QUICK START GUIDE

- Insert a 2 32 GB SD memory card into slot at the inside bottom of the camera.
- Install 8 new AA batteries into the battery holder.
- Slide the power switch located on the inside of the camera front from "OFF" to "TEST".
 Wait several seconds (5-10s). Please note that the Recon HS200 will power down automatically after one minute in the TEST mode if left idle.

•Set date and time. Select then push the \bigtriangledown down key 10 times to get to the "Set Clock" function. Press the "OK" key. Press the UP \bigtriangleup or DOWN \bigtriangledown keys to change each value. Press the RIGHT \triangleright key to move to the next field. Press the key again to enter the date and time into camera memory. The date is in DAY / MONTH / YEAR format

- Mount the camera 3-5 feet (1-1.5 meters) above ground level for best illumination and pictures. Aim the camera front to desired area of picture. Set the power switch to "ON" or to for automatic capturing.

NOTE: ALWAYS INSPECT AND CLEAN SEALS WHEN LEAVING CAMERA EXPOSED TO OUTDOOR WEATHER CONDITIONS.

NEVER STORE CAMERA WITH THE BATTERIES INSTALLED.

www.reconoutdoors.com (866) 647-3266



RECON HS200 DIGITAL IR CAMERA



USERS MANUAL

WELCOME

Congratulations on your purchase of the new Recon HS200 series digital scouting and security camera. Recon Outdoors continues in its tradition of being one of the industry leaders in IR scouting cameras. And we would like to thank you for your purchase.

The Recon HS200 is one of the highest value scouting and security cameras available. With high resolution picture capabilities for day and night pictures, a built-in LCD picture viewing screen and its Battery-Miser design that saves you money on batteries.

For best results, please read the entire user's manual to gain an understanding of all the available benefits and features of the Recon HS200 series camera.

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FEATURES

- Quick trigger time of less than 1 second for target detection and picture exposure.
- Built in LCD viewer to see pictures in the field.
- Low temperature operation down to -20°C (-4°F) on lithium batteries.
- Battery-Miser design providing up to one year operation on 8 AA batteries.
- Programmable picture resolution select 5, 8 or 12 megapixel picture resolution.
- High intensity center-flash infrared LEDs providing illumination up to 60 feet.
- Picture delay selection from 0 to 60 minutes for time lapse between shots.
- Time Frame selection for setting automatic trigger operation between certain times of the day.
- Time stamp on pictures provides date, time of day and moon phase.
- Low battery indicator. Red LED will flash when battery voltage is too low for proper operation. Also, a battery status icon is shown on the LCD viewer.
- Burst mode (multiple shots) takes several pictures at one trigger event.
- Video mode with sound takes short movies upon trigger event.
- Two video out options to review photos and movies.

INTRODUCTION AND CAPABILITIES

The Recon HS200 uses passive infrared (PIR) heat sensing technology. The camera will automatically take a picture, a series of pictures or a short video when triggered by a warm moving body. The Recon HS200 is ideally suited for capturing game and wild animals as a scouting camera or for use as an outdoor security camera. To save battery life the camera places itself into a standby or Battery-Miser mode until a heat source triggers it. When the camera is activated by a heat source it will take 1 to 3 pictures or a 5 to 60 second video within 1 second of the trigger event. The camera has a built-in light sensor and will use infra-red (IR) LED's to illuminate its field of view if it is night time or there is a low light condition. The illumination is centered in the field of view to illuminate objects further away. Because the illumination is infrared, night mode pictures will be black and white. In daylight conditions infrared LEDs will not be powered and ambient lighting will provide full color pictures and video. Several options can be selected on how and when the camera will take pictures. Manual operation of the camera to take pictures and video is possible in the TEST mode. See the "CAMERA SETTINGS" section in this manual for an in-depth explanation of all the camera's functions and operations.

