



# Highly Styled, Low Cost Serpentine Drive

**Installation Instructions** 

# Ford 351 Cleveland

Kit #30440 (with Power Steering) and #30430 (without Power Steering)



### **Included Parts List**

- 2 TP3-.990.....Tube Spacers
- 1 TP3-1.330....Tube Spacers
- 1 TP3-1.730....Tube Spacers
- 2 MM-100 .....Bolt Adjustment Sleeves
- 1 S144 .....<sup>5</sup>/16 18 x <sup>7</sup>/8" SHCS
- 1 S148 ......<sup>5</sup>/16 18 x 1 <sup>1</sup>/<sub>4</sub>" SHCS
- 1 S150 ......<sup>5</sup>/16 18 x 1<sup>1</sup>/<sub>2</sub>" SHCS
- 2 S162 ......<sup>5</sup>/16 18 x 3" SHCS
- 1 S170 ......<sup>5</sup>/16 18 x 4" SHCS
- 1 S171 .....<sup>5</sup>/16 18 x 4<sup>1</sup>/<sub>4</sub>" SHCS
- 2 S244 .....<sup>3</sup>/<sub>8</sub> 16 x <sup>3</sup>/<sub>4</sub>" SHCS
- 3 S254 .....<sup>3</sup>/<sub>8</sub> 16 x 1<sup>3</sup>/<sub>4</sub>" SHCS 1 - S264 .....<sup>3</sup>/<sub>8</sub> - 16 x 2<sup>3</sup>/<sub>4</sub>" SHCS
- 1 S272 .....<sup>3</sup>/<sub>8</sub> 16 x 3<sup>3</sup>/<sub>4</sub>" SHCS
- 1 S551 ......M8 1.25 x 25mm SHCS
- 2 S553 ......M8 1.25 x 35mm SHCS
- 3 S622 .....<sup>3</sup>/<sub>8</sub>" 16 Nylon Lock Nut
- 5 S660 ......<sup>5</sup>/16" SAE Flat Washer
- 2 740-A .....Idler Pulley Body
- 2 302-A.....Idler Pulley Cover
- 6 S022 ...... $^8/_{32}$  x  $^3/_8$ " SHCS
- 2 S666 .....<sup>3</sup>/<sub>8</sub> x <sup>3</sup>/<sub>4</sub>" O.D. Flat Washer

### Alternator Rear Support PN 30432

- 1 30432-A.....Alt Rear Support Body
- 2 S156 ......<sup>5</sup>/16 18 x 2<sup>1</sup>/<sub>4</sub>" SHCS
- 1 S450 ......5% 18 x 11/8" Set Screw

### A/C Rear Support PN 30433

- 1 30433-A.....A/C Rear Support Body
- 1 TP3-.520.....Tube Spacer
- 2 S155 ......<sup>5</sup>/16 18 x 2" SHCS
- 1 S216 ......<sup>5</sup>/16 18 x 2" Hex Head Bolt

### **Belt Tensioner Tool PN30436**

- 1 MM101......RH Aluminum Rod End
- 1 MM102......LH Aluminum Rod End
- 1 MM106......Threaded Rod Aluminum 14<sup>3</sup>/<sub>4</sub>" Long

### Power Steering Bracket PN 30434 (for kit # 30440)

- 1 30434-A......Front Power Steering Bracket Body
- 1 740-A....Idler Pulley Body
- 1 302-A.....Idler Pulley Cover
- 1 TP3-.400.....3/8" ID .400" Aluminum Tube Spacer
- 3 S022 ......<sup>8</sup>/<sub>32</sub> x <sup>3</sup>/<sub>8</sub>" SHCS
- 1 S550 ......M8 1.25 x 20mm SHCS
- 1 S666 ......<sup>3</sup>/<sub>8</sub>"x<sup>3</sup>/<sub>4</sub>" O.D. Flat Washer

