



COMPACT HD 5 - 20X LRF

**DIGITAL DAY / NIGHT
SCOPE**

CONTENTS

COMPACT HD 5-20X LRF DIGITAL DAY/NIGHT SCOPE

COMPACT HD 5-20X LRF

DIGITAL DAY/NIGHT SCOPE

Safety Instructions

Read and follow all instructions

Read all warnings!

Do not attempt to disassemble the device by yourself, all services must be provided by the manufacturer

CAUTION

- INFRAR-ED (IR) illuminator may cause harm to human eyes, DO NOT look directly at it.
- Switch off the IR Illuminator when not in use. Continuous use of IR light will generates excessive heat. Avoid pointing it towards flammable objects.
- Operating temperature is between -4F-122F (-20~50°C).

Description

CP258R, a 24/7 all-weather conditioned digital scope, with its excellent day and night time image quality, is specifically designed for outdoor hunting. Built-in high-precision laser rangefinder and leading ballistics algorithm make it easy to aim at the target quickly and accurately.

Package Content

- CP258R Scope
- Rail Accessories (M6 / M4 screws, mount, spanner, lens cleaning cloth)
- Eyepiece Protector
- USB Cable
- User Manual

01

Specifications

Model	Compact HD 5-20X LRF
Sensor Specifications	
Resolution	1920 x 1080 pixels
Frame Rate	60Hz
Video Record Resolution	1920 x 1080 pixels
Optical Specifications	
Digital Magnification	5 ~ 20x
Eye Relief	45mm
Diopter Adjustment	± 5D
Detection Range	400M
Display Specifications	
Type	Micro - OLED
Display Resolution	1920 x 1080 pixels
Frame Rate	60Hz
Battery Power Supply	
Battery Type	18650 Battery
Operating Time	8h
External Power Supply	5V - Type C USB

Model	Compact HD 5-20X LRF
Physical Specifications	
Net Weight	483g
Gross Weight(w/battery,mount,eyepiece protector)	584g
Dimensions	201 *79 * 53mm
Micro SD card	32 ~128 (U1/C10) GB
Ingress Protection	IP67
WIFI / APP	Support(HITTAC)/ HITTAC BALLISTICS
IR Wavelength	850/940nm
Infrared Power	5W
Working Temperature	-20~50°C
Bluetooth Function	Support
Max Range	1000M

