# USERS GUIDE **WIZARD SMR**
## COMBINED ACTIVATION & SAFETY SENSOR

**COMBINED SAFETY & ACTIVATION SENSOR**

The Wizard SMR (PN:10WIZARDSMR) combines k-band microwave and focused active infrared technology to provide superior activation and safety for an automatic sliding door system. For activation, the unit provides digitally processed and sophisticated motion tracking technology for unidirectional sensing when energy conservation is critical. For safety, the unit emits 2 rows of 24 beams of focused presence technology that provides extraordinary safety. The active infrared remains active even when the door is closing. Serial numbers 52000 and greater provide the added ability for an "ALL RELAY" output, making it compatible with older non-microprocessed control boxes.

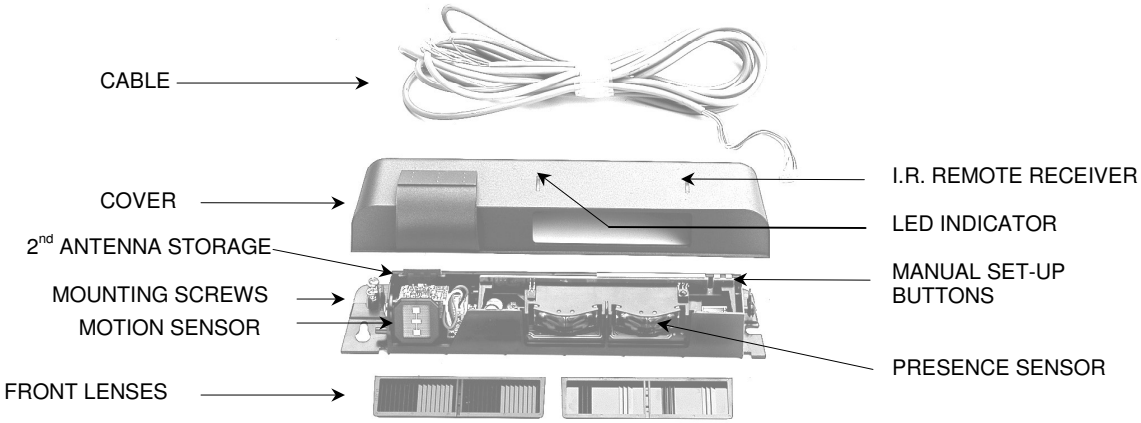
**TECHNICAL SPECIFICATIONS**

| DESCRIPTION | SPECIFICATION |
|---|---|
| Supply voltage | 12 to 24 VAC / VDC: -5% to +10% |
| Power frequency | 50 / 60 Hz |
| Power consumption | < 3 W |
| Mounting height<br>• Standard<br>• High | <br>5'9" to 8'2"<br>8'2" to 13" |
| SMR data input | 10 to 30 V DC |
| Delay of the output activation after stimulation | transistor : < 1ms |
| 3-color LED | • RED : presence detection<br>• GREEN : motion detection<br>• ORANGE :monitoring process |
| Temperature range | -30°F to +131°F |
| Degree of protection | NEMA 3S / (IP54) |
| Product conformity | R&TTE 1999/5/EC & EMC 89/336/EEC<br>BZT Germany, TÜV |
| Dimensions | 10.4 " x 2.2 " x 1.9 " |
| Weight | .55 lbs / 250 g |
| Housing material | ABS & LURAN S |
| Color of Housing | Anthracite gray (standard), aluminum or white finish |
| Cable length | 8' of six-conductor cable |

| | MOTION SENSOR | PRESENCE SENSOR |
|---|---|---|
| Technology | Microwave and microprocessor<br>Transmitter frequency :24.125 GHz<br>Transmitter radiated power : <20 dBm EIRP<br>Transmitter power density : < 5 mW/cm² | Focused active infrared and Self-monitored microprocessor<br>Spot diameter (standard) : 4" max<br>Number of spots : 24 or 12 spots by curtain<br>Number of curtains : 2 |
| Detection field (standard)<br>• Wide field<br>• Narrow field | <br>13'0" W x 6'6" D<br>6'6" W x 8'2" D | <br>6'6" W x 13.75" D<br>3'3" W x 13.75" D |
| Detection mode | Minimum detection speed<br>2 inches / sec. (measured in the sensor axis) | Response time : < 128ms |
| Angle : | from 15° to 50° in elevation (adjustable) | from - 4° to + 4° (adjustable) |
| Output specification | Relay (free of potential change-over contact) :<br>• Max contact voltage : 42V AC/DC<br>• Max contact current : 1A (resistive)<br>• Max switching power : 30W (DC) / 60VA (AC) | Transistor (optocoupled transistor)<br>• Max output current : 100 mA<br>• Max switching power : 48 V DC |
| Output hold-time | 0.5s to 9s (adjustable) | 1s (fixed) |
| Manual adjustment | • orientation of sensing field (mechanically)<br>• shape of the sensing field (choice of antenna)<br>• multiple functions (using push buttons). | • orientation of sensing field<br>• shape of the sensing field (choice of front lens)<br>• multiple functions (by push buttons). |
| Remote control adjustments | • Sensitivity.<br>• Hold time.<br>• Detection mode.<br>• Immunity<br>• Output configuration. | • Sensitivity.<br>• Auto-learn time<br>• Monitoring mode<br>• Number of Curtains<br>• Relay / Transistor configuration<br>• Rain Mode<br>• Snow Mode |

OBSOLETE

## COMPONENT ID




## SAFETY PRECAUTIONS

- Shut off all power going to the header before attempting any wiring procedures.
- Maintain a clean & safe environment when working in public areas.
- Constantly be aware of pedestrian traffic around the door area.
- Always stop pedestrian traffic through the doorway when performing tests that may result in unexpected reactions by the door.
- Always check placement of all wiring before powering up to insure that moving door parts will not catch any wires and cause damage to equipment.
- Ensure compliance with all applicable safety standards (i.e. ANSI A156.10) upon completion of installation.

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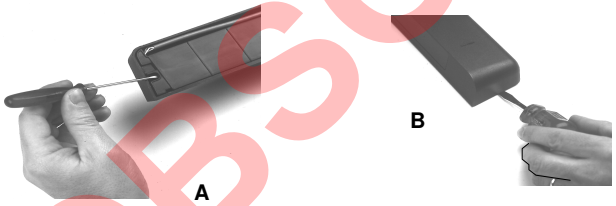
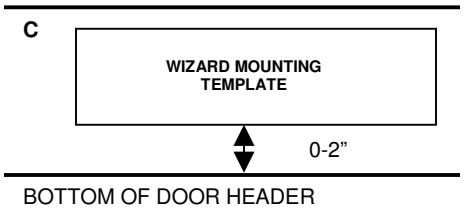
## MECHANICAL INSTALLATION

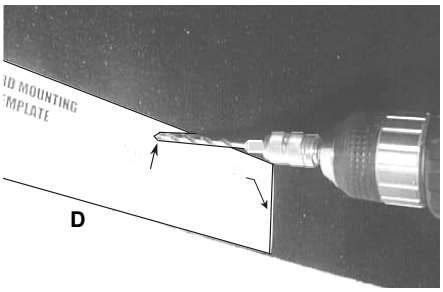
1. Remove the cover from the unit as shown in picture “A”. After the Wizard is attached to the header, the cover may be removed by inserting small screwdriver behind the Wizard and gently prying cover off as shown in picture “B”.




2. Attach mounting template to the center of header as shown (C) – template should be 0”-2” above bottom edge of header. Drill the hole marked for wire passage and drill pilot holes for screw mounting (D).

**NOTE: Flush mount with bottom of header is necessary for for all neagtive IR angles.**



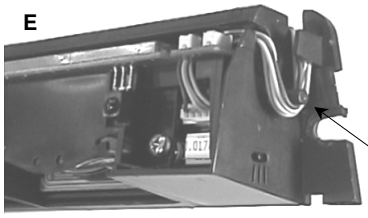




3. Insert mounting screws about halfway in (F shown on next page), and install the Wizard onto the screws. When in place, tighten screws to secure to header. Leave cover off until mechanical adjustments are complete.

## ELECTRICAL INSTALLATION

1. With Wizard in place, locate the enclosed cable and feed the stripped end through the wire passage hole in header from the Wizard side as shown in Picture (F). Leave enough slack to allow connection to the Wizard and proper routing of wire around the plastic posts (E). Please observe proper routing of the cable as shown – this is to divert rainwater from the Wizard if it should run down the cable, and also provides for proper routing to allow easy cover installation on the Wizard.

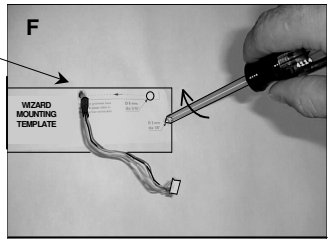
E



Plastic post to wrap wires around

Wire fed through towards control

F




## ELECTRICAL INSTALLATION – WIRING

Perform the following for wiring the Wizard to an automatic door control:

| Wizard Wire Color | Connect To: Microprocessed Controls | Connect To: Old Style Controls |
|---|---|---|
| Red | 12 to 24 VAC / VDC: -5% to +10% | 12 to 24 VAC / VDC: -5% to +10% |
| Black | 12 to 24 VAC / VDC: -5% to +10% | 12 to 24 VAC / VDC: -5% to +10% |
| White | Common at Door Control | Common at Door Control |
| Green | Activation Input at Door Control | Activation Input at Door Control |
| Brown | Common at Door Control | Brown & Blue wires are not used for SN 52000 and greater – Do NOT Connect Them To Anything: All output is through the white and green wires. **The Wizard MUST be programmed to a Relay Configuration value of 5 or 6. See Page 8.** Wizards below SN 52000 will still require a 10IFBWIZARD. |
| Blue | Safety Input at Door control | |

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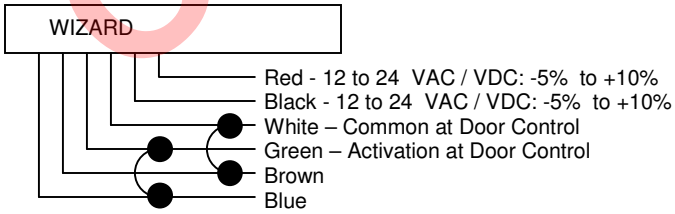
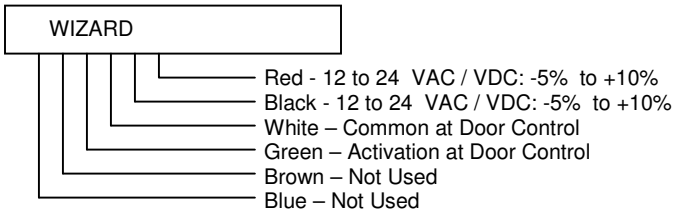
**Other Wiring Notes:**

1. When connecting to a microprocessed control box, the Motion output and presence output wires may be connected to separate inputs or may also be to a mutual input, as some controls may only have an activation input, while others may have an activation input, as well as a safety (or presence) input. For example:

**FOR CONTROLS WITH ONLY AN ACTIVATION INPUT:**
Two options exist for this configuration. First the White and Green may be connected to Brown and Blue (respectively), OR the Relay Configuration may be set to a value of 5 or 6, in which case ONLY the White and Green wires are used.




**OR**



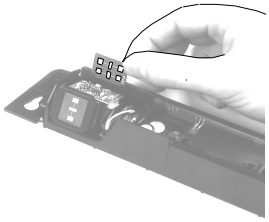

**+**

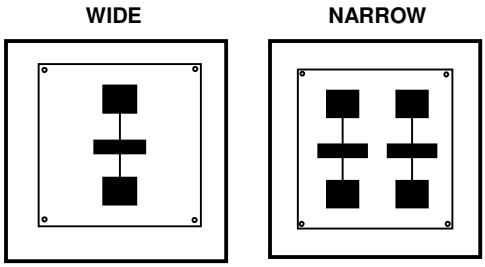
For SN 52000 and greater, program the Wizard to Relay Configuration Value 5 or 6. If set to 5, contacts close upon detection. If set to 6, contacts open upon detection.

2. If separate outputs are available at the control box, White and Green may go to common and activation, while Brown and Blue will go to the safety (or presence) input. Always respect polarity with Brown and Blue.

## MECHANICAL ADJUSTMENTS

1. Insert the desired microwave planar antenna for a narrow or wide field of detection. Refer to the diagram below for approximation of field size for each pattern.



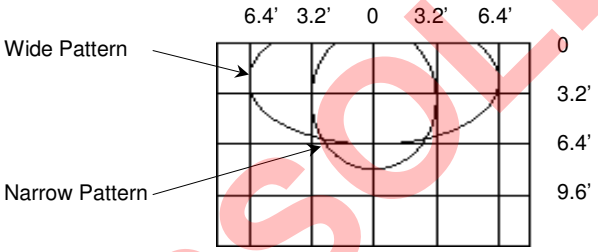



7'-0" height = [13' (W) X 6' 6" (D)] [6 6" (W) X 8' 2" (D)]

- The optional narrow-field antenna is located in a slot behind the mounted antenna as shown.
- To remove the antenna, carefully remove the protective cover and change antenna.
- Once proper antenna is in place, adjust angle of antenna as necessary.

## MECHANICAL ADJUSTMENTS MOTION SENSING FIELD

1. The position of the sensing field is determined by the vertical angle of the planar antenna. The angle is adjusted in 3° increments by gently rotating the antenna forward or back. The default mounting angle is 30° - Patterns shown in diagram below are those at 30°.




2. The tilt angle will be greatly determined by the position of the sensor with relation to the face of the door. A 15º angle will result in the pattern being drawn back towards the door, where as the 45º will place the pattern farther away. Be certain to walk-test detection field and insure compliance with current applicable ANSI standards.

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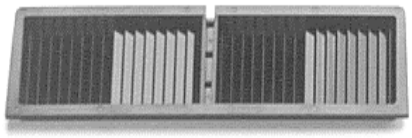
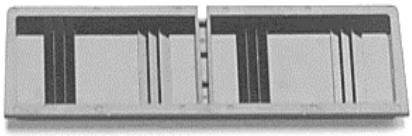
## MECHANICAL ADJUSTMENTS PRESENCE SENSING FIELD

1. Install the desired lens for the infrared curtain (presence), as shown below.
   - Narrow Lens is suitable for smaller door openings or high mounting height applications.



Narrow-field Lens

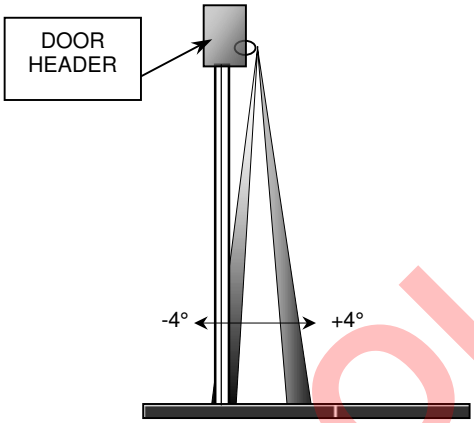
[3'3" (W) X 13.75" (D)]

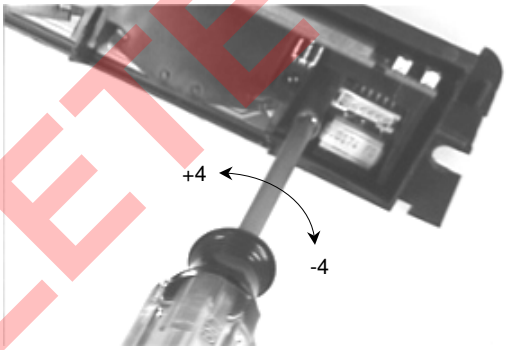


Wide-field Lens

[6' 6" (W) X 13.75" (D)]

2. The infrared presence pattern may be adjusted in two different ways:
   - First, the pattern may be adjusted nearer or farther from the door.
   - Second, the pattern width may be adjusted to suit the particular door application
3. The adjustment screw will bring the pattern nearer or farther from the face of the door by adjusting the tilt angle from +4° to –4°. At the standard mounting height, one complete clockwise turn of the adjustment screw will move the pattern approximately 3 inches closer to the door. The precise location of the infrared beam may be found by using the BEA Spot-finder (PN: 10SPOT) after the Wizard has been powered up.

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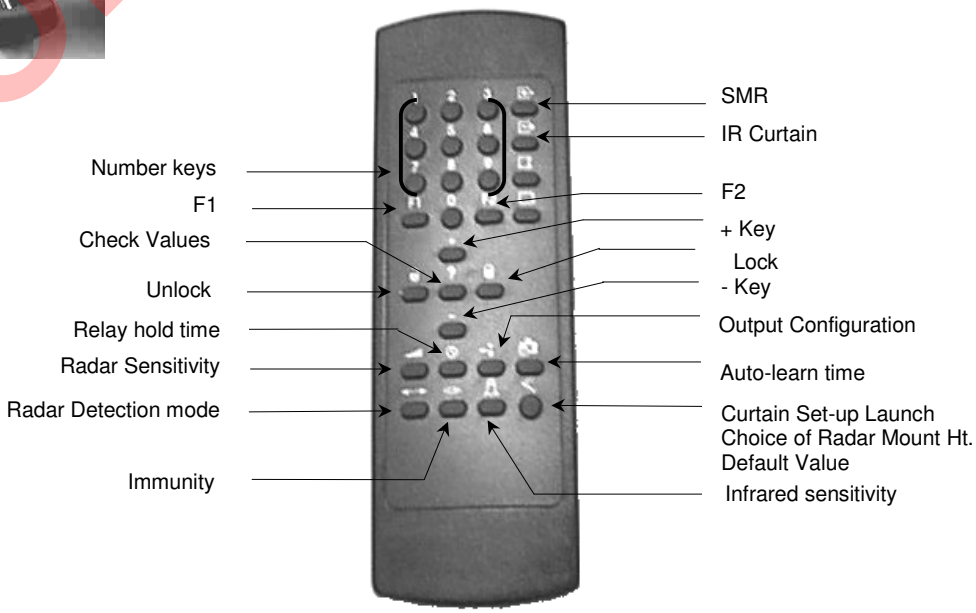
## BEA'S UNIVERSAL REMOTE CONTROL

- Open the battery compartment at the back of the remote control.
- Insert 2 AAA batteries – observe polarity
- Close battery compartment



## WIZARD SMR PROGRAMMING GUIDE – LOCKING & UNLOCKING

**All program changes and inquiries can only be accomplished while the Wizard is unlocked.**

| KEY | USER'S ACTIONS | DEFAULT | LED STATUS |
|---|---|---|---|
| UNLOCK | Press the UNLOCK key once, then enter your 4-digit code to unlock the Wizard.<br>0-9 0-9 0-9 0-9 | 0000 | The red LED will flash quickly after UNLOCK is pressed once. After entering the valid code, Wizard will flash red LED slowly.<br><br>If access code is set to the factory default value of 0000, the Wizard will automatically unlock after the UNLOCK key is pressed once. The red LED will immediately begin to slowly flash red. |
| LOCK | When all parameters have been set, press the LOCK key once. If you wish to enter a new access code, use the 0-9 number keys and enter the new 4-digit code within 20 seconds.<br>If you choose not to enter a new code, press the LOCK key once more, and the existing code will be retained. If no key is pressed within 1 minute, the sensor will lock with it's existing code being retained.<br>= Locked with existing code.<br>0-9 0-9 0-9 0-9<br>= Locked with new code that is entered. | 0000 | After locking, the red LED stops flashing and the sensor will no longer be in a program mode. |

## WIZARD SMR PROGRAMMING GUIDE – INQUIRE ABOUT SETTINGS

| KEY | USER'S ACTIONS | DEFAULT | LED STATUS |
|---|---|---|---|
| CHECK VALUES | Press the function key that you desire to inquire about, followed by pressing the INQUIRY key.<br>After pressing INQUIRY, count the number of green LED flashes – this corresponds to the setting.<br>EXAMPLE:<br>= 7 = Default sensitivity value | | After pressing a function button, the red LED flashes quickly. After pressing the INQUIRY key, the green LED flashes the number of the current setting. No green flash will indicate a setting of 0. |

## WIZARD SMR PROGRAMMING GUIDE

| | | | |
|---|---|---|---|
| RADAR SENSITIVITY | Sensitivity alters the sensitivity of the motion field only. Values range from 0 to 9, minimum to maximum respectively.<br>0 = Minimum sensitivity<br>9 = Maximum sensitivity | 7 | After pressing the SENSITIVITY key, the red LED flashes quickly. After pressing a number button, the red LED flashes slowly. |
| RELAY HOLD TIME | Relay hold time refers to the hold time on the output relay of the Wizard. Values range from 0 to 9, .5 seconds to 9 seconds respectively.<br>0 = .5 secs.<br>1 = 1 sec. to 9 = 9 seconds. 1 through 9 in 1 second increments. | 0 | After pressing the RELAY HOLD TIME key, the red LED flashes quickly. After pressing a number button, the red LED flashes slowly. |

