MMX-8X8CAT-150M Tesira Command Sheet

For Tesira Command String blocks · Version 1.0.2

Every command the MMX-8X8CAT-150M 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-MMX-8X8CAT-150M-Tesira-Command-Sheet-1.0.2.csv` for copying.

> **Before you start —** the Tesira server must reach the MMX-8X8CAT-150M 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	"!" (hex `21`), 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 `21`).
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

210 strings.

#	Command	String	Bytes (hex, with the line ending)
1	**Route: All outputs: Source = Input 1**	`s in 1 av out 0`	`73 20 69 6E 20 31 20 61 76 20 6F 75 74 20 30 21`
2	**Route: All outputs: Source = Input 2**	`s in 2 av out 0`	`73 20 69 6E 20 32 20 61 76 20 6F 75 74 20 30 21`
3	**Route: All outputs: Source = Input 3**	`s in 3 av out 0`	`73 20 69 6E 20 33 20 61 76 20 6F 75 74 20 30 21`
4	**Route: All outputs: Source = Input 4**	`s in 4 av out 0`	`73 20 69 6E 20 34 20 61 76 20 6F 75 74 20 30 21`
5	**Route: All outputs: Source = Input 5**	`s in 5 av out 0`	`73 20 69 6E 20 35 20 61 76 20 6F 75 74 20 30 21`
6	**Route: All outputs: Source = Input 6**	`s in 6 av out 0`	`73 20 69 6E 20 36 20 61 76 20 6F 75 74 20 30 21`

7	Route: All outputs: Source = Input 7	`s in 7 av out 0`	`73 20 69 6E 20 37 20 61 76 20 6F 75 74 20 30 21`
8	Route: All outputs: Source = Input 8	`s in 8 av out 0`	`73 20 69 6E 20 38 20 61 76 20 6F 75 74 20 30 21`
9	Route: Output 1: Source = Input 1	`s in 1 av out 1`	`73 20 69 6E 20 31 20 61 76 20 6F 75 74 20 31 21`
10	Route: Output 1: Source = Input 2	`s in 2 av out 1`	`73 20 69 6E 20 32 20 61 76 20 6F 75 74 20 31 21`
11	Route: Output 1: Source = Input 3	`s in 3 av out 1`	`73 20 69 6E 20 33 20 61 76 20 6F 75 74 20 31 21`
12	Route: Output 1: Source = Input 4	`s in 4 av out 1`	`73 20 69 6E 20 34 20 61 76 20 6F 75 74 20 31 21`
13	Route: Output 1: Source = Input 5	`s in 5 av out 1`	`73 20 69 6E 20 35 20 61 76 20 6F 75 74 20 31 21`
14	Route: Output 1: Source = Input 6	`s in 6 av out 1`	`73 20 69 6E 20 36 20 61 76 20 6F 75 74 20 31 21`
15	Route: Output 1: Source = Input 7	`s in 7 av out 1`	`73 20 69 6E 20 37 20 61 76 20 6F 75 74 20 31 21`
16	Route: Output 1: Source = Input 8	`s in 8 av out 1`	`73 20 69 6E 20 38 20 61 76 20 6F 75 74 20 31 21`
17	Route: Output 2: Source = Input 1	`s in 1 av out 2`	`73 20 69 6E 20 31 20 61 76 20 6F 75 74 20 32 21`
18	Route: Output 2: Source = Input 2	`s in 2 av out 2`	`73 20 69 6E 20 32 20 61 76 20 6F 75 74 20 32 21`
19	Route: Output 2: Source = Input 3	`s in 3 av out 2`	`73 20 69 6E 20 33 20 61 76 20 6F 75 74 20 32 21`
20	Route: Output 2: Source = Input 4	`s in 4 av out 2`	`73 20 69 6E 20 34 20 61 76 20 6F 75 74 20 32 21`
21	Route: Output 2: Source = Input 5	`s in 5 av out 2`	`73 20 69 6E 20 35 20 61 76 20 6F 75 74 20 32 21`
22	Route: Output 2: Source = Input 6	`s in 6 av out 2`	`73 20 69 6E 20 36 20 61 76 20 6F 75 74 20 32 21`
23	Route: Output 2: Source = Input 7	`s in 7 av out 2`	`73 20 69 6E 20 37 20 61 76 20 6F 75 74 20 32 21`
24	Route: Output 2: Source = Input 8	`s in 8 av out 2`	`73 20 69 6E 20 38 20 61 76 20 6F 75 74 20 32 21`
25	Route: Output 3: Source = Input 1	`s in 1 av out 3`	`73 20 69 6E 20 31 20 61 76 20 6F 75 74 20 33 21`
26	Route: Output 3: Source = Input 2	`s in 2 av out 3`	`73 20 69 6E 20 32 20 61 76 20 6F 75 74 20 33 21`
27	Route: Output 3: Source = Input 3	`s in 3 av out 3`	`73 20 69 6E 20 33 20 61 76 20 6F 75 74 20 33 21`
28	Route: Output 3: Source = Input 4	`s in 4 av out 3`	`73 20 69 6E 20 34 20 61 76 20 6F 75 74 20 33 21`
29	Route: Output 3: Source = Input 5	`s in 5 av out 3`	`73 20 69 6E 20 35 20 61 76 20 6F 75 74 20 33 21`
30	Route: Output 3: Source = Input 6	`s in 6 av out 3`	`73 20 69 6E 20 36 20 61 76 20 6F 75 74 20 33 21`

