Aerpro
First Choice

ADVANCED SAFETY
VISION SYSTEMS

AVMD4 HEAVY DUTY 4 CHANNEL AHD MOBILE DVR

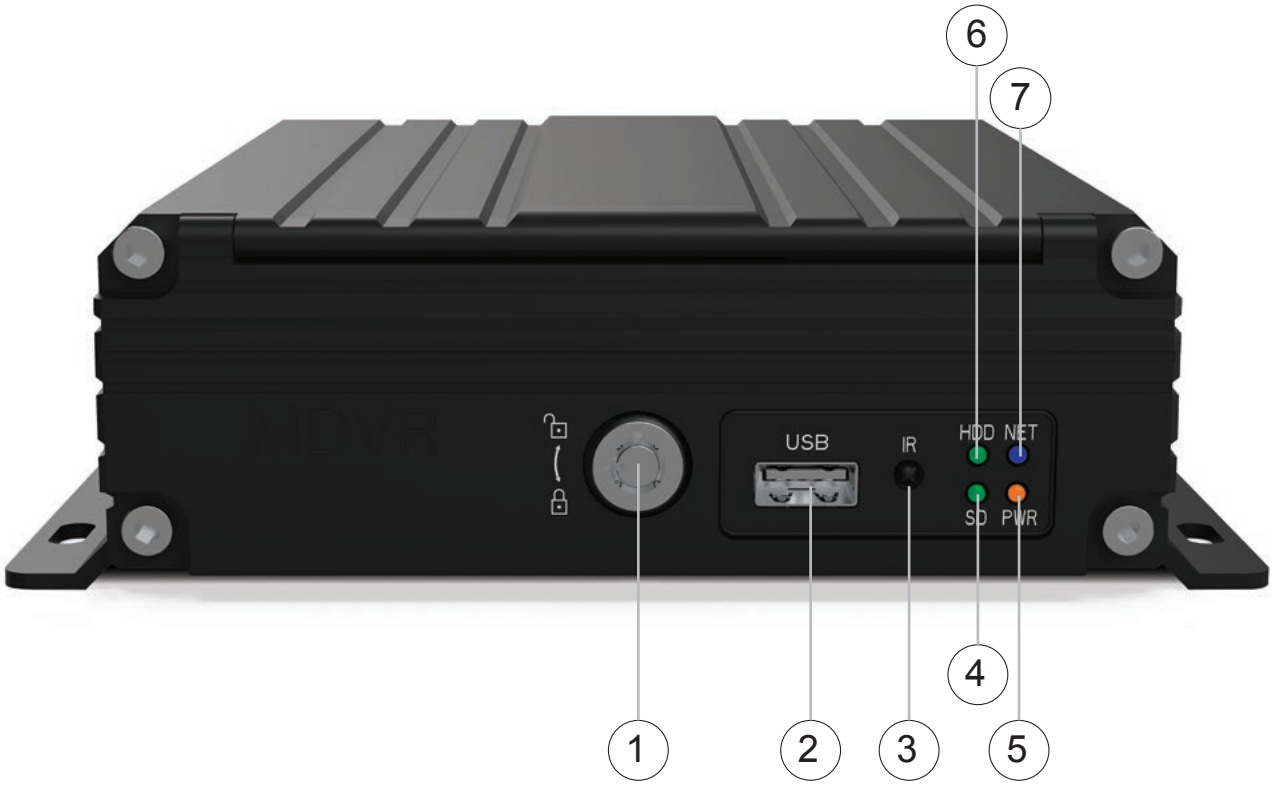
USER MANUAL

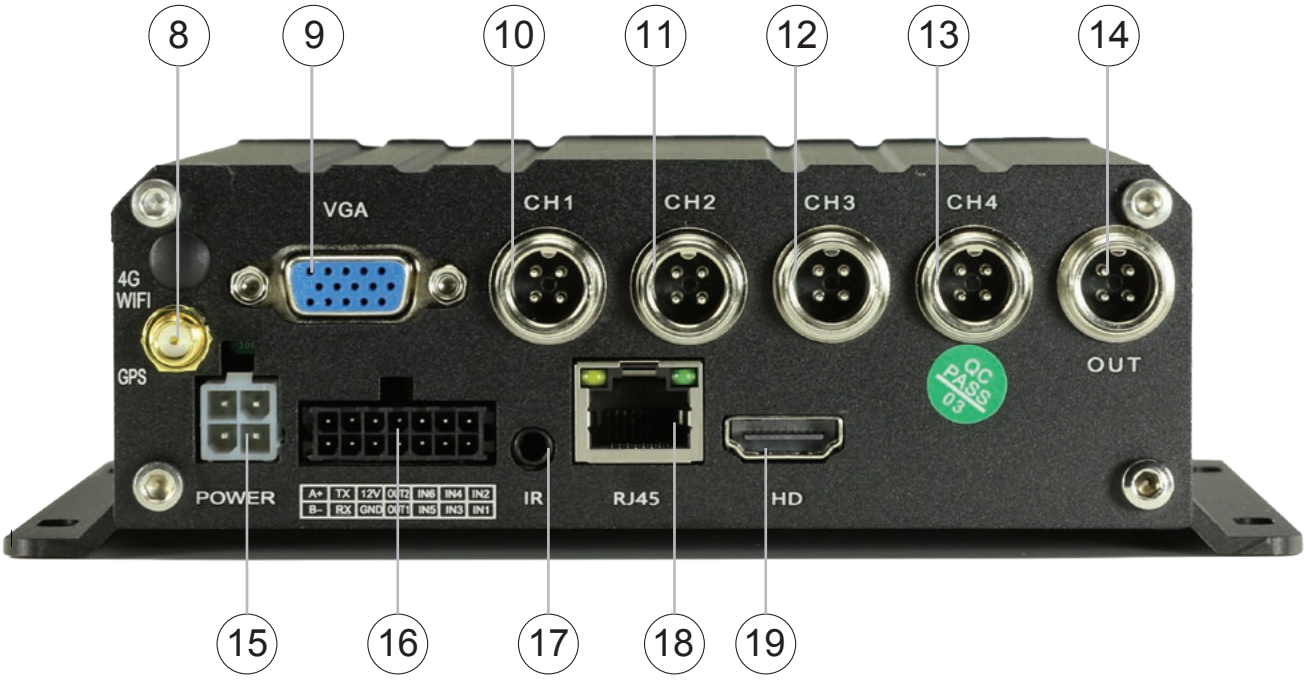
AHD
DVR RECORDING
12/24V COMPATIBLE
5 YEAR WARRANTY

07-08-2024

Contents

Product overview





1. Hardrive access
2. USB port (Mouse, Backup thumb drive or firmare updates
3. Infrared indicator
4. SD card indicator
5. Power indicator
6. HDD indicator
7. Not applicable
8. GPS antenna connection
9. VGA input
10. CH1 camera input
11. CH2 camera input
12. CH3 camera input
13. CH4 camera input
14. Prolink composite output
15. Power harness
16. Trigger harness
17. IR input (not available)
18. RJ45 input (not active)
19. HDMI input

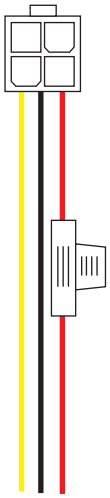
Inclusions

4 Channel Heavy Duty M-DVR AVMD4
1 x Remote Control
1 x GPS antenna
1 x Key to lock HDD
1 x HDD mounting plate
4 x HDD mounting screws
2 x 20cm input/output cables

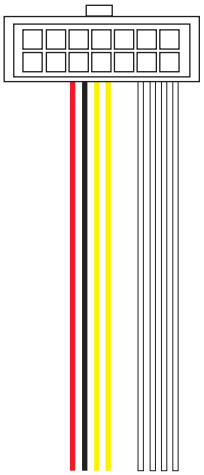
Powering your device

The Aerpro AVMD4 can me powered by using the 4 plug power input cable. For video input from your monitor it can be connected via the HDMI, VGA or Prolink 2 connections. Cables are not included. For the Prolink composite output, model number PLAC42 is sold separately.

Power harness



Yellow-ACC 12V+
Black-GND
Red-12V+



Output trigger harness

SENSOR_IN1-4 (White wire)：Alarm input, can be connected to the reverse light,left and right turn signal positive to trigger the corresponding channel Display in full screen or leave it unconnected.

SENSOR_OUT1-2 (Yellow wire)：Alarm output, 12V/0.2A power output, control other equipment or leave it unconnected. (Voltage output will only be available when the alarm input is required to be triggered.

+12V (Red wire)：12V/0.4A power output, which can be used to take power from the display or leave it unconnected.

