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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
   - www.Estimatescrubber.com
   - SCRS Guide to Estimating

3. Is there a pre-determined time in the database?
   - Estimating Systems
   - 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
According to one of the major Information Providers, the definitions of feather, prime and block are as follows:

“Feather or Feather edge” is the labor of progressively sanding on existing paint around a body-repaired area to ensure proper adhesion for spray-able products and a smooth perimeter to prevent existing and new topcoat incompatibility.

“Prime” is the additional refinishing procedure in which spray-able undercoats, such as epoxy and/or urethane primers are sprayed upon the repaired areas, including the area that has been feathered earlier. Epoxy and urethane primers are designed to fill imperfections on the repaired surface prior to refinishing.

“Block Sanding” is a procedure that assists a technician in achieving a defect-free repair. A technician uses a variety of hard backed and soft-backed sanding tools to sand the previous “primed” areas.
Photo Documentation
### Justifying Each Line on the Repair Plan

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Question 1.
Is it required?
Four Negotiation Questions

1. Is it required to “feather, prime and block” in order to restore the vehicle back to pre-accident condition?

Answer: The answer to this question is not immediately obvious so let’s look at it one piece at a time.

Fact 1 – All paint times are for new, undamaged panels based on Audatex, CCC/Motor, and Mitchell.

1. All the Information Providers, such as AudaExplore, CCC/MOTOR and Mitchell, specify that refinish times are for “new undamaged parts.”

– AudaExplore – “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 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. “

– CCC/MOTOR – “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.”
Source: CCC/Motor Guide to Estimating, Rev. 9-14, Page G10

– Mitchell – “Complete Refinish - Refinish times in this Guide pertain to NEW, UNDAMAGED PARTS and are not intended for calculating complete vehicle refinish—single- or multi-stage. An estimate of this nature would suggest all new panels have been fitted to the vehicle.”
Source: Portions Copyright 2012, Mitchell International, Inc. – Mitchell P-Pages, Rev. 10-09. Page 16

Page 10 Feather, Prime and Block Negotiation Tool Version 2.0, November 12, 2015
Fact 1: All paint times are for new, undamaged panels based on Audatex, CCC/Motor, and Mitchell.
AudaExplore

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 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.

Section 4-4 Refinish Guidelines

Refinish within Panel Boundaries – continued

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._

"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, PenPro or Shoplink. The current version of the Database Reference Manual may also be found at www.hitting.audatex.com."

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Section 4-4 Refinish Guidelines

Repaired Panel Refinish

When a repaired panel is being refinshed, 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.

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.

Audatex recognizes that Feather/Prime/Block are required operations in the panel repair process. Audatex does not provide a labor time allowance for repaired panels, as this is a judgment time. Audatex does not provide a labor time allowance for Feather/Prime/Block, as this, too, is a user judgment time. Audatex does not provide a material allowance for the Feather/Prime/Block process. The determination and assessment for this operation is best provided by the estimate preparer for consideration and allowance during the estimate preparation process.

Nib Sanding/De-nib

Nib sanding (or de-nib) is defined as the removal of isolated dirt and dust particles, and polishing 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.

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.

Source: CCC/Motor Guide to Estimating, Rev. 9-14, Page G10
GUIDE TO ESTIMATING

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 ing new part being replaced. Reported times include tube/padded OEM caulk 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 estimating the labor. 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 G35 are for component R&R and R&I procedures unless otherwise indicated.

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 LISTINGS.

LABOR TIME DOES NOT INCLUDE:

SPECIAL NOTATION:
The items listed below apply to all labor procedures.
- A/C System, Evacuate and Recharge
- Aftershaft & OEM accessories
- Alignment, check or straightening related parts
- Alignment check of front or rear suspension/steering
- Anticorrosion material restoration/application
- Battery D&R/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 D&R/return
- Conversion Vans (special components, equipment and trim)
- Cutting, pulling or pushing collision damaged parts for access
- Damaged or defective replacement parts
- Drain & refill fuel tank
- Drilling, modification or fabrication of mounting holes
- Fabricate templates, reinforcing inserts, sleeves or flanges
- Filling, plugging and finishing of unneeded holes in new parts
- Information label installation
- Material costs
- Pinch weld clamp damage repair
- Refinishing

LABOR TIME PREMISE - Continued

- Reset electronic memory functions after battery disconnect
- Road test vehicle
- Rusted, frozen, broken or corrosion damaged components or fasteners
- Scan tool clear/reset electronic module
- Scan tool diagnostics
- Steering Angle Sensor recalibration
- Straighten or align used, reconditioned or non-OEM parts
- Structural damage diagnosis and vehicle set up time
- Structural frame repair and application
- Test panel/spray caulk
- Undercoating, ton or grease removal
- Unprimed bumpers, removal of mold-release agents
- Waste disposal fees (all types)
- Weld through primer
- Welded seam surface finishing finer than 150 grit sandpaper
- Wheel or hub cap locks R&I

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 wiring
- 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 cushions
- Lamps (when mounted to bumper)
- Molding & impact strip

DOES NOT INCLUDE:
- Air bag sensor
- Battery
- Distance sensor
- Energy absorber, if mounted to frame rail (all types)
- Lamp wiring
- 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 content 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
Complete Refinish - Refinish times in this Guide pertain to NEW, UNDAMAGED PARTS and are not intended for calculating complete vehicle refinish—single- or multi-stage. An estimate of this nature would suggest all new panels have been fitted to the vehicle.

Source: Portions Copyright 2012, Mitchell International, Inc. – Mitchell P-Pages, Rev. 10-09. Page 16
Procedure 28—Refinish Procedure

Refinish General Information

Complete Refinish

Refinish times in this Guide pertain to NEW, UNDAMAGED PARTS and are not intended for calculating complete vehicle refinish—single- or multi-stage. An estimate of this nature would suggest all new panels have been fitted to the vehicle.

Adherence to Mitchell® Data

The major paint manufacturers listed below have provided the following information: “Major refinish paint manufacturers recommend that when performing refinish warranty repairs on an OEM multi-stage or basecoat/clearcoat finish, you must extend the application of clear to the nearest panel edge or breakpoint to qualify for lifetime warranty.” AKZO — DuPont — Sherwin Williams — BASF — PPG

Repaired/Used Panels

Labor times related to repaired and/or used panels—example: Remove and install or masking of glass, outside handles and exterior trim, feather prime & block, masking for primer surfacer application—are not included in refinish time. The steps required for refinishing a repaired and/or used panel may vary from those required for a new panel depending on the condition of the repaired and/or used panel.

Feather, Prime & Block

Is the Not-Refinished operation that completes bodywork repair from 150 grit smoothness to the condition of a new undamaged panel, and the point at which refinish labor time begins. The labor and materials associated with feather, prime and block may vary depending upon the size of the repair area, and should be evaluated when determining the work to be performed. See Waved Panels under Estimating Information.

SPOT REPAIR/BLEND ADJACENT PANEL

Spot Repair

Spot repair is defined as applying color to the repaired area of a damaged panel to obtain full coverage of undercoats, and blending that color into the original panel finish so that no transition can be detected. The goal is to keep the actual repair as small as possible to avoid having newly applied color directly next to an undamaged adjacent panel(s). Clear coat is then applied to the entire panel. This refinish process minimizes color mismatch.

Blend for Color Match

Blending is defined as applying color without necessity to cover undercoats, to less than the full surface area of a adjacent undamaged panel. Paint manufacturers recommend blending adjacent panels when a panel is replaced, or repaired and color applied to the full surface areas, or to the area that borders the adjacent undamaged panel(s). Clear coat is then applied to the entire blended panel.

Major Panels

Major panels are those listed: FRONT HEADER, FENDER, HOOD, COWL TOP, DOOR, ROCKER, ROOF, PICKUP CAB CORNER, PICKUP CAB TOP, QUARTER, PICKUP BED FRONT, PICKUP BED SIDE, VAN SIDE, VAN REAR CORNER, ENGINE LID, LUGGAGE LID, LIFT GATE, REAR RATE, TAIL GATE, REAR BODY

Overlap

Deduct 4 hour from refinish time for each ADJACENT MAJOR PANEL and deduct 2 hour from time for each NON-ADJACENT MAJOR PANEL. There is no overlap deduction taken for the first major panel.

Adjacent major panel example: Right front fender 2.5 hours (full time) and right front door 2.5 hours minus .4 hour overlap for a total of 4.9 hours.

Non-adjacent major panel example: Right front fender 2.5 hours (full time) and left front fender 2.5 hours minus .2 hour overlap for a total of 4.8 hours.

No overlap deductions for valance panel, pillars, door jams, undersides of hood, undersides of luggage lid or undersides of gate, inner panels, filler panels, soft bumper covers or bolt-on finish panels.

