APPENDIX G

THIS SECTION IS SUBMITTED FOR REFERENCE ONLY

ALL CONTRACTOR REQUIRED SCOPE IS INDICATED ON THE DRAWINGS

1. BR Lockdown Configuration
2. Cutsheets
BR LOCKDOWN CONFIGURATION (see Chapter 21 for more information)

BR LOCKDOWN - Internal 6’- 8’ Double Door Unit (ESI68 + IS components)

For double doors, two Transmit (Tx) Wand antennas are required to cover the larger opening and Magnetic Door Locks and Magnetic Door Position Switches are wired so either door opening will sound an alarm. Dashed lines represent wire path; numbers indicate gauge and conductor respectively.

Part # 800107 includes:
1 Controller + RX Antenna
1 Keypad (650202)
2 Magnetic Contacts (650514)
1 Cable Kit (700150)
2 Transmit Wands (700068)
3000 Magnetic Lock
Accutech 3101 Magnetic Lock
Accutech Software
Automatic Door Deactivation
BR 4200 Auxiliary Receiver
BR42 Tag
Central Alarm
Composite cable
Controller
Elevator Deactivation
ES 2200 System Tags
Fire Panel Interface (FPI)
Graphic Display Panel (GDP)
IS 3200 System Tags
Keypad
LED Tag
Local Alarm
Magnetic Switch
Multi-Tone Local Alarm (MTLA)
Multiplexer
Push Button Override (PBO)
Passive Infrared Reader (PIR)
Power Supply
Staff Alert Panel (SAP)
Speakers
Secure Tag Activator/Deactivator (S-TAD)
Tag Test Station (TTS)
Timer
Tx wand antenna
Voice Alarm
Zone Receiver
CUT SHEET: 3000 Magnetic Lock

The 3000 Magnetic Lock will engage when the zone Controller detects a Tag in the Tx Activation Field. The Lock will remain engaged as long as the Tag is in the Tx Activation Field. When the Tag leaves the Tx Activation Field, the Lock will disengage after an adjustable period of time (0-120 seconds).

SAFETY FEATURES:
The Lock will NOT engage (or will disengage) when the facility’s Fire Alarm is activated or power is lost.

ELECTRICAL:
Operating Voltage: 12 or 24V AC/DC
Current Consumption at 12V: .42 amp
Current Consumption at 24V: .21 amp
Cable: non-shielded 18-gauge, 2-conductor

MECHANICAL:
Lock Size: 1-1/2” x 2-3/4” x 11”
Armature Size: 1-1/2” x 2-3/8” x 3-5/8”
Finish: US28 Satin Aluminum with clear anodize
Mounting Hardware: 5 #10 PNHD Self Tapping Screws 1” long
Weight: 9 US pounds

OPERATING CHARACTERISTICS:
Holding Force: 1500 pounds

ENVIRONMENTAL:
Operating Temperature: 32º to 120º Fahrenheit
Intended for indoor use only.

DUTY CYCLE:
Rated for continuous use.

800-356-2671 | Accutech | www.accutech-ics.com

Accutech reserves the right to substitute comparable components without notice.
**WARNING:** The Accutech 3101 Magnetic Lock is custom-designed to our specifications and should not be purchased directly from the manufacturer.

The 3101 Magnetic Lock will engage when the zone Controller detects a Tag in the Tx Activation Field. The Lock will remain engaged as long as the Tag is in the Tx Activation Field. When the Tag leaves the Tx Activation Field, the Lock will disengage after an adjustable period of time (0-120 seconds).

**SAFETY FEATURES:**
The Lock will **NOT** engage (or will disengage) when the facility’s Fire Alarm is activated or power is lost.

The 3101 Magnetic Lock also incorporates Delayed Egress Circuitry that complies with N.F.P.A. 101 Life Safety Codes 5-2.1.6.1. If engaged, the Lock will release within 15 seconds (after 1-3 second nuisance delay) whenever a maintained force (less than 15 pounds required) is applied to the door. An audible tone enunciates both countdown and release. When the Lock releases, the red LED will turn solid green and the alarm will sound continuously.

**ELECTRICAL:**
- Operating Voltage: 12 V AC
- Current Consumption: 450 mA
- Cable: non-shielded 18-gauge, 6-conductor

**MECHANICAL:**
- Lock Size: 3” x 2 ¾” x 11”
- Armature Size ½” x 2-5/16” x 7-3/8”
- Standard Finish: Satin Aluminum-US28
- Mounting Hardware: 5 #10 PNHD Self Tapping Screws 1” long
- Weight: 11 US pounds

**OPERATING CHARACTERISTICS:**
- Holding Force: 1200 pounds

Once locked, the Lock will disengage when any of the following conditions occur:
- All Tags leave the Tx Activation Field
- A Keypad Reset
- A PBO is activated
- The facility’s fire alarm is activated.
- Power is removed from the Lock.
- The Central Override is activated.
- When a maintained force (less than 15 pounds required) is applied to the door for an adjustable period of time (1-3 seconds).

Lock LED status during normal operation:
- Green – Power indicator
- Red – Lock engaged (Tag detected in zone)
- Red blinking – Egress countdown (15-30 seconds adjustable)
- No Power To LED – Escort function or Reset

---

**UL Listed:**
- FWAX.SA9532
- Auxiliary Locks listed 2N98
- Special Arrangements listed 1M59

Due to existing UL listing (above), not required to be listed under UL 294 (BP9480)

**ENVIRONMENTAL:**
- Operating Temperature: 32º to 120º Fahrenheit
- Intended for indoor use only.

**DUTY CYCLE:**
- Rated for continuous use.

---

800-356-2671 | Accutech | www.accutech-ics.com

Accutech reserves the right to substitute comparable components without notice.
Accutech Security Systems are NOT computer-dependant. The Software is for reporting purposes only and does not affect nor control the physical Accutech Security System.

