



*Owner's Installation Guide for the  
Paxton Automotive  
Charge Cooler Upgrade for  
Driver Side Supercharger Mount  
Small Block Ford Carbureted\**

*\*Legal in California only for racing vehicles which may never be used upon a highway.*

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# FOREWORD

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**Important:** This charge cooler upgrade is for driver side supercharger mount vehicles only!! Paxton does not make a charge cooler upgrade for passenger side supercharger mount vehicles.

This manual provides information on the installation, maintenance and service of the Paxton supercharger kit expressly designed for this vehicle. All information, illustrations and specifications contained herein are based on the latest product information available at the time of this publication. Changes to the manual may be made at any time without notice. Contact Paxton Automotive for any additional information regarding this kit and any of these modifications at 888-9-PAXTON 8:00am-4:30pm PST.



## Take note of the following before proceeding:

1. Proper installation of this supercharger kit requires general automotive mechanic knowledge and experience. Please browse through each step of this instruction manual prior to beginning the installation to determine if you should refer the job to a professional installer/technician. Please contact your dealer or Paxton Automotive for possible installers in your area.
2. **This product was designed for use on stock (*un-modified, OEM*) vehicles.** The PCM (*computer*), engine, transmission, drive axle ratios and tire O.D. must be stock. If the vehicle or engine has been modified in any way, check with Paxton prior to installation and use of this product.
3. Use only premium grade fuel with a minimum of 91 octane (*R+M/2*).
4. Always listen for any sign of detonation (*knocking/pinging*) and discontinue hard use (*no boost*) until problem is resolved.
5. Paxton is not responsible for any clutch, transmission, drive-line or engine damage.

Exclusions from Paxton warranty coverage considerations include, but not limited to:

1. Neglect, abuse, lack of maintenance, abnormal operation or improper installation.
2. Continued operation with an impaired vehicle or sub-system.
3. The combined use of Paxton components with other modifications such as, but not limited to, exhaust headers, aftermarket camshafts, nitrous oxide, third party PCM programming or other such changes.

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# NOTICES

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## (Read before installation is started)

Removal of the factory sealed pulley will reduce the supercharger warranty from three years to one year unless the supercharger unit (with the original pulley still attached) and new pulley are sent into Paxton for removal, installation and re-sealing. If the supercharger warranty is not a concern or if the supercharger warranty has expired, the pulley may simply be removed and replaced. Hammering/prying etc. on the supercharger and/or pulley will cause damage to the parts. Light heating of the supercharger pulley with a propane torch (if the pulley is tight on the shaft) will aid removal. A return authorization number is required before the supercharger and pulley are sent into Paxton. Call the Paxton service department at (805) 487-3796 for a return authorization number. Return freight (ground) will be paid by Paxton.

This product is protected by state common law, copyright and/or patent. All legal rights therein are reserved. The design, layout, dimensions, geometry, and engineering features shown in this product are the exclusive property of Paxton Automotive. This product may not be copied or duplicated in whole or part, abstractly or fundamentally, intentionally or fortuitously, nor shall any design, dimension, or other information be incorporated into any product or apparatus without prior written consent of Paxton Automotive.

### PLEASE READ CAREFULLY

This kit should only be installed by qualified mechanics. **It is imperative that the correct air/fuel mixture be maintained at all times. This Kit is to be supplied to competent engine tuners for their completion by the addition of custom tuning.** The installation of this system without custom tuning to compensate for boost pressure will **cause engine damage**.

This product is intended for use on healthy, well maintained engines. Installation on a worn-out or damaged engine is not recommended and may result in failure of the engine.

Paxton Automotive is not responsible for engine damage Installation on new engines will not harm or adversely affect the break-in period so long as factory break-in procedures are followed.

### For best performance and continued durability, please take note of the following key points:

1. Use only premium grade fuel 91 octane or higher (R+M/2).
2. The engine must have stock or lower than stock compression ratio.
3. Always listen for any sign of detonation (pinging) and discontinue hard use (no boost) until problem is resolved.
4. Perform an oil and filter change upon completion of this installation and prior to operating the vehicle. Thereafter, always use a high grade "SF" rated engine oil or a high quality synthetic, and change the oil and filter every 3000 miles.

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This product may not be legal for use on public roads in all 50 states.

# PAXTON CHARGE COOLER Installation Instructions

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**Before beginning this installation,  
please read through this entire instruction booklet**

This Paxton Charge Cooler system was designed as a street/strip oriented charge cooler.

As with any power enhancing product, this system is intended for use on healthy, well-maintained engines. Paxton Automotive is not responsible for engine damage. Installation on new engines will not harm or adversely affect the break-in period so long as factory break-in procedures are followed.

