Driver Instructions

Arcam Radia ID Series | IP / RS232 Control | Version 1.01

Introduction

This driver has been designed to provide two-way control of the Arcam Radia ID AV processors (AVA15, AVA25, AVA35, AVA45), via Ethernet.

Version History

Version 1.01 – 9 October 2026

- Fixed issue causing driver to lock up due to no response from Now Playing Request
- Added Incoming Audio Format Variable

Version 1.00 – 7 August 2026

- Official initial release

Driver Features

- Zoned power on/off/toggle for Zone 1 and Zone 2
- Zoned volume level, step up/down and mute control
- Zoned input selection, including HDMI, Digital, Analog, Bluetooth, Network/Streaming, HDMI ARC/eARC and Follow Zone 1
- Bass, Treble and Lip Sync adjustment (set level, step up/down)
- Surround/upmixer mode control (current upmixer, 2-channel decode mode, multi-channel decode mode)
- IR remote key simulation (navigation, transport, power, volume, mute and menu keys)
- Bluetooth status and Now Playing metadata (source, track, artist, album, sample rate, codec, bit rate)
- Custom raw hex command passthrough for advanced/undocumented commands
- Connection status and operational mode feedback
- Configurable friendly names for zones and inputs

Driver Exceptions

- Zone 2 input feedback does not update when the input source is changed externally (i.e., outside of the driver).
- Lip Sync adjustment is limited to 100 ms, despite the documentation indicating a supported range of 0–250 ms.
- Mute, Sub Trim, HDMI-ARC, Network Streaming Source Switching, Navigate Down, Bass, and Treble do not function in the tested firmware.

*These exceptions are all related to the tested product firmware, when new firmware is available is exceptions no longer apply

System Requirements & Prerequisites

RTI System Requirements:

- Minimum Integration Designer (Apex) version: 11.16

Network Requirements:
- The unit must be reachable on the network on TCP port 50000.

Arcam Firmware versions:
- HOST : 1032-114-131
- NET : CR443GE_3629_1
- DSP : 1.51
- HDMI : 336-04-49-13-04
- LCD : 145-13

Supported models
- AVA15 (1 zone)
- AVA25 (2 zones)
- AVA35 (2 zones)
- AVA45 (2 zones)

Driver Configuration
System Configuration
- **Model:** Select the specific AVA-Series model being controlled (AVA15 / AVA25 / AVA35 / AVA45).
- **IP Address:** Enter the unit's IP address (xxx.xxx.xxx.xxx). Control is performed over TCP port 50000.
- **Poll Interval:** The interval, in seconds, at which the driver polls the unit for status to maintain consistency (default 10).

Zone Names
- **Zone 1 / Zone 2:** Friendly display names for each zone.

Input Names
- Friendly display names for each of the unit's inputs: Follow Zone 1, HDMI 1-7, Digital 1-4, Analog 1-4, Bluetooth, Network/Streaming and HDMI ARC/eARC.

Driver Commands

System Commands
Zone Power
Powers a zone on or off.
Parameters:
- Zone – Select zone (Zone 1 / Zone 2)
- Power – On, Off or Toggle

Volume Commands
Set Volume
Sets the volume level of a zone.
Parameters:
- Zone – Select zone (Zone 1 / Zone 2)
- Level (0 to 100) – Sets the zone's volume level.

Volume +/-
Steps the volume level of a zone.
Parameters:

- Zone – Select zone (Zone 1 / Zone 2)
- Step – Amount to step the volume by (-10 to 10, default 1).

Mute
Sets the mute state of a zone.
Parameters:

- Zone – Select zone (Zone 1 / Zone 2)
- Mute – On, Off or Toggle.

Input Selection

Set Input
Selects the active input for a zone.
Parameters:

- Zone – Select zone (Zone 1 / Zone 2)
- Source – Follow Zone 1, HDMI 1-7, Digital 1-4, Analog 1-4, Bluetooth, Network/Streaming or HDMI ARC/eARC.

Audio Adjustments

These adjustments apply to the whole unit and are not zoned.
Bass
Sets the bass level.
Parameters:

- Level (dB) – -12 to +12.

Bass Up / Bass Down
Steps the bass level.
Parameters:

- Step – -10 to 10 (default 1 for Up, -1 for Down).

