**IDH MAX™ INTRODUCTION**

The IDH MAX™ from Best Access Systems offers convenience and efficiency for your electrified lock applications. Instead of installing reader devices, installing electrified strikes, installing door contacts and installing request-to-exit devices, you can now install the BEST IDH MAX™ in cylindrical or mortise lock applications. With IDH MAX™ all of the formerly separate equipment needed to control access are self-contained in a single installation. The complexity of multiple wire runs is drastically reduced.

You can let Best Access Systems show you how to MAXimize your access control system with the IDH MAX™! For the name and location of your local Best Access Systems office, visit our web site at www.bestaccess.com or call (317) 849-2250.

**IDH MAX™ FEATURES**

**Features**
- Includes latch and door position indicator, RQE switch.
- When the 1300 option is specified the ISC (Intelligent System Controller) is embedded behind the escutcheon secured and out of site.
- Requires only one 4 conductor wire run.
- Reduces number of components installed and visible at the door (PIR, RQE push buttons and door contacts).
- Installation time is reduced.
- The RQE switch senses the inside lever/knob rotation.
- All of the door components are housed in one manufacturer's hardware.
- With the elimination of components, only the lockset is visible at the door.
- The reader is integrated into the lockset escutcheon.
- Available in insertion magnetic stripe, keypad and proximity readers.
- Available in all popular lever/knob styles and finishes.
- Operates with BEST interchangeable core as a mechanical override.
- Integrates with many manufacturer's on-line EAC equipment

**Mortise Features**
- Lock case meets the requirements as listed in the ANSI/ BHMA A156.13 standard for Series 1000, Grade 1 Operational and Grade 2 Security locks.
- UL listed for GYQS Electrically controlled single point locks or latches for use on 3 hr, A label doors (4’ x 10’). The listing applies for both U.S. and Canadian applications.
- Door contact, request-to-exit, and latch status sensors positioned inside lock case.
- The ISC (Intelligent System Controller) is embedded behind the escutcheon secured and out of site.
- The door contact magnet is installed behind the strike and out of site.
- All sensors are all standard in IDH Max mortise locks.

**Mortise Features (continued)**
- The heavy duty design of the mortise lock makes easy field maintenance and reduces risk of part failure.
- Twist off lever spindle design protect internal lock parts from damage and failure.
- Oil impregnated stainless steel 3/4 ” anti-friction latchbolt reduces door closing force and wear.

**Cylindrical Features**
- Non-handed levers allow for ease of installation.
- Lock chassis meets the requirements as listed in the ANSI/ BHMA A156.2, standard for Series 4000 Grade 1 locks.
- UL listed for GYQS Electrically controlled single point locks or latches for use on 3 hr, A label single doors (4’ x 10’) GYJB. The listing applies for bothe U.S. and Canadian applications.
- Request-to-exit sensor positioned inside lock trim.
- The ISC (Intelligent System Controller) is embedded behind the escutcheon secured and out of site.
- Request-to-exit and door contact sensors are standard in IDH MAX cylindrical locks.

**Magnetic Stripe Electronic Lock Features**
- Durable material has teflon-like characteristics for increased life and wear resistance.
- Variable read rate allows for easy usage.

**Proximity Card Reader Features**
- HID and Motorola/Indala proximity cards supported.
- Compatible with Weigand, ABA and custom formatted proximity cards.
- UL listed for GYQS Electrically controlled single point locks or latches.
- Usable in all environmental/exterior applications.
MECHANICAL

Case— Heavy wrought steel, 5 7/8” H x 4 1/4” D x 1” W steel parts are zinc dichromate plated for corrosion protection.

Faceplate— Brass or bronze, 1 1/4” x 8” x 1/2”. Armored. Adjustable from flat to beveled 1/8” - 2”.

Strike— Brass, bronze or Stainless Steel, 4 7/8” x 1 1/4” x 1/2”. Fits standard door frame cut out as specified in ANSI A115.1. Correct strike automatically supplied with unit. Strike box supplied standard.

Door thickness— For doors 1 3/4” - 3” thick.

Installation— Lock requires modified door prep to mount the trim. Faceplate dimensions fit standard door preparation as specified in ANSI A115.1. Lockset is reversible for hand of door.

Latchbolt— Stainless steel, 3/4” throw with anti-friction latch.

Deadbolt— Solid stainless steel, 1” throw.

Auxiliary bolt— Stainless steel.

Die cast trim housing—Dimensions: 10 3/8” H x 3 1/4” W x 1” D sloping down to 3/4”.

Knobs— Diameter: 2 1/4” Projection on door: 2 7/8”

#4, #6 knobs: Material machined from brass or bronze.

#44 knob: Heavy wrought brass or bronze.

Lever handle— Brass, bronze or stainless steel. (Lever #3, #14 and #15 conform to California Titles 19 and 24.)

Mounting— Knob and lever attached with hardened set screw on inside knob or inside lever.

Finish— 605-bright brass, clear coated; 606-satin brass, clear coated; 611-bright bronze, clear coated; 612-satin bronze, clear coated; 613-oxidized satin bronze, oil rubbed; 625-bright chromium plated; 626-satin chromium plated; 629-bright stainless steel; 630-satin stainless steel; 690-dark bronze.

ELECTRONIC

45HM IDH MAX™ Mortise:

Maximum current draw: 1.1 Amp for 50 milliseconds

Typical current draw (hold condition): 650 milliAmps

Voltage: 10.2 to 13.2 V (DC only)

Operating Temperature:

Minimum/Maximum range Inside: 70°F ± 4°F (21°C ± 2°C) Outside: -31°F (-35°C) to +151°F (+66°C)

Magnetic Stripe Card Reader:

Read Rate: 5 inches per second to 50 inches per second.

Card thickness: ISO standard .030” ± .003” thick.

Compliance to FCC, Canadian, and European EMC requirements; for interference FCC Class A digital apparatus.

Magnetic Stripe adaptation: Trim option that can accept other manufacturers cylinder.

