
XYZ
HELP
W
UV
T
S
R
PQ
O
N
M
L
K
Z

"CUSTOM EXHAUST"

RELIABLE Auto SERVICE Garage

Chris Chapman
Owner

"ALIGNMENTS" "TIRES" AND SO MUCH MORE!! "AUTO REPAIRS" "DIAGNOSTICS"

Invoice date
7/18/2018

Due date
7/18/2018

Invoice number
393

Reliable Auto Service
8735 LaRue Rd.
Bath, NY 14810
Phone (607)-776-9574
Fax (607)776-9570

	Qty	Unit price	Amount
Exhaust	1	299.99	299.99
Front wheel alignment (two wheel)	1	54.95	54.95
		Sub-total	$ 354.94
		Sales Tax	$ 28.40
		Total	**$ 383.34**

Customer supplied mufflers.

Plate #:
N/A

OLD AIR PRODUCTS
A Division of Cold Air Products Inc.
1201 Forum Way, Fort Worth Tx 76140
(817)531-2665 or FAX 531-3257

INSTALLATION INSTRUCTIONS
CAP 9000 - 1955-59 Chevrolet Pickup

HURRICANE SERIES Heat Cool & Defrost System

This system is designed for use in all 55-59 Chevrolet pick-ups, and is a combination heat/cool/defrost system. Installation is straightforward, appearance is neat, performance is unsurpassed. Installation requires basic mechanic tools, a 1-1/4" & 3" hole saw.

For maximum performance, an air conditioner must be able to remove heat from the air in a vehicle faster than it is added. It is recommended to reduce the amount of heat added by insulating the roof, firewall, and floorboards. You should also seal all holes in the firewall, insure air tight door and window seals, and consider window tinting.

For maximum cooling performance a six-blade fan with shroud should be installed if possible. Flex fans are not recommended. Another alternative and a definite plus for any system is the addition of an electrical fan system, available from Old Air Products.

Vehicles with V8 engines, the hose routing will be neater and easier with passenger side compressor and driver's side alternator. (See photo #1.) Brackets are available and reasonably priced from Old Air Products.

Prepare Vehicle for Installation

1) Remove the glove box and original heater system including the control panel or cover plate from the dash. Leave original defrost outlets installed in the dash.

2) Disconnect and remove the battery and the battery tray from the firewall. Drain the cooling system, remove radiator and heater hoses.

Interior Unit Installation

1) Remove the air/heat/defrost unit from the box and spread the parts out so they can be located as required.

2) Install the unit mounting plate #41-9001 and offset bracket #41-1018 on the unit case (photo #1).

3) Install thermostat and air inlet grill. (Diagrahm #1)
A) feed the thermostat's capillary sensor tube through the small hole in the top lip of the large inlet air opening (see Diagram #2).
B) Gently bend the sensor tube at 90 degrees, and insert approximately 2" of it into the fins of the coil at approximately 2" from the front and 1/2" up from bottom of the air inlet opening.
C) Carefully coil remainder of sensor tube so that it will fit inside of opening and snap inlet grill onto the side of unit.

NOTE: Thermostat location is important to cycle the compressor, keeping the coil from freezing up, and achieve maximum cooling performance.

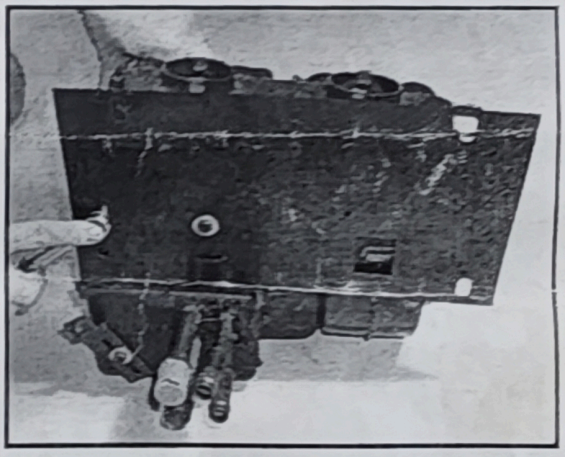
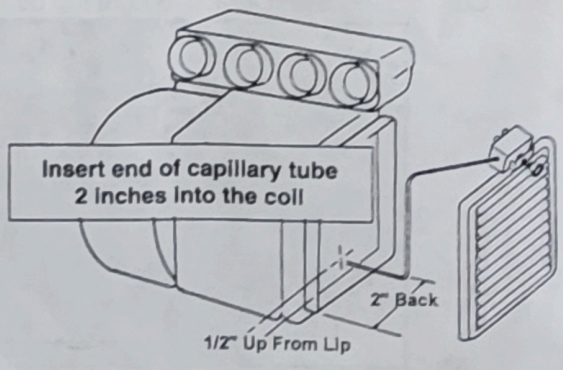


Photo #1



Diagrahm #1

© Old Air Products 12/2012, 9/2002, 6/1996, 4/1992

RAMJET 502 Engine 12499121 Specifications

Specifications Part Number 88962910

Thank you for choosing GM Performance Parts as your high performance source. GM Performance Parts is committed to providing proven, innovative performance technology that is truly.... more than just power. GM Performance Parts are engineered, developed and tested by the factory to exceed your expectations for fit and function. To contact us call 1-800-577-6888 for the GM Performance Parts Authorized Center nearest you or visit our website at www.gmgoodwrench.com.

This publication provides general information on components and procedures that may be useful when installing or servicing a RAMJET 502 engine. Please read this entire publication before starting work. Also, please verify that all of the components listed in the Package Contents section below were in fact shipped in the kit.

The information below is divided into the following sections: Package contents, Component information, RAMJET 502 engine specifications, Installation instructions, Additional parts that you may need to purchase, Torque specifications, and a Service Parts List.

The RAMJET 502 engine is a fully assembled engine. This engine is assembled using brand new, premium quality components. The RAMJET 502 engine is manufactured on current production tooling; consequently you may encounter dissimilarities between this engine assembly and previous versions of the big block V8. In general, items such as motor mounts, accessory drives, exhaust manifolds, etc. can be transferred to a RAMJET 502 engine when installed in a vehicle originally equipped with a big block V8 engine. However, as noted in the following sections, there may be significant differences in the water pump, oil pan, etc., between a RAMJET 502 engine and an older big block V8 engine. These differences may require modifications or additional components not included with this engine. When installing the RAMJET 502 engine in a vehicle not originally equipped with a big block V8, it may be necessary to adapt or fabricate various components for the cooling, fuel, electrical, and exhaust systems. Due to the wide variety of vehicles in which this engine can be installed, some procedures and recommendations may not apply to specific applications.

The RAMJET 502 engine is based on the GM marine electronic, port fuel injection system, and the GM Performance Parts 502/502 crate engine. The RAMJET 502 engine includes an aluminum intake manifold, fully calibrated Engine Control Module (ECM), wiring harness, all the necessary sensors, distributor, ignition coil, throttle body, fuel rail, and throttle cable brackets. All the gaskets and attaching hardware required for the components you need to install are included in the kit as well. This package is assembled using brand new, premium quality components.

The RAMJET system is a speed and air density system. The system is based on "speed density" fuel management. Sensors provide the ECM with the basic information for the fuel management portion of its operation. Signals to the ECM establish the engine speed and air density factors. The engine speed signal comes from the Ignition Control (IC) module. The ECM uses this information to determine the "speed" or RPM factor for fuel and spark management. The Manifold Absolute Pressure (MAP) sensor contributes the density factor. As intake manifold pressure increases, the vacuum decreases. The air density in the intake manifold also increases as additional fuel is needed. The MAP sensor sends this pressure information to the ECM, and the ECM increases the amount of fuel injected, by increasing the injector pulse width. As manifold pressure decreases, the vacuum increases, and the amount of fuel is decreased. These two inputs, MAP and RPM, are the major determinants of the air/fuel mixture delivered by the fuel injection system. The remaining sensors and switches provide electrical inputs to the ECM, which are used for modification of the air/fuel mixture, as well as for other ECM control functions, such as idle control.

This package is designed to provide a completely calibrated fuel injection system for the 502/502 crate engine. This system will provide a number of benefits over a carbureted system. These benefits include improved driveability, better fuel economy, and increased performance across the entire RPM range. These benefits are a result of the precise fuel and ignition control across the entire RPM range.

All of the spark and fuel management functions are handled through the ECM. It is the control center of the fuel injection system. The ECM controls the fuel metering system, ignition timing, idle speed, and on-board diagnostics for engine functions. It constantly looks at the information from various sensors and controls the systems that affect engine performance. The ECM also performs the diagnostic function of the system. It can recognize operational problems and store diagnostic trouble codes, which identify the problem areas to aid the technician in making repairs. Refer to the Big Block RAMJET service manual, GM Part Number 88962724, included in this kit, for more information on using the diagnostic function of the ECM.

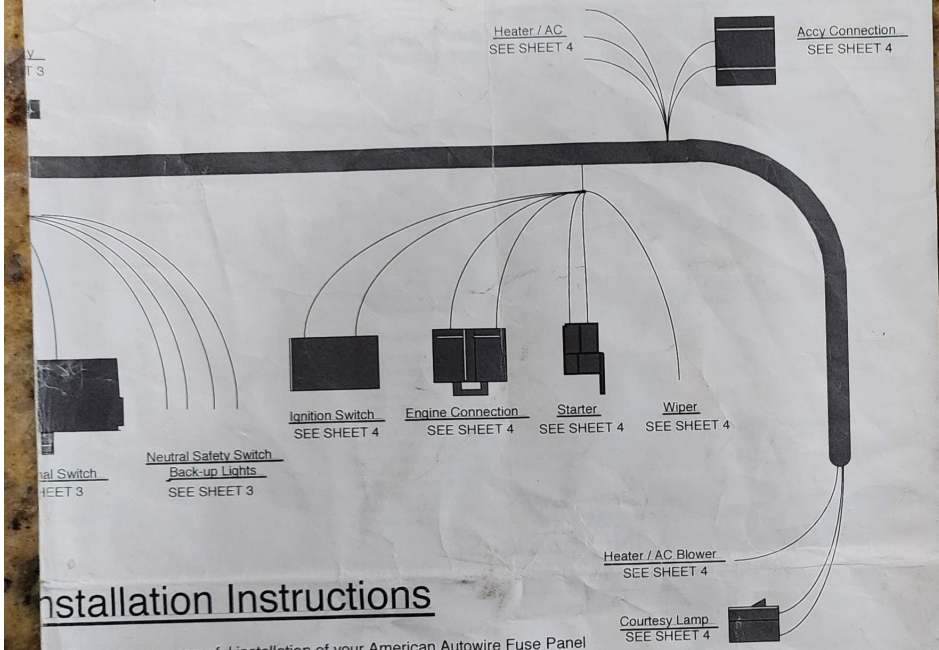
TENTIONALLY LEFT BLANK

American Autowire

PART # 500481

DESCRIPTION:
FULL VEHICLE WIRING KIT
1955-59 CHEVY/GMC TRUCK

92965287 Instruction Sheet Rev 2.0 2/12/2012



nstallation Instructions

will guarantee a successful installation of your American Autowire Fuse Panel

llows:

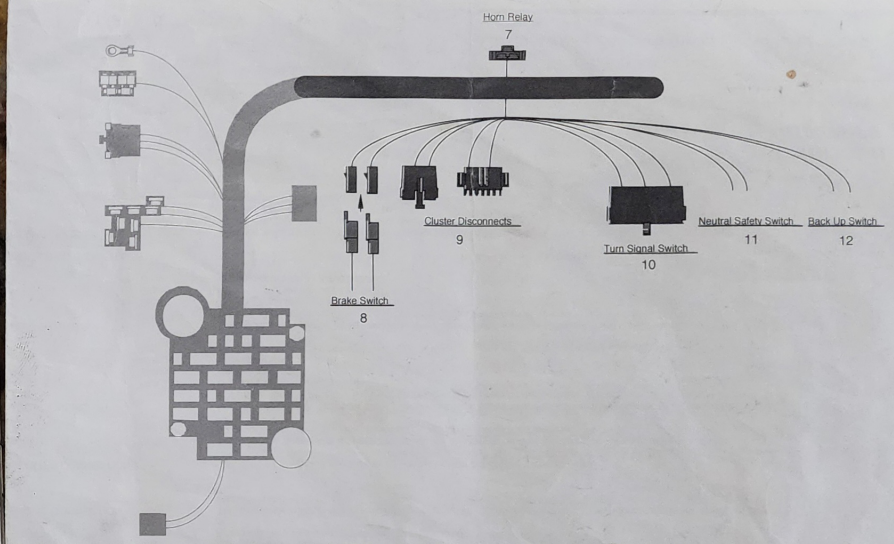
g plate (see sheet 2)
fi ares. Installation clamps are provided, as shown in detail "D" on sheet 4.
hown in this Fuse Panel Installation sheet.
ther wiring bags as per the letter designation on instruction sheets. (bags

Fuse Panel harness. Study the diagram above, and follow the installation procedures

CUIT RATINGS	
USE	15 AMP
OCK	10 AMP
ATER	10 AMP
L PUMP	15 AMP
WER SEAT	30 AMP
WER LOCK	30 AMP
WER WINDOWS	30 AMP

American Autowire
www.americanautowire.com 856-9233-0801

PART # 500482 G
DESCRIPTION:
1955-59 Chevy/GMC Truck
Custom Fuse Panel Harness
92965278 Rev 7.0 6/5/2014 DB



Note: Terminals are provided for most connections on your wiring kit. Use the provided terminals and connector to install the following wires:

HORN RELAY		Plug the horn relay (found in the 510565 fuse kit) into this connector.
	Red	12 volt battery feed.
	Black	Relay ground circuit (to steering column).
	Dark Green	Triggered 12 volts to horn.
BRAKE SWITCH		Plug the wires from the Brake Switch Connection bag into this location, following the instructions in that bag.
	Orange	12 volt feed to brake switch.
	White	12 volt out from the brake switch to the turn signal switch.
	Light Blue	12 volt out from the brake switch to the third brake light.
GAUGE DISCONNECT		These connectors will plug into the gauge disconnect from the Cluster harness, bag H. Each wire function is described on the instruction sheet from bag H.
TURN SIGNAL SWITCH		Plug into steering column turn signal connection. If you are using a stock '55-'59 truck steering column in your truck, please refer to "Table A - AAW Turn Signal Switch wires to stock 1955-59 Chevy & GMC Truck turn signal switch" on page 4 for proper mating directions. Our connector mates to a 3 7/8 inch long plug used on 1969-1974 GM, IDIDIT, and many other aftermarket steering columns. Starting from 1975 on up, the GM switch changed and began using a 4 1/4 inch connector. That connector is from the same family and uses the same terminals. By using the supplied mating connector and terminals located in the loose piece kit bag of the dash harness (500482, bag G), it is easy to adapt any steering column to this kit. The function of the wires are as follows:
	White	12 volt feed from brake switch
	Dark Green	RH tail lamp
	Yellow	LH tail lamp
	Purple	12 volt feed from turn flasher
	Brown	12 volt feed from hazard flasher
	Dark Blue	RH front park lamp
	Light Blue	LH front park lamp
	Black	Horn relay ground wire to horn switch
NEUTRAL SAFETY	Purple	12 volt feed from ignition switch
	Purple	12 volt feed to starter. (These wires MUST be connected to a neutral safety switch for an automatic transmission, or connected together for a manual transmission car, for the starter to operate correctly.)
BACK UP SWITCH	Pink	12 volt ignition power to switch
	Light Green	12 volt power out to back up lights, from switch.

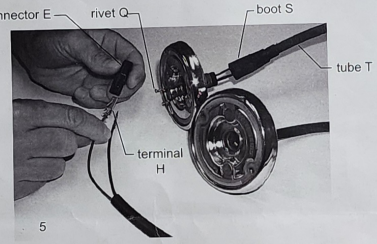
American Autowire
www.americanautowire.com 856-9233-0801

1955-59 Truck
Custom Fuse Panel Harness
92965278 Rev 7.0 6/5/2014 DB
500482

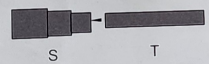
1955 2nd series-1959 Chevy/GMC Truck

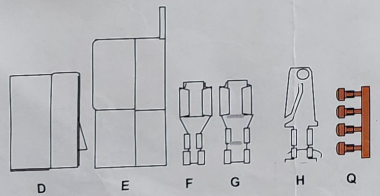
Parking Lamp Connections

Photo 5 shows the parking lamp assembly wires with rivet "Q" installed, wires fed through the tube "T" and boot "S" first, then terminals "H" applied, and connector "E" installed. The mating wires form the front light wiring will plug into connector "E" using the mating connector "D" and supplied terminals "F" & "G".
Note: terminal (G) is for a double wire installation. This is necessary for the brown wire on the parking lamp wiring, as it must double on one side of the car, and then travel to a single terminal on the opposite side of car.



(1955-57 parking lamp shown, 1958-59 similar)





another wiring product by...

American Autowire
We Make Wiring Easy!!

92965286 instruction sheet Rev. 1.0 6/6/2001

INSTALLATION INSTRUCTIONS

GLOWSHIFT® PERFORMANCE GAUGES & PODS

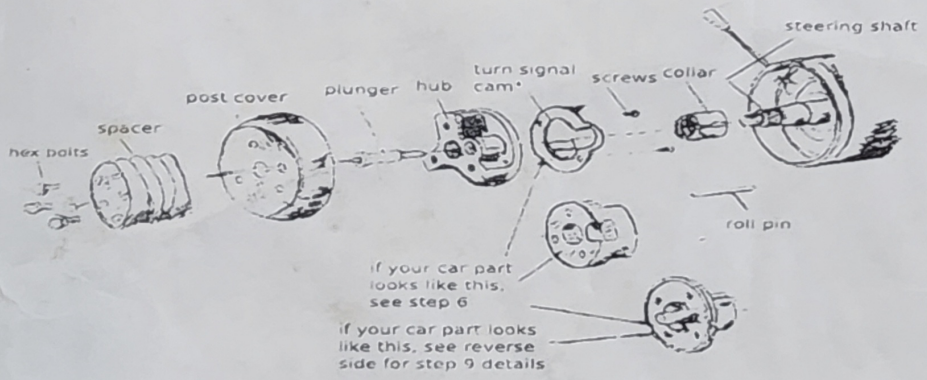
Tech Support
856-768-8300 EXT 2
TechSupport@GlowShiftGauges.com

Additional Installation Information & Material Requirements

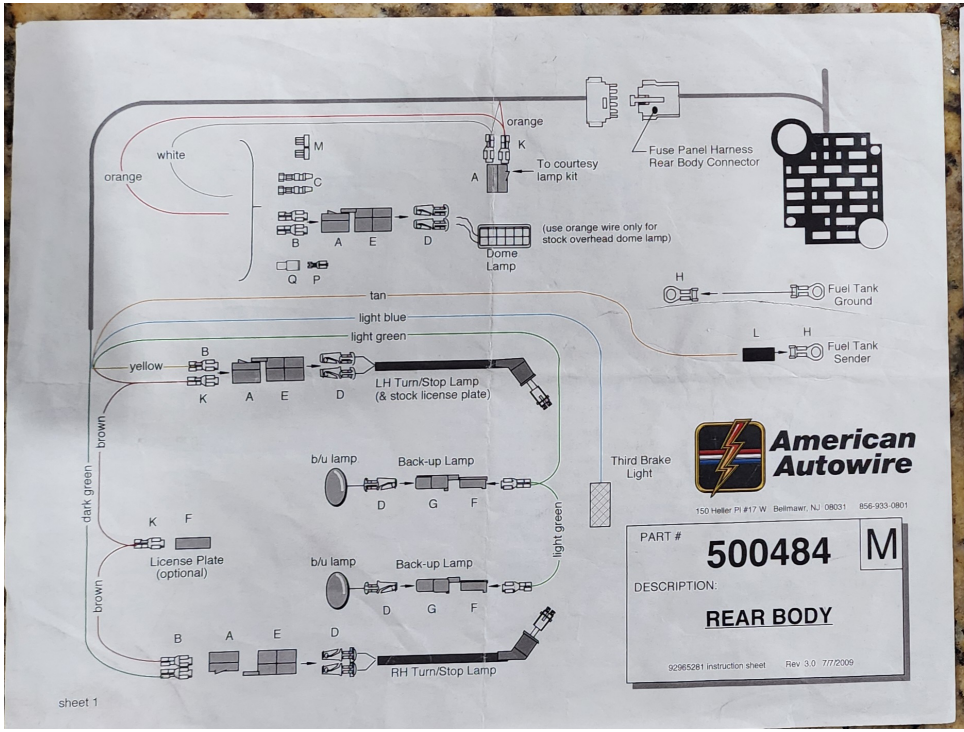
- **GlowShift Gauges Approved Conductor Wires:** Successfully installing GlowShift Gauges may require lengths of wire (sizes and quantity depend on vehicle, gauge type, gauge location and / or sensor location). For correct and proper GlowShift Gauge installation and operation, the use of 18 Gauge (wire diameter) automotive grade conductor wire with sheathing is recommended for one or more gauges per vehicle. When installing and routing wires from the engine compartment, to inside the vehicle cabin, always employ the use of a rubber grommet. This will prevent and deter the stripping of power supply and / or sensor wires that is necessary to deliver vital statistics about your engine to your GlowShift engine monitoring instruments. Never use wire nuts to fasten or bound vehicle / gauge or sensor wiring. Always use securing crimp connectors or solder individual wire junctions together for optimum gauge installation and operation.
- **GlowShift Gauges Approved Installation Accessories:** GlowShift Gauges may require the installer or user to provide additional products, accessories or adapters for the correct installation and operation of a gauge or sensor, as per the GlowShift Installation Instructions. When installing and routing hoses to or from the engine compartment, to inside the vehicle cabin, always employ the use of a rubber grommet. This will prevent and deter the stretching or pinching of hoses that is necessary to deliver vital statistics about your engine to your GlowShift engine monitoring instruments.
- **GlowShift Gauges Installation Instructions:** Installation documents are solely to provide a guide for individuals that are mechanically and electronically able to install products. If you are unsure about the correct procedure of installation for a product or device, you should consult a licensed professional.

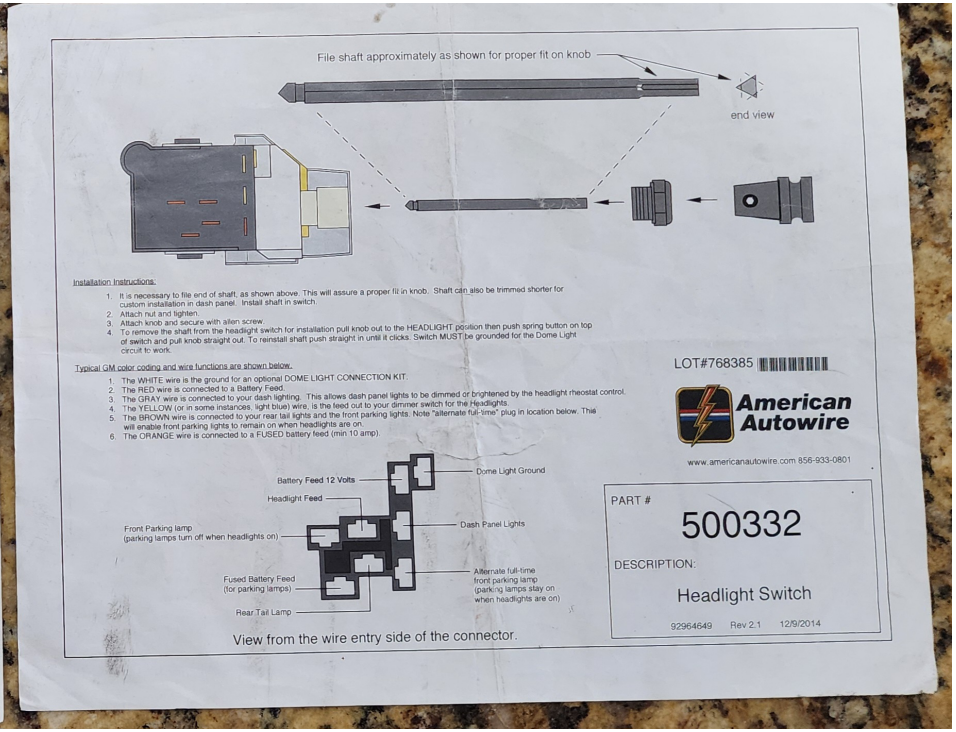
WWW.FOREVERSHARP.COM
888.878.2156
420 S. PINE STREET #C
SAN GABRIEL, CA 91776

STEERING WHEEL INSTALLATION INSTRUCTIONS (#2)



1.Straighten wheel so tires point straight ahead.	9. Position custom hub on splined steering shaft, making sure its aligned with the top (as you marked in step 4).
2. Disconnect battery to prevent horn from shorting out or angering your neighbors when your horn blows during installation.	10. Insert plunge in recessed hole in the custom hub.
3. Remove horn mechanism. Depending on your vehicle, it can be done either by a. removing a snap-on emblem cap by prying loose; or b. pressing down on horn cap and turning; or c. unscrewing horn ring and emblem, which are secured by screws concealed in rear side of wheel spokes.	11. Position post cover and spacer on hub using the three hex bolts provided and secure. Be sure that the wire on the plunger is running up through the hole provided on the custom hub and post cover so that it can connect to the back of the horn.
4. Remove center nut that holds the wheel to the shaft	12. Align the wheel with the spacer. Take the black wire running from the plunger and connect the tab to the center tab on the back of the horn.
5. Mark shaft that aligns with the top of the wheel. This ensures you don't put your new wheel on sideways.	13. Use the additional wire provided to ground the circuit by connecting one end to the outer tab of the horn and the other end to the hex bolt. Secure both sides.
6. With a steering wheel puller, use the two tapped holes on the hub of old wheel to pull off the wheel. You can borrow/rent/buy steering wheel pullers from your local auto parts store.	14. Secure the wheel and horn to the spacer with screws provided.
7. If there is a turn signal cancellation device on the back of your original wheel (see illustration above), remove it and reinstall it in the same position on the back of the custom hub.	15. Reconnect the battery.
8. If your original steering wheel has a pin inserted on the backside, make a note of the position. The black roll pin that came in your kit needs to be inserted on the backside of the hub using the pin location of the original wheel.	Enjoy your new FS steering wheel!


orange
white
orange
M
C
B A E D
Q P
K
A
To courtesy lamp kit
Fuse Panel Harness Rear Body Connector
(use orange wire only for stock overhead dome lamp)
Dome Lamp
H
Fuel Tank Ground
L H
Fuel Tank Sender
tan
light blue
light green
yellow
B
K A E D
LH Turn/Stop Lamp (& stock license plate)
brown
dark green
b/u lamp
Back-up Lamp
D G F
Third Brake Light
K F
License Plate (optional)
b/u lamp
Back-up Lamp
D G F
light green
brown
B A E D
RH Turn/Stop Lamp
American Autowire
150 Heller Pl #17 W Bellmawr, NJ 08031 856-933-0801
PART #
500484
M
DESCRIPTION:
REAR BODY
92965281 instruction sheet Rev 3.0 7/7/2009
sheet 1


File shaft approximately as shown for proper fit on knob
end view
Installation Instructions:
1. It is necessary to file end of shaft, as shown above. This will assure a proper fit in knob. Shaft can also be trimmed shorter for custom installation in dash panel. Install shaft in switch.
2. Attach nut and tighten.
3. Attach knob and secure with allen screw.
4. To remove the shaft from the headlight switch for installation pull knob out to the HEADLIGHT position then push spring button on top of switch and pull knob straight out. To reinstall shaft push straight in until it clicks. Switch MUST be grounded for the Dome Light circuit to work.
Typical GM color coding and wire functions are shown below.
1. The WHITE wire is the ground for an optional DOME LIGHT CONNECTION KIT.
2. The RED wire is connected to a Battery Feed.
3. The GRAY wire is connected to your dash lighting. This allows dash panel lights to be dimmed or brightened by the headlight rheostat control.
4. The YELLOW (or in some instances, light blue) wire, is the feed out to your dimmer switch for the Headlights.
5. The BROWN wire is connected to your rear tail lights and the front parking lights. Note "alternate full-time" plug in location below. This will enable front parking lights to remain on when headlights are on.
6. The ORANGE wire is connected to a FUSED battery feed (min 10 amp).
LOT#768385
American Autowire
www.americanautowire.com 856-933-0801
Battery Feed 12 Volts
Headlight Feed
Front Parking lamp (parking lamps turn off when headlights on)
Fused Battery Feed (for parking lamps)
Rear Tail Lamp
Dome Light Ground
Dash Panel Lights
Alternate full-time front parking lamp (parking lamps stay on when headlights are on)
View from the wire entry side of the connector.
PART #
500332
DESCRIPTION:
Headlight Switch
92964649 Rev 2.1 12/9/2014

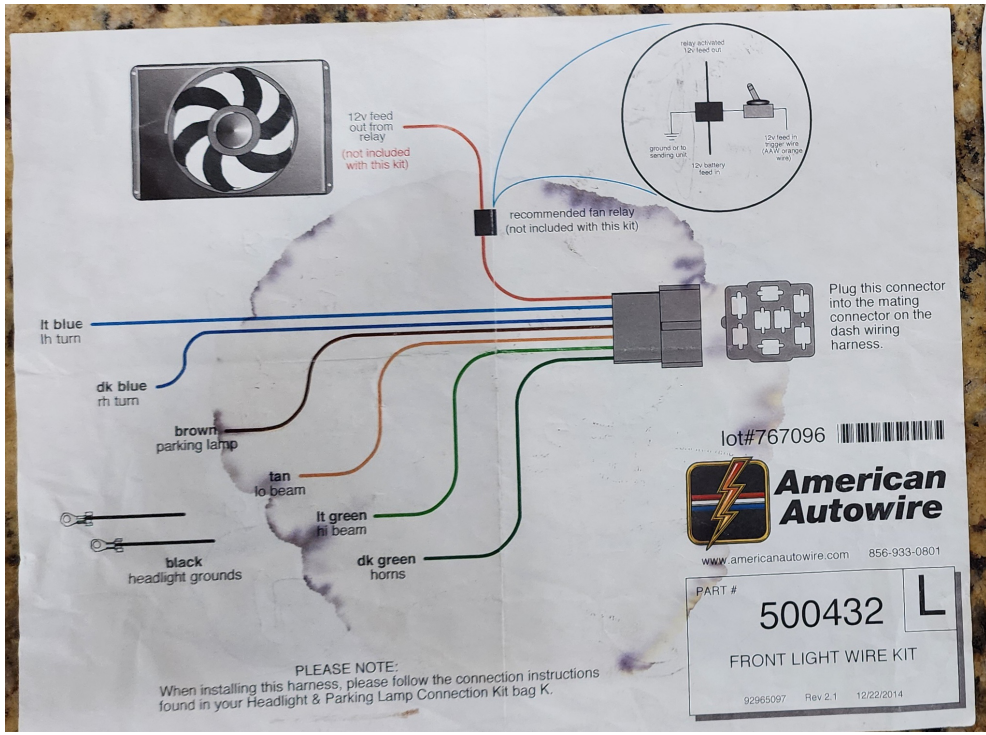
500481 - Classic Update Series Kit
1955-59 Chevrolet Truck

