## DAP 255 Streaming High Definition Digital Audio-Player

#### Document Version 3.0 June, 2014 Technical Support: support@whd.de

WHL



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DAP 255 111-255-00-001-01



#### Introduction

DAP255 plays all your network music in HD quality staying design wise, powerful and affordable. Not only listening experience is made beautiful with DAP255, but the domestic visual experience as well.

DAP255 wants people to distribute their 'audio-money' for real quality and sound experience not investing it into the office computer functionality!! DAP255 takes care of the flawless stream, the perfect timing needed to get so deep into your digital recordings, you'll completely rediscover everything you've ever heard in digital.

DAP255 allows to share your media library throughout all devices in your home. UPnP, DLNA, Airplay, FTP support, 24/96 and lossless formats support, 40W/ch. amp, KNXnet/IP onboard are just few of features characterizing SP.

#### Support

Any fault device should be returned to Wilhelm Huber + Söhne GmbH + Co. KG. For any further technical questions concerning the product please contact our support, available **Mo-Fr 09:00 – 17:00 GMT + 01:00**.

Please write to technik@whd.de or call +49 (0) 74 20 / 8 89-0.

Firmware updates will be available periodically.

#### Safety & security

#### Important information

In addition to this guidance please comply with your own country-specific safety & security regulations.

#### Improper handling may void warranty.

#### How to use this guide:

Read these instructions carefully before use and use this product only in accordance with the instructions listed here.

#### Signs & symbols used

This sign warns of the danger of injury and property damage.



This sign warns of injury arising from electricity.



This sign warns of injury and/or explosion.



This symbol refers to additional information.

#### Signal words and their meaning

**Danger:** Potential severe physical damage and acute danger. **Warning:** Potential electrical shock physical damage and severe property damage. **Caution:** Potential fire hazard, physical damage or property damage as a result thereof. **Attention:** Advisory notes only.



### Contents

1. DAP255 SPECIFICATIONS	4
2. CONNECTIONS	5
3. QUICK STARTUP	6
4. DAP255 WEB-BASED CONFIGURATION	7
4.1. AUDIO PLAYER - INTEGRATED AUDIO-CONTROLLER, PLAYER	9
4.1.1. Update Database	10
4.1.2. Sorting	10
4.1.3. File System	11
4.1.4. Search	12
4.1.5. Volume Control	12
4.1.6. Top Control bar	13
4.1.7. Current playlist – play, save, delete	14
4.1.8. Favourites	16
4.1.9. Playlists	16
4.1.10. Internet Radio	17
4.1.11. More than one player in network	18
4.2. QUICK SETUP	19
4.2.1. Quick Setup	19
4.2.2. Audio Settings	19
4.2.3. Services	20
4.2.4. Tools	20
4.3. NETWORK AND KNX SPEZIFIC RELATED CONFIGURATION	21
4.3.1. System Configuration	21
4.3.2. Network Configuration	23
4.3.3. FTP Server, DLNA Configuration	25
4.3.4. KNX related configuration	26
4.3.5. Mapping to KNX group addresses	27
4.3.6. Local FTP Server	28
4.3.7. System Monitoring	28
4.3.8. System Status	29
5. STREAM MUSIC FROM APPLE DEVICE OVER AIRPLAY PROTOCOL	31
6. MPAD APPLICATION USAGE NOTES (IPAD)	31
6.1. SETTINGS	31
6.2. CONNECTIONS	32
6.3. PLAYLISTS	33
6.4. SORT BY ARTIST / ALBUM / GENRE	34
6.5. INTERNET RADIO	35
7. MPOD APPLICATION USAGE NOTES (IPOD, IPHONE)	35
8. DISPOSAL	37
9. DECLARATION OF CONFOMITY	37
10. NAME AND ADDRESS OF THE MANUFACTURER	37

#### **DAP255 Specifications**

#### Application

Music integration in BMS, Multi-Room, controlling of music database files with smart phones or touch displays.

#### Standards

EMC: EN61000-6-1, EN61000-6-3

#### **Specifications DAP 255**



VHI

Power Supply:	7-36V DC	
Power consumption:	1.2W / Idle Mode	
Connectivity:	10BaseT/100BaseTX 1	1
,	USB 2.0	2
	0-10V input	1, for external volume
	, i	control, clamp
		(configurable: off, 0-5V, 1-
		10V, 0-10V)
	Stereo speaker OUT	1
Media sorage	32GB microSD	On board
Connections	KNX BUS:	KNXnet/IP over Ethernet
	SVG:	clamp,
		1.5mm2 / max. 8A
	IO:	clamp, 1.5mm2
	Stereo speaker OUT	clamp
Amplifier	Music Power	2 x 55W
·	THD+N	0.07%
	SNR	102 dB
Control	LED	1 - CPU Activity
		1 - Status
Audio	Audio Formates:	MP3, WAV, AAC, WMA,
		FLAC, lossless FLAC
		96/24, 24/192
	Protocols	DLNA, UPnP, AirPlay,
		FTP, HTTP, KNXnet/IP
	Sampling Frequencies	32, 44, 48, 88, 96, 192
		kHz
	Resolutions	16, 20, 24 bit
Housing:	Material:	plastic
	Color:	grey
	Dimensions:	70(w)x90(h)x51(l) mm 4 TE
Operating Teperature::	-5C +45C	
Storage Temperatur:	-25C +55C	
Weight:	300g	
Warranty:	2 yrs	

# WHD

### 2. Connections



#### **Upper Side**

**ETH** – LAN Interface / Connection to Ethernet network **USB** – 2 x USB Interfaces / Conntction to ext. Flash (music playback) or ext. WiFi **Ir-Control** - 3,5mm Stereo jack for external IR control sensor **Reset** - Reset-button for network setup.

#### Note:

Pressing **Reset-button** > 10 sec., the DAP255 acknowledges a temporarily static IP-Address 192.168.0.10 with netmask: 255.255.255.0.

Pressing **Reset-button** again > 10 sec., the DAP255 defaults to factory settings.

#### **Factory Settings:**

IP setup DHCP, Host Name - dap255, AirPlay on, DLNA on, all file directories and user settings deleted.

	Ch	າ1	Cł	12	Sl	JB	24	V	Βl	JT	[O]	١S	0	_	
Lower side	+	-	+	-	1	2	+	-	1	2	3	4	ß	A.I	+5V

Ch1 - stereo loudspeaker output (left)
Ch2 - stereo loudspeaker output (right)
SUB -Subwoofer Out (clamps: 1 ... (-), 2 ... (+))
+24V - Power Supply
BUTTONS - configurable binary OUTPUT for contacting external relay/contactor: 1 - Play/Pause ,

- 2 Previous track,
- 3 Next track

#### **GND** – ground clamp for **BUTTONS**

**A.IN** – configurable binary INPUT to connect e.g. potentiometer for volume control (off, 0-5V, 1-10V, 0-10V)

+5V – Reference voltage for the volume control via potentiometer 5KOhm

#### 3. Quick Startup

The device may be used for installations in dry locations.

1. Connect your speakers (4-8 Ohms) to the Streaming Player's loudspeakers outputs

2. Connect Ethernet cable to LAN port (make sure the cable is interconnected with your local network)

3. Plug USB drive with music files in MP3, WAV, AAC, WMA, FLAC. **Attention!** Please make sure USB is formatted with FAT/FAT32 file-system, NTFS is currently not supported.

4. Connect power supply to the DAP255 Streaming Player (pwr: red +24V, black - GND).

5. To check if the wiring is done well, you can run any music file on your iPhone/iPOD and Share it to play on remote Airplay device (dap255).

6. The DAP255 Streaming Player is setup as DHCP-client. It uses Zero-config utility is called "Bonjour" by Apple which enables automatic discovery of computers, devices, and services on IP networks. iPod, iPhone have this utility pre-installed.

For iPad use utility called Discovery (the server will be discovered in the service ROAP). On Windows 7 computer you can see the Player as Network share with name *dap255*, right click on it, Properties and you will see its IP address.

Or you can simply check your DHCP server's lease list to find assigned IP to the DAP255 Streaming Player.

More see here: - for Windows http://marknelson.us/2011/10/25/dns-service-discovery-on-windows/

- for Linux http://avahi.org/

- for Android

https://play.google.com/store/apps/details?id=com.grokkt.android.bonjour&hl=en

- for iOS/Mac OS

https://itunes.apple.com/en/app/discovery-bonjour-browser/id305441017?mt=8

7. Enter the Streaming Player's home page by typing IP address in your web browser.

8. DLNA/UPnP/Airplay services are enabled by default in the Streaming Player's *Quick-Setup*.

9. Add additional music sources if any in the Streaming Player: Quick setup  $\Rightarrow$  Services  $\Rightarrow$  FTP mountpoints

10. Depending on count of music files the device will update its local database in "Audio Player" menu and you can start playing songs there.

11. Connect by remote user interface (also called digital media controllers) from iPOD/iPhone/iPAD (MPoD/MPaD or any UPnP controller apps available as freeware at App Store like Kinsky), Android-based phones (Droid MPD), PC (Ario, Kinsky).

Choose the server (dap255 or IP address) and start making your playlists, controlling the music etc. Update player's database with "Update Database" command from your remote controller. It might take some time to do initial database update.

12. Mapping music control functions to KNX:
System config ⇒ Network ⇒ KNX Audio control
or
Quick setup ⇒ Services ⇒ KNX/IP
Default login and password to access System config is admin / admin

13. Please note that you have to use an **external KNX IP Router** to access the KNX TP, as Streaming Player supports only KNXnet/IP (TP is not used due to sound quality distortions).

#### 4. DAP255 WEB-based configuration

To find the IP address of the player, **zeroconf-utility** is included as standard.

# Serming C460 Series (SEC001 592892	(193	1
Web Server on dep255		
Host name: dep255.bcal.		
L- 292.368.178.31		
- Hestport: 20480		
- Network Interface: Athenos 4R928	S Weless Netwo	1.404
D38/m/		100
<ol> <li>Web Server on dap265-2</li> </ol>		
H _1001cp		
🖶 _repttm		
ii) Playar dap255		
E Player dap255-2		
(i) Hostmane: dap255-2.locall.		
- 192.368.179.25		
- Host porti St225		
<ul> <li>Network interface: Alfense AR925</li> </ul>	S. Winshess Nertons	/k:Anleg
ill		
III _printertop		
臣 _tash _tp		
iii scamer, too		

Using the following applications, the IP address can find out: • Windows PC – *ServiceBrowser* http://marknelson.us/2011/10/25/dns-service-discovery-on-windows/ DAP 255 111-255-00-001-01

• Linux PC – Avahi http://avahi.org/

#### Android - ZeroConf Browser

https://play.google.com/store/apps/details?id=com.grokkt.android.bonjour&hl=en

#### $\cdot$ iOS – Discovery

https://itunes.apple.com/en/app/discovery-bonjour-browser/id305441017?mt=8

Using IP assigned to Streaming Player, connect using web browser.



#### **Menu Buttons**

For faster transition from one DAP255 to another, which is located in the same network, you can use the top menu button with the DAP255 hostname.

