ARU2xx commands manual

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Introduction

Welcome to the commands user manual of the Audac ARU2xx series. This manual describes the commands whereby the range of relay units can be controlled using their remote control ports. The ARU2xx series can be controlled using the web interface, audac touch 2 or by RS485 and TCP/IP commands which are listed further in this document.

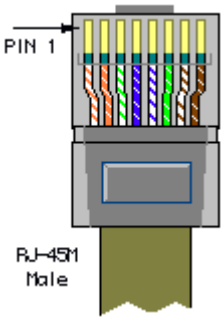
Using the commands

Depending of the type of device the different kinds of communication ports are:

– RS–485 port
– TCP/IP port

RS485 Configuration details

RJ45 (RS485, Digital audio, +24V DC):
For connection to Wall Panels & Paging Consoles



Pin 1	White–Orange	AUDIO TX A
Pin 2	Orange	AUDIO TX B
Pin 3	White–Green	+24V DC
Pin 4	Blue	RS485 A
Pin 5	White–Blue	RS485 B
Pin 6	Green	GND
Pin 7	White–Brown	AUDIO RX A
Pin 8	Brown	AUDIO RX B

TCP/IP Configuration details

IP Address	User configurable
Port	5001
Max connections	1

Command overview

Startsymbol **/** *Destination* **/** *Source* **/** *Command* **/** *Argument(s)* **/** *Checksum* **/** *Stopsymbol*

Each command is followed by an ‘x’ character, which represents the number of the slot whereto the command is sent. If the audio player doesn’t support multiple slots, the number ‘1’ shall always be used.

Example: Get IP–––
ASCII: *#/S001/F001/GIP/U/return*
HEX: *237C533030317c463030317c4749507c557c72657475726e0a*

Notes

- The checksum is CRC–16 excluding the ‘#’. The checksum can always be replaced by ‘U’, which is always accepted.
- Return in ASCII : <CR> <LF> HEX : 0x0D 0x0A (carriage return & line feed)
- Source address has a maximum length of 4 characters and cannot contain ‘/’ or ‘#’

Command flow

1) The client sends a command to the relay unit (Command)
2) The relay unit acknowledges the command by returning the same command and a ‘+’ as Argument. (Acknowledge)
3) The relay unit updates with the new information (Update)

CONFIGURATION AND SETTING COMMANDS

GIP

Get info about the ip address, subnet mask and gateway the relay unit is using:

Command: GIP
Arguments: None (0)
Feedback: dhcp^ip4.ip3.ip2.ip1^mask4.mask3.mask2.mask1^gw4.gw3.gw2.gw1^
DHCP: dhcp ON(1) or OFF(0)
IP: IP4 address of unit
MASK: subnet mask
GW: IP4 address of gateway

Example: Get info about the IP address
#|S001|F001|GIP||crc|<CR><LF>
ARU replies: *#|F001|S001|IP|0^192.168.0.197^255.255.255.0^192.168.0.1|crc|<CR><LF>*

SIP

Set IP address, subnet, gateway and dns servers:

Command: GIP
Arguments: *^ip4.ip3.ip2.ip1^mask4.mask3.mask2.mask1^gw4.gw3.gw2.gw1^dns4.dns3.dns2.dns1^adns4.adns3.adns2.adns1*
dhcp : dhcp ON(1) or OFF(0)
ip : IP4 address of unit
mask : subnet mask
gw : IP4 address of gateway
dns : IP4 address of dns server 1
adns : IP4 address of dns server 2
Feedback: + : acknowledge

Example: Set the IP address
#|F001|S001|SIP|0^192.168.0.197^255.255.255.000^192.168.0.1^8.8.8.8^0.0.0.0|U|<CR><LF>
ARU replies: #|F001|S001|SIP|+|crc|<CR><LF>

SEVNT

Set event:

Command: SEVNT
Arguments: *^xx^cc^hhmmss^yymmdd^ww^dest^cmd^param^U*
xx: event nr
cc: header, must be 55 for valid event
hhmmss: time for event to execute
yymmdd: date for event to execute
ww: weekday for event to execute
dest: Address of ARU
cmd: cmd to execute
can be SRON, SROFF, SRPULS, SRBUT
param: parameters of command
Feedback: + : acknowledge

Example: Set event
#|S001|F001|SEVNT|^01^55^170500^181206^01^S001^SRON^00000055^U|U|<CR><LF>
ARU replies: *#|F001|S001|SEVNT|+|crc|<CR><LF>*

SGEVNT
Set event:

Command: SGEVNT
Arguments: *xx*
xx: event nr
Feedback: *^xx^cc^hhmmss^yymmdd^ww^dest^cmd^param^U*
xx: event nr
cc: header, must be 55 for valid event
hhmmss: time for event to execute
yymmdd: date for event to execute
ww: weekday for event to execute
dest: Address of ARU
cmd: cmd to execute
can be SRON, SROFF, SRPULS, SRBUT
param: parameters of command

Example: Get event
#|S001|F001|SGEVNT|01|U|<CR><LF>
ARU replies: *#|F001|S001|EVNT|^01^55^170500^181206^01^S001^SRON^00000055^U|crc|<CR><LF>*

SXEVNT
Execute event:

Command: SXEVNT
Arguments: *xx*
xx: event nr
Feedback: *+*
+: Acknowledge

Example: Execute event 01
#|S001|F001|SXEVNT|01|U|<CR><LF>
ARU replies: #|F001|S001|SXEVNT|+|crc|<CR><LF>

SAS
Set address switch unit

Command: SAS
Arguments: *xxx*
xxx: address of the unit
On receive the LED flashes.
Feedback: *+*
+: Acknowledge, if switch is pressed

Example: Set unit address 199
#|ALL|web|SAS|199|U|<CR><LF>, when received, led starts flashing
ARU replies: #|web|S199|SAS|+|crc|<CR><LF> after switch has been pressed.

ASF
End Set address switch unit

Command: ASF
Arguments: *xx*
xx: event nr
Feedback: *+*
+: Acknowledge

Example: End set address
#|ALL|web|ASF||crc|<CR><LF>
ARU replies: led stops flashing after receive of command

SDPUD
Set delayed power up Delay
Command: SDPUD
Arguments: *x*
x: 1 to 9999 ms power up sequence at startup
0 Use potentiometer for timing
Feedback: *+*
+: Acknowledge
Example: set delay to 99ms
#|S001|web|SDPUD|99|crc|<CR><LF>
ARU replies: #|web|S001|SDPUD|+|crc|<CR><LF>

SDPU
Set delayed power up
Command: SDPU
Arguments: *x*
x: 1 delayed power up sequence at startup
0 No delayed power up sequence at startup
Feedback: *+*
+: Acknowledge
Example: set delayed power up
#|S001|web|SDPU|1|crc|<CR><LF>
ARU replies: #|web|S001|SDPU|+|crc|<CR><LF> and #|ALL|S001|DPU|x|crc|<CR><LF>

SGTYPE
gets type of the switch unit
Command: SGTYPE
Arguments:
Feedback: *xx*
xx: 04 – 4channel
xx: 08 – 8channel
Example: get type of switch unit
#|S001|web|SGTYPE||crc|<CR><LF>
ARU replies: #|web|S001|SGTYPE|04|crc|<CR><LF>

SGCFG
gets config
Command: SGCFG
Arguments:
Feedback: *TT^SAAA^PP^DDDD*
TT: Type 04, 08, 16
SAAA: own address "S001"
PP: Powerup delay if 01
DDDD: delay time in ms
Example: get config
#|S001|web|SGCFG||U|<CR><LF>
#|web|A001|SCFG|08^S0001^01^0099|crc|<CR><LF>

RELAY COMMANDS

In paging mode (set by jumper B in top position)

The relays are by default powered (relay is in NO position)
The relay switches off when bit is set(relay is in NC position)

In normal mode (set by jumper B in bottom position)

The relays are by default not powered (relay is in NC position)
The relay switches on when a bit is set(relay is in NO position)

SRON

Switch on relay

Command: SRON
Arguments: 000000rr
rr: 8 bit hex value, bit0 = relay 1 bit7 = relay 8
if bit = 1 then relay is active
Feedback: +
+: Acknowledge

Example: Activate relay 1
#|S001|web|SRON|00000001|crc|<CR><LF>
ARU replies: #|web|S001|SRON|+|crc|<CR><LF> and #|ALL|S001|SZSET|0001|crc|<CR><LF>

SROFF

Switch off relay

Command: SROFF
Arguments: 000000rr
rr: 8 bit hex value, bit0 = relay 1 bit7 = relay 8
if bit = 1 then relay is active
Feedback: +
+: Acknowledge

Example: Deactivate relay 1
#|S001|web|SROFF|00000001|crc|<CR><LF>
ARU replies: #|web|S001|SROFF|+|crc|<CR><LF> and #|ALL|S001|SZSET|0000|crc|<CR><LF>

SRBUT

Activate 1 relay, rest is deactivated

Command: SRBUT
Arguments: 000000rr
rr: 8 bit hex value, bit0 = relay 1 bit7 = relay 8
if bit = 1 then relay is active
Feedback: +
+: Acknowledge

Example: activate relay 3
#|S001|web|SRBUT|00000004|crc|<CR><LF>
ARU replies: #|web|S001|SRBUT|+|crc|<CR><LF> and #|ALL|S001|SZSET|0004|crc|<CR><LF>

SPULS

Puls relay

Command: SPULS

Arguments: tttt^00rr

tttt: time to pulse relay in 1/10s

rr: 8 bit hex value, bit0 = relay 1 bit7 = relay 8

if bit = 1 then relay is active

Feedback: +

+: Acknowledge

Example: Relay 1 of S001 is pulsed for 0.5 seconds

#|S001|web|SPULS|0005^0001|crc|<CR><LF>

ARU replies: #|web|S001|SPULS|+|crc|<CR><LF> and #|ALL|S001|SZSET|0001|crc|<CR><LF>

SDELON

Switches all relays on with a delay.

Command: SDELON

Arguments: dddd

dddd: 0 to 9999ms delay between each relay

Feedback: +

+: Acknowledge

Example: swith all relays on with 100ms delay time

#|S001|web|SDELON|0100|crc|<CR><LF>

ARU replies: #|web|S001|SDELON|+|crc|<CR><LF> and status from all relays

#|ALL|S001|SZSET|0001|crc|<CR><LF>

#|ALL|S001|SZSET|0003|crc|<CR><LF>

#|ALL|S001|SZSET|0007|crc|<CR><LF>

#|ALL|S001|SZSET|000F|crc|<CR><LF>

#|ALL|S001|SZSET|001F|crc|<CR><LF>

#|ALL|S001|SZSET|003F|crc|<CR><LF>

#|ALL|S001|SZSET|007F|crc|<CR><LF>

#|ALL|S001|SZSET|00FF|crc|<CR><LF>

Note: All relays will be switched on with a delay, direction relay1 –> relay8

This function can also be programmed to do at powerup

– with the command “SDPU” argument ‘1’

– by placing jumper A into lower position

The delay time is set by the command “SDPUD” argument 0 to 9999

The potentiometer is used for timing when delay is set to 0

SDELOFF

Switches all relays off with a delay.

Command: SDELOFF

Arguments: dddd

dddd: 0 to 9999ms delay between each relay

Feedback: +

+: Acknowledge

Example: swith all relays off with 100ms delay time

#|S001|web|SDELOFF|0100|crc|<CR><LF>

ARU replies: #|web|S001|SDELOFF|+|crc|<CR><LF> and status from all relays

#|ALL|S001|SZSET|007F|crc|<CR><LF>

#|ALL|S001|SZSET|003F|crc|<CR><LF>

#|ALL|S001|SZSET|001F|crc|<CR><LF>

#|ALL|S001|SZSET|000F|crc|<CR><LF>

#|ALL|S001|SZSET|0007|crc|<CR><LF>

#|ALL|S001|SZSET|0003|crc|<CR><LF>

#|ALL|S001|SZSET|0001|crc|<CR><LF>

#|ALL|S001|SZSET|0000|crc|<CR><LF>

Note: All relays will be switched off with a delay, direction relay8 –> relay1

This function can also be programmed to do at powerup

– with the command “SDPU” argument ‘1’

– by placing jumper A into lower position

The delay time is set by the command “SDPUD” argument 0 to 9999

The potentiometer is used for timing when delay is set to 0

PAGING COMMANDS

PGRQ
Paging request
Command: WOS
Arguments: pppp^ww^0000rrrr^l
pppp: priority level 0000 to 9999
ww: wallpanel port (must be 00 for ARU)
rrrr: zones to page : 32 bit bit0=zone 1 bit31=zone 32
l: local=0 or global=1 (must be 1 for ARU)
Feedback: *+*
+: Acknowledge
Example: A001 send request to S001 for zone4
#|S001|A001|PGRQ|0999^01^00000008^0|U| <CR><LF>
ARU replies: #|A001|S001|PGRQ|+|crc|<CR><LF> (for ACK if paging not busy in requested zones)
or: #|A001|S001|PGRQ|–|crc|<CR><LF> (for NACK if paging busy in requested zones)

PG
Paging start/stop
Command: PG
Arguments: s
s: status start=1 stop=0
Feedback: *+*
+: Acknowledge
Example: start paging
#|S001|A001|PG|1|U|<CR><LF>

MISC COMMANDS

WOS
Check which relay units are online
Command: WOS
Arguments:
Feedback: *+*
+: Acknowledge
Example: who is online
#|ALL|web|WOS||U|<CR><LF>
ARU replies: #|web|S001|OS|+|crc|<CR><LF>

GTIME
Get time
Command: GTIME
Arguments:
Feedback: *hh:mm:ss*

Example: get time from relay unit
#|SOO1|web|GTIME||U|<CR><LF>
ARU replies: #|web|S001|TIME|15:04:35|crc|<CR><LF>

GDATE
Get date
Command: GDATE
Arguments:
Feedback: *dd/mm/yyyy*

Example: get date from relay unit
#|S001|web|GDATE||U|<CR><LF>
ARU replies: #|web|S001|DATE|24/10/2019|crc|<CR><LF>

SGREV
Get hardware Revision
Command: SGREV
Arguments:
Feedback: *Vxxx*

Example: get hardware Revision
#|S001|web|SGREV||U|<CR><LF>
ARU replies: #|web|S001|SREV|V1.0|crc|<CR><LF>

SGHW
Get hardware type
Command: SGHW
Arguments:
Feedback: *ARU2xx*
Example: get hardware Revision
#|S001|web|SGHW||U|<CR><LF>
ARU replies: #|web|S001|HW|ARU208|crc|<CR><LF>

SGSV
Get software revision
Command: SGSV
Arguments:
Feedback: *Vxxx*

Example: get software Revision
#|S001|web|SGSV||U|<CR><LF>
ARU replies: #|web|S001|SV|V1.0|crc|<CR><LF>

FLCLR
Erase flash
Command: FLCLR
Arguments:
Feedback: +
+: Acknowledge

Example: erase flash
#|S001|web|FLCLR||U|<CR><LF>
ARU replies: #|web|S001|FLCLR|+|crc|<CR><LF>

EECLR

Erase EEPROM

Command: EECLR

Arguments:

Feedback: +

+: Acknowledge

Example: erase EEPROM

#|S001|web|EECLR||U|<CR><LF>

ARU replies: #|web|S001|EECLR|+|crc|<CR><LF>