

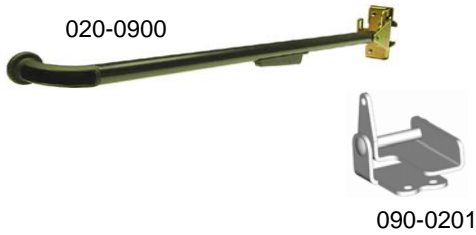
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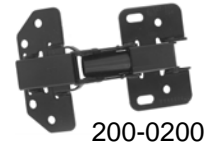
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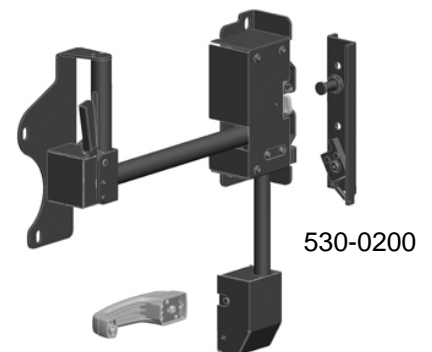
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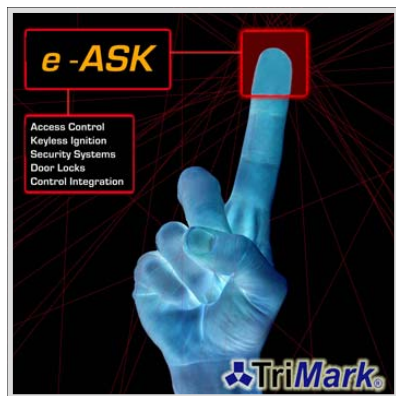
Door Systems

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e-ASK System (electronic Access & Security Keyless-entry)



The desire for keyless entry can now be fulfilled in non-automotive vehicle markets just as they can in cars. Increasingly, these vehicles are becoming sophisticated with OEM's incorporating many automotive-like aspects.

TriMark's successful **e-ASK** (electronic Access and Security Keyless-entry) products include keyless entry, power latch release, keyless ignition/start and control of lighting, horns, sensors, and motorized actuators.

TriMark's e-ASK systems are compatible with CAN SAE J1939, RV-C, and other multiplexing protocols.

TriMark's e-ASK Accessories

There are numerous options available to allow the **e-ASK** systems to provide extra value and functionality.

Optional kits can include:

- Wiring harnesses for all connection points of system
- Additional relays
- Switches, door contacts
- Actuators
- Mounting hardware
- Mounting brackets
- Door latches
- Door paddle handles
- Customized wiring harnesses
- Additional FOB transmitters and custom graphics
- Different programming functions allows for customized functionality with **e-FOB** or **e-PAD** outputs including standard mode, cargo mode or sustained mode
- Security system integration
- Multiplexed or discrete communications
- Electronic accessories



500-1000 e-ASK System

Components for this system are sold separately:

TriMark's top level e-ASK system consists of a selection of compatible components that allow for complete keyless entry for on or off-highway vehicle applications. The incorporation of keyless-entry into TriMark mechanical latches, handles and systems provides additional security and convenience for access door systems. This system includes both a touch pad and remote fob transmitter for the ultimate in end user convenience and functionality.

FEATURES/BENEFITS:

- Easy and intuitive to operate
- Rugged and durable construction
- Compliant to on-road, off-road, and industrial environmental requirements
- Increased vehicle security with multiple triggers and outputs
- I/O module with on-board locking and unlocking relays
- Can control up to 20+ entry/compartments doors (expandable)
- Independent control of multiple door zones
- Staggered door control for minimized current draw
- J1939, RV-C communications
- Locking/unlocking confirmation
- Lighting and auxiliary output control
- Ability to provide 4 OEM definable functions from keypad, including ability to unlock one side of motor home baggage doors at a time

- 3 security system inputs (ability to sense entry door(s) and baggage door(s), and other security system devices such as glass break and motion detectors)
- Variable timed light activation output (porch, compartment or interior lighting)

AVAILABLE:

- Standard kit make up includes: 2 pre-trained RF remote fob transmitters, I/O module, and manual
 - Optional kit can include: any wiring harnesses for all connection points of system, extra relays, switches, door contacts, actuators, mounting hardware, mounting brackets, door latches, and door paddle handles
 - Fob transmitters with independent entry and compartment control
 - Fob transmitters with control of auxiliary features
 - Vertical and horizontal keypad
 - Customized wire harnesses
 - Additional fob transmitters
- 2 different programming functions; standard mode, and cargo mode. Standard mode allows for the lock/unlocking of doors plus panic mode and one auxiliary output (controls lighting, opens compartment etc.). Cargo mode allows for the lock/unlocking of main personnel doors plus independent control of many cargo/compartments doors.

INSTALLATION:

- Standard 12 VDC power
- I/O module is easily installed with (2) 1/4" or M6

Control Module and e-FOB should be selected



OR



OR



A keypad may be selected



OR



Not all components are compatible. Please contact TriMark with questions.

500-1100 e-FOB System

This cost-effective, simple, and integrated system offers increased security, convenience and functionality with reduced system installation and lower installation costs for demanding users of RV's, heavy trucks, emergency vehicles, agricultural and construction equipment.

Base system provides added convenience and security via a standard remote radio frequency (RF) transmitter providing automotive convenience to your vehicle.

FEATURES/BENEFITS:

- Keyless-entry security and convenience for access door systems through an electrical interface that includes both a touch pad and remote fob transmitter for the ultimate in end user convenience and functionality
- Easy and intuitive to operate
- Rugged and durable construction
- Compliant to on-road, off-road, and industrial environmental requirements
- Increased vehicle security with multiple triggers and outputs
- I/O module with on-board locking and unlocking relays
- Can control up to 20+ entry/compartments doors (expandable)
- Independent control of multiple door zones
- Staggered door control for minimized current draw
- Multiplexing communications
- Locking/unlocking confirmation
- Ignition controlled auto-locking control
- Starter deactivation available for increased security
- Lighting and auxiliary output control
- Ability to provide 5 OEM definable functions from keypad, including ability to unlock one side of motor home baggage doors at a time

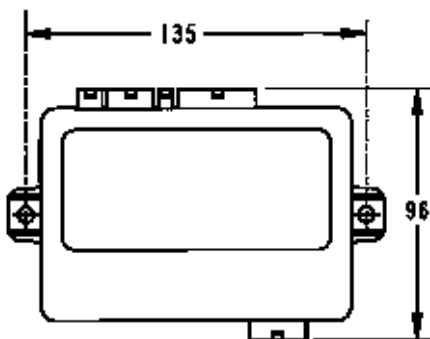
- 3 security system inputs (ability to sense entry door (s) and baggage door(s), and other security system devices such as glass break and motion detectors)
- 3 variable timed light activation output (porch, compartment or interior lighting)

AVAILABLE:

- Standard kit make up includes: 2 pre-trained RF remote fob transmitters, RF receiver, 14 wire harness, 10 wire harness, 2 wire harness, push button switch, and LED assembly key rings and manual
- Optional kits can include: any wiring harness for all connection points of system, extra relays, switches, door contacts, actuators, mounting hardware, mounting brackets, door latches, and door paddle handles
- With security system integration
- Customized wire harnesses
- Multiplexed or discrete communications
- 2 different functions; standard and cargo mode. Modes provide customized remote fob transmitter use. Standard mode allows for the lock/unlocking of doors plus panic mode and one auxiliary output (controls lighting, opens compartment etc). Cargo mode allows for the lock/unlocking of main personnel doors plus independent control of many cargo/compartments doors. Sustained mode allows for the lock/unlocking of doors plus continuous output control with lower buttons pressing.

Patents Pending

Design Patent No.
D563,097
D590,780
D589,000



e-FOB

- Reliable radio frequency (RF) transmission
- High security with code hopping technology
- Compliant to FCC-Part 15 and EU RF requirements
- 4-button standard fob (other configurations available)
- Customized graphics possible (buttons and logos)
- Can add up to 4 fob transmitters to vehicle

CARGO



TriMark
www.trimarkcorp.com

e-ASK-
(RF)
95

510-0100 e-ASK I/O Module

DESIGNED FOR:

- Replacement components of TriMark's e-ASK systems

AVAILABLE:

- 2 different functions; standard and cargo modes. Modes provide customized remote fob transmitter use. Standard mode allows for the lock/unlocking of doors plus panic mode and one auxiliary output (controls lighting, opens compartment etc.). Cargo mode allows for the lock/unlocking of main personnel doors plus independent control of many cargo/compartment doors.

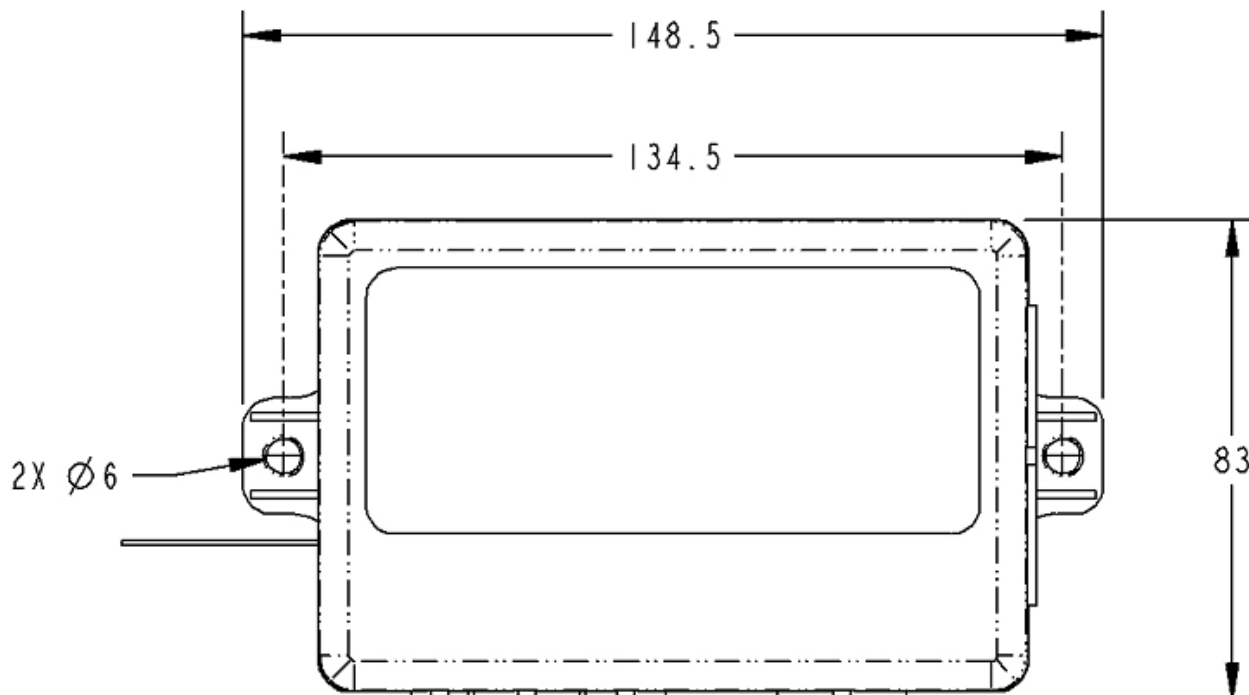
INSTALLATION:

- I/O module is easily installed with (4) 1/4" or M6 screws (not included) and can be mounted in a concealed location
- Standard 12 VDC power

U.S. Patent No. 6,789,003
 Design Patent No. D563,097
 Other Patents Pending



For more information visit
www.trimarkcorp.com



510-0250 e-ASK CAN IO and RF Module

Keyless-entry security and convenience for access door systems through an electrical interface that includes both a keypad and remote fob transmitter for the ultimate in end-user convenience and functionality.

DESIGNED FOR:

- TriMark's e-ASK systems consist of a selection of compatible components that allow for complete keyless entry for on and off-highway vehicle applications
- Incorporation into TriMark mechanical latches and handles by providing keyless entry, security and convenience for access door systems through a RF remote fob electronics
- Integration to existing or independent SAE J1939 or other CAN based multiplexing buses
- SAE J1939 and other multiplexing protocols

FEATURES/BENEFITS:

- Rugged and durable construction
- Compliant to on-road, off-road, and industrial environmental requirements
- Designed with on-board relays
- Variations for single or multiple door control
- Staggered outputs for minimized current draw
- Water proof (IP 67) and non-water proof versions available
- Compatible with 433 MHz Radio frequency (RF) remote transmitter fob
- Compliant to FCC, IC, and EU RF requirements
- Available with security system, lighting control, keypad connectivity, ignition connectivity, and other auxiliary device control
- Customizable via various hardware configurations or software modifications

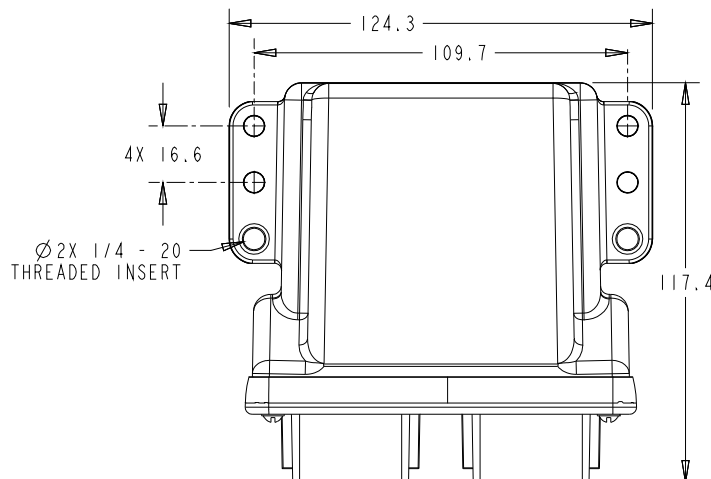


AVAILABLE:

- Customized kits can include water proof door modules, dash mount IO modules, keypads, RF transmitter, wiring, power lock actuators and other security system accessories.

Compliant to SAE J1939 CAN and other multiplexing protocols

**U.S. Patent No: 6,789,003
7,034,655
7,119,709**



**For more information visit
www.trimarkcorp.com**

530-0100 e-FOB Transmitter

DESIGNED FOR:

- Replacement components of TriMark's e-ASK systems

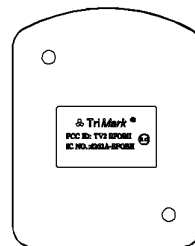
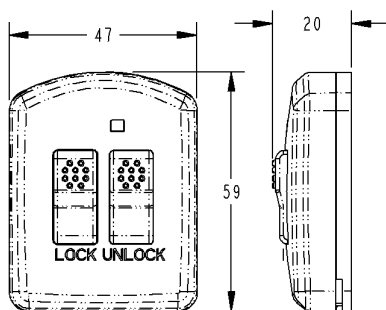
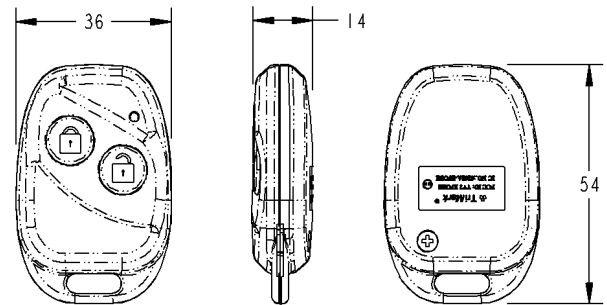
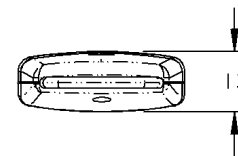
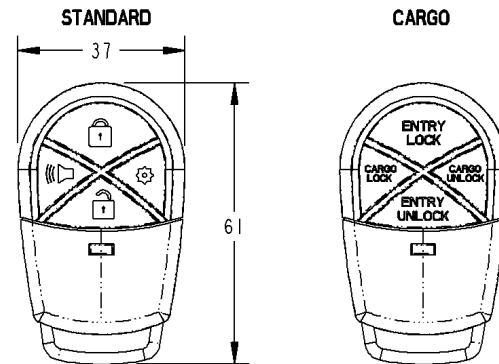
INSTALLATION:

- e-FOB receiver is easily installed with (2) #6 or M3 screws (not included) and can be mounted in a concealed location
- Standard 12 VDC power

AVAILABLE:

- 3 different programming functions; standard mode, cargo mode and sustained mode. Modes provide customized remote fob transmitter use.
 - ◇ Standard mode allows for the lock/unlocking of doors plus panic mode and one auxiliary output (controls lighting, opens compartment etc.).
 - ◇ Cargo mode allows for the lock/unlocking of main personnel doors plus independent control of many cargo/compartment doors.
 - ◇ Sustained mode allows for the lock/unlocking of doors plus continuous output control with lower buttons pressing.
- 4-button standard and cargo fob, 2-button fob, and wall mount
- Customized graphics possible (buttons and logos - please inquire)

Design Patent No. **D563,097**
D590,780
D589,000



540-0100 e-PAD Keypad

This cost-effective, simple, and integrated system offers increased security, convenience and functionality with reduced system installation complexity and lower installation costs for demanding users of RVs, heavy trucks, emergency vehicles, agricultural and construction equipment.

FEATURES/BENEFITS:

- Increased end user convenience
- Easy and intuitive to operate
- Rugged and durable construction
- Compliant to on-road, off-road, and industrial environmental requirements
- Can control numerous entry/compartament doors
- Independent control of multiple door zones
- Tactile, visual, and audio feedback
- Over 3000 code combinations with tamper lock-out feature
- Lighted keypad for more effective night time usage
- Vertical and horizontal orientations
- 5 user codes can be assigned
- Multiple layer code control



AVAILABLE:

- With e-FOB remote transmitter integration
- With security system integration
- Vertical and horizontal keypad
- Complete kit with wire harnesses and other accessories
- Customized wire harnesses
- Multiplexed or discrete communications protocol

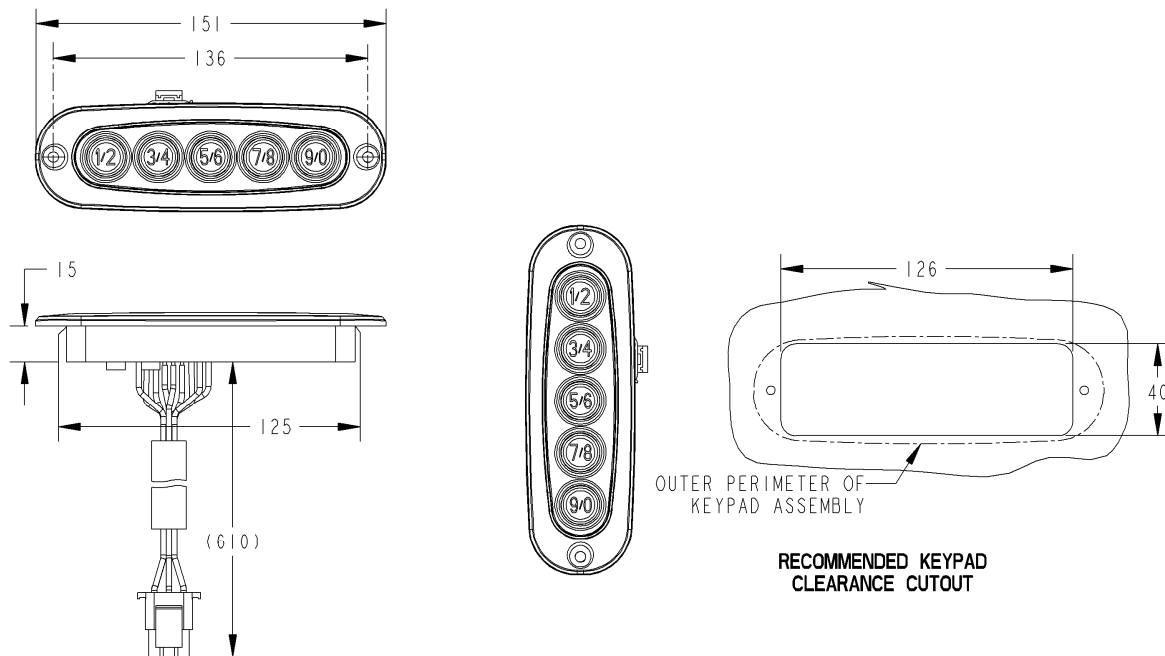
INSTALLATION:

- Keypad is easy to install with (2) #8 or M4 flat head screws (not included)
- Can be installed in a wide range of locations in door - either horizontal or vertical orientation
- Standard 12 VDC power

U.S. Patent No. 7,034,655

Design Patent No. D486,376

For more information visit
www.trimarkcorp.com



540-0125 e-PAD Keypad With Relays

TriMark's e-ASK systems consist of a selection of compatible components that allow for complete keyless entry for on-highway vehicle applications

FEATURES/BENEFITS:

- Easy and intuitive to operate
- Rugged and durable construction
- Compliant to on-road environmental requirements
- Tactile and audio feedback
- Over 3000 code combinations with tamper lock-out feature
- Vertical and horizontal orientations
- 5 user codes can be assigned
- Multiple layer code control
- 12v high current relay outputs
- Stand-alone keypad
- Gasket provides resistance to water and corrosion



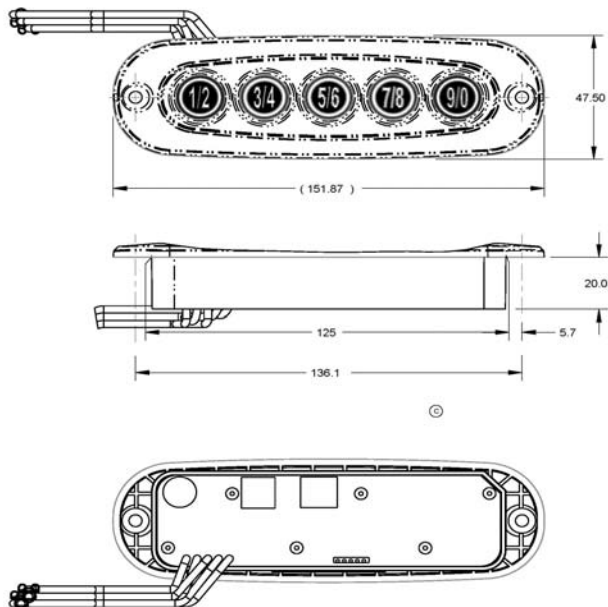
AVAILABLE:

- Vertical and horizontal keypad
- Lighted keypad—optional
- Complete kit with wire harnesses and other accessories
- Customized wire harnesses

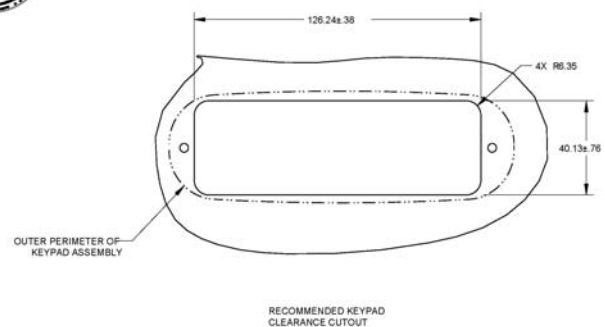
INSTALLATION:

- Keypad is easy to install with (2) #8 or M4 flat head screws (not included)
- Can be installed in a wide range of locations in door - either horizontal or vertical orientation
- Standard 12 VDC power
- Gasket provided

Design Patent No. D486,376



For more information visit
www.trimarkcorp.com



540-0200 Lighted Grab Handle With Keypad

This product incorporates TriMark's e-ASK keypad into a stylish entry assist handle for RV coaches, motor homes and travel trailers. Offering increased end user convenience with high end look and feel, the grab handle provides keyless entry, security, and convenience through a keypad electronic interface. Integration of an optional doorbell is available.

