

# INSTALLATION

# 200 Series

Speedway P/N: 916-67919

Bill's Hot Rod P/N: 210 / 211 / 212

Alternator and Air Conditioner brackets designed for the Small Block Chevy using early non Vortec cast iron style heads (1955 & newer)

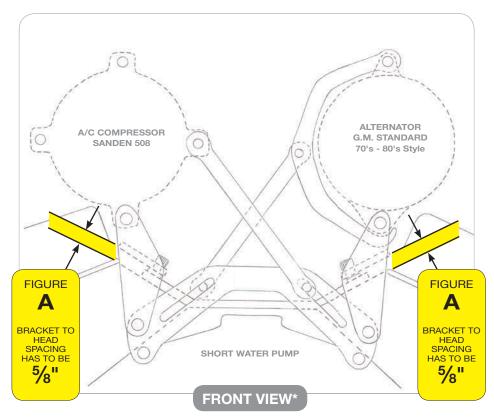
Will work with the SHORT WATER PUMP ONLY

Positions the alternator and air conditioner units over the intake manifold and just to the inside edge of the valve covers

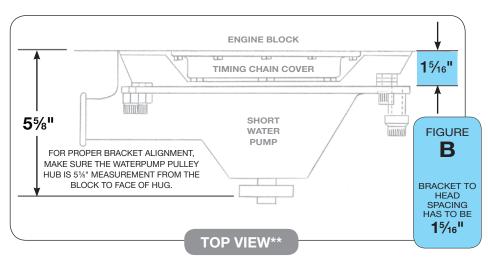
Mounting is achieved using ONLY the water pump and intake manifold bolts

PLEASE NOTE that these brackets WILL NOT work with the 'CAST IRON' or 'FAST BURN' heads that use the vertical intake manifold bolts

# **DIMENSION DIAGRAMS** for part no. 916-67919



\* VIEW LOOKING AT BRACKET FROM FRONT OF ENGINE COMPARTMENT



\*\* VIEW LOOKING FROM ABOVE ENGINE COMPARTMENT DOWNWARD

# **6 STEPS FOR EASY INSTALLATION:**

• TOOLS REQUIRED: 1/4" Allen Wrench, 5/16" Allen Wrench

## COMPONENTS NEEDED:

- ALTERNATOR Use a G.M. Alternator (70's-80's Style)
  Internal or External Regulator.
- AIR CONDITIONER Use a SANDEN SD-508 Compressor.

## PRE-ASSEMBLED:

The brackets come pre-assembled with all the bolts and spacers in the positions they will be in when installed on the engine. This, along with the drawings and photos to refer to, will make assembly easier.

When installing the bracket, leave all the bolts slightly loose until alignment of the belt, belt length and bracket positioning have been verified. If it looks good, go ahead and tighten the bolts and adjust the belt tension.

## ALIGNMENT:

For proper bracket alignment, there are 2 dimensions that must be as close as possible to the ones shown on the diagrams on page 2.

First set the adjusting plate 15/16" from the block surface (at water pump base) to the back face of the plate, see FIGURE B.

Second, the bracket to the head surface spacing is  $\frac{5}{8}$ " see FIGURE A.

## WASHERS:

All washers are  $\frac{1}{16}$ " thick stainless steel washers, except for 2, which are  $\frac{1}{8}$ " thick steel washers. Simply add or subtract as needed to achieve the required dimensions.

# FINAL ASSEMBLY OF BRACKETS ON ENGINE:

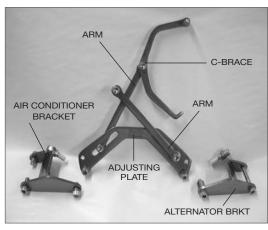
Use **LOCTITE** #242 (Blue) on all bolts to prevent bolt loosening.

# PRE-PREP FOR INSTALLATION



1

STRAIGHT OUT OF THE BOX you will find your brackets are PRE-ASSEMBLED and ready for you to be installed.



2

REMOVE the Alternator and Air Conditioner brackets and set to the side as shown in the photo.

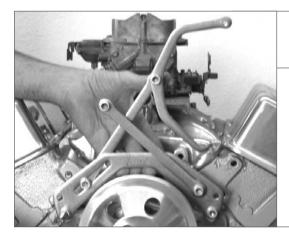


3

REMOVE the 2 upper water pump bolts.

REMOVE the front intake manifold bolts (1 on each side).

# **BRACKET INSTALLATION**



4

INSTALL the Adjusting Plate with Arms to the Water Pump with the bolts provided.

