

INSTRUCTION SHEET

ZIPPIE TRANSIT BRACKET KIT INSTALLATION

Failure to carefully read, understand and follow these instructions could result in severe injuries or death. Please read and understand these instructions before beginning the installation.

Before beginning the installation, make sure that all the parts are included. Below is an illustration showing what should be included in the Transit Bracket Kit.



Figure 1: Front bracket (2 included)



Figure 2: Rear bracket (2 included)



Figure 3: Required bolts and Hardware for Rear (8 washers included)



Figure 4: Required Bolts and Hardware for Front

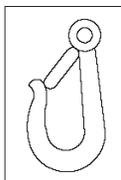


Figure 5: Decal Mount Location

The required tools to install the Zippie Transit Bracket Kit are listed below

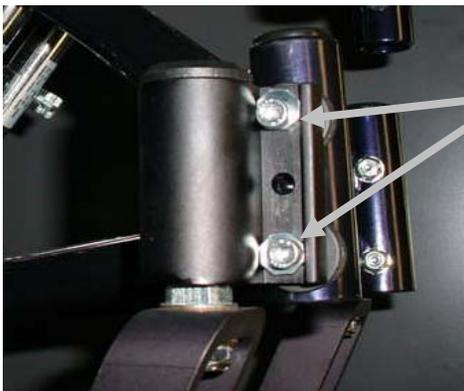
- 1. 7/16" Socket & Ratchet***
- 2. 5/32" Allen Wrench***
- 3. 3/16" Allen Wrench***
- 4. Torque Wrench***

INSTRUCTION SHEET

ZIPPIE TRANSIT BRACKET KIT INSTALLATION

To Install the Front Transit Bracket

1. Please position the wheelchair back in the “home” position before continuing. Working on one front wheel at a time, using the 7/16” socket and ratchet, remove the two (2) bolts and nuts that are holding the front wheel mount in place. (Note: Observe orientation of eccentric washer (**Figure 5**) before removing hardware to ensure proper installation in later steps, plus observe orientation of the caster barrel for later steps.) By doing this, the wheel mount will come off; as will the saddles and all that will be left will be the frame. Place these parts, and the nuts off to one side, as you will be using these parts in the following steps. Although the bolts will not be used in the mounting of the transit brackets, they should be kept in a safe place, in the case the transit brackets will be removed.



Remember Orientation of Eccentric Washer to help in the reinstallation in later steps.

Note: Not all chairs use same orientation for eccentric washer.

Figure 5: Orientation of Eccentric Washer

2. Take the 1/4-28 x 2-1/8” C/S CLR ZN bolt, which is pictured below (**Figure 6**) and place the eccentric washer that was included in the kit, on it (**Figure 7**). Do this same process again on another bolt, as two (2) of these will be needed when mounting the front wheel mount and front transit bracket.



Figure 6: Bolt for front bracket mount



Figure 7: Bolt and washer

INSTRUCTION SHEET

ZIPPIE TRANSIT BRACKET KIT INSTALLATION

3. Take the wheel mount and insert the two (2) bolts and washer sets into the caster barrel. The caster barrel has a flat side, and on the other side, there is a cut out. The bolt and washer set must be inserted such that the washer comes to rest “within” the cut out section. From above, the current setup should look very much like what is shown in **Figure 8**. (Note: Place eccentric washer in same orientation as recorded in step 1.)



Caster Barrel

Figure 8: Washer within “cutout” of wheel mount

4. Now the front transit bracket must be placed on the setup from step 3. The bracket should be placed so that the transit bracket is facing toward the rear of the chair but the caster barrel can be leading (facing forward) or trailing (facing rearward) the caster barrel should be reassembled the same way it was oriented in step 1. This setup can be seen in **Figure 9**. (Note: The caster barrel is depicted in the trailing position in **Figure 9**).



Figure 9: Bracket attached to wheel mount

INSTRUCTION SHEET

ZIPPIE TRANSIT BRACKET KIT INSTALLATION

5. Prior to attaching the wheel mount and bracket to the frame, the saddles have to be placed on the bolt. These saddles serve to protect the frame from metal on metal contact. The flat side of the saddle should be placed against the transit bracket and the curved side will be placed against the frame.
6. Insert the bolts through the front wheel mount holes as shown below (**Figure 10**). Position the saddles so that they rest comfortably against the frame (curved sides should be resting against the frame, NOT THE FLAT SIDE). Once the bolts have passed through the frame, fasten the nuts that were removed in step one using the 3/16" allen wrench. The bolts and nuts must be tightened to 8-9 ft-lbs of torque. This can be done using a torque wrench. After assembly, affix the Transit Mount Location Decal as seen in **Figure 11**.



Figure 10: Setup placed on frame

Notice the saddles flush against the frame.

Transit Mount Location Decal



Figure 11: Transit Mount Location Decal Placement

7. Do steps 1-6 again for the other front wheel. The final setup should look like **Figure 12** or **Figure 13** located on the next page.

