

## Automated performance for greater efficiency, reliability, and lower maintenance



Combining the best Eaton automation features with the most efficient performing heavy-duty manual transmission available.

### Optimized Performance

The Fuller Advantage 10-speed transmission offers you the most efficient performing heavy-duty automated and manual transmission available.

A precision lubrication system reduces the oil "churn" and overall energy losses found in conventional transmissions by nearly one-third.

Less heat is generated eliminating the need for a transmission cooler, lines and fittings... so cooler system maintenance becomes obsolete.

### Weight Savings

The advanced design trims weight, without sacrificing strength, by replacing the cast iron shift bar housing, rear cover, and range cylinder with aluminum. Eliminating the transmission oil cooler provides additional weight savings. Your exact savings depends upon the type of truck you buy as cooler weights vary by manufacturer.

### Reduced Maintenance Costs

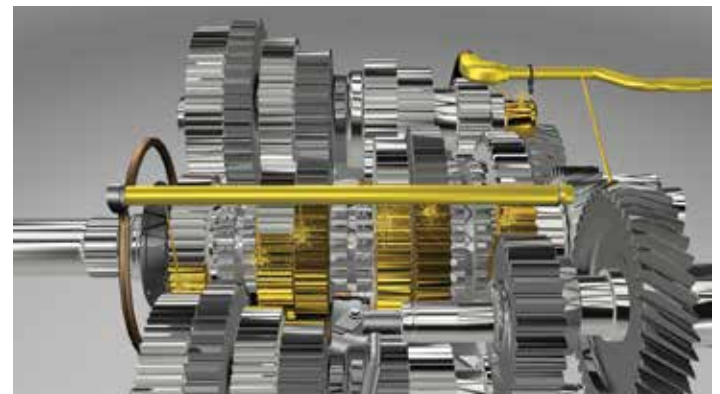
Routine oil checks can be done in a fraction of the time it took previously due to an oil level sight glass.

The precision lubricant system uses only 16 pints of oil, nearly a third less than used by comparable manual transmissions.

Collectively, these features add up to big savings over your truck's life cycle.

### Technical Features

- Precision lube technology reduces oil churning losses increasing efficiency
- GCW up to 110,000 lbs. [49,895 kg] without an oil cooler
- Oil level "sight glass" decreases preventative maintenance time
- Torque capacities from 1450 lb-ft (1966 Nm) to 1650 lb-ft [2237 Nm]. (Up to 1850 lb-ft [2509 Nm] in top 2 gears with multi-torque models)
- Standard 8 and 6-bolt PTO openings
- Two-bolt output yoke/flange retainer improves seal life
- Ten forward speeds (direct and overdrive), 2 reverse
- Fully automated two-pedal design (no clutch pedal)
- Electronic Clutch Actuator (ECA) provides smooth engagement
- Safety features include auto neutral and Intelligent Hill Start Aid... prevents roll-back and roll-forward while launching on grades
- Neutral Coast Mode saves fuel by engaging neutral on slight downhill grades. This allows the engine speed to drop to idle while high-tech electronics ensure safe operation in all road conditions
- Automatic, Manual and Low modes offer driver full control
- Intelligent software is customizable



Precision lubrication system eliminates the oil cooler for most applications and improves transmission efficiency.



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SUPPORT

# Fuller Advantage® 10-Speed Transmissions

SPECIFICATIONS	CAPACITY	WEIGHT*	LENGTH**	SPEEDS
FAO-14810C-EA3	1450 lbs.ft. [1966 Nm]	850 lbs. [385 kg]	29.9 in. [760.22 mm]	10 forward, 2 reverse
FAO-16810C-EA3	1650 lbs.ft. [2237 Nm]	850 lbs. [385 kg]	29.9 in. [760.22 mm]	10 forward, 2 reverse
FAOM-15810C-EA3	1550 lbs.ft. [2102 Nm]	850 lbs. [385 kg]	29.9 in. [760.22 mm]	10 forward, 2 reverse
FAOM-16810C-EA3	1650 lbs.ft. [2237 Nm]	850 lbs. [385 kg]	29.9 in. [760.22 mm]	10 forward, 2 reverse
FAM-14810B-EA3	1450 lbs.ft. [1965 Nm]	850 lbs. [385 kg]	29.9 in. [760.22 mm]	10 forward, 2 reverse
FAM-15810B-EA3	1550 lbs.ft. [2101 Nm]	850 lbs. [385 kg]	29.9 in. [760.22 mm]	10 forward, 2 reverse

\* Dry weight including clutch.

