

REAL SMART HOME GmbH

APPMODULE

DE:CONTROL App Documentation

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INTRODUCTION

Thank you for your trust, and the purchase of the **DE:CONTROL** - app for the BAB **APP**MODULE. With the **DE:CONTROL** -app you obtain the power to integrate the complete DENON® protocol into your building control. This documentation will help you get started with the app and aims to improve your setup experience.

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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 This entails the possibility that parts of this documentation might be out-of-date.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 an independent product, with no legal ties to DENON®. Neither BAB APP MARKET GmbH nor the developer of this app take any claim in the trademarks owned by DENON®.

2 **DE:CONTROL – FUNCTIONAL OVERVIEW**

With **DE:CONTROL**, you can effortlessly integrate your DENON® devices from the 4000 range into the KNX® system. The entire range of control commands is available for operations, e.g. available from the building visualisation via tactile sensors. **DE:CONTROL** makes multi-room with devices from DENON® in building automation into child's play.

HIGHLIGHTS 2.1.1

- Control of all commands included in the protocol for the 4000 range
- KNX® multi-room / multi-zoning with DENON® devices



THE INNOVATIVE, MODULAR APP-CONEPT FOR THE BUILDING AUTOMATION

The innovative, modular app concept for building automation. The **APP**MODULE brings the innovative, modular 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 apps from the dedicated **BAB** APP MARKET, the **APP**MODULE becomes a tailor-made integration unit for your building automation.

HOW IT WORKS



1

PURCHASE AN APPMODULE

Purchase BAB TECHNOLOGIE's

APP MODUL E 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.

Figure 1: APPMODULE - How it works

Manufacturer of the APPMODULE BAB TECHNOLOGIE GmbH

Distribution of all apps for the APPMODULE BAB APP MARKET GmbH

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.

http://www.bab-tec.de/index.php/download_de.html

Product variants:

The APPMODULE is available in three variants:

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

APP INSTALLATION / UPDATE

Please proceed as follows to install an App.

- Open the APPMODULE web page: Enter <IP Address of APPMODULE> into your browser's address 1. bar and press Enter. The APPMODULE web interface will appear.
- Log in with your user credentials. Please refer to the APPMODULE documentation for login 2. details.
- 3. Click on the menu entry "App Manager"
- 4. You are now on the page where already installed Apps are listed. The list will be empty if no apps have been installed. Click "Install App" in order to install a new app.
- 5. Now click on "Select App"; a file selector window will appear. Choose the app »DE:Control« and click "OK". The Smart Home App "DE:Control" must first be downloaded from the BAB APP MARKET (www.bab-appmarket.de).
- After the message "Installation successful" appears, click "OK". You are ready to configure the 6. App.
- 7. To update an already installed app, click on the App icon in the "App Manager".
- 8. The detail view of the App appears. Click on "Update App" to select the app package and start the update. The update version must be downloaded from the BAB APP MARKET.

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

Information

To configurate the App please use Google Chrome.

5 APP SETTINGS

With **DE:CONTROL**, you can effortlessly integrate your network ready DENON® receivers into a KNX® system. The entire range of control commands is available for operations, e.g. from the building visualisation or via tactile sensors. DE:CONTROL turns multi-room with receivers from DENON® in building automation into child's play. Parameter definitions are mainly based on those found in the manuals.

5.1 **INSTANCE**

As soon as the 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 following symbol "Create Instance".

Instance Name:

Choose a name for this new instance.

Comment:

Insert a description what this instance does.

5.1.1 CONNECTION PARAMETERS

DENON® Receiver IP:

Insert the IP address of your DENON® receiver (it must have a static IP for the app to work reliably).

Destination Port:

The port number on which your DENON® receiver listens (default is 23 for Telnet).

Ping Interval:

Defines the interval, in seconds, with which your DENON® receiver should be pinged. Note: This is not a polling of values, as the receiver announces changed values independently. The ping merely assures that the connection state is being checked regularly.

Dimming Duration:

Insert the time (in ms) a full dimming process (0 - 100) should take. This will affect all of the commands below with data type Dimming (EIS 2).

Note: Each volume level has to be sent individually (there is no 'start increasing volume' command). This app will internally calculate how to set the individual increment in order to reach the desired value whilst contacting your DENON® receiver every 110ms.

If you wanted the smoothest possible dimming, that is an increment of 1 sent every 110ms, you would have to set this to 11000 (11s).

MAIN CONTROL ADDRESSES 5.1.2

On/Standby (EIS 1):

Insert group address for the on/standby-switch.

MAIN 70NF 5.1.3

Main Zone On/Off (EIS 1):

Insert group address for the Main Zone on/off-switch.

Relative Volume (EIS 1):

Insert group address for the relative volume control (1 = 0.5db up, 0 = 0.5db down).

Relative Volume (Dimming) (EIS 2):

Insert the group address for relative volume control (for dimmers).

Absolute Volume (EIS 6):

Insert group address for absolute volume control (e.g. for sliders).

Mute Switch (EIS 1):

Insert group address for the mute switch.

Set Sleep Timer (EIS 14):

Insert group address for the sleep timer. (0 = off, 1 - 120 correspond to the amount of time in minutes it takes to go to sleep. Every input value greater than 120 is going to be replaced with 120.)

Auto Standby (EIS 14):

Insert group address for the Auto Standby mode selector. To select the desired setting, put in one of the following numbers:

- 1: 15 Minutes
- 2: 30 Minutes
- 3: 60 Minutes
- 4: Off

ECO Mode (EIS 14):

Insert group address for the ECO Mode selector. To select the desired mode, put in one of the following numbers:

- 1: On
- 2: Auto
- 3: Off

Select Favorite Station (EIS 14):

Insert group address for the favorite station selector. The numbers 1 to 4 each correspond to a favorite station.

Save Favorite Station (EIS 14):

Insert group address to save a favorite station. The numbers 1 to 4 each correspond to a memory bank to store your favorite stations into.

SURROUND SPEAKERS VOLUME CONTROL ADDRESSES 5.1.4

Relative Front Speaker Left Volume (EIS 1):

Insert group address for the relative volume control of the front speaker left (1 = 0.5db up, 0 = 0.5db down).

Absolute Front Speaker Left Volume (EIS 6):

Insert group address for the absolute volume control (e.g. for sliders) of the front speaker left.

Relative Front Speaker Right Volume (EIS 1):

Insert group address for the relative volume control of the front speaker right (1 = 0.5db up, 0 = 0.5db down).

<u>Absolute Front Speaker Right Volume (EIS 6):</u>

Insert group address for the absolute volume control (e.g. for sliders) of the front speaker right.

Relative Center Speaker Volume (EIS 1):

Insert group address for the relative volume control of the center speaker (1 = 0.5db up, 0 = 0.5db down).

Absolute Center Speaker Volume (EIS 6):

Insert group address for the absolute volume control (e.g. for sliders) of the center speaker.

Subwoofer Off (EIS 1):

Insert group address for subwoofer off switch.

Relative Subwoofer 1 Volume (EIS 1):

Insert group address for the relative volume control of the subwoofer (1 = 0.5db up, 0 = 0.5db down).

Absolute Subwoofer 1 Volume (EIS 6):

Insert group address for the absolute volume control (e.g. for sliders) of the subwoofer.

Subwoofer 2 Off (EIS 1):

Insert group address for subwoofer 2 off switch.

Relative Subwoofer 2 Volume (EIS 1):

Insert group address for the relative volume control of the second subwoofer (1 = 0.5db up, 0 = 0.5db down).

Absolute Subwoofer 2 Volume (EIS 6):

Insert group address for the absolute volume control (e.g. for sliders) of the second subwoofer.

Relative Surround Speaker Left Volume (EIS 1):

Insert group address for the relative volume control of the surround speaker left (1 = 0.5 db up, 0 =0.5db down).

Absolute Surround Speaker Left Volume (EIS 6):

Insert group address for the absolute volume control (e.g. for sliders) of the surround speaker left.

Relative Surround Speaker Right Volume (EIS 1):

Insert group address for the relative volume control of the surround speaker right (1 = 0.5db up, 0 =0.5db down).

Absolute Surround Speaker Right Volume (EIS 6):

Insert group address for the absolute volume control (e.g. for sliders) of the surround speaker right.

Relative Surround Back Speaker Left Volume (EIS 1):

Insert group address for the relative volume control of the surround back speaker left (1 = 0.5db up, 0 = 0.5db down).

Absolute Surround Back Speaker Left Volume (EIS 6):

Insert group address for the absolute volume control (e.g. for sliders) of the surround back speaker left.

Relative Surround Back Speaker Right Volume (EIS 1):

Insert group address for the relative volume control of the surround back speaker right.

Absolute Surround Back Speaker Right Volume (EIS 6):

Insert group address for the absolute volume control (e.g. for sliders) of the surround back speaker right.

Relative Surround Back Speaker Volume (EIS 1):

Insert group address for the relative volume control of the surround back speaker (1 = 0.5db up, 0 = 0.5db down).

Absolute Surround Back Speaker Volume (EIS 6):

Insert group address for the absolute volume control (e.g. for sliders) of the surround back speaker.

Relative Front Height Speaker Left Volume (EIS 1):

Insert group address for the relative volume control of the front height speaker left (1 = 0.5 db up, 0 =0.5db down).

Absolute Front Height Speaker Left Volume (EIS 6):

Insert group address for the absolute volume control (e.g. for sliders) of the front height speaker left.

Relative Front Height Speaker Right Volume (EIS 1):

Insert group address for the relative volume control of the front height speaker right (1 = 0.5db up, 0 =0.5db down).

Absolute Front Height Speaker Right Volume (EIS 6):

Insert group address for the absolute volume control (e.g. for sliders) of the front height speaker right.

Relative Front Wide Speaker Left Volume (EIS 1):

Insert group address for the relative volume control of the front wide speaker left (1 = 0.5db up, 0 =0.5db down).

Absolute Front Wide Speaker Left Volume (EIS 6):

Insert group address for the absolute volume control (e.g. for sliders) of the front wide speaker left.

Relative Front Wide Speaker Right Volume (EIS 1):

Insert group address for the relative volume control of the front wide speaker right (1 = 0.5db up, 0 = 0.5db down).

Absolute Front Wide Speaker Right Volume (EIS 6):

Insert group address for the absolute volume control (e.g. for sliders) of the front wide speaker right.

Relative Top Front Speaker Left Volume (EIS 1):

Insert group address for the relative volume control of the top front speaker left (1 = 0.5db up, 0 =0.5db down).

Absolute Top Front Speaker Left Volume (EIS 6):

Insert group address for the absolute volume control (e.g. for sliders) of the top front speaker left.

Relative Top Front Speaker Right Volume (EIS 1):

Insert group address for the relative volume control of the top front speaker right (1 = 0.5db up, 0 =0.5db down).

Absolute Top Front Speaker Right Volume (EIS 6):

Insert group address for the absolute volume control (e.g. for sliders) of the top front speaker right.

Relative Top Middle Speaker Left Volume (EIS 1):

Insert group address for the relative volume control of the top middle speaker left (1 = 0.5db up, 0 = 0.5db down).

Absolute Top Middle Speaker Left Volume (EIS 6):

Insert group address for the absolute volume control (e.g. for sliders) of the top middle speaker left.

Relative Top Middle Speaker Right Volume (EIS 1):

Insert group address for the relative volume control of the top middle speaker right (1 = 0.5db up, 0 =0.5db down).

Absolute Top Middle Speaker Right Volume (EIS 6):

Insert group address for the absolute volume control (e.g. for sliders) of the top middle speaker right.

Relative Top Rear Speaker Left Volume (EIS 1):

Insert group address for the relative volume control of the top rear speaker left (1 = 0.5db up, 0 =0.5db down).

Absolute Top Rear Speaker Left Volume (EIS 6):

Insert group address for the absolute volume control (e.g. for sliders) of the top rear speaker left.

Relative Top Rear Speaker Right Volume (EIS 1):

Insert group address for the relative volume control of the top rear speaker right (1 = 0.5db up, 0 =0.5db down).

Absolute Top Rear Speaker Right Volume (EIS 6):

Insert group address for the absolute volume control (e.g. for sliders) of the top rear speaker right.

Relative Rear Height Speaker Left Volume (EIS 1):

Insert group address for the relative volume control of the rear height speaker left (1 = 0.5db up, 0 =0.5db down).

Absolute Rear Height Speaker Left Volume (EIS 6):

Insert group address for the absolute volume control (e.g. for sliders) of the rear height speaker left.

