

INSTRUCTION SHEET

Buell
AMERICAN MOTORCYCLES

-J00740

Kit Number Z1048.9

REV. 11-29-00

BUELL S1 AIRBOX REPLACEMENT KIT

General

This kit is designed for replacing the isolator mount and airbox on 1996 S1 (Lightning) Model Motorcycles with a stronger mount and molded plastic airbox assembly.

See *Service Parts Illustration* for kit contents.

Air Cleaner Removal

⚠ WARNING

To protect against shock and accidental start-up of vehicle, disconnect the negative battery cable before proceeding. Inadequate safety precautions could result in death or serious injury.

⚠ WARNING

Always disconnect the negative battery cable first. If the positive cable should contact ground with the negative cable installed, the resulting sparks may cause a battery explosion which could result in death or serious injury.

1. Disconnect battery cables, negative cable first.
2. Follow instructions in applicable Service Manual and remove fuel tank.
3. See Figure 1. Remove screw and nylon washer on top of air cleaner cover.

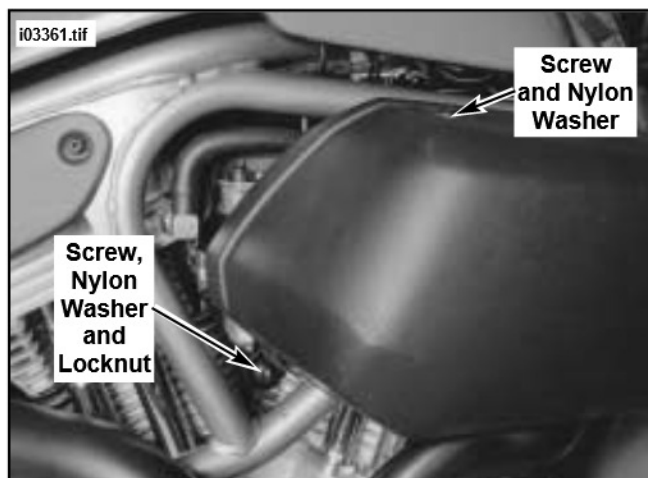


Figure 1 Remove Existing Air Cleaner Cover

2. Remove screw, nylon washer and locknut at rear of air cleaner cover. Remove cover.
3. See Figure 2. Perform the following:
 - a. Detach cylinder head breather hoses from tee fitting.
 - b. Detach snorkel breather hose at snorkel.
 - c. On California models, slide fresh air hose from canister through backplate.
4. See Figure 2. Remove rubber grommet from upper airbox mounting bracket. Save grommet for installation.

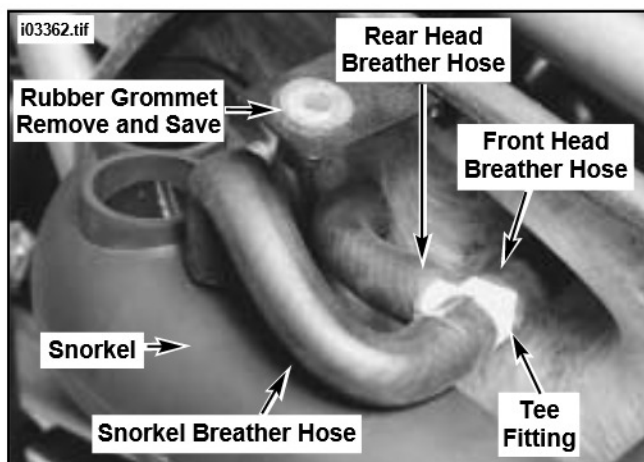


Figure 2. Remove Breather Hoses

4. See Figure 3. Remove two screws and snorkel plate. Save hardware.
5. Remove snorkel and filter box. Discard filter box.

