V A N T A G E

I n s t a l l a t i o n

1061 South 800 East • Orem, Utah 84097 • Telephone 801.229.2800 • Fax 801.224.0355 • Website www.vantageinc.com

RDSx Dimmer

Overview

The Vantage RF Dimmer Station is a wall box dimmer that connects to the Vantage Control System. It is available in 1-4 load configurations that can be mounted respectively in 1-4 gang back boxes. It is powered via the local line feed, and communicates with the system through a radio transceiver. Before the dimmer is programmed, or if communication is lost, the dimmer functions in default mode as an independent dimmer. Once a button is programmed it can perform any operation that a standard station supports controlling its own or other loads. Any load on the dimmer can be controlled by any other keypad, IR input or timed event. It supports up to eight keypad buttons, and an optional internal IR receiver.

System Requirements

Master Controller firmware version 5.92 or higher and Q-Link software version 3.10 or higher is required for proper operation.

Minimum Back Box Dimensions

Number of Gangs	Minimum Back Box Dimensions
1	2.80”h x 1.80”w x 2.5”d
2	2.80”h x 3.60”w x 2.5”d
3	2.80”h x 5.40”w x 2.5”d
4	2.80”h x 7.20”w x 2.5”d

With these dimensions most standard back boxes that have the receiving threads for the Dimmer mounting screw inside the box will be adequate. Most back boxes where the receiving threads are outside the box will be too small.

Load Ratings

Number of Gangs	Maximum Rating at 120V 60Hz
1	5A, 600W
2	8.3A, 1000W
3	12.5A, 1500W
4	16.7A, 2000W

No individual load can exceed 5A, 600W.

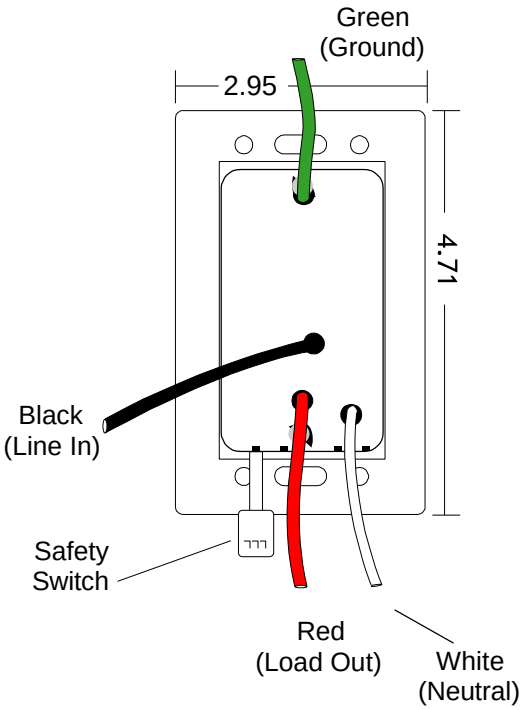
The RF Dimmer Station is for control of incandescent or low voltage magnetic lamp fixtures only.

This unit shall be provided with a maximum of 30 Amps non-time delay suitable branch circuit protection.

CAUTION: To reduce the risk of overheating and possible damage to other equipment, do not install to control a receptacle or a motor-operated appliance.

Installation

Turn the circuit breaker off and make sure no voltage is present where the RF Dimmer Station is mounted. Damage caused by failure to disconnect power may avoid warranty and is a risk to the installer. In its standard configuration, the RF Dimmer Station requires Neutral to operate. If operation without Neutral is required, a non-Neutral stations must be specified when ordering. When installing a station without Neutral, the highest wattage load should be connected to the first gang. The Green ground lead must be connected to the structures safety ground.



Dimmer Station Set Up with Q-link

To add an RF Dimmer Station in Q-Link, right click on the room and from the pop-up menu, select Add Station/Dimmer from the station list. This will reveal the *Dimmer Station Definition Box*. Select the number of buttons and loads according to the configuration of your dimmer station and click OK. Right click on the button you are programming and select Program. This will reveal the *Event Programming Dialog Box*. Complete the programming by selecting the desired Sta. Loads, functions and conditions.

