DNT OPTICS

Day & Night Technologies

CONTENTS

BALLISTIC THERMAL SPOTTER

HOUND SERIES
Ballistic Thermal Spotter

SAFETY INSTRUCTIONS

◉ Do not point the device at strong light sources such as the sun, open flames, etc, as this may cause damage to thermal sensor.

◉ Device operating temperature -4~122°F (-20~50℃).

◉ Please contact us if there is any malfunctions, Please do not attempt to disassemble the scope.

■ DESCRIPTION

The Hound is a handheld thermal designed for use in all lighting conditions.

■ PACKAGE CONTENT

● 1 Device

● Eye Cup

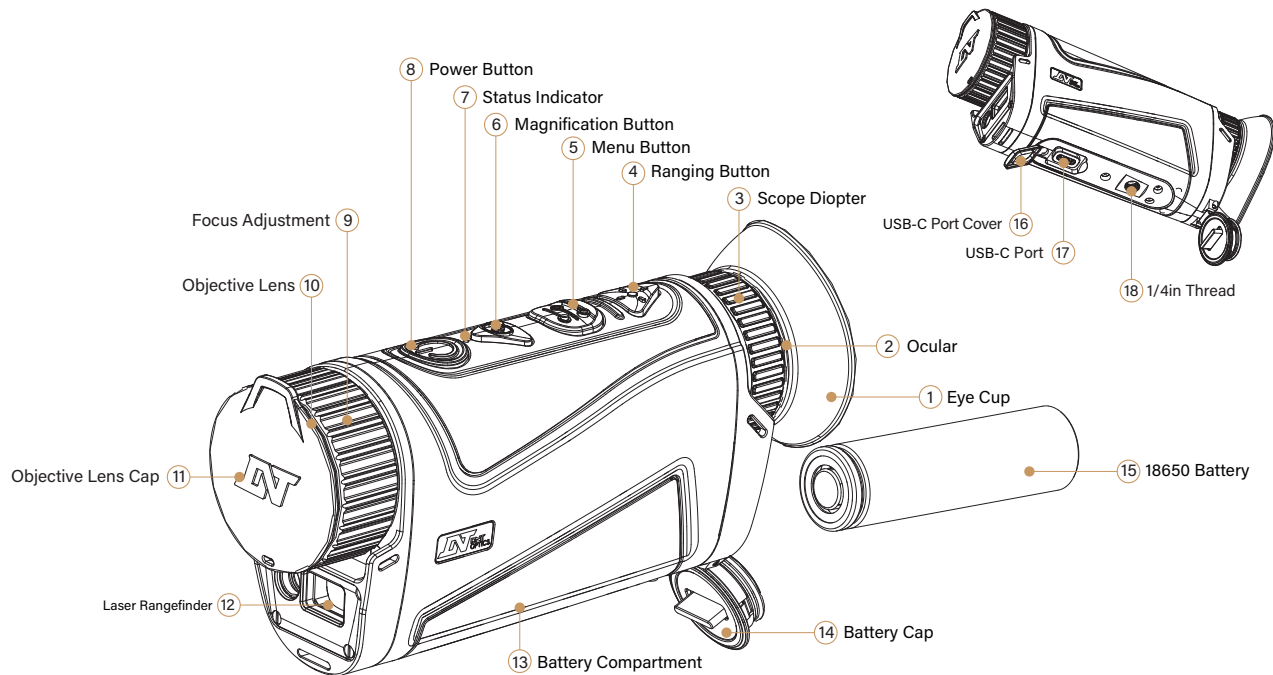● USB Cable

● User Manual

SPECIFICATIONS

Model		H210R	H315R	H325R	H625R	H635R
Sensor Specifications	Resolution	256x192pixels	384x288pixels	384x288pixels	640x512pixels	640x512pixels
	Sensor	Uncooled Infrared Sensor	Uncooled Infrared Sensor	Uncooled Infrared Sensor	Uncooled Infrared Sensor	Uncooled Infrared Sensor
	Frame Rate	50FPS	50FPS	50FPS	50FPS	50FPS
	Pixel Size	12x12um	12x12um	12x12um	12x12um	12x12um
	NETD	≤35mk(@25℃)	≤25mk(@25℃)	≤25mk(@25℃)	≤25mk(@25℃)	≤25mk(@25℃)
	Eye Relief	25mm	25mm	25mm	25mm	25mm
	Base Magnification	1x	1.5x	2.5x	1.5x	2x
	Digital Zoom	1x,2x,3x,4x	1x,2x,3x,4x	1x,2x,3x,4x	1x,2x,3x,4x	1x,2x,3x,4x
Display Specifications	Type	Micro - OLED	Micro - OLED	Micro - OLED	Micro - OLED	Micro - OLED
	Display Resolution	1024x768pixels	1024x768pixels	1024x768pixels	1024x768pixels	1024x768pixels
	Frame Rate	50FPS	50FPS	50FPS	50FPS	50FPS
Power Specifications	Battery Type	18650 Battery (flat top)	18650 Battery (flat top)	18650 Battery (flat top)	18650 Battery (flat top)	18650 Battery (flat top)
	Operating Time	5.5h	5.5h	5.5h	5h	5h
	External Power Supply	5V - Type C USB	5V - Type C USB	5V - Type C USB	5V - Type C USB	5V - Type C USB
Physical Specifications	Net Weight	280g/9.88oz	288g/10.16oz	299g/10.55oz	299g/10.55oz	310g/10.93oz
	Dimensions	157 x51 x72mm/ 6.2x2.0x2.8inches	155x48x72mm/ 6.1x1.9x2.8inches	155x48x72mm/ 6.1x1.9x2.8inches	155x48x72mm/ 6.1x1.9x2.8inches	157 x51 x72mm/ 6.2x2.0x2.8inches
	Storage	32GB Internal	32GB Internal	32GB Internal	32GB Internal	32GB Internal
	WIFI / APP	Support (DNT)	Support (DNT)	Support (DNT)	Support (DNT)	Support (DNT)
	Laser Rangefinder Maximum Detection Range	5~1100M/5~1200yds	5~1100M/5~1200yds	5~1100M/5~1200yds	5~1100M/5~1200yds	5~1100M/5~1200yds
	Operating Temperature	-20~50℃/-4~122℉	-20~50℃/-4~122℉	-20~50℃/-4~122℉	-20~50℃/-4~122℉	-20~50℃/-4~122℉
	Water Proof Level	IP67	IP67	IP67	IP67	IP67

■ SPECIFICATIONS

- Small, Lightweight, Portable

- 4 Thermal Palettes: White Hot, Black Hot, Red Hot, Iron Hot

- Precision Ranging & Built-In Ballistics

- Ultra HD image quality, Micro-OLED 1024x768 display

- Video Resolution: 1024 x 768 50FPS

- Full screen recording including on screen display, reticle, LRF etc

MAIN PARTS AND CONTROLS

8 Power Button
7 Status Indicator
6 Magnification Button
5 Menu Button
4 Ranging Button
3 Scope Diopter

9 Focus Adjustment
10 Objective Lens
11 Objective Lens Cap
12 Laser Rangefinder
13 Battery Compartment
14 Battery Cap

2 Ocular
1 Eye Cup
15 18650 Battery

16 USB-C Port Cover
17 USB-C Port
18 1/4in Thread

■ POWER SUPPLY

The Hound is powered by the included rechargeable lithium 18650 battery, & can run off an external power bank via the USB-C cable.

Note: External power will not charge the battery in the unit; use the included charging cradle for charging batteries.

Install 18650 battery
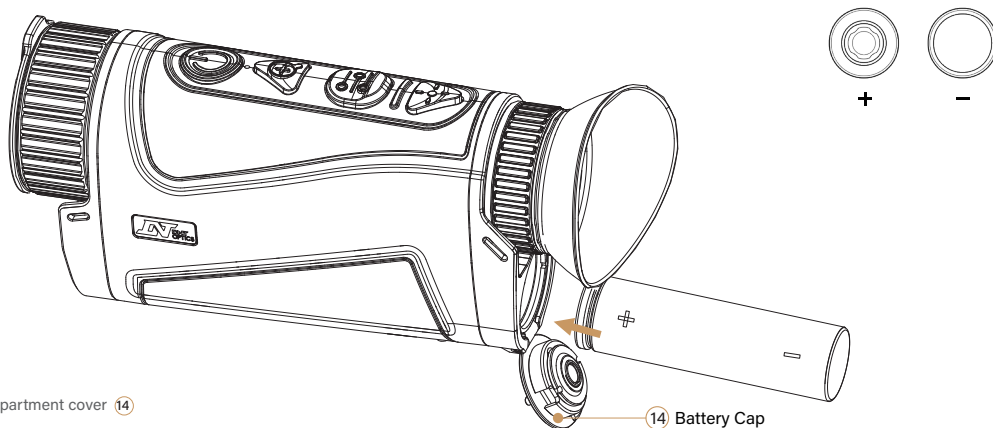
Open the battery compartment cover ⑭

Place the "+" stage of the 18650 battery in facing inward

Place the Battery Cap against the battery "-" stage and press the battery cap gently until it clicks into place.

⑭ Battery Cap

■ USB-C DATA TRANSFER

USB-C Port Cover (16)
USB-C Port (17)
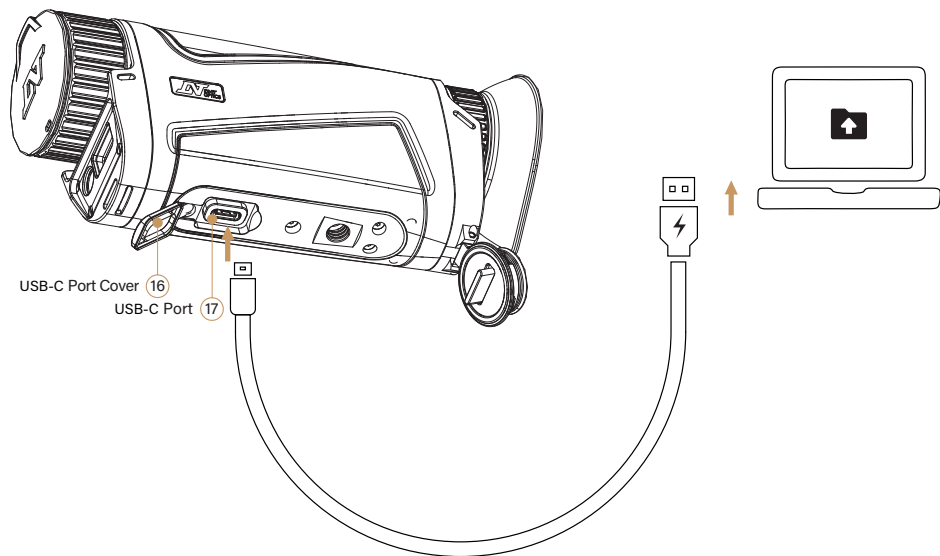
Open the USB-C port cover (16) , plug USB-C cable into the port (17) on the device & computer.

The HOUND will appear on your computer as an external drive, which you can navigate, open, & download files like normal.

■ BUTTON FUNCTION DESCRIPTION

(8) Power Button

(6) Magnification Button

(5) Menu Button

(4) Ranging Button
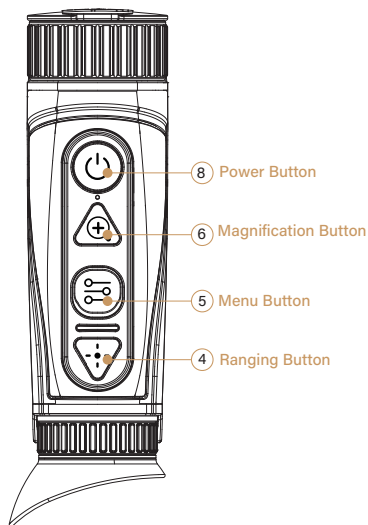
Button	Status	Short Press	Long Press
⏻ (8)	Power Off	-	Power On
	Power On	Standby	Power Off
	Standby	Wake Up	-
(5)	Power On	Adjust Screen Brightness	Menu
	Menu	Confirm	Return to the Previous Page
	Time Settings	Move Cursor to the Right	Save and Exit the Current Settings
	Ballistics Parameter Setting Screen	Confirm	Save and Exit the Current Settings
	Open Ranging	Turn Off Ranging	-
⊕ (6)	Power On	Zoom In/Out	Palettes Mode Switch
	Menu	Move Cursor Up	-
	Time Setting	Move Cursor Up	-
(4)	Power On	Open Ranging	Start/End Recording
	Menu	Move Cursor Down	-
	Time Setting	Move Cursor Down	-
	Ballistic Calculation Off	Show/Hide ranging icon and distances	Start/End Recording
	Ballistic Calculation On	Ranging and Ballistic Calculation	Start/End Recording

ON SCREEN DISPLAY
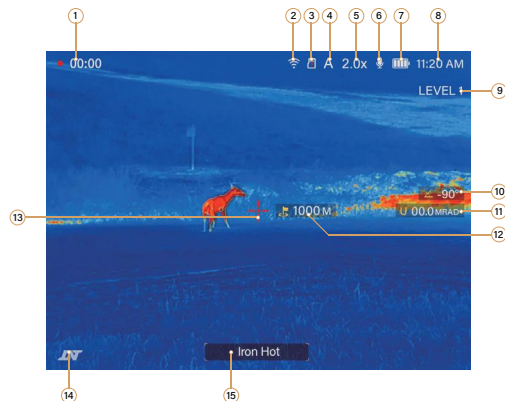
① Recording Indicator: Indicates that the video is being recorded.

② WiFi: Icon only visible when WiFi is on.

③ Memory Storage Icon: Only visible if there is an issue with the internal storage.

④ A: Active Ballistic Profile (DOPE)

⑤ Current Magnification (e.g. 2.0x)

⑥ Microphone: Shows if audio is being recorded with video

(🎤 Microphone ON, 🎤 Microphone OFF)

⑦ Battery Level:

Icon	Status	Battery Status
🔋	Low Battery	0% ~ 10%
🔋	1 bar	10% ~ 20%
🔋	2 bars	20% ~ 50%
🔋	3 bars	50% ~ 80%
🔋	4 bars	80% ~ 100%
🔌	USB Powered	Connected to type C

⑧ Current time

⑨ Current screen brightness level

⑩ Gyroscope Angle

⑪ Calculated Point of Impact

⑫ Target Distance

⑬ Ranging icon

⑭ DNT Watermark

⑮ Current Thermal Palette

■ MENU LIST

Press the **Menu Button** ⊟ for 2 seconds to open Settings. There are 10 in total.

Short press the **Magnification Button** ⊕ and the **Ranging Button** -•- to navigate up & down the menu.
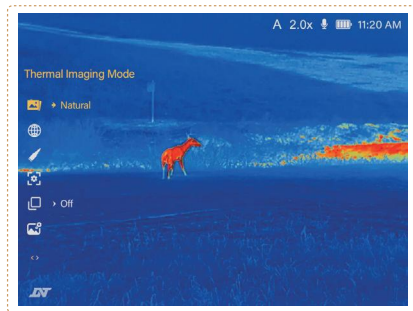
(main screen)

Long press 2s
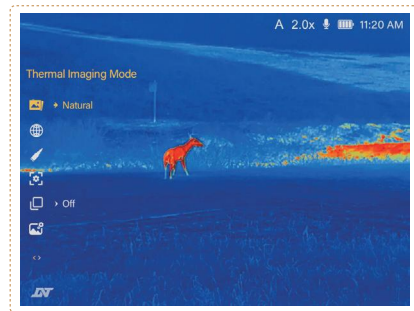
(menu)

⑥ Magnification Button ·········· ▲

④ Ranging Button ·········· ▼

MENU LIST

Press the **Menu Button** ⚏ for 2 seconds to open Settings. There are 10 in total.
Short press the **Magnification Button** ⊕ and the **Ranging Button** -•- to navigate up & down the menu.

Icon	Description
🖼	【Thermal Imaging Mode】 Natural / Enhanced / Highlight
🌐	【Connections】 Turn Wi-Fi ON / OFF
✎	【Ballistic Calculator】 Turn ON / OFF Ballistic Calculation Ballistic Data Settings Display Ballistics: MRAD / MOA / cm / inches / Off
🎯	【LRF Settings 】 Ranging Modes: Single Pulse Ranging, Continuous Ranging Ranging Untis: Meter / Yard
🗔	【PIP Settings】 Off / Left / Center / Right
🖼	【Thermal Image Settings】 Palettes: White Hot / Black Hot / Iron Hot / Red Hot Image Contrast: 1-5 Image Brightness: 1-5 Image Sharpness: 1-5 Hotspot Tracking: ON / OFF

▦ MENU LIST

Press the **Menu Button** ⚍ for 2 seconds to open Settings. There are 10 in total.

Short press the **Magnification Button** ⊕ and the **Ranging Button** -•- to navigate up & down the menu.

| Icon	Description
▣◆	【Function Settings】 Defective Pixel Repair Auto Power Off: Auto Off shutdown time after sleep: 10 / 20 /30minutes Loop Recording: Off / 1 / 3 / 5minutes Audio Recording: ON / OFF Gyroscope: ON / OFF / Calibration Screen Brightness: 1-5
⚙	【System Settings】 Date / Time Language Setting: English / Français / Español / Deutsch / Italiano Format Restore Default Settings Available Storage Version

Range Finding

Continuous Ranging

Long press the **Menu Button** ⌾ for 2 seconds to open Settings, short press the **Ranging Button** ⌾ to move the cursor to "Ranging Method", press the **Menu Button** ⌾ to select "Continuous Ranging", then Press & hold the **Menu Button** ⌁ to return to the main screen.

