

# **INSTRUCTIONS**

2008-01-21



# DYNA BLACK FORWARD CONTROL KIT

# **GENERAL**

# Kit Number

49021-09

#### Models

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

# **Additional Parts Required**

J04537

Separate purchase of LOCTITE® 243 Threadlocker and Sealant - Blue (Harley-Davidson Part Number 99642-97) is required for proper installation of this kit. LOCTITE can be purchased from any Harley-Davidson Dealer.

#### NOTE

See Figure 4 and Figure 5. The mounting brackets and clevis (7, 18 and 21) may also be purchased separately to upgrade the standard FXDWG to this black kit.

#### **A** WARNING

Rider and passenger safety depend 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. (00333b)

#### NOTE

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 Figure 4 and Table 1 and Figure 5 and Table 2.

# INSTALLATION

# Shifter Assembly

# **▲ WARNING**

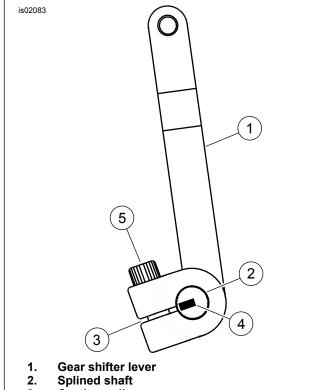
To prevent accidental vehicle start-up, which could cause death or serious injury, disconnect negative (-) battery cable before proceeding. (00048a)

- 1. Disconnect battery cable, negative (-) cable first.
- Remove the left side rider footrest assembly. Save the footrest and fasteners for installation. Discard the remaining hardware.

- From the kit, press hole plugs (8) into the screw holes on the frame where the stock footrest assembly was mounted.
- Remove plugs from forward control frame mount (I) and discard.
- Remove the foot shifter lever (A) and shifter peg (D). Discard the old foot shifter lever (A). Save the foot shifter lever hardware and shifter peg (D) for future use.
- See Figure 2. Remove the primary chaincase cover (6) and primary chaincase housing (1). Refer to your model motorcycles Service Manual for removal procedures.

#### NOTE

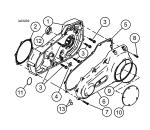
See Figure 1. Before removing the gear shifter lever (1) ((H) in Table 1), it is necessary to mark the correct orientation of the lever. Using a marking tool, draw a location marking (4) on the end of the splined shaft (2) across from the casting split (3). This will allow the new gear shifter lever to be installed in the same orientation as the old lever.



- 3. Casting split
- Location marking 4.
- 5. Lever bolt

Figure 1. Gear Shifter Lever Orientation

After marking the gear shifter lever orientation, loosen the lever bolt (5) and remove the old shifter lever. Discard the old gear shifter lever but keep the lever bolt. From the kit, install the new gear shifter lever onto the splined shaft in the same orientation as the old shifter lever. Tighten the lever bolt to 24.4-29.8 N·m (18-22 ft-lbs).



- 1. Primary chaincase housing (reference only)
- 2. Housing cover gasket (part number 34934-06)
- Sealing fasteners (5) (part number 786A) 3.
- 4. Tower gasket (part number 63869-06)
- 5. Primary cover gasket (part number 60547-06)
- 6. Primary chaincase cover (reference only)
- 7. Screw (4) (long) (reference only)
- Screw (9) (short) (reference only)

Figure 2. Primary Chaincase Cover and Housing Compon-

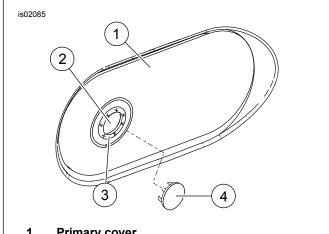
- See Figure 4. Install a spring washer (5) on the shifter lever shaft (4). Coat the shaft with with a light lubricant and slide the shaft into the new shifter bracket (7). Install the new shifter bracket onto the frame mounting holes using TORX® screws (10). Tighten the screws to 41-47 N·m (30-35 ft-lbs).
- Install the shifter peg (D) on the new foot shifter lever (12) using Loctite 243 Blue. Torque to 10.8-16.3 N·m (8-12 ft-lbs).
- 10. Install the new foot shifter lever (12) on the shifter shaft (4) protruding from the shifter bracket (7). Tighten the foot shifter lever retaining screw to 24.4–29.8 N·m (18–22 ft-lbs).
- 11. Using a few drops of Loctite 243, install the new shifter rod (1) onto the transmission shifter lever (6) and shifter lever (4). Tighten acorn nuts to 10.8–16.3 N·m (8–12 ft-lbs).

12. Install the left foot peg on the shifter bracket using the hardware removed earlier. Torque to 9.5-12.2 N·m (7-9 ft-lbs).

#### NOTE

After all shifter components are installed, move shifter through entire range of motion and check for interference with other components. Put primary chaincase housing in position and check for proper clearance with shifter linkage components.

13. See Figure 2. Using the gaskets and O-rings from the kit, install the primary chaincase housing (1) and primary chaincase cover (6). Refer to your model motorcycles Service Manual for installation procedures.



- **Primary cover** 1.
- Shifter shaft hole (original position) 2.
- Loctite 243 area (X)
- 4. Primary hole plug

Figure 3. Outer Cover Plug Installation

14. See Figure 3. Clean the area around primary cover (2) hole, removing all dirt, oil and grease. Apply Loctite 243 (Harley-Davidson Part Number 99642-97) around opening (3). Insert primary hole plug (4) into opening. Remove any excess adhesive from surface. Allow Loctite to cure for 24 hours before operating vehicle.

# Rear Brake Assembly

It may be helpful to remove the exhaust to access the rear brake components. Refer to the Service Manual for the exhaust removal.

- Remove the right side rider footrest. Save the footrest and fasteners for installation.
- 2. See Figure 5. Loosen the brake rod jam nut (23) at the rear brake master cylinder.

# NOTE

The master cylinder piston has flats for a wrench. Turn the flats on the piston to unscrew the brake rod from the master cylinder.

Unscrew the master cylinder piston from the stock brake

- Remove and discard the stock brake rod and brake pedal assembly.
- Push hole plugs (8) into the screw holes on the frame where the stock brake pedal assembly was mounted.
- Fasten the new brake pedal bracket (15) to the frame with TORX screws. Tighten the screws to 41–47 N⋅m (30–35 ft-lbs).
- 7. Install the jamnut (23) all the way onto the new brake rod (22).
- 8. Fasten the brake rod to the master cylinder piston.
- 9. Install the brake rod (22) into the new brake pedal (14) using the clevis pin (21), washer (19) and cotter circle (17).
- 10. Coat the brake pedal pivot shaft (16) with light lubricant.
- 11. Fasten the brake pedal pivot shaft (16), brake pedal (14) and the new footrest mount clevis (18) to the brake pedal bracket (15) using the long TORX screw (20). Tighten the screw to 44–47 N·m (32–35 ft-lbs).
- 12. With a wrench on the master cylinder piston flats, turn the piston onto the brake rod until the brake pedal is elevated to an effective rider angle, and using at least half the threads available on the brake rod. Tighten the jam nut against the master cylinder piston.

- Slide the new brake pedal pad (13) on the new brake pedal (14). It may be helpful to use liquid soap or isopropyl alcohol.
- 14. Install the right foot peg and the footrest mount clevis (18) using the hardware removed earlier. Torque to 9.5–12.2 N·m (7–9 ft-lbs).

### **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)

15. Connect the battery cables, positive (+) cable first.

### **A 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)

#### **A 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)

16. Test brakes for proper operation before riding vehicle.

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# **SERVICE PARTS**

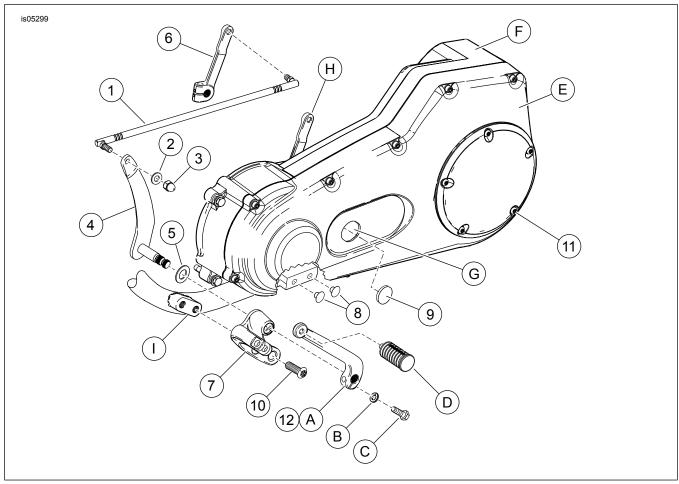


Figure 4. Service Parts: Dyna Forward Foot Control Kit

**Table 1. Service Parts Table** 

Item	Description (Quantity)	Part Number				
1	Shifter rod, black	33737-09				
2	Washer, 5/16 x 11/16 x 1/16 inch	6702				
3	Acorn nut, black, 5/16-18 locknut	8196				
4	Shifter shaft and lever, black	33733-09				
5	Spring washer	34625-90				
6	Transmission shifter lever, black	33735-09				
7	Shifter bracket, black	33649-09				
8	Hole plug (4)	740				
9	Primary hole plug, black	6943				
	Primary hole plug, chrome	90357-89				
10	TORX screw, 3/16-18 x 1.0 inch (4)	4059				
11	Sealing fasteners (5)	5-786A				
12	Foot shift lever, black	34501-09				
Items mentioned in text, but not included in kit:						
Α	Foot shifter lever	Reference only				
В	Washer	Reference only				
С	Bolt	Reference only				
D	Shifter peg	Reference only				
Е	Primary chaincase cover	Reference only				
F	Primary chaincase housing	Reference only				
G	Primary cover hole	Reference only				
Н	Gear shifter shaft and lever (old)	Reference only				
I	Forward control frame mount	Reference only				

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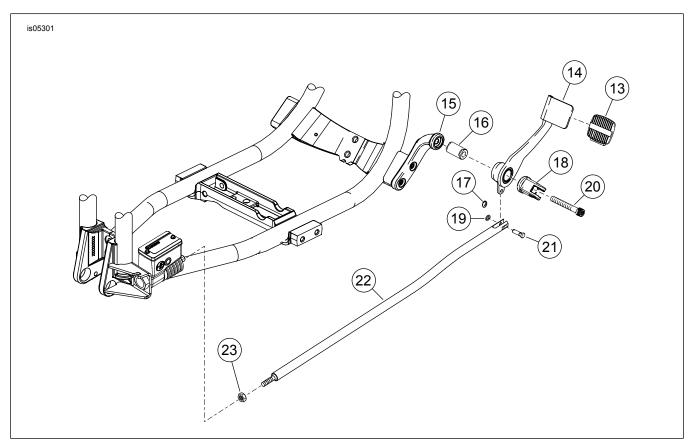


Figure 5. Service Parts: Dyna Forward Foot Controls Kit

**Table 2. Service Parts Table** 

Item	Description (Quantity)	Part Number	Item	Description (Quantity)	Part Number
13	Brake pedal pad	42532-06	19	Washer, 1/4 x 7/16 x 1/16 inch	6099
14	Brake pedal, black	42556-09	20	TORX screw, 3/8-16 x 2-3/4 inch	4339A
15	Brake pedal bracket, black	33682-09	21	Clevis pin	42460-80B
16	Brake pedal pivot shaft	42665-03	22	Brake rod	41955-03A
17	Cotter circle	51938-04	23	Jamnut, 5/16-24	7744
18	Footrest mount clevis, black	42703-09			

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