



INSTRUCTIONS

-J05296

REV. 2010-12-22

HEATED HAND GRIP KIT

GENERAL

Kit Number

56100034

Models

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

NOTE

See the P&A Retail Catalog or the Parts and Accessories section of www.harley-davidson.com (English only) for a collection of matching Genuine Motor Accessory items that are available. These can be easily installed at the same time as this kit.

Additional Parts Required

2008 and 2009 models require purchase of additional parts:

- Twist grip sensor (TGS) jumper harness 70415-08A (1)
- Connector 72902-01BK (1)
- Terminal pin 72990-01 (2)

Service Manual Required

⚠ WARNING

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 Harley-Davidson dealer perform the installation. Improper installation of this kit could result in death or serious injury. (00333a)

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.

Electrical Overload

NOTICE

It is possible to overload your vehicle's charging system by adding too many electrical accessories. If the combined electrical accessories operating at any one time consume more electrical current than the vehicle's charging system can produce, the electrical consumption can discharge the battery and cause damage to the vehicle's electrical system. See an authorized Harley-Davidson dealer for advice about the amount of current consumed by additional electrical accessories or for necessary wiring changes. (00211c)

⚠ WARNING

When installing any electrical accessory, be certain not to exceed the maximum amperage rating of the fuse or circuit breaker protecting the affected circuit being modified. Exceeding the maximum amperage can lead to electrical failures, which could result in death or serious injury. (00310a)

This Heated Hand Grip kit requires up to **3.5 amps** additional current from the electrical system.

Kit Contents

Kit contains one pair of heated hand grips plus connecting parts. See Figure 9 and Table 1.

REMOVAL

Preparation

⚠ 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 given to remove the handgrips.

NOTES

The twist grip sensor in the right side of the handlebar has a seal cap that protects internal electrodes from dirt and moisture, and also serves as a retention device for the throttle grip.

To remove the grip, a slight tug may be necessary to release the index pins in the grip from the receptacle in the seal cap.

Upon removing the grip, check the location of the seal cap.

If the seal cap is still fastened to the index pins **inside** the old throttle grip, it can be discarded along with the grip.

If the seal cap is still fastened to **the end of the twist grip sensor**:

- See Figure 1. Insert a small screwdriver or other flat-blade tool into the flat area on one side of the seal cap.
- Press the leg on the underside of the cap to free it from the slot at the end of the twist grip sensor. Pry up one end of the cap.
- Repeat on the other side of the cap.
- Carefully remove the cap and discard it.

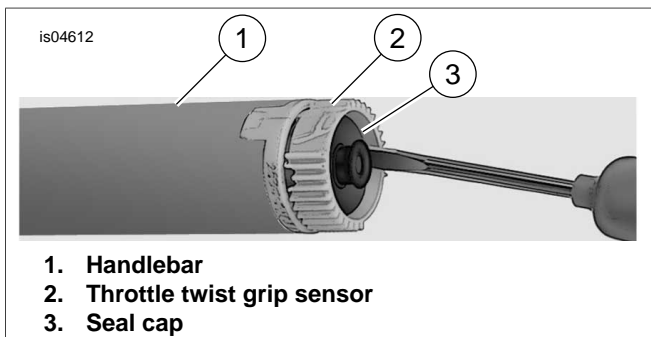


Figure 1. Remove Seal Cap

NOTE

Before removing twist grip sensor, attach chaser wire to jumper harness.

2. **For 2008 and 2009 Models** Refer to the service manual and follow the instructions given to remove the twist grip sensor (TGS) and TGS jumper harness.
3. See Figure 2. Unplug TGS jumper harness from TGS and main harness and discard stock jumper harness (2).
4. See Figure 3. Attach **NEW** TGS jumper harness to TGS.
 - a. Connect connector (3) to TGS harness.
 - b. Cut heat shrink tubing from twist grip and install connector housing and terminals following instructions in the service manual. White wire is installed in cavity 1 and black wire is installed in cavity 2.
 - c. Connect connector (4) to heated grip connector.

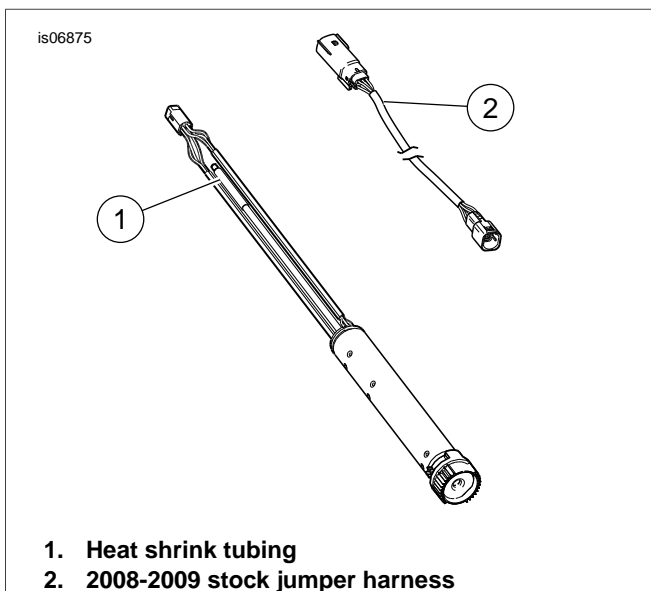


Figure 2. 2008 and 2009 TGS and Harness

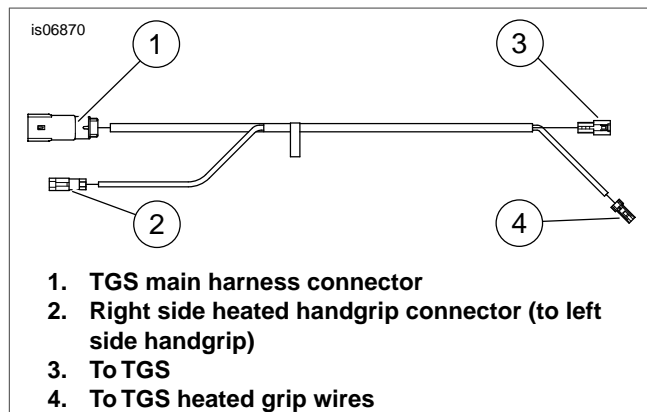


Figure 3. TGS Jumper Harness

INSTALLATION

Heated Grip Installation

NOTE

If a chaser wire was not used, air pressure or an electrician's fish tape can be used to thread the wire harnesses completely through the handlebar.

1. **For 2008 and 2009 Models:** Thread the twist grip sensor wire harnesses into the right side of the handlebar.
 - a. While feeding the wiring into the handlebar, gently pull the connectors at the end of the jumper harness to draw the twist grip sensor out the center of the handlebar.
 - b. Fit the index tabs on the twist grip sensor into the slots in the handlebar. One index tab and slot are smaller than the others to prevent improper assembly.
2. **For All Models:** Thread the left-side heated grip wire harness all the way through and out the center of the handlebar.

NOTE

Make sure that the handlebar surface is smooth, dry and thoroughly cleaned of all dirt.

3. See Figure 4. Position the left-side heated grip (4) so the larger diameter portion of the flange (5) is at the bottom. Push the grip fully onto the handlebar.
4. Position the lower switch housing beneath the grip so that the grooves (2) on the outboard side of the switch housing fit over the flange on the end of the grip.
5. Position the upper switch housing over the handlebar and lower switch housing.
6. Start the upper and lower switch housing screws, but do not tighten. Verify that the wire harness conduit runs in the depression at the bottom of the handlebar.
7. Position the clutch hand-lever assembly inboard of the switch housing assembly, engaging the tab on the lower switch housing in the groove at the bottom of the clutch lever bracket.
8. Align the hole in the handlebar clamp with the hole in the clutch lever bracket, and start the lower screw with flat washer. Adjust the switch housing and clutch hand control position for rider comfort.