Proximity Reader:

ANSI/BHMA A156.25 compliant

Compatible with Motorola / Indala and HID proximity cards

ABA and Wiegand output

Weatherproof bezel and gasket provide protection for outdoor use. (Usable in all environmental/ exterior applications)

Card Read Range: 0 – 3 inches

Compliance to US FCC, Canadian FCC, and European EMC requirements

ESD Protection: 15 Kilo Volt
# 40HM IDH MAX™ FUNCTIONS

<table>
<thead>
<tr>
<th>Function</th>
<th>Latch Operated by</th>
<th>Outside Knob or Lever Locked by</th>
<th>Inside Knob or Lever Locked by</th>
<th>Locked by</th>
<th>Unlocked by</th>
</tr>
</thead>
<tbody>
<tr>
<td>EEL–Locked</td>
<td>• Rotating inside</td>
<td>Applying 12 volts DC. Outside</td>
<td>Switching off 12 volts DC.</td>
<td>Cannot be</td>
<td>Always unlocked</td>
</tr>
<tr>
<td>Fail Safe</td>
<td>knob/lever, OR</td>
<td>knob/lever remains locked only</td>
<td>outside knob/lever remains</td>
<td>locked</td>
<td>unlocked</td>
</tr>
<tr>
<td></td>
<td>• Rotating outside</td>
<td>while white power is on.</td>
<td>unlocked while power is on.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>knob/lever—only</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Turning key in</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>outside cylinder.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Powered by 12 DC, temperature control module is not needed.**

| EEU–Unlocked  | • Rotating inside | Switching off 12 volts DC.      | Applying 12 volts DC. Outside  | Cannot be | Always unlocked |
| Fail Secure   | knob/lever, OR    | outside knob/lever remains      | knob/lever remains unlocked    | locked    | unlocked    |
|              | • Rotating outside| only when power is on, OR       | only while power is on.        |           |             |
|              | knob/lever—only   | • Turning key in outside cylinder. |                                |           |             |

**Powered by 12 DC, temperature control module is not needed.**

| NEL–Locked   | • Rotating inside | Applying 12 volts DC. Outside   | Switching off 12 volts DC.     | Cannot be | Always unlocked |
| Fail Safe    | knob/lever, OR    | knob/lever remains locked only  | outside knob/lever remains    | locked    | unlocked    |
|              | • Rotating outside| while white power is on.       | unlocked while power is on.   |           |             |
|              | knob/lever—only   | only when power is on.          |                                |           |             |
|              | • Turning key in   |                                |                                |           |             |
|              | outside cylinder.  |                                |                                |           |             |

**Powered by 12 DC, temperature control module is not needed.**

| NEU–Unlocked  | • Rotating inside | Switching off 12 volts DC.      | Applying 12 volts DC. Outside  | Cannot be | Always unlocked |
| Fail Secure   | knob/lever, OR    | outside knob/lever remains      | knob/lever remains unlocked    | locked    | unlocked    |
|              | • Rotating outside| only when power is on.          | only while power is on.        |           |             |
|              | knob/lever—only   | • Turning key in outside cylinder. |                                |           |             |

**Powered by 12 DC, temperature control module is not needed.**

Shading indicates a ridged lever/knob in a non-energized state.

## HOW TO ORDER 40HM IDH MAX™

### 45HM

<table>
<thead>
<tr>
<th>Series</th>
<th>Core Housing</th>
<th>Function</th>
<th>Lever/Knob Style</th>
<th>Trim Style</th>
<th>MS Finishes</th>
<th>RH</th>
<th>KNL Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>44HM–knob</td>
<td></td>
<td>EEU– electrically locked</td>
<td></td>
<td>Proximity Motorola PH– proximity HID</td>
<td>606 612 618 625 690</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>NEL– electrically locked</td>
<td></td>
<td></td>
<td>610 626</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>NEU– electrically locked</td>
<td></td>
<td></td>
<td>611 613 619 625 690</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Must specify key mark and number of keys or designate L/C for less core. †See H Series catalog for details.**
MECHANICAL

Materials—Internal parts are brass, zinc or corrosion-treated steel.
Chassis—$2\frac{3}{8}$" diameter to fit $2\frac{1}{8}$" diameter hole in door.
Strike—Brass or bronze, $4\frac{7}{8}\times 1\frac{1}{4}\times \frac{3}{16}$". Fits standard door frame cut out as specified in ANSI A115.1. Correct strike automatically supplied with unit. Strike box supplied standard.
Backset—$2\frac{3}{4}$" standard, $3\frac{3}{4}$" and $5$" available.
Door thickness—For doors $1\frac{3}{4}$" – $2\frac{1}{4}$"
Installation—Lock dimensions requires modified door prep ANSI A156.2 Series 4000, Grade 1 to mount housing.
Latchbolt—$\frac{3}{8}$" throw.
Die cast trim housing—Dimensions: $10\frac{3}{8}$" H x $3\frac{3}{4}$" W x $1\frac{1}{4}$" D sloping down to $\frac{3}{8}$".
Knobs—Diameter: $2\frac{1}{8}$" Projection on door: $2\frac{7}{8}$"
#4, #6 knobs: Material machined from brass or bronze.
Lever handle—Made from high-quality zinc alloy. Body is approximately $1\frac{3}{4}$" in diameter: Handle is approximately $4\frac{7}{8}$" in length (from center-line of chassis). (Lever #14,15 conform to California Titles 19 and 24.)
Finish—605—bright brass, clear coated; 606—satin brass, clear coated; 611—bright bronze, clear coated; 612—satin bronze, clear coated; 613—oxidized satin bronze, oil rubbed 625—bright chromium plated; 626—satin chromium plated; 690—dark bronze.

9KM IDH MAX™ SPECIFICATIONS

ELECTRONIC

9KM IDH MAX™ Cylindrical:
Maximum current draw: 850 MilliAmps, for 50 milliseconds
Typical current draw (hold condition): 550 milliAmps
Voltage: 10.2 to 13.2 V
Operating Temperature:
Minimum/Maximum range *Inside*: $70\pm 4^\circ F (21\pm 2^\circ C)$ *Outside*: $-31^\circ F (-35^\circ C)$ to $+151^\circ F (+66^\circ C)$

Magnetic Stripe Card Reader:
Read Rate: 5 inches per second to 50 inches per second.
Card thickness: ISO standard .030" ± .003 thick.
Compliance to FCC, Canadian, and European EMC requirements; for interference FCC Class A digital apparatus.

Magnetic Stripe adaptation: Trim option that can accept other manufacturers cylinder.

Proximity Reader:
ANSI/BHMA A156.25 compliant
Compatible with Motorola / Indala and HID proximity cards
ABA and Wiegand output
Weatherproof bezel and gasket provide protection for outdoor use. (Usable in all environmental/exterior applications)
Card Read Range: 0 – 3 inches
Compliance to US FCC, Canadian FCC, and European EMC requirements
ESD Protection: 15 Kilo Volt
9KM IDH MAX™ FUNCTIONS

<table>
<thead>
<tr>
<th>Function</th>
<th>Latch Operated by</th>
<th>Outside Knob or Lever Locked by</th>
<th>Outside Knob or Lever Unlocked by</th>
<th>Inside Knob or Lever Locked by</th>
<th>Inside Knob or Lever Unlocked by</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDEL–Locked</td>
<td>• Rotating the inside knob/lever, OR • Rotating the outside knob/lever—only when power is off, OR • Turning the key in the outside knob/lever.</td>
<td>Applying 12 volts DC. The outside knob/lever remains locked only while power is on.</td>
<td>Switching off 12 volts DC</td>
<td>Cannot be locked</td>
<td>Always unlocked</td>
</tr>
</tbody>
</table>

**Powered by 12 DC. temperature control module is not needed.**

<table>
<thead>
<tr>
<th>Function</th>
<th>Latch Operated by</th>
<th>Outside Knob or Lever Locked by</th>
<th>Outside Knob or Lever Unlocked by</th>
<th>Inside Knob or Lever Locked by</th>
<th>Inside Knob or Lever Unlocked by</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDEU–Unlocked</td>
<td>• Rotating the inside knob/lever, OR • Rotating the outside knob/lever—only when power is on, OR • Turning the key in the outside knob/lever.</td>
<td>Switching off 12 volts DC</td>
<td>Applying 12 volts DC. The outside knob/lever remains locked only while power is off.</td>
<td>Cannot be locked</td>
<td>Always unlocked</td>
</tr>
</tbody>
</table>

**Powered by 12 DC. temperature control module is not needed.**

Shading indicates a ridged lever/knob in a non-energized state.

### HOW TO ORDER—9KM/8KM IDH MAX™

<table>
<thead>
<tr>
<th>93KM Series</th>
<th>7 Core Housing</th>
<th>DDEU Function</th>
<th>14 Lever/Knob Style</th>
<th>MS Trim Style</th>
<th>STK Strike</th>
<th>626 Finishes*</th>
<th>TL Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>83KM– 2 3/4″</td>
<td>7 pin</td>
<td>DDEU– electrically-unlocked</td>
<td>Knob 6– tulip</td>
<td>626 690</td>
<td>626 690</td>
<td>FM– free motion</td>
<td></td>
</tr>
<tr>
<td>84KM– 3 3/4″</td>
<td>housing</td>
<td>DDEU– electrically-unlocked</td>
<td>(see above)</td>
<td>(page 10)</td>
<td>(page 10)</td>
<td>LM– lost motion</td>
<td></td>
</tr>
<tr>
<td>85KM– 5″</td>
<td>accepts all BEST cores</td>
<td>DDEU– electrically-unlocked</td>
<td>(see above)</td>
<td>(page 10)</td>
<td>(page 10)</td>
<td>TL– tactile lever</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** specify inside (I), outside (O), or both (B) for AL, TL,TAC, KNL options

Both 8KM & 9KM:

- SH– security head screws
- 7/8″– 7/8″ throw latch
- 1300– Integrated BAS1300/LNL1300 reader electronics board (page 19)

* Handles and trim are made from a zinc alloy, and have been plated to be equivalent in appearance to the finishes listed.
**40HW ELECTRIFIED SPECIFICATIONS**

Best electromechanical locks provide a way to lock or unlock a door from a remote location for safety, convenience, or security. Best offers the 8KW/9KW cylindrical and 34HW/35HW mortise locks in fail-safe or fail-secure operation. These locksets can be controlled by an individual switch, switch lock, relay, access control or other automatic control system. As expected, the 8KW/9KW and 44HW/45HW electromechanical locks exhibit the same features and meet the same specifications as our standard 8K/9K cylindrical and 34H/35H mortise locksets.

†**NOTE:** 8KW/9KW Electromechanical locksets are intended for use on 1 3/4" minimum thick doors. Consult your local BEST office when installing 8KW/9KW electromechanical locksets on doors less than 1 3/4" thick.

Types:
- 24 volts AC or DC — 0.75 amps
- EU: Electrically Unlocked (Fail Secure)
- EL: Electrically Locked (Fail Safe)

Approval Listings:
- UL listed for GYQS Electrically-controlled singlepoint locks or latches.
- This product has been approved by the California State Fire Marshal (CSFM) pursuant to section 13144.1 of the California Health and Safety Code.
- Approved by the city of New York Board of Standards and Appeals under calendar number 49-88-SA. See CSFM listing No. 4136-1175:101 for allowable values and/ or conditions for use concerning material presented in this document. It is subject to re-examination, revisions and possible cancellation.

NOTE: A Temperature Control Module (TCM) may be needed when a lockset is energized for long periods of time. The TCM must be ordered separately for EU functions, but is automatically included with 44HW/45HW EL functions.

---

### HOW TO ORDER 45HW and 47HW LEVER LOCKSETS

<table>
<thead>
<tr>
<th>45HW</th>
<th>EWEU</th>
<th>J</th>
<th>612</th>
<th>RH</th>
<th>RQE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>Core Housing</td>
<td>Function</td>
<td>Lever Style</td>
<td>Finishes</td>
<td>Handing Options</td>
</tr>
<tr>
<td>47HW–lever high security</td>
<td>47HW: 7–7 pin (accepts 5C cores only)</td>
<td>(page 8)</td>
<td>(page 10)</td>
<td>(page 10)</td>
<td></td>
</tr>
</tbody>
</table>

* †N" trim not available on WWEL/EU functions. **Must specify key mark and number of keys or designate L/C for less core. †See H Series catalog for details.

### HOW TO ORDER 44HW and 46HW KNOB LOCKSETS

<table>
<thead>
<tr>
<th>44HW</th>
<th>EWEU</th>
<th>M</th>
<th>626</th>
<th>RH</th>
<th>IDH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>Core Housing</td>
<td>Function</td>
<td>Knob Style</td>
<td>Finishes†</td>
<td>Handing Options†</td>
</tr>
<tr>
<td>46HW– Knob high security</td>
<td>46HW: 7–7 pin (accepts 5C cores only)</td>
<td>(page 8)</td>
<td>(page 10)</td>
<td>46HW: M–forged</td>
<td>(page 10)</td>
</tr>
</tbody>
</table>

* †N" trim not available on WWEL/EU functions. **Must specify key mark and number of keys or designate L/C for less core. †See H Series catalog for details.
### Electromechanical Locks

**NXEL—Locked Fail Safe**
- Rotating inside knob/lever, OR
- Rotating outside knob/lever—only when power is off, OR
- Turning key in outside cylinder.

**Outside Knob or Lever**
- Operated by Applying 24 volts AC/DC. Outside knob/lever remains locked only while power is on.
- Locked by Switching off 24 volts AC/DC. Outside knob/lever remains unlocked only while power is off.
- Unlocked by Cannot be locked

**Inside Knob or Lever**
- Always unlocked

**Powered by** 24 volts AC/DC and 0.75 amps, continuous duty. Temperature control module (TCM) included.

---

**DEU—Unlocked Fail Secure**
- Rotating inside knob/lever, OR
- Rotating outside knob/lever—only when power is on, OR
- Turning key in outside cylinder.

**Outside Knob or Lever**
- Operated by Switching off 24 volts AC/DC. Outside knob/lever remains locked only while power is on.
- Locked by Applying 24 volts AC/DC.
- Unlocked by Cannot be locked

**Inside Knob or Lever**
- Always unlocked

**Powered by** 24 volts AC/DC and 0.75 amps, continuous duty.

---

**WEL—Locked Fail Safe**
- Rotating inside or outside knob/lever—only when power is on, OR
- Turning key in inside or outside cylinder.

**Outside Knob or Lever**
- Operated by Applying 24 volts AC/DC. Outside knob/lever remains locked only while power is on.
- Locked by Switching off 24 volts AC/DC. Outside knob/lever remains unlocked only while power is off.
- Unlocked by Cannot be locked

**Inside Knob or Lever**
- Applying 24 volts AC/DC.
- Switching off 24 volts AC/DC. Inside knob/lever remains locked only while power is on.
- Always unlocked

**Powered by** 24 volts AC/DC and 0.75 amps, continuous duty. Temperature control module (TCM) included.

---

**WEU—Unlocked Fail Secure**
- Rotating inside or outside knob/lever—only when power is on, OR
- Turning key in inside or outside cylinder.

**Outside Knob or Lever**
- Operated by Switching off 24 volts AC/DC. Outside knob/lever remains locked only while power is on.
- Locked by Applying 24 Volts AC/DC.
- Unlocked by Switching off 24 volts AC/DC. Inside knob/lever remains unlocked only while power is on.

**Inside Knob or Lever**
- Switching off 24 volts AC/DC. Inside knob/lever remains unlocked only while power is on.

**Powered by** 24 volts AC/DC and 0.75 amps, continuous duty. Applying voltage locks inside and outside knobs/levers simultaneously.

---

**NXEU—Unlocked Fail Secure**
- Rotating inside knob/lever, OR
- Rotating outside knob/lever—only when power is on.

**Outside Knob or Lever**
- Operated by Switching off 24 volts AC/DC. Outside knob/lever remains locked only while power is on.
- Locked by Applying 24 volts AC/DC. Outside knob/lever remains unlocked only while power is off.
- Unlocked by Cannot be locked

**Inside Knob or Lever**
- Always unlocked

**Powered by** 24 volts AC/DC and 0.75 amps, continuous duty. Temperature control module (TCM) included.

---

**ATTENTION:** Locksets that secure both sides of the door are controlled by building codes and the Life Safety Code®. In an emergency exit situation, failure to quickly unlock the inside lever could be hazardous or even fatal.

---

Shading indicates a ridged lever/knob in a non-energized state.
Types:
- 24 volts DC only — 0.18 amps intermittent or continuous duty.
- EU: Electrically Unlocked (Fail Secure)
- EL: Electrically Locked (Fail Safe)

Approval Listings:
- UL listed for GYQS Electrically-controlled singlepoint locks or latches.
- This product has been approved by the California State Fire Marshal (CSFM) pursuant to section 13144.1 of the California Health and Safety Code.
- Approved by the city of New York Board of Standards and Appeals under calendar number 730-89-SA. See CSFM listing No. 4136-1175:103. It is subject to re-examination, revision and possible cancellation.

*Handles are made from a zinc alloy, and have been plated to be equivalent in appearance to the finishes listed.

### HOW TO ORDER 8KW & 9KW ELECTRIFIED

<table>
<thead>
<tr>
<th>Series</th>
<th>Core Housing</th>
<th>Function</th>
<th>Knob/Lever Style</th>
<th>Trim Style</th>
<th>Strike Package</th>
<th>Finishes*</th>
</tr>
</thead>
<tbody>
<tr>
<td>8KW:</td>
<td>7–7 pin housing accepts all Best cores</td>
<td>DEU—electrically-unlocked</td>
<td>4–round return</td>
<td>C–3” convex</td>
<td>STK–2 3/4” ANSI</td>
<td>605 606</td>
</tr>
<tr>
<td>93KW– 2 3/4”</td>
<td>(See Below)</td>
<td>6–tulip</td>
<td>9KW: 3–3/4” convex</td>
<td>DE–no ring</td>
<td>S3–4 3/4” ANSI</td>
<td>611 612</td>
</tr>
<tr>
<td>85KW– 5”</td>
<td>16–curved no return</td>
<td>L–3 1/2” convex—no ring</td>
<td>95KW– 5”</td>
<td>(page 10)</td>
<td>619 625</td>
<td></td>
</tr>
<tr>
<td>9KW:</td>
<td>(See Below)</td>
<td>DEU—electrically-unlocked</td>
<td>626 626</td>
<td>(page 10)</td>
<td>626 690</td>
<td></td>
</tr>
</tbody>
</table>


**Note:** specify inside (I), outside (O), or both (B) for AL, TL, TAC, KNL options.

### 8KW & 9KW FUNCTIONS

<table>
<thead>
<tr>
<th>Function</th>
<th>Latch</th>
<th>Outside Knob or Lever</th>
<th>Inside Knob or Lever</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEL-Locked</td>
<td>• Rotating the inside knob/lever, OR</td>
<td>Applying 24 volts DC. The outside knob/lever remains locked only while power is on.</td>
<td>Switching off 24 volts DC. Cannot be locked. Always unlocked.</td>
</tr>
<tr>
<td>DEU-Unlocked</td>
<td>• Rotating the inside knob/lever, OR</td>
<td>Switching off 24 volts DC. The outside knob/lever remains locked only while power is off.</td>
<td>Applying 24 volts DC. Cannot be locked. Always unlocked.</td>
</tr>
</tbody>
</table>

Locks are powered by 24 volts DC and 0.18 amps, continuous duty.
KNOB TRIM VARIATIONS

#4 knob
#6 knob
#44 knob

LEVER TRIM VARIATIONS

#3 lever
#12 lever
#14 lever
#15 lever
#16 lever
#17 lever

MORTISE ROSE TRIM

A Rose
B Rose
H Rose
S Rose

CYLINDRICAL ROSE TRIM

C Rose
D Rose
K Rose
L Rose

ESCUTCHEON TRIM VARIATIONS

J Escutcheon
M Escutcheon
N Escutcheon
MS Escutcheon
PM Escutcheon
**Features**

- Offers exceptionally high power for its compact size
- UL listed
- Thermally fused
- Convenient 4 point mounting provision allows rapid installation in a standard 1/2” knockout
- Foot-mounts for surface installation
- Pre-stripped pigtails provided for quick primary connection
- Secondary connection by screw terminals
- Sturdy nylon bobbin construction
- Cadmium plated finish

**Specifications**

- **Primary voltage:** 120 VAC (Wire Leads)
- **Secondary voltage:** 24 VAC (Screw Terminals)
- **Secondary VA:** 40 volts-amperes
- **Dimensions:** 2 1/4” x 2 1/8” x 2 15/16”

To order specify: 8W599

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**Features**

- 400 Ampere surge capability
- Electrically isolated base
- UL recognized
- Single-phase, full wave bridge

**Specifications**

- **Average forward current:** 25 amps
- **Case:** Plastic case with an electrically isolated aluminum base
- **Polarity:** Terminal designation embossed on case: +DC output, -DC output, AC not marked
- **Mounting position:** Bolt down. Gain the highest heat transfer efficiency through the surface opposite the terminals. Use silicone heat sink compound on mounting surface for maximum heat transfer.
- **Terminals:** Suitable for “fast-on” connections. Readily solderable and corrosion resistant. Soldering is recommended for applications greater than 15 amperes.
- **Mounting torque:** 20 inch-pounds maximum
- **Case size:** 1.030 x 1.030 inches
- **Temperature range:** -85° to 347°F (-65° to + 175°C)

To order specify: 8WCON

---

**Function/Application**

Tranforms 120 volts AC to 24 volts AC. (To get 24 volts DC, use with 8WCON, AC to DC converter.) Typically used as a power supply for electrically-operated locks.
ELECTROMECHANICAL LOCKS

Temperature Control Module

**Features**
- Stainless steel flexible conduit
- Includes end caps and wire protectors
- Easily installed
- No wire splicing required

**Specifications**
- Conduit outside dia.: 0.340"
- Conduit inside dia.: 0.240"
- Conduit length: 15"

To order specify: 8WDTL

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Electrified Accessories

**8WBU-1-A / 8WBU-1-N**

**Function/Application**
Normally open push-button switch provides momentary switch closure when pressed. Typically used to momentarily energize electrified locks or strikes or used as a request-to-exit switch on access control systems.

**Features**
- All circuitry completely sealed
- Wire leads for easy installation
- Through hole mounting
- Usable on other manufacturer’s 24 VDC locksets

**Specifications**
- Wire leads: 18 AWG stranded vinyl insulated wire approx. 6” in length
- Voltage input: 24 volts AC/DC
- Voltage output: 24 volts DC minimum at one (1) amp max. load for approx. one (1) second, then 15 to 17 VDC regulated output until input voltage is interrupted.

**Output protection:** Short circuit current limiting set at one (1) amp; output reverse hookup protection for internal circuitry only.

**Operating temp:** -4 to 158°F (-20 to 70°C)

**Size:** 2" x 2 1/8" x 1 3/8"

To order specify: 8WBU-1-A standard plate 8WBU-1-N narrow plate

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**8WTCM**

**Function/Application**
A temperature control module (TCM) reduces the amount of current flow to a lockset one second after energizing, thereby lowering the temperature of the lockset trim. A TCM may be needed on an electrified mortise or electrified cylindrical lockset if energized for long periods of time. The TCM is not used with any IDH-Max function. The TCM **Must Be** ordered separately for EWEU, WWEU, YEU functions, but is automatically included with 34H–37H EWEL, WWEL, YEL functions.

**Features**
- Positive “snap” feedback
- Industrial-grade switch designed for rugged control applications
- Factory assembled with trimplate
- Standard or narrow plate available
- 1 3/16” dia. mushroom head—red in color

**Specifications**
- Electrical rating: 28VDC or 115 VAC, 10A resistive, 5A inductive, 3A lamp load (see terminology on the back cover)
- Switch type: SPST-NO-DB, FORM-X contacts, 25,000 cycles at full load, 50,000 cycles mechanical life
- Mounting hole: 5/8” (.625) dia.
- Switch dim.: 1.187 dia.x 1.528 overall length
- Std. wall plate: 2 3/4” x 4 1/2”
- Narrow wall plate: 1 1/2” x 4 1/2”
- Material/finish: Satin stainless steel
- Wire leads: Two 6” long 20 AWG insulated wire leads

To order specify: 8WTCM

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**8WDTL**

**Function/Application**
Provides a means to transfer power from the door frame to the door stile. Allows the door to swing a full 180 degrees.

**Features**
- Stainless steel flexible conduit
- Includes end caps and wire protectors
- Easily installed
- No wire splicing required

**Specifications**
- Conduit outside dia.: 0.340"
- Conduit inside dia.: 0.240"
- Conduit length: 15"

To order specify: 8WDTL
**HM, KM, HW & KW OPTIONS**

**AL**—Besides complying with a wide variety of accessibility codes and ordinances, Best Access Systems lever handles are available with a special abrasive feature. Abrasive strip on the lever immediately identifies warnings on doors to hazardous areas for the blind.

**FM**—Free Motion allows the lever handle to move 45 degrees from parallel to the horizontal plane without engaging the latchbolt assembly. When the lockset is in the locked mode, this feature makes over-torque or over-leverage abuse more difficult to achieve.

**IDH**—The integrated Door Hardware groups three components into one hardware package. 1. Door monitoring switch (normally closed) 2. Request-to-Exit switch (normally open or normally closed) 3. Electrically controlled locking mechanism.

**KNL**—Knurl feature is available only on #6 knobs. The knurling is machined into the outer edge of the knob. The knurled feature can be used for blind, safety, or accessibility applications.

**LL**—Lead lined feature can be used to protect against X-rays. Since the majority of lead lined doors contain the lead in the surface of the door, the knob lockset provide lead lining for the holes cut in the door when preparing the door for the trim.

**SH**—Security head provided for all exposed screws.

**RQE**—Cylindrical or Mortise locksets can be supplied with a request-to-exit switch. A normally open switch provides momentary switch closure when the inside lever/knob is rotated.

**TAC**—Grooves are machined into knobs to improve grip or to be used as a warning in hazardous areas. This option can be used for blind, safety, or accessibility applications.

**Thick door**—Specify thickness if other than 1 3/4”.

**TL**—Tactile levers may be used in areas where improved grip is required or as a warning in hazardous or Safety First areas. Grooves are machined into the back of the hand grasp portion of the lever to improve grip and/or provide a sensory warning. This option can be used for blind, safety, or accessibility applications.

**1300**—Integrated BAS1300/LNL1300 reder electronics board or (ISC) Intelligent System Controller is embedded behind the escutcheon secured and out of site. Functions with B.A.S.I.S./Mercury on-line equipment only.

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**INTRODUCTION TO SWITCH LOCKS**

Best Access Systems offers a line of electric switch locks available in various “on-off” and “momentary” keyed switch functions. Circuitry variations are available in single, double and triple pole with varied voltage and amperage ratings. Units may be keyed into any Best system. The Best interchangeable core offers versatility and adaptability for new and existing electrical controls, panels, machines, etc.

**Features**
- Double D lock cylinder prevents slipping and turning
- Screw terminals on all switch locks (except the 1W7A1) provides ease of installation
- All switches are UL recognized or listed

*Note on functionality: Switch lock keys can only be removed in the 12 o’clock position.*

**How to select a switch lock**

1. **Determine the electrical requirements for the device being controlled:**
   - A. **Voltage** (for example: 115 VAC or 24 VDC)
   - B. **Current or horsepower** (for example: 6 amps or 1/2 horsepower)
   - C. **Type of load**
     - Resistive (for example, heater elements)
     - Inductive (for example, motors, large transformers)
     - Lamp (for example, incandescent lights)

2. **Determine the switch configuration (poles and throws) and key removal condition:**
   - A. **Poles** To determine the number of poles, find how many wires from the power source need to be switched on and off by the switch lock.
   - B. **Throws** To determine the number of throws, find how many wires to the device the switch needs to control. For example, if a switch needs two different “on” conditions (low and high speed), two throws are needed. Or if the device is simply an “on-off” type (only one wire), you need one throw.

   *Note: A switch throw may be left unwired and used as an “off” condition.*

   - C. **Key removal** To determine the key removal condition, ask the question, “When the key is removed, should the switch be “off”, or could the switch be either “on” or “off”? Although the key can only be removed in the 12 o’clock position, the switch itself may be left in two or three positions. Check each switch lock for key removal switch positions.

3. **Use the information collected and find the switch lock that best meets the requirements.** Refer to the following catalog pages for a description of each switch lock. If environmental conditions make it necessary that the switch lock be housed in an electrical box, see the **Optional boxes** (above) for the box that best suits the switch lock and your application.
**ELECTROMECHANICAL LOCKS**

**1W7A1**

- **Contacts**: Silver or gold flash
- **Contact rating**: 28 VDC, 10 amps resistive
  - 28 VDC, 3 amps inductive, lamp
  - 125 VAC, 10.1 amps resistive
  - 250 VAC, 10.1 amps resistive

- **Horsepower rating**: 125 VAC, 1/4 HP

- **Operating temperature**: -85°F to +257°F (-65° to +125°C)

- **Switch type**: SPDT (Single pole-double throw)

- **Switch lock action**: Maintained (on-on)

- **Number of switches per assembly**: One

Key & switch positions

<table>
<thead>
<tr>
<th>Remove key</th>
<th>Optional boxes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key pos.1– Swt. pos.1</td>
<td>NC NO</td>
</tr>
<tr>
<td>Key pos.2– Swt. pos.2</td>
<td>NC NO</td>
</tr>
<tr>
<td>Key pos.1 only Swt.</td>
<td>NC NO</td>
</tr>
</tbody>
</table>

| DWR | INT | OC1 | OC2 |

**1W7B1 & 1W7J1**

- **Contact rating**: 30 VDC, 15 amps, resistive
  - 125 VDC, 0.6 amps, resistive
  - 250 VDC, 0.3 amps, resistive
  - 125 VAC, 15 amp, resistive
  - 25 VAC, 5 amp, lamp
  - 250 VAC, 15 amp, resistive

