

VTR1188M

3 Channel Full HD Touch Screen Mirror Monitor Dash Cam

With 360° Panoramic, Front and Rear View Cameras

USER MANUAL

Please read this manual completely before installation and operation!

Precautions

- Please insert the micro-SD card in the right direction to avoid damage to the card or VTR1188M. If VTR1188M shows an error message, please format the micro-SD card from the menu of VTR1188M. Please reset VTR1188M or replace the micro-SD card if the error continues.
Warning: All files will be deleted when formatting the micro-SD card. Please backup the important files before format. When the reset function is selected, the settings will be returned to the default setting.
- Suggested micro-SD card: CLASS 10 or above micro-SD card. Micro-SD card specification varies from one brand to another, and it may not function as expected when using with VTR1188M. Please review the specifications of micro-SD before using the micro-SD card.
- The micro-SD card must be formatted before using with VTR1188M. Backup recording files once a week to prevent files from being overwritten. Please format the micro-SD card every month for recording stability.
- Please make sure the straps are installed properly and firmly onto the rear-view mirror to avoid any damage to VTR1188M and for better recording angle.
- Please do not use VTR1188M in a wet environment as the mirror monitor is not waterproof or water resistant.
- To obtain clear images, please clean the windshield and cameras of VTR1188M on a regular basis. Avoid using VTR1188M in a dusty environment.
- Please handle VTR1188M with care. Avoid using VTR1188M in a high electromagnetic environment.
- Operating temperature of the VTR1188M is 14°F/-10°C to 140°F/60°C. Continuous exposure to sunlight, especially when VTR1188M is mounted in a vehicle where the temperature exceeds above 158°F, VTR1188M may malfunction, screen change colors or image distortion.

Disclaimer:

This device is NOT intended to be used for illegal purposes. Recording or use of recorded video must comply with the local laws.

Local vehicle codes may prohibit drivers

- from mounting anything on the windshield or restrict mounting to specific areas of the windshield and
- from operating the device while driving.

It is the owner and the driver's responsibility to adhere to the local vehicle codes and obey all traffic rules and regulations.

The manufacturer is not liable or responsible for illegal use of the device, non-recorded event, missing files, and others, such as unrecognizable objects. The manufacturer will not be liable for any damage occurred during the use of the device.

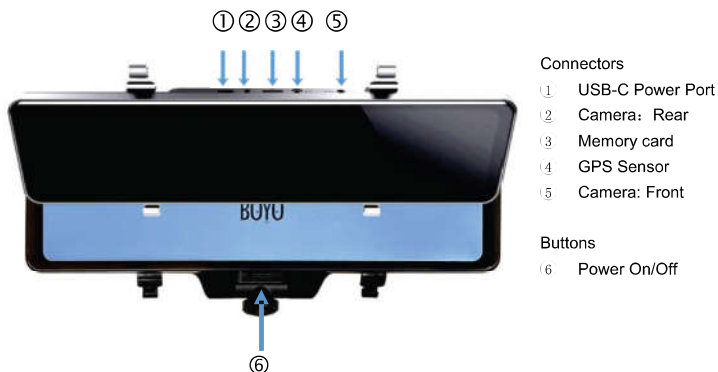
In The Box

Please check the box content before proceeding to install and use.

(The picture is for reference only, please refer to the actual product)

			
360° mirror monitor dash cam		Mounting Straps	GPS Antenna
			
Front Camera and 3ft extension		Rear Camera and 26ft extension with Trigger	
			Manual, Registration, Warranty Card
Cigarette Light Power Adapter	Battery Power Harness with Battery Protector	Wire Management Clamps	

Product Overview



Before Installation ... (Recording Modes)

Before installation, please note the following recording modes. Depending on the how power is supplied the different recording takes place.

Power	Key / Ignition	Battery Protector	Recording Mode / Photo Mode
Cigarette Lighter	On	N/A	Continuous recording <ul style="list-style-type: none">• Normal recording at full frame rate
	Off	N/A	No Recording
Hard Wiring	On	N/A	Continuous recording <ul style="list-style-type: none">• Normal recording at full frame rate
	Off	Off Battery > 11.8V (Batt. Utilized)	Continuous recording <ul style="list-style-type: none">• Recording at the reduced frame rate Parking Mode <ul style="list-style-type: none">• Increase to full rate when impact is detected. Motion detection <ul style="list-style-type: none">• Photo taken
		On Battery < 11.8V (Batt. Protected)	No recording

Installation

An installation approach described in this section is a suggestion. Please use installer discretion to achieve best results.