NOTE: Refinish times are for outside surfaces only unless stated otherwise in text (example: add .2 hour for door handles, add to edge).

Included Operations

- Solvent wash
- Scuff panel and clean
- Mask adjacent panels up to 36 inches or substitute with cover vehicle (bag) complete
- Prime or seal as required
- Final sanding and clean
- Mix materials
- Adjust spray equipment
- Apply color
- Clean equipment

Not Included Operations

- Blending into adjacent panel and/or panels, or nearest breakpoint
- Color match or tinting
- Applying anti-corrosion rust resistant materials
- Additional application of soft chip primers or anti-chip undercoats
- Finish sand and buff
- Subsequent vehicle bagging when required: add .2 hour for each application & removal
- Mask interior to prevent overspray damage
- Removal of protective coatings
- Removal of release agent from OEM raw plastic components (example: non-printed bumper covers) See formula under Raw Substrate Prep
- Feather, Prime & Block paint damage to adjacent panel and/or panels joined by welding due to burn damage (see Feather, Prime & Block definition under Refinish General Information)
- Gravel guard refinish: add .5 hour for the first major panel and .3 hour for each additional panel.

NOTE: The included operation of mask adjacent panels is inclusive of any necessary back tape masking to prevent overspray.

IMPORTANT REMINDER: Refinish times are for NEW, UNDAMAGED PARTS without exterior or interior trim or attached components. Refinish times may vary depending on individual procedures, product and/or weather conditions.

A small percentage of colors are identified by the paint manufacturers as highly transparent. These colors may require additional application coats to achieve visible hiding. In instances where four or more color coats are necessary to achieve adequate hiding, some adjustment in refinish times may be appropriate.

IMPORTANT REMINDER: The cost of paint and materials is not included in refinish time.

NOTE: Gravel Guard application and appropriate refinish may be necessary beyond the actual replacement area to achieve a "texture" match.

It may be necessary to tint or otherwise modify non-exterior colors applied to undersides, edges and/or jams for which there is no paint color formula to achieve a color match. When necessary, reference “color match or tinting” listed above in Not Included Operations.

Raw Substrate Prep

Allow .2 per refinish hour (20%) for plastic components that come from the manufacturer/supplier in a raw/un-printed state.
2. All the information Providers specify that body work is to be completed up to 150 grit and should be void of any surface imperfections.

Fact 2: All the information providers recognize that Feather, Prime and Block is required.

- **AudaExplore** – “Audatex recognizes that Feather/Prime/Block are required operations in the panel repair process.”
  

- **CCC/MOTOR** – “PRIME & BLOCK - Prime & block (high build/primer-filler) is a required procedure that restores a repaired panel surface, including the joined areas of replaced welded panels, from 150-grit finish to NEW UNDAMAGED condition.”
  
  Source: CCC/Motor Guide to Estimating, Rev. 9-14, Page G34

- **Mitchell** – “Feather, Prime & Block - s the Not-Included refinish operation that completes bodywork repair from 150 grit smoothness to the condition of a new undamaged panel, and the point at which refinish labor time begins.”
  
  Source: Portions Copyright 2012, Mitchell International, Inc. – Mitchell P-Pages, Rev. 10-09. Page 16
Fact 2: All the information providers recognize that Feather, Prime and Block is required.
AudaExplore

AudaExplore recognizes that Feather/Prime/Block are required operations in the panel repair process.

Section 4-4 Refinish Guidelines

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

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.

Nib Sanding/De-nib

Nib sanding (or de-nib) is defined as the removal of isolated dirt and dust particles, and polishing 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.

PRIME & BLOCK - Prime & block (high build/primer-filler) is a required procedure that restores a repaired panel surface, including the joined areas of replaced welded panels, from 150-grit finish to NEW UNDAMAGED condition.

Source: CCC/Motor Guide to Estimating, Rev. 9-14, Page G34
GUIDE TO ESTIMATING

REFINISH TIME LISTINGS

All refinish times are listed in hours and tenths of an hour. A time in parentheses adjacent to the part name, such as (g.35) indicates three and one half hours. Replacement operation times do not include time necessary to refinish the component.

Operation times for the application of painted-on stripes are not covered in this publication. The time necessary to perform this type of operation should be estimated after an on-the-spot evaluation of required procedure.

REFINISH TIME PREMISE

Published refinish times are for one color applied to new undamaged replacement components, without exterior trim, interior or trim or other attached components and applied in one continuous process. For damaged panels, published refinish times may be applied after the damaged panel has been returned to a NEW UNDAMAGED condition.

Refinish times do not include time which may be required to match color tints or definitive finish textures on interior or exterior surfaces. Nor do they include time which may be required to correct finish imperfections caused by improper weather conditions, application, or environmental contamination such as dust, dirt, gravel, etc. MOTOR advises all parties consider these factors beforehand to determine mutually acceptable provisions in the event such conditions exist or occur.

ANTI-THEFT LABELS (R DOT)

Replacement part labels are coded with the letter “R” to show that it is a replacement part. R Dot labels should not be removed from the part. Use caution when refinish-ning, rustproofing or undercoating replacement components to avoid damaging the label.

BUMPER COVERS AND OTHER FLEXIBLE COMPONENTS

Refinish times listed on the parts detail line for these components are based on the items being refinished prior to installation. Refinish times listed on the parts detail line for an OEM bumper cover that has both body color and unpainted grained panel allows for the refinish of the body color only. Masking the grained textured, or non-body color portions in preparation for body color application is an included operation. It includes exterior surface edges refinished during one continuous process. If a separate edging procedure is utilized then the appropriate time should be estimated after an on-the-spot evaluation. Refinish times do not include removal of mold release agent from new unpainted molded components. Parts received from the OEM manufacturer without primer and some non-OEM parts with or without primer should be tested for the presence of release agents that would cause paint adhesion problems and treated accordingly. For unpainted bumper preparation time, see “Add If Required” operation(s). Preparation time for all other unpainted components should be estimated after an on-the-spot evaluation. For unpainted component preparation time, see Unpainted Flexible Component Preparation on page G39.

DOOR OUTER REPAIR PANELS

Refinish times listed on the parts detail line for new repair panels (i.e., door outer repair panel, tailgate and liftgate repair panels) include panel lip and immediate area. It does not include time for refinish-ning the entire door frame edge or interior side, Where possible, MOTOR will publish time for those areas under a “Refinishing Notes” heading within that group.

DOOR SHELLS, LIFTGATES AND TAILGATES

Refinish times listed on the parts detail line for these new components include exterior surface, edges and interior sides, unless otherwise noted in text.

REFINISH TIME PREMISE - Continued

DOOR SHELLS, LIFTGATES AND TAILGATES - Continued

Refinish times listed under the “Refinishing Notes” heading for “door outer panel only” operations do not include time for refinish- ing the door frame edge or interior side. Where possible, MOTOR will publish time for those areas under a “Refinishing Notes” heading within that group.

FENDERS, HOODS, TRUNK LIDS AND OTHER MAJOR BOLTED PANELS

Refinish times listed on the parts detail line for these new panels do not include time for refinish- ing the edge or underside. Where possible, MOTOR will publish time for those areas under a “Refinishing Notes” heading within that group.

QUARTER PANELS AND OTHER MAJOR WELDED PANELS

Refinish times listed on the parts detail line for these new panels include exterior side, recessed edges, gutters and pockets, unless otherwise noted in text.

Refinish times listed under the “Refinishing Notes” heading for quarter panels or other major welded panels (“exterior surface only” operations do not include time for refinish- ing recessed edges, gutters and pockets. Where possible, MOTOR will publish time for these areas under the “Refinishing Notes” heading within that group.

NEW UNDAMAGED PANEL

A component manufactured to the same exacting standards as the parts installed on new vehicles when the car was built. Exterior body panels are supplied with a smooth painted surface (e-coat).

UNDERSIDE COLORS

Refinish times presented in this guide are developed under the premise that the underside and jambar color is the same as the exterior body color. Some vehicle manufacturers use a different color for the engine compartment, trunk compartment and/or jambs. An additional paint mix is required if the underside and/or jambar color is a different color than the exterior body color. Clear coat (gloss or matte) will be required for base color coat applications. This should

PRIME & BLOCK

Prime & block (high build/primer/shot) is a required procedure that restores a repaired panel surface, including the joined areas of replaced welded panels, from 150-grit finish to NEW UNDAMAGED condition. It is MOTOR’s position that prime and block is a process best reserved for the judgment of an estimator/appraiser following a thorough on-the-spot evaluation of the specific vehicle and damage involved.

PRIME & BLOCK (HIGH BUILD/PRIMER/SHOT)

MOTOR suggests using component(s) base refinish time for this type of procedure after the damaged panel is repaired to new undamaged condition. Required surface preparation requires an on-the-spot evaluation for additional procedural steps such as featheredge and/or prime and block not required for new undamaged panels.

