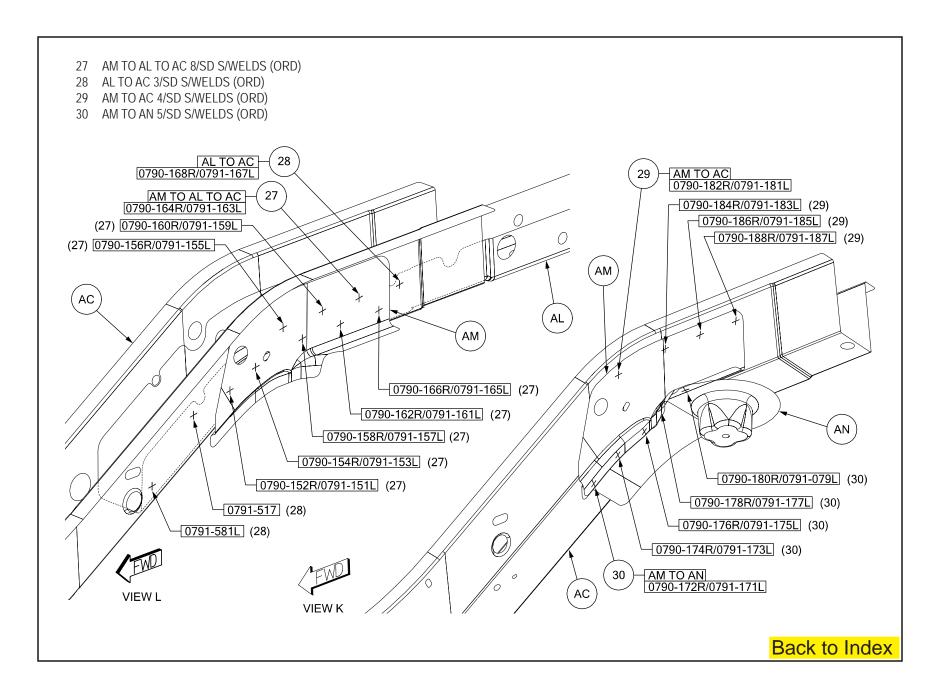


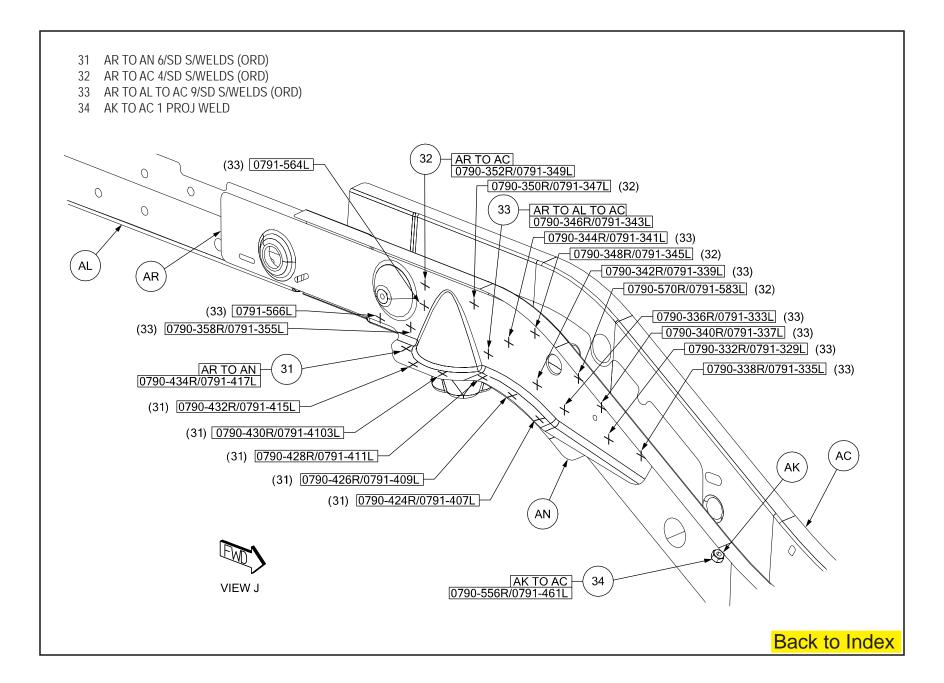


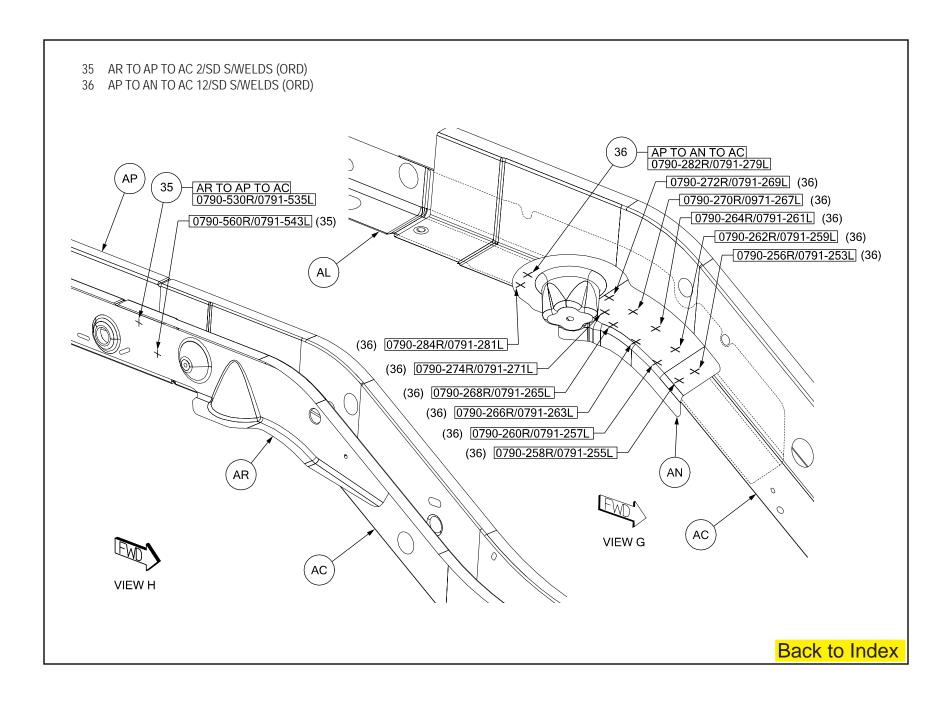


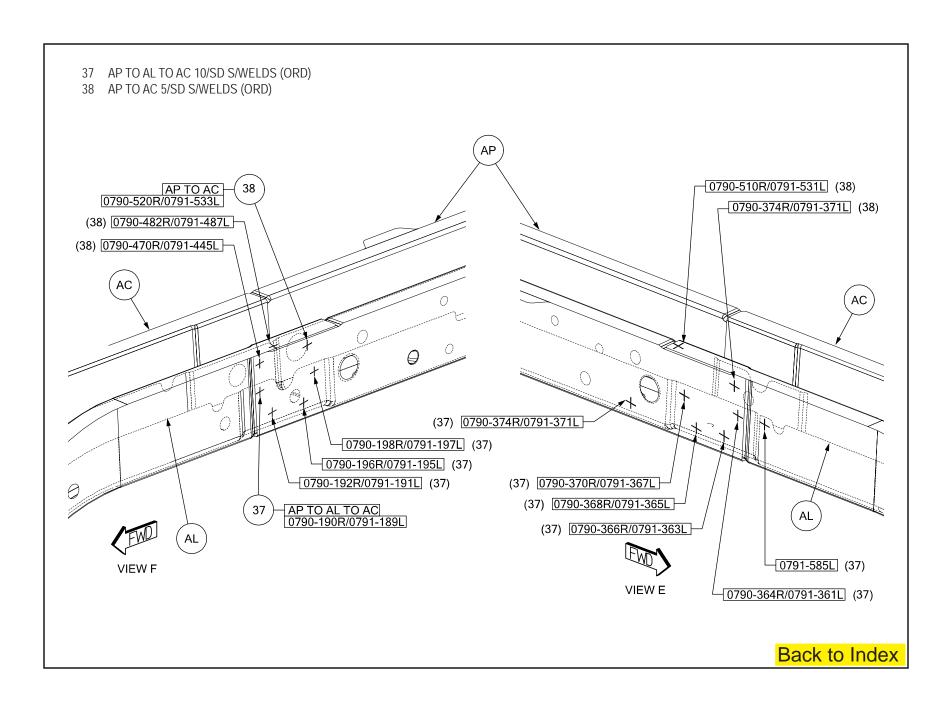


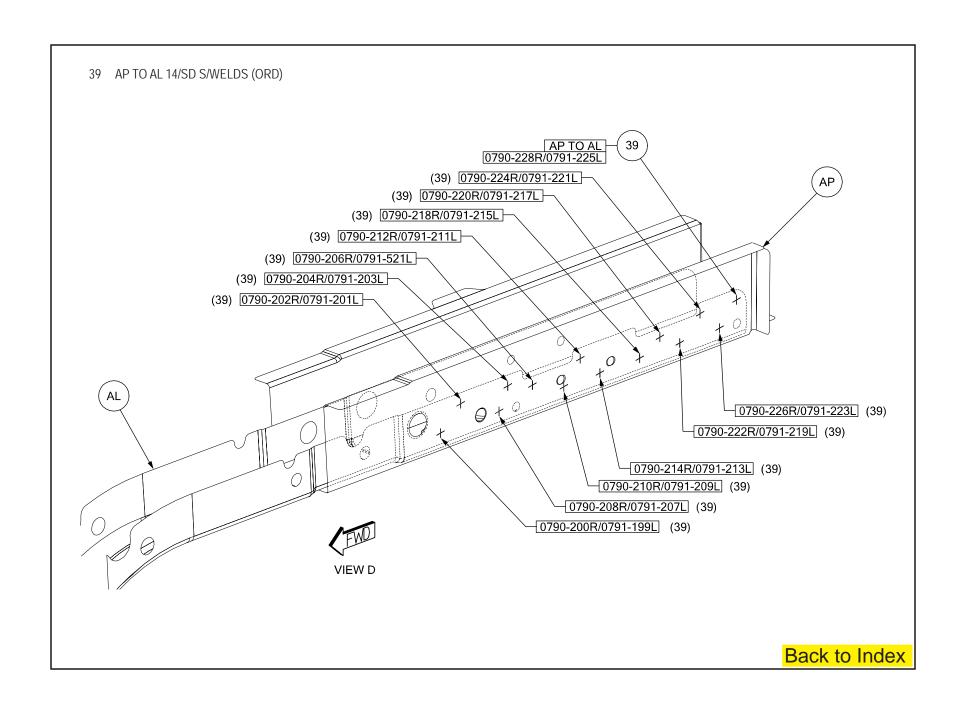


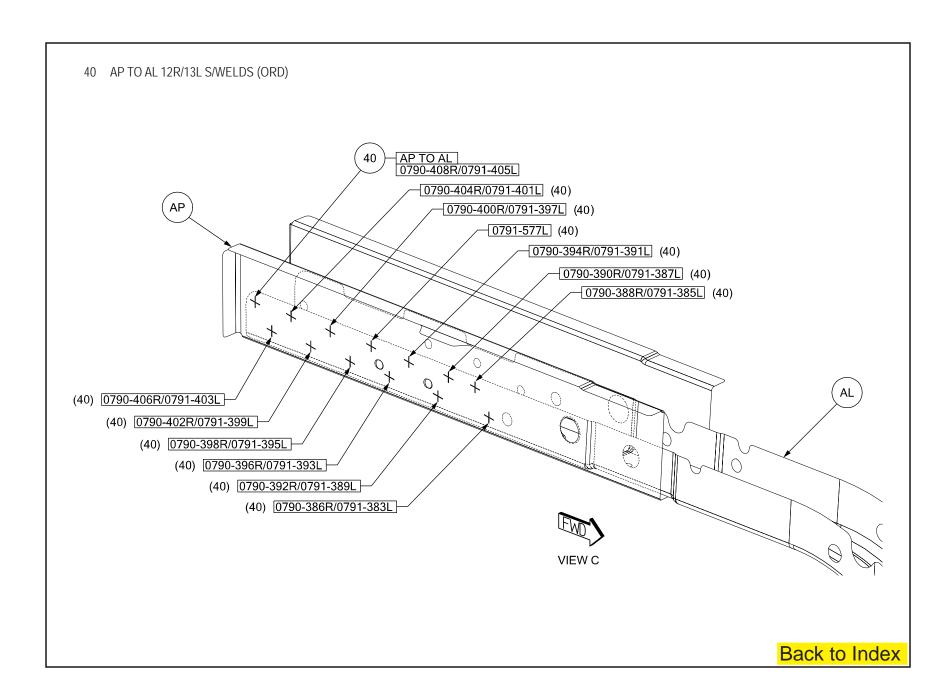


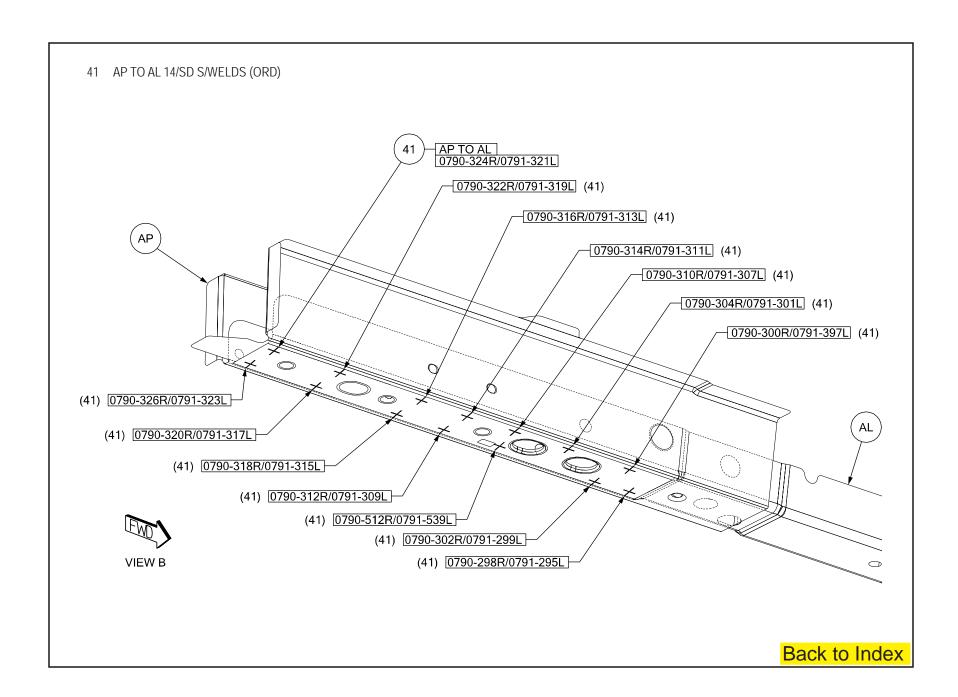


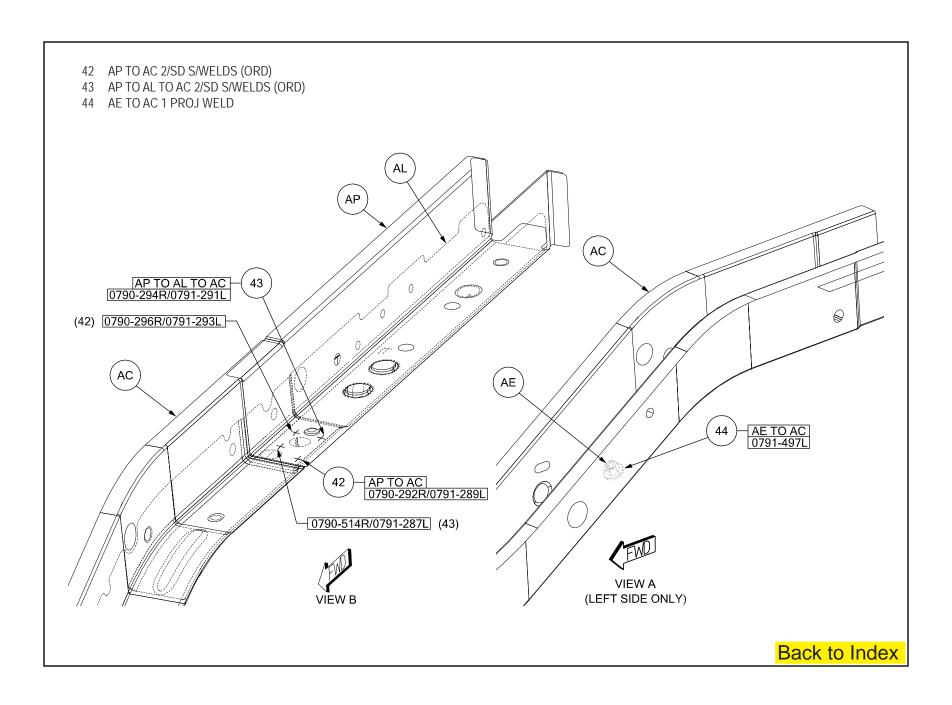


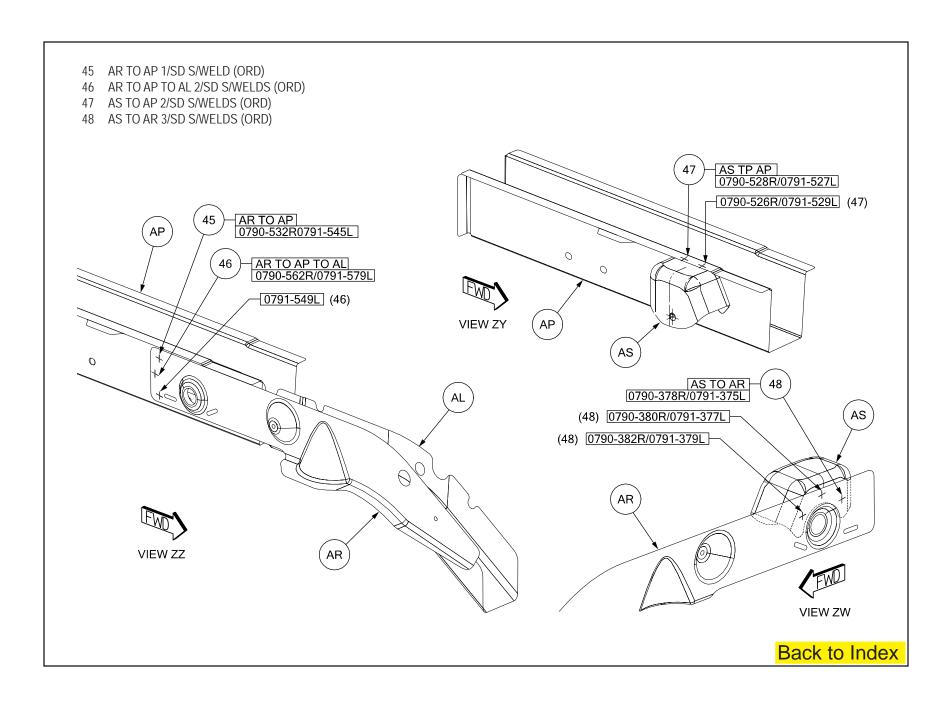


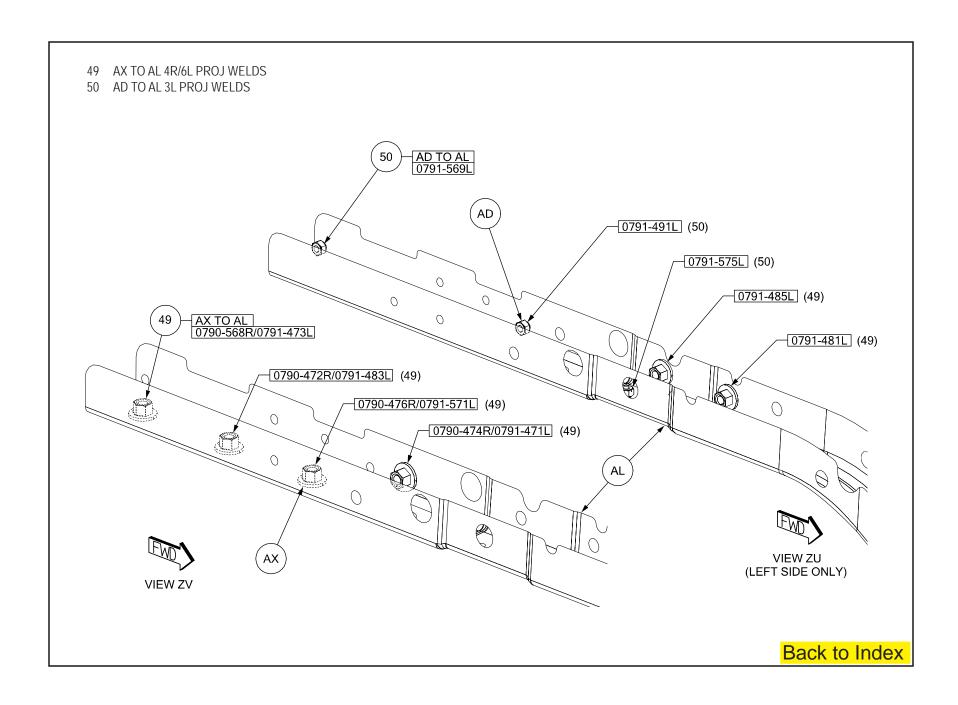


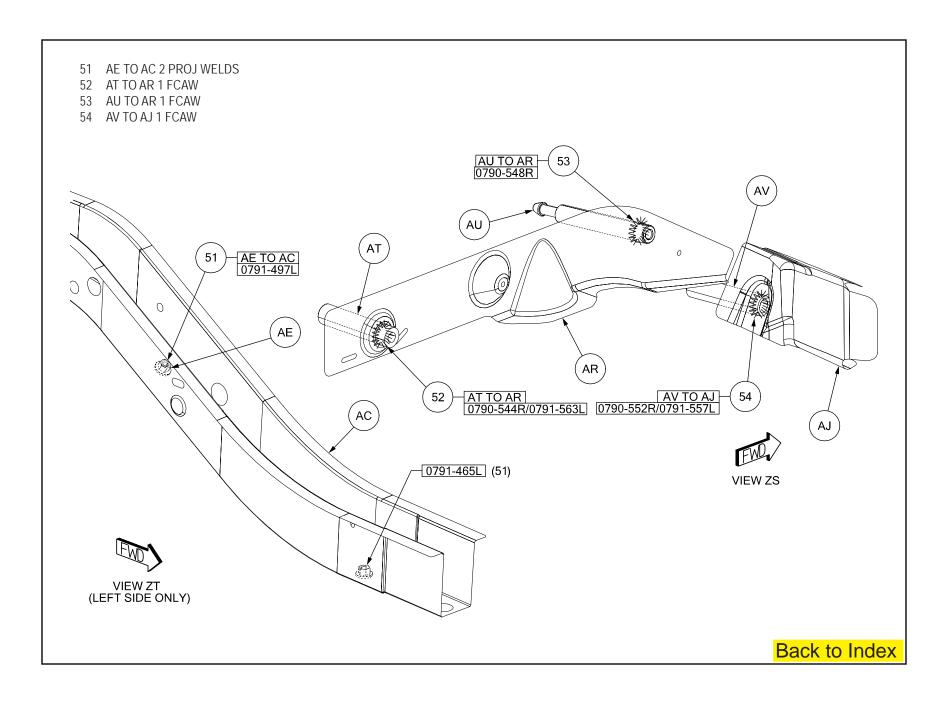


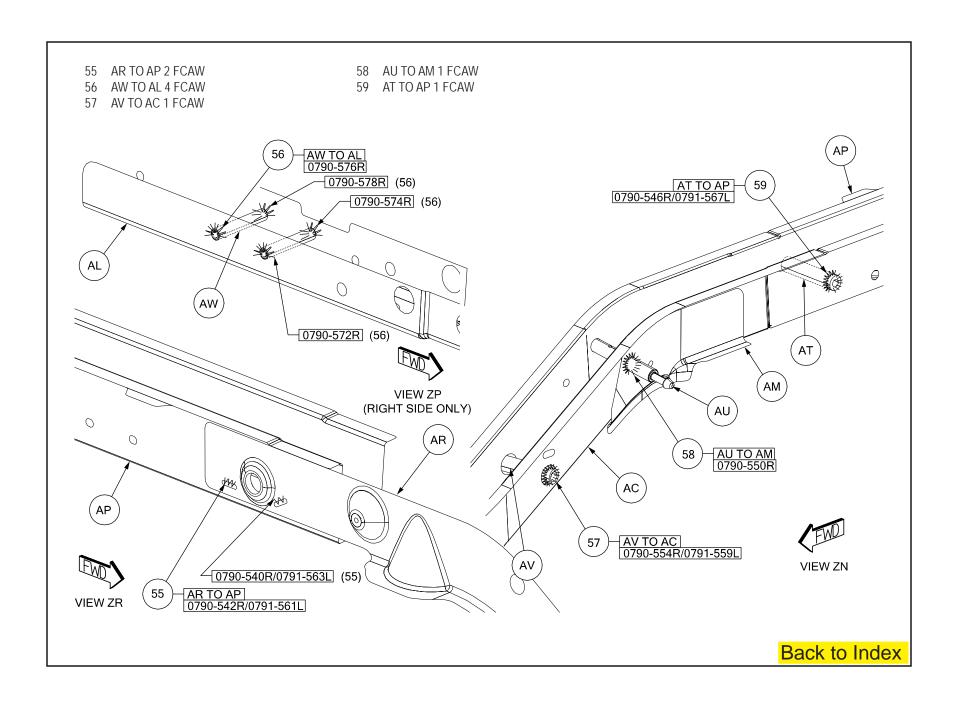


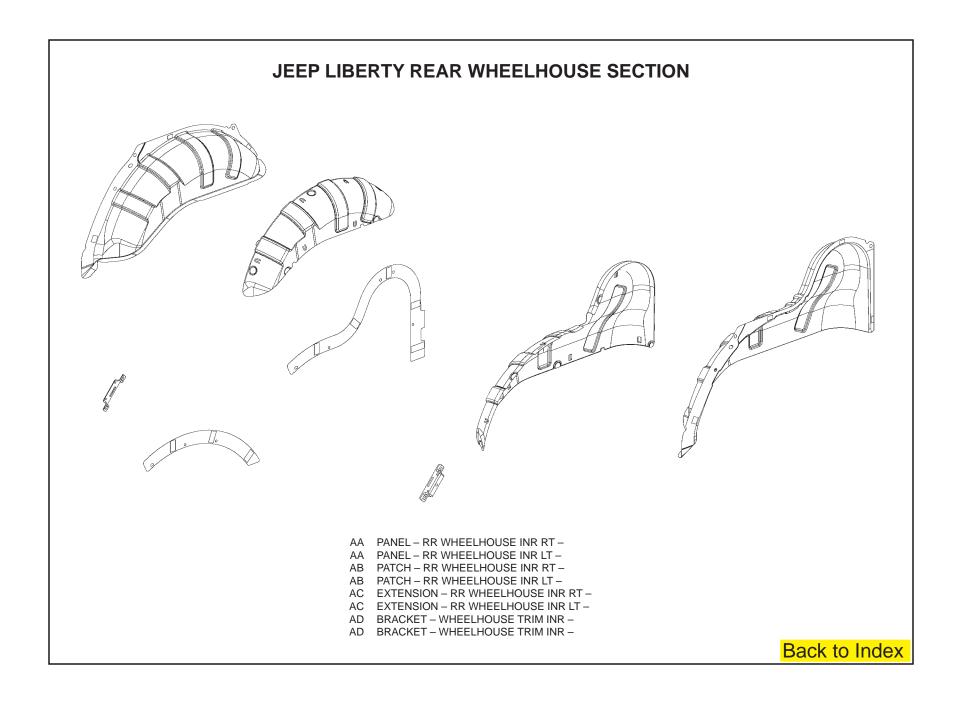


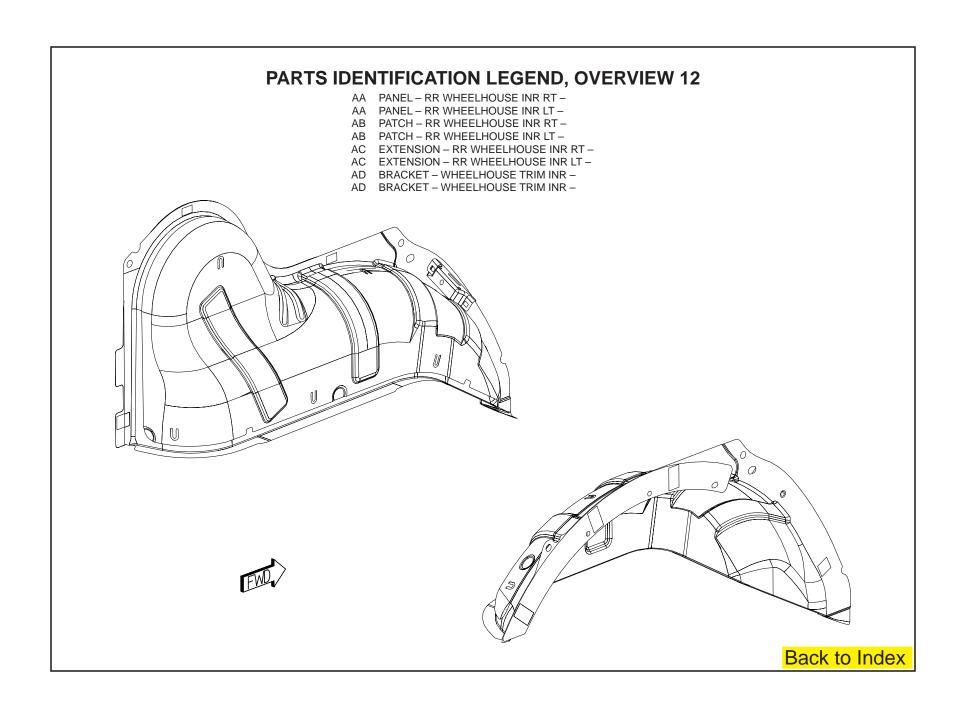


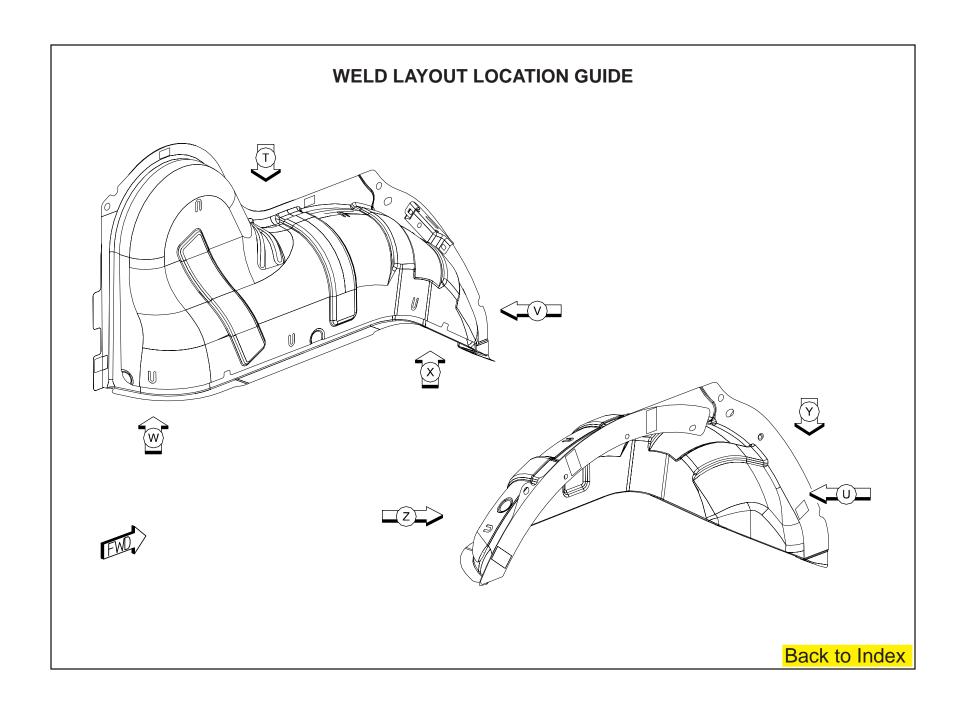


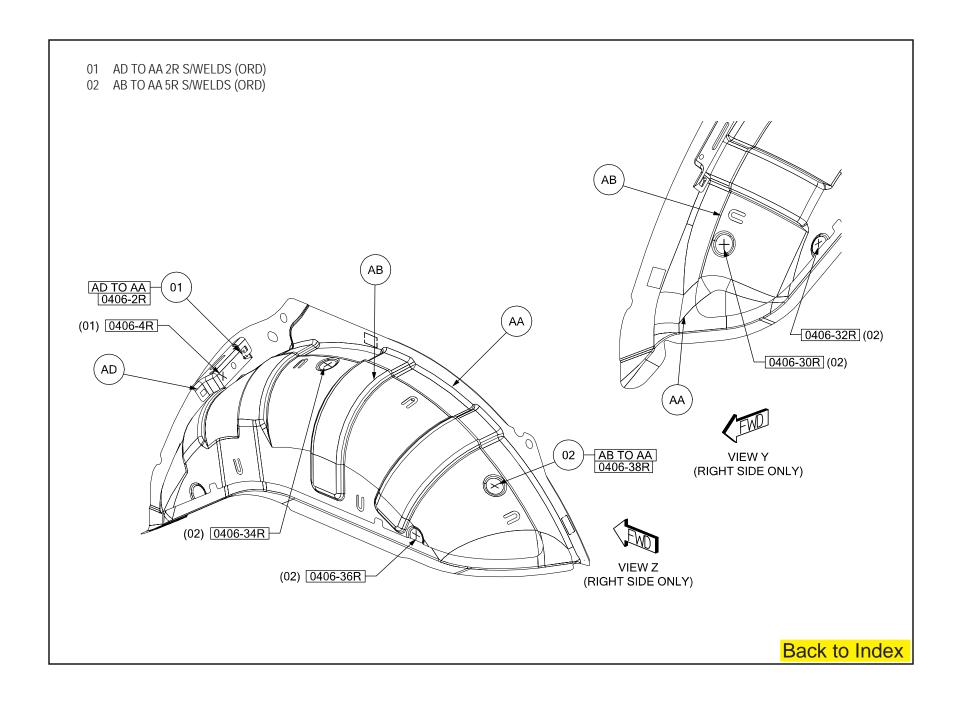


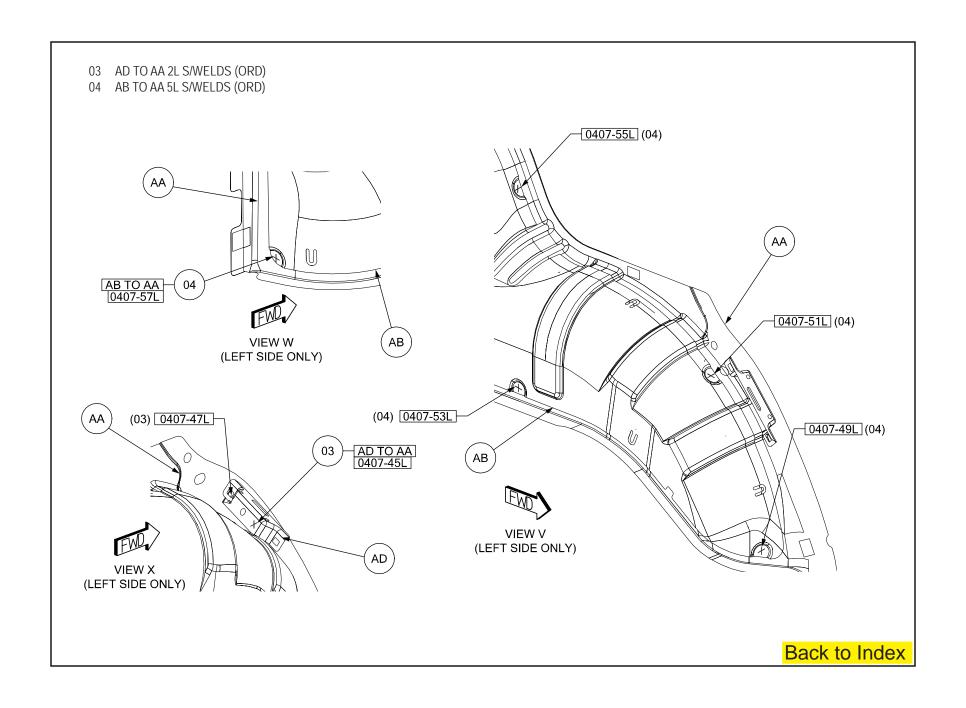


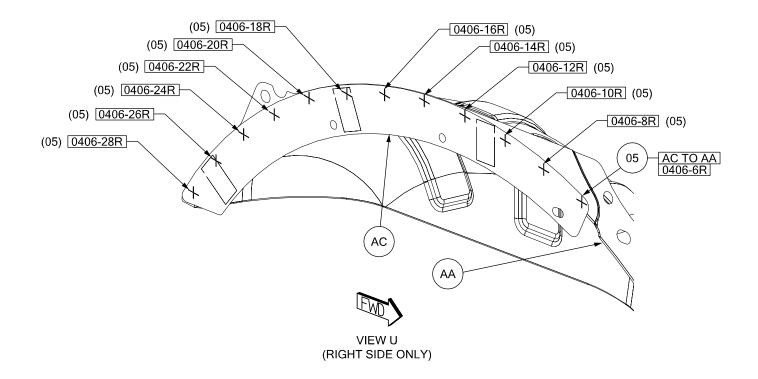


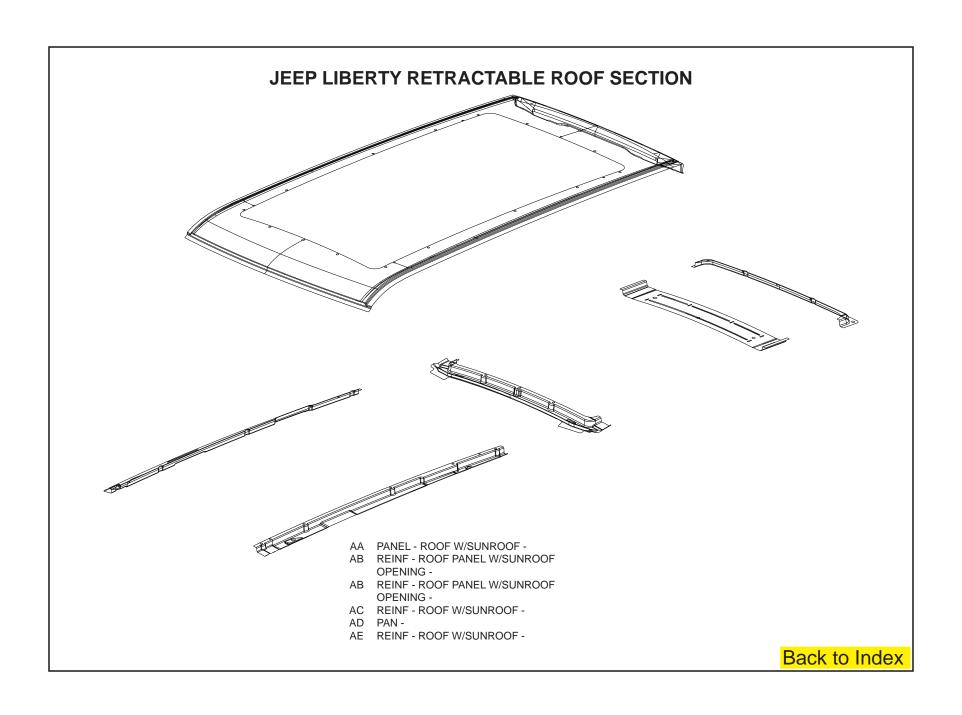






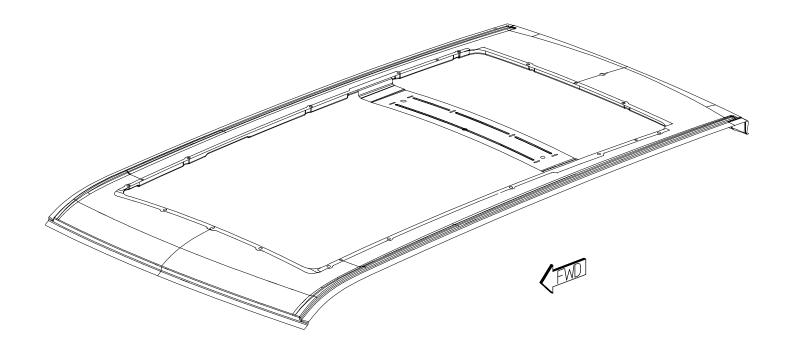


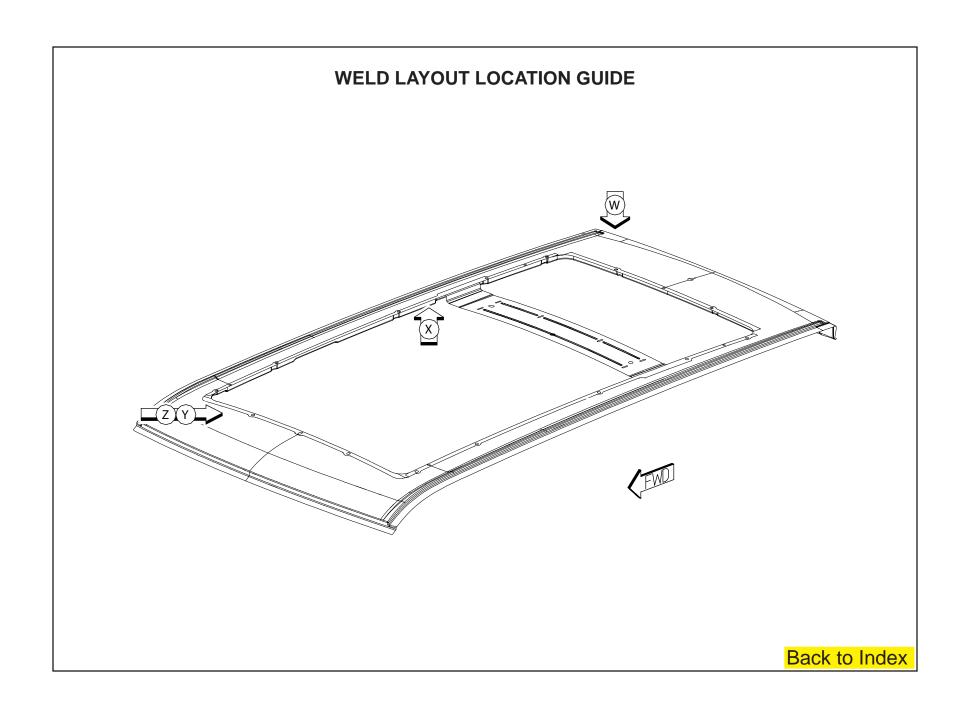


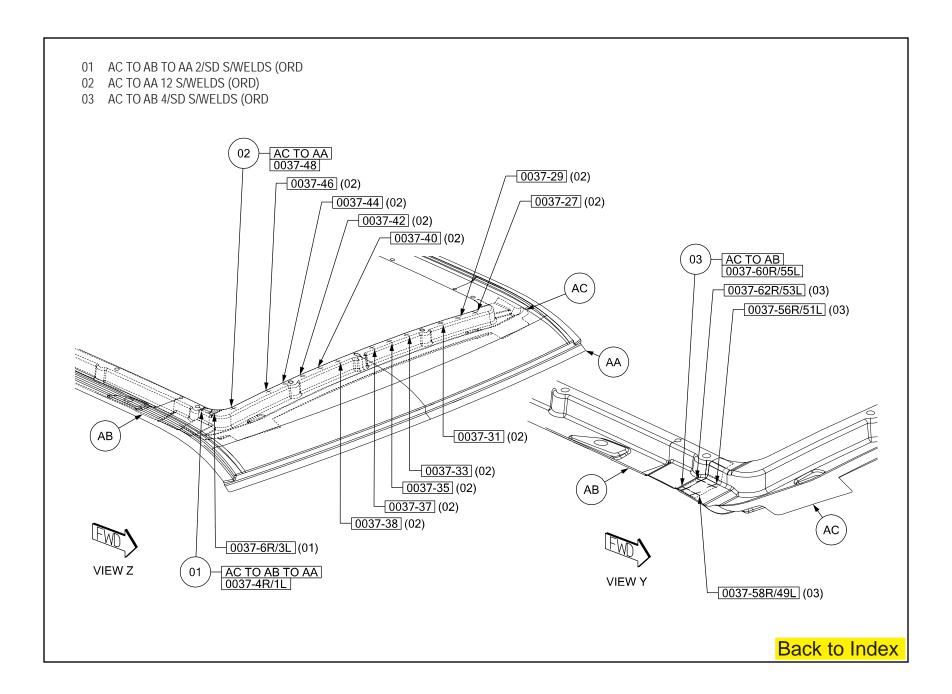


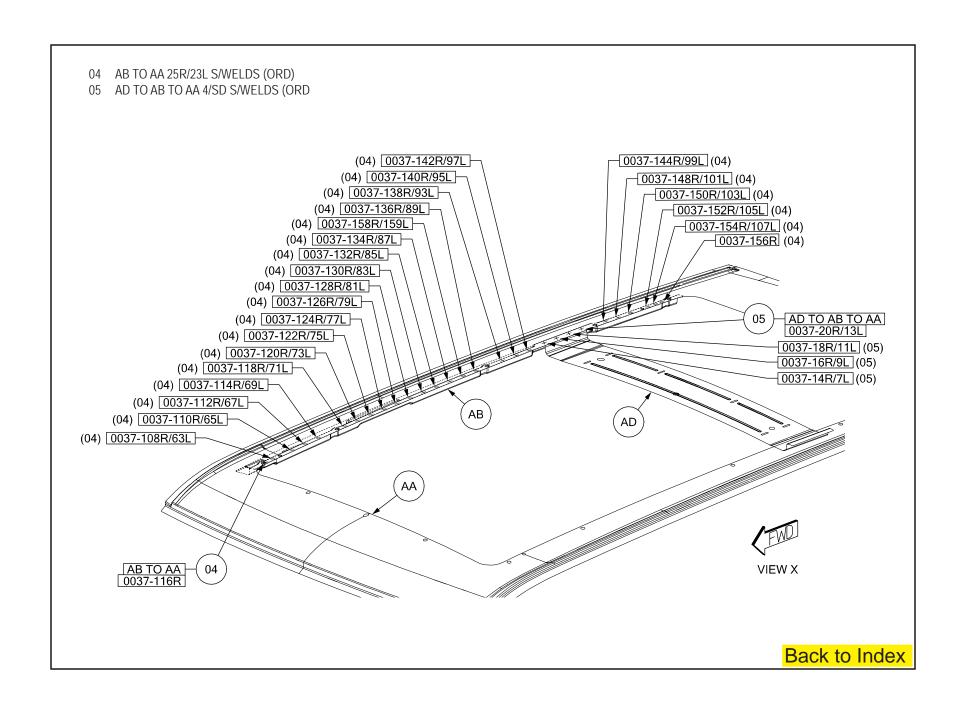


