



INSTRUCTIONS

-J05696

2012-12-14

FXSB FAT MINI-APE HANDLEBAR AND RISER KIT

GENERAL

Kit Numbers

55800252

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 does not fit models equipped with heated hand grips, handlebar mounted gauges, a hydraulic clutch kit, a Softail Nacelle Kit (H-D Part No. 67907-96) or the Road Tech[®] Radio.

Additional Parts or Accessories Required

This kit includes a handlebar riser assembly that **must be installed** with this handlebar.

Separate purchase of additional parts or accessories are required for proper installation of this handlebar kit. See the P&A retail catalog or the Parts and Accessories section of www.harley-davidson.com (English only) for a list of required parts or accessories for this model.

▲ WARNING

Replace brake line gaskets. Re-using original gaskets can cause brake failure and loss of vehicle control, which could result in death or serious injury. (00318a)

The two brake line gaskets found at each banjo fitting **must be replaced**. See the parts catalog for this year/model motorcycle or see a Harley-Davidson[®] dealer for the correct part numbers.

Motorcycles equipped with a **glued** left-side hand grip will also require a new grip, sold separately.

- See the parts catalog for replacement original equipment (OE) hand grips.
- See the P&A retail catalog or the Parts and Accessories section of www.harley-davidson.com (English only) to see the selection of Genuine Motor Accessory hand grips that are available.

Tools and Supplies Required

Loctite[®] 271 Threadlocker and Sealant - Red (H-D Part No. 99671-97) is required for the proper installation of this kit.

Fresh, uncontaminated hydraulic brake fluid will also be needed. See the owner's manual or service manual for this year/model motorcycle to determine the correct brake fluid for this vehicle.

These items are available from a Harley-Davidson dealer.

ABS Models:

▲ WARNING

The rider's safety depends upon the correct installation of this kit. Dealer installation is required for vehicles equipped with ABS brakes. Proper installation of this kit requires the use of special tools available only through a Harley-Davidson Dealer. An improperly serviced brake system can adversely affect brake performance, which could result in death or serious injury. (00578b)

Non-ABS Models:

▲ 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 refers to service manual information. A service manual for this year/model motorcycle is required for this installation and is available from a Harley-Davidson dealer.

Kit Contents

See Figure 4 and Table 1.

PREPARATION

▲ WARNING

To prevent accidental vehicle start-up, which could cause death or serious injury, remove main fuse before proceeding. (00251b)

1. See the service manual and follow the instructions given to remove the seat and disconnect the main vehicle fuse. Retain all seat mounting hardware.

▲ WARNING

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)

2. Loosen or remove the fuel tank. See the service manual.
 - **If able to** access all harness and throttle cable connections, the fuel tank may be moved up and rearward without disconnecting the fuel line or crossover.
 - **If NOT able to** access these connections, the fuel tank will have to be completely removed and set aside for later installation.

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Many Harley-Davidson[®] Parts & Accessories are made of plastics and metals which can be recycled. Please dispose of materials responsibly.

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▲ CAUTION

Direct contact of D.O.T. 4 brake fluid with eyes can cause irritation. Avoid eye contact. In case of eye contact flush with large amounts of water and get medical attention. Swallowing large amounts of D.O.T. 4 brake fluid can cause digestive discomfort. If swallowed, obtain medical attention. Use in well ventilated area. KEEP OUT OF REACH OF CHILDREN. (00240a)

NOTICE

D.O.T. 4 brake fluid will damage painted and body panel surfaces it comes in contact with. Always use caution and protect surfaces from spills whenever brake work is performed. Failure to comply can result in cosmetic damage. (00239b)

NOTE

Immediately wipe up any brake fluid spillage with a clean, **dry**, soft cloth. Follow up by thoroughly wiping the affected area with a clean, **damp**, soft cloth (small spills) or washing with a large quantity of soapy water (large spills).

Cover nearby motorcycle surfaces with an H-D Service Cover or polyethylene protective sheet to help protect against damage to the finish caused by spillage or splash of DOT 4 brake fluid.

3. Drain the brake fluid from the front brake reservoir and brake lines. See the service manual.

ORIGINAL HANDLEBAR REMOVAL

NOTE

Cover the front fender and the front of the fuel tank with H-D Service Covers or clean shop towels to prevent scratching the finish.

