



INSTRUCTIONS

-J04363

REV. 2008-08-22

ROAD TECH ZUMO GLOBAL POSITIONING SYSTEM (GPS) HANDLE-BAR MOUNT KIT

GENERAL

Kit Number

92365-08

Models

This kit is required when using a Road Tech™ Zumo® GPS unit on specific model motorcycles.

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

This kit **IS NOT** compatible with:

- Auxiliary accessory switch housing kits (left side) 70213-02C or 70248-02B.
- Hand lever bracket clamp-mounted clock 75041-03 or 75042-03, OR thermometer 75102-04 or 75104-04, when mounted on the **clutch lever** bracket.
- Road Tech™ XM Satellite Radio Receiver Kit, Part Number 76390-05A.

Additional Parts Required

A Road Tech Zumo GPS System Kit, part number 92357-08 is required. This item is available from a Harley-Davidson Dealer.

2004 and later XL (Sportster) models will require separate purchase of two screws (Part Number 4669M) to attach the GPS mounting bracket to the clutch lever clamp.

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 this year and model motorcycle is required for this installation and is available from a Harley-Davidson Dealer.

Electrical Overload

CAUTION

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

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)

The Road Tech Zumo requires up to **1.08 amps** additional current from the electrical system.

Kit Contents

See Table 1, Table 2 and Figure 4.

MOUNTING BRACKET AND PLATE INSTALLATION

NOTE

Do not use solvent-based chemicals or waxes directly on the plastic or rubber components as they can affect the overall performance and appearance of the plastic and rubber.

Models with main FUSE:

WARNING

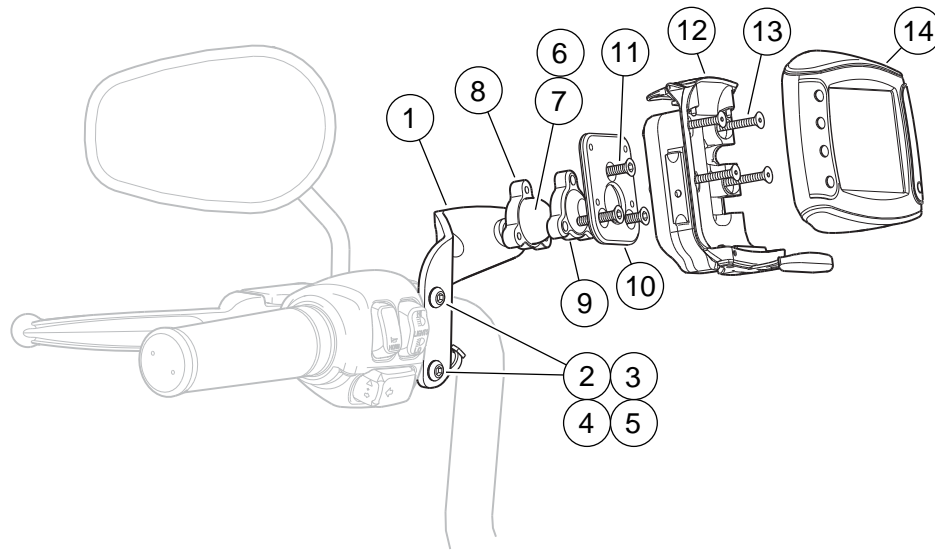
To prevent accidental vehicle start-up, which could cause death or serious injury, remove main fuse before proceeding. (00251b)

1. Refer to the service manual and follow the instructions given to remove the main fuse.

Models with main CIRCUIT BREAKER:

WARNING

To prevent accidental vehicle start-up, which could cause death or serious injury, disconnect battery cables (negative (-) cable first) before proceeding. (00307a)



