



INSTRUCTIONS

-J02776

REV. 02-12-2003

Kit Numbers: See Table

STAINLESS STEEL BRAIDED FRONT BRAKE LINE KITS

General

These Stainless Steel Braided Front Brake Line Kits are available in a variety of lengths. Longer brake lines may be necessary when modifications (i.e. optional handlebars) have been made to the motorcycle.

Kit Part Number	Length of Brake Line Compared to Standard Kit	Standard Kit Part Number
45231-04	2 in (51 mm) longer than	45287-99B
45336-04	4 in (102 mm) longer than	45287-99B
45222-04	6 in (152 mm) longer than	45287-99B
45252-04	2 in (51 mm) longer than	45207-99B
45389-04	4 in (102 mm) longer than	45207-99B
45224-04	6 in (152 mm) longer than	45207-99B
45253-04	2 in (51 mm) longer than	44793-01
45397-04	4 in (102 mm) longer than	44793-01
45225-04	6 in (152 mm) longer than	44793-01
45254-04	2 in (51 mm) longer than	45206-97B
45547-04	4 in (102 mm) longer than	45206-97B
45226-04	6 in (152 mm) longer than	45206-97B
45255-04	2 in (51 mm) longer than	45209-97B
45548-04	4 in (102 mm) longer than	45209-97B
45227-04	6 in (152 mm) longer than	45209-97B
45256-04	2 in (51 mm) longer than	44813-00A
	2 in (51 mm) longer than	44815-00A
45595-04	4 in (102 mm) longer than	44813-00A
	4 in (102 mm) longer than	44815-00A
45228-04	6 in (152 mm) longer than	44813-00A
	6 in (152 mm) longer than	44815-00A
45258-04	2 in (51 mm) longer than	46011-01
45687-04	4 in (102 mm) longer than	46011-01
45230-04	6 in (152 mm) longer than	46011-01

See the Service Parts Lists on the last page of these instructions for kit contents.

NOTE

This instruction sheet references Service Manual information. A Service Manual for your model motorcycle is required for this installation and is available from any Harley-Davidson Dealer.

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 your Harley-Davidson dealer perform the installation. Improper installation of this kit could result in death or serious injury.

WARNING

Direct contact of D.O.T. 5 brake fluid with eyes may 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 may cause digestive discomfort. If swallowed, obtain medical attention. Use in well-ventilated area. **KEEP OUT OF THE REACH OF CHILDREN.**

Preparation

WARNING

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

WARNING

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)

Remove the seat and disconnect the battery cables, negative cable first.

Installing the Front Brake Line

1. Bleed the brake fluid from the front brakes. See BLEEDING HYDRAULIC BRAKES in the Service Manual.

CAUTION

Cover the front fender and the front of the fuel tank with clean shop towels to prevent scratching. Damage to the finish could result.

CAUTION

Damaged banjo bolt surfaces will leak when reassembled. Prevent damage to seating surfaces by carefully removing brake line components.

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.

1. At this point, if you have or are installing different handlebars, measure the change in distance that will be required from the end of the stock brake line to the brake master cylinder.
2. Compare this revised length to the brake line provided in your kit.
3. If the line is more that two inches longer or more than one inch shorter than the above measured distance, see your Harley-Davidson dealer for the correct brake line length.

NOTE

On dual disk systems, the right and left side brake lines are similar, but not identical. To distinguish between them, carefully match the new brake lines to the old brake lines before removing the old lines from the motorcycle.

Make sure the banjo fittings on the new brake lines are oriented the same as the fittings on the old brake lines.

2. Carefully make note of brake line routing, then remove the brake line (or brake lines if a dual disk system) that runs from the front-brake master cylinder to the front-brake calipers. See FRONT BRAKE MASTER CYLINDER-REMOVAL and FRONT BRAKE CALIPER-REMOVAL in the Service Manual.

Discard the brake-line gaskets and clamps. This kit contains any gaskets and clamps needed to replace those removed.

3. Install the new braided brake line (or lines) into position using the new clamps from the kit. See FRONT BRAKE MASTER CYLINDER-INSTALLATION and FRONT BRAKE CALIPER-INSTALLATION in the Service Manual.
4. Use the stock banjo bolts and new brake-line gaskets from the kit to fasten the new braided front brake line assembly between the front-brake master cylinder and the front-brake calipers.

NOTE

On dual disk kits, the brake line tee is mounted so that the brake line from the master cylinder goes to the front of the motorcycle.

On dual disk systems, torque the brake line manifold screw to 10-15 ft-lbs (13.6-20.3 Nm), and tighten the brake line fittings that thread into the brake line tee to 25 ft-lbs (34 Nm).

5. Using a motorcycle lift, raise the bike frame so that the front forks reach full extension. Verify that the brake line is of sufficient length to allow full fork extension without pulling the brake line.

Fully compress the forks to check that the brake line does not interfere with or catch on motorcycle components. Turn the front wheel to the full right fork stop and then the full left fork stop to be sure the brake line does not interfere with or catch on motorcycle components.

WARNING

Do not re-use brake-line gaskets. Use of original brake-line gaskets could cause front brake failure and loss of control which could result in death or serious injury.

CAUTION

To avoid brake fluid leakage, verify that the gaskets, banjo bolt and brake line are completely clean.

6. Bleed the front brakes. See BLEEDING HYDRAULIC BRAKES in the Service Manual.

WARNING

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)

7. Connect the battery cables, positive cable first.
8. Refer to the Service Manual, and follow instructions to install the seat.

WARNING

Check for proper stop lamp operation before riding motorcycle. Visibility is a major concern for motorcyclists. Improper stop lamp operation may lead to an accident which could result in death or serious injury.

9. Turn the Ignition/Light Key Switch to IGNITION and apply the front brake hand lever to test operation of the brake lamp.

WARNING

Whenever the brake system is serviced, always test the brakes on clean, dry pavement at low speeds before putting the motorcycle back into use. If the brakes are not operating properly, or braking efficiency is poor, testing at high speeds could result in death or serious injury.

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



Braided Front Brake Line Kits

Braided Brake Line Kits, Dual Front Disc

45231-04 (2 in. longer than standard kit 45287-99B),
 45336-04 (4 in. longer than standard kit 45287-99B),
 45222-04 (6 in. longer than standard kit 45287-99B):

Item	Description	Part No.
1	Brake line, upper (braided)	Not sold
2	Brake line, lower (braided) (left)	45235-97A
3	Brake line, lower (braided) (right)	45234-97A
4	Tee, brake line	45249-97A
5	Gasket, 0.37 in. I.D. (6)	41731-88A
7	Clamp, 1/4 in. (.20 in. mtg. hole)	71795-63A
10	Cable strap, 5.5" (140 mm) (3)	10065

Braided Brake Line Kits, Dual Front Disc

45252-04 (2 in. longer than standard kit 45207-97B),
 45389-04 (4 in. longer than standard kit 45207-97B),
 45224-04 (6 in. longer than standard kit 45207-97B):

Item	Description	Part No.
1	Brake line, upper (braided)	Not sold
2	Brake line, lower (braided) (left)	45246-97A
3	Brake line, lower (braided) (right)	45245-97A
4	Tee, brake line	45249-97A
5	Gasket, 0.37 in. I.D. (6)	41731-88A
10	Cable strap, 5.5" (140 mm) (3)	10065

Braided Brake Line Kits, Single Front Disc

45255-04 (2 in. longer than standard kit 45209-97B),
 45548-04 (4 in. longer than standard kit 45209-97B),
 45227-04 (6 in. longer than standard kit 45209-97B):

Item	Description	Part No.
1	Brake line (braided)	Not sold
5	Gasket, 0.37 in. I.D. (2)	41731-88A
6	Gasket, banjo, 0.43 in. I.D. (2)	41733-88
8	Clamp, 1/4 in. (.28 in. mtg. hole)	68562-84
9	Clamp, 1/4 in. (.34 in. mtg. hole) (2)	10209
10	Cable strap, 5.5" (140 mm) (3)	10065

Braided Brake Line Kits, Single Front Disc

45258-04 (2 in. longer than standard kit 46011-01),
 45687-04 (4 in. longer than standard kit 46011-01),
 45230-04 (6 in. longer than standard kit 46011-01):

Item	Description	Part No.
1	Brake line (braided)	Not sold
5	Gasket, 0.37 in. I.D. (2)	41731-88A
6	Gasket, banjo, 0.43 in. I.D. (2)	41733-88
8	Clamp, 1/4 in. (.28 in. mtg. hole)	68562-84
10	Cable strap, 5.5" (140 mm) (3)	10065

Braided Brake Line Kits, Single Front Disc

45253-04 (2 in. longer than standard kit 44793-01),
 45397-04 (4 in. longer than standard kit 44793-01),
 45225-04 (6 in. longer than standard kit 44793-01),
 45254-04 (2 in. longer than standard kit 45206-97B),
 45547-04 (4 in. longer than standard kit 45206-97B),
 45226-04 (6 in. longer than standard kit 45206-97B),

45256-04 (2 in. longer than standard kits
 44813-00A or 44815-00A),
 45595-04 (4 in. longer than standard kits
 44813-00A or 44815-00A),
 45228-04 (6 in. longer than standard kits
 44813-00A or 44815-00A):

Item	Description	Part No.
1	Brake line (braided)	Not sold
5	Gasket, 0.37 in. I.D. (2)	41731-88A
6	Gasket, banjo, 0.43 in. I.D. (2)	41733-88
7	Clamp, 1/4 in. (.20 in. mtg. hole)	71795-63A
8	Clamp, 1/4 in. (.28 in. mtg. hole)	68562-84
10	Cable strap, 5.5" (140 mm) (3)	10065

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