Relative Rear Height Speaker Right Volume (EIS 1):

Insert group address for the relative volume control of the rear height speaker right (1 = 0.5db up, 0 =0.5db down).

Absolute Rear Height Speaker Right Volume (EIS 6):

Insert group address for the absolute volume control (e.g. for sliders) of the rear height speaker right.

Relative Front Dolby Speaker Left Volume (EIS 1):

Insert group address for the relative volume control of the front dolby speaker left (1 = 0.5 db up, 0 =0.5db down).

Absolute Front Dolby Speaker Left Volume (EIS 6):

Insert group address for the absolute volume control (e.g. for sliders) of the front dolby speaker left.

Relative Front Dolby Speaker Right Volume (EIS 1):

Insert group address for the relative volume control of the front dolby speaker right (1 = 0.5db up, 0 =0.5db down).

Absolute Front Dolby Speaker Right Volume (EIS 6):

Insert group address for the absolute volume control (e.q. for sliders) of the front dolby speaker right.

Relative Surround Dolby Speaker Right Volume (EIS 1):

Insert group address for the relative volume control of the surround dolby speaker left (1 = 0.5 db up, 0)= 0.5 db down).

Absolute Surround Dolby Speaker Left Volume (EIS 6):

Insert group address for the absolute volume control (e.q. for sliders) of the surround dolby speaker left.

Relative Surround Dolby Speaker Right Volume (EIS 1):

Insert group address for the relative volume control of the surround dolby speaker right (1 = 0.5 db up,0 = 0.5 db down).

Absolute Surround Dolby Speaker Right Volume (EIS 6):

Insert group address for the absolute volume control (e.g. for sliders) of the surround dolby speaker right.

Relative Back Dolby Speaker Left Volume (EIS 1):

Insert group address for the relative volume control of the back dolby speaker left (1 = 0.5db up, 0 =0.5db down).

Absolute Back Dolby Speaker Left Volume (EIS 6):

Insert group address for the absolute volume control (e.g. for sliders) of the back dolby speaker left.

Relative Back Dolby Speaker Right Volume (EIS 1):

Insert group address for the relative volume control of the back dolby speaker right (1 = 0.5db up, 0 =0.5db down).

Absolute Back Dolby Speaker Right Volume (EIS 6):

Insert group address for the absolute volume control (e.g. for sliders) of the back dolby speaker right.

Reset Surround Levels (EIS 1):

Insert group address for resetting the surround levels to the factory defaults.



SURROUND MODE SETTINGS ADDRESSES 5.1.5

Surround Mode (EIS 14):

Insert group address for the surround mode selector. To select the desired mode, put in one of the following numbers (please note that some Denon receiver models do not support all options):

- 1: Movie
- 2: Music
- 3: Game
- 4: Pure Direct
- 5: Direct
- 6: Stereo
- 7: Standard
- 8: Dolby Digital
- 9: DTS Surround
- 10: Multi Channel Stereo
- 11: Rock Arena
- 12: Jazz Club
- 13: Mono Movie
- 14: Matrix
- 15: Video Game
- 16: Virtual
- 17: Previous Surround Mode
- 18: Next Surround Mode

Surround Mode Display (EIS 15):

Insert group address for the surround mode display.

Surround Mode Quick Select (EIS 14):

Insert group address for the Surround Mode Quick Selector. The numbers 1 to 5 each correspond to a quick select option.

Surround Mode Quick Select Memory (EIS 14):

Insert group address for the Surround Mode Quick Select Memory. The numbers 1 to 5 each correspond to a memory bank to store your quick select option into.

AUDIO VIDEO SOURCE/INPUT 5.1.6 AND **SETTINGS ADDRESSES**

Audio Source (EIS 14):

Insert group address for the audio source selector. To select the desired source, put in one of the following numbers (please note that some Denon receiver models do not support all options):

- 1: Phono
- 2: CD
- 3: Tuner
- 4: DVD
- 5: Blu-Ray
- 6: TV
- 7: SAT/Cable
- 8: Media Player
- 9: Game
- 10: HD Radio
- 11: Online Music
- 12: Pandora
- 13: Sirius XM
- 14: Spotify
- 15: last.fm
- 16: Flickr
- 17: iRadio
- 18: Server
- 19: Favorites
- 20: AUX 1
- 21: AUX 2
- 22: AUX 3
- 23: AUX 4
- 24: AUX 5
- 25: AUX 6
- 26: AUX 7
- 27: Bluetooth 28: USB/iPod
- 29: Input Source USB and USB Start Playback
- 30: Input Source USB and iPod Direct Start Playback
- 31: Input Source NET/USB and iRadio Recent Play
- 32: Input Source NET/USB and Favorites Play

Select & Record Audio Source (EIS 14):

Insert group address for the audio source select and record selector. To select the desired source, put in one of the following numbers (please note that some Denon receiver models do not support all options):

- 1: Phono
- 2: CD
- 3: Tuner
- 4: DVD
- 5: Blu-Ray
- 6: TV
- 7: SAT/Cable
- 8: Media Player
- 9: Game
- 10: HD Radio
- 11: Online Music
- 12: Pandora
- 13: Sirius XM
- 14: Spotify
- 15: last.fm
- 16: Flickr
- 17: iRadio
- 18: Server
- 19: Favorites
- 20: AUX 1
- 21: AUX 2
- 22: AUX 3
- 23: AUX 4
- 24: AUX 5
- 25: AUX 6
- 26: AUX 7
- 27: Bluetooth
- 28: USB/iPod
- 29: Input Source USB and USB Start Playback
- 30: Input Source USB and iPod Direct Start Playback
- 31: Input Source NET/USB and iRadio Recent Play
- 32: Input Source NET/USB and Favorites Play
- 33: Cancel recording

Audio Input Mode (EIS 14):

Insert group address for the Input Mode selector To select the desired mode, put in one of the following numbers:

- 1: Auto (Priority: HDMI >> Digital >> Analog)
- 2: HDMI
- 3: Digital
- 4: Analog
- 5: External In
- 6: 7.1 In
- 7: no input

Audio Decode Mode (EIS 14):

Insert group address for the Decode Mode selector To select the desired mode, put in one of the following numbers:

- 1: Auto
- 2: PCM
- 3: DTS

Video Input On/Off (EIS 1)

Insert group address for the video mode on/off-switch.

