WIZARD II SMR
QUICK SETUP GUIDE

COMBINED RADAR ACTIVATION AND ACTIVE INFRARED SAFETY SENSOR

1   Description

The Wizard II Quick Setup Guide is for the installation and setup of the Wizard II. This document is provided for installers and service personnel who are familiar with the Wizard II. For those who are not completely familiar with the installation and setup of the Wizard II, BEA recommends following the detailed installation and setup instructions found in the Wizard II User's Guide document number 75.5122.

2   Installation / Wiring / Setup

1   Mount Sensor

1. Attach mounting template to center of door header as shown above. Template should be 0" to 2" above bottom edge of header. Drill hole marked for wire passage and drill pilot holes for screw mounting.

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

2. Mount the sensor at a maximum height of 2" from the bottom line of the door operator.

3. Insert mounting screws approximately halfway in and install the Wizard on the screws. When in place, tighten screws to secure to header.

   NOTE: Leave cover off until mechanical adjustments are complete.

2   Cable Routing

1. With Wizard in place, locate the enclosed cable and feed the stripped end through the wire passage hole in the header.

2. Leave enough slack to allow connection to the Wizard and proper routing of wire around the plastic post.

   NOTE: Observe proper routing of the cable as shown. This is to divert rainwater from the Wizard if water should run down the cable. Proper routing of the wire also provides easier installation of the cover.
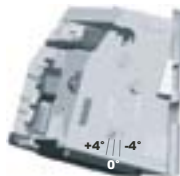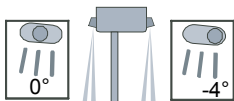

Plastic Post
Cable / Wire
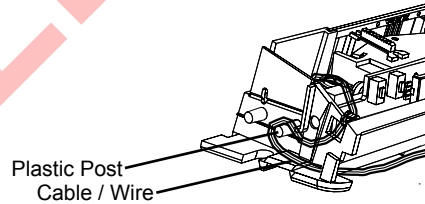
3   Sensor Wiring

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 connected to a mutual input. Some controls may only have an activation input, while others may have an activation input, as well as a safety (or presence) input.

6 Wire Configuration (Preferred Configuration)	4 Wire Configuration (Mandatory Remote Setup: Unlock, F1, 1, Lock, Lock)
W I Z A R D • **PWR**: Red - 12 to 24 VAC / VDC: -5% to +10% • **PWR**: Black - 12 to 24 VAC / VDC: -5% to +10% • **COM**: White - Common at Door Control • **ACTIV**: Green - Activation at Door Control • **COM**: Brown - Common at Door Control • **SAFETY**: Blue - Safety at Door Control C O N T R O L	W I Z A R D • **PWR**: Red - 12 to 24 VAC / VDC: -5% to +10% • **PWR**: Black - 12 to 24 VAC / VDC: -5% to +10% • **COM**: White - Common at Door Control • **ACTIV**: Green - Activation at Door Control C O N T R O L

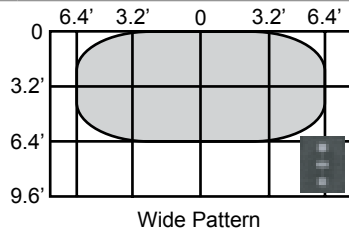### 4   IR Presence Sensing Field: Width and Depth (wide lens installed as default)

max. 3"   max. 3"

Sensor Plastic Pin Indicator   Sensor Adjustment Screw

Dimensions Are Approximate Size IR Patterns	Mounting Height of Sensor			
	7'	10'	12'	14'
Narrow Lens Depth of Two Curtains	1'3"	1'6"	1'8"	1'10"
Narrow Lens Width of Curtains	3'6"	5'	6'	7'
Wide Lens Depth of Two Curtains	1'3"	1'6"	1'8"	1'10"
Wide Lens Width of Curtains	6'6"	10'	12'	14'

1. The IR pattern may be adjusted by moving the pattern nearer or further away from the face of the door by adjusting the tilt angle from +4° to -4°. A counterclockwise rotation of the adjustment screw will move the curtain further away from the door and clockwise rotation will move the curtain toward the door. Precise location of the IR beam may be found by using BEA's Spotfinder P/N 10SPOT.
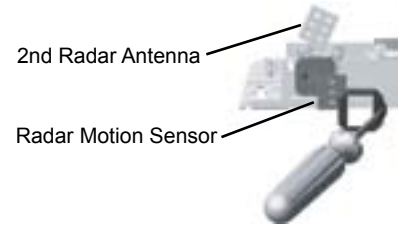
5 Radar Motion Sensing Field: Width
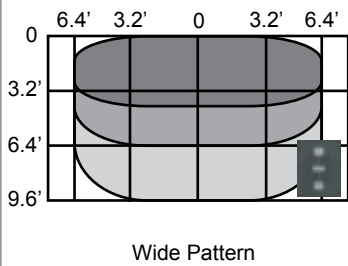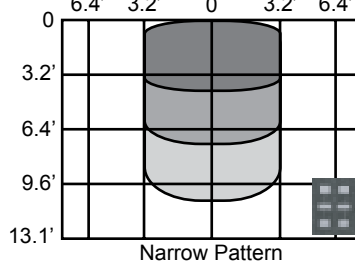

