



LG C7 SPINDLE DUCT KIT



Parts Inventory:

1. Driver side duct, carbon
2. Passenger side duct, carbon
3. Driver side alum. spindle plate
4. Passenger side alum. spindle plate
5. 2, 10.5" long sections of 2" hose
6. 2, 11" long sections of 3" hose
7. 4, M6x1.00 Rivet Nuts
8. 6, M6x1.00 x 25mm bolts
9. 4, M6x1.00 x 65mm bolts
10. 4 M6 washers

Optional

1. C7Z51/Z06 front inlet ducts

Tools Needed:

1. 3/8" drive ratchet
2. 1/2" drive impact or breaker bar (for lug nuts)
3. drill motor
4. 8, 10, 18, 19, 21mm sockets
5. T30 torx
6. Rivet nut tool with M6x1.00 mandrel
7. 25/64" drill bit

Instructions:

Removal:

Start by supporting the car on a lift, or 4 jack stands on a level surface. Then remove the front wheels as you will need to access the calipers and rotors. You will need a 19mm socket and impact or breaker bar to remove your wheels.

Once you have the wheels removed from the car you can now start by removing the front calipers and hanging them out of the way while the ducts are being installed. There is no need to remove the brake lines or open the system. You will need an 18mm socket to remove the two caliper bolts holding the caliper to the spindle. See figure 1.



Figure 1: removing caliper bolts

Carbon Ceramic Brakes Place special care not to hit, nick, or hammer on any of the carbon surface of your rotor.

Once the caliper has been removed and secured out of the way you can now remove the front brake rotor. You will need a T30 torx bit for this job and there is one screw holding the brake rotor hat to the wheel bearing flange. See figure 2.



Figure 2: Hat removal

Once the set screw has been removed you can remove the hat and rotor from the wheel bearing. Set your rotor aside out of the way as not to be hit or damaged during install. The next piece you need to remove is the factory splash shields behind the rotor. You will need a 10mm socket to remove these pieces. One of them is metal and located on the outward side, and the other is plastic mounted to the inside of the spindle. These will not be reused. Pieces shown in figure 3 and 4 below.



Figure 3: splash shield removal (shown off the car and bare)



Figure 4: Inner splash shield

With the parts off of your spindle (LG drop spindles are shown in the most of the install instructions), you can now clean any dirt, rubber, or grease that might have built up on the spindle before installing the plate.

Now you can start the assembly process of the brake duct backing plate to the spindle. You will need three of the M6x1.0 25mm long bolts per side to attach the plate to the spindle. The threaded holes are already on the spindle to use from the stock splash shield. Start by sliding the plate over the wheel bearing with the 3" hose inlet towards the front of the car and at the top side. See figure 5.



Figure 5: install of spindle plate



Figure 6: spindle plate installed (shown off of the car to show bolt locations)

Now that you have the plate mounted to the spindle, you can now start the install of the carbon inner duct piece to the frame of the car.

There are two holes in the frame that you will be installing the supplied M6 Rivet Nuts into to hold the carbon pieces in place. The holes are already in the frame but you need to open the holes up using a 25/64" drill bit. You can install these using a Rivet Nut install tool, or we have supplied a hand tool using a simple bolt and lock nut. See instructions at the end for how to use supplied tool if you do not have access to a Rivet Nut install tool.



Figure 7 : Rivet nut locations marked in red

There are two hole locations in the frame that you will need to install the Rivet nuts into, shown in figure 7 and marked with the red arrows. You will use two per side. First start by drilling these holes using a 25/64" drill bit so that it is correct for the rivet nut. You can do this using only one drill bit as not much material needs to be removed.



Figure 8 : 25/64” drill bit for holes in frame prior to rivet nut install

Once you have the holes drilled to the proper size install the rivet nuts supplied in the kit to hold the carbon duct in place. You can see the Rivet Nut gun in figure #9, or see the instructions on how to use the supplied tool at the end of these instructions.



Figure 9 : Using Rivet Nut tool

Once you have them in place your install should look like figure 10. Remember do not over tighten the rivet nuts as you install them.



Figure 10 : Rivet nut installed

Now that you have the locations secure it is time to move onto fitment of the ducts.

Before installing the carbon to the car you must trim a small section of the duct that connects the nose to the LG carbon piece. Shown in the figure below, trim the inside section so that it is even with the outside making the duct point straight back.



Figure 11: OEM duct marked to be trimmed.

You can cut this with a box cutter, or any utility knife without removing it from the car. It does not have to be exact just remove the rear section so it makes a straight outlet at the end to mate the carbon part to shown in figure 12. Once it is cut you will need to remove the one bolt at the OEM duct as this will secure the front of the carbon to the OEM duct and also the inner fender liner.



Figure 12: carbon duct mating to OEM duct



Figure 13: carbon duct sliding into place.

You can slide the duct in from the back side and notice there are two holes other than the hose outlets in the carbon. You will use the two M6x1.00 65mm long bolts and washers to secure the duct to the frame once you have connected it to the OEM piece shown in figure 12. Once completed it should look like figure 14 shown below. You may not re-install the rotors and calipers to the spindle. Make sure to tighten to factory specs. Loctite is suggested on caliper bolts.



Figure 14: carbon duct and spindle plate in place

Once you have both pieces in place and the brake reassembled you can now install the correct sizes hoses and secure with the supplied hose clamps. Make sure you have enough slack at full extension and the hose bends correctly when turning. Re-install your wheels and enjoy your new brake cooling!

****CHECK FOR YOUR WHEEL AND TIRE CLEARANCE AFTER INSTALL****

These brake ducts were made to squeeze into a small space while maintaining air flow to your brakes. Some space is lost during their install and can rub the tires **ONLY DURING FULL STEERING LOCK**. Please keep this in mind and check your clearance as different wheels and tires will change this. We are not responsible for damage caused by tire rub on or off track.

RIVET NUT INSTALL USING SUPPLIED TOOL

If you do not have a Rivet nut gun, or tool you can use the supplied tool located in the small bag with each kit. This can be done using two hand wrenches and the supplied tool. Shown below in figure 1 you will see an electric drill and drill bit that is needed to drill the holes in the frame. Also shown is one rivet nut (gold) and the supplied tool, which is a M6 bolt, large nut, and lock washer. Also shown are the 10mm and 13mm wrenches required to install the rivet nut.



Figure 1: Required tools for install of rivet nut

Once your hole has been drilled you can install one of the rivet nuts onto the toll. Slide the nut over the bolt, then the lock washer. Thread one of your rivet nuts onto the bolt as shown below in figure 2.



Figure 2: Prior to install of rivet nut



Figure 3: nut installed prior to tightening

Take the assembly and slide the rivet nut into the hole. While holding the larger nut with the 13mm wrench, tighten the bolt using a 10mm wrench or electric impact to crimp the rivet nut into place. You can see this in figures 3 and 4 below.



Figure 4: Using wrenches



Figure 5: Using wrench and socket

Carefully tighten the bolt with the 10mm wrench or socket until you feel the rivet nut tighten up against the frame rail.



Figure 6: rivet nut correctly installed front side.

While you can not see the back side, the above process crimps the back to hold it in place. The back side of this would look like figure 7 shown below.



Figure 7: Rivet nut back side after compression

Once you have it compressed, unscrew your bolt and use for the remaining locations.

I thank you for choosing LG Motorsports and know that you, and your brakes, will enjoy your new found cooling from the LG cooling ducts

Sergio de La Torre
President LG Motorsports



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