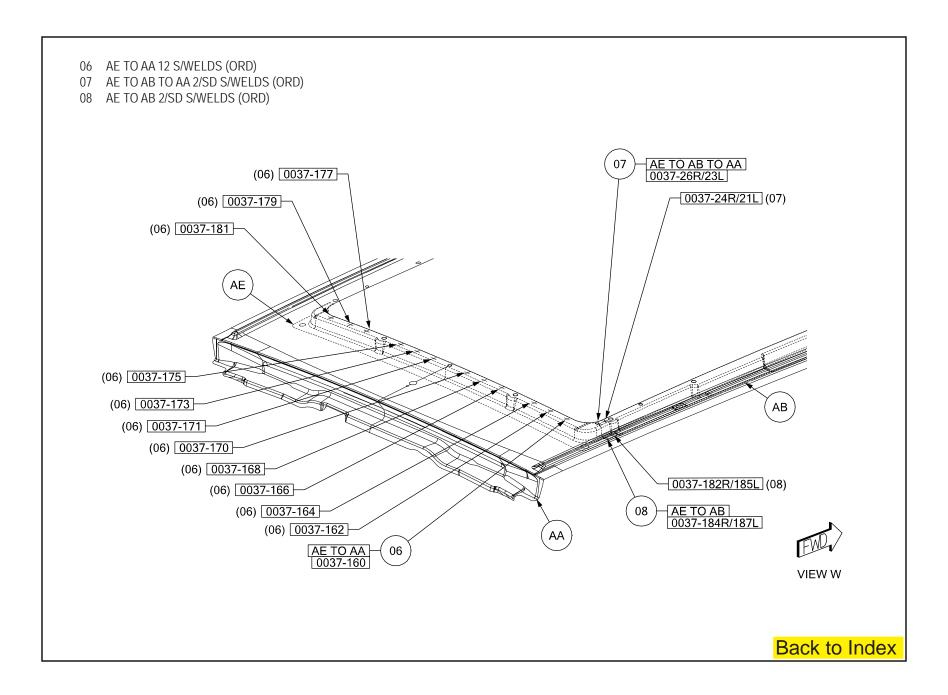
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- AB REINF ROOF PANEL W/SUNROOF OPENING -
- AB REINF ROOF PANEL W/SUNROOF OPENING -
- AC REINF ROOF W/SUNROOF -
- AD PAN -
- AE REINF ROOF W/SUNROOF -





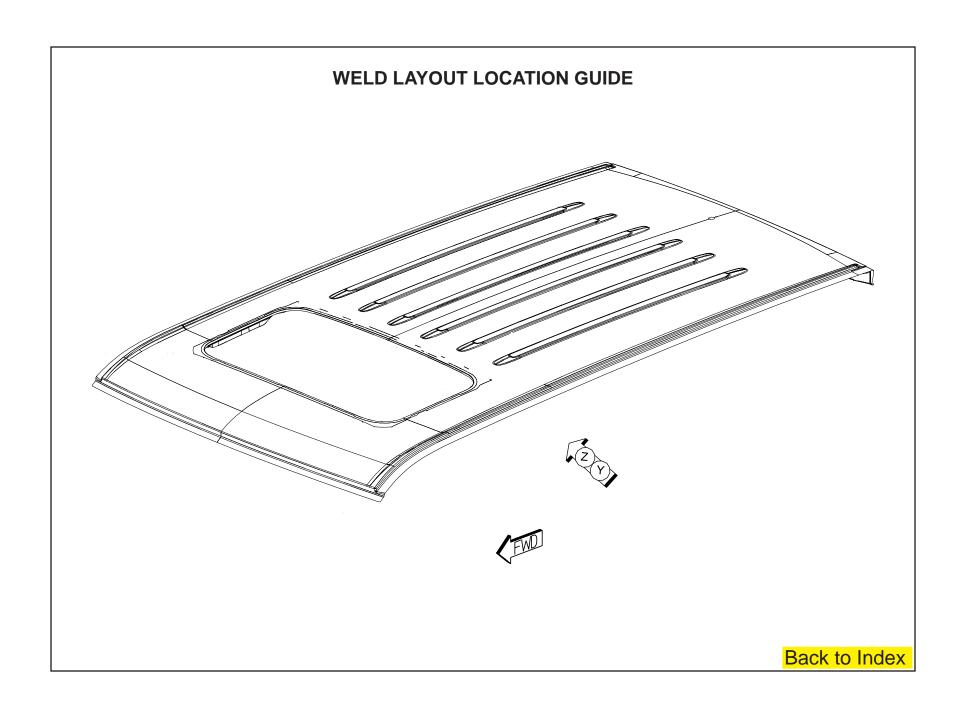


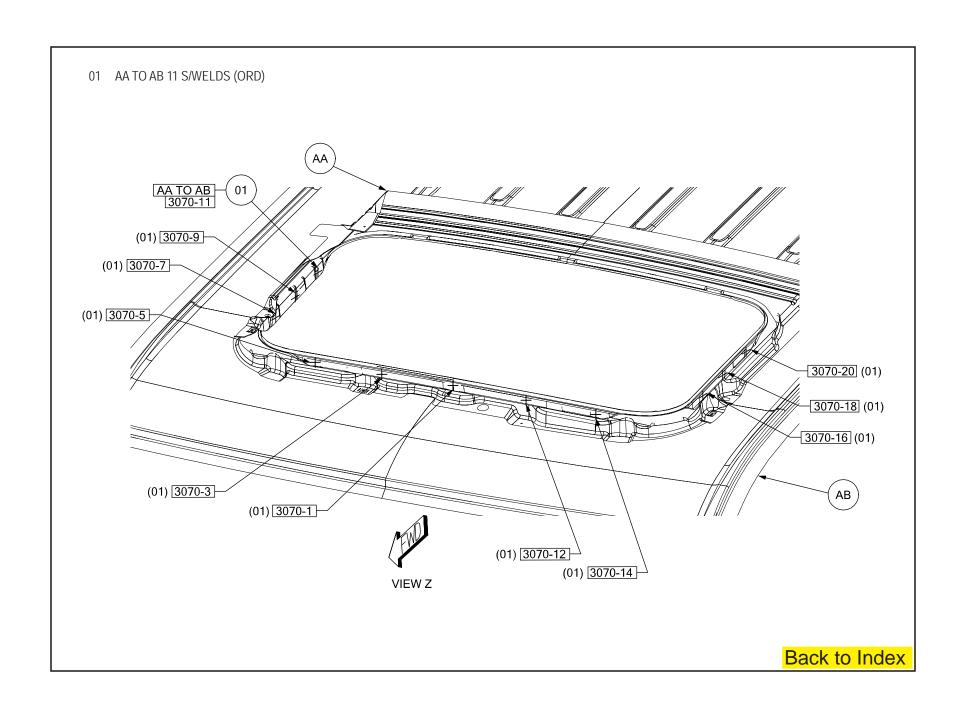


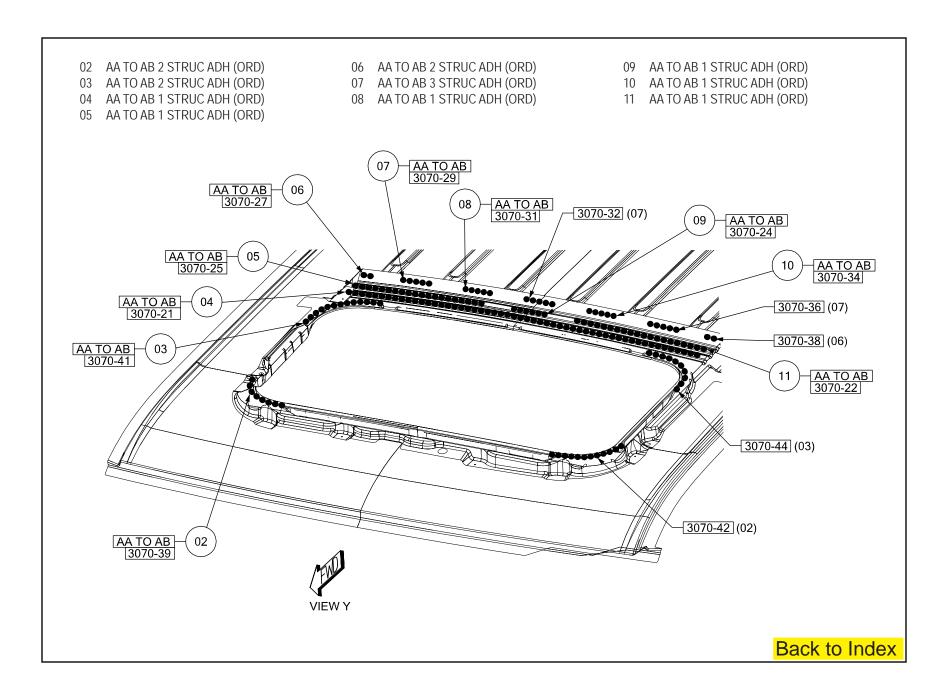


# JEEP LIBERTY ROOF WITH SUNROOF AND WITHOUT SUN ROOF SECTION AA REINF - ROOF W/SUNROOF -AB PANEL - ROOF W/SUNROOF -Back to Index

