# **RealWheels Corporation**

#### SPRINTER DUAL WHEEL 3500 2012 TO CURRENT FRONT HUB MOUNT SYSTEM INSTRUCTIONS 16" SIMULATORS Page 1

#### VERY IMPORTANT! Read And Understand These Steps Before Installation.

**NOTE:** Your product design may vary from the photos shown. However installation and mounting will be the same.

#### **BEFORE INSTALLATION**

Inspection: Before installation, inspect all parts for shipping damage. If any of the parts appear damaged or questionable, DO NOT INSTALL! Contact your dealer or our facility for a replacement part or assistance. Once a product is installed, it cannot be returned because of shipping damage.

**Cleaning:** Before installing sprinter simulators, it is recommended to clean axle nuts and the entire wheel.

Important: Read and understand all installation instructions prior to installation. If any part of the instruction seems unclear, contact our office for assistance. (Monday - Friday 8am to 4:30pm CST at 800-982-1180 or 847-662-7722)

## **TOOLS NEEDED:**

- 19mm 1/2" Drive 6-Point Socket
- 21mm 1/2" Drive 6-Point Socket
- Philips Screwdriver

#### **TOOLS NEEDED FOR AIR VALVE EXTENSIONS:**

- 7/16" Wrench
- 1/2" Wrench

## **INSTALLING FRONT WHEEL SIMULATOR**

#### Step 1. Remove Factory Plastic Hubcaps

If your Sprinter has factory black plastic hubcaps, you'll need to remove them. With a 19mm 6-Point Socket and  $\frac{1}{2}$ " Drive Impact or Ratchet, remove **only** the three lug nuts with washers that secure the plastic hubcap. Once the plastic hubcap is removed, securely re-install the lug nuts that were removed and tighten to manufacturer torque specs. (See Fig. 1)





## Step 2. Remove Hub Bolts That Align With Air Valve

Using a 21mm 6-Point Socket and 1/2" Drive Impact or Ratchet remove two hub bots that are in line with the wheel air valve. (See Fig. 2A & 2B)

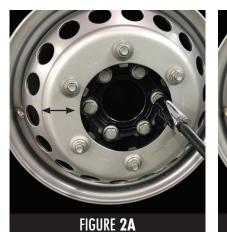






FIGURE 3A





## Step 3. **Install Bracket**

Now install the front hub mounting bracket onto the hub where the two previously removed hub bolts were removed. Making sure the bracket leas alian with the air valve. Next replace the two hub bolts, tighten to manufacturer torque specs.

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#### Step 5. Attach Simulator to the Hub Bracket

Thread two Philips flat head screws through the simulator and into the threaded holes of the mounting brackets. Then alternate tightening of screws with a Philips head screw driver to install the cover securely (See Fig. 5A & 5B).

**Note:** Double check there is clearance and no rubbing of the valve stem, if so please adjust wheel by loosening screws and checking the bracket is not bent and installed properly and tightly.





#### Step 4. Mounting Front Simulator

Place the wheel simulator onto the wheel making sure to align the two holes in the simulator with the two threaded holes of the hub mount bracket.

**Note:** also make sure the air valve oversized hole in the wheel simulator aligns with the air valve.



#### Step 6. Repeat On Other Wheel

Repeat the same process on the other wheel and you're finished. (See Fig. 6)



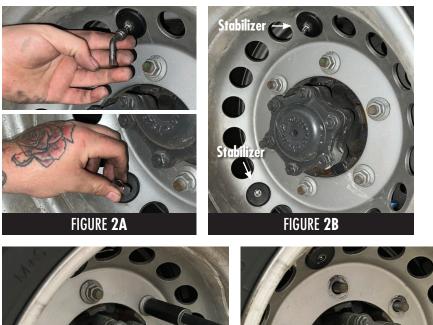
To Remove the Simulators: Loosen and remove the two Philips head screws.

**Very Important:** After initial installation, the mounting system will seat itself into the wheel. After the first 100 miles check that the simulators are tight and secure to the wheels. If necessary, retighten the mounting screws. We recommend that the wheel simulators are checked and inspected periodically to make sure that they are tight and secure to the wheels.

