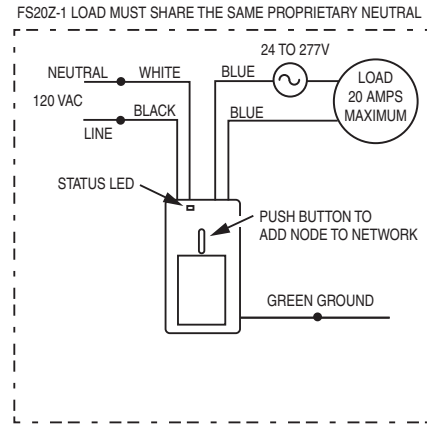
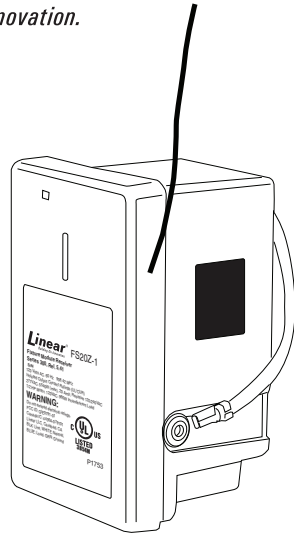


Radio Frequency (RF) Controlled, 120 VAC, Scene Capable,  
Isolated Contact Fixture Module, Series 300



## FS20Z-1 ISOLATED CONTACT FIXTURE MODULE

Linear's family of Z-Wave certified wireless lighting controls (switches, dimmers, outlets and plug-in modules) brings a new level of intelligent wireless capability to commercial and residential environments.

The Z-Wave wireless protocol is an international wireless standard for remote home automation, security and other applications. Embedded in each device, the Z-Wave smart chip enables two-way RF communication among hundreds of Z-Wave enabled devices, allowing products and services from multiple manufacturers to work seamlessly.

Linear Z-Wave products are easy to install, and allow dealers to create an integrated wireless network with nearly limitless expansion and interoperability with security and health monitoring systems, energy management, home entertainment, appliances, and more.

**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. Retain instructions for future use.

## INSTALLATION

Wire this module in series with a (maximum) 20 amp load according to the diagram above. FS20Z-1 are required to be **wired to the same line (or neutral)** which is also wired to the master unit as well as the load being controlled, and not wired to any other neutral. If multiple neutrals are tied together in one box, separate the neutrals to preserve the integrity of the FS20Z-1 circuit.

### Fixture Mounted Configuration

Push the button on the face to configure the module to operate from the wireless controller. With the Wireless Controller, the FS20Z-1 can be switched ON and OFF remotely, and can be included in groups of lights that operate at the same time (a group can also be a single module), and in scenes that set a lighting mood.

### Other Functions

The button on the FS20Z-1 also plays a role as a reset in addition to including the module in groups and scenes. This is described in more detail in the Wireless Controller instructions.

### Over-current Protection

The FS20Z-1 is protected by an internal fuse. This internal fuse is factory serviceable only. Check your home circuit breakers before concluding that the product must be returned to manufacturer for repair at a nominal charge.

### Button (Local Control)

The button on the FS20Z-1 allows the user to:

- Turn the load attached ON or OFF.
- Include or exclude the module in the Z-Wave system:

**STEP 1.** Prepare the Controller to include a unit to the network by adding it to a group (method of adding a node to the network). Refer to controller instructions.

**STEP 2. The FS20Z-1 must be in its permanently installed location.**

- **To add a node:** Tap the button.
- **To remove a node:** Tap the button 3 times, then press and hold (Ex. tap, tap, tap, hold)

**STEP 3.** You should see an indication on your Controller that the "DEVICE WAS INCLUDED" or "DEVICE WAS EXCLUDED" in the network. If attached, an FS20Z-1 ver.2 auxiliary switch can also be used to Include or Exclude the module from the Z-Wave system. When a controller prompts you to "Send Node ID" or to "Press Button on Unit", follow steps 1 through 3 above to satisfy those instructions.