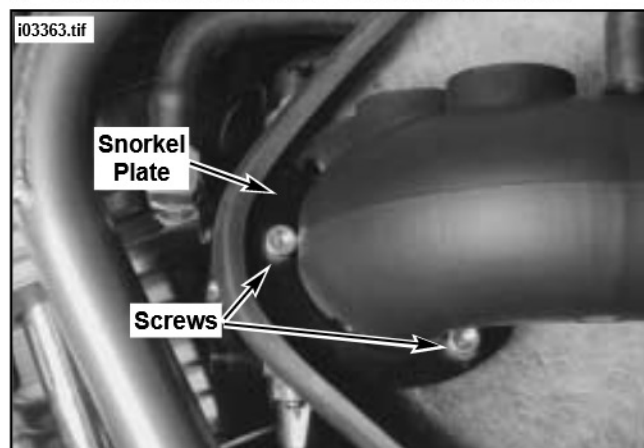


Figure 3. Remove Snorkel Plate

6. See Figure 4. Remove screw securing spacer and gasket. Discard gasket but save spacer and screw.

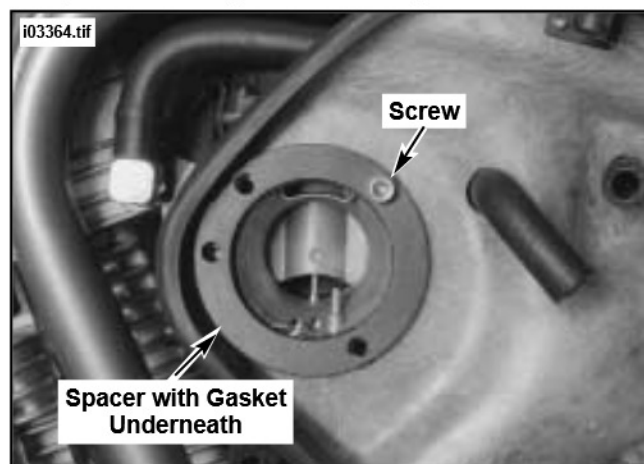


Figure 4. Remove Screw securing Spacer and Gasket

7. Draw breather hoses through backplate. Remove backplate and discard.
8. Detach front breather hose from cylinder head breather bolt.
9. See Figure 5. Remove front breather bolt and save.

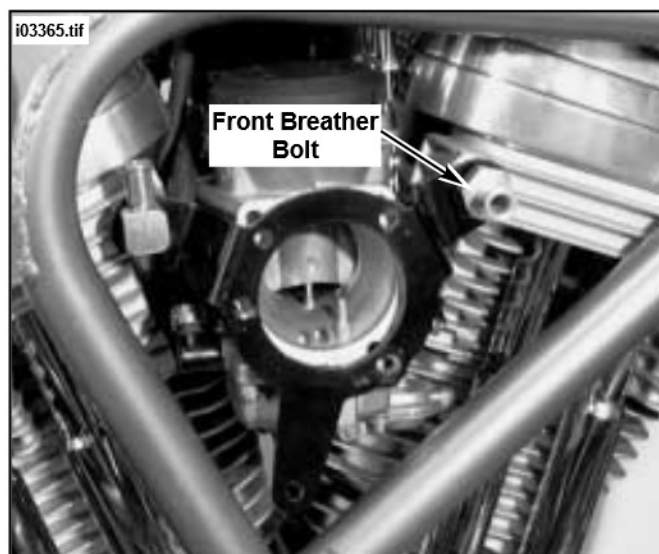


Figure 5. Front Breather Bolt

Front Isolator Removal and Replacement

10. Position motorcycle on suitable lift and position REAR WHEEL SUPPORT STAND (Part No. B41174) under the swing arm. Secure motorcycle to lift.
11. Position floor jack under engine below front shock mount to support engine.
12. See Figure 6. From left side of motorcycle, remove and discard isolator locknut and remove bolt, two washers and "D" washer.
13. Remove and discard two bolts and washers from left and right side of front isolator mount.
14. Remove isolator mount from left side of motorcycle. Discard isolator mount.

WARNING

Always wear proper eye protection and gloves when working with compressed air. Debris or solvent may be blown out with enough force to penetrate skin or cause eye injury. Failure to comply could result in death or serious injury.

15. Clean residual loctite from threads in engine with suitable nonflammable solvent and dry with compressed air.
16. Refer to Figure 6 and Service Parts Illustration. Obtain **new** front isolator bolts from kit. Apply LOCTITE THREADLOCKER 271 (Red) to threads of new front isolator mount bolts.