## **INSTALLING REAR WHEEL SIMULATOR**

**Note 1:** Rear Wheel Simulator Installation Instructions apply to both 2007-2011 and 2012 to Current styles of Sprinter wheels except for placement of bracket relative to oval holes.

Note 2: Axle Mounting - No need to remove lug nuts to install.



#### Step 1. Remove Factor Plastic Hubcaps

If your Sprinter has factory black plastic hubcaps, you'll need to remove them. With a 19mm lug wrench, remove **only** the three lug nuts with washers that secure the plastic hubcap. Once the plastic hubcap is removed, securely re-install the lug nuts that were removed from the wheel and tighten to manufacturer torque specs.

#### INSTALLING AIR VALVE EXTENSIONS TO WHEEL

#### Step 2.

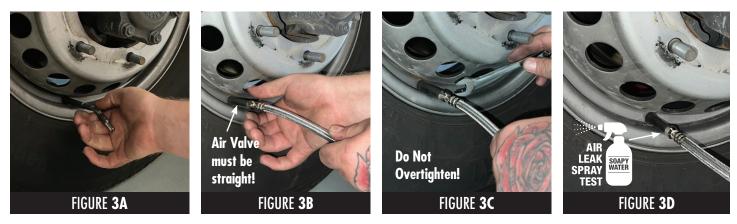
## Remove the Outside Wheel of the Dual Wheel and Installed Extensions

Unthread extension currently installed (See Fig. 2A & 2B). With a 19mm 6-Point Socket and  $\frac{1}{2}$ " Drive Impact or Ratchet, remove the six lug nuts with washers that secure the outside wheel (2C & 2D). Then remove the wheel (2E) and stabilizers shown in figure 2B.



#### Step 3. Installing the Straight Extension

Remove the current air valve extension (See Fig. 3A). Attach the straight air valve extension to the inner wheel air valve (3B). Be sure to install directly to the wheel air valve not to any kind of extensions. **NOTE:** A small amount of air will escape during installation until valve seal is made. Once air stops leaking, use a 1/2" wrench to snug hose to the valve stem. One turn is all that is required. **The valve seal may be damaged if you overtighten.** Then double check for leaks by using soapy water (3D).



**Continued on page 4** 

## Step 4. Installing the 90° Extension

FIGURE 5C

Attach air valve extension with the  $90^{\circ}$  Valve Ext. to outside wheel valve stem. **NOTE:** A small amount of air will escape during installation until valve seal is made. Once air stops leaking, use a  $1/2^{\prime\prime}$  wrench to snug hose the valve stem. One turn is all that is required (See Fig. 4A). **The valve seal may be damaged if you overtighten.** Then double check for leaks by using soapy water (4B). Make sure extension goes through the third hole from the valve stem as seen in Figure 4C.



#### Step 5. Install the Outside Wheel of the Back on the Dual Wheel

After the air valve extensions are installed, they should be hanging out of the wheel as shown in Figure 5A. Re-attach the outside wheel and double check air valves are straight (5B). Then put the bolts back on and secure with a socket wrench (5C & 5D).

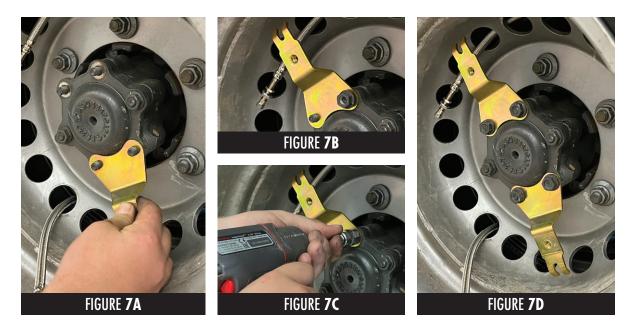
## Step 6. Remove Axle Nuts

Remove two rear axle nuts directly next to each other. Make sure to give yourself enough room for the air valve extension to connect, as you can see in the finished bracket installation photo (Figure 8D).



