



# INSTRUCTIONS

J03396

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## EXTENDED-WIRE HANDLEBAR SWITCH KITS

### GENERAL

#### Kit Numbers

70246-10, 70318-10

#### Models

##### NOTE

Neither of these kits is compatible with cruise control-equipped 2007 or earlier models.

**Kit 70246-10** is intended for installation on **2008 and later** FLHR (Road King®) models **with** cruise control.

**Kit 70318-10** is intended for installation on **1996 and later** FLHR (Road King) models **without** cruise control.

##### NOTE

Extended-Wire Handlebar Switch Kits consist of left and right-side handlebar switch sets (without housings) pre-wired to harnesses longer than original equipment (OE), for installation on certain H-D Genuine Motor Accessory handlebars.

#### Tools and Supplies Required

- **2006 and earlier models:** Deutsch Terminal Crimp Tool (Part No. HD-42879)
- **2007 and later models:** Molex Terminal Crimp Tool (Part No. HD-48119)
- **2007 and later models:** Molex Terminal Removal Tool (Part No. HD-48114)

##### ▲ 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 refers to service manual information. A service manual for this year/model motorcycle is required for this installation and is available from a Harley-Davidson dealer.

#### Kit Contents

See Figure 2 and Table 2.

### PREPARATION

##### NOTE

**For vehicles equipped with security siren:**

- Verify that the Hands-Free Fob is present.

- Turn the ignition key to **IGNITION**.

**For ALL vehicles with main circuit breaker:**

##### ▲ 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 service 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.

**For ALL vehicles with main fuse:**

##### ▲ WARNING

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

1. Refer to the service manual and follow the instructions to remove the main fuse.
2. Disassemble the headlamp nacelle following service manual instructions.
3. **Thoroughly review** the entire HANDLEBAR SWITCH ASSEMBLIES section of the service manual **before** installing this kit.

##### NOTE

Before disconnecting the handlebar switch wiring, note the wire routing and location of all cable straps.

### INSTALLATION

#### Install New Switch Wire Harness into RIGHT-SIDE Switch Housing

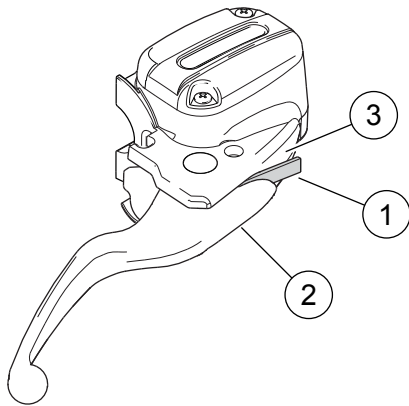
##### NOTICE

**Do not remove or install the master cylinder assembly without first positioning a 5/32-inch (4 mm) thick insert between the brake lever and lever bracket. Removing or installing the master cylinder assembly without the insert in place may result in damage to the rubber boot and plunger on the front stoplight switch. (00324a)**

##### NOTE

A section of corrugated cardboard or the eyelet of an ordinary cable strap can be used for this purpose.





1. **5/32-inch (4 mm) thick insert**
2. **Brake lever**
3. **Brake lever bracket**

**Figure 1. Protect Stop Light Switch**

1. See Figure 1. Place a 4 mm (5/32 in) thick insert between the brake lever and the lever bracket.
2. Refer to the service manual and follow the instructions to remove the right-side hand control from the vehicle. **For models with cruise control**, see Figure 2. Use the switch knob removal tool (9) from the kit to remove the OE cruise control switch knob (7). Discard the knob.
3. **For 2007 and later models:** Trace the right-side switch wiring harness to the black six-way pin housing [22A] (A) (and for 2008 and later models with cruise control, the brown or black three-way pin housing [159A]) (B), and unplug the connector halves. **For 2006 and earlier models:** Trace the right-side switch wiring harness to the black six-way socket housing [22B] (A), and unplug the connector halves.

