



PRESENCE SENSOR w/MONITORING

NOTE: For BODYGUARD-TC functionality, set Immunity to 3-HIGH.

DESCRIPTION

The BEA Bodyguard-T (10BODYGUARDT) are self-monitored ready, overhead-mounted, diffused active infrared sensing devices that provide detection for triggering automatic, swing-door safety functions. These sensors are designed for use with all of BEA's LO21 modules. When used with BEA's lockout devices, these sensors are programmed to allow two different fields of detection – one for detection when the door is in the fully-closed position and the other for detection when the door is fully open. While the door is in the fully-open position, the Bodyguard-T extends its coverage back through the threshold area of the doorway, to provide coverage that will overlap with BEA's motion sensors.

As with all of BEA's programmable sensing devices, full adjustability is achieved with the use of BEA's hand-held remote control unit. This allows alteration of all available functions as well as inquiry of existing settings. Should the need arise, the **Bodyguard-T** may also be tuned by means of two sensor-mounted buttons contained on the PC board within the unit. With these two buttons, the Bodyguard-T's field of detection can be altered without the use of the hand-held remote.

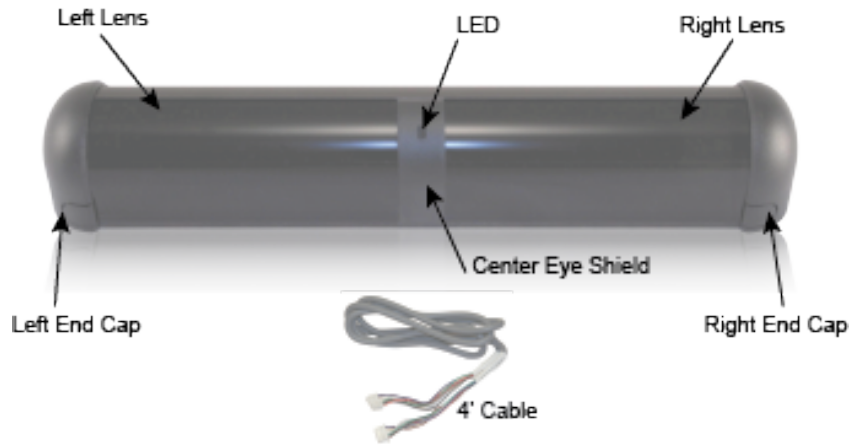
If a complete door-mounted sensor (SuperScan) system is not used in addition to the Bodyguard-T, BEA, Inc. recommends the use of a lockout safety beam to allow safety signaling if the zone is entered during a door closing cycle.

NOTE: If utilizing monitoring, lockout modules may *not* be used. If lockout modules must be used, monitoring is *not* allowed.

TECHNICAL SPECIFICATIONS

Installation Height - Variable	9' 0" max. (recommended 6' 6" – 8' 0")
Mounting Angles	
Bodyguard-T only	5°, 10° (factory default setting: 5°)
Bodyguard-T with Bodymount	0°, 5°, 10°
Power Supply	12 – 24 VAC / VDC ±10%
Monitoring Request Input	12 – 30 VDC required (polarity-sensitive) Min. pulse width 10 ms (active low)
Frequency	50 – 60 Hz
Output	Max. Voltage at contacts: 60 VDC / 125 VAC Max. Current at contacts: 1 A Max. switching power: 30 W (DC), 60 VA (AC)
Relay Hold Time	0.5 – 9 seconds
Operating Temperature	-22 – 140 °F
Immunity	Immune to electrical and radio frequency interference
Cable	4' nine-conductor cable
Weight	1 lb 11 oz (765 g)
Dimensions	11.8" (305 mm) x 1.9" (51 mm) x 1.9" (46 mm) (L x H x W)
Material	Aluminum & ABS plastic
Housing Color	Black, anodized aluminum

COMPONENT ID



INSTALLATION TIPS



- ❑ The sensor must be firmly fastened to prevent vibration.



- ❑ The sensor must not have any unwanted objects likely to move or vibrate in its path.



- ❑ The sensor should be mounted flush with bottom of door header.

SAFETY PRECAUTIONS

- Shut off all power going to the header before attempting any wiring procedures.
- Maintain a clean and safe environment when working in public areas.
- Constantly be aware of pedestrian traffic around the door area.
- When performing testing, always stop pedestrian traffic through the doorway that may result in unexpected reactions by the door.
- Before powering up, always check placement of all wiring and components to ensure that moving door parts will not catch any wires and cause damage to equipment.

MECHANICAL INSTALLATION PREPARATION

To prepare the Bodyguard-T for mounting to the header, perform the following:

1. Remove both endcaps from the Bodyguard-T (image below, left). Each is attached by one Phillips head screw.



2. Remove both lenses from Bodyguard-T by simply sliding them out at each end (image above, right).
3. Remove the center eye shield (image below, left), taking care not to damage the light tube on the inner side of the shield. Simply pull out from the top end and rotate out as shown in the image below, left.