9. Using a T-27 TORX drive head, tighten first the upper, then the lower handlebar clamp screws to **60-80 in-lbs** (6.8-9 Nm).
10. Using a T-25 TORX drive head, tighten first the lower, then the upper switch housing screws to **35-45 in-lbs** (4-5.4 Nm).

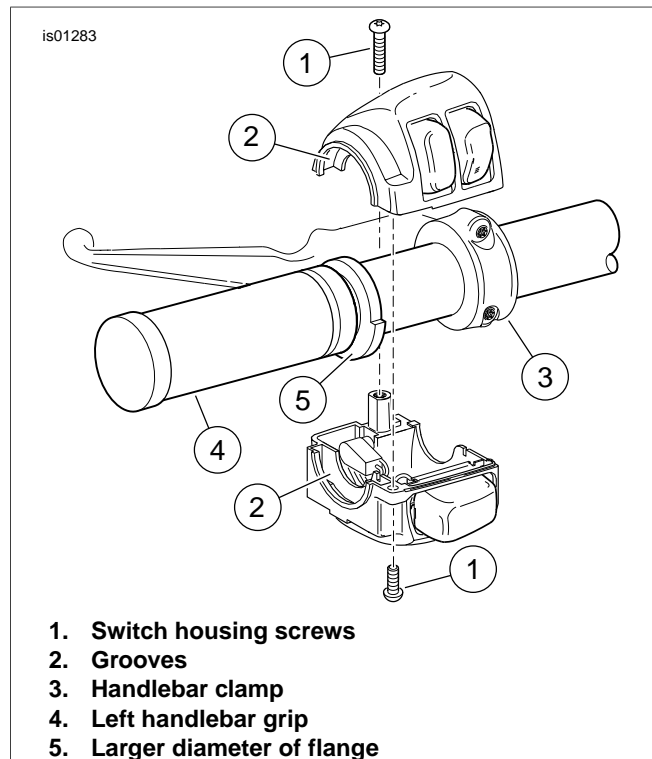


Figure 4. Left Handlebar Switch Housing

11. Obtain the **new** right-side heated throttle grip (2) from the kit.
12. Tucked inside the outboard end of the throttle grip is a round plastic plug, with two pin terminals on one side. Carefully pull the plug out from the grip through the outboard opening.

NOTE

Make sure that the handlebar surface and the inside of the new throttle grip are smooth, dry and thoroughly cleaned of all dirt.

13. Slide the **new** heated throttle grip over the end of the handlebar. Rotate the grip to verify that the internal splines are engaged with those on the twist grip sensor.
14. Refer to Figure 4, which shows the similar left-side switch mounting. Position the lower switch housing beneath the grip so that the grooves (2) on the outboard side of the switch housing fit over the flange on the end of the grip.
15. Position the upper switch housing over the handlebar and lower switch housing.
16. Start the upper and lower switch housing screws, but do not tighten. Verify that the wire harness conduit runs in the depression at the bottom of the handlebar.
17. Position the brake master cylinder housing inboard of the switch housing assembly, engaging the tab on the lower switch housing in the groove at the bottom of the master cylinder housing.

18. Align the hole in the handlebar clamp with the hole in the master cylinder housing, and start the lower screw with flat washer. Adjust the switch housing and brake hand control position for rider comfort.
19. Using a T-27 TORX drive head, tighten first the upper, then the lower handlebar clamp screws to **60-80 in-lbs** (6.8-9 Nm).

NOTE

Do not pull the switch housing so far inboard as to cause the throttle grip to bind or drag on the handlebar. Actuate the throttle grip to verify that it freely returns to the idle position.

