

AHD MOBILE DVR

Hardware User Manual

Nysus 1,2 & 3



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Chapter 1 Accessories and Interface

1. MDVR and accessories

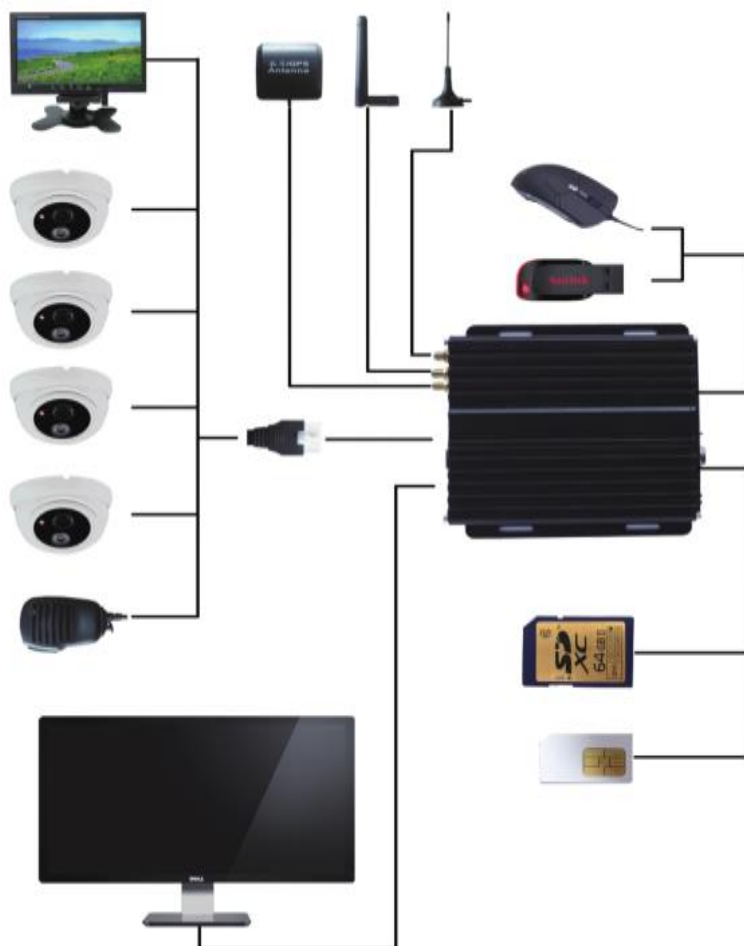
Before you use this product please check the accessories in the packing box. If there is anything missing or damaged please contact your seller. The MDVR and accessories are listed as following:

List of MDVR and accessories

Description	Picture	Quantity
MDVR		1
Power cable		1
I/O cable		1
AV cable		1
3G/4G antenna (Optional)		1
GPS antenna (Optional)		1

<p>IR Extension cable (Optional)</p>		<p>1</p>
<p>Mouse (Optional)</p>		<p>1</p>

2. System connection



System connection

3. Panel introduction



Figure 1. Front panel



Figure 2. Back panel

4. Interface Definition

In this section we will provide an explanation detailing the interface and connections:

4.1 Power interface

10-36V	10-36V	ACC
GND	GND	GND

Figure 3. Power interface definition

4.2 I/O (Alarm) Interface definition

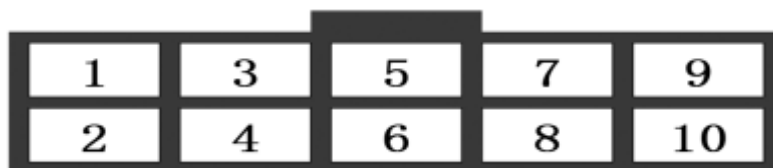



Figure 4. Front view of I/O Interface

I/O Interface definition



PIN	Color	Definition	PIN	Color	Definition
1	Blue	Alarm output	2	Black	Ground
3	Purple	Alarm input 2(Positive)	4	Purple	Alarm input 1
5	Purple	Alarm input 4(Positive)	6	Purple	Alarm input 3
7	Red	5V Output	8	White	TXD(TTL Level)
9	Grey	IR Extension	10	Yellow	RXD(TTL Level)

4.3 Aviation interface definition



AV-IN Pin Layout



AV-OUT Pin Layout

Chapter 2 Installation and Application

1. SD card installation

Please insert the key into the hole of the lock on the front panel, and turn it to unlock,

then pull the cover to the right and you will see the SD card slot.



