COL-HUD-21 Tesira Command Sheet

For Tesira Command String blocks · Version 1.0.2

Every command the COL-HUD-21 takes over the network, as fixed strings for Tesira Command String blocks. The unit is controlled on its own control port (TCP 8000); no other KanexPro software is needed. The same strings, with their bytes, are in `KanexPro-COL-HUD-21-Tesira-Command-Sheet-1.0.2.csv` for copying.

> **Before you start —** the Tesira server must reach the COL-HUD-21 on TCP port 8000. Give the unit a fixed IP address (or a DHCP reservation).

TABLE OF CONTENTS

1. Connection
2. Using the strings
3. Commands
4. Reading the unit back
5. Troubleshooting

1. CONNECTION

HOW THE UNIT IS CONTROLLED	
Transport	TCP, port 8000 (the unit's control port)
Line ending	CR LF (hex `0D 0A`), after every string
Pacing	One string at a time. The unit answers within about 1.5 s; wait for the answer before the next string.
A refused string	The unit answers with an error line.

2. USING THE STRINGS

1. Point the Command String block at the unit's IP address, TCP port 8000.
2. Add one command per row of section 3: its string, then the line ending (hex `0D 0A`).
3. Wire each command to the control that should send it. The Bytes column is the whole string as it goes on the wire, to compare with a network capture.

Settings that only the unit's own web page has (its network, logins and firmware) stay on that page.

3. COMMANDS

168 strings, and a template for each level with more values than fit a list.

#	Command	String	Bytes (hex, with the line ending)
1	**Show: Show = USB-C input 1**	`set output 1 from 1`	`73 65 74 20 6F 75 74 70 75 74 20 31 20 66 72 6F 6D 20 31 0D 0A`
2	**Show: Show = HDMI input 2**	`set output 1 from 2`	`73 65 74 20 6F 75 74 70 75 74 20 31 20 66 72 6F 6D 20 32 0D 0A`
3	**Show: HDMI output 1: Switch to a newly plugged-in source by itself on**	`set output 1 auto switch 1`	`73 65 74 20 6F 75 74 70 75 74 20 31 20 61 75 74 6F 20 73 77 69 74 63 68 20 31 0D 0A`
4	**Show: HDMI output 1: Switch to a newly plugged-in source by itself off**	`set output 1 auto switch 0`	`73 65 74 20 6F 75 74 70 75 74 20 31 20 61 75 74 6F 20 73 77 69 74 63 68 20 30 0D 0A`
5	**Picture: HDMI output 1: Picture = On**	`set output 1 signal 1`	`73 65 74 20 6F 75 74 70 75 74 20 31 20 73 69 67 6E 61 6C 20 31 0D 0A`
6	**Picture: HDMI output 1: Picture = Off**	`set output 1 signal 2`	`73 65 74 20 6F 75 74 70 75 74 20 31 20 73 69 67 6E 61 6C 20 32 0D 0A`

7	Picture: HDMI output 1: Picture = AV mute	set output 1 signal 3	73 65 74 20 6F 75 74 70 75 74 20 31 20 73 69 67 6E 61 6C 20 33 0D 0A
8	Sound: Analog sound out (dB) = -50	set analog audio gain -50	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 35 30 0D 0A
9	Sound: Analog sound out (dB) = -49	set analog audio gain -49	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 34 39 0D 0A
10	Sound: Analog sound out (dB) = -48	set analog audio gain -48	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 34 38 0D 0A
11	Sound: Analog sound out (dB) = -47	set analog audio gain -47	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 34 37 0D 0A
12	Sound: Analog sound out (dB) = -46	set analog audio gain -46	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 34 36 0D 0A
13	Sound: Analog sound out (dB) = -45	set analog audio gain -45	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 34 35 0D 0A
14	Sound: Analog sound out (dB) = -44	set analog audio gain -44	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 34 34 0D 0A
15	Sound: Analog sound out (dB) = -43	set analog audio gain -43	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 34 33 0D 0A
16	Sound: Analog sound out (dB) = -42	set analog audio gain -42	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 34 32 0D 0A
17	Sound: Analog sound out (dB) = -41	set analog audio gain -41	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 34 31 0D 0A
18	Sound: Analog sound out (dB) = -40	set analog audio gain -40	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 34 30 0D 0A
19	Sound: Analog sound out (dB) = -39	set analog audio gain -39	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 33 39 0D 0A
20	Sound: Analog sound out (dB) = -38	set analog audio gain -38	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 33 38 0D 0A
21	Sound: Analog sound out (dB) = -37	set analog audio gain -37	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 33 37 0D 0A
22	Sound: Analog sound out (dB) = -36	set analog audio gain -36	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 33 36 0D 0A
23	Sound: Analog sound out (dB) = -35	set analog audio gain -35	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 33 35 0D 0A
24	Sound: Analog sound out (dB) = -34	set analog audio gain -34	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 33 34 0D 0A
25	Sound: Analog sound out (dB) = -33	set analog audio gain -33	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 33 33 0D 0A
26	Sound: Analog sound out (dB) = -32	set analog audio gain -32	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 33 32 0D 0A
27	Sound: Analog sound out (dB) = -31	set analog audio gain -31	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 33 31 0D 0A
28	Sound: Analog sound out (dB) = -30	set analog audio gain -30	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 33 30 0D 0A
29	Sound: Analog sound out (dB) = -29	set analog audio gain -29	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 32 39 0D 0A
30	Sound: Analog sound out (dB) = -28	set analog audio gain -28	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 32 38 0D 0A