NOTICE

Remove brake line components carefully. Damage to seating surfaces can cause leakage. (00320a)

1. Note the front brake line routing and the orientation of the banjo fittings. See the service manual to disconnect and remove the brake line. Save the banjo bolts, but discard the brake line gaskets.
2. See the service manual and disconnect the clutch cable from the clutch lever. Disconnect the clutch cable from the side cover and remove the cable from the vehicle.

NOTE

Before disconnecting the handlebar control wiring, note the wire routing.

3. Remove and discard any plastic wiring retainer clips and cable straps retaining the handlebar control and turn signal wiring from the handlebars to the harness junction connectors.

NOTE

- To perform the next step. See the JAE and MOLEX connector sections in the service manual appendix.

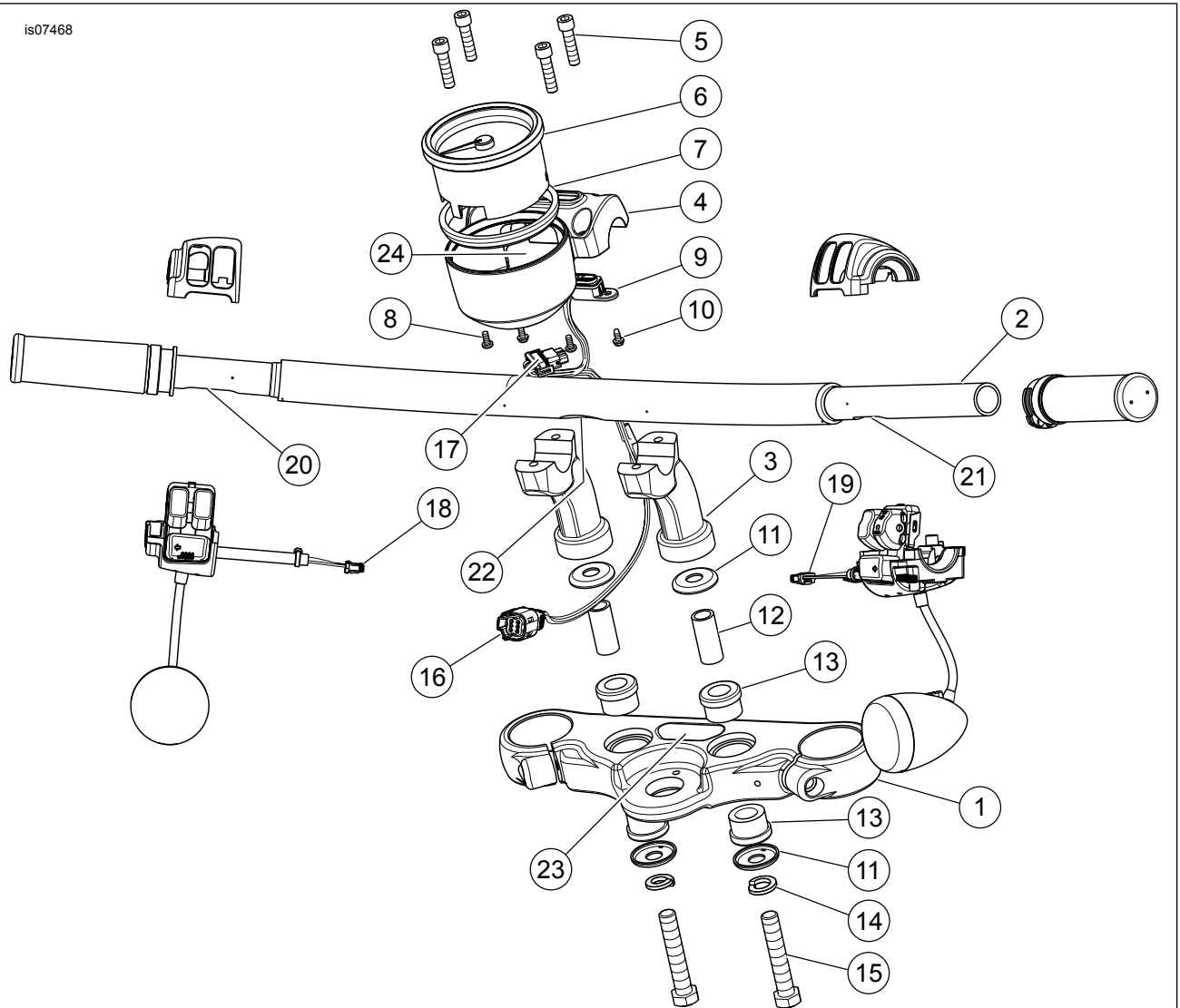
- DO NOT remove the wires from the handlebar switch connector housings under the fuel tank.

