

R2 Command's user manual

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Intro

Welcome to the command user manual of the AUDAC R2 . The R2 is a DSP audiomatrix with multiple inputs and outputs (called zones), for more info about the R2 see the R2 manual.

Input list

- 1 Input 1
- 2 Input 2
- 3 Input 3
- 4 Input 4
- 5 Input 5
- 6 Input 6
- 7 Input 7
- 8 Input 8
- 9 Don't use (system input)
- 10 Don't use (system input)
- 11 Digital/Optical in (don't use at the same time)
- 12 Prio 1
- 13 Prio 2
- 14 Internal sine generator
- 15 Internal white noise generator
- 16 Internal pink noise generator
- 17 WP1 input (digital interface RS485_1)
- 18 WP2 input (digital interface RS485_2)
- 19 WP3 input (digital interface RS485_3)
- 20 WP4 input (digital interface RS485_4)
- 21 WP5 input (digital interface RS485_5)
- 22 WP6 input (digital interface RS485_6)
- 23 WP7 input (digital interface RS485_7)
- 24 WP8 input (digital interface RS485_8)

Output list

- 1 Zone 1
- 2 Zone 2
- 3 Zone 3
- 4 Zone 4
- 5 Zone 5
- 6 Zone 6
- 7 Zone 7
- 8 Zone 8
- 9 Don't use (system output)
- 10 Don't use (system output)
- 11 Digital/Optical out
- 12 WP1 output (digital interface RS485_1)
- 13 WP2 output (digital interface RS485_2)
- 14 WP3 output (digital interface RS485_3)
- 15 WP4 output (digital interface RS485_4)
- 16 WP5 output (digital interface RS485_5)
- 17 WP6 output (digital interface RS485_6)
- 18 WP7 output (digital interface RS485_7)
- 19 WP8 output (digital interface RS485_8)

Using the command's

The R2 has many ports which all accept the same commands:

- RS232 port
- All RS485 ports
- TCP/IP

The RS232/RS485 ports must be configured with 19200 baud, 8 data bits, 1 stop bit, no parity

The TCP/IP port accepts command's at port 5001. All TCP/IP answers returned by the R2 are followed with 0x00.

Command overview

Startsymbol|destination|source|command|argument's|checksum|stopsymbol

Example: Set volume R001 zone 1 to -30dB

ASCII #|R001|F001|SV1|30|55b8|return

HEX 237c523030317c463030317c5356317c33307c353562387c0d0a

Important:

- The checksum is CRC-16 excluding the '#'. You can replace the checksum with 'U', this is always accepted as checksum.
- return = 0x0d 0x0a

Command flow

- 1) The client sends a command to the R2
- 2) The R2 acknowledges the command by returning the same command an a '+' as
Argument, if 'L' is received then this command can't get executed because the load > 90%
- 3) The R2 updates all client's with the new information

All zone settings will be lost if the device is switched off. To keep the changes you must save them with the "SAVE" command. All device settings that are configured through the configuration page of the website are saved with every change automatically.

SVXX

Set volume in a zone to a level

Command: SVXX, where XX is the zone number

Arguments: Volume in neg db, 0 is maximum volume, 150 is minimum volume

Example

Set volume in zone 2 to -40dB

Command *#|R001|F001|SV2|40|944d|return*

Answer *#|F001|R001|SV2|+|f6f5|return*

Update *#|ALL|R001|V02|040|f81e|return*

SVUXX

Set volume up with 3dB in a zone

Command: SVUXX, where XX is the zone number

Arguments: 0 (none)

Example

Current volume in zone 5 is -40db, set volume up with 3dB

Command *#|R001|F001|SVU5|0|16ee|return*

Answer *#|F001|R001|SVU5|+|d29b|return*

Update *#|ALL|R001|V05|037|beac|return*

SVDXX

Set volume down with 3dB in a zone

Command: SVDXX, where XX is the zone number

Arguments: 0 (none)

Example

Current volume in zone 5 is -40db, set volume down with 3dB

Command *#|R001|F001|SVD5|0|1512|return*

Answer *#|F001|R001|SVD5|+|d167|return*

Update *#|ALL|R001|V05|043|bf1f|return*

SVALL

Set volume in all zone's to a level (level can be different for all zones)