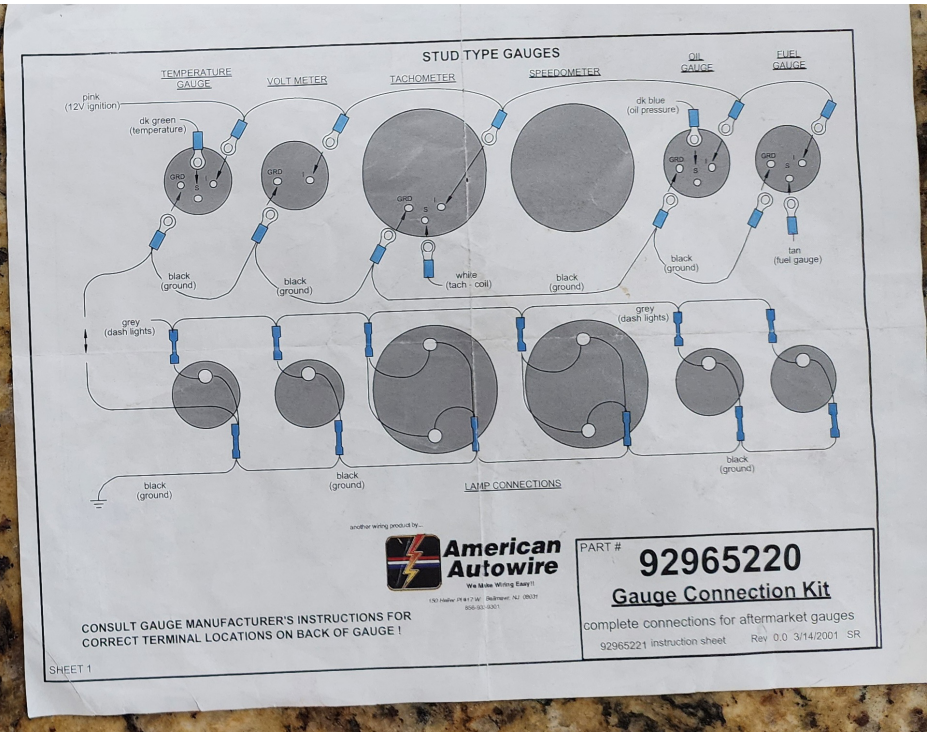
This kit contains the following components:

Bag	Part Number	Description	Quantity
	500684	Ignition Switch	1
	500042	Floor Dimmer Switch	1
	500332	Headlight Switch	1
J	500418	Engine Wiring Kit	1
	510565	Fuse, Relay, and Flasher Kit	1
L	500432	Front Light Wiring Kit	1
N	500472	Courtesy Light Kit	1
G	500482	Dash Harness Kit	1
H	500483	Instrument Cluster wiring kit	1
M	500484	Rear Body Wiring Kit	1
K	500486	Park/Headlamp Kit	1
	500919	Practice Terminal Crimping Set	1
	92965287	Kit Introduction Instruction Sheet	1
	92970000	Warning Sheet	1

Validate the kit contents with this component list. If there are any discrepencies with incorrect or missing parts, stop your installation and notify the supplier you purchased the kit from before proceeding.

American Autowire
www.americanautowire.com 856-933-0801


12v feed out from relay
(not included with this kit)
recommended fan relay
(not included with this kit)
relay activated 12v feed out
ground or to sending unit
12v battery feed in
12v feed in trigger wire (AA/W orange wire)
lt blue
lh turn
dk blue
rh turn
brown
parking lamp
tan
lo beam
lt green
hi beam
dk green
horns
black
headlight grounds
Plug this connector into the mating connector on the dash wiring harness.
lot#767096
American Autowire
www.americanautowire.com
856-933-0801
PART #
500432
L
FRONT LIGHT WIRE KIT
92965097 Rev 2.1 12/22/2014
PLEASE NOTE:
When installing this harness, please follow the connection instructions found in your Headlight & Parking Lamp Connection Kit bag K.


STUD TYPE GAUGES
TEMPERATURE GAUGE
VOLT METER
TACHOMETER
SPEEDOMETER
OIL GAUGE
FUEL GAUGE
pink (12V ignition)
dk green (temperature)
dk blue (oil pressure)
tan (fuel gauge)
black (ground)
white (tach - coil)
grey (dash lights)
LAMP CONNECTIONS
American Autowire
We Make Wiring Easy!!
CONSULT GAUGE MANUFACTURER'S INSTRUCTIONS FOR CORRECT TERMINAL LOCATIONS ON BACK OF GAUGE !
PART # 92965220
Gauge Connection Kit
complete connections for aftermarket gauges
92965221 instruction sheet Rev 0.0 3/14/2001 SR
SHEET 1

New Port Engineering

2760 New Port Rd. Washington, MO 63090

(636)239-1698

Installation Instructions
'Clean Wipe' Wiper Drive
1955 Second Series – 57 Chevrolet Trucks

© 1992

Vacuum Motor

1. Remove O.E.M. windshield wiper motor; if originally vacuum plug all vacuum lines.
2. On vehicles originally equipped with a vacuum wiper motor, remove vacuum wiper motor mount.
3. Remove the original wiper switch.
4. Remove the rubber bushings from the end of the transmission linkage arms.

Wiper Drive Installation

1. Remove the wiper blades and arms.
2. Install the nylon bushings in the wiper transmission linkage arms.
   See Figure 1.

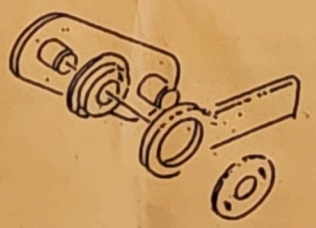


Figure 1.

3. Install the 'Clean Wipe' wiper drive attaching the mounting bracket directly to the cowl. Do not tighten the mounting screws until the support bracket is attached to the motor mounting bracket. (See step 4.)
   See Figure 2.

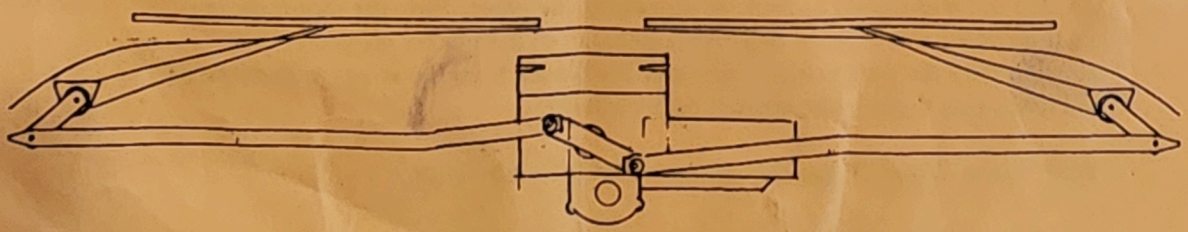


Figure 2.

ALAN GROVE COMPONENTS INC.
27070 METCALF ROAD ~ LOUISBURG, KS 66053
(913) 837-4368 ~ FAX (913) 837-5721

Chevrolet first used the attached reservoir pump in 1961 and they are still in use today in a few applications. There are a large number of pumps available that will work with all of our power steering pump brackets. Any pump from a small block, big block--- long or short waterpump---, and some six cylinders may be used with the correct V-8 power steering pump pulley.

THE MAIN DIFFERENCES in the POWER STEERING PUMPS ARE AS FOLLOWS:

1. Pump pressure*
2. Shape of reservoir
3. Number of attachment points between pump and reservoir on back of unit
4. Return line location
5. High pressure line fitting--male flare, inverted flare or metric O-ring fittings

***G.M. Saginaw pump pressure 1000-1200 p.s.i., Mustang - Pinto Rack & Pinion 820-870 p.s.i.**

Saginaw pump pressure may be decreased with the use of a - Flow Valve Shim Kit part number 1001 available from us or Mullins Steering Gears/ Borgeson Universal company (860)-482-8283.

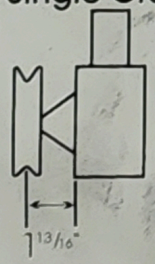
The following list of power steering pumps are just a few of the many available pumps that we have used with our power steering pump brackets. All reservoirs MUST HAVE THE TWO ATTACHMENT POINTS ON THE BACK OF THE RESERVOIR AS SHOWN.

A V-8 Chevrolet power steering pump pulley MUST ALSO BE USED for CORRECT belt alignment.

POWER STEERING PUMP PULLEYS	CHEVROLET PART NUMBER
one groove bolt-on pulley----------	G.M. Discontinued - steel pulley available from us.
two groove bolt-on pulley----------	3941107
one groove press-fit pulley----------	93430150
two groove press-fit pulley----------	14084343

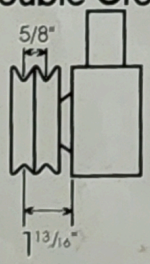
POWER STEERING PUMP DIMENSION

Single Groove



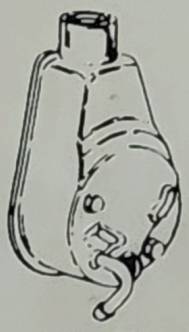
Single Groove V-8 power steering pump pulleys measure center of pulley to face of pump.

Double Groove



2 Groove V-8 power steering pump pulleys measure center of outer pulley groove to face of pump.

LATE MODEL PUMP RESERVOIR



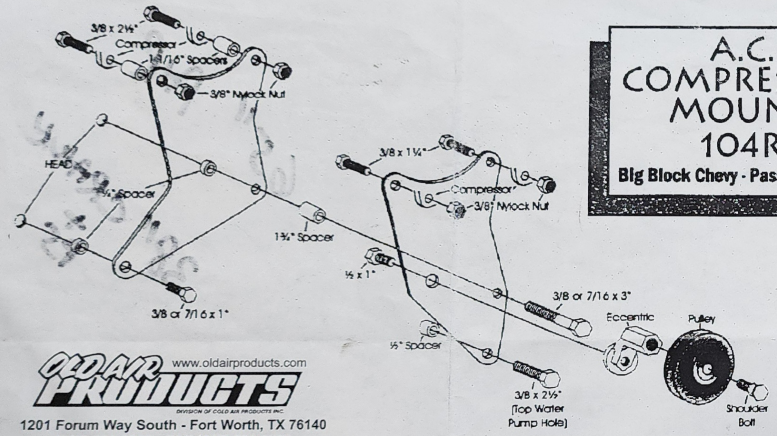
1987- 91 Chevy PU 2WD

8 cylinder
(350) 5.7 Liter

press-fit pulley
metric O-ring fitting

A.C. COMPRESSOR MOUNT 104R

Big Block Chevy - Passenger Side



OLD AIR PRODUCTS
DIVISION OF COLD AIR PRODUCTS INC.
www.oldairproducts.com
1201 Forum Way South - Fort Worth, TX 76140
(817) 531-2665 - FAX (817) 531-3257

NOTE: Some heads have 3/8" bolt holes and some have 7/16". This kit includes both sizes of bolts for these holes.

If your head has 7/16" it will be necessary to enlarge the corresponding holes in the mount to 7/16".

When installing the mount, start all bolts and mount the compressor before tightening.

(We use a belt length of 57-58" with this mount on installations in our shop. However; this can vary with the diameter of your pulleys.)

As with any part of this nature, make sure it fits your application before painting or plating. Parts that have been painted, plated or modified may not be returned.

COMP CAMS — INSTRUCTIONS

Hydraulic Roller Lifters

Applicable Part Numbers: 850-16, 851-16, 853-16, 854-16, 856-16, 857-16, 900-16, 8920-16, 8921-16, 8931-16, 8934-16, 8953-16, 8954-16, 8957-16, 8959-16, 8960-16

Thank you for choosing COMP Cams® products; we are proud to be your manufacturer of choice. Please read this instruction sheet carefully before beginning installation, and also take a moment to review the included limited warranty information.