### LED Indication

The LED on the FS20Z-1 will turn on when the load attached is ON. The LED can be user configured however to turn ON when the load attached is OFF, if so desired. The FS20Z-1 will flicker its LED when it is transmitting to any of its 4 groups. This can be changed if desired.

### Remote Control

The FS20Z-1 will respond to BASIC and BINARY and SCENE commands that are part of the Z-Wave system. Refer to your controller's instructions as to whether your controller can transmit those commands.

## ADVANCED OPERATION

### All On/All Off

The FS20Z-1 supports the ALL ON/ ALL OFF commands.

The FS20Z-1 can be set to respond to ALL ON and ALL OFF commands 4 different ways. Refer to your controller for information on how to set the FS20Z-1 to operate in the manner you desire. Some controllers may be only able to set certain settings of ALL ON/ALL OFF response.

The 4 different ways the FS20Z-1 can be setup to respond to ALL ON and ALL OFF commands are:

- FS20Z-1 will not respond to ALL ON or the ALL OFF command.
- FS20Z-1 will respond to ALL OFF command but will not respond to ALL ON command.
- FS20Z-1 will respond to ALL ON command but will not respond to ALL OFF command.
- FS20Z-1 will respond to ALL ON and the ALL OFF command.

## SPECIFICATIONS

<b>Power:</b>	120 VAC, 50/60 Hz
<b>Signal:</b>	(Frequency): 908.42 MHz
<b>Maximum Load:</b>	Isolated Contacts: 20 amps G.P. maximum, 277 VAC, 10FLA, 60LRA, 250VAC, Motor: 1 H.P. maximum, 120/240 VAC
<b>Incandescent:</b>	TV8 (Tungsten), 120 VAC, 960W maximum
<b>Range:</b>	Up to 100 feet line of sight between the Wireless Controller and /or the closest Z-Wave Receiver Module

## INTEROPERABILITY WITH Z-WAVE™ DEVICES

A Z-Wave™ network can integrate devices of various classes, and these devices can be made by different manufacturers. The FS20Z-1 can be incorporated into existing Z-Wave™ networks. The button on the face of the FS20Z-1 can be used to carry out inclusion, association, or exclusion.

## REGULATORY INFORMATION

The FS20Z-1 is certified to comply with applicable FCC and IC rules and regulations governing RF and EMI emissions. 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.

### FCC NOTICE

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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## IC NOTICE

This Class B digital apparatus complies with Canadian ICES-003

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada. Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada. 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

This Linear product is warranted against defects in material and workmanship for twelve (12) months. **This warranty extends only to wholesale customers** who buy direct from Linear or through Linear's normal distribution channels. Linear does not warrant this product to consumers. Consumers should inquire from their selling dealer as to the nature of the dealer's warranty, if any. **There are no obligations or liabilities on the part of Linear Corporation for consequential damages arising out of or in connection with use or performance of this product or other indirect damages with respect to loss of property, revenue, or profit, or cost of removal, installation, or reinstallation.** All implied warranties, including implied warranties for merchantability and implied warranties for fitness, are valid only until Warranty Expiration Date as labeled on the product. **This Linear LLC Warranty is in lieu of all other warranties express or implied.**

All products returned for warranty service require a Return Product Authorization Number (RPA#). Contact Linear Technical Services at 1-800-421-1587 for an RPA# and other important details.

### IMPORTANT !

Linear radio controls provide a reliable communications link and fill an important need in portable wireless signaling. However, there are some limitations which must be observed.

- For U.S. installations only: The radios are required to comply with FCC Rules and Regulations as Part 15 devices. As such, they have limited transmitter power and therefore limited range.
- A receiver cannot respond to more than one transmitted signal at a time and may be blocked by radio signals that occur on or near their operating frequencies, regardless of code settings.
- Changes or modifications to the device may void FCC compliance.
- Infrequently used radio links should be tested regularly to protect against undetected interference or fault.
- A general knowledge of radio and its vagaries should be gained prior to acting as a wholesale distributor or dealer, and these facts should be communicated to the ultimate users.