

## Serpentine Belt Accessory Drive Package Specifications

Specifications Part Number 12490896

*Package Part Number 12497698 = With Air Conditioning  
Part Number 12497697 = Without Air Conditioning*

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*This publication provides general information on the installation of a GM Performance Parts serpentine belt accessory drive package (serpentine belt package). Please read this entire publication before starting work. Also, please verify that all of the components listed below are included in the kit. The information below is divided into the following sections: package contents, component information, installation instructions, and additional parts that may need to be purchased.*

*The serpentine belt packages come in two configurations. One is for applications with air conditioning, and the other is for applications without air conditioning. Both packages incorporate modern technology in a package that can be installed on most small block Chevy engines. The serpentine belt packages include all the necessary brackets and hardware, pulleys, tensioner, alternator, power steering pump, water pump and belt. Also included is either the A/C compressor or an idler pulley, depending on which package was ordered. Both packages are assembled using brand new, premium quality components.*

*This package is designed to provide you a complete serpentine belt accessory drive package. This kit is based on the accessory drive system from tuned port injection (TPI) engines of the early 1990's. It uses factory engineered brackets and components to ensure high quality as well as the GM belt tensioner to maintain proper belt tension during operation.*

*These specifications are intended as a supplement to GM service manuals. It is not the intent of these specifications to replace the comprehensive and detailed service practices explained in the GM service manuals. Reference the service manuals for 1991 or 1992 Camaro or Firebird for more detailed information.*

*Observe all safety precautions and warnings in the service manuals when installing this package 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.*

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	28AU00	Initial Release	
	11MY01	Revision	

**Serpentine Belt Accessory Drive Package Specifications**

**Package contents:**

1	Specifications	1	12490896
2	Bracket, A/C and smog	1	10055800
3	Stud (3" OAL)	1	88966335
4	Bolt (3/8-16 x 1)	8	14091547
5	Stud (3.875 OAL)	1	19170366
6	Nut(3/8-16)	4	9442958
7	Compressor, A/C 1 - 88964863 or Pulley, idler (less A/C)	1	10055890
8	Bracket Assembly, Belt idler pulley	1	10129569
9	Bolt (M10 x 1.5 x 30) (for idler)	5	11514317
10	Stud (5.5" OAL)	1	19170367
11	Bolt (M10 x 1.5 x 110)	1	11516744
12	Brace, compressor	1	10105267
13	Spacer, header to brace (1.94" long)	1	12490679
14	Bolt (3/8-16 x 3.25)	1	9442324
15	Bolt (M12 x 1.75 x 36)	1	14089928
16	Pump, Water (with gaskets)	1	19201601
17	Bolt (3/8-16 x 2.25)	4	9442012
18	Pulley, water pump	1	10055880
19	Bolt (M8 x 1.25 x 20)	5	11515756
20	Pulley, crankshaft	1	10055879
21	Bolt (3/8-24 x 0.625)	3	9440226
22	Bracket, alternator and power steering (power steering pump and pulley installed)	1	10105212
23	Alternator	1	19152464
24	Bolt (M8 x 1.25 x 30)	1	14081014
25	Bolt (M10 x 1.5 x 85)	1	11588749
26	Pigtail, alternator	1	88987962
27	Tensioner	1	10055798
28	Bolt (M12 x 1.75 x 75)	1	10055882
29	Brace, alternator	1	10077579
30	Spacer, header to brace (1.5" long)	1	12490680
31	Bolt (3/8-16 x 2.75)	1	15991978
32	Belt (2470 mm 97.25" effective length)	1	88986814
33	Pulley, P/S Pump	1	12573728
34	Washer, P/S Pump Bracket	1	00331247

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DATE	REVISION	AUTH
30AU07	Revision - David Wells	
11FE09	Revision - Rusty Sampsel	

Component Information:

A/C Compressor:

This kit includes a R4 radial compressor. This compressor is R134A compatible.