**NOTE**

**DO NOT** remove the wires from the **mating connector housing(s)** inside the headlamp nacelle.

4. Note the wire colors and positions in each cavity of the connector housing(s) (A and B) on the switch harness. Follow service manual instructions to remove the wires and terminals from the housing(s), and set the housings aside for later assembly. Mark the connector housings to identify them as coming from the right-side assembly.
5. Follow service manual instructions to disassemble the right-side switch control housing. Retain the upper (C) and lower (D) housing halves, internal switch mounting brackets (F) and the **housing** attaching hardware (G).

**NOTE**

*If a Chrome Handlebar Switch Cap Kit has been installed on the handlebar controls, remove the switch caps (E) per the instructions in **that** kit, and set them aside for later assembly.*

6. Discard the removed handlebar switch set with harness and the **hardware** that secured the internal switch mounting bracket (F).

**NOTE**

*The switch sets are side-specific. The right-side switch set has upper switches labeled "START" and "OFF/RUN".*

7. Get the **new right-side** handlebar switch set and harness assembly (1).

**NOTE**

*If new or previously fitted chrome handlebar switch caps (E) are being installed on the new switches, follow the instructions in **that** kit to replace the black caps.*

8. Follow service manual instructions to assemble the switch set and right-side switch housing, using **new** screws (5 and 6) from the kit, and screws (G) saved earlier. A new stoplamp switch V-clip (10) is also included in the kit for use if the OE clip was damaged during removal.
9. **For models with cruise control**, install the **new** SET/RESUME switch knob (7).

The new right-side handlebar switch set and harness assembly has wires that are approximately 150 cm (60 in) in length, with Molex pin terminals at the ends.

The wires will be cut to a length determined by the handlebar, and new terminals (provided in the kit) will be installed. See Table 1.

**NOTE**

*If an unlisted handlebar and/or riser are used, it will be necessary to fully route the harness to determine the new cut length.*

**In ALL cases**, cut the harness wires to the appropriate length **only after** providing for slack throughout the full range of steering motion.

*Make sure to cut the harness wires to a suitable length to easily reach the mating connector housings inside the headlamp nacelle.*

**For motorcycles with internally wired handlebars:** Route the harness through the handlebar before cutting the wires.

**Table 1. Harness Length Requirements**

Handlebar			Cut Length*
Part No.	Description	For Model	cm (in)
55857-10	Fat Ape, black**	FLHR/C/S	115 cm (46 in)
55859-10	Fat Mini-Ape, black**	FLHR/C/S	105 cm (42 in)
56832-04A	Fat Mini-Ape, chrome**	FLHR/C/S	105 cm (42 in)
56942-10	Fat Ape, chrome**	FLHR/C/S	115 cm (46 in)

\* Measure from inside surface of switch housing to terminals.  
\*\* Handlebar kits include matching Riser Kit.

10. Install heat shrink tubing (11) over the harness conduit wherever wires may come in contact with sharp edges, such as at the wiring entrance and exit holes in the handlebar. Tape the ends of the harness into a tight bundle for insertion and routing through the handlebar.
11. Select Molex (3) or Deutsch (4) terminals from the kit as needed to fit the connector housing removed from the OE switch wiring harness. See the service manual for wire preparation and crimping instructions for terminals.

## Install New Switch Wire Harness into LEFT-SIDE Switch Housing

1. Refer to the service manual and follow the instructions to remove the left-side hand control from the vehicle. **For models with cruise control**, see Figure 2. Use the switch knob removal tool (9) from the kit to remove the OE cruise control switch knob (8). Discard the knob.

### NOTE

*Before disconnecting the handlebar switch wiring, note the wire routing and location of all cable straps.*

2. **For 2007 and later models:** Trace the left-side switch wiring harness to the gray eight-way pin housing [24A] (J) (and for 2008 and later models with cruise control, the gray three-way pin housing [158A] (K), and unplug the connector halves. **For 2006 and earlier models:** Trace the left-side switch wiring harness to the gray eight-way socket housing [24B] (J), and unplug the connector halves.

