

**ASSEMBLY INSTRUCTIONS  
FOR  
PRO-MATRIX OE UPGRADE PAD AND ROTOR KIT  
REAR, WITH 12.00" DIAMETER VENTED ROTOR**

**1988 - 1996 CHEVROLET C-4 CORVETTE**

PART NUMBER GROUP

**140-8314**

**DISC BRAKES SHOULD ONLY BE INSTALLED BY SOMEONE  
EXPERIENCED AND COMPETENT IN THE INSTALLATION AND  
MAINTENANCE OF DISC BRAKES  
READ ALL WARNINGS**

**WARNING**

IT IS THE RESPONSIBILITY OF THE PERSON INSTALLING ANY BRAKE COMPONENT OR KIT TO DETERMINE THE SUITABILITY OF THE COMPONENT OR KIT FOR THAT PARTICULAR APPLICATION. IF YOU ARE NOT SURE HOW TO SAFELY USE THIS BRAKE COMPONENT OR KIT, YOU SHOULD NOT INSTALL OR USE IT. DO NOT ASSUME ANYTHING. IMPROPERLY INSTALLED OR MAINTAINED BRAKES ARE DANGEROUS. IF YOU ARE NOT SURE, GET HELP OR RETURN THE PRODUCT. YOU MAY OBTAIN ADDITIONAL INFORMATION AND TECHNICAL SUPPORT BY CALLING WILWOOD AT (805) 388-1188, OR VISIT OUR WEB SITE AT [WWW.WILWOOD.COM](http://WWW.WILWOOD.COM). USE OF WILWOOD TECHNICAL SUPPORT DOES NOT GUARANTEE PROPER INSTALLATION. **YOU**, OR THE PERSON WHO DOES THE INSTALLATION MUST KNOW HOW TO PROPERLY USE THIS PRODUCT. IT IS NOT POSSIBLE OVER THE PHONE TO UNDERSTAND OR FORESEE ALL THE ISSUES THAT MIGHT ARISE IN YOUR INSTALLATION.

RACING EQUIPMENT AND BRAKES MUST BE MAINTAINED AND SHOULD BE CHECKED REGULARLY FOR FATIGUE, DAMAGE, AND WEAR.



Need Additional Information?  
Use Your SmartPhone and  
Jump to Our Technical Tips  
Section on Our Web Site.



**WARNING**

**DO NOT OPERATE ANY VEHICLE ON UNTESTED BRAKES!  
SEE MINIMUM TEST PROCEDURE WITHIN**

ALWAYS UTILIZE SAFETY RESTRAINT SYSTEMS AND ALL OTHER AVAILABLE SAFETY EQUIPMENT WHILE OPERATING THE VEHICLE

**IMPORTANT • READ THE DISCLAIMER OF WARRANTY INCLUDED IN THE KIT**

NOTE: Some cleaners may stain or remove the finish on brake system components. Test the cleaner on a hidden portion of the component before general use.

## Important Notice - Read This First

Before any tear-down or disassembly begins, review the following information:

- Rear brake kits are not supplied with parking brake cables hardware or adapters. Please see the note in the assembly instructions for vendor recommendations to purchase these parts.
- Due to OEM production differences and other variations from vehicle to vehicle, the fastener hardware and other components in this kit may not be suitable for a specific application or vehicle.
- It is the responsibility of the purchaser and installer of this kit to verify suitability / fitment of all components and ensure all fasteners and hardware achieve complete and proper engagement. Improper or inadequate engagement can lead to component failure.

## Photographic Tip

We suggest you take digital photos of the brake system setup before and during the disassembly procedure. This will aid in the event that something is not compatible with the new brake components and be a valuable tool to assist in the trouble-shooting process.

