

Crestron **UFO-WPR-3ER**

UFO Waterproof Wireless LCD Remote
Operations Guide



This document was prepared and written by the Technical Documentation department at:



Regulatory Compliance

As of the date of manufacture, the UFO-WPR-3ER has been tested and found to comply with specifications for CE marking and standards per EMC and Radiocommunications Compliance Labelling.



Federal Communications Commission (FCC) Compliance Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following 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.

CAUTION: Changes or modifications not expressly approved by the manufacturer responsible for compliance 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 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 (IC) Compliance Statement

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.

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.

Industrie Canada (IC) Déclaration de conformité

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.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

The specific patents that cover Crestron products are listed at patents.crestron.com.

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UFO Waterproof Wireless LCD Remote: UFO-WPR-3ER

Introduction

Its distinctive round shape and rubberized skin indicates this is no ordinary remote. The feature-packed waterproof remote takes control beyond, not to another planet but to the pool, hot tub, shower or out to sea! With Crestron® Extended Range Wireless technology, the UFO-WPR-3ER can go to the outer reaches of the home or yacht.

Features and Functions

- Waterproof handheld remote with color LCD display
- Ideal for use around the pool or hot tub, in the bath or shower or on a boat or yacht
- Floats on top of the water's surface – immersible to 10 feet (~3 meters)
- Safe for use in chlorinated and salt water environments
- Marine blue rubberized exterior is easy to spot and does not slip from grip
- Included wrist lanyard keeps the remote at hand
- Includes indoor desktop docking station¹
- Optional outdoor docking station (sold separately) holds remote securely at any angle and wind speeds up to 55 mph (~48 kn)
- Features a 2.8" (72 mm) active matrix color LCD display and intuitive menu driven user interface
- Provides true feedback with dynamic text capability
- Displays full color icons and status indicators
- Includes tactile buttons for common functions and menu navigation
- Extended range 2.4 GHz RF wireless technology allows up to to 200 feet (~61 meters) RF range indoors, 1000 feet (~305 meters) outdoors²
- Features Instant-Waking® behavior

1. Surface mounting the UFO-WPR-3ER-DS docking station possible using two #06-32 mounting bolts (not supplied). Surface mounting requires access to the underside of the mounting surface. Bolts must not protrude more than 1/4" (6 mm) into the docking station or damage occurs. For wall mount and outdoor applications, use model UFO-WPR-3ER-DSCE (sold separately).
2. Wireless range subject to site-specific conditions.

Features and Functions

(Continued)

- Works like an IR remote - with all the benefits of 2-way RF!
- Affords several hours or days of use between charges
- Customizable via VT Pro-e®

Waterproof for Any Use

The UFO Waterproof Remote is ideal for a wide range of uses with the distinct benefit of being completely waterproof. Use it in the shower, bath or hot tub to safely control the entertainment system, the security system and cameras, the lights and even the spa settings. Use it around the pool or anywhere outdoors without concern if it should fall in the water or get rained on. Even on the deck of a luxury sailboat or yacht, whether docked at the marina or cruising out in open waters, the UFO Waterproof Remote delivers all the benefits of an advanced wireless handheld controller for the seafaring home away from home.

A Remote That Floats

Encased in a rugged, rubberized skin, the UFO Waterproof Remote is completely immersible to 10 feet (~3 meters) and can withstand the corrosive effects of chlorinated water and salt water. It is easy to hold and does not slip from moist hands but drop it in the water and it simply floats on the surface. A wrist lanyard is included, to keep the UFO Waterproof Remote always at hand.

Wet and Dry Docking Options

The UFO Waterproof Remote ships with an indoor desktop docking station (model UFO-WPR-3ER-DS¹). The indoor docking station sits on a table or countertop², providing a convenient means for charging the remote's internal battery.

The outdoor docking station (model UFO-WPR-3ER-DSCE, sold separately) provides a completely weatherproof charging solution. It also provides an ideal wall mount dock for both outdoor and indoor applications and is compatible with US and European 1-gang electrical boxes. High-powered magnets hold the remote securely at any angle while docked, even at wind speeds up to 55 mph (~48 kn), keeping the UFO Waterproof Remote safely in place through windstorms and rough seas.

Color LCD Display

Intuitive control of an entire home or sea vessel is provided through a brilliant user interface (UI) that is simple to use and just as simple to configure. Featuring customizable menus and full color icons, the UFO Waterproof Remote makes it easy to select a location, pick a music or video source, choose a radio station, TV channel or media title and access lighting controls and other functions.

1. Item included. Refer to separate product specifications for additional information.
2. Surface mounting the UFO-WPR-3ER-DS docking station possible using two #06-32 mounting bolts (not supplied). Surface mounting requires access to the underside of the mounting surface. Bolts must not protrude more than 1/4" (6 mm) into the docking station or damage occurs. For wall mount and outdoor applications, use model UFO-WPR-3ER-DSCE (sold separately).

Navigating the UI is facilitated using the Home, Page Up, Page Down and MenuBack buttons along with four “hard key” buttons to the left of the display. From the home menu, one can quickly jump to control pages and info screens such as media, lighting, climate control, security and weather. The room selection page allows the choice of controlling the local room or zone or any other room or zone. From any page, simply press Page Up or Page Down to move through the menu, then press the appropriate hard key to select the desired lighting present, music or movie title, TV or radio channel or any other menu item. Pressing the MenuBack button reverts to the previous page.

On each page, the UI provides true feedback to indicate the status of the item being controlled, even if it is situated in a different room. Audio volume and lighting levels are clearly indicated using bar graphs. Room temperature and security system status can be viewed and controlled without leaving the hot tub. Metadata is also displayed to provide complete information about the currently playing song, movie, TV program or radio station. Even weather conditions are available through the Crestron Weather application.

Tactile Push Buttons

A concise assortment of tactile push buttons makes for an intuitive user experience, providing quick access to audio volume, power control, on-screen menu navigation and other functions. In addition to navigating the onboard LCD, every button is also programmable through the control system to allow precisely the control desired.

Extended Range Wireless

Crestron Extended Range 2.4 GHz RF technology achieves wireless performance up to 200 feet (~61 meters) indoors and 1000 feet (~305 meters) outdoors, using the CEN-ERFGW-POE Extended Range RF Wireless Gateway (sold separately)*. A range of selectable RF channels and power levels helps to maximize performance for any size residence, office building, hotel, ship or other facility. Fully bidirectional communication affords the capabilities of a wired remote in a fully wireless portable package.

Instant-Waking

To ensure the most transparent user experience possible, the UFO Waterproof Remote has been engineered to wake instantly at the press of any button. Button presses are sent immediately, just like an IR remote but with none of IR's limitations. So spontaneous actions like muting the audio or changing the channel can be executed on the fly with just a single button press.

Extended Battery Life

Instant-Waking[®] also allows the UFO Waterproof Remote to be put to sleep within seconds of putting it down, helping to extend its battery life for several days of typical usage on a single charge. Even under continuous use at full brightness, the remote lasts an incredible seven hours!

* Wireless range subject to site-specific conditions.