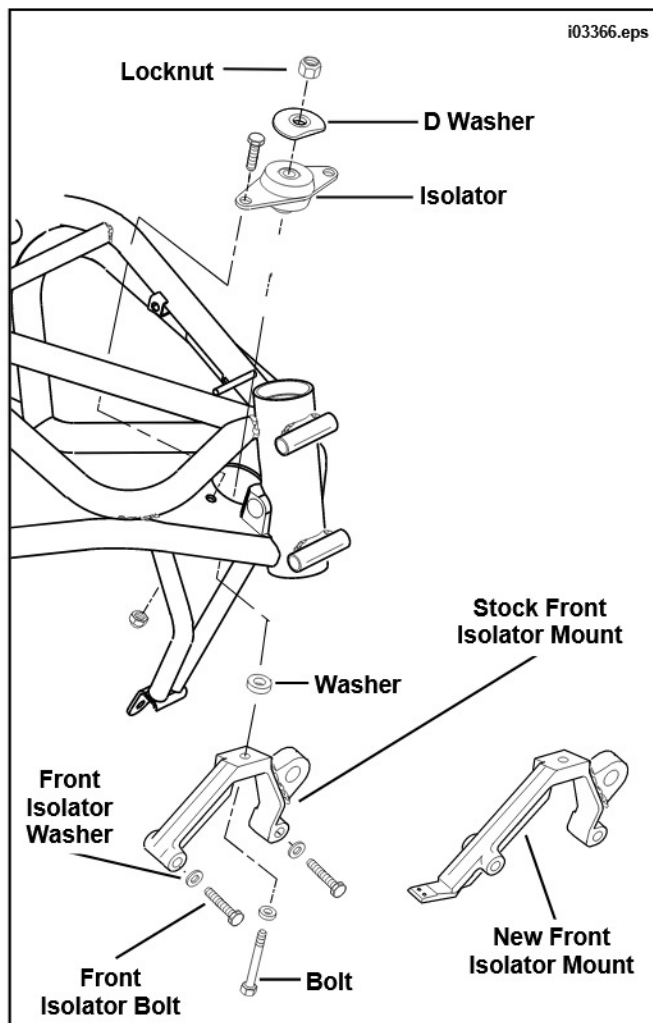


Figure 6. Isolator Mount Replacement

17. Obtain **new** thick washers from kit. Apply a thin film of clean HD 20W50 engine oil to both sides of new washers and to bottom of bolt heads. Exercise caution to avoid mixing oil on washers with loctite on bolts.
18. Obtain **new** front isolator mount from kit. Position new front isolator mount and secure with new front bolts using new thick washers. Tighten bolts to 60 ft-lbs (81.0 Nm) initially and then loosen each bolt one full turn. Tighten bolts again to 60 ft-lbs (81.0 Nm).

NOTE

Make sure flat on D washer remains oriented to front of motorcycle while tightening bolt.

NOTE

A needle nosed pliers can be used to position the locknut over the bolt.

19. Position washer between **new** front isolator mount and isolator. Install bolt, washer, D washer and **new** locknut from kit.
20. Making sure flats on D washer stay oriented to front of bike, tighten bolt to 100 ft-lbs (135.6 Nm).
21. Carefully remove bike from REAR WHEEL SUPPORT STAND.

Assemble Replacement Air Box

NOTE

The brackets in the following steps are riveted to the cover and backplate. For procedures 22 through 24, use Rivet Tool HD Part Number 39787 or equivalent. Rivets are included in kit.

22. See Figure 7 and Service Parts Illustration. Obtain backplate and backplate bracket from kit. Orient bracket as shown and install two rivets to secure bracket to backplate.

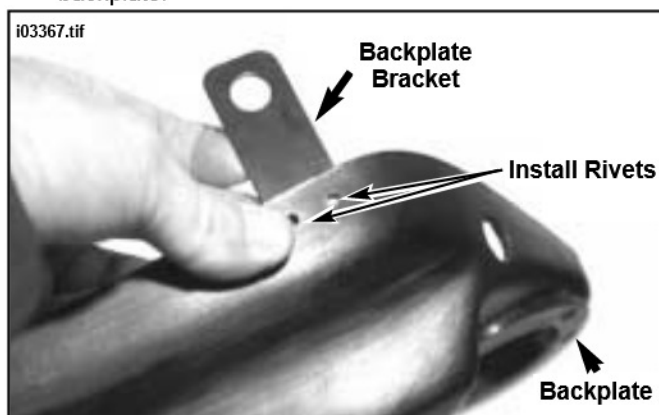


Figure 7. Install Backplate Bracket

23. See Figure 8 and Service Parts Illustration. Obtain airbox cover and large airbox cover bracket from kit. Orient bracket as shown and install four rivets to secure bracket to cover.

