

Instruction 510-0742

06-09-2021

Version 2

© 2020–2021

by S&S® Cycle, Inc.

All rights reserved.

Printed in the U.S.A.

S&S® Cycle, Inc.

14025 Cty Hwy G
Viola, Wisconsin 54664

Phone: 608-627-1497

Technical Service Email: sstech@sscycycle.com

Website: www.sscycycle.com



Installation Instructions for S&S Tuned Induction Air Cleaner for 2008–2021 Harley-Davidson® with Throttle-by-Wire EFI System

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.

Exempt from emissions tampering regulations under CARB EO# D-355-37

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 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.



WARNING



- The safety of the motorcycle rider is dependent on the proper installation of this product. If you are not certain of your capabilities or do not have the correct tools for this installation, please consult a shop to have it done. Improper installation of this product could result in injury or death to the rider.
- Be sure to disconnect the battery of your motorcycle before starting on this procedure. Accidental starting of the motorcycle could cause injury to you or others around you during the installation.

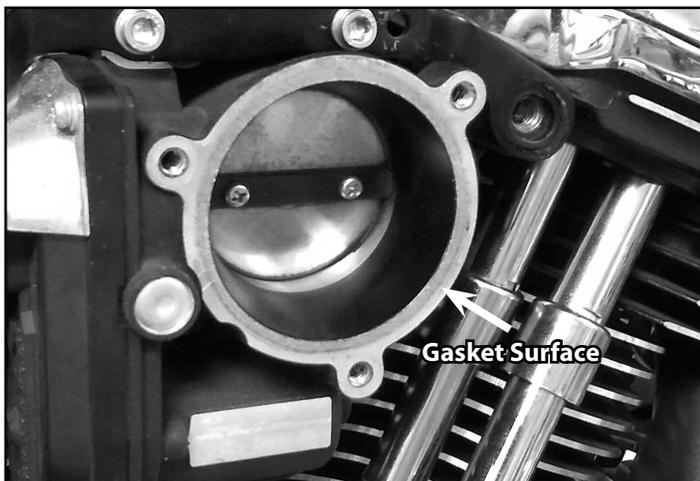
INSTALLATION

NOTES: The Tuned Induction air cleaner may be used on 2008 and later fuel injected throttle-by-wire highway motorcycles.

Blue threadlocker should be used on all fasteners unless otherwise noted.

The S&S throttle body support bracket (part number 170-0640) is required on the Screamin' Eagle throttle bodies. The stock throttle body is compatible with stock and S&S brackets.

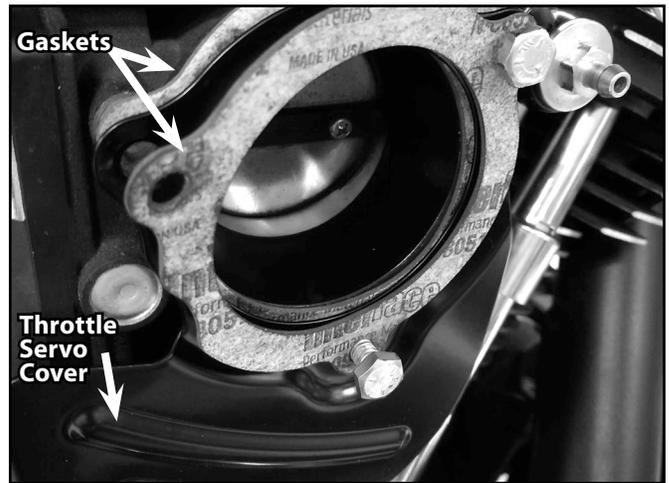
1. Remove the existing air cleaner following your service manual for the specific year and model bike you are working on. Clean throttle body face and the cylinder head mount faces. These surfaces must be free of any burrs or remaining gasket material, which could prevent a proper seal or fit. **See Picture 1.**



Picture 1

For 2008-16 Twin Cam models with TBW and 2017-up M8 models with stock throttle body support bracket:

2. Install the throttle support bracket, if removed, with a rubber coated sealing washer between the bracket and breather port on the head. Torque capscrews to 72 in-lbs.
3. Place the hex head bolts in the right and lower holes of the throttle cover with a gasket on each side in and start in the throttle body. Leave enough thread to install the intake. **See Picture 2**



