

KNX Multiroom amplifier

Art. no.: MR-AMP4.4

MR-AMP4.8

Technical manual

Safety instructions

Electrical equipment must only be installed and assembled by qualified electricians.

Failure to comply with these instructions may result in damage to the device, fire or other hazards.

These instructions are a component part of the product and must remain with the end customer.

Structure of the device

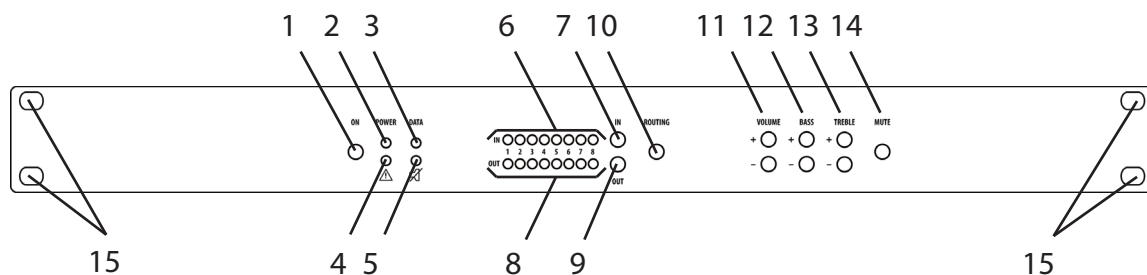


Fig.1.: Front view

- 1: On/Off button
- 2: Green LED, Power
- 3: Yellow LED, Data
- 4: Red LED, Error
- 5: Yellow LED, Zones silent
- 6: 8 blue LEDs, IN
- 7: IN button
- 8: 8 blue LEDs, OUT
- 9: OUT button
- 10: Routing
- 11: Volume +/-
- 12: Bass +/-
- 13: Treble +/-
- 14: Mute
- 15: Fastening, 19" rack

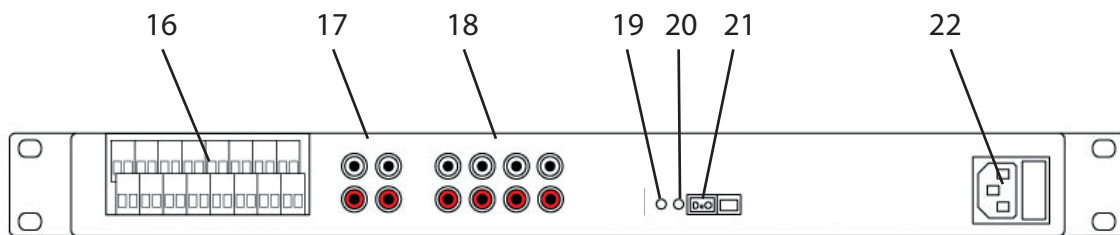


Fig.2.: Rear view

- 16: Loudspeaker connection terminals
- 17: Audio OUT (LF)
- 18: Audio IN (LF)
- 19: Prog button KNX
- 20: Prog LED KNX
- 21: KNX connection
- 22: Power supply

Function

System information

This device is a product of the KNX system and conforms to the KNX directives. Detailed knowledge obtained through KNX training is a prerequisite for understanding.

The device function is software-dependent. Detailed information about software versions and the respective function scope, as well as the software itself can be found in the manufacturer's product database. The device is planned, installed and commissioned by means of KNX-certified software. The product database and the technical descriptions can be found on our website at all times.

Correct use

- Sound exposure of various building zones
- Fixed installation in interior areas
- For mounting in 19" rack systems IEC 60297

Product characteristics

- Operation via KNX or via buttons on the front of the device
- Audio matrix with integrated amplifier levels
- Independent sound exposure of 4/8 zones
- 4 Stereo inputs (LF signals)
- 4/8 loudspeaker outputs
- 2 Stereo outputs (LF signals)
- Expandable due to modular structure
- Integrated bus coupling
- Status indicator

Operation on the device and settings

Switching the device on and off

The device is connected and ready for operation.

- Press the On button (1)
Green LED, Power illuminated
The device is switched on
- Press the On button (1)
Power LED is off
The device is in Standby mode

Assigning the input source of a zone

Select the input signal.

- Press the IN button (7) until the desired input has been selected.
The LED (6) of the selected input flashes.

Select the target zone.

- Press the OUT button (9) until the desired zone has been selected.
The LED (8) of the selected zone flashes.

Confirm the assignment of the input signal/zone.

- Press the Routing button (10).
The assignment is routed.

i Pressing the Routing button again releases the zone. The assignment is removed.

Setting the volume of the zone

- Select the zone by pressing the OUT button (9) until the LED (8) of the appropriate zone flashes.
- Use the VOLUME+ and VOLUME- (11) buttons to set the volume.
The volume is displayed using the IN LED row (6).



