



MicroFire™

User Manual



Table of Contents

I.	Camera Overview	2
II.	MicroFire™ Specifications.....	3
III.	Batteries & Memory Cards	4
IV.	Mounting Your Camera	7
V.	Aiming Your Camera	8
VI.	Image Data Information	10
VII.	Troubleshooting	11
VIII.	Warranty, FCC, CE, IC and Safety Information.....	14
IX.	Copyright & Trademark Information.....	16



Camera Overview

Congratulations on purchasing a RECONYX® camera. RECONYX® has been the leader in digital wildlife cameras since 2002. Your MicroFire™ camera is a state-of-the-art digital camera, Passive Infrared (PIR) motion detector and a night time illuminator, all contained in a secure, rugged and weather-resistant case.

Whether you are using the camera for scouting deer or studying wildlife, you will find that using the MicroFire™ camera in conjunction with the RECONYX® Mobile App will be one of your most valuable tools in gathering and analyzing data.

Thank you for putting your trust in us!

Contents of this package:

- MicroFire™ Camera.
- Universal Camera Mount.
- Links to download the required RECONYX® Mobile App.

Other things you will need:

- Micro Secure Digital® (SD or SDHC) Memory Card.
- 6 AA Batteries.

NOTE: *MicroFire™ cameras will only operate on either NiMH rechargeable batteries or Energizer® 1.5V AA Ultimate Lithium™ batteries.*

NOTE: If you have any questions or concerns relating to the operation or functionality of your camera, please contact our Technical Service Department by email at support@reconyx.com or by calling toll free [866-493-6064](tel:866-493-6064).

MicroFire™ Specifications

Night Time Illumination	NoGlow™ Covert Infrared up to 50 feet
Image Resolution	720P HD Video with Audio Still Image Resolution: 3..0 MP
Trigger Speed	0.20 second
Battery Requirements	6 AA size Lithium or NiMH Rechargeable Batteries
SD Card Capacity	Up to 32GB
Time-Lapse Surveillance	Included
Warranty	5 years

RECONYX Mobile App

RECONYX® Outdoor Series MicroFire™ Cameras include the RECONYX® mapping and image management Mobile App with Google Maps® technology. This allows you to geographically organize and access your images and videos and helps you to pattern and understand animal movements and behaviors. In addition to camera locations, you can add food plots, tree stands and more. The RECONYX® Mobile App also enables you to easily upload and share your RECONYX® photos to Facebook® and Twitter®.



Batteries & Memory Cards

Your RECONYX® MicroFire™ camera runs on six AA-cell batteries. We highly recommend using either Energizer® Ultimate Lithium™ batteries or high-quality NiMH Rechargeable batteries in your camera. **Alkaline batteries do not provide as much power as Lithium or NiMH batteries, they are adversely affected by both hot and cold weather and are not recommended.**

NiMH will operate at temperatures down to -20°F. Lithium batteries will operate to -40°F.

NOTE: Be sure to load batteries in the proper orientation (The coil spring is the negative contact point in the battery cartridge).



Warning! Do not mix battery types! Damage to the camera can result and your warranty will be voided if you mix battery types.

Micro Secure Digital® (SD or SDHC) Card Specifications

A Micro Secure Digital (SD/SDHC) card is used to store the pictures your camera captures. These images may be transmitted to your mobile device using the RECONYX Mobile App.

Inserting and Removing memory cards

Make sure the orientation is correct and that the card is aligned properly. Push gently on the memory card as shown below until it clicks into place. Remove by pushing on the card until it clicks and is partially ejected.



Warning! Inserting the memory card upside down or backwards could damage the camera or the memory card. Damage resulting from inserting the card incorrectly is not covered under warranty.

Memory Card - File System Requirements

Secure Digital cards have various speeds and capacities. Larger capacity cards are capable of storing more images. Your MicroFire™ camera can accept cards up to 32GB.

Troubleshooting your memory card

If you have a memory card that does not seem to work, or you used the card in another device, you may have to re-format your memory card. This can be done with any Windows® Operating System.

Windows® – Steps to format memory card

Step 1: Insert your memory card into your computer's card reader.

Step 2: Click "*Start -> My Computer*". You should see your memory card under the list of available drives. Be sure to check its contents first to make sure that you have the right drive.

