

**Instruction 510-0244**  
**12-11-13**

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## **Installation Instructions for S&S® Stealth Air Cleaners for S&S X-Wedge® Engines**

### **DISCLAIMER:**

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, especially in states where pollution laws may apply. 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 words Harley®, Harley-Davidson®, H-D®, Sportster®, Evolution®, and all H-D part numbers and model designations are used in reference only. S&S Cycle is not associated with Harley-Davidson, Inc.

### **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 a 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.

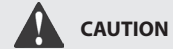
### **IMPORTANT NOTICE:**

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.*

### **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 twelve (12) 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 12 month warranty period or within 10 days thereafter.

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.
- (4) S&S parts are designed exclusively for use in Harley-Davidson® and other American v-twin motorcycles. S&S shall have no warranty or liability obligation if an S&S part is used in any other application.

1. Apply supplied thread locker to  $\frac{1}{16}$ -27 pipe plug #50-8332, and install it in unused hole in backing plate. **See Picture 1.**
2. For Muscle cover kits, remove the lanyards from the supplied gasket by squeezing the rivets on the small end with a pair of pliers as illustrated in **Picture 2**. This gasket will not be needed for the installation on an S&S® X-Wedge® engine.



**Picture 1**



**Picture 2**

3. Apply the supplied thread locker to the 10-24 x  $\frac{1}{4}$ " panhead screw and attach lanyards # 500-0095 to the back plate as shown. Lanyards must be attached to the outer surface of the back plate. **See Picture 3.**



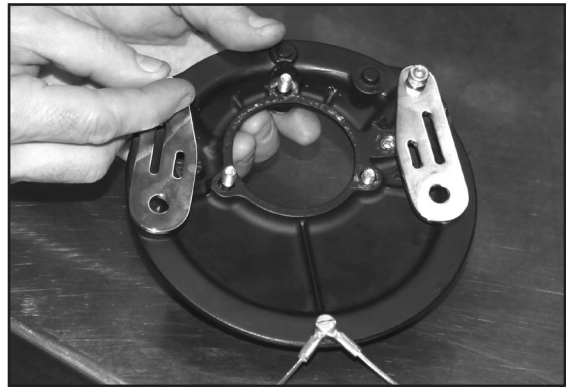
**Picture 3**

4. Thread the three  $\frac{1}{4}$ -20 x .825" socket button head screws #500-0059 through the back plate as shown in **Picture 4**.



**Picture 4**

5. Install back plate mounting tabs #170-0202 loosely as shown in **Picture 5** with  $\frac{1}{4}$ -20 x .500" socket head screws #106-2084. These screws have a thread lock patch, so thread locker is not needed. Do not final tighten.



**Picture 5**

6. Trim off unneeded portion of back plate gasket #106-6022 as shown in **Picture 6**. Only the three back plate mounting bold holes are required. Place back plate gasket over screws in back plate. Apply thread locker to the exposed threads. **Picture 7.**



**Picture 6**

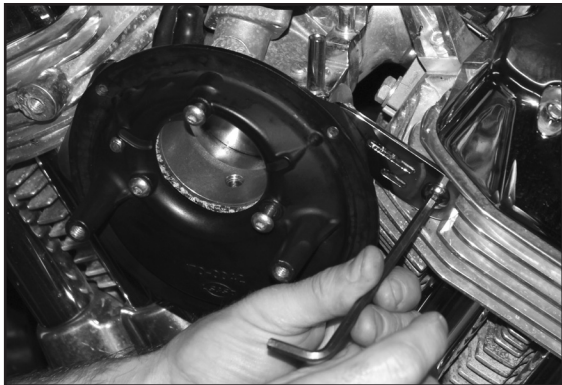


Picture 7

7. Hold back plate to throttle body, and start all three screws in throttle body as shown in **Picture 8**, but do not final tighten.
8. Apply thread locking compound to  $\frac{5}{16}$ -18 x .750 button head screws and fasten back plate mounting tabs to cylinder heads as shown in **Picture 9**. Do not final tighten.



