

sonnax® **PERFORMANCE**

faster

tougher

stronger

POWERGLIDE®
TRANSMISSION PARTS

VOL. 1

CONTENTS

FEATURED PRODUCTS

Input Shafts, Clutch Hubs & Shims	2
Drums & Drum Kits.....	3-4
Planetary Gear Sets & Assemblies ...	5-6
Ring Gear Stabilizer Kit.....	7
Output Shaft Support Kit.....	7
Oil Pan Kit & Filter Extensions	8
Valve Upgrades.....	8
<i>Powerglide Servo Pin Bias Effect</i> & Super Hold Servo Kit.....	9-10
Servo Piston & Cover Kits	11
Linkage Parts.....	12
Pump Parts	12

PARTS LISTINGS

Input & Drum Parts.....	13
Clutch & Apply Parts	14
Planetary Parts	15-16
Case-Related Parts.....	17-18

Complete Part Details at
SONNAX.COM

WHERE TO BUY

Ready to order? Find out where to purchase genuine Sonnax parts from an online listing of authorized distributors in the U.S. and other countries.

CONTACT SONNAX

(800) 843-2600 • (802) 463-9722

info@sonnax.com

www.sonnax.com



sonnax® PERFORMANCE

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POWERGLIDE® Transmission Parts

Sonnax is proud to offer the industry's largest selection of high-quality Powerglide parts, from hard-to-find OE replacements to the finest racing components.

The Sonnax name is synonymous with the highest quality aftermarket products. Our performance transmission parts meet the toughest challenges faced by hard-working, daily-use transmissions as well as racing units going all-out on the street or track.

Sonnax also designs and manufactures specialty parts for performance torque converters, plus a growing line of superior aluminum and steel driveline components. Visit www.sonnax.com for product listings.



**GET YOUR
GEARHEAD ON**

28751-06K

Extreme Strength Input Shafts

The **MOST DURABLE** shaft for standard Powerglide configurations.

- Aerospace alloy with custom heat treatment.
- Advanced torsional design, rolled front and rear splines and other unique design features.

Input shaft failure and spline twist are common as power levels increase. Sonnax extreme strength input shafts are engineered to withstand these forces for exceptional reliability and durability.

The ringed version of this shaft features unique, shallow seal grooves which do not weaken the shaft like common deep-groove designs. The ringless shaft for use with bushings has a .997" journal diameter.

Clutch Hubs

RUGGED HUBS optimized for Powerglide performance applications!

- 1.155" Tall (OE hub is .955").
- .200" Longer than OE hub.
- Machined from high-strength steel forging.

Clutch Hub Shims

Prevents rear clutch friction disc from dropping off the hub.

The shim fits between the small wear plate and drum to lift the hub out of the drum. This reduces endplay between the hub and sun gear flange. It also maximizes clutch tooth engagement with the hub splines, preventing the rear clutch friction disc from dropping off hub.

- Optimize clearances between hub and flange.
- Reduce and control clutch hub endplay.
- Restore stack height on drums with thrust surface wear.

Extreme Strength Input Shafts

Shaft with Seal Rings (2)

PART NO. **28751-06K**

Ringless Shaft

PART NO. **28751-07**

Clutch Hubs

PART NO.
28304-SP



PART NO.
28304



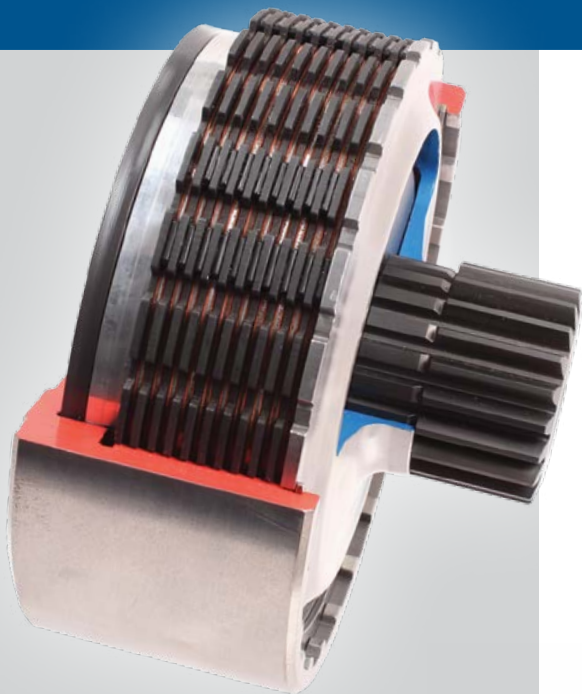
Shims →



Clutch Hub Shims

Package of three .032" shims.

PART NO. **28304-30**



The ORIGINAL 10-Clutch Drum Kit

The **BEST DRUM** on the track!

Sonnax invented the original, high-capacity Powerglide 10-clutch drum more than a decade ago. The proven dependability of this patented drum makes it a popular choice among racing enthusiasts.

THE SONNAX 10-CLUTCH SYSTEM

Improved Clutch Capacity for Maximum Durability

Using the patented Sonnax 10-clutch drum system, the drum and piston accept 10 frictions and 10 steels, increasing lockup surface to allow significantly more torque than modified OE drums.

Increased Piston Travel

The drum features a piston bore that is .060" deeper for greater piston travel than was available from Sonnax 10-clutch drum 28755-01 (now discontinued). This depth also eliminates the possibility of the piston seal coming out of the bore.

Superior Quality

- Excess material removed from high-strength, cast steel drum to reduce rotating mass.
- 6061 Forged aluminum piston will not crack at high operating pressure like cast pistons.
- Forged chromoly steel clutch hub.



Drum & Piston Accept
10 Frictions & Steels

1.500" Tall
Chromoly Hub



COMPLETE Drum Kits

Include all drum components including Kolene® steels and .060" frictions for a top-of-the-line 10-clutch drum system **ONLY** Sonnax can deliver.

BASIC Drum Kits

10-clutch drums, hubs and pistons with the flexibility of adding your own build options.












SMART-TECH®

Drum Kit 35% More Apply Area

This powerhouse 10-clutch drum kit features Sonnax's oversized piston with 35% more apply area than OE drums or Sonnax regular 10-clutch drum kits. The larger piston increases both the engaging capacity and holding capacity of the 10-clutch system. Alternatively, it is possible to reduce line pressure or to use just seven frictions and have the same holding capacity as a regular 10-clutch drum, but with increased heat dissipation from thicker steels.



An expanded selection of **10-CLUTCH DRUM KITS** makes it easier than ever to tune clutch capacity for maximum durability on the track!

Many clutch kit components also are available separately. See pages 13 to 18 for complete product listings.		Includes Pump-to-Drum Bearing?	Steel Configuration	Lightening Holes in Hub?
Complete 10-Clutch Drum Kits				
	PART NO. 28756-01K	—	12-Tooth Kolene® <i>without</i> Turbulator Holes	
	PART NO. 28756-08K		24-Tooth Kolene® <i>with</i> Turbulator Holes	
Basic 10-Clutch Drum Kits				
	PART NO. 28756-15K	—	—	
	PART NO. 28756-16K		—	
Smart-Tech® 10-Clutch Drum Kit				
	PART NO. 28756-25K		—	

ALL SONNAX 10-CLUTCH DRUMS ARE COVERED BY PATENT NOs. 6,920,970 & 7,204,357.