Mounting Mirror Dash Cam

- There are two (left & right) binding brackets with catches at the upper and lower part on the back of VTR1188M.
- Using the (2) elastic straps, clamp the upper and lower edge of the host binding bracket against the current mirror.

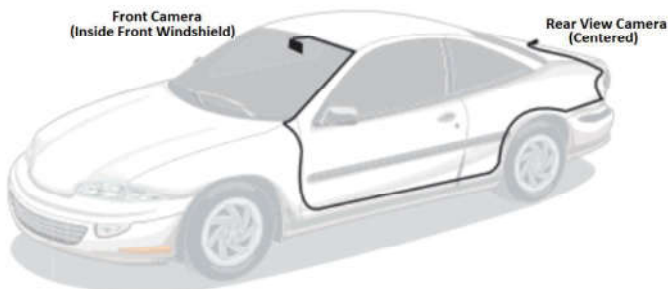
Power Wiring

VTR1188M can be powered in two ways. Please refer to “Before Installation” section, above before proceeding.



- a. Cigarette Power Supply Chord
 - i. Connect USB to the mirror monitor
 - ii. Run wiring on the right side of the windshield to 12V receptacle
 - iii. Plug-in
- b. Direct battery hard wiring
 - iv. Connect USB to the mirror monitor
 - v. Run wiring on the left side of the windshield to fuse box area
 - vi. Using fuse jumpers, connect to battery+ and connect to ACC+, and ground (black) to the chassis.

Camera Installations



- a. Front Camera: Install inside of the front windshield facing front.
For best result, the camera should be centered it below the rear-view mirror mount.

- b. Rear Backup Camera: Install outside on rear, along the centerline of the vehicle. For best result, consider the height and angle which gives you complete view behind bumper area.

Operation

Please note that recording will occur as long as internal super capacitor battery is not dead. See “Recording Modes” above.

Power on and off (button)

When power button is pressed, it turns on or off the display ONLY.

When display is off,

- Parking Mode recording will not be displayed.
- The rear camera works as a backup camera. When the reverse gear triggers the VTR1188M, the display will be turned on and the rear camera will be displayed on the screen. After the reverse gear trigger is off, the display will be turned off.

Full Touch Screen

A user will interact with the VTR1188M using the touchscreen.

Single touch: On screen will show the main menu (See “Main Menu” below).

Double touch: On the front or the rear camera will maximize the display. Double touch will bring back to the normal view.

On the panoramic dashcam will change between fish-eye view and quad-view.

Swipe: On the panoramic dashcam will digitally pan or tilt the camera

Main Menu






By touching the screen, main menu touch buttons will appear.





Recording button with a red dot indicates recording is in progress.
Touching the recording button, will change the menu buttons to...




The button icons:

	Recording On
	Take a picture
	Manual / Impact Recording
	Setting
	Display mode

	Recording Off
	View pictures / Playback videos

Live display modes

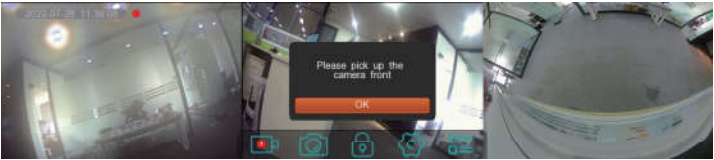
 By touching the display mode button, display mode buttons will appear.

Display Mode Buttons:






Wide-angle mode

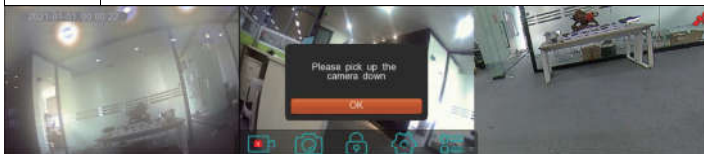


When you select wide-angle mode, you will be prompted "Please pick up the camera front". The display will be split into 3.

	Left	Middle	Right
Display	rear camera	front camera	360 dash cam

Dash cam: 360 dash cam in wide-angle mode. Rotation is not allowed. No zoom in or out.


	Spherical mode
---	----------------

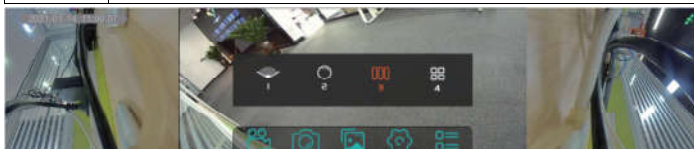


When you select Spherical mode, you will be prompted "Please pick up the camera down". The display will be split into 3.