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## **TOOL & SUPPLY REQUIREMENTS:**

- Open End Wrenches: SAE and Metric
- Allen Wrenches: SAE
- Flat #2 Screwdriver
- Phillips #2 Screwdriver
- Wire Cutters, Strippers and Crimpers
- Tape Measure
- Pipe Tape (Teflon)
- Adjustable Wrench
- 1" Hole Saw
- 3/8" Drive and Socket Set: SAE and Metric
- Hacksaw
- Hose Cutters



**SMALL BLOCK FORD CHARGE COOLER UPGRADE**  
**Part No. 8PN301-080(8) SATIN (POLISHED)**

**PARTS LIST**

**IMPORTANT:** Before beginning installation, verify that all parts are included in the kit. Report any shortages or damaged parts immediately.

<b>PART #</b>	<b>DESCRIPTION</b>	<b>QTY</b>
<b>8PN101-080(8)</b>	<b>CAC CORE ASSY, SBF CARB</b>	<b>1</b>
<b>8PN104-080</b>	<b>CAC SPT COMPONENTS, SBF CARB</b>	<b>1</b>
7P375-075	3/4" HOSE UNION	3
7P500-026	1/2NPT X 3/4 BARB 90 BRASS	3
7P500-750	1/2"NPT TO 3/4" HOSE BARB 90, SHORT	1
7PS275-200	SLEEVE, BLACK 2.75ID X 2.0	1
7R002-044	#44 SAE TYPE F SS HOSE CLAMP	2
7R007-001	NYLON RATCHET CLAMP 1-1/8"	14
7U038-000	3/4" HEATER HOSE	10
7U038-012	HOSE,3/4"DIA 90DEG,4X12"	3
7U038-150	HOSE, 3/4"X150° MOLDED HOSE	2
8N100-001	NYLON MOUNTING KIT	2
7U100-055	TIE WRAP, 7.5" NYLON	5
7U100-044	TIE WRAP, 4" NYLON	5
<b>8N105-010</b>	<b>WATER TANK W/ FTG,5.0 MUST</b>	<b>1</b>
7P500-026	1/2NPT X 3/4 BARB 90 BRASS	2
<b>8PN107-080</b>	<b>ASSY, WATER PUMP SBF CARB CAC</b>	<b>1</b>
5W001-005	3/8" PLASTIC WIRE LOOM	4
5W001-011	16-14 GA RING TERM .26" HOLE	2
5W001-013	14-16 GA BUTT CONN BLU INSUL	2
5W001-054	16 GA FUSE HOLDER	1
5W014-030	14GA STRD WIRE BLACK	4
7E010-075	#12 X 3/4" SHT METL SCRW HEX	1
7R003-027	ADEL CLAMP,1-11/16"	1
8F001-402	PUMP, WATER, PIERBURG	1
<b>8N006-010</b>	<b>WATER COOLER</b>	<b>1</b>
<b>4PFX020-080</b>	<b>MANUAL, CAC UPGRADE</b>	<b>1</b>
<b>3863515</b>	<b>DECAL, PAXTON COLOR 9"X3"</b>	<b>1</b>
<b>OPTIONAL:</b>		
<b>8N150-010</b>	<b>UNIVERSAL BATT RELOCAT.ASSY</b>	<b>1</b>
<b>4GJ012-230(8)</b>	<b>DISCHARGE TUBE WITH RACE VALVE FLANGE, SATIN (POLISHED)</b>	
<b>8D204-011(8)</b>	<b>RACE BLOWOFF VALVE, SATIN (POLISHED)</b>	

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# Section 1

## Component Removal

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### 1. Component Removal

- A. Disconnect and remove the battery from the vehicle. It will need to be relocated to the trunk using a battery relocation kit (See Fig. 1-a). Follow the instructions supplied with the battery relocation kit of your choice. (Paxton 8N150-010 may be used)
- B. Remove the supercharger discharge tube and carburetor enclosure inlet elbow.



Fig. 1-a



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# Section 2

## Charge Air Cooler Install

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### 2. Charge Air Cooler Install

- A. Cut the original supercharger discharge tube so that a 12 inch section of straight tubing (with the bypass valve bung) remains (See Fig. 2-a).



Fig. 2-a

- B. Cut 2 1/4" off of the straight section of the carburetor enclosure inlet elbow. (See Fig. 2-b). De-bur and clean both ducts.



Fig. 2-b

- C. Re-install both ducts and use the supplied sleeve to connect the discharge duct to the charge air cooler (CAC) inlet. Tighten hose clamps on all sleeves.

- D. Install 90° fittings into the CAC so that they point towards the front of the vehicle. One of these fittings needs to be the supplied "short" fittings in order to allow it to be installed without hitting the other fitting. (See Fig. 2-c)



Fig. 2-c

- E. Attach to tubes using 2 3/4" sleeve and #44 clamps.
- F. Close hood and verify CAC clearance. If interference occurs, loosen clamps and lower CAC as needed.