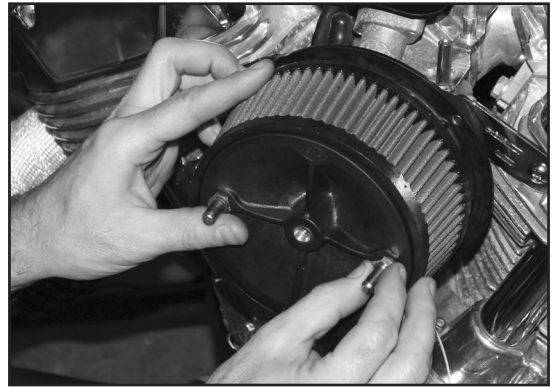
Picture 8



Picture 9

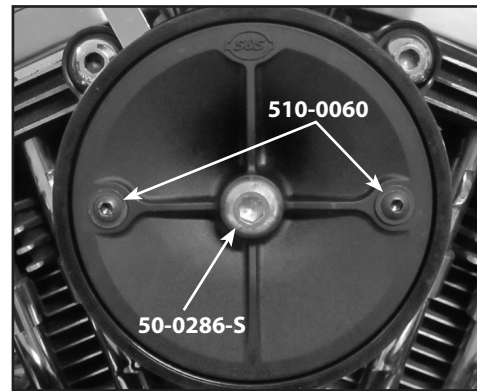
9. Final tighten all fasteners to the following torque specifications:
 

$\frac{1}{4}$ " fasteners	90-120 in-lb
$\frac{5}{16}$ " fasteners	15 ft-lb
10. Hold filter and filter top plate to back plate as shown. Make sure the arrow and the word "DOWN" on top cover are positioned at the bottom.
11. For Muscle cover kit, apply thread locking compound to hex head hood-pin screws and fasten top plate and filter to back plate as shown in **Picture 10**. Tighten hood-pin screws to the low end of the torque spec (90-100 in-lb) and rotate clockwise until the holes for the lynch pin are horizontal. For covers with single center mounting bolt, skip to step 12



Picture 10

12. For covers with single center mounting bolt, apply thread locking compound to threads of two  $\frac{1}{4}$ -20 x .750" button head screws #500-0060 and secure top plate and filter to back plate as shown in **Picture 11**. Tighten to 90-100 in-lb.
13. For Muscle cover kits install cover over mounting studs and place a washer #500-0094, spring #500-0093 and another washer #500-0094 over each stud. While pushing the washers toward the cover to compress the springs, insert the miniature hood-pins (lynch pins) through the holes in the studs to secure the air cleaner cover to the air cleaner. **See Picture 12**
14. For covers with single center mounting hole, place  $\frac{5}{16}$ -18 x .500" socket button head screw #50-0296-S through hole in cover. Apply thread locking compound and thread into air cleaner top plate in location shown in **Picture 11**. Torque to 10 ft-lb.



Picture 11



Picture 12

- |   |           |  |          |
|---|-----------|--|----------|
| 1. Backplate, Air Cleaner, Stealth, Machined, Powder coated, WBlack, Die Cast, X-Wedge® .....             | 170-0199  | 10. Screw,SHC,w/ Thread Lock,¼-20 x ½", Zinc Plated,Alloy Steel..... | 106-2084 |
| 2. Filter, Air, Tapered, Standard Pleated, 5.500" x 6.000" x 2.375", Cotton, Stealth Air Cleaner Kit..... | 170-0043  | 11. Plug,Pipe,¾ Taper,¼-27 NPTF x .156",Zinc,Steel .....             | 50-8332  |
| 3. Plate, Top, Air Filter, Molded, Plastic.....   | 170-0026  | 12. Gasket,Backplate Throttle Body, Stock CV/EFI Standard .....      | 106-1724 |
| 4. Screw, SHCB, ⅝-18 x .500", Polished, Stainless Steel .....   | 500-0051  | Lanyard Style .....  | 170-0137 |
| 5. Screw, SHC, Flanged Button, ¼-20 UNC x .750" .....   | 500-0060  | 13. Screw, Hex, Hood-pin, ¼-20, UNC.....                             | 500-0113 |
| 6. Screw, SHCB, ¼-20 UNC X .825" .....  | 500-0059  | 14. Washer, Fender, Chrome Plated.....                               | 500-0094 |
| 7. Screw,PH,10-24 x ¼",Zinc,Steel (each) .....  | 50-0041   | 15. Spring, Wave Washer, Stainless Steel.....                        | 500-0093 |
| 10 pack .....   | 50-0062   | 16. Lynch Pin .....  | 500-0083 |
| 8. Screw,BHC,w/ Thread Lock,⅝-18 x ¾",Chrome, ASTM A574-92A .....   | 50-0269-S | 17. Lanyard, 6" Stainless Steel.....                                 | 500-0095 |
| 9. Bracket, Backplate Mounting, Stealth Air Cleaner, Chrome Plated, Steel, X-Wedge® .....                 | 170-0202  | 18. Sealant, Loctite®, #243, 5ml, Blue (not shown).....              | 51-9003  |

