# MMX-4X4CAT-70M Tesira Command Sheet

For Tesira Command String blocks · Version 1.0.4

**Every command the MMX-4X4CAT-70M 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-4X4CAT-70M-Tesira-Command-Sheet-1.0.4.csv` for copying.

> **Before you start —** the Tesira server must reach the MMX-4X4CAT-70M 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: 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` |
| 6 | **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` |

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|---|---|---|---|
| 7 | 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` |
| 8 | 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` |
| 9 | 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` |
| 10 | 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` |
| 11 | 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` |
| 12 | 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` |
| 13 | 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` |
| 14 | 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` |
| 15 | 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` |
| 16 | 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` |
| 17 | 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` |
| 18 | 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` |
| 19 | 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` |
| 20 | 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` |
| 21 | 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` |
| 22 | 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` |
| 23 | 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` |
| 24 | 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` |
| 25 | 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` |
| 26 | 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` |
| 27 | 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` |
| 28 | 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` |
| 29 | 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` |
| 30 | 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` |

| | | | |
|---|---|---|---|
| 31 | 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` |
| 32 | 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` |
| 33 | 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` |
| 34 | 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` |
| 35 | 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` |
| 36 | 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` |
| 37 | Power: Standby On | `s power 1` | `73 20 70 6F 77 65 72 20 31 21` |
| 38 | Power: Standby Standby | `s power 0` | `73 20 70 6F 77 65 72 20 30 21` |
| 39 | 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` |
| 40 | 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` |
| 41 | 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` |
| 42 | 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` |
| 43 | Presets: Save 1 | `s save preset 1` | `73 20 73 61 76 65 20 70 72 65 73 65 74 20 31 21` |
| 44 | Presets: Save 2 | `s save preset 2` | `73 20 73 61 76 65 20 70 72 65 73 65 74 20 32 21` |
| 45 | Presets: Save 3 | `s save preset 3` | `73 20 73 61 76 65 20 70 72 65 73 65 74 20 33 21` |
| 46 | Presets: Save 4 | `s save preset 4` | `73 20 73 61 76 65 20 70 72 65 73 65 74 20 34 21` |
| 47 | Video: Output 1: Scaler = Bypass | `s hdmi 1 scaler 1` | `73 20 68 64 6D 69 20 31 20 73 63 61 6C 65 72 20 31 21` |
| 48 | Video: Output 1: Scaler = 4K to 1080p | `s hdmi 1 scaler 2` | `73 20 68 64 6D 69 20 31 20 73 63 61 6C 65 72 20 32 21` |
| 49 | Video: Output 1: Scaler = Auto | `s hdmi 1 scaler 3` | `73 20 68 64 6D 69 20 31 20 73 63 61 6C 65 72 20 33 21` |
| 50 | Video: Output 2: Scaler = Bypass | `s hdmi 2 scaler 1` | `73 20 68 64 6D 69 20 32 20 73 63 61 6C 65 72 20 31 21` |
| 51 | Video: Output 2: Scaler = 4K to 1080p | `s hdmi 2 scaler 2` | `73 20 68 64 6D 69 20 32 20 73 63 61 6C 65 72 20 32 21` |
| 52 | Video: Output 2: Scaler = Auto | `s hdmi 2 scaler 3` | `73 20 68 64 6D 69 20 32 20 73 63 61 6C 65 72 20 33 21` |
| 53 | Video: Output 3: Scaler = Bypass | `s hdmi 3 scaler 1` | `73 20 68 64 6D 69 20 33 20 73 63 61 6C 65 72 20 31 21` |
| 54 | Video: Output 3: Scaler = 4K to 1080p | `s hdmi 3 scaler 2` | `73 20 68 64 6D 69 20 33 20 73 63 61 6C 65 72 20 32 21` |
| 55 | Video: Output 3: Scaler = Auto | `s hdmi 3 scaler 3` | `73 20 68 64 6D 69 20 33 20 73 63 61 6C 65 72 20 33 21` |

| | | | |
|---|---|---|---|
| 56 | Video: Output 4: Scaler = Bypass | `s hdmi 4 scaler 1` | `73 20 68 64 6D 69 20 34 20 73 63 61 6C 65 72 20 31 21` |
| 57 | Video: Output 4: Scaler = 4K to 1080p | `s hdmi 4 scaler 2` | `73 20 68 64 6D 69 20 34 20 73 63 61 6C 65 72 20 32 21` |
| 58 | Video: Output 4: Scaler = Auto | `s hdmi 4 scaler 3` | `73 20 68 64 6D 69 20 34 20 73 63 61 6C 65 72 20 33 21` |
| 59 | Video: Input 1: EDID = 1080p,Stereo Audio 2.0 | `s edid in 1 from 1` | `73 20 65 64 69 64 20 69 6E 20 31 20 66 72 6F 6D 20 31 21` |
| 60 | Video: Input 1: EDID = 1080p,Dolby/DTS 5.1 | `s edid in 1 from 2` | `73 20 65 64 69 64 20 69 6E 20 31 20 66 72 6F 6D 20 32 21` |
| 61 | Video: Input 1: EDID = 1080p,HD Audio 7.1 | `s edid in 1 from 3` | `73 20 65 64 69 64 20 69 6E 20 31 20 66 72 6F 6D 20 33 21` |
| 62 | Video: Input 1: EDID = 1080i,Stereo Audio 2.0 | `s edid in 1 from 4` | `73 20 65 64 69 64 20 69 6E 20 31 20 66 72 6F 6D 20 34 21` |
| 63 | Video: Input 1: EDID = 1080i,Dolby/DTS 5.1 | `s edid in 1 from 5` | `73 20 65 64 69 64 20 69 6E 20 31 20 66 72 6F 6D 20 35 21` |
| 64 | Video: Input 1: EDID = 1080i,HD Audio 7.1 | `s edid in 1 from 6` | `73 20 65 64 69 64 20 69 6E 20 31 20 66 72 6F 6D 20 36 21` |
| 65 | Video: Input 1: EDID = 3D,Stereo Audio 2.0 | `s edid in 1 from 7` | `73 20 65 64 69 64 20 69 6E 20 31 20 66 72 6F 6D 20 37 21` |
| 66 | Video: Input 1: EDID = 3D,Dolby/DTS 5.1 | `s edid in 1 from 8` | `73 20 65 64 69 64 20 69 6E 20 31 20 66 72 6F 6D 20 38 21` |
| 67 | Video: Input 1: EDID = 3D,HD Audio 7.1 | `s edid in 1 from 9` | `73 20 65 64 69 64 20 69 6E 20 31 20 66 72 6F 6D 20 39 21` |
| 68 | Video: Input 1: EDID = 4K2K30_444,Stereo Audio 2.0 | `s edid in 1 from 10` | `73 20 65 64 69 64 20 69 6E 20 31 20 66 72 6F 6D 20 31 30 21` |
| 69 | Video: Input 1: EDID = 4K2K30_444,Dolby/DTS 5.1 | `s edid in 1 from 11` | `73 20 65 64 69 64 20 69 6E 20 31 20 66 72 6F 6D 20 31 31 21` |
| 70 | Video: Input 1: EDID = 4K2K30_444,HD Audio 7.1 | `s edid in 1 from 12` | `73 20 65 64 69 64 20 69 6E 20 31 20 66 72 6F 6D 20 31 32 21` |
| 71 | Video: Input 1: EDID = 4K2K60_420,Stereo Audio 2.0 | `s edid in 1 from 13` | `73 20 65 64 69 64 20 69 6E 20 31 20 66 72 6F 6D 20 31 33 21` |
| 72 | Video: Input 1: EDID = 4K2K60_420,Dolby/DTS 5.1 | `s edid in 1 from 14` | `73 20 65 64 69 64 20 69 6E 20 31 20 66 72 6F 6D 20 31 34 21` |
| 73 | Video: Input 1: EDID = 4K2K60_420,HD Audio 7.1 | `s edid in 1 from 15` | `73 20 65 64 69 64 20 69 6E 20 31 20 66 72 6F 6D 20 31 35 21` |
| 74 | Video: Input 1: EDID = 4K2K60_444,Stereo Audio 2.0 | `s edid in 1 from 16` | `73 20 65 64 69 64 20 69 6E 20 31 20 66 72 6F 6D 20 31 36 21` |
| 75 | Video: Input 1: EDID = 4K2K60_444,Dolby/DTS 5.1 | `s edid in 1 from 17` | `73 20 65 64 69 64 20 69 6E 20 31 20 66 72 6F 6D 20 31 37 21` |
| 76 | Video: Input 1: EDID = 4K2K60_444,HD Audio 7.1 | `s edid in 1 from 18` | `73 20 65 64 69 64 20 69 6E 20 31 20 66 72 6F 6D 20 31 38 21` |
| 77 | Video: Input 1: EDID = 4K2K60_444,Stereo Audio 2.0 HDR | `s edid in 1 from 19` | `73 20 65 64 69 64 20 69 6E 20 31 20 66 72 6F 6D 20 31 39 21` |
| 78 | Video: Input 1: EDID = 4K2K60_444,Dolby/DTS 5.1 HDR | `s edid in 1 from 20` | `73 20 65 64 69 64 20 69 6E 20 31 20 66 72 6F 6D 20 32 30 21` |
| 79 | Video: Input 1: EDID = 4K2K60_444,HD Audio 7.1 HDR | `s edid in 1 from 21` | `73 20 65 64 69 64 20 69 6E 20 31 20 66 72 6F 6D 20 32 31 21` |

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| 80 | Video: Input 1: EDID = User define1 | `s edid in 1 from 22` | `73 20 65 64 69 64 20 69 6E 20 31 20 66 72 6F 6D 20 32 32 21` |
| 81 | Video: Input 1: EDID = User define2 | `s edid in 1 from 23` | `73 20 65 64 69 64 20 69 6E 20 31 20 66 72 6F 6D 20 32 33 21` |
| 82 | Video: Input 1: EDID = copy from hdmi output 1 | `s edid in 1 from 24` | `73 20 65 64 69 64 20 69 6E 20 31 20 66 72 6F 6D 20 32 34 21` |
| 83 | Video: Input 1: EDID = copy from hdmi output 2 | `s edid in 1 from 25` | `73 20 65 64 69 64 20 69 6E 20 31 20 66 72 6F 6D 20 32 35 21` |
| 84 | Video: Input 1: EDID = copy from hdmi output 3 | `s edid in 1 from 26` | `73 20 65 64 69 64 20 69 6E 20 31 20 66 72 6F 6D 20 32 36 21` |
| 85 | Video: Input 1: EDID = copy from hdmi output 4 | `s edid in 1 from 27` | `73 20 65 64 69 64 20 69 6E 20 31 20 66 72 6F 6D 20 32 37 21` |
| 86 | Video: Input 1: EDID = copy from cat output 1 | `s edid in 1 from 28` | `73 20 65 64 69 64 20 69 6E 20 31 20 66 72 6F 6D 20 32 38 21` |
| 87 | Video: Input 1: EDID = copy from cat output 2 | `s edid in 1 from 29` | `73 20 65 64 69 64 20 69 6E 20 31 20 66 72 6F 6D 20 32 39 21` |
| 88 | Video: Input 1: EDID = copy from cat output 3 | `s edid in 1 from 30` | `73 20 65 64 69 64 20 69 6E 20 31 20 66 72 6F 6D 20 33 30 21` |
| 89 | Video: Input 1: EDID = copy from cat output 4 | `s edid in 1 from 31` | `73 20 65 64 69 64 20 69 6E 20 31 20 66 72 6F 6D 20 33 31 21` |
| 90 | Video: Input 2: EDID = 1080p,Stereo Audio 2.0 | `s edid in 2 from 1` | `73 20 65 64 69 64 20 69 6E 20 32 20 66 72 6F 6D 20 31 21` |
| 91 | Video: Input 2: EDID = 1080p,Dolby/DTS 5.1 | `s edid in 2 from 2` | `73 20 65 64 69 64 20 69 6E 20 32 20 66 72 6F 6D 20 32 21` |
| 92 | Video: Input 2: EDID = 1080p,HD Audio 7.1 | `s edid in 2 from 3` | `73 20 65 64 69 64 20 69 6E 20 32 20 66 72 6F 6D 20 33 21` |
| 93 | Video: Input 2: EDID = 1080i,Stereo Audio 2.0 | `s edid in 2 from 4` | `73 20 65 64 69 64 20 69 6E 20 32 20 66 72 6F 6D 20 34 21` |
| 94 | Video: Input 2: EDID = 1080i,Dolby/DTS 5.1 | `s edid in 2 from 5` | `73 20 65 64 69 64 20 69 6E 20 32 20 66 72 6F 6D 20 35 21` |
| 95 | Video: Input 2: EDID = 1080i,HD Audio 7.1 | `s edid in 2 from 6` | `73 20 65 64 69 64 20 69 6E 20 32 20 66 72 6F 6D 20 36 21` |
| 96 | Video: Input 2: EDID = 3D,Stereo Audio 2.0 | `s edid in 2 from 7` | `73 20 65 64 69 64 20 69 6E 20 32 20 66 72 6F 6D 20 37 21` |
| 97 | Video: Input 2: EDID = 3D,Dolby/DTS 5.1 | `s edid in 2 from 8` | `73 20 65 64 69 64 20 69 6E 20 32 20 66 72 6F 6D 20 38 21` |
| 98 | Video: Input 2: EDID = 3D,HD Audio 7.1 | `s edid in 2 from 9` | `73 20 65 64 69 64 20 69 6E 20 32 20 66 72 6F 6D 20 39 21` |
| 99 | Video: Input 2: EDID = 4K2K30_444,Stereo Audio 2.0 | `s edid in 2 from 10` | `73 20 65 64 69 64 20 69 6E 20 32 20 66 72 6F 6D 20 31 30 21` |
| 100 | Video: Input 2: EDID = 4K2K30_444,Dolby/DTS 5.1 | `s edid in 2 from 11` | `73 20 65 64 69 64 20 69 6E 20 32 20 66 72 6F 6D 20 31 31 21` |
| 101 | Video: Input 2: EDID = 4K2K30_444,HD Audio 7.1 | `s edid in 2 from 12` | `73 20 65 64 69 64 20 69 6E 20 32 20 66 72 6F 6D 20 31 32 21` |
| 102 | Video: Input 2: EDID = 4K2K60_420,Stereo Audio 2.0 | `s edid in 2 from 13` | `73 20 65 64 69 64 20 69 6E 20 32 20 66 72 6F 6D 20 31 33 21` |
| 103 | Video: Input 2: EDID = 4K2K60_420,Dolby/DTS 5.1 | `s edid in 2 from 14` | `73 20 65 64 69 64 20 69 6E 20 32 20 66 72 6F 6D 20 31 34 21` |

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| 104 | Video: Input 2: EDID = 4K2K60_420,HD Audio 7.1 | `s edid in 2 from 15` | `73 20 65 64 69 64 20 69 6E 20 32 20 66 72 6F 6D 20 31 35 21` |
| 105 | Video: Input 2: EDID = 4K2K60_444,Stereo Audio 2.0 | `s edid in 2 from 16` | `73 20 65 64 69 64 20 69 6E 20 32 20 66 72 6F 6D 20 31 36 21` |
| 106 | Video: Input 2: EDID = 4K2K60_444,Dolby/DTS 5.1 | `s edid in 2 from 17` | `73 20 65 64 69 64 20 69 6E 20 32 20 66 72 6F 6D 20 31 37 21` |
| 107 | Video: Input 2: EDID = 4K2K60_444,HD Audio 7.1 | `s edid in 2 from 18` | `73 20 65 64 69 64 20 69 6E 20 32 20 66 72 6F 6D 20 31 38 21` |
| 108 | Video: Input 2: EDID = 4K2K60_444,Stereo Audio 2.0 HDR | `s edid in 2 from 19` | `73 20 65 64 69 64 20 69 6E 20 32 20 66 72 6F 6D 20 31 39 21` |
| 109 | Video: Input 2: EDID = 4K2K60_444,Dolby/DTS 5.1 HDR | `s edid in 2 from 20` | `73 20 65 64 69 64 20 69 6E 20 32 20 66 72 6F 6D 20 32 30 21` |
| 110 | Video: Input 2: EDID = 4K2K60_444,HD Audio 7.1 HDR | `s edid in 2 from 21` | `73 20 65 64 69 64 20 69 6E 20 32 20 66 72 6F 6D 20 32 31 21` |
| 111 | Video: Input 2: EDID = User define1 | `s edid in 2 from 22` | `73 20 65 64 69 64 20 69 6E 20 32 20 66 72 6F 6D 20 32 32 21` |
| 112 | Video: Input 2: EDID = User define2 | `s edid in 2 from 23` | `73 20 65 64 69 64 20 69 6E 20 32 20 66 72 6F 6D 20 32 33 21` |
| 113 | Video: Input 2: EDID = copy from hdmi output 1 | `s edid in 2 from 24` | `73 20 65 64 69 64 20 69 6E 20 32 20 66 72 6F 6D 20 32 34 21` |
| 114 | Video: Input 2: EDID = copy from hdmi output 2 | `s edid in 2 from 25` | `73 20 65 64 69 64 20 69 6E 20 32 20 66 72 6F 6D 20 32 35 21` |
| 115 | Video: Input 2: EDID = copy from hdmi output 3 | `s edid in 2 from 26` | `73 20 65 64 69 64 20 69 6E 20 32 20 66 72 6F 6D 20 32 36 21` |
| 116 | Video: Input 2: EDID = copy from hdmi output 4 | `s edid in 2 from 27` | `73 20 65 64 69 64 20 69 6E 20 32 20 66 72 6F 6D 20 32 37 21` |
| 117 | Video: Input 2: EDID = copy from cat output 1 | `s edid in 2 from 28` | `73 20 65 64 69 64 20 69 6E 20 32 20 66 72 6F 6D 20 32 38 21` |
| 118 | Video: Input 2: EDID = copy from cat output 2 | `s edid in 2 from 29` | `73 20 65 64 69 64 20 69 6E 20 32 20 66 72 6F 6D 20 32 39 21` |
| 119 | Video: Input 2: EDID = copy from cat output 3 | `s edid in 2 from 30` | `73 20 65 64 69 64 20 69 6E 20 32 20 66 72 6F 6D 20 33 30 21` |
| 120 | Video: Input 2: EDID = copy from cat output 4 | `s edid in 2 from 31` | `73 20 65 64 69 64 20 69 6E 20 32 20 66 72 6F 6D 20 33 31 21` |
| 121 | Video: Input 3: EDID = 1080p,Stereo Audio 2.0 | `s edid in 3 from 1` | `73 20 65 64 69 64 20 69 6E 20 33 20 66 72 6F 6D 20 31 21` |
| 122 | Video: Input 3: EDID = 1080p,Dolby/DTS 5.1 | `s edid in 3 from 2` | `73 20 65 64 69 64 20 69 6E 20 33 20 66 72 6F 6D 20 32 21` |
| 123 | Video: Input 3: EDID = 1080p,HD Audio 7.1 | `s edid in 3 from 3` | `73 20 65 64 69 64 20 69 6E 20 33 20 66 72 6F 6D 20 33 21` |
| 124 | Video: Input 3: EDID = 1080i,Stereo Audio 2.0 | `s edid in 3 from 4` | `73 20 65 64 69 64 20 69 6E 20 33 20 66 72 6F 6D 20 34 21` |
| 125 | Video: Input 3: EDID = 1080i,Dolby/DTS 5.1 | `s edid in 3 from 5` | `73 20 65 64 69 64 20 69 6E 20 33 20 66 72 6F 6D 20 35 21` |
| 126 | Video: Input 3: EDID = 1080i,HD Audio 7.1 | `s edid in 3 from 6` | `73 20 65 64 69 64 20 69 6E 20 33 20 66 72 6F 6D 20 36 21` |
| 127 | Video: Input 3: EDID = 3D,Stereo Audio 2.0 | `s edid in 3 from 7` | `73 20 65 64 69 64 20 69 6E 20 33 20 66 72 6F 6D 20 37 21` |

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| 128 | Video: Input 3: EDID = 3D,Dolby/DTS 5.1 | `s edid in 3 from 8` | `73 20 65 64 69 64 20 69 6E 20 33 20 66 72 6F 6D 20 38 21` |
| 129 | Video: Input 3: EDID = 3D,HD Audio 7.1 | `s edid in 3 from 9` | `73 20 65 64 69 64 20 69 6E 20 33 20 66 72 6F 6D 20 39 21` |
| 130 | Video: Input 3: EDID = 4K2K30_444,Stereo Audio 2.0 | `s edid in 3 from 10` | `73 20 65 64 69 64 20 69 6E 20 33 20 66 72 6F 6D 20 31 30 21` |
| 131 | Video: Input 3: EDID = 4K2K30_444,Dolby/DTS 5.1 | `s edid in 3 from 11` | `73 20 65 64 69 64 20 69 6E 20 33 20 66 72 6F 6D 20 31 31 21` |
| 132 | Video: Input 3: EDID = 4K2K30_444,HD Audio 7.1 | `s edid in 3 from 12` | `73 20 65 64 69 64 20 69 6E 20 33 20 66 72 6F 6D 20 31 32 21` |
| 133 | Video: Input 3: EDID = 4K2K60_420,Stereo Audio 2.0 | `s edid in 3 from 13` | `73 20 65 64 69 64 20 69 6E 20 33 20 66 72 6F 6D 20 31 33 21` |
| 134 | Video: Input 3: EDID = 4K2K60_420,Dolby/DTS 5.1 | `s edid in 3 from 14` | `73 20 65 64 69 64 20 69 6E 20 33 20 66 72 6F 6D 20 31 34 21` |
| 135 | Video: Input 3: EDID = 4K2K60_420,HD Audio 7.1 | `s edid in 3 from 15` | `73 20 65 64 69 64 20 69 6E 20 33 20 66 72 6F 6D 20 31 35 21` |
| 136 | Video: Input 3: EDID = 4K2K60_444,Stereo Audio 2.0 | `s edid in 3 from 16` | `73 20 65 64 69 64 20 69 6E 20 33 20 66 72 6F 6D 20 31 36 21` |
| 137 | Video: Input 3: EDID = 4K2K60_444,Dolby/DTS 5.1 | `s edid in 3 from 17` | `73 20 65 64 69 64 20 69 6E 20 33 20 66 72 6F 6D 20 31 37 21` |
| 138 | Video: Input 3: EDID = 4K2K60_444,HD Audio 7.1 | `s edid in 3 from 18` | `73 20 65 64 69 64 20 69 6E 20 33 20 66 72 6F 6D 20 31 38 21` |
| 139 | Video: Input 3: EDID = 4K2K60_444,Stereo Audio 2.0 HDR | `s edid in 3 from 19` | `73 20 65 64 69 64 20 69 6E 20 33 20 66 72 6F 6D 20 31 39 21` |
| 140 | Video: Input 3: EDID = 4K2K60_444,Dolby/DTS 5.1 HDR | `s edid in 3 from 20` | `73 20 65 64 69 64 20 69 6E 20 33 20 66 72 6F 6D 20 32 30 21` |
| 141 | Video: Input 3: EDID = 4K2K60_444,HD Audio 7.1 HDR | `s edid in 3 from 21` | `73 20 65 64 69 64 20 69 6E 20 33 20 66 72 6F 6D 20 32 31 21` |
| 142 | Video: Input 3: EDID = User define1 | `s edid in 3 from 22` | `73 20 65 64 69 64 20 69 6E 20 33 20 66 72 6F 6D 20 32 32 21` |
| 143 | Video: Input 3: EDID = User define2 | `s edid in 3 from 23` | `73 20 65 64 69 64 20 69 6E 20 33 20 66 72 6F 6D 20 32 33 21` |
| 144 | Video: Input 3: EDID = copy from hdmi output 1 | `s edid in 3 from 24` | `73 20 65 64 69 64 20 69 6E 20 33 20 66 72 6F 6D 20 32 34 21` |