Video Source (EIS 14):

Insert group address for the video source selector. To select the desired source, put in one of the following numbers (please note that some Denon receiver models do not support all options):

- 1: DVD
- 2: Blu-Ray
- 3: TV
- 4: SAT/cable
- 5: Media Player
- 6: Game
- 7: AUX 1
- 8: AUX 2
- 9: AUX 3
- 10: AUX 4
- 11: AUX 5
- 12: AUX 6
- 13: AUX 7
- 14: CD
- 15: Cancel

SCREEN CONTROL ADDRESSES 5.1.7

Aspect Ratio (EIS 14):

Insert group address for the aspect ratio selector. To select the desired aspect ratio, put in one of the following numbers:

1: 4:3 2: 16:9

HDMI Monitor Output (EIS 14):

Insert group address for the HDMI monitor output selector. To select the desired monitor, put in one of the following numbers:

- 1: Automatic Detection
- 2: Monitor Out-1
- 3: Monitor Out-2

Analog Resolution (EIS 14):

Insert group address for the analog resolution selector. To select the desired resolution, put in one of the following numbers:

- 1:480p/576p
- 2: 1080i
- 3: 720p
- 4: 1080p
- 5: 10P24
- 6: 4K
- 7: 4K(60/50)
- 8: Auto

HDMI Resolution (EIS 14):

Insert group address for the HDMI resolution selector. To select the desired resolution, put in one of the following numbers:

- 1:480p/576p
- 2: 1080i
- 3: 720p
- 4: 1080p
- 5: 10P24
- 6: 4K
- 6: 4K(60/50)
- 8: Auto

HDMI Audio Output (EIS 14):

Insert group address for the HDMI audio output selector. To select the desired output, put in one of the following numbers:

- 1: Amplifier
- 2: TV

Video Processing Mode (EIS 14):

Insert group address for the video processing mode selector. To select the desired mode, put in one of the following numbers:

1: Auto 2: Game 3: Movie

AUDIO SETTINGS/TONE CONTROL ADDRESSES 5.1.8

Tone Control On/Off (EIS 1):

Insert group address for the Tone Control on/off switch

Relative Bass Amount (EIS 1):

Insert group address for the relative bass control.

Absolute Bass Amount (EIS 6):

Insert group address for the absolute bass control (e.g. for sliders).

Relative Treble Amount (EIS 1):

Insert group address for the relative treble control.

Absolute Treble Amount (EIS 6):

Insert group address for the absolute treble control (e.g. for sliders).

Dialog Level On/Off (EIS 1)

Insert group address for the dialog level on/off switch.

Relative Dialog Level (EIS 1):

Insert group address for the relative dialog level control.

Absolute Dialog Level (EIS 6):

Insert group address for the absolute dialog level control (e.g. for sliders).

Subwoofer Level Adjustment On/Off (EIS 1):

Insert group address for the subwoofer level adjustment on/off switch.

Relative Subwoofer Level Adjustment (EIS 1):

Insert group address for the relative subwoofer level adjustment control.

Absolute Subwoofer Level Adjustment (EIS 6):

Insert group address for the absolute subwoofer level adjustment control (e.g. for sliders).

Relative Subwoofer 2 Level Adjustment (EIS 1):

Insert group address for the relative subwoofer 2 level adjustment control.

Absolute Subwoofer 2 Level Adjustment (EIS 6):

Insert group address for the absolute subwoofer 2 level adjustment control (e.g. for sliders).

Cinema EQ On/Off (EIS 1):

Insert group address for the Cinema EQ on/off switch.

Tone Mode (EIS 14):

Insert group address for the Tone Mode selector. To select the desired mode, put in one of the following numbers:

- 1: Music
- 2: Cinema
- 3: GAME
- 4: Pro Logic

Loudness Management On/Off (EIS 1):

Insert group address for the Loudness Management on/off switch.

Front Height Output On/Off (EIS 1):

Insert group address for the front height on/off switch.

Speaker Output (EIS 14):

Insert group address for the speaker output selector. To select the desired option, put in one of the following numbers:

- 1: Front Wide
- 2: Front Height
- 3: Surround Back
- 4: Front Height & Front Wide
- 5: Surround Back & Front Height
- 6: Surround Back & Front Wide
- 7: Floor
- 8: Height & Floor
- 9: Front

Height Gain (EIS 14):

Insert group address for the height gain selector. To select the desired option, put in one of the following numbers:

- 1: LOW
- 2: MID
- 3: HI

Audyssey MultEQ® XT32 (EIS 14):

Insert group address for the Audyssey MultEQ® XT32. To select the desired option, put in one of the following numbers:

- 1: Audyssey
- 2: LR Bypass
- 3: Flat
- 4: Manual
- 5: Off

Audyssey Dynamic EQ® On/Off (EIS 1):

Insert group address for the Audyssey Dynamic EQ® on/off switch.

Reference Level Offset (EIS 14):

Insert group address for the Reference Level Offset. To select the desired option, put in one of the following numbers:

- 1: 0 dB
- 2: 5 dB
- 3: 10 dB
- 4: 15 dB

Audyssey Dynamic Volume® (EIS 14):

Insert group address for the Audyssey Dynamic Volume®. To select the desired option, put in one of the following numbers:

- 1: Heavy
- 2: Medium
- 3: Light
- 4: Light

5: Off

Audyssey LFC™ On/Off (EIS 1):

Insert group address for the Audyssey LFC™ on/off switch.

Relative Containment Amount (EIS 1):

Insert group address for the relative containment amount control.

Absolute Containment Amount (EIS 14):

Insert group address for the absolute containment amount control.

Audyssey DSX® Select (EIS 14):

Insert group address for the Audyssey DSX® selector. To select the desired option, put in one of the following numbers:

- 1: On (Height & Wide)
- 2: On (Heights)
- 3: On (Width)
- 4: Off

Relative Stage Width (EIS 1):

Insert group address for the relative stage width control.

Absolute Stage Width (EIS 6):

Insert group address for the absolute stage width control (e.g. for sliders).

Relative Stage Height (EIS 1):

Insert group address for the relative stage height control.

Absolute Stage Height (EIS 6):

Insert group address for the absolute stage height control (e.g. for sliders).

Graphic EQ On/Off (EIS 1):

Insert group address for the Graphic EQ on/off switch.

Dynamic Compression (EIS 14):

Insert group address for the Dynamic Compression. To select the desired option, put in one of the following numbers:

- 1: Auto
- 2: Low
- 3: Mid
- 4: High
- 5: Off

Relative Bass Sync (EIS 1):

Insert group address for the relative bass sync control.

