Corrosion Protection Rust Proofing (Cavity Wax) Negotiation Tool
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**Introduction**

In response to numerous requests from valued Collision Advice customers across the US, we have created this tool to help explain, justify and negotiate time for repair operations. The collected information and documentation are intended to help clarify whether or not specific repair processes are considered to be required repair operations and if they are included or not-included within any other repair procedures. Our objective is to help our customers build a complete repair plan and to get paid for the work they do.

To do so, we utilize four negotiation questions and supporting documentation as described below:

1. Is it required to put the vehicle back to pre-accident condition?
   - OEM Position Statements
   - ALLDATA®, TechAdvisor and Other Similar Systems
   - Paint Manufacture Bulletins
   - Material Manufacturer Bulletins (ex. 3M, Wurth, Kent)
   - Equipment Manufacturers
   - Internet (www.YouTube.com)
   - Estimating Systems
   - Scan Tools (Ex. ASTech)
   - The Vehicle

2. Is it included in any other labor operations?
   - Estimating Systems
   - ASA Not-Included Charts
   - [www.Degweb.org](http://www.Degweb.org)
   - [www.Estimatescrubber.com](http://www.Estimatescrubber.com)
   - SCRS Guide to Estimating

3. Is there a pre-determined time in the database?
   - Estimating Systems
   - [www.Degweb.org](http://www.Degweb.org)

4. What is it worth?
   - Do a Time Study
   - Print an Invoice
   - OEM Warranty Times
   - Equipment Manufacture Times
   - ALLDATA®, TechAdvisor and Other Similar Systems
   - Internet
Definition
**Definition**

Rustproofing or Cavity wax is a coating applied into the cavities of a vehicle primarily for the purpose of enhancing corrosion protection. The wax base compounds are commonly applied to the inside surfaces of the doors and the quarter panel, to floor pockets in the trunk area, and occasionally in other inaccessible areas, such as the lower section of the B pillar.

Many are designed to creep and flow into joints, seams, skips, and otherwise inaccessible areas that are hard to reach with other spray equipment and materials. This flowing characteristic promotes self-healing and reflowing in the event the surface becomes scraped, scratched or burned during repairs or from exposure to the elements. They are normally applied after the finish coat has been applied to avoid surface contamination and the possibility of adhesion loss.

Cavity wax is known by many names in the auto repair industry, including:

- Body wax
- Cavity wax
- Cosmoline
- Rustproofing
Photo Documentation
Photo Documentation
Photo Documentation
## Justifying Each Line on the Repair Plan

<table>
<thead>
<tr>
<th>1. Is it required?</th>
<th>2. Is it included?</th>
<th>3. Is there a pre-determined time?</th>
<th>4. If not, what is it worth?</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALLDATA®, TechAdvisor, etc.</td>
<td>ASA Not-Included Charts</td>
<td><a href="http://www.DEGweb.org">www.DEGweb.org</a></td>
<td>Print an Invoice</td>
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<td>Paint Manufacturer’s Bulletins</td>
<td><a href="http://www.DEGweb.org">www.DEGweb.org</a></td>
<td></td>
<td>OEM Warranty Times</td>
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<td>Material Manufacturer’s Bulletins (3M, Wurth, Kent, etc.)</td>
<td><a href="http://www.estimatescrubber.com">www.estimatescrubber.com</a></td>
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<td>Equipment Manufacturer’s Bulletins</td>
</tr>
<tr>
<td>Equipment Manufacturer’s Bulletins</td>
<td>SCRS Guide to Complete Repair Planning</td>
<td></td>
<td>ALLDATA®, TechAdvisor, etc., Times</td>
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<tr>
<td>Internet</td>
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<td>Scan Tools</td>
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<tr>
<td>The Vehicle</td>
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</tbody>
</table>
Question 1.
Is it required?
Four Negotiation Questions

1. Is it required to apply corrosion protection rust proofing in order to return the vehicle back to pre-accident condition?

   **Answer:** Yes, it may be required to apply corrosion protection rust proofing in order to return the vehicle back to pre-accident condition.

   **Answer Documentation:**

   Two applied product manufacturers have documentation stating that it is necessary to apply corrosion protection rust proofing, also known as cavity wax. This documentation also details how their products should be applied.

   - 3M
   - Wurth

   Several vehicle manufacturers also have statements about the use of cavity wax, including:

   - GM
   - Toyota

   The supporting documents follow.
Step 1. Pre-Cleaning: Prewash/clean vehicle prior to disassembly (power wash undercarriage area at repair).

Product List:
- 3M™ Car Wash Soap Concentrate, 1 gallon, PN 38377
- 3M™ All Purpose Cleaner and Degreaser Concentrate, 1 gallon. PN 38350

Step 2. Application: After painting is complete and prior to final assembly apply cavity wax to restore internal corrosion protection.

Product List:
- 3M™ Rust-Fighter-I, 1 qt. PN 08891
- 3M™ Rust-Fighter-I Application Wand. PN 08998
- 3M™ Body Schultz™ Applicator Gun. PN 08997
- 3M™ Rust-Fighter-I, 18 oz. aerosol. PN 08892

### Corrosion Protection (Cavity Wax)

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Pre-Cleaning</strong>&lt;br&gt;Pre-soak inner vehicle prior to disassembly.&lt;br&gt;(power wash underbody/area of repair)</td>
</tr>
<tr>
<td>2</td>
<td><strong>Application</strong>&lt;br&gt;After peeling is complete and prior to final car body, apply cavity wax to ensure internal protection.</td>
</tr>
</tbody>
</table>

### Product List

- 3M™ Car Wash Grip Concentrate, 1 gallon, PN 32127
- 3M™ All Purpose Cleaner and Degreaser Concentrate, 1 gallon, PN 32500
- 3M™ Rust Inhibitor / Application Fluid, PN 32600
- 3M™ Body Inhibitor Application Fluid, PN 32800
- 3M™ Body Inhibitor / Activator, PN 32900

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**3M**

Corrosion Protection (Cavity Wax) – Aluminum Repair Procedures Poster

**Step 1. Pre-Cleaning:** Prewash/clean vehicle prior to disassembly (power wash undercarriage area at repair).

**Product List:**
- 3M™ Car Wash Soap Concentrate, 1 gallon, PN 38377
- 3M™ All Purpose Cleaner and Degreaser Concentrate, 1 gallon, PN 38350

**Step 2. Application:** After painting is complete and prior to final assembly apply cavity wax to restore internal corrosion protection.

