

Win-Trol M2100 Window / Skylight System

IR Receiver Installation Instructions

Things You Need To Know Before You Start

- It is important that you read and understand all the instructions pertaining to the installation of the IR Receiver in an M2100 Window / Skylight Motor System.
- Your M2100 Window / Skylight Motor System should be functional before installing the IR Receiver.
- The LC-I Control Switch and LC-II Control Switch automatically performs a close sequence when power is first applied or after a power interruption of more than 10 seconds. This is a normal procedure that may take several minutes to complete.
- When power is first applied or after a power interruption of more than 10 seconds, the "Reset" button on the LC-I Control Switch and LC-II Control Switch must be pressed to reinitialize the system.
- Pressing the "Reset" button on the LC-I Control Switch and LC-II Control Switch will cause the motors to go through an open/close sequence that may take several minutes to complete.
- The LC-I Control Switch and LC-II Control Switch will control up to three (3) windows / skylights if M2100 Motorized Locks are not used. They will also control one (1) window with up to two (2) M2100 Motorized Locks.
- The window / skylight hardware should be clean and easy to operate.
- The M2100 Window / Skylight System is intended for **indoor use only** with screens in place.
- The M2100 Window / Skylight System is **not intended for egress windows**.
- **Do NOT** wire the M2100 Window / Skylight System with power applied. Connect the power only after the motor connections are verified. Damage or incorrect operation may occur if motor connections are made with the power applied.

Safety Precautions



- DANGER:** To help prevent severe personal injury or death,
- **Wiring must be installed by a qualified electrician according to local and National Electrical Codes (N.E.C). Use only Class II wire.**
 - **Disconnect the main power before beginning the installation. Verify that power is OFF by testing with a voltage meter that you know is working correctly.**
 - **To prevent the possibility of electrocution, remove the power from the motor system and circuit that will be used for the permanent connection.**



- WARNING:** To help prevent personal injury,
- **The screen interlock MUST be correctly mounted and is a required part of the M2100 Window / Skylight System. It is intended to help prevent injury which could result from reaching into the window or skylight area during operation. The correct installation of the screen interlock is the responsibility of the installer.**
 - **Do not allow children to operate the wall push button(s) or remote control transmitter(s). Unexpected closing of the window or skylight could cause injury.**



Installation Instructions

Up to 25 LC-II Control Switches can be controlled from a single IR Receiver. However, the LC-II Control Switches are not controlled individually. In addition, more than one IR Receiver may be used to control one or more LC-II Control Switches. **Note:** An LC-II Control Switch can still be used for localized control even when it is controlled by an IR Receiver.

Step 1 - Gather Your Tools

- #2 Philips head screwdriver
- 1/10" (2.5 mm) bladed screwdriver
- Class II, low voltage wire for the switches
- An assortment of wire nuts

Step 2 - Run Electrical Wires

1. Use Class II wire for all connections. Run low voltage wires at least 12" away from high voltage wires to avoid any electrical interference.
2. Run two (2) power wires from either a transformer or an LC-II Control Switch to the IR Receiver.
Stranded wire is recommended for all power connections.
3. Run three (3) control wires (Open, Close, and Ground) between the IR Receiver and the LC-II Control Switch.

Step 3 - Set Dip-Switches

1. Settings of the five dip-switch settings should match on both the IR Transmitter and IR Receiver. Dip-switch positions 6-8 must be set to "+".

Step 4 - Connect Wires

1. Connect the IR Receiver per the wiring diagram on page 4 and the IR Receiver Connectors table below. If a Close & Hold Switch is going to be used refer to the "Close & Hold Switch Installation" on page 3.
2. Mount the IR Receiver in a single gang electrical box in a location where the "eye" has an unobstructed view of the area where the IR Transmitter will be used.

IR Receiver Connectors		
Symbol	Connection	Description
P	Power	Input from a 24 VAC transformer. This can be any one of the transformers in the system.
O	Open	The unit(s) will open when this output connection is driven low (0 VDC).
C	Close	The unit(s) will close when this output connection is driven low (0 VDC).
F	Close & Hold	This connection is used with a Close & Hold Switch.
G	Ground	Signal ground.
R	Rain Sensor	Rain sensor inputs (2). Moisture on the rain sensor will cause the unit(s) to close.



IR Transmitter Operation

- For maximum range, up to 50 ft., point the IR Transmitter directly at the IR Receiver's "eye".
- To Open: Press the "Open" button once.
- To Close: Press the "Close" button once.
- To Stop: Press the button which is the opposite of the window/skylight travel.

Note: The "Close & Hold" input on the IR Receiver deactivates the IR Receiver, denying access to anyone with an IR Transmitter. Refer to the "Close & Hold Switch Installation" below.

Close & Hold Switch Installation

- This feature can be used when leaving a building to close the window/skylight(s) and prevent any unattended device (such as a thermostat) from opening the unit(s). It can also be used for a security system interface. This feature should **not** be relied upon for security system purposes.
- Use a SPST (Single-Pole, Single-Throw) continuous contact relay or switch for this low voltage control application.
- When an IR Receiver is NOT used, connect the controlling contact between the CLOSE (C) and GROUND (G) connectors on the LC-II Control Switch and/or the RS Module. When using an IR Receiver the contacts should be between the CLOSE & HOLD (F) and GROUND (G) connectors on the IR Receiver.
- The "Close & Hold" feature overrides all inputs except "Open & Hold".



Win-Trol's Window/Skylight System Wiring Diagram

