

**ATTENTION:**

- GENERAL MANAGER
- PARTS MANAGER
- CLAIMS PERSONNEL
- SERVICE MANAGER

IMPORTANT - All Service Personnel Should Read and Initial in the boxes provided, right.




QUALITY DRIVEN® SERVICE

**SERVICE BULLETIN**

**APPLICABILITY:** 2010-2013MY Legacy and Outback **NUMBER:** 12-147-13R  
**SUBJECT:** Pop Sound from Right Rear Wheel Apron Area **DATE:** 03/08/13  
**REVISED:** 06/18/14

**INTRODUCTION**

The purpose of this bulletin is to provide a repair procedure to address a customer concern of a “pop” type sound coming from the right rear wheel apron area. The sound may occur over bumps when a twisting motion is introduced into the vehicle chassis at low speeds. After verifying the customer’s concern and performing the procedure, be sure to road test the car again to confirm the sound has been eliminated.

**COUNTERMEASURE IN PRODUCTION**

A countermeasure was made in production to eliminate the sound starting with VINs: Legacy D\*038088, Outback D\*292979.

**TOOLS AND MATERIAL NEEDED**

- Right angle disc sander / angle die grinder
- 3M™ Roloc™ 2” surface grinding disc (grade A CRS)
- Angled pick
- Heat gun (optional)
- Block of wood (2 x 4 x 12” long)
- Punch Tester used to perform WVX-34
- Snap-on Center Punch 3/16” point, 6” (stock # PPC4A) or equivalent
- 3M Ultrapro Automotive Body Sealer 08302 (available at most automotive jobbers)
- Dupli-color Professional Undercoat (available at most automotive jobbers)
- Etching Primer (available at most automotive jobbers)
- Masking or painters tape and paper

**PUNCH TESTER TOOL INFORMATION**

The punch tester was provided to dealers located in salt-belt states to perform WVX-34. The following information is for dealers in non-salt-belt states.

Currently, we have a very limited number of punch testers. A punch tester will be supplied upon request strictly as a “loaner”. The loaner will only be provided to perform Service Bulletin 12-147-13 “Pop Sound from Right Rear Wheel Apron Area”.

*Continued...*

<p><b>CAUTION: VEHICLE SERVICING PERFORMED BY UNTRAINED PERSONS COULD RESULT IN SERIOUS INJURY TO THOSE PERSONS OR TO OTHERS.</b></p> <p>Subaru Service Bulletins are intended for use by professional technicians ONLY. They are written to inform those technicians of conditions that may occur in some vehicles, or to provide information that could assist in the proper servicing of the vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do the job correctly and safely. If a condition is described, DO NOT assume that this Service Bulletin applies to your vehicle, or that your vehicle will have that condition.</p>	<p><b>SUBARU OF AMERICA, INC. IS “ISO 14001 COMPLIANT”</b></p> <p>The international standard for excellence in Environmental Management Systems. Please recycle or dispose of automotive products in a manner that is friendly to our environment and in accordance with all local, state and federal laws and regulations.</p>
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The Punch Tester Request Form must be filled out and faxed to the Parts Collection Center. Upon receipt, the punch tester will be shipped via ground or second day air via UPS depending upon the “Need By Date” requested. The tool will be shipped in a UPS Express “Large Box” measuring 18x13x3. A pre-printed UPS label will be provided for return shipping. Therefore, the same size and style box needs to be used for return shipping. These boxes may be requested directly from UPS if you do not have any supply of them. Using a box other than the size listed can create a delay in return shipping, resulting in a debit. The punch tester must be returned immediately upon repair completion. Failure to return the punch tester within two weeks of the request submission or return of a damaged tool will result in a miscellaneous charge of \$500.00 being added to the requesting dealer’s monthly statement.

