

## **Channel Auto Searching**

# **Wireless FPV Monitor with Dual Receiver LCD Monitor (Build-in DVR)**



# **User Manual**

# Product Overview

Wireless FPV monitor with dual receiver (build-in DVR) LCD monitor is a new multi-functional product; adopt advanced integrated circuits and high-quality new HD LCD monitor. It integrates a high-sensitivity dual 5.8GHZ AV wireless receivers, Aerial receiver, Video recorders, high-definition monitor, not only can conduct on-site wireless receiver, video, but also can seamless video, real-time image snapping and video playback. The monitor build-in battery, if you don't install the battery, you can use the 9~18V power supply for power supply. The Monitor casing compact, easy to operate, can be used for FPV ground station, car video monitors (macrograph), Security monitoring, baby monitors, photography viewfinder, construction site video surveillance, advertising and other venues.



**To insure best use of the unit, please read the user's manual carefully.**

## CAUTION

1. Do not use any damaged or leaking battery and please replace the battery immediately if its working life becomes short significantly
2. Do not expose this product to direct sunlight, heat or humid conditions
3. Keep away from strong light while using this product so as to obtain the clearest and the most colorful picture. Please use sun shade for the outdoor necessary
4. Please avoid heavy impact or drop on the ground.
5. Do not use chemical solutions to clean this unit. Please simply wipe with a clean soft cloth to keep the brightness of the surface.
6. Without adjustable component in the unit, please do not take apart or repair the unit by yourself, to avoid damage the product.

# Product Feature

- Dual antenna receiver, high-sensitivity, strong anti-interference
- Set DVR, wireless receiver, a monitor for the integration of Multi-functional a combination machine compact suitable for a variety of purposes
- Real-time image snapping , keeping the beautiful memory.
- DVR seamless video, save the latest data
- Motion detection recording, save memory space
- 5.8G wireless receiver, 40 Channel Auto Searching effectively avoid signal interference
- High brightness, contrast, anti-glare screen with a sun shade, sun clearly visible
- With VIDEO input, output, HDMI input, suitable for a variety of sources. Can be used as video, photography viewfinder, advertising machine.
- Color Control Systems support, enter the menu to manually select the appropriate format, and adaptable
- Front headphone monitors playback audio effects
- Build-in battery and rear battery plate, can be equipped with a variety of battery, No power to facilitate use of the site in country
- With VIDEO signal output function, can be used as video Playback DVR host, connecting multiple monitors.
- Check Field
- Picture Screen Markers and Center Marker

# **CONTENTS**

<b>1. Product Description -----</b>	<b>4</b>
<b>2. DVR (Video) Operation Instruction -----</b>	<b>7</b>
<b>3. Wireless Transmission Receiver Operation ----</b>	<b>18</b>
<b>4. Operation Instruction -----</b>	<b>20</b>
<b>5. Power Supply -----</b>	<b>25</b>
<b>6. Parameters -----</b>	<b>27</b>
<b>7. Trouble Shooting -----</b>	<b>28</b>

