ROCKVILLE

ROCKFORCE W2

192-CHANNEL WIRELESS 2.4GHZ DMX LIGHTING CONTROLLER

OWNER'S MANUAL

ATTENTION:

WATCH THIS VIDEO BEFORE FIRST USE!

Who reads manuals?

Scan the **QR code** or go to **rockvillesupport.com/rockforce-w2** to access how-to video(s), the owner's manual, and other important information you may need to get the most out of your item.

If you prefer written instructions, please read ahead!

With Rockville you get many options.

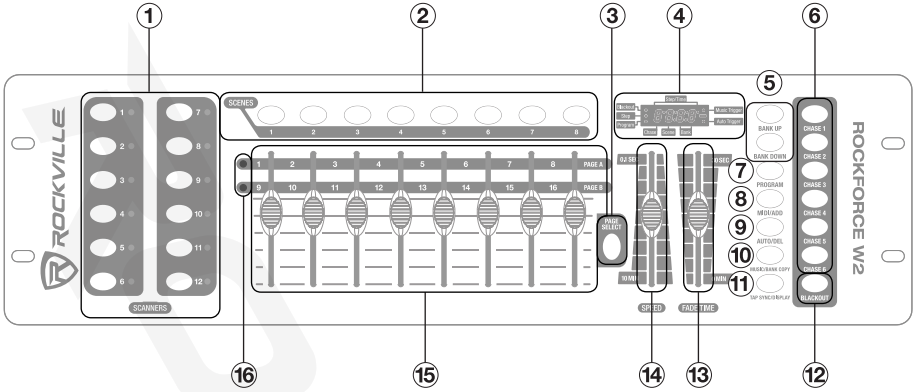
Missing items? If you ordered a bundle that includes more than one product and you are missing part of your bundle then it just means your order shipped from two different warehouses. You will receive the remaining items very soon. If you have any concerns or inquiries, feel free to call our customer support center at 1-646-758-0144, 24 hours a day/7 days a week.

Thank you for purchasing this Rockville ROCKFORCE W2 192-Channel Wireless 2.4 GHz DMX Lighting Controller. Please read this guide carefully for proper use of your ROCKFORCE W2. Should you need assistance, please call our technical help line at 1-646-758-0144, 24 hours a day/7 days a week.

IMPORTANT SAFETY INSTRUCTIONS

- To reduce risk of electric shock, never open the unit. There are no serviceable parts; refer service to the Rockville service center.
- Do not expose this unit to any kind of moisture.
- Please ensure that the unit is situated in a properly ventilated area.
- Make sure the unit is placed on a level and stable surface.

Functions: Front Panel



1. **Fixture (Scanner) Selectors:** Used to select one or more of the 12 fixtures. Each one is a block of 16 DMX channels. These selectors are used in programming mode and manual mode.

2. **Scene Selectors:** These buttons allow you to select a scene in the scene bank for programming or playback. The current scene is shown on the display.

3. **Page Select A/B:** Switches between page A or page B. Page A is for channels 1 – 8, page B is for channels 9 – 18.

4. **LED Display:** Shows the active scene and bank number, current chase and step number, fader level settings, and shows the status for various other functions. When adjusting faders the display shows the current level setting. You can select how the level settings are shown (0 – 255 or 0% – 100%) by pushing TAPSYNC/ DISPLAY.

5. **Bank Buttons:** Selects a scene bank. The third and fourth display digits show the currently active bank number (01 – 30). Also used for some chase programming operations.

6. **Chase Selectors:** Selects a chase for programming or playback.

7. **Program:** Used to place the unit in programming mode to create /record scenes and chases. Press and hold for 3 seconds to turn programming mode on /off. An indicator on the display shows when program mode is active. The unit will go into blackout mode when exiting program mode. Push the blackout button (item 14) to turn it off.

8. **ADD:** In program mode pushing the ADD button will record a chase step or scene setting.

