

Serpentine Belt Accessory Drive Package Specifications

Package Part Number 19172805 - with Air Conditioning
Package Part Number 19172806 - without Air Conditioning

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 to exceed your expectations for fit and function. Please refer to our catalog for the GM Performance Parts Authorized Center nearest you or visit our website at www.gmperformanceparts.com.

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, in fact, included in the kit.

The information below is divided into the following sections: Package contents, Component information, Installation instructions, and Additional parts that you 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 big 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.

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 jackstands 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.

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

DATE	REVISION	AUTH
16AP03	Initial Release	
19JL04	Revised - Saad Habba	

Package contents:

<u>Item</u>	<u>Description</u>	<u>Quantity</u>	<u>GM Part Number</u>
1	Specifications	1	88962427
2	Cast Bracket, A/C	1	10187612
3	Stamped Bracket, A/C	1	10187613
4	A/C Compressor (Package 19172805 only)	1	88964862
4	Pulley, Idler (less A/C) (Package 19172806 only)	1	10055890 (includes bolt - M10-1.5x65, P/N 11516109)
5	Belt Tensioner	1	12552359
6	Pulley, Idler	1	10129560
7	Bolt - 7/16-14 x 4.25	1	9442911
8	Bolt - M10-1.5 x 146	1	11518034
9	Bolt - M10-1.5 x 105	3	11514189
10	Bolt - M10-1.5 x 30	1	11516328
11	Stud - 7/16-14 x 4.85	2	10224224
12	Nut - 7/16-14	2	3930109
13	Nut - M10-1.5	2	10255857
14	Bolt - 3/8-16 x 4.25	3	10244168
15	Cast Bracket, Alternator and Power Steering	1	10187610
16	Stamped Bracket, Alternator and Power Steering	1	10187611 (must be modified for tall deck)
17	Bracket, Power Steering Support	1	88961892 (used for tall deck only)
19	Alternator, 105 Amp	1	19152476
20	Power Steering Pump	1	88985115
21	Power Steering Pulley	1	12604004
22	Bolt - M10-1.5 x 65	1	11516109
23	Bolt - M10-1.5 x 35	3	11515767
24	Bolt - M8-1.25 x 35	1	24572579
25	Bolt - M8-1.25 x 20	5	11570082
26	Bolt - 3/8-16 x 3/4	5	9442963
27	Water Pump Kit	1	19168601
	Water Pump Assembly	1	12456326
	Water Pump Bolt (3/8-16x2.38)	4	9440982
	Water Pump Gasket	2	3860039
	Plug, Hose Nipple Hole	1	10240403
28	Pulley, Water Pump and Fan	1	10085760
29	Water Outlet Snout	1	10108470
30	Water Outlet Gasket	1	10105135
31	Hose	1	1485552 (cut to length)
32	Clamp, Hose	2	1470030
33	Brass Nipple	2	6272959
34	Bolt - M8-1.25 x 12	4	11515754
35	Pulley, Crankshaft	1	10085753
36	Bolt - 3/8-24 x 5/8	3	9440226 (for use with Fluidampr)
37	Belt - 2550 EL	1	88986813 (regular deck)
38	Belt - 2580 EL	1	88986828 (tall deck)

Component Information:

Air Conditioning Compressor:

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

Alternator:

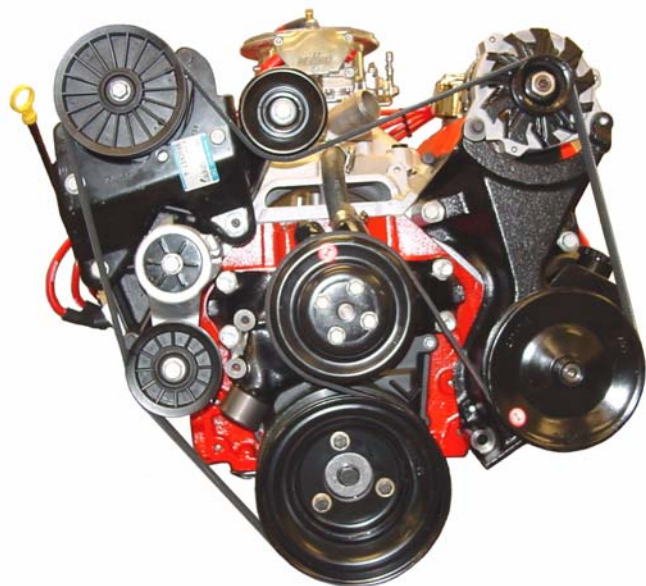
Included with this package is a Delphi Delcotron, CS 130 series generator assembly, part number 19152476, ACDelco part number 321-1035. It is a 105 amp, remanufactured unit.