31	Route: Output 3: Source = Input 7	`s in 7 av out 3`	`73 20 69 6E 20 37 20 61 76 20 6F 75 74 20 33 21`
32	Route: Output 3: Source = Input 8	`s in 8 av out 3`	`73 20 69 6E 20 38 20 61 76 20 6F 75 74 20 33 21`
33	Route: Output 4: Source = Input 1	`s in 1 av out 4`	`73 20 69 6E 20 31 20 61 76 20 6F 75 74 20 34 21`
34	Route: Output 4: Source = Input 2	`s in 2 av out 4`	`73 20 69 6E 20 32 20 61 76 20 6F 75 74 20 34 21`
35	Route: Output 4: Source = Input 3	`s in 3 av out 4`	`73 20 69 6E 20 33 20 61 76 20 6F 75 74 20 34 21`
36	Route: Output 4: Source = Input 4	`s in 4 av out 4`	`73 20 69 6E 20 34 20 61 76 20 6F 75 74 20 34 21`
37	Route: Output 4: Source = Input 5	`s in 5 av out 4`	`73 20 69 6E 20 35 20 61 76 20 6F 75 74 20 34 21`
38	Route: Output 4: Source = Input 6	`s in 6 av out 4`	`73 20 69 6E 20 36 20 61 76 20 6F 75 74 20 34 21`
39	Route: Output 4: Source = Input 7	`s in 7 av out 4`	`73 20 69 6E 20 37 20 61 76 20 6F 75 74 20 34 21`
40	Route: Output 4: Source = Input 8	`s in 8 av out 4`	`73 20 69 6E 20 38 20 61 76 20 6F 75 74 20 34 21`
41	Route: Output 5: Source = Input 1	`s in 1 av out 5`	`73 20 69 6E 20 31 20 61 76 20 6F 75 74 20 35 21`
42	Route: Output 5: Source = Input 2	`s in 2 av out 5`	`73 20 69 6E 20 32 20 61 76 20 6F 75 74 20 35 21`
43	Route: Output 5: Source = Input 3	`s in 3 av out 5`	`73 20 69 6E 20 33 20 61 76 20 6F 75 74 20 35 21`
44	Route: Output 5: Source = Input 4	`s in 4 av out 5`	`73 20 69 6E 20 34 20 61 76 20 6F 75 74 20 35 21`
45	Route: Output 5: Source = Input 5	`s in 5 av out 5`	`73 20 69 6E 20 35 20 61 76 20 6F 75 74 20 35 21`
46	Route: Output 5: Source = Input 6	`s in 6 av out 5`	`73 20 69 6E 20 36 20 61 76 20 6F 75 74 20 35 21`
47	Route: Output 5: Source = Input 7	`s in 7 av out 5`	`73 20 69 6E 20 37 20 61 76 20 6F 75 74 20 35 21`
48	Route: Output 5: Source = Input 8	`s in 8 av out 5`	`73 20 69 6E 20 38 20 61 76 20 6F 75 74 20 35 21`
49	Route: Output 6: Source = Input 1	`s in 1 av out 6`	`73 20 69 6E 20 31 20 61 76 20 6F 75 74 20 36 21`
50	Route: Output 6: Source = Input 2	`s in 2 av out 6`	`73 20 69 6E 20 32 20 61 76 20 6F 75 74 20 36 21`
51	Route: Output 6: Source = Input 3	`s in 3 av out 6`	`73 20 69 6E 20 33 20 61 76 20 6F 75 74 20 36 21`
52	Route: Output 6: Source = Input 4	`s in 4 av out 6`	`73 20 69 6E 20 34 20 61 76 20 6F 75 74 20 36 21`
53	Route: Output 6: Source = Input 5	`s in 5 av out 6`	`73 20 69 6E 20 35 20 61 76 20 6F 75 74 20 36 21`
54	Route: Output 6: Source = Input 6	`s in 6 av out 6`	`73 20 69 6E 20 36 20 61 76 20 6F 75 74 20 36 21`

