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## Installation Instructions: 50 State Qualifier 2-1 Exhaust For Challenger (part numbers 550-1083, 550-1085)

### DISCLAIMER:

Many S&S parts are designed for high performance, closed course, racing applications and are intended for the very experienced rider only. The installation of S&S parts may void or adversely affect your factory warranty. In addition such installation and use may violate certain federal, state, and local laws, rules and ordinances as well as other laws when used on motor vehicles used on public highways. Always check federal, state, and local laws before modifying your motorcycle. It is the sole and exclusive responsibility of the user to determine the suitability of the product for his or her use, and the user shall assume all legal, personal injury risk and liability and all other obligations, duties, and risks associated therewith.

The name Indian<sup>®</sup> is used in reference only. S&S Cycle is not associated with Indian<sup>®</sup> and we in no way are implying that any of S&S Cycle's products are original equipment parts.

Exempt from emissions tampering regulations under CARB EO# K-010-37 for all 2020-2023 Indian<sup>®</sup> Challenger<sup>®</sup> and Pursuit<sup>®</sup> Models

### IMPORTANT NOTICE:

Statements in this instruction sheet preceded by the following words are of special significance.



**WARNING**

Means there is the possibility of injury to yourself or others.



**CAUTION**

Means there is the possibility of damage to the part or motorcycle.

**NOTE**

*Other information of particular importance has been placed in italic type.*

*S&S recommends you take special notice of these items.*

### SAFE INSTALLATION AND OPERATION RULES:

Before installing your new S&S part, it is your responsibility to read and follow the installation and maintenance procedures in these instructions and follow the basic rules below for your personal safety.

- Gasoline is extremely flammable and explosive under certain conditions and toxic when breathed. Do not smoke. Perform installation in a well ventilated area away from open flames or sparks.
- If motorcycle has been running, wait until engine and exhaust pipes have cooled down to avoid getting burned before performing any installation steps.
- Before performing any installation steps, disconnect battery to eliminate potential sparks and inadvertent engagement of starter while working on electrical components.
- Read instructions thoroughly and carefully so all procedures are completely understood before performing any installation steps. Contact S&S with any questions you may have if any steps are unclear or any abnormalities occur during installation or operation of motorcycle with an S&S part on it.
- Consult an appropriate service manual for your motorcycle for correct disassembly and reassembly procedures for any parts that need to be removed to facilitate installation.
- Use good judgment when performing installation and operating motorcycle. Good judgment begins with a clear head. Don't let alcohol, drugs or fatigue impair your judgment. Start installation when you are fresh.
- Be sure all federal, state and local laws are obeyed with the installation.
- For optimum performance and safety and to minimize potential damage to carb or other components, use all mounting hardware that is provided and follow all installation instructions.
- Motorcycle exhaust fumes are toxic and poisonous and must not be breathed. Run motorcycle in a well ventilated area where fumes can dissipate.

### WARRANTY:

All S&S parts are guaranteed to the original purchaser to be free of manufacturing defects in materials and workmanship for a period of twenty-four (24) months from the date of purchase. Merchandise that fails to conform to these conditions will be repaired or replaced at S&S's option if the parts are returned to us by the purchaser within the 24 month warranty period or within 10 days thereafter. Some parts may additionally be covered under a provided emissions defects warranty.

In the event warranty service is required, the original purchaser must call or write S&S immediately with the problem. Some problems can be rectified by a telephone call and need no further course of action.

A part that is suspect of being defective must not be replaced by a Dealer without prior authorization from S&S. If it is deemed necessary for S&S to make an evaluation to determine whether the part was defective, a return authorization number must be obtained from S&S. The parts must be packaged properly so as to not cause further damage and be returned prepaid to S&S with a copy of the original invoice of purchase and a detailed letter outlining the nature of the problem, how the part was used and the circumstances at the time of failure. If after an evaluation has been made by S&S and the part was found to be defective, repair, replacement or refund will be granted.

### ADDITIONAL WARRANTY PROVISIONS:

- (1) S&S shall have no obligation in the event an S&S part is modified by any other person or organization.
- (2) S&S shall have no obligation if an S&S part becomes defective in whole or in part as a result of improper installation, improper maintenance, improper use, abnormal operation, or any other misuse or mistreatment of the S&S part.
- (3) S&S shall not be liable for any consequential or incidental damages resulting from the failure of an S&S part, the breach of any warranties, the failure to deliver, delay in delivery, delivery in non-conforming condition, or for any other breach of contract or duty between S&S and a customer.

## S&S Qualifier 2-1 for Indian Challenger

1. Remove the stock exhaust system from your motorcycle following your factory service manual. If you haven't already removed your oxygen sensors from the headers, do so now.
2. Remove the saddlebags from your motorcycle following your factory service manual.

## S&S Exhaust System Installation

1. Remove the heat shield and bracket from the frame and engine from your motorcycle. See Picture 1



Picture 1

2. Locate the drill template in the S&S hardware kit and bolt it to the bracket that was removed from the motorcycle. See Picture 2



Picture 2

3. Drill the heat shield and bracket using a 3/8" drill. See Picture 3



Picture 3

4. Remount the drilled bracket and heat shield to the bike using the two supplied screws and exhaust mounting bracket. Torque screws to 15 ft lbs. See Picture 4



Picture 4

5. Inspect exhaust gaskets in cylinder head ports for damage. If damaged, purchase new gaskets from your Indian Motorcycle dealer.

6. Install supplied gasket into the S&S header collector. See Picture 5



Picture 5

7. Install the supplied clamp over the header. See Picture 6



Picture 6

8. Install the front header onto the motorcycle but leave loose.

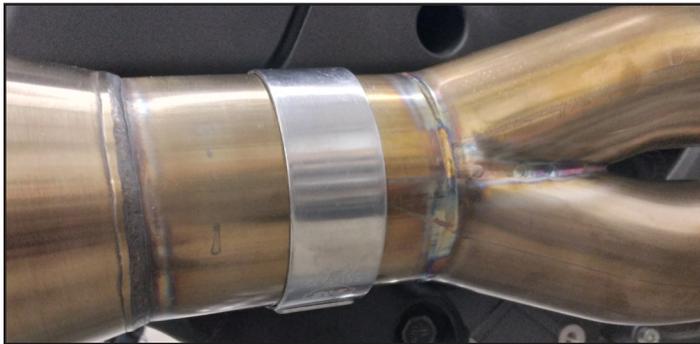
9. Install rear header onto motorcycle but leave it loose.

10. Picture 7 shows front and rear headers installed loosely on the motorcycle.



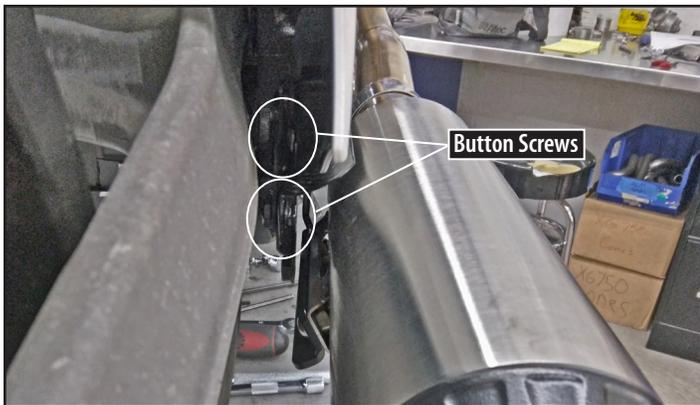
Picture 7

11. Install the muffler clamp over the muffler and onto the header/collector. See Picture 8



Picture 8

12. Install the supplied button head screws through the muffler mounting bracket and into the muffler. Torque screws to 15 ft lbs. See Picture 9



Picture 9

13. Tighten all fasteners up evenly and tighten clamps. Torque clamps to 15-18 ft lbs

14. Install oxygen sensors that were removed from the stock head pipes into the new S&S head pipes. Note: S&S recommends a small amount of anti seize to the treads of the oxygen sensors prior to reinstalling.

15. Install all three heat shields onto the headers and collector. Picture 10 shows the final install and approximate gap between each.