# PARTS IDENTIFICATION LEGEND, OVERVIEW 21 AA REINF – ROOF W/SUNROOF – AB PANEL - ROOF W/SUNROOF -Back to Index







## Sealer/Structural Adhesive/Sound Deadener/Locations Jeep Liberty



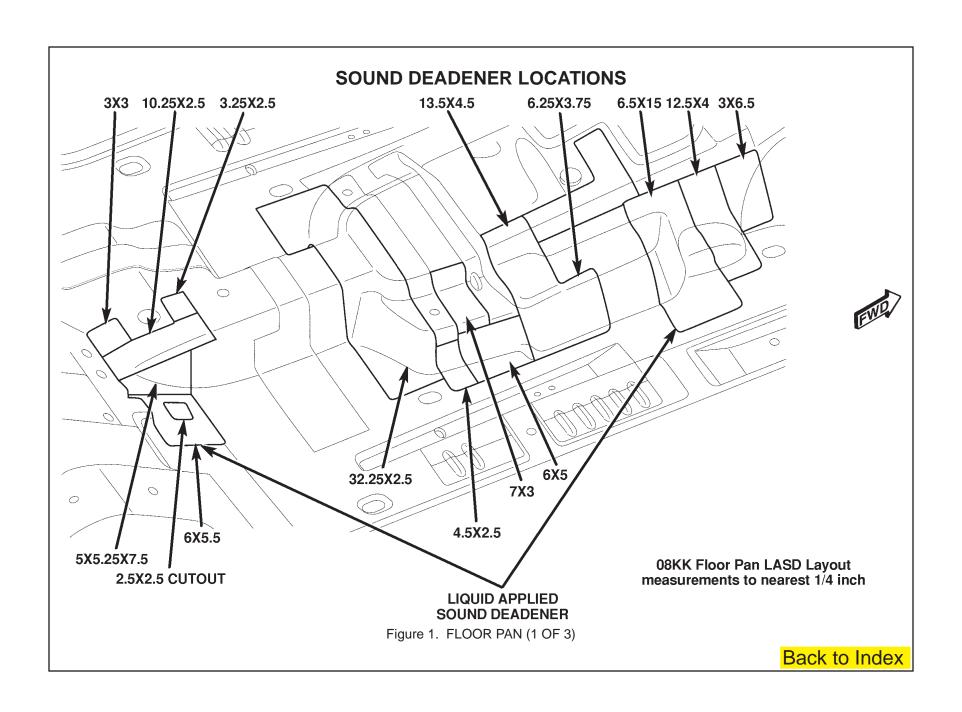
This section shows the different locations for Sealers, Sound Deadeners and Structural Adhesives and has been prepared for use by all body technicians involved in the repair of the Jeep Liberty.

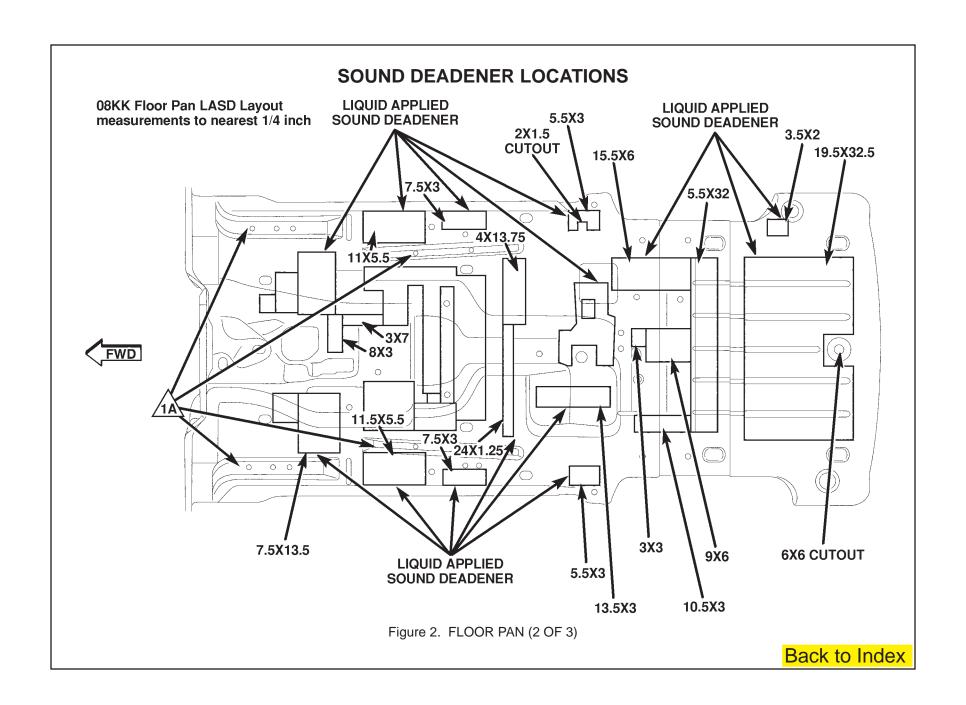
Chrysler LLC reserves the right to make improvements in design or to change specifications to these vehicles without incurring any obligation upon itself.

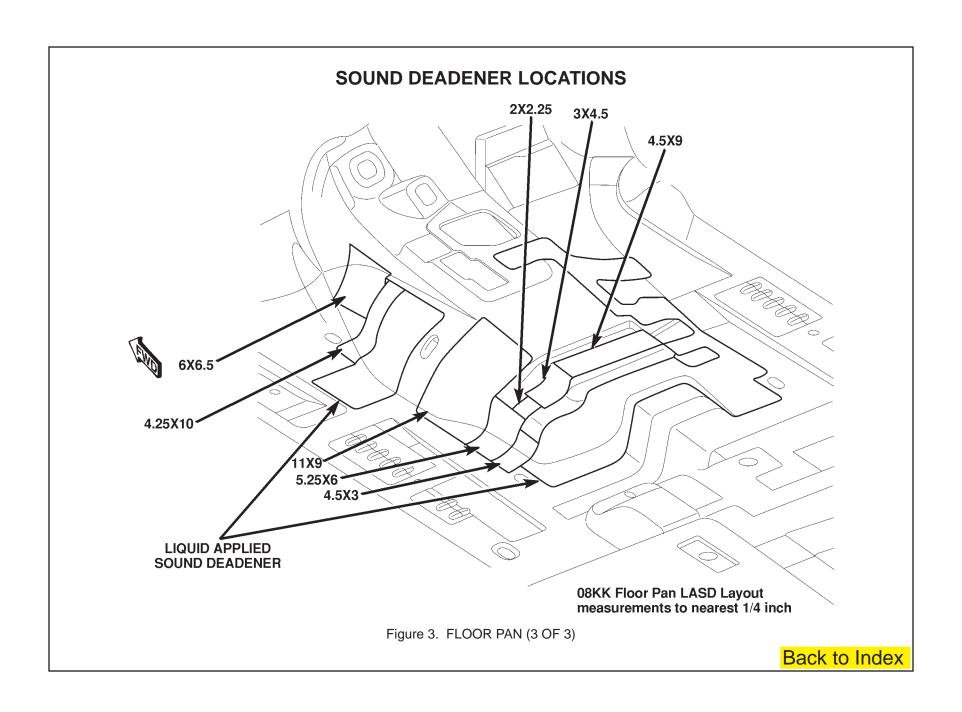
# JEEP LIBERTY SOUND DEADENER LOCATIONS

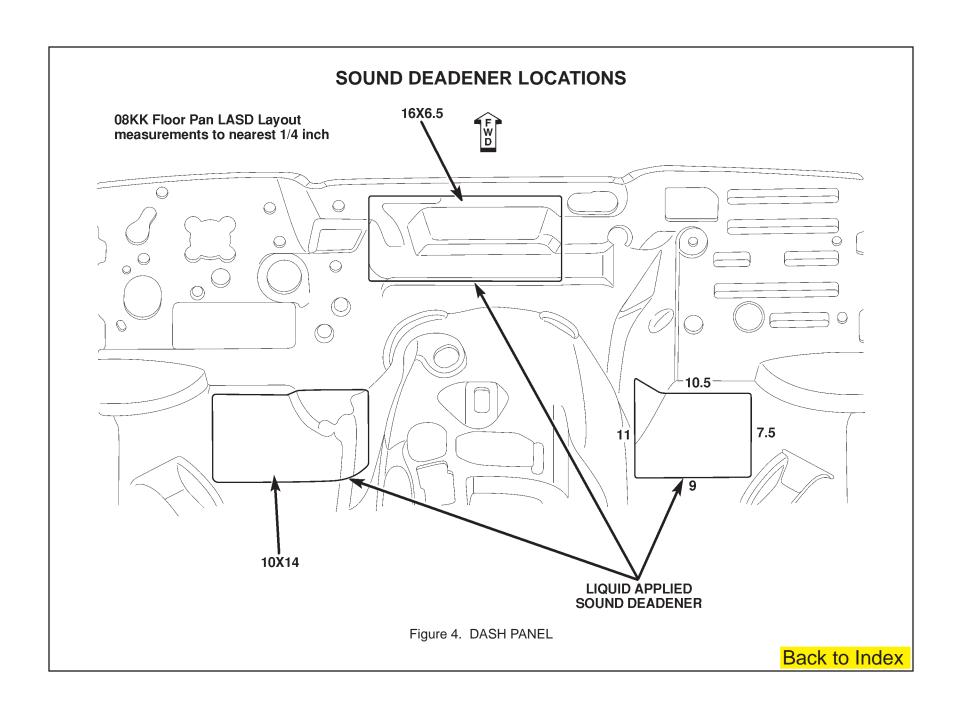
### JEEP LIBERTY SOUND DEADENER LOCATIONS

DESCRIPTION	FIGURE
FLOOR PAN (1 OF 3)	1
FLOOR PAN (2 OF 3)	2
FLOOR PAN (3 OF 3)	3
DASH PANEL	4











# JEEP LIBERTY 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 expoxy is used on all areas.

DESCRIPTION	FIGURE
PLENUM LOWER	1
FRONT FLOOR, DASH AND PLENUM – LEFT HAND DRIVE	2
FRONT FLOOR, DASH AND PLENUM – RIGHT HAND DRIVE	3
MISCELLANEOUS BODY (1 OF 2)	4
MISCELLANEOUS BODY (2 OF 2)	5
REAR FLOOR COMPLETE (1 OF 2)	6
REAR FLOOR COMPLETE (2 OF 2)	7
UNDERBODY AND DASH (1 OF 3)	8
UNDERBODY AND DASH (2 OF 3)	9
UNDERBODY AND DASH (3 OF 3)	10
BODY SIDE APERTURE – OUTER (1 OF 2)	11
BODY SIDE APERTURE – OUTER (2 OF 2)	12
BODY SIDE APERTURE – COMPLETE (1 OF 2)	13
BODY SIDE APERTURE – COMPLETE (2 OF 2)	14
BODY IN WHITE WITHOUT ROOF (1 OF 3)	15
BODY IN WHITE WITHOUT ROOF (2 OF 3)	16
BODY IN WHITE WITHOUT ROOF (3 OF 3)	17
ROOF WITH SUNROOF	18
BODY IN WHITE COMPLETE (1 OF 4)	19
BODY IN WHITE COMPLETE (2 OF 4)	20
BODY IN WHITE COMPLETE (3 OF 4)	21
BODY IN WHITE COMPLETE (4 OF 4)	22

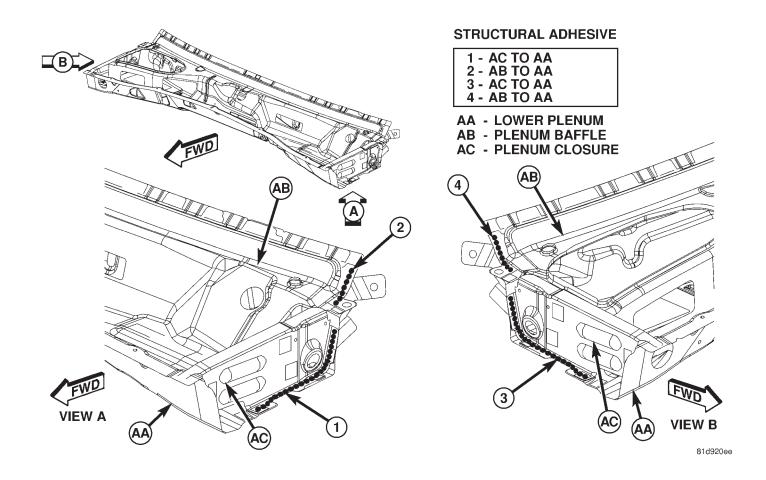


Figure 1. PLENUM LOWER

## STRUCTURAL ADHESIVE LOCATIONS STRUCTURAL ADHESIVE 1 - AB TO AA **AA - DASH PANEL AB - FRONT FLOOR PAN LEFT HAND DRIVE** 81d920fb

Figure 2. FRONT FLOOR, DASH AND PLENUM – LEFT HAND DRIVE

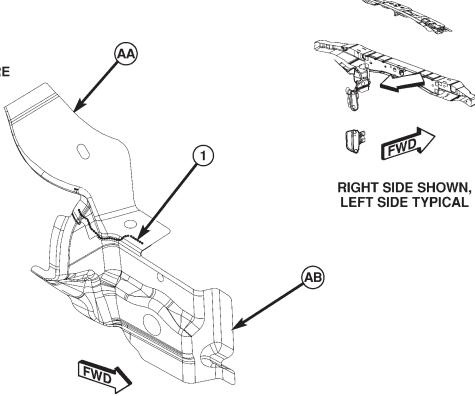
## STRUCTURAL ADHESIVE LOCATIONS STRUCTURAL ADHESIVE 1 - AB TO AA **AA - FRONT FLOOR PAN** AB - DASH PANEL **RIGHT HAND DRIVE** 81d92120 Figure 3. FRONT FLOOR, DASH AND PLENUM - RIGHT HAND DRIVE Back to Index

#### STRUCTURAL ADHESIVE

1 - AA TO AB

**AA - CLOSE-OUT PANEL** 

AB - REINFORCEMENT (BODY SIDE APERTURE EXTENSION)



81d9221d

Figure 4. MISCELLANEOUS BODY (1 OF 2)

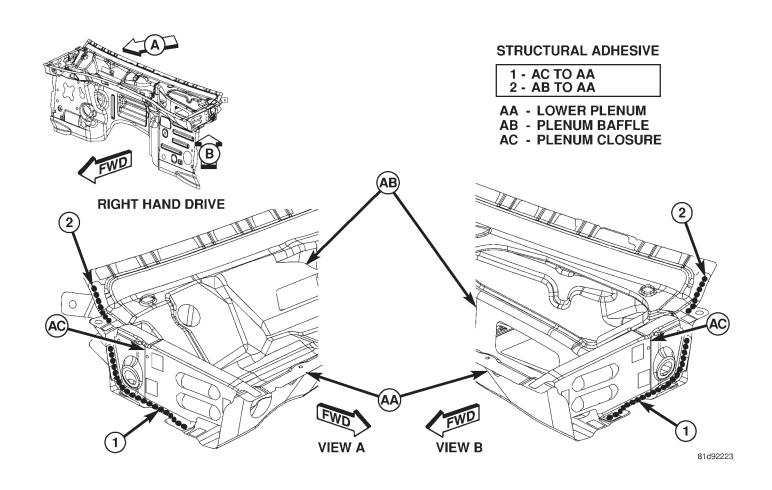


Figure 5. MISCELLANEOUS BODY (2 OF 2)

### STRUCTURAL ADHESIVE LOCATIONS STRUCTURAL ADHESIVE AA - REAR FLOOR PAN 1 - AA TO AB TO AD **AB - COMPRESSION PLATE** TO AE TO AC AC - REAR RAIL (SHORT-REAR) 2 - AB TO AA TO AC 3 - AF TO AA TO AG 4 - AF TO AA AD - CROSSMEMBER (REAR SÉAT) AE - CROSSMEMBER (SUSPENSION AF - CROSSMEMBER (REAR-OUTER) AG - REINFORCEMENT (D-PILLAR)

Figure 6. REAR FLOOR COMPLETE (1 OF 2)

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81d92227

### STRUCTURAL ADHESIVE LOCATIONS STRUCTURAL ADHESIVE 5 - AL TO AA 6 - AK TO AA 7 - AE TO AA 8 - AD TO AJ TO AA **AA - REAR FLOOR PAN** AD - CROSSMEMBER (REAR SEAT) AE - CROSSMEMBER (SUSPENSION) AJ - REINFORCEMENT AK - CROSSMEMBER (SUSPENSION) AL - CROSSMEMBER (SPARE TIRE) (AK) (AL 81d9222b Figure 7. REAR FLOOR COMPLETE (2 OF 2)

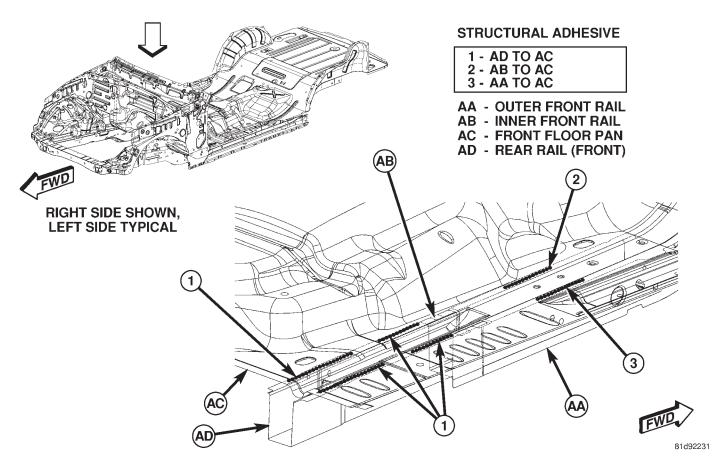


Figure 8. UNDERBODY AND DASH (1 OF 3)

## STRUCTURAL ADHESIVE LOCATIONS STRUCTURAL ADHESIVE 4 - AE TO AC AC - FRONT FLOOR PAN AE - REAR FLOOR PAN 81d92236 Figure 9. UNDERBODY AND DASH (2 OF 3) Back to Index

### STRUCTURAL ADHESIVE LOCATIONS STRUCTURAL ADHESIVE 5 - AF TO AE (RIGHT) 6 - AF TO AE (LEFT) **AE - REAR FLOOR PAN** AF - INNER WHEELHOUSE VIEW A RIGHT SIDE ONLY VIEW B LEFT SIDE ONLY 81d9223e Figure 10. UNDERBODY AND DASH (3 OF 3) Back to Index

