

# **Body Shop SOPs**

1. Bumper Repair - Cosmetic
2. Bumper Repair - Structural
3. Body Filler Application
4. Door Skin Installation
5. STRSW Weld / Bond Procedure
6. Door Skin Seam Sealing
7. Truck Bed Seam Sealing
8. Roof Ditch / Self-Leveling Seam Sealer
9. Sprayable Seam Sealers
10. Wheel House / Underbody Protection
11. Sanding System (Body)



# Bumper Repair - Cosmetic

Products Needed:

BASF RM 900	- Pre-Cleano
Tork # 121202	- Wipers
Carbo/Norton	- 120 Grit, 6" Discs

Carbo/Norton	- 180 Grit, 6" Discs
U-POL # 7061	- Stronghold Plastic Filler
Alternative:	
3M # 05887	- EZ Sand Flexible

SAFETY  
N95 Dust Masks  
Disposable Gloves  
Safety Glasses

Refer to the Manufacturer's MSDS for recommended safety equipment.

Step #1



Pre-clean with soap & water. Final pre-clean with RM 900

Step #5



Spread U-POL #7061 Stronghold Plastic Filler

Step #2



- Sand out damaged area with 120 grit
- Feather the outer area with 180 grit (consider using a spritzer w/water while DA sanding if plastic 'hairs up')

Step #6



Allow to dry approximately 15 - 20 minutes

Step #3



Clean off repair area with an air blower

Step #7



- Sand repair material with 120 grit
- Finish sand entire repair area with 180 grit

Step #4



Mix U-POL #7061 and apply to repair area

Info



Tech Support: [www.u-pol.com](http://www.u-pol.com)  
1-800-234-3876

QR Code:  
[Cosmetic Repair Video](#)





# Bumper Repair - Structural

## Products Needed:

BASF RM 900 - Pre-Cleano  
Norton/Carbo - 180 Grit, 6" Discs  
Norton/Carbo - 50 Grit, 2" Disc & 3" Disc  
Norton/Carbo - 80 Grit, 6" Discs  
Norton/Carbo - 120 Grit, 6" Discs

3M # 06396 - Adhesive Promoter  
Norton # 04615 - Adhesive Repair Material  
Fusor # 700 - Reinforcement Cloth  
U-POL # 7061 - Cosmetic Repair Material

Refer to the Manufacturer's MSDS for recommended safety equipment.

## SAFETY

Mask w /P 100 filter  
Disposable Gloves  
Safety Glasses

Step #1



Clean repair area (front & back) with Soap and Water,  
followed by RM 900 degreaser and wipe dry

Step #2



Grind damaged area with a 50 grit 2" disc  
Sand damaged area (front & back) with 80 grit  
Feather the outer area (front side) with 120 grit

Step #3



Clean off repair area with an air blower

Step #4



Apply a wipe of adhesion promoter to backside of repair  
area and let dry completely. Apply to front side if using  
urethane on the front of bumper and allow to dry  
completely.

Step #5



Spread Fusor #142 to back of repair area with  
reinforcement cloth. If using 142 on the front side, do not  
use reinforcement cloth.

Step #6



Allow to dry approximately 10 minutes

Step #7



Sand any front side adhesive with 120 grit

**If no additional material is needed,** finish sand with  
180 grit

**If additional material is needed:**

Step #8



Clean off repair area with an air blower

Step #9



Apply U-POL 7061 to front side of repair area

Note - *Do not use polyester fillers / putties over adhesive  
repairs*

Step #10



Allow to dry approximately 20 minutes

Step #11



Sand area with 120 grit 6" disc

Finish sand with 180 grit 6" disc

Info



Tech Support: [www.nortonautomotive.com](http://www.nortonautomotive.com)

QR Code:  
[Norton Website](#)





# Body Filler Application

Products Needed:	BASF RM 900	- Pre-Cleano	Norton	- 120 Grit, Grip-On Sheet Roll
	Tork # 121202	- Wipers	Norton	- 120 Grit, 6" Grip-On Discs
	Norton	- 50 Grit, 2" Disc /3" Disc	Norton	- 180 Grit, 6" Grip-On Discs
	Norton	- 80 Grit, 8" E weight Grip-On Discs	FE # 492	- Quantum / Fast
	Norton	- 80 Grit, "E" Weight File strips	FE #494	- Quantum / Slow
	Norton	- 180 Grit, Grip-On Sheet Rolls	FE # 120	- Rage Extreme

SAFETY  
P100 or N95 Dust Masks  
Disposable Gloves  
Safety Glasses

Refer to the Manufacturer's MSDS for recommended safety equipment.

Step #1



Clean the repair area with RM 900 pre-cleano & dry

Step #2



Grind any weld area with 50 Grit Grind Disc and sand area with 80 grit E weight disc & Straighten repair area as needed.

Step #3



Prep repair area for filler

Sand repair area with an 80 grit sanding disc / firm pad  
Clean off repair area with an air blower

Step #4



Mix FE filler with hardener (ratio = 2%) as shown



Step #5



Spread FE filler onto repair area and let dry

Step #6



Block sand to shape filler, starting with 80 Grit "E" Weight File strip using a Firm block (Hand or Air)

Step #7



Mix FE Glazing putty with hardener

Spread Glaze over repair area and allow to dry

Step #8



Block sand with 80 grit followed by 120 Grit using light backed file paper. Final block sand with 180 grit

Step #9



Back sand entire repair area with a 180 grit 6" disc on a DA sander w/firm pad

Expose 1" - 2" metal between filler and paint edge

Step #10



Finish sand filler/putty area with 180 grit 6" DA on a firm pad (Total repair area should now have 180 grit DA scratch

Ensure 180 Grit scratch is on filler/putty prior to releasing to Prep.

Check for pin holes.

Info



Tech Support: [www.u-pol.com](http://www.u-pol.com)

QR Code:  
[Body Prep Video](#)





# Door Skin Installation Procedure

Products Needed:	Norton	- 50 grit, 2" discs /3" discs	Norton # 06421	- Metal Bonding Adhesive (90 min work time)
	Norton/Carbo	- Thin Flex Red Scuff pad	Norton # 04628	- Mixing tips
	BASF RM 900	- Pre-Cleano		
	Tork 121202	- Wipers		

SAFETY  
P100 or N95 Dust Masks  
Disposable Gloves  
Safety Glasses

Refer to the Manufacturer's MSDS for recommended safety equipment.

Step #1



Prep the door frame

Remove rust, adhesive, e-coatings and galvanized coating from the flange area with a 50 grit disc

Straighten and align the door flange with a hammer & dolly

Step #5



Apply a 3/8" bead of Metal Bonding Adhesive to the bare metal surfaces

Step #2



Prep the new door skin

OEM Skin: Sand the e-coat with a red scuff pad  
Degrease with RM 900 and dry

Step #6



Properly position the new door skin

Clamp the frame and door skin together to hold alignment while rolling the hem flanges

Wipe away any excess adhesive

Step #3



Clean all bonding surfaces with RM900, dry and blow off with an air blower

Info



The surface of exposed Metal Bonding Adhesive will remain tacky after it is cured. This tacky surface can be removed by sanding.

Tech Support: [www.nortonautomotive.com](http://www.nortonautomotive.com)

QR Code:

[Metal Bonding Video](#)

Step #4



Before bonding, pre-fit the panels to ensure proper fit  
Install sound deadening pads inside of new skin prior to adhering.





# STRSW Weld / Bond Procedure

Products Needed:  
Norton - 50 grit, 2" discs  
BASF RM 900 - Pre-Cleano  
Tork # 121202 - Wipers

Fusor # 804HD (Gray)  
Fusor # 805HD (Black)

- Weld bondable sealer  
- Weld bondable sealer

SAFETY  
P100 Respirator  
Disposable Gloves  
Safety Glasses

Refer to the Manufacturer's MSDS for recommended safety equipment.

Step #1



Remove rust, adhesive, e-coatings and galvanized coating from the mating surfaces with a 50 grit disc  
  
Note - Be sure to grind until all coatings (including galvanized coating) have been removed.

Step #5



Clamp the panels together  
  
Wipe away any excess adhesive

Step #2



Clean all bonding surfaces with RM 900, dry and blow off with an air blower

Step #6



Welder Set Up - Review all pertinent information about the use of a Squeeze Type Resistant Spot Welder before you begin. Consult the welder manufacturer for the recommended settings for weld bonding.

Step #3



Pre-fit the panels to ensure proper fit

Step #7



Weld through the adhesive  
  
Note - You may weld through the sealer at any time while it is still wet or once it has dried.

Step #4



Apply a 3/8" bead of HD Sealer to the bare metal surfaces prior to STRSW Weld.

Info



Tech Support: [www.lord.com](http://www.lord.com)  
1-800-234-3876

QR Code:  
[Weld / Bond Video](#)





# Door Skin Seam Sealing

Products Needed:

BASF RM 900	- Pre-Cleano
Tork # 121202	- Wipers
Norton/Carbo	- Red Scuff Pad
3M	- 1/4" Fine Line Tape Blue

3M #26334	- 3/4 Masking Tape
Fusor #123EZ	- Standard Flow Seam Sealer
Fusor # 401	- Mixing Tips

SAFETY  
P100 or N95 Dust Masks  
Disposable Gloves  
Safety Glasses

Refer to the Manufacturer's MSDS for recommended safety equipment.

Step #1



Clean surface with RM 900 wax & grease remover, dry and blow off with an air blower

Step #2



Prep & prime all bare metal surfaces and allow to dry per paint companies recommendations

Step #3



Lightly sand surface with P400 grit or a red scuff pad

Step #4



Clean surfaces with RM 900, dry and blow off with an air blower

Step #5



Apply fine line tape or masking tape to both sides of the seam

Step #6



Apply Seam Sealer to the seam and then tool the bead with a spreader in order to produce a flat bead

Step #7



Remove the masking tape ASAP after sealer application

## Additional Tech Data (@ 70°):

Work Time	- 5-8 Minutes
Sealer Sandability	- 30 Minutes
Sealer Paintability	- 30 Minutes

Info



Tech Support: [www.lord.com](http://www.lord.com)  
1-800-234-3876

QR Code:  
[Seam Sealing Video](#)



QR Code:  
[Controlled Flow Seam Sealer Technical Support](#)



# Truck Bed Seam Sealing

Products Needed:

BASF RM 900	- Pre-Cleano
Tork # 440278A	- Wipers
Norton/Carbo	- Red Scuff Pad
3M	- 1/4" Fine Line Tape

3M #26334	- 3/4 Masking Tape
Fusor # 123EZ	- Controlled Flow Seam Sealer
Fusor # 401	- Mixing Tips

Refer to the Manufacturer's MSDS for recommended safety equipment.

## SAFETY

N95 Dust Masks  
Disposable Gloves  
Safety Glasses

Step #1



Clean surface with RM 900 wax & grease remover, dry and blow off with an air blower

Step #2



Prep & prime all bare metal surfaces and allow to dry per paint companies recommendation

Step #3



Lightly sand surface with P400 grit or a red scuff pad

Step #4



Clean surfaces with RM900 wax & grease remover, dry and blow off with an air blower

Step #5



Apply fine line tape or masking tape to bed side of the seam as control edge

Step #6



Apply 123EZ Seam Sealer to the seam

The gap between the masking tape should be completely covered with sealer slightly over the tape edge and firmly wet contacted to bed wall.

Step #7



Remove the masking tape ASAP after sealer application at a slight angle towards the sealer in order to produce a rolled or rounded bead.

Info



Tech Support: [www.lord.com](http://www.lord.com)  
1-800-234-3876

QR Code:  
[Seam Sealing Video](#)





# Roof Ditch - Self Leveling Seam Sealer

Products Needed:

BASF RM 900	- Pre-Cleano
Tork # 121202	- Wipers
Norton	- P220 Grit Sheet Roll
Norton	- Red Scuff Pad

Fusor # 122EZ	- Self Leveling Seam Sealer
Fusor # 401	- Mixing Tips

Refer to the Manufacturer's MSDS for recommended safety equipment.

## SAFETY

P100 or N95 Dust Masks  
Disposable Gloves  
Safety Glasses

Step #1



### HIGHLY RECOMMENDED

- Scan QR code in bottom right corner & watch video
- Scan QR code to access tech sheet

Step #7



Dispense #122EZ Self-Leveling Seam Sealer into roof ditch  
Application tips available on video for this challenging  
install

Step #2



Remove original sealant materials from the roof ditch and  
sand surface with P180 grit

Step #8



Allow seam sealer to dry approximately 45 minutes before  
paint application

Step #3



Clean surfaces with RM 900 wax & grease remover, dry and  
blow off with an air blower

If Sealer has cured longer than 2 hours, scuff the surface  
with a red scuff pad before paint application

Step #4



Prime surface and allow to dry per paint companies  
recommendation

Info



Tech Support: [www.lord.com](http://www.lord.com)  
1-800-234-3876



Step #5



Lightly sand surface with P400 grit or a red scuff pad

QR Code:  
[Self-Leveling Seam Sealer Video](#)

Step #6



Blow off surface with an air blower

QR Code:  
[Self-Leveling Seam Sealer Technical  
Support](#)





# Sprayable Seam Sealers

Products Needed:	BASF RM 900 - Pre-Cleano	Fusor # 804HD - Grey Sprayable Seam Sealer
	Tork # 440278A - Wipers	Fusor # 805HD - Black Sprayable Seam Sealer
	Norton - Red Scuff Pad	
	Fusor # 312 - Spray Gun	

**SAFETY**  
Safety Glasses  
Organic Vapors Respirator  
Disposable Gloves

Refer to the Manufacturer's MSDS for recommended safety equipment.

Step #1



Scuff the surface with a red scuff pad & blow off dust with an air blower

Step # 4



Adjust the air knob adjustment on the spray gun (on side of gun) to achieve desired texture

Step #2



Clean repair area with wax and grease remover & dry before applying seam sealer

Step #5



Once applied, HD seam sealers can be painted over immediately

Step #3



Adjust the air pressure on the spray gun to between 30 - 50 psi

Info



HD Seam Sealer can also be used for Rubberized Undercoat applications

Tech Support: [www.lord.com](http://www.lord.com)  
1-800-234-3876

QR Code:  
[Sprayable Seam Sealer Video](#)





# Wheel House / Underbody Protection

Products Needed:

BASF RM 900	- Pre-Cleano
Tork # 121212	- Wipers
Norton	- Red Scuff Pad

Fusor # 312	- Spray Gun
Fusor # 805HD	- Black Sprayable Seam Sealer

## SAFETY

Safety Glasses

Organic Vapors Respirator  
Disposable Gloves

Refer to the Manufacturer's MSDS for recommended safety equipment.

Step #1



Clean the area with soap & water then dry

Step #4



Adjust the air pressure on the spray gun to between 30 - 50 psi

Step #2



Scuff w/ red scuff pad & blow off dust with an air blower

Step #5



Adjust the air knob adjustment on the spray gun (on side of gun) to achieve desired texture

Step #3



Clean w/ RM 900 cleaner and dry thoroughly

Step #6



Once applied, HD seam sealers can be painted over immediately if desired

Info



Tech Support: [www.lord.com](http://www.lord.com)  
1-800-234-3876

QR Code:  
[Sprayable Seam Sealer Video](#)





# Sanding System (Body)

Products Needed:	BASF RM 900	- Pre-Cleano	Norton	- 120 Grit 6"DA Discs
	Norton	- 50 Grit, 2" Disc	Norton	- 180 Grit, 6" DA Disc
	Norton	- 80 Grit E weight file strip paper	Norton	- 8" 80 Grit E Weight Discs
	Norton	- 80 Grit, Sheet Rolls		
	Norton	- 120 Grit, Sheet Rolls		
	Norton	- 180 Grit, Sheet Rolls		



Step #1		Clean all areas prior to sanding using Soap and Water  Prior to sanding and grinding clean with RM 900	Step #7		Body men to Back Sand repair area, starting with 120 Grit 6" DA, finishing with 180 Grit 6" DA.  Must expose 1" to 2" bare metal around filler/putty
Step #2		Grind welds with 36 grit or 50 grit (preferable 50 grit)  Clean weld areas, pre and post with TR surface Strip	Step #8		Body men to top sand filler / putty surface with 180 Grit DA DA Pad to be a firm Pad  Filler/Putty must have 180 Grit scratch prior to Prep dept.
Step #3		Prep sanding prior to Body Filler On Steel—Use 80 Grit E Weight 8" Disc On Aluminum & Fiberglas— Use 120 Grit 6"DA	Step #9		Blow off repair area—thoroughly inspect work for hi/low areas, pinholes and to make sure coarse sand scratches from repair work are fully removed.
Step #4		Sanding (1st cut) on Body Filler  Use 80 Grit E weight (Heavy Weight Backing)	Step #10		Prep department takes bodywork from this point on.  Prep department will not be over-sanding bodywork prior to priming—bodywork must be 100%.
Step #5		Sanding (1st cut) on Putty 80 Grit B weight (Light weight backing) Use a firm block or board (air or hand sand)	ReCap		RECAP  i) 80E weight to be the coarsest starting point for front side refinish repair work ( if coarser material is used, it must be over-sanded with 80E prior to filler application.  ii) 180 Grit DA scratch is required on filler / putty and back-sanded area prior to release to Prep dept.
Step #6		Sanding (2nd cut) on filler/putty use 120 Grit File Strip  Use a firm Block or Board (Hand)  "Apply a Guide Coat prior to next sanding step"  80 grit to be the starting point for fillers.			

The suggested procedure on this page is a summary of the manufacturer's procedure. For complete details, review the manufacturer's instructions that accompany the products and/or that can be found at their websites.



# Technical Support



[www.nortonautomotive.com](http://www.nortonautomotive.com)



[www.autochem.com](http://www.autochem.com)



[www.satausa.com](http://www.satausa.com)



[www.lord.com](http://www.lord.com)



[www.torkusa.com](http://www.torkusa.com)



[www.sassafety.com](http://www.sassafety.com)



[www.u-pol.com](http://www.u-pol.com)





# MSDS - Body Shop



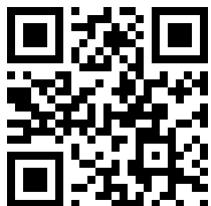
3M 04247



3M 08892



Fe 494



3M 05887



BASF RM900



FE 632



3M 06396



FE 120



Fusor 122EZ part A



3M 08088



FE 492



Fusor 122EZ part B



# MSDS - Body Shop



Fusor 123EZ part A



Fusor 805HD



Proform 509



Fusor 123EZ part B



Fusor T21 part A



SEM 39803



Fusor 800 DTM



Fusor T21 part B



SEM 39913



Fusor 804HD



Norton 04615





# MSDS - Body Shop



[U-POL 7061](#)



[U-POL 0768](#)

# **Body Shop Processes**

1. OEM Repair Information

# **COLLISION REPAIR INFORMATION**

## **FOR THE COLLISION REPAIR PROFESSIONAL**

**TITLE:** COLLISION DAMAGE REPAIR PRECAUTIONS

**SECTION:** STRUCTURAL BULLETIN # 161

**MODELS:** ALL TOYOTA, LEXUS, and SCION

**DATE:** JANUARY 2008

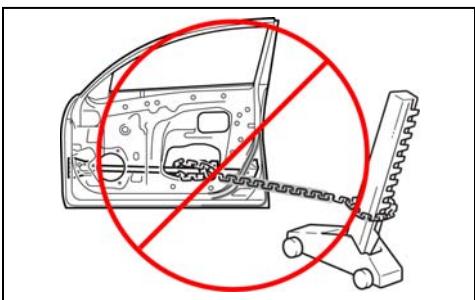
**PAGE 1 OF 2**

The following collection of precautions is intended to reinforce Toyota's position on some key collision repair topics, and should not be considered all inclusive or a substitute for training. For more information on these and other important collision repair and refinish topics plan to attend Collision Repair & Refinish Training. Visit the CR&R website ([www.crrtraining.com](http://www.crrtraining.com)) for schedule and registration information.



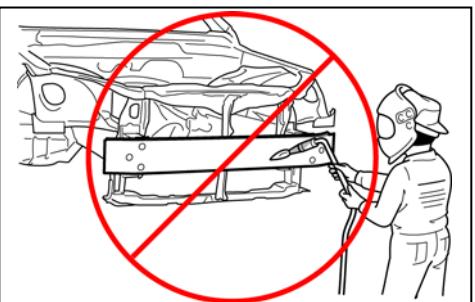
### **HEAT REPAIR FOR BODY AND FRAME COMPONENTS IS PROHIBITED**

High strength sheet steel is used for structural body, and frame components. If these components are repaired with heat the crystalline structure changes, causing a significant decrease in strength. Heat also damages the zinc coating reducing corrosion resistant properties.



### **INTRUSION BEAM REPAIR IS PROHIBITED**

Intrusion beams are designed to absorb, channel, and dissipate collision energy and perform at 100% strength in their original shape. However, if they are damaged and repaired they will no longer perform as intended. Damaged intrusion beams require complete door replacement.