The following instructions cover the correct procedures for installing COMP Cams® Hydraulic Roller Lifters. Before beginning installation be sure that your engine's oil system is clean and free of sludge or other contaminants such as silicon fragments. Sludge or contaminants in the oil system can cause premature failure of your new hydraulic lifters. The hydraulic roller lifters can be used with adjustable and non-adjustable valve train setups. Through various testing we have discovered that the recommended lifter pre-load should be set ½ turn of the wrench on the rocker arm adjusting nut past zero lash for optimal performance.

Setting Hydraulic Lifter Pre-load:
The correct amount of lifter pre-load is important to help efficiently control the valve train. Insufficient pre-load will cause valve train noise, while too much pre-load may damage the hydraulics of the lifter or cause low manifold vacuum. By following the steps listed below you will help ensure proper engine performance and reliability.

Instructions:

1. **Lifter cleaning**: Remove your new COMP Cams® lifters from the packaging. The lifters need to be cleaned with mineral spirits or parts washing solvent first to remove any debris from shipping or handling. Also check to ensure that the wheel rolls smoothly. **NOTE: Rollers may feel as though the wheels drag more than expected due to the grease packing for assembly and break-in. This is normal. WARNING:** The wheel needle bearings are pre-greased with special OE grease. While cleaning, be careful to **NOT** blow out this grease for this is very vital to initial break-in. Also do **NOT** clean with aerosol cleaners! And do **NOT** allow the wheel to be spun by compressed air.

2. **Lifter preparation**: It is not necessary to "pre-pump" hydraulic lifters full of engine oil prior to installation and valve adjustment. It is actually undesirable to do so as the "pumped up" lifters will cause the valves to open during the adjustment process, rather than positioning the lifter plunger in its operating position as it is supposed to do. Next, soak the lifters with COMP Cams® Break-In Oil (Part #1590) or equivalent for at least two hours. Doing so ensures that the lifters are adequately lubricated on their outer surfaces prior to installation. It may also result in a quieter engine start-up as the oil in the bath may displace some air from the lifter's plunger reservoir. When you install the lifters, make sure they fit well. Any excess clearance or tight lifters can cause damage to the camshaft, leading to engine failure. Verification of lifter to lifter bore clearance is recommended. **Note: Contact your engine builder or block manufacturer for your specific clearances.**

Toll Free: 1.800.999.0853
www.compcams.com

COMP Cams®
3406 Democrat Rd.
Memphis, TN 38118
Phone: 901.795.2400

Part #COMP4-140
Revised 7/19/19

StreetRays Inc.

252 Investment Loop
Hutto, TX 78634

Sales Receipt

Date	Sale No
6/24/2019	*782107*

Sold To	Ship To
dennis zahn 11036 MATTOON RD PRATTSBURGH, NY 14873-9471 US	dennis zahn 11036 MATTOON RD PRATTSBURGH, NY 14873-9471 US

Check No.
[illegible]6108

Part #	Description	Qty	Unit Price	Amount
INNO-3891	INNOVATE DLG-1 Dual Lambda (A/F) O2 gauge kit	1	308.44	308.44

14.7 IDEAL

HIGH IS LEAN

Thank you for your business

Subtotal	$308.44
Sales Tax (0.0%)	$0.00
Total	$308.44

PERFORMANCE PARTS

GENERAL MOTORS
SERVICE PARTS OPERATIONS
6060 West Bristol Road Flint, Michigan 48554

Installation Instructions
Aluminum Oval Port Intake Manifold* for 4965-97 Big Block Chevrolet

***NOT FOR SALE OR USE ON POLLUTION CONTROLLED VEHICLES.**

IMPORTANT: Read ALL instructions thoroughly before proceeding with installation.

These instructions are intended as a supplement to the GM service manual. It is not the intent of these instructions to replace the comprehensive and detailed service practices explained in the GM service manual. GM service manuals are available from:

Helm Incorporated
P.O. Box 07130
Detroit, MI 48207

NOTE: This manifold will not accept stock EGR (exhaust gas recirculation) equipment. Do not install manifold on a vehicle which requires EGR emission certification.

ADDITIONAL PARTS THAT MAY BE NEEDED

1	Gasket package, intake manifold	12366985
1	Bolt package, intake manifold	12367959
1	Sealer, gasket 3.35 oz. tube	12345739
1	Sealer, thread 50 cc. tube	12340004
1	Thermostat	See dealer for part no.
1	Gasket, thermostat housing	See dealer for part no.
1	Gasket, carburetor base	See dealer for part no.
1	Cleaner, Engine 16 oz. can	1050436

APPLICATION

This manifold was designed for 396-502 CID big block Chevrolet engines equipped with oval port cylinder heads. This manifold accepts late model waterneck, air conditioning, alternator, and HEI ignition systems.

BRACKETS

For maximum performance the carburetor location has been moved up by 1/4" from the production location. If your throttle cable bracket fastens to the carburetor pad you won't have a problem. If your bracket fastens to the back of the manifold you will have to modify your bracket or cable. Failure to do this will prevent your throttle pedal from tripping the transmission sensor at WOT. This affects transmission kick-down and up-shift points resulting in reduced performance.

CHECKING HOOD CLEARANCE

NOTE: Check hood clearance BEFORE removing stock manifold.

1. Use modeling clay or putty and make five stools, two or three inches high.
2. Position stools on air cleaner at front, rear, each side and on center stud. See Figure 1.
3. Close hood to locked position and re-open.
4. See Figure 2 and record measurements in blank spaces labeled A-B-C-D-E.
5. These measurements show the amount of clearance between the hood and the air cleaner.

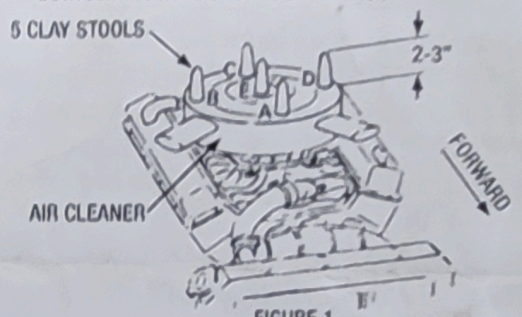


FIGURE 1

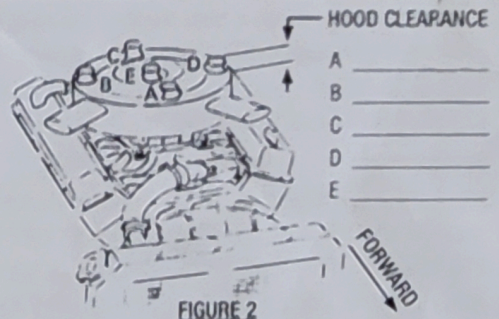


FIGURE 2

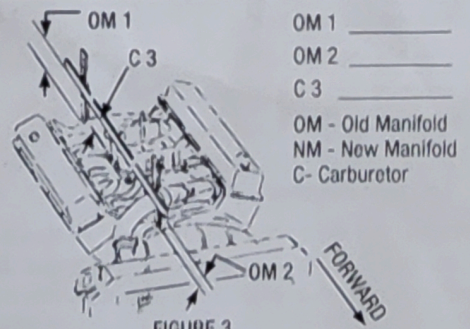
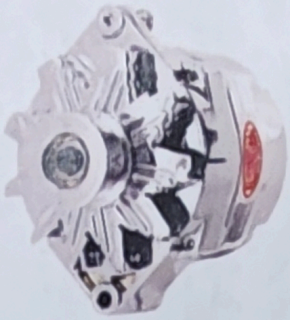


FIGURE 3

WIRING INSTRUCTIONS

GM SI Alternator (One Wire or OE Hookup)

Tech Dept.
(630) 957-4019
Tech@powermasterperformance.com



Replaces these OEM Alternators



GM 10DN
Externally
Regulated



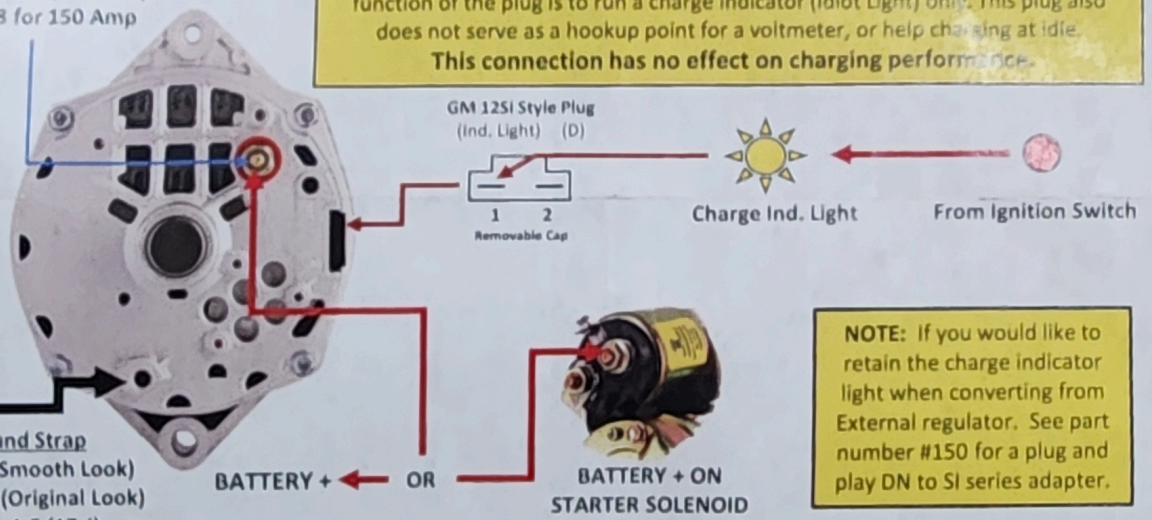
GM 10SI
Internally
Regulated

Wiring Instructions for Internal & External Regulator to 10SI/12SI/17SI 1 Wire Upgrade

~~12V UNITS~~
~~Indicator Light is~~
~~NOT Functional~~

Charge Post Size
12-24 for 100/120 Amp
5/16-18 for 150 Amp

Optional Charge Indicator Light Function: Your Powermaster Alternator is designed to work as a 1 wire without any connections to the plug in. The function of the plug is to run a charge indicator (Idiot Light) only. This plug also does not serve as a hookup point for a voltmeter, or help charging at idle. **This connection has no effect on charging performance.**



NOTE: If you would like to retain the charge indicator light when converting from External regulator. See part number #150 for a plug and play DN to SI series adapter.

Disconnect Battery Negative (-)

READ ALL INSTRUCTIONS IN BOX!

Charge Wires:
100 Amp Alt. use 8 gauge up to 6 ft.
120 Amp Alt. use 6 gauge up to 6ft.
150 Amp Alt. use 6 gauge up to 6ft.

Alternator Ground: Many mounting brackets are powder/clear coated, painted, or plated. The alternator will not ground properly without a ground wire from the Alt. housing to the engine block. (This wire should match charge wire size)
Battery must have a clean ground to engine block.