# 1. Product Description

## 1.1 Front Panel Features



1. Video Indicator

2. Power Indicator

★ 3~8 DVR operation button

3. **SC.SHOT**: Real-time images snapping

4. **REC/OK**: Recording start, stop/function confirm

5. **MODE**: Mode button to enter/ exit the playback mode

6. **MENU**: Menu key to enter / exit the DVR (Video) menu mode

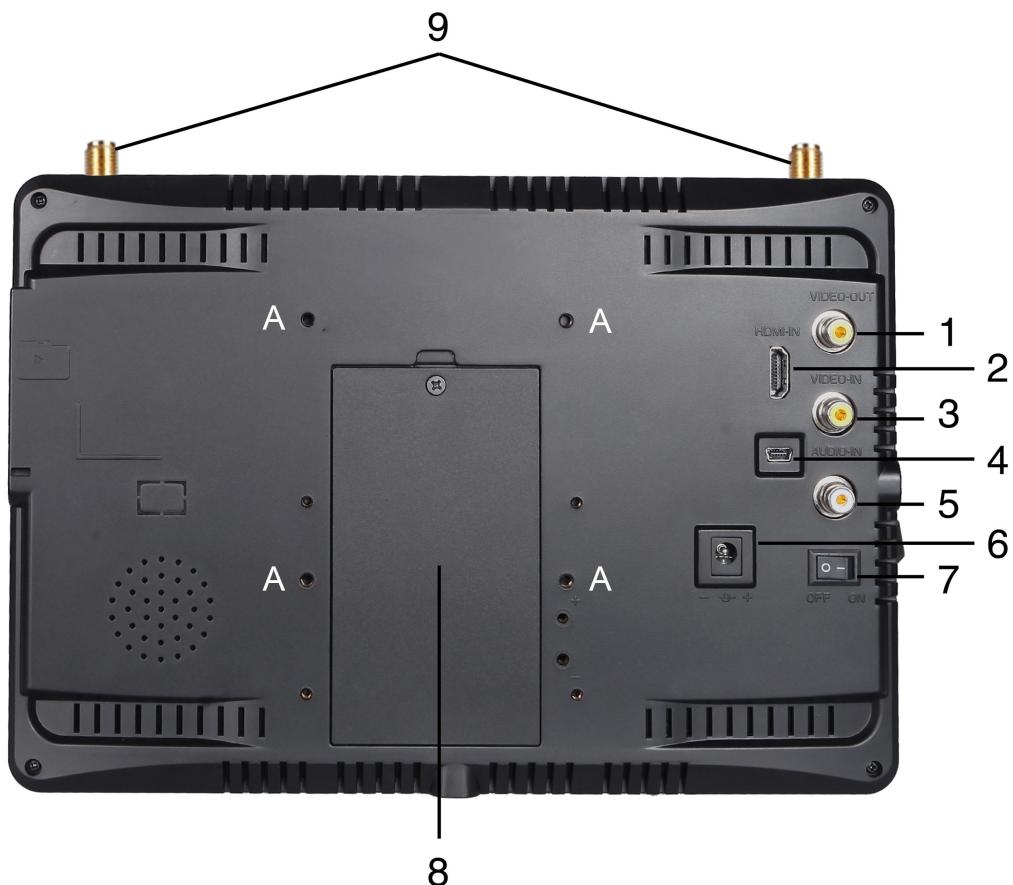
7. **UP**: UP button, up an option

8. **DOWN**: Down button, down one option

★9~12 monitor operation button

9. **+/CH/** : Multi button for UP/CHANNEL/SEARCH/  
Volume up: Press this button for channel selection Long  
pressing for channel auto searching In OSD for “UP”  
button Volume up
10. **-/BAND** : Multi button for DOWN/Channel selection/  
Volume down, press this button for channel selection  
from “A/B/E/F/R” In OSD for “DOWN” button Volume  
down
11. **MENU**: Monitor menu key, under a signal input mode,  
press this button to call up the menu, and the current  
menu and sub-menu item to confirm the adjustment
12. **SOURCE/EXIT**: Input signal selection or exit the menu
13. : Stereo earphone jack
14. LED screen

## 1.2 Rear Panel Features



1. **VIDEO OUT:** Composite video signal output
2. **HDMI:** HD HDMI signal input
3. **VIDEO IN:** Composite video signal input
4. USB data upgrade port
5. **AUDIO IN:** Audio signal input
6. Power input jack
7. Power switch “—”Indicates that the power is turned“○”means Disconnect the power
8. Battery Pack
9. Antenna

A~A: 75×75mm VESA, Screw size: M4×5.0mm

## 1.3 TF Card Slot

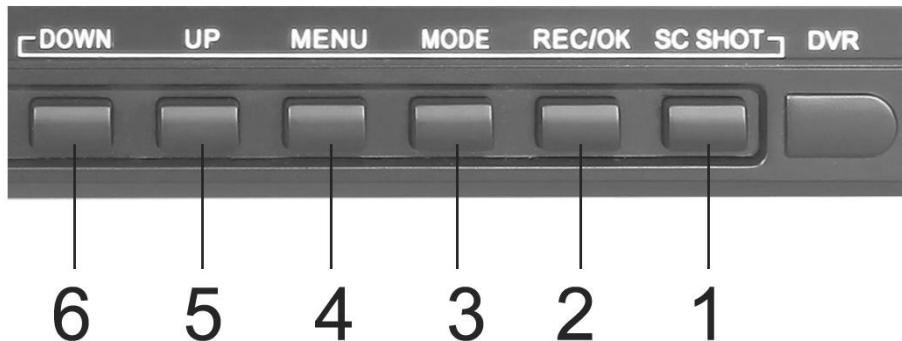


## 2. DVR (Video) Operation Instruction

When the monitor's "VIDEO-IN" and "AUDIO-IN" has access to the appropriate signals or "RF" wireless receiver transmitter has been reliably received video signal transmitted over and check the TF card has been reliably into the slot (monitor without the HDMI input, there is no video function)

After the device is turned on, press “**SOURCE/EXIT**” to select “**DVR**” channel, press “**REC/OK**” ,then the monitor will be on “**RF**” channel, if you would like to “**VIDEO**”, press “**SOURCE/EXIT**” again to change to **VIDEO**.

