

Radio Window sensor

Installation Instructions
Please Read Before Installing

English

Wireless Battery-Powered Mullion Mount Sensor Pair

- LRF2-SSM 7µA 3V 431 MHz-437 MHz
- LRF3-SSM 7µA 3V 868 MHz-870 MHz
- LRF4-SSM 7µA 3V 868.125 MHz-868.475 MHz
- LRF5-SSM 7µA 3V 865.5 MHz-866.5 MHz
- LRF7-SSM 7µA 3V 433.6 MHz-434.2 MHz



Product Description

Lutron's Radio Frequency enabled Radio Window sensor enhances the performance of the Quantum® Total Light Management and HomeWorks® QS Total Home Control systems by working at the window level to communicate current exterior light conditions. The battery powered sensor features easy installation, inconspicuous aesthetic profile, and low maintenance costs.

Environment

- Temperature: 54 °F to 122 °F (12 °C to 50 °C)
- For indoor use only
- Relative humidity: < 90% non-condensing

Important Notes

- Radio Window sensors operate as part of a system and cannot be used to control a load or shade without a compatible Quantum® Total Light Management System or HomeWorks® QS Total Home Control System installed. Refer to the instruction provided with the receiving devices for information on setup and testing of sensors.
- Clean sensors with a soft damp cloth only. DO NOT** use any chemical cleaners.
- For indoor use only. Operate between 54 °F and 122 °F (12 °C and 50 °C).
- DO NOT** paint sensors.
- The range and performance of the RF system is highly dependent on a variety of complex factors such as:
 - Distance between system components
 - Geometry of the building structure
 - Construction of walls separating system components
 - Electrical equipment located near system components

WARNING: ENTRAPMENT HAZARD. To avoid the risk of entrapment this product must not be used to control equipment which could create hazardous situations, such as entrapment, if operated accidentally. Examples of equipment which must not be controlled with this product include (but are not limited to) motorized gates, garage doors, industrial doors, etc. Accidental operation of the above equipment with this product could result in serious injury or death.

CE Information

(For model number LRF3-SSM-xx)



Lutron Electronics hereby declares that the models listed above are in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. A copy of the DoC can be obtained by writing to:

Lutron Electronics Co., Inc., 7200 Suter Road, Coopersburg, PA 18036 U.S.A.

IDA Compliance Information

(For model numbers LRF4-SSM-xx)

Complies with
IDA standards
DA 103083

FCC/ IC Information

This device complies with part 15 of the FCC Rules and Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation. Modifications not expressly approved by Lutron Electronics Co., Inc. could void the user's authority to operate this equipment.

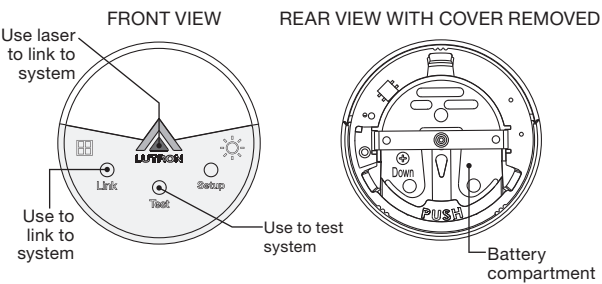
NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Consult the dealer or an experienced radio/TV technician for help.

Getting Started

How it works:

Battery powered photo sensors report the measured amount of natural light incident on a facade to Quantum® or HomeWorks® QS using Lutron® Clear Connect® RF Technology.



A Install Batteries

NOTE: Before setting up the sensors, the corresponding Quantum® Total Light Management System or HomeWorks® QS Total Home Control System must be installed. Refer to that product's installation instructions.

Use only high-quality lithium batteries, one (1) size CR2450, 3 V (ANSI-5029LC, IEC-CR2450). **DO NOT** use size CR2032, or rechargeable batteries. Using improperly rated batteries could damage the sensors.

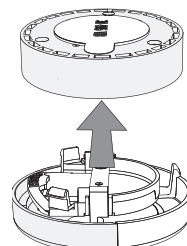
NOTICE: DO NOT disassemble, crush, puncture, or incinerate batteries. **DO NOT** dispose of batteries in normal household waste. Please recycle, take to a proper battery disposal facility, or contact your local waste disposal provider regarding local restrictions on the disposal or recycling of batteries.

WARNING: HEALTH HAZARD. May result in serious injury or death if battery is swallowed. Keep out of reach of children.

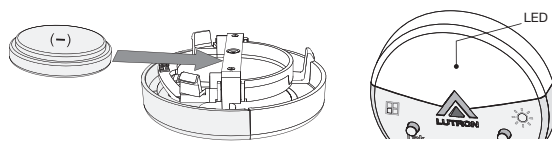
CALIFORNIA RESIDENTS:

The batteries in these devices contain Perchlorate Material—special handling may apply. For more information visit www.dtsc.ca.gov/hazardouswaste/perchlorate.

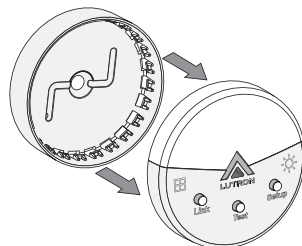
- Remove a sensor's back cover by pulling it straight off.



- Insert battery with the negative side up. When done correctly, the sensor powers up, indicated by a flashing LED.



- Reinstall the back cover.

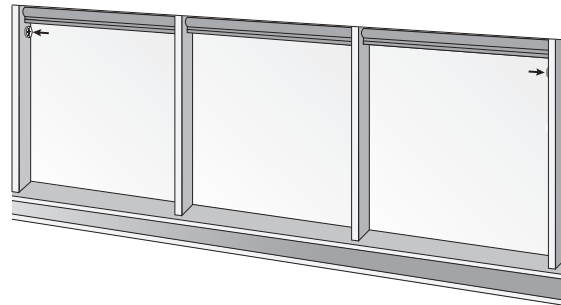


- Repeat steps 1 - 3 to install the battery in the other sensor.

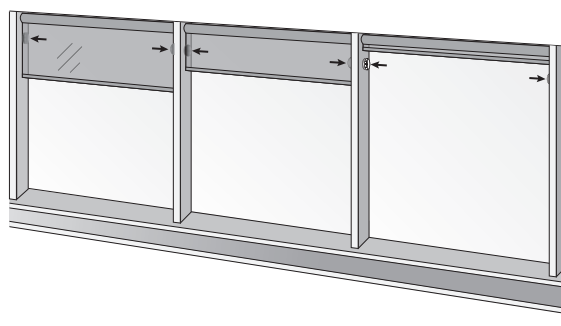
B Sensor Placement

The Radio Window Sensors are designed to be affixed directly to opposing mullions or window frame members on each side of the window group to be controlled (may be one window or multiple windows).

Controlling multiple shades with 1 sensor pair



Controlling 1 shade per sensor pair



Orientation and Location

• Flush mount to window mullion near top of window, as close to the glass as possible, ensuring the exterior view is not obstructed.

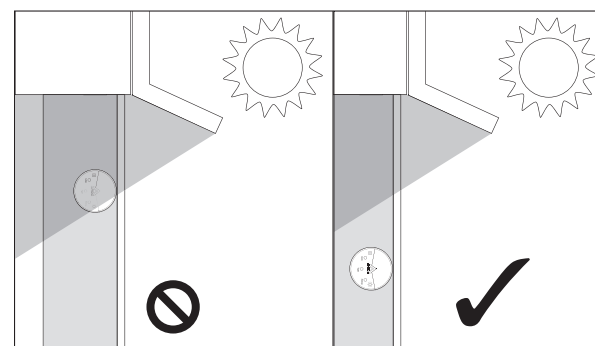
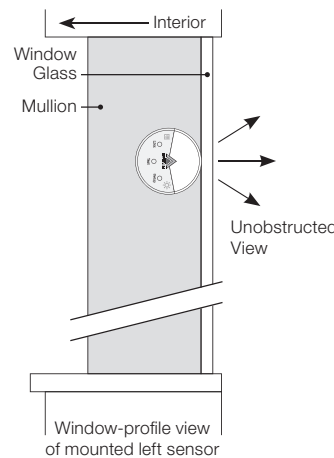
• Ensure the shade fabric does not come between the sensor and the window, and does not physically interfere with the sensor.