Command: SVALL

Arguments: XX^XX^XX^XX^XX^XX^XX^XX, where XX are the volumes

Example

Set volume in zone 1 -10dB, in zone 2 -12dB, in zone 3 -20dB, in zone 4 -19dB, in zone 5 -15dB, in zone 6 -7dB, in zone 7 -150dB, in zone 8 -0dB

Command *#|R001|F001|SVALL|10^12^20^19^15^7^150^0|c80b|return*

Answer *#|F001|R001|SVALL|+|748c|return*

Update *#|ALL|R001|VALL|010^012^20^19^15^7^150^000|fba2|return*

GVXX

Get volume in a zone

Command: GVXX, where XX is the zone number

Arguments: 0 (none)

Example

Get volume in zone 3

Command `#|R001|F001|GV3|0|11b3|return`

Answer `#|F001|R001|V03|025|bc70|return`

Update none, nothing changed

GVALL

Get volume in all zone's

Command: GVALL

Arguments: 0 (none)

Example

Get all volume's

Command `#|R001|F001|GVALL|0|9bf3|return`

Answer `#|F001|R001|10010^012^20^19^15^7^150^000|abe0|return`

Update none, nothing changed

SRXX

Set routing in a zone from a input

Command: SRXX, where XX is the zone number

Arguments: input

Example

Set input 3 to zone 2

Command `#|R001|F001|SR2|3|c940|return`

Answer `#|F001|R001|SR2|+|3604|return`

Update `#|ALL|R001|R02|000^002|5fd0|return`

Important: the first argument of the update is not relevant

SRALL

Set routing in all zone's from a input (input can be different for all zones)

Command: SRALL

Arguments: XX^XX^XX^XX^XX^XX^XX^XX, where XX are the inputs

Example

Set routing in zone 1 from input 2, in zone 2 from input 2, in zone 3 from input 8, in zone 4 from input 12, in zone 5 from input 1, in zone 6 from input 15, in zone 7 from input 8, in zone 8 from input 16

Command `#|R001|F001|SRALL|2^2^8^12^1^15^8^16|cc24|return`

Answer `#|F001|R001|SRALL|+|b4c9|return`

Update `#|ALL|R001|RALL|002^002^008^012^001^015^008^016|45a7|return`

GRXX

Get routing from a zone

Command: GRXX, where XX is the zone number

Arguments: 0 (none)

Example

Get routing from zone 3

Command *#|R001|F001|GR3|0|d142|return*

Answer *#|F001|R001|R03|005^005|92e8|return*

Update none, nothing changed

Important: the first argument of the update is not relevant

GRALL

Get routing in all zone's

Command: GRALL

Arguments: 0 (none)

Example

Get routings from all zones

Command *#|R001|F001|GRALL|0|5bb6|return*

Answer *#|F001|R001|002^002^008^012^001^015^008^016|b56d|return*

Update none, nothing changed

SBXX

Set bass in a zone

Command: SBXX

Arguments: from -9dB to +9dB

Example

Set bass in zone 5 to -3dB

Command *#|R001|F001|SB5|-3|772a|return*

Answer *#|F001|R001|SB5|+|81c4|return*

Update *#|ALL|R001|B05|-03|ed58|return*

GBXX

Get bass in a zone

Command: GBXX

Arguments: 0 (none)

Example

Get Bass from zone 5

Command: *#|R001|F001|GB5|0|9a83|return*

Arguments: *#|F001|R001|B05|-03|29d4|return*

Update: none, nothing changed

STXX

Set treble in a zone

Command: STXX

Arguments: from -9dB to +9dB

Example

Set treble in zone 7 to -6dB

Command *#|R001|F001|ST7|-6|1152|return*

Answer *#|F001|R001|ST7|+|fa8c|return*

Update *#|ALL|R001|T07|-06|79db|return*

GTXX

Get treble in a zone

Command: GTXX

Arguments: 0 (none)