Absolute Bass Sync (EIS 6):

Insert group address for the absolute bass sync control (e.g. for sliders).

Dialog Enhancer (EIS 14):

Insert group address for the Dialog Enhancer. To select the desired mode, put in one of the following numbers:

- 1: Off
- 2: Low
- 3: Medium
- 4: High

Relative Low Frequency Effects Level (EIS 1):

Insert group address for the relative Low Frequency Effects level control.

Absolute Low Frequency Effects Level (EIS 14):

Insert group address for the absolute Low Frequency Effects level control.

Low Frequency Effects Direct Change (EIS 14):

Insert group address for the Low Frequency Effects direct change. To select the desired level, put in one of the following numbers:

- 1: 0
- 2:5
- 3: 10
- 4: 15

Effect Level Adjustment On/Off (EIS 1):

Insert group address for the effect level on/off switch.

Relative Effect Level (EIS 1):

Insert group address for the relative effect level control.

Absolute Effect Level (EIS 14):

Insert group address for the absolute effect level control.

Relative Delay Time (EIS 1):

Insert group address for the relative delay time control.

Absolute Delay Time (EIS 10):

Insert group address for the absolute delay time control.

Panorama On/Off (EIS 1):

Insert group address for the Panorama on/off switch.

Relative Dimension Level (EIS 1):

Insert group address for the relative Dimension level control.

Absolute Dimension Level (EIS 14):

Insert group address for the absolute Dimension level control.

Relative Center Width Level (EIS 1):

Insert group address for the relative center width level control.

Absolute Center Width Level (EIS 6):

Insert group address for the absolute center width level control (e.g. for sliders).

Relative Center Image (EIS 1):

Insert group address for the relative center image control.

Absolute Center Image (EIS 6):

Insert group address for the absolute center image control (e.g. for sliders).

Relative Center Gain Level (EIS 1):

Insert group address for the relative center gain level control.

Absolute Center Gain Level (EIS 6):

Insert group address for the absolute center gain level control (e.g. for sliders).

Center Spread On/Off (EIS 1):

Insert group address for the center spread on/off switch.

Subwoofer Output On/Off (EIS 1):

Insert group address for the subwoofer output on/off Switch.

Room Size (EIS 14):

Insert group address for the room size. To select the desired size, put in one of the following numbers:

- 1: Small
- 2: Medium Small
- 3: Medium
- 4: Medium Large
- 5: Large

Relative Audio Delay Level (EIS 1):

Insert group address for the relative audio delay level control.

Absolute Audio Delay Level (EIS 10):

Insert group address for the absolute audio delay level control.

Audio Restorer (EIS 14):

Insert group address for the audio restorer. To select the desired option, put in one of the following numbers:

- 1: Off
- 2: Low
- 3: Medium
- 4: High

Front Speaker (EIS 14):

Insert group address for the front speaker. To select the desired option, put in one of the following numbers:

1: Speaker A 2: Speaker B 3: Speaker A+B

PICTURE MODE SETTINGS ADDRESSES 5.1.9

Picture Mode (EIS 14):

Insert group address for Picture Mode. To select the desired mode, put in one of the following numbers:

- 1: Off
- 2: Standard
- 3: Movie
- 4: Vivid
- 5: Stream
- 6: Custom
- 7: ISF Day
- 8: ISF Night

Relative Contrast Level (EIS 1):

Insert group address for the relative contrast level control.

Absolute Contrast Level (EIS 6):

Insert group address for the absolute contrast level control(e.g. for sliders).

Relative Brightness Level (EIS 1):

Insert group address for the relative brightness level control.

Absolute Brightness Level (EIS 6):

Insert group address for the absolute brightness level control (e.g. for sliders).

Relative Saturation Level (EIS 1):

Insert group address for the relative saturation level control.

Absolute Saturation Level (EIS 6):

Insert group address for the absolute saturation level control (e.g. for sliders).

Relative Hue Level (EIS 1):

Insert group address for the relative hue level control.

Absolute Hue Level (EIS 6):

Insert group address for the absolute hue level (e.g. for sliders).

Noise Reduction (EIS 14):

Insert group address for noise reduction. To select the desired mode, put in one of the following numbers:

- 1: Off
- 2: Low
- 3: Mid
- 4: High

Relative Enhancer Level (EIS 1):

Insert group address for the relative enhancer level control.

Absolute Enhancer Level (EIS 14):

Insert group address for the absolute enhancer level control (e.g. for sliders)

5.1.10 **70NF 2**

Zone 2 On/Off (EIS 1):

Insert group address for the on/off switch.

Audio Input Source (Z2) (EIS 14):

Insert group address for the input source. To select the desired source, put in one of the following numbers (please note that some Denon receiver models do not support all options):

- 1: Phono
- 2: CD
- 3: HD Radio
- 4: Tuner
- 5: DVD
- 6: Blu-Ray
- 7: TV
- 8: SAT/cable
- 9: Media Player
- 10: Game
- 11: AUX 1
- 12: AUX 2
- 13: Network
- 14: Pandora
- 15: Sirius XM
- 16: Spotify
- 17: Flickr
- 18: Favorites
- 19: iRadio
- 20: Server
- 21: iPod/USB
- 22: iPod/USB and USB Start Playback
- 23: iPod/USB and iPod Direct Start Playback
- 24: Network and Internet Radio Start Playback
- 25: Network and Favorites Start Playback

Relative Volume (Z2) (EIS 1):

Insert group address for the relative volume level control.

Relative Volume (Dimmer) (Z2) (EIS 2):

Insert the group address for the relative volume control (for dimmers).

Absolute Volume (Z2) (EIS 6):

Insert group address for the absolute volume level control (e.g. for sliders).

Mute (Z2) (EIS 1):

Insert group address for the mute switch.

Channel Output (Z2) (EIS 14):

Insert group address for the channel output. To select the desired output, put in one of the following numbers:

- 1: Stereo
- 2: Mono

Relative Left Channel Volume (Z2) (EIS 1):

Insert group address for the relative left channel volume control.

Absolute Left Channel Volume (Z2) (EIS 6):

Insert group address for the absolute left channel volume control (e.g. for sliders).

Relative Right Channel Volume (Z2) (EIS 1):

Insert group address for the relative right channel volume.

Absolute Right Channel Volume (Z2) (EIS 6):

Insert group address for the absolute right channel volume (e.g. for sliders).

