



Manual for ViewOptix HD

Model VOHD720



Instruction manual

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Features

Low Latency 1024x600 Display, with no “Blackout” or “Blue Screen” if video signal gets low

Adjustable Lens Focus

Focal distance can be adjusted with simple dial on bottom of unit

Dual diversity receivers

Automatic switching to Antenna / Receiver with best reception for outstanding range. Also features auto scanning function for fast and easy channel searching!

Support AV and HDMI In

Use with an external receiver for long range, or simply enjoy a movie or playing a video game on your own private giant screen!

Supports AV and HDMI source DVR (HDMI DVR maximum input resolution supported is 1920*1080P @ 60HZ)

NTSC/PAL mode Auto Switching

No need to worry about what mode camera you are using, the ViewOptixHD auto-recognizes the format and displays the image properly!

Includes Standard 5.5mm Barrel Type connector, and Extensions for use with XT60 and Barrel type Power connectors

In the Box



Goggles x1



XT60 Power cableX4(10cmX2,50cmX1,150cmX1)



HDMI cable



HDMI adapter



Antenna x2



AV cable x1



HDMI cable



HDMI adapter



Foam eye cups



Head strap x1



Zipper bag



Manual x1

Source Modes

“Div” – Diversity Mode:

Automatically switches to the Video Receiver with the best Signal Reception at that moment.

“RX1” – Single Receiver Mode:

Shows the feed from video receiver 1 (#1) only

“RX2” – Single Receiver Mode:

Shows the feed from video receiver 2 (#13) only

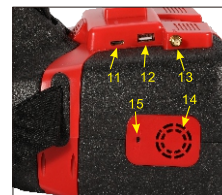
“CVBS” – A/V:

Displays feed from whatever is plugged into “AV IN” (#2) Jack

“HDMI” Input:

Displays feed from whatever is plugged into “HDMI Interface” (#11) Jack

Button Layout



#1 & #13 5.8G RX Antenna interface (RP-SMA Type)

#2 AV IN (CVBS) 3.5mm jack (3 Contact Type, Left + Right Audio + Video)

#3 AV OUT 3.5mm jack (3 Contact Type, Left + Right Audio + Video) (Displays “Div”, “RX1”, “RX2” Sources)

#4 DC IN 5.5mm “Barrel Type Connector (Center +, supports 2S-6S Li-Ion/LiPo Battery.)

#5 “S” Button:

A short tap will cycle through modes (DIV > RX1 > RX2 > CVBS > HDMI). While in the DVR playback menu, Tapping the “S” button will return to the upper level menu.

A Long Press (~3 seconds) will enter and exit the DVR playback menu. (Note: In order to enter the DVR playback menu, you must first long press the M key to show the green triangle icon (video start icon), if showing the red square icon (video stop icon) you will not able to enter the DVR playback interface.

#6 “-” Button:

A short tap will decrease the audio volume while not in the menu interface. When in the menu it will choose the selection to the **left**.

#7 “+” Button:

A short tap will increase the audio volume while not in the menu interface. When in the menu it will choose the selection to the **right**.

#8 “M” button:

A short tap will display the status bar information unless status bar is already displayed, if status bar is already displayed it will bring up the menu interface.

Button Layout

#8 “M” button:

A long press of this button will Start/Stop DVR recording, the green triangle icon in the status bar indicates DVR is recording, while the red square icon in the status bar indicates the DVR is not recording. While in the DVR playback interface menu, a short tap is used as the confirm/OK button.

#9 “V” Button:

A short tap will display the status bar information unless status bar is already displayed, if status bar is already displayed it will change the channel downwards.

A long press of this button will initiate the automatic search feature to find the next channel/band with video transmitting.

#10 “^” Button:

A short tap will display the status bar information unless status bar is already displayed, if status bar is already displayed it will change the channel upwards.

A long press of this button will initiate the automatic search feature to find the next channel/band with video transmitting.

#11 HDMI interface(C type):

Supports 1920*1080P/60HZ max input.

#12 USB interface:

Use a USB drive or USB SD Card Reader with SD card (To ensure the best video quality, please select a USB drive/reader with at least USB 3.0, write speed of 15MB/second and read speed of 10MB/second.)

#14 Lens Circulation Fan:

Circulates air inside goggle for pilot cooling and to help prevent fogging.

#15 Fan power switch:

Turns Lens Fan On or Off.

#16 Lens Panel Focus Adjustment:

Rotate Dial to adjust lens for comfortable focus – Adjustable focal range 50mm-80mm.

#17 Head Strap / Battery Mounting Area:

Padded Mounting area with “Hook and Loop” straps to mount Goggle Battery Pack.

Operation Instructions

Entering the Main Menu:

A short tap on the “M” button will display the status bar information (unless status bar is already displayed), if status bar is already displayed it will bring up the menu interface, press U button or D button to navigate up or down in the menu interface, press - button or + button to navigate left or right in the menu interface, short press M button to exit out of menu interface.

