

EZ720p

AHD MOBILE DVR

User Manual



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Chapter 1 Overview

EZ720p is a DVR designed for Analog HD vehicle monitoring. With a built-in high performance image processor and advanced H.264 video compression technology, it provides AHD video recording, storage and playback. It is WiFi capable (optional) for remote monitoring, analysis and management. It features a smart power management system, which can recognize the power level automatically. When the battery's voltage is lower than the safe operating value, the **EZ720p** will shutdown automatically and maintain an ultra-low standby power consumption.

Chapter 2 Quick setup

2.1 EZ720p Installation

Please refer to "AHD MOBILE DVR Hardware User Manual (**EZ720p**)" for the SD card installation and cable connections.

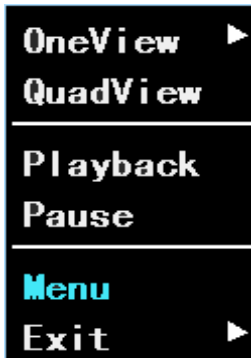
2.2 User Login

Use the remote control, or right-click the mouse to display the login screen. Please enter your User Name, and Password, then click "OK" to enter the menu. (The default User Name is admin, without a Password):



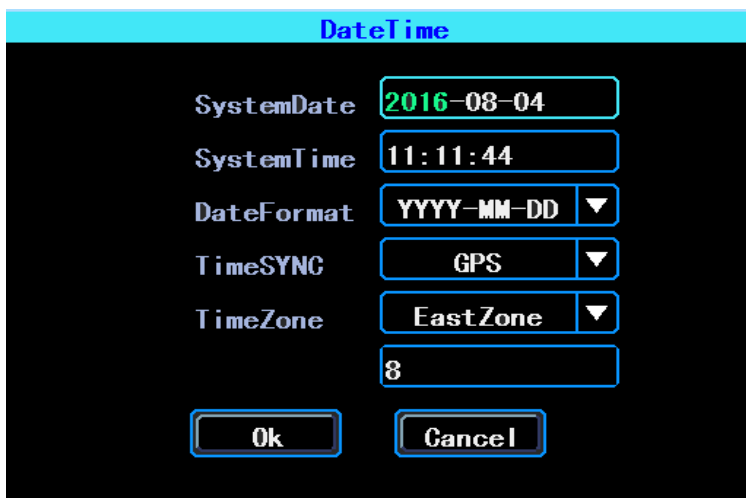
The screenshot shows a login interface with a black background and cyan text. At the top, the word "Login" is displayed in cyan. Below it, there are three input fields: "User Name" with the text "admin" and a dropdown arrow, "Password" with the text "*****", and "Language" with the text "English" and a dropdown arrow. At the bottom, there are two buttons: "OK" and "Cancel", both with cyan borders and black text.

Select **Menu** to start setup:



The **System Menu** is the starting point for setup and control:

2.3 Set up the System time



Time SYNC: Date and Time can be synchronized with GPS/BD

2.4 Set up cameras

Please set up your cameras' Signal Type, Valid/Invalid. The DVR works with both AHD and general cameras. If you use AHD cameras, please select the first Type; if you use general cameras, please select the third Type, if you use both of general and AHD cameras, please select the second Type.

Mode

SignalType PAL NTSC

ValidChn 1 2 3 4

SignalType	AV1	AV2	AV3	AV4
<input checked="" type="checkbox"/>	AHD	AHD	AHD	AHD
<input type="checkbox"/>	AHD	AHD	960H	960H
<input type="checkbox"/>	960H	960H	960H	960H

PS: If your cameras don't display an image on the monitor, please check this setup.

2.5 Wizard

This Wizard will help you to quickly set up a **EZ720p** connected with the server. If your DVR is without the WiFi option, you can ignore the step 1/4 and begin with step 2/4.

2.6 Vehicle Information setup

Wizard (1/4) - Vehi Info

VehiName

PlateNum

DeviceID

The Device ID is
ID for server login

The **EZ720p** uses "EZ720p ID" to connect with a server, so please input the correct **EZ720p** ID which was registered on the server for your **EZ720p**. The user can modify the Vehicle Name and Plate Number according to their requirement. The Plate Number is the vehicle's plate number, and it will be displayed in the video.