GND (Black wire)：Negative

GPS cable connection

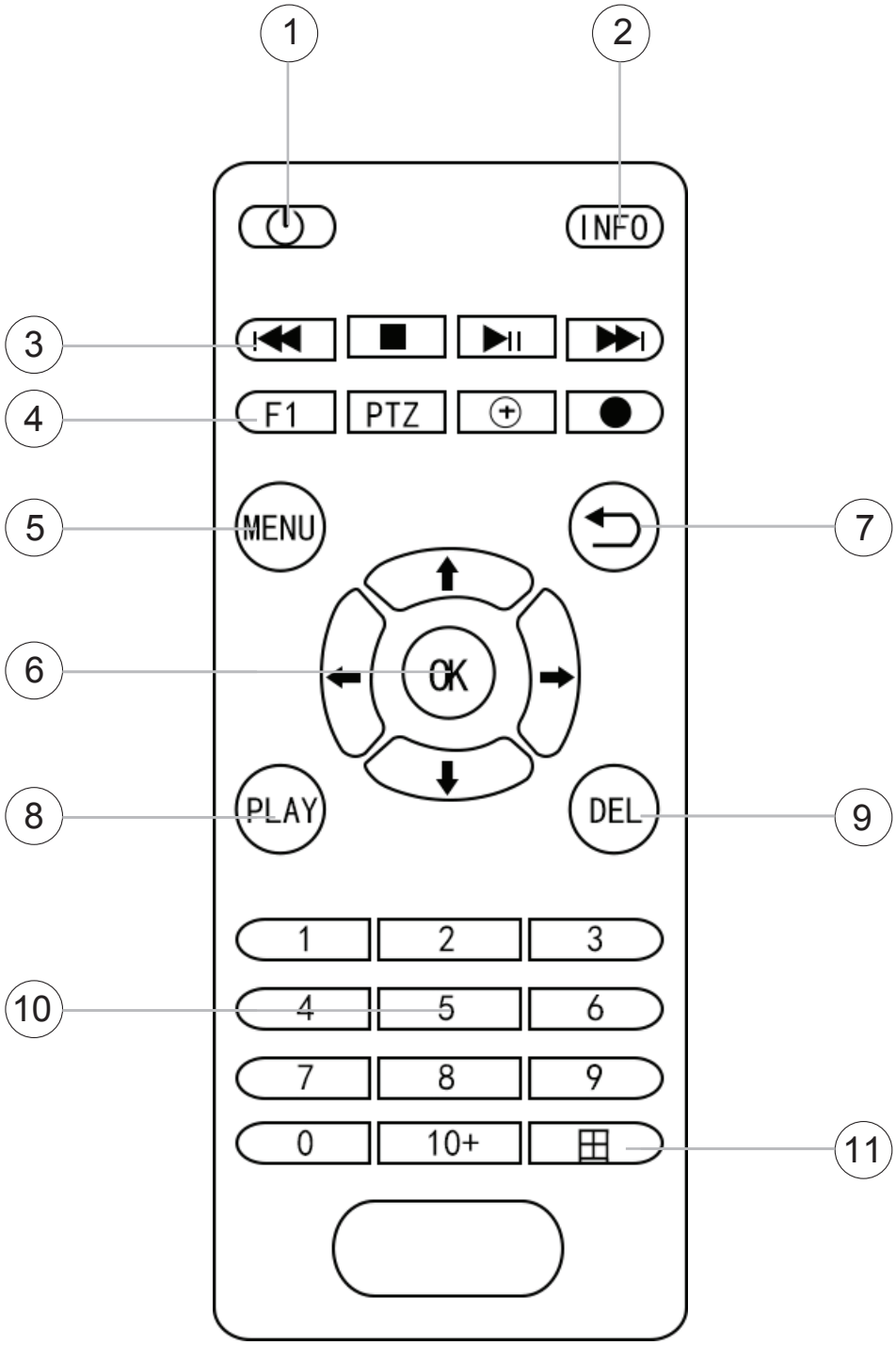
Attach the included GPS cable to the Aerpro AVMD4 to allow the user to track its geographical location or speed using signals from satellites.

Adding a hardrive

The user can store your recordings into a hard disk drive of up to 2 Terabytes HDD (2.5 inches hard disk size) or on a SD card up to (1TB).