### Pulleys Kits PN 2230-206

- 1 2231-A.....Crank Pulley Body
- 1 2232-A......Water Pump Pulley Body
- 1 206-A .....Alt Pulley Body
- 1 306-A.....Alt Pulley Cap Body
- 1 S716 ......Adapter Ring
- 1 221.....Alt Fan
- 1 312-A.....Water Pump Pulley Cap Body
- 1 394-A.....A/C Pulley Cover Body
- 3 S028 .....8/32 x 1" SHCS
- 1 S685 .....Lock Washer
- 3 S124 ......<sup>1</sup>/<sub>4</sub> 20 x <sup>3</sup>/<sub>4</sub>" Button Hd Bolt
- 4 S186 .....<sup>5</sup>/<sub>16</sub> 24 x <sup>7</sup>/<sub>8</sub>" SHCS
- 4 S248 .....<sup>3</sup>/<sub>8</sub> 16 x 1" SHCS
- 1 618-A.....Power Steering Pulley (**for kit** # **30420**)
- 1 302-A ......Power Steering Pulley Cap (**for kit # 30420**)
- 3 S022 ......<sup>8</sup>/<sub>32</sub> x <sup>3</sup>/<sub>8</sub>" SHCS (for kit # 30420)

### Accessories

- 1 P164.....Edelbrock Water Pump
- 1 P411 .....Sanden A/C Compressor
- 1 P417 .....A/C Line Kit
- 1 P571 .....Alternator Polished Alum
- 1 P315 .....Remote Power Steering Pump

(for kit # 30420)

### Required Tools and Materials

RTV Silicone

Loc-Tite® Thread Locker

Gasket Scraper, Steel Wool or Sandpaper to clean gasket

3/16" Allen Head Driver

5/16" Allen Head Driver

1/4" Allen Head Driver

6mm Allen Head Driver

5/8" Combo Wrench

%16" Combo Wrench

11/16" Combo Wrench

<sup>3</sup>/<sub>4</sub>" Combo Wrench Socket Wrench & Extension 10mm 12pt. socket 12mm 12pt. socket

#### **Serpentine Belt**

Dayco Belt (5060780) 78" 6 Rib Belt, for Kits With Power Steering Dayco Belt (5060655) 651/2" 6 Rib Belt, for Kits With out Power Steering



### **Preparing to Install**

- Disconnect the battery to prevent accidental engagement of starter motor.
- Drain coolant from system
- If your A/C is intact and charged it must be evacuated. This is best done by a professional garage with proper recycling equipment
- Remove the existing alternator, air conditioning compressor and associated brackets.
- Remove all pulleys and water pump.
- Remove all traces of old gasket and sealer with gasket scraper and steel wool pad.
- Clean threads in block by chasing with appropriate thread chasers.

### Installing the Kit

FIG. 1. Ensure the sealing face of the coolant outlets are clean, flat and free of old gasket material. Assemble Water Pump to Timing Cover along with proper gaskets and a thin coat of RTV silcone sealant. Water Pump (P164)

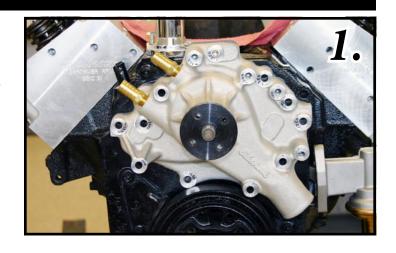
See diagram for water pump mounting.

Mount the water pump using the SHCS bolts shown in locations A thru D

(NOTE: The 4 locations also each get a  $\frac{5}{16}$ " washer (S660).

[A] 5/16 x 7/8" (S144) [B] 5/16 X 11/2" (S150)

[C] 5/16 X 3" (S162) [D] 5/16 X 11/4" (S148)



(S144) 5/16 x 7/8" SHCS (S660) 5/16" Washer (S150) 5/16 x 11/2" SHCS (S171) 3/8 x 41/4" SHCS (S660) 5/16" Washer (TP3-.990) Spacer (Face Mounting Plate) (S264) 3/8 x 23/4" SHCS (TP3-1.730) Spacer (Face Mounting Plate) Rear A/C Bracket Mounting Holes Rear Alternator Support Mounting Holes (S254) 3/8 x 13/4" SHCS (TP3-.990) Spacer (Face Mounting Plate) (S162) <sup>5</sup>/<sub>16 x</sub> 3" SHCS (S660) 5/16" Washer (S170) <sup>5</sup>/<sub>16</sub> x 4" SHCS (TP3-1.330) Spacer (Face Mounting Plate) (S148) 5/16 x 11/4" SHCS (S660) 5/16" Washer Diagram 1.



*Fig 2:* Install the Alternator Rear Support Bracket (30432-A) to the water pump. Using (2) <sup>5</sup>/<sub>16</sub> x 2<sup>1</sup>/<sub>4</sub>" SHCS (S156) as shown. Then install the A/C rear support bracket (30433-A) to the water pump using (2) <sup>5</sup>/<sub>16</sub> x 2" (S155) SHCS, apply Loc-Tite to the threads.

