



# INSTRUCTIONS

-J02279

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## BRAIDED FRONT BRAKE LINE KITS

### GENERAL

#### Kit Numbers

45148-96A, 45204-97C

#### Models

This kit fits 1996-2003 XL 1200 Sport models with dual front disc brakes.

#### Tools and Supplies Required

Fresh, uncontaminated DOT 5 brake fluid is required for installation of this kit.

#### ▲ WARNING

Brakes are a critical safety component. Contact a Harley-Davidson dealer for brake repair or replacement. Improperly serviced brakes can adversely affect brake performance, which could result in death or serious injury. (00054a)

#### ▲ WARNING

Rider and passenger safety depend upon the correct installation of this kit. 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. (00308b)

#### Kit Contents

See Service Parts tables for kit contents.

#### REMOVAL

#### ▲ WARNING

To prevent accidental vehicle start-up, which could cause death or serious injury, disconnect negative (-) battery cable before proceeding. (00048a)

1. Refer to the owner's manual and follow the instructions given to remove the seat and disconnect the negative (black) battery cable from the negative (-) battery terminal. Retain all seat mounting hardware.

#### ▲ CAUTION

Direct contact of DOT 5 brake fluid with eyes can cause eye irritation, swelling, and redness. Avoid eye contact. In case of eye contact flush with large amounts of water and get medical attention. Swallowing large amounts of DOT 5 brake fluid can cause digestive discomfort. If swallowed, obtain medical attention. Use in well ventilated area. KEEP OUT OF REACH OF CHILDREN. (00144b)

2. See Figure 1. Open bleeder nipple cap on front brake caliper. Install end of a length of plastic tubing over caliper bleeder valve (1), while placing free end in a suitable container. Open bleeder valve about one-half turn. Pump brake lever to drain brake fluid.

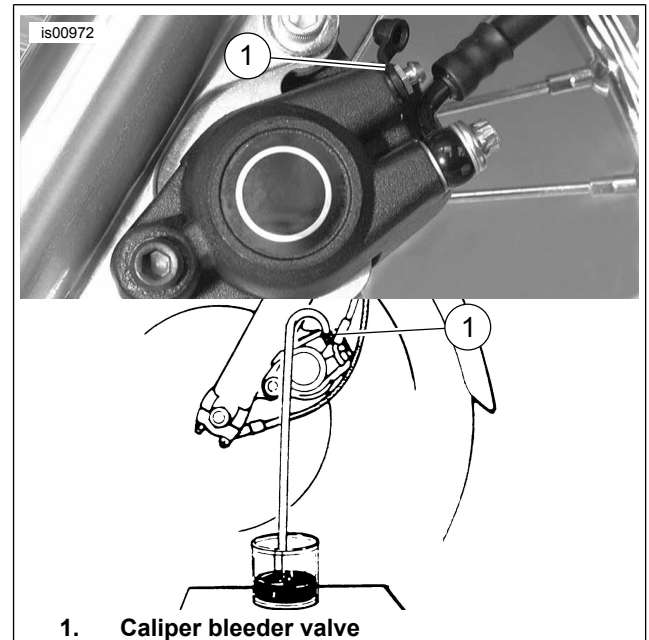


Figure 1. Draining Brake Fluid

#### ▲ 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)

3. Remove bolt and two brake line gaskets to disconnect brake line fitting from master cylinder. Save bolt and discard gaskets.
4. Remove bolt and two brake line gaskets to disconnect brake line fitting from each brake caliper. Save bolt(s) and discard gaskets.
5. On dual disk systems, the right and left side brake lines are similar, **but not identical**. To distinguish between them, carefully mate the new brake lines up to the old brake lines **before removing the old lines from the motorcycle**. Verify the banjo fittings on the new brake lines are oriented the same as the ones on the old brake lines.
6. Carefully make note of brake line routing, then remove brake line from motorcycle. The kit contains a **new** clamp to replace the original equipment (OE) clamp being removed.

## INSTALLATION

1. Install the brake line tee to the fork stem so the brake line from the master cylinder is toward the front of the motorcycle. Tighten the screw to 19 N·m (14 ft-lbs).
2. Thread flare nut ends on braided brake lines into brake line tee. Do not tighten at this time.

### NOTICE

**Avoid leakage. Be sure gaskets, banjo bolt(s) and brake line are clean and undamaged before assembly. (00323a)**

3. Position **new** brake line gaskets from the kit on each side of hydraulic brake fittings (banjo fittings). Insert bolts (removed earlier) through gaskets and fittings. Hold new braided brake lines in position and install bolts into master cylinder and caliper. Tighten only enough to keep banjo fitting in the correct orientation. Verify there is no twist in the brake lines. Adjust if necessary.
4. Install clamp from kit by wrapping clamp around brake line at the clamp mounting location. Verify the clamp is oriented the same as the OE clamp. Install clamp screws but leave loose for now.
5. Check entire length of brake lines to make sure line is not twisted, line is not in contact with any vehicle components. Make adjustments as necessary.
6. Tighten flare nut fittings at the tee to 34 N·m (25 ft-lbs).
7. Tighten bolts at banjo fittings at the master cylinder and the calipers to 23–30 N·m (17–22 ft-lbs).
8. Tighten the clamp screw being careful to hold clamp in correct orientation while tightening and install cable straps at same locations as OE cable straps (if present) were located.
9. Remove the master cylinder cover. Position the motorcycle upright so the master cylinder is in a level position.
10. Following the instructions in the owner's manual, add **new** DOT 5 brake fluid to the master cylinder reservoir until the fluid level is 3.2 mm (0.12 in) from the top. Do not reuse old brake fluid.

### ⚠ WARNING

**A plugged or covered relief port can cause brake drag or lock-up, which could lead to loss of control, resulting in death or serious injury. (00288a)**

11. Verify proper operation of the master cylinder relief port. Actuate the brake hand lever. A slight spurt of fluid will break the fluid surface in the reservoir compartment if all internal components are working properly.
12. Add DOT 5 brake fluid to the master cylinder reservoir until the fluid level is 3.2 mm (0.12 in) from the top.
13. Activate and hold brake lever to build up hydraulic pressure.

14. Open bleeder valve about one-half turn. Brake fluid will flow from bleeder valve through tubing. Close bleeder valve when brake lever has moved one-half to three-quarters of its full range of travel. Allow brake lever to return slowly to its released position.
15. Repeat steps 12-14 until all air bubbles are purged.

### NOTE

*Verify that the ignition/light key switch is in the OFF position before attaching the battery cable.*

16. Final tighten bleeder valve to 9–11.3 N·m (80–100 **in-lbs**). Install bleeder cap. Add brake fluid to master cylinder reservoir until fluid level is about 3.2 mm (0.12 in) from the top. Final tighten master cylinder reservoir cover screws to 0.7–0.9 N·m (6–8 **in-lbs**).
17. Verify that the ignition/key switch is turned to the OFF position. Apply a light coat of Harley-Davidson electrical contact lubricant (Part Number 99861-02), petroleum jelly or corrosion retardant material to the negative battery terminal. Refer to the owner's manual and follow the instructions given to attach the negative battery cable.

### ⚠ 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)**

18. Refer to the owner's manual, and follow instructions to install the seat.

### ⚠ 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)**

19. Test ride the motorcycle. If the brake feels spongy, repeat the bleeding procedure.

## SERVICE PARTS

Table 1. Kits 45148-96A, 45204-97C

Item	Description (Qty)	Part Number
1	Braided brake line (master cylinder to tee)	Not sold separately
2	Braided brake line (tee to right side caliper)	Not sold separately
3	Braided brake line (tee to left side caliper)	Not sold separately
4	Cable strap (3)	10065
5	Gasket, banjo (6) • for kit 45148-96A • for kit 45204-97C	41731-01 41731-88A
6	Brake line tee	Not sold separately
7	Clamp	71795-63A