# MMX-4X4VW Tesira Command Sheet

For Tesira Command String blocks · Version 1.0.5

**Every command the MMX-4X4VW takes over the network, as fixed strings for Tesira Command String blocks.** The unit is controlled on its own control port (TCP 8001); no other KanexPro software is needed. The same strings, with their bytes, are in `KanexPro-MMX-4X4VW-Tesira-Command-Sheet-1.0.5.csv` for copying.

> **Before you start —** the Tesira server must reach the MMX-4X4VW on TCP port 8001. Give the unit a fixed IP address (or a DHCP reservation).

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## 1. CONNECTION

| HOW THE UNIT IS CONTROLLED | |
|---|---|
| **Transport** | TCP, port 8001 (the unit's control port) |
| **Line ending** | "! " (hex `21 0D`), 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 8001.
2. Add one command per row of section 3: its string, then the line ending (hex `21 0D`).
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

208 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 0D` |
| 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 0D` |
| 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 0D` |
| 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 0D` |
| 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 0D` |
| 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 0D` |

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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 0D` |
| 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 0D` |
| 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 0D` |
| 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 0D` |
| 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 0D` |
| 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 0D` |
| 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 0D` |
| 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 0D` |
| 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 0D` |
| 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 0D` |
| 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 0D` |
| 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 0D` |
| 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 0D` |
| 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 0D` |
| 21 | Video wall: Wall layout = 2x2 | `s tw mode 1` | `73 20 74 77 20 6D 6F 64 65 20 31 21 0D` |
| 22 | Video wall: Wall layout = 2x1 | `s tw mode 2` | `73 20 74 77 20 6D 6F 64 65 20 32 21 0D` |
| 23 | Video wall: Wall layout = 2x1-2 | `s tw mode 3` | `73 20 74 77 20 6D 6F 64 65 20 33 21 0D` |
| 24 | Video wall: Wall layout = 1x2 | `s tw mode 4` | `73 20 74 77 20 6D 6F 64 65 20 34 21 0D` |
| 25 | Video wall: Wall layout = 1x2-2 | `s tw mode 5` | `73 20 74 77 20 6D 6F 64 65 20 35 21 0D` |
| 26 | Video wall: Wall layout = 3x1 | `s tw mode 6` | `73 20 74 77 20 6D 6F 64 65 20 36 21 0D` |
| 27 | Video wall: Wall layout = 4x1 | `s tw mode 7` | `73 20 74 77 20 6D 6F 64 65 20 37 21 0D` |
| 28 | Video wall: Wall layout = 1x3 | `s tw mode 8` | `73 20 74 77 20 6D 6F 64 65 20 38 21 0D` |
| 29 | Video wall: Wall layout = 1x4 | `s tw mode 9` | `73 20 74 77 20 6D 6F 64 65 20 39 21 0D` |
| 30 | Video wall: Wall layout = Matrix (no wall) | `s tw mode 10` | `73 20 74 77 20 6D 6F 64 65 20 31 30 21 0D` |
| 31 | Video wall: All outputs: Wall group source = Input 1 | `s tw group 0 input 1` | `73 20 74 77 20 67 72 6F 75 70 20 30 20 69 6E 70 75 74 20 31 21 0D` |
| 32 | Video wall: All outputs: Wall group source = Input 2 | `s tw group 0 input 2` | `73 20 74 77 20 67 72 6F 75 70 20 30 20 69 6E 70 75 74 20 32 21 0D` |
| 33 | Video wall: All outputs: Wall group source = Input 3 | `s tw group 0 input 3` | `73 20 74 77 20 67 72 6F 75 70 20 30 20 69 6E 70 75 74 20 33 21 0D` |

