Introduction:
Thank you for choosing ZFM-80US Z-Wave control product. Our Z-Wave enabled product allows user to remotely control resistive household appliance, and make home control easy at low installation / maintenance cost. You may begin with a few Z-Wave enabled devices or build up a complete home automation system with our products.

The ZFM-80US Fixture Switch Module is a Z-Wave enabled device and fully compatible with any Z-Wave enabled network. It allows remote On/Off control of specified resistive household appliance. Each fixture switch module is designed to act as a repeater, which will re-transmit the RF signal to ensure that the signal is received by its intended destination by routing the signal around obstacle and radio dead spots.

Glossary

<table>
<thead>
<tr>
<th>Device / Light / Node</th>
<th>Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z-Wave Network</td>
<td>A collection of Z-Wave devices is controlled by primary and secondary controllers operating on the same system. A Z-Wave network has its own unique ID code so that controllers not in the network can not control the system.</td>
</tr>
<tr>
<td>Inclusion</td>
<td>Add a Z-Wave device to the network.</td>
</tr>
<tr>
<td>Exclusion</td>
<td>Delete a Z-Wave device from the network.</td>
</tr>
<tr>
<td>Network Wide Inclusion (NWI)</td>
<td>Network Wide Inclusion (NWI) enables both end-user friendly, Plug and Play like Z-Wave network installation as well as professional installation scenario where the inclusion process in terms of time will be reduced significantly. NWI is a feature supported by a new frame type named Explorer which enables the Z-Wave protocol to implement Adaptive Source Routing.</td>
</tr>
<tr>
<td>Association</td>
<td>Association is used to organize nodes in different groups allowing the device to identify the nodes by a group identifier. The groups can also be copied to other devices.</td>
</tr>
</tbody>
</table>

Key Features:
- High output power
- Remote ON/OFF control via the Z-Wave controller
- Manual ON/OFF control with the front panel push button
- Support External ON/OFF key connects to the module
- Advanced function
  - Conditional trigger for "Fail Safe Installation"
  - Support Network Wide Inclusion (NWI) and Explore Frames
  - Screw terminals for wires connection
  - Flexible mounting structure - mount inside gang box or any place around obstacle and radio dead spots.

Installation:

**DANGER! SHOCK HAZARD.** Read and understand these instructions before installing. This device is intended for installation in accordance with the National Electric code and local regulations in the United States, or the Canadian Electrical Code and local regulations in Canada. It is recommended that a qualified electrician perform this installation.

For indoor use only in a dry location. Retain instructions for future use.

**WARNING:** To reduce the risk of fire or electric shock, install in a controlled environment relatively free of contaminants. To avoid fire, shock, or death, turn off power at circuit breaker or fuse and test that power is off before wiring!

**Step 1** Identifying your wiring application: refer to figure 1 and 2.

**NOTE:** If the wiring in the wall box does not resemble any of above configurations, consult a qualified electrician.

**Step 3** Connecting wires: refer to figure 1 or 2 and connect the wires with correct symbols. Use at less 90°C copper wire only and the stripped wire end's length must be 9mm. The tightening torque must be 3.5lb-in. (Make sure all wires are firmly fixed at all terminals)

**CAUTION** : Risk of Electric Shock. More than one disconnect switch may be required to de-energize the equipment before servicing.

**Warning**
The resistive household appliance connected into the Z-Wave controlled outlet on this module must not exceed 230Vac 10A or 120Vac 15A.

**External Switch**
ZFM-80US provides an option to user that can add an external switch to control the On/Off function. ZFM-80US can be placed into the switch box with external wall switch cover. User can configure the external switch type through the configuration command

**Configuration Command for External Switch**

<table>
<thead>
<tr>
<th>Parameter Number</th>
<th>Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (0x01)</td>
<td>Set External switch type</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Parameter Value</th>
<th>Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 (0x00)</td>
<td>Disable External switch</td>
</tr>
<tr>
<td>1 (0x01)</td>
<td>Type A: Tact switch (normal open)</td>
</tr>
<tr>
<td>2 (0x02)</td>
<td>Type B: Tact switch (normal close)</td>
</tr>
<tr>
<td>3 (0x03)</td>
<td>Type C: Rocker switch (short = On; open = Off), default</td>
</tr>
<tr>
<td>4 (0x04)</td>
<td>Type D: Rocker switch (short = Off, open = On)</td>
</tr>
</tbody>
</table>