4. Slide the PCB out of the extrusion and set it aside (image above, right).

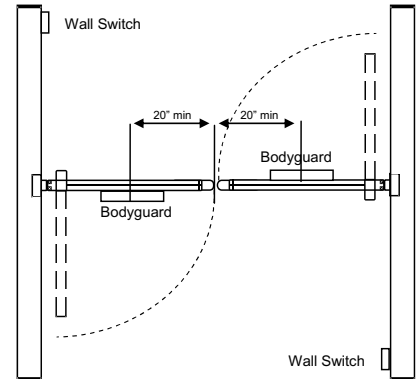
**MECHANICAL
INSTALLATION**

**PLACEMENT OF
SENSOR**

Remember these guidelines when installing a Bodyguard-T:

- ✓ The Bodyguard-T should be mounted at a height range of 6' 6" – 8'. Maximum mounting height is 9'.
 - ✓ The Bodyguard-T should be mounted above the door on the swing side.
 - ✓ The Bodyguard-T shall be mounted flush with the bottom of the automatic door header. This is absolutely necessary to allow the detection pattern to reach back through the threshold area when the Bodyguard-T is in the open-door position.
 - ✓ For SINGLE DOOR APPLICATIONS, the Bodyguard-T should be mounted at the center of the door opening. However, if this is not possible, the unit may be installed off-center. In such cases, pattern location will have to be altered for proper placement of the field of detection. Try to avoid mounting locations that may pose potential problems (e.g. directly over a door arm).
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- ✓ For DOUBLE-EGRESS APPLICATIONS, one Bodyguard-T should be mounted over each swing-path. There should be at least 40" of separation between the two sensors when measured between the center line of each sensor. See image to right.
 - ✓ If the Bodyguard-T sensor is the only sensor being used for safety at the swing side of the door, to be in compliance with ANSI 156.10, a lockout safety beam or door-mounted, safety side SuperScan(s) is needed in addition to the Bodyguard-T sensor.

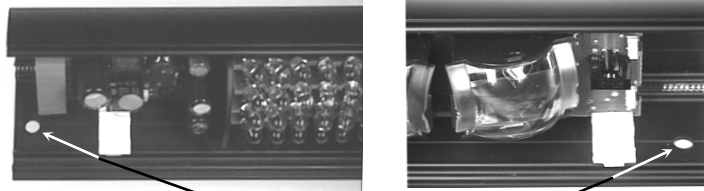
CAUTION: FOR ALL APPLICATIONS, REFER TO THE PATTERN CHARTS FOR WIDTH AND DEPTH IN THE APPLICABLE SECTION OF THIS GUIDE. PATTERNS SHALL BE ADJUSTED TO ACHIEVE MAXIMUM DETECTION ZONES, AND SHALL BE IN COMPLIANCE WITH ALL APPLICABLE SAFETY STANDARDS (i.e. ANSI A156.10).



**MECHANICAL
INSTALLATION**

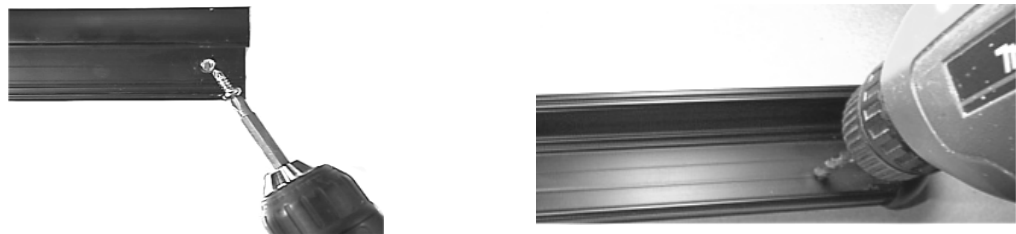
NOTE: BEA, Inc. recommends the use of a Bodymount for most Bodyguard-T applications. The Bodymount is a 3" standoff that allows the Bodyguard-T to be slightly distanced from the face of the closed door. This helps to prevent ghosting caused by slight door movement while closed, and also prevents ghosting when SuperScan sensors are used (as the SuperScan extrusions at the top of the door are extremely close to the sensor while the door is closed).

1. The extrusion has pre-drilled mounting holes at each end.

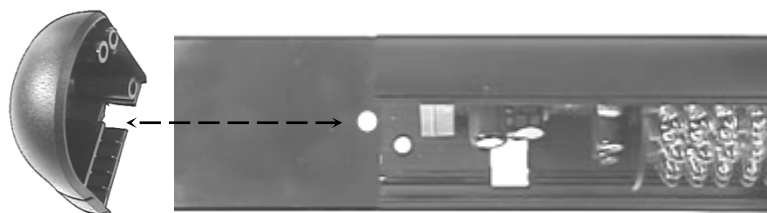


Pre-Drilled Mounting Holes
(approx. 9 3/4" apart)

2. Hold the Bodyguard-T up to the pre-determined location, and attach using the 2 self-drilling screws that are included with the package (image below, left). It may be necessary to drill a pilot hole (image below, right) in the header for ease of screw installation. Ensure that Bodyguard-T is mounted securely at each end.