1. To access the storage areas the supplied HDD lock key must be used open the front.
2. Mount the Hardrive onto the HDD mounting plate using the 4 screws provided.
3. Note the direction the HDD is placed in the AVMD4.
4. Lock and secure using the HDD key.

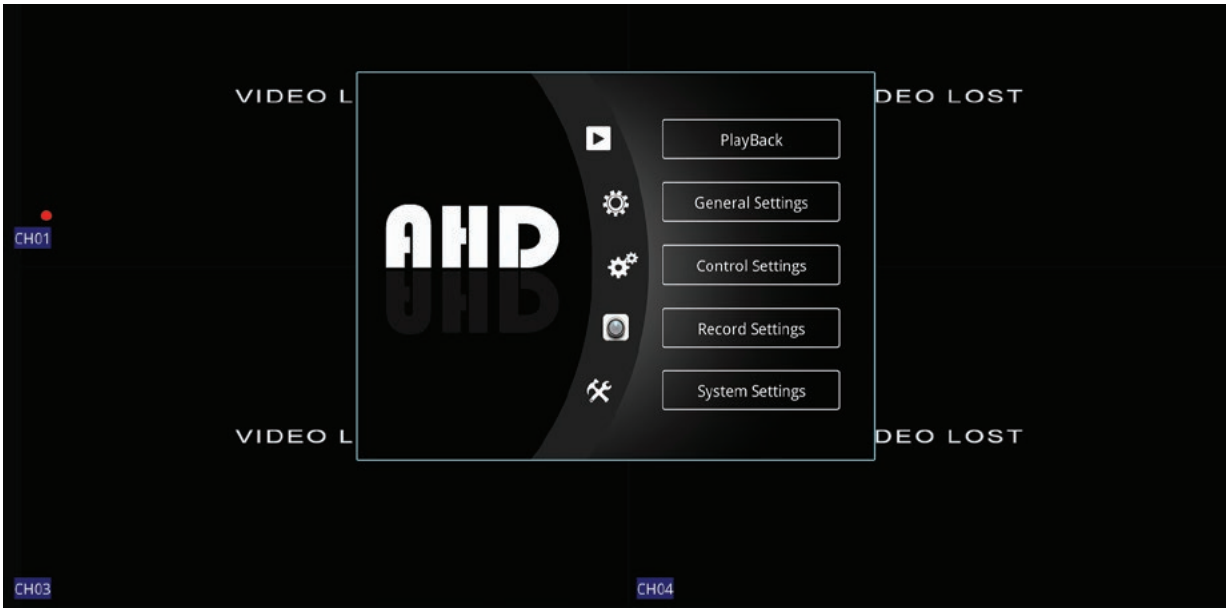
Remote controller function



1. ON/OFF
2. System information interface
3. Play, pause, rewind, fast forward keys
4. SD card indicator
5. Menu
6. OK, Up, Down, Left, Right arrow keys
7. Return to the previous sub menu Exit system menu
8. Play
9. Delete
10. 0-9 number keys
    Split mode interface
    1-8 Key channels
    Full screen display
11. Mode switch

Main menu screen

Once connected to a monitor, press the MENU button on the remote to display the main menu screen. This allows the user to access the MDVR's sub menu system.z



Playback Menu

Playback Menu cont...

Search for date: Allows the user to search for recorded files via dates.

Select All or Alarm Footage: Will show all the recording list, selecting Alarm will list all alarm triggers list.

Playback Menu cont...

Channel: Select channels: CH01, CH02, CH03 or CH04 for individual playback list.

Main record: Select Backup Record or Mirror Record to access the recorded footage from the SSD drive.

General menu screen

Date/Time settings:

•Time setting date format: D-M-Y, Y-M-D, M-D-Y hh;mm;ss
•Time show: Enable or Disable time and date on display.
•DST: Enable/disable Day light saving time
•Timing Model: 2 settings to adjust time, time from GPS will automatically sync time or entered manually.
•Date time: Enter Time and date manually when setting is set to manual in time model.
•Local time zone: Choose your correct time zone according to your state.

General menu cont...

Channel Title: CH01/CH02/CH03/CH04 or Front/Rear/Left/Right is displayed on the live view screen, you can disable this function.

Video format: The user can change the recorded video format to PAL or NTSC

General menu cont...

