REAL SMART HOME GmbH

APPMODULE

KNX Connect for MusicCast®
Smart Home App Documentation

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1   INTRODUCTION

Thank you for your trust, and the purchase of the **KNX Connect for MusicCast®** -Smart Home App for the BAB **APP**MODULE. With **»KNX Connect for MusicCast®«**, connect all MusicCast® products to KNX and IoT components with ease.

This documentation will help you get started with the Smart Home App and aims to improve your setup experience.

REAL SMART HOME GmbH

IMPORTANT INFORMATION ON THE OPERATING INSTRUCTIONS

We reserve the right continually improve the product. This entails the possibility that parts of this documentation might be out-of-date. You will find the latest information at:

www.bab-appmarket.de

This app is a standalone product and is not legally affiliated with "© Yamaha Music Europe GmbH" or "Yamaha Corporation".
Neither **BAB** APPMARKET GmbH nor the developer owns the above trademark. This Smart Home App may be used in conjunction with services provided by a third party manufacturer or external provider. The respective manufacturer is responsible for data protection.

2 YAMAHA MUSICCAST FUNCTIONAL OVERVIEW

From AV receivers to soundbars to streaming speakers, MusicCast takes home entertainment to a whole new level. With **»KNX Connect for MusicCast®«**, connect all MusicCast® products to KNX and IoT components with ease. Discover the amazing possibilities of Yamaha® MusicCast® - throughout your home.
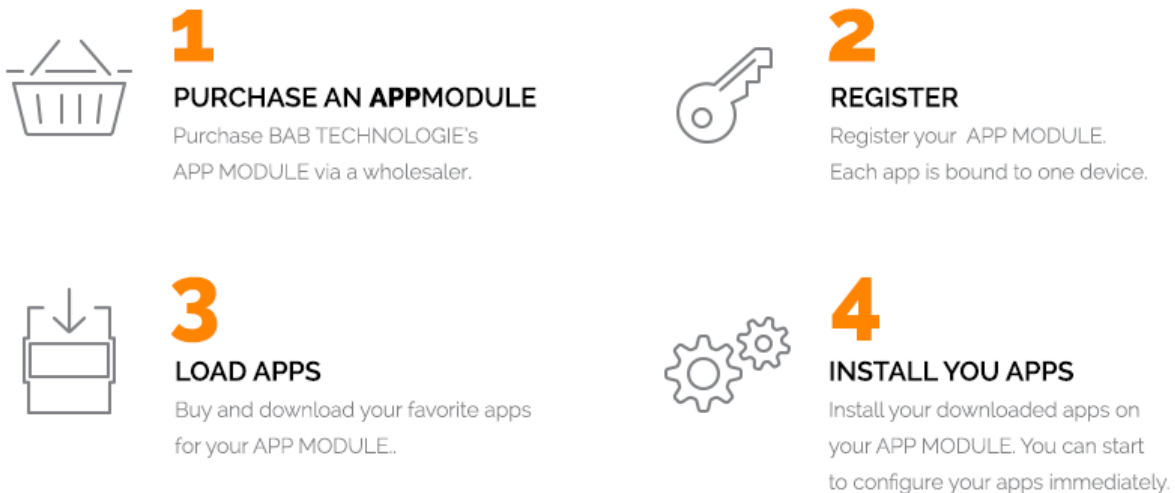
2.1 HIGHLIGHTS

- Compatible with all MusicCast® products
- Create multi-room groups incl. individual participant volumes
- Integrate up to 10 MusicCast devices
- Choice of up to 24 inputs like Spotify®, Airplay, Amazon Music, USB or AUX

3 THE INNOVATIVE, MODULAR SMART HOME APP CONCEPT FOR THE BUILDING AUTOMATION

The innovative, modular Smart Home App concept for building automation. The **APP**MODULE brings the innovative, modular Smart Home App concept into building automation. You can mix and match any of the diverse applications that are available to ingrate third-party solutions. With these Smart Home Apps from the dedicated **BAB** APPMARKET, the **APP**MODULE becomes a tailor-made integration unit for your building automation.

HOW IT WORKS

1 PURCHASE AN **APP**MODULE
Purchase BAB TECHNOLOGIE's APP MODULE via a wholesaler.

2 REGISTER
Register your APP MODULE. Each app is bound to one device.

3 LOAD APPS
Buy and download your favorite apps for your APP MODULE..

4 INSTALL YOU APPS
Install your downloaded apps on your APP MODULE. You can start to configure your apps immediately.

Manufacturer of the **APP**MODULE BAB TECHNOLOGIE GmbH

Distribution of all Smart Home Apps for the **APP**MODULE BAB APPMARKET GmbH

Smart Home App developer REAL SMART HOME GmbH

3.1 INFORMATION ABOUT THE APPMODULE

Please refer to the separate product documentation of the **APP**MODULE for a detailed product description and setup instructions.

https://bab-tec.de/appmodule#downloads

Product variants:
The **APP**MODULE is available in three variants:

- **APP**MODULE KNX/TP – for stand-alone use on KNX/TP Bus
- **APP**MODULE EnOcean – for stand-alone use in the EnOcean wireless network
- **APP**MODULE IP – for use in an IP-based KNX installation (KNXnet/IP) or as extension for an EIB**PORT**

4 SMART HOME APP INSTALLATION / UPDATE

Please proceed as follows to install a Smart Home App.

1. Open the **APP**MODULE web page: Enter <IP Address of **APP**MODULE > into your browser's address bar and press Enter. The **APP**MODULE web interface will appear.

2. Log in with your user credentials. Please refer to the **APP**MODULE documentation for login details.

3. Click on the menu entry "App Manager"

4. You are now on the page where already installed Smart Home Apps are listed. The list will be empty if no Smart Home Apps have been installed. Click "Install App" in order to install a new Smart Home App.

5. Now click on "Select App"; a file selector window will appear. Choose the Smart Home App **»KNX Connect for MusicCast®«** and click "OK".

The Smart Home App **»KNX Connect for MusicCast®«** must first be downloaded from the **BAB** APPMARKET
(www.bab-appmarket.de).

After the message "Installation successful" appears, click "OK". You are ready to configure the Smart Home App.

To update a Smart Home App manually you have to proceed as follows

1. To update an already installed Smart Home App, click on the App icon in the "App Manager".

2. The detail view of the Smart Home App appears. Click on "Update App" to select the Smart Home App package and start the update. The update version must be downloaded from the **BAB** APPMARKET.

After the message "Installation successful" appears, click "OK". The Smart Home App has been updated. Your instance configurations will remain unchanged.

The Smart Home App can also be updated directly in the web interface. Without having to download the Smart Home App from the **BAB** APPMARKET first.
In the "App Manager" available Smart Home App updates are reported

Information
To configurate the Smart Home App please use Google Chrome.

5 SMART HOME APP SETTINGS

With this **KNX Connect for MusicCast®** -Smart Home App you can connect Yamaha MusicCast speakers to the world of KNX.

5.1 YAMAHA MUSICCAST

Note:
After inactivity of 60 minutes the browser session is automatically closed. Unsaved changes will be lost.

As soon as the Smart Home App is installed, you can create so called "Instance". An Instance is one of several objects of the same class.

In order to create an instance, click on the symbol "Create Instance".

Instance Name:

Choose a name for this new instance.

Comment:

Insert a description what this instance does.

5.2   DEVICE-SETTINGS

Device

Here you must set the device, which you want to create for controlling.

Note: Depending on the selected device/device type, the selection of the functions is different. As far as the number of configuration fields is different as well. If the function and data type are the same, the configuration is also carried out in the same way.

Set Input

Enter here group address for setting input.
- 1 = Napster
- 2 = Spotify
- 3 = Qobuz
- 4 = Tïdal
- 5 = Deezer
- 6 = Amazon Music
- 7 = Alexa
- 8 = Airplay
- 9 = Server
- 10 = Net Radio
- 11 = Bluetooth
- 12 = US8
- 13 = Radio
- 14 = HDMI1
- 15 = HDMI2
- 16 = HDMI3
- 17 = HDMI4
- 18 = AV1
- 19 = AV2
- 20 = AV3
- 21 = AUDIO1
- 22 = AUDIO2
- 23 = AUDIO3
- 24 = AUX

Pay attention to the selection options of your device, which sources or inputs are available to you.

Refresh-Interval (in Seconds) (5-600):

Set the interval in which the status of the player is updated.

Power (On / Off) (EIS 1):

Enter group address to switch on and off the device.

Power State (On / Off) (EIS 1):

Enter group address for the power status.

5.3 PLAY-SETTINGS

Play (EIS 1):

Enter group address for play or pause the player.

Stop (EIS 1):

Enter group address for stop the player.

Play State (EIS 1):

Enter group address for current value of playing state of the player:
- 0 = paused
- 1 = playing

Prev / Next (EIS 1):

Enter group address for switch back / next.
- 0 = previous
- 1 = next

5.4 PLAYING-INFORMATION

Album (EIS 15 14 Byte Text)

Insert the group address of the album name to display.

Artist (EIS 15 14 Byte Text)

Insert the group address of the artist's name to display.

Trackname (EIS 15 14 Byte Text)

Insert the group address of the current track name to display.

5.5   VOLUME-SETTINGS

Absolute volume control (EIS 6 0–100%)

Enter group address for the absolute volume (e.g. for sliders).

Volume control status (EIS 6 0–100%)

Enter group address for the volume status.

Relative volume control (EIS 1)

Enter group address for the relative volume:
- 0 = decrease volume
- 1 = increase volume

Relative volume control increment (1–10)

Insert Integer that acts as an increment for the relative volume control. The default value is 1.

Volume start/stop dimming (EIS 2 relative Dimming)

Enter group address for the relative volume control (for start/stop dimmers).

Volume dimming duration in ms (5000–20000)

Insert the duration in milliseconds (ms) that a complete start-stop dimming process (0-100) should take. Note: Every volume step will be sent to the device individually. This app internally calculates how to increment in order to achieve the desired duration while contacting the Yamaha speaker every 1000 milliseconds (ms). If you wanted to have the smoothest possible dimming, which is sending an increment of 1 every 1000 milliseconds (ms), then you would need to set this value to 20000 (20 seconds).