## 2.1 DVR (Video) Button Instruction



1. **SC.SHOT:** Real-time images snapping
2. **REC/OK:** Recording start, stop/function confirm
3. **MODE:** Mode button to enter/ exit the playback mode
4. **MENU:** Menu key to enter / exit the DVR (Video) menu mode
5. **UP:** UP button, up an option
6. **DOWN:** Down button, down one option

## 2.2 Recording Start

The monitor input signal selection "DVR" (video signal) channel, the monitor screen will display the "RF" channel of the screen, press the "REC / OK" button will appear when the red flashing , meaning that start recording begins, the DVR default to RF channel, if you would like to "VIDEO" channel, press "SOURCE/EXIT" to switch(HDMI input without recording function). And press "REC / OK" button to stop the recording. Recording or recording by time period paragraphs packaged storage.

## 2.3 Video Playback

When the video for some time, you need to playback video effects observed, press "MODE" button at the top left appears  , because the video store is packaged stored by time period, can use "UP / DOWN" keys to go forward or backward to select playback file package, select and press the "REC / OK" button to confirm, the device begins to enter the playback mode. Playback with the "DOWN" button to select the playback speed, return fast play with "UP" key in order to exit. When fast playback is muted trumpet, playing at normal rate for a voice broadcast.

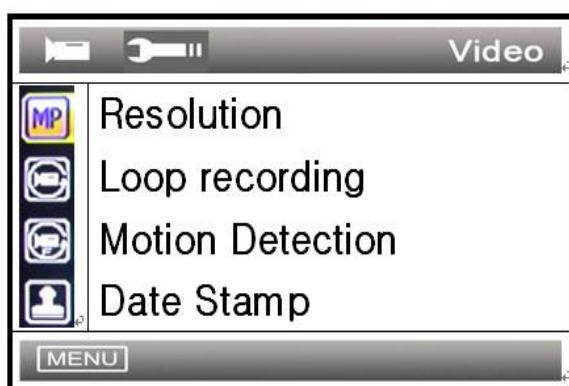
## 2.4 Screen Shot (SC.SHOT Function)

Under VIDEO or RF, Press the "SC.SHOT", then can be store the rear-time images (make sure TF card insert) ,if want to review these images,please press MODE to enter the  ,then use UP/DOWN to select the  folder to see them.

## 2.5 DVR Menu Operation

### Video setting:

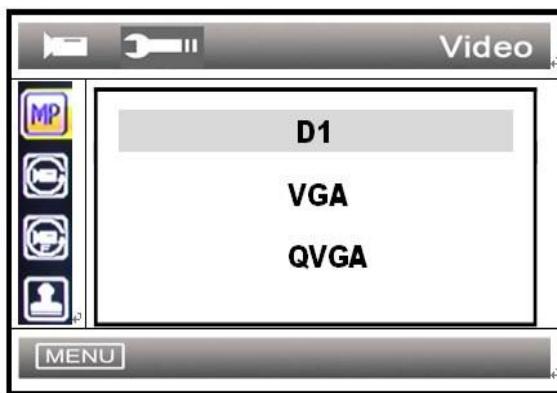
Press "MENU" button to enter the video settings menu





## Resolution

D1(720×576),VGA(640×480)QVGA (320×240),The higher resolution, the sharper, the larger of the file size.



## Loop recording

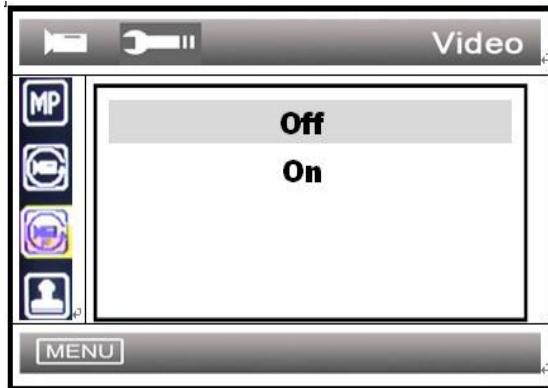
SD card is full, it will overwrite the oldest files cycle, and the system uses a unique algorithm, SD card DVR longer life than ordinary





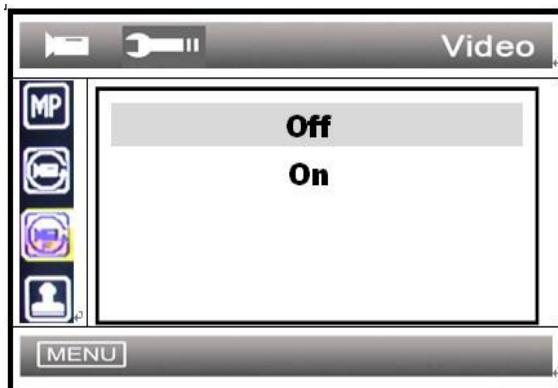
## Motion Detection

After opened, the moving object is detected, it will automatically record.