• Mount sensors on opposite mullions of each shade group.

• Ensure the arrow points directly toward the window glass.

• **DO NOT** position the Radio Window sensor on a skylight, near an indirect lighting fixture, or below any window feature casting a shadow on the sensor.

• **DO NOT** mount sensors in locations where they will be subjected to liquid ingress, including high humidity environments with the possibility of surface condensation. (Includes but is not limited to locations with condensing humidity and locations exposed to cleaning spray.)



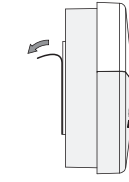
Choose mounting locations where the exterior view is unobstructed, and fixed building features, window louvers, etc., do not cast persistent shadows

C Mounting Sensors

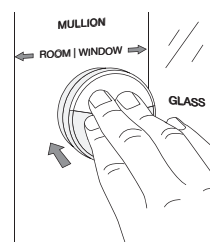
- Prepare the mounting surface using multi-surface cleaner and a clean, lint-free cloth. **DO NOT** use furniture wax or polish. Ensure the surface is completely dry before proceeding.



- Peel off the protective adhesive liner on the back of the sensor and proceed immediately to step 3.



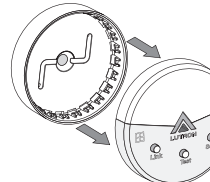
- Press the sensor firmly to the mounting surface, holding for a minimum of 5 seconds.



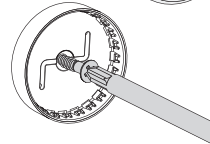
NOTE: The adhesive provided is intended for mounting on aluminum mullions only. For secure mounting on other surfaces, you must add a securing screw as shown in step 4. (If the mounting surface is aluminum, skip step 4 and proceed directly to step 5.)

4. When mounting on a non-aluminum mullion:

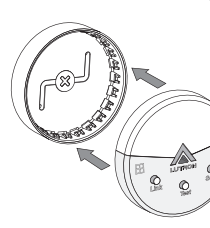
a. Pull the sensor straight away from the mullion, leaving the adhesive-mounted back cover in place.



b. Pre-drill a pilot hole, if appropriate, through the hole in the sensor's back cover (and through the adhesive used to mount the sensor in step 3).

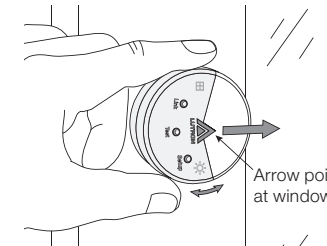


c. Secure the sensor's back cover to the mullion using a #4 flat-head screw of appropriate length and type for the material. Hand-tighten only; **DO NOT** use a power tool.



d. Align the sensor with the mounted back cover and gently press it in until it locks in with a click.

- The arrow on the front of each sensor must point directly at the window glass. After mounting, sensors may be rotated to achieve the correct orientation.



D Sensor Setup

Radio Window sensors operate as part of a system and cannot be used to control a load or shade without a compatible Quantum® Total Light Management System or HomeWorks® QS Total Home Control System installed. Refer to the instruction provided with the receiving devices for information on setup and testing of sensors.

E Troubleshooting

Symptom	Possible Causes	Solution
Sensor does not stick to mounting surface	Surface not clean	Add mounting screw. Refer to section C Mounting Sensors, Step 4
	Adhesive exposed to dirt or debris	
Sensor does not stay attached to back cover	Sensor and back cover not properly aligned	Refer to section A. Install Batteries, Step 3
	Debris or foreign object inside back cover	Clear debris or foreign object from back cover, and refer to section A. Install Batteries, Step 3
Sensor(s) will not assign	One or both batteries dead or incorrectly installed	Refer to section A. Install Batteries
	Quantum® not compatible with sensor(s)	Use the latest compatible version of Quantum® (2.7 or higher)
	HomeWorks® not compatible with sensor(s)	Ensure HomeWorks® installation is up to date
Shades allow too much sunlight into the space	Sensor(s) mounted in persistent shadow	Refer to section B. Sensor Placement
	Arrow on sensor(s) not pointing toward the window	Refer to section C. Mounting the Sensors, Step 4
	System threshold(s) out of adjustment	Adjust settings in Quantum® Hyperion™ wizard or HomeWorks® QS
	Shade "visor position" out of adjustment	Clear manual override in system software
Shades do not respond to outside conditions	Sensor(s) missing or incorrectly installed	Check for presence of sensors; locate and/or reinstall if necessary
	One or both batteries dead or incorrectly installed	Refer to section A. Install Batteries
	Sensor(s) not in range of system receiving device	Reposition sensor(s) within range of receiving device
Shades move too often	System timeout settings out of adjustment	Check and correct sensor assignment in Quantum® or HomeWorks® QS
		Adjust to longer timeouts in Quantum® Hyperion™ wizard or HomeWorks® QS
Shades don't move often enough		Adjust to shorter timeouts in Quantum® Hyperion™ wizard or HomeWorks® QS