Alternator:

Included with this package is a Delphi Delcotron, CS 130 series generator assembly, part number 19152464, AC Delco part number 321-464. It is a 105 amp, remanufactured unit.

Water Pump:

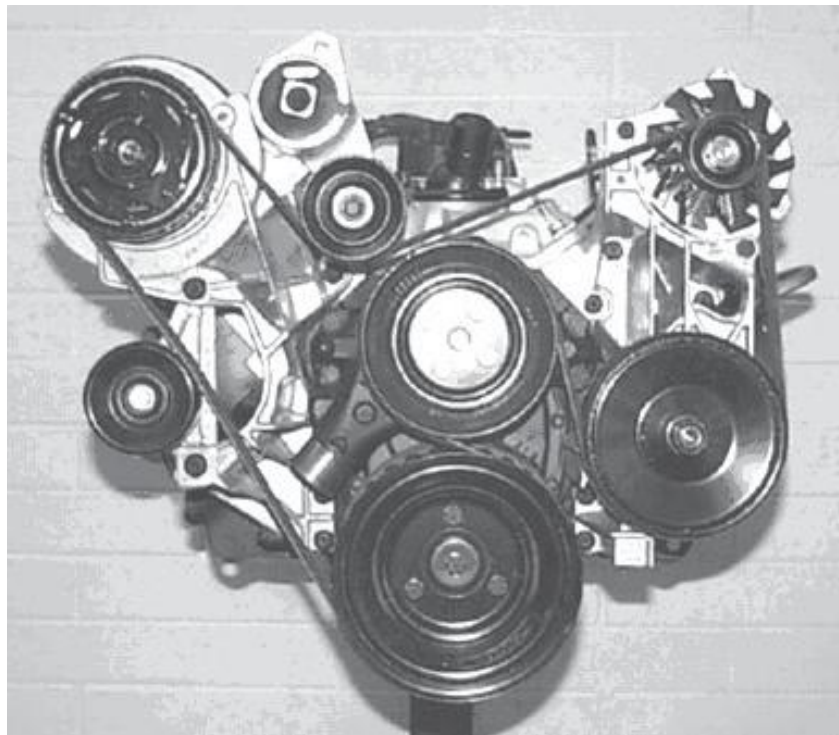
The water pump included in this package, part number 19201601, is a reverse rotation, cast iron water pump, with long mounting legs.

P/S Pump:

This kit includes part number 88985115 power steering pump attached to the Power Steering and Alternator Bracket. Pump requires P/S Fluid P/N 89021184 or equivalent.

Installation Procedure:

The figure below shows the accessory drive package installed on a typical small block application. Refer to this picture for clarification during the installation of the various components included in this package.



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14AP10	Revision - Rusty Sampsel	

Water Pump and Pulley:

1. Install the water pump and gaskets on the front of the engine, using the four bolts, part number 9442012, to retain the pump. Torque these bolts to 40 N(m ( 30 lb. ft.).
2. Attach the water pump pulley, part number 10055880, to the water pump.
3. Install the four water pump pulley bolts, part number 11515756, and torque to 50 N(m ( 37 lb. ft.).

A/C Compressor Bracket:

1. Install stud, part number 19170366, into the upper, outboard hole in the front of the right-hand side cylinder head.
2. Attach the bracket to the engine. Orient the bracket as shown in the illustration above
3. Install the two bolts, part number 14091547, through the bottom holes in the bracket and into the front of the block. Torque these bolts to 30 N(m ( 22 lb. ft.).
4. Install nut, part number 9442958, onto the stud to retain the bracket in place. Torque this nut to 30 N(m ( 22 lb. ft.).
5. Look at the inboard holes in the front of the cylinder to head to determine if the holes align with a hole in the bracket. Note: Depending on which cylinder head is being used, Bolt 14091547 may not be able to be installed. If this bolt cannot be installed, continue on to the next stage. The system was tested without this bolt installed and no problems were noted.
6. If applicable, install stud, part number Bolt 14091547 and torque to 30 N(m ( 22 lb. ft.).

