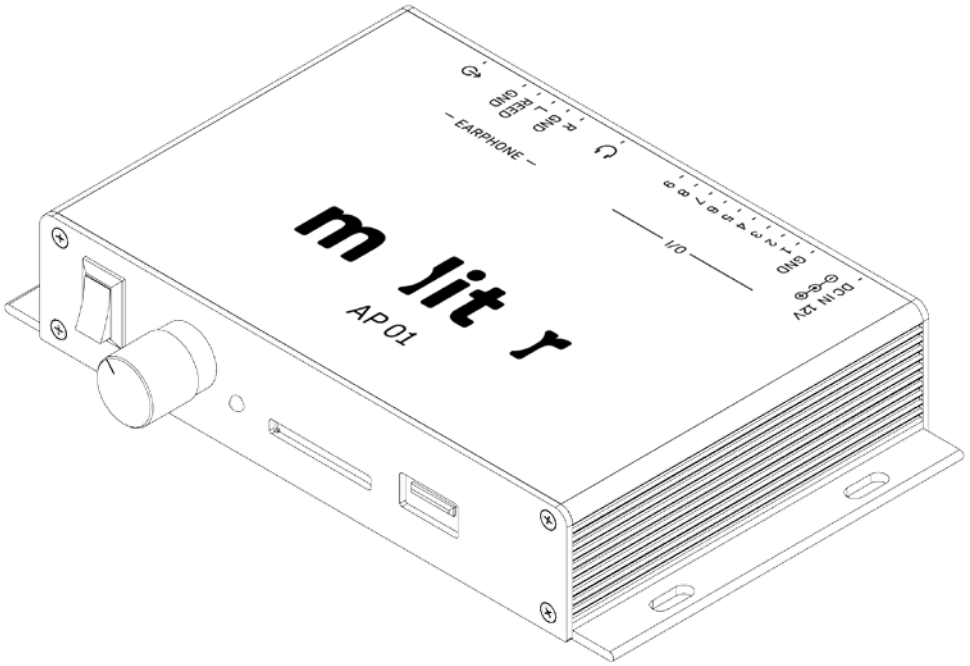
AP01
Audioplayer

Instruction manual



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1. INTRODUCTION

Congratulations on purchasing the molitor AP 01 audio player. molitor GmbH not only produces the internationally renowned USO and VIA handsets, but has also been planning and organising domestic and international exhibitions for many years. Our ever-growing experience has helped us to design an audio player that is easy to use and can be combined optimally with our handsets.

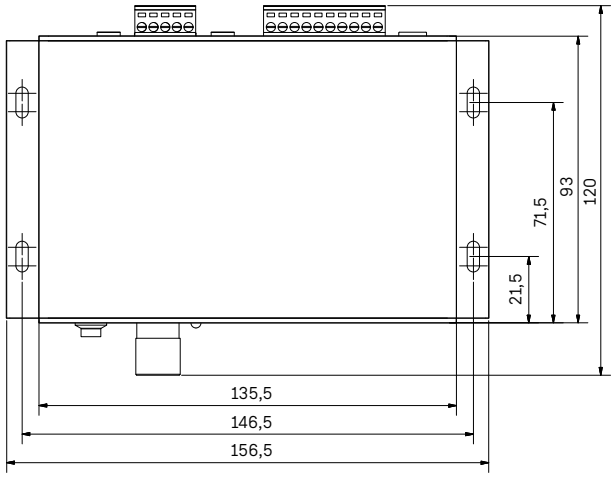
Please read these instructions carefully before connecting the audio player and using it. The connection and start-up procedure should only be carried out by qualified personnel.
The new AP 01 molitor audio player plays back audio files in premium quality and boasts practical functionality. Audio files can be saved onto a commercial SDHC memory card or USB stick and then played back on the AP 01.
Alongside classic stand-alone use in museums and exhibitions, the AP 01 is suitable for many other uses such as information offices, point-of-sale installations or for permanent background music.