9. **AUTO/DEL:** ***AUTO***: Activates Auto-Run triggering for chases or scenes. The display has an indicator that shows when Auto-Mode is active.
DEL: In program mode this button will delete scenes, complete banks of scenes, chase steps, or complete chases.

10. **MUSIC/BANK Copy:** ***MUSIC***: Turns on Music Auto-Run. An internal microphone is used to synchronize chases or scenes to music. There is an indicator on the display showing when music trigger mode is active.
BANK: In program mode pushing this button will copy the contents of one scene bank to another bank.

Functions: Front Panel (continued)

11. **TAPSYNC/DISPLAY:** ***TAPSYNC***: Controls the speed of scenes or chases. Press the button at the rate you want the chase or scenes to run at. This is as an alternative to using the SPEED fader. The display will show the result in seconds. ***DISPLAY***: Switches the display between STEP and BANK. In other modes it switches the output level display to show 0 – 225 or 0% – 100%.

12. **BLACKOUT:** Disables all DMX channel output and turns blackout mode on/off.

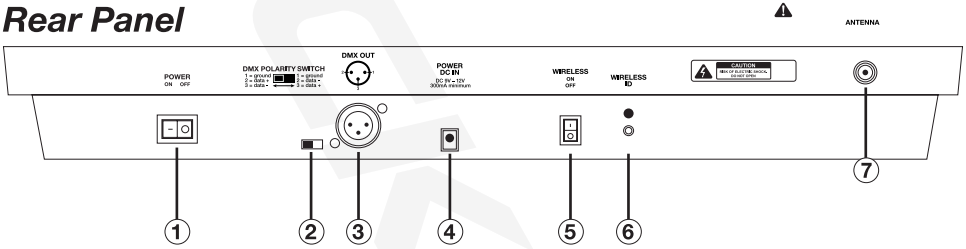
13. **Fade Time Fader:** Adjusts the fade time for scenes and chases. The display will show the setting in seconds.

14. **Speed Fader:** Will adjust the speed of auto triggered scenes or chases. The display will show the setting in seconds.

15. **Channel Faders:** These adjust the output level of the corresponding DMX channel.

16. **Active Page Indicators:** Shows which page is active. Use the Page Select A/B button (item 4) to select the appropriate page.

Rear Panel



1. **Power Switch:** Turns the unit on/off and can be used with other buttons to erase scenes and chases.

2. **DMX Polarity Switch:** Selects the polarity of DMX output. See DMX CONNECTOR PIN ASSIGNMENTS for more information.

3. **DMX OUT:** Outputs main control signal to fixtures and other DMX devices.

4. **DC Input Connector:** plug in the external power supply here. DC 9V – 12V, 300mA minimum.

5. **Wireless Mode Power:** turns wireless mode on/off.

6. **Wireless ID Button:** Press this button to activate wireless connectivity and to set the wireless group.

7. **Antenna Port:** plug in antenna for wireless functionality

Wireless Transmitter Function

The ROCKFORCE W2 features seven individual wireless groups so you can organize your fixtures. Each group is represented by a color. Use the Wireless ID button to select any one of the seven available group colors. Make sure all the other fixtures within that group are set to the same group color.

Connecting to Wireless Transmitter

1. Power on the ROCKFORCE W2 and then power up your wireless reciever(s).

2. Now turn on the Wireless ID feature on the ROCKFORCE W2 (item 6 on the previous page). The LED will begin to flash red indicating that the unit is in paring mode.

3. Use the black button located under the Wireless ID LED indicator to set the wireless ID key. Match the color on your receiver(s) wireless DMX indicator to the transmitter. For example, if your wireless DMX fixture's LED is green, then you have to set your ROCKFORCE W2 to the same wireless ID color.

Please note: If you are using multiple groups, each group must be set to a different wireless ID.

4. Once a connection is established, the red LED on the transmitter will flash red and the LED on the receivers will flash green indicating that the units are properly communicating.

Fixture Channel Assignments

Every fixture is permanently assigned a 16 channel block of DMX addresses. The table below shows the assignments.

FIXTURE	CHANNEL
1	1 – 16
2	17 – 32
3	33 – 48
4	49 – 64
5	65 – 80
6	81 – 96
7	97 – 112
8	113 – 128
9	129 – 144
10	145 – 160
11	161 – 176
12	177 – 192

Each fixture must be set to accommodate the DMX assignment. This is usually done using DIP switches on the fixture. Refer to the individual owner's manual of the fixture for exact instructions. This information may also appear on a chart on the fixture. If you set multiple fixtures to the same addresses then they will respond to the controller as one fixture.

Fixture Functions

You will need to know which channel within a fixture is assigned to each fixture function (pan, tilt, color, dimming, etc.). This information is normally given in the fixture's owner's manual.

DMX Connections

There are 512 channels in a DMX-512 connection. Channels may be assigned in any manner. A fixture capable of receiving DMX-512 will require one or a number of sequential channels. The user must assign a starting address on the fixture that indicates the first channel reserved in the controller. There are many different types of DMX controllable fixtures and they will all vary in the total number of channels required. Choosing a start address should be planned in advance. Channels should never overlap. If they do, this will result in erratic operation of the fixtures whose starting address is set incorrectly. You can however, control

DMX Connections (continued)

multiple fixtures of the same type using the same starting address as long as the intended result is that of uniform movement or operation. In other words, the fixtures will be slaved together and all respond exactly the same.

When using multiple DMX devices, they should be connected together as a chain of devices. The devices should be wired in a daisy chain fashion, meaning the control cable will go from the controller to the first fixture and then to other fixtures. Most fixtures have a DMX IN and a DMX OUT port for this purpose. Do not split the control cable into a multiple run star arrangement with a cable running from the controller directly to each fixture.

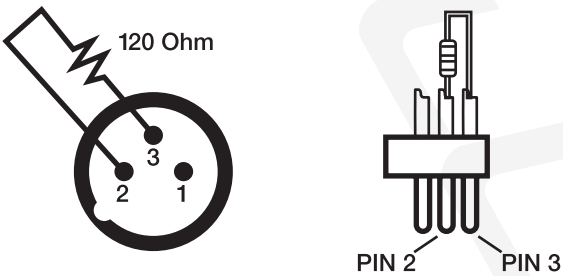
DMX Connector Pin Assignments

There are two types of DMX cables, 3-pin or 5-pin, and they feature XLR type connectors. This unit transmits from a 3-pin female connector on the back edge of the unit. If your fixtures use 5 pin connectors, we recommend you acquire a 3-pin male XLR to 5-pin female XLR adapter. Some fixtures use a reversed signal scheme. This means the DATA - and DATA + pins are reversed. This unit features a reversing switch on the back so as to accommodate those types of fixtures. The table below shows the pin assignments for both normal and reversed operation.

PIN	NORMAL	REVERSED
1	DMX Common	DMX Common
2	DMX DATA -	DMX DATA +
3	DMX DATA +	DMX DATA -
4	Not used	Not used
5	Not used	Not used

DMX Termination

In controller mode, the last fixture of a DMX chain has to be “terminated”. This prevents electrical noise from disturbing and corrupting the DMX control signals. To terminate the last fixture solder a 1/4 Watt, 120 Ohm resistor across the DATA - and DATA + wires. The connections are illustrated below.



If you are only connecting a few fixtures which are close together and use a short run to the controller, you maybe able to operate without a terminator.

Operating Fixtures Manually

To manually control a fixture push the corresponding fixture button in the Scanners section. This will activate the LED indicator and enable the channel faders. If you are using a fixture with more than 8 channels, press the PAGE A/B button

to access the other channels. Multiple fixtures can be selected and controlled together. To de-select a fixture, press the corresponding button.