Step 3: Right-click on the drive and choose '*Format*'.

Step 4: Under "*File system*" select the "FAT32" option then click on '*Start*'.

Step 5: Once the process is completed, take the memory card out and insert it into your Camera.

Mounting Your Camera

The camera can be mounted to a tree by using the included Universal Camera Mount (shown below). Simply screw the mount into a tree or post and then install the camera using the threaded insert. Loosen the ball mount to adjust the camera aim. For added security, our MicroFire™ Security Enclosure can be used with a Python™ Cable Lock by MasterLock®.

Visit our website www.reconyx.com for other options for mounting and securing your camera.

Mounting Camera with Universal Camera Mount (included)



We recommend that you mount your camera at a height of approximately 4 feet or higher. This height is optimal for detecting animals in the field of view of the camera as well as for accessing the camera's card and batteries.

NOTE: It is highly recommended that you use a theft deterrent device such as a Security Enclosure and a lock to help secure your camera against possible theft when it is in the field.

TIP: *Be sure to enable the Codeloc™ feature on your camera for additional security.*

Aiming Your Camera

PIR Motion Detector

The Passive Infrared Motion Detector on your MicroFire™ camera is precisely aligned with the camera lens to give you the best chance of capturing subjects that come into the field of view of the camera, while not capturing pictures of anything that is not in the view of the camera.

The motion detector can detect movement up to 60 feet away. However, the detection range is dependent on the temperature of the source in relation to the ambient air temperature.

For the camera to take a picture two things need to happen:

- 1) An object (typically an animal) with a temperature different from the background temperature must be present within one of the detection bands. (i.e. something warmer or colder than the ambient temperature).
- 2) That object (i.e. something with a different temperature) must be moving into or out of the motion detection zones.

Motion Sensor Test Mode

Learning to use the WalkTest mode is critical to being as successful as possible with your RECONYX® camera. The WalkTest mode allows you to precisely determine your camera's active motion detection zones – ensuring your camera is aimed exactly where you want to capture animal activity.

- 1) Secure the camera to a tree or other object aiming the camera toward where you want it to capture pictures.
- 2) Using the RECONYX® Mobile App, select “CHECK AIM” to put camera in **Motion Sensor Test** mode.
- 3) Walk in front of the camera where you expect to capture pictures. Every time the green WalkTest light blinks it indicates that a motion event is taking place. If the WalkTest light does not blink where you expect it to, adjust the aim or location of the camera.
- 4) If possible, set up the camera so that no large trees or objects are in the main field of view of the camera, as they can adversely affect motion detection as well as night time flash range.

TIP: When setting the camera up it's best to position the camera using the "Check View" feature. The camera will send you a photo on demand to allow you to see the camera's field of view.

NOTE: All RECONYX™ cameras will self-arm from the WalkTest mode after a two minute period during which it does not detect any motion events.










External Power Connection

All MicroFire cameras include an External Power Connector. This allows you to connect the Camera to a 12 volt DC 4 amp power supply of your choosing. A Voltage Regulated Cable is available directly from RECONYX. Connecting to the correct power supply is your responsibility! Any damage caused by connecting to an incorrect power source is not covered under the warranty. If you have any questions, please contact our Technical Service department support@reconyx.com.



Image Data Information

Your RECONYX® MicroFire™ camera stores Image Data in every picture it takes. Some of this information is displayed on the Image Data bands above and below the image.

- An **M** or **T** in the top data band indicates a “motion” or “time-lapse” event.
- “**1/3**” indicates the first in a sequence of three pictures for that event.
- Moon Phases displayed include:  (new moon),  (waxing crescent),  (first quarter),  (waxing gibbous),  (full moon),  (waning gibbous),  (last quarter), and  (waning crescent).
- The “Illumination”  indicator appears in the Image Data bands when the illuminator (flash) is used.

Troubleshooting

For answers to questions about your RECONYX™ MicroFire™ camera that you cannot find in this *Instruction Manual*, please contact RECONYX™ Technical Support at support@reconyx.com or call 1-866-493-6064.

Firmware Updates

You may see updates available in the RECONYX® Mobile App to update your camera's firmware. We periodically release firmware updates with new features and/or performance enhancements. Updating firmware on the MicroFire™ Series cameras takes just a few seconds and is well worth the effort to ensure your camera is performing at the highest level possible.