Configuration

The RF Dimmer Stations need to be configured to associate which physical station goes with the station in Q-link.

When the Dimmer Station is initially powered-up, the Status LED will blink twice followed by a pause - this means the station is connected correctly but not yet configured. From the menu bar in Q-Link, select System/Configure Stations. A list of all stations will be displayed on the screen. Select the RF Dimmer Station press the Configure radio button in the Online Configuration section of the window. Enter the serial numbers of all RF Dimmer Stations to configure them. The Status LED will blink steadily when a station is configured.

Service Switch

An off switch is provided to disconnect power between the Station and the fixture for lamp replacement. Service other than lamp replacement requires the breaker to be switched off.

Default Mode

The RF Dimmer Station has a default mode that operates without programming or being connected to the Vantage System. If a Dimmer has been programmed but communication with the controller is lost the Dimmer will revert to default operation. Multiple gang Dimmers loads are numbered from left to right.

Station Type	Button to Load Mapping
1-gang Dimmer	All buttons control the one load.
All buttons in first (left) gang. One column of buttons	The top button controls first load. Second button controls second load etc.
All buttons in first gang. Two columns of buttons.	Top left button controls first load. Top right button controls second load. Second row left button controls third load. Second row right button controls fourth load.
One or two buttons per gang.	Each button(s) controls the load in its gang.

When default is the desired operation for a button, it can be left unprogrammed and will continue to operate in default mode even if other buttons on the dimmer are programmed.

When power is restored from a power outage the Dimmer will return the loads to the last load level. This will occur whether or not the Dimmer is connected to a system.

Default Operation

Button Action	Load Operation
Single Press	The load toggles between off and the learned level. The turn on ramp time is 1.5 seconds and the turn off fade time is 5 seconds.
Double Press	The load ramps to 100% in 1.5 seconds. The second press must be within 1 second of the first press.
Press and Hold	After a one second delay the load will ramp in the opposite direction from the last press and hold. If the load reaches 0 or 100% it will reverse direction. When the button is released the current load level will be saved as the new learned level for that button. The cycle time is 5 seconds from 0-100%.

When multiple buttons control the same load, each button will have its own learn level.

Default IR Mode

If the Dimmer has the optional IR receiver, the Dimmer will have a default IR mode that is active when the RF Dimmer Station is not communicating with a system or when none of the Scene Codes in its IR Zone have been programmed.

The Scene Codes 230-239 are transmitted by the Scene buttons 1-10 on the Vantage IR Remote Control.

The Scene buttons 1-4, codes 230-233, controls loads 1-4 operating the same as the default operation for a button. Scene 9, code 238, will turn all station dimmer loads on. Scene 10, code 239, will turn all station dimmer loads off.

Unlike the buttons, if any IR Scene button is programmed all of the IR Scene buttons stop executing default operation.

Reset

The Dimmer stores the configuration data locally so that it will continue to operate correctly if communication with the system is lost. This information includes: LED properties, sounder properties, load profile, last load level, and default learn levels.

To reset this information to the factory default, press and hold switches 1-3 when power is applied to the station. The board will respond by sounding three slow beeps to indicate that the reset took place. Since buttons do not need to be installed in switches 1-3, the faceplate may need to be removed so that the switch matrix can be pressed directly.

After a reset the load profile will be Default, the learn levels will be 50%, the loads will all be off, and other settings will be at factory default.

Diagnostic Information

If the faceplate is removed the Status LED can be seen in the approximate middle of the station's switch matrix. The Status LED blinks evenly or flashes 2, 3, 4 or 5 times followed by a pause to indicate status information.
Off: The station is not powered. A line voltage connection has not been made or the line feed breaker is off.
Even blink: Station is operating correctly and is configured.
Two blinks: Station is operating correctly but is not configured.
Three blinks: Station is not communicating with the Master Controller. Verify that station bus wiring conforms to Vantage guidelines.
Four blinks: Dimmer problem. Please contact the factory.
Five blinks: Configuration mode.

FCC ID: PII-RDS1000
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.

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 to this product not expressly approved by Vantage Controls could void the user's authority to operate this product.