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# Section 3

## CAC Water Cooler Installation

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### 3. CAC Water Cooler Installation

- A. Using pipe thread sealant, install a 90° fitting into each end of the supplied water cooler so that they point in the same direction.
- B. Temporarily remove the passenger side horn to allow access to the front of the radiator.
- C. Use the supplied “8N100-001 Nylon Mounting Kit” to attach the water cooler to the front of the vehicle’s radiator. Make sure to place the supplied foam spacers between the radiator and the water cooler. (See Fig. 3-a)



Fig. 3-a

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# Section 4

## Water Reservoir Assembly

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### 4. Water Reservoir Assembly Installation

- A. Install a 1/2" NPT 90° hose barb fitting in the side of the supplied water reservoir so that it points up.
- B. Install a 1/2" NPT 90° hose barb into the bottom hole of the reservoir pointing down.
- C. Test fit the reservoir in the battery tray. Modify tray as needed to eliminate sharp edges from puncturing the reservoir. (See Fig. 4-a)



Fig. 4-a

- D. Secure the reservoir using the original battery hold-down clamp or other suitable method.

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# Section 5

## Water Pump Wiring

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### 5. Water Pump Wiring

- A. Locate the supplied electric water pump on the passenger side frame rail so that the supplied 150° hose elbow connects the bottom fitting in the reservoir to the inlet (center) barb on the pump.
- B. Install the supplied eyelet onto the ground (brown) wire of the water pump. Ground the water pump using the sheet metal screw in the next step.
- C. Using the supplied adel clamp, secure the water pump by drilling the frame rail and installing the supplied sheet metal screw. (See Fig. 5-a)



Fig. 5-a

- D. Route the water pump power wire to a keyed power source and attach using the supplied fuse holder and butt connectors.

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# Section 6

## Plumbing and Bleeding System

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### 6. Plumbing and Bleeding System

- A. Connect the water pump discharge to the water cooler using the supplied hose, hose elbow and hose mender. The hoses will need to travel through (holes must be drilled) or under the radiator core support.
- B. Connect the open fitting on the water cooler to the bottom fitting on the charge cooler using the supplied hose and two hose elbows and hose menders if needed for smooth routing.
- C. Connect the top fitting on the CAC to the upper fitting on the reservoir using a 90° hose elbow. (See Fig. 4-a)
- D. Install and tighten the supplied plastic ratchet clamps on all hose connections.
- E. Remove the reservoir cap and fill system with 25%/75% coolant/water mix.
- F. Make sure that all wires and hoses are routed away from hot, moving or sharp objects.
- G. Key on and verify coolant circulation through the system. Check for leaks.

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\*\*\* NOTE \*\*\*

If supercharger boost is increased a larger bypass valve may be required to reduce compressor surge.

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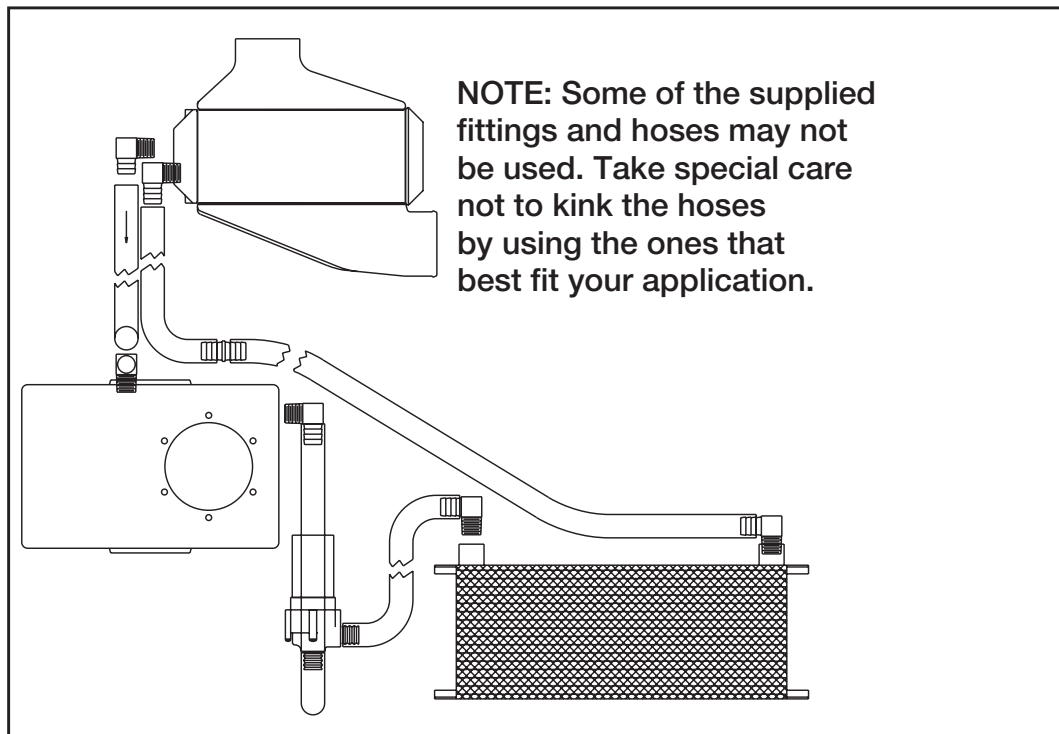


Fig. 6-a



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