The Recon HS200 series camera has a weatherproof housing that makes it ideally suited for outdoor applications. This makes the Recon HS200 camera a great device for scouting game, capturing wildlife and especially for outside security applications. The camera can be easily mounted with the included strap for a more secure mount. A pass-through security cable accessory is available from Recon Outdoors. To order, please visit our website at: www.reconoutdoors.com

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GETTING STARTED

- Insert a 2 32GB SD memory card into the slot located in the bottom of the camera (See fig. 2 – Bottom View). Note: the camera will only take 20 pictures without a memory card.
- Insert 8 new AA batteries into the battery holder in the back housing. Pull the access cord and the battery compartment will flip open. Carefully follow the polarity indicators for each battery.
- 3. Slide the power switch (located on the inside of the camera) front from "OFF" to "TEST" or "Import Wait several seconds (5-10s). Please note that the Recon HS200 will power down automatically after one minute in the TEST mode if left idle.
- 4. IF USING LESS THAN 2GB SD MEMORY CARD, FORMAT THE MEMORY CARD – SEE PAGE 16.
- Set date and time. Select ([™]) then push the down ∨ key 10 times to get to the "Set Clock" function. Press ([™]). Press the UP △ or DOWN ∨ keys to change each value Press the RIGHT > key to move to the next field. Note: The bottom row is for the time setting, the Recon HS200 uses a military 24 hour time format.

Press the "OK" (key again to enter the date and time into camera memory.

- Mount the camera 3-5 feet (1-1.5 meters) above ground level for best illumination and pictures. Aim camera front to desired area of picture. Set the power switch to ON
 for automatic operation.
- Review pictures by setting the power switch to "TEST" or (then press the menu key (), then (), then (),

CAMERA FEATURES

FIGURE 1 - EXTERNAL FEATURES



FIGURE 2 - INTERNAL FEATURES



BOTTOM VIEW

MENU NAVIGATION

All camera settings or functions may be changed in the TEST Tom position on the power switch. This is the middle detent position.

The www key is used to access each setting as follows:

In TEST mode ""(), open the menu by pressing the MENU key.

- Use the UP△ and Down ▽ keys to move through menu selections, settings and values.
- Select the desired function by pressing the I "OK" key.
- Again, use the arrow keys to move between setting selections and to change setting values.
- Always enter the selection or setting by pressing the "OK" (key.
- Go back by pressing the (→) or left

Following is a detailed description and explanation of how to use each setting.

MANUAL CAPTURE MODE

The Recon HS200 camera can be used as a manual still shot or video camera while in the "TEST" mode.



Pressing the UP arrow/Camera key will set the camera in still shot mode. Then pictures can be captured by pressing the "OK" key.

Pressing the DOWN arrow/video key will put the camera into video capture mode. Pressing the "OK" key will start and stop the video capture.

PC ACCESS TO CAMERA MEMORY

Captured pictures and video may be viewed on and transferred to a PC by using the provided mini USB cable. With the camera in TEST mode and connected to a computer USB port, the windows action screen will come up. The files on the SD memory card in the camera will be accessible for playback and transferring using common windows commands to drag, drop and open files.

TELEVISION PLAYBACK

North American users should verify that the FREQUENCY setting is set to 60 Hz to view video. See the FREQUENCY section on page 17 for more information.

To review pictures and playback videos plug the supplied video cable into TV / Video Out jack located on the bottom of inside camera (see fig 2 – bottom view). Plug other end of cable into yellow TV input video jack and red audio input jack. Select TV input mode using TV manufacturer's instructions. Set camera into playback mode using instructions on page 12.

USING EXTERNAL POWER

To increase available power or operate the camera at lower temperatures, a 6 Volt DC battery or power source may be connected to the external power port on the bottom of the camera (see Figure 2). The pin in the center must always be connected to the positive side of the power source. To run the camera on external power, remove the AA batteries from the battery tray first. Feed the external power cable through the camera outer housing and plug it into the power jack on the bottom of the inner camera. Turn the power switch to the "ON" position and close and latch the housing. Then connect the power cable to the external battery or power source. The green

LED on the front of the camera should blink for 5 seconds indicating that the camera is starting up.

NOTICE: Never connect a power source other than 6 Volts DC. Doing so will damage the camera and void the warranty.