PARTIAL PANEL REFINISHING

This is NOT a BLEND-WITHIN procedure; partial panel refinish- ing is NOT a BLEND operation. MOTOR defines partial panel refin- ishing as refinish- ing a body panel with damage that is contained within a defined border or underneath body cladding after the panel has been repaired to that of a “NEW UNDAMAGED PANEL.” It is MOTOR’s position that partial panel refinish- ing is a process best reserved for the judgment of an estimator/appraiser following a thorough on-the-spot evaluation of the specific vehicle and refin- ish requirements in question. Refer to G.T.E. “BASIC COLOR COAT APPLICATION.”

Footnotes found in a chapter contain vehicle-specific information. The content 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 G34
Mitchell

Feather, Prime & Block - s the Not-Included refinish operation that completes bodywork repair from 150 grit smoothness to the condition of a new undamaged panel, and the point at which refinish labor time begins.

Source: Portions Copyright 2012, Mitchell International, Inc. – Mitchell P-Pages, Rev. 10-09. Page 16
Procedure Explanation

Bumper Assembly O/H
Included Operations
- Remove and install assembly
- Disassemble and replace damaged parts
- Replace or transfer parts attached except those listed in "Not Included Section"
- Remove and install or replace: License plate bracket
- Assemble and install
- Adjust alignment to vehicle

Not Included Operations
- Refinish bumper
- Remove and replace impact absorbers or mounting arms
- Remove and install or replace optional accessories (example: trailer hitch, trailer connector)
- Remove and install adhesive exterior trim; add to clean and retape
- Replace new adhesive exterior trim; deduct one-half of R&R time
- Install stripes, decals, transfers or overlays

Procedure 28—Refinish Procedure

Refinish General Information
Complete Refinish
Refinish times in this Guide pertain to NEW, UNDAMAGED PARTS and are not intended for calculating complete vehicle refinish—single- or multi-stage. An estimate of this nature would suggest all new panels have been fitted to the vehicle.

Lifetime Refinish Warranty/Clear Coat
The major paint manufacturers listed below have provided the following information. *Major refinish paint manufacturers recommend that when performing refinish warranty repairs on an OEM multi-stage or basecoat/clearcoat finish, you must extend the application of clear to the nearest panel edge or breakpoint to qualify for lifetime warranty. *AKZO — DuPont — Sherwin Williams — BASF — PPG

Repaired/Used Panels
Labor times related to repaired and/or used panels—example: Remove and install or replace: marking of glass, outside handles or exterior trim, feather prime & block, masking for primer surfacer application—are not included in refinish time. The steps required for refreshing a repaired and/or used panel may vary from those required for a new panel depending on the condition of the vehicle.

Feather, Prime & Block
These are not included refinish operations that complete bodywork repair from 900 grit smoothness to the condition of a new undamaged panel, and the point at which refinish labor time begins. The labor and materials associated with feather, prime and block may vary depending upon the size of the repair area, and should be evaluated when determining the work to be performed. See Welded Panels under Estimating Information.

Spot Repair
Spot repair is defined as applying color to the repaired area of a damaged panel to obtain full coverage of undercoats, and blending that color into the original panel finish so that no transition can be detected. The goal is to keep the actual repair as small as possible to avoid having newly applied color directly next to an undamaged adjacent panel(s). Clear coat is then applied to the entire panel. This refinish process minimizes color mismatch.

Blend for Color Match
Blending is defined as applying color, without necessity to cover undercoats, to less than the full surface area of an adjacent undamaged panel. Paint manufacturers recommend blending adjacent panels when a panel is replaced, or repaired and color applied to the full surface areas, or to the area that borders the adjacent undamaged panel(s). Clear coat is then applied to the entire blended panel.

Major Panels
Major panels are those listed: FRONT HEADER, FENDER, HOOD, COWL TOP, DOOR, ROCKER, ROOF, PICKUP CAB CORNER, PICKUP CAB BACK, QUARTER, PICKUP BED FRONT, PICKUP BED SIDE, VAN SIDE, VAN REAR CORNER, ENGINE LID, LUGGAGE LID, LIFT GATE, REAR RATE, TAIL GATE, REAR BODY

Overlap
Deduct .4 hour from refinish time for each ADJACENT MAJOR PANEL and deduct .2 hour from time for each NON-ADJACENT MAJOR PANEL. There is no overlap deduction taken for the first major panel.

Adjacent major panel example: Right front fender 2.5 hours (full time) and right front door 2.5 hours minus .4 hour overlap for a total of 4.6 hours.

Non-adjacent major panel example: Right front fender 2.5 hours (full time) and left front fender 2.5 hours minus .2 hour overlap for a total of 4.8 hours.

No overlap deductions for valance panel, pillars, door jams, underside of hood, underside of luggage lid or underside of gate, inner panels, fitter panels, soft bumper covers or bolt-on finish panels.

NOTE: Refinish times are for outside surfaces only unless stated otherwise in text (example: add for underside, add to edges).

Included Operations
- Solvent wash
- Scruff panel and clean
- Mask adjacent panels up to 36 inches or substitute with cover vehicle (bag) complete
- Prime or seal as required
- Final sanding and clean
- Mix materials
- Adjust spray equipment
- Apply color
- Clean equipment

Not Included Operations
- Blending into adjacent panel and/or panels, or nearest breaking point
- Color match or tinting
- Applying anti-corrosion rust resistant materials
- Additional application of soft chip primers or anti-chip undercoats
- Finish sand and buff
- Subsequent vehicle bagging when required: add .2 hour for each application and removal
- Mask interior to prevent overspray damage
- Removal of protective coatings
- Removal of release agent from OEM raw plastic components (example: non-primed bumper covers) See formula under Raw Substrate Prep
- Feather, Prime & Block paint damage to adjacent panel and/or panels joined by welding due to burn damage (see Feather, Prime & Block definition under Refinish General Information)
- Gravel guard refinish: add .5 hour for the first major panel and .3 hour for each additional panel.

NOTE: The included operation of mask adjacent panels is inclusive of any necessary back tape masking to prevent overspray.

IMPORTANT REMINDER: Refinish times are for NEW, UNDAMAGED PARTS without exterior or interior trim or attached components. Refinish times may vary depending on individual procedures, product and/or weather conditions.

A small percentage of colors are identified by the paint manufacturers as highly transparent. These colors may require additional application coats to achieve visual hiding. In instances where four or more color coats are necessary to achieve adequate hiding, some adjustment in refinish times may be appropriate.

IMPORTANT REMINDER: The cost of paint and materials is not included in refinish time.

NOTE: Gravel Guard application and appropriate refinish may be necessary beyond the actual replacement area to achieve a "texture" match.

It may be necessary to tint or otherwise modify non-exterior colors applied to undersides, edges and/or jams for which there is no paint color formula to achieve a color match. When necessary, reference "color match or tinting" listed above in Not Included Operations.

Raw Substrate Prep
Allow .2 per refinish hour (20%) for plastic components that come from the manufacturer/supplier in a raw/un-primed state.

Source: Portions Copyright 2012, Mitchell International, Inc. – Mitchell P-Pages, Rev. 10-09. Page 16
3. According to the Information Providers, 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.

Fact 3 - Repair times stop at 150 grit. Refinish times start at 320-400 Dry and 500-600 Wet.

- AudaExplore – “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.”

Fact 3: Repair times stop at 150 grit. Refinish times start at 320-400 Dry and 500-600 Wet.

Question: Is going from 150 to 320 grit recommended?

Answer: No, it is not recommended. Known as GAP, when you jump more than 2 grit sizes.
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.

## Section 4-5 Refinish Operations

**Refinish Operations**

Audafilex refinishing labor generally includes time to perform all operations necessary to accomplish refinishing for new and undamaged OEM or equivalent panels. Audafilex refinishing labor begins at 320 - 400 grit (dry) or 500 - 600 grit (wet) as this is the starting point for refinishing of a new, undamaged panel. Audafilex refinishing 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 jambs 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 flex 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
- Stripe 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, hoods, etc.) are removed and refinished See included “protect interior operation”
- Mask mouldings
- Spray additional test panel
- Blending into adjacent panels (see Blending, page 146)
- Color Sand and Buff (see page 149)
- 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
- Tin primer or clear coat
- Application of e-coat equivalent
- Application of “high build” primer
- Undercoating
- Metal preparation and corrosion protection beyond those listed in Included Operations (i.e. cavity wax)
- Final wash
- Hazardous waste removal
- Any special coatings applied to luggage compartment
- Second or third bagging or masking of vehicle
- Paint and materials

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*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 Audafilex Estimating, PenPro or Shoplink. The current version of the Database Reference Manual may also be found at www.training.audatex.us.*

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Feather, Prime and Block Negotiation Tool
Version 2.0, November 12, 2015

4. The majority of abrasive manufacturers state that you should NOT jump more than two grit sizes. So, if body work ends at 150 grit and refinish begins at 320 grit, the technician would need to use 150 – 180 – 220 – 240 – 280 – 320 grits.

   ASA — ASA’s Collision Division Refinish Subcommittee conducted a study in March 2006 based on 100 time studies and concluded that there were 80% more refinish procedures required for a repaired panel vs. a new panel. ASA’s Refinish Subcommittee published their results in their “Refinish Fliers.”

The next page shows a copy of the list of refinish procedures identified by ASA as required.

The list of refinish procedures was compiled based on paint manufacturer requirements, industry refinish standards, technical data sheets, warranty requirements and p-pages as of March 2006.
More Refinish Time for Repaired Panels

Compare Basic Refinish Procedures for Repaired vs. New Panels

80% MORE STEPS: 38 repaired panel procedures vs. 21 new panel procedures.**
- Ask insurance companies for procedures on how to “zone refinish” in less time.
- Ask insurance companies for their written research on “zone refinish” times.
- Ask your paint company for procedures given to insurance companies for “zone refinish.”

Use this tool to help explain proper refinish procedures to insurance partners.***

Repaired Panel* vs. New Panel*

1. Apply pin-hole eliminator to body plastic.
2. Sand pin-hole eliminator.
3. Featheredge damaged area for primer.
5. Wax and grease for contamination.
6. Blow off and tack panel for dust.
7. Mix etch primer (for bare metal areas).
8. Apply etch primer for adhesion.
9. Clean up etch primer spray gun.
10. Apply two-part fill primer to repaired area.
11. Bake Primer for cure.
12. Clean up two-part fill primer spray gun.
14. Block-sand repaired area.
15. Possible 2nd - 3rd primate/gun clean up.
17. Unmask for paint prep.
18. Clean panel/edges/vehicle for refinish.
20. Mask and bar for sealer and paint.
22. Mix color (minimum amounts required).
23. Tint (if necessary).
24. Wax and grease for contamination.
25. Blow off and tack panel for dust.
26. Apply sealer.
27. Clean up sealer spray gun.
28. Apply wet-bed (eliminates scratches in blend).
29. Apply base-coat to affected area.
30. Increase flash time.
31. Tack blend area to avoid dirt/overspray.
32. Clean up base coat spray gun.
33. Mix clear coat.
34. Apply two coats of clear.
35. Clean up clear spray gun.
36. Bake at 140° for 30-45 minutes.
37. Cool down process.
38. Unmask for reassembly.

1. Clean panel/edges/vehicle for refinish.
2. Sand and prep panel.
3. Mask/bar for sealer and paint.
4. Mix sealer.
5. Mix color (minimum amounts required).
6. Tint (if necessary).
7. Wax and grease for contamination.
8. Blow off and tack panel for dust.
9. Mix etch primer (for bare metal areas).
10. Apply etch primer for adhesion.
11. Clean up etch primer spray gun.
12. Apply sealer.
13. Clean up sealer spray gun.
14. Apply base-coat color to entire panel.
15. Clean up base coat spray gun.
16. Mix clear coat.
17. Apply two coats of clear.
18. Clean up clear spray gun.
20. Cool down process.

*Based on paint manufacturer requirements, industry refinish standards, technical data sheets, warranty requirements and procedures as of March 2002.
**Additional materials not taken into consideration on this chart (additional paint materials, prime materials, safety equipment, masking materials, etc.).
***Please contact your local paint representative for specific refinish procedures.

Automotive Service Association®
(800) ASA-SHOP
www.ASAshop.org
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ASA Square Footage Feather Edge Time Study
October 11, 2005 by ASA Refinish Subcommittee
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Negotiation Question # 1 – Summary

It has been established and proved thru the source documentation it is required to feather, prime and block in order to return the vehicle to pre-accident condition.
Question 2. Is it included?
2. Is “Feather, Prime and Block” included in any other repair operations?

**Answer:** To determine if “Feather, Prime and Block” is included in any other labor operations, you will need to check several sources.

First, start with the estimating provider’s p-pages.

**AudaExplore** – “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.”


**AudaExplore** – “Audatex does not provide a labor time allowance for repaired panels, as this is a judgment time. Audatex does not provide a labor time allowance for Feather/Prime/Block, as this, too, is a user judgment time. Audatex does not provide a material allowance for the Feather/Prime/Block process. The determination and assessment for this operation is best provided by the estimate preparer for consideration and allowance during the estimate preparation process.”


**CCC/MOTOR** – “PRIME & BLOCK - Prime & block (high build/primer-filler) is a required procedure that restores a repaired panel surface, including the joined areas of replaced welded panels, from 150-grit finish to NEW UNDAM-AGED condition. It is MOTOR’s position that prime and block is a process best reserved for the judgment of an estimator/appraiser following a thorough on-the-spot evaluation of the specific vehicle and damage in question.”

Source: CCC/Motor Guide to Estimating, Rev. 9-14, Page G34

**Mitchell** – “Labor times do Not-Include the Feather, Prime and Block refinish operation. See Procedure 28 in Procedure Expla-nation section, for information on Feather, Prime and Block.”

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

The original source documents from the leading Information Providers follow.
AudaExplore

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.


Audatex does not provide a labor time allowance for repaired panels, as this is a judgment time. Audatex does not provide a labor time allowance for Feather/Prime/Block, as this, too, is a user judgment time. Audatex does not provide a material allowance for the Feather/Prime/Block process. The determination and assessment for this operation is best provided by the estimate preparer for consideration and allowance during the estimate preparation process.

Section 4-4 Refinish Guidelines

Refinish within Panel Boundaries – continued

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.

*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.us.*

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Section 4-4 Refinish Guidelines

**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.

**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.

Audatex recognizes that Feather/Prime/Block are required operations in the panel repair process. Audatex does not provide a labor time allowance for repaired panels, as this is a judgment time. Audatex does not provide a labor time allowance for Feather/Prime/Block, as this, too, is a user judgment time. Audatex does not provide a material allowance for the Feather/Prime/Block process. The determination and assessment for this operation is best provided by the estimate preparer for consideration and allowance during the estimate preparation process.

**Nib Sanding/De-nib**

Nib sanding (or de-nib) is defined as the removal of isolated dirt and dust particles, and polishing 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.

*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, PenPro or Shoplink. The current version of the Database Reference Manual may also be found at www.training.audatex.us.*

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PRIME & BLOCK - Prime & block (high build/primer-filler) is a required procedure that restores a repaired panel surface, including the joined areas of replaced welded panels, from 150-grit finish to NEW UNDAM-AGED condition. It is MOTOR’s position that prime and block is a process best reserved for the judgment of an estimator/appraiser following a thorough on-the-spot evaluation of the specific vehicle and damage in question.

Source: CCC/Motor Guide to Estimating, Rev. 9-14, Page G34
GUIDE TO ESTIMATING

REFINISH TIME LISTINGS

All refinishing times are listed in hours and tenths of an hour. A time in parentheses adjacent to the part name, such as (0.5) indicates the time and one-half hours. Replacement operation time does not include time necessary to remove or to install the component.

Operation times for the application of painted-on stripes are not covered in this publication. The time necessary to perform this type of operation should be estimated after an on-the-spot evaluation of required procedures.

REFINISH TIME PREMISE

Published refinishing times are for one color applied to new undamaged replacement components, without exterior trim, interior trim or other attached components and applied in one continuous operation. For damaged panels, published refinishing times may be applied after the damaged panel has been returned to a NEW UNDAMAGED condition.

Refinishing times do not include time which may be required to match color tints or defective finish textures on interior or exterior surfaces. Nor do they include time which may be required to correct finish imperfections caused by improper weather conditions, application, or environmental contamination such as dust, dirt, grease, etc. MOTOR advises all parties consider these factors beforehand to determine mutually acceptable provisions in the event such conditions exist or occur.

ANTI-THEFT LABELS (R DOT)

Replacement part labels are coded with the letter "R" to show that it is a replacement part. R Dot labels should not be removed from the part. Use caution when refining, rustproofing or undercoating replacement components to avoid damaging the label.

BUMPER COVERS AND OTHER FLEXIBLE COMPONENTS

Refinishing times listed on the parts detail line for these components are based on the item being refinishing prior to installation. Refinishing time listed on the parts detail line for an OEM bumper cover that has both body color and unpainted grained portion allows for the refinishing of the body color only. Masking the grained, textured, or non-body color portion in preparation for body color application is an included operation. It includes exterior surface and edges refinishing during one continuous process. If a separate edging procedure is utilized than the appropriate time should be estimated after an on-the-spot evaluation. Refinishing times do not include removal of mold release agent from new unpainted molded components. Parts received from the OEM manufacturer without primer and some non-OEM parts with or without primer should be tested for the presence of release agents that would cause paint adhesion problems and treated accordingly. For unpainted bumper preparation time, see “Add If Required” operation(s). Preparation time for all other unpainted components should be estimated after an on-the-spot evaluation. For unpainted component preparation time, see Unpainted Flexible Component Preparation on page G39.

