



103143 – BRKT-K,SS4850,SST

Fender Mounting Instructions for Minimizer Series 9021, 4021, and TR4021

Table 1 –Bill of Materials

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	PB5015	BRKT,5015,STL,SWVL,4.25,BLK	2
2	101461	BRKT,TUBE,SST,26L	2
3	100234	BRKT,CNTR,PE,SPRSNGL,17	2
4	PB5067	BRKT,5067,STL,CNTR,ANGL	2
5	PBRDR111069	HDWR,CAP,PE,BLK	2
6	101546	HDWR-K,4.5ASSY,RBZ	2
7	101551	HDWR-K,2.5ASSY,RBZ	2
8	100212	BRKT,CNTR,STL,BLK,16L	2
9	101552	HDWR-K,5069,RBZ	2
10	101554	HDWR-K,5071,RBZ	2
11	PB5053	BRKT,5053,GLV,CLMP,TUBE	1
12	PB100H	HDWR-K,U-BLT,SST	1
13	XBKT	BOX,32X8X7,CRBRD,ECT44,MNZR	1
14	XLINER	BOX,20X7X0,CRBRD,ECT32	2

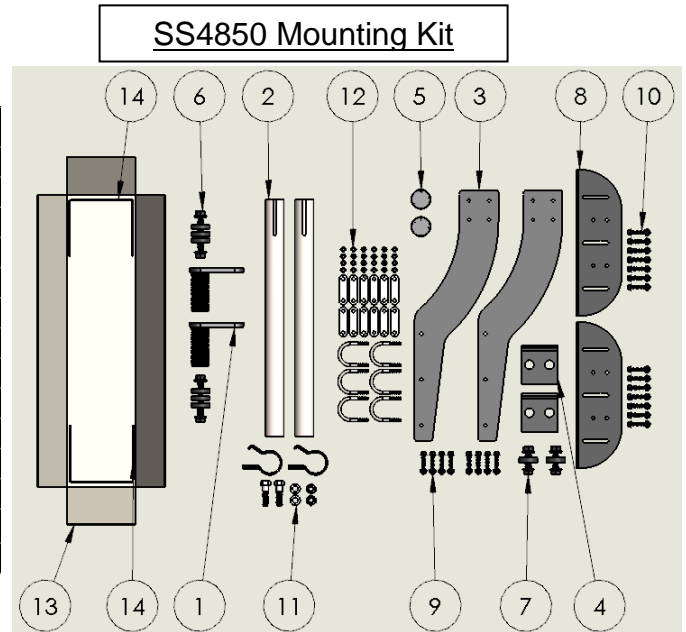


Figure 1

STEP 1

- A. Unpack all cartons and lay out parts shown in Figure 1.
- B. Reference Table 1 and Figure 1 above to identify the parts and confirm quantities.

STEP 2

- A. Measure the suspension travel. This measurement is used to determine the clearance distance required between the fender and the wheel.
 - a. For air suspension systems, let the air out of the air bags.
 - b. For spring systems, measure from the stops on the springs to the bottom of the frame.

NOTE: For air suspensions with travel exceeding 6”:

In some cases a travel stop may need to be installed to reduce excessive clearance between fenders & tires. This will help with alignment and 5th wheel plate clearance. (Please call Minimizer @ 800-248-3855 for questions regarding this issue).

- B. Raise the fenders $\frac{3}{4}$ " above the maximum travel point of the suspension system. The purpose of the gap is to ensure the fender does not rub on the tire. A gap larger than $\frac{3}{4}$ " may be necessary if the tires are worn.



Figure 2

TIP: Establish the minimum gap required in Step 2B.

- a. For an air suspension system place a $\frac{3}{4}$ " thick board on top of the tires (Figure 2). Next, release the air out of the airbags and place the fender on top of the board

- b. For trucks with a spring suspension system, add $\frac{3}{4}$ " to the measurement from Step 2A.

STEP 3

A. Position the fenders exactly where they will be mounted

- a. Visually pick and mark the locations that the brackets will bolt or weld to the frame (depending on mounting kit).