The Accutech Software is installed on each monitoring PC and is used to display incoming event information. Using the facility’s floor plan as the background, zone-specific icons (i.e., doors, elevators, stairwells, hallways, and BR 4200 Auxiliary Receivers) are placed at each monitored zone’s location and become animated when an alarm occurs.

KEY FEATURES:
- Floor plans can be monitored locally or remotely.
- Customizable event handling (displaying, logging, clearing)
- Password protected operations
- Tags are assigned to specific patients, residents, infants, or assets.
- Customizable printable Reports (sort by start/end date, event type, zone, and/or patient)

MINIMUM SYSTEM REQUIREMENTS:
- 1.80 GHz processor
- 17” CRT Monitor (capable of displaying 1024x768 pixels in 16-bit high color)
- 20 GB Hard Drive
- 1 GIG DDR2 RAM
- Integrated Video
- 32x CD-ROM Drive
- Keyboard
- Mouse
- Mouse Pad
- Speakers (or integrated sound)
- Windows 2000 SP4 or Windows XP SP2
- 1 Serial 9pin COM PORT

RECOMMENDED:
- 2.33 GHz processor or higher, 1333 FSB
- 17” LCD Flat Panel Monitor (capable of displaying 1280 x1024 pixels in 32-bit high color)
- 80 GB Hard Drive
- 2 GIG DDR2 RAM, Non-ECC, 887 MHz
- Integrated Video
- 24x CD-RW/DVD Combo Drive
- USB Keyboard
- USB Mouse
- Mouse Pad
- Speakers (or integrated sound)
- Windows XP SP2
- 1 Serial 9pin COM PORT

If networking multiple computers:
- 10/100 Network Interface Card (NIC) in each PC
- Cross over cable, if networking only 2 Accutech PCs
- 10/100 Workgroup Switch or Hub, if networking more than 2 Accutech PCs

Software Screenshot example

Model Number: SW
Part Number: 700169
In automatic door applications (doors that open via a motion sensor or push paddle), the Accutech System can deactivate this feature when a Tag enters a monitored zone’s Tx Activation Field.

**ELECTRICAL:**
- Operating Voltage: 12V DC
- Current Consumption: 120 mA maximum
- Contact Rating: 100 mA / 12V DC
- Cable: need minimum 22-gauge, 6-conductor

**MECHANICAL:**
- Construction: Metal case
- Enclosure size: 6.00” x 6.00” x 4.00”
- Enclosure weight: 3.85 US pounds

**OPERATING CHARACTERISTICS**
- Dry contacts are provided for the automatic door company’s use.

**ENVIRONMENTAL:**
- Operating Temperature: 32°F to 120°F Fahrenheit
- Intended for indoor use only.

**DUTY CYCLE:**
- Rated for continuous use.

---

**Automatic Door Deactivation**

**Model Number:** ADD
**Part Number:** 700033
**UL Listed 294 (BP9480)**
**Access Control Accessory**

---

800-356-2671 | Accutech | www.accutech-ics.com

Accutech reserves the right to substitute comparable components without notice.
BR 4200 Auxiliary Receivers only monitor Band Removal and Band Compromise events. They monitor approximately 40 feet outward in every direction; therefore, they should be positioned 70 feet apart to avoid confusion about the location of a Band Removal alarm.

When choosing the location and number of Auxiliary Receivers, be sure to consider the following:
- the facility’s structure (i.e., concrete/metal lathe as opposed to drywall walls or foil-backed ceiling tiles).
- keep a minimum distance of 4 feet away from fluorescent lighting and air handling equipment.
- Band Removal alarms can be generated anywhere within a facility, not just exit points; this includes bathrooms, visiting areas, storage rooms, and laundry rooms.

**ELECTRICAL:**
Operating Voltage: 12V DC regulated  
Current Consumption: 50 mA maximum  
Cable: needs minimum 22-gauge, 6-conductor

**MECHANICAL:**
Size: Mounted in a 4” x 4” x 2” electrical box.  
*Allow 7” depth for clearance of the BNC Rubber Duck antenna  
Weight: 1 lb. 4.5 oz. total (Rx + Box + Duck)

**OPERATING CHARACTERISTICS:**
Transmit Frequency: 418 MHz  
Receive Frequency: 418 MHz  
Frequency range: 40 feet radius (360°)

Jumpers settings:

<table>
<thead>
<tr>
<th>Jumper</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>JP1 (SS)</td>
<td>Off</td>
</tr>
<tr>
<td>JP2 (Rx Test)</td>
<td>Off</td>
</tr>
<tr>
<td>JP3 (Tag D)</td>
<td>Off</td>
</tr>
<tr>
<td>JP4 (BR)</td>
<td>On</td>
</tr>
<tr>
<td>JP5 (Reset)</td>
<td>Off</td>
</tr>
</tbody>
</table>

**ENVIRONMENTAL:**
Operating Temperature: 32° to 120° Fahrenheit  
Intended for indoor use only.

**DUTY CYCLE:**
Rated for continuous use.

---

800-356-2671  |  Accutech  |  www.accutech-ics.com

Accutech reserves the right to substitute comparable components without notice.
BR42 Tags, only used in BR 4200 Systems, are small wristwatch-sized devices worn by an infant. They feature Intelli-Band Technology, which will alarm if the band is loosened, cut, saturated, removed, or tampered with. BR42 Tags are assigned to a specific infant via the Tag Test Station and Accutech Software. Once assigned, the computer associates a name, room number, and any other pertinent information about the infant with that Tag.

**ELECTRICAL:**
BR42 Tags operate by internal battery.
The Tags have been engineered for greater than 12 months usage and can be activated/deactivated with a TAD.

**MECHANICAL:**
Size: 1¼” x 1¾” x ¾”
Weight (with band): 1 ounce

**OPERATING CHARACTERISTICS:**
Transmit Frequency: 418 MHZ
Receive Frequency: 128-133 kHz

**ATTACHMENT:**
BR42 Tags are attached to infants with an elastic cloth band (Latex-free). The BR42 band has conductive fiber stripes that must be in contact with both the infant’s skin and the gold contacts on the Tag. The band must be routed properly through the Tag case for the system to function properly. Tags are typically attached to a wrist or ankle. For smaller infants, placing the Tag around the thigh is also acceptable.

**MAINTENANCE:**
- BR42 Tags are reusable but they must be thoroughly cleaned and sanitized between applications.
- **Acceptable cleaning methods:**
  - Antibacterial wipes or Hydrogen peroxide (wipe, do not soak)
  - BR42 Tag bands are for one-time use only.
  - If the band becomes soiled, replace the band and clean the Tag.

**TESTING:**
There are 4 ways that you can test BR42 Tags:
- Enter a monitored zone (Alarm may sound)
- Remove the band (Alarm will sound)
- With a TAD
- With a PTAD

**STORING:**
To preserve battery life and prevent nuisance alarms, BR42 Tags should be turned off with a TAD, stored away from sources of electrical noise, and stored in a metal container with lid. Extra Tag bands should be stored in a clean and dry environment.

**ENVIRONMENTAL:**
Operating Temperature: 32° to 120° Fahrenheit
Intended for indoor use only.
The Central Alarm is a multi-tone alarm. It consists of a Tone Generator that drives speakers located throughout the facility. There are eight different tones available. You may choose to assign a separate tone for each zone, or multiple zones to just one tone. The Central Alarm is located in its own enclosure and contains its own power supply, a Tone board, a Relay board and terminal strips.

**ELECTRICAL:**
Power Requirements: 120V AC, 15 amp circuit
Current Consumption: 1.3 amps maximum
Zone alarm input: 12V DC

**MECHANICAL:**
Construction: Metal case
Enclosure size: 12.50” x 12.50” x 3.75”
Weight (including enclosure): 12 US pounds

**OPERATING CHARACTERISTICS:**
Alarm Output: up to 115db at 10 feet with 12V DC/variable
Speakers: 8 ohms, 15 watts
Maximum Load: 5 speakers

Eight Distinctive Channels and Sounds
- Rapid Yelp
- Standard Yelp
- Hi-Lo sweep
- European Hi-Lo
- Steady
- Pulsing Horn
- Steady Horn
- Unique Synthesized Bell

**ENVIRONMENTAL:**
Operating Temperature: 32º to 120º Fahrenheit
Intended for indoor use only.

**DUTY CYCLE:**
Rated for continuous use.

---

Accutech reserves the right to substitute comparable components without notice.
Accutech Composite Cable is designed for wire runs from the Controller to a junction box when the Controller is mounted away from the zone and is plenum rated.

**SPECIFICATIONS:**
- A four-element Plenum-rated composite cable
- Element 1: 18 gauge 4 conductor shielded Mid-Cap (Color code: orange, yellow, white, green)
- Element 2: 18 gauge 4 conductor non-shielded (Color code: red, black, blue, brown)
- Element 3: 24 gauge 2 conductor shielded (Color code: gray, violet)
- Element 4: 25 gauge 14 conductor non-shielded (Color code: white, green, beige, brown, orange, blue, pink, yellow, red, black, white/blue, white/brown, white/red, white/green)
- Each element is individually wrapped with a clear mylar binder and all elements are cabled together
- Jacket Material: Low Smoke Polyvinylchloride (PVC)
- Jacket color: yellow
- Jacket Ripcord: Yes
- Jacket Print: "18 AWG 4C SHIELDED + 18 AWG 4C + 24 AWG 2C + 24 AWG E171202 (UL) CL3P OR CMP C (UL) 75 ° www.accutech-ics.com 800-356-2671"
- Ascending/Descending Footage Markers
- Diameter: nominal 0.386"
- Made in accordance with UL Subject 444, NEC Type CMP

**Model Number:** CC
**Part Number:** 200371

**Composite Cable**

*SHIELD WIRE SHOULD BE PREFERABLY CONNECTED AT CONTROLLER AND CLIPPED AT J-BOX ABOVE DOOR*
The Controller coordinates and controls all of the devices and functions of the Accutech Systems. It can be located at the zone (above the drop ceiling) or remotely (in an equipment room).

**ELECTRICAL:**
Power Requirements: 120V AC, 1.0 amp
*A dedicated 15-amp circuit with emergency backup is recommended.

**MECHANICAL:**
Construction: Metal Case
Enclosure size: 16.00” x 9.60” x 3.25”
Weight (including enclosure/Receiver): 11 US pounds

**OPERATING CHARACTERISTICS:**
Operating Temperature: 32° to 120° Fahrenheit
Intended for indoor use only.

**DUTY CYCLE:**
Rated for continuous use.
Elevator Deactivation Circuitry is designed to prevent someone (or an asset) wearing an Accutech Tag from using an elevator to leave a monitored floor. Using Relays enclosed in the Elevator Deactivation Relay Cabinet, the Elevator Company is able to interface with the Accutech System.

Therefore:
- If a Tag enters a monitored elevator zone, the elevator’s call button on that floor will be deactivated (Call buttons on other floors are unaffected and no one is restricted from coming to the floor).
- When a Tag is in the zone (or approaches the zone) and the elevator doors are open, an alarm will sound and the elevator doors will remain open.
- If the elevator car is en route to the floor when a Tag approaches the zone, the elevator will arrive on the floor, the door(s) will open, and the system will alarm.

**ELECTRICAL:**
- Operating Voltage: 12V DC
- Current Consumption: 120 mA maximum
- Contact Rating: 100 mA / 12V DC
- Cable: need minimum 22-gauge, 6-conductor

**MECHANICAL:**
- Construction: Metal case
- Enclosure size: 7.80" x 8.25" x 3.75"
- Enclosure weight: 3.5 US pounds

**OPERATING CHARACTERISTICS:**
- Dry Contacts supplied by Elevator Company for door switch
- 12V DC Alarm Voltage energizes K1 Relay to deactivate the Car when a Tag is detected and the elevator door is open.
- 12V DC Tag Detect Voltage energizes K2 Relay to deactivate the Call Button when a Tag is detected.

