

Partner: Crestron
Model: CEC Source Control
Device Type: Generic A/V Source



GENERAL INFORMATION

SIMPLWINDOWS NAME:	Generic CEC Source Control v1.0
CATEGORY:	Transport Decks
VERSION:	1.0
SUMMARY:	This module will control any CEC-controllable source device via HDMI.
GENERAL NOTES:	<p>This module control any CEC-controllable source device via HDMI by using a Crestron DM product. A DMC-HD will be required and the To_Device signal from this module needs to be routed to the DMC-HD's "HDMI_In_Transmit_CEC_Message" serial input signal. All commands generated from this module will be sent to the device via the HDMI port on the associated DMC-HD.</p> <p>This module was developed using the HDMI v1.3 CEC protocol. These are standard commands that all devices are required to follow, although none of our test devices have responded to all commands successfully at this point. If the device has implemented a HDMI-CEC command it will respond accordingly.</p> <p>This module only supports configurations where the source is directly connected to the device with no 3rd party repeaters in between.</p> <p>One way to test to see if your source device supports CEC is to recycle power on the unit while it's connected to the DMC-HD HDMI In port and monitor the "HDMI_In_Receive_CEC_Message" output signal. You should see serial information generated by the source device. Note that the source device MUST also have HDMI control enabled or nothing will be returned.</p> <p>Also, bits 5-8 of the first byte of any return string represents the logical address of the unit. For example if "\x8F\x84\x00\x00\x04" is returned after power is recycled, the first byte is \x8F and bit 5-8 of that is 8, so the logical address of the unit would be 8, or Playback Device 2. This would be the address selected in the parameter field of this module for control.</p> <p>There is no need to resend commands as they are resent internally as part of the HDMI specification.</p>
CRESTRON HARDWARE REQUIRED:	DMC-HD
SETUP OF CRESTRON HARDWARE:	DMC-HD must have dmc-hd_1.540.26031.upg firmware or later.
VENDOR FIRMWARE:	N/A
VENDOR SETUP:	HDMI control MUST be enabled on the device being controlled. This can be found in the specific device's menu. Please refer to the manufacturer's manual for more details.
CABLE DIAGRAM:	N/A

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CONTROL:

Power_On_RCP	D	Pulse to turn power on using the HDMI-CEC Remote Control Passthru (RCP) function. If the device has implemented the RCP commands it will respond accordingly.
Power_On_OTP	D	Pulse to turn power on using the HDMI-CEC One Touch Play (OTP) function. If the device has implemented the OTP commands it will respond accordingly.
Power_Off_RCP	D	Pulse to turn power on using the HDMI-CEC Remote Control Passthru (RCP) function. If the device has implemented the RCP commands it will respond accordingly.
Power_Off_SS	D	Pulse to turn power on using the HDMI-CEC System Standby (SS) function. If the device has implemented the System Standby function it will go into standby mode in response to this command.
Power_Toggle	D	Pulse to turn unit on or off.
Root_Menu	D	Pulse to select root menu.
Setup_Menu	D	Pulse to select setup menu
Contents_Menu	D	Pulse to select contents menu.
Favorite_Menu	D	Pulse to select favorite menu.
Media_Top_Menu	D	Pulse to select media top menu.
Up	D	Pulse to navigate through selected menu.
Down	D	Pulse to navigate through selected menu.
Left	D	Pulse to navigate through selected menu.
Right	D	Pulse to navigate through selected menu.
Right_Up	D	Pulse to navigate through selected menu or area.
Right_Down	D	Pulse to navigate through selected menu or area.
Left_Up	D	Pulse to navigate through selected menu or area.
Left_Down	D	Pulse to navigate through selected menu or area.
Select	D	Pulse to select highlighted menu item.

