MMX-8X8CAT-70M Control4 Driver Guide

For Composer Pro · Driver version 1.0.1

The KanexPro MMX-8X8CAT-70M driver lets a Control4 system control the MMX-8X8CAT-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-8X8CAT-70M on TCP port 8000. Give the unit a fixed IP address (or a DHCP reservation).

TABLE OF CONTENTS

1. Install the driver
2. Properties
3. Programming commands
4. Variables
5. Troubleshooting

1. INSTALL THE DRIVER

1. Download **KanexPro-MMX-8X8CAT-70M-C4-1.0.1.zip** from the MMX-8X8CAT-70M page on kanexpro.com (Resources) and unzip it.
2. In Composer Pro, add the driver from the file `KanexPro-MMX-8X8CAT-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-8X8CAT-70M units, add the driver twice and give each its own IP address.

2. PROPERTIES

DRIVER PROPERTIES	
IP Address	The MMX-8X8CAT-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: 1.0.1.

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

3. PROGRAMMING COMMANDS

12 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, 5, 6, 7, 8.
6	**Save**	Button (a list: 1, 2, 3, 4 ...)	Presses the button you pick: 1, 2, 3, 4, 5, 6, 7, 8.
7	**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 34 more.
8	**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.
9	**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.
10	**Clear a preset**	Button (a list: 1, 2, 3, 4 ...)	Presses the button you pick: 1, 2, 3, 4, 5, 6, 7, 8.
11	**Lock the front panel**	State (a list: On, Off)	Lock the front panel: on or off.
12	**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	`ROUTE_OUT5`	text	Output 5 Source

6	ROUTE_OUT6	text	Output 6 Source
7	ROUTE_OUT7	text	Output 7 Source
8	ROUTE_OUT8	text	Output 8 Source
9	STREAM_OUT1	on/off	Output 1 HDMI picture
10	STREAM_OUT2	on/off	Output 2 HDMI picture
11	STREAM_OUT3	on/off	Output 3 HDMI picture
12	STREAM_OUT4	on/off	Output 4 HDMI picture
13	STREAM_OUT5	on/off	Output 5 HDMI picture
14	STREAM_OUT6	on/off	Output 6 HDMI picture
15	STREAM_OUT7	on/off	Output 7 HDMI picture
16	STREAM_OUT8	on/off	Output 8 HDMI picture
17	CAT_STREAM_OUT1	on/off	Output 1 HDBaseT picture
18	CAT_STREAM_OUT2	on/off	Output 2 HDBaseT picture
19	CAT_STREAM_OUT3	on/off	Output 3 HDBaseT picture
20	CAT_STREAM_OUT4	on/off	Output 4 HDBaseT picture
21	CAT_STREAM_OUT5	on/off	Output 5 HDBaseT picture
22	CAT_STREAM_OUT6	on/off	Output 6 HDBaseT picture
23	CAT_STREAM_OUT7	on/off	Output 7 HDBaseT picture
24	CAT_STREAM_OUT8	on/off	Output 8 HDBaseT picture
25	EDID_IN1	text	Input 1 EDID
26	EDID_IN2	text	Input 2 EDID
27	EDID_IN3	text	Input 3 EDID
28	EDID_IN4	text	Input 4 EDID
29	EDID_IN5	text	Input 5 EDID
30	EDID_IN6	text	Input 6 EDID
31	EDID_IN7	text	Input 7 EDID
32	EDID_IN8	text	Input 8 EDID
33	CAT_DSC_OUT1	text	Output 1 HDBaseT compression (DSC)
34	CAT_DSC_OUT2	text	Output 2 HDBaseT compression (DSC)
35	CAT_DSC_OUT3	text	Output 3 HDBaseT compression (DSC)
36	CAT_DSC_OUT4	text	Output 4 HDBaseT compression (DSC)
37	CAT_DSC_OUT5	text	Output 5 HDBaseT compression (DSC)
38	CAT_DSC_OUT6	text	Output 6 HDBaseT compression (DSC)
39	CAT_DSC_OUT7	text	Output 7 HDBaseT compression (DSC)
40	CAT_DSC_OUT8	text	Output 8 HDBaseT compression (DSC)
41	ARC_OUT1	on/off	Output 1 Sound back from the screen (ARC)
42	ARC_OUT2	on/off	Output 2 Sound back from the screen (ARC)
43	ARC_OUT3	on/off	Output 3 Sound back from the screen (ARC)
44	ARC_OUT4	on/off	Output 4 Sound back from the screen (ARC)

45	ARC_OUT5	on/off	Output 5 Sound back from the screen (ARC)
46	ARC_OUT6	on/off	Output 6 Sound back from the screen (ARC)
47	ARC_OUT7	on/off	Output 7 Sound back from the screen (ARC)
48	ARC_OUT8	on/off	Output 8 Sound back from the screen (ARC)
49	FRONT_LOCK	on/off	Lock the front panel
50	BEEP	on/off	Beep
51	SIGNAL_IN1	on/off	Input 1 Signal
52	SIGNAL_IN2	on/off	Input 2 Signal
53	SIGNAL_IN3	on/off	Input 3 Signal
54	SIGNAL_IN4	on/off	Input 4 Signal
55	SIGNAL_IN5	on/off	Input 5 Signal
56	SIGNAL_IN6	on/off	Input 6 Signal
57	SIGNAL_IN7	on/off	Input 7 Signal
58	SIGNAL_IN8	on/off	Input 8 Signal
59	CONNECTED_OUT1	on/off	Output 1 Connected
60	CONNECTED_OUT2	on/off	Output 2 Connected
61	CONNECTED_OUT3	on/off	Output 3 Connected
62	CONNECTED_OUT4	on/off	Output 4 Connected
63	CONNECTED_OUT5	on/off	Output 5 Connected
64	CONNECTED_OUT6	on/off	Output 6 Connected
65	CONNECTED_OUT7	on/off	Output 7 Connected
66	CONNECTED_OUT8	on/off	Output 8 Connected
67	CAT_CONNECTED_OUT1	on/off	Output 1 HDBaseT receiver
68	CAT_CONNECTED_OUT2	on/off	Output 2 HDBaseT receiver
69	CAT_CONNECTED_OUT3	on/off	Output 3 HDBaseT receiver
70	CAT_CONNECTED_OUT4	on/off	Output 4 HDBaseT receiver
71	CAT_CONNECTED_OUT5	on/off	Output 5 HDBaseT receiver
72	CAT_CONNECTED_OUT6	on/off	Output 6 HDBaseT receiver
73	CAT_CONNECTED_OUT7	on/off	Output 7 HDBaseT receiver
74	CAT_CONNECTED_OUT8	on/off	Output 8 HDBaseT receiver
75	POWER	on/off	Readings Power
76	IP_MODE	text	Readings IP mode
77	IP	text	Readings Address
78	SUBNET	text	Readings Subnet mask
79	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.