



BOYO VTHUDpro
Car Head-up Display



Installation & User Manual

Thank you for choosing Head-up Display from BOYO Vision.
Please read this Manual carefully before installing and using
the Product to enhance driving pleasure.

Warning: Do not use the head-up display, if it causes
distraction while driving.

About VTHUDpro

Through innovative product design concepts, **VTHUDpro** is an interactive device, designed to improve driving experience.

While keeping eyes on the road and hands on the steering wheel, get a best direction and navigate to your destination, make or answer phone calls, listen to music, and even send/receive messages while driving.

Key Features:

- 15" virtual image size with clear vibrant head up display
- Actual vehicle speed and RPM display from OBDII
- iOS CarPlay and Android Auto (Plug and Play) compatible
- Bluetooth microphone, FM Car Radio used as a speaker
- Hands-free and eyes on the road
 - ✓ Make or receive phone calls
 - ✓ Get directions and navigate
 - ✓ Listen to music, and audio books
 - ✓ Use other Apps developed for CarPlay and Google Auto with Voice command and steering wheel remote control
- OBDII Connector or Cigarette Lighter Adapter

Package Contents

Please check the package contents.



① Main unit



② Remote control



③ OBDII Cable



④ 12V Power Cable

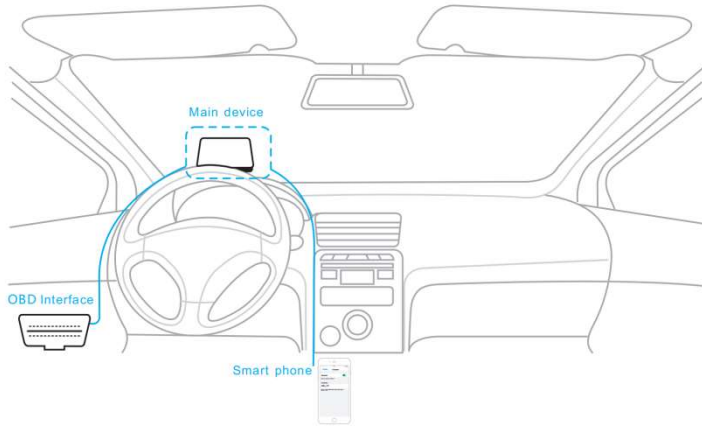


⑤ Cable clips



⑥ User manual

1. Installation

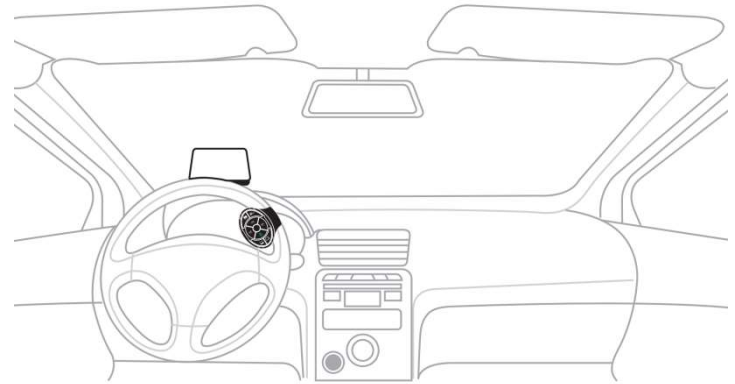


Step 1. HUD installation. Assemble the base unit and the main body. Find position on dashboard. Remove adhesive protection cover from the bottom of the base unit and fix on the dashboard.

Step 2. Connect power

- If your car has OBD-II port, find and connect using the OBD-II cable. OBD-II will provide vehicle speed and engine speed. Check your vehicle manual for the OBD-II connector location.
- If your car does not have OBD-II port, use 12V adaptor to connect. There will be no access to the vehicle speed nor the engine speed.

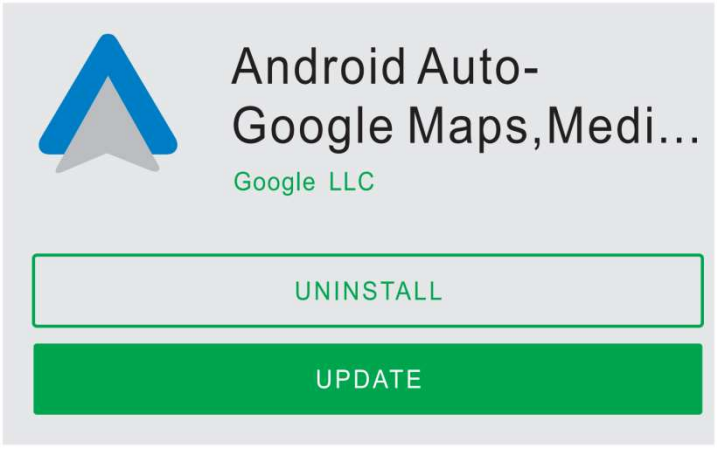
Step 3. Mount the remote on the steering wheel.



