Forest IMS User Manual

Forest IMS is a Z-Wave enabled drapery track motor that can be operated by any Z-Wave enabled controller. In addition to Z-Wave wireless control, Forest IMS comes with pushbuttons and dry contact inputs for manual motor operation.

Two versions are available, a 110V and a 230V motor. The 110V is intended for US market and operates at the 908 MHz US Z-Wave frequency. The 230V is intended for the European market and operates at the 868 MHz EU Z-Wave frequency.

Features

1. Drapery track can be operated by any Z-Wave enabled controller operating on the appropriate frequency.
2. US 110V and European 230V versions.
3. Dry contact closure interface.
4. Automatic limit setting on first operation to each end of drapery track.
5. Limits are manually administerable.
6. Administerable motor reverse.
7. Clear limits and reset to factory administerable options..

Button Definitions

Looking at the motor controller there are three buttons, the leftmost is just to the right of the RJ45 connector. From left to right the buttons will be are "Open" or button 1, "Close" or button 2, and "Learn" or button 3.

LED Definitions

There are two colors Yellow and Green LEDs in the RJ45 connector. The left (green) LED will be called "Motor LED" and the right (yellow) LED will be called "Z-Wave LED".

The Motor LED displays indications and information related to the operation of the motor controller. The Z-Wave LED displays indications and information related to the communication of the motor controller with the Z-Wave remote (or other controllers).

A flashing motor LED a second or so after power up indicates the controller does not have its limits set and cannot respond to Z-Wave SET and GET commands appropriately. The LED will flash until the limits are set.

A solid Z-Wave LED on power up indicates the Z-Wave processor failed to communicate with the motor processor and the motor controller cannot respond to Z-Wave commands. A short blink of the Z-Wave LED indicates a Z-Wave communication was received and responded to appropriately.

Basic operation

The Open and Close buttons are used to manually operate the motor, set limits, and Administer the configurable options of the Forest IMS controller. Pressing and releasing either Open or Close with the motor stopped will operate

the motor in the appropriate direction. Pressing and releasing either Open or Close with the motor running will stop the motor.

Learning into a Z-wave network/transmitter

Follow the instructions for the z-wave controller into which you wish to learn the motor to put the controller into learn mode. Next press and release the Z-Wave "learn" button on the motor. The Z-Wave LED on the motor will blink once green. The controller should respond with an indication that the motor was successfully learned. The motor should be learned into the controller as a slave with generic device class "Multilevel Switch", specific device class "Multiposition Motor".

Setting Limits Automatically

To set limits automatically, press and releasing the open or close button and allow the motor to run to stall. Press and release the button for the opposite direction and allow the motor to run to stall. Allowing the motor to run to the end in both directions will record those positions as a limit. Automatic limit setting adds a position offset of 1/8" (3.2mm) from the stall position at the close limit to avoid the loud banging caused by hitting the end of the drapery track. It also adds a position offset of 2" (50mm) from the stall position at the open limit to avoid the unsightly appearance of the drapery bunching together.

Setting Limits Manually

To set a limit manually, operate the motor in the appropriate direction by pressing and releasing the open or close button, then stop it at the desired limit position by pressing and releasing either open or close. Repeat as necessary until the motor is stopped in the desired limit position. If you are setting the limit for the drapery open position, press and hold the open button for 10 seconds. If you are setting the limit for the drapery closed position, press and hold the close button for 10 seconds. Pressing and holding either open or close for 10 seconds with the motor running will be ignored. If the limit being set was previously defined, its previous setting is overwritten and the most recently defined limit takes precedence.

Note

In the event of the drapery motor losing power, if the drape is moved physically by hand, the limit setting will be incorrect, and the limits will need to be reset as per above. Follow the procedure for clearing the limits and then follow the procedure for setting limits automatically or manually.

Administrative Options

Entering Administration Mode

Press and hold both Open and Close for 10 seconds. The Motor LED will light solid. The controller will remain in Administrative mode for 10 seconds after releasing both buttons. After 10 seconds the LED will extinguish indicating the controller has exited administrative mode.

Reverse Motor

1. Enter administrative mode
2. Press and release Open while in administrative mode to toggle the direction of the motor. This will be indicated by a short flash on the motor LED. Toggling the direction will also clear any previously defined limits, and the Motor LED will flash after exiting administration mode to indicate the limits have been cleared.

Clear Limits

1. Enter administrative mode.
2. Press and release Close while in administrative mode to clear the programmed limits. This will be indicated by a short flash on the motor LED. The Motor LED will flash after exiting administration mode to indicate the limits have been cleared.

Reset To Factory

1. Enter administrative mode.
2. Press and release both Open and Close simultaneously to reset the motor to factory defaults. This will clear limits, reset the motor direction, and clear Z-Wave network information.

WARNING!

Resetting a motor to factory that has been included into a Z-Wave network will effectively orphan the motor from the network, causing the Z-Wave Controller to be unable to control the drapery motor. It may cause other problems for the Z-Wave network such as 1) slow network operation, 2) failure of Controller(s) to communicate with other nodes in the Z-Wave network. Do not use factory reset on an IMS motor that is part of a working Z-Wave network to clear the limits. Use the *Clear Limits* feature instead. Do not use factory reset on an IMS motor that is part of a working Z-Wave network to remove it from the network. Follow the directions for the Z-Wave controller to Exclude a slave from the network. If the Z-Wave network is controlled by a single Z-Wave Controller that does not provide an *Exclude from Network* feature, then the Z-Wave Controller must be reset to factory, and ALL SLAVE NODES must be reset to factory.

NOTE
 The Forest IMS Motor is a Z-Wave enabled device and is fully compatible with any Z-Wave enabled network. Z-Wave enabled devices displaying the Z-Wave logo can also be used with Forest IMS regardless of the manufacturer. Forest IMS can also be used in other manufacturer's Z-Wave enabled networks and all listening devices act as repeaters, regardless of vendor.

NOTE
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.
Changes or modifications not expressly approved by Forest Group and Electronic Solutions, Inc. could void the user's authority to operate the equipment.