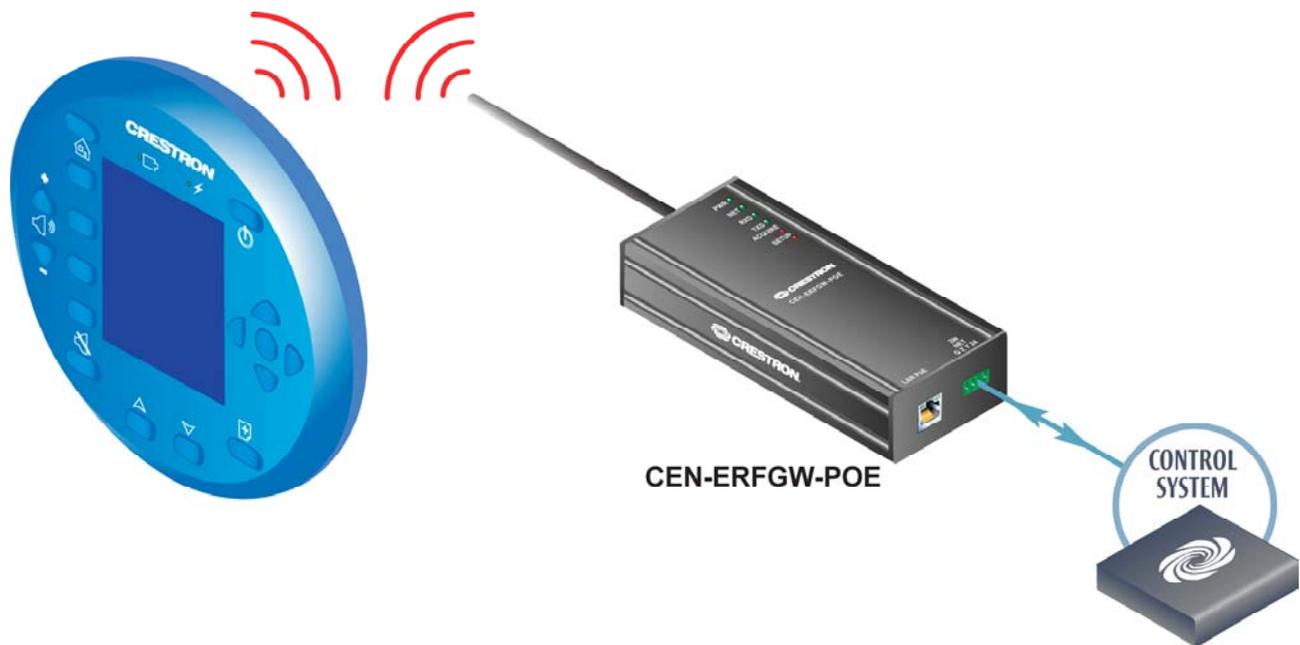
Simplified Programming

Configuring the UFO-WPR-3ER is made easy through the dialog-based program editor within Crestron VT Pro-e[®] software. Apply full color icons from the library provided to designate each menu, control page and channel preset. Uploading the configuration project is facilitated through a USB connection on the UFO-WPR-3ER-DS Indoor Desktop Docking Station.*

Applications

The following diagram shows a UFO-WPR-3ER in a typical application.

UFO-WPR-3ER in a Typical Application



* Item included. Refer to separate product specifications for additional information.

Specifications

Specifications for the UFO-WPR-3ER are listed in the following table.

UFO-WPR-3ER Specifications

SPECIFICATION	DETAILS
LCD Display	
Display Type	TFT active matrix color LCD
Size	2.8 in (72 mm) diagonal
Aspect Ratio	3:4 QVGA (portrait orientation)
Resolution	240 x 320 pixels
Brightness	350 nits typical
Contrast	500:1 typical
Color Depth	16-bit, 64k colors
Viewing Angle	±75° horizontal, +75°/-55° vertical
Illumination	LED backlit
Graphic Engine	Built-in customizable control pages, scrolling menus and dynamic objects; 16-bit color depth; configurable via VT Pro-e
Wireless	
Transceiver	2-way RF, 2.4 GHz ISM channels 11-26 (2400 to 2483.5 MHz), IEEE 802.15.4 compliant
Transmitting Power	75 mW (Ch. 11), 100 mW (Ch. 12-23), 15 mW (Ch. 24), 3.5 mW (Ch. 25), 1 mW (Ch. 26) @ high setting; 1 mW (Ch. 11-25), 0.5 mW (Ch. 26) @ low setting
Range (typical)	100-200 feet (~30-61 meters) maximum indoor, 1000 feet (~305 meters) outdoor, subject to site-specific conditions
Gateway	Requires a CEN-ERFGW-POE Extended Range RF Wireless Gateway (sold separately)
Roaming	Roaming among multiple gateways is not supported
Battery	
Internal Battery	Lithium Ion, 3.7 VDC, 1400 mAh
Usage Per Charge	Seven hours continuous at full brightness
Charging Time	2.5 hours
Cycle Life	>80% capacity after 300 cycles
Power Requirements	
Power Pack	1.2 Amps @ 5 Volts DC; 100-240 Volts AC, 50/60 Hz power pack included; Power connection made via the UFO-WPR-3ER-DS ¹ docking station
Default RF ID	03
Minimum 2-Series Control System Update File ^{2,3}	Version 3.155.1240 or later

(Continued on following page)

UFO-WPR-3ER Specifications (Continued)

SPECIFICATION	DETAILS
Environmental	
Temperature	32° to 131° F (0° to 55° C)
Humidity	10% to 100% RH (non-condensing)
Heat Dissipation	20 BTU/Hr
Enclosure	High impact, rubberized plastic; watertight at a depth of 10 feet (~3 meters); chlorinated and salt water tolerant; includes optional wrist lanyard assembly
Dimensions	
Height	1.30 in (33 mm) ⁴
Width	5.15 in (131 mm)
Depth	5.15 in (131 mm) 5.66 in (144 mm) with wrist lanyard assembly
Weight	9 oz (256 g)
Included Accessories	
UFO-WPR-3ER-DS	Indoor Desktop Docking Station
Power Pack	5 Volt Power Pack, Universal
Available Accessories	
CEN-ERFGW-POE	Extended Range RF Wireless Gateway
CENI-ERFGW-POE	Extended Range RF Wireless Gateway, International Version, 230V
UFO-WPR-3ER-DSCE	Indoor/Outdoor Docking Station

1. Item included. Refer to separate product specifications for additional information.
2. The latest software versions can be obtained from the Crestron Web site. Refer to the NOTE following these footnotes.
3. Crestron 2-Series control systems include the AV2 and PRO2. Consult the latest Crestron Product Catalog for a complete list of 2-Series control systems.
4. Combined height of the UFO-WPR-3ER remote docked on the UFO-WPR-3ER-DS docking station is 2.13 in (54 mm).

NOTE: Crestron software and any files on the Web site are for authorized Crestron dealers and Crestron Authorized Independent Programmers (CAIPs) only. New users must register to obtain access to certain areas of the site (including the FTP site).

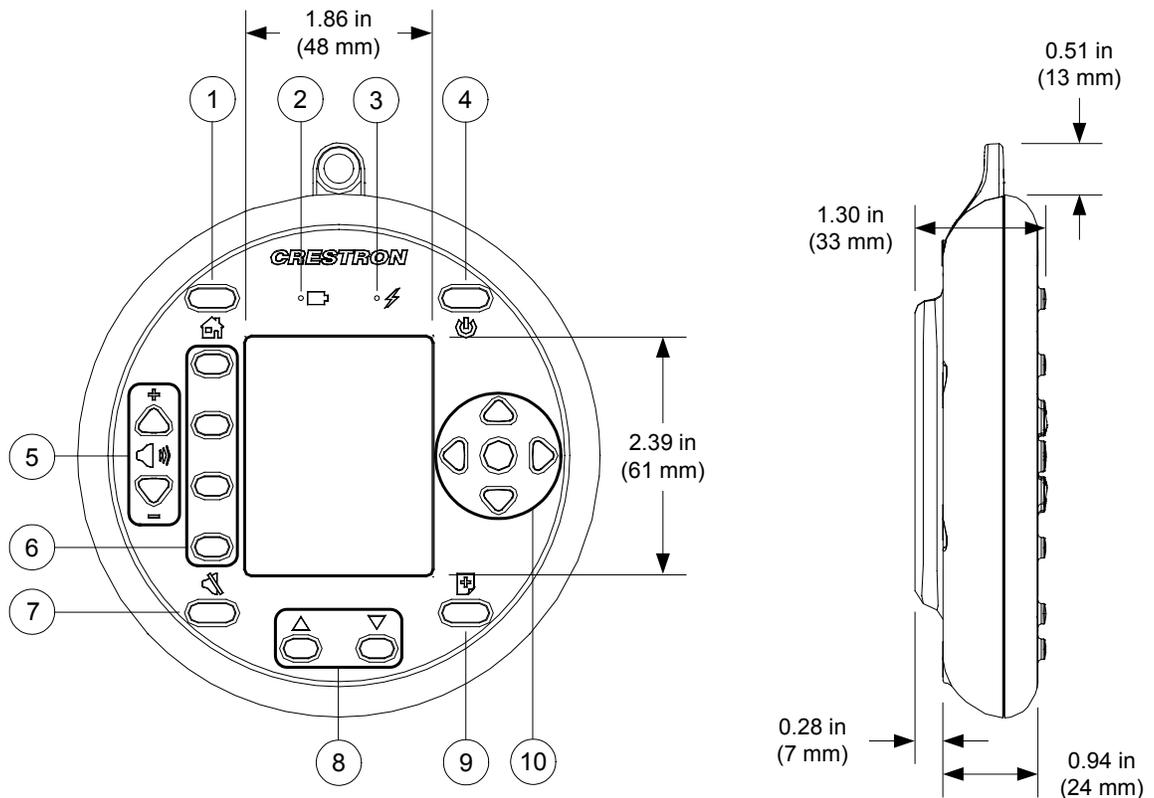
Physical Description

This section provides information on the connections, controls and indicators available on the UFO-WPR-3ER.

UFO-WPR-3ER Physical View



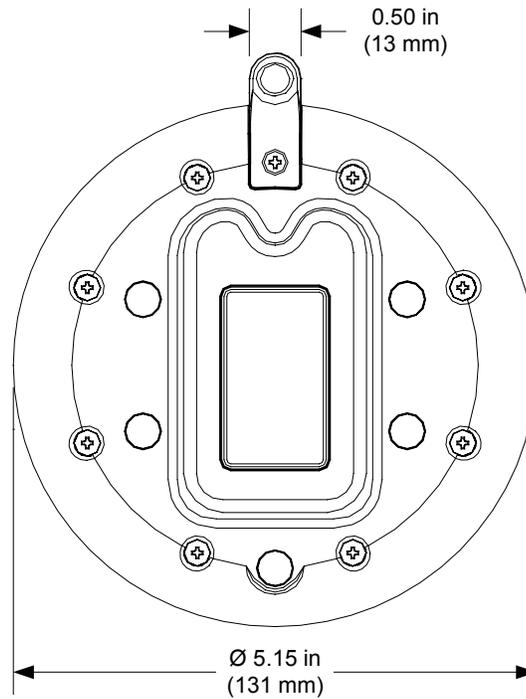
UFO-WPR-3ER Overall Dimensions (Top and Side Views – Shown with Lanyard Loop)



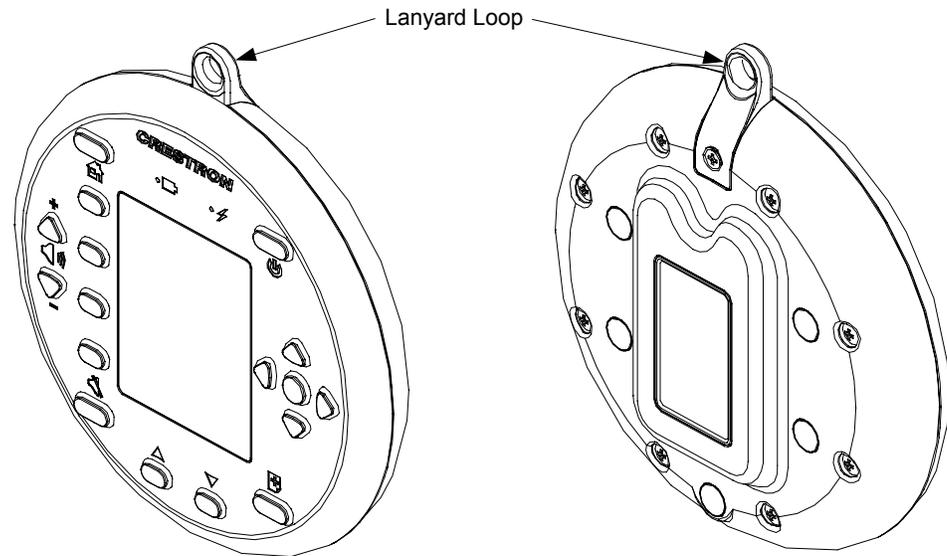
Connectors, Controls & Indicators

#	CONNECTORS, CONTROLS & INDICATORS	DESCRIPTION
1	Home Button	(1) Programmable push button, returns to home menu
2	Battery LED	(1) Red LED, indicates battery level is low
3	Charge LED	(1) Green LED, indicates battery is charging
4	Power Button	(1) Programmable push button, for system power control, resets the remote if held for over five seconds
5	Volume +/- Buttons	(2) Programmable push buttons, for audio volume control
6	Hard Keys	(4) Programmable push buttons at left of display, execute the adjoining command in the display
7	Mute Button	(1) Programmable push button, for audio mute control
8	Page Up/Down (▲/▼) Buttons	(2) Programmable push buttons, for navigating the current menu
9	MenuBack Button	(1) Programmable push button, reverts to the previous menu page
10	D-Pad (Navigation Pad)	(5) Programmable push buttons comprising a 5-way thumb pad (4-way navigation plus "select")

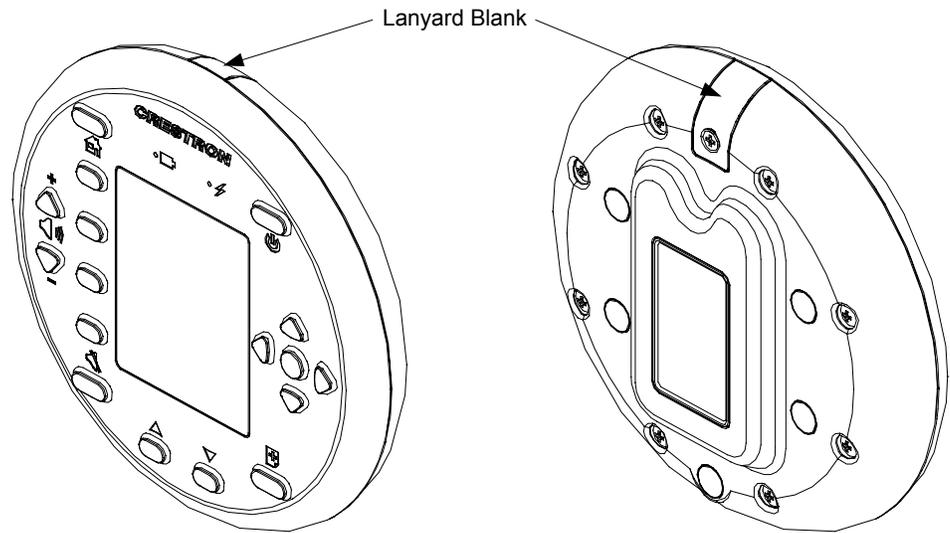
UFO-WPR-3ER Overall Dimensions (Bottom View – Shown with Lanyard Loop)



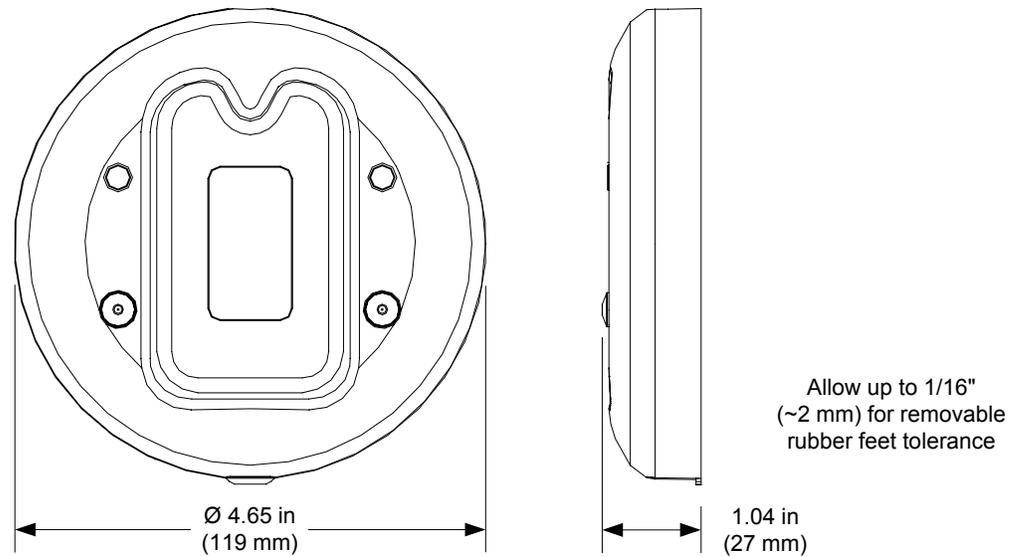
UFO-WPR-3ER (Top and Bottom Views – Shown with Lanyard Loop)



