

Waves System My Video Player VP320 and VP330

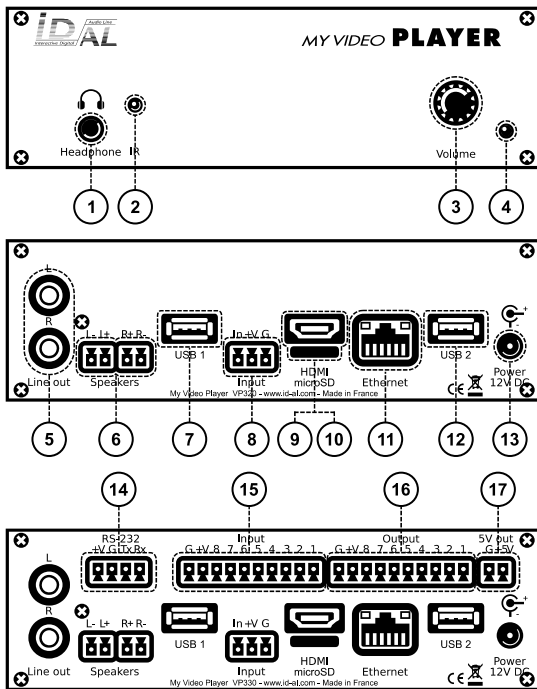
Quick Start Guide V1.3

1 Introduction

This guide explains how to quickly start up the My Video Player for a first use. For further information and help on this product, see the support page of the My Video Player on www.waves-system.com.

The My Video Player range is composed of standalone and interactive players that allow the playback of audio, picture, video 4K HDR UHD and HTML5 / JavaScript contents. These contents can be stored in an internal memory, on a microSD card, or on a USB flash drive. The playback can be programmed to start automatically, to follow a schedule, or to respond to external events (infrared remote control, input contacts, RS-232, TCP/IP, JavaScript, or REST).

2 Hardware Description



- 1 Headphone stereo audio output, standard 3.5 mm (TRS) jack
- 2 Infrared sensor
- 3 Clickable knob (volume)
- 4 Status LED
- 5 0 dBu line-level stereo audio output, RCA connectors
- 6 Class D amplified speaker stereo audio output, pluggable terminal blocks
- 7 USB Host 2.0 for USB flash drive and touch screen, type-A receptacle
- 8 Standalone opto-isolated input and power supply output, pluggable terminal block
- 9 HDMI audio/video output, type-A (standard) receptacle connector
- 10 microSD card slot
- 11 10/100 Mbps Ethernet, RJ45 connector
- 12 USB Host 2.0 for USB flash drive and touch screen, type-A receptacle
- 13 External DC power supply chassis socket
- 14 RS-232 serial link and power supply output, pluggable terminal block
- 15 8 opto-isolated input contacts and power supply output, pluggable terminal block
- 16 8 MOSFET outputs and power supply output, pluggable terminal block
- 17 5 V DC output, pluggable terminal block



Button	Description
	Short press: standby/wake-up. Long press: power off / restart.
	Mute/unmute.
	Skip 10 seconds backward/forward.
	Play/pause.
	Stop Playback.
Red Green Yellow Blue A B	Programmable buttons: by default, play folder 1 to 6, respectively.
	Toggle on-screen information display.
	Exit.
	In menu context: up/down. In playback context: next/previous folder.
	In menu context: left/right. In playback context: previous/next file.
OK	In menu context: validate selection. In playback context: toggle on-screen information display.
	Toggle on-screen menu display.
	Back.
VOL+ VOL-	Increase/decrease the volume.
	When selecting a value, typically with a slider control, skip many values.
0 1 2 3 4 5 6 7 8 9	In menu context: digit characters. In playback context: play folder 0 to 9.
.	Dot character.
	Erase previous character.