Clicking this menu buttons you can choose the other visible DAP255 in network. At the same hostname an additional index number at the end of the name appear to the host name of the DAP255.

<u>.</u>	anp265 *	
	dap255 *	

# WHD

In the case that only one DAP255 is located in the network, then this button will appear only with the hostname of the DAP255.

- · *Audio player* built-in music player/controller
- · Quick setup audio related configuration
- *System config* Network and KNX specific configuration

To access *Network config*, you need to enter login name and password. **Login: admin** 

Password: admin



### 4.1. Audio Player - integrated Audio-Controller, Player



The default web page of the Audio Player is *Current playlist*.

In *Audio Player* Menu you can control your player, create playlists, favorites.

*Current Playlist* is the most important configuration menu of the DAP255. All the soundtracks/titels can only be played from this menu step.

The **function keys** (play / pause, previous track, next track, volume), as well as options Random and Repeat function are only in the *Current playlist*!

Information on these controls, the *Current playlist*, see the section 4.1.7.





### DAP 255 111-255-00-001-01

## User Manual applicable for

WHD

#### 4.1.1. Update Database

First thing to do after you enter the interface of audio player is to update local database which will create local library file with pointers to the music sources you have defined (DLNA servers, FTP servers, USB flash drives). Just click on the *Settings* button.

This update may take a few minutes (depending on the amount of date to be scanned).

Whilst scanning the *Setting*s button changes its border colour.

If changes in the local library file were found, the following window appears.

If you click *Cancel*, we recommend an uptadt in the Browser Menu (Almost in all the browser can be done via function key F5).



After a successful update of the music sources, all soundtracks will appear in different folders of the main menu.

- Albums sort music library by albums
- Artists sort music library by artists
- Genres sort music library by genres

By clicking on desired Albums / Artist / Genre following controls appear:









Double-clicking or clicking on this symbol all soundtracks of Albums / Artist / Genre are displayed.



Button adds all Albums / Artist / Genre to the actual list. All soundtracks will be added to the *Current Playlist* and the music starts playing (Play Start).

If it is a directory, then all the soundtracks from this directory and its subdirectories are added to the Current Playlist with a simultaneous Play Start, starting from the first soundtrack of this directory.

Button adds the selected source to the existing list without Play Start. If it is a directory, then all the soundtracks from this directory and subdirectories are added to the Current Playlist.

Button deletes the Current Playlist and all soundtracks added all Albums / Artist / Genre to the actual list. All soundtracks will be added to the *Current Playlist* and the music starts playing (Play Start). If it is a directory, then all the soundtracks from this directory and its subdirectories are added to the Current Playlist with a simultaneous Play Start, starting from the first soundtrack of this directory.

#### 4.1.3. File System

File system folder contains music sources added and available on the network – DLNA, FTP servers, USB.

By clicking on the desired file system the controls for the Current Playlist will be displayed.

Information on these controls see the section 4.1.2.

Double-click on selected folders they are opened and displayed the entire contents.



DAP 255 111-255-00-001-01



Double-click on the selected soundtrack it is added to the current playlist and simultaneously starts playing.

Double-click is equal to the function of the

button , described in 4.1.1.



#### 4.1.4. Search

Click on the *Search* button and type the search phrase to find appropriate folders and songs.

	- 0	-			01 - 7X
DEP235 sudie control *      DEP235 sudie control *     dep235 sudie control *	, t	5 (#	OP225 aude control      C      OP225 aude control     C     OP225 aude control     P225     P225 aude control     P225		☆ =
Dopese - To Infinity And Beyon		13:28	Dopese - To Infinity And Beyon 🛛 \star 🛛 Bett		14:20
Alocal	•	•	/local	ń	•
🖻 Lindsey Stirling			コ Yello - You Better Hide Feat. Heidi Happy (Touch Yello (Deluxe)) 02 - You Better Hide Feat. Heidi Happy.Bac	0	0:04:09
,≄ Yello - The Expert (Touch Yello (Deluxe)) 01 - The Expert∄ac	00;	02:55			
Yello - You Better Hide Feat. Heidi Happy (Touch Yello (Deluxe))     02 - You Better Hide Feat. Heidi Happy flac	00:	04:09			
rt Yello - Stay Feat. Heidi Happy (Touch Yello (Deluxe)) 12 - Stay Feat. Heidi Happy flac	00:	03:03			
File system • # +		-	File system 🔸 💷 🕂		

This search function only works within the displayed list with folder name and the soundtrack. So you can find the folder name, but not the underlying soundtracks or subdirectories.

#### 4.1.5. Volume Control

With the Volume Up, Volume Down Buttons

you can control the volume setting of the player.

DAP 255 111-255-00-001-01

# WHD



#### 4.1.6. Top control bar

On the top control bar you will find the currently playing song name, *search*, *settings*, *settings*, control and display *favourites* and dynamic forewarding.

#### At the top left is always the current title of the soundtrack.

Lindsey Stirling - Shadows (Lindsey Stirling)	٩	٠	*	00:18 03:44
				03.44

#### If the DAP255 is controled by AirPlay, you'll find this information here.

AirPlay (player functions disabled)	٩	٥	*				00:39 02:55
The same applies to the Home Menu.				AliPlay (play ra Audio player	eriuntions * Quick setup	disabled) o System config	
During the AirPlay connection the DAP255 is completely controlled by the connected AirPl device or software. In order to gain control back, you have the AirPlay server (AirPlay device or software)	ay		DAP Cuick setup	255 aud	<b>io confi</b> Services To	guration	Home
disconnect from the server side on the DAP2.	55.		2	Rebool	player Sto	ір АгРыу	

Or Home  $\Rightarrow$  Quick Setup  $\Rightarrow$  Tools and stop AirPlay service.

## After stopping AirPlay the AirPlay Server is disconnected and after a few seconds the AirPlay Service in DAP255 starts again, to establishe a new AirPlay connection. Settings Search is described in 4.1.4. 13 Update databas \* Random are the actual device Settings, In settings Update Database, Random and Repeat function. Under the device Settings you can delete the local library, and restore all stations for internet radio. With Update Database you can manually update the local library. Ci Update databas By clicking *Random* or *Repeat* you can manually activate or deactivate these functions for the Current Playlist. With the button the affiliation of the current soundtrack to the Favourites playlist is displayed. By clicking this button, the actual soundtrack can be added to the Favourites playlist. The soundtrack, added to the Favourites playlist, shows up as the soundtrack is deleted from the Favourites playlist the display changes back to Clicking For more information take a look at 4.1.8. 4.1.7. Current playlist - play, save, delete are displayed for the Current Playlist: By clicking a desired soundtrack, two control buttons starts playing the desired Button soundtrack from the Current Playlist. deletes the desired soundtrack Button from the Current Playlist. You may also start playing the desired soundtrack by double-clicking the soundtrack itself.

#### Version (Technical and optical modifications reserved)

User Manual

applicable for

**DAP 255** 

111-255-00-001-01

DAP 255 111-255-00-001-01

# WHD

Under the current playlist you see all soundtracks that were added by double clicking or with



on the soundtrack in album /

artist / genre / playlist / file system / internet radio.

The current playlist can be saved by clicking (New Button). After saving the entire contents of the playlist the current playlist will appear with the specified name in the menu.

P. S. B. C. H. BRINGER, Human Street	EXCLUSION AND DOMESTICS	-
And reasonable bottoments and a price because	Contra Lie	
11 micke, table page firme 30 10 M		1.192.0
	ning of the second s	Naji jarka karalak Da kara Juka Maji jark Juka (kara kara Naji jarka kara kara Naji jarang kara kara Naji jarang kara kara
Luciey 2001g - Crystallar		200
Laking Hing - Crystalla Laking Sing John Jong Statters Laking Hing Statters		
Lakabay Jalang - Corporation Jandary Johnson Jandary Johnson Jandary Johnson Jandary Johnson Jandary Johnson Jandary Johnson Jandary Janager Jandary Janager Janag		
Landary (1999) - Coptiallan under Steine Jandary (1996) - Stattore Status (1996) Velas The Capital Tastrical Jonatian a Alassa - Pondera (1982)-10. DOI/16/L11 NPORT221 - non-termo pro		

Playlist name	
Save	

By clicking the displayed window can be turned on or turned off with the image and additional information about the current soundtrack.

Overseland to Original and the original	Old Management of Old Management of	and the second second
	F = C [132.186.176.21.010 inviscing/inducing	(2) 書
Linke classe - Mc staatting - The Walts Chart Classes 4 6 •	001 Ar - Flodograph (Deltair - The Went's Chilled Charlest) Q o 🔸	04.39
G tracks, total play time (00-18-10	6 tracks, total play time: 00:18:10	
London Grammar	Yelio - The Expert Fact Yell (Sales)	00.02:55
🛜 🚲 🕼 topological tables of the participation of the participation of the software tables of the tables of ta	Yello - You Detter Hole Paul, Heldt Hoppy Touch Yeln (Dobes)	00.04:09
In section and instantly sources on call balances. They are not section balances of the section	Yelio - Stay Feat, Heks Happy Touch Yelia (Debae)	00 02:03
	Lindsey Stirling - Crystallize Lindsey Stirling	00.0419
Vein - The Finer	Lindsey String - Shadows Lindsey String	00:03:44
Tauch Holo (Linux) 02021	Ar - Photograph (Children - The World's Childred Channel)	
Yelio - You Better Hide Fest, Heldi Happy 00(04) Touch Yello (Datase)	19	
Vello - Stay Feat, Heldi Happy 00:00 / Touch Yelle (Lieuxa)		
Lindwy Stiting - Crystalitae 00:04: Undwy Writing	19	
Lindsey String - Shadows 00:03- Lindsey String		
Current purplist -	Current praylist -	

#### Note:

This additional information appears only when Internet connection is established!

The DAP255 has to be connected to the Internet! This works with the internet radio and all other sound source, include the necessary information in their data formats. All original soundtracks have purchased this additional information and will then be displayed in this window. In some homemade audio files that are created by compressing the original files are lost this additional information and this is why this additional information is sometimes not displayed.

By clicking the entire contents will be deleted from the current playlist.

DAP 255 111-255-00-001-01



### 4.1.8. Favourites

With the button the affiliation of the current soundtrack to the Favourites playlist is displayed. By clicking this button, the actual soundtrack can be added to the Favourites playlist.

The soundtrack, added to the Favourites playlist, shows up as

Clicking the soundtrack is deleted from the Favourites playlist the display changes back to

The soundtrack, added to the Favourites playlist, shows up as



#### 4.1.9. Playlists

In *Playlists* you will find both your selected favourites songs as well as defined playlists.

The operation of all controls in the playlists are identical to the control elements of other categories.



DAP 255 111-255-00-001-01



By clicking button you can copy or rename existing playlists.

Rename/copy playlist	×
Create a copy	
Playlist name	
Save	

#### 4.1.10. Internet Radio

There are more than 4000 radio stations built-in in the Streaming Player, grouped by genres. As with regular songs you can add them to playlists.