Limited Night Time Range

If your nighttime range is less than expected, check to be sure your batteries are new or fully charged. NiMH rechargeable batteries or Energizer® 1.5V AA Ultimate Lithium™ batteries are the only power source approved for RECONYX® cameras. Alkaline batteries cannot deliver enough amperage to power the illuminator consistently at night and are not recommended.

The physical camera setup is also important in getting good nighttime images. If you aim the camera out over an open field where there is nothing within range to reflect the Infrared energy back toward the camera, the images will appear very dark (like shining a flashlight into the night sky). The best nighttime images will be captured when you have a backdrop of some sort that will reflect energy back toward the camera (e.g. trees, tall grass, fence, building, hillside, etc).

Focus Problems

If your images appear cloudy or out of focus, *first consider whether there was condensation or frost on the camera windows; you may wish to check your camera after a fresh snowfall to be sure the windows are not covered with snow. Next, check the windows for dirt and water spots, and gently clean them with a clean soft cloth and glass cleaner or water. Image clarity can also be adversely affected by very high temperatures, so it is a good idea to mount your camera where it will not be getting direct sunlight during the heat of the day.*

False Triggers

If you seem to be getting false triggers (i.e. the camera is taking pictures of nothing); first, restore your camera back to the Default settings and try your camera again. This will ensure that you are running with known settings – with the motion detector ON at HIGH sensitivity and with Time-Lapse OFF.

If after going back to the Default settings, you still seem to be getting false triggers, check the physical setup of your camera. The sun should not be shining directly on the face of the camera, and the camera's field of view should be cleared of as much vegetation as possible. False triggers most occur most on sunny, breezy days. Vegetation will soak up the sun's energy and it will become warmer than the ambient air temperature. When the wind moves the vegetation, the camera detects this and cannot distinguish it from a warm-blooded animal moving through the scene. For this reason, careful placement and setup of your camera helps prevent false triggers.

Only as a LAST resort should you turn down your camera's motion sensitivity; this reduces your ability to detect movement of warm-blooded animals, especially during the summer.

Camera Not Triggering on Animals

First, restore the camera back to Default settings and try your camera again. This will ensure that you are running with known settings – it will set the motion detector ON at HIGH sensitivity. This is important, especially in the warmer months, because as the background temperature approaches the temperature of the animals, the strength of the signal decreases and the range goes down accordingly.

If you are still having trouble, please refer to the "*Mounting and Aiming Your Camera*" section for detailed information, as well as using the WalkTest mode. Keep in mind that most animals are not 6 feet (2 meters) tall, so when you use the WalkTest mode, do not just walk by the camera in a full upright stance. The camera may be triggering on your upper torso or head and not on your legs (where most animals are likely to be). There is an inactive zone that you need to be aware of so that you don't aim the inactive zone precisely on a trail – if you do, you will not pick up animal activity on the trail.

It is important to keep in mind that there are other factors that can also affect the ability of your camera to detect motion. Wind can have a detrimental effect. Body heat from an animal can be quickly dispersed away from the animal on a breezy day, making it more difficult for the camera to detect the animal. Also movement directly toward and away from the camera is less likely to trigger the camera than side-to-side movement. And, finally, if an animal is moving very slowly, it will sometimes not produce a strong enough signal within the sensor to trigger the camera.

Memory Card Problems

If you have issues, you may want to try a different brand of memory card. We have found that some of the less expensive memory cards are very slow and do not always run well (even if they are advertised as fast). RECONYX® certified memory cards are available at www.reconyx.com.

Cold Weather Problems

If your camera shuts down in the cold, it may be too cold for the batteries to operate reliably. Refer to the “Battery Specifications” section for recommended battery types.

Battery Life Less than Expected

NiMH batteries have decreased life in hot weather. They will run the camera, but they will have decreased run time. It is not unusual to see battery life drop off 50% or more when daytime temperatures near 90° Fahrenheit or higher. This will not damage your NiMH batteries; but they will discharge at a faster rate.

Other Questions?

If you have read this manual and checked our web site, and you still need assistance, please contact our Technical Support Department at 866-493-6064 or e-mail support@reconyx.com.