Treble
Sets the treble level.
Parameters:

- Level (dB) – -12 to +12.

Treble Up / Treble Down
Steps the treble level.
Parameters:

- Step – -10 to 10 (default 1 for Up, -1 for Down).

Lip Sync Delay
Sets the lip sync (audio/video) delay.
Parameters:

- Delay (ms, 5ms steps) – 0 to 250.

Lip Sync Up / Lip Sync Down
Steps the lip sync delay.
Parameters:

- Step – -10 to 10 (default 1 for Up, -1 for Down).

Surround Modes

These commands are not zoned; they apply to the unit's main decode path.

Get Current Upmixer

Requests the unit's current upmixer mode. This is also reported unsolicited via the Current Upmixer Indication.

Upmixer Mode

Requests a change of the current upmixer mode.

Parameters:

- Mode – Stereo, Native, Native Upmixer, Dolby Surround, DTS Neural:X, DTS Virtual:X, Auro-3D, Auro-2D, MCH Stereo or Stereo Downmix.

Note: from protocol revision B onwards the unit's firmware documents Current Upmixer as request-only; sending a mode value here may be ignored or rejected by the unit depending on firmware revision.

2ch Decode Mode

Sets the decode/upmixer mode used for 2-channel material.

Parameters:

- Mode – Last Mode, Stereo, Dolby Surround, DTS Neural:X, DTS Virtual:X, Auro-3D, Auro-2D, MCH Stereo or Stereo Downmix.

MCH Decode Mode

Sets the decode/upmixer mode used for multi-channel material.

Parameters:

- Mode – Last Mode, Native, Native Upmixer, Dolby Surround, DTS Neural:X, DTS Virtual:X, Auro-3D, Auro-2D, MCH Stereo or Stereo Downmix.

Remote Control

Simulate IR Remote

Simulates a key press on the unit's IR remote control. Not zoned; applies to the whole unit.

Parameters:

- Command – Standby, Navigate Up/Down/Left/Right, OK, Back, OSD, Menu, Input/Source, Volume +/-, Decode, Lip Sync, Room EQ, Info, Mute, Display Brightness, Skip Back, Play/Pause, Skip Forward, Power On/Off, Mute On/Off.

Media Status

Get Bluetooth Status

Requests the current Bluetooth connection status. Bluetooth status is request-only over the unit's protocol, so this command should be used (or polled) to refresh the value.

Get Now Playing

Requests the current Now Playing metadata (source, track, artist, album, sample rate, codec, bit rate). Now Playing has no unsolicited Indication on the wire, so it must be actively requested/polled to stay current.

Custom Commands

Send API Command

Sends a raw command directly to the unit for testing or for functionality not otherwise exposed by the driver.

Parameters:

- Hex Command (e.g. 21 00 01 FF 01 01 0D) – a space-separated hex byte string.

Driver Variables

Status

Connection Status
Indicates whether the driver is currently connected to and operational with the unit.

- **Type:** Boolean

Operational Mode
Reports the current connection state of the driver: Disconnected, Connecting, Connected, Operational or Unknown.

- **Type:** String

Model Name
Reports the model name reported by the connected unit.

- **Type:** String

Power Variables

Zone 1/2 Power
True if the zone is powered on.

- **Type:** Boolean

Zone 1/2 Power Off
True if the zone is powered off.

- **Type:** Boolean

Volume Variables

Zone 1/2 Mute
True if the zone is currently muted.

- **Type:** Boolean

Zone 1/2 Volume
The current volume level of the zone.

- **Type:** Integer (0 to 100)

Input Selection Variables

Zone 1/2 Source Name
The raw source identifier currently selected for the zone (e.g. hdmi1).

- **Type:** String

Zone 1/2 – [Input] Selected
True if the named input (Follow Zone 1, HDMI 1-7, Digital 1-4, Analog 1-4, Bluetooth, Network/Streaming, HDMI ARC/eARC) is currently selected for the zone. One variable exists per input, per zone.

- **Type:** Boolean

Audio Adjustment Variables

Bass
The current bass level.

- **Type:** Integer (-12 to 12)

Treble
The current treble level.