Resolution: The user can changes the screen resolution 1024x768, 1280x720, 1920x1080

Video input format : The user can choose the input resolution according to the cameras you are going to install, you can set it on Auto, this will auto detect the cameras automatically. NOTE all cameras must be the same resolution when the setting on Auto, AHD-720P25, 720P30, AHD-1080P25, 1080P30, TVI-720P25, 720P30, 1080P25, 1080P30, CVBS PAL, NTSC.

General menu cont...

Language: Choose from multiple languages, Chinese simplified, Traditional Chinese, English, Korean, Russian etc.

Display GPS speed: Enable or Disable the speed being displayed on recordings.

General menu cont...

Power on-off Voltage: Default setting is"off". If 12V is selected, the switching voltage range is between 9V-36V. If 24V is selected the voltage range is between 23V-36V.

Plate number: The user can type words or numbers, this will show on the recordings as a water mark.

Control screen menu

Guide lines: The user can enable or disable the Guide line. You can assign which channel you want the guide lines to be on. You can adjust the lines with highlighting X,Y,or W
use the remote or mouse to shift up, down, left or right icon on the screen.

Control menu cont...

Screen margin: Allows you to adjust the margins to fit on the screen.

Display settings: Disable/Enable password. You can add your own password as Administrator as well as as Normal user. Default password is 111111. User login is to access the menu but cannot change settings, Admin has full access to all settings.
Power on mode: Sets the display images to show on startup according to the selection you choose.
Display mode: Select the desire boxes, this will allow to scroll the display that you selected using the remote control mode switch (numbered 11 button on page 5 of this manual).

Control menu cont...

Alarm input triggers: I/O: IN1-IN4 corresponding trigger lines Sensor IN1-Sensor IN4. •Enable: Enable/disable the trigger function of the corresponding trigger line.
•Anti-shake: Set the time to continuously receive voltage when trigger line is triggered.
•Delay: Set the time to continuously display the screen after exiting the trigger.
•Channel: Set the channel number to be displayed when the trigger line is triggered.
•Linked Output: Set whether to enable Sensor out1\ Sensor out2 alarm output voltage in association.

Speed settings: This is form GPS Type including: Overtime parking, Low Speed Warning, Low Speed Alarm, High Speed Warning, High Speed Alarm
•Switch: Turn on/off the corresponding trigger line trigger function;
•Limit: Set time settings such as 10 minutes, 20 minutes, 30 minutes, 40 minutes, 50 minutes, one hour, two hours, three hours etc..
•Anti-shake: Set the time to receive voltage continuously when the trigger line is triggered
•Delay: Set the time to continuously display the screen after exiting the trigger;
•Linked output: Set whether to associate enable Sensor out1\ Sensor out2 alarm output voltage

Control menu cont...

Video detection:
•Channel: CH01 to CH04
•Switch: Enable/Disable the trigger function of the corresponding trigger line.
•Limit: Set settings such as 10-90.
•Delay: Set the time to keep displaying the screen after exiting the trigger.
•Sensitivity: Set low, middle and high frequency.
•Linked output: Set whether to associate enable Sensor out1\ Sensor out2 alarm output voltage
•Switch: Enable/Disable the trigger function of the corresponding trigger line.
•Limit: Set settings such as 10-90.
•Delay: Set the time to keep displaying the screen after exiting the trigger;
•Sensitivity: Set low, middle and high frequency.
•Linked output: set whether to associate enable Sensor out1\ Sensor out2 alarm output voltage

Control menu cont...

Border color: The user can change the colour of the borders to Gray, Black, Red, Green, Blue, None.

Power off for park recording: When you set the time to (10 min or higher) the device is recording without shutting down after the time is reached the power will shut down.

