

SLOWING DOWN A 240SX

Installing Wilwood high-performance disc brakes on a Nissan 240SX



The brake selection for this Nissan 240SX is a Wilwood P/N 140-9194 front brake kit that features Forged Superlite 4 calipers, caliper brackets, 12.90-inch rotors with aluminum hats, BP-10 Smart Pads and all of the hardware required to complete this installation.



In the late '60s, Datsun and Toyota were working hard to become the leading Japanese car manufacturer in the United States. Without a doubt, Datsun took the lead when they introduced the 240Z in 1969. The little sports cars had fantastic styling, they were powered by a strong running straight six-cylinder engine and the best part was they were reasonably priced. After their introduction, Datsun couldn't build the cars fast enough. As it turned out, this wasn't a flash-in-the-pan relationship because the Z-car was a sales leader for years.

In the early '80s the Datsun name changed to Nissan, which was the name of the parent company. The name change didn't effect the Z-car production because the company continued to produce the sports model, but the company lost their direction in the late '80s and early '90s when the price of the Z-cars skyrocketed to astronomical prices. They were great cars but way out of the price range of young sports car buyers. What made the early Z-car a good seller initially was the car's affordable price. The company was aware that going back to an affordable sport coupe was a good idea, so they came out with a lower priced 240SX in 1989 that would be priced for the entry-level buyers. The car was released as a coupe and a hatchback model powered by a 2.4-liter four-cylinder engine. The initial sales were good but nothing like the success the company had with the original Z-car.

The 240SX continued production, and in 1991 the engine was refined with dual overhead cams and 16 valves. The horsepower jumped from 140

to 155 and that change certainly made the car more fun to drive. The 240SX continued production until 1998 when it was discontinued due to corporate restructuring. On March 27, 1999 Nissan and Renault signed an agreement concerning a comprehensive global alliance aimed at achieving profitable growth for both companies. The end result was the company did become profitable and the 240SX became a casualty because one of the company's plans was to come out with new and innovative designs for the sedans and SUVs and a new 350Z that was once again affordable.

Today the 240SX is a very popular and affordable car for daily transportation, for track use, and for autocross. Over the years the 240SX models had a nice smooth body style and many enthusiasts like them because they are rear wheel drive so they can be modified to handle well. The fellow who owns the 240SX in this story made modifications to make it look great and handle even better. He made many improvements and the one the car really needed at this point was improved brakes so he ordered a set of Wilwood part number 140-9194 front disc brakes and the corresponding 220-9199 brake lines.

Wilwood recommends that persons experienced in the installation and proper operation of disc brake systems should only perform the installation of this kit. It is a good idea to spread the kit parts out and make sure you have all of the parts listed in the instruction sheet. A hobby builder can install this kit if he has good mechanical knowledge and ability, car building

experience and a good assortment of tools. You will need a floor jack and jack stands, an impact gun, metric wrenches and sockets, a rubber mallet, an inch-pound torque wrench and a foot-pound torque wrench. Other items that will come in handy include a bottle of Loctite 271, PTFE

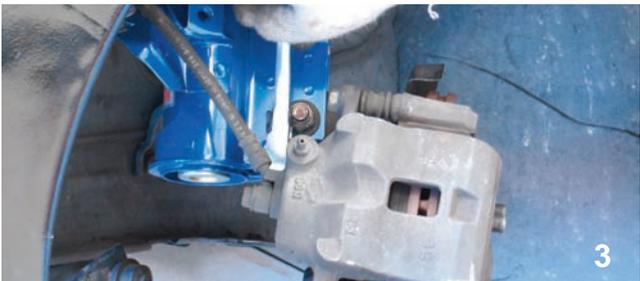
thread tape, and Wilwood Hi-temp 570 Racing Brake Fluid or Wilwood EXP 600 Plus Hi-Temp Racing Brake Fluid. We are going to show you how this installation is done so you can decide for yourself if you can perform this installation or to have a professional do it for you.



1
The front of the car was raised with a floor jack followed by the installation of jack stands underneath the chassis. Using an impact gun and the appropriately sized socket, the lug nuts were disconnected and the wheels and tires were removed.



2
After the wheels were removed you can see the factory disc brake system. This assembly will have to be removed and that includes the dust shield.



3
Using a socket wrench, the two bolts fastening the caliper to the hub assembly were disconnected.



4
The heavy cast iron brake was removed from the assembly. In order to do that the hose leading to the hard line connection was disconnected. The line was plugged off to keep the line from leaking.



5
The factory rotor was removed from the assembly and here you can see the dust shield and the caliper mounting ears that will be the mounting location for the Wilwood caliper brackets.



6
In order to remove the dust shield, the hub assembly will have to be removed from the spindle. Using an impact gun, the large spindle bolt was removed.



7
After the hub was removed, the dust shield could be accessed and it can be removed. The Wilwood brakes will be installed without a dust shield.



8
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The strut has a built-in hose bracket, but in this installation a different clip will be used to mount the hose.



Using a small three-inch cut-off wheel, the bracket was removed from the strut assembly.