B. If possible, position the mounting brackets so they are located within 15" of the bottom of the fender. This guards against wind blowing the leading edge of the fender back into the tire (Figure 3).

Tip : If the front fender bracket is mounted higher than 15", refer to:
<http://www.minimizer.com/instructions.html> for further suggestions on adding additional support.

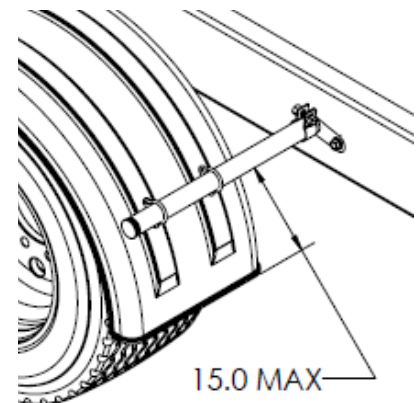


Figure 3

C. Try to use existing holes in the frame to attach the fender brackets. It is possible to remove any existing frame bolt and replace it with the supplied bolt in the bracket kit. If possible avoid placing brackets directly on suspension shackle mounting bolts.

D. Spacers are provided to bring the steel swivel away from the frame in the event of any obstructions (Figure 3).

- a. The ideal setup is to mount the steel swivel directly to the frame.

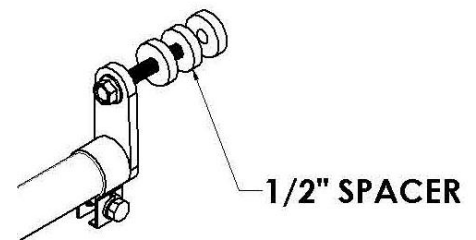


Figure 4

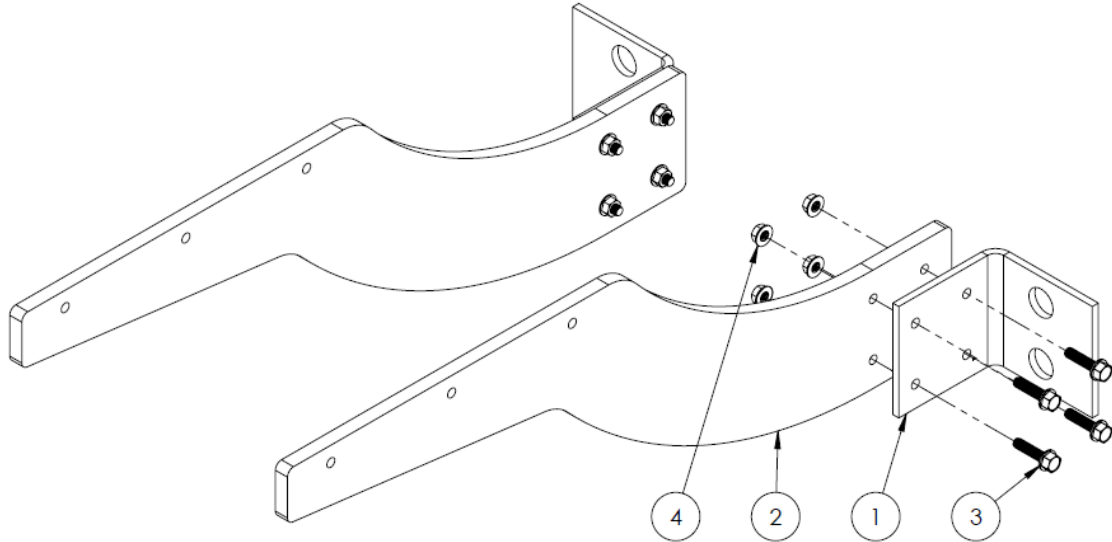
NOTE: Use spacers only when necessary.

E. Assemble the center bracket assembly (refer to figure 5).

- a. Assemble a left hand and right hand arm assembly as shown in Figure 5.

- i. **Note: the head of the bolt must be on the metal plate side. Placing the serrated edges of bolt head against the plastic will damage the plastic arm.**

- ii. **Recommended torque for all 5/16” hardware is 10-15 ft-lbs.** Overtightening the hardware will damage the plastic arm and could cause it to fail.
- iii. If the locknut is ever loosened after the initial installation it is highly recommended to replace the locknut.