**Product List:**
- 3M™ Rust Fighter-I, 1 qt., PN 08891
- 3M™ Rust Fighter-I Application Wand, PN 08998
- 3M™ Body Schultz™ Applicator Gun, PN 08997
- 3M™ Rust Fighter-I, 18 oz. aerosol, PN 08892

Corrosion Protection – Rust Proofing (Cavity/Wax) Negotiation Tool
Version 2.0, January 4, 2016

3M™ Rust Fighter-I, 1 quart, 08891

- Part Number: 08891
- UPC: 00051135088913
- Stock Number: 60455065973

A non-hardening corrosion protection coating for internal cavities in a quart can. Also known as a cavity wax. Designed to provide a self-healing, corrosion protective coating for inner body panels and frame rails.

Note: Laws controlling the acceptable amounts of Volatile Organic Compounds (VOC's) vary by state, and in some cases by locality. This product is restricted in one or more places in the U.S. If you are unable to find this product locally, please ask your local distributor for information on local rules products and available alternatives.

3M™ Rust Fighter-I, 1 quart, 08891

Part Number: 08891
UPC: 0051350088913
Stock Number: 604950059173

A non-hardening corrosion protection coating for internal cavities in a quart can. Also known as a cavity wax. Designed to provide a self-healing, corrosion protective coating for inner body panels and frame rails.

Note: Laws controlling the acceptable amounts of Volatile Organic Compounds (VOC's) vary by state, and in some cases by locality. This product is restricted in one or more places in the U.S. If you are unable to find this product locally, please ask your local distributor for information on local rules products and available alternatives.

Product Description
Rust Fighter I is an interior corrosion preventative coating for direct application to Automotive bare or primed metal. Typical areas of application are door skins, rocker panels, interior quarter panels, etc. This product will remain soft and pliable and will not crack, chip, or peel.

Additional Product Information

<table>
<thead>
<tr>
<th>3M Part Number</th>
<th>08891</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPC</td>
<td>0051350088913</td>
</tr>
<tr>
<td>Case Quantity</td>
<td>6 quart per case</td>
</tr>
<tr>
<td>Case Inner Pack</td>
<td>1 quart</td>
</tr>
<tr>
<td>Brand</td>
<td>3M</td>
</tr>
<tr>
<td>Application</td>
<td>Anti-Corrosion</td>
</tr>
<tr>
<td>Texture</td>
<td>Smooth</td>
</tr>
<tr>
<td>Paint Time</td>
<td>N/A</td>
</tr>
<tr>
<td>Dry Time</td>
<td>1 Hour</td>
</tr>
<tr>
<td>Color</td>
<td>Dark Amber</td>
</tr>
</tbody>
</table>

**CAVITY WAX**

Permanently protects sills, columns, door cavities, etc. against corrosion.

- Extremely high creep capability.
- High heat resistance and good cold flexibility.
- Extremely high temperature resistance.
- Intensive water displacing effect.
- Moisture is infiltrated and displaced.
- Extremely high temperature resistance.
- Best possible long-term protection.
- Compatible with all commercially available top coat enamels as well as rubber and plastic parts.
- Free of heavy metals.

**Instructions for use:**
Shake well before use.
Apply thin coating of cavity wax by means of pressure applicator or vacuum gun with appropriate probe.

**Areas of Application:**
For long-term conservation of car body areas prone to corrosion, such as folds, edges and surfaces of rocker panels, columns and door frames.
Supplements factory-installed cavity sealing of new vehicles, for re-touching of existing anti-corrosion compounds and for restoration of corrosion protection after accidental repairs.

**Notes:**
The body material temperature should be +15°C to +30°C.
Recommended dry layer thickness: 30 μ to 45 μ.
Ventilate well after application.

**Instructions for use:**
Shake well before use.
Depending on the area of the car, apply a thin coating of cavity spray.

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Anti-Corrosion Treatment and Repair

**Warning:** When applying sound deadeners, or anti-corrosion materials due care and preventative measures must be exercised to prevent any material from being sprayed into door and quarter panel mechanisms such as door locks, window run channels, window regulators and seat belt retractors, as well as any moving or rotating mechanical or suspension parts on the underbody, particularly the parking brake cable. After material application, be sure that all body drain holes are open. Improper application may increase chance of corrosion damage or limit the operation of moving parts, resulting in personal injury.

Any procedure that disturbs these special treatments, such as panel replacement or collision damage repair operations, may leave the metal unprotected and result in corrosion. Proper recoating of these surfaces with service-type anti-corrosion material is essential.

After repair and/or replacement parts are installed, all accessible bare metal surfaces must be treated with metal conditioner and repainted. Refer to the GM Approved Refinish Materials book which identifies the paint systems you may use.

The latest revision of the GM Approved Refinish Materials booklet is located on the GM Genuine Parts website at www.genuinegmparts.com.

After a collision, some vehicle structure areas such as frame rails, cross-members and rocker panel sections may need to be repaired. In most cases, the anti-corrosion materials need to be removed to perform these repairs. These materials are classified into two types: Closed Cavity coatings and Undercoat coatings. The primary difference is the way the products set up or “dry”. Both are intended to protect the surface they are applied to from corrosion caused by water, salt water or Magnesium Chloride blended de-icing compounds used to thaw icy winter roads. They also can provide a measure of sound deadening.

The Closed Cavity coatings remain sticky to the touch and will seep into seams initially and over extended periods of time. Closed Cavity coatings provide the best corrosion protection inside of rocker panel sections, pillar sections, frame rails, cross-members, doors, rear compartment lids and closed areas of hoods - anywhere that is concealed or closed off to exterior surfaces.