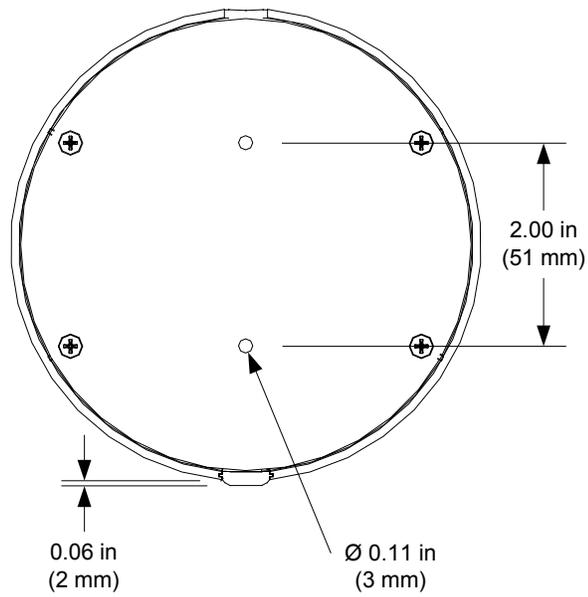
UFO-WPR-3ER (Top and Bottom Views – Shown with Lanyard Blank)



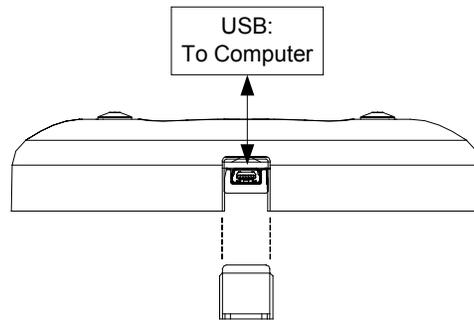
UFO-WPR-3ER-DS Docking Station/Charger Dimensions (Top and Side Views)



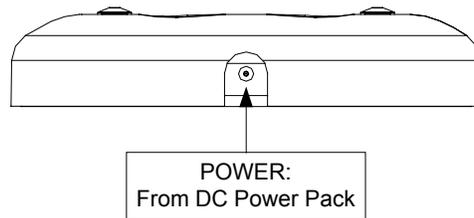
UFO-WPR-3ER-DS Docking Station/Charger Dimensions (Bottom View)



UFO-WPR-3ER-DS Docking Station/Charger (Front View)



UFO-WPR-3ER-DS Docking Station/Charger (Rear View)



Setup

Identity Code

Every UFO-WPR-3ER communicating via RF with a Crestron control system through a CEN-ERFGW-POE RF gateway requires a unique RF ID. The RF ID is a two-digit hexadecimal number that can range from 03 to 12. The RF ID of the unit, set using Crestron Toolbox™, must match the RF ID specified in the SIMPL Windows program.

Power

The UFO-WPR-3ER is powered via its internal battery. Connect the included power supply to the UFO-WPR-3ER-DS docking station.

NOTE: Before using the UFO-WPR-3ER for the first time, charge its internal battery for at least two hours by placing it on the UFO-WPR-3ER-DS docking station.

It takes the UFO-WPR-3ER about two and a half hours to recharge while in use. A fully charged battery can provide up to seven hours of use at the full screen brightness setting.

The battery recharge capacity is >80% after 300 cycles.

CAUTION: Ensure the UFO-WPR-3ER is dry before placing it on the docking station.

NOTE: When not using the UFO-WPR-3ER, store the unit on its docking station.

NOTE: The UFO-WPR-3ER can become unresponsive when battery strength is low.

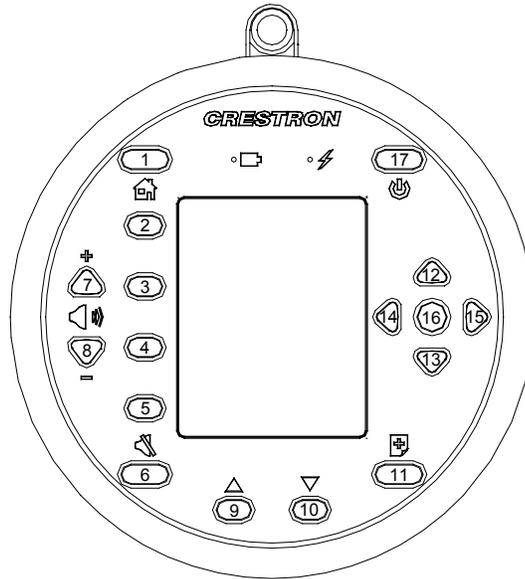
NOTE: The battery is not user replaceable; the UFO-WPR-3ER must be returned to the factory for battery replacement. Refer to “Return and Warranty Policies” on page 35 for more information.

Configuring the Remote

NOTE: If no project has been loaded or if an invalid project has been loaded, the UFO-WPR-3ER defaults to the “System Setup” menu.

The setup screens allow basic configuration procedures prior to regular operation of the UFO-WPR-3ER. To enter the setup screens, press hard keys 1, 2, 3 and 4 twice in sequence (i.e., 1, 2, 3, 4, 1, 2, 3, 4). Refer to the illustration on the following page, for button numbering.

Push Button Numbering



The “System Setup” menu opens, as shown in the following illustration. The functions provided by each selection are detailed in subsequent paragraphs.

“System Setup” Menu

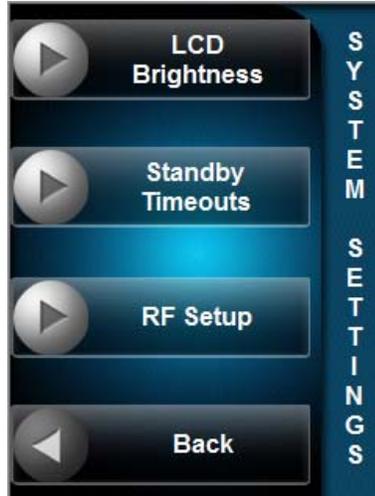


The “System Setup” menu is divided into *System Settings*, *Diagnostics* and *About* sections.

System Settings

From the “System Setup” menu, press the hard key next to *System Settings* to open the “System Settings” menu, shown in the following illustration.

“System Settings” Menu



The “System Settings” menu is divided into three sections: *LCD Brightness*, *Standby Timeouts* and *RF Setup*. This and all subsequent screens include a *Back* selection. Pressing the hard key next to *Back* returns to the previous screen.

LCD Brightness

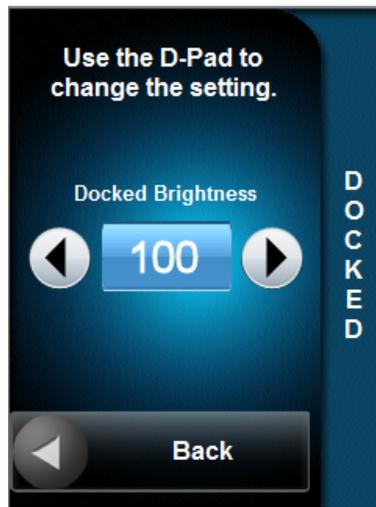
From the “Systems Settings” menu, press the hard key next to *LCD Brightness* to open the “LCD Brightness” menu, shown in the following illustration.

“LCD Brightness” Menu



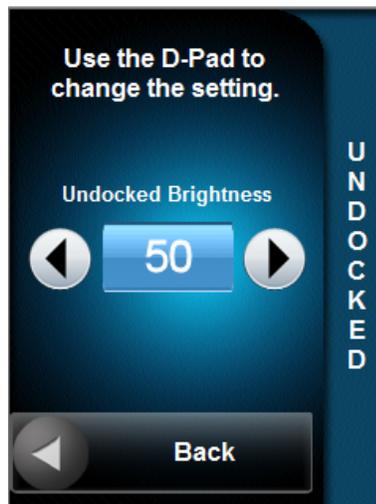
The “LCD Brightness” menu is divided into two sections: *Docked Brightness* and *Undocked Brightness*.