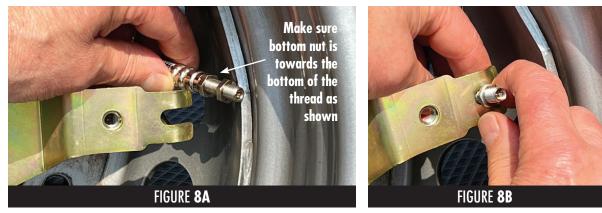
FIGURE 5D

Step 7. Install Rear Mounting Bracket Legs



Install one of the rear mounting bracket legs onto the two axle studs (See Fig. 7A). Replace and tighten the two axle nuts to manufacturer torque specs (7B & 7C). Repeat process for other side (7D).

#### Step 8. Attaching Air Valve Extensions To Bracket Air Valve Tabs



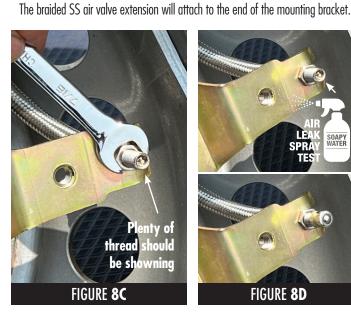
Next begin by loosening the two nuts on the braided SS air valve extension so they have a space between them. Then place one of the braided SS extensions into the slot at the end of the bracket (See Fig. 8B).

Next using a 7/16''wrench tighten the two nuts onto the air valve tab (8C). Note: You can adjust the amount of air valve stem coming bracket by making adjustments with these two nuts. Double check for leaks by using soapy water (8D).

Repeat process on opposite air valve tab (8E).

#### **IMPORTANT!**

Do a braided extension hose check to make sure the extension has freedom to move.



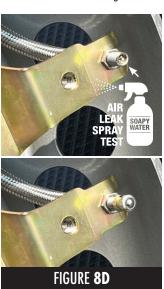




FIGURE 8E

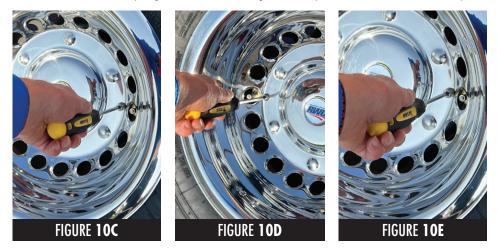


#### Step 9. Mounting The Simulator

Place wheel simulator onto the wheel making sure to line the holes in the simulator with the threaded holes of the mounting brackets. (See Fig. 6A)



**IMPORTANT!** Don't use impact gun to install the mounting screws. Philips head screw driver is all that is required.



## Step 10. Attach Simulator To The Bracket

Put the star washers on the two Phillips head screws (See Fig. 10A). Then thread the screws through the simulator and into the threaded holes of the mounting brackets (10B). **IMPORTANT!** Alternate tightening of the screws to install cover evenly and securely (See Fig. 10C, 10D & 10E).

#### Step 11. Repeat On Other Wheel

Repeat the same process on the other wheel and you're finished. (See Fig. 11A)

#### Very Important:

We recommend that the wheel simulators are checked and inspected periodically to make sure that they are tight and secure to the wheels.



#### **Important Note About Installed Simulator**

RealWheels simulators are made of non-corroding stainless steel. When installed properly our simulators will rest tightly against the lip of rim, which adds strength and security between our mounting system and our simulators. Because they rest against the rim lip, it is common to have some ware on the lip of the rim and the back of the simulator.

When mounted to steel wheels it is not uncommon to have some rust dust from the rim lip come out around the outside edge of the simulator edge and the tire. This is not the stainless steel simulator rusting, and does not affect its' performance. It can easily be wiped or washed off. This happens most often with older steel wheels where the paint has been chipped or worn off.

Additionally, protruding wheel weights will cause this rust as well. To minimize this affect keep the lip of the rim painted. Also periodically wash and rinse water between the simulator and lip of rim. Additionally sometimes adding thin rubber material (purchased separately from auto parts store) between the back of the simulator, and the lip of the rim is another option.

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