Volume step dimming (EIS 2 relative Dimming)

Enter group address for the relative volume control (for step dimmers).

Mute (EIS 1)

Enter group address for switching on / off mute mode.

Mute State (EIS 1)

Enter group address for current value of mute mode.
- 0 = not mute
- 1 = mute

5.6 CONFIGURATION OF FAVOURITES

The number and selection of favourite triggers depends on the device type. Only the favourite triggers that are available for the respective device type are displayed. If favourite triggers are available that are not described here, their configuration is similar.

Favourite-Trigger (Net-USB) (EIS 14 1–40)

Group address of the trigger for playing the Net-USB favourites: the sent value starts the favourites that are configured at that time in the YAMAHA mobile app under the corresponding number. Different to other manufacturers, YAMAHA does not offer any assignment that works independently of the customer settings (such as "start broadcast WDR 5").

Favourite-Trigger (DAB) (EIS 14 1–40)

Group address of the trigger for playing the DAB radio station favourites: the sent value starts the favourites that are configured at that time in the YAMAHA mobile app under the corresponding number. Different to other manufacturers, YAMAHA does not offer any assignment that works independently of the customer settings (such as "start broadcast WDR 5").

Favourite-Trigger (UKW) (EIS 14 1–40)

Group address of the trigger for playing the UKW radio station favourites: the sent value starts the favourites that are configured at that time in the YAMAHA mobile app under the corresponding number. Different to other manufacturers, YAMAHA does not offer any assignment that works independently of the customer settings (such as "start broadcast WDR 5").

5.7 MULTIROOM GROUPS

Device Synchronization (EIS 14 0–255)

Activate / deactivate Device synchronization for paying music together on all added devices.

Multiroom-Groups

You can create up to 25 Multiroom-Groups.

ID of Multiroom-Group (1–255)

Insert the ID with which the group is activated via that group address.

Name

Enter the name of the group.

Master Volume in % (0–100)

Enter master-volume to be set when activating the group.

Groupconfiguration

Select displayed devices to be added to the group when it is activated.
If no devices are displayed here, check whether the devices are also in the same network.

Slave devices Absolute Volume in %

Set the absolute volume in percent for the selected slave device here.

6   ATTACHMENT

6.1   DATAPOINT TYPES

Function	EIS type	Data point type	Typical value	Data	Identifier
Switching	EIS 1	DPT 1.yyy	[0] = Off | FALSE; [1] = On | TRUE	1 Bit	1-bit
Relative Dimming	EIS 2	DPT 3.yyy	„Dimming steps": [[0],[2…7]] Darker [2, 4, 8, 16, 32, 64] -Steps and [[1],[2…7]] Brighter [2, 4, 8, 16, 32, 64]-Steps „Start/Stop Diming": [0,8] Stop; [1] Darker und [9] Brighter	4 Bit	4-bit
Time	EIS 3	DPT 10.yyy	hh:mm:ss	3 Byte	Time
Date	EIS 4	DPT 11.yyy	dd:mm:yyyy	3 Byte	Date
Floating point number (short)	EIS 5	DPT 9.yyy	-671 088,64 … 670 433,28	2 Byte	2-byte float value
Percent, Position, Brightness, …	EIS 6	DPT 5.yyy	0 … 100%	1 Byte	8-bit unsigned value
Blinds Drive/adjust	EIS 7	DPT 1.yyy	[0] = up; [1] = down When driving [0,1] = stop	1 Bit	1-bit
Priority	EIS 8	DPT 2.yyy	[0], [1] Switch on, off; [3] = Forced off; [4] = Forced on	2 Bit	1-bit controlled
IEEE Floating point number (long)	EIS 9	DPT 14.yyy	4-Octet float value; IEEE 754	32 Bit	4-byte float value
Counter 16 Bit Unsigned	EIS 10u	DPT 7.yyy	0 … 65.535	16 Bit	2-byte unsigned value
Counter 16 Bit Signed	EIS 10	DPT 8.yyy	-32.768 … 32.767	16 Bit	2-byte signed value
Counter 32 Bit Unsigned	EIS 11u	DPT 12.yyy	0 … 4.294.967.295	32 Bit	4-byte unsigned value
Counter 32 Bit Signed	EIS 11	DPT 13.yyy	-2.147.483.648 … 2.147.483.647	32 Bit	4-byte signed value
Access control	EIS 12	DPT 15.yyy	Access data	4 Byte	Entrance access
ASCII Character	EIS 13	DPT 4.yyy	Char	1 Byte	Character
Counter 8 Bit Unsigned	EIS 14u	DPT 5.yyy	0 … 255	8 Bit	8-bit unsigned value
Counter 8 Bit Signed	EIS 14	DPT 6.yyy	-128 … 127	8 Bit	8-bit signed value
String	EIS 15	DPT 16.yyy	14 Characters	14 Byte	Character string

EIB/KNX devices exchange fixed prescribed data formats with each other. These are defined in types.
The old designations of the types are EIS (EIB Interworking Standard). The new designations are DPT (Data Point Type)