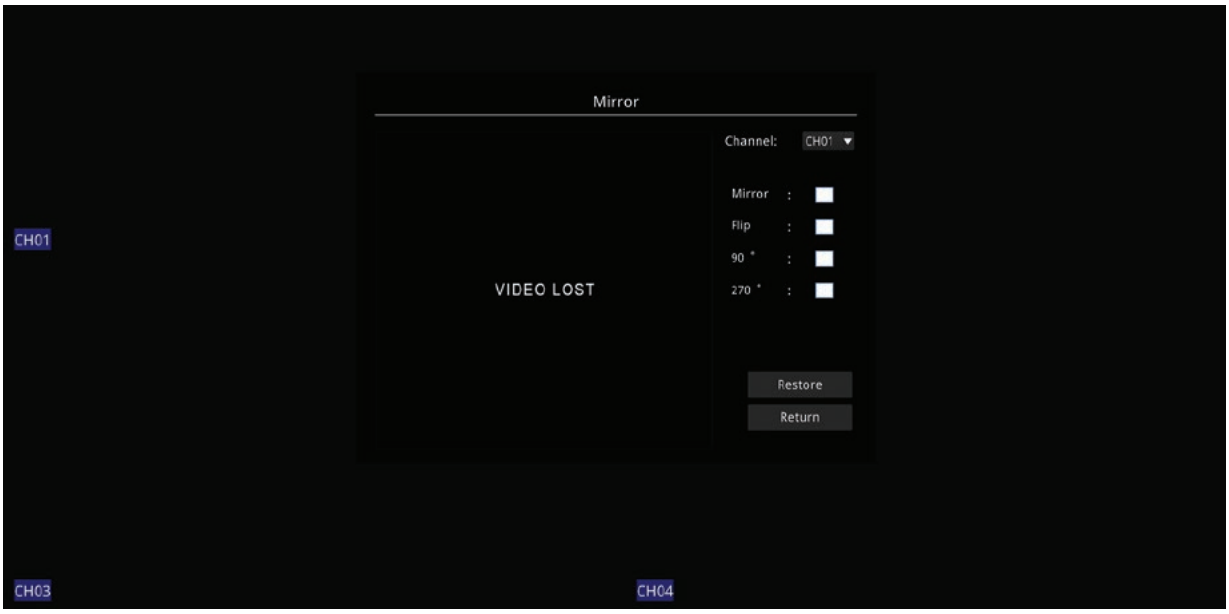
Control menu cont...

Record for park recording: When you set the time to (10 min or higher) this will keep recording after the car is turned off.

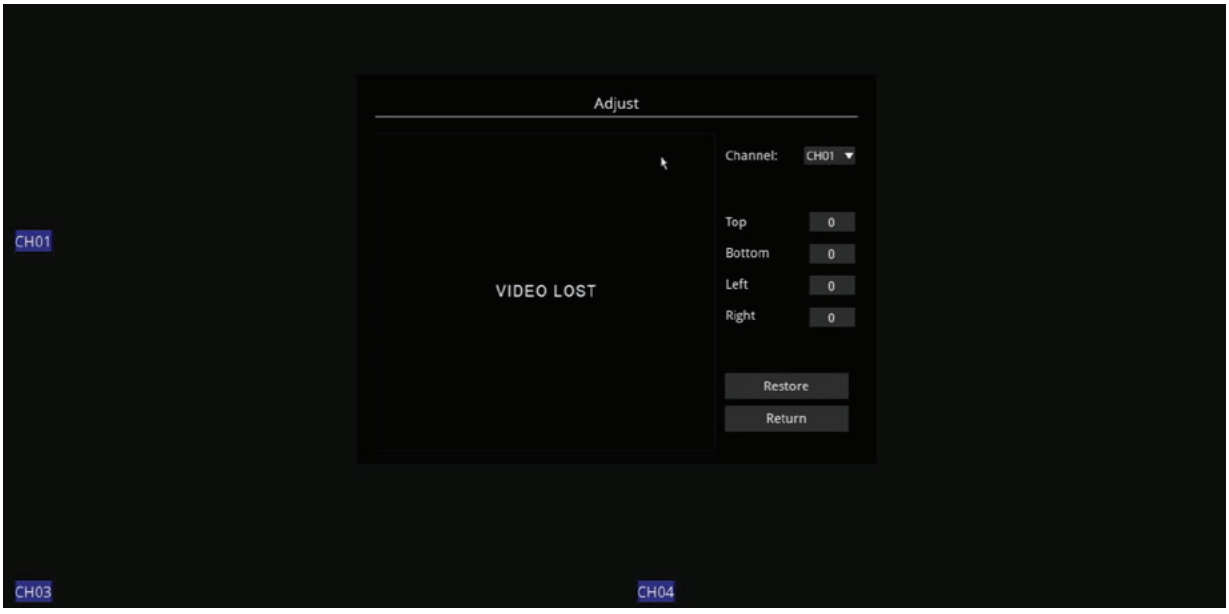
Record settings screen menu

Record settings menu cont...

Mirror Config: The user can Mirror the image, Flip the image, rotate the image 90° or 270° You can add this to 4 channels separately.