2.7 Disk Management

SD cards need to be formatted in the **EZ720p** when using them for the first time. If the SD card was not detected by the **EZ720p**, please check the SD card latch to make sure it is locked.

2.8 WiFi Setup

The **EZ720p** can store a maximum 6 WiFi ESSID (Access Points). It will search, match, connect, and switch automatically. Click the corresponding blank to start WiFi setup. Next, click "Search" to see the available WiFi Access Points in your area. Select one, enter its password, then save.

Wizard(3/4) - WIFI Setting List

Enable Lisenced

ModuleType 2.4G

NO.	ESSID	State
1	9504	Disconnected
2	---	---
3	---	---
4	---	---
5	---	---
6	---	---

<Back Skip Next>

2.9 Server Setup

IP (or Domain) is your server's IP (or Domain), the Port should match your server setup.

Wizard(4/4) - Server

Mode IP Domain Lisenced

IP

Domain

Port

<Back Cancel Finish

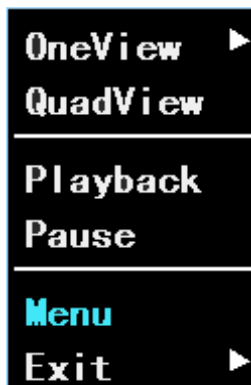
2.10 Net State

Net State: You can check the state of the network connection of your **EZ720p** here.



Server: Online, it means that the **EZ720p** connected to the server.

Chapter 3 System Menu



3.1 Video Playback

The **EZ720p** supports one channel video playback, Select "Playback" in the System menu, then you will get the video searching interface, please search the video according to your requirement.

VideoSearch

Channel 1 2 3 4

Media: ▼

RecType All Alarm

StartTime

EndTime

Note: The system will only show the latest 4,000 video file clips.

SearchResult

NO.	Channel	StartTime	Size	Select
1	2	2016-08-04 10:09:29	159400k	x
2	2	2016-08-04 09:56:11	261606k	x
3	4	2016-08-04 09:42:53	91852k	x
4	3	2016-08-04 09:42:53	98634k	x
5	2	2016-08-04 09:42:53	261165k	x
6	1	2016-08-04 09:42:53	98265k	x

SelectAll

 /

EndTime 2016-08-04 11:21:36 Dur: 01:12:07

BackupTo ▼

3.2 Video playback

Double click the video file in the video Search result Interface to playback the video.

3.3 Video backup

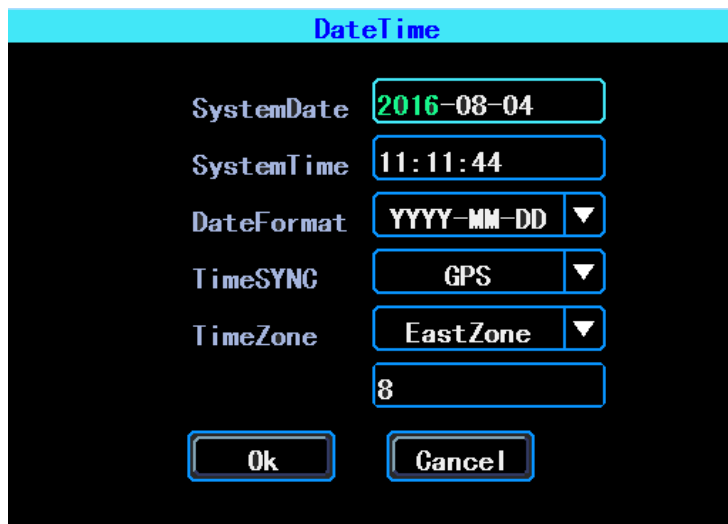
Select the video files in the video search results interface and use your U disk or SD card to backup the videos. (The **EZ720p** supports USB time-delay detecting, you can insert the USB disk after you have set up and clicked the "Backup" button.)

3.4 Basic Setup

The basic setup includes the very basic setup items such as Date/Time, Vehicle Information, and Preview Etc.:



3.5 Date Time Setup



Time synchronization: The system's date and time can be synchronized with GPS/BD.