Standard Clutch Drum

Improved **STRENGTH & DURABILITY** for high-pressure racing applications.

- Direct replacement drum; piston bore and other features match OE.
- Made of high-strength, ductile-cast iron.
- 12 Additional lugs for clutch steels; can be used with 12- or 24-lug steel plates.



Standard Clutch Drum

PART NO. **28755**

Build the PERFECT Powerglide

Sonnax offers an ONLINE TOOL to dial in options and select the perfect Powerglide gear set or assembly.



Visit www.sonnax.com to get started or scan code to view part options on your smartphone.

Gear Set Levels

- **Contender** **GOOD**
1-Year Gear Warranty
- **Premium** **BETTER**
2-Year Gear Warranty
- **Extreme** **BEST**
2-Year Gear & Shaft Warranty

Ratios

- 1.80
- 1.69
- 1.58 Extreme Sets Only
- 1.65 Extreme Sets Only

Clutch Drum Flanges

- **12-Tooth profile** Like OE
- **24-Tooth profile**
Fits Sonnax 10-clutch drum.

Output Shafts


- OE (Long) Length**
 - 4340 Cut Spline
 - 300M Rolled Spline
- Short Length**
 - HY-Tuf Cut Spline
 - 300M Rolled Spline

Gear Sets & Assemblies

Sonnax planetary gears are a big step up from standard case-hardened and tempered gears.

The high-quality gear materials combined with a freeze-tempering process (-150°F) results in gears with improved grain structure and stability which are tougher and more wear resistant.

Sonnax gear sets & assemblies come in three performance levels:

Contender Good	Premium Better	Extreme Best
9310 Sun Gears & 8620 Pinion Gears	9310 Sun Gears & Pinion Gears	 Advanced Process 9310 Sun Gears & Pinion Gears
Standard Ring Gear	Standard Ring Gear	Maximum Duty Ring Gear
OE-Style Thrust Washers Assembly Only	Steel-Backed, PTFE Thrust Washers Assembly Only	Steel-Backed, PTFE Thrust Washers Assembly Only



ADVANCED PROCESS GEARS

Sonnax Advanced Process sun gears and pinion gears are the exclusive components of our Extreme gear sets and assemblies. They use the same processes originally developed for Formula 1™, NASCAR® and other high-end professional racing circuits.

Advanced Process gears undergo a three-step process that takes aftermarket performance gear manufacturing to a whole new level:

Step 1. Cryogenic tempering for an even denser, more uniform gear with a tough and wear-resistant structure.

Step 2. Shot peening increases gear resistance to fatigue failure, cracking or galling.

Step 3. Super-finish reduces friction, vibration, noise and wear on the gear, potentially tripling the life of the part.



THE **POWERGLIDE** REVOLUTION IS HERE

1.58 Ratio

**Eliminate the hassle & expense
of changing to a TH400 for a lower ratio!**

The Sonnax 1.58 delivers tunable control for Powerglides right at the start, when tire grip can make or break a race.

This one-of-a-kind planetary is a PROVEN winner, featuring supreme Sonnax quality and design that's broken record after record against fierce track competition.

Advanced Process Gears

Sonnax 1.58 Ratio gear sets come with Extreme 9310 Advanced Process gears, a quality level typically found in high-end professional racing circuits.

Increased Holding Capacity

Reverse clutch with increased active radius delivers more holding capacity when the trans-brake is activated.

Upgraded Shafts & Washers

- 300M shafts with rolled splines.
- High-strength, steel-backed, PTFE-coated pinion thrust and rear sun gear washers.

Easy to Install

- Direct replacement, requires no special assembly or case mods.
- Bolt-together carrier for ease of service.

You Tube



Watch world-record breaking races
with the Sonnax 1.58 on YouTube!

The 1.58 has given us the ability to keep the front end on the ground, consistent A-B passes...and the confidence that we have gained with the reliability and consistency of the gear set is priceless.

Carmine Pechie • Pechie Racing

The 1.58 gear set has had a significant impact on helping my racing program this year. It has enabled us to have a much greater tuning window and allowed us to apply the power from the engine more efficiently.

Kevin Ashley • Kevin Ashley Racing

Sonnax's 1.58 is not just the lowest numerical Powerglide ratio...it is the highest quality Powerglide gear we have ever seen!

Mitch Yow • Torque Trends, Inc.



Each 1.58 ratio assembly includes:

- Complete 1.58 ratio carrier with ring gear, sun gear and 24-tooth flange.
- Reverse apply piston.
- Complete Reverse clutch pack with frictions and steels, plus apply and backing plates.
- Rolled spline, 300M output shaft.

1.58 Ratio Assemblies

With OE (Long) Length Shaft

PART NO. **28158G-06**

With Short Length Shaft

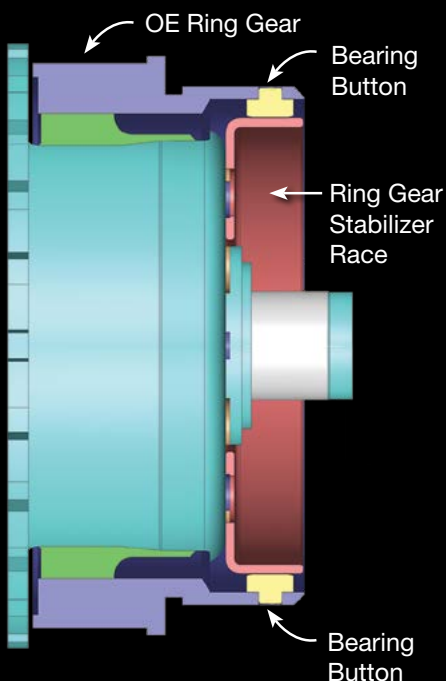
PART NO. **28158G-06SP**



Ring Gear Stabilizer Kit

- Ring Gear Stabilizer Race
- Bearing Buttons (5)

PART NO. **28510-S1**
PATENT PENDING



Output Shaft Support Kit

- Shaft Support
- Gasket

PART NO. **28080K**

- Roller Bearing for Low Friction & Longer Life
- 6061-T6 Billet Aluminum
- "Bolt-On" Modification

Ring Gear Stabilizer Kit

CIRCLE TRACK

Keep the ring gear in **1.82 CARRIERS** on-center & under control!

Vibrations at high speeds and broken Reverse friction plates are common problems with Powerglide® racing transmissions. These issues occur when the unsupported planetary ring gear moves off the transmission center line, oscillating out of control.

This ring gear stabilizer kit welds to formed steel, 1.82 ratio planetary carriers to support the ring gear, keeping it on-center.



Output Shaft Support Kit

STRONG & RELIABLE roller bearing support for drag racers.

This high-strength replacement for the stock Powerglide® output shaft support ensures rigidity where it is needed most. The kit is purposely built for racing.