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	PB5067	BRKT,5067,STL,CNTR,ANGL	2
2	100234	BRKT,CNTR,PE,ARM,SPRSNGL	2
3	I31C125BSF/RBZ	HDWR,HHCS,RBZ,SERR,5/16-18X1.2	8
4	I31CNCF/RBZ	HDWR,NUT,RBZ,FLNG-LOCK,5/16-18	8

Figure 5

F. Install center bracket assembly. Try to use existing holes in the frame to bolt through. It is possible to remove any existing frame bolt and replace it with the supplied bolt in the bracket kit. If possible avoid placing brackets directly on suspension shackle mounting bolts.

- a. **Recommended torque for the 5/8 x 2-1/2” bolt is 110-115 ft-lbs.**

G. Install the center bracket as close to the end of the fender as possible (Figure 6).

- a. Drill three 5/16” holes through the fender using the holes in bracket 100234 as a guide.
- b. Use three 5/16” x 1 ¼” bolts to bolt the center bracket and fender together.
- c. Use 5/16” body washers and 5/16” nuts provided with the kit on the inside of the fender. **Recommended torque for all 5/16” hardware is 10-15 ft-lbs.**

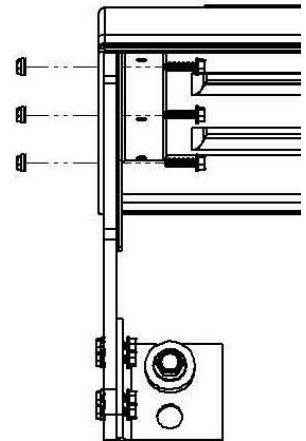
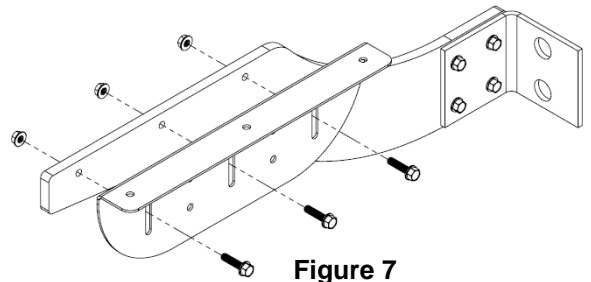


Figure 6

H. Some installations may not allow the center bracket to bolt through the end of the fender.

- a. In this case use the formed steel angle (100212) to connect the fender to the center bracket assembly (Figure 7).

- b. Use three 5/16" x 1 1/4" bolts and nuts to attach part 100212 to part 100234. Do not tighten the fasteners until these until the fender is level. **Recommended torque is 10-15 ft-lbs.**



Tip: 100212 is also used as a height adjustment for the end of the fender

- I. Drill three 5/16" holes through the fender using the holes in bracket 100212 as a guide (Figure 8).
 - a. Install the 5/16" x 1 1/4" bolts through the bracket and into the fender.
 - b. Use 5/16" nuts provided with the kit on the underside of the fender.

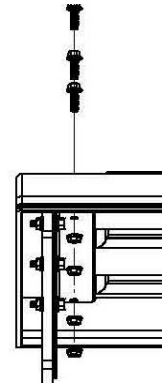


Figure 8

STEP 4

- A. Slide the stainless clamp (part number PB5053) and the mounting tube (part number 101461) onto the steel swivel (part number PB5015).

Place plastic end cap (PBRDR111069A) into the end of the mounting tube (Figure 9).

Tip: Make sure the slot on the mounting tube is facing down towards the ground.