DOOR OUTER REPAIR PANELS

Refinishing times listed on the parts detail line for new repair panels (i.e. door outer repair panel, tailgate and liftgate repair panels) include panel lip and immediate area. It does not include time for refinishing the entire door frame edge or interior sides. Where possible, MOTOR will publish time for those areas under a “Refinishing Notes” heading within that group.

DOOR SHELLS, LIFTGATES AND TAILGATES

Refinishing times listed on the parts detail line for these new components include exterior surface, edges and interior sides, unless otherwise noted in text.

REFINISH TIME PREMISE - Continued

DOOR SHELLS, LIFTGATES AND TAILGATES - Continued

Refinishing times listed under the “Refinishing Notes” heading for “door outer panel only” operations do not include time for refinishing the door frame edge or interior side. Where possible, MOTOR will publish time for those areas under a “Refinishing Notes” heading within that group.

FENDERS, HOODS, TRUNK LIDS AND OTHER MAJOR BOLTED PANELS

Refinishing times listed on the parts detail line for these new panels do not include time for refinishing the edge or underside. Where possible, MOTOR will publish time for these areas under a “Refinishing Notes” heading within that group.

QUARTER PANELS AND OTHER MAJOR WELDED PANELS

Refinishing times listed on the parts detail line for these new panels include exterior side, recessed edges, gutters and pockets, unless otherwise noted in text.

Refinishing times listed under the “Refinishing Notes” heading for quarter panels or other major welded panels “exterior surface only” operations do not include time for refinishing recessed edges, gutters and pockets. Where possible, MOTOR will publish time for these areas under the “Refinishing Notes” heading within that group.

NEW UNDAMAGED PANEL

A component manufactured to the same exacting standards as the parts installed on new vehicles when the car was built. Exterior body panels are supplied with a smooth painted surface (e-coat).

UNDERSEAS COLORS

Refinishing times presented in this guide are developed under the premise that the underside and jamb color is the same as the exterior body color. Some vehicle manufacturers use a different color for the engine compartment, trunk compartment and/or jamb. An additional paint mix is required if the underside and/or jamb color is a different color than the exterior body color. Clear coat (gloss or matte) will be required for base color coat applications. This should be considered when using the color formulas.

PRIME & BLOCK

Prime & Block (high build/primer-filler) is a required procedure that restores a repaired panel surface, including the joined areas of replaced welded panels, from 150-grit finish to NEW UNDAMAGED condition. It is MOTOR’s position that prime and block is a process best reserved for the judgment of an estimator/appraiser following a thorough on-the-spot evaluation of the specific vehicle and damage in question.

PARTIAL PANEL REFINISHING

This is NOT a BLEND-WITHIN procedure. Partial panel refinishing is NOT a BLEND operation. MOTOR defines partial panel refinishing as refinishing a body panel with damage that is contained within a defined border or underneath body cladding after the panel has been repaired to that of a “NEW UNDAMAGED PANEL.” It is MOTOR’s position that partial panel refinishing is a process best reserved for the judgment of an estimator/appraiser following a thorough on-the-spot evaluation of the specific vehicle and refinishing requirements in question. Refer to G.T.E., “BASIC COLOR COAT APPLICATION.”

Footnotes found in a chapter contain vehicle-specific information. The content 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 G34
Labor times do Not-Include the Feather, Prime and Block refinish operation. See Procedure 28 in Procedure Explanation section, for information on Feather, Prime and Block.

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

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 necessarily contain all the labor for a repair.

Comprehensive Labor Time
While completeness is striving 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 and 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: BUMPERFRONT PANEL is followed by "Use Procedure Explanations 1, 3 and 28 with the following text." This indicates that the text 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.

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. 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, few 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 harness and computer module.
• Time to reset memory code (example: seat position, radio preset) when battery has been disconnected to perform repairs.
• Time to complete computer release 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
DEG Inquiry #3223

Inquiry description:
Prime Or Seal

Issue Summary// Included procedures for refinishing lists "prime or seal as required". The premise is for new undamaged parts. Shops do not need to "prime" a new part. Insurance adjusters are telling me priming is included in refinish time.

Suggested Action//Take the word prime out of the statement

Resolution description:

THANK YOU FOR YOUR INQUIRY
PUBLISHED REFINISH TIMES ARE FOR NEW, UNDAMAGED PARTS.
PLEASE REFERENCE THE FOLLOWING PROCEDURE PAGE 28 INFORMATION PERTAINING TO REPAIRED PANELS:

*REPAIRED/USED PANELS*
LABOR TIMES RELATED TO REPAIRED AND/OR USED PANELS-EXAMPLE: REMOVE AND INSTALL OR MASKING OF GLASS, OUTSIDE HANDLES OR EXTERIOR TRIM, FEATHER PRIME & BLOCK, MASKING FOR PRIMER SURFACER APPLICATION-ARE NOT INCLUDED IN REFINISH TIME. THE STEPS REQUIRED FOR REFINISHING A REPAIRED AND/OR USED PANEL MAY VARY FROM THOSE REQUIRED FOR A NEW PANEL DEPENDING ON THE CONDITION OF THE REPAIRED AND/OR USED PANEL.

ALSO PLEASE REFERECE THE FOLLOWING FROM THE LIST OF NON-INCLUDED OPERATIONS AS FOLLOWS: FEATHER, PRIME & BLOCK PAINT DAMAGE TO ADJACENT PANEL AND/OR PANELS JOINED BY WELDING DUE TO BURN DAMAGE (SEE FEATHER, PRIME & BLOCK DEFINITION UNDER REFINISH GENERAL INFORMATION)

ALSO PLEASE REFERECE THE FOLLOWING FROM PROCEDURE 28 PERTAINING TO FEATHER, PRIME & BLOCK: *FEATHER, PRIME & BLOCK* IS THE NOT-INCLUDED REFINISH OPERATION THAT COMPLETES BODYWORK REPAIR FROM 150 GRIT SMOOTHNESS TO THE CONDITION OF A NEW UNDAMAGED PANEL, AND THE POINT AT WHICH REFINISH LABOR TIME BEGINS. THE LABOR AND MATERIALS ASSOCIATED WITH FEATHER, PRIME AND BLOCK MAY VARY DEPENDING UPON THE SIZE OF THE REPAIR AREA, AND SHOULD BE EVALUATED WHEN DETERMINING THE WORK TO BE PERFORMED. SEE WELDED PANELS UNDER ESTIMATING INFORMATION.

**DEG Inquiry #3223**

**DEG DATABASE INQUIRY**

<table>
<thead>
<tr>
<th>Track #</th>
<th>Estimating</th>
<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>

**Description**

<table>
<thead>
<tr>
<th>Prime Or Seal</th>
<th>Inquiry Description</th>
<th>No Change</th>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&quot;REPAIRED/USED PANELS.*&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>LABOR TIMES RELATED TO REPAIRED AND/OR USED PANELS-EXAMPLE: REMOVE AND INSTALL OR MASKING OF GLASS, OUTSIDE HANDLES OR EXTERIOR TRIM, FEATHER PRIME &amp; BLOCK, MASKING FOR PRIMER SURFACER APPLICATION-ARE NOT INCLUDED IN REFINISH TIME. THE STEPS REQUIRED FOR REFINISHING A REPAIRED AND/OR USED PANEL MAY VARY FROM THOSE REQUIRED FOR A NEW PANEL DEPENDING ON THE CONDITION OF THE REPAIRED AND/OR USED PANEL. ALSO PLEASE REFERECE THE FOLLOWING FROM THE LIST OF NON-INCLUDED OPERATIONS AS FOLLOWS:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FEATHER, PRIME &amp; BLOCK PAINT DAMAGE TO ADJACENT PANEL AND/OR PANELS JOINED BY WELDING DUE TO BURN DAMAGE (SEE FEATHER, PRIME &amp; BLOCK DEFINITION UNDER REFINISH GENERAL INFORMATION)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>&quot;FEATHER, PRIME &amp; BLOCK:*&quot; IS THE NOT-INCLUDED REFINISH OPERATION THAT COMPLETES BODYWORK REPAIR FROM 150 GRIT SMOOTHESS TO THE CONDITION OF A NEW UNDAMAGED PANEL. THE POINT AT WHICH REFINISH LABOR TIME BEGINS. THE LABOR AND MATERIALS ASSOCIATED WITH FEATHER, PRIME AND BLOCK MAY VARY DEPENDING UPON THE SIZE OF THE REPAIR AREA, AND SHOULD BE EVALUATED WHEN DETERMINING THE WORK TO BE PERFORMED, SEE WELDED PANELS UNDER ESTIMATING INFORMATION.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In addition, ASA’s *Reference Chart of Not-Included Operations* puts “Feather, Prime and Block” on the list under “Refinish” as shown below.