INSTRUCTION SHEET

ZIPPIE TRANSIT BRACKET KIT INSTALLATION



Figure 12: Final Setup with Caster Barrel Leading



Figure 13: Final Setup with Caster Barrel Trailing

To Install the Rear Transit Bracket

1. Working on the rear, install the transit mounts one side at a time. Remove the two bolts, washers, and nuts and put them off to the side. Do this for both bolts. Although the hardware will not be used in the mounting of the transit brackets, they should be kept in a safe place in case the transit brackets will be removed.
2. With the bolts, washers, and nuts now removed, all that should be left are the saddles and the vertical supports (**Figure 1 & 1a** next page). Depending on the age of your chair you will either have the individual saddles (**Fig 1**) or the one piece saddles (**Fig 1a**). If the chair has individual saddles remove them and replace with the one piece saddles included in the kit. If the chair already has the one piece saddles no action needs to be taken.

INSTRUCTION SHEET

ZIPPIE TRANSIT BRACKET KIT INSTALLATION



Figure 1: Old Saddles and Vertical Supports



Figure 1a: New Saddles and Vertical Supports

- Next, take the $\frac{1}{4}$ -28 x 2 $\frac{1}{4}$ " Hex bolt, (**Figure 2**) and place one washer on it. Do this same process again on another bolt, as two (2) of these will be needed when mounting the rear transit bracket.



Figure 2: Bolt for rear mount (color may be different)

INSTRUCTION SHEET

ZIPPIE TRANSIT BRACKET KIT INSTALLATION

4. The two (2) bolts and washers should be inserted into the mounting holes of the bracket and pass through from the outside of the chair to the inside of the chair. The saddles should be flush against the sides of the vertical support (flat side of saddles) and also the frame (curved side). **Figure 4** illustrates this point. Add washer onto bolt then install transit bracket. Orient the bracket so it is angled towards the inside of the chair. See **Figure 5**.



Figure 4: Rear Setup (Old saddles shown)

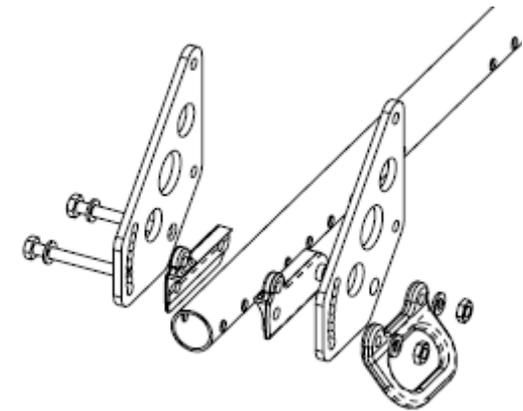


Figure 5: Rear assembly

5. Before fastening the nuts onto the bolts, the final washers should be placed on the bolts. At this point, only finger tighten the nuts. After doing this, a test has to be conducted. Depending upon the configuration of the wheelchair, with the installation of the rear transit bracket mounts, the range of the tilt mechanism might be reduced. To see if it is, using the wheelchair's tilt levers, tilt the chair back as far as possible. If the full range of motion is achieved, no action is necessary (skip to step 7). However, if the range of motion on the tilt has been reduced, continue to step 6.

INSTRUCTION SHEET

ZIPPIE TRANSIT BRACKET KIT INSTALLATION

6. Remove the nuts, washers and bolts inserted during step 5. Remove the nuts, washers and bolts from the other side also. The setup should now resemble that of step 2 on both sides of the wheelchair. Refer to the supplement page titled Zippie/ Zippie 2 Transit Bracket Mounting Instructions and relocate the transit bracket to the Optional Location.
7. At this point, the full range of motion on the tilt mechanism can be achieved with the rear transit mount in place. Tighten the bolts and nuts. The nuts and bolts should be tightened to 8-9 ft-lbs of torque. This can be done using a torque wrench. After assembly affix the Transit Mount Location Decal as seen in Figure 6.

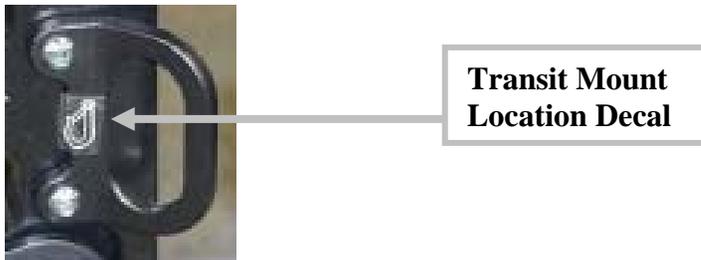


Figure 6: Transit decal

8. Do steps 1-8 again for the other rear transit bracket.

Please note that while in ANY form of transportation, have the seat in “home position.” Home position refers to the seat being flush with the frame of the wheelchair. With the seat in the tilted position, any amount of abrupt braking might result in severe injury or even death.