\*\* Lengths listed are from face of clutch housing to front bottoming surface of companion flange or yoke.

## Ratios and Steps

Model	Reverse		Overall Ratio	Forward Gears										
	R2	R1		1	2	3	4	5	6	7	8	9	10	
FAO-14810C-EA3	2.78	13.63	17.53	12.80	9.25	6.76	4.90	3.58	2.61	1.89	1.38	1.00	0.73	
FAO-16810C-EA3														
FAOM-15810C-EA3*				% Step	34	35	36	34	42	34	34	37	34	
FAOM-16810C-EA3*	3.89	18.18	15.42	15.42	11.52	8.55	6.28	4.67	3.30	2.46	1.83	1.34	1.00	
FAM-14810B-EA3*														
FAM-15810B-EA3*				% Step	34	35	36	34	42	34	34	37	34	

\* This transmission can be rated at 200 additional lb-ft. torque above the stated limit in the top two gears only.

### Specifications:

Clutch Housing

- SAE #1 Aluminum.

Power Take-Offs:

- 2 SAE standard openings
- Right side, regular duty, 6-bolt. Bottom, heavy-duty, 8-bolt.

PTO Drive Gears:

- Right: 6 bolt; 45-tooth; 6/8 pitch gear. Left: 8 bolt; 47-tooth; 6/8 pitch gear turn at .79 engine speed (overdrive), .70 engine speed (direct drive).

Oil Capacity:

- Approx. 16 pints [7.57 liters]

### Warranty

Five-year/750,000 mile (1,200,000 Km) transmission and 3-year/350,000 mile (563,270 Km) clutch warranty in linehaul applications.\* You can find specific coverage on [www.roadranger.com/warranty](http://www.roadranger.com/warranty). Select the warranty guide (TCWY0900).

\*Canada and United States

### Integrated Powertrains

Visit [Roadranger.com](http://Roadranger.com) to see the Fuller Advantage Series Automated transmission paired with the Cummins ISX-12 and ISX-15 engines (SmartAdvantage™ powertrains), PACCAR MX-13 (Peterbilt APEX™ powertrain and Kenworth Advantage™ package) and the Navistar N13 engine. All are integrated to give you the best fuel efficiency and performance.

\*Fuller Advantage Series Automated "S" ratio transmission rated to 80,000 lbs. [36287 kg].

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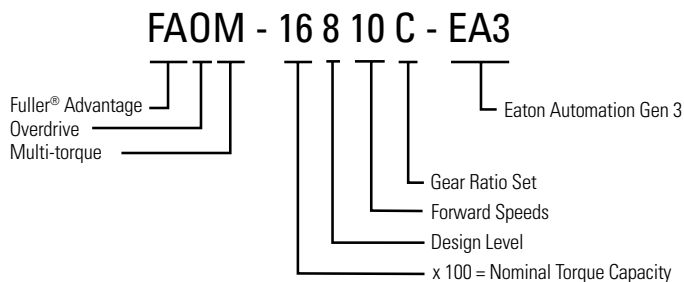
For spec'ing or service assistance, call 1-800-826-HELP (4357) or visit [www.eaton.com/roadranger](http://www.eaton.com/roadranger). In Mexico, call 001-800-826-4357.

Roadranger: Eaton and trusted partners providing the best products and services in the industry, ensuring more time on the road.

### Supported by the Roadranger Network

- OEM dealer, fleet familiarity
- Parts and service widely available
- Does not require service by a dedicated service network
- Modular design minimizes cost and repair time
- Roadranger field service force provides training and support at dealership and fleets
- Advanced electronics facilitate comprehensive diagnostic capabilities

### Nomenclature



**Note:** Features and specifications listed in this document are subject to change without notice and represent the maximum capabilities of the products with all options installed. Although every attempt has been made to ensure the accuracy of information contained within, Eaton makes no representation about the completeness, correctness or accuracy and assumes no responsibility for any errors or omissions. Features and functionality may vary depending on selected options.

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