



Database Reference Manual

Database Reference Manual

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BEST PRACTICES GUIDELINES FOR ESTIMATING AND PROCESSING AUTO PHYSICAL DAMAGE CLAIMS

The Collision Industry Conference "Write It Right" Committee, a dedicated volunteer group of insurers and repairers, produced a set of working guidelines of unprecedented value to our industry. They represent

A Consensus on how to work together for the benefit of the vehicle owner
in the spirit of good faith business practice and mutual respect.

Now the members of the Collision Industry Conference ask that all responsible repairers and insurers endorse and adopt these nineteen common-sense practices.

Prior to visiting the shop the adjuster should call to...

- 1 Verify that the car is there
- 2 Provide an accurate description of vehicle and area of damage
- 3 Determine if the repair facility has the owner's signed authorization to tear down/repair
- 4 Review towing, authorize tear down, and agree on pre-tear down photos

At the initial inspection the repairer and insurance company representative should...

- 5 Exchange business cards that identify the company and representative
- 6 Document all administrative data
- 7 Identify coverage and payment issues prior to adjuster/appraiser leaving facility and repairs begin started
- 8 Document the usage of appropriate new, used or alternative parts
- 9 Document unrelated damage
- 10 Share the responsibility to protect the vehicle during the repair process
- 11 Leave a copy of the repair estimate

The repairer should...

- 12 Document any changes to the repair process as they occur or daily
- 13 Inspect and test drive the vehicle where damage or repairs could possibly affect the vehicle safety or integrity

Repairers and insurers together...

- 14 Should be able to communicate electronically
- 15 Should eliminate unnecessary requirements, which add cost to the claim and delay the repair and payment process
- 16 Must not participate in the illegal, unethical, and fraudulent practice of cost shifting
- 17 Must list as line items on the estimate all procedures and parts necessary to repair the vehicle to pre-accident condition, whether or not included or recognized in the information providers' systems
- 18 Must produce a final estimate/final invoice which is a true and accurate report of the repairs
- 19 Must write true judgment time that reflects the costs of all labor and economic factors necessary to perform the repair

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These documents are work products of the Collision Industry Conference and are being provided by Audatex as a courtesy to CIC and the collision industry. As such, they do not necessarily reflect the opinions of Audatex and have no impact on the Audatex Estimating system or database in any way.

Best Practices Guidelines

The **Collision Industry Conference Insurer-Repairer Task Force**, a dedicated volunteer group of insurers, repairers, and industry partners have produced a set of working guidelines that represent:

A consensus on how to work together for the benefit of the vehicle owner using good faith business practices and mutual respect in the event of a collision or an event that results in the need for collision repair

Now the members of the Collision Industry Conference ask that all responsible repairers and insurers endorse and adopt common-sense practices.

NOTE: This is a “living” document, designed to be modular in approach. It is intended to be global in nature and will provide the framework for all collision industry Best Practices. This is a draft and is not intended to be acted upon in any way other than review and comment from interested industry colleagues.

1. Event Notification

a. Insurer

- i. Receives notification from insured/claimant
- ii. Take the notice of loss
- iii. Verify and inform insured/claimant of coverage and rights pertaining to the claim
- iv. Inform insured/claimant of actions to be taken, who is responsible

b. Repairer

- i. Repairer is contacted by consumer and/or insured/claimant
 1. Ensures that the insurer has been informed (if applicable)
 2. Inspect and communicate damage and recommended repair process to consumer and/or insured/claimant and insurer
 - a. Repair v. replace
 - b. Parts to be used
 3. Photograph vehicle
 4. Protect from additional damage as possible
 5. Obtain repair authorization
 6. Disassemble vehicle to determine parts and labor required for repair
 7. Order parts
 8. Establish target delivery date and begin repair
 9. Keep consumer informed of progress, repair process and any change in status or associated costs
- ii. Repairer is contacted by insurer (separate DRP/non-DRP) (drivable v. non-drivable)
 1. Contact consumer and/or insured/claimant
 2. Inspect and communicate damage to insured/claimant and insurer
 3. Photograph vehicle
 4. Protect from additional damage
 5. Obtain repair authorization
 6. Disassemble vehicle if required
 7. Order parts, determine anticipated delivery date for parts
 8. Schedule start date
 9. Establish target delivery date for vehicle and begin repair
 10. Inform consumer and/or insured/claimant of actions to be taken, responsible party including:
 - a. Estimate process
 - b. Repair options
 - c. Repair
 - d. Towing (if applicable)
 - e. Payment amount and timing
 - f. Replacement/rental vehicle options/substitute transportation

Continued Reverse Side

These documents are work products of the Collision Industry Conference and are being provided by Audatex as a courtesy to CIC and the collision industry. As such, they do not necessarily reflect the opinions of Audatex and have no impact on the Audatex Estimating system or database in any way.

2. Best Practices: Pre-Production (prior to repair)
 - a. Obtain vehicle (tow-in v. drive-in)
 - b. Determine if the vehicle is safely drivable v. non-drivable
 - c. Perform vehicle drop-off inspection (with vehicle owner)
 - d. Obtain signed repair authorization
 - e. Process appropriate forms (legal, regulatory, other)
 - f. Non-drivable
 - i. Disassemble to determine damage and complete repair plan (if applicable)
 - ii. Determine type of parts to be used in repair
 - iii. Communicate to consumer and/or insured/claimant any changes in repair plan, type of parts to be used, all relevant repair information
 - iv. Obtain repair authorization
 - v. Order parts
 - vi. Establish and communicate estimated completion date
 - vii. Schedule for repair
 - g. Drivable
 - i. Determine type parts to be used in repair
 - ii. Communicate to consumer and/or insured/claimant any changes in repair plan, type of parts to be used, all relevant repair information
 - iii. Obtain repair authorization
 - iv. Order parts
 - v. Establish and communicate estimated completion date
 - vi. Schedule for repair
3. Repair Process
 - a. Complete disassembly and audit estimate to determine damage and complete repair plans
 - i. Communicate any changes to consumer and/or insured/claimant and/or insurer, if applicable
 - b. Receive, inspect and validate parts
 - c. Determine and communicate any changes to consumer and insurer, if applicable
 - d. Communicate progress to consumer and/or insured/claimant including target completion date on a regular basis
 - e. Verify payment process including deductible
4. Pre-Delivery Process
 - a. Perform pre-delivery inspection to ensure complete, safe and proper repair
 - b. Road test vehicle if required
 - c. Clean/detail vehicle
 - d. Reconcile parts list, repair order and damage estimate
5. Delivery of Vehicle
 - a. Schedule delivery time with consumer and/or insured/claimant
 - b. Present vehicle to owner, confirm and review repairs
 - c. Present consumer and/or insured/claimant with estimate, repair order, warranty
 - d. Transmit, deliver final package to insurer if required, including any regulatory requirements, if applicable.
6. Post-Delivery Process
 - a. One or two days after pick-up/delivery of vehicle, contact consumer and/or insured/claimant to ensure satisfaction with repairs
 - b. Respond accordingly to any issues that may have to be dealt with.
 - c. Ensure that a CSI survey is performed whether by the repairer, insurer or a third party.

Adopted July 23, 2008

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Feather/Prime/Block Collision Industry Conference April 2006

- The repair process associated with damaged painted body panels typically involves multiple operations: body repair, feather, prime, block and refinish.
- The body repair process includes metal finishing and/or the use of body fillers to return the body panel to its undamaged contour. The repaired area is finished to 150-grit and free of surface imperfections.
- Feather, prime and block are not-included refinish operations that complete the process from 150-grit to the condition of a new undamaged panel and are outlined and documented in printed and/or electronic time guides.
- The body/paint labor and materials necessary to prepare the repaired area from 150-grit to the condition of a new undamaged part are valid and required steps in the process. The labor and material allowance for these operations requires an on-the-spot evaluation of the specific vehicle and damage.

Section 1-1 Acknowledgements

Acknowledgements

Audatex, a Solera company, gratefully acknowledges and thanks the vehicle manufacturers that participate with us in the development of Audatex products. Additionally, we acknowledge I-CAR for permission to reproduce materials contained herein (clearly marked as I-CAR materials). We also wish to thank the many automotive refinish, parts, and equipment manufacturers who have cooperated.

All labor times included in Audatex products are the property and proprietary information of Audatex. They are developed through independent time studies conducted by Audatex, coupled with service procedures provided by the vehicle manufacturers. They do not reflect vehicle manufacturers' warranty times.

Some vehicle manufacturers have specific and recommended repair processes and procedures as well as recommended equipment to maintain vehicle warranty. For details, please check with the applicable manufacturer. Known manufacturer recommendations are as follows:

- **BMW** recommends:
 - the use of specific paint products in the refinish process.
 - the use of specific unibody straightening equipment in the repair of their vehicles
 - specific processes and procedures for repair of aluminum parts.
 - specific processes and procedures for repair Carbon fiber parts.
- **Audi** recommends:
 - specific processes and procedures for repair of aluminum parts.
 - the use of specific unibody straightening equipment in the repair of their vehicles
- **Ford** recommends:
 - specific processes and procedures for repair of aluminum parts.
- **Land Rover** recommends:
 - specific processes and procedures for repair of aluminum parts.
 - the use of specific unibody straightening equipment in the repair of their vehicles
- **Cadillac** recommends:
 - specific processes and procedures for repair of aluminum parts.
 - the use of specific unibody straightening equipment in the repair of some vehicles
- **Jaguar** recommends:
 - specific processes and procedures for repair of aluminum parts.
 - the use of specific unibody straightening equipment in the repair of their vehicles
- **Mercedes-Benz** recommends:
 - the use of specific unibody straightening equipment in the repair of their vehicles.
 - specific processes and procedures for repair of aluminum parts
 - the use of specific paint products in the refinish process.
 - specific processes and procedures for repair of boron steel parts.
- **Porsche** recommends:
 - specific processes and procedures for repair of boron steel parts.
 - the use of specific unibody straightening equipment in the repair of their vehicles
 - specific processes and procedures for repair of aluminum parts
- **Volvo** recommends:
 - specific processes and procedures for repair of boron steel parts.
- **Toyota** recommends:
 - performing a "Health Check" diagnostic scan before and after every repair to identify and document DTCs.
- **Honda** recommends:
 - a preliminary diagnostic scan during the repair estimation phase to determine what DTCs may be present, and a post repair diagnostic scan to confirm that no DTCs remain.

Section 1-1 Acknowledgements

- **Chrysler** recommends:
 - safety and security related systems, such as antilock brakes, supplemental restraint systems (SRS - air bags), occupant restraint controller (ORC), seat belts, active head restraints, forward facing camera and radar, blind spot monitoring, and other automated electronic driver assistance systems, MUST be tested for fault codes (DTCs) that could be active (current) or stored following a collision.
- **Nissan** recommends:
 - vehicles be scanned following a collision repair to help ensure the vehicles' systems are communicating properly with no trouble codes outstanding. It is also recommended that, where appropriate, a pre-repair scan also be completed for reasons mentioned above.
- **Tesla** recommends:
 - the use of specific paint products in the refinish process.
 - the use of specific unibody straightening equipment in the repair of their vehicles
 - specific processes and procedures for repair of aluminum parts
 - Toolbox is Tesla's diagnostic and repair software. Some operations require the use of Toolbox to reset controllers, program newly-installed components, test newly-installed components, or update firmware.

Audatex gratefully acknowledges vehicle manufacturers for providing parts and pricing information, service manuals, and other technical support data. Audatex acknowledges specific proprieties of the following manufacturers and entities:

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Section 2-1 How to Read the Audatex Estimate

Reports Explained

How to Read the Audatex Estimate

Overview of the Audatex Estimate

Audatex estimating applications, coupled with the Audatex database, provide access to millions of pieces of information on parts, prices, and labor.

Audatex automatically:

- provides OEM part numbers, part prices, and labor.
- performs all necessary calculations and totals including any discounts, markups, adjustments, and tax computations.
- deducts overlap (defined as any operation common to the replacement of two or more parts). Net labor after deduction for overlap is provided in the estimate printout.

Audatex provides the estimate preparer an accurate, legible, professional quality estimate. The following pages show examples of Audatex estimates and labor reports. These examples explain all terms and codes necessary to read the estimate.

Reading an Audatex Estimate

The Audatex estimate is easy to read. It provides complete documentation of the work to be done on a damaged vehicle.

Asterisks on an estimate are used to denote user-entered values. They do not imply that the operation noted is not a necessary procedure.

Manual entries on an estimate do not imply that the part/operation entered is not a necessary procedure.

If you find additional damage to the vehicle that is not listed on the estimate, you can generate a supplement to the original estimate.

The Audatex supplement feature will:

- automatically recalculate all previous totals
- print out the new total at the bottom of the estimate

On the printout, any new entries and changes made as part of the supplement will be marked with an "S." You can generate as many supplements as needed. The estimate will show which entries were entered by each supplement with a number next to the "S" (S1, S2, S3, etc.).

In addition, there is a configurable correction feature so you can make corrections to an estimate. The Audatex application will recalculate the entire estimate, but any changes will not display the distinctive "S" used for supplements.



Important Note: Report examples are provided as samples and may differ in Audatex Estimating due to monthly updates.

Section 2-2 An Explanation of the Audatex Estimate

1	Test Collision Repair For Testing Purposes Only ***** For Falcon USA - SHPFAL1
*** ESTIMATE ***	
2	01/08/2024 01:07 PM
Owner	
Owner: Anita Smith Address: 2356 Martin Ave City State Zip: Johnson City, NY 13790 Email: asmith@domain.com	Work/Day: (607)555-2123 Cell: (607)555-5122 FAX:
Control Information	
Claim # : TEST-20100726-1 Loss Date/Time: 01/08/2024 Deductible: \$500.00 Ins. Company: Sample Insurance Company Address: 459 Main Street City State Zip: Chicago, IL 60606 Insured: Anita Smith Address: 2356 Martin Drive City State Zip: Johnson City, NY 13790 Email: asmith@domain.com Claim Rep: Joe Adjuster Address: 459 Main Street City State Zip: Chicago, IL 60606 Loss Payee: Owner / Insured Second Payee: StaySafe Sample Bank Contact: John King Address: 9568 Franklin Street City State Zip: Saratoga Springs, NY 12866	Insured Policy # : 20100726-1 Loss Type: Collision Work/Day: (555)555-5126 FAX: Work/Day: (607)555-2123 Home/Evening: (607)555-5122 FAX: Work/Day: (555)555-5126 FAX: Work/Day: (518)555-5859 FAX:
Inspection	
Inspection Date: 01/08/2024 12:23 PM Inspection Location: Owner Residence Primary Impact: Left Front Corner Driveable: Appraiser Name: Joe Appraiser City State Zip: Ann Arbor, MI 48108	Inspection Type: Field Contact: Secondary Impact: Rental Assisted: No Appraiser License #2 : FAX:
Repairer	
Target Complete Date/Time:	Days To Repair: 6
<div style="display: flex; justify-content: space-between; font-size: small;"> 01/08/2024 01:28 PM Page 1 of 5 </div>	

Section 2-2 An Explanation of the Audatex Estimate

2008 Chevrolet Malibu LS 4 DR Sedan Claim #: TEST-20100726-1		01/08/2024 01:07 PM							
Remarks 3									
Owner paid tow bill directly to tower.									
Vehicle									
OEM Part Price Quote ID: 132913644									
2008 Chevrolet Malibu LS 4 DR Sedan 4cyl Gasoline 2.4 4 Speed Automatic									
Lic.Plates: 123ABC Lic Expire: Prod Date: 02/2008 Veh Insp# : Condition: Good Ext. Color: Black Granite Metallic Ext. Refinish: Two-Stage Ext. Paint Code: 58U	Lic State: NY VIN: 1G1ZG57B98F222299 Mileage: 103,560 Mileage Type: Actual Code: U2663B Int. Color: Titanium Int. Refinish: Two-Stage Int. Trim Code: 83B								
Options - AudaVIN Information Received 4									
2nd Row Head Airbags Alarm System <i>Bodyside Moldings</i> Cruise Control Dual Airbags <i>Floor Mats</i> Intermittent Wipers <i>MP3 Decoder</i> Power Brakes Power Windows Side Airbags Steel Wheels Theft Deterrent System Tire Pressure Monitor Velour/Cloth Seats	<i>AM/FM CD Player</i> Auto Headlamp Control <i>Bucket Seats</i> Daytime Running Lights Electric Steering Halogen Headlights Keyless Entry System <i>Metallic Paint</i> Power Door Locks Rear Window Defroster Sirius Satellite Radio Strg Wheel Radio Control Tilt & Telescopic Steer Traction Control System	Air Conditioning Auxiliary Audio Input Center Console Driver Information Sys Emergency S.O.S. System Head Airbags Lighted Entry System OnStar System Power Mirrors Rem Trunk-L/Gate Release Split Folding Rear Seat Tachometer Tinted Glass Trip Computer							
<i>AudaVIN options are listed in bold-italic fonts</i>									
Damages 5									
Line	Op	Guide	MC	Description	MFR.Part No.	Price	ADJ% B%	Hours	R
Front Bumper									
1	OE	6		Cover,Front Bumper	CUSTOM OE TEXT	\$312.06		3.0	SM
2	L	6	13	Cover,Front Bumper	Refinish			4.4	RF
					3.2 Surface				
					0.6 Two-stage setup				
					0.6 Two-stage				
3	E	1218		Ret,Frt Bumper Cover	5973400 GM Part	\$26.92			SM
				Quantity of 4 @ \$6.73 each					
4	OE	11		Emblem,Frt Bmpr Cover	CUSTOM OE TEXT	\$81.65		0.2	SM
5	OE	15		Grille,Frt Bmpr Cvr	CUSTOM OE TEXT	\$36.07		INC	SM
6	E	1042		Sensor,Temperature	25775833 GM Part	\$9.06		0.2	SM
7	OE	47		Defl,Front Bumper Lwr	CUSTOM OE TEXT	\$34.07		INC	SM
8	OE	1028		Retainer,Front Bumper	CUSTOM OE TEXT	\$5.12		INC	SM
9	OE	76		Panel,Frt Bmpr License	CUSTOM OE TEXT	\$31.43		0.2	SM
10	OE	50		Absorber,Front Bumper	CUSTOM OE TEXT	\$51.78		INC	SM
11	OE	1281	02	Brkt,Front Bumper Mtg LT	CUSTOM OE TEXT	\$18.47		INC	SM
01/08/2024 01:28 PM Page 2 of 5									

Section 2-2 An Explanation of the Audatex Estimate

2008 Chevrolet Malibu LD 4 DR Sedan Claim #: TEST-20100726-1						01/08/2024 01:07 PM	
12	OE	1282	Brkt,Front Bumper Mtg RT	CUSTOM OE TEXT	\$18.03	0.1	SM
Front Body And Windshield							
13	OE	103	Fender,Front LT	CUSTOM OE TEXT	\$203.42	1.9	SM
14	L	103	Fender,Front LT	Refinish		3.2	RF
				2.2 Surface			
				0.5 Edge			
				0.5 Two-stage			
Wheels							
15	OE	905	Wheel,Front LT	CUSTOM OE TEXT	\$196.65	0.4	SM
Front Suspension							
16	I	974	Suspension Align,Frt	Repair		1.5*	SM*
17	E	655	Knuckle,Steering L/F	19303853 GM Part	\$457.11	1.0	ME
18	E	653	Arm,Lower Control L/F	22730775 GM Part	\$256.51	1.3	ME
Manual Entries							
19	EC		Assurance WeatherReady LF	Replace Economy	\$186.56		SM
			>> GOODYEAR 215/65R17 767875537 B/TL 700 10 99H				
19	Items						
			MC	Message			
6			02	PART NO. DISCONTINUED, CALL DEALER FOR EXACT PART NO.			
			13	INCLUDES 0.6 HOURS FIRST PANEL TWO-STAGE ALLOWANCE			
Estimate Total & Entries 7							
OEM Parts					\$749.60		
Other Parts					\$1,175.31		
Parts & Material Total						\$1,924.91	
Labor	8		Rate	Replace	Repair Hrs	Total Hrs	
				Hrs			
Sheet Metal (SM)			\$55.00	6.0	1.5	7.5	\$412.50
Mech/Elec (ME)			\$75.00	2.3		2.3	\$172.50
Frame (FR)			\$65.00				
Refinish (RF)			\$45.00	7.6		7.6	\$342.00
Labor Total						17.4 Hours	\$927.00
Gross Total	9						\$2,851.91
Less: Deductible	10 or 11						\$500.00-
Net Total	12						\$2,351.91
Alternate Parts Y/14/11/00/03/03 Cumulative 14/11/00/03/03 Zip Code: 48108 Ann Arbor							13
OEM Part Prices DT 01/08/2024 01:12 PM EstimateID 1173686756344602624 QuoteID 132913644							
SPPL Yes Zip Code: 60611 Default							
Rate Name Default							
Audatex Estimating 10.25.86 ES 01/08/2024 01:28 PM REL 10.25.86 DT 12/01/2023 DB 12/15/2023							
State Disclosure:MI							
© 2024 Audatex North America, LLC.							
1.7 HRS WERE ADDED TO THIS ESTIMATE BASED ON AUDATEX'S TWO-STAGE REFINISH FORMULA.							
01/08/2024 01:28 PM							
Page 3 of 5							

Section 2-2 An Explanation of the Audatex Estimate

1. **Custom Heading:** The client-specific heading, and estimate date appear here.
2. **Administrative Data:** Section contains pertinent information about vehicle owner, repairer, and inspection regarding the claim.
3. **Remarks:** Section contains the estimate preparer's notes on this estimate.
4. **Vehicle Identification / Options:** Section contains the make, model, engine, and vehicle option descriptions.
5. **The Body of the Estimate**

OP – Operation Codes: The Audatex system uses one- or two-character operation codes to specify the work to be done. These codes are explained below.

 - *** – User-Entered Value:** Indicates Price, Labor, or Rate Code entered by estimate preparer, and appears next to the amount or code.
 - **E – Replace (Remove and Replace):** An operation or group of operations required to remove the damaged part and replace with a new OEM part.
The Remove and Replace (R&R) time:
 - includes normal adjustment and alignment for correct fit
 - does not include any duplicated effort
Replace includes any operations over and above the Remove and Install (R&I) operations.
 - **EC – Replace with Economy Part:** “EC” is used when replacing with other than an OEM part (e.g., rebuilt, re-chromed, aftermarket, etc). The part price is supplied by the estimate preparer. For labor calculations, the system assumes aftermarket parts to be equivalent to OEM parts in fit, composition, corrosion protective coatings, and finish.
 - **PC – PXN Reconditioned Part:** A used OEM/aftermarket part brought back to “like new” condition (e.g., dealer takes off wheels to replace with custom). Prices supplied by Audatex from the Parts Exchange Database.
 - **PM – PXN Remanufactured/Rebuilt Part:** A used OEM/aftermarket part that has been completely rebuilt mostly with new parts (e.g., radiator, starter, alternator, tail lamp). Prices supplied by Audatex from the Parts Exchange Database.
 - **UC – Reconditioned Part:** A used OEM part brought back to “like new” condition.
 - **UM – Remanufactured/Rebuilt Part:** A used OEM part that has been completely rebuilt mostly with new parts. The part price is supplied by the estimate preparer.
 - **UE – OE Surplus:** New and possibly slightly blemished OEM parts available at a discount through normal and varying OE distribution channels.
 - **OE – PXN OE Surplus:** New and possibly slightly blemished surplus parts available at a discount from outside normal and varying OE distribution channels. Prices supplied by Audatex from the Parts Exchange Database.
 - **EU – Replace with Recycled Part or Assembly:** An OEM part removed from one vehicle for reinstallation into another vehicle. Audatex provides part descriptions and labor to replace recycled parts or assemblies. For labor calculations, the system assumes that recycled replacement parts are complete and in good condition. A recycled part is also known as LKQ (Like Kind and Quality).
 - **NG – Replace with NAGS Glass Part:** New glass part that was not manufactured under the sponsorship of the OEM. Audatex estimates provide NAGS glass part description, part number, price, and Audatex labor to replace the glass.
 - **EP – Replace with Parts Exchange New (PXN) Part:** New part that was manufactured by a source other than the original equipment manufacturer. The associated PXN part report details the part supplier and PXN part classification information such as OEM reconditioned and CAPA certified aftermarket.
 - **ET/TE – Partial Replacement with OEM Part:** The partial replacement of damaged parts using portions of a new part. Operation code “ET” reflects labor for removal of a partial section and replacement with an OEM part. This code is used for:
 - sheet metal and structural component cut and splice operations.
 - replacement of mouldings, stripes, overlays, and other parts that are supplied in kit form.

Operation “TE” which supplies the OEM part number and price must be used with “ET.”

Section 2-2 An Explanation of the Audatex Estimate

- **IT – Partial Repair:** This is judgment labor supplied by the estimate preparer for repairs to the unreplaced portion of a partially replaced panel.
- **I – Repair/Align Labor:** This is judgment labor supplied by the estimate preparer.
- **SB – Sublet:** Labor dollars and/or hours entered by the estimate preparer for tasks that are typically handled by a sublet repairer. Exception: The system automatically supplies R&I time for the radiator, air conditioning condenser, and fuel tank.
- **P – Visual Inspection:** This code tells the repairer to inspect a part or system for possible damage or required service. Price or labor amount is supplied by the estimate preparer.
- **L – Refinish:** Part descriptions and labor to refinish parts. Paint material cost is calculated automatically based on total net refinish labor multiplied by paint and material rate (Rate Code 5) as supplied by the estimate preparer. Audatex refinish labor is for new and undamaged parts (for more detailed information, see [Refinish](#) sections).
- **BR – Blend Refinish:** Part description and labor to blend refinish parts. Blend refinish is calculated at 50% of the Audatex refinish labor (for more detailed information, see [Refinish](#) sections).
- **TT – Two-Tone:** Part description and labor to apply two-tone refinish to applicable parts (for more detailed information, see [Refinish](#) sections).
- **CG – Chipguard:** Part description and labor to apply Chipguard refinish to applicable parts (for more detailed information, see [Refinish](#) sections).
- **N – Additional Operations:** Labor for additional operations, which may be necessary, but are not considered as included operations (e.g., aim headlamps or align front suspension, etc.). This labor will appear in the estimate under Repair Hours Totals.
- **RI – R&I (Remove & Install):** An operation or group of operations that are required to remove and install the part or assembly. Audatex time:
 - includes normal adjustment and alignment for correct fit.
 - does not include any duplicated effort.

The installation is for the originally attached part. This labor will appear in the estimate under Replace Hours Totals.

- **AA – Appearance Allowance:** A specific dollar amount, determined by the estimator, paid or credited to a vehicle owner in lieu of a part repair or replacement.
- **RP – Related Prior Damage:** An adjustment based on prior damage in the same area as the current collision. This code indicates the estimate preparer's judgment in either dollar or labor amounts, which are automatically deducted from the estimate gross total.
- **UP – Unrelated Prior Damage:** The estimate may also be adjusted based upon prior damage in a different area from the current collision. This code indicates that in the estimate preparer's judgment, damage exists from a prior incident which has no effect on the damage in the current estimate. This may be accounted for either in monetary values or labor time. The total UP amount will be printed separately from all other estimate totals. Overlap is applied between the current estimate and the Unrelated Damage portion of the estimate.
- **M Code – Manual Entry:** This column allows the estimate preparer to enter:
 - parts or operations not provided by Audatex
 - labor operations at a specific Labor Rate Code

The estimate preparer can:

- input these entries manually or use the Standard Manual Entries provided by Audatex (see [Section 5-1](#)). Standard Manual Entries provide the description and a default rate code.
- override default rate codes to provide for local accepted practice. All other information must be supplied by the estimate preparer.

The totals will be added to the gross estimate total.

- **GDE – Guide Numbers:** These numbers identify parts, assemblies, and/or operations.
- **Description:** The description name Audatex has given the part, assembly, or operation.

- **MFG. PART NO. – Manufacturer's Part Number:** The manufacturer's part number for OEM and NAGS replacement parts or descriptions on all other operations (e.g., repair/align, sublet, etc.).
- **Refinish:** Can display a breakout of refinish considerations, which include:

Section 2-2 An Explanation of the Audatex Estimate

- Surface refinish after any overlap considerations
- Edge, Jamb, Underside considerations for replaced parts
- Two-stage setup
- Two-stage considerations
- Three-stage setup
- Three-stage considerations
- **Price:** Displays suggested list prices for OEM replacement parts, NAGS glass, system generated Parts Exchange New (PXN), and system generated Parts Exchange Salvage (PXS), as well as manually entered recycled, sublet or aftermarket prices.
 - An asterisk (*) means the price has been manually entered.
 - "INC" means the price is included in an assembly elsewhere in the estimate.
- **ADJ% – Adjustment:** Percentage entered for markup or discount on individual parts and operations.
 - A plus sign [+] indicates part price markup.
 - A minus sign [-] indicates part price discount.
- **B% – Betterment:** Percentage manually entered for betterment assessment.
- **S – Supplement:** Indicates the entry was entered or adjusted as a Supplement. Supplemental information may be added as many times as needed. The estimate will note the entries for each supplement by displaying a number next to the "S" (S1, S2, S3, etc.).
- **Hours:** The suggested labor after overlap and included operations are considered.
 - An asterisk (*) means the hours have been manually entered.
 - "INC" means the assigned labor value has been considered elsewhere in the estimate.
- **R – Rate**
 - Labor rate used for each operation.
 - FR ^ – Frame
 - GL – Glass (optional feature)
 - ME ^ – Mechanical/Electrical
 - MR – Multiple Rates (optional feature)
 - RF ^ – Refinish
 - SM ^ – Sheet metal
 - ST – Structural (optional feature)
 - U1 - User Defined 1 (label may be customized (optional feature))
 - U2 - User Defined 2 (label may be customized (optional feature))
 - An asterisk (*) means the rate has been manually entered

^ Labor rate codes are provided and used to segment each type of work being performed. Several factors go into each classification including technician skill level required, special tools required, part function, and the physical attributes and/or location of the component being repaired/replaced.

6. **MC – Message Codes:** These are special notes provided by Audatex regarding Estimate entries. These notes will print after the damage entries for all products, except where noted.

# - Multiple message codes exist for one guide number.	01 - Call dealer for exact part number / price
02 - Part number discontinued, call dealer for exact part number / price	03 - GSMP Part – Contact dealer for exact price
04 - Price not yet available, call your local dealer	07 - Structural part as identified by I-CAR
10 - Includes time to clear entire panel	13 - Includes 0.6 hours first panel two-stage allowance

Section 2-2 An Explanation of the Audatex Estimate

14 - Includes 1.0 hours first panel three-stage allowance	15 - Includes 0.4 hours first panel two-tone allowance
46 - Printable alternate parts compare	49 - Unprinted alternate parts compare
50 - See previous estimate for supplier information	60 - Alternate parts part prices include Labor
61 - Alternate parts glass part price includes Labor	70 - Recycled/Salvage Audatex SPPL
71 - Recycled/Salvage 800#	80 - 3rd party betterment applied and included in other changes
85 – Source in Parts Trader	90 – Task assigned a different labor rate
91 – All tasked changed to system assigned labor rate	

7. Final Calculations & Entries

- Gross Parts: Dollar total of new OEM replacement parts.
- Adjustments: Total dollar amount of all line item markups or discounts.
- Other Parts: Dollar total of non-OEM parts (e.g., recycled, economy, NAGS glass, etc.).
- Paint Material: Dollar amount for paint and related materials, calculated by multiplying dollar value in Rate 5 by total net refinish labor in Rate 4.
- Shop Materials: Dollar amount for shop materials calculated by multiplying the dollar value in rate 6 by total net sheet metal, mechanical/ electrical, and frame labor in rates 1, 2, and 3.
Note: This calculation applies only in Canada.
- Parts Total: Net total of all above items.

8. Labor Rate: Hourly dollar amount the estimate preparer assigned for each Labor Rate Code.

- Replace Hours: Total replace hours of each rate in the estimate.
- Repair Hours: Total hours of repair in the estimate.
- Labor Total: Calculated by adding the total dollars of labor rates 1 – 4.

• Sublet Repairs (not shown): Total amount of all prices entered as sublet operations.

9. Gross Total: Equals the sum total of the Parts, Labor, Sublet Repairs, Storage, Towing, and Tax.

10. Less: Deductible: Insurance deductible amount entered by estimate preparer.

11. Less: Betterment: Dollar total of all percentage entries in the betterment (B%) field.

- Betterment is always applied to the part price.
- Betterment may also be applied to the labor and paint materials (if applicable) at the user's option.

Note: For Canadian users, shop materials may also have Betterment applied.

- **Less Other:** User-entered dollar amount that is deducted from the Gross Total of the estimate.

12. Net Total: The net estimate total after any Betterment, Deductible, Appearance Allowance, Less Other, and/or Related Prior amounts when applicable

• Parts Exchange New (PXN) (not shown): Audatex's parts locator is an optional feature that provides information on alternative replacement parts. When using PXN, you specify:

- Lowest price, average price, or highest price options
- Selection of preferred suppliers
- Geocode (zip code) of the location to which parts would be delivered
- Threshold savings (optional)
- Vehicle year to exclude (optional)

13. Parts Exchange Audit Trail

- **PXN:** Information from the current estimate or supplement.
- **CUM-PXN:** Information from the current estimate or supplement, it also includes any previous estimates or supplements.
- **Audit Trail:** The PXN Audit Line has been expanded to include the:

Section 2-2 An Explanation of the Audatex Estimate

- Geocode (zip code)
 - Search Area name
 - Results count for the current estimate (shown next to letters PXN)
 - Cumulative counts for the claim set (shown next to letters CUM)
 - The PXN and CUM audit line numbers have the same meaning. Note:
 - The PXN counts are for the current estimate only
 - The CUM counts include all estimates, including any supplements
- Example: A / B / C / D / E / F B / C / D / E / F
 Alternate Parts - PXN Y / 01 / 01 / 00 / 00 / 00 CUM 01 / 01 / 00 / 00 / 00 Zip Code:
 94583 California
- A: displays;
 - "Y" if PXN is active
 - "N" if PXN is not active (appears only after PXN)
 - "C" if PXN is not applicable (e.g., current year excluded, or generic est.)
 - B: shows the total number of PXN "applicable parts" found, based on the suppliers you have selected in setup
 - C: shows the actual number of PXN parts used
 - D: shows the number of PXN parts that were selected for the claim but were not cost effective
 - E: shows the number of PXN parts found but not used within claim
 - F: shows the number of PXN parts not used that were cost effective
- **Parts Exchange Salvage (PXS):** Shows recycled parts or assemblies that have been inserted based on information provided by the Audatex system.
 - **Vehicle Identification:** Section contains the make, model, engine, and vehicle option descriptions.
 - **Options:** In the selection of PXS parts, Audatex considers vehicle options as entered by the estimate preparer. Check vehicle to verify options (including engine size) before ordering any part or assembly listed in the PXS Recycled Parts Locate Report.
 - **EU**
 - Identifies a recycled part or assembly in the estimate and directs the reader to the Recycled Parts Locate Report (see [Section 2-6](#)). The price shown:
 - is assumed to be for a complete and undamaged part or assembly
 - includes any applicable markup
 - is assumed to include freight.

Section 2-2 An Explanation of the Audatex Estimate

When the Labor Rate Breakout feature is enabled, changes to included operations appears on the Estimate Report under the replace operation description and MR* or MR^ displays under R column depending on display options.

Damages										
Line	Op	Guide	MC	Description	MFR.Part No.	Price	ADJ%	B%	Hours	R
1	ET	625	07	Pillar,Windshield LT	Partial Replace Labor				7.2	MR*
					1.0 Mech / Elec					
					2.8 Structural					
					3.4 Glass					
2	L	625	13	Pillar,Windshield LT	Refinish				1.4	RF
					0.7 Surface					
					0.6 Two-stage setup					
					0.1 Two-stage					
3	TE	163	07	Panel,Bodyside Front LT	Partial Replace Price	\$932.13				SM
				Ultra High Strength Steel						
3	Items									
			MC	Message						
			07	STRUCTURAL PART AS IDENTIFIED BY I-CAR						
			13	INCLUDES 0.6 HOURS FIRST PANEL TWO-STAGE ALLOWANCE						
Estimate Total & Entries										
05/10/2016 01:34 PM										
										Page 2 of 4
2014 BMW 535xi Gran Turismo 4 DR Hatchback										
Claim #: MM-20160404-016										05/03/2016 11:15 AM
Gross Parts						\$932.13				
Parts & Material Total							\$932.13			
Labor										
			Rate	Replace	Repair Hrs	Total Hrs				
				Hrs						
Sheet Metal (SM)			\$55.00							
Mech/Elec (ME)			\$55.00							
Frame (FR)			\$45.00							
Refinish (RF)			\$45.00	1.4		1.4	\$63.00			

Section 2-2 An Explanation of the Audatex Estimate

The new labor rates show in the Rates® column and Totals section on the Estimate.

Damages																																																																						
Line	Op	Guide	MC	Description	MFR.Part No.	Price	ADJ%	B%	Hours	R																																																												
Front Body And Windshield																																																																						
1	L	83	13	Panel,Hood Aluminum	Refinish				4.3	U2*																																																												
					3.1 Surface																																																																	
					0.6 Two-stage setup																																																																	
					0.6 Two-stage																																																																	
2	L	103		Fender,Front LT	Refinish	\$344.00*			2.5	ST*																																																												
					2.1 Surface																																																																	
					0.4 Two-stage																																																																	
2	Items																																																																					
			MC	Message																																																																		
			13	INCLUDES 0.6 HOURS FIRST PANEL TWO-STAGE ALLOWANCE																																																																		
Estimate Total & Entries																																																																						
Other Parts						\$344.00																																																																
Parts & Material Total									\$344.00																																																													
<table border="1"> <thead> <tr> <th>Labor</th> <th>Rate</th> <th>Replace Hrs</th> <th>Repair Hrs</th> <th>Total Hrs</th> <th></th> </tr> </thead> <tbody> <tr> <td>Sheet Metal (SM)</td> <td>\$45.00</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Mech/Elec (ME)</td> <td>\$45.00</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Frame (FR)</td> <td>\$50.00</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Refinish (RF)</td> <td>\$42.00</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Structural (ST)</td> <td>\$42.00</td> <td>2.5</td> <td></td> <td>2.5</td> <td>\$105.00</td> </tr> <tr> <td>UD2 f0010sr (U2)</td> <td></td> <td>4.3</td> <td></td> <td>4.3</td> <td></td> </tr> <tr> <td>Labor Total</td> <td></td> <td></td> <td></td> <td>6.8 Hours</td> <td>\$105.00</td> </tr> <tr> <td>Gross Total</td> <td></td> <td></td> <td></td> <td></td> <td>\$449.00</td> </tr> <tr> <td>Net Total</td> <td></td> <td></td> <td></td> <td></td> <td>\$449.00</td> </tr> </tbody> </table>											Labor	Rate	Replace Hrs	Repair Hrs	Total Hrs		Sheet Metal (SM)	\$45.00					Mech/Elec (ME)	\$45.00					Frame (FR)	\$50.00					Refinish (RF)	\$42.00					Structural (ST)	\$42.00	2.5		2.5	\$105.00	UD2 f0010sr (U2)		4.3		4.3		Labor Total				6.8 Hours	\$105.00	Gross Total					\$449.00	Net Total					\$449.00
Labor	Rate	Replace Hrs	Repair Hrs	Total Hrs																																																																		
Sheet Metal (SM)	\$45.00																																																																					
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UD2 f0010sr (U2)		4.3		4.3																																																																		
Labor Total				6.8 Hours	\$105.00																																																																	
Gross Total					\$449.00																																																																	
Net Total					\$449.00																																																																	

Section 2-3 The Audatex Labor Report

Audatex Labor Report

Shows the operations that may be performed for each panel on the estimate. This report includes:

- the guide number where any overlap has been considered
- the full labor of the panel before overlap consideration
- all operations that may be applicable for a specific estimate

The Labor Report is specific for each vehicle and provides a breakdown of included operations. This report is viewable on screen or printable for any estimate.