Picture 10

16. Re-install the factory floorboard/brake using one supplied washer per bolt to space the floorboard/brake away from the exhaust. See Picture 11



Picture 11

17. Wipe down exhaust to remove all grease, dirt and fingerprints prior to starting the bike.

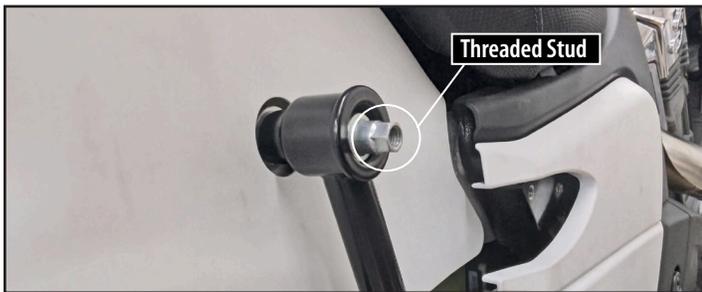
## S&S Saddlebag Mount Installation

1. Remove front bag mount standoff. (Picture 12) You will not need the billet aluminum piece to install the S&S bag mount but you will need the threaded stud.

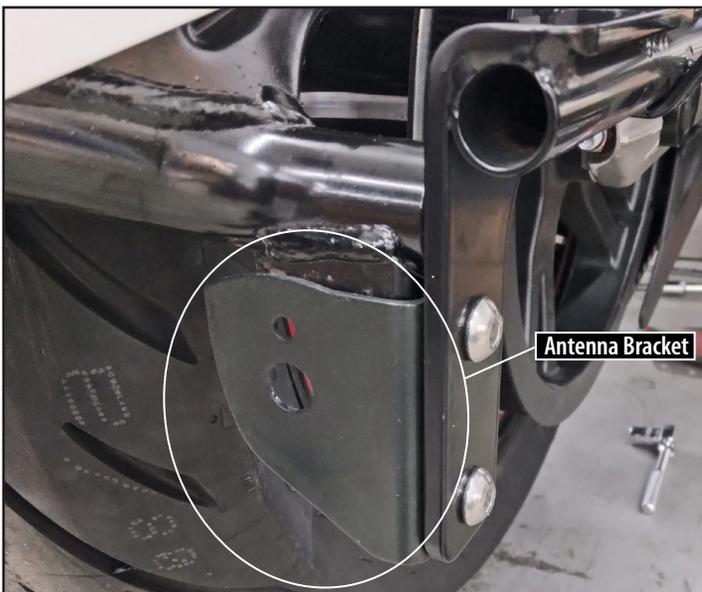


Picture 12

2. Install the S&S right side bag mount using the stock threaded stud (Picture 13) and the supplied button head screws and nuts. Make certain to install the stock antenna bracket as illustrated in Picture 14. Torque screws to 15 ft lbs.



Picture 13



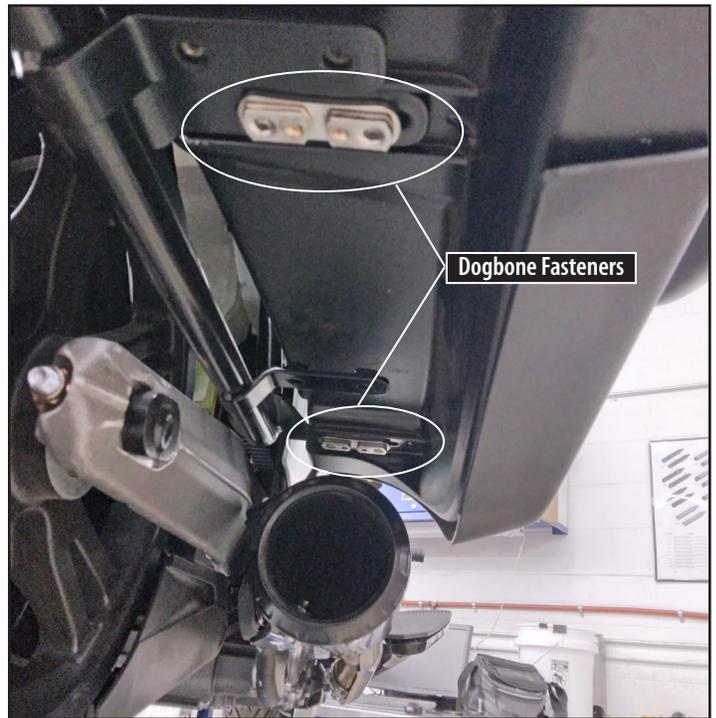
Picture 14

3. Install the stock rubber washer to the top front bag mount (Picture 15) and install the saddle bag using the stock hardware for the top two bolts.