Programming Scenes

There are a total of 30 scene banks, each containing 8 scenes which are programmable. Only one bank may be selected at any time. Press and hold PROGRAM button for 3 second to activate program mode. The display PROGRAM indicator will continuously flash while in program mode.

Please note that all scene record, edit, delete, and copy functions are done in the program mode.

Recording a Scene

1. Press a SCANNER button to select the desired fixture. You can select more than one to control several at once.
2. Adjust the appropriate faders to set the desired output level for each channel.
3. De-select the current fixture and select another. Your settings for the previously selected fixture will remain active and you can now adjust output levels for a different fixture.
4. Repeat steps 2 and 3 until all the desired fixtures have been set.
5. Press ADD.
6. Select desired bank to store the scene using BANK UP or BANK DOWN.
7. Press a SCENE button, 1 – 8, to complete the recording. Once the recording is complete, the display will flash briefly.
8. De-select fixtures by pressing the appropriate SCANNER buttons.
9. Exit program mode by pressing and holding down PROGRAM for 3 seconds.

Edit a Scene

1. Select the bank to which the scene will be stored using BANK UP or BANK DOWN.
2. Select desired scene within the bank by pushing the corresponding SCENES button (1 – 8).
3. Select the fixture(s) to be affected by pushing the associated SCANNERS buttons.
4. Adjust the appropriate faders to set the desired output level for each channel.
5. Push ADD.
6. Push the SCENES button used in step 2 to store the edited scene. When recording is complete, the display will flash briefly.
7. De-select any fixtures you have used during editing and exit PROGRAM mode.

Copy Fixture Settings

You can copy the settings of a fixture to another while programming a scene.

1. Hold down the SCANNERS button of the selected fixture.
2. Now push the SCANNERS button of the fixture to which the settings will be copied.

Copy a Scene

You can copy the contents of a scene to another scene in the same or different bank.

1. Use BANK UP or BANK DOWN to select the bank from which you wish to copy a scene.
2. Select desired scene within the bank by pushing it's SCENES button, 1 – 8.
3. Push ADD.

Copy a Scene (continued)

4. Select the bank which you want to copy to using BANK UP or BANK DOWN.

5. Push the SCENES button to complete the operation. The display will flash briefly indicating that the copy has been completed.

Copy a Bank of Scenes

Copy the entire contents of a scene bank to another bank.

1. Select the bank from which you wish to copy by using BANK UP or BANK DOWN.

2. Push ADD.

3. Select the bank to which you wish to copy by using BANK UP or BANK DOWN.

4. Push MUSIC/BANK COPY to complete the operation. The display will flash briefly indicating that the copy has been completed.

Delete a Scene

This will set all channels of all fixtures associated with the scene to zero output level.

1. Select the bank which contains the scene you want to delete using BANK UP or BANK DOWN.

2. Hold down AUTO/DEL and push the SCENES button, 1 – 8, to delete the desired scene. The display will flash briefly indicating that the operation has been completed.

Delete all Scenes in a Bank

1. Select the bank you wish to delete using BANK UP or BANK DOWN.

2. Hold down AUTO/DEL and push MUSIC/BANK COPY to complete the operation. The display will flash briefly indicating that the scenes have been deleted.

Clear all Scenes

This will delete all the scenes in all of the banks.

1. Turn the unit off.

2. Turn the power on while simultaneously holding down the PROGRAM and BANK DOWN buttons.

3. Keep holding down the buttons until the display flashes briefly indicating that the scenes have been cleared.

Programming Chases

There are 6 user programmable chases and each one includes up to 240 steps. Each chase step consists of a scene which has already been recorded. A chase step can utilize any scene in any bank. Any scene can be used in multiple chase steps and multiple chases.

Record a Chase

1. Select a chase, 1 – 6, by pressing the corresponding CHASE button.

2. Select the scene bank which contains the scene to be used for the chase step using BANK UP or BANK DOWN.

3. Select the scene bank to be used for the chase step by pushing its SCENES button (1 – 8).

4. Push ADD and the display will flash several times indicating that the step has been recorded.

5. Repeat steps 2 – 4 as many times as needed to record additional steps in the

selected chase. You can record up to 240 steps.

6. Press and hold PROGRAM for 3 seconds to exit program mode.

Copy a Scene Bank to a Chase

Copy the contents of a scene bank into a chase.

1. Use BANK UP or BANK DOWN to select the bank from which you wish to copy.

2. Select the chase you wish to copy to by pressing the corresponding CHASE button.

3. Press the MUSIC/BANK COPY button to complete the operation.

4. Push ADD and the display will flash several times indicating that the scene has been copied.

Insert Step into a Chase

1. Select a chase, 1 – 6, by pressing the corresponding CHASE button.

2. Press TAPSYNC/DISPLAY and the display will show the current chase and step.

3. Use BANK UP or BANK DOWN to advance to the step *before* the step you want to insert.

4. Press ADD and the display shows the next step.

5. Press the SCENES button, 1 – 8, to select the scene you wish to insert. If the scene you wish to insert is in a different bank, use BANK UP or BANK DOWN to select the desired bank.

6. Press ADD and the display will flash several times indicating that the insertion has been completed.

Delete a Step in a Chase

1. Select a chase, 1 – 6, by pressing the corresponding CHASE button.

2. Press TAPSYNC/DISPLAY

3. Use BANK UP or BANK DOWN to advance to the step you wish to delete.

4. Push AUTO/DEL and the display will flash briefly indicating the operation has been completed.

Delete a Complete Chase

1. Press and hold the CHASE button corresponding to the chase you wish to delete.

2. Now also press AUTO/DELETE and the display will flash briefly indicating the complete chase has been deleted.

3. Release both buttons.

Clear all Chases

This sequence will delete all the steps of all the chases. It does not clear scenes.

1. Turn the unit off.

2. Turn the power on while simultaneously pressing and holding the BANK DOWN and AUTO/DEL buttons.

3. Keep holding down the buttons until the display flashes briefly indicating that the chases have been cleared.

Operating Scenes

When the ROCKFORCE W2 is turned on, it defaults to manual scene mode with bank 1, scene 1 active.

Activate a Scene Manually

1. Turn off PROGRAM mode, AUTO, MUSIC, and all chases.
2. Select the desired scene bank using BANK UP or BANK DOWN.
3. Press the SCENES button for the scene you want to activate.

Operating Scenes

When the ROCKFORCE W2 is turned on, it defaults to manual scene mode with bank 1, scene 1 active.

Activate a Scene Manually

1. Turn off PROGRAM mode, AUTO, MUSIC, and all chases.
2. Select the desired scene bank using BANK UP or BANK DOWN.
3. Press the SCENES button for the scene you want to activate.

Run a Bank of Scenes Automatically

The scene Auto-Run function will continuously cycle through a bank of scenes. The operator can control the speed and scene fade time. To adjust the speed use the TAPSYNC button or the SPEED fader. To control the fade time use the FADE TIME fader. Scenes can also be synchronized to music or MIDI note triggering.

1. Select the appropriate scene bank using BANK UP or BANK DOWN.
2. Push AUTO/DEL. This will cause the scene Auto-Run to begin cycling and the AUTO TRIGGER indicator on the display will light.
3. Adjust the speed and fade time as needed. If you set your speed faster than the fade time then the scenes will advance before the fade is complete.
4. You can switch to another bank at any time using BANK UP and BANK DOWN.
5. To stop Auto-Run press the AUTO/DEL button. The AUTO TRIGGER indicator on the display will go OFF.

Run Scenes Automatically with Music Sync

This unit has an internal microphone which can be used to Auto-Run scenes with music synchronization.