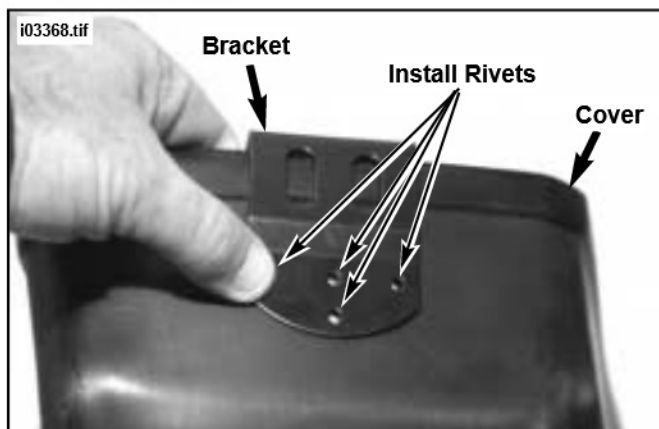


Figure 8. Install Large Airbox Cover Bracket

24. See Figure 9 and Service Parts Illustration. Obtain smaller airbox cover bracket from kit. Orient bracket as shown and install three rivets to secure bracket to cover.

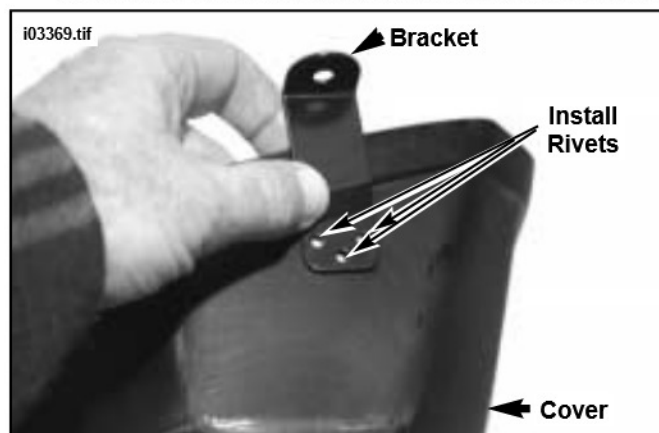


Figure 9. Install Small Airbox Cover Bracket

Air Cleaner Installation

25. Obtain rubber grommet saved in step 4 and install to upper bracket on backplate. Refer to Figure 2 for orientation.
26. See Figure 10 and Service Parts Illustration. Obtain the two 1 inch foam pads and filter box from kit. Remove adhesive backing from pads and orient as shown. Install (stack) one on top of the other, then install both to filter box as shown.

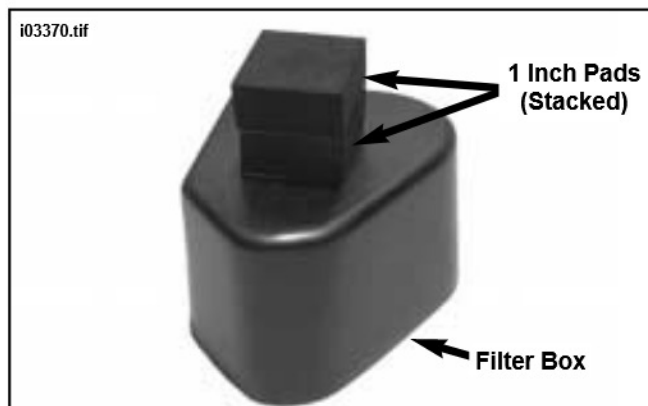


Figure 10. Install Foam Pads to Filter Box

27. Obtain smaller rubber trim seal from kit. Install trim around filter box.
28. Obtain larger rubber trim seal from kit. Orient seal so flat side is on outside of backplate and install seal to backplate.