31	Sound: Analog sound out (dB) = -27	set analog audio gain -27	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 32 37 0D 0A
32	Sound: Analog sound out (dB) = -26	set analog audio gain -26	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 32 36 0D 0A
33	Sound: Analog sound out (dB) = -25	set analog audio gain -25	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 32 35 0D 0A
34	Sound: Analog sound out (dB) = -24	set analog audio gain -24	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 32 34 0D 0A
35	Sound: Analog sound out (dB) = -23	set analog audio gain -23	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 32 33 0D 0A
36	Sound: Analog sound out (dB) = -22	set analog audio gain -22	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 32 32 0D 0A
37	Sound: Analog sound out (dB) = -21	set analog audio gain -21	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 32 31 0D 0A
38	Sound: Analog sound out (dB) = -20	set analog audio gain -20	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 32 30 0D 0A
39	Sound: Analog sound out (dB) = -19	set analog audio gain -19	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 31 39 0D 0A
40	Sound: Analog sound out (dB) = -18	set analog audio gain -18	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 31 38 0D 0A
41	Sound: Analog sound out (dB) = -17	set analog audio gain -17	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 31 37 0D 0A
42	Sound: Analog sound out (dB) = -16	set analog audio gain -16	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 31 36 0D 0A
43	Sound: Analog sound out (dB) = -15	set analog audio gain -15	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 31 35 0D 0A
44	Sound: Analog sound out (dB) = -14	set analog audio gain -14	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 31 34 0D 0A
45	Sound: Analog sound out (dB) = -13	set analog audio gain -13	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 31 33 0D 0A
46	Sound: Analog sound out (dB) = -12	set analog audio gain -12	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 31 32 0D 0A
47	Sound: Analog sound out (dB) = -11	set analog audio gain -11	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 31 31 0D 0A
48	Sound: Analog sound out (dB) = -10	set analog audio gain -10	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 31 30 0D 0A
49	Sound: Analog sound out (dB) = -9	set analog audio gain -9	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 39 0D 0A
50	Sound: Analog sound out (dB) = -8	set analog audio gain -8	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 38 0D 0A
51	Sound: Analog sound out (dB) = -7	set analog audio gain -7	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 37 0D 0A
52	Sound: Analog sound out (dB) = -6	set analog audio gain -6	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 36 0D 0A
53	Sound: Analog sound out (dB) = -5	set analog audio gain -5	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 35 0D 0A
54	Sound: Analog sound out (dB) = -4	set analog audio gain -4	73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 34 0D 0A

55	Sound: Analog sound out (dB) = -3	`set analog audio gain -3`	`73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 33 0D 0A`
56	Sound: Analog sound out (dB) = -2	`set analog audio gain -2`	`73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 32 0D 0A`
57	Sound: Analog sound out (dB) = -1	`set analog audio gain -1`	`73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 2D 31 0D 0A`
58	Sound: Analog sound out (dB) = 0	`set analog audio gain 0`	`73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 20 30 0D 0A`
59	Sound: Mute the analog sound out on	`set analog audio mute 1`	`73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 6D 75 74 65 20 31 0D 0A`
60	Sound: Mute the analog sound out off	`set analog audio mute 0`	`73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 6D 75 74 65 20 30 0D 0A`
61	Power: Power On	`power on`	`70 6F 77 65 72 20 6F 6E 0D 0A`
62	Power: Power Standby	`power off`	`70 6F 77 65 72 20 6F 66 66 0D 0A`
63	Show: Keyboard, mouse and camera = Follow the screen's source	`set usb switch mode 1`	`73 65 74 20 75 73 62 20 73 77 69 74 63 68 20 6D 6F 64 65 20 31 0D 0A`
64	Show: Keyboard, mouse and camera = Choose below	`set usb switch mode 2`	`73 65 74 20 75 73 62 20 73 77 69 74 63 68 20 6D 6F 64 65 20 32 0D 0A`
65	Show: Keyboard, mouse and camera = The last one plugged in	`set usb switch mode 3`	`73 65 74 20 75 73 62 20 73 77 69 74 63 68 20 6D 6F 64 65 20 33 0D 0A`
66	Show: They go to = USB-C input 1	`set usb manual switch 1`	`73 65 74 20 75 73 62 20 6D 61 6E 75 61 6C 20 73 77 69 74 63 68 20 31 0D 0A`
67	Show: They go to = USB host 2	`set usb manual switch 2`	`73 65 74 20 75 73 62 20 6D 61 6E 75 61 6C 20 73 77 69 74 63 68 20 32 0D 0A`
68	Sound: Line out plays = HDMI output 1's sound	`set analog audio output 1`	`73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 6F 75 74 70 75 74 20 31 0D 0A`
69	Sound: Line out plays = USB audio	`set analog audio output 2`	`73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 6F 75 74 70 75 74 20 32 0D 0A`
70	Sound: Line in (a microphone) goes into = Off	`set analog audio input 0`	`73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 69 6E 70 75 74 20 30 0D 0A`
71	Sound: Line in (a microphone) goes into = USB-C input 1	`set analog audio input 1`	`73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 69 6E 70 75 74 20 31 0D 0A`
72	Sound: Line in (a microphone) goes into = HDMI input 2	`set analog audio input 2`	`73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 69 6E 70 75 74 20 32 0D 0A`
73	Sound: Line in to the laptop's USB audio on	`set analog audio input to usb 1`	`73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 69 6E 70 75 74 20 74 6F 20 75 73 62 20 31 0D 0A`
74	Sound: Line in to the laptop's USB audio off	`set analog audio input to usb 0`	`73 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 69 6E 70 75 74 20 74 6F 20 75 73 62 20 30 0D 0A`
75	Inputs: USB-C input 1: EDID = Auto (copy the screen)	`set input 1 edid 1`	`73 65 74 20 69 6E 70 75 74 20 31 20 65 64 69 64 20 31 0D 0A`
76	Inputs: USB-C input 1: EDID = 4K60 4:4:4, 2ch PCM	`set input 1 edid 2`	`73 65 74 20 69 6E 70 75 74 20 31 20 65 64 69 64 20 32 0D 0A`
77	Inputs: USB-C input 1: EDID = 4K60 4:4:4, 5.1ch	`set input 1 edid 3`	`73 65 74 20 69 6E 70 75 74 20 31 20 65 64 69 64 20 33 0D 0A`
78	Inputs: USB-C input 1: EDID = 4K60 4:4:4, 7.1ch	`set input 1 edid 4`	`73 65 74 20 69 6E 70 75 74 20 31 20 65 64 69 64 20 34 0D 0A`

