

RadioRemote One Wireless System

The RadioRemote One is designed to provide wireless remote control operation for photographic flash units manufactured by Paul C. Buff, Inc., including all AlienBees units and White Lightning UltraZAP, Ultras, and X-Series units.



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The RadioRemote One is a LightGear USA
product, a division of Paul C. Buff, Inc.

*Thank You for purchasing the RadioRemote One!
Please call us if you need any assistance.*

The RadioRemote One Wireless System

A complete setup includes one **RadioRemote One Transmitter** and a separate **RadioReceiver One** for each light in that setup (for example, to remotely operate a three light setup, you would need one transmitter and three receivers).

Features and Functions of the RadioRemote One System:

- remote function and a fully functional radio slave
- adjustable flashpower and modeling of up to 16 lights on 16 banks
- 900 MHz system firing at long distances, around obstructions, with a range from 80 to 400 feet, depending on conditions
- controls flashpower from -0 to -6.2 f-stops in 1/10 or full f-stops, with modeling settings of Full, Off, or Tracking
- convenient glow-in-the-dark keys and back-lit display
- non-volatile memory to record the last scene
- low battery indicators
- blinking modeling lamp serving to indicate the initial data up-link success

Product Description

The RadioRemote One system provides full wireless remote control for Paul C. Buff, Inc. Flash Units. The remote system combines the convenience of both remote function as well as that of a fully functional radio slave. The RadioRemote One System allows the photographer to adjust the flashpower setting as well as the modeling mode of each light in a setup. Metering is made easy with the ability to test fire all or individual lights. Exposure bracketing can be adjusted from the remote transmitter, instead of adjusting at the camera position, to maintain depth-of-field. By not allowing over-range or under-range bracketing of a light, proper ratios between the lights are maintained by the system. The RadioRemote One is not to be confused with cheap infrared remotes that require a strict line-of-site from the transmitter to the light and don't allow camera sync. The 900Mhz system in the RadioRemote is consistently reliable for firing at longer distances, and will transmit around obstructions.

Each Transmitter arrives with:

a PC to 1/8-inch stereo plug sync cord

- short, 4-foot sync cord
- plugs into the receiver, then into the PC outlet on your camera

two AA 1.5 volt alkaline batteries

- 400+ hour lifespan in your transmitter

camouflage case

- an open-ended case for attaching your sync cord and keeping the antennae in an upright position

velcro strips

- for mounting and attaching your receiver to your camera's tripod

Each Receiver arrives with:

two AA 1.5 volt alkaline batteries

AC power cord (grounded, 3-prong)

- gives you the option to use either an AC or DC power supply

25-foot telephone cable (RJ-11 modular)

- connects from the flash unit to the "To Light" jack on the receiver

dummy plugs

- to disable the built-in slave tripper

velcro strips

- for mounting the receiver

one mini flat head screwdriver

- to adjust the channel and bank dial

Back-lit Liquid Crystal Display (LCD)

indicates the exact settings of flashpower, bank/channel information, and specific modeling lamp status

Bar graph (on the LCD)

displays channel flashpower settings at a glance

F-VALUE display (on the LCD)

a two-digit display showing channel flashpower in 1/10 f-stop units (0 to -6.2 range)

BANK/CHAN display (on the LCD)

shows the current channel when nothing is pressed, and shows the current bank when the Bank button is pressed; when using the All mode, the display shows if a channel is over or under range by indicating the lowest channel which is out of range

ALL indicator (on the LCD)

becomes active when the All button is pressed, indicates all channels within that bank are being adjusted

MODEL icon (on the LCD)

indicates one of three modeling lamp modes:

1. clear = the modeling lamp is ON at Full Power
2. dark = the modeling lamp is OFF
3. half-bulb = the modeling lamp is set to TRACKING

MODEL button

scrolls through the three modeling lamp modes

Flashpower Adjustment

buttons serving to raise and lower flashpower:

- double arrow: 1 whole f-stop increments
- single arrow: 1/10 f-stop increments

ALL button

pressed once, this button sends the current settings to all lights, pressing and holding this button together with any flashpower button raises or lowers the flashpower on all channels

Channel Up/Down arrows

selects one of sixteen possible channels

Bank button

when pressed and held, using the Up/Down Channel arrows will select one of sixteen possible banks

ON and OFF buttons

sets each individual channel to be active or inactive

FIRE button

test flashes the channel, or test flashes the entire bank when the All button is pressed and held

The RR1TX RadioRemote Transmitter



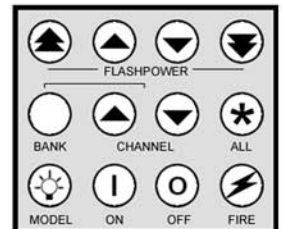
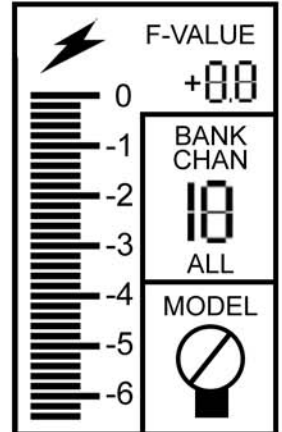
clear = ON (full)



dark = OFF



half = TRACK



OFF/ON switch

turns the unit off or on

Channel Dial and the Bank Dial

selects the channel and bank, turned with a mini flat head screwdriver

To Light telephone connection jack

remote jack connects with RJ-11 type modular telephone cable

LOW BAT LED indicator

turns red and blinks four times when the unit is powered up and the battery supply is low

DC Power Supply connector

(located on top of the unit, next to the antenna)

for connecting only the Paul C. Buff, Inc. included DC power supply

The RR1RX RadioRemote Receiver



Setting up the RadioRemote One

Note: The flash unit's On/Off switch and Model/Ready switch are not remotely operable, and must be set as desired on the individual units.

1. First, insert the two provided **AA batteries** into the back of your transmitter - these are the power source for your transmitter. Push the **channel button** to "wake" your remote transmitter.
2. The transmitter is factory set in bank one. To choose the bank, hold down the **bank button**, and use the **channel up** and **down** keys to select your desired bank.
3. Next, using just the **channel up** and **down** arrows on your touch pad, choose which channel you wish to work in. The LCD screen will display each channel as you scroll through the 16. **Each individual light** will have its own channel. If you wish to operate and adjust multiple lights in one channel, giving them the exact same settings, you may use multiple lights on one channel (note that any adjustments you make in this channel will adjust the lights on that channel in the exact same increments).
4. Push the **on button** to turn a channel on once it is selected. A channel must be made active in order for it to transmit the various commands. You can tell if a channel is active by looking at the bar graph and the f-value display areas as you scroll through the channels. If the bar graph is blank, the channel is not turned on.

5. Adjust the flashpower on that channel with the **flashpower up** and **down** arrows on the touch pad. You will notice that there are four buttons for flashpower adjustment, labeled **flashpower**. The button to the far left, with **two stacked arrows** facing upwards will adjust the power up in full f-stop increments. The second button, with **one arrow** facing upwards, will adjust the power up in 1/10 f-stop increments. The third button, with **one arrow** facing down will adjust the power down in 1/10 f-stop increments. The fourth button, on the far right, with **two stacked arrows** facing down, will adjust the power down in 1 full f-stop increments.
6. Next, insert the two **AA batteries** into the back of your receiver - these are the power source for your receiver to operate (you may use the provided power cord instead if you prefer). Turn your Power switch on, by sliding it to the left.
7. The receivers are factory set to **bank one**. Think of each bank as one photographer. All of the lights in a single setup should all be in the same bank.
8. The receiver comes factory set as well to **channel one**. You may set your channels as you wish, giving each light its own channel to adjust individually, or using multiple lights on one channel to have them adjusted with the same settings. Each light requires its own receiver, regardless of what channel you wish to set it to.
9. Connect the provided **telephone cable** from the back panel of your light to the front jack on the receiver, labeled **To Light**. The cord has one end with a doughnut-shaped noise filter. Connect the end with the noise filter to the flash unit. Insert the connectors firmly into the receiver and the flash unit. You should feel and hear a "click" when the connections are correctly made.
10. Use the provided velcro to **mount** the receiver on the side of your flash unit. Keep the antenna vertical, to decrease interference.
11. When you turn your receiver on, the LED will blink once to indicate that it is powered on. The modeling lamp in your flash unit will blink as well, to indicate a successful **data up-link**.
12. With your transmitter and receiver(s) set up, powered on, and set to the channels and bank desired, you are ready to test each unit. Scroll through each of the channels that you are using, and push the **Fire** button to test fire the channel that you have selected.
13. With your transmitter and your external flashmeter, adjust the **flashpower setting** to the proper f-stop reading that you wish to achieve by adjusting the arrows, and test firing the light.

14. Follow this same method of **adjusting** and **test firing** for each channel that you are using, based upon the number of lights in your setup.
15. To fire **all** of the lights, on all of your different channels for a final reading, push the **All** button (with the star graphic), and all of the lights on all of your channels will fire.
16. Notice the display panel, and look for the box in the lower right corner that says **Model**, and has a little bulb underneath. When the bulb on the display is clear, the modeling lamp of the light in that channel is on full. When only half of the bulb is on, the modeling lamp of the light in that channel is on **tracking**. When set to tracking mode, the modeling lamp will self-adjust its brightness or dimness in proportion to the changes made in flashpower. When the bulb in the display goes off, your modeling lamp in that channel is turned off. To select the modeling lamp mode, push the Model button with the light bulb graphic, located in the lower left corner of the keypad. Pushing this button will cause the display to change, cycling through your modeling options.
17. Be sure to keep the transmitter as vertical as possible, using the provided transmitter case. Keeping the unit vertical will ensure the best signal for transmission of your settings. You can keep the transmitter on your belt, hang it around your neck or use the velcro to mount it on your camera's tripod.
18. After flash metering your lights and setup, plug the **sync cord** into the transmitter and the camera. Use the provided sync cord that comes with your RadioRemote One. You are now ready to shoot! With the sync cord connected, the units will take their cue to fire from the transmitter, sending the fire signal when you press your camera shutter.

To save battery life, the transmitter "sleeps" after two minutes of non-use. While in Sleep Mode, it still fires when the shutter is used, as long as it is still connected. If you wish to make adjustments after the sleep mode has begun, you will need to touch the channel button to "wake" the transmitter up. The batteries powering your remotes are standard AA, 1.5 volt alkaline batteries, providing approximately 400 hours of typical use in the transmitter (with a three month standby), and approximately 100 hours of typical use in the receiver. The Low Battery light indicators will turn red when they are near the end of their lifespan. Standard AA 1.5 volt alkaline batteries or rechargeable AA alkaline batteries must be used.

Operating Range:

Typical operating range should be from about 80 to 400 feet or more. This range may be affected by a number of factors, including buildings, vegetation, bodies of water, and interference from other radio transmitters. Antennas should be kept vertical for the best transmission, and the receivers should be mounted away from large, metal, concrete, or water-filled objects, with line of sight orientation yielding maximum range. At long distances, you may have to move the receivers all to one side of your shoot to overcome "dead spots."

Factory Settings:

As supplied from the factory, **All Channels** are set to **-2 f-stops**, and **Channel 1** is set to **"On"** (with Channels 2-16 set to "Off"). These default settings may be recalled from the internal memory at any time by pressing and holding the Bank button, then pressing the On button. When performing this function, the bar graph on the LCD display screen will instantly kick upwards.

Last Scene Memory:

The RadioRemote One transmitter contains EEprom memory that automatically stores the current settings each time the transmitter goes into "sleep mode" (after two minutes of non-use). Thus, if the batteries fail or need to be changed during a shoot, you will not lose your settings. Further, if your shoot lasts multiple days, or you take breaks between shots and wish to return to the same settings, they will remain. If you desire to force the storage of a current setting (for instance, when changing your batteries in a hurry), this can be accomplished by pressing and holding the Bank button while pressing the Single Arrow Flashpower Up button. Recalling these settings can be achieved by holding the Bank button while pressing the Single Arrow Flashpower Down button.

Visual Verification:

When an active channel is selected or data is sent, the modeling lamp on the associated light unit will blink once to verify that it is properly receiving data. This can also serve as a reminder of which flash unit is on which channel. This only works, of course, when the modeling lamp is set to be on, in full or tracking mode. The LED light on the receiver for that unit will also blink twice.

Sync Speeds:

Before using the RadioRemote One, you will need to look at your camera's operations manual to discover the sync speed that your camera allows. Use this chart to discern what shutter speed is appropriate based on your camera rated sync speed.

Camera Rated Sync Speed	Maximum Shutter Speed
1/500	1/220 or slower
1/300	1/170 or slower
1/250	1/154 or slower
1/200	1/133 or slower
1/125	1/95 or slower
1/100	1/80 or slower
1/60	1/52 or slower

Refreshing All Settings:

Every time the All button is pressed, all settings for all of your active channels in the selected bank are re-sent. When this All button is pressed, all LED lights and modeling lamps (if turned on) should blink. After pressing the All button, press the Fire button to test fire all of your lights. If any of these tests fail to provide you with the expected response, you will need to troubleshoot the system by first checking your connections and batteries, then check to see that you have selected the proper bank and proper channels.

Common Modeling Lamp Mode:

Rather than selecting individual modeling lamp modes for each channel, if you wish to have all modeling lamps in your bank set in one mode, press the All button as you scroll through the options. Regardless of what channel you are setting the flashpower in, pressing this All button will immediately make the modeling lamp mode you select the same in all active channels, even those you are not currently dialed to.

Bracketing (Modifying ALL Flashpower Settings Simultaneously):

1. Press and hold the All button. The f-value display will read 0.0, indicating no modification has been made to the individual channels' flashpower. The All segment of the LCD will become active, and the bar graph will turn off.
2. While continuing to hold the All button, press the Flashpower Arrows to make adjustments. This will allow you to alter the f-stop power readings in your lights, keeping the same ratios.
3. If you were to then press the All button a second time, the display would again indicate 0.0, allowing you to start again making further modifications to all channels.

It is of great importance when bracketing that one does not alter the ratios between flash units, as this would alter what the scene actually "looks" like. Accordingly, it is important that in using the All button, the individual flash units do not go brighter than their Full power or dimmer than their Minimum power. To keep this from occurring, the receivers will not register changes that ask the flashpower to be raised or lowered outside of the -0 to -6.2 f-stop range.

FCC Regulations:

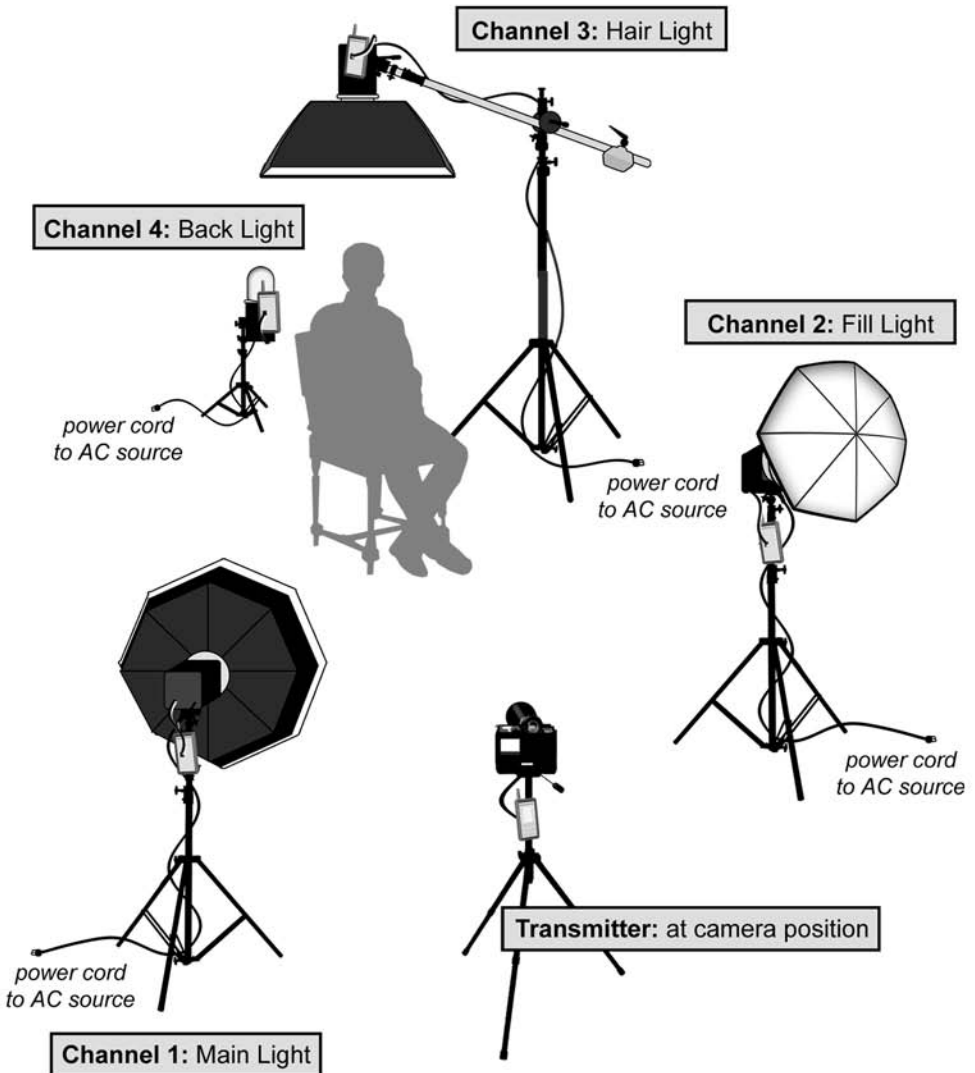
This equipment has been tested and found to comply with the limitations for a Class B digital device, pursuant to Part 15 of the FCC rules and regulations. These limits provide reasonable protection against interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in proper accordance with the provided instructions, may cause harmful interference to other radio communications. However, there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause harmful interference, the user is encouraged to reorient or relocate the receiving antenna, increase the separation between the equipment and the receiver, and/or consult the dealer for help.

General Care Recommendations:

1. Avoid exposure to moisture, as this may damage the unit.
2. Avoid exposure to temperatures above 110° F, or below 32°F.
3. For long term storage, remove the batteries.
4. Always use alkaline AA 1.5 volt batteries from a reputable manufacturer.
5. Turn all remotes off when not in use.

Sample Four Light Setup

This sample shows a four-light portrait setup, with a **Main Light**, a **Fill Light**, a **Back Light**, and a **Hair Light**. For this setup, one RadioRemote Transmitter and four RadioRemote Receivers would be required (as a full RadioRemote one setup includes one transmitter, and one receiver for each light in the setup).



Transmitter: at camera position

The Transmitter can be mounted (using the provided velcro) to your tripod. It will stay at the camera/photographer position, as it must be synced to the camera.

1. The transmitter is set to work within **Bank 1** (the default setting). Bank 1 is selected by holding the Bank button, and using the Channel Up and Down arrows to scroll through the 16 banks until Bank 1 is displayed.
2. **Channels 1 through 4** are made active. Each channel is individually turned on by scrolling through the 16 total channels within Bank 1, and pushing the On button for channels 1, 2, 3, and 4.
3. The provided sync cord connects the transmitter to the camera (1/4-inch stereo plug into the transmitter, PC connection into the camera's PC outlet).

Channel 1: Main Light

For this sample setup, one flash unit is used on a 13-foot stand with a 47-inch Octabox. The receiver can be mounted (using the provided velcro) on the side of the flash unit or on the stand.

1. The receiver is set to **Bank 1** and **Channel 1**. The bank and channel can be set using the provided flat head screwdriver.
2. The telephone cable (provided) is connected to the flash unit, plugged into the remote jack on the back panel, and the "To Light" jack on the receiver.

Channel 2: Fill Light

For this sample setup, one flash unit is used on a 10-foot stand with a 48-inch Silver Bounce Umbrella. The receiver can be mounted (using the provided velcro) on the side of the flash unit or on the stand.

1. The receiver is set to **Bank 1** and **Channel 2**. The bank and channel can be set using the provided flat head screwdriver.
2. The telephone cable (provided) is connected to the flash unit, plugged into the remote jack on the back panel, and the "To Light" jack on the receiver.

Channel 3: Hair Light

For this sample setup, one flash unit is used on a boom arm (on a 13-foot stand) with a Medium Softbox. The receiver can be mounted (using the provided velcro) on the side of the flash unit or on the boom arm extension.

1. The receiver is set to **Bank 1** and **Channel 3**. The bank and channel can be set using the provided flat head screwdriver.
2. The telephone cable (provided) is connected to the flash unit, plugged into the remote jack on the back panel, and the "To Light" jack on the receiver.

Channel 4: Back Light

For this sample setup, one flash unit is used on a 3-foot Backlight Stand, with a white shovel reflector. The receiver can be mounted (using the provided velcro) on the side of the flash unit or on the boom arm extension.

1. The receiver is set to **Bank 1** and **Channel 4**. The bank and channel can be set using the provided flat head screwdriver.
2. The telephone cable (provided) is connected to the flash unit, plugged into the remote jack on the back panel, and the "To Light" jack on the receiver.

Troubleshooting:

problem: the bracketing function (all up or all down) will not work
Most likely, one or more of the channels is at Full Power or Minimum Power. To correct this problem, turn off all channels not in use.

problem: another photographer in the area is setting off your lights
Is another photographer also using a Radio Remote One, and in the same bank that you are? If so, simply change what bank you are working in. Are your slaves disabled? The slaves are disabled whenever a sync cord or blank "dummy plug" is inserted (please call us if you need any dummy plugs; we have both 1/4-inch and 1/8-inch plugs to disable the slave).

problem: one receiver is not responding, though the other(s) are
Is the non-responsive receiver turned on? Are the batteries still good? First check that all connections are tight, and that your batteries are good. Make sure that the individual receiver is turned on, and set to the proper channel and bank. Then check that the corresponding channel on the transmitter is on, and all channels not in use are turned off.

problem: none of the receivers are working
First check to see that the transmitter's batteries are good, and that the bank is correctly set. Then check that the proper channels are selected, and that they are turned on.

problem: the transmitter fires the lights, but the camera will not
If the camera sync cord has reversible connections, try reversing them. If you are using a hot shoe adaptor, make sure that the cord comes out of the back end of the camera, not the front, and check that the hot shoe is well-locked in place. Try unplugging the sync momentarily, and short the sync cord contacts together with a metal object, which should fire the system.

For further problems, please call our technical services department to assess your needs, diagnose the problem, and decide whether you need any repairs or replacement. We are available Monday through Friday, 9:00am-5:00pm (CST).

This equipment is covered under a **two year factory warranty**. This warranty is limited to the repair or replacement of the unit which fails during the period stated.

The warranty shall exclude the replacement of batteries, as these will become exhausted over time based on normal use. Should warranty service be required, you should first contact our Technical Support Team on our Toll Free Customer Service Line, **1-800-443-5542**. *Thank you! Enjoy your RadioRemote One!*