Air Cleaner (Airbox) Installation

29. Obtain breather bolt (removed in step 10). Apply HYLOMAR to breather bolt threads.
30. See Figure 11. Slide rear breather hose through backplate. On California models, slide fresh air inlet hose from carbon canister through backplate.
31. Obtain new breather gasket from kit. Install new breather gasket behind backplate.
32. Install front breather bolt and washer. Tighten to 10-15 ft-lbs (13.6-20.3 Nm).
33. Apply LOCTITE THREADLOCKER 243 (Blue) to spacer screw. Install new breather gasket behind spacer and install spacer using spacer screw. Tighten spacer screw to 7-9 ft-lbs (4.1-6.8 Nm).

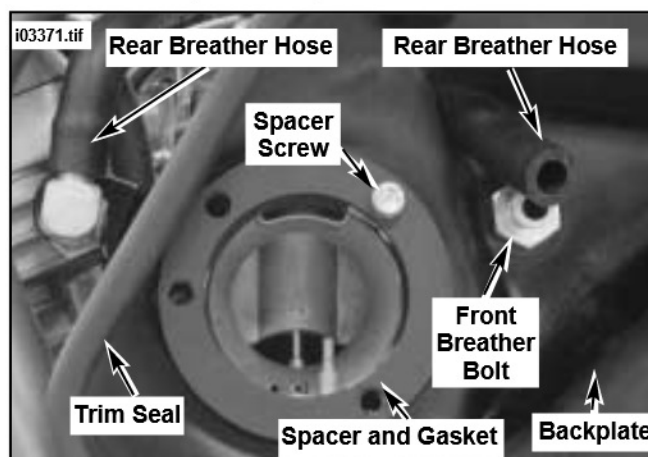


Figure 11. Install New Backplate

34. See Figure 12. Obtain airbox (front) mounting screws and nuts from kit. Apply LOCTITE 243 (Blue) to front backplate mounting screw threads. Install screws through backplate and front isolator mount, then install nuts. Tighten hardware to 3-5 ft-lbs (4.1-6.8 Nm).

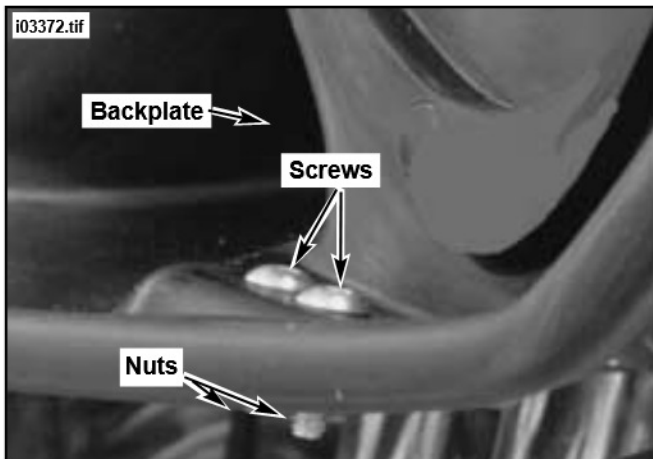


Figure 12. Install Backplate Front Mounting Hardware

35. See Figure 13. Install snorkel by performing the following:
- Apply LOCTITE TREADLOCKER 243 (Blue) to screws.
 - Align snorkel on spacer and spacer screws.
 - Attach snorkel to backplate assembly using snorkel plate and two screws. Tighten screws to 6-8 ft-lbs (8.1-10.8 Nm).

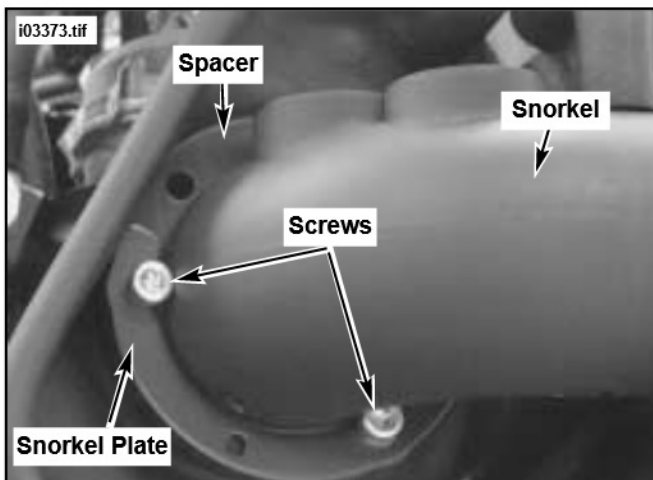


Figure 13. Install Snorkel Assembly

36. See Figure 14. Install breather hoses by performing the following:
- Install front breather hose on front breather bolt.
 - Attach rear breather hose to breather tee.