20. Using a T-25 TORX drive head, tighten first the lower, then the upper switch housing screws to **35-45 in-lbs** (4-5.4 Nm).

WARNING

Before starting engine, be sure throttle control will snap back to idle position when released. A throttle control that prevents engine from automatically returning to idle can lead to loss of control, which could result in death or serious injury. (00390a)

21. Verify that the right grip/throttle sleeve rotates and returns freely and does not bind on the handlebar or switch housing.

NOTE

The terminal sockets on the twist grip sensor are offset to one side, and the pins can only be inserted one way.

22. Using a needle-nose pliers or similar tool, carefully grasp the round plastic plug at the outboard end of the throttle grip.
 - a. Insert the plug back through the opening in the grip, and insert the terminal pins into the sockets at the end of the twist grip sensor, engaging the two legs of the plug into the throttle grip sensor openings.
 - b. Press the plastic plug firmly to verify that the pins are fully seated in the sockets.

23. Install the end cap onto the end of the throttle grip.

CONNECTION TO VEHICLE WIRING

FLH Models

1. Refer to the service manual and follow the instructions given to remove the outer fairing.

NOTE

See Figure 5. Handgrip power connector (3) has a cap that must be removed before connecting to vehicle wiring.

2. See Figure 5. Connect power connector half from left handgrip to handgrip power connector (3).
3. Connect (1) to left side handgrip connector.

4. **For 2008 and 2009 Models Only:**
 - a. Remove wiring from back of cigarette lighter. Obtain harness assembly from kit. Connect terminals from harness to cigarette lighter.
 - b. Be sure to match the wire colors before splicing. Install wiring removed from cigarette lighter in previous step to tabs on harness.
 - c. Connect TGS main harness connector from jumper harness to connector (2).

NOTES

In next step, be sure to match the wire colors before splicing.

5. Connect heated handgrip connector half from left handgrip to right side heated grip interconnect connector (1).
6. Refer to the service manual and follow the instructions given to install the outer fairing.

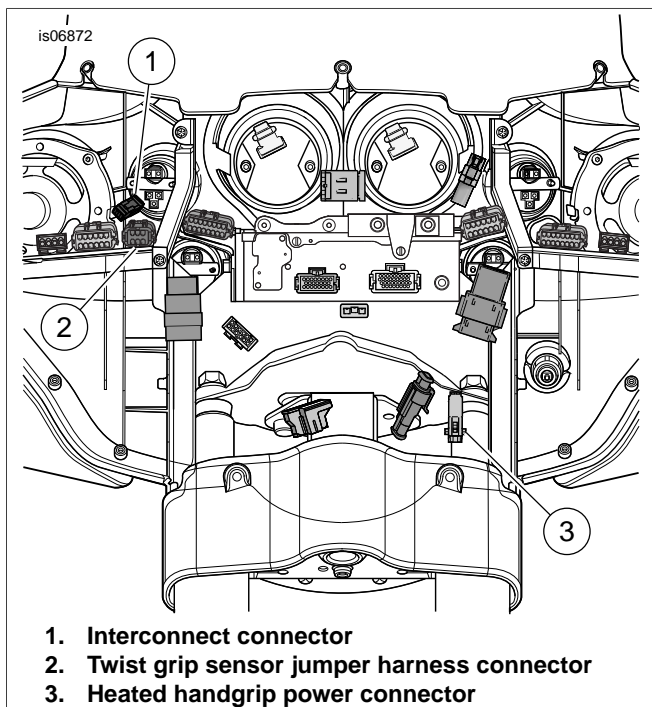


Figure 5. Fairing Wiring (FLH Models)

FLTR Models

1. Refer to the service manual and follow the instructions given to remove the outer fairing.
2. Remove wiring from back of cigarette lighter. Obtain harness assembly from kit. Connect terminals from harness to cigarette lighter.

NOTES

In next step, be sure to match the wire colors before splicing.

