Once the detector has been set up, create motion in the entire area where coverage is desired. Should the coverage be incomplete, readjust the detector. Once coverage is as required, the alarm LED may be disabled by setting J1 to OFF.

Mounting Brackets

Use the optional DM-W wall mount and DM-C ceiling mount brackets to solve placement problems. The brackets allow for vertical and horizontal positioning of the detector. The DM-C can be tilted up or down and rotated through 90° to obtain the best position for optimal coverage.

Contact your DSC distributor for more information regarding these mounting solutions.

Specifications

<table>
<thead>
<tr>
<th>Specifications</th>
<th>Bravo2: 40’ l × 3.5’ w (12.2 × 1.1m)</th>
<th>Bravo3: 50’ l × 4.4’ w (15.2 × 1.3m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current in alarm</td>
<td>...........................................20mA</td>
<td></td>
</tr>
<tr>
<td>Alarm contact resistor in common</td>
<td>........................................... 10 kΩ</td>
<td></td>
</tr>
<tr>
<td>Storage temp.</td>
<td>................................................ 5-95% RH non-cond.</td>
<td></td>
</tr>
<tr>
<td>Operating temp.</td>
<td>................................................ -40°C-60°C (40°F-140°F)</td>
<td></td>
</tr>
<tr>
<td>Humidity</td>
<td>.......................................................................... 8kV contact, 15 kV air</td>
<td></td>
</tr>
<tr>
<td>Transient immunity</td>
<td>................................................ 2.4kV @ 1.2 joules</td>
<td></td>
</tr>
<tr>
<td>Mounting heights</td>
<td>................................................ 4-5’/1.2-1.5m (pet alley only)</td>
<td></td>
</tr>
</tbody>
</table>

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Mounting

To open the case, use a small flat blade screwdriver and gently push in the tab at the bottom of the case and pull the case straight out at the bottom. Loosen the PCB screws, and push the board as far as it will go. Using a small screwdriver, remove the appropriate knockouts for the mounting screws. Remove the left and right wiring entrance knockouts located at the top of the backplate. Mount the backplate to the wall using the appropriate mounting screws (not supplied).

Vertical Adjustment

Note: Range and dead zones may vary due to settings.

Using the Mounting Height Chart (see below), set the vertical adjustment for the desired coverage. The height will be indicated by the gauge located at the bottom right hand corner of the circuit board. Ensure that the PCB retaining screw is tightened just enough to prevent board movement.

Moving the circuit board downward will increase the far range and move the near beams farther out from the mounting wall.

Moving the circuit board upward will decrease the far range and bring the near beams closer to the mounting wall. Moving the board downward too much will cause the far beams to “look” above the target. As a result, the range may appear shorter.

Mounting Height Chart

<table>
<thead>
<tr>
<th>Height</th>
<th>Setting for Full Range (by lens type)</th>
<th>Bellow Bellow (by lens type)</th>
</tr>
</thead>
<tbody>
<tr>
<td>107’/m</td>
<td>0.00</td>
<td>-0.25</td>
</tr>
<tr>
<td>7/2’/m</td>
<td>+0.25</td>
<td>+0.25</td>
</tr>
<tr>
<td>77’/m</td>
<td>+0.75</td>
<td>+0.25</td>
</tr>
<tr>
<td>57’/m</td>
<td>+1.00</td>
<td>+0.25</td>
</tr>
<tr>
<td>47’/m</td>
<td>+1.25</td>
<td>+0.25</td>
</tr>
</tbody>
</table>

Jumpers

There are two jumpers on the detector circuit board. JUMPER 1 will enable/ disable the alarm LED. If J1 is OFF, the LED will not operate on alarm. If J1 is ON the LED will operate on alarm.

JUMPER 2 selects between fast and slow operation. For a typical installation, the unit should be set to “fast” (200). If the environment presents potential disturbances which cannot be avoided, set to “slow” (200).

Note: When using the corridor lens, set J2 to ON.

Changing Lenses

The lenses are supplied with the wall-to-wall lens (BV-L1-UV). To change the lens, remove the top of the lens holder. This releases the lens. Insert the new lens with the GROOVES FACING INWARD. The bottoms of the lens is indicated by two triangular indentations. Ensure that the lens is placed correctly by aligning the lens holder. The lens holder will snap into place sealing the lens into position.

Note: The corridor lens should not be used for corridors less than 0.8’ wide. Ensure the beams are aimed directly down the centre of the corridor.