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Exit	D	Pulse to exit current menu section.
Play	D	Pulse to select play function.
Stop	D	Pulse to select stop function.
Pause	D	Pulse to select pause function.
Record	D	Pulse to select record function.
Rewind	D	Pulse to cycle through scan reverse speeds.
Forward	D	Pulse to cycle through scan forward speeds.
Chapter/Track_Fwd	D	Pulse to move forward one track or chapter.
Chapter/Track_Rev	D	Pulse once to restart current track or chapter. Pulse twice to move back one track or chapter.
Stop_Record	D	Pulse to stop recording.
Pause_Record	D	Pulse to stop recording.
Number_Entry_Mode_1-12_Key	D	Pulse to set the number entry mode to use keys 1-12.
Number_Entry_Mode_0-9_Key	D	Pulse to set the number entry mode to use keys 0-9.
Number_Entry_Mode_Single_Digit	D	Pulse to set the number entry mode to use single digit entry.
Number_Entry_Mode_Multiple_Digit	D	Pulse to set the number entry mode to use multiple digit entry.
Number_*	D	Pulse to enter selected digits.
Dot	D	Pulse to enter a dot.
Enter	D	Pulse to select the enter function.
Clear	D	Pulse to clear current entry.
Channel_Up	D	Pulse to select channel up.
Channel_Down	D	Pulse to select channel down.
Previous_Channel	D	Pulse to select previous channel.
Next_Favorite	D	Pulse to select next favorite.

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Sound_Select	D	Pulse to scroll through available sound modes.
Input_Select	D	Pulse to scroll through available inputs.
Display_Information	D	Pulse to change display information.
Help	D	Pulse to select help menu.
Page_Up	D	Pulse to select page up.
Page_Down	D	Pulse to select page down.
Volume_Up	D	Press to increase volume.
Volume_Down	D	Press to decrease volume.
Mute_1	D	Pulse to mute audio.
Mute_2	D	Pulse to mute audio.
Restore_Volume_Function	D	Pulse to restore volume to state before mute.
Angle	D	Pulse to select different viewing angle..
PIP	D	Pulse to select PIP mode.
Video_On_Demand	D	Pulse to select video on demand function.
Electronic_Program_Guide	D	Pulse to select electronic program guide.
Timer_Programming	D	Pulse to view timer programming.
Initial_Configuration	D	Pulse to reset initial configuration.
Select_Broadcast_Type	D	Pulse to scroll through the available broadcast types.
Sound_Mixing_Mode_Dual_Mono	D	Pulse to scroll through the available dual-mono mixing modes.
Sound_Mixing_Mode_Karaoke	D	Pulse to scroll through the available karaoke mixing modes.
Select_Audio_Downmix_Mode	D	Pulse to scroll through the available audio downmix modes.
Select_Audio_Reverb_Processing_Mode	D	Pulse to scroll through the available echo effects.
Select_Audio_Equalizer_Mode	D	Pulse to scroll through the available equalizer settings.
Bass_+	D	Pulse to increase bass setting 1 step.

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Bass_Neutral	D	Pulse to set bass to neutral position.
Bass_-	D	Pulse to decrease bass setting 1 step.
Treble_+	D	Pulse to increase treble setting 1 step.
Treble_Neutral	D	Pulse to set treble to neutral position.
Treble_-	D	Pulse to decrease treble setting 1 step.
Eject	D	Pulse to eject current disc.
F1_Blue	D	Pulse to trigger F1 blue function.
F2_Red	D	Pulse to trigger F2 red function.
F3_Green	D	Pulse to trigger F3 green function.
F4_Yellow	D	Pulse to trigger F4 yellow function.
Poll_Enable	D	Latch high to enable polling for power and OSD name.
To_Device	S	Serial signal to be routed to the "HDMI_In_Transmit_CEC_Message" serial input signal on a DMC-HD.

FEEDBACK:

Power_Is_On	D	Indicates that the unit power is currently on.
Power_Is_Off	D	Indicates that the unit power is currently off.
Power_Is_Turning_On	D	Indicates that the unit is changing from standby to on.
Power_Is_Turning_Off	D	Indicates that the unit is changing from on to standby.
OSD_Name_Text	S	Displays the name that the device would assign itself if shown on a display device's on screen menu.
From_Device	S	Serial signal to be routed from the "HDMI_In_Receive_CEC_Message" serial output signal on a DMC-HD.

PARAMETERS:

Address	P	Select the logical address of the unit being controlled.
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**TESTING:**

OPS USED FOR TESTING:	v4.001.1012
SIMPL WINDOWS USED FOR TESTING:	v2.11.18
DEVICE DB USED FOR TESTING:	v21.00.003.00
CRES DB USED FOR TESTