



INSTRUCTIONS

-J02751

REV. 2010-12-15

XL BRAIDED FRONT BRAKE LINE KITS

GENERAL

Kit Numbers

Table 1. Kits and Models

Stainless Steel Kits	Diamondback Kits	Diamond-Black Kits	Ref. Length
45496-04	46934-06	N/A	38.0 in (96.52 cm)
N/A	46936-06	N/A	40.3 in (102.36 cm)
45489-04	46930-06	46779-09	41.5 in (105.41 cm)
45113-03	N/A	N/A	43.0 in (109.22 cm)
N/A	N/A	46720-09	46.0 in (116.84 cm)
N/A	N/A	41800178	34.0 in (86.36 cm)

Models

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

Additional Parts Required

Fresh, uncontaminated DOT 5 or DOT 4 brake fluid is required for installation of this kit. Refer to the service manual or contact a Harley-Davidson dealer for the correct type of brake fluid required.

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.

Kit Contents

See Table 2.

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

The rider's safety depends 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. (00308a)

REMOVAL

CAUTION

Direct contact of D.O.T. 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 D.O.T. 5 brake fluid can cause digestive discomfort. If swallowed, obtain medical attention. Use in well ventilated area. KEEP OUT OF REACH OF CHILDREN. (00144a)

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)

1. Drain the brake fluid following the instructions in the service manual. Dispose of waste properly.

WARNING

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

WARNING

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

2. Disconnect the battery, negative (-) cable first or remove the main fuse. Follow the instructions in the service manual.

3. Remove bolt and two sealing washers to disconnect brake line fitting from master cylinder. Discard sealing washers, but save bolt for installation.
4. Remove bolt and two sealing washers to disconnect brake line fitting from front brake caliper. Discard sealing washers, but save bolt for installation.
5. Carefully make note of brake line routing, then remove existing brake line.

NOTE

This kit contains clamps and cable straps to either replace the original equipment clamps and cable straps being removed or to add additional brake line support.

INSTALLATION

WARNING

Install proper length brake lines. Incorrect brake line length can adversely affect motorcycle operation, which could cause loss of control resulting in death or serious injury. (00325a)

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) and brake line are clean and undamaged before assembly. (00323a)

1. Position new sealing washers from kit on each side of hydraulic brake fittings (banjo fittings). Small ID washers are for caliper end, large ID washers are for master cylinder end.
2. Insert bolts (removed earlier) through washers and fittings.
3. Hold new braided brake line in position and install bolts into master cylinder and caliper. Tighten only enough to keep banjo fitting in the same orientation as the stock banjo fitting.
4. Verify there is no twist in the brake line. Adjust brake line if necessary.
5. Install clamps from kit by wrapping clamp around braided brake line at each of the clamp mounting locations. Verify clamps are oriented the same as the stock clamps. Install clamp screws but do not tighten.
6. Check entire length of braided brake line:
 - a. Be sure brake line is not twisted.
 - b. Turn handlebars fully-left and right while checking to make sure brake line does not contact any vehicle components.
 - c. Be sure brake line length between clamps is sufficient.
7. Adjust brake line if necessary.
8. Tighten caliper and master cylinder banjo bolts to 20-25 ft-lbs (27-34 Nm).

9. Tighten both clamp screws securely holding clamps in correct orientation while tightening. Install cable strap at same location the stock cable strap was located, if applicable.
10. Connect the battery or install the main fuse following the instructions in the service manual.

Bleed and Test Braided Brake Line

1. Bleed brakes and test brake operation following the instructions in the service manual.
2. Add the appropriate brake fluid following the instructions in the service manual.

WARNING

Be sure the master cylinder relief port is not plugged. A plugged relief port can cause brake drag or lockup and loss of vehicle control, which could result in death or serious injury. (00317a)

3. Verify proper operation of the master cylinder relief port. Slowly actuate brake hand lever with reservoir cover removed. A slight spurt of fluid will break the fluid surface in the reservoir compartment if all internal components are working properly.

WARNING

After servicing brakes and before moving motorcycle, pump brakes to build brake system pressure. Insufficient pressure can adversely affect brake performance, which could result in death or serious injury. (00279a)

4. Actuate and hold brake hand lever to build up hydraulic pressure.
5. Open bleeder valve one-half turn. Brake fluid will flow from bleeder valve through tubing. Close bleeder valve when brake hand lever has moved one-half to three-quarters of its full range of travel. Allow brake hand lever to return slowly to its released position.
6. Repeat Steps 3, 5 and 6 until all air bubbles are purged.
7. Tighten bleeder valve to 35-61 **in-lbs** (4-7 Nm), then install bleeder cap.
8. Add the correct brake fluid following the instructions in the service manual.
9. Install master cylinder reservoir gasket cover (with diaphragm plate and diaphragm) and screws. Tighten screws to 9-17 **in-lbs** (1-2 Nm).

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)

10. Turn the ignition key/light switch to IGNITION and apply front brake at the hand control lever to test the operation of the brake light.

⚠ 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)

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

SERVICE PARTS

Table 2. Service Parts: XL Braided Front Brake Line Kits

Kits	Item	Description (Quantity)	Part Number
Stainless Steel: 45113-03, 45489-04, 45496-04, 41800178	1	Braided brake line	Not Sold Separately
	2	Sealing washers (4)	41732-04
	3	Clamp	68562-84
	4	Clamp	71795-63A
	5	Cable strap	10065
Diamondback: 46930-06, 46934-06, 46936-06 Diamond-Black: 46720-09, 46779-09	1	Braided brake line	Not Sold Separately
	2	Sealing washers (4)	41732-04
	3	Clamp (2)	10059A
	4	Cable strap	10065