**Note:** Refer to the last page of this bulletin for the Punch Tester Request Form.

## **REPAIR PROCEDURE/INFORMATION**

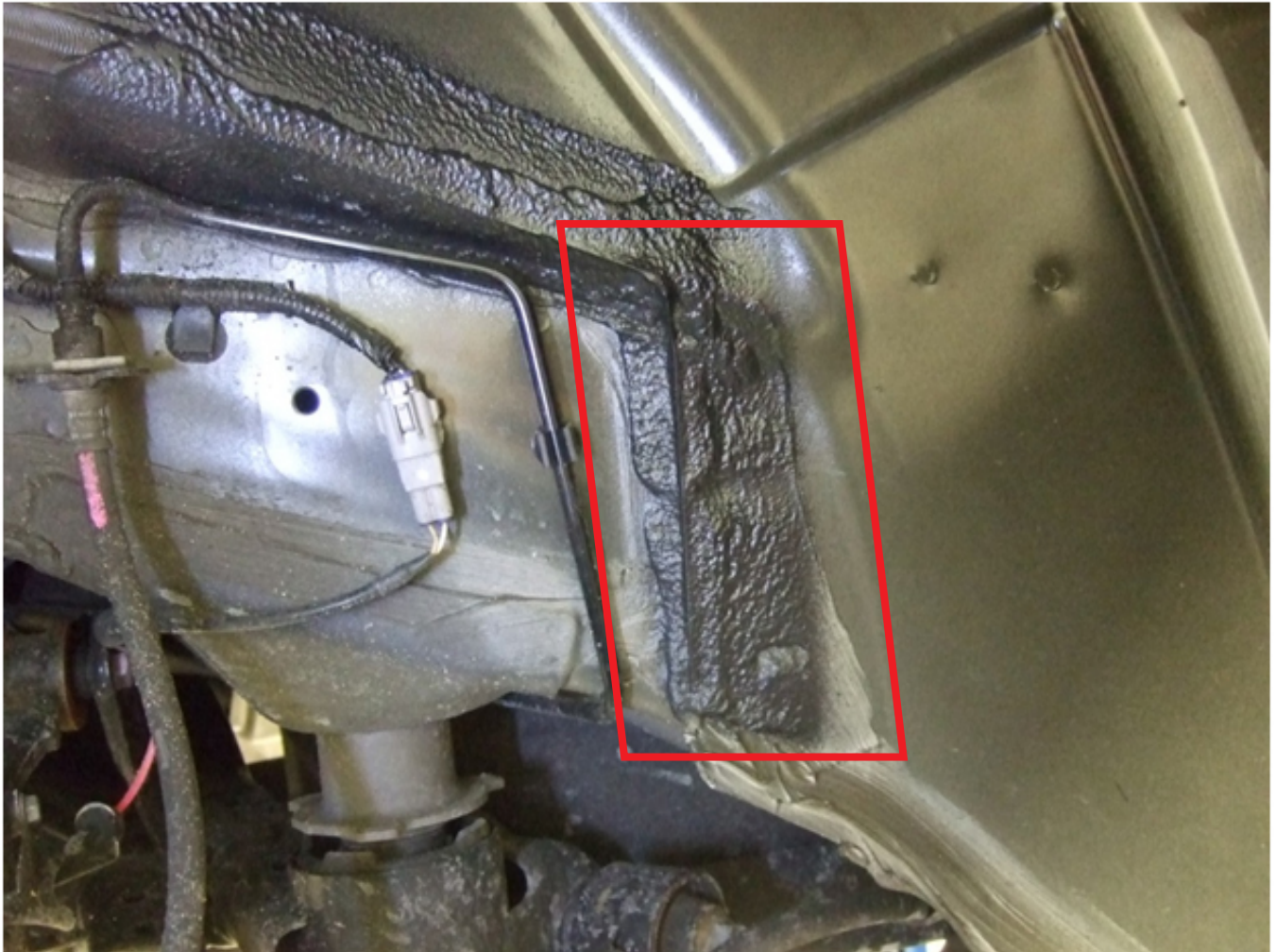
**NOTE: Be sure to read through the entire procedure before proceeding.**

1. Remove the right rear wheel assembly.
2. Remove the right rear inner mud guard which is attached by 12 clips (10 small - 2 medium).  
Note the orientation of the clips prior to removal.