Oil Pan Kit

LIGHTEST PAN
on the market!

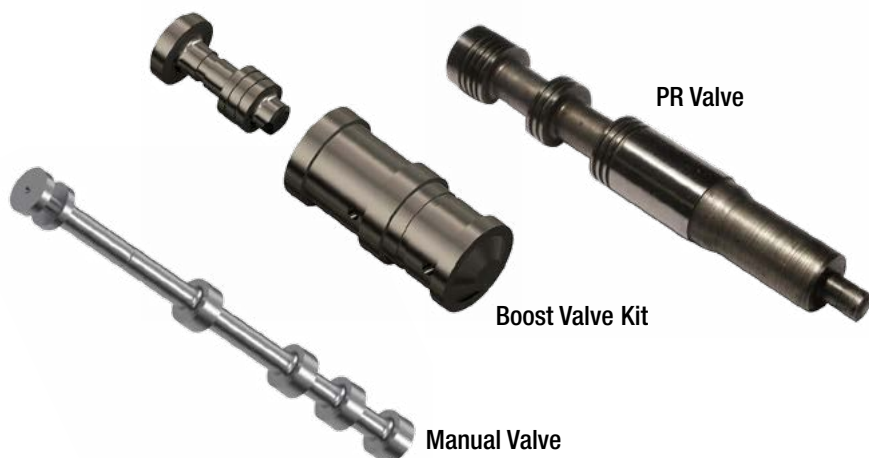
- Integrated baffle and reinforced pan rail.
- Two quarts extra fluid capacity.
- Wedge-shape design for additional ground clearance.
- Seamless construction from .125" thick aluminum.

Filter Extension Kits

A special oil pick-up extension must be used with Sonnax oil pan kit 28801-S to position oil filter rearward under baffle to ensure fluid is picked up under hard acceleration.

Valve Upgrades

High-quality **PRECISION VALVES**
replace rusty or worn factory parts.



Oil Pan Kit

- Oil Pan
- 1/2" NPT male to 1/8" NPT Female Reducing Bushing
- 1/8" NPT Socket Pipe Plug
- 1/2"-20 Magnetic Drain Plug
- Nylon Sealing Washer

PART NO. **28801-S**

Filter-to-Valve Body Extension Kits

Powerglide Filter to PG Valve Body

PART NO. **28801-S09K**

Chrysler Filter to Hipster Valve Body

PART NO. **28801-S11K**

Pressure Regulator Valve

PART NO. **28999-03**

Heat treated & Precision Ground

- Improved hydraulic sealing
- Reduced side loading

Boost Valve Kit

PART NO. **28999-01K**

Largest OE Boost Ratio

- Heat treated
- Precision ground

Manual Valve

PART NO. **28999-04**

Wide Spool Design

- Heat treated
- Precision ground

POWERGLIDE SERVO

PIN BIAS EFFECT

The Powerglide servo pin bias effect counters popular wisdom that high clutch oil pressure releases the servo on a 1-2 upshift.

In reality, whether in low gear or high gear, there is always some apply force on the servo pin that is proportional to line pressure.

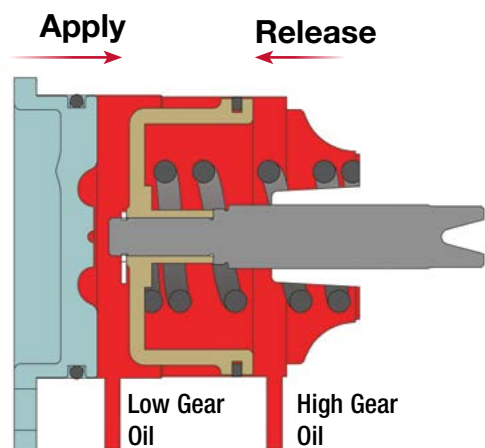
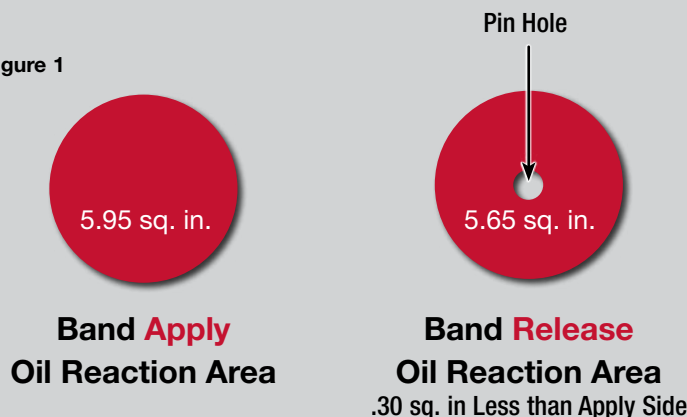


Figure 2

At 250 PSI, there is 77 lbs. of force on the servo in the APPLY direction.

Figure 1



When in high gear, residual apply force can be enough to overcome the return spring. This prevents a clean release of the servo, allowing the band to drag and burn while robbing power that should be used to propel the car down the end of the track.

The pin bias effect is related to the difference in reaction area on the apply (cover) side of the servo piston compared to the release (spring) side (Figure 1).

In normal operation, line pressure acts on the apply side of the servo in low gear and on both apply side and the release sides of the servo in high gear. At higher pressures, weak factory springs and some lighter springs do not have enough force to fully retract the servo. The band will not be applied, but will not be fully released either (Figure 2).

Unlike more modern transmissions where the piston release side area is greater than the apply side area, the Powerglide is just the opposite due to a more basic design and the release side reaction area not including the area of the apply pin. This results in a smaller release area than the apply side. Due to this, the “servo apply side” will always have greater area that is equal to the .3 sq. in pin bore diameter.

Figure 3

Powerglide Servo Pin Bias Formula:

5.95" Apply Area - 5.65" Release = .3 sq. in
.3" sq. in x Line Pressure = **BIAS FORCE**

Line Pressure in High Gear	100 psi	150 psi	200 psi	250 psi	300 psi
“Bias” Force in Apply Direction	31 lbs.	46 lbs.	62 lbs.	77 lbs.	92 lbs.

Veteran builders have learned that a strong return spring is required to keep a band alive.

This chart shows the pin bias force in the apply direction when line pressure is on both sides of the servo in high gear. For the servo to move to the released position in high gear, spring force must be greater than the pin bias force shown (Figure 3).

The higher the line pressure, the greater the spring force required. This has diminishing returns though, because as horsepower and torque increase, there is a need for higher line pressure to hold the band in low gear.

Read this article online for details on the Powerglide servo pin bias effect and how to adjust springs, bands and line pressure for optimum performance.