- **Horsepower rating**: 125–250 VAC, 1/2 HP

- **Operating temperature**: up to +176°F (+80°C)

- **Switch type**: SPDT (Single pole-double throw)

- **Switch lock action**: Maintained (on-on)

- **Number of switches per assembly**: 1W7B1: One 1W7J1: Two

Key & switch positions

<table>
<thead>
<tr>
<th>Remove key</th>
<th>Optional boxes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key pos.1– Swt. pos.1</td>
<td>NC NO</td>
</tr>
<tr>
<td>Key pos.2– Swt. pos.2</td>
<td>NC NO</td>
</tr>
<tr>
<td>Key pos.1 only Swt.</td>
<td>NC NO</td>
</tr>
</tbody>
</table>

| OC1 | DWR | OC2 | INT |

The shaded area shows the additional 1W7J1 switch and cam length.

**1W7B1—One switch**

**1W7J1—Two switches**

**Hole cutout**

- 1 5/32" x 3 1/32"

**Side view**

- 2 1/16" x 1 5/16" x 1/8"

**Back view**

- 1 1/4" x 7/8" x 1 1/8"

ELECTROMECH
Contact rating ........................................................................ 30 VDC, 15 amps, resistive
125 VDC, 0.6 amps, resistive
250 VDC, 0.3 amps, resistive
125 VAC, 15 amps, resistive
125 VAC, 5 amps, lamp
250 VAC, 15 amps, resistive

Horsepower rating .................................................................. 125–250 VAC, 1/2 HP

Operating temperature .......................................................... up to +176°F (+80°C)

Switch type .............................................................. SPDT (Single pole-double throw)

Switch lock action ............................................................. Maintained (on-on)

Number of switches per assembly .............................. 1W7B2: One  1W7J2: Two

Key & switch positions

Remove key

Optional boxes

<table>
<thead>
<tr>
<th>Key &amp; switch positions</th>
<th>Remove key</th>
<th>Optional boxes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key pos. 1 – Swt. pos. 1</td>
<td>Key pos. 2 (360°CCW)</td>
<td>OC1 DWR</td>
</tr>
<tr>
<td>Key pos. 2 – Swt. pos. 2</td>
<td>Key pos. 1 and 2 Swt. pos. 1 and 2</td>
<td>OC2 INT SWR (1W7B2 only)</td>
</tr>
</tbody>
</table>

Contact rating ........................................................................ 30 VDC, 15 amps, resistive
125 VDC, 0.6 amps, resistive
250 VDC, 0.3 amps, resistive
125 VAC, 15 amps, resistive
125 VAC, 5 amps, lamp
250 VAC, 15 amps, resistive

Horsepower rating .................................................................. 125–250 VAC, 1/2 HP

Operating temperature .......................................................... up to +176°F (+80°C)

Switch type .............................................................. SPDT (Single pole-double throw)

Switch lock action ............................................................. Momentary (on-on)

Number of switches per assembly .............................. 1W7B3: One  1W7J3: Two

Key & switch positions

Remove key

Optional boxes

<table>
<thead>
<tr>
<th>Key &amp; switch positions</th>
<th>Remove key</th>
<th>Optional boxes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key pos. 1 – Swt. pos. 1</td>
<td>Key pos. 2 – Swt. pos. 2</td>
<td>OC1 DWR</td>
</tr>
<tr>
<td>Key pos. 1 – Swt. pos. 1</td>
<td>Key pos. 1 – Swt. pos. 1</td>
<td>OC2 INT SWR (1W7B3 only)</td>
</tr>
</tbody>
</table>
### 1W7C2

- **Contact rating**: 110 VAC or VDC, 10 amps, lamp; 220 VAC or VDC, 5 amps, resistive
- **Operating temperature**: -40°F to +220°F (-40° to +104°C)
- **Switch type**: SPST (Single pole-single throw)
- **Switch lock action**: Maintained (off-on)
- **Number of switches per assembly**: One

**Key & switch positions**

- Key pos. 1 – Swt. pos. 1
- Key pos. 2 – Swt. pos. 2
- Key pos. 3 only

**Optional boxes**

- OC1
- OC2

---

### 1W7D2

- **Contact rating**: 110 VAC or VDC, 16 amps, resistive; 220 VAC or VDC, 8 amps, resistive
- **Horsepower rating**: 1 HP @ 125–250 VAC or VDC
- **Operating temperature**: 0°F to +150°F (-18°C to +66°C)
- **Switch type**: DPST (Double pole-single throw)
- **Switch lock action**: Maintained (off-on)
- **Number of switches per assembly**: One

**Key & switch positions**

- Key pos. 1 – Swt. pos. 1
- Key pos. 2 – Swt. pos. 2
- Key pos. 1 only

**Optional boxes**

- OC2
- DWR
- INT
- SWR

---

†Installing the limiting plate limits key removal to switch position 1 or 2. The key is always removed in the vertical position (key position 1).
### ELECTRIC SWITCH LOCKS

**1W7E2**

- **Contact rating**: 110 VAC, 15 amps, resistive 220 VAC, 10 amps, resistive
- **Horsepower rating**: 125–250 VAC or VDC, 3/4 HP; 1, 2, or 3 phase
- **Operating temperature**: 0 to +150°F (-18°C to 66°C)
- **Switch type**: TPDT (Triple pole-double throw)
- **Switch lock action**: Maintained Momentary (on-center off-on)
- **Number of switches per assembly**: One

*Installing the limiting plate limits key removal to switch position 2, or 3. The key is always removed in the vertical position (key position 1). The limiting plate is available for 1W7E2 only.*

### 1W7K4

- **Contact rating**: 110 VAC, 15 amps, resistive 220 VAC, 10 amps, resistive
- **Horsepower rating**: 250 VAC, 1/2 HP
- **Operating temperature**: up to +221°F (+105°C)
- **Switch type**: DPDT (Double pole-double throw)
- **Switch lock action**: Momentary (on-center off-on)
- **Number of switches per assembly**: One