1. Mounting bracket, GPS
2. Button head cap screw, 1-1/2 inch (38 mm) long (2, without hydraulic clutch)
3. Spacer, 0.47 inch (12 mm) thick (2, without hydraulic clutch)
4. Button head cap screw, 1-3/4 inch (44 mm) long (2, with hydraulic clutch)
5. Spacer, 0.68 inch (17 mm) thick (2, with hydraulic clutch)
6. Ball mount
7. Nylock nut
8. Lower clamp
9. Upper clamp
10. Mounting plate, Zumo GPS
11. Flat head screw, #10 (3)
12. Cradle mount
13. Flat head screw, #8 (4)
14. Road Tech Zumo GPS unit

Figure 1. Handlebar Mounting Bracket and Plate Installation, Road Tech Zumo GPS

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)

1. Refer to the service manual, and follow the instructions given to remove the seat (and the airbox cover on VRSC models). Disconnect the battery cables, negative (-) cable first. Retain all seat mounting hardware.

WARNING

When servicing the fuel system, do not smoke or allow open flame or sparks in the vicinity. Gasoline is extremely flammable and highly explosive, which could result in death or serious injury. (00330a)

2. **ALL models:** Refer to the service manual and follow the instructions given to remove the fuel tank.
3. See Figure 1. Obtain the mounting bracket (1) from the Handlebar Mount Kit.

Models WITHOUT hydraulic clutch, except XL (Sportster): Obtain the two shorter button-head screws (2) and thinner spacers (3) from the Handlebar Mount Kit.

2004 and later XL (Sportster) models: Obtain two M6 x 40 mm long button-head screws (Part Number 4669M,

purchased separately) and the two thinner spacers (3) from the Handlebar Mount Kit.

Models WITH hydraulic clutch: Obtain the two longer button-head screws (4) and thicker spacers (5) from the Handlebar Mount Kit.

4. Remove and discard the original equipment clutch lever clamp mounting screws. Retain the clamp.
5. Insert the button-head screws into the mounting bracket. Place a spacer over the threads of each screw. Insert the screw threads through the holes in the clutch lever clamp removed in step 4, and into the clutch lever housing.
6. Adjust the hand lever position for rider comfort and posture, then tighten the screws to 60-80 **in-lbs** (6.8-9.0 Nm).
7. Obtain the mounting ball (6), lock nut (7) and lower ball clamp (8) from the Handlebar Mount Kit.
8. Insert the mounting ball stud through the holes in the lower ball clamp and mounting bracket. Thread the lock nut onto the stud from behind the mounting bracket, and tighten to 8-12 ft-lb (10.8-16.3).
9. Obtain the mounting plate (10), upper ball clamp (9) and three flat head screws (11) from the Handlebar Mount Kit.
10. Insert the screws into the mounting plate and upper ball clamp as shown.
Place the upper ball clamp over the mounting ball, lining up the holes with those in the lower ball clamp.

Thread the screws into the lower ball clamp, position the mounting plate to a suitable viewing angle and tighten the screws to 3-5 ft-lbs (4.0-6.8 Nm).

CRADLE MOUNT INSTALLATION

1. See Figure 4. Obtain the cradle (26) and four flat head screws (28) from the GPS Kit.
2. Position the cradle mount to the mounting plate (10) with the weather cap (B) at the bottom. Insert a screw through one of the holes in the cradle and into the corresponding threaded hole in the mounting plate, but do not fully tighten.
3. Insert three screws through the remaining holes in the cradle and into the mounting plate holes. Alternately tighten the four screws to 14-20 **in-lb** (1.58-2.26 Nm) .
4. Plug the round 4-pin DIN connector on the Road Tech Zumo harness (29) into the front of the cradle, and fasten securely with the mounting screws (26).

HARNESS ROUTING

NOTE

Route the Road Tech Zumo harness along the outside of the handlebar, even on internally-wired handlebars.

1. Route the unconnected end of the harness as follows:
 - a. Follow the existing wiring from the left-side handlebar switches over to the center of the handlebar.
Use wire ties (22) from the kit to tie the harness in place as you route the harness along the handlebar to the center.
For some models, removal of a handlebar cover, instruments or other accessory items may be necessary. Refer to the service manual or accessory instructions as needed.
 - b. Route the wires down through or alongside the upper fork bracket (triple clamp), past the steering head, and back along the frame backbone toward the seat.
 - c. Locate the main harness chassis ground connection on the frame (or on the rear fork on some earlier XL models). See the service manual for this model and year vehicle for specific location.
Remove the ground screw or nut.
 - d. Select the appropriate ring terminal (16 or 17) from the kit to fit the ground screw or stud.

