Electromagnetic Door Holder/Releases

Door Control for Fire and Smoke Barrier Doors and Other Remote Door Release Applications
Electromagnetic door holder/releases are designed for virtually any remote door release applications. They must be used in conjunction with closing devices.

- Fire/smoke barrier doors
  - Door releases when tripped by an alarm or smoke detector
- Private offices
  - Door releases when triggered by a remote switch
- All devices come with a wall/floor portion and a door portion (armature)
- Circuit normally closed
- Door portions have screws and plates to accommodate surface and concealed mounting
Prior to determining the product you will need to use, begin by looking at the door and perpendicular wall relationship.
• Measure the distance. That will give you the “D” dimension. Select from chart A.

CHART A

<table>
<thead>
<tr>
<th>If the distance from wall to door is: “D”</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/16” (11)</td>
<td>989</td>
</tr>
<tr>
<td>1-13/16” (46)</td>
<td>990</td>
</tr>
<tr>
<td>2-5/8” (67)</td>
<td>997</td>
</tr>
<tr>
<td>3-5/8” (92)</td>
<td>998</td>
</tr>
<tr>
<td>3-3/4” (95)</td>
<td>994</td>
</tr>
<tr>
<td>4-1/8” (105)</td>
<td>996</td>
</tr>
<tr>
<td>4-3/8” (111)</td>
<td>999</td>
</tr>
<tr>
<td>5-1/8” (130)</td>
<td>998 x XK996</td>
</tr>
<tr>
<td>6-5/8” (168)</td>
<td>980</td>
</tr>
<tr>
<td>6-3/4” distance between doors</td>
<td>981</td>
</tr>
</tbody>
</table>

CHART B

Junction box location should always be as close as possible to the door pull/lever/knob.

A position horizontally farther toward the hinge edge will dramatically lessen the hold open force of the magnet.

A mounting too high on the vertical plane (top of door) will make it more difficult to pull out of hold open.

Refer to Diagram B
• How far is the centerline of the pivot/hinge from the wall? “A” dimension
• What is width of door? “B” dimension
• At what degree is the door opening? If this dimension is more than 100° consult template.
  The armature has a few degrees of adjustment but, before proceeding verify with the product template
• Dimension “C” is from pivot point to junction box centerline
FEATURES

- 25 to 40 pounds holding power, except where noted
- Fail-safe operation; power failure releases door to close
- Positive release button initiates closing motion
- Tri-volt coils on most models see 
- Spotting template included
- For stronger holding forces (50-55 lbs.) specify model and voltage. Not available in tri-volt coils

CERTIFICATIONS

All Rixson® electromagnetic door holder/releases are in compliance with ANSI/BHMA A156.15 Standards. See individual products for sub sections.
- All units UL/ULC listed
- All units listed by California State Fire Marshal

LIMITED WARRANTY

Rixson® electromagnetic door holder/releases are warranted for 2 years for defect. See Rixson® Price Book for specific details of the limited warranty.

SPECIFICATIONS

All electromagnetic door holder/releases shall be supplied by architectural hardware supplier. All units shall have a single coil to accommodate 12VDC, 24VAC, 24VDC and 120VAC. The coils shall be independently wound, employing a fuse. Armatures will have positive release button.
ELECTROMAGNETIC DOOR HOLDER/RELEASES
FLOOR MOUNTED

MODEL 980

Application
• Floor Mount
• Single Door
• ANSI/C00021

Product Description & Features
• Concealed Wiring
• Total Floor Space Required: 6-5/8" (168mm)
• Mounting Requirements: Conduit connects directly to floor plate

Technical Information
• Voltage and Current:
  120VAC, 60 Hz., .020 amp
  24VAC/DC, 60 Hz., .020 amp
  12VDC, .040 amp
• For 50-55 lbs. of holding force, specify voltage
  120VAC, 60Hz .017 amp
  24VAC, 60Hz .080 amp
  24VDC, .068 amp
  12VDC, .180 amp
  240VAC, 50/60Hz .009 amp
• Shipping Weight: 4 lbs. [1.8 kg]

MODEL 981

Application
• Floor Mount
• 2 Back-to-Back Doors
• ANSI/C00031

Product Description & Features
• Concealed Wiring
• Floor Space Required: 8-1/4" (210mm)
• Mounting Requirements: Conduit connects directly to floor plate

Technical Information
• Voltage and Current:
  120VAC, 60Hz., .040 amp
  24VAC/DC, .040 amp
  12VDC, .080 amp
• For 50-55 lbs. of holding force, specify voltage
  120VAC, 60Hz .034 amp
  24VAC, 60Hz .016 amp
  24VDC, .036 amp
  12VDC, .360 amp
  240VAC, 50/60Hz .018 amp
• Shipping Weight: 4-3/4 lbs. (2.2 kg)
MODEL 989