Water Pump:

The water pump included in this package, part number 12456326, is a reverse rotation, cast iron water pump with long mounting legs.

Installation Procedure:

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



Water Pump, Pulley and Crankshaft Pulley, and Water Outlet Snout:

1. Install the water pump, part number 12456326, and gaskets, part number 3860039, on the front of the engine using the four bolts, part number 9440982, to retain the pump. Torque these bolts to 40 Nm (30 lb.ft.)
2. Install the plug, part number 10240403, into the left most heater hose nipple hole on the water pump using the appropriate pipe sealer.

3. Install the brass nipples, part number 6272959, into the second heater hose nipple hole on the water pump and also the heater hose nipple hole located on the front of the intake manifold, again using the appropriate pipe sealer.
4. Measure the hose length required between the above installed nipples and cut to length the hose, part number 1485552. Install hose onto nipples securing with the hose clamps, part number 1470030.
5. Attach crankshaft pulley, part number 10085753, to crankshaft balancer using the three crankshaft pulley bolts, part number 9442963 (or Fluidampr applications = 9440226) and torque to 58 Nm (43 lb.ft.).
6. Attach the water pump pulley, part number 10085760, to the water pump using the four water pump pulley bolts, part number 11515754, and torque to 50 Nm (37 lb.ft.).
7. Attach water outlet snout, part number 10108470, to manifold utilizing supplied gasket, part number 10105135, reuse original bolts. Torque to 30 Nm (22 lb.ft.).

Air Conditioning Compressor, Bracket and Brace (for applications with A/C):

1. Install stud, part number 10224224, into the inboard hole in the front of the right hand side cylinder head.
2. Attach the cast A/C bracket, part number 10186712, to the engine. Orient the bracket as shown in the illustration.
3. Install the bolt, part number 9442911, into the lower, outboard hole in the front of the right hand side cylinder head and torque to 30 Nm (22 lb.ft.).
4. Attach A/C compressor, part number 88964862, and brace, part number 10187613, to above mounted cast A/C bracket using three bolts, part number 11514189, by first inserting bolts through brace then compressor. Torque these bolts to 50 Nm (37 lb.ft.).
5. Attach nut, part number 3930109, onto stud from Step 1. Torque to 30 Nm (22 lb.ft.).
6. Install the bolt, part number 10244168, through the lower left hole of the brace and into upper, outboard hole in the front of the right hand side cylinder head. Torque to 30 Nm (22 lb.ft.).
7. Install the bolt, part number 11516328, through the middle left hole of the brace and into the bracket. Torque to 30 Nm (22 lb.ft.).
8. Insert the bolt, part number 11518034, first through the brace then the cast A/C bracket, then attach the nut, part number 10255857, to the back side. Torque to 30 Nm (22 lb.ft.).