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**WIZARD SMR PROGRAMMING GUIDE – Cont.**

| KEY | USER'S ACTIONS | DEFAULT | LED STATUS |
|---|---|---|---|
| OUTPUT CONFIGURATION | The Output configuration has 4 possible output values:<br>1 = N.O. relay, N.C. transistor<br>2 = N.C. relay, N.O. transistor<br>3 = N.C. relay, N.C. transistor<br>4 = N.O. relay, N.O. transistor<br>5 = All Relay Output (N.O.)<br>6 = All Relay Output (N.C.) | 4 | After pressing the OUTPUT CONFIGURATION key, the red LED flashes quickly. After pressing a number button, the red LED flashes slowly. (N.O. indicates relay closure upon detection and power-off would result in an open relay).<br>**Values 5 & 6 available on SN: 52000 and greater** |
| AUTO-LEARN | The Auto-Learn time enables the Wizard to adapt to new permanent changes within its field of detection, after the set time (below) expires. Once expired, the Wizard will return to a state of non-detection.<br>0 = 30 seconds 4 = 10 minutes<br>1 = 1 minute 5 = 15 minutes<br>2 = 2 minutes 6 = 20 minutes<br>3 = 5 minutes 9 = Infinity | 1 | After pressing the AUTO-LEARN key, the red LED flashes quickly. After pressing a number button, the red LED flashes slowly.<br>**Note: Value 9 (infinity) available on SN: 60000 and greater** |
| RADAR DETECTION MODE | Detection mode offers 3 different levels of detection: Bi-directional, Uni-directional and Uni-directional with MTF (motion tracking feature). MTF allows the Wizard to switch from uni-directional to bi-directional upon detection from the normal approach direction.<br>1 = Bi-directional<br>2 = Uni-directional<br>3 = Uni-directional with MTF | 3 | After pressing the DETECTION MODE key, the red LED flashes quickly. After pressing a number button, the red LED flashes slowly. |
| IMMUNITY (motion) | Immunity reduces the influence of unwanted disturbances within the field of motion detection, without reducing the pattern.<br>1 = Extreme sensitivity<br>2 = Normal Sensitivity<br>3 = Reduced sensitivity | 2 | After pressing the IMMUNITY key, the red LED flashes quickly. After pressing a number button, the red LED flashes slowly. |
| INFRARED SENSITIVITY | Infrared sensitivity reduces the influence of unwanted disturbances within the field of presence detection.<br>1 = Low sensitivity – hi gloss floors<br>2 = Normal sensitivity | 2 | After pressing the INFRARED SENSITIVITY key, the red LED flashes quickly. After pressing a number button, the red LED flashes slowly. |
| RADAR MOUNTING HEIGHT | 0 = launch infrared set-up (learn background).<br>1 = Microwave at normal mounting height<br>2 = Microwave at high mounting height (8' 2" to 13')<br>3 = Restore all parameters to default value. SN less than 52000<br>9 = Same as value 3, but only for SN 52000 and greater. | 1 | After pressing the INFRARED SENSITIVITY key + 0, the red / green LED flashes to indicate set-up. After pressing the INFRARED SENSITIVITY key + 1, 2, or 3 the red LED will flash slowly. |
| SMR | SMR (Self-Monitoring Ready) mode is enabled for the use with BEA's DCU (Door Control Unit). It is disabled for all other applications. The DCU sends & receives monitoring signals to the sensor when this feature is enabled. The DCU can then take control of a door in the event of a sensor failure.<br>0 = SMR Input OFF<br>1 = SMR input ON | 0 | After pressing the SMR key, the red LED flashes quickly. After pressing a number button, the red LED flashes slowly. |

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| | | | | |
|---|---|---|---|---|
| **WIZARD SMR PROGRAMMING GUIDE – Cont.** | IR CURTAIN | The IR Curtain function allows the User to toggle the second IR curtain (farthest from the door) on & off. When the curtain is off, it operates in a motion sensing mode. 1 = 1 IR curtain (inner) ON.<br>2 = Both IR curtains (inner & outer) ON. | 2 | After pressing the IR CURTAIN FUNCTION key, the red LED flashes quickly. After pressing a number button, the red LED flashes slowly. |
| | DOOR CONTROL FUNCTION | The Door Control function enables the User to select a mode of door operation. 1 = Door permanently open.<br>2 = Door permanently closed – no detection<br>3 = Door in automatic mode – Wizard, upon detection, opens door. | 3 | After pressing the DOOR CONTROL FUNCTION key, the red LED flashes quickly. After pressing a number button, the red LED flashes slowly. |

## RAIN MODE

**RAIN MODE:**

1. The Rain Mode is designed to minimize the effect of heavy rain on the Wizard's auto-learn requirements. Rain Mode will be enabled after the Wizard goes through two auto-learn cycles without having a minimum of 6 operating cycles of the door between these 2 auto-learn cycles. During Rain Mode, auto-learn time will remain the same. However, the second infrared curtain will change from IR presence detection to IR motion detection. This is done to help eliminate unwanted detection of heavy rain, as well as it's effects on the ground. The only required setting on the Wizard SMR to enable Rain Mode is IR Sensitivity, which must be set to a value of 2 (normal). This mode will automatically expire upon a power reset, or upon expiration of one hour. This mode could be launched again under the same conditions.

## SNOW MODE

**SNOW MODE:**

The Snow Mode is designed to minimize the effect of heavy snow on the Wizard's auto-learn requirements. Snow Mode may only be enabled by performing the following:

1. Using the BEA remote control, Unlock the Wizard as described in the programming guide.

   + unlock code, if necessary.

2. Set Infrared Sensitivity to LOW (1).

   + 1 = Low Sensitivity

3. Set Auto-Learn Time to 30 seconds (0).

   + 0 = 30 second learn-time

4. Lock The Sensor when complete +

5. After the above changes have been made, the Wizard will go into the Snow Mode after it goes through 2 auto-learn cycles without having a minimum of 6 operating cycles of the door between these 2 auto-learn cycles.

6. While in Snow Mode, the auto-learn time will change from 30 seconds to 10 seconds. This mode will automatically expire upon a power reset, or upon expiration of one hour, as long as the settings (as outlined above) are in effect. This mode could be launched again under the same conditions.

**IMPORTANT NOTE:**
When changing the values of the above parameters to go from one mode to another, one should force a set-up by remote control, push buttons, or by a power-off / on sequence.

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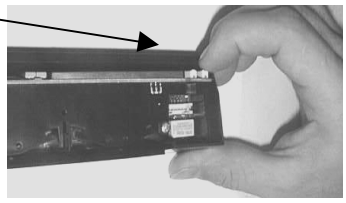
## MANUAL SET-UP (without remote)

- Set-up of the Wizard may be accomplished by the use of two Wizard mounted programming buttons. The procedures below indicate how to program using these buttons.
- The two set-buttons are located at the right side of the Wizard (as viewed when mounted to header). To begin, briefly press the right button and move away from the sensing patterns.

