# VT No. 22-0960

## Installation Requirements

Loctite® 243 Medium Strength Threadlocker and Sealant - Blue (Part No. 99642-97) is required for proper installation of this kit.

# **AWARNING**

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

#### NOTE

This instruction sheet refers to service manual information. A service manual for this year/model motorcycle is required for this installation.

### **Kit Contents**

See Figure 3

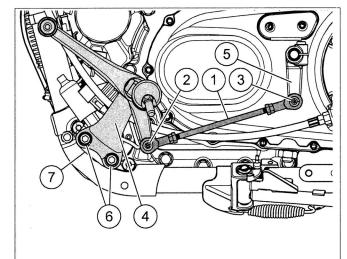
## **PREPARATION**

# **A**WARNING

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

## NOTE

- Vehicles equipped with security siren: With security fob present, turn ignition switch ON. After system is disarmed, turn ignition switch OFF. IMMEDIATELY remove the main fuse per the service manual.
- Vehicles WITHOUT security siren: See the service manual to remove the main fuse.



- 1. Shifter rod
- 2. Longer shifter rod screw
- Shorter shifter rod screw
- 4. Foot shifter lever assembly
- 5. Shift lever
- 6. Foot shifter lever mounting screw (2)
- 7. J-clip (under lever assembly)

Figure 1.

# FOOT SHIFTER LEVER (LEFT SIDE)

# Removal

- See Figure 1. Remove the original equipment (OE) shifter rod screws (2, 3) and shifter rod (1) from the foot shifter lever assembly (4) and shift lever (5). Save the screws. Discard the shifter rod.
- Remove and discard two screws (6). Remove the foot shifter lever assembly (4) and J-clip (7) from the vehicle frame. Save for installation.

#### Installation

1. See Figure 3. Get a reduced reach bracket (3), two thick spacers (4), two 2.25 in (57.2 mm) long screws (7) and two larger washers (8) from the kit.

# NOTE

The reduced reach bracket mounts to the vehicle with the tapped holes to the rear.

- Install a washer onto each screw.
   Insert the screws with washers through the clearance holes in the reduced reach bracket (3) and spacers (4), and the J-clip (E) removed earlier.
- 3. Position the bracket/spacer/J-clip assembly at the original location of the foot shifter lever assembly (D). Install the

- assembly to the vehicle frame with the screws and washers. Tighten to 45-50 ft-lbs (61-68 N-m).
- Install the foot shifter lever assembly (D) to the reduced reach bracket (3) with two screws (9) from the kit. Tighten to 45-50 ft-lbs (61-68 N-m).
- Get the reduced reach shift linkage assembly (1) from the kit. Get the OE shifter rod screws (A, B) removed earlier. Clean all thread locking material from the screw threads. Apply two drops of Loctite 243 - Blue to the clean screw threads.
- Position the linkage assembly as shown, with the solid end at the shift lever (C) threaded hole. Insert the shorter screw through the hole in the linkage. Thread the screw partially into the shift lever hole.
- Position the adjustable end of the linkage assembly at the foot shifter lever assembly. Insert the longer screw through the hole in the linkage. Thread the screw partially into the foot shifter lever hole.
- 8. Tighten the linkage attaching screws to 120-180 in-lbs (13.6-20.4 N-m).

#### NOTE

After all shifter components are installed, move shifter through entire range of motion. Check for interference with other components. Adjust shift rod length for clearance to primary case.

Adjust the foot shift pedal position as needed per the service manual.

# REAR BRAKE PEDAL (RIGHT SIDE)

## Removal

- Remove the brake rod per the service manual. Save the attaching hardware (2, 3) from the master cylinder end. Discard the brake rod (1).
- 2. Remove and discard two screws (6).

**Non-ABS models:** Remove and save the brake pedal support bracket assembly (5) and J-clip (7).

**ABS models:** Remove and save the brake pedal support bracket assembly (5). The ABS brake lines and bracket (8) remain in position.

### Installation

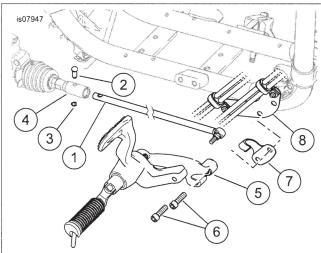
1. See Figure 3. Get a reduced reach bracket (3), two thin spacers (5), two 1.75 in (44.4 mm) long screws (6) and two larger washers (8) from the kit.