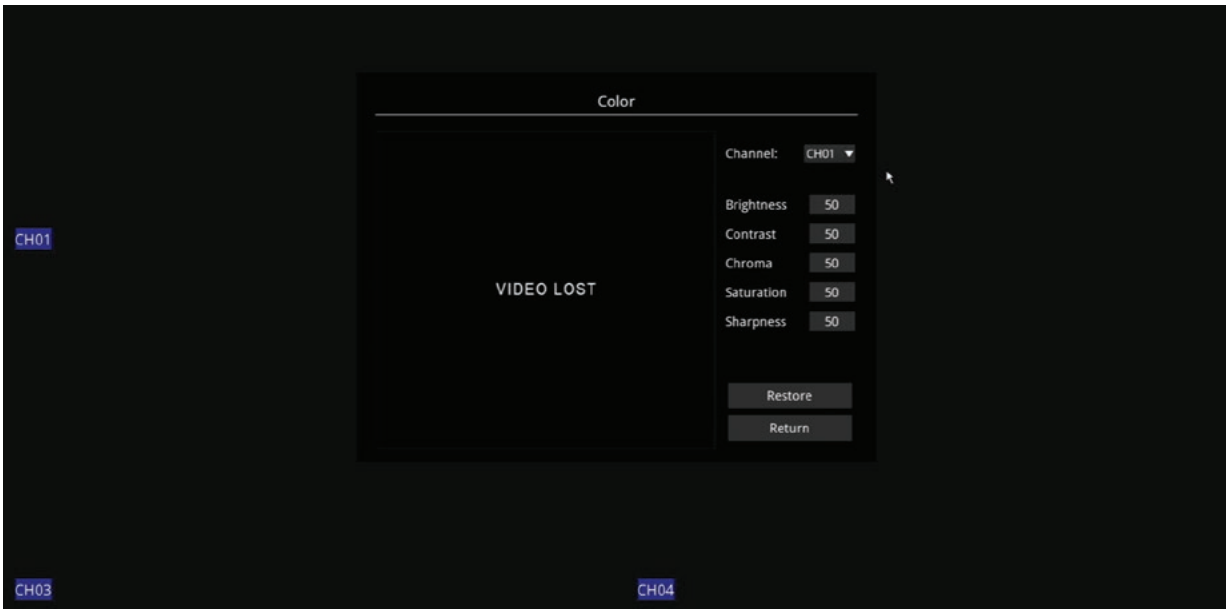


Video adjust : Allows the user to adjust the box size for each 4 channel you can adjust by using the remote arrow up to scroll between 0-85 on each Top, Bottom, Left, and Right box.



Record settings menu cont...

Color config: Adjust the Brightness, Contrast, Chroma, Saturation, Sharpness.



Encode setting: This allows the user to change the resolution to 1080p, 720p or D1. You can change the frame rate from 1 to 15 and the quality of the recordings can be adjusted to Ordinary, Standard, High definition or Super high definition. You can enable or disable each channel recording separately.

Record menu cont...

Recording Manage: “Disk Usage". The user can set different usage for different storage disks, which are main record, backup record and mirror record respectively.
① If all the settings are set as main video, then when disk1 space is full of recorded files, it will continue to record on the next video disk.
② Backup video, means that the main video disk in the normal recording process after the anomaly, the backup video disk will be followed by the main video of the latter time period to continue recording.
③ Mirror video, refers to the same time with the main video disk recording, the main video is recorded in the main stream, the mirror video disk is recorded in the sub-stream. When searching for video playback, you need to search for video files according to the corresponding disks (main record, backup record, mirror record).

System settings menu

System: Format will erase and format any of the 3 of the memory devices that are attached to the MDVR, Upgrade will update the Firmware if available. Confirm will reset all parameters to factory default including user password. Param Config backsup(Export) your parameters settings to a USB drive, you must insert USB thumb drive on the front of the MDVR to back it up. Import will restore your parameters settings from your previous backup files.

