

# SCREAMIN' EAGLE "HEAVY BREATHER" PERFORMANCE AIR CLEANER KIT

# GENERAL

#### **Kit Numbers**

29253-08B, 29006-09B, 28716-10A

#### Models

For model fitment information, see the P&A Retail Catalog or the Parts and Accessories section of www.harley-davidson.com (English only).

This kit fits 50 mm and 58 mm electronic throttle control induction modules and 58 mm cable drive induction modules.

#### NOTE

These kits are intended for High Performance applications only. Engine related performance parts are intended FOR THE EXPERIENCED RIDER ONLY.

#### **Additional Parts Required**

Loctite<sup>®</sup> 243 (Blue) Threadlocker and Sealant (Part No. 99642-97) is required for proper installation of this kit and is available from a Harley-Davidson dealer.

Proper installation of this kit requires breather screws (Part No. 29465-08), which are OE equipped on 2008 and later Touring models. If the motorcycle is not equipped with these breather screws, separate purchase is required.

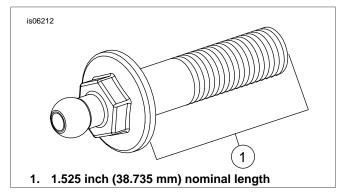


Figure 1. Breather Screw

# WARNING

The rider's safety depends upon the correct installation of this kit. Use the appropriate service manual procedures. If the procedure is not within your capabilities or you do not have the correct tools, have a Harley-Davidson dealer perform the installation. Improper installation of this kit could result in death or serious injury. (00333a) NOTE

This instruction sheet references service manual information. A service manual for your model motorcycle is required for this installation and is available from a Harley-Davidson dealer.

#### NOTICE

You must recalibrate the ECM when installing this kit. Failure to properly recalibrate the ECM can result in severe engine damage. (00399b)

#### NOTE

See a Harley-Davidson dealer for ECM (Electronic Control Module) calibration.

#### **Kit Contents**

See Figure 4 and Table 1.

## INSTALLATION

# AWARNING

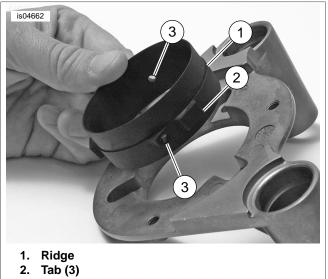
Disconnect negative (-) battery cable first. If positive (+) cable should contact ground with negative (-) cable connected, the resulting sparks can cause a battery explosion, which could result in death or serious injury. (00049a)

1. Refer to the service manual and follow the instructions given to remove the seat and disconnect the battery cables, negative (-) cable first. Save all seat mounting hardware.

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When servicing the fuel system, do not smoke or allow open flame or sparks in the vicinity. Gasoline is extremely flammable and highly explosive, which could result in death or serious injury. (00330a)

# **Original Equipment (OE) Air Cleaner Removal**



3. Flow hole (2)

Figure 2. 50 mm Adapter

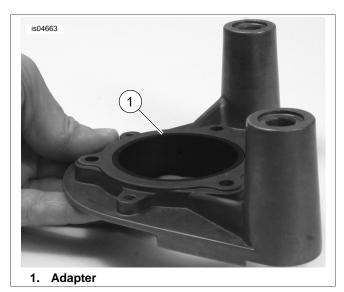


Figure 3. Adapter Positioned Correctly in Backplate

Have a Harley-Davidson dealer recalibrate the ECM prior to air cleaner installation.

- 2. Remove the air cleaner backplate following the instructions in the service manual. Retain the two breather screws (A) removed from the backplate (see Figure 4). The remaining parts can be discarded.
- 3. See Figure 4. Remove and discard support induction module bracket (B).

## "Heavy Breather" Air Cleaner Installation

#### NOTES

When servicing the air cleaner, apply Loctite 243 (blue) to all threaded fasteners (both male and female threads).

4. Remove the backing from the adhesive side of the induction module backplate gasket (16). Align the holes and install the gasket on the backplate (2).

- 5. Install the **new** O-rings (1) in the counterbore around the breather screw holes on the induction module side of the backplate (2).
- 6. Align the holes in the induction module cover with the holes in the backplate.
- Apply a small amount of Loctite to the backplate mounting screw (5) threads. Insert the screws through the backplate and induction module cover then install the screws into the induction module until the screw threads are engaged. DO NOT tighten completely at this time.
- 8. Insert the breather screws (removed in Step 2 or purchased separately) through the backplate. Apply a liberal amount of Loctite to the breather screw threads and the mating tapped holes in the cylinder head, then install the screws into the cylinder head. DO NOT tighten completely at this time.
- 9. Alternately tighten the two breather screws to 120-144 in-Ibs (13.6-16.3 Nm).
- 10. Lubricate the O-rings (3) with clean engine oil or white lithium grease.

Install the O-rings onto the breather plugs (4). Press the breather plugs into the breather screw cavities.

- 11. Tighten the three backplate mounting screws to 55-60 in-Ibs (6.2-6.8 Nm).
- 12. For models equipped with 50 mm induction module: See Figure 2. The outside of the outer half of the plastic adapter (item 6 in Figure 4) is marked "This side out - 50 mm only." The inner half is indexed with three tabs (2) and two breather flow holes (3). Insert the indexed side into the backplate, aligning the tabs and flow holes with the flow holes in the backplate.

Check that the adapter is fully seated and oriented correctly with the markings visible.

See Figure 3. When installed correctly, the adapter is flush on the induction module side of the backplate.

For models equipped with 58 mm induction module: Discard adapter.

## Air Filter Element and Air Tube Installation

## NOTE

This air filter is PRE-OILED and ready to install.

- 13. With the countersunk holes facing outward, slide the mounting ring (9) all the way onto the intake tube, up to the flange.
- 14. Place the gasket (7) against the opposite side of the flange.
- 15. Line up the holes in the gasket with the mounting ring holes and notches in the intake tube (8) flange.
- 16. Apply a small amount of Loctite to the threads of the three flat head screws (10).
- 17. Secure the intake tube, mounting ring and gasket to the air cleaner backplate, and tighten the screws to 55-60 **in-lbs** (6.2-6.8 Nm).
- Obtain the chrome band clamp cover (13), adhesive ring (14), and air filter element package (12) from the kit.

- Remove the backing from one side of the adhesive ring (14), center the ring on the inner surface of the band clamp cover and press the ring evenly and firmly into place.
- 20. Remove the air filter element and band clamp from the package (12). Loosen the band clamp as needed to allow removal or repositioning.

#### NOTES

For proper adhesion, degrease the area on the backside of the filter element where the adhesive ring will be mounted.

Check the Screamin' Eagle<sup>®</sup> logo on the chrome filter element end cap. For best appearance, place the band clamp and chrome band clamp cover onto the filter element flange so the screw slot will be accessible but the screw mechanism hidden from view when the filter is installed to the intake tube with the logo upright.

21. Remove the backing from the remaining side of the adhesive ring, and press the chrome band clamp cover onto the large end of the air filter element.

Position the band clamp onto the filter element flange, inside the chrome cover flange with the band clamp screw mechanism in the cover flange cutout.

22. Install the air filter element onto the intake tube approximately 5/8 inch (16 mm). Check that the filter element end cap logo is upright, and the band clamp screw mechanism is hidden from view, yet the screw slot is accessible for tightening.

Tighten the clamp around the filter element flange to 30-40 **in-lbs** (3.4-4.5 Nm).

#### NOTE

Riding a motorcycle equipped with an exposed oiled air filter under rainy conditions IS NOT RECOMMENDED.

23. Install the rain sock (15) over the air filter element.

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Connect positive (+) battery cable first. If positive (+) cable should contact ground with negative (-) cable connected, the resulting sparks can cause a battery explosion, which could result in death or serious injury. (00068a)

24. Refer to the service manual and follow the instructions given to connect the battery cables, positive (+) cable first, and install the seat.

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After installing seat, pull upward on seat to be sure it is locked in position. While riding, a loose seat can shift causing loss of control, which could result in death or serious injury. (00070b)

# **AIR FILTER ELEMENT MAINTENANCE**

1. Inspect the air filter element every 5000 miles (8000 km), or more often under dusty conditions.

#### NOTES

The use of cleaning, drying or oiling methods or products other than those shown will damage the filter and void the manufacturer's warranty.

K&N<sup>®</sup> Air Filter Cleaner is available from a Harley-Davidson dealer, either alone (1 qt/0.95 L sprayer bottle, Part No. 99883-88T) or a 12 fl oz/0.35 L sprayer bottle as part of the Filter Care Service Kit (99850-92T).