Wire Connections: Be sure all terminals are crimped securely, and connections are clean and tight.

Belt Tension: Inspect belt for signs of cracking or glazing. Replace if needed. **A loose belt will cause intermittent charging and generate excessive heat resulting in premature unit/bearing failure.**
For V belt units follow attached pulley tag.

A fully charged battery is at least 12.6V, not 12.0V. A weak/defective battery will cause premature failure.
Never disconnect the battery with engine running! This causes voltage spikes that will damage the alternator.

DO NOT EXCEED 18,000 ALTERNATOR SHAFT RPM
(See Catalog pg.45 for more info)

FAILURE TO FOLLOW THESE INSTRUCTIONS MAY VOID YOUR WARRANTY
(Warranty void if unit is soaked in Oil or Mud)

INNOVATE MOTORSPORTS

DLG-1
User Manual

Warning!

The Oxygen Sensor used in this device gets very hot in operation. Do not touch a hot sensor. Do not let a hot sensor touch a combustible surface. Do not use the sensor with or near flammable liquids or gases. Failure to heed these warnings may result in severe burns, explosions, fires, or other dangerous events.

1. DLG-1 2
1.1 Changing the DLG-1's gauge face and/or bezel 2
2 Installation 4
2.1 Wiring 4
2.1.1 Relay Wiring Instructions 6
2.2 DLG-1 Mounting and Routing 6
2.3 LC-2 Mounting 6
2.4 Interfacing the DLG-1 with the LC-2 7
2.5 Wideband Oxygen Sensor Setup 7
2.5.1 Oxygen Sensor Placement 7
2.5.2 Sensor Calibration 8
2.5.3 Calibration Schedule 9
3 DLG-1 Configuration 10
3.1 Entering Setup Configuration 10
3.1.1 Configuration using DLG-1's interface buttons 10
3.1.2 Configuration using the LM Programmer software 10
3.2 Display Settings (Gauge Abbreviations) 11
4 Logworks 3 & LM Programmer Software Package 11
4.1 Download and Install the Logworks 3 Software 11
4.2 LM Programmer 11
4.2.1 Programming Analog Output 12
4.2.2 Advanced Analog Output Programming 12
4.2.3 Updating the Firmware 13
4.2.4 Changing Sensor Type 13
Appendix A: Limited Warranty 15
Appendix B: DLG-1 Error Codes and Troubleshooting Tips 16

11-0143

LOKAR PERFORMANCE PRODUCTS

QUALITY... PLAIN & SIMPLE®

Throttle Cable Installation Instructions

Carbureted Applications and Ford EFI (1986-1993)

Building American Quality... With A Lifetime Warranty!®

TOLL FREE 1-877-469-7440 • tech@lokar.com • www.lokar.com

Throttle Cable Installation Instructions
Carbureted Applications and Ford EFI (1986-1993)

General Installation Notes:

Please read these instructions completely before beginning the installation. If you have any questions please call.

Before beginning the installation, disconnect the negative battery cable and use wheel chocks to block the vehicle's wheels. Do not attempt to install or adjust the throttle cable while the engine is running.

Make sure the engine, transmission, body and frame are properly grounded. We recommend using anti-seize lubricant on any aluminum threads.

NOTE: The Lokar Throttle Cable is designed to be installed with the Lokar Carburetor Bracket and Springs (if applicable, part # SRK-4000, not included) and a Lokar Throttle Pedal. The Lokar Throttle Cable is designed to be cut-to-fit.

Step 1: Install the Lokar Throttle Pedal, Carburetor Bracket and Springs first, following the instructions that are provided with those parts.

Step 2: The hole in the firewall must line up with the hole in the throttle pedal. Determine exactly where the throttle cable needs to pass through the firewall and drill a 5/16" hole.

Step 3: Remove the carb end assembly and throttle cable adjuster from the engine end of the new Lokar Throttle Cable. **DO NOT REMOVE** the ferrule if the cable housing is braided stainless steel! Pull the inner wire out of the cable housing. ***Fig. 1***

Step 4: On the pedal end of the cable housing, remove the adjuster nut from the firewall fitting. Insert the firewall fitting through the firewall from the engine side, and reinstall the adjuster nut. ***Fig. 2***

Step 5: Remove the front adjuster nut from the throttle cable adjuster and insert the throttle cable adjuster into the Carburetor Bracket. (***NOTE:*** If a Lokar Kickdown Kit is being used, install the Kickdown mounting bracket onto the back side of the Carburetor Bracket first.) Then, position the rear adjuster nut so that the threaded part of the throttle cable adjuster is approximately centered in the Carburetor Bracket. Reinstall the front adjuster nut. ***Fig. 3***

Step 6: ***Make sure that the inner wire is removed from the cable housing.*** If the cable housing is braided stainless steel, slide the ferrule up the housing towards the firewall, away from the end that is being cut.

DO NOT REMOVE the ferrule from a braided stainless steel housing!

If the cable housing is black universal, remove the ferrule.

Measure the distance between the throttle cable adjuster and the firewall fitting. Add 2" to the measurement and mark the cable housing at that length.

NOTE: The cable housing must ***not*** be straight between the throttle cable adjuster and the firewall. There must be some slack to allow for engine movement.

If the Throttle Cable has the braided stainless steel housing, wrap tape around the cable housing at your mark and use a cutoff wheel or fine-toothed hacksaw to cut the cable housing. If the Throttle Cable has the black universal housing, cut the cable housing at your mark with heavy duty 8" diagonal cutting pliers or a hacksaw. Lokar recommends Klein brand Diagonal Cutting Pliers, # D2000-28 available at The Home Depot or through W. W. Graingers, Part # 4A838.

After cutting the cable housing, put the ferrule back in place at the end of the cable housing. Insert the cable housing and ferrule into the throttle cable adjuster.

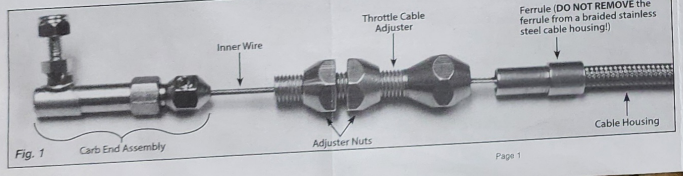


Fig. 1

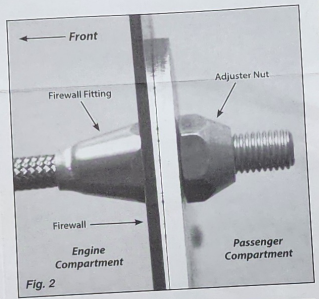


Fig. 2

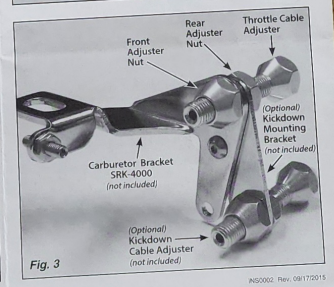


Fig. 3

© 2005 Lokar, Inc.

INS0002 Rev. 09/17/2015

Holley®

STREET AVENGER SYSTEM

STREET AVENGER CARBURETOR

P/N 0-80570, 0-80670, 0-80770, 0-80870, 0-81570, 0-81670, 0-81770, & 0-81870

INSTALLATION, TUNING, AND ADJUSTMENT MANUAL

199R10219-3

NOTE: These instructions must be read and fully understood before beginning installation. If this manual is not fully understood, installation should not be attempted. Failure to follow these instructions, including the pictures may result in subsequent system failure.

Technical Support Line: (952) 985-5675 Email: Info@QA1.net

21730 Hanover Ave.
Lakeville, MN 55044
www.QA1.net

ASSEMBLY INSTRUCTIONS

QA1 Proma Star® (DD, DS), Ultra Ride® (US), Aluma Matic® (ALN),
Stocker Star® (TD, TS, TR, TN), Hot Rod Series® (HRS)

READ ALL INSTRUCTIONS CAREFULLY AND THOROUGHLY PRIOR TO STARTING INSTALLATION. PRODUCTS THAT HAVE BEEN INSTALLED ARE NOT ELIGIBLE FOR RETURN. USE PROPER JACKING LOCATIONS. DEATH OR SERIOUS INJURY CAN RESULT IF INSTRUCTIONS ARE NOT CORRECTLY FOLLOWED. A QUALITY CHASSIS MANUAL, AVAILABLE AT YOUR LOCAL PARTS STORE, MAY ALSO AID IN YOUR INSTALLATION.

• DISCLAIMER / WARRANTY •

QA1 WARRANTS THAT THE PRODUCTS WILL BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP FOR ONE YEAR FROM DATE OF SALE TO THE ORIGINAL PURCHASER. QA1 MAKES NO OTHER WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED. QA1 SHALL HAVE NO OBLIGATION UNDER THE FOREGOING WARRANTY WHERE THE DEFECT IS THE RESULT OF IMPROPER OR ABNORMAL USE, YOUR NEGLIGENCE, VEHICLE ACCIDENT, IMPROPER OR INCORRECT INSTALLATION OR MAINTENANCE, NOR WHEN THE PRODUCT HAS BEEN REPAIRED OR ALTERED IN ANY WAY. QA1'S LIABILITY IN THE CASE OF DEFECTIVE PRODUCTS SUBJECT TO THE FOREGOING WARRANTY SHALL BE LIMITED TO THE REPAIR OR REPLACEMENT, AT QA1'S OPTION, OF THE DEFECTIVE PRODUCTS.

THE USER UNDERSTANDS AND RECOGNIZES THAT RACING PARTS, SPECIALIZED STREET ROD EQUIPMENT, AND ALL PARTS AND SERVICES SOLD BY QA1 ARE EXPOSED TO MANY AND VARIED CONDITIONS DUE TO THE MANNER IN WHICH THEY ARE INSTALLED AND USED. QA1 SHALL BEAR NO LIABILITY FOR ANY LOSS, DAMAGE OR INJURY, EITHER TO A PERSON OR TO PROPERTY, RESULTING FROM THE INSTALLATION, DIRECT OR INDIRECT USE OF ANY QA1 PRODUCTS OR INABILITY BY THE BUYER TO DETERMINE PROPER USE OR APPLICATION OF QA1 PRODUCTS. WITH THE EXCEPTION OF THE LIMITED LIABILITY WARRANTY SET FORTH ABOVE, QA1 SHALL NOT BE LIABLE FOR ANY CLAIMS, DEMANDS, INJURIES, DAMAGES, ACTIONS, OR CAUSES OF ACTION WHATSOEVER TO BUYER ARISING OUT OF OR CONNECTED WITH THE USE OF ANY QA1 PRODUCTS. MOTORSPORTS ARE DANGEROUS; AS SUCH, NO WARRANTY OR REPRESENTATION IS MADE AS TO THE PRODUCT'S ABILITY TO PROTECT THE USER FROM INJURY OR DEATH. THE USER ASSUMES THAT RISK!