4. Disconnect the handlebar control and instrument wiring from:
 - a. The gray MOLEX six-way [20A] and the JAE four-way [24A] on the left side main harness connectors under the fuel tank.
 - b. The JAE four-way and JAE two-way [22A] on the right side main harness connectors under the fuel tank.
5. See Figure 1. Note the wire colors and positions in each cavity of the connector housing leading from the speedometer and indicator lamps (16). See the correct connector section in the service manual appendix to remove the wires from the six-way MOLEX housing.

NOTE

The switch wire harness connectors are small enough to be removed from the handlebar without depinning.

6. Remove the front-brake master cylinder and clutch lever assemblies from the handlebar, along with the attached turn signal lamps and mirrors.
7. Pull the wire sheath and enclosed harnesses through the handlebars to free the handlebar controls and turn signal lamps from the motorcycle. Set the handlebar control/turn signal lamp assemblies aside.
8. See the service manual for removal of the right-side switch housing assembly and harness (19). This is necessary to access the throttle cables.
9. See the service manual to disconnect the idle and throttle cables from the right grip/throttle sleeve assembly. Disconnect the idle and throttle cables from the induction module. If not being replaced, remove the right grip/throttle sleeve and set it aside for installation to the new handlebar.
10. See the service manual for removal of the left-side switch housing assembly and wire harness (18).
11. Remove the screws (5), riser clamp (4) and handlebar (2). Discard the screws and handlebar.
12. Flip the riser clamp over to expose the speedometer and indicator lamp fasteners.
13. Remove the speedometer fasteners (8) and slide the speedometer (6) from the riser cup. Disconnect the connector (17) and set aside the speedometer, gasket (7) and hardware for later installation.
14. Remove the indicator lamp fasteners (10) and carefully remove the indicator lamp assembly and harness (9) from the riser cup through the wire opening (24). Set aside for later installation. Discard the riser clamp/cup.
15. **If the left-side hand grip is not glued to the handlebar:** Remove the hand grip and set it aside for installation to the new handlebar, if not being replaced.



- | | |
|----------------------------|---|
| 1. Upper fork bracket | 13. Rubber isolator |
| 2. Stock handlebar | 14. Lockwasher, split |
| 3. Riser | 15. Bolt, riser mounting |
| 4. Riser clamp | 16. Connector, speedometer/indicator lamps to vehicle |
| 5. Socket head screw | 17. Connector, speedometer |
| 6. Speedometer | 18. Connector, left hand controls |
| 7. Gasket | 19. Connector, right hand controls |
| 8. Screw, speedometer | 20. Wire opening, left handlebar hand controls |
| 9. Indicator lamp assembly | 21. Wire opening, right handlebar hand controls |
| 10. Screw, indicator lamp | 22. Wire opening, center handlebar |
| 11. Cup washer | 23. Wire opening, upper fork bracket |
| 12. Spacer sleeve | 24. Wire opening, riser/speedometer cup |

Figure 1. Stock Handlebar Removal

NOTE

Note the sequence and orientation of the riser hardware as it is removed, and retain it for later installation.

16. Remove the two riser mounting bolts (15) from under the upper fork bracket (1). Remove and discard the handlebar risers (3), but save the remaining riser isolation hardware for later installation (11 through 15).

NEW HANDLEBAR INTERNAL WIRING

NOTE

Guide strings (or thin wires) may aid in the routing of the wire bundles through the handlebar. For **each** wire bundle to be routed through the handlebar, pre-route a separate string through the bar.

One at a time, tape a string securely to the correct wire bundle end. Until use, secure the remaining guide strings to the handlebar at each end to prevent being pulled through prematurely.

Pull the string through the bar to route the wire bundle to the proper exit point.

Specific instructions for each wire bundle follow.

1. Remove any cable straps and plastic wiring retainer clips that secured the switch harnesses to the OE handlebar. See Figure 4. Slide one large grommet (5) onto each of the switch wire bundles, positioning the grommet close to the switch end.