1TB recording time chart

Video quality	Video file M / 10 minutes			1TB/hours		
	1080P	720P	D1	1080P	720P	D1
General	110M	44.89M	21.98M	398	973	1988
norm	150M	89.79M	43.95M	291	486	994
high definition	187.5M	134.8M	65.92M	233	324	662
Ultra high definition	225M	179.9M	87.89M	194	242	497

Specifications

- Channels: 4
- DVR Recording: Yes
- Resolution: 1920x1080, 1280x720 or 1024x768 (Selectable)
- Recording Frames per second: 15 FPS
- Compatibility: Suits Standard Definition and AHD (720p and 1080p)
- Wired or Wireless: Wired
- Auto Power On: Yes
- Video System: PAL or NTSC
- Video Triggers: Yes
- Video Outputs: 4 Pin Heavy Duty, VGA or HDMI
- Display Modes: Single, Dual, Quad (Various)
- Monitor View: Normal / Reverse
- Guidelines: Selectable On/Off
- G-Sensor: Yes
- GPS: Yes
- Recording Modes:
  - ° Continuous
  - ° Parking Mode (Max 72hrs)
  - ° Time Lapse (1 FPS)
- Recording Storage:
  - ° SD Maximum = 1TB
  - ° HDD Maximum = 2TB (2.5" SATA)
- Recording Specs:
  - ° General = 398 hours per TB
  - ° Standard = 291 hours per TB
  - ° High Definition = 233 hours per TB
  - ° Ultra High Definition = 194 hours per TB
- Audio Recording: CH1-4 Selectable
- Power Supply: 9-36V (Hardwired)
- Dimensions (WxHxD): 175 x 168 x 50mm
- Weight: 0.88kg

- Inclusions:
  - ° 4 Channel Heavy Duty M-DVR [AVMD4](https://aerpro.com/AVMD4)
  - ° 1 x Remote Control
  - ° 1 x Key to lock HDD
  - ° 2 x 20cm input/output cables

* Additional Information:
  - ° This is an M-DVR only, cameras are sold separately.
  - ° 720P or 1080P cameras can be used but they must be the same resolution and cannot be mixed.
  - ° USB Port can be used for Firmware updates and to plug a computer mouse in for easy navigation.

How to find reversing wires to trigger or power camera systems.

We recommend that you wire up the triggers as the last part of your installation (after the systems monitor has been wired) this is so that you can use the system as a safe way to test for a reversing wire.

Back up camera systems (reversing camera systems) require a signal to “Trigger” the system into action so that it automatically operates when the vehicle is in reverse.
Whilst some systems are designed to allow cameras to operate even when the vehicle is not in reverse it is still necessary to wire a trigger system in so that the Camera that is facing backward automatically turns and or takes over as priority when in the vehicle is in reverse. When wired in correctly using the right trigger priority, the system can also automatically turn on the rear camera of an attached trailer taking priority over the vehicles back up camera when the trailer is connected.

The most common way to trigger the rear facing camera is to use the + wire that powers one of the vehicles reversing globes at the back of the vehicle.
NOTE: Some vehicles that Use CAN bus to operate rear lighting systems may require additional parts to trigger the system.

Caution: Never test for reversing wires standing at the back of the vehicle, with the engine running and the gearbox in reverse gear. If the car/truck can not be placed in reverse without the engine running, Special procedures should be employed. In this case we highly recommend you seek a professional installer to do this type of work. Failure to follow proper procedure could cause serious injury or death. (The vehicle could back over you)

Step 1.
Place the car in reverse, with ignition on but the car not running (do not leave the cars ignition on for long periods of time without starting it) observe or have an observer notice which light turns on and its location in the lens. Turn the ignition off. Then, locate the globe socket that holds the reversing globe into the lens. In some cases the Lens has to be removed from the car to expose the socket. In most cases however, you can gain access from the inside of the car behind a removable interior wall/panel.

Step 2.
Identify which wire is the globes ground and which is positive. Light globes have very low resistance so if a globe is in place, both wires will show up as a ground. Even if you remove the globe the second globe on the other side of the vehicle will still give the positive side a short path to ground and may still be indistinguishable from the globes earth. For this reason it is necessary to energize the globe to find out which side is positive and which side is negative. Using a multimeter set to DC volts (make sure that it is on the correct scale) attach the negative probe to one of the globes wires and the positive probe to the other (in most cases you can push the probe ends into the back of the globe socket) if not, you may have to

Technical assistance

If you need assistance setting up or using your Aerpro product now or in the future, call Aerpro Support. Australia
TEL: 03 – 8587 8898
FAX: 03 – 8587 8866 Mon-Fri 9am – 5pm AEST or EMAIL: service@tdj.com.au

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