



User's Guide



The ADCON conforms the following standards:
EN 55022: 1998 + A1: 2000 + A2: 2003; class A
EN 55024: 1998 + A1: 2000 + A2: 2003; class A

In order for an installation of this product maintain compliance with the limits of a class A device, shielded audio cables must be used, not longer than 50 cm. Attention: This is a device of the class A and can cause interference to radio or television reception within the residential area. The user is encouraged to try to correct the interference by suitable measures.

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Marian is not liable for any damage and costs resulting from it, which are caused by improper handling or installation of the device.

Technical changes are reserved.

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Dear User,

thank you very much for your decision to purchase ADCON as high-quality ADAT converter. We wish you lots of success in working with our product.

Please consider taking 10 minutes to study this guide. Besides traditional installation and operation instructions it contains information about synchronization and operation of ADCON that will make the handling with the device easier for you.

Your ADCON provides some special characteristics. In the following you will get a short overview:

- Balanced inputs and outputs
- Individually switchable input level: -10 dBV or +4 dBu
- Additional input jacks of channels 1 and 2 on the front side

For inputs 1 and 2 on the front side:

- Microphone pre-amplifier
- Phantom power supply
- Gain Level control

1. **Scope of Supply**

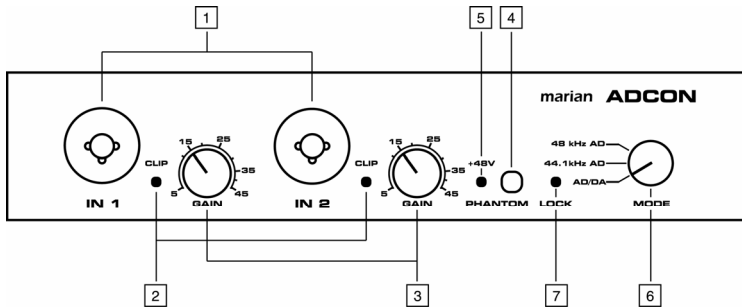
First of all, please check, whether you received the following components undamaged and complete:

- ADCON, ADAT converter
- Power supply with cable
- User's Guide

Please send back the device with possibly existing damage to the supplier only after notifying the transportation company and the sender, otherwise you will lose your claim for damages.

2. Ports and Operating Elements

2.1. Front Side



1 Analog Inputs “In 1” and “In 2”

The analog inputs on the front side are identical to the analog inputs 1 and 2 on the back side. They are especially suitable for microphones. You can insert $\frac{1}{4}$ ” TRS plugs as well as XLR plugs into the input jacks.

If there is a plug inserted in the analog input jack 1 and/or 2 on the back side, the according input on the front side is switched off.

2 “Clip” LED

The active “Clip” LED shows that the AD converter is not able to process present input signal - the signal level is too high. The LED only works if the inputs on the front side are used.

3 “Gain” Level Control

Using the level control you are able to set the level for the inputs on the front side ranging between +5 dB and +45 dB.

Please note, that the input level decreases as soon as you insert a $\frac{1}{4}$ ” plug into the front side inputs. The range of the level control decreases accordingly. You set the level in the range between -15 and +25 dB.

4

“Phantom” Switch

Using this switch you can power on/off the phantom power supply for the inputs on the front side. The activity of the phantom power supply is indicated by the “+48V” LED described in [5].

5

“+48V” LED

The “+48V” indicates that the phantom power supply for the inputs on the front side is powered on.

6

“Mode” Switch

The “Mode” switch changes the operation mode of your ADCON:

In the “48 kHz AD” position the ADCON works as clock master. The internal clock operates using 48 kHz. In this switch position the device exclusively converts the analog input signals into an ADAT output signal.

In “44.1 kHz AD” position the ADCON also works as clock master using only 44.1 kHz. In this case the analog input signals are also converted into an ADAT output signal.

In “AD/DA” position, the ADCON synchronizes to the sampling rate of the existing ADAT signal and works as clock slave. Here it converts the incoming ADAT signal into analog output signals and the analog input signals into ADAT output signal.