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 do not pull tight when handlebars are turned fully to left or right fork stops.**
2. Use wire ties from the kit to fasten the Road Tech Zumo harness to the frame or harnesses along the vehicle frame backbone. Check to verify that the harness wires do not pull tight when the handlebars are turned fully to the left or right fork stops.
Cut the black wire on the Road Tech Zumo harness to easily reach the ground location, and crimp the ring ter-

minal to the end of the wire according to the crimping tool instructions in the service manual.

3. Install the ring terminal to the ground connection, and secure per the torque specification in the service manual.

Splicing of wire leads is necessary in the installation of the GPS cradle to the motorcycle. Refer to the service manual for proper wire splicing procedures.

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)

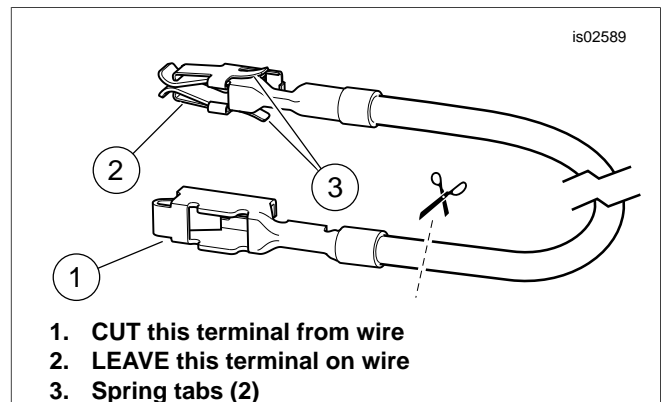
- Avoid directing heat toward any fuel system component. Extreme heat can cause fuel ignition/explosion resulting in death or serious injury.
- Avoid directing heat toward any electrical system component other than the connectors on which heat shrink work is being performed.
- Always keep hands away from tool tip area and heat shrink attachment.

HARNESS CONNECTION

Connect the red wire on the Road Tech Zumo harness to a power source on the vehicle. See the wiring diagram and instructions in the service manual, and proceed to the section that follows for your specific year and model motorcycle.

For 2004 and later Dyna models

1. Remove the electrical caddy from the vehicle per the service manual instructions.
2. Obtain the orange/white fuse block adapter wire (18) from the kit. Note the terminal on each end (see Figure 2). Only the terminal **WITH the spring tabs** will fit into the fuse cavity. Carefully cut the terminal **WITHOUT** spring tabs from the wire and discard it.



1. **CUT this terminal from wire**
2. **LEAVE this terminal on wire**
3. **Spring tabs (2)**

Figure 2. Fuse Block Adapter Wire (Dyna and Softail)

3. Locate the fuse cavity indicated as "OPEN" on the electrical caddy. There should be a wire feeding one side of this circuit, but no mating wire or fuse will be present. Insert the terminal on the orange/white adapter wire until it stops. Refer to a nearby factory-installed terminal for comparison to verify proper orientation and depth.

- Cut the excess length from the red wire **on the Road Tech Zumo harness** to within easy reach of the orange/white adapter wire installed in step 3.

Refer to the warning after **Harness Routing, step 3**, and the service manual. Using the **blue** sealed splice connector (20) from the kit, splice the red wire from the Road Tech Zumo harness to the orange/white adapter wire.

- See Figure 4. Install a 2A fuse (21) from the kit into the OPEN fuse cavity to complete the circuit.
- Install the electrical caddy and cover onto the vehicle per the instructions in the service manual.
- Open the cover of the fuse holder on the Road Tech Zumo harness. Plug the remaining 2 amp fuse (21) from the kit into the fuse holder, and close the cover.
- Check along the entire length of the wiring for rubbing, chafing or pinch points, then proceed to **Final Assembly**.