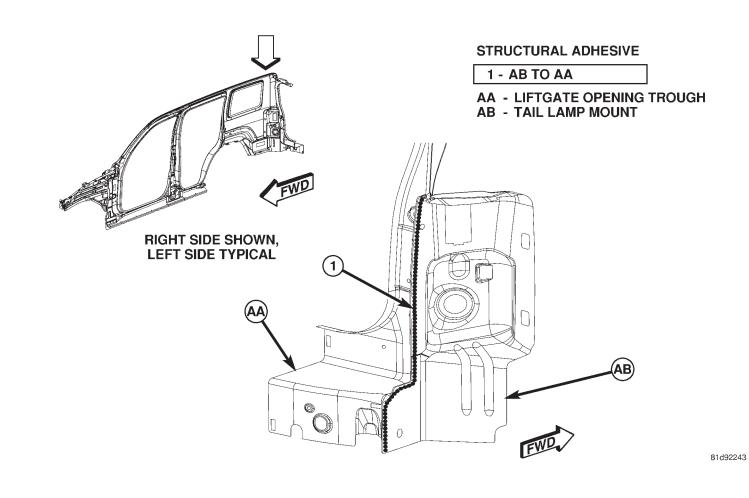


Figure 11. BODY SIDE APERTURE OUTER (1 OF 2)

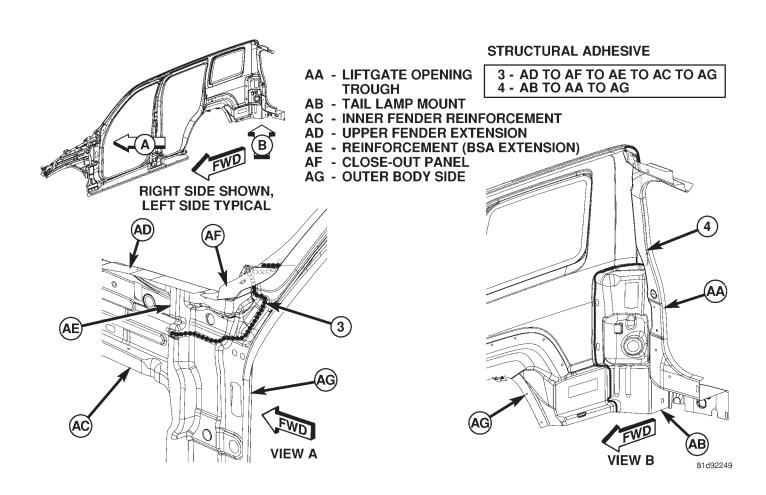


Figure 12. BODY SIDE APERTURE OUTER (2 OF 2)

#### STRUCTURAL ADHESIVE

1 - AB TO AA

**AA - INNER BODY SIDE** 

AB - REINFORCEMENT (B-PILLAR)

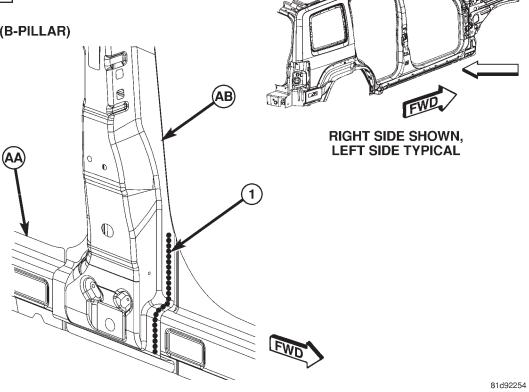


Figure 13. BODY SIDE APERTURE COMPLETE (1 OF 2)

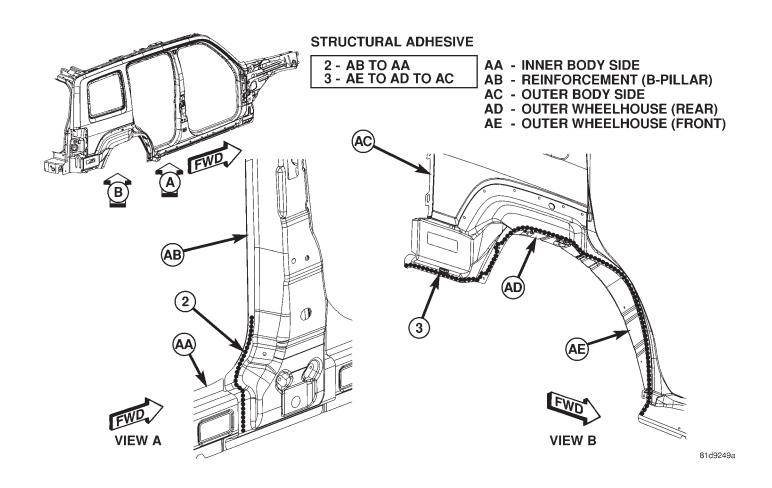


Figure 14. BODY SIDE APERTURE COMPLETE (2 OF 2)

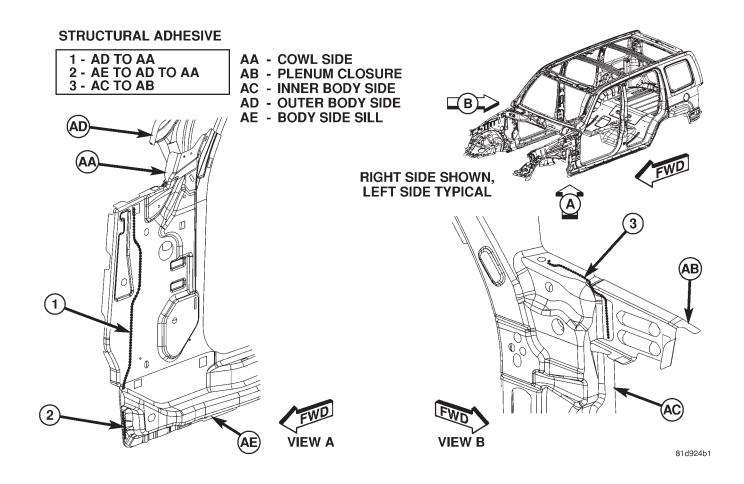


Figure 15. BODY IN WHITE WITHOUT ROOF (1 OF 3)

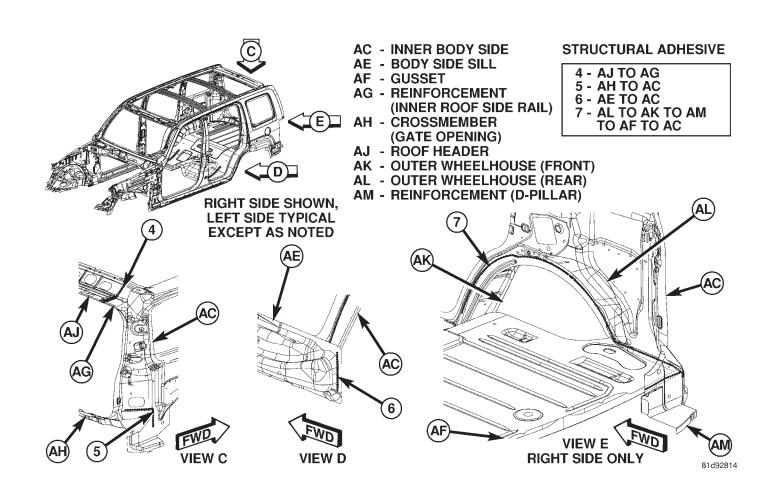


Figure 16. BODY IN WHITE WITHOUT ROOF (2 OF 3)

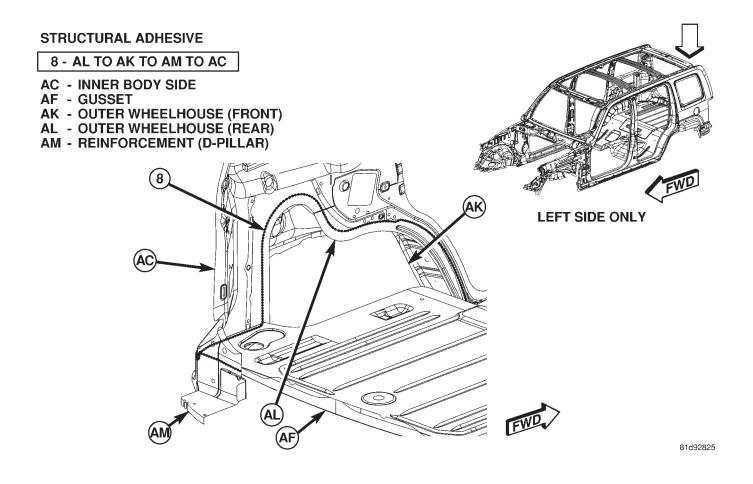


Figure 17. BODY IN WHITE WITHOUT ROOF (3 OF 3)

# STRUCTURAL ADHESIVE LOCATIONS STRUCTURAL ADHESIVE 1 - AA TO AB AA - REINFORCEMENT AB - ROOF 81d9287a Figure 18. ROOF WITH SUNROOF Back to Index

## STRUCTURAL ADHESIVE LOCATIONS STRUCTURAL ADHESIVE 1 - AC TO AB 2 - AB TO AA AA - ROOF AB - ROOF HEADER (FRONT LOWER) AC - REINFORCEMENT 81d92882 Figure 19. BODY IN WHITE COMPLETE (1 OF 4) Back to Index

#### STRUCTURAL ADHESIVE LOCATIONS STRUCTURAL ADHESIVE 3 - AH TO AJ 4 - AE TO AF 5 - AE TO AG TO AD TO AF **AD - INNER BODY SIDE AE - ROOF HEADER (REAR UPPER)** AF - REINFORCEMENT **AG - REINFORCEMENT** AH - ROOF BOW \* RIGHT SIDE SHOWN, AJ - ROOF **LEFT SIDE TYPICAL** (AD) VIEW A **VIEW B** 81d9288f

Figure 20. BODY IN WHITE COMPLETE (2 OF 4)

# STRUCTURAL ADHESIVE LOCATIONS STRUCTURAL ADHESIVE 6 - AH TO AA 7 - AE TO AA AA - ROOF AE - ROOF HEADER (REAR UPPER) AH - ROOF BOW 81d9289c

Figure 21. BODY IN WHITE COMPLETE (3 OF 4)

### STRUCTURAL ADHESIVE LOCATIONS STRUCTURAL ADHESIVE 8 - AN TO AM 9 - AL TO AK AK - PAN AL - ROOF BOW AM - REINFORCEMENT **AN - REINFORCEMENT** 81d928a4 Figure 22. BODY IN WHITECOMPLETE (4 OF 4) Back to Index

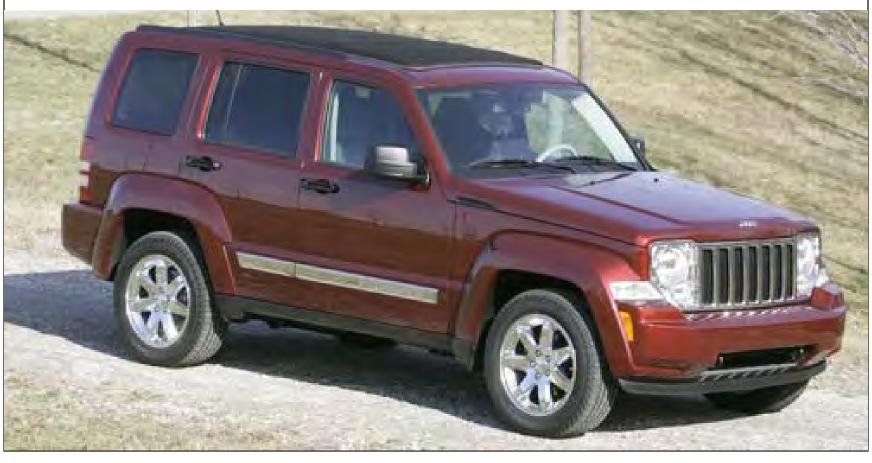








#### JEEP LIBERTY BODY REPAIR MANUAL



#### **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 Chrysler LLC has encountered and recommended. Chrysler LLC 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, Chrysler LLC 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.

#### **USE OF HEAT DURING REPAIR**

WARNING: Chrysler LLC engineering's position on the use of heat during collision repair is as follows:

- Any body panel or frame component damaged which is to be repaired and reused, must be repaired using the "cold straightening" method. No heat may be used during the straightening process.
- During rough straightening prior to panel replacement, damaged panels or frame components may be heated to assist in body/frame realignment. The application of heat must be constrained to the parts which will be replaced and not allowed to affect any other components.

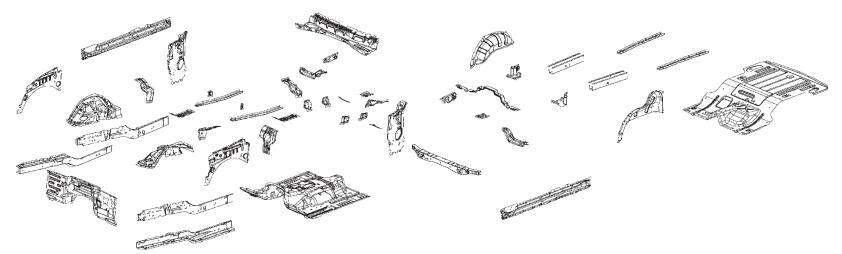
This "no heat" recommendation is due to the extensive use of high strength and advanced high strength steels in Chrysler LLC products. High-strength materials can be substantially and negatively affected from heat input which will not be obviously known to the repairer or consumer.

Ignoring these recommendations may lead to serious compromises in the ability to protect occupants in a future collision event, reduce the engineered qualities and attributes, or decrease the durability and reliability of the vehicle.

Failure to follow these instructions may be result in serious or fatal injury.

This statement supersedes any previously released information by Chrysler LLC.





- PANEL FENDER INR RT -
- PANEL FENDER INR LT -
- WHEELHOUSE FRT INR RT -
- AB WHEELHOUSE FRT INR LT -
- AC REINF FRT SHOCK ABSORBER TOWER UPR RT -
- AC REINF FRT SHOCK ABSORBER TOWER UPR LT -
- AD CROSSMEMBER FRT BUMPER FRT -
- AE RAIL FRT OTR RT -
- AE RAIL FRT OTR LT -
- RAIL FRT INR RT -
- RAIL FRT INR LT -
- AG CROSSMEMBER FRT BUMPER RR -
- BRACKET FRT RAIL TO CROSSMEMBER
- BRACKET FRT RAIL TO CROSSMEMBER
- AJ BRACKET CONTROL ARM MOUNTING FRT UPR FRT RT -
- AJ BRACKET CONTROL ARM MOUNTING FRT UPR FRT LT -
- AK BRACKET CONTROL ARM MOUNTING FRT UPR RR RT -

- AK BRACKET CONTROL ARM MOUNTING FRT UPR RR -
- AL REINF FRT SHOCK ABSORBER TOWER LWR RT -
- REINF FRT SHOCK ABSORBER TOWER LWR LT -
- AM PANEL DASH -
- AN PANEL - PLENUM LWR -
- PANEL PLENUM CLOSURE RT -
- PANEL PLENUM CLOSURE LT -
- PANEL COWL SIDE RT -
- AR PANEL COWL SIDE LT -
- PANEL PLENUM RR -
- PAN FLOOR FRT -
- TORQUE BOX FRT RT -
- TORQUE BOX FRT LT –
- REINF BRAKE MASTER CYL -
- AW SILL BODY SIDE RT -
- SILL BODY SIDE LT -
- PLATE COMPRESSION FRT FLOOR RT -
- AX PLATE COMPRESSION FRT FLOOR LT -
- REINF FLOOR FRT RT -
- AY REINF FLOOR FRT LT -
- AZ CROSSMEMBER FRT SEAT FRT RT -

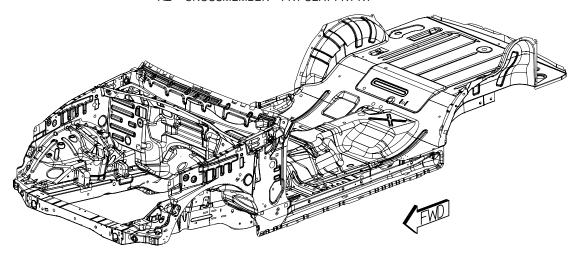
- AZ CROSSMEMBER FRT SEAT FRT LT -
- CROSSMEMBER FRT SEAT RR RT -
- BA CROSSMEMBER FRT SEAT RR LT –
- RAIL RR RAIL FRT RT -
- BB RAIL RR RAIL FRT LT -
- PLATE COMPRESSION FRT FLOOR CTR RT -
- PLATE COMPRESSION FRT FLOOR CTR
- REINF RR RAIL CTR -
- BE REINF U-CHANNEL RT -
- REINF U-CHANNEL LT -
- TORQUE BOX RR RT -
- BF TORQUE BOX RR LT -
- BG PANEL RR WHEELHOUSE INR RT -
- BG PANEL RR WHEELHOUSE INR LT -
- BH PAN FLOOR RR -
- RAIL RR RT -
- RAIL RR LT -

#### PARTS IDENTIFICATION LEGEND, OVERVIEW 16

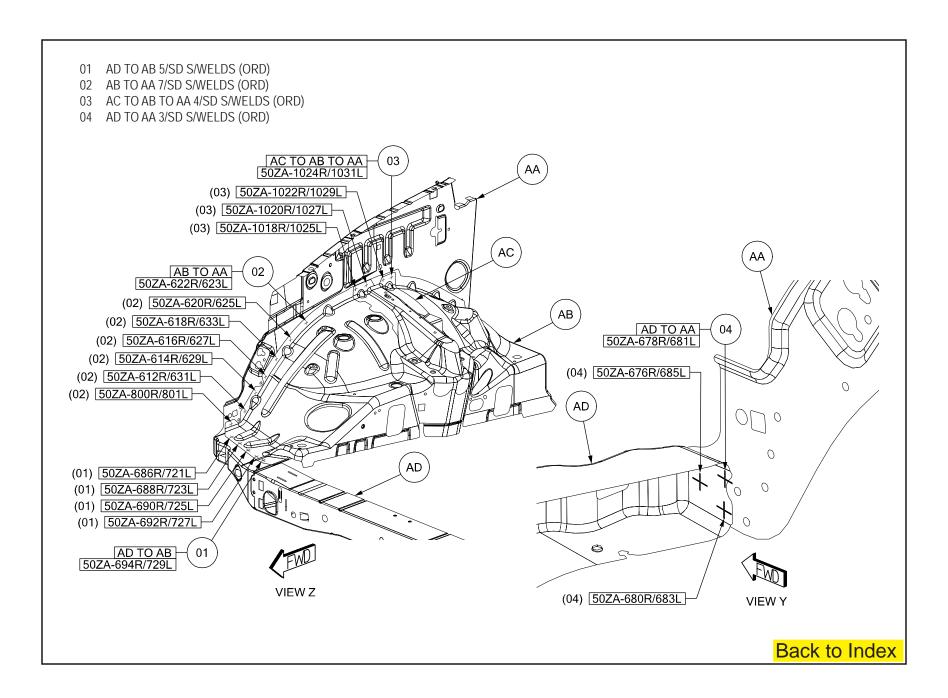
- AA PANEL FENDER INR RT –
- AA PANEL FENDER INR LT -
- AB WHEELHOUSE FRT INR RT -
- AB WHEELHOUSE FRT INR LT -
- AC REINF FRT SHOCK ABSORBER TOWER UPR RT –
- AC REINF FRT SHOCK ABSORBER TOWER UPR LT –
- AD CROSSMEMBER FRT BUMPER FRT -
- AE RAIL FRT OTR RT -
- AE RAIL FRT OTR LT -
- AF RAIL FRT INR RT -
- AF RAIL FRT INR LT -
- AG CROSSMEMBER FRT BUMPER RR -
- AH BRACKET FRT RAIL TO CROSSMEMBER
- AH BRACKET FRT RAIL TO CROSSMEMBER
- AJ BRACKET CONTROL ARM MOUNTING FRT UPR FRT RT –
- AJ BRACKET CONTROL ARM MOUNTING FRT UPR FRT LT –
- AK BRACKET CONTROL ARM MOUNTING FRT UPR RR RT –