### NOTE

*DO NOT remove the wires from the **mating connector housing(s)** inside the headlamp nacelle.*

3. Note the wire colors and positions in each cavity of the connector housing(s) (J and K) on the switch harness. Follow service manual instructions to remove the wires and terminals from the housing(s), and set the housings aside for later assembly. Mark the connector housings to identify them as coming from the left-side assembly.
4. Follow the service manual instructions to disassemble the left-side switch control housing. Retain the upper (H) and lower (I) housing halves, internal switch mounting brackets (F) and the **housing** attaching hardware (G).

### NOTE

*If a Chrome Handlebar Switch Cap Kit has been installed on the handlebar controls, remove the switch caps (E) per the instructions in **that** kit, and set them aside for later assembly.*

5. Discard the removed handlebar switch set with harness and the **hardware** that secured the internal switch mounting bracket (F).

### NOTE

*The switch sets are side-specific. The left-side switch set has upper switches labeled "HORN" and "HI/LO".*

6. Get the **new left-side** handlebar switch set and harness assembly (2).

### NOTE

*If new or previously fitted chrome handlebar switch caps (E) are being installed on the new switches, follow the instructions in **that** kit to replace the black caps.*

7. Follow service manual instructions to assemble the switch set and left-side switch housing, using **new** screws (5 and 6) from the kit, and screws (G) saved earlier.
8. **For models with cruise control**, install the **new** ON/OFF switch knob (8).

The new left-side handlebar switch set and harness assembly has wires that are approximately 150 cm (60 in) in length, with Molex pin terminals at the ends.

The wires will be cut to a length determined by the handlebar, and new terminals (provided in the kit) will be installed. See Table 1.

### NOTE

*If an unlisted handlebar and/or riser are used, it will be necessary to fully route the harness to determine the new cut length.*

**In ALL cases**, cut the harness wires to the appropriate length **only after** providing for slack throughout the full range of steering motion.

*Make sure to cut the harness wires to a suitable length to easily reach the mating connector housings inside the headlamp nacelle.*

**For motorcycles with internally wired handlebars:** Route the harness through the handlebar before cutting the wires.

9. Install heat shrink tubing (11) over the harness conduit wherever wires may come in contact with sharp edges, such as at the wiring entrance and exit holes in the handlebar. Tape the ends of the harness into a tight bundle for insertion and routing through the handlebar.

## Install Switch Control Housings to Handlebar

1. Follow the instructions in the handlebar kit for assembly of the right and left switch control housings onto the new handlebar.
2. Install the handlebar assembly onto the vehicle as instructed in the handlebar kit.

## Install Terminals and Connectors to Switch Harnesses

1. Remove any tape from the ends of the handlebar switch harnesses.
2. Select Molex (3) or Deutsch (4) terminals from the kit as needed to fit the connector housings removed from the OE switch wiring harness. See the service manual for wire preparation and crimping instructions for terminals.
3. Refer to the notes made during the removal steps, and the correct wiring diagram in the service manual. Insert each wire and terminal from the right-side switch wiring harness into the correct cavity of the right-side connector housing(s). Insert each wire and terminal from the left-side switch wiring harness into the correct cavity of the left-side connector housing(s).
4. **For 2007 and later models: For 2006 and earlier models:** Connect the black six-way socket housing to the black pin housing [22A] inside the headlamp nacelle. Connect the gray eight-way socket housing to the gray pin housing [24A].
  - a. Connect the black six-way pin housing to the black socket housing [22B] inside the headlamp nacelle. Connect the gray eight-way pin housing to the gray socket housing [24B].
  - b. For **2008 and later** models with cruise control, connect the brown or black three-way pin housing to the black socket housing [159B] inside the nacelle. Connect the gray three-way pin housing to the gray socket housing [158B].