Step 4. Connect iOS mobile device with CarPlay or Android mobile device with Android Auto to VTHUDpro. USB connection is on the right side of the main unit.

For Google Auto users: For some mobile phones, you may also be asked to install supporting Apps.

Apps for Android Auto are available from the Google Play store. Please go to the Google App market place and search for "Android Auto-..." and download.



When Android phone is connect to the phone, VTHUDpro automatically launches the Google Auto interface and projects it onto the image combiner.

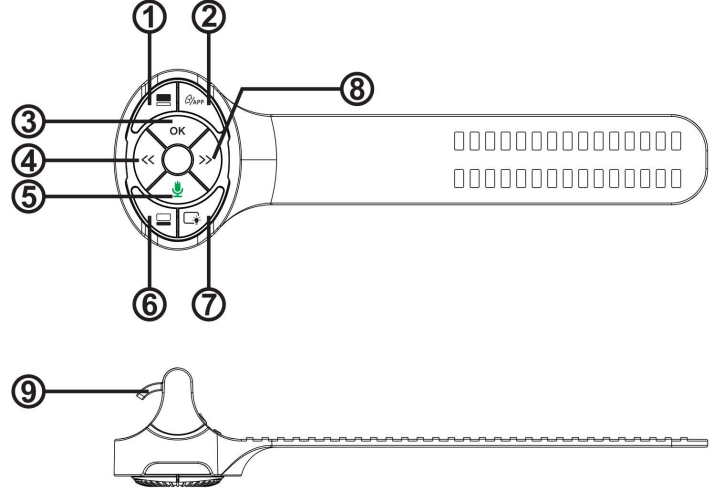
Open the phone's Bluetooth settings interface, search for HUD_BT Bluetooth device, and connect. Enter 0000, Bluetooth PIN code is needed for connection,

Step 5. Turn 'on' the VTHUDpro switch. The switch is located on top side of the main unit.

Turn on the engine and you are ready to use the VTHUDpro.

2. Before Using

2.1. Know your remote-control buttons



- ① Upper Selections (For Android Auto)
- ② Function/Menu Button:
 - ❖ Short Press = to switch between App(Apple CarPlay/Android Auto) and vehicle information(OBDII)
 - ❖ Long Press = enter menu
- ③ OK
- ④ Previous item
- ⑤ Voice assistant – call voice assistance
- ⑥ Lower Selections (For Android Auto)
- ⑦ Screen on and off
- ⑧ Next item

Remote control pairing: The remote control and the HUD main body are connected via Bluetooth. If the remote-control buttons are not working, manual pairing may be required.

To pair:

1. Power Off / On
 - a. If HUD is powered through ODB II,
 - turn the key to off position and then
 - turn the key to on position
 - b. If HUD is powered through a cigarette lighter adapter,
 - unplug the adapter and then
 - plug the adapter
2. Pairing
 - Within the first 8 seconds of power on, press both keys (lower and upper selection keys) at the same time.
 - Keep both keys processed for over 8 seconds.



If the remote control is still not working, please check the battery. Battery (CR2016) in the remote control may need to be replaced.

2.2. Know your setup menu

Press and hold the “APP and vehicle information switch” button to open the setup menu.

Change “Language”, “Speed unit” and FM frequency,

2.3. Know your initial settings

FM Frequency Setting: There is no built-in speaker in VTHUDpro. Please turn on your car’s FM radio, if you can’t hear any sound, you may need to set FM transmission frequency and vehicle radio’s FM receiving frequency.

To set the matching FM frequency, long press the “Function/Menu Button” of the remote control to enter the setting menu. In FM Frequency sub menu, you can use the “Previous item” and “Next item” key and the “Upper Selections” button or the “Lower Selections” buttons to select transmit frequency. “OK key” to confirm your setting. Then dial your FM radio frequency to the matching FM frequency.