Lower Idler Pulley:

1. Install the lower idler pulley, part number 10129569. Orient the idler as shown in the illustration above.
2. Install two bolts, part number 11514317, through the front of the bracket and thread into the idler pulley assembly. Torque these bolts to 50 N(m ( 37 lb. ft.).

A/C Compressor or Idler Pulley and Brace:

1. Attach the A/C compressor to the bracket and retain with bolt, part number 11516744. This bolt installs through the rear of the compressor and threads into the bracket in the inboard hole of the compressor. Torque this bolt to 50 N(m ( 37 lb. ft.).
2. Install stud, part number 19170367, through the out board hole in the rear of the compressor. This stud threads into the bracket as well. Torque this stud to 50 N(m ( 37 lb. ft.).
3. Install nut part number 9442958 onto stud 19170367 and torque to 50 N(m ( 37 lb. ft.).
4. Install bolt, part number 14089928, into the bottom hole in the rear of the compressor. Torque this bolt to 50 N(m (37 lb. ft.).
5. Install washer part number 331247 over stud 19170367 installed in step 2. Attach brace, part number 10105267, to stud, part number 19170367, installed in step 2. Install nut, part number 9442958, on the stud to retain the brace.
6. Attach the other end of the brace to the exhaust manifold with stud 88966335 and nut 9442958. Note: If the package is being installed on an engine with headers, spacer, part number 12490680, will need to be installed as well. This spacer makes up the difference between the exhaust manifold and header flange thickness.
7. Toque the nut from step four to 25 N(m ( 18 lb. ft.). Torque the bolt from step five to 35 N(m ( 26 lb. ft.).

Note: If the package is being installed in a vehicle without air conditioning, install the idler pulley, part number 10055890, instead of the compressor. Follow the steps listed above for installation of the idler pulley.

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**Belt Tensioner:**

1. Attach the belt tensioner, part number 10055798, to the bracket as shown in the illustration.
2. Install bolt, part number 10055882, to retain the tensioner. Torque this bolt to 50 N(m ( 37 lb. ft.).

**Crankshaft Pulley:**

1. Remove the bolt and washer holding the balancer in place.
2. Install the crankshaft pulley, part number 10055879, on the balancer and reinstall the bolt and washer removed in step 1. Torque this bolt to 95 N(m ( 70 lb. ft.)
3. Install the three crankshaft pulley bolts, part number 9440226, and torque to 58 N(m ( 43 lb. ft.).

**Alternator and Power Steering Pump Bracket:**

1. Attach bracket assembly, part number 10105212, to the front of the engine, oriented as shown in the illustration above.
2. Install five bolts, part number 14091547, through the bracket and into the block and cylinder head. Two bolts install in the block, and three into the cylinder head. Torque these bolts to 50 N(m ( 37 lb. ft.).

*Note: The inboard bolt to the cylinder head may not line up, depending on the cylinder head being used. If this bolt cannot be installed, continue on to the next stage. The system was tested without this bolt installed and no problems were noted. On some applications, the hole in the bracket can be bored out to accept the bolt.*

3. Remove shipping plugs from the Power Steering Pump fittings and attach P/S lines.

**Alternator and Brace:**

1. Orient the alternator so that the wiring harness connector is on the top of the alternator.
2. Attach the alternator to the bracket and install bolt, part number 14081014, in the upper hole, and bolt, part number 11588749, in the lower hole. Torque these bolts to 50 N(m ( 37 lb. ft.).
3. Attach brace, part number 10077579, to the rear of the alternator, and install bolt, part number 11515756, to retain the brace.
4. Attach the other end of the brace to the exhaust manifold with bolt 15991978. *Note: If the package is being installed on an engine with headers, spacer, part number 12490679, will need to be installed as well. This spacer makes up the difference between the exhaust manifold and header flange thickness*
5. Torque the bolt from step three to 25 N(m ( 18 lb. ft.). Torque the bolt from step five to 35 N(m ( 26 lb. ft.).
6. The Alternator should be wired as follows:

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**S terminal:** 10 GA wire to battery source (Can be mounted to the generator's Battery stud)

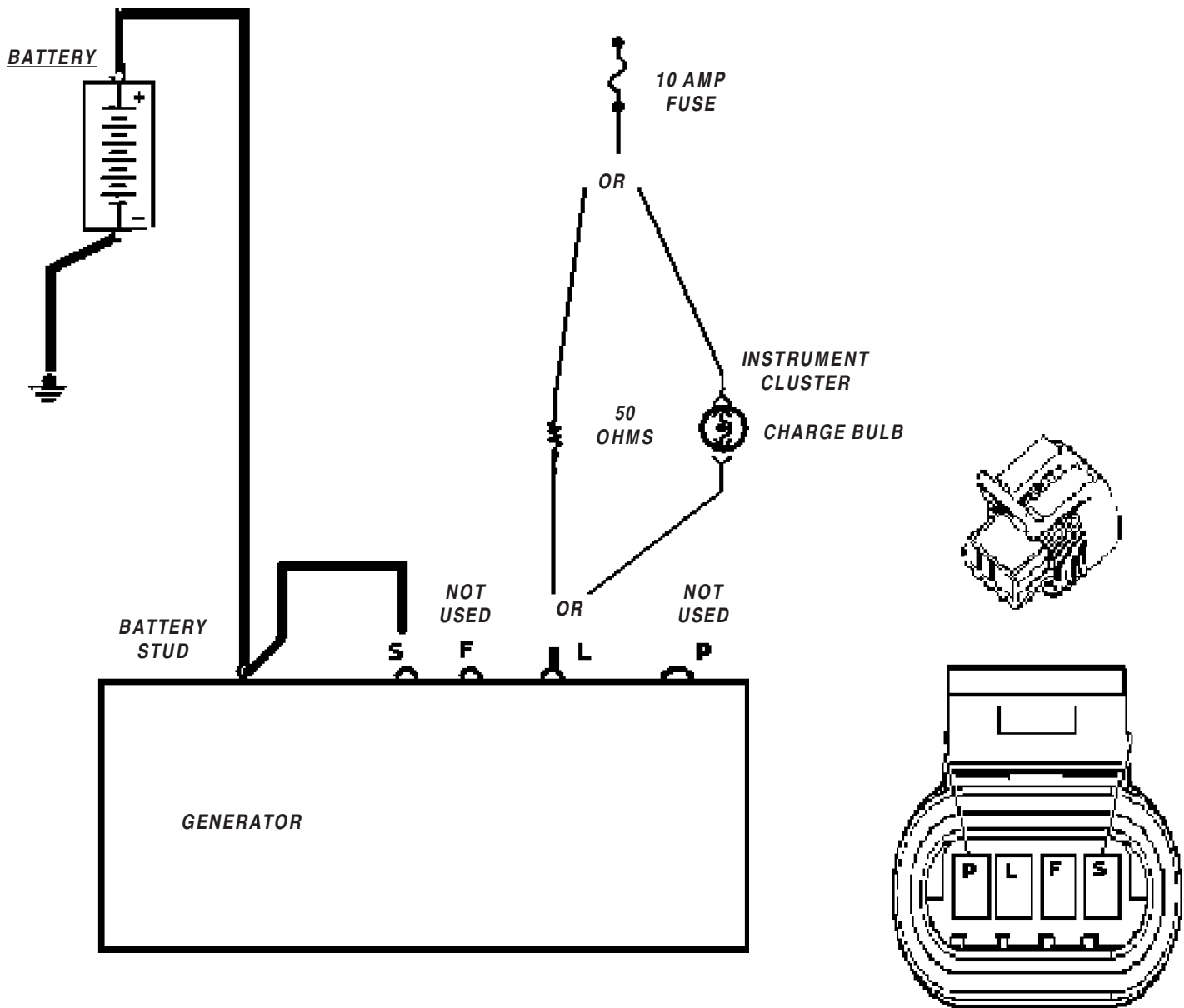
**F terminal:** Not used

**L terminal:** This is the "Ignition On" voltage signal to the generator. This circuit must have an inline resistor. Use either a 50 Ohm inline resistor or the vehicle's charge indicator lamp. Damage will occur to the generator if an inline resistor is not used.