79	Inputs: USB-C input 1: EDID = 4K30 4:4:4, 2ch PCM	set input 1 edid 5	73 65 74 20 69 6E 70 75 74 20 31 20 65 64 69 64 20 35 0D 0A
80	Inputs: USB-C input 1: EDID = 4K30 4:4:4, 5.1ch	set input 1 edid 6	73 65 74 20 69 6E 70 75 74 20 31 20 65 64 69 64 20 36 0D 0A
81	Inputs: USB-C input 1: EDID = 4K30 4:4:4, 7.1ch	set input 1 edid 7	73 65 74 20 69 6E 70 75 74 20 31 20 65 64 69 64 20 37 0D 0A
82	Inputs: USB-C input 1: EDID = 1080p60 4:4:4, 2ch PCM	set input 1 edid 8	73 65 74 20 69 6E 70 75 74 20 31 20 65 64 69 64 20 38 0D 0A
83	Inputs: USB-C input 1: EDID = 1080p60 4:4:4, 5.1ch	set input 1 edid 9	73 65 74 20 69 6E 70 75 74 20 31 20 65 64 69 64 20 39 0D 0A
84	Inputs: USB-C input 1: EDID = 1080p60 4:4:4, 7.1ch	set input 1 edid 10	73 65 74 20 69 6E 70 75 74 20 31 20 65 64 69 64 20 31 30 0D 0A
85	Inputs: USB-C input 1: EDID = 720p60, 2ch PCM	set input 1 edid 11	73 65 74 20 69 6E 70 75 74 20 31 20 65 64 69 64 20 31 31 0D 0A
86	Inputs: USB-C input 1: EDID = 1920x1200	set input 1 edid 12	73 65 74 20 69 6E 70 75 74 20 31 20 65 64 69 64 20 31 32 0D 0A
87	Inputs: USB-C input 1: EDID = 1680x1050	set input 1 edid 13	73 65 74 20 69 6E 70 75 74 20 31 20 65 64 69 64 20 31 33 0D 0A
88	Inputs: USB-C input 1: EDID = 1600x1200	set input 1 edid 14	73 65 74 20 69 6E 70 75 74 20 31 20 65 64 69 64 20 31 34 0D 0A
89	Inputs: USB-C input 1: EDID = 1440x900	set input 1 edid 15	73 65 74 20 69 6E 70 75 74 20 31 20 65 64 69 64 20 31 35 0D 0A
90	Inputs: USB-C input 1: EDID = 1360x768	set input 1 edid 16	73 65 74 20 69 6E 70 75 74 20 31 20 65 64 69 64 20 31 36 0D 0A
91	Inputs: USB-C input 1: EDID = 1280x1024	set input 1 edid 17	73 65 74 20 69 6E 70 75 74 20 31 20 65 64 69 64 20 31 37 0D 0A
92	Inputs: USB-C input 1: EDID = 1024x768	set input 1 edid 18	73 65 74 20 69 6E 70 75 74 20 31 20 65 64 69 64 20 31 38 0D 0A
93	Inputs: USB-C input 1: EDID = Your own 1	set input 1 edid 19	73 65 74 20 69 6E 70 75 74 20 31 20 65 64 69 64 20 31 39 0D 0A
94	Inputs: USB-C input 1: EDID = Your own 2	set input 1 edid 20	73 65 74 20 69 6E 70 75 74 20 31 20 65 64 69 64 20 32 30 0D 0A
95	Inputs: HDMI input 2: EDID = Auto (copy the screen)	set input 2 edid 1	73 65 74 20 69 6E 70 75 74 20 32 20 65 64 69 64 20 31 0D 0A
96	Inputs: HDMI input 2: EDID = 4K60 4:4:4, 2ch PCM	set input 2 edid 2	73 65 74 20 69 6E 70 75 74 20 32 20 65 64 69 64 20 32 0D 0A
97	Inputs: HDMI input 2: EDID = 4K60 4:4:4, 5.1ch	set input 2 edid 3	73 65 74 20 69 6E 70 75 74 20 32 20 65 64 69 64 20 33 0D 0A
98	Inputs: HDMI input 2: EDID = 4K60 4:4:4, 7.1ch	set input 2 edid 4	73 65 74 20 69 6E 70 75 74 20 32 20 65 64 69 64 20 34 0D 0A
99	Inputs: HDMI input 2: EDID = 4K30 4:4:4, 2ch PCM	set input 2 edid 5	73 65 74 20 69 6E 70 75 74 20 32 20 65 64 69 64 20 35 0D 0A
100	Inputs: HDMI input 2: EDID = 4K30 4:4:4, 5.1ch	set input 2 edid 6	73 65 74 20 69 6E 70 75 74 20 32 20 65 64 69 64 20 36 0D 0A
101	Inputs: HDMI input 2: EDID = 4K30 4:4:4, 7.1ch	set input 2 edid 7	73 65 74 20 69 6E 70 75 74 20 32 20 65 64 69 64 20 37 0D 0A
102	Inputs: HDMI input 2: EDID = 1080p60 4:4:4, 2ch PCM	set input 2 edid 8	73 65 74 20 69 6E 70 75 74 20 32 20 65 64 69 64 20 38 0D 0A

103	Inputs: HDMI input 2: EDID = 1080p60 4:4:4, 5.1ch	`set input 2 edid 9`	`73 65 74 20 69 6E 70 75 74 20 32 20 65 64 69 64 20 39 0D 0A`
104	Inputs: HDMI input 2: EDID = 1080p60 4:4:4, 7.1ch	`set input 2 edid 10`	`73 65 74 20 69 6E 70 75 74 20 32 20 65 64 69 64 20 31 30 0D 0A`
105	Inputs: HDMI input 2: EDID = 720p60, 2ch PCM	`set input 2 edid 11`	`73 65 74 20 69 6E 70 75 74 20 32 20 65 64 69 64 20 31 31 0D 0A`
106	Inputs: HDMI input 2: EDID = 1920x1200	`set input 2 edid 12`	`73 65 74 20 69 6E 70 75 74 20 32 20 65 64 69 64 20 31 32 0D 0A`
107	Inputs: HDMI input 2: EDID = 1680x1050	`set input 2 edid 13`	`73 65 74 20 69 6E 70 75 74 20 32 20 65 64 69 64 20 31 33 0D 0A`
108	Inputs: HDMI input 2: EDID = 1600x1200	`set input 2 edid 14`	`73 65 74 20 69 6E 70 75 74 20 32 20 65 64 69 64 20 31 34 0D 0A`
109	Inputs: HDMI input 2: EDID = 1440x900	`set input 2 edid 15`	`73 65 74 20 69 6E 70 75 74 20 32 20 65 64 69 64 20 31 35 0D 0A`
110	Inputs: HDMI input 2: EDID = 1360x768	`set input 2 edid 16`	`73 65 74 20 69 6E 70 75 74 20 32 20 65 64 69 64 20 31 36 0D 0A`
111	Inputs: HDMI input 2: EDID = 1280x1024	`set input 2 edid 17`	`73 65 74 20 69 6E 70 75 74 20 32 20 65 64 69 64 20 31 37 0D 0A`
112	Inputs: HDMI input 2: EDID = 1024x768	`set input 2 edid 18`	`73 65 74 20 69 6E 70 75 74 20 32 20 65 64 69 64 20 31 38 0D 0A`
113	Inputs: HDMI input 2: EDID = Your own 1	`set input 2 edid 19`	`73 65 74 20 69 6E 70 75 74 20 32 20 65 64 69 64 20 31 39 0D 0A`
114	Inputs: HDMI input 2: EDID = Your own 2	`set input 2 edid 20`	`73 65 74 20 69 6E 70 75 74 20 32 20 65 64 69 64 20 32 30 0D 0A`
115	Inputs: USB-C input 1: HDCP on	`set input 1 hdcp 1`	`73 65 74 20 69 6E 70 75 74 20 31 20 68 64 63 70 20 31 0D 0A`
116	Inputs: USB-C input 1: HDCP off	`set input 1 hdcp 0`	`73 65 74 20 69 6E 70 75 74 20 31 20 68 64 63 70 20 30 0D 0A`
117	Inputs: HDMI input 2: HDCP on	`set input 2 hdcp 1`	`73 65 74 20 69 6E 70 75 74 20 32 20 68 64 63 70 20 31 0D 0A`
118	Inputs: HDMI input 2: HDCP off	`set input 2 hdcp 0`	`73 65 74 20 69 6E 70 75 74 20 32 20 68 64 63 70 20 30 0D 0A`
119	Outputs: HDMI output 1: HDCP = Follow the screen	`set output 1 hdcp 1`	`73 65 74 20 6F 75 74 70 75 74 20 31 20 68 64 63 70 20 31 0D 0A`
120	Outputs: HDMI output 1: HDCP = Always HDCP 1.4	`set output 1 hdcp 2`	`73 65 74 20 6F 75 74 70 75 74 20 31 20 68 64 63 70 20 32 0D 0A`
121	Outputs: HDMI output 1: HDCP = Always HDCP 2.2	`set output 1 hdcp 3`	`73 65 74 20 6F 75 74 70 75 74 20 31 20 68 64 63 70 20 33 0D 0A`
122	Outputs: HDMI output 1: HDCP = Signal management	`set output 1 hdcp 4`	`73 65 74 20 6F 75 74 70 75 74 20 31 20 68 64 63 70 20 34 0D 0A`
123	Outputs: HDMI output 1: Picture size = Auto (fit the screen)	`set output 1 video 1`	`73 65 74 20 6F 75 74 70 75 74 20 31 20 76 69 64 65 6F 20 31 0D 0A`
124	Outputs: HDMI output 1: Picture size = Pass through	`set output 1 video 2`	`73 65 74 20 6F 75 74 70 75 74 20 31 20 76 69 64 65 6F 20 32 0D 0A`
125	Outputs: HDMI output 1: Picture size = Always 1080p	`set output 1 video 3`	`73 65 74 20 6F 75 74 70 75 74 20 31 20 76 69 64 65 6F 20 33 0D 0A`
126	Outputs: HDMI output 1: Picture size = Test pattern	`set output 1 video 4`	`73 65 74 20 6F 75 74 70 75 74 20 31 20 76 69 64 65 6F 20 34 0D 0A`

