Established in 1877, The Eberhard Manufacturing Company is a global leader in the engineering and manufacturing of access & security hardware. We have a standard product line of rotary latches, compression latches, draw latches, hinges, cam locks, key switches, padlocks, and handles to name a few. We also offer full development and program management services for custom electromechanical and mechanical systems designed for specific OEM’s and customer applications. Our products are found in an expansive range of applications and products globally, virtually unnoticed in our everyday lives. Typically, you are never more than 6 feet from one of our solutions.

The Eberhard Manufacturing Company is a registered ISO9001:2015 and ISO14001:2015 company based in Strongsville, Ohio. Our core manufacturing capabilities are in die-casting, injection molding, stamping, machining and final assembly. Our passion for engineering drives us forward. Developing new products to meet our customer’s design challenges is our main objective. Adding haptics and functionality to our products ultimately supports our customer’s brand equity and increases the value of their end products.

Eberhard is a division of The Eastern Company (Nasdaq stock ticker EML). Eberhard registered trademarks referenced: Eberhard®, Power Up®, i-Lock®, i-Beam®, and Load N Lock® (LNL).

LOCATIONS

USA

Corporate/Manufacturing
Eberhard Manufacturing Company
21944 Drake Road
Strongsville, OH 44149-9712

Sales & Engineering
Eberhard Manufacturing Company
3930 N Ventura Drive
Arlington Heights, IL 60004

CHINA

Manufacturing
Eberhard – Dongguan
Building 13, No. 199 Pulong Road, Tangxia Town
Shenzhen Shi Guangdong Sheng Dongguan City.
Guangdong Province 523719, China

Manufacturing
Eberhard – Eastern Industrial, Ltd. (Shanghai)
20 Lane 2248 Liuxiang Road
Shanghai, China 201801

MEXICO

Manufacturing
Eberhard – Reynosa
Villas del Parque, 88780 Reynosa,
Tamaulipas, Mexico
ELECTRO-MECHANICAL DEVICES

EM Rotary Latches
ES Rotary Latches
EM 240 Rotary Latches
EM Slam Latch
EM Cam Lock Adapter
E900 Series Keypad Cam Locks
17241 SERIES
EM ELECTRONIC ROTARY LATCH

FEATURES
• Integrated mechanical release
• Industry standard mounting hole locations
• Mounting: 1/4" thru hole, m6 or 1/4-20 thread
• i-Lock Blue/Bluetooth® compatible
• Spring activated plunger option
• Internal relay option
• Electrical motor based system
• RoHS compliant
• REACH compliant

SPECIFICATIONS
POWER SPECIFICATIONS
VOLTAGE: 9-24V
OPERATING CURRENT: 250mA
STALL CURRENT: <500mA

ACTUATION SPECIFICATIONS
TRANSVERSE LOAD: 750 lbs.
STRIKER SIZE: .375"
RESPONSE TIME: 500mS
OPERATION: 12V signal pulse, Bluetooth®
Does not meet FMVSS206

MATERIAL SPECIFICATIONS
LATCH: Steel, fluorocarbon
CASE: Zinc plated steel

ENVIRONMENTAL SPECIFICATIONS
OPERATING TEMPERATURE RANGE: -20°C to 70°C
HUMIDITY: 95%

OPTIONS
Bare wire, 20 gauge, Molex® Micro-Fit (6 pin), relay – closed and/or open position, integrated spring plunger, single or dual stage

CERTIFICATIONS
RoHS – all, REACH – EU, FCC – USA

Recommended strikers: #240-52U-25, #LNL-77E-00627 and #1-16645-PK-64.
ELECTRO-MECHANICAL DEVICES

17241 SERIES
EM ELECTRONIC ROTARY LATCH

<table>
<thead>
<tr>
<th>PART #</th>
<th>STAGE</th>
<th>RELEASE TYPE</th>
<th>MANUAL TRIGGER</th>
<th>MOUNTING</th>
<th>STRIKER SIZE</th>
<th>CONNECTOR</th>
<th>FEEDBACK/SENSOR</th>
<th>STRIKER PLUNGER</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-17241-PSA-PR1-PK-BG</td>
<td>Single</td>
<td>Electrical</td>
<td>Side</td>
<td>(2) 1/4&quot;-20</td>
<td>.375&quot;</td>
<td>Micro-Fit</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>T-17241-PSB-PR1-PK-BG</td>
<td>Single</td>
<td>Electrical</td>
<td>Side</td>
<td>(2) M6 x 1.0</td>
<td>.375&quot;</td>
<td>Micro-Fit</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>17241-PSC-PR1-PK-BG</td>
<td>Single</td>
<td>Electrical</td>
<td>Side</td>
<td>(2) 1/4&quot; thru</td>
<td>.375&quot;</td>
<td>Micro-Fit</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>T-17241-PRA-PR1-PK-BG</td>
<td>Single</td>
<td>Electrical</td>
<td>Rear</td>
<td>(2) 1/4&quot;-20</td>
<td>.375&quot;</td>
<td>Micro-Fit</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>T-17241-PRB-PR1-PK-BG</td>
<td>Single</td>
<td>Electrical</td>
<td>Rear</td>
<td>(2) M6 x 1.0</td>
<td>.375&quot;</td>
<td>Micro-Fit</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>17241-PRC-PR1-PK-BG</td>
<td>Single</td>
<td>Electrical</td>
<td>Rear</td>
<td>(2) 1/4&quot; thru</td>
<td>.375&quot;</td>
<td>Micro-Fit</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Product can be supplied with or without connectors, based on application needs.

PART NUMBER LEGEND

- NONE = WITHOUT CONNECTOR
- T = WITH CONNECTOR
- NONE = WITHOUT FEEDBACK RELAY
- R = WITH FEEDBACK RELAY
- NONE = WITHOUT STRIKER PLUNGER
- P = WITH STRIKER PLUNGER
- NONE = WITHOUT THREADED SPACERS
- T = WITH THREADED SPACERS
- SINGLE STAGE
- P = POWER RELEASE
- T = TIMED RELATCH
- S = SIDE TRIGGER
- R = REAR TRIGGER
- A = 1/4-20 MOUNTING THREADS
- B = M6 x 1 MOUNTING THREADS
- C = Ø.26 THRU HOLE

SHIPPED IN A POLY BAG WITH 16720-21 LABEL

INSTALLATION

OPTION 1
5-Wire Activation with Feedback Sensor
Power +/-, Activation Signal
Feedback Sensor NO/C

OPTION 2
2-Wire Activation
Power +/- (Requires 2 Second Pulse)

OPTION 3
Bluetooth Activation
Power +/- on Transmitter
Power +/- on EM Rotary Latch
77E SERIES
ES COMPACT – ELECTRONIC ROTARY LATCH

FEATURES
- Integrated mechanical release (2 locations)
- Universal thru hole mounting
- Solenoid based system

SPECIFICATIONS

POWER SPECIFICATIONS
VOLTAGE: 12V
MAX CURRENT DRAW: 3A

ACTUATION SPECIFICATIONS
TRANSVERSE LOAD: 200 lbs.
STRIKER SIZE: .12"
RESPONSE TIME: 30mS (DC12V)
OPERATION: Pulse
Does not meet FMVSS206

MATERIAL SPECIFICATIONS
HOOK/CATCH: A3 plated steel
LOCK STRIKE: Stainless steel
CASE: Black electro-coated steel

ENVIRONMENTAL SPECIFICATIONS
OPERATING TEMPERATURE RANGE: -20˚C to 80˚C
HUMIDITY: 95%
ENDURANCE (FULL CYCLES): ≥200,000 times

OPTIONS
Bare wire, single stage

CERTIFICATIONS
RoHS, UL

<table>
<thead>
<tr>
<th>PART #</th>
<th>STAGE</th>
<th>RELEASE TYPE</th>
<th>MANUAL TRIGGER</th>
<th>MOUNTING</th>
<th>STRIKER SIZE</th>
<th>CONNECTOR</th>
<th>FEEDBACK/SENSOR</th>
<th>STRIKER PLUNGER</th>
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<tbody>
<tr>
<td>LNL-77E-4761-3</td>
<td>Single</td>
<td>Electrical</td>
<td>Rear</td>
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<td>LNL-77E-4761-5</td>
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<td>Rear</td>
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</table>
77E SERIES
ES MEDIUM – ELECTRONIC ROTARY LATCH

FEATURES

• Integrated mechanical release (2 locations)
• Universal thru hole mounting
• Internal sensor – closed position (option)
• Solenoid based system

SPECIFICATIONS

POWER SPECIFICATIONS
VOLTAGE: 12V
MAX CURRENT DRAW: 3A

ACTUATION SPECIFICATIONS
TRANSVERSE LOAD: 500 lbs.
STRIKER SIZE: .12"
RESPONSE TIME: 30mS (DC12V)
OPERATION: Pulse
Does not meet FMVSS206

MATERIAL SPECIFICATIONS
HOOK/CATCH: A3 plated steel
LOCK STRIKE: Stainless steel
CASE: Black electro-coated steel

ENVIRONMENTAL SPECIFICATIONS
OPERATING TEMPERATURE RANGE: -20˚C to 80˚C
HUMIDITY: 95%
ENDURANCE (FULL CYCLES): ≥200,000 times

OPTIONS
Bare wire, internal switch – closed position, integrated spring plunger, single stage

CERTIFICATIONS
RoHS, UL

<table>
<thead>
<tr>
<th>PART #</th>
<th>STAGE</th>
<th>RELEASE TYPE</th>
<th>MANUAL TRIGGER</th>
<th>MOUNTING</th>
<th>STRIKER SIZE</th>
<th>CONNECTOR</th>
<th>FEEDBACK/SENSOR</th>
<th>STRIKER PLUNGER</th>
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</thead>
<tbody>
<tr>
<td>LNL-77E-5873-73</td>
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<td>Rear</td>
<td>(3) 1/8” thru/tap</td>
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<tr>
<td>LNL-77E-5873-75</td>
<td>Single</td>
<td>Electrical</td>
<td>Rear</td>
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<tr>
<td>LNL-77E-5873-93</td>
<td>Single</td>
<td>Electrical</td>
<td>Rear</td>
<td>(3) 1/8” thru/tap</td>
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<tr>
<td>LNL-77E-5873-95</td>
<td>Single</td>
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<td>(3) 1/8” thru/tap</td>
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</tbody>
</table>
ELECTRO-MECHANICAL DEVICES

77E SERIES
ES HEAVY-DUTY – ELECTRONIC ROTARY LATCH

FEATURES
- Integrated mechanical release (2 locations)
- Universal thru hole mounting
- Integral spring push rod (option)
- Internal sensor – closed position (option)
- Solenoid based system

SPECIFICATIONS

POWER SPECIFICATIONS
VOLTAGE: 12V
MAX CURRENT DRAW: 3A

ACTUATION SPECIFICATIONS
TRANSVERSE LOAD: 600 lbs.
STRIKER SIZE: .12"
RESPONSE TIME: 30mS (DC12V)
OPERATION: Pulse
Does not meet FMVSS206

MATERIAL SPECIFICATIONS
HOOK/CATCH: A3 plated steel
LOCK STRIKE: Stainless steel
CASE: Black electro-coated steel

ENVIRONMENTAL SPECIFICATIONS
OPERATING TEMPERATURE RANGE: -20˚C to 80˚C
HUMIDITY: 95%
ENDURANCE (FULL CYCLES): ≥200,000 times

OPTIONS
Bare wire, internal switch – closed position,
integrated spring plunger, single stage

CERTIFICATIONS
RoHS, UL

Recommended strikers: #LNL-77E-24STRK and #LNL-77E-29STRK.

<table>
<thead>
<tr>
<th>PART #</th>
<th>STAGE</th>
<th>RELEASE TYPE</th>
<th>MANUAL TRIGGER</th>
<th>MOUNTING</th>
<th>STRIKER SIZE</th>
<th>CONNECTOR</th>
<th>FEEDBACK/SENSOR</th>
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<tbody>
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<td>LNL-77E-6772-75</td>
<td>Single</td>
<td>Electrical</td>
<td>Rear (3) 1/8” thru/tap</td>
<td>.12”</td>
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<td>LNL-77E-6772-74</td>
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<td>Electrical</td>
<td>Rear (3) 1/8” thru/tap</td>
<td>.12”</td>
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<td>LNL-77E-6772-93</td>
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<td>Electrical</td>
<td>Rear (3) 1/8” thru/tap</td>
<td>.12”</td>
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<td>No</td>
<td>No</td>
</tr>
<tr>
<td>LNL-77E-6772-95</td>
<td>Single</td>
<td>Electrical</td>
<td>Rear (3) 1/8” thru/tap</td>
<td>.12”</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
16240 SERIES
EM 240 POWER ROTARY LATCH

FEATURES
- Mechanical release, based on 240 rotary latch
- Eberhard® 240 Series rotary mounting locations
- Mounting: 1/4" thru hole, m6 or 1/4-20 thread
- Internal switch option
- Electrical motor based system
- RoHS compliant

SPECIFICATIONS

POWER SPECIFICATIONS
VOLTAGE: 9V–12V
OPERATING CURRENT: 1.5A
STALL CURRENT: 2.5A

ACTUATION SPECIFICATIONS
TRANSVERSE LOAD: 750 lbs.
STRIKER SIZE: .375"
RESPONSE TIME: 600mS
OPERATION: FWD polarity 600mS, REV polarity 600mS
Does not meet FMVSS206

MATERIAL SPECIFICATIONS
LATCH: Steel, fluorocarbon
CASE: Zinc plated steel

ENVIRONMENTAL SPECIFICATIONS
OPERATING TEMPERATURE RANGE: -40˚C to 80˚C
HUMIDITY: 95%

SPRING RATE
LATCH: .410 in.-lbs. unlatched position
PAWL: .471 in.-lbs. actuated position
SPRING: Color coded white

OPTIONS
Bare wire, Molex® Micro-Fit (6 pin), internal switch – closed and/or open position, single or dual stage

CERTIFICATIONS
RoHS – all

<table>
<thead>
<tr>
<th>PART #</th>
<th>STAGE</th>
<th>RELEASE TYPE</th>
<th>MANUAL TRIGGER</th>
<th>MOUNTING</th>
<th>STRIKER SIZE</th>
<th>CONNECTOR</th>
<th>FEEDBACK/SENSOR</th>
<th>STRIKER PLUNGER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-16241-NTAL-BG</td>
<td>Single</td>
<td>Electrical</td>
<td>LH Side</td>
<td>(2) 1/4&quot; thru</td>
<td>.375&quot;</td>
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<td>No</td>
<td>No</td>
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<tr>
<td>1-16240-NTAL-BG</td>
<td>Dual</td>
<td>Electrical</td>
<td>LH Side</td>
<td>(2) 1/4&quot; thru</td>
<td>.375&quot;</td>
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<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Recommended strikers: #240-52U-25, #LNL-77E-00627 and #1-16645-PK-64.
# 16240 SERIES

**EM 240 POWER-UP ROTARY LATCH – V2**

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**SPECIFICATIONS**

**POWER SPECIFICATIONS**
- **VOLTAGE:** 9-12V
- **OPERATING CURRENT:** 250mA
- **STALL CURRENT:** <500mA

**ACTUATION SPECIFICATIONS**
- **TRANSVERSE LOAD:** 750 lbs.
- **STRIKER SIZE:** .375”
- **RESPONSE TIME:** 500mS
- **OPERATION:** FWD polarity 500mS, REV polarity 500mS

*Does not meet FMVSS206*

**MATERIAL SPECIFICATIONS**
- **LATCH:** Steel, fluorocarbon
- **CASE:** Zinc plated steel

**ENVIRONMENTAL SPECIFICATIONS**
- **OPERATING TEMPERATURE RANGE:** -40˚C to 80˚C
- **HUMIDITY:** 95%
- **ENDURANCE (FULL CYCLES):** ≥70,000 times

**OPTIONS**
- Bare wire, 20 gauge, Molex® Micro-Fit (6 pin), internal switch – closed and/or open position, single or dual stage

**CERTIFICATIONS**
- RoHS – all
- REACH – EU
- FCC – USA

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**FEATURES**

- Mechanical release, based on 240 rotary latch
- Eberhard® 240 Series rotary mounting locations
- Mounting: 1/4" thru hole, m6 or 1/4-20 thread
- i-Lock Blue/Bluetooth® compatible (optional)
- Motor control required
- Internal relay option
- Electrical motor based system
- RoHS compliant
- REACH compliant

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<table>
<thead>
<tr>
<th>PART #</th>
<th>STAGE</th>
<th>RELEASE TYPE</th>
<th>MANUAL TRIGGER</th>
<th>MOUNTING</th>
<th>STRIKER SIZE</th>
<th>CONNECTOR</th>
<th>FEEDBACK/SENSOR</th>
<th>STRIKER PLUNGER</th>
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</thead>
<tbody>
<tr>
<td>2-16241-NTAL-BG</td>
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<td>Electrical</td>
<td>LH Side</td>
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<td>No</td>
<td>No</td>
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<tr>
<td>2-16240-NTAL-BG</td>
<td>Dual</td>
<td>Electrical</td>
<td>LH Side</td>
<td>(2) 1/4&quot; thru</td>
<td>.375”</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
ROTARY LATCH OPTIONS

LINEAR ACTUATOR MOUNTING KITS
(SEE LINEAR ACTUATORS PAGES 17-18 FOR SPECIFICATIONS)

Mechanical rotary latches also have power adaptable capabilities by installing our linear actuators.

INTERNAL/INTEGRATED SENSOR/LIMIT SWITCH OPTIONS

Sensors and limit switches can be added to our standard line of mechanical rotary latches to indicate open/close state of latch.
E904 SERIES
EM SLAM LATCH

FEATURES
• Based on Eberhard® 4597 slam bolt mounting
• Manual override
• i-Lock Blue/Bluetooth® compatible (optional)
• Motor control required
• Spring load options
• Electrical motor based system

SPECIFICATIONS

POWER SPECIFICATIONS
VOLTAGE: 12V nominal, 9-16V range
STALL CURRENT: <850mA @ 12V
FULL LOAD CURRENT: <120mA

ACTUATION SPECIFICATIONS
OPERATION: FWD polarity 1.7S, REV polarity 1.7S

MATERIAL SPECIFICATIONS
PLunger: POM, black
SLIDE CASE: Steel, black electro-coated
MOTOR HOUSING: Zinc diecast, black electro-coated

ENVIRONMENTAL SPECIFICATIONS
OPERATING TEMPERATURE RANGE: -20˚C to 70˚C
HUMIDITY: 5-95% RH
IP RATING: IP66
ENDURANCE (FULL CYCLES): ≥70,000 times

OPTIONS
Bare wire, 20 gauge

CERTIFICATIONS
RoHS

<table>
<thead>
<tr>
<th>PART #</th>
<th>RETRACT FORCE</th>
<th>MANUAL PULL FORCE</th>
<th>MOUNTING</th>
<th>BLUETOOTH® (OPTIONAL)</th>
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</thead>
<tbody>
<tr>
<td>E904V1B</td>
<td>2.5 lbs.</td>
<td>2.5 lbs.</td>
<td>Horizontal</td>
<td>No</td>
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<tr>
<td>EBX904V1B</td>
<td>2.5 lbs.</td>
<td>2.5 lbs.</td>
<td>Horizontal</td>
<td>Yes</td>
</tr>
</tbody>
</table>
E905 SERIES
EM CAM LOCK ADAPTER

FEATURES
- Make any standard cam lock electronic with our electronic cam lock adapter
- Installs with single screw on back of cam, maintains cam lock function
- i-Lock Blue/Bluetooth® compatible (optional)
- Motor control required
- Electrical motor based system

