

TREMEC®

Torque Transfer Solutions™

TREMEC TR-3160™ Transmission 6-Speed RWD Manual Transmission

The high torque capacity of the TREMEC TR-3160 six-speed manual transmission is perfectly suited for light delivery vans, light commercial vehicles and pick-up trucks, as well as high-performance vehicles.

The fully synchronized transmission with single overdrive allows the vehicle to cruise at sustained speed with reduced engine RPM — leading to better fuel economy, lower noise and lower wear.

Refinement is the hallmark of the TR-3160, as shift quality and noise levels are exceptional to support performance. The shifting experience is swift, precise, quiet and effortless, thanks to shift quality-related features:

- High-precision guide plate
- Advanced interlock system
- Anti-friction roller ball detents
- Individual shift rail for each speed or Multi-Rail Shifter
- Light weight transmission; lighter aluminum castings, hollow shafts and webbed gears
- All gears synchronized
- Low-friction linear shift rail bearings

Additional features include the use of low-friction Dexron VI lubricant, low-friction and high capacity tapered bearings, as well as large, high-capacity synchronizers that contribute to low shift efforts and shifter travel. All of the gears are hard-finished, which contributes to transmission's refined feel and low noise. The case of the TR-3160 is made of lightweight aluminum, which contributes to low curb weight.

Product Highlights

Double- and Triple-Cone Synchronizers

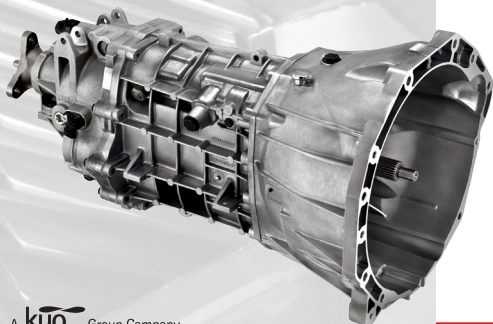
Design features of the TR-3160 include a combination of double and triple cone hybrid and sintered bronze synchronizers on all gears. Synchronizers act like clutches to speed up or slow down a gear that is being shifted. Double-cone synchronizers have two friction surfaces to effect this gear acceleration, and triple-cone synchronizers have three friction surfaces. The greater the friction surface, the easier the transmission is to shift.

Internal Multi-Rail Shift System

The TR-3160's internal multi-rail shift system places the shifter directly on the transmission, enabling very short, precise and positive-feeling gear changes. There are no cables connecting the shifter to the transmission, which could cause a "rubbery," less-precise feel.

Light and Compact Design

The compact aluminum housing, hollow shaft technology and optimized gear thickness reduces weight of the vehicle and increases the payload. The TR-3160 provides a small package design with high-torque capacity.





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6-Speed RWD Manual Transmission

TREMEC TR-3160 Transmission Specifications

Type:	Rear wheel drive, six-speed manual overdrive transmission; single or dual overdrive available			
Maximum engine torque:	450 Nm (310 lb.-ft.) at the gear ratio of 4.12			
Maximum gearbox torque:	450 Nm (310 lb.-ft.) at the gear ratio of 4.12			
Maximum gross vehicle weight:*	2,130 kg (4,700 lb) <i>*For reference only. Not applicable to a specific application</i>			
Case:	Three-piece aluminum; end load design			
Center distance:	81 mm			
Overall length:	706 mm; 4x2 fixed flange application			
Clutch housing:	Integrated			
Synchronizer type:	1st & 2nd speed = Triple cone and sintered bronze rings; 3rd & 4th speed = Double cone and sintered bronze rings; 5th, 6th & reverse speed = Double cone and hybrid synchronizer rings (carbon and sintered bronze)			
Lubricant type:	Dexron VI			
Lubricant capacity (approximate):	2.7 +/- 0.5 L			
Transmission weight:	55 kg (121 lb) base line; 51 kg (112 lb) with mass reduction			
Power take off:	Available on request			
Production Available Gear Ratios (no tooling needed*) <i>Alternative ratios available upon request; may result in different maximum input torque</i>	Gear	A*	B*	C*
	1	4.12	4.00	3.25
	2	2.62	2.59	2.23
	3	1.81	1.80	1.61
	4	1.30	1.34	1.24
	5	1.00	1.00	1.00
	6	0.80	0.75	0.63
	R	3.75	3.99	2.95
Input Torque:	400 Nm	400 Nm	576 Nm	