Manual Push-Buttons



**TO RESET THE UNIT** to factory defaults including the access code.

- Press and hold both buttons simultaneously until both red and green LED lights flash alternately

**TO CUSTOMIZE SETTINGS FROM FACTORY DEFAULTS**

- To enter the customizing mode: Press the right button until the LED light flashes and then release
- To return to standard mode: Press the right button again until the LED light stops flashing and then release

**CUSTOMIZING MODE**

- The red LED light indicates the number for the parameter being altered ( 1 flash = parameter #1)
- The green LED light indicates the value for the parameter being altered ( 1 flash means value = 1)
- The right button enables selection of the parameter number being altered ( +1 for each press)
- The left button enables alteration of the parameter ( +1 for each press)

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## MANUAL SET-UP (without remote)

| **PARAMETER NUMBER** (altered by the right button and confirmed by **GREEN LED**) | **PARAMETER** | **VALUES** (altered by the left button and confirmed by **RED LED**) | **DEFAULT VALUE** |
|---|---|---|---|
| 1 | Radar Sensitivity | 0-9 | 7 |
| 2 | Relay hold time | 0-9 | 0 |
| 3 | Output configuration | 1-6 | 4 |
| 4 | Auto-learn presence sensing | 0-7 | 1 |
| 5 | Detection mode | 1-4 | 3 |
| 6 | Immunity | 1-3 | 2 |
| 7 | IR sensitivity | 1-2 | 2 |
| 8 | Radar mounting height | 1-2 | 1 |
| 9 | Not Used - Must remain at 0 | 0 | 0 |
| 10 | Door control function | 1-3 | 3 |
| 11 | SMR mode | 0-2 | 0 |
| 12 | IR curtain | 1-2 | 2 |

## MANUAL SET-UP (without remote) – Cont.

**EXAMPLE**: Change radar sensitivity from 7 to 9 and set hold time to 4 seconds:

1. Press the right button for 2 settings, you will enter the customizing mode
   - The green LED flashes once (parameter 1)
   - The red LED flashes 7 times (sensitivity = 7)
   - Press the left button twice to move from sensitivity = 7 to sensitivity = 9

2. Press the right button once to move to Parameter 2 (relay hold time)
   - The green LED flashes twice (parameter 2)
   - The red LED does not flash (hold time = 0 seconds)
   - Press the left button four times to move from hold time = 0 to hold time = 4 seconds

**NOTE**:

1. When the highest value for the parameter has been reached, the value will "roll over" to its lowest value (e.g. for radar mode: 1, 2, 3, then 1, 2, …).
2. The sensor automatically returns to standard mode if neither button has been pressed for one minute.

## POWER-UP PROCEDURES

| STEP | USER'S ACTION | RESULT |
|---|---|---|
| STEP 1 | With all wiring in place, apply power to door control and 12 to 24 VAC / VDC: -5% to +10% to Wizard. Once powered, observe LED status on the Wizard. Stop all traffic through the doorway while performing this step, and remain clear of the Wizard's detection zones. | The Wizard will flash a red / green LED during the set-up procedure. Once the Wizard completes set-up, the door will close and begin normal operation thereafter. |
| STEP 2 | Once set-up is complete, the LED indication will reflect the status of the set-up. Observe the LED while standing outside of the detection zones. | • NO LED = Successful set-up<br>• RED LED ON = Presence being detected - Wizard is seeing an object.<br>• RED LED Flashing for 10 seconds. Infrared curtains are too close to door. Adjust curtains using the Spotfinder.<br>• GREEN LED MOMENTARILY ON = MOTION DETECTION (Wizard sees movement).<br>• ORANGE LED ON = Wizard is executing a Self-Monitoring test (only when SMR mode is enabled). LED should expire in approx. 6 seconds. If LED stays on, reset power and observe LED. If it comes back on steady, replace Wizard. |
| STEP 3 | Proceed with fine tuning the mechanical , as well as the program adjustments of the Wizard. Refer to the applicable sections of this manual for altering any settings. Be sure to check:<br>• Motion width & depth<br>• Presence width & depth<br>• Position of infrared curtain<br>• Sensitivity of motion field | Doors will always be adjusted to be in compliance with ANSI A156.10 |

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## TROUBLE-SHOOTING

| PROBLEM | PROBABLE CAUSE | CORRECTIVE ACTION |
|---|---|---|
| Wizard will not power up. | 1. Faulty power supply. | 1. Insure correct power supply of 12 to 24 VAC/ VDC: -5% to +10%. Power should come from an isolated transformer – not from the door control. |
| Orange LED is illuminated on Wizard. | 1. Wizard is in self-monitoring mode<br>2. Internal fault within the Wizard<br>3. Faulty Power Input | 1. Orange LED should expire after self-monitoring test is complete (6 seconds). This occurs every 60 minutes.<br>2. If SMR is not being used, remove power from the Wizard and re-apply. If orange LED illuminates and door will not enter into a set-up, replace faulty Wizard.<br>3. Remove power, then re-apply. Input power may have fluctuated beyond tolerances. |

| TROUBLE-SHOOTING Cont. | PROBLEM | PROBABLE CAUSE | CORRECTIVE ACTION |
|---|---|---|---|
| | Red LED on at Wizard. | 1. Wizard in detection. | 1. If red LED is on at Wizard:<br>a. Adjust infrared pattern away from the door and launch a new set-up. Refer to page 5 for infrared adjustments. Use BEA Spotfinder to accurately adjust the position of the pattern.<br>b. If hi-intensity lights or high gloss floors are saturating the area of detection, change the Infrared Sensitivity setting to reduced sensitivity – see page 7, and launch a new set-up to re-learn the environment. |
| | Red LED flashes for approx. 10 seconds when attempting a set-up. | 1. Infrared curtains are too close to the door and the sensor detects a door influence. | 1. Adjust Infrared curtain as necessary. Use of BEA's Spotfinder during this process is recommended. |
| | Door opens when it should close. | 1. Relay Configuration on wrong setting. | 1. Check Relay Configuration setting. Refer to page 6. |
| | Door will not close<br>Red LED off at Wizard. | 1. On-Off switch at door control in wrong position or is faulty.<br>2. Improper Relay Configuration on Wizard.<br>3. Faulty door control. | 1. Check to insure On-Off switch for door is in the ON or AUTOMATIC position. If switch is in correct position, check switch with multi-meter for proper operation.<br>2. Insure correct polarity at Brown and Blue wires<br>3. Check Relay Configuration setting on each Wizard. Refer to page 6 for settings.<br>4. Remove all sensor inputs from the door control. If door remains open, fault exists with door control or motor. Refer to manufacturer's manual for further troubleshooting. If door closes with sensor inputs removed, fault exists with sensors or related wiring. |
| | Door will not open. | 1. On-Off switch at door control in wrong position or is faulty.<br>2. Wizard not detecting traffic.<br>3. Faulty wiring between sensor and door control.<br>4. Faulty door control. | 1. Check to insure that On-Off switch for door is in ON or AUTOMATIC position. If it is in correct position, check switch with multi-meter for proper operation.<br>2. Walk in and out of Wizard detection area, if red LED does not illuminate check:<br>a. Power supply for Wizard: 12 to 24 VAC / VDC: -5% to +10%<br>b. Check SMR setting on each Wizard. The SMR should be disabled unless system is being used with BEA's Door Control Unit (DCU).<br>c. Check Relay Configuration for each Wizard. Refer to page 6.<br>3. Remove all sensor inputs from the door control. Jumper the common and activate terminals of the door control. If door does not open, fault lies within door control or motor. Refer to manufacturer's manual for further troubleshooting. If door opens, fault lies with sensors or related wiring.<br>4. Refer to Step 3. |
| | Door keeps recycling open. | 1. Wizard is seeing door.<br>2. Wizard is seeing movement from unwanted objects.<br>3. Vibration is triggering the Wizard. | 1. Observe LED status on each Wizard. Green LED indicates motion detection, red LED indicates presence. If LED's are illuminating make sensor adjustments as necessary to eliminate unwanted detection. Check angle and sensitivity for presence and motion.<br>2. Check for moving objects in the path of detection, such as posters, banners, etc.<br>3. Locate source of vibration and correct as necessary. |