For 2004 and later Softail models

- Remove the fuse block cover. Remove the two hex head screws fastening the fuse block bracket, and pull the bracket and fuse block assembly away from the motorcycle frame.
- Depress the tab retaining the left-hand fuse block, and slide the block out of the mounting slots.
- Obtain the orange/white fuse block adapter wire (18) from the kit. Note the terminal on each end (see Figure 2). Only the terminal **WITH the spring tabs** will fit into the fuse cavity. Carefully cut the terminal **WITHOUT** spring tabs from the wire and discard it.
- Locate the fuse cavity indicated as "P&A IGN" on the fuse block cover. There should be a wire feeding one side of this circuit, but no mating wire or fuse will be present. Insert the terminal on the orange/white adapter wire until it stops. Refer to a nearby factory-installed terminal for comparison to verify proper orientation and depth.

- Cut the excess length from the red wire **on the Road Tech Zumo harness** to within easy reach of the orange/white adapter wire installed in step 4.

Refer to the warning after **Harness Routing, step 3**, and the service manual. Using the **blue** sealed splice connector (20) from the kit, splice the red wire from the Road Tech Zumo harness to the orange/white adapter wire.

- See Figure 4. Install a 2A fuse (21) from the kit into the P&A IGN fuse cavity to complete the circuit.
- Slide the fuse block into the mounting slots in the fuse block bracket until it clicks firmly into place. Place the bracket and fuse block assembly into position, and fasten with the two hex head screws removed earlier. Tighten securely. Install the fuse block cover.
- Open the cover of the fuse holder on the Road Tech Zumo harness. Plug the remaining 2 amp fuse (21) from the kit into the fuse holder, and close the cover.
- Check along the entire length of the wiring for rubbing, chafing or pinch points, then proceed to **Final Assembly**.

For 2004 and later FL Touring models

- For 2008 and later models:** Remove the left-hand side cover per the service manual instructions.

For 2007 models: Remove the right-hand side cover per the service manual instructions.

For 2004 through 2006 models: Remove the left-hand side cover per the service manual instructions.

- ALL models:** Remove the main fuse holder, fuse block and dust cover from the vehicle per the service manual instructions.
- Obtain the orange/white fuse block adapter wire (18) from the kit.

For 2008 and later models: Note the terminal on each end (see Figure 3, **upper view**). Only the terminal **WITHOUT the spring tabs** will fit into the fuse cavity. Carefully cut the terminal **WITH** spring tabs from the wire and discard it.

For 2007 models: Note the terminal on each end (see Figure 3, **lower view**). Only the terminal **WITH the spring tabs** will fit into the fuse cavity. Carefully cut the terminal **WITHOUT** spring tabs from the wire and discard it.

For 2004 through 2006 models: Note the terminal on each end (see Figure 3, **upper view**). Only the terminal **WITHOUT the spring tabs** will fit into the fuse cavity. Carefully cut the terminal **WITH** spring tabs from the wire and discard it.

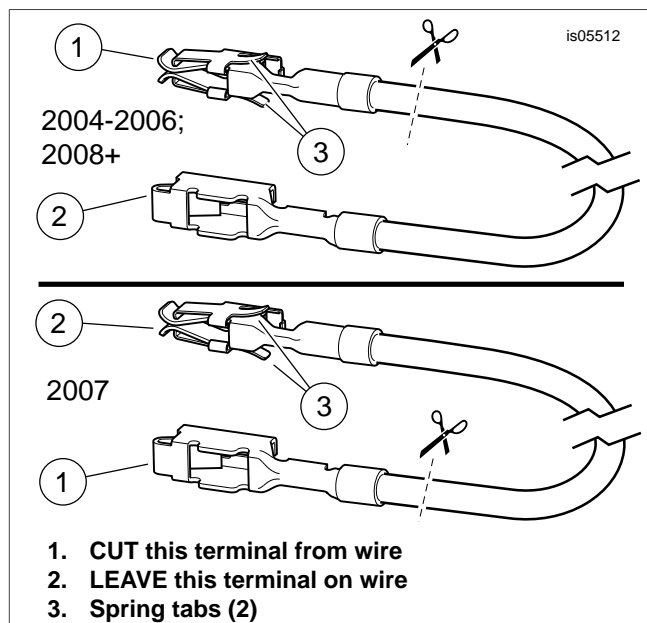


Figure 3. Fuse Block Adapter Wire (FL Touring)