- Short press the **Ranging Button** ⌁ to turn on range finding. The screen will display the range-finding icon & target distance. The target range will continuously update in real-time as your target distance changes

- Continue to hold the **Ranging Button** ⌁ or short press the **Menu Button** ⌾ to turn off the ranging function. This will clear the range icon & target distance

- Function will turn off automatically if the **Ranging Button** ⌁ goes unpressed for 20 seconds
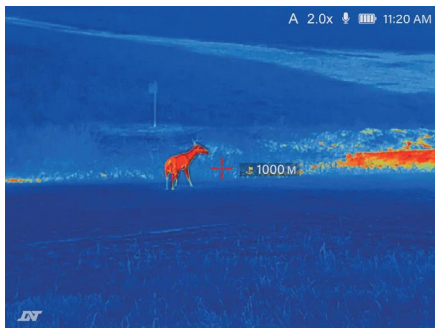
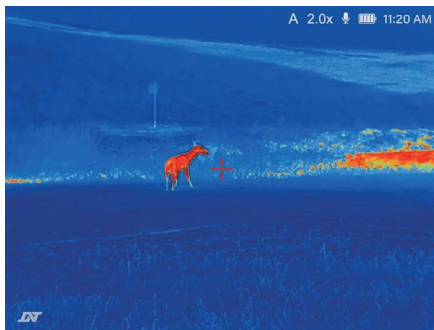(First press the **Ranging Button**)

(Press the **Ranging Button** again or press the **Menu Button**)

Range Finding

Single Pulse Ranging

Long press the **Menu Button** ⚙ for 2 seconds to open Settings, short press the **Ranging Button** ⚙ to move the cursor to "Ranging Method", press the **Menu Button** ⚙ to select "Single Pulse Ranging", then Press & hold the **Menu Button** ⚙ to return to the main screen.

- Short press the **Ranging Button** ·•· to turn on range finding. The screen will display the range-finding icon & target distance. Press the **Ranging Button** ·•· again to measure distance again

- Short press the **Menu Button** ⚙ to turn off the ranging function

- Function will turn off automatically if the **Ranging Button** ·•· goes unpressed for 20 seconds

(First press the **Ranging Button**)
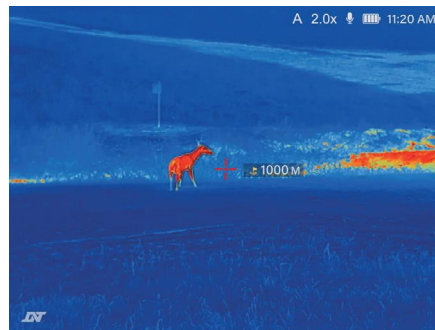
(Short press the **Menu Button**)

Built-In Ballistic Calculator

Long press the **Menu Button** ⚏ for 2 seconds to open Settings, navigate to the Ballistic Calculator select, and select: "MRAD" or "MOA". These units will now be displayed when ranging targets.

Ballistics Profiles

Long press the **Menu Button** ⚏ for 2 seconds to open Settings, and select Ballistic Data to open this menu.

Navigate with the Arrow Buttons and select pressing the **Menu Button**
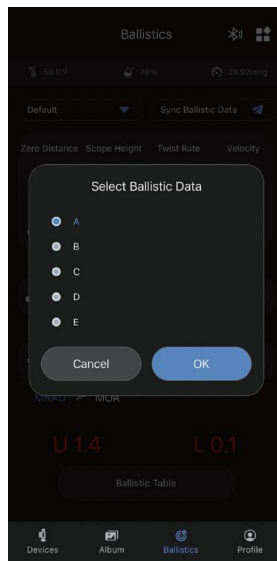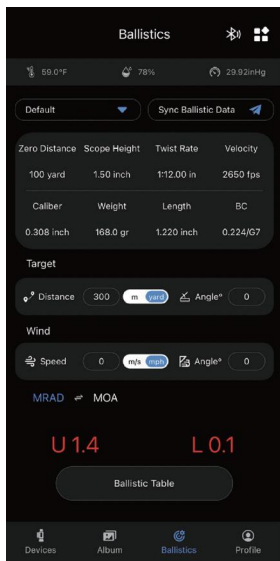

Short press the **Menu Button** to select the desired field
Use the Arrow Buttons to adjust the value up or down
Press and hold the **Menu Button** to save and exit the interface

Ballistic Calculation   APP Wi-Fi connection

You can upload ballistic data from the DNT app to the device once they have been paired via WiFi.