*Continued...*

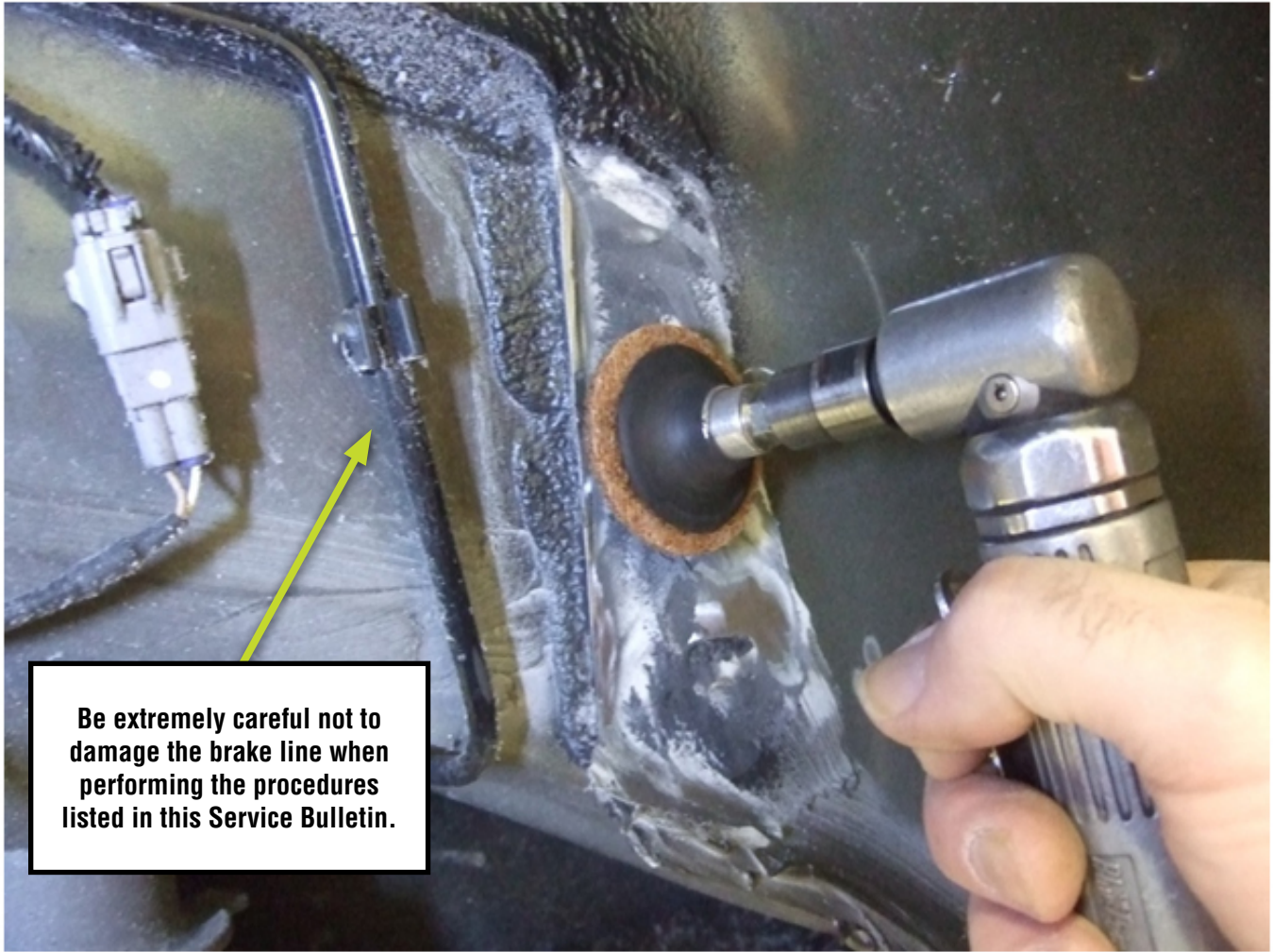
The undercoating needs to be removed from the area outlined.