The Undercoat coatings are "dry to the touch" and offer the best corrosion protection and sound deadening for floor pans, wheelhouses, inside rear compartment and underhood areas - anywhere the coated surface is exposed.

Below is a listing of Undercoat coatings and Closed Cavity coatings that GM believes to be reliable. While others may exist, we have found these products, or equivalents to them, can be used with satisfactory results. Always use these products according to their manufacturer’s recommendations.
ANTI-CORROSION TREATMENT (cont’d)

CAVITY WAX

To provide corrosion resistance, always apply cavity wax to the inside of the hemming areas of the doors and hoods, around the hinges, and to the welded surfaces inside the boxed cross-section structure of the side member, body pillar, etc.

Apply cavity wax to required areas:
- Inside of the hems of the doors and hoods (Illustration A.)
- Around the hinges of the doors and hood (Illustration B.)
- Wherever the original cavity wax was disturbed during a repair

### COLLISION REPAIR INFORMATION

**FOR THE COLLISION REPAIR PROFESSIONAL**

**TITLE:** CORROSION PREVENTION & SOUND ABSORBING MEASURES  
**SECTION:** EXTERIOR  
**MODELS:** ALL TOYOTA, LEXUS, and SCION  
**DATE:** DECEMBER 2007

To assure repairs and replacement components meet strict factory standards, all corrosion preventive coatings and sound absorbing materials must be replicated to match OE application and purpose. In addition, the use of weld thru primer is strongly recommended during welding operations.

If the following materials are not restored to OE like-kind and quality, road noise may be amplified, and the Toyota new car corrosion warranty may be voided on the affected components, and adjoining parts and systems which are caused to fail or rust by those components. Refer to CPS-Toyota/Scion Policy 4.17 and CPS Lexus Policy 4.15 for details on what is not covered by the new vehicle limited warranty.

- Seam Sealer  
- Undercoating  
- Cavity Wax  
- Frame Finish Coatings  
- ED Primer  
- Sound Absorbing Materials  
- Chip Resistant Coatings

Please refer to model-specific Collision Damage Repair Manuals (www.techinfo.toyota.com) for specifications, illustrations, instructions, and locations of these coatings.

For 2007– Tundra Genuine OE Replacement Tailgates, application of Anti-Rust Agent (Cavity Wax) has been added as a specification to enhance corrosion prevention. This is in addition to application of hem flange seam sealer already specified.

Cavity Wax should be applied to the entire length of the lower tailgate interior (similar to door application specifications), to protect areas prone to moisture and dirt intrusion. This procedure should be performed after paint work is completed, and residual seepage should be cleaned up appropriately. As a reminder, model-specific Toyota Repair Manuals For Collision Damage contain specifications for corrosion prevention measures. Manuals can be accessed at www.techinfo.toyota.com.

A production change (application access holes just above the lower tailgate hinge plates) will be made to the 2007– Tundra Genuine OE Replacement Tailgate to facilitate spray-ward application of cavity wax. Plastic plugs for the 18 mm access holes will accompany the revised replacement service part. A change has been implemented at the factory to include Cavity Wax application to production vehicle tailgates.

Until production change service parts become available, apply cavity wax through existing access holes at the bottom of the tailgate.

Corrosion Prevention for Collision Repair

- Adherence to established Corrosion Prevention processes is very important during collision repairs. For example, insufficient application of corrosion preventative compounds (i.e. anti-chipping coatings, seam sealer, anti-rust agents, etc.) may contribute to the development of rust, reduction in vehicle value and other customer satisfaction concerns. In certain cases, the development and progression of rust may also affect vehicle operational components. This bulletin is intended to raise awareness and reduce the occurrence of corrosion resulting from collision repairs.

Bolt-On Component Replacement and Corrosion Prevention:

- Anti-Chipping Primer applied under top coats to the leading edge of hoods and fenders. Anti-Chipping PVC and Urethane coatings also applied under top coats to lower panel exposures. Seam Sealer applied to panel flange seams; and Anti-Rust Agent (Cavity Wax) applied to interior portions of hoods doors and hatches are all specified for bolt-on body components in model-specific Repair Manuals for Collision Damage.

Weld-On Component Replacement and Corrosion Prevention:

- Zinc-Rich Weld-Through Primer applied to the mating flanges of weld sites prior to welding is designed to coat bare metal at Squeeze-Type Resistant Spot Weld (STRSW) locations thereby reducing the potential of corrosive hot-spots (accelerated rusting) at the weld flanges.

- Gas Metal Arc/Metal Inert Gas (GMAW/MIG) Welding temperatures burn and vaporize Zinc-Rich Weld-Through Primer at plug and continuous weld locations and cause the granular structure of the steel to expand. These circumstances can lead to corrosive hot-spots if left untreated. Therefore, it is recommended to substitute factory-type STRSW for GMAW/MIG where applicable as outlined in CRIB #181 Welding Specifications and Substitutions.

- Frame Component Repair and Replacement does not require Zinc-Rich Weld-Through Primer however, does require cleaning of the Heat Affect Zone (HAZ) inside and out and application of corrosion prevention coatings after the repair or component replacement. Repaired and welded frame areas require application of a two-component DTM (Direct To Metal) or Epoxy Primer and single-stage topcoats to match the OE frame finish.

PLEASE ROUTE THIS BULLETIN TO YOUR COLLISION REPAIR CENTER MANAGER AND COLLISION REPAIR TECHNICIANS
- Electrophoretic Deposition Primer (E-Coat) on production vehicles and service parts offers a high degree of corrosion prevention. Whenever possible, E-Coat should be left intact. When E-Coat is damaged or removed it should be replaced with a two-component DTM or Epoxy Primer. Etch Primer cannot exhibit the corrosion prevention characteristics of DTM or Epoxy Primer and E-Coat over the long-term, therefore is not recommended as a substitute for E-Coat or DTM or Epoxy Primer.

- Zinc-Rich Weld Through Primer as explained earlier does provide corrosion protection but, not at the high-level E-Coat and DTM or Epoxy Primer can. Therefore, it is recommended to test and analyze the corrosion resistance performance of Weld Through Primer being used with and without E-Coat. Tests should be conducted with STRSW and GMAW/MIG on sample flanges from OE service part scraps. Subjecting test panels to simulated environmental conditions can provide factors for further analysis.