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| 34 | Video wall: All outputs: Wall group source = Input 4 | `s tw group 0 input 4` | `73 20 74 77 20 67 72 6F 75 70 20 30 20 69 6E 70 75 74 20 34 21 0D` |
| 35 | Video wall: Output 1: Wall group source = Input 1 | `s tw group 1 input 1` | `73 20 74 77 20 67 72 6F 75 70 20 31 20 69 6E 70 75 74 20 31 21 0D` |
| 36 | Video wall: Output 1: Wall group source = Input 2 | `s tw group 1 input 2` | `73 20 74 77 20 67 72 6F 75 70 20 31 20 69 6E 70 75 74 20 32 21 0D` |
| 37 | Video wall: Output 1: Wall group source = Input 3 | `s tw group 1 input 3` | `73 20 74 77 20 67 72 6F 75 70 20 31 20 69 6E 70 75 74 20 33 21 0D` |
| 38 | Video wall: Output 1: Wall group source = Input 4 | `s tw group 1 input 4` | `73 20 74 77 20 67 72 6F 75 70 20 31 20 69 6E 70 75 74 20 34 21 0D` |
| 39 | Video wall: Output 2: Wall group source = Input 1 | `s tw group 2 input 1` | `73 20 74 77 20 67 72 6F 75 70 20 32 20 69 6E 70 75 74 20 31 21 0D` |
| 40 | Video wall: Output 2: Wall group source = Input 2 | `s tw group 2 input 2` | `73 20 74 77 20 67 72 6F 75 70 20 32 20 69 6E 70 75 74 20 32 21 0D` |
| 41 | Video wall: Output 2: Wall group source = Input 3 | `s tw group 2 input 3` | `73 20 74 77 20 67 72 6F 75 70 20 32 20 69 6E 70 75 74 20 33 21 0D` |
| 42 | Video wall: Output 2: Wall group source = Input 4 | `s tw group 2 input 4` | `73 20 74 77 20 67 72 6F 75 70 20 32 20 69 6E 70 75 74 20 34 21 0D` |
| 43 | Video wall: Output 3: Wall group source = Input 1 | `s tw group 3 input 1` | `73 20 74 77 20 67 72 6F 75 70 20 33 20 69 6E 70 75 74 20 31 21 0D` |
| 44 | Video wall: Output 3: Wall group source = Input 2 | `s tw group 3 input 2` | `73 20 74 77 20 67 72 6F 75 70 20 33 20 69 6E 70 75 74 20 32 21 0D` |
| 45 | Video wall: Output 3: Wall group source = Input 3 | `s tw group 3 input 3` | `73 20 74 77 20 67 72 6F 75 70 20 33 20 69 6E 70 75 74 20 33 21 0D` |
| 46 | Video wall: Output 3: Wall group source = Input 4 | `s tw group 3 input 4` | `73 20 74 77 20 67 72 6F 75 70 20 33 20 69 6E 70 75 74 20 34 21 0D` |
| 47 | Video wall: Output 4: Wall group source = Input 1 | `s tw group 4 input 1` | `73 20 74 77 20 67 72 6F 75 70 20 34 20 69 6E 70 75 74 20 31 21 0D` |
| 48 | Video wall: Output 4: Wall group source = Input 2 | `s tw group 4 input 2` | `73 20 74 77 20 67 72 6F 75 70 20 34 20 69 6E 70 75 74 20 32 21 0D` |
| 49 | Video wall: Output 4: Wall group source = Input 3 | `s tw group 4 input 3` | `73 20 74 77 20 67 72 6F 75 70 20 34 20 69 6E 70 75 74 20 33 21 0D` |
| 50 | Video wall: Output 4: Wall group source = Input 4 | `s tw group 4 input 4` | `73 20 74 77 20 67 72 6F 75 70 20 34 20 69 6E 70 75 74 20 34 21 0D` |
| 51 | Picture: Output 1: Send a picture on | `s output 1 stream 1` | `73 20 6F 75 74 70 75 74 20 31 20 73 74 72 65 61 6D 20 31 21 0D` |
| 52 | Picture: Output 1: Send a picture off | `s output 1 stream 0` | `73 20 6F 75 74 70 75 74 20 31 20 73 74 72 65 61 6D 20 30 21 0D` |
| 53 | Picture: Output 2: Send a picture on | `s output 2 stream 1` | `73 20 6F 75 74 70 75 74 20 32 20 73 74 72 65 61 6D 20 31 21 0D` |
| 54 | Picture: Output 2: Send a picture off | `s output 2 stream 0` | `73 20 6F 75 74 70 75 74 20 32 20 73 74 72 65 61 6D 20 30 21 0D` |
| 55 | Picture: Output 3: Send a picture on | `s output 3 stream 1` | `73 20 6F 75 74 70 75 74 20 33 20 73 74 72 65 61 6D 20 31 21 0D` |
| 56 | Picture: Output 3: Send a picture off | `s output 3 stream 0` | `73 20 6F 75 74 70 75 74 20 33 20 73 74 72 65 61 6D 20 30 21 0D` |
| 57 | Picture: Output 4: Send a picture on | `s output 4 stream 1` | `73 20 6F 75 74 70 75 74 20 34 20 73 74 72 65 61 6D 20 31 21 0D` |

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| 58 | Picture: Output 4: Send a picture off | `s output 4 stream 0` | `73 20 6F 75 74 70 75 74 20 34 20 73 74 72 65 61 6D 20 30 21 0D` |
| 59 | Video: Output 1: Output resolution = 4096x2160p30 | `s output 1 res 1` | `73 20 6F 75 74 70 75 74 20 31 20 72 65 73 20 31 21 0D` |
| 60 | Video: Output 1: Output resolution = 3840x2160p30 | `s output 1 res 2` | `73 20 6F 75 74 70 75 74 20 31 20 72 65 73 20 32 21 0D` |
| 61 | Video: Output 1: Output resolution = 1920x1200p60 | `s output 1 res 3` | `73 20 6F 75 74 70 75 74 20 31 20 72 65 73 20 33 21 0D` |
| 62 | Video: Output 1: Output resolution = 1920x1080p60 | `s output 1 res 4` | `73 20 6F 75 74 70 75 74 20 31 20 72 65 73 20 34 21 0D` |
| 63 | Video: Output 1: Output resolution = 1920x1080p50 | `s output 1 res 5` | `73 20 6F 75 74 70 75 74 20 31 20 72 65 73 20 35 21 0D` |
| 64 | Video: Output 1: Output resolution = 1600x1200p60 | `s output 1 res 6` | `73 20 6F 75 74 70 75 74 20 31 20 72 65 73 20 36 21 0D` |
| 65 | Video: Output 1: Output resolution = 1600x900p60 | `s output 1 res 7` | `73 20 6F 75 74 70 75 74 20 31 20 72 65 73 20 37 21 0D` |
| 66 | Video: Output 1: Output resolution = 1440x900p60 | `s output 1 res 8` | `73 20 6F 75 74 70 75 74 20 31 20 72 65 73 20 38 21 0D` |
| 67 | Video: Output 1: Output resolution = 1360x768p60 | `s output 1 res 9` | `73 20 6F 75 74 70 75 74 20 31 20 72 65 73 20 39 21 0D` |
| 68 | Video: Output 1: Output resolution = 1280x1024p60 | `s output 1 res 10` | `73 20 6F 75 74 70 75 74 20 31 20 72 65 73 20 31 30 21 0D` |
| 69 | Video: Output 1: Output resolution = 1280x720p60 | `s output 1 res 11` | `73 20 6F 75 74 70 75 74 20 31 20 72 65 73 20 31 31 21 0D` |
| 70 | Video: Output 1: Output resolution = 1280x720p50 | `s output 1 res 12` | `73 20 6F 75 74 70 75 74 20 31 20 72 65 73 20 31 32 21 0D` |
| 71 | Video: Output 1: Output resolution = 1024x768p60 | `s output 1 res 13` | `73 20 6F 75 74 70 75 74 20 31 20 72 65 73 20 31 33 21 0D` |
| 72 | Video: Output 2: Output resolution = 4096x2160p30 | `s output 2 res 1` | `73 20 6F 75 74 70 75 74 20 32 20 72 65 73 20 31 21 0D` |
| 73 | Video: Output 2: Output resolution = 3840x2160p30 | `s output 2 res 2` | `73 20 6F 75 74 70 75 74 20 32 20 72 65 73 20 32 21 0D` |
| 74 | Video: Output 2: Output resolution = 1920x1200p60 | `s output 2 res 3` | `73 20 6F 75 74 70 75 74 20 32 20 72 65 73 20 33 21 0D` |
| 75 | Video: Output 2: Output resolution = 1920x1080p60 | `s output 2 res 4` | `73 20 6F 75 74 70 75 74 20 32 20 72 65 73 20 34 21 0D` |
| 76 | Video: Output 2: Output resolution = 1920x1080p50 | `s output 2 res 5` | `73 20 6F 75 74 70 75 74 20 32 20 72 65 73 20 35 21 0D` |
| 77 | Video: Output 2: Output resolution = 1600x1200p60 | `s output 2 res 6` | `73 20 6F 75 74 70 75 74 20 32 20 72 65 73 20 36 21 0D` |
| 78 | Video: Output 2: Output resolution = 1600x900p60 | `s output 2 res 7` | `73 20 6F 75 74 70 75 74 20 32 20 72 65 73 20 37 21 0D` |
| 79 | Video: Output 2: Output resolution = 1440x900p60 | `s output 2 res 8` | `73 20 6F 75 74 70 75 74 20 32 20 72 65 73 20 38 21 0D` |
| 80 | Video: Output 2: Output resolution = 1360x768p60 | `s output 2 res 9` | `73 20 6F 75 74 70 75 74 20 32 20 72 65 73 20 39 21 0D` |
| 81 | Video: Output 2: Output resolution = 1280x1024p60 | `s output 2 res 10` | `73 20 6F 75 74 70 75 74 20 32 20 72 65 73 20 31 30 21 0D` |

