

AUDIO  
MULTIROOM

## “Music in all rooms!”

- Audio-Multiroomsystems for e.g. home residentials, restaurants, doctor's practice, shops, showrooms...
- *EIB* -solution available



Sound Solutions

## >>> Music in all rooms

Sound Solutions from WHD



## When talking of multiroom...



...we are the right partners. WHD is a middle-sized company situated in the South of Germany and is already working in this special field for more than 75 years. Our products are being used with great success worldwide. Our systems for controlling, adjusting and distributing music are nearly unique as they are fitting to the switch boxes of the most famous switch manufacturers like e.g. Berker, Busch-Jaeger, GIRA, JUNG, Merten or PEHA and therefore can easily be integrated to their special switch box design.

We have the solution for any project from the lowcost up to the full digital audio multiroom system. With the **EIB** controlled audio equipment integrated to the EIB Standard Bus System the user can adjust music, lights, blinds, heating etc. – all through the same panels.

Apart from those multiroom systems WHD is offering a full range of speakers – from the design wall speaker up to the high end ceiling speaker as well as weatherproof system – all lines together mean the full solution for the end user.



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>> Detailed information of our multiroom systems and speakers please take from our website [www.whd.de](http://www.whd.de)

## You need, we offer...

### Your requirements:



#### CENTRALIZED SERVICING OF:

· Volume Control  
by means of a HiFi-amplifier for all rooms in one  
*Recommendation:* **NVÜ 100** (page 4)  
...by a HiFi-amplifier



#### CENTRALIZED SERVICING OF:

· Volume Control, On/Off  
· Source (A/B)  
All functions for four rooms independently adjustable.  
*Recommendation:* **SSC 430** (page 5) Audio controller  
for four rooms in stereo



#### DE-CENTRALIZED SERVICING OF:

· Volume Control, On/Off  
All functions adjustable in each room.  
*Recommendation:* **AMP-Serie** (page 6) ...consisting of Pre-/Poweramplifier fitting to switch boxes and suitable for most of the manufacturers' switch ranges



#### DE-CENTRALIZED SERVICING OF:

· Volume Control, On/Off, Tone control  
· Source Selection (CD, DVD, Tuner...)  
All functions in each room adjustable through **EIB** (European Installation Bus).  
*Recommendation:* **EIB-Audiosystem** (page 7)  
...consisting of Preamplifier Preamp 800, Power Amplifier AMP 10 DC HS and Audio Actuator AM 840



#### DE-CENTRALIZED SERVICING OF:

· Volume Control, On/Off, Tone control  
· Source Selection (CD, DVD, Tuner...)  
· Source operation (e.g. selection of a Radio Station – or a Track of a CD)  
All functions in each room adjustable.  
*Recommendation:* **Digital Audio Multiroomsystem DAM 6000** (page 8)

**SUITABLE SPEAKERS SEE PAGE 9**

## >>> NVÜ 100

Impedance transformer for connection of a lot of speakers to a HiFi-Amplifier.



### Functions

**Centralized** Volume Control by a HiFi-Amplifier for all rooms in one

### Requirements – can be combined with...

- HiFi-Amplifier (for stereo operation two NVÜ100 are necessary)
- Connection to each room by loudspeaker cable (also Bus wiring – from room to room – possible)

### Features

- Max. Power = 100 W
- For example 100 W-Amplifier: In this special case ten 4 ohms speakers can be connected to the terminal marked "1/10." Using 8 ohms speakers the quantity will be doubled

### Technical Datas

- Power: 100 W
- Dimensions: 152 x 84 x 116 mm
- 6 different steps of Volume

### Accessories



## LR 15

**Mono/stereo Volume Control fitting to most available switch ranges. Can be combined with NVÜ 100 and SSC 430.**

### Functions

**De-centralized** steeplessly adjustable Volume Control

### Requirements

- HiFi-Amplifier with NVÜ 100 or SSC 430
- Connection by loudspeaker cable from amplifier via switch box to loudspeaker

### Features

- Max. quantity of speakers – LR 15 Mono: 1 x 4 Ohm, 2 x 8 Ohm, 5 x 20 Ohm (LR 15 stereo double in quantity)
- Max. Power: 15 W

### Technical Datas

- Rated Power: 15 W Mono or Stereo
- Operation: by potentiometer
- Depth: 49/69 mm (Mono/Stereo)
- Fitting to most available switch ranges together with deep size switch boxes

## >>> SSC 430

Audiocontroller for four rooms in Stereo.



