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Busch-Jaeger 6800-0-2574

Busch-Jaeger 220 Master Line Premium Motion Detector

Instruction Manual - Model 6800-0-2574

Introduction	Product Overview	Safety Instructions	Setup & Installation	Operation	Maintenance
Troubleshooting	Specifications				

1. INTRODUCTION

Thank you for choosing the Busch-Jaeger 220 Master Line Premium Motion Detector. This electronic thermal motion detector is designed for reliable and efficient monitoring of areas, providing enhanced security and convenience. This manual provides essential information for the safe installation, operation, and maintenance of your device. Please read these instructions carefully before installation and keep them for future reference.

2. PRODUCT OVERVIEW

The Busch-Jaeger 220 Master Line Premium is an advanced motion detector featuring two detection zones and two separate switching outputs. It includes a switchable, motion-independent twilight switch function and is fully microprocessor-controlled for optimal performance. Remote control and configuration are possible via the included infrared handheld transmitter.



Figure 1: Busch-Jaeger 220 Master Line Premium Motion Detector. This image shows the front view of the white, wall-mounted motion detector, highlighting its compact design and sensor lens.

Key Features:

- Electronic thermal motion detection with 2 detection zones.
- 2 separate switching outputs for versatile control.
- Switchable, motion-independent twilight switch operation.
- Remote control and configuration via infrared handheld transmitter (6841-o12-101, included).
- Adjustable detection sensitivity and brightness switching threshold.
- 91-sector indicator with 364 switching segments for precise area monitoring.
- Automatic range stabilization and interference suppression.
- Functions for permanent lighting (4 hours), light off (4 hours), and presence simulation.
- Adjustable time delay: 10 seconds to 30 minutes, or 1-second pulse.
- Individual adjustment of the monitored area using cuttable masking film.
- Additional automatic anti-glare device.

3. SAFETY INSTRUCTIONS

WARNING: Electrical equipment should only be installed and assembled by a qualified electrician. Failure to observe these instructions can result in fire, electric shock, or other injuries.

- Always disconnect power at the main circuit breaker before installing or servicing the device.
- Ensure that the supply voltage matches the specifications of the device (230 V AC, 50/60 Hz).
- Do not open the device housing unless explicitly instructed to do so in this manual.
- Protect the device from moisture, dust, and extreme temperatures outside the specified operating range.
- Do not paint over the sensor lens, as this will impair its function.
- Keep packaging materials out of reach of children.

4. SETUP & INSTALLATION

4.1. Choosing a Mounting Location

Select a location that allows for optimal detection coverage of the desired area. The device is designed for surface mounting.

- **Optimal Mounting Height:** 2.5 meters.
- **Maximum Range:** 16 meters.
- Avoid direct sunlight, heat sources, or strong air currents, which can cause false triggers.
- Ensure the sensor has a clear line of sight to the detection area, free from obstructions like large furniture or plants.

4.2. Wiring

1. **Disconnect Power:** Before starting, ensure the power supply to the installation area is completely disconnected at the main circuit breaker.
2. **Prepare Wires:** Strip the insulation from the power cables (Live, Neutral, Load) according to local electrical codes.
3. **Connect Wires:** Connect the wires to the appropriate terminals on the motion detector. Refer to the wiring diagram provided with the device for exact connections. Typically:
 - **L (Live):** Connect to the incoming live wire (230 V AC).
 - **N (Neutral):** Connect to the incoming neutral wire.
 - **L' (Load):** Connect to the live wire of the light fixture or other controlled device.
4. **Secure Connections:** Ensure all wire connections are secure and properly insulated.

4.3. Mounting the Device

1. **Attach Base Plate:** Secure the device's base plate to the wall using appropriate screws and wall plugs.
2. **Mount Device:** Carefully attach the motion detector unit to the base plate, ensuring it clicks securely into place.
3. **Adjust Detection Area:** Use the included cuttable masking film to precisely define the detection area and exclude unwanted zones (e.g., public pathways, neighboring properties).

4.4. Initial Power-Up

After installation, restore power at the main circuit breaker. The device will undergo a brief self-test. Allow a few minutes for the sensor to stabilize before proceeding with configuration.