*Continued...*



3. Remove the undercoating using a right angle disc sander and surface grinding disc.  
**NOTE:** Safety glasses and a respiratory mask should be worn when performing the procedures listed in this Service Bulletin.



*Continued...*

Photo of undercoating removed.



There are 3 layers of sheet metal which are secured together.

**Outer** - Wheel apron rear

**Middle** – Side sill inner rear

**Inner** – Frame side rear lower front

The outer wheel apron is secured by 2 welds to the middle side sill.

The middle side sill is secured by 6 welds to the inner frame.

*Continued...*



4. Remove the body sealer that seals the outer and middle sheet metal using an angled pick. A heat gun may be used to soften the body sealer to aid with removal. Avoid applying any heat to the brake line. Direct airflow from rear to front so excess heat is not directed at the brake line.



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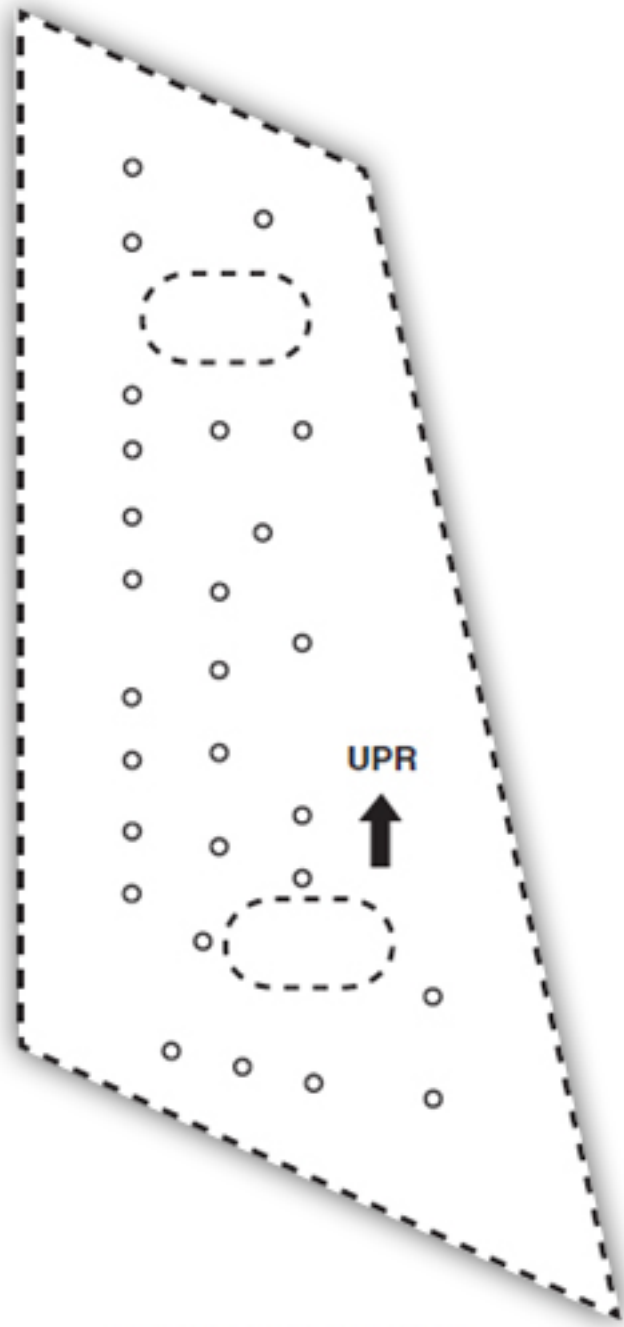
5. Use a 2 x 4 and apply moderate force with a hammer to flatten the outer wheel apron to minimize the clearance to the middle side sill.