## Exploded Assembly Diagram and Parts List

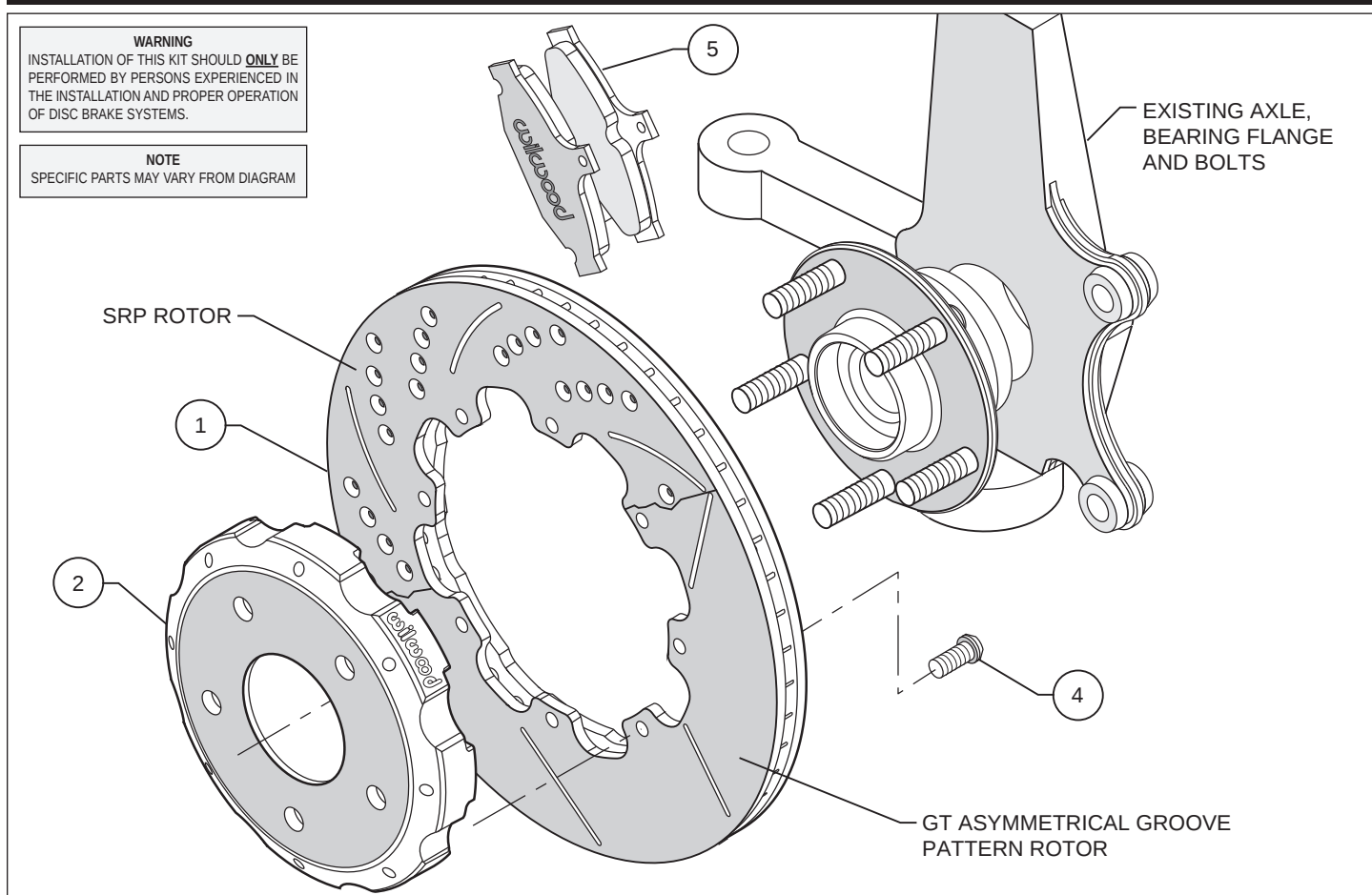


Figure 1. Typical Installation Configuration

| ITEM NO. | PART NO.     | DESCRIPTION                                                                      | QTY |
|----------|--------------|----------------------------------------------------------------------------------|-----|
| 1        | 160-12287/88 | Rotor, GT - 0.81" x 12.00" Dia, 8 x 7.00" Bolt Circle (one each, left and right) | 2   |
| 1A       | 160-8496/97  | Rotor, SRP Drilled (pair, one each, left and right hand)                         | 2   |
| 2        | 170-8493     | Hat                                                                              | 2   |
| 3        | 220-8517     | Stainless Steel Braided flex Line Kit (not shown)                                | 2   |
| 4        | 230-11935    | Bolt, 5/16-18 x 1.00 Long, Button Head Torx                                      | 16  |
| 5        | 150-D0413K   | Pads, ProMatrix Compound, Axle Set                                               | 1   |

NOTES: Part Number 230-12177 Rotor Bolt Kit, included part number 230-11935

Item 1A is an optional item and included in the (D) drilled rotor kits. Add -D to end of part number when ordering.

## General Information, Disassembly and Assembly Instructions

Installation of this kit should **ONLY** be performed by persons experienced in the installation and proper operation of disc brake systems. Before installation begins, please read the complete procedure thoroughly to familiarize yourself with the process, and double check the following items to ensure a trouble-free installation.

- Make sure this is the correct kit to fit the exact make and model year. This kit is specifically designed as a direct bolt-on OE replacement for Chevrolet C-4 Corvette's, model years 1988 - 1996.
- Verify the hat stud pattern in this kit matches the stud pattern of the vehicle's wheels.
- Inspect the package contents against the parts list to ensure that all components and hardware are included.

### Disassembly Instructions

- Disassemble the original equipment rear brakes:

Raise the rear wheels off the ground and support the rear suspension according to the vehicle manufacturer's instructions.

Remove the wheel. Remove the bolts that hold the stock caliper to the stock caliper mounting bracket. Remove the caliper and hang off to the side using a piece of wire leaving it connected to the brake line. Remove brake pads from caliper. Slide off the rotor assembly. Remove all nicks or burrs on the hub face or registration diameter.

**Assembly Instructions** (numbers in parenthesis refer to the part list/diagram on the preceding page): **CAUTION:** All mounting bolts must fully engage insert nuts. Be sure to check that all bolts are either flush or protruding through flanged side of insert nut after shimming.

- Assemble the rotor (1) to the hat (2) with the bolts (4) as shown in Figure 1. Using an alternating sequence, remove bolts one at a time, apply red Loctite® 271 to the threads, and torque to 25 ft-lb.
- Align the hole pattern on the hat (2) with the stud pattern on the axle flange. Slide the hat and rotor assembly over the wheel studs and against the axle flange face. Check to be sure the hat seats squarely against the axle flange face. The axle flange area must be free from any rust, debris, casting burrs, machining irregularities, etc. Use three lug nuts to hold the rotor and hat in place against the axle flange.
- Install new Wilwood brake pads (5) into stock caliper bracket.
- Bolt the caliper onto the bracket in the original configuration.
- Torque the caliper mounting bolts to manufacturer's specifications.
- Install Wilwood's stainless steel braided flexline hose kit (3), see below. **NOTE:** OEM rubber brake hoses generally cannot be adapted to Wilwood calipers. The caliper inlet fitting is a 1/8-27 NPT. The preferred method is to use steel adapter fittings at the caliper, either straight, 45 or 90 degree and enough steel braided line to allow for full suspension travel and turning radius, lock to lock. **Carefully route lines to prevent contact with moving suspension, brake or wheel components.** Wilwood hose kits are designed for use in many different vehicle applications and it is the installer's responsibility to properly route and ensure adequate clearance and retention for brake hose components.
- Specified brake hose kits may not work with all Years, Makes and Models of vehicle that this brake kit is applicable to, due to possible OEM manufacturing changes during a production vehicle's life. It is the installer's responsibility to ensure that all fittings and hoses are the correct size and length, to ensure proper sealing and that they will not be subject to crimping, strain and abrasion from vibration or interference with suspension components, brake rotor or wheel.
- In absence of specific instructions for brake line routing, the installer must use his best professional judgment on correct routing and retention of lines to ensure safe operation. Test vehicle brake system per the 'minimum test' procedure stated within this document before driving. After road testing, inspect for leaks and interference. Initially after install and testing, perform frequent checks of the vehicle brake system and lines before driving, to confirm that there is no undue wear or interference not apparent from the initial test. Afterwards, perform periodic inspections for function, leaks and wear in a interval relative to the usage of vehicle.

### Stock Brake Line Disassembly Instructions

- Unbolt banjo bolt from back of caliper.
- Unbolt rubber hose from hard line at frame.
- Pull the clip that holds the rubber hose to the bracket at the frame.

## Assembly Instructions (Continued)

### Wilwood Flexline Assembly Instructions

- Using new mounting hardware supplied in the kit (6), bolt flexline to back of stock caliper, see Figure 3. Torque banjo bolt to specifications included with the flexline kit (DS-573).
- Mount opposite side of flexline through bracket on frame. Install clip into original position and connect hard line, tighten hard line fitting into flexline.
- Install clip to hold flexline to bracket on frame.
- Bleed the brake system. Reference the general information and recommendations below for proper bleeding instructions.
- Remove the lug nuts that were holding the rotor in place. Install the wheel and torque the lug nuts to manufacturer's specification. Check to see that the wheel rotates freely without interference.
- Repeat this procedure for the other wheel.

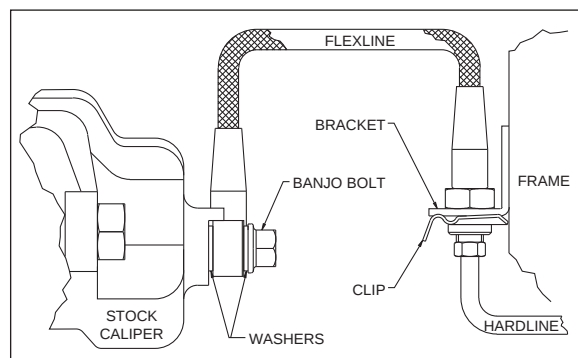


Figure 3. Brake Line Diagram

## Additional Information and Recommendations

- Fill and bleed the new system with Wilwood Hi-Temp° 570 grade fluid or higher. For severe braking or sustained high heat operation, use Wilwood EXP 600 Plus Racing Brake Fluid. Used fluid must be completely flushed from the system to prevent contamination.  
**NOTE:** Silicone DOT 5 brake fluid is **NOT** recommended for racing or performance driving.
- Properly bleed the brake system according to the vehicle manufacturer's instructions, generally beginning with the caliper farthest from the master cylinder. **NOTE:** When using a new master cylinder, it is important to bench bleed the master cylinder first.
- Test the brake pedal. It should be firm, not spongy and stop at least 1 inch from the floor under heavy load.  
If the brake pedal is spongy, bleed the system again.  
  
