



BLENDING AND “UP AND OVER:” WHAT’S THE TRUTH?

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TECHNICAL FEATURE

“Blending,” “burning in” or “melting” clear coats are some of the terms used in the collision repair industry to describe what can be classified as an unacceptable or improper procedure, although leaving an open blend on a panel is a common practice. Let us explain.

An excellent example of this statement would be the process and applications of automotive clear coat refinishing. The five major automotive paint manufacturers (AkzoNobel, BASF, DuPont, PPG and Sherwin Williams) have lifetime refinish warranties on their clear coats. All five manufacturers state the same basic requirement for the warranty to be valid: “The application of clear must extend to the nearest panel edge or breakpoint to qualify for the lifetime warranty.” With that stated, one must understand that to be eligible for the lifetime warranty for defects, the repair facility cannot leave an open blend on a panel. It is important to understand not only what is considered the proper way to do something, but who considers it proper and what the consequences of not doing it properly might be.

Over the past few years, we have noticed that some manufacturers are connecting the left and right unside panels to the roof panel as one continuous unit. The Volkswagen Auto Group (VWAG) – including VW, Audi, Bentley, Porsche, Lamborghini, Bugatti, Ducati and Suzuki – is one manufacturer that uses this construction process, especially with their VW, Audi and Bentley models. Surprisingly, the Dodge Challenger is also a vehicle that is constructed this way. This

construction design has been an area of discussion (and, in many cases, disagreement) between collision repair professionals and insurance adjusters over how to refinish these vehicles when they have sustained damage to the rear and one or more of the quarter panels require refinishing. Considering the warranty statements, what is the proper repair procedure for such panels? Well, let us give you an example of what would be required to refinish a 2013 Dodge Challenger with only a one-inch scratch to the left rear quarter panel. (The accompanying estimate at right is a re-keyed copy of an actual insurance company estimate from one of the shops we consult for.)

Considering that our example is a continuous/uniside panel vehicle, performing the refinish repair properly and keeping the paint manufacturer’s warranty would require the repair facility to remove both front door assemblies, windshield, backlite, both quarter panel glasses, deck lid and adjacent trim components. Surprisingly, the damage report was more than 90 lines of procedures with approximately 40 hours of labor and 19 hours of refinishing. See the estimate for more details. Please note that a Labor Rate of \$50 was only used as an example and in no way is meant to suggest a rate for repairs. Pretty surprising the amount of procedures that are required for a one-hour scratch to the left rear quarter panel!

Now, some repair facilities and even paint technicians may disagree about the removal of the doors, glass and deck lid; they may say there is foam tape available that can be used in the jamb areas. We contacted the five major paint

The Labor Rate included in the estimate below is only used as an example and not as a suggested rate of repairs.

P&L Consultants, LLC			
Consulting, Estimology and Investigations			
Written by: Lawrence Montanez III			
Preliminary Estimate			Page 1
Customer: TEST, LARRY			
Insured: TEST, LARRY	Policy #:	Claim #:	
Type of Loss:	Date of Loss:	Days to Repair:	0
Point of Impact: 07 Left Rear			
Owner: TEST, LARRY	Inspection Location:	Insurance Company:	
VEHICLE			
Year: 2013	Body Style: 2D CPE	VIN: 2B3LJ54T5AH543057	Mileage In:
Make: DODG	Engine: 8-5.7L-FI	License:	Mileage Out:
Model: CHALLENGER RT CLASSIC	Production Date:	State:	Vehicle Out:
Color: Red Int: Black	Condition:	Job #:	
TRANSMISSION	Intermittent Wipers	Stereo	Leather Seats
6 Speed Transmission	Tilt Wheel	Search/Seek	Heated Seats
POWER	Cruise Control	CD Player	WHEELS
Power Steering	Rear Defogger	Auxiliary Audio Connection	20" Or Larger Wheels
Power Brakes	Keyless Entry	Premium Radio	PAINT
Power Windows	Alarm	Satellite Radio	Clear Coat Paint
Power Locks	Message Center	SAFETY	OTHER
Power Mirrors	Steering Wheel Touch Controls	Drivers Side Air Bag	Fog Lamps
Heated Mirrors	Telescopic Wheel	Passenger Air Bag	Traction Control
Power Driver Seat	Climate Control	Anti-Lock Brakes (4)	Stability Control
DECOR	Remote Starter	4 Wheel Disc Brakes	Rear Spoiler
Dual Mirrors	Parking Sensors	Front Side Impact Air Bags	Xenon Headlamps
Tinted Glass	Home Link	Head/Curtain Air Bags	Power Trunk/Gate Release
Console/Storage	RADIO	Hands Free Device	
CONVENIENCE	AM Radio	SEATS	
Air Conditioning	FM Radio	Bucket Seats	

Preliminary Estimate							Page 2
Customer: TEST, LARRY							
Vehicle: 2013 DODG CHALLENGER RT CLASSIC 2D CPE 8-5.7L-FI Red							
Line	Oper	Description	Part Number	Qty	Extended Price \$	Labor	Paint
1		REAR BUMPER					
2	R&I	R&I bumper cover				1.5	
3		REAR LAMPS					
4	R&I	RT Tail lamp assy					Incl.
5	R&I	LT Tail lamp assy					Incl.
6		TRUNK LID					
7	R&I	R&I trunk lid				0.8	
8	R&I	Weatherstrip				0.4	
9		REAR BODY & FLOOR					
10	*	Blnd Rear body panel					1.2
		NOTE: >>> Time includes time to "prep panel to that of a new undamaged panel"					
11	R&I	Rear trim panel				0.2	
12	R&I	RT Side trim panel				0.2	
13	R&I	LT Side trim panel				0.2	
14	R&I	Floor cover				0.2	
15		QUARTER PANEL					
16	*	Rpr LT Quarter panel				1.0	3.1
17		Add for Clear Coat					1.2
18		Add for Edging					0.7
19		Add for Lock Pillar					0.5
20	#	Refrn Acid/Etch Primer, per panel					0.1
21	#	Refrn Epoxy Primer, per panel					0.2
22	#	Feather Edge and Block Sand (40% of Repair) per panel		1	9.90	0.2	
23	#	Refrn Primer Surfacer (20% of 40% for FE/BS), per panel					0.2
24	*	Refrn RT Quarter panel					2.2
		NOTE: >>> Time includes time to "prep panel to that of a new undamaged panel"					
25		Overlap Major Non-Adj. Panel					-0.2
26		Add for Clear Coat					0.4
27		Add for Edging					0.7
28		Add for Lock Pillar					0.5
29	R&I	RT Wheelhouse liner				0.3	
30	R&I	LT Wheelhouse liner				0.3	
31	R&I	Fuel door				0.3	
32	*	Refrn Fuel door					0.2
33		Add for Clear Coat					0.1
34	R&I	RT Qtr glass Dodge				1.2	
35	R&I	LT Qtr glass Dodge				1.2	
36	#	Mask Qtr glass openings		1	8.00	0.4	
37	#	Repl Urethane Glass Adhesive		2	31.90		
38	#	Repl Glass Primer		2	13.90		
39	#	Repl Pinch Weld Primer		2	15.90		

Preliminary Estimate				Page 3
Customer: TEST, LARRY				
Vehicle: 2013 DODG CHALLENGER RT CLASSIC 2D CPE 8-5.7L-FI Red				
40	#	Repl Primer Applicator	8	10.00
41	R&I	RT Qtr trim panel w/o premium audio		0.3
42	R&I	LT Qtr trim panel w/o premium audio		0.3
43	R&I	RT Upper qtr trim		0.3
44	R&I	LT Upper qtr trim		0.3
45	WHEELS			
46	*	R&I RT/Rear R&I wheel	m	0.2 M
		NOTE: >>> R&I Twice to R&I Wheel Liner		
47	*	R&I LT/Rear R&I wheel	m	0.2 M
		NOTE: >>> R&I Twice to R&I Wheel Liner		
48	ROOF			
49	*	Blnd Roof panel w/o sunroof		2.2
		NOTE: >>> Time includes time to "prep panel to that of a new undamaged panel"		
50	PILLARS, ROCKER & FLOOR			
51	*	Blnd RT Aperture panel	s	2.2
		NOTE: >>> Time includes time to "prep panel to that of a new undamaged panel"		
52	*	Blnd LT Aperture panel	s	2.2
		NOTE: >>> Time includes time to "prep panel to that of a new undamaged panel"		
53	R&I	RT Rocker molding		0.8
54	R&I	LT Rocker molding		0.8
55	R&I	RT W/S pillar trim		0.2
56	R&I	LT W/S pillar trim		0.2
57	R&I	RT Cowl panel		0.2
58	R&I	LT Cowl panel		0.2
59	R&I	RT Scuff plate		0.1
60	R&I	LT Scuff plate		0.1
61	WINDSHIELD			
62	R&I	Windshield Dodge		3.5
63	#	Repl Urethane Adhesive	2	51.98
64	#	Mask glass opening	1	10.00
65	#	Repl Glass Cut Out Wire per Vehicle	1	22.50
66	#	Repl Razor Blades Cut Out Knife	2	4.00
67	BACK GLASS			
68	R&I	Back glass Dodge		2.8
69	#	Repl Urethane Adhesive	2	51.98
70	#	Mask glass opening	1	10.00
71	#	Repl Glass Cut Out Wire per Vehicle	1	22.50
72	DOOR			
73	R&I	RT R&I door assy		1.2
74	R&I	LT R&I door assy		1.2
75	#	Mask and wrap to protect door shells	1	20.00
76	R&I	RT Striker		0.2
77	R&I	LT Striker		0.2