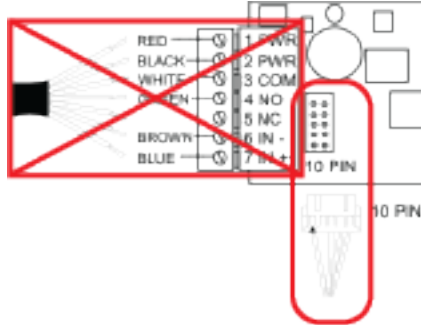
3. If the Bodyguard-T is mounted directly to door header, and cabling is to pass directly into header, drill a 1/4" hole next to the Bodyguard-T's left side endcap to allow wire passage into header. The wire passage hole should be in a location that aligns with the cut out in the endcap.



1. Once the Bodyguard-T is securely attached to header, cabling and wiring may be completed.

a. For monitored door controls, use the cable provided for use with the 10-pin connector.

DO NOT USE the 7-pin terminal – this is not designed to be used with monitored systems. The 10-pin connector is to be used for monitored door controls and can also be used for non-monitored door controls. See diagram and table below for 10-pin connection. Also verify that the monitoring DIP switch is set to ON (see page 7).

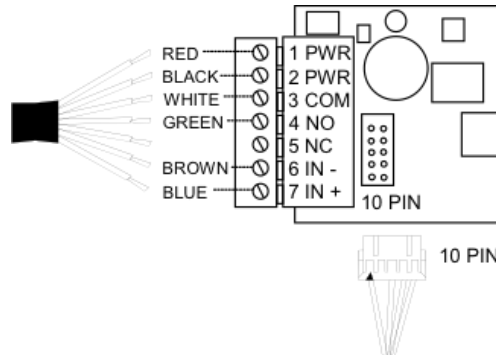


10-PIN CONNECTOR

Position	Connection	Wire Color
1	12 – 24 VAC/VDC ±10%	Black
2	12 – 24 VAC/VDC ±10%	Red
3	Common	White
4	Normally Open	Green
5	[empty]	[empty]
6	Normally Closed	Yellow
7	Monitoring (+)	Purple + Yellow
8	Monitoring (-)	Purple
9	Data (+)	Blue
10	Data (-)	Brown

If monitoring is not being utilized, 12 – 30 VDC must be applied to 7 and 8. Observe polarity.

b. For non-monitored door controls, use either the cable provided for use with the 10-pin connector (leaving the two MONITORING wires unterminated at the control) **OR** use the 7-pin terminal. See diagram below. The monitoring DIP switch must be turned OFF to function while in a non-monitored status (see page 7).

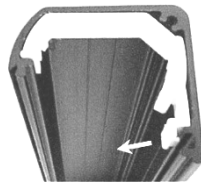


If wiring the Bodyguard-T to a BEA module such as an LO21 or an MC15, refer to the schematic for the respective module.

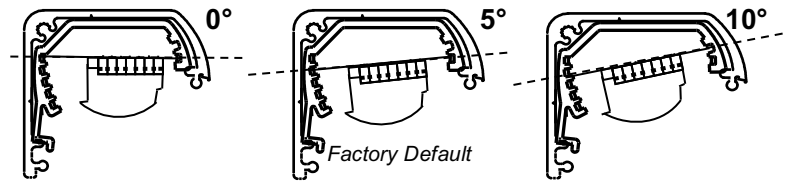
2. Once wired, feed the opposite end of the cable through the previously drilled wire passage hole (MECHANICAL INSTALLATION, step 3), and into the header. Pull the cable completely through and route it to the location of the automatic door control. Refer to the respective User's Guide for the BEA product with which you are interfacing. Ensure a dedicated power source of 12 or 24 VAC / VDC ± 10% (1024VAC may be used for powering this product).

MECHANICAL ADJUSTMENTS

1. Once all installation, wiring, and cabling procedures have been completed, mechanical adjustments can be made. Please note that further adjustments may be required after powering and walk-testing the detection field.
2. Aside from placement on the header, the only mechanical adjustment that may be made to the sensor is the angle adjustment. The Bodyguard-T is factory pre-set to the 5° position, but may be reduced to a 0° position or increased to a 10° position. The greater the angle, the farther from the door the pattern will be. The 0° angle should only be used when the Bodyguard-T is mounted to a Bodymount block or to a soffit above the door that extends out from the face of the safety side of the door. In this case, the 0° setting would improve the location of the detection field across the threshold area of the doorway. It is recommended that for most applications, the unit be powered and walk-tested at the pre-set 5° angle. After walk-testing, if the detection field needs to be changed, proceed with changes to the angle setting, as shown below.
3. To change the angle setting, the endcaps, lenses, and center eye shield must be removed (see MECHANICAL INSTALLATION – PREPARATION). The terminal block must also be removed if it has been wired. Once removed, release the white clips, and rotate outward to remove the PCB.



4. Once the PCB is completely removed from the housing, the angle position may be changed. There are two clips per sensor, and the angle must match for each clip on the same PCB. See positions below.



