UltraShift® PLUS
Automated Transmissions

Efficiency, performance and safety for whatever lies ahead.

More fuel efficient than torque converter automatics and serviceable at any OEM.

Platforms:
• Linehaul Active Shifting (LAS)

No other fully automated transmission offers the fuel economy AND serviceability of UltraShift PLUS. Built upon the Fuller 10-speed manual transmission, the UltraShift PLUS uses an electronic clutch actuator to provide faster shifting and smoother engagement. The UltraShift PLUS fully engages the clutch at idle, giving the driver ultimate control in challenging situations, like parking lots, loading docks and other tight spaces.

Technical Features
• 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, which prevents roll-back and roll-forward while launching on grades using foundation wheel brakes
• Automatic, Manual and Low modes offer driver full control
• Creep Mode
• Paired to the highest torque engines available today with torque capacities ranging from 1450 lb-ft (1966 Nm) through 1850 lb-ft* (2508 Nm)
• World class startability and ratio coverage
*Multi-torque model FOM-16E310C-LAS

The Downside of Alternative Transmissions:
Cost and performance

European Automated Manuals
Expensive maintenance
• Organic clutch replacement costs
• Organic clutch durability/life
• Limited service network

Torque Converter Automatics
Inefficient design, waste fuel
• Expensive maintenance
• More oil changes
• Shorter brake life
• Other drivetrain damage

COST

Lack overall ratio
• Organic clutch is less tolerant of heat and is often compromised at heavy weights
• Limited engine options available

PERFORMANCE

Low speed handling
• Urges to move
• Less control on grade/slopes – tendency to “freewheel”
• Tendency to overheat in certain conditions

EATON
Powering Business Worldwide
### UltraShift® PLUS Linehaul Automated Transmissions

#### Total System Installed Specifications (Dry)

<table>
<thead>
<tr>
<th>SPECIFICATIONS</th>
<th>CAPACITY</th>
<th>SYSTEM WEIGHT*</th>
<th>SYSTEM LENGTH**</th>
<th>SPEEDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>FO-14E310C-LAS</td>
<td>1450 lbs. ft. [1966 Nm]</td>
<td>915 lbs. [415 kg]</td>
<td>37.42 in. [950 mm]</td>
<td>10 forward, 2 reverse</td>
</tr>
<tr>
<td>FO-16E310C-LAS</td>
<td>1650 lbs. ft. [2237 Nm]</td>
<td>915 lbs. [415 kg]</td>
<td>37.42 in. [950 mm]</td>
<td>10 forward, 2 reverse</td>
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<tr>
<td>FOM-14E310C-LAS</td>
<td>1450-1650 lbs. ft. [1966-2237 Nm]</td>
<td>915 lbs. [415 kg]</td>
<td>37.42 in. [950 mm]</td>
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<tr>
<td>FOM-15E310C-LAS</td>
<td>1550-1750 lbs. ft. [2102-2373 Nm]</td>
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<td>FOM-16E310C-LAS</td>
<td>1650-1850 lbs. ft. [2237-2508 Nm]</td>
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<tr>
<td>FM-14E310B-LAS</td>
<td>1450-1650 lbs. ft. [1966-2237 Nm]</td>
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</tbody>
</table>

* Dry weight, including clutch  ** Standard install length  † +200 lb-ft. [271 Nm] in top two gears

#### Ratios and Steps

<table>
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<tr>
<th>Model</th>
<th>Reverse Overall Ratio</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
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<tbody>
<tr>
<td>LAS 10B</td>
<td>R2 3.89 R1 18.18</td>
<td>15.42</td>
<td>15.42</td>
<td>11.52</td>
<td>8.55</td>
<td>6.28</td>
<td>4.67</td>
<td>3.30</td>
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<td></td>
<td>% Step</td>
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<td>35</td>
<td>36</td>
<td>34</td>
<td>42</td>
<td>34</td>
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<tr>
<td>LAS 10C</td>
<td>R2 2.78 R1 13.63</td>
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<td>12.80</td>
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<tr>
<td></td>
<td>% Step</td>
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<td>37</td>
<td>38</td>
<td>34</td>
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<td>38</td>
<td>37</td>
<td>38</td>
<td>37</td>
<td></td>
</tr>
</tbody>
</table>

#### Driver Interface Simple and Intuitive
- Manual override available
- Low mode
- Button shifting in drive, reverse, manual and low modes

#### Driveline Protection Features
- Stall prevention
- Engine Overspeed Protection
- Clutch Abuse Protection
- Auto gear select
- Hill Start Aid

#### 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 time of service
- Roadranger field service provides training and support at dealership and fleet level
- Advanced electronics facilitate comprehensive diagnostic capabilities

#### Warranties
- Five-year/750k mile transmission and 3-year/350k mile clutch warranty for most applications. You can find your specific vocational coverage on www.roadranger.com. Select the vocational warranty guide.

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For spec'ing or service assistance, call 1-800-826-HELP (4357) or visit our web site at www.roadranger.com. In Mexico, call 001-800-826-4357.

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