	Left	Middle	Right
Display	rear camera	front camera	360 dash cam

Dash cam: Manually rotate and slide the video screen to rotate and display the video screen during preview/video recording/playback; No zoom in or out.

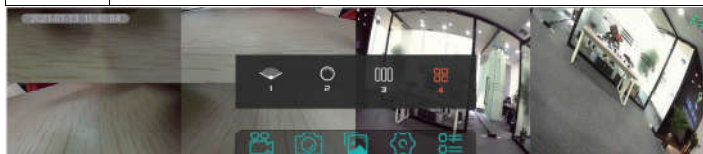
	Three screen mode
---	-------------------



	Left	Middle	Right
Display	360 dash cam	rear camera	front camera

Dash cam: During preview/video/playback, manually rotate and slide the left/right video screen to rotate and display the front screen in the video.

	Multi-window mode
---	-------------------



	Left	Middle	Right
Display	360 dash cam	rear camera	front camera

Dash cam: During preview/video/playback, manually rotate and slide the front/back/left/right video picture to rotate and display the video picture; Double click the front/back/left/right video screen to enlarge the front/back/left/right video to the half of the full screen. Double click the video screen again to exit the half of the full screen display.

Manual or collision lock for video recording



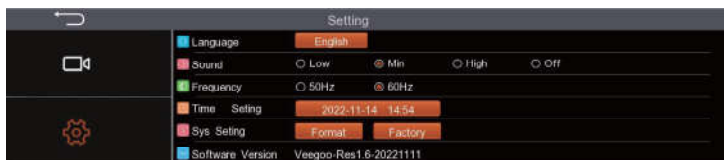
When the emergency recording button is touched, it turns to white and will record in all channels for 30 seconds. When recording completes, the icon will return to the original color.



System settings



There are two screen pages of settings. To change the setting pages, touch the button on the left.



Screen Bright	Adjust screen brightness
G-Sensor	Adjust sensitivity of impact sensor
Boot start	Normal recording on/off when power is turned on.
Vid. Voice	Turn on/off audio recording
Rear Mirror	Select reverse/non-reverse image for the rear camera.
Screen Saver	Turn screen saver on/off
Language	Select user interface language.
Sound	Audio level: Voice prompt and Audio playback
Frequency	Match electrical light frequency.
Time Setting	Set current time
System Setting	Format: format inserted storage device (microSD) Factory: reset to factory system setting

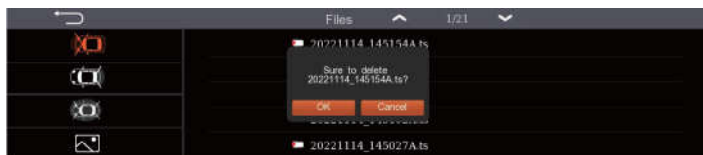


	Panoramic Dash Camera Recordings
	Rear Camera Recording
	Front Camera (or blind-spot camera) Recordings
	Photos

Recording Playback List

The video clips are timestamped. Newest at the top.

- To see the older listing, swipe-up the list.
- To playback – double touch the date/time
- To delete – long press/swipe-left



Panoramic Dash Camera Playback



By double clicking on the video window, the system will display 4 different display options.

Select and use playback view which provide best options for you.

Note: For the panoramic video replay, swipe gesture is functional as in the live view.

Front and Rear Camera Playback



Note: Split screen view or Enlarged screen display is not available.

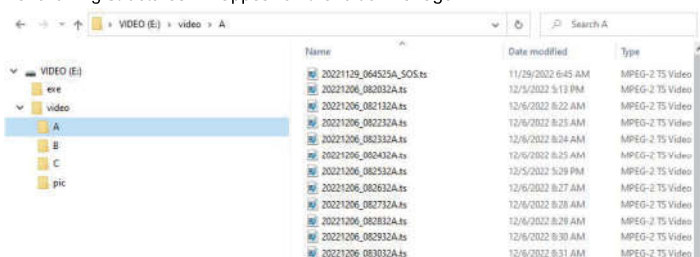
Recorded Video Clip Playback on the PC

The memory card can be removed from the system and played on a PC using windows media player or using a VegoViewer. VegoViewer is compatible with MS Windows OS. System Requirements:

- OpenGL2.0 and above
- Windows 7 and above

Playback using a media player

1. Remove the memory card from the units
2. Insert to memory card into the PC's memory card reader
3. The following structures will appear on the folder manager



Folder "A" contains the panoramic video clips

Folder "B" contains the rear camera video clips

Folder "C" contains the front / blind spot camera video clips

Each video clip is timestamped. Each video clip name is suffixed with "A", "B" or "C" to identify with a specific camera.