If the brake pedal is initially firm, but then sinks to the floor, check the system for fluid leaks. Correct the leaks (if applicable) and then bleed the system again.
- NOTE:** With the installation of after market disc brakes, the wheel track may change depending on the application. Check your wheel offset before final assembly.
- If after following the instructions, you still have difficulty in assembling or bleeding your Wilwood disc brakes, consult your local chassis builder, or retailer where the kit was purchased for further assistance.

## Brake Testing and Pad Bedding

### **WARNING • DO NOT DRIVE ON UNTESTED BRAKES BRAKES MUST BE TESTED AFTER INSTALLATION OR MAINTENANCE MINIMUM TEST PROCEDURE**

- Make sure pedal is firm: Hold firm pressure on pedal for several minutes, it should remain in position without sinking. If pedal sinks toward floor, check system for fluid leaks. DO NOT drive vehicle if pedal does not stay firm or can be pushed to the floor with normal pressure.
- At very low speed (2-5 mph) apply brakes hard several times while turning steering from full left to full right, repeat several times. Remove the wheels and check that components are not touching, rubbing, or leaking.
- Carefully examine all brake components, brake lines, and fittings for leaks and interference.
- Make sure there is no interference with wheels or suspension components.
- Drive vehicle at low speed (15-20 mph) making moderate and hard stops. Brakes should feel normal and positive. Again check for leaks and interference.
- Always test vehicle in a safe place where there is no danger to (or from) other people or vehicles.
- Always wear seat belts and make use of all safety equipment.

#### **PAD BEDDING STEPS:**

Once the brake system has been tested and determined safe to operate the vehicle, follow these steps for bedding of all pad materials and rotors. This procedure should be performed on a race track or other safe location where you can safely and legally obtain speeds up to 65 MPH while also being able to rapidly decelerate.

- Proceed with a series of 8-10 hard stops from 55-65 MPH down to 25 MPH allowing 20-30 seconds of cool down time between each stop.
- Drive at a moderate cruising speed, with the least amount of brake contact possible, until most of the heat has dissipated from the brakes. Avoid sitting stopped with the brake pedal depressed to hold the car in place during this time. Park the vehicle and allow the brakes to cool to ambient air temperature.

### **Associated Components**

| <b><u>PART NO.</u></b> | <b><u>DESCRIPTION</u></b>                                  |
|------------------------|------------------------------------------------------------|
| 260-1874               | Wilwood Residual Pressure Valve (2 lb for disc brakes)     |
| 260-1876               | Wilwood Residual Pressure Valve (10 lb for drum brakes)    |
| 260-8419               | Wilwood Proportioning Valve                                |
| 290-0632               | Wilwood Racing Brake Fluid (Hi-Temp° 570) (12 oz)          |
| 290-6209               | Wilwood Racing Brake Fluid (EXP 600 Plus) (16.9 oz)        |
| 340-1285               | Wilwood Floor Mount Brake Pedal (with balance bar)         |
| 340-1287               | Wilwood Swing Mount Brake Pedal (with balance bar)         |
| 260-6764               | Wilwood 3/4 inch High Volume Aluminum Master Cylinder      |
| 260-6765               | Wilwood 7/8 inch High Volume Aluminum Master Cylinder      |
| 260-6766               | Wilwood 1 inch High Volume Aluminum Master Cylinder        |
| 260-4893               | 1-1/16 inch Tandem Master Cylinder (aluminum housing)      |
| 250-2406               | Mounting Bracket Kit (tandem master cylinder)              |
| 260-8555               | Wilwood 1 inch Aluminum Tandem Chamber Master Cylinder     |
| 260-8556               | Wilwood 1-1/8 inch Aluminum Tandem Chamber Master Cylinder |
| 350-2038               | 1971 - 1973 Pinto Rack and Pinion (new, not rebuilt)       |
| 270-2016               | Quick Release Steering Hub (3/4 inch shaft)                |
| 270-2017               | Quick Release Steering Hub (5/8 inch shaft)                |
| 220-8517               | Flexline Kit, 1988 - 1996 Corvette                         |