## Date Stamp

Date and time can be superimposed onto the video, you can not stack.



## Recording Video

You can choose to record video directly to a file or not record





## Image quality

The higher the image quality, image clearer, the file will be bigger



## Motion detection sensitivity

Can be adjusted according to the actual situation.



## 2.6Advanced Settings

Continuous twice press the "MENU" button to enter the MENU in the advanced Settings option

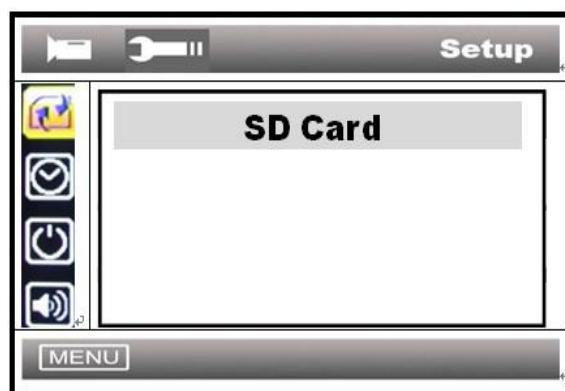




## Formatting

**First use, in order to optimize the file system, VCR will require customers to format again. Once formatted files will be lost.**

After entering format mode, press "REC/OK" button to confirm, the menu prompts



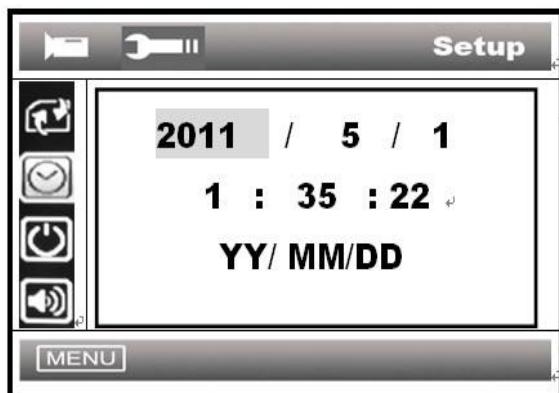
Press the REC/OK "button again, choose cancel or confirm whether the memory card is formatted





## Date/time

"REC / OK" button to confirm selection and adjustment, "UP / DOWN" keys to change the date or time, "MENU" to exit



**Auto power off** (This unit without this function)



**Beep Sound** (This unit without this function)



## Language setting

Press the "REC / OK" button to confirm, with the "UP / DOWN" keys to select the desired national language, then press "REC / OK" button to confirm. There are nine national languages choice

English    Deutsch    Français    Espanol    Italiano

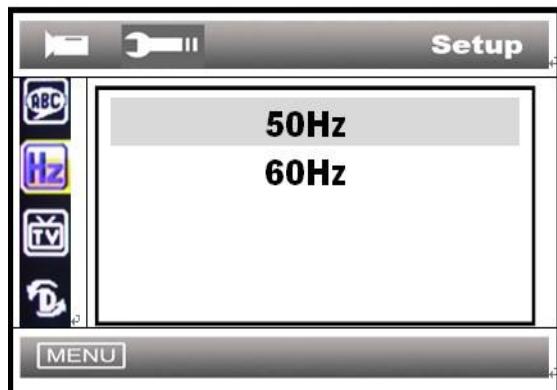
Portugues    繁體中文    簡體中文    日本語





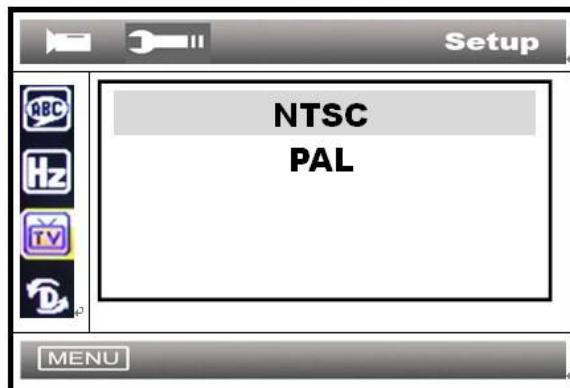
### **Light source frequency (This unit is not used)**

