# Installation Instructions

**Bracket Kit: BK50BS & BK51BS**  
For use with Fender Series: FH55 & FH67 Half Fenders

## Step 1 – Unbox your bracket kit

<table>
<thead>
<tr>
<th>Description</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swivel Bracket</td>
<td>4</td>
</tr>
<tr>
<td>Bracket Tube</td>
<td>2</td>
</tr>
<tr>
<td>Center Bracket Arm</td>
<td>2</td>
</tr>
<tr>
<td>Center Bracket Riser</td>
<td>2</td>
</tr>
<tr>
<td>5/8&quot; x 2 3/4&quot; Zinc Flange Bolt</td>
<td>4</td>
</tr>
<tr>
<td>5/8&quot; Flange Nut</td>
<td>4</td>
</tr>
<tr>
<td>1/2&quot; x 2 1/4&quot; Black Flange Bolt</td>
<td>4</td>
</tr>
<tr>
<td>1/2&quot; Flange Nut</td>
<td>2</td>
</tr>
<tr>
<td>5/16&quot; x 1&quot; Zinc Serrated Flange Bolt</td>
<td>6</td>
</tr>
<tr>
<td>5/16&quot; x 1&quot; Black Flange Bolt</td>
<td>12</td>
</tr>
<tr>
<td>5/16&quot; Zinc Flange Lock Nut</td>
<td>12</td>
</tr>
<tr>
<td>5/16&quot; x 1.25&quot; Zinc Fender Washer</td>
<td>6</td>
</tr>
<tr>
<td>Plastic End Cap</td>
<td>6</td>
</tr>
<tr>
<td>Foam Spacer Block</td>
<td>1</td>
</tr>
</tbody>
</table>

## Step 2 – Measure your suspension travel

This is important as you will be mounting your fenders with the **air up**. This will assure that you have proper spacing between your fender and tires to prevent rubbing. An aired up install also assures that your wheels will be centered within the fender and that you have proper fifth wheel clearance. Mounting with the air down will often times lead to an uncentered fender once you air up.

- **A.** First dump the air from your suspension and confirm you are at the lowest point of travel.
- **B.** Measure from the ground up to a point on the frame behind the front drive axle
- **C.** Now air up your suspension and measure from the ground to the same point; keep your truck aired up as you will be mounting your fenders with the air up.
- **D.** Subtract the aired down measurement from the aired up measurement to get your total travel
- **E.** Add .75” to 1” to your total travel. If your tires are excessively worn add the difference of new tread depth versus current tread depth. **See Example Below**

### Spacer Calculation

- **29” Air Up**
- **- 28” Air Down**
- **1” Frame Travel**
- **1” Frame Travel**
- **+.75” to 1” for gap when air is down**
- **.25” Tire Wear** (in this example)
- **2” to 2.25” Spacer Needed**

Most trucks will require a spacer of 2 inches to 3.5 inches. We include spacer blocks that are 2” if laid flat or 3.5” on edge. If you need less or greater space you can easily trim or add to your spacer block.
Step 3 – Install your spacers.
A. Tape your foam spacer block on the top crown of your tire. Based on the space needed either tape your spacer block flat as shown in the Figure 3.1 or on its edge for a spacing over 2 inches. Remember you may have to trim the spacer block based on your calculation in Step 2.

Step 4 – Place the fender on the Foam Spacer Block.
A. With the fender sitting on the foam block slide it forward or backward to its desired position. If working alone tape the fender to the tire to hold it in place. Having everything exactly straight and level isn’t import at this stage. See Figure 4.1

Step 5 – Locate Mounting Positions on the Frame
A. First construct the rear mounting bracket assembly by using a Bracket Swivel, Rear Bracket Arm & Rear Bracket Riser. Attach the Rear Bracket Arm to the Swivel using the ½” Black Flange Bolt and ½” Zinc Flange Nut. Tighten so it will barely swivel. Next attach the Center Bracket Riser using three 5/16” Black Flange bolts and lock nuts. Hand tighten so Bracket Riser will slide up and down on center bracket. Note the riser piece is in its lowest position as shown in Figure 5.1.
B. Position the rear mounting bracket assembly under the half fender on the back side of your front drive axle. Locate a frame bolt along the top row of Huck bolts to remove in order to bolt the rear assembly to the frame. Keep in mind you want this assembly near the back of the fender. See Figure 5.2
C. Attach the mounting tubes to the swivels with the supplied ½” bolts. Identify an existing hole or frame bolt location where the tube will reach the fender and be within 10” or less from the bottom of the fender. See Figure 5.3 and Figure 5.4 Note: you can rotate the swivel bracket 360˚, so finding multiple mounting locations should be easy.
Step 6 – Bolt on Swivels.
A. Remove the identified Huck Bolts for front and rear swivels. Next, attach your rear bracket assembly. Position the swivel vertically where it will mate to the fender in the desired position. Torque the 5/8" grade 8 bolt and nut to 160 ft./lbs using a thread locker (we recommend Permatex® Orange)
B. Level your rear riser with your foam spacer block and secure the three nuts and bolts to secure riser height. See Figure 6.1
C. Place your fender back on the rear riser and foam spacer block. You can now place the fender precisely where you want it.
Step 7 – Attach the Front Half of the Fender to Mounting Tube:

A. Rotate the fender tube until the threaded inserts face the fender ribs. Snug the ½” bolt on the mounting tube attached to the swivel bracket, and keep the tube from rotating as you do this. See Figure 7.1

B. Mark the hole locations with a line across the top of each threaded insert and a small vertical line on each center. See Figure 7.2 & 7.3. Align the top of a 3/8” drill bit to the bottom and center of the mark you made for each hole and drill a hole through the fender. See Figure 7.4

C. Using the supplied 5/16” x 1” zinc bolts and fender washers, attach the fender to the mounting tube (washers go on the inside of the fender). Be sure to use an appropriate thread locking compound such as Loctite, Permatex, etc.

D. Tighten the ½” bolt which connects the mounting tube to the swivel bracket. Be sure to use an appropriate thread locking compound such as Permatex Orange

E. Install your plastic end caps in your swivels and front fender tube.

Repeat these steps on the other side

We appreciate your business!!!

If you need help with your installation, please call 800-735-6510