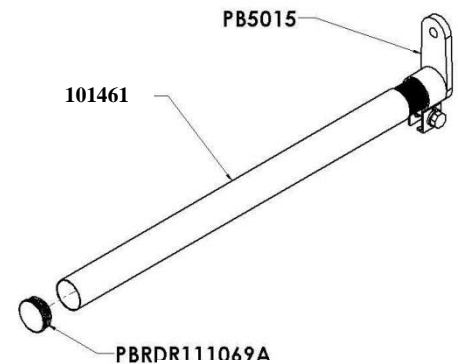


Figure 9

STEP 5

- A. Once the brackets are placed in position with the fender, securely tighten the 5/8" x 4-1/2" bolts that go through the PB5015 steel swivel to attach the swivel securely to the frame (Figure 10). **Recommended torque is 160-170 ft-lbs.**

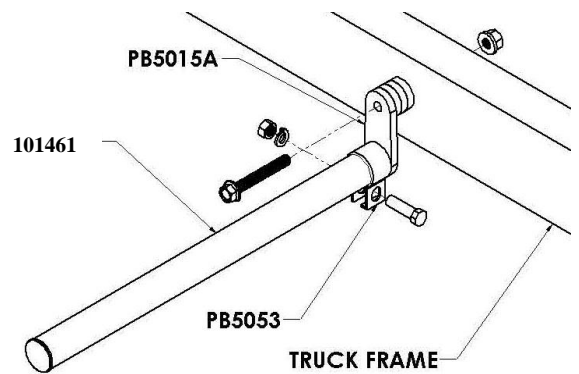


Figure 10

STEP 6

Position the tube clamp 1/4" away from the end of the stainless tube. **The recommended torque for tightening the stainless clamp is 30 ft. lbs.** Figure 11 shows an over-tightened

tube clamp and Figure 12 shows a properly tightened tube clamp. **Over tightening the tube clamp will cause the clamp to make uneven contact and cause the tube to loosen up over time.**

Over-tightened
clamp



Figure 11

Properly tightened
Clamp (30 ft-lbs)



Figure 12

STEP 7

A. Attach the bracket (101461) to the fender.

- a. Drill 5/16" holes through the fender using the holes in the fender washers as a pattern.
- b. For each bracket Install the 5/16" x 2 1/2" x 3 1/2" U-bolts through the fender.
- c. Use two fender washers per U-bolt.
- d. Place one washer on the inside and outside of the fender. Use two U-bolts per bracket. There are two extra sets of u-bolts, washers and nuts provided in the kit (See Figure 13).
- e. Make sure the fenders are square and aligned twists or bows in the fender will fatigue the material over time.
- f. Tighten the U-bolts. **Recommended torque is 75-90 in-lbs. Do not exceed recommended torque.**

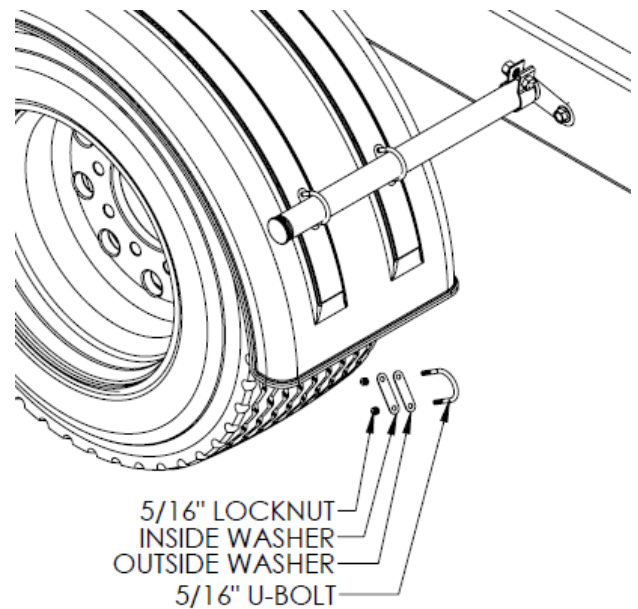


Figure 13

STEP 8

A. For trucks with air suspension, raise and lower the suspension one final time to confirm that there is adequate clearance between the fenders and wheels.

NOTE: ONCE FENDERS ARE IN SERVICE, OCCASIONALLY CHECK TORQUE ON THE 5/8" X 4-1/2" HEX BOLTS IN THE FRAME TO MAKE SURE THEY DO NOT LOOSEN OVER TIME.