Refresh rate and the time taken to set the grid frequency synchronization



### **TV mode**

Output formats PAL / NTSC for option depends on country to set

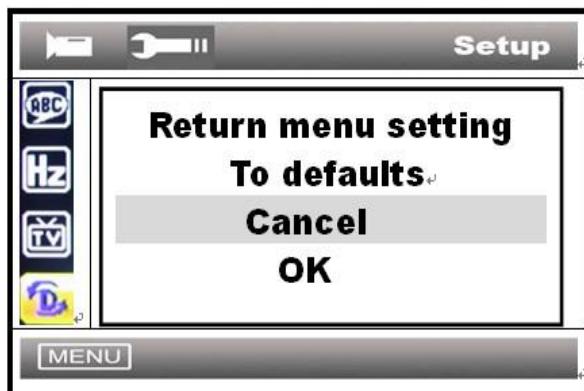


**Note: If after set the TV output formats, image cannot be synchronized, or even can't bring up the DVR menu, is the DVR output formats are not synchronized to the monitor format due, if this occurs, you can call up the monitor menu, enter the menu of "function" to set "Format" in the corresponding format option**



## Default settings

Restore the factory default Settings



## 2.7 Playback Menu Settings

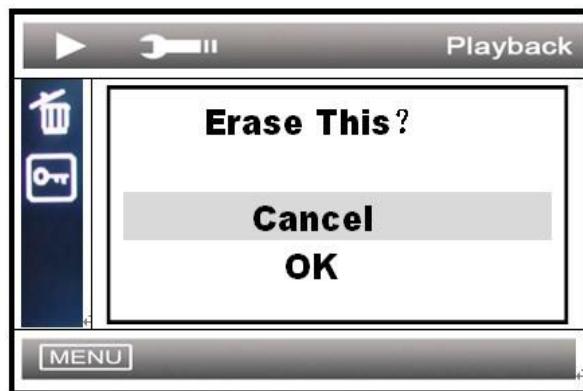
Press the "MODE" button, in the top left of the screen will display , press the DVR menu key "MENU", and enter the playback menu settings. (At this point if you press the "REC / OK" button to enter the playback, unable to enter the playback menu settings)



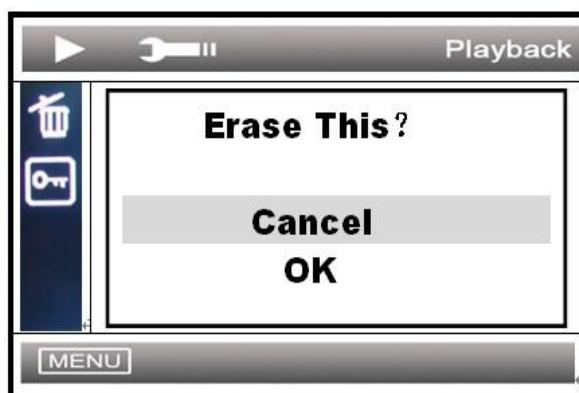
Delete, delete the unwanted content.



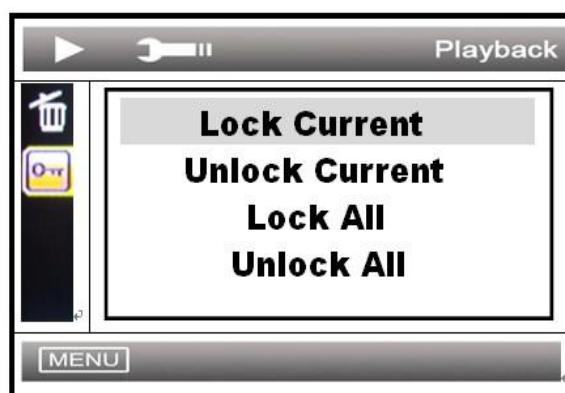
Delete single



Delete All



-  Protection, to save the contents of the lock protection to prevent misuse deleted and lost



### 3. Wireless Transmission Receiver Operation



Take the form a complete set of the antenna assemble on the unit's antenna input ports, the assembly should secure, locked on the buckle.

#### 3.1 Channel Selection

**Wireless transmitter channel and receiver channel must be strictly consistent; otherwise it will not receive a transmitter signal.**

This unit can auto searching for 40 receiver channels, also can accept simultaneously multi transmitters and receivers together work, to avoid co-channel interference

(Frequency range of each region are different, please check the unit's paste instructions).

Wireless 5.8GHz Diversity Receiver								
BAND	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8
A	5865	5845	5825	5805	5785	5765	5745	5725
B	5733	5752	5771	5790	5809	5828	5847	5866
E	5705	5685	5665	5645	5885	5905	5925	5945
F	5740	5760	5780	5800	5820	5840	5860	5880
R	5658	5695	5732	5769	5806	5843	5880	5917

 Note! During select channels must be supporting the transmitter

### 3.2 Auto Searching

Confirm that the transmitter has entered a normal working condition and then turn on the monitor, press “**MENU**” and select “**RF**” signal input. Long pressing “**+/CH/Q**”, “**Auto Searching**” will display on the top left corner of the screen means the machine start to auto searching when the screen on the upper left corner shows the **BAND:X CH:X**, images, said that finished searching. Now can be received the signal.