| 145 | Video: Input 3: EDID = copy from hdmi output 2 | `s edid in 3 from 25` | `73 20 65 64 69 64 20 69 6E 20 33 20 66 72 6F 6D 20 32 35 21` |
| 146 | Video: Input 3: EDID = copy from hdmi output 3 | `s edid in 3 from 26` | `73 20 65 64 69 64 20 69 6E 20 33 20 66 72 6F 6D 20 32 36 21` |
| 147 | Video: Input 3: EDID = copy from hdmi output 4 | `s edid in 3 from 27` | `73 20 65 64 69 64 20 69 6E 20 33 20 66 72 6F 6D 20 32 37 21` |
| 148 | Video: Input 3: EDID = copy from cat output 1 | `s edid in 3 from 28` | `73 20 65 64 69 64 20 69 6E 20 33 20 66 72 6F 6D 20 32 38 21` |
| 149 | Video: Input 3: EDID = copy from cat output 2 | `s edid in 3 from 29` | `73 20 65 64 69 64 20 69 6E 20 33 20 66 72 6F 6D 20 32 39 21` |
| 150 | Video: Input 3: EDID = copy from cat output 3 | `s edid in 3 from 30` | `73 20 65 64 69 64 20 69 6E 20 33 20 66 72 6F 6D 20 33 30 21` |
| 151 | Video: Input 3: EDID = copy from cat output 4 | `s edid in 3 from 31` | `73 20 65 64 69 64 20 69 6E 20 33 20 66 72 6F 6D 20 33 31 21` |

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| 152 | Video: Input 4: EDID = 1080p,Stereo Audio 2.0 | `s edid in 4 from 1` | `73 20 65 64 69 64 20 69 6E 20 34 20 66 72 6F 6D 20 31 21` |
| 153 | Video: Input 4: EDID = 1080p,Dolby/DTS 5.1 | `s edid in 4 from 2` | `73 20 65 64 69 64 20 69 6E 20 34 20 66 72 6F 6D 20 32 21` |
| 154 | Video: Input 4: EDID = 1080p,HD Audio 7.1 | `s edid in 4 from 3` | `73 20 65 64 69 64 20 69 6E 20 34 20 66 72 6F 6D 20 33 21` |
| 155 | Video: Input 4: EDID = 1080i,Stereo Audio 2.0 | `s edid in 4 from 4` | `73 20 65 64 69 64 20 69 6E 20 34 20 66 72 6F 6D 20 34 21` |
| 156 | Video: Input 4: EDID = 1080i,Dolby/DTS 5.1 | `s edid in 4 from 5` | `73 20 65 64 69 64 20 69 6E 20 34 20 66 72 6F 6D 20 35 21` |
| 157 | Video: Input 4: EDID = 1080i,HD Audio 7.1 | `s edid in 4 from 6` | `73 20 65 64 69 64 20 69 6E 20 34 20 66 72 6F 6D 20 36 21` |
| 158 | Video: Input 4: EDID = 3D,Stereo Audio 2.0 | `s edid in 4 from 7` | `73 20 65 64 69 64 20 69 6E 20 34 20 66 72 6F 6D 20 37 21` |
| 159 | Video: Input 4: EDID = 3D,Dolby/DTS 5.1 | `s edid in 4 from 8` | `73 20 65 64 69 64 20 69 6E 20 34 20 66 72 6F 6D 20 38 21` |
| 160 | Video: Input 4: EDID = 3D,HD Audio 7.1 | `s edid in 4 from 9` | `73 20 65 64 69 64 20 69 6E 20 34 20 66 72 6F 6D 20 39 21` |
| 161 | Video: Input 4: EDID = 4K2K30_444,Stereo Audio 2.0 | `s edid in 4 from 10` | `73 20 65 64 69 64 20 69 6E 20 34 20 66 72 6F 6D 20 31 30 21` |
| 162 | Video: Input 4: EDID = 4K2K30_444,Dolby/DTS 5.1 | `s edid in 4 from 11` | `73 20 65 64 69 64 20 69 6E 20 34 20 66 72 6F 6D 20 31 31 21` |
| 163 | Video: Input 4: EDID = 4K2K30_444,HD Audio 7.1 | `s edid in 4 from 12` | `73 20 65 64 69 64 20 69 6E 20 34 20 66 72 6F 6D 20 31 32 21` |
| 164 | Video: Input 4: EDID = 4K2K60_420,Stereo Audio 2.0 | `s edid in 4 from 13` | `73 20 65 64 69 64 20 69 6E 20 34 20 66 72 6F 6D 20 31 33 21` |
| 165 | Video: Input 4: EDID = 4K2K60_420,Dolby/DTS 5.1 | `s edid in 4 from 14` | `73 20 65 64 69 64 20 69 6E 20 34 20 66 72 6F 6D 20 31 34 21` |
| 166 | Video: Input 4: EDID = 4K2K60_420,HD Audio 7.1 | `s edid in 4 from 15` | `73 20 65 64 69 64 20 69 6E 20 34 20 66 72 6F 6D 20 31 35 21` |
| 167 | Video: Input 4: EDID = 4K2K60_444,Stereo Audio 2.0 | `s edid in 4 from 16` | `73 20 65 64 69 64 20 69 6E 20 34 20 66 72 6F 6D 20 31 36 21` |
| 168 | Video: Input 4: EDID = 4K2K60_444,Dolby/DTS 5.1 | `s edid in 4 from 17` | `73 20 65 64 69 64 20 69 6E 20 34 20 66 72 6F 6D 20 31 37 21` |