*Continued...*

**NOTE:** This photo is for illustration purposes, refer to page 20 of this bulletin to print the actual template which will be used.

6. Cut out the template along the dotted lines. The ovals also need to be cut out.



Cut along the dotted lines

*Continued...*



7. Tape the template in place. Align the template ovals over the two outer wheel apron plug welds.



*Continued...*

The punch tester will be used to make indentations at all of the 27 spots.

8. Place the tip of the punch tester on a marked spot, then raise the punch tester so it is perpendicular to the spot, load the punch tester, then release. Repeat the procedure on the remaining spots.



*Continued...*

9. Remove the template. The punch tester makes a 1.8mm indentation.



*Continued...*



The indentations need to be increased to 3mm using a Snap-on Center Punch 3/16" point, 6" (stock # PPC4A) or equivalent.



*Continued...*

10. Using a 3/16 tapered punch and hammer, increase each indentation to 3mm.



*Continued...*

Measure to insure that a 3mm indentation was made using the punch.  
**NOTE:** This is a critical step; make sure each indentation measures 3mm.



Do not be concerned if the gap between the outer and middle sheet metal increased as a result of punching. No attempt should be made to flatten this area. Leave it raised.

**DO NOT REPEAT THE PROCEDURE USING THE 2 x 4 AND HAMMER.**

*Continued...*

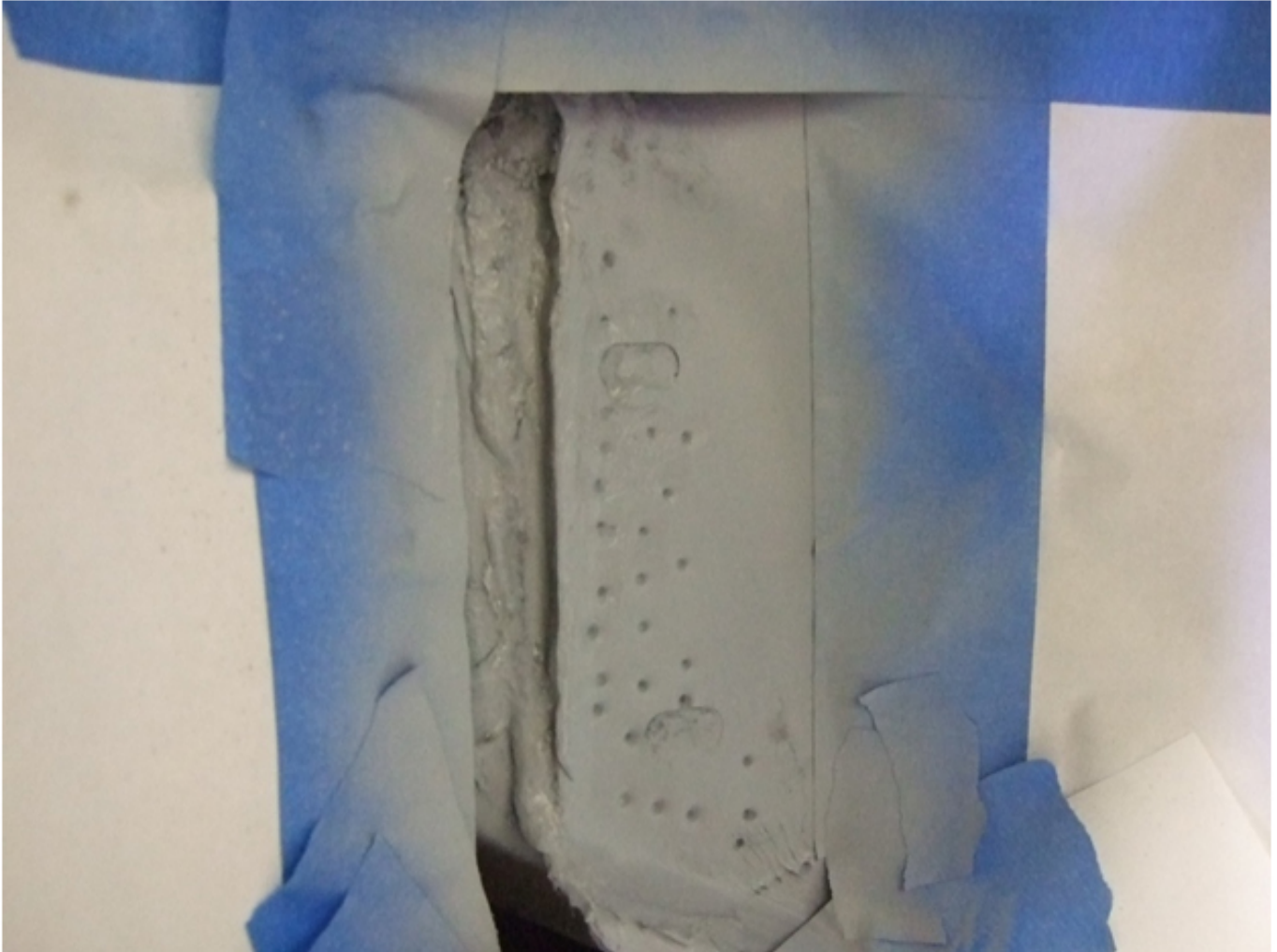


11. Tape off the area as illustrated. **NOTE:** Make sure the surface is free from sanding dust, dirt, oil and grease. A rag and cleaning solvent may be used.



*Continued...*

12. Spray the area using etching primer (two coats are recommended). **NOTE:** Make sure to read and follow the cautions and instructions on the can before using. Make sure etching primer is dry before applying second coat and before proceeding to the next step.



*Continued...*

13. Apply body sealer to seal the outer and middle section. Also apply a thin layer over the indentations. **NOTE:** Make sure to read and follow the cautions and instructions on the tube before using. Make sure the body sealer is dry before proceeding to next step. **NOTE:** Do not attempt to flatten the flange area, leave it raised. **CAUTION:** To avoid injury, do not use your finger to smooth the sealer as the flange area may be sharp.



*Continued...*



14. Spray the area with undercoating (two coats are recommended). **NOTE:** Make sure to read and follow the cautions and instructions on the can before using. Make sure the undercoat is dry before applying second coat and before proceeding to the next step.