### 2.3 Manual Searching and setting:

Confirm that the transmitter has entered a normal working condition and then turn on the monitor, press “**MENU**” and select “**RF**” signal input. “**BAND:X CH:X**” will display on the top left corner of the screen Press “**-/BAND**” to switch channel A/B/E/F/R. Press “**+/CH/Q**” to select 1~8 channel. If the time transmitter has worked, receiver and transmitter frequency in agreement, the receiver will

receive the signal sent from the transmitter and displayed on the monitor

**Note: The effect of receiving the distance has a great relationship with the reception power of the transmitter and the receiver venues. If the reception is poor, the antenna can be replaced with three leaves, four leaf antenna or panel antenna. Replace the antenna should pay attention to the antenna and receiving the same frequency.**

## 4. Operation Instruction

This monitor with **HDMI**, **VIDEO**, **AUDIO** input and **VIDEO** output port, that is suitable for a variety of usage environments. From **VIDEO**, **AUDIO** DVR video input can be entered recording(HDMI without recording function), **VIDEO** output signal can be straight-through video signal , can also be the DVR replay video signal (consistent with the image displayed on the screen).

### 4.1 Button instructions



1. **+/CH/Q** : Multi button for UP/CHANNEL/SEARCH/Volume up: Press this button for channel selection Long pressing for channel auto searching In OSD for “UP” button Volume up

2. **-/BAND** : Multi button for DOWN/Channel selection/  
Volume down, press this button for channel selection from  
“A/B/E/F/R” In OSD for “DOWN” button Volume down
3. **MENU** : Press " MENU " button, pop up OSD menu, press  
this button again to enter the sub-menu, then press once  
adjusted for the sub-menu item to confirm, then, you can  
press the button " **+/CH/Q** " or " **-/BAND** " to adjust the  
value adjustment or selection, press MENU to confirm.
4. **SOURCE/EXIT**: The input signal switch button. When  
entering the menu operation for menu exit button
5. When Recording start to begin, the indicator will be flash  
with blue color.

## Operation

Press button 4 (**SOURCE / EXIT**) to select **HDMI**, **video**, **RF**, **DVR** input signals.

Select **HDMI**, HD multimedia digital signal from the HDMI input port;

Select the **video**, ordinary video signal from the video input port;

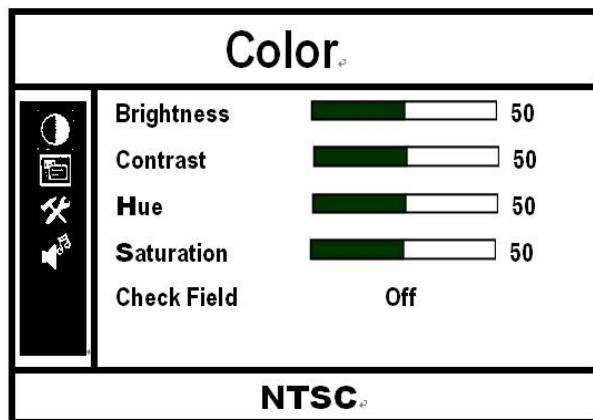
Select **RF**, 5.8 G RF input signal directly, image display more clearly.

Select **DVR** to enter into DVR video channel, displayed on the screen at this time is images from the DVR video output, access DVR channel for corresponding functions. When the DVR video

recording, video indicator light 5 (blue) flashes. In the first use of TF card or switch to a new TF card, should format TF card in the channel (DVR).

