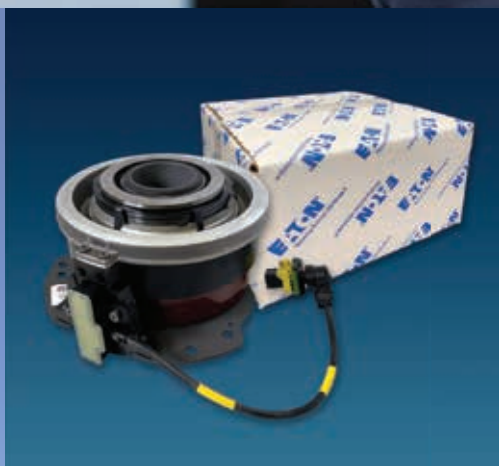


Heavy-Duty Aftermarket Catalog

We make more time on the road work.*



EATON

Powering Business Worldwide



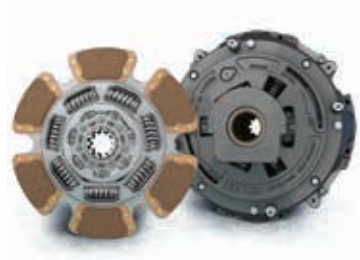
BACKED BY
Roadranger
SUPPORT



Your truck's driveline is only as strong as its weakest link.
Insist on genuine Eaton parts and get back on the road with confidence.
Because that's what matters.

Fleets rely on you to perform the maintenance and repairs that keep their trucks on the road. And you take pride in your workmanship, knowing that there is no substitute for quality. So instead of cutting corners with less expensive, lower quality products, you should invest in genuine Eaton aftermarket parts and services. We've got you covered – from parts designed and tested to exacting standards for optimal durability to easy-to-use diagnostic tools that reduce downtime. And a family of lubricants that provide superior protection. Every day, you're thinking about what's best for your customer, because that's what really matters. And we're here to make sure it works.

Heavy-Duty Aftermarket Catalog



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Service & Support Roadranger Support

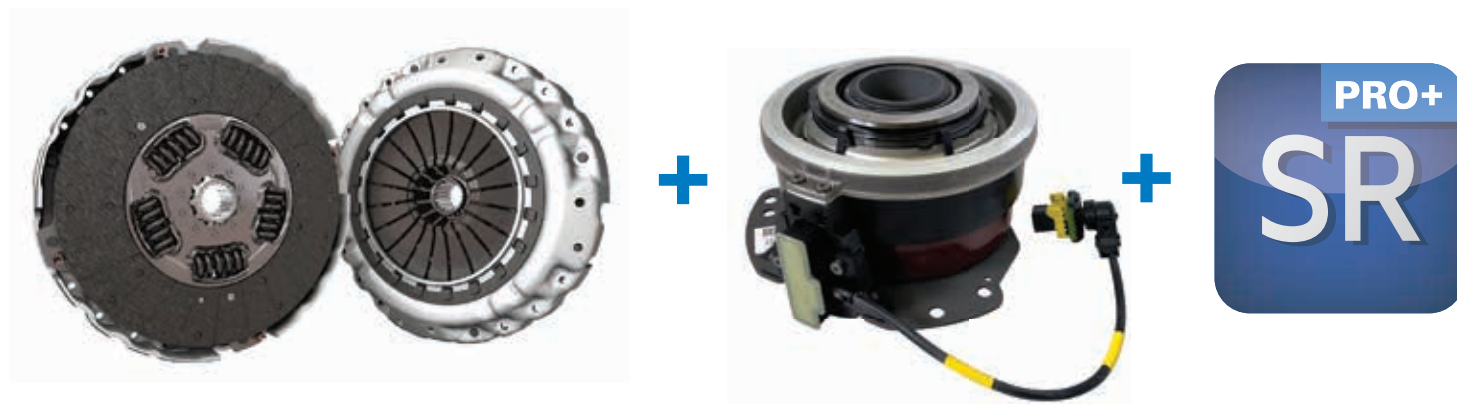
Roadranger Support 24 Hours a Day at www.roadranger.com

Whether you are a truck maker, dealer, distributor, owner or driver, you can find instant answers when you need them most.

www.EatonPartsOnline.com is your resource for Eaton aftermarket parts. Quickly and conveniently find:

- Guided product selectors
- Product information and resources
- Approved lubricants
- The Roadranger literature library
- Warranty information and Extended Protection Plans
- ServiceRanger
- All aftermarket information in one location

You can contact the Roadranger Call Center at 800-826-4357 (HELP) from anywhere in North America. In Mexico call 001-800-826-4357.



Clutch Concentric Pneumatic Clutch Actuator (CPCA)

Part of Eaton's complete aftermarket solution

The Concentric Pneumatic Clutch Actuator (CPCA) is designed to optimize the performance of the clutch and manage the power transmission from the engine to the drivetrain. The vehicle's automated manual transmission (AMT) system continuously determines the ideal release position and electronically controls clutch actuation via the CPCA.

The CPCA is part of Eaton's aftermarket solution for servicing AMTs. Our complete portfolio includes Eaton Advantage Automated clutches, CPCAs, and ServiceRanger 4 Pro Plus software for clutch system calibration.

Benefits

- Direct replacement for Detroit® DT12® and Volvo® I-Shift / Mack® mDRIVE™ automated manual transmissions
- Pneumatic system – no need to drain fluids or deal with hazardous waste
- Easy installation – quickly calibrate with ServiceRanger 4 Pro Plus
- Provides quick, smooth shifting
- Maximizes clutch life

Part No.	Description	O. E. Reference
K-4515CL	Clutch actuator for Detroit DT12	A 003 250 21 15, 6482 000 218
K-4516CL	Clutch actuator for Volvo I-Shift/Mack mDRIVE	20806451, 21320923, 21465235, 21580956, 22429963, 22809232, 6482 000 155



Clutch Advantage Automated Series

Eaton is a leading worldwide supplier of medium- and heavy-duty clutches to the commercial truck industry. Eaton clutches are renowned for their reliability, durability, and performance.

Eaton Advantage Automated Series clutches feature the proven technology of a high strength stamped steel bracket, robust diaphragm design, and premium organic driven disc facings. Maintenance-free and adjustment-free: they eliminate periodic adjustments and extend clutch service life.

The Advantage Automated Series portfolio includes aftermarket clutches for the most popular transmissions currently in operation in North America, including:

- Eaton Cummins Endurant™
- Detroit® DT12®
- Volvo® I-Shift
- Mack® mDRIVE™

Transmission	OEM	Engine	OEM Clutch Part No.	Eaton Clutch Part No.	CPCA Part No.
DT12	DTNA	All	A02-82500-001 A02-14027-008	K-4489CL	K-4515CL
I-Shift / mDRIVE	Volvo / Mack	11L and 13L Engine	85003114 85000907 85003972 85003973 85002560	104461-1	K-4516CL

Features

- 100% new components. No remanufactured or reused components.
- Cushioned organic facings allow for smoother engagement, while the clutch bracket features a hardened steel pivot ring to better sustain loads throughout the life of clutch.
- Larger spring fingers for better wear and superior performance.
- Built to leading industry quality and durability standards to ensure outstanding performance and maximum clutch life.
- The standard pre-damper eliminates idling rattle.
- 3 year/unlimited mile warranty



Fits DT12



Fits I-Shift / mDRIVE

Endurant is a registered trademark of Eaton Cummins Automated Transmission Technologies. Detroit, DT12 and DD are registered trademarks of Detroit Diesel Corporation. Volvo is a registered trademark of Volvo Trademark Holding AB Corporation. Mack mDRIVE is a registered trademark of Volvo Truck Corporation.



Clutch Advantage Automated Series

Diaphragm Spring Clutches

1

Choose
transmission

2

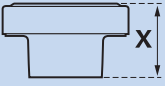
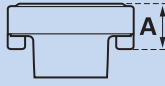
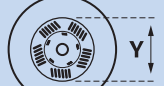

Select OEM

3

Choose engine

4

Find Part No.

Transmission	OEM	Engine	Eaton Kit Part No.	Clutch and Flywheel Part No.	Verify fit with dimensions if needed.			
					 Release Bearing Style prior to 2023 (X)	 Release Bearing Style 2023 and later (A)	 Damper Size (Y)	 Flywheel Bore Opening (Z)
Endurant HD*	DTNA	Detroit DD13 (thru 2020)	K-4496CL	K-4494FWCL	87.7mm / 3.4in (SAE)	46.7mm / 1.83in (SAE)	254mm	290mm
		Detroit DD13 (2021 +)					285mm	
		Detroit DD15					254mm	260mm
		Cummins X15	K-4494CL					
		Cummins X12	K-4512CL					
	NAVISTAR	Cummins ISX12N (CNG)	K-4512CL	K-4512FWCL	94.6mm / 3.7in (ISO)	53.5mm / 2.10in (ISO)	254mm	260mm
		Cummins X15	K-4488CL	K-4488FWCL				
		International A26						
	PACCAR	PACCAR MX (thru 2020)	K-4488CL	K-4488FWCL	94.6mm / 3.7in (ISO)	53.5mm / 2.10in (ISO)	254mm	260mm
		Cummins X15						
		Cummins ISX12N (CNG)	K-4512CL	K-4512FWCL	87.7mm / 3.4in (SAE)	46.7mm / 1.83in (SAE)		290mm
		PACCAR MX (2021 +)	K-4514CL		94.6mm / 3.7in (ISO)	53.5mm / 2.10in (ISO)	285mm	
Endurant HD Vocational**	PACCAR	Cummins X15	K-4494CL	K-4494FWCL	87.7mm / 3.4in (SAE)	46.7mm / 1.83in (SAE)	254mm	260mm
		Cummins ISX12N (CNG)	K-4512CL	K-4512FWCL				
		PACCAR MX11 / MX13	K-4676CL				53.5mm / 2.10in (ISO)	285mm
Endurant XD**	DTNA	Cummins X15	K-4544CL			46.7mm / 1.83 in (SAE)	254mm	260mm
		Cummins X15						
		International A26	K-4545CL				53.5mm / 2.10in (ISO)	
	NAVISTAR	Cummins X15	K-4545CL				254mm	260mm
		PACCAR MX11 / MX13	K-4561CL				285mm	
	VOLVO	Cummins X15	K-4544CL				46.7mm / 1.83 in (SAE)	254mm
	Endurant XD Pro**	Cummins X15	K-4559CL				46.7mm / 1.83 in (SAE)	254mm
		Cummins X15 (2050 lb-ft.)	K-4557CL					
		Cummins X15	K-4560CL				53.5mm / 2.10in (ISO)	254mm
		International A26						
		Cummins X15 (2050 lb-ft.)	K-4558CL				254mm	260mm
		Cummins X15	K-4560CL					
		Cummins X15 (2050 lb-ft.)	K-4558CL				53.5mm / 2.10in (ISO)	285mm
		PACCAR MX11 / MX13	K-4638CL					
Endurant XD Pro**	VOLVO	Cummins XD-N					254mm	260mm
		Cummins X15 (2050 lb-ft.)	K-4557CL					

* Kits include the release bearing and an input shaft journal kit.
** Kits include the release bearing.

Applications

- Automated manual transmissions
- Linehaul, vocational, bus and coach

Benefits of Organic Facings

- Customized for automated transmissions
- Advanced engagement performance
- Good wear characteristics
- Does not wear the mating friction surface

Clutch Advantage Automated Series

DM and ECA clutches

Eaton clutch systems for Eaton Cummins automated transmissions offer the durability and performance necessary to withstand the high actuation conditions associated with automated transmission systems. They are backed by a 12 month / unlimited mileage warranty.



The first-generation UltraShift transmission used a centrifugal clutch to "float shift" by RPM.



The Electronic Clutch Actuator (ECA) in the UltraShift *PLUS*—"actively shifts" based on load, grade and throttle power. Complete shifts are smooth and quick.



Automated Clutch Systems

The clutch systems of the UltraShift®, UltraShift® *PLUS* and Fuller® Advantage Series transmissions are a fundamental piece of these transmission upgrades.

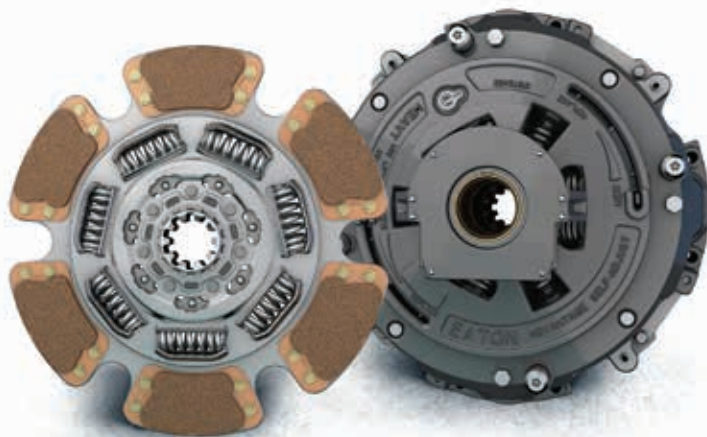
DM Clutches:

- Centrifugal design relies on engine RPM for engagement.
- Provides smooth engagement.

ECA Clutches:

- Ensure performance and efficiency with new Electric Clutch Actuation and intelligent shift selection software.
- Enables better launch and shift decisions through grade sensing, weight computation and driver throttle commands.
- Provides smooth engagement and high fidelity of vehicle control, even in the most challenging applications.
- Designed for fast actuation to enable quick, open clutch shifting.
- 50,000 mile release bearing lubrication interval for linehaul.

Clutch Torque lb-ft (must equal or exceed engine torque)	Eaton Clutch for Automated Transmission
	Heavy-Duty ECA Clutch
1850	122002-35A (w/ Low Capacity Inertia Brake)
	122002-35MO (Remanufactured UltraShift <i>PLUS</i> w/o Low Capacity Inertia Brake)
2250	122003-42A (w/ Low Capacity Inertia Brake)
	Heavy-Duty DM Clutch
1750	121000-1



Eaton Clutches for Manual Transmissions

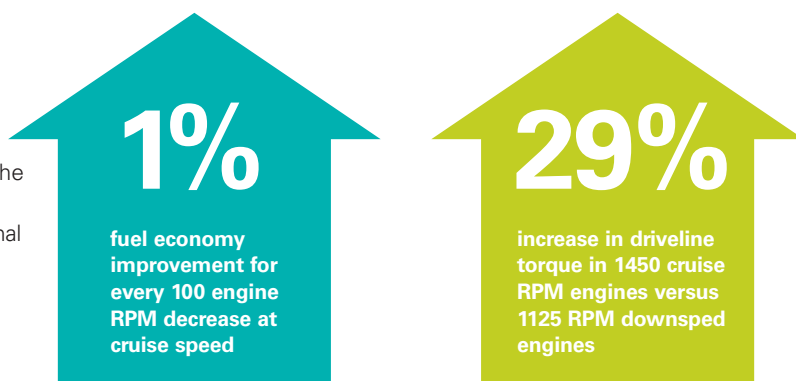
Proven Superior Performance

We tested the Eaton Advantage Series and EverTough clutches against the top four manufacturers who sell and distribute clutches as: ACE • Alliance Truck Parts • Fleetpride OTR • IATCO • Meritor AllFit • Road Choice • Sachs

Test	Advantage Series	EverTough	OEM #1	OEM #2	OEM #3	OEM #4	What It Measures	Why It Matters To You
Torque Transfer	Pass	Pass	Pass	Pass	Fail	Fail	Clutch plategload	Does it effectively transfer engine torque to the transmission? Or does it slip and wear prematurely?
Damper Performance	Pass	Pass	Fail	Fail	Pass	Fail	Ability to absorb engine vibrations	Will it absorb harmful vibrations, even in downsped truck configurations? Or does it simply pass them through to the transmission, causing damage?
Drag	Pass	Pass	Pass	Pass	Fail	Fail	Torque with clutch disengaged	Does it release cleanly? Or will excess drag cause wear and poor shifting?
Damper Durability	Pass	Pass	Fail	Fail	Fail	Fail	Life of the damper under load	Will it last with today's difficult engine vibrations? Or will the damper springs, stampings, and rivets crack or break?
Intermediate Plate Durability	Pass	Pass	Fail	Fail	Fail	Fail	Life of intermediate plate under load	Is it tough? Or will the intermediate plate break, leading to an expensive repair bill?

The Lowdown on **Downspeeding**

- A common strategy for achieving **increased fuel economy**
- But downspeeding **increases drivetrain torque** and causes the clutch damper to do more work **absorbing vibrations**
- An **optimal clutch** delivers superior torque transfer, exceptional damper performance and tested durability allowing for ideal downspeeding strategies
- **Eaton's new Advantage Series Clutches are designed to manage today's downsped engines**



Source: Trucking Efficiency Confidence Report on Downspeeding, 10/2015

Eaton Genuine Clutch Portfolio Manual Transmissions

Whether you're maintaining a new truck or extending the service life of an older truck, Eaton's clutch portfolio ensures you get the right clutch for every stage of your truck's life cycle. Eaton clutches have navigated millions of miles, for thousands of customers, in a variety of applications. Each clutch is manufactured with Genuine Eaton parts, is thoroughly tested by Eaton, and is backed by our nationwide Roadranger support team. Choose quality. Choose genuine.

Why a Strap Drive Intermediate Plate Connection?

The strap drive connection found on the Advantage series clutch improves the connection to the intermediate plate, eliminating lug failures and open clutch rattle. The alternative to the strap drive is a lug drive, which is the most common design in the market. However, since the lug is not fastened to the housing, it floats and vibrates when the clutch is open. This vibration of the intermediate plate lug can result in fatigue, and over time this fatigue can lead to failure. The straps in the Advantage clutch design affix the intermediate plate to the housing so it does not vibrate, eliminating lug rattle and improving longevity.



Best: Advantage Series

Original equipment spec

New, **industry-leading technology** designed and tested to outperform the highest OE specifications.

- Leading strap drive technology improves intermediate plate connection, for more reliable performance
- Designed to eliminate lug rattle and fatigue
- Dual seal release bearing for best-in-class 50,000 mile lubrication intervals
- Tuned, dual damper system absorbs engine vibrations and prevents idle rattle
- Soft rate springs protect driveline components
- Two wear indicators for improved serviceability
- **3 year/unlimited mile warranty***



Better: EverTough® Series

Genuine Eaton: extends the life of your truck

Industry standard, proven technology for the aftermarket.

- Industry-standard lug drive intermediate plate connection
- Release bearing seal features a 360° design for 25,000 mile lubrication intervals
- Three lubrication ports provide easy access for maintenance
- Premium single damper system for superior driveline vibration control
- **2 year/unlimited mile warranty***



Good: Remanufactured Advantage Series

- All of the benefits of the Advantage series clutches at a remanufactured price point
- Industry-leading strap drive technology
- Made in the USA using genuine Eaton parts
- 100% tested to like-new quality
- 1 year/unlimited mile warranty



Now with no core charge!

*USA and Canada only. Please refer to the Roadranger Warranty Guide TCWY0900 for the latest warranty time and miles offering.


Clutch Cross Reference Chart

Product	Part	ACE	Illinois Auto	Meritor	Haldex	Mid-America
Advantage® Self-Adjust	309701-20	—	—	—	—	—
	309701-23	—	—	—	—	—
	309701-24	—	—	—	—	—
	309701-25	—	—	—	—	—
	309701-30	—	—	—	—	—
	309701-34	—	—	—	—	—
	309701-35	—	—	—	—	—
	309701-51	—	—	—	—	—
	309701-68	—	—	—	—	—
	309701-82	—	—	—	—	—
	309701-91	—	—	—	—	—
	309701-98	—	—	—	—	—
	309708-32	—	—	—	—	—
	309708-42	—	—	—	—	—
Easy-Pedal Advantage® Manual-Adjust	308925-20	—	—	—	—	—
	308925-23	—	—	—	—	—
	308925-24	—	—	—	—	—
	308925-25	—	—	—	—	—
	308925-30	—	—	—	—	—
	308925-34	—	—	—	—	—
	308925-35	—	—	—	—	—
	308925-51	—	—	—	—	—
	308925-68	—	—	—	—	—
	308925-82	—	—	—	—	—
	308925-91	—	—	—	—	—
	308925-98	—	—	—	—	—
	308937-32	—	—	—	—	—
	308937-42	—	—	—	—	—
EverTough® Self-Adjust	109701-20AM	—	NMU701-207-6	—	N10970120TM	SO-155698-VHD
	109701-25AM	EZ209925-82H	NMU701-147-6	MAF209925-25	N10970125TM	SO-155698-VHD
	109701-51AM	EZ209935-51	NMU701-054-M	MAF209935-51	—	SO-155698-SB9
	109701-82AM	EZ209925-82B	NMU701-044-4	MAF209925-82	N10970182	—
	109701-92AM	—	—	MAF209935-51H	—	SO-155698-12SB9
EverTough® Manual Adjust	108391-74AM	EZ208391-74B	NMU898-064-4	MAF-108931-74	HN10893174	MU-155698-SB-10
	108391-81AM	EZ208391-81B	NMU898-094-4	MAF-108391-81	N108391-81	MU-155697-DSCB
	108925-20AM	—	NMU898-207-6	MAF-108925-25	—	MU-155698-VHD
	108925-25AM	EZ208925-82H	NMU898-147-6	MAF-108925-25	HN10892552HT	MU-155698-VHD
	108925-82AM	EZ208925-82B	NMU898-044-4	MAF-108925-82	HN10892582	MU-155698-SB-7
	108935-51AM	EZ208935-51H	NMU898-054-M	MAF-108935-51	HN10893551	MU-155698-SB9
	108935-61AM	—	—	MAF-108935-51	—	MU-155698-SB9
	108935-91AM	—	—	MAF-108935-91	HN10893551	MU-155698-12SB9


Advantage Series is the

#1 Commercial Vehicle Clutch in North America


It's the only clutch sold in new trucks, and it's the most popular in Aftermarket



New
2 Wear Tab Indicators
Improved maintenance visibility for easy viewing of remaining clutch life



Improved Downspeeding Capabilities
Superior torque transfer, exceptional damper performance, and tested durability allow for maximum fuel economy savings



Proven Eaton durability combined with these new or updated features:

- Strap drive (new)
- Spring separator (new)
- Release bearing design


produce the **Longest life ever**

50k mile release bearing lube interval: Industry leading interval helps to reduce truck maintenance


New
1850 lbs-ft
4-paddle clutch for over the road applications

1st in industry Strap Drive
Intermediate plate to improve life and reduce vibration and noise

New
1850 lbs-ft
9-spring
Upgraded design for Volvo and Mack engines.



Patent Pending Spring Separator
Ensures optimal clutch release, quick disengagement, and ultra-low drag for easier shifting



Protect your Drive Line
Softer rate damper absorbs engine vibrations to protect drivetrain components and enables engine downspeeding at torque ratings up to 1850 lbs-ft



Eaton Clutch – Manual Transmissions Advantage Series

Advantage Self-Adjust® and Easy Pedal Advantage®

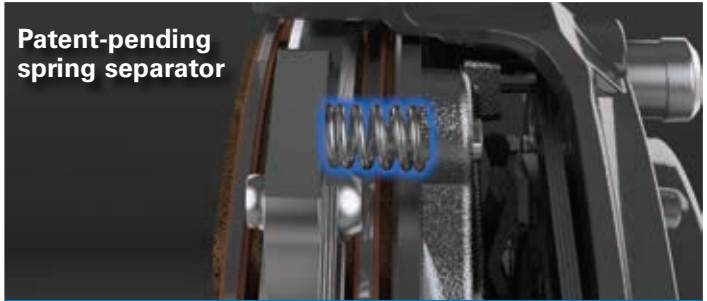
Building on over a hundred years of driveline design experience and millions of miles of proven durability, Advantage clutches are the smoothest and most durable clutches Eaton has developed. These clutches are the best on the market, with a combination of features that can't be found anywhere else in the aftermarket.

Industry-leading strap drive technology



Eliminates lug rattle and fatigue for **quieter operation and extended clutch life**

Patent-pending spring separator



Quick clutch disengagement for **fast shifting** and ultra-low drag for **clean release**

Easy-to-see wear indicators



Two locations for improved visibility for **better serviceability**

Soft-rate damper



Absorbs engine vibrations to **protect drivetrain components** and enables engine **downspeeding** at torque ratings up to 1850 lb.ft.

- 50,000 mile release bearing lube interval
- Long life OEM-grade clutch facing material
- Two wear tab indicators
- Industry leading durability and quality
- 1850 lbs-ft clutch for over-the-road applications

- **Advantage Self-Adjust warranty:**
3-year/ 350,000 miles- production
3-year/unlimited miles- aftermarket
- **Easy Pedal Advantage (manual adjust) warranty:**
2-year/ 200,000 miles- production
3-year/unlimited miles- aftermarket

Eaton recommends always using a self-adjusting clutch on systems with hydraulic linkage to reduce the risk of drivetrain damage





Eaton Clutch – Manual Transmissions EverTough® Series

EverTough Clutch: Now even tougher

An EverTough Clutch by Eaton is 100% new and uses Genuine Eaton components, with a design based on our millions of miles of clutch experience. And every clutch undergoes Eaton's rigorous standard of testing – so you can be confident of the quality. Backed by Roadranger support, you'll see high performance on the job and a difference on the bottom line. That's something no other brand can match.

Eaton is a leading worldwide supplier of medium- and heavy-duty clutches to the commercial truck industry. Eaton clutches are known for their reliability, durability, and performance. Manufactured and marketed globally, Eaton clutches are the number one commercial vehicle clutch in North America, serving the medium- and heavy-duty markets.

All EverTough clutches now feature:

Three grease zerks

- Easier access for maintenance

Wider thrust pads

- Provides increased contact area: this allows the clutch to be used with wider fingers of hydraulic release systems
- Helps reduce failures due to improper adjustment



All EverTough clutches are engineered specifically for the aftermarket by optimizing key areas of the clutch to achieve the price and performance balance:

- Ceramic facings
- Available in 7, 8, 9, and 10-spring designs
- Torque Ratings from 1400 up to 2050 lb.ft.
- Three zerks on release bearing
- 25,000-mile lube interval
- Premium damper from Eaton reduces the drivetrain torsional vibrations and meets the long life expectations of vehicle OEMs.
- A full-round contamination baffle protects against debris.
- Stainless steel cam spring delivers increased durability and long life.
- No additional technician training is required. Similar installation process between manual and self-adjust models.
- All EverTough clutches come with a two-year, unlimited mileage warranty and are backed by Roadranger® support.

EverTough Self-Adjust:

- Eaton's proprietary self-adjusting technology keeps the clutch in constant adjustment and maintains bearing release position.
- Features an easy-to-see wear indicator.
- Self-adjust mechanism eliminates the need for periodic clutch adjustment (13 on average over the life of the clutch).

EverTough Manual-Adjust:

- EverTough Manual Adjust clutches feature proven Kwik-Adjust technology to make clutch adjustments faster and simpler.
- Eaton PowerThread adjusting ring eliminates seizing and makes adjustments easier
- Adjusting requires approximately half the movement of standard adjusting rings.





Eaton Clutch – Manual Transmissions Remanufactured Advantage Series

Remanufactured with NO CORE CHARGE!!

The industry leading Advantage series clutch technology is now available for your late-life clutch replacement at an affordable price.

The patented strap drive intermediate plate design is a unique feature that is only available from Eaton. Now available in two price points: new and remanufactured.

Remanufactured Advantage Series

- Remanufactured versions of Eaton's OE products: the best selling clutches in North America
- Made in the U.S.A. using 100% genuine Eaton parts
- Industry leading strap drive technology
- 100% end of line tested to surpass OE production standards
- 1-year, unlimited mileage warranty
- 20,000-mile lube interval

All of the design features of Advantage clutches:

- Strap drive intermediate plate eliminates lug failure and idle rattle
- OE design release bearing with three grease zerks
- Two wear indicators on the Self-Adjust models for improved maintenance visibility
- Patent-pending spring separator for quick disengagement easy shifting

Clutch	Part #
Advantage Self-Adjust	309701-82M0
	309701-20M0
	309701-25M0
Easy Pedal Advantage	308925-82M0
	308925-20M0
	308925-25M0
ECA/UltraShift PLUS	122002-35M0



The Manufactured Again Certification Mark is a recognizable symbol that represents the quality and sustainability of a manufacturer's processes.



Eaton Clutch Core Buyback Program U.S. and Canada

Eaton is pleased to announce the following changes to our clutch core buyback program. Beginning February 1, 2024, Eaton will begin accepting angle spring Advantage clutch cores (308* series and 309* series) on the buyback program. Eaton will pay the amount shown in the chart below based on the following criteria: clutches not meeting all the criteria will be rejected, scrapped, and not paid or returned:

1. Only Genuine Eaton cores are eligible for the buyback program: 308* or 309* part numbers must be etched in the cover.
2. **Heavy duty DM clutches (121000-1) and UltraShift PLUS clutches (122002-35*) are NOT eligible for buyback at this time.**
3. Clutch cores must be fully assembled. No cracks, welds, or bulges can be present in the clutch casting.
4. **Do not ship until you have the authorization form approved by Eaton via email. Unauthorized returns will not be paid.**

Eaton Clutch Model	Value (US)*	Value (CAD)*
Cast 15.5" Advantage Easy Pedal cores (308*** series part numbers)	\$25	\$20
Cast 15.5" Advantage Self-Adjust cores (309*** series part numbers)		

Eaton reserves the right to limit, delay, or refuse a return request. Return requests will be limited to 30 clutches total (308 and 309 combined) until further notice.

Payments will be made by credit card following receipt, inspection, and validation of quantities at Eaton's core inspection center. A receipt will be required once payment is complete.

To initiate a buyback request, complete and return the Eaton Clutch Core Buy Back Request Form found at eaton.com/clutchcore and send to clutchcorereturns@eaton.com. All relevant core buyback forms can be found online: eaton.com/clutchcore

In addition, Eaton is discontinuing buybacks on the cast 15.5" Solo cores (109 and 209 series part numbers) as of January 31, 2024. The following cores are still eligible for the buyback program:

Eaton Clutch Model	Value (US)*	Value (CAD)*
Cast 15.5" Easy Pedal Cores (108 and 208 series part numbers)	\$45	\$35
Stamped Easy Pedal Cores (107 series part numbers)	\$30	\$25
Stamped Solo Clutch Cores (109 series part numbers)	\$25	\$15

**Prices subject to change, please visit eaton.com/clutchcore for the most current information.*

For freight return instructions and forms, visit: eaton.com/clutchcore

Eaton EverTough Clutch + Eaton Clutch Installation Kit = Additional 1-Year Clutch Warranty

See page 22 for details.

Eaton Clutch Heavy-Duty Clutch Selector

- 1** Self-adjusting clutches are recommended for trucks with hydraulic linkage to reduce the risk of drivetrain damage.

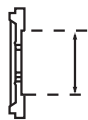
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Self-adjusting clutches are recommended for trucks with hydraulic linkage to reduce the risk of drivetrain damage.

						Best	Better	Good					
						Original Equipment Specifications (Pre-damper suffix in parentheses)	Aftermarket Specifications	Remanufactured					
	Spline Dia. – No. of Splines	Flywheel Bore Opening	No. of Springs / Damper Type	Clutch Torque lb-ft (must equal or exceed engine torque)	Facing	Advantage [®] Self-Adjust	Easy Pedal Advantage [®] Manual Adjust	EverTough [®] Self-Adjust	EverTough Manual Adjust	Advantage Self-Adjust	Easy Pedal Advantage Manual Adjust		
15.5 inch	2" – 10	7"	8	1400	4				108391-81AM				
					Organic								
		8.5"	10		1650	4				108391-74AM			
				9 (Mack and Volvo 11L & 13L)	10"	1650	4	309701-51	308925-51	109701-51AM	108935-51AM		
		1760	4						108935-61AM		108935-61MO*		
		1850	4			309701-68	308925-68						
		1650	6			309701-91	308925-91		108935-91AM		108935-91MO*		
		1760	6					109701-92AM					
		1850	6			309701-98	308925-98						
		7	1700			4	309701-82	308925-82	109701-82AM	108925-82AM	309701-82MO	308925-82MO	
			7 / VCT Plus [®]			1750	4	309701-24 (-34)	308925-24 (-34)				
						1860	4	309701-23	308925-23				
		1860				6	309701-20 (-30)	308925-20 (-30)					
		7	1860			6			109701-20AM	108925-20AM	309701-20MO	308925-20MO	
			2050	6			109701-25AM	108925-25AM	309701-25MO	308925-25MO			
			7 / VCT Plus	2050	6	309701-25 (-35)	308925-25 (-35)						
	2" – 14	10"	7 / VCT Plus	2250	6	309708-32 (-42)	308937-32 (-42)						
14 inch	2" – 10	7"	8	1400	4	N/A	108063-59	N/A		N/A	N/A		
				950	6		108334-6						
				1000	3		108034-61B						
				1150	Organic		108034-82B						
				1400	4		108050-59B		108050-59AM				

- 2** Choose size of your cast two-plate heavy-duty clutch.

- 3** Determine flywheel bore opening and select number of springs.



- 4** Choose clutch torque. Rating in chart must be equal to or exceed engine torque rating.

- 5** Narrow clutch choice based on options. All part numbers in row meet your specs.

- 6** Choose from new or remanufactured.

* Easy Pedal design

Advantage Series 7-spring VCT Plus

Eaton's premium damper, high torque capability with best-in-class vibration control

Advantage Series Pre-Dampers

effective at quieting neutral gear idle rattle (Pre-damper suffix in parentheses in the table above)

Estimated shipping weights: 15.5" = 150 lbs,
14" = 110 lbs

Please refer to the Roadranger Warranty Guide TCWY0900 for the latest warranty time and miles offering.

Advantage Series

- Strap drive intermediate plate
- Spring separator system
- Original equipment specification
- 3 year/unlimited mileage warranty
- 50,000 mile lube interval

EverTough

- Aftermarket specification
- 2 year/unlimited mileage warranty
- 25,000 mile lube interval

Remanufactured Advantage Series

- Industry-leading strap drive technology
- Made in the USA using genuine Eaton parts
- 100% tested to like new quality
- 1 year/unlimited mile warranty
- 20,000 mile lube interval

Clutch Torque lb-ft (must equal or exceed engine torque)	Eaton Heavy-Duty ECA Clutch for Automated Transmission Kit Part No.
1850	122002-35A (w/ Low Capacity Inertia Brake)
	122002-35MO (Remanufactured UltraShift PLUS Clutch w/o Low Capacity Inertia Brake)
2250	122003-42A (w/ Low Capacity Inertia Brake)
Eaton Heavy-Duty DM Clutch for Automated Transmission Kit Part No.	
1750	121000-1

DM and ECA clutches are backed by a 12 month/unlimited mile warranty.

Eaton Clutch Medium-Duty Clutch Selector

						New		Remanufactured	
Standard Stroke .500" to .560" Bearing Travel	Spline Dia. – No. of Splines	No. of Discs	Damper Type	Clutch Torque lb-ft (must equal or exceed engine torque)	Facing	Solo*	Manual Adjustment	Solo	Manual Adjustment
	1.75" – 10	1	8 / Free Travel	620	3SB	109400-5	107683-5	109400-5MO	107683-5MO
	1.75" – 10	2**	7 + 1	800	Organic				107237-16MO
			7 + 1	860	3 Trap	109500-10	107237-10	109500-10MO	107237-10MO
			7 + 1	860	3SB	109500-22*	107237-22*	109500-22MO*	
	2.0" – 10	2**	7 + 1	860	3SB	109504-12	107342-12		
			7 + 1	1000	4SB	109504-24	107342-24	109504-24MO	
			7 + 1	1000	6SB	109504-3	107342-5		
			8	1050	4SB	109504-20	107342-20		
		8	1150	4SB	109504-26	107342-26			
Short Stroke .410" to .470" Bearing Travel	Spline Dia. – No. of Splines	No. of Discs	Damper Type	Clutch Torque lb-ft (must equal or exceed engine torque)	Facing	Solo		Solo	
	1.75" – 10	1	8 / Free Travel	620	3SB	109404-5	N/A	109404-5MO	N/A
	1.75" – 10	2**	7 + 1	860	3 Trap	109503-10		109503-10MO	
Diaphragm Spring	Spline Dia. – No. of Splines	No. of Discs	Damper Type	Clutch Torque lb-ft (must equal or exceed engine torque)	Facing	Adjustment Free			
	1.75" – 10	1	8	660	Organic	104104-2	N/A	N/A	
		1	8	660	3SB	104100-2			
		2**	7+1	860	3SB	104200-1			

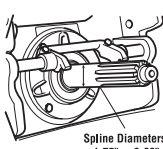
Please refer to the Roadranger Warranty Guide TCWY0900 for the latest warranty time and miles offering.

*** Severe Service:**
A combination of higher plate load, super buttons, or an additional number of facings. United States and Canada only.

****Two Plate Clutches:** Fits in place of single plate (pull type), however, this increases inertia to the transmission and may affect shiftability and longevity.

1 Choose linkage stroke and clutch type.

2 Choose spline diameter size and number of discs.




Spline Diameters: 1.75" or 2.00"

3 Choose damper type.


7+1 Damper – designed to quiet idle rattle

4 Choose clutch torque. Rating in chart must be equal to or exceed engine torque rating.


5 Narrow clutch choice based on options. All part numbers in row meet your specs.




3 Super Button (3 SB)



4 Super Button (4 SB)



3 Trap



6 Super Butt (6SB)

6 Choose from new or remanufactured.

New

- Longer service life
- Less downtime

Remanufactured

- Economy
- Longer service life compared to rebuilt

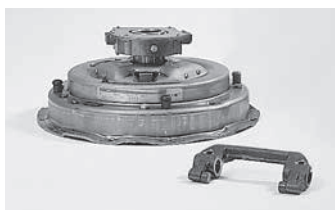
Clutch Torque lb-ft (must equal or exceed engine torque)	Eaton Medium-Duty DM Clutch for Automated Transmission Kit Part No.
700	121500-EX

Solo® Adjustment-Free
Single and Two Plate Clutches



Eaton Clutch Medium-Duty Clutch Application Guide

Reliability and long life are certainly two reasons why Fuller clutches are the number one selling clutches in North America. Eaton offers a complete line of push and pull type medium-duty clutches with application coverage from 100 to 330 horsepower engines and up to 1150 ft. lb. of torque. This bulletin provides application and adjustment guidelines to assure you the reliability and long life you've come to expect from Fuller Clutches.



Solo® Maintenance-Free (Pull Type)

Fuller Solo Maintenance-Free Clutches are lubed for life to eliminate periodic lubrication and extend clutch service life.

The Solo Maintenance-Free Clutch contains all the benefits of the Standard Solo Adjustment-Free Clutch and its product enhancements maximize service life.

- Roller yoke provides smoother operation and reduced bushing and bearing wear.
- Sealed premium lubed-for-life release bearing eliminates lubrication requirements.
- Improved steel-backed bushings resist wear for increased service life.

Solo® Adjustment-Free (Pull Type)

Fuller Solo Adjustment-Free Clutches have been designed to work with either standard or short stroke linkages.

Standard Stroke is normally used with mechanical linkages capable of pulling the release bearing .560" min. (after the yoke is touching the bearing). Additional travel is required for clutch brake squeeze on non-synchronized transmissions.

Short Stroke is used with linkages that have limited stroke (usually hydraulic or cable). Some hydraulic linkages run with the yoke touching the bearing (no free play), and the system must pull the bearing 0.500" minimum. With cable linkage the bearing must be pulled .470" min. after the free play is removed. Additional travel is required for clutch brake squeeze on non-synchronized transmissions.



Adjustment: Pull Type – SAS only (Synchronized Transmissions)

1. Set the distance between the release bearing and clutch cover at 3/4" (two plate) or 1 3/4" (single plate) (the engine side, not the transmission side).

Use the internal adjustment to change the gap. Push pedal down and push in and turn the Kwik-Adjust® or remove lock strap to move adjusting ring. Adjuster type depends on clutch model.

2. Adjust the truck linkage to set the distance from the tips of the yoke to the release bearing wear pads at 1/8". The result of setting the 1/8" will vary between truck models and could be from 1" to 3" of "in cab" free pedal.
3. Measure the amount of bearing movement during the pedal stroke—it must be a minimum of 1/2" and not greater than 9/16" to achieve proper release travel.



Adjustment: Push Type – AR only

1. After the truck linkage is hooked up, adjust the linkage to get 1/8" clearance between the bearing and levers. This is the proper linkage setting. Then measure the free pedal in the cab of the truck—this will be the normal "in cab" free pedal for this truck. Adjust the linkage when this dimension reaches one half of normal.
2. Push the pedal to the end of the stroke in the cab. The release bearing should push the levers a minimum of 1/2" to achieve proper release stroke. If less than 1/2" is stroked, the clutch may not release—check truck linkage system if additional stroke is required.

Release bearing / Sleeve length dimensions

310mm clutches have a mounted dimension of 2.062" from the flywheel surface to the lever tips.

350mm clutches have a mounted dimension of 2.438" from the flywheel surface to the lever tips. If the bearing is too far away after the truck linkage is installed and adjusted, investigate and determine if a longer bearing and sleeve assembly is required.

With both the 310mm and 350mm, the release levers will move toward the transmission as the clutch wears by a maximum of 0.75".

SAS = Stamped Angle Spring (Adjustable)	1401 = 14" 1-plate model
AR = Angle Ring	1402 = 14" 2-plate model

Chevrolet/GMC

Engine/Truck Model	Spline	Eaton PN	Description	Release Bearing	Max. Torque (lbs.ft.)
V8-350, 366	1-1/2"-10	107616-4	AR 310MM Push Type	2-13/16" (FM)CA02135-C	400
3208 CAT / 3116 CAT	1-3/4"-10	109400-5	Solo 1401 Pull Type, "Adjustment-Free", Standard Stroke		620*
CAT 3126, CAT C7		109410-5Y	Solo 1401 Pull Type, "Maintenance-Free", Standard Stroke		620
	1-3/4"-10	107237-10	SAS 1402 Pull Type		860
		109500-10	Solo 1402 Pull Type, "Adjustment-Free", Standard Stroke		860
		109507-10Y	Solo 1402 Pull Type, "Maintenance-Free", Standard Stroke		860

♦Contact GM Tech Service/Dealer for Linkage Replacement Kit for Standard Stroke Solo.

Ford (F, B, & L Series)†

Engine/Truck Model	Spline	Eaton PN	Description	Release Bearing	Max. Torque (lbs.ft.)
GAS V8-330, 361, 370, 391, 429	1-3/8"-10	107943-3	AR 330MM Push Type	E1HZ7548D/(FM)F-D1757-C	450
	1-1/2"-10	107943-1	AR 330MM Push Type	E1HZ7548D/(FM)F-D1757-C	450
V8-522(1160 CAT)	1-1/2"-10	107606-1	AR 310MM Push Type 4-3/16"	E1HZ7548A/(FM)FA-02256-C	400
6.6 Ford Diesel	1-1/2"-10	107688-7	SAS 1401 Pull Type	(FS4005 Trans.)	560
8.2 Detroit Diesel, 3208NAT	1-1/2"-10	107621-1	AR 350MM Push Type 3-3/32"	E2HS7548AA/(FM)FE-02256-CA	500
CAT 3208, 6.6 Ford Diesel, Cummins 1060 (5.9L)	1-3/4"-10	109400-5	Solo 1401 Pull Type, "Adjustment-Free", Standard Stroke		620
		109410-5Y	Solo 1401 Pull Type, "Maintenance-Free", Standard Stroke		620
Cummins 1460 (8.3L),	1-3/4"-10	107237-10	SAS 1402 Pull Type		860
7.8 Ford Diesel	1-3/4"-10	109500-10	Solo 1402 Pull Type, "Adjustment-Free", Standard Stroke		860
		109507-10Y	Solo 1402 Pull Type, "Maintenance-Free", Standard Stroke		860

† Ford models F-650 and F-750 (began in 1999) have hydraulic clutch linkages, but use Solo Standard-Stroke.

Ford (Cargo) Non-Synchronized Transmissions

Engine/Truck Model	Spline	Eaton PN	Description	Max. Torque (lbs.ft.)
7.8 Ford Diesel,	1-3/4"	109500-10	Solo 1402 Pull Type, "Adjustment-Free", Standard Stroke	860
1460(8.3) Cummins	1-3/4"	109507-22Y	Solo 1402 Pull Type, "Maintenance-Free", Standard Stroke	860

* Previously rated to 680 lb.ft. on trucks built before January 1998.

Ford (Cargo) Synchronized Transmissions†

Engine/Truck Model	Spline	Eaton PN	Description	Max. Torque (lbs.ft.)
6.6 Ford Diesel,	1-3/4"-10	109404-5	Solo 1401 Pull Type, "Adjustment-Free", Short Stroke	620*
1060(5.9) Cummins				
7.8 Ford Diesel,	1-3/4"-10	109503-10	Solo 1402 Pull Type, "Adjustment-Free", Short Stroke	860
1460(8.3) Cummins Diesel				

NOTE: 1986 Engines do not have dual bolt patterns on the flywheel. Order flywheel #E6HZ6375B (for 6 bolt crankshaft) with EATON FULLER pattern.

† Cargo manufactured by Sterling Trucks after 1997.

Freightliner

Engine/Truck Model	Spline	Eaton PN	Description	Max. Torque (lbs.ft.)
Cummins, C-8.3, B-5.9	1-1/2"-10	107342-12	AR 350MM Push Type (107621-1 w/ bearing 187140)	500
	2"-10	107342-12	SAS 1402 Pull Type, 2 Plate	860
Mechanical Linkage Only	1-3/4"-10	107683-5	SAS 1401 Pull Type	620*
(Trucks manufactured	1-3/4"-10	109400-5	Solo 1401 Pull Type, "Adjustment-Free", Standard Stroke	620*
after 5/16/94)	1-3/4"-10	109410-5Y	Solo 1401 Pull Type, "Maintenance-Free", Standard Stroke	620
	1-3/4"-10	107237-10	SAS 1402 Pull Type	860
	1-3/4"-10	109500-10	Solo 1402 Pull Type, "Adjustment-Free", Standard Stroke	860
	1-3/4"-10	109504-12	Solo 1402 Pull Type, "Maintenance-Free", Standard Stroke	860
	2"-10	109504-12	Solo 1402 Pull Type, "Adjustment-Free", Standard Stroke	860
	2"-10	109508-11Y	Solo 1402 Pull Type, "Maintenance-Free", Standard Stroke	1150
Hydraulic Linkage Only	1-3/4"-10	109404-5	Solo 1401 Pull Type, "Adjustment-Free", Short Stroke	620*
(Trucks manufactured	1-3/4"-10	109503-10	Solo 1402 Pull Type, "Adjustment-Free", Short Stroke	860
before 5/16/94)				
Business Class M2	1-3/4"-10	104100-1S	365mm 1-plate Pull Type	520S
(with synchronized trans.	1-3/4"-10	104100-2	365mm 1-plate Pull Type	660
& hydraulic linkage)	1-3/4"-10	104200-1	365mm 2-plate Pull Type	860
Business Class M2	1-3/4"-10	109500-22	Solo 1402 Pull Type, "Adjustment-Free", Standard Stroke	860
(with non-synchronized trans.	1-3/4"-10	109507-22Y	Solo 1402 Pull Type, "Maintenance-Free", Standard Stroke	860
& hydraulic linkage)	2"-10	109504-20	Solo 1402 Pull Type, "Adjustment-Free", Standard Stroke	1050
	2"-10	109508-11Y	Solo 1402 Pull Type, "Maintenance-Free", Standard Stroke	1150

S For MBE 904 engine.

Eaton Clutch Medium-Duty Clutch Application Guide

Hino

Engine/Truck Model	Spline	Eaton PN	Description	Max. Torque (lbs.ft.)
FA, FB	1-1/2"-10	107310-1	AR 310MM Push Type	400
FE, FF, SF, FD, GC	1-3/4"-10	107350-1	AR 350MM Push Type	500
145, 165, 185	1-3/4"-10	107350-1	AR 350MM Push Type	500
238, 268, 338	1-3/4"-10	107683-21	SAS 1401 Pull Type	585

International (Formerly Navistar)

Engine/Truck Model	Spline	Eaton PN	Description	Release Bearing	Max. Torque (lbs.ft.)
(R200, 372, 401, 450, 501)	1-1/4"-10	107605-1	AR 310MM Push Type		400
(BG 241) (C160, 180, 190, 301, 354) (MV-401, 446) (V-401, 406, 461, 478, 549) (BD100, 308)	1-1/2"-10	107606-1	AR 310MM Push Type		400
V8 – 266, 304, 345, 392	1-1/4"-10	107605-1	AR 310MM Push Type	3-3/8" (NAV)180155R22 I-2005-C	400 400
Diesels – 6.9, 354, 462, 550	1-1/4"-10	107605-1	AR 310MM Push Type		400
	1-1/2"-10	107606-1	AR 310MM Push Type		400
7.3 Diesel (Heavy-Duty)	1-1/2"-10	107606-1	AR 310MM Push Type	3-7/8" NAV-487731C91	400
	1-1/2"-10	107621-1	AR 350MM Push Type	1-1/2" NAV-572107C91	500
9 Litre, DT360, T444	1-1/2"-10	107621-1	AR 350MM Push Type	1-1/2" NAV-572107C91	500
DT360, DT408, DT466	1-3/4"-10	109400-5	Solo 1401 Pull Type, "Adjustment-Free", Standard Stroke		620*
VT 365	1-3/4"-10	109410-5Y	Solo 1401 Pull Type, "Maintenance-Free", Standard Stroke		6
DT408, DT466, DT530	1-3/4"-10	107237-10	SAS 1402 Pull Type		860
	1-3/4"-10	109500-10	Solo 1402 Pull Type, "Adjustment-Free", Standard Stroke		860
	1-3/4"-10	109507-10Y	Solo 1402 Pull Type, "Maintenance-Free", Standard Stroke		860
	2"-10	109504-20	Solo 1402 Pull Type, "Adjustment-Free", Standard Stroke		1050
	2"-10	109508-11Y	Solo 1402 Pull Type, "Maintenance-Free", Standard Stroke		1150

Do Not Use 107683-5, 109400-5, 109410-5Y, 107237-8, 109500-8 or 109507-8Y in gasoline engines!

* Previously rated to 680 lb.ft. on trucks built before January 1998.

Isuzu

Engine/Truck Model	Spline	Eaton PN	Description	Max. Torque (lbs.ft.)
NPR	1-1/2"-10	107606-7	AR 310MM Push Type	300
FSR, FTR, FVR, FPR	1-1/2"-10	107350-2	AR 350MM Push Type	500
FVR, EVR	1-3/4"-10	107350-7	AR 350MM Push Type	500
	1-3/4"-10	107401-1	SAS 1401 Pull Type (uses 2 plate cover w/1 disc.)	560

Eaton Clutch Medium-Duty Clutch Application Guide

Kenworth/Peterbilt

Engine/Truck Model	Spline	Eaton PN	Description	Max. Torque (lbs.ft.)
Mechanical Linkage Only	1-3/4" -10	107237-10	SAS 1402 Pull Type	860
	2" -10	109504-12	Solo 1402 Pull Type, "Adjustment-Free", Standard Stroke	860
	2" -10	109504-20	Solo 1402 Pull Type, "Adjustment-Free", Standard Stroke	1050
	1-3/4" -10	109400-5	Solo 1401 Pull Type, "Adjustment-Free", Standard Stroke	620*
	1-3/4" -10	109410-5 Y	Solo 1401 Pull Type, "Maintenance-Free", Standard Stroke	620
	1-3/4" -10	109500-10	Solo 1402 Pull Type, "Adjustment-Free", Standard Stroke	860
	1-3/4" -10	109507-10Y	Solo 1402 Pull Type, "Maintenance-Free", Standard Stroke	860
Hydraulic Linkage Only	1-3/4" -10	109404-5	Solo 1401 Pull Type, "Adjustment-Free", Short Stroke	620*
	1-3/4" -10	109503-10	Solo 1402 Pull Type, "Adjustment-Free", Short Stroke	860

Volvo "FE"

(Hydraulic Linkages)	Spline	Eaton PN	Description	Max. Torque (lbs.ft.)
	1-3/4" -10	109404-5	Solo 1401 Pull Type, "Adjustment-Free", Short Stroke	620*
	1-3/4" -10	109503-10	Solo 1402 Pull Type, "Adjustment-Free", Short Stroke	860

* Previously rated to 680 lb.ft. on trucks built before January 1998.

	Part Number	Description
Clutch Installation Kits	K-2468CL	Clutch Installation Kit
	K-3600CL	Clutch Installation Kit
Lube Tubes	CLT006P	Lube Tube Assembly, Packaged
	CLT007P	Lube Tube Assembly, Packaged
	CLT008P	Lube Tube Assembly, Packaged
	CLT008P-30	Lube Tube Assembly, Packaged (30)
	CLT009P	Lube Tube Assembly, Packaged
	CLT012P	Lube Tube Assembly, Packaged
Clutch Brakes	K-4050	Kit, Hydraulic Release Clutch Lube Tube
	127200	Clutch Brake
	127200-20	Clutch Brake (20)
	127740	Torque Limiting Clutch Brake 1.750-10 Spline HD
	127760	Torque Limiting Clutch Brake 2.000-10 Spline HD
Additional Components	127760-50	Torque Limiting Clutch Brake (50)
	125398	Retainer Sub-Assembly 2.000
	125437	Release Bearing And Housing Assembly
	125489	Adjusting Pinion
	125598	Master Cylinder And Adapter Assembly
	274C6	Angle Spring Drive Pin
	97-509-10-3X	HD Roller Yoke Assembly
	107237-22	Stamped Angle Spring Installation 1.75
Additional Medium-Duty Clutches	107238-22	Stamped Angle Spring Installation 1.75
	107621-7	Angle Ring Installation
	107684-5	Stamped Angle Spring Installation 1.75

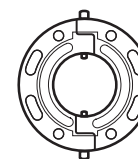


WARNING: The major cause of clutch failure is excessive heat. Excessive heat generated between the flywheel, driven discs, intermediate plate and pressure plate can cause the metal to flow and the friction material to be destroyed. If this occurs the clutch can burst which can cause property damage, serious bodily injury or death. In order to prevent clutch failure resulting from excessive heat:

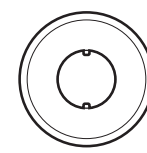
- Recommended vehicle loads should not be exceeded.
- The clutch should only be used for the recommended applications.
- Drivers should be properly trained in the starting, shifting and operation of the vehicle.
- Drivers should report erratic clutch operation as soon as possible to permit maintenance personnel to inspect, adjust or lubricate as required.
- Mechanics must be familiar with proper clutch adjustment, linkage adjustment, lubrication and other maintenance and troubleshooting procedures outlined in the Failure Analysis Guide and the Eaton Fuller Clutch Service Manual.

New	REMAN
REMAN Interchange – 107683-5 =	107213-5MO
	107237-8 = 107137-8MO
(Remaining Numbers – No REMAN Available)	

Heavy-Duty Clutch Brakes



Kwik-Konnect®



Torque Limiting

SPLINE	DESCRIPTION	PART#
1.75" - 10	Torque Limiting	127740
2" - 10	Kwik-Konnect	127200
	Torque Limiting	127760



Clutch Clutch Installation Kits

Extend replacement clutch life and receive an additional year of clutch warranty coverage.*

Receive an additional year of warranty coverage on an EverTough® clutch with the use of a Genuine Eaton Clutch Installation Kit. Replace all the right parts with genuine parts at the same time.

When the transmission is pulled to replace the clutch, replacing the clutch-related wear components at the same time can save you the cost of having to pull the transmission again.

An Eaton Clutch Installation Kit has all the parts and instructions you need for longer clutch life, smoother shifts and less wear on your transmission.

Features

- Input shaft design engineered to eliminate idle gear rattle.
- Shift tower & clutch housing gaskets – includes beaded surface to eliminate leak paths. The clutch housing gasket is compatible with both Fuller's patented "Forced Lube" system and standard configuration transmissions.
- Includes front bearing cover engineered for smoother clutch brake surface with oil return grooves on the input shaft for maximum lube retention.
- Many kits contain long life flywheel pilot bearing with high temperature grease and Viton™ seals to resist the temperatures of today's hotter running engines.
- Some kits include the cross shaft bushings for improved throw-out bearing life, smoother shifting, easier operation and protection against costly clutch housing repairs or replacements.
- More parts for the money priced well below the sum of the components.
- Each kit contains genuine Eaton components to make your clutch replacement a complete job.

Most kits include the clutch release fork for standard or hydraulic clutch release.

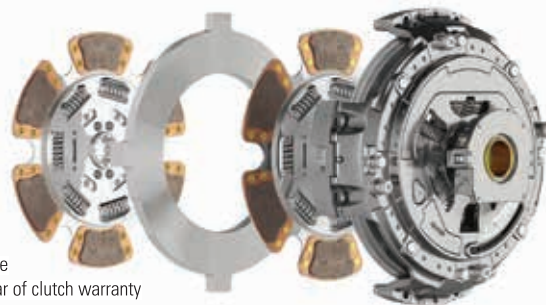


Replace with only genuine Eaton parts for performance, durability and warranty assurance.

- Eliminate cross-reference mistakes and get the right part the first time, every time.
- Maintain your warranty with genuine components.
- Choose Eaton, and get legendary Roadranger support for More Time On The Road.

**Eaton EverTough® Clutch
+ Eaton Clutch Installation Kit
= Additional 1-Year Clutch Warranty**

See page 47 for Factory Reman Bundle Warranty/
Clutch Installation Kit Bundle Warranty
Roadranger Warranty Registration Form TCWY0760.



* Registration is required to receive the additional year of clutch warranty coverage. Refer to document TCWY0760 on Roadranger.com for registration instructions.



Clutch Clutch Installation Kits

RT, Mack RT & FR Series:

APPLICATION	KIT #	INCLUDES INPUT SHAFT #	KIT CONTENTS	QTY.
RT Series	K-2468CL	23566	Clutch Release Shaft Bushings	4 (if required)
RT Series - 1.75"	K-4264CL	4304041	Front Bearing Cover Gasket	1
RT Series – Severe Duty (designed for PTO applications)	K-3762CL	23566	Input Shaft Snap Ring (Outer)	1
RT Series with 14 Spline Input Shaft	K-3768CL	4304841	Input Shaft Snap Ring (Inner)	1
RT Series with Hydraulic Clutch Release	K-4125CL	23566	Shift Lever Tower Gasket	1
RT Series - Severe Duty with Hydraulic Clutch Release	K-4339CL	23566	Front Bearing Cover	1
RT Series with Mack® style Pilot Bearing	K-3599CL	23566	Clutch Housing Gasket	1
FR Series	K-3600CL	4304633	Input Shaft Bearing	1
FR Series - 1.75"	K-4263CL	4304357	Pilot Bearing	1
FR Series with Mack® style Pilot Bearing	K-3601CL	4304633	Input Shaft Assembly	1
FR Series with Original Design (4302315) Input Shaft	K-3602CL	4302315	Clutch Brake	1
FR Series with Hydraulic Clutch Release	K-4124CL	4304633	Clutch Release Fork	1
			Fasteners (Hydraulic CLT Release)	2 (if required)

UltraShift PLUS Series:

APPLICATION	KIT #	INCLUDES INPUT SHAFT #	KIT CONTENTS	QTY.
All UltraShift PLUS	K-4145CL	4308011	Input Shaft Snap Ring (Outer)	1
			Input Shaft Snap Ring (Inner)	1
			Front Bearing Cover	1
			Clutch Housing Gasket	1
			Input Shaft Bearing	1
			Pilot Bearing	1
			Input Shaft Assembly	1
			Cross-Shaft Assembly	1
			Seal Kit	1

Lightning Series:

APPLICATION	KIT #	INCLUDES INPUT SHAFT #	KIT CONTENTS	QTY.
FRLO (Lightning) Series	K-3764CL	4305624	Piston Pump	1
			Eccentric Pump	1
			Input Shaft	1
			Input Shaft Bearing	1
			Shim Kit	1
			Front Bearing Cover Assembly	1
			Set Screw for Pump	1



Transmission Reman Bundle Program

Eaton Reman Transmission
 + Eaton Advantage Series **OR** EverTough Clutch
 + Eaton-Approved Lubricant
 = 3-Year/Unlimited-Mile Transmission
AND Clutch Warranty*

Receive an enhanced 3-year total warranty on your transmission and clutch when you bundle a Standard or FLEX Reman transmission with an Advantage Series or EverTough clutch and Eaton-approved lubricant. Standard warranties apply on individual purchases of the transmission and clutch.

Build your Reman Bundle in Three Easy Steps

Step 1: Select a Reman Transmission

An Eaton Reman transmission, whether Standard or FLEX, is made with Genuine Eaton parts and more new parts than an ordinary rebuild. Every unit is performance tested to ensure Eaton quality specifications.



Step 2: Select an Advantage Series or EverTough Clutch

Eaton's Advantage Series clutches are made for the long haul. They feature a 50K mile standard lubrication interval for linehaul applications and come with a standard 3-year unlimited warranty. EverTough clutches offer a unique combination of durability and support in an aftermarket clutch. All EverTough clutches are 100% new and offer a standard two-year unlimited mile warranty, which is upgraded to three years when bundled.



Step 3: Fill with Eaton-Approved Lubricant

Eaton's PS-386 Synthetic Transmission Fluid is designed specifically to optimize performance in Eaton transmissions. PS-386 improves fuel economy, reduces friction and gear wear, and prolongs the life of your transmission. Eaton-approved PS-386 is a necessary component in the Reman Bundle Program.

*Applies to applications in the U.S. & Canada only. Please refer to the Roadranger Warranty Guide (TCWY0900) for the latest warranty time and mileage offerings.

Replace with only genuine Eaton parts for performance, durability and warranty assurance.

- Eliminate cross-reference mistakes and get the right part the first time, every time.
- Maintain your warranty with genuine components.
- Choose Eaton, and get legendary Roadranger support for More Time On The Road.

You must register to receive the Reman Bundle warranty.

Complete form TCWY0760 on page 47 and follow the submission instructions, or complete form online at www.roadranger.com

Notes:

- Electronics are not included in the 3-year warranty.
- Excludes Lightning transmissions (FRLO models).

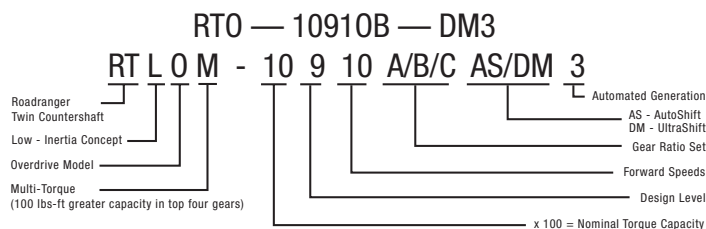


Transmission Automated Nomenclature

New Nomenclature System Components

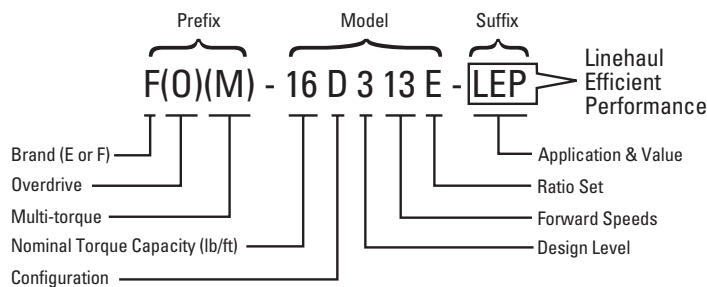
- Prefix
 - F for Fuller: All medium-duty and heavy-duty UltraShift products in North America and Australia
 - E for Eaton
 - Parenthetical letters such as (O) and (M) indicate provisions for Overdrive, Multi-Torque and other configurations
- Model Designator
 - Nominal Torque Capacity (lb/ft for North America and Australia)
 - Configuration: alpha designator A,B,C,D...for launch device and other system components
 - Design Level: numeric designator describes mechanical and electronic design levels
 - Gear Ratio Set: alpha designator (unchanged)
 - 3-Letter Suffix: denotes application and value

Heavy-Duty Automated Example



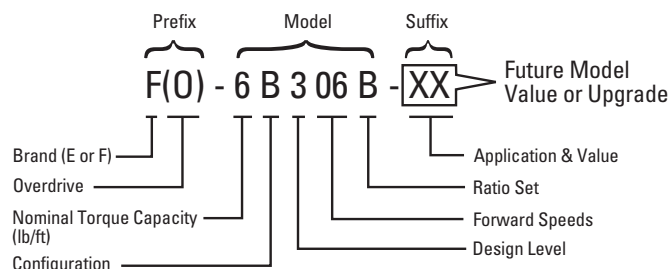
Heavy-Duty UltraShift Example

Example: Fuller UltraShift Linehaul Efficient Performance (LEP)



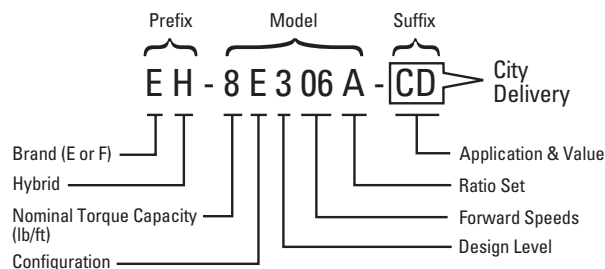
Medium-Duty UltraShift Example

Example: Fuller UltraShift XX (for future use as new products and significant upgrades are introduced)



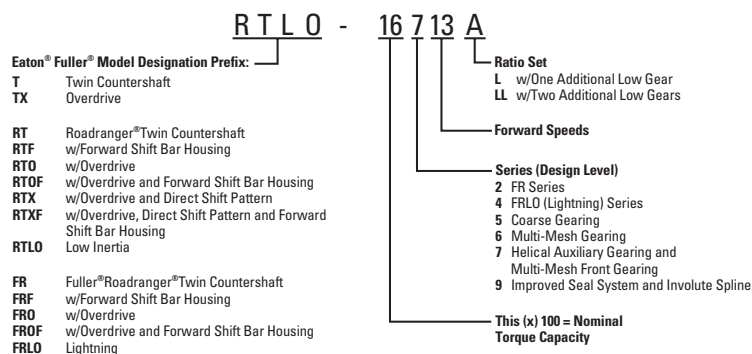
Hybrid Power System Example

Example: Eaton Hybrid City Delivery (CD)

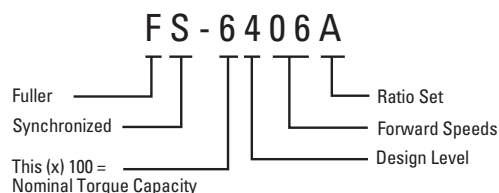


Manual Nomenclature

Heavy-Duty Example



Medium-Duty Example





FLEX Reman Transmission



Standard Reman Transmission

Transmission Remanufactured

Eaton's Reman transmissions are second only to a new transmission.