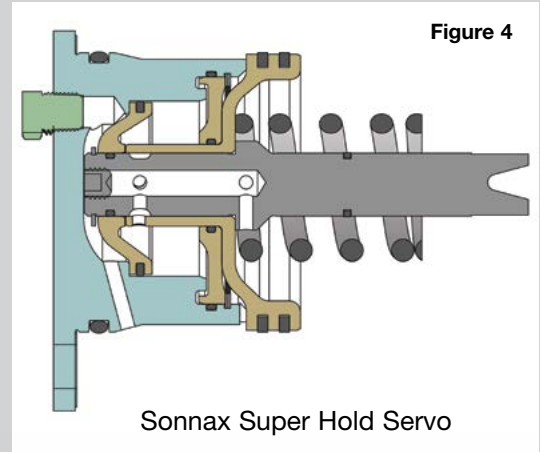


So how do you deal with this situation, where the higher line pressure requires a stronger return spring to ensure full servo release, yet the stronger return spring takes away from the net apply force in low gear?

The **Sonnax super hold servo** makes all the difference when dealing with these extremes.

The Sonnax servo's 30% larger apply area and calibrated return springs give BOTH greater holding force and enough spring to ensure full clean servo release.

The Sonnax servo's dual piston design still has the pin bias effect, but the springs are calibrated to have greater return force than OE springs, yet due to the larger piston area the net apply force is greater than an OE- sized servo (**Figure 4**).



Super Hold Servo Kit

30% More Apply Area!

Reduces Line Pressure, Freeing Up Horsepower

The larger apply area will increase band apply force at your current line pressure, or allow you to reduce line pressure by 20% to 30% while maintaining the same apply force.

Fits the Same Space as a OE Servo Assembly

No modifications are required to install this servo. The patented design fits completely inside the case because the external cover clearance is the same as OE servos.

Replacement seal kit includes:

- PTFE Primary Piston Seals (2)
- Cover Gasket
- PTFE Servo Pin Seal (2)
- Secondary Piston D-Ring
- Case-to-Cover O-Ring
- Cover-to-Separator O-Ring
- Pin-to-Secondary Piston O-Ring
- Separator-to-Primary Piston O-Ring



Super Hold Servo Kit

- Servo Assembly
- Servo Cover Gasket
- Case-to-Cover O-Ring
- PTFE Servo Pin Seals (2, 1 extra)
- Primary Piston Seals (2)
- Return Spring

PART NO. **28821-09K**
PATENT NO. 5,944,627

Replacement Seal Kit

PART NO. **28821-09SK**



Combining the larger servo and line pressure of 300 psi or higher can stress stock cases and bands, leading to failure.

Servo Piston & Cover Kits

- No case modifications required.
- High-strength aluminum pistons feature a rounded profile for better stress distribution.

Choose from two seal styles:

Dual PTFE seal ring kits for positive apply in high pressure racing conditions.

Dual O-ring kits for no-leak seal in worn cases.



Master Servo Piston Kits

PTFE Seals, Anodized
PART NO. **28821-05K**



PTFE Seals, Non-Anodized
PART NO. **28821-08K**



O-Rings, Anodized
PART NO. **28821-04K**



O-Rings, Non-Anodized
PART NO. **28821-07K**



Master Servo Piston Kits

- PTFE seals or O-rings.
- Anodized or non-anodized covers.

Kits include:

- Billet Aluminum Cover
- Billet Aluminum Piston
- Seals (2)
- Pipe Plug
- Hex Head Bolts (3)
- O-Ring
- Gasket

Servo Piston Kits

PTFE Seals
PART NO. **28821-02K**



O-Rings
PART NO. **28821-01K**



Servo Piston Kits

PTFE seals or O-rings.

Kits include:

- Billet Aluminum Piston
- Seal Rings (2)
- Gasket

Servo Cover Kits

Anodized
PART NO. **28821-03K**



Non-Anodized
PART NO. **28821-06K**



Servo Cover Kits

Anodized or non-anodized covers.

Kits include:

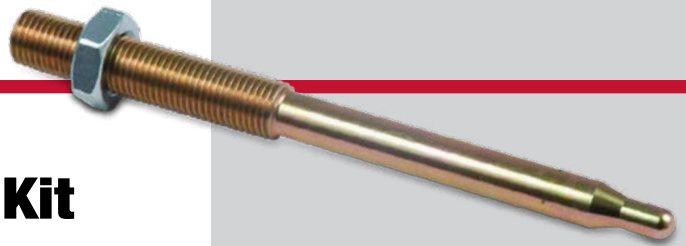
- Billet Aluminum Cover
- Pipe Plug
- Hex Head Bolts (3)
- O-Ring
- Gasket

Linkage

Band Adjustment Screw Kit

Hardened, tempered alloy steel.

- Prevents band slippage/case breakage.
- For use with OE or aftermarket cases.
- Stock thread length.
- Zinc-plated to prevent corrosion.



Band Adjustment Screw Kit

- Screw
- Nut

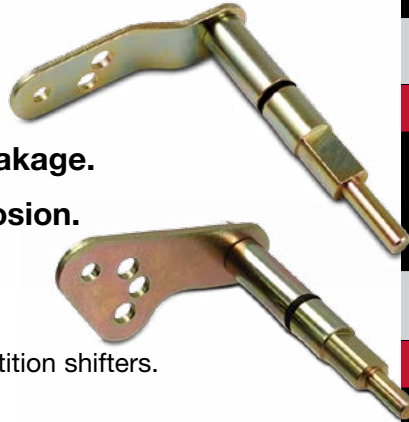
PART NO. **28612-01K**

Shift Lever Kits

- O-Ring on shaft prevents leakage.
- Zinc-Plated to prevent corrosion.

One-Piece Kit

- Position up or down.
- Works with MOST common competition shifters.



One-Piece Shift Lever Kit

- Lever
- O-Ring

PART NO. **28431-06**

Bolt-Together Kit

Works with ALL common competition shifters.

Bolt-Together Shift Lever Kit

- Lever
- Hex Nut
- Shaft
- O-Ring

PART NO. **28431-05K**

Pump

Stator Support Shaft

Heat-treated steel shaft, accepts front bushing.

- Improved sealing in the bore.
- Induction-hardened knurl and splines.
- Improved knurl design for tighter press fit.



Stator Support Shaft

PART NO. **28154S**

Pump Bushing

Highly wear-resistant PTFE lining.

- Longer pump life.
- Tight tolerance for improved fit.
- Direct replacement part, no machining required



Pump Bushing

PART NO. **34034T-01**

Pump Gear Sets

Standard Direct replacement set meets OE pump gear specifications.

Oversized

Outer gear O.D. is .030" larger and the gear set is .015" thicker than OE pump gear sets.



Standard Pump Gear Set

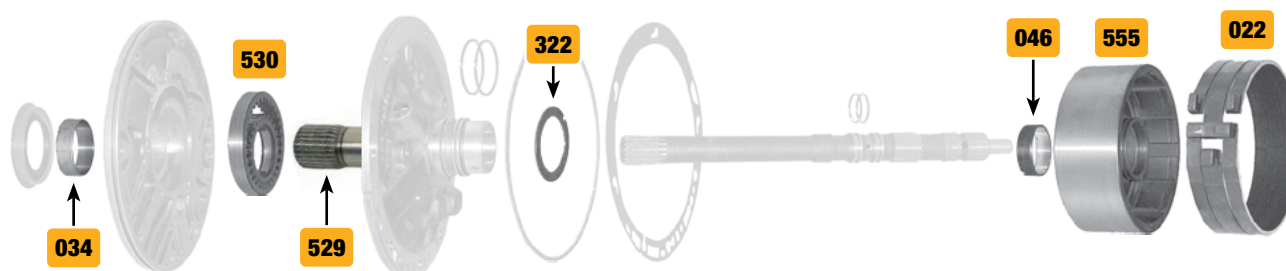
PART NO. **28201**

Oversized Pump Gear Set

PART NO. **28201-05K**

Don't risk throwing products from different manufacturers into the same tranny when there's no guarantee they're all going to play nice.