High Pass Filter On/Off (Z2) (EIS 1):

Insert group address for the high pass filter on/off switch.

Relative Bass Level (Z2) (EIS 1):

Insert group address for the relative bass level control.

Absolute Bass Level (Z2) (EIS 6):

Insert group address for the absolute bass level control (e.g. for sliders).

Relative Treble Level (Z2) (EIS 1):

Insert group address for the relative treble level.

Absolute Treble Level (Z2) (EIS 6):

Insert group address for the absolute treble level (e.g. for sliders).

HDMI-Audio (Z2) (EIS 14):

Insert group address for HDMI Audio. To select the desired format, put in one of the following numbers:

- 1: Pass-Through (Standard)
- 2: PCM

Auto Standby (Z2) (EIS 14):

Insert group address for Auto Standby. To select the desired setting, put in one of the following numbers:

- 1: 2 hours (default)
- 2: 4 hours
- 3: 8 hours
- 4: off

Sleep Timer (Z2) (EIS 14):

Insert group address for the Sleep Timer (0 = off, 1 - 120 correspond to the amount of time in minutes it takes to go to sleep. Every input value greater than 120 is going to be replaced with 120.).

Select Favorite Station (Z2) (EIS 14):

Insert group address for the favorite station selector. The numbers 1 to 4 each correspond to a favorite station.

Save Favorite Station (Z2) (EIS 14):

Insert group address for saving a favorite station. The numbers 1 to 4 each correspond to a memory bank to save your favorite stations into.

Quick Select (Z2) (EIS 14):

Insert group address for the Zone 2 Quick Selector. The numbers 1 to 5 each correspond to a quick select option.

Save Quick Select (Z2) (EIS 14):

Insert group address for saving a Quick Select option. The numbers 1 to 5 each correspond to a memory bank to save your quick select option into.

5.1.11 ZONE 3

Zone 3 On/Off (EIS 1):

Insert group address for the on/off switch.

Audio Input Source (Z3) (EIS 14):

Insert group address for the input source. To select the desired source, put in one of the following numbers (please note that some Denon receiver models do not support all options):

- 1: Phono
- 2: CD
- 3: HD Radio
- 4: Tuner
- 5: DVD
- 6: Blu-Ray
- 7: TV
- 8: SAT/cable
- 9: Media Player
- 10: Game
- 11: AUX 1
- 12: AUX 2
- 13: Network
- 14: Pandora
- 15: Sirius XM
- 16: Spotify
- 17: Flickr
- 18: Favorites
- 19: iRadio
- 20: Server
- 21: iPod/USB
- 22: iPod/USB and USB Start Playback
- 23: iPod/USB and iPod Direct Start Playback
- 24: Network and Internet Radio Start Playback
- 25: Network and Favorites Start Playback

Relative Volume (Z3) (EIS 1):

Insert group address for the relative volume level control.

Relative Volume (Dimmer) (Z3) (EIS 2):

Insert the group address for the relative volume control (for dimmers).

Absolute Volume (Z3) (EIS 6):

Insert group address for the absolute volume level control (e.g. for sliders).

Mute (Z3) (EIS 1):

Insert group address for the mute switch.

Channel Output (Z3) (EIS 14):

Insert group address for the channel output. To select the desired output, put in one of the following numbers:

- 1: Stereo
- 2: Mono

Relative Left Channel Volume (Z3) (EIS 1):

Insert group address for the relative left channel volume control.

Absolute Left Channel Volume (Z3) (EIS 6):

Insert group address for the absolute left channel volume control (e.g. for sliders).

Relative Right Channel Volume (Z3) (EIS 1):

Insert group address for the relative right channel volume.

Absolute Right Channel Volume (Z3) (EIS 6):

Insert group address for the absolute right channel volume (e.g. for sliders).

High Pass Filter On/Off (Z3) (EIS 1):

Insert group address for the high pass filter on/off switch.

Relative Bass Level (Z3) (EIS 1):

Insert group address for the relative bass level control.

Absolute Bass Level (Z3) (EIS 6):

Insert group address for the absolute bass level control (e.g. for sliders).

Relative Treble Level (Z3) (EIS 1):

Insert group address for the relative treble level.

Absolute Treble Level (Z3) (EIS 6):

Insert group address for the absolute treble level (e.g. for sliders).

Sleep Timer (Z3) (EIS 14):

Insert group address for the Sleep Timer (0 = off, 1 - 120 correspond to the amount of time in minutes it takes to go to sleep. Every input value greater than 120 is going to be replaced with 120.).

Auto Standby (Z3) (EIS 14):

Insert group address for Auto Standby. To select the desired setting, put in one of the following numbers:

- 1: 2 hours (default)
- 2: 4 hours
- 3: 8 hours
- 4: off

Select Favorite Station (Z3) (EIS 14):

Insert group address for the favorite station selector. The numbers 1 to 4 each correspond to a favorite station.

Save Favorite Station (Z3) (EIS 14):

Insert group address for saving a favorite station. The numbers 1 to 4 each correspond to a memory bank to save your favorite stations into.

Quick Select (Z3) (EIS 14):

Insert group address for the Zone 2 Quick Selector. The numbers 1 to 5 each correspond to a quick select option.



Save Quick Select (Z3) (EIS 14):

Insert group address for saving a Quick Select option. The numbers 1 to 5 each correspond to a memory bank to save your quick select option into.

5.1.12 ANALOG TUNER CONTROL ADDRESSES

Frequency Control (EIS 1):

Insert group address for the frequency control (1: up, 0: down).

Frequency Input (EIS 11):

Insert group address for the fequency input.

Return Station Name (EIS 1):

Insert group address for returning the station name.

Station Name Display (EIS 15):

Insert group address for the display on which the station name will be shown.

Browse Presets (EIS 1):

Insert group address for browsing through the presets (1: up, 0: down).

Preset Direct Change (EIS 14):

Insert group address for the preset direct change. The numbers 1 to 56 each correspond to a preset.

Auto-Save Preset (EIS 1):

Insert group address for saving a preset. The preset will automatically be stored in a vacant memory slot.

Save Preset (EIS 14):

Insert group address for saving a preset. The numbers 1 to 56 each correspond to a memory bank, where you can store the preset channel.