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## TROUBLE-SHOOTING - Cont.

| PROBLEM | PROBABLE CAUSE | CORRECTIVE ACTION |
|---|---|---|
| Wizard will not respond to remote control. | 1. Batteries in remote are dead or are installed improperly. | 1. Check to insure that the batteries are installed correctly – observe polarity.<br>2. Replace batteries - AAA 1.5 volt. |
| Wizard will not unlock when access code is entered. | 1. Improper code being entered. | 1. Reset code to the default value of 0000 by performing one of the following:<br>a. Press the 2 buttons on the Wizard simultaneously until the red & green led begin flashing. This will return ALL settings to their default value.<br>b. Cut and restore power supply. No code is required to unlock during the first minute after powering. Reset code prior to locking. |
| Red LED is flashing rapidly after attempting set-up. | Detection field was violated during set-up of the Wizard. | 1. Launch a new set-up and insure that the detection field remains all clear until set-up is complete.<br>2. Wizard may be seeing the door as it is closing. Adjust infrared curtain and launch a new set-up. |
| Wizard will not respond to motion. | Improper SMR setting | 1. If the Wizard is NOT being used with a BEA DCU, set SMR to a value of 0. See page 8. |

## ACCESSORIES

- Weather Hood Unit (10URC)

- Ceiling Adaptor (10WCA)

- Remote Control (10REMOTE)

- SpotFinder (10SPOT)

## COMPANY CONTACT

If after troubleshooting a problem, a satisfactory solution cannot be achieved, please call B.E.A., Inc. for further assistance during Eastern Standard Time at **1-800-523-2462 from 7am - 5pm.**
**For after-hours, call East Coast: 1-866-836-1683 or 1-800-407-4545** / **Mid-West: 1-888-308-8843** / **West Coast: 1-909-596-3011. DO NOT** leave any problem unresolved. If you must wait for the following workday to call B.E.A., leave the door inoperable until satisfactory repairs can be made.
**NEVER** sacrifice the safe operation of the automatic door or gate for an incomplete solution.

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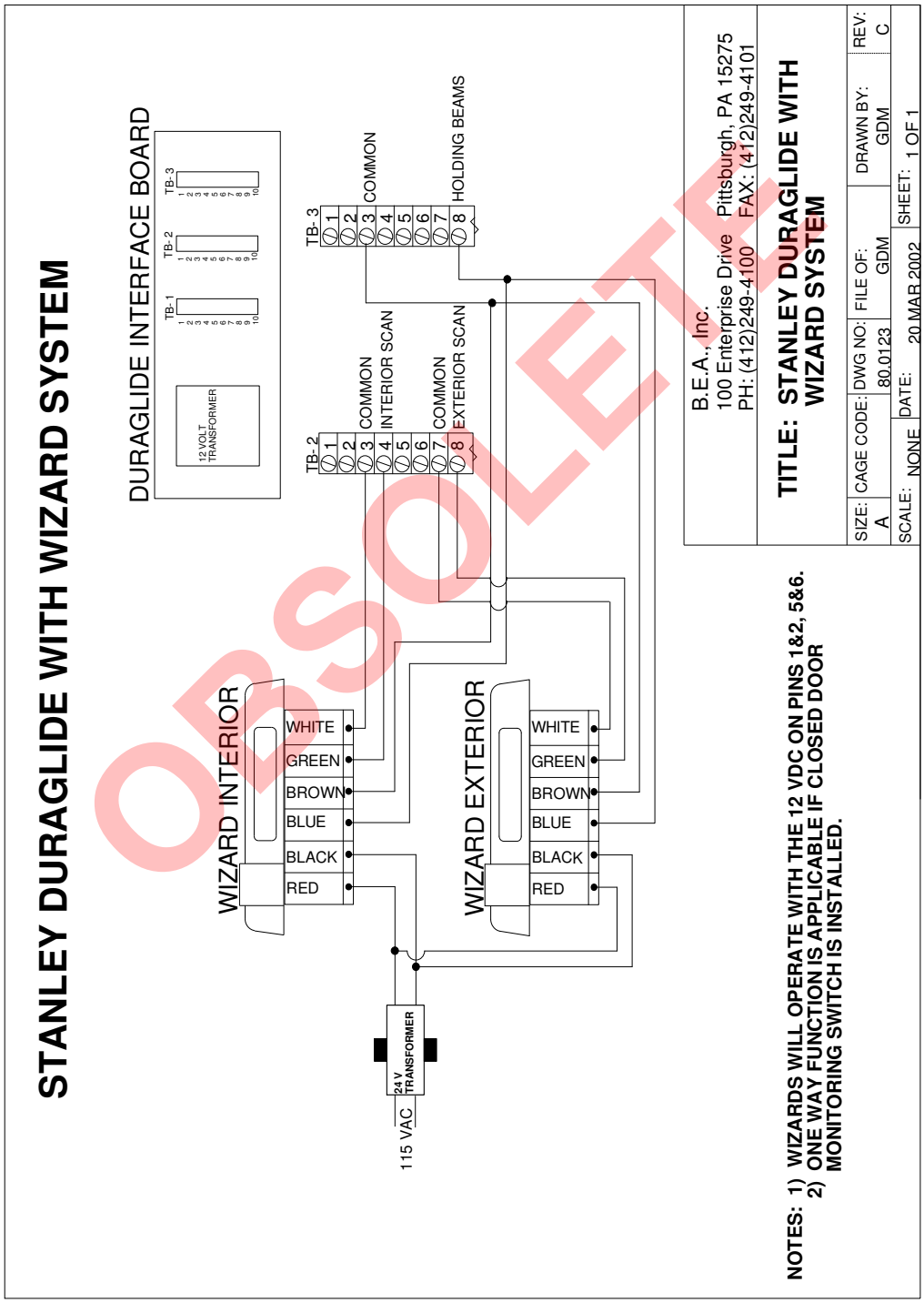
**ADDENDUM 1 –**

**WIZARD WITH STANLEY DURAGLIDE & ROTARY SWITCH**

The purpose of the addendum is to accommodate for the differences in the Standard Rocker Switch package and the Rotary Switch package. The standard wiring provided with the Rotary Switch Package is incompatible when using the partial opening switch selection with the Wizard sensor system.