- **Type:** Integer (-12 to 12)

Subtrim
The current subtrim level.
- **Type:** Integer (-12 to 12)

Lip Sync Delay
The current lip sync delay, in milliseconds.
- **Type:** Integer (0 to 250)

Surround Mode Variables

Upmixer Mode
The current upmixer mode (raw value, e.g. stereo).
- **Type:** String

Upmixer Mode / 2ch Decode Mode / MCH Decode Mode – [Mode] Selected
True if the named mode (Stereo, Native, Native Upmixer, Dolby Surround, DTS Neural:X, DTS Virtual:X, Auro-3D, Auro-2D, MCH Stereo, Stereo Downmix, and Last Mode where applicable) is currently active. One variable exists per mode, per decode path.
- **Type:** Boolean

Media Status Variables

Bluetooth Status
The unit's current Bluetooth connection status.
- **Type:** String

Now Playing Source / Track / Artist / Album / Sample Rate / Codec / Bit Rate
Metadata describing the currently playing media. Populated when Get Now Playing is requested/polled; not pushed unsolicited by the unit.
- **Type:** String

Tags

This driver uses the following non-standard tags. For default tags, reference the master tag list.

Tag Name	M/V/T	Function Usage	Variable Usage
Mute	M/V	Mute current output	Current mute state
Mute Off	M/V	Mute off for current output	Current mute off state
Mute On	M/V	Mute on for current output	Current mute on state
Power	M/V	Power toggle for zone	Zone power toggle state
Power Off	M/V	Power off zone	Zone power off state
Power On	M/V	Power on zone	Zone power on state
Volume	M/V/T	Set volume of the current zone	Volume Level
Volume Down	M	Step volume down	
Volume Up	M	Step volume up	
Bass	M/V	Set bass level	Current bass level
Bass Up	M	Step bass up	
Bass Down	M	Step bass down	
Treble	M/V	Set treble level	Current treble level
Treble Up	M	Step treble up	
Treble Down	M	Step treble down	
Lip Sync Delay	M/V	Set lip sync delay	Current lip sync delay
Lip Sync Up	M	Step lip sync delay up	
Lip Sync Down	M	Step lip sync delay down	
Set Input: [Input Name]	M/V	Select the named input for the current zone	True when the named input is selected
Upmixer Mode: 2ch Decode Mode: [Mode] / MCH Decode Mode: [Mode]	M/V o	Select the named upmixer r decode mode s	M/2ch/MCH decode mode elected state
Bluetooth Status	V	–	Current Bluetooth status
NP Station / NP Title / NP Artist / NP Album / NP Freq	V	–	Current Now Playing source/track/artist/album
Up / Down / Left / Right / Ok / Back / OSD / Menu / Info / Play / Skip Back / Skip Forward	M	Simulate IR remote navigation/transport/menu keys	–

Events

This driver supports the following events.

Event Name	Event Trigger	Notes
Connection Status Changed	Triggers when Connection Status Changes	
Zone 1/2 Power On	Triggers when the zone is powered on	
Zone 1/2 Power Off	Triggers when the zone is powered off	

Troubleshooting

If the driver cannot control the unit confirm the following:

- The Ethernet switch used by the unit is connected to the same network as the RTI processor.
- The correct IP address is defined in the RTI driver properties for the unit's control interface.
- The unit is reachable on TCP port 50000 and no firewall is blocking it.

System Testing

Integration Designer: 11.16
XP Processor Firmware: 25.1.27
Device Model(s): AVA15, AVA25, AVA35, AVA45

Support Contact

If you encounter any issues with the driver, please contact us at https://support.janustechnology.co.uk, and we will be happy to assist however needed.

Disclaimer of liability

The company shall not be liable for any issues, damages, or costs that may arise from the use of our driver software. While we strive to ensure that all versions of our driver are backward compatible, we cannot guarantee that this will always be the case. Users are advised to thoroughly test the driver in their specific environments and configurations before deployment to ensure compatibility and proper functionality. The company makes every effort to provide a reliable and functional product, but the driver is provided "as is" without warranties of any kind, either express or implied. The user assumes full responsibility for any loss, damage, or disruption caused using our driver, including, but not limited to, hardware malfunctions, data loss, or system failures. By using our driver, you acknowledge that you have read and understood this disclaimer, and you agree to release and hold harmless the company from all liabilities associated with its use.