

Chipatronic Mobile Digital Video Recorders (MDVR / DVR) are designed for use in commercial and industrial vehicles where constant recording from 1 or more cameras is required. The *AHD* DVR systems are available in either 4 channel or 8 channel with each channel/camera able to be individually configured as required.

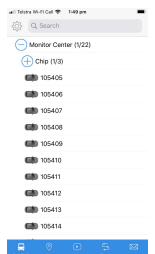
The *CH-AHDV4* and *CH-AHDV8* series are analogue input systems which can use either high definition *AHD* cameras or standard *CVBS* cameras. For higher resolution video files *AHD* cameras should be used as the systems can record at up to 1080P Full HD or 720P HD based on the cameras used. *CVBS* camera will record at D1 only.



While the basic models allow only localised access to the video files, usually directly from the storage media, more advanced models with remote, wireless access are available. Wi-Fi, 4G and Wi-Fi + 4G models allow either direct access via a browser or through a dedicated app via the *CMS* cloud server platform using the 4G mobile network or Wi-Fi (when able to connect to a WLAN). Live streaming of video, streaming of previously saved video, vehicle location on map and saved file download (PC only) are all available with visibility of all vehicles in the fleet.



By using our *CMS* cloud server solution, any MDVR host which is connected to the Internet by either Wi-Fi or 4G mobile can be monitored remotely using a Smartphone or Windows computer using a free app. Functionality differs between the mobile apps and PC version but allows key staff access to key information regardless of their location with internet access being the only prerequisite.



CMS has the *API* available for download where integration with other systems is desired to allow video linkages to be added where in-house development is being carried out although for many users the standard system has sufficient functionality.

Using the *CMSv6* app, authorised users are able to view a complete list of vehicles, check their status and for units online, see the location and view video preview which can show the load, traffic conditions or other views from any of the cameras fitted.



Generally management monitoring will be done using a PC which has all of the available functions. Maintenance staff can have access using a smartphone app (iOS or Android) allowing vehicle DVR systems to be checked quickly and easily to ensure system functionality.

A range of AHD cameras with either 1920*1080P or 1280*720P resolution are available to suit these systems with Sony *Starvis™* or *Exmor™* chipsets for the highest quality video with selected cameras featuring **WDR** where the image sensor balances light & dark to produce superior images in conditions where disparate lighting is present.

Specialised cameras for ultra-low light applications are available in selected styles as well as Pan, Tilt, Zoom (PTZ) cameras which can be controlled using the CMSv6 app with 360° rotation (pan), 90° tilt and up to 30X zoom.



If replacing an older system, you can retain the current CVBS cameras where this video quality is sufficient but it is recommended to upgrade the cameras as the video quality is far better with AHD cameras.

The *CH-AHDVR4 & 8* are in the same form factor and all our latest hard drive systems can support up to 6TB SSD drives plus SD card up to 512GB with simultaneous recording to both available with our **Dual Recording** mode enabled. This enables recent files to be accessed from the SD card rather than removing the hard drive preserving system security by only allowing selected staff access to the main key.

The front panel USB port can be used as a backup to copy and transfer files while the rear USB is reserved for a mouse to access the menu.



Video output via HDMI is standard allowing the use of newer display technologies and customised programming to provide switchable views on an in-cab monitor. The **SwitchView** system allows up to 3 rear cameras to be setup for full-screen display. This can allow side cameras to be switched from the indicators or a rear camera to act as a normal reversing camera, connected to the reverse lamp circuit.

Our unique system also provides a choice of video file formats (with some restrictions) to allow either **AVI** or **MP4** video file formats able to be used enabling a wider choice of viewing and editing software to be used.

A free video player is available which allows all channels to be displayed on screen together and this also includes a simple "snipping" function to save a short section of video where this needs to be retained or shared without having a large file with up to 5 minutes of video. Just select a start and stop point and save a short MP4 file that is able to be emailed if required.

File encryption is not used as standard but is available where required but this will restrict the use of standard media software and requires passwords to be applied and used to view videos. Once files have been encrypted only a user with the correct software and password can view those.



Analogue Video Input 4/8 Channels AHD @ 1080P, 720P or CVBS @ 540P
Digital HD input-CH-AHDVR8 series only

Video Output 1 HDMI or 1 CVBS (with included cable) Single screen or multi-screen view selectable. Switchable single screen views can be configured. Reverse camera function can work with either display type (configuration required). HDMI monitors are available in 7" and 10.1" LCD sizes

Audio Recording Selectable ON/OFF 4/8 channel audio input (requires audio enabled cameras).

Video Recording 1920x1080, 1280x720, 960x540 30fps with selectable Bitrate from 100 - 8000kbps for each camera

Video File Format AVI is default (requires VLC Media Player). MP4 is selectable (this file format may be played using standard Windows software). MP4 not available with *Dual Recording*

Alarm 3 input sensors (+ voltage) can be configured. External Event Button can be added (optional), G-Sensor can be configured. Alarms can be used to switch video output.

Storage Hard Drive up to 6TB SSD with standard capacities available of 500GB and 1TB plus SD card up to 512GB. *Dual Recording* function saves files to both SSD and SD simultaneously for easy access to recent files without shutting down the DVR.

Communication Ethernet, USB (mouse input and removable storage).

Wireless Wi-Fi or 4G modem can be added (optional) for remote access using CMS platform. Wi-Fi: 802.11 b/g/n. Online access requires server account, 4G requires SIM card with data plan

Location GPS can be added for location, speed data which is embedded into video file. Location shown as GPS coordinates.

Identification DVR can have vehicle rego., Unit ID or name setup for easy ID. Cameras can be individually re-named for view ID.

Power 8-32 VDC with ignition control and adjustable delayed shutdown on ignition off. DVR will record for pre-set period to allow staff to exit the surrounding area or as security. Power output to cameras 10.5V/1.5A (4 cameras).

Video Playback Files are AVI format by default and can be played using common media players. VLC is recommended. MP4 file format can be selected but not for all configurations. *HPlayer* software for multiple playback and map view. Available as free download. If using CMSv6 saved video files can be re-played on Smartphone or Windows PC.

Time Time setting can be synchronised with GPS or manually set with internal clock with time and date embedded in each video file.

Cameras AHD cameras with 4 Pin aviation connectors or CVBS cameras with 4 pin aviation connectors can be used. DVR will detect video signal automatically, 1080P max.

Cables Standard 4 Pin camera extension cables for all cameras will connect directly to the DVR.

Please contact Chipatronic for further information and quotations for a complete systems as well as details on available cameras and options for wireless options.