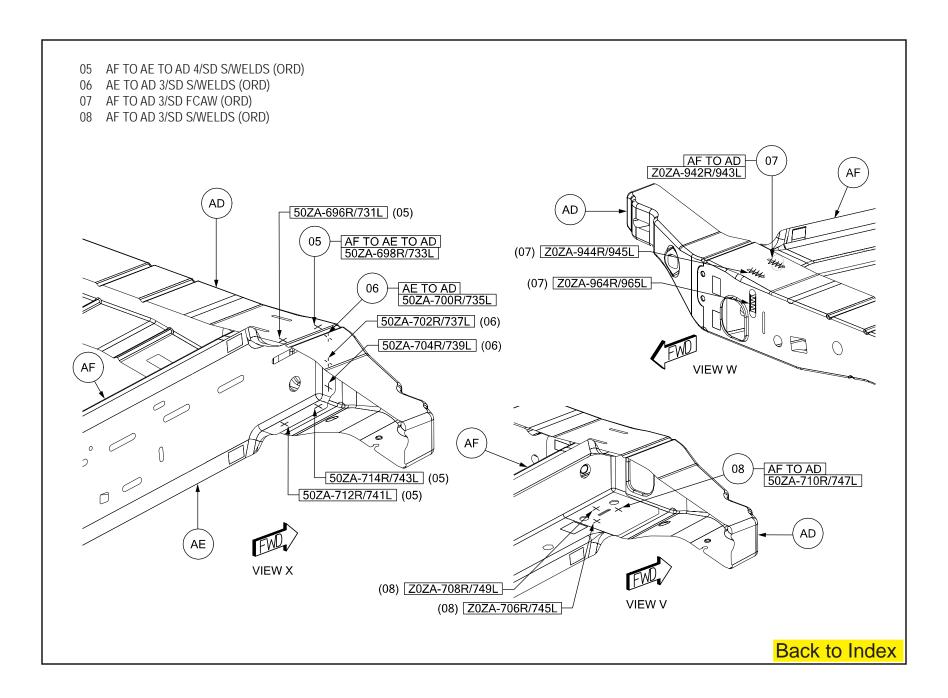
- AK BRACKET CONTROL ARM MOUNTING FRT UPR RR –
- AL REINF FRT SHOCK ABSORBER TOWER LWR RT –
- AL REINF FRT SHOCK ABSORBER TOWER LWR LT –
- AM PANEL DASH -
- AN PANEL PLENUM LWR -
- AP PANEL PLENUM CLOSURE RT –
- AP PANEL PLENUM CLOSURE LT –
- AR PANEL COWL SIDE RT -
- AR PANEL COWL SIDE LT -
- AS PANEL PLENUM RR -
- AT PAN FLOOR FRT –
- AU TORQUE BOX FRT RT –
- AU TORQUE BOX FRT LT –
- AV REINF BRAKE MASTER CYL -
- AW SILL BODY SIDE RT -
- AW SILL BODY SIDE LT –
- AX PLATE COMPRESSION FRT FLOOR RT -
- AX PLATE COMPRESSION FRT FLOOR LT -
- AY REINF FLOOR FRT RT -
- AY REINF FLOOR FRT LT –
- AZ CROSSMEMBER FRT SEAT FRT RT -

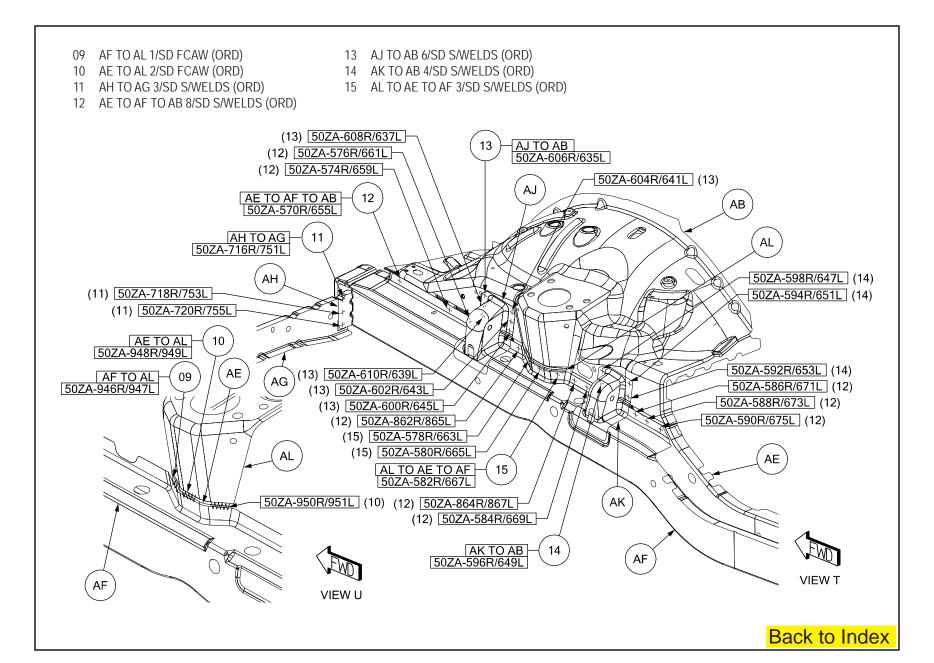
- AZ CROSSMEMBER FRT SEAT FRT LT -
- BA CROSSMEMBER FRT SEAT RR RT -
- BA CROSSMEMBER FRT SEAT RR LT -
- BB RAIL RR RAIL FRT RT -
- BB RAIL RR RAIL FRT LT -
- BC PLATE COMPRESSION FRT FLOOR CTR
- BC PLATE COMPRESSION FRT FLOOR CTR
- BD REINF RR RAIL CTR -
- BE REINF U-CHANNEL RT -
- BE REINF U-CHANNEL LT -
- BF TORQUE BOX RR RT –
- BF TORQUE BOX RR LT –
- BG PANEL RR WHEELHOUSE INR RT -
- BG PANEL RR WHEELHOUSE INR LT -
- BH PAN FLOOR RR -
- BJ RAIL RR RT -
- BJ RAIL RR LT -



# WELD LAYOUT LOCATION GUIDE Back to Index

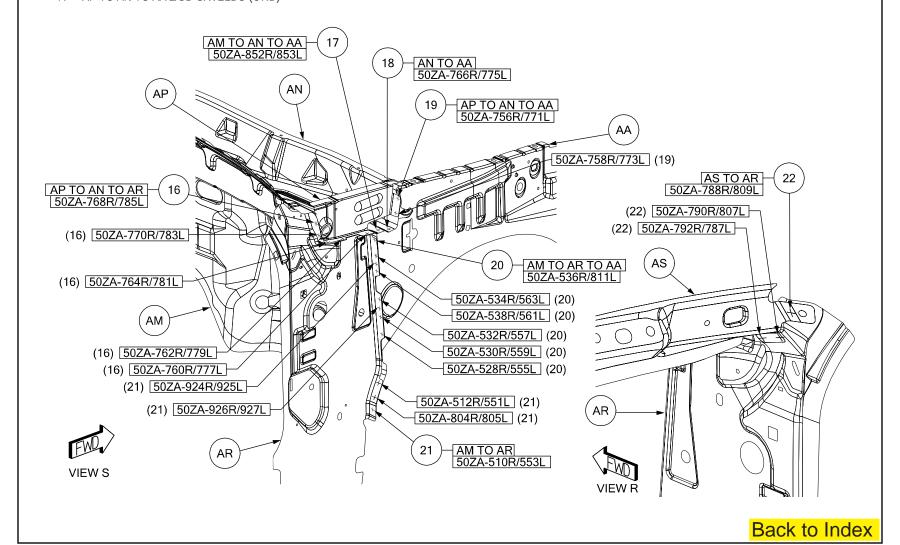


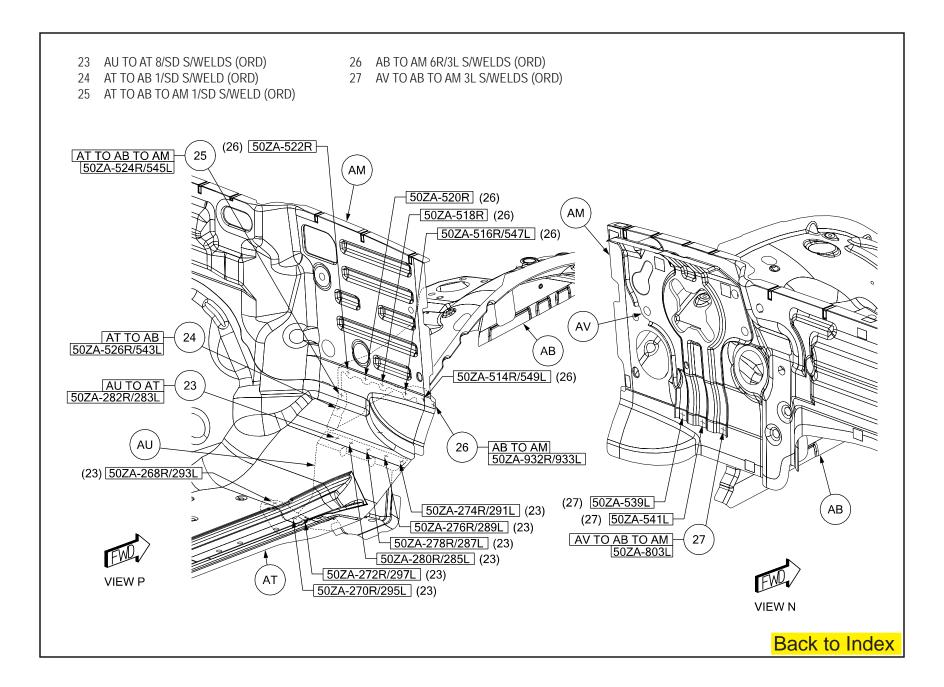


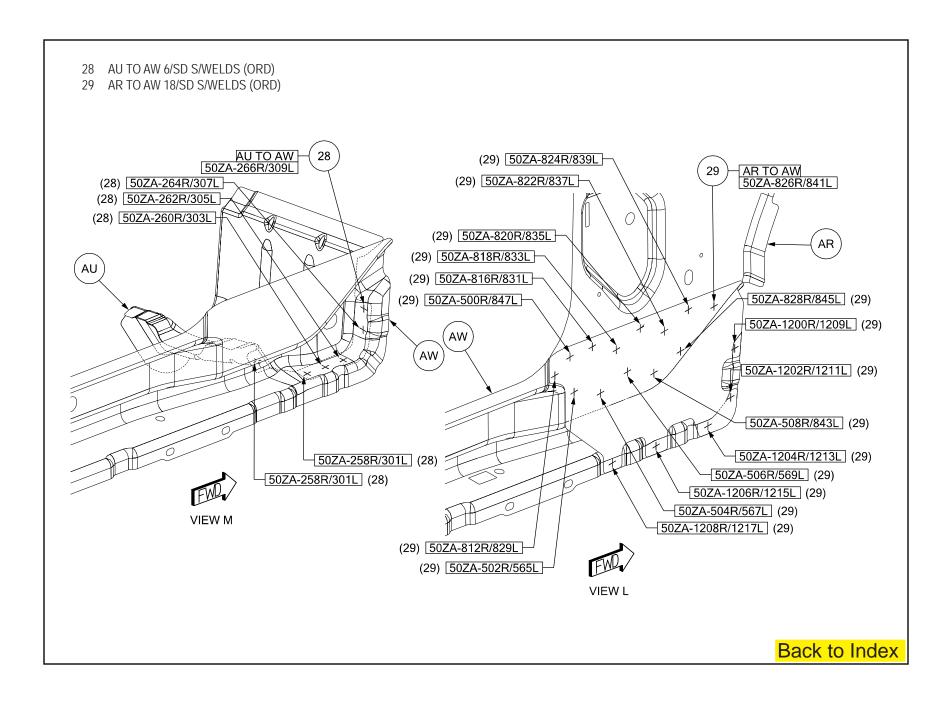


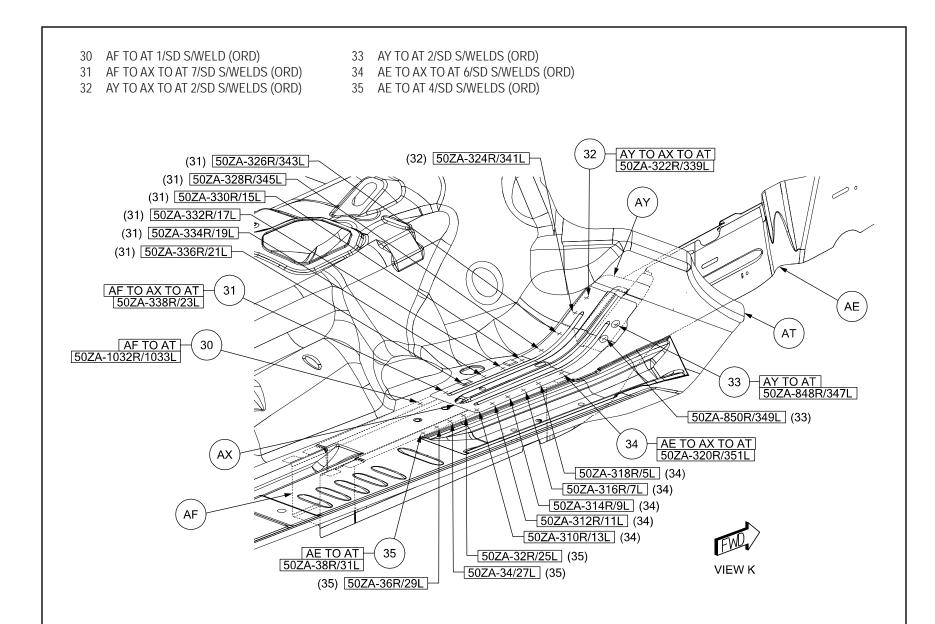


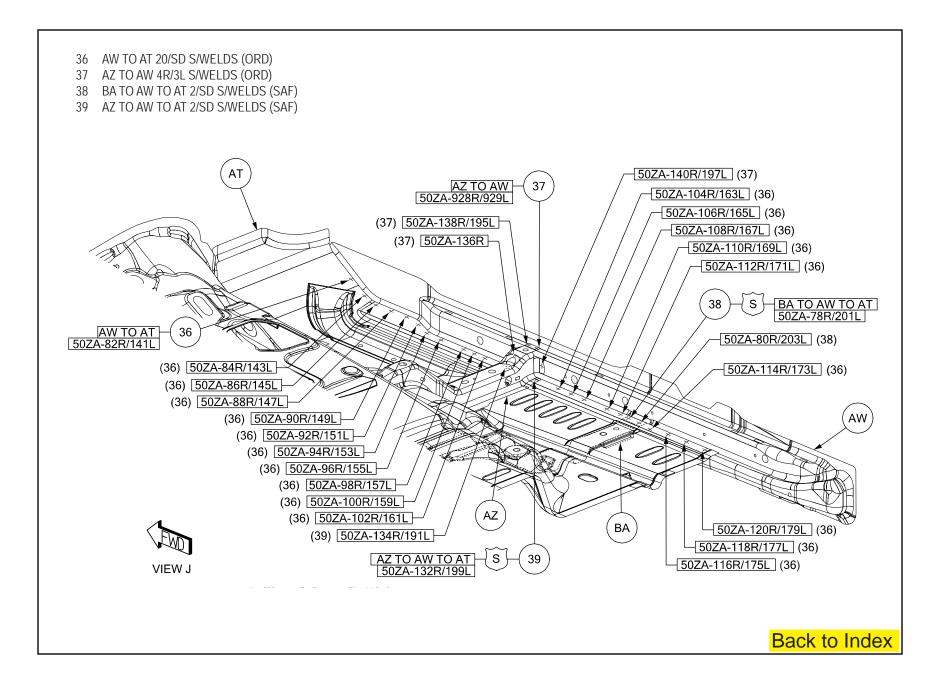
- 17 AM TO AN TO AA 1/SD S/WELD (ORD)
- 18 AN TO AA 1/SD S/WELD (ORD)
- 19 AP TO AN TO AA 2/SD S/WELDS (ORD)
- 20 AM TO AR TO AA 6/SD S/WELDS (ORD)
- 21 AM TO AR 5/SD S/WELDS (ORD)
- 22 AS TO AR 3/SD S/WELDS (ORD)