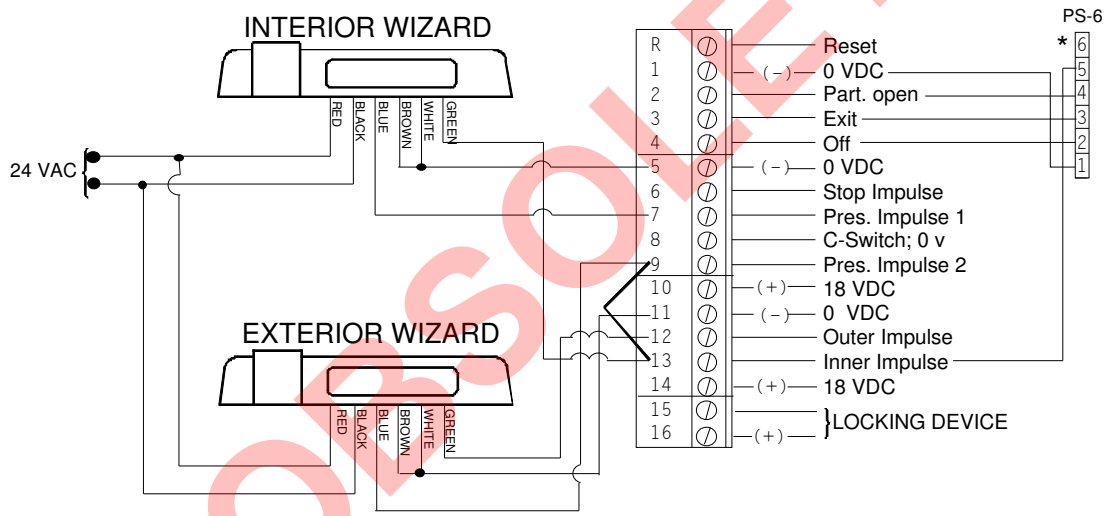
When using the Stanley Rotary Switch on a Duraglide slider package with a newer style Stanley interface board, observe the following:

- The brown wire from the Wizard must be connected to terminal #3 (Common) on TB-3 of the interface.




OBSOLETE

# BESAM CUJ-9 AMD II SLIDING DOOR WITH WIZARD SYSTEM




* Optional - connect to reset (TB1 R) if required.

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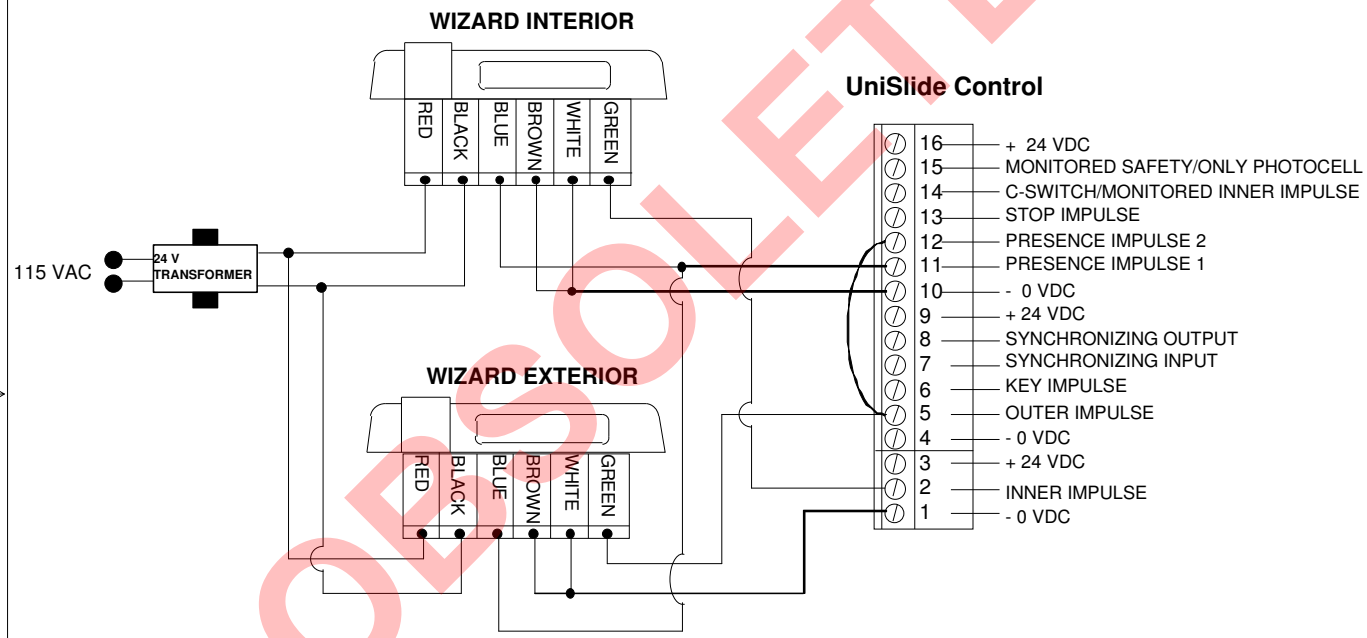
NOTE: 1) DO NOT CONNECT TO C SWITCH COMMON.
2) OBSERVE POLARITY WITH BROWN CONNECTING TO GROUND (0 VDC).
3) A JUMPER MUST BE INSTALLED IN PINS 9,13 ON CONTROL BOX FOR RE-ENTRY SENSOR IN ONE-WAY TRAFFIC AS PER ANSI STANDARD 8.2.3.

B.E.A., Inc.
100 Enterprise Drive Pittsburgh, PA 15275
PH: (412)782-5150 FAX: (412)782-5154

**TITLE: BESAM CUJ-9 AMD SLIDING DOOR WITH WIZARD SYSTEM**

| SIZE | CAGE CODE | DWG NO | FILE OF: | DRAWN BY: | REV |
|---|---|---|---|---|---|
| A | | 608 | GDM | KJG | B |
| SCALE NONE | | DATE: 24 NOV 2000 | | SHEET 1 OF 1 | |