### **BUMPER REINFORCEMENT REPAIR IS PROHIBITED**

Bumper reinforcements are designed to absorb, channel, and dissipate collision energy and perform at 100% strength in their original shape. However if they are damaged and repaired, they will no longer perform as intended. Damaged bumper reinforcements require replacement.

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



00408-03000-161

# **Body Shop Approved Product Lists**

1. Abrasives
2. Adhesives
3. Aerosols
4. Fillers and Putties
5. Miscellaneous
6. Product Request Form

# Body Shop Approved Product List | Abrasives

**33 SKU'S TOTAL**

PART #	MANUFACTURER	DESCRIPTION	COMMENTS
MMM01396	3M	2x50g Green Corps Roloc Discs:	
MMM01397	3M	2x36g Green Corps Roloc Discs:	
MMM01406	3M	3x50g Green Corps Roloc Discs:	
MMM01407	3M	3x36g Green Corps Roloc Discs:	
MMM01989	3M	3x1/32x3/8 Green Cut-Off Wheel	
MMM01991	3M	3x3/16x3/8 Green Grinding Whls	
MMM07480	3M	2` Coarse Brown RLOK Discs:	
MMM07481	3M	2` Med Maroon RLOK Cond Disc:	
MMM07485	3M	3` Coarse Brown RLOK Discs:	
MMM07486	3M	3` Med Maroon RLOK Cond Disc:	
MMM07480	3M	2` Coarse Brown RLOK Discs:	
NOR06114	Norton	2.75x13xP120B VEL MA-C Strips'	
NOR06118	Norton	2.75x16xP180B VEL MA-C Strips'	
NOR07770	Norton	6` P80 VEL MA Dry Ice Discs'	
NOR07773	Norton	6` P120 VEL MA Dry Ice Discs'	
NOR07775	Norton	6` P180 VEL MA Dry Ice Discs'	
NOR23592	Norton	8x0x40g VEL Blue Mag Discs,	
NOR23596	Norton	8x8Hx80g VELVAC Blue Mag Disc,	
NOR23617	Norton	2 3/4x16x80g VEL/VAC BM Strip,	
NOR31654	Norton	2 3/4x16xP180g VEL/VAC Champ,	
NOR31532	Norton	3x0xP80g VEL Champagne Discs,	
NOR28688	Norton	3x0xP120B VEL A275 Discs,	
NOR31528	Norton	3x0xP180g VEL Champagne Discs,	
NOR38633	Norton	3` Blaze TR Rapid Blend Discs,	
NOR31053	Norton	3` Blaze Rapid Strip Discs TR,	

# **Body Shop**

## **Approved Product List | Abrasives (cont)**

**33 SKU'S TOTAL**

PART #	MANUFACTURER	DESCRIPTION	COMMENTS
NOR62318	Norton	2x36g SL TR R980 Blaze Discs,	
NOR62320	Norton	2x50g SL TR R980 Blaze Discs,	
NOR62328	Norton	3x36g SL TR R980 Blaze Discs,	
NOR62330	Norton	3x50g SL TR R980 Blaze Discs,	
NOR62318	Norton	2x36g SL TR R980 Blaze Discs,	
NOR55310	Norton	.5x18 Maroon Medium BT Belts,	
NOR98021	Norton	0.5x18xC40X R980P Belts,	
NOR36062	Norton	3/8x13x80 R823 Belts,	



# Body Shop Approved Product List | Adhesives

19 SKU'S TOTAL

PART #	MANUFACTURER	DESCRIPTION	COMMENTS
FUS122EZ	Fusor	300ml Self Leveling Seam Seal	
FUS123EZ	Fusor	300ml Factory Match Seam Seal	
FUS313	Fusor	Dispenser,117,800,802,803	
FUS602EZ	Fusor	9oz Plastic/Bumper Surf Mod	
FUS800DTM	Fusor	281ml DTM Adhes Sealer Neutral	
FUS804HD	Fusor	281ml High Def Sealer Gray	
FUS805HD	Fusor	281ml High Def Sealer Black	
FUST21	Fusor	300ml Truck Medium Struct Adh	
FUS122EZ	Fusor	300ml Self Leveling Seam Seal	
ASDAUU418C		310ml PTI 418 Fast Cure Ureth	
DSSXPSA	Dominion Sure Seal	Plastic Surgery Weld Kit	
MMM04247	3M	200ml Super Fast Plastic Adh:	
MMM05887	3M	200ml ATM EZ Sand Flexible:	
MMM05888	3M	4x8 ATM EZ Fix Patch 200ml:	
MMM06396	3M	4298 Adhesive Promoter Sponge	
NOR04615	Norton	220ml Black 1 Minute Adhesive'	
NOR04628	Norton	Mixing Tips 24 Element'	
NOR06421	Norton	220ml Epoxy Multi Bond Adhes'	
UPO7061	U-Pol	600ml Body Fill for Plastics	

# **Body Shop**

## **Approved Product List | Aerosols**

**8 SKU'S TOTAL**

PART #	MANUFACTURER	DESCRIPTION	COMMENTS
DSSSUF	Dominion Sure Seal	405g Rubberized Undercoat Aero	
MMM08088	3M	475g General Trim Adhesive Aero	
MMM08892	3M	531g Amber Rust Fighter Aero	
PRF504	Proform	396g Lithium Grease White Aero	
PRF509	Proform	340g S/L Rust Penetrant Aero	
SEM39803	SEM	567g Clear Chip Guard Aerosol	
SEM39913	SEM	567g Ure Bumper Stripper Aero	
UPO768	U-Pol	450ml Weld #2 Copper Aerosol	

# **Body Shop**

## **Approved Product List | Fillers and Putties**

**8 SKU'S TOTAL**

PART #	MANUFACTURER	DESCRIPTION	COMMENTS
FIB120	Fiberglas Evercoat	3L Rage Extreme Filler	
FIB492	Fiberglas Evercoat	825ml Quantum 1 Fast	
FIB494	Fiberglas Evercoat	825ml Quantum 1 Slow	
FIB632	Fiberglas Evercoat	946ml Everglass Short Strand	
FIB835	Fiberglas Evercoat	825ml Dispensing Gun	
MMM05824	3M	710ml Flow Finishing Putty	
UPO737	U-Pol	Onion Filler Mix Sheets (100)	
USC14060	USC	946ml All Metal Alum Filler	

# Body Shop

## Approved Product List | Miscellaneous

**20 SKU'S TOTAL**

PART #	MANUFACTURER	DESCRIPTION	COMMENTS
AND2001-1		1` Whitey II Throw-away Brush	
AND7-1		Size 1 Acid Brush Stiff 3/8`	
AST400E		3/8` Smart Eraser Pad	
BCL357	Bondo	Plastic Salmon Spreaders	
DYN92245	DynaBrade	4x3/4 Coarse Wire Wheel Green	
DYN92255	DynaBrade	4 1/4x1 1/4 Rub Stripe Eraser	
FBS30121	FBS	Metal Spreaders 2/3/4/5in	
FSP5010	Five Star Products	#9 Steel Razor Blades	
HSA1001	H & S	Flexpert Welding Studs	
ASDSWABS		Daubers for P/W Primer (WRD2)	
DYN95674	DynaBrade	Female Coupler Hi-Flow	
MMM05860	3M	50g Dry Guide Coat Cartridge	
MMM05916	3M	Weld & Spark Deflection Paper	
MMM06140	3M	3/4`x66' Temflex Elect Tape`	
MMM08310	3M	200ml ATM Seam Seal Beige	
NOR05920	Norton	36x100 Bluwrap Weather Barier,	
NOR78000	Norton	2x55M Silver Husky Duct Tape'	
SAS6653	SAS	Large Prof Tool Glove Black	
SATEU1212	SATA	Assorted Autowriter	
SCA121202	SCA - Tork	8.25`x600' M-Tork Std 2-Ply	

## Product Change Request Form

Shop Requesting Product						Date:						
Person Requesting Product												
Shop Manager												
Department	Detail	<input type="checkbox"/>	Body	<input type="checkbox"/>	Prep	<input type="checkbox"/>	Paint	<input type="checkbox"/>	Office	<input type="checkbox"/>	Other	<input type="checkbox"/>

Product Change for all Shops	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
------------------------------	-----	--------------------------	----	--------------------------

Item #	Product Description	Replacing Product Part number:	SOP Change Yes /No

Reason For Product Request:
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Approved By:			
Position	Name:	Signature	Date Approved

# **Paint Shop SOPs**

- 1. Masking
- 2. Sanding System (Prep)
- 3. Sanding System (Repaired Plastic)
- 4. Sanding System (Blends)
- 5. SATA 3 Stage Filter Maintenance
- 6. Spray Gun Cleaning
- 7. Spray Gun - Assembly & Maintenance
- 8. Spray Gun - Trouble Shooting
- 9. Respirator Fit Testing



# Masking

Products Needed:	BASF RM 900	- Pre-Cleano	3M	- Trim Tape
	Tork # 192479	- Wipers (Rolls)	Norton	- 36" White Masking Paper
	Norton # 70735	- 13mm Foam Aperture	Norton	- 18" White Masking Paper
	3M #26334	- 3/4" Masking Tape	FBS	- Pro Masking 6" Paper
	3M #26654	- 1-1/2" Masking Tape		
	Norton # 03345	- Blue Sheeting		

SAFETY  
Disposable Gloves

Refer to the Manufacturer's MSDS for recommended safety equipment.

Step #1



Clean area with RM 900 cleaner & dry before masking  
Blow out door jambs prior to applying foam tape

Step #4



Mask all adjacent areas with Paint Check masking paper

Step #2



Apply foam tape to door jambs and any other gaps that need protection

Step #5



Cover entire vehicle with overspray sheeting

Note - Make sure that the car is dry before applying sheeting... **DO NOT** allow plastic to touch the floor!

Cut sheeting around repair area

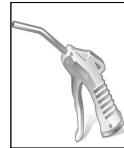
Tape sheeting down onto 1-1/2" masking tape

Step #3



Outline repair area with 3/4" masking tape  
Use Trim Masking Tape to lift and mask gaskets, moldings, etc.  
Use fine line to mask emblems and any other accessories

Step #6



Blow off area and tack

Info



Tech Support: [www.carboauto.com](http://www.carboauto.com)

QR Code:  
[Masking Video](#)





# Sanding System (Prep)

Products Needed:

- Carbo # 99308 - Preppers 6" Soft Density Backup pad
- Tork # 192479 - Specialist Wipes
- Norton - 800 Rotolla roll
- Norton - Primer Prep Red Scuff Pads
- Norton - 400 grit Sheet Roll

- Norton - Color Prep Gray Scuff Pads
- Norton - 400 Grit 6" DA Sand Paper
- Norton - 600 Grit 6" DA Sand Paper
- Norton - 220 Grit 6" DA Sand Paper
- Norton - 320 Grit 6" DA Sand Paper

## SAFETY

- P100 or N95 Dust Masks
- Disposable Gloves
- Safety Glasses

Step #1



Body work comes to the prep department finished in 180 Grit DA sand scratches  
Prep department never jumps more than 100 grit / step

OEM / Non-OEM Panels / All types of Bumpers

Step #2



Prepper's sand with 3/32 offset and a soft pad.  
Sand around the filler areas ( stay off filler) with 240 grit to remove 180 grit scratches on metal and feathered paint.

