

ARU2xx commands manual

Index

Introduction		2
Using the commands		3
Configuration and settings commands		4
GIP	Get IP	4
SIP	Set IP	4
SEVNT	Set event	4
SGEVNT	Get event	5
SXEVNT	Execute event	5
SAS	Set address Switch Unit	5
ASF	End set address Switch Unit	5
SDPUD	Set delayed power up Delay	6
SDPU	Set delayed power up	6
SGTYPE	Get the type of switch unit	6
SGCFG	Get config	6
Relay commands		
SRON	Switch on relay	7
SROFF	Switch off relay	7
SRBUT	Switch on 1 relay, rest is switched off	7
SPULS	Puls relay	8
SDELON	Switch delay on	8
SDELOFF	Switch delay off	9
Paging commands		
PGRQ	Paging request	10
PG	Start/Stop paging	10
Misc commands		
WOS	Who is online switch unit	10
GTIME	Get time	10
GDATE	Get date	11
SGREV	Get hardware revision	11
SGHW	Get hardware type	11
SGSV	Get software revision	11
FLCLR	Erase flash	11
EECLR	Erase EEPROM	12

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: #IS001IF001IGIPIUireturn
HEX: 237C533030317c463030317c4749507c557c72657475726e0a

Notes
<ul style="list-style-type: none">• 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 'I' 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

```
#IS001IF001IGIP|crcl<CR><LF>
```

ARU replies: #IF001IS001IPI0^192.168.0.197^255.255.255.0^192.168.0.1|crcl<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

```
#IF001IS001SIPI0^192.168.0.197^255.255.255.000^192.168.0.1^8.8.8.8^0.0.0.0|UI<CR><LF>
```

ARU replies: #IF001IS001SIPI+|crcl<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

```
#IS001IF001SEVNTI^01^55^170500^181206^01^S001^SRON^00000055^UIUI<CR><LF>
```

ARU replies: #IF001IS001SEVNTI+|crcl<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

```
#IS001IF001ISGEVNTI01IU<CR><LF>
```

```
ARU replies: #IF001IS001IEVNTI^01^55^170500^181206^01^S001^SRON^00000055^U<CR><LF>
```

SXEVNT

Execute event:

Command: SXEVNT

Arguments: xx

xx: event nr

Feedback: +

+: Acknowledge

Example: Execute event 01

```
#IS001IF001ISXEVNTI01IU<CR><LF>
```

```
ARU replies: #IF001IS001ISXEVNTI+<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

```
#IALL/web/SAS/199IU<CR><LF>, when received, led starts flashing
```

```
ARU replies: #Iweb/S199/SASI+<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

```
#IALL/web/ASF<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

```
#IS001/web/SDPUD/99/crc|<CR><LF>
```

```
ARU replies: #/web/IS001/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

```
#IS001/web/SDPU/1/crc|<CR><LF>
```

```
ARU replies: #/web/IS001/SDPU/+|crc|<CR><LF> and #/ALL/IS001/DPUIx|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

```
#IS001/web/SGTYPE||crc|<CR><LF>
```

```
ARU replies: #/web/IS001/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

```
#IS001/web/SGCFG||UI|<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

#IS001/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

#IS001/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

#IS001/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

```
#IS001/web/SPULS/0005^0001/crcl<CR><LF>
```

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

```
#IS001/web/SDELON/0100/crcl<CR><LF>
```

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

```
#/ALL/S001/SZSET/0001/crcl<CR><LF>
```

```
#/ALL/S001/SZSET/0003/crcl<CR><LF>
```

```
#/ALL/S001/SZSET/0007/crcl<CR><LF>
```

```
#/ALL/S001/SZSET/000F/crcl<CR><LF>
```

```
#/ALL/S001/SZSET/001F/crcl<CR><LF>
```

```
#/ALL/S001/SZSET/003F/crcl<CR><LF>
```

```
#/ALL/S001/SZSET/007F/crcl<CR><LF>
```

```
#/ALL/S001/SZSET/00FF/crcl<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/SDELOFF100/crcl<CR><LF>
```

ARU replies: *#/web/S001/SDELOFF1/crcl<CR><LF> and status from all relays*

```
#/ALL/S001/SZSETI007F/crcl<CR><LF>
```

```
#/ALL/S001/SZSETI003F/crcl<CR><LF>
```

```
#/ALL/S001/SZSETI001F/crcl<CR><LF>
```

```
#/ALL/S001/SZSETI000F/crcl<CR><LF>
```

```
#/ALL/S001/SZSETI0007/crcl<CR><LF>
```

```
#/ALL/S001/SZSETI0003/crcl<CR><LF>
```

```
#/ALL/S001/SZSETI0001/crcl<CR><LF>
```

```
#/ALL/S001/SZSETI0000/crcl<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/0999^01^00000008^0/0/ <CR><LF>
```

ARU replies: *#/A001/S001/PGRQ/+lcrcl<CR><LF>* (for ACK if paging not busy in requested zones)

or: *#/A001/S001/PGRQ/-lcrcl<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/1/0/ <CR><LF>
```

MISC COMMANDS

WOS

Check which relay units are online

Command: WOS

Arguments:

Feedback: +

+: Acknowledge

Example: who is online

```
#/ALL/web/WOS/ <CR><LF>
```

ARU replies: *#/web/S001/IOS/+lcrcl<CR><LF>*

GTIME

Get time

Command: GTIME

Arguments:

Feedback: hh:mm:ss

Example: get time from relay unit

```
#/S001/web/GTIME/ <CR><LF>
```

ARU replies: *#/web/S001/TIME/15:04:35lcrcl<CR><LF>*

GDATE

Get date

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

Example: get date from relay unit

#IS001/web/GDATE/UI<CR><LF>

ARU replies: #/web/S001/DATE/24/10/2019/crcl<CR><LF>

SGREV

Get hardware Revision

Command: SGREV
Arguments:
Feedback: *Vxxx*

Example: get hardware Revision

#IS001/web/SGREV/UI<CR><LF>

ARU replies: #/web/S001/SREV/V1.0/crcl<CR><LF>

SGHW

Get hardware type

Command: SGHW
Arguments:
Feedback: *ARU2xx*

Example: get hardware Revision

#IS001/web/SGHW/UI<CR><LF>

ARU replies: #/web/S001/HWI/ARU208/crcl<CR><LF>

SGSV

Get software revision

Command: SGSV
Arguments:
Feedback: *Vxxx*

Example: get software Revision

#IS001/web/SGSV/UI<CR><LF>

ARU replies: #/web/S001/SV/V1.0/crcl<CR><LF>

FLCLR

Erase flash

Command: FLCLR
Arguments:
Feedback: *+*

+: Acknowledge

Example: erase flash

#IS001/web/FLCLR/UI<CR><LF>

ARU replies: #/web/S001/FLCLR/+/crcl<CR><LF>

EECLR

Erase EEPROM

Command: EECLR

Arguments:

Feedback: +

+: Acknowledge

Example: erase EEPROM

#IS001/web/EECLR!UI<CR><LF>

ARU replies: #/web/IS001/EECLR!+!crcl<CR><LF>