| 169 | Video: Input 4: EDID = 4K2K60_444,HD Audio 7.1 | `s edid in 4 from 18` | `73 20 65 64 69 64 20 69 6E 20 34 20 66 72 6F 6D 20 31 38 21` |
| 170 | Video: Input 4: EDID = 4K2K60_444,Stereo Audio 2.0 HDR | `s edid in 4 from 19` | `73 20 65 64 69 64 20 69 6E 20 34 20 66 72 6F 6D 20 31 39 21` |
| 171 | Video: Input 4: EDID = 4K2K60_444,Dolby/DTS 5.1 HDR | `s edid in 4 from 20` | `73 20 65 64 69 64 20 69 6E 20 34 20 66 72 6F 6D 20 32 30 21` |
| 172 | Video: Input 4: EDID = 4K2K60_444,HD Audio 7.1 HDR | `s edid in 4 from 21` | `73 20 65 64 69 64 20 69 6E 20 34 20 66 72 6F 6D 20 32 31 21` |
| 173 | Video: Input 4: EDID = User define1 | `s edid in 4 from 22` | `73 20 65 64 69 64 20 69 6E 20 34 20 66 72 6F 6D 20 32 32 21` |
| 174 | Video: Input 4: EDID = User define2 | `s edid in 4 from 23` | `73 20 65 64 69 64 20 69 6E 20 34 20 66 72 6F 6D 20 32 33 21` |
| 175 | Video: Input 4: EDID = copy from hdmi output 1 | `s edid in 4 from 24` | `73 20 65 64 69 64 20 69 6E 20 34 20 66 72 6F 6D 20 32 34 21` |

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| 176 | Video: Input 4: EDID = copy from hdmi output 2 | `s edid in 4 from 25` | `73 20 65 64 69 64 20 69 6E 20 34 20 66 72 6F 6D 20 32 35 21` |
| 177 | Video: Input 4: EDID = copy from hdmi output 3 | `s edid in 4 from 26` | `73 20 65 64 69 64 20 69 6E 20 34 20 66 72 6F 6D 20 32 36 21` |
| 178 | Video: Input 4: EDID = copy from hdmi output 4 | `s edid in 4 from 27` | `73 20 65 64 69 64 20 69 6E 20 34 20 66 72 6F 6D 20 32 37 21` |
| 179 | Video: Input 4: EDID = copy from cat output 1 | `s edid in 4 from 28` | `73 20 65 64 69 64 20 69 6E 20 34 20 66 72 6F 6D 20 32 38 21` |
| 180 | Video: Input 4: EDID = copy from cat output 2 | `s edid in 4 from 29` | `73 20 65 64 69 64 20 69 6E 20 34 20 66 72 6F 6D 20 32 39 21` |
| 181 | Video: Input 4: EDID = copy from cat output 3 | `s edid in 4 from 30` | `73 20 65 64 69 64 20 69 6E 20 34 20 66 72 6F 6D 20 33 30 21` |
| 182 | Video: Input 4: EDID = copy from cat output 4 | `s edid in 4 from 31` | `73 20 65 64 69 64 20 69 6E 20 34 20 66 72 6F 6D 20 33 31 21` |
| 183 | Video: Output 1: HDBaseT compression (DSC) = Mode 1 (default) | `s cat 1 dsc mode 1` | `73 20 63 61 74 20 31 20 64 73 63 20 6D 6F 64 65 20 31 21` |
| 184 | Video: Output 1: HDBaseT compression (DSC) = Mode 2 | `s cat 1 dsc mode 2` | `73 20 63 61 74 20 31 20 64 73 63 20 6D 6F 64 65 20 32 21` |
| 185 | Video: Output 1: HDBaseT compression (DSC) = Mode 3 | `s cat 1 dsc mode 3` | `73 20 63 61 74 20 31 20 64 73 63 20 6D 6F 64 65 20 33 21` |
| 186 | Video: Output 2: HDBaseT compression (DSC) = Mode 1 (default) | `s cat 2 dsc mode 1` | `73 20 63 61 74 20 32 20 64 73 63 20 6D 6F 64 65 20 31 21` |
| 187 | Video: Output 2: HDBaseT compression (DSC) = Mode 2 | `s cat 2 dsc mode 2` | `73 20 63 61 74 20 32 20 64 73 63 20 6D 6F 64 65 20 32 21` |
| 188 | Video: Output 2: HDBaseT compression (DSC) = Mode 3 | `s cat 2 dsc mode 3` | `73 20 63 61 74 20 32 20 64 73 63 20 6D 6F 64 65 20 33 21` |
| 189 | Video: Output 3: HDBaseT compression (DSC) = Mode 1 (default) | `s cat 3 dsc mode 1` | `73 20 63 61 74 20 33 20 64 73 63 20 6D 6F 64 65 20 31 21` |
| 190 | Video: Output 3: HDBaseT compression (DSC) = Mode 2 | `s cat 3 dsc mode 2` | `73 20 63 61 74 20 33 20 64 73 63 20 6D 6F 64 65 20 32 21` |
| 191 | Video: Output 3: HDBaseT compression (DSC) = Mode 3 | `s cat 3 dsc mode 3` | `73 20 63 61 74 20 33 20 64 73 63 20 6D 6F 64 65 20 33 21` |