5. Slide the left and right lens back into place and proceed with power-up procedures. Leave the endcaps off until all final adjustments have been made.



POWER-UP PROCEDURES

1. Once mechanical and electrical installation is complete, apply 12 – 24 VAC / VDC \pm 10% to the Bodyguard-T, with the door in the closed position. The Bodyguard-T will flash a green LED at a rate of 2 Hz, and then it will expire upon a successful set-up in the door-closed position.

NOTE: If applying the Bodyguard-T to a door control that requires a learn cycle upon powering, it is recommended to allow the doors to complete a learn cycle before applying power to the Bodyguard-T.

2. Activate the door to the fully-open position. When used with BEA's lockout relay, the Bodyguard-T will flash the green LED once again and will execute a door-open set-up. Upon completion of the set-up for the door-open position, the doors will begin closing. Normal operation should resume thereafter. Proceed with fine-tuning to ensure compliance with all applicable safety standards (e.g. ANSI A156.10). If set-up is unsuccessful, refer to the TROUBLESHOOTING section of this Users Guide as well as the respective lockout User's Guide.

HELPFUL HINT:

#1: Once the sensor is powered and completes a set-up for the closed-door position, activate the door to the open position as indicated above. During this first open cycle, if the sensor does not begin to flash green once the door is full open, a data problem is highly likely. If the door opened and the sensor stayed red, in detection, it probably did not get the correct data signal from the respective lockout module. As a preliminary check to the troubleshooting, be sure to check the following:

- a) The white wire from the lockout needs to go to the brown wire on the Bodyguard-T, AND the red/white striped wire needs to go to the blue wire on the Bodyguard-T. If these two wires are swapped, the Bodyguard-T will NOT work correctly.
- b) Check to ensure that the voltage from the motor (at the red and black wire of the lockout) has at least 10 VDC. A voltage that is too low may not be recognized by the lockout.

#2: If the door goes to the open position and a set-up is completed successfully, but then the door begins to close and immediately recycles open, it is possible that the sensor's detection of the closing door is causing a recycle. Be sure to check DIP switch 6 – if using an LO21B, LO21U, or LO21P, DIP switch #6 on these modules is typically ON for applications where the red and the black wire are connected to a motor. In these applications, the lockout expects to see a voltage on these wires when the door is in the OPEN position. Only specific applications, such as a Besam Swingmaster MP (with CUP control) may require the switch to be in the OFF position. Additionally, always make sure that the red wire from the lockout goes to the positive leg of the motor (or switch) and the black wire goes to the negative leg. If these wires are backwards, the system will NOT work correctly.

NOTE: Always be sure to refer to the applicable lockout User's Guide for more detailed information.

DUAL-EGRESS

REDUCING CROSS TALK

Perform the following set-up using BEA's remote control to reduce cross talk between dual-egress applications. Refer to the figure in the MECHANICAL INSTALLATION – PLACEMENT OF SENSOR section to ensure that the two sensors are installed with at least 40" of separation when measured between the centerline of each sensor.

1. Place doors in the "hold open" position. Unlock sensor and set open door Pattern Depth to 5 (Medium Pattern). This sequence will turn off threshold IR while door is in open position. This function should be changed on both sensors:



2. The infrared frequency function may need to be changed. Change frequency on one of the sensors:



3. Change to a different mode in applications where high-gloss floors or multiple doors are installed in vestibules.

Change sensor one to:



Change sensor two to:



BEA'S UNIVERSAL REMOTE CONTROL

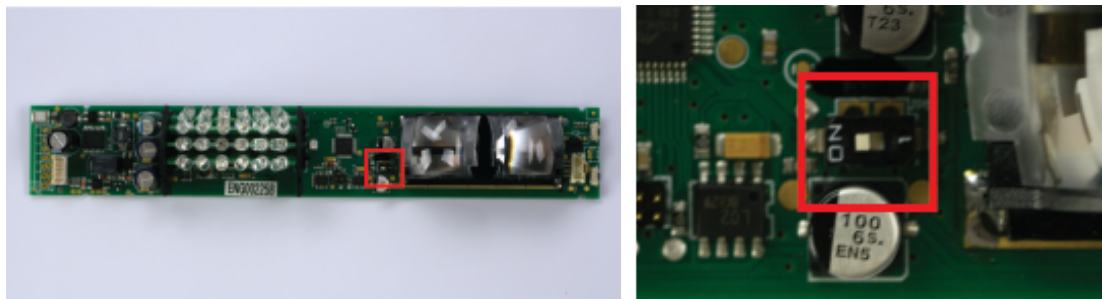
The Bodyguard-T is fully compatible with BEA's remote control as shown below. Use of the remote control should be conducted within 10 – 15' of the sensor, and the remote should be pointed directly at the sensor when used. Refer to the PROGRAMMING GUIDE section for each parameter and its values.