3.6 Vehicle information



Vehi Info

VehiName Line1#NO. 1

PlateNum B123456

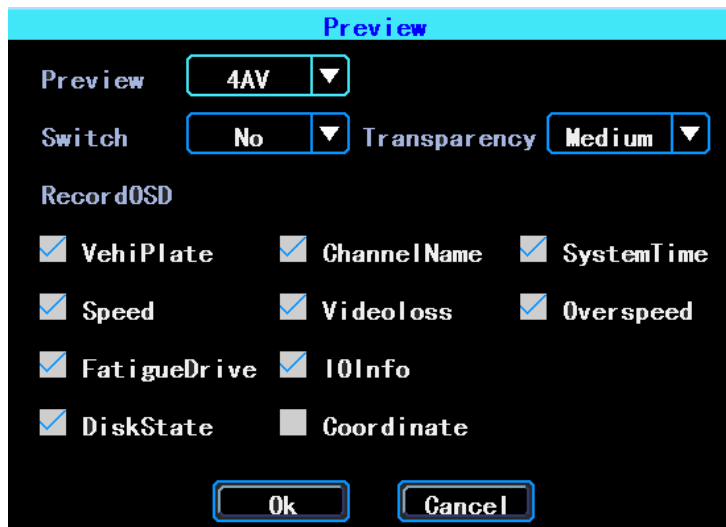
DeviceID 716000050006

Ok Cancel

EZ720p ID: This is the ID used to connect your **EZ720p** with the server. It should be the same ID which you registered your **EZ720p** on the server.

3.7 Preview setup

Here you can setup the information which you want to overlay on the Preview image (please note this is not overlaid on the recording image)



Preview

Preview 4AV

Switch No Transparency Medium

Record OSD

VehiPlate ChannelName SystemTime

Speed Videoloss Overspeed

FatigueDrive IOInfo

DiskState Coordinate

Ok Cancel

3.8 On/Off Setting

ON/OFF Setting

ACC (HH:mm)

Ignore

Delay 00:30

TimingON/OFF (HH:mm)

Segment1 Start 00:00 Duration 00:00

Segment2 Start 00:00 Duration 00:00

Segment3 Start 00:00 Duration 00:00

Ok Cancel

PS: The **EZ720p**'s power cable should be connected as per the Hardware User Manual, otherwise, the On/Off setting will not work.

3.9 System information

System information includes: **EZ720p** Model, Serial Number, Hardware & Firmware version etc.

SystemInfo

DeviceModel MR9504

SerialNum CM0716000050006

HardwareVersion M-R101

FirmwareVersion STD-R001V004

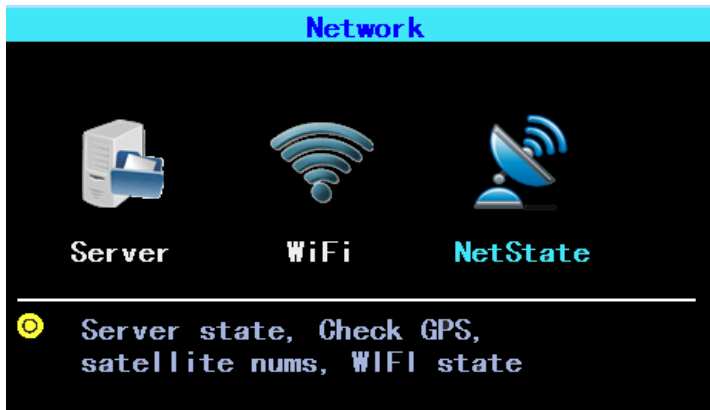
MCUVersion MCU-V101

Authentication 00000338

Ok

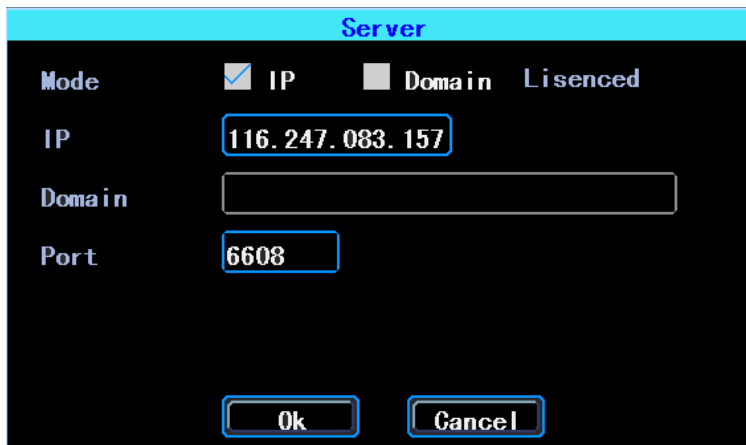
3.10 Network setup

Network setup: This interface is used to set up the parameters which are required to connect the **EZ720p** to a server.