3. Using VTHUDpro

3.1. Use the “voice assistant” as much as possible.

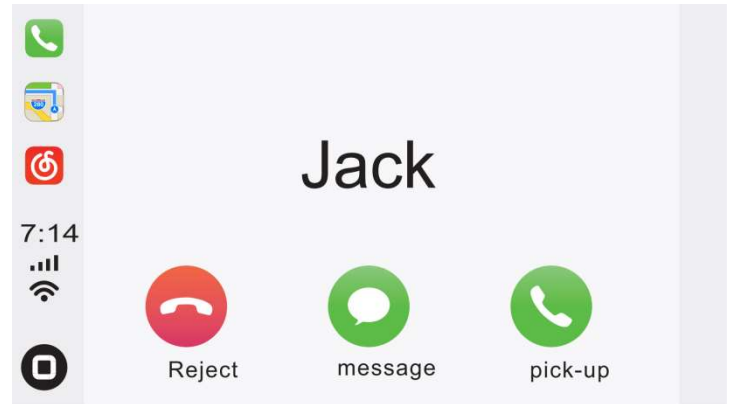
VTHUDpro supports voice control. Press the “Voice assistant” button to activate the voice assistant.

Then say a command.

For example, “call Charles”, “send message ‘give me a call’ to Ester” or “start Waze” to make a phone or to start Waze app. etc.

3.2. Using the remote control buttons

Apple CarPlay Interface



Use remote control buttons, “Previous item” and “Next item” and “OK” to select from displayed options.

Android Auto Interface

The Google Auto screen is divided into two areas; Upper and Lower Selections.



Upper Selections



Lower Selections

Use the "Upper Selections" and "Lower Selections" buttons to switch between two selections, and then use "Previous item" and "Next item" and "OK" button to make a selection.

Screen Saver Mode

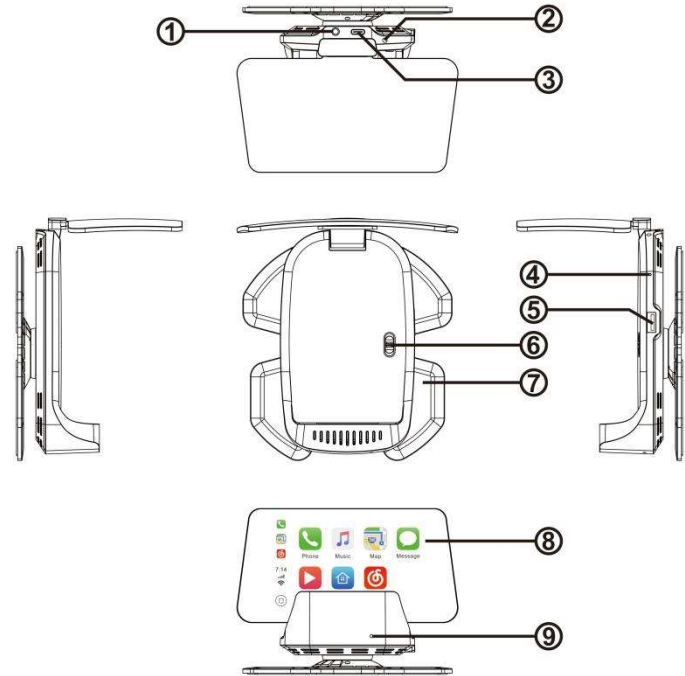
In some cases, listening to music or an audio book, you may want to turn off the screen. It will be less distracting. The screen can be turned off by pressing the "Off screen" button.

Active app will continue to run with screen off with audio on, including the navigation apps.

Press "Off Screen" button to toggle the display on or off.

4. VTHUDpro Product Diagram

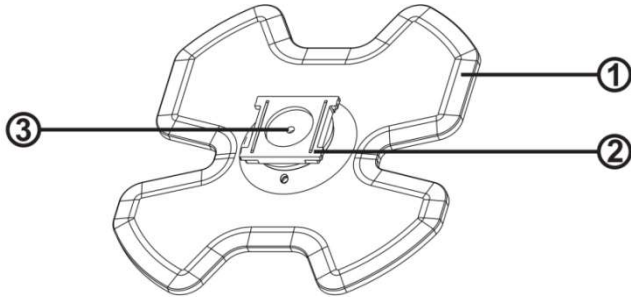
4.1. The main body



- ① 3.5 mm audio output interface
- ② Ambient light sensor detection hole
- ③ OBDII connector
- ④ Reset hole
- ⑤ USB socket
- ⑥ Switch on/off