- Incorporation with TriMark mechanical latches, handles and systems by providing keyless entry, security, and convenience for access door systems through a keypad electronics interface

FEATURES/BENEFITS:

- Increased end user convenience
- Offers modern styling with high end look and feel
- Rugged and durable construction is environmentally sealed for long life
- Lighted keypad and handle rod for more effective night time usage
- Tactile, visual and audio feedback with the ability to control the handle rod LED light also
- Can control numerous entry/compartments doors with independent control of multiple door zones

AVAILABLE:

- CAN multi-plex or discrete e-PAD Keypad (Reference platforms 540-0100 and 500-1000 for additional information)
- With or without door bell feature
- Handle rod can be personalized with manufacturer name, model, logo etched
- Complete kit with wire harnesses and other accessories
- With e-FOB remote transmitter integration
- With security system integration

FINISH:

- High quality polished copper-nickel-nickel chrome is durable and stylish

MATERIAL:

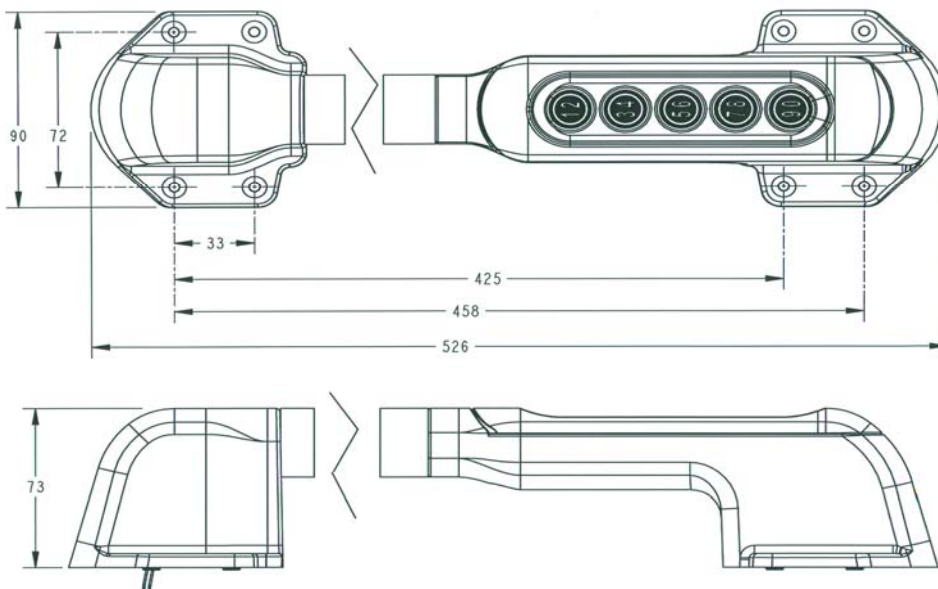
- Sturdy zinc die cast alloy housing, cover and end cap
- Cast acrylic rod in clear or frosted finish

INSTALLATION:

- Easy to install with #8 or M4 fasteners (not supplied)
- Cost effective modular handle requires fewer holes in sidewall than separate components for ease of installation

For more information visit
www.trimarkcorp.com

U.S. Patent No. 7,400,232
Design Patent No. D559,653



550-0100 Power Lock Actuator

DESIGNED FOR:

- TriMark handles and latches equipped to accept a power lock actuator that provides a push/pull function

FEATURES/BENEFITS:

- High impact sealed case design
- Long travel distance - .83 to .86 inches (21-21.8mm)
- High output force for reliable locking and unlocking function
- 12-volt two wire durable
- Reliable and durable
- Compact design allows for application in restricted space
- Compatible for use with TriMark power adaptable products
- Product selection options to ensure optimal fit for various applications