Section 2-3 The Audatex Labor Report

Labor Report												
Test Collision Repair ***** For Testing Purposes Only ***** For Falcon USA - SHPFAL1												
Claim # : TEST-20100726-1 Owner Name: Anita Smith Appraiser Name: Joe Appraiser					Insured Policy # : 20100726-1							
Each Op Code / Guide Number displays ALL operations WHICH MAY BE CONSIDERED in the Net Labor: Including parts and operations which MAY NOT HAVE been selected for this specific estimate. NET VALUE TOTALS include ONLY those operations for the EXACT MODEL, ENGINE and OPTIONS actually entered.												
Operation Types:												
BASE OVERLAP OVERRIDE OVERHAUL R & I REMOVE REPLACE	1	Any unique labor necessary AFTER all other operations are performed. Operation common to the replacement of more than one part. Values entered by the estimate writer Operation which includes disassembling and reassembling to allow replacement. Remove and install part or assembly. Value assigned for removal of old stripe / overlay. An operation or group of operations necessary for replacement of this item.										
Elimination:												
PARTS Included in another part selection LABOR Included in another labor operation												
<div style="border: 1px solid black; padding: 2px;">Vehicle</div>												
2008 Chevrolet Malibu LS 4 DR Sedan 4cyl Gasoline 2.4 4 Speed Automatic												
Options - Audatex Information Received 2												
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; vertical-align: top;"> 2nd Row Head Airbags Alarm System Bodyside Moldings Cruise Control Dual Airbags Floor Mats Intermittent Wipers MP3 Decoder Power Brakes Power Windows Side Airbags Steel Wheels Theft Deterrent System Tire Pressure Monitor Velour/Cloth Seats </td> <td style="width: 33%; vertical-align: top;"> AM/FM CD Player Auto Headlamp Control Bucket Seats Daytime Running Lights Electric Steering Halogen Headlights Keyless Entry System Metallic Paint Power Door Locks Rear Window Defroster Sirius Satellite Radio Strg Wheel Radio Control Tilt & Telescopic Steer Traction Control System </td> <td style="width: 33%; vertical-align: top;"> Air Conditioning Auxiliary Audio Input Center Console Driver Information Sys Emergency S.O.S. System Head Airbags Lighted Entry System OnStar System Power Mirrors Rem Trunk-L/Gate Release Split Folding Rear Seat Tachometer Tinted Glass Trip Computer </td> </tr> </table>										2nd Row Head Airbags Alarm System Bodyside Moldings Cruise Control Dual Airbags Floor Mats Intermittent Wipers MP3 Decoder Power Brakes Power Windows Side Airbags Steel Wheels Theft Deterrent System Tire Pressure Monitor Velour/Cloth Seats	AM/FM CD Player Auto Headlamp Control Bucket Seats Daytime Running Lights Electric Steering Halogen Headlights Keyless Entry System Metallic Paint Power Door Locks Rear Window Defroster Sirius Satellite Radio Strg Wheel Radio Control Tilt & Telescopic Steer Traction Control System	Air Conditioning Auxiliary Audio Input Center Console Driver Information Sys Emergency S.O.S. System Head Airbags Lighted Entry System OnStar System Power Mirrors Rem Trunk-L/Gate Release Split Folding Rear Seat Tachometer Tinted Glass Trip Computer
2nd Row Head Airbags Alarm System Bodyside Moldings Cruise Control Dual Airbags Floor Mats Intermittent Wipers MP3 Decoder Power Brakes Power Windows Side Airbags Steel Wheels Theft Deterrent System Tire Pressure Monitor Velour/Cloth Seats	AM/FM CD Player Auto Headlamp Control Bucket Seats Daytime Running Lights Electric Steering Halogen Headlights Keyless Entry System Metallic Paint Power Door Locks Rear Window Defroster Sirius Satellite Radio Strg Wheel Radio Control Tilt & Telescopic Steer Traction Control System	Air Conditioning Auxiliary Audio Input Center Console Driver Information Sys Emergency S.O.S. System Head Airbags Lighted Entry System OnStar System Power Mirrors Rem Trunk-L/Gate Release Split Folding Rear Seat Tachometer Tinted Glass Trip Computer										
<i>Audatex options are listed in bold-italic fonts</i>												
LABOR												
Line	Op	Guide	Description	Operation Type	Full Value	Elim. Value	Net Value	R	Elimination			
1	OE	6	Cover,Front Bumper	BASE	0.0	0.0	0.0					
		3	COVER,FRONT BUMPER	R & I	1.4	0.0	1.4	SM				
			SKIRT,INNER FENDER RT	R & I		0.1						
			COVER,RAD SUPT PNL	R & I		0.2						
			SKIRT,INNER FENDER LT	R & I		0.1						
01/09/2024 09:13 AM					4	5	6	7	8	9		

Section 2-3 The Audatex Labor Report

2008 Chevrolet Malibu LS 4 DR Sedan									
			DEFL,FRONT BUMPER LWR (SPLASH)	R & I	0.4				
			DEFL,FRONT BUMPER LWR	R & I	0.2				
			COVER,FRONT BUMPER	OVERHAUL	1.2	0.0	1.2	SM	
			GRILLE,FRT BMPR CVR RT	R & I	0.1				
			GRILLE,FRT BMPR CVR LT	R & I	0.1				
			GRILLE ASSEMBLY	R & I	0.2				
			LAMP ASSEMBLY,FOG RT	R & I	0.2				
			LAMP ASSEMBLY,FOG LT	R & I	0.2				
			FRAME,GRILLE	R & I	0.3				
			GRILLE,UPPER	R & I	0.2				
			SUPPORT,GRILLE	R & I	0.1				
			FRAME,GRILLE	R & I	0.3				
			GRILLE,LOWER	R & I	0.2				
			ABSORBER,FRONT BUMPER	R & I	0.1				
			WHEEL,FRONT LT	R & I	0.1	0.0	0.1	SM	
			COMBINATION,FRT SUSP	OVERLAP	0.2	0.0	0.2	SM	
			WHEEL,FRONT RT	R & I	0.1	0.0	0.1	SM	
			TOTALS		3.0	0.0	3.0	SM	
2	OE	11	Emblem,Frt Bmpr Cover	BASE	0.0	0.0	0.0		
			N/PLATE,EBLEM (FRT BMPR)	R & I	0.2	0.0	0.2	SM	
			TOTALS		0.2	0.0	0.2	SM	
3	OE	15	Grille,Frt Bmpr Cvr	BASE	0.0	0.0	0.0		
			COVER,FRONT BUMPER	R & I	1.4	1.4	0.0	LABOR 6 OE	
			SKIRT,INNER FENDER RT	R & I	0.1				
			COVER,RAD SUPT PNL	R & I	0.2				
			SKIRT,INNER FENDER LT	R & I	0.1				
			DEFL,FRONT BUMPER LWR (SPLASH)	R & I	0.4				
			DEFL,FRONT BUMPER LWR	R & I	0.2				
			ABSORBER,FRONT BUMPER	R & I	0.1	0.1	0.0	LABOR 6 OE	
			WHEEL,FRONT LT	R & I	0.1	0.1	0.0	LABOR 6 OE	
			GRILLE ASSEMBLY	R & I	0.2	0.2	0.0	LABOR 6 OE	
			COMBINATION,FRT SUSP	OVERLAP	0.2	0.2	0.0	LABOR 6 OE	
			WHEEL,FRONT RT	R & I	0.1	0.1	0.0	LABOR 6 OE	
			TOTALS		2.1	2.1	0.0	SM	
4	OE	47	Defl,Front Bumper Lwr	BASE	0.0	0.0	0.0		
			DEFL,FRONT BUMPER LWR (SPLASH)	R & I	0.4	0.4	0.0	LABOR 6 OE	
			DEFL,FRONT BUMPER LWR	R & I	0.2				
			COMBINATION,FRT SUSP	OVERLAP	0.2	0.2	0.0	LABOR 6 OE	
			TOTALS		0.6	0.6	0.0	SM	
5	OE	50	Absorber,Front Bumper	BASE	0.0	0.0	0.0		
			COVER,FRONT BUMPER	R & I	1.4	1.4	0.0	LABOR 6 OE	
			SKIRT,INNER FENDER RT	R & I	0.1				
			COVER,RAD SUPT PNL	R & I	0.2				
			SKIRT,INNER FENDER LT	R & I	0.1				
			DEFL,FRONT BUMPER LWR (SPLASH)	R & I	0.4				
			DEFL,FRONT BUMPER LWR	R & I	0.2				
			ABSORBER,FRONT BUMPER	R & I	0.1	0.1	0.0	LABOR 6 OE	
			WHEEL,FRONT LT	R & I	0.1	0.1	0.0	LABOR 6 OE	
			COMBINATION,FRT SUSP	OVERLAP	0.2	0.2	0.0	LABOR 6 OE	
			WHEEL,FRONT RT	R & I	0.1	0.1	0.0	LABOR 6 OE	
			TOTALS		1.9	1.9	0.0	SM	
6	OE	76	Panel,Frt Bmpr License	BASE	0.0	0.0	0.0		
			BRKT,FRONT LIC PLATE	R & I	0.2	0.0	0.2	SM	
			TOTALS		0.2	0.0	0.2	SM	
7	OE	103	Fender,Front LT	BASE	0.0	0.0	0.0		
			FENDER,FRONT LT	R & I	1.3	0.0	1.3	SM	
			HEADLAMP ASSEMBLY LT	R & I	0.3				
			GUARD,FENDER MUD LT	R & I	0.2				
			MLDG,ROCKER PANEL LT	R & I	0.4				
			COVER,FRONT BUMPER	R & I	1.4	1.4	0.0	LABOR 6 OE	
01/09/2024 09:13 AM									
								Page 2 of 4	


Section 2-3 The Audatex Labor Report

1. **Operation Types:** A detailed definition of each Operation Type used on the estimate.
 - **Base:** Labor unique to the referenced part.
 - **Overlap:** is defined as any operation common to the replacement of two or more parts.
 - Audatex will only include the labor for an operation once.
 Overlap is the safeguard built in to the software to prevent duplicate labor allowances.
 - **Override :** A manually entered value.
 - **Overhaul:** Operation that includes disassembly and reassembly of a part to allow for replacement or repair.
 - **R&I (Remove and Install):** An operation or group of operations that are required to remove and install the part or assembly. Audatex time:
 - includes normal adjustment and alignment for correct fit.
 - does not include any duplicated effort.
 The installation is for the originally attached part.
 - **Replace (Remove and Replace):** Is an operation or group of operations that are required to remove the damaged part and replace with the new OEM or new alternative part. The Remove and Replace (R&R) time:
 - includes normal adjustment and alignment for correct fit.
 - does not include any duplicated effort.
 Replace includes any operations over and above the R&I operations.
 - **Remove:** Value assigned to the removal of old stripe or decal.
2. **Vehicle Identification / Options:** Includes the make, model, engine code, and complete option descriptions for the vehicle.
3. **OP GDE Description:** Section displays the Operation Code, Guide Number, and Part Description of the part undergoing the operations shown.
4. **Indented Operations:** Indented text indicates inclusion in the operation directly above (e.g., Back Glass R&I includes labor to R&I the UPR and LWR BK GLS MLDGS).
5. **Full Value:** All labor for any specific operation before overlap consideration.
6. **Elim.:** Labor value for an operation already considered in another guide number. A zero (0.0) indicates that no labor has been considered elsewhere on the estimate.
7. **Net Value:** Total labor hours for a particular operation.
8. **R (Rate):** The labor rate code for the referenced part. It prints at the end of the list of operations for each part.
9. **Elimination:** The guide number in which an operation was considered for elimination.
 - **Parts:** This item is a component of a part assembly already included in the estimate.
 - **Labor:** Labor required to perform this particular operation is included in another entry listed in the estimate.
10. **Totals:** The totals of each column on the labor report.
 - **Full Value:** The total labor hours for the panel before overlap consideration.
 - **Elim.:** The amount of overlap considered in the specific estimate.
 - **Net Value:** The total labor for those operations entered.

Section 2-4 The Supplement Reconciliation Report

Supplement Reconciliation Report

- Allows the estimate preparer to easily identify any changes made through the supplement process.
- Is generated for each supplement.
- Reflects the changes made during that specific supplement.

*** SUPPLEMENT RECONCILIATION ***									
Supplement S1									
1	Claim # : TEST-20100726-1				Insured Policy # : 20100726-1				
	File # :				Claim Rep: Joe Adjuster				
	Insured: Anita Smith				Inspection Date/Time: 01/08/2024 12:23 PM				
	Owner Name: Anita Smith								
	Appraiser Name: AMY SCHNEIDER								
Vehicle: 2008 Chevrolet Malibu LS 4 DR Sedan									
Deleted Lines 2									
Line	Guide	Part	Operation	Price	ADJ%	B%	Labor	Rate	
1	1218	Ret,Frt Bumper Cover Quantity of 4 @ \$6.73 each	Replace OEM	\$26.92				SM	
Added Lines 3									
Line	Guide	Part	Operation	Price	ADJ%	B%	Labor	Rate	
2	911	Brkt,Strut Mounting L/F	Replace OEM	\$10.39			0.8	ME	
Changed Lines 4									
Line	Guide	Part	Operation	Price	ADJ%	B%	Labor	Rate	
3	655	Knuckle,Steering L/F Knuckle,Steering L/F	Replace OEM				1.0	ME	
				\$158.92*			1.0	ME	
Calculation Changes 5									
			From	To	Difference				
OEM Parts				\$749.60			\$434.88	\$314.72-	
ME - Mech/Electrical			\$75.00	\$172.50	\$75.00		\$232.50	\$60.00+	
Actual Supplement 1 Net Total 6							\$254.72-		
Summary 7									
			Net Total	Date	Time	Appraiser			
Original Estimate			\$2,351.91	01/08/2024	12:03 PM	Joe Appraiser			
Supplement 1			\$2,097.19	01/09/2024	09:41 AM	AMY SCHNEIDER			
			This report contains proprietary information of Audatex and may not be disclosed to any third party (other than the insured, claimant and others on a need to know basis in order to effectuate the claims process) without Audatex's prior written consent.						
			© 2024 Audatex North America, LLC. AUDATEX is a trademark owned by Audatex North America, LLC. All rights reserved.						

Section 2-4 The Supplement Reconciliation Report

1. **Estimate Identification:** Section displays the vehicle owner's name, appraiser's name, and vehicle description.
2. **Deleted Lines:** Displays any lines removed from the estimate. Included on the report are the guide number, description, operation, price, adjustments, betterment, net labor, and rate.
3. **Added Lines:** Displays any lines added to the estimate. Included are the guide number, description, operation, supplement number (e.g., S1, S2, S3, etc.), price, adjustments, betterment, net labor, and rate.
4. **Changed Lines:** Displays changes made either manually or automatically by adding, changing, or deleting damage entries. The code SY indicates an automatic or system change.
5. **Calculation Changes / Gross Parts:** Displays the total OEM parts from original estimate, the parts added or deleted during the supplement, and the total difference either added to [+] or subtracted from [-] estimate.
 - **Other Parts** - Displays:
 - the total non-OEM parts from the original estimate
 - the parts added or deleted during the supplement
 - the total difference either added to [+] or subtracted from [-] the estimate
 - **Paint Material** - Displays:
 - the original hourly rate
 - the original dollar amount
 - any changes to either the hourly rate or dollar amount
 - **Line Item Adjustment** - Displays:
 - the original discount or markup
 - any changes made to these line items
 - **Tax on Parts / Materials** - Displays:
 - the tax rate
 - the total tax applied to parts in the original estimate
 - the tax rate and total tax applied to parts in the supplement

Note: *If materials tax is activated, the totals will also include material tax.*
 - **Rate Codes** - Displays:
 - the rate codes applicable in the estimate with their original hourly rate and total value
 - the changes in the hourly rate and total value
6. **Net Total:** Displays the total difference between the original estimate to the supplement(s). A plus sign [+] indicates an increase; a minus sign [-] indicates a decrease.
7. **Summary:** Displays:
 - Net total
 - Date
 - Time
 - Appraiser

Displays the original estimate and any supplements. Data displayed is based on the current supplement vs. the prior estimate, which could be another supplement (e.g., S1, S2, S3 etc.).

Section 2-5 The Parts Exchange New (PXN) Report

Parts Exchange New (PXN) Locate Report

Parts Exchange Locate Report appears directly after the Audatex Estimate. It lists in detail alternate parts that have been inserted.


Section 2-5 The Parts Exchange New (PXN) Report

1. **Guide No. / Line No.:** Guide Numbers and Part descriptions for EP parts in the Estimate.
2. **Supplier Part Number:** The part supplier provides this information to Audatex.
3. **Carat Symbol (>):** The parts denoted with this symbol are available from the supplier at or below the price shown in the Estimate.
4. **SPL CDE (Supplier Code):** This code identifies the supplier in the Supplier Information section of the Report.
5. **CLS (Classification Code):**
 - C = CAPA part (part is certified by the Certified Automotive Parts Association)
 - M = Remanufactured part (an OEM part that has been rebuilt with new parts)
 - R = Reconditioned part (an OEM part brought back to “like new” condition)
 - S = OEM surplus part
6. **SRC (Source Code):**
 - 1 = Non-original equipment manufacturer part
 - 3 = Original equipment manufacturer (OEM) part
7. **Supplier Information:** Section contains supplier code, company name, IDs, addresses, comments, and telephone numbers.

Section 2-5 The Parts Exchange New (PXN) Report

QUALITY AFTERMARKET PART LOCATOR REPORT									
Vehicle 2008 Chevrolet Malibu LS 4 DR Sedan 4cyl Gasoline 2.4 4 Speed Automatic									
Options <div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"> 2nd Row Head Airbags Alarm System Bodyside Moldings Cruise Control Dual Airbags Floor Mats Intermittent Wipers MP3 Decoder Power Brakes Power Windows Side Airbags Steel Wheels Theft Deterrent System Tire Pressure Monitor Velour/Cloth Seats </div> <div style="width: 33%;"> AM/FM CD Player Auto Headlamp Control Bucket Seats Daytime Running Lights Electric Steering Halogen Headlights Keyless Entry System Metallic Paint Power Door Locks Rear Window Defroster Sirius Satellite Radio Strg Wheel Radio Control Tilt & Telescopic Steer Traction Control System </div> <div style="width: 33%;"> Air Conditioning Auxiliary Audio Input Center Console Driver Information Sys Emergency S.O.S. System Head Airbags Lighted Entry System OnStar System Power Mirrors Rem Trunk-L/Gate Release Split Folding Rear Seat Tachometer Tinted Glass Trip Computer </div> </div>									
Line	Part Description	Supplier Part Number	Substituted For OEM Part Number	Supplier Code	CLS	SRC			
1	1 Cover,Front Bumper	20832808	20832808	3 > 1	4 S	5 3	6		
4	Emblem,Frt Bmpr Cover	22909142	22909142	> 1	S	3			
5	Grille,Frt Bmpr Cvr	15823704	15823704	> 1	S	3			
7	Defl,Front Bumper Lwr	15826166	15826166	> 1	S	3			
8	Retainer,Front Bumper	11589289	11589289	> 1	S	3			
9	Panel,Frt Bmpr License	15823714	15823714	> 1	S	3			
10	Absorber,Front Bumper	15823697	15823697	> 1	S	3			
11	Brkt,Front Bumper Mtg LT	25993224	25993224	> 1	S	3			
12	Brkt,Front Bumper Mtg RT	25993225	25993225	> 1	S	3			
13	Fender,Front LT								
15	Wheel,Front LT	9595925	9595925	> 1	S	3			
> = ESTIMATE TOTAL IS BASED ON PRICE QUOTED BY THIS SUPPLIER									
Key to Classification / Source Codes									
CLS = Classification Code <hr/> C - CAPA CERTIFIED PART QUOTED BY LISTED SUPPLIER M - REMANUFACTURED / REBUILT PART R - RECONDITIONED PART S - OEM SURPLUS PART									
SRC = Source Code <hr/> 1 - NON ORIGINAL EQUIPMENT MANUFACTURER PART 3 - ORIGINAL EQUIPMENT MANUFACTURER (OEM) PART									
<div style="display: flex; justify-content: space-between;"> 01/09/2024 09:39 AM Page 1 of 2 </div>									

Section 2-5 The Parts Exchange New (PXN) Report

2008 Chevrolet Malibu LS 4 DR Sedan			
Detailed Distributor List			
7			
1	PXN1280	RYDELL CHEVY OSD 1325 E SAN MARNAN DR WATERLOO, IA 50702	(800)383-4601 (319)234-4601
Audatex Estimating 10.25.86 ES 01/09/2024 09:39 AM REL 10.25.86 DT 12/01/2023 DB 12/15/2023			
Zip Code: 48108		Search Area: Ann Arbor	
State Disclosure:MI			
© 2024 Audatex North America, LLC.			
PXN DISCLAIMER LINE 1 - PXN REPORT DIACLAIMER			
LSKDFLSDJFLJDFLKSDJFLKSDFLKS - PXN DISCLAIMER LINE 2 - SKDJFKSDHFKSJFHKJSHDFSD			
		<p>This report contains proprietary information of Audatex and may not be disclosed to any third party (other than the insured, claimant and others on a need to know basis in order to effectuate the claims process) without Audatex's prior written consent.</p> <p>© 2024 Audatex North America, LLC. AUDATEX is a trademark owned by Audatex North America, LLC. All rights reserved.</p>	

Section 2-6 The Parts Exchange Salvage (PXS) Report

Recycled Parts Locate Report – Parts Exchange Salvage (PXS)

- Provides detailed information on locally listed recycled part items.
- Identifies the recyclers that list each item.

AUDATEX AUTO CLAIM SERVICES 175 JACKSON PLAZA ANN ARBOR, MI 48106 313-789-8800									
Recycled Real Steel Locate Report									
Owner Name: Test Test Claim #: 003654564									
Vehicle									
2014 Ford E-350 STD 2 DR Cargo Van Extended 8cyl Gasoline 5.4 4 Speed Automatic									
Options									
<table style="width: 100%; border: none;"> <tr> <td style="width: 33%; vertical-align: top;"> AM/FM CD Player Auxiliary Audio Input Chrome Grille Daytime Running Lights Full Size Spare Tire Heavy Duty Suspension Limited Slip Differential Power Steering Steel Wheels Tire Pressure Monitor </td> <td style="width: 33%; vertical-align: top;"> Air Conditioning Captain Chairs (2) Chrome Step Bumper Dual Airbags Halogen Headlights Intermittent Wipers Power Brakes Power Windows Tachometer Traction Control System </td> <td style="width: 33%; vertical-align: top;"> Anti-Lock Brakes Chrome Bumper(s) Cruise Control Engine Block Heater Heavy Duty Battery Keyless Entry System Power Door Locks Stability Cntrl Suspensn Tilt Steering Wheel </td> </tr> </table>							AM/FM CD Player Auxiliary Audio Input Chrome Grille Daytime Running Lights Full Size Spare Tire Heavy Duty Suspension Limited Slip Differential Power Steering Steel Wheels Tire Pressure Monitor	Air Conditioning Captain Chairs (2) Chrome Step Bumper Dual Airbags Halogen Headlights Intermittent Wipers Power Brakes Power Windows Tachometer Traction Control System	Anti-Lock Brakes Chrome Bumper(s) Cruise Control Engine Block Heater Heavy Duty Battery Keyless Entry System Power Door Locks Stability Cntrl Suspensn Tilt Steering Wheel
AM/FM CD Player Auxiliary Audio Input Chrome Grille Daytime Running Lights Full Size Spare Tire Heavy Duty Suspension Limited Slip Differential Power Steering Steel Wheels Tire Pressure Monitor	Air Conditioning Captain Chairs (2) Chrome Step Bumper Dual Airbags Halogen Headlights Intermittent Wipers Power Brakes Power Windows Tachometer Traction Control System	Anti-Lock Brakes Chrome Bumper(s) Cruise Control Engine Block Heater Heavy Duty Battery Keyless Entry System Power Door Locks Stability Cntrl Suspensn Tilt Steering Wheel							
<div style="display: flex; justify-content: space-around; font-weight: bold; font-size: 1.2em;"> 1 2 </div>									
Line	Part Description	Year/Make / Notes	VIN?	Cleanup	Supplier ID	Stock #			
1	Bumper Assembly,Front	2016 000,WHT,VAN,BASE	Y		S515601	8087			
> = ESTIMATE TOTAL IS BASED ON PRICE QUOTED BY THIS SUPPLIER. REPAIRERS MAY USE THE SUPPLIER OF THEIR CHOICE AND MAY NEGOTIATE SPECIFIC TERMS OF PURCHASE WITH THAT SUPPLIER.									
Detailed Distributor List									
S515601	3	Dakota Auto Parts Center 3930 East Jefferson Grand Prairie TX 75051		(972)237-0405					
Included Damage for Recycled Real Steel									
Assembly/Part	Replaces	Operation	Description						
Bumper Assy, Front (chrome)		RECYCLED PART	Bumper Assembly,Front						
Audatex Estimating 8.2.322 ES 01/09/2024 10:21 AM REL 8.2.322 DT 12/01/2023 DB 12/15/2023 Zip Code: 75068 Search Area: Default © 2024 Audatex North America, LLC.									
<div style="display: flex; align-items: center;"> <div style="flex: 1;"> </div> <div style="flex: 2; padding-left: 20px;"> <p style="font-size: 0.8em;">This report contains proprietary information of Audatex and may not be disclosed to any third party (other than the insured, claimant and others on a need to know basis in order to effectuate the claims process) without Audatex's prior written consent.</p> <p style="font-size: 0.7em;">© 2024 Audatex North America, LLC. AUDATEX is a trademark owned by Audatex North America, LLC. All rights reserved.</p> </div> </div>									
<div style="display: flex; justify-content: space-between; font-size: 0.7em;"> 01/09/2024 10:21 AM Page 1 of 1 </div>									

Section 2-6 The Parts Exchange Salvage (PXS) Report

1. **Description, Supplier, Stock Number, Year:** The first line describes the part.
 - In the Supplier ID column, the number identifies the recycler that lists the part.
 - In the Stock NUM/YR column:
 - the upper figure shows the unique identifier assigned by the recycler to the source vehicle. When ordering the part, please use this number.
 - the lower figure identifies the year of the vehicle from which the part came.
2. **VIN, Cleanup, MFG/Division:** If the recycler has the vehicle's identification number on file for this part, the line below the part description displays a "Y" and the "cleanup" hours suggested by the recycler. The estimate price (per Cost Comparison Report) assumes that the part is complete and undamaged.*
3. **Distributor List / Supplier Information:** This area contains names, addresses, and phone numbers of the recyclers listing PXS available part(s).

Note: *This is an optional feature. It will appear on the report only if the company preparing the estimate has selected this feature.*

Section 3-1 Parts in the Audatex System

Parts and Pricing

Parts in the Audatex System

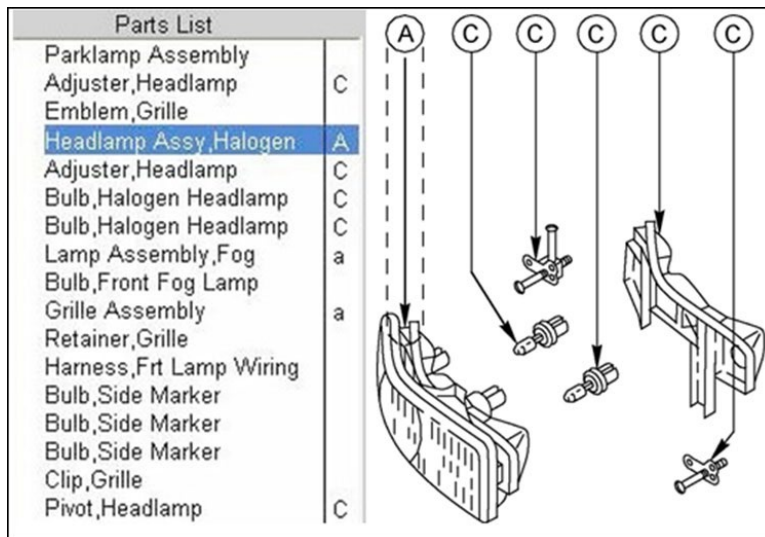
Parts in the Audatex system are entered into the Audatex database by our experienced parts development staff. They use the information supplied to Audatex by vehicle manufacturers, physically examine vehicles, research available options, engines, style editions; and contact dealerships to ensure all information is current, correct, and complete.

The Audatex product undergoes several Quality Assurance steps to ensure estimate preparers receive the most accurate information available at the time of development.

Manufacturers Assemblies in the Audatex System

The Audatex system will not allow an estimate to include duplicate parts when the manufacturer supplies an assembly. This procedure will allow the estimate preparer to receive only the selected assembly or only the component part(s). If any component parts are selected, in addition to the assembly, they will appear with a message code on the estimate, but component part prices and labor times will not be included.

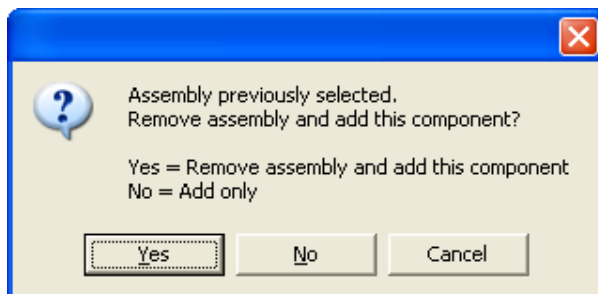
Audatex indicates assemblies and component parts as shown below:



The system identifies:

- major assemblies with code A/a
- component parts with code C/c

If the estimate preparer selects both an assembly (A) and a component part (C) of the assembly, the following message will appear:



If 'No' is selected, the estimate will appear as shown below:

Section 3-1 Parts in the Audatex System

Example: Vehicle: 2005 CHEVROLET SILVERADO K15 HD LT 4 DR CREW CAB 8CYL
GASOLINE 6.0

OP	GDE	MC	DESCRIPTION		MFG.PART NO.	PRICE	AJ% B%	HOURS	R
E	0041	01	HEADLAMP ASSY, HALOG	LT	15136536 GM PART	288.81		0.5	1
E	0041	01	HEADLAMP ASSY, HALOG	RT	15136537 GM PART	288.81		0.5	1
	1021		PIVOT, HEADLAMP	LT	REPLACE OEM	INC			1
	1022		PIVOT, HEADLAMP	RT	REPLACE OEM	INC			1
	0167		BULB, HALOGEN HEADLA	LT	REPLACE OEM	INC			1
	0168		BULB, HALOGEN HEADLA	RT	REPLACE OEM	INC			1
	0199		BULB, HALOGEN HEADLA	LT	REPLACE OEM	INC			1
	0200		BULB, HALOGEN HEADLA	RT	REPLACE OEM	INC			1
	0101		ADJUSTER, HEADLAMP	LT	REPLACE OEM	INC			1
	0102		ADJUSTER, HEADLAMP	RT	REPLACE OEM	INC			1
	0030		ADJUSTER, HEADLAMP	LT	REPLACE OEM	INC			1
	0031		ADJUSTER, HEADLAMP	RT	REPLACE OEM	INC			1

This feature of the Audatex system provides the estimate preparer with a more accurate estimate by preventing duplicate selection of parts.

Parts Exclusions

Within the Audatex system, certain parts are not available, such as:

- shop materials (Canada only)
- some miscellaneous parts (e.g., adhesives, etc.)
- seam sealant (other than automotive metal restoration compounds and corrosion-resistant materials)
- some dealer installed accessories or aftermarket accessories
- resistors and some electrical components and/or wiring

Some fasteners may or may not be suitable for reuse. Some may be designated for one-time use only. It should be agreed which fasteners may require replacement even though they may not appear to be damaged.

Receiving the Correct Option Conditioned Part

Another feature of the Audatex system is the correct part and labor selection. Audatex ensures the correct part number and labor are inserted into the estimate. An exact match determines the correct part number by comparing year, style model, engine, and options entered for the damaged vehicle with those offered by the manufacturer.

Example: 2003 ½ Ton Standard and Extended Cab Damaged Left Bedside Panel (Outer)

Style Model	Option *	Part Number	Price
Flareside w/o Supercharged	-	F65Z8327841AT	653.72
"	A	F65Z8327841BT	703.50
"	B	F65Z8327841AT	653.72
"	C	F65Z8327841AT	653.72
"	A, B	F65Z8327841BT	703.50
"	A, C	F65Z8327841BT	703.50
"	B, C	F65Z8327841AT	653.72
"	A, B, C	F65Z8327841BT	703.50
Flareside with Supercharged		XL3Z8327841BA	765.90
Styleside Short Bed	-	F75Z9927841BA	775.13
"	A	F75Z9927841DA	670.80
"	B	F75Z9927841BA	775.13
"	A, B	F75Z9927841DA	670.80
Styleside Long Bed	-	F65Z9927841GM	775.13
"	A	F75Z9927841CB	1009.30
"	B	F65Z9927841GM	775.13
"	A, B	F75Z9927841CB	1009.30

* - = No Option A = Wheel Flares B = Rear Step Bumper C = Side Deflectors

This table illustrates the wide variety of part numbers that may be provided by a manufacturer. If more style models, years, engines, or options were available, these would also exist in the Audatex system.

- Audatex searches this information until the correct match is located
- Audatex displays the result in the estimate

Section 3-1 Pricing in the Audatex System

Part Numbers: On Audatex estimates, the part numbers and prices shown reflect the most current manufacturers' information available. Information such as suggested retail price, part number supersession, and part discontinuance is updated in the Audatex database by manufacturer-supplied media in accordance with the manufacturer effective date.

Effective Dates: Effective dates vary by manufacturer. Several manufacturers follow a monthly schedule with prices effective on the first of each month. Manufacturers may:

- have special price changes which do not follow their normal schedule
- not meet their regularly scheduled effective date

Audatex recommends that you check with a local dealer to confirm actual effective dates.

Price Updates: Price updates can have a significant impact on estimates. If an estimate is held for any length of time before the parts are ordered, a price update may have occurred in the interim. If current prices are required, the estimate may be updated with the response "N" to original prices.

Dynamic Part Pricing: Audatex Estimating features a service that automatically retrieves real time OEM pricing from the manufacturers. This feature may not be available for all manufacturers and/or users.

Electronic Price Updates: This Audatex feature allows you to download the most current OEM part price information directly from Audatex several times throughout the month. This process will capture any special price changes outside of the manufacturer's normal schedule, as well as any late information that may have been received after the creation of our monthly product.

Core Charges: Core charges may be required when purchasing some types of parts. The pricing provided by Audatex does not include any core charges (e.g. OEM, PXN, PXS, remanufactured bumpers, wheels, etc). When necessary the need for core charges should be understood by all parties involved.

Shipping and Freight Charges: These fees are not included with the prices reflected in Audatex Estimating.

Data Access Fees: *Any fees related to OEM data subscriptions and/or OEM information access are not included in part prices or labor values within Audatex Estimating.*

Manufacturer Messages on Estimates: If a pricing issue arises with a specific manufacturer, a message will appear on your estimate suggesting that you verify prices with a local dealer. This message will also appear when selecting parts with a mid-year change in part numbers, or Order-by-Color, that are not attributable to available options, engines, or style models. (See, [Message Codes](#)).

Section 4-1 Labor Overview

Labor

Introduction

Labor supplied in an Audatex estimate is intended for use as a guide for collision repair. Labor allotments suggested by Audatex estimates are for replacement of new and undamaged parts. Additional allowances are provided for optional equipment supplied by the vehicle manufacturer by selecting the appropriate options and parts. Because each vehicle's collision damage is unique, automation cannot cover every situation. The flexibility of the Audatex system, coupled with the estimate preparer's knowledge and expertise, provides for adjustment of any estimate to meet the needs presented by each collision situation.

How Labor is Determined

Audatex's labor is developed through an in-depth process that establishes incremental values for each connection point that must be accessed to replace a given part. These incremental labor values are determined in several ways that include:

- Review of manufacturer service manuals and engineering drawings to define the necessary operations
- Independent time and motion studies conducted in repair and research facilities
- Analysis of Audatex historical information, in which like operations are reviewed in existing vehicles for use in new vehicles of similar construction
- Review of technical bulletins from:
 - independent sources
 - original equipment manufacturers
 - paint manufacturers
 - research groups
- Requests from repairers and estimate preparers to review established labor and procedures (Request for Review)
- Extensive experience of the Audatex technical staff in collision repair
- Continuous training in the latest repair techniques including I-CAR training

Labor times are provided in increments of .1 hours, or 6 minutes. Any operation taking less than 6 minutes will not receive a system generated labor time.

Automatic Overlap

Overlap is defined as any operation common to the replacement of two or more parts. Overlap values are automatically considered to avoid the calculation of duplicate labor.

Example - Replace Quarter Panel and Rear Body Panel:

QUARTER PANEL; LABOR 16.3		REAR BODY PANEL; LABOR 6.3	
Carpet/insulation rollback (in trunk)	0.3	Carpet/insulation rollback (in trunk)	0.3
Rear bumper R&I	0.5	Rear bumper R&I	0.5
Rear bumper cover R&I	0.8	Rear bumper cover R&I	0.8
Detach and weld right quarter panel from rear body	0.5	Detach and weld right quarter panel from rear body	0.5
Right taillamp assembly R&I	0.3	Right taillamp assembly R&I	0.3
Right sill plate R&I	0.2	Detach and weld left quarter panel from rear body	0.5
Back glass R&I	2.1	Left taillamp assembly R&I	0.3

Right body Weatherstrip pullback	*0.3	Left license lamp R&I	0.1
Raise and support	0.2	Right license lamp R&I	0.1
Package tray trim R&I	0.2	Detach and weld rear body from rear cross member	1.0
Right rear wheel R&I	0.1	Transfer of miscellaneous brackets and braces	0.4
Rear seat R&I	0.2	Detach and weld rear body from floor pan	0.8
Detach and weld roof from quarter panel	1.6	Rear body Weatherstrip pullback	*0.2
Right quarter glass R&I	1.0	Wiring pullback for access	*0.2
Right quarter trim R&I	0.4	Seam sealing	
Right lower quarter trim R&I	0.2		
Fuel door R&I	0.3		
Seam sealing	*0.4		
Disconnect/connect fuel filler neck from fuel filler pocket	0.2		
Right door striker R&I	0.2		
Detach and weld right quarter panel from inner panels	4.6		
Detach and weld right quarter panel from rocker panel	1.2		
Wiring pullback for access	*0.5		

*Seam sealing, weatherstrip pullback, and wiring pullback are for the specific panel only; no overlap is or should be considered.

The following operations are required in the replacement of both of these panels:

Carpet/insulation rollback (in trunk)	0.3 hour
Rear bumper R&I	0.5 hour
Rear bumper cover R&I	0.8 hour
Detach and weld right quarter panel from rear body	0.5 hour
Right taillamp assembly R&I	0.3 hour

The labor to detach and weld the right quarter panel from the rear body panel and the right taillamp assembly R&I will be:

- included in the labor for the quarter panel
- deducted from the labor for the rear body panel.

The labor for the carpet / insulation rollback in the trunk area, the rear bumpers cover R&I, and the rear bumper R&I will be:

- included in the labor for the rear body panel
- deducted from the labor for the quarter panel.

On an estimate for these two panels, the labor shown would be:

- Quarter Panel Replace 14.7 hours
- Rear Body Replace 5.5 hours

The above operations are performed only once. Therefore, the Audatex system will include the labor for an operation only one time.

There are two methods of overlap deduction. They are:

Section 4-1 Labor Overview

- **Guide Number Order:** This method will include an operation on the lowest guide number first and then not count it on any higher guide number.
- **Internal Labor Coding:** In this method, labor operations are internally coded within the Audatex system. Related groups of operations that are collectively required to perform one specific operation are internally coded to allow the Audatex estimate to include commonly performed operations. When this type of coding is done and the main operation has been included in the estimate, the subordinate operations will generally be accounted for in that main operation. If the main operation is not selected, the subordinate operations will be accounted for by the guide number order method.

Inner panel labor is with outer welded panel removed. The labor on the estimate for these parts is after applicable overlap is deducted.

Audatex vehicle files released after April 1992 include labor to remove outer panels for the following inner panel areas:

Radiator support	Inner bodyside
Inner fender	Rear side rail
Front side rail	Inner rear body panel
Inner rocker	Rear floor pan
Inner quarter	

Section 4-1 Labor Overview

Labor Rate Breakout

Audatex Estimating now supports the allocation of two or more labor rates for a single damage entry, such that the labor calculation reflects the type of repair work completed.

DAMAGE LIST

ESTIMATE CHECK

← 165 - Pillar,Windshield (LT)

×

	Description		Side	Operation	Qty	Price
<input type="checkbox"/>	Cover,Front Bumper			CUSTOM OE TEXT	1	\$3
<input type="checkbox"/>	Cover,Front Bumper			Refinish		
<input type="checkbox"/>	Grille,Frt Bmpr Cvr			CUSTOM OE TEXT	1	\$
<input type="checkbox"/>	Sensor,Temperature			Replace OEM	1	
<input type="checkbox"/>	Emblem,Frt Bmpr Cover			CUSTOM OE TEXT	1	\$
<input type="checkbox"/>	Defl,Front Bumper Lwr			CUSTOM OE TEXT	1	\$
<input type="checkbox"/>	Retainer,Front Bumper			CUSTOM OE TEXT	1	
<input type="checkbox"/>	Panel,Frt Bmpr License			CUSTOM OE TEXT	1	\$
<input type="checkbox"/>	Absorber,Front Bumper			CUSTOM OE TEXT	1	\$
<input type="checkbox"/>	Brkt,Front Bumper Mtg	LT		CUSTOM OE TEXT	1	\$
<input type="checkbox"/>	Brkt,Front Bumper Mtg	RT		CUSTOM OE TEXT	1	\$
<input type="checkbox"/>	Fender,Front	LT		CUSTOM OE TEXT	1	\$2
<input type="checkbox"/>	Fender,Front	LT		Refinish		
<input type="checkbox"/>	Wheel,Front	LT		CUSTOM OE TEXT	1	\$1
<input type="checkbox"/>	Suspension Align,Frt			Repair		
<input type="checkbox"/>	Knuckle,Steering	LF		Replace OEM	1	\$1

ADJUSTMENTS

LABOR BREAKOUT

ET 0165 Pillar,Windshield

Partial Replace Labor

Task	Hrs	Operation	Rate	Labor Type	
WINDSHIELD	2.5	R & I	SM	SM	+
PILLAR, WINDSHIELD LT	1.7	REPLACE	SM	SM	
AIRBAG, ROOF LT	1.0	R & I	ME	SM	
PNL, ROOF-PLR, HINGE LT	1.0	OVERLAP	SM	SM	

BACK TO OPERATIONS

SAVE & CLOSE

For the labor rate breakout feature, there will be two display options available in the Included Operations dialog window:

- Default part record labor rate in the drop-down list.