**Application**
- Wall Mount
- Low Profile
- Concealed Wiring
- ANSI/C00011

**Product Description & Features**
- Total Projection: 7/16" (11mm)
- Mounting Requirements: 2" x 4" x 2-1/2" (51 x 102 x 64mm) outlet box
- Wall must be properly reinforced and outlet box adequately fastened

**Technical Information**
- Voltage and Current:
  - 120VAC, 60Hz, 0.020 amp
  - 24VAC/DC, 60Hz, 0.020 amp
  - 12VDC, 0.040 amp
- For 50-55 lbs. of holding force, specify voltage
  - 120VAC, 60Hz, 0.017 amp
  - 24VAC, 60Hz, 0.080 amp
  - 24VDC, 0.068amp
  - 12VDC, 0.180amp
  - 240VAC, 50/60Hz, 0.100 amp
- Shipping Weight: 2 lbs. (0.9 kg)

MODEL 990

**Application**
- Wall Mount
- Low Profile
- Concealed Wiring
- ANSI/C00011

**Product Description & Features**
- Total Projection: 1-13/16" (46mm)
- Mounting Requirements: 2" x 4" x 2-1/2" (51 x 102 x 64mm) outlet box
- Wall must be properly reinforced and outlet box adequately fastened

**Technical Information**
- Voltage and Current:
  - 120VAC, 60Hz, 0.020 amp
  - 24VAC/DC, 60Hz, 0.020 amp
  - 12VDC, 0.040 amp
- For 50-55 lbs. of holding force, specify voltage
  - 120VAC, 60Hz, 0.017 amp
  - 24VAC, 60Hz, 0.080 amp
  - 24VDC, 0.068amp
  - 12VDC, 0.180amp
  - 240VAC, 50/60Hz, 0.100 amp
- Shipping Weight: 2 lbs. (0.9 kg)
ELECTROMAGNETIC DOOR HOLDER/RELEASES
SPECIAL PURPOSE WALL MOUNTED

MODEL 991

Application
• Wall Mount
• Surface Wiring
• Hazardous Locations
• ANSI/C00011

Product Description & Features
• Total Projection: 4' (101mm)
• Approved for class I division 2, class II division 2, groups F and G and class III locations
• Unit includes a sealed surface-mounted junction box

Technical Information
• Voltage and Current:
  - 120VAC, 60Hz., .017 amp
  - 24VAC, .080 amp
  - 12VAC, .180 amp
  - 24VDC, .068 amp
  - 240VAC, 50/60Hz., .009 amp
• Shipping Weight: 3 lbs. (1.4 kg)

MODEL 993

Application
• High Hold
• Surface or Concealed Mounting
• Floor or Wall Application

Product Description & Features
• 300 lb. holding force
• Total Projection: 5-1/4" (133mm)
• Switch Box Included: 4-1/2" x 4-9/16" x 2-5/16" (114 x 116 x 59mm) deep
• Armature plate thru-bolted to maintain consistent contact with magnet
• Adjusting screw on special heavy-duty armature allows for alignment of contact plate
• 9930 Floor mount available
• Unit has test switch — may be ordered without switch if door will be pulled out of hold open very often
• Use key switch to release (by others)
• Substantial wall reinforcement required

Technical Information
• Voltage and Current: 24VAC/DC .25 amp
• Shipping Weight: 3 lbs. (1.4 kg)
MODEL 994

Application
- Wall Mount
- Adjustable Armature
- Concealed Wiring
- ANSI/C00011

Product Description & Features
- Total Projection: 3-3/4” (95mm)
- Adjustable armature rotation up and down, back and forth for better alignment.
- Cannot be use with 900 base or spacers.
- Can be used without adjustment piece making it a model 997
- Mounting Requirements:
  2” x 4” x 2-1/2” (51 x 102 x 64mm) outlet box
- Wall must be properly reinforced and outlet box adequately fastened

Technical Information
- Voltage and Current:
  120VAC, 60Hz., .020 amp
  24VAC/DC, 60Hz., .020 amp
  12VDC, .040 amp
- For 50-55 lbs. of holding force, specify voltage
  120VAC, 60Hz .017 amp
  24VAC, 60Hz .080 amp
  24VDC, .068amp
  12VDC, 180amp
  240VAC, 50/60Hz .009 amp
- Shipping Weight: 3 lbs. (1.4 kg)