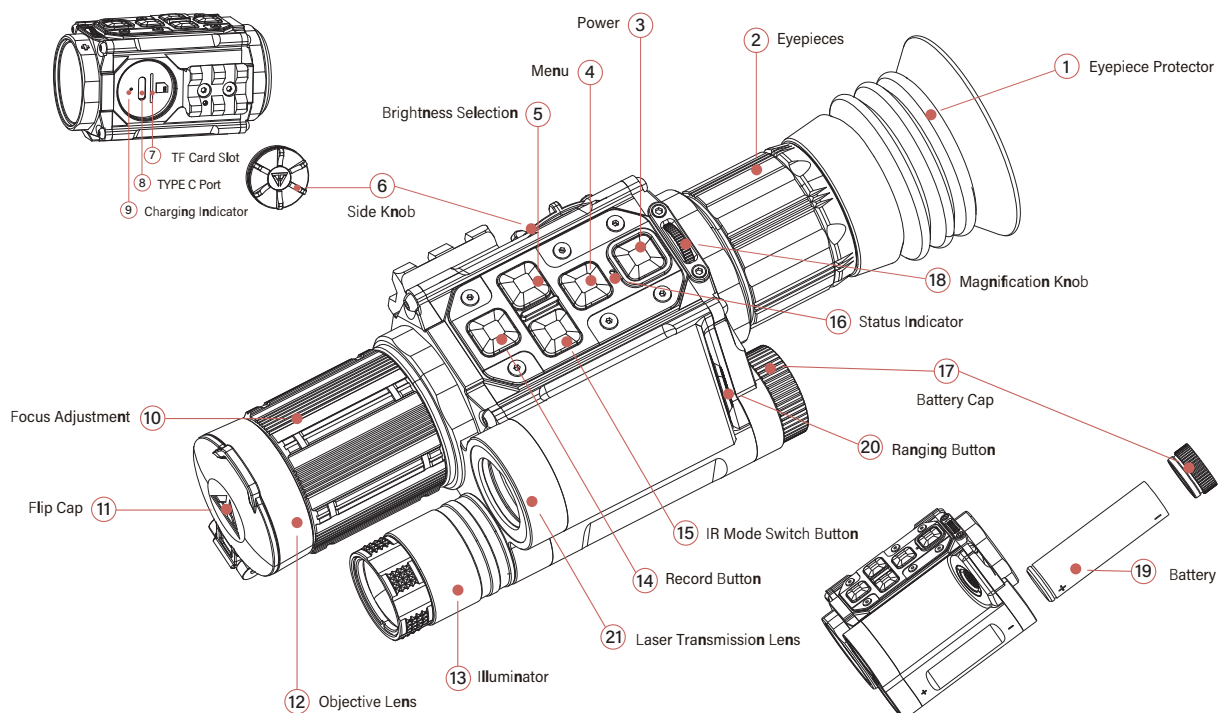
02

■ Features

- High Resolution Imaging
- Video Recording In 1920 x 1080 60 Hz
- Micro-OLED HD Display, 60 Hz
- Instantaneous Zeroing
- 3-Axis Gyroscope
- Picture-in-Picture Function
- Full-Color Under Low Light Conditions
- Anti-Backlight Overexposure Compensation
- Wi-Fi to App Direct Connection
- Wireless Firmware Updating Via App
- One Touch Zeroing Via App
- Precise Ranging and Leading Ballistic Calculation
- Customized Ballistic Table

03

■ Controls



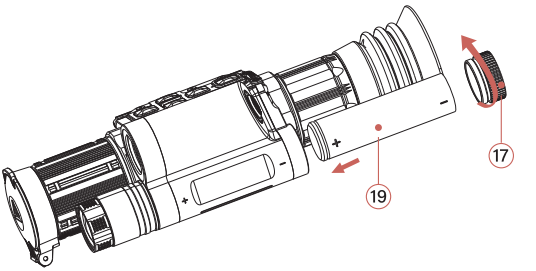
04

■ Power Supply

This device is powered by an external 18650 battery with up to 8 hours of operation time (when the IR mode switched off). When battery is low, it can either be charged independently or by connecting the device to TYPE C port. Please note that it is recommended to fully charge the 18650 battery before initial use.

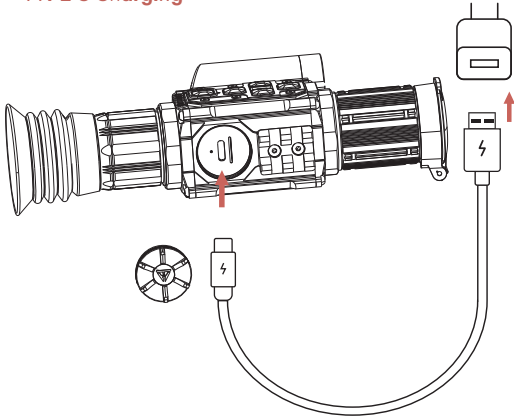
Note: Please purchase genuine 18650 battery from regular channels. Any problems arising from inferior 18650 battery purchased by the user shall be borne by the user himself.

Installing the 18650 Battery



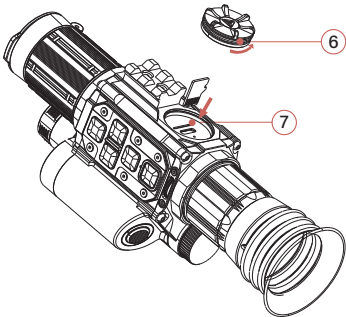
- 1. Open the Battery Cap (17) and pull it off.
- 2. Insert 18650 Battery (19) into slot in the orientation indicated "+".
- 3. Apply pressure to Battery Cap (17) against battery "-" and turn it until fully tightened.

TYPE C Charging



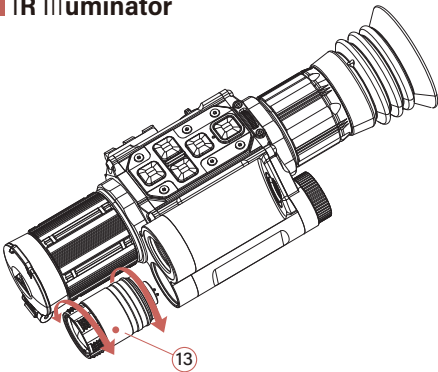
Note: To use TYPE C cable for charging, a power adapter (5V2A) is needed.

■ TF Card Slot



- Open the Side Knob (6) insert TF card into the slot (7)
- Note: TF card insert to certain direction.

■ IR Illuminator



- Rotate the IR Illuminator (13) to adjust brightness. Optimal focus enables maximum detection range.
- Note: IR Illuminator (13) is replaceable for 850nm or 940nm.

■ Indicator

Indicator	Color	On	Flash
Charging (9)	●	Charging	--
Status (16)	●	Working	Updating: Yellow light flashing
	●	Standby	

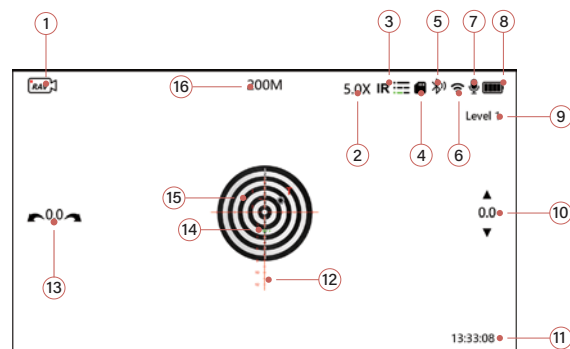
Control Description

Button	Status	Short Press	Long Press	Rotation
Power Button ③ 	Off	--	On	--
	View Interface	Standby	Off	--
	Standby	Wake-up	--	--
	Zeroing Interface	Freeze/Continue	--	--
Menu Button ④ 	View Interface	Reticle Color Switch	Menu Interface	--
	Primary Menu Interface	View Interface	--	--
	Secondary Menu Interface	Primary Menu Interface	--	--
IR Mode Switch Button ⑮ 	View Interface	--	Color Mode Switch	--
	Black/White Mode	IR Brightness Adjust	Color Mode	--
	Menu Interface	Move Cursor to the Left	--	--
	Zeroing Interface	Move Cursor to the Left	Save and Exit	--
	Time Setting Interface	Move Cursor to the Left	Save and Exit	--

Button	Status	Short Press	Long Press	Rotation
Brightness Button ⑤ 	View Interface	Display Brightness Adjustment	Wi-Fi On/Off	--
	Menu Interface	Move Cursor to the Right	--	--
	Zeroing Interface	Move Cursor to the Right	Exit Current Setting	--
	Time Setting Interface	Move Cursor to the Right	Exit Current Setting	--
Record Button ⑭ 	View Interface	Start Recording /Pause /Resume	Start/End Recording	--
	Menu Interface	Confirm the Selection	--	--
	Reticle Zeroing Interface	Reticle X/Y Value Adjust Once	Reticle X/Y Value Continuous Adjust	--
Magnification Knob ⑮ 	View Interface	--	--	To Right Increase the Magnification / To Left Decrease the Magnification
	Reticle Zeroing Interface	--	--	To Right Increase the Magnification / To Left Decrease the Magnification
Ranging Button ⑲ 	Fail to Connect App Bluetooth	Show/Hide Ranging Icons and Distances	Turn Off Ranging	--
	Connected to App Bluetooth	Ranging and Ballistic Calculation	Turn Off Ranging	--

07

Interface Description



- Recording Indicator: The recording timer indicates that the device is currently recording; The displayed number on the timer represents the duration of the recorded video.
- Current Magnification (eg: 5.0x).
- The displayed icon indicates if the device is in black and white mode; otherwise it is in color mode.

	Black and white mode; Illuminator off
	Brightness Level 1
	Brightness Level 2
	Brightness Level 3
	Brightness Level 4
	Brightness Level 5
	Black and white mode; Brightness will be adjusted automatically

- TF card (Card icon appears when it's inserted. The recording won't work without the TF card).
- Bluetooth (Bluetooth on, Bluetooth off, Bluetooth Connected).
- Wi-Fi (Wi-Fi On, Wi-Fi Off).
- Microphone, Indicates whether sounds to be included when recording. Microphone On Microphone Off.
- Battery Status

Icon	Status	Battery Status
	1 bar	10% ~ 20%
	2 bars	20% ~ 50%
	3 bars	50% ~ 80%
	4 bars	80% ~ 100%
	Charging	Connect Type C to charge

- Level 1: Current Display Brightness (Level 1-6 with Increasing Brightness).
- Gyroscope Vertical Drift.
- Current Time.
- Reticle.
- Gyroscope Horizontal Drift.
- Point of Impact.
- Ranging Icon.
- Ranging Distance.

08

Menu List

Long press Menu ④ for 2 seconds to enter Menu list; There are 15 selections in total; Use IR Mode Switch Button ⑮ and Brightness Button ⑤ to navigate through menu options; Short press the Record Button ⑭ to confirm selection.

Icon	Description
	[Recording] Auto Video Recording after Shooting
	[PiP] PiP Window on View Interface
	[Wi-Fi] Wi-Fi On/Off
	[Reticle Zeroing] Reticle Zeroing
	[Color Boost Mode] Select Mode: Color Boost/ Natural Color
	[Overexposure Compensation] Compensate Against Overexposure with Night Mode
	[Sound Record Control] Control whether to include sound in Recorded Video
	[Loop Recording] Set Video Duration : 1 Minute, 3 Minutes, 5 Minutes or OFF (default 10 Minutes)
	[Gyro] Gyroscope Calibration

Icon	Description
	[Auto Sleep] In Auto Sleep Mode, The Device will Automatically Power OFF after 10, 20 or 30 Minutes of Inactivity
	[Ballistics Calculation] Ballistics Calculation
	[Ranging Unit] Select the Unit of Distance
	[AR Reticule] Select Dial/Reticle to Overlay on Target
	[Bluetooth] Turn On or Turn Off Bluetooth
	[General Information] current version
	[System Settings] whether Display the Time when recording, Set the current Time, Date and Language, Format the TF card and restore the Factory Default Settings Note: Formatting the TF card will erase all files stored on the card

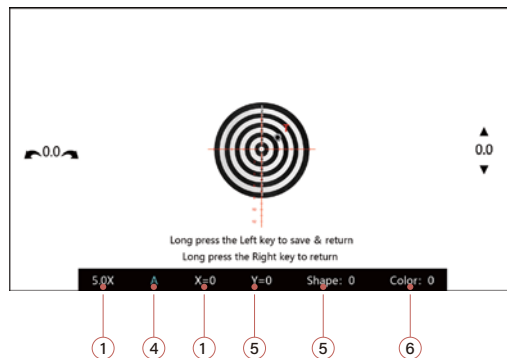
09

Menu Navigation Description

Reticle Setting

Long press the Menu Button ⑤ for 2 seconds to enter menu list. Press the Brightness Button ⑤ to move cursor to Reticle Setting menu, then press Recording Button ⑭ to select Reticle Setting.