3 Connecting the Hardware Interfaces

First, make sure that the player is off (mains adapter unplugged). Then, connect the hardware interfaces according to the needs:

Interface	Usage
microSD and USB	If needed, prepare a storage device, then plug it into the player. See 5 Programming the Player.
Video output	Compatible with a wide range of HDMI displays.
Audio outputs	Connect non-amplified speakers to the amplified speaker output, or amplified speakers to the line-level audio output, or a headphone to the headphone output, or use the HDMI audio.
Ethernet network	NTP player time synchronization, FTP access to the player storage, media stream playback, playback synchronization between players, TCP/IP or Web API player control, display of web content hosted remotely, configuration / content update / control on the local network (remote administration) or through Internet (Wavespark), PJLink wake-up and standby video projector.
Power supply outputs	On the pluggable terminal blocks: power supply for accessories requiring little power.
RS-232 serial link	Control of other devices, such as video projectors or PLCs, or control of the player from another device using a dedicated protocol.
Input and output contacts	Connect them as explained in the following sections.

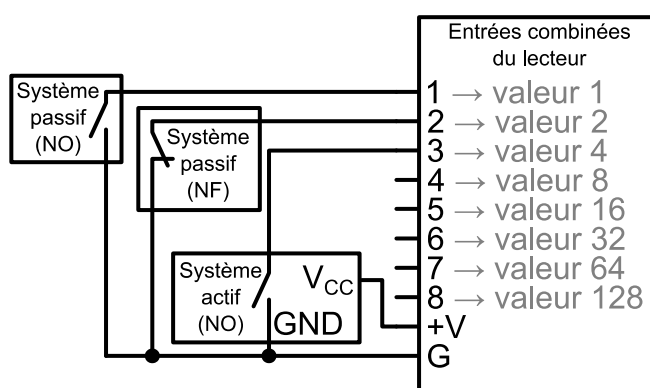
3.1 Input Contacts

The 1 + 8 input contacts can be configured to trigger various actions, such as playback control, standby, wake-up, or sending a serial frame. Devices behaving like switches can be connected between these inputs and the ground of the player (e.g.: push-button, presence sensor, relay, PLC, SensoPad, IRPad). Active devices can use the power supply pass-through. Each input can be configured as normally open or closed.

The 1st to 8th combined inputs are respectively associated with the following values when active: 1, 2, 4, 8, 16, 32, 64, 128. The action taken for these inputs depends on

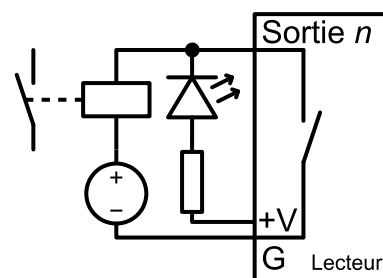
their combination, defined as the sum of the values of all the active inputs, which is simply the value of an input if it is the only one active. If more than 8 triggering devices are needed, the Waves System Ext15In board or a diode-based circuit can be used to get more than 8 combinations from these devices.

By default, the standalone input plays folder 1, and the 8 combined inputs play the folder numbered with the active combination.



3.2 Output Contacts

The 8 outputs behave like normally-open switches between each contact and the ground of the player (up to 500 mA per output). They can be used to operate devices such as power relays, motor controllers, lights, or players.



4 Starting the Player

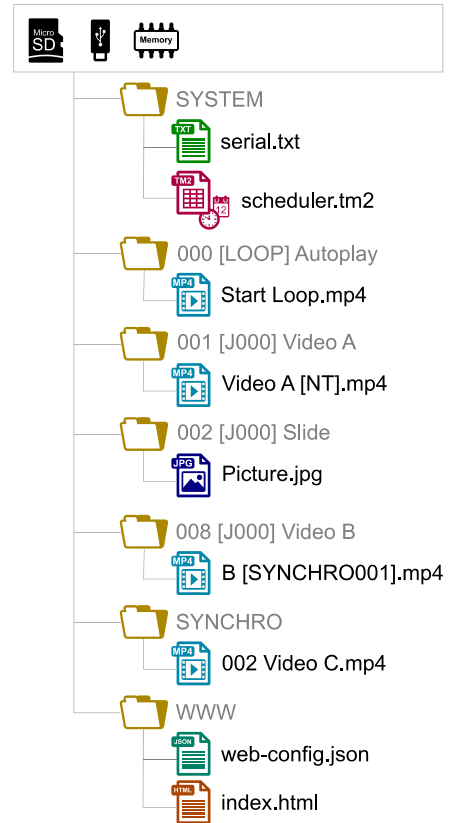
- After having connected all the required interfaces, turn the player on by plugging the mains adapter. The status LED should quickly get red, which signals that the player is booting.
- Wait for the status LED to turn green, which indicates that the player is ready.
- Press on the remote control to display the on-screen menu, then configure the player according to the desired settings such as system language, network, date and time, security of the access of the FTP server and the remote administration, etc.
- When the player is connected to a local network, the configuration is possible with an internet browser. To do this, enter `http://` followed by the IPV4 address or the mDNS name of the player in the address bar (see 6 Identify the Player on the Ethernet Network). Once connected to the remote administration of the player, enter `admin` as identifier and `password` as password.
- In order to make sure that the player benefits from the latest features and improvements, it is possible to perform a firmware update from `System settings` → `System update`. If an Internet connection is available, it is recommended to follow the automatic procedure using `Check for update`.

5 Programming the Player

5.1 General Rules

The player is programmed by organizing media files and other files in a specific way (see the example opposite) on a storage device (microSD card, USB flash drive, or internal storage). The external storage devices must initially be formatted using one of the supported file systems (FAT32 or exFAT are recommended), after which it can be filled using a computer then plugged into the player, or first plugged into the player then filled through the remote administration of the player (default username and password: `admin` and `password`). (see 6 Identify the Player on the Ethernet Network).

- `SYSTEM` folder: contains configuration files and other files used by the system.
- Playback folders, numbered from `0` to `999`: contain the usual multimedia files (MP4, MKV, MOV, STREAM, WAV, MP3, M4A, OGG, JPG, PNG, BMP, etc.). These folders are prefixed or not with zeros. They are used as an identifier for commands. (Sub-folders excluded)
- `SYNCHRO` folder: contains the multimedia files to be played when receiving a synchronized playback request. These files must be numbered. (Sub-folders excluded)
- `WWW` folder: contains the HTML5/JavaScript pages and all files necessary for their operation.

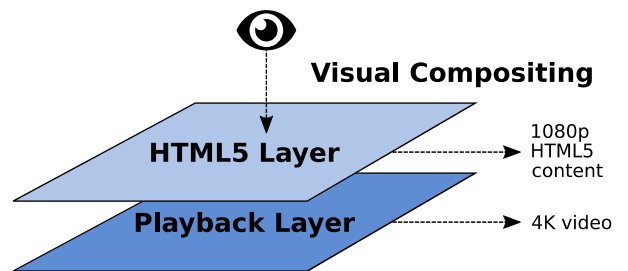
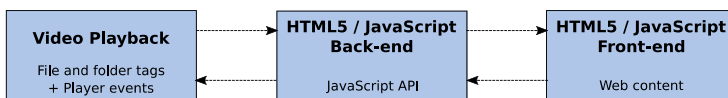


The playback folders can have an arbitrary working name after their number. Various directives, called tags, can be added between square brackets. These tags can be used to control the playback, the volume, and the output contacts, to send serial frames, to block commands from a configurable list of sources, or any controls available with tags. For the complete tag specification, see the user guide.

The multimedia files inside the playback folders can also have tags. They can be numbered to ease sorting in sequential playback mode.

5.2 HTML5/JavaScript Content

Execution of HTML5/JavaScript code and display of overlaid web pages on the video playback is provided by an embedded web server. An additional JavaScript API allows you to control the playback from HTML5/JavaScript content.