Using the Ballistic Calculator

After Ballistics Calculator is opened:

- Short press the **Ranging Button** -●- once to open the ranging function. This will display the range icon & target distance
- A second short press of the **Ranging Button** -●- will display the necessary scope adjustments for point-of-impact
- A third short press of the **Ranging Button** -●- will reset the display for a new target distance
- A long 1.5-second press will turn off the ranging function, clearing the display
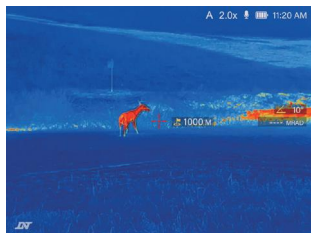
(First press the **Ranging Button**)
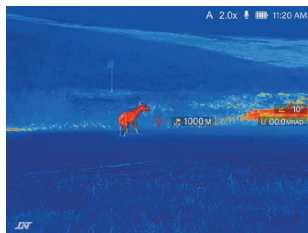
(Second press the **Ranging Button**)
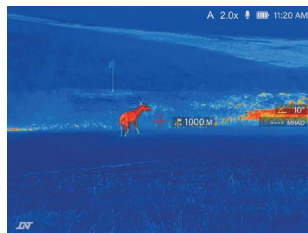
(Third press the **Ranging Button**)

(Short press the **Menu Button**)

■ APP USER MENU

Installation DNT APP

Download the DNT mobile app via the app store, or use the QR code below.

Android

iOS

Using the Ballistic Calculator

After Ballistics Calculator is opened:

- Turn on the device Wi-Fi: Long press the **Menu Button** ⚏ for 2 seconds to enter the menu interface, short press the **Ranging Button** ⟢ to move the cursor to "Network Settings", select "Wi-Fi Settings", and short press the **Menu Button** ⚏ to turn on Wi-Fi. You can see the Wi-Fi name and password

- Open your phone's Wi-Fi settings, select the device's Wi-Fi name, enter the password, & then click connect.

Figure (1)

Using the Ballistic Calculator

- To add a device, open the DNT app & click "Add Device". Select "Hound Thermal Ballistic Spotter", select your model number, and click to add

- After adding the device successfully, it is now connected

■ FCC WARNING

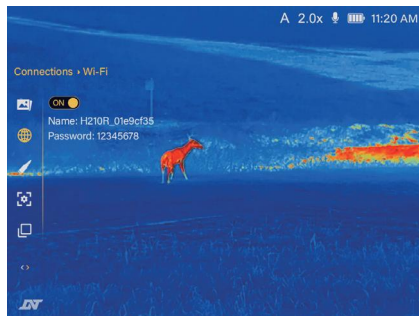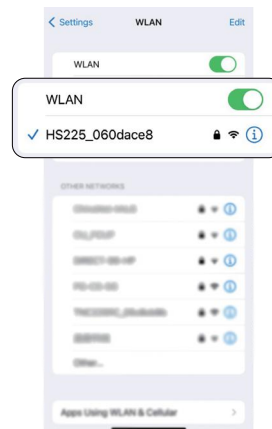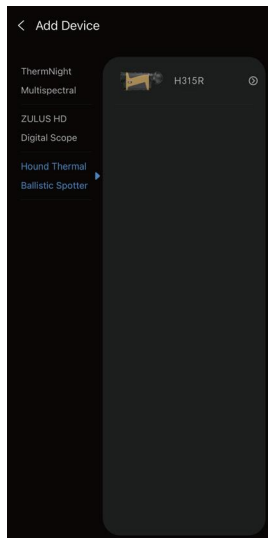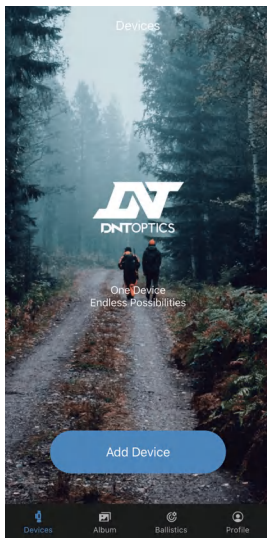This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Any changes or modifications 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 differentfrom that to which the receiver is connected.

-- Consult the dealer or an experienced radio/TV technician for help.To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum distance between 20cm the radiator your body: Use only the supplied antenna.

CE FC RoHS UKCA

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

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

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.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 0cm between the radiator and your body.