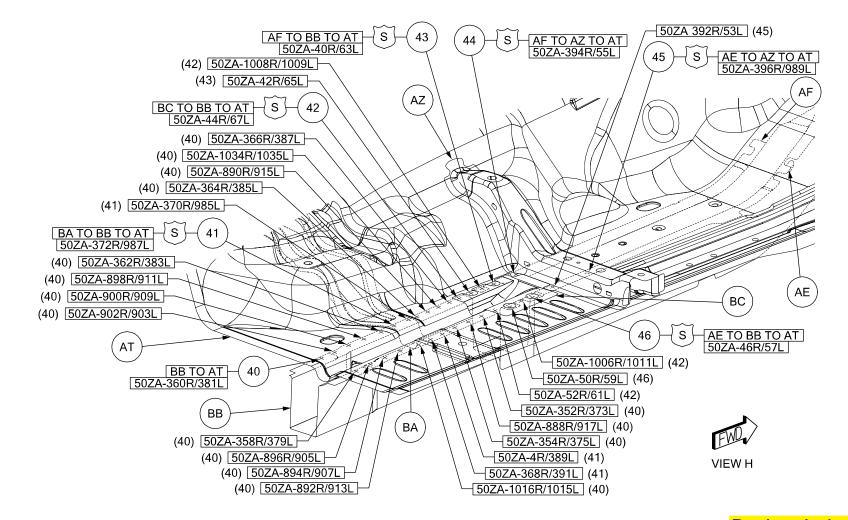


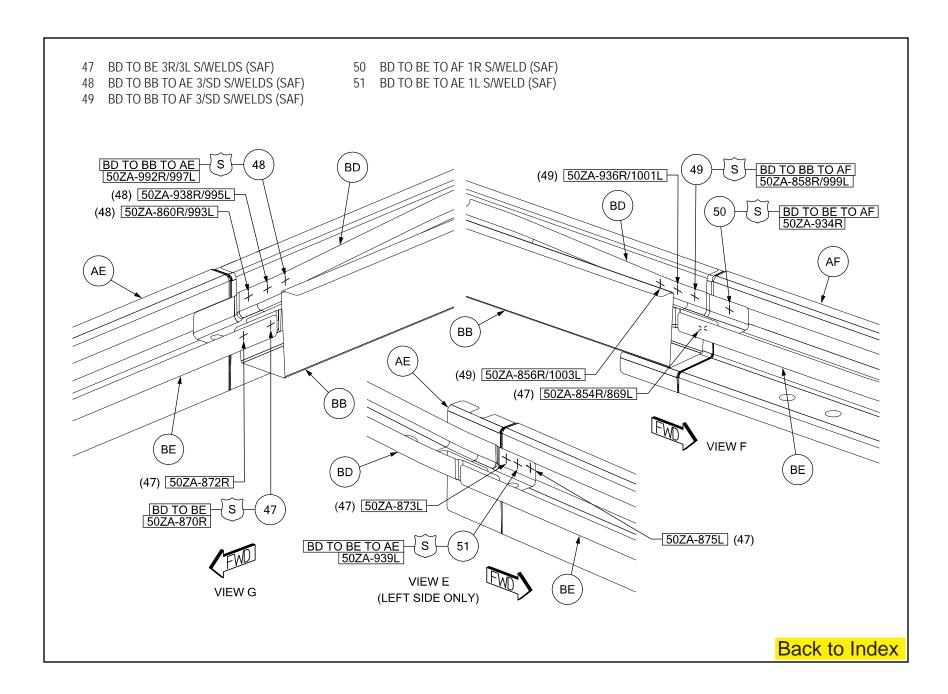


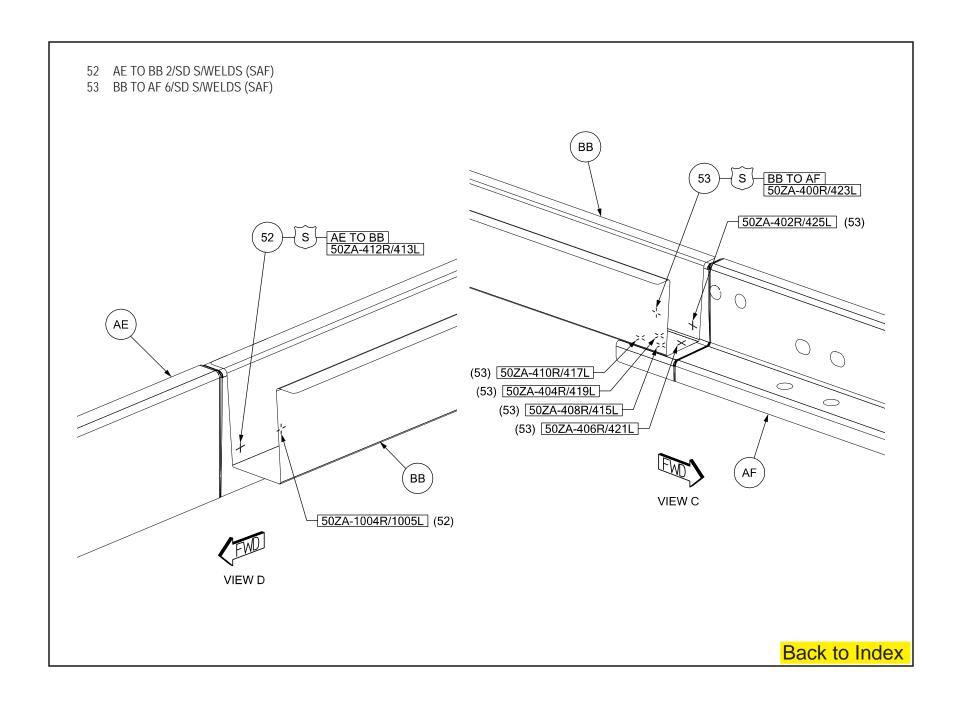


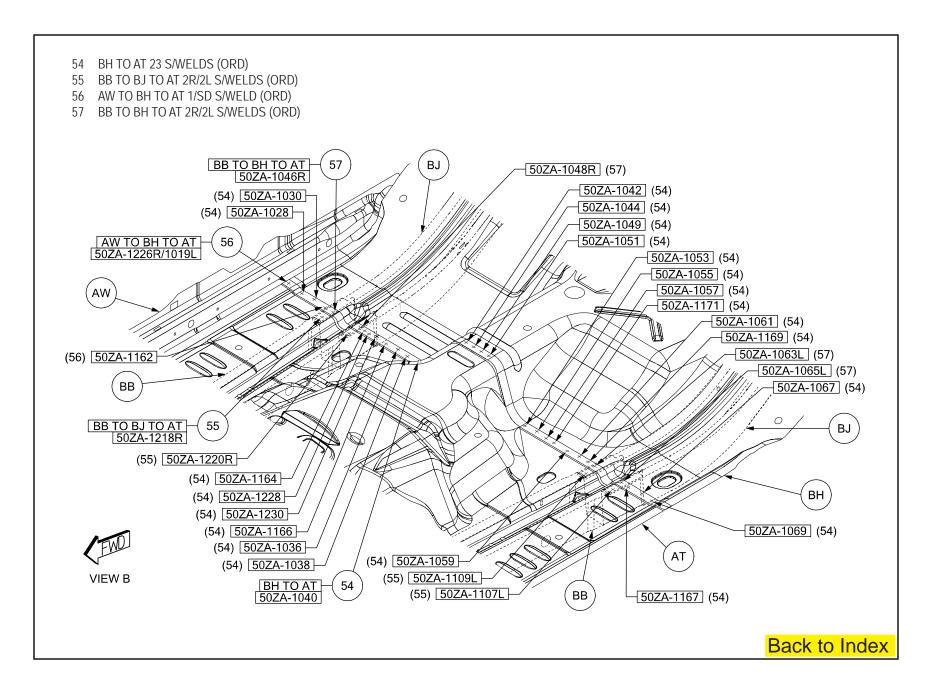


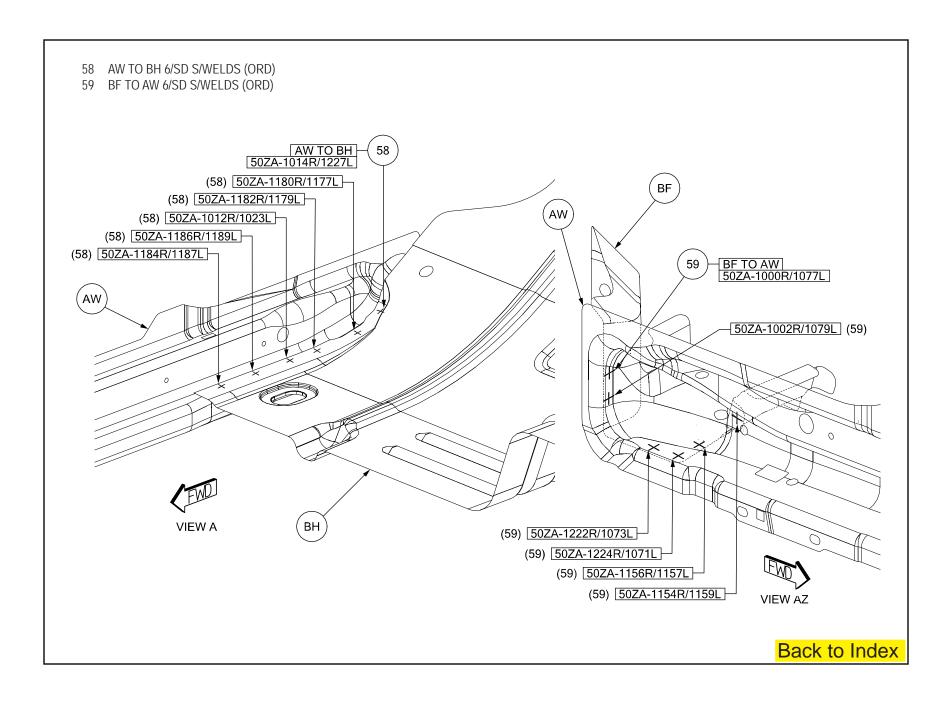
- 41 BA TO BB TO AT 4/SD S/WELDS (SAF)
- 42 BC TO BB TO AT 4/SD S/WELDS (SAF)
- 43 AF TO BB TO AT 2/SD S/WELDS (SAF)
- 44 AF TO AZ TO AT 1/SD S/WELD (SAF)
- 45 AE TO AZ TO AT 2/SD S/WELDS (SAF)
- 46 AE TO BB TO AT 2/SD S/WELDS (SAF)

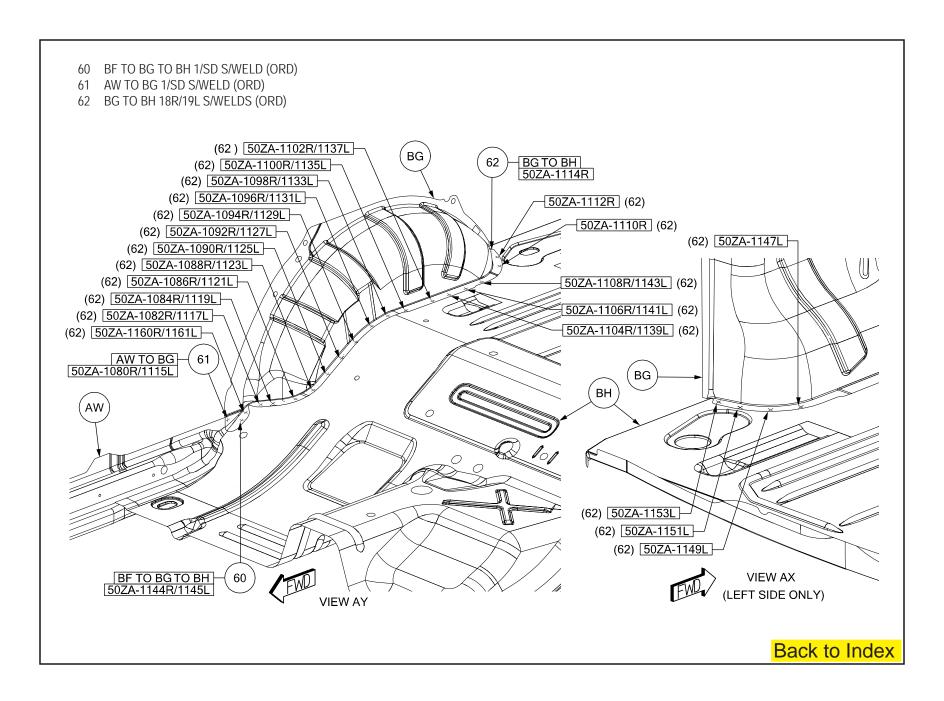


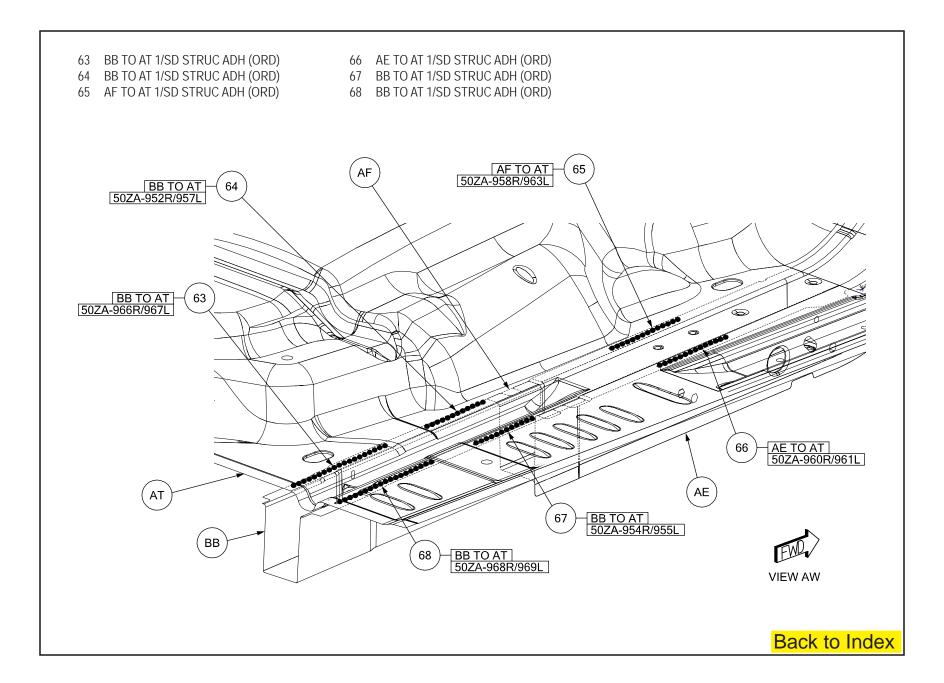


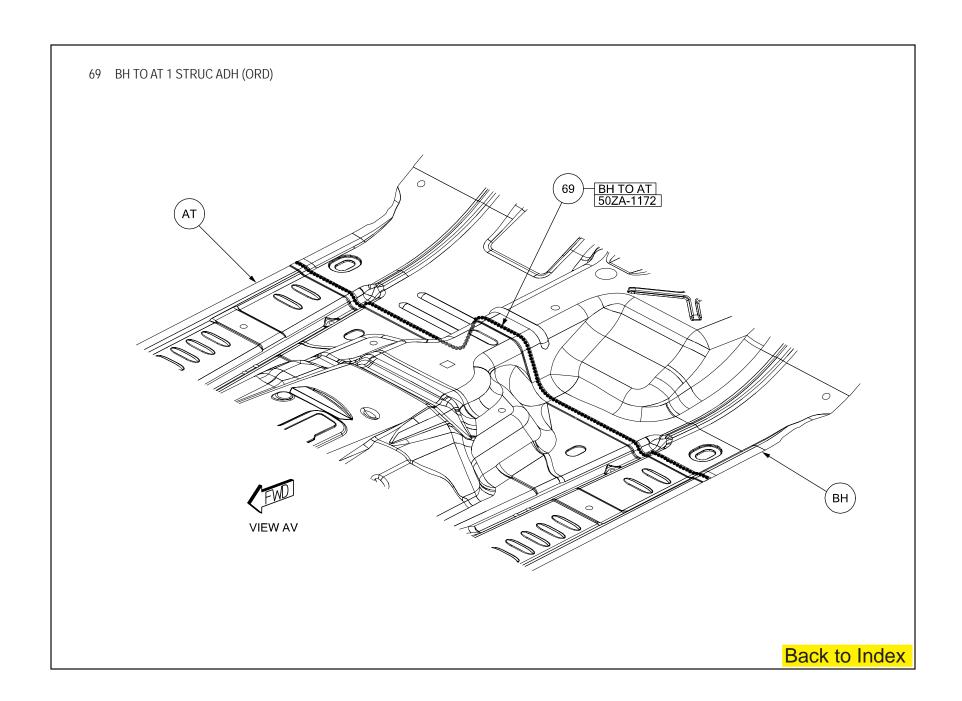


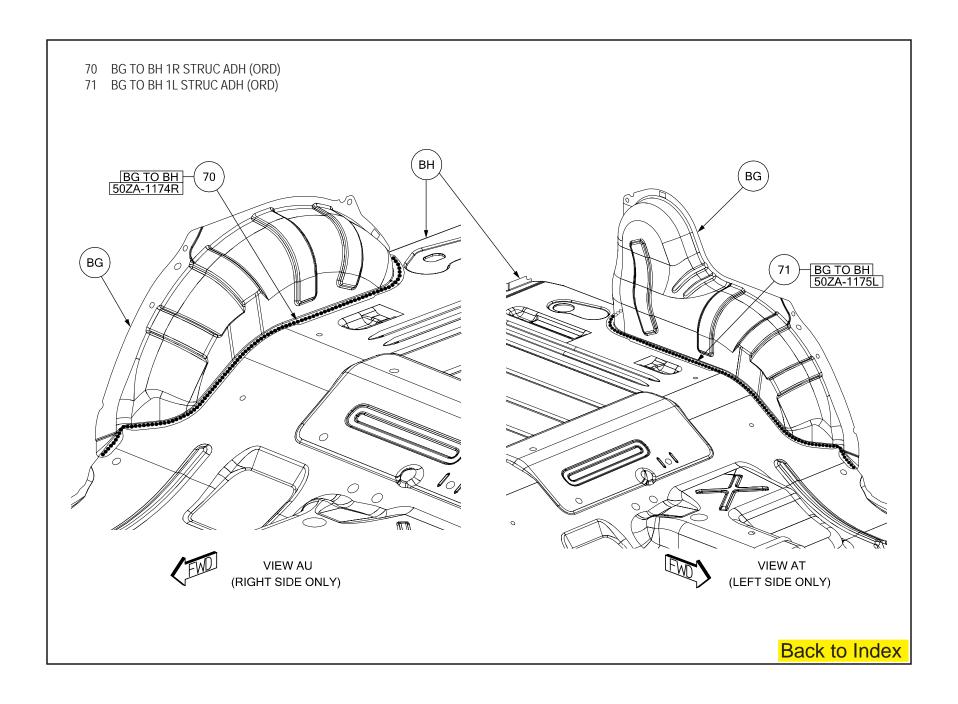








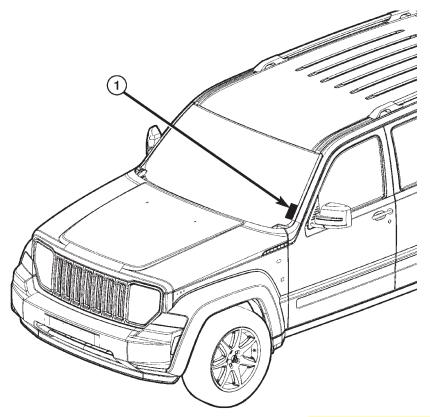




#### JEEP LIBERTY VEHICLE IDENTIFICATION NUMBER DESCRIPTION

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

#### **VEHICLE IDENTIFICATION NUMBER (VIN)**1 - VEHICLE IDENTIFICATION NUMBER (VIN)



#### **VEHICLE IDENTIFICATION NUMBER DECODING CHART**

POSITION	INTERPRETATION	CODE = DESCRIPTION	
1	Country of Origin	1 = Manufactured by Daimler Chrysler Corporation	
2	Make	J = Jeep	
3	Vehicle Type	4 = Multipurpose Passenger Vehicle Withour Side Air Bags 8 = Multipurpose Passenger Vehicle With Side Air Bags	
4	Gross Vehicle Weight Rating	G = 4001-5000 Lbs. (1815-2267 Kg)	
5	Vehicle Line	P = Liberty Left Hand Drive (4X2) N = Liberty/Cherokee Left Hand Drive (4X4) 4 = Cherokee Right Hand Drive (4X4)	
6	Series/Transmission	2 = Lowline 5 = Premium B = 4 Speed Automatic (DGV) C = 6 Speed Manual (DEH) E = 5 Speed Automatic (DGJ)	
7	Body Style	8 = Sport Utility 4 Door	
8	Engine	K = 3.7L V6 CYL Magnum Gasoline Sales Code (EKG) 9 = 2.8L I4 CYL Turbo Diesel Next Gen Sales Code (ENS)	
9	Check Digit	0 through 9 or X	
10	Model Year	8 = 2008	
11	Assembly Plant	W = Toledo South Assembly	
12 - 17	Vehicle Build Sequence Six Digit Number Assigned By the Assembly Plant		

The Vehicle Identification Number (VIN) are unique identifying codes that have appeared on every vehicle sold on the United States since 1981. A VIN is 17 characters long, consisting of numbers and letters.