Picture 15

4. Secure the lower saddlebag by using the stock bolts and S&S supplied dog bone fasteners (Picture 16). Note Before tightening the lower 4 bolts, ensure the saddlebag lid closes securely and evenly. Once aligned and the lid closes securely and evenly, finish tightening all bolts. Torque screws to 50 in lbs



Picture 16

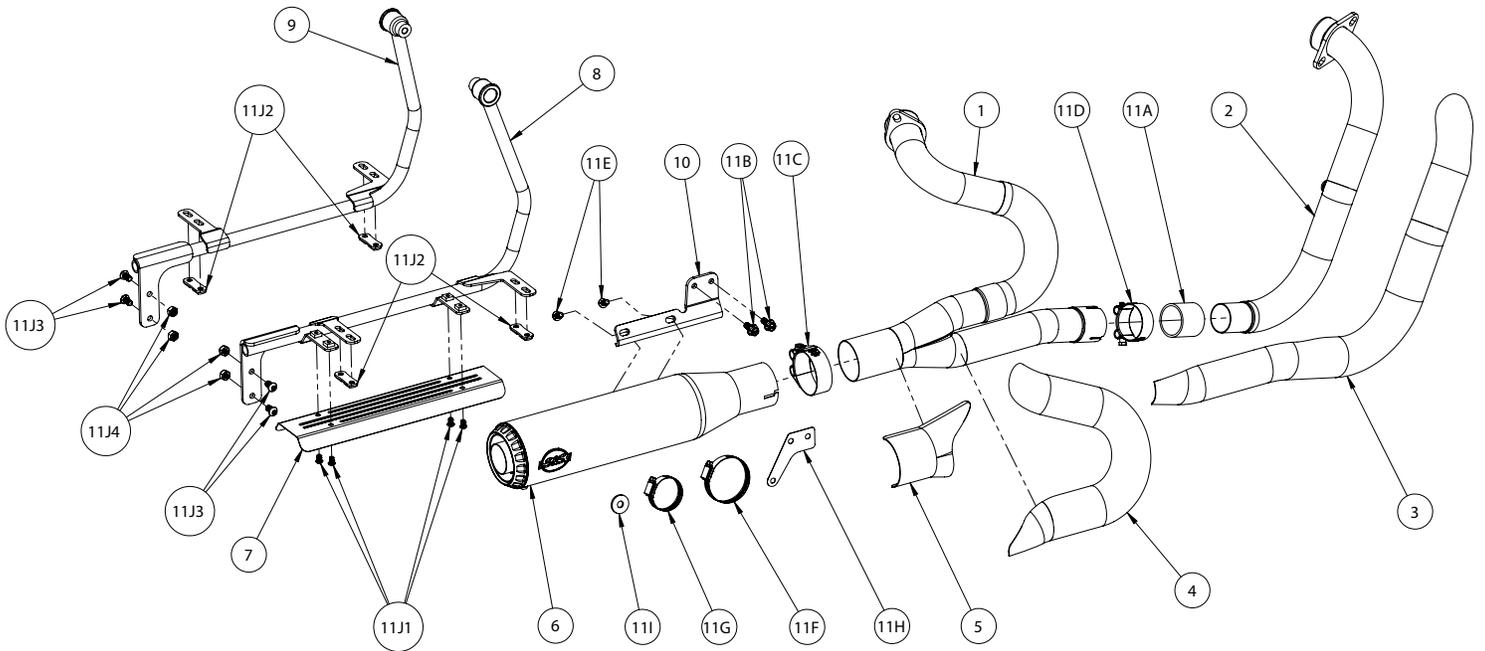
5. Install the supplied saddlebag heat shield to the bottom of the right side saddlebag using supplied (qty 4) fasteners. Apply blue threadlocker to the threads and Torque to 70 in lbs See Picture 17



Picture 17

6. Reattach antenna to the bag/antenna mount.

7. Install left side bag mount following the same steps for installing the right side bag mount.



## Replacement Parts

1. Pipe, Header, 2 Into 1, Qualifier, Welded, Indian® Challenger.....	551-1900	11A. Gasket, Muffler, 1.75" Id X 2.0" Od X 1.75" Length.....	551-1129
2. Tube, Front, Head Pipe, Qualifier, 2-1, Formed, 1.875" X .049" Wall.....	551-1894	11B. Screw, Hex Head, Flanged, M8 X 1.25 X 20mm, Grade 9.8.....	500-1534
3. Front Shield		11C. Clamp, Muffler, Band Style, M8-1.25" X 60mm Bolt, 2.5" Diameter.....	551-1272
A. Heat Shield, Front, 2 Into 1, Qualifier, Brushed, Stainless Steel.....	551-1937	11D. Clamp, Muffler, Band Style, M8-1.25" X 60mm Bolt, 2.5" Diameter.....	551-1181
B. Heat Shield, Front, 2 Into 1, Qualifier, Black, Stainless Steel.....	551-1938	11E. Screw, Bhc, M8 X 1.25 X 14mm, Stainless Steel.....	500-1354
4. Rear Shield		11F. Clamp, Hose, Worm Drive, Sae #40.....	551-0402
A. Heat Shield, Rear, 2 Into 1, Qualifier, Brushed, Stainless Steel.....	551-1940	11G. Clamp, Hose, Worm Drive, Sae #24.....	500-0791
B. Heat Shield, Rear, 2 Into 1, Qualifier, Black, Stainless Steel.....	551-1941	11H. Template, Drill Pattern, Stock Heat Shield, 2 Into 1, Qualifier.....	551-1993
5. Collector Shield		11I. Spacer, Black, 1.125" Od X .410" Id X .125, Aluminum, 6061.....	551-1942
A. Heat Shield, Collector, 2 Into 1, Qualifier, Brushed, Stainless Steel.....	551-2144	11J. Hardware Kit, Bag Mount.....	551-2126
B. Heat Shield, Collector, 2 Into 1, Qualifier, Black, Stainless Steel.....	551-2145	11J1. Screw, Bhc, High Temp Lock Patch, M6 X 10mm, Stainless Steel.....	500-1090
6. Muffler		11J2. Plate, Nut, M6 X 1, 33mm Hole Spacing, Stainless Steel.....	551-2113
A. Muffler, Assembly, Qualifier 2-1, 49-State, 2.5" Inlet, 4" Muffler, Brushed.....	551-2149	11J3. Screw, Bhc, M8 X 16mm, Stainless Steel.....	500-1189
B. Muffler, Assembly, Qualifier 2-1, 49-State, 2.5" Inlet, 4" Muffler, Black.....	551-2150	11J4. Nut, Lock, Nylon Insert, M8 X 1.25mm X 13mm X 8mm, Stainless Steel.....	500-1100
7. Heat Shield, Saddle Bag, Qualifier, 2-1, Formed, Stainless Steel.....	551-1944		
8. Bracket, Assembly, Right, Bag Mount, Powdercoated.....	551-1879		
9. Bracket, Assembly, Left, Bag Mount, Powdercoated,.....	551-1880		
10. Bracket, Muffler, 2 Into 1, Qualifier, 2-1, Powdercoated, Black.....	551-1912		
11. Hardware Kit, Qualifier, 2 Into 1.....	551-1992		

## **EMISSIONS DEFECTS WARRANTY**

The following is an explanation of the emission defects warranty on your new catalyst exhaust system or component. New aftermarket catalyst equipped exhaust components or systems must be designed, built, and equipped to meet stringent emissions standards. S&S must warrant the aftermarket catalyst equipped exhaust components or systems to meet these applicable requirements for the period of time listed below, provided there has been no abuse, neglect, or improper modification of your engine.

### **EMISSIONS DEFECTS WARRANTY COVERAGE**

If this S&S aftermarket catalyst equipped exhaust is installed on a motorcycle within four years of the date that the motorcycle was first acquired by an ultimate purchaser, the emission defects warranty period is five (5) years or 30,000 kilometers (18,641 miles), whichever first occurs.