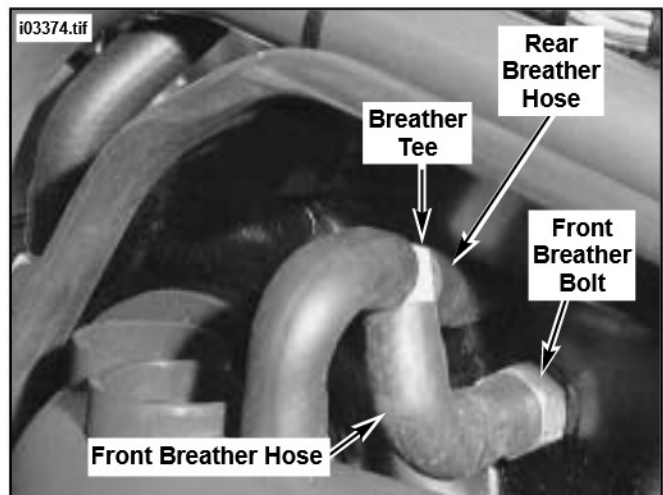


Figure 14. Install Breather Hoses

37. Inspect filter element. Clean, if necessary following instructions in applicable Service Manual.
38. Place filter element in filter box. Align filter box with raised outline of filter box (in backplate). Press filter box firmly in place to seat and seal.
39. Attach filter box to snorkel.
40. See Figure 15. Place cover over backplate assembly.
- Loosely install screw and nylon washer to secure cover at top.
 - Loosely install screw and nylon washer to secure cover at lower rear.
 - Tighten upper and lower screws to 18-22 in-lbs (2.0-2.5 Nm).