**P terminal:** Not used

**Generator battery stud:** Connects directly to the battery's positive terminal. Minimum 8GA wire is required

12V WITH IGNITION IN RUN AND START



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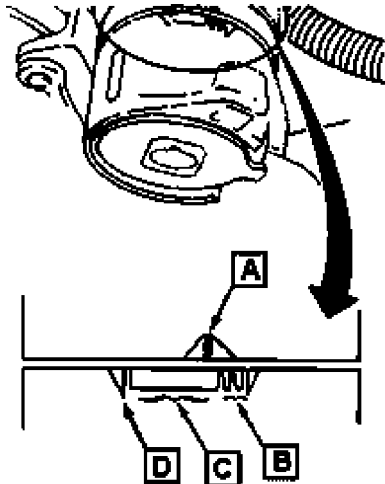
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**Belt:**

1. Install the belt, part number 88986814. Ensure that the routing of the belt is the same as that shown in the illustration. The figure below explains the belt length scale on the belt tensioner.



- A** TIGHTENING TORQUE
- B** TIGHTENING TORQUE
- C** TIGHTENING TORQUE
- D** TIGHTENING TORQUE

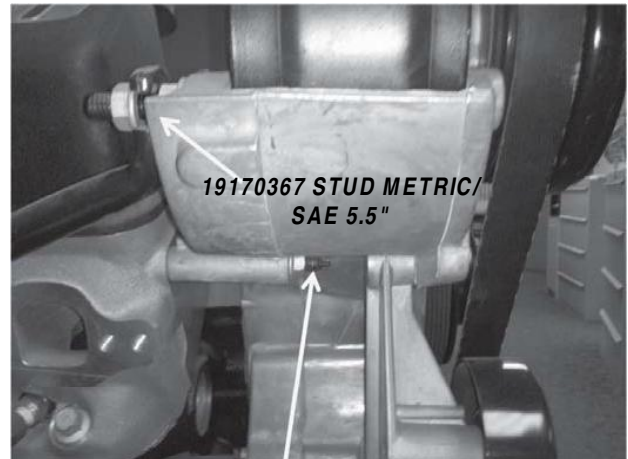
**Additional parts that may be needed:**

**Fan Clutch Assembly:**

This package utilizes a reverse rotation water pump. As such, if a GM production fan and clutch assembly is to be utilized, the parts must be the same configuration as the vehicle.

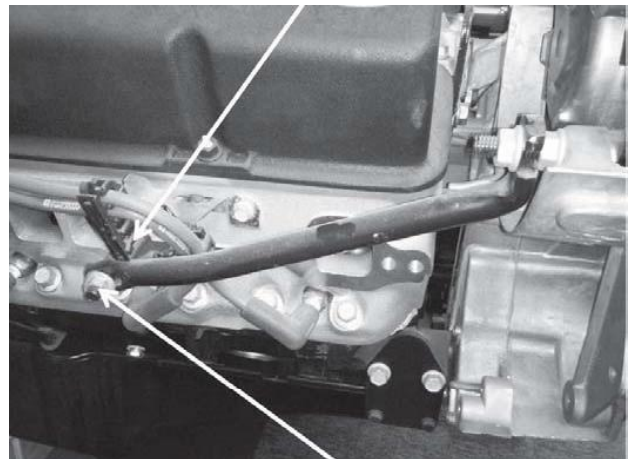
**Note:**

The power steering pump included in this package comes with metric fittings for the lines. The lines may need to be adapted for standard thread fittings, depending on the application.



19170366 SAE STUD 3.875"

12490680 1.5" SPACER



88966335 SAE 3" STUD

12490679 1.94" SPACER



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