7

“Lock” LED

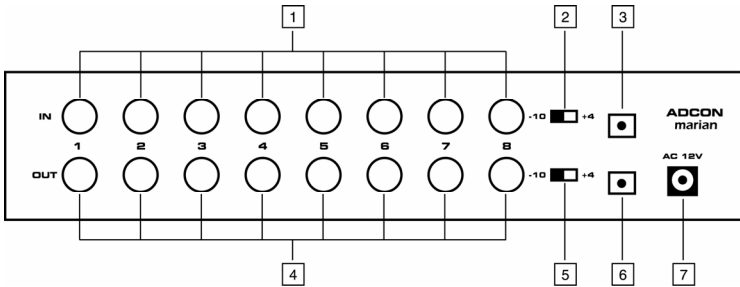
This LED illuminates if a valid signal exists in switch position “AD/DA” at the ADAT input and the ADCON synchronizes to it.

2.1.1. Using Microphones for Ports on the Front Side

If you would like to use microphones for the ports on the front side, please connect them only when the ADCON is switched off. Otherwise this may lead to interfering impulses, which could cause damage to the electronics of the ADCON, loud speakers or other devices!

Please note that the phantom power supply is only powered on, if microphones are connected which require a phantom power supply of +48 V!

2.2. Back Side



1 Analog Inputs 1-8

Devices are connected to the analog inputs using balanced cables, which are equipped at the ADCON side with ¼" TRS plugs. They can also be connected using non-balanced cables with a ¼" TS plug.

2 Level Switch for Analog Inputs

Using this switch you can switch the input level of the analog inputs between -10 dBV and +4 dBu. For information about which level is used by the device, please refer to the appropriate manual.

3 ADAT Input

A device is connected to the ADAT input using an optical cable with TOSLINK plug.

When using optical cables, please ensure that they are free of breaks and damage, because this may lead to failures! Please do not use any optical cables longer than 2 meters!

4 Analog Outputs 1-8

Devices are connected to the analog outputs using balanced cables, which are equipped at the ADCON side with ¼" TRS plug. They can also be connected using non-balanced cables with a ¼" TS plug.

The ADCON automatically recognizes whether a balanced or non-balanced cable is used and adjusts the level accordingly!

5

Level Switch for Analog Outputs

Using this switch you can set the output level of the analog outputs between -10 dBV and $+4$ dBu. For more information about the suitable level for the device to be connected, please refer to the appropriate manual.

6

ADAT Output

The connection of a device to the ADAT output is performed using an optical cable with TOSLINK plug.

7

Power Supply

Please insert the cable of the supplied mains plug in order to provide the ADCON with voltage.

3. Operation

3.1. Rack Installation

The ADCON requires 1 RU for the 19" rack installation. Please note that 15 cm will have to remain for reverse ports.

Please ensure sufficient air supply and avoid external thermal influences in order to protect the ADCON from overheat.

The ADCON has a size of only 9.5", therefore you will require an appropriate fitting kit for the installation when using the entire width of the rack. The fitting kit is available in specialized stores. For questions please contact our support.

3.2. Power Supply

Please connect the ADCON to the plug described as element [7] in section 2.2. using the provided power supply to a mains plug (230 V).

4. Technical Data

- 8 balanced analog inputs (1/4" TRS jacks)
- 8 balanced analog outputs (1/4" TRS jacks)
- 1 ADAT input (optical / TOSLINK)
- 1 ADAT output (optical / TOSLINK)
- Input impedance: 10 kOhm
- Output impedance: 600 Ohm
- Sample format : 24 Bit
- Sample rates: 44.1 kHz, 48 kHz
- Frequency response @ 44,1 kHz: 20 Hz to 20 kHz
- Frequency response @ 48 kHz: 20 Hz to 20 kHz
- Input and output level: -10 dBV; +4 dBu; individually switchable
- Signal-to-noise ratio AD: 104 dB(A)
- Signal-to-noise ratio DA: 114 dB(A)
- Rattle factor: 0.005%
- Power supply: 10 W
- All inputs with 6dB headroom
- Dimensions (WxHxD) in mm: 218x42x125

On the front side:

- 2 balanced analog inputs on the front side (combination jack for XLR plugs and 1/4" TRS plugs)
- Input impedance 1/4" jack: 20 kOhm
- Input impedance XLR jack: 2 kOhm
- Level adjustment: +5 dB to +45 dB (XLR), -15 dB to +25 dB (1/4" jack)
- Phantom supply: 48 V

5. Service and Support

Should you have any questions or problems during the installation or operation of your ADCON please perform the following steps:

1. Have a look in our Audio Guide, which has been published on the internet, whether you can find a solution to your problem. Please refer to the following site:

www.marian.de

2. If any questions still remain, you can contact us via the internet using our support form at:

www.marian.de/en/support

or give us a phone call:

+49-(0)341-589 32 22