Press the hard key next to *Docked Brightness* to open the LCD brightness “Docked” screen, shown in the following illustration.

LCD Brightness “Docked” Screen

The left and right buttons on the D-Pad (5-way navigation pad) to the right of the screen are used to adjust the screen brightness, within a range from 0 to 100, when the UFO-WPR-3ER is docked.

From the “LCD Brightness” menu, press the hard key next to *Undocked Brightness* to open the LCD brightness “Undocked” screen, shown in the following illustration.

LCD Brightness “Undocked” Screen

The left and right buttons on the D-Pad (5-way navigation pad) to the right of the screen are used to adjust the screen brightness, within a range from 0 to 100, when the UFO-WPR-3ER is not docked.

Standby Timeouts

From the “System Settings” menu, press the hard key next to *Standby Timeouts* to open the “Standby Timeouts” menu, shown in the following illustration.

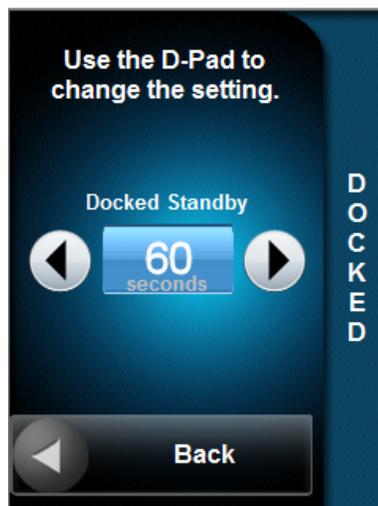
“Standby Timeouts” Menu



The “Standby Timeouts” menu is divided into two sections: *Docked Timeouts* and *Undocked Timeouts*.

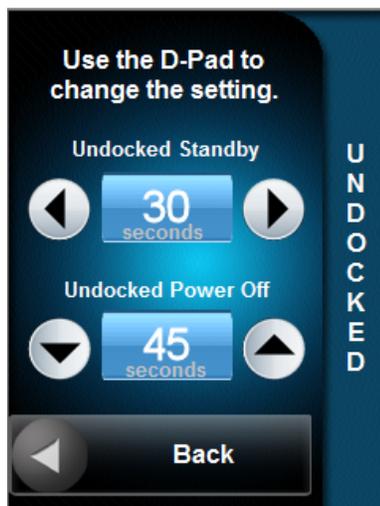
From the “Standby Timeouts” menu, press the hard key next to *Docked Timeouts* to open the standby timeouts “Docked” screen, shown in the following illustration.

Standby Timeouts “Docked” Screen



The left and right buttons on the D-Pad (5-way navigation pad) to the right of the screen are used to adjust the amount of time before the UFO-WPR-3ER display “sleeps” when it is docked. Adjustment is in five second increments from 0 to 120 seconds.

From the “Standby Timeouts” menu, press the hard key next to *Undocked Timeouts* to open the standby timeouts “Undocked” screen, shown in the following illustration.

Standby Timeouts “Undocked” Screen

The left and right buttons on the D-Pad (5-way navigation pad) to the right of the screen are used to adjust the amount of time before the UFO-WPR-3ER display “sleeps” when it is not docked. Adjustment is in five second increments from 0 to 120 seconds.

The up and down buttons on the D-Pad (5-way navigation pad) are used to adjust the amount of time before the UFO-WPR-3ER powers down when it is not docked. Adjustment is in five second increments from 35 to 240 seconds. There is also the option to set this value to 0 to prevent automatic power down.

RF Setup

From the “System Settings” menu, press the hard key next to *RF Setup* to open the “RF Setup” menu, shown in the following illustration.

“RF Setup” Menu

The “RF Setup” menu is divided into three sections: *RF Settings*, *RF Info* and *Acquire Gateway*.

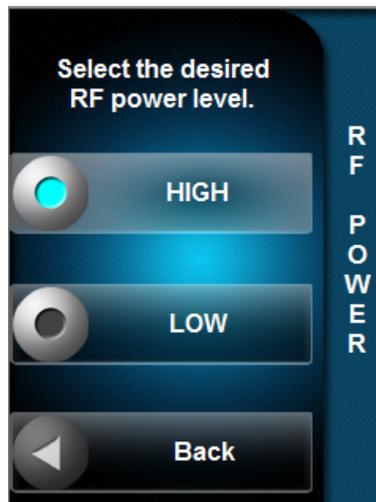
RF Settings

From the “RF Setup” menu, press the hard key next to *RF Settings* to open the “RF Settings” menu, shown in the following illustration.

“RF Settings” Menu

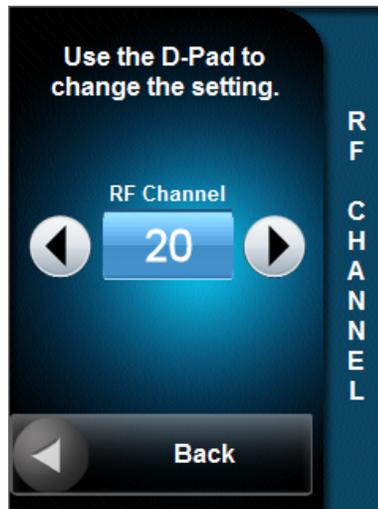
The “RF Settings” menu is divided into three sections: *RF Power*, *RF Channel* and *RF ID*.

From the “RF Settings” menu, press the hard key next to *RF Power* to open the “RF Power” screen, shown in the following illustration.

“RF Power” Screen

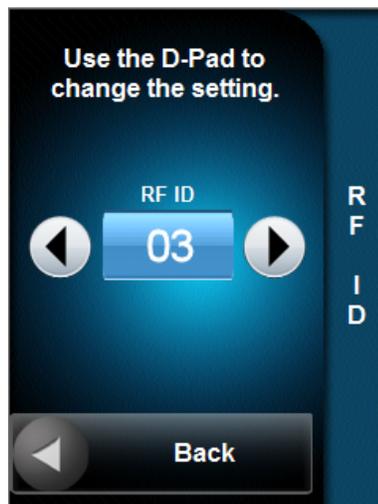
Press the hard key next to *HIGH* or *LOW* to select the desired RF power level. For information on transmitting power at the different settings, refer to “Wireless” in the “Specifications” section, which starts on page 5.

From the “RF Settings” menu, press the hard key next to *RF Channel* to open the “RF Channel” screen, shown in the following illustration.

“RF Channel” Screen

The left and right buttons on the D-Pad (5-way navigation pad) to the right of the screen are used to adjust the UFO-WPR-3ER’s RF channel. Refer to “Appendix A: The RF Spectrum” on page 31 for more information.

From the “RF Settings” menu, press the hard key next to *RF ID* to open the “RF ID” screen, shown in the following illustration.

“RF ID” Screen

The left and right buttons on the D-Pad (5-way navigation pad) are used to adjust the UFO-WPR-3ER’s RF ID.

RF Info

From the “RF Setup” menu, press the hard key next to *RF Info* to open the “RF Info” screen, shown in the following illustration.

“RF Info” Screen

The “RF Info” screen displays RF signal strength, RF ID, RF channel, client UID, gateway name and gateway UID, in addition to providing indicators for when the gateway is acquired, when the gateway is connected and when a control system is connected.

Gateway Acquire

From the “RF Setup” menu, press the hard key next to *Acquire Gateway* to open the “Gateway Acquire” screen, shown in the following illustration.

“Gateway Acquire” Screen 1

Before the UFO-WPR-3ER can be used, it must be acquired by a CEN-ERFGW-POE Extended Range RF Wireless Gateway.

NOTE: A UFO-WPR-3ER can be acquired by only one gateway at a time.