	La la miller		
← → C 🗋 192.16817821/cgi tin/audio/index.cgi	(公) 章	€ → C [] 192.168.176.21.rg/-bit/audin/index.cg/	Q 3
Rige - One of Those Summer Days (Felor) 🔍 🔍 🔹 💽	.21:51	Ten Madison - Saces of Time (Contrat - Th. 9, 9	-22.4
	• • •	Blues	0 > 0
🕿 70s Retro	75 stations	AZUR BLUES	
🕿 '80s Flashback	180 stations	p Aardvark Blues FM	
⇒ '90s Hits	60 stations	p AddictedToRadio.com - Bar Rockin' Blues	
■ Adult Contemporary	320 stations	AddictedToRadio.com - Blues Classics	
S Alternative Rock	307 stations	7 BLUES TRAIN	
Internet radio •		Internet radio •	
		Add new station	
_		Plot new station	1.114

By clicking button you can add new Internet radio stations to your list.

directory. User stations.

Additional Internet radio stations appear in the



O DAP253 wadio control \* (OI) C 19716817821 C 192.168.178.21 Ξ elka - Wow Signal (Chillinx - The Work's Chiloot Cha we Bianut (Children - The W 0 + 0 User stations Meine neue Station User stations 1 static • 70s Retro 75 station 180s Flashback 180 static '905 Hits 50 static Adult Contemporary met radio



### 4.1.11 More than one player in network

If there are more than one DAP255 in a network, the control functions *Audio Player* menu are expanded with a **Master/Slave Control**.

All DAP255 will be displayed with their hostname.



Buttons for activating or deactivating Slave mode. The Current Playlist in Slave mode will be deleted.

To modify the volume of the Slave click the butttons of the Master or directly change Slave settings. Slave mode also can be deactivated in the Slave settings, e.g. using separate audio sources, changing Master/Slave assignments or by clicking (track control buttons).

The slave can play the same sound sources such as the master, if they are known to the slave. This applies DNLA sources, Internet radio and FTP sources. In the FTP sources please do FTP configurations corresponding to point 4.3.3.

In order not to exceed the processor utilization by the master player (which is used for the other DAP255 player, as an FTP source), we recommend to operate no more than 10 DAP255 slaves. This number depends on the sound quality and the stored sound sources. It refers to the average bit rate of 128 kbps. In the case of very high load on the Masters own FTP server in the distribution of sound sources, a loss in sound quality may occur. For this reason, we recommend that you use an external FTP server for this purpose.



#### Note:

Since the master-slave configuration of the DAP255 based on a file system, it is not possible to synchronize the sound of different DAP255!

The sound of different DAP255 (with the same audio source) will always be a time delay!

For that reason, the master-slave function is intended only for different sound zones that are spatially separated each other.

Exception is the audio stream via AirPlay.

The necessary settings are described in the chapter 5.

The time delays in AirPlay are dependent on the network load and the processing power of AirPlay server.

#### 4.2. Quick Setup

Audio configuration consists of four folders:



- **Quick setup** – Configuration of Airplay, DLNA,

UPnP-Renderer

- Audio Source settings and max. volume
- Services
- Tools

#### 4.2.1. Quick Setup

Configuration of Airplay, DLNA, UPnP-Renderer **Factory Settings:** 

- Airplay ON
- DLNA ON.
- UPnP-Renderer OFF

#### 4.2.2. Audio Settings

• Analog volume control – analog input setting.
 Possible: Off, 0-5V, 0-10V, 1-10V.
 Factory Setting: OFF

• *IR control* – activating Apple Remote Control *Factory Setting: OFF* 

**Button input 1...4** – to assign a function fort he digital inputs.

• *Volume limit [maximum 170]* – not to overload the speakers.

(e.g. a value of 100: In this case only 59% of the maximum performance of the player are given to the output.)

Factory Setting: 170







4.2.3. Services

Player name Factory Setting: dap255

*Airplay* – enable/disable Airplay protocol *Factory Setting: off* 

Airplay buffer size Factory Setting: 220

**DLNA mountpoint** – enable DLNA mountpoint so the Streaming Player will make local library with song list from DLNA servers. This feature is convenient to use if you plan to use built-in music player or MPD based app for music control.

Factory Setting: on

DLNA mountpoint UPnP Renderer: KNX/IP control Auto-update (each 10 minutes) MPD Password Advanced settings KNX/IP FTP mountpoints Save

DAP255 audio configuration

.

220

dap255 21

Quick setup Audio Services Tools

Airplay

Airplay buffer size

Home

**UPnP Renderer** – Aktivieren Sie die UPnP-Renderer-Funktion, das ermöglicht die Songs direkt aus der UPnP-Renderer Anwendungen zu spielen. UPnP Renderer kann nur als Stand-Alone-Lösung verwendet werden. Es kann nicht zusammen mit KNX Steuerung oder MPD-Control-Anwendungen verwendet werden. UPnP Renderer ist möglicherweise nicht kompatibel mit allen Steuergeräten und Anwendungen. *Factory Setting: off* 

*KNX/IP control* – enable UPnP renderer feature which will allow to play the songs directly from UPnP renderer applications. UPnP renderer can only be used as a stand-alone solution. It can not be used together with KNX control or MPD control applications. UPnP renderer might not be compatible with some control devices and applications.

#### Factory Setting: off

*Auto-update* – enable Auto-update for automatic data of local libraries with a time interval of 10 minutes. *Factory Setting: off* 

*MPD Password* – MPD protocol access password. *Factory Setting: no password* 

Advanced settings - shortcuts to quick access of KNX/IP mapping and FTP server list.

#### Note:

It is advised to restart client applications when changing any of the configuration values.

4.2.4. Tools

Reboot player - reboot players.