- Heat Affect Zones (HAZ) on panel interior surfaces should be cleaned to remove burned and loose material and coated with DTM or Epoxy Primer and Cavity Wax. Specialized cleaning and application equipment is often necessary for areas where access to weld HAZ is limited.

- Seam Sealer application specifications are provided in model-specific Repair Manuals for Collision Damage. The importance of Seam Sealer to corrosion prevention is also reinforced in Collision Repair Information Bulletin #183 Sealing Hem-Flanges & Body Seams. Seam Sealer should be applied over properly prepared and primed surfaces and not directly over bare metal.

- Glass Bonding Flanges that are bare metal or E-Coated after a repair or panel replacement should not be refinished with topcoats. Glass bond flanges should be properly prepared and coated with DTM or Epoxy Primer. Pinch-weld urethane primer should not be applied directly to bare metal. Before glass installation the DTM or Epoxy Primed flange should be coated with pinch-weld urethane primer by a certified glass installer in accordance with installation materials and methods approved by The Automotive Glass Repair & Replacement Safety Council (AGGR). This topic is reinforced in Collision Repair Information Bulletin #127 Glass Replacement.

**Structural Repair Clamping and Corrosion Prevention:**

- Rocker Panel Pinch Welds and Frames that have been clamped in a holding system for repairs require restoration of the removed and affected coatings to restore factory-type appearance and corrosion prevention. E-Coat, Chip-Resistant Coatings, Primer, and Topcoats all require restoration. This topic is reinforced in Collision Repair Information Bulletin #57 Pinch Weld & Frame Clamping.

**Body Filler Application and Corrosion Prevention:**

- Body Filler Materials applied directly over bare Toyota Excelite II metal may not adhere properly to the galvanizing, and can conceal an undetected layer of moisture that can cause corrosion with the oxygen present in body filler materials. Applying a two-component DTM or Epoxy Primer to properly prepared bare metal improves adhesion of filler materials and provides a sound foundation for corrosion prevention. This topic is reinforced in Collision Repair Information Bulletin #63 Repair Procedures for Rust-Resistant Sheet Metal.

PLEASE ROUTE THIS BULLETIN TO YOUR COLLISION REPAIR CENTER MANAGER AND COLLISION REPAIR TECHNICIANS

00408-03000-186

How to fight rust

By cfrey

Proper corrosion protection can help guard your clients' vehicles. Winter brine—the mixture of magnesium and calcium chloride used on the roads in colder climates—can be particularly damaging and harsh on a vehicle. Even if you don't live in a cold climate, inadequate use of corrosion protection measures can contribute to the development of rust. During collision repair, incorporating corrosion protection measures like using weld-through primer, epoxy primer, seam sealer and cavity wax is an important part of helping to protect against the elements and ensure the long life of the vehicle you are working on.

WELD-THROUGH PRIMER

Weld-through primers are an important corrosion protection measure. When using weld through primers, keep in mind that zinc-based primers are a more suitable material to use on Toyota, Lexus and Scion vehicles than copper based primers. This is because these vehicles are manufactured using a zinc galvanizing process, and zinc primer bonds to the metal of the vehicles better. Zinc also seems more resistant to corrosion than other types of weld-through primers, such as those made with copper. To properly use weld-through primer, thoroughly clean surfaces with a suitable wax and grease remover. Then, coat any bare metal areas that are going to be joined together but won't be accessible after welding with weld through primer.

ADDITIONAL WELD-THROUGH PRIMER TIPS

- Ensure there is a thin, even coating of weld-through primer and that it is not clumpy or overly thick in some areas.
- Allow the weld-through primer to completely dry before you begin the welding process. This gives the zinc the opportunity to properly bond to the material.
- Some weld-through primers aren't solvent resistant and can be washed away during the cleaning process as the vehicle is prepped for primer and paint coatings. Test products beforehand to make sure they are compatible.

CORROSION PROTECTION TIPS
Electro-deposition primer—also referred to as e-coat—is an excellent corrosion protection material and should be left intact whenever possible. Vehicle-specific seam sealer specifications are given in the Repair Manuals for Collision Damage. Clean the heat-affected zones around welds to remove burned or loose material and coat with epoxy primer and cavity wax if applicable. For additional information about corrosion protection, see Collision Repair Information Bulletin (CRIB) #186, Corrosion Prevention for Collision Repair.
Question 2.
Is it included?
2. Is applying corrosion protection rust proofing included in any other labor operation?

**Answer:** No, applying corrosion protection rust proofing is not included with any other labor operation.

**Answer Documentation:**

1. The three major Information Providers state that applying corrosion protection rust proofing is not included with any other labor operation.
   - AudaExplore
   - CCC/MOTOR
   - Mitchell

2. There are a couple DEG Database Task Force Inquiries that say that applying corrosion protection rust proofing is not included with any other labor operation.
   - DEG Database Inquiry #7069 – CCC/MOTOR
   - DEG Database Inquiry #3923 – CCC/MOTOR

The original source documents follow.
AudaExplore

Refinish Operations

NOT Included

- Metal preparation and corrosion protection beyond those listed in Included Operations (i.e. cavity wax)


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

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.

Section 4-5 Refinish Operations

Refinish Operations
AudaVest refinish labor generally includes time to perform all operations necessary to accomplish refinish for new and undamaged OEM or equivalent panels. AudaVest 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. AudaVest refinish times are for single panels unless otherwise noted.

Two-stage

Included Operations:
- Move car
- Review estimate/work order
- Get paint code
- Order paint
- Get paint
- Gather materials, equipment and tools
- Clean equipment and materials
- De-wax and degrease
- Prepare to sand
- Dual action sand
- Hand wet sand
- Mix, apply, and flash primer (for adhesion and sealing)
- Application of guide coat
- Block sand
- Water wash and clean panel with solvent
- Blow dry clean panels
- Prepare to spray
- Clean booth
- Booth operations
- 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
  - Basic corrosion protection provided by primer/sealer
    and paint application
  - Mix and apply flash, additives
  - Tack wipe
  - Mix color, spray test panel, compare to vehicle
  - Initial tint, spray test panel, let down, compare to vehicle (included in refinish time, not setup)
  - Apply and flash, color
  - Inspect job and paint
  - Clean gun, color
  - Add flash additive (when required, labor only)
  - Tack wipe (between color and clear when required)
  - Apply flash clear coat
  - Mix clear coat
  - Clear, Clean gun
  - Welded panel operations
  *Included in setup

NOT Included:
- Body work
- Spot putty
- Panel stripping (see Panel Stripping section, page 151)
- Additional preparation or cleaning of new, unprimed panels (i.e., bumper covers)
- Removal of release agents from raw, unprimed plastic components (i.e., bumper covers)
- Moulding R&I
- Striper R&I
- Parts R&I
- Painting of stripes
- Adhesive removal
- 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, hood, etc.) are removed and refinished See Included “protect interior” operation
- Mask mouldings
- Spray additional test panel
- Blending into adjacent panels (see Blending, page 148)
- Color Sand and Buff (see page 148)
- Chipguard application (see page 147)
- Gravel guard (see Chipguard, page 147)
- Additional time for two-tone (see page 147)
- Additional time for three-stage (see page 145-146)
- Custom finishes
- Tint primer or clear coat
- Application of e-coat equivalent
- Application of “high build” primer

- Metal preparation and corrosion protection beyond those listed in Included Operations (i.e. cavity wax)

*Any printed copy of this document may not contain the most current information. For the latest version, please refer to the Database Reference Manual accessed through the Help Menu in the current release of Audatex Estimating, PerPro or Shoplink. The current version of the Database Reference Manual may also be found at www.training.audatex.ca*
Section 4-4 Refinish Guidelines

Raw, Unprimed Bumper Covers and Plastic Parts – continued

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 will apply only to manufacturers known to supply raw, unprimed bumper covers. 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

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.
LABOR TIME PREMISE
LABOR TIME DOES NOT INCLUDE

SPECIAL NOTATION:
The items listed below apply to all labor procedures.

- Anticorrosion material restoration/application.

Source: CCC/Motor Guide to Estimating, Rev. 9-14, Page G10
LABOR TIME LISTINGS

All operation times are listed in hours and tenths of an hour. A time listed as 3.5 indicates three and one half hours.

LABOR TIME PREMISE

The times reported in this publication are to be used as a GUIDE ONLY. Reported times include normal align procedure to insure proper fit of the individual new part being replaced. Reported times include tube/paddled OEM caulking and seam sealer removal/application on welded replacement panels. Sprayable seam sealer equipment requires preparation and adjustment before application and is NOT INCLUDED IN LABOR TIME.

Times do not apply to vehicles with equipment other than that supplied by the vehicle manufacturer as standard or regular production options. If other equipment is used, the time may be adjusted to compensate for the variables. Removal and replacement of exchanged or used parts is not considered. If additional aligning or repair must be made, such factors should be considered when developing the estimate. Items not listed under the INCLUDED/DOES NOT INCLUDE heading for any given procedure have not been considered in the estimated work time development for that procedure, unless specified by a footnote. All included/not included items for labor procedures listed between pages G10 and G33 are for component R&I and R&I procedures unless otherwise indicated in operation heading.

OPERATION TIMES LISTED ARE BASED ON NEW UNDAMAGED PARTS INSTALLED ON NEW UNDAMAGED VEHICLES AS INDIVIDUAL OPERATIONS. TIME HAS NOT BEEN CONSIDERED FOR ALIGNMENT PULLS, DAMAGE-RELATED ACCESS TIME, DAMAGED, USED, REMANUFACTURED OR AFTERMARKET PARTS. SOME OPERATION TIMES ARE APPLICABLE AFTER BOLTED, ATTACHED OR RELATED PARTS HAVE BEEN REMOVED. REFER TO SPECIFIC FOOTNOTES ATTACHED TO OPERATION TIME LISTING.

LABOR TIME DOES NOT INCLUDE:

- A/C System, Evacuate and Recharge
- Aftermarket & OEM accessories
- Alignment, check or straightening related parts
- Alignment check of front or rear suspension/steering
- Anti-corrosion material restoration/application
- Battery DMV/recharge
- Brackets & braces transfer
- Broken glass removal or clean up
- Brakes, bleed and adjust
- Caulk (non-OEM), sound insulate or paint inner areas
- Clean up or detailing of vehicle prior to delivery
- Computer control module DMV/relearn
- Conversion Van (special components, equipment and trim)
- Cutting, pulling or pushing collision damaged parts for access
- Damaged or defective replacement parts
- Dash & refuel fuel tank
- Drilling, modification or fabrication of mounting holes
- Fabricate templates, reinforcing inserts, sleeves or flanges
- Filling, pluging and finishing of unused holes in new parts
- Information label installation
- Material costs
- Pinch weld clamp damage repair
- Refinishing

FRONT BUMPER ASSEMBLY - R&I ALL TYPES

INCLUDED:
- Align to vehicle
- Face bar/bumper cover assembly R&I

DOES NOT INCLUDE:
- Air bag sensor
- Battery
- Emblems & nameplates
- Energy absorber, all types
- Lamp aiming
- Lamps (when not mounted in bumper)
- Moldings & impact strip
- Stripe tape, decals or overlays
- Valance panel/spoiler (when not mounted to bumper)

FRONT BUMPER - R&I FACE BAR TYPE

INCLUDED:
- Align to vehicle
- Emblem & nameplate
- Face bar R&I
- Guard
- Guard cutouts
- Lamps (when mounted to bumper)
- Moldings & impact strip

DOES NOT INCLUDE:
- Air bag sensor
- Battery
- Distance sensor
- Energy absorber, if mounted to frame rail (all types)
- Lamp aiming
- Lamps (optional equipment, or not mounted to bumper)
- License plate/bracket
- Stripe tape, decals or overlays
- Valance panel/spoiler (when not mounted to bumper)

Footnotes found in a chapter contain vehicle-specific information. The context of footnotes is in addition to, and takes precedence over, information in the Guide to Estimating pages for the operation indicated.