3.11 Server Setup

IP/Domain is the IP or domain of your **EZ720p**'s server.



The screenshot shows the "Server" setup dialog box. It has a title bar "Server" and three radio buttons for "Mode": "IP" (checked), "Domain", and "Lisenced". Below the mode selection, there are three input fields: "IP" with the value "116.247.083.157", "Domain" (empty), and "Port" with the value "6608". At the bottom, there are "Ok" and "Cancel" buttons.

3.12 WiFi Setup

The **EZ720p** can save maximum 6 WiFi ESSID (Access Points). It will search, match, connect, and switch automatically. Click the corresponding blank to start WiFi setup. Next, click "Search" to see the available WiFi access points in your area. Select one, enter the password, then save it.

WiFi Setting List

Enable Lisenced
ModuleType 2.4G

NO.	ESSID	State
1	9504	Connected
2	---	---
3	---	---
4	---	---
5	---	---
6	---	---

You can enter the ESSID of the WiFi AP manually, but you can also click "Search" to search the available WiFi ESSIDs in your area.

WiFi 1

Enable

ESSID

Passwd

DynamicIP StaticIP

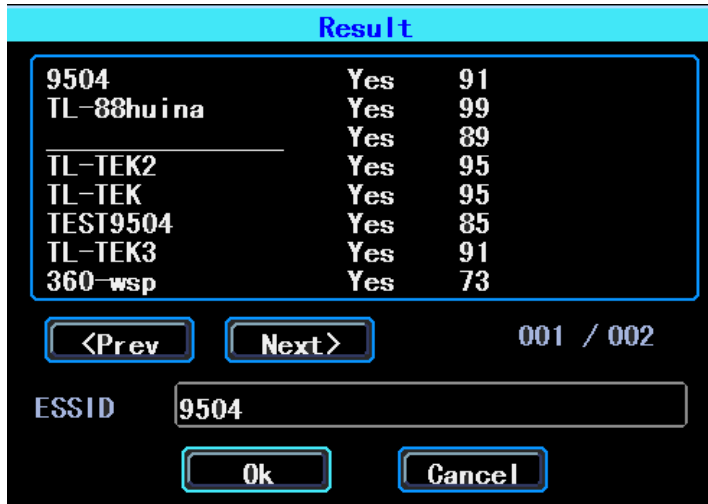
IP

NetMask

Gateway

DynamicDNS StaticDNS

DNSServer



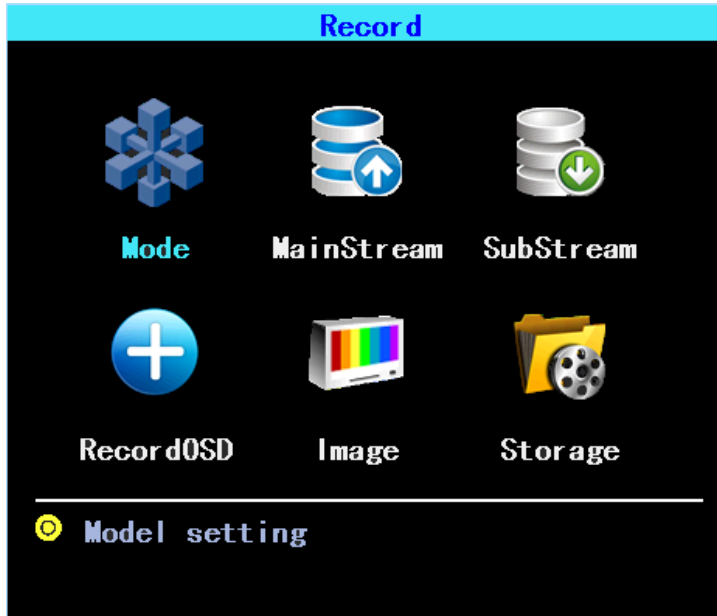
3.13 Network State

You can check the state of the network connection of your **EZ720p** here.