Wide Pattern
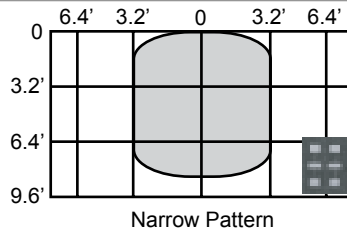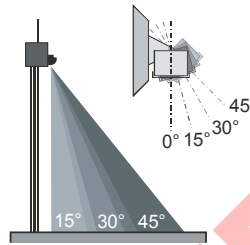
Narrow Pattern

2nd Radar Antenna

Radar Motion Sensor

6 Radar Motion Sensing Field: Depth

Wide Pattern

Narrow Pattern

Sensitivity

0 (min) → 9 (max) **default = 7**
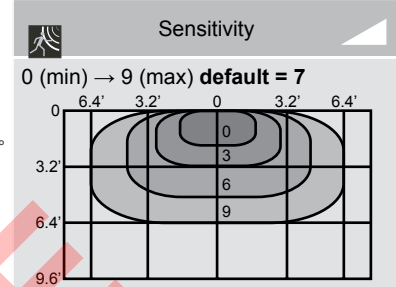
7 IR Presence Sensing Field / IR Assisted Setup

An Assisted Setup is <u>Required</u> after installation and any time after mechanical IR adjustments. With remote unlock, setup (magic wand), 0. Or to perform a manual assisted set up; simply momentarily depress the right most push button on the top right of the Wizard. The red & green led will alternately flash approximately 16 seconds during set up. Keep area clear of traffic during this process. If the Wizard flashes fast red after the assisted setup then an error has occurred. Repeat the assisted setup or see the Wizard II user guide troubleshooting section pages 8-9.

F1 Optional Setup Configurations F1

F1 Function: For a 4 wire connection in lieu of a 6 wire connection - see step 3 for wire connections.
The purpose of selecting safety output redirection using the universal remote (Unlock, F1, 1, Lock, Lock) is to allow the installer two options as outlined below. With either option; it is absolutely mandatory to redirect the safety signal to the green & white wires. **Using the remote control follow this sequence: Unlock, F1, 1, Lock, Lock. If this is not done the safety signal will not keep the door(s) open if a person occupies the threshold area even if the Wizard II red LED is indicating detection.**

Option 1: To enable the Wizard to function correctly with older non micrprocessed controls. This disables the brown and blue wire function and redirects the output of the safety signal to the green and white wires. Both motion and presence will now output on the green (NO) and white (COM) wires.
Option 2: If the installer wants a 4 wire connection in lieu of the preferred 6 wire connection, simply use the red and black wires for power and the green (NO) and white (COM) for a combined output signal of the motion and presence zone.

Optional Setup Configurations IR Immunity

Normal Mode: This is the normal operation of IR rows. One or both IR rows are active. See User's Guide page 6 for more IR curtain options.
Rain Mode: Is enabled but only triggered to ON when 2 learn cycles are performed within 6 detections. This will enable the outer most IR row to perform an instantaneous learn when detection occurs. The inner most curtain will not be affected. This mode will be effective for a 1hr countdown timer or power cycle whichever occurs 1st. Rain mode is ineffective if the auto learn time is set to infinite.
Snow Mode: Is enabled but only triggered to ON when 2 learn cycles are performed within 6 detections. This will also enable the outer most IR row to perform an instantaneous learn when detection occurs. In addition it will deploy additional software when unwanted detection occurs when the reflectivity of the floor condition is constantly changing. This mode will be effective for a 1hr countdown timer to reduce the IR learn capability to 10 seconds. After 1hr or a power cycle the Wizard will return to normal mode. Snow mode is ineffective if the auto learn time is set to infinite.

◇ Automatic Door Control Connections

BEA, Inc. Recommends a dedicated transformer to power the Wizard II. Contact Technical Support if you intend to utilize the door control power supply.		ACT	COM	SAF		ACT	COM	SAF
	Besam 4000	5 & 7	6	17 & 19	Horton 2160	Blk	Wht	Grn
	Besam amd1	2 & 4	6, 11	8 & 9	Hunter	SS	Com	SB
	Besam amd2	12 & 13	5, 11	7 & 9	KM	Red	Grn	Yel
	Besam uni	2 & 5	1, 4, 10	11 & 12	KM/Rec 5000	2	3	6
	Dorma	6	1	2	Stanley Dura	(TB2) 4 & 8	(TB2) 3 & 7	(TB3) 7 & 8
	DOM	Brn	Brn	Brn / Wht	Stanley 521	(TB4) 4 & 8	(TB4) 3 & 7	(TB3) 7 & 8
	GT1100	Blk	Red	Wht	Tormax tlp/lc	2 & 4	3	
	Horton 2150	2 & 3	4, 7, 9	6	Tormax tep/xp	2 & 7	3	

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CAUTION

Do not leave problems unresolved. If a satisfactory solution cannot be achieved after troubleshooting a problem, please call BEA, Inc. If you must wait for the following workday to call BEA., 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. The following numbers can be called 24 hours a day, 7 days a week. For more information, visit www.beasensors.com.

US and Canada:	**1-866-249-7937**		**Southeast:**	**1-800-407-4545**
Canada:	**1-866-836-1863**		**Midwest:**	**1-888-308-8843**
Northeast:	**1-866-836-1863**		**West:**	**1-888-419-2564**