Section 4-1 Labor Overview

Claim ID: TEST-20100726-1 | Model: 2008 Chevrolet Malibu | 41% | \$2,597.19

COMPLETED ESTIMATE, NOTES, FORMS

SEARCH

165

Description ^	Guide Number	Additional Text
Bezel,Overhead Console	1165	
Case,Heater	1651	
Core,Heater	1653	INCL SEAL
Frame,Rear Seat	388	
Pillar,Windshield	165	Partial Replace Labor
Pnl,Package Tray Trim	1652	COVER;W/O WINDOW SUN BLI
Sensor,Engine	1654	KNOCK
Shade,Back Glass	1655	
Valve,Heater-A/C	1657	REFRIGERANT SERVICE,REAR

← 165 - Pillar,Windshield (LT)

ADJUSTMENTS

Estimate Version: **S1** ☐ Open

Part Price: \$0.00

Quantity:

Labor Hours: 6.2

Labor Type: SM Sheet Metal [\$55.00]

Damage Remarks: Enter text here [Add more](#)

Refinish Labor Hours: 0.7

Refinish Labor Type: RF Refinish [\$45.00]

Refinish Remarks: Enter text here [Add more](#)

Adjustment:

Betterment:

BACK TO OPERATIONS SAVE & CLOSE

- Default part record labor rate in the drop-down list and the system assigned labor rate found in the vehicle data.

Claim ID: TEST-20100726-1 | Model: 2008 Chevrolet Malibu | 41% | \$2,597.19

COMPLETED ESTIMATE, NOTES, FORMS

SEARCH

165

Description ^	Guide Number	Additional Text
Bezel,Overhead Console	1165	
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Core,Heater	1653	INCL SEAL
Frame,Rear Seat	388	
Pillar,Windshield	165	Partial Replace Labor
Pnl,Package Tray Trim	1652	COVER;W/O WINDOW SUN BLI
Sensor,Engine	1654	KNOCK
Shade,Back Glass	1655	
Valve,Heater-A/C	1657	REFRIGERANT SERVICE,REAR

← 165 - Pillar,Windshield (LT)

ADJUSTMENTS

Estimate Version: **S1** ☐ Open

Part Price: \$0.00

Quantity:

Labor Hours: 6.2

Labor Type: SM Sheet Metal [\$55.00]

Damage Remarks: Enter text here [Add more](#)

Refinish Labor Hours: 0.7

Refinish Labor Type: RF Refinish [\$45.00]

Refinish Remarks: Enter text here [Add more](#)

Adjustment:

Betterment:

BACK TO OPERATIONS SAVE & CLOSE

Section 4-1 Labor Overview

The MR (Multiple Rates) code will display when the labor task rate is changed. There will be an asterisk (*) or chevron (^) depending on these rules:

Display Option	Action	Result
1	Override the labor rate on the task	MR*
2	Override the labor rate on the task and it matches the system-assigned labor rate	MR^
2	Override the labor rate on the task and it does not match the system assigned labor rate	MR*

Section 4-2 Labor Exclusions

Labor Exclusions

Because each vehicle's collision damage is unique, labor to perform some of the following operations may vary. In other cases, the operation is performed less than 80% of the time and may or may not be required due to the collision damage. To address these situations, Audatex provides:

- 'Standard Manual Entries' that are entered by the estimate preparer (for a complete listing, see [Section 5-1](#)).
- 'Additional Labor' operations which are Audatex pre-stored labor for many of these operations.

When the operation has a 'Standard Manual Entry' or an 'Additional Labor' operation available, a note will appear next to the appropriate exclusion.

- Additional labor for removal of parts that have been impeded by crash damage (access labor). (Standard Manual Entry M62 is available).
- Additional required operations that are taught in an OEM training environment but aren't included in the current OEM reference material.
- Adhesive curing times.
- OEM aesthetic appearance matching of sealants, sound deadening or bonding materials
- Alignment of front or rear suspension ('Additional Labor').
- Alignment of parts adjacent to parts being replaced.
- Any labor related to access or research of OEM EPC and/or Service Information. Additionally, OEM information subscription costs are not included in part prices or labor values provided.
- Application of lubricant or similar material.
- Application of seam sealer on new parts that require seam sealer.
- Assembly of new parts that come unassembled in multiple parts by the manufacturer. (i.e. grille assembly)
- Bleeding of brake, cooling, or hydraulic systems ('Additional Labor' for brake bleeding).
- Body Materials are not included in Audatex labor values.
- Calibration of Advanced Driver Assistance Systems (ADAS) components.
- Complete R&I of brake line, transmission line, or fuel line.
- Cutting and splicing of lamp wiring.
- Detailing.
- Disabling and enabling of Hybrid Vehicle components (i.e. high voltage systems, battery packs, and power cables).
- Diagnosis and testing of electronic components or systems (e.g., airbags).
- Disassembly of recycled parts and assemblies.
- Disconnect / reconnect computer modules for welding purposes.
- Drain, refill and/or top off engine oil.

- Drain, Refill and/or Topoff Windshield Washer Fluid.
 - Drain or refill fuel tank.
 - Drain, refill and/or top off transmission fluid.
 - Evacuate and recharge air conditioning system ('Additional Labor').
 - Glass or other collision debris cleanup (Standard Manual Entry M69 is available).
 - Hazardous waste removal (Standard Manual Entry M60 is available).
 - Labor for drilling necessary to attach parts (e.g., ornamentation, antennas, etc.). (Standard Manual Entry M61 is available).
 - Lock cylinder coding (Standard Manual Entry M73 is available).
 - Manual or electronic aiming of headlamps ('Additional Labor').
 - **Manual or electronic aiming of foglamps.**
 - OEM aesthetic appearance matching of sealants, sound deadening or bonding materials
 - Pre and/or Post Repair Diagnostic Scans
 - Recover, evacuate and recharge air conditioning system ('Additional Labor').
 - Refinish Materials are not included in Audatex refinish labor values.
 - Removal of bed liner materials on repaired panels.
 - Removal of bed liner materials on replaced panels for access to welded areas.
 - Removal of panel bonding adhesive material.
 - R&I of audio and video components and optional computers.
 - R&I of Injected / Structural foam.
 - R&I of non-standard equipment not identified as options.
 - R&I of wiring harness, fuse box, and relay box.
 - R&I or masking of mouldings and ornamentation (e.g., nameplates, emblems, ornaments, tape, etc.). For exceptions, see specific sections.
- Note:** *R&I labor for mouldings and ornamentation can be obtained by selecting R&I or by selecting replacement of the part and overriding the pre-stored part price to zero.*
- Refrigerant recovery ('Additional Labor').
 - Removal of debris, grease, corrosion, protective coatings, or other materials impeding replacement, R&I, or refinishing of parts.
 - Removal of moulding(s), decal(s), tape, or overlay adhesive.
 - Removal of part number labels.
 - Removal of protective coatings from replacement parts.
 - Repair, fitting, or modification of new replacement parts (unless part is being sectioned).
 - Repair, fitting, trimming, or modification of recycled parts.
 - Replace labor does not include additional labor to repair the replaced panel and or adjacent panels which may become distorted, burned or damaged by welding, drilling, grinding and straightening.
 - Reset of electronic components (e.g., airbags, active headrests, computers, modules, clock, radio, tire pressure monitors, adaptive cruise control, etc.). (Standard Manual Entry M67 is available).
 - Restoration of corrosion-protective coatings (e.g., galvanizing, zinc coatings, E-coat 'equivalent,' and other like materials). (Standard Manual Entry M14 is available). For more detailed information, see [Refinish](#) section.
 - Setup of a vehicle on a frame machine, dedicated bench, or other measuring / straightening devices. Pulling time is not included (Standard Manual Entry M31 is available).
 - Setup of rivet equipment, riveting materials and/ or test riveting.
 - Setup of welding equipment, welding materials and/or test welding.
 - Steam cleaning of or rust removal from fuel tanks.
 - Test drive to relearn system.
 - Transfer of attached items from original parts to recycled parts.
 - Wheel balancing (Standard Manual Entries M22 through M25 are available).

Section 4-3 Replacement & Recycled Operations

Replacement and Recycled Operations

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Air Bag Information

The Air Bag charts are developed in cooperation with I-CAR, the Inter-Industry Conference on Auto Collision Repair. The contents are based on the information available at the time of publication. To ensure the most recent information is used, always refer to the vehicle manufacturer's technical information before working with airbags and other passive restraint systems

Air Bag Cautions

Handle deployed front Air Bags with care.

Front airbags have two initiators (squibs) in the airbag. Both inflators may or may not be deployed. This could leave live pyrotechnic material within the inflators.

Do not dispose of these airbags unless you are certain of complete deployment.

Replaced SRS Control Modules

Following installation, some modules require that a separate programming procedure be carried out. For instructions, refer to the OEM specific module removal and installation procedures.

Replacement and Recycled Operations

The following is a general overview of operations included in Audatex's labor allowances. Each part or operation shows which specific operations are included, as well as those that are not included. Operations listed in the "Not Included" column may or may not need to be performed. To make that determination, an assessment needs to be made at the time of inspection. Review the completed estimate to see the estimate preparer's considerations and allowances for the specific vehicle repair. It is the ultimate responsibility of the estimate preparer to ensure estimate compliance, and that all necessary operations needed are included in the estimate.

All operations and labor allowances in the Audatex system are for like, kind, and quality panels, including new and undamaged OEM panels. Refer to the Audatex Labor Report for operations specific to the vehicle being repaired.

Remove and Install (R&I)

R&I is an operation or group of operations that are required to remove and install the part or assembly. Audatex time:

- includes normal adjustment and alignment for correct fit.
- does not include any duplicated effort such as test fitting.

The installation is for the originally attached part.

Remove, Remove and Install (R, R& I)

R, R&I is an operation or group of operations that are required to remove the component part from the vehicle, remove the part from a recycled assembly being installed, and re-installing the necessary component part from the vehicle. Audatex time:

- Includes time to remove the component part from the vehicle, remove the part from a recycled assembly being installed and re-installing the necessary component part from the vehicle (e.g. trim panel, lock cylinder, etc.)
- Includes normal adjustment and alignment for correct fit.

The installation is for the part originally attached to the vehicle.

Audatex's definition of Remove and Replace (R&R)

Is an operation or group of operations that are required to remove the damaged part and replace with a new OEM or new alternative part. Audatex time:

Section 4-3 Replacement & Recycled Operations

- includes normal adjustment and alignment for correct fit.
- does not include any duplicated effort such as test fitting.

Replace includes any operations over and above the R&I operations.

Replacement and Recycled Operations Overview

Audatex labor allowances include time to fabricate sleeves when they can be made from existing parts. If the sleeve needs to be fabricated from raw stock, the time to fabricate the sleeve is not included.

Sandwiched panel replacement includes time to separate the panels by drilling out the spot welds and sliding the replacement panel in between, rewelding and smoothing welds if necessary. Any sheetmetal damage occurring during the separation of sandwiched panels is not included in Audatex provided labor values and would be a manual consideration.

A required labor operation that is not listed as either "Included" or "Not Included" is usually not included in Audatex labor times. This applies to the content of the DBRM and the specific operations listed for each vehicle through the Labor Report.

Asterisks on an estimate are used to denote user entered values. They do not imply that the operation noted is not a necessary procedure.

Manual entries on an estimate do not imply that the part/operation entered is not a necessary procedure.

Full Panel Replacement

Audatex labor is for replacement at factory seams when possible. Many vehicles now have panels that may not be replaced at roof seams because of overlapping panels. If a quarter panel is designed in this manner and a "Partial" repair time is not shown, the Audatex time represents replacement of the panel at the most practical area – usually in the window openings below the roof seam. This method is considered a full panel replacement.

Partial Panel Replacement (Sectioning)

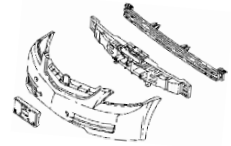
Partial Panel Replacement is the replacement of a portion of a welded OEM panel at either a factory seam or using a viable sectioning procedure.

Always consult current OEM service information before starting a partial body repair. Any lines appearing in Audatex graphics are intended only to designate the general area of the cut, and show that a partial replacement may be a valid repair option available for selection. Cut locations should only be determined through the use of OEM service information, I-CAR Training and/or personal experience of the repairer. Stamped lines or laser weld lines appearing on a part should also not be construed as cut lines for a partial repair procedure unless verified by the OEM.

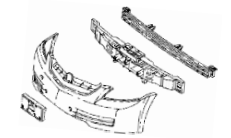
The following list of Included/Not Included labor operations are a guide that illustrates Audatex's labor methodology. Please be advised each vehicle is unique in nature and certain operations may differ based on the OEM repair procedures.

Bumper R&I and Bumper Recycled

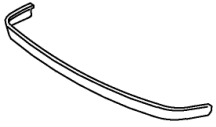
Recycled panel replacement may or may not be recommended by the vehicle manufacturer.



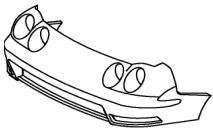
New Part Replacement (OEM and non-OEM new parts) Operations		Recycled Part Replacement Operations		Operations
Included Operations	Not Included Operations	Included Operations	Not Included Operations	
✓		✓		Front lamps R&I (when required)
✓		✓		Parklamps R&I (when required)
✓		✓		Grille assembly R&I (when required)
✓		✓		Valance panel R&I (when required)
✓		✓		Remove assembly from frame or energy absorber
✓		✓		Reinstall assembly
✓				Reasonable adjustment and alignment (as defined by the manufacturer using conventional fasteners and/or hardware)
	✓		✓	License plate bracket R&I
	✓		✓	Trimming, repair, or modification of part
	✓		✓	R&I of mouldings, emblems, nameplates and ornaments
	✓		✓	R&I of non-standard equipment not identified as options
n/a	n/a		✓	Disassembly, cleaning, and reassembly of assemblies

Bumper Overhaul**Special Note:** Included and not included operations will vary based on vehicle model options selected.

Included Operations	Not Included Operations	Operations
✓		Assembly R&I
✓		Parklamps R&I (when required)
✓		Bumper reinforcement R&I (when required)
✓		Valance panel R&I (when required)
✓		Mouldings R&I
✓		License plate bracket R&I (rear bumper)
✓		License plate R&I (rear bumper)

Valance Replacement		
		
Included Operations	Not Included Operations	New Part Replacement (OEM and non-OEM new parts) Operations
✓		Disconnect and connect skid plates and braces
✓		Bumper R&I (when required)
✓		Air dams R&I (when required)
	✓	Trimming, repair, or modification of part
	✓	R&I of mouldings, emblems, nameplates and ornaments
	✓	R&I of non-standard equipment not identified as options
✓		Reasonable alignment to vehicle (as defined by the manufacturer using conventional fasteners and/or hardware)
	✓	License plate bracket R&I (front bumper)
	✓	License plate R&I (front bumper)
	✓	Ornamentation R&I
	✓	Trimming, repair, or modification of part
	✓	R&I of non-standard equipment not identified as options

Section 4-3 Replacement & Recycled Operations

Front End Cover R&I		
Special Note: This is a one-piece cover that takes the place of the bumper and front-end panel and surrounds the headlamps.		
		
Included Operations	Not Included Operations	Operations
✓		Grille R&I (when required)
✓		Front lamps R&I (when required)
✓		R&I cover at attaching points
✓		Reasonable adjustment and alignment (as defined by the manufacturer using conventional fasteners and/or hardware)
	✓	Bumper impact bar R&I
	✓	Aim headlamps (Additional Labor)
	✓	Trimming, repair, or modification of part
	✓	R&I of mouldings, emblems, nameplates and ornaments
	✓	R&I of non-standard equipment not identified as options

Section 4-3 Replacement & Recycled Operations

Front End Cover

Replacement and Recycled

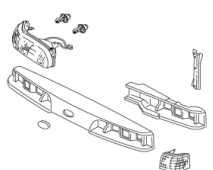
Recycled panel replacement may or may not be recommended by the vehicle manufacturer.

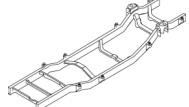


Special Note: This is a one-piece cover that takes the place of the bumper and front-end panel and surrounds the headlamps.

New Part Replacement (OEM and non-OEM new parts)		Recycled Part Replacement Operations		Operations
Included Operations	Not Included Operations	Included Operations	Not Included Operations	
✓			✓	Bumper R&I (when required)
✓		✓		Front cover R&I
✓			✓	Grille assembly R&I
✓			✓	Front lamps R&I (as assemblies)
✓			✓	Parklamp assemblies R&I (when required)
✓			✓	Front cover reinforcements R&I
✓		✓		Reasonable adjustment and alignment (as defined by the manufacturer using conventional fasteners and/or hardware)
	✓		✓	Bumper impact bar R&I
	✓		✓	License plate bracket R&I
	✓		✓	License plate R&I
	✓		✓	Aim headlamps (Additional Labor)
	✓		✓	Trimming, repair, or modification of part
	✓		✓	R&I of mouldings, emblems, nameplates and ornaments
	✓		✓	R&I of non-standard equipment not identified as options
n/a	n/a		✓	Disassembly, cleaning, and reassembly of assemblies

Section 4-3 Replacement & Recycled Operations

Front End Panel Replacement and Recycled Recycled panel replacement may or may not be recommended by the vehicle manufacturer. 				
New Part Replacement (OEM and non-OEM new parts) Operations		Recycled Part Replacement Operations		Operations
Included Operations	Not Included Operations	Included Operations	Not Included Operations	
✓		✓		Bumper R&I (when required)
✓		✓		Grille R&I (when required)
✓		✓		Front end panel R&I
✓			✓	Front lamps R&I (as assemblies) (when required)
✓			✓	Transfer of attached bolted parts
✓		✓		Reasonable adjustment and alignment (as defined by the manufacturer using conventional fasteners and/or hardware)
	✓		✓	Aim headlamps (Additional Labor)
	✓		✓	Trimming, repair, or modification of part
	✓		✓	R&I of mouldings, emblems, nameplates and ornaments
	✓		✓	R&I non-standard equipment not identified as options
n/a	n/a		✓	Disassembly, cleaning, and reassembly of assemblies

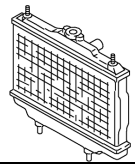
Frame Replacement and Recycled Recycled panel replacement may or may not be recommended by the vehicle manufacturer. 				
New Part Replacement (OEM and non-OEM new parts) Operations		Recycled Part Replacement Operations		Operations
Included Operations	Not Included Operations	Included Operations	Not Included Operations	
✓		✓		Front bumper R&I
✓		✓		Front bumper brackets R&I
✓		✓		Hood panel R&I
✓		✓		Radiator R&I

✓		✓		A/C condenser R&I, including A/C line disconnect / connect, Line Cap Off (when required)
✓		✓		Raise and support vehicle
✓		✓		Underside covers R&I
✓		✓		Steering gear and components R&I
✓		✓		Front suspension assemblies / axle assembly R&I
✓		✓		Disconnect / connect brake lines
✓		✓		Engine and transmission assembly R&I
✓		✓		Bolted transmission cross member R&I (when required)
✓		✓		Rear bumper R&I (when required)
✓		✓		Rear bumper brackets R&I (when required)
✓		✓		Rear valance R&I (when required)
✓		✓		Muffler and components R&I
✓		✓		Fuel tank R&I
✓		✓		Disconnect / connect fuel lines
✓		✓		Rear suspension assembly / axle assembly R&I
✓		✓		Bed assembly R&I on trucks
✓		✓		Spare tire carrier R&I (when attached to frame)
✓		✓		Disconnect / connect battery
✓		✓		Disconnect / connect wiring harness for access
✓		✓		Disconnect / connect radiator support panel to frame assembly
✓		✓		Cab assembly R&I on trucks and utility vehicles
✓		✓		Transfer braces and brackets
✓		✓		Transfer mounts and bushings
✓		✓		Disconnect / connect body assembly to frame assembly on passenger cars, utility vehicles, or vans
	✓		✓	Evacuate and recharge A/C system (Additional Labor)
	✓		✓	Refrigerant recovery (Additional Labor)
	✓		✓	Drain and replace oil and fluids
	✓		✓	Bleed brakes (Additional Labor)
	✓		✓	Wheel alignment (Additional Labor)
	✓		✓	Adjust linkage
	✓		✓	Wiring harness R&I

	✓		✓	Corrosion protection
	✓		✓	Test drive
	✓		✓	Carpet rollback
	✓		✓	Interior trim panels
	✓		✓	Interior bolted parts
	✓		✓	R&I of non-standard equipment not identified as options
	✓		✓	Trimming, repair, or modification of part
	✓		✓	Disassembly, cleaning, and reassembly of assemblies

Radiator Replacement and Recycled

Recycled panel replacement may or may not be recommended by the vehicle manufacturer.

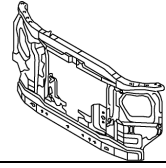


New Part Replacement (OEM and non-OEM new parts) Operations		Recycled Part Replacement Operations		Operations
Included Operations	Not Included Operations	Included Operations	Not Included Operations	
✓		✓		Drain and refill radiator
✓		✓		Disconnect and connect hoses
✓		✓		Transmission coolant line disconnect/connect (when required)
✓		✓		Air baffle R&I (when required)
✓		✓		Shroud R&I
✓		✓		Electric fan R&I (when required)
	✓		✓	Flush and pressure test
	✓		✓	Purge and bleed
	✓		✓	Trimming, repair, or modification of part
	✓		✓	R&I of non-standard equipment not identified as options
n/a	n/a		✓	Disassembly, cleaning, and reassembly of assemblies

Section 4-3 Replacement & Recycled Operations

Radiator Support Panel Replacement and Recycled

Recycled panel replacement may or may not be recommended by the vehicle manufacturer.



Important Reminder:

This is considered a structural part of the vehicle. Replacing structural panels requires:

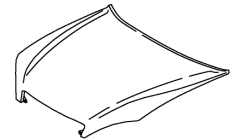
- following specific OEM replacement procedures
- using specified installation materials
- returning the vehicle to OEM structural integrity for occupant safety

New Part Replacement (OEM and non-OEM new parts) Operations		Recycled Part Replacement Operations		Operations
Included Operations	Not Included Operations	Included Operations	Not Included Operations	
✓		✓		Bumper R&I
✓		✓		Energy absorber R&I (when required)
✓		✓		Valance panel R&I
✓		✓		Front end panel, header panel, cover panel R&I
✓		✓		Fender R&I, or loosen fender at front
✓		✓		Hood R&I (if hinged at support panel)
✓		✓		Radiator R&I
✓		✓		A/C condenser R&I, including A/C line disconnect / connect, Line Cap Off (when required)
✓		✓		Airbag sensors R&I (when required)
✓		✓		Battery and tray R&I (when required)
✓		✓		Attached bolted parts R&I
✓		✓		Washer and coolant reservoir tank R&I (when required)
✓		✓		Disconnect and connect engine mounts (when required)
✓		✓		Disconnect / connect battery
✓		✓		Disconnect / connect wiring harness for access
✓		✓		Detach and weld to adjacent panels
✓		✓		Application of weld-through primer (Welded areas)
✓		✓		Seam sealing
✓		✓		Climate control sensors (when required)
✓		✓		Horns R&I (when required)
✓		✓		Engine mount R&I (when required)
✓		✓		A/C receiver / dehydrator R&I (when required)

	✓		✓	Bumper overhaul
	✓		✓	Aim headlamps (Additional Labor)
	✓		✓	Evacuate and recharge A/C system (Additional Labor)
	✓		✓	Refrigerant recovery (Additional Labor)
	✓		✓	Specification labels R&I and/or replacement
	✓		✓	Fuel vapor canister R&I
	✓		✓	Disconnect / connect of power steering lines
	✓		✓	Wiring harness, fuse box, and relay R&I
	✓		✓	Corrosion protection
	✓		✓	Trimming, repair, or modification of part
	✓		✓	R&I of non-standard equipment not identified as options
n/a	n/a		✓	Disassembly, cleaning, and reassembly of assemblies

Hood**Replacement and Recycled**

Recycled panel replacement may or may not be recommended by the vehicle manufacturer.

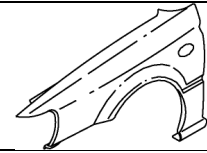


New Part Replacement (OEM and non-OEM new parts) Operations		Recycled Part Replacement Operations		Operations
Included Operations	Not Included Operations	Included Operations	Not Included Operations	
✓		✓		R&I at hinges / hydraulic rod
✓			✓	Hood lamp R&I (when required)
✓			✓	Safety catch R&I (on Hood)
✓			✓	Striker R&I (on Hood)
✓			✓	Weatherstrip (on Hood)
✓			✓	Windshield washer hose (when required)
✓			✓	Windshield washer nozzles (when required)
✓			✓	Air inlet system R&I (when required)
✓		✓		Reasonable adjustment and alignment (as defined by the manufacturer using conventional fasteners and/or hardware)
	✓		✓	Insulator pad R&I
	✓		✓	Specification labels R&I or replacement
	✓		✓	Hinge R&I from vehicle

	✓		✓	Wiring R&I
	✓			Seam sealing
	✓			Trimming, repair, or modification of part
	✓		✓	R&I of mouldings, emblems, nameplates and ornaments
	✓		✓	R&I of non-standard equipment not identified as options
n/a	n/a		✓	Disassembly, cleaning, and reassembly of assemblies

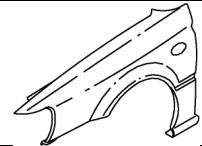
Fender**Replacement and Recycled**

Recycled panel replacement may or may not be recommended by the vehicle manufacturer.



New Part Replacement (OEM and non-OEM new parts) Operations		Recycled Part Replacement Operations		Operations
Included Operations	Not Included Operations	Included Operations	Not Included Operations	
✓		✓		Bumper assembly R&I (when required)
✓		✓		Loosen bumper and fillers (when required)
✓		✓		Grille R&I (when required)
✓		✓		Bolted cowl top panel R&I (when required)
✓		✓		Headlamp components R&I (when required)
✓		✓		Side marker lamp R&I
✓		✓		Rocker panel moulding R&I (when required)
✓		✓		Spoilers and flares R&I (when required) (OEM only)
✓			✓	Mud guard R&I (when required)
✓		✓		Skirt R&I (when required)
✓		✓		Fender R&I
✓			✓	Cornering lamp R&I
✓		✓		Reasonable adjustment and alignment (as defined by the manufacturer using conventional fasteners and/or hardware)
✓		✓		Bumper R&I (when required)
✓		✓		Fender assembly R&I
	✓		✓	Antenna assembly R&I
	✓		✓	Drilling hole for antenna installation (Manual Entry M61 available)

	✓		✓	Seam sealing
	✓		✓	Corrosion protection
	✓		✓	Aim headlamps (Additional Labor)
	✓		✓	Stripe removal
	✓		✓	Trimming, repair, or modification of part
✓			✓	Battery and battery tray R&I (when required)
	✓		✓	R&I of mouldings, emblems, nameplates and ornaments
	✓		✓	R&I of non-standard equipment not identified as options
n/a	n/a		✓	Disassembly, cleaning, and reassembly of assemblies

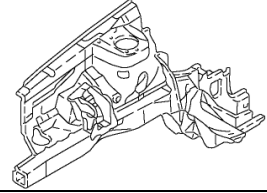
Fender R&I

Included Operations	Not Included Operations	Operations
✓		Bumper assembly R&I (when required)
✓		Loosen bumper and fillers (when required)
✓		Grille R&I (when required)
✓		Bolted cowl top panel R&I (when required)
✓		Headlamp components R&I (when required)
✓		Side marker lamp R&I (when required)
✓		Rocker panel moulding R&I (when required)
✓		Spoilers and flares R&I (when required) (OEM only)
✓		Skirt R&I (when required)
✓		Fender assembly R&I
✓		Cornering lamp R&I (when required)
✓		Reasonable adjustment and alignment (as defined by the manufacturer using conventional fasteners and/or hardware)
	✓	Antenna R&I
	✓	Stripe removal
	✓	Trimming, repair, or modification of part
	✓	R&I of mouldings, emblems, nameplates and ornaments

Section 4-3 Replacement & Recycled Operations

Inner Fender Panel

Welded with Side Rail Replacement

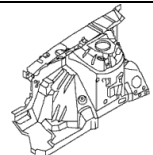


Important Reminder: *This is considered a structural part of the vehicle. Replacing structural panels requires:*

- following specific OEM replacement procedures
- using specified installation materials
- returning the vehicle to OEM structural integrity for occupant safety

Included Operations	Not Included Operations	New Part Replacement (OEM and non-OEM new parts) Operations
✓		Bumper R&I
✓		Energy absorber R&I (when required)
✓		Hood panel R&I (when required)
✓		Hood hinges and hydraulic rod R&I (when required)
✓		Hood prop rod R&I (when required)
✓		Fender R&I
✓		Battery and tray R&I (when required)
✓		Washer and coolant reservoir tank R&I (when required)
✓		Sill plate R&I
✓		Cowl trim R&I
✓		Carpet / insulation rollback
✓		Raise and support vehicle
✓		Front wheel R&I
✓		Air inlet system R&I (when required)
✓		Disconnect / connect battery
✓		Disconnect / connect wiring harness for access
✓		Detach and weld at floor pan, radiator support panel, hinge pillar, and cowl panel
✓		Fabrication of sleeves (when required)
✓		Transfer of welded brackets and reinforcements
✓		Application of weld-through primer (Welded areas)
✓		Seam sealing
✓		Horns R&I (when required)
✓		Reasonable alignment
✓		Disconnect and connect shock/strut at inner fender
✓		Disconnect and connect side rail at engine cradle or suspension cross member

	✓	Hood release cable R&I
	✓	Electronic components R&I
	✓	Fuse box R&I
	✓	Vacuum booster R&I
	✓	Exhaust system R&I for access
	✓	Parking brake assembly R&I
	✓	Master cylinder R&I
	✓	Brake line R&I
	✓	Bleed brakes (Additional Labor)
	✓	Wheel alignment (Additional Labor)
	✓	Front suspension assembly R&I (Additional Labor)
	✓	Engine R&I (Additional Labor)
	✓	R&I engine and transaxle, suspension and steering assemblies, and cradle as a unit (Additional Labor)
	✓	Wiring harness R&I
	✓	Dash R&I
	✓	Corrosion protection
	✓	Disconnect and connect engine mounts
	✓	Steering components R&I
	✓	Trimming, repair, or modification of part
✓		Raise and support engine (when required)
	✓	R&I of non-standard equipment not identified as options

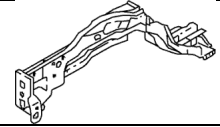
Inner Fender Panel**without Side Rail Replacement****Important Reminder:** This is considered a structural part of the vehicle. Replacing structural panels requires:

- following specific OEM replacement procedures
- using specified installation materials
- returning the vehicle to OEM structural integrity for occupant safety

Included Operations	Not Included Operations	New Part Replacement (OEM and non-OEM new parts) Operations
✓		Bumper R&I
✓		Energy absorber R&I (when required)
✓		Hood panel R&I (when required)
✓		Hood hinges and hydraulic rod R&I (when required)
✓		Hood prop rod R&I (when required)

✓		Fender R&I
✓		Battery and tray R&I (when required)
✓		Washer and coolant reservoir tank R&I (when required)
✓		Sill plate R&I
✓		Cowl trim R&I
✓		Carpet / insulation rollback
✓		Disconnect and connect shock/strut at inner fender
✓		Raise and support vehicle
✓		Front wheel R&I
✓		Air inlet system R&I (when required)
✓		Disconnect / connect engine mount (rear wheel drive)
✓		Disconnect / connect battery
✓		Disconnect / connect wiring harness for access
✓		Detach and weld at floor pan, radiator support panel, hinge pillar, and cowl panel
✓		Transfer of welded brackets and reinforcements
✓		Application of weld-through primer (Welded Areas)
✓		Seam sealing
✓		Reasonable alignment
	✓	Hood release cable R&I
	✓	Electronic components R&I
	✓	Fuse box R&I
	✓	Horns R&I
	✓	Vacuum booster R&I
	✓	Exhaust system R&I for access
	✓	Parking brake assembly R&I
	✓	Master cylinder R&I
	✓	Brake line R&I
	✓	Bleed brakes (Additional Labor)
	✓	Wheel alignment (Additional Labor)
	✓	Suspension assembly R&I (Additional Labor)
	✓	Engine R&I (Additional Labor)
	✓	R&I engine and transaxle, suspension and steering assemblies, and cradle as a unit (Additional Labor)
	✓	Wiring harness R&I
	✓	Dash R&I
	✓	Corrosion protection

	✓	Steering components R&I (rear wheel drive)
	✓	Raise and support engine
	✓	Trimming, repair, or modification of part
	✓	R&I of non-standard equipment not identified as options

Front Side Rails Replacement

Important Reminder: *This is considered a structural part of the vehicle. Replacing structural panels requires:*

- ✓ following specific OEM replacement procedures
- ✓ using specified installation materials
- ✓ returning the vehicle to OEM structural integrity for occupant safety

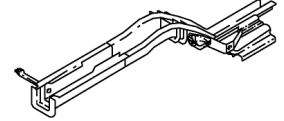
Included Operations	Not Included Operations	New Part Replacement (OEM and non-OEM new parts) Operations
✓		Bumper R&I
✓		Energy absorber R&I (when required)
✓		Fender R&I
✓		Sill plate R&I
✓		Cowl trim R&I
✓		Carpet / insulation rollback
✓		Disconnect / connect engine mounts
✓		Steering components R&I (when required)
✓		Disconnect / connect battery
✓		Disconnect / connect wiring harness for access
✓		Detach and weld (as needed)
✓		Fabrication of sleeves(when required)
✓		Transfer of welded brackets and reinforcements
✓		Application of weld-through primer (Welded areas)
✓		Seam sealing
✓		Reasonable alignment
✓		Raise and support vehicle
✓		Exhaust system R&I for access
	✓	Parking brake assembly R&I
	✓	Brake line R&I
	✓	Bleed brakes (Additional Labor)
	✓	Wheel alignment (Additional Labor)
	✓	Front suspension R&I (Additional Labor)

	✓	Engine R&I (Additional Labor)
	✓	R&I engine and transaxle, suspension and steering assemblies, and cradle as a unit (Additional Labor)
	✓	Corrosion protection
	✓	Raise and support engine
	✓	Trimming, repair, or modification of part
	✓	R&I of non-standard equipment not identified as options

Section 4-3 Replacement & Recycled Operations

Rear Side Rails Replacement and Recycled

Recycled panel replacement may or may not be recommended by the vehicle manufacturer.



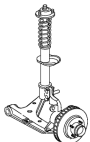
Important Reminder: This is considered a structural part of the vehicle. Replacing structural panels requires:

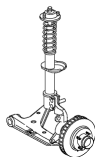
- following specific OEM replacement procedures
- using specified installation materials
- returning the vehicle to OEM structural integrity for occupant safety

New Part Replacement (OEM and non-OEM new parts) Operations		Recycled Part Replacement Operations		Operations
Included Operations	Not Included Operations	Included Operations	Not Included Operations	
✓		✓		Rear bumper R&I
✓		✓		Rear energy absorber R&I (when required)
✓		✓		Fuel tank R&I (when required)
✓		✓		Rear seat R&I
✓		✓		Trunk / cargo area trim panel(s) R&I
✓		✓		Carpet / insulation rollback
✓		✓		Disconnect / connect battery
✓		✓		Disconnect / connect wiring harness for access
✓		✓		Detach and weld (as needed)
✓		✓		Fabrication of sleeves (when required)
✓		✓		Transfer welded brackets and reinforcements
✓		✓		Application of weld-through primer (Welded areas)
✓		✓		Seam sealing
✓		✓		Raise and support vehicle
✓		✓		Reasonable alignment
	✓		✓	Exhaust system R&I for access
	✓		✓	Bleed brakes (Additional Labor)

	✓		✓	Brake lines R&I
	✓		✓	Rear suspension R&I (Additional Labor)
	✓		✓	Wheel alignment (Additional Labor)
	✓		✓	Wiring harness R&I
	✓		✓	Corrosion protection
	✓		✓	Trimming, repair, or modification of part
	✓		✓	R&I of non-standard equipment not identified as options
n/a	n/a		✓	Disassembly, cleaning, and reassembly of assemblies

Section 4-3 Replacement & Recycled Operations

Suspension Assembly R&I			
Included Operations	Not Included Operations	Operations	
✓		Raise and support vehicle	
✓		Wheel R&I	
✓		Disconnect / connect suspension parts at frame/body and outer tie rod	
✓		Disconnect / connect caliper at suspension part and pull back for access	
✓		Disconnect / connect at drive axle (when required)	
	✓	Replacement of component parts	
	✓	Bleeding brakes (Additional Labor)	
	✓	Wheel alignment (Additional Labor)	
	✓	Disconnect / connect parking brake	
	✓	Trimming, repair, or modification of part	

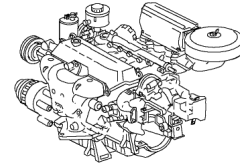
Front Suspension Overhaul			
Included Operations	Not Included Operations	Operations	
✓		Suspension R&I	
✓		Disassemble and clean all component parts	
✓		Visually inspect	
✓		Replace needed parts	

✓		Reassemble all component parts
	✓	Stabilizer bar replacement
	✓	Drive axle replacement
	✓	Bleed brakes (Additional Labor)
	✓	Wheel alignment (Additional Labor)
	✓	Trimming, repair, or modification of part

Section 4-3 Replacement & Recycled Operations

Engine Assembly R&I and Recycled R&I

Recycled replacement may or may not be recommended by the vehicle manufacturer.



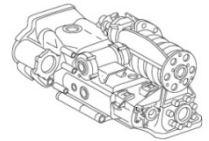
New Part Replacement (OEM and non-OEM new parts) Operations		Recycled Part Replacement Operations		Operations
Included Operations	Not Included Operations	Included Operations	Not Included Operations	
✓		✓		Hood R&I (when required)
✓		✓		Radiator R&I (when required)
✓		✓		Splash shields R&I (when required)
✓		✓		Air cleaner R&I
✓		✓		Disconnect/connect air conditioning compressor and move for access
✓		✓		Disconnect/connect power steering pump/reservoir and move for access (when required)
✓		✓		Disconnect/connect at engine mounts, linkage, exhaust pipe, transmission / transaxle, fuel line(s), vacuum lines, and wiring
✓		✓		Remove engine (raise or lower out of engine compartment)
✓		✓		Install engine (lower or raise into engine compartment)
	✓		✓	Evacuate and recharge A/C system (Additional Labor)
	✓		✓	Refrigerant recovery (Additional Labor)
	✓		✓	Drain and replace oil and fluids
	✓		✓	Adjust linkage
	✓		✓	Test drive
	✓		✓	Replacement or transfer of engine components (spark plugs, distributors, etc)
	✓		✓	Trimming, repair or modification of part

	✓		✓	R&I of non-standard equipment not identified as options
	✓		✓	Disassembly, cleaning, and reassembly of assemblies

Section 4-3 Replacement & Recycled Operations

Transmission / Transaxle R&I and Recycled R&I

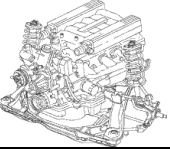
Recycled replacement may or may not be Recommended by the vehicle manufacturer.