To acquire the UFO-WPR-3ER, perform the following procedure:

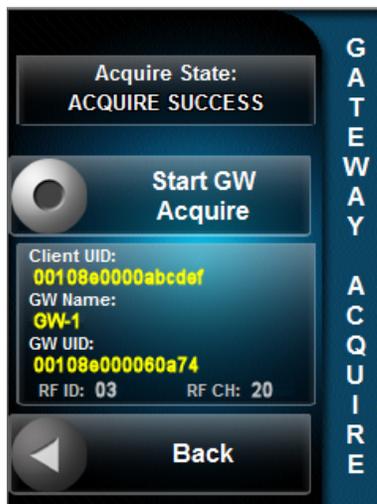
1. Put the gateway into *Acquire* mode by pressing its **ACQUIRE** button, on the unit itself or from Crestron Toolbox, as described in the latest version of the CEN-ERFGW-POE Extended Range RF Wireless Gateway Operations & Installation Guide (Doc. 7158), which is available from the Crestron Web site (www.crestron.com/manuals). The gateway's **ACQUIRE** LED lights.
2. On the UFO-WPR-3ER, press the hard key next to *Start GW Acquire*. The text changes to *GW Acquire Started* and the on-screen LED next to the text lights.

“Gateway Acquire” Screen 2



3. When the acquire process is complete, the *Acquire State:* box at the top of the screen displays the *ACQUIRE SUCCESS* message, as shown in the following illustration.

“Gateway Acquire” Screen 3



4. Once the acquire has completed successfully, press the **ACQUIRE** button on the gateway (or in Toolbox) to take it out of *Acquire* mode.

Diagnostics

From the “System Settings” menu, the hard key next to *Diagnostics* should only be used under the supervision of a Crestron customer service representative during telephone support. Many options available on the “Diagnostics” menu are numeric in nature and their interpretation is beyond the scope of this manual.

“Diagnostics” Menu



About

From the “System Settings” menu, press the hard key next to *About* to open the “About” screen, shown in the following illustration.

“About” Screen



The “About” screen displays the *Firmware Version* and *OS Version* currently installed in the UFO-WPR-3ER.

Recommended Cleaning

Keep the surface of the UFO-WPR-3ER free of dirt, dust or other materials that could degrade optical properties. Long-term contact with abrasive materials can scratch the surface, which may detrimentally affect image quality.

For best cleaning results, use a clean, damp, non-abrasive cloth with any commercially available non-ammonia glass cleaner.

Programming Software

Have a question or comment about Crestron software?

Answers to frequently asked questions (FAQs) can be viewed in the Online Help section of the Crestron Web site. To post a question or view questions submitted to Crestron's True Blue Support, log in at www.crestron.com/onlinehelp. First-time users must establish a user account to fully benefit from all available features.

Software Requirements for the PC

NOTE: The latest software can be downloaded from the Crestron Web site (www.crestron.com/software).

Crestron provides an assortment of Windows®-based software tools to develop a customized system. Use SIMPL Windows to create a program to control the UFO-WPR-3ER.

Programming with SIMPL Windows

SIMPL Windows is Crestron's premier software for programming Crestron control systems. It is organized into two separate but equally important "Managers": Configuration and Program.

Configuration Manager

Configuration Manager is the view where programmers "build" a Crestron control system by selecting hardware from the *Device Library*.

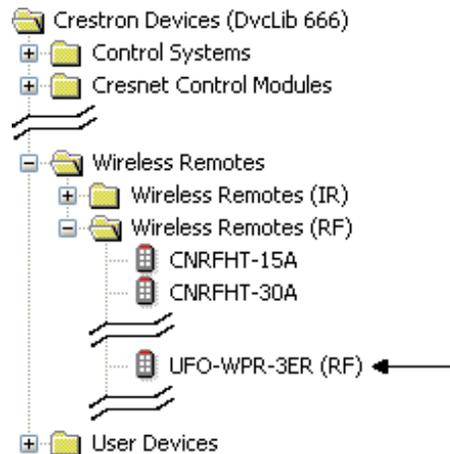
- To incorporate the UFO-WPR-3ER into the system, first drag the CEN-ERFGW-POE from the Wireless Receivers | Wireless Receivers (RF) folder of the *Device Library* and drop it in the *System Views*.

Locating the CEN-ERFGW-POE in the Device Library



- Next, drag the UFO-WPR-3ER from the Wireless Remotes | Wireless Remotes (RF) folder of the *Device Library* and drop it on the CEN-ERFGW-POE gateway in the *System Views*.

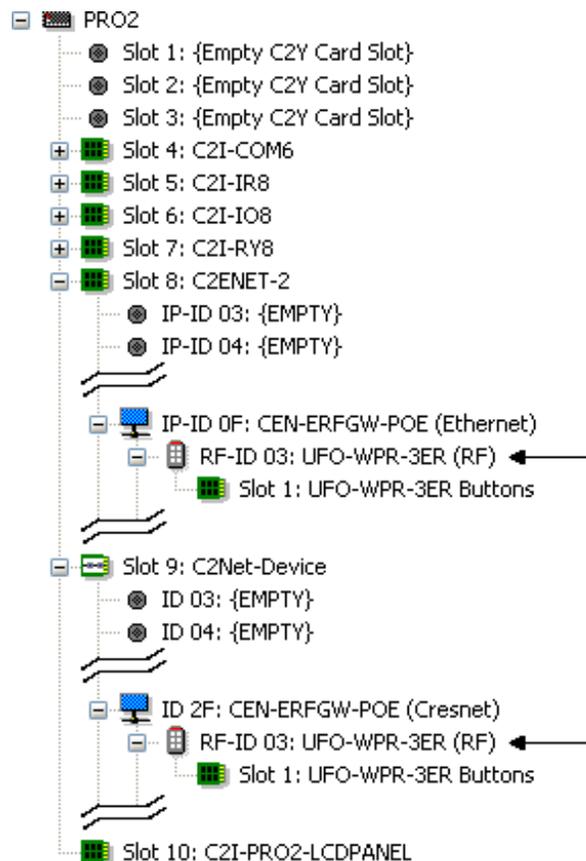
Locating the UFO-WPR-3ER in the Device Library



The system tree of the control system displays the device in the appropriate slot with a default RF ID as shown in the following illustration.

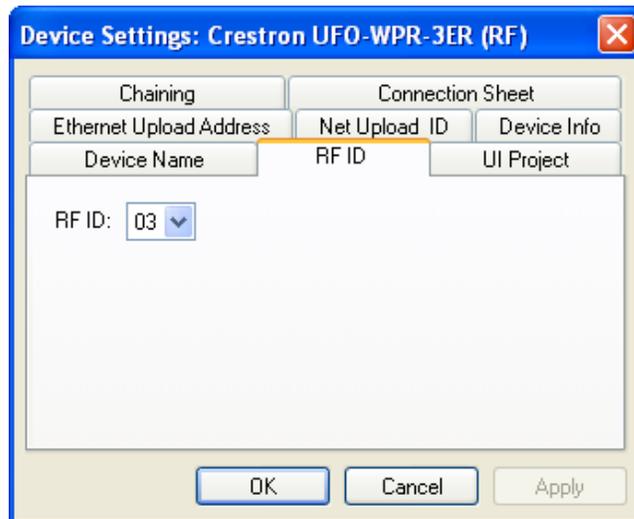
NOTE: The illustration that follows shows two possible gateway connections: Ethernet and Cresnet®. A single CEN-ERFGW-POE should be on either Ethernet or Cresnet but not both.

C2ENET-2 and C2Net Devices, Slots 8 and 9



3. If additional UFO-WPR-3ER devices are to be added, repeat step 2 for each device. Each UFO-WPR-3ER is assigned a different RF ID number as it is added.
4. If necessary, double click a device to open the “Device Settings” window and change the RF ID, as shown in the following illustration.

“Device Settings: Crestron UFO-WPR-3ER (RF)” Window



NOTE: The ID code specified in the SIMPL Windows program must match the RF ID of each unit. Refer to “Identity Code” on page 12.

Program Manager

Program Manager is the view where programmers “program” a Crestron control system by assigning signals to symbols.

The symbol can be viewed by double clicking on the icon or dragging it into *Detail View*. Each signal in the symbol is described in the SIMPL Windows help file (**F1**).