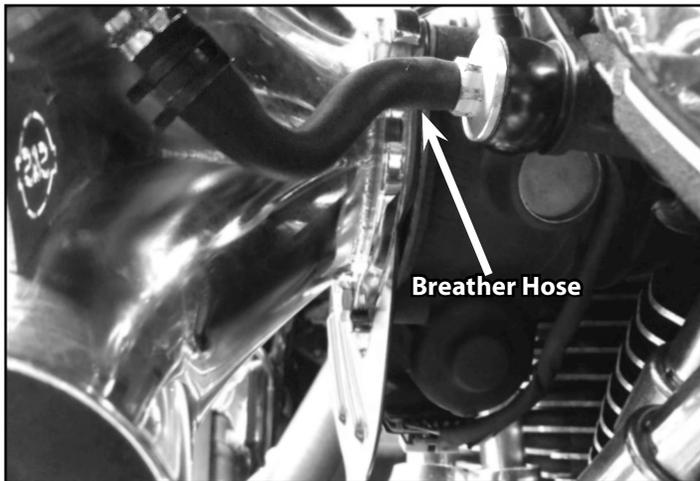
Picture 2

4. Slide the slots on the intake flange over the two hex bolts, and install the third socket head bolt. Tighten all three bolts to 72 in-lbs, starting with the lower bolt. Open end or crow's foot wrenches will be needed for the two hex head capscrews.
5. Install the breather tube between the head breather ports, with a rubber sealing washer on each side. Secure with the breather vent screw on the front head, and polished breather screw on the rear. **See Picture 3.** Ensure the rubber washer between the head and support bracket installed earlier is still present. Torque the front and rear breather vents to 12 ft-lbs.



Picture 3

6. Install the breather hose from the front vent screw to the fitting on the upper runner of the intake. Place the spring clamp over the fitting on the intake runner. **See Picture 4.**



Picture 4

13. Install the breather hose from the front vent screw to the fitting on the upper runner of the intake. Place the spring clamp over the fitting on the intake runner. **See Picture 4.**
14. Install both air filters, sliding them approximately 1 inch on each runner. The upper filter can be slid on further to be even with the lower if desired. Air flow will not be significantly affected. Tighten both clamps.
15. Apply the included label containing the EO number to the frame down tube above or below the factory label. Do not cover up any portion of the factory label.

7. Install both air filters, sliding them approximately 1 inch on each runner. The upper filter can be slid on further to be even with the lower if desired. Air flow will not be significantly affected. Tighten both clamps.

8. Apply the included label containing the EO number to the frame down tube above or below the factory label. Do not cover up any portion of the factory label.

For 2017-up M8 models with S&S throttle support bracket (required for Screamin' Eagle® throttle body):

9. Place the hex head bolts in the right and lower holes of the throttle cover with a gasket on each side in and start in the throttle body. Leave enough thread to install the intake. **See Picture 2.**

10. Slide the slots on the intake flange over the two hex head capscrews. Do not tighten.

11. Install the breather vent screws through the support bracket and then the breather tube, with a rubber washer against the screw head, between the bracket and tube, and on the end of each screw. **See Picture 5, below.** Install in the head, but do not tighten.