The creation and implementation of web content is done in 3 steps:

Step 1	Step 2	Step 3
Create web content Create HTML5 / JavaScript web pages (place the local content to <code>www</code> folder). If necessary, use the JavaScript API to control the player from web pages.	Indexed web content Add the URLs of web pages by using the dedicated tool from the remote administration of the player or by editing the <code>web-config.json</code> file.	Add file tags Add to folders or files the dedicated tags to show or hide web content (<code>[WEBS x]</code> , <code>[WEBE x]</code> , <code>[WEBS OFF]</code> , <code>[WEBE OFF]</code>)

For more information on this topic, see the user guide.

5.3 Streaming

In order to play a video or audio stream, a file with the extension `.stream` must be placed into a playback folder like a regular media file. This file describes the stream and gives its network address. See the user guide for details.

5.4 Scheduler

In order to schedule commands, a file named `scheduler.tm2` must be generated on a computer thanks to the Scheduler software (downloadable from www.waves-system.com), then placed into the `SYSTEM` folder.

5.5 Serial Frames

The serial frames that the system needs to send must be listed in a file named `serial.txt`, which can be created with a raw text editor on a computer according to a specific syntax, then placed into the `SYSTEM` folder. This file can also be created and edited using the player remote administration (see 4 Starting the Player). The transmission of the serial frames can be programmed using folder or file tags, or a direct command order. See the user guide for details.

5.6 Further Configurations

Various aspects of the playback and of the usage scenario can be configured in the on-screen menu (☰) or in the remote administration, under `Playback engine settings` and `Scenario settings`, respectively. Contrary to all the other settings, the `Scenario settings` are linked to the specific use case programmed on the storage device. That's why they are saved by the player in `SYSTEM\scenario-config.json` on the current storage device in order to make them easily portable to other players.

5.7 Playback Start Synchronization

This feature allows to synchronize the start of playback of a designated file within a group of players over the network, using the selected multicast UDP port:

- For all the players in the group, in the setup on-screen menu (☰) or in the remote administration, select `Scenario settings` → `Playback start synchronization`, then enable `Playback start synchronization` and change the `Multicast UDP port` value if needed (by default: 44830).
- With the `[SYNCHROxxx]` file tag (e.g.: `Video A[SYNCHRO001].mp4`), the player sends the `xxx` synchronization request to all the other players within the group.
- The players receiving the `xxx` synchronization request look for a file with a name beginning with `xxx` in the `SYNCHRO` folder (e.g.: `001 Video B.mp4`). All the players of the group then start the playback synchronously.

5.8 Receive Serial, TCP/IP, or REST commands

The player can be controlled on an Ethernet network using TCP/IP (port `65079`) or REST. It can also be controlled on the RS-232 serial link (from `9600` to `115200` baud) in exclusive mode (send commands and receive states) or in "Daisy Chain" mode (send commands only). The protocol which defines the 3 bytes command frames is identical for the TCP/IP and the serial link. The references of the REST API for controlling the player (methods, requests and responses) are specified in dedicated documentation. See the user guide for details.

6 Identify the Player on the Ethernet Network

The IP address of the player is indicated in the on-screen menu (☰ → `System settings` → `Network` → `Connected`) with the infrared remote control. It is also possible to identify the player on a network using its mDNS name `EVP380-sernum`, `sernum` being the serial number indicated under `About` in the on-screen menu (☰).

7 Factory Reset

This feature restores the default factory settings and erases the content of the player internal storage. This is done in the on-screen menu (☰ → `System settings` → `Storage & reset` → `Factory reset`) or in the remote administration (`System settings` → `System update` → `Factory reset`), then follow the on-screen instructions.

8 Further Steps

Go to the support page of the My Video Player on www.waves-system.com for the advanced features, further information, documentation, firmware, software, and examples.