Select Tuner Band (EIS 14):

Insert group address of the tuner band selector. To select the desired band, insert one of the following digits:

- 1: AM
- 2: FM

Tuning Mode (EIS 14):

Insert group address for the tuning mode selector. To select the desired mode, put in one of the following numbers:

- 1: Auto
- 2: Manual

HD RADIO CONTROL ADDRESSES 5.1.13

Browse Channels (EIS 1):

Insert group address for browsing through the channels.

Multi Cast Channel Input (EIS 14):

Insert group address for the Multi Cast channel input.

Frequency Input (EIS 11):

Insert group address for the frequency input.

Frequency and Multi Cast Channel Input (EIS 11):

Insert group address for the frequency and Multi Cast channel input. The first six digits of the input represent the frequency while the last digit on the right represents the Multi Cast channel

Browse Presets (EIS 1):

Insert group address for browsing through the presets (1: up, 0: down).

Preset Direct Change (EIS 14):

Insert group address for the preset direct change.

Auto-Save Preset (EIS 1):

Insert group address for saving a preset. The preset will automatically be saved in a memory slot.

Save Preset (EIS 14):

Insert group address for saving a preset. The numbers 1 to 56 each correspond to a memory bank, where the preset can be stored.

Select Radio Band (EIS 14):

Insert group address for the radio band selector. To select the desired option, put in one of the following numbers:

- 1: AM
- 2: FM

Tuning Mode (EIS 14):

Insert group address for the tuning mode selector. To select the desired option, put in one of the following numbers:

- 1: Auto-HD
- 2: Auto
- 3: Manual
- 4: Analog Auto
- 5: Analog Auto Manual

MUSIC/USB/IPOD/BLUETOOTH 5.1.14 ONLINE CONTROL **ADDRESSES**

Cursor Up/Down (EIS 1):

Insert group address for the cursor up/down control (1: up, 0: down).

Cursor Left/Right (EIS 1):

Insert group address for the cursor left/right control (1: left, 0: right).

Enter (Play/Pause) (EIS 1):

Insert group address for the enter command.

Play (EIS 1):

Insert group address for the play command.

Pause (EIS 1):

Insert group address for the pause command.

Stop (EIS 1):

Insert group address for the stop command.

Skip (EIS 1):

Insert group address for the skip command (1: forwards, 0: backwards).

Manual Search (USB/Media Server/Bluetooth) (EIS 1):

Insert group address for the manual search control (1: left, 0: right).

Repeat (USB/Media Server/Bluetooth) (EIS 14):

Insert group address for the repeat command. Send the following values to select the corresponding mode:

- 1: Repeat One
- 2: Repeat All
- 3: Off (default)

Random/Shuffle On/Off (EIS 1):

Insert group address for the random command. You can start by sending a 1 and terminate the function by sending a 0.

Browse Mode/Remote Mode On/Off (EIS 1):

Insert group address for the Browse Mode/Remote Mode on/off switch.

Page Control (EIS 1):

Insert group address for the page control (1: next, 0:previous).

Halt Manual Search (EIS 1):

Insert group address for the halt manual search command.

Repeat Toggle (USB/iPod/Media Server/Airplay/Bluetooth) (EIS 1):

Insert group address for the repeat toggle.

Random Toggle (USB/iPod/Media Server/Airplay/Bluetooth) (EIS 1):

Insert group address for the random toggle.

Direct Preset Call (EIS 14):

Insert group address for Direct Preset Call.

Direct Preset Memory (EIS 14):

Insert group address for Direct Preset Memory. Put in the number where you want the preset to be stored at.

Add Favorites Folder (EIS 1):

Insert group address for adding a favorites folder.

Return Net Audio Preset Name Status (EIS 1):

Insert group address for returning the Net Audio Preset Name status.

Net Audio Preset Name Status Line 1 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 1.

Net Audio Preset Name Status Line 2 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 2.

Net Audio Preset Name Status Line 3 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 3.

Net Audio Preset Name Status Line 4 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 4.

Net Audio Preset Name Status Line 5 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 5.

Net Audio Preset Name Status Line 6 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 6.

Net Audio Preset Name Status Line 7 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 7.

Net Audio Preset Name Status Line 8 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 8.

Net Audio Preset Name Status Line 9 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 9.

Net Audio Preset Name Status Line 10 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 10.

Net Audio Preset Name Status Line 11 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 11.

Net Audio Preset Name Status Line 12 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 12.

Net Audio Preset Name Status Line 13 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 13.

Net Audio Preset Name Status Line 14 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 14.

Net Audio Preset Name Status Line 15 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 15.

Net Audio Preset Name Status Line 16 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 16.

Net Audio Preset Name Status Line 17 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 17.

Net Audio Preset Name Status Line 18 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 18.

Net Audio Preset Name Status Line 19 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 19.

Net Audio Preset Name Status Line 20 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 20.

Net Audio Preset Name Status Line 21 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 21.

Net Audio Preset Name Status Line 22 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 22.

Net Audio Preset Name Status Line 23 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 23.

Net Audio Preset Name Status Line 24 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 24.

Net Audio Preset Name Status Line 25 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 25.

Net Audio Preset Name Status Line 26 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 26.

Net Audio Preset Name Status Line 27 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 27.

Net Audio Preset Name Status Line 28 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 28.

Net Audio Preset Name Status Line 29 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 29.

Net Audio Preset Name Status Line 30 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 30.

Net Audio Preset Name Status Line 31 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 31.

Net Audio Preset Name Status Line 32 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 32.

Net Audio Preset Name Status Line 33 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 33.

Net Audio Preset Name Status Line 34 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 34.

Net Audio Preset Name Status Line 35 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 35.

Net Audio Preset Name Status Line 36 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 36.

Net Audio Preset Name Status Line 37 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 37.

Net Audio Preset Name Status Line 38 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 38.

Net Audio Preset Name Status Line 39 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 39.

Net Audio Preset Name Status Line 40 (UTF-8) (EIS 15):

Insert group address for Net Audio Preset Name Status Line 40.

Return Onscreen Display Information List (ASCII) (EIS 1):

Insert group address for returning the Onscreen Display Information List (ASCII).

Onscreen Display Line 1 (ASCII) (EIS 15):

Insert group address for Onscreen Diplay Line 1.

Onscreen Display Line 2 (ASCII) (EIS 15):

Insert group address for Onscreen Diplay Line 2.

Onscreen Display Line 3 (ASCII) (EIS 15):

Insert group address for Onscreen Diplay Line 3.