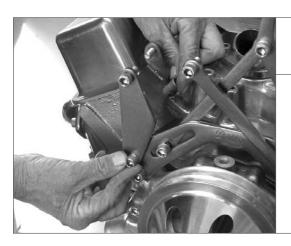
Be sure and achieve the required 15% "Spacing.
FIGURE B on the dimension diagram chart on page 2.



5

ATTACH the Alternator
Bracket to the Adjusting
Plate and add washes as
needed to achieve the %"
total thickness needed from
the manifold gasket surface
to the bracket base.

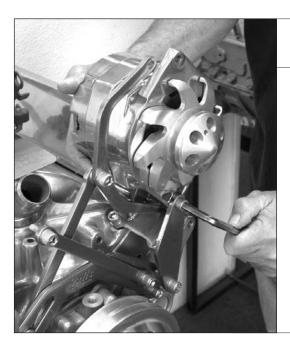
FIGURE A on the dimension diagram chart on page 2.



6

ATTACH the A/C Bracket to the Adjusting Plate and add washes as needed to achieve the 5%" total thickness needed from the manifold gasket surface to the bracket base. FIGURE A on the dimension diagram chart on page 2.

# **COMPONENT INSTALLATION**



7

MOUNT the Alternator to the bracket. Make sure the hook on the bottom of the C-Brace is under the alternator.

Next, BOLT the top of the C-Brace to the top of the alternator as shown below.





8

MOUNT the A/C compressor to the bracket.

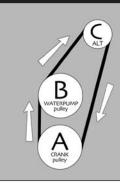
Next, ATTACH the top of the adjustment arm to the A/C compressor as shown below.



# **ALTERNATOR BELT INSTALLATION**

SUGGESTED BELT: TRY GATES BELT # 7490 or 7495





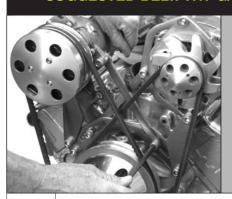
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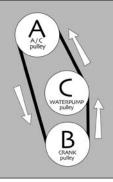
#### INSTALL THE ALTERNATOR BELT IN THE FOLLOWING ORDER:

FIRST **(A)** Crank Pulley, SECOND **(B)** Water Pump Pulley, THIRD **(C)** Alt Pulley ADJUST the tension, tighten all the bolts and check for proper alignment.

# AIR CONDITIONER BELT INSTALLATION

SUGGESTED BELT: TRY GATES BELT # 7516 or 7520





**10** 

# INSTALL THE AIR CONDITIONER BELT IN THE FOLLOWING ORDER:

FIRST **(A)** A/C Pulley, SECOND **(B)** Crank Pulley, THIRD **(C)** Water Pump Pulley ADJUST the tension, tighten all the bolts and check for proper alignment.

# **BELT ADJUSTING TIPS:**

**NOTE:** Due to the limited adjustment range of the belt when the Alternator or A/C is put between the valve covers and the intake manifold, you may have to do one or both of the following steps to get a belt to adjust properly.

- If the belts you try are too short on the pulleys, but the next size is too long, try a
  narrower belt first. If that does not work, proceed to the next step.
- Take the top bolt out of the Alternator or A/C that holds the adjustment arm to the Alternator or A/C. Slip the belt over the crank pulley FIRST, the over the water pump pulley, and then into the Alternator or A/C pulley, then pull the unit up to where you can put in the bolt for the adjusting arm and snug up. Then proceed to use the adjusting arm as normal to get the proper tension. This works well for use when there are no alternate belt lengths or widths to try, but are close to one of them so adjustment can be achieved.

## TROUBLE SHOOTING:

If the brackets are **NOT** aligning properly to the belt groove in the pulleys, check to see that:

- The water pump pulley is aligned with the crank pulley, since there are variations
  on the water pump flange spacing. If this is not correct, you will either have
  to push or pull the flange to align, or change the pulley to get the proper alignment.
- The cylinder head to bracket thickness is 5/8" including manifold and gasket or as close as possible (plus or minus 1/16").
- The adjusting plate is set at the 15/16" distance. Too far out will push the bracket alignment up; too much will pull the bracket down and can also cause the bracket to rotate a little and cause misalignment on the horizontal plane.

## NOTICE

TO PROTECT & PRESERVE YOUR BLACK POWDER PAINTED OR CHROME PLATED BRACKETS' FINISH, BE SURE AND APPLY A GOOD QUALITY WAX SUCH AS CARNAUBA, AS NEEDED.



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