### Functions

**Centralized** Servicing for each individual room:

- Volume Control, On/Off
- Source A or B

### Requirements – can be combined with...

- HiFi-Amplifier (for function Source A/B a second amplifier is necessary)
- Connection to each room by two speaker cables

### Features

- max. 4 rooms in Stereo
- max. quantity of speakers for each room: 4 x 4 Ohm, 8 x 8 Ohm, 20 x 20 Ohm

### Technical Datas

- Input: 2 x 120 W
- Dimensions: 432 x 60 x 170 mm
- Colour: black and silver

### Accessories



## LR 20

**Mono Volume Control, fitting to most available switch ranges. Can be combined with NVÜ 100 and SSC 430.**

### Functions

**De-centralized** adjustable volume control with 0 position.

### Requirements

- HiFi-Amplifier with NVÜ 100 or SSC 430
- Connection by loudspeaker cable from amplifier via switch box to loudspeaker

### Features

- Max. quantity of speakers: 1 x 4 Ohm, 2 x 8 Ohm, 5 x 20 Ohm
- Max. Power 20 W

### Technical Datas

- Power Rating: 20 W Mono
- Operation: Resonance network with rotary switch (without stopper)
- Depth: 46 mm
- Fitting to most available switch ranges together with deep size switch boxes



## >>> AMP Serie

Amplifier fitting to most available switch ranges.



Preamp UP



AMP 10

### Functions

**Centralized**, steeplessly Volume Control (separately for microphone and line source)

- On-/Off

**De-centralized**, steeplessly Volume Control

- On-/Off

### Requirements – can be combined with...

- 24V-Power Supply
- Cable for Power Supply: min. 2 x 0,5 mm<sup>2</sup>, max. 2 x 1,5 mm<sup>2</sup>
- Cable from Preamplifier to Amplifier: shielded data line e.g. LIYCY 2 x 0,14 mm<sup>2</sup>
- Cable to the Speaker max. 2 x 0,75 mm<sup>2</sup>

### Features

- Max. 50 x AMP 10 for one Preamp only
- Max. quantity of speakers per AMP 10: 1 x 4 Ohm, 2 x 8 Ohm, 5 x 20 Ohm

### Technical Datas

- Output Power: 10 W/4 Ohm
- Power Supply: 24VDC (Preamp: 0,025A, AMP 10: 0,77A max.)
- Depth: 45 mm (Preamp), 59 mm (AMP 10). fitting to most available switch ranges together with deep size switch boxes

## Accessories AMP-Serie



## PRO

**Program Selector Switch fitting to most available switch ranges.**

### Functions

**De-centralized** 6 different sources selectable

### Requirements

- 8 channel Preamplifier Preamp 800
- Star wiring to the rooms by Cat7 cable
- Power Amplifier AMP 10 per room

### Features

- 6 sources in max. 50 rooms

### Technical Datas

- Depth: 46 mm
- Fitting to most available switch ranges together with deep size switch boxes

## >>> AM 840

EIB -Audioactuator

EIB -controlled Audio-System



### Functions

**De-centralized** Servicing of:

- Volume Control, On/Off
- Source Selection
- Tone Control (Bass, Mid, Treble)
- Microphone paging

### Requirements – can be combined with...

- Preamplifier PREAMP 800
- Amplifier AMP DC HS
- 24V-Power Supply
- Star wiring by loudspeaker cable
- EIB-System

### Features

- 4 Stereo- or 8 Mono-Sources
- 2 Stereo- or 4 Monozones per Audio Actuator. Depending on quantity of rooms cascading possible.

### Technical Datas

- Power Supply: 24VDC, 180 mA
- Dimensions: 200 x 89 x 60 mm



Additional is necessary for EIB-system:



## AMP 10 DC HS

**Amplifier for mounting into control cabinet**

### Functions

**De-centralized** steeplessly adjustable Volume Control via 0-10V control input e.g. through EIB-Audio System

### Requirements

- EIB-Audio Actuator AM 840
- 24V-Power Supply
- Star wiring into the rooms by loudspeaker cable max. 2 x 0,75 mm<sup>2</sup>

### Features

- Max. 12 x AMP 10 DC HS connectable to one zone output of AM 840
- Max. quantity of speakers per AMP 10 DC HS: 1 x 4 Ohm, 2 x 8 Ohm, 5 x 20 Ohm

### Technical Datas

- Output Power: 10 W/4 Ohm
- Power Supply: 24VDC/0,77A max.
- Depth: 46 mm

An additional amplifier in stereo – more powerful – “AMP 250” fitting to control cabinet and powered speakers available.

# >>> DAM 6000

Digital Audio-Multiroomsystem



## Functions

**De-centralized** Servicing of:

- Volume Control
- On/Off
- Source Selection
- Tone Control (Bass, Mid, Treble)
- Control of the sources (Play, Skip...)
- Every Function can be controlled by Keypad or Remote Control

## Requirements – can be combined with...

- Cat5-wiring (Star or Bus)
- Star wiring – switch necessary (Layer2, 100 BaseTX)

## Features

- 6 sources connectable to the central unit
- 4 sources connectable within the rooms
- 254 independent zones possible

## Technical Datas

Alle datas are being distributed in digital (CD-quality) without loss. The use of an existing IT-network possible. Computer-, telephone-... and music can be transmitted via the same switch. Sources can be connected to the central unit as well as in the rooms and being controlled from each room.



# Speakers fitting to our Multiroom-systems...

## Your requirements:



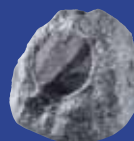
### HIFI IN-WALL SPEAKERS

In-Wall speakers for ceiling and wall. Inconspicuous installation.



### DESIGN-SPEAKERS

Design-Speakers for onwall installation.



### SPEAKERS FOR SPECIAL APPLICATION

e.g. for outdoor use, wet rooms...

>>> Detailed information of our multiroom systems and speakers please take from our website [www.whd.de](http://www.whd.de)

## >>> Lautsprecher

Passende Lautsprecher für die Multiroomsysteme

## >>> Loudspeaker

Speakers fitting to our Multiroom-Systems

### > WL 6/2-8



#### **Beschreibung** *Description*

2-Wege HiFi-Designwandlautsprecher. Sehr flache, abgerundete Bauform. Optional mit Lautstärkeregelung (Bestellzusatz -Rel), Programmwahl (-PRO), Farben: weiß, silber  
 2-way HiFi-Designwallspeaker: The attractive shape is the very latest fashion. Also available with Volume Control (order-no. -Rel, Program Selector (-PRO). Colours: white, silver

#### **Technische Daten** *Technical Specifications*

Bestückung mit hochwertigem 2-Wege-System  
 Equipped with a very powerful 2-way system  
 Nennleistung/Rated Output 50 W  
 Impedanz/Impedance 8 Ohm  
 Schalldruckpegel/SPL (1W/1m) 86 dB  
 Übertragungsbereich/Frequenzrange (-3dB) 100-20.000 Hz  
 Abmessungen/Dimensions 210 x 312 x 85 mm

### > WL 8/2-8



#### **Beschreibung** *Description*

2-Wege HiFi-Designwandlautsprecher aus Metall, sehr flache Bauform, gewölbte Blende mit modernen quadratischen Ausschnitten, optional mit Lautstärkeregelung (Bestellzusatz -Rel), Farben: weiß, silber  
 2-way HiFi-Designwallspeaker made of metal. The bowed cover is fitted with modern square sections. Also available with Volume Control (order-no. -Rel). Colours: white, silver

#### **Technische Daten** *Technical Specifications*

Bestückung mit hochwertigem 102 mm 2-Wege-Coaxchassis  
 Equipped with a very powerful 102 mm 2-way coaxial chassis  
 Nennleistung/Rated Output 25 W  
 Impedanz/Impedance 8 Ohm  
 Schalldruckpegel/SPL (1W/1m) 85 dB  
 Übertragungsbereich/Frequenzrange (-3dB) 120-20.000 Hz  
 Abmessungen/Dimensions 280 x 280 x 67 mm

### > WL 10/2-8

ohne Abbildung/no picture

#### **Beschreibung** *Description*

2-Wege HiFi-Designwandlautsprecher aus Metall, Optional mit Lautstärkeregelung (Bestellzusatz -Rel), mit eingebauter LED/RGB-lichttechnik (L-LED). Dadurch kann die Wunschfarbe der Lichtelemente fixiert oder auf Farbwechsel eingestellt werden. Farben: weiß (nicht-LED), silber  
 2-way HiFi-Designwallspeaker made of metal. Also available with Volume Control (order-no. -Rel), innovative LED/RGB lighting technology (L-LED). Colours: white (not-LED), silver

