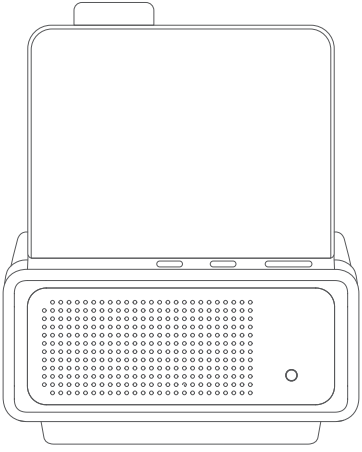
Thermal Master

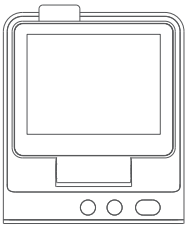
Automotive AI Thermal Master NV300

Detect Lives, 300m Deer Collision Prevention



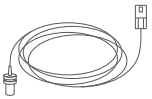
About This Product

1.1 What's In the Box

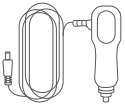


NV300

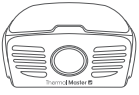
Thermal Camera



Coaxial Cable(5m)

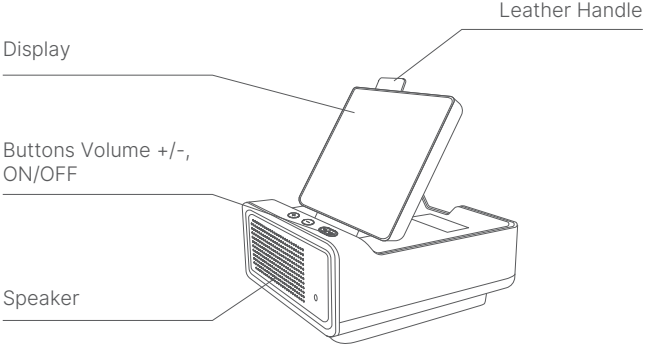


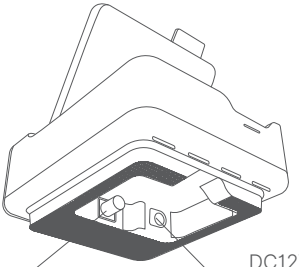
Dual USB+12V DC Cigarette Light



External Camera Holder

1.2 Product Overview





Button Functions Overview

2.1 Functions

Power ON/OFF Button:

When off, briefly press the power button to turn on. While on, hold for 2 seconds to turn off. Double-click to toggle WiFi, and triple-click to switch volume/brightness adjustment.

UP Button "+":

Volume/Brightness Increase, shortpress for single step increase, longpress for continuous increase.

DOWN Button "-":

Volume/Brightness Decrease, shortpress for single step Decrease, longpress for continuous Decrease.

Combination:

Press and hold both volume keys for 2 seconds to activate defrost mode. It will automatically turn off after 20 minutes. To manually turn off, press and hold both volume keys again for 2 seconds.

Product Features

3.1 Automotive AI Thermal Master（NV300）

Detecting Life, 300m Collision Prevention

①300m Nighttime Live Detection Distance: Provides clear vision through the darkness during night driving.

②AI {Det} Life Collision Warning: Offers five major scenario warnings (pedestrians, vehicles, animals, vehicle distance, start-up) with intelligent safety distance assessment based on driving speed to proactively mitigate driving risks.

③Shutterless Zero Lag: Equipped with Thermal Master's exclusive 35mK high-sensitivity core, ensuring a 0.1-second rapid response during nighttime driving for critical safety.

④512 Super Resolution: Delivers a clear field of vision with Razor X exclusive image algorithms, enhancing image clarity.

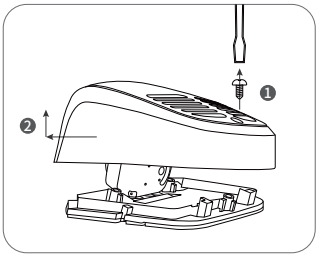
⑤Quick 5-Minute Installation: Features magnetic exterior mount and independent interior host, compatible with all vehicle models to meet the needs of multi-vehicle households.

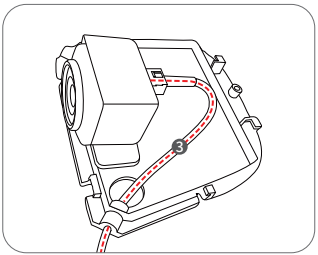
⑥IP69K Protection Grade: Withstands 80°C high-temperature and high-pressure water jets, 100% dustproof, and includes defrost function, ensuring performance in harsh weather.