MODEL 996

Application
- Wall Mount
- Surface Wiring
- ANSI/C00011

Product Description & Features
- Total Projection: 4-1/8” (105mm)
- Mounting Requirements:
  1-1/2” (38mm) deep adapter housing
- Wall must be properly reinforced

Technical Information
- Voltage and Current:
  120VAC, 60Hz., .020 amp
  24VAC/DC, 60Hz., .020 amp
  12VDC, .040 amp
- For 50-55 lbs. of holding force, specify voltage
  120VAC, 60Hz .017 amp
  24VAC, 60Hz .080 amp
  24VDC, .068amp
  12VDC, 180amp
  240VAC, 50/60Hz .009 amp
- Shipping Weight: 2 lbs. (0.9 kg)
ELECTROMAGNETIC DOOR HOLDER/RELEASES
WALL MOUNTED

MODEL 997

Application
• Wall Mount
• Concealed Wiring
• ANSI/C00011

Product Description & Features
• Total Projection: 2-5/8" (67mm)
• Mounting Requirements:
  2" x 4" x 1-3/4" (51 x 102 x 45mm) outlet box
  Wall must be properly reinforced and outlet box adequately fastened

Technical Information
• Voltage and Current:
  120VAC, 60Hz., 0.020 amp
  24VAC/DC, 60Hz., 0.020 amp
  12VDC, 0.040 amp
• For 50-55 lbs. of holding force, specify voltage
  120VAC, 60Hz. 0.017 amp
  24VAC, 60Hz. 0.080 amp
  24VDC, 0.068 amp
  12VDC, 0.180 amp
  240VAC, 50/60Hz. 0.009 amp
• Shipping Weight: 2 lbs. (0.9 kg)

MODEL 998

Application
• Wall Mount
• Concealed Wiring
• ANSI/C00011

Product Description & Features
• Total Projection: 3-5/8" (92mm)
• Mounting Requirements:
  2" x 4" x 1-3/4" (51 x 102 x 45mm) outlet box
  Wall must be properly reinforced and outlet box adequately fastened

Technical Information
• Voltage and Current:
  120VAC, 60Hz., 0.020 amp
  24VAC/DC, 60Hz., 0.020 amp
  12VDC, 0.040 amp
• For 50-55 lbs. of holding force, specify voltage
  120VAC, 60Hz. 0.017 amp
  24VAC, 60Hz. 0.080 amp
  24VDC, 0.068 amp
  12VDC, 0.180 amp
  240VAC, 50/60Hz. 0.009 amp
• Shipping Weight: 2-1/2 lbs. (1.1 kg)
**ELECTROMAGNETIC DOOR HOLDER/RELEASES**  
**WALL MOUNTED**

**MODEL 999**

**Application**
- Universal Mounting
- ANSI/C00011

![Image of electromagnetic door holder/release](image)

**Product Description & Features**
- Base Plate; Concealed Wiring
- Total Projection: 4-3/8" (111mm)
- Mounting Requirements: 2" x 4" (51 x 102mm) outlet box; 4" (102mm) square box; 4" (102mm) octagonal box
- Wall must be properly reinforced and outlet box adequately fastened

**Technical Information**
- Voltage and Current:
  - 120 VAC, 60 Hz., .020 amp
  - 24 VAC/DC, 60 Hz., .020 amp
  - 12 VDC, .040 amp
- For 50-55 lbs. of holding force, specify voltage
  - 120VAC, 60Hz .017 amp
  - 24VAC, 60Hz .080 amp
  - 24VDC, .068amp
  - 12VDC, .180amp
  - 240VAC, 50/60Hz. .009 amp
  - Shipping Weight: 2-3/4 lbs. (1.2 kg)
**Operation Narrative**

Doors are to be normally held open. The electromagnetic door releases will be energized with the voltage shown (at right) in the hardware set for this opening. Power shall be controlled by the fire control system. It will interrupt the power if alarmed, causing the doors to be released, thus allowing the door closers to close the doors. When power is restored the magnets will re-energize, permitting the doors to be manually returned to their held open position.

**ACCESSORIES**

- **Base Unit Armature Extension**
  - Mounts between armature and contact plate.
  - Part# 900
  - Cannot be used with model 994

- **Armature Extension 90° Bend**
  - Part# 900-Z
  - Must be used with 900 base unit. Those two pieces will extend armature 3" longer than the contact plate.