**ENVIRONMENTAL:**
- Operating Temperature: 32º to 120º Fahrenheit
- Intended for indoor use only.

**DUTY CYCLE:**
- Rated for continuous use.

---

Elevator Deactivation

Model Number: ED
Part Number: 700027

UL Listed 294 (BP9480)
Access Control Accessory

---

Accutech reserves the right to substitute comparable components without notice.
CUT SHEET: ES 2200 System Tags

ES 2200 System Tags are small wristwatch-sized devices worn by a resident or attached to an asset. When a resident or patient enters a Tx Activation Field, the Tag sends a signal to the zone Controller via the Receiver. The zone Controller processes this information for appropriate control action or response (e.g., sounding alarms, locking doors). Available in LT (Long Term) or SB (Slotted Back) cases. LT Tags are used for resident care. SB Tags are used on small infants and assets. “22” and “32” refer to the program running inside the Tag. The 22 program is meant strictly for ES systems. The 32 program can be used in either ES or IS systems and displays a low battery condition.

**ELECTRICAL:**
ES 2200 System Tags operate by internal battery.
The Tags have been engineered for greater than 12 months usage and can be activated/deactivated with a TAD.

**MECHANICAL:**
LT Size: 1¼” x 1½” x ½”
SB Size: 1½” x 1½” x ½”
LT/SB Weight (with band): 0.5 ounce

**OPERATING CHARACTERISTICS:**
Transmit Frequency: 418 MHZ
Receive Frequency: 128-133 kHz

**ATTACHMENT:**
ES 2200 System Tags are attached with a nylon-mesh-reinforced vinyl band. The band is designed to resist tearing caused by pulling or chewing on the band. However, if the band becomes frayed or torn it will need to be replaced. In long-term applications, the band should be replaced periodically for cleanliness. Tags are typically attached to a wrist or ankle.

**MAINTENANCE:**
- ES 2200 System Tags are reusable but they must be thoroughly cleaned and sanitized between applications.
Acceptable cleaning methods:
Antibacterial wipes or Hydrogen peroxide (wipe, do not soak)
- ES 2200 Tag bands are for one-time use only.
- In long-term applications, periodically replace the bands and clean the Tags.

**TESTING:**
There are 3 ways that you can test ES 2200 System Tags:
- Enter a monitored zone (Alarm may sound)
- With a TAD
- With a PTAD

**STORING:**
Ideally, to preserve battery life and prevent nuisance alarms, ES 2200 System Tags should be turned off with a TAD, stored away from sources of electrical noise, and stored in a metal container with lid. Extra Tag bands should be stored in a clean and dry environment.

**UL Listed 294 (BP9480)**
Access Control Accessory

**VISUAL PULSE LED:**
The Visual Pulse LED indicates the Tag’s current mode

<table>
<thead>
<tr>
<th>LED Light Pattern</th>
<th>Tag LED Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>off</td>
<td>Tag is off.</td>
</tr>
<tr>
<td>on</td>
<td>Active, not in zone</td>
</tr>
</tbody>
</table>

**ENVIROMENTAL:**
Operating Temperature: 32° to 120° Fahrenheit
Intended for indoor use only.

800-356-2671 | Accutech | www.accutech-ics.com

Accutech reserves the right to substitute comparable components without notice.
The Fire Panel Interface (FPI) ensures, in the event of a fire, the Magnetic Lock(s) and/or Elevator Deactivation Circuitry will be disengaged. Accutech follows NFPA codes and regulations. Therefore, in the event of a fire, all Accutech restraints will be disabled (audible and visual alarms remain intact).

For each FPI unit used, one set of dry contacts will be needed from the facility’s fire panel. Each FPI unit provides dry contact outputs for up to eight Controllers.

**ELECTRICAL:**
- Operating Voltage: 12V DC
- Current Consumption: 120 mA maximum
- Contact Rating: 2 amps/24V DC
- Cable: needs minimum 22-gauge, 2-conductor non-shielded to each Controller

**MECHANICAL:**
- Enclosure size: 6.29” x 5.68” x 2.00”
- Weight: 25 ounces

**OPERATING CHARACTERISTICS:**
- Fire Panel Alarm State: Open contacts
- Contact State: N.O. during alarm state  
  N.C. during operating state

**ENVIRONMENTAL:**
- Operating Temperature: 32° to 120° Fahrenheit
- Intended for indoor use only.

Fire Panel Interface (FPI)

**Model Number:** FPI
**Part Number:** 700013
**UL Listed 294 (BP9480)**
**Access Control Accessory**
A Graphic Display Panel (GDP) provides the staff with a visual representation of the floor being monitored. GDPs are custom-made to a facility’s floor plan and notify staff when an alarm or event occurs in a monitored zone through a piezo buzzer and alarm-specific LEDs. Each monitored zone is labeled and marked with an LED that will light to indicate that an Alarm Condition has occurred for that particular zone. In addition, a “Fire Alarm” LED will light on the display if the fire circuit is activated.