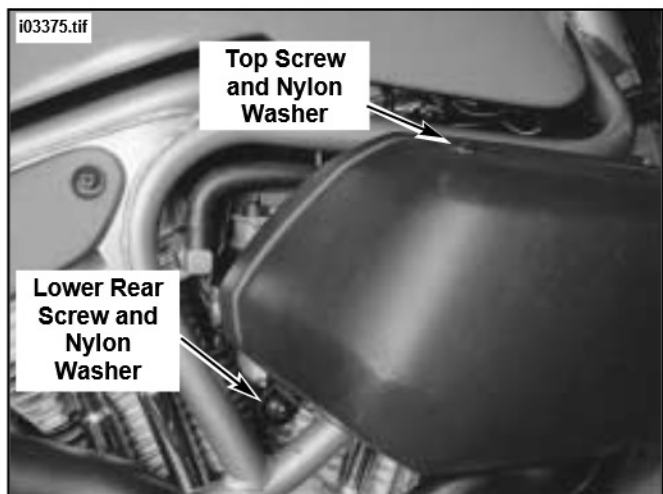
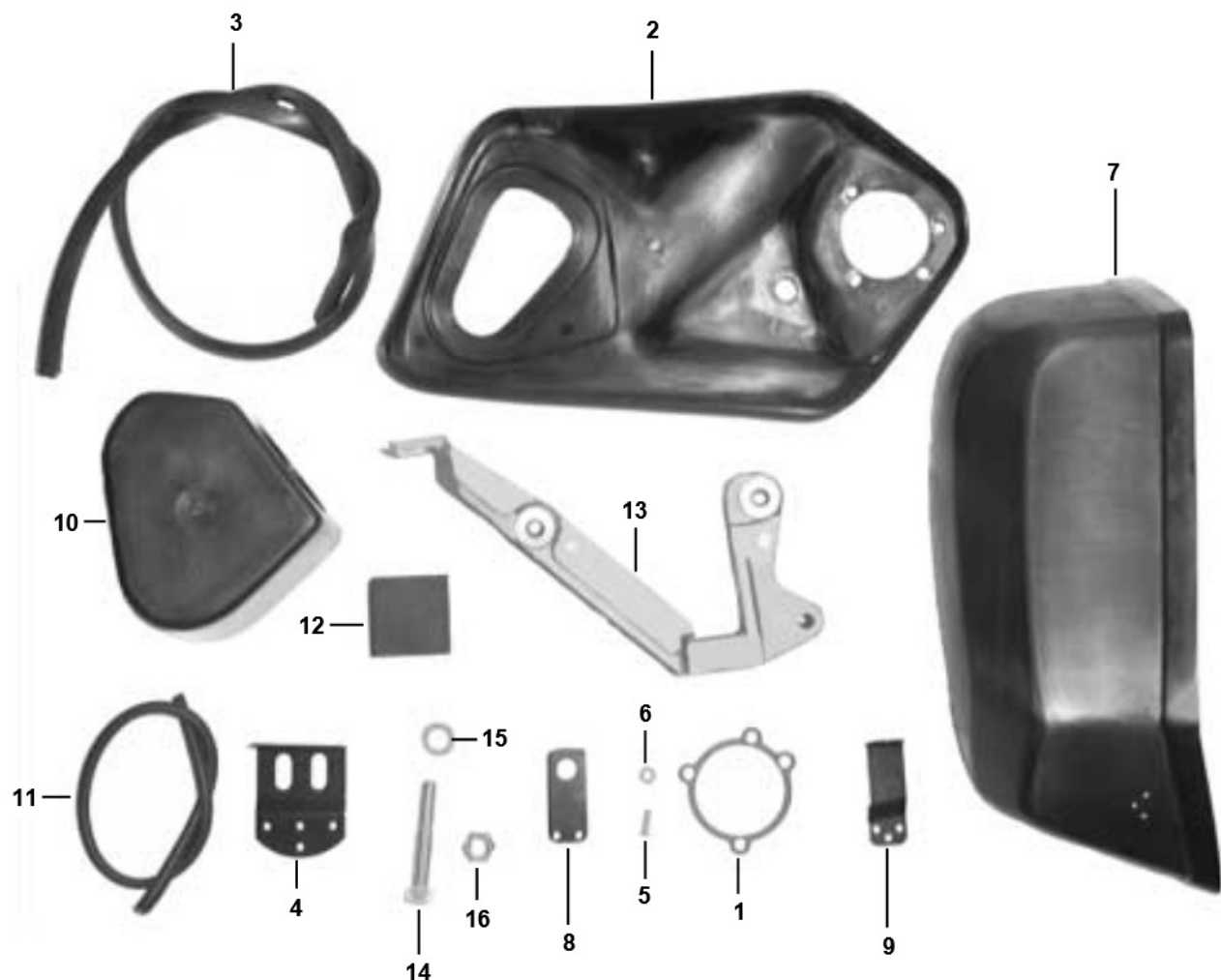


Figure 15. Install Cover to Backplate

Buell S1 Airbox Replacement Kit

i03376.tif



Item	Description/Qty	Buell Part Number	Harley-Davidson Part Number
1	Gasket, carb inlet (2)	P0251.3	29059-88A
2	Backplate	P0214.CA	N/A
3	Trim seal, backplate	P0559.9-39	27590-96Y
4	Bracket, airbox	P0552.C	27545-97Y
5	Screw (2)	AN1005.3CZ	2996Y
6	Nut (2)	DN1000.1CZ	7679Y
7	Cover, airbox	P0215.C	29241-97Y
8	Bracket, upper front	P0560.9B	27591-96YA
9	Bracket, lower front	P0561-9B	N/A
10	Box, filter	P0557.C	27588-97Y
11	Seal, filter box	M0720.C-18	27589-96Y
12	Pad, 1 inch (2)	P0558.C	27589-97Y
13	Isolator mount	L0149.CB	16336-99YA
14	Isolator bolt (2)	AA0722.1CBZ	3253Y
15	Isolator washer (2)	BA0714.3Z	6262Y
16	Locknut	DA0800.13CZ	N/A
17	Rivets (10) 5/32x9/16 inch (not shown)	C0027.0	