Wiring

Note: This unit is UL Listed and should be connected to a limited control unit or power supply providing at least 4 hours of standby power.

Walk Testing

IMPORTANT NOTE: Upon installation, the unit should be thoroughly tested to verify proper operation. The detector should be walk tested weekly by the end user and yearly by the installer.

Once the detector has been set up, create motion in the entire area where coverage is desired. Should the coverage be incomplete, readjust the detector. Once coverage is as required, the alarm LED may be disabled by setting J1 to OFF.

Mounting Brackets

Use the optional DM-W wall mount and DM-C ceiling mount brackets to solve placement problems. The brackets allow for vertical and horizontal positioning of the detector. The DM-C can be tilted up or down and rotated through 90° to obtain the best position for optimal coverage.

Contact your DSC distributor for more information regarding these mounting solutions.

Limited Warranty

Digital Security Controls Ltd. warrants that for a period of 12 months from the date of purchase, the product shall be free of defects in materials and workmanship under normal use and that in fulfillment of any such warranty, Digital Security Controls Ltd., shall, in its option, repair or replace the defective equipment upon return of the equipment to its repair depot. This warranty extends to the original purchaser and is not transferable. The warranty does not cover any damage due to the use of improper batteries, improper installation, improper operation or improper application of the equipment.

The foregoing warranty shall apply only to the original purchase, and is and shall be in lieu of any and all other warranties, whether expressed or implied and of all other obligations or liabilities on the part of Digital Security Controls Ltd. Digital Security Controls Ltd. neither assumes responsibility, nor authorizes any other person to agree on its behalf to modify or change this warranty, nor to assume for it any other warranty or liability concerning this product.

In no event shall Digital Security Controls Ltd. be liable for any direct, indirect or consequential damages, loss of anticipated profits, loss of time or any other losses incurred by the buyer in connection with the purchase, installation or operation of this product.

Motion detectors can only detect motion within the designated areas as shown in their respective diagrams. They cannot detect motions through walls and cannot detect motion behind curtains or drapes.

Motion detectors do not provide volumetric area protection. They have multiple beams of light that can be detected by motion outside of the designated area covered by these beams. They cannot detect motion which occurs behind walls, ceilings, floors, closed doors, glass partitions, etc. These beam detectors are designed for use in offices, hallways, large rooms, small rooms, security areas, churches, schools, banks, parking lots, etc.

Passive infrared motion detectors operate by sensing changes in temperature. However, their effectiveness can be reduced when the ambient temperature rises near or above body temperature or if there are multiple heat sources in the detection area such as plants or cabinets.

Mounting

To open the case, use a small flat blade screwdriver and gently push in the tab at the bottom of the case and pull the case straight out at the bottom. Loosen the PCB screws, and push the board as far as it will go. Using a small screwdriver, remove the appropriate knockouts for the mounting screws. Remove the left and right wiring entrance knockouts located at the top of the backplate. Mount the backplate to the wall using the appropriate mounting screws (not supplied).

Vertical Adjustment

Note: Range and dead zones may vary due to settings.

Using the Mounting Height Chart (see below), set the vertical adjustment for the desired coverage. The height will be indicated by the gauge located at the bottom right hand corner of the circuit board. Ensure that the PCB retaining screw is tightened just enough to prevent board movement.

Moving the circuit board downward will increase the far range and move the near beams farther out from the mounting wall.

Moving the circuit board upward will decrease the far range and bring the near beams closer to the mounting wall. Moving the board downward too much will cause the far beams to “look” above the target. As a result, the range may appear shorter.

Mounting Height Chart

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Jumpers

There are two jumpers on the detector circuit board. JUMPER 1 will enable/ disable the alarm LED. If J1 is OFF, the LED will not operate on alarm. If J1 is ON the LED will operate on alarm.

JUMPER 2 selects between fast and slow operation. For a typical installation, the unit should be set to “fast” (200). If the environment presents potential disturbances which cannot be avoided, set to “slow” (200).

Note: When using the corridor lens, set J2 to ON.

Changing Lenses

The lenses are supplied with the wall-to-wall lens (BV-L1-UV). To change the lens, remove the top of the lens holder. This releases the lens. Insert the new lens with the GROOVES FACING INWARD. The bottoms of the lens is indicated by two triangular indentations. Ensure that the lens is placed correctly by aligning the lens holder. The lens holder will snap into place sealing the lens into position.

Note: The corridor lens should not be used for corridors less than 0.8’ wide. Ensure the beams are aimed directly down the centre of the corridor.