**ELECTRICAL:**
Operating Voltage: 12V DC
Current Consumption: 60 mA per 8-zone board
Cable: Dependant on number of zones + 3

**MECHANICAL:**
Sizes available: 11”x17”, 13”x19”, custom
Weight: dependant on size, number of zone
(approximately 5 US pounds)

**OPERATING CHARACTERISTICS:**
Pre-selected color themes or custom color matching available.
Built-in Sounder

**ENVIRONMENTAL:**
Operating Temperature: 32º to 120º Fahrenheit
Intended for indoor use only.

**DUTY CYCLE:**
Rated for continuous use.

---

**Graphic Display Panel (GDP) example**

**Model Number:** GDP
**Part Number:**
- 700050 (1-16 zone; 11”x17”)
- 700052 (17-32 zone; 11”x17”)
- 700061 (1-16 zone; 13”x19”)
- 700062 (17-32 zone; 13”x19”)
- 700063 (33-48 zone; 13”x19”)

UL Listed 294 (BP9480)
Access Control Accessory
CUT SHEET: IS 3200 System Tags

IS 3200 System Tags are small wristwatch-sized devices worn by a resident, infant, or attached to an asset. When a resident or patient enters a Tx Activation Field, the Tag sends a signal to the zone Controller via the Receiver. The zone Controller processes this information for appropriate control action or response (e.g., sounding alarms, locking doors). IS 3200 System Tags are assigned to a specific infant via the Tag Test Station and Accutech Software. Once assigned, the computer associates a name, room number, and any other pertinent information about the infant with that Tag.

Available in a LT (Long Term) case. “22” and “32” refer to the program running inside the Tag. The 22 program is meant strictly for ES systems. The 32 program can be used in either ES or IS systems and displays a low battery condition.

**ELECTRICAL:**
IS 3200 System Tags operate by internal battery.
The Tags have been engineered for greater than 12 months usage and can be activated/deactivated with a TAD.

**MECHANICAL:**
Size: 1¼” x 1½” x ½”
Weight (with band): 0.5 ounce

**OPERATING CHARACTERISTICS:**
Transmit Frequency: 418 MHZ
Receive Frequency: 128-133 kHz

**ATTACHMENT:**
IS 3200 System Tags are attached with a nylon-mesh-reinforced vinyl band. The band is designed to resist tearing caused by pulling or chewing on the band. However, if the band becomes frayed or torn it will need to be replaced. In long-term applications, the band should be replaced periodically for cleanliness. Tags are typically attached to a wrist or ankle.

**MAINTENANCE:**
- IS 3200 System Tags are reusable but they **must** be thoroughly cleaned and sanitized between applications.
  - Acceptable cleaning methods:
    - Antibacterial wipes or Hydrogen peroxide (wipe, do not soak)
  - IS 3200 Tag bands are for one-time use only.
  - In long-term applications, periodically replace the bands and clean the Tags.

**TESTING:**
There are 3 ways that you can test IS 3200 System Tags:
- Enter a monitored zone (Alarm may sound)
- With a TAD
- With a PTAD

**STORING:**
Ideally, to preserve battery life and prevent nuisance alarms, IS 3200 System Tags should be turned off with a TAD, stored away from sources of electrical noise, and stored in a metal container with lid. Extra Tag bands should be stored in a clean and dry environment.

**ENVIRONMENTAL:**
Operating Temperature: 32º to 120º Fahrenheit
Intended for indoor use only.
The Keypad is used to escort residents through a monitored zone and to reset zone equipment once an alarm has occurred. Up to 56 different (3 to 8 digit) user codes can be used to reset the alarm and to activate the Escort function.

**ELECTRICAL:**
Operating Voltage:
- UL rated at 12V DC
- Manufacturer rated at 9 to 16V DC
Stand-by Current Drain: 15 mA typical
Current Drain with outputs active: 55 mA typical
Contacts: 10 A / 30V AC/DC
Cable: minimum 22-gauge, 4-conductor

**MECHANICAL:**
Size: 4-5/8” x 2-7/8” x 1-3/8”
Weight: 4.3 ounces
Mounting: Flush or Surface Mount
* Metal box not recommended

**OPERATING CHARACTERISTICS:**
Power Failure: EEPROM retains programmed data during power failures.
Relay Control: Programmable 1-98 seconds

LED Status:
- Green – Escort or Reset
- Yellow – Power
- Red - Alarm

**ENVIRONMENTAL:**
Operating Temperature: 32º to 120º Fahrenheit
Intended for indoor use only.

**DUTY CYCLE:**
Rated for continuous use.
CUT SHEET: LED Tag

**DISCLAIMER:** Due to each facility’s unique environment, a LED Tag cannot give an *exact* measurement of zone coverage; it can only give an *estimation* of zone coverage. Furthermore, at this time, the LED Tag is not able to test Auxiliary Band Removal Receivers.

A LED Tag is used to verify proper zone coverage during installation, adjustment, or testing of a monitored zone.

Proper zone coverage fully protects the intended area (door, elevator, hallway, or any other passageway) without extending into other areas (in front, in back, on sides, above, and beneath the intended area).

Monitored zones emit a Tag-activating signal called the Tx Activation Field. When a Tag enters a zone’s Tx Activation Field, the system will detect the Tag and take appropriate action response.

A LED Tag can enter and detect a zone’s Tx Activation Field without causing alarms making it a quick and easy way to verify proper zone coverage. This is not only useful in ensuring complete zone coverage but also in locating areas where a Tx Activation Field may be extending into common areas and causing nuisance alarms.

**ELECTRICAL:**
- LED Tags operate by internal battery.
- The Tags have been engineered for greater than 12 months usage and can be activated/deactivated with a TAD.

**MECHANICAL:**
- Size: 1½” x 1½” x ½ “
- Weight: 1 ounce

**OPERATING CHARACTERISTICS:**
- LED on: Indicates 131 kHz signal present (Tx Activation Field)

**MAINTENANCE:**
- Keep the Tags dry and never submerge them.
- Acceptable cleaning methods:
  - Antibacterial wipes or Hydrogen peroxide (wipe, do not soak)

**TESTING:**
- There are 3 ways that you can test LED Tags:
  - Enter a monitored zone (LED will light)
  - With a TAD
  - With a PTAD

**STORING**
- Ideally, to preserve battery life, LED Tags should be turned off with a TAD, stored away from sources of electrical noise, and stored in a metal container with lid.

