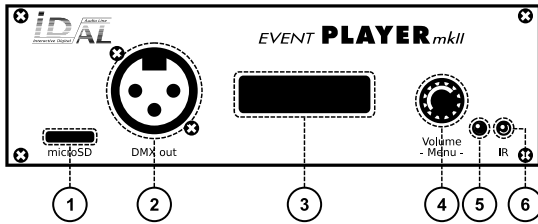


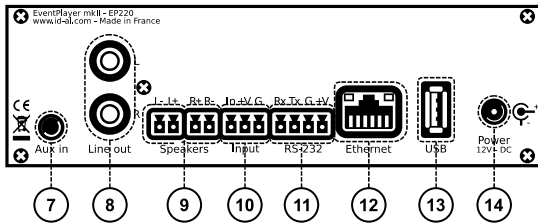
# ID-AL EventPlayer mkII

## Quick Start Guide V1.0 for EP220 and EP230

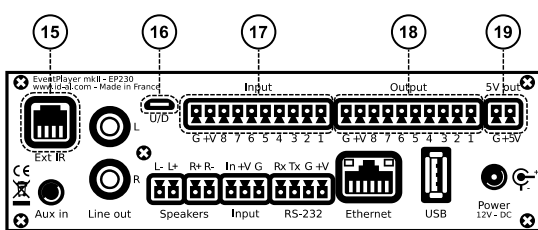
### 1 Introduction



The EventPlayer mkII range is composed of standalone show control and audio players that manage WAV/MP3/SC2 files stored on a microSD card or a USB flash drive. Files can be played automatically according to an “AutoPlay” setting, a timestamped programming, or a triggering by external events (input contacts, RS-232 or web commands, infrared remote control).



- 1 microSD card slot
- 2 DMX512 output, standard female XLR3 connector
- 3 Backlit LCD display
- 4 Clickable knob (volume and settings menu)
- 5 Status LED
- 6 Infrared sensor
- 7 0 dBu line-level stereo audio input, 3.5 mm (TRS) jack
- 8 0 dBu line-level stereo audio output, RCA connectors
- 9 Class D amplified speaker stereo audio output, pluggable terminal blocks
- 10 Standalone opto-isolated input and power supply output, pluggable terminal block
- 11 RS-232 serial link and power supply output, pluggable terminal block
- 12 10/100 Mbps Ethernet, RJ45 connector
- 13 USB Host 2.0 for USB flash drive, type-A receptacle
- 14 External DC power supply chassis socket



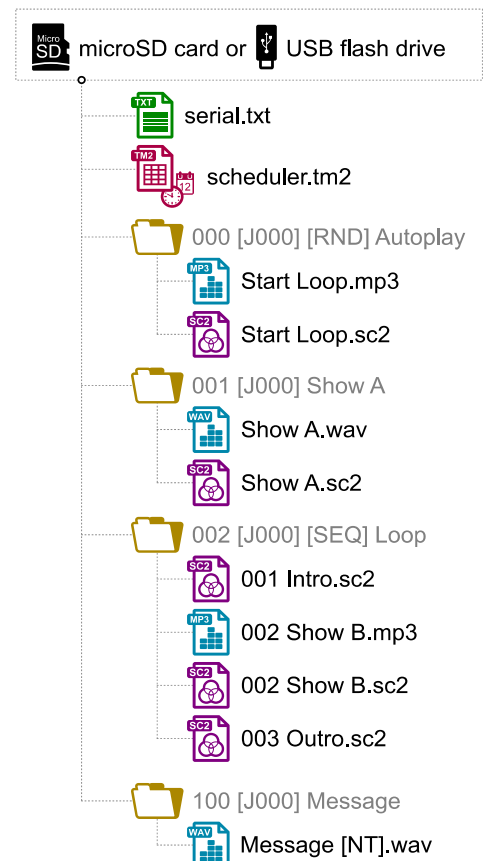
- 15 USB Host 2.0 for USB flash drive, type-A receptacle
- 16 External DC power supply chassis socket
- 17 RJ9 connector for external infrared sensor
- 18 USB Device 2.0 for USB-to-DMX512 feature, Micro-B receptacle
- 19 8 opto-isolated input contacts and power supply output, pluggable terminal block
- 20 8 MOSFET outputs and power supply output, pluggable terminal block
- 21 5 V DC output, pluggable terminal block

This guide explains how to quickly start up the player for the first use. For the firmware, additional software and the complete user guide of the product, see the support page of the EventPlayer mkII on [www.id-al.com](http://www.id-al.com).

### 2 Preparation of the Storage Device

Choose a quality microSD card or USB flash drive, and format it as FAT32. Store on it useful files according to the organization demanded by the player (see given opposite example). Do not use special or accented characters.

- Files at the root of the storage device:
  - `serial.txt` (optional): file defining the serial frames to send. See the chapter [RS-232 Serial Link](#).
  - `scheduler.tm2` (optional): timestamped programming file to generate with our Scheduler software.
- Organization of the folders at the root:
  - No subfolders allowed.
  - Naming: `xxx [TAG1] [TAG2] Name`
    - `xxx`: folder no. from 000 to 999 used by the commands. The AutoPlay feature uses the 000 folder.
    - `[TAGx]` (optional): tags controlling the playback. See the chapter [Folder and File Tags](#).
    - `Name` (optional): folder name (free).
- Organization of the files in the folders:
  - Format: WAV, MP3 or SC2.
  - Naming: `xxx [TAG1] [TAG2] Name.ext`
    - `xxx`: file no. from 001 to 999 defining the playback order in sequential mode. Optional and unused in random mode.
    - `[TAGx]` (optional): tags controlling the playback. See the chapter [Folder and File Tags](#).
    - `Name` (optional): filename (free).
    - `ext`: wav, mp3 or sc2 extension.



### 3 Connection of the Input Contacts

The standalone input contact of the EP220 and the EP230 or the 8 input contacts of the EP230 are used to start the playback of folders. Triggering devices can be connected to these inputs (e.g.: push-button, presence sensor, relay, PLC, SensoPad, IRPad, etc.). These devices must behave like open or closed contacts between an input and the ground of the player, the activation being triggered by a closed contact. The activation states (0 for open or 1 for closed) of the input contacts of the EP230 are combined to identify the number of the folder to play:

$$\text{Number of folder to play} = \text{Input}_1 + \text{Input}_2 \times 2 + \text{Input}_3 \times 4 + \text{Input}_4 \times 8 + \text{Input}_5 \times 16 + \text{Input}_6 \times 32 + \text{Input}_7 \times 64 + \text{Input}_8 \times 128$$

The standalone input contact uses the same circuit as the input 1 of the 8 input contacts of the EP230. If it is used alone, it will launch the playback of the 001 folder. With the EP230 and up to 8 folders to trigger (001, 002, 004, 008, 016, 032, 064, 128), the triggering devices can be directly connected to the inputs. Beyond, a circuit based on diodes can be used to obtain up to 255 combinations of playback (e.g.: the board ID-AL Ext15In providing up to 15 combinations of playback).

### 4 Connection of the DMX512 Output and the Output Contacts

The EventPlayer mkII offers a DMX512 output to operate lights, RGB projectors, dimmers, and various devices over a DMX512 network. In addition, the EP230 offers 8 outputs with MOSFET switches (up to 500 mA per output) to operate power relays, motor controllers, lights, players, and various devices.

- The values of the 512 channels of the DMX512 output and the states of the 8 output contacts can be controlled by Show Control files. See the chapter [Show Control](#).
- The states of the 8 output contacts can also be controlled by the [Rxxx] folder and file tag. xxx is the combination value of the activation states (0 for open or 1 for closed) of all the outputs (e.g.: the [R001], [R016], [R003], and [R197] tags close the outputs 1, 5, 1 + 2, and 1 + 3 + 7 + 8, respectively).




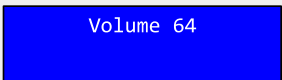

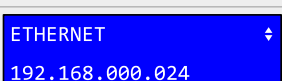

$$xxx = \text{Output}_1 + \text{Output}_2 \times 2 + \text{Output}_3 \times 4 + \text{Output}_4 \times 8 + \text{Output}_5 \times 16 + \text{Output}_6 \times 32 + \text{Output}_7 \times 64 + \text{Output}_8 \times 128$$

### 5 First Startup

- Make sure that the player is off (mains adapter unplugged).
- Connect the audio inputs and outputs to the audio installation according to the needs.
- Connect the input and output contacts according to the needs. See the chapters [Connection of the Input Contacts](#) and [Connection of the DMX512 Output and the Output Contacts](#).
- Connect the DMX512 output to the DMX512 network according to the needs.
- Connect the Ethernet network and the RS-232 serial link if needed.
- Insert the prepared storage device. See the chapter [Preparation of the Storage Device](#).
- Turn the player on by plugging the mains adapter.
- Use the front panel user interface to configure the player. See the chapter [Front Panel User Interface](#).
- According to the changes made in the settings, reboot the player if needed.
- The player is operational.

### 6 Front Panel User Interface

The front panel features an LCD display and a clickable knob aimed at viewing the player state and configuring it. The following states and menus are available:

	<b>Information displays:</b> outside of the setup menu, the LCD displays information according to the player status: current playback folder and file, and remaining time. If no playback is requested, the player displays  and  .	
	<b>Changing the main/aux volume:</b> from the information displays, turn the knob to change the main or auxiliary input volume.	
	<b>Setup menu:</b> from the information displays, press the knob to open the setup menu. Then, turn or press the knob to respectively select or validate a menu item. <b>Note:</b> some settings require the player to be restarted.	

## 7 Show Control

The EventPlayer mkII can play Show Control sequences stored on the storage device. A sequence can be played alone or simultaneously with a WAV or MP3 file. It controls the state of the 512 channels of the DMX512 output and of the MOSFET outputs with a resolution of 50 ms.