# BESAM UNISLIDE SLIDING DOOR WITH WIZARD SYSTEM



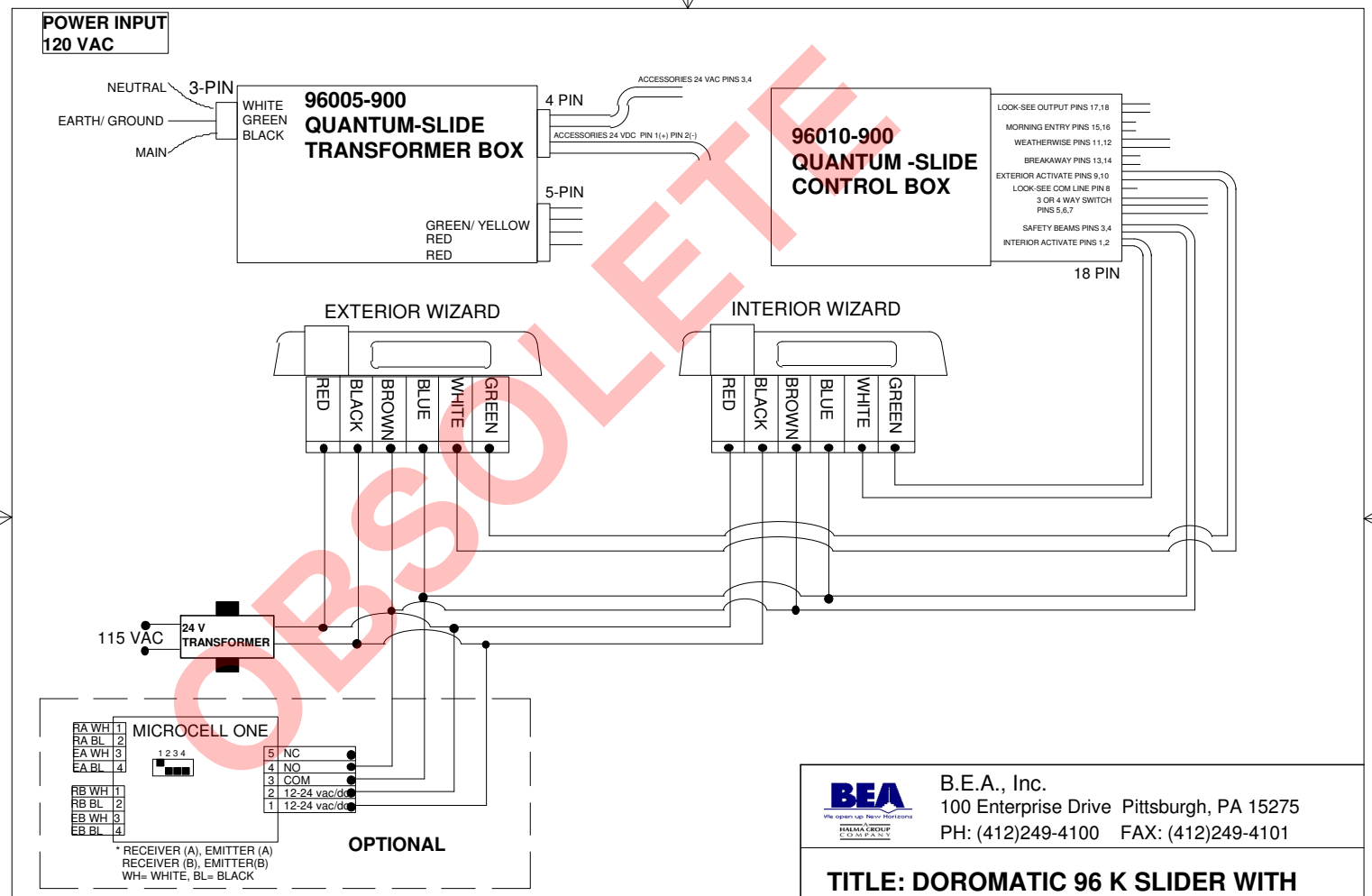

OBSOLETE

NOTE: 1) DO NOT CONNECT BROWN WIRES TO C-SWITCH COMMON.
2) OBSERVE POLARITY WITH THE BROWN WIRE CONNECTED TO GROUND (0 VDC).
3) A JUMPER MUST BE INSTALLED BETWEEN PINS 5, 12 ON THE CONTROL BOX TO ALLOW FOR RE-ENTRY SENSOR IN ONE-WAY TRAFFIC MODE TO COMPLY WITH ANSI A156.10 SECTION 8.2.3.

B.E.A., Inc.
100 Enterprise Drive Pittsburgh, PA 15275
PH: (412) 249-4100 FAX: (412) 249-4101
www.beasensors.com

**TITLE: BESAM UNISLIDE SLIDING DOOR WITH WIZARD SYSTEM**

| SIZE: | CAGE CODE: | DWG NO: | FILE OF: | DRAWN BY: | REV: |
|---|---|---|---|---|---|
| A | | 80.0163 | Tech Support | GDM | B |
| SCALE: NTS | | DATE: 11 Mar 2003 | | SHEET: 1 OF 1 | |




OBSOLETE

NOTES: 1) OBSERVE POLARITY ON WIZARD PRESENCE OUTPUT (+) BLUE AND (-)BROWN WIRES. BLUE CONNECTS TO PIN 3 AND BROWN CONNECTS TO PIN 4 ON THE DOOR CONTROL.

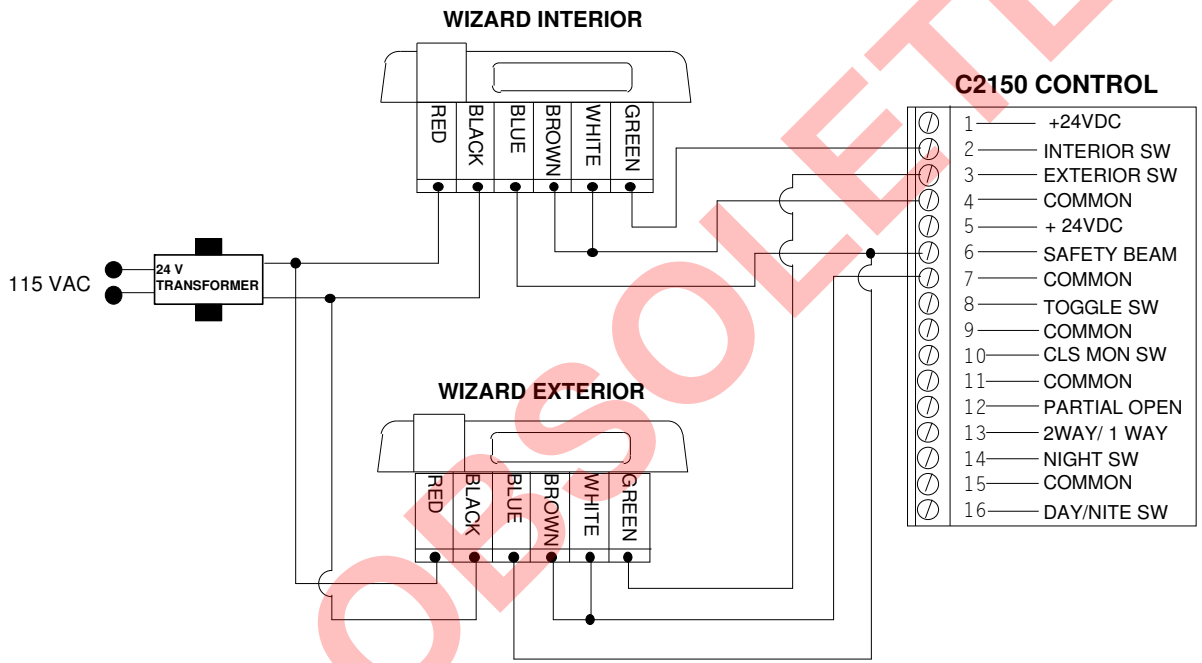
BEA
We open up New Horizons
HALMA GROUP COMPANY
B.E.A., Inc.
100 Enterprise Drive Pittsburgh, PA 15275
PH: (412)249-4100 FAX: (412)249-4101

**TITLE: DOROMATIC 96 K SLIDER WITH WIZARD, MICROCELL 1 SYSTEM**

| SIZE: | CAGE CODE: | DWG NO: | FILE OF: | DRAWN BY: | REV: |
|---|---|---|---|---|---|
| A | | 80.0137 | JED | GDM | B |

| SCALE: | DATE: | SHEET: |
|---|---|---|
| NONE | 08 JUL 2003 | 1 OF 1 |

# HORTON C2150 CONTROL WITH WIZARD SYSTEM




OBSOLETE

NOTE: 1) WIZARDS WILL OPERATE WITH THE 24 VAC
ON THE C3938 POWER SUPPLY CN3.

B.E.A., Inc.
100 Enterprise Drive, Pittsburgh, PA 15275
PH: (412) 249-4100 FAX: (412) 249-4101

**TITLE: HORTON C2150 CONTROL WITH WIZARD SYSTEM**

| SIZE: | CAGE CODE: | DWG NO: | FILE OF: | DRAWN BY: | REV: |
|---|---|---|---|---|---|
| A | | 80.0102 | ENG'G | JED | 01 |

| SCALE: | DATE: | SHEET: |
|---|---|---|
| NONE | 05 JAN 04 | 1 OF 1 |