4. Double click on a video clip to play.
 - a. A folder panoramic video clip



b. B & C folder 1080P video clip

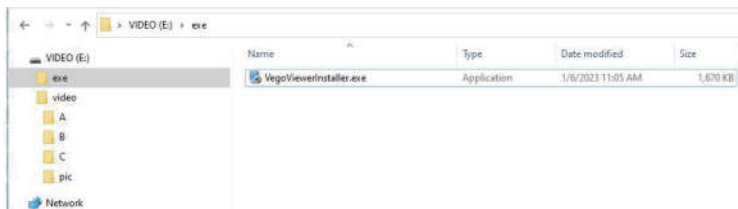


Playback using the MS Windows VegoViewer

VegoViewer is available for download at <https://www.visiontechamerica.com/downloads>

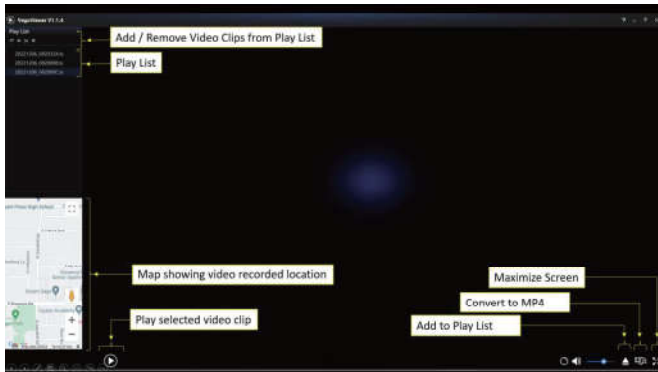
Or you can install it from the memory card. When you format the memory card using VTR1188M, it will automatically include the installer in the 'exe' folder.





Double click on the file name "VegoViewerInstaller.exe" to install.



VegoViewer

VegoViewer Main Screen



Play List	
	Select playback mode <ul style="list-style-type: none"> Sequence: playback the video clips in the order Random: playback the video clips in the random order Single Circle: playback the same video repeatedly
	Add a video clip to the play list
	Remove the selected video from the play list.
	Remove all clips from the play list.

Panoramic “A” Camera Playback



The panoramic camera can be viewed in 4 different view modes.

- 2-way split view – 2 x wider views
- 4-way split view – 4 x 90-degree views
- Unrolled view – 360 degree is unrolled on to flat surface
- Wide view – 170-degree view

Within each view, the image can be dragged to provide digital pan and tilt.

Panoramic (fisheye) Video Calibration



1. Select file: select the file to be calibrated.
2. Auto-calibration: auto-calibrate the video angle size.
3. FOV (video angle): manually calibrate the video angle size, after the calibration is completed, the player will use this as the standard to display the video angle size.
4. Save as calibration file.
5. Exit calibration

Front and Rear ("A" & "B") Camera Playback

Double clicking the video clip will play the video.



The viewing option available for rear camera is the horizontal image flip, to flip between the mirror and normal image.

Product specifications

Display screen	11.88 inch, 1480*320
Image Sensor	2.0 Mega Pixel
Dash cam lens angle	Horizontal: 360° Vertical: 220° (Measurement error 5%)
Parking monitor	Yes
Loop recording	Yes
Video format	TS
Photo format	JPEG
Storage	Up to 256GB, Class 10 or above
Speaker	8Ω1W
Microphone	-42dB
Collision file lock	Yes
Power supply low voltage protection	Yes
Power supply high voltage protection	Yes
Power reverse polarity protection	Yes
Power Short Circuit Protection	Yes
USB	USB Type-C
Operating voltage range	5V
Operating temperature	14°F ~ 140°F (-10°C-60°C)
Storage temperature	-4°F ~ 158 °F (-20°C-70°C)

