ROCKVILLE

RCS80-1

19˝ RACK MOUNTABLE 60-WATT COMMERCIAL 70-VOLT RECEIVER/AMPLIFIER

OWNER'S MANUAL

ATTENTION:

WATCH THIS VIDEO BEFORE FIRST USE!

Scan the **QR code** or go to **rockvillesupport.com/rcs80-1** for essential information, guides (video and/or written), and tips to make the most out of your purchase.

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 product. Please read this installation guide carefully for proper use of your Rockville RCS80-1 Rack Mountable Commercial Amplifier/Receiver. 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 THE RISK OF ELECTRICAL SHOCK, NEVER OPEN THE UNIT. NO USER-SERVICEABLE PARTS INSIDE. WE RECOMMEND SENDING THE UNIT TO THE ROCKVILLE SERVICE CENTER FOR ANY REPAIRS.

- Do not expose this unit to any kind of moisture.
- Please ensure that the unit is situated in a properly ventilated area.
- Do not attempt to operate this unit if the power cord has been frayed or broken.
- Do not attempt to break off or remove the ground prong. This prong is used to reduce the risk of electrical shock and fire in case of an internal short.
- Do not operate this unit if it is damaged.
- This unit is intended for indoor use only.
- Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed on or against them, paying particular attention to the point of exit from the unit.
- To avoid unnecessary wear and to improve the unit's life span, unplug the unit when not in use for extended periods of time.

Introduction

Rockville is proud to introduce the first commercial amplifier in our new RCS series of products. The RCS80-1 is a 60-watt, single zone, rack mountable digital hybrid amplifier/receiver. This amplifier is capable of 70-volt, 100-volt, 16-ohm, 8-ohm, and 4-ohm applications. This makes it perfect for use in a restaurant/bar/café/lounge/school/conference room or any other setting where multiple speakers are needed. With the dual mic inputs you can use this amplifier for announcements, speeches, or even for Karaoke night! The RCS80-1 features Bluetooth audio streaming, so you can play your favorite music or access a playlist right from your phone! This amp also features both USB and SD inputs, allowing you to play audio stored on a USB thumb drive or SD Card. There are also 2-line inputs that allow you to plug in another audio device such as an MP3 player, CD player, TV, etc. Individual volume knobs for two microphones, MP3, and line inputs allow for full and autonomous control of this amplifier. The built-in cooling system in this amplifier will keep the components cool, making the amplifier durable and reliable.

Our goal with the RCS series was to make it possible for anyone to install 70-volt systems on their own without spending thousands of dollars on a contractor. This model makes it a breeze to connect many speakers and multiple external sources. We intentionally use common plugs like RCA and ¼˝ on our model to make this more universal and user friendly. With our unique design you can feel confident in your DIY ability when installing our commercial system!

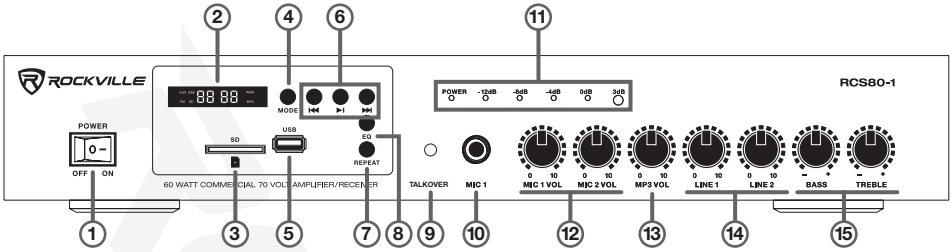
What is 70 Volt?

70-volt systems are the number one choice for any application where you want to install multiple speakers. With 70 volt there are a lot of advantages over 8-ohm systems. One of the main advantages is the simplicity of the wiring as well as how easy it is to match up speakers with the amplifier. For example, with this 60-watt/70-volt amplifier, you can install speakers that total close to 50 watts. It does not matter if it is 10 speakers that are 5 watts each or 20 speakers that are tapped at 2.5 watts each. You always want your 70-volt amp to have at least 15 or 20% more power than the combined watts your speakers are tapped at. When we say the word tap, what we are referring to are the selectors that many speakers in 70 volt have on them. For example, some speakers might have selectable options of 1.5w, 3w, 5w, 10w. What this does is limit how many watts the built-in transformer on the speaker will allow the speaker to get from the amplifier. What this allows for is full customization of your sound for your space. In a restaurant, for example, you can tap your dining room speakers at 5 watts, the speakers by the bar area at 10 watts, the ones in the hallway at 3 watts, and the speakers in the bathrooms at 1.5 watts. Another great feature with 70 volt is you can mix and match any 70-volt speakers whether they are ceiling speakers, wall mounted speakers, subwoofers, etc.

70-volt systems allow you to run very long lines of speaker wire without signal loss. This makes it ideal when running long speaker leads.

The wiring is simple. You just wire all the positive terminals of the speakers to the positive 70-volt terminals of the amplifier. The negative terminals on the speaker simply get wired to the negative terminals on the amp. You do not have to worry about impedance. The power is constant.

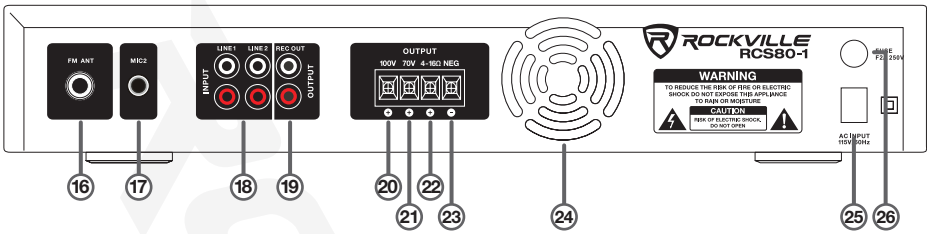
Functions



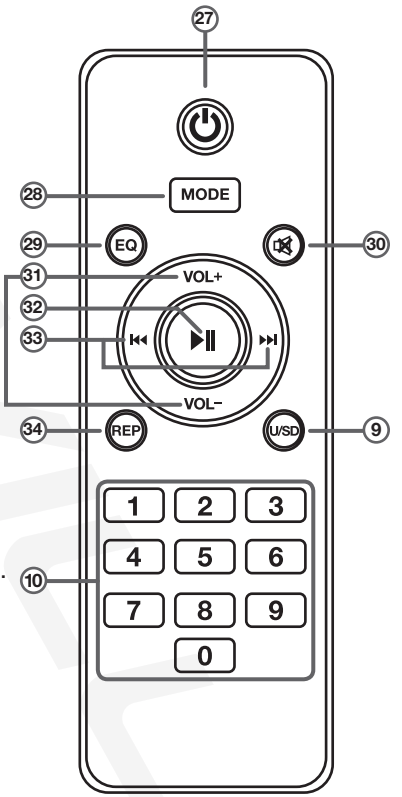
1. Power switch
2. LCD display
3. SD card input slot (32GB max)
4. Mode button: Switch between SD, USB, Bluetooth, and FM radio
5. USB input port (32GB max)
6. Playback controls: **Vol-/Previous -** Long press to decrease volume. Short press for previous track (USB/SD/BT mode) or previous preset station (FM mode).

   Play/Pause - Press once to play/pause music. In FM mode, short press to innitiate auto scan. All available stations will be stored to presets.

   Vol+/Next - Long press to increase volume. Short press for next track (USB/SD/BT mode) or next preset station (FM mode).
7. Repeat button: Press once to repeat a single track. Press twice to repeat all tracks. Press three times to repeat all files within a folder (USB/SD only). Press four times to enter random mode. Press and hold to force disconnect all paired bluetooth devices.
8. Equalizer with 5 presets
9. Talkover: Gives priority to mic input.
10. Mic 1 ¼″ input
11. Output spectrum display
12. Mic 1/Mic 2 volume controls
13. MP3 module volume control (SD/USB/Bluetooth/FM Radio)
14. Line input volume controls
15. 2 Band EQ: Adjust the bass and treble levels of all output.
16. FM antenna port
17. ¼″ Mic 2 input
18. RCA line inputs
19. RCA line output
20. 110V speaker output terminal
21. 70V speaker output terminal
22. 4 to 16-ohm speaker output terminal



23. COM terminal: Speaker common or negative connection
24. Cooling fan
25. AC 110V/60Hz power input
26. User serviceable fuse compartment: 2A-250V
27. ON/OFF
28. Mode: Switch between SD, USB, Bluetooth, and FM radio.
29. Change preset EQ: Normal, rock, pop, classic, jazz, and country.
30. Mute
31. VOL-/ VOL+: Increase or decrease the volume.
32. Play/Pause: Press to play or pause playback. Press to for two seconds auto-scan and save stations in FM radio mode.
33. ⏮ ⏭: Previous/Next song
34. REP: Press once to repeat single track. Press twice to repeat all tracks. Press three times to repeat all files within a folder. Press four times to enter random mode.
35. U/SD: Press ot switch between USB and SD input.
36. Number Pad: Select music files by number.



Setup

Selecting Output Wire and Connectors

It is recommended you use high quality 16 AWG, 2 or 4 conductor, heavy gauge, CL2 or CL3 rated, 100% Oxygen-Free Copper (OFC) speaker wire. CL2 and CL3 ratings refer to the cable jacket's fire resistance and the voltage capacity of the wire. While both cables have the same flame resistance capability, the CL2 cable can handle voltage spikes of up to 150 volts while the CL3 can handle up to 300 volts. When using the 70V/100V speaker zone output screw connectors, use terminal forks up to 10 AWG (recommended) or bare wire. Below is a chart to help you select the appropriate size wire based on the amp to speaker distance.

CAUTION: Never use shielded cable for output wiring.

CAUTION: For low impedance loads only.

CAUTION: Check local code requirements before installing in-ceiling or in-wall speaker wires. We recommend you use CL2 or CL3 rated, Oxygen-Free Copper (OFC) speaker wire.

The RCS80-1 features one RCA line output. We recommend you use high quality RCA cables such as the Rockville RNRTR10, RNRMR, or RCDR series.

Selecting Input cables

There are two ¼″ balanced TS mic inputs and two RCA inputs on the RCS80-1. We recommend you use high quality ¼″ TS cables such as Rockville's RCXMB, RCXFB, or RCTR series. For recommended RCA cables see the Selecting Output Wire and Connectors section above.

Rack Mounting

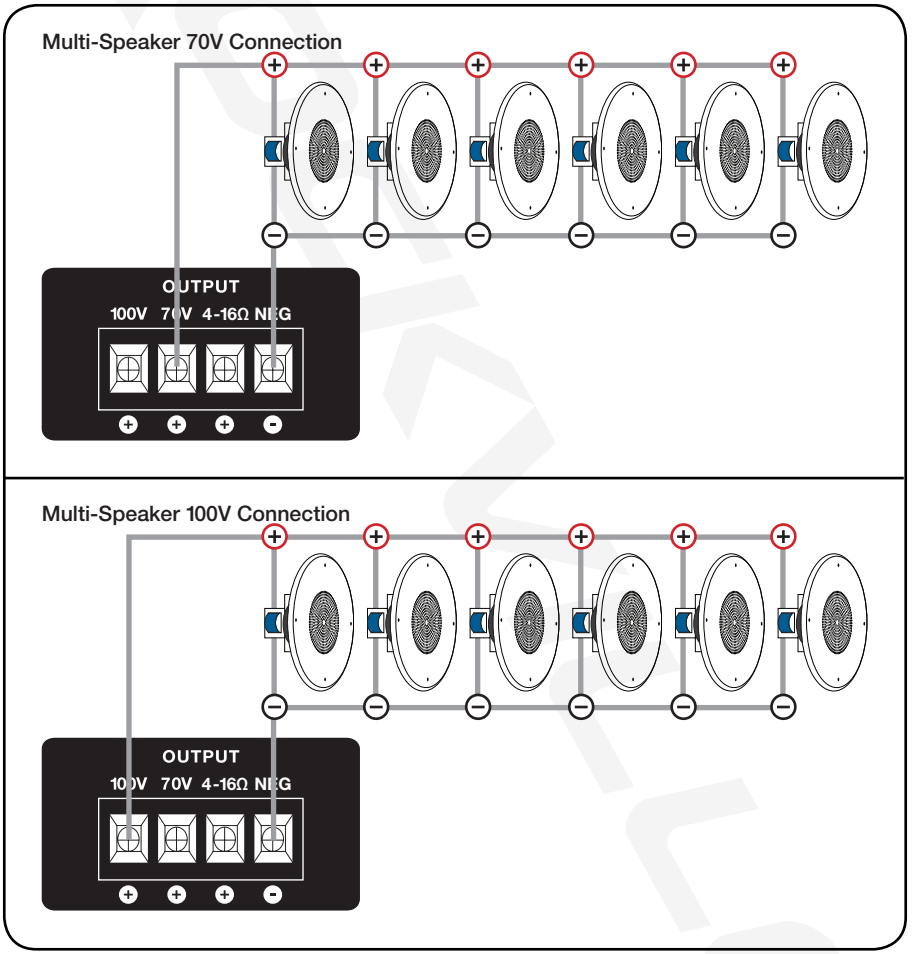
This unit should be on the bottom of the rack or above any equipment that does not produce heat. Be sure to provide at least 1 RU (Rack Unit, 1.75″) of space above and below. Preferably, the side wall should be at least 2″ from the sides of the amplifier and the back of the rack should be open. This will ensure a source of cool air to all sides of the amplifier.

Connections

The RCS80-1's 70V and 100V connections can be set up in a variety of ways. Please note that utilizing 70/100-volt connections and 4 to 16-ohm connections simultaneously is not recommended and will cause damage to the amplifier and the speakers.

70V/100V Speaker Output

You may connect any number of speakers to the 70 or 100 volt speaker output as long as the total wattage does not exceed 60 watts. Best practice is to allow for about 10 – 20% "head room" or extra power to handle any unusual amp requirements such as a deep bass note or a booming finale.

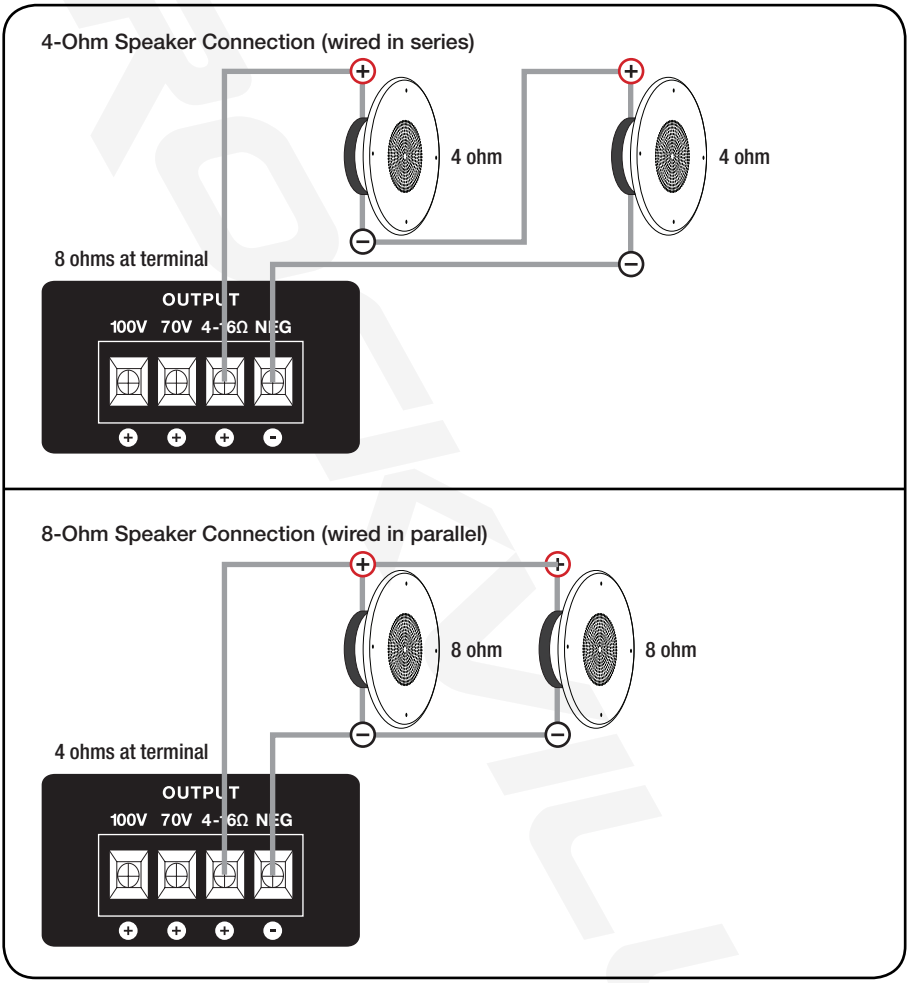


WARNING: Do not use 8-ohm or 4-ohm speakers. Only use speakers with built in 70-volt or 100-volt transformers.

WARNING: Do not use 70-volt and 100-volt connections at the same time. Doing so will cause permanent damage to the amp.

4 to 16-Ohm Speaker Output

You can connect two speakers to this terminal as long as the final impedance does not fall below 4 ohms. Although it is possible to connect more than two speakers to these terminals, it is not recommended. Please consult a professional if you intend to do so as incorrect installation could lead to irreparable damage to your amp and speakers.



CAUTION: We recommend you consult a professional if you plan on wiring more than 2 speakers to the 4 to 16-ohm output.

WARNING: Total impedance of your speakers **must not be less than 4 ohms.**

WARNING: Do not use 70/100v and 4 to 16-ohm connections at the same time. Doing so will cause permanent damage to the amp.

Operation

Bluetooth Pairing

To connect your iPod, iPhone, MP3 player, Android phone, or any other Bluetooth-capable device, follow the steps listed below.

1. Make sure the RCS80-1 unit's power switch is in the ON position.
2. Turn on the Bluetooth feature on your device and ensure that it is in "discoverable" mode.
3. Push the Mode button on the unit until you are in Bluetooth mode (LCD screen will display the word "bLUE").
4. Once in Bluetooth mode, the unit should automatically pair with your device. If not, look for "RCS80-1" on your device and select it.

5. If pairing is successful, you will hear a tone. Please note, the unit will remember the last paired device. Press and hold the REPEAT button for 5 seconds to force disconnect all paired devices.

Bluetooth Playback

You can control playback from your device or from the MP3 control panel on the RCS80-1:

1. Play/Pause: press once to play current track, press again to pause.
   Vol-/Previous: Long press to decrease volume. Short press for previous track.
   Vol+/Next: Long press to increase volume. Short press for next track.
   MP3 Volume knob: controls Bluetooth input volume.
2. Playback may also be controlled from your Bluetooth device.

USB/SD

1. Inserting a USB flash drive or an SD card into the corresponding port/slot will set the RCS80-1 to USB/SD mode and will automatically begin to play music.
2. Play/Pause: press once to play current track, press again to pause.
   Vol-/Previous: Long press to decrease volume. Short press for previous track.
   Vol+/Next: Long press to increase volume. Short press for next track.
   MP3 Volume knob: controls USB/SD input volume.

Please note, inserting a USB drive or an SD card will override FM radio mode and Bluetooth mode.

FM Radio

1. Press the Mode key until you enter FM radio mode.
2. Press the Play/Pause button on the unit to initiate auto scan. The unit will automatically search and store stations.
3. Short press the Previous/Next buttons to navigate through preset stations.

Features / Specifications

- Rockville RCS80-1 60-Watt 19″ Rack Mountable Commercial Amplifier/Receiver (removable rack brackets)
- Capable of 70 volt, 100 volt, 16 ohm, 8 ohm, and 4 ohm
- 100-volt RMS Power: 75 Watts
- 70-volt RMS Power: 60 Watts
- 4-ohm RMS power: 80 Watts
- 8-ohm RMS power: 70 Watts
- 16-ohm RMS power: 11 Watts
- Built in Bluetooth audio streaming
- FM radio tuner
- USB input to play audio stored on a thumb drive (32GB max)
- SD card slot to play music stored on an SD Card (32GB max)
- Separate volume control for MIC 1, MIC 2, MP3, LINE 1, LINE 2 inputs
- Bass and Treble controller
- 5 segment signal level indicators
- Talkover function
- 5 EQ presets: Rock, Popular, Classic, Jazz, Country
- Built-in cooling system keeps component cool at all times
- Distortion: <0.5% (1kHz)
- Signal to Noise Ratio: > 79dB
- Power Requirements: 110V/50 – 60Hz
- Fuse: F2A 250V
- A Weighted Signal to Noise (@ 1W) -79.0dBA
- A Weighted Signal to Noise (referenced to full 4-ohm power) -95.1dBA
- Frequency Response (bandwidth @ 2Vrms out, @ -3.0dB) 8 Ohms <10Hz – 22.8kHz
- Frequency Response vs THD+N (worst case, across normal bandwidth 1W @ 8 ohms) 0.82%
- Weight: 10.03lbs
- Dimensions: 16.9″ x 9.45″ x 2.76″ inches

Troubleshooting

PROBLEM	SOLUTION
No power	1. Make sure the unit is plugged in and the power switch is in the ON position. 2. Check that the power cable is properly plugged into the wall socket. 3. Check and replace the fuse if necessary. 4. If people or equipment tend to step on and roll over or stretch your power cable it can get damaged. Check the power cable for damage. If the cable is damaged, discontinue using the unit until the cable can be repaired.
No sound/low sound/distorted sound	1. Check that all appropriate cables and wires are plugged in correctly. 2. Check the Master Volume settings, check talkover setting. 3. Check the Microphone, Line input, and MP3 volume settings. 4. Check the volume settings on your input devices. 5. If using wall volume controls, be sure the volume is set properly. 6. Make sure the proper input source is selected. 7. Make sure you are using the proper type of speakers. 9. Make sure speakers are wired correctly (plus to plus, minus to minus; not plus to minus or vice versa). 10. Make sure the speakers are wired to the correct outputs (no 4 to 16-ohm speakers should be wired to the 70/100-volt direct outputs). 11. Make sure speaker transformer taps are set properly. 12. Make sure speakers' power ratings match the amplifier's.
Buzzing sound	Make sure you are using the proper cable. Check the requirements of the connected gear and the inputs on the amplifier and make sure you are using the appropriate cable. This unit's ¼″ mic outputs are TS (balanced) so you will need a TS mic cable. For line inputs be sure to use high quality RCA cables.
Mic feedback or poor sound	1. Point mics away from any nearby speakers. 2. Make sure the microphones are on and the volume controls are properly set. 3. Make sure the microphone cables are properly connected and that you are using good quality TS mic-specific cables.
Bluetooth pairing fails	1. Check to see that both devices are turned on and that your Bluetooth device is discoverable. 2. Turn both devices off and then on again. 3. Make sure you've selected the proper source. 4. Make sure that the Bluetooth device is within 5 feet of the unit. 5. Move both devices away from other Bluetooth devices. 6. Make sure that the unit is not paired to a previously paired device.
No SD or USB playback	1. Make sure you've selected the proper source. 2. Make sure that the audio files are in the specified format: MP3, WAV. 3. Make sure the USB drive's/SD card's capacity is not more than 32GB.

FEDERAL COMMUNICATIONS COMMISSION COMPLIANCE INFORMATION

Responsible party name: Rockville

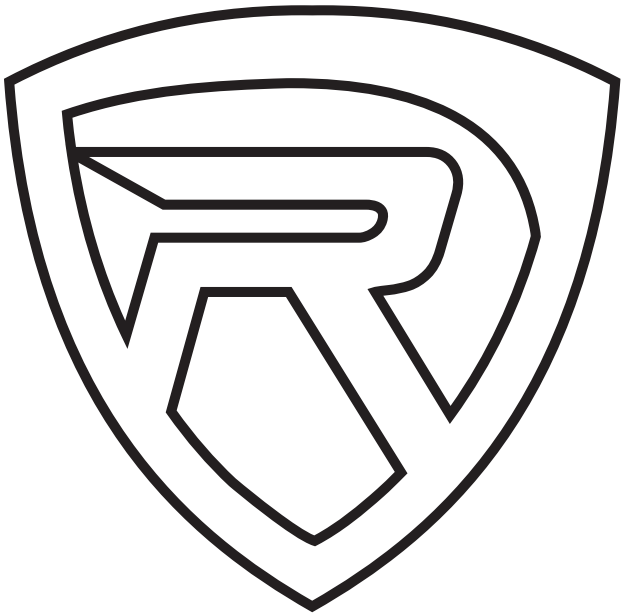
Address: 600 Bayview Ave.
Entrance A
Inwood, NY 11096

Hereby declares that the product(s) RCS80-1 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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