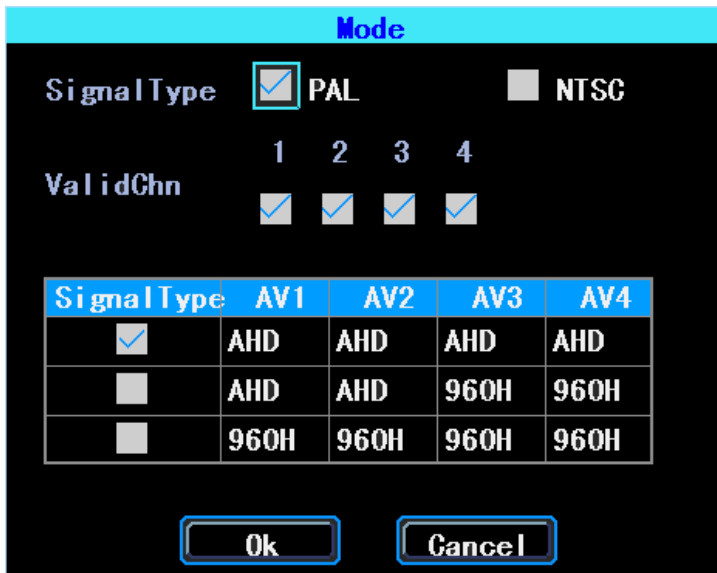


3.14 Recording Setup

Recording setup includes Mode, Main Stream, Sub Stream, Recording OSD, Image, Storage.



3.15 CameraMode setup



Please set up your cameras' Signal Type, Valid/Invalid. The DVR works with both AHD and general cameras. If you use AHD cameras, please select the first Type, if you use general cameras, please select the third Type, if you use both of general and AHD cameras, please

select the second Type.

3.16 Main Stream

Main Stream is stored in local disk. This interface shows the current Main Stream setting and the corresponding storage size, you can click any line to set up the corresponding parameters.

MainStream					
AV	Audio	Resolution	Frame fps	BitK bps	Size GB/h
AV1	<input checked="" type="checkbox"/>	720P	25	2560	1.099
AV2	<input checked="" type="checkbox"/>	720P	25	2560	1.099
AV3	<input checked="" type="checkbox"/>	720P	25	2560	1.099
AV4	<input checked="" type="checkbox"/>	720P	25	2560	1.099
Total					4.395

AV					
Channel	<input type="text" value="1"/>	<input type="checkbox"/> Audio			
Resolution	<input type="text" value="720P"/>	Frame (fps)	<input type="text" value="25"/>		
BitRate	<input type="text" value="Fix"/>	Bit (Kbps)	<input type="text" value="2560"/>		
Quality	<input type="text" value="Good"/>				
Note: Size of record 1.099 GB/h					
<input type="button" value="CopyTo"/>	<input type="text" value="AV 2"/>	<input type="button" value="Ok"/>	<input type="button" value="Cancel"/>		

PS: If Bit Rate is greater, the corresponding channel's storage size will be greater.

3.17 Sub Stream

Sub Stream is used for network transmission and backup on the local disk.

SubStream					
AV	Audio	Resolution	Frame fps	Bit Kbps	Size GB/h
AV1	<input checked="" type="radio"/>	CIF	8	325	0.092
AV2	<input type="radio"/>	CIF	8	325	0.092
AV3	<input type="radio"/>	CIF	8	325	0.092
AV4	<input type="radio"/>	CIF	8	325	0.092
Total					0.367

AV

Channel: Audio

Resolution: Frame (fps):

BitRate: Bit (Kbps):

Quality:

Note: Size of record 0.092 GB/h

3.18 Recording OSD

Recording OSD is used to overlay the following information to video recording.

RecordOSD

Channel:

Number ChnName:

Speed GPS

Time DrivingHabit

3.19 Image setup

Image setup is used to adjust to camera's image effect, please set up it carefully.