Each character in a VIN has a specific meaning, and the VIN is broken up into sections. The following image (courtesy of howstuffworks.com) shows the 17 placeholders, described in detail below.

1 2 3	4 5 6 7 8	9 10 	11 	12 13 14 15 16 17
Manufacturer	Vehicle		Paint	Production Sequence
Identifier	Descriptor		Code	Numbers

Position	Meaning
1	Nation of origin (where assembled); larger nations are split into regions
2	Manufacturer
3	Division within manufacturer, or vehicle type
4	Vehicle weight and/or horsepower
5	Vehicle Platform
6	Specific model or other special code
7	Body type
8	Engine
9	Check digit
10	Model Year
11	Paint code (where assembled)
12-17	Production sequence numbers

Positions four through eight might also be coded for information on the transmission used, the grade of the car or other features such as safety belts and sir bags. For the check digit, the other digits go through a series of calculations to obtain the correct digit. This allows computers to tell immediately if there is an error in the VIN, which often happens when someone transcribes a VIN or enters it into a computer.

The european Union has a similar regulation for VINs, but is less stringent than the North American rule. European VINs are not required to include year, factory or vehicle attribute data. However, the two systems are compatible.

Did you know that two vehicles can have the same VIN? It's possible, but two cars built within 30 years of each other cannot have the same identifier.

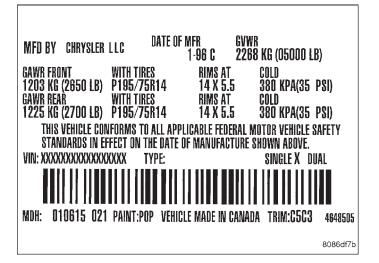
#### VEHICLE CERTIFICATION LABEL

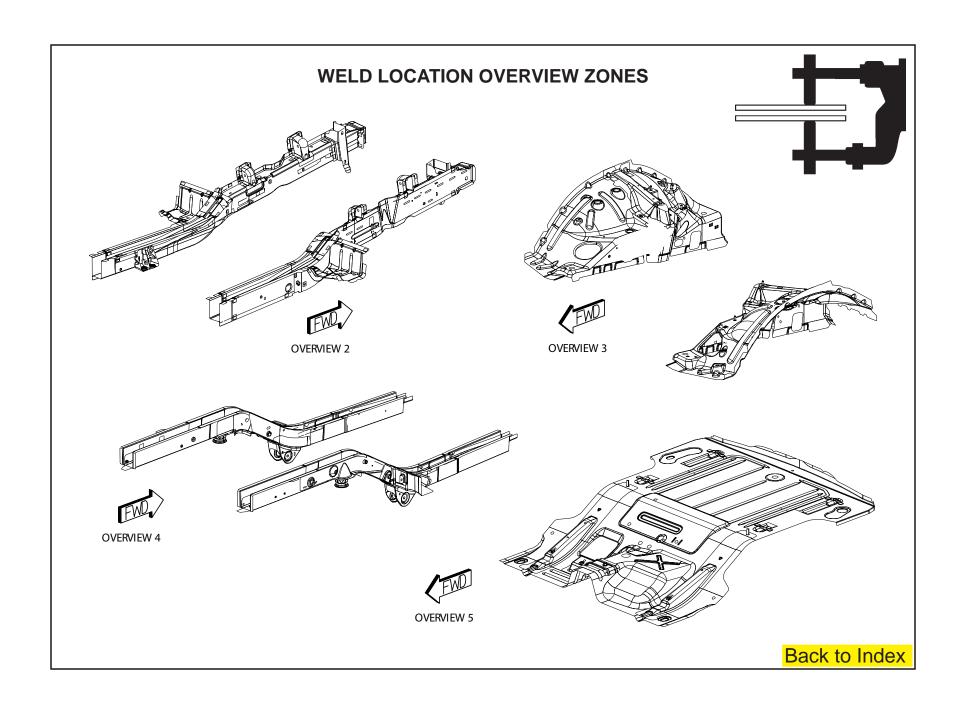
#### **DESCRIPTION**

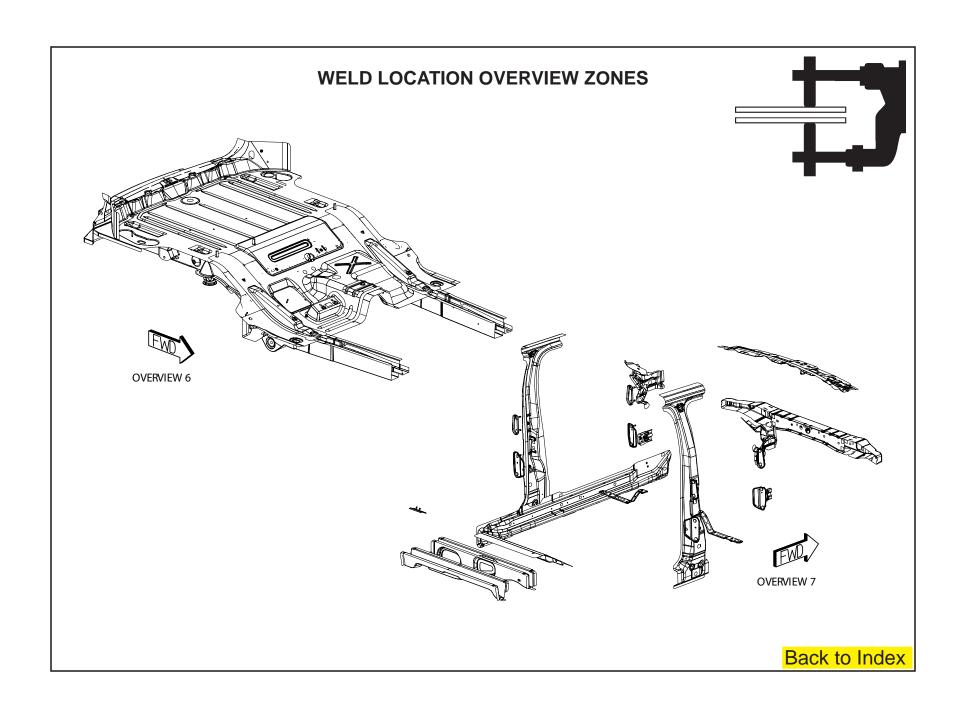
A vehicle certification label is attached to every Chrysler LLC vehicle. The label certifies that the vehicle conforms to all applicable Federal Motor Vehicle Standards. The label also lists:

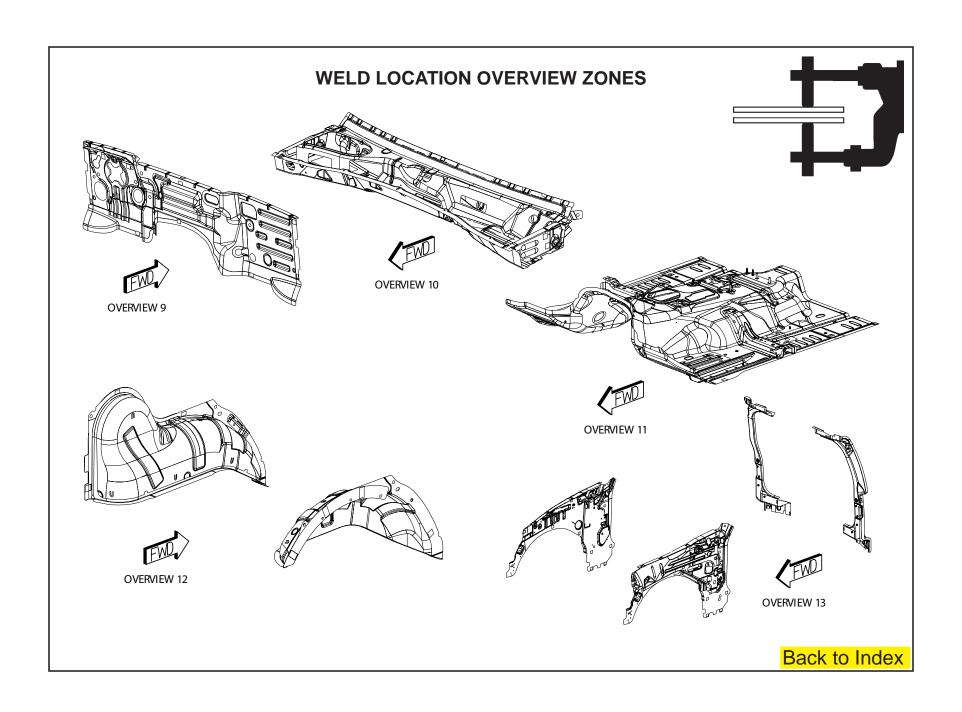
- Month and year of vehicle manufacture.
- Gross Vehicle Weight Rating (GVWR). The gross front and rear axle weight ratings (GAWR's) are based on a minimum rim size and maximum cold tire inflation pressure.
- · Vehicle Identification Number (VIN).
- Type of vehicle.
- Type of rear wheels.
- Bar code.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

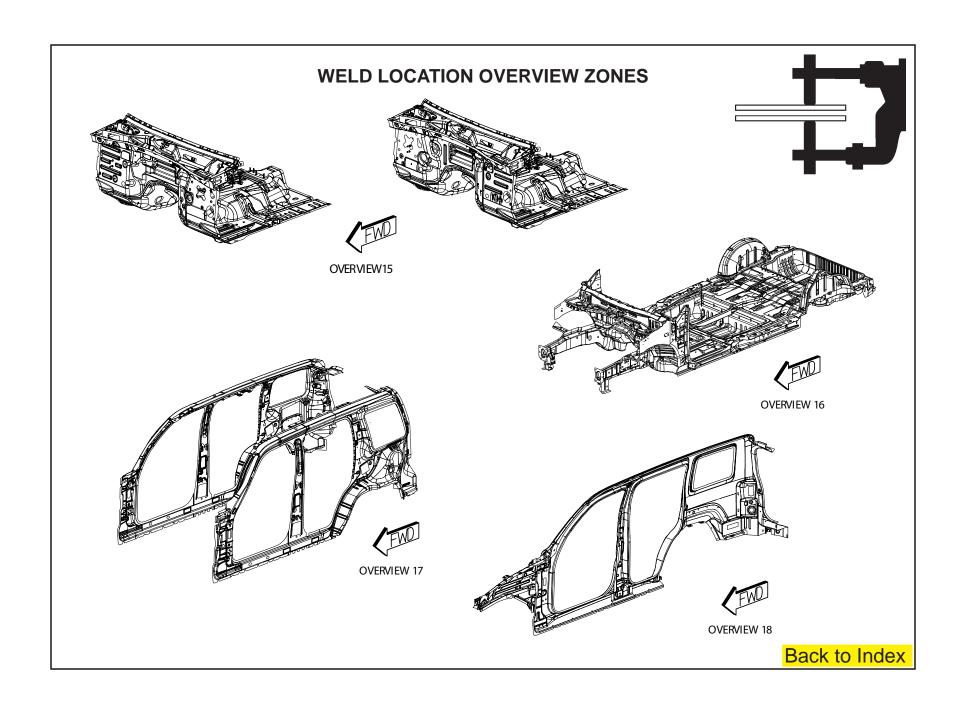
The label is located on the driver-side door shut-face.

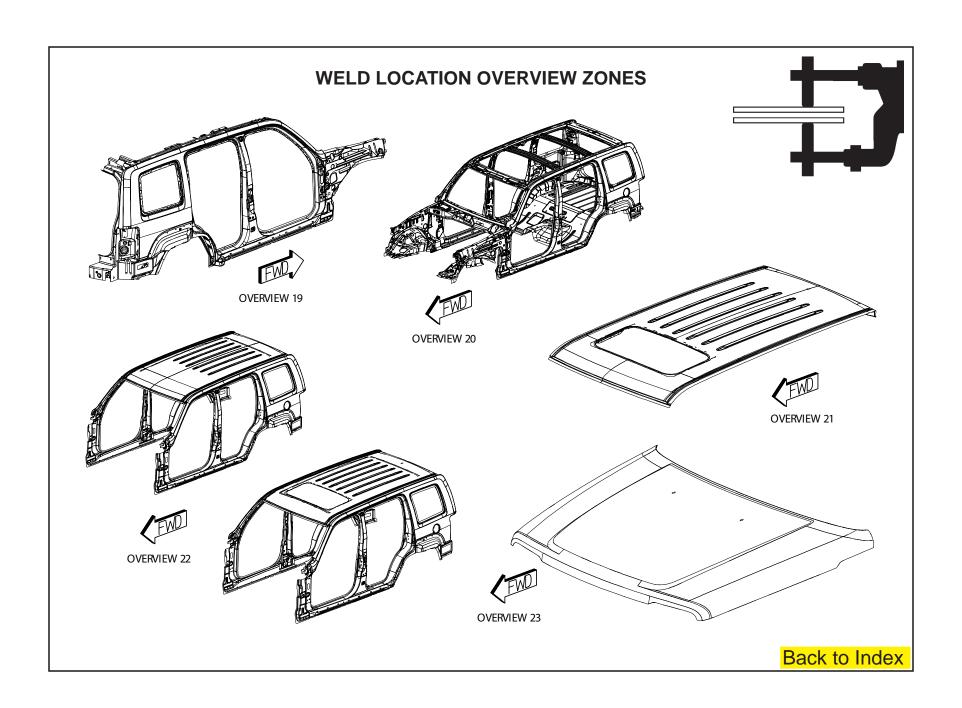




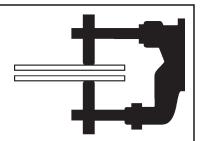


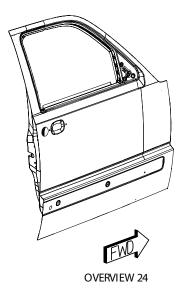


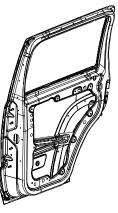




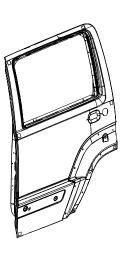
#### WELD LOCATION OVERVIEW ZONES

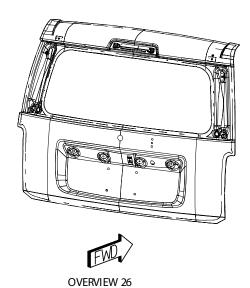


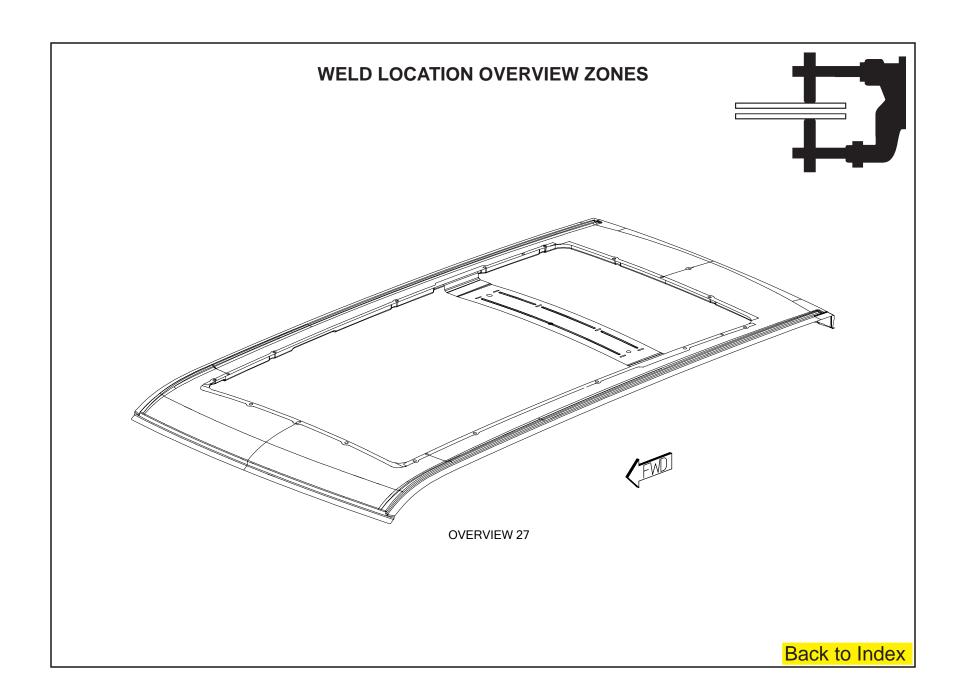




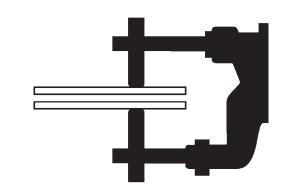








# WELDED PANEL REPLACEMENT Jeep Liberty



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	Underbody and Dash
Front Rail Assembly	Body Side Aperture Inner
Front Wheelhouse Assembly	Body Side Aperture Outer
Rear Rail Assembly	Body Side Aperture Complete
Rear Floor Assembly	Body In White Without Roof
Rear Floor Complete	Roof With Sunroof And Without Sunroof
Miscellaneous Body	Body In White Complete
Dash	Hood
Plenum Lower	Front Door
Front Floor Assembly	Rear Door
Rear Wheelhouse	Liftgate
Miscellaneous Body Components	Retractable Roof
Front Floor/Dash/Plenum	