Figure 5. SD card Installation

Please insert the SD card and SIM card into the relevant slot, then close the SD cover and lock it.

Please note: If you do not engage the lock the SD card will not work



Figure 6. SD card installation

2. Antenna Connection

Connect the antenna to the contact indicated. We suggest you mount the GPS antenna externally on the vehicle's roof to ensure better signal connection even when coverage is weak.



Figure 7. Antennas Connection

3. Power Connection

Please connect the power as indicated below. Positive pole (RED) connects with power input 10-36V DC, ACC ignition (YELLOW) connects with 5-36V DC.

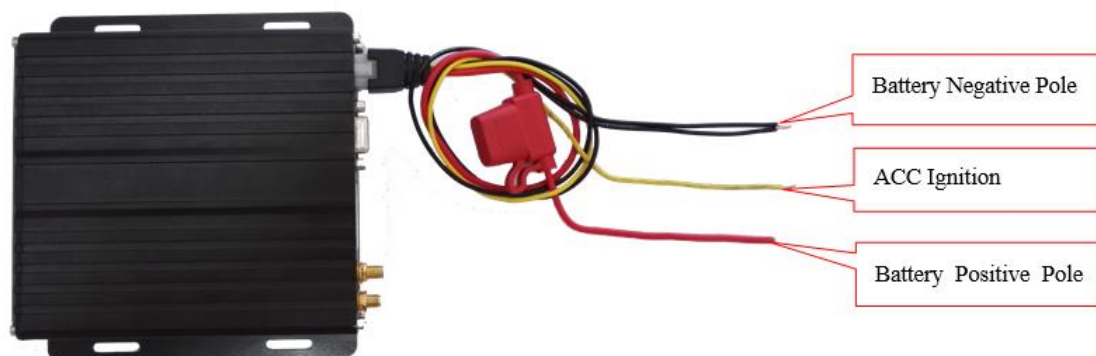


Figure 8. Power Connection

The yellow ignition wire is used to detect the ignition signal. We strongly suggest you connect it with the "RUN" terminal of the ignition switch, or any terminal in the vehicle's fuse box which will only have power only when the vehicle is engaged (e.g. the FM radio)

Note: When testing the device, please connect both the red power wire and the yellow ignition wire with the positive pole, otherwise the device will not boot.

4. Camera Connection

You can connect the camera with the AV input cable directly, or by extension cable (optional). The AV cable is marked on each connector for cameras 1-4.



Figure 9. Cameras connection

5. Monitor connection

The device supports VGA and CVBS output. You can switch the output mode to the one you need using the mouse or remote control.