#### NOTE

The reduced reach bracket mounts to the vehicle with the tapped holes to the rear.

2. Install a washer onto each screw.

Insert the screws with washers through the clearance holes in the reduced reach bracket (3) and spacers (5), and the J-clip or ABS line bracket (E) removed earlier.



- 1. Brake rod
- 2. Clevis pin
- 3. Retaining ring
- 4. Master cylinder collar
- 5. Brake pedal support bracket assembly
- 6. Brake pedal support mounting screw (2)
- 7. J-clip (under lever assembly, non-ABS models)
- 8. ABS brake lines and bracket (under lever assembly, ABS models)

Figure 2.

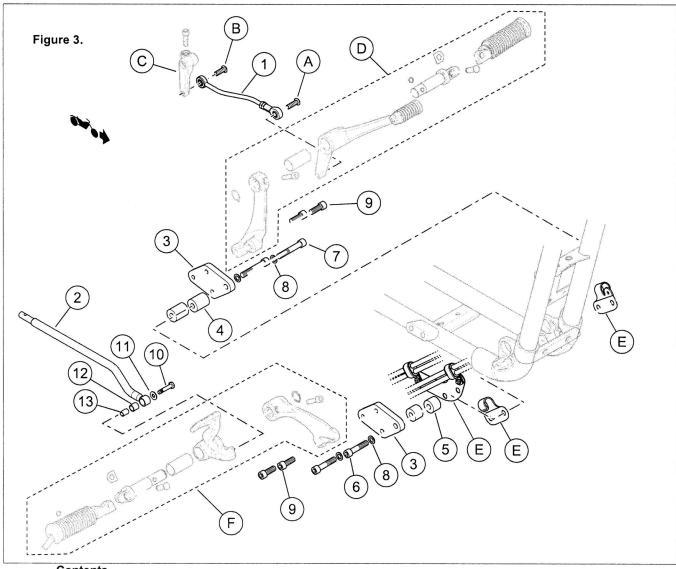
- Position the bracket and spacer assembly at the original location of the brake pedal support bracket assembly (F). Install the bracket assembly to the vehicle frame with the screws and washers. Tighten to 45-50 ft-lbs (61-68 N-m).
- Install the brake pedal support bracket assembly (F) to the reduced reach bracket (3) with two screws (9) from the kit. Tighten to 45-50 ft-lbs (61-68 N-m).
- Get the reduced reach brake rod (2) from the kit. Get the OE clevis pin and retaining ring removed earlier. Insert the brake rod end into the master cylinder collar. Secure with the clevis pin and retaining ring.
- Get the screw (10), washer (11), plastic bushing (12) and spacer (13) from the kit. At the forward end of the brake rod,
  - a. Press fit the plastic bushing into the rod, flush with each side.
  - b. Insert the spacer through the plastic bushing.
  - c. Insert the screw through the spacer.
- Apply two drops of Loctite 243 Blue to the clean screw threads.
- 8. Thread the screw into the brake pedal. Tighten to 120-180 in-lbs (13.6-20.4 Nm).

## COMPLETION

#### NOTE

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

1. See the service manual to install the main fuse.



Contents

ltem	Description (Quantity)
1	Shift linkage assembly, reduced reach
2	Brake rod, reduced reach
3	Bracket, forward control, reduced reach (2)
4	Spacer, 1.25 in (31.8 mm) thick (2)
5	Spacer, 0.75 in (19.0 mm) thick (2)
6	Screw, hex socket head, 3/8-16 x 1.75 in (44.4 mm) long (2)
7	Screw, hex socket head, 3/8-16 x 2.25 in (57.2 mm) long (2)
8	Flat washer, 3/8 in (9.5 mm) ID (4)
9	Screw, hex socket head, 3/8-16 x 1.0 in (25.4 mm) long (2)
10	Screw, hex socket head, 1/4-28 x 1.25 in (31.8 mm) long, Grade 8
11	Flat washer, 1/4 in (6.4 mm) ID (4)
12	Bushing, plastic
13	Bushing insert, stainless steel
tems mentio	ned in text, but not included in kit:
Α	Original equipment (OE) shifter rod to foot shifter lever screw
В	OE shifter rod to shift lever screw
С	OE shift lever
D	OE Foot shifter lever assembly
E	J-clip (shifter side) J-clip (brake pedal side, <b>without</b> ABS) Brake line bracket assembly (brake pedal side, <b>with</b> ABS)
F	Brake pedal support bracket assembly