**ENVIRONMENTAL:**
- Operating Temperature: 32º to 120º Fahrenheit
- Intended for indoor use only.

---

800-356-2671 | Accutech | www.accutech-ics.com

Accutech reserves the right to substitute comparable components without notice.
The Local alarm, a sounder, is intended to attract attention near the monitored zone.

**ELECTRICAL:**
Operating Voltage: 12V DC nominal  
Alarm Signal Current: 20.8 mA  
Cable: needs minimum 22-gauge, 2-conductor

**MECHANICAL:**
Mounting variations (not provided):
- Handy box: 4” x 2-1/8” (approx.)
- Switch box: 3” x 2” (approx.) with conduit knockouts.
- Masonry box: 3-3/4” (approx.) with ½” and ¾” concentric knockouts.
- Nonmetallic Switch box: 3-3/4” x 2-5/16” (approx.)

**OPERATING CHARACTERISTICS:**
Sound Pressure Level at 10 feet: 85 db

**ENVIRONMENTAL:**
Operating Temperature: 32º to 120º Fahrenheit  
Intended for indoor use only.

**DUTY CYCLE:**
Rated for continuous use.

---

Local Alarm  
Model Number: LA  
Part Number: 700216  
UL Listed:  
ULSZ.S4011  
Due to existing UL listing (above), not required to be listed under UL 294 (BP9480)

---

Accutech reserves the right to substitute comparable components without notice.
The Magnetic Switch is used on doors when alarm activation is not desired unless the door is opened.

**ELECTRICAL:**
- Operating Voltage: 150V DC maximum
- Contact Rating: 3 watts
- Maximum Switch Voltage: 30V AC/DC
- Switching Current: 0.5 amps DC
- Cable: needs minimum 22-gauge, 2-conductor

**MECHANICAL:**
- Size: 2.50” x 0.80” x 0.60”
- Weight: 1.2 ounces
- Color: Brown
- Surface mounted (Flush available)

**OPERATING CHARACTERISTICS:**
- Contacts: N.O., N.C., and Common
- Initial contact resistance: 100 ohms maximum
- Operating Time: 1.0 ms maximum
- Bounce Time: N.C. leg 1.5 ms maximum
- N.O. leg 1.0 ms maximum
- Release Time: 0.5 ms maximum
- Maximum Operating Frequency: 200 Hz
- Insulation resistance: 1 x 10 ohms maximum
- Electrostatic capacitance: 1.5 pF maximum

**ENVIRONMENTAL:**
- Operating Temperature: 32º to 120º Fahrenheit
- Intended for indoor use only.

**DUTY CYCLE:**
- Rated for continuous use.
A Multi-Tone Local Alarm (MTLA), a wall-mount electronic chime, is intended to attract attention and offers sixteen different field-selectable chime tones, each with three volume settings and can be used to replace the Local Alarm.

**ELECTRICAL:**
Operating Voltage: 12 or 24V DC
Current Consumption Range*:
- 18-31 mA @ 12V DC
- 31-61 mA @ 24V DC
*Dependant upon tone selection and voltage
Cable: needs minimum 22-gauge, 2-conductor

**MECHANICAL:**
Size: 5.00” x 5.63” x 2.25” (with mounting plate)
Weight: 0.5 US pounds
Mounting: 2” x 4” or 4” x 4” back box

**OPERATING CHARACTERISTICS:**
Sound Output: 12V DC - 54dBA
- 24V DC – 60dBA
Field-selectable tones
- Repeating 1 second chime
- Repeating ¼ second chime
- Temporal 3 chime
- Single stroke chime
- Continuous / 3kHz
- Continuous / 500 kHz
- Temporal 3 / 3kHz
- Temporal 3 / 500 Hz

**ENVIRONMENTAL:**
Operating Temperature: 32º to 120º Fahrenheit
Intended for indoor use only.

**DUTY CYCLE:**
Rated for continuous use.
The Multiplexer, used only in IS 3200 and BR 4200 Systems, relays event information sent from the Controller and Receivers to Graphic Display Panel(s) and to PCs with the Accutech Software. The Multiplexer comes inside a Controller case; this case can accommodate up to 2 Multiplexer boards (16 Zones).

**ELECTRICAL:**
Operating Voltage: External 12V DC regulated power supply, Emergency backup located within 6 feet of the Multiplexer recommended
Current Consumption: 350 mA per 8-zone board
Output: RS232

**MECHANICAL:**
Construction: Metal case
Size: 16.00” x 9.60” x 3.25”
Weight: 10 US pounds (2 Multiplexers in enclosure)

**ENVIRONMENTAL:**
Operating Temperature: 32º to 120º Fahrenheit
Intended for indoor use only.

**DUTY CYCLE:**
Rated for continuous use.

---

**Model Number:** MX18, MX916
**Part Number:** 770177 (MX18), 770277 (M916)
**UL Listed 294 (BP9480)**
**Access Control Accessory**
The Push Button Override (PBO) triggers the Keypad’s Escort or Reset function; this option allows access through a monitored door from the non-Keypad side of the door.

**ELECTRICAL:**
Operating Voltage Range: 2 to 13V DC  
Stand-by Current Drain: 15mA typical  
Current Drain with outputs active: 55 mA typical  
Cable: needs minimum 22-gauge, 4-conductor

**MECHANICAL:**
Size: 4-5/8” x 2-7/8” x 1-3/8”  
Weight: 4.3 ounces  
Mounting: Flush or Surface mount  
*Metal box not recommended

**OPERATING CHARACTERISTICS**
LEDs:  
- Green – Reset status  
- Red - Alarm status  
- Yellow – Power status

**ENVIRONMENAL:**
Operating Temperature: 32º to 120º Fahrenheit  
Intended for indoor use only.

**DUTY CYCLE:**
Rated for continuous use.
CUT SHEET: Passive Infrared Reader (PIR)

The Passive Infrared Reader (PIR) is a device that uses an infrared sensor to monitor elevators, hallways, corridors, and passageways. Like the Magnetic Switch, the PIR is used in areas where alarm activation is not desired immediately upon Tag detection. It can also be used in hallways or other areas where a Magnetic Switch would not be feasible.

**ELECTRICAL:**
Operating Voltage: 12V DC
Current: Stand-by 10 mA
Relay Output: N.O./N.C. 2A/28V AC/DC maximum
Cable: needs minimum 22-gauge 4-conductor stranded, non-shielded

**MECHANICAL:**
Dimensions: 2.50” x 4.40” x 1.40”
Weight: 3 ounces
Color: White

**OPERATING CHARACTERISTICS**
Beam Coverage: Vertical curtain up to 15 x 15 feet.
*The beam is adjustable from its normal 0º setting (perpendicular to the unit) up to 12º.

**ENVIRONMENTAL:**
Operating Temperature: 32º to 120º Fahrenheit
Intended for indoor use only.

**DUTY CYCLE:**
Rated for continuous use.

---

Due to existing UL listing (above), not required to be listed under UL 294 (BP9480)
Some installations of the Accutech System peripherals require more power than the Controller can provide. In these cases, a Power Supply is added to the system to meet the additional power requirements.

**ELECTRICAL:**
Operating Voltage: 120V AC, 2 amp
Output: 12V DC, 5.1 or 6.8 amps

**MECHANICAL:**
Construction: Metal Case
Enclosure size: 12.00” x 12.00” x 4.00”
Weight (including enclosure): 12 US pounds

**OPERATING CHARACTERISTICS:**
Provides 12V DC to multiple system components including:
- Staff Alert Panel (SAP)
- Graphic Display Panel (GDP)
- Multiplexer
- BR 4200 Auxiliary Receivers
- Fire Panel Interface (FPI)

**ENVIRONMENTAL:**
Operating Temperature: 32º to 120º Fahrenheit
Intended for indoor use only.

**DUTY CYCLE:**
Rated for continuous use.

---

Power Supply

Model Number: PS51 or PS68
Part Number: 500250 (PS51), 500251 (PS68)

UL Listed 294 (BP9480)
Access Control Accessory
The Staff Alert Panel (SAP) notifies staff when an alarm occurs in a monitored zone through a piezo buzzer and alarm-specific LEDs. Each monitored zone is labeled and marked with an LED that will light to indicate that an Alarm Condition has occurred for that particular zone. In addition, a “Fire Alarm” LED will light on the display if the fire circuit is activated.

**ELECTRICAL:**
Operating Voltage: 10 to 13V DC  
Current Consumption: 300 mA Max  
Cable: needs minimum 22-gauge, 6-conductor from each Controller

**MECHANICAL:**
Size: 11” x 5-3/8” x 1-3/8”  
Weight: 1 US pound

**OPERATING CHARACTERISTICS**
LED Alarm indicators:
- Flashing Red – ALARM
- Steady Red – DOOR AJAR
- Flashing Yellow – CHECK SYSTEM
- Steady Yellow – LOITER
Fire Alarm LED  
Power LED  
Built-in Piezo buzzer

**ENVIRONMENTAL:**
Operating Temperature: 32º to 120º Fahrenheit  
Intended for indoor use only.

**DUTY CYCLE:**
Rated for continuous use.

---

Staff Alert Panel (SAP)  
Model Number: SAP  
Part Number: 700080  
UL Listed 294 (BP9480)  
Access Control Accessory
The Speakers provided by Accutech are 8-ohm speakers and are used in conjunction with the Central Alarm. They are located strategically so they can be heard from any location on the monitored floor.

**ELECTRICAL:**
- Operating Voltage: 12V DC
- Cable: needs minimum 22-gauge, 2-conductor
- Voice coil impedance: 8 ohms

**MECHANICAL:**
- Dimensions: 6.63” x 4.70” x 2.25”

**OPERATING CHARACTERISTICS:**
Speakers should be located where they can be heard in several directions (such as hallway intersections) to allow staff to hear alarms as they occur.

**ENVIRONMENTAL:**
- Operating Temperature: 32º to 120º Fahrenheit
- Intended for indoor use only.

**DUTY CYCLE:**
- Rated for continuous use.

---

Speakers

Model Number: AS3
Part Number: 300002

---

800-356-2671 | Accutech | www.accutech-ics.com

Accutech reserves the right to substitute comparable components without notice.
DISCLAIMER: An S-TAD reading is in no way meant to be a replacement for taking a Tag to an active zone to test the range capability of the Tag. When you use an S-TAD all you really know is that the Tag has enough power to respond; it is NOT an indication of the range capability. In order to test the range capability of a Tag, you must take it to an active zone.

The Secure Tag Activator/Deactivator (S-TAD) is used to check the functionality of an Accutech Tag. Accutech Tags operate by internal battery. Over the course of normal operation, Tags eventually lose battery power and the Tags will need to be replaced. The S-TAD is used to determine if a Tag has sufficient battery power to respond to an activating signal.

NOTE: An S-TAD CAN activate or deactivate Tags, preserving Tag battery life and preventing nuisance alarms.

ELECTRICAL:
A TAD requires a 9-volt battery to operate.

MECHANICAL:
Size: approximately 5.50” x 3.00” x 1.25” (with boot)
Weight: 8 ounces

OPERATING CHARACTERISTICS:
Transmit Frequency: 128 kHz
Receive Frequency: 418 MHz

INTERFACE
WAIT LED
Tag is in the process of being turned on or off or during S-TAD unlocking.

LOW TAG BATTERY LED
A low tag battery is detected.

Tag LED
An active Tag is nearby.

BAND LED (Part # 662008 only)
A Band Alarm condition is detected.

Power/Clear LED
The S-TAD is powered.

ENTER LED
The S-TAD is unlocked.