55	Route: Output 6: Source = Input 7	`s in 7 av out 6`	`73 20 69 6E 20 37 20 61 76 20 6F 75 74 20 36 21`
56	Route: Output 6: Source = Input 8	`s in 8 av out 6`	`73 20 69 6E 20 38 20 61 76 20 6F 75 74 20 36 21`
57	Route: Output 7: Source = Input 1	`s in 1 av out 7`	`73 20 69 6E 20 31 20 61 76 20 6F 75 74 20 37 21`
58	Route: Output 7: Source = Input 2	`s in 2 av out 7`	`73 20 69 6E 20 32 20 61 76 20 6F 75 74 20 37 21`
59	Route: Output 7: Source = Input 3	`s in 3 av out 7`	`73 20 69 6E 20 33 20 61 76 20 6F 75 74 20 37 21`
60	Route: Output 7: Source = Input 4	`s in 4 av out 7`	`73 20 69 6E 20 34 20 61 76 20 6F 75 74 20 37 21`
61	Route: Output 7: Source = Input 5	`s in 5 av out 7`	`73 20 69 6E 20 35 20 61 76 20 6F 75 74 20 37 21`
62	Route: Output 7: Source = Input 6	`s in 6 av out 7`	`73 20 69 6E 20 36 20 61 76 20 6F 75 74 20 37 21`
63	Route: Output 7: Source = Input 7	`s in 7 av out 7`	`73 20 69 6E 20 37 20 61 76 20 6F 75 74 20 37 21`
64	Route: Output 7: Source = Input 8	`s in 8 av out 7`	`73 20 69 6E 20 38 20 61 76 20 6F 75 74 20 37 21`
65	Route: Output 8: Source = Input 1	`s in 1 av out 8`	`73 20 69 6E 20 31 20 61 76 20 6F 75 74 20 38 21`
66	Route: Output 8: Source = Input 2	`s in 2 av out 8`	`73 20 69 6E 20 32 20 61 76 20 6F 75 74 20 38 21`
67	Route: Output 8: Source = Input 3	`s in 3 av out 8`	`73 20 69 6E 20 33 20 61 76 20 6F 75 74 20 38 21`
68	Route: Output 8: Source = Input 4	`s in 4 av out 8`	`73 20 69 6E 20 34 20 61 76 20 6F 75 74 20 38 21`
69	Route: Output 8: Source = Input 5	`s in 5 av out 8`	`73 20 69 6E 20 35 20 61 76 20 6F 75 74 20 38 21`
70	Route: Output 8: Source = Input 6	`s in 6 av out 8`	`73 20 69 6E 20 36 20 61 76 20 6F 75 74 20 38 21`
71	Route: Output 8: Source = Input 7	`s in 7 av out 8`	`73 20 69 6E 20 37 20 61 76 20 6F 75 74 20 38 21`
72	Route: Output 8: Source = Input 8	`s in 8 av out 8`	`73 20 69 6E 20 38 20 61 76 20 6F 75 74 20 38 21`
73	Picture: Output 1: HDMI picture on	`s hdmi 1 stream 1`	`73 20 68 64 6D 69 20 31 20 73 74 72 65 61 6D 20 31 21`
74	Picture: Output 1: HDMI picture off	`s hdmi 1 stream 0`	`73 20 68 64 6D 69 20 31 20 73 74 72 65 61 6D 20 30 21`
75	Picture: Output 2: HDMI picture on	`s hdmi 2 stream 1`	`73 20 68 64 6D 69 20 32 20 73 74 72 65 61 6D 20 31 21`
76	Picture: Output 2: HDMI picture off	`s hdmi 2 stream 0`	`73 20 68 64 6D 69 20 32 20 73 74 72 65 61 6D 20 30 21`
77	Picture: Output 3: HDMI picture on	`s hdmi 3 stream 1`	`73 20 68 64 6D 69 20 33 20 73 74 72 65 61 6D 20 31 21`
78	Picture: Output 3: HDMI picture off	`s hdmi 3 stream 0`	`73 20 68 64 6D 69 20 33 20 73 74 72 65 61 6D 20 30 21`