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| 82 | Video: Output 2: Output resolution = 1280x720p60 | `s output 2 res 11` | `73 20 6F 75 74 70 75 74 20 32 20 72 65 73 20 31 31 21 0D` |
| 83 | Video: Output 2: Output resolution = 1280x720p50 | `s output 2 res 12` | `73 20 6F 75 74 70 75 74 20 32 20 72 65 73 20 31 32 21 0D` |
| 84 | Video: Output 2: Output resolution = 1024x768p60 | `s output 2 res 13` | `73 20 6F 75 74 70 75 74 20 32 20 72 65 73 20 31 33 21 0D` |
| 85 | Video: Output 3: Output resolution = 4096x2160p30 | `s output 3 res 1` | `73 20 6F 75 74 70 75 74 20 33 20 72 65 73 20 31 21 0D` |
| 86 | Video: Output 3: Output resolution = 3840x2160p30 | `s output 3 res 2` | `73 20 6F 75 74 70 75 74 20 33 20 72 65 73 20 32 21 0D` |
| 87 | Video: Output 3: Output resolution = 1920x1200p60 | `s output 3 res 3` | `73 20 6F 75 74 70 75 74 20 33 20 72 65 73 20 33 21 0D` |
| 88 | Video: Output 3: Output resolution = 1920x1080p60 | `s output 3 res 4` | `73 20 6F 75 74 70 75 74 20 33 20 72 65 73 20 34 21 0D` |
| 89 | Video: Output 3: Output resolution = 1920x1080p50 | `s output 3 res 5` | `73 20 6F 75 74 70 75 74 20 33 20 72 65 73 20 35 21 0D` |
| 90 | Video: Output 3: Output resolution = 1600x1200p60 | `s output 3 res 6` | `73 20 6F 75 74 70 75 74 20 33 20 72 65 73 20 36 21 0D` |
| 91 | Video: Output 3: Output resolution = 1600x900p60 | `s output 3 res 7` | `73 20 6F 75 74 70 75 74 20 33 20 72 65 73 20 37 21 0D` |
| 92 | Video: Output 3: Output resolution = 1440x900p60 | `s output 3 res 8` | `73 20 6F 75 74 70 75 74 20 33 20 72 65 73 20 38 21 0D` |
| 93 | Video: Output 3: Output resolution = 1360x768p60 | `s output 3 res 9` | `73 20 6F 75 74 70 75 74 20 33 20 72 65 73 20 39 21 0D` |
| 94 | Video: Output 3: Output resolution = 1280x1024p60 | `s output 3 res 10` | `73 20 6F 75 74 70 75 74 20 33 20 72 65 73 20 31 30 21 0D` |
| 95 | Video: Output 3: Output resolution = 1280x720p60 | `s output 3 res 11` | `73 20 6F 75 74 70 75 74 20 33 20 72 65 73 20 31 31 21 0D` |
| 96 | Video: Output 3: Output resolution = 1280x720p50 | `s output 3 res 12` | `73 20 6F 75 74 70 75 74 20 33 20 72 65 73 20 31 32 21 0D` |
| 97 | Video: Output 3: Output resolution = 1024x768p60 | `s output 3 res 13` | `73 20 6F 75 74 70 75 74 20 33 20 72 65 73 20 31 33 21 0D` |
| 98 | Video: Output 4: Output resolution = 4096x2160p30 | `s output 4 res 1` | `73 20 6F 75 74 70 75 74 20 34 20 72 65 73 20 31 21 0D` |
| 99 | Video: Output 4: Output resolution = 3840x2160p30 | `s output 4 res 2` | `73 20 6F 75 74 70 75 74 20 34 20 72 65 73 20 32 21 0D` |
| 100 | Video: Output 4: Output resolution = 1920x1200p60 | `s output 4 res 3` | `73 20 6F 75 74 70 75 74 20 34 20 72 65 73 20 33 21 0D` |
| 101 | Video: Output 4: Output resolution = 1920x1080p60 | `s output 4 res 4` | `73 20 6F 75 74 70 75 74 20 34 20 72 65 73 20 34 21 0D` |
| 102 | Video: Output 4: Output resolution = 1920x1080p50 | `s output 4 res 5` | `73 20 6F 75 74 70 75 74 20 34 20 72 65 73 20 35 21 0D` |
| 103 | Video: Output 4: Output resolution = 1600x1200p60 | `s output 4 res 6` | `73 20 6F 75 74 70 75 74 20 34 20 72 65 73 20 36 21 0D` |
| 104 | Video: Output 4: Output resolution = 1600x900p60 | `s output 4 res 7` | `73 20 6F 75 74 70 75 74 20 34 20 72 65 73 20 37 21 0D` |
| 105 | Video: Output 4: Output resolution = 1440x900p60 | `s output 4 res 8` | `73 20 6F 75 74 70 75 74 20 34 20 72 65 73 20 38 21 0D` |