#### **Technische Daten** *Technical Specifications*

Bestückung mit hochwertigem 2-Wege-System  
 Equipped with a very powerful 2-way system  
 dome tweeter  
 Nennleistung/Rated Output 25 W  
 Impedanz/Impedance 8 Ohm  
 Schalldruckpegel/SPL (1W/1m) 86 dB  
 Übertragungsbereich/Frequenzrange (-3dB) 90-21.000 Hz  
 Abmessungen/Dimensions 320 x 340 x 88 mm



### > WL 10/2-8 LED

### > Micro 2-T6



#### **Beschreibung** *Description*

2-Wege HiFi-Box, die trotz ihrer extrem kleinen Abmessungen durch eine erstaunliche Bandbreite sowie neutrale Wiedergabe besticht. Farben: weiß, schwarz, silber.  
 Zubehör: Subwoofer SUB 200  
 2-way HiFi-Box despite of its very small dimensions it impresses with an extraordinary bandwidth and a linear reproduction. Colours: white, black, silver. Accessories: Subwoofer SUB 200

#### **Technische Daten** *Technical Specifications*

Bestückung mit hochwertigem 70 mm Tief-Mitteltoner und 13 mm Hochtonklotze  
 Equipped with a powerful 70 mm mid-range/bass speaker and a 13 mm dome tweeter  
 Nennleistung/Rated Output 10 W  
 Impedanz/Impedance 8 Ohm  
 Schalldruckpegel/SPL (1W/1m) 86 dB  
 Übertragungsbereich/Frequenzrange (-3dB) 150-20.000 Hz  
 Abmessungen/Dimensions 94,5 x 140,5 x 100,5 mm

## »»» Lautsprecher

Passende Lautsprecher für die Multiroomsysteme

## »»» Loudspeaker

Speakers fitting to our Multiroom-Systems

### »»» KEL-8

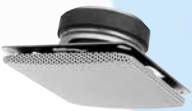
#### **Beschreibung** *Description*

Einbaulautsprecher passend in alle gängigen Schalterprogramme. Farben: weiß, anthrazit, alu  
*Speaker fitting to most available switch ranges. Colours: white, anthrazit, silver*

#### **Technische Daten** *Technical Specifications*

Bestückung mit hochwertigem 50 mm Breitbandchassis  
*Equipped with a powerful 50 mm full-range chassis*  
Nennleistung/Rated Output 3 W  
Impedanz/Impedance 8, 20 Ohm  
Schalldruckpegel/SPL (1W/1 m) 83 dB  
Übertragungsbereich/Frequ.range (-3dB) 150-20.000 Hz  
Einbautiefe/Depth 26 mm

*Kompatibel mit allen gängigen Schalterprogrammen und passend in Standard-Unterputzboxen.  
Fitting to most available switch ranges together with normal size switch boxes.*



### »»» UP 6-4

#### **Beschreibung** *Description*

Einbaulautsprecher zur Kombination mit Halogenspots, optional als Quadratische Bauform (Bestellzusatz -Q), Farben: weiß, schwarz, chrom, gold.  
Auch lieferbar mit Subwoofer UP 26 SUB  
*In-Wall Speaker: The design and size corresponds to the available Halogen spotlight. Also available as squared version (order-no. -Q), colours: white, black, chrom, gold.*  
*Accessories: Subwoofer UP 26 SUB*

#### **Technische Daten** *Technical Specifications*

Bestückung mit hochwertigem 66 mm Breitbandchassis  
*Equipped with a powerful 66 mm full-range chassis*  
Nennleistung/Rated Output 6 W  
Impedanz/Impedance 4, 20 Ohm  
Schalldruckpegel/SPL (1W/1 m) 86 dB  
Übertragungsbereich/Frequ.range (-3dB) 170-20.000 Hz  
Abmessungen/Dimensions Ø 100 x 42 mm



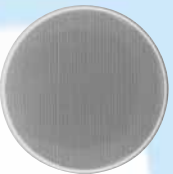
### »»» UP 14/2-4

#### **Beschreibung** *Description*

2-Wege Einbaulautsprecher, optional als weiterfestes/Feuhtraum geeignete Version (Bestellzusatz -Marine), Stereoverision (Bestellzusatz -Stere), Quadratische Bauform (Bestellzusatz -Q), Farben: weiß, silber  
*2-way In-Wall speaker, also available as weather proofed version (order-no. -Marine), Stereoverision (-Stere), squared version (-Q), Colours: white, silver*

