

Standard Operating Procedure



CAMERA SETUP

FIRMWARE VERSION – July 26, 2022 – to be used until 2027 unless otherwise advised.

RECONYX HFX2 CAMERA SETTINGS

Install 12 batteries in the camera.

NOTE:

It is important that high quality, new batteries must be used on each equipment deployment. Battery failure is a major cause of data loss in passive devices. Ensuring that you have a good battery management procedure is essential to ensuring good data quality and minimising the risk of having to redeploy gear.

Label one of the batteries with the date so that you can easily identify if you haven't put new ones in.

MOTION – All settings related to how your camera behaves when motion is detected are grouped under this menu item.

- 1) Motion Pictures – **ON**, off
- 2) Pictures Per Trigger – 1, 2, 3, 4, **5**, 6, 7, 8, 9, 10
- 3) Picture Interval – RapidFire™, **1**, 2, 3, 4, 5, 6, 7, 8, 9, 10 seconds
- 4) Motion Videos – on, **OFF**
 - a) If On, Video Length – 5 sec, 10 SEC, Dynamic Length
- 5) Quiet Period – NO DELAY, 5s, 10s, 15s, 30s, **1m**, 2m, 3m, 5m
- 6) Sensitivity - low, low/medium, medium, medium/high, **HIGH**, very high

TIME LAPSE – All settings related to how your camera behaves related to time-based triggers are grouped under this menu item.

- 1) Lapse Picture – on, **OFF**
- 2) Lapse Video – on, **OFF**

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DAY/NIGHT – Select options relating to the camera’s functionality with regard to taking photos/videos during daytime and nighttime periods as well as select the best nighttime Infrared illumination options for your application.

1) Take Pictures – Day Only, Night Only, **both DAY & NIGHT**

2) Take Videos - Day Only, Night Only, both DAY & NIGHT

3) Flash - **LOW**

3) Night Mode - Adjust the nighttime exposure

- **OPTIMIZED** – best combination of shutter speed and flash range
- Fast Shutter - reduced motion blur, reduced flash range
- Long Range – increased range, reduced image quality

USER LABEL - Add a label (up to 16 characters) that will be included in the data band of all photos and videos taken by your camera. You can also view, change or clear an existing label

Region (N – North, C- Central, S – Southern),

site number (001 – 100),

location (“**on**” or “**off**”),

device (RC – remote camera) –

eg C-002-off-RC

(Note use an underscore between region, site number, location, device)

CODELOC - Use CodeLoc™ to add a four-digit security code to your camera to prevent unauthorized use of your camera in the event of tampering or theft. You can also change or remove an existing code. **DO NOT SET CODELOC**

DATA BANDS – Set format for how time and temperature will be displayed on the data bands for photos and videos. Select Time Format (12 or **24 hours**) and Temperature scale (FAHRENHEIT, **Celsius**).

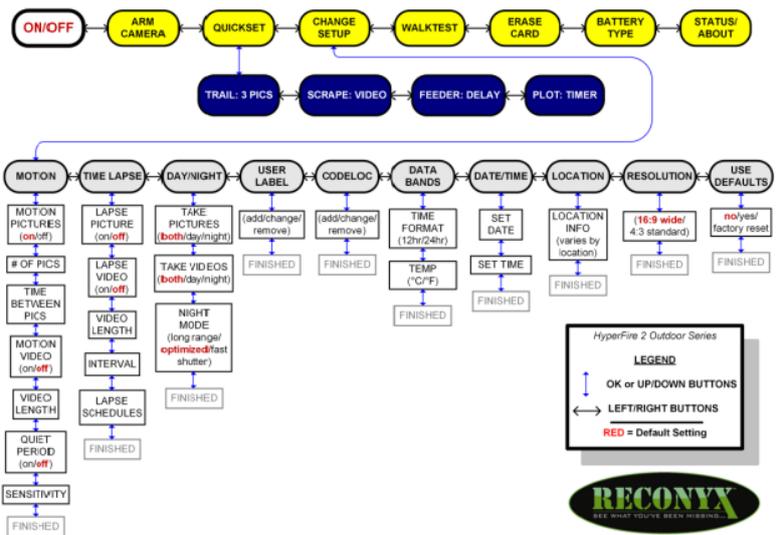
DATE/TIME – Set the date and time. Up and down buttons change numbers, left and right buttons move between year, month and date. OK takes you to the time setting. Use up and down buttons to change numbers. Use left and right buttons to move between hours and minutes.

LOCATION – USA or **Other**. Users are asked to enter location information. This information is required to enable the SmartPlot™ feature to work properly

RESOLUTION – Select picture and video aspect ratio. (16:9 WIDE) or (**4:3 STANDARD**).