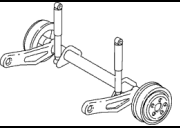


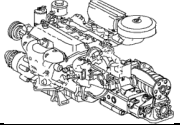
New Part Replacement (OEM and non-OEM new parts) Operations		Recycled Part Replacement Operations		Operations
Included Operations	Not Included Operations	Included Operations	Not Included Operations	
✓		✓		Hood R&I (when required)
✓		✓		Radiator R&I (when required)
✓		✓		Disconnect/connect air conditioning compressor and move for access (when required)
✓		✓		Disconnect/connect power steering pump/reservoir and move for access (when required)
✓		✓		Splash shields R&I (when required)
✓		✓		Disconnect and connect at transmission/transaxle mounts, engine mounts (when required), exhaust pipe, transmission/transaxle, fuel line(s), vacuum lines & wiring
✓		✓		Remove transmission/transaxle (raise/lower out of engine compartment)
✓		✓		Install transmission/transaxle (lower/raise into engine compartment)
	✓		✓	Evacuate and recharge A/C system (Additional Labor)
	✓		✓	Refrigerant recovery (Additional Labor)
	✓		✓	Drain and replace oil and fluids
	✓		✓	Adjust linkage
	✓		✓	Test drive
	✓		✓	Replacement or transfer of transmission / transaxle components (torque converter, seals, etc)
	✓			Trimming, repair or modification of part
	✓			R&I of non-standard equipment not identified as options

	✓			Disassembly, cleaning, and reassembly of assemblies
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Section 4-3 Replacement & Recycled Operations

Engine / Cradle / Suspension / Steering R&I				
				
Included Operations	Not Included Operations	Operations		
✓		Radiator R&I (when required)		
✓		Splash shields R&I		
✓		Air cleaner R&I		
✓		Raise and support vehicle		
✓		Starter R&I (when required)		
✓		Engine covers R&I		
✓		Disconnect/connect steering (i.e., steering column to steering gear)		
✓		Disconnect/connect inner fender panel to strut assembly		
✓		Disconnect/connect air conditioning compressor and move for access		
✓		Disconnect/connect power steering pump/reservoir and move for access (when required)		
✓		Disconnect/connect at engine mounts, linkage, exhaust pipe, fuel lines, vacuum lines, and wiring		
✓		Remove engine/cradle/suspension/steering (lower out of engine compartment)		
✓		Install engine/cradle/suspension/steering (raise into engine compartment)		
	✓	Evacuate and recharge A/C system (Additional Labor)		
	✓	Refrigerant recovery (Additional Labor)		
	✓	Drain and replace oil and fluids		
	✓	Adjust linkage		
	✓	Test drive		
	✓	Trimming, repair, or modification of part		
	✓	R&I of non-standard equipment not identified as options		

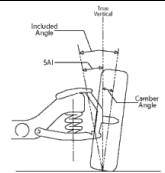
Rear Suspension Overhaul			
Included Operations	Not Included Operations	Operations	
✓		Suspension R&I	
✓		Disassemble and clean all component parts	
✓		Visually inspect	
✓		Replace needed parts	
✓		Reassemble all component parts	
	✓	Stabilizer bar replacement	
	✓	Rear axle replacement	
	✓	Bleed brakes (Additional Labor)	
	✓	Wheel alignment (Additional Labor)	
	✓	Trimming, repair, or modification of part	

Engine and Transmission/ Transaxle Assembly R&I and Recycled R&I					
Recycled replacement may or may not be recommended by the vehicle manufacturer.					
New Part Replacement (OEM and non-OEM new parts) Operations		Recycled Part Replacement Operations		Operations	
Included Operations	Not Included Operations	Included Operations	Not Included Operations		
✓		✓		Hood R&I at hinges (when required)	
✓		✓		Radiator R&I (when required)	
✓		✓		Splash shields R&I (when required)	
✓		✓		Air cleaner R&I	
✓		✓		Disconnect/connect air conditioning compressor and move for access	
✓		✓		Disconnect/connect power steering pump/reservoir and move for access (when required)	
✓		✓		Disconnect and connect at engine mounts, linkage, exhaust pipe, fuel line(s), vacuum lines, and wiring from axle / drive shafts, transmission mounts	
✓		✓		Remove engine and transmission/transaxle (lower out of engine compartment)	
✓		✓		Install engine and transmission/transaxle (raise into engine compartment)	

	✓		✓	Evacuate and recharge A/C system (Additional Labor)
	✓		✓	Refrigerant recovery (Additional Labor)
	✓		✓	Drain and replace oil and fluids
	✓		✓	Adjust linkage
	✓		✓	Test drive
	✓		✓	Replacement or transfer of engine components (spark plugs, distributors, etc)
	✓		✓	Trimming, repair or modification of part
	✓		✓	R&I of non-standard equipment not identified as options
	✓		✓	Disassembly, cleaning, and reassembly of assemblies

Section 4-3 Replacement & Recycled Operations

Front Wheel / Rear Wheel / Four Wheel Alignment



Included Operations	Not Included Operations	Operations
✓		Gather and enter vehicle information into alignment rack to obtain alignment specifications
✓		Check thrust angle, steering angle inclination (SAI)
✓		Check vehicle ride height and adjust if necessary
✓		Check and adjust tire pressure on all four wheels
✓		Add weights or fill fuel tank per manufacturer specifications (when required)
✓		Drive vehicle onto alignment rack; raise and support
✓		Visually inspect for damage to suspension components
✓		Wheel cover R&I (when required)
✓		Attach wheel alignment sensors and compensate for runout on all four wheels
✓		Establish vehicle tracking by checking vehicle thrust angle to center of vehicle
✓		Center steering wheel
✓		Adjust caster and camber; perform manufacturer recommended shimming procedures (when required) (front / rear wheel alignment)
✓		Adjust toe-in where applicable (front/rear wheel alignment)
✓		Adjust front and rear caster and camber; perform manufacturer recommended shimming procedures (when required) (4-wheel alignment)
✓		Adjust front and rear toe-in where applicable (4-wheel alignment)
✓		Recheck alignment specifications and print final copy
✓		Remove wheel alignment sensors from all four wheels and lower vehicle

✓		Remove vehicle from alignment rack and road test
	✓	Non-OEM shimming
	✓	Modifications or alignment of suspension, axle, frame, or engine components
	✓	Re-inspection or realignment
	✓	Pre-diagnostic road test
	✓	Replacement of suspension or structural components (e.g., wheel bearings, ball joints, tie rods)
	✓	R&I steering wheel
	✓	Realigning the rear suspension axle assembly
	✓	Rotate tires and compensate for radial tire pull
	✓	Trimming, repair, or modification of part

Section 4-3 Replacement & Recycled Operations

Windshield and Back Glass Replacement and Recycled				
Recycled panel replacement may or may not be recommended by the vehicle manufacturer.				
Important Reminder: <ul style="list-style-type: none"> ✓ Reveal moulding that are mounted flush to the stationary glass (e.g., Windshield, Back Glass, or Quarter Glass) are at risk of breakage when being removed. ✓ Stationary glass that is urethane bonded is considered a structural part of the vehicle. Replacing stationary glass requires: <ul style="list-style-type: none"> ✓ following specific OEM replacement procedures ✓ using specified installation materials ✓ returning the vehicle to OEM structural integrity for occupant safety 				
New Part Replacement (OEM and non-OEM new parts) Operations		Recycled Part Replacement Operations		Operations
Included Operations	Not Included Operations	Included Operations	Not Included Operations	
✓		✓		Wiper arms R&I
✓		✓		Reveal moulding R&I
✓		✓		Inside rear view mirror R&I
✓		✓		Garnish moulding R&I
✓		✓		Detach and re-attach windshield antenna
✓		✓		Detach and re-attach heated back glass connectors
✓		✓		Weatherstrip R&I
✓		✓		Remove existing glass
✓		✓		Install new or recycled glass
✓		✓		Clean glass after installation

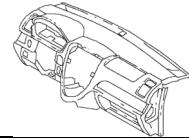
✓		✓		Headliner R&I or loosen (when required)
	✓		✓	Glass installation kit (Manual Entry M29 available)
	✓		✓	Broken glass cleanup (Manual Entry M69 available)
	✓		✓	Adhesive cleanup
	✓		✓	Sealant cleanup
	✓		✓	Trimming, repair or modification of part
	✓		✓	R&I of non-standard equipment not identified as options
	✓		✓	Recalibration of cameras and/or sensors when applicable
n/a	n/a		✓	Disassembly, cleaning, and reassembly of assemblies

Section 4-3 Replacement & Recycled Operations

Instrument Panel

Replacement and Recycled

Recycled panel replacement may or may not be recommended by the vehicle manufacturer.



Important Reminder: Manufacturers recommend replacement of SRS components with OEM parts.

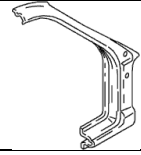
New Part Replacement (OEM and non-OEM new parts) Operations		Recycled Part Replacement Operations		Operations
Included Operations	Not Included	Operations Included Operations	Not Included Operations	
✓		✓		Steering wheel R&I (when required)
✓		✓		Steering column switch assembly R&I (when required)
✓		✓		Steering column R&I (when required)
✓		✓		Steering column covers R&I (when required)
✓		✓		Steering column covers panel R&I
✓		✓		Knee bolster R&I
✓			✓	Instrument panel cover(s) R&I
✓			✓	Instrument panel bezel(s) R&I
✓			✓	Radio housing R&I
✓			✓	Heater and A/C control unit R&I
✓		✓		Windshield garnish moulding R&I
✓			✓	Air duct outlet(s) R&I
✓			✓	Switch(s) R&I
✓		✓		Instrument panel mounted ignition cylinder R&I
✓			✓	Instrument panel speaker grille(s) R&I (bolted only)

✓			✓	Glove compartment door R&I
✓			✓	Glove compartment R&I
✓			✓	Glove compartment housing R&I
✓			✓	Glove compartment rod/hinge R&I (when required)
✓			✓	Glove compartment striker(s) R&I
✓			✓	Switch cover(s) R&I
✓			✓	Ash tray and/or ash tray housing R&I (when required)
✓			✓	Instrument panel cluster or cluster housing R&I
✓			✓	Instrument panel pad R&I
✓		✓		Instrument panel airbag module R&I
✓		✓		Airbag R&I
✓		✓		Center console R&I (when required)
✓			✓	Instrument panel lens R&I
✓			✓	Instrument panel gauges R&I (when required)
✓		✓		Front seats (when required)
✓			✓	Instrument panel clock R&I
✓			✓	Rheostat R&I
✓		✓		SRS modules R&I (when required)
✓		✓		Inner cowl trim panel R&I (when required)
✓			✓	Hood release cable handle R&I
✓		✓		Instrument panel housing(s) R&I (when required)
✓		✓		Instrument panel R&I
✓		✓		Disconnect / connect wiring harness for access
✓		✓		Duct R&I (when required)
	✓		✓	Wiring R&I
	✓		✓	Radio / amplifier / cassette player / CD player R&I
	✓		✓	Instrument panel sound insulator R&I
			✓	Disable / rearm SRS system
			✓	Reset clock and sound system settings
			✓	Parking brake assembly R&I
			✓	Instrument panel support R&I
			✓	Specification labels R&I or replacement
			✓	Snap-on instrument panel speakers R&I
			✓	Fuse box R&I
			✓	Trimming, repair or modification of part

			✓	R&I of mouldings, emblems, nameplates and ornaments
			✓	R&I of non-standard equipment not identified as options
n/a	n/a		✓	Disassembly, cleaning, and reassembly of assemblies

Section 4-3 Replacement & Recycled Operations

Hinge Pillar / Front Bodyside Replacement

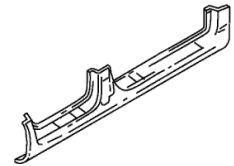


Important Reminder:

- Reveal mouldings that are mounted flush to the stationary glass (e.g., Windshield, Back Glass, or Quarter Glass) are at risk of breakage when being removed.
- Stationary glass that is urethane bonded is considered a structural part of the vehicle. Replacing stationary glass requires:
 - following specific OEM replacement procedures
 - using specified installation materials
 - returning the vehicle to OEM structural integrity for occupant safety
- The hinge pillar is considered a structural part of the vehicle. Replacing structural panels requires:
 - following specific replacement procedures
 - using specified installation materials

Included Operations	Not Included Operations	New Part Replacement (OEM and non-OEM new parts) Operations
✓		Fender R&I
✓		Door R&I
✓		Windshield R&I (when required)
✓		Hinge R&I
✓		Sill plate R&I
✓		Cowl trim R&I
✓		Carpet / insulation rollback
✓		Rocker panel moulding R&I (when required)
✓		Body weatherstrip pullback
✓		Instrument panel / pad R&I
✓		Airbag R&I (when required)
✓		Loosen headliner (when required)
✓		Body fill labor (Welded areas)
✓		Disconnect / connect battery
✓		Disconnect / connect wiring harness for access
✓		Cover to protect interior during repair
✓		Detach and weld at rocker panel, roof panel, cowl side panel, floor pan, and cowl top
✓		Fabrication of sleeves (when required)
✓		Application of weld-through primer (Welded areas)
✓		Block sand (Welded areas)
✓		Application of guide coat (Welded areas)
✓		Dual action sand (Welded areas)


✓		Seam sealing
✓		Reasonable alignment
	✓	Body weatherstrip R&I
	✓	Dome light R&I
	✓	Headliner R&I (Additional Labor)
	✓	Roof drip moulding R&I
	✓	Antenna assembly R&I
	✓	Speaker wiring R&I
	✓	Door check rod R&I
	✓	Electronic and vacuum components R&I
	✓	Parking brake assembly R&I
	✓	Wiring harness R&I
	✓	Corrosion protection
	✓	Body insulation (e.g., foams, pads)
	✓	Trimming, repair, or modification of part
	✓	R&I of non-standard equipment not identified as options

Outer Rocker Panel Replacement

Included Operations	Not Included Operations	New Part Replacement (OEM and non-OEM new parts) Operations
✓		Fender R&I (when required)
✓		Front and rear door R&I (when required)
✓		Sill plate(s) R&I
✓		Rocker panel moulding (when required)
✓		Front seat R&I (when required)
✓		Rear seat R&I (when required)
✓		Quarter trim, center pillar trim, and cowl trim R&I
✓		Carpet / insulation rollback
✓		Airbag sensor R&I (when required)
✓		Body weatherstrip pullback
✓		Disconnect / connect battery
✓		Disconnect / connect wiring harness for access
✓		Body fill labor (Welded areas)

✓		Detach and weld at quarter panel, floor pan, lock pillar, center pillar, and hinge pillar
✓		Fabrication of sleeves (when required)
✓		Application of weld-through primer (Welded areas)
✓		Block sand (Welded areas)
✓		Application of guide coat (Welded areas)
✓		Dual action sand (Welded areas)
✓		Seam sealing
✓		Reasonable alignment
	✓	Body weatherstrip R&I
	✓	Fuel door release cable R&I
	✓	Deck lid / tailgate release cable R&I
	✓	Electronic and vacuum components R&I
	✓	Wiring harness R&I
	✓	Corrosion protection
	✓	Body insulation (e.g., foam, pads)
	✓	Trimming, repair, or modification of part
	✓	R&I of mouldings, emblems, nameplates and ornaments
	✓	R&I of non-standard equipment not identified as options

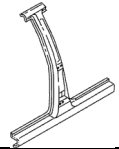
Section 4-3 Replacement & Recycled Operations

Center Pillar Replacement		
		
Important Reminder: <ul style="list-style-type: none"> This is considered a structural part of the vehicle. Replacing structural panels requires: <ul style="list-style-type: none"> following specific OEM replacement procedures using specified installation materials returning the vehicle to OEM structural integrity for occupant safety 		
Included Operations	Not Included Operations	New Part Replacement (OEM and non-OEM new parts) Operations
✓		Rear door R&I
✓		Hinge R&I
✓		Door lock striker R&I
✓		Sill plate(s) R&I
✓		Cowl trim R&I (when required)
✓		Seat belt anchor R&I
✓		Rocker panel moulding R&I (when required)
✓		Front seat R&I (when required)
✓		Center pillar trim R&I
✓		Body fill labor (Welded areas)
✓		Rear seat R&I (when required)
✓		Quarter trim R&I (when required)
✓		Carpet / insulation rollback
✓		Body weatherstrip pullback
✓		Loosen headliner (when required)
✓		Airbag R&I (when required)
✓		Airbag sensor R&I (when required)
✓		Disconnect / connect battery
✓		Disconnect / connect wiring harness for access
✓		Detach & weld at roof panel, rocker panel, & inner center pillar
✓		Fabrication of sleeves (when required)
✓		Application of weld-through primer (Welded areas)
✓		Block sand (Welded areas)
✓		Application of guide coat (Welded areas)
✓		Dual action sand (Welded areas)
✓		Seam sealing

✓		Reasonable alignment
	✓	Body weatherstrip R&I
	✓	Fuel door release cable R&I
	✓	Deck lid / tailgate release cable R&I
	✓	Electronic and vacuum components R&I
	✓	Headliner R&I (Additional Labor)
	✓	Wiring harness R&I
	✓	Corrosion protection
	✓	Body insulation (e.g., foams, pads)
	✓	Trimming, repair, or modification of part
	✓	R&I of mouldings, emblems, nameplates and ornaments
	✓	R&I of non-standard equipment not identified as options

Rocker Panel and Center Pillar Replacement and Recycled

Recycled panel replacement may or may not be recommended by the vehicle manufacturer.



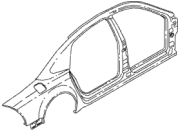
Important Reminder:

- This is considered a structural part of the vehicle. Replacing structural panels requires:
 - following specific OEM replacement procedures
 - using specified installation materials
 - returning the vehicle to OEM structural integrity for occupant safety

New Part Replacement (OEM and non-OEM new parts) Operations		Recycled Part Replacement Operations		Operations
Included Operations	Not Included Operations	Included Operations	Not Included Operations	
✓		✓		Fender R&I (when required)
✓		✓		Front and rear door R&I
✓		✓		Sill plate(s) R&I
✓		✓		Rocker panel moulding (when required)
✓		✓		Front seat R&I (when required)
✓		✓		Rear seat R&I (when required)
✓		✓		Quarter trim, center pillar trim and cowl trim R&I
✓		✓		Seat belt anchor R&I
✓		✓		Seat belt R&I
	✓	✓		Inner rocker panel
	✓	✓		Inner center pillar

✓		✓		Carpet / insulation rollback
✓		✓		Body weatherstrip pullback
✓		✓		Loosen headliner (when required)
✓		✓		Disconnect / connect battery
✓		✓		Disconnect / connect wiring harness for access
✓			✓	Detach and weld at quarter panel, inner rocker panel, floor pan, lock pillar, hinge pillar, roof and inner center pillar (New Part Replacement)
✓		✓		Fabrication of sleeves (when required)
✓		✓		Application of weld-through primer (Welded areas)
✓		✓		Block sand (Welded areas)
✓		✓		Application of guide coat (Welded areas)
✓		✓		Dual action sand (Welded areas)
✓		✓		Seam Sealing
✓		✓		Body fill labor (Welded areas)
✓		✓		Reasonable alignment
✓		✓		Door lock striker and hinge R&I
✓		✓		Airbag R&I (when required)
✓		✓		Airbag sensor R&I (when required)
	✓		✓	Body weatherstrip R&I
	✓		✓	Fuel door release cable R&I
	✓		✓	Deck lid / tailgate release cable R&I
	✓		✓	Electronic and vacuum components R&I
	✓		✓	Wiring harness R&I
	✓		✓	Headliner R&I (Additional Labor)
	✓		✓	Corrosion protection
	✓		✓	Body structure foam
	✓		✓	Trimming, repair, or modification of part
	✓		✓	R&I of mouldings, emblems, nameplates and ornaments
	✓		✓	R&I of non-standard equipment not identified as options
	✓	✓		Detach and weld at hinge pillar, lock pillar, quarter panel, floor pan, and roof (includes attaching inner sheet metal). (Recycled Part Replacement)
n/a	n/a		✓	Disassembly, cleaning, and reassembly of assemblies

Section 4-3 Replacement & Recycled Operations

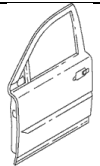
Uni-Side Replacement		
		
Included Operations	Not Included Operations	Operations
✓		Fender R&I (when required)
✓		Front and Rear Door R&I
✓		Windshield R&I (when required)
✓		Hinge R&I
✓		Sill plate R&I
✓		Cowl trim R&I
✓		Carpet / insulation rollback
✓		Rocker panel moulding R&I (when required)
✓		Body weatherstrip pullback
✓		Instrument panel / pad R&I
✓		Airbag R&I (when required)
✓		Loosen headliner (when required)
✓		Body fill labor (Welded areas)
✓		Disconnect / connect battery
✓		Disconnect / connect wiring harness for access
✓		Cover to protect interior during repair
✓		Detach and weld at roof panel, cowl side panel, cowl top, floor pan, and rear body
✓		Fabrication of sleeves (when required)
✓		Application of weld-through primer (Welded areas)
✓		Block sand (Welded areas)
✓		Application of guide coat (Welded areas)
✓		Dual action sand (Welded areas)
✓		Seam sealing
✓		Front seat R&I (when required)
✓		Rear seat R&I (when required)
✓		Quarter trim, center pillar trim, and cowl trim R&I
✓		Seat belt anchor R&I

✓		Seat belt R&I
✓		Door lock striker and hinge R&I
✓		Airbag sensor R&I (when required)
✓		Front and rear bumper R&I (when required)
✓		Rear bumper filler R&I (when required)
✓		Back glass R&I
✓		Tailgate R&I (when required)
✓		Quarter trims R&I
✓		Quarter glass R&I (stationary or flip out)
✓		Bolt-on extension R&I
✓		Fuel door R&I (when required)
✓		Disconnect / connect convertible top assembly at quarter
✓		Mud guard R&I (when required)
✓		Spoiler and flare R&I (OEM only)
✓		Rear body trim R&I (when required)
✓		Rear lamps R&I (when required)
✓		Package tray trim R&I
✓		Vinyl roof peel back
✓		Raise and support vehicle
✓		Front and rear wheel R&I
✓		Deck lid hinge R&I (when required)
✓		Deck lid R&I (when required)
✓		Deck lid or tailgate hydraulic rod R&I (when required)
✓		Reasonable adjustment and alignment (as defined by the manufacturer using conventional fasteners and/or hardware)
	✓	Body weatherstrip R&I
	✓	Dome light R&I
	✓	Headliner R&I (Additional Labor)
	✓	Roof drip moulding R&I
	✓	Antenna assembly R&I
	✓	Speaker wiring R&I
	✓	Door check rod R&I
	✓	Electronic and vacuum components R&I
	✓	Parking brake assembly R&I
	✓	Wiring harness R&I
	✓	Corrosion protection

	✓	Body insulation (e.g., foams, pads)
	✓	Fuel door release cable R&I
	✓	Deck lid / tailgate release cable R&I
	✓	Body structure foam
	✓	Rear compartment gutters
	✓	Roll down quarter glass R&I
	✓	Fuel tank R&I (Additional Labor)
	✓	Trimming, repair, or modification of part
	✓	R&I of non-standard equipment not identified as options
	✓	R&I of mouldings, emblems, nameplates and ornaments

Section 4-3 Replacement & Recycled Operations

Door Outer Repair Panel Replacement



Special Note for Replacement Operation:

- Due to extensive variations, bodyside trim R&I are not included for side sliding doors, side cargo doors, and rear cargo doors on vans. Select appropriate part R&I operations as needed.
- Manufacturers recommend replacement of SRS components with OEM parts.

Included Operations	Not Included Operations	New Part Replacement (OEM and non-OEM new parts) Operations
✓		Door R&I
✓		Trim panel R&I
✓		Lock cylinder R&I
✓		Outer door handle R&I
✓		Keyless entry pad R&I
✓		Vent glass R&I (when required)
✓		Door glass R&I
✓		Airbag and components R&I
✓		Weatherstrip on door R&I
✓		Detach and weld outer panel
✓		Seam sealing
✓		Reasonable alignment
✓		Inner reinforcement bar (if included)
✓		Mirror R&I (included in estimates that contain vehicle coverage for 1985 and later only)
✓		Vapor Barrier R&I (when required)
	✓	Lock cylinder coding (Manual Entry M73 is available)

	✓	Power door lock R&I
	✓	Shoulder harness/Belt R&I
	✓	Door-mounted speakers R&I
	✓	Repair of door shell
	✓	Corrosion protection
	✓	Trimming, repair, or modification of part
	✓	R&I of mouldings, emblems, nameplates and ornaments
	✓	R&I of non-standard equipment not identified as options

Section 4-3 Replacement & Recycled Operations

Door Shell Replacement and Recycled

Recycled panel replacement may or may not be recommended by the vehicle manufacturer.



Special Note for Replacement Operation:

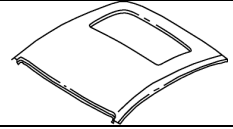
- Due to extensive variations, bodyside trim R&I are not included for side sliding doors, side cargo doors, and rear cargo doors on vans. Select appropriate part R&I operations as needed.
- Manufacturers recommend replacement of SRS components with OEM parts.
- ***Included in estimates that contain vehicle coverage for 1985 and later only.

New Part Replacement (OEM and non-OEM new parts) Operations		Recycled Part Replacement Operations		Operations
Included Operations	Not Included Operations	Included Operations	Not Included Operations	
✓		✓		Door R&I
✓		✓		Trim panel R&I (Recycled Door includes R,R&I)
✓		✓		Lock cylinder R&I (Recycled Door includes R,R&I)
✓			✓	Door lock R&I (power or manual)***
✓		✓		Keyless entry pad R&I ***
✓		✓		Mirror R&I
✓			✓	Door latch R&I
✓			✓	Door linkage R&I
✓			✓	Inner door handle R&I (on Door)
✓		✓		R,R&I Outer door handle R&I (on Door Recycled Door includes when required)
✓			✓	Division channel R&I
✓			✓	Glass R&I d
✓		✓		Airbag and components R&I
✓			✓	Window regulator R&I (power or manual)
✓			✓	Window lift and run channel R&I

✓			✓	Vapor barrier R&I (when required)
✓			✓	Door check rod R&I
✓		✓		Weatherstrip on door R&I
✓		✓		Outer belt moulding or weatherstrip R&I
✓			✓	Inner belt weatherstrip R&I
✓			✓	Transfer weld-on hinges
✓			✓	Wiring R&I
✓		✓		Seam sealing (when required)
✓		✓		Reasonable adjustment & alignment (as defined by the manufacturer using conventional fasteners & hardware)
n/a	n/a	✓		Remove trim panel from recycled door
n/a	n/a	✓		Remove lock cylinder from recycled door
	✓		✓	Lock cylinder coding (Manual Entry M73 available)
	✓		✓	Door striker R&I
	✓		✓	Shoulder harness/Belt R&I
	✓		✓	Sound deadener R&I
	✓		✓	Door-mounted speakers R&I
	✓		✓	Corrosion protection
	✓		✓	Trimming, repair, or modification of part
	✓		✓	R&I of mouldings, emblems, nameplates and ornaments
	✓		✓	R&I of non-standard equipment not identified as options
	✓		✓	Transfer hinges
	✓		✓	Excessive alignment required by the prior condition of the door opening or recycled part
	✓		✓	Stripe, woodgrain, or decal removal
	✓		✓	Specification labels R&I or replacement
n/a	n/a		✓	Disassembly, cleaning, and reassembly of assemblies

Section 4-3 Replacement & Recycled Operations

Roof Replacement



Important Reminder:

- Reveal mouldings that are mounted flush to stationary glass (e.g., Windshield, Back Glass, or Quarter Glass) are at risk of breakage when being removed.
- Stationary glass that is urethane bonded is considered a structural part of the vehicle. Replacing stationary glass requires:
 - following specific OEM replacement procedures
 - using specified installation materials
 - returning the vehicle to OEM structural integrity for occupant safety
- The roof is considered a structural part of the vehicle. Replacing structural panels requires:
 - following specific OEM replacement procedures
 - using specified installation materials
 - returning the vehicle to OEM structural integrity for occupant safety
- Due to extensive trim variations, the following operations are not included for vans:
 - bodyside trim R&I
 - rear seat R&I
- For non-assembled parts select "Replace" operation and zero out price to obtain R&I labor. For assembled parts select "Replace Recycled" operation to obtain R&I labor. For others, estimate on site.

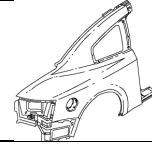
Included Operations	Not Included Operations	New Part Replacement (OEM and non-OEM new parts) Operations
✓		Windshield R&I
✓		Back glass R&I
✓		Tailgate R&I (when attached)
✓		Tailgate hinge R&I (when attached)
✓		Front seat R&I (when required)
✓		Rear seat R&I (when required)
✓		Quarter trim R&I
✓		Quarter glass R&I (stationary and flip out when required)
✓		Sun roof assembly R&I
✓		Moon roof assembly R&I
✓		Visors R&I
✓		Coat hooks R&I
✓		Inside lamps R&I
✓		Headliner R&I
✓		Body fill labor (Welded areas)
✓		Airbag R&I (when required)
	✓	Antenna assembly R&I
✓		High mounted stop lamp R&I
✓		Package tray trim R&I

✓		Center pillar trim R&I
✓		Cab side trim panels R&I
✓		Sill plate R&I
✓		Luggage rack R&I (when required)
✓		Carpet / insulation rollback
✓		Seat belt anchors R&I
✓		Body weatherstrip pullback
✓		Cover dash and interior to protect during repair
✓		Disconnect / connect battery
✓		Disconnect / connect wiring harness for access
✓		Detach and weld at center pillar, quarter panels, hinge pillar, rails, and reinforcements
✓		Mouldings R&I
✓		Application of weld-through primer (Welded areas)
✓		Block sand (Welded areas)
✓		Application of guide coat (Welded areas)
✓		Dual action sand (Welded areas)
✓		Seam sealing
✓		Reasonable alignment
	✓	Roof rail replacement
	✓	Windshield header panel replace
	✓	Sound deadener
	✓	Washer nozzles R&I
	✓	Vinyl roof install
	✓	Body weatherstrip R&I
	✓	Roll down quarter glass R&I
	✓	Wiring harness R&I
	✓	Ornamentation R&I
	✓	Corrosion protection
	✓	Body insulation (e.g., foams, pads)
	✓	Trimming, repair, or modification of part
	✓	R&I of non-standard equipment not identified as options
	✓	Transfer of misc. welded braces, brackets and clips

Section 4-3 Replacement & Recycled Operations

Quarter Panel Replacement and Recycled

Recycled panel replacement may or may not be recommended by the vehicle manufacturer.



Important Reminder:

- Reveal mouldings that are mounted flush to stationary glass (e.g., Windshield, Back Glass, or Quarter Glass) are at risk of breakage when being removed.
- Stationary glass that is urethane bonded is considered a structural part of the vehicle. Replacing stationary glass requires:
 - following specific OEM replacement procedures
 - using specified installation materials
 - returning the vehicle to OEM structural integrity for occupant safety
- When selecting Glass Kit in conjunction with the quarter panel, remember that the labor is automatically included in the quarter panel. To ensure full labor value, do not "zero out" the glass kit labor.
- Due to extensive trim variations, the following operations are not included for vans:
 - bodyside trim R&I
 - middle/rear seat R&I
- For non-assembled parts select "Replace" operation and zero out price to obtain R&I labor. For assembled parts select "Replace Recycled" operation to obtain R&I labor. For others, estimate on site.

New Part Replacement (OEM and non-OEM new parts) Operations		Recycled Part Replacement Operations		Operations
Included Operations	Not Included Operations	Included Operations	Not Included Operations	
✓		✓		Rear bumper R&I (if required)
✓		✓		Rear bumper filler R&I (if required)
✓		✓		Back glass R&I
✓		✓		Tailgate R&I (if required)
✓		✓		Middle/Rear seat R&I (if required)
✓		✓		Quarter trims R&I
✓		✓		Quarter glass R&I (stationary or flip out)
✓			✓	Bolt-on extension R&I
✓			✓	Fuel door R&I (if required)
✓			✓	Mud guard R&I (if required)
✓		✓		Disconnect/connect convertible top assembly at quarter
✓		✓		Spoiler and flare R&I (OEM only)
✓		✓		Detach and weld at roof panel, rocker panel, lock pillar, inner quarter, rear body and floor pan
✓		✓		Application of weld-through primer (Welded areas)
✓		✓		Block sand (Welded areas)
✓		✓		Application of guide coat (Welded areas)
✓		✓		Dual action sand (Welded areas)

✓		✓		Seat belt anchor R&I
✓		✓		Back glass adhesive kit (labor)
✓		✓		Reasonable adjustment and alignment (as defined by the manufacturer using conventional fasteners and/or hardware)
✓		✓		Rear body trim R&I (if required)
✓		✓		Rear lamps R&I (if required)
✓		✓		Sill plate R&I
✓		✓		Carpet / insulation rollback
✓		✓		Body weatherstrip pullback
✓		✓		Door striker R&I
✓		✓		Package tray trim R&I
✓		✓		Loosen headliner (if required)
✓		✓		Vinyl roof peel back
✓		✓		Rocker panel moulding R&I (if required)
✓		✓		Raise and support vehicle
✓		✓		Rear wheel R&I
✓		✓		Cover to protect interior during repair
✓		✓		Seam sealing
✓		✓		Body fill labor (Welded areas)
✓		✓		Disconnect / connect battery
✓		✓		Disconnect / connect wiring harness for access
✓		✓		Fabrication of sleeves (if required)
✓		✓		Airbag R&I (if required)
✓		✓		Airbag sensor R&I (if required)
✓		✓		Deck lid hinge R&I
✓		✓		Deck lid R&I (if required)
✓		✓		Deck lid hinge R&I (if required)
✓		✓		Deck lid or tailgate hydraulic rod R&I (if required)
✓		✓		Convertible top R&I (when applicable)
	✓	✓		Rear compartment gutters
	✓		✓	Body weatherstrip R&I
	✓		✓	Roll down quarter glass R&I
	✓		✓	Headliner R&I (Additional Labor)
	✓		✓	Fuel tank R&I (Additional Labor)
	✓		✓	Sunroof drain

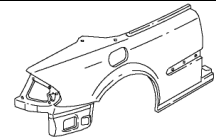
	✓		✓	Antenna assembly R&I
	✓		✓	Wiring harness R&I
	✓		✓	Corrosion protection
	✓		✓	Body insulation (e.g., foams, pads)
	✓		✓	Trimming, repair, or modification of part
	✓		✓	R&I of mouldings, emblems, nameplates and ornaments
	✓		✓	R&I of non-standard equipment not identified as options
	✓	✓		Inner quarter panel
n/a	n/a		✓	Disassembly, cleaning, and reassembly of assemblies

Section 4-3 Replacement & Recycled Operations

Partial Quarter Panel

Replacement and Recycled

Recycled panel replacement may or may not be recommended by the vehicle manufacturer.



Important Reminder:

- Cut at belt line and below back glass or in quarter window opening.
- Partial panel replacement may or may not be recommended by the vehicle manufacturer. When performing any partial replacement operation, refer to procedures provided by the vehicle manufacturer.

New Part Replacement (OEM and non-OEM new parts) Operations		Recycled Part Replacement Operations		Operations
Included Operations	Not Included Operations	Included Operations	Not Included Operations	
✓		✓		Includes same as full quarter except back glass R&I and vinyl roof peel back
✓		✓		Trimming of complete panel for partial replacement
✓		✓		Application of weld-through primer (Welded areas)
✓		✓		Block sand (Welded areas)
✓		✓		Application of guide coat (Welded areas)
✓		✓		Dual action sand (Welded areas)
✓		✓		Seam sealing
✓		✓		Package tray trim R&I (if required)
✓		✓		Fabrication of sleeves (if required)
✓		✓		Reasonable alignment
✓		✓		Airbag R&I (if required)
✓		✓		Airbag sensor R&I (if required)
✓		✓		Body fill labor (Welded areas)

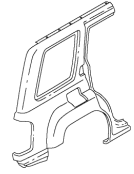
	✓		✓	Deck lid R&I (Additional Labor)
	✓		✓	Rear compartment gutters
	✓		✓	Body weatherstrip R&I
	✓		✓	Roll down quarter glass R&I
	✓		✓	Headliner R&I (Additional Labor)
	✓		✓	Fuel tank R&I (Additional Labor)
	✓		✓	Sunroof drain
	✓		✓	Antenna assembly R&I
	✓		✓	Wiring harness R&I
	✓		✓	Corrosion protection
	✓		✓	Body insulation (e.g., foams, pads)
	✓		✓	Back glass R&I
	✓		✓	Vinyl roof peel back
	✓		✓	Vinyl roof caps
	✓		✓	R&I of mouldings, emblems, nameplates and ornaments
	✓		✓	R&I of non-standard equipment not identified as options
n/a	n/a		✓	Disassembly, cleaning, and reassembly of assemblies

Section 4-3 Replacement & Recycled Operations

SUV / Van Bodyside Panel

Replacement and Recycled

Recycled panel replacement may or may not be recommended by the vehicle manufacturer.



Important Reminder:

- Reveal mouldings that are mounted flush to stationary glass (e.g., Windshield, Back Glass, or Quarter Glass) are at risk of breakage when being removed.
- Stationary glass that is urethane bonded is considered a structural part of the vehicle. Replacing stationary glass requires:
 - following specific OEM replacement procedures
 - using specified installation materials
 - returning the vehicle to OEM structural integrity for occupant safety
- When selecting Glass Kit in conjunction with the quarter panel, remember that the labor is automatically included in the quarter panel. To ensure full labor value, do not "zero out" the glass kit labor.
- Due to extensive trim variations, the following operations are not included for full size vans:
 - bodyside trim R&I
 - middle/rear seat R&I
- Select appropriate part R&I operations as needed

New Part Replacement (OEM and non-OEM new parts) Operations		Recycled Part Replacement Operations		Operations
Included Operations	Not Included Operations	Included Operations	Not Included Operations	
✓		✓		Back door assembly R&I or Tailgate hydraulic rod R&I (if required)
✓		✓		Body weatherstrip pullback
✓		✓		Bodyside glass R&I
✓		✓		Bodyside trim panel (except full size van)
✓		✓		Carpet / insulation rollback (SUV /Mini Van only)
✓		✓		Cover to protect interior during repair
✓			✓	Detach and weld at roof panel, rear door pillar, rocker panel, inner bodyside panels, outer wheel house panel, door opening frame, and lock pillar (New Part Replacement)
✓		✓		Disconnect / connect battery
✓		✓		Disconnect / connect wiring harness for access
✓			✓	Door striker R&I
✓		✓		Driver seat assembly R&I (without sliding door)
✓		✓		Front sill plate R&I (without sliding door)
✓			✓	Fuel filler door R&I
✓			✓	Fuel filler pocket R&I
✓			✓	Mud guard R&I (if required)

✓		✓		Rocker panel moulding R&I (if required)
✓		✓		Raise and support vehicle
✓		✓		Rear bumper R&I (if required)
✓		✓		Rear sill plate R&I (with sliding door)
✓		✓		Rear wheel R&I
✓		✓		Running board panel R&I (OEM only)
✓		✓		Seam sealing
✓		✓		Seat belt anchor R&I
✓		✓		Side door R&I
✓			✓	Sliding door striker R&I
✓			✓	Sliding door track shield R&I
✓		✓		Taillamp assembly R&I (if required)
✓		✓		Application of weld-through primer (Welded areas)
✓		✓		Body fill labor (Welded areas)
✓		✓		Block sand (Welded areas)
✓		✓		Application of guide coat (Welded areas)
✓		✓		Dual action sand (Welded areas)
✓		✓		Spare tire and jack R&I
✓		✓		Reasonable alignment
✓		✓		Airbag R&I (if required)
✓		✓		Airbag sensor R&I (if required)
✓		✓		Fabrication of sleeves (if required)
✓		✓		Middle/Rear seat R&I (if required except full size vans)
	✓	✓		Detach and weld at roof panel, rear door pillar, rocker panel, outer wheel house panel, door opening frame, and lock pillar (Recycled Part Replacement)
	✓		✓	Body weatherstrip R&I
	✓		✓	Corrosion protection
	✓		✓	Fuel tank R&I
	✓		✓	Headliner R&I
	✓		✓	Running board panel R&I (non-OEM)
	✓		✓	A/C evacuation / recharge (Additional Labor)
	✓		✓	Trimming, repair or modification of part
	✓		✓	R&I of mouldings, emblems, nameplates and ornaments

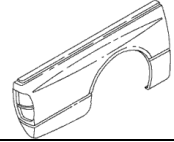
	✓		✓	R&I of non-standard equipment not identified as options
n/a	n/a		✓	Disassembly, cleaning, and reassembly of assemblies

Section 4-3 Replacement & Recycled Operations

Truck Bedside Panel

Replacement and Recycled

Recycled panel replacement may or may not be recommended by the vehicle manufacturer.



New Part Replacement (OEM and non-OEM new parts) Operations		Recycled Part Replacement Operations		Operations
Included Operations	Not Included Operations	Included Operations	Not Included Operations	
✓		✓		Bed setback
✓			✓	Rear lamps R&I
✓		✓		Tailgate R&I
✓		✓		Rear bumper R&I (when required)
✓			✓	Fuel door R&I
✓			✓	Mud guard R&I (when required)
✓		✓		Running boards / step panel R&I (when required)
✓			✓	Rear fender assembly R&I
✓		✓		Disconnect / connect battery
✓		✓		Disconnect / connect wiring harness for access
✓		✓		Raise and support vehicle (when required)
✓		✓		Application of weld-through primer (Welded areas)
✓		✓		Block sand (Welded areas)
✓		✓		Application of guide coat (Welded areas)
✓		✓		Dual action sand (Welded areas)
✓		✓		Rear wheel R&I (when required)
✓		✓		Detach and weld at inner bedside panel, floor, front panel, and other necessary panels
✓		✓		Body fill labor (Welded areas)
✓		✓		Seam sealing
✓		✓		Fabrication of sleeves (when required)
✓		✓		Reasonable alignment
	✓		✓	Hand rail R&I
	✓		✓	Bed liner R&I

	✓		✓	Fuel tank R&I (Additional Labor)
	✓		✓	Wiring harness R&I
	✓		✓	Corrosion protection
	✓		✓	Body insulation (e.g., foams, pads)
	✓		✓	Trimming, repair or modification of part
	✓		✓	R&I of mouldings, emblems, nameplates and ornaments
	✓		✓	R&I of non-standard equipment not identified as options
n/a	n/a		✓	Disassembly, cleaning, and reassembly of assemblies

Section 4-3 Replacement & Recycled Operations

Cab Side Panel

Replacement and Recycled

Recycled panel replacement may or may not be recommended by the vehicle manufacturer.