NOTE

See Figure 2. Verify that the large grommet (7) has been positioned on the switch and turn signal wire bundle, close to the switch end.

2. Remove the turn signal from the front brake lever assembly (mirror stalk) and allow to dangle from the switch housing. Cover or otherwise protect the turn signal from damage until later installation.
3. Apply a light coat of liquid soap, window cleaner, or all-purpose lubricant to the right-side turn signal and switch wire bundles.
4. With the handlebar placed on a smooth, soft surface, grip ends upward, gently feed the right-side switch wire bundle into the large opening on the underside of the new handlebar and toward the large opening in the center of the bar.

▲ WARNING

Carefully pull the wires through hole in handlebar to prevent stripping the wires. Stripped wires can cause short circuits and damage vehicle electrical components, which could cause loss of vehicle control resulting in death or serious injury. (00418b)

5. Pull the ends of the wire bundle through the exit opening in the center of the handlebar, bringing the switch housing into approximate final position. **DO NOT** fasten the switch housing to the handlebar at this time.
6. Repeat Steps 2 through 5 with the left-side switch wire bundle.

▲ WARNING

Grommets in each of the wiring holes in the handlebar must remain in position after routing the wiring through the handlebar. Operation without the grommets in place can damage wires, causing a short circuit which could result in death or serious injury. (00416d)

NOTE

A light coat of liquid soap, window cleaner or all-purpose lubricant may aid in grommet installation.

7. See Figure 4. Insert the switch-wire grommets (5) into place in the switch-wire openings in the handlebar.

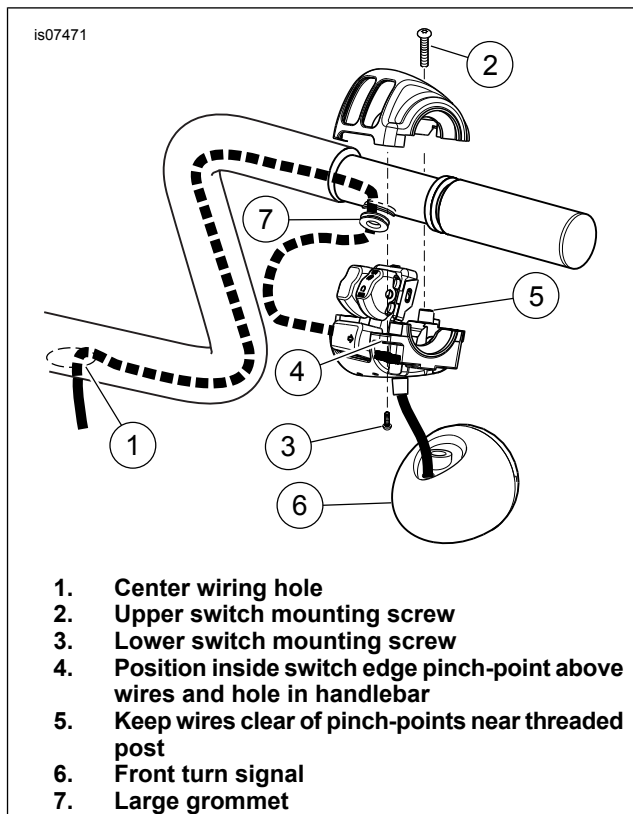


Figure 2. Switch Housing Wire Routing

Instrumentation Installation

1. See Figure 4. Obtain the riser with speedometer cup (2) from the kit and the indicator lamp assembly with harness removed earlier. Feed the speedometer connector (M) through the wire opening in the speedometer cup.
2. Obtain the gasket (C) and speedometer (B) removed earlier. Place the gasket in place in the riser speedometer cup.
3. Connect the speedometer connector to the speedometer assembly and with the speedometer oriented correctly, lower into the riser speedometer cup.
4. With fasteners (D) install the speedometer into the riser. Tighten to 1.36–1.92 N·m (12–17 in-lbs).

NOTE

In the next step, take care to not damage the items or wires during handling.

5. Obtain the riser clamp (3) from the kit and orient so it correctly interfaces with the riser speedometer cup. Also orient the indicator lamp assembly so the wires exiting the side of the indicators faces the speedometer cup. Insert the indicators through the window of the riser clamp.
6. With indicator lamp screws (F), install the indicators to the riser clamp. Tighten to 2.26–3.39 N·m (20–30 in-lbs).
7. Carefully bundle the entire riser assembly and prepare to install on vehicle.