2. FEATURES

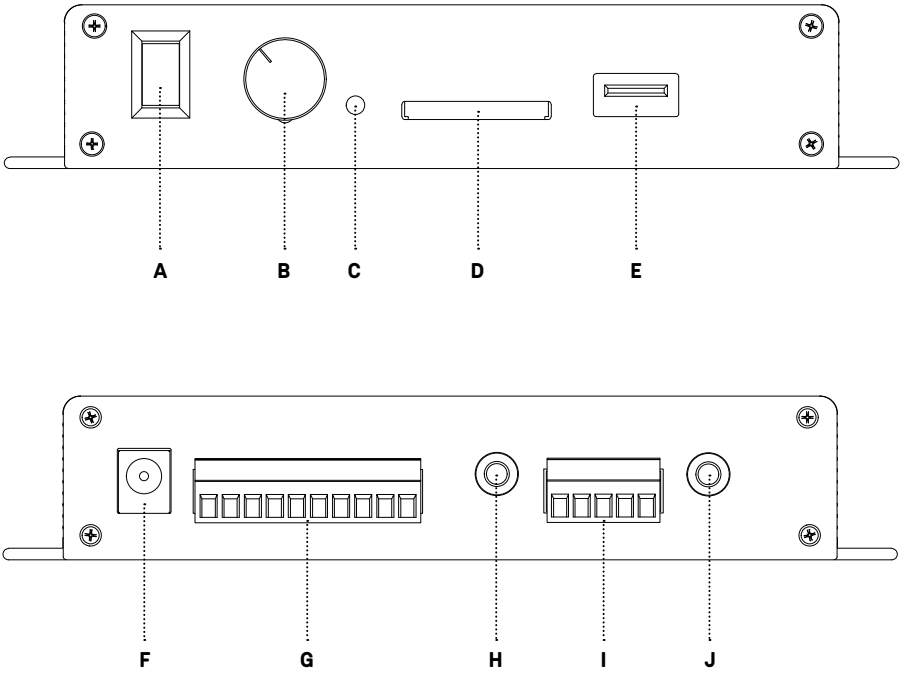
- Autostart – the AP 01 starts the audio files or playlists automatically after connection to the power supply
- It supports SDHC memory cards and USB sticks (USB flash drive) up to 64 GB
- Starts / stops automatically when a handset is removed / replaced. The AP 01 is optimised for use with interactive handsets, such as the molitor USO or VIA
- Control of max. 9 external, isolated buttons / sensors is possible
- Playlists and configurations can be individually created and customised
- Supported audio formats: MP3 / WAV
- Integrated amplifier for handsets and stereo headphones
- Line output for connection to amplifiers or active loudspeakers

3. TECHNICAL SPECIFICATIONS

Article number	molitor AP 01
Power supply and power consumption	12 V DC approx. 3 W / 215 mA
Supported media	SDHC (Secure Digital High Capacity) USB-Stick (USB Flash Drive) up to 64 GB
Formatting	FAT, NTFS, FAT32
Outputs	• Headphones output (3,5 mm stereo jack), max. output power 80 mW • Headphones output (Phoenix plug / stereo), max. output power 80 mW • Audio LINE (3,5 mm stereo jack)
Inputs	• Isolated 10-pin I/O port (Phoenix plug) • 2-pin switch contact for handsets (Phoenix plug)
Supported audio formats	MP3 (up to 320 kBit/s) WAV (up to 3 mBit/s)
Weight	290 g
Dimensions L/D/H	16 x 14.5 x 3 cm incl. regulator and plug
Accessories	12 V power supply, 100–240 V AC, 5-pin and 10-pin terminal strip
Operating temperature	0–40 °C
Operating humidity	Up to 80% non-condensing



4. OVERVIEW



A ON / OFF switch

B Volume control

C LED (red = power off / green = ready for use)

D SDHC memory card slot

E USB interface, type A

F 12 V DC input

G 10-pin I/O port for buttons / sensors (Phoenix plug: 1 x GND, 9 x In)

H Headphone output (3.5 mm stereo jack), adjustable volume

I 5-pin port for headphones or up to 2 handsets und switch contacts (Phoenix plug: R, GND, L, REED, GND), adjustable volume

J Line output (3.5 mm stereo jack), line level

5. START-UP PROCEDURE

Default application of AP 01 and handsets:

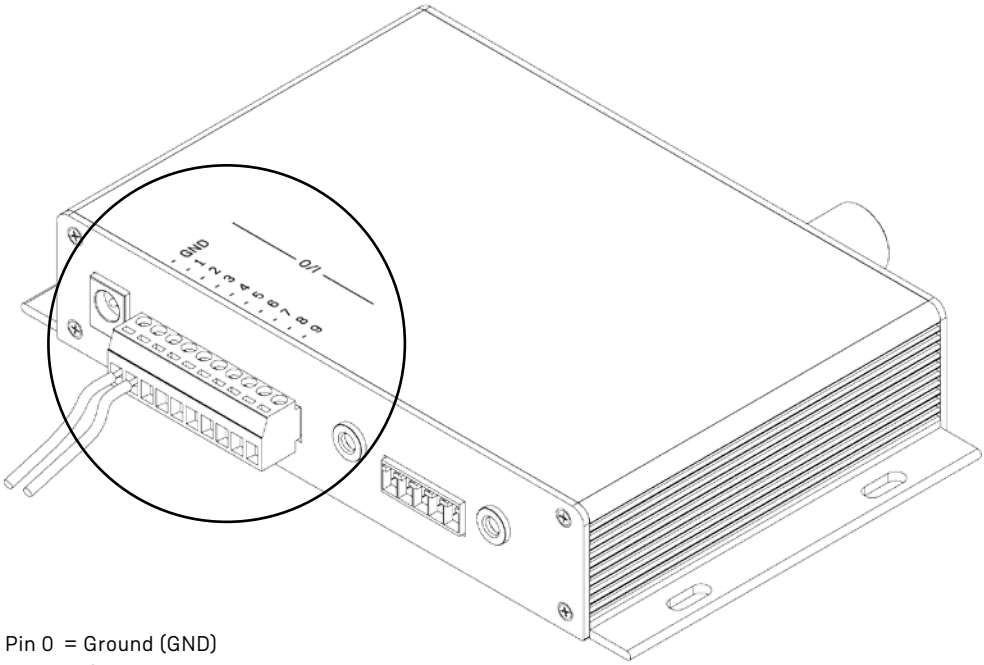
1. The AP 01 is delivered as standard in the most common configuration. This means: you wish to operate an interactive audio station, whereby one to nine audio files can be heard in MP3 format. Playback should begin as soon as one or two handsets, e.g. molitor USO or VIA have been picked up. Up to nine more audio files can be called up via buttons. To do this, please assign the following name(s) to your selected MP3 data files: 000.mp3 to 009.mp3, and store them using the SDHC card included in the delivery package via a Windows PC. The data file 000.mp3 begins to play as soon as the phone is lifted up. You will now find the MP3 audio files and the file “playlist.txt” on this card, as well as the “Scripts” folder which contains further playlists for other applications / uses. Place the SDHC memory card containing the audio files into the card slot until you hear it lock into place.
   Please note! The card slot is coded and has an end stop. If the memory card is placed in the slot on the wrong side, the mechanism may break, rendering the player useless.
   Alternatively, you can also use a USB stick as the data storage. In this case, please make sure that you also copy the “playlist.txt” file onto the USB stick.
2. Please connect the handset with AP 01 as shown in the drawing (7). Two handsets can be connected to the 5-pin terminal strip.
3. Attach the cable of the 12 V DC mains adaptor and switch on the player. The LED is red while booting, then changes to green after a short period. The player will now start playing.

⚠ Important notes:

1. Do not remove the memory card out of the card slot while the device is playing, otherwise data may be deleted and / or the memory card may be damaged. Please turn off the device or disconnect from the mains before taking the SDHC memory card or USB stick out of the device.
2. For handset applications, we would recommend using mono audio files, and for stereo headphones or handsets featuring a language toggle switch, please use stereo files or 2-channel audio files. Stereo files can be converted quickly and easily using a programme such as Audacity.
3. If you have edited a playlist, please ensure that the cursor is underneath the last line of the playlist before saving. Do not move the cursor further down, make sure it is directly beneath the last line of the playlist. Where necessary, please make sure that any blank lines are deleted in order for the playlist to work properly.
4. If you want the player to play one or several files in a loop, please save the audio files onto the SD card or USB stick and delete the playlist. Alternatively, please save the files onto another data medium beforehand.
   All standard applications can also be found in the scripts folder. The player will play all audio files in alphabetical / numerical order, and will repeat the playlist again after the final file.

Other applications / uses:
The Scripts folder contains further playlists for MP3 and WAV applications. To make use of these, please swap the playlist.txt file on the top level. To view the contents of the playlist, you can open the files using a text editor where you will be able to see the differences. Please adhere to note no. 3, otherwise the player may not start to play.