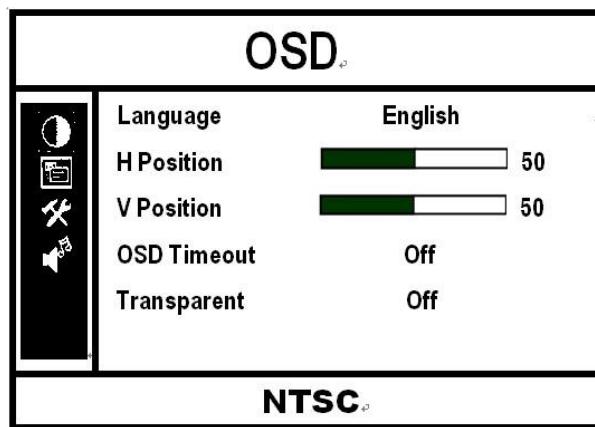
## 4.2 Menu Instruction

### ① Color



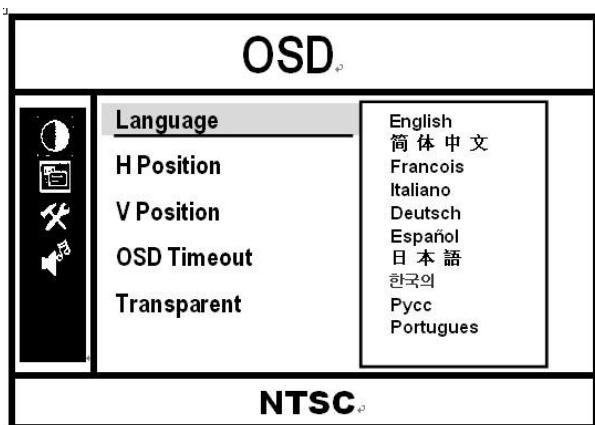
- ※ **Brightness:** To adjust the image's brightness.
- ※ **Contrast:** To adjust the brightest and darkest ratio of the image, please note the sense of picture when adjust, proportion too large or small, will make the picture lose the color of showy.
- ※ **Hue:** On NTSC Video mode, the image color tint difference is adjustable by tint.
- ※ **Saturation:** To adjust color concentration
- ※ **Check Field:** Switch on/off Check Field (Red, Green, Blue, Mono and Color)

## OSD



※ **Language:** Languages for OSD as below:

English 简体中文 Français Italiano Deutsch  
Español 日本語 한국의 Pycc Portugues



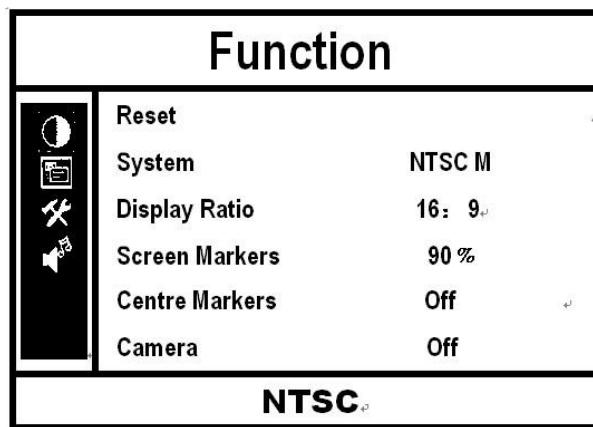
※ **H Position:** To adjust the OSD position in horizontal.

※ **V Position:** To adjust the OSD position in vertical.

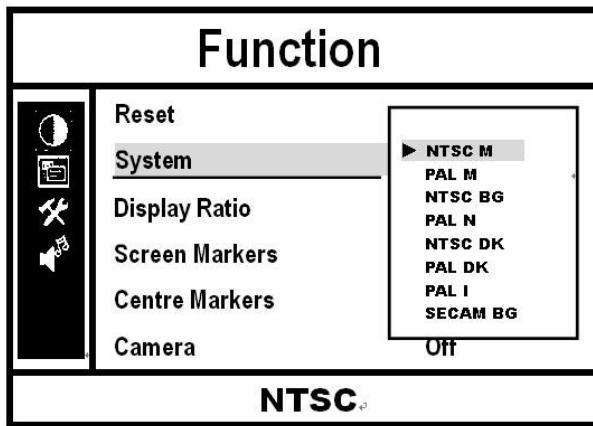
※ **OSD Timeout:** To adjust the clock.

※ **Transparent:** To adjust the level of transparent.

## Function



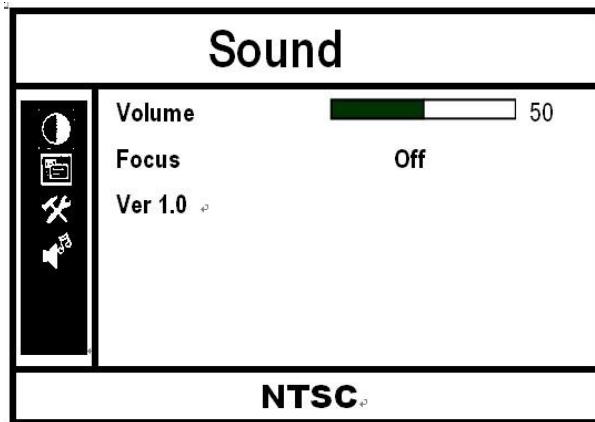
- ※ **Reset:** Back to original setting.
- ※ **System:** To adjust color video format.



- ※ **Display Ratio:** To change the display ratio 16:9/4:3.
- ※ **Screen Markers:** To adjust screen marker (off, 96%, 93%, 90%, 85%, 80%)
- ※ **Centre Markers:** To set centre mark (cross mark) display
- ※ **Camera :** Use the Canon 5 d II or similar camera, the monitor video has real-time images. NO black screen, NO delay, perfect without distortion.



## Sound



※ **Volume**: To adjust the volume.

※ **Focus** : As an auxiliary functions (in HDMI mode ) when used as the camera viewfinder.