**Stop AirPlay** – stop Airplay service.

DAP2	55 au	dio co	nfiguration	Home
Quick setup	Audio	Services	Tools	
	Reb	oot player	Stop AirPlay	

DAP 255 111-255-00-001-01

After the AirPlay connection is stoped the AirPlay server is disconnected.

After a few seconds the AirPlay service in the re-booted DAP255 starts again and a new AirPlay connection can be established.

Page 21 of 37

#### 4.3. Network and KNX related configuration

#### 4.3.1. System Configuration

**System**  $\Rightarrow$  **Hostname** – Name of the Player, all other network devices will see the device by this Name.

*System* ⇒ *Install package* – When required new packages for new features can be installed.

*System* ⇒ *Admin password* – password for login in the player. Factory Password: **admin** 

25.06.2014







O DAP255 system configure × Q 0
← → C □ 192.168.178.21/





*System* ⇒ *Upgrade Firmware* – for firmware upgrads.



*System* ⇒ *Backup configuration* – storing configuration settings of the DAP255.



**System**  $\Rightarrow$  **Restore configuration** – restore configuration settings of the DAP255.



*System* ⇒ *Reboot* – restart player.



 $\mathbf{VHD}$ 

#### 4.3.2. Network Configuration

*Network* ⇒ *Interface* – interface and IP management. Static IP, DHCP or PPPoE can be set up for interface.

em Ne	twark Servic	es Status Help			Start
	Interfaces	(		_	- ×
	Name	Interface eth0		×	
	etn0	Protocol	DHCP		
		Current IP	192, 158, 178, 21		
		DNS server 1			
		DNS server 2			
		Mtu			
		-		OK Cervel	
				at and	

DAP 255 111-255-00-001-01

*Network* ⇒ *Routes* – dynamic/static route management. In case advanced routing is necessary, static routes can be added.

etaan Betaada	92.168.178.2	1/cgi-bin/flashs	ys/index.cgi			53
stem Network	Services Sta	cus nep				<u>State b</u>
	Routes				- ×	
	Interface	Destination	Gateway	Network mask	flags	
	eth0	default	fritz.box	0,0,0,0	UG	
	eth0	192.168.178.0	*	255.255.255.0	U	
	eth0	224.0.0.0	*	224,0.0.0	U	
					_	

*Network* ⇒ *ARP table* – Address Resolution Protocol table with hosts being associated with the streaming player.

ARP table	i.			- ×	
Interface	IP address	Mask	MAC address	Flags	
ethQ	192, 168, 178, 34	*	24:ab:81:72:e1:5c	0×2	
eth0	192.168.178.20	*	00:25:d3:cd:64:c8	0×2	
eth0	192, 168, 178, 25	*	00:1b:c5:00:1d:4d	0x2	
ethQ	192, 168, 178, 24	<b>1</b> 0	00:15:99:eb:9b:90	0×2	
ethű	192, 168, 178, 104	*	00:00:00:00:00:00	0×0	
ethū	192, 168, 178, 1	3	08:96:d7:5f.ea:ce	0x2	

#### 4.3.3. FTP Server, DLNA Configuration

*Network* ⇒ *FTP servers / DLNA* – DLNA/UPnP/FTP server settings

em Network	Services Status Help					<u>Start c</u>
	FTP servers / DLNA				- ×	
	<ul> <li>Host / IP address</li> </ul>	• Usemame	Local directory			
	192,168.0.1	usemane	example	0	0	
	192.168.178.25	ftp	25	٢	0	

Settings:

- *Server* FTP Server IP Adresse
- Username
- Password
- Local directory

It is possible to expand the internal memory of the DAP255 that serves FTP. This is important for the master / slave function and creates the opportunity to distribute locally stored sound sources straight to other DAP255 player in DAP255.

#### Note:

It is important to set local FTP to IP 127.0.0.1 instead of the external IP address through which the DAP255 is addressed!

All the other DAP255 must be set to external IP address!

For the local directory such FTP connections, with access to DAP255 internal memory, all DAP255 player must have identical name. This is very important for master / slave function.



#### Example:

		 TTP Server	
Host / IP address	127.0.0.1	Host / IP address	192.168.178.21
Username	ftp	Username	fø
Password	1q2w3e4r	Password	1q2w3e4r
Local directory	25521	Local directory	25521
D Leave username	and password blank for anonymous access	🕕 Leave username	and password blank for anonymous access

MASTER Configuration

SLAVE Configuration

By clicking on Settingsbutton 🔤 , here is a possibility to switch DLNA-server auto discover.

en Network	Services Status H	du.	_		_		Startura
	FTP servers / DL	IA				- *	
	• Host / IP addres	is - Use	manse	Local directory			
	192.158.01 192/168.178.25	NA settings		example.	×	0	
	DU	(A mountpoint	Enabled Disabled Enabled		-		
	Actors: O			ОК	ancel	2	

#### 4.3.4. KNX related configuration

#### *Mode* [ EIBnet/IP Routing; EIBnet IP Tunneling; EIBnet IP Tunneling(NAT mode)] – KNX connection / preset: EIBnet/IP routing mode

**Parameter** –KNX interface / operating system (\_blank: standard configuration).

*KNX address* – KNX hardware address of the player.

Mode	EIBnet/IP Routing	*
Parameter		
KNX address	15,15,255	
WK IP features		
Multicest IP	224.0.23.12	
Multicast interface	eth0	Î
Maximum telegrams in queue	100	

OK Cancel



KNX IP features - enable/disable

*Multicast interfac*e – when sending KNX telegrams to KNX other networks via TCP / IP

*Multicast IP* – Multicast IP Address (244.0.0.0...255)

Maximum telegrams in queue

#### 4.3.5. Mapping to KNX group addresses

#### *Network ⇒ KNX Audio Contro I*- mapping audio functionality to KNX

#### Note:

You have to use external KNX IP Router to access the KNX TP, as Streaming Player supports only KNXnet/IP (TP is not used due to sound quality distortions).