You have many options for rebuilt transmissions, but only Eaton's Reman Transmission gives you the quality and content of a genuine, new Eaton transmission. Other advantages include:

- Industry's best warranty in the U.S. and Canada – 2 years for linehaul and vocational applications.
- Receive an enhanced 3-year total warranty on your transmission and clutch when you bundle a standard or FLEX Reman transmission, Advantage/EverTough clutch and Eaton-approved lubricant. Registration required. Form TCWY0760 available at www.roadranger.com
- 100% genuine Eaton content.
- Backed by the Roadranger Network – the nation's leading support system for drivetrain components – providing unequalled protection, support, and training from experienced professionals.
- Expertly remanufactured using Eaton technology.
- Dyno performance tested to meet Eaton standards.

Benefits of FLEX Reman

When faced with a truck down situation, you need immediate access to quality Reman units. But you also need to keep inventory low and focus on turns to keep your dealership profitable. The FLEX transmission increase your *flexibility* to do both.

- The FLEX portfolio covers over 85% of the reman market demand.
- Truck-down orders will ship same day or next day with no additional fee.

Units will ship the same day when an order is received by 2:00 PM local time of the delivering Eaton Logistics Center.

Increase sales with FLEX Reman Transmissions

Components	FLEX Reman Transmissions	Standard Reman Transmissions
100% Genuine Eaton Content	Yes	Yes
Warranty: 2 yrs. Linehaul and Vocational*	Yes	Yes
Clutch Housing	Shipped with new gasket only – recycle housing from existing unit or replace with new	Shipped with complete clutch housing
Torque Coverage	Range of torque covers multiple models, increasing availability and decreasing dealer stock	Model-specific torque limits unit to single model coverage

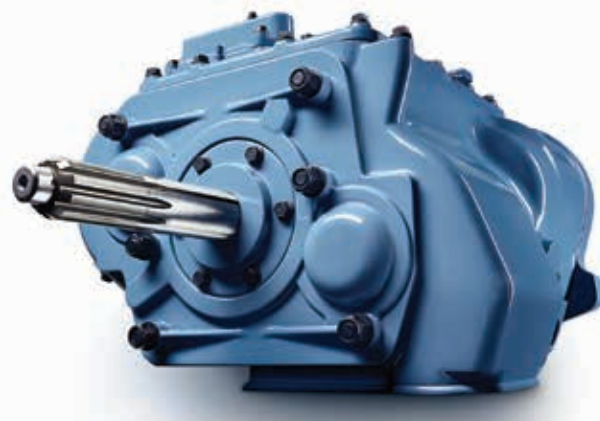
9 Series 13- and 18-speed FLEX transmissions are shipped with the HALO tube installed. Older clutch housings without HALO tube provisions will need to be replaced.

* Can be upgraded to a three-year warranty. See form TCWY0760.

Roadranger® Logistic Centers

These facilities offer customer pick-up options which save you time and money. The Logistic Centers are set up to meet same or next day criteria to almost anywhere in the United States. Look for one near you. Or contact your Roadranger Parts Representative. **To order, please call 1-800-826-4357.**





Transmission Remanufactured

Eaton Fuller FLEX Reman

For immediate assistance on truck down orders in the U.S. call:

1-800-826-HELP (4357)

For immediate assistance on truck down orders in Canada call:

1-888-507-1500

- Same day/next day shipment available from our 15 logistics centers.
- No truck-down premium.
- 24-month standard warranty, upgradable to 3 years.*
- The proven confidence of 100% Genuine Eaton components.

**For complete information refer to document TCWY0900.*

P = pump model **C** = cooler model

Units will ship the same day when an order is received by 2PM local time of the delivering Eaton Logistics Center.

Standard Shift Bar Housing	
Trans. Model	FLEX Part #
FR-9210B	FR15210B-P
FR-11210B	
FR-12210B	
FR-13210B	
FR-14210B	
FR-15210B	
FRO-11210C	FRO16210C-P FRO16210C-C
FRO-12210C	
FRO-13210C	
FRO-14210C	
FRO-15210C	
FRO-16210C	
FRO-17210C	FRO18210C-P
FRO-18210C	
RTLO-14713A	RTLO16713A-P
RTLO-16713A	
RTLO-12913A	RTLO16913A-P
RTLO-14913A	
RTLO-16913A	
RTLO-18913A	RTLO18913A-P
RTLO-14718B	RTLO18718B-P
RTLO-16718B	
RTLO-18718B	
RTLO-14918B	RTLO18918B-P
RTLO-16918B	
RTLO-18918B	
RTLO-20918B	RTLO20918B-P
RTO-14908LL	RTO16908LL-P
RTO-16908LL	

Forward Shift Bar Housing	
Trans. Model	FLEX Part #
FRF-9210B	FRF15210B-P
FRF-11210B	
FRF-12210B	
FRF-13210B	
FRF-14210B	
FRF-15210B	
FROF-11210C	FROF16210C-P FROF16210C-C
FROF-12210C	
FROF-13210C	
FROF-14210C	
FROF-15210C	
FROF-16210C	
FROF-17210C	FROF18210C-P
FROF-18210C	
RTLOF-14713A	RTLOF16713A-P
RTLOF-16713A	
RTLOF-12913A	RTLOF16913A-P
RTLOF-14913A	
RTLOF-16913A	
RTLOF-18913A	RTLOF18913A-P
RTLOF-14718B	RTLOF18718B-P
RTLOF-16718B	
RTLOF-18718B	
RTLOF-14918B	RTLOF18918B-P
RTLOF-16918B	
RTLOF-18918B	
RTLOF-20918B	RTLOF20918B-P
RTOF-14908LL	RTOF16908LL-P
RTOF-16908LL	



Transmission Standard Reman



Manual Models	Standard Shift Bar Housing		Forward Shift Bar Housing	
	Without Internal Oil Pump	With Internal Oil Pump (-12) Cooler (-10) Forced Lube (-50)	Without Internal Oil Pump	With Internal Oil Pump (-12) Cooler (-10) Forced Lube (-50)
CONVERTIBLE 9-SPEEDS				
RTOC/F-16709A		TA-E97-12R		TA-E98-12R
RTOC/F-16909A		TA-F83-12R		TA-F84-12R
RTOCM-16909A		TA-D96-12R		
RTL0C-16909A-T2		TA-F81-12R		
RTOC/F-18909A		TA-E59-50R		TA-E60-50R
10-SPEEDS				
FR/F-9210B		TA-D64-12R TA-D64-10R		TA-D65-12R TA-D65-10R
FR/F-11210B				
FR/F-12210B				
FR/F-13210B				
FR/F-14210B				
FR/F-15210B				
FRO/F-11210B		TA-D58-12R TA-D58-10R		TA-D59-12R
FRO/F-12210B				
FRO/F-13210B				
FRO/F-14210B				
FRO/F-15210B				
FRO/F-16210B				
FRW-15210B	TA-D98-11R			
FRO/F-11210C				
FRO/F-12210C	TA-D44-11R	TA-D50-12R	TA-D45-12R	TA-D51-12R
FRO/F-13210C				
FRO/F-14210C		TA-D50-12R		TA-D51-12R
FRO/F-15210C		TA-D56-12R		TA-D57-12R
		TA-D60-12R		TA-D61-12R
FRO/F-16210C		TA-D60-10R		TA-D61-10R
FRO/F-17210C		TA-D69-12R		TA-D70-12R
FRO/F-18210C		TA-D69-10R		TA-D70-10R
RTX/F-14710B		TA-B50-12R		TA-B54-12R
RTX/F-15710B				
RTX/F-16710B				
RTX/F-11710C		TA-B12-11R		
RTX/F-12710C				
RTX/F-13710C				
RTX/F-14710C		TA-B51-12R		TA-B55-12R
RTX/F-15710C				
RTX/F-16710C				
RTO/F-11908LL		TA-E39-12R		TA-E40-12R
RTO/F-14908LL				
RTO/F-16908LL		TA-E41-12R		TA-E42-12R
11-SPEEDS				
RTO/F-11909ALL		TA-F68-12R		TA-F69-12R
RTO/F-11909MLL				
RTO/F-14909ALL				
RTO/F-14909MLL				
RTO/F-16909ALL		TA-F28-12R		TA-F29-12R

Manual Models	Standard Shift Bar Housing		Forward Shift Bar Housing	
	Without Internal Oil Pump	With Internal Oil Pump (-12) Cooler (-10) Forced Lube (-50)	Without Internal Oil Pump	With Internal Oil Pump (-12) Cooler (-10) Forced Lube (-50)
13-SPEEDS				
RTLO/F-14713A		TA-B56-12R		TA-B57-12R
RTLO/F-16713A				
RTLO/F-14913A		TA-F04-50R		TA-F05-50R
RTLO/F-16913A				
RTLO/F-18913A		TA-E59-50R		TA-E60-50R
RTLO/F-20913A		TA-F43-50R		TA-F44-50R
15-SPEEDS				
RTLO/F-14915		TA-E51-12R		TA-E52-12R
RTLO/F-16915				
18-SPEEDS				
RTLO/F-14718B		TA-B29-12R		TA-B30-12R
RTLO/F-16718B				
RTLO/F-18718B		TA-B77-12R		TA-B78-12R
RTLO/F-14918B		TA-F08-50R		TA-F09-50R
RTLO/F-16918B				
RTLO/F-18918B		TA-F10-50R		TA-F11-50R
RTLO/F-20918B		TA-E63-50R		TA-E64-50R
RTLO/F-22918B		TA-F48-50R		TA-F49-50R

Manual Models	Standard Shift Tower Opening	Forward Shift Tower Opening
FULLER ADVANTAGE 10-SPEEDS		
FA/F-15810B	TA-J65-12RH	TA-J66-12RH
FAO/F-16810C	TA-J67-12RH	TA-J68-12RH
FAM/F-15810B	TA-J91-12RH	TA-J92-12RH
FAOM/F-16810C	TA-J97-12RH	TA-J98-12RH



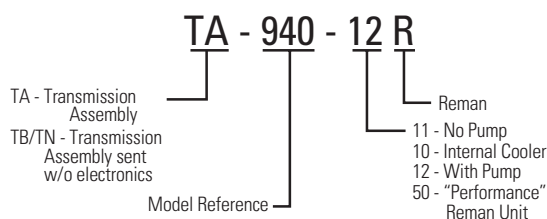
Transmission Standard Reman

Gen 2 Automated Models	Without Internal Oil Pump (-11) With Internal Oil Pump (-12)
10-SPEED AUTOSHIFT	
RTO-16710B-AS2	TB-F55-12R
RTO-14910C-AS2	TB-F80-12R
RTO-16910C-AS2	
10-SPEED ULTRASHIFT	
RTO-14910B-DM2	TN-F89-12R
RTO-16910B-DM2	

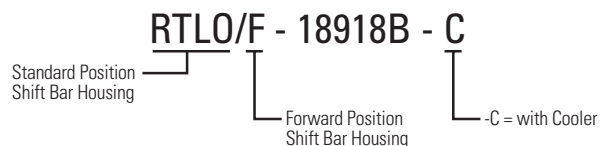
Gen 3 Automated Models	With Internal Oil Pump
10-SPEED AUTOSHIFT	
RTO-16910C-AS3	TN-F97-12R
18-SPEED AUTOSHIFT	
RTLO-18918A-AS3	TN-G18-12R
10-SPEED ULTRASHIFT	
FM-14D310B-LST	TN-G25-12R
FM-15D310B-LST	
RTO-16910B-DM3	TN-G03-12R
RTOM-16910B-DM3	TN-D86-12R
13-SPEED ULTRASHIFT	
RTLO-16913L-DM3	TN-G14-12R

UltraShift PLUS Automated Models	With Internal Oil Pump
10-SPEED	
FM-14E310B-LAS	TN-J01-12R
FM-15E310B-LAS	
FO-10E310C-VAS	
FO-14E310C-LAS	TN-J06-12R
FO-16E310C-LAS	
FO-16E310C-VAS	
FO-14E308LL-VCS	TN-G26-12R
FO-16E308LL-VCS	
FO-17E308LL-VCS	TN-G44-12R
FOM-14E310C-LAS	
FOM-15E310C-LAS	TN-J04-12R
FOM-16E310C-LAS	
FOM-16E310C-VAS	
11-SPEED	
FO-12E309ALL-VMS	TN-J58-12R
FO-14E309ALL-VMS	
FO-16E309ALL-VMS	TN-G27-12R
FO-17E309ALL-VMS	TN-G45-12R
13-SPEED	
FO-14E313A-MHP	TN-G43-12R
FO-16E313A-MHP	
FO-16E313A-VHP	TN-G47-12R
FO-18E313A-MHP	
FO-18E313A-VHP	TN-G30-12R
FO-20E313A-MHP	
FO-20E313A-VHP	TN-G31-12R
18-SPEED	
FO-14E318B-MXP	
FO-14E318B-VXP	TN-G40-12R
FO-16E318B-MXP	
FO-16E318B-VXP	
FO-18E318B-MXP	
FO-18E318B-VXP	TN-G32-12R
FO-20E318B-MXP	
FO-20E318B-VXP	TN-G29-12R
FO-22E318B-MXP	
FO-22E318B-VXP	TN-G41-12R

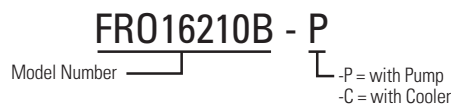
Part Number Nomenclature:



Transmission Model Nomenclature:



FLEX Part Number Nomenclature:



Parts All-Makes Transmission Parts

Keep your customers on the road.

Eaton's complete portfolio of all-makes transmission parts are available for popular automated manual transmissions (AMTs), including Detroit™ DT12®, Volvo® I-Shift and Mack® mDRIVE™. Premium components ensure quality and fit, and are backed by Eaton quality and support.

This comprehensive line of service parts includes everything needed for a complete remanufactured transmission unit including gears, bearings, gaskets, shafts, synchronizers and fasteners, so you can get your customer's trucks back on the road quickly. Eaton recommends replacing all wearable parts when performing service to maximize uptime and reliability.

Core Features:

- Premium components ensure quality and fit: fully interchangeable with original parts
- Complete range of components: over 400 parts for DT12, I-Shift and mDRIVE AMTs
- Simple ordering: convenient kits include all recommended service replacement parts in one part number
- Fully backed by Eaton quality and support
- Quick delivery: all inventory stocked in Eaton US warehouse





Parts Rebuilder Bulk Packs

Streamline ordering with Rebuilder Bulk Packs.



Part ordering and stocking have never been easier than with Eaton Fuller Rebuilder Bulk Packs. These Bulk Packs allow high-volume rebuilders to order parts less often and keep a consistent level of parts always available.

- Maintain the optimal quantity of parts always on hand.
- Reduce forecasting and the need for spot buys.
- Decrease your time spent ordering parts.
- Simplify ordering by purchasing all transmission rebuild parts from a single supplier.
- Maintain genuine Fuller parts...with all the quality and dependability your customers associate with the Eaton Fuller name.