Contrast:

Enter the menu and use the U button or the D button to select contrast option use the - button or + button to adjust contrast (0-100)

Brightness:

Enter the menu and use the U button or the D button to select brightness option, use the - button or + button to adjust brightness (0-100)

Saturation:

Enter the menu and use the U button or the D button to select saturation option, use the - button or + button adjust saturation (0-100)

Definition:

Enter the menu and use the U button or the D button to select definition option, use the - button or + button to adjust definition (0-100)

Image pattern:

Enter the menu and use the U button or the D button to select image pattern option, use the - button or + button to switch between presets (*Bright / film / standard / personal*)

Battery:

Enter the menu and use the U button or the D button to select battery option, use the - button or + button to switch battery cell type according to input battery(2S-6S)

Language:

Enter the menu and use the U button or the D button to select language option, use the - button or + button to switch languages (English/ Simplified Chinese/French/German/Spanish/Italian/ Portuguese/Russian)

Diversity Band:

Enter the menu and use the U button or the D button to select diversity band option, use the - button or + button to switch between bands (A/B/E/F/R)

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(Diversity is composed of two sets of RF receiving circuits, which is compose of two separate antenna systems. The system always displays the strongest signal according to their RSSI output and maximizes the stability of image display. The channel can be controlled via the - or + button.)

Rx1:

Enter the menu and use the U button or the D button to select RX1 option, use the - button or + button to switch between bands (A/B/E/F/R)

Rx2:

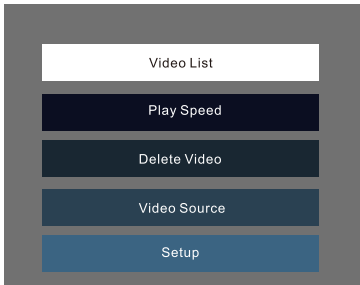
Enter the menu and use the U button or the D button to select RX1 option, use the - button or + button to switch between bands (A/B/E/F/R)

Reset:

Enter the menu and use the U button or the D button to select Reset option, use the - button or + button to restore factory settings

DVR Menu Interface:

To access the DVR menu you will first need to press the "M" button for 3 seconds to display the green triangle icon, wait for 6 seconds, then press the "S" button for 3 seconds to enter the DVR menu interface. It will take about 6 seconds to enter the DVR menu interface because it needs to start the DVR module. To exit the DVR menu press the "S" button for 3 seconds from the top menu.



Operation Instructions

Video list:

Highlight and tap the "M" button to enter this menu, tap "V" or "V" to move between videos, tap the "M" button to choose video and enter playback mode, and then tap "S" button to exit playback.

Play speed:

Highlight and tap the "M" button to enter this menu, tap "V" or "V" to move between options (1,2,4,8,1/2,1/4,1/8) and tap the "M" button to confirm selection.

Delete Video:

Highlight and tap the "M" button to enter this menu, tap "V" or "V" to move between videos, tap the "M" button to choose which video to delete (select "Delete All" or "Delete Single") tap the "M" button to confirm, tap the "S" button to exit.

Video Source:

Highlight and tap the "M" button to enter this menu, tap "V" or "V" to move between options ("Standard" / "Non Standard") tap the "M" button to confirm, tap the "S" button to exit.

Setup:

Highlight and tap the "M" button to enter this menu.

Setup Menu:

REC Audio:

While in the Setup Menu of the DVR Interface highlight and tap the "M" button to enter this menu, tap "V" or "V" to switch between the following options: open (will record audio) or close (will not record audio). Tap the "M" button to confirm, tap the "S" button to exit.

REC File Time:

While in the Setup Menu of the DVR Interface highlight and tap the "M" button to enter this menu, tap "V" or "V" to switch between the following options: close, 1 minute, 3 minutes, 5 minutes, 10 minutes, 20 minutes, and off 30 minutes. Tap the "M" to confirm, tap the "S" button to quit.

Operation Instructions

Language:

While in the Setup Menu of the DVR Interface highlight and tap the "M" button to enter this menu, tap "V" or "V" to switch between the following options: *English, Simplified Chinese, French, German, Spanish, Italian, Portuguese, Russian*. Tap the "M" button to confirm, Tap the "S" button to exit.

Format:

While in the Setup Menu of the DVR Interface highlight and tap the "M" button to enter this menu, tap the "M" button again to select format and begin formatting USB drive, tap the "S" button to exit.

Reboot:

While in the Setup Menu of the DVR Interface highlight and tap the "M" button to restart the system.

Update:

While in the Setup Menu of the DVR Interface highlight and tap the "M" button to select this option, tap "V" or "V" key to select update folder/file, tap the "M" button to select update file.

Reset:

While in the Setup Menu of the DVR Interface highlight and tap the "M" button to select this option.

5.8GHz Wireless Receiver:

To change bands (A/B/E/F/R) for "DIV", "RX1", or "RX2" modes, you will need to first enter the menu interface, highlight "DIV", "RX1 Band", or "RX2 Band" using "V" or "V" button, set the wireless receiver band using "-" or "+" button.