Wiring

Note: This unit is UL Listed and should be connected to a limited control unit or power supply providing at least 4 hours of standby power.

Walk Testing

IMPORTANT NOTE: Upon installation, the unit should be thoroughly tested to verify proper operation. The detector should be walk tested weekly by the end user and yearly by the installer.

Once the detector has been set up, create motion in the entire area where coverage is desired. Should the coverage be incomplete, readjust the detector. Once coverage is as required, the alarm LED may be disabled by setting J1 to OFF.
The Bravo and Bravo2 are general purpose PIR detectors designed to provide reliable motion detection for residential and commercial applications. The detectors are similar in design. The Bravo3, however, provides a larger coverage area when greater range is required.

Exceptional design care and factory testing ensure trouble-free performance. The detectors provide immunity against false alarms from RF, static, electrical transient and white light.

Multi-level signal processing, temperature compensation and a large multi-beam lens design means that the human target will not slip by unnoticed—even on a hot summer day. Four interchangeable lenses, wall or corner mounting and vertical adjustment provide versatility that the customer can appreciate the small size and elegant simplicity of the case design.

Specifications

- Operating voltage: 9.5V to 14.5V
- Supply voltage ripple: ≤0.1V peak-to-peak
- Standby current: ≤1mA
- Current in alarm: ≤20mA
- Contact rating: ≤100mA@24VDC
- Operating temp.: 0°C-50°C (32°F-122°F)
- Operating humidity: 5-95% RH non-cond.
- Storage humidity: 10-90% RH non-cond.
- RF immunity: ±5V to ±80V from 8MHz to 1GHz
- Static immunity: 8kV contact, 15kV air
- Transient immunity: 2.4kV @ 12k ohms
- Walk detection speed: 0.5-100' (0.15-3m/s)
- Coverage angle: (BV-L1) 90° minimum
- Vertical adjustment: +5° to -10°
- Mounting heights: 6-10.5'/1.8-3.2m (nominal 7.5'/2.3m)

Models

- BV-200UV/BV-300UV: Form A alarm contact
- BV-201UV/BV-301UV: Form A alarm contact & tamper switch
- BV-202UV/BV-302UV: Form C alarm contact & tamper switch

Corridor lens (BV-L2-U)

- 50° × 60° (1.8 × 1.9m)
- 70° × 10.5° (2.1 × 3.2m)
- 80° × 10.5° (2.4 × 3.2m)

Coverage

- Wall-to-Wall lens (BV-L1-U): 60° × 60° (1.8 × 1.8m)
- Pet lens (BV-L1-U): 40° × 40° (1.2 × 1.2m)

Vertical Adjustment

- NOTE: Range and dead zones may vary due to settings.
- Using the Mounting Height Chart (see below), set the vertical adjustment for the desired coverage. The height will be indicated by the gauge located at the bottom right hand corner of the circuit board. Ensure that the PCB retaining screw is tightened just enough to prevent board movement.
- Moving the circuit board down will increase the far range and move the near beams further out from the mounting wall. Most effective in special applications where the beam must be as close to the mounting wall as possible.
- Moving the circuit board up will decrease the far range and bring the near beams closer to the mounting wall. Moving the board down too much will cause the far beams to "look" above the target. As a result, the range may appear shorter.

Mounting Height Chart

- Jumper 1: selects between fast and slow operation. For a typical room/roment, the unit should be set to "fast" (J1 ON). If the environment presents potential obstacles which cannot be avoided, set [1] to "slow" (J1 OFF).
- Jumper 2: enable or disable the alarm LED. If J1 is OFF, the LED will not operate on alarm. If J1 is ON the LED will operate on alarm. Jumper [2] between J1 to ON. Note: When using the corridor lens, set J2 to ON.

Changing Lenses

- The detector is supplied with the wall-to-wall lens (BV-L1-U). To change the lens, release the top tab and pull the lens holder. This will release the lens. Insert the new lens with the GROOVES FACING INWARD. The bottom of the lens is indicated by two triangular indentations. Ensure that the lens is centered in the lens holder. Ensure the beams are aimed directly down the centre of the corridor.
- Avoid locations that are subject to direct high air flow such as near an air duct outlet.
- Do not locate the detector near sources of moisture such as steam or oil.
- Do not locate the detector in the path of direct reflected (mirrored) sunlight.
- Avoid locations that have reflective surfaces such as mirrors or windows.
- Do not locate the detector near reflective surfaces such as mirrors or windows.
- Do not locate the detector in the path of direct reflected (mirrored) sunlight.
- For premises with pets, use the pet alley lens.
- Do not limit the beam effectiveness by large obstructions in the detection area such as plants or cabinets.