Nomenclature Example:

S-1659 - BULK144

Base Part Number

Bulk Quantity

Contact your Roadranger Parts Solutions Manager to get started today.



PART NUMBER	DESCRIPTION	QTY
14897-BULK420	SPRING, BULK	420
15953-BULK24	GEAR, COUNTERSHAFT PTO, BULK	24
16136-BULK28	YOKE (3RD & DIRECT), BULK	28
16756-BULK24	REVERSE GEAR, BULK	24
16757-BULK18	GEAR, REV IDLER, BULK	18
18922-BULK56	YOKE, BULK	56
19063-BULK18	BLOCK, BULK	18
19239-BULK42	GEAR, MAIN DRIVE, BULK	42
19549-BULK30	COUNTERSHAFT, BULK	30
20323-BULK100	CLUTCH, SLIDING (RANGE), BULK	100
20380-BULK12	GEAR, COUNTERSHAFT (3RD), BULK	12
20381-BULK12	GEAR, MAINSHAFT (2ND), BULK	12
20382-BULK18	GEAR, COUNTERSHAFT (2ND), BULK	18
20458-BULK36	GEAR, MAIN DRIVE, BULK	36
20482-BULK12	GEAR, COUNTERSHAFT 2ND, BULK	12
20550-BULK50	COVER, FRONT, BEARING, BULK	50
20840-BULK28	GEAR, COUNTERSHAFT PTO, BULK	28
20895-BULK100	COVER, OUTPUT SHAFT, BULK	100
21025-BULK18	GEAR, CTRSHAFT, BULK	18
21264-BULK30	GEAR, CTRSHAFT 2ND, BULK	30
21319-BULK24	GEAR, MAINSHAFT, AUX (REDUCTION), BULK	24
21325-BULK15	MAINSHAFT, AUX, BULK	15
21355-BULK36	BEARING, ROLLER, TAPERED, BULK	36
21356-BULK24	BEARING, ROLLER, TAPERED, BULK	24
21360-BULK48	CLUTCH, SLG, BULK	48
21588-BULK42	GEAR, COUNTERSHAFT, BULK	42
21654-BULK100	COVER, OUTPUT SHAFT, BULK	100
21898-BULK20	SHAFT, INPUT, BULK	20
21930-BULK36	CLUTCH, SLG, BULK	36
22254-BULK168	NUT, FLANGE, HEX (NYLON INSERT) (2.00), BULK	168
227675-BULK300	INSERT - YOKE PAD, BULK	300
22823-BULK24	YOKE, BULK	24
230292-BULK750	KEY, WOODRUFF, NO 1210, BULK	750
23159-BULK24	GEAR, AUX DRIVE, BULK	24
23653-BULK32	GEAR, M/S REVERSE, BULK	32
239807-BULK20	SHAFT, INPUT, BULK	20
241012-BULK20	GEAR, C/S DRIVE, BULK	20
241013-BULK24	GEAR, C/S DRIVE, BULK	24
3315743-BULK16	GEAR, C/S DRIVE, BULK	16
3315745-BULK16	GEAR, C/S 5TH, BULK	16
3316196-BULK16	GEAR, C/S DRIVE, BULK	16
4300035-BULK10	GEAR, BULK	10

Continued on page 32

Parts Rebuilder Bulk Packs

PART NUMBER	DESCRIPTION	QTY
4300191-BULK28	GEAR, COUNTERSHAFT (OVERDRIVE), BULK	28
4300241-BULK36	GEAR, CTRSHAFT 1ST, BULK	36
4300243-BULK15	COUNTERSHAFT, BULK	15
4300244-BULK15	COUNTERSHAFT, BULK	15
4300247-BULK30	GEAR, CTRSHAFT 2ND, BULK	30
4300312-BULK15	MAINSHAFT, AUX, BULK	15
4300677-BULK8	GEAR, BULK	8
4300828-BULK84	BEARING, ROLLER, BULK	84
4300830-BULK100	WASHER, BULK	100
4300858-BULK24	GEAR, BULK	24
4300902-BULK63	BEARING, TAPERED ROLLER, BULK	63
4300904-BULK15	MAINSHAFT, AUX, BULK	15
4300907-BULK144	CLUTCH, SLIDING (SPLITTER), BULK	144
4300912-BULK80	SPACER, AUX M-SHAFT, BULK	80
4300924-BULK27	CLUTCH, SLG, BULK	27
4300938-BULK30	GEAR, AUX DRIVE, BULK	30
4300940-BULK16	GEAR, M-SHAFT, AUX RDCN, BULK	16
4301403-BULK20	SHAFT, INPUT, BULK	20
4301465-BULK24	CUP, SYNC, BULK	24
4301466-BULK25	CUP, SYNC, BULK	25
4301467-BULK24	CUP, SYNC, BULK	24
4301477-BULK18	GEAR, M/S 5TH, BULK	18
4301478-BULK24	GEAR, C/S 5TH, BULK	24
4301485-BULK20	SHAFT, INPUT, BULK	20
4301515-BULK100	COVER, OUTPUT SHAFT, BULK	100
4301528-BULK24	GEAR, M/S 3RD, BULK	24
4301529-BULK40	GEAR, M/S 2ND, BULK	40
4301530-BULK12	GEAR, M/S 1ST, BULK	12
4301531-BULK35	GEAR, M/S REV, BULK	35
4301532-BULK15	MAINSHAFT, BULK	15
4301628-BULK20	SHAFT, INPUT, BULK	20
4301686-BULK24	GEAR, M/S 3RD, BULK	24
4301687-BULK24	GEAR, M/S 2ND, BULK	24
4301689-BULK28	GEAR, M/S REV, BULK	28
4301750-BULK20	SHAFT, INPUT, BULK	20
4301762-BULK24	GEAR, M/S 2ND, BULK	24
4301764-BULK8	GEAR, M/S REV, BULK	8
4301795-BULK16	GEAR, AUX M-SHAFT REDN, BULK	16
4301840-BULK100	CLUTCH, SLIDING, BULK	100
4301851-BULK72	BEARING, ROLLER, BULK	72
4302041-BULK30	GEAR, MAINSHAFT, AUX (SPLITTER), BULK	30
4302047-BULK100	SPACER, GEAR SPLINED, BULK	100
4302059-BULK15	MAINSHAFT, AUX, BULK	15
4302074-BULK72	BEARING, ROLLER C/S, BULK	72

PART NUMBER	DESCRIPTION	QTY
4302090-BULK10	GEAR, BULK	10
4302092-BULK10	GEAR, BULK	10
4302159-BULK100	KEY, INTERLOCK, BULK	100
4302276-BULK20	MAINSHAFT, AUX, BULK	20
4302381-BULK36	GEAR, MAINSHAFT (OVERDRIVE), BULK	36
4302384-BULK20	GEAR, NO BURN, BULK	20
4302393-BULK48	GEAR, MAINSHAFT (OVERDRIVE), BULK	48
4302394-BULK50	GEAR, MAINSHAFT (2ND), BULK	50
4302411-BULK24	GEAR, M-SHAFT, BULK	24
4302413-BULK16	GEAR, M-SHAFT, AUX RDCN, BULK	16
4302420-BULK36	GEAR, CTRSHAFT 2ND, BULK	36
4302421-BULK28	GEAR, M-SHAFT 2ND, BULK	28
4302422-BULK42	GEAR, COUNTERSHAFT (3RD), BULK	42
4302427-BULK16	GEAR, MAIN SHAFT, AUX RDCN, BULK	16
4302435-BULK30	GEAR, AUX DRIVE, BULK	30
4302506-BULK30	GEAR, M-SHAFT, BULK	30
4302529-BULK40	GEAR, M-SHAFT, BULK	40
4302652-BULK15	COUNTERSHAFT, BULK	15
4302662-BULK42	GEAR, MAIN DRIVE, BULK	42
4302666-BULK40	GEAR, COUNTERSHAFT (DRIVE), BULK	40
4302670-BULK50	GEAR, MAINSHAFT (2ND), BULK	50
4302792-BULK20	GEAR, PUMP DRIVE, BULK	20
4303033-BULK20	GEAR, M-SHAFT, BULK	20
4303119-BULK15	COUNTERSHAFT, BULK	15
4303120-BULK40	GEAR, COUNTERSHAFT, BULK	40
4303121-BULK40	GEAR, COUNTERSHAFT DRIVE, BULK	40
4303233-BULK30	GEAR, M/S 4TH, BULK	30
4303359-BULK24	MAINSHAFT, AUX, BULK	24
4303409-BULK24	GEAR, MAINSHAFT (LOW), BULK	24
4303412-BULK24	GEAR, M-SHAFT, BULK	24
4303420-BULK28	GEAR, M-SHAFT 1ST, BULK	28
4303422-BULK30	SPLITTER GEAR, BULK	30
4303428-BULK35	GEAR, BULK	35
4303477-BULK28	GEAR, BULK	28
4303497-BULK24	GEAR, BULK	24
4303620-BULK12	GEAR, BULK	12
4303649-BULK15	MAINSHAFT, AUX, BULK	15
4303666-BULK28	GEAR, COUNTERSHAFT (OVERDRIVE), BULK	28
4303701-BULK28	GEAR, MAINSHAFT (1st), BULK	28
4303705-BULK15	MAINSHAFT, AUX, BULK	15
4303737-BULK40	GEAR, CTRSHAFT, BULK	40
4303774-BULK64	GEAR, PUMP DRIVE, BULK	64
4303796-BULK48	GEAR, M/S 4TH, BULK	48
4303878-BULK15	COUNTERSHAFT, BULK	15

Continued on page 33

PART NUMBER	DESCRIPTION	QTY
4303880-BULK12	GEAR, M-SHAFT, BULK	12
4304001-BULK42	GEAR, M-SHAFT, BULK	42
4304023-BULK100	PLUG, MAGD, 1-1/16 SPL, BULK	100
4304056-BULK36	GEAR, C/S 3RD, BULK	36
4304060-BULK40	GEAR, COUNTERSHAFT (DRIVE), BULK	40
4304073-BULK15	COUNTERSHAFT, BULK	15
4304084-BULK42	GEAR, AUX DRIVE, BULK	42
4304086-BULK30	GEAR, AUX M-SHAFT SPLIT, BULK	30
4304097-BULK48	GEAR, C/S 4TH, BULK	48
4304098-BULK55	GEAR, M/S 4TH, BULK	55
4304317-BULK168	CLUTCH, SLIDING, BULK	168
4304438-BULK28	YOKE, BULK	28
4304491-BULK30	GEAR, CTRSHAFT, BULK	30
4304510-BULK42	GEAR, MAIN DRIVE, BULK	42
4304514-BULK144	GEAR, MAINSHAFT (OVERDRIVE), BULK	144
4304539-BULK20	SHAFT, INPUT, BULK	20
4304541-BULK20	GEAR, C/S DRIVE, BULK	20
4304542-BULK16	GEAR, C/S 5TH, BULK	16
4304544-BULK24	GEAR, M/S 2ND, BULK	24
4304545-BULK24	GEAR, M/S 1ST, BULK	24
4304604-BULK40	KEY, SELECTOR, BULK	40
4304617-BULK15	MAINSHAFT, BULK	15
4304618-BULK28	GEAR, COUNTERSHAFT O/D, BULK	28
4304621-BULK24	GEAR, M-SHAFT, BULK	24
4304635-BULK40	GEAR, MAIN DRIVE, BULK	40
4304641-BULK42	GEAR, MAIN DRIVE, BULK	42
4304642-BULK42	GEAR, MAIN DRIVE, BULK	42
4304750-BULK48	GEAR, MAINSHAFT O/D, BULK	48
4304765-BULK36	GEAR, COUNTERSHAFT 1ST, BULK	36
4304790-BULK20	GEAR, COUNTERSHAFT, BULK	20
4305128-BULK100	COVER, SHIPPING, LUBE SYSTEM, BULK	100
4305566-BULK20	SHAFT, INPUT, BULK	20
4305575-BULK28	YOKE (3RD & OVERDRIVE), BULK	28
4305663-BULK42	GEAR, MAINSHAFT, BULK	42
4305657-BULK20	GEAR, COUNTERSHAFT, BULK	20
4305659-BULK42	GEAR, MAIN DRIVE, BULK	42
4305661-BULK40	GEAR, COUNTERSHAFT (DRIVE), BULK	40
4305665-BULK40	GEAR, COUNTERSHAFT (DRIVE), BULK	40
4305879-BULK15	GEAR, C/S, BULK	15
4305880-BULK30	GEAR, MAIN DRIVE, BULK	30
4306033-BULK28	GEAR, C/S, BULK	28
4306076-BULK48	GEAR, COUNTERSHAFT, BULK	48
4306520-BULK200	NUT, HEX, FLANGE, CRIMPED, BULK	200

PART NUMBER	DESCRIPTION	QTY
4306647-BULK 144	CLUTCH, SLG (M/S), BULK	144
4306648-BULK 144	CLUTCH, SLG (M/S), BULK	144
4306649-BULK48	CLUTCH, SLG (M/S), BULK	48
4306650-BULK112	CLUTCH, SLG (M/S), BULK	112
4307114-BULK40	GEAR, C/S, BULK	40
4307126-BULK42	GEAR, MAIN DRIVE, BULK	42
4308397-BULK48	BEARING, ROLLER, BULK	48
4308398-BULK72	BEARING, ROLLER, BULK	72
4308400-BULK72	BEARING ROLLER, BULK	72
4308403-BULK72	BEARING, NEEDLE ROLLER, BULK	72
4308451-BULK36	BEARING, ROLLER, BULK	36
4308452-BULK1 12	BEARING, ROLLER, BULK	112
55508-BULK100	HOSE ASSY, AIR, BULK	100
55509-BULK100	HOSE ASSY, AIR, BULK	100
55527-BULK100	HOSE ASSY, AIR, BULK	100
55528-BULK100	HOSE ASSY, AIR, BULK	100
5556503-BULK24	BEARING, ROLLER, TAPERED, BULK	24
5556507-BULK36	BEARING, ROLLER, TAPERED, BULK	36
5566505-BULK160	BEARING, BALL, BULK	160
5566507-BULK18	BEARING, BALL, BULK	18
5566508-BULK18	BEARING, BALL, BULK	18
5566510-BULK50	BEARING, BALL, BULK	50
691445-BULK30	GEAR, AUX M/S SPLIT, BULK	30
81052-BULK72	BEARING, BALL, BULK	72
81057-BULK42	BEARING, BALL, BULK	42
81504-BULK48	BEARING BALL, BULK	48
A-4740-BULK44	FILTER/REGULATOR ASSEMBLY, AIR, BULK	44
A-5000-BULK112	VALVE ASSEMBLY, RANGE SLAVE, BULK	112
A-5156-BULK24	MAINSHAFT ASSY, RANGE, BULK	24
A-5159-BULK12	YOKE ASSY, RANGE, BULK	12
A-5160-BULK14	YOKE ASSY, DEEP REDN, BULK	14
A-5401-BULK48	SYNC ASSY (450/550), BULK	48
A-5454-BULK44	FILTER/REGULATOR ASSEMBLY, AIR, BULK	44
A-5474-BULK12	YOKE ASSY, RANGE, BULK	12
A-5692-BULK42	SYNCHRONIZER ASSY, BULK	42
A-5693-BULK24	SYNCHRONIZER ASSY, BULK	24
A-5721-BULK24	SYNCHRONIZER ASSY, BULK	24
A-6135-BULK24	SYNCHRONIZER ASSY, BULK	24
A-6136-BULK48	SYNCHRONIZER ASSY, BULK	48
A-6154-BULK42	SYNCHRONIZER ASSY, BULK	42
A-6156-BULK42	SYNCHRONIZER ASSY, BULK	42
A-6188-BULK12	YOKE ASSY, RANGE, BULK	12
A-6224-BULK12	YOKE ASSY, RANGE, BULK	12
A-6299-BULK44	SPACER ASSY, BULK	44