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| 106 | Video: Output 4: Output resolution = 1360x768p60 | `s output 4 res 9` | `73 20 6F 75 74 70 75 74 20 34 20 72 65 73 20 39 21 0D` |
| 107 | Video: Output 4: Output resolution = 1280x1024p60 | `s output 4 res 10` | `73 20 6F 75 74 70 75 74 20 34 20 72 65 73 20 31 30 21 0D` |
| 108 | Video: Output 4: Output resolution = 1280x720p60 | `s output 4 res 11` | `73 20 6F 75 74 70 75 74 20 34 20 72 65 73 20 31 31 21 0D` |
| 109 | Video: Output 4: Output resolution = 1280x720p50 | `s output 4 res 12` | `73 20 6F 75 74 70 75 74 20 34 20 72 65 73 20 31 32 21 0D` |
| 110 | Video: Output 4: Output resolution = 1024x768p60 | `s output 4 res 13` | `73 20 6F 75 74 70 75 74 20 34 20 72 65 73 20 31 33 21 0D` |
| 111 | Video: Output 1: Colour space = RGB 4:4:4 | `s output 1 csc 1` | `73 20 6F 75 74 70 75 74 20 31 20 63 73 63 20 31 21 0D` |
| 112 | Video: Output 1: Colour space = YCbCr 4:4:4 | `s output 1 csc 2` | `73 20 6F 75 74 70 75 74 20 31 20 63 73 63 20 32 21 0D` |
| 113 | Video: Output 1: Colour space = YCbCr 4:2:2 | `s output 1 csc 3` | `73 20 6F 75 74 70 75 74 20 31 20 63 73 63 20 33 21 0D` |
| 114 | Video: Output 2: Colour space = RGB 4:4:4 | `s output 2 csc 1` | `73 20 6F 75 74 70 75 74 20 32 20 63 73 63 20 31 21 0D` |
| 115 | Video: Output 2: Colour space = YCbCr 4:4:4 | `s output 2 csc 2` | `73 20 6F 75 74 70 75 74 20 32 20 63 73 63 20 32 21 0D` |
| 116 | Video: Output 2: Colour space = YCbCr 4:2:2 | `s output 2 csc 3` | `73 20 6F 75 74 70 75 74 20 32 20 63 73 63 20 33 21 0D` |
| 117 | Video: Output 3: Colour space = RGB 4:4:4 | `s output 3 csc 1` | `73 20 6F 75 74 70 75 74 20 33 20 63 73 63 20 31 21 0D` |
| 118 | Video: Output 3: Colour space = YCbCr 4:4:4 | `s output 3 csc 2` | `73 20 6F 75 74 70 75 74 20 33 20 63 73 63 20 32 21 0D` |
| 119 | Video: Output 3: Colour space = YCbCr 4:2:2 | `s output 3 csc 3` | `73 20 6F 75 74 70 75 74 20 33 20 63 73 63 20 33 21 0D` |
| 120 | Video: Output 4: Colour space = RGB 4:4:4 | `s output 4 csc 1` | `73 20 6F 75 74 70 75 74 20 34 20 63 73 63 20 31 21 0D` |
| 121 | Video: Output 4: Colour space = YCbCr 4:4:4 | `s output 4 csc 2` | `73 20 6F 75 74 70 75 74 20 34 20 63 73 63 20 32 21 0D` |
| 122 | Video: Output 4: Colour space = YCbCr 4:2:2 | `s output 4 csc 3` | `73 20 6F 75 74 70 75 74 20 34 20 63 73 63 20 33 21 0D` |
| 123 | Video: Input 1: EDID = 4K30 4:4:4, stereo | `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 0D` |
| 124 | Video: Input 1: EDID = 4K30 4:4:4, 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 0D` |
| 125 | Video: Input 1: EDID = 1080p, stereo | `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 0D` |
| 126 | Video: Input 1: EDID = 1080p, Dolby/DTS 5.1 | `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 0D` |
| 127 | Video: Input 1: EDID = 1920x1200, stereo | `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 0D` |
| 128 | Video: Input 1: EDID = 1360x768, stereo | `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 0D` |
| 129 | Video: Input 1: EDID = 1024x768, stereo | `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 0D` |