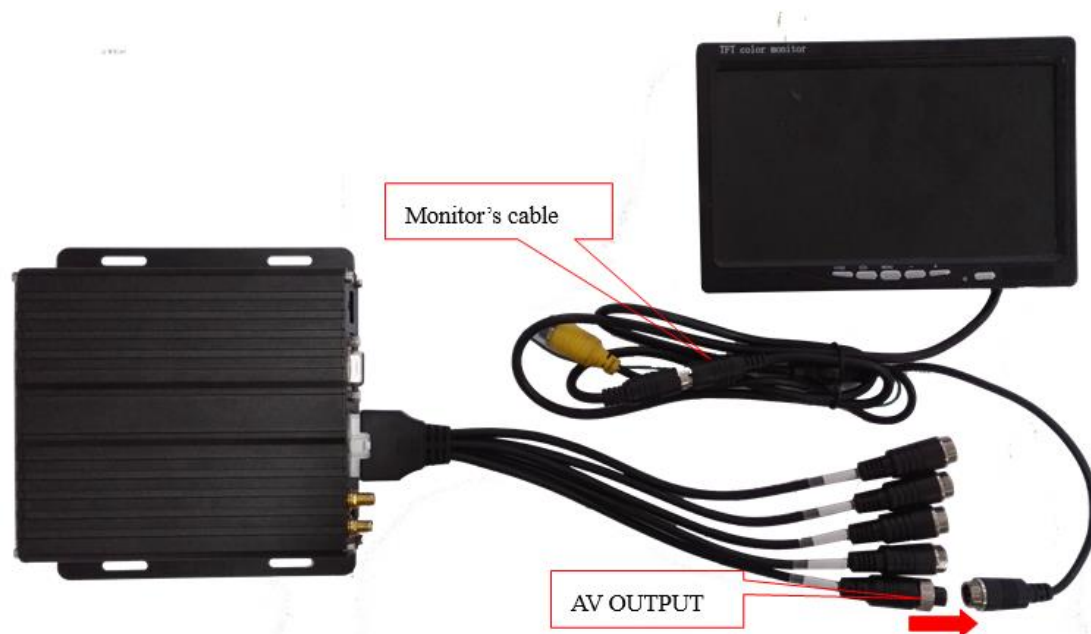


Figure 10. Aviation interface monitor connection

6. I/O connections

Please see below for an explanation of the I/O cable. You will also find tips of the interface definition in the DVR menu.

6.1 IR extension connection



Figure 11. IR extension connection

I/O wires				IR extension cable	
PIN	Definition	Colour	↔	Colour	Definition
2	Ground	Black	↔	Black	Ground
7	5V Output	Red	↔	Red	5V Power
9	IR Extension	Grey	↔	White	Signal

IR Connection

6.2 Alarm input connection

This device provides 4 alarm inputs (2 Positive, 2 negative). You can connect the positive circuit to areas such as the reversing light, indicator etc for applications such as reverse monitor display and camera channels switching.

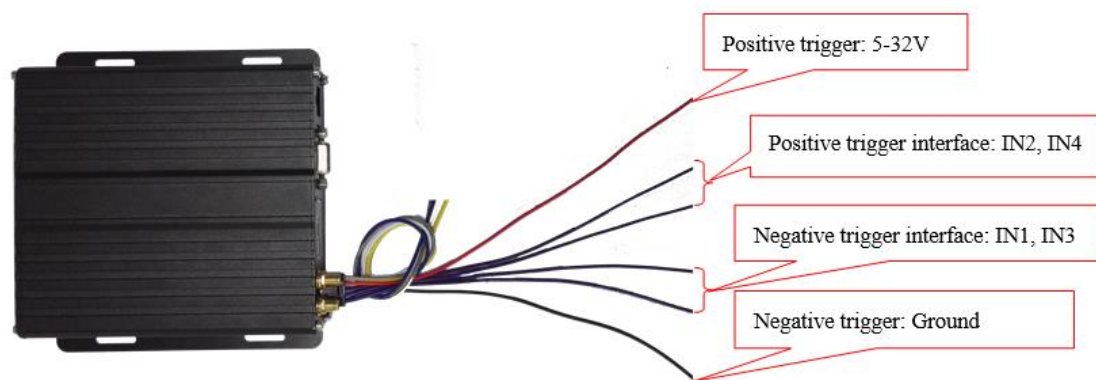


Figure 12. Alarm Input Connection

I/O wires				Alarm Trigger	
PIN	Definition	Colour	↔	Colour	Alarm trigger
3	Alarm input2	Purple	↔	Red	5-32V
5	Alarm input4	Purple			
4	Alarm input1	Purple	↔	Black	Ground
6	Alarm input3	Purple			

Alarm input Connection

6.2.1 Application of Alarm input (Reverse assistant)

The device comes with Reverse assistant feature for example:
 If you connect the wire of alarm input 2 with the positive pole of the reverse light's power. Please see below:

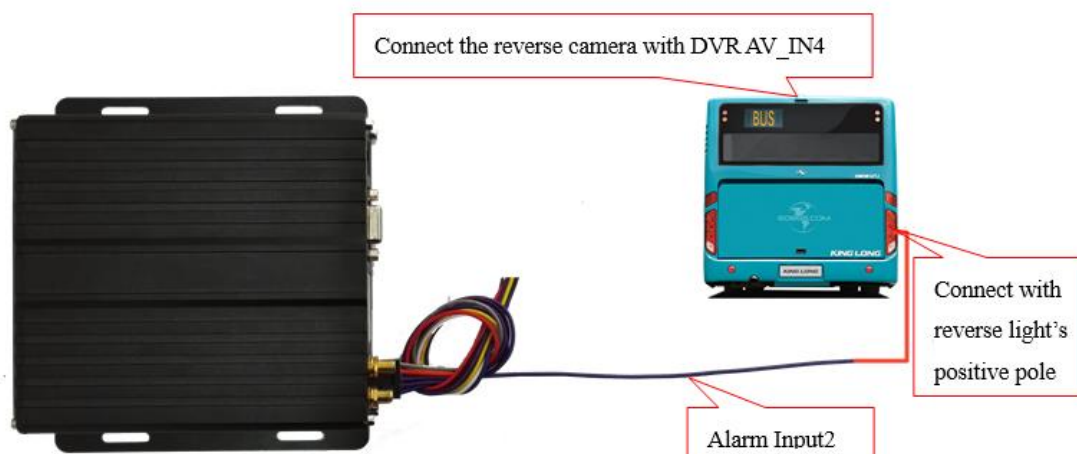


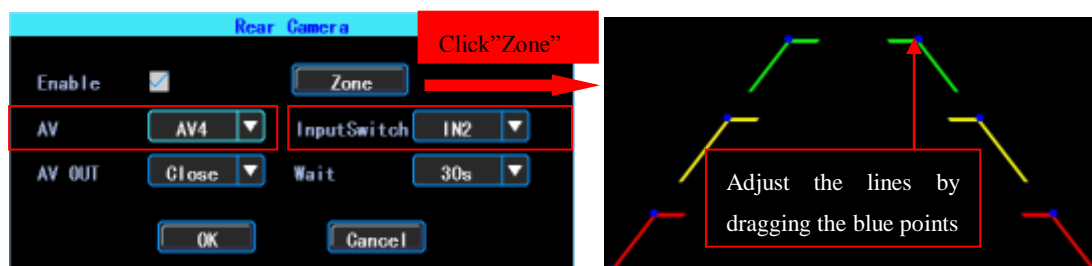
Figure 13. Reverse Assistance Connection

I/O wires				Alarm trigger	
PIN	Definition	Colour	↔	Colour	Alarm Trigger

3	Alarm input 2	Purple	↔	Red	Positive pole of Reverse light
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Reverse Assistance Connection

To set it up in the DVR menu go to “Advanced” → “Rear Camera”, (see below), click “OK” to save your settings.



AV: Select the reverse camera’s channel

InputSwitch: Select the alarm input number which connect with the reverse light’s power

Note: When using reverse assistance use IN2, IN4 positive trigger to setup

When you enter reverse, the DVR will display the reversing camera’s channel only. (See below):

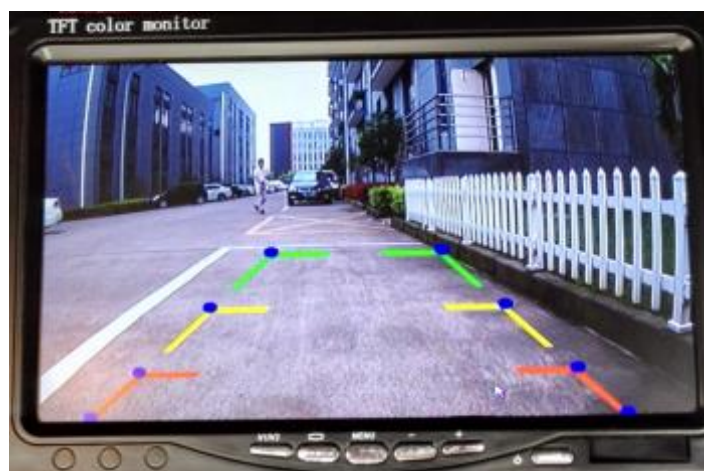


Figure 14. Reverse Assistance

6.2.2 Application of Alarm Input (Emergency Alarm)

You can connect an Emergency Button to the alarm input of the device. When you hit the Emergency button, the device will send alarm information to the server (This requires the DVR to be connected with the server) otherwise, the server will not receive the alarm information.