79	Picture: Output 4: HDMI picture on	`s hdmi 4 stream 1`	`73 20 68 64 6D 69 20 34 20 73 74 72 65 61 6D 20 31 21`
80	Picture: Output 4: HDMI picture off	`s hdmi 4 stream 0`	`73 20 68 64 6D 69 20 34 20 73 74 72 65 61 6D 20 30 21`
81	Picture: Output 5: HDMI picture on	`s hdmi 5 stream 1`	`73 20 68 64 6D 69 20 35 20 73 74 72 65 61 6D 20 31 21`
82	Picture: Output 5: HDMI picture off	`s hdmi 5 stream 0`	`73 20 68 64 6D 69 20 35 20 73 74 72 65 61 6D 20 30 21`
83	Picture: Output 6: HDMI picture on	`s hdmi 6 stream 1`	`73 20 68 64 6D 69 20 36 20 73 74 72 65 61 6D 20 31 21`
84	Picture: Output 6: HDMI picture off	`s hdmi 6 stream 0`	`73 20 68 64 6D 69 20 36 20 73 74 72 65 61 6D 20 30 21`
85	Picture: Output 7: HDMI picture on	`s hdmi 7 stream 1`	`73 20 68 64 6D 69 20 37 20 73 74 72 65 61 6D 20 31 21`
86	Picture: Output 7: HDMI picture off	`s hdmi 7 stream 0`	`73 20 68 64 6D 69 20 37 20 73 74 72 65 61 6D 20 30 21`
87	Picture: Output 8: HDMI picture on	`s hdmi 8 stream 1`	`73 20 68 64 6D 69 20 38 20 73 74 72 65 61 6D 20 31 21`
88	Picture: Output 8: HDMI picture off	`s hdmi 8 stream 0`	`73 20 68 64 6D 69 20 38 20 73 74 72 65 61 6D 20 30 21`
89	Picture: Output 1: HDBaseT picture on	`s cat 1 stream 1`	`73 20 63 61 74 20 31 20 73 74 72 65 61 6D 20 31 21`
90	Picture: Output 1: HDBaseT picture off	`s cat 1 stream 0`	`73 20 63 61 74 20 31 20 73 74 72 65 61 6D 20 30 21`
91	Picture: Output 2: HDBaseT picture on	`s cat 2 stream 1`	`73 20 63 61 74 20 32 20 73 74 72 65 61 6D 20 31 21`
92	Picture: Output 2: HDBaseT picture off	`s cat 2 stream 0`	`73 20 63 61 74 20 32 20 73 74 72 65 61 6D 20 30 21`
93	Picture: Output 3: HDBaseT picture on	`s cat 3 stream 1`	`73 20 63 61 74 20 33 20 73 74 72 65 61 6D 20 31 21`
94	Picture: Output 3: HDBaseT picture off	`s cat 3 stream 0`	`73 20 63 61 74 20 33 20 73 74 72 65 61 6D 20 30 21`
95	Picture: Output 4: HDBaseT picture on	`s cat 4 stream 1`	`73 20 63 61 74 20 34 20 73 74 72 65 61 6D 20 31 21`
96	Picture: Output 4: HDBaseT picture off	`s cat 4 stream 0`	`73 20 63 61 74 20 34 20 73 74 72 65 61 6D 20 30 21`
97	Picture: Output 5: HDBaseT picture on	`s cat 5 stream 1`	`73 20 63 61 74 20 35 20 73 74 72 65 61 6D 20 31 21`
98	Picture: Output 5: HDBaseT picture off	`s cat 5 stream 0`	`73 20 63 61 74 20 35 20 73 74 72 65 61 6D 20 30 21`
99	Picture: Output 6: HDBaseT picture on	`s cat 6 stream 1`	`73 20 63 61 74 20 36 20 73 74 72 65 61 6D 20 31 21`
100	Picture: Output 6: HDBaseT picture off	`s cat 6 stream 0`	`73 20 63 61 74 20 36 20 73 74 72 65 61 6D 20 30 21`
101	Picture: Output 7: HDBaseT picture on	`s cat 7 stream 1`	`73 20 63 61 74 20 37 20 73 74 72 65 61 6D 20 31 21`
102	Picture: Output 7: HDBaseT picture off	`s cat 7 stream 0`	`73 20 63 61 74 20 37 20 73 74 72 65 61 6D 20 30 21`

103	Picture: Output 8: HDBaseT picture on	`s cat 8 stream 1`	`73 20 63 61 74 20 38 20 73 74 72 65 61 6D 20 31 21`
104	Picture: Output 8: HDBaseT picture off	`s cat 8 stream 0`	`73 20 63 61 74 20 38 20 73 74 72 65 61 6D 20 30 21`
105	Power: Power On	`s power 1`	`73 20 70 6F 77 65 72 20 31 21`
106	Power: Power Standby	`s power 0`	`73 20 70 6F 77 65 72 20 30 21`
107	Presets: Presets 1	`s recall preset 1`	`73 20 72 65 63 61 6C 6C 20 70 72 65 73 65 74 20 31 21`
108	Presets: Presets 2	`s recall preset 2`	`73 20 72 65 63 61 6C 6C 20 70 72 65 73 65 74 20 32 21`
109	Presets: Presets 3	`s recall preset 3`	`73 20 72 65 63 61 6C 6C 20 70 72 65 73 65 74 20 33 21`
110	Presets: Presets 4	`s recall preset 4`	`73 20 72 65 63 61 6C 6C 20 70 72 65 73 65 74 20 34 21`
111	Presets: Presets 5	`s recall preset 5`	`73 20 72 65 63 61 6C 6C 20 70 72 65 73 65 74 20 35 21`
112	Presets: Presets 6	`s recall preset 6`	`73 20 72 65 63 61 6C 6C 20 70 72 65 73 65 74 20 36 21`
113	Presets: Presets 7	`s recall preset 7`	`73 20 72 65 63 61 6C 6C 20 70 72 65 73 65 74 20 37 21`
114	Presets: Presets 8	`s recall preset 8`	`73 20 72 65 63 61 6C 6C 20 70 72 65 73 65 74 20 38 21`
115	Presets: Save 1	`s save preset 1`	`73 20 73 61 76 65 20 70 72 65 73 65 74 20 31 21`
116	Presets: Save 2	`s save preset 2`	`73 20 73 61 76 65 20 70 72 65 73 65 74 20 32 21`
117	Presets: Save 3	`s save preset 3`	`73 20 73 61 76 65 20 70 72 65 73 65 74 20 33 21`
118	Presets: Save 4	`s save preset 4`	`73 20 73 61 76 65 20 70 72 65 73 65 74 20 34 21`
119	Presets: Save 5	`s save preset 5`	`73 20 73 61 76 65 20 70 72 65 73 65 74 20 35 21`
120	Presets: Save 6	`s save preset 6`	`73 20 73 61 76 65 20 70 72 65 73 65 74 20 36 21`
121	Presets: Save 7	`s save preset 7`	`73 20 73 61 76 65 20 70 72 65 73 65 74 20 37 21`
122	Presets: Save 8	`s save preset 8`	`73 20 73 61 76 65 20 70 72 65 73 65 74 20 38 21`
123	Screen: Output 1: Screen on	`s cec hdmi out 1 on`	`73 20 63 65 63 20 68 64 6D 69 20 6F 75 74 20 31 20 6F 6E 21`
124	Screen: Output 1: Screen off	`s cec hdmi out 1 off`	`73 20 63 65 63 20 68 64 6D 69 20 6F 75 74 20 31 20 6F 66 66 21`
125	Screen: Output 2: Screen on	`s cec hdmi out 2 on`	`73 20 63 65 63 20 68 64 6D 69 20 6F 75 74 20 32 20 6F 6E 21`
126	Screen: Output 2: Screen off	`s cec hdmi out 2 off`	`73 20 63 65 63 20 68 64 6D 69 20 6F 75 74 20 32 20 6F 66 66 21`
127	Screen: Output 3: Screen on	`s cec hdmi out 3 on`	`73 20 63 65 63 20 68 64 6D 69 20 6F 75 74 20 33 20 6F 6E 21`