**Advanced function "Conditional trigger for Fail Safe Installation"**
ZFM-80US provides an advanced function "Conditional trigger for Fail Safe Installation". It can turn on or turn off the relay if ZFM-80US has not received any Z-Wave commands from a specified Z-Wave Node ID and within a specified period. For example: Z-Wave gateway can monitor a Z-Wave device status and power on equipment if this Z-Wave device is out of service.
Restoring Factory Defaults
All Configuration Parameters can be restored to their factory default settings by using your primary controller to reset the device. (Delete device from the network)

WIRELESS INFORMATION
Wireless range:
This device has an open-air line-of-sight transmission distance of 25m which complies with the Z-Wave standards. Performance can vary depending on the amount of objects in between Z-Wave devices such as walls and furniture. Every Z-Wave device set up in your network will act as a signal repeater allowing devices to talk to each other and find alternate routes in the case of a reception dead spot.

Radio frequency limitations:
1. Each wall or object (i.e; refrigerator, bookshelf, large TV, etc) can reduce the maximum range of 65 feet by up to 25 to 30%.
2. Plasterboard and very thick walls block less of the radio signal then concrete, brick or tile walls which will have more of an effect on signal strength.
3. Wall mounted Z-Wave devices will also suffer a loss of range if they are housed in metal junction boxes which could also reduce the range by up to 25 to 30%.

MAINTENANCE
1. Do not expose your ZFM-80US to dust, strong sunlight, humidity, high temperatures or mechanical shocks.
2. Do not use corrosive or abrasive cleaners on your ZFM-80US.
3. Keep the unit dust free by wiping it with a soft, dry cloth.
4. Do not disassemble your ZFM-80US, it contains no user-serviceable parts.

TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model no.</td>
<td>ZFM-80US 8-DA065</td>
</tr>
<tr>
<td>RF frequency</td>
<td>908.42MHz</td>
</tr>
<tr>
<td>Input voltage</td>
<td>120Vac or 230Vac</td>
</tr>
<tr>
<td>RF operating distance</td>
<td>up to 25m (line of sight between the Wireless Controller and the closest Z-Wave receiver modules.)</td>
</tr>
<tr>
<td>Z-Wave association group</td>
<td>Support 1 association group; Each association group contains 5 nodes max.</td>
</tr>
<tr>
<td>Output relay power rating</td>
<td>(Resistive load) 230 Vac 10A max. or 120 Vac 15A max.</td>
</tr>
<tr>
<td>Dimension</td>
<td>68(L) x 35(W) x 25(H)mm</td>
</tr>
<tr>
<td>Weight</td>
<td>50g metal mount excluded; 70g metal mount included</td>
</tr>
<tr>
<td>Storage</td>
<td>-25-60°C</td>
</tr>
<tr>
<td>Operation</td>
<td>Temperature 0-45°C</td>
</tr>
<tr>
<td>Environment</td>
<td>Indoor use only</td>
</tr>
</tbody>
</table>

Note: Specifications subject to change without notice due to continued product improvement

IC information
IC : 9548A-DA065
This device complies with Industry Canada licence-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.

WARRANTY
Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities. Contact your local government for information regarding the collection systems available.

RISK OF FIRE
RISK OF ELECTRICAL SHOCK
DID NOT QUALIFY FOR INSTRUMENT OF MEDICAL AND LIFE SUPPORT EQUIPMENT
Z-Wave Fixture Switch Module never got qualified certificate to supply power for medical instrument or any life support equipment.

There is no user serviceable parts in the Fixture Switch Module.
Please contact a qualified electrician to install this product. Do not modify the fixture switch module in any way.

WARRANTY
ONE-YEAR LIMITED WARRANTY: Remotec warrants this product to be free from defects in materials and workmanship under normal use and service for a period of one year from the original date of purchase from the distributor or dealer.

REMOTEc shall not be liable for:
- Damages caused by defective devices for indirect, incidental, special, consequential or punitive damages, including, inter alia, loss of profits, savings, data, loss of benefits, claims by third parties and any property damage or personal injuries arising from or related to the use of the device.
- Service trips to provide instruction on product use.
- Shipping costs for replacement products.

This warranty is limited to the repair or replacement of this product only, if the purchase date cannot be substantiated, the warranty period will begin on the date of manufacture as indicated on this product. All warranty claims must be made to Remotec appointed distributors or dealers during the applicable warranty period. This warranty gives you specific legal right and you may also have other rights which vary in each country.

Specifications subject to change without notice due to continued product improvement.

Certifications
FCC Information
FCC ID : 2GDA065
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Warning:
Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user 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 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.

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