Source: CCC/Motor Guide to Estimating, Rev. 9-14, Page G10
DEG Database Inquiry - #7069

Inquiry Description

Radiator Support

Section4_Area Vehicle LOWER RADIATOR SUPPORT
Section4_Part Name Lower tie bar
Section4_Part Number 641604D010
Section4_Issue Summary Database pays 2.5hrs to r&r this welded part. There are 44 welds.
Section4_NumberWelds 44
Section4_Type Materials steel
Section4_Suggested Action. Please review & increase replacement time.

Resolution Description

No Change

Estimated Release Date: Closed. Proposed Resolution: MOTOR stated: After review, we have determined that the estimated time of 2.5 hours applied to the Lower Tie Bar is appropriate. Please note destructive testing, refinishing and anti-corrosion material restoration/application are not included in the estimated work time applied to the Lower Tie Bar. No changes required.

### DEG Database Inquiry #7069

**Inquiry Description**

- **Section4_Area**: Vehicle Lower Radiator Support
- **Section4_PartialName**: Lower tie bar
- **Section4_NumberWelds**: 44
- **Section4_TypeMaterials**: Steel
- **Section4_ProcedureSteps**:
  - Remove all necessary bolted on parts first.
  - Drill out 44 welds.
  - Separate damaged lower tie bar from vehicle.
  - Transfer 44 weld points to new part.
  - Drill 44 plug weld holes in new part.
  - Apply weld thru primer.
  - Fit and align new part to vehicle.
  - Perform test weld and destructive test.
  - Perform 44 plug welds.
  - Grind and finish 44 plug welds to 150 grit.
  - Seam seal.
  - Refinish lower tie bar & weld burn.
  - Apply Cavity wax.
  - Reassemble.

**Resolution Description**

- Estimated Release Date: Closed
- Proposed Resolution: MOTOR stated.
- After review, we have determined that the estimated time of 2.5 hours applied to the lower tie bar is appropriate.
- Please note destructive testing, refinishing and anti-corrosion material restoration/application are not included in the estimated work time applied to the lower tie bar.
- No changes required.

---

DEG Database Inquiry - #3923

Inquiry Description

Seal Sealer Removal

Area Vehicle//Left Qtr ][[Section3_PPageNum//G10 Labor Time Premise & G23 Qtr Replacement. Issue Summary//Is removal of seam seal, window urethane and body wax included in the time to replace the qtr. Neither page CLEARLY states. G10 Labor premise only states undercoat, tar or grease removal... G23 Qtr replacement only states caulk/seam sealer is included. Suggested Action//Please Clarify if the removal is included or not.

Resolution Description

IP Explanation

Estimated Release Date: Closed
Proposed Resolution: MOTOR stated:
After review, the following has been determined and can be found in the Guide To Estimating pages:

1. Page G23 lists the Caulk/Seam Sealer as included items. This includes the removal and installation of the Caulk/Seam Sealer unless otherwise noted.

2. Page G20, Stationary Side Glass (Doors or Quarter Panel), Special Notation states:
"Time for the removal of old urethane, clean and preparation of sealing surfaces (vehicle and/or glass) should be estimated after an on-the-spot evaluation." The removal of the of old urethane is not included; however the application of the new urethane is included.

3. Body Wax: Assuming the customer is referring to Body Cavity Wax, (Rust Preventer), this would fall under the same category as Undercoat, which is not included.

Please note that items not listed under the INCLUDED/DOES NOT INCLUDE heading for any given procedure have not been considered in the estimated work time development for that procedure, unless specified by a footnote.

**DEG Database Inquiry - #3923**

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<th>Inquiry Category</th>
<th>Year Make Model</th>
<th>Resolution Status</th>
<th>Origination Date</th>
<th>Submission Date</th>
<th>Resolution Date</th>
<th>Total Time to Resolve</th>
</tr>
</thead>
</table>

**Inquiry Description**

**Seal Sealer Removal**

- AreaVehicle//Left Qtr [ ]
  - Section3_PPageNum/G10 Labor Time Premise & G23 Qtr Replacement
  - IssueSummary//Is removal of seamseal, window urethane and body wax included in the time to replace the qtr. Neither page CLEARLY states. G10 Labor premise only states undercoat, tar or grease removal only G23 Qtr replacement only states caulking/seamsealer is included.
  - SuggestedAction//Please Clarify if the removal is included or not.

**Resolution Description**

**IP Explanation**

- Estimated Release Date: Closed
- Proposed Resolution: MOTOR stated:
  - After review, the following has been determined and can be found in the Guide To Estimating pages:
  1. Page G23 lists the Caulk/Seam Sealer as included items. This includes the removal and installation of the Caulk/Seam Sealer unless otherwise noted.
  2. Page G20, Stationary Side Glass (Doors or Quarter Panel), Special Notation states: “Time for the removal of old urethane, clean and preparation of sealing surfaces (vehicle and/or glass) should be estimated after an on-the-spot evaluation.” The removal of the old urethane is not included; however the application of the new urethane is included.

- **3. Body Wax**: Assuming the customer is referring to Body Cavity Wax, (Rust Preventer), this would fall under the same category as Undercoat, which is not included.

Please note that items not listed under the INCLUDED/DOES NOT INCLUDE heading for any given procedure have not been considered in the estimated work time development for that procedure, unless specified by a footnote.

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Mitchell

Door Opening Panel R&R

Not Included Operations

- Remove and/or apply: Anti-corrosion rust resistant materials

Source: Portions Copyright 2012, Mitchell International, Inc. – Mitchell P-Pages, Rev. 10-09. Page 10

Anti-Corrosion Rust Resistant Material

Remove and/or apply weldable zinc primers, wax, petroleum based coatings, undercoating or any type of added conditioning.

Source: Portions Copyright 2012, Mitchell International, Inc. – Mitchell P-Pages, Rev. 10-09. Page 3
Procedure Explanation

Side Curtain Air Bag Module R&R

Included Operations
- Remove and replace: Side curtain air bag module

Not Included Operations
- Remove and install or replace: Impact sensors, Control modules, Wire harness, Headliner, Disable and enable air bag system
- Diagnose air bag system
- Deploy air bag residue clean up

IMPORTANT REMINDER: Vehicle manufacturer’s recommended service and repair procedures must be followed when servicing any Supplemental Restraint/Air Bag System. Certain safety precautions and disabling procedures must be observed when performing repairs.

Procedure 15—Rocker Panel/Side Body Panel/Center Pillar

Rocker Outer Panel R&R

Included Operations
- Remove and install: Quarter trim at sill
- Remove and install or replace: Cowl trim, Center pillar trim, Sill plates, Rear seat cushion
- Loosen and pull back carpet and/or insulation as required
- Remove and replace caulking for standard factory application

Not Included Operations
- Refinish rocker panel
- Remove and apply: Anti-corrosion rust resistant materials
- Remove and install or replace: Rocker molding, Wiring and/or wiring harness, Control cables (example: latch release), Fluid lines, Drill holes for installing trim

NOTE: FULL PANEL REPLACEMENT PROCEDURE - Labor times are for replacement at factory seams if feasible. However, many rocker panels cannot be replaced at factory seams because the hinge pillar, center pillar, lock pillar and/or quarter panel overlaps the rocker panel. If a rocker panel is designed in this manner and a section time is not listed, the time in the text represents replacement of the panel at the most practical area. This reduces repair damage to overlapping panels and is considered a full panel replacement.

IMPORTANT REMINDER: Sectioning of a panel may or may not be recommended by vehicle manufacturer. This procedure should only be performed when a qualified and knowledgeable technician has determined that the operation does not jeopardize the integrity of the vehicle.

IMPORTANT REMINDER: Labor times for inner panels, rails or reinforcements are with outer panels removed.

NOTE: Deduct 1 hour each for hinge, center and lock pillar if these items are also replaced.

Side Body Panel R&R

Included Operations
- Remove and install: Front door, Rear door, Front seat, Rear seat, Parcel shelf trim, Quarter trim, Plastic wheelhouse liner, Luggage compartment trim, Rear lamp assemblies, Rear wiper, Filler panel, Stone deflector, or rear lower valance
- Remove and install or replace: Non urethane set glass (Windshield and moulding, Back window and moulding), Quarter window and moulding, Sun visor, if replaced at roof, Roof rail moulding, if replaced at roof, Cowl top panel, Cowl trim, Weatherseals and weatherstrips, Pillar trim, Sill plates, Jamb switches, Lock striker, Bolt-on extension
- Remove and replace urethane set glass: Windshield and mouldings, Back window and moulding, Quarter window and moulding
- Loosen and pull back: Cloth type headliner as required, carpet and/or insulation as required
- Remove and replace caulking for standard factory application
- Replace clip type moulding for base model vehicle

Not Included Operations
- Refinish side body panel
- Remove and apply: Anti-corrosion rust resistant materials
- Remove and install: Front fender, Performed or molded type headliner, Fuel tank
- Remove undamaged urethane set glass: Windshield and moulding, Back window and moulding, Quarter window and moulding
- Install and remove: Door hinges, Air conditioning and heater parts that interfere, Wiring and/or wiring harness, Control cables (example: latch release), Fluid lines, Decals (example: EPA, body identification, caution/danger), Rocker molding, Wheel, Antenna
- Remove and replace inner panels
- Replace sound deadening
- Replace and install adhesive exterior trim: add to clean and relace
- Replace new adhesive exterior trim: deduct one half of R&R time
- Install strips, decals, transfers or overlays
- Drill holes for installing trim
- Cut holes for installing lamps
- Broken glass clean up

SPECIAL NOTE: Procedure 15 includes removal of damaged urethane set glass and replacement with new glass. The Procedure does not include allowances for necessary pre-cautionary measures to remove undamaged urethane set glass, nor clean up of the old adhesive on the glass. If the existing urethane set glass is undamaged and will be reused, the labor time difference between the glass R&R and R&I represents the not included allowance.

Example: A Side Body Panel allowance includes a Back Glass R&I of 2.0 hr. The R&I of the back glass is 2.3 hr. The difference of 0.3 hr between Back Glass R&I (2.0 hr) and R&I (2.3 hr) has not been factored into the Side Body Panel allowance.

Door Opening Panel R&R

Included Operations
- Remove and install: Front door, Rear door, Front seat, Rear seat, Quarter trim
- Remove and install or replace: Sun visor, if replaced at roof, Roof rail moulding, if replaced at roof, Cowl top panel, Cowl trim, Weatherseals and weatherstrips, Pillar trim, Sill plates, Jamb switches, Lock striker
- Remove and replace urethane set glass: Windshield and mouldings
- Loosen and pull back: Cloth type headliner as required, Carpet and/or insulation as required
- Remove and replace caulking for standard factory application

Not Included Operations
- Refinish door opening panel
- Remove and apply: Anti-corrosion rust resistant materials
- Remove and install or replace: Instrument panel assembly, Door hinges, Air conditioning and heater parts that interfere, Wiring and/or wiring harness, Control cables (example: latch release), Fluid lines, Decals (example: EPA, body identification, caution/danger), Rocker molding, Antenna
- Remove and replace inner panels
- Replace sound deadening
- Replace and install adhesive exterior trim: add to clean and relace
- Replace new adhesive exterior trim: deduct one half of R&R time
- Install strips, decals, transfers or overlays
- Drill holes for installing exterior trim
- Broken glass clean up
Labor Categories
The labor times shown in the Guide fall into various categories (for example, body, frame, mechanical) as determined by the repair facility’s operating procedures. As a guide, components for which R&I or R&R is commonly considered to be a mechanical operation when performed in a collision repair environment are designated with the letter “M” in the text. These designations are only a guide. They are not necessarily all inclusive, nor do they suggest the application of a labor rate.