*Fig 3:* Install Main Face Plate (30431-A). See diagram and install the Main Face Plate using the following bolt sizes and spacer locations.

Position [E]

 $\frac{5}{16}$  x 4" (S170) SHCS & TP3-1.330 Spacer

Position [F]

<sup>5</sup>/<sub>16</sub> x 4<sup>1</sup>/<sub>4</sub>" (S171) SHCS & TP3-.990 Spacer

Position [G]

3/8 x 23/4" (S264) SHCS & TP3-1.730 Spacer

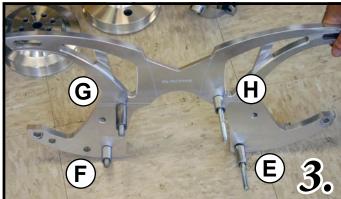
Position [H]

3/8 x 13/4" (S254) SHCS & TP3-.990 Spacer

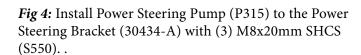
Apply Loc-Tite to the threads.

See Diagram 1. on previous page for proper water pump mounting locations.



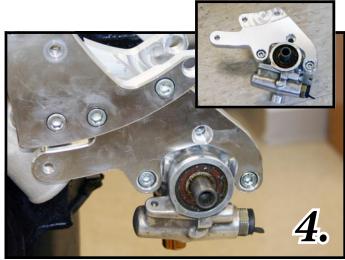






Mount the Power Steering Bracket (30434-A) to the main Front Bracket (30431-A) with (2)  $\frac{3}{8}$  x  $\frac{3}{4}$ " SHCS (S244). (For KIT 30440), apply Loc-Tite to the threads

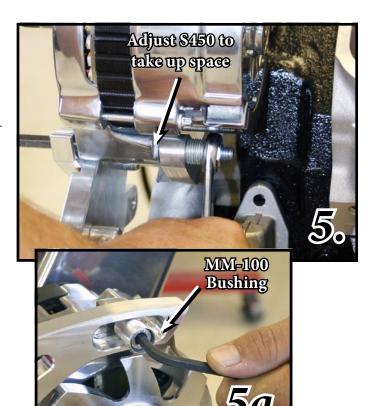
NOTE: If building a non-Power Steering Kit, install the (2)  $\frac{3}{8}$  x  $\frac{3}{4}$ " SHCS (S244) and use (2)  $\frac{3}{8}$ " Locknuts (S622) to fill the counter bored holes.



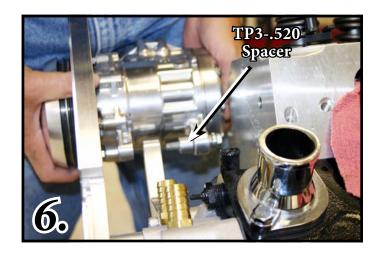


*Fig 5:* Install the  $\frac{5}{8}$  x  $\frac{1}{8}$ " Set Screw (S450) in the Alternator Rear Support Bracket, this will take up any play in the alternator. Install the Alternator (P571) with a  $\frac{3}{8}$  x  $\frac{3}{4}$ " SHCS (S272) and lock into place with a  $\frac{3}{8}$ " lock nut (S622).

In the upper tapped hole of the Alternator, use the (MM-100) Adjustment Bushing and an M8x35mm SHCS (S553) and bolt thru the front upper slot. leave loose at this time.

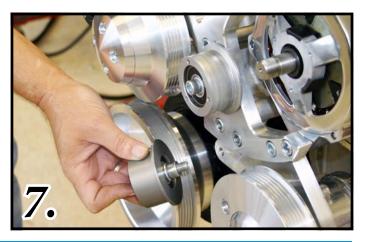


*Fig 6:* Install, the A/C Unit (P411) using the  $\frac{5}{16}$  x 2" Hex bolt (S216) thru the rear lower ear of the A/C compressor unit and the TP3-.520 Spacer between the rear ear and the rear support bracket as shown. Use the M8x25mm (S551) thru the front hole of the main plate to secure the front mounting flange of the compressor. Use the (MM-100) and the M8x35mm (S553) in the upper slot as with the alternator mount.