Important Reminder:

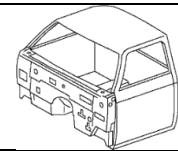
- Reveal mouldings that are mounted flush to stationary glass (e.g., Windshield, Back Glass, or Quarter Glass) are at risk of breakage when being removed.
- Stationary glass that is urethane bonded is considered a structural part of the vehicle. Replacing stationary glass requires:
 - following specific OEM replacement procedures
 - using specified installation materials
 - returning the vehicle to OEM structural integrity for occupant safety

New Part Replacement (OEM and non-OEM new parts) Operations		Recycled Part Replacement Operations		Operations
Included Operations	Not Included Operations	Included Operations	Not Included Operations	
✓		✓		Bed setback
✓		✓		Sill plate R&I
✓		✓		Front seat R&I (when required)
✓		✓		Rear seat R&I (when required)
✓		✓		Rocker panel moulding R&I (when required)
✓		✓		Running boards / step panel R&I (when required)
✓		✓		Coat hook R&I
✓		✓		Inner trim panel(s) R&I
✓		✓		Cab side glass R&I
✓		✓		Headliner R&I
✓		✓		Inside lamp R&I
✓		✓		Door lock striker R&I (when required)

✓		✓		Body weatherstrip pullback
✓		✓		Wiring pullback for access
✓		✓		Detach and weld at roof panel, rocker panel, rear cab panel, and inner panels
✓		✓		Fabrication of sleeves (when required)
✓		✓		Body fill labor (Welded areas)
✓		✓		Airbag R&I (when required)
✓		✓		Application of weld-through primer (Welded areas)
✓		✓		Block sand (Welded areas)
✓		✓		Application of guide coat (Welded areas)
✓		✓		Dual action sand (Welded areas)
✓		✓		Seam sealing
✓		✓		Seat belt anchor R&I
✓		✓		Reasonable alignment
	✓		✓	Electronic and vacuum components R&I
	✓		✓	Seat belt assembly R&I
	✓		✓	Wiring harness R&I
	✓		✓	Corrosion protection
	✓		✓	Body insulation (e.g., foams, pads)
	✓		✓	Trimming, repair, or modification of part
	✓		✓	R&I of mouldings, emblems, nameplates and ornaments
	✓		✓	R&I of non-standard equipment not identified as options
n/a	n/a		✓	Disassembly, cleaning, and reassembly of assemblies

Cab Assembly**Replacement and Recycled**

Recycled panel replacement may or may not be recommended by the vehicle manufacturer.

**Important Reminder:**

- Reveal mouldings that are mounted flush to stationary glass (e.g., Windshield, Back Glass, or Quarter Glass) are at risk of breakage when being removed.
- Stationary glass that is urethane bonded is considered a structural part of the vehicle. Replacing stationary glass requires:
 - following specific OEM replacement procedures
 - using specified installation materials
 - returning the vehicle to OEM structural integrity for occupant safety

Special Note for Recycled Operation:

- Serviced with all attached parts

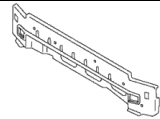
<ul style="list-style-type: none"> This is considered a structural part of the vehicle. Replacing structural panels requires: <ul style="list-style-type: none"> following specific replacement procedures using specified installation materials returning the vehicle to OEM structural integrity for occupant safety 				
New Part Replacement (OEM and non-OEM new parts) Operations		Recycled Part Replacement Operations		Operations
Included Operations	Not Included Operations	Included Operations	Not Included Operations	
✓		✓		Front bumper R&I (when required)
✓			✓	Grille R&I (when required)
✓			✓	Hood R&I
✓		✓		Cowl vent panel R&I (when required)
✓		✓		Windshield R&I
✓		✓		Front fenders R&I
✓		✓		Seats R&I (when required)
✓		✓		Sill plates R&I
✓		✓		Seat belt anchor R&I
✓		✓		Cowl trim R&I
✓		✓		Carpet or mats and insulation R&I
✓		✓		Cab and body side trim R&I
✓		✓		Instrument panel / pad R&I
✓		✓		Airbag R&I (when required)
✓		✓		Headliner R&I
✓		✓		Door R&I
✓		✓		Rocker panel moulding R&I (when required)
✓		✓		Back glass R&I
✓		✓		Cab side glass R&I (when required)
✓		✓		Bed setback
✓		✓		Disconnect / connect battery
✓		✓		Disconnect / connect wiring harness for access
✓		✓		Reasonable alignment
✓		✓		Door trim panel R&I (when required for OEM part)
✓		✓		Lock cylinder R&I (when required for OEM part)
n/a	n/a	✓		Remove trim panel from recycled door
n/a	n/a	✓		Remove lock cylinder from recycled door
	✓		✓	Electronic and vacuum components R&I
	✓		✓	Engine and transmission R&I (Additional Labor)

	✓		✓	Seat belt assembly R&I
	✓		✓	Seam sealing
	✓		✓	Wiring harness R&I
	✓		✓	Corrosion protection
	✓		✓	Body insulation (e.g., foams, pads)
	✓		✓	Trimming, repair, or modification of part
	✓		✓	R&I of mouldings, emblems, nameplates and ornaments
	✓		✓	R&I of non-standard equipment not identified as options
n/a	n/a		✓	Disassembly, cleaning, and reassembly of assemblies

Section 4-3 Replacement & Recycled Operations

Lower Rear Body Panel

Replacement and Recycled



Recycled panel replacement may or may not be recommended by the vehicle manufacturer.

Important Reminder:

- This is considered a structural part of the vehicle. Replacing structural panels requires:
 - following specific OEM replacement procedures
 - using specified installation materials
 - returning the vehicle to OEM structural integrity for occupant safety

New Part Replacement (OEM and non-OEM new parts) Operations		Recycled Part Replacement Operations		Operations
Included Operations	Not Included Operations	Included Operations	Not Included Operations	
✓		✓		Bumper R&I
✓		✓		Energy absorber R&I (when required)
✓		✓		Valance panel R&I (when required)
✓		✓		Rear Lamps R&I
✓		✓		Rear body trim R&I
✓		✓		Rear seat R&I (when required)
✓		✓		Quarter trim R&I
✓		✓		Finish panels R&I (when required)
✓		✓		Lock cylinder R&I (when required)
✓		✓		Lock / striker R&I
✓		✓		License plate bracket R&I (when required)
✓		✓		Quarter extension R&I (when required)
✓		✓		Body weatherstrip pullback

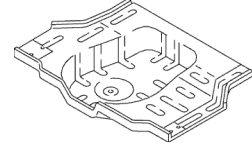
✓		✓		Cover to protect interior during repair
✓		✓		Disconnect / connect battery
✓		✓		Disconnect / connect wiring harness for access
✓		✓		Detach and weld at quarter panel, floor pan, and side member
✓		✓		Body fill labor (Welded areas)
✓		✓		Application of weld-through primer (Welded areas)
✓		✓		Block sand (Welded areas)
✓		✓		Application of guide coat (Welded areas)
✓		✓		Dual action sand (Welded areas)
✓		✓		Seam sealing
	✓	✓		Reasonable alignment
	✓		✓	Lock cylinder coding (Manual Entry M73 is available)
	✓		✓	Power lock actuator R&I
	✓		✓	Specification labels R&I or replacement
	✓		✓	Fuel tank R&I (Additional Labor)
	✓		✓	Exhaust system R&I for access
	✓		✓	Body weatherstrip R&I
	✓		✓	Wiring harness R&I
	✓		✓	Corrosion protection
	✓		✓	Body insulation (e.g., foams, pads)
	✓		✓	Trimming, repair, or modification of part
	✓		✓	R&I of mouldings, emblems, nameplates and ornaments
	✓		✓	R&I of non-standard equipment not identified as options
n/a	n/a		✓	Disassembly, cleaning, and reassembly of assemblies

Section 4-3 Replacement & Recycled Operations

Rear Floor Pan

Replacement and Recycled

Recycled panel replacement may or may not be recommended by the vehicle manufacturer.



Important Reminder:

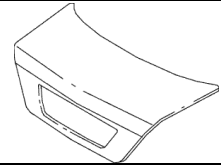
- This is considered a structural part of the vehicle. Replacing structural panels requires:
 - following specific OEM replacement procedures
 - using specified installation materials
 - returning the vehicle to OEM structural integrity for occupant safety

New Part Replacement (OEM and non-OEM new parts) Operations		Recycled Part Replacement Operations		Operations
Included Operations	Not Included Operations	Included Operations	Not Included Operations	
✓		✓		Remove and replace lower rear body panel (when required for included operations, see lower rear body panel section)
✓		✓		Rear seat R&I (when required)
✓		✓		Sill plate R&I
✓		✓		Carpet / insulation rollback
✓		✓		Fuel tank R&I (when required)
✓		✓		Battery R&I (when required)
✓		✓		Raise and support vehicle
✓		✓		Disconnect / connect battery
✓		✓		Disconnect / connect wiring harness for access
✓		✓		Body weatherstrip pullback
✓		✓		Cover to protect interior during repair
✓		✓		Detach and weld at side rails, inner quarter panel, and other necessary panels
✓		✓		Detach and weld from adjacent floor pan
✓		✓		Application of weld-through primer (Welded areas)
✓		✓		Seam sealing
✓		✓		Reasonable alignment
	✓		✓	Deck lid / tailgate R&I (Additional Labor)
	✓		✓	Rear bumper overhaul
	✓		✓	Wheel alignment (Additional Labor)
	✓		✓	Suspension overhaul
	✓		✓	Suspension R&I (Additional Labor)

	✓		✓	Removal of spare tires, tools, and jack
	✓		✓	Exhaust system R&I for access
	✓		✓	Brake lines R&I
	✓		✓	Bleed brakes
	✓		✓	Fuel lines R&I
	✓		✓	Wiring harness R&I
	✓		✓	Corrosion protection
	✓		✓	Body insulation (e.g., foams, pads)
	✓		✓	Trimming, repair, or modification of part
	✓		✓	R&I of non-standard equipment not identified as options
n/a	n/a		✓	Disassembly, cleaning, and reassembly of assemblies

Deck Lid**Replacement and Recycled**

Recycled panel replacement may or may not be recommended by the vehicle manufacturer.



New Part Replacement (OEM and non-OEM new parts) Operations		Recycled Part Replacement Operations		Operations
Included Operations	Not Included Operations	Included Operations	Not Included Operations	
✓		✓		Lid R&I at hinge
✓		✓		Trim panel R&I
✓		✓		Lock cylinder R&I (Recycled Decklid includes R,R&I when required)
✓			✓	Lock striker R&I (on Deck Lid)
✓			✓	Power lock actuator R&I (when required)
✓			✓	Rear lamps R&I (when required)
✓			✓	High mounted stop light R&I (when required)
✓			✓	License plate bracket R&I (when required)
✓		✓		Weatherstrip on lid R&I
✓			✓	Spoiler R&I (OEM only)
✓			✓	Luggage rack R&I (when required)
✓		✓		Reasonable adjustment and alignment (as defined by the manufacturer using conventional fasteners and/or hardware)
✓		✓		Seam sealing (when required)

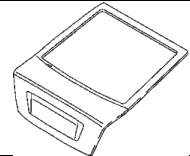
✓			✓	Lamps R&I
n/a	n/a	✓		Remove lock cylinder from recycled lid (Recycled Decklid includes R,R&I when required)
	✓		✓	Lock cylinder coding (Manual Entry M73 available)
	✓		✓	Hinge R&I from vehicle
	✓		✓	Specification labels R&I or replacement
	✓		✓	Stripe removal
	✓		✓	Wiring R&I
	✓		✓	Trimming, repair, or modification of part
	✓		✓	R&I of mouldings, emblems, nameplates and ornaments
	✓		✓	R&I of non-standard equipment not identified as options
n/a	n/a		✓	Disassembly, cleaning, and reassembly of assemblies

Section 4-3 Replacement & Recycled Operations

Tailgate / Hatchback

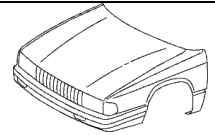
Replacement and Recycled

Recycled panel replacement may or may not be recommended by the vehicle manufacturer.



New Part Replacement (OEM and non-OEM new parts) Operations		Recycled Part Replacement Operations		Operations
Included Operations	Not Included Operations	Included Operations	Not Included Operations	
✓		✓		R&I gate at hinge / hydraulic rod
✓		✓		Trim panel R&I (Recycled Tailgate/Hatchback includes R,R&I when required)
✓		✓		Handle R&I
✓		✓		Lock cylinder R&I (Recycled Tailgate/Hatchback includes R,R&I when required)
✓			✓	Lock striker R&I (on Tailgate)
✓			✓	Power lock actuator R&I (when required)
✓			✓	License plate bracket R&I (when required)
✓			✓	Wiper and components R&I
✓			✓	Rear lamps R&I (when required)
✓			✓	High mounted stop lamp R&I
✓			✓	Glass R&I
✓		✓		Weatherstrip on gate R&I

✓			✓	Spoiler R&I (OEM only)
✓			✓	Louver R&I (OEM only)
✓		✓		Seam sealing (when required)
✓		✓		Reasonable adjustment and alignment (as defined by the manufacturer using conventional fasteners and/or hardware)
n/a	n/a	✓		Remove lock cylinder from recycled gate
n/a	n/a	✓		Remove trim panel from recycled gate
✓		✓		Spare tire carrier R&I (when required)
	✓		✓	Lock cylinder coding (Manual Entry M73 is available)
	✓		✓	Hinge R&I from vehicle
	✓		✓	Specification labels R&I or replacement
	✓		✓	R&I of mouldings, emblems, nameplates and ornaments
	✓		✓	R&I of non-standard equipment not identified as options
n/a	n/a		✓	Stripe removal
	✓		✓	Wiring R&I
	✓		✓	Trimming, repair, or modification of part
n/a	n/a		✓	Disassembly, cleaning, and reassembly of assemblies

Front Body Recycled Section**Frame Vehicles****Bolt-on Inner / Outer Sheet Metal**

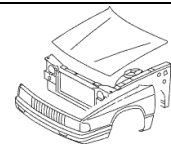
Recycled panel replacement may or may not be recommended by the vehicle manufacturer.

Included Operations	Not Included Operations	Recycled Part Replacement Operations
✓		Grille R&I (when required)
✓		Front end panel R&I (when required)
✓		Hood R&I
✓		Cowl vent panel R&I (when required)
✓		Fenders R&I
✓		Front bumper R&I (when required for fender R&I)
✓		Radiator R&I (when required)
✓		A/C condenser R&I, including A/C line disconnect / connect (if required), Line Cap Off (when required)
✓		Disconnect / connect inner skirts from attaching points

✓		Disconnect / connect radiator support from attaching points
✓		Reasonable adjustment and alignment (as defined by the manufacturer using conventional fasteners and/or hardware)
	✓	Bumper overhaul
	✓	Aim headlamps (Additional Labor)
	✓	Evacuate and recharge A/C system (Additional Labor)
	✓	Refrigerant recovery (Additional Labor)
	✓	Hood release cable R&I
	✓	Specification labels R&I or replacement
	✓	Corrosion protection
	✓	Trimming, repair, or modification of part
	✓	R&I of mouldings, emblems, nameplates and ornaments
	✓	R&I of non-standard equipment not identified as options
	✓	Disassembly, cleaning, and reassembly of assemblies

3/4 Front Body Recycled Section**Frame Vehicles****Bolt-on Inner / Outer Sheet Metal**

Recycled panel replacement may or may not be recommended by the vehicle manufacturer.



Included Operations	Not Included Operations	Recycled Part Replacement Operations
✓		Grille R&I (when required)
✓		Front end panel R&I (when required)
✓		Hood R&I
✓		Cowl vent panel R&I (when required)
✓		One fender R&I
✓		Front bumper R&I (when required for fender R&I)
✓		Radiator R&I (when required)
✓		A/C condenser R&I, including A/C line disconnect / connect, Line Cap Off (when required)
✓		Disconnect / connect opposite fender from radiator support
✓		Disconnect / connect inner skirts from attaching points
✓		Disconnect / connect radiator support from attaching points
✓		Reasonable adjustment and alignment (as defined by the manufacturer using conventional fasteners and/or hardware)
	✓	Bumper overhaul
	✓	Aim headlamps (Additional Labor)
	✓	Evacuate and recharge A/C system (Additional Labor)

	✓	Refrigerant recovery (Additional Labor)
	✓	Hood release cable R&I
	✓	Specification labels R&I or replacement
	✓	Corrosion protection
	✓	Trimming, repair, or modification of part
	✓	R&I of mouldings, emblems, nameplates and ornaments
	✓	R&I of non-standard equipment not identified as options
	✓	Disassembly, cleaning, and reassembly of assemblies

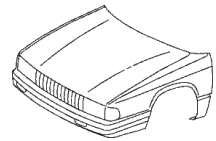
Section 4-3 Replacement & Recycled Operations

Front Body Outer Recycled Section

Unibody Vehicles

Bolt-on Outer Sheet Metal Only

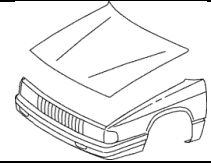
Recycled panel replacement may or may not be recommended by the vehicle manufacturer.



Included Operations	Not Included Operations	Recycled Part Replacement Operations
✓		Grille R&I (when required)
✓		Front end panel R&I
✓		Hood R&I
✓		Cowl vent panel R&I (when required)
✓		Fenders R&I
✓		Front bumper R&I (when required for fender R&I)
✓		Reasonable adjustment and alignment (as defined by the manufacturer using conventional fasteners and/or hardware)
	✓	Bumper overhaul
	✓	Aim headlamps (Additional Labor)
	✓	Radiator R&I
	✓	Evacuate and recharge A/C system (Additional Labor)
	✓	Refrigerant recovery (Additional Labor)
	✓	A/C condenser R&I, including A/C line disconnect / connect (if required), Line Cap Off (when required)
	✓	Hood release cable R&I
	✓	Specification labels R&I or replacement
	✓	Corrosion protection
	✓	Trimming, repair, or modification of part
	✓	R&I of mouldings, emblems, nameplates and ornaments
	✓	R&I of non-standard equipment not identified as options
	✓	Disassembly, cleaning, and reassembly of assemblies

3/4 Front Body Recycled Section**All Generations****Bolt-on Outer Sheet Metal Only**

Recycled panel replacement may or may not be recommended by the vehicle manufacturer.

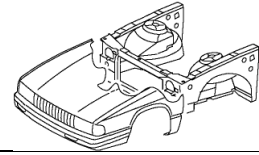


Included Operations	Not Included Operations	Recycled Part Replacement Operations
✓		Front bumper R&I (when required)
✓		Grill R&I (when required)
✓		Front end panel / header panel R&I (when required)
✓		Hood panel R&I
✓		Cowl vent panel R&I (when required)
✓		One fender R&I
✓		Reasonable adjustment and alignment (as defined by the manufacturer using conventional fasteners and/or hardware)
	✓	Bumper overhaul
	✓	Aim headlamps (Additional Labor)
	✓	Radiator R&I
	✓	Evacuate and recharge A/C system (Additional Labor)
	✓	Refrigerant recovery (Additional Labor)
	✓	A/C condenser R&I, including A/C line disconnect / connect (if required), Line Cap Off (when required)
	✓	Hood release cable R&I
	✓	Specification labels R&I or replacement
	✓	Corrosion protection
	✓	Trimming, repair, or modification of part
	✓	R&I of mouldings, emblems, nameplates and ornaments
	✓	R&I of non-standard equipment not identified as options
	✓	Disassembly, cleaning, and reassembly of assemblies

Section 4-3 Replacement & Recycled Operations

Front Body Complete Recycled Section Unibody Vehicles Inner Structure

Recycled panel replacement may or may not be recommended by the vehicle manufacturer.



Important Reminder:

- Cut at the firewall through side rails (includes all inner structures as well as outer sheet metal).
- Cut at factory seams.
- Manufacturer may require full replacement of side rail.
- Additional labor may be required.
- Manufacturers recommend replacement of SRS components with OEM parts.
- This is considered a structural part of the vehicle. Replacing structural panels requires:
 - following specific OEM replacement procedures
 - using specified installation materials
 - returning the vehicle to OEM structural integrity for occupant safety

Included Operations	Not Included Operations	Recycled Part Replacement Operations
✓		Front bumper R&I
✓		Energy absorbers R&I
✓		Valance panel R&I (when required)
✓		Grille R&I (when required)
✓		Headlamp assemblies R&I (when required)
✓		Front end panel R&I
✓		Side marker lamps R&I (when required)
✓		Parklamp assemblies R&I (when required)
✓		Hood R&I
✓		Battery and tray R&I (when required)
✓		Cowl vent panel R&I (when required)
✓		Fenders R&I
✓		Attached bolted parts R&I
✓		Sill plates R&I
✓		Cowl trim panels R&I
✓		Radiator R&I
✓		A/C condenser R&I, including A/C line disconnect / connect (if required), Line Cap (when required)
✓		Airbag sensor R&I (when required)
✓		Air inlet system (when required)
✓		Raise and support vehicle
✓		Front suspensions R&I
✓		Steering components R&I (rear wheel drive) (when required)

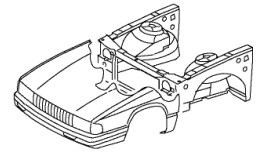
✓		Engine assembly R&I (rear wheel drive)
✓		R&I engine and transaxle, suspension and steering assemblies, and cradle as a unit (front wheel drive)
✓		Carpet / insulation rollback
✓		Disconnect / connect wiring battery
✓		Disconnect / connect wiring harness for access
✓		Detach and weld at hinge pillar, floor pan, cowl panel and fire wall
✓		Fabrication of sleeves for front side rails (when required)
✓		Application of weld-through primer (Welded areas)
✓		Seam sealing
✓		Reasonable adjustment and alignment (as defined by the manufacturer using conventional fasteners and/or hardware)
	✓	Bumper overhaul
	✓	Aim headlamps (Additional Labor)
	✓	A/C receiver / dehydrator R&I (when required)
	✓	Evacuate and recharge A/C system (Additional Labor)
	✓	Refrigerant recovery (Additional Labor)
	✓	Hood release cable R&I
	✓	Specification labels R&I or replacement
	✓	Fuel vapor canister R&I
	✓	Antenna assembly R&I
	✓	Dash R&I
	✓	Horns R&I
	✓	Electronic and vacuum components R&I
	✓	Exhaust system R&I for access
	✓	Parking brake assembly R&I
	✓	Master cylinder R&I
	✓	Suspension overhaul
	✓	Bleeding brakes (Additional Labor)
	✓	Wheel alignment (Additional Labor)
	✓	Drain and replace oil and fluids
	✓	Vacuum booster R&I
	✓	Wiring R&I
	✓	Trimming, repair, or modification of part
	✓	Corrosion protection
	✓	R&I of mouldings, emblems, nameplates and ornaments

	✓	R&I of non-standard equipment not identified as options
	✓	Disassembly, cleaning, and reassembly of assemblies

Section 4-3 Replacement & Recycled Operations

Front Body Complete Recycled
Section Second Generation
Unibody / Frame Vehicles
Inner Structure Second Generation

Recycled panel replacement may or may not be recommended by the vehicle manufacturer.



Important Reminder:

- Cut at the firewall through upper side rails (when necessary includes all inner structures as well as outer sheet metal).
- Cut at factory seams.
- Manufacturer may require full replacement of upper side rail.
- Additional labor may be required.
- Manufacturers recommend replacement of SRS components with OEM parts.
- This is considered a structural part of the vehicle. Replacing structural panels requires:
 - following specific OEM replacement procedures
 - using specified installation materials
 - returning the vehicle to OEM structural integrity for occupant safety

Included Operations	Not Included Operations	Recycled Part Replacement Operations
✓		Front bumper R&I
✓		Energy absorbers R&I
✓		Valance panel R&I (when required)
✓		Grille R&I (when required)
✓		Headlamp assemblies R&I (when required)
✓		Front end panel R&I
✓		Side marker lamps R&I (when required)
✓		Parklamp assemblies R&I (when required)
✓		Hood R&I
✓		Battery and tray R&I
✓		Cowl vent panel R&I (when required)
✓		Fenders R&I
✓		Attached bolted parts R&I
✓		Sill plates R&I
✓		Cowl trim panels R&I
✓		Radiator R&I
✓		A/C condenser R&I, including A/C line disconnect / connect (if required), Line Cap (when required)
✓		Airbag sensor R&I (when required)
✓		Air inlet system (when required)

✓		Raise and support vehicle
✓		Carpet / insulation rollback
✓		Disconnect / connect battery
✓		Disconnect / connect wiring harness for access
✓		Detach and weld at hinge pillar, floor pan, cowl panel and firewall
✓		Fabrication of sleeves (when required)
✓		Application of weld-through primer (Welded areas)
✓		Seam sealing
✓		Reasonable adjustment and alignment (as defined by the manufacturer using conventional fasteners and/or hardware)
	✓	Bumper overhaul
	✓	Aim headlamps (Additional Labor)
	✓	A/C receiver / dehydrator R&I (when required)
	✓	Evacuate and recharge A/C system (Additional Labor)
	✓	Refrigerant recovery (Additional Labor)
	✓	Hood release cable R&I
	✓	Specification labels R&I or replacement
	✓	Fuel vapor canister R&I
	✓	Antenna assembly R&I
	✓	Dash R&I
	✓	Horns R&I
	✓	Electronic, hydraulic and vacuum components R&I
	✓	Engine assembly R&I (Additional Labor)
	✓	Suspension R&I (Additional Labor)
	✓	Instrument panel R&I
	✓	Steering column R&I
	✓	Exhaust system R&I for access
	✓	Parking brake assembly R&I
	✓	Master cylinder R&I
	✓	Suspension overhaul
	✓	Bleeding brakes (Additional Labor)
	✓	Wheel alignment (Additional Labor)
	✓	Drain and replace oil and fluids
	✓	Vacuum booster R&I
	✓	Wiring R&I
	✓	Trimming, repair, or modification of part

	✓	Corrosion protection
	✓	R&I of mouldings, emblems, nameplates and ornaments
	✓	R&I of non-standard equipment not identified as options
	✓	Disassembly, cleaning, and reassembly of assemblies

Section 4-3 Replacement & Recycled Operations

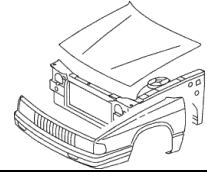
3/4 Front Unitized

Recycled Section

Unibody / Frame Vehicles

Inner Structure Second Generation

Recycled panel replacement may or may not be recommended by the vehicle manufacturer.



Important Reminder:

- Cut at one side of firewall through upper side rail (when necessary includes radiator support panel, one inner fender assembly, and outer sheet metal).
- Cut at factory seams.
- Manufacturer may require full replacement of upper side rail.
- Additional labor may be required.
- Manufacturers recommend replacement of SRS components with OEM parts.
- This is considered a structural part of the vehicle. Replacing structural panels requires:
 - following specific OEM replacement procedures
 - using specified installation materials
 - returning the vehicle to OEM structural integrity for occupant safety

Included Operations	Not Included Operations	Recycled Part Replacement Operations
✓		Front bumper R&I
✓		Energy absorbers R&I
✓		Valance panel R&I (when required)
✓		Grille R&I (when required)
✓		Headlamp assemblies R&I (when required)
✓		Front end panel R&I
✓		Side marker lamps R&I (when required)
✓		Parklamp assemblies R&I (when required)
✓		Hood R&I
✓		Battery and tray R&I (when required)
✓		Cowl vent panel R&I (when required)
✓		Fenders R&I
✓		Attached bolted parts R&I
✓		Sill plates R&I
✓		Cowl trim panels R&I
✓		Radiator R&I
✓		A/C condenser R&I, including A/C line disconnect / connect (if required), Line Cap (when required)

✓		Airbag sensor R&I (when required)
✓		Air inlet system (when required)
✓		Raise and support vehicle
✓		Carpet / insulation rollback
✓		Steering components R&I (when required)
✓		Front suspension R&I
✓		Engine assembly R&I (rear wheel drive)
✓		R&I engine and transaxle, suspension, steering assemblies, and cradles as a unit (front wheel drive)
✓		Disconnect / connect battery
✓		Disconnect / connect wiring harness for access
✓		Detach and weld at hinge pillar, floor pan, cowl panel, inner fender, and firewall
✓		Fabrication of sleeves (when required)
✓		Application of weld-through primer (Welded areas)
✓		Seam sealing
✓		Reasonable adjustment and alignment (as defined by the manufacturer using conventional fasteners and/or hardware)
	✓	Bumper overhaul
	✓	Aim headlamps (Additional Labor)
	✓	A/C receiver / dehydrator R&I (when required)
	✓	Evacuate and recharge A/C system (Additional Labor)
	✓	Refrigerant recovery (Additional Labor)
	✓	Hood release cable R&I
	✓	Specification labels R&I or replacement
	✓	Fuel vapor canister R&I
	✓	Antenna assembly R&I
	✓	Dash R&I
	✓	Horns R&I
	✓	Electronic and vacuum components R&I
	✓	Exhaust system R&I for access
	✓	Parking brake assembly R&I
	✓	Master cylinder R&I
	✓	Suspension overhaul
	✓	Bleeding brakes (Additional Labor)
	✓	Wheel alignment (Additional Labor)
	✓	Drain and replace oil and fluids

	✓	Vacuum booster R&I
	✓	Wiring R&I
	✓	Trimming, repair, or modification of part
	✓	Corrosion protection
	✓	R&I of mouldings, emblems, nameplates and ornaments
	✓	R&I of non-standard equipment not identified as options
	✓	Disassembly, cleaning, and reassembly of assemblies

Section 4-3 Replacement & Recycled Operations

Front Inner Complete

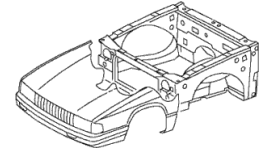
Recycled Section

Front Inner / Outer Section

Inner Structure Second Generation

Unibody / Frame Vehicles, and Inner Structure Second Generation Trucks

Recycled panel replacement may or may not be recommended by the vehicle manufacturer.



Important Reminder:

- Cut in the windshield opening, door frame opening, and across the floor; includes all inner structures.
- Cut at factory seams.
- Performing this procedure may invalidate vehicle ID and mileage / powertrain warranties. Depending on your area, special titling procedures may also be required.
- Manufacturers recommend replacement of SRS components with OEM parts.
- Reveal mouldings that are mounted flush to stationary glass (e.g., Windshield, Back Glass, or Quarter Glass) are at risk of breakage when being removed.
- Stationary glass that urethane bonded is considered a structural part of the vehicle. Replacing stationary glass requires:
 - following specific OEM replacement procedures
 - using specified installation materials
 - returning the vehicle to OEM structural integrity for occupant safety
- Manufacturer may require full replacement of side rail.
- Additional labor may be required.

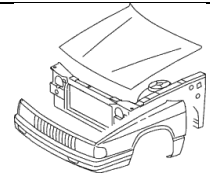
Included Operations	Not Included Operations	Recycled Part Replacement Operations
✓		Front bumper R&I
✓		Energy absorbers R&I
✓		Valance panel R&I (when required)
✓		Grille R&I (when required)
✓		Headlamp assemblies R&I (when required)
✓		Front end panel R&I
✓		Side marker and parklamp R&I (when required)
✓		Hood R&I
✓		Battery and tray R&I (when required)
✓		Cowl vent panel R&I (when required)
✓		Fenders R&I
✓		Windshield R&I

✓		Instrument panel R&I
✓		Attached bolted parts R&I
✓		Sill plates R&I
✓		Cowl trim panels R&I
✓		Front seat R&I (when required)
✓		Front doors R&I
✓		Radiator R&I
✓		A/C condenser R&I, including A/C line disconnect / connect (if required), Line Cap (when required)
✓		Airbag sensors R&I (when required)
✓		Air inlet system (when required)
✓		Raise and support vehicle
✓		Steering column R&I
✓		Carpet / insulation rollback
✓		Front suspension R&I (rear wheel drive)
✓		Suspension R&I
✓		Engine assembly R&I (rear wheel drive)
✓		Fabrication of sleeves (when required)
✓		R&I engine and transaxle, suspension, steering assemblies, and cradles as a unit (front wheel drive)
✓		Disconnect / connect battery
✓		Disconnect / connect wiring harness for access
✓		Detach and weld in windshield opening, door frame opening and across the floor
✓		Application of weld-through primer (Welded areas)
✓		Seam sealing
✓		Reasonable adjustment and alignment (as defined by the manufacturer using conventional fasteners and/or hardware)
	✓	Bumper overhaul
	✓	Aim headlamps (Additional Labor)
	✓	A/C receiver / dehydrator R&I (when required)
	✓	Evacuate and recharge A/C system (Additional Labor)
	✓	Refrigerant recovery (Additional Labor)
	✓	Hood release cable R&I
	✓	Specification labels R&I or replacement
	✓	Fuel vapor canister R&I
	✓	Antenna assembly R&I

✓	Horns R&I
✓	Electronic and vacuum components R&I
✓	Exhaust system R&I for access
✓	Parking brake assembly R&I
✓	Master cylinder R&I
✓	Suspension overhaul
✓	Bleeding brakes (Additional Labor)
✓	Wheel alignment (Additional Labor)
✓	Drain and replace oil and fluids
✓	Vacuum booster R&I
✓	Wiring R&I
✓	Corrosion protection
✓	Trimming, repair or modification of part
✓	R&I of mouldings, emblems, nameplates and ornaments
✓	R&I of non-standard equipment not identified as options
✓	Disassembly, cleaning, and reassembly of assemblies

3/4 Front Inner Complete**Recycled Section****Inner Structure Second Generation****Unibody / Frame Vehicles**

Recycled panel replacement may or may not be recommended by the vehicle manufacturer.

**Important Reminder:**

- Cut at one side of radiator support panel and at firewall; includes one side inner structure, radiator and outer sheet metal.
- Cut at factory seams. Manufacturers recommend replacement of SRS components with OEM parts.
- This is considered a structural part of the vehicle. Replacing structural panels requires:
 - following specific OEM replacement procedures
 - using specified installation materials
 - returning the vehicle to OEM structural integrity for occupant safety

Included Operations	Not Included Operations	Recycled Part Replacement Operations
✓		Front bumper R&I
✓		Energy absorbers R&I
✓		Valance panel R&I (when required)
✓		Grille R&I (when required)
✓		Headlamp assemblies R&I (when required)
✓		Front end panel R&I
✓		Side marker and parklamps R&I (when required)
✓		Hood R&I

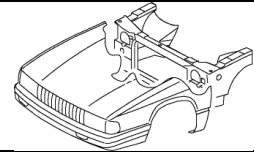
✓		Battery and tray R&I (when required)
✓		Cowl vent panel R&I (when required)
✓		Fenders R&I
✓		Attached bolted parts R&I
✓		Sill plates R&I
✓		Cowl trim panels R&I
✓		Radiator R&I
✓		A/C condenser R&I, including A/C line disconnect / connect (if required), Line Cap (when required)
✓		Airbag sensor R&I (when required)
✓		Air inlet system (when required)
✓		Raise and support vehicle
✓		Steering components R&I (when required)
✓		Carpet / insulation rollback
✓		Front suspension R&I
✓		Engine assembly R&I (rear wheel drive)
✓		R&I engine and transaxle, suspension, steering assemblies, and cradles as a unit (front wheel drive)
✓		Disconnect / connect battery
✓		Disconnect / connect wiring harness for access
✓		Detach and weld at hinge pillar, floor pan, cowl panel, inner fender, and firewall
✓		Fabrication of sleeves (when required)
✓		Reasonable adjustment and alignment (as defined by the manufacturer using conventional fasteners and/or hardware)
✓		Application of weld-through primer (Welded areas)
✓		Seam sealing
	✓	Bumper overhaul
	✓	Aim headlamps (Additional Labor)
	✓	A/C receiver / dehydrator R&I (when required)
	✓	Evacuate and recharge A/C system (Additional Labor)
	✓	Refrigerant recovery (Additional Labor)
	✓	Hood release cable R&I
	✓	Specification labels R&I or replacement
	✓	Fuel vapor canister R&I
	✓	Antenna assembly R&I
	✓	Dash R&I

	✓	Horns R&I
	✓	Electronic and vacuum components R&I
	✓	Exhaust system R&I for access
	✓	Parking brake assembly R&I
	✓	Master cylinder R&I
	✓	Suspension overhaul
	✓	Bleeding brakes (Additional Labor)
	✓	Wheel alignment (Additional Labor)
	✓	Drain and replace oil and fluids
	✓	Vacuum booster R&I
	✓	Wiring R&I
	✓	Trimming, repair, or modification of part
	✓	Corrosion protection
	✓	R&I of mouldings, emblems, nameplates and ornaments
	✓	R&I of non-standard equipment not identified as options
	✓	Disassembly, cleaning, and reassembly of assemblies

Section 4-3 Replacement & Recycled Operations

1/2 Front Body Recycled Section Inner Structure Unibody Vehicles

Recycled panel replacement may or may not be recommended by the vehicle manufacturer.



Important Reminder:

- Cut forward of strut tower; includes all inner structures as well as outer sheet metal.
- Cut at factory seams.
- Manufacturers recommend replacement of SRS components with OEM parts.
- This is considered a structural part of the vehicle. Replacing structural panels requires:
 - following specific OEM replacement procedures
 - using specified installation materials
 - returning the vehicle to OEM structural integrity for occupant safety

Included Operations	Not Included Operations	Recycled Part Replacement Operations
✓		Front bumper R&I
✓		Energy absorbers R&I
✓		Valance panel R&I (when required)
✓		Grille R&I (when required)
✓		Headlamp assemblies R&I (when required)
✓		Front end panel R&I
✓		Side marker and parklamp R&I (when required)
✓		Hood R&I

✓		Battery and tray R&I (when required)
✓		Cowl vent panel R&I (when required)
✓		Fenders R&I
✓		Attached bolted parts R&I
✓		Radiator R&I
✓		A/C condenser R&I, including A/C line disconnect / connect (if required), Line Cap (when required)
✓		Air inlet system (when required)
✓		Raise and support vehicle
✓		Front wheel R&I
✓		Steering components R&I (when required)
✓		Engine assembly R&I (rear wheel drive)
✓		R&I engine and transaxle, suspension and steering assemblies, and cradle as a unit (front wheel drive)
✓		Disconnect / connect battery
✓		Disconnect / connect wiring harness for access
✓		Detach and weld at manufacturer joint or seam in front of strut towers
✓		Fabrication of sleeves (when required)
✓		Application of weld-through primer (Welded areas)
✓		Seam sealing
✓		Reasonable adjustment and alignment (as defined by the manufacturer using conventional fasteners and/or hardware)
	✓	Bumper overhaul
	✓	Aim headlamps (Additional Labor)
	✓	A/C receiver / dehydrator R&I (when required)
	✓	Evacuate and recharge A/C system (Additional Labor)
	✓	Refrigerant recovery (Additional Labor)
	✓	Hood release cable R&I
	✓	Specification labels R&I or replacement
	✓	Fuel vapor canister R&I
	✓	Antenna assembly R&I
	✓	Dash R&I
	✓	Horns R&I
	✓	Electronic and vacuum components R&I
	✓	Exhaust system R&I for access
	✓	Parking brake assembly R&I
	✓	Master cylinder R&I

	✓	Suspension R&I
	✓	Bleeding brakes (Additional Labor)
	✓	Wheel alignment (Additional Labor)
	✓	Drain and replace oil and fluids
	✓	Vacuum booster R&I
	✓	Wiring R&I
	✓	Trimming, repair, or modification of part
	✓	Corrosion protection
	✓	R&I of mouldings, emblems, nameplates and ornaments
	✓	R&I of non-standard equipment not identified as options
	✓	Disassembly, cleaning, and reassembly of assemblies

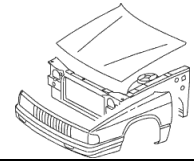
Section 4-3 Replacement & Recycled Operations

Front Body Recycled Section

Left / Right

Inner Structure Unibody Vehicles

Recycled panel replacement may or may not be recommended by the vehicle manufacturer.



Important Reminder:

- Cut forward of one strut tower; includes inner and outer sheet metal.
- Cut at factory seams.

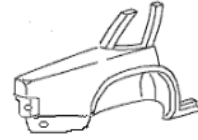
Included Operations	Not Included Operations	Recycled Part Replacement Operations
✓		Front bumper R&I
✓		Energy absorbers R&I
✓		Valance panel R&I (when required)
✓		Grille R&I (when required)
✓		Headlamp assemblies R&I (when required)
✓		Front end panel R&I
✓		Side marker lamps R&I (when required)
✓		Parklamp assemblies R&I (when required)
✓		Hood panel R&I
✓		Battery and tray R&I (when required)
✓		Cowl vent panel R&I (when required)
✓		Fenders R&I
✓		Attached bolted parts R&I
✓		Radiator R&I
✓		A/C condenser R&I, including A/C line disconnect / connect (if required), Line Cap (when required)
✓		Air inlet system (when required)

✓		Raise and support vehicle
✓		Steering components R&I (when required)
✓		Front wheel R&I
✓		Engine assembly R&I (rear wheel drive)
✓		R&I engine and transaxle, suspension, steering assemblies, and cradle as a unit (front wheel drive)
✓		Disconnect / connect battery
✓		Disconnect / connect wiring harness for access
✓		Detach and weld at manufacturer joint or seam in front of one strut tower
✓		Fabrication of sleeves (when required)
✓		Application of weld-through primer (Welded areas)
✓		Seam sealing
✓		Reasonable adjustment and alignment (as defined by the manufacturer using conventional fasteners and/or hardware)
	✓	Bumper overhaul
	✓	Aim headlamps (Additional Labor)
	✓	A/C receiver / dehydrator R&I (when required)
	✓	Evacuate and recharge A/C system (Additional Labor)
	✓	Refrigerant recovery (Additional Labor)
	✓	Hood release cable R&I
	✓	Dash R&I
	✓	Horns R&I
	✓	Electronic and vacuum components R&I
	✓	Exhaust system R&I for access
	✓	Parking brake assembly R&I
	✓	Master cylinder R&I
	✓	Suspension R&I
	✓	Bleeding brakes (Additional Labor)
	✓	Wheel alignment (Additional Labor)
	✓	Drain and replace oil and fluids
	✓	Vacuum booster R&I
	✓	Wiring R&I
	✓	Trimming, repair, or modification of part
	✓	Corrosion protection
	✓	R&I of mouldings, emblems, nameplates and ornaments
	✓	R&I of non-standard equipment not identified as options

	✓	Disassembly, cleaning, and reassembly of assemblies
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Quarter Panel Assembly Recycled Section

Recycled panel replacement may or may not be recommended by the vehicle manufacturer.