For complete warranty information, please see: [http://www.lutron.com/TechnicalDocumentLibrary/Window Systems Warranty.pdf](http://www.lutron.com/TechnicalDocumentLibrary/Window%20Systems%20Warranty.pdf)

Lutron World Headquarters

Lutron Electronics Co., Inc.
7200 Suter Road
Coopersburg, PA 18036
United States
Tel: +1.610.282.3800
Fax: +1.610.282.1243

European Headquarters

Lutron EA Limited
6 Sovereign Close
Wapping, London, E1W 3JF
United Kingdom (Importer)
Tel: +44.(0)20.7702.0657
Fax: +44.(0)20.7480.6899

Asian Headquarters

Lutron GL Ltd.
15 Hoe Chiang Road
#07-03 Tower Fifteen
Singapore 089316
Tel: +65.6220.4666
Fax: +65.6220.4333
lutronsea@lutron.com

Radio Window 传感器

安装说明
安装之前请仔细阅读

中文

无线电池供电的竖框安装传感器对

- LRF2-SSM 7µA 3V 431 MHz - 437 MHz
- LRF3-SSM 7µA 3V 868 MHz - 870 MHz
- LRF4-SSM 7µA 3V 868.125 MHz - 868.475 MHz
- LRF5-SSM 7µA 3V 865.5 MHz - 866.5 MHz
- LRF7-SSM 7µA 3V 433.6 MHz - 434.2 MHz



产品描述

路创的无线电射频专用无线窗传感器，通过在窗口层面交流当前外部光线条件来增强 Quantum® 整体照明管理和 HomeWorks® QS 整体家居控制系统的性能。电池供电的传感器具有安装方便、轮廓美观不显眼且维护成本低的特点。

环境

- 温度：12 °C 至 50 °C (54 °F 至 122 °F)
- 仅供室内使用
- 相对湿度：< 90% 无冷凝

重要提示：

- 无线窗传感器作为系统的一部分运行，且不能在未安装兼容的 Quantum® 整体照明管理系统或 HomeWorks® QS 整体家居控制系统的情况下用于控制负载或色度。请参考收到的设备中提供的指南以了解关于传感器设置和测试的信息。
- 仅限使用软湿布清洗传感器。切勿使用任何化学清洁剂。
- 仅限室内使用。可于 12 °C 和 50 °C (54 °F 和 122 °F) 之间进行操作。
- 切勿粉刷传感器。
- 射频系统的性能和范围取决于一系列复杂的因素，如：
 - 系统组件之间的距离
 - 建筑物的几何结构
 - 分隔系统组件的墙壁结构
 - 临近系统组件的电气设备

警告：禁闭危险 为了避免禁闭的危险，切勿使用本产品控制如果操作不当可能造成危险情况（如禁闭）的设备。不得使用本产品控制的设备包括（但不限于）电动门、车库门、工业用门等。错误将以上装备与本产品进行操作将导致严重伤亡。

CE 信息（适用于型号 LRF3-SSM-xx）

路创电子公司特此声明，以上列出的型号符合指令 1999/5/EC 的基本要



求和其它相关条款的要求。可给下列地址写信索取 DoC 的副本：
Lutron Electronics Co., Inc.
7200 Suter Road
Coopersburg, PA 18036 U.S.A.