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Parts Rebuilder Bulk Packs

PART NUMBER	DESCRIPTION	QTY
A-6340-BULK48	RETAINER ASSY, BULK	48
A-6436-BULK24	COUNTERSHAFT ASSY, BULK	24
A-6473-BULK60	PUMP ASSY, INTEGRAL, BULK	60
A-6608-BULK48	SYNCHRONIZER ASSY, BULK	48
A-6756-BULK12	CTRSHAFT ASSY, AUX WELD, BULK	12
A-6843-BULK30	COUNTERSHAFT ASSY, AUX, BULK	30
A-6909-BULK28	VALVE ASSY, RANGE MASTER, BULK	28
A-6910-BULK28	VALVE ASSY, RANGE MASTER, BULK	28
A-7011-BULK16	YOKE ASSY, SPLIT, BULK	16
A-7012-BULK14	YOKE ASSY, SPLT, BULK	14
A-7254-BULK140	SYNCHRONIZER ASSY, LOW SIDE, BULK	140
A-7331-BULK140	SYNC ASSY, AUX DIRECT, BULK	140
A-7471-BULK40	LUBE TUBE ASSY, EXTENDED, BULK	40
A-7934-BULK54	SYNCHRONIZER ASSY, BULK	54
K-1644-BULK20	REPLT KIT, QUILL, BULK	20
K-1935-BULK66	REPAIR KIT, SLAVE VALVE, BULK	66
K-2054-BULK100	O-RING KIT, BULK	100
K-2262-BULK46	OIL SEAL KIT, BULK	46
K-2272-BULK10	MAINSHAFT KIT, BULK	10
K-2424-BULK30	VALVE REPLACEMENT KIT, BULK	30
K-2804-BULK100	O-RING KIT-COMPLETE, BULK	100
K-2808-BULK16	REPLT. KIT-DRIVE GEAR, BULK	16
K-3104-BULK50	ACTUATOR PIN KIT, BULK	50
K-3122-BULK27	SPLITTER GEAR UPDATE KIT, BULK	27
K-3128-BULK100	PISTON KIT, BULK	100
K-3130-BULK90	SHIFT YOKE KIT, BULK	90
K-3209-BULK40	IDLER SHAFT REPL KIT, BULK	40
K-3215-BULK100	S.B. HSG COVER ASSY, BULK	100
K-3245-BULK36	AIR MODULE ASSY, BULK	36
K-3301-BULK27	GEAR REPLACEMENT KIT, BULK	27
K-3331-BULK90	SPLITTER VLV REPL KIT, BULK	90
K-3367-BULK30	OIL PUMP KIT, BULK	30
K-3399-BULK100	ISOLATOR BUSHING KIT, BULK	100
K-3420-BULK16	GEAR UPDATE KIT, BULK	16
K-3480-BULK16	REPLT. KIT, DRIVE GEAR, BULK	16
K-3682-BULK34	RANGE VALVE KIT, BULK	34
K-4001-BULK20	SYNCHRONIZER KIT, BULK 20	20
K-4122-BULK48	KIT, HEX FLANGE CRIMPED NUT, BULK	48
K-4126-BULK50	KIT, FASTENER, BULK	50
K-4152-BULK56	KIT, BEARING (INPUT SHAFT), BULK	56

PART NUMBER	DESCRIPTION	QTY
K-7051-BULK35	SYNCHRONIZER KIT, BULK	35
S-1659-BULK72	SHAFT ASSEMBLY, INPUT, BULK	72
S-1794-BULK126	ISOLATOR ASST, BULK	126
S-2129-BULK42	SHIFT LEVER HSG ASSY, BULK	42
S-2130-BULK42	SHIFT LEVER HSG ASSY, BULK	42
S-2501-BULK36	SPEEDO-ROTOR ASSY, BULK	36
S-2519-BULK42	SHIFT LEVER HSG ASSY, BULK	42
S-2688-BULK16	MAINSHAFT ASSY, BULK	16
S-2737-BULK15	MAINSHAFT ASSY, BULK	15
S-2809-BULK30	REAR BEARING COVER ASSY , BULK	30
S-2822-BULK72	SHAFT ASSEMBLY, INPUT, BULK	72
S-2842-BULK18	SHIFT BAR HSG ASSY, BULK	18
S-2928-BULK20	INPUT SHAFT ASSY, BULK	20
S-3108-BULK16	MAINSHAFT ASSY, BULK	16
X-1-1008-BULK500	NUT, 5/8 - 18 ELS STOP, BULK	500
X12-1207-BULK350	PLUG, PIPE, 3/4 MAGD, BULK	350
X12-208-BULK1000	PLUG, PIPE, 1/8, BULK	1000
X12-802-BULK500	PLUG, PIPE, 1/2, BULK	500
X14-1200-BULK500	BALL, STEEL, 3/4, BULK	500
X14-800-BULK850	BALL, STEEL, 1/2, BULK	850
X-7-1005-BULK500	SCREW, 5/8 - 18 X 1.75, BULK	500
X-7-1008-BULK500	SCREW, 5/8-18 X 1.00, BULK	500
X-7-809-BULK500	SCREW, 1/2 - 20 X 1-3/4, BULK	500
X-8-0801M-BULK500	SCREW, M8X1.25 X 12MM, BULK	500
X-8-423-BULK800	SCREW, 1/4 - 20 X 1/2, BULK	800
X-8-645-BULK800	SCREW, 3/8 - 16 X 1, BULK	800
X-8-680-BULK600	SCREW, 3/8 - 16 X 1-1/2, BULK	600
X-8-686-BULK800	SCREW, 3/8 - 16 X 3/4, BULK	800
X-8-725-BULK450	SCREW, 7/16 - 14 X 7/8, BULK	450
X-8C-411-BULK500	SCREW, HEX HD/WASHER ASSY (1/4-20 X 1-3/4), BULK	500
X-8C-412-BULK500	SCREW, HEX HD/WASHER ASSY (1/4-20 X 2-1/4), BULK	500
X-8C-830-BULK400	SCREW, HEX HEAD/WASHER ASSY (.500-13 X 1.490), BULK	400
X-8L-540-BULK725	SCREW, 5/16 - 18 X 1-7/8, BULK	725
X-8L-602-BULK600	SCREW, 3/8 - 16 X 1-1/2, BULK	600
X-8L-604-BULK700	SCREW, 3/8 - 16 X 1-1/4, BULK	700
X-8L-607-BULK450	SCREW, 3/8 - 16 X 2-1/4, BULK	450
X-8L-631-BULK300	SCREW, 3/8 - 16 X 3-1/2, BULK	300



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KIT CONTENTS*	MASTER REBUILD	BASIC OVERHAUL	BASIC REBUILD
O-Rings	X	X	X
Bearings	X	X	X
Snap Ring	X	X	X
Springs	X	X	X
Shim Kit	X	X	X
Oil Seal Kit	X	X	X
Gasket Kit	X	X	X
Sliding Clutch	X	X	
Input Shaft	X	X	
Drive/Overdrive Gears	X		
Breather	X		
Hose Assemblies	X		
Clutch Brake	X		
Air/Filter Regulator	X		
Splitter and Range Valve (where applicable)	X		
Front Bearing Cover	X		
Synchronizer Assembly	X		
Shift Fork	X		
Miscellaneous Washers	X		

* Kit contents may vary based on transmission model and kit.

** Please refer to the Roadranger Warranty Guide TCWY0900 for the latest warranty time and mile offerings.

warranty time and mile offerings.

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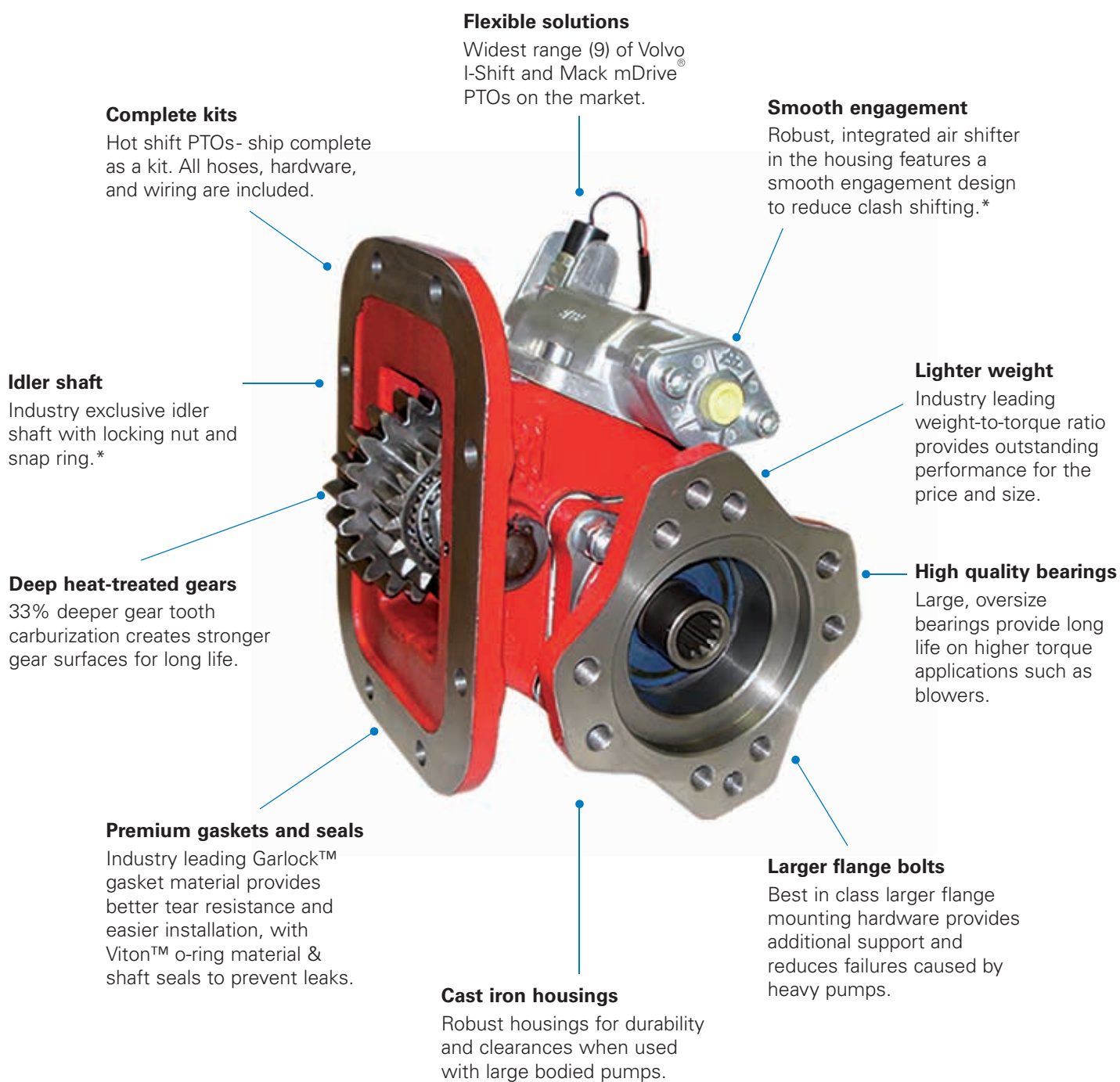


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Mobile Hydraulic Power PTO Quick Guide

Manual PTOs: Eaton-Fuller/ Rockwell-Meritor/Spicer/Mack

- Six bolt models: 1000/1010
- Six bolt model reversible: 6000
- Eight bolt models: 2000 Standard/Heavy Duty 4100/8500
- Eight bolt model reversible: 6800/8000
- Eight bolt model dual output: 4200/4250

"Hot shift" PTO for Manuals: Eaton-Fuller/Rockwell- Meritor/Spicer/Mack

- Six bolt model: 3200
- Eight bolt model: 3200 with AD68248 adapter
- Eight bolt model: 3800/3810

Aisin Transmission (Dodge):

- Hot shift 3300

Allison Automatic: AT/MT/HT/ CLT (SAE 6 bolt)

- Manual PTO: 1000

Allison Automatic: 1000-2000 Series (SAE 6 Bolt)

- Manual PTO: 1000
- Hot shift PTO: 3300

Allison World Transmission: MD/HD/3000/4000 series (SAE 10 Bolt)

- 3131 Heavy Duty
- 3151 Constant mesh: HD
- 3252 Low Profile-High Torque
- 3131 with rear pump mounting (3131RP) + bracket and 3190

Ford Automatic:

- 5R110 (5 Speed) use 3900
- 6R140 (6 Speed) use 3920
- 10R140 (10 Speed) use 3940

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- Bottom (8 bolt) models: 2000, 4100, 8500 series
- Rear (4 bolt) models: 95X Series

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- C and D Box adapter: SAE 8 bolt
 - Fits DT12-OC, -OHD, -OV, -OD, -OVX
- 120X Series
 - DT12-DA / 14.93-1.0
 - DT12-OA / 14.96-1.0

PACCAR Automated Transmission

- Bottom (8 bolt) models: 2000, 4100, 8500 series
- Rear (4 bolt) models: 95X Series

Volvo® I-Shift/ Mack® mDRIVE™:

- 1198K03 Single output
- 11106K03 Single output heavy-duty – high speed
- 11107K*** Dual output heavy-duty – low / high speed
- 1196K03 Driveline only – slow speed
- 11109K52 Dual 1310 – low speed shafts

(*** = output choices)

► **Easier ordering**
One part number for a complete installation

► **Save time**
No need to waste time specking a system

► **Avoid mistakes**
All components sized for a seamless installation

► **Manage inventory**
Drop ship direct to install site

Bezares Wet Kits: The simple solution to a complex problem.

Bezares wet kits provide you with everything for a complete end dump installation, in one part number. Designed for the most popular Eaton Fuller and Eaton Cummins Endurant HD™ applications, our wet kits feature a PTO with Viton™ seals and Garlock™ gaskets for easier installation and fewer leaks, a high-quality roller bearing dump pump for reliability, and an aluminum tank for lighter weight.



Mobile Hydraulic Power Turnkey Solutions for End Dump Applications

Eaton Fuller part numbers and contents:

Part Number	Description
K-PTFWKC2U	Standard Fuller End Dump Wet Kit 2-Line Upright Tank
PT2000XCNO11RA	(1) Bottom mount Fuller, air shift, direct mount 110-130% of engine
PTTA-50-UA	(1) 50 Gal upright (behind cab) aluminum tank
PTPBK1000	(1) Dump pump support bracket kit
PTBZ102LAS25	(1) Direct mount air shift dump pump (equal to a C102 or E3XI27)
PTHSK2L-16-8	(1) Complete 2 line hose kit (pressure & suction hose plus all fittings)
PTTO126C-10	(1) 10" Console for the in cab control
PTBV125	(1) 1.25" NPT ball valve
PTAK126C	(1) PTO/pump combo control with kick out option
PTM2	(1) Metric stud kit (see note)
K-PTFWKC3U	Standard Fuller End Dump Wet Kit 3-Line Upright Tank
PT2000XCNO11RA	(1) Bottom mount Fuller, air shift, direct mount 110-130% of engine
PTTA-50-UA	(1) 50 Gal upright (behind cab) aluminum tank
PTPBK1000	(1) Dump pump support bracket kit
PTBZ102LAS25	(1) Direct mount air shift dump pump (equal to a C102 or E3XI27)
PTHSK3L-12-12	(1) Complete 3 line hose kit (pressure & suction hose plus all fittings)
PTTO126C-10	(1) 10" Console for the in cab control
PTAK126C	(1) PTO/pump combo control with kick out option
PTF6FE	(2) 25 Micron spin-on filter element
PTF415	(1) Dual filter head
PTBV125	(1) 1.25" NPT ball valve
PTM2	(1) Metric stud kit (see note)
K-PTFWKC2S	Standard Fuller End Dump Wet Kit 2-Line Saddle Tank
PT2000XCNO11RA	(1) Bottom mount Fuller, air shift, direct mount 110-130% of engine
PTTA-50-SA	(1) 50 Gal saddle (round frame mount) aluminum tank
PTPBK1000	(1) Dump pump support bracket kit
PTBZ102LAS25	(1) Direct mount air shift dump pump (equal to a C102 or E3XI27)
PTHSK2L-16-8	(1) Complete 2 line hose kit (pressure & suction hose plus all fittings)
PTTO126C-10	(1) 10" Console for the in cab control
PTBV125	(1) 1.25" NPT ball valve
PTAK126C	(1) PTO/pump combo control with kick out option
PTM2	(1) Metric stud kit (see note)
K-PTFWKC3S	Standard Fuller End Dump Wet Kit 3-Line Saddle Tank
PT2000XCNO11RA	(1) Bottom mount Fuller, air shift, direct mount 110-130% of engine
PTTA-50-SA	(1) 50 Gal saddle (round frame mount) aluminum tank
PTPBK1000	(1) Dump pump support bracket kit
PTBZ102LAS25	(1) Direct mount air shift dump pump (equal to a C102 or E3XI27)
PTHSK3L-12-12	(1) Complete 3 line hose kit (pressure & suction hose plus all fittings)
PTTO126C-10	(1) 10" Console for the in cab control
PTAK126C	(1) PTO/pump combo control with kick out option
PTF6FE	(2) 25 Micron spin-on filter element
PTF415	(1) Dual filter head
PTBV125	(1) 1.25" NPT ball valve
PTM2	(1) Metric stud kit (see note)

Note: All wet kits will include an SAE stud kit in the PTO box as well as a metric stud kit for FR/FRO/FRF/FROF Series Fuller transmissions.

