UltraLOC® Seat Recline Systems

Performance
- Zero maintenance
- Lowest industry backlash
- Backed by the longest industry warranty

Drop-In Replacement
- All aftermarket products are PMA approved
- Direct competitor interchange
- Lightweight, increased payload capacity

Availability
- shortest industry lead times
- Safety stock program
- Complete standard product portfolio

Service
- Worldwide sales and service locations
- AOQ support program
- Off-the-shelf availability

For OEM’s, Operators, Passengers and Maintenance Crews.

Value
- Competitively priced
- Lowest cost of ownership
- Value-added engineering support

Reliability
- Longest service life expectancy
- Superior ultimate load design
- Extended warranty period

User-Friendly
- Easy to install – QuikLOC™ option
- Stroke adjustment without tools
- Tamperproof “lockout” feature

Safety
- 16-g tested and approved
- Egress override feature
- High load units available for aft-facing seats

OEM Market
UltraLOC® Seat Recline System – “The Best Choice!”

Aftermarket

ITT Enidine Inc.
7 Centre Drive
Orchard Park, New York 14127
USA
Phone: 716-662-1900
Fax: 716-667-1385
Email: aviationsales@enidine.com
www.enidine.com
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**Recommended Temperature Ranges**

- **Operating**: 40 to 130°F (5 to 55°C)
- **Non-Operating**: 0 to 140°F (-18 to 60°C)
- **Storage**: -40 to 180°F (-40 to 82°C)

---

**UltraLOC® Accessories/Options**

- **Custom Clevis Ends Available**
- **Tamperproof Lockout Provision**
- **Wrench Flats For Ease of Installation**
- **Universal Control Cable Interface**
- **Internal Override Feature**
- **Zinc Phosphate-plated Springs**
- **Nickel Plated Fatigue Proof Shaft**
- **Withstands Sideload**
- **Fixed or Variable Adjustment Available**
- **Swaged Fittings Withstand Pull Loads Greater Than 50 lbs (23 Kg)**
- **Positive Locking Plastic End Attachment**
- **Anodized Aluminum Body**
- **Kink-Resistant Cable Conduit**

---

**Technical Specifications**

<table>
<thead>
<tr>
<th>Economy Class UltraLOC®</th>
<th>Premium Class UltraLOC®</th>
<th>Executive Class UltraLOC®</th>
</tr>
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<tbody>
<tr>
<td><strong>Long Stroke Feature</strong></td>
<td><strong>Short Stroke Feature</strong></td>
<td><strong>Single Stroke Feature</strong></td>
</tr>
<tr>
<td><strong>UL06, UL10, UL12</strong></td>
<td><strong>UL18, UL26</strong></td>
<td><strong>UL32, UL37</strong></td>
</tr>
<tr>
<td><strong>Minimum Extended A</strong></td>
<td><strong>Maximum Extended A</strong></td>
<td><strong>Diameter</strong></td>
</tr>
<tr>
<td><strong>Diameter B</strong></td>
<td><strong>Dimension E</strong></td>
<td><strong>Spring Force</strong></td>
</tr>
<tr>
<td><strong>Diameter C</strong></td>
<td><strong>Force/Load F</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Diameter D</strong></td>
<td><strong>Force Required to Unlock</strong></td>
<td></td>
</tr>
</tbody>
</table>

---

**Control Cables**

- **Engineer Data**
- **Dual Control Cable**

---

**Spring Clip for Easy Installation**

- **QuikLOC™ Options**
- **Optional Plastic Control Cable End**
- **Custom Control Cable Ends Available**

---

**Patented Stroke Adjustment**

- **Multi-Stroke Adjustment**
- **State-of-the-Art Internal Seal Design**

---

**Swaged Fittings Withstand Pull Loads Greater Than 50 lbs (23 Kg)**

- **Operational life expectancy**: 250,000 cycles
- **Operational life expectancy**: 200,000 cycles
- **Operational life expectancy**: 50,000 cycles
**RECOMMENDED TEMPERATURE RANGES**

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**UltraLOC® Accessories/Options**

- Custom Clevis Ends Available
- Tamperproof Lockout Provision
- Wrench Flats For Ease of Installation
- Universal Control Cable Interface
- Internal Override Feature
- Zinc Phosphate-plated Springs
- Nickel Plated Fatigue Proof Shaft
- Withstands Sideload
- Fixed or Variable Adjustment Available
- Swaged Fittings Withstand Pull Loads Greater Than 50 lbs (23 Kg)
- Single Stroke Feature
- Positive Locking Metal End Attachment
- Anodized Aluminum Body
- Kink-Resistant Cable Conduit
- Internal Seal Design
- Stroke lengths available up to 1.12 in. (28.5mm)
- Operational life expectancy 250,000 cycles
- 1.8 in. (45.7mm) and 2.6 in. (66mm) stroke lengths available
- Operational life expectancy 200,000 cycles
- 3.2 in. (81.3mm) and 3.7 in. (94mm) stroke lengths available
- Operational life expectancy 50,000 cycles

**UltraLOC® Model**

- Economy Class: UL06, UL10, UL12
- Premium Class: UL18, UL26
- Executive Class: UL32, UL37

**Dimensions (in one-inch increments)**

- .120 (3)
- .875 (22)
- .72 (18)
- 1.12 (28)
- 1.38 (35)
- 1.43 (36)