LCD SCREEN ICONS

The Recon HS200 camera provides status indicators through the viewing LCD screen. Capture mode (still picture or video), picture resolution size, number of pictures taken and space left in memory, battery status, date and time, and SD memory card inserted are the icons. Their locations are shown below.



CAMERA SETTINGS

CAMERA MODE

Camera

Selecting "Camera" puts the camera in a picture taking mode for automatic triggering. Up to 20 pictures can be stored with on-board memory. To take and store more pictures, a SD memory card must be inserted into the slot in the bottom of the camera. This is the factory default setting.

Video

Selecting "Video" puts the camera in a video capture mode for automatic triggering. The camera will require a SD memory card to take and store videos. To start and stop video capture press the "OK" key.

Playback

By selecting "Playback" you can review pictures and videos stored in the camera. The right and left arrow keys will allow you to scroll between stored items. To increase or decrease the audio volume during video playback use the up and down arrow keys.

Zoom in and out on a picture by pressing and holding the UP and DOWN keys.

After zooming in, the picture can be shifted around by briefly tapping the UP, DOWN, LEFT and RIGHT keys.

DIGITAL ZOOM

To prevent clipping of moving targets the digital zoom is only applied when using the manual capture mode.

Select "NO" to disable or turn off the built in digital zoom function of the camera. The factory default has the digital zoom turned off. Select "YES" and then select the desired digital zoom effect (2X, 3X or 4X) to be applied to the pictures or video being captured.

IMAGE SIZE

Image size is the size of the compressed file of the pictures stored on the camera. The options are 12 megapixels (12M), 8 megapixels (8M) and 5 megapixels (5M). Selecting smaller megapixels will allow more pictures to be stored on a SD memory card. However the resolution will be reduced. Selecting the highest file size (12M) will retain the most detail in the captured pictures. The image size factory setting is 12M.

CAPTURE NUMBER (BURST MODE)

The Recon HS200 camera can take 1, 2 or 3 pictures each time the camera is triggered. Select "Capture Number" then scroll up and down to select and set the picture count at each trigger event. The factory setting for capture number is 1.

VIDEO SIZE

The video size allows selection of 720, 640 or 320 resolution. The video captured will appear smaller when the smaller sizes are selected. However memory card space to store them will be less. To view the largest and most detailed videos, the largest selection of 720 should be selected. The factory default video size setting is 720.

VIDEO LENGTH

The length of the video captured when the camera is triggered can be set using this function. Videos of 5 to 60 seconds in length can be selected. Use the up and down arrow keys to select the time length of the captured video. The factory default setting is 5 seconds in video capture length.

AUDIO RECORDING

The audio recording function is used to turn on and off the audio when capturing a video. Select "Yes" to have audio on the video for playback or "No" to have silent video capture. The factory default setting is "On".

INTERVAL (DELAY)

Interval is the time that the camera will wait between taking another picture or video. This delay is useful to limit the number of pictures taken when the targets typically linger in the IR trigger zone of the camera, like they do at feeders. The factory default setting is 0 seconds.

VIDEO FRAMES

To minimize video file size the number of frames taken per second can be lowered from 30 frames per second (30FPS) to 15 frames per second (15 FPS). The lower setting should be used when slow moving or still objects are expected to be captured. The factory default setting is 30 FPS.

TIME STAMP

The Recon HS200 has the ability to overlay a time stamp and moon phase information along the bottom of the pictures being captured. This can be turned on and off by this setting. Select "ON" to have this information added to the bottom of the captured pictures. By selecting "OFF" this feature is removed. The factory default setting is "ON".

SET CLOCK (AND DATE)

This menu item is used to set the current date and time that will be used in the time stamp information on captured pictures and video.

Setting Date:

The date is in DAY / MONTH / YEAR format. Use the arrow keys to navigate to the field to be changed. Press the up or down arrow keys to change the value in the highlighted field.

Setting Time:

Time is in a 24 hour military format. (for example 2:30 PM is 14:30). Use the up and down arrow keys to adjust this setting.

When done changing the date and time values press the "OK" key to enter the information into the camera memory.