Welded Panels
Replacement labor times for panels that are joined by welding include the necessary use of inserts and accepted sectioning guidelines developed by OEMs, ICAR, and TECH-COR. The labor times for welded panels include grinding, filling and final sanding with up to 150 grit sandpaper to match the original panel contour. Labor times do not include the Feather, Prime and Block refresh operation. See Procedure 28 in Procedure Explanation section, for information on Feather, Prime and Block.

Adhesive Panel Bonding
Replacement labor times for panel bonding include all necessary weld applications identified by adhesive material manufacturers and OEM guidelines. Users should reference best practices procedures from bonding material manufacturers and/or OEM guidelines before selecting this replacement method option.

Shop Material
The labor times shown in the Guide do not take into account the cost of any materials, or the cost of hazardous materials recycling or disposal.

Disable and Enable Air Bag System
The labor times shown in the Guide represent the procedures necessary to disable and enable the air bag system in order to replace air bag system components and/or to perform repairs not related to the air bag system, e.g. welding. This procedure includes visually monitoring the air bag warning light to verify proper system functionality. The allowance does not include troubleshooting of the system if proper system functionality is not present.

Diagnose Air Bag System
The labor times shown in the Guide to diagnose air bag systems include system disable and enable, removal and installation of air bag module(s) (where required), installation of appropriate simulators, and retrieving and clearing of trouble codes. Time for specific troubleshooting of Diagnostic Trouble Codes (DTCs) is not included.

Glass Labor Times
The labor times shown in the Guide for glass listed with the NAGS part numbers are Mitchell times, not times from NAGS. Glass labor times are for remove and replace (R&R), i.e., removal of the existing glass and its replacement with new glass. Some glass labor times are also shown for removal and the later installation (R&I) of the same glass.

Stripes, Decals and Overlays
The labor times shown in the Guide for these items refer to installation only.

TECH-COR Repair Information
The labor times shown in the Guide for TECH-COR repair procedures are supplied by Mitchell. TECH-COR does not endorse, sanction or otherwise approve such times. TECH-COR publications are copyrighted material. However, reproduction of TECH-COR bulletins is permitted as long as the bulletin is reproduced in its entirety, including source attribution. TECH-COR bulletins may be obtained by contacting TECH-COR, Inc., Technical Communications Dept., 100 East Palmateer Road, Wheeling, IL 60090; Phone: 847-687-2341.

Base Model Vehicle
Vehicle with the minimal level of equipment available from the manufacturer.

Types of Vehicles
The types of vehicles covered are regular production models only.

Comprehensive Labor Time
While completeness is strived for in each Guide, there will be instances, however, in which a labor time has not been established for an operation at the time of publication. If an item requires replacement and can be replaced as an individual item but shows no time, a time should be agreed upon among all parties and recorded on the damage report. It also should not be inferred that a component with no established Mitchell labor time has been included in another component’s replacement allowance.

Procedure Reference
Throughout each vehicle “service” there are Procedure Explanation reference notes located immediately following the main section headings. Example: BUMPER/FACE PANEL is followed by “Use Procedure Explanations f, 3 and 28 with the following text.” This indicates that the test portion and the Procedure Explanations for Front Bumper, Front Panel and Refinish should be used in conjunction with one another when writing a damage report. LABOR RELATED NOTES IN THE TEXT PORTION OVERRIDE THE PROCEDURE EXPLANATION PAGES.

Procedures
The Procedure Explanations on the following pages outline the operations which are or are not included in the labor time listed in each vehicle “service.” You are encouraged to become familiar with these procedure pages to be sure you have a thorough understanding of the Mitchell approach to collision estimating.

The left Included Operations column means that the labor time shown in the Mitchell Collision Estimating Guide text includes that particular operation or operations.

The right Not Included Operations column means that the labor time in the text does not include that particular operation or operations. Performance of one or more of these operations may or may not be necessary as determined by the individual job requirements. If an add-on time has been established for any of these operations it will be shown in the text. If a time has not been established or if the add-on time is dependent on conditions that vary due to collision damage (example: access time, free up parts), the additional time should be recorded on the damage report. Labor times relating to the repair of a damaged panel or the use of used parts would come under this category.

Additions to Labor Times
Due to the wide range of collision damage and vehicle conditions, labor times for the following operations are not included in the Guide.

Access Time
Remove extensively damaged parts by cutting, pushing, pulling, etc.

Anti-Corrosion Rust Resistant Material
Remove and/or apply weldable zinc primers, wax, petroleum based coatings, undercoating or any type of added conditioning.

Broken Glass Clean Up
Clean vehicle of all broken glass.

Detail
Clean vehicle to pre-accident condition.

Drain & Refill
Fuel (see fuel tank)

Electronic Components
- Time to remove and install as necessary; includes wiring and/or wiring harness and computer module.
- Time to reset memory code function (example: seat position, radio presets) when battery has been disconnected to perform repairs.
- Time to complete computer relearn procedures for proper operation of vehicle systems (example: power sunroof, power window) when battery has been disconnected to perform repairs.

Source: Portions Copyright 2012, Mitchell International, Inc. – Mitchell P-Pages, Rev. 10-09. Page 3
Question 3.
Is there a pre-determined time?
3. Is there a pre-determined time for applying corrosion protection rust proofing?

Answer:
None of the Information Providers provide times for the application of corrosion protection rust proofing.
However, if there is not a time, it does not mean that it is included.
If there is not a time you may need to do a manual entry.
Question 4.
What is it worth?
4. If not, then what is applying corrosion protection rust proofing worth?

**Answer:** The Estimator will have to use judgment times on these items since no database times are given by the Information Providers.

**Answer Documentation:**

- Conduct Your Own Time Study:
  - Create a Time Study Form
  - Video of Time Study
- Use the 3M Seam Sealer, Cavity Wax Invoicing Tool
- Invoice for materials
Additional Thoughts
# Additional Thoughts

- **TIP:** If you save the P-pages as a PDF and search for terms in the document by going to Edit, then Find or by hitting Ctrl+F

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<th>AudaExplore Labor</th>
<th>CCC Labor</th>
<th>Mitchell Labor</th>
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<td>Not Included</td>
<td>Not Included</td>
<td>Rustproofing, Bodywax, Bees Wax</td>
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