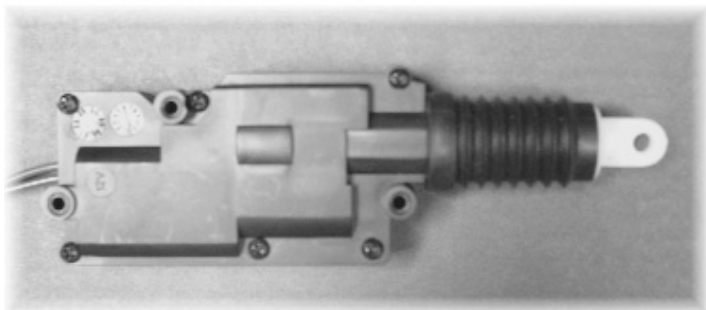


AVAILABLE:

- In a "gun style" with or without an overload protected motor
- In a compact, rectangular design with an overload protected motor, clutching mechanism for smooth operation and a rotatable/detachable tip
- With individual bullet style connectors or spade connector for ease of installation
- With 2 wires for power or 5 wires for power and actuator sensing
- Possible customization available to include special connectors, custom wire length, 4 wire configuration and kitting options. Please contact TriMark for more information

INSTALLATION:

- TriMark power actuators are easy to install either by integrating mounting directly into available TriMark latches or paddle or with universal hardware parts that include fasteners, a zinc clamp, a mounting strap and a rod



For more information visit
www.trimarkcorp.com

610-0100 Ignition Switch

TriMark's ignition switches satisfy the toughest customers in the roughest environments with superior performance and reliability. Further enhancement is now available by offering a heavy duty ignition switch for on or off-highway applications with KeyOne Plus modular locking system providing "One Key — One Vehicle" convenience.

FEATURES/BENEFITS:

- Contact rating: 50 Amp @ 12 VDC continuous (battery)
 - ◊ Ignition—20 Amps
 - ◊ Accessory—30 Amps (inductive)
 - ◊ Start—.33 Amps
- Standard positions: Accessory, Off, On (ignition/ accessory) and Start
- Rugged and durable construction is environmentally sealed for long life
- Standard brass Packard Electronic Connectors (#56)

AVAILABLE:

- KeyOne Plus for a single-key system, keyed alike or keyed random
- In a wide variety of codes which allows the customer flexibility in keying a unit alike or differently
- Custom terminal configurations (please inquire)
- Custom function and positions (please inquire)



FINISH:

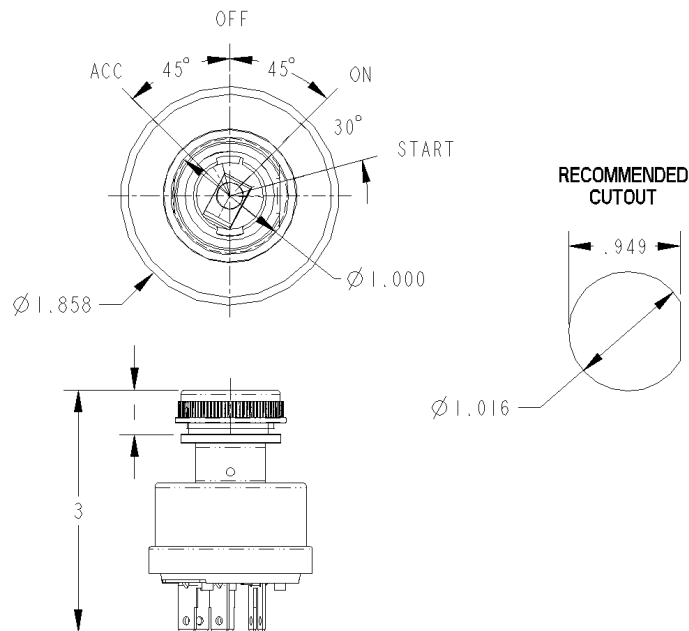
- Retaining nut: black or bright chrome
- Housing: Satin nickel

MATERIAL:

- Sturdy zinc die cast alloy housing and retaining nut
- Base: Engineered plastic
- Terminals and contacts: Tin plated brass

INSTALLATION:

- Standard 1" mounting hole
- Recommended panel thickness; .115-.225 in. (2.9-5.7mm)
- Knurled retaining nut is included. Recommended torque in 10 ft-lbs. (13.3 N-m)



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