For example: Connect the I/O alarm input wire 1 with one terminal of the Emergency

button, and connect the other terminal of the Emergency button with ground.

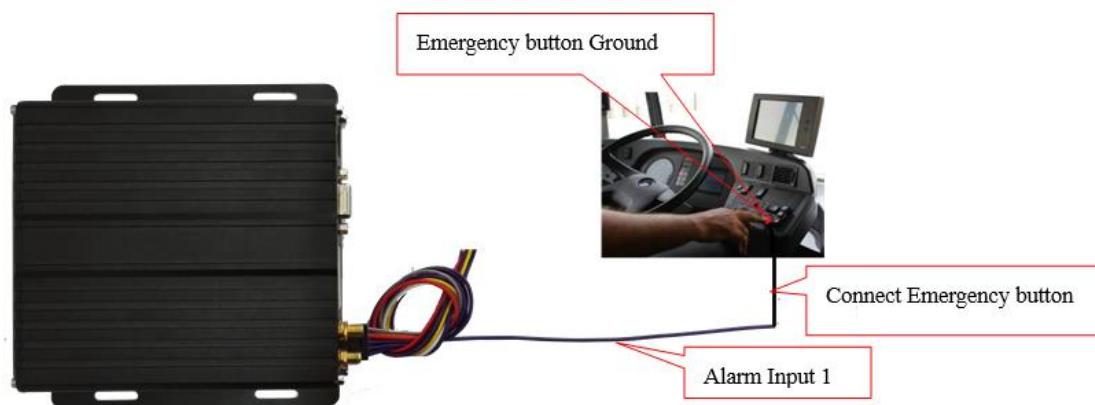


Figure 15. Emergency button connection

Note: (If the connected Alarm input is Positive trigger, the other end of the Emergency button will be 5-32V DC power)

To set it up in the DVR menu go to “Alarm” → “Input”, select AlarmInput1 in the list to setup the alarm parameter. See below:

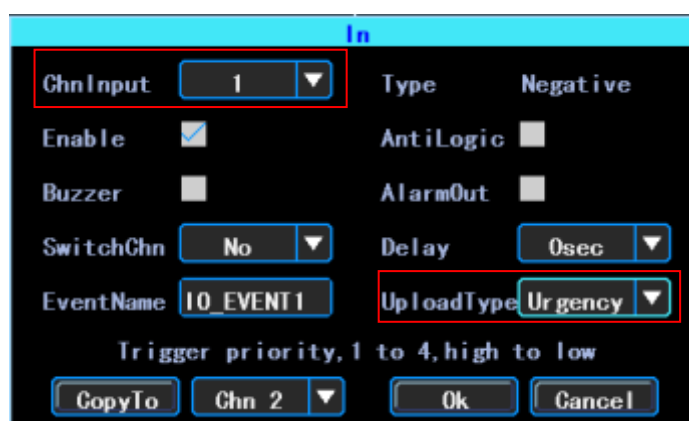


Figure 16. Setup alarm input

ChnInput: This channel is used to connect with the Emergency button.

UploadType: When you use the emergency button, set it to “Urgency”, otherwise, set it to “No”

6.3 Serial ports connection

The device provides a group of serial ports which are used to connect with some user’s peripherals; the interface is LVTTTL (3.3V) level



Figure 17. Serial ports Connection

I/O wires				Peripherals	
PIN	Definition	Colour	↔	Colour	Definition
2	Ground	Black	↔	Black	Ground
8	TXD(TTL level)	White	↔	Yellow	RXD
10	RXD(TTL level)	Yellow	↔	White	TXD

Serial ports connection