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| 130 | Video: Input 1: EDID = Copy from output 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 0D` |
| 131 | Video: Input 1: EDID = Copy from output 2 | `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 0D` |
| 132 | Video: Input 1: EDID = Copy from output 3 | `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 0D` |
| 133 | Video: Input 1: EDID = Copy from output 4 | `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 0D` |
| 134 | Video: Input 2: EDID = 4K30 4:4:4, stereo | `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 0D` |
| 135 | Video: Input 2: EDID = 4K30 4:4:4, 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 0D` |
| 136 | Video: Input 2: EDID = 1080p, stereo | `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 0D` |
| 137 | Video: Input 2: EDID = 1080p, Dolby/DTS 5.1 | `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 0D` |
| 138 | Video: Input 2: EDID = 1920x1200, stereo | `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 0D` |
| 139 | Video: Input 2: EDID = 1360x768, stereo | `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 0D` |
| 140 | Video: Input 2: EDID = 1024x768, stereo | `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 0D` |
| 141 | Video: Input 2: EDID = Copy from output 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 0D` |
| 142 | Video: Input 2: EDID = Copy from output 2 | `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 0D` |
| 143 | Video: Input 2: EDID = Copy from output 3 | `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 0D` |
| 144 | Video: Input 2: EDID = Copy from output 4 | `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 0D` |
| 145 | Video: Input 3: EDID = 4K30 4:4:4, stereo | `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 0D` |
| 146 | Video: Input 3: EDID = 4K30 4:4:4, 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 0D` |
| 147 | Video: Input 3: EDID = 1080p, stereo | `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 0D` |
| 148 | Video: Input 3: EDID = 1080p, Dolby/DTS 5.1 | `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 0D` |
| 149 | Video: Input 3: EDID = 1920x1200, stereo | `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 0D` |
| 150 | Video: Input 3: EDID = 1360x768, stereo | `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 0D` |
| 151 | Video: Input 3: EDID = 1024x768, stereo | `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 0D` |
| 152 | Video: Input 3: EDID = Copy from output 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 0D` |
| 153 | Video: Input 3: EDID = Copy from output 2 | `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 0D` |