| 192 | Video: Output 4: HDBaseT compression (DSC) = Mode 1 (default) | `s cat 4 dsc mode 1` | `73 20 63 61 74 20 34 20 64 73 63 20 6D 6F 64 65 20 31 21` |
| 193 | Video: Output 4: HDBaseT compression (DSC) = Mode 2 | `s cat 4 dsc mode 2` | `73 20 63 61 74 20 34 20 64 73 63 20 6D 6F 64 65 20 32 21` |
| 194 | Video: Output 4: HDBaseT compression (DSC) = Mode 3 | `s cat 4 dsc mode 3` | `73 20 63 61 74 20 34 20 64 73 63 20 6D 6F 64 65 20 33 21` |
| 195 | Sound: Output 1: Sound back from the screen (ARC) on | `s hdmi 1 arc 1` | `73 20 68 64 6D 69 20 31 20 61 72 63 20 31 21` |
| 196 | Sound: Output 1: Sound back from the screen (ARC) off | `s hdmi 1 arc 0` | `73 20 68 64 6D 69 20 31 20 61 72 63 20 30 21` |
| 197 | Sound: Output 2: Sound back from the screen (ARC) on | `s hdmi 2 arc 1` | `73 20 68 64 6D 69 20 32 20 61 72 63 20 31 21` |

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| 198 | Sound: Output 2: Sound back from the screen (ARC) off | `s hdmi 2 arc 0` | `73 20 68 64 6D 69 20 32 20 61 72 63 20 30 21` |
| 199 | Sound: Output 3: Sound back from the screen (ARC) on | `s hdmi 3 arc 1` | `73 20 68 64 6D 69 20 33 20 61 72 63 20 31 21` |
| 200 | Sound: Output 3: Sound back from the screen (ARC) off | `s hdmi 3 arc 0` | `73 20 68 64 6D 69 20 33 20 61 72 63 20 30 21` |
| 201 | Sound: Output 4: Sound back from the screen (ARC) on | `s hdmi 4 arc 1` | `73 20 68 64 6D 69 20 34 20 61 72 63 20 31 21` |
| 202 | Sound: Output 4: Sound back from the screen (ARC) off | `s hdmi 4 arc 0` | `73 20 68 64 6D 69 20 34 20 61 72 63 20 30 21` |
| 203 | Presets: Clear a preset 1 | `s clear preset 1` | `73 20 63 6C 65 61 72 20 70 72 65 73 65 74 20 31 21` |
| 204 | Presets: Clear a preset 2 | `s clear preset 2` | `73 20 63 6C 65 61 72 20 70 72 65 73 65 74 20 32 21` |
| 205 | Presets: Clear a preset 3 | `s clear preset 3` | `73 20 63 6C 65 61 72 20 70 72 65 73 65 74 20 33 21` |
| 206 | Presets: Clear a preset 4 | `s clear preset 4` | `73 20 63 6C 65 61 72 20 70 72 65 73 65 74 20 34 21` |
| 207 | System: Lock the front panel on | `s lock 1` | `73 20 6C 6F 63 6B 20 31 21` |
| 208 | System: Lock the front panel off | `s lock 0` | `73 20 6C 6F 63 6B 20 30 21` |
| 209 | System: Beep on | `s beep 1` | `73 20 62 65 65 70 20 31 21` |
| 210 | System: Beep off | `s beep 0` | `73 20 62 65 65 70 20 30 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, HDBaseT receiver |
| 4 | `r hdmi 0 stream` | `72 20 68 64 6D 69 20 30 20 73 74 72 65 61 6D 21` | HDMI picture |
| 5 | `r cat 0 stream` | `72 20 63 61 74 20 30 20 73 74 72 65 61 6D 21` | HDBaseT picture |
| 6 | `r power` | `72 20 70 6F 77 65 72 21` | Power |
| 7 | `r hdmi 0 scaler` | `72 20 68 64 6D 69 20 30 20 73 63 61 6C 65 72 21` | Scaler |
| 8 | `r edid in 0` | `72 20 65 64 69 64 20 69 6E 20 30 21` | EDID |
| 9 | `r cat 0 dsc mode` | `72 20 63 61 74 20 30 20 64 73 63 20 6D 6F 64 65 21` | HDBaseT compression (DSC) |

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|---|---|---|---|
| 10 | `r hdmi 0 arc` | `72 20 68 64 6D 69 20 30 20 61 72 63 21` | Sound back from the screen (ARC) |
| 11 | `r lock` | `72 20 6C 6F 63 6B 21` | Lock the front panel |
| 12 | `r beep` | `72 20 62 65 65 70 21` | Beep |
| 13 | `r fan` | `72 20 66 61 6E 21` | Fan running |
| 14 | `r ipconfig` | `72 20 69 70 63 6F 6E 66 69 67 21` | IP mode, Address, Subnet mask, Gateway |

## 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.