MMX-4X4CAT-70M Control4 Driver Guide

For Composer Pro · Driver version 1.0.0

The KanexPro MMX-4X4CAT-70M driver lets a Control4 system control the MMX-4X4CAT-70M over the network. It talks to the unit's own control port (TCP 8000): no other KanexPro software and no RS-232 cable are needed. Each control is a programming command, and each reading is a variable that follows changes made on the unit's front panel, remote or web page.

> **Before you start —** the Control4 controller must reach the MMX-4X4CAT-70M on TCP port 8000. Give the unit a fixed IP address (or a DHCP reservation).

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1. INSTALL THE DRIVER

1. Download **KanexPro-MMX-4X4CAT-70M-C4-1.0.0.zip** from the MMX-4X4CAT-70M page on kanexpro.com (Resources) and unzip it.
2. In Composer Pro, add the driver from the file `KanexPro-MMX-4X4CAT-70M-C4.c4z` (Driver > Add or Update Driver, or drag the file in).
3. Add it to the project in the room where the unit is.
4. Select it and set its properties (section 2). **Connection** shows Connected once it reaches the unit.

> **One driver per unit —** for two MMX-4X4CAT-70M units, add the driver twice and give each its own IP address.

2. PROPERTIES

DRIVER PROPERTIES	
IP Address	The MMX-4X4CAT-70M's address on the control network. Empty by default.
Port	8000 (TCP), the unit's control port. Change it only if the unit's own web page was set to another port.
Poll Interval	How often, in seconds, the driver reads the unit back. Default 10; 0 reads it only after a change from Control4.
Debug Mode	On prints every command and reply to the Lua output.
Connection	Read only: Connected, Connecting, Not connected (and why), Refused (and which command), or No IP address.
Driver Version	Read only: 1.0.0.

Action: **Reconnect** connects again at once.

3. PROGRAMMING COMMANDS

13 commands. Use them in Composer's Programming view, from any event.

#	Command	Parameters	What it does
1	**Route**	Output (a list: All outputs, Output 1, Output 2, Output 3 ...); Input (a list: Input 1, Input 2, Input 3, Input 4)	Sends the input you pick to the output you pick ("All outputs": every output at once).

2	**HDMI picture**	Output (a list: Output 1, Output 2, Output 3, Output 4); State (a list: On, Off)	HDMI picture: on or off on the output you pick.
3	**HDBaseT picture**	Output (a list: Output 1, Output 2, Output 3, Output 4); State (a list: On, Off)	HDBaseT picture: on or off on the output you pick.
4	**Standby**	Button (a list: On, Standby)	Presses the button you pick: On, Standby.
5	**Presets**	Button (a list: 1, 2, 3, 4)	Presses the button you pick: 1, 2, 3, 4.
6	**Save**	Button (a list: 1, 2, 3, 4)	Presses the button you pick: 1, 2, 3, 4.
7	**Scaler**	Output (a list: Output 1, Output 2, Output 3, Output 4); Value (a list: Bypass, 4K to 1080p, Auto)	Sets the scaler on the output you pick. Choices: Bypass; 4K to 1080p; Auto.
8	**EDID**	Input (a list: Input 1, Input 2, Input 3, Input 4); Value (a list: 1080p,Stereo Audio 2.0, 1080p,Dolby/DTS 5.1, 1080p,HD Audio 7.1, 1080i,Stereo Audio 2.0 ...)	Sets the EDID on the input you pick. Choices: 1080p,Stereo Audio 2.0; 1080p,Dolby/DTS 5.1; 1080p,HD Audio 7.1; 1080i,Stereo Audio 2.0; 1080i,Dolby/DTS 5.1, and 26 more.
9	**HDBaseT compression (DSC)**	Output (a list: Output 1, Output 2, Output 3, Output 4); Value (a list: Mode 1 (default), Mode 2, Mode 3)	Sets the HDBaseT compression (DSC) on the output you pick. Choices: Mode 1 (default); Mode 2; Mode 3.
10	**Sound back from the screen (ARC)**	Output (a list: Output 1, Output 2, Output 3, Output 4); State (a list: On, Off)	Sound back from the screen (ARC): on or off on the output you pick.
11	**Clear a preset**	Button (a list: 1, 2, 3, 4)	Presses the button you pick: 1, 2, 3, 4.
12	**Lock the front panel**	State (a list: On, Off)	Lock the front panel: on or off.
13	**Beep**	State (a list: On, Off)	Beep: on or off.

4. VARIABLES

`STATUS` is the Connection text. The others follow the unit, whoever changes it:

#	Variable	Kind	What it holds
1	`ROUTE_OUT1`	text	Output 1 Source

2	ROUTE_OUT2	text	Output 2 Source
3	ROUTE_OUT3	text	Output 3 Source
4	ROUTE_OUT4	text	Output 4 Source
5	STREAM_OUT1	on/off	Output 1 HDMI picture
6	STREAM_OUT2	on/off	Output 2 HDMI picture
7	STREAM_OUT3	on/off	Output 3 HDMI picture
8	STREAM_OUT4	on/off	Output 4 HDMI picture
9	CAT_STREAM_OUT1	on/off	Output 1 HDBaseT picture
10	CAT_STREAM_OUT2	on/off	Output 2 HDBaseT picture
11	CAT_STREAM_OUT3	on/off	Output 3 HDBaseT picture
12	CAT_STREAM_OUT4	on/off	Output 4 HDBaseT picture
13	SCALER_OUT1	text	Output 1 Scaler
14	SCALER_OUT2	text	Output 2 Scaler
15	SCALER_OUT3	text	Output 3 Scaler
16	SCALER_OUT4	text	Output 4 Scaler
17	EDID_IN1	text	Input 1 EDID
18	EDID_IN2	text	Input 2 EDID
19	EDID_IN3	text	Input 3 EDID
20	EDID_IN4	text	Input 4 EDID
21	CAT_DSC_OUT1	text	Output 1 HDBaseT compression (DSC)
22	CAT_DSC_OUT2	text	Output 2 HDBaseT compression (DSC)
23	CAT_DSC_OUT3	text	Output 3 HDBaseT compression (DSC)
24	CAT_DSC_OUT4	text	Output 4 HDBaseT compression (DSC)
25	ARC_OUT1	on/off	Output 1 Sound back from the screen (ARC)
26	ARC_OUT2	on/off	Output 2 Sound back from the screen (ARC)
27	ARC_OUT3	on/off	Output 3 Sound back from the screen (ARC)
28	ARC_OUT4	on/off	Output 4 Sound back from the screen (ARC)
29	FRONT_LOCK	on/off	Lock the front panel
30	BEEP	on/off	Beep
31	SIGNAL_IN1	on/off	Input 1 Signal
32	SIGNAL_IN2	on/off	Input 2 Signal
33	SIGNAL_IN3	on/off	Input 3 Signal
34	SIGNAL_IN4	on/off	Input 4 Signal
35	CONNECTED_OUT1	on/off	Output 1 Connected
36	CONNECTED_OUT2	on/off	Output 2 Connected
37	CONNECTED_OUT3	on/off	Output 3 Connected
38	CONNECTED_OUT4	on/off	Output 4 Connected
39	CAT_CONNECTED_OUT1	on/off	Output 1 HDBaseT receiver
40	CAT_CONNECTED_OUT2	on/off	Output 2 HDBaseT receiver

41	CAT_CONNECTED_OUT3	on/off	Output 3 HDBaseT receiver
42	CAT_CONNECTED_OUT4	on/off	Output 4 HDBaseT receiver
43	POWER	on/off	Readings Power
44	FAN	on/off	Readings Fan running
45	IP_MODE	text	Readings IP mode
46	IP	text	Readings Address
47	SUBNET	text	Readings Subnet mask
48	GATEWAY	text	Readings Gateway

5. TROUBLESHOOTING

Connection says Not connected.
Check the IP Address property against the unit's address (its front panel or its own web page). A unit on DHCP may have moved: give it a fixed address or a DHCP reservation. The driver tries again every 5 seconds by itself; the Reconnect action tries at once.

The address is right, but it still does not connect.
The Control4 controller and the unit must reach each other: the same network or VLAN, or a route between them. A firewall or switch ACL between them must allow TCP port 8000 to the unit. Leave the Port property at 8000 unless the unit's own web page was set to another port.

Connection says Refused, and names a command.
The unit refused that change. It may be in standby: turn it on first.

Changes made on the unit do not show in Control4.
Set Poll Interval above 0. Changes made on the unit's front panel, remote or web page then show in its variables within that many seconds.

I need to see what the driver sends.
Set Debug Mode to On: the Lua output in Composer shows every command sent and every reply.