SENSOR LEVEL (PIR SENSITIVITY)

The sensor level adjusts the heat sensor (PIR) that triggers the camera. Three settings are available HIGH, NORMAL and LOW. The HIGH setting will make the heat sensor more sensitive and is useful in hot weather where triggering objects are close to the ambient or outside temperature.

It is recommended that the camera always be used in the HIGH sensitivity setting to maximize the distance a heat source will trigger the camera and also increase the number of pictures or videos captured. The factory default setting for this feature is "NORMAL".

IR LED (ON and OFF)

The IR LED setting is used to turn on and off the infrared LEDs. This feature is useful to save battery power when the camera is in moderate light environments and where the LED's are not needed. After selection of this menu feature use the up or down arrow keys to change the setting from "ON" to "OFF".

FORMAT (SD MEMORY CARD)

This function will format a SD memory card for use with the Recon HS200 camera.

Please note; when using this feature all existing images and data on the SD card will be erased!

All cards 2GB and under will require formatting when initially used in the Recon HS200 camera.

To format a SD memory card, first insert it into the slot located in the bottom of the camera front door (see figure 2 – page 8). Scroll down the menu and select the "Format" feature and then verify the operation by selecting "YES" with the "OK" key. After the card has been formatted a green screen with "Successful Format" will appear on the LCD viewer.

TV OUT

This feature allows selection of the video output for connection to TVs. There are 2 options for this setting NTSC and PAL. Select the NTSC for use on all television sets in North America. The PAL setting is to be used for TVs in Europe, Asia and South America. In North America the camera should be set on NTSC, which is also the factory default setting.

North American users should verify that the FREQUENCY setting is set to 60 Hz to view video. See the FREQUENCY section on page 17 for more information.

LANGUAGE

English is the only selection available on this model camera.

TIMER SETTING (ACTIVE HOURS)

Timer setting is used to select a time frame or window when the camera will operate during the day. It will repeat this operation time every day when "YES" is selected.

After selecting "ENABLE" on the menu, the time setting screen will appear. Use the right and left arrow keys to get to the desired field and then use the up and down keys to adjust the start time and end time. The Recon HS200 camera uses a 24 hour time format (for example 2:30 PM is 14:30).

When both the start and end times have been set press the "OK" key to enter the operation timer into the camera memory The operation timer is turned off by selecting "DISABLE" in the timer setting menu.

DEFAULT SET (FACTORY VALUES RESET)

This function resets the camera to its factory settings. All functions are returned to the default settings mentioned above in each section and all time values in the timer setting are set to zero (0).

Note, only the set date and time values are retained when resetting the camera.

FREQUENCY

The frequency setting is for the video output to a TV and should be set to 60Hz for all televisions in North America. The 50Hz setting is for televisions found in Europe, Asia and South America.

Note that the factory default for this setting is 50Hz. This setting must be changed to 60Hz when viewing on TVs made for North America.

TIPS

Below are several tips to aid in the successful use of the Recon HS200 Camera:

- Always make certain the sealing surface and the seal is clean around the camera front lid. Clean with a soft cloth, dampened with soap and water if necessary.
- Never store the camera with batteries in the battery tray. Batteries can corrode and leak over time destroying the camera.
- Make sure the lens is clean and free of dirt and debris. Clean with a soft cloth or cotton tip dampened with mild detergent.
- Always have the sun behind the camera and illuminating the subject field.
- 5) Optimum distance to target is 20 to 25 feet. At this distance you will get the best triggering and quality of pictures.
- 6) Try to avoid repetitive moving objects in your picture field. Swinging branches warmed by the sun can produce false triggers. As well as moving vehicles in the background.
- Always mount the camera 3 to 5 feet above the ground pointing slightly downward to the anticipated height of the targets.
- Motion sensitivity should be set to "HIGH" for best results in warmer weather.

NOTICE: Most repairs are associated with items 1 and 2 above.

Always check the sealing surfaces when setting camera out in the weather. And never store the camera with batteries installed.

TROUBLESHOOTING

IF CAMERA DOES NOT POWER UP

- Check batteries, make sure they are installed and seated correctly.
- Check that batteries are inserted in the right direction (polarity).
- Make sure batteries are new and have a full charge.