Step #7



NEW—OEM Panels

Finish sand with 400 Grit 6" DA, soft Pad, 3/32 Offset Sander  
Option to use 600 grit if primer is thin  
(May use Red Thin Flex Scuff Pad as alternate)

Step #3



Sand around the filler areas ( stay off filler) with 320 grit to remove 240 grit scratches on metal and feathered paint.

Step #9



Unprimed or Raw OEM and Aftermarket Bumpers

Pre wash with hot soapy water and rinse thoroughly.  
Hand sand with Grey Scuff + RM 902

Step #4



Prime as per BASF recommended procedures  
Caution: Do not Prime beyond 320 Grit Scratches

Step #5



**ON THE PRIMED AREAS**

Block sand— starting with 320 grit follow with 400 grit

Info



General Rule of sanding steps:

- \* Do Not jump more than 100 grits between steps from 80 to 400.
- \* Preppers on a DA use: soft pad + 3/32 finish sander
- \* Hand sand with 100 grit finer than DA sand for similar scratch or a used piece of 400 Grit

Step #6



Sand with 400 grit on a DA with a soft pad—the total area to be painted .  
Surface must be fully sanded, no shiny spots, no orange peel.



# Sanding “Repaired” Plastic

## Products Needed:

Norton/Carbo - 320 Grit 6" DA

Norton - 320 Grit Grip-On Sheet Roll

Norton - 240 Grit 6" DA

Norton - 800 Grit Soft Roll sand paper

Norton - 6" soft density pad

Norton - 400 Grit 6" DA

## SAFETY

P100 or N95 Masks

Disposable Gloves

Safety Glasses



- ☒ This section deals with prep sanding Bumpers that were repaired in the shop.

Step #1



Block sand repair areas with 320 grit prior to final sand



- ☒ Repair Plastic often comes to the Prep department with fine “hair” on the exposed plastic. This is easily dealt with using slow DA speed 240 grit or 320 grit and a small amount of water. (All sand papers are water tolerant)

Step #2



DA sand all areas to be primed and coloured with 400 grit



# Sanding System Blends

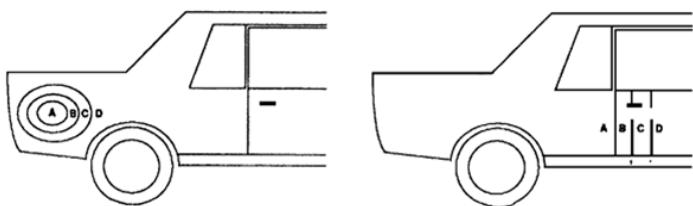
Products Needed:	BASF RM 900	- Pre-Cleano
	Norton	- Color Prep Gray Scuff Pads
	Norton	- Clear Prep Gold Scuff Pads
	Norton	- 1000 Grit 6" Medalist Film Finishing Disc
	3M	- 1500 Grit 6" Film Discs

Norton	- Soft DA Pad
Norton	- 6" Interface Pad
Norton	- 800 Grit 6" sanding disc

SAFETY  
P100 or N95 Masks  
Disposable Gloves  
Safety Glasses



This system assumes damaged repair is completed as per standard sanding preparation system and deals specifically with the A, B, C, D Blend "Panel" area as shown below.



Step #1



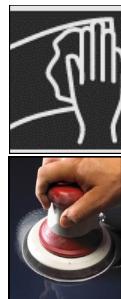
Sand areas A and B (Blend Panel Area) with 800 Grit, soft pad, 3/32 offset sander. Remove orange peel where color will be applied on the B portion of the panel. 1000 Grit may be preferable when prepping skinny OEM finishes.

Step #1



Alternately you may wet sand with P800 to P1000 grit on the A + B areas, making sure orange peel is removed when color will be going.

Step #2



Completely sand areas C + D with 800 Grit on a 6" DA, 3/32 offset finishing sander and soft + interface pad.  
Alternately— Sand areas C + D with Gray Thin Flex Scuff Pad —This can be important on heavy orange peel original finish—if the goal is to keep this peel intact.

Step #3



If Blending of the clearcoat is inevitable (sail panels)

Step #4



Prepare sail panels using 1200 grit wet hand sand



# SATA 3 Stage Filter Maintenance



## 3 Stage Filter Part Numbers

129.6 CFM Capacity Filter - # 92320 (shown above)

72 CFM Capacity Filter - # 141218

**1st Stage** - Clean or replace every 6 months

Replacement Filter # 22160

**2nd Stage** - Replace every 6 months

or

When 2nd pressure gauge shows a 5 psi drop from the 1st pressure gauge

Replacement Filter # 81810

**3rd Stage** - Replace every 3 months

Replacement Filter # 85373

Info



Tech Support: [www.satausa.com](http://www.satausa.com)

QR Code:

[3 Stage Filter Video](#)





# Spray Gun Cleaning

Products Needed:

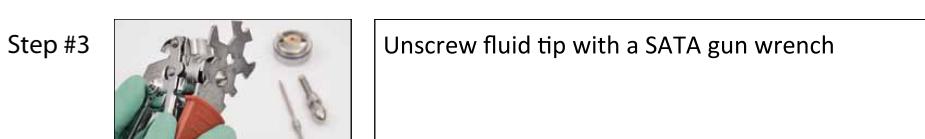
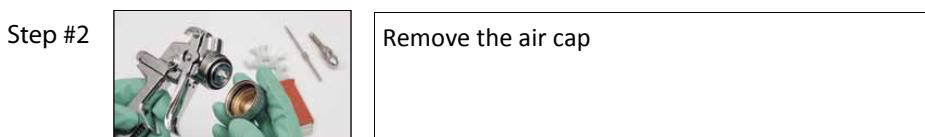
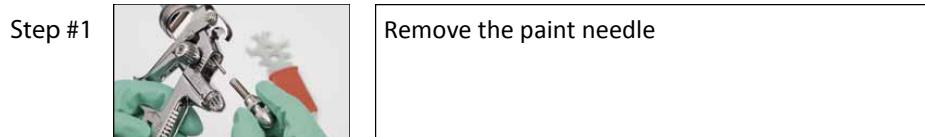
U-POL # 2002	- Water-Based Cleaner
SATA # 6007	- Cleaning Brushes
SATA # 9209	- Small Cleaning Brushes

SATA # 9894	- Nozzle Cleaning Needles
SATA # 48173	- Gun Lube
Tork # 440278A	- Wipers

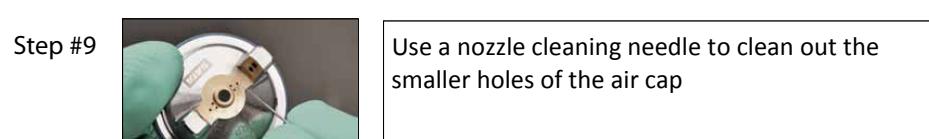
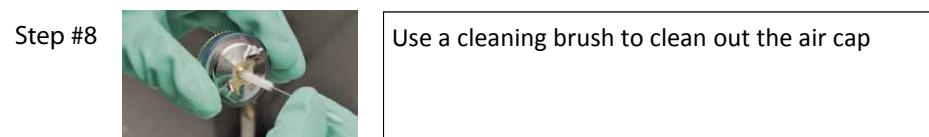
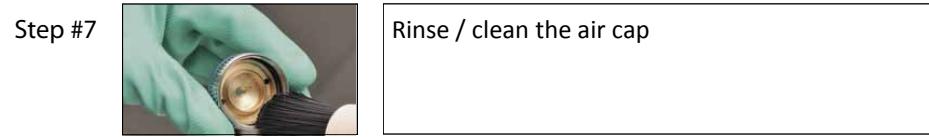
SAFETY  
Safety Glasses  
Organic Vapors Respirator  
Disposable Gloves

Refer to the Manufacturer's MSDS for recommended safety equipment.

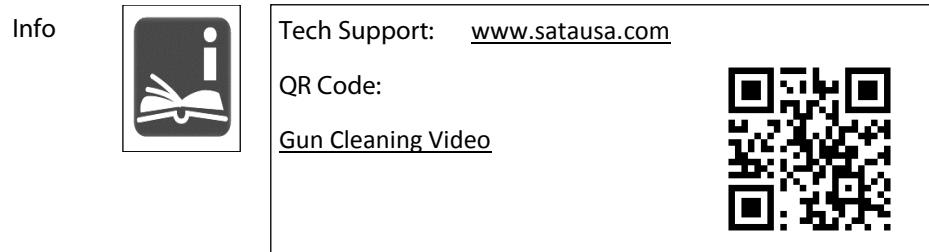
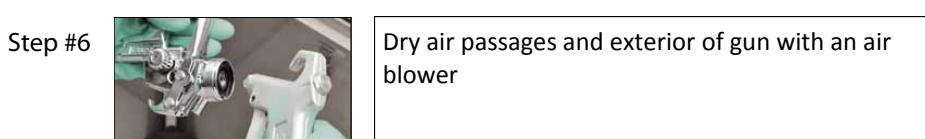
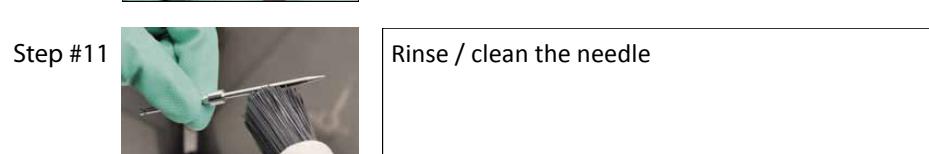
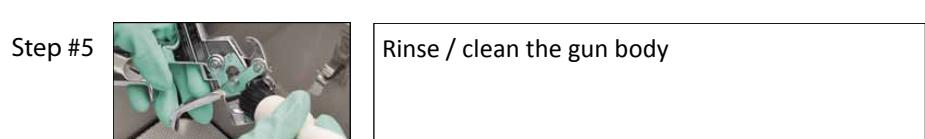
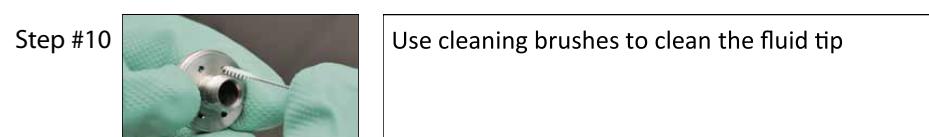
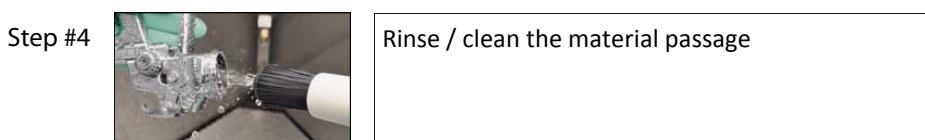
## Disassembly of Nozzle Set



## Cleaning of the Nozzle Set



## Cleaning and Drying



# Spray Gun - Assembly & Maintenance

Products Needed:  
SATA # 48173 - Gun Lube  
Tork # 440278A - Wipers

SAFETY  
Safety Glasses  
Organic Vapors Respirator  
Disposable Gloves

Refer to the Manufacturer's MSDS for recommended safety equipment.