Endurant part numbers and contents:

Part Number	Description
K-PTEWKB2U	Endurant HD End Dump Wet Kit 2 Line Upright Tank
PT2010XBN751RA	(1) Bottom mount, air shift, direct mount 110-130% of engine
PTTA-50-UA	(1) 50 Gal upright (behind cab) aluminum tank
PTPBK1000	(1) Dump pump support bracket kit
PTBZ102LAS25	(1) Direct mount air shift dump pump (equal to a C102 or E3XI27)
PTHSK2L-16-8	(1) Complete 2 line hose kit (pressure & suction hose plus all fittings)
PTTO126C-10	(1) 10" Console for the in cab control
PTBV125	(1) 1.25" NPT ball valve
PTAK126C	(1) PTO/pump combo control with kick out option
K-PTEWKB3U	Endurant HD End Dump Wet Kit 3 Line Upright Tank
PT2010XBN751RA	(1) Bottom mount, air shift, direct mount 110-130% of engine
PTTA-50-UA	(1) 50 Gal upright (behind cab) aluminum tank
PTPBK1000	(1) Dump pump support bracket kit
PTBZ102LAS25	(1) Direct mount air shift dump pump (equal to a C102 or E3XI27)
PTHSK3L-12-12	(1) Complete 3 line hose kit (pressure & suction hose plus all fittings)
PTTO126C-10	(1) 10" Console for the in cab control
PTAK126C	(1) PTO/pump combo control with kick out option
PTF6FE	(2) 25 Micron spin-on filter element
PTF415	(1) Dual filter head
PTBV125	(1) 1.25" NPT ball valve
K-PTEWKB2S	Endurant HD End Dump Wet Kit 2 Line Saddle Tank
PT2010XBN751RA	(1) Bottom mount, air shift, direct mount 110-130% of engine
PTTA-50-SA	(1) 50 Gal saddle (round frame mount) aluminum tank
PTPBK1000	(1) Dump pump support bracket kit
PTBZ102LAS25	(1) Direct mount air shift dump pump (equal to a C102 or E3XI27)
PTHSK2L-16-8	(1) Complete 2 line hose kit (pressure & suction hose plus all fittings)
PTBV125	(1) 1.25" NPT ball valve
PTTO126C-10	(1) 10" Console for the in cab control
PTAK126C	(1) PTO/pump combo control with kick out option
K-PTEWKB3S	Endurant HD End Dump Wet Kit 3 Line Saddle Tank
PT2010XBN751RA	(1) Bottom mount, air shift, direct mount 110-130% of engine
PTTA-50-SA	(1) 50 Gal saddle (round frame mount) aluminum tank
PTPBK1000	(1) Dump pump support bracket kit
PTBZ102LAS25	(1) Direct mount air shift dump pump (equal to a C102 or E3XI27)
PTHSK3L-12-12	(1) Complete 3 line hose kit (pressure & suction hose plus all fittings)
PTTO126C-10	(1) 10" Console for the in cab control
PTAK126C	(1) PTO/pump combo control with kick out option
PTF6FE	(2) 25 Micron spin-on filter element
PTF415	(1) Dual filter head
PTBV125	(1) 1.25" NPT ball valve

Note: All wet kits will include a metric stud kit for Endurant HD PTOs





Mobile Hydraulic Power Hydraulic Sectional Valves



APSCO's APG directional control valves are a sectional, directional control valve that is interchangeable with the very popular Parker/Commercial® VA and VG series hydraulic valve product lines. The APG valves can be used in parallel/open center circuit applications with manual, hydraulic or pneumatic operation.

- The APG 20 Series has a nominal capacity of 40gpm and a max operating pressure of 3500PSI
- The APG 35 Series has a nominal capacity of 70gpm and a max operating pressure of 3500PSI
- The compacted graphite cast construction allows for a max operating pressure of 3500PSI
- Interchangeable with the very popular VA and VG series hydraulic valve
- Available in individual components or we can build you a custom engineered and tested valve assembly
- 100% factory tested

APSCO's APV 20 Series directional control valves are a sectional, directional control valve that is interchangeable with the very popular Parker/Gresen® V20 series hydraulic valve product line. The APV valves can be used in parallel/open center circuit applications with manual, cable shift or pneumatic operation.

- APV 20 Series- compact size and lightweight to fit your installation needs
- Compacted graphite, high strength iron alloy for durability and shock load resistance
- Precision machined spools with extra fine metering control and low spool forces.
- Available in SAE porting
- Stackable design to customize to your needs
- Large variety of spool types and backcap options
- Range of work port options including port reliefs, anti-cavitation valves, and power beyond capabilities
- Black phosphate finish for improved paint adhesion and reduction of surface rust

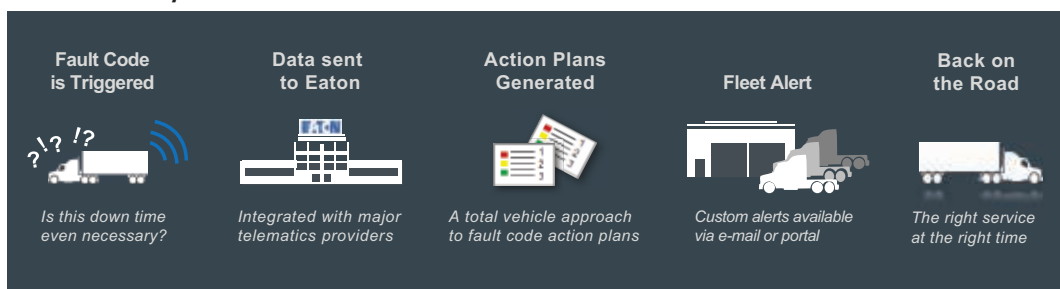
Refuse and waste • Oil and gas • Snow and ice • Dump truck • Crane • Towing

Service & Support INTELLICONNECT™

IntelliConnect remote diagnostics provides near real-time monitoring of vehicle fault codes using your existing telematics provider

- Increase your uptime
- Reducing unplanned downtime
- Quicker repair diagnosis
- Provide comprehensive fault code action plans
- Over 100 years of transmission expertise

No unnecessary downtime



Easy-to-use portal

- Live data using your telematics system
- Fault severity and fault code action plans
- Service Activity Reports
- Customized information delivery
- Customized vehicle watchlist
- Set up a watchlist of vehicles to view quickly
- Transmission profile: view configuration, calibration and software changes on your vehicle transmission
- Weekly fleet health report delivered to your inbox



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Service & Support SERVICE RANGER 4



ServiceRanger™ 4 is a PC-based diagnostic and service software application for commercial vehicle products. Available in three service levels, it allows for quick and easy diagnosis of complex problems, enabling faster service and reduced downtime.

ServiceRanger 4 Pro Plus includes the Advantage Automated Clutch calibration software which enables dealers, fleets and independent repair facilities to calibrate the clutch on non-Eaton and non-Eaton Cummins transmissions, including popular models such as Detroit™ DT12®, Volvo® I-Shift and Mack® mDrive™ automated transmissions, when installing a new Advantage Automated clutch from Eaton.

FEATURES	Pro+	Pro	Basic
Clutch Calibration: Detroit DT12	✓		
Clutch Calibration: Volvo I-Shift V2 & V3	✓		
Clutch Calibration: Mack mDRIVE & mDrive HD	✓		
App Center	✓	✓	
Programming and Configurations	✓	✓	
Calibrations	✓	✓	
Diagnostic Functions	✓	✓	✓
Data Monitoring	✓	✓	✓
Fault Codes and Troubleshooting	✓	✓	✓
Service Activity Report	✓	✓	✓
Online Account Management	✓	✓	✓
Free Technical Support	✓	✓	✓
Service Routines	✓	✓	✓

Subscribe Today. For your convenience, visit www.EatonPartsOnline.com and click on the ServiceRanger4 button or call 1.800.826.HELP



Service & Support PS-386 Synthetic Transmission Lubricant



Eaton Approved Lubricant

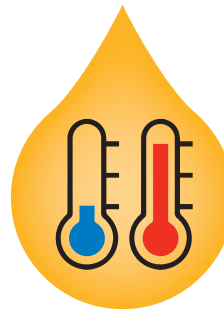
PS-386 Synthetic Transmission Fluid

Why PS-386 Synthetic Transmission Lubricant?

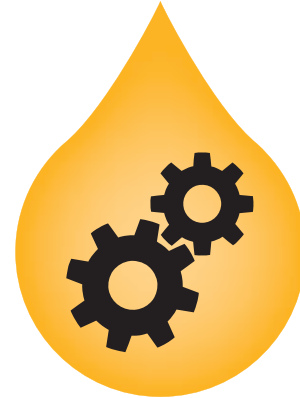
- Extended oil drain intervals (12.5 times longer than mineral oil drain intervals)
- Less downtime due to proven component durability
- Oil drain intervals extended out to 750,000 miles in some applications
- Improved shear stability results in longer gear and bearing life
- Improved oxidation resistance results in less staining and no sludging
- Eaton PS-386 approved lubricants demonstrated up to 1.5% improved fuel economy over previous approved lubricant

"We tested the PS-386 fluid with BASF & Eaton and found it offered us the outstanding durability we've come to expect from Eaton & BASF."

Allen Caldwell, manager, maintenance technology, First Fleet



- Reduces sump temperature
- Enhanced cold start properties



- Reduced gear wear
- Longer bearing life



- Tested in:
- 100 trucks
 - 18 months
 - 10,000,000 miles



- OEM factory fill
- Longer life



- Less downtime due to increased component durability



Service & Support Roadranger Extended Protection Plans

Coverage for Peace of Mind

Keeping your truck on the road is critical to your livelihood. Roadranger® Extended Protection Plans give you peace of mind knowing that, despite increasing parts and labor costs, or how severe the work conditions are, you can repair your truck to its original standard of quality.

Comprehensive Coverage

Roadranger Extended Protection Plans cover the transmission, clutch, and 100% of parts and labor on all warrantable failures. For a relatively modest investment, you can rest easy, knowing that Roadranger is there to support you throughout the life of your truck. You choose the protection that meets your needs.

You're Covered Everywhere

With our Extended Protection Plans, you are never far from parts and service, with over 3,500 authorized dealers in the U.S. and Canada.

How to Order...The Process Is Simple

- Simply visit www.roadranger.com, and click the link for Extended Protection Plans. You can review options and pricing online.
- Use the interactive Roadranger Warranty Assistant. It will assist you in selecting the right coverage.
- You will receive an invoice for the coverage. Once payment is received, a confirmation of your coverage will be sent, and you are covered.
- Alternatively, you can use the mail-in order form available on the website and send via email, fax or regular mail.

Benefits

1. Full Warranty Protection
Full parts and labor on warrantable failures.
2. Service Available at All OEM Dealer Facilities
3. Genuine Parts
All replacement parts will be genuine Eaton parts, so you know your repaired vehicle will have the same outstanding quality it had when it was first purchased.
4. Simple Payment Options
You can purchase a Roadranger Extended Protection Plan by rolling it into the financing of your new vehicle, or simply order online. Peace of mind has never been easier to obtain.
5. Protection from Cost Inflation
Your Extended Protection Plan covers all repairs to your vehicle's drivetrain, regardless of increases in parts or labor that are certain to occur over time. One simple payment now can save you substantial repair charges in the future.
6. Enhanced Resale Value
Repairing your vehicle with genuine Eaton parts increases its resale value. Plus, your coverage is transferable, further enhancing your resale value.

Expanded Lineup of Extended Protection Plan Offerings

Heavy- and Medium-Duty Transmissions (Manual and Automated)

Full coverage is provided for all Eaton heavy- and medium-duty manual and automated transmissions.

All Vocations

Extended Protection Plans cover all drivetrain components, regardless of the severity of use in your industry, including logging and mining vehicles.

Single Year Coverage Available

Roadranger Extended Protection Plans may be purchased for as little as a single year, so you do not have to purchase coverage for longer than you expect to own your vehicle.

Refer to the warranty guide (TCWY0900) for complete details.





Technical Roadranger Academy Product Training



Keep Ahead of the Curve with Training from the Experts

The Roadranger Academy offers hands-on and computer-based instruction your technicians need to move more trucks through the bays and reduce "comebacks".

Roadranger Academy teaches:

- Techniques and shortcuts used by the experts.
- How to more accurately diagnose problems through hands-on training.
- How to use valuable class materials referencing what they learned, including service bulletins, service manuals and troubleshooting guides.

To register for classes in your area or see what computer and web-based training is available, visit www.roadranger.com and click on the Roadranger Academy training link.



Factory Reman Bundle Warranty/Clutch Installation Kit Bundle Warranty Roadranger Warranty Registration Form TCWY0760



Use this form to activate additional one year warranty on:

- Heavy-duty Standard Reman/FLEX Reman, Reman Glider Kit and EverTough clutch (Factory Reman Bundle Warranty)
- EverTough clutch (Clutch Installation Kit Bundle Warranty)

Registration for additional warranty must be completed/submitted within one year of retail sale of bundled products.

Factory Reman Bundle Warranty Instructions:

1. Purchase of heavy-duty Reman transmission, Advantage/ EverTough clutch and Eaton-approved synthetic lubricant is required to activate additional 1-year warranty on above items.
2. Please enclose proof of purchase or repair order listing transmission, clutch and lubricant along with this form to activate the warranty.
3. Coverage confirmation will be sent by USPS mail.
4. Advantage clutch, UltraShift, UltraShift *PLUS* and Lightning transmissions (FRLO models) are not included in this program.

Clutch Installation Kit Bundle Warranty Instructions:

1. Purchase of EverTough clutch and clutch installation kit is required to activate additional 1-year warranty.
2. Please enclose proof of purchase or repair order listing clutch and installation kit along with this form to activate the warranty.
3. Coverage confirmation will be sent by USPS mail.
4. All genuine clutch installation kits qualify.
5. Advantage and UltraShift clutches are not included.

Step 1: Enter owner/dealer information

Owner: _____

Address: _____

City: _____

State/Prov: _____ Postal Code: _____

Phone: _____

Email: _____

Dealer Code: _____

Dealer: _____

Dealer Contact: _____

Dealer Contact Email: _____

Address: _____

City: _____

State/Prov: _____ Postal Code: _____

Phone: _____

Step 2: Enter vehicle/component information

OEM _____ Date-In-Service _____ Current Odometer _____ ☐ MI ☐ KM

Chassis VIN (17 characters): _____

Transmission Model: _____ Transmission Serial: _____

Clutch Part No.: _____ Clutch Installation Kit Part No.: _____

Clutch Serial Number/Build Date _____

Lube Brand and picture of Eaton logo on container (or invoice): _____

Vehicle vocation (choose one only)

☐ Linehaul

Standard Duty

☐ Construction

☐ Pickup and Delivery

☐ Fire Services

☐ Rescue Vehicle

☐ Recreation Vehicle

☐ Transit Coach

☐ School Bus

Severe Duty

☐ Off Highway

☐ Agriculture

☐ Heavy Haul

☐ Logging

☐ Mining

☐ Oil Field

☐ Refuse

☐ Yard Tractor

☐ InterCity Bus

Step 3: Email this completed form with proof of purchase to:



roadrangerprotection@eaton.com

- ☐ Check here for email confirmation of warranty submission (please ensure you enter your email address above).



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DIFFERENTIALS DETROIT LOCKER® POSI® high performance

DETROIT TRUETRAC® ELocker® strength traction


 ELocker4®

TOOLS ECOMMERCE ServiceRanger™ 4

DEALER LOCATOR IntelliConnect™

PRODUCT SELECTORS

LUBRICANTS PS-386 peace of mind

 protects your investment PS-278

CLUTCHES Genuine ADVANTAGE SELF-ADJUST®


 EVERTOUGH® CLUTCH

ECA CLUTCH REMANUFACTURED


ADVANTAGE AUTOMATED 430mm ANGLE RING INSTALL KITS

TVS® Technology R2650 R2300

SUPERCHARGERS R1740 R1900 V-series



PARTS TRUE SINE WAVE INVERTER

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