#### **Technische Daten** *Technical Specifications*

Bestückung mit hochwertigem 166 mm 2-Wege Coax-System  
*Equipped with a very powerful 166 mm 2-way coaxchassis*  
Nennleistung/Rated Output 40 W  
Impedanz/Impedance 4 Ohm  
Schalldruckpegel/SPL (1W/1 m) 89 dB  
Übertragungsbereich/Frequ.range (-3dB) 100-20.000 Hz  
Abmessungen/Dimensions Ø 196 x 71 mm



### »»» UP 40-8

#### **Beschreibung** *Description*

2-Wege Einbaulautsprecher, Farbe: weiß  
*2-way In-Wall speaker, colour: white*

#### **Technische Daten** *Technical Specifications*

Bestückung mit hochwertigem 175 mm Tieftöner und 26 mm Hochtonkalotte  
*Equipped with a very powerful 175 mm woofer and a 26 mm dome tweeter*  
Nennleistung/Rated Output 40 W  
Impedanz/Impedance 8 Ohm  
Schalldruckpegel/SPL (1W/1 m) 86 dB  
Übertragungsbereich/Frequ.range (-3dB) 80-18.000 Hz  
Abmessungen/Dimensions 307 x 220 x 79 mm



# »»» Lautsprecher

Passende Lautsprecher für die Multiroomsysteme

# »»» Loudspeaker

Speakers fitting to our Multiroom-Systems

## » Mini 4-8

### Beschreibung Description

2-Wege HiF-Box, optional als wetterfeste/  
Feuchtraum geeignete Version (Bestellzusatz  
-WP), Farben: weiß, schwarz, silber. Zubehör:  
U-Bügel: WBMini, Kugelgelenkhalterung:  
WHMMini, Subwoofer: SUB 200  
2-way HiF-Box, also available as weather proofed  
version (order-tno. -WP, Colours: white, black,  
silver. Accessories: u-type bracket: WBMMini, ball  
joint mounting: WHMMini, subwoofer: SUB 200

### Technische Daten Technical Specifications

Bestückung mit hochwertigem 100 mm Tieftöner und 10 mm  
Hochtonkalotte  
Equipped with a very powerful 100 mm woofer and a 10 mm  
dome tweeter  
Nennleistung/Rated Output 50 W  
Impedanz/Impedance 8 Ohm  
Schalldruckpegel/SPL (1W/1m) 88 dB  
Übertragungsbereich/Frequ. range (-3dB) 100-20.000 Hz  
Abmessungen/Dimensions 150 x 220 x 167 mm



## » SL 25/2-T 25

### Beschreibung Description

2-Wege Steinlautsprecher für Feuchträume  
und Außenbereiche geeignet, Farben: granit-  
grau, granitrot  
2-way rock speaker, suitable for in- and out-  
doors. Colours: grey, red

### Technische Daten Technical Specifications

Bestückung mit hochwertigem 166 mm 2-Wege Coax-System,  
alle Teile aus wetterfestem Material  
Equipped with a very powerful 166 mm 2-way coaxspeaker,  
all parts weather proof  
Nennleistung/Rated Output 25 W  
Impedanz/Impedance 4 Ohm  
Schalldruckpegel/SPL (1W/1m) 85 dB  
Übertragungsbereich/Frequ. range (-3dB) 80-20.000 Hz  
Abmessungen/Dimensions 270 x 240 x 310 mm



## » Lautsprecher mit eingebautem Verstärker AMP 10 DC

## » Speakers equipped with power amplifier AMP 10 DC

### Beschreibung Description

Ab Lager sind folgende Aktivlautsprecher  
erhältlich:

The following powered speakers can be  
supplied ex stock:

- WL 6/2-AMP
- WL 10/2 (LED)-AMP
- UP 14/2-AMP ...

Weitere Aktivlautsprecher auf Anfrage  
Further powered speakers on request

### Technische Daten Technical Specifications

Nennleistung/Power

10 W/4 Ohm  
(5 W/8 Ohm)

Lautstärkeregelung via Gleichspannung  
von 0-10V (z.B. mittels **EIA**) möglich  
Volume Control via 0-10 V voltage e.g.  
through **EIA** possible  
Betriebsspannung/Power Supply 24VDC  
Stromaufnahme/Current consumption 0,77 A max.



Weitere Informationen erhalten Sie unter [www.whd.de](http://www.whd.de)

For further information please see our website [www.whd.de](http://www.whd.de)