127	Outputs: Welcome screen on	`set welcome screen 1`	`73 65 74 20 77 65 6C 63 6F 6D 65 20 73 63 72 65 65 6E 20 31 0D 0A`
128	Outputs: Welcome screen off	`set welcome screen 0`	`73 65 74 20 77 65 6C 63 6F 6D 65 20 73 63 72 65 65 6E 20 30 0D 0A`
129	Outputs: Welcome screen after 60 s with no source on	`set no signal screen 1`	`73 65 74 20 6E 6F 20 73 69 67 6E 61 6C 20 73 63 72 65 65 6E 20 31 0D 0A`
130	Outputs: Welcome screen after 60 s with no source off	`set no signal screen 0`	`73 65 74 20 6E 6F 20 73 69 67 6E 61 6C 20 73 63 72 65 65 6E 20 30 0D 0A`
131	Switching: Notice a new source by = Its picture	`set output auto switch mode 1`	`73 65 74 20 6F 75 74 70 75 74 20 61 75 74 6F 20 73 77 69 74 63 68 20 6D 6F 64 65 20 31 0D 0A`
132	Switching: Notice a new source by = 5 V on the cable	`set output auto switch mode 2`	`73 65 74 20 6F 75 74 70 75 74 20 61 75 74 6F 20 73 77 69 74 63 68 20 6D 6F 64 65 20 32 0D 0A`
133	Switching: HDMI output 1: When its source goes away, show = Next input	`set output 1 fallback input 1`	`73 65 74 20 6F 75 74 70 75 74 20 31 20 66 61 6C 6C 62 61 63 6B 20 69 6E 70 75 74 20 31 0D 0A`
134	Switching: HDMI output 1: When its source goes away, show = Previous input	`set output 1 fallback input 2`	`73 65 74 20 6F 75 74 70 75 74 20 31 20 66 61 6C 6C 62 61 63 6B 20 69 6E 70 75 74 20 32 0D 0A`
135	Switching: HDMI output 1: When its source goes away, show = USB-C input 1	`set output 1 fallback input 3`	`73 65 74 20 6F 75 74 70 75 74 20 31 20 66 61 6C 6C 62 61 63 6B 20 69 6E 70 75 74 20 33 0D 0A`
136	Switching: HDMI output 1: When its source goes away, show = HDMI input 2	`set output 1 fallback input 4`	`73 65 74 20 6F 75 74 70 75 74 20 31 20 66 61 6C 6C 62 61 63 6B 20 69 6E 70 75 74 20 34 0D 0A`
137	Switching: Go to standby with no source after = Never	`set auto standby time 0`	`73 65 74 20 61 75 74 6F 20 73 74 61 6E 64 62 79 20 74 69 6D 65 20 30 0D 0A`
138	Switching: Go to standby with no source after = 5 min	`set auto standby time 1`	`73 65 74 20 61 75 74 6F 20 73 74 61 6E 64 62 79 20 74 69 6D 65 20 31 0D 0A`
139	Switching: Go to standby with no source after = 10 min	`set auto standby time 2`	`73 65 74 20 61 75 74 6F 20 73 74 61 6E 64 62 79 20 74 69 6D 65 20 32 0D 0A`
140	Switching: Go to standby with no source after = 15 min	`set auto standby time 3`	`73 65 74 20 61 75 74 6F 20 73 74 61 6E 64 62 79 20 74 69 6D 65 20 33 0D 0A`
141	Switching: Go to standby with no source after = 30 min	`set auto standby time 4`	`73 65 74 20 61 75 74 6F 20 73 74 61 6E 64 62 79 20 74 69 6D 65 20 34 0D 0A`
142	Switching: Go to standby with no source after = 60 min	`set auto standby time 5`	`73 65 74 20 61 75 74 6F 20 73 74 61 6E 64 62 79 20 74 69 6D 65 20 35 0D 0A`
143	Switching: Lock the front buttons (on = locked) on	`set front button 1`	`73 65 74 20 66 72 6F 6E 74 20 62 75 74 74 6F 6E 20 31 0D 0A`
144	Switching: Lock the front buttons (on = locked) off	`set front button 0`	`73 65 74 20 66 72 6F 6E 74 20 62 75 74 74 6F 6E 20 30 0D 0A`
145	Switching: HDMI power saving on	`set hdmi power saving 1`	`73 65 74 20 68 64 6D 69 20 70 6F 77 65 72 20 73 61 76 69 6E 67 20 31 0D 0A`
146	Switching: HDMI power saving off	`set hdmi power saving 0`	`73 65 74 20 68 64 6D 69 20 70 6F 77 65 72 20 73 61 76 69 6E 67 20 30 0D 0A`
147	Screens on and off: HDMI output 1: Turn on and off with the switch on	`set display 1 auto power feature 1`	`73 65 74 20 64 69 73 70 6C 61 79 20 31 20 61 75 74 6F 20 70 6F 77 65 72 20 66 65 61 74 75 72 65 20 31 0D 0A`