DATE	REVISION	AUTH

A/C Idler Pulley, Bracket and Brace (for applications without A/C):

1. Install stud, part number 10224224, into the inboard hole in the front of the right hand side cylinder head.
2. Attach the cast A/C bracket, part number 10187612, to the engine. Orient the bracket as shown in the illustration.
3. Install the bolt, part number 9442911, into the lower, outboard hole in the front of the right hand side cylinder head. Torque to 30 Nm (22 lb.ft.).
4. Remove the pulley from the A/C idler pulley assembly by removing the pulley retaining bolt. This step is necessary to provide clearance for insertion of the mounting bolts.
5. Attache A/C idler pulley assembly, part number 10055890, to the cast A/C bracket using the bolt, part number 11516109. Insert through the threaded center mounting hole of the A/C idler and into the upper, center threaded hole of the cast A/C bracket. Align remaining idler mounting holes with upper threaded bracket holes. Torque this bolt to 50 Nm (37 lb.ft.).
6. Attach brace, part number 10187613, to above mounted cast A/C bracket using two bolts, part number 11514189, by first inserting bolts through the upper outside two holes in the brace, then through the two remaining mounting holes in the A/C idler pulley and finally into the upper two threaded holes in the cast A/C bracket. Torque these bolts to 50 Nm (37 lb.ft.).
7. Attach nut, part number, 3930109, onto stud from Step 1. Torque to 30 Nm (22 lb.ft.).
8. Install the bolt, part number 10244168, through the lower left hole of the brace and into upper, outboard hole in the front of the right hand side cylinder head. Torque to 30 Nm (22 lb.ft.).
9. Install the bolt, part number 11516328, through the middle left hole of the brace and into the bracket. Torque to 30 Nm (22 lb.ft.).
10. Insert the bolt, part number 11518034, first through the brace then the cast A/C bracket. Then attach the nut, part number 10255857, to the back side. Torque to 30 Nm (22 lb.ft.).
11. Reinstall A/C idler pulley from Step 4. Torque bolt to 50 Nm (37 lb.ft.).

Alternator, Power Steering Pump, and Brackets (for normal deck height applications):

1. For the following step the power steering pump pulley must be removed. Be sure to use the appropriate removal tool to avoid damage to the pump shaft and/or pulley.
2. Attach the power steering pump, part number 88985115, to the cast alternator and power steering bracket, part number 10187610. Orient the pump as shown in the assembly illustration.
3. Install the three bolts, part number 11515767, through the bracket and into the pump. Torque these bolts to 50 Nm (37 lb.ft.).

4. Attach the alternator, part number 19152476, to the cast alternator and power steering bracket, part number 10187610. Orient the pump as shown in the assembly illustration.
5. Install bolt, part number 24572579, through the upper left hole in the cast bracket and into the alternator. Torque to 30 Nm (22 lb.ft.).
6. Install bolt, part number 11516109, through the alternator and into the upper right hole in the cast bracket. Torque to 50 Nm (37 lb.ft.).
7. Attach stamped alternator and power steering bracket, part number 10187611, to the back side of the alternator, power steering pump and cast bracket as shown in the illustration below.
8. Install four bolts, part number 11570082, through the holes in the stamped bracket and into the alternator and cast bracket. Torque these bolts to 30 Nm (22 lb.ft.).
9. Install nut, part number 10255857, onto the stud on the back of the power steering pump. Torque to 30 Nm (22 lb.ft.).
10. Install stud, part number 10224224, into the threaded hole in the lower corner of the block below the left hand side cylinder head.
11. Install the above constructed alternator, power steering bracket assembly onto the stud from Step 9. Refer to the assembly illustration for proper orientation.



12. Install the two bolts, part number 10244168, through the cast bracket and into the inboard and upper outboard holes in the front of the left hand side cylinder head. Torque these bolts to 50 Nm (37 lb.ft.).
13. Attach nut, part number 3930109, onto stud from Step 9. Torque to 30 Nm (22 lb.ft.).
14. Install bolt, part number 9442963, through the hole in the arm of the stamped bracket into the side of the block. Torque to 50 Nm (37 lb.ft.).
15. Install pulley, part number 12604004, onto power steering pump shaft. Be sure to use the appropriate installatin tool to avoid damage to the pump shaft and/or pulley.

DATE	REVISION	AUTH

Alternator, Power Steering Pump, and Brackets (for tall deck applications):

The figure below illustrates the modification to the alternator and power steering stamped bracket, part number 10187611. This modification is necessary to tall deck applications only.