128	Screen: Output 3: Screen off	s cec hdmi out 3 off	73 20 63 65 63 20 68 64 6D 69 20 6F 75 74 20 33 20 6F 66 66 21
129	Screen: Output 4: Screen on	s cec hdmi out 4 on	73 20 63 65 63 20 68 64 6D 69 20 6F 75 74 20 34 20 6F 6E 21
130	Screen: Output 4: Screen off	s cec hdmi out 4 off	73 20 63 65 63 20 68 64 6D 69 20 6F 75 74 20 34 20 6F 66 66 21
131	Screen: Output 5: Screen on	s cec hdmi out 5 on	73 20 63 65 63 20 68 64 6D 69 20 6F 75 74 20 35 20 6F 6E 21
132	Screen: Output 5: Screen off	s cec hdmi out 5 off	73 20 63 65 63 20 68 64 6D 69 20 6F 75 74 20 35 20 6F 66 66 21
133	Screen: Output 6: Screen on	s cec hdmi out 6 on	73 20 63 65 63 20 68 64 6D 69 20 6F 75 74 20 36 20 6F 6E 21
134	Screen: Output 6: Screen off	s cec hdmi out 6 off	73 20 63 65 63 20 68 64 6D 69 20 6F 75 74 20 36 20 6F 66 66 21
135	Screen: Output 7: Screen on	s cec hdmi out 7 on	73 20 63 65 63 20 68 64 6D 69 20 6F 75 74 20 37 20 6F 6E 21
136	Screen: Output 7: Screen off	s cec hdmi out 7 off	73 20 63 65 63 20 68 64 6D 69 20 6F 75 74 20 37 20 6F 66 66 21
137	Screen: Output 8: Screen on	s cec hdmi out 8 on	73 20 63 65 63 20 68 64 6D 69 20 6F 75 74 20 38 20 6F 6E 21
138	Screen: Output 8: Screen off	s cec hdmi out 8 off	73 20 63 65 63 20 68 64 6D 69 20 6F 75 74 20 38 20 6F 66 66 21
139	Screen: Output 1: Show this output	s cec hdmi out 1 acti ve	73 20 63 65 63 20 68 64 6D 69 20 6F 75 74 20 31 20 61 63 74 69 76 65 21
140	Screen: Output 2: Show this output	s cec hdmi out 2 acti ve	73 20 63 65 63 20 68 64 6D 69 20 6F 75 74 20 32 20 61 63 74 69 76 65 21
141	Screen: Output 3: Show this output	s cec hdmi out 3 acti ve	73 20 63 65 63 20 68 64 6D 69 20 6F 75 74 20 33 20 61 63 74 69 76 65 21
142	Screen: Output 4: Show this output	s cec hdmi out 4 acti ve	73 20 63 65 63 20 68 64 6D 69 20 6F 75 74 20 34 20 61 63 74 69 76 65 21
143	Screen: Output 5: Show this output	s cec hdmi out 5 acti ve	73 20 63 65 63 20 68 64 6D 69 20 6F 75 74 20 35 20 61 63 74 69 76 65 21
144	Screen: Output 6: Show this output	s cec hdmi out 6 acti ve	73 20 63 65 63 20 68 64 6D 69 20 6F 75 74 20 36 20 61 63 74 69 76 65 21
145	Screen: Output 7: Show this output	s cec hdmi out 7 acti ve	73 20 63 65 63 20 68 64 6D 69 20 6F 75 74 20 37 20 61 63 74 69 76 65 21
146	Screen: Output 8: Show this output	s cec hdmi out 8 acti ve	73 20 63 65 63 20 68 64 6D 69 20 6F 75 74 20 38 20 61 63 74 69 76 65 21
147	Source remote: Input 1: Remote = Power on	s cec in 1 on	73 20 63 65 63 20 69 6E 20 31 20 6F 6E 21
148	Source remote: Input 1: Remote = Power off	s cec in 1 off	73 20 63 65 63 20 69 6E 20 31 20 6F 66 66 21
149	Source remote: Input 1: Remote = Play	s cec in 1 play	73 20 63 65 63 20 69 6E 20 31 20 70 6C 61 79 21
150	Source remote: Input 1: Remote = Pause	s cec in 1 pause	73 20 63 65 63 20 69 6E 20 31 20 70 61 75 73 65 21
151	Source remote: Input 1: Remote = Stop	s cec in 1 stop	73 20 63 65 63 20 69 6E 20 31 20 73 74 6F 70 21