**Technical Specifications**

<table>
<thead>
<tr>
<th>Economy Class (UL06)</th>
<th>Premium Class (UL10)</th>
<th>Executive Class (UL12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Length</td>
<td>Maximum Length</td>
<td>Diameter F (in.)</td>
</tr>
<tr>
<td>1.12</td>
<td>2.6</td>
<td>3.2</td>
</tr>
<tr>
<td>.63</td>
<td>1.12</td>
<td>.72</td>
</tr>
<tr>
<td>.12</td>
<td>.32</td>
<td>.22</td>
</tr>
</tbody>
</table>

**Force/Loads**

- Force Required to Unlock: 11.90 – 1.47 lbs. (302,3 – 623 N)
- Ultimate Compressive Load: 8,000 lbs. (35,600 N)
- Ultimate Tensile Load: 5,000 lbs. (22,250 N)
- Force to Unlock:-customized-

**Control Cables**

- Dual Control Cable Available
- Custom Clevis Ends Available
- Custom Design Options Available

<table>
<thead>
<tr>
<th>Economy Class</th>
<th>Premium Class</th>
<th>Executive Class</th>
</tr>
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<tbody>
<tr>
<td>UL06</td>
<td>UL10</td>
<td>UL12</td>
</tr>
<tr>
<td>L</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>ØB</td>
<td>ØD</td>
<td>1.8</td>
</tr>
<tr>
<td>.12</td>
<td>.32</td>
<td>.22</td>
</tr>
<tr>
<td>.63</td>
<td>1.12</td>
<td>.72</td>
</tr>
</tbody>
</table>

**Dimensions in (in.)**

- Dimensions in (mm).

**Control Cables**

- Custom design options available to suit any application need.

**Optional Accessories**

- QuikLOC™
- Optional Plastic Control Cable End

**Custom Clevis Ends Available**

- Custom designs available to suit any application need.

**Custom Clevis Ends Available**

- Custom designs available to suit any application need.
RECOMMENDED TEMPERATURE RANGES

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**UltraLOC® Engineering Data**

**Technical Specifications**

<table>
<thead>
<tr>
<th>L (Cable Length) (in one-inch increments)</th>
<th>.120 (3)</th>
<th>.875 (22)</th>
<th>.72 (18)</th>
<th>1.38 (35)</th>
<th>1.43 (36)</th>
<th>1.12 (28.5)</th>
<th>1.38 (35)</th>
<th>1.43 (36)</th>
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<tbody>
<tr>
<td>6.38 (162.1)</td>
<td>12.00 (304.8)</td>
<td>1.25 (31.8)</td>
<td>1.12 (28.5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>11.90 – 1.43 (302.3 – 37.3)</td>
<td>3.20 (81.0)</td>
<td>1.43 (36)</td>
<td>3.20 (81.0)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>13.50 – 1.75 (342.9 – 44.5)</td>
<td>3.70 (94.5)</td>
<td>1.75 (44.5)</td>
<td>3.70 (94.5)</td>
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**Economy Class UltraLOC®**

- Stroke lengths available up to 1.12 in. (28.5mm)
- Operational life expectancy 250,000 cycles

**Premium Class UltraLOC®**

- 1.8 in. (45.7mm) and 2.6 in. (66mm) stroke lengths available
- Operational life expectancy 200,000 cycles

**Executive Class UltraLOC®**

- 3.2 in. (81.3mm) and 3.7 in. (94mm) stroke lengths available
- Operational life expectancy 50,000 cycles

**Patented Stroke Adjustment**

**UltraLOC® Accessories/Options**

- Custom Clevis Ends Available
- Tamperproof Lockout Provision
- Wrench Flats For Ease of Installation
- Universal Control Cable Interface
- Internal Override Feature
- Zinc Phosphate-plated Springs
- Nickel Plated Fatigue Proof Shaft Withstands Sideload
- Fixed or Variable Adjustment Available
- Swaged Fittings Withstand Pull Loads Greater than 50 lbs (23 Kg)
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- Anodized Aluminum Body
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- Dual Control Cable Option
- Spring Clip for Easy Installation
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**Control Cables**

- UltraLOC®

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<tbody>
<tr>
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<td>UL12</td>
</tr>
<tr>
<td>Diameter F</td>
<td>Ø2.65</td>
<td>Ø2.5</td>
<td>Ø3.0</td>
</tr>
<tr>
<td>Dimension E</td>
<td>Ø0.72</td>
<td>Ø1.12</td>
<td>Ø1.38</td>
</tr>
<tr>
<td>Minimum Preload</td>
<td>60</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Maximum Preload</td>
<td>140</td>
<td>140</td>
<td>140</td>
</tr>
<tr>
<td>Minimum Endload</td>
<td>4,500</td>
<td>4,500</td>
<td>4,500</td>
</tr>
<tr>
<td>Maximum Endload</td>
<td>9,000</td>
<td>9,000</td>
<td>9,000</td>
</tr>
<tr>
<td>Override Force</td>
<td>6,380 N</td>
<td>12,000 N</td>
<td>12,000 N</td>
</tr>
<tr>
<td>Ultimate Compressive Load</td>
<td>70,000 N</td>
<td>125,000 N</td>
<td>125,000 N</td>
</tr>
<tr>
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<td>3,200,000 N</td>
<td>5,000,000 N</td>
<td>5,000,000 N</td>
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<td>Force Required to Unlock</td>
<td>6</td>
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**Dimensions in inches (mm).**

**UltraLOC® Engineering Data**

- Dimensions in pounds (N).

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**Patented Stroke Adjustment**

- Spring Clip for Easy Installation

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