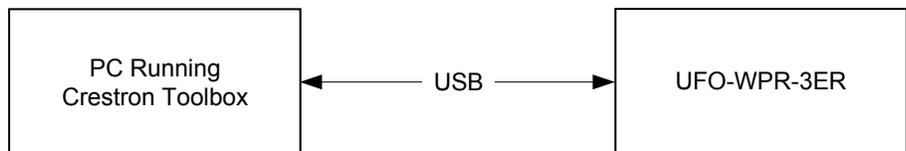
Uploading and Upgrading

Crestron recommends using the latest programming software and that each device contains the latest firmware to take advantage of the most recently released features. However, before attempting to upload or upgrade it is necessary to establish communication. Once communication has been established, files (for example, programs, projects or firmware) can be transferred to the control system (or device).

Establishing Communication

Use Crestron Toolbox for communicating with the UFO-WPR-3ER; refer to the Crestron Toolbox help file for details. There is a single method of communication: USB communication.

USB Communication



The USB port on the UFO-WPR-3ER's included UFO-WPR-3ER-DS docking station connects to the USB port on the PC via the included Type A to Type B USB cable:

1. Use the Address Book in Crestron Toolbox to create an entry using the expected communication protocol (USB). When multiple USB devices are connected, identify the USB-WPR-3ER by entering "UFO-WPR-3ER" in the *Model* text box, the unit's serial number in the *Serial* text box or the unit's hostname in the *Hostname* text box. The hostname can be found in the "System Info" window in the section marked *Ethernet* however, communications must be established in order to see this information in the "System Info" window.
2. Display the UFO-WPR-3ER's "System Info" window (click the  icon); communications are confirmed when the device information is displayed.

Programs, Projects and Firmware

Program, project or firmware files may be distributed from programmers to installers or from Crestron to dealers. Firmware upgrades are available from the Crestron Web site as new features are developed after product releases. One has the option to upload programs and projects via the programming software or to upload and upgrade via the Crestron Toolbox. For details on uploading and upgrading, refer to the SIMPL Windows help file, VT Pro-e help file or the Crestron Toolbox help file.

SIMPL Windows

If a SIMPL Windows program is provided, it can be uploaded to the control system using SIMPL Windows or Crestron Toolbox.

VT Pro-e

Upload the VT Pro-e file to the remote using VT Pro-e or Crestron Toolbox.

Firmware

Check the Crestron Web site to find the latest firmware. (New users may be required to register to obtain access to certain areas of the site, including the FTP site.)

NOTE: In order to load programs, projects or firmware, the UFO-WPR-3ER must be connected to the PC via the USB port on the included UFO-WPR-3ER-DS docking station. In addition, the docking station must be connected to AC power via its included power pack.

Upgrade UFO-WPR-3ER firmware via Crestron Toolbox.

1. Establish communication with the UFO-WPR-3ER and display the “System Info” window.
2. Select **Functions | Firmware...** to upgrade the UFO-WPR-3ER firmware.

Problem Solving

Troubleshooting

The following table provides corrective action for possible trouble situations. If further assistance is required, please contact a Crestron customer service representative.

UFO-WPR-3ER Troubleshooting

TROUBLE	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Remote does not turn on.	Battery was not charged or is discharged.	Place the UFO-WPR-3ER on the docking station/charger and charge the battery using the provided power supply.
Remote is not communicating with gateway.	Remote RF ID does not match RF ID of the SIMPL program.	Use Crestron Toolbox to poll the network. Check the RF ID for the remote and ensure its RF ID matches the RF ID in the SIMPL program.
Intermittent response from gateway during communication with remote.	Remote is out of range.	Position the remote within operating range or relocate the gateway. Refer to "Appendix B: Optimum RF Reception Guidelines" which starts on page 32.
Multiple remotes only operate one at a time.	Multiple remotes are set to the same RF ID.	Use Crestron Toolbox to poll the network. Check the RF ID for the remote and ensure its RF ID matches the RF ID in the SIMPL program.

Reference Documents

The latest version of all documents mentioned within the guide can be obtained from the Crestron Web site (www.crestron.com/manuals).

List of Related Reference Documents

DOCUMENT TITLE
CEN-ERFGW-POE Extended Range RF Wireless Gateway

Further Inquiries

To locate specific information or resolve questions after reviewing this guide, contact Crestron's True Blue Support at 1-888-CRESTRON [1-888-273-7876] or refer to the listing of Crestron worldwide offices on the Crestron Web site (www.crestron.com/offices) for assistance within a particular geographic region.

To post a question about Crestron products, log onto the Online Help section of the Crestron Web site (www.crestron.com/onlinehelp). First-time users must establish a user account to fully benefit from all available features.

Future Updates

As Crestron improves functions, adds new features and extends the capabilities of the UFO-WPR-3ER, additional information may be made available as manual updates. These updates are solely electronic and serve as intermediary supplements prior to the release of a complete technical documentation revision.

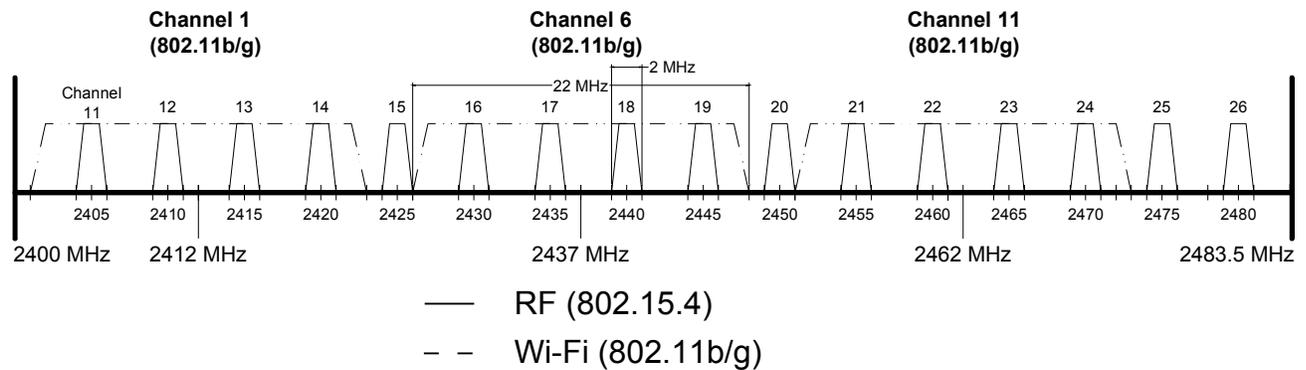
Check the Crestron Web site periodically for manual update availability and its relevance. Updates are identified as an “Addendum” in the Download column.

Appendix A: The RF Spectrum

Crestron’s RF network provides 16 RF channels in the 2.4 GHz ISM band, specifically IEEE 802.15.4 channels 11 through 26. The 16 channels define the frequencies at which the RF device communicates.

RF devices on different channels do not communicate or interfere with each other. However, since some of the channels are in the 2.4 GHz ISM band (as shown in the following diagram), interference can occur with other devices using this band, such as 802.11b/g Wi-Fi devices, Crestron infiNET™ devices or Zigbee devices, although the differing protocols do not allow a link to be established or data to be transferred. Wireless 2.4 GHz telephones and microwave ovens may also cause interference with the network.

IEEE 802.15.4 channel selection (2400 MHz PHY)



Appendix B: Optimum RF Reception Guidelines

Many factors can affect the reliability of RF communication between an RF gateway and an RF remote. While an effort has been made to determine operating specifications, some specifications are not constant. RF Communication can be limited by several factors including but not limited to EMI (electromagnetic interference), intervening objects, antenna orientation and receiver placement. To obtain maximum reliability and performance, some basic rules for installing RF transceivers are listed below.

Minimize Interference

RF reception range can be hindered by spurious EMI noise that may interfere with or mask the desired frequency, thereby reducing useable range. EMI is generated by any electrical device at various RF noise levels depending on the device. Sources of EMI include computers, video equipment, digital processors, lighting dimmers, lighting ballasts, motors or any large AC source. Every effort should be made to separate any RF transceiver from these sources of RF noise including Audio Visual equipment in racks. If a gateway must be installed in an equipment rack, make sure there is ample separation between the equipment and the gateway.

Gateway Placement

Optimum reception for any RF transceiver is obtained by installing the gateway transceiver in an open area or shelf with a clear line of sight (no obstructions between gateway and receiver). Crestron recommends that the gateway is at least five to six feet high for best results. Avoid placing transceivers or transmitters at a low height or on the ground. Placing RF equipment near metal objects, walls, corners or metal enclosures compromises RF propagation and reception. Try to avoid installing gateways in equipment racks, service rooms, electrical closets or in rooms other than that which the remote is located.