IF PICTURES ARE NOT CLEAR

• Check lens, make sure it is clean. Clean with soft cloth, or cotton tip, and mild detergent.

CAMERA SHUTS OFF IN TEST MODE

• The camera has a built-in timer to save battery life. Slide power switch to "OFF" then back to "TEST".

IF NOT STORING PICTURES / SD CARD

- Make certain the SD Memory card is installed correctly in camera.
- Verify the camera recognizes the card and that the card icon shows in the lower left LCD screen.
- If card icon does not show, format or replace the card.

NUMBER OF PICTURES TAKEN IS LOW

• The PIR sensitivity may be set too low. Change sensor level to "HIGH".

LIMITED WARRANTY

Pentar, LLC ("Recon Outdoors") warrants to the original retail purchaser that product(s) made by Recon Outdoors and related Recon Outdoors accessories (individually a "Product" and collectively the "Products") that were purchase directly from Recon Outdoors or an authorized distributer will be free from defects in materials and workmanship under normal use and service for a period of one year from the date of initial retail purchase. If any Product proves to be defective, the customer must return the defective Product to the address listed below, following the procedure set forth below. However, it is recommended that the customer first call Recon Outdoors' Consumer Support Department at 1-866-647-3266, to attempt to determine the nature of the problem. Recon Outdoors, at its sole discretion, will repair, replace, or adjust the defective Product, provided that Recon Outdoors investigation and factory inspection disclose that (a) such defect developed under normal and proper use and (b) the Product is covered under this limited warranty. Repair, replacement, or adjustment of defective Products shall be Recon Outdoors' sole obligation and the customer's sole remedy hereunder. The customer shall pay for shipment of the Products to the Recon Outdoors Service Center. When service is completed, the Product will be returned to you via ground service freight prepaid. Recon Outdoors shall obligated to perform preventive not be maintenance. installation, de-installation, upgrades, or maintenance. Recon Outdoors reserves the right to (i) use reconditioned, refurbished, and/or serviceable used parts for warranty or any other repairs and (ii) make any internal or external design and/or feature changes on or to its products without any liability to incorporate such changes on or to the Products.

Excluded from this limited warranty and not warranted by Recon Outdoors in any fashion, either express, implied, or by statute, are:

(a) products and accessories not manufactured by Recon Outdoors and/or not bearing the "RECON OUTDOORS" brand label (the warranty coverage for products and accessories of other manufacturers, which may be distributed by Recon Outdoors, is the responsibility of the manufacturers of such products and accessories in accordance with the terms and duration of such manufacturers' warranties);

(b) any Product which has been disassembled, repaired, tampered with, altered, changed, or modified by persons other than Recon Outdoors's own authorized service personnel unless repair by others is made with the written consent of Recon Outdoors;

(c) defects or damage to the Products resulting from wear, tear, misuse, abuse, negligence, modification, accident, dirt, sand, liquids, impact, improper storage, improper installation, nonperformance of scheduled operator and maintenance items, battery leakage, or use of non-"RECON OUTDOORS" brand accessories, consumables, or supplies;

(d) supplies and consumables (including but not limited to batteries); and/or

(e) Products which do not contain a validly placed and recorded Recon Outdoors serial number.

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This limited warranty is the complete and exclusive statement of warranty which Recon Outdoors agrees to provide with respect to the Products and it shall supersede all prior and contemporaneous oral or written agreements, understandings, proposals, and communications pertaining to the subject matter hereof. This limited warranty is exclusively for the benefit of the original customer and cannot be transferred or assigned.

When eligible service is needed, package the Product carefully using ample padding material to prevent damage in transit and ship it postage prepaid and insured to the Recon Outdoors Service Center listed below:

> Recon Outdoors Attention: Camera Service Center 906 Bob Wallace Ave SW # F Huntsville, Alabama 35801

When returning Products for service, your package <u>must</u> include the following:

- Original sales receipt showing date and place of purchase. This will be required for in-warranty service.
- 2. A detailed description of the problem.
- 3. A contact name, telephone number and email address.
- 4. Owner's name and street address where repaired camera is to be shipped.