148	**Screens on and off: HDMI output 1: Turn on and off with the switch off**	`set display 1 auto power feature 0`	`73 65 74 20 64 69 73 70 6C 61 79 20 31 20 61 75 74 6F 20 70 6F 77 65 72 20 66 65 61 74 75 72 65 20 30 0D 0A`
149	**Screens on and off: HDMI output 1: On after (s) = {level} (0 to 1200)**	`set display 1 auto power on timer {level}`	`the level in place of {level}`
150	**Screens on and off: HDMI output 1: On after (s) = 0**	`set display 1 auto power on timer 0`	`73 65 74 20 64 69 73 70 6C 61 79 20 31 20 61 75 74 6F 20 70 6F 77 65 72 20 6F 6E 20 74 69 6D 65 72 20 30 0D 0A`
151	**Screens on and off: HDMI output 1: On after (s) = 600**	`set display 1 auto power on timer 600`	`73 65 74 20 64 69 73 70 6C 61 79 20 31 20 61 75 74 6F 20 70 6F 77 65 72 20 6F 6E 20 74 69 6D 65 72 20 36 30 30 0D 0A`
152	**Screens on and off: HDMI output 1: On after (s) = 1200**	`set display 1 auto power on timer 1200`	`73 65 74 20 64 69 73 70 6C 61 79 20 31 20 61 75 74 6F 20 70 6F 77 65 72 20 6F 6E 20 74 69 6D 65 72 20 31 32 30 30 0D 0A`
153	**Screens on and off: HDMI output 1: Off after (s) = {level} (0 to 1200)**	`set display 1 auto power off timer {level}`	`the level in place of {level}`
154	**Screens on and off: HDMI output 1: Off after (s) = 0**	`set display 1 auto power off timer 0`	`73 65 74 20 64 69 73 70 6C 61 79 20 31 20 61 75 74 6F 20 70 6F 77 65 72 20 6F 66 66 20 74 69 6D 65 72 20 30 0D 0A`
155	**Screens on and off: HDMI output 1: Off after (s) = 600**	`set display 1 auto power off timer 600`	`73 65 74 20 64 69 73 70 6C 61 79 20 31 20 61 75 74 6F 20 70 6F 77 65 72 20 6F 66 66 20 74 69 6D 65 72 20 36 30 30 0D 0A`
156	**Screens on and off: HDMI output 1: Off after (s) = 1200**	`set display 1 auto power off timer 1200`	`73 65 74 20 64 69 73 70 6C 61 79 20 31 20 61 75 74 6F 20 70 6F 77 65 72 20 6F 66 66 20 74 69 6D 65 72 20 31 32 30 30 0D 0A`
157	**Screens on and off: HDMI output 1: How = CEC**	`set display 1 control type 100`	`73 65 74 20 64 69 73 70 6C 61 79 20 31 20 63 6F 6E 74 72 6F 6C 20 74 79 70 65 20 31 30 30 0D 0A`
158	**Screens on and off: HDMI output 1: How = IR**	`set display 1 control type 010`	`73 65 74 20 64 69 73 70 6C 61 79 20 31 20 63 6F 6E 74 72 6F 6C 20 74 79 70 65 20 30 31 30 0D 0A`
159	**Screens on and off: HDMI output 1: How = RS-232**	`set display 1 control type 001`	`73 65 74 20 64 69 73 70 6C 61 79 20 31 20 63 6F 6E 74 72 6F 6C 20 74 79 70 65 20 30 30 31 0D 0A`
160	**USB: USB device 1: USB device ports' power = Follow the host**	`set usb device 1 power 1`	`73 65 74 20 75 73 62 20 64 65 76 69 63 65 20 31 20 70 6F 77 65 72 20 31 0D 0A`
161	**USB: USB device 1: USB device ports' power = Always on (5 V)**	`set usb device 1 power 2`	`73 65 74 20 75 73 62 20 64 65 76 69 63 65 20 31 20 70 6F 77 65 72 20 32 0D 0A`
162	**USB: USB device 1: USB device ports' power = Off**	`set usb device 1 power 3`	`73 65 74 20 75 73 62 20 64 65 76 69 63 65 20 31 20 70 6F 77 65 72 20 33 0D 0A`
163	**USB: USB device 2: USB device ports' power = Follow the host**	`set usb device 2 power 1`	`73 65 74 20 75 73 62 20 64 65 76 69 63 65 20 32 20 70 6F 77 65 72 20 31 0D 0A`
164	**USB: USB device 2: USB device ports' power = Always on (5 V)**	`set usb device 2 power 2`	`73 65 74 20 75 73 62 20 64 65 76 69 63 65 20 32 20 70 6F 77 65 72 20 32 0D 0A`
165	**USB: USB device 2: USB device ports' power = Off**	`set usb device 2 power 3`	`73 65 74 20 75 73 62 20 64 65 76 69 63 65 20 32 20 70 6F 77 65 72 20 33 0D 0A`
166	**USB: USB device 3: USB device ports' power = Follow the host**	`set usb device 3 power 1`	`73 65 74 20 75 73 62 20 64 65 76 69 63 65 20 33 20 70 6F 77 65 72 20 31 0D 0A`
167	**USB: USB device 3: USB device ports' power = Always on (5 V)**	`set usb device 3 power 2`	`73 65 74 20 75 73 62 20 64 65 76 69 63 65 20 33 20 70 6F 77 65 72 20 32 0D 0A`