<table>
<thead>
<tr>
<th>Refinish</th>
<th>Refinish</th>
<th>Common R&amp;I Parts</th>
</tr>
</thead>
<tbody>
<tr>
<td>R&amp;I Parts for Refinishing</td>
<td>Add 1 Spray Out Test Panels</td>
<td>Front License Bracket</td>
</tr>
<tr>
<td>Repair Adj. Panel Weld Damage</td>
<td>Add 1 Tint for Color Match</td>
<td>Antenna</td>
</tr>
<tr>
<td>Pre-Existing Surface Problems</td>
<td>Add 1 Tint for Underside Match</td>
<td>Mud Guards</td>
</tr>
<tr>
<td>Spot Putty</td>
<td>Color Blend Adjacent Panels</td>
<td>Mouldings (if optional)</td>
</tr>
<tr>
<td>Epoxy Priming</td>
<td>Multicolor/Gloss/Texture</td>
<td>Ornamentation (if optional)</td>
</tr>
<tr>
<td>Chip Guard Removal</td>
<td>Retexturing</td>
<td>Emblems (if optional)</td>
</tr>
<tr>
<td>Wash Vehicle Prior to Painting</td>
<td>Luggage Compartment Coating</td>
<td>Mirrors</td>
</tr>
<tr>
<td>Removal of Mold Release Agent</td>
<td>De-Nib and Finesse</td>
<td>Spoilers/Flares</td>
</tr>
<tr>
<td>Prime Raw Plastic Parts</td>
<td>Finish Sand and Buff</td>
<td>Ground Effects</td>
</tr>
<tr>
<td>Chip Guard Application</td>
<td>Apply Protective Coatings</td>
<td>Audio Equipment</td>
</tr>
<tr>
<td><strong>Feather, Prime and Block</strong></td>
<td>Fuel Surcharge</td>
<td>Luggage Rack</td>
</tr>
<tr>
<td>Mask Attaching Parts</td>
<td>Cavity Wax</td>
<td>Accessory Items</td>
</tr>
<tr>
<td>Mask Decals/VIN Plates</td>
<td>Cover Car for Priming</td>
<td>Seat Belt Components</td>
</tr>
<tr>
<td>Mask Beyond 36” Perimeter</td>
<td>Cover Car for Jambing/Cut-in</td>
<td>Spare Tire</td>
</tr>
<tr>
<td>Mask for Primer</td>
<td></td>
<td>Brake Lines</td>
</tr>
</tbody>
</table>
SCRS includes “Featheredge, Prime and Block” in various bodywork activities in its Guide to Complete Repair Planning.

<table>
<thead>
<tr>
<th>05- Hood:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>30. R&amp;I WINDSHIELD WASHER NOSELS (REPAIR SITUATION)</td>
<td></td>
</tr>
<tr>
<td>31. R&amp;I HOOD INSULATION</td>
<td></td>
</tr>
<tr>
<td>32. WINDSHIELD WASHER HOSE RETAINERS (MORE THAN ONE DESIGN)</td>
<td></td>
</tr>
<tr>
<td>33. REPAIR HOOD LATCH</td>
<td></td>
</tr>
<tr>
<td>34. REPAIR HOOD HINGES AND/OR HINGE MOUNT AREA</td>
<td></td>
</tr>
<tr>
<td>35. ACCESS TIME TO REVEAL DAMAGE</td>
<td></td>
</tr>
<tr>
<td>36. FEATHEREDGE, FILL SAND AND BLOCK (REPAIRED HOOD)</td>
<td></td>
</tr>
<tr>
<td>37. SEAL SEAL INNER EDGE OF NEW HOOD</td>
<td></td>
</tr>
<tr>
<td>38. R&amp;I OR R&amp;R HOOD HINGE</td>
<td></td>
</tr>
<tr>
<td>39. R&amp;I COWL VENT PANEL (ACCESS TO HINGE)</td>
<td></td>
</tr>
<tr>
<td>40. TEST FIT HOOD</td>
<td></td>
</tr>
<tr>
<td>41. MIX PAINT FOR UNDERSIDE SECOND COLOR (Add for 3rd and 4th Color)</td>
<td></td>
</tr>
<tr>
<td>42. COLOR TINT &amp; TEST FOR UNDER SIDE SECOND COLOR</td>
<td></td>
</tr>
<tr>
<td>43. MASK HOOD INNER EDGES</td>
<td></td>
</tr>
<tr>
<td>44. WINDSHIELD WASHER HOSE FASTENER-S (1ST DESIGN)</td>
<td></td>
</tr>
<tr>
<td>45. WINDSHIELD WASHER HOSE FASTENERS (2ND DESIGN)</td>
<td></td>
</tr>
<tr>
<td>46. HOOD INSULATION RETAINER FASTENERS, REPLACE</td>
<td></td>
</tr>
<tr>
<td>47. HOOD FRONT SEAL/ FASTENERS</td>
<td></td>
</tr>
<tr>
<td>48. HOOD REAR SEAL/ FASTENERS</td>
<td></td>
</tr>
<tr>
<td>49. HOOD LABELS (HOW MANY/WICH ONES?)</td>
<td></td>
</tr>
</tbody>
</table>
CIC Position Statement

The CIC Position Statement on Feather / Prime / Block, supports that the activity is a not-included refinish operation.

Feather / Prime / Block

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.

The refinish process starts at the condition of a new undamaged panel and is 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 is a valid and required step in the process. The labor and material allowance for these operations requires an on the spot evaluation of the specific vehicle and damage.
Negotiation Question # 2 – Summary

It has been established and proved thru the source documentation that feather, prime, and block is a not-included labor operation.
Question 3. Is there a pre-determined time?
3. Is there a pre-determined time in the estimating system for “Feather, Prime and Block”?

Answer: The Information Providers do not provide any times in their systems for “Feather, Prime and Block.”
AudaExplore

AudaExplore does not provide a labor time allowance for repaired panels, as this is a judgment time. AudaExplore does not provide a labor time allowance for Feather/Prime/Block, as this, too, is a user judgment time. AudaExplore does not provide a material allowance for the Feather/Prime/Block process. The determination and assessment for this operation is best provided by the estimate preparer for consideration and allowance during the estimate preparation process.

Section 4-4 Refinish Guidelines

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.

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.

Audatex recognizes that Feather/Prime/Block are required operations in the panel repair process. Audatex does not provide a labor time allowance for repaired panels, as this is a judgment time. Audatex does not provide a labor time allowance for Feather/Prime/Block, as this, too, is a user judgment time. Audatex does not provide a material allowance for the Feather/Prime/Block process. The determination and assessment for this operation is best provided by the estimate preparer for consideration and allowance during the estimate preparation process.

Nib Sanding/De-nib

Nib sanding (or de-nib) is defined as the removal of isolated dirt and dust particles, and polishing 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.

AudaExplore

Dear Mr. Schulenburg,

I am pleased to inform you that the upcoming release of AudaExplore’s estimating software will include the industry’s first solution for Feather, Prime and Block (FP&B). With this new feature, whenever a panel is repaired and a user-judgment time is entered the estimator will have the option to allocate some of the repair time to a new labor operation, Feather, Prime and Block, which will calculate as Refinish Labor (Rate Code 4).

In addition, we are adding a new material calculation specifically to address Feather, Prime and Block. This will operate in much the same manner as Paint and Materials, as it will be a user-entered dollar value that will act as a multiplier for all FP&B hours in the estimate.

All of this will be clearly displayed on the estimate as line items and in the summary at the bottom of the estimate. The use of the Feather, Prime and Block feature is configurable at the discretion of the estimator.

AudaExplore is pleased to be the first provider to announce this new feature. Many of you know that Feather, Prime & Block was recognized by the industry as a refinish operation necessary to perform quality repairs through the Collision Industry Conference. I’m very please that AudaExplore is the first provider to address this important industry issue.

AudaExplore has held two Collision Repair summits and multiple shop user focus groups within the past 14 months and have heard clearly that FP&B is an industry concern. We are committed to listening to you, the voice of our customer, and acting upon what you tell us. We have also included several more features designed to address repairer concerns in the upcoming release which you will be hearing more about in the coming weeks.