SPECIFICATIONS

POWER SPECIFICATIONS
VOLTAGE: 12V nominal, 9-16V range
STALL CURRENT: <500mA @ 12V
FULL LOAD CURRENT: <240mA

ACTUATION SPECIFICATIONS
OPERATION: FWD polarity 300mS, REV polarity 300mS

MATERIAL SPECIFICATIONS
MOTOR HOUSING: Zinc diecast, black electro-coated
CAM: Zinc plated steel

ENVIRONMENTAL SPECIFICATIONS
OPERATING TEMPERATURE RANGE: -20˚C to 70˚C
HUMIDITY: 5-95% RH
IP RATING: IP66
ENDURANCE (FULL CYCLES): ≥90,000 times

OPTIONS
Bare wire, 20 gauge

CERTIFICATIONS
RoHS

<table>
<thead>
<tr>
<th>PART #</th>
<th>ROTATION</th>
<th>MOUNTING</th>
<th>BLUETOOTH® (OPTIONAL)</th>
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</thead>
<tbody>
<tr>
<td>E905V1S</td>
<td>90˚</td>
<td>Horizontal</td>
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<tr>
<td>EBX905V1S</td>
<td>90˚</td>
<td>Horizontal</td>
<td>Yes</td>
</tr>
</tbody>
</table>
E901 SERIES
i-LOCK ELECTRONIC KEYPAD CAM LOCK

FEATURES
• 4 button keypad
• Horizontal or vertical mounting options
• Battery backup (CR2032)
• Low battery alarm
• Connector for external AC supply (micro USB)
• 1-8 digit passcode available
• Serial numbered for traceability

SPECIFICATIONS
POWER SPECIFICATIONS
BATTERY: 3V CR2032
OPTIONAL: Micro-USB

MATERIAL SPECIFICATIONS
HOUSING: ABS, silver
CAM: Stainless steel

ENVIRONMENTAL SPECIFICATIONS
OPERATING TEMPERATURE RANGE:
-25°C to 65°C
HUMIDITY: 10-95% RH

OPTIONS
Clutch knob, straight cam

<table>
<thead>
<tr>
<th>PART #</th>
<th>KEYPAD</th>
<th>MOUNTING</th>
<th>MODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>E901RSS</td>
<td>4 button</td>
<td>Horizontal</td>
<td>Standard</td>
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<tr>
<td>E901R1S</td>
<td>4 button</td>
<td>Horizontal</td>
<td>One-Time</td>
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<tr>
<td>E901VSS</td>
<td>4 button</td>
<td>Vertical</td>
<td>Standard</td>
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<tr>
<td>E901V1S</td>
<td>4 button</td>
<td>Vertical</td>
<td>One-Time</td>
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</tbody>
</table>
E902 SERIES
i-LOCK ELECTRONIC KEYPAD CAM LOCK

FEATURES
• 10 button keypad
• Horizontal or vertical mounting options
• Battery backup (CR2032)
• Low battery alarm
• Connector for external AC supply (micro USB)
• 1-15 digit passcode available
• Clutch knob
• Blue backlight buttons
• Serial numbered for traceability

SPECIFICATIONS
POWER SPECIFICATIONS
BATTERY: 3V CR2032
OPTIONAL: Micro-USB

MATERIAL SPECIFICATIONS
HOUSING: Zinc alloy diecast, silver
CAM: Stainless steel

ENVIRONMENTAL SPECIFICATIONS
OPERATING TEMPERATURE RANGE:
-25˚C to 65˚C
HUMIDITY: 10-95% RH

OPTIONS
Connecting rod cam, straight cam

<table>
<thead>
<tr>
<th>PART #</th>
<th>KEYPAD</th>
<th>MOUNTING</th>
<th>MODE</th>
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<td>10 button</td>
<td>Horizontal</td>
<td>Standard</td>
</tr>
<tr>
<td>E902R1S</td>
<td>10 button</td>
<td>Horizontal</td>
<td>One-Time</td>
</tr>
<tr>
<td>E902VSS</td>
<td>10 button</td>
<td>Vertical</td>
<td>Standard</td>
</tr>
<tr>
<td>E902V2S</td>
<td>10 button</td>
<td>Vertical</td>
<td>One-Time</td>
</tr>
</tbody>
</table>

Fastener kit included.
LINEAR MOTION DEVICES/POWER MODULES

EM Linear Actuators
Eberhard Power Adaptable Handles
ES LNL Power Module
EM LNL Power Module
LNL Power Adaptable Handles
16720 SERIES
EM LINEAR ACTUATOR

FEATURES
- Universal thru mounting holes
- Standard industry mounting
- Thermal overload protection on motor
- Electrical motor based system

SPECIFICATIONS

POWER SPECIFICATIONS
VOLTAGE: 12V
STALL CURRENT: 4.5A ± 10%
FULL LOAD CURRENT: 1.2A ± 10%
MOTOR: Equipped with 12V thermal protection

ACTUATION SPECIFICATIONS
ACTUATING FORCE: >6kgs
ACTUATION TRAVEL: 21mm
OPERATION: FWD polarity 500mS, REV polarity 500mS

MATERIAL SPECIFICATIONS
HOUSING: ABS, black
PLUNGER: POM, white

ENVIRONMENTAL SPECIFICATIONS
ENDURANCE (UP AND DOWN): ≥201,500 times
OPERATING TEMPERATURE RANGE: -40°C to 80°C

WIRING OPTIONS
Deutsch connector, bare wire, 18 gauge

CERTIFICATIONS
CE, IPX3

<table>
<thead>
<tr>
<th>PART #</th>
</tr>
</thead>
<tbody>
<tr>
<td>16720-1-PK-01</td>
</tr>
</tbody>
</table>
16952 SERIES
EM LINEAR ACTUATOR

FEATURES
- Universal thru mounting holes
- Thermal overload protection on motor
- Reduced housing size compared to 16720

SPECIFICATIONS

POWER SPECIFICATIONS
VOLTAGE: 12V nominal, 9-16V range
FULL LOAD CURRENT: <2A @ 15V
MOTOR: Equipped with 12V thermal protection

ACTUATION SPECIFICATIONS
ACTUATING FORCE: 4.5kgs
ACTUATION TRAVEL: 21mm
OPERATION: FWD polarity 500mS, REV polarity 500mS

MATERIAL SPECIFICATIONS
HOUSING: ABS, black
PLUNGER: POM, white

ENVIRONMENTAL SPECIFICATIONS
ENDURANCE (UP AND DOWN): ≥30,000 times
STROKE: 21mm
OPERATING TEMPERATURE RANGE: -30°C to 85°C

WIRING OPTIONS
Bullet connectors, bare wire, 18 gauge

CERTIFICATIONS
CE, IPX3

| PART # | 16952-01 |
EM LINEAR ACTUATORS
POWER ADAPTABLE HANDLES

Eberhard® EM Linear Actuators work with these series of handles. Additional brackets and linkages required.