5. OPERATION

The Busch-Jaeger 220 Master Line Premium motion detector operates automatically once configured. It detects movement within its specified range and angle, activating connected loads (e.g., lights) based on ambient brightness and configured settings.

5.1. Basic Functionality

- **Motion Detection:** When movement is detected within the configured area, the device activates the connected load.
- **Twilight Switch:** The integrated twilight switch prevents activation during daylight hours, saving energy. The brightness threshold can be adjusted.
- **Time Delay:** After detection, the load remains active for a set duration (time delay). If further movement is detected during this period, the timer resets.

5.2. Using the IR Remote Control (6841-o12-101)

The included IR handheld transmitter allows for convenient remote configuration and control of various functions:

- **Adjusting Sensitivity:** Increase or decrease the detector's sensitivity to movement.
- **Setting Brightness Threshold:** Define the ambient light level below which the detector becomes active.
- **Adjusting Time Delay:** Set the duration for which the connected load remains active after detection (10 seconds to 30 minutes, or a 1-second pulse for specific applications).
- **Permanent Lighting (4h):** Activate the connected load for 4 hours, overriding motion detection.
- **Light Off (4h):** Deactivate the connected load for 4 hours, ignoring motion detection.
- **Presence Simulation:** Activate a random switching pattern to simulate presence, enhancing security.
- **Reading Brightness Value:** The remote can display the current ambient brightness, assisting in setting the switching threshold.

Refer to the separate manual for the IR handheld transmitter for detailed instructions on each function and button layout.

6. MAINTENANCE

The Busch-Jaeger 220 Master Line Premium Motion Detector requires minimal maintenance.

- **Cleaning:** Periodically clean the sensor lens and housing with a soft, dry cloth. Do not use abrasive cleaners, solvents, or excessive moisture, as these can damage the device.
- **Inspection:** Regularly check the device for any signs of damage or loose connections. If any issues are found, disconnect power and consult a qualified electrician.

7. TROUBLESHOOTING

If you experience issues with your motion detector, try the following steps before contacting support:

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Light does not switch on when motion is detected.	<ul style="list-style-type: none"> No power supply. Brightness threshold set too high (daylight). Sensitivity set too low. Detection area obstructed. Connected lamp is faulty. 	<ul style="list-style-type: none"> Check circuit breaker and wiring. Adjust brightness threshold using IR remote. Increase sensitivity using IR remote. Clear obstructions or adjust masking film. Test or replace the lamp.
Light switches on without apparent motion (false triggers).	<ul style="list-style-type: none"> Sensitivity set too high. Movement outside desired detection area. Heat sources or strong air currents. Small animals. 	<ul style="list-style-type: none"> Decrease sensitivity using IR remote. Adjust masking film to exclude unwanted areas. Relocate device or eliminate interference sources. Adjust sensitivity or masking.
Light remains on continuously.	<ul style="list-style-type: none"> Continuous motion in detection area. Permanent lighting function activated. Faulty wiring or device. 	<ul style="list-style-type: none"> Check detection area for constant movement. Deactivate permanent lighting via IR remote. Disconnect power and check wiring; if problem persists, contact support.

8. TECHNICAL SPECIFICATIONS

Model Number:	6800-0-2574
Brand:	Busch-Jaeger
Type:	Electronic Thermal Motion Detector
Mounting Type:	Surface Mount
Color:	White
Rated Voltage:	230 V AC
Frequency:	50/60 Hz
Optimal Mounting Height:	2.5 m
Max. Detection Range:	16 m
Horizontal Detection Angle:	220°
Brightness Setting Range:	0.5 - 300 lux
Time Delay:	10 s - 30 min (adjustable) or 1 s pulse
Operating Temperature:	-25°C to 55°C
Protection Class (IP):	IP55

9. WARRANTY AND SUPPORT

Busch-Jaeger products are manufactured to high-quality standards. For information regarding warranty terms and conditions, please refer to the documentation provided with your purchase or visit the official Busch-Jaeger website. For technical support or service inquiries, please contact your local Busch-Jaeger dealer or customer service representative.

Manufacturer: Busch-Jaeger

Model: 6800-0-2574