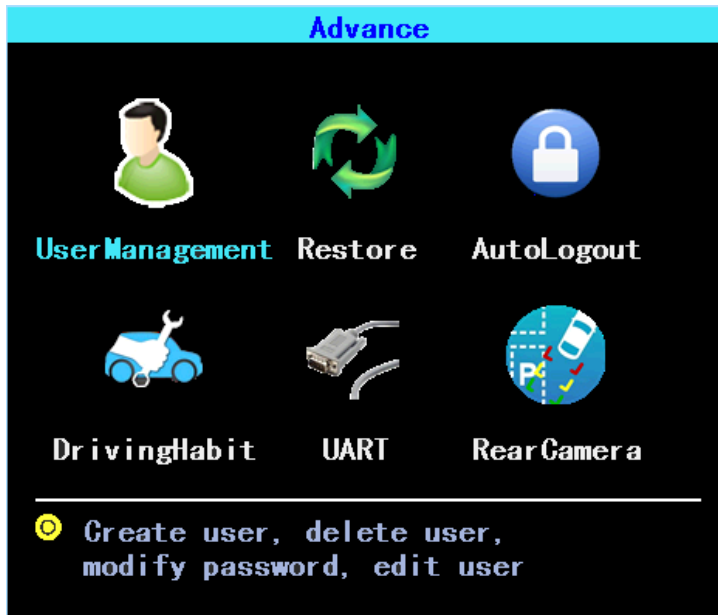
Image				
AV	Brightness	Contrast	Hue	Saturation
AV1	50	50	50	50
AV2	50	50	50	50
AV3	50	50	50	50
AV4	50	50	50	50

3.20 Storage setup

The **EZ720p** supports dual storage. Both of the Main Stream and Sub Stream can be stored on the local disk, but each disk can only store one type of stream.

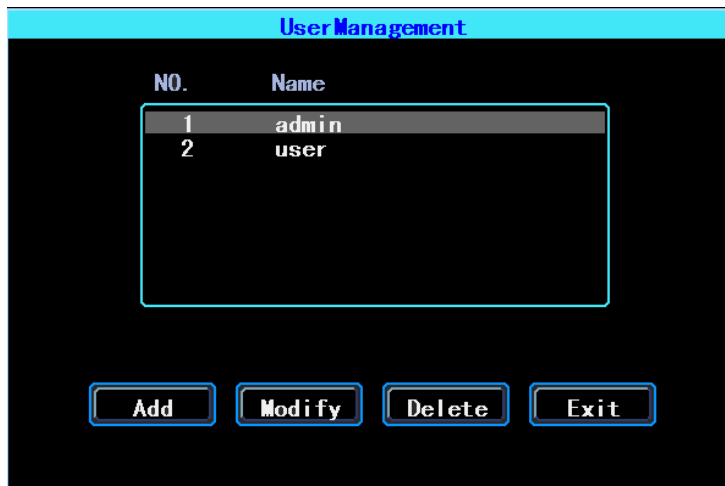
Storage	
MainStream	
<input checked="" type="checkbox"/>	SD
<input checked="" type="checkbox"/>	OverWrite
SubStream	
<input type="checkbox"/>	SD
<input checked="" type="checkbox"/>	OverWrite
<input type="button" value="Ok"/>	<input type="button" value="Cancel"/>

3.21 Advanced setup



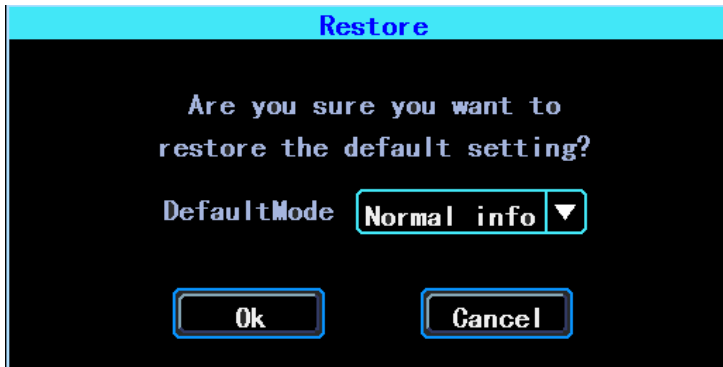
3.22 User Management

You can add, modify, delete users, and modify the login user name and privileges



3.23 Restore

Restore the default system setup parameters. System will reboot when restore finished. See the following:



There are 3 restore modes:

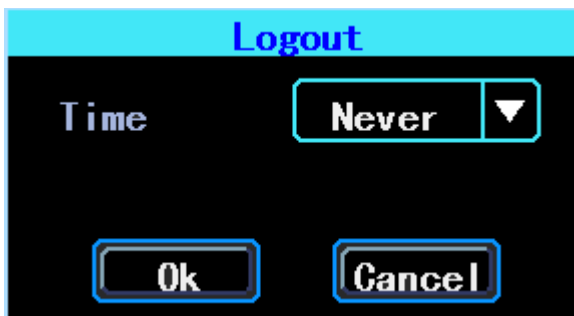
Normal Info: Restore all info except Vehicle info.