Step #1



Insert the fluid tip into the gun body

Step #6



Grease and insert the paint needle spring

Step #2



Use a SATA gun wrench to hand-tighten the fluid tip

Step #7



Grease thread of material flow screw

Step #3



Attach the air cap

Step #8



Insert material flow screw

Step #4



Grease paint needle around the needle packing area

Step #9



Grease visible part of air piston rod

Step #5



Insert the needle

Info



Tech Support: [www.satausa.com](http://www.satausa.com)

QR Code:  
[Gun Cleaning Video](#)





# Spray Gun - Trouble Shooting

Defect	Possible Cause	Corrective Action
	Spray pattern is not large enough	Air drillings and/or air passage may be clogged Clean the air cap with cleaning solution using a suitable cleaning brush; afterwards blow dry thoroughly
	Angular or S-shaped fan	Horn air drillings are likely clogged Thoroughly clean the air cap with suitable cleaning utensils: replace the nozzle set if necessary
	Half moon shaped spray fan	Horn drillings are contaminated on one side or air drillings are clogged Clean the air cap with cleaning solution using a suitable cleaning brush; afterwards blow dry thoroughly
	Lopsided spray fan	Fluid tip and/or air cap is clogged or damaged Thoroughly clean air cap and fluid tip and if problem is not resolved, replace nozzle set
	Spray gun leaks from fluid tip	1) Contamination between needle and fluid tip or 2) Damaged nozzle set 1) Clean fluid tip and needle with cleaning solution and brushes; then apply gun grease to needle at point of entry into the spray head 2) Replace nozzle set
	Fluttering / Spitting spray fan	1) Fluid tip has not been properly tightened or 2) Air distribution ring is damaged or clogged or 3) The atomization pressure is too high or 4) The material viscosity is too low 1) Tighten fluid tip with SATA gun wrench 2) Replace air distribution ring 3) Adjust air pressure to recommended air pressure for material being sprayed 4) Properly adjust viscosity or use a smaller nozzle size if necessary
	Air bubbles appearing in gravity flow cup	1) Loose air cap or 2) Gap between air cap and fluid tip is clogged or 3) Defective paint needle sealing 1) Tighten air cap 2) Clean air cap and fluid tip using cleaning solution w/ brushes and nozzle cleaning needles 3) Replace paint needle packing

The suggested procedure on this page is a summary of the manufacturer's procedure. For complete details, review the manufacturer's instructions that accompany the products and/or that can be found at their websites.

Info



Tech Support: [www.satausa.com](http://www.satausa.com)

QR Code:  
[Gun Cleaning Video](#)





# Respirator Fit Testing

Products Needed:

SAS # 9401-01 - Fit Test Kit

SAS # 8661-92 - Medium Disposable Respirator

SAS # 8661-93 - Large Disposable Respirator

Replacement Fit Test Products:

SAS # 9401-03 - Sensitivity Solution

SAS # 9401-04 - Bitrex Solution Refill

SAS # 9401-05 - Nebulizer with labels



Respirator Fit Tests Should Be Conducted Annually

Step #1



Go to OSHA's website to review medical evaluation questionnaire and medical evaluation requirements

See QR code in lower right hand corner

Step #2



Check fit of respirator before conducting fit test

Asses comfort using the points described on the [Fit Test Form](#)

Step #3



**Sensitivity Test** - Check to make sure that the person being tested can detect the Bitrex solution by using the sensitivity solution # 9401-03 with nebulizer #1 while not wearing the respirator under the fit test hood

Step #4



Don the Respirator - Have the person being tested don their respirator and then put fit test hood on the person being tested

Step #5



Fit Test - Using the Bitrex solution # 9401-04 with nebulizer #2, check to see if the person being tested can detect the Bitrex solution while wearing the respirator under the fit test hood

Follow instructions on [Fit Test Form](#)

Info



Tech Support: [www.sassafety.com](http://www.sassafety.com)

QR Code:  
[OSHA Link](#)



QR Code:  
[Fit Test Video](#)





## QUALITATIVE FIT TEST EMPLOYEE FORM

EMPLOYEE: \_\_\_\_\_

COMPANY NAME: \_\_\_\_\_

RESPIRATOR MODEL #: \_\_\_\_\_

RESPIRATOR SIZE: \_\_\_\_\_

### BEFORE TEST PROCEDURES

Prior to testing, the subject must be able to detect the odor of isoamyl acetate (banana-like order). If he/she is unable to detect the isoamyl acetate odor a different type of test must be given.

The mask being fit tested must be worn for at least 5 minutes to assess comfort. Assistance in assessing comfort can be given by discussing the points below. If the test subject is not familiar with the respirator he/she shall be directed to don the mask several times and to adjust the straps each time so that he/she becomes adept at setting proper tension on the straps.

Assessing the comfort shall include reviewing the following points with the test subject:

- CHIN PROPERLY PLACED
- POSITION OF MASK
- STRAP TENSION
- FIT ACROSS NOSE BRIDGE
- ROOM FOR SAFETY GLASSES
- DISTANCE FROM NOSE TO CHIN
- ROOM TO TALK
- TENDENCY TO SLIP
- CHEEKS FILLED OUT
- SELF-OBSERVATION IN MIRROR
- ADEQUATE TIME FOR ASSESSMENT

Fit Test Exercise: (One Minute for each exercise)

- |   |     |
|---|-----|
| Breathe Normally  | [ ] |
| Breathe Deeply  | [ ] |
| Turn Head Side-To-Side                                      | [ ] |
| Nod Head Up-And-Down  | [ ] |
| Talking ( <u>READ Rainbow Passage – see attached page</u> ) | [ ] |
| Breathe Normally  | [ ] |

---

FIT TEST RESULTS

[ ] PASS

[ ] FAIL

---

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

---

TESTED BY

DATE

EMPLOYEE SIGNATURE

DATE



# Technical Support



[www.nortonautomotive.com](http://www.nortonautomotive.com)



[www.autochem.com](http://www.autochem.com)



[www.satausa.com](http://www.satausa.com)



[www.sassafety.com](http://www.sassafety.com)



[www.lord.com](http://www.lord.com)



[www.torkusa.com](http://www.torkusa.com)



[www.u-pol.com](http://www.u-pol.com)



# **Paint Shop Processes**

## 1. Paint Shop Processes

## **Paint Shop Processes**

**EXAMPLE**

# **Paint Shop Approved Product Lists**

1. Abrasives
2. Aerosols
3. Masking
4. Miscellaneous
5. Product Request Form

# **Paint Shop**

## **Approved Product List | Abrasives**

**12 SKU'S TOTAL**

PART #	MANUFACTURER	DESCRIPTION	COMMENTS
NOR06118	Norton	2.75x16xP180B VEL MA-C Strips'	
NOR06121	Norton	2.75x13xP320B VEL MA-C Strips'	
NOR06166	Norton	4.5x9 ThinFlex Beartex Maroon'	
NOR06167	Norton	4.5x9 ThinFlex Beartex Gray'	
NOR58005	Norton	6x9 Clear Blend Prep Scuf Pad'	
NOR07775	Norton	6` P180 VEL MA Dry Ice Discs'	
NOR07776	Norton	6` P220 VEL MA Dry Ice Discs'	
NOR07781	Norton	6` P320 VEL MA Dry Ice Discs'	
NOR07784	Norton	6` P400 VEL MA Dry Ice Discs'	
NOR07786	Norton	6` P600 VEL MA Dry Ice Discs'	
NOR07787	Norton	6` P800 VEL MA Dry Ice Discs'	
NOR57613	Norton	4 1/2`x82` P800 Rotolo Roll'	

# **Paint Shop**

## **Approved Product List | Aerosols**

**9 SKU'S TOTAL**

PART #	MANUFACTURER	DESCRIPTION	COMMENTS
PRF230	Proform	30ml One Step Primer	
SEM62213	SEM	454g EZ Coat Aero Olive Green	
SEM62223	SEM	454g EZ Coat Aerosol Lt Green	
SEM62233	SEM	454g EZ Coat Aerosol Tan	
SEM62253	SEM	320g Gloss Black Trim Paint	
SPM3680101	SprayMax	320g Satin Black Trim Paint	
SPM3680102	SprayMax	320g Matte Black Trim Paint	
SPM3680103	SprayMax	454g EZ Coat Aero Olive Green	
UPO791	U-Pol	450ml High 5 H/B Primer Gray	

# **Paint Shop**

## **Approved Product List | Masking**

**7 SKU'S TOTAL**

PART #	MANUFACTURER	DESCRIPTION	COMMENTS
MMM06405	3M	1/4`x33m Blue Plastic Tape 6mm	
MMM06654	3M	36mmx55m Yellow Masking Tape	
MMM26334	3M	18mmx55M 233+ Mask Tape 3/4'	
NOR00404	Norton	18`x 750' White Mask Paper	
NOR00407	Norton	36`x 750' White Mask Paper	
NOR03345	Norton	16'x350' Blue Sheeting	
NOR70735	Norton	13mm x 50m Premium Foam Tape	