Important Reminder:

- Cut at rocker panel through window opening and Rear Body panel (includes inner and outer sheet metal).
- Reveal mouldings that are mounted flush to stationary glass (e.g., Windshield, Back Glass, or Quarter Glass) are at risk of breakage when being removed.
- Stationary glass that is urethane bonded is considered a structural part of the vehicle. Replacing stationary glass requires:
 - following specific OEM replacement procedures
 - using specified installation materials
 - returning the vehicle to OEM structural integrity for occupant safety
- This is considered a structural part of the vehicle. Replacing structural panels requires:
 - following specific replacement procedures
 - using specified installation materials
 - returning the vehicle to OEM structural integrity for occupant safety

Included Operations	Not Included Operations	Recycled Part Replacement Operations
✓		Rear bumper R&I (when required)
✓		Rear bumper fillers R&I (when required)
✓		Rear lamps R&I
✓		All necessary trim panels R&I
✓		Sill plate R&I
✓		Middle/Rear seat R&I (when required)
✓		Loosen headliner (when required)
✓		Body fill labor (Welded areas)
✓		Airbag R&I (when required)
✓		Airbag sensor R&I (when required)
✓		Quarter glass R&I (stationary or flip out)
✓		Vinyl roof peel back
✓		Tailgate R&I (if attached to roof)
✓		Package tray trim R&I
✓		Deck lid R&I (when required)
✓		Back glass R&I
✓		Convertible top R&I
✓		Body weatherstrip pullback
✓		Carpet / insulation rollback
✓		Spoiler and flare R&I (OEM only)

✓		Raise and support vehicle
✓		Rear wheel R&I
✓		Deck lid or tailgate hydraulic rod R&I
✓		Cover interior to protect it during repair
✓		Disconnect / connect battery
✓		Disconnect / connect wiring harness for access
✓		Fabrication of sleeves (when required)
✓		Detach and weld at rocker panel, rear body panel,
✓		passenger compartment floor, and in quarter window opening (includes attached inner quarter sheet metal and wheelhouse)
✓		Inner quarter and rear body panel
✓		Application of weld-through primer (Welded areas)
✓		Dual action sand (Welded areas)
✓		Application of guide coat (Welded areas)
✓		Block sand (Welded areas)
✓		Seam sealing
✓		Reasonable adjustment and alignment (as defined by the manufacturer using conventional fasteners and/or hardware)
✓		Rocker panel moulding R&I (when required)
	✓	Body weatherstrip R&I
	✓	Roll down quarter glass R&I
	✓	Headliner R&I (Additional Labor)
	✓	Fuel tank R&I (Additional Labor)
	✓	Exhaust systems R&I for access
	✓	Bleed brakes (Additional Labor)
	✓	Brake lines R&I
	✓	Rear suspension R&I (Additional Labor)
	✓	Wheel alignment (Additional Labor)
	✓	Fuel door release cable R&I
	✓	Deck lid / tailgate release cable R&I
	✓	Deck lid hinges R&I
	✓	Rear compartment gutters
	✓	Antenna assembly R&I
	✓	Sunroof drain
	✓	Wiring harness R&I
	✓	Body insulation (e.g., foams, pads)

	✓	Corrosion protection
	✓	Trimming, repair, or modification of part
	✓	R&I of mouldings, emblems, nameplates and ornaments

Section 4-3 Replacement & Recycled Operations

SUV / Van Bodyside Panel Assembly

Recycled Section

Recycled panel replacement may or may not be recommended by the vehicle manufacturer.



Important Reminder:

- Cut at rocker panel through window opening and Rear Body panel (includes inner and outer sheet metal)
- Reveal mouldings that are mounted flush to stationary glass (e.g., Windshield, Back Glass, or Quarter Glass) are at risk of breakage when being removed.
- Stationary glass that is urethane bonded is considered a structural part of the vehicle. Replacing stationary glass requires:
 - following specific OEM replacement procedures
 - using specified installation materials
 - returning the vehicle to OEM structural integrity for occupant safety
- This is considered a structural part of the vehicle. Replacing structural panels requires:
 - following specific replacement procedures
 - using specified installation materials
 - returning the vehicle to OEM structural integrity for occupant safety

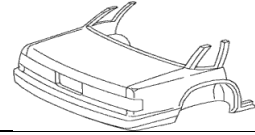
Included Operations	Not Included Operations	Recycled Part Replacement Operations
✓		Back door assembly R&I or Tailgate hydraulic rod R&I (when required)
✓		Body weatherstrip pullback
✓		Bodyside glass R&I
✓		Bodyside trim panel (except full size van)
✓		Carpet / insulation rollback (SUV /Mini Van only)
✓		Cover to protect interior during repair
✓		Disconnect / connect battery
✓		Disconnect / connect wiring harness for access
	✓	Door striker R&I
✓		Driver seat assembly R&I (without sliding door)
✓		Front sill plate R&I (without sliding door)
	✓	Fuel filler door R&I
	✓	Fuel filler pocket R&I
	✓	Mud guard R&I (when required)
✓		Rocker panel moulding R&I (when required)
✓		Raise and support vehicle
✓		Rear bumper R&I (when required)
✓		Rear sill plate R&I (with sliding door)

✓		Rear wheel R&I
✓		Running board panel R&I (OEM only)
✓		Seam sealing
✓		Seat belt anchor R&I
✓		Side door R&I
	✓	Sliding door striker R&I
	✓	Sliding door track shield R&I
✓		Taillamp assembly R&I (when required)
✓		Application of weld-through primer (Welded areas)
✓		Body fill labor (Welded areas)
✓		Block sand (Welded areas)
✓		Application of guide coat (Welded areas)
✓		Dual action sand (Welded areas)
✓		Spare tire and jack R&I
✓		Reasonable alignment
✓		Airbag R&I (when required)
✓		Airbag sensor R&I (when required)
✓		Fabrication of sleeves (when required)
✓		Middle/Rear seat R&I (when required except full size vans)
✓		Detach and weld at roof panel, rear door pillar, rocker panel, outer wheel house panel, door opening frame, and lock pillar
	✓	Body weatherstrip R&I
	✓	Corrosion protection
	✓	Fuel tank R&I
	✓	Headliner R&I
	✓	Running board panel R&I (non-OEM)
	✓	A/C evacuation / recharge (Additional Labor)
	✓	Trimming, repair or modification of part
	✓	R&I of mouldings, emblems, nameplates and ornaments
	✓	R&I of non-standard equipment not identified as options
	✓	Disassembly, cleaning, and reassembly of assemblies

Section 4-3 Replacement & Recycled Operations

Rear Body Recycled Section

Recycled panel replacement may or may not be recommended by the vehicle manufacturer.



Important Reminder:

- Cut at rocker panel section, across floor, and under rear seat in quarter window opening (includes inner and outer sheet metal as well as floor pan).
- Reveal mouldings that are mounted flush to stationary glass (e.g., Windshield, Back Glass, or Quarter Glass) are at risk of breakage when being removed.
- Stationary glass that is urethane bonded is considered a structural part of the vehicle. Replacing stationary glass requires:
 - following specific OEM replacement procedures
 - using specified installation materials
 - returning the vehicle to OEM structural integrity for occupant safety
- This is considered a structural part of the vehicle. Replacing structural panels requires:
 - following specific OEM replacement procedures
 - using specified installation materials
 - returning the vehicle to OEM structural integrity for occupant safety

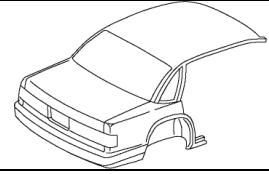
Included Operations	Not Included Operations	Recycled Part Replacement Operations
✓		All necessary trim panels R&I
✓		Lock cylinder R&I (when required)
✓		Sill plate R&I
✓		Front seat R&I (when required)
✓		Rear seat R&I (when required)
✓		Rocker panel moulding R&I (when required)
✓		Loosen headliner (when required)
✓		Airbag R&I (when required)
✓		Airbag sensor R&I (when required)
✓		Convertible top cover R&I
✓		Vinyl roof peel back
✓		Back glass R&I
✓		Stationary and flip-out quarter glass R&I
✓		Tailgate R&I (if attached to roof)
✓		Carpet / insulation rollback
✓		Body weatherstrip pullback
✓		Raise and support vehicle
✓		Rear wheel R&I
✓		Disconnect / connect battery
✓		Disconnect / connect wiring harness for access
✓		Detach and weld at roof panel, rocker panels, across floor pan, and through rear side rails

✓		Fabrication of sleeves (when required)
✓		Body fill labor (Welded areas)
✓		Application of weld-through primer (Welded areas)
✓		Dual action sand (Welded areas)
✓		Application of guide coat (Welded areas)
✓		Block sand (Welded areas)
✓		Seam sealing
✓		Reasonable adjustment and alignment (as defined by the manufacturer using conventional fasteners and/or hardware)
	✓	Rear bumper R&I
	✓	Lock cylinder coding (Manual Entry M73 is available)
	✓	Specification labels R&I or replacement
	✓	Body weatherstrip R&I
	✓	Roll down quarter glass R&I
	✓	Headliner R&I (Additional Labor)
	✓	Fuel door release cable R&I
	✓	Deck lid / tailgate release cable R&I
	✓	Fuel lines R&I
	✓	Fuel tank R&I (Additional Labor)
	✓	Exhaust systems R&I for access
	✓	Bleed brakes (Additional Labor)
	✓	Brake lines R&I
	✓	Rear suspension R&I (Additional Labor)
	✓	Wheel alignment (Additional Labor)
	✓	Antenna assembly R&I
	✓	Rocker panel mouldings
	✓	Trimming, repair, or modification of part
	✓	Wiring harness R&I
	✓	Body insulation (e.g., foams, pads)
	✓	Corrosion protection
	✓	Seat belt R&I
	✓	R&I of mouldings, emblems, nameplates and ornaments
	✓	R&I of non-standard equipment not identified as options
	✓	Disassembly, cleaning, and reassembly of assemblies

Section 4-3 Replacement & Recycled Operations

Rear Body with Roof Recycled Section

Recycled panel replacement may or may not be recommended by the vehicle manufacturer.



Important Reminder:

- Cut at windshield opening, rocker panel, and across floor under rear seat.
- Section includes all inner and outer sheet metal.
- Reveal mouldings that are mounted flush to stationary glass (e.g., Windshield, Back Glass, or Quarter Glass) are at risk of breakage when being removed.
- Stationary glass that is urethane bonded is considered a structural part of the vehicle. Replacing stationary glass requires:
 - following specific OEM replacement procedures
 - using specified installation materials
 - returning the vehicle to OEM structural integrity for occupant safety
- This is considered a structural part of the vehicle. Replacing structural panels requires:
 - following specific OEM replacement procedures
 - using specified installation materials
 - returning the vehicle to OEM structural integrity for occupant safety

Included Operations	Not Included Operations	Recycled Part Replacement Operations
✓		Windshield R&I
✓		Lock cylinder R&I (when required)
✓		All necessary trim panels R&I
✓		Sill plate R&I
✓		Front seat R&I
✓		Rear seat R&I
✓		Urethane quarter glass R&I
✓		Rocker panel moulding R&I (when required)
✓		Airbag R&I (when required)
✓		Airbag sensor R&I (when required)
✓		Carpet / insulation rollback
✓		Body weatherstrip pullback
✓		Raise and support vehicle
✓		Rear wheel R&I
✓		Disconnect / connect battery
✓		Disconnect / connect wiring harness for access
✓		Detach and weld at rocker panel, center pillar, hinge pillar, across floor pan, and through rear side rails
✓		Fabrication of sleeves (when required)
✓		Body fill labor (Welded areas)

Section 4-3 Replacement & Recycled Operations		
✓		Application of weld-through primer (Welded areas)
✓		Dual action sand (Welded areas)
✓		Application of guide coat (Welded areas)
✓		Block sand (Welded areas)
✓		Seam sealing
✓		Reasonable adjustment and alignment (as defined by the manufacturer using conventional fasteners and/or hardware)
	✓	Rear bumper R&I
	✓	Lock cylinder coding (Manual Entry M73 is available)
	✓	Specification labels R&I or replacement
	✓	Body weatherstrip R&I
	✓	Stationary quarter glass (weatherstrip mounted) R&I
	✓	Flip out quarter glass R&I
	✓	Headliner R&I
	✓	Back glass R&I
	✓	Fuel door release cable R&I
	✓	Deck lid / tailgate release cable R&I
	✓	Fuel lines R&I
	✓	Fuel tank R&I (Additional Labor)
	✓	Exhaust systems R&I for access
	✓	Bleed brakes (Additional Labor)
	✓	Brake lines R&I
	✓	Wheel alignment (Additional Labor)
	✓	Antenna assembly R&I
	✓	Transfer moon / sun roof parts
	✓	Vinyl roof install
	✓	Rear suspension R&I (Additional Labor)
	✓	Trimming, repair, or modification of part
	✓	Wiring harness R&I
	✓	Body insulation (e.g., foams, pads)
	✓	Corrosion protection
	✓	Seat belt R&I
	✓	Energy absorbers R&I
	✓	R&I of mouldings, emblems, nameplates and ornaments
	✓	R&I of non-standard equipment not identified as options

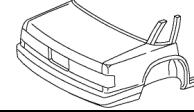
Section 4-3 Replacement & Recycled Operations		
	✓	Disassembly, cleaning, and reassembly of assemblies

Section 4-3 Replacement & Recycled Operations

3/4 Rear Body

Recycled Section

Recycled panel replacement may or may not be recommended by the vehicle manufacturer.



Important Reminder:

- Cut at rocker panel and where opposite quarter meets Rear Body panel (includes inner and outer sheet metal).
- **Note:** Does not include floor.
- Reveal mouldings that are mounted flush to stationary glass (e.g., Windshield, Back Glass, or Quarter Glass) are at risk of breakage when being removed.
- Stationary glass that is urethane bonded is considered a structural part of the vehicle. Replacing stationary glass requires:
 - following specific replacement procedures
 - using specified installation materials
 - returning the vehicle to OEM structural integrity for occupant safety
- This is considered a structural part of the vehicle. Replacing structural panels requires:
 - following specific replacement procedures
 - using specified installation materials
 - returning the vehicle to OEM structural integrity for occupant safety

Included Operations	Not Included Operations	Recycled Part Replacement Operations
✓		Rear bumper fillers R&I (when required)
✓		Rear lamps R&I
✓		All necessary trim panels R&I
✓		Sill plate R&I
✓		Rear seat R&I
✓		Loosen headliner (when required)
✓		Body fill labor (Welded areas)
✓		Airbag R&I (when required)
✓		Airbag sensor R&I (when required)
✓		Quarter glass R&I (stationary or flip out)
✓		Vinyl roof peel back
✓		Tailgate R&I (if attached to roof)
✓		Package tray trim R&I
✓		Deck lid R&I
✓		Back glass R&I
✓		Convertible top R&I
✓		Body weatherstrip pullback

Section 4-3 Replacement & Recycled Operations		
✓		Carpet / insulation rollback
✓		Spoiler and flare R&I (OEM only)
✓		Raise and support vehicle
✓		Rear wheel R&I
✓		Lock cylinder R&I (when required)
✓		Cover interior to protect it during repair
✓		Disconnect / connect battery
✓		Disconnect / connect wiring harness for access
✓		Fabrication of sleeves (when required)
✓		Detach and weld at roof panel, rocker panels, floor pan, rear side rails, and where rear body meets opposite quarter
✓		Inner quarter and rear body panel
✓		Application of weld-through primer (Welded areas)
✓		Dual action sand (Welded areas)
✓		Application of guide coat (Welded areas)
✓		Block sand (Welded areas)
✓		Seam sealing
✓		Reasonable adjustment and alignment (as defined by the manufacturer using conventional fasteners and/or hardware)
✓		Rear bumper R&I (when required)
✓		Rocker panel moulding R&I (when required)
	✓	Lock cylinder coding (Manual Entry M73 is available)
	✓	Specification labels R&I or replacement
	✓	Body weatherstrip R&I
	✓	Roll down quarter glass R&I
	✓	Headliner R&I (Additional Labor)
	✓	Fuel tank R&I (Additional Labor)
	✓	Exhaust systems R&I for access
	✓	Bleed brakes (Additional Labor)
	✓	Brake lines R&I
	✓	Rear suspension R&I (Additional Labor)
	✓	Wheel alignment (Additional Labor)
	✓	Fuel door release cable R&I
	✓	Deck lid / tailgate release cable R&I
	✓	Deck lid hinges R&I

Section 4-3 Replacement & Recycled Operations		
	✓	Deck lid or tailgate hydraulic rod R&I
	✓	Sunroof drain
	✓	Wiring harness R&I
	✓	Body insulation (e.g., foams, pads)
	✓	Corrosion protection
	✓	Trimming, repair, or modification of part
	✓	R&I of mouldings, emblems, nameplates and ornaments
	✓	R&I of non-standard equipment not identified as options
	✓	Disassembly, cleaning, and reassembly of assemblies

Mouldings / Nameplates		
Important Reminder: Adhesive mouldings may not be reusable.		
Included Operations	Not Included Operations	Operations
✓		R&I of mouldings / nameplates
	✓	Drill time (Manual Entry M61 is available)
	✓	Cleanup of moulding and panel
	✓	Replacement of adhesive
	✓	Trimming, repair, or modification of part

OEM Stripes, Overlays, Decals and Tape		
Included Operations	Not Included Operations	Operations
✓		Remove (if attaching panel is replaced, labor is to install only)
✓		Install
	✓	R&I of mouldings, emblems, nameplates and ornaments
	✓	Adhesive cleanup
	✓	Trimming, repair, or modification of part

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Refinish Guidelines Index

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Refinish Guidelines

This section reflects the up-to-date findings of our data collection from a cross section of repair facilities across North America, as well as our conclusions and recommendations on the most significant areas in the refinish process. It is not our intention to suggest that the observations, conclusions, or recommendations apply with 100% accuracy to every refinish situation, but rather that Audatex reflects the findings of our comprehensive study coupled with our ongoing efforts.

Productivity

Audatex has found that normal non-productive tasks in the refinish process represent 17% of the total refinish time. This is within the standard for most industries and is a result of the following examples; break times, time devoted to human needs such as restroom breaks, getting coffee, or water, and normal work interruptions such as taking telephone calls, etc.

Refinish

Based upon our observations, and the input of our Inter-Industry Client Council, we have identified several discrete application processes, conditions, and operations that are very important to the refinish process. To return the vehicle to pre-accident function and appearance, each of these areas should be understood, considered, and evaluated for potential inclusion in the estimating process.

The following factors have been found not to significantly affect refinish labor:

- Paint Type (Enamel and Urethane): Our studies showed that even though there are specific differences attributed to various steps within each paint type, there were no significant differences displayed in overall refinish labor that could be attributed to paint type.
- Paint Manufacturers: Our study data reflected no significant differences in overall refinish labor that could be attributed to paint material manufacturers.

Section 4-4 Refinish Guidelines

Automated Refinish Formulas: Based on the results of our Refinish Study, Audatex has automated our formulas for two-stage refinish, three-stage refinish, two-tone refinish, blend refinish and chipguard. The calculations are explained below. The remainder of these topics is important to the refinish process and can either be assigned a supportable average time or considered in the estimating process by some other means.

Paint Materials: Calculation of paint materials cost (Rate Code 5) is by multiplying a user-provided hourly rate by refinish hours after overlap. The user should bear in mind that this formula is used in all refinish situations including two-stage, two-tone, three-stage, chipguard and blend refinish. Additionally it is used when any threshold values are reached and can be adjusted if necessary.

Paint Material and Costs: Audatex does not define paint material within the estimating system. Included paint material and associated costs are calculated automatically based on total net refinish labor multiplied by a user-defined paint material rate supplied by the estimate preparers. Materials (i.e. flex additives, sandpaper, tape, bag, etc.) need to be defined by the estimate preparer during the estimate preparation process.

Quick Reference for Audatex's' Two-stage Refinish Option

Features	Two-Stage Exterior	Two-Stage Exterior, User-defined	Two-Stage Interior
Can be used with other paint options	Yes: two-stage interior	Yes: two-stage interior	Yes: two-stage exterior or two-stage exterior, user-defined
Can be used alone (without other paint options)	Yes	Yes	No
Includes 0.6 hour for setup	Yes	Yes	No
Adds 20% of Audatex refinish labor	Yes	Yes	Yes
Includes exterior surfaces only	Yes	Yes	No: edges, jambs, interior panels, & undersides only
Calculates with pre-stored Audatex refinish hours only	Yes	Yes	Yes
Calculates with user (manually) entered hours	Yes	Yes	Yes
Calculates two-stage after overlap	Yes	Yes	Yes
Includes two-stage time with panel refinish time on estimate	Yes	Yes	Yes
Includes a threshold of 2.5 hours, exterior panels only	Yes	No	No
Threshold applies to flexible panels	No	No	No
Threshold applies to edges, jambs and undersides	No	No	No
Threshold applies to recycled assemblies	No	No	No
Threshold applies to all group refinish operations	Yes	Yes	No
User-defined threshold	No	Yes: when defined	No

Section 4-4 Refinish Guidelines			
Produces a message at the bottom of the estimate	Yes	Yes	Yes
Displays with other options on estimate	Yes	Yes	Yes

Single-stage: Audatex single-stage refinish labor is currently developed so that it is unique to each panel. The study data confirms this as the most accurate and reliable method of refinish labor determination, consistent with current industry standards.

Two-stage: Two-stage is the application of a basecoat or color coat followed by the application of a clear coat as recommended by the paint manufacturer.

Because 95% of all refinish operations in the United States are performed using a two-stage process, Audatex defaults to two-stage refinish for all vehicles. This applies to both exterior and interior surfaces. The user may change these options to reflect the appropriate repair process.

Audatex's single-stage refinish times provide a consistent, reliable, and accurate base upon which to calculate time for the two-stage process.

Audatex's two-stage formula is:

- Set-up time of 0.6 hours with the selection of the first refinished panel, plus 20% of Audatex estimate refinish labor.

Audatex provides two options for calculations of two-stage exterior refinish and one for interior surfaces:

- Two-stage exterior
- Two-stage exterior user-defined
- Two-stage interior

Note: Due to paint manufacturers' recommendations, user-entered refinish time will have two-stage calculated based on the full Audatex panel refinish time when two-stage is selected as an option.

Two-stage Exterior: (Exterior surface time for all panels; 2.5-hour threshold on rigid panels only. See [Exclusions to Threshold](#)).

Two-stage exterior provides two-stage time for all exterior surfaces including flexible panels (see [Exclusions to Threshold](#), Two-stage Exterior). This option does not provide time for edges, jambs, undersides, or interior panels.

- Adds 0.6 for setup to the first major panel selected
- Adds 20% to each panel for two-stage
- Calculates two-stage after overlap consideration
- Includes two-stage time with panel refinish time
- Displays with other options on the estimate
- Includes a threshold of 2.5 hours for rigid, exterior panel surface refinish time only. This threshold does not apply to flexible panels, interior surfaces or recycled assemblies operations (see [Exclusions to Threshold](#), Two-stage Exterior). It does apply to all group refinish operations.

Note: When the threshold has been reached, the remaining damage entries for rigid, exterior panels will receive no additional time for two-stage with this option. If the threshold is reached in the middle of a damage entry, that panel time will be increased by the remaining amount needed to achieve the 2.5 hours. When the 2.5-hour threshold is reached, the following message appears at the bottom of the estimate:

"Estimate calculated using the 2.5 hour exterior threshold for two-stage refinish of non-flex, exterior surfaces"

Section 4-4 Refinish Guidelines

Exclusions to Threshold, Two-stage Exterior

The threshold for two-stage exterior does not apply to flexible panels (for example, bumper covers), or panels that include a combination of exterior and interior surfaces (for example, bodyside assemblies) or recycled group assemblies (assemblies that contain multiple part types e.g. front sections). It also does not apply to interior surfaces. It does apply to group refinish operations. Therefore, when two-stage exterior is selected, the two-stage exterior times provided may exceed the threshold.

User-overridden values: Calculates two-stage based on the Audatex panel time for all user-entered values. When the user overrides a refinish time, the user supplies the value for the color coat. Audatex will provide time to clear coat the entire panel based on the pre-stored surface refinish time.

Continuous Clear

Continuous Clear is defined as the application of clear coat to an undamaged adjacent panel when no breaking point exists between panels.

As a user defined entry, a Continuous Clear labor allowance is based on the estimate preparer's judgment, expertise, and consideration of the unique requirements of each repair. Entered in the Blend Refinish Labor Field, the adjusted time includes all necessary operations such as prep sanding, pre-cleaning and masking, along with mixing of materials, application of clear, flash, and final steps/cleanup.

When continuous clear is applied, the labor allowance includes the application of clear coat to the entire adjacent panel.

Two-stage Exterior, User-defined

Provides two-stage time for exterior surfaces only, including flexible panels. This option does not provide time for edges, jambs, undersides, or interior panels.

- Calculates two-stage after overlap consideration
- Adds 0.6 for setup to the first major panel selected
- Adds 20% to each panel for two-stage
- Displays two-stage time with panel refinish time
- Provides the capability to establish a user-defined threshold that applies to rigid exterior panels

Note: *Current software versions provide exterior surface panel time for all panels. User-defined threshold applies to rigid panels only. When the threshold has been reached, the following message appears at the bottom of the estimate:*

- "User-defined two-stage exterior threshold of 'x.x' hours was calculated in this estimate."

Exclusions to Threshold, Two-stage Exterior, User-defined

The threshold for two-stage exterior user-defined does not apply to flexible panels (for example, bumper covers); panels that include a combination of exterior and interior surfaces (for example, bodyside assemblies), or recycled group assemblies. It also does not apply to interior surfaces. It does apply to group refinish operations. Therefore, when two-stage exterior, user-defined is selected, the two-stage exterior times provided may exceed the threshold.

Note: *When the threshold has been reached, the remaining damage entries will receive no additional time for two-stage exterior, user-defined. If the threshold is reached in the middle of a damage entry, that panel time will be increased by the remaining amount needed to achieve the user-defined threshold.*

User-overridden values: Calculates two-stage based on the Audatex panel time for all user-entered values. When the user overrides a refinish time, the user supplies the value for the color coat. Audatex will provide time to clear coat the entire panel based on the pre-stored surface refinish time.

Section 4-4 Refinish Guidelines

Two-stage Interior

- Provides 20% additional refinish time for two-stage of edges, jambs, undersides and interior panels (not including trim) when selected
- Does not include additional time for setup
- Does not contain a threshold time allotment
- Does not apply to the 2.5 hour threshold for two-stage exterior
- User-defined threshold will not apply when used in conjunction with two-stage exterior, user-defined
- Produces a message at the bottom of the estimate explaining the two-stage calculation on the estimate
- Prints with other options on the estimate.

Exterior and Interior Surfaces

Two-stage provides time both for exterior and interior surfaces including edges, jambs, and undersides. Two-stage interior must be selected in conjunction with two-stage exterior or two-stage exterior, user-defined.

The Audatex two-stage formula includes time to perform the following operations:

- Cover the car
- Tack wipe
- Gather materials
- Mix and apply clear coat
- Clean-up

Three-stage

Three-stage is the application of a base or color coat, a pearlescent or mica coat, and a clear coat as recommended by the paint manufacturer.

Audatex's single-stage refinish times provide a consistent, reliable, and accurate base upon which to add time for the three-stage process.

Audatex's Three-stage formula is:

- Setup time of 1.0 hour upon selection of the first major panel, plus 35% of Audatex estimate refinish labor.

Provides three-stage time for all exterior surfaces only, including flexible panels. This option does not provide time for edges, jambs, undersides, or interior panels.

- Calculates three-stage after overlap consideration
- Adds 1.0 for setup to the first major panel selected
- Adds 35% to each panel for three-stage
- Displays three-stage time with panel refinish time
- Provides the capability to establish a user-defined threshold that applies to rigid exterior panels only
- In addition to all selected refinish times, the user-defined threshold applies to individual recycled operations, all recycled assemblies and all group refinish operations

Exclusions to Threshold, Three-stage Exterior, User-defined

The threshold for three-stage exterior, user-defined does not apply to flexible panels (i.e., bumper covers), or panels that include a combination of exterior and interior surfaces (for example, bodyside assemblies) or recycled group assemblies. It also does not apply to three-stage interior surfaces. It does apply to group refinish operations. Therefore, when three-stage exterior is selected, the two-stage exterior times provided may exceed the threshold.

Section 4-4 Refinish Guidelines

Note: *When the threshold has been reached, the remaining damage entries will receive no additional time for three-stage. If the threshold is reached in the middle of damage entry, that panel time will be increased by the remaining amount needed to achieve the user-defined threshold. When the threshold is reached, the following message appears at the bottom of the estimate.*

- User-defined three-stage exterior threshold of 'x.x' hours was calculated in this estimate.
- For user-entered refinish values, Audatex will provide an additional 20% to clear coat the entire panel. The user supplies the value for the color coat and the mica coat.

Three-stage Interior Surfaces

Provides 35% additional refinish time to three-stage edges, jambs, undersides and interior panels (not including trim) when selected.

- Does not include additional time for setup
- Does not contain a threshold time allotment
- User-defined threshold will not apply when used in conjunction with three-stage exterior surfaces
- Prints with other options on the estimate

Exterior and Interior Surfaces

Three-stage provides time both for exterior and interior surfaces including edges, jambs, and undersides. Three-stage interior surfaces must be selected in conjunction with three-stage exterior. To provide time for three-stage of exterior surfaces and two-stage of interior surfaces, both options must be selected.

User-overridden values: For user-entered refinish values, Audatex will provide an additional 20% to clear coat the entire panel. The user supplies the value for the color coat and the mica coat.

Four-stage

Some vehicle manufacturers occasionally use a four-stage refinish process. At the manufacturer level, four-stage refinish is the same process as three-stage with an additional clear coat between the base and mica coat. This does not need to be duplicated in the repair process. When these vehicles are being repaired, the three-stage process applies.

Two-Tone

Audatex's single-stage refinish times provide a consistent, reliable, and accurate base upon which to add time for the two-tone process

Audatex's two-tone formula is:

- Setup time of 0.4 estimate hours upon selection of the first two-tone panel, plus 30% of Audatex estimate refinish labor per panel selected. Two-tone is automated in the Audatex system and can be selected as an operation on a panel-by-panel basis.

Chipguard

The application of chipguard material to the lower portions of panels (up to 8" of protection) is automated in the Audatex system and can be selected on a panel-by-panel basis.

Audatex's chipguard formula is:

- 0.3 for the first panel and 0.2 per each additional panel.

Note: *This formula can be used to determine time to apply chipguard material only, and does not account for texturing or finish matching of any kind. Today's vehicles often require exact-match texturing in the chipguard process. These cases are not addressed by this calculation and must be considered individually at time of inspection.*

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Blending

Blending is defined as the application of color to a portion of an undamaged adjacent panel for the sole purpose of facilitating the appearance of color match into the area. When blending is performed in a two- or three-stage refinish system, the same definition applies to the process and includes the application of clear coat to the entire blended panel.

Note: I-CAR recommends preparing and planning to blend before the work begins. This means that blending should be planned for in all phases of refinish, from tinting to preparation of surfaces. Following

Section 4-4 Refinish Guidelines

this recommendation will ensure that when the decision is made to blend, the preparation work is already complete. (For additional information, see I-CAR Finish Matching, Module 2, and Topic 3.) Blending into an undamaged/unreplaced adjacent panel to facilitate color match is automated in the Audatex system and can be selected on a panel-by-panel basis.

Audatex refinish labor is based on the use of new and undamaged panels. Audatex Estimating does not provide a standard labor allowance for blended panels as this requires the estimate preparer's judgment, expertise, and consideration of the unique requirements for each repair. Determination and assessment of labor and materials necessary in the blending process is best provided by the estimate preparer during the estimate preparation process. To assist the user, profile settings allow for customization to enter a specified blend percentage, as necessary.

- Audatex will now allow you to specify the Blend Refinish percentage to be used when calculating Blend Refinish labor at the profile level allowing insurers and shops to agree on a default blend refinish time. You may enter a value between 50% and 150%. This value is used to determine the blend refinish labor by multiplying it against the full panel refinish time.
- When generating an estimate, the blend refinish will be calculated using the value specified at the profile level. If no value is specified, a default value of 50% blend refinish percentage will be used.
- As before, an estimator can manually override the Blend Refinish percentage specified at the profile level and it will be denoted with an asterisk (*) on the estimate.
- Additionally, a new note is now added to the bottom of all estimates showing the Blend Refinish percentage used.
- This excludes R&I stripes, mouldings and special masking for two-tone, when required, unless two-tone is also selected.

Refinish within Panel Boundaries

Refinish within panel boundaries is defined as the process of applying paint and clear coat to the surface of a repaired panel for the sole purpose of facilitating the appearance of color match within the confines of the panel.

Note: The Audatex blend formula does not apply to this operation.

When the estimator enters a judgment time for refinish labor, the estimator also determines the included operations. Operations that might be considered in the repair refinish time include any steps required to bring the panel to the condition of a new, undamaged panel. This may include feather edge, blow off and clean, mask to prime, tack off, mix etch primer, prime bare metal, mix

Section 4-4 Refinish Guidelines

and apply primer filler, guide coat application, unmask as required and block sand. Panel scuff to facilitate application of clear may also be considered for two- or three-stage refinish.

In the Audatex system, there are two ways to include the time to perform this refinish operation in an estimate:

1. The preferred method provided by Audatex is a Manual Entry. Using this method will not remove adjacent panel/non-adjacent panel overlap. This labor will also be used in paint materials calculations. A manual entry for this operation may be entered along with the desired value, or the Standard Manual Entry "M10 Paint As Required" may be used.
2. The second method is to override the prestored labor to the desired time.
It is important to keep in mind when using the method that all adjacent panel and nonadjacent panel overlap will still be considered in an estimate when the panel being painted is on a lower guide number. If this method is used, and overlap is not applicable, any overlap deducted by the system should be manually included in the estimated time for the spot painting. Non-adjacent panel overlap time is 0.2 and adjacent panel overlap time is 0.4.
Therefore, when using the override method and non-adjacent panel overlap applies, add 0.2 to the spot paint time. When using the override method and adjacent panel overlap applies, add 0.4 to the refinish operation.

Color Tint

Audatex's two stage setup refinish labor includes time for standard tint. Standard tint is defined as the initial mix, check, one tint cycle, and check.

Audatex's studies revealed instances where additional time was required for the tinting process. The range of this additional time was commonly between 0.1 and 1.0 hours with an average of 0.5 hours per estimate per color.

The appearance of color match can be difficult enough to require both color tint (tinting to adjust the color) and blending. I-CAR Finish Matching (Module 2, Topic 3) recommends planning and preparing for blending before the work begins. Per I-CAR, tinting should be done only to achieve a blendable match.

Color Sand and Buff

This process, which may or may not be required, is defined as wet sanding the entire panel by compound buffing and mechanical or hand polishing. Color sand and buff is further defined as all of the above steps performed to the finished surface for any reason, plus cleanup.

Color sand and buff can be estimated at:

- 30% of Audatex single-stage refinish labor (not including final wash).

Replaced Panel Refinish

Current Audatex refinish labor is based on the use of new and undamaged panels. Additional steps or processes that may be required should be considered during estimate preparation.

Repaired Panel Refinish

When a repaired panel is being refinished, the estimator provides time for the repair of the panel. The estimator also determines included operations.

When Audatex refinish labor is used for repaired panels, Audatex refinish times assume that the panel has been returned to the condition of a new, undamaged OEM panel or equivalent.

When the estimator enters a judgment time for refinish labor, the estimator also determines the included operations. Operations that might be considered in the repair refinish time include any steps required to bring the panel to the condition of a new, undamaged panel. This may include feather edge, blow off and clean, mask to prime, tack off, mix etch primer, prime bare metal, mix and apply primer filler, guide coat application, unmask as required, and block sand. Panel scuff to facilitate application of clear may also be considered for two- or three-stage refinish.

Section 4-4 Refinish Guidelines

Feather / Prime / Block

Audatex recognizes that Feather/Prime/Block are required operations when replacing welded-on panels. Time to perform this operation is included in the Audatex time for welded panel replacement in the seamed areas, to bring the panels to the condition of a new, undamaged panel for the purpose of refinish.

Although the time is included, Audatex does not provide a material allowance for the Feather/Prime/Block process. If necessary, the determination and assessment for materials is best provided by the estimate preparer for consideration and allowance during the estimate preparation process.

Feather, Prime & Block are required operations in the panel repair process.

Audatex Estimating does not provide a labor time allowance for repaired panels, as the amount of time is subjective.

Audatex Estimating

- Is able to allocate a portion of the repair judgment time to Feather Prime & Block for any part with a refinish record attached.
- Displays Feather Prime & Block under refinish labor.
- Calculates Feather Prime & Block materials.
- Identifies Feather Prime & Block labor and materials on the estimate.

When the Feather, Prime & Block feature is enabled, and both Repair and Refinish operations are selected on the Part Edit window, the Repair operation expands to show the breakout of how much of the Repair operation is allocated to the Repair time, and how much is being allocated to FPB (Refinish).

Allocating Feather, Prime & Block on the Damage Page:

1. Verify that the Rates page has a labor rate for the Feather, Paint & Block Materials Rate.
2. Click Damage on the left side navigation.
3. Click a part to open the Part Edit window.
4. Select the Repair and Refinish operations and provide a Repair time.
5. The Repair operation expands to show the breakout of Repair time and FPB time.
6. Provide how much of the Repair time needs to be allocated to FPB
 1. When FPB time is allocated, it will be automatically deducted from the Repair time.
 2. The FPB time cannot exceed the total Repair time provided in Step 4.
 3. See Additional Information for other calculation factors / limitations

When FPB is allocated for a Repair operation, the time is added on the Estimate Report in the refinish breakout under the Refinish operation for the same part.

Nib Sanding/De-nib

Nib sanding (or de-nib) is defined as the removal of isolated dirt and dust particles in the affected area(s).

- Audatex's formula for Color Sand and Buff does not apply to this operation. Additional steps or processes that may be required should be considered during estimate preparation.

Panel Stripping

Audatex's studies show that, when performed, complete panel stripping can be estimated at:

- 75% of Audatex single-stage estimate refinish labor for each panel being stripped.

Flash Time

Flash times are included in the Audatex system in the following manner:

- Less than 6 minutes: These are included in the assigned panel time
- More than 6 minutes: Our observations indicate that when flash times are more than 6 minutes, the technician will remain productive by working on another job or a different part of the same job. Therefore, these times are included by reflecting that productive time in the specific panel that it applies to.

Overlap / Setup / Minimum

When two or more panels are refinished at the same time, economies are realized. These economies are considered to be overlapping functions and result in a decrease of labor required per incremental panel. When a number of single panels are considered for the same estimate, duplicate tasks should be removed since they are performed only once.

One alternative is to deduct an amount of labor, which represents the amount of overlapping operations. In most instances, the general rule within Audatex is to:

- Deduct 0.4 Audatex estimate refinish labor for adjacent major panels and
- Deduct 0.2 Audatex estimate refinish labor for non-adjacent major panels.

However, some exceptions are incorporated into our system due to the panel configuration, the size of the job, and or both. These exceptions are discussed on the next few pages.

Exceptions

Note: On the following examples an asterisk (*) indicates the panel in which the overlap is considered.

The panels in the following examples, when selected together, will eliminate 0.5 of adjacent and non-adjacent panel overlap.

Front End of Vehicle

FRONT END PANEL/ HEADER PANEL (GDE 030)	HOOD (GDE 083)	FENDER* (GDE 103/4)
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The asterisk (*) indicates the panel in which overlap is considered.

Rear End of Vehicle

QUARTER PANEL (GDE 389/90)	DECK LID/TAILGATE (GDE 479)	REAR BODY PANEL* (when exposed) (GDE 509)
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Side of Vehicle

FENDER (GDE 103/4)	ROCKER (GDE 187/8)	DOOR* (GDE 207/8)	QUARTER (GDE 389/90)
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The asterisk (*) indicates the panel in which overlap is considered.

When these combinations of panels are to be refinished, Audatex provides the capability to select complete sectional refinish. These combinations provide exterior surface only and can be selected unless edge, inside, and underside time is required.

When you select by guide number (GDE) in the above combination, one panel will have 0.5 hour of adjacent panel overlap. In most cases, the panel with the highest guide number in the group will have the additional 0.1 hour removed, but this is dependent upon the configuration of the panels.