PADDLE HANDLES
9872 SERIES
7940 SERIES

T-HANDLES
3691 SERIES
28400 SERIES

D-RINGS
PULL HANDLES
9000 SERIES
90320 SERIES
21100 SERIES
31100 SERIES
LOAD N LOCK SERIES
ES POWER MODULES

FEATURES
- Dedicated power module for LNL handle series
- Top and bottom mounting options
- Sealed housing
- Install with E-Clip
- Solenoid based system

SPECIFICATIONS

POWER SPECIFICATIONS
VOLTAGE: 13V
CURRENT DRAW: 2.2A
PEAK: 3.8A +/- 10%

ENERGIZING SPECIFICATIONS
ENERGIZING FORCE: 2 lbs +/- 100 lbs
LATCHING FORCE: 1 lbs +/- 25 lbs
ACTUATION TRAVEL: 180°
OPERATION: FWD pulse 30mS, REV pulse 30mS

MATERIAL SPECIFICATIONS
HOUSING: ABS, black

ENVIRONMENTAL SPECIFICATIONS
OPERATING TEMPERATURE RANGE: -30°C to 65°C
STROKE: 180° travel
ENDURANCE (FULL CYCLES): ≥ 1,000,000 times

OPTIONS
Spade quick connector

CERTIFICATIONS
RoHS, UL

TOP MOUNT PART #
LNL-72-20103

BOTTOM MOUNT PART #
LNL-72-20101

TOP MOUNT PART #
LNL-72-00651

BOTTOM MOUNT PART #
LNL-72-00652

Parts are kitted with harnesses and hardware.
LOAD N LOCK SERIES
EM POWER MODULE

FEATURES
• Dedicated power module for LNL handle series
• Seal housing
• Installed with E-Clip
• Electrical motor based system
• i-Lock Blue/Bluetooth® compatible (optional)
• Motor control required

SPECIFICATIONS

POWER SPECIFICATIONS
VOLTAGE: 12V nominal, 9-16V range
STALL CURRENT: <500mA @ 12V
FULL LOAD CURRENT: <240mA

ENERGIZING SPECIFICATIONS
ACTUATION TRAVEL: .180°
OPERATION: FWD pulse 230mS, REV pulse 230mS

MATERIAL SPECIFICATIONS
HOUSING: ABS, black

ENVIRONMENTAL SPECIFICATIONS
OPERATING TEMPERATURE RANGE:
-20°C to 70°C
HUMIDITY: 5-95% RH
ENDURANCE (FULL CYCLES):
≥ 70,000 times

OPTIONS
Bare wire, 20 gauge

CERTIFICATIONS
RoHS

| PART # | LNL-72-21007 |
LNL HANDLE SERIES
ES/EM POWER MODULES – HANDLE OPTIONS

LNL mechanical handles are designed and built to be power adaptable. The power module can be installed by the OEM or as aftermarket addition.

TEAR-DROP HANDLES

#LNL-70-00585
#LNL-70-01475

T-SHAPE HANDLES

#LNL-70-00655
#LNL-70-00775
#LNL-70-02475

LEVER HANDLES

#LNL-70-01760
#LNL-70-01780
#LNL-70-22180
CONTROLLERS

RF vs Bluetooth®
i-Lock Blue Controller
i-Beam Transmitter
RF Controllers
WIRELESS INFORMATION

<table>
<thead>
<tr>
<th></th>
<th>RADIO FREQUENCY CONTROL (RF)</th>
<th>BLUETOOTH®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>303 MHz/433 MHz</td>
<td>2.4 GHz</td>
</tr>
<tr>
<td>Range</td>
<td>Longer range: up to 150 feet</td>
<td>Shorter range: 30-70 feet</td>
</tr>
<tr>
<td>Data Rate</td>
<td>Up to 2 Kbps</td>
<td>Up to 5 Mbps</td>
</tr>
<tr>
<td>Control</td>
<td>Key fob control</td>
<td>Cell phone controlled and pairing of componentry</td>
</tr>
<tr>
<td>Power</td>
<td>&gt;12mA for RF radios</td>
<td>6mA for Bluetooth® radios</td>
</tr>
<tr>
<td>Communication Direction</td>
<td>One way</td>
<td>Two way</td>
</tr>
<tr>
<td>Security</td>
<td>Rolling code transmission</td>
<td>End to end encryption</td>
</tr>
</tbody>
</table>

**RADIO FREQUENCY TECHNOLOGY**

An affordable technology that provides longer and usable range compared to Bluetooth®. The technology consists of an RF remote transmitter (such as a key fob) and a receiver (control box.) A control signal is transmitted from the remote side to the receiver in the form of messages over electromagnetic radio waves. The signal is received at the control box end and is interpreted to determine an action. The RF signal is not an end to end encrypted communication, however can be secured using a rolling code which changes with every transmission.

**BLUETOOTH® TECHNOLOGY**

Bluetooth® allows devices to communicate with each other peer to peer without cables or wires. Bluetooth relies on short-range radio frequency, and any device that incorporates the technology can communicate if it is within the required distance. The technology is an electronics standard which means manufacturers can include all features in their personal devices such as smart phones. These specifications ensure that the devices can recognize and interact with other devices that all use Bluetooth technology. Once a connection is made, the connection is locked, secured, and encrypted end to end between devices. Bluetooth also allows for meshing the wireless signals. It uses other Bluetooth devices within range that can relay communications to reach devices that are out of range of the origin device.
i-LOCK BLUE CONTROL SYSTEM

CONTROLLER

FEATURES

• i-Lock Blue/Bluetooth® control system, connects to Android™ and iPhone app for setup and controlling
• 12VDC power
• LED indicator; pairing and battery life (if connected)
• 3 outputs, 2 inputs
• Discreet connectors on outputs/inputs
• Can pair with multiple devices in the i-Lock series of products

SPECIFICATIONS

POWER SPECIFICATIONS
12VDC OPERATION: Constant power source such as vehicle/machine power
LOW POWER CONSUMPTION MODE: Draws 6mA of continuous electrical current in standby mode

COMMUNICATION
2.4 GHz RF BLUETOOTH® 4.0: Multi user connectivity; other devices in system connect via Bluetooth®
i-LOCK BLUE APP: iOS; Android OS

OUTPUTS
3 INDIVIDUAL OUTPUTS
6VDC – 12VDC (+/- 10%)
OUTPUT CURRENT: 9A peak, 4.5A continuous, per output
Output can be programmed to device specification types via app

INPUTS
2 INPUTS: Via push button or other normally open switching device
3.3V SUPPLY USED FOR LED ILLUMINATION: Voltage supply turned on when connected device is in range
OUTPUT CONTROL: Multi-button press responses; multi-output control (set up via app)

ENVIRONMENTAL SPECIFICATIONS
OPERATING TEMPERATURE RANGE: -20˚C to 80˚C ~95% RH

CERTIFICATIONS
RoHS

SYSTEM OPTIONS

INPUT:
• i-Beam
• LED button switch
• Foot swipe sensor

OUTPUT:
• Locking power module
• Linear powered rotary latch
• Electronic rotary latch
• LED light

<table>
<thead>
<tr>
<th>PART #</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBX800-010</td>
<td>i-Lock Blue control module</td>
</tr>
<tr>
<td>EBX800-018</td>
<td>Lithium battery pack charger</td>
</tr>
<tr>
<td>EBX800-019</td>
<td>12V power adapter</td>
</tr>
</tbody>
</table>
i-LOCK BLUE
i-BEAM CONTROLLER

i-Beam pairs with i-Lock Blue to transmit signal from vehicle door (or other device) to i-Lock Blue to activate devices that are connected to the outputs on i-Lock Blue.