- Secure the hand control harnesses within the headlamp nacelle as needed using cable straps (12) from the kit.

## Return to Service

### ⚠ WARNING

Be sure that steering is smooth and free without interference. Interference with steering could result in loss of vehicle control and death or serious injury. (00371a)

- Be sure wires, clutch cables, throttle/ idle cables and brake lines do not pull tight when handlebars are turned fully to left or right fork stops.

- Assemble the headlamp nacelle following service manual instructions..

### NOTE

Verify that the ignition key switch is in the OFF position before installing the main fuse or attaching the negative battery cable.

- Models with main fuse:** Refer to the service manual and follow the instructions to install the main fuse. **Models with main circuit breaker:** Refer to the service manual and follow the instructions to attach the negative battery cable. Apply a light coat of Harley-Davidson electrical contact lubricant (H-D Part No. 99861-02), petroleum jelly or corrosion retardant material to the negative battery terminal.

### ⚠ 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)

- Refer to the service manual, and follow instructions to install the seat.

- Turn the ignition key switch to IGNITION, but do not start the motorcycle. Test each handlebar switch for proper operation. Test for proper headlamp, turn signal, tail lamp and stop lamp operation. Turn the handlebar to the left and right steering stops, testing the handlebar control functions at each stop.

## SERVICE PARTS

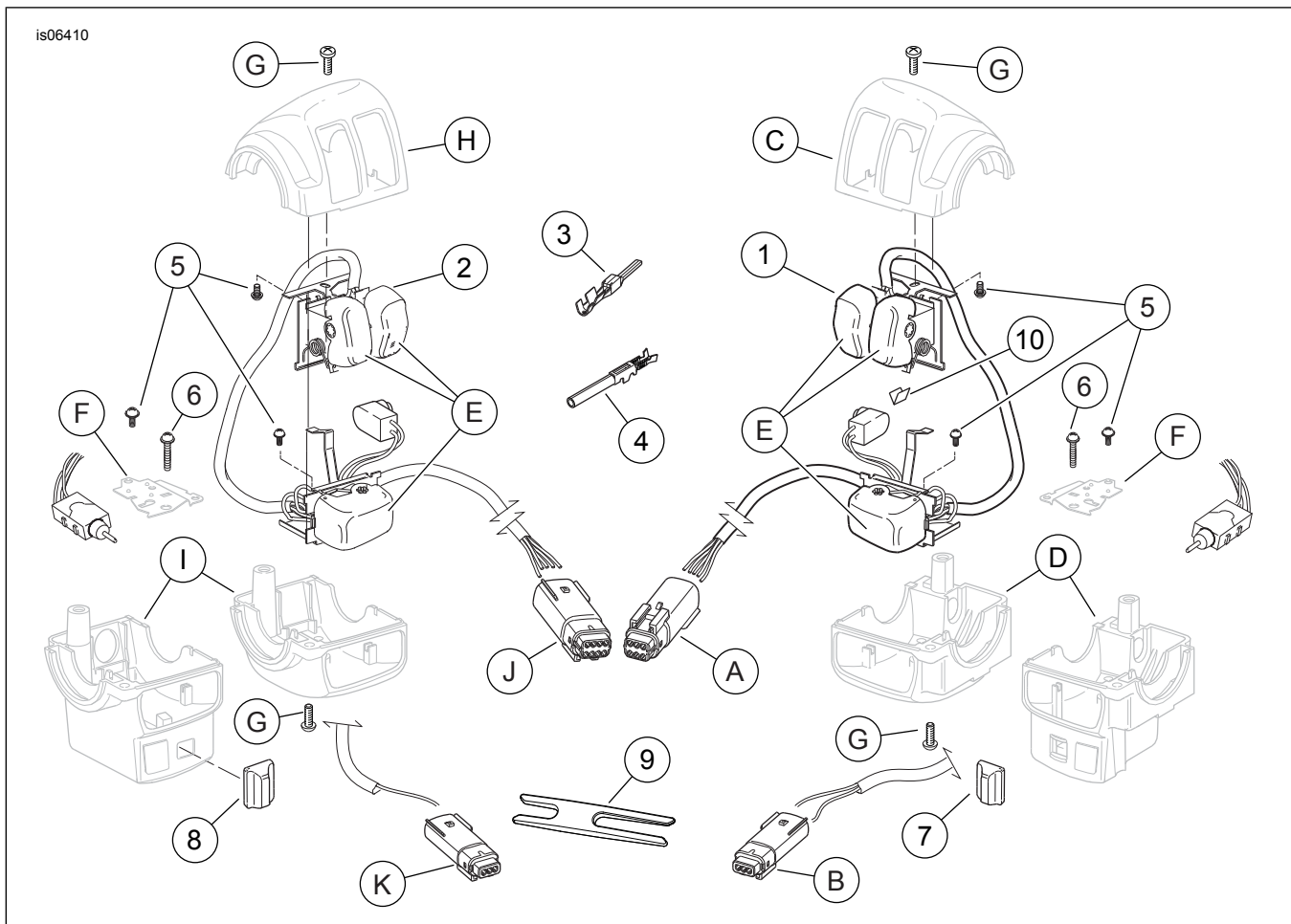


Figure 2. Service Parts, Handlebar Switch Wire Extension Kits

## SERVICE PARTS

Table 2. Service Parts

Kit	Item	Description (Quantity)	Part Number
Kit 70246-10 Handlebar Switch Kit, (2008 and later models with Cruise Control)	1	Handlebar switch set and harness assembly (right)	Not sold separately