Setting the sound control of the zone (bass)

- Select the zone by pressing the OUT button (9) until the LED (8) of the appropriate zone flashes.
- Use the BASS+ and BASS- buttons (12) to set the bass.
The value is displayed using the IN LED row (6).

Setting the sound control of the zone (treble)

- Select the zone by pressing the OUT button, until the LED of the appropriate zone flashes.
- Use the TREBLE+ and TREBLE- buttons (13) to set the trebles.
The value is displayed using the IN LED row (6).

Muting all zones

- Press the Mute button (5).
The Status LED  (5) lights up.
All the zones are switched off.
- Pressing it again switches all the zones on again.
The Status LED  (5) is off.

Information for electrically-skilled persons

Installation and electrical connection



DANGER!

Electric shock from touching live parts in the installation environment.

An electric shock can be fatal.

Before working on the device, disconnect the power and cover live parts in the area!

Installing and connecting the device

The device is mounted in a 19" rack. A free SCHUKO® socket is required for mounting.

- Connect the bus cable.
 - Connect the LF inputs and loudspeaker outputs.
 - Connect the power supply cable.
- i The Programming button and LED and the interfaces are only accessible from the rear side of the device. If possible, load the physical address and application software into the device before final mounting.

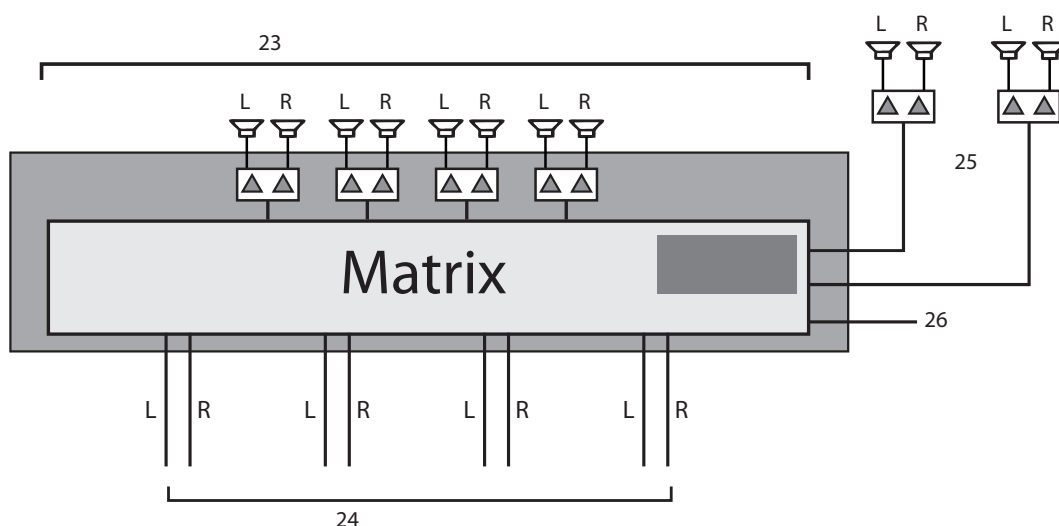


Fig.3.: Connection diagram, Multiroom amplifier 4.4

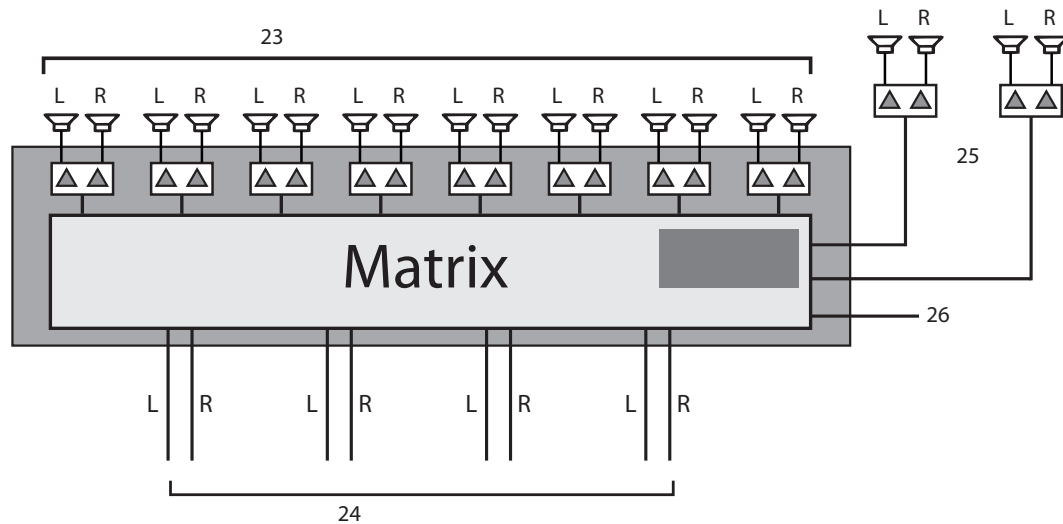


Fig.4.: Connection diagram, Multiroom amplifier 4.8

- 23: Loudspeaker outputs for zones 1-4/8
- 24: LF inputs 1-4
- 25: LF outputs LF1 for Zone1, LF2 for Zone2,
- 26: KNX connection