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| 154 | Video: Input 3: EDID = Copy from output 3 | `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 0D` |
| 155 | Video: Input 3: EDID = Copy from output 4 | `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 0D` |
| 156 | Video: Input 4: EDID = 4K30 4:4:4, stereo | `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 0D` |
| 157 | Video: Input 4: EDID = 4K30 4:4:4, 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 0D` |
| 158 | Video: Input 4: EDID = 1080p, stereo | `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 0D` |
| 159 | Video: Input 4: EDID = 1080p, Dolby/DTS 5.1 | `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 0D` |
| 160 | Video: Input 4: EDID = 1920x1200, stereo | `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 0D` |
| 161 | Video: Input 4: EDID = 1360x768, stereo | `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 0D` |
| 162 | Video: Input 4: EDID = 1024x768, stereo | `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 0D` |
| 163 | Video: Input 4: EDID = Copy from output 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 0D` |
| 164 | Video: Input 4: EDID = Copy from output 2 | `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 0D` |
| 165 | Video: Input 4: EDID = Copy from output 3 | `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 0D` |
| 166 | Video: Input 4: EDID = Copy from output 4 | `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 0D` |
| 167 | Video wall: Output 1: Mirror = Off | `s output 1 mirror 0` | `73 20 6F 75 74 70 75 74 20 31 20 6D 69 72 72 6F 72 20 30 21 0D` |
| 168 | Video wall: Output 1: Mirror = Flip left-right | `s output 1 mirror 1` | `73 20 6F 75 74 70 75 74 20 31 20 6D 69 72 72 6F 72 20 31 21 0D` |
| 169 | Video wall: Output 1: Mirror = Flip upside down | `s output 1 mirror 2` | `73 20 6F 75 74 70 75 74 20 31 20 6D 69 72 72 6F 72 20 32 21 0D` |
| 170 | Video wall: Output 1: Mirror = Both | `s output 1 mirror 3` | `73 20 6F 75 74 70 75 74 20 31 20 6D 69 72 72 6F 72 20 33 21 0D` |
| 171 | Video wall: Output 2: Mirror = Off | `s output 2 mirror 0` | `73 20 6F 75 74 70 75 74 20 32 20 6D 69 72 72 6F 72 20 30 21 0D` |
| 172 | Video wall: Output 2: Mirror = Flip left-right | `s output 2 mirror 1` | `73 20 6F 75 74 70 75 74 20 32 20 6D 69 72 72 6F 72 20 31 21 0D` |
| 173 | Video wall: Output 2: Mirror = Flip upside down | `s output 2 mirror 2` | `73 20 6F 75 74 70 75 74 20 32 20 6D 69 72 72 6F 72 20 32 21 0D` |
| 174 | Video wall: Output 2: Mirror = Both | `s output 2 mirror 3` | `73 20 6F 75 74 70 75 74 20 32 20 6D 69 72 72 6F 72 20 33 21 0D` |
| 175 | Video wall: Output 3: Mirror = Off | `s output 3 mirror 0` | `73 20 6F 75 74 70 75 74 20 33 20 6D 69 72 72 6F 72 20 30 21 0D` |
| 176 | Video wall: Output 3: Mirror = Flip left-right | `s output 3 mirror 1` | `73 20 6F 75 74 70 75 74 20 33 20 6D 69 72 72 6F 72 20 31 21 0D` |
| 177 | Video wall: Output 3: Mirror = Flip upside down | `s output 3 mirror 2` | `73 20 6F 75 74 70 75 74 20 33 20 6D 69 72 72 6F 72 20 32 21 0D` |