Integrated touch keypad interface
Used for secure access to functions.

ENVIRONMENTAL:
Operating Temperature: 32º to 120º Fahrenheit
Intended for indoor use only.
The Tag Test Station (TTS) is used for Tag assignments. In a similar fashion to a Tx wand antenna, the TTS emits a small Tx Activation Field that activates Tags. Once activated a Tag sends a signal to the Receiver. The Receiver sends this information to the Multiplexer, which sends it to the computer with the Accutech Software. The Tag Reader Status dialog box appears on the PC screen where it can be assigned or unassigned.

The TTS is connected to a Controller, which is connected to a Multiplexer.

**ELECTRICAL:**
Operating Voltage: 30V AC (provided by Controller)
Cable: required minimum 18-gauge, 2-conductor

**MECHANICAL:**
Size: 5.00” x 7.00” x 1.50”
Weight: 10 ounces

**OPERATING CHARACTERISTICS:**
Transmits at 132 Khz continuously

**ENVIRONMENTAL:**
Operating Temperature: 32º to 120º Fahrenheit
Intended for indoor use only.

**DUTY CYCLE:**
Rated for continuous use.

Tag Test Station (TTS)
Part Number:
700010 (I)
700020 (R)
CUT SHEET: Timer

A Timer allows the user to engage or disengage certain system functions on a time schedule. A typical application of a Timer would be at a perimeter door that has high traffic during the day but almost no traffic at night. During the day it may make sense to allow the free ingress and egress of staff and visitors, but at night, locking the door would mean added security for staff and residents.

**ELECTRICAL:**
- Operating Voltage: 6 to 12V AC/DC
- Relay Inactive: 14 mA
- Relay Active: 40 mA
- Contacts: N.O. & N.C.
- Contact Rating: 1A @ 26V DC
  
  0.5A @ 115V AC

**MECHANICAL:**
- Size: 8.25” x 8.25” x 4.00” (includes enclosure)
- Weight: 6 US pounds (includes enclosure)

**OPERATING CHARACTERISTICS**
- Internal 10-year Lithium Battery will provide clock memory backup for 6 months continuously
- Relay Hold in Time Adjustment: 1 to 60 seconds
- Time format: 24 hour (military) format

**ENVIRONMENTAL:**
- Operating Temperature: 32º to 120º Fahrenheit
- Intended for indoor use only.

**DUTY CYCLE:**
- Rated for continuous use.
A Tx wand antenna located at a zone generates a Tag-activating radio frequency signal called the “Tx Activation Field.” When a Tag is activated it sends a signal to the Receiver. The Receiver then sends the signal to the Controller, which validates the signal before initiating any action such as locking a door, deactivating an elevator, or triggering system alarms.

Due to its ferrite bar, the Tx wand antenna must be mounted a minimum of 3 inches away from any metal. This includes door frames, conduit, and lathe.

**ELECTRICAL:**
Operating Voltage: 30V AC (provided by Controller)
Wire Connections: Terminal Block
Cable: required minimum 18-gauge, 2-conductor, shielded

**MECHANICAL:**
Construction: Vacuum molded ABS
Size: 13.25” x 2.50” x 2.25”
Weight: 1.5 US pounds
Mounting Surface: Four 3/16” screws

**OPERATING CHARACTERISTICS:**
Tuning Frequency: Nominal 131 kHz,
129-133 kHz for Stagger
Output Impedance: 300 ohms nominal

**ENVIRONMENTAL:**
Operating Temperature: 32º to 120º Fahrenheit
Intended for indoor use only.

**DUTY CYCLE:**
Rated for continuous use.

---

Accutech reserves the right to substitute comparable components without notice.
A Voice Alarm, usually located at a monitored zone, will repeat a recorded message (up to 20 seconds) continuously when an alarm occurs.

**ELECTRICAL:**
Operating Voltage: 12V DC  
Current Consumption: 300 mA maximum

**MECHANICAL:**
Size: 6.63” x 4.13” x 1.75”  
Weight: 1.5 US pounds

**OPERATING CHARACTERISTICS:**
Recording Duration: 20 seconds (maximum)  
Speaker Output: 8-ohm

**ENVIRONMENTAL:**
Operating Temperature: 32º to 120º Fahrenheit  
Intended for indoor use only.

**DUTY CYCLE:**
Rated for continuous use.

---

Voice Alarm  
Model Number: VA  
Part Number: 700019
The Zone Receiver is used to detect signals from an activated Tag. The Zone Receiver is always located near the monitored zone. When the Controller is mounted at the zone, the Zone Receiver is housed in the Controller enclosure. When the Controller is mounted away from the zone, the Zone Receiver is mounted externally in a 4”x4”x2” electrical box at the zone. Zone Receivers monitor both zone events and Band Removal events while BR 4200 Auxiliary Receivers only monitor Band Removal events.

**ELECTRICAL:**
Operating Voltage: 12V DC regulated
Cable: needs minimum 22-gauge, 12-conductor

**MECHANICAL:**
Size: If the Controller is located away from the zone, the Receiver is mounted in a 4.00” x 4.00” x 2.00” electrical box at the zone.
*Allow 7” depth for clearance of the BNC Rubber Duck antenna

**OPERATING CHARACTERISTICS:**
Transmit Frequency: 418 MHz
Receive Frequency: 418 MHz
Frequency range: 40 feet radius (360°)

Jumpers settings:

<table>
<thead>
<tr>
<th>JP1 (SS)</th>
<th>JP2 (Rx Test)</th>
<th>JP3 (Tag D)</th>
<th>JP4 (BR)</th>
<th>JP5 (Reset)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>Off</td>
<td>Off</td>
<td>On</td>
<td>Off</td>
</tr>
</tbody>
</table>

**ENVIRONMENTAL:**
Operating Temperature: 32° to 120° Fahrenheit
Intended for indoor use only.

**DUTY CYCLE:**
Rated for continuous use.