Not all major panels contain 0.6 hour worth of refinish overlaps (adjacent 0.4 hour, non-adjacent 0.2 hour). The manner in which the panels relate to each other and the size of the overlapping distance have been considered. For the rocker panel, the upper above lid panel, and the cowl top panel, no more than 0.4 hour will be deducted.

The following combination of panels will result in a 0.3-hour adjacent panel overlap:

FRONT FENDER (GDE 103/4)	ROCKER PANEL* (GDE 187/8)
ROCKER PANEL (GDE 187/8)	FRONT DOOR* (GDE 207/8)
ROCKER PANEL (GDE 187/8)	REAR DOOR* (GDE 287/8)
ROCKER PANEL (GDE 187/8)	QUARTER PANEL* (GDE 389/90)
FRONT FENDER (GDE 103/4)	COWL TOP PANEL*
QUARTER PANEL (GDE 389/90)	UPPER ABOVE LID PANEL

Section 4-4 Refinish Guidelines

The asterisk (*) indicates the panel in which overlap is considered.

Remember: When more than three panels are selected in one area of a vehicle, the complete refinish available for that section can also be selected. Again, this will provide surface time only. If edge, jamb, inside, or underside time is required, select the appropriate panels.

For adjacent panel overlap, there are two instances when 0.6 hour will be deducted.

First instance of 0.6-hour overlap:

LEFT QUARTER PANEL (GDE 389)	RIGHT QUARTER PANEL (GDE 390)	DECK LID* (GDE 479)	REAR BODY PANEL* (when exposed) (GDE 509)
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The asterisk (*) indicates the panel in which overlap is considered.

In this example, both the deck lid and the rear body panel will have 0.6 hour removed in adjacent panel overlap. When these panels are to be refinished only, Audatex also provides the capability to select the complete rear refinish. This provides exterior surface time and can be selected unless edge, jamb, or inside time is required.

The second instance of 0.6-hour overlap is when the partials have been selected:

LEFT ROCKER PANEL (GDE 187)	LEFT REAR DOOR OUTER REPAIR PANEL (GDE 289)	DECK LID* (GDE 479)	REAR BODY PANEL (when exposed) (GDE 509)	LEFT QUARTER PANEL BELT CUT* (GDE 631)
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The asterisk (*) indicates the panel in which overlap is considered.

In this case, the guide numbers, location, and type of replacements need to be considered. Another important consideration is the occurrences of refinish overrides to facilitate spot painting/blending within a panel. Remember: When you override refinish labor, all overlap is still considered.

Masking: Audatex refinish labor provides for masking within panel boundaries (e.g., openings, blackout effect, grilles, molded impact strips, indentations, textured/paint to match areas, etc.).

Order-By-Color Parts: Audatex provides refinish labor for parts supplied painted by the manufacturer. This labor allowance is provided for when the part is repaired.

Second Color Setup: Second Color Setup .4 (not two-tone) may be necessary for underhood colors, mouldings and trim where a second color is used. This is a manual entry that may be used when required.

Second Clear Setup: Second Clear Setup .4 may be necessary in certain circumstances to match the OEM finish (e.g. underhood, aprons, and rails needing “matte” clears). This is a manual entry that may be used when required.

Edges / Jambs / Undersides

Some parts require refinishing undersides or other interior surface edges. Edging is performed prior to surface refinish as a preparation step to refinishing the entire surface of the job at the same time. Edging is generally done with the parts off the vehicle prior to installation.

Audatex’s study shows significantly less refinish labor per area for edges, jambs, or undersides than for the surface refinishing. To receive the labor for edges, jambs, or undersides, the panel must be replaced and refinish must be selected for that panel. When a repair is being performed, labor for edges, jambs, or undersides needs to be a separate consideration.

Rework

In 15% of our studies, Audatex observed the need to redo either the entire refinish job, or a portion of it. The need for this rework can be attributed to a variety of circumstances ranging from technician error to environmental conditions. Audatex’s refinish does not provide additional allowances for rework.

Section 4-4 Refinish Guidelines

Not Subject to Color Match

Some parts do not always require color match:

- black bumpers and covers
- black radiator support components
- ladder frame components
- black door handles
- black mirrors

Interior Parts – Plastic

Plastic interior trim parts do not generally require the same degree of surface preparation, number of coats of paint, priming, wet sanding, or degree of color match. Our refinish research shows that interior trim panels required less time than exterior parts of similar size and composition. In addition, they were generally painted before installation on the vehicle eliminating the need for interior masking. Although these parts are sometimes painted, on newer vehicles they can often be ordered by color. They are rarely repaired. As the vehicle ages, fewer by color parts are stocked, until the part comes in only one color and requires refinishing when replaced.

Interior/Exterior Metal

Refinishing interior surfaces of exterior parts (e.g., inner quarter, rear body panel, windshield pillars, etc.) requires more masking for interior protection than similar sized/construction exterior parts. Although preparation, application and color match were similar on both exterior and interior parts, interior parts required less time than exterior.

However, overall time required for interior versus exterior tended to be comparable, due to additional time required to protect the interior, combined with difficulty of access. Some of the same processes that apply to exterior parts were occasionally observed in refinish of interior parts, although not with the same care and attention given to exterior panels.

Most interior parts requiring refinish are covered with finish panels, carpets, and trims and, as such, are not usually seen.

Note: Audatex does not include refinish labor for roof or bed underside. Under hood, interior parts (core support, frame, inner fender, etc.) tend to have less effort invested for color match or attention to detail in surface preparation than exterior parts do. In some instances, these panels are painted prior to installation (e.g., bolt-on radiator support panel). The masking effort on these components was not as extensive as interior passenger compartment parts. Generally, these non-passenger compartment interior parts take less time to refinish than comparable exterior parts.

Two-Sided Refinish Panels

Some body panels (e.g., hoods, deck lids, single-walled bedsides, and tailgates) are painted both inside and outside. Currently, when these panels are:

- replaced, Audatex automatically calculates two-sided refinish
- repaired, Audatex does not automatically calculate two-sided refinish

Welded-on Panels

Audatex base refinish labor does not include additional time to refinish adjacent panels that may be damaged by welding.

Highly Contoured Parts

Pickup beds and large roofs (station wagons and vans) often have corrugated panels for extra strength. Their highly contoured construction makes them more difficult to sand.

Section 4-4 Refinish Guidelines

Most large, flexible front and rear panels (front bumper covers, and rear bumper covers), and cowl vent panels present some additional contours (beyond the usual metal and fiberglass panels). However, these did not appear to be noticeably more difficult.

Audatex refinish labor is determined on a per-panel basis considering contours.

Part Composition

Metal is the standard for all refinish labor.

Plastic, fiberglass, and SMC refinish processes are similar to metal. Audatex recognizes that flexible panels are usually the same part types (e.g., bumper covers, and fillers). For flexible panels, Audatex refinish labor is part type specific.

Raw, Unprimed Bumper Covers and Other Plastic Parts (i.e. Mouldings, Mirrors, grilles, etc.)

Audatex refinish allowances start with priming a part. Due to the differences in the paint manufacturers' procedures, OEM recommendations, and the unpredictable nature of the parts, any preparation required for raw, unprimed bumper covers or other plastic parts is Not Included in Audatex labor allowances. This operation may be added manually, if required.

The Audatex formula for preparation of a raw, unprimed Bumper Cover or Plastic Part is:

- 20% of the base refinish labor.

Note: Audatex will begin to add a "Prep Raw Bumper Cover" operation to the Bumper Cover part choice box for new and update vehicles, beginning with Q1 2011. This operation only applies to the front and rear bumper covers. The Audatex formula for Prep Raw, Unprimed Bumper Cover is 20% of the base refinish allowance, with a .3 minimum time.

The Audatex formula includes the following:

1. Wash cover with soap and water, rinse & dry
2. Degrease the surface with a wax, grease, and silicone remover.
3. Sand cover with a sanding paste and grey scuff pad
4. Wash cover with soap and water, rinse & dry
5. Degrease the surface with a wax, grease, and silicone remover.

If the paint manufacturer or OEM requires any other or additional steps to prepare a raw, unprimed bumper cover, these steps are Not Included in Audatex labor times. They may be accounted for manually, if required.

Corrosion Protection

Corrosion protection is the process and materials used to prevent corrosion. The primer included in any specific paint system is one type of corrosion protection. Only one paint system and accompanying products should be used throughout the repair.

Audatex does not include allowances for the restoration of bare metal or application of an "e-coat" equivalent or a "high build primer" either in refinish or in replacement labor.

Any considerations in this area will need to be determined during the estimate preparation.

Audatex's refinish labor:

- includes mixing, application, and flashing of the paint system primers

Anti-corrosion compounds are the second type of corrosion protection.

These compounds are:

- categorized as either wax-based coatings or petroleum-based coatings
- applied inside closed sections of structural members

Section 4-4 Refinish Guidelines

Audatex labor does not include allowances for anti-corrosion compounds in either refinish or replacement labor. Any considerations in this area will need to be determined during estimate preparation.

Ancillary Items

Stripes: The removal and installation of tape stripes or decals, as well as the painting of stripes, is a consideration in the estimating process. Appropriately, these items are considered as parts on the Audatex estimate and not a part of the refinish operations for any panel. The labor involved in replacing stripes is as widely varied as the color and the width of the stripes themselves. Some stripes take a few minutes, while others can take much longer. The decision to tape stripes or paint stripes is frequently made at the last minute by the refinish technician. Based upon the method used, the time required may or may not be consistent with the estimate labor to remove and install.

Mouldings, Ornamentation, and Antennas

Our studies show little consistency in mouldings, ornamentation, and antennas on any vehicle, or in whether the body person removed the parts and/or did not install them prior to the vehicle going to the paint department. The decision to remove mouldings and ornamentation or to mask them is frequently one that the refinish technician makes as the job progresses. The current Audatex estimate does not include R&I labor or masking of these parts in refinish. However, Audatex does facilitate moulding, ornamentation and antenna R&I through standard coding for the parts.

Fuel Door / Pocket

Some additional precautions and considerations to panels that contain the fuel door:

- masking to protect the filler neck
- painting the inside of the pocket must be performed when the panel is refinished

(Refinish of the fuel filler door itself generally must be performed when the panel is refinished. This separate operation can be added to the estimate).

Based on the additional considerations presented by masking and refinishing of the fuel filler pocket, 0.1 hour is included in the panel with the filler door to provide necessary time to perform these operations. This enhancement began with model year 1993 vehicle development.

Transparent Colors

Some colors have been identified by the paint makers as very transparent. These colors may require tinting the primer/sealer or additional coats of base materials to achieve a correct match (hiding). If this is necessary to achieve a visual color match (hiding), any application of base color beyond the third base coat may require an adjustment of the refinish labor and material allowance.

Complete Group Refinish

The refinish labor in the Audatex system is for individual panel refinish and is not intended to provide complete group or vehicle refinishes. The Audatex applications provide complete and group refinishes separately. These groupings include complete exterior, complete front end, complete sides and complete rear refinish.

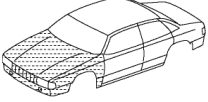
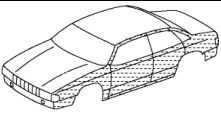
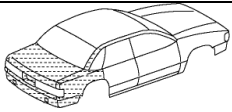
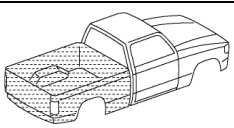
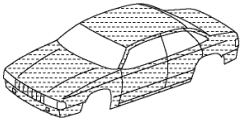
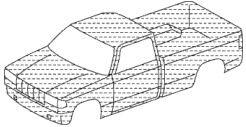
Labor assigned to these unique groups is not based on individual panels, but the specific group as a whole. These refinish groups are for exterior panels only and do not include edge, jamb, underside or interior refinish labor allowances (see [Edges / Jambs / Undersides](#)). In addition, refinish labor allowances for mirrors, mouldings, handles, finish panels and parts ordered by color are not included in the complete group refinish.

Note: Due to the numerous variations in bumpers and bumper covers, refinish labor for bumpers or bumper covers is not included in any of the group refinishes. If the bumper or bumper cover needs to be refinished, select the individual refinish record in conjunction with the group. The system will calculate the appropriate refinish labor.

Section 4-4 Refinish Guidelines

When you need to do a complete exterior refinish in a collision/comprehensive estimate, color change generally is not encountered, therefore, is not considered in the system. Economies of scale are realized in a complete refinish that impact the labor required to perform this type of job. Some operations commonly performed in refinish, (e.g., edging, masking of adjacent panels, etc.), are not usually performed in complete refinish.

For complete exterior refinish and panels included in each group, refer to the following pages.

<p>Complete Front refinish includes:</p> <ul style="list-style-type: none"> • Header panel • Fenders • Hood panel • Cowl vent panel 	<ul style="list-style-type: none"> • Front end cover (one-piece cover that takes the place of the bumper and front end panel and surrounds the headlamps Example: 2008 Dodge Charger) 
<p>Complete Side refinish includes:</p> <ul style="list-style-type: none"> • Fender • Front door • Rocker panel • Quarter panel • Rear door • Fuel filler pocket 	<ul style="list-style-type: none"> • Bodyside outer upper or roof side panel • Bodyside panel (vans) • Rear cab side (trucks) • Rear fender (trucks) • Bedside panel (trucks) 
<p>Complete Rear refinish includes:</p> <ul style="list-style-type: none"> • Left / right quarter panels • Left / right quarter extensions • Fuel filler pocket • Fillers to bumper / quarter • Deck lid / Hatchback lid • Tailgate 	<ul style="list-style-type: none"> • Upper rear body panel • Exposed rear body panel • Upper above lid panel • Rear Bumper Cover (is only included if the cover is of one-piece construction, surrounds the taillamps and takes the place of the rear body panel Ex: 2008 Chevrolet Corvette) 
<p>Complete Bed refinish includes:</p> <ul style="list-style-type: none"> • Outer bedside panels • Inner bedside panels • Rear fenders (when applicable) • Front bed panel 	<ul style="list-style-type: none"> • Tailgate • Fuel filler pocket • Exposed surface of bed floor 
<p>Complete Exterior refinish includes:</p> <ul style="list-style-type: none"> • Front end cover (one-piece cover that takes the place of the bumper and front end panel and surrounds the headlamps Example: 2008 Dodge Charger) • Header panel • Hood panel • Fenders • Cowl top panel (rigid) • Front door 	<ul style="list-style-type: none"> • Quarter panels • Bed Assembly • Tailgate • Deck lid / Hatchback lid • Upper rear body panel • Exposed rear body panel • Bodyside panels (van) • Cab rear panel • Cab side panels (trucks)  

Section 4-4 Refinish Guidelines

<ul style="list-style-type: none"> • Rocker panels • Rear doors • Roof panel • Fuel filler pocket 	<ul style="list-style-type: none"> • Rear fenders (trucks) • Rear end cover (one-piece cover that takes the place of the rear body panel and bumper cover and surrounds the taillamps Example: 2008 Chevrolet Corvette)
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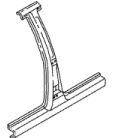

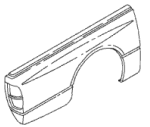
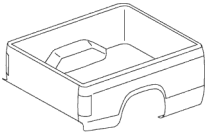
Recycled Sectional Refinish

The Audatex system has two refinish labor considerations; one for labor for individual parts, the other for recycled sectional refinishes.

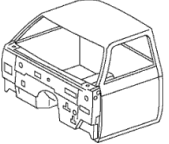
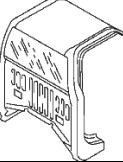

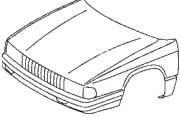

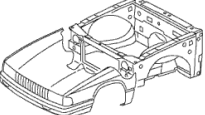
Labor assigned to the sections is based on the section as a whole, not on individual panels. These refinish sections are for:

- exterior surfaces
- any included inner structures
- all appropriate edges, jambs, and undersides.

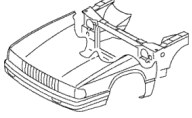
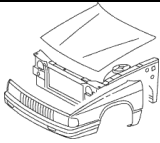
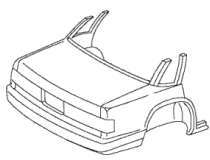
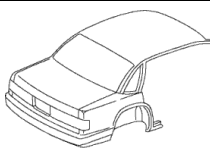
Note: Due to numerous variations to bumpers and bumper covers, refinish labor for bumper covers is not included in any of the sectional refinishes. If a bumper or bumper cover needs refinishing, select the individual refinish record in conjunction with the section. The system will calculate the appropriate refinish labor.

Rocker Panel and Center Pillar Section refinish includes: <ul style="list-style-type: none"> • Outer center pillar • Inner center pillar 	<ul style="list-style-type: none"> • Inner rocker panel • Outer rocker panel • Misc. braces, supports, and brackets • All appropriate edges 
Quarter Panel Section refinish includes: <ul style="list-style-type: none"> • Outer quarter panel • Inner quarter panel • Fuel filler pocket 	<ul style="list-style-type: none"> • Misc. braces, supports, and brackets • All appropriate edges and jambs 
Bedside Panel Section refinish includes: <ul style="list-style-type: none"> • Outer bedside panels • Inner bedside panels 	<ul style="list-style-type: none"> • Fuel filler pocket • All necessary brackets 
Bed Assembly refinish includes: <ul style="list-style-type: none"> • Outer bedside panels • Inner bedside panels • Rear fenders (when applicable) • Exposed surface of bed floor 	<ul style="list-style-type: none"> • Tailgate • Front bed panel • All appropriate edges, jambs, and insides 

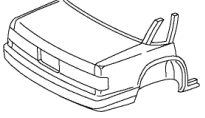
Section 4-4 Refinish Guidelines

Cab Section refinish includes: <ul style="list-style-type: none"> • Firewall • Cowl Top Panel (rigid) • Hinge Pillars • Doors • Roof panels 	<ul style="list-style-type: none"> • Inner & Outer Cab Rear Panel • Floor (interior only) • Panel Cab Rear Left/Right • Rocker Panels • Exposed Inner Panels 
Rear Cab with Roof Section refinish includes: <ul style="list-style-type: none"> • Inner and outer cab rear panel • Outer roof panel 	<ul style="list-style-type: none"> • Panel, cab rear left / right 
Rear Cab Section refinish includes: <ul style="list-style-type: none"> • Inner and outer cab rear panel • Panel, cab rear left / right 	
Front Body Outer Sheet Metal Section refinish includes: <ul style="list-style-type: none"> • Header panel • Fenders • Cowl top panel (rigid) (included only if sheet metal is used) • Hood panel 	<ul style="list-style-type: none"> • All appropriate edges, jambs and undersides • Front end cover (one-piece cover that takes the place of the bumper and front end panel and surrounds the headlamps Example: 2008 Dodge Charger) 
3/4 Front Body Outer Section refinish includes: <ul style="list-style-type: none"> • Header panel • One fender • Cowl top panel (rigid) • Hood panel 	<ul style="list-style-type: none"> • All appropriate edges, jambs and undersides • Front end cover (one-piece cover that takes the place of the bumper and front end panel and surrounds the headlamps Example: 2008 Dodge Charger) 
Front Unitized Section / Front Inner Complete refinish includes: <ul style="list-style-type: none"> • Header panel • Fenders • Hood panel • Firewall • Cowl side panels • Cowl top panel (rigid) • Front side rails 	<ul style="list-style-type: none"> • Radiator support panel • Inner fender panels • Misc. braces, supports, and brackets • All appropriate edges, jambs and undersides • Front end cover (one-piece cover that takes the place of the bumper and front end panel and surrounds the headlamps Example: 2008 Dodge Charger) 

Section 4-4 Refinish Guidelines

<p>1/2 Front Body Section refinish includes:</p> <ul style="list-style-type: none"> • Header panel • Fenders • Hood panel • Radiator support panel • Inner fender panel • Front side rails 	<ul style="list-style-type: none"> • Misc. braces, supports, and brackets • All appropriate edges, jambs and undersides • Front end cover (one-piece cover that takes the place of the bumper and front end panel and surrounds the headlamps Example: 2008 Dodge Charger) 
<p>Front Body Section Left / Right refinish includes:</p> <ul style="list-style-type: none"> • Radiator support panel • One inner fender panel • One front side panel • Header panel • One fender • One fender extension • Hood panel 	<ul style="list-style-type: none"> • Cowl top panel (rigid) • One cowl side panel • Misc. braces, supports, and brackets • All appropriate edges, jambs and undersides • Front end cover (one-piece cover that takes the place of the bumper and front end panel and surrounds the headlamps Example: 2008 Dodge Charger) 
<p>Rear Body Section refinish includes:</p> <ul style="list-style-type: none"> • Quarter panels • Quarter extensions • Inner quarter panels • Inner wheel houses • Outer wheel houses • Fuel filler pocket • Deck lid / Hatchback lid • Upper rear body panel • Exposed rear body panel 	<ul style="list-style-type: none"> • Inner rear body panels • Tailgate • Rear frame rails • Floor pan • Misc. braces, supports, and brackets • All appropriate edges, jambs and undersides • Rear end cover (one-piece cover that takes the place of the rear body panel and bumper cover and surrounds the taillamps Example: 2008 Chevrolet Corvette) 
<p>Rear Body with Roof Section refinish includes:</p> <ul style="list-style-type: none"> • Roof panels • Quarter panels • Quarter extensions • Inner quarter panels • Inner wheel houses • Outer wheel houses • Fuel filler pocket • Deck lid / Hatchback lid • Upper rear body panel 	<ul style="list-style-type: none"> • Exposed rear body panel • Inner rear body panels • Tailgate • Rear frame rails • Floor pan • Misc. braces, supports, and brackets • All appropriate edges, jambs and undersides • Rear end cover (one-piece cover that takes the place of the rear body panel and bumper cover and surrounds the taillamps Example: 2008 Chevrolet Corvette) 

Section 4-4 Refinish Guidelines

3/4 Rear Body Section refinish includes: <ul style="list-style-type: none"> • One quarter panel • One quarter extension • One inner quarter panel • One inner wheel house • One outer wheel house • One rear frame rail • Fuel filler pocket • Inner rear body panels 	 <ul style="list-style-type: none"> • Deck lid / Hatchback lid • Exposed rear body panel • Upper rear body panel • Tailgate • Misc. braces, supports, and brackets • All appropriate edges, jambs and undersides • Rear end cover (one-piece cover that takes the place of the rear body panel and bumper cover and surrounds the taillamps) <p>Example: 2008 Chevrolet Corvette)</p>
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Section 4-5 Refinish Operations

Refinish Operations

Refinish Operations

Audatex refinish labor generally includes time to perform all operations necessary to accomplish refinish for new and undamaged OEM or equivalent panels. Audatex refinish labor begins at 320 - 400 grit (dry) or 500 - 600 grit (wet) as this is the starting point for refinish of a new, undamaged panel. Audatex refinish times are for single panels unless otherwise noted.

Two-stage	
Included Operations:	Not Included:
Add flex additive** (when required, labor only)	Additional preparation or cleaning of new, unprimed panels (i.e., bumper covers)
Clear; Clean gun**	Additional time for three-stage (see Three-Stage)
Gather materials, equipment and tools**	Additional time for two-tone (see Two-Tone)
Initial tint, spray test panel, let down, compare to vehicle**	Adhesive removal
Mix clear coat**	Any special coatings applied to luggage compartment
Application of guide coat*	Application of "high build" primer
Block sand*	Application of e-coat equivalent
Dual action sand*	Blending into adjacent panels (see Blending)
Apply and flash; color	Body work
Apply and flash clear coat	Chipguard application (see Chipguard)
Basic corrosion protection provided by primer/sealer and paint application	Color Sand and Buff (see Color Sand and Buff)
Blow dry clean panels	Custom finishes
Booth operations	De-Nib
Clean booth	Final wash

Section 4-5 Refinish Operations	
Clean equipment and materials	Gravel guard (see Chipguard)
Clean gun; color	Hazardous waste removal
De-wax and degrease	Mask mouldings
Get paint	Masking of interior surfaces/entryways, engine compartment and trunk openings. Interior masking may be performed when necessary to ensure prevention of overspray damage that may not be prevented by adjacent panel perimeter masking (including backtaping or application of foam tape). Interior masking may be considered when exterior panels (doors, hoods, etc.) are removed and refinished See Included “protect interior” operation
Get paint code	Metal preparation and corrosion protection beyond those listed in Included Operations (i.e. cavity wax)
Hand/wet sand	Moulding R&I
Inspect job and paint	Paint and materials
Mix and apply flash; additives	Painting of stripes
Mix color, spray test panel, compare to vehicle	Panel stripping (see Panel Stripping)
Mix, apply, and flash primer (for adhesion and sealing)	Parts R&I
Move car	Plastic components (i.e., bumper covers)
Order paint	Removal of release agents from raw, unprimed plastic components (i.e., bumper covers)
Prepare to sand	Second or third bagging or masking of vehicle
Prepare to spray	Spot putty
Protect exterior of vehicle from overspray utilizing all acceptable methods of bagging, masking, masking up to 36 inches surrounding the panel and masking of glass within a panel. This includes using backtaping and/or foam tape to close out the gap between panels. If backtaping and/or foam tape does not adequately prevent overspray from entering the jamb areas, any additional masking to protect the interior and jambs is a not included operation (labor only) See Not Included “masking” operation	Spray additional test panel
Review estimate/work order	Stripe R&I
Tack wipe	Tint primer or clear coat
Tack wipe (between color and apply clear when required)	Undercoating
Water wash and clean panel with solvent	Unprimed panels (i.e., bumper covers)
**Included in setup	

Section 4-5 Refinish Operations	
*Welded panel operations	

Single-stage

Audatex's single-stage refinish formula includes all two-stage refinish operations except:

- Gather additional materials to apply clear coat
- Spray test panel/let down panel (Clear Coat)
- Add flex additive (when required)
- Tack wipe for clear coat
- Mix, apply, and flash clear coat

Three-stage

Audatex three-stage refinish formula includes all two-stage refinish operations, plus:

- Gather additional materials
- Spray test panel/let down panel (mid coat)
- Tack wipe (between color and pearlescent / mica coat, when required)
- Mix, apply and flash pearlescent / mica coat
- Clean gun
- Tack wipe (between pearlescent/mica coat and clear coat, when required)
- Mix, apply and flash clear coat
- Clean gun

Two-Tone

Audatex's two-tone refinish formula includes the following operations:

- Tack wipe (between colors)
- Additional masking
- Mix second color
- Color tint and check second color
- Apply and flash second color
- Clean gun

Blending

Audatex's blending refinish formula includes the following operations:

- Complete preparation of blended panel
- Scuff or buff
- Application of color to blended panel
- Application of clear coat to entire blended panel in two-stage and three-stage systems

Chipguard

Audatex's chipguard refinish formula includes the following operations:

- Gather chipguard materials
- Masking
- Application of chipguard
- Cleanup

Section 5-1 Standard Manual Entries

Frequently Asked Questions / Glossaries

This is a listing of Standard Manual Entries sorted by M Code. Click here for an explanation of [Audatex's Manual Entries](#).

MCODE	DESCRIPTION		MCODE	DESCRIPTION	
M00	UNIBODY-FRAME INCL. SETUP	3	M38	PULL LEFT STRUT TOWER	3
M01	CLEAR COAT	4	M39	PULL RIGHT STRUT TOWER	3
M02	TWO TONE PAINT	4	M40	FRAME SIDE SWAY, FRONT	3
M03	FLEX ADDITIVE	4	M41	FRAME SAG, FRONT	3
M04	UNDERCOATING	4	M42	FRAME BUCKLE, FRONT	3
M05	RUSTPROOFING	4	M43	FRAME MASH, FRONT	3
M06	PINSTripES – PAINTED	4	M44	FRAME TWIST	3
M07	PINSTripES – TAPE	1	M45	FRAME DIAMOND	3
M08	STONEGUARD	4	M46	FRAME SIDE SWAY, REAR	3
M10	PAINT AS REQUIRED	4	M47	FRAME SAG, REAR	3
M11	REPAIR SCRATCHES	4	M48	FRAME BUCKLE, REAR	3
M12	POLISH PAINT	4	M49	FRAME MASH, REAR	3
M13	WHEEL BALANCE	1	M50	CLEAN INTERIOR	1
M14	CORROSION PROTECTION	4	M51	REFINISH, BELTLINE UP	4
M15	COLOR TINT	4	M52	FLUSH AND FILL CRANKCASE	1
M16	COLOR BLEND	4	M53	FLUSH AND FILL TRANSMISSION	1
M17	COVER CAR EXTERIOR	4	M54	FLUSH AND FILL DIFFERENTIAL	1
M18	SET UP AND MEASURE	3	M55	STEAM CLEAN ENGINE	1
M19	REALIGN CONTROL POINTS	3	M56	WASH AND DRY CARPETING	1
M20	ANTIFREEZE / COOLANT	1	M57	CLEAN UPHOLSTERY	1
M21	REFRIGERANT	1	M58	CLEAN FOR DELIVERY	1
M22	TIRE-RIGHT FRONT, BALANCED	1	M59	URETHANE ADHESIVE REMOVAL	1
M23	TIRE-LEFT FRONT, BALANCED	1	M60	HAZARDOUS WASTE REMOVAL	1
M24	TIRE-RIGHT REAR, BALANCED	1	M61	DRILL TIME	1
M25	TIRE-LEFT REAR, BALANCED	1	M62	COLLISION ACCESS TIME	1
M26	TIRE, SPARE	1	M63	FACTORY HARDWARE	1
M27	VALVE STEM	1	M64	UNIBODY-FRAME ALIGNMENT	3
M28	BATTERY	1	M65	DISABLE AIRBAG	1
M29	GLASS INSTALLATION KIT	1	M66	COLOR SAND AND BUFF	4
M30	COLLISION REPAIR MATERIAL	1	M67	RESET ELECT. COMPONENTS	1
M31	SET UP FOR REALIGNMENT	3	M68	CAULK	1
M32	UNIBODY REALIGNMENT-LT FRT	3	M69	GLASS CLEANUP	1
M33	UNIBODY REALIGNMENT-RT FRT	3	M70	COVER CAR INTERIOR	4
M34	UNIBODY REALIGNMENT-LT RR	3	M71	WHEEL OPENING MOULDING KIT	1
M35	UNIBODY REALIGNMENT-RT RR	3	M72	DOOR EDGE MOULDING	1

Section 5-1 Standard Manual Entries					
M36	UNIBODY REALIGNMENT-LT CTR	3	M73	CODE LOCK CYLINDER	1
M37	UNIBODY REALIGNMENT-RT CTR	3	M99	REFINISH SETUP	4

This is a listing of Standard Manual Entries sorted by Description. Click here for an explanation of [Audatex's Manual Entries](#).

DESCRIPTION	M CODE		DESCRIPTION	M CODE	
ANTIFREEZE / COOLANT	M20	1	PAINT AS REQUIRED	M10	4
BATTERY	M28	1	PINSTripES – PAINTED	M06	4
CAULK	M68	1	PINSTripES - TAPE	M07	1
CLEAN FOR DELIVERY	M58	1	POLISH PAINT	M12	4
CLEAN INTERIOR	M50	1	PULL LEFT STRUT TOWER	M38	3
CLEAN UPHOLSTERY	M57	1	PULL RIGHT STRUT TOWER	M39	3
CLEAR COAT	M01	1	REALIGN CONTROL POINTS	M19	3
CODE LOCK CYLINDER	M73	1	REFINISH, BELTLINE UP	M51	4
COLLISION ACCESS TIME	M62	1	REFINISH SETUP	M99	4
COLLISION REPAIR MATERIAL	M30	1	REFRIGERANT	M21	1
COLOR BLEND	M16	4	REPAIR SCRATCHES	M11	4
COLOR SAND AND BUFF	M66	4	RESET ELECT. COMPONENTS	M67	1
COLOR TINT	M15	4	RUSTPROOFING	M05	4
CORROSION PROTECTION	M14	4	SET UP AND MEASURE	M18	3
COVER CAR EXTERIOR	M17	4	SET UP FOR REALIGNMENT	M31	3
COVER CAR INTERIOR	M70	4	STEAM CLEAN ENGINE	M55	1
DISABLE AIRBAG	M65	1	STONEGUARD	M08	4
DOOR EDGE MOULDING	M72	1	TIRE-LEFT FRONT, BALANCED	M23	1
DRILL TIME	M61	1	TIRE-RIGHT FRONT, BALANCED	M22	1
FACTORY HARDWARE	M63	1	TIRE-LEFT REAR, BALANCED	M25	1
FLEX ADDITIVE	M03	4	TIRE-RIGHT REAR, BALANCED	M24	1
FLUSH AND FILL CRANKCASE	M52	1	TIRE, SPARE	M26	1
FLUSH AND FILL DIFFERENTIAL	M54	1	TWO TONE PAINT	M02	4
FLUSH AND FILL TRANSMISSION	M53	1	UNDERCOATING	M04	4
FRAME BUCKLE, FRONT	M42	3	UNIBODY-FRAME INCL. SETUP	M00	3
FRAME BUCKLE, REAR	M48	3	UNIBODY-FRAME ALIGNMENT	M64	3
FRAME DIAMOND	M45	3	UNIBODY REALIGNMENT-LT CTR	M36	3
FRAME MASH, FRONT	M43	3	UNIBODY REALIGNMENT-RT CTR	M37	3
FRAME MASH, REAR	M49	3	UNIBODY REALIGNMENT-LT FRT	M32	3
FRAME SAG, FRONT	M41	3	UNIBODY REALIGNMENT-RT FRT	M33	3
FRAME SAG, REAR	M47	3	UNIBODY REALIGNMENT-LT RR	M34	3
FRAME SIDE SWAY, FRONT	M40	3	UNIBODY REALIGNMENT-RT RR	M35	3
FRAME SIDE SWAY, REAR	M46	3	URETHANE ADHESIVE REMOVAL	M59	1
FRAME TWIST	M44	3	VALVE STEM	M27	1

Section 5-1 Standard Manual Entries					
GLASS CLEANUP	M69	1	WASH AND DRY CARPETING	M56	1
GLASS INSTALLATION KIT	M29	1	WHEEL BALANCE	M13	1
HAZARDOUS WASTE REMOVAL	M60	1	WHEEL OPENING MOULDING KIT	M71	1

Section 5-2 Standard Manual Entries

Frequently Asked Questions

While using the Audatex system, questions may arise. Below you will find some of the most frequently asked questions and answers.

Question: What is included with refinish times for frame components?

Answer: Full Frame Components are typically serviced as E-Coated parts that do not require refinishing when replaced. The Audatex refinish allowance for these parts is to restore the corrosion protection that may become damaged during the installation process. Any additional refinish of the frame or frame components would be a manual entry.

Question: What factors are considered when developing labor times?

Answer: Audatex's labor methodology considers many factors including, but not limited to, part type, substrates, construction/attachement methods, ease of access and OEM procedures.

Question: What does the term Overlap mean?

Answer: An operation that is common to the replacement of more than one part or operation.

Question: What is meant by Labor Exclusions?

Answer: Items that are never automatically included in Audatex labor times.

Question: What is the Audatex Two-Tone formula?

Answer: Setup time of 0.4 estimate hours upon selection of the first two-tone panel, plus 30% of Audatex estimate refinish labor per panel selected. Two-tone is automated in the Audatex system and can be selected as an operation on a panel-by-panel basis.

Question: What does R&I mean?

Answer: Remove and Install, which is an operation or group of operations that are required to remove and install the part or assembly.

Question: On the fender, is edging a not-included operation or an included operation?

Answer: When replace and refinish are selected, Audatex automatically includes edge time.

Question: On the door shell, are you including refinish times on the interior jambs?

Answer: When replacing door shells, Audatex's refinish labor includes the jambs and inside.

Question: On the door panel, is refinish on the jambs included?

Answer: When replacing the outer door panels, Audatex's refinish labor includes the jambs.

Question: On the quarter panel, is refinish included on the lock pillar?

Answer: When replacing the quarter panel, Audatex's refinish labor includes the lock pillar and edges.

Question: On the deck lid and liftgate, is refinish included for the interior or the exterior and edges only?

Answer: When deck lid and liftgates are replaced, Audatex's refinish labor includes the jambs and inside.

Question: On the rear body panel, does refinish include both sides- exterior and interior?

Answer: When replacing rear body panels, Audatex's refinish labor includes both exterior and interior surfaces.

Section 5-2 Frequently Asked Questions (FAQ's)

Question: When you replace a floor pan with Audatex, does the paint labor allowance include both sides of the pan, or just the part inside the trunk?

Answer: Audatex provides time for the interior surface, and not the underside of the floor pan. This would also apply to pickup bed floors.

Question: When you are refinishing an exterior sheetmetal panel, is the time to mask the gap opening between the adjacent panels included in the Audatex refinish time?

Answer: Yes, Audatex's refinish time includes the time to mask, (e.g., backtaping or use foam tape), in the gap opening between the adjacent panels, however the time to mask the interior surface and/or jambs is not included. Refer to section [4-5 Refinish Operations](#) – Included and Not Included Operations list – Protect interior surface and jambs.

Question: Where are the Sport Bumper, Dual Hinged Cargo Doors, Rear Doors, etc.?

Answer: Audatex's system is completely option-driven. Whether you have decoded a VIN or manually selected your vehicle, you will need to review and select the options available from the Option Menu located in the Vehicle ID section.

Question: How do I get the labor for the partial I selected?

Answer: When selecting a partial, you need to select the partial noted "PARTL REPL TIME".

Question: Why is my VIN not decoding?

Answer: Try the following:

1. Re-check the VIN against the vehicle. Are there 17 characters?
2. This may be a vehicle not yet available on the Audatex system. Are you able to manually select the vehicle?

If you are unable to decode the VIN, please contact Client Services for further assistance.

Question: Why is the price on my estimate different from the price from the dealer?

Answer: The estimate price may differ from the dealer price for one of these reasons:

1. Audatex's procedures state that any part that has multiple part numbers (due to various colors or applications that cannot be controlled) is to be supplied with the lowest priced part number. Message Code 01 alerts the estimator to call the dealer for an exact part number and price. Message Code 01 will appear on the estimate to the left of the part description.
2. Review the options selected. Are there options that were not selected that would affect the part number and price?
3. There may have been OEM part increases/decreases. Audatex cannot control when the OEM increases or decreases a part price. We receive most but not all manufacturers' prices on a monthly basis. Any changes in pricing per the manufacturer will be reflected on the following monthly update.
4. Dealer markup. This is set by each dealer and is not controlled by Audatex or the manufacturer.

Use Audatex's feature Electronic Price Updates to download the most current manufacturers pricing information to your system. For additional information, refer to section 3-2 Pricing in the Audatex System.

Question: Why are some parts or labor information not available for Cutaway or Conversion Vans?

Answer: Audatex does not support some parts for Cutaway or Conversion Vans because these parts are NOT installed by the factory. Estimates can be completed using the appropriate OEM Cargo Van for the factory built parts and creating a manual/standard entry for the conversion parts.

Before completing the estimate, you need to:

- confirm all conversion parts and pricing information with the dealer/supplier and adjust as needed
- review labor and adjust as required to handle the modifications, based upon the estimate preparer's judgment and expertise.

Question: Why doesn't the system allow Blend on repaired panels?

Answer: Audatex's Blend Refinish is to blend into an undamaged adjacent panel. Blend Refinish must be selected with a full refinish adjacent panel. Blend Refinish is for the purpose of facilitating Color Match into the area. Spot Refinish must be entered as a manual entry.

Question: Why is the system adding time to overridden refinish times?

Section 5-2 Frequently Asked Questions (FAQ's)

Answer: When two-stage refinish options are selected, two-stage will automatically be added to the refinish. In this case, you have three options:

1. Create a manual entry to provide the refinish time you require.
2. To lessen the time entered, calculation of the two-stage will be added to that time.
3. De-select the two-stage refinish, use Audatex's refinish, and add one manual entry for all two-stage required.

Question: Why is the system going over the 2.5 Two-Stage Threshold?

Answer: Two-Stage threshold is calculated on rigid, exterior panels' surfaced refinish only. This threshold does not apply to flexible panels, interior surfaces, or recycled assemblies operations. The Two-Stage Threshold also applies to all group refinish operations.

Question: Does the system include Jambs and Edges?

Answer: Yes, you will receive Jamb/Edge and/or Underside time when the panel is Replaced and Refinished.

Question: How do I select Jambs and Edges on repaired panels?

Answer: As of November 2009, Audatex has started to add Jambs and Edges as a selection for repaired panels on new and updated models. If these choices are available, they may be used for refinishing on repaired panels. If the vehicle does not fall into this category refinishing jambs and edges requires a manual entry.

Question: Is tinting included in the Audatex system?

Answer: The Audatex system includes time for the initial mix, check, one tint cycle, and check.

Question: Why do I get less time when I select a Group Refinish instead of refinish on each individual panel?

Answer: The labor assigned to this unique group is based on the group as a whole, not individual panel. Edges, Jambs, and Undersides are not included in a Group Refinish.

Question: How much of the panel is masked?

Answer: Audatex's labor provides time to mask up to 36" surrounding the panel. From that point, it's covered by bagging the entire vehicle.

Question: Does bagging and masking include the cost of the bag?

Answer: Audatex includes the time in the labor. However, the estimate preparer decides what is, or is not included in the Paint Materials.

