

ARCAM

ARCAM | AVA-Series | IP & RS232

Functionality Guide

by Janus Technology

About this Guide

This guide describes what the ARCAM AVA-Series driver cover: the commands it exposes, the events it raises, the feedback it maintains, and the behaviour to expect from real hardware. It complements the *Driver Installation Guide*, which covers getting the driver into a URC Accelerator project.

Everything here applies to every model in the range unless a section says otherwise.

Connection

Property	Value
Transport Port	TCP/IP or RS232 50000
RS232	115200 8-N-1.

Two-way Commands

Parameters are listed using their exact label names as shown in URC Accelerator.

#	Command Label	Parameters	Description
0	Set Volume	Volume: 0-100, Zone	Sets the zone volume to an absolute level
1	Increment/Decrement Volume	Volume: Increment / Decrement, Zone	Steps the zone volume by 1
2	Set Mute	Status: On / Off, Zone	Sets the zone mute state
3	Toggle Mute	Zone	Toggles the zone mute state
4	Set Power	Status: On / Off / Toggle, Zone	Sets the zone power state
5	Set Input	Input: see Inputs, Zone	Selects the zone source
6	Set Display Brightness	Level: Full / Dim / Dimmer / Off	Front panel display brightness
7	Set Bass	dB: -12 to +12	Bass level
8	Increment/Decrement Bass	dB: Increment / Decrement	Steps bass by 1 dB
9	Set Treble	dB: -12 to +12	Treble level
10	Increment/Decrement Treble	dB: Increment / Decrement	Steps treble by 1 dB
11	Set Subwoofer Trim	dB: -10 to +10	Subwoofer trim
12	Increment/Decrement Subwoofer Trim	dB: Increment / Decrement	Steps subwoofer trim
13	Set Sub Stereo Trim	dB: -10 to +10	Subwoofer trim used for stereo material
14	Increment/Decrement Sub Stereo Trim	dB: Increment / Decrement	Steps sub stereo trim
15	Set Lip Sync Delay	ms: 0-250	Audio delay relative to video
16	Increment/Decrement Lip Sync Delay	ms: Increment / Decrement	Steps lip sync delay
17	Set Room EQ	Slot: Off / Slot1 / Slot2 / Slot3	Selects the Dirac room correction slot
18	Set Upmixer Mode - 2 Channel	Mode: see below	Upmixer applied to 2-channel material
19	Set Upmixer Mode - Multichannel	Mode: see below	Upmixer applied to multichannel material
20	Set HDMI Output	Output: output1And2 / output1 / output2	Selects the active HDMI output(s)

21	Simulate IR Command	Command: see below	Emulates a handset button press. Not zoned
22	Set Max Volume	Volume: 0-100, Zone	Sets the zone's maximum volume limit
23	Follow Zone 1	none	Sets Zone 2 to mirror Zone 1 rather than take its own source

Upmixer Modes

- *Set Upmixer Mode - 2 Channel* accepts:
 - lastMode,
 - stereo,
 - dolbySurround,
 - dtsNeuralX,
 - dtsVirtualX,
 - auro3D,
 - auro2D,
 - mchStereo,
 - stereoDownmix.
- *Set Upmixer Mode - Multichannel* accepts:
 - lastMode,
 - native,
 - nativeUpmixer
 - dolbySurround,
 - dtsNeuralX,
 - dtsVirtualX,
 - auro3D,
 - auro2D,
 - mchStereo,
 - stereoDownmix.

Not every mode is valid for each source and model - see **Expected Behaviour** below.

One-way Commands

The one-way driver exposes the standard URC button set per zone: power on/off/toggle, volume up/down, mute on/off/toggle, and one entry per input. Transport keys (play, pause, skip forward, skip back) are relayed through Simulate IR and so are shown once for the unit rather than per zone.

Inputs

Input #	Label	Reference	Type
1	HDMI 1	hdmi1	Video + Audio
2	HDMI 2	hdmi2	Video + Audio
3	HDMI 3	hdmi3	Video + Audio
4	HDMI 4	hdmi4	Video + Audio
5	HDMI 5	hdmi5	Video + Audio
6	HDMI 6	hdmi6	Video + Audio
7	HDMI 7	hdmi7	Video + Audio
8	Digital 1	digital1	Audio Only
9	Digital 2	digital2	Audio Only
10	Digital 3	digital3	Audio Only
11	Digital 4	digital4	Audio Only
12	Analogue 1	analogue1	Audio Only
13	Analogue 2	analogue2	Audio Only
14	Analogue 3	analogue3	Audio Only
15	Analogue 4	analogue4	Audio Only
16	HDMI ARC	hdmiArc	Audio Only
17	Bluetooth	bluetooth	Audio Only (internal source)
18	Network Streaming	networkStreaming	Audio Only (internal source)
-	Follow Zone 1	followZone1	Zone 2 only - mirrors Zone 1

Bluetooth and Network Streaming are internal sources, these are the only two that report Now Playing metadata.

Events

#	Event Label	Values	Scope
0	Power Changed	On / Off	per zone
1	Mute Changed	On / Off	per zone
2	Input Changed	any input reference	per zone
3	Bluetooth Status Changed	Connected / Not Connected	whole unit

Expected Behaviour

- **Volume** is 0-100 and is limited by *Set Max Volume*. Setting a volume above the configured maximum results in the maximum.
- **Power off** for a zone does not necessarily power the whole unit down; the unit stays reachable so the driver keeps its connection and feedback.
- **Upmixer modes** are rejected by the unit when they do not apply to the current source material. The driver sends what it is asked to send and logs the rejection; it does not attempt to second-guess which modes are currently valid.
- **Room EQ** slots correspond to Dirac profiles stored on the unit. Selecting a slot with no stored profile has no audible effect.
- **Follow Zone 1** is rejected by the unit on Zone 1. The driver blocks it before it reaches the wire and logs a warning.