# **PDR PAGES**

### PDR Standards and Industry Guidelines Authored by PDR Nation and NAPDRT





Technicians United For a Better Industry

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# **OVERVIEW**

These pages are designed as a guideline to educate technicians, adjusters, body shops and the general public on which procedures could be required to perform proper PDR (Paintless Dent Removal) repairs on a vehicle. These pages do not state that all procedures listed must be required at all times but instead give insight to the procedures that may need be required and should always be considered when requested by the technician repairing the vehicle.

### **GENERAL GUIDELINES**

### **VEHICLE CONDITION:**

Estimate should be completed on a cleaned vehicle, indoors, and using professional PDR lighting equipment.

### **SPECIAL CAUTIONS:**

Details of this guide are subject to the specifics of each situation. It is understood that no two dents, storms, or technicians are alike and should be evaluated on an individual basis. This includes but is not limited to variance in repair location, damage specific to each storm, previous damage to the location of current repair, and more. All claims should be assessed individually.

### **ESTIMATING EXPLANATION:**

The necessities of the following procedures should be left to the discretion of the servicing PDR technician. The noted procedures may be needed to gain access to any damaged areas for the dent removal process to begin. Proper R&I techniques shall be used according to OEM-manufacturer's specs. It is understood that the listed items below do not include: Dent removal, cleaning or preparing the panel, or circling/highlighting the damage for estimating purposes. The finish of the vehicle is of vital importance in consideration of PDR as a viable method of repair. To obtain the desired end result of a quality PDR repair, paint must be in good condition.

Factors that may prohibit complete auto-body factory condition restoration

Including, but not limited to:

Matte finish Vehicle wraps Stripes, decals, transfers or overlays Aftermarket panels Non OEM factory paint Damaged/fractured paint Rock chips Panels with prior conventional repairs or repainted panels Previous damage unrelated to storm event In high winds, some damage may be caused by storm debris such as broken branches from nearby trees, solid objects being carried by high winds, etc.

## DAMAGE ESTIMATION GUIDELINES

### **DETERMINING DENT SIZE:**

When using the sizing coin/magnet, the edges of the dent must be inclusive of the size of the measured circles to be considered that specific size. If the edges of the dent damage exceed the size of the circle on the magnet, then the dent is counted as being the next size up and will not be estimated at the size down or smaller than the actual damage. The affected area is to be determined by the PDR Technician and may include surface area greater than that of the measured indentation.

# DENTS/PANELS THAT SHOULD NOT BE SUBJECT TO STANDARD PRICING:

The following items can be added to an estimate and may incur additional repair costs. Additional items should not be limited to one per panel since each item independently adds to the time and difficulty of the repair. The vehicle and vehicle damage will be inspected to determine access and repair technique/ difficulty. Items that may result in a longer, and/or more difficult repair and may incur additional repair costs include but are not limited to:

### **Tall Vehicles**

Vehicle panels that require a technician to use the assistance of a bench/ladder in order to gain access to perform the repair.

### **Panels with Laminated Glass**

Laminated glass is especially susceptible to damage. Special caution must be taken in order to properly perform a repair on panels containing laminated glass.

### **Extended Roof**

Extra time and advanced techniques/tools can be required to properly repair an extended roof.

### **Glue Pulling**

Glue pulling a dent(s) takes significantly longer to repair than the standard repair method. Some panels require the glue pulling method in order to be repaired properly.

### **Double Panels/Heavily Braced Panels**

This should not be limited to roof rails, doors, and deck lids. This includes areas that are not typically involved in the discussion of double paneled areas. Front of hoods, tops of doors, door area underneath belt molding, quarter panels at front, and deck lids are often heavily braced. A panel is considered a heavily braced / and or a double panel when there is little to no direct access to the damaged area.

# High Strength Steel (HSS) and Ultra High Strength Steel (UHSS)

HSS/UHSS have a higher Tensile Strength (MPa), resulting in a more challenging and time consuming repair.

### Aluminum

Aluminum has less metal memory, resulting in a more challenging and time consuming repair.

### **Extra Thin Metal**

Extra thin metal results in a more challenging and time consuming repair.

### **Panels with Sound Deadening**

Sound deadening creates a barrier between the technician's tool and the damage, resulting in a more challenging and time consuming repair.

### **Poor Access**

Extra/tight bracing and lack of factory access holes can create poor access.

### **Extra Large Panel**

Unusually large panels can create leverage problems, access difficulty and require extra time and advanced techniques.

### **Ribbed Roof**

A ribbed roof results in having to repair dents on concave and convex surfaces. Dents that are not on flat surfaces result in a more challenging and time consuming repair.

### **Deep Dents**

Dent depth can be assessed visually by qualified technicians, or measured in mm using a depth gauge.

### **Over-Sized Dents**

See section titled "DETERMINING DENT SIZE". With minute increases in size of the damage the difficulty of repair increases exponentially. Half dollar, Egg, Tennis ball, Baseball, Softball, and Grapefruit; should all be evaluated as their own respective categories

### Sharp Dents

The ratio between dent size and dent depth (determined by the technician), as well as metal type, may result in a sharp dent(s) which require special technique and result in a more challenging and time consuming repair

# Multiple connected dents or one or more dents that fall in the affected area of another dent

Stretched dents

**Corner or edge dents** 

Dents on a tight radius, extra stiff curves

Creases

### Materials

Shop supplies, tool tips, glue supplies, solvents, tape, compounds, etc.