Onscreen Display Line 4 (ASCII) (EIS 15):

Insert group address for Onscreen Diplay Line 4.

Onscreen Display Line 5 (ASCII) (EIS 15):

Insert group address for Onscreen Diplay Line 5.

Onscreen Display Line 6 (ASCII) (EIS 15):

Insert group address for Onscreen Diplay Line 6. Onscreen Display Line 7 (ASCII) (EIS 15):

Insert group address for Onscreen Diplay Line 7.

Onscreen Display Line 8 (ASCII) (EIS 15):

Insert group address for Onscreen Diplay Line 8.

Onscreen Display Line 9 (ASCII) (EIS 15):

Insert group address for Onscreen Diplay Line 9.

Return Onscreen Display Information List (UTF-8) (EIS 1):

Insert group address for returning the Onscreen Display Information List (UTF-8).

Onscreen Display Line 1 (EIS 15):

Insert group address for Onscreen Display Line 1.

Onscreen Display Line 2 (EIS 15):

Insert group address for Onscreen Display Line 2.

Onscreen Display Line 3 (EIS 15):

Insert group address for Onscreen Display Line 3.

Onscreen Display Line 4 (EIS 15):

Insert group address for Onscreen Display Line 4.

Onscreen Display Line 5 (EIS 15):

Insert group address for Onscreen Display Line 5.

Onscreen Display Line 6 (EIS 15):

Insert group address for Onscreen Display Line 6.

Onscreen Display Line 7 (EIS 15):

Insert group address for Onscreen Display Line 7.

Onscreen Display Line 8 (EIS 15):

Insert group address for Onscreen Display Line 8.

Onscreen Display Line 9 (EIS 15):

Insert group address for Onscreen Display Line 9.

5.1.15 SYSTEM CONTROL ADDRESSES

Cursor Up/Down (EIS 1):

Insert group address for the cursor up/down control (1: Up, 0: Down).

Cursor Left/Right (EIS 1):

Insert group address for the cursor left/right control (1: Left, 0: Right).

Enter (EIS 1):

Insert group address for the enter command.

Return (EIS 1):

Insert group address for the return command.

Option (EIS 1):

Insert group address for the option command.

Info (EIS 1):

Insert group address for the info command.

Channel Level Adjust On/Off (EIS1):

Insert group address for the Channel Level Adjust on/off switch.

On Screen Display Menu On/Off (EIS 1):

Insert group address for the On Screen Display menu.

InstaPrevue On/Off (EIS 1):

Insert group address for the InstaPrevue on / off switch.

All Zone Stereo On/Off (EIS 1):

Insert group address for the All Zone Stereo on/off switch.

Remote Control Lock On/Off (EIS 1):

Insert group address for the remote control lock on/off switch.

Panel Lock On/Off (EIS 14):

Insert group address for the panel lock on/off input (0: Off, 1: Panel lock on, 2: Panel and master volume lock on).

Trigger Output 1 On/Off (EIS 1):

Insert group address for the Trigger 1 on/off switch.

Trigger Output 2 On/Off (EIS 1):

Insert group address for the Trigger 2 on/off switch.

Upgrade ID Request (EIS 1):

Insert group address for the upgrade ID request switch. The ID will then be displayed on the Upgrade ID Display.

Upgrade ID Display (EIS 15):

Insert group address for the upgrade ID display.

Remote Maintenance Mode On/Off (EIS 1):

Insert group address for the Remote Maintenace on/off switch.

Display Brightness (EIS 14):

Insert group address for the display brightness selector. To select the desired brightness, insert one of the following numbers:

- 1: Bright (default)
- 2: Dim
- 3: Dark
- 4: Off

6 **ATTACHMENT**

function	EIS type	DPT	typical function	typical values	data	identifier
PriorityPosi- tion	EIS1	DPT1	Wind alarm	1=high and inhibit	1 Bit	1-bit
Switch	EIS1	DPT1	Light switching	0=Off; 1=On	1 Bit	1-bit
DimControl	EIS2	DPT3	Dimming	0=Off; 1=On xxxx=relative dimming 0-255=absolute dimming	1Bit 4Bit 8Bit	3-bit controlled
Time	EIS3	DPT1 0	Time	Hhh:mm:ss	3 Byte	Time
Date	EIS4	DPT1 1	Date	dd:mm:yyyy	3 Byte	Date
Value	EIS5	DPT9	Value	0-255	1Byte	2-byte float value
DimValue	EIS6	DPT5	Percent	0-100%	1Byte	8-bit unsigned value
DriveBlade Value	EIS6	DPT5	Position value	0-100%; 0-255	1Byte	8-bit unsigned value
DriveShutter Value	EIS6	DPT5	Position value	0-100%; 0-255	1Byte	8-bit unsigned value
Position	EIS6	DPT5	Control value Heating	0-100%; 0-255	1Byte	8-bit unsigned value
DriveMove	EIS7	DPT1	Move shutter	0=up 1=down	1Bit	1-bit
DriveStep	EIS7	DPT1	Adjusting the slat blind	0=up; 1= down; 0 or 1 during movement=stop	1Bit	1-bit
PriorityCont- rol	EIS8	DPT2	Priority	0,1 switch; 3=forced off; 4=forced on	2Bit	1-bit controlled
FloatValue	EIS9	DPT1 4	IEEE	Floating-point value	4 Byte	4-byte float value
Counter 16bit	EIS10	DPT7	Counter 16 bit	0 - 65.535	2Byte	2-byte unsigned value
Counter 16bit	EIS10	DPT8	Counter 16 bit with sign	-32.768 - 32.767	2Byte	2-byte signed value
Counter 32bit	EIS11	DPT1 2	Counter 32 bit	0 - 4.294.967.295	4Byte	4-byte unsigned value
Counter 32bit	EIS11	DPT1 3	Counter 32 bit with sign	0 - 4.294.967.295	4Byte	4-byte signed value



Access	EIS12	DPT1	Access control	Card number	4Byte	Entrance
Control		5				access
Char	EIS13	DPT4	ASCII	Character	1Byte	Character
			characters			
Counter 8bit	EIS14	DPT5	Value	0 - 255	1Byte	8-bit
						unsigned value
Counter 8bit	EIS14	DPT6	Value with sign	-128 - 127	1Byte	8-bit
						signed value
String	EIS15	DPT1	String	max. 14 characters	14	Character
		6			Byte	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)