168	**USB: USB device 3: USB device ports' power = Off**	`set usb device 3 power 3`	`73 65 74 20 75 73 62 20 64 65 76 69 63 65 20 33 20 70 6F 77 65 72 20 33 0D 0A`
169	**USB: USB-C input 1: Laptops on USB-C get the network on**	`set usbc 1 access network 1`	`73 65 74 20 75 73 62 63 20 31 20 61 63 63 65 73 73 20 6E 65 74 77 6F 72 6B 20 31 0D 0A`
170	**USB: USB-C input 1: Laptops on USB-C get the network off**	`set usbc 1 access network 0`	`73 65 74 20 75 73 62 63 20 31 20 61 63 63 65 73 73 20 6E 65 74 77 6F 72 6B 20 30 0D 0A`

4. READING THE UNIT BACK

Send these to read the unit back (on a timer, or after a change).

#	String	Bytes (hex)	The reply gives
1	`get output 1 from`	`67 65 74 20 6F 75 74 70 75 74 20 31 20 66 72 6F 6D 0D 0A`	Show
2	`get output 1 auto switch`	`67 65 74 20 6F 75 74 70 75 74 20 31 20 61 75 74 6F 20 73 77 69 74 63 68 0D 0A`	Switch to a newly plugged-in source by itself
3	`get analog audio gain`	`67 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 67 61 69 6E 0D 0A`	Analog sound out (dB)
4	`get analog audio mute`	`67 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 6D 75 74 65 0D 0A`	Mute the analog sound out
5	`get power`	`67 65 74 20 70 6F 77 65 72 0D 0A`	Power
6	`get input 0 connected`	`67 65 74 20 69 6E 70 75 74 20 30 20 63 6F 6E 6E 65 63 74 65 64 0D 0A`	Signal
7	`get usb switch mode`	`67 65 74 20 75 73 62 20 73 77 69 74 63 68 20 6D 6F 64 65 0D 0A`	Keyboard, mouse and camera
8	`get usb switch status`	`67 65 74 20 75 73 62 20 73 77 69 74 63 68 20 73 74 61 74 75 73 0D 0A`	They go to
9	`get analog audio output`	`67 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 6F 75 74 70 75 74 0D 0A`	Line out plays
10	`get analog audio input`	`67 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 69 6E 70 75 74 0D 0A`	Line in (a microphone) goes into
11	`get analog audio input to usb`	`67 65 74 20 61 6E 61 6C 6F 67 20 61 75 64 69 6F 20 69 6E 70 75 74 20 74 6F 20 75 73 62 0D 0A`	Line in to the laptop's USB audio
12	`get pattern`	`67 65 74 20 70 61 74 74 65 72 6E 0D 0A`	Test pattern

13	`get welcome screen`	`67 65 74 20 77 65 6C 63 6F 6D 65 20 73 63 72 65 65 6E 0D 0A`	Welcome screen
14	`get no signal screen`	`67 65 74 20 6E 6F 20 73 69 67 6E 61 6C 20 73 63 72 65 65 6E 0D 0A`	Welcome screen after 60 s with no source
15	`get output auto switch mode`	`67 65 74 20 6F 75 74 70 75 74 20 61 75 74 6F 20 73 77 69 74 63 68 20 6D 6F 64 65 0D 0A`	Notice a new source by
16	`get auto standby time`	`67 65 74 20 61 75 74 6F 20 73 74 61 6E 64 62 79 20 74 69 6D 65 0D 0A`	Go to standby with no source after
17	`get front button`	`67 65 74 20 66 72 6F 6E 74 20 62 75 74 74 6F 6E 0D 0A`	Lock the front buttons (on = locked)
18	`get hdmi power saving`	`67 65 74 20 68 64 6D 69 20 70 6F 77 65 72 20 73 61 76 69 6E 67 0D 0A`	HDMI power saving
19	`get baud`	`67 65 74 20 62 61 75 64 0D 0A`	RS-232 speed
20	`get version`	`67 65 74 20 76 65 72 73 69 6F 6E 0D 0A`	Firmware, Web page firmware
21	`get temp`	`67 65 74 20 74 65 6D 70 0D 0A`	Temperature (°C)
22	`get uptime`	`67 65 74 20 75 70 74 69 6D 65 0D 0A`	Running for (days:hours:min:sec)

5. TROUBLESHOOTING

Nothing happens.
Check the unit's IP address and that TCP 8000 is open between the Tesira server and the unit (same network or VLAN, or routed; no firewall in between). Check the line ending is sent after each string.

The unit answers with an error.
The string or its value is not one it takes, or the unit is in standby: turn it on first.