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| 178 | Video wall: Output 3: Mirror = Both | `s output 3 mirror 3` | `73 20 6F 75 74 70 75 74 20 33 20 6D 69 72 72 6F 72 20 33 21 0D` |
| 179 | Video wall: Output 4: Mirror = Off | `s output 4 mirror 0` | `73 20 6F 75 74 70 75 74 20 34 20 6D 69 72 72 6F 72 20 30 21 0D` |
| 180 | Video wall: Output 4: Mirror = Flip left-right | `s output 4 mirror 1` | `73 20 6F 75 74 70 75 74 20 34 20 6D 69 72 72 6F 72 20 31 21 0D` |
| 181 | Video wall: Output 4: Mirror = Flip upside down | `s output 4 mirror 2` | `73 20 6F 75 74 70 75 74 20 34 20 6D 69 72 72 6F 72 20 32 21 0D` |
| 182 | Video wall: Output 4: Mirror = Both | `s output 4 mirror 3` | `73 20 6F 75 74 70 75 74 20 34 20 6D 69 72 72 6F 72 20 33 21 0D` |
| 183 | Video wall: Bezel, left-right = 0 | `s tw h bezel 0` | `73 20 74 77 20 68 20 62 65 7A 65 6C 20 30 21 0D` |
| 184 | Video wall: Bezel, left-right = 1 | `s tw h bezel 1` | `73 20 74 77 20 68 20 62 65 7A 65 6C 20 31 21 0D` |
| 185 | Video wall: Bezel, left-right = 2 | `s tw h bezel 2` | `73 20 74 77 20 68 20 62 65 7A 65 6C 20 32 21 0D` |
| 186 | Video wall: Bezel, left-right = 3 | `s tw h bezel 3` | `73 20 74 77 20 68 20 62 65 7A 65 6C 20 33 21 0D` |
| 187 | Video wall: Bezel, left-right = 4 | `s tw h bezel 4` | `73 20 74 77 20 68 20 62 65 7A 65 6C 20 34 21 0D` |
| 188 | Video wall: Bezel, left-right = 5 | `s tw h bezel 5` | `73 20 74 77 20 68 20 62 65 7A 65 6C 20 35 21 0D` |
| 189 | Video wall: Bezel, left-right = 6 | `s tw h bezel 6` | `73 20 74 77 20 68 20 62 65 7A 65 6C 20 36 21 0D` |
| 190 | Video wall: Bezel, left-right = 7 | `s tw h bezel 7` | `73 20 74 77 20 68 20 62 65 7A 65 6C 20 37 21 0D` |
| 191 | Video wall: Bezel, left-right = 8 | `s tw h bezel 8` | `73 20 74 77 20 68 20 62 65 7A 65 6C 20 38 21 0D` |
| 192 | Video wall: Bezel, left-right = 9 | `s tw h bezel 9` | `73 20 74 77 20 68 20 62 65 7A 65 6C 20 39 21 0D` |
| 193 | Video wall: Bezel, left-right = 10 | `s tw h bezel 10` | `73 20 74 77 20 68 20 62 65 7A 65 6C 20 31 30 21 0D` |
| 194 | Video wall: Bezel, top-bottom = 0 | `s tw v bezel 0` | `73 20 74 77 20 76 20 62 65 7A 65 6C 20 30 21 0D` |
| 195 | Video wall: Bezel, top-bottom = 1 | `s tw v bezel 1` | `73 20 74 77 20 76 20 62 65 7A 65 6C 20 31 21 0D` |
| 196 | Video wall: Bezel, top-bottom = 2 | `s tw v bezel 2` | `73 20 74 77 20 76 20 62 65 7A 65 6C 20 32 21 0D` |
| 197 | Video wall: Bezel, top-bottom = 3 | `s tw v bezel 3` | `73 20 74 77 20 76 20 62 65 7A 65 6C 20 33 21 0D` |
| 198 | Video wall: Bezel, top-bottom = 4 | `s tw v bezel 4` | `73 20 74 77 20 76 20 62 65 7A 65 6C 20 34 21 0D` |
| 199 | Video wall: Bezel, top-bottom = 5 | `s tw v bezel 5` | `73 20 74 77 20 76 20 62 65 7A 65 6C 20 35 21 0D` |
| 200 | Video wall: Bezel, top-bottom = 6 | `s tw v bezel 6` | `73 20 74 77 20 76 20 62 65 7A 65 6C 20 36 21 0D` |
| 201 | Video wall: Bezel, top-bottom = 7 | `s tw v bezel 7` | `73 20 74 77 20 76 20 62 65 7A 65 6C 20 37 21 0D` |

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|---|---|---|---|
| 202 | **Video wall: Bezel, top-bottom = 8** | `s tw v bezel 8` | `73 20 74 77 20 76 20 62 65 7A 65 6C 20 38 21 0D` |
| 203 | **Video wall: Bezel, top-bottom = 9** | `s tw v bezel 9` | `73 20 74 77 20 76 20 62 65 7A 65 6C 20 39 21 0D` |
| 204 | **Video wall: Bezel, top-bottom = 10** | `s tw v bezel 10` | `73 20 74 77 20 76 20 62 65 7A 65 6C 20 31 30 21 0D` |
| 205 | **System: Beep on** | `s beep 1` | `73 20 62 65 65 70 20 31 21 0D` |
| 206 | **System: Beep off** | `s beep 0` | `73 20 62 65 65 70 20 30 21 0D` |
| 207 | **System: Lock the front panel on** | `s lock 1` | `73 20 6C 6F 63 6B 20 31 21 0D` |
| 208 | **System: Lock the front panel off** | `s lock 0` | `73 20 6C 6F 63 6B 20 30 21 0D` |

## 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 status` | `72 20 73 74 61 74 75 73 21 0D` | Power, Source, Signal, Send a picture, Output resolution, Colour space, Mirror, EDID, Wall layout, Bezel, left-right, Bezel, top-bottom, Beep, Lock the front panel |
| 2 | `r tw group 0 source` | `72 20 74 77 20 67 72 6F 75 70 20 30 20 73 6F 75 72 63 65 21 0D` | Wall group source |
| 3 | `r fw version` | `72 20 66 77 20 76 65 72 73 69 6F 6E 21 0D` | Firmware |

## 5. TROUBLESHOOTING

**Nothing happens.**
Check the unit's IP address and that TCP 8001 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.