Sincerely,

Rick E Tuuri
VP, Industry Relations
AudaExplore, A Solera Company
Dear Mr. Schulenburg,

I am pleased to inform you that the upcoming release of AudaExplore’s estimating software will include the industry’s first solution for Feather, Prime and Block (FP&B). With this new feature, whenever a panel is repaired and a user-judgment time is entered, the estimator will have the option to allocate some of the repair time to a new labor operation, Feather, Prime and Block, which will calculate as Refinish Labor (Rate Code 4).

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Sincerely,

Rick E. Tuuri

VP, Industry Relations

AudaExplore, a Solera Company
PRIME & BLOCK - Prime & block (high build/primer-filler) is a required procedure that restores a repaired panel surface, including the joined areas of replaced welded panels, from 150-grit finish to NEW UNDAM-AGED condition. It is MOTOR’s position that prime and block is a process best reserved for the judgment of an estimator/appraiser following a thorough on-the-spot evaluation of the specific vehicle and damage in question.

Source: CCC/Motor Guide to Estimating, Rev. 9-14, Page G34
GUIDE TO ESTIMATING

REFinish TIME LISTINGS

All refinishing times are listed in hours and tenths of an hour. A time in parentheses adjacent to the part name, such as (0.5), indicates three and one half hours. Replacement operation time does not include time necessary to refresh the component.

Operation times for the application of materials not covered in this publication. The time necessary to perform this type of operation should be estimated after an on-the-spot evaluation of required procedure.

REFinish TIME PREMISE

Published refinishing times are for one color applied to new undamaged replacement components, without exterior trim, interior or trim or other attached components and applied in one continuous process. For damaged panel(s), published refinishing times may be applied after the damaged panel has been returned to a NEW UNDAMAGED condition.

Refinishing times do not include time which may be required to match color tints or defective finish textures on interior or exterior surfaces. Nor do they include time which may be required to correct finish imperfections caused by improper weather conditions, application, or environmental contamination such as dust, dirt, grease, etc. MOTOR advises all parties consider these factors beforehand to determine mutually acceptable provisions in the event such conditions exist or occur.

ANTI-THIEF LABELS OR DOT

Replacement part labels are coded with the letter “R” to show that it is a replacement part. “R” Dot labels should not be removed from the part. Use caution when refinishing, sanding or undercoating replacement components to avoid damaging the label.

BUMPER COVERS AND OTHER FLEXIBLE COMPONENTS

Refinishing times listed on the parts detail lines for these components are based on items being refinished prior to installation. Refinishing times listed on the parts detail line for the OEM bumper cover that has both body color and unpainted polished portion allows for the refinishing of the body color only. Masking the polished, textured, or non-body color portions in preparation for body color application is an included operation. It includes exterior surface and edges refinished during one continuous process. If a separate edging procedure is utilized then the appropriate time should be estimated after an on-the-spot evaluation. Refinishing times do not include removal of mold release agent from new unpainted molded components. Parts received from the OEM manufacturer without primer and/or paint the painted parts will require without primer should be tested for the presence of release agents that would cause paint adhesion problems and treated accordingly. For unpainted bumper preparation time, see “Add If Required” operation(s). Preparation time for all other unpainted components should be estimated after an on-the-spot evaluation. For unpainted component preparation time, see Unpainted Flexible Component Preparation time on page 29.

DOOR OUTER REPAIR PANELS

Refinishing times listed on the parts detail line for new repair panels (i.e. door outer panel repair, tailgate and liftgate repair panels) include panel lip and immediate area. It does not include time for refinishing the exterior door frame edge or interior side. Where possible, MOTOR will publish time for those areas under a “Refinishing Notes” heading within that group.

DOOR SHELLS, LIFTGATES AND TAILGATES

Refinishing times listed on the parts detail line for these new components include exterior surface, edges and interior sides, unless otherwise noted in text.

NEW UNDAMAGED PANEL

A component manufactured to the same exacting standards as the parts installed on new vehicles when the vehicle was built. Exterior body panels are supplied with a smooth painted surface (e-cost).

UNDERSIDE COLORS

Refinishing times presented in this guide are developed under the premise that the underside and jamb color is the same as the exterior body color. Some vehicle manufacturers use a different color for the engine compartment, trunk compartment and/or jamb. An additional paint mix is required if the underside and/or jamb color is a different color than the exterior body color. Clear coat (gloss or matte) will be required for base color cost applications. This should be considered when estimating the cost.

GUIDE TO ESTIMATING - Continued

DOOR SHELLS, LIFTGATES AND TAILGATES - Continued

Refinishing times listed under the “Refinishing Notes” heading for door outer panel only” operations do not include time for refinishing the door frame edge or interior side. Where possible, MOTOR will publish time for those areas under a “Refinishing Notes” heading within that group.

FENDERS, HOODS, TRUNK LIDS AND OTHER MAJOR BOLTED PANELS

Refinishing times listed on the parts detail line for these new panels do not include time for refinishing the edges or undersides. Where possible, MOTOR will publish time for those areas under a “Refinishing Notes” heading within that group.

QUARTER PANELS AND OTHER MAJOR WELDED PANELS

Refinishing times listed on the parts detail line for these new panels include exterior side, recessed edges, gutters and pockets, unless otherwise noted in text. Refinishing times listed under the “Refinishing Notes” heading for quarter panels or other major welded panels “exterior surface only” operations do not include time for refinishing recessed edges, gutters and pockets. Where possible, MOTOR will publish time for these areas under the “Refinishing Notes” heading within that group.

NEW UNDAMAGED PANEL

A component manufactured to the same exacting standards as the parts installed on new vehicles when the car was built. Exterior body panels are supplied with a smooth painted surface (e-cost).

UNDERSIDE COLORS

Refinishing times presented in this guide are developed under the premise that the underside and jamb color is the same as the exterior body color. Some vehicle manufacturers use a different color for the engine compartment, trunk compartment and/or jamb. An additional paint mix is required if the underside and/or jamb color is a different color than the exterior body color. Clear coat (gloss or matte) will be required for base color cost applications. This should be considered when estimating the cost.

PRIME & BLOCK

Prime & block (high build/primer-filler) is a required procedure that restores a repaired panel surface, including the joints areas of repaired welded panels, from 150-grit finish to NEW UNDAMAGED condition. It is MOTOR’s position that prime and block is a process best reserved for the judgment of an estimator/appraiser following an thorough on-the-spot evaluation of the specific vehicle and damage in question.

REFINISHED PANEL REFINISHING

MOTOR suggests using component(s) base refinishing time for this type of procedure after the damaged panel is repaired to new undamaged condition. Repaired surface preparation requires an on-the-spot evaluation for additional procedural steps such as featheredge and/or prime and block not required for new undamaged panels.

PARTIAL PANEL REFINISHING

This is NOT A BLEND-WITHIN procedure; partial panel refinishing is NOT a BLEND operation. MOTOR defines partial panel refinishing as refinishing a body panel with damage that is contained within a defined border or underneath body cladding after the panel has been repaired to that of a "NEW UNDAMAGED PANEL." It is MOTOR’s position that partial panel refinishing is a process best reserved for the judgment of an estimator/appraiser following a thorough on-the-spot evaluation of the specific vehicle and refinishing requirements in question. Refer to G.T.E. “BASIC COLOR COAT APPLICATION.”

Source: CCC/Motor Guide to Estimating, Rev. 9-14, Page G34
The labor and materials associated with feather, prime and block may vary depending upon the size of the repair area, and should be evaluated when determining the work to be performed. See Welded Panels under Estimating Information.

Source: Portions Copyright 2012, Mitchell International, Inc. – Mitchell P-Pages, Rev. 10-09. Page 16
Procedure Explanation

Bumper Assembly OH
Included Operations
- Remove and install assembly
- Disassemble and replace damaged parts
- Replace or transfer parts attached except those listed in Not Included Section
- Remove and install or replace: License plate bracket
- Assemble and install
- Adjust alignment to vehicle

Not Included Operations
- Refinish bumper
- Remove and replace impact absorbers or mounting arms
- Remove and install or replace optional accessories (example: trailer hitch, trailer connector)
- Remove and install adhesive exterior trim; add to clean and rebase
- Replace new adhesive exterior trim; deduct one-half of R&R time
- Install strips, decals, transfers or overlays

Procedure 28—Refinish Procedure

Refinish General Information
Complete Refinish
Refinish times in this Guide pertain to NEW, UNDAMAGED PARTS and are not intended for calculating complete vehicle refinish—single- or multi-stage. An estimate of this nature would suggest all new panels have been fitted to the vehicle.

Lifetime Refinish Warranty/Clear Coat
The major paint manufacturers listed below have provided the following information: “Major refinish paint manufacturers recommend that when performing refinish warranty repairs on an OEM multi-stage or basecoat/clearcoat finish, you must extend the application of clear to the nearest panel edge or breakpoint to qualify for lifetime warranty.” AKZO — DuPont — Sherwin Williams — BASF — PPG

Repaired/Used Panels
Labor times related to repaired and/or used panels—example: Remove and install or replace: glass, outside handles or exterior trim, weather primer & block, masking for primer surfacer application—are not included in refinish time. The steps required for refinish a repaired and/or used panel may vary from those required for a new panel depending on the condition of the repaired and/or used panel.