# Paint Shop

## Approved Product List | Miscellaneous

26 SKU'S TOTAL

PART #	MANUFACTURER	DESCRIPTION	COMMENTS
DEV803598	Devilbiss	Devibiss Coverall X-Large	
CAM8700037	Camfil	36 x 50 Paint Pockets	
FBS48216	FBS	18cmx20m ProMask HiTemp Refill	
FBS50100	FBS	Premium Viton ProPump & Spray	
FSP2002	Five Star Products	18.9L 5 Star Virgin Gun Wash	
MMM07046	3M	Organic Vapour Cartridges++	
MMM07048	3M	Disposable Dust Respirators:++	
MMM07054	3M	OV Respirator Filter Retaine++	
MMM07184	3M	P100 Particulate Filters++	
MMM07194	3M	P95 O/V Respirator Filters++	
MMM07046	3M	Organic Vapour Cartridges++	
MMM36852	3M	Dirt Trap Material 28`x300'	
MOR1240-1	Morton	3.78L Wax/Grease/Sil Remover	
PRF747	Proform	3.78L Aircraft Paint Stripper	
PRT9030P		Plastic Razor Blades	
RMP851RQ	BASF	946ml Prep & Wash	
RMPB120	BASF	Anti Static Tack Cloth	
SAS5330	SAS	NSX Clear Safety Glasses	
SAS66517	SAS	Raven Nitrile Gloves PF-Med	
SAS66518	SAS	Raven Nitrile Gloves PF-Lrg	
SAS66519	SAS	Raven Nitrile Gloves PF-X Lrg	
SAT118406	SATA	0.3L RPS Cup w/200 Mic Fltr WB	
SAT118489	SATA	0.9L RPS Cup w/200 Mic Fltr WB	
SAT125070	SATA	RPS Box/57x0.6l Cups & Sieves	
SCA192479	SCA - Tork	Specialist Cloth Top-Pak	
USC36176	USC	2.36L Painter's Pails	

## Product Change Request Form

Shop Requesting Product						Date:						
Person Requesting Product												
Shop Manager												
Department	Detail	<input type="checkbox"/>	Body	<input type="checkbox"/>	Prep	<input type="checkbox"/>	Paint	<input type="checkbox"/>	Office	<input type="checkbox"/>	Other	<input type="checkbox"/>

Product Change for all Shops	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
------------------------------	-----	--------------------------	----	--------------------------

Item #	Product Description	Replacing Product Part number:	SOP Change Yes /No

Reason For Product Request:
-----------------------------

Approved By:			
Position	Name:	Signature	Date Approved

---

# VEHICLE REASSEMBLY SOP

After the vehicle has been painted (and buffed if necessary), the vehicle will be delivered to the reassembly team and keys placed on the ready for reassembly board.

Special focus is placed on a timely reassembly with attention to final appearance, fit, form and panel alignment. Once the vehicle is completely reassembled, the vehicle is moved to “ready for final wash” and the keys are placed on the detail key board.

---

## **Process Steps**

1. Verify acceptable color match
2. Review repair plan for all completed operations
3. Install all parts and hardware to vehicle
4. Aim head lamps if required
5. Check ALL lights and horn
6. Quality check all repairs for complete and proper fit, finish and function
7. Check radio for operation—leave in off position
8. Road test if necessary
9. Check battery and charge if necessary

# **Detail Shop SOPs**

1. Surface Defect Removal



# Surface Defect Removal

Products Needed:

3M	- 1500, 6" TRIZAK Discs	3M # 05738	- 8" Foam Pad
3M	- 3000 grit, TRIZAK 6" Discs	Tork # 440278A	- Tork Blue Jumbo
3M	-1500 grit, 6" Disc		
	Menzerna #PF2500		
	Menzerna #SF4000		
	Menzerna #PG1000		

SAFETY  
Safety Glasses  
Disposable Gloves

Refer to the Manufacturer's MSDS for recommended safety equipment.

Step #1



Wash the painted surfaces with soap & water

Step #5



Polish area with PF2500 compound and 3M polishing pad @ 1300 RPM

Step #2



Inspect painted surfaces to identify defects

Optional:



Polish area with SF4000 Compound using a 3M polishing pad @ 1100 RPM

Step #3



Sand areas that are in need of buffing with P1500 grit  
Sand areas with 3000 grit  
Finish Sand all areas in need of buffing with 3000 grit  
Use a 3/32 sander. Do Not Use an Interface Pad

Step #6



Use Carbo Detailer Spray to clean up buffing residue

Step #4



Compound area using PG1000 with 3M foam buffering pad @ 1800 RPM  
If required, start with wool and then move to Blue Foam

Info



Tech Support: [www.menzerna.com](http://www.menzerna.com)  
[Menzerna Website](#)





# Technical Support



[www.nortonautomotive.com](http://www.nortonautomotive.com)



[www.like90.net](http://www.like90.net)



[www.satausa.com](http://www.satausa.com)



[www.autochem.com](http://www.autochem.com)



[www.lord.com](http://www.lord.com)



[www.torkusa.com](http://www.torkusa.com)



[www.sassafety.com](http://www.sassafety.com)



[www.u-pol.com](http://www.u-pol.com)



# **Detailing Checklist**

Detail Tech must go over the entire vehicle and check off each item.  
Note corrective actions below and bring to the attention of the CSR.

Detail Check
Overspray removed from body & glass
Compound removed from jambs & openings
Trim, moldings and emblems replaced
Interior cleaned and vacuumed
Windows and chrome cleaned
Wheels and tires cleaned
Checked for water leaks
Color match OK
All moldings and trim replaced
A/C service completed
Horn, wipers, mirrors, and windows working
Radio and clock working
Tail lights and turn signals working
Headlights aimed and hi-beams working
Door locks working
All fluids checked and full
Warning lights checked
Body gaps even
All Work on R.O. Completed
Alignment completed
Test drive completed
Customer contacted for delivery

Corrective Actions Needed:

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# **Detail Shop Approved Product Lists**

1. Detail Shop Approved Product List
2. Product Request Form

# **Detail Shop**

## **Approved Product List**

**13 SKU'S TOTAL**

PART #	MANUFACTURER	DESCRIPTION	COMMENTS
FIB101200	Fiberglas Evercoat	Clay Magic Red Medium	
FIB102200	Fiberglas Evercoat	Clay Magic Blue Fine	
FSP5951	Five Star Products	652g Premium Glass Cleaner Aro	
HOP93210		Microfibre Wash Mop	
MMM00950	3M	6x0xP1500 VEL Film Finish Dis:	
MMM02085	3M	6x0xP3000 VEL Trizact Discs:	
MMM02094	3M	3x0xP1500 VEL Trizact Discs`	
MMM05738	3M	8` Perf It Foam Polishing Pad	
NOR05620	Norton	1/4`x18m Doubled Sided Tape'	
NOR05621	Norton	1/2`x18m Double Sided Tape'	
NOR05622	Norton	7/8`x18m Double Sided Tape'	
PRF513	Proform	517g 3 Strong Glass Clean Aero	
SCA440278A	SCA - Tork	Advanced Mekanic Wiper	

## Product Change Request Form

Shop Requesting Product						Date:						
Person Requesting Product												
Shop Manager												
Department	Detail	<input type="checkbox"/>	Body	<input type="checkbox"/>	Prep	<input type="checkbox"/>	Paint	<input type="checkbox"/>	Office	<input type="checkbox"/>	Other	<input type="checkbox"/>

Product Change for all Shops	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
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Item #	Product Description	Replacing Product Part number:	SOP Change Yes /No

Reason For Product Request:
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Approved By:			
Position	Name:	Signature	Date Approved

# **Check-In Processes**

1. Check In Vehicle
2. Customer Information Form
3. Pre-Repair Inspection Checklist
4. Additional Forms

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# VEHICLE INTAKE SOP

The success of today's collision center relies on fast process times. The first critical step is vehicle intake. When a damaged vehicle arrives for repair, the teams focus must be to onboard the customer, move the vehicle through to Disassembly and place a complete parts order in the shortest amount of time possible.

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## **Process Steps**

1. CSR or Salesperson or other team member welcomes the customer to our facility.
2. Create the RO jacket with key tag and mirror tag.
3. Obtain the keys from the vehicle owner
4. Tag the keys with the RO number, customer last name and vehicle color, year, make, and model
5. CSR completes the "Repair Order #" as well as the "Date" and "Started" fields on the "Drop Off" row on the Vehicle Intake Tracking Sheet and places the sheet on the dash with the RO jacket.
6. Obtain all required signatures: direction to pay, repair authorization, etc.
7. Reconfirm their contact information for updates and obtain all applicable phone numbers as well as email addresses.
8. Ask the customer for their preferred method of communication. Promise to contact them if there are any changes.
9. Explain our payment policies. Be clear on the customer's payment responsibilities at delivery (amount of deductible if appropriate, etc.). Also be clear on acceptable forms of payment (specific credit cards accepted, personal checks, etc.).
10. Determines whether the customer will need transportation once the check-in process is complete. If so, make sure transportation arrangements are ready as soon as the check-in process is complete.
11. Transfer the customer to the Salesperson. Communicate the transportation arrangements to the Salesperson.
12. Salesperson reviews the insurance assignment with the customer. Verify and validate the information, paying special attention to: claim information, deductible payment, rental car coverage, and completion date
13. Reiterate the customer's "special concerns"

14. Invite the customer to walk with you to the vehicle in order to briefly review the damage as needed
15. Place copies of the management system ‘window sticker’ report listing basic RO information (RO number in large bold print, customer name, contact information, insurance company information, target delivery date, etc.) in a highly visible location on the vehicle’s dashboard
16. Walk around the entire vehicle with the customer, completing the pre-repair inspection checklist together. Inspect, identify and document prior damage. This is your opportunity to explain the difference between accident related and prior damages.
17. UPSELL! Take the time to understand the customer’s expectations and offer additional services and the opportunity to repair prior damage.
18. Locate and obtain the digital camera
19. Set the camera’s resolution to the lowest available setting.
20. Take preliminary photos
  - Four corners of the vehicle exterior
  - Registration sticker
  - Dashboard gauge panel
  - Vehicle mileage
  - Vehicle interior options
  - VIN
  - License plate
  - Take photos of the damaged area(s)
21. Review the repair process with the customer to ensure they understand what will be happening next. If appropriate, explain the repair planning process in layman’s terms (avoid industry jargon at all costs!) so they understand there might be additional damage that is uncovered.
22. Reconfirm the target delivery date – BE SPECIFIC! – but also be clear that you may be calling with a more solid date once the repair plan has been written.
23. Thank the customer for their business and set the expectations for when you’ll next be in contact.
24. If the customer needed transportation assistance, direct them to the appropriate resource.
25. Immediately move the vehicle to the Pre-Wash Staging area to be washed.
26. Place the keys on the Pre Wash board in prioritized order (keys on top are highest priority).