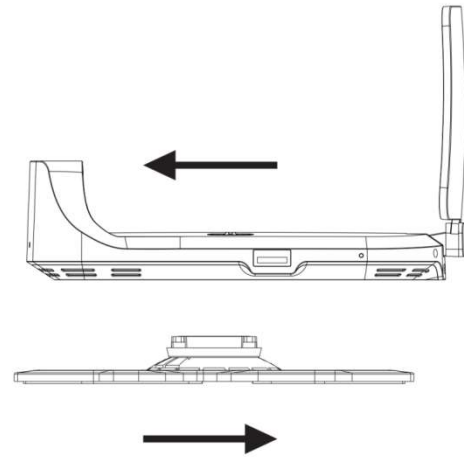
- ⑦ Base
- ⑧ Image combiner (Combiner)
- ⑨ MIC

4.2. The Composition of Base

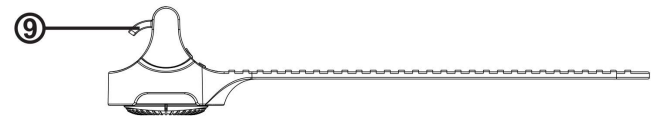
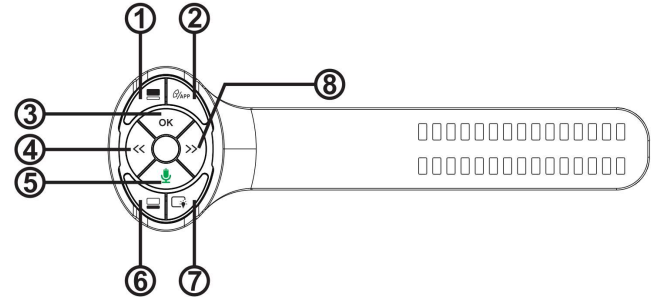


- ① Adhesive pad
- ② Universal support table
- ③ Universal support table fastening screw (the screw has been adjusted to the fine adjustment of the universal support table before leaving the factory)

How to Separate the Base

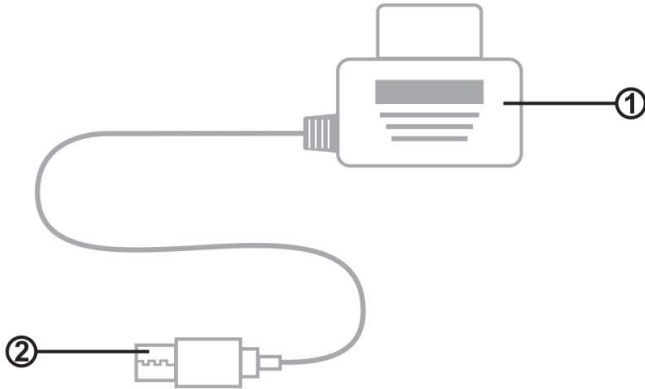


4.3 Remote Control



- ① Upper Selections (For Android Auto)
- ② Function / Menus switch (long press enter menu)
- ③ OK
- ④ Previous item
- ⑤ Voice assistant
- ⑥ Lower Selections (For Android Auto)
- ⑦ Screen on and off
- ⑧ Next item
- ⑨ Buckle

4.4 OBD II



- ① OBDII Male and OBD Readout Circuit
- ② Type-C

5. Technical Specification

Rated working voltage	11.5V-16.5V
Limit working voltage	11-18V
USB output	500ma
Working temperature	0-75 degrees
TFT screen resolution	480*240
Projection size	15-inch virtual image two meters away
SNR	>60dB
Degree of distortion	<0.1%
Frequency response	20Hz-15Khz
Left and right channel separation	> 60dB
Bluetooth version	Version4.2+EDR
Bluetooth sound processing	A2DP(Advance Audio Distribution Profile)
Bluetooth effective distance	<10M
Effective distance of Bluetooth microphone	0.5-2M
FM frequency	88.1-107.9MHZ
Transmit FM mode	Stereo digital PLL lock frequency

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

Changes or modifications not expressly approved by the party responsible for compliance

could void the user's authority to operate the 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.

For technical support contact:
Call 888-941-3060
Email info@visiontechamerica.com
Visit www.VisionTechAmerica.com