Connections

Loudspeaker connection

Only loudspeakers with the following properties may be connected to the Multiroom amplifier:

Load capacity: min. 30 W

Impedance: 8 Ohms

The loudspeaker cables are connected using screw terminals. These screw terminals allow the connection of cables of up to 2.5 mm².

Audio outputs (LF)

In addition to the amplifier outputs, unamplified audio signals are output. Such signals can then be connected to external amplifiers. Two such audio outputs are available:

Audio signal of Zone 1 (Stereo)

Audio signal of Zone 2 (Stereo)

These LF signals are connected to the same KNX communications objects as the amplifier outputs.

Audio inputs (LF)

Audio outputs of construction-side players are connected via the 4 audio LF inputs (stereo cinch sockets).

These audio input signals are then available to all the integrated amplifier levels (up to 8 amplifiers).

KNX Port

Connection to the KNX bus system is made via a screw terminal.

Power supply

The power is supplied via a kettle coupling.

LED feedback

The front panel of the Multiroom amplifier has LEDs, which are grouped as follows:

Channel LEDs:

8 x LED Input
8 x LED Output

Status LEDs:

1 x Power
1 x Data
1 x Warning (Symbol "⚠")
1 x Mute (Symbol "Struck-through loudspeaker")

Function	POWER LED	Warning LED	Data LED	Mute LED	OUTPUT LEDs
Boot sequence completed	On	x	x	x	x
Overheat alarm	x	On	x	x	x
KNX data traffic	x	x	Flashing	x	x
Saving data	Flashing	x	x	x	x
Master Mute On	x	x	x	On	x
Master Mute Off	x	x	x	Off	x

Start-up

Loading the address and application software

- Switch on the mains voltage.
- Switch on the bus voltage.
- Assign the physical address and note it down on the device label.
- Start up the device with start-up software.
- Load the application software into the device.

i Programming is also possible without the mains voltage.

Appendix

Technical data

Articles	MR-AMP4.4	MR-AMP4.8
External power supply		
Rate voltage	AC 110...230 V~	AC 110...230 V~
Rated frequency	50/60 Hz	50/60 Hz
Fuse		
- Rear side of the device	T1.0A	T2.0A
- Top side of the device	T10A	T10A
Connection	Kettle coupling IEC 60320-C13	Kettle coupling IEC 60320-C13
Power draw		
110 V	approx. 181 W	approx. 397 W
230 V	approx. 177 W	approx. 391 W
The power draw relates to medium to high volumes in all 8 stereo zones.		
The power draw may increase in the case of particularly bass-heavy audio contents and very loud volumes.		
Standby 110 V	approx. 5 W	approx. 5.5 W
Standby 230 V	approx. 6 W	approx. 6 W
Ambient temperature	0 ... 45 °C	0 ... 45 °C
Number of audio inputs (LF)	4	4
Number of audio outputs (LF)	2	2
LF connection type	Cinch sockets	Cinch sockets
Number of loudspeaker outputs	4	8
Loudspeaker		
Load capacity:	min. 30 W	min. 30 W
Impedance:	8 Ohms	8 Ohms
Loudspeaker connection type	Screw terminal	Screw terminal
Fine-wire without wire end sleeve		0.75...2.5 mm ² 0.75...2.5 mm ²
KNX		
KNX Medium	TP1	TP1
Start-up mode	S-Mode	S-Mode
KNX rated voltage	DC 21 ... 32 V SELV	DC 21 ... 32 V SELV
Bus connection	Hartmann/PTR BU 9502	Hartmann/PTR BU 9502
KNX current consumption	max. 9 mA	max. 9 mA
Dimensions HxWxD	483 x 44.5 x 230 mm	483 x 44.5 x 230 mm
Weight	3.0 kg	3.3 kg

Help in case of problems

Device switches off and can only be switched back on after a long time. LED  is lit up.

Electronic overtemperature protection has tripped.

Reduce the connected load.

Check the installation situation.

Warranty

We reserve the right to modify technical and formal characteristics of the product insofar as this supports technical progress.

Our products are under guarantee within the scope of the statutory provisions.

Please send the device, post-paid, along with a description of the error, to our Service Centre.

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