# Customer Information

Name: \_\_\_\_\_ Home Phone: \_\_\_\_\_  
Address: \_\_\_\_\_ Cell Phone: \_\_\_\_\_  
City: \_\_\_\_\_ Province: \_\_\_\_\_ Postal Code: \_\_\_\_\_  
Email: \_\_\_\_\_  
Vehicle Make: \_\_\_\_\_ Model: \_\_\_\_\_ Year: \_\_\_\_\_  
VIN: \_\_\_\_\_ License Plate: ( \_\_\_\_ ) \_\_\_\_\_

## How did you hear about our company?

- Repeat Customer
- Customer Referral
- Insurance Company
- Insurance Agent
- Dealer
- Vendor
- Attorney
- Newspaper, TV, Radio
- Direct Mail
- Drive by
- Fleet Account
- Employee
- Yellow Pages
- Other

## What is most important to you regarding the repairs to your vehicle?

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## Insurance and Payment Information

Insured: \_\_\_\_\_  
Claimant: \_\_\_\_\_  
Customer Paid: \_\_\_\_\_  
Insurer: \_\_\_\_\_  
Claim#: \_\_\_\_\_  
Agent/Contact Name: \_\_\_\_\_  
Phone number: \_\_\_\_\_  
Deductible Amount: \$ \_\_\_\_\_  
How will payment be made: \_\_\_\_\_  
  
Do you have an estimate: \_\_\_\_\_  
If so, who wrote it: \_\_\_\_\_  
  
Transportation Needed:  
Rental  Courtesy Transportation   
  
How would you like to receive vehicle status updates?  
Daily    Every other day    Day before delivery  
  
Updates Via:  
Phone              Email              Website

Customer Authorizing Repair: \_\_\_\_\_ Date: \_\_\_\_\_

# Pre-Repair Inspection Checklist

Customer: \_\_\_\_\_

Date: \_\_\_\_\_ R.O. #: \_\_\_\_\_ Inspected By: \_\_\_\_\_

## Exterior:

	Check	
Hood Operation		<input type="checkbox"/>
Front Door Operation	Left <input type="checkbox"/>	Right <input type="checkbox"/>
Rear Door Operation	Left <input type="checkbox"/>	Right <input type="checkbox"/>
Deck lid/Tailgate Operation		<input type="checkbox"/>
Glass intact & clean		<input type="checkbox"/>
Wiper arms & blades		<input type="checkbox"/>
Radio Antenna		<input type="checkbox"/>
Headlamps - L	Inner <input type="checkbox"/>	Outer <input type="checkbox"/>
Headlamps - R	Inner <input type="checkbox"/>	Outer <input type="checkbox"/>
Side Light - Front	Left <input type="checkbox"/>	Right <input type="checkbox"/>
Side Lights - Rear	Left <input type="checkbox"/>	Right <input type="checkbox"/>
Tail Lamps	Left <input type="checkbox"/>	Right <input type="checkbox"/>
Brake Lights	Left <input type="checkbox"/>	Right <input type="checkbox"/>
Turn Signals - Front	Left <input type="checkbox"/>	Right <input type="checkbox"/>
Turn Signals - Rear	Left <input type="checkbox"/>	Right <input type="checkbox"/>
Heater/AC/Blower		<input type="checkbox"/>

## Accessories:

Door Locks	<input type="checkbox"/>
Seats	<input type="checkbox"/>
Windows	<input type="checkbox"/>
Mud Guards	<input type="checkbox"/>
Running boards	<input type="checkbox"/>
Audio equipment	<input type="checkbox"/>
Wheel covers	<input type="checkbox"/>
Broken/Damaged Glass	<input type="checkbox"/>
Condition of Interior	<input type="checkbox"/>
Trunk Empty	<input type="checkbox"/>
Personal Effects Removed	<input type="checkbox"/>

Customer Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## Codes:

1. Scratch/Paint/Defects/Chips
2. Ding/Dent/Waves
3. Loose Molding
4. Overspray
5. Broken/Cracked Part
6. Mis-alignment
7. Rust
8. Missing Part
9. Inoperable
10. Other (specify) \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

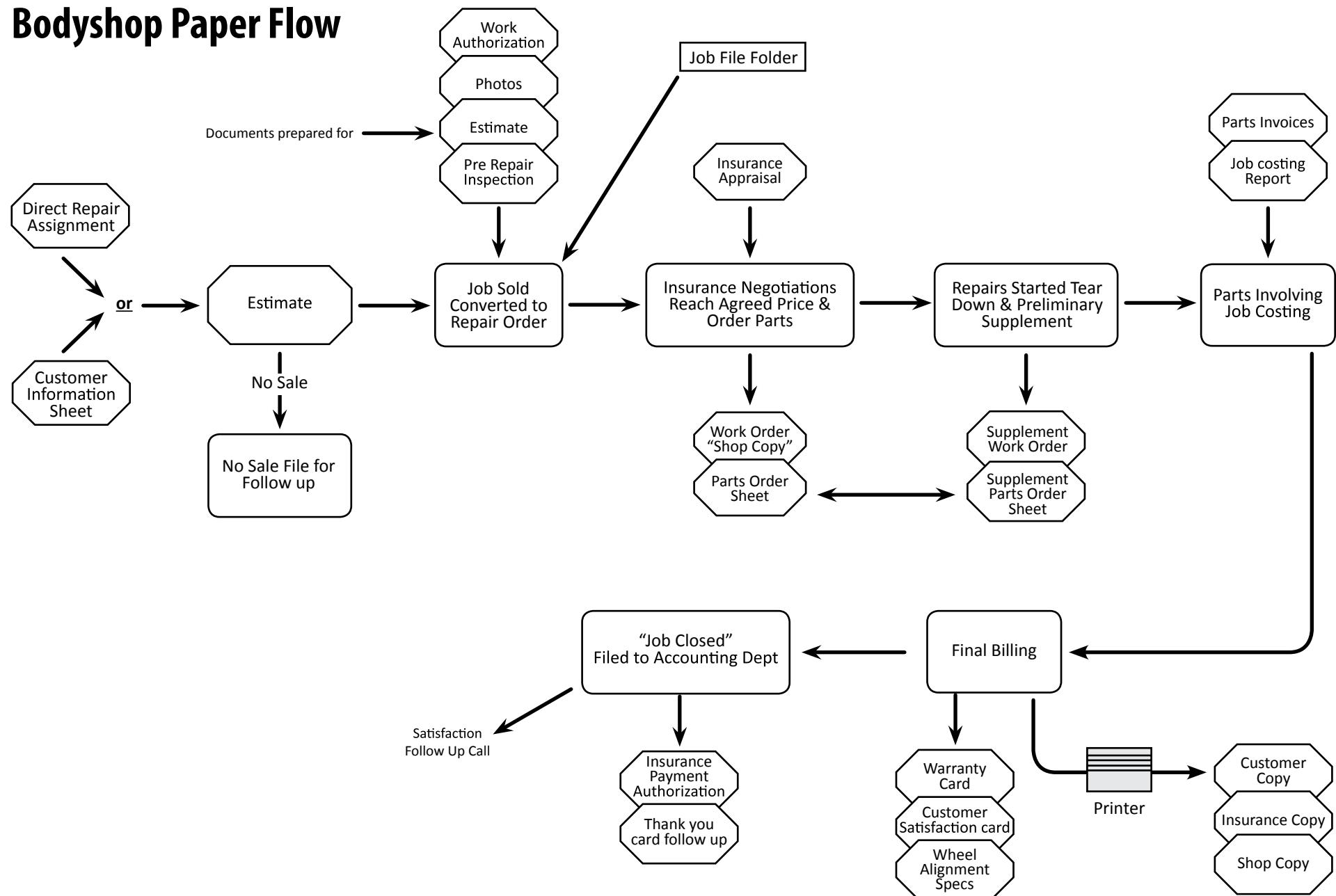
Additional Repairs Authorized:

Yes  No

Customer to be contacted with appraisal  
for additional repairs:

Yes  No

# Bodyshop Paper Flow



# **Repair Planning Processes**

1. Disassembly for Repair SOP
2. Visual Mapping SOP
3. Repair Planning SOP
4. Parts Cart SOP
5. Vehicle Staging For Repair SOP

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# DISASSEMBLY FOR REPAIR SOP

Under the direction of the Estimator, the Disassembly Specialist disassembles the entire damaged area and blend panes to gain visual access and to the point where further disassembly will not be required in any subsequent repair stage. Throughout this stage the Estimator takes pictures showing all damage and broken hardware. The Disassembly Specialist places all removed parts (including small parts such as clips and fasteners) in an organized manner on the floor or table. Any missed operations will be marked in yellow.

The tech should flag the vehicle 20 to 30 minutes before completing the disassembly to signal that the repair plan needs to be completed.

In the event that the technician has completed the disassembly process but waiting for the final estimate, he should leave the vehicle with the flag on the window and the parts cart near the vehicle and get the next vehicle in line and begin the disassembly process.

---

## Process Steps

1. Disassembly Technician notifies the Repair Planner he/she is ready to begin disassembling a vehicle.
2. If a vehicle is not in the Disassembly Area, Repair Planner communicates which vehicle is to be disassembled next  

NOTE: All areas visually mapped in yellow must be resolved before a particular vehicle can be selected for disassembly (if not, the technician will not have clear direction as to whether a particular area should be disassembled or not)
3. If the selected vehicle is not in the Disassembly Area, the Technician obtains the keys and moves the vehicle from the Staging Area into the Disassembly Area



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# VISUAL MAPPING SOP

At this stage the Repair Planner will map the vehicle, which entails the use of colored markers to indicate approved or not approved areas of the repair. It also involves recording notes to simplify communication to all technicians. Mapping the vehicle is a visual method of instructing technicians on how to repair the vehicle.

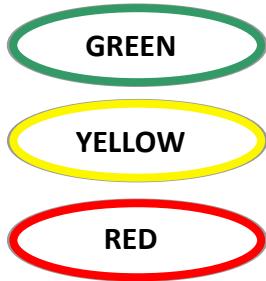


Keep in mind, mapping is the start of an accurate repair – accuracy counts!

NOTE: As a reminder, some insurance companies require that initial photographs must be taken prior to mapping the vehicle!

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## Visual Mapping Circle Codes



GO! Approved Repair

CAUTION! Pending Approval

STOP! Repair Denied

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# REPAIR PLANNING SOP

When the vehicle has been sufficiently disassembled to gain visual access to all damage, and pictures of all damaged areas have been taken, the Estimator writes a meticulous repair plan adhering to applicable insurance company guidelines. Roles and responsibilities for the following tasks should be defined: drive-in estimates, tow-ins, drop-offs and possible total losses. Please note, possible totals should be scrutinized if at all possible to prevent unnecessary disassembly.



Both the body and paint technician should be utilized to review the estimate for complete accuracy (parts, labor times and procedures, sublet activities, materials, fluids, blends and color match) before locking.