Example

Get treble from zone 7

Command: *#|R001|F001|GT7|0|e1cb|return*

Answer: *#|F001|R001|T07|-06|bd57|return*

Update: none, nothing changed

STI

Set time

Command: STI

Arguments: time (hhmmss, only in 24h format)

Example

Set time to 13h45m10s

Command: *#|R001|F001|STI|134510|671f|return*

Answer: *#|F001|R001|STI|+|d294|return*

Update: *#|F001|R001|TI|134510|985e|return*

Important: The built-in timeserver client synchronizes time every 10 min, if you want to set the time with this command then you have to disable the timeserver client. This can only be done trough the webpage of the R2.

GTI

Get time

Command: GTI

Arguments: 0 (none)

Example

Command: *#|R001|F001|GTI|0|c9d3|return*

Answer: *#|F001|R001|TI|134510|985e|return*

Update: none, nothing changed

SDA

Set date

Command: SDA
Arguments: date (yymmdd)

Example

Set date to 2009 march 26
Command: *#|R001|F001|SDA|090326|b06b|return*
Answer: *#|F001|R001|SDA|+|7157|return*
Update: *#|F001|R001|DA|090326|4f2a|return*

Important: The built-in timeserver client synchronizes the date every 10 min, if you want to set the date with this command then you have to disable the timeserver client. This can only be done trough the webpage of the R2.

SMXX

Set mute state in a zone

Command: SMXX
Arguments: 0 (disable) or 1 (enable)

Example

Enable mute in zone 1
Command *#|R001|F001|SM1|1|2fd4|return*
Answer *#|F001|R001|SM1|+|b091|return*
Update *#|ALL|R001|M01|1|eae7|return*

SMALL

Set mute states in all zone's (mute can be different for all zones)

Command: SRALL
Arguments: XX^XX^XX^XX^XX^XX^XX^XX, where XX is the mute state

Example

Enable mute in zone 1, disable in zone 2, disable in zone 3 ,disable in zone 4, disable in zone 5, enable in zone 6, disable in zone 7, disable in zone 8
Command *#|R001|F001|SMALL|1^0^0^0^0^1^0^0|61fe|return*
Answer *#|F001|R001|SMALL|+|7527|return*
Update *#|ALL|R001|MALL|1^0^0^0^0^1^0^0|2c86|return*

SSG

Set sine generator

Command: SSG

Arguments: 0 (disable) or 1 (enable), freq in Hz

Example

Enable sine generator and set to 2000Hz

Command *#|R001|F001|SSG|1^2000|6c33|return*

Answer *#|F001|R001|SSG|+|fa23|return*

Update *#|ALL|R001|SG|1^2000|c017|return*

GSG

Get sine generator

Command: GSG

Arguments: 0 (none)

Example

Command *#|R001|F001|GSG|0|e164|return*

Answer *#|F001|R001|SG|1^2000|9372|return*

Update none, nothing changed

SAVE

Save's the current zone settings (routing, volume, names, bass, treble, filters, ...)

Command: SAVE

Arguments: 0 (none)

Example

Command *#|R001|F001|SAVE|0|f1b3|return*

Answer *#|F001|R001|SAVE|+|35c6|return*

Update none, nothing changed

DEF

All zone settings and device settings will be reset to factory default.

Command: DEF

Arguments: 0 (none)

Example

Command *#|R001|F001|DEF|0|ed2c|return*

Answer *#|F001|R001|DEF|+|e268|return*

Update none

GSV

Get the software version of the DSP board

Command: GSV

Arguments: 0 (none)

Example

Command *#|R001|F001|GSV|0|dd61|return*

Answer *#|F001|R001|SV|1.0|056c|return*

Update none, nothing changed

WOR

Who is online R types. Request a respond from all 'R' type devices that are connected to each other by fibre Link.

Command: WOR

Arguments| 0 (none)

Example

Command *#|R001|F001|WOR|0|bfb3|return*

Answer *#|F001|R001|OR|+|1ffa|return*

#|F001|R025|OR|+|063e|return

#|F001|R030|OR|+|a96a|return

Update none, nothing changed