3. Install wiring removed from cigarette lighter in previous step to tabs on harness.
4. Connect power connector half from harness to vehicle harness connector half.
5. See Figure 6. Connect TGS connector half from right handgrip to harness connector half.
6. Connect interconnect connector half from left handgrip to interconnect connector half from right side handgrip.

7. Refer to the service manual and follow the instructions given to install the outer fairing.

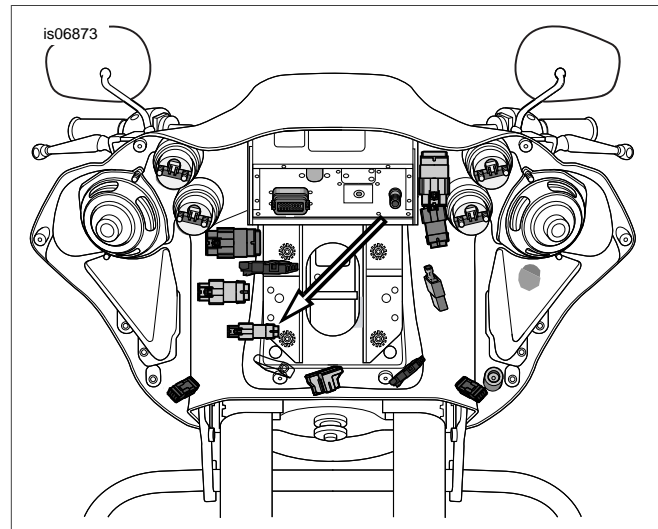


Figure 6. Twist Grip Sensor Jumper Harness Connector (FLTR models)

Road King Models

NOTE

Be sure to match the wire colors before splicing.

1. See Figure 9. Obtain harness assembly from kit. Cut the two spade terminals from harness.
2. Refer to the service manual and follow the instructions given to remove the headlight assembly.
3. **Models with fender tip light:**
 - a. See Figure 7. Locate fender tip light wiring.
 - b. See Figure 9. Splice into fender tip light wiring near connector using two splice connectors (5) from kit.
 - c. Cut orange/white and black wires approximately one inch (2.52 cm) from connector.
 - d. Strip a 3/8 inch (9.5 mm) section of insulation from the ends of the kit harness and vehicle wires.
 - e. See Figure 8. From cut ends, insert one orange/white wire into one end of splice connector. In other end of splice connector, insert other orange/white wire with red wire from adapter harness.
 - f. Repeat procedure for black wires.
4. **Models without fender tip light:**
 - a. See Figure 7. Locate fender tip light wiring (2).
 - b. Cut wires 2 in. (5.08 cm) from connector.
 - c. Strip a 3/8 inch (9.5 mm) section of insulation from the ends of the kit harness and vehicle wires.
 - d. See Figure 8. Insert the orange/white wire from step 4b into one end of the sealed splice connector. Insert the red wire from adapter harness into the other end of the sealed splice connector.
 - e. Repeat procedure for black wires.

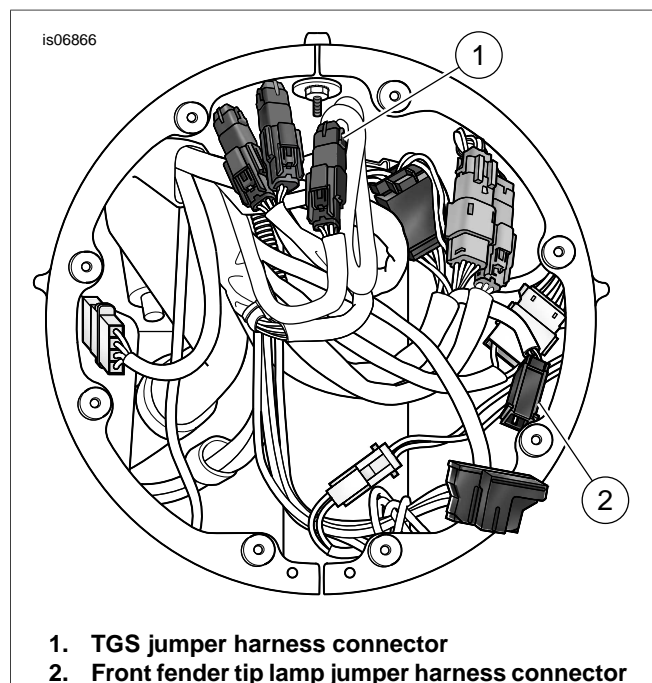
All Road King Models:

1. Match the color of the sealed splice connector with the color of the crimp cavity of the crimping tool. Crimp the wires into the connector.
2. Repeat all the above procedures for the opposite side.

⚠ WARNING

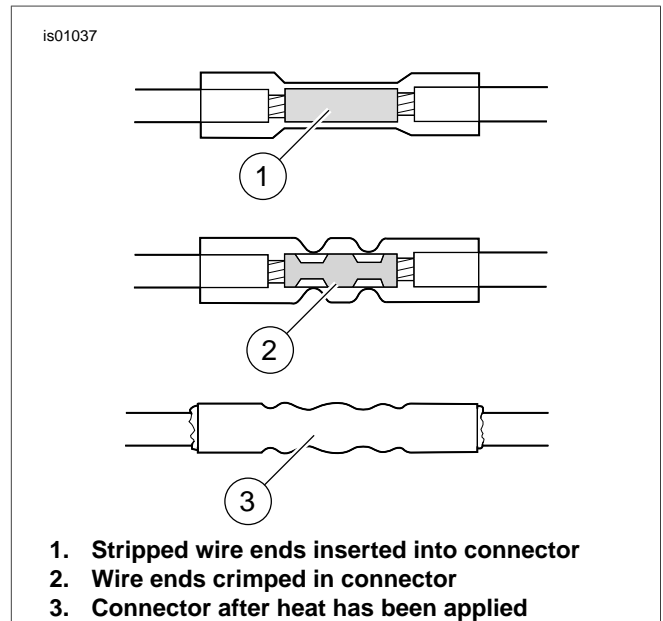
Be sure to follow manufacturer's instructions when using the UltraTorch UT-100 or any other radiant heating device. Failure to follow manufacturer's instructions can cause a fire, which could result in death or serious injury. (00335a)

- Avoid directing heat toward any fuel system component. Extreme heat can cause fuel ignition/explosion resulting in death or serious injury.
 - Avoid directing heat toward any electrical system component other than the connectors on which heat shrink work is being performed.
 - Always keep hands away from tool tip area and heat shrink attachment.
3. Using the UltraTorch Heat Gun with Heatshrink Attachment, or suitable radiant heating device, heat the crimped splice to encapsulate the sealed splice connection. Apply heat from the center of the crimp out to each end until the meltable sealant comes out of both ends of the connector.
 4. Connect power connector half from left handgrip to harness connector half.
 5. See Figure 7. Connect TGS connector half from right handgrip to harness connector half (1).
 6. Connect interconnect connector half from left handgrip to interconnect connector half from right side handgrip.
 7. Refer to the service manual and follow the instructions given to install the headlamp.



1. TGS jumper harness connector
2. Front fender tip lamp jumper harness connector

Figure 7. Road King Headlamp Wiring



1. Stripped wire ends inserted into connector
2. Wire ends crimped in connector
3. Connector after heat has been applied

Figure 8. Sealed Splice Connections

Return to Service

NOTE

DO NOT perform the following steps until the heated hand grips and all related wiring have been installed according to the procedures outlined in this instruction sheet.

1. Verify that the right grip/throttle sleeve rotates and returns freely and does not bind on the handlebar or switch housing. DO NOT operate the vehicle unless the throttle functions properly.

NOTE

To prevent battery drain, these heated hand grips are designed to function only with the engine running. The hand grips produce peak heat with the engine running at cruising speed.

The heat settings on the heated hand grip control dial range from 1 (minimum) to 6 (peak).

2. Before starting the vehicle, check that the hand grips are not producing heat.
3. Start the engine and check the hand grips at all settings for proper heating.



SERVICE PARTS

is06863

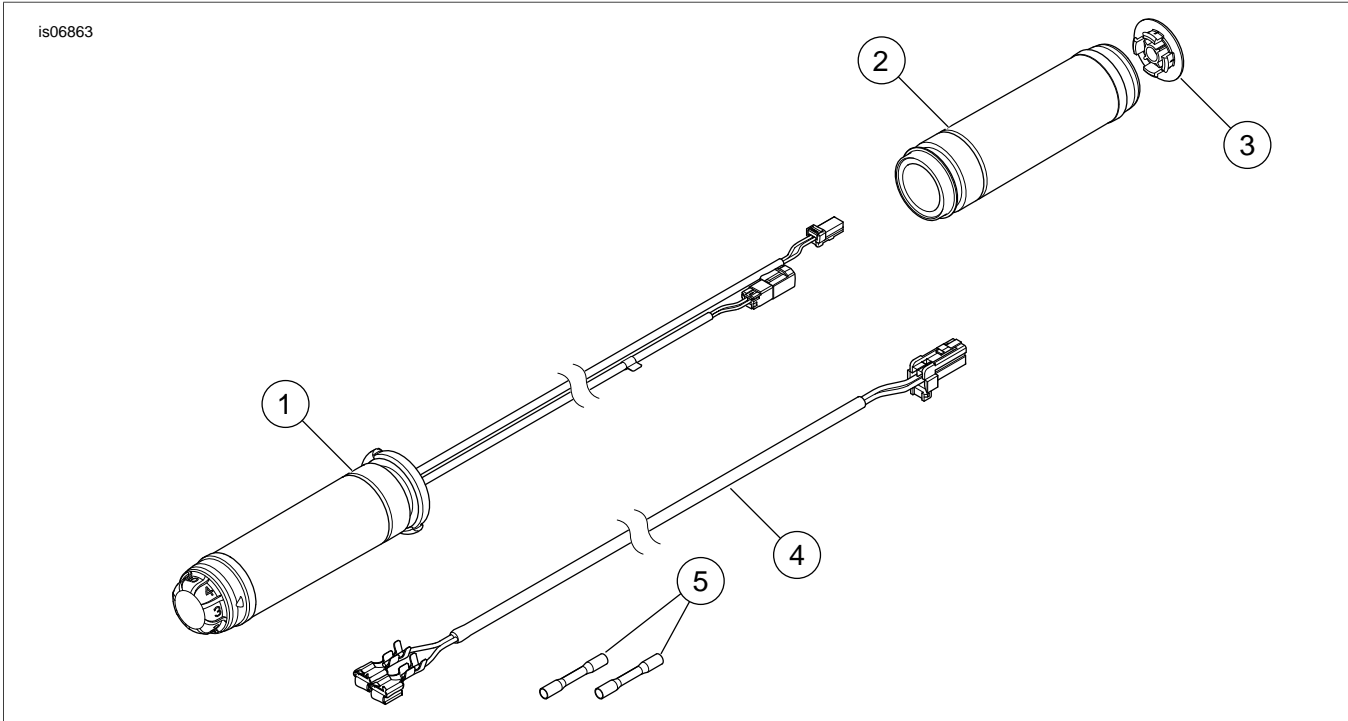


Figure 9. Service Parts, Heated Hand Grip Kit

Table 1. Service Parts

Item	Description (Quantity)	Part Number
1	Left heated handgrip (1)	56209-10
2	Right heated handgrip (1)	56249-10
3	Right heated handgrip cap (1)	56250-10
4	Adapter harness (1)	69200232
5	Splice connector (2)	70586-93