The original caliper mounting holes are large, so they will have to be sleeved down to the size of the Wilwood caliper mounting bolts. The sleeves are included in the kit.



The caliper bolts that were included in the kit were installed in the original spindle assembly along with the sleeves. Notice that this kit also uses a spacer on each bolt along with a 0.016-inch thick washer.



The Wilwood caliper bracket was connected to the spindle assembly and it was tightened in order to check the caliper to rotor centering. The caliper bolts were coated with Loctite and they were tightened to 75 ft-lbs using a foot-pound torque wrench.



Here is the Wilwood caliper bracket after it was installed. The bracket was bolted on with two 1 1/2-inch long 7/16-20 bolts followed by a 0.063-inch thick washer. The bolt goes through a sleeve and on the other side of the spindle there is a small spacer and another 0.016-inch thick washer. Notice the curve on the inside of the bracket to allow clearance for the hub assembly.



The hub was reinstalled on the spindle and tightened properly. This spindle bolt is a special locknut.



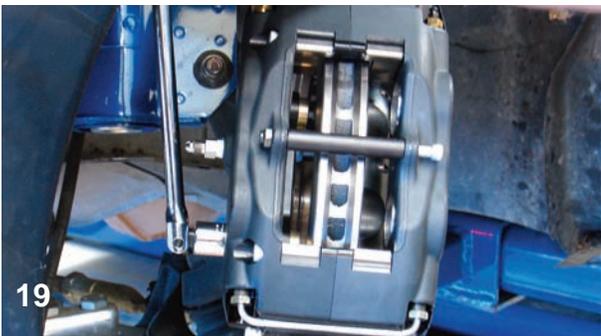
The Wilwood rotor was assembled before it was installed on the hub assembly. Using the small bolts and washers in the kit, the rotor was bolted to the hub assembly. The bolts were coated with Loctite 271 and then they were tightened in an alternating sequence to 85 in-lbs using an inch-pound torque wrench.



The caliper was bolted to the caliper bracket with two 1 ½-inch long 7/16-20 bolts. The bolt should be outfitted with a 0.063-inch washer on the outside of the caliper and in this case two 0.016-inch thick shims between the caliper and bracket. The shims are used to center the caliper over the rotor so the total number of shims used may change.



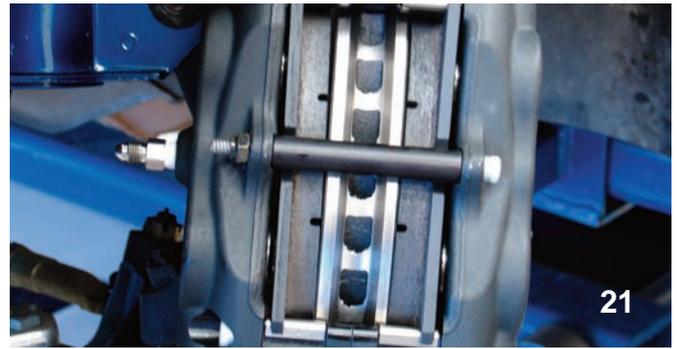
The inlet fitting threads were coated with PTFE thread tape and then the inlet fitting was screwed into the side of the caliper.



The caliper was centered over the rotor and when it was perfect, the caliper bolts were coated with Loctite 271 and were then tightened to 75 ft-lbs using a foot-pound torque wrench.



The caliper bridge bolt was removed and the BP-10 Smart Pads were installed.



After the pads were in place, the caliper bridge bolt was installed. A close look reveals that the pads are centered perfectly and the radius of the pads matches the radius of the rotors.



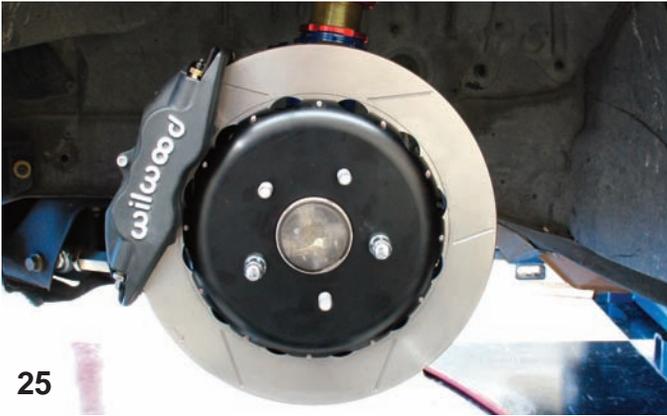
The Wilwood part number 220-9199 stainless steel line was secured to the strut with a small clip as seen here.



Here you can see the feed line running to the caliper mounting fitting. This line should be very tight to avoid any possible chance of leaking.



The other end of the stainless steel line was run to the original bracket that was outfitted with an adapter fitting that mates the original steel line to the Wilwood Flexline.



25

The Wilwood brake system looks great and will improve the stopping power of this 240SX on the street and on the track. At this point the brakes will have to be bled and the brakes will have to be bedded in following the directions on the instruction sheet.

Wilwood Engineering

4700 Calle Bolero
Camarillo, CA 93012
(805) 388-1188
www.wilwood.com

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