To change channels (ch1-8) for "DIV", "RX1", or "RX2" modes simply use the "V" or "V" buttons while in the receiver mode of your choice.

To use the automatic search feature press the "V" or "V" button for 3 seconds, the automatic search icon pops up and the goggles enter the automatic search mode.

The diversity mode is composed of two RF receiving circuits, which consist of two antenna diversity receivers. The system uses the strongest signal and maximizes the stability of image display according to their RSSI outputs.

AV IN mode:

Used to input the external image and sound signal from AV cable input. Insert

Operation Instructions

the AV cable into the AV IN (CVBS) input and switch to the CVBS mode by pressing the "S" key.

AV OUT:

Used to output "DIV", "RX1", or "RX2" receiver signal to an external display.

HDMI IN mode:

HDMI can be used to input high definition audio and video for a clear HD picture. The highest resolution the HDMI video input supports is 1920*1080P @ 60HZ. Insert the HDMI cable into the HDMI input interface and press "S" key to switch to the HDMI mode. Entering the HDMI IN mode may take about 5 seconds to start the HDMI module and get the picture.

Video Recording (DVR):

Insert USB drive or SD card reader first, before powering on, after powering on tap the "S" button to switch to the mode you would like to record then tap the "M" key for 3 seconds to start recording, the display screen will show a green triangle icon to indicate the DVR is recording, press and hold the "M" key again for 3 seconds to stop recording and the icon will turn to a red square icon.

Video Recording Tips:

1. In order for the DVR to record and save the video, you must record at least 30 seconds of video, anything less may cause issues in the recording.
2. DVR video sources are selected with standard and non-standard options on the DVR menu. When the HDMI input is connected - select "Non-Standard", for all other signal sources select "Standard" video source type for video.
3. To ensure that the goggle video can be properly recorded, make sure the USB drive or SD card used is formatted to FAT32.
4. To ensure the best video recording quality, please use a high speed USB 2.0 thumb drive, or SD card + compatible USB 2.0 card-reader- with a minimum write speed of 15MB/second and read speed of at least 10 MB/second. We also suggest using a high quality HDMI 2.0 cable.
5. When recording the Div/Rx1/Rx2/CVBS sources, please make sure that the HDMI interface should not be connected to the external HDMI source.

Battery Indicator:

The battery display is located at the top right of the screen. When the indication is red and flickers the battery will need to be charged.

Specification

Model No.	VOHD720									
Lens adjustable distance	50 – 80 mm(adjutable)									
LCD screen	7inch LCD, resolution1024*600									
	Contrast:		700:1							
	Brightness:		350 –380cd/m²							
User controls	Channel selection, Volume control, Mode selection, Lens distance control ,Brightness /contrast control, DVR control,Fan control									
Power supply	7.4V – 25.2V DC (2S/3S/4S/5S/6S Li-Ion/LiPo)									
Power consumption	15 Watts Max (~1080P/60fps recording)									
RF	5.8G Hz ISM frequency	Band	CH 1	CH 2	CH 3	CH4	CH5	CH6	CH7	CH8
		A	5.865	5.845	5.825	5.805	5.785	5.765	5.745	5.725
		B	5.733	5.752	5.771	5.790	5.809	5.828	5.847	5.866
		E	5.705	5.685	5.665	5.645	5.885	5.905	5.925	5.945
		F	5.740	5.760	5.780	5.800	5.820	5.840	5.860	5.880
		R	5.658	5.695	5.732	5.769	5.806	5.843	5.880	5.917
	Sensitivity:		-90dBm±1dBm							
	Channel:		40Channel (5 Band X 8 Channel)							
	Antenna Port:		2 X RP-SMA,50ohm							
	Diversity type:		Receiver / Antenna diversity Switching							
	TV System:		NTSC/PAL							
	Video output level:		1.0Vp-p Typ,75ohm							
	Audio output level:		2.0Vp-p Typ,10Kohm							
DVR	DVR Automatic save function when power off USB drive and SD Card maximum support is 128Gb Recording rate: 10Mbps (MPEG compression, 60 FPS, AVI) Document display (local recording, no support codec) Can be upgraded through the USB drive/SD Card Support fast forward and fast playback Support formatting FAT32 USB Drive/SD Card									
Connection Interfaces	AV IN:	Video, Stereo Audio input								
	HDMI:	Support HDMI 1.4 Digital Input,								
		Support HDMI Audio in								
		Supported resolutions: 1920x1080p50,1920x1080p60,								
		1920x1080i50,1920x1080i60,1280x720p50,								
		1280x720p60,720x576p50,720x480p60,								
720x576i50,720x480i60										

Specification

	AV:	Rx1/RX2/Diversity Receiving/Video/Audio
	DC IN:	5-25VDC,support 2S-6S battery
	USB:	USB2.0 or 3.0
	Speaker:	8ohm/1W
Size	233*203*175mm	
Net Weight	545g	
Working Temperature	-10℃~+55℃	