Riser and Handlebar Installation

NOTE

This kit includes a handlebar riser assembly that **must be installed** with this handlebar.

1. See Figure 4. Install the **new** handlebar riser assembly using the mounting hardware removed earlier.
 - a. Assemble the riser isolation hardware in the same configuration it was removed earlier (G through L).
 - b. Fasten the riser with the mounting bolts (G) removed earlier. Do not fully tighten at this time.

NOTE

Typical handlebar orientation places the handlebar riser plane parallel to the front forks of the vehicle; however, state or local regulations may dictate handlebar height limits. Research and adjust accordingly.

- c. Feed the riser harness through the oval opening in the upper fork bracket (A).
2. Install the handlebar (1) to the riser base, routing the wire bundles down through the riser base center hole and the large oval opening in the upper fork bracket.

NOTE

In next step, tighten the front pair of fasteners first, then the rear pair. Tighten to the same values a second time to be sure of adequate distribution of the riser clamp loading.

3. Seat the handlebar with the knurls centered on the riser base. Install the riser clamp (3) and clamp fasteners (4), but do not fully tighten at this time.
4. See Figure 3. With the handlebar centered and oriented, tighten the riser clamp fasteners to 16.3–21.7 N·m (12–16 ft-lbs) following the sequence shown.
5. See Figure 4. **One at a time**, remove the riser base mounting bolts (G), apply a few drops of Loctite 271 - Red to the 4-6 threads nearest the end, and install.
6. Tighten the riser base mounting bolts to 41–54 N·m (30–40 ft-lbs).

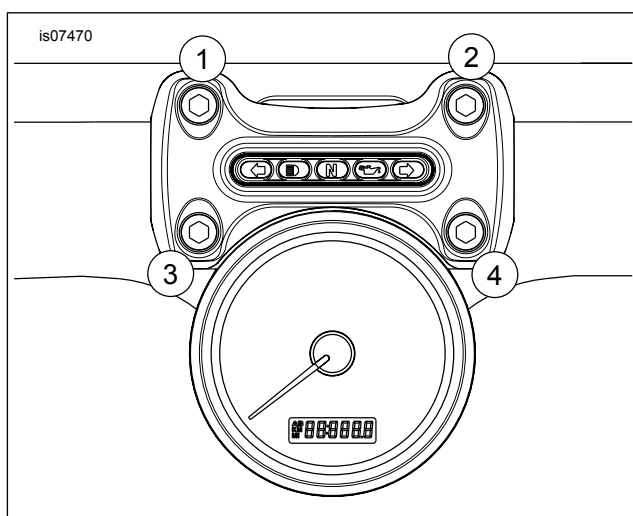


Figure 3. Riser Clamp Torque Sequence

Hand Control and Switch Wire Housing Installation

1. See the service manual, and follow the instructions to install the new (purchased separately) throttle control cables and a new (purchased separately) or OE right grip/throttle sleeve assembly.
2. Adjust the position of the switch housing and the brake lever assembly on the handlebar for rider comfort. The brake master cylinder must be horizontally level while the vehicle is on its sidestand.
3. Tighten **first the top, then the bottom** brake lever clamp screws to 8.1–12.2 N·m (72–108 in-lbs).
4. Tighten **first the lower, then the upper** switch housing screws to 4–5.1 N·m (35–45 in-lbs). This will leave any gap in the switch housing at the front for best appearance.

NOTE

If the handlebar grips are patterned, align the pattern on the left grip with the pattern on the right grip while the throttle is in the fully closed position.

5. Verify that the right grip/throttle sleeve rotates and returns freely and does not bind on the handlebar or switch housing.
6. Install a new (purchased separately) or OE handlebar grip on the left end of the new handlebar according to the handlebar grip instruction sheet or the service manual.
7. See the service manual to adjust the positions of the switch housing and the clutch lever assembly on the handlebar for rider comfort.
8. Tighten **first the top, then the bottom** clutch lever clamp screws to 8.1–12.2 N·m (72–108 in-lbs).
9. Tighten **first the lower, then the upper** switch housing screws to 4–5.1 N·m (35–45 in-lbs).
10. See the service manual and follow the instructions to install a proper length clutch cable (purchased separately).