Scene Music Auto-Run

1. Press MUSIC/BANK COPY. The MUSIC TRIGGER indicator on the display will light and Music Auto-Run will begin in the currently selected scene bank.
2. To switch to a different scene bank use BANK UP or BANK DOWN.
3. To stop Music Auto-Run press the MUSIC/BANK COPY button.

Operating Chases

Chases can be run in Manual, Auto-Run, and Music Auto-Run modes.

Manual Chase Operation

This is used to manually step through a chase. It is done in program mode and is useful when creating or editing chases.

1. Press and hold the PROGRAM button to enter program mode. The display PROGRAM indicator will continuously flash while in program mode.
2. Select a chase, 1 – 6, by pushing the appropriate CHASE button.

3. Press TAP/SYNC and the display will show the chase and step numbers. The display STEP indicator will light.

4. Use the BANK UP and BANK DOWN buttons to cycle through the chase steps.

5. When finished, press and hold PROGRAM for 3 seconds to exit the program mode.

Run a Chase Automatically

The chase Auto-Run function will continuously cycle through a chase. Multiple chases can be run together and in the order selected. The operator can control the speed and fade time. To adjust the speed use the TAPSYNC button or the SPEED fader. To control the fade time use the FADE TIME fader.

1. Select a chase, 1 – 6, by pressing the appropriate CHASE button. You can select more than one.

2. Push AUTO/DEL. The AUTO TRIGGER indicator in the display will light and the chase(s) will run.

3. Adjust the speed and fade time as needed.

4. To stop chase Auto-Run press the AUTO/DEL button. The AUTO TRIGGER indicator on the display will go OFF. If all the chases are turned off before you turn off Auto-Run, the unit will default to the scene Auto-Run in the last accessed scene bank.

Chase Music Auto-Run

This unit has an internal microphone which can be used to Auto-Run scenes with music synchronization.

1. Select a chase, 1 – 6, by pressing the appropriate CHASE button. You can select more than one.

2. Press MUSIC/BANK COPY. The MUSIC TRIGGER indicator on the display will light and Music Auto-Run will begin.

3. To stop Music Auto-Run press the AUTO/DEL button. The MUSIC TRIGGER indicator on the display will go OFF.

Features and Specifications

- Rockville ROCKFORCE W2 192-Channel Wireless 2.4GHz DMX Lighting Controller
- Built-In wireless DMX transmitter and antenna
- Compatible with Rockville wireless DMX lights and DMX-WRE wireless receivers.
- 12 Scanners of 16 channels each
- 23 Banks of 8 programmable scenes
- 192 DMX channels of control
- 6 Programmable chases of 184 scenes
- 8 Sliders for manual control of channels
- Automatic mode program controlled by speed and fade time sliders Fade time /speed
- Blackout master button
- Reversible DMX channels allows fixture to react opposite to others in a chase
- Manual override allows you to grab any fixture on the fly
- Built-in microphone for music triggering
- DMX polarity selector
- Power failure memory
- 4 bit LED display
- Power Supply: 110 – 240V, 50/60Hz (DC 9V – 12V)
- Electric current: no less than 300mA
- Power Consumption: 10W
- Control Signal: DMX512
- Control Channels: 192CH
- Item weight: 3.75 lbs
- Product dimensions: 19″ x 5.24″ x 2.76″

Wireless DMX Features

- Daisy-chain multiple lights using master/slave mode and use one receiver to control all of the connected lights. This setup requires one receiver or if your light has the receiver built in it requires nothing else additional.
- Each light can have a receiver built in (or use our DMX-WRE on each light) and each light will have its own channels on the controller so they can all be controlled independently (this can be done with up to 7 lights/groups).
- Makes it easy to set up all of your lights without a mess of wires!

• Controls work without any delay. These are extremely reliable
• The product uses the 2.4GHz frequency band
• Efficient GFSK modulation with 126 channel high-speed frequency hopping (FHSS). Hops 1100 times per second for interference-free operation
• 3-color LED displays status and parameters
• One-touch operation
• 7 selectable groups of lights can be controlled independently
• Connect up to 25 receivers
• Requires you to hold the button to change linking - this prevents accidental un-linking
• System information - CPU: 32-bitARM Core
• Distance: 1968 feet (600 meters)
• Modulation: GFSK maximum transmit power: 23 dBm
• Receiver sensitivity: -94 dBm

Glossary of Common Terms

Blackout: a state where all lighting fixture's light output is set to on or off, usually on a temporary basis.

DMX-512: an industry standard digital communication protocol used in entertainment lighting equipment.

FIXTURES: refers to your lighting instrument or other device such as a fog machine or dimmer which you can control.

Programs: are numerous scenes stacked one after another. It can be programmed as either a single scene or multiple scenes in sequence.

Scenes: are static lighting states.

Sliders: also known as faders.

Chases: can also be called programs. A chase consists of numerous scenes stacked one after another.

Scanner: refers to a lighting instrument with a pan and tilt mirror; however, in the ILLS-CON controller it can be used to control any DMX-512 compatible device as a generic fixture.

Stand Alone: refers to a fixture's ability to function independently of an external controller and usually in sync to music, due to a built-in microphone.

Fade: a slider used to adjust the time between scenes within a chase.

Speed: a slider that affects the amount of time a scene will hold its state. It is also known as a "wait time".

Shutter: a mechanical device in the lighting fixture that allows you to block the lights path. It is often used to lessen the intensity of the light output and to strobe.

Patching: refers to the process of assigning fixtures a DMX channel.

Playbacks: can be either scenes or chases that are directly called to execution by the user. A playback can also be considered program memory that can be recalled during a show.

FEDERAL COMMUNICATIONS COMMISSION COMPLIANCE INFORMATION

Responsible party name: Rockville

Address: 600 Bayview Ave,
Entrance A,
Inwood, NY 11096

Hereby declares that the product(s) Rockville ROCKFORCE W2 192-Channel Wireless 2.4GHz DMX Lighting Controller complies with FCC rules as mentioned in the following paragraph:

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 to 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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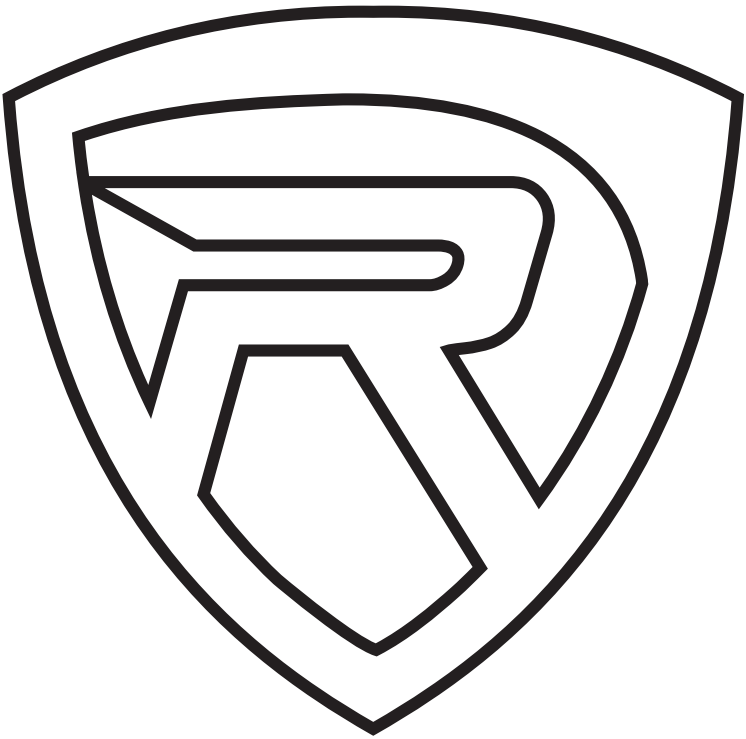

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