Additional program notes:

1. The Bodyguard-T is capable of having two patterns (door closed and door open) that are independently adjustable. Thus, when programming, it is necessary to adjust the pattern for a closed door, and then to adjust the pattern again when the door is open. The following functions may be independently adjusted for each door position:
 - Sensitivity
 - Pattern Width
 - Pattern Depth
2. The following functions apply to both door-closed and door-open positions:
 - Automatic Learn Time
 - Immunity
 - Frequency
 - Output Configuration
 - Door Control Mode
 - Hold Time
 - Interface Type
3. The Immunity modes include Medium (Rain) and High (Snow). During these modes, learn time of the sensor will not be affected. These modes affect the interpretation of the objects in the field of detection relative to the background.
4. MP mode set by the remote control, allows for a specific setting for Besam MP Control. This setting is set to a default of '0' which allows the Bodyguard-T to operate normally with any control, and when set to a Besam-specific setting of '1' when used with a Besam MP control.
5. Record mode set by the remote control, allows for a specific setting for Record Control. This setting is set to a default of '0' which allows the Bodyguard-T to operate normally with any control, and when set to a Record-specific setting of '2' when used with a Record control.

MONITORING DIP SWITCH

The monitoring DIP switch is default in the OFF position, and may be placed in the ON position if the door controller supports monitoring.



Monitoring ON = switch left
Monitoring OFF = switch right

PROGRAMMING GUIDE

GENERAL FUNCTIONS

Number Keys

Number keys (0 – 9) are used for assigning a value for a given function

Interface F1

- 1: New Style
- 2: LO21 - Old Style (LO21, B, K, P, S, U, LO-LINX, MC15, DP-HUB)

Unlock



Inquire



Lock



To UNLOCK the sensor:
Press the UNLOCK key once. Red LED flashes slowly. If flashing fast, see Note below.

To LOCK the sensor:
Press the LOCK key twice, OR press once, then enter a 4-digit lock code. If less than 4 digits, press lock again after the last digit. LED goes out when complete.

To INQUIRE the sensor:
Unlock the sensor, press the desired function key, and then press the INQUIRY key – the number of green flashes corresponds to the value.

Note: If the sensor is locked, and the code is unknown, power the sensor off and then back on. Press the UNLOCK key within 60 seconds. Re-lock with 0000. This is the default code. The sensor will unlock with one press of the unlock key when set to 0000.

1

2

3

4

5

6

7

8

9

F1

0

F2

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-

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⏪

⏩

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⏪

⏩

Infrared Frequency

	Mode	Frequency
1	Normal	Low
2	Normal	High
3	Quiet	Low
4	Quiet	High

See QUIET MODE

Door Control F2

- 1: Normal (LED in normal mode)
- 2: Door permanently open (Red LED ON)
- 3: Door permanently closed (Red LED OFF)

Output Configuration

- 1: Normally Open Relay
- 2: Normally Closed Relay

Set-up

- ⏪ ⏪ launch a quick set-up
- ⏪ 9 restore factory defaults
- ⏪ 1 launch a closed-door set-up
- ⏪ 2 launch an open-door set-up

See AUTOMATIC SET-UP

Hold Time

0 (0.5s) → 9 (9s)

AUTOMATIC SET-UP: When performing an automatic set-up (set-up key pressed twice), the sensor will begin to flash green during the door-closed position, and will continue to do so until the door is activated to the open position. The LED will then go out and the door will close. The LED will flash green again at the closed position until a set-up is complete. Upon the next activation, the sensor will launch another set-up for the open-door position, and will begin normal operation thereafter.

QUIET MODE: The QUIET mode uses a different pulsing pattern to avoid interference with other infrared systems. The NORMAL mode transmits more energy and detects in a slightly crisper fashion. The NORMAL mode is recommended for installations with only one door.

PROGRAMMING GUIDE

PATTERN ADJUSTMENTS



Modes of Operation

- 0: Normal**
- 1: MP mode
- 2: Record mode

Sensitivity
(Door Open/Closed)

0 (min) → 9 (max)
(default 7 for door open, default 6 for door closed)

Pattern Width
(Door Open/Closed)

- 1: Wide (closed door)**
- 2: Middle (open door)**
- 3: Asymmetric Left Narrow
- 4: Asymmetric Right Narrow
- 5: Narrow Left
- 6: Narrow Right
- 7: Asymmetric Left Wide
- 8: Asymmetric Right Wide
- 9: Center Narrow

See notes for PATTERN WIDTH or DEPTH below.

Pattern Depth

- 1: Deep – threshold ON
- 2: Medium – threshold ON (open)**
- 3: Limited – threshold ON
- 4: Deep – threshold OFF
- 5: Medium – threshold OFF (closed)**
- 6: Limited – threshold OFF

See THRESHOLD note below.
See PATTERN WIDTH or DEPTH note below

Automatic Learn Time

- 0: 30 seconds**
- 1: 1 minute
- 2: 2 minutes
- 3: 3 minutes
- 4: 5 minutes
- 5: 7 minutes
- 6: 10 minutes
- 7: 15 minutes
- 8: 10 seconds
- 9: Infinity – no learn

Immunity

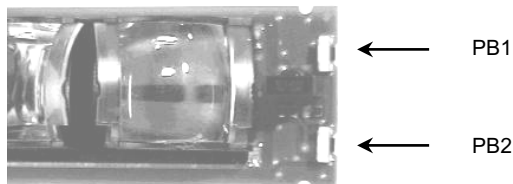
- 1: Low (Normal)**
- 2: Medium – Rain (disregards more floor disturbances)
- 3: High – Snow (disregards greatest floor disturbances)

NOTE: For BODYGUARD-TC functionality, set Immunity to 3-HIGH.