Preliminary Estimate							Page 4
Customer: TEST, LARRY							
Vehicle: 2013 DODG CHALLENGER RT CLASSIC 2D CPE 8-5.7L-FI Red							
78	FENDER						
79	*	R&I RT R&I fender assy				1.0	
		NOTE: >>> Time is to loosen the rear of the panel for access to refinish pillar.					
80	*	R&I LT R&I fender assy				1.0	
		NOTE: >>> Time is to loosen the rear of the panel for access to refinish pillar.					
81	R&I	RT Fender liner					Incl.
82	R&I	LT Fender liner					Incl.
83	ELECTRICAL						
84	*	R&I Battery				m	0.2 M
		NOTE: >>> Time is to D&R					
85	#	Reset electronics, memory features, clock and radio		1			0.2
86	RESTRAINT SYSTEMS						
87	*	R&I RT Side impact sens door				m	Incl. M
		NOTE: >>> Component listed but will remain in the door assembly					
88	*	R&I LT Side impact sens door				m	Incl. M
		NOTE: >>> Component listed but will remain in the door assembly					
89	*	R&I Diagnostic unit				m	0.2 M
		NOTE: >>> Time is to D&R due to the disconnection of the left and right door crash sensors					
90	Repl	Air bag system diagnosis		1		m	0.5 M
91	MISCELLANEOUS OPERATIONS						
92	*	Repl Cover car/bag for repairs		1	5.00		0.2
93	*	Repl Cover car/bag for priming		1	5.00		0.2
94	*	Repl Cover car/bag for booth		1	5.00		0.2
95	*	Repl Cover car/bag for buffing		1	5.00		0.2
96	*	Repl Cover steering wheel, floor, mat and seat cover		1	5.00		0.2
97	*	Repl Cover car/bag protect removed glass		1	10.00		0.3
98	#	Road Test Vehicle For Delivery		1			0.5 M
99	#	Clean and Degrease Vehicle for Repairs/Analysis		1	8.00		0.5
100	#	Wash and Prep Vehicle for Refinish/Booth		1	8.00		0.8
101	#	Blow and Tack Vehicle After Paper/Booth Removal		1	1.75		0.2
102	#	Wash Vehicle After Detrib/Wet Sand		1	2.00		0.2
103	#	Wash Vehicle After Buff Prior to Glazing		1	2.00		0.2
104	#	Wash Vehicle After Glaze for Reassembly		1	5.00		0.5
105	#	Final Wash, Detail and Vacuum of Vehicle		1	10.00		3.0
106	#	Bubble Wrap Removed Components		1	20.00		0.4
107	#	Refrn Tint Primer Sealer					0.2

Preliminary Estimate				Page 5
Customer: TEST, LARRY				
Vehicle: 2013 DODG CHALLENGER RT CLASSIC 2D CPE 8-5,7L-FI Red				
108 #	Refn	Color Mix, Match and Spray Out Card Exterior Waterborne		1.5
109 #	Refn	Touch Lip Bolt Heads		0.1
110 #		DeNib and Buff Painted Panels (30% Base Refinish)	1	5.1
111 #	Repl	Buffing, Glazing and Sanding Materials	1	33.15
112 #		Glaze Buffed Panels (0.3 per panel)	1	1.5
113 #		Buff/Glaze Adjacent Panels (0.3 per panel)	1	0.9
114 #		Swirl Mark Remover Dark Colors (0.2 per panel)	1	1.0
115 #		Hand Glaze Polished Panels (0.2 per panel)	1	1.6
116 #		Refinish Materials as per Mitchell plus mark up +30%	1	798.72
117 #		Shop Materials as per Mitchell plus mark up +30%	1	33.74
SUBTOTALS			1,239.92	44.1 19.5
ESTIMATE TOTALS				
Category	Basis	Rate	Cost \$	
Parts			1,239.92	
Body Labor	42.3 hrs @	\$ 50.00 /hr	2,115.00	
Paint Labor	19.5 hrs @	\$ 50.00 /hr	975.00	
Mechanical Labor	1.8 hrs @	\$ 50.00 /hr	90.00	
Subtotal			4,419.92	
Sales Tax	\$ 4,419.92 @	8.6250 %	381.22	
Grand Total			4,801.14	
Deductible			0.00	
CUSTOMER PAY			0.00	
INSURANCE PAY			4,801.14	



These photos are a good example of damage only to the quarter panel. These two vehicles are at a certified repair facility. Notice that the doors and fenders are off.

manufacturers and referenced their refinishing manual and warranty agreement. **The general response was consistent with the warranty statement: If clear coat is not applied to the panel's edge, and the application of foam tape and/or masking tape was applied to jambs and the clear coat delaminates or otherwise fails, the paint manufacturer may not cover the failure under warranty. As always, check with you paint manufacturer if you are unsure of your supplier's warranty guidelines.**

We hope this article has helped the industry to better understand what is required for refinishing and clear coating procedures. Feel free to contact us if you have any questions. **H&D**

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Executive Director's Thoughts

Larry and Jeff have pointed out another good example of understanding the ramifications of changing processes or procedures before you concede. In order to maintain the integrity – and frankly, liability protection – of your business, it is so important to research your manufacturer recommendations or mandates. Even from your vendor products. - Jordan Hendler