Installing Sonnax parts designed to work together is the **BEST** and **SAFEST** way to upgrade a transmission.



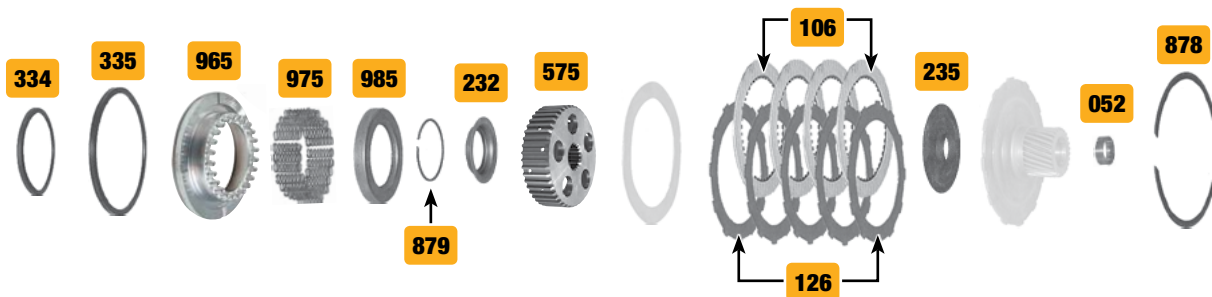
Part Type	No.	Product Name	Part No.	Details
Pump/Stator		Front Stator Support Bushing	35007A	Front, thin wall, 1.004" I.D.
	034	PTFE Lined Pump Bushing	34034T-01	Drop-in replacement, precision fit, OE Part No: 29511860
		Front Pump Bolt	28136	7/Bag
		Front Pump Stud Kit	28711-03K	7/Bag
	530	Oversized Pump Gear Set	28201-OSK	Oversized gear set allows pump to be machined
	529	Pump Gear Set	28201	OE replacement gears
High Clutch		Stator Support Shaft	28154S	THM spline
	322	Clutch Drum Thrust Washer	28406C	.078" Thick
		Clutch Drum Thrust Washer	28406B	.061" Thick
		Thrust Bearing	56241	Upgrade from thrust washer after machining
	046	Clutch Drum Bushing	28005	Replacement bushing
		Clutch Drum Bushing	28005X	Finish-in-place bushing
		Bushing	77005T	PTFE coated
		10-Clutch Drum Kit	28756-01K	Complete kit with all related parts, holds 10 frictions
		10-Clutch Drum Kit with Bearing	28756-08K	Complete kit with all related parts, holds 10 frictions
		Smart-Tech® 10-Clutch Drum Kit	28756-25K	30% More apply area, holds 10 frictions
		10-Clutch Drum, Hub & Piston Kit	28756-15K	Holds 10 frictions
		10-Clutch Drum, Hub & Piston Kit with Bearing	28756-16K	Holds 10 frictions
	555	Clutch Drum	28755	Direct replacement, piston bore & other features match OE
		10-Clutch Drum	28756-01	Holds 10 frictions
		10-Clutch Drum with Bearing	28756-08	Holds 10 frictions
	334	Clutch Drum Small Lip Seal	28755-07	
	335	Clutch Drum Piston Large Lip Seal	28765-02	
	965	10-Clutch Piston	28765-05	Forged, for 10-Clutch Drum
		Clutch Drum Piston	28765-03	Forged, OE replacement
	975	Clutch Return Spring	28320	24/Bag
	985	Clutch Drum Spring Retainer	28755-02	
	879	Clutch Drum Retaining Ring	28755-03	Small, 5/bag
	232	Clutch Drum Wear Plate	28755-06	Small, 5/bag
	235	Clutch Drum Wear Plate	28755-05	Large, 5/bag
	575	Clutch Hub	28304	With lightening holes, for standard drum
		Clutch Hub	28304-01	With lightening holes, for 10-clutch drum
		Clutch Hub	28304-02	Without lightening holes, for 10-clutch drum
		Clutch Hub	28304-SP	Without lightening holes, for standard drum
		Clutch Hub Shim	28304-30	Fits between the high clutch hub & small wear plate



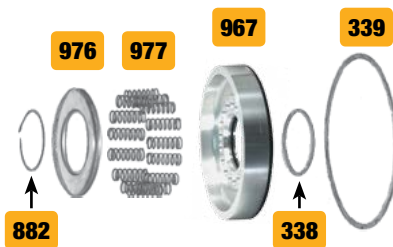
GET YOUR GEARHEAD ON

Parts • Instructions • Technical Resources

www.sonnax.com



Part Type	No.	Product Name	Part No.	Details
High Clutch	878	Clutch Drum Retaining Ring	28755-04	Large, 5/bag
Frictions/Steels	106	High Clutch Frictions	S019740	.098" Thick, red material
		High Clutch Frictions	S019740A	.061" Thick, red material
	126	High Clutch Kolene® Steels	S019701AK	12-Tooth, .060" Thick, without turbulator holes
		High Clutch Kolene® Steels	S019701K	12-Tooth, .070" Thick, without turbulator holes
		High Clutch Kolene® Steels	S019715HK-150	24-Tooth, .060" thick, with turbulator holes
Band	022	Band	28314	Red material
		Band	28314-K	Kevlar® material
		Extra Wide Band	S019961	Red material
		Extra Wide Band	S019961K	Kevlar® material



Part Type	No.	Product Name	Part No.	Details
Reverse Clutch	882	Reverse Piston Hub Retaining Ring	28123	
	976	Reverse Clutch Spring Retainer	28709	No-Flex design
	977	Reverse Clutch Return Spring	28320A	17/Bag
	967	Reverse Clutch Piston	28761-01K	
	338/339	Reverse Clutch Piston Seal Kit	28761-01SK	

Chart continued on next page.