**SPECIFICATIONS**

**POWER SPECIFICATIONS**
12VDC OPERATION: Constant power source such as vehicle/machine power

**COMMUNICATION**
2.4 GHz RF BLUETOOTH® 4.0:
Wirelessly connects to other i-Lock accessories; i-Lock Blue
i-LOCK BLUE APP: iOS; Android OS

**OUTPUTS**
SENDs BLUETOOTH® ACTIVATION SIGNAL TO CONNECTED i-LOCK DEVICES

**INPUTS**
READS SIGNAL FROM OEM KEY FOB ACTIVATION
LOCK/UNLOCK:
Unlock signal from door actuator; lock signal from door actuator

**ENVIRONMENTAL SPECIFICATIONS**
OPERATING TEMPERATURE RANGE:
-20˚C to 80˚C ~95% RH

**CERTIFICATIONS**
RoHS

<table>
<thead>
<tr>
<th>PART #</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBX800-011</td>
</tr>
</tbody>
</table>

---

i-LOCK BLUE SERIES
APP

Control the i-Lock Blue family of products only by Eberhard®

**i-Lock Blue 2.0**
- Available on the App Store
- Google Play - Coming Soon

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**FEATURES**
- All new user interface
- Control more wired devices on i-Lock Blue controllers
- Personalize names for your devices or controllers
- Add multiple i-Lock controllers and/or devices to your app
- Enhanced security
- Control the new EM Rotary Latch
- Allows for a push button input to release multiple devices with a single click
- App branding: Allows for other manufacturers to brand the app utilizing the i-Lock technology
433 Hz RF CONTROL SYSTEM
LOAD N LOCK

FEATURES

- 433 Hz RF control system
- (2) 3 button key fobs
- 12VDC power
- 1 output, 2 inputs paired
- Gang style plug

SPECIFICATIONS

POWER SPECIFICATIONS

12VDC OPERATION: Constant power source, such as vehicle/machine power
LOW POWER CONSUMPTION MODE: Draws 12mA of electrical current in standby mode

COMMUNICATION

433 MHz RADIO FREQUENCY (RF): Communication with up to 3 total paired key fobs (range up to 60 ft.)
OMNIDIRECTIONAL ANTENNA

OUTPUTS

1 OUTPUT SPLIT TO 2 + 1 LED
12VDC (+/- 10%): Max amp draw (20A peak, 4.5A continuous) per output
OUTPUT OPERATIONAL TIMING SEQUENCE: 500 mS pull, 500 mS push, off
LED OPERATIONAL TIMING SEQUENCE: On/off; turns off in 5 minutes

INPUTS

2 INPUTS PAIRED WITH OUTPUTS
INPUT SIGNALS DEFAULTED TO HIGH 12VDC: Low setting available via jumper
INPUT 1: Output all
INPUT 2: Output controlled by key fob
DISABLE: Turns off all outputs when on

ENVIRONMENTAL SPECIFICATIONS

OPERATING TEMPERATURE RANGE: -20˚C to 80˚C ~95% RH

OPTIONS

Includes 2 key fobs

CERTIFICATIONS

RoHS

<table>
<thead>
<tr>
<th>PART #</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>LNL-72-00901</td>
<td>RF Controller with 2 keys</td>
</tr>
<tr>
<td>LNL-72-01901</td>
<td>Key fobs</td>
</tr>
</tbody>
</table>
433 Hz RF CONTROL SYSTEM

i-LOCK

FEATURES

- 433 Hz RF control system
- (2) 4 button key fobs
- 12VDC power
- 4 outputs, 2 inputs, paired
- Discreet connectors for outputs/inputs
- Programmed for auto relock (optional)

SPECIFICATIONS

POWER SPECIFICATIONS

12VDC OPERATION: Constant power source, such as vehicle/machine power

LOW POWER CONSUMPTION MODE: Draws 12mA of electrical current in standby mode

COMMUNICATION

433 MHz RADIO FREQUENCY (RF): Communication with up to 3 total paired key fobs (range up to 60 ft.)

ROLLING SECURITY CODE PAIRING

OMNIDIRECTIONAL ANTENNA

OUTPUTS

3 INDIVIDUAL OUTPUTS + 1 LED (2 PIN MOLEX CONNECTORS)

12VDC (+/- 10%)

OUTPUT CURRENT: 20A per output

OUTPUT OPERATIONAL TIMING SEQUENCE: 500 mS pull, 500 mS push, off

LED OPERATIONAL TIMING SEQUENCE: On/off; turns off in 5 minutes

INPUTS

2 INPUTS PAIRED WITH OUTPUTS

INPUT SIGNALS DEFAULTED TO HIGH 12VDC: Ground (-) signal available via jumper

INPUT 1: Key fob input to output

INPUT 2: Output all + LED

DISABLE: Turns off all outputs when on

ENVIRONMENTAL SPECIFICATIONS

OPERATING TEMPERATURE RANGE: -20˚C to 80˚C ~95% RH

IP RATING: IP42 when installed in horizontal position

OPTIONS

Includes 2 key fobs

CERTIFICATIONS

LNL-72-00912: IP42
LNL-72-01912: IC-ID – Canada, C-Tick – AUS/New Zealand, FCC – USA

RoHS

<table>
<thead>
<tr>
<th>PART #</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>LNL-72-00910</td>
<td>RF Controller with 2 keys</td>
</tr>
<tr>
<td>LNL-72-01910</td>
<td>Key fobs</td>
</tr>
</tbody>
</table>
303 Hz RF CONTROL SYSTEM

POWER-UP

FEATURES

- 303 Hz RF control system
- (2) 4 button key fobs
- 12VDC power
- 1 output for devices/1 output for LED

SPECIFICATIONS

POWER SPECIFICATIONS
12VDC OPERATION: Constant power source, such as vehicle/machine power
LOW POWER CONSUMPTION MODE: Draws 15mA of electrical current in standby mode
PASS THRU OUTPUT POWER: 40A peak per output