THRESHOLD: The Threshold is always OFF when the door is closed.

PATTERN WIDTH OR DEPTH: When pattern width or depth is changed, a set-up of the new pattern size will automatically be triggered once a value key has been pressed.

Without the BEA remote control, the Bodyguard-T may be set up using the manual push buttons (see diagram below) located under the right endcap.



ONLY SENSITIVITY, RELAY MODE, AUTO-LEARN TIME, PATTERN WIDTH, AND PATTERN DEPTH MAY BE ADJUSTED WITH THE MANUAL PUSH BUTTONS. To adjust the Bodyguard-T, complete the following:

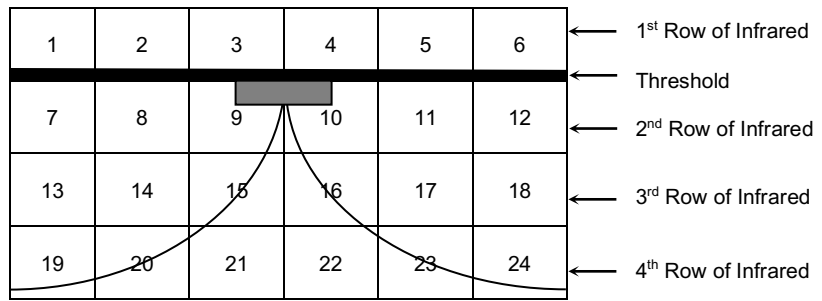
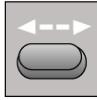
1. To start the set-up process, press PB1 (for less than 2 seconds).
 - The set-up function will be launched according to the current door position. The green LED will flash at ± 2 Hz for 10 seconds. This LED will stop flashing once a successful set-up is achieved.
 - If there is an interruption to the field of detection during this procedure, the green LED will flash at a slower rate. Press PB1 to re-launch the set-up.
2. To change the detector's parameters, press PB1 (for more than 2 seconds), and then release.
3. Press either PB1 or PB2. The LED will immediately flash red, followed by a sequence of green flashes. The red flashes indicate the parameter and the green flashes indicate the setting of the particular parameter.

NOTE: Pressing PB1 will toggle between the parameters and pressing PB2 will toggle between the range of adjustments for that particular setting. Once you achieve the highest adjustment, the value will roll over to the lowest setting, upon the next press of PB2. A zero value will result in no flash of the LED. To exit manual set-up, simply wait 20 seconds or press PB1 for more than 2 seconds. Replace the right endcap back on the Bodyguard-T.

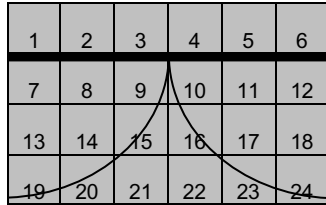
Use the chart below as a reference for the manual set-up process.

RED LED STATUS	PARAMETER	DESCRIPTION	GREEN LED STATUS
1 Red Flash	1	Sensitivity (Door open)	0 – 9 Green Flashes (default = 7)
2 Red Flashes	2	Sensitivity (Door closed)	0 – 9 Green Flashes (default = 6)
3 Red Flashes	3	Output Configuration	1 – 2 Green Flashes (default = 1)
4 Red Flashes	4	Auto Learn Time	0 – 9 Green Flashes (default = 0)
5 Red Flashes	5	Pattern Width (Door Open)	0 – 9 Green Flashes (default = 2)
6 Red Flashes	6	Pattern Width (Door Closed)	0 – 9 Green Flashes (default = 1)
7 Red Flashes	7	Pattern Depth (Door Open)	1 – 6 Green Flashes (default = 1)
8 Red Flashes	8	Pattern Depth (Door Closed)	1 – 6 Green Flashes (default = 1)