- Short press Brightness Button ⑤ to move cursor to the right. Short press the IR Mode Switch Button ⑮ to move cursor to the left.
- Short press Record Button ⑭ to increase current value by 1. Long press without release to continuously increase the current value within the allowed range. Short press the Menu Button ⑤ to decrease current value by 1. Long press without release to continuously decrease the current value within the allowed range.
- Long press IR Mode Switch Button ⑮ for 2 seconds to save and exit reticle setting. Long press Brightness Button ⑤ to exit without saving.
- Short press Power Button ① to free/re-activate current image.



- ① IR current of Active magnification and status with Magnification / noF ⑮
- ② A current Ballistic profiles up to 2 profiles for reticle settings
- ③ IR current coordinate point of reticle in horizontal direction
- ④ IR current coordinate point of reticle in vertical direction
- ⑤ Shape- 3 reticle shapes
- ⑥ color- : color options white, red, green, yellow, blue

10

Reticle Zeroing

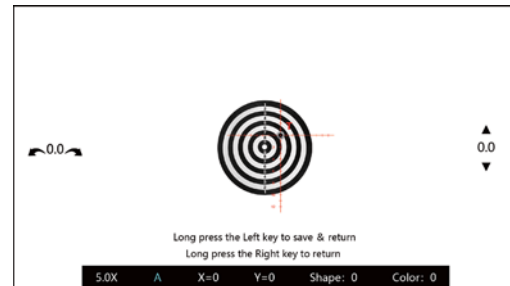
Example

Place the target at 50 meters, turn Focusing Adjustment ⑩ to ensure the Objective Lens ⑫ provide a clear view of the target; Align the crosshairs with the target. The bullet hole will create an impact point (T). While keeping the current aiming point unchanged, short press the Power Button ③ to freeze current image. Move X and Y coordinates of the reticle to align cross hair center precisely with impact point (T).

Note: Once the reticle has been changed (either moved or changed Shape or color), the magnification cannot be adjusted.



(Before Zeroing)



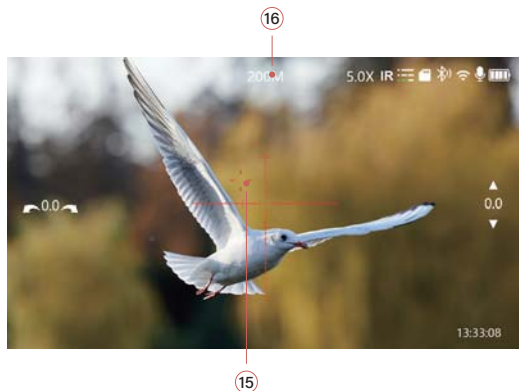
(After Zeroing)

11

Distance Measurement Function

On the ballistic calculation menu, if you select "Off" or fail to connect the mobile phone App Bluetooth to the device Bluetooth, the device will only measure the distance:

- Short press the Ranging Button to turn on the distance measuring function. The Ranging Icon ⑮ and current targeting distance ⑯ will display on the screen (It will automatically and continuously measure the distance once the distance measurement function is turned on).
- Continue to short press or long press the Ranging Button for 1.5 seconds to turn off the distance measurement function. The Ranging Icon and current distance will not displayed on the screen.



(First short press Ranging Button)



(Long press Ranging Button for 1.5 seconds)

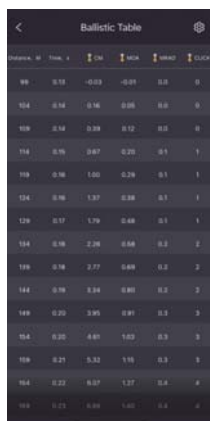
12

Ballistic Calculation - Real-time Calculation

- Enter the menu list, press the Ballistic Calculation, select the real-time ballistic calculation, and turn on the Bluetooth at the same time.
- Connect the device's Bluetooth via the HITTAC BALLISTICS App (the Bluetooth name of the device is CP258R and it can be viewed in the version interface)
- After determining the ranging target, short press the device ranging button to transmit the measured distance to the App, which performs the ballistic calculation and sends the result back to the device and displays on the screen.