Vehicle Info: Restore vehicle info only.

All: Restore all info.

3.24 Logout

Logout will exit the menu automatically if there has been no activity in the set time range, and return to operation.



3.25 UART setting

The **EZ720p** has 1 RS232 Interface.

Uart setting List					
NO.	Mode	Baud	PIN NO.	Func.	State
0	232	9600	TX(8)RX(10)	SerialNet	

PIN NO. is the index of 20PIN

3.26 UART-TTS

Select UART 0 to enter the UART setting interface.

UART

Function: TTS ▼ Test

Baud: 9600 ▼ DataLen: 8bit ▼

StopBit: 1bit ▼ Checksum: No ▼

Ok Cancel

Select "TTS" in the "Function" drop-down box to configure the parameters as per the image above.

3.26 UART-Serial Net

Select UART 0 to enter the UART setting interface.

UART

Function: SerialNet ▼

Name: [] Port: 1 ▼

Baud: 9600 ▼ DataLen: 8bit ▼

StopBit: 1bit ▼ Checksum: No ▼

Ok Cancel

Select "Serial Net" (Pass Through) in the drop-down box of "Function". Configure the parameters as shown in the image above.

3.27 Rear Camera Setup

Any channel can be used as rear camera--click "Zone" to set up the assistance lines.

Rear Camera

Enable: Zone

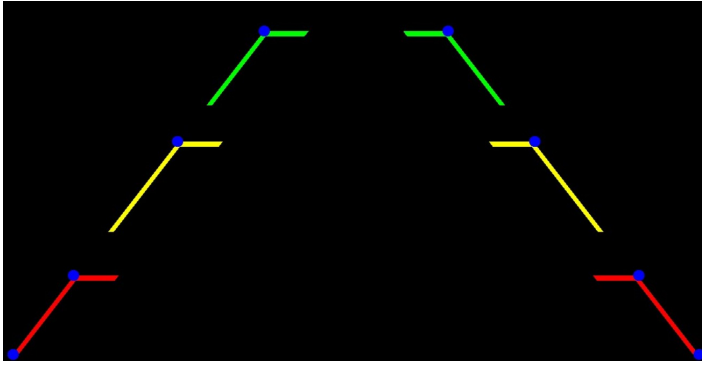
AV: AV1 ▼ InputSwitch: IN1 ▼

AV OUT: Close ▼ Wait: 30s ▼

OK Cancel

Figure 1. Rear Camera setup

The assistance lines are adjustable (dragging the blue points)



3.28 EZ720p Maintenance

EZ720p maintenance includes the operation of basic maintenance, such as Log inquiry, Disk management, Import/Export, Setup & Configuration, System Upgrading.



3.29 Log inquiry

Inquire the system's running log according to the desired Log Type and Time Range.

Log

Type ▼

StartTime

EndTime

NO.	Time	MoreInfo
1	2016-08-04 11:19:37	Configure WiFiSet
2	2016-08-04 11:11:04	Login admin
3	2016-08-04 11:09:20	Logout admin
4	2016-08-04 11:00:42	Login admin
5	2016-08-04 11:00:39	Logout admin
6	2016-08-04 10:14:48	VideoLoss AV1
7	2016-08-04 10:14:48	VideoLoss AV2
8	2016-08-04 10:14:48	VideoLoss AV3

/

3.30 Disk Management

SD cards need to be formatted in the **EZ720p** before using them for the first time.

DiskManagement

Select ▼

Stat	Capacity	Free
Normal	60928M	59392M

Do not power off, when
the media is being formatted

3.31 Import/Export

Import/Export is used to import or export the setup and configuration information for setup in batch.

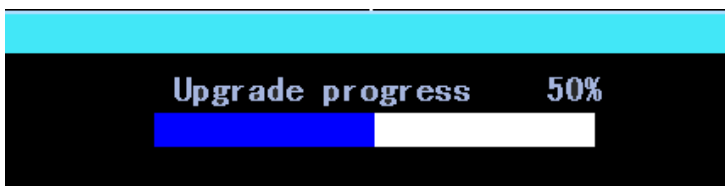


Figure 2. Import/Export

After setting up one **EZ720p**, export the setup parameters with your USB drive, then insert that drive into another **EZ720p**'s USB port and re-power the **EZ720p**. The destination DVR will retrieve the setup parameters automatically. (If you don't want to re-power the **EZ720p**, you can import the setup parameters in the menu, seen above)

3.32 System Upgrading

Format your U disk as FAT32 type and copy the upgrading file to the root directory of the U disk. Then re-power the **EZ720p**, to upgrade automatically. If you don't want to re-power the **EZ720p**, you can upgrade it within the menu "Import/Export". Select the upgrading type, click OK, then insert the U disk. The system will detect the U disk data and upgrade automatically.



Note: You can insert the U disk with the upgrade file, then re-power the **EZ720p**, to

upgrade automatically. You can also upgrade the **EZ720p** remotely from PC CMS software if your **EZ720p** has the WiFi option and is connected with the server via WiFi.

3.33 Alarm Setup

Alarm setup interface includes the setting related to all alarm types, such as I/O alarm, Video Loss, Fatigue Driving, Over Speed and Disk Error.



3.34 Input Alarm

The **EZ720p** has 4 alarm inputs: 2 are Positive Trigger, 2 are Negative Trigger.

InputAlarm						
In	Type	PIN NO.	Enable	Buzzer	Out	State
1	Negative	4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Positive	3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Negative	6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Positive	5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PIN NO. is the index of 20PIN

In

ChnInput	<input type="text" value="1"/>	Type	Negative
Enable	<input checked="" type="checkbox"/>	AntiLogic	<input type="checkbox"/>
Buzzer	<input type="checkbox"/>	AlarmOut	<input type="checkbox"/>
SwitchChn	<input type="text" value="No"/>	Delay	<input type="text" value="0sec"/>
EventName	<input type="text" value="IO_EVENT1"/>	UploadType	<input type="text" value="Normal"/>

Trigger priority, 1 to 4, high to low

There are three input modes: high level, low level and open. For positive trigger, the normal trigger level is high, but if the reversed logic is enabled, the trigger level is changed to low level and open. It is same for negative trigger.

Alarm Input Trigger status list

Alarm Trigger		Positive trigger	Negative trigger
Reverse Logic	No	High level	Low level
Reverse Logic	Yes	Low level/Open	High level/Open

3.35 Video Loss

Video Loss alarm will be triggered if there is no camera, or the wrong type camera is connected to a valid channel.

Videoloss

Enable	<input checked="" type="checkbox"/>
AlarmOut	<input type="checkbox"/>
Buzzer	<input type="checkbox"/>

Ok Cancel

3.36 Fatigue Driving Alarm

The Fatigue Driving time is calculated from the **EZ720p** start time.

FatigueDriving

Enable	<input type="checkbox"/>
Buzzer	<input type="checkbox"/>
AlarmOut	<input type="checkbox"/>
WarningTm (HH:mm)	<input type="text" value="230"/>
AlarmTm (HH:mm)	<input type="text" value="240"/>

Ok Cancel

3.37 Over Speed Alarm

OverspeedAlarm

Enable

Buzzer

AlarmOut

WarnSpeed (km/h) WarnTime (sec)

AlmSpeed (km/h) AlmTime (sec)

3.38 Disk Error

DiskError

Enable

AlarmOut

Buzzer

Chapter 4 Installation Best Practices

For safe operation and long service life, please observe these warnings when installing and using the EZ720p:

- 1. When you receive the product, please open the box and check the EZ720p and its accessories. If anything is damaged or missing, please contact your seller.**
- 2. When installing and operating the EZ720p, please observe standard electronic and wiring practices.**
- 3. Please ensure that the power source is within the range of 10-36V DC, to prevent damage to equipment.**
- 4. The EZ720p must be operated within the permitted temperature and humidity ranges.**
- 5. Ensure that the DVR is installed securely, with adequate space for ventilation. Never install or operate in wet or damp areas, or areas of excess heat.**
- 6. The installation and operation should be compliant with all prevailing practices and codes.**