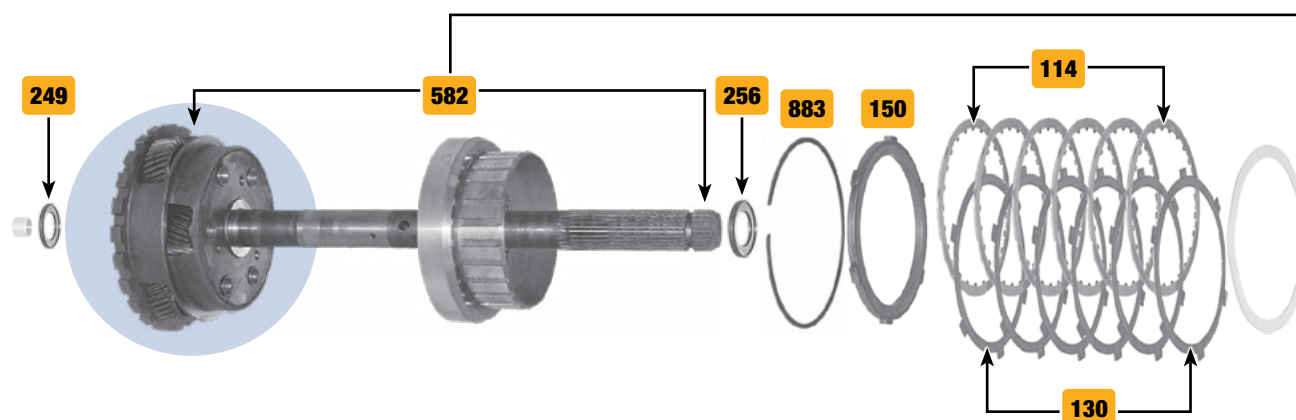
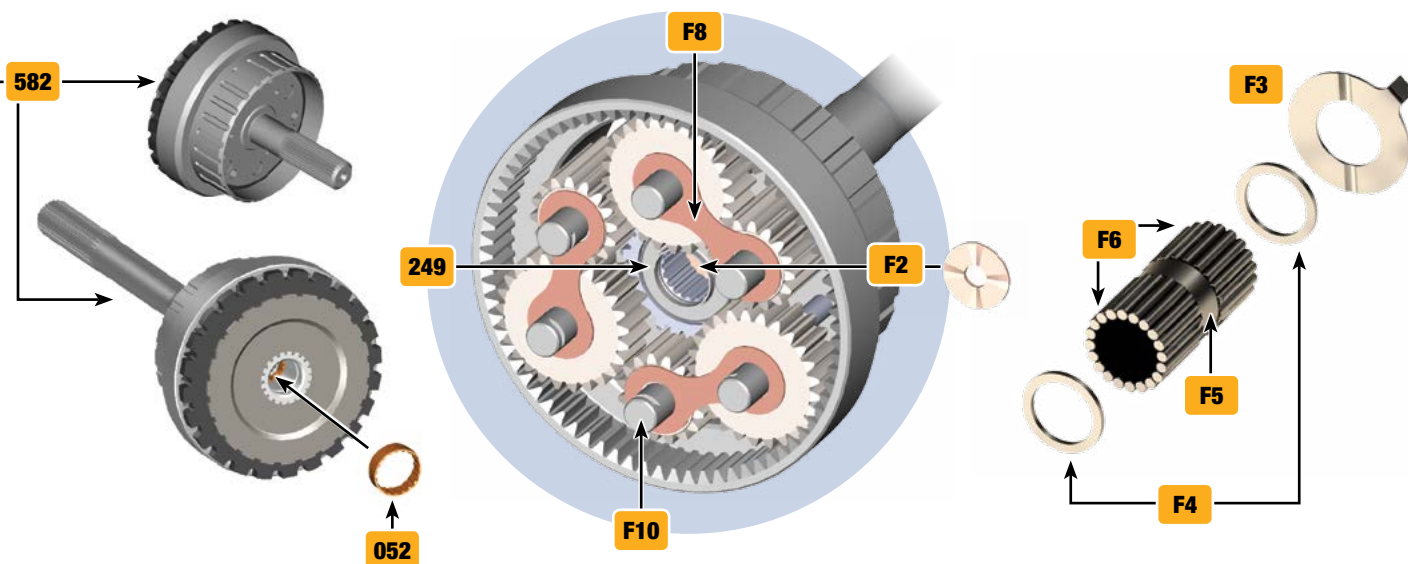


Chart continued from previous page.

Part Type	No.	Product Name	Part No.	Details
Reverse Clutch	883	Reverse Clutch Pack Retaining Ring	28124	
	150	Replacement Pressure Plate	28131-1PP	For Sonnax 1.58 Ratio planetaries only, will not fit OE
		Reverse Clutch Pack Pressure Plate	28131	
		Replacement Apply Plate	28131-2AP	For Sonnax 1.58 Ratio planetaries only, will not fit OE
	114	Replacement Friction Kit	28131-FRK	For Sonnax 1.58 Ratio planetaries only, will not fit OE
	130	Replacement Steel Kit	28131-STK	For Sonnax 1.58 Ratio planetaries only, will not fit OE
		Ring Gear Stabilizer	28510-S1	Welds to formed steel, 1.82 planetary carriers to support the ring gear, keeping it on-center
Frictions/Steels	114	Reverse Frictions	S032744	.098" Thick, red material
	130	Reverse Kolene® Steels	S019703K	.070" Thick
Planetary Parts	249	Sun Gear Thrust Bearing	28321	
	256	Carrier-to-Case Thrust Bearing	28438-01K	
		Heavy Duty Planetary Rebuild Kit	28922-01HDK	Complete rebuild kit for 1.76 ratio pinion spacing
		Planetary Carrier Assembly Bolt	28922-11K	Button head, 3/8-16 x 1.00", 6/bag
		Complete Rebuild Kit	28922-01K	For 1.76:1 ratio carrier
	52	Sun Gear Bushing	8436	Wedding band
		Rear Sun Gear Thrust Washer	38208	Bronze
	F2	Rear Sun Gear Thrust Washer	38208-03	PTFE Coated
		Rear Sun Gear to Output Shaft Bearing	38208-01K	
	F3	HD Planetary Thrust Washer Kit	8415BK-HD	For 1.76:1 ratio carrier, PTFE lined
		HD Rear Tab Thrust Washer	8415B-HD	For 1.76:1 ratio carrier, PTFE lined
		Rear Thrust Washer	8415B	For 1.76:1 ratio carrier
		Thrust Washer Kit	8415BK	For 1.76:1 ratio carrier
	F4	Roller Spacer Kit	K28414	For 1.76:1 ratio carrier
	F5	Thick Roller Spacer	28414	For 1.76:1 ratio carrier
	F6	Needle Roller Bearing	28413	For 1.76:1 ratio carrier, 185/bag
	F8	HD Figure 8 Thrust Washer	8415-HD	For 1.76:1 ratio carrier, PTFE lined
		Figure 8 Thrust Washer	8415	For 1.76:1 ratio carrier
		Front Thrust Washer	8415A	For 1.82:1 ratio carrier
	F10	Pinion Pin Kit	28435-01K	Includes 6 pins & retainer, for 1.76 ratio carrier



With so many options, it can be hard to find the right gear set. Sonnax offers an **ONLINE TOOL** to custom design the perfect Powerglide gear set or assembly. **Scan code to dial in options.**