Mounting

- To open the case, use a small flat blade screwdriver and gently push in the tabs at the top of the case and pull the cover straight out at the bottom.
- Loosen the PCB screws, and push the board as far as it will go. Using a small flat screwdriver, remove the appropriate knockouts for the mounting screws. Remove the left and right wiring entrance knockouts located at the top of the backplate. Mount the backplate to the wall using the appropriate mounting screws (not supplied).

Jumppers

- There are two jumpers on the detector circuit board. JUMPER 1 will enable or disable the alarm LED. If J1 is OFF, the LED will not operate on alarm. If J1 is ON the LED will operate on alarm.
- JUMPER 2 selects between fast and slow operation. For a typical area/onment, the unit should be set to "fast" (J1 ON). If the environment presents potential obstacles which cannot be avoided, set [1] to "slow" (J1 OFF).}

Limited Warranty

Digital Security Controls Ltd warrants that for a period of 12 months from the date of purchase, the product shall be free of defects in materials and workmanship under normal use and that in fulfillment of any breach of such warranty Digital Security Controls Ltd, shall, at its option, repair or replace the defective equipment upon return of the equipment to its repair depot. This warranty applies to all defects in materials, and workmanship and does not include damage in shipping, handling, or damage due to changes beyond the control of Digital Security Controls Ltd, such as lightning, excessive voltage, mechanical shock, water damage, or damage arising out of abuse, improper application of the equipment.

The foregoing warranty shall apply only to the original purchase, and is and shall be in lieu of any and all other warranties, whether expressed or implied and all other obligations or liabilities of Digital Security Controls Ltd. Digital Security Controls Ltd neither assumes responsibility, nor authorizes any other person to assume on its behalf to modify or change this warranty, nor to assume any other warranty or liability concerning the product.

In no event shall Digital Security Controls Ltd be liable for any direct, indirect or consequential damages, losses of anticipated profits, loss of time or any losses incurred by the buyer in connection with the purchase, installation operation or failure of the equipment.

Motion detectors can only detect motion within the designated areas as shown in their respective instructions. They cannot distinguish between human beings and intended occupants. Motion detectors do not provide volumetric area protection. They may have multiple beams of light used to detect motion. The beams can only be detected in undisturbed areas covered by those beams. They cannot detect motion which occurs behind walls, ceilings, floors, closed doors, glass partitions, glass windows or any type of movement or object obstructing the detector. Motion detectors are a supplemental device which should be used with primary detection equipment. Motion detectors work in electronic or mechanical systems with motion detectors used to indicate the presence or absence of motion. Most detectors are designed to be used in conjunction with other electronic or mechanical systems with motion detectors used to indicate the presence or absence of motion.

Passive infrared motion detectors operate by sensing changes in temperature. However, their effectiveness can be reduced when the ambient temperature rises near or above body temperature. If there are any natural heat sources such as heaters, radiators, stoves, barbecues, fireplaces, sunlight, steam vents, lighting and so on, these heat sources could be heaters, radiators, stoves, barbecues, fireplaces, sunlight, steam vents, lighting and so on.

Warning: Digital Security Controls Ltd recommends that the entire system be completely tested before putting it into service to ensure it is working properly. However, despite thorough testing, and due to the fact limited, domestic, military, or other local area emergency or fire alarm systems were present in the area.

Note: There shall be 100% of the building or part of the building or its natural or artificial sources of heat that is not in the detection area.

Wiring

- NOTE: This unit is UL Listed and should be connected to a listed control unit or power supply providing at least 4 hours of standby power.

Walk Testing

- IMPORTANT: Upon installation, the unit should be thoroughly tested to verify proper operation. The detector can be walk tested weekly by the end user and yearly by the installer.

Once the detector has been set up, create motion in the entire area where coverage is desired. Should the coverage be incomplete, readjust or relocate the detector. Once coverage is as required, the alarm LED may be disabled by setting J1 to OFF.

Mounting Brackets

- Use the optional DM-W wallmount and DM-C ceiling mount brackets to solve placement problems. The brackets allow for vertical or horizontal positioning of the detector. The DM-C can be tilted up or down and rotated through 90° to obtain the best position for optimal coverage.

Contact the distributor for more information regarding these mounting solutions.