**Important Note: There cannot be any hidden damage remaining after this stage is complete. ZERO supplements and 100% accuracy is the goal.**

---

## Process Steps

1. Place call to OE vendor requesting parts blow-ups / illustrations for each damaged area of the vehicle. The parts illustrations will be used during the Repair Planning stage; requesting the information in advance will provide some lead time to the vendor and help ensure the diagrams are available when we need them
2. Systematically inspect the vehicle, itemizing all operations necessary to repair the vehicle
3. Focus on thoroughly specifying all parts, materials, and sublet operations needed
  - Determine the type of part to be used as well: OE, aftermarket or used

- Capture all fasteners, decals, emblems, labels, seam sealers, painted pinstripes or stripe tape, sound deadening pads, etc.
- Document internal or external glass work, key coding, mechanical repairs, etc.
- Add special materials and minor parts
- Focus on any items, that if missed, would cause a delay



#### 4. Utilize all available reference materials to capture every applicable operation

- P-pages
- Alldata
- Parts code tables
- Vehicle manufacturer repair specifications
- Refinish procedures

NOTE: remember that at this point, it's not about whether you'll be paid for every operation that is written down, it's about capturing all the operations that are truly necessary to repair the vehicle. If an 'unallowable' operation is identified later, the procedure can simply be zeroed out. Capturing all operations is critical at this stage to clearly communicate the repair plan to the technical staff.

#### 5. Paint analysis

- Repair planner and paint team leader collaborate on the refinish requirements for the repair
- Determine the paint code, color match / variance, and blend areas
- Identify whether a three stage finish is on the vehicle, add it to the repair plan, and proceed accordingly
- Determine if a spray out is required prior to refinishing
- Determine if parts will be refinished on or off the vehicle
  - Painting parts off the vehicle allows for the possibility of multiple repair orders to be refinished at one time, increasing production in your facility.
- Ensure required materials (including special orders if applicable) will be in stock when the vehicle reaches the paint department. Be sure to bill for additional materials if specialty items are needed

6. Review the Repair Plan with the ‘advisory team’ consisting of the Production Coordinator, Parts Specialist and Lead Body Technician to gain different perspectives



- Review the overall plan, with the advisory team peppering you with questions: “did you include...”, “what have you planned here...”, etc.
  - Discuss repair versus replace decisions
  - This should just be a brief, few minute review
7. Repair Planner completes the “Final Estimate” row on the Vehicle Intake Tracking Sheet. If the Repair Planner is not the person ordering parts, the Tracking Sheet should be removed from the vehicle and transferred to the Parts Coordinator.

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### **Important Notes**

- There cannot be any hidden damage remaining after this stage is complete. ZERO supplements and 100% accuracy is the goal.
- Accuracy should be tracked by measuring ‘Supplements After Disassembly’ (the number of supplements written after a complete Disassembly has been performed and Repair Plan has been written)
- After Disassembly an accurate final estimate should be finished and a complete parts order placed within ONE hour.
- An expedited vehicle intake, mapping, and Disassembly are critical to reducing cycle time and overall chaos. Each task should be measured separately if they cannot be completed within four hours of drop-off.

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# PARTS CARTS SOP

Once appropriate photos of the vehicle have been taken the technician places all parts on the parts cart organized by R&R and R&I. Label the parts cart by attaching a copy of the window sticker from the management system. Replace all broken clips, fasteners and hardware broken during disassembly from in house inventory or make a list of clips needed to be ordered. Label all parts with the RO number.

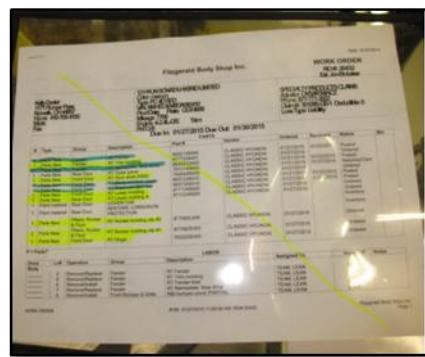


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## Parts Cart Organization

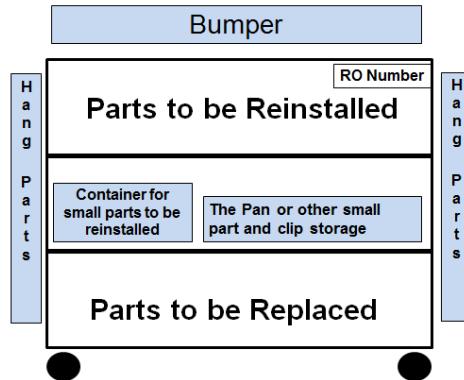
Each parts cart will be organized in the following manner:

1. The 'window sticker' report with the RO identification will be placed in the plastic folder hanging from the upper shelf of the cart.

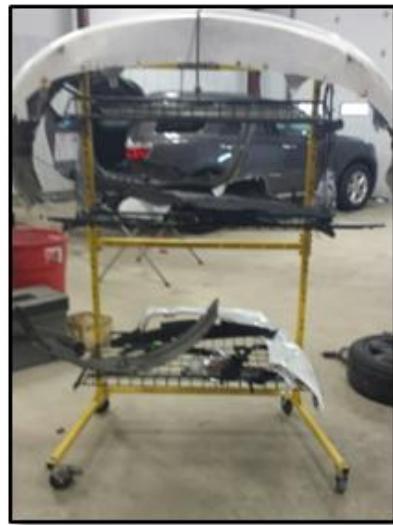


2. Parts to be replaced will be stored on the top shelf.

- Once received and mirror-matched, the replacement part is placed on one of the lower shelves or hung.



- Large parts will be hung from hooks on the cart and secured with bungee cords if necessary.



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# VEHICLE STAGING FOR REPAIR SOP

Once the estimate has been completed the estimator will release the vehicle. The Disassembly tech will weatherproof the vehicle and park in the “waiting for parts” area and the parts carts will be moved to the parts department by the disassembly tech. The tech then takes an empty cart back to disassembly area if one is available. The vehicle will remain parked until the complete parts order has been received. At this time the vehicle will be dispatched for repair.

Vehicles that require no parts will be dispatched to the first available technician.

---

## Process Steps

1. Disassembly Technician ensures the hardware/small item storage item is loaded on the parts cart and all items on the cart are secured
2. If needed, Technician weatherproofs the vehicle by covering and sealing windows with plastic crash wrap and tape
3. If work can constructively progress prior to parts arrival, Technician moves the vehicle to the assigned repair bay
4. If work must be delayed until certain parts arrive, move the vehicle to Waiting For Parts staging area
5. If work must be delayed until a technician is available, move the vehicle to the Ready For Repair staging area

## When Parts Arrive

When parts arrive, mirror match and place on cart as soon as possible. If all parts have been received,

- Notify production coordinator
- Place parts cart in a ‘ready for production’ staging area



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## **Important Notes**

- Processing time is critical to success
- Downtime must be minimized; there are three critical areas in which downtime can be minimized:
  - Vehicle dropped to disassembly / repair plan
  - Repair plan to parts ordered
  - Parts arrive to vehicle in production
- Must have a sense of urgency
- Pre-Production best practice criteria include:
  - Vehicle is prewashed
  - Authorizations have been received
  - Vehicle is 100% disassembled
  - Necessary parts illustrations (Alldata) procedures for structural, mechanical and electrical repairs are with the vehicle
  - The file is compliant to facility standards (photos, DRP agreement, admin)
  - All “critical” parts have been received and mirror matched prior to dispatch
  - Tech is ready to work on the vehicle

# **Vehicle Delivery Processes**

1. Delivery Steps
2. Pre-Delivery Inspection Checklist
3. Additional Forms

# **Delivery Steps**

## **1. Estimator to QC vehicle**

- i. Review detailing checklist
- ii. Perform pre-delivery checklist

## **2. Ensure paperwork is in order**

## **3. Bill is finalized**

## **4. Contact customer**

## **5. Do complete walk through of vehicle with customer**

## **6. Vehicle is out**

# Pre-Delivery Inspection Checklist

Customer:

Date:

R.O. #:

Inspected By:

All work on RO complete: Yes  No

Identify any overlooked operations or missing parts:

Pre-repair checklist reviewed for additional damage to be corrected

Alignment completed  (as applicable)

Headlights aimed  (as applicable)

A/C Recharged  (as applicable)

<b>Exterior:</b>	Check		<b>Interior:</b>	Check
Hood Operation			Interior clean	<input type="checkbox"/>
Front Door Operation	Left <input type="checkbox"/>	Right <input type="checkbox"/>	Door jambs clean	<input type="checkbox"/>
Rear Door Operation	Left <input type="checkbox"/>	Right <input type="checkbox"/>	Operation of all accessories	<input type="checkbox"/>
Deck lid/Tailgate Operation			Check for water leaks	<input type="checkbox"/>
Class intact & clean			<b>Engine Components:</b>	
Wiper arms & blades			Engine oil	<input type="checkbox"/>
Radio Antenna			Transmission & brake fluids	<input type="checkbox"/>
Headlamps - L	Inner <input type="checkbox"/>	Outer <input type="checkbox"/>	Coolant	<input type="checkbox"/>
Headlamps - R	Inner <input type="checkbox"/>	Outer <input type="checkbox"/>	Washer solvent	<input type="checkbox"/>
Side Light - Front	Left <input type="checkbox"/>	Right <input type="checkbox"/>	Fuel	<input type="checkbox"/>
Side Lights - Rear	Left <input type="checkbox"/>	Right <input type="checkbox"/>	Water leaks	<input type="checkbox"/>
Tail Lamps	Left <input type="checkbox"/>	Right <input type="checkbox"/>	Battery terminals	<input type="checkbox"/>
Brake Lights	Left <input type="checkbox"/>	Right <input type="checkbox"/>	Battery charged	<input type="checkbox"/>
Turn Signals - Front	Left <input type="checkbox"/>	Right <input type="checkbox"/>	<b>Test Drive:</b>	
Turn Signals - Rear	Left <input type="checkbox"/>	Right <input type="checkbox"/>	Horn	<input type="checkbox"/>
Remote Mirrors			Radio operation & pre-sets	<input type="checkbox"/>
Door Locks			Other electronics re-set	<input type="checkbox"/>
Door Regulators			Brakes	<input type="checkbox"/>
Alignment of Body Parts			Steering control	<input type="checkbox"/>
Trim, mouldings, emblems			Transmission shifts	<input type="checkbox"/>
Exterior cleaned			Squeaks, rattles	<input type="checkbox"/>
Checked for over-spray			Alignment	<input type="checkbox"/>
Compound removed from jambs and openings			Wind leaks	<input type="checkbox"/>
Wheel & tires clean			Charging systems	<input type="checkbox"/>
Chrome & glass clean			A/C Blowing Cold	<input type="checkbox"/>
			Warning lights	<input type="checkbox"/>
			<b>Test Drive Complete</b>	<input type="checkbox"/>

Corrections Required: Yes  No

Customer Signature: \_\_\_\_\_