

Remote Release Controller User Guide

This user guide will give you all the essential information needed for interacting with and configuring the Wildlife Computers Remote Release Controller (RRC).

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Before you Begin



The information contained in this guide is designed to help you get the most from your deployment. In the guide, you will see the yellow icon highlighting information where special attention should be paid.

About the Remote Release Controller

The Wildlife Computers RRC is used to trigger a release on appropriately equipped tags. Examples of tags with a remote release are PRD-RP and SMRT. The RRC will send and receive transmissions, allowing limited two-way communication.

Anatomy of the RRC

The RRC is a hand-held transceiver (Figure 1), capable of transmitting and receiving remote release radio commands. The LCD display and keypad are used to select commands to transmit and target a specific tag.

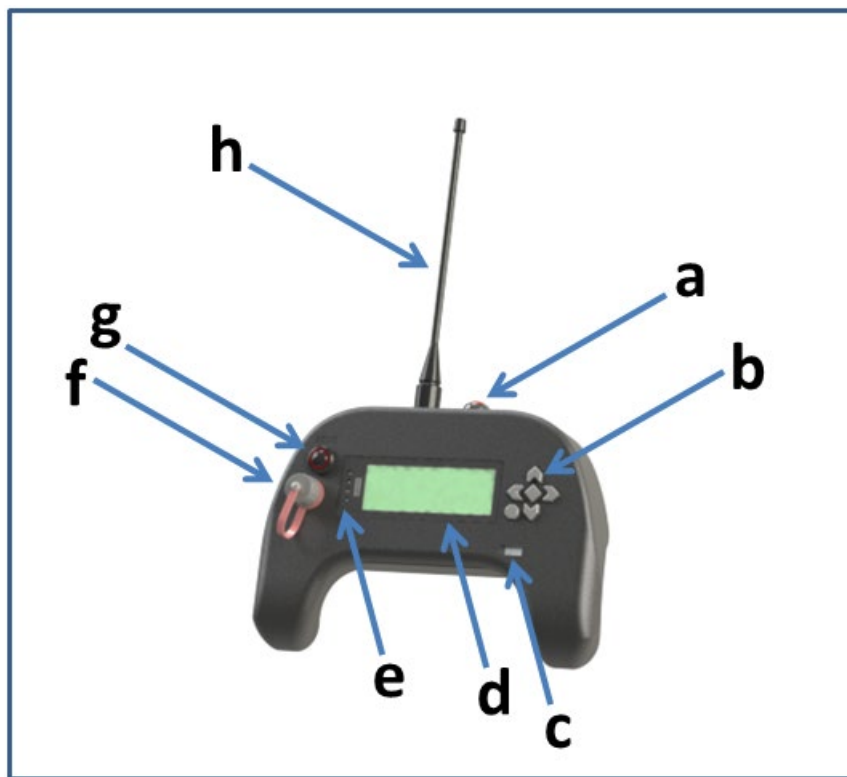


Figure 1 — PRD-RP showing: (a) on/off switch, (b) keypad, (c) charge indicator, (d) LCD screen, (e) LED indicators, (f) charging port, (g) reset button, and (h) antenna.

Charging the RRC

The RRC is powered by a rechargeable battery. The battery is charged with the supplied USB-mini cable. Unscrew the dust cap and connect to the USB port. Any certified USB power adapter will charge the battery. Typically, the RRC will be fully charged after 24 hours and will allow for 8 hours of continuous operation. There is a window that allows an LED charge indicator to be viewed (note: the indicator is quite faint).

Using the RRC

Turning the RRC On and Off

Turn on the RRC using the power switch on the top of the device and then reset the device with the reset button on the front panel. Turn off the RRC by pressing the toggle switch again. No additional commands are required.

Interface

Use the left and right arrows on the keypad to move the cursor (Figure 2). Use the up and down arrows to adjust the command or the digits of the serial number. Use the center button to transmit the selected command. Most screens will show a timer that indicates how long since the last reception. The timer increments every 5 seconds. Transmissions and reception counts are also shown.

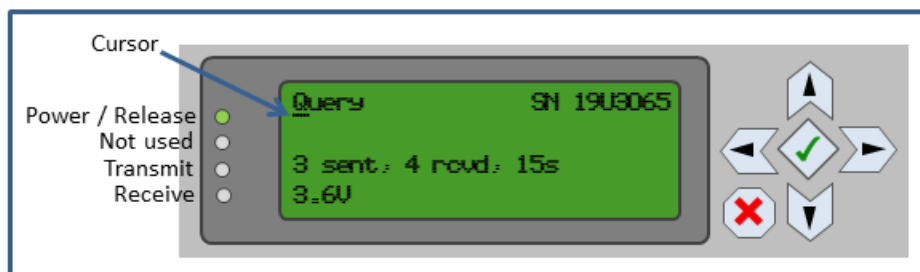


Figure 2 — RRC display. In the above example, the RRC is ready to send a Query command to serial number 19U3065. Three transmissions have been sent (sent), 4 transmissions have been received (rcvd), and 15 seconds have elapsed since the last reception (15s). The battery voltage of 19U3065 is 3.6 volts.

Serial Number

You must know the serial number of the device you wish to release, enable the strobe, or query its status. You can select the serial number directly, or you can attempt to discover all devices within range.

Direct Selection of a Serial Number

Use the right/left arrow keys to put the cursor under the digit you wish to adjust. Then use the up/down arrows to change the digit. Use the right/left arrow keys to move the cursor back to the command when you are done.

Discovery

Use the up/down arrows to select the **Discover** command and press the center-check button to send the command. All devices receiving the discover command will respond twice with their serial number. The first response will be sent immediately and the second response will be sent after a long, random delay of no longer than 15 seconds.

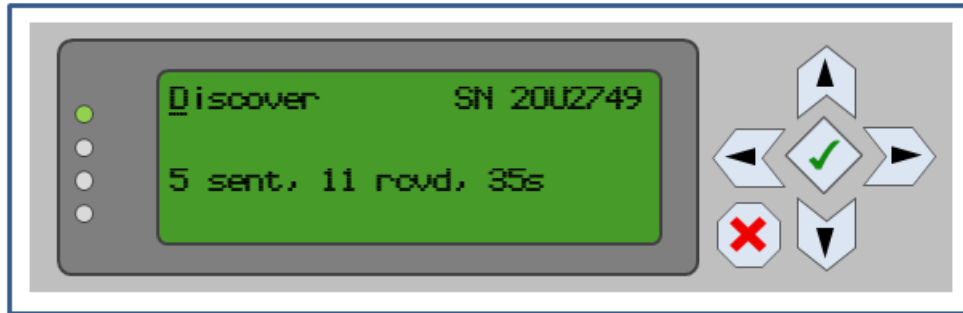


Figure 3 — Discover command selected.

The serial numbers will be added to a selectable list. Use the arrow keys to move the cursor to the desired serial number and press the center-check button to select it. Note that several Discover commands may be required, especially when many devices are present.

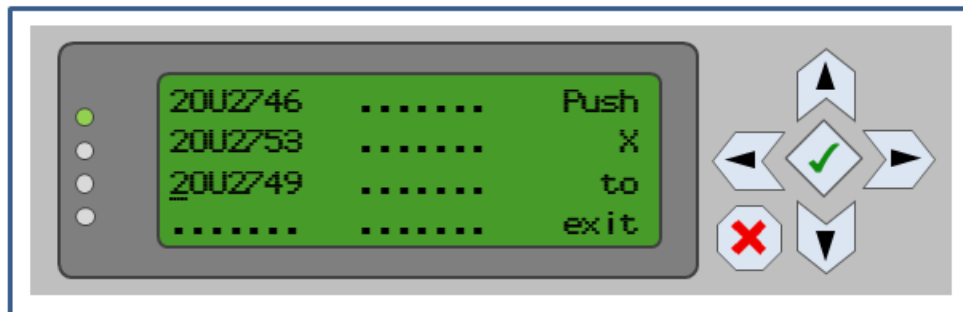


Figure 4 — Waiting for responses to Discover command.

Query

The **Query** command will request a response from the tag specified by the serial number. The targeted tag will send two response transmissions two times. The first response will be sent immediately and the second response will be sent after a long, random delay of no longer than 15 seconds. The current battery voltage of the target tag is shown. For tags already released, the Query command will also indicate the tag has released.

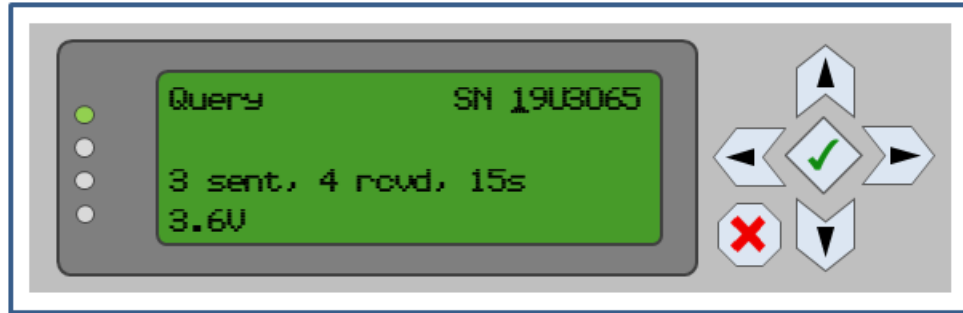


Figure 5 — Query command selected.

Clear

The **Clear** command will reset the sent/received counter and the battery voltage. No command is sent to the tag.

Strobe

The **Strobe** command will cause the device specified by the serial number to flash a bright, red light 10 times. This can help identify a specific device among several devices. The strobe can also help detect the device in low light conditions. The Strobe is only available on the PRD-RP.

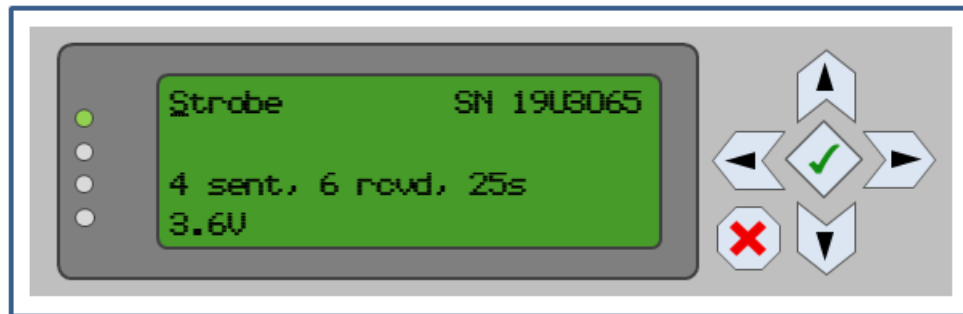


Figure 6 — Strobe command selected.

Release

The **Release** command will trigger a release of the device specified by the serial number (Figure 7). With the cursor at the far left of the display, use the up/down arrows until Release appears. The power LED will turn red to indicate you are about to trigger a release. The targeted device will transmit twice in response. The first response will be sent immediately and the second response will be sent after a long, random delay of no longer than 15 seconds.



The Release command will be sent immediately after the center button is pressed. There will be no confirmation of the command.

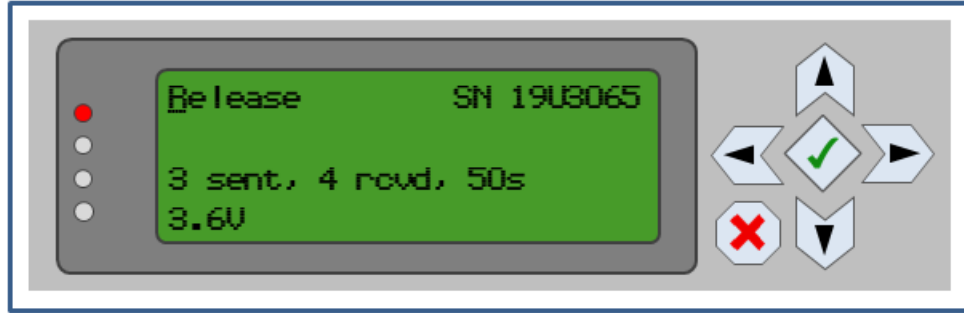


Figure 7 — Release command selected.

Technical Specifications

Below are physical specifications of a PRD-RP.

Dimensions (L x W x H)	61 mm x 243 mm x 172 mm
Weight	735 g
Operating Temperature Range	-20° to 55° C
Charging Temperature Range	0° to 45° C
Operating Life (per full charge)	8 hours
Transmitter Frequency	401.678 MHz
Transmitter Power Output	500 mW
Receiver Sensitivity	-97 dBm
Shipping Restrictions	None
Charging Cable	USB mini-A

Contacting Wildlife Computers

U.S. and International

Members of the Wildlife Computers technical sales and support team are located in Redmond, WA, USA, and Havelock North, New Zealand, allowing us to cover promptly a wide range of time zones.

Mailing and Shipping

Wildlife Computers

8310 154th Avenue NE, Suite 150

Redmond, WA 98052 USA

E-Mail

Sales, Quotes, and Inquiries: tags@wildlifecomputers.com

Technical Support: support@wildlifecomputers.com

Phone

+1 (425) 881 3048

Website

WildlifeComputers.com

For Asian Clients

While we welcome your direct correspondence, we recommend that you contact our colleague, Yong Huang, for assistance. Mr. Huang understands the special purchase processes for your countries, and will provide you with the best service for the best price. He also is fluent in Japanese, Chinese, and English.

Mailing address—Please ship to our main office

Yong Huang

Enfotran Corporation

2608 79th Ave NE

Medina, WA 98039 USA

E-mail

yong.huang@enfo.us

Phone

+1 (425) 456 0101