- The Show Control sequences are stored in `SC2` files, to generate with the Show Control Editor software.
- Once the `SC2` files have been created, they must be placed in the folders of the storage device as explained in the chapter [Preparation of the Storage Device](#). To associate a Show Control file with an audio file, give the same filename to both files, except for their extensions (e.g.: `FirtShow.sc2` and `FirtShow.mp3`).

**Note:** in the Show Control Editor software, use the `U/D` connector of the EP230 to preview the DMX512 channels in real time.

## 8 Scheduler

The player can be programmed thanks to the Scheduler, according to a timetable provided on the storage device. It manages the playback thanks to folder playback, stop and resume commands.

- The timetable is stored in a `TM2` file, to generate with the Scheduler software (e.g.: `scheduler.tm2`).
- Once the `TM2` file has been created, it must be placed at the root of the storage device as explained in the chapter [Preparation of the Storage Device](#).

## 9 Web Server

To control and configure the player over Ethernet, use its embedded web server. In a web browser:

- Enter the HTTP address of the player (e.g.: `http://192.168.0.104`).
- On the `Login` web page, enter the username (`User`) and the password (`Password`) of the embedded web server (by default: username = `idalweb` and password = `idalweb`).
- In order to log out, click on `Sign Out`.

**Note:** for maximum security, it is highly recommended to set proper usernames and passwords on the `Configuration` page of the web server.

## 10 FTP Server

To manage the files and folders of the storage device over Ethernet, use the embedded FTP server of the player. In an FTP client application, enter the following settings:

- Host: IP address of the player (e.g.: `192.168.0.104`).
- Port: 21.
- User: username of the embedded FTP server (by default: `idalftp`).
- Password: password of the embedded FTP server (by default: `idalftp`).
- Limit the number of simultaneous connections to 1.

**Note:** for maximum security, it is highly recommended to set proper usernames and passwords on the `Configuration` page of the web server.

## 11 Firmware Update

Start the player with an `EVENT.bin` firmware file placed at the root of a microSD card formatted as FAT32.

**Note:** the update by USB flash drive is not supported.

## 12 Factory Reset

Start the player by pressing the front panel clickable knob. When the LCD displays `- Fact Reset -`, release the clickable knob and let the player boot up.

## 13 Reference

### 13.1 Folder and File Tags

Tag	Folder	File	Parameter			Description
			Min	Max	Default	
[Jxxx]	•	•	000	999		Jump to the <code>xxx</code> folder at the end of the playback.
[RET]	•					Return to the previous folder at the end of the playback.
[RND] and [SEQ]	•				[RND]	Random or sequential folder playback mode.
[V+xx] and [V-xx]	•	•	00	64	00	Relative volume of the folder or of the file.
[NT]	•	•				Block the folder change commands from the input contacts, the serial link, the infrared remote control, the web server, and the Scheduler.
[Rxxx]	•	•	000	255		Set the states of all the output contacts.
[AUX]	•					Switch to the auxiliary input at the end of the playback.
[RSxxx]	•	•	001	999		Send the <code>#xxx</code> RS-232 frame from the <code>serial.txt</code> file.
[WHL]	•					Play the folder <u>while</u> the assigned input combination remains activated.
[NXTxxx]	•		001	999		Play the next <code>xxx</code> files each time the folder is played.

### 13.2 RS-232 Serial Link

This link allows the player to receive commands, to send arbitrary frames, and to send status information. By default, it is configured as follows (can be changed in the setup menu):

Baud Rate (bauds)	Start Bit(s)	Data Bit(s)	Parity Bit(s)	Stop Bit(s)	Handshake
19200	1	8	0	1	None

- The reception protocol is based on a 3-byte frame: “Status”, “Command”, and “Data”:

Status	Description	Command	Description	Data	Description
80h	All the players.	01h, 11h, 21h, 31h, 41h, 51h, 61h, and 71h	Play a folder in a bank of 128 folders. command = bank × 10h + 1	00h to 7Fh	Number of the folder in the bank.
81h to FFh	Only the player with the ID from 1 to 127.	02h	Playback control.	01h	Play the last played file.
				02h	Stop the playback.
				03h	Play the next file of the current folder.
				04h	Play the previous file of the current folder.
				06h	Play the next folder.
		07h	Play the previous folder.		
		03h	Volume control.	00h to 40h	Volume value.

- Arbitrary frames can be sent with the `[RSxxx]` tag. These frames must be defined in the `serial.txt` file at the root of the storage device, as `#xxx:tt tt tt...`, with one definition per line (e.g.: `#002:98 75 21 35 45 B2`).
- The monitoring protocol is structured like the reception protocol. The status byte has the same meaning. This protocol sends the following command and data bytes, according to the mode selected in the setup menu:

Parameter	Mode	Description
Off	No monitoring	The player only sends the frames from the <code>serial.txt</code> file.
Daisy	Daisy Chain	The player forwards everything it receives.
Ctrl	Monitoring	Sent upon event: player ready (00h), start of playback (03h), and end of playback (04h).
Adv	Advanced Monitoring	Adv only: sent every 250 ms: stopped (01h), playing (02h).