COMMUNICATION
303 MHz RADIO FREQUENCY (RF): Communication with up to 4 total paired key fobs (range up to 150 ft.)
ROLLING SECURITY CODE PAIRING
OMNIDIRECTIONAL ANTENNA

OUTPUTS
1 INDIVIDUAL OUTPUT • 1 LED: Multiple devices daisy chained together; up to 16 devices with special cable
12VDC (+/- 10%): Max amp draw (40A peak) per output
OUTPUT OPERATIONAL TIMING SEQUENCE: 500 mS pull, 500 mS push, off
LED OPERATIONAL TIMING SEQUENCE: On/off

INPUTS
KEY FOB
LOCK/UNLOCK WIRE

ENVIRONMENTAL SPECIFICATIONS
OPERATING TEMPERATURE RANGE: -20˚C to 80˚C ~95% RH

OPTIONS
Includes 2 key fobs

CERTIFICATIONS
FCC – USA, RoHS

<table>
<thead>
<tr>
<th>PART #</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-16720-50PK-01</td>
<td>RF Controller with 2 keys</td>
</tr>
<tr>
<td>16720-5-01</td>
<td>Key fobs</td>
</tr>
</tbody>
</table>
433 Hz RF CONTROL SYSTEM
POWER-UP PLUS

FEATURES

• 433 Hz RF control system
• (2) 4 button key fobs
• 12VDC power
• Programmed for siren and/or light function

SPECIFICATIONS

POWER SPECIFICATIONS
12VDC OPERATION: Constant power source, such as vehicle/machine power
LOW POWER CONSUMPTION MODE: Draws 15mA of electrical current in standby mode
PASS THRU OUTPUT POWER: 40A peak per output

COMMUNICATION
433 MHz RADIO FREQUENCY (RF): Communication with up to 3 total paired key fobs (range up to 100 ft.)
ROLLING SECURITY CODE PAIRING
OMNIDIRECTIONAL ANTENNA

OUTPUTS
1 INDIVIDUAL OUTPUT • 1 LED • SIREN: Multiple devices daisy chained together; up to 16 devices with special cable
12VDC (+/- 10%): Max amp draw (40A peak) per output
OUTPUT OPERATIONAL TIMING SEQUENCE:
500 mS pull, 500 mS push, off
LED OPERATIONAL TIMING SEQUENCE:
On/off

INPUTS
KEY FOB
LOCK/UNLOCK WIRE

OPTIONS
Includes 2 key fobs

ENVIRONMENTAL SPECIFICATIONS
OPERATING TEMPERATURE RANGE:
-20°C to 80°C - 95% RH

CERTIFICATIONS
FCC – USA, RoHS

<table>
<thead>
<tr>
<th>PART #</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>16835-50PK-01</td>
<td>RF Controller with 2 keys</td>
</tr>
<tr>
<td>16835-15-01</td>
<td>Key fobs</td>
</tr>
</tbody>
</table>
## CONTROL SYSTEM COMPARISON CHART

<table>
<thead>
<tr>
<th></th>
<th>i-Lock Blue</th>
<th>i-Lock i-Beam</th>
<th>RF Control System LNL-72-00910-PK</th>
<th>RF Original LNL (00901)</th>
<th>RF Power-Up – Eberhard</th>
<th>RF Power-Up Plus – Eberhard</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating Voltage</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td><strong>Current Draw</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Standby</td>
<td>6mA</td>
<td>6mA</td>
<td>12mA</td>
<td>12mA</td>
<td>15mA</td>
<td>15mA</td>
</tr>
<tr>
<td>Peak per Output</td>
<td>9A</td>
<td>–</td>
<td>20A</td>
<td>14A</td>
<td>40A</td>
<td>40A</td>
</tr>
<tr>
<td><strong>Number of Outputs (Max)</strong></td>
<td>3</td>
<td>–</td>
<td>3 + LED</td>
<td>2 + LED</td>
<td>16 + LED</td>
<td>16 + LED + Siren</td>
</tr>
<tr>
<td><strong>Communication</strong></td>
<td></td>
<td></td>
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<tr>
<td>Type</td>
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<td>Bluetooth®</td>
<td>RF</td>
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<td>RF</td>
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<tr>
<td>Frequency</td>
<td>2.4 GHz</td>
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<td>433 MHz</td>
<td>433 MHz</td>
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<tr>
<td>Range</td>
<td>30 ft.</td>
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<td>Up to 100 ft.*</td>
<td>Up to 100 ft.*</td>
<td>Up to 200 ft.*</td>
<td>Up to 150 ft.*</td>
</tr>
<tr>
<td><strong>Control</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phone App</td>
<td>✔</td>
<td>✔</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Key Fob</td>
<td>–</td>
<td>–</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Works with OEM Key Fob</td>
<td>–</td>
<td>✔</td>
<td>✓</td>
<td>✓</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Encrypted</td>
<td>✔</td>
<td>✔</td>
<td>–</td>
<td>–</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Over the Air Updates</td>
<td>✔</td>
<td>✔</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td><strong>Output</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Output Types</td>
<td>∞</td>
<td>–</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Forward and Reverse Sequence</td>
<td>✔</td>
<td>–</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>LED Light</td>
<td>✔</td>
<td>–</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Siren</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Two-Way Operation</td>
<td>✔</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>One-Way Operation</td>
<td>✔</td>
<td>–</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>User Selectable</td>
<td>✔</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td><strong>Inputs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Inputs</td>
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<td>–</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
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<tr>
<td>3.3V Powered Input</td>
<td>✔</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Multi-Activation</td>
<td>✔</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td><strong>Environmental</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IP Rated</td>
<td>–</td>
<td>–</td>
<td>✔</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>-20°C to 80°C</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

*Line of sight in unobstructed conditions.
ACTIVATORS

LED Push Button Switches
Wiring Harnesses
PUSH BUTTON SWITCHES

FEATURES
- Indoor/outdoor rated, IP65
- Mechanical push button
- LED rim, blue
- Wire harness/connector options

SPECIFICATIONS

POWER SPECIFICATIONS
LED
3.3/12V, 20mA
12VDC, 15A

ENVIRONMENTAL SPECIFICATIONS
OPERATING TEMPERATURE RANGE:
-30°C to 80°C
IP RATING: IP67

INSTALLATION SIZE
22mm

CERTIFICATIONS
RoHS, CE – EU

ACTIVATORS

<table>
<thead>
<tr>
<th>PART #</th>
<th>LED</th>
<th>MATERIAL/COLOR</th>
<th>CONNECTOR</th>
<th>CONTACT CURRENT</th>
<th>LED POWER</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBX810-001-87</td>
<td>White</td>
<td>Black oxide</td>
<td>Bare wire</td>
<td>15A</td>
<td>12V, 20mA</td>
</tr>
<tr>
<td>EBX800-016-66</td>
<td>Blue</td>
<td>Black anodized</td>
<td>Molex® Micro-Fit 4 pin</td>
<td>3A</td>
<td>3.3V, 20mA</td>
</tr>
<tr>
<td>EBX800-016-87</td>
<td>Blue</td>
<td>Black anodized</td>
<td>Molex® Micro-Fit 4 pin</td>
<td>3A</td>
<td>3.3V, 20mA</td>
</tr>
</tbody>
</table>
The following wiring harnesses can be supplied by Eberhard to complete your electro-mechanical system:

<table>
<thead>
<tr>
<th>PART #</th>
<th>DESCRIPTION</th>
<th>WIRE GAUGE</th>
<th>CONNECTORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>16720-6-01</td>
<td>Truck cab wiring harness</td>
<td>18</td>
<td>Power (ring terminals) to vehicle (HULANE W06FW-M)</td>
</tr>
<tr>
<td>1-16720-6-01</td>
<td>Truck cab wiring harness with dome light</td>
<td>18</td>
<td>Power (ring terminals) to vehicle (HULANE W06FW-M)</td>
</tr>
<tr>
<td>16720-7-06</td>
<td>Utility body compartment wiring harness</td>
<td>14/18</td>
<td>HULANE W06MW-M to 2x HULANE W03FG-Y</td>
</tr>
<tr>
<td>16720-8-01</td>
<td>Relay wire harness – extension</td>
<td>14/18</td>
<td>Power (ring terminals) to vehicle (HULANE W06FW-M)</td>
</tr>
<tr>
<td>16720-9-01</td>
<td>Utility compartment body wiring harness – extension</td>
<td>14/18</td>
<td>HULANE W03MW-M to female spade terminals</td>
</tr>
</tbody>
</table>

**Output Wire Harnesses**

- **EBX800-100-03-01**: 3 ft. length 18 4C Molex® Micro-Fit to bare wire
- **EBX800-100-06-01**: 6 ft. length 18 4C Molex® Micro-Fit to bare wire
- **EBX800-100-10-01**: 10 ft. length 18 4C Molex® Micro-Fit to bare wire
- **EBX800-100-12-01**: 12 ft. length 18 4C Molex® Micro-Fit to bare wire

**Power Wire Harnesses**

- **EBX800-101-03-01**: 3 ft. length 16 2C Molex® Micro-Fit to bare wire
- **EBX800-101-06-01**: 6 ft. length 16 2C Molex® Micro-Fit to bare wire
- **EBX800-101-10-01**: 10 ft. length 16 2C Molex® Micro-Fit to bare wire
- **EBX800-101-12-01**: 12 ft. length 16 2C Molex® Micro-Fit to bare wire

**LOAD N LOCK CONTROLLER WIRING HARNESSES**

- **LNL-72-00551**: Wire harness, truck, 3 wire, 00901 16 3 way amp to ring terminal x 2/female bullet
- **LNL-72-00552**: Wire harness, tonneau, 3 wire, 00901 16-20 3 way amp to 2x bullet/female spade/2 way amp
- **LNL-72-00964**: Wire harness, power lock module 16 10 pin amp to 2x amp/bullet/female spade
- **LNL-72-00995**: Wire harness, tonneau, 2 wire, 00901 16-20 3 way amp to 2x bullet/female spade/2 way amp
- **LNL-72-01101**: Button kit, black w/6 ft. wire harness 18 Female spades to ring/bullet

**Kits**

- **LNL-72-01100**: Keyless entry kit, tonneau Various LNL-72-00551/00552/00965/01101
- **LNL-72-01102**: Wire harness kit, truck, 3 conductor 16 LNL-72-00551 and zipties
- **LNL-72-01104**: Wire harness kit, tonneau, 2 conductor 16-20 LNL-72-00995 and cable ties and screws
- **LNL-72-01108**: Keyless entry kit, truck Various LNL-72-00551/00552/00964/01101

**EBERHARD RF CONTROLLER WIRING HARNESSES**

**Output Wire Harnesses – Connector Color: Black - 00/White - 01/ Red - 02**

- **LNL-72-013xx-03-01**: 3 ft. length 18 2C Molex® Micro-Fit to bare wire
- **LNL-72-013xx-06-01**: 6 ft. length 18 2C Molex® Micro-Fit to bare wire
- **LNL-72-013xx-10-01**: 10 ft. length 18 2C Molex® Micro-Fit to bare wire
- **LNL-72-013xx-12-01**: 12 ft. length 18 2C Molex® Micro-Fit to bare wire

**Power Wire Harnesses**

- **LNL-72-01302-03-01**: 3 ft. length 16 2C Molex® Micro-Fit (red) to bare wire
- **LNL-72-01201-03-01**: 3 ft. length, waterproof 16 2C Molex® Micro-Fit (red) to TE C-282080 (weatherproof)
- **LNL-72-01302-06-01**: 6 ft. length 16 2C Molex® Micro-Fit (red) to bare wire
- **LNL-72-01201-06-01**: 6 ft. length, waterproof 16 2C Molex® Micro-Fit (red) to TE C-282080 (weatherproof)
- **LNL-72-01302-03-01**: 10 ft. length 16 2C Molex® Micro-Fit (red) to bare wire
- **LNL-72-01201-03-01**: 10 ft. length, waterproof 16 2C Molex® Micro-Fit (red) to TE C-282080 (weatherproof)
- **LNL-72-01302-03-01**: 12 ft. length 16 2C Molex® Micro-Fit (red) to bare wire
- **LNL-72-01201-03-01**: 12 ft. length, waterproof 16 2C Molex® Micro-Fit (red) to TE C-282080 (weatherproof)

**Input Wire Harness**

- **LNL-72-01303**: Input cable, 5.5 in. 18 3C Molex® Micro-Fit to 2x female spade/bullet
For technical information on any of our electro-mechanical products, please visit our website or contact us:

Email: emtechsupport@eberhard.com
Phone: 440-238-9720 ext. 1324
Website: www.eberhard.com/emtechsupport

Below, are the installation manuals and technical documents available for download on our technical support page.

LOAD N LOCK
• Load N Lock Keyless Remote Entry Kit Instructions

REMOTE KEY FOB
• RF Keyless Entry Receiver with Key fob
  (4 Button, 4 Output)

POWER-UP & POWER-UP PLUS
• Power-Up Locking System Installation Instructions
• Power-Up Plus Locking System with Alarm Installation Instructions

RF CONTROL SYSTEM
• RF Keyless Entry Receiver with Key fob
  (3 Button, 2 Output)

POWER POP
• Power Pop Instructions

VEHICLE DOOR WIRING
• Vehicle Wiring for Door Locks