---

### Key & switch positions

**1W7E2**

- **Key pos.1 Swt. pos.1**
- **Key pos.2 Swt. pos.2**
- **Key pos.3 Swt. pos.3**
- **Key pos. 1 only Swt. pos. 1, 2, and 3**

**1W7K4**

- **Key pos.1 Swt. pos.1**
- **Key pos.2 Swt. pos.2**
- **Key pos.3 Swt. pos.3**
- **Key pos. 1 only Swt. pos. 1 only**
Contact rating ................................................................. 110 VAC or VDC, 12 amps, resistive
220 VAC or VDC, 6 amps, resistive
Operating temperature ...................................................... up to +221°F (+105°C)
Switch type ........................................................................ SPDT (Single pole-double throw)
Switch lock action......................................................... Maintained (on-on)
Number of switches per assembly ........................................ One

Key & switch positions

Key pos. 1  Swt. pos. 1
Key pos. 2  Swt. pos. 2
Key pos. 3 only  Swt. pos. 1 and 2†

Remove key

Optional boxes

DWR
OC2

†Installing the limiting plate limits key removal to switch position 1 or 2. The key is always removed in the vertical position (key position 3).

1W7P4 & 1W7R4

Contact rating ................................................................. 30 VDC, 15 amps, resistive
125 VDC, 0.6 amps, resistive
250 VDC, 0.3 amps, resistive
125 VAC, 15 amps, resistive
125 VAC, 5 amps, lamp
250 VAC, 15 amps, resistive
125–250 VAC, 1/2 HP

Horsepower rating ........................................................... up to +176°F (+80°C)
Switch type ........................................................................ SPDT (Single pole-double throw)
Switch lock action ......................................................... Momentary (on-on)
Number of switches per assembly .................................... 1W7P4: Two 1W7R4: Four

Back view

Side view

Key & switch positions

Key pos.1 Swt. pos.1
Key pos.2 Swt. pos.2
Key pos.3 Swt. pos.3
Key pos.1 only  Swt. pos. 1

Remove key

Optional boxes

SWR†
INT†
DWR
†1W7P4 only
**ANICAL LOCKS**

**1W SWITCH LOCKS**

**SWR**
- Standard weather resistant box
- 4 5/8" H x 2 7/8" W x 2 1/4" D

**OC1**
- Standard octagon center mount
- 3 1/2" H x 3 1/2" W x 1 5/8" D

**OC2**
- Deep octagon offset mount
- 3 1/2" H x 3 1/2" W x 3 1/4" D

**INT**
- Interior box
- 4" H x 2 1/8" W x 1 7/8" D

**DWR**
- Deep weather resistant box
- 4 5/8" H x 2 1/8" W x 3" D

**OC1**
- Standard octagon center mount
- 3 1/2" H x 3 1/2" W x 1 5/8" D

**WHICH CORE SERIES?**

**1W**
- 7 pin housing
- 7-7 pin housing accepts all Best cores
- see pages 14-18

**B1**
- see pages 14-18

**626**
- 605 606 611 612 613 619 622 625 626 690

**SWR**
- see above
**TERMINOLOGY**

**Closed**—A state in which a connection exists between the common terminal and another terminal on the switch. See also **Open**.

**Common terminal**—A terminal on a switch whose contact can be connected to one or more terminals on the switch.

**Door monitor switch**—A switch that monitors whether the door is open or closed. This switch is used to detect a forced entry, or a door that is propped open.

**Inductive load**—An electrical device such as a motor, relay, or solenoid. **Note**: this type of load can cause arcing across switch contacts and may burn the contacts. See also **Resistive load** and **Lamp load**.

**Lamp load**—An electrical device that produces light using a tungsten filament, such as an incandescent light bulb. **Note**: this type of load can cause surges of current upon contact closure. This may cause the contacts to weld together. See also **Inductive load** and **Resistive load**.

**Maintained**—Remaining in a given state until the switch lever or button is actuated. Actuating the switch lever or button causes the switch to change to another maintained state.

**Momentary**—Remaining in a given state only as long as an external force is applied to the switch lever or button.

**NC**—(Normally Closed) Switch contacts that are closed as long as no external force is applied to the switch lever or button

**NO**—(Normally Open) Switch contacts that are open as long as no external force is applied to the switch lever or button.

**Open**—A state in which no connection exists between the common terminal or any other terminal on the switch.

**Pole**—The number of independent circuits in a switch. For example, a double-pole, single-throw switch can control two separately powered motors. See also **Throw**.

**Resistive load**—An electrical device, such as a heater, having none of the characteristics of an inductive or lamp load. This type of load is the least severe on the switch because only a small amount of arcing occurs when the switch contacts open and close. See also **Inductive load** and **Lamp load**.

**RQE**—Request-to-exit. A switch that allows the user to exit without setting off an alarm. The 34–37H mortise lock can be supplied with an internal request-to-exit switch. Turning the inside knob or lever actuates the switch and, when wired to an alarm system, sends a signal to disable or sound an alarm, start a timer, etc.

**Throw**—The number of circuits, or contacts controlled by each pole. For example, a single-pole, double-throw switch can control a motor with two contacts—a forward contact, and a reverse contact. See also **Pole**.

**1300**—Integrated BAS1300/LNL1300 reder electronics board or (ISC) Intelligent System Controller is embedded behind the escutcheon cured and out of site. Functions with B.A.S.I.S./Mercury on-line equipment only.

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For more information on BEST’s full line of security solutions visit our web site at www.stanleysecuritysolutions.com or call 1-317-849-2250 for the name of the Stanley Security Solutions office nearest you.

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**Product Warranty**—Best Access Systems warrants that all of its products sold under its trade name "BEST" are free of defects in materials, workmanship and operation, normal wear and tear excepted, for a period of **three years** from the date of sale to the original purchaser.

**Concerning Proper Installation:** Installation instructions for any Best Access Systems product should be carefully followed for proper operation of the installed product. If improperly installed, malfunction of the product may result.