152	Source remote: Input 1: Remote = Mute	`s cec in 1 mute`	`73 20 63 65 63 20 69 6E 20 31 20 6D 75 74 65 21`
153	Source remote: Input 1: Remote = Volume down	`s cec in 1 vol-`	`73 20 63 65 63 20 69 6E 20 31 20 76 6F 6C 2D 21`
154	Source remote: Input 1: Remote = Volume up	`s cec in 1 vol+`	`73 20 63 65 63 20 69 6E 20 31 20 76 6F 6C 2B 21`
155	Source remote: Input 2: Remote = Power on	`s cec in 2 on`	`73 20 63 65 63 20 69 6E 20 32 20 6F 6E 21`
156	Source remote: Input 2: Remote = Power off	`s cec in 2 off`	`73 20 63 65 63 20 69 6E 20 32 20 6F 66 66 21`
157	Source remote: Input 2: Remote = Play	`s cec in 2 play`	`73 20 63 65 63 20 69 6E 20 32 20 70 6C 61 79 21`
158	Source remote: Input 2: Remote = Pause	`s cec in 2 pause`	`73 20 63 65 63 20 69 6E 20 32 20 70 61 75 73 65 21`
159	Source remote: Input 2: Remote = Stop	`s cec in 2 stop`	`73 20 63 65 63 20 69 6E 20 32 20 73 74 6F 70 21`
160	Source remote: Input 2: Remote = Mute	`s cec in 2 mute`	`73 20 63 65 63 20 69 6E 20 32 20 6D 75 74 65 21`
161	Source remote: Input 2: Remote = Volume down	`s cec in 2 vol-`	`73 20 63 65 63 20 69 6E 20 32 20 76 6F 6C 2D 21`
162	Source remote: Input 2: Remote = Volume up	`s cec in 2 vol+`	`73 20 63 65 63 20 69 6E 20 32 20 76 6F 6C 2B 21`
163	Source remote: Input 3: Remote = Power on	`s cec in 3 on`	`73 20 63 65 63 20 69 6E 20 33 20 6F 6E 21`
164	Source remote: Input 3: Remote = Power off	`s cec in 3 off`	`73 20 63 65 63 20 69 6E 20 33 20 6F 66 66 21`
165	Source remote: Input 3: Remote = Play	`s cec in 3 play`	`73 20 63 65 63 20 69 6E 20 33 20 70 6C 61 79 21`
166	Source remote: Input 3: Remote = Pause	`s cec in 3 pause`	`73 20 63 65 63 20 69 6E 20 33 20 70 61 75 73 65 21`
167	Source remote: Input 3: Remote = Stop	`s cec in 3 stop`	`73 20 63 65 63 20 69 6E 20 33 20 73 74 6F 70 21`
168	Source remote: Input 3: Remote = Mute	`s cec in 3 mute`	`73 20 63 65 63 20 69 6E 20 33 20 6D 75 74 65 21`
169	Source remote: Input 3: Remote = Volume down	`s cec in 3 vol-`	`73 20 63 65 63 20 69 6E 20 33 20 76 6F 6C 2D 21`
170	Source remote: Input 3: Remote = Volume up	`s cec in 3 vol+`	`73 20 63 65 63 20 69 6E 20 33 20 76 6F 6C 2B 21`
171	Source remote: Input 4: Remote = Power on	`s cec in 4 on`	`73 20 63 65 63 20 69 6E 20 34 20 6F 6E 21`
172	Source remote: Input 4: Remote = Power off	`s cec in 4 off`	`73 20 63 65 63 20 69 6E 20 34 20 6F 66 66 21`
173	Source remote: Input 4: Remote = Play	`s cec in 4 play`	`73 20 63 65 63 20 69 6E 20 34 20 70 6C 61 79 21`
174	Source remote: Input 4: Remote = Pause	`s cec in 4 pause`	`73 20 63 65 63 20 69 6E 20 34 20 70 61 75 73 65 21`
175	Source remote: Input 4: Remote = Stop	`s cec in 4 stop`	`73 20 63 65 63 20 69 6E 20 34 20 73 74 6F 70 21`