Feather, Prime & Block

* Is the not-included refinish operation that completes bodywork repair from 1/16th of an inch to the condition of a new undamaged panel, and the point at which refinish labor time begins. The labor and materials associated with feather, prime and block may vary depending upon the size of the repair area, and should be evaluated when determining the work to be performed. See Wasted Panels under Estimation Information.

SPOT REPAIR/BLEND ADJACENT PANEL
Spot Repair
Spot repair is defined as applying color to the repaired area of a damaged panel to obtain full coverage of undercoats, and blending that color into the original panel finish so that no transition can be detected. The goal is to keep the actual repair as small as possible to avoid having newly applied color directly next to an undamaged adjacent panel(s). Clear coat is then applied to the entire panel. This refinish process minimizes color mismatch.

Blend for Color Match
Blending is defined as applying color, without necessity to cover undercoats, to less than the full surface area of an adjacent undamaged panel. Paint manufacturers recommend blending adjacent panels when a panel is replaced, or repaired and color applied to the full surface areas, or to the area that borders the adjacent undamaged panel(s). Clear coat is then applied to the entire blended panel.

Major Panels
Major panels are those listed: FRONT HEADER, FENDER, HOOD, COWL TOP, DOOR, ROCKER, ROOF, PICKUP CAB CORNER, PICKUP CAB BACK, QUARTER, PICKUP BED FRONT, PICKUP BED SIDE, VAN SIDE, VAN REAR CORNER, ENGINE Lid, LUGGAGE Lid, LIFT GATE, REAR TAILGATE, REAR BODY

Overlap
Deduct 4 hour from refinish time for each ADJACENT MAJOR PANEL and deduct 2 hour from time for each NON-ADJACENT MAJOR PANEL. There is no overlap deduction taken for the first major panel.

Adjacent major panel example: Right front fender 2.5 hours (full time) and right front door 2.5 hours minus 4 hour overlap for a total of 4.6 hours.

Non-adjacent major panel example: Right front fender 2.5 hours (full time) and left front fender 2.5 hours minus 2 hour overlap for a total of 4.8 hours.

No overlap deductions for valve cover, pillars, door jams, underbody of hood, underside of luggage lid or underbody of rear panel, inner panels, filler panels, soft bumper covers or rear bumper panel.

NOTE: Refinish times are for outside surfaces only unless stated otherwise in text (example: add for underside, add to edge). Included Operations
- Solvent wash
- Scuff panel and clean
- Mask adjacent panels up to 36 inches or substitute with cover vehicle (bag complete)
- Prime or seal as required
- Final sanding and clean
- Mix materials
- Adjust spray equipment
- Apply color
- Clean equipment

Not Included Operations
- Blending into adjacent panel and/or panels, or nearest breaking point
- Color match or tinting
- Applying anti-corrosion rust resistant materials
- Additional application of soft chip primers or anti-chip undercoats
- Finish sand and buff
- Subsequent vehicle bagging when required: add .2 hour for each application and removal
- Mask interior to prevent overspray damage
- Removal of protective coatings
- Removal of release agent from OEM raw plastic components (example: non-oiled bumper covers). See formula under Raw Substrate Prep
- Feather, Prime & Block paint damage to adjacent panel and/or panels coated by welding due to burn damage (see Feather, Prime & Block definition under Refinish General Information)
- Gravel guard refinish: add 5 hour for the first major panel and 3 hour for each additional panel.

NOTE: The included operation of mask adjacent panels is inclusive of any necessary back tape masking to prevent overspray.

IMPORTANT REMINDER: Refinish times are for NEW, UNDAMAGED PARTS without exterior or interior trim or attached components. Refinish times may vary depending on individual procedures, product and/or weather conditions.

A small percentage of colors are identified by the paint manufacturers as highly transparent. These colors may require additional application coats to achieve visual hiding. In instances where four or more color coats are necessary to achieve adequate hiding, some adjustment in refinish times may be appropriate.

IMPORTANT REMINDER: The cost of paint and materials is not included in refinish time.

NOTE: Gravel Guard application and appropriate refinish may be necessary beyond the actual replacement area to achieve a "texture" match.

It may be necessary to tint or otherwise modify non-exterior colors applied to underbody, edges and/or jams for which there is no paint color formula to achieve a color match. When necessary, reference "color match or tinting" listed above in Not Included Operations.

Raw Substrate Prep
Allow 2 per refinish hour (20%) for plastic components that come from the manufacturer/supplier in a raw/unprimed state.

Source: Portions Copyright 2012, Mitchell International, Inc. – Mitchell P-Pages, Rev. 10.09. Page 16
Negotiation Question # 3 – Summary

There are no pre-determined times for feather, prime and block as identified by the Information Providers.
Question 4.
What is it worth?
4. What is it worth?

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

The following items are included as justification:

– Conduct your own time study:
  o Create a time study form
  o Create a video of the time study
### Time Study Form Example

**SQUARE FOOTAGE BEFORE FEATHEREDGE**

\[
\text{IN.} \times \text{IN.} = \frac{\_\_\_\_\_\_}{144} = \text{\_\_\_\_\_ SQ. FT.}
\]

(Consider 1 sq. ft., 2 sq. ft., and 3 sq. ft. samples)

**ASSUME:** Quality body repair operations are finished and straightened. The vehicle has been soap and water washed before body repair. The vehicle is located in the prep stall.

<table>
<thead>
<tr>
<th>Task Description</th>
<th>Time (min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gather Tools/Equipment</td>
<td>___</td>
</tr>
<tr>
<td>Gather Supplies</td>
<td>___</td>
</tr>
<tr>
<td>Solvent Wash Area Prior to Sanding</td>
<td>___</td>
</tr>
<tr>
<td>Featheredge &amp; Scuff Sand Repair Area</td>
<td>___</td>
</tr>
<tr>
<td>Solvent Wash Prior to Mask</td>
<td>___</td>
</tr>
<tr>
<td>Rough Mask for Primer Surferce</td>
<td>___</td>
</tr>
<tr>
<td>Mix Wash or Acid Etch Primer</td>
<td>___</td>
</tr>
<tr>
<td>Apply Wash or Acid Etch Primer</td>
<td>___</td>
</tr>
<tr>
<td>Rinse Spray Gun</td>
<td>___</td>
</tr>
<tr>
<td>Mix &amp; Catalyze Surferce (Color Based)</td>
<td>___</td>
</tr>
<tr>
<td>Spray Surferce</td>
<td>___</td>
</tr>
<tr>
<td>Apply Guide Coat</td>
<td>___</td>
</tr>
<tr>
<td>Block Sand w/ Cutting Grade of Paper</td>
<td>___</td>
</tr>
<tr>
<td>Re-apply Surferce (if necessary)</td>
<td>___</td>
</tr>
<tr>
<td>Re-apply Guide Coat (if necessary)</td>
<td>___</td>
</tr>
<tr>
<td>Block Sand w/ Finish Grade of Sandpaper</td>
<td>___</td>
</tr>
<tr>
<td>Unmask</td>
<td>___</td>
</tr>
<tr>
<td>Replace Tools/Equipment</td>
<td>___</td>
</tr>
<tr>
<td>Replace Supplies</td>
<td>___</td>
</tr>
<tr>
<td>Clean Spray Gun &amp; Mixing Containers</td>
<td>___</td>
</tr>
<tr>
<td>Wash Sanding Sludge or Dust from Repair Area</td>
<td>___</td>
</tr>
</tbody>
</table>

Do not count any drying or flash of times of washing, etching or surferce operations.

**TOTAL** min.

\[ \text{Total} \div 60 \]

___ hr(s).
Additional Thoughts

- Don’t forget the material costs.
- Feather, Prime and Block - sand, prime with high build primer. If the component is welded-in, then you don’t have to block. If required, then the correct order is fill, sand and feather. Also called prep repairs for paint.
- **Audatex Feather Prime and Block** - In order to calculate for materials, Audatex users must go into each unique profile within the estimating system and define the materials rate for Feather Prime and Block in the rate tab. Like all undefined rates, this will default to $0.00 until defined by the user. During the estimate preparation process, you must factor the necessary time for feather, prime and block into the repair time, and then allocate the portion of the total repair hours that they want apply to the Feather, Prime and Block operation.
- Keep in mind that .1 = 6 minutes
- When determining labor times, remember it should be based on “How long it takes the average technician to gather up their tools, equipment, and supplies and perform the task in a safe manner and return their tools, equipment and supplies back to their storage location.”
- 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