⚠ WARNING

The rider's safety depends upon the correct installation of this kit. Dealer installation is required for vehicles equipped with ABS brakes. Proper installation of this kit requires the use of special tools available only through a Harley-Davidson Dealer. An improperly serviced brake system can adversely affect brake performance, which could result in death or serious injury. (00578b)

⚠ WARNING

Replace brake line gaskets. Re-using original gaskets can cause brake failure and loss of vehicle control, which could result in death or serious injury. (00318a)

NOTICE

Avoid leakage. Be sure gaskets, banjo bolt(s), brake line and caliper bore are clean and undamaged before assembly. (00321a)

11. Carefully inspect the new brake lines (purchased separately) for damage or defects, and replace if damaged. Install the brake line per service manual instructions or the instructions included with the brake lines.
12. Bleed the brakes. See the service manual.

⚠ WARNING

When any hydraulic brake component, line or connection is loosened or replaced on an ABS motorcycle, Digital Technician II must be used during the brake bleeding procedure to verify all air is removed from the system. Failure to properly bleed the brake system could adversely affect braking, which could result in death or serious injury. (00585c)

ELECTRICAL RECONNECTION

1. Follow the routing noted in the disassembly steps until the handlebar control wires reach the main vehicle harness switch wire connector housings. Under the fuel tank, route the left switch wire bundle and instrument harness along the left side of the frame backbone, right switch wire bundle along the right side of the backbone.

NOTE

Switch wire harness extensions (purchased separately) may be necessary to extend the switch wire harnesses to reach the vehicle main harness.

2. To perform terminal installations in next step, see: Insert each terminal from the instrument wire bundle into the correct cavity of the gray six-way MOLEX connector housing removed earlier. Connect the gray six-way MOLEX [20A] and left-side JAE handlebar control pin and socket housings [24A]. Connect the right-side JAE handlebar control pin and socket housings [22A].
 - a. the notes made during the removal of the instrument harness connector.
 - b. the correct connector section.
 - c. the wiring diagram in the service manual appendix.
3. Install any clips and/or wire guides saved earlier. Secure all wiring ensuring the handlebar can turn freely between left and right fork stops.

Final Assembly

⚠ WARNING

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)

1. Install the fuel tank per instructions in the service manual.

SAFETY CHECK

⚠ WARNING

Be sure that steering is smooth and free without interference. Interference with steering could result in loss of vehicle control and death or serious injury. (00371a)

- Be sure wires, clutch cables, throttle/idle cables and brake lines do not pull tight when handlebars are turned fully to left or right fork stops.

NOTE

Verify that the ignition key switch is in the OFF position before installing the main fuse.

1. See the service manual and follow the instructions given to install the main fuse.

⚠ WARNING

Be sure that all lights and switches operate properly before operating motorcycle. Low visibility of rider can result in death or serious injury. (00316a)

2. Turn the ignition key switch to IGNITION, but do not start the motorcycle. Test each handlebar switch for proper operation.
3. Turn the handlebar to the left and right steering stops, testing the handlebar control functions at each stop.
4. Apply the front brake hand lever to test operation of the brake lamp.

⚠ WARNING

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)

5. See the service manual, and follow instructions to install the seat.

⚠ WARNING

Before starting engine, be sure throttle control will snap back to idle position when released. A throttle control that prevents engine from automatically returning to idle can lead to loss of control, which could result in death or serious injury. (00390a)

⚠ WARNING

After repairing the brake system, test brakes at low speed. If brakes are not operating properly, testing at high speeds can cause loss of control, which could result in death or serious injury. (00289a)