- **1-1/2" (38mm) Extension**
  - For use only with Models 997, 998 & 994
  - Mounts behind wall cover.
  - Part# 996631-

- **1-1/8" (29mm) Extension**
  - For Models 997, 998 & 994
  - Mounts behind wall cover.
  - Part# 996632-

- **K994 Swivel Armature**
  - Cannot be used with extension spacers.
  - Part# 900-3

- **Spacers**
  - Must be used with 900 base unit.
    - Part# 900-100 = 1"
    - Part# 900-200 = 2"
    - Part# 900-300 = 3"
    - Part# 900-400 = 4"
    - Part# 900-500 = 5"
    - Part# 900-600 = 6"

**Electrical Specifications:**
- 12VDC @ .40Amps
- 24VDC @ .20Amps
- 120VAC @ .20Amps

*Note: All wiring must be installed in compliance with the National Electrical Code and the local codes having jurisdiction. Proper wire gauge should be used.*
MODEL 972

The Rixson® 972 Industrial Door Release is listed by Underwriters’ Laboratories as a substitute for fusible links in such applications as overhead rolling doors, guillotine doors, fire dampers and self-closing windows. These heavy-duty units provide automatic release when triggered by a smoke detector, manual pull station, test button on unit, or other electrically operated switch.

Application
- 972H for Swinging Doors
- 972S for Sliding Doors
- 972U for Overhead Doors
- ANSI/C00041

Product Description & Features
- Voltage and Current:
  - 120VAC, 60Hz., .150 amp
  - 24VAC, 60Hz., .150 amp
  - 24VDC, .08 amp
  - 12VDC, .08 amp
- Holding force 75 lbs
- Shipping Weight: 5 lbs. (2.3 kg)

Technical Information

Code Listings:
- Underwriters’ Laboratories, Inc.
- Underwriters’ Laboratories of Canada
- State of California (3550-047:13)

How to Order:
Specify model number and voltage.
## How to Order

<table>
<thead>
<tr>
<th>998 Series</th>
<th>120VAC Voltage</th>
<th>689 Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>980</td>
<td>Floor Mounted</td>
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<tr>
<td>981</td>
<td>Floor Mounted Back to Back Doors</td>
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<tr>
<td>989</td>
<td>Low Projection Wall Mounted</td>
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<td>990</td>
<td>Low Projection Wall Mounted</td>
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<td>991</td>
<td>Hazardous Location Wall Mounted</td>
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<td>993</td>
<td>High Hold Wall Mounted</td>
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<td>9930</td>
<td>High Hold Floor Mounted</td>
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<td>Wall Mounted Adjustable Armature</td>
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<td>996</td>
<td>Surface Mounted</td>
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<td>997</td>
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<td>999</td>
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<td>972H</td>
<td>Industrial Swing Door Holder</td>
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<td>972S</td>
<td>Industrial Sliding Door Holder</td>
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<tr>
<td>972U</td>
<td>Industrial Overhead/Rolling Door</td>
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<td><strong>BLANK</strong></td>
<td><strong>TRI-VOLT</strong></td>
<td><strong>689</strong></td>
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<td>24VAC/DC</td>
<td>*24VAC/DC</td>
<td>689 Sprayed Alum</td>
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<tr>
<td>12VDC</td>
<td>*12VDC</td>
<td>690 Sprayed Dk Brz</td>
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<td>12VAC</td>
<td>*120VAC</td>
<td>691 Sprayed Lt Brz</td>
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<td>120VAC</td>
<td>*240VAC</td>
<td>693 Sprayed Black</td>
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<tr>
<td>240VAC</td>
<td></td>
<td>696 Sprayed Brass</td>
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</tbody>
</table>

*When voltage is specified, these electromagnetic door holder/releases will have 50-55 lbs. of holding force.*
USED WITH MODEL 980/981

Floor Portion

| (A) Magnet Housing Cover | 980311-* / 981311-* |
| (B) Magnet Support Bracket | 981309 |
| (C) Gasket | 980095 |
| (D) Magnet | **996219-3V** |
| (E) Magnet Housing Base | 980312-* / 981312-* |

**For voltages other than (tri-volt 12 VDC, 24 VAC, 24 VDC, and 120 VAC), contact factory for electromagnet assembly part number.**

USED WITH MODEL 990, 989

Wall Portion

| (A) Magnet Bracket | 990002 |
| (B) Magnet | **996219-3V** |
| (C) Wall Cover Plate | 990001 |

**For voltages other than (tri-volt 12 VDC, 24 VAC, 24 VDC, and 120 VAC), contact factory for magnet mounting bracket assembly part number.**

USED WITH MODEL 994, 997, 998

Wall Portion

| (A) Magnet Assembly and Bracket | **998369-3V** |
| (B) Cover | 998315-* |

**For voltages other than (tri-volt 12 VDC, 24 VAC, 24 VDC, and 120 VAC), contact factory for magnet mounting bracket assembly part number.**