K&N Air Filter Oil is also available from a Harley-Davidson dealer, either alone (12.25 oz/347 gram aerosol can, Part No. 99882-88T) or a 6.5 oz/184 gram aerosol can as part of the Filter Care Service Kit.

DO NOT OVER-OIL THE AIR FILTER. Over-oiling may interfere with the proper performance of the engine and/or certain engine components. If oil is still draining or dripping from the filter media twenty minutes after oiling, clean and oil the filter element again.

- 2. To clean the element:
  - a. Loosen the hose clamp retaining the air filter element assembly to the air tube. Separate the element from the air tube.
  - b. Tap the element to dislodge any loose dirt, then gently brush with a soft bristle brush.
  - c. Spray air filter cleaner liberally onto the cotton filter media and let soak for ten minutes, OR

roll or soak the cotton filter media in a shallow pan of air filter cleaner. Remove immediately, and let soak for ten minutes.

- d. Rinse off the filter media (flowing from the **clean** side to the dirty side), with low-pressure tap water.
- e. After rinsing, shake off all excess water, and let the filter media air dry. DO NOT use compressed air or a heat gun to speed drying.
- f. After the filter media is completely dry, EITHER

spray air filter oil along each pleat, once only, holding the spray nozzle approximately 3 inches (76 mm) away from the media, OR

carefully use a squeeze bottle to deposit oil along each pleat, once only.

# Let the oil absorb into the filter media for twenty minutes before proceeding.

After twenty minutes, inspect the filter media, and carefully apply oil to any remaining visible white spots on the filter media, and allow to absorb.

3. Install the air filter element onto the intake tube approximately 5/8 inch (16 mm). Check that the filter element end cap logo is upright.

Tighten the clamp around the filter element flange to 30-40 **in-lbs** (3.4-4.5 Nm).

# SERVICE PARTS

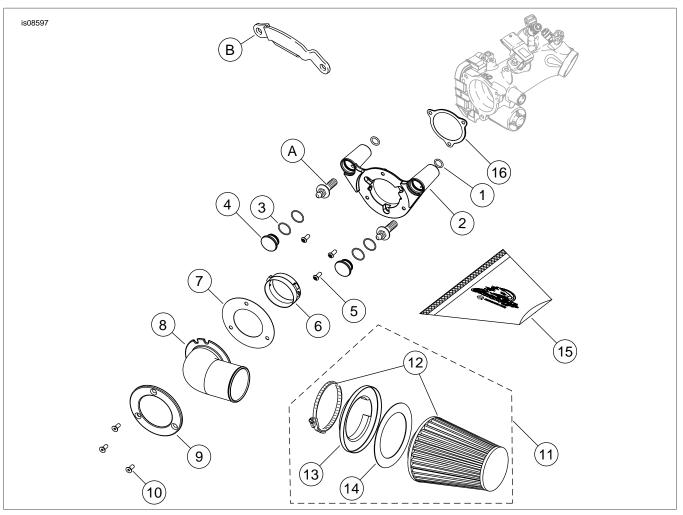


Figure 4. Service Parts: Screamin' Eagle "Heavy Breather - Elite" Performance Air Cleaner Kit

Table 1. Service Parts Table
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ltem	Description (Quantity)	Part Number
1	O-ring (2)	11292
2	Backplate, machined, chrome	29896-08
	Backplate, machined, black	28887-09
3	O-ring, breather plug (4)	10925
4	Plug (2)	29830-05A
5	Screw, button head (3)	926
6	Adapter, 58 mm to 50 mm	29395-08A
7	Gasket	29780-08A
8	Intake tube, chrome	29739-08
	Intake tube, black	28818-09
9	Mounting ring, chrome	29826-08A
	Mounting ring, black	29069-09
10	Screw, flat head (3)	2986
11	Air cleaner filter kit, includes items 12 through 14 Air cleaner filter kit, compact (Kit 28716-10A), includes items 12 through 14	29702-08A 28714-10

# Table 1. Service Parts Table

ltem	Description (Quantity)	Part Number
12	Filter element	Not sold separately
	Band clamp	Not sold separately
13	Cover, band clamp (chrome)	Not sold separately
14	Adhesive ring	Not sold separately
15	Rain sock, air filter Rain sock, compact air filter (Kit 28716-10A)	29493-05 28715-10
16	Gasket, backplate	29241-08
Items mentio	ned in text, but not included in kit:	
А	Original equipment breather screw (2) (purchase separately if missing)	29465-08
В	Induction module bracket (remove and discard)	L