Part Type	No.	Product Name	Part No.	Details
1.58 Ratio Planetary	582	Extreme Planetary Assembly Kit	28158G-06	Extreme gears, 24-tooth, OE length 300M rolled spline shaft
		Extreme Planetary Assembly Kit	28158G-06SP	Extreme gears, 24-tooth, short length 300M rolled spline shaft
1.65 Ratio Planetary	582	Extreme Planetary Assembly Kit	28165G-06	Extreme gears, 24-tooth, OE length 300M rolled spline shaft
		Extreme Planetary Assembly Kit	28165G-06SP	Extreme gears, 24-tooth, short length 300M rolled spline shaft
1.69 Ratio Planetary	582	Premium Planetary Assembly Kit	28169G-01	Premium gears, 12-tooth, OE length 4340 cut spline shaft
		Premium Planetary Assembly Kit	28169G-01S	Premium gears, 12-tooth, short length HY-Tuf cut spline shaft
		Premium Planetary Assembly Kit	28169G-04	Premium gears, 24-tooth, OE length 4340 cut spline shaft
		Premium Planetary Assembly Kit	28169G-04S	Premium gears, 24-tooth, short length HY-Tuf cut spline shaft
		Extreme Planetary Assembly Kit	28169G-03	Extreme gears, 12-tooth, OE length 300M rolled spline shaft
		Extreme Planetary Assembly Kit	28169G-03S	Extreme gears, 12-tooth, short length 300M rolled spline shaft
		Extreme Planetary Assembly Kit	28169G-06	Extreme gears, 24-tooth, OE length 300M rolled spline shaft
		Extreme Planetary Assembly Kit	28169G-06SP	Extreme gears, 24-tooth, short length 300M rolled spline shaft
		Premium Gear Set	169S-24K	Premium gears, 24-tooth drum flange
		Premium Gear Set	169S-K	Premium gears, 12-tooth drum flange
		Extreme Gear Set	169S3-24K	Extreme gears, 24-tooth drum flange
		Extreme Gear Set	169S3-K	Extreme gears, 12-tooth drum flange
1.80 Ratio Planetary	582	Contender Planetary Assembly Kit	28180F-01	Contender gears, 12-tooth, OE length 4340 cut spline shaft
		Contender Planetary Assembly Kit	28180F-01S	Contender gears, 12-tooth, short length HY-Tuf cut spline shaft
		Premium Planetary Assembly Kit	28180G-01	Premium gears, 12-tooth, OE length 4340 cut spline shaft
		Premium Planetary Assembly Kit	28180G-01S	Premium gears, 12-tooth, short length HY-Tuf cut spline shaft
		Premium Planetary Assembly Kit	28180G-04	Premium gears, 24-tooth, OE length 4340 cut spline shaft
		Premium Planetary Assembly Kit	28180G-04S	Premium gears, 24-tooth, short length HY-Tuf cut spline shaft
		Extreme Planetary Assembly Kit	28180G-03	Extreme gears, 12-tooth, OE length 300M rolled spline shaft
		Extreme Planetary Assembly Kit	28180G-03S	Extreme gears, 12-tooth, short length 300M rolled spline shaft
		Extreme Planetary Assembly Kit	28180G-06	Extreme gears, 24-tooth, OE length 300M rolled spline shaft
		Extreme Planetary Assembly Kit	28180G-06SP	Extreme gears, 24-tooth, short length 300M rolled spline shaft
		Contender Gear Set	180S-1K	1.80 Ratio, 12-tooth drum flange
		Premium Gear Set	180S-24K	1.80 Ratio, 24-tooth drum flange
		Premium Gear Set	180S-K	1.80 Ratio, 12-tooth drum flange
		Extreme Gear Set	180S3-24K	1.80 Ratio, 24-tooth drum flange
		Extreme Gear Set	180S3-K	1.80 Ratio, 12-tooth drum flange

32-Spline output shafts available upon request.

Chart continued on next page.

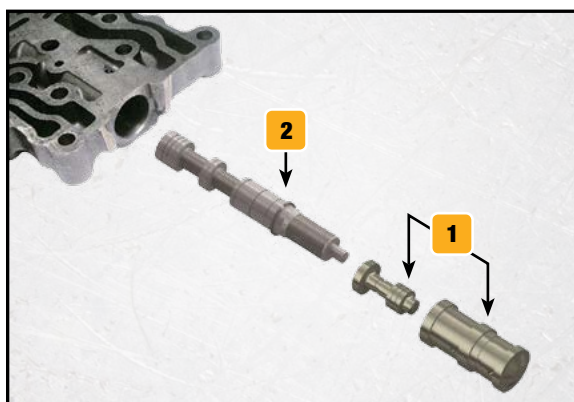
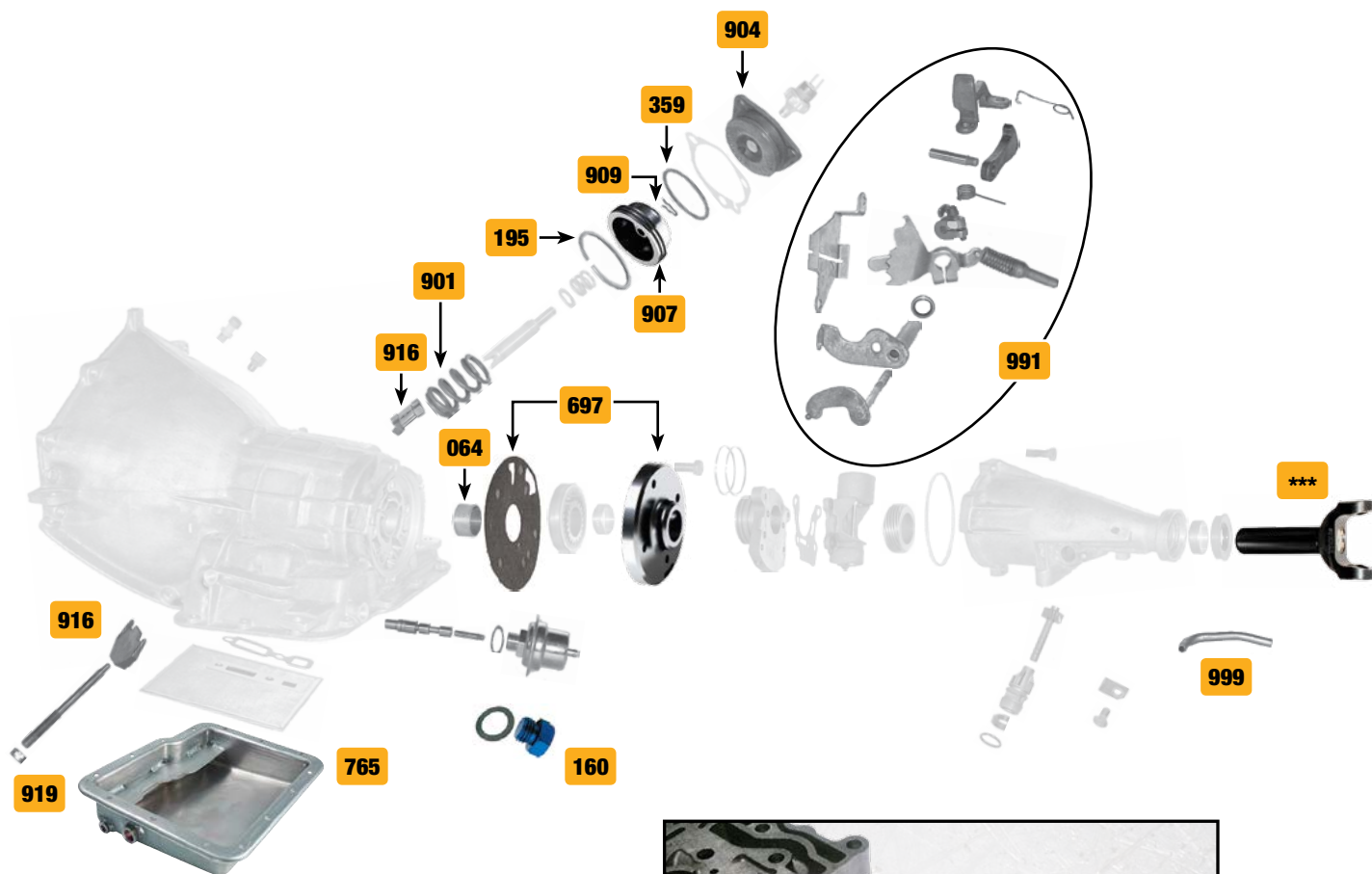