- ALL models:** Locate the fuse cavity indicated as "P&A IGN" "2A MAX". There is a bus bar feeding one side of this circuit, but no mating wire or fuse will be present. Remove the three existing fuses in this row, noting their location.
- Gently remove the orange plastic secondary lock from the fuse block. Insert the terminal on the orange/white adapter wire until it stops. Refer to a nearby factory-installed terminal for comparison to verify proper orientation and depth. Install the secondary lock.
- Cut the excess length from the red wire **on the Road Tech Zumo harness** to within easy reach of the orange/white adapter wire installed in step 5.

Refer to the warning after **Harness Routing, step 3,** and the service manual. Using the **blue** sealed splice connector (20) from the kit, splice the red wire from the Road Tech Zumo harness to the orange/white adapter wire.

7. See Figure 4. Install a 2A fuse (21) from the kit into the P&A IGN fuse cavity to complete the circuit.
Install the three fuses removed in step 4 into the proper cavities.
8. Install the dust cover onto the fuse block, and install the fuse block and main fuse holder per the instructions in the service manual.
9. Open the cover of the fuse holder on the Road Tech Zumo harness. Plug the remaining 2 amp fuse (21) from the kit into the fuse holder, and close the cover.
10. Check along the entire length of the wiring for rubbing, chafing or pinch points, then proceed to **Final Assembly**.

For 2004 and later VRSC or XL models

1. **VRSC models:** Locate the orange/white wire on the vehicle harness that leads to the HDI position lamp [29].
XL models: Locate the orange/white wire on the vehicle harness that leads to the rear lighting connector [7] under the seat.
2. **BOTH models:** Cut the **vehicle harness** orange/white wire in a location that will allow easy stripping and splicing to the red wire on the **Road Tech Zumo** harness.
3. Cut the excess length from the red wire on the **Road Tech Zumo** harness to within easy reach of the orange/white vehicle harness wires cut in step 2.
4. See Figure 4, the warning after **Harness Routing, step 3,** and the service manual. Using the **red** sealed splice connector (19) from the kit, splice the red wire together with the orange/white wires cut in step 2.
5. Open the cover of the fuse holder on the Road Tech Zumo harness. Plug the remaining 2 amp fuse (21) from the kit into the fuse holder, and close the cover.
6. Check along the entire length of the wiring for rubbing, chafing or pinch points, then proceed to **Final Assembly**.

For ALL 2003 or earlier models

1. Locate the orange/white wire on the vehicle harness that leads to the rear lighting connector [7] under the seat.
2. Cut the **vehicle harness** orange/white wire in a location that will allow easy stripping and splicing to the red wire on the **Road Tech Zumo** harness.
3. Cut the excess length from the red wire on the **Road Tech Zumo** harness to within easy reach of the orange/white vehicle harness wires cut in step 2.
4. See Figure 4, the warning after **Harness Routing, step 3,** and the service manual. Using the **red** sealed splice connector (19) from the kit, splice the red wire together with the orange/white wires cut in step 2.
5. Open the cover of the fuse holder on the Road Tech Zumo harness. Plug the remaining 2 amp fuse (21) from the kit into the fuse holder, and close the cover.
6. Check along the entire length of the wiring for rubbing, chafing or pinch points.

FINAL ASSEMBLY

WARNING

When servicing the fuel system, do not smoke or allow open flame or sparks in the vicinity. Gasoline is extremely flammable and highly explosive, which could result in death or serious injury. (00330a)

1. Install the fuel tank. Refer to the service manual.
2. Verify that the Ignition/Light Key Switch is turned to the OFF position.

Models with main FUSE: Refer to the service manual and follow the instructions given to install the main fuse.

Models with main CIRCUIT BREAKER: Apply a light coat of Harley-Davidson electrical contact lubricant (part number 99861-02), petroleum jelly or corrosion retardant material to the battery terminals. Refer to the service manual and follow the instructions given to attach the battery cables (positive cable first).

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)

CAUTION

Do not over-tighten bolts on battery terminals. Use recommended torque values. Over-tightening battery terminal bolts could result in damage to battery terminals. (00216a)

3. Install the seat following the instructions in the service manual.

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)

ROAD TECH ZUMO UNIT INSTALLATION TO CRADLE MOUNT

1. Obtain the Road Tech Zumo unit (23) from the GPS Kit.
2. Flip the lever (C) on the cradle mount (26) up. Flip the weather cap (B) open.
3. Position the Road Tech Zumo unit into the cradle mount, and flip the lever (C) down.
4. Use the security screwdriver (27) to tighten the security screw (D).

ROAD TECH ZUMO UNIT OPERATION

NOTES

Do not use solvent-based chemicals or waxes directly on the plastic or rubber components as they can affect the overall performance and appearance of the plastic and rubber.

Refer to the instructions that came with the Road Tech Zumo.

SERVICE PARTS

Table 1. Service Parts, Road Tech Zumo Handlebar Mount Kit

Item	Description (Quantity)	Part Number
1	Bracket, mounting, Road Tech Zumo	Not sold separately
2	Cap screw, button head, 1/4-20 x 1-1/2 inch (38 mm) long (2)	2519
3	Spacer, 0.47 inch (12 mm) thick (2)	5854
4	Cap screw, button head, 1/4-20 x 1-3/4 inch (44 mm) long (2)	3129
5	Spacer, 0.68 inch (17 mm) thick (2)	5884
6	Ball mount	Not sold separately
7	Nut, Nylock, 3/8-16	7667
8	Clamp, lower	Not sold separately
9	Clamp, upper	Not sold separately
10	Mounting plate, Zumo GPS	Not sold separately
11	Screw, hex socket, flat head, #10-24 x one inch (25 mm) long (3)	Not sold separately
12	Earphone Kit (includes items 13 and 14)	91771-04
13	• Earphone	Not sold separately
14	• Cable, extension	Not sold separately
15	Clip, adhesive-backed (3)	10271
16	Ring terminal, #18-22 AWG (1/4 inch stud)	9858
17	Ring terminal, #18-22 AWG (5/16 inch stud)	9859
18	Fuse block adapter wire	70329-04
19	Sealed splice connector, #18-20 AWG (red)	70585-93
20	Sealed splice connector, #14-16 AWG (blue)	70586-93
21	Fuse, blade type, 2A (2)	54305-98
22	Wire tie (10)	10006

SERVICE PARTS

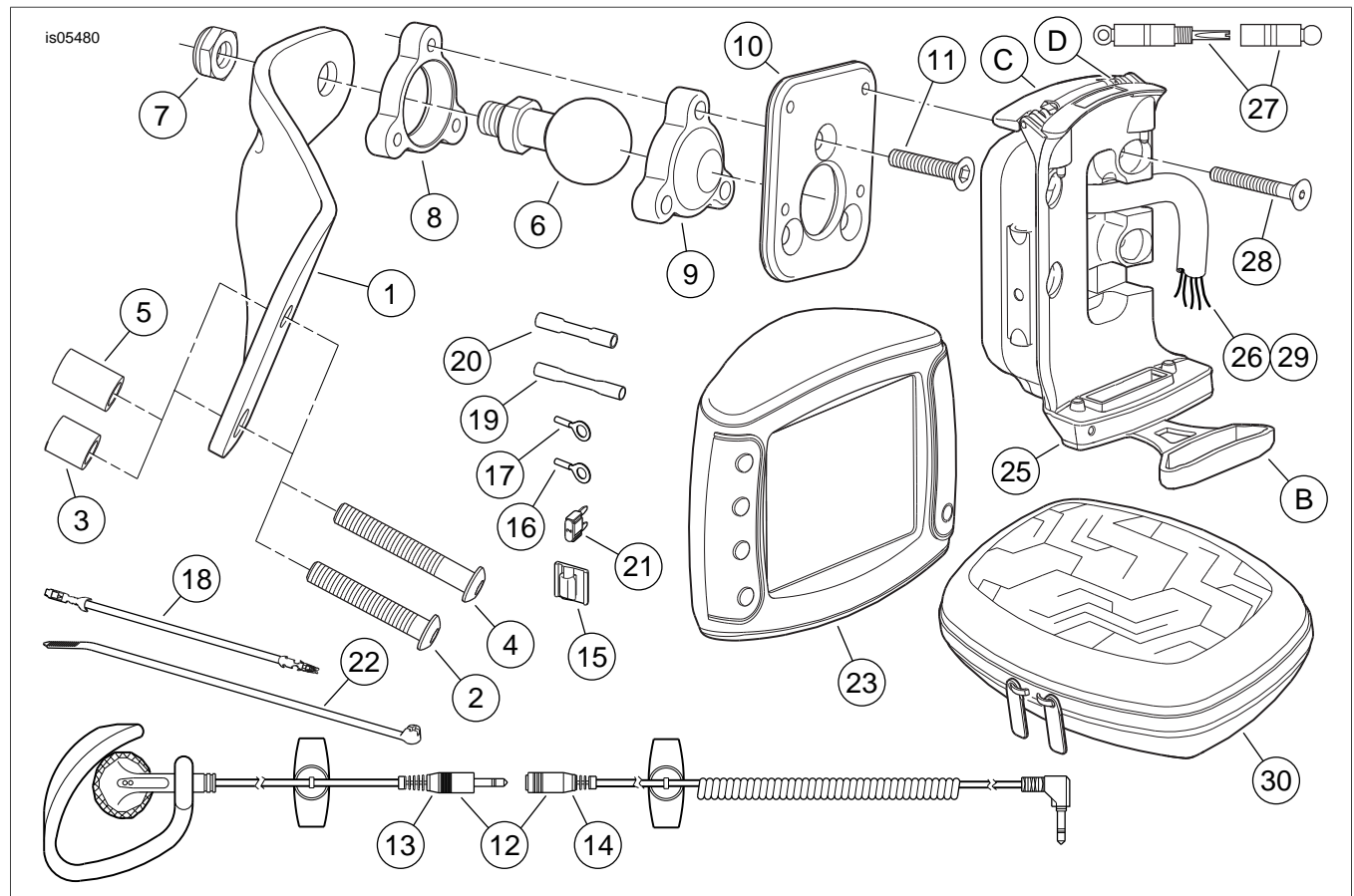


Figure 4. Service Parts, Handlebar Mount and Zumo GPS Kits

Table 2. Service Parts, Road Tech Zumo GPS Kit

Kit	Item	Description (Quantity)	Part Number
Kit 92357-08 Road Tech Zumo GPS,	23	Road Tech Zumo unit	Not sold separately
	24	A/C charger (not shown)	See garmin.com
	25	Cradle mount service kit (includes items 26 and 27)	92379-08
	26	• Harness screw, M2 x 3.5 mm (2)	See garmin.com
	27	• Screwdriver, security	See garmin.com
	28	Screw, hex socket flat head, #8 x 1.25 inch (32 mm) long (4)	3098
	29	Harness assembly, Road Tech Zumo	See garmin.com
	30	Carrying case	92156-08
	31	PCB/USB cable (not shown)	See garmin.com
	32	User's manual, Road Tech Zumo (not shown)	See garmin.com
	33	Audio cable (not shown)	92389-08
	Reference items mentioned in text:		
	A	Harness, Road Tech Zumo	
	B	Weather cap	
	C	Lever	
	D	Security screw	