TOOLS AND SUPPLIES REQUIRED

- Floor Jack
- Jack Stands
- Wrenches (SAE and/or Metric)
- Socket Set (SAE and/or Metric)
- Snap Ring Pliers
- Spanner Wrench Set (QA1 P/N T114W or T115W)
- **Permatex® Anti-Seize Lubricant**

DO NOT VOID YOUR WARRANTY!

Permatex® Anti-Seize Lubricant should be used on coil-over threads to prevent galling. Failure to lubricate the coil-over threads with Anti-Seize prior to making ride height adjustments will cause damage to your shock absorber and will void any warranty. All ride height adjustments must be made with the vehicle weight completely unloaded from the suspension. Please call QA1 Technical Support with any questions.

Stocker Star Stock Mount shocks

QA1 Stocker Star shocks are designed to bolt into the factory shock mounting location on stock ride height vehicles. Shock length should be verified if the ride height has been altered to ensure adequate shock travel. Refer to a repair manual for shock installation for your specific vehicle. **Note:** The shock openings in the factory lower control arms may need to be enlarged on certain applications to fit QA1 adjustable shocks (1967-1969 Camaro/ Firebird and 1968-1974 Nova).

Shocks with Spherical Bearing Mounts

Using a snap ring pliers, install a snap ring into one of the grooves in each shock eye followed by the spherical bearing and the other snap ring. If pressing the bearing in, only press on the race of the bearing.

Rev. 11302016

Technical Support Line: (952) 985-5675 Email: Info@QA1.net

21730 Hanover Ave.
Lakeville, MN 55044
www.QA1.net

ASSEMBLY INSTRUCTIONS

QA1 Proma Star® (DD, DS), Ultra Ride® (US), Aluma Matic® (ALN),
Stocker Star® (TD, TS, TR, TN), Hot Rod Series® (HRS)

READ ALL INSTRUCTIONS CAREFULLY AND THOROUGHLY PRIOR TO STARTING INSTALLATION. PRODUCTS THAT HAVE BEEN INSTALLED ARE NOT ELIGIBLE FOR RETURN. USE PROPER JACKING LOCATIONS. DEATH OR SERIOUS INJURY CAN RESULT IF INSTRUCTIONS ARE NOT CORRECTLY FOLLOWED. A QUALITY CHASSIS MANUAL, AVAILABLE AT YOUR LOCAL PARTS STORE, MAY ALSO AID IN YOUR INSTALLATION.

• DISCLAIMER / WARRANTY •

QA1 WARRANTS THAT THE PRODUCTS WILL BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP FOR ONE YEAR FROM DATE OF SALE TO THE ORIGINAL PURCHASER. QA1 MAKES NO OTHER WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED. QA1 SHALL HAVE NO OBLIGATION UNDER THE FOREGOING WARRANTY WHERE THE DEFECT IS THE RESULT OF IMPROPER OR ABNORMAL USE, YOUR NEGLIGENCE, VEHICLE ACCIDENT, IMPROPER OR INCORRECT INSTALLATION OR MAINTENANCE, NOR WHEN THE PRODUCT HAS BEEN REPAIRED OR ALTERED IN ANY WAY. QA1'S LIABILITY IN THE CASE OF DEFECTIVE PRODUCTS SUBJECT TO THE FOREGOING WARRANTY SHALL BE LIMITED TO THE REPAIR OR REPLACEMENT, AT QA1'S OPTION, OF THE DEFECTIVE PRODUCTS.

THE USER UNDERSTANDS AND RECOGNIZES THAT RACING PARTS, SPECIALIZED STREET ROD EQUIPMENT, AND ALL PARTS AND SERVICES SOLD BY QA1 ARE EXPOSED TO MANY AND VARIED CONDITIONS DUE TO THE MANNER IN WHICH THEY ARE INSTALLED AND USED. QA1 SHALL BEAR NO LIABILITY FOR ANY LOSS, DAMAGE OR INJURY, EITHER TO A PERSON OR TO PROPERTY, RESULTING FROM THE INSTALLATION, DIRECT OR INDIRECT USE OF ANY QA1 PRODUCTS OR INABILITY BY THE BUYER TO DETERMINE PROPER USE OR APPLICATION OF QA1 PRODUCTS. WITH THE EXCEPTION OF THE LIMITED LIABILITY WARRANTY SET FORTH ABOVE, QA1 SHALL NOT BE LIABLE FOR ANY CLAIMS, DEMANDS, INJURIES, DAMAGES, ACTIONS, OR CAUSES OF ACTION WHATSOEVER TO BUYER ARISING OUT OF OR CONNECTED WITH THE USE OF ANY QA1 PRODUCTS. MOTORSPORTS ARE DANGEROUS; AS SUCH, NO WARRANTY OR REPRESENTATION IS MADE AS TO THE PRODUCT'S ABILITY TO PROTECT THE USER FROM INJURY OR DEATH. THE USER ASSUMES THAT RISK!

TOOLS AND SUPPLIES REQUIRED

- Floor Jack
- Jack Stands
- Wrenches (SAE and/or Metric)
- Socket Set (SAE and/or Metric)
- Snap Ring Pliers
- Spanner Wrench Set (QA1 P/N T114W or T115W)
- Permatex® Anti-Seize Lubricant

DO NOT VOID YOUR WARRANTY!

Permatex® Anti-Seize Lubricant should be used on coil-over threads to prevent galling. Failure to lubricate the coil-over threads with Anti-Seize prior to making ride height adjustments will cause damage to your shock absorber and will void any warranty. All ride height adjustments must be made with the vehicle weight completely unloaded from the suspension. Please call QA1 Technical Support with any questions.

Stocker Star Stock Mount shocks

QA1 Stocker Star shocks are designed to bolt into the factory shock mounting location on stock ride height vehicles. Shock length should be verified if the ride height has been altered to ensure adequate shock travel. Refer to a repair manual for shock installation for your specific vehicle. **Note:** The shock openings in the factory lower control arms may need to be enlarged on certain applications to fit QA1 adjustable shocks (1967-1969 Camaro/ Firebird and 1968-1974 Nova).

Shocks with Spherical Bearing Mounts

Using a snap ring pliers, install a snap ring into one of the grooves in each shock eye followed by the spherical bearing and the other snap ring. If pressing the bearing in, only press on the race of the bearing.

1

Rev. 11302016

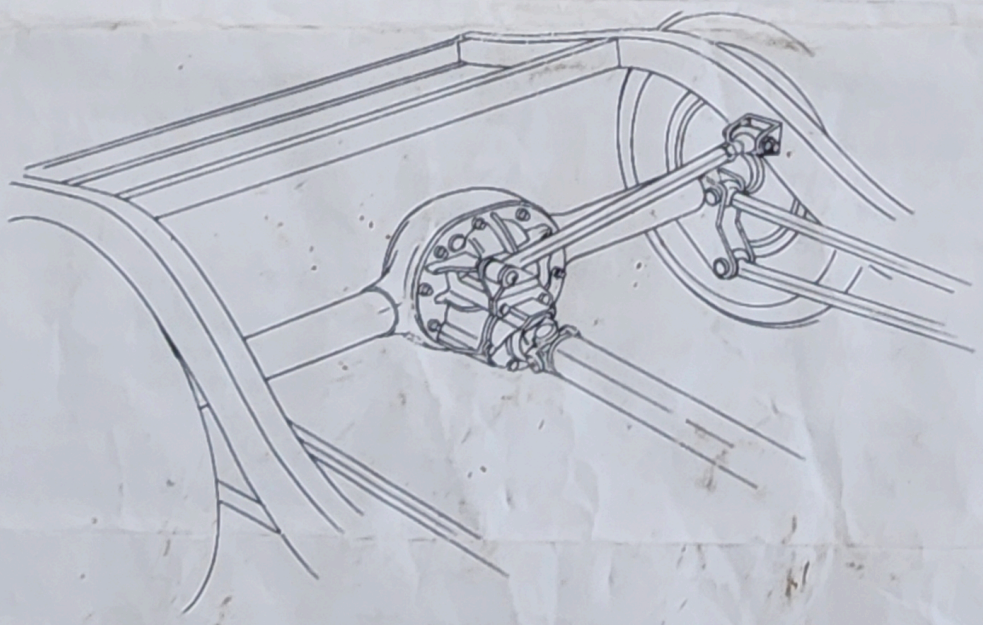
Installation Instructions
BOLT-ON PANHARD ROD

*Please read these instructions completely **BEFORE** starting your installation!*

Your *HEIDTS* Hot Rod Shop Bolt-On Panhard Rod contains the following items:

1) Panhard Bar with Adjuster
2) Pinion Mounting Brackets
1) Frame Mounting Bracket
2) 3/8-24 x 1-1/4" Grade 8 Bolts
2) 1/2-20 x 2-1/2" Hex Head Bolts
2) 1/2-20 Nylock Nuts