※ **Ver.1.0**: Software version number

## 5. Power Supply

**There are two versions for power supply:**

### 5.1 Supply by city electricity with power adapter

When the monitor connect the electricity by DC power adapter, red light is illuminated, means is charging, after fully charged, then switch to green light.

When the power switch is on “—”, the monitor is in operation mode, green light is illuminated. If the built-in battery is not fully charged , it still continue to charge the battery, until the battery is full.

To use power adapter supply , it can choose the power adapter(optional) , which matches to the monitor. If the customer need to use the other power adapter, please use the qualified power supply in DC9-18V,  $\geq 1.5A$ .

## **5.2 Built-in Battery Power Supply**

This model is built-in Li-ion battery capacity: 7.4V-2200mA/h (2Hours),after fully-charged, it lasts to work 2 hours.

## **5.3 Li-ion Battery**

- The working temperature of Li-ion battery is -20~60°C, please don't use battery in the place with temperature too low or to high. The power of battery will be reduce if it is working in low temperature environment. Please don't use the battery in high temperature environment, may cause battery swell then fire. Please check the temperature of battery when it working in high temperature environment.
- Over- charge and over- discharge, it will cause permanent damage to the positive pole and negative pole of batteries. No need over discharge then rechargeable every time.
- Period of time to do a deep charge and discharge the battery under the protection circuit control to correct the consumption statistics, but it will not improve your battery's actual capacity

- Please be placed in a cool place to weaken the passivation reactions peed of battery, if you don't use the battery for long time.
- Please charge power stored in the battery to prevent self-discharge of excessive lead to excessive discharge damage, if you don't use the battery for long time.

## 6. Parameters

Panel size	IPS LCD 10.1 inch
Resolution	1024×600 Pixels
Backlight	LED
Dot pitch	0.2175 (H) x 0.2088 (V) mm
Display ratio	16:9
Brightness	500 cd/m <sup>2</sup>
Contrast ratio	800:1
Viewing angle	85°/85°(L/R) 85°/85°(U/D)
Input signal	Video/Audio/RF/HDMI
Output signal	Video
Audio	Stereo Headphone, Speaker
Video color system	PAL-4.43 / NTSC-3.58
HDMI support format	480i /480p /576i /576p 720p /1080i /1080p (50/60Hz)
Input voltage	DC 9~18V
Power consumption	≤15W
DVR recording resolution	D1(720×576)VGA(640×480)QVGA(320×240)
DVR support TF card	maximum 32G
DVR Recorded video format	AVI

RF receiving frequency	5.8 G broadband FM audio and video synchronization receiving (other frequencies optional) 40 channel auto searching (different frequency range for different region, see specific of the machine's paste instructions)
RF wireless receiving sensitivity	typical value -90dBm
Frequency stability	±100 ppm
Unit size (mm)	259.9L x 180H x 28D mm
Unit weight	790g (Including the battery)
Installation method	1. 1/4-20 thread mounting holes in the monitor, easy to install on the tripod 2. 75X75cm VESA
Build-in battery	Li-ion 7.4V/2200 mA/h
Working temperature	-20~50°C
Storage temperature	-30~65°C

## 7. Trouble shooting

### 7.1 Only black and white or monochrome picture

- ① Please check saturation、brightness & contrast adjustment.
- ② Please check monitor's "color" from the menu "monochrome" is in black and white or monochrome image or other condition.
- ③ Check whether it is caused by the discrepancy for the DVR playback of video system and monitor system. If that, please enter into the monitor "Function" menu for "Format" option to select the corresponding standard.

## **7.2 NO picture after put on the power**

- ① Check signal cable contact are in good condition, a monitor is synchronized with the input signal, and can press the "SOURCE/EXIT" give it a try. If in the RF channel, please check to see if the transmitter has been work.
- ② Check signal cable connecting, and make sure use the standard adapter connect the monitor. If power supply by battery, please check the battery whether fully charged.

## **7.3 Images are not synchronized, DVR can't enter the menu**

- ① The DVR playback system and monitor system are different, can enter the monitor "function" menu, and select the right video format in the "format" option.
- ② The RF signal is too weak.

## **7.4 Playback the video without sound**

- ① No open the audio recording in the DVR menu settings
- ② Volume control did not open, can press the volume button "+", try increasing the volume.
- ③ Recording under the "VIDEO" input state, but "AUDIO" is not AUDIO input signal at the same time.

## 7.5 Open the RF, no signal detected

- ① Transmitter is working properly or not.
- ② If transmitter frequency matches with the receiver frequency band
- ③ If customer change the receiving antenna, please note that must be matched with the transmitter, otherwise may cause receiving sensitivity is low, even can't receive signals

- Remark: If there are still other problems, please contact with our related deals.

**★ If there are changes without prior notice.**