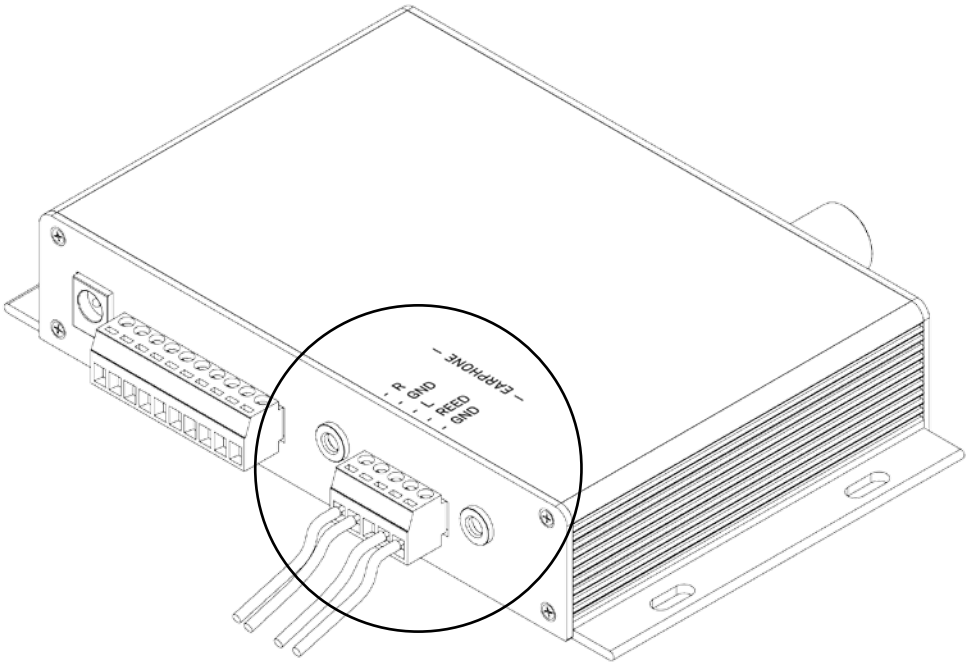
6. PIN ASSIGNMENT 10-PIN I/O PORT



Pin 0 = Ground (GND)
Pin 1 = Switch contact 1
Pin 2 = Switch contact 2
Pin 3 = Switch contact 3
Pin 4 = Switch contact 4
Pin 5 = Switch contact 5
Pin 6 = Switch contact 6
Pin 7 = Switch contact 7
Pin 8 = Switch contact 8
Pin 9 = Switch contact 9

You can connect any buttons which you wish to link with functions in the playlist. It is recommended to loop the ground (GND) from one button to the next if you wish to connect several buttons.

7. PIN ASSIGNMENT HEADPHONE JACK



Pin 1 = Audio output right
Pin 2 = Ground (GND)
Pin 3 = Audio output left
Pin 4 = Switch contact (reed contact, yellow)
Pin 5 = Ground (GND) (reed contact, green)

You can connect the audio and reed contact circuits of up to two handsets.
If two handsets are used, please ensure that the reed contacts are connected parallel in order to ensure that the circuit works. As long as one of the handsets is lifted, the player will work. If both handsets are put back, the playback will stop.

Assigning pins when using bilingual audio files:
For bilingual audio files, a USO / VIA with language-toggle-switch can be used. On the audio files the tracks of the two languages should be separated to the left and right channel.
You can connect the handset's audio cable to the terminal accordingly and switch between the languages by means of the selector switch on the handset.

8. CREATE PLAYLISTS YOURSELF

The playlists can be programmed easily even for complex requirements. The audio files can be played in a particular order or triggered by means of an external control (e.g. buttons / sensors).

If there is no playlist on the SDHC memory card, the device will play the files numerically / alphabetically continuously.

The playlist is a text file entitled **playlist.txt** and can be created using any common text editor program. You will also find an easy editor program in Windows under “Accessories”. Save the playlist as a **playlist.txt** file containing your selected audio files on a SDHC memory card or USB stick.
Important: The data storage cannot be edited on a Mac OS, i.e. on an Apple computer, as folders and hidden files are created which renders the data storage the player.

To download the list of commands and sample playlists, please visit **www.molitor-berlin.de/support**

CE

The AP 01 audio player is CE certified. Users outside the European Union are responsable to observe the local compulsory certification.

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