Chart continued from previous page.

Part Type	No.	Product Name	Part No.	Details
Valve Body	1	Boost Valve Kit	28999-01K	.489" Dia.
		Manual Valve	28999-04	Wide spool design, replaces wide or narrow OE spool
	2	Pressure Regulator Valve	28999-03	
Pan & Filter	765	Oil Pan	28801-S	Stamped aluminum with slanted profile
		Filter Extension Kit	28801-S09K	For standard Powerglide valve body & filter
		Oil Pan Stud Kit	28711-01K	14 Nuts & studs



Part Type	No.	Product Name	Part No.	Details
Servo/Band	195	Servo Piston Sealing Ring	18608T	PTFE
	901	Servo Piston Return Spring	28133	
	907	Servo Piston	28821-02	PTFE sealing ring type
		Servo Piston Kit	28821-02K	PTFE sealing ring type
	909	Servo Piston Kit	28821-01K	O-Ring type
		Servo Pin Clip	28132	
	999	Servo Apply Line	28117	
	904/907	Master Servo Piston Kit	28821-05K	PTFE sealing ring type, anodized
		Master Servo Piston Kit	28821-04K	O-Ring type, anodized
		Master Servo Piston Kit	28821-07K	O-Ring type, non-anodized
		Master Servo Piston Kit	28821-08K	PTFE sealing ring type, non-anodized
		Super Hold Servo Kit	28821-09K	30% More apply area, stock cover height
		O-Ring & Gasket Kit	28821-OK	For O-ring type servos
		Sealing Ring & Gasket Kit	28821-TK	PTFE, for PTFE sealing ring type servos
		Servo Cover Kit	28821-03K	Anodized
		Servo Cover Kit	28821-06K	Non-Anodized
	916	Band Anchor Strut	28108	
		Band Apply Strut	28107	
	919	Band Adjusting Screw Jam Nut	28127	Chrome-moly steel
		Band Adjustment Screw Kit	28612-01K	Includes jam nut
Case	160	Modulator Plug Kit	28738-01K	
	064	Case Bushing	28002	
Support	697	Output Shaft Support	28080K	Includes roller bearing
Lever/Linkage	991	Detent Lever	28119	
		Detent Spring	28861-03	
		Shift Lever	28431-05K	Bolt-Together, anti-leak
		Shift Lever	28431-06	One-Piece, anti-leak
		Shift Lever	28431	One-Piece
Park Mechanism	991	Park & Gear Selector Lever Guide Plate	28130	
		Park/Lock Actuator Assembly	28111	
		Park/Lock Actuator Retaining Clip	28121	E-Clip for 3/16" shaft, 5/bag
		Park/Lock Actuator Retaining Clip	28122	E-Clip for 5/16" shaft, 5/bag
		Park/Lock Reaction Bracket	28110	
		Parking Pawl	28109	
		Parking Pawl Pin	28115	
		Parking Pawl Retaining Clip	28120	C-Clip for 5/16" shaft, 5/bag
		Parking Pawl Torsion Spring	28113	
		Rooster Comb Park & Gear Selector Lever	28862	
		Park & Gear Selector Lever Spring Retainer	28116	
Seal/Gasket		Replacement Seal Kit	28821-09SK	For 28821-09K
		Modulator Plug Gasket	3543L-5	For 28738-01K, 5/bag
Driveshaft	***	Slip Yoke	T3-3-6081HP	Forged chromoly, 1350 U-joint series, 27-tooth spline

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Powerglide® Planetary Carrier Assemblies				BEST
		BETTER		1.58
		GOOD		1.65
			1.69	1.69
Available Ratios		1.80	1.80	1.80
Gear Series		Contender	Premium	Extreme
Comparative Power Rating		Up to 1000 HP	Up to 1500 HP	Above 1500 HP
Warranty		1 Year <small>Gears Only</small>	2 Years <small>Gears Only</small>	2 Years <small>Gears & Shaft</small>
Gear Material		9310 Suns 8620 Pinions	9310 Suns 9310 Pinions	9310 Suns 9310 Pinions
Gear Process		Premium	Premium	Extreme
Output Shaft		Cut Spline	Cut Spline	Rolled Spline
Thrust Washers		OE	Steel-Backed PTFE	Steel-Backed PTFE
Ring Gear		Standard	Standard	Maximum Duty
Ratio	Shaft Length	Sonnax Part No.		Sonnax Part No.
1.80 Ratio <small>12-Tooth & 24-Tooth</small>	OE	28180F-01	12-Tooth	28180G-03 12-Tooth
	Short	28180F-01S	12-Tooth	28180G-03S 12-Tooth
1.69 Ratio <small>12-Tooth & 24-Tooth</small>	OE		28169G-01 12-Tooth	28169G-03 12-Tooth
	Short		28169G-01S 12-Tooth	28169G-03S 12-Tooth
1.65 Ratio <small>24-Tooth</small>	OE			28165G-06 24-Tooth
	Short			28165G-06SP 24-Tooth
1.58 Ratio <small>24-Tooth</small>	OE			28158G-06 24-Tooth
	Short			28158G-06SP 24-Tooth

Note: 24-Tooth flange Premium and Extreme gear sets/assemblies and 32-spline output shaft available upon request.

Powerglide® Planetary Gear Sets				BETTER	BEST
		GOOD		1.69	1.69
Available Ratios		1.80		1.80	1.80
Gear Series		Contender		Premium	Extreme
Comparative Power Rating		Up to 1000 HP		Up to 1500 HP	Above 1500 HP
Warranty		1 Year		2 Years	2 Years
Gear Material		9310 Suns 8620 Pinions		9310 Suns 9310 Pinions	9310 Suns 9310 Pinions
Gear Process		Premium		Premium	Extreme
Ring Gear		Standard		Standard	Maximum Duty
Ratio		Sonnax Part No.		Sonnax Part No.	
1.80 Ratio 12-Tooth		180S-1K		180S-K	180S3-K
1.69 Ratio 12-Tooth		N/A		169S-K	169S3-K