Warranty, FCC, CE, IC and Safety Information

RECONYX® Limited Hardware Warranty

RECONYX® MicroFire™ cameras are warranted against manufacturers defects in materials and workmanship for a period of five years from the date of purchase. If during this period, through normal use, the product fails due to defects in materials or workmanship, RECONYX™ will either repair or replace the product at our discretion.

Repair or Replacement

Buyer must obtain a Return Authorization (RA) number from RECONYX® before returning any product(s) for repair or replacement. If RECONYX® concludes that a returned product is not defective, Buyer will be notified, the product will be returned to Buyer at Buyer's expense, and Buyer may be charged for examination and testing of the product.

This limited warranty is the sole warranty for hardware and software products offered by RECONYX® and RECONYX® shall not be liable for any amounts for said products except in compliance with this warranty.

FCC CE Certification

This device complies with part 15 of the FCC Rules. Operation is subject to the following 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. The Reconyx, Inc. MicroFire Digital Trail Camera has been tested and found to comply with the emissions requirements of IEC 61000-6-3 and the immunity requirements of IEC 61000-6-1. Reconyx, Inc. MicroFire Digital Trail Camera has been tested and found to comply with the radiated interference requirements of Section 6.2 of the Industry Canada ICES-003 for Class B Information Technology Equipment (ITE). In some rare cases where the camera is exposed to a +8kV ESD pulse, a manual reset (turn camera OFF, wait 10 seconds, turn camera ON) may be required to resume operation.

Safety Precautions

Before using the camera, please ensure that you read and understand the following safety precautions. Always ensure that the camera is operated correctly. The safety precautions noted in this guide are intended to instruct you in the safe and correct operation of the camera and its accessories to prevent injuries or damage to yourself, other persons, and equipment.

Preventing Malfunction

Avoid Strong Magnetic Fields

Never place the camera in close proximity to electric motors or other equipment generating strong electromagnetic fields. Exposure to strong magnetic fields may cause malfunctions or corrupt image data.

Avoid Condensation

Moving the camera rapidly between hot and cold temperatures may cause condensation (water droplets) to form on its external and internal surfaces. You can avoid this by placing the camera in an airtight, plastic bag and letting it adjust to temperature changes slowly before removing it from the bag.

If Condensation Forms Inside the Camera

Stop using the camera immediately if you detect condensation inside the camera.

Continued use may damage the camera. Remove the memory card and batteries from the camera and wait until the moisture evaporates completely before resuming use.

Warnings

- Store this equipment out of the reach of children and infants.
- Do not allow water or other liquids to enter the interior of the camera. The interior has not been waterproofed. If the exterior comes into contact with liquids or salt air, wipe it dry with a soft, absorbent cloth. In the event that water or other foreign substances enter the interior, immediately turn the camera's power off and remove the camera batteries and memory card.
- Use of power sources not expressly recommended for this equipment may lead to overheating, fire, electrical shock, or other hazards.
- Do not short-circuit the battery terminals with metallic objects, such as key holders. It could lead to overheating, burns, and other injuries.
- Avoid using, placing, or storing the equipment in places subject to strong sunlight or high temperatures, such as the dashboard or trunk (boot) of a car. Exposure to intense sunlight and heat may cause the batteries to leak, overheat or explode, resulting in fire, burns or other injuries. High temperatures may also cause deformation of the casing.
- When using desiccant, the following precautions should be followed: Keep desiccant out of reach of children. Desiccant may cause eye or skin irritation; seek medical assistance for further treatment.
- Check your state/local laws concerning the use of this product.

Maintenance and Off Season Storage

- Clean the face of the camera as necessary to ensure the best performance. A basic glass, or anti fog optics cleaner can be applied to all of the windows and wiped away using a lint-free cloth.
- It is recommended that you leave the camera open in a warm, dry place for a period of time to remove any existing moisture or condensation that may be present. Long term storage in a dry environment is recommended.
- ****NiMH batteries will self-discharge even when not in use.** To ensure longevity, fully charge the batteries and store them in the refrigerator, as cool temperatures slow the self-discharge rate.

Copyright & Trademark Information

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- Twitter® is a registered trademark of Twitter.
- Secure Digital® (SD and SDHC) are registered trademarks of the SD Association.
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- Python Locks™ are a product of Master Lock®.

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