

# COBRA<sup>by</sup>

## *Ground Effects* **Installation Instructions** **Revised 1 – 1 – 06**

- 2 - Front mount clamp
  - 2 - 3/8-16 x 1 1/4 hex head cap screw
  - 2 - 3/8 flat washer
- 2 - Lower front mount
  - 4 - 1/4-20 nyloc nut
  - 4 - 1/4-20 x 1 hex head cap screw
  - 4 - 1/4 flat washer
  - 4 - 1/4 x 1 1/4 fender washer
- 2 - Middle mount (1 left / 1 right)
  - 2 - M8x1.25 x 50 button head socket cap screw
  - 2 - M8x1.25 nyloc nut
  - 2 - M8 flat washer
- 2 - Middle Mount Wing (1 left / 1 right)
  - 2 - 1/4-20 X 3/4 #3 ribbed elevator bolt
  - 2 - 1/4-20 x 3/4 hex head cap screw zinc
  - 4 - 1/4-20 nyloc nut
  - 6 - 1/4 flat washer
- 4 - 1/4-20 x 1 hex head cap screw
- 4 - 1/4-20 nyloc nut
- 8 - 1/4 flat washer
- 1 - Wiring harness
- 4 - butt connector
- 2 - Scotch-lok
- 1 - Mini Fuse, 10 amp

**ALL ORDERS ARE DOUBLE CHECKED  
TO ELIMINATE SHIPPING ERRORS.**

FILLED BY: \_\_\_\_\_

CHECKED/PACKED BY: \_\_\_\_\_

FOR INSTALLATION ASSISTANCE, CALL PARTS & SERVICE @ 434.263.8866

### **IMPORTANT**

The California Sidecar *Ground Effects* are designed to fit the California Sidecar GL1800 Trike Conversion Kit only. They are **NOT** intended to support the standing weight of the rider or the passenger.

The *Ground Effects* are designed and intended to **ONLY ACCOMMODATE THE STOCK (HONDA FACTORY) GL1800 RIDER FOOTRESTS**. **AFTERMARKET "RUNNING BOARDS" ARE NOT COMPATIBLE WITH THIS ACCESSORY, AND USE OF ANY SUCH ITEMS MAY RESTRICT OR BLOCK THE REAR BRAKE PEDAL RESULTING IN LOST OF BRAKING ABILITY, CAUSING SERIOUS INJURY OR DEATH.**

#### **Wiring Installation:**

1. Remove the four M8x1.25 socket head cap screws from the seat and remove the passenger handles and seat.
2. Remove both rear side covers, and right front side cover.
3. Remove the two M3 Phillips head screws and two trim clips from the right front storage pocket.
4. Place the three relays of the *Ground Effects* wiring harness underneath the relay box.
5. Route the long end of harness (blue wire and orange wire), behind the fuel tank to the brake lines. The shorter section of the harness will end at the brake lines. Continue along the brake lines to the main harness of

the motorcycle to the shelter, then up through the shelter to the pocket area.

- 6. Locate the harness connectors under the pocket.**
- 7. Connect the orange wire to orange wire with white tracer using a scotch-lok connector. Connect the blue wire to light blue wire with white tracer using a scotch-lok connector.**
- 8. Route the white and black wires behind the fuel tank, along the left side wiring harness to the fuse box.**
- 9. Connect the white wire with eyelet connector attached, to the positive side of the accessory terminal in the fuse box.**
- 10. Connect the black wire to the negative battery terminal.**
- 11. Connect the other white wire to the brown wire w/ tracer (tail relay in relay box) using a scotch-lok connector.**
- 12. Route the orange wire with black tracer and the white wire behind the fuel tank, with at least 6 inches of wire left hanging below the bike.**
- 13. Reinstall the right fairing pocket with the two M3 Phillips head screws and two trim clips.**
- 14. Replace the right front side cover and the right and left rear side covers.**
- 15. Replace the seat and passenger grip handles with the four M8 x 1.25 socket head cap screws.**

### **Ground Effects Installation:**

- 1. Remove center stand.**
- 2. With side stand in the up position, remove side stand switch, and secure the switch in the “up” position with a cable-tie to prevent it from rotating.**

3. Secure the wiring and switch away from moving parts.
4. Remove the side stand.
5. **Front mounts – (left & right)**
  - a. Install clamp on rear tube of engine guard, with weld nut facing forward.
  - b. Tighten four 6mm button head cap screws.
  - c. Compress clamp flats with pliers allowing enough gap to insert lower front mount with foot facing rear.
  - d. Align holes and install 3/8-16 x 1 1/4 hex head cap screw. Do not tighten.
6. **Middle mounts – (left & right)**
  - a. Remove front foot rest clevis pin & replace with M8x1.25 x 50 button head cap screw.
  - b. Attach middle mount bracket to bolt at bottom/rear of foot rests on right and left sides, and secure using washer and nyloc nut.  
**IMPORTANT:** On right side, align nut so it does not touch brake lever. Bracket will slide between foot brake lever and body skin.
  - c. Install middle mount wings (left & right), with tabs facing front, to brackets with 1/4-20 x 3/4" hex head cap screws, installing bolt from rear. Use two 1/4" washers (see diagram p. 2) with 1/4 -20 nyloc nut, but do not tighten yet.

**Note:** Complete steps 7 – 13 for right and left sides.

7. Lay ***Ground Effects*** into place on middle mount wings, aligning to fender ensuring that the rear mating edge is level and the fiberglass bracket is contoured to the

fender. Clamp bracket to fender (Vise-Grip®6-sp works well).

**Note:** In order to achieve optimum fit, you may find it necessary to grind slightly where the **Ground Effects** meet the fender.

8. Adjust front of **Ground Effects** so there is  $\frac{1}{4}$ " or less gap between **Ground Effects** edge and lower cowl.
9. Holding this position, mark location of two lower front mount holes to the **Ground Effects**.
10. Remove clamp at rear and remove **Ground Effects**.
11. Drill two  $\frac{1}{4}$  " holes at marked location.
12. Remove lower front mount from clamp and attach to **Ground Effects** (foot to rear) with two  $\frac{1}{4}$  -20 x 1 hex head cap screws with  $\frac{1}{4}$  washers. Use  $\frac{1}{4}$  x 1  $\frac{1}{4}$  fender washers and  $\frac{1}{4}$ -20 nyloc nuts on the underside.
13. Place **Ground Effect** in position and clamp rear to fender as in step 3.
14. Insert lower front mount between flats of clamp and install  $\frac{3}{8}$ -16 x 1  $\frac{1}{4}$  hex head cap screw and  $\frac{3}{8}$  washer. Adjust **Ground Effect** location as in step 4, and tighten.

## 15. Rear mounts

- a. With clamp still in place, drill two  $\frac{1}{4}$  " holes 3" up from bottom edge of fender ensuring holes go through fiberglass bracket approximately 1" from each side of bracket.
- b. Install two  $\frac{1}{4}$  -20 x 1 hex head cap screws, pointing forward, with the bolt head on the inside of the trike body fender well. **DO NOT INSTALL the bolt with the threads inside the fender well.** Secure

with 1/4 washers and 1/4-20 nyloc nuts. Do not over tighten. Remove clamp.

**16. Middle mount wings**

- a. If required, lift left wing so it contacts underside of **Ground Effect** and tighten 1/4 -20 x 3/4" hex head cap screws.
- b. Fold back unglued portion rubber mat, and drill 1/4" hole through **Ground Effect** from underneath using the hole in wing mount.
- c. Insert 1/4-20 flat head elevator bolt from top and secure with 1/4 washer and 1/4-20 nyloc nut. Do not over tighten.
- d. Secure rubber mat with contact cement or upholstery adhesive.
- e. Repeat steps a thru d for right side.

**17. Ensure free movement of foot brake lever and gear shift lever.**

**18. Drill a 3/16" hole on each side of the trike body, above the mufflers but underneath the **Ground Effect**, to run the wiring harness with relays through.**

**19. Connect the left **Ground Effect** wiring harness to the installed wiring harness. The white wire to the white wire, and the orange wire with a black tracer to the black wire with butt connectors.**

**20. Connect the right **Ground Effect** wiring harness to the installed wiring harness. The white wire to the white wire, and the blue wire with a black tracer to the black wire with butt connectors.**

**21. Change the 5 amp (yellow) Accessory fuse to a 10 amp (blue) fuse.**

**22. Test the cornering lights to ensure that the lights operate with the appropriate turn signal, and the light remains illuminated until the turn signal is cancelled.**

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