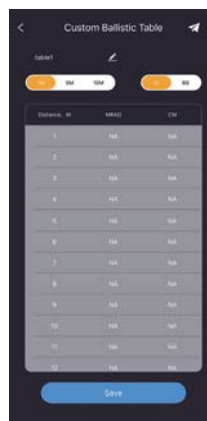
Ballistic Calculation - Ballistic Table

- Enter the menu list, press the Ballistic Calculation and select "Ballistic Table Query", turn on the Bluetooth at the same time (when there is a ballistic table on the device, you don't need to turn on the Bluetooth any longer).
- Click the Send Icon  to update the App Ballistic Table to the device. The device will use the App transmitted data in the ballistic table to perform ballistic calculation and display the result on the screen.



Distance, M	M	Time, s	CW	MAG	CLUT
99	0.12	-0.03	-0.01	0.0	0
104	0.14	0.16	0.06	0.0	0
109	0.14	0.28	0.12	0.0	0
114	0.16	0.47	0.20	0.1	1
119	0.16	1.00	0.29	0.1	1
124	0.16	1.37	0.38	0.1	1
129	0.17	1.79	0.48	0.1	1
134	0.18	2.28	0.58	0.2	2
139	0.18	2.77	0.68	0.2	2
144	0.19	3.34	0.80	0.2	2
149	0.20	3.95	0.91	0.3	3
154	0.20	4.61	1.03	0.3	3
159	0.21	5.33	1.16	0.3	3
164	0.22	6.07	1.27	0.4	4
169	0.23	6.84	1.41	0.4	4

(BC ballistic table interface)



Distance, M	MAG	CW
1	Mag	Mag
2	Mag	Mag
3	Mag	Mag
4	Mag	Mag
5	Mag	Mag
6	Mag	Mag
7	Mag	Mag
8	Mag	Mag
9	Mag	Mag
10	Mag	Mag
11	Mag	Mag
12	Mag	Mag

(Customized ballistic table interface)

13

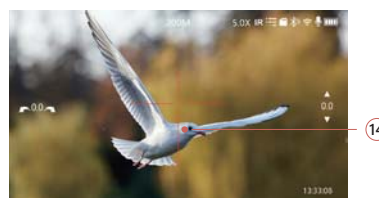
Aiming Method - Holdover

Enter Menu Options, Aiming Point Method: Select "Holdover".

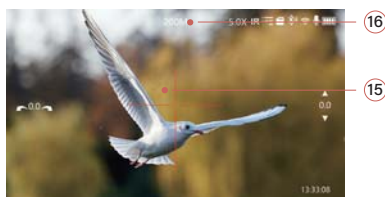
- First short press the Ranging Button to activate the ranging function, the Ranging Icon  and distance  will display on the screen and the aiming point won't.
- Second short press the Ranging Button: after determining the target, short press on the Ranging Button, the Ranging Icon  disappears, the distance  is displayed, and the moving aiming point  is displayed (ie. the point of impact by ballistic calculation).
- Third short press the Ranging Button: Ranging Icon  and distance  are displayed, the aiming point disappears.
- Long press the Ranging Button for 1.5 seconds to return to the status when ranging was not activated: the Ranging Icon  and distance  disappear.



(First short press Ranging Button)



(Second short press Ranging Button)



(Third short press Ranging Button)



(Long press Ranging Button for 1.5 seconds)

14

Aiming Method- Dial in

Enter Menu Options, Aiming Method: Select "Dial in"

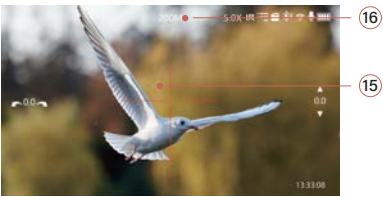
- First short press the Ranging Button to activate the ranging function; the Ranging Icon (15) and distance (16) will display on the screen.
- Second short press the Ranging Button: Ranging Icon (15) disappears, distance (16) is displayed, and the Reticle automatically moves to the ballistic impact point.
- Third short press the Ranging Button: the Ranging Icon (15) and distance (16) are displayed and Reticle returns to its original position.
- Long press the Ranging Button for 1.5 seconds to return to the status when the Ranging was not activated: the Ranging Icon (15) and distance (16) disappear.



