



Release 2.0

Telnet session Connection:

All connections are made through the Standard Telnet Port #23 of the network control connection. This is the same IP connection as the internal web browser setup pages.
Only 1 Telnet session can be open at a time. If you have made a connection and attempt a second before closing the first, the second will be rejected.

All "default" or "startup" settings will be from the WebUI "Wizard" settings, which are also stored in the exported configuration file. Each time the amplifier turns on the settings as shown in the WebUI will be the turn on defaults.
Any changes or control from the Telnet commands will be temporary and only valid until the unit is powered off (standby or front power button). On power on the configuration will be re-loaded and any changes will be reset.

VERY IMPORTANT NOTES:

- > For SA-8 , IA-8 and SW-1 models:
IF THE NETWORK POWER SAVE FEATURE IS ON , THE NETWORK WILL BE UNAVAILABLE IN STANDBY AND YOU WILL NEED TO TURN THE AMPLIFIER ON BY TRIGGER OR FRONT PANEL.
- > For SA-2DSP and SA-3DSP:
THE NETWORK WILL ALWAYS BE UNAVAILABLE WHEN USING THE TRIGGER OR FRONT PANEL TO PUT UNIT IN STANDBY. TURNING THESE UNITS OFF OR SOFT STANDBY FROM TELNET ONLY DISABLES THE DSP AUDIO AND DOES NOT PLACE UNIT IN STANDBY.
- > For ALL units, do not use external control to make changes while making changes in the Web UI setup pages. This can cause temporary changes from external control to become stored in permanent memory. Turn on external control only after setup is complete.
External Control can be used to monitor the current settings of the unit, but should not be used to modify during configuration.

Telnet session length:

Sending a command to the amplifier opens a telnet session – nothing tricky, just send it a command and it will respond. The session will remain open for 15 minutes then close. If another command is received within that 15 minutes, then the clock restarts. The session will close 15 minutes from the time of the last command received. The simplest way to keep the session open is to send a Power Status request <pwrstate>, which will respond with current on/off state, where 1 = ON and 0 = OFF. If the unit does not respond within 500ms the system can be considered to have closed the session, or is unavailable due to being in Low Power Standby. Wake up the system with the Trigger or Front Panel and restart the Telnet communications.

To close a session without waiting for the 15 minute timeout, send a "quit" command from the same controller.

Telnet Command Structure:

All commands follow standard Telnet rules using standard ASCII characters. Command consist of the header, a space, followed by the data or request, followed by a carriage return. Some commands do not need a data field, such as requesting status. Any status request will be responded to with the data in standard ASCII format. In the case of Channel data where multiple channels status are sent, each Channel will be sent with the Channel Number (0-7)

Command Send Format is the command, a space, the data or channel, and a carriage return:

<command><_space_> <data> <CR>

For example:
<Chvol+><space><1><cr>
increase channel 1 by 1dB

Status Response Format is the channel ID number in brackets, followed by a colon and the data. Each data type is separated by commas. A <CR> separates each channel:

<Channel ID [number1] : <data1a> , <data1b> <CR>
<Channel ID [number2] : <data2a> , <data2b> <CR>

For example, the response to volume will list the current volume of all channels and the master gain:
Control system sends: **<volume><cr>**

Amplifier Response:

Channel[1]: 0.0 <cr>
Channel[2]: 0.0 <cr>
Channel[3]: 0.0 <cr>
Channel[4]: 0.0 <cr>
Channel[5]: 0.0 <cr>
Channel[6]: 0.0 <cr>
Channel[7]: 0.0 <cr>
Channel[8]: 0.0 <cr>
Master: 0.0 <cr>

All volume or gain settings are in dB where 0 = nominal. Gain is from -144dB (full mute) to +6dB.
When sending or receiving data, the gain or volume will be a number without the "dB"

Errors:

If you send a command that is garbage – like *asdfjkl<cr>* - the response will be "What?" in ASCII.
If you send a valid command with an invalid parameter, such as "Chmuteon 9" the unit will respond with "Error"

Confirmations:

No confirmation will be sent asynchronously. A status request must be made to see the results. Do not send status requests more than 1 per second or the controller may respond slowly if the request is large.

Timing:

After power on, give the unit 10 seconds to boot up before sending. Sending a command prior to that may result in a dropped command.

Keeping instructions to 10 per second (100ms) or less is good practice with this unit.

Telnet, port 23				
Function	Command/Query	Command	Example	Description
Global Queries:				
1	1<cr>	1	1<cr>	

	displays the current date and time. Use this to keep the unit connected on Telnet after initial connection. This is also a good way to keep alive the session. Send once per 10 minutes			[response example] Network Time Mon, 2026-02-09 16:39:09	
pwrstate	pwrstate Returns 1= on, 0 = off, any other number indicates the system is booting up and not ready to accept commands. This is also a good way to keep alive the session. Send once per 10 minutes	pwrstate	pwrstate<cr>	[response example] On or Off 1 ON 0 OFF 17 Soft Standby Any other number Not ready - Loading	
Volume	volume response will be each channel [number] and master volume : volume in dB with a <cr> between each one.	volume	volume<cr>	[response example] Current active volume settings Channel[1]: 0.0 <cr> Channel[2]: 0.0 <cr> Channel[3]: 0.0 <cr> Channel[4]: 0.0 <cr> Channel[5]: 0.0 <cr> Channel[6]: 0.0 <cr> Channel[7]: 0.0 <cr> Channel[8]: 0.0 <cr> Master: 0.0 <cr>	
cpc	cpc<cr> displays the available control protocol commands	cpc	cpc<cr>	Available commands	
Function	Command/Query	Command	Example	Description	
Global Commands:					
	NOTE: Global Commands are across all channels and outputs of an individual amplifier.				
Power On	on<cr> turns unit on Only possible on SA8/IA8/SW1 when the Network Power Save is turned OFF. On SA2/SA3 the option for "allow external control" must be enabled in the Network setup options (default).	on	on<cr>	Takes unit out of standby	
Power Off	off<cr> For SA8/IA8/SW1 this will turn the main power off and put the unit in standby and turn off the trigger. For SA2/SA3 this only turns off the DSP and analog/digital I/O. It does not turn off the trigger or put the unit into standby. See Note above about Power On and Network Power Save option. Soft Standby may be a better option	off	off<cr>	Unit enters standby	
Soft Standby	softoff<cr> Disables the output without turning off the Network, Dante, or DSP. Does NOT turn off the trigger output. For SA2/SA3 this can only be done from Telnet and not front panel or trigger.	softoff	softoff<cr>	Unit enters soft off / low power	
Master Gain Volume +/-	Mvol+<cr> Mvol-<cr> Increases or Decreases the current master volume of the amplifier up or down by 1db	Mvol+ Mvol-	Mvol+<cr> Mvol-<cr>	Raise the amplifier volume 1dB Lower the amplifier volume 1dB	
Master Set Volume	Msetvol (in dB from -144 to +6)<cr> Sets the master gain to the specific dB level. NOTE: A Space is required between the Command "Msetvol" and the volume level number.	Msetvol	Msetvol<space>-10<cr>	Set the amplifier volume to a specific dB	

Master Mute On	Mmuteon <i>Sets the master gain to -144</i>	Mmuteon	Mmuteon<cr>	Set amplifier to mute all inputs
Master Mute Off	Mmuteoff <i>Sets the master gain to previous level</i>	Mmuteoff	Mmuteoff<cr>	Set amplifier to unmute all inputs
Quit or Close Session	quit<cr> <i>Closes the telnet session immediately, and opens the port for a new session.</i>	quit	quit<cr>	Closes the Telnet Session
Function	Command/Query	Command	Example	Description
Channel Commands:	NOTE: A space is expected between the command and the number or modifier. For example, Chmuteon<space>1 to enable Mute on Channel 1.			
Channel (mono) Volume +/-	Chvol+ #<cr> <i>increases the mono channel by 1db</i>	Chvol+	Chvol+<space>1<cr> Chvol+ 1	increase ch1 by 1dB
	Chvol- #<cr> <i>decreases the mono channel by 1db</i>	Chvol-	Chvol-<space>1<cr> Chvol- 1	decrease ch1 by 1dB
Set Channel (mono) Volume	Chsetvol #<cr> <i>sets volume to a specific volume in dB (from -144 to +10)</i>	Chsetvol	Chvol-<space>2<space>-10<cr> Chsetvol 2 -10	set ch2 to -10dB
Channel Mute On	Chmuteon # <cr> <i>Sets the channel gain to -144 for a given channel (# is a number from 1-8). The Mute State will not be reflected in the Volume Query response.</i>	Chmuteon	Chmuteon<space>1<cr> Chmuteon 1	Mute on Channel 1
Channel MuteOff	Chmuteoff #<cr> <i>sets the channel to the previous volume (<channel number from 1-8>)</i>	Chmuteoff	Chmuteoff<space>1<cr> Chmuteoff 1	Mute off Channel 1
Channel Group Volume +/-	Chgrpvol+ <list of channels, comma separated to be increased> <cr> <i>increases the selected channels by 1db</i>	Chgrpvol+	Chgrpvol+<space>1,5,8<cr> Chgrpvol+ 1,5,8	Increase Channels 1, 5, and 8 by 1dB
	Chgrpvol- <array of 8 channels comma separated where 0 is no change and 1 is decrease : e.g. 1,0,1,1,0,0,0,0 for -1 in channel 1,3,4 only> <cr> <i>decreases the selected channels by 1db</i>	Chgrpvol-	Chgrpvol-<space>1,5,8<cr> Chgrpvol- 1,5,8	Decrease Channels 1, 5, and 8 by 1dB
Set Channel Group Volume	Chgrpsetvol(<array of 8 channels comma separated in dB from -144 to +10><cr>	Chgrpsetvol	Chgrpsetvol<space>2,-1,3,-10,2,1,0,3<cr>	Set the channels to these volumes:

	sets volume to a specific volume in dB for any combination of channels. For example, to set channels 1,2 and 3 to +1,+2,and -45, and leave others unchanged: Chgrpsetvol <1.0,2.0,-45,,,,,><cr> NOTE: You must send a complete array, for example, 8 channels for an 8 channel, or 3 channels for a 3 channel setup. If you send (for example) Chgrpsetvol 1,2,3,4,5,6,7 ; the 8th channel will be set to 0db.		Chgrpsetvol 2,-1,3,-10,2,1,0,3	Channel[1]: 2.0 Channel[2]: -1.0 Channel[3]: 3.0 Channel[4]: -10.0 Channel[5]: 2.0 Channel[6]: 1.0 Channel[7]: 0.0 Channel[8]: 3.0
Channel Group Mute On	Chgrpmuteon <array of 8 channels comma separated where 0 is no change and 1 is muted> <cr> Sets the channel gain to -144 for any combination of channels For example, to set channels 1,2 and 3 muted, and leave others unchanged: Chgrpsetvol <1,1,1,0,0,0,0,0><cr>	Chgrpmuteon	Chgrpmuteon<space>1,5,8<cr> Chgrpmuteon 1,5,8	Mute Channels 1, 5, and 8
Channel group MuteOff	Chgrpmuteoff <array of 8 channels comma separated where 0 is no change and 1 is muted> <cr> Sets the channel gain to previous level for any combination of channels For example, to set channels 1,2 and 3 unmuted, and leave others unchanged: Chgrpsetvol <1,1,1,0,0,0,0,0><cr>	Chgrpmuteoff	Chgrpmuteoff<space>1,5,8<cr> Chgrpmuteoff 1,5,8	Unmute Channels 1, 5, and 8
Recall Preset 1-4	Preset<number 1-4><cr> recalls the stored preset 1 through 4. Note: if there is no preset then nothing will be recalled. e.g. to apply the Acoustic preset (EQ preset #1) to Zone 4, the command would look like: Z4eq1<cr>	Preset	Preset<space>1	Recalls Preset 1

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