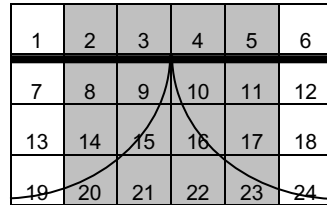
**BODYGUARD
WIDTH
PATTERNS**



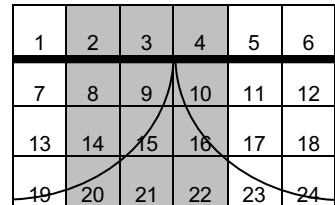
(1) Wide Pattern



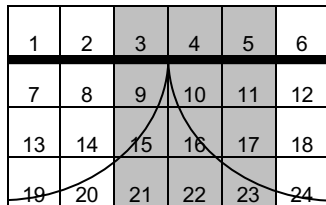
(2) Middle Pattern



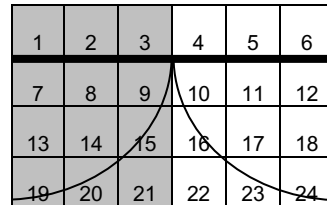
(3) Asymmetric Left Narrow



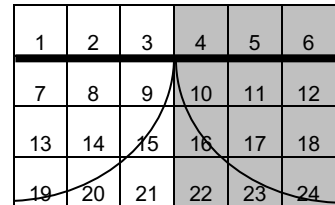
(4) Asymmetric Right Narrow



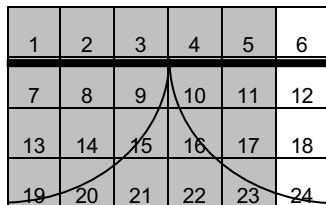
(5) Left Narrow



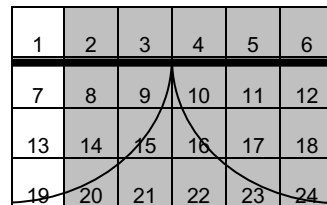
(6) Right Narrow



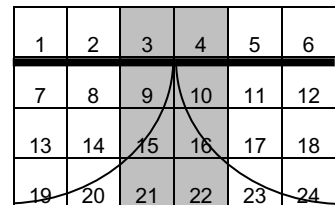
(7) Asymmetric Left Wide



(8) Asymmetric Right Wide



(9) Center Narrow

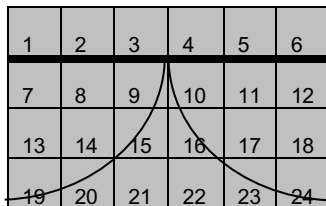


**BODYGUARD
DEPTH
PATTERNS**

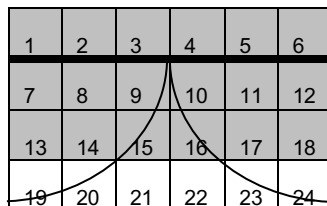
Row 1 (spots 1 – 6), remain on, even during the closed-door position.



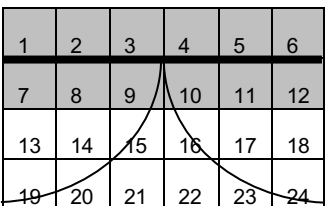
(1) Deep



(2) Middle



(3) Limited



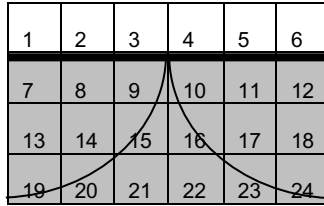
NOTE: When the Bodyguard-T is mounted at 7', each block on the pattern charts shown above equates to a size of approximately 14" x 14". Pattern sizes shown are only an approximation. Always walk-test the pattern once complete, to ensure compliance with all applicable safety and performance standards.

**BODYGUARD
DEPTH
PATTERNS (cont.)**

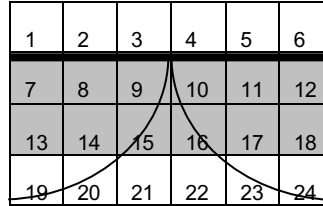
Row 1 (spots 1 – 6), remain on, even during the closed-door position.



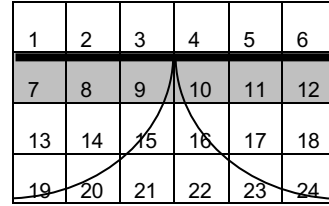
(4) Deep Without Row 1



(5) Middle Without Row 1



(6) Limited Without Row 1

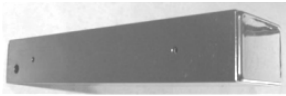


**TROUBLE-
SHOOTING**

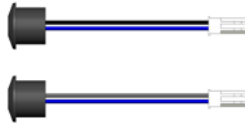
PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION
<p>I</p> <p>Bodyguard will not set up upon initial powering</p>	<ol style="list-style-type: none"> 1. Improper input voltage 2. Bodyguard is in detection 3. Potential interferences from high-intensity lighting 4. See problem IV, probable cause 3 	<ol style="list-style-type: none"> 1. Check terminals 1 and 2 for proper voltage 24 VAC / VDC \pm 10%. 2. Make certain that the field of detection is clear during set-up and that all lenses are installed on the Bodyguard. If detection is encountered upon initial set-up, the Bodyguard will continuously flash Green at \pm 2 Hz. The Bodyguard will also not set up if permanent stationary objects are extremely close to the sensor. Ensure that, not only is the detection field clear, but that the sensor is mounted properly (using the Bodyguard mounting block if NECESSARY). 3. Ensure that no high intensity lighting is in the immediate area of the sensor.
<p>II</p> <p>Door will not open once set-up has been completed.</p>	<ol style="list-style-type: none"> 1. Bodyguard is in detection 2. Improper wiring 3. Lockout safety beams are in detection 4. Improper relay output configuration 	<ol style="list-style-type: none"> 1. Ensure that there is no detection occurring at the Bodyguard. If the Red LED is on steady, there is detection. Make sure there have been no changes in the field of detection since set-up. If permanent changes have occurred, launch a new set-up and re-test door. <p>CAUTION: THERE MAY BE NO SAFETY ON THE DOOR WHEN THIS TEST IS PERFORMED.</p> <ol style="list-style-type: none"> 2. Remove the output wires (common, normally open, normally closed) from the Bodyguard. Activate the door control, if the door opens, the fault exists with Bodyguard or related wiring. If door does not open, the faults may exist with the door control or its related wiring. 3. Disconnect the green and blue wires from the LO21 to the door control safety and common terminals. If door opens when triggered, fault lies within the lockout safety beam set, or possibly with the LO21. Refer to the LO21 troubleshooting procedures in the respective manual. 4. Ensure proper relay output setting. Refer to page 7. Typically, relay setting should be 'Normally Open'. This means the relay would close upon detection.

PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION
<p>III</p> <p>Bodyguard repeatedly re-learns the environment with each door position.</p>	<ol style="list-style-type: none"> 1. Improper data from the lockout device 2. Data polarity at the Bodyguard is incorrect 	<ol style="list-style-type: none"> 1. Allow the door to open in automatic mode. Unlock the Bodyguard and launch a set-up by pressing the Set-up key, followed by the number 2. If the sensor does not begin flashing green, and instead goes back to a red indication, improper data exists. Refer to respective lockout User's Guide for troubleshooting. 2. Check for proper polarity at terminal 6 and 7. The negative wire from the lockout (white) should be connected to terminal 6, and the red/white striped wire from the lockout should connect at terminal 7. <p>HELPFUL HINT: If faulty data is suspected, simply power the door to the open position (by activation OR with the use of a "hold open" switch). While the door is open, unlock the Bodyguard and press the set-up key, followed by the number 2. If the sensor goes back to a red LED (as opposed to flashing the green LED to indicate a set-up), there is a strong probability that the data is incorrect. Refer then to the respective lockout User's Guide for troubleshooting help.</p>
<p>IV</p> <p>Bodyguard not reacting to the remote control</p>	<ol style="list-style-type: none"> 1. Batteries in the remote control are dead. 2. Distance between sensor and remote is too far. 3. Data type mismatch. Old/New. 	<ol style="list-style-type: none"> 1. Replace batteries in the remote control. 2. Move closer to the sensor when programming. 3. Verify data matches type LO21 or EDPS. 4. If remote control fails, attempt manual programming procedures (see page 9). <p>HELPFUL HINT: Use BEA's Spotfinder to test the output of the remote control. Simply point the remote at the IR Spot on the Spotfinder, press the Unlock key on the remote, and red LED should illuminate.</p>
<p>V</p> <p>Visible Monitoring Indication LED does not flash</p>	<ol style="list-style-type: none"> 1. Monitoring installation/set-up error 2. Sensor malfunction 3. Monitoring DIP switch is off 	<ol style="list-style-type: none"> 1. Verify monitoring is active in the door control (active low). 1. Replace the sensor. 1. Verify the position of the DIP switch (must be switched to the left).
<p>VI</p> <p>Visible Monitoring Indication LED flashes continuously</p>	<ol style="list-style-type: none"> 1. Monitoring installation/set-up error 2. Wiring malfunction 3. Door control does not utilize monitoring 	<ol style="list-style-type: none"> 1. Verify door control is capable of monitoring and the sensor monitoring wires are properly connect to the door control. 1. Verify that there are no breaks anywhere in the wire harness. 1. Move monitoring DIP switch to the right (off) OR apply 12 – 30 VDC to the purple and purple/yellow wires (observe polarity).

ACCESSORIES



Bodymount



Lockout Safety Beam



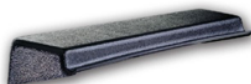
Interface Module



Spotfinder



Bodyguard Quick Disconnect



Rain Cover



Remote Control



12 or 24 VAC Transformer

ANSI / AAADM COMPLIANCE STATEMENT



Upon completion of the installation or service work, at a minimum, perform a daily safety check in accordance with the minimum inspection guidelines provided by AAADM. Provide each equipment owner with an owner's manual that includes a daily safety checklist and contains, at a minimum, the information recommended by AAADM. Offer an information session with the equipment owner explaining how to perform daily inspections and point out the location of power/operation switches to disable the equipment if a compliance issue is noted. The equipment should be inspected annually in accordance with the minimum inspection guidelines. A safety check that includes, at a minimum, the items listed on the safety information label must be performed during each service call. If you are not an AAADM certified inspector, BEA strongly recommends you have an AAADM certified inspector perform an AAADM inspection and place a valid inspection sticker below the safety information label prior to putting the equipment into operation.

COMPANY CONTACT



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.

Tech Support: 1-800-407-4545 | Customer Service: 1-800-523-2462 | General Tech Questions: Tech_Services@beainc.com | Tech Docs: www.BEAinc.com