Range Extending Repeater for QMotion Roller Shades
### Using a Qrelay in a Project.
The intended use of the Qrelay is to extend the range of a remote, Qsync or Qconnect. Any transmitter has a limit on how far it will reliably control a shade. The Qrelay allows this distance to increase so that better results may be achieved.

### Locate and Power
- Locate Qrelay pointing up, as far from the floor as possible, within shades’ line of sight for best results. The best position may require trial and error.
- Plug Qrelay into any powered USB compliant jack. (Our optional wall adapter shown.) The Qrelay will not function if the USB jack is not powered.

### How Qrelay Will Operate

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td><strong>Default</strong></td>
<td>Qrelay will wait 60 seconds to receive communication from any remote to set its mode upon being powered. The Qrelay light will stay lit. If no command is received in that time, it will be set to the last known mode state. Then the Qrelay light will go out. Factory Default mode for Qrelay is Echo All Mode.</td>
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<tr>
<td><strong>Echo All</strong></td>
<td>Qrelay will echo any command it receives from a QMotion Roller Shade remote.</td>
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<tr>
<td><strong>Zone Specific</strong></td>
<td>Qrelay will echo only the commands it has received from QMotion Roller Shade remotes/channels learned to it. A maximum of two remotes/channels can be learned to Qrelay.</td>
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### How To Set This Mode
- **Default**: Plug in Qrelay. Do not press any remote buttons. Wait for the Qrelay light to go out. Qrelay has now assumed its last known mode state. This means that if you have previously set Qrelay and do not wish to change the mode, Qrelay has remembered your previous settings.
- **Echo All**: Plug in Qrelay. The Qrelay light will illuminate. Press and release 50% button on any Qmotion Roller Shade remote within range of Qrelay. The Qrelay light will go out.
- **Zone Specific**: Plug in Qrelay. Then press and release the 25% button on the desired QMotion Roller Shade remote/channel. The Qrelay light will pulse. Then press and release the UP button. The Qrelay light will go out. **To add a second remote/channel**, unplug Qrelay and plug it in again. Select the new QMotion Roller Shade remote/channel. Press and release the 25% button on this remote/channel. The Qrelay light will pulse. Then press and release the UP button on this remote/channel. The Qrelay light will go out.
### Qrelay Instructions

#### Examples of proper use:

1. **Controlling groups of shades separated by 60 feet and 2 rooms from a Qconnect or Multi-Channel Remote.**
   - A Qrelay can be placed halfway to outlying groups of shades from the Qconnect or Multi-Channel Remote.

2. **Helping to control shades that are in a RF dead zone.**
   - Sometimes a column or other structure may be between a transmitter and a shade, causing the shade not to respond reliably. Try locating a Qrelay to the side of an obstruction, or halfway around it, to help “steer” the signal around it.

#### Incorrect use:

1. **Placing multiple Qrelays to repeat the signal multiple times to insure all shades move.**
   - This can cause the Qrelays to become useless, because of interference from each other.
   - If 2 or more Qrelays are close enough to hear the original transmitting device, they will most likely try to retransmit the command at the same time. If this occurs they will drown each other out and the shade will not be able to hear the correct command and will not respond.

2. **Using Qrelays to overcome difficult shade placement.**
   - There are cases where the RF will not reach the shade, even when sent from close distance to the shade. If a shade will not respond to a hand held remote in close proximity to the shade the Qrelay will not help.

### Qrelay Guidelines

1. **Place the remotes in the most optimal position to get the most reliable shade response.** This may require moving them around multiple times.

2. **If there are dead spots or areas that cannot be reached by the optimal remote placement then add one Qrelay to fill the dead spot.**

3. **Should a shade be even further than one Qrelay can manage, then add another at a distance where the signal can be received to bridge the gap between the transmitter and the shade and so forth until the shade can be reached.**
   - Try to add repeaters in a line, not in a group.
   - Try to minimize the amount of Qrelays in a project. If one or two work, adding more may be unnecessary overkill.

4. **If the shade responds unreliably to one command, send another command 5 seconds later.**
   - If the transmitter is a Qconnect, this may be able to be programmed into the system that controls it.

5. **Do not place the Qrelay behind refrigerators, TVs, Microwaves, or other large obstructions as they may decrease effectiveness.**

*If the desired shade to move needs to have the command hop through a number of Qrelays, please consider it will take about 3 seconds per Qrelay.*
FCC COMPLIANCE
Warning: Changes or modifications to this device not expressly approved by QMotion Incorporated could void the user’s authority to operate the 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 the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

INDUSTRY CANADA COMPLIANCE
Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

This device complies with 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 of the device.

Le present appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence.
L'exploitation est autorisee aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter