

RT / RT XP User Guide

Introduction

Congratulations on your purchase of the Marshall RT Standard Transmitter. Designed for the harshest conditions in falconry, the RT is the most rugged falconry transmitter ever produced. Now even more powerful, the RT is longest range transmitter available.


Operating Modes:

The RT transmitter is designed give the best range possible while hunting, but it is also able to reduce duty cycle (slow down the pulses) to preserve battery life if your falcon is out for an extended time. With this feature, the RT provides 7+ days of total battery life on a new battery.

Battery Life Indication:

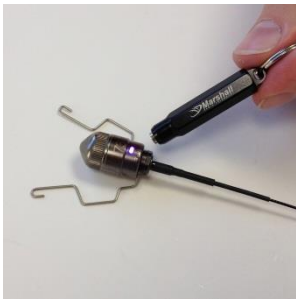
The RT will run 7 days continuously when a new battery is installed. The LED light on the side of the RT indicates the current battery status

 **Green LED – Normal Mode.** Battery condition is good

 **Yellow LED** (and double beep) – **Change Battery.** The battery is getting low (2-3 days remaining)

 **Red LED** (and triple beep) – **Battery almost dead,** you have less than 1 day remaining

Note: *the LED light is the latest technology and is super-efficient, it uses less than 1% of the transmitter's power.*



Tap On /Tap Off™ Magnetic Switch

The RT uses Marshall's unique rapid tap on/ tap off magnetic switch to turn the transmitter on and off. The status of the transmitter is then indicated by the color of the LED light.

Note: *If you lose your magnet, or prefer to use your transmitter without this feature, the RT can be switched on and off by simply removing the battery.*

Battery: The RT uses the venerable 1/3N Lithium Photo Battery proven by falconers for years. We recommend the Duracell DL1/3N.

Battery is installed positive side inside the lid (positive side is marked with a "+"). When installing battery, screw the lid down finger tight. As soon as the battery is installed transmitter will begin running.



Rechargeable Batteries: The RT is also compatible with Marshall's rechargeable (GPS) batteries. These improve range (more output power) and provide enhanced performance in sub-freezing conditions. Rechargeable batteries also allow you to start each flight with a fully charged battery, giving you maximum recovery time should the need arise. Charger Kit's and additional batteries are sold separately.

Maintenance

Inspect your transmitter for signs of mechanical wear and tear. Inspect **Antenna** and replace as soon as you see cracks or any exposed metal wire (pay special attention to the tip of the antenna), replace when any metal is visible. Make sure **Antenna Protector** is secured. Battery contacts should be periodically cleaned with a cotton swap and isopropyl alcohol.

Leg and Tail / Backpack mounting

Your RT comes standard with the tail spring installed. For use as a leg mount, simply unscrew the antenna protector, then remove the tail spring collar by gently rocking it back and forth to pop it over the threads. The spring can then be removed. Re-install collar and antenna protector.

Replacing the Antenna

The antenna on the RT transmitter is field replaceable. Use only Genuine Marshall replacement antennas with *Power Line Protection*[™], length is 7 inches for the UHF version, and 13.25" for VHF.

Remove the antenna protector by un-screwing. Then un-screw the old antenna to remove. Make sure the threads on the stud are clean and shiny.

Install new antenna hand tight. You may apply a small bead of quick drying epoxy around the base. Then reinstall the antenna protector securely.

Note: **Never use liquid super glue** or any type of thread locking compound to secure the antenna. Liquid Super Glue can wick up the threads causing them to permanently bond to the antenna stud. **Only use your fingers** to remove old antennas, using tools or pliers may permanently damage your transmitter.

RT Range

The RT is designed to give best range while on your bird. It has been tested to over 120 Kilometers line-of-sight. Like any transmitter, *range varies greatly with terrain*. Tests have shown its range in hunting situations anywhere from 6-60 kilos, depending on height of transmitter, height of receiver, type of terrain and obstructions, and radio noise or interference.

Using the Receiver

Signal from a transmitter is *strongest* if **receiver antenna is lined up in same orientation as transmitter antenna**. Since a falcon on a perch keeps tail almost vertical, you will get best signal if holding receiver antenna with its elements vertical. However, there are cases when transmitter's antenna could be nearly horizontal and holding your receiver antenna horizontally will give the better result.



Bird on perch



Bird on ground

Hint: If **both** horizontal and vertical signals can be heard, use **horizontal** for better pinpoint accuracy

Warranty

Marshall Radio Telemetry warrants that the RT transmitter will be free from defects of workmanship and materials for three (3) Years from the date of purchase by end-user. Return defective transmitter directly to Marshall Radio Telemetry and we will repair or replace it and return it free of charge. However, we will not be responsible for damage from misuse or normal wear and tear incurred during use. Warranty is void if a non-Marshall Radio Telemetry antenna has been used. *Under no circumstances will Marshall Radio be responsible for damages or loss beyond the value of the transmitter itself, including but not limited to the loss of a bird or lost time.*

FCC Notice: This device does not interfere with TV reception or Federal Government radar.

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