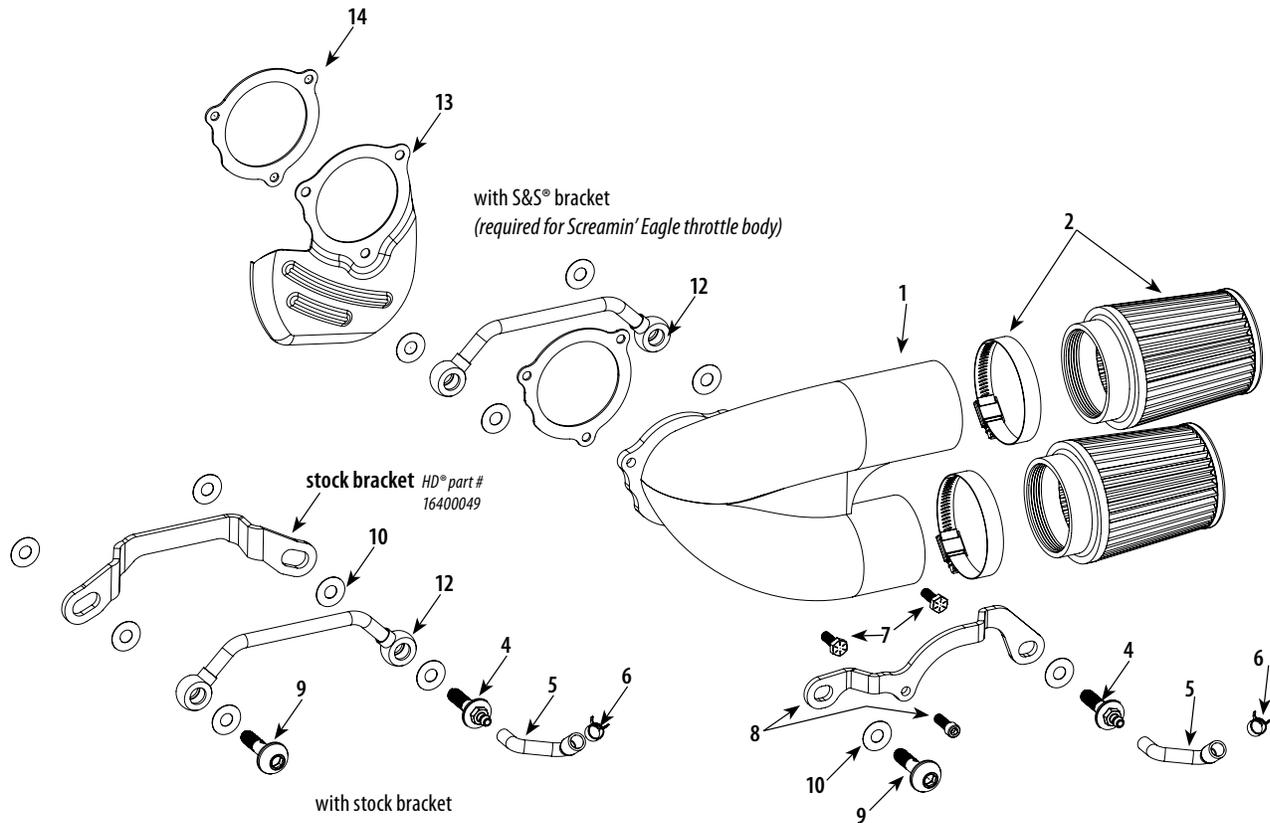


Picture 5

12. Install the socket head capscrew through the support bracket and intake flange into the throttle body. Lightly tighten all three intake flange capscrews and both breather screws. Torque breather screws to 144 in-lbs. Tighten all three bolts to 72 in-lbs, starting with the lower bolt. Open end or crow's foot wrenches will be needed for the two hex head capscrews.

Replacement Parts for M8 models

- | | |
|---|------------------|
| 1. Intake Runner | |
| Stainless Steel..... | 170-0648 |
| Chrome..... | 170-0642 |
| Gloss Black..... | 170-0643 |
| 2. Filter, Air, S&S® VFI, 2-7/16" x 4", Red | |
| includes clamp (each) | 170-0559 |
| 4. Screw, Breather Vent Fitting, 3/8-16 UNC x 1-1/2"..... | 170-0558 |
| 5. Breather Vent Hose | 170-0564 |
| 6. Clamp, Spring, .440"..... | 50-8143-S |
| 7. Screw, HHCS, Gr8, 1/4-20 x 3/4", Zinc, Steel..... | 50-0022 |
| 8. Throttle Body Support Bracket Kit..... | 170-0640 |
| includes: | |
| Screw, SHC, 1/4-20 x 3/4", Chrome, ASTM A574-92A.... | 50-0067 |
| 9. Screw, Backplate Vent | 170-0651 |
| 10. Washer (each)..... | 50-7054 |
| 12. Tube, Breather | 170-0563 |
| 13. Cover, Induction Module | 170-0562 |
| 14. Gasket, Throttle Body, 64mm..... | 170-0557 |



Replacement Parts for 2008–2016 models

- | | |
|--|---|
| 1. Intake Runner Stainless Steel 170-0650 Chrome 170-0646 Gloss Black 170-0647 | 8. Screw, Backplate Vent. 170-0651 |
| 2. Filter, Air, S&S [®] VFI, 2-7/16" x 4", Red <i>includes clamp (each)</i> 170-0559 | 9. Washer (<i>each</i>) 50-7054 |
| 4. Tube, Breather 170-0625 | 10. Screw, HHCS, Gr8, 1/4-20 x 3/4", Zinc, Steel 50-0022 |
| 5. Screw, Breather Vent Fitting, 3/8-16 UNC x 1-1/2" 170-0558 | 11. Screw, SHC, 1/4-20 x 3/4", Chrome, ASTM A574-92A. 50-0067 |
| 6. Breather Vent Hose 170-0631 | 12. Gasket, Throttle Body, Throttle by Wire, 64mm 160-0050 |
| 7. Clamp, Spring, .440" 50-8143-5 | 13. Cover, Induction Module 170-0641 |