1. For the following step, the power steering pump pulley must be removed. Be sure to use the appropriate removal tool to avoid damage to the pump shaft and/or pulley.
2. Attach the power steering pump, part number 88985115, to the cast alternator and power steering bracket, part number 10187610. Orient the pump as shown in the assembly illustration.
3. Install the three bolts, part number 11515767, through the bracket and into the pump. Torque these bolts to 50 Nm (37 lb.ft.).
4. Attach the alternator, part number 19152476, to the cast alternator and power steering bracket, part number 10187610. Orient the pump as shown in the assembly illustration.
5. Install bolt, part number 24572579, through the upper left hole in the cast bracket and into the alternator. Torque to 30 Nm (22 lb.ft.).

6. Install bolt, part number 11516109, through the alternator and into the upper right hole in the cast bracket. Torque to 50 Nm (37 lb.ft.).
7. Attach stamped alternator and power steering bracket, part number 10187611, to the back side of the alternator, power steering pump and cast bracket as shown in the illustration below.



8. Attach the power steering support bracket, part number 88961892, to the back side of the stamped bracket. Refer to the illustration above for proper orientation.
9. Install bolt, part number 11570082, through the lower hole power steering support bracket and stamped bracket and, finally, into the cast bracket. Torque to 30 Nm (22 lb.ft.).
10. Install three bolts, part number 11570082, through the three remaining holes in the stamped bracket and into the alternator and cast bracket. Torque these bolts to 30 Nm (22 lb.ft.).
11. Install nut, part number 10255857, onto the stud located on the rear of the power steering pump. Torque to 30 Nm (22 lb.ft.).
12. Install the above constructed alternator, power steering bracket assembly onto the left hand side cylinder head. Refer to the assembly illustration for proper orientation.
13. Install the two bolts, part number 10244168, through the cast bracket and into the inboard and upper outboard holes in the front of the left hand side cylinder head. Torque these bolts to 50 Nm (37 lb.ft.).
14. Install two bolts, part number 9442963, through the holes in the arms of the power steering support bracket into the side of the block. Torque these bolts to 50 Nm (37 lb.ft.).
15. Install pulley, part number 12604004, onto power steering pump shaft. Be sure to use the appropriate installation tool to avoid damage to the pump shaft and/or pulley.

DATE	REVISION	AUTH

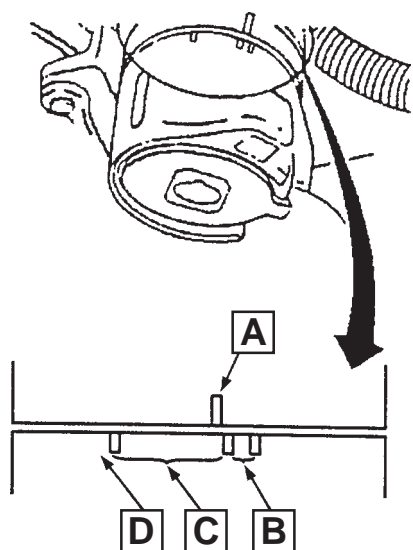
Belt Tensioner and Upper Idler Pulley:

1. Attach the belt tensioner, part number 12552359, to the cast A/C bracket as shown in the assembly illustration.
2. Install bolt, part number 11516109, to retain the tensioner. The belt tensioner is keyed to ensure proper orientation. Torque this bolt to 50 Nm (37 lb.ft.).
3. Install the upper idler pulley, part number 10129560, to the cast A/C bracket as shown in the assembly illustration. Torque included bolt to 50 Nm (37 lb.ft.).

Belt:

1. Install the belt (refer to package contents for appropriate belt and part number). Ensure that the routing of the belt is the same as that shown in the assembly illustration.

The figure below explains the belt length scale on the belt tensioner.



- A** FIXED BELT LENGTH INDICATOR
- B** NEW BELT RANGE
- C** USED BELT ACCEPTABLE WEAR RANGE
- D** REPLACE BELT RANGE

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 are to be utilized, the parts must be from the same configuration of vehicle.

DATE	REVISION	AUTH