*Continued...*

15. Remove tape and paper.



16. Install inner mud guard.

17. Install wheel assembly.

18. Road test vehicle to confirm sound can no longer be heard.

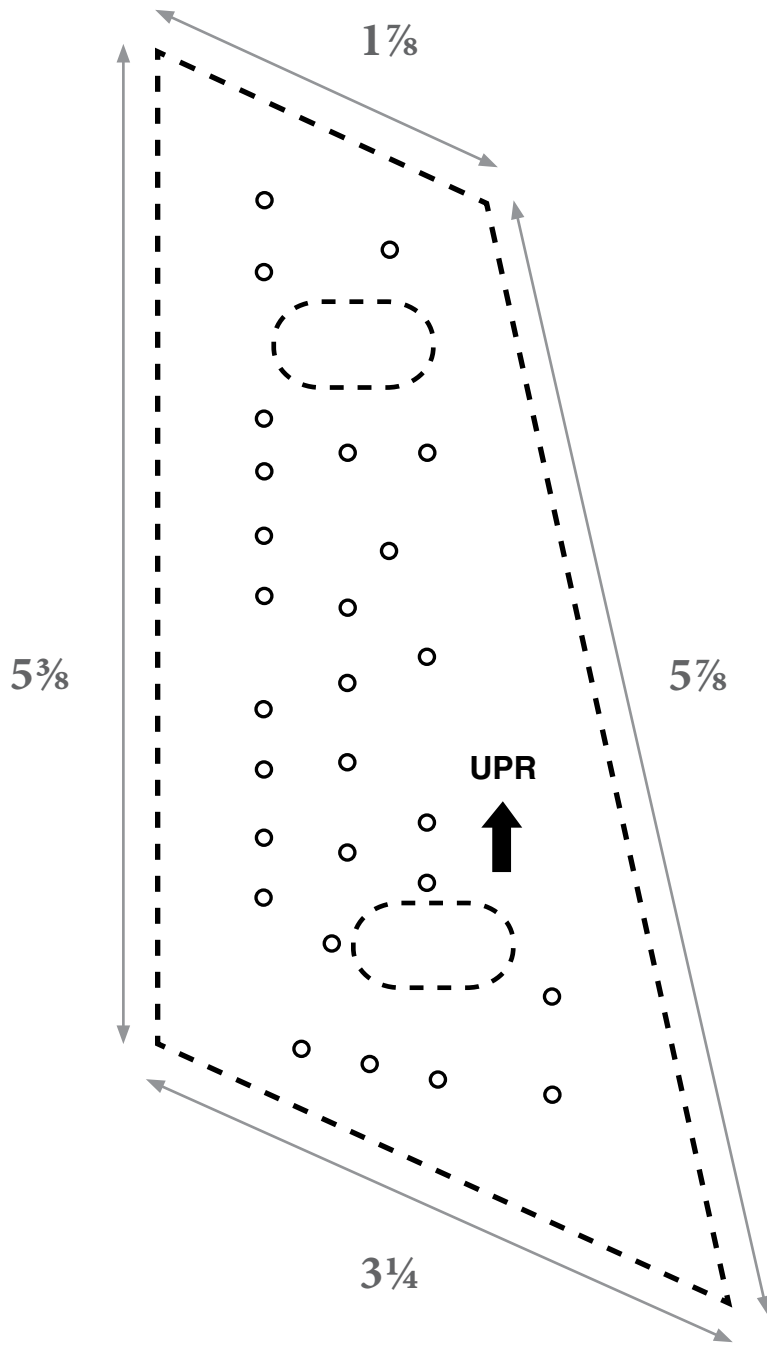
#### **WARRANTY / CLAIM INFORMATION**

For vehicles within the Basic New Car Limited Warranty period, this repair may be claimed using the following information:

<b>LABOR DESCRIPTION</b>	<b>LABOR OPERATION #</b>	<b>FAIL CODE</b>	<b>LABOR TIME</b>
<b>Right Rear Wheel Apron Repair</b>	<b>A900-591</b>	<b>OBW-25</b>	<b>1.0</b>

Up to \$15.00 may be charged out in sublet to cover the cost of materials.

**NOTE:** After printing make sure template is the correct size according to the measurements listed.



Cut along the dotted lines





## Punch Tester Request Form

To: Subaru of America, Inc.  
Parts Collection Center  
3701 David Howarth Drive, Suite B  
Lafayette, IN 47909

Fax Number: (765) 637-4280

From: \_\_\_\_\_ Date: \_\_\_\_\_

Dealer Name: \_\_\_\_\_

Dealer Shipping Address: \_\_\_\_\_

Dealer Contact: \_\_\_\_\_

Dealer Contact Phone Number: \_\_\_\_\_

Date Needed By: \_\_\_\_\_

VIN (last 8): \_\_\_\_\_

By submitting this form, the above dealer agrees to the following usage terms:

- Tool must be returned within two weeks of the date of request as noted on fax sheet when received at Parts Collection Center
- Failure to return ship the tool within two weeks (date confirmed per UPS tracking of return shipment) of request receipt date will result in a \$500 miscellaneous debit charge on the above listed dealer's monthly statement
- If tool is returned damaged a miscellaneous debit charge of \$500 will be applied to the above listed dealer's monthly statement