IDA 合规信息（适用于型号 LRF4-SSM-xx）

符合 IDA 的 DA 103083 标准

FCC/IC 信息

此设备符合 FCC 规则第 15 部分和加拿大工业部许可豁免 RSS 标准的规定。其操作受下列两个条件的限制：(1) 此设备不会产生干扰；(2) 此设备必须接受任何干扰，包括可能引起不良操作的干扰。未经路创电子公司明确批准而进行的修改可能导致用户丧失操作此设备的授权。

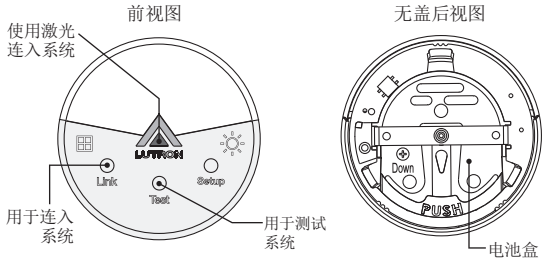
注：此设备已通过检测，并且根据 FCC 规则第 15 部分的规定，符合 B 级数字设备的限制。设计这些限制的目的是为了提供合理的保护，以避免设备在住宅环境安装中产生的有害干扰。此设备产生、使用和辐射射频能量，如果没有按照说明进行安装和使用，可能会对无线电通信造成有害干扰。但是，我们并不能保证在某一特殊安装中不会出现干扰。如果此设备确实对无线电或电视的接收造成有害的干扰（可以通过开关设备进行确定），鼓励用户通过以下一种或多种措施来尝试解决此干扰：

- 重新安置接收天线或调整其朝向。
- 增大此设备与接收设备之间的距离。
- 咨询经销商或一位具有经验的无线电/电视技术员以获取帮助。

入门指南

工作原理：

由电池供电的光传感器使用 Lutron Clear Connect® 射频技术将传感器正面测得的自然光入射量报告给 Quantum® 或 HomeWorks® QS。



A 安装电池

注：在安装传感器前，应安装相应的 Lutron Quantum® 全面照明控制系统。请参阅产品的安装说明。

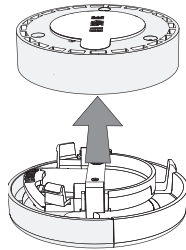
只能使用优质锂电池，其规格为 CR2450，电压 3 V (ANSI-5029LC, IEC-CR2450)。切勿使用 CR2032 型号或可充电电池。使用额定值不正确的电池可能会损坏传感器。

注意：切勿拆解、碾压、刺穿或焚烧电池。切勿将电池丢入一般的家庭垃圾中。请将电池回收，放入适当的电池处理设施中，或联系您当地的垃圾处理部门以了解当地关于处理或回收电池的规定。

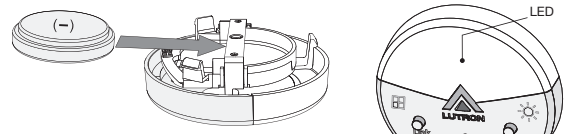
警告：健康危害。 吞食电池可能导致严重伤亡。放在儿童接触不到的地方。

加州居民：这些装置中的电池含有高氯酸盐材料——需进行特殊处理。如需获得更多信息，请访问 www.dtsc.ca.gov/hazardouswaste/perchlorate。