#### General mapping functions

Simply type the KNX group addresses which will store the current value of player functionality like *Play/Pause, Next track, Previous track, Track name, Random on/off, Repeat on/off, Volume, Next playlist, Previous playlist, Playlist name.* 

#### **KNX address** – KNX physical address

Daten Type: *Play/pause* – 1-bit [In/Out] *Next track* – 1-bit [In] *Previous track* – 1-bit [In] *Track name* – 14-byte string [Out] *Random on/off* – 1-bit [In/Out] *Repeat on/off* – 1-bit [In/Out] *Volume* – 1-byte scale 0..100% [In/Out] *Next playlist* – 1-bit [In] *Previous playlist* – 1-bit [In] *Playlist name* – 14-byte string [Out]

KNX audio	o control			×
General	Play spe	cific track 1	Play specific track 2	
KNX address		15, 15, 255		
Play/pause		1/1/7		
Next brack		1/1/8		
Previous trac	k	1/1/9		
Track name				
Random on/c	off			
Repeat on/o	ff			
Volume		1/1/10		
Nextplaylist				
Previous play	/list			
Playlist name				



#### Map specific track or radio stream to KNX group address

You are able to map specific tracks from music sources or specific internet radio to KNX group address in Play specific track tab.

### **DAP 255**

### User Manual applicable for

111-255-00-001-01

KNA audio control	
General Play sp	ecific track
Track 1 group address	1/1/1
Track 1 path	usb1/2009 -Touch Yello/01 - The Expert.flac
Track 2 group address	1/1/2
Track 2 path	http://u16b.di.fm:80/di_progressivepsy
Track 3 group address	1/1/3
Track 3 path	http://u17.di.fm:80/di_harddance
Track 4 group address	1/1/4
Track 4 path	http://scfire-mtc-aa01.stream.aol.com:80/stream/10:
Track 5 group address	
Track 5 path	
Track 6 group address	
Track 6 path	

- use direct stream link as direct web link / IP Adressen
- set internal memory as local/folder1 or local/folder1/song.mp3
- set external USB memory as usb1/folder1 or usb1/folder1/song.mp3

#### 4.3.6. Local FTP Server

*Services* ⇒ *Local FTP server* – Enable or disable the local FTP server that allows you to upload media to the internal memory card using FTP client program.

Server status	Enabled	
Username	ftp	
Password	ftp1	

#### 4.3.7. System Monitoring

*Service*  $\Rightarrow$  *System monitoring* – the system monitoring service allows to monitor both hardware and software processes.

#### System monitoring



#### 4.3.8. System Status

Status is System status - General system parameters, memory usage, partitions.



DAP 255

111-255-00-001-01

*Status ⇒ Network status –* Network status, bandwidth graph, TX/RX bytes

	wetrikke station	1155)					actantic la
Network st	tatus	. TR address	. 144.	- TV Buter	. DV Buter	- Frenzer	- ×
eth0	00: 15:C5:00: 10:4E	192, 168, 178, 21	1500	44 MB	450 MB	0/12	
Lines.	Network usag	e for interface a	th0		and an Arrise	- × )	
	M	MMM			10	0 Kops	4
		Am					

*Status ⇒ Network utilities* – Ping, Traceroute network utilities



DAP 255 111-255-00-001-01

On your Apple device or PC via iTunes while playing music click on Airplay icon and choose the name of the Streaming Player where you want to play the song/radio. The songs or internet radio is streamed directly from your iPhone/iPad/iPod or PC.

	*		5	G 220 -	Chil Like us at Faceb	Itrax sok.com/Chilitras			(Q+ M	ediatheic		-
Datei Bearbeiten Anzeig	Einzelne *	0	23 - M		)							
🎵 Musik 🗧	Moi	n Computer			Genres	Wiedergabelisten	Internet	Match	🔲 iPhone		Tunes Store	]
Stream 0+0 champetas	de dap	255							_			
0+0 Chartbreaker 0+0 ChartMixFM	S day	255		~								
0+0 Chart-Tipps		Die Charts von mo	rgen und das	Beste aus d.,								ы
0+9 Chic Radio - Pr	rogramme	Chic Radio Dancel	loor, le meille.	r du son D								P
0+0 Chicago House	e FM	Streaming house r	nusic 24/7									
0+0 Chicago Urban	House on	Chicago Urban Ho	iuse Radio is d	edicated to								
0+0 chillectro		Chillectro presents	the best of Lo	sunge, Hou								
0+9 chillectro danc	e	Dance & house m	usic for your n	ext Party or								
0+9 Chillout Beets		Live365 - Epic Chil	lout - flavored	with down								
0+0 Chillout Ibiza Fl	M	Laid back chill. The	e sunset mix   v	www.chillou								
0+9 ChilloutNation		A lounge, downter	npo, chillout o	mline radio								
40 049 Collinso			an Dhannel									E
4+9 Circuit Pride Ra	adio (1.FM	Top gay hits and a	inthems from (	dance floor								
0+9 City Dance Rad	dia	The best Dance, H	ouse, Disco an	d Techno a								
(+) cliqhop idm fro	om SomaFM	Blips'n'beeps back	ed mostly w/b	eats. Intelli								
0+0 Clouds Can Spe	eak	Immensive pattern	s of deep and	dubby tech								
(+) Club & Dance		CLUB & DANCE: F	resh House An	d Dance M								
0+9 Club Gay - Rair	nbow Webr	A best club gay, O	nly clubbing.	sectro & d								
040 Club One Radio	o (1.FM TM)	The biggest club a	inthems from I	Europe and								
					1220 5	tréams						

To start a stream for several DAP255 simultaneously via AirPlay, you have to change the AirPlay server from Single to Multiple.



#### 6. MPaD application usage notes (iPad)

You can use third party apps in parallel of built-in player of the Streaming Player - MPD or UPnP based. MPaD is MPD protocol based app.

#### 6.1. Settings

- Streaming Player has local cache library with pointers to all music files available on music sources you've added (DLNA/UPnP//FTP/USB/Internet radio). You can push the update the library by pressing the **Update Database** button.

- Update local cache is local device copy of the music library file from Streaming Player. Used to speed up the communication, not overloading the network with regular requests.

# WHD

Pad 😪	12:17	69% <b>=</b> 2
	Settings	Gancel
	About MPaD > Help >	8
	Connection MPD Server win7 >	. R.
Nothing Playing	Status: Connected Refresh local cache	к
	Update database Outputs	
	Speakers 🗸 Data	s
	Artist     Only with full album(s)       Artist Capitalization     Off	т

#### 6.2. Connections

Choose a music source to control, and then choose players where to play the selected song.

#aj.\$		12:18		101% MED	Ph1 9	12:19		(1) (1)
		_	4.24					4 0
	Seringe Connection	- East				Players		
	Manual Connection Setup		Album	Artist		dap255 dap255	1	Artst.
	Enter connection data manually reprint or net that has made itself we Borport	or pick a lanowit					-	
	dap255	٥				L	_	
	dap255	0						
Not convected to MPD Server.					Nationesected to MPD Nerver	-		
_								
1.00			ne water in		0.00 0.00	Burn	Playted Sasther	

 User Manual
 DAP 255

 applicable for
 111-255-00-001-01

### 6.3. Playlists

If more then one controller device is used, Playlists are distributed over all devices.

Pad 🗟	12:2	0	63 % 📼 )
	N (0) >< \$ 0	4	
08. Hipster's Delay	Save Current	Playlist	Edit
Planet Dada Yelio	test		
Nervous Vello	test2		
Don Turbulento Velio	testrss		
Soul On Ice Yello			
Junior B Yello			
Tiger Dust Yelio			
Distant Solution Yello			
2003 - The Eye	Edi		
0:00	- 0:00 Artist Album	Song Genre Browne Playlist last m	170

### 6.4. Sort by Artist / Album / Genre







Pad 🗢	12	69%	
OB. Hinster's Delay	( Contraction of the second	2003 - The Eve	Iteme
Planet Dada Vello	Play all from	n this directory	Entered
Nervous Valio	Directories/7	iles A Dian	
Don Turbulento	(nult) - 2007	- The Eye	
Soul On Ice Yello	Talls - The S	Eyes	
Junior B Yello	Tota - The I	Eye Jento	
Tiger Dust Yello	Soul On la	tya M	
Distant Solution Video	Junior B	Eye	
Time Palace Vello	Tiger Dust	Eye	
Indigo Bay Yebo	Distant So	Ey# Aution	
Velo Paurainuille	Time Pala	ce Ce	
Yello Star Breath	Indigo Bay		
Yello Planet Dada [Flambovant]	Unreal	- yes	
Yello Yello	Bougainvi	lle Ive	
	Star Breat	n tys	
	Planet Dat Yells - The I	da (Flamboyant) Ive	
yello the eye	2		
	/		
0:06 - 4	SI Arbit Album	Song Danne Browses PlaySal	lext.for Held

#### 6.5. Internet Radio



### 7. MPoD application usage notes (iPod, iPhone)

In similar way as with MPaD, configuration and management is done on MPoD with iPod or iPhone.



### DAP 255 111-255-00-001-01

# WHD



Attakk Duotekk - White	H.
WERTY	UIOF
ASDFG	HJKL
ZXCV	B N M 👁
23 🌐 space	Boarsen
Preferen	ces
Preference	ces
MPD Server	ces win7 >
MPD Server Status: Connected	vin7 >
MPD Server Status: Connected Refresh local cache	ces win7 >
MPD Server Status: Connected Refresh local cache Update database	vin7 >
MPD Server Status: Connected Refresh local cache Update database	ces win7 >

Only with full album(s) >

04. On Track

1200.1

1997 - Focket Universe

E

н

08. Hipster's Delay

The Eye

Albert Holfman Tribute



relevances Connection	-
Manual Connection Setu	p ≯
Enter connection data manual mpd server that has made it via Bonjour.	ly, or pick a self known
Click to setup	O
win7	O
	Ø



Artist



DAP 255 111-255-00-001-01





#### 8. Disposal



9. Declaration of Conformity



This product supports all CE-marking criteria. The declaration of conformity certificate can be

We participate in the dual system as well as other industry-specific solutions. Therefore, plastic, metal

WHD are members of the INTERSEROH

and electronic parts can all be recycled.

association.

obtained from WHD.

#### 10. Name and address of the manufacturer

WHD - Wilhelm Huber+Söhne GmbH+Co.KG Bismarckstr. 19 78652 Deißlingen Tel. Zentrale 0 74 20 / 8 89-0 Fax Zentrale 0 74 20 / 8 89-51 E-Mail: <u>info@whd.de</u> Homepage: <u>www.whd.de</u>

Technical Support Tel. 0 74 20 / 8 89-800 Fax 0 74 20 / 8 89-700 E-Mail: <u>support@whd.de</u>