Question: Does Flex Additive listed in the "Included Operations" include the cost of the flex additive?

Answer: Audatex includes the time in the labor. However, the estimate preparer decides what is, or is not included in the Paint Materials. For additional information, refer to section [4-4 Refinish Guidelines – Paint Materials and Paint Materials and Costs](#).

Question: I only wanted to R&I the headlamp assembly. However, the estimate shows that the component parts of the assembly are included. Why?

Answer: When you select a main assembly to obtain R&I labor, you cannot select a component part of that assembly on the same estimate. The process of the main assembly canceling the price and labor of component parts is still in effect.

Question: Why do I not have selections for Three-Stage refinish, Two-Tone, and/or Chipguard?

Answer: These options are controlled by Profiles. Please contact Technical Support for assistance.

Question: I tried to get door R&I labor by replacing the door and entering zero (00) in the price field. Why is the R&I labor so high?

Answer: The function of overriding the price to obtain R&I labor is to be used on items that contain only R&I labor. This includes items such as mouldings, nameplates, interior trim panels, etc. If functions used on items that contain full replacement or overhaul labor, you will receive full labor. For major bolted panels, Audatex provides Additional Labor/N operations. These operations furnish R&I labor for the estimate preparer's use when needed. They are available as R&I operations in Audatex EstimatingTM.

Section 5-2 Frequently Asked Questions (FAQ's)

Question: I selected "Replace Salvage" to get R&I labor, but got full replacement labor instead. Why?

Answer: Salvage replacement operations may be entered for any part that can be replaced "new".

- If the salvage operation is listed, you will receive R&I labor.
- If the salvage operation is not listed, the labor will be the same as the corresponding replace "new" time. If the replace "new" time includes full replacement or overhaul labor, you will receive full replacement or overhaul labor on the salvage operation. You will not receive R&I labor.

Question: The refinish labor for the hood panel seems low. Do you include labor to refinish the underside?

Answer: You will receive underside, jamb, edge, or inside refinish labor only when a panel is being replaced, not repaired. To receive this additional labor, you must select either, "replace new," "aftermarket," "recycled," and or "partial replace" with the refinish operations for the same part.

Question: Why is the replacement labor for a recycled front door so low when I'm also replacing the rocker panel?

Answer: When replacing a rocker panel and a recycled door, the time to R&I the door is included in the rocker panel. The standard guide numbers for the rocker panel are 187/188 and the front doors are on 207/208. Because the rocker panel has the lower guide number, you will receive door R&I on the rocker

panel replace. Therefore, the labor for door R&I will be deducted from the door itself. The labor remaining on the door is to:

- R&I the lock cylinder, mirror, outer belt Weatherstrip or moulding, door handle, and Weatherstrip (when on the door)
- Remove the trim panel and lock cylinder from the recycled door (when power options are selected, the labor to R&I the trim panel is included in door R&I).

Question: The aftermarket bumper I received did not include the mounting brackets. Why does my estimate show that the mounting brackets are included?

Answer: Aftermarket parts are not always supplied in the same manner as the vehicle manufacturer supplies them. Sometimes the OEM bumpers include the mounting brackets, impact strip, etc. Assembly information shown on the graphics is representative of the OEM part. If you select component parts of the OEM assembly in conjunction with an aftermarket bumper, prices for the component parts will be eliminated. Therefore, prices for the component parts will have to be manually added to your estimate.

Question: Why was I able to enter repair time on a part that is not typically repairable for my vehicle?

Answer: The Audatex system automatically generates the "repair" operation codes. The program that creates these codes produces them for all years and all models. This allows repair to be performed on all parts regardless of model, year, or option application. Keep this in mind when selecting repair or refinish for parts not applicable to your specific estimate. The repair operation would be accepted while the refinish operation would be rejected.

Question: I selected the refinish operation and entered my own time to paint the door shell. I am also replacing and refinishing the door outer repair panel. Why did I receive 0.5 hour to paint the door outer panel?

Answer: The labor to refinish the door shell and outer repair panel is the same. Even though the pre-stored labor was overridden to spot paint the door shell, the system still thinks that you are trying to refinish the same panel twice. This is why you only received time to refinish the jambs on the door outer repair panel. The additional time for spot painting should be added by using the standard manual entry code M10 rather than by overriding the pre-stored labor on the door shell.

Question: Why was adjacent panel overlap deducted when I only wanted to blend the first panel and not completely refinish it?

Answer: "Blend Refinish" is automated. All overlap still applies for "blend" and manually entered refinish times.

Section 5-2 Frequently Asked Questions (FAQ's)

Question: Why is the replacement labor for the radiator support panel so high?

Answer: Audatex replacement labor for radiator support panels includes all bolted parts that must be removed to gain access to the panel. On your estimate, check the labor on the front end bolted parts. You will see that there is either no labor or only a portion of the full replacement labor is shown. The following labor analysis is an example of the included operations in a typical radiator support replacement.

Analysis of Operations Included in the Radiator Support Panel

Operation	Labor
R&I HEADLAMP DOOR LT	0.2*
R&I HEADLAMP DOOR RT	0.2*
DISCONNECT/RECONNECT FENDER FRONT AT SUPPORT PANEL LT	0.3*
DISCONNECT/RECONNECT FENDER FRONT AT SUPPORT PANEL RT	0.3*
R&I FRONT BUMPER	1.0*
R&I FRONT BUMPER ENERGY ABSORBER LT	0.3*
R&I FRONT BUMPER ENERGY ABSORBER RT	0.4*
R&I HEADLAMP ASSY LT	0.4*
R&I HEADLAMP ASSY RT	1.7*
R&I RADIATOR	1.0
CUT AND REWELD RADIATOR SUPPORT AT INR FENDER PANEL LT	1.0
CUT AND REWELD RADIATOR SUPPORT AT INR FENDER PANEL RT	1.0
CUT AND REWELD RADIATOR SUPPORT AT LOWER CROSS MEMBER	2.0
PULLBACK WIRING FOR ACCESS	0.5
R&I A/C CONDENSER	1.7*
TRANSFER BRACKETS	0.5
SEAM SEALING	0.4
TOTAL	12.2 *BOLTED PARTS
FOR THE RADIATOR SUPPORT PANEL, REPLACEMENT LABOR IS 15.4 HOURS WITH BOLTED PARTS REMOVED.	

Question: Why does the labor report only show minimal labor related to the engine and mounts (Combination Engine) when the engine must be suspended using a special tool?

Answer: There are a number of different tools and methods that could be used to support a drivetrain. Each may require different levels of preparation. The Audatex labor allowances do not take into account any special equipment or procedures necessary to prepare the drivetrain to support and only allows the labor to raise and support (Combination Engine) after the engine is prepared for the support tool and any special tools are mounted.

Question: What is the current model year when selecting PXN or PXS searches?

Answer: The current model year for PXN and PXS searches is determined by the most recent year selected and the vehicle models available under that year selection. The current model year information continually changes as vehicles are added and updated.

Section 5-3 Submitting a Request for Review (RFR)

Submitting a Request for Review (RFR)

Questions Concerning Estimates

Audatex provides a process to answer or clarify any inquiries you may have on a particular estimate. This process is known as Request for Review (RFR).

The RFR's are routed to our group of specialists who review, research, and answer each inquiry. During their research, they refer to:

- Audatex field operation studies
- Manufacturers price books and tapes
- Manufacturers service manuals
- Manufacturers engineering drawings
- Manufacturers production information pertinent to the specific vehicle and model of the estimate in question
- Input from manufacturers and repair facilities
- Bulletins from independent technical sources, paint manufacturers and research groups
- Vehicle dealers for inspection purposes

If a change is required:

- In most cases, changes made will be available to Audatex clients on the next update/release.
- An e-mail to the client will follow to explain what change will be made and when it will be available to the client.

If no change is required:

An email will follow to explain:

- what research has been performed
- why a requested change is not being made

For a disputed labor time, a detailed labor report identifying all operations and their values may be included. This labor report will also show where any overlap has occurred in the specific estimate being reviewed.

How to submit an RFR (Request for Review)

Submit your RFR inquiry by emailing us. Please be sure to include your contact details and all relevant vehicle information (Year, Make, Model, VIN)

RFR contact info:

E-mail: RFRGroup@audatex.com

Section 5-4 Audatex System Abbreviations

Audatex System Abbreviations

For all other Technical Support inquiries unrelated to database inquiries, please call (866) 420-2048 and follow the prompts.

	2WD	2-wheel drive	L	L/F	Left front
	4WD	4-wheel drive		L/GATE	Liftgate
	4WS	4-wheel steering		LIC	License
	&	And		LK	Lock
A	AAS	Automatic Adjustable Suspension		LKG	Locking
	ABS	Absorber		LMP	Lamp
	A.B.S.	Anti-lock brake system		LN	Line/Lane
	A/C	Air condition(er) (ing)		LNKG	Linkage
	ACC	Accessory		LOUV	Louver
	ACS	Active Cornering Suspension		L/R	Left rear
	A/CLNR	Air Cleaner		LT	Left
	ACT	Actuat(e) (or) (ing)		LTD	Limited
	ACTV	Active		LTHR	Leather
	ADDNL	Additional		LUGG	Luggage
	ADH	Adhesive		LUX	Luxury
	ADJ	Adjust(er) (ing) (or) (ment)		LVR	Lever
	AEROPKG	Aero Package		LWR	Lower
	AHSS	Advanced High Strength Steel	M	MAG	Magnesium
	AIR INJ PMP	Air injection pump		MAN	Manual
	ALT	Alternator		MBR	Member
	ALUM	Aluminum		MDL	Model
	ANT	Antenna		MECH	Mechanical
	APPLQ	Appliqué		MFG	Manufacturing
	AQRP	Aftermarket Quality Replacement Part		MFLR	Muffler
	A.R.	Alternate Replace Method		MFR	Manufacturer
	ASSY	Assembly		MID	Middle
	A/T	Automatic transmission		MIR	Mirror
	A/TW/MS	Automatic with Manual Select		MISC	Miscellaneous
	AUTO	Automatic		MIX SUB	Mixed substrates
	AUX	Auxiliary		MKR	Marker
	AVAIL	Available		MLDG	Moulding
	AWD	All wheel drive		MNFLD	Manifold
B	BAT	Battery		MNRF	Moonroof
	BCAM	Backup Camera		MNTR	Monitor
	BDSD	Bedside		MOD	Module

Section 5-4 Audatex System Abbreviations					
	BDY	Body		MPH	Miles per hour
	BDYSD	Bodyside		MPI	Multi-port fuel injection
	BK	Back		MT	Mount
	BKT	Bucket		MTD	Mounted
	BLK	Black		MTG	Mounting
	BLW	Below		MTR	Motor
	BLWR	Blower		MVBL	Movable
	BMPR	Bumper		M/T	Manual transmission
	BNCH	Bench	N	N/A	Not available
	BND	Bond		na	Not Applicable
	BRG	Bearing		NAV	Navigation
	BRGHM	Brougham		N/B	Notchback
	BRK	Brake		NO. or #	Number
	BRKT	Bracket		N/PLATE or N/P	Nameplate
	BRL	Barrel	O	O/B	On-board
	BRT	Bright		OBC	Order by color
	BSHG	Bushing		OBNS	On Board Navigation System
C	C	Clear		OBSNSR	Obstacle sensor
	CA	California		OCC	Occupant
	CAM	Camshaft		O/H	Overhaul
	CANN	Cannister		O/LAP	Overlap
	CAPA	Certified Aftermarket Parts Association		O/LAY	Overlay
	CATA	Catalytic		OPDS	Occupant position detection system
	CC	Cubic centimeter, Cruise Control		OPNG	Opening
	CFI	Cross fire injection		ORD	Order
	CHNL	Channel		ORN	Ornament
	CHR	Chrome		OTR	Outer
	CID	Cubic inch displacement		OWS	Obstacle Warning System
	CLNG	Cooling	P	P	Privacy
	CLNR	Cleaner		PARTL	Partial
	CLNT	Coolant		PASS	Passenger
	CLNT RCVRY TANK	Coolant recovery tank		PC	Piece
	CLR	Color, Cooler		PDL	Power Door Locks
	CMBR	Camber		PERF	Performance
	CMPR	Camper		PKG	Package
	CMRA	Camera		PKLMP	Parklamp
	CMT	Clutchless Manual Transmission		PLNM	Plenum
	CNDSR	Condenser		PLR	Pillar

Section 5-4 Audatex System Abbreviations					
	CNR	Corner		PLT	Plate
	CNRG	Cornering		PNL	Panel
	CNRG LMP	Cornering lamp		PRE-PTD	Pre-painted
	CNSL	Console		PROX	Proximity Sensing Cruise Control
	CNTL	Control		PRSR	Pressure
	CNVRT	Convertible		PRTNSR	Pretensioner
	COL	Column		P/S PUMP	Power steering pump
	COLL	Collision		P/S RESVR	Power steering reservoir
	COMB	Combination		P/S, PWR STRG	Power steering
	COMP	Computer		PTD	Painted
	COMPL	Complete		PTM	Paint to match
	COMPR	Compressor		P/U	Pickup
	COMPT	Compartment		P/W	Power Windows
	COMM	Communication		PWR	Power
	CONN	Connect(ing)	Q	QTR	Quarter
	CONV	Converter	R	RAD	Radiator
	CPE	Coupe		R,R & I	Remove, Remove & Install
	CPLG	Coupling		R,R & R	Remove, Remove & Replace
	CRBN FBR	Carbon Fiber		RBRD	Running Board
	CRS	Cross		R/C	Remote control
	CRMC	Ceramic		RCKR	Rocker
	CRSMBR	Crossmember		RCVR-DHYDR	Receiver dehydrator
	CSTR	Caster		RCVRY	Recovery
	CTR	Center		RECHRG	Recharge
	CUSH	Cushion		REFL	Reflector
	CVJT	Constant velocity joint		REG	Regulator
	CVR	Cover		REINF	Reinforcement
	CVT	Constant Velocity Transmission		REL	Release
	CYL	Cylinder		REMAN	Remanufactured
D	D/B	Disc brake		REP	Represents
	DBL	Double		REPL	Replace(d)
	D&C	Disassemble and clean		REPR	Repair
	DCL	Decal		REQD	Required
	DEFG	Defogg(er) (ing)		RES	Resonator
	DEFL	Deflector		RESRV	Reserve
	DEHYDR	Dehydrator		REST	Restraint
	DERM	Diagnostic energy reserve module		RESVR	Reservoir
	DIAG	Diagnostic		RET	Retainer
	DIFF	Differential		RF	Roof

Section 5-4 Audatex System Abbreviations					
	DISCRIM	Discriminating		R/F	Right front
	DISP	Display		RFNSH	Refinish
	DISTR	Distributor		RMT	Remote
	DIV	Division		R&I	Remove and install
	DLX	Deluxe		RR	Rear
	DMPR	Damper		R/R	Right rear
	DPD	Diesel Particulate Diffuser		R&R	Remove and replace
	DPF	Diesel Particulate Filter		RT	Right
	DPS	Dual phase steel		RVL	Reveal
	DR	Door		RVT	Rivet
	DRV	Drive	S	S	Shaded
	DRV LMPS	Driving Lamps		S/B	Seatbelt
	DRVR	Driver		S/BNCH	Split bench
	DSGN	Design		SCKT	Socket
	DSL	Diesel		SD	Side
	DYTM RNG LMPS	Daytime Running Lamps		SDM	Sensing & diagnostic module
E	EA	Each		SECT	Section
	EDN	Edition		SED	Sedan
	EFI	Electronic fuel injection		SFTY	Safety
	EHSS	Extra high strength steel		SHLD	Shield
	ELEC	Electric/ <i>Electronic</i>		SIG	Signal
	EMB	Emblem		SIPS	Side impact protection system
	ENG	Engine		SIR	Supplemental inflatable restraint
	ENT	Entertainment		SIS	Side impact sensor
	EQUIP	Equipment		SLDG	Sliding
	ESCUT	Escutcheon		SLNT	Sealant
	EST	Estimate(d)		SLS	Self Leveling Suspension
	EVAC	Evacuate		SMC	Sheet Molded Compound
	EVAP	Evaporator		SMKR	Side Marker
	EXC	Except		SNGL	Single
	EXH	Exhaust		SNR	Sensor
	EXPN	Expansion		SNRF	Sunroof
	EXTD	Extended		SOL	Solenoid
	EXTN	Extension		SPCHG	Supercharger
	EXTR	Exterior		SPD	Speed
F	FI	Fuel injection		SPK	Spoke
	FIL	Filler		SPKR	Speaker
	FIN	Finish		SPLR	Spoiler
	FLDG	Folding		SPP	Supplied pre-painted

Section 5-4 Audatex System Abbreviations					
	FLAMPS	Fog Lamps		SPR	Spring
	FLNG	Flange(d)		SPT	Sport
	FLR	Floor		SRND	Surround
	FNDR	Fender		SRS, S.R.S.	Supplemental restraint system
	FRM	Frame		STAB	Stabilizer
	FRT	Front		STD	Standard
	FRWD	Forward		STKR	Striker
	FT	Foot (feet)		ST	Seat
	FWD	Front wheel drive		STL	Steel
G	GARN	Garnish		STNY	Stationary
	GDE	Guide		STOR	Storage
	GEN	Generator		STRG	Steering
	GLS	Glass		STRG WHL TRANS CTRL	Steering Wheel Transmission Control
	G/N	Guide Number		SUPP	Supplied
	GRD	Guard		SUPT	Support
	GRVE	Groove		SUSP	Suspension
	GSKT	Gasket		SUV	Sport utility vehicle
	GTR	Gutter		SW	Switch
H	H/B	Hatchback		S/W	Station wagon
	H/D	Heavy duty		SYS	System
	HDLMP	Headlamp	T	T	Tinted
	HDLNR	Headliner		T/G or T/GATE	Tailgate
	HDR	Header		TELE	Telescopic
	HEI	High energy ignition		TEM	Tempered
	HID	High Intensity Discharge		TEMP	Temperature
	HLGN	Halogen		THERM	Thermometer
	HNDL	Handle		THRT	Throttle
	HNG	Hinge		TMG	Timing
	HNGD	Hinged		TLLMP	Taillamp
	HNGR	Hanger		TNK	Tank
	HNYCMB	Honeycomb		TNSNR	Tensioner
	HRNSS	Harness		TORQ	Torque
	HSG	Housing		TORS	Torsion
	HSLA	High strength low alloy steel		TPMS	Tire Pressure Monitoring System/Sensor
	HSS	High strength steel		TRAC	Traction
	H/T	Hardtop		TRANFR	Transfer
	HTD	Heated		TRANS	Transmission
	HTR	Heater		TRNSVS	Transverse
	HUD	Heads Up Display		TTL	Total

Section 5-4 Audatex System Abbreviations					
	HVY	Heavy		TURBO	Turbocharge
	HYD	Hydraulic	U	U/JT	Universal joint
I	IGN	Ignition		UHSS	Ultra high strength steel
	IN	Inch(es)		UPR	Upper
	INCL	Includ(e) (ed) (s) (ing)		URTH	Urethane
	IND	Indicator	V	VAC	Vacuum
	INDV	Individual		VAL	Valance
	INFLAT	Inflatable		VEH	Vehicle
	INFO	Information		VERT	Vertical
	INJ	Injection		VENT	Ventilated
	INJR	Injector		VLV	Valve
	INL	Inlet		VNL	Vinyl
	INR	Inner		VOL	Volume
	INS	Insert		VPR	Vapor
	INST	Instrument		VPR CANN	Vapor canister
	INSUL	Insulation	W	W/	With
	INT	Intake, internal		WARN	Warning
	INTCLR	Intercooler		W/G or W/GRAIN	Woodgrain
	INTER	Intermediate		WGN	Wagon
	INTR	Interior		WHL	Wheel
	I/P	Instrument panel		WHLHS	Wheel house
	I/S	Inside		WHL OPNG	Wheel opening
	ISLTR	Isolator		WLD	Weld(ed)
J	JKT	Jacket		WNDW	Window
	JT	Joint		W/O	Without
K	K/B	Kammback		WPR	Wiper
L	L	Liter		W/S or W/SHIELD	Windshield
	LAM	Laminated		W/S WSHR RESVR	Windshield washer reservoir
	LAT	Latch		WSHR	Washer
	L/B	Liftback		W/STRIP	Weatherstrip
	LDW	Lane Departure Warning	Y	YR	Year
	LED	Light emitting diode			

Section 5-5 Glossary of Audatex Terms

Glossary of Audatex Terms

This glossary is intended to aid in the use and understanding of Audatex applications. The definitions provided in this glossary are pertinent only to the Audatex system. Therefore, no implication or recommendation is made to use this glossary in any other manner.

- **Access Time:** Labor required for the removal of all necessary parts to gain access to the innermost part being repaired and/or replaced.
- **ADAS (D):** *Advanced Driver-Assistance System part requiring a dynamic calibration.*
- **ADAS (S):** *Advanced Driver-Assistance System part requiring a static calibration.*
- **Additional Operation:** An additional process that may be required in conjunction with the repair or replacement of a specific vehicle part (e.g., aim headlights).
- **Adjustor:** An insurance company representative responsible for the verification of coverage and/or settlement of claims.
- **Aftermarket:** Any part or accessory that is purchased from a source other than the OEM parts distribution network or automotive recycler.
- **Align:** To bring all appropriate edges of a part or assembly flush or square with adjacent or related parts or assemblies during a repair or replacement operation.
- **Alternate Replace Method (A.R.):** An alternate replace method refers to an industry accepted repair methodology that is based upon sources and practices other than OEM.
- **Appearance Allowance:** A specific dollar amount determined by the estimator, paid, or credited to a vehicle owner in lieu of a part repair or replacement.
- **Application:** Another word for computer software program.
- **Appraiser:** A person who inspects a damaged vehicle and determines what repairs or part replacements are required to restore the vehicle to the condition it was in immediately prior to loss. Also known as an Estimator.
- **Assembly:** Two or more related parts of a vehicle that are preassembled by the manufacturer and sold under one part number.
- **Audit Trail:** Information provided on the very last line of an estimate to indicate the potential availability (as well as the quantity included in the Estimate) of both Parts Exchange New and Parts Exchange Salvage items.
- **Backup:** A copy of the contents of your disc. Because discs can be lost or damaged, it is important to backup your files often to prevent the loss of valuable information and time.
- **Betterment:** A specific percentage determined by the estimator, deducted from the cost to repair or replace a particular part in the event it is repaired or replaced with a part that is higher quality and will increase the value or condition of the vehicle (e.g., tires and batteries). Betterment may also be applied to paint that is faded, cracked, etc. Also known as depreciation.
- **Boot:** Booting refers to turning on a computer, or the process of loading the system software into the computer at startup time. When you reset your computer, you are giving it a 'warm boot' because your system has not been fully shut down.
- **Bright:** The shiny, reflective decorative trim or moulding around the windows, door lock cylinders, etc., on some vehicles.
- **Buffer:** A storage device used to compensate for a difference in rate of data flow, or time of occurrence of events, when transmitting data from one device to another (or a device separating other devices in a system).
- **Byte:** One unit of information inside a computer. Bytes are also used as a measure of capacity; Kilobyte = 1,000 bytes, Megabyte = 1,000,000 bytes.
- **Caddy:** The case that holds your DVD inside the drive mechanism. Not all drives require a caddy, those that do usually come with one DVD caddy.
- **CD-ROM:** An acronym for Compact Disc, Read Only Memory. A special optical storage device that can contain millions of bytes of information. You cannot save (or write) to a Read Only CD.
- **Certification Code (CRT):** Appearing on the Parts Exchange New Locate Report, this code indicates a part is certified by CAPA® (Certified Aftermarket Parts Association).

- **Claimant:** One who makes a claim against another's insurance company. In the Audatex system, a Claimant is considered an individual other than the insured.

Section 5-5 Glossary of Audatex Terms

- **Classification Code (CLS):** Appearing on the Parts Exchange Locate Report, this code indicates whether a part is a Non-OEM part or an OEM part.
- **Clear Coat:** A clear, UV resistant coat of paint (e.g., urethane or acrylic enamel) applied over the base or color coat of paint on a vehicle.
- **Clip:** A group of related vehicle parts purchased from an automotive recycler as an assembly (usually the complete front rear section of a vehicle). It is also known as a Salvage Clip.
- **Collision:** In the Audatex system, Collision is the appropriate type of loss if damage to an insured vehicle results from impact with another vehicle or object. Abbreviated as COLL or COL.
- **Combination Suspension:** The Audatex term for raising and supporting a vehicle.
- **Comprehensive:** In the Audatex system, comprehensive is the appropriate type of loss if damage to an insured vehicle results from something other than collision (e.g., fire, hailstorm or vandalism).
- **Computer Graphics:** Pictorial representations such as diagrams, drawings, or charts generated on a computer.
- **Configuration:** The specific combination of hardware and software being utilized in a personal computer application, or the selected parameters that determine the operation of a device.
- **Control Entry:** Any damage entry in an Audatex estimate that contains a guide number.
- **Control Log Number:** In the Audatex system, the log number assigned to the estimate used to initiate the original estimate (or schedule) is the control log number.
- **Correction / Update:** In the Audatex system, a correction is a supplement used to correct an estimate that contains an error or omission.
- **CPU:** An acronym for Central Processing Unit. Another term for a computer's microprocessor (the control center of the computer where all calculations take place).
- **Cursor:** A symbol indicating where the next keyboard input or mouse click will be placed.
- **Customer ID:** The identification number(s) assigned to each Audatex client. A customer ID is required to process all Audatex estimates. Also known as estimator ID.
- **Customer Master File (CUSTMST):** Stored on the Audatex's host system, the customer master file contains special processing specifications and Customer ID numbers unique to each Audatex client. (CustMST is also referred to as Host Settings).
- **Damage Entry:** An entry made consisting of an operation code and the corresponding guide number to indicate repair or replacement relative to damage on a vehicle. In a damage entry, the estimator can also include price, labor hours, percentage of an adjustment (discount, markup, or betterment), and/or one of four shop labor rates. The damage entries are then entered into the Audatex system to create an estimate.
- **Database:** Integrated file of information organized for access and retrieval.
- **Data Transmission:** A communications event where data is transmitted from one device to another.
- **Dedicated Line:** A telephone line used for the sole purpose of data transmission via a computer.
- **Deductible:** A dollar amount, specified in most insurance policies, beyond which insurance protection begins. The insured assumes the loss up to the limit of the Deductible amount. Then the insurance company pays any amount over the Deductible up to the policy limit.
- **Default:** The standard choice, option, or selection automatically used by a computer program unless changed by the user.
- **Disc:** The magnetic medium on which the computer stores information.
- **Disconnect & Re/connect:** Detach and reattach items necessary to perform an operation (e.g. wiring, hoses, etc).
- **Diagnostics:** A specific software or hardware procedure designed to verify a computer's operation and identify reasons for failure.

- **Disc Drive:** The mechanism that rotates a disc past the read/write device (or 'head') inside a CPU.

Section 5-5 Glossary of Audatex Terms

- **Download:** A method of data transmission whereby a computer receives data from another device (e.g., a web server, host, or personal computer).
- **Driver:** Specific software that enables and controls the interaction of a device (e.g., a printer) with a computer program.
- **Drive-in Inspection:** An inspection of a damaged vehicle which is still operable and which is brought to wherever the appraiser/estimator conducts business.
- **DVD:** An acronym for Digital Versatile Disc, the latest generation of disc storage technology.
- **Economy Part:** Any new vehicle part or accessory that is purchased from a source other than the OEM parts distribution network.
- **Electronic Price Update:** A feature that lets you download the most current OEM parts price information directly from Audatex.
- **Estimate:** The written determination made by an appraiser or estimator, upon inspection of a damaged vehicle, regarding the cost required to restore the vehicle to the condition it was in immediately before the loss.
- **Estimator:** An appraiser or insurance company representative who inspects a damaged vehicle and determines the cost required to restore the vehicle to its condition immediately before the loss.
- **Estimator ID:** The identification number(s) assigned to each Audatex client. An estimator ID is required to process all Audatex estimates. Also known as Customer ID.
- **Factory Provided:** All standard and optional vehicle parts installed at the factory by the original manufacturer of the vehicle.
- **Fast Start:** Audatex's Fast Start vehicle files provide clients with the ability to complete damage estimates on "Mirror Image" current Model Year vehicles using existing previous model year, part numbers and prices. Extensive research of manufacturers' information and industry publications results in the listing of all Fast Start carryover vehicles that have no major changes or restyling and only minor cosmetic changes.
- **Field Inspection:** An inspection where the appraiser/estimator goes to the location of a damaged vehicle to write an estimate.
- **File:** A collection of information stored on a disc (e.g., a document, a system file, or an application).
- **Flat Rate Labor:** A suggested set time to remove and replace a part, or to complete any labor operation.
- **Frame Time:** To include total labor costs for frame straightening and setup operations on an Audatex estimate printout. Entries consisting of an operation code I (or N) and guide number 000, along with any applicable price and/or hours, is written on the Audatex estimate (also see [Unibody-Frame Including Setup](#)).
- **Group Refinish Operation:** A refinish operation that indicates the surface refinish of a group of adjacent panels as a single operation. Group Refinish Operations do not include labor for refinishing the edges or undersides of the panels.
- **Guide Number:** A three- or four-digit reference number used by Audatex to identify a part and its corresponding pre-stored data (description, price, labor, and rate code). Guide Numbers are assigned to every part illustrated in the Audatex system.
- **Hardware:** The physical components of a system (e.g., mechanical or electrical).
- **Host:** The Audatex mainframe computer.
- **Included Operation:** Any operation (e.g., removal and replacement of a part) completed in its entirety while performing another separate operation, which is calculated into Audatex Labor.
- **Insured:** The person purchasing the insurance policy from the insurance company.
- **Interface:** Boundary where two or more devices interact or a program enabling separate elements to work together.

- **K:** An acronym for kilobyte (in relation to computers); represents 1,000 bytes.
- **Labor Rate:** The dollar amount applied to flat rate labor (time) specifically quoted in dollars per hour by labor category (frame, mechanical/electrical, refinish, or sheet metal).

Section 5-5 Glossary of Audatex Terms

- **Liability:** In the Audatex system, Liability is the appropriate Type of Loss resulting from damage or injury one individual causes to another for which the first individual is legally liable. Abbreviated as LIAB.
- **Log Number:** A unique file number that appears on each Audatex estimate printout. This number allows retrieval of a specific estimate for subsequent Corrections, Supplements, Prints, etc.
- **Login ID:** A user-specific identification code for logging into Audatex Estimating™ or other web products.
- **Logon, Logoff:** Typing a password or designated word before starting to use an application and typing another to indicate when you are finished.
- **Loss:** In the Audatex system, an occurrence of damage of any type to vehicle.
- **Manual Entry:** A damage entry made in the Audatex system for a part or operation that is not assigned a guide number.
- **Memory:** The place in the computer that (temporarily) stores information while you are working with it.
- **Menu:** A list of options or commands in a computer program visible on the screen.
- **Menu Bar:** The horizontal strip at the top of the screen that contains menu titles.
- **Microcomputer:** Personal computer containing processor, input and display devices, and memory.
- **Microprocessor:** The computer's main brain, the control center for the computer.
- **Modem:** A device that takes electronic information from a computer and converts it into sounds that can be transmitted over telephone lines. This lets computers communicate via existing phone lines.
- **Multi-level Assembly:** The combination of two or more assemblies, plus related component parts, sold by the manufacturer under one part number.
- **NAGS:** An acronym for National Auto Glass Specifications. An organization that specifies, certifies, and publishes pricing for automotive glass. In the Audatex system, the use of operation code NG or EC automatically supplies the NAGS price when available. If a NAGS price is not available, there will not be a NG or EC code accessible for the glass part.
- **Non-OEM:** All parts that are considered Aftermarket, Economy, or Salvage.
- **OEM:** An acronym for Original Equipment Manufacturer. A new replacement part or accessory that is manufactured by and available through the vehicle manufacturer's parts distribution network.
- **Online:** To be on and ready to go. For example, when a printer is online, it is turned on, contains paper, and is all ready to print.
- **Operation Code:** An alpha code indicating the type of repair or replacement operation selected on the Audatex system.
- **Original Price:** The part price effective on the date that an estimate was originally processed.
- **Overhaul:** A type of flat rate labor that contains R&I and R&R labor plus time to completely disassemble and reassemble an assembly (e.g., bumpers, suspension, drive axles, and steering).
- **Overlap:** The labor associated with an operation that is common to the replacement of two or more parts.
- **Paint Material:** The cost for paint and materials is calculated by multiplying the value entered in Rate 5 of the Audatex Rates/Calculations screen by the total net refinish labor in Rate 4.
- **Partial Replace Operation:** The partial replacement of a service part (e.g., quarter panel belt cut, moulding kit, etc.).
- **PXN:** An acronym for Parts Exchange New. An Audatex feature that provides pricing and available information regarding new replacement parts and assemblies.
- **Password:** Required code permitting a user to access protected parts of a program.

- **Peripherals:** Any item attached to the outside of the computer such as a printer, modem, monitor, or keyboard.

Section 5-5 Glossary of Audatex Terms

- **Port:** An outlet on the back of a computer to which various peripherals are connected. The two primary ports are the serial port and the printer port, although the keyboard and monitor connections can also be called ports.
- **Preload:** A feature of the Audatex application that allows the estimate preparer to create reusable files with data common to many estimates (e.g., remarks, labor rates, etc.).
- **Primary Impact:** In Audatex, primary impact indicates the area of the loss vehicle that sustained the most severe damage.
- **Printout:** Printed output from a computer. A printout of all applicable Audatex estimates can be produced (e.g., Estimate, Supplement, etc.).
- **Program:** A special file on disc that contains instructions for the computer.
- **Pullback/Rollback:** Partially loosen or remove items to gain access, or move out of the area of immediate work (e.g. carpet, wiring, insulation, weatherstrip etc).
- **R & I (Remove & Install):** An operation or group of operations that are required to remove and install the part or assembly. Audatex time includes normal adjustment and alignment for correct fit, and does not include any duplicated effort. The installation is for the originally attached part.
- **Rag Rule:** The Radiator, Air conditioning condenser, and Gas tank usually require removal from a vehicle when they are repaired. When operation code I is selected for any one of these three parts, Audatex automatically adds the necessary R&I labor.
 - This rule no longer applies to new vehicles models released after January 2018.
- **RAM:** An acronym for Random Access Memory is the primary type of memory storage in a PC that stores information temporarily while you are working on it. Information stored in RAM is temporary. If you turn the power off without saving first, the information is gone forever.
- **Rates:** The percentage or dollar amounts applied to labor, labor tax, and parts tax.
- **Related Prior Damage:** Damage to the vehicle that occurred before the current loss. When prior damage exists, the estimator determines an amount to be deducted from the cost to repair or replace the damaged part because the part was not in original condition when the current loss occurred.
- **Remarks:** In the Audatex system, the user is able to preload commonly used remarks for printing on the final estimate. For example, this might include "Tow bill to be handled separately."
- **Replace (Replacement):** Is an operation or group of operations that are required to remove the damaged part and replace with the new OEM or new alternative part. The Remove and Replace (R&R) time includes normal adjustment and alignment for correct fit and does not include any duplicated effort. Replace includes any operations over and above the R&I operations.
- **ROM:** An acronym for Read-Only Memory, the part of memory that contains information or instructions. Information in ROM cannot be changed, as it is Read-Only.
- **Schedule:** An estimate used to store available administrative data for an Audatex estimate in the Audatex host before vehicle inspection. Upon vehicle inspection, the data can be retrieved, edited, and a final estimate printed.

Note: *Schedules saved in the host can be obtained with PCOPY.*
- **Scroll:** To move what is displayed on a computer's screen (e.g., a list, a document) so that a different part of it is visible. This can be done by using the Page Up and Page Down keys.
- **SDI:** An acronym for Standard Data Interface, a type of file format used when data files are transferred between an Audatex computer and a data management system (using the Transfer Estimate function).
- **Software:** Computer programs (or applications) containing instructions that control computer hardware.
- **Standard Manual Entry:** A special series of Audatex codes that contain the prefix M followed by a two-digit number. Standard manual entries represent damage entry descriptions that are commonly made in the Audatex system.

- **Sub Assembly:** An assembly within a multi-level assembly that is available individually from the vehicle manufacturer.

Section 5-5 Glossary of Audatex Terms

- **Sublet Repairs:** Repairs to be performed for a negotiated or contract price, or by a subcontractor. When a Sublet Repair is indicated, all applicable materials, labor, markup, and taxes should be included.
- **Supplement:** A Supplement is created if a change or addition must be made to an estimate after a final print has been produced.
- **Supplier Code (SPL Code):** A numeric code (e.g., 01, 02, 03, etc.) that appears on the Parts Exchange New Locate Report to identify the supplier(s) of each individual part. The supplier code is helpful when multiple suppliers are listed on the report.
- **Transmit:** To send an Audatex estimate to the host by way of a modem.
- **Unibody-Frame - Including Setup:** To include total labor costs for frame straightening and setup operations on an Audatex estimate printout. Entries consisting of an operation code I (or N) and guide number 000, along with any applicable price and/or hours, is written on the Audatex estimate.
- **Unrelated Prior Damage:** Damage to the loss vehicle that is not related to the current loss damages.
- **Upload:** A method of data transmission whereby a computer sends data to another device (e.g., a host or personal computer).
- **VIN:** An acronym for Vehicle Identification Number, which is a unique 17-character assigned to each vehicle by its manufacturer to identify the model, year, production sequence, and other vehicle-specific information.
- **Write-Protect:** The tab setting on a diskette that makes it impossible to alter data. A 3.5" diskette is write-protected when you can see through the little hole in the upper right corner.

Section 5-6 Glossary of Audatex Refinish Operations

Glossary of Audatex Refinish Operations

- **Application of guide coat:** Application of a light coat of paint before sanding to expose high and low points on the panel.
- **Apply and flash color:** Apply basecoat to the surface and allow to flash.
- **Basic corrosion protection provided by paint system /primer applied:** Basic protection provided by primer/paint manufacturer.
- **Block sand:** Process of using sandpaper mounted to a block to ensure the area is smooth.
- **Blending:** The application of color to a portion of an undamaged adjacent panel for the sole purpose of facilitating the appearance of color match into the area. When blending two- or three-stage refinish systems, blending includes the application of clear coat to the entire blended panel.
- **Blow dry clean panels:** Blow the panel with a high-pressure air hose to remove dust / grit / lint / water.
- **Booth operations:** Open booth doors; turn on booth ventilation and lights.
- **Clean booth:** Wet down the paint booth; remove discarded materials from previous job.
- **Clean equipment and material:** Clean paint mixing stirrs and measuring containers.
- **Clean gun:** Place paint gun in the gun washer.
- **Color tint and check:** Tint and check the color after it is mixed to specifications.
- **De-wax and degrease:** Remove wax and grease from a panel with degreaser.
- **Dual action sanding:** Sand body filler in the area where the welded panel was attached.
- **Gather materials, equipment, and tools:** Bring masking paper, paint gun, sander, masking cart, etc., to the refinish area.
- **Get paint codes:** Obtain paint codes from the vehicle or paint reference book.
- **Hand/wet sand:** Sanding by hand with either wet or dry sandpaper.
- **Inspect job and paint:** Inspect surface and refinish.

- **Mix color:** Mix the paint to formula specifications.
- **Mix, apply, and flash additives:** Mix sealers, promoters and apply one coat.
- **Mix, apply, flash, or prime welded area:** Mix primer, apply to the surface, and allow to flash.

Section 5-6 Glossary of Audatex Refinish Operations

- **Move vehicle:** Move vehicle in and out of the booth or refinish area.
- **Order paint:** Order paint from a jobber or paint manufacturer.
- **Prepare to sand:** Get gloves, dust mask, and face shield. Connect air hose. Cut and fold sandpaper.
- **Prepare to spray:** Get gloves, respirator, and lint suit. Connect air hose and test paint gun.
- **Protect exterior of vehicle from overspray utilizing all acceptable methods of bagging, masking, masking up to 36 inches surrounding the panel and masking of glass within a panel.** This includes using backtaping and/or foam tape to close out the gap between panels. If backtaping and/or foam tape does not adequately prevent overspray from entering the jamb areas any additional masking to protect the interior and jambs is a not included operation.
 - Masking and Bagging to avoid overspray on other panels of the vehicle. Backtaping and foam tape is used to help prevent overspray from entering the jamb area.
 - Bagging the vehicle includes placing a bag over the vehicle and taping it down.
 - Masking includes the use of masking paper on the vehicle.
 - Masking off the vehicle and bagging the remaining portion of the vehicle is the most common method.
- **Refinish within panel boundaries (Refinish Within a Panel):** The process of applying paint and clear coat to the surface of a repaired panel for the sole purpose of facilitating the appearance of color match within the confines of the panel.
- **Review estimate:** Check refinish times.
- **Second Color:** Any surface or component of the vehicle that requires paint application that is a different color than the primary or secondary colors of the vehicle.
- **Spray test panel:** Spraying a test panel with basecoat. When two-stage refinish option is being used, spray again with clear.
- **Tack Wipe:** Wipe the panel with a tack cloth to remove dust and lint.
- **Two-Tone:** A paint scheme where two different colors or two shades of the same color are used on a panel.
- **Water wash and clean panel with solvent:** Wash and dry the panel then wipe down with a solvent.