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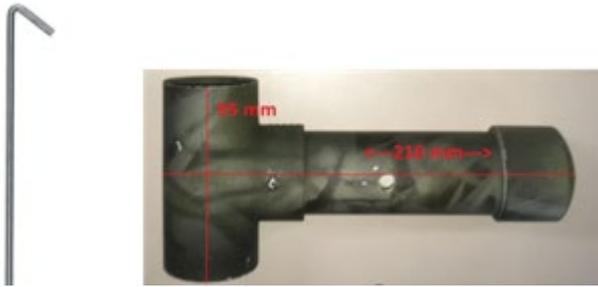


HYPERFIRE 2nd Programming Diagram

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Bait station type - PVC – vent tube, pegged into ground.

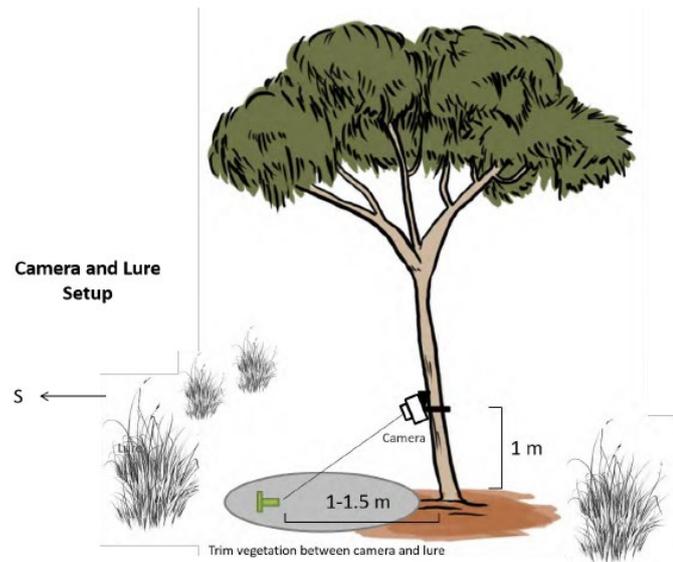


SETTING CAMERA ON TREE

- 70cm high
- ON-TRACK Subplots, 10-15m from track- avoid theft

Tree selection

- Medium tree so not to move in wind
- Not much ground veg on south side, clear away veg that may trigger camera
- Not obvious from track- theft avoidance–
- Attach to south side of trunk – avoid false triggers with sun/shade and camera overheating
- Peg lure ~1.5m away –and scuff ground with boots
- Aim at lure - Not another habitat feature
- Test fire & check with picture viewer or use walk test to set the aim of the camera
- Walk in front of camera
- Deploy camera for 14 nights



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CAPTURING SITE IN IPAD

A regionally specific monitoring plan should already be linked in the IPAD through the PLAN PORTAL

At site, capture new **SITE** for the camera (as well as a site each for SM Mini and SM Mins bat)

Site NAME:

Region (N – North, C- Central, S – Southern),

site number (001 – 100),

location (“on” or “off”),

device (RC – remote camera) –

eg **C_002_off_RC** same details as put into camera (above).

Capture new census – date, people and

In Census notes – add serial number of device being used.

Ensure the Camera Name is adjusted to the sub-plot name eg C_001_off_RC for each new deployment.

DEPLOYING CAMERA

Once tied/locked to tree and bait station pegged to ground;

- Turn camera on, take series of test photos.
- Turn off camera, review the photo (using SD card reader/viewer) and readjust camera position if bait station not centred (or just below centre). Repeat until happy with the position.
- Arm camera, walk in front to trigger the camera before leaving.
- Use either portable white-board or IPAD with large font to label the site details and photos taken after this point.

BAIT STATION SET UP

- Bait stations are to be set on ground on top of litter – there is no need to clear to bare earth
- Larger items to be removed if they will block the view of the camera eg large stick
- Do not include large logs or stumps in the camera view, this will block the full view of the camera and may miss individuals
- Vegetation that may move in the camera view should be removed to avoid false triggers
- **Bait type** –
 - Rolled oats / peanut butter ball &
 - truffle oil on nail polish remover / makeup pad &
 - Tuna oil on nail-polish remover / make up pad – all placed within PVC tube.

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PICKUP CAMERA:

- 1 Walk in front of camera
- 2 Open cover. The unit should be still recording and will show a display when you open it if you press "ok". This should display number of images taken. Record any errors in the form.
 - Switch off and close cover
- 3 Remove from tree.
- 4 Tie flagging tape back on tree.
- 5 Pick-up bait station.
- 6 In MapApp specify End date of the census.

AT CAR:

- Open cover
- Remove SD data card by pressing and sliding card into slot – listen for click – and then slide card out
- Place SD data card into Zip Lock bag with site and serial number label – ensure label has site name, date, name of person picking up equipment and device type (e.g. camera)
- Place Zip lock bag in container in safe place in car.

Place Label in bag:

- Site name – eg C_001_on_RC or C_001_off_RC,
- Date –
- Name of person:
- Serial number of device

Gear for setting up site

- Flagging tape
- Permanent markers
- Zip lock bags
- Secateurs
- Gloves
- SD card reader/viewer
- Hammer
- Bait station
- Bait
- Peg
- Rake hoe??
- Key and lock
- Wedge/stick/rock for back of camera

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Camouflage



Final camera and lure setup

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