If this S&S aftermarket catalyst equipped exhaust is installed on a motorcycle more than four years after the date that the motorcycle was first acquired by an ultimate purchaser, the emissions defects warranty period is three (3) years or 15,000 kilometers (9,321 miles), whichever first occurs

If an emission critical part on your exhaust has been deemed by S&S to be defective, or have damaged an original part of the motorcycle, the part will be repaired or replaced by S&S. This is your EMISSIONS DEFECTS WARRANTY.

### **WHAT IS COVERED BY THIS EMISSION DEFECTS WARRANTY**

The Emission Defects Warranty covers the following "warranted parts" only:

- Original equipment of the exhaust system or component purchased (void if tampered with or not in the original equipment configuration)
- If used on the above: clamps, tubing, sealing gaskets, and mounting hardware.

### **WHAT IS NOT COVERED BY THIS EMISSION DEFECTS WARRANTY**

The following items are not covered by the S&S Cycle, Inc. Emission Defects Warranty:

- Malfunctions in any "warranted parts" caused by any of the following: abuse, misuse, unapproved modification or alteration, tampering, disconnection, or improper maintenance.
- Malfunctions when used with an engine that has been rendered emission non-compliant.
- Discoloration or other cosmetic defects.
- Repairs improperly performed or replacements improperly installed.
- Use in competitive racing or related events.
- Damage resulting from accident, acts of nature, or other events beyond the control of S&S.
- Repairs and services performed by anyone other than an authorized S&S dealer (except in the case of emergency as defined above).
- Loss of time, inconvenience, loss of use of the engine and donor vehicle, towing of the vehicle, or commercial loss and/or consequential damages.

## **OWNER'S WARRANTY RESPONSIBILITIES**

You are responsible for ensuring instructions on the included warranty card are followed and the requested information is returned to S&S. Failure to provide this information could result in a delay of warranty coverage. S&S recommends that you retain all receipts covering purchase and installation of your catalyst equipped exhaust component.

You are responsible for presenting your motorcycle to an S&S dealer as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.

You should be aware that S&S may deny your warranty coverage if a part has failed due to abuse, neglect, or unapproved modifications to the exhaust or engine.

If you have any questions regarding your warranty rights and responsibilities, you should contact S&S Cycle, Inc., 14025 Cty Hwy G, Viola, WI 54664 or the California Air Resources Board, P.O. Box 8001, 9528 Telstar Avenue, El Monte CA, 91734-8001

### **ADDITIONAL WARRANTY TERMS**

The warranty period begins on the date the exhaust is delivered to the ultimate purchaser, or on the date it is first installed.

S&S recommends that you go only to an authorized S&S dealer for repairs under this warranty. He/she has factory-trained mechanics and genuine S&S parts. However, in the case of an "emergency" (as define below), you could have repairs performed at any available service establishment or by the owner. An authorized S&S dealer not being reasonably available, or a part not being available within a reasonable time period (not to exceed 30 days from the time the motorcycle is initially presented to an S&S dealer for repair) constitutes an emergency. S&S will reimburse the owner for such repairs, including diagnosis, only if it is established that the repairs are covered under this emission warranty. S&S's parts reimbursement, however, will not exceed our suggested retail price for all warranted parts replaced and our labor reimbursement will be limited to our recommended time allowances for emission system repairs at the geographically appropriate hourly labor rate. To obtain reimbursement from S&S for such emergency repairs, you must keep all failed parts and original receipts, so you can present them to an authorized S&S dealer for his inspection. S&S recommends that you bring your vehicle to an authorized dealer for inspection to ensure that the emergency repairs were done properly.

The use of non-S&S replacement or approved aftermarket parts does not invalidate the existing warranty, if any, on this or other S&S components unless the non-S&S parts cause damage to warranted parts or result in the creation of an emission non-compliant vehicle. However, S&S ASSUMES NO LIABILITY UNDER THIS WARRANTY WITH RESPECT TO ANY PARTS WHICH ARE NOT GENUINE S&S PARTS, unless genuine S&S parts cause damage to non-genuine S&S parts.