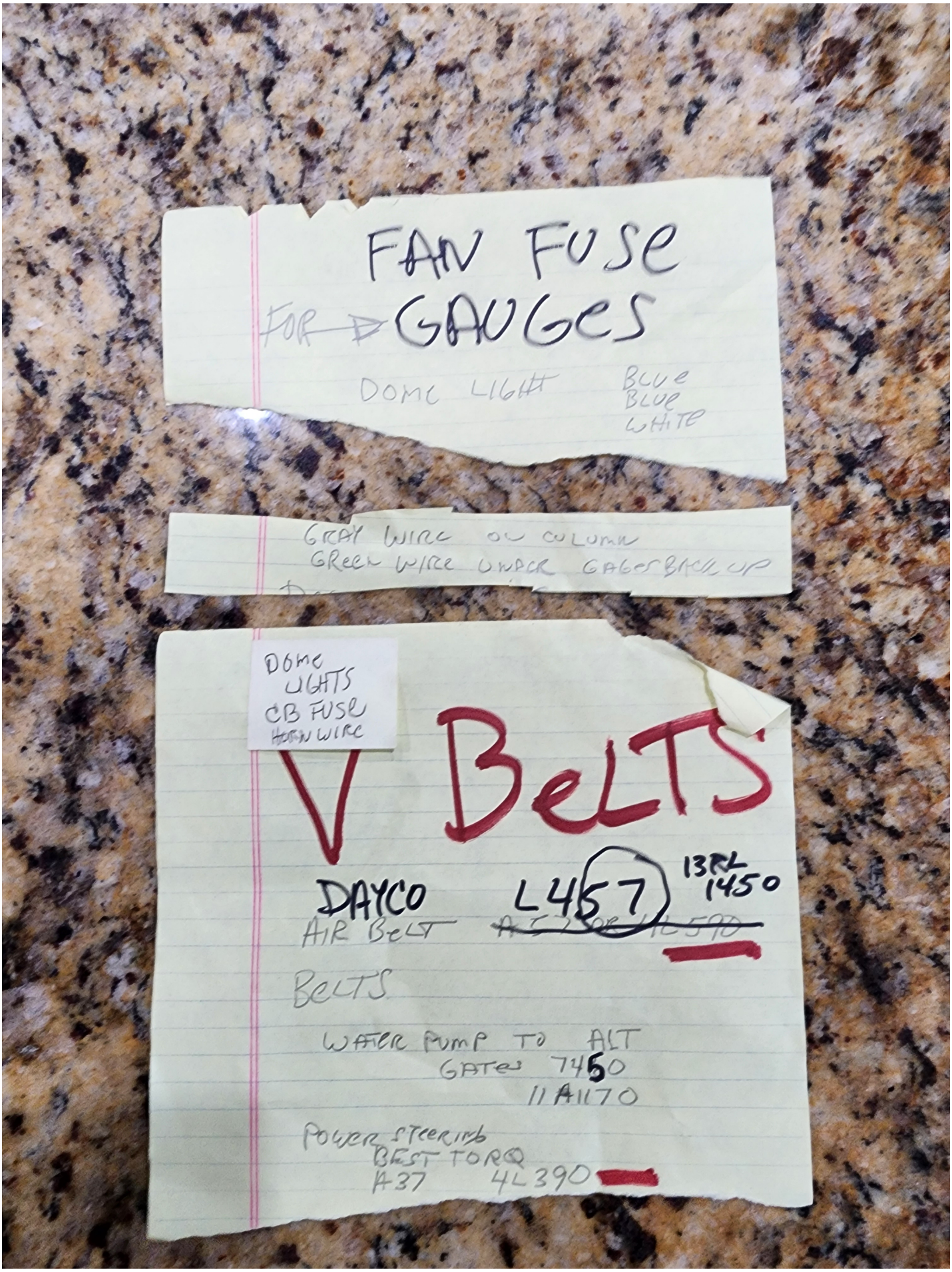
Begin your installation by bolting the Pinion Mounting Brackets to the pinion housing as shown, using the two 3/8-24 x 1 1/4" Grade 8 bolts included. This kit is intended to be a bolt-on kit on the Ford 8" or 9" rear axles only . If you have a Chevy rear axle, you must use a weld-on kit. Assemble the non-adjustable end of the Panhard Bar into the Pinion Brackets using one 1/2-20 x 2-1/2" Hex Head Bolt and Nylock Nut, and install the Frame Mounting Bracket onto the adjustable end of the bar using the other bolt and nut. Position the Frame Bracket on the frame approximately 1 1/2" up at the frame end, with the rear axle at it's normal ride position. If your frame is not boxed in the rear, you may need to install a small boxing plate to attach the frame bracket to. Tack weld the frame bracket in place and check for 4-bar and floor pan clearance. Finish weld the bracket in place.



HEIDTS
HOT ROD & MUSCLE CAR PARTS

© *HEIDTS* Hot Rod Shop 1998

1-800-841-8188 Illinois (847) 487-0150


FAN FUSE
FOR GAUGES
DOME LIGHT
BLUE
BLUE
WHITE
GRAY WIRE ON COLUMN
GREEN WIRE UNDER GAGES BACK UP
DOME
LIGHTS
CB FUSE
HORN WIRE
V BELTS
DAYCO
AIR BELT
L457
13PK
1450
BELTS
WATER PUMP TO ALT
GATES 7450
11A1170
POWER STEERING
BEST TORQ
A37
4L390

INSTRUCTIONS

Retrofitting CAN wiring into EZ-TCU™ harness

Thank you for choosing TCI® products; we are proud to be your manufacturer of choice. Please read this instruction sheet carefully before beginning installation, and also take a moment to review the included limited warranty information. Contact us toll free at 1.888.776.9824 or at www.tciauto.com under Tech Support with any questions.

Overview

CAN wiring can be added to an existing EZ-TCU™ harness by using a slightly modified FAST™ XFI™ CAN Retrofit Kit. That kit is a Y-shaped pigtail that gets installed into the EZ-TCU™ main connector.

Firmware

The EZ-TCU™ must be using firmware version 138 or newer for CAN communication to be enabled. An EZ-TCU™ firmware version is shown on the label on the back of the TCU.

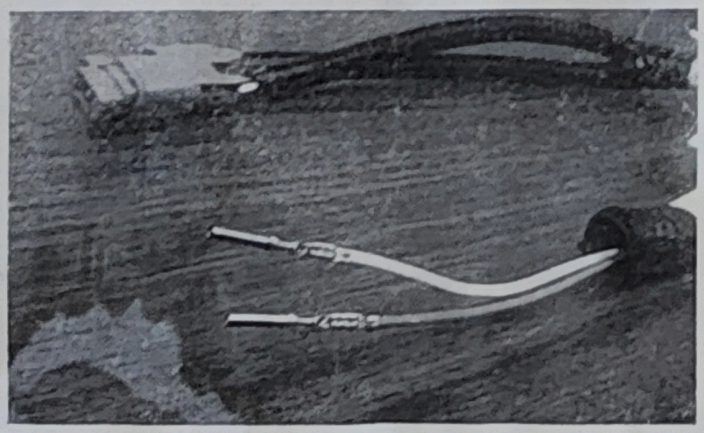
Parts needed

Quantity	FAST™ Part Number	Description
1	301412	XFI™ CAN Retrofit Kit
2	170096	EZ-TCU™ Terminal

Modification to XFI™ CAN Retrofit Kit

The XFI™ CAN Retrofit Kit comes with two XFI™ terminals installed. Those need to be replaced by two EZ-TCU™ terminals.

1. Cut off the two XFI™ terminals.
2. Strip approximately ¼" of insulation off of both the yellow and green wires.
3. Crimp the EZ-TCU™ terminals onto the wires. The larger conductor crimp goes on the bare metal wire strands. The smaller insulation crimp wraps around the outside of the wire insulation.



TIRe

P295/50 R15 1038
BF TA

26 H

Rim 12" OR Above 15

12 wide wheel

Dome
Light
Blue
Blue
White

tciauto.com

INSTRUCTIONS

EZ-TCU™ Transmission Control Unit

Thank you for choosing TCI® products; we are proud to be your manufacturer of choice. Please read this instruction sheet carefully before beginning installation, and also take a moment to review the included limited warranty information.. Contact us toll free at 1.888.776.9824 or at www.tciauto.com under Tech Support with any questions.

INSTALLATION

System Components Overview

The EZ-TCU™ system is made up of several main components. A TCU (Transmission Control Unit), a wiring harness, a handheld user interface and an RPM module. Please read through all of the installation notes before beginning the installation.

TCU





TCU Installation Notes:

1. The TCU is water tight when connected to the wiring harness. It can be mounted in the engine compartment or in the vehicle's interior. It is good practice to mount the TCU with the connector facing down. This way, there is less chance of moisture getting into the TCU if it needs to be disconnected in wet conditions.
2. The TCU should not be mounted close to other electrically "noisy" components. In particular, keep good spacing (try for 2 feet minimum) from ignition components (ignition boxes, coils, distributors, etc.)
3. If mounting in the engine compartment, selecting a location towards the rear will make it easier to route the communications cable to the interior to allow the handheld to be monitored while driving. Optional, longer communications cables are available if needed.
4. There is an LED on the front face of the TCU – the side with the logo. It will flash if the on-board diagnostics detects a problem (the LED is lit solid when the TCU is powered up and working normally). To take advantage of this feature, the TCU will need to be mounted so that

PERFORMANCE
VEHICLES • PARTS • RACING

Supermatic Torque Converter (19299800 - 19299807) Specifications

Specifications Part Number 19299799

Thank you for choosing Chevrolet Performance Parts as your high performance source. Chevrolet Performance Parts is committed to providing proven, innovative performance technology that is truly.... more than just power. Chevrolet Performance Parts are engineered, developed and tested to exceed your expectations for fit and function. Please refer to our catalog for the Chevrolet Performance Parts Authorized Center nearest you or visit our website at www.chevroletperformance.com.

This publication provides general information on components and procedures that may be useful when installing or servicing a Supermatic Torque Converter. Please read this entire publication before starting work. Also, please verify that all of the components listed in the Package Contents section below were shipped in the kit.

The information below is divided into the following sections: package contents, component information, Supermatic Torque Converter specifications, additional parts that you may need to purchase, torque specifications, and a service parts list.

It is not the intent of these specifications to replace the comprehensive and detailed service practices explained in the Chevrolet service manuals.

For information about warranty coverage, please contact your local Chevrolet Performance Parts dealer.

Observe all safety precautions and warnings in the service manuals when installing a Supermatic Torque Converter in any vehicle. Wear eye protection and appropriate protective clothing. Support the vehicle securely with jack stands when working under or around it. Use only the proper tools. Exercise extreme caution when working with flammable, corrosive, and hazardous liquids and materials. Some procedures require special equipment and skills. If you do not have the appropriate training, expertise, and tools to perform any part of this conversion safely, this work should be done by a professional.

The information contained in this publication is presented without any warranty. All the risk for its use is entirely assumed by the user. Specific component design, mechanical procedures, and the qualifications of individual readers are beyond the control of the publisher, and therefore the publisher disclaims all liability incurred in connection with the use of the information provided in this publication.

Legal and Emissions Information

This publication is intended to provide information about the Supermatic Torque Converter and related components. This manual also describes procedures and modifications that may be useful during the installation of a Supermatic Torque Converter. It is not intended to replace the comprehensive service manuals and parts catalogs which cover Chevrolet engines and components. Rather, it is designed to provide supplemental information in areas of interest to "do-it-yourself" enthusiasts and mechanics

This publication pertains to transmissions and vehicles which are used off the public highways except where specifically noted otherwise. Federal law restricts the removal of any part of a federally required emission control system on motor vehicles. Further, many states have enacted laws which prohibit tampering with or modifying any required emission or noise control system. Vehicles which are not operated on public highways are generally exempt from most regulations, as are some special interest and pre-emission vehicles. The reader is strongly urged to check all applicable local and state laws.

Many of the parts described or listed in this manual are merchandised for off-highway application only, and are tagged with the "Special Parts Notice" reproduced here:

Special Parts Notice

This part has been specifically designed for Off-Highway application only. Since the installation of this part may either impair your vehicle's emission control performance or be uncertified under current Motor Vehicle Safety Standards, it should not be installed in a vehicle used on any street or highway. Additionally, any such application could adversely affect the warranty coverage of such an on-street or highway vehicle.

Chevrolet, Chevy, the Chevrolet Bow Tie Emblem, General Motors, and GM are all registered trademarks of the General Motors Company.

ALL INFORMATION WITHIN ABOVE BORDER TO BE PRINTED EXACTLY AS SHOWN ON 8 1/2 x 11 WHITE 16 POUND BOND PAPER. PRINT ON BOTH SIDES, EXCLUDING TEMPLATES.

TO BE UNITIZED IN ACCORDANCE WITH GM SPECIFICATIONS.

DATE	REVISION	AUTH
12OC12	Initial Release - Rusty Sampsel	n/a
23MR15	Revision - Rusty Sampsel	n/a