

User Manual



Before operating the Monitor, please read this manual thoroughly and retain it for future reference.

EVERVOX
A Safe and Joyful Drive

深圳市永泰源电子科技有限公司
EVERISE INDUSTRIES(SZ)LIMITED

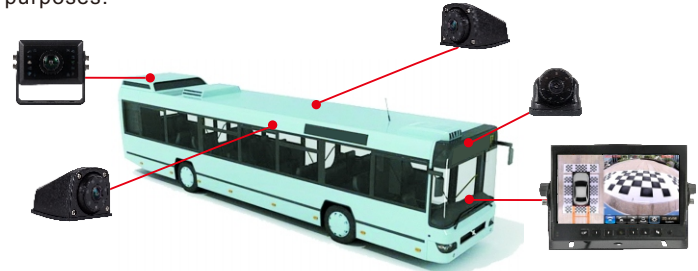
项目	说明书	比例	1:1	日期	2019.04.19
品牌	中性	材质	157克铜板纸	编号	WITE/04/05-448
型号	EV-736AVM	工艺	黑白印刷	料号	PAC-20073600-000
规格	105*140mm	版本	A/0	备注	
制作: 颜冰	功能审核:	英文审核:	图片审核:	业务员审核:	审批:

Content

Introduction of 3D Bird View System.....	1
Main Feature	1-2
Specification.....	2
Product Appearance.....	2-3
Operation Introduction.....	3-11
Installation.....	12
Accessories.....	12
Calibration Canvas Making.....	13

1. Introduction of 3D Bird View System

The 360 degree round view system synthesizes images from four cameras to create a true 360 degree view of the vehicle's surroundings. This system generates a completed view of your vehicle and its surroundings, which could reduce blind spots. This view assists with parking, helps the drivers with narrow roads and turning. The system also records all cameras connected, making it great for insurance purposes.



360 degree bird view system

2. Main Feature

360 Degree Round View

The system uses the I.MX6 chip, and through the four fish-eye cameras installed around the body, which can display the images surrounding the vehicles clearly, smoothly and seamlessly.



4 fish-eye camera input

4 camera images
seamlessly connected

4 cameras 3D image display

Multi-View 3D Image

When the system is started, monitor will clearly and smoothly display the panoramic view of the vehicle.



3.Specifications

1. Resolution: 1024*R.G.B*600
2. Viewing angle: Up-85 degree, Down-85 degree, Left-85 degree, Right-85 degree
3. Aspect ratio: 16:9
4. Brightness: 500cd/m²
5. Camera resolution: SONY CCD chip
6. Video resolution: 1280 (H) * 960(V)
7. Video file: 5Mbps, 2GByte/hour (4CH)
8. Storage device: USB(32 G)
9. Recording video format: AVI
- 10.Storage interface: USB2.0
- 11.Operating temperature: -30~75 degree
- 12.Operating power: 24V/5W
- 13.Connectors of power cables: 4 PIN

4.Product Appearance

Monitor



Cameras

optional 1



Front view camera



Back view camera



Right view camera



Left view camera

optional 2



Front view camera



Back view camera



Right view camera



Left view camera

Power Cable & Extension Cable



power cable



extension cable

5.Operating Introduction

Key Description



DVR Light

OK

Left

Right

Power

Down

Up

Back

Remote Control Window

Description Of Remote Control

Key	Function	Function
Wake up/ Switch	Key frame	Switch the Quad View image or Bird view image
Delete	Play list	Delete the selected video data
Up		Control the movement of up
Down		Control the movement of down
Left		Control the movement of left

Right		Control the movement of right
Confirm		Confirm the current options
Slow down	Player	FR
Speed up	Player	FF
Return		Back up
Menu	Main interface	Quick access to main interface
0		0
1	Player	Skip to the previous file
2		2
		Pause/play
3	Player	Skip to the next file
4		4
	Main interface	3D panorama rotates clockwise one circle
5	Play list	Lock the current selected video
6		6
	Main interface	3D panorama rotates clockwise one circle
7		7
	Main interface	Display the back left image
8		8
	Main interface	Display the rear view image
9		9
	Main interface	Display the back right image



Display Mode



Front View



Rear View



Left View



Right View



Quad view

Menu



	First-level Menu	Second-level Menu	Third-level Menu	
Main Menu	Record	Player		
	Calibration	Manual Calibration		
	System Settings	Control Settings		
		Personal Settings		Customized Settings
		Input Adjustment		View Settings
		Import Configuration		
		Export Configuration		
	User Settings	Update Version		
		Adjustment Time		

Record Video Playback



Items	Function
S/N	Sort the number of current file
File	Name the current video file
Setting Time	Modify the last write time of the current video file
Lock	Selected and locked the current video
Last Page	Skip to previous file, support cycle
Next Page	Skip to next file, support cycle
Delete	Delete all unlocked video files
Format U Disk	Delete all video files in the U disk (including locked files)
Play	Play the current file after selecting the file
Delete	Delete the current file after selecting the file
Lock	Lock the current file after selecting the file
Back	Return to select the current video after selecting the file
Exit	Exit the play list

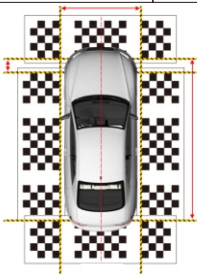
1. The current video files are sorted with new modification time from last modification time.
2. 9 video files are displayed on each page, the last page of the first page is the last page, and the next page of the last page is the home page.
3. The current recording file is saved in a loop, and it is saved until the remaining space of the storage device is less than 500MB, then delete the oldest unlocked file and start with a new video. The locked files are not be covered.
4. In order to prevent the leakage of seconds, there are 5 seconds of overlapping areas in each segment of video recording.
5. If you need to remove the USB flash driver for playback, the BV Record directory saved the unlocked video files, and the locked video files are in BVEMVR directory.

Panoramic Calibration



Items	Key Value	Function
Vehicle length	Nnm 0~9	Vehicle length
Vehicle width	Nnm 0~9	Vehicle width
Side excursion	Nnm 0~9	The distance from the front calibration canvas to the side calibration canvas
Front distance	Nnm 0~9	Distance from the front axle of the vehicle to the top of the front
Axle distance	Nnm 0~9	Distance between the front and rear axles of vehicle
Wheel distance	Nnm 0~9	Distance between the left and right axles of the vehicle
Calibration canvas size	Miniature calibration canvas	Used to display miniature display model
	Mini-size calibration canvas	Used to display mini-size display model
	Middle-size calibration canvas	Used to cars
	Big calibration canvas	Used for medium and large buses
Camera parameters	YUN210	Built-in Fish-eye model
Save data		Save the current vehicle data to USB
Load data		Load vehicle data saved in USB

Auto-calibration		Start auto-calibration
Manual calibration		Enter into the manual calibration menu
Exit		Return to last menu



System Settings



Items	Key Value	Function
Control mode	Smart double flash	Set up the trigger mode for the panoramic output
	Smart left and right	
Rear exit delay		Keep the output delay time in panoramic mode after reversing gear
Display delay time after startup		Don't display panoramic when the time on the screen is 0 after startup
Trigger sensitivity		To match the light signal frequency with the vehicle's

original reversing image	Y/N	When selected the original reversing image, it will display the original reversing camera
Recover to defaults		Recover to factory setting
Save the current setting		Save the current settings
Exit		Return to last menu

Style Settings



Items	Key Value	Function
Main view	3D view	3D bird view
	3D full-image	Display full image round the vehicle in 3D panoramic
	Single image	All images came from vehicle cameras
	Multi-view	The front and rear images are original images of the vehicle camera, and the left and right images are 3D panoramic images
	Multi-view 2	3D bird view is displayed below the main view, and original rear view image is displayed above the main view
Multi-view 3	3D bird view is displayed below the main view, and original rear view image is displayed above the main view	

Bird View	2D view	Display the image of bird view
Arrangement of Calibration canvas	Panorama on the left	Main view on the right of screen, and the panorama on the left of screen
	Panorama on the right	Main view on the left of screen, and the panorama on the right of screen
Car model selection		Select the 3D/2D car model
Mirror image	Y/N	The rear view image is mirror image after being selected
Parking guide line	Y/N	Display vehicle reversing/ and vehicle trajectory after being selected
Calibration image	Y/N	Display the calibration image from the original image after being selected
Recover to default		Recover to factory setting
Save the current settings		Save the current settings
Exit		Return to the last menu

Updating



Items	Function
Update the application	Update the application
Update system	Update the bottom system
Exit	Return to the last menu

1. Update Operation

Copy the update program to the UPDATE folder in the USB, then enter into the menu to select update application, then wait for the prompt to update successfully and restart automatically.

2. Auto update

Copy the update program to the UPDATE folder in the USB, then powered on the monitor again, if the status indicator flashes quickly means the system will update automatically and do not power off or shut down during the updating. Waiting for the system update finished and restart.

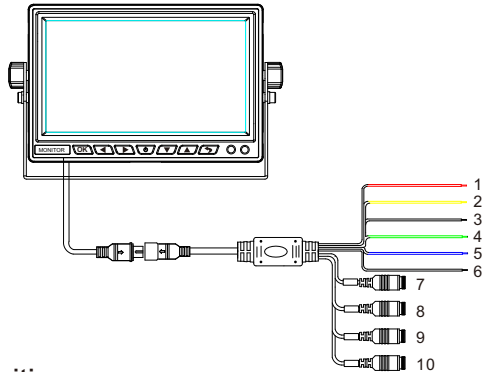
User Settings



Items	Key Value	Function
System language	Simplified Chinese	System language setting
	Traditional Chinese	
	English	
System time		Set system time
Reverse mode	Default mode	Set the reverse display mode
	Front view	
	Rear view	
Save		Save the current setting
Exit		Return the last level menu

6.Installation

Connection Drawing



Cable Definition

1. Red wire, ACC
2. Yellow wire, connect the BAT+ battery to long time power supply
3. Black wire, connect to power negative
4. Green wire, connect to rear view signal
5. Blue wire, connect to right turning light signal
6. Brown wire, connect to left turning light signal
7. Front camera
8. Backup camera
9. Left camera
10. Right camera

7.Accessories

1. 1 pcs * Monitor
2. 4 pcs * Cameras
3. 2 pcs * Remote Control
4. 4 pcs * Extension cables(L=20M/15M/8M)

8.Calibration Canvas Making

1. The four pieces canvas have the same size;
2. The width of the vehicle must be less than 10 black grid length (for example, the vehicle width is 300cm, then the black canvas grid length must be wider than 30cm);
3. The length of the vehicle must be longer than the length of the calibration canvas (for example, the length of the vehicle is 8m, then the length of the calibration canvas must be less than 8m);
4. The large size calibration canvas' black grid length is 40CM and the total length is 8M. And the middle size one is 20CM length for the black grid and the total length is 4M. Customer could select the calibration canvas according to the real needs.