176	Source remote: Input 4: Remote = Mute	`s cec in 4 mute`	`73 20 63 65 63 20 69 6E 20 34 20 6D 75 74 65 21`
177	Source remote: Input 4: Remote = Volume down	`s cec in 4 vol-`	`73 20 63 65 63 20 69 6E 20 34 20 76 6F 6C 2D 21`
178	Source remote: Input 4: Remote = Volume up	`s cec in 4 vol+`	`73 20 63 65 63 20 69 6E 20 34 20 76 6F 6C 2B 21`
179	Source remote: Input 5: Remote = Power on	`s cec in 5 on`	`73 20 63 65 63 20 69 6E 20 35 20 6F 6E 21`
180	Source remote: Input 5: Remote = Power off	`s cec in 5 off`	`73 20 63 65 63 20 69 6E 20 35 20 6F 66 66 21`
181	Source remote: Input 5: Remote = Play	`s cec in 5 play`	`73 20 63 65 63 20 69 6E 20 35 20 70 6C 61 79 21`
182	Source remote: Input 5: Remote = Pause	`s cec in 5 pause`	`73 20 63 65 63 20 69 6E 20 35 20 70 61 75 73 65 21`
183	Source remote: Input 5: Remote = Stop	`s cec in 5 stop`	`73 20 63 65 63 20 69 6E 20 35 20 73 74 6F 70 21`
184	Source remote: Input 5: Remote = Mute	`s cec in 5 mute`	`73 20 63 65 63 20 69 6E 20 35 20 6D 75 74 65 21`
185	Source remote: Input 5: Remote = Volume down	`s cec in 5 vol-`	`73 20 63 65 63 20 69 6E 20 35 20 76 6F 6C 2D 21`
186	Source remote: Input 5: Remote = Volume up	`s cec in 5 vol+`	`73 20 63 65 63 20 69 6E 20 35 20 76 6F 6C 2B 21`
187	Source remote: Input 6: Remote = Power on	`s cec in 6 on`	`73 20 63 65 63 20 69 6E 20 36 20 6F 6E 21`
188	Source remote: Input 6: Remote = Power off	`s cec in 6 off`	`73 20 63 65 63 20 69 6E 20 36 20 6F 66 66 21`
189	Source remote: Input 6: Remote = Play	`s cec in 6 play`	`73 20 63 65 63 20 69 6E 20 36 20 70 6C 61 79 21`
190	Source remote: Input 6: Remote = Pause	`s cec in 6 pause`	`73 20 63 65 63 20 69 6E 20 36 20 70 61 75 73 65 21`
191	Source remote: Input 6: Remote = Stop	`s cec in 6 stop`	`73 20 63 65 63 20 69 6E 20 36 20 73 74 6F 70 21`
192	Source remote: Input 6: Remote = Mute	`s cec in 6 mute`	`73 20 63 65 63 20 69 6E 20 36 20 6D 75 74 65 21`
193	Source remote: Input 6: Remote = Volume down	`s cec in 6 vol-`	`73 20 63 65 63 20 69 6E 20 36 20 76 6F 6C 2D 21`
194	Source remote: Input 6: Remote = Volume up	`s cec in 6 vol+`	`73 20 63 65 63 20 69 6E 20 36 20 76 6F 6C 2B 21`
195	Source remote: Input 7: Remote = Power on	`s cec in 7 on`	`73 20 63 65 63 20 69 6E 20 37 20 6F 6E 21`
196	Source remote: Input 7: Remote = Power off	`s cec in 7 off`	`73 20 63 65 63 20 69 6E 20 37 20 6F 66 66 21`
197	Source remote: Input 7: Remote = Play	`s cec in 7 play`	`73 20 63 65 63 20 69 6E 20 37 20 70 6C 61 79 21`
198	Source remote: Input 7: Remote = Pause	`s cec in 7 pause`	`73 20 63 65 63 20 69 6E 20 37 20 70 61 75 73 65 21`
199	Source remote: Input 7: Remote = Stop	`s cec in 7 stop`	`73 20 63 65 63 20 69 6E 20 37 20 73 74 6F 70 21`

200	**Source remote: Input 7: Remote = Mute**	`s cec in 7 mute`	`73 20 63 65 63 20 69 6E 20 37 20 6D 75 74 65 21`
201	**Source remote: Input 7: Remote = Volume down**	`s cec in 7 vol-`	`73 20 63 65 63 20 69 6E 20 37 20 76 6F 6C 2D 21`
202	**Source remote: Input 7: Remote = Volume up**	`s cec in 7 vol+`	`73 20 63 65 63 20 69 6E 20 37 20 76 6F 6C 2B 21`
203	**Source remote: Input 8: Remote = Power on**	`s cec in 8 on`	`73 20 63 65 63 20 69 6E 20 38 20 6F 6E 21`
204	**Source remote: Input 8: Remote = Power off**	`s cec in 8 off`	`73 20 63 65 63 20 69 6E 20 38 20 6F 66 66 21`
205	**Source remote: Input 8: Remote = Play**	`s cec in 8 play`	`73 20 63 65 63 20 69 6E 20 38 20 70 6C 61 79 21`
206	**Source remote: Input 8: Remote = Pause**	`s cec in 8 pause`	`73 20 63 65 63 20 69 6E 20 38 20 70 61 75 73 65 21`
207	**Source remote: Input 8: Remote = Stop**	`s cec in 8 stop`	`73 20 63 65 63 20 69 6E 20 38 20 73 74 6F 70 21`
208	**Source remote: Input 8: Remote = Mute**	`s cec in 8 mute`	`73 20 63 65 63 20 69 6E 20 38 20 6D 75 74 65 21`
209	**Source remote: Input 8: Remote = Volume down**	`s cec in 8 vol-`	`73 20 63 65 63 20 69 6E 20 38 20 76 6F 6C 2D 21`
210	**Source remote: Input 8: Remote = Volume up**	`s cec in 8 vol+`	`73 20 63 65 63 20 69 6E 20 38 20 76 6F 6C 2B 21`

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	`r av out 0`	`72 20 61 76 20 6F 75 74 20 30 21`	Source
2	`r link in 0`	`72 20 6C 69 6E 6B 20 69 6E 20 30 21`	Signal
3	`r link out 0`	`72 20 6C 69 6E 6B 20 6F 75 74 20 30 21`	Connected
4	`r power`	`72 20 70 6F 77 65 72 21`	Power
5	`r edid in 0`	`72 20 65 64 69 64 20 69 6E 20 30 21`	EDID
6	`r lock`	`72 20 6C 6F 63 6B 21`	Front panel locked

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.