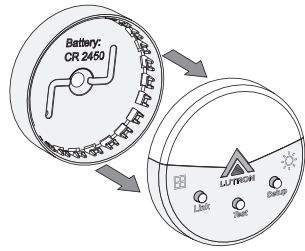
- 直接抽出传感器的后盖以将其移除。



- 插入电池时请负极朝上。当正确操作完成后，LED 灯将会闪烁，表明传感器已通电。



- 重新安装后盖。

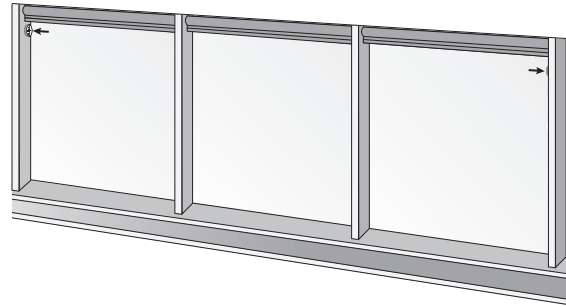


- 安装另一个传感器的电池时请重复步骤 1-3。

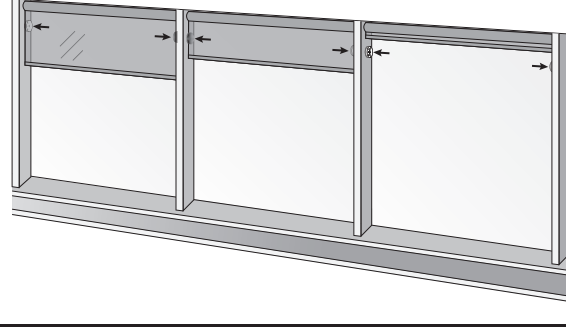
B 传感器配置

根据设计，Radio Window 传感器应直接安装在将被控制的窗户组（一个或多个窗户）每一侧相对的竖框或窗框构件上。

1 个传感器对控制多个遮光罩

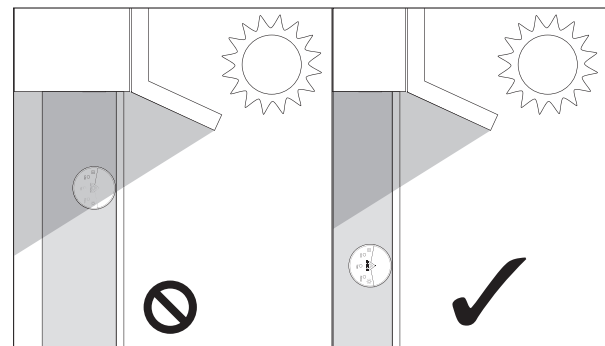
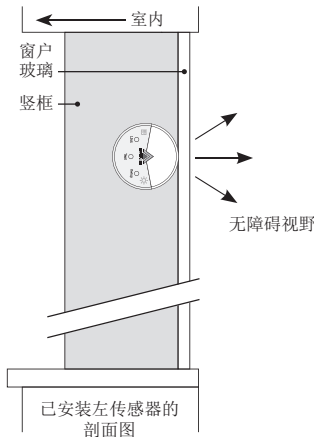


1 个传感器对控制 1 个遮光罩



方向和位置

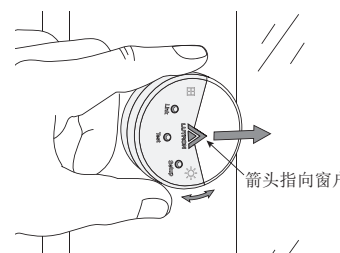
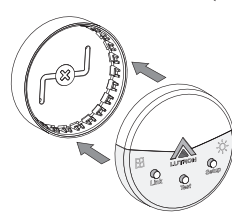
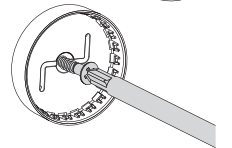
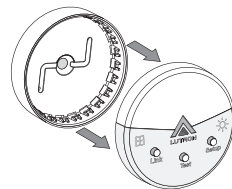
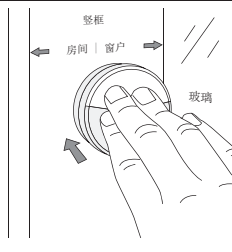
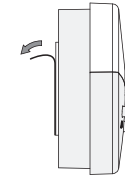
- 在窗口顶部齐平安装窗框的中框，尽可能接近玻璃，以确保不遮挡外景。
- 请确保遮阳面料不会阻隔传感器和窗户，且与传感器没有物理接触。
- 将传感器安装在每个遮光罩相对的竖框上。
- 请确保箭头直接指向窗户玻璃。
- 切勿将 Radio Window 传感器安装在天窗上、靠近间接照明灯具的地方，或任何向传感器投射阴影的窗户装饰的下方。
- 请勿将传感器安装在会受到液体侵袭的位置，包括可能形成表面凝结的高湿度环境。（包括但不限于具备冷凝湿度的位置以及会接触到清洁喷雾的位置。）