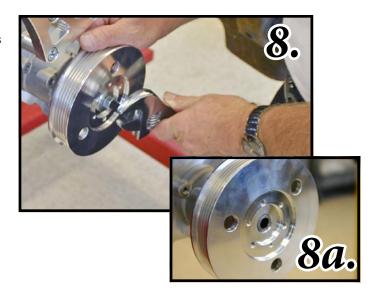
*Fig 7:* Install the two main face plate bracket Idlers (740-A) with (2)  $\frac{3}{8}$  x  $1\frac{3}{4}$ " SHCS (S254). Also use (2)  $\frac{3}{8}$ " flat washers (S666) and install into the two  $\frac{3}{8}$ " tapped holes in main plate.

To install the Idler onto the Power Steering bracket, use a  $\frac{3}{8}$  x 2" SHCS (S256) and a  $\frac{3}{8}$ " flat washer (S666). In between the Power Steering Bracket and the Idler use a TP3-.400 Spacer as shown. Next install the (3) provided Idler Caps (302-A) using on each (3)  $\frac{8}{32}$  x  $\frac{3}{8}$ " SHCS (S022), apply Loc-Tite to the threads

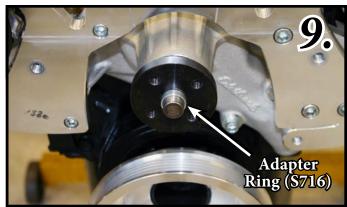




*Fig 8:* Install the Power Steering Pulley (618-A) using a proper install tool for press fit remote style pumps. Press pulley on till it is flush with the shaft.



*Fig 9:* Use Adapter ring  $\frac{3}{4}$ " O.D. x  $\frac{5}{8}$ " I.D. (S716) over the water pump shaft and Install water pump pulley (2232-A) and water pump cap (312-A) with (4)  $\frac{5}{16}$ -24 x  $\frac{7}{8}$ " SHCS (S186)



*Fig 10*: Install Crank Pulley (2231-A) with (4)  $\frac{3}{8}$  x 1" SHCS (S248).



*Fig 11:* Install Alternator Fan (221-A) and Alt Pulley (206-A). Slide the fan over the shaft followed by Alt Pulley and Lock Washer (S685). Use an impact gun to torque the alternator lock nut. Now install the Alt cover (306-A) with (3)  $\frac{8}{32}$  x 1" SHCS (S028).







Fig 13: Slip the supplied (30436) March Adjustment Tool over the two (MM100) bushings at the Alternator an A/C sides. Use a wrench to turn the adjustment tool outward to tighten the serpentine belt to 100 ft. lbs. Use the holes in the adjustment tool to tighten both M8 socket head cap screws when correct belt tension has been achieved. Remove the adjustment tool and keep for future use.



TIP: Fig-13a: Your Serpentine belt is tight when it can't be moved by more then 1/2 inch at it's longest span between pulleys. The belt should not be able to be twisted by more then half a turn.

Check and tighten all bracket bolts, alternator, and A/C lower mounting bolts, turn engine over once by hand to check for any belt rubbing and proper belt alignment. Run engine three minutes and check belt tension again.



## **Final Assembly**

If you are going to be installing your air conditioning hoses and charging the system at this time, remove the cover plate on top of the compressor body. Install the (P417) A/C adapter lines, hoses and connect clutch wire and charge system.

**Important:**If you are NOT installing hoses and charging the system at this time, leave cover plate on compressor. Do not connect the clutch wire or apply power to clutch wire without the hoses connected and the system charged – *Serious damage will occur to compressor.* 



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- 2. To avail yourself of this Limited Warranty, return the Product with a copy of the paid receipt, postage paid to:

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- 4. Shipping and/or transportation costs returning the Product to March Performance and any damage caused during shipping are your responsibility. March Performance will pay for shipping and/or transportation costs incurred in returning the Product to you.

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No product mounted is considered for credit unless it is a manufacturer defect.

All products returned for any reason must reference an authorization number (RGA). The RGA number is obtained by calling place of purchase during normal business hours. Any product returned without the RGA# written on the return package next to the return shipping label will be refused.

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100% credit issued on manufacturer defects

20% return fee on all reshelvable product

30% return fee on all repairable product

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To receive replacements at no charge the original product must first be received and inspected by March Performance for determination. Immediate replacements may be purchased and later credited upon inspection determination.

Please Complete the Information below, detach and include with returned product.

RGA#	_CT#	Issued by:	Date
Purchaser's Name		Phone_	
Address			
Purchased Directly Through			
Product ID			
Reason			