Antenna Orientation

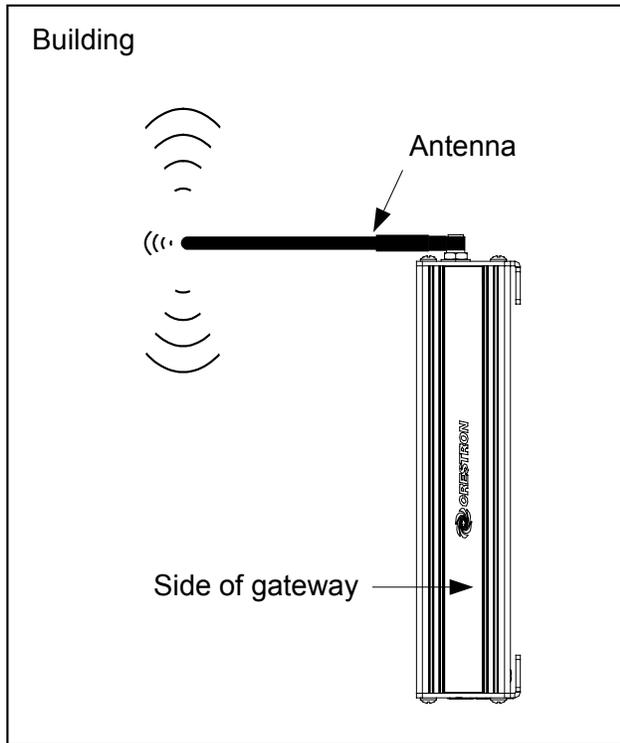
The antenna orientation on Crestron gateways has considerable effect on range and reliability. The best orientation is unique to each installation. There are three possible antenna orientations:

- Point the antenna horizontally (parallel to the ground)
- Point the antenna vertically.
- Point the antenna at a right angle to the gateway.

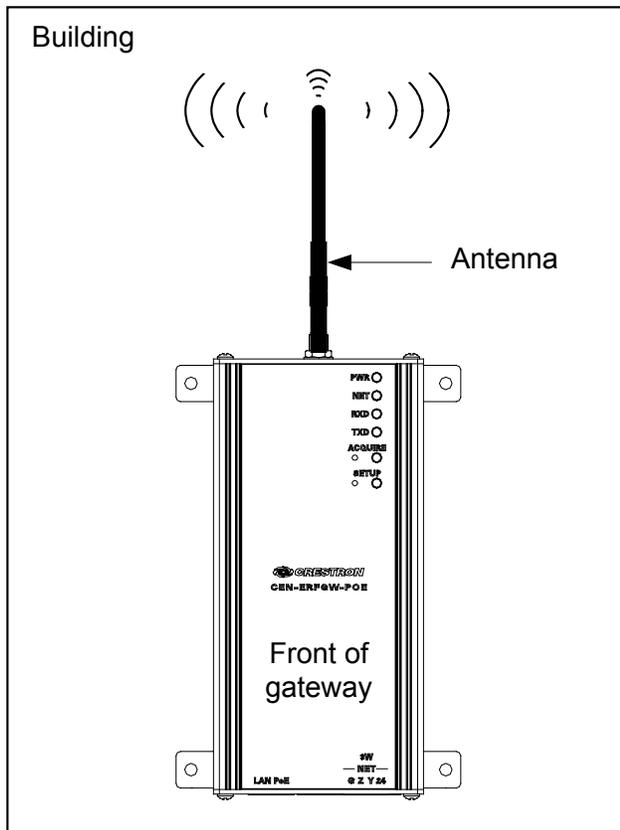
Never point the antenna downward as this decreases range and reliability. Refer to illustrations on the following pages for examples of the different antenna orientations.

NOTE: RF propagation is best from the sides of the antenna.

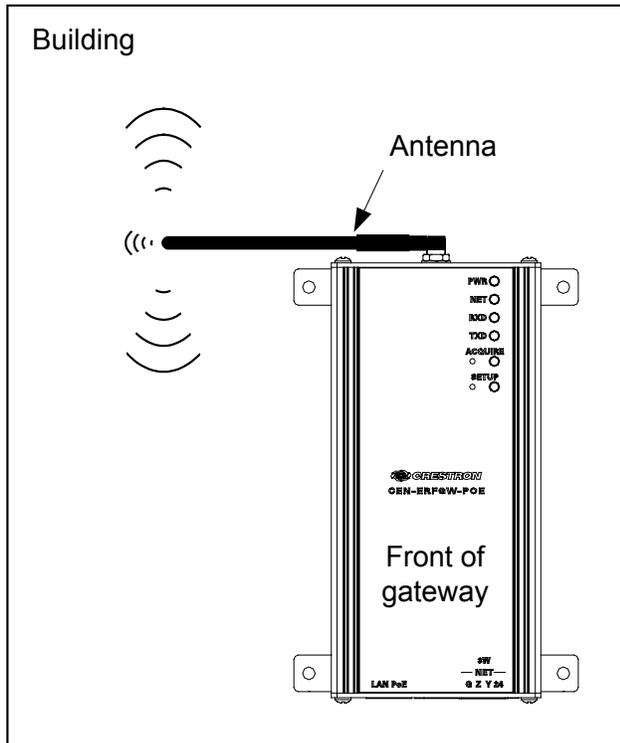
Horizontal Orientation



Vertical Orientation



Right Angle Orientation



Return and Warranty Policies

Merchandise Returns / Repair Service

1. No merchandise may be returned for credit, exchange or service without prior authorization from Crestron. To obtain warranty service for Crestron products, contact an authorized Crestron dealer. Only authorized Crestron dealers may contact the factory and request an RMA (Return Merchandise Authorization) number. Enclose a note specifying the nature of the problem, name and phone number of contact person, RMA number and return address.
2. Products may be returned for credit, exchange or service with a Crestron Return Merchandise Authorization (RMA) number. Authorized returns must be shipped freight prepaid to Crestron, 6 Volvo Drive, Rockleigh, N.J. or its authorized subsidiaries, with RMA number clearly marked on the outside of all cartons. Shipments arriving freight collect or without an RMA number shall be subject to refusal. Crestron reserves the right in its sole and absolute discretion to charge a 15% restocking fee plus shipping costs on any products returned with an RMA.
3. Return freight charges following repair of items under warranty shall be paid by Crestron, shipping by standard ground carrier. In the event repairs are found to be non-warranty, return freight costs shall be paid by the purchaser.

Crestron Limited Warranty

Crestron Electronics, Inc. warrants its products to be free from manufacturing defects in materials and workmanship under normal use for a period of three (3) years from the date of purchase from Crestron, with the following exceptions: disk drives and any other moving or rotating mechanical parts, pan/tilt heads and power supplies are covered for a period of one (1) year; touch screen display and overlay components are covered for 90 days; batteries and incandescent lamps are not covered.

This warranty extends to products purchased directly from Crestron or an authorized Crestron dealer. Purchasers should inquire of the dealer regarding the nature and extent of the dealer's warranty, if any.

Crestron shall not be liable to honor the terms of this warranty if the product has been used in any application other than that for which it was intended or if it has been subjected to misuse, accidental damage, modification or improper installation procedures. Furthermore, this warranty does not cover any product that has had the serial number altered, defaced or removed.

This warranty shall be the sole and exclusive remedy to the original purchaser. In no event shall Crestron be liable for incidental or consequential damages of any kind (property or economic damages inclusive) arising from the sale or use of this equipment. Crestron is not liable for any claim made by a third party or made by the purchaser for a third party.

Crestron shall, at its option, repair or replace any product found defective, without charge for parts or labor. Repaired or replaced equipment and parts supplied under this warranty shall be covered only by the unexpired portion of the warranty.

Except as expressly set forth in this warranty, Crestron makes no other warranties, expressed or implied, nor authorizes any other party to offer any warranty, including any implied warranties of merchantability or fitness for a particular purpose. Any implied warranties that may be imposed by law are limited to the terms of this limited warranty. This warranty statement supersedes all previous warranties.

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