



**S.drive**

## Small Block Chevrolet



## INSTALLATION INSTRUCTIONS

### Engine Prep:

- Disconnect battery
- Remove existing alternator, a/c compressor, and brackets.
- Remove all pulleys and brackets
- Clean front of block
- Chase the tapped holes in block with a 3/8-16 thread chaser or tap.

### Install Mounting Studs:

1. Apply RTV silicone to one end of each mounting stud.
2. Install the 3/8-16 x 4 stud into the bottom passenger side. It should stick out 3 1/2".
3. Install three remaining studs, sticking out 2 1/2".



Note: Use the double nuts provided for install if needed.

## Install Compressor and Alternator Brackets:

1. Install four large and two small O rings in compressor and alternator brackets.



2. Slide brackets over studs as shown



## Install Power Steering Bracket:

1. Install power steering bracket using two 3/8-16 x 2" cap screws with anti-seize. Finger tighten.



## Install Water Pump and Spacer Posts:

1. Slide water pump over studs.



2. Apply anti seize to the end of the studs.
3. Install the short (1.85") spacer post to bottom passenger stud



4. Install three remaining (2.69") spacer posts.



Note: Tighten all spacer posts and two cap screws at this time.

### Install Main Bracket:

1. Install main bracket using four M8 x 25mm cap screws and washers with anti seize. Finger tighten.



### Install Power Steering Pump with Pulley:

1. Install power steering pump using two 5/16-18 x 3" cap screws and lock washers with anti seize. Tighten firmly.



**WARNING:** Do not start the engine until power steering hoses, reservoir, fluid, etc are installed and system is filled and bled. See the enclosed instructions for details on this procedure. Running the pump dry will void the warranty.

### Install A/C Pump:

1. Install a/c pump using two M8 x 25 mm cap screws and washers with anti seize. Finger tighten.



2. Install lower shoulder bolt and washer with anti seize.



3. Install compressor cover using blue thread locker and three 1/4-20 x 3/4 cap screws. Do not over tighten.



## Install Alternator:

1. Install alternator using one M8 x 25mm and one M10 x 80mm cap screws and washers with anti seize.



- Tighten shoulder bolt and all cap screws on a/c pump and alt at this time.

## Install Water Pump Pulley:

1. Install water pump pulley using four 5/16-24 x 1/2" cap screws with red thread locker.



## Install Crank Pulley:

1. Install crank pulley using three 3/8-24 x 1" cap screws and Belleville washers as shown with thread locker.



## Install Tensioner and Belt:

1. Install tensioner on main bracket using the 3/8-16 x 2 1/4" cap screw and washer with thread locker.



2. Using a 1/2" drive ratchet, rotate tensioner and install belt as shown.



3. Install tensioner cover using two 10-32 x 3/4" flat head screws with thread locker.



**Install Compressor Manifold: Do not perform this step until you are ready to install AC lines and charge your system!**

1. Remove the plate on the top of compressor body. The compressor is Nitrogen charged to insure lubrication of all components during transport. You will hear the gas escaping when you loosen the fasteners.
2. Install manifold as shown using two M8 x 25mm cap screws with anti seize.



**WARNING: Do not connect power to the AC clutch wire without first connecting hoses and charging the system. Please follow all of the enclosed instructions for charging your system. Serious damage to your compressor can occur and the warranty will be voided.**

**EDDIE MOTORSPORTS IS NOT RESPONSIBLE FOR CUSTOMER APPLICATIONS THAT ARE OUTSIDE THE NORMAL INTENDED USE OF OUR PRODUCTS, INCLUDING SPECIFIC MODEL AND YEAR APPLICATIONS, ENGINES EQUIPPED WITH SUPER CHARGERS, AND LATE MODEL EMISSIONS EQUIPPED VEHICLES.**

**PLEASE CALL WITH ANY QUESTIONS: 888-813-1293**



## ***PLEASE READ!***

### **IMPORTANT INFORMATION ABOUT YOUR POWER STEERING PUMP**

Follow these procedures to ensure that the system is filled and purged correctly.

Prior to starting the car, fill the pump reservoir with power steering fluid. Use fluid designed for use in power steering; brake or hydraulic fluid is not an acceptable substitute.

With your car in “park”, the emergency brake engaged, and the engine running, SLOWLY turn the steering wheel all the way to the right and then all the way to the left. With the help of a second person and using a long transmission funnel to insure that you are safely clear of moving parts, simultaneously pour power steering fluid into the reservoir while continuing to cycle the steering wheel. Do this until the reservoir is properly filled and the fluid level remains constant. Fully tighten the cap on the reservoir.

### **IMPORTANT INFORMATION ABOUT YOUR AC COMPRESSOR**

All charging procedures should be performed by a licensed and certified technician. Installer and technicians should read this sheet and all component instructions carefully before starting work. Please call if you have any technical questions before, during or after the installation. Our knowledgeable staff will be glad to assist you with any questions you have.

**WARNING:** Do not connect power to the AC clutch wire without first connecting hoses and charging the system. Serious damage to your compressor can occur and the warranty will be voided.

The Sanden A/C compressor supplied with your Eddie Motorsports S.drive kit is pre-filled with oil and Nitrogen charged from the factory to insure proper lubrication of the internals during storage and transport. Do not remove the block off plate on top of the compressor until you are ready to install the hoses and charge the system.

#### **Refrigerant**

The Sanden A/C compressor supplied with your Eddie Motorsports S.drive kit is compatible with 134a refrigerant which is commonly used in late model and aftermarket A/C systems. All part warranties are voided if any refrigerant other than R134a is used. If your car is equipped with its original A/C system and components, it will be necessary to convert your system to use 134a. Consult a reputable A/C system manufacturer for details on this conversion. We recommend the factory air experts at Classic Auto Air 877-342-5526 [www.classicautoair.com](http://www.classicautoair.com)

### **System Charging Tips & Warnings PLEASE READ CAREFULLY BEFORE CHARGING YOUR A/C!**

1. Please keep in mind that regardless of you or your technician's experience, the charging processes for your Sanden pump will vary greatly from stock OEM systems. Failure to follow these steps and proper charging procedures will result in an improper installation or damaged item and **WILL VOID YOUR WARRANTY!**

2. **DO NOT ADD OIL!** All new Sanden compressors contain a full system charge of oil.

3. Before charging the system and putting power to the compressor, it is necessary to clear the oil from the compressor head. With the belt removed and the lines hooked up, manually turn the compressor clutch hub (not the pulley) a minimum of 10 complete revolutions to clear the oil.

4. **DO NOT CHARGE THE SYSTEM IN LIQUID FORM.** Unlike later model vehicles, doing so will direct liquid refrigerant into the compressor piston chamber, causing damage to the compressor reed valves and/or pistons, as well as potentially seizing the compressor. Doing so voids all warranty claims.

5. **USE A CHARGING STATION TO EVACUATE AND CHARGE YOUR SYSTEM**

**DO NOT TILT, SHAKE OR TURN REFRIGERANT CAN UPSIDE DOWN DURING THE CHARGING PROCESS**

**WHILE THE ENGINE IS RUNNING!** Evacuate the system for a minimum of 45 minutes before charging.

Longer if possible. When using a charging station, meter the refrigerant into the system with the vehicle turned off. Then allow a minimum of 30 minutes for liquid to “boil off,” or hand turn the compressor hub (not the pulley) a minimum of 10 complete revolutions to clear liquid refrigerant from the compressor piston chamber.

6. **DO NOT CHARGE THE SYSTEM THROUGH THE HIGH (DISCHARGE) SIDE OF THE SYSTEM!** Refrigerant should be administered through the low (Suction) side of the system.

**Warranty** All compressors carry a 1-year limited warranty.