*S*pecify finish
**ELECTROMAGNETIC DOOR HOLDER/RELEASES**

**PARTS DRAWINGS**

**USED WITH MODEL 996**

**Wall Portion**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>(A)</td>
<td>Surface Mounting Box Housing</td>
<td>996501-*</td>
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<tr>
<td>(B)</td>
<td>Magnet Assembly and Bracket</td>
<td><strong>996369-3V</strong></td>
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<tr>
<td>(C)</td>
<td>Cover</td>
<td>998315-*</td>
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</table>

*Specify finish

**For voltages other than (trivolt 12 VDC, 24 VAC, 24 VDC, and 120 VAC), contact factory for magnet mounting bracket assembly part number.**

**USED WITH MODEL 999**

**Wall Portion**

<p>| | | |</p>
<table>
<thead>
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<tbody>
<tr>
<td>(A)</td>
<td>Base Plate</td>
<td>999105</td>
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<tr>
<td>(B)</td>
<td>Cover</td>
<td>999055-*</td>
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<tr>
<td>(C)</td>
<td>Magnet</td>
<td><strong>996219-3V</strong></td>
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</tbody>
</table>

*Specify finish

**For voltages other than (trivolt 12 VDC, 24 VAC, 24 VDC, and 120 VAC), contact factory for magnet mounting bracket assembly part number.**

**USED WITH MODEL 980/981, 990, 991, 996, 997**

**Door Portion**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>(A)</td>
<td><strong>Backup Plate</strong></td>
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<tr>
<td>(B)</td>
<td>Door Armature</td>
<td>997510-*</td>
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<tr>
<td>(C)</td>
<td><strong>Door Plate</strong></td>
<td>998009</td>
</tr>
</tbody>
</table>

**Not Sold Separately – See Screw Kit**

*Specify finish

Door portion screws included with Wall/Floor parts.
**ELECTROMAGNETIC DOOR HOLDER/RELEASES**

**PARTS DRAWINGS**

**USED WITH MODEL 998, 999**

**Door Portion**

| (A) **Backup Plate** | 900314 |
| (B) Door Armature | 998512-* |
| (C) **Door Plate** | 998009 |

**Surface Applied**

**Concealed Mounting**

**Thru Bolt Mounting**

*Not Sold Separately – See Screw Kit*

*Specify finish*

Door portion screws included with Wall/Floor parts.

**USED WITH MODEL 994**

**Door Portion**

| (A) **Backup Plate** | 900314 |
| (B) Adjustable Armature | 994510-* |
| (C) **Door Plate** | 998009 |
| (D) Adjustment Piece | 900-3* |

*Not Sold Separately – See Screw Kit*

*Specify finish*

Door portion screws included with Wall/Floor parts.

**USED WITH MODEL 989**

**Door Portion**

| (A) Door Armature Attachment screw included in Kit 444FM |

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ELECTROMAGNETIC DOOR HOLDER/RELEASES
PARTS DRAWINGS

USED WITH MODEL 991

Wall Portion

Screw Kit for 991: 990300- *
*specify finish

991210-120 VAC
991211-24 VAC/DC
991212-24 VDC
991214-12 VAC
991215-240 VAC
Magnet Assembly

USED WITH MODEL 993/9930

Screw Kit for 993: 993300-A

9930 Parts
Bracket for floor mounting 993126- *
Screw kit for floor bracket 993040- *

993126-689
Bracket screw pack 993040-A

9930 Bracket

993100-A
Magnet Housing Assembly

Magnet and Bracket Assembly

Wall Plate

993512-A
Armature Assembly

Thru Bolt Mounting
USED WITH MODEL 972H

- 972041 "U" Bracket
- 972102 Cover
- 972106 Latch Unit
- Cover
- Latch

Screw Kit for 972H:
- 972190

Box
- 972100–12 VDC
- 972112–24 VAC
- 972118–120 VAC
- 972120–24 VDC

USED WITH MODEL 972S

- 972040 Angle Bracket
- 972102 Cover
- 972106 Latch Unit
- Cover
- 972044 Flat Latch Bracket
- Latch
- 972043 Threaded Latch Bracket

Screw Kit for 972S:
- 972290

Box
- 972100–12 VDC
- 972112–24 VAC
- 972118–120 VAC
- 972120–24 VDC

USED WITH MODEL 972U

- 972040 Angle Bracket
- 972102U Cover
- 972041 "U" Bracket
- 972105 Latch Arm

Screw Kit for 972U:
- 972390

Box
- 972100–12 VDC
- 972112–24 VAC
- 972118–120 VAC
- 972120–24 VDC

*specify finish