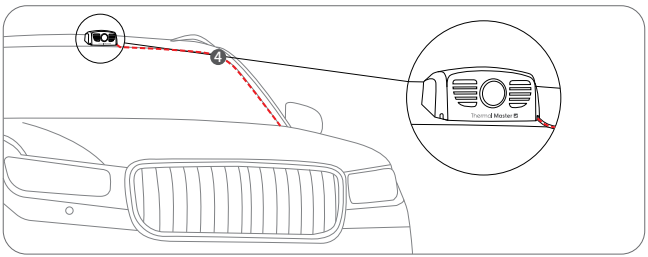
⑦TF Card Video Storage: Allows users to easily access infrared thermal imaging video files during use.

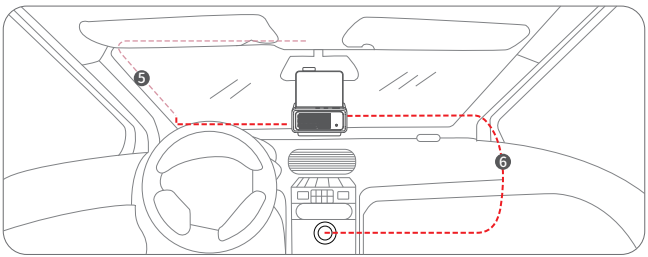
⑧Automatic Brightness Adjustment: Adapts display brightness based on ambient light for optimal eye comfort. The auto-brightness adjustment feature can be enabled or disabled via the app.

4.1 How to Install?









Installation Suggestions

5.1 Device Installation

①Interior Host Module Power Supply: The interior host module is powered by the vehicle's 12V system (cigarette lighter). The camera module is powered through a coaxial cable from the interior host module. It can connect to a 24V vehicle power system via the cigarette lighter, but do not supply 24V directly to the host module. The bottom of the interior host module has a non-slip rubber pad and reusable double-sided foam tape for mounting on a flat surface in the car, ideally on the center of the dashboard. Note: Remove the original non-slip pad before applying the double-sided foam tape.

②Exterior Thermal Imaging Camera Installation: The exterior infrared thermal imaging component is equipped with a magnetic base and double-sided tape for installation in the center of the vehicle roof. Ensure the connection cable runs along the edge of the car window into the interior, and that the camera's front view is unobstructed.

③WiFi Connectivity: The interior NV300 host has a WiFi module that can connect to smart devices (set the smart device as a WiFi hotspot with the name: nv and password: 12345678, the NV300 host will connect automatically). Use the app for personalized settings.

④TF Card Video Storage: The NV300 host features a TF card slot, allowing users to conveniently access infrared thermal imaging video files captured by the automotive AI night vision system.

5.2 Device Interfaces and Wiring Requirements

The interior NV300 host connects to the camera module via a coaxial cable, which supplies 12V power to the camera through POC (Power over Coax). The video transmission protocol between the host and the camera is GMSL, and the coaxial cable connectors are FAKRA Z-Type.

5.3 Safety Distance Requirements for Surrounding Components

The device has an IP69K protection rating. It is recommended that the operating environment temperature should not exceed 60°C for prolonged periods. Avoid direct contact with high-temperature components.

Product Datasheet

Model	NV300
Product Name	Automotive AI Thermal Master
Detection Range	300m Detect lives
AI {Det}	AI Recognize & Pre-warning
Scenarios for Warning	Pedestrians, vehicles, animals, vehicle distance, start-up, intelligent safety distance determination
Shutterless	Zero lag, Safety Plus
Reaction Time	0.1S
Resolution	256×192
Super-resolution	512×384
NETD	35mk Thermal Master High-sensitivity Core
Image Algorithm	“Razor X” Ultra Clear Image Algorithm
Working Temperature	-20~80°C
Lens Size	7mm
Protection Rating	IP69K
Pseudo Colors	9 Colors
Memory	Built-in 1G+8G storage, compatible with 64G TF card video storage
Environmental Sensing	Auto-sensing environment, adaptive screen brightness
Defrost	Yes

FCC Statement

FCC ID: 2BHGX-NV300

1. 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,

(2) This device must accept any interference received, including interference that may cause undesired operation.

2. Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

EMC Class B:

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.

Frequency range of 2.4G WLAN radio module: 2.412-2.462GHz

2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points.

For more information see: http://www.recyclethis.info

2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point.

For more information see: http://www.recyclethis.info

Cautions

Read all instructions before use.

- Do not point the thermal imaging camera at the sun or other strong energy sources for long periods of time. Otherwise there might be damage to the detector in the thermal imaging camera.
- Do not touch the lens with your hands. Do not knock, pry, puncture, or scratch the lens.
- Do not disassemble the thermal imaging camera.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

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	Tiktok	@ThermalMaster_Global

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