	2	Handlebar switch set and harness assembly (left)	Not sold separately
	3	Pin terminal, Molex, #16-20 AWG (17)	72169-07
	4	Socket terminal, Deutsch, #16-20 AWG (15)	72191-94
	5	Screw, Philips head, #6-32 x 6.4 mm (1/4 in) long, with lockwasher (6)	2955
	6	Screw, Philips head, #6-32 x 19 mm (3/4 in) long (2)	2559
	7	Knob, SET/RESUME switch	71825-96A
	8	Knob, cruise control ON/OFF switch	71828-02
	9	Tool, switch knob removal	70226-04
Kit 70318-10 Handlebar Switch Kit, (1996 and later models without Cruise Control)	1	Handlebar switch set and harness assembly (right)	Not sold separately
	2	Handlebar switch set and harness assembly (left)	Not sold separately
	3	Pin terminal, Molex, #16-20 AWG (14)	72169-07
	4	Socket terminal, Deutsch, #16-20 AWG (12)	72191-94
	5	Screw, Philips head, #6-32 x 6.4 mm (1/4 in) long, with lockwasher (6)	2955
Items common to BOTH kits	10	V-clip, stop lamp switch mounting	71587-04
	11	Heat shrink tube, 51 mm (2 in) long (4)	72266-94
	12	Cable strap (4)	10181
<b>Items mentioned in text, but not included in kit:</b>			
	A	Black six-way pin housing [22A] (shown, for 2007 and later models) Black six-way socket housing [22B] (not shown, for 2006 and earlier models)	
	B	Black or brown three-way pin housing [159A] (for 2008 and later models)	
	C	Switch control housing, right-side, upper half	
	D	Switch control housing, right-side, lower half	
	E	Handlebar switch caps	
	F	Internal switch mounting bracket	
	G	Switch control housing attaching hardware	
	H	Switch control housing, left-side, upper half	
	I	Switch control housing, left-side, lower half	
	J	Gray eight-way pin housing [24A] (shown, for 2007 and later models) Gray eight-way socket housing [24B] (not shown, for 2006 and earlier models)	
	K	Gray three-way pin housing [158A] (for 2008 and later models)	