选择外部视野不受阻挡以及固定的建筑装饰、窗户百叶窗等不会投射持久阴影的安装位置。

C 安装传感器

- 使用多表面清洁剂和干净、不起毛的抹布清洁安装面。切勿使用家用用蜡或抛光剂。确保安装前表面完全干燥。
- 揭去传感器背面的保护胶衬套并马上执行步骤 3。
- 将传感器牢牢按在安装面上，至少保持 5 秒钟。
注意：提供的胶仅用于在铝竖框上安装。如果要确保在其他表面上的安装，您必须如步骤 4 所示添加一个固定螺钉。（如果安装表面为铝，请跳过步骤 4 并直接执行步骤 5。）
- 在非铝竖框上安装时：
 - 请将传感器从竖框抽离，密封胶衬留在原位。
 - 在适用的情况下通过传感器封底上的孔（并通过步骤 3 中用于安装传感器的胶）预钻一个导孔。
 - 使用长度和类型适合材料的 #4 平头螺钉将传感器的封底固定在竖框上。仅手动拧紧；请勿使用电动工具。
 - 将传感器与安装好的封底对齐，并按传感器直至其发出咔嚓一声锁定。
- 每个传感器正面的箭头必须直接指向窗户。安装好后，可以旋转传感器以朝向正确的方向。



有关保修，请访问：lutron.com/TechnicalDocumentLibrary/Window Systems Warranty.pdf

全球总部 | 美国
Lutron Electronics Co., Inc.
7200 Suter Road
Coopersburg, PA 18036-1299 USA
电话：1. 610. 282. 3800
传真：1. 610. 282. 3090
技术支持：1. 800. 523. 9466
免费电话：1. 888. LUTRON1
shadinginfo@lutron.com

亚洲总部
Lutron GL Ltd.
15 Hoe Chiang Road
#07-03 Tower Fifteen
Singapore 089316
电话：+65.6220.4666
传真：+65.6220.4333
lutronsea@lutron.com

欧洲总部 | 英国
Lutron EA Ltd
6 Sovereign Close
London, E1W3JF, UK
电话：+44. (0)20. 7702. 0657
传真：+44. (0)20. 7480. 6899
技术支持：+44. (0)20. 7680. 4481
免费电话：0800. 282. 107

D 传感器设置

注：无线窗传感器作为系统的一部分运行，且不能在未安装兼容的 Quantum® 整体照明管理系统或 HomeWorks® QS 整体家居控制系统的情况下用于控制负载或色度。请参考收到的设备中提供的指南以了解关于传感器设置和测试的信息。

E 故障处理

症状	可能原因	解决方案
传感器无法粘贴在安装面上	表面不干净 胶合剂接触灰尘或碎屑	请参阅 B. 传感器配置
传感器不能附着于后盖之上	传感器与后盖没有正确对齐 后盖中有碎屑或异物	请参阅 A. 安装电池，步骤 3 清除碎屑或异物，以及参阅 A. 安装电池，步骤 3
传感器不分配	一节或所有电池失效或安装不正确 Quantum® 与传感器不兼容 HomeWorks® 与传感器不兼容	请参阅 A. 安装电池 请使用最新的 Quantum® 兼容版本（2.7 或更高） 请使用最新的 HomeWorks® 兼容版本
遮光罩放入空间的日光过多	传感器安装在持久阴影里 传感器上的箭头没有指向窗户 系统阈值失调 遮光板位置失调 手动控制遮光	请参阅 B. 传感器配置 请参阅 C. 安装传感器，步骤 3 调节 Quantum® Hyperion™ 向导中的设置 清除 Quantum® 中的手动超越控制
遮光罩没有对外部条件作出相应	传感器丢失或安装错误 一节或所有电池失效或安装不正确 传感器不在 Quantum® 系统范围内 传感器未分配至遮光罩	查看是否有传感器；定位传感器；如有必要，重新安装传感器 请参阅 A. 安装电池 将传感器重新安装在接收装置范围之内 检查并更正 Quantum® 中的传感器分配
遮光罩移动太频繁	系统超时设置失调	在 Quantum® Hyperion™ 向导中延长超时设置
遮光罩常常移动不足	系统超时设置失调	在 Quantum® Hyperion™ 向导中缩短超时设置