SERVICE PARTS

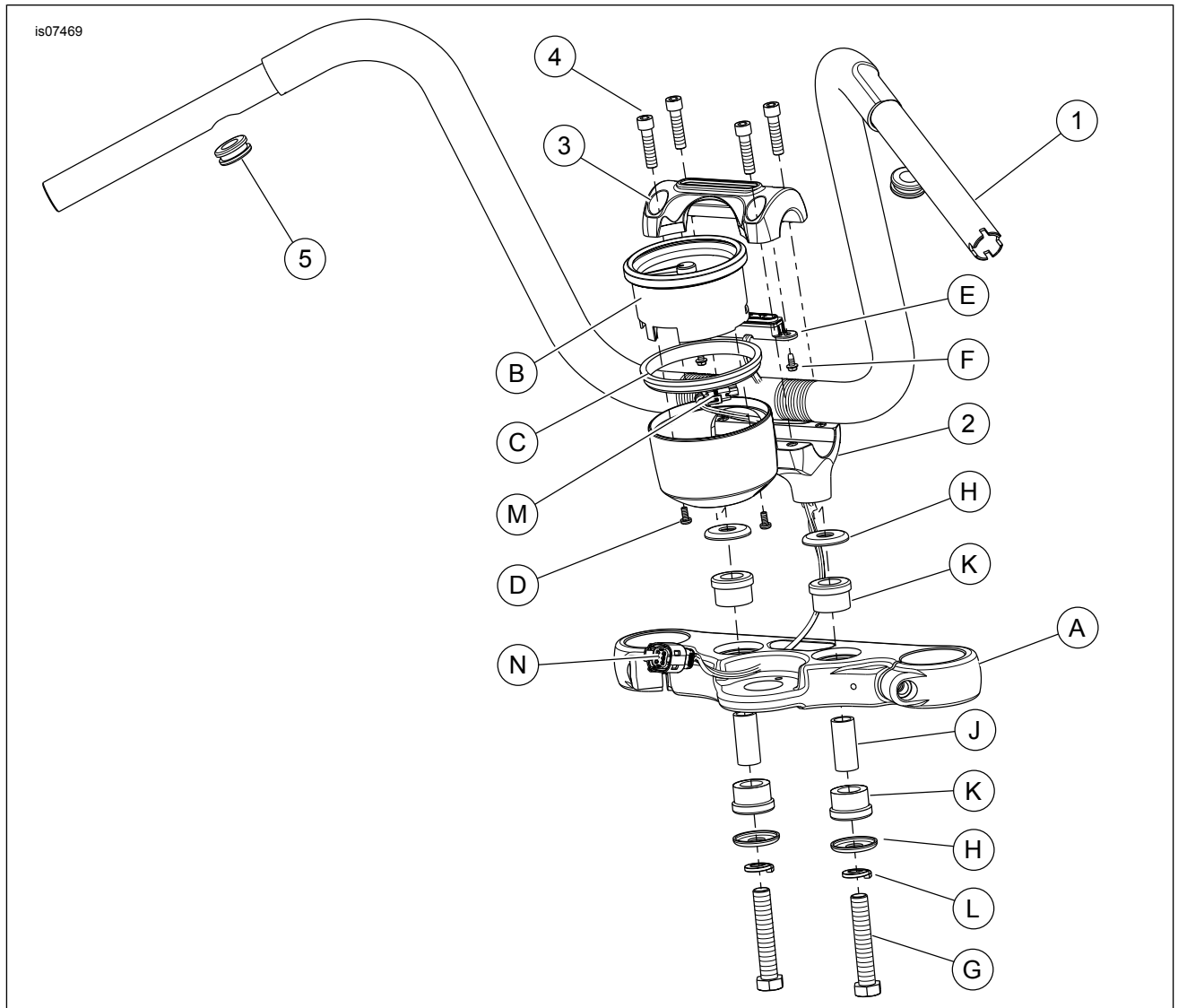


Figure 4. Service Parts, FXSB Fat Mini-Ape Handlebar

Table 1. Service Parts: FXSB Fat Mini-Ape Handlebar Kit

Item	Description (Quantity)	Part Number
1	Handlebar, fat mini-ape, chrome	56943-10A
2	Riser with speedometer cup	55900026
3	Riser clamp with indicator window	55900027
4	Screw, riser clamp (4)	3210A
5	Grommet (2)	11386
Items mentioned in text, but not included in kit:		
A	Original equipment (OE) Upper fork bracket	N/A
B	OE speedometer	N/A
C	OE gasket	67121-95A
D	OE screw, speedometer, #8-32 X 3/8 long (2)	3656
E	OE indicator lamp assembly with harness	69200530
F	OE screw, indicator lamp, #8-32 X 3/8 self-tapping (2)	2501A
G	OE riser mounting bolt, 1/2"-13 X 2.75" long (2)	3471
H	OE cup washer (4)	56159-73
J	OE spacer sleeve (2)	56153-73
K	OE rubber isolator (4)	53156-86
L	OE split lock washer (2)	7068
M	Connector to speedometer	N/A
N	Connector to vehicle, six-way MOLEX	N/A