### **Corrosion Protection**

Refinishing/sealing undersides of painted panels where soft tipping is not an option

### **Diagnostic Scanning**

With the current liabilities of working on vehicles, diagnostic scans are part of the repair process. Any vehicle with an OBD2 port needs to be scanned for preexisting codes before work begins, and a post repair diagnostic scan performed to assure that the vehicle has been properly reassembled and that all safety features are communicating properly.

Additionally, should any vehicle features need calibration, the vehicle should be calibrated according to the OEM procedures, which may require the vehicle being sent to a qualified calibration center or dealership.

### **REMOVAL AND INSTALL GUIDELINES**

### **REMOVAL AND INSTALL (R&I) LABOR TIMES**

R&I labor times should be used to estimate time needed to remove and replace portions of the vehicle that cause obstruction to access points needed to repair damage. These items will vary depending on size/depth/location of the dents, vehicle age and condition, technician's experience, equipment, vehicle make/ model, etc. Labor rates default by regional location.

### GENERAL/MISC REMOVAL AND INSTALL (R&I) PROCEDURES:

R&I of any obstruction to enable visibility of repair area, on any vehicle, deemed necessary by the repairing technician, in order to gain access and/or leverage on the backside of the damaged area.

Including, but not limited to;

Lifting of the vehicle when needed to see, gain access, or perform the repair

Preparation of vehicle including but not limited to: removal of dirt/snow/ice, etc.

Light buffing if needed to see the damage and repair correctly

R&I of aftermarket items

Areas of vehicle paneling with ribbon sealer

PCM/BCM reset, ABS, taillights, window memory, power lift gate, etc.

R&R pinstripe, vinyl decals, stripes, clear bra

Paint sealer, wax application/removal

Sound deadening, panel stiffening

Panel to bracing glue

Weather strip clips

### **GLASS R&I PROCEDURES:**

Back glass on trucks should be considered for removal if any of the following criteria is met:

1-Glass is a single pane

2-Sliding glass window does not provide adequate access for a complete and proper repair

3-Vehicle has a ribbed roof

Quarter glass on SUVs and coupes should be considered for removal if technician deems it necessary for a complete and proper repair.

### **HOOD ASSEMBLY R&I PROCEDURES:**

Hood insulator pad

Removing and securing the panel in a workable position

Replacing the panel to original position on vehicle upon completion of repair

Hood scoops

Air deflector, bug guard

Clear bra

Grill

Hood moldings, trim pieces, clips

Washer nozzles

Weatherstrip

### FRONT FENDER R&I PROCEDURES:

Fender liners

Head Lamps – Some vehicles require the front bumper to be removed to gain access to the head lamp anchor points for a full removal

### FRONT FENDER R&I PROCEDURES:(Continued)

Grill
Clear bra
Plow frame
Bumper guard
Side marker light
Air intake housing
Windshield cowl
Hood hinges
Deflectors / trim pieces located in engine bay, inner fender
Wheel flare
Appearance grill
Electronics
Sound deadener
DOOR R&I PROCEDURES:
Door panel
Belt Moldings

Sound deadener

Vapor barrier

Speaker

Aftermarket window visor

Mirror

### DOOR R&I PROCEDURES:(Continued)

Exterior Handles Striker catch Regulator assembly Weatherstrip Wire harness Door removal as needed Laminated glass window Side view mirror

### **QUARTER PANEL R&I PROCEDURES:**

Tail lights – Some vehicles require the rear bumper to be removed to gain

access to the tail light anchor points for a full removal

Interior trim

Moldings

Quarter glass

Fuel door

Computer modules

Sound equipment

Antenna motor

Bumper

#### Wheel

Wheel opening trim / wheel flare

Fuel door repair
BEDSIDE R&I PROCEDURES:

Tail lamp

Bed rail caps

Camper shell, tonneau cover

Rear wheel

Wheel opening trim, flares

Headache rack

Toolbox

Bumper

### **RAIL R&I PROCEDURES:**

Drip molding

Glue materials

### **ROOF R&I PROCEDURES:**

Headliner R&I

Overhead console

Rear view mirror

Roof mounted A/V equipment

Liftgate/Hatch on SUV/Van/Crossover

Airbags

Roof racks

Roof mounted antenna

Roof mounted 3rd brake lamp

### ROOF R&I PROCEDURES:(Continued)

Additional lamps Back glass on coupes, trucks Quarter panel glass Sunroof including tray when applicable Liftgate / rear hatch Windshield and or rear glass Restraint systems Exterior adhesive trim Drip moldings

Sound deadener materials

### **DECK LID R&I PROCEDURES:**

Interior liner

Removing and securing the panel in a workable position

Replacing the panel to original position on vehicle upon completion of repair

3rd brake lamp

Deck lid interior handle

Additional panel mounted lamps

Spoiler

Wiring harness

License plate trim piece

Backup camera

### **SUV HATCH / LIFTGATE R&I PROCEDURES:**

Interior trim

Removing and securing the panel in a workable position

Replacing the panel to original position on vehicle upon completion of repair

Liftgate mounted tire

Spoiler Glass

Moldings

Panel mounted lamps

License plate trim piece

Wiring harness

3rd brake lamp

Washer nozzles

Washer hoses

Wiper arm

Weatherstrip

Backup camera

### **TAILGATE R&I PROCEDURES:**

Trim panel

Removing and securing the panel in a workable position

Replacing the panel to original position on vehicle upon completion of repair

Handle assembly

### TAILGATE R&I PROCEDURES:(Continued)

Latch assembly Rail cap Ladder assembly/grab bar 3rd brake lamp Backup camera