(First short press Ranging Button)



(Second short press Ranging Button)



(Third short press Ranging Button)



(Long press Ranging Button for 1.5 seconds)

Image Quality Enhancement Function

Multiple image qualities: natural images and color-enhanced images.



(Natural Mode: This is what human eye sees in real life)



(Color Boost Mode: Image with enhanced color)

Overexposure Compensation

Highly recommended to turn on overexposure compensation only at closer range.



(Overexposure Compensation Disabled)



(Overexposure Compensation Enabled)

17

■ App Instruction-HITTAC

Please download " HITTAC " App by scanning the QR code below or search and download from the App store;

For **Android** phones, please go to **Google Play Store**.

For **iOS** phones, please go to **Apple Store**.

Search for " HITTAC " to download the App.



Android Application



iOS Application



App Connection and Use

【Step 1】 After turning on the device, long press the Brightness Button (5) for 2 seconds to turn on Wi-Fi, the account (starting with CP258R) and password (12345678) can be seen on the display.

【Step 2】 Go to Wi-Fi setting on the phone to connect the device.

【Step 3】 Open "HITTAC" App and Enjoy!(User instruction is included in the App).

18

■ App Instruction-HITTAC Ballistics

If trying to use the ballistics calculation function, you need to download the Hittac Ballistics APP.

For Android phones, please go to Google Play Store.

For iOS phones, please go to Apple Store.

Search for "HITTAC Ballistics" to download the App.



Android Application



iOS Application



App Connection and Use

[Step 1] Turn on Bluetooth on the phone, Bluetooth on the device and Ranging Button.

[Step 2] Click the Bluetooth Icon  in the App interface, it will jump to the Bluetooth connection interface when first connecting, and then enter the device name to connect. After successful connecting, the last Bluetooth device will be connected by default.

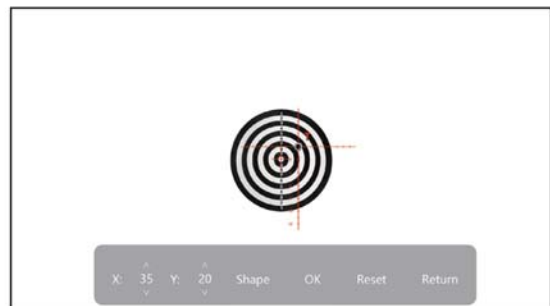
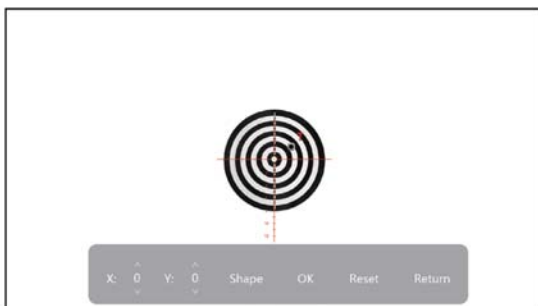
19

Firmware Update

Using the "Firmware Update" feature on the App to perform online OTA/Wireless Updates.

Reticle Zeroing on App

Tap the Icon  on App. When in landscape mode, short press Power Button (3) to freeze current image; Swiftly move your finger from the reticle center to point of impact on the phone; Precise adjustment of X and Y coordinates can be done by tapping the up and down arrow on the App. Once the reticle center and the point of impact is perfectly aligned, click "OK" to complete the current Zeroing.



20

■ FCC WARNING

This device complies with part 15 of the FCC Rules. Operation is subject to the following two 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.

Any changes or modifications not expressly approved by the party responsible for compliance.

could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception,

which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different

from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

The device has been evaluated to meet general RF exposure requirement.

The device can be used in portable exposure condition without restriction

