

Builders Battery Box

Please read through entire instruction list prior to fabbing.

- 1. Wear gloves to keep from getting cut on sharp edges.
- 2. Determine which side of battery box you want to face out. Face this side away from you for bending. (Figure 1)
- 3. Using some force, pull one flap up at a time towards you bending until you reach 90°. (Figure 2)
- 4. If you have a box with the entire center cut out of the flap, take care when bending (leave until last). Bend the three most rigid flaps first leaving the flimsiest until last. If you try to bend this side by hand, often times, the side legs will bend prior to the box bending where it's supposed to. You have two options to bend this flap; **OPTION** 1: use an adjustable wrench to bend OR **OPTION 2**: place this side down on a flat surface to spread out the force and bend.
- Option 1: Adjust wrench so the opening is the same as the thickness of your box (1/8"). Place the adjustable wrench near leg to be bent. Rotate wrench handle up bending each leg a little bit at a time until you reach 90°. (Figure 3)
- 6. **Option 2:** Place the flap to be bent against a flat firm surface. The battery box with the three bent sides will be facing your torso. Press down firmly putting pressure on the flat side to be bent. While pressing down, simultaneously rotate box until bent 90°. (**Figure 4**)
- After all four sides are bent to 90°, double check that each side is square prior to welding. (Figure 5) Once happy with your bends, tack each corner in two spots, top and bottom. After you're finished with the tacks, weld each corner with a MIG or TIG welder. (Figure 6) Grind welds smooth or leave unfinished, whichever you prefer. (Figure 7)

Securing Battery with the Top Clamp

- 1. We manufacture two types of battery boxes, each having a different method of securing your battery. If you purchased the mechanical type (cross bar with wing nuts), there will be some additional welding involved.
- 2. Simply locate the center of the left and right sides of battery box and make a centerline mark. If you don't want to run the top clamp perpendicular to the battery box, you don't have to, you can always put it on an angle for a different look.
- 3. Next, position the coupling nut so the top of the nut is slightly below the top edge of the battery box.
- 4. Clamp the coupling nut into plate and weld. **TIPS:** Prior to welding, use the piece of bolt rod as a guide to see if the coupling nut is straight. After welding, you may need to chase the threads with a 5/16"-18 tap.

Securing the Battery with a Belt or Velcro Strap

- 1. Some of our battery boxes are designed to secure the battery with a belt or strap of your choice. This is a very easy way to add detail to your bike.
- 2. A great way to secure the belt to itself is with brass or aluminum sex bolts. These can be purchased at any decent hardware store. You also have the option of hand sewing as well.
- 3. Drill the belt and secure with at least two sex bolts on both the front and rear of the box.

Mounting

- 1. You have a multitude of options to mount this battery box. There are no pre-drilled holes in the box, so you are on your own to determine placement of these holes. These boxes are designed to mount on the bottom or the back of the box. If welded properly, they are more than strong enough take any abuse you can throw at them.
- 2. You will notice that there are scalloped areas on both the bottom and back of the box. These areas are there for drilling and bolting.
- 3. We recommend that you thru bolt the box with at least $(4) \frac{1}{4}$ -20 bolts.

Figure 1



Figure 3



Figure 5

Figure 2



Figure 4



Figure 6



Figure 7





Figure 8