Troubleshooting

Error	Reason	Solution
Will not turn on		
	Damaged car charger or low battery (battery option)	
		After the car is ignited, first check whether the car charger is damaged. If it is not damaged, use the car charger to charge the battery of the host.
		The battery is damaged and needs to be replaced
	Power cable BATT+/ACC not connected or wired incorrectly	
		Check whether the power cable BATT+/ACC wiring is connected correctly and successfully
	System error	
		Press and hold the power button for about 10 seconds to reset and restart the machine
Crashed		
	System error	
		Short press the RESET button on the back of the machine to restart the machine
		Press and hold the power button for about 10 seconds to reset and restart the machine
The machine shuts down immediately after the car is turned off or during ignition		
	Damaged car charger or low battery (battery option)	
		After the car is ignited, first check whether the car charger is damaged. If it is not damaged, use the car charger to charge the battery of the host
		The battery is damaged and needs to be replaced
	Power cable BATT+/ACC wired incorrectly	
		Check whether the power cable BATT+/ACC wiring is connected correctly and successfully
Unable to loop recording		
	Too many locked video files	
		Delete unwanted locked video files
Video freezes or crashed		
	TF card read and write speed is too slow	
		Please use a TF card with a read/write speed of Class 10 or higher

Warranty Information

This limited warranty is given to the end-user or the retail purchaser (referred to this warranty as "Original Purchaser") that it will be free from defects in material and workmanship for a period of one year from the date of the purchase of the new product (excluding cameras).

This limited warranty does not cover any physical damage to, or misuse of, this product, damage caused by improper installation; improper use; misuse; neglect; repair of cracked, scratched, broken or modified cosmetics; or parts that have been altered or removed; damages done by another device used with this product resulting from use of non-BOYO®-brand parts. This warranty is VOID if you purchased this product as used, floor model sample, or refurbished; if the product has been altered or modified in any way (including but not limited to attempted repair without authorization from BOYO®- Vision Tech America, Inc. and/or alteration/removal of the serial number).

For warranty information, visit: <https://www.visiontechamerica.com/get-warranty>



Vision Tech America, Inc.
1452 E. Valencia Dr.
Fullerton, CA 92831

For technical Support

Call: 888-941-3060

Email: info@visiontechamerica.com

Visit: www.VisionTechAmerica.com



Cameras/Monitors/DVRs/Dash-Cams/Receivers

1 YEAR LIMITED WARRANTY

This limited warranty is given to the end-user or the retail purchaser (referred to this warranty as "Original Purchaser") that it will be free from defects in material and workmanship for a period of one year from the date of the purchase of the new product (excluding accessory items such as power cords, cradle, memory card, adaptor and cables). A copy of the original proof of purchase and this warranty card with RMA number given by Vision Tech America, Inc. is required to receive warranty service. In the unlikely event that the new product should fail due to defect in material or workmanship, Vision Tech America, Inc. will repair or replace with new or refurbished product, where each party will be responsible for one-way shipping for the lower 48 states customers only. For International and U.S. customers residing in Hawaii, Alaska and Puerto Rico, customer is responsible for freight charges incurred both ways.

This limited warranty does not cover any physical damage to this product, damage caused by improper installation; improper use; misuse; neglect; repair of cracked, scratched, broken or modified cosmetics; or parts that have been altered or removed; damages done by another device used with this product resulting from use of non BOYO®- brand parts. This warranty is VOID if you purchased this product as used, floor model sample, or refurbished; if the product has been altered or modified in any way (including but not limited to attempted repair without authorization from BOYO®- Vision Tech America, Inc. and/or alteration/removal of the serial number). This limited warranty does not cover the vehicle of any damages or liabilities in which this product is installed or being installed. This product does not guarantee avoidance of vehicle collision or accident.

If you are having trouble with the product, please contact our technical support at 888-941-3060 or email: info@visiontechamerica.com with your questions or comments. If your product is eligible to receive warranty, request for warranty service online by visiting <http://visiontechamerica.com/site/get-warranty/>

This warranty is invalid if the factory applied serial number has been altered or removed from the Product.

IMPORTANT: TO SEND DEFECTIVE PRODUCT FOR WARRANTY SERVICE, YOU MUST RECEIVE RMA (RETURN MATERIAL AUTHORIZATION) AND INCLUDE ORIGINAL PROOF OF PURCHASE AND THIS WARRANTY CARD WITH THE SHIPMENT.

VISION TECH AMERICA CUSTOMER SERVICE CENTER
888-941-3060 or visit www.visiontechamerica.com

For an accessory or part not available from your authorized dealer, call
For U.S. 888-941-3060 | International 714-446-0543

BOYO®

Product Registration

Vision Tech America, Inc.

Name_____ Company_____

Address_____

City_____ State_____ Zip_____

Phone_____ Email:_____

Model No._____ Serial No._____

Purchased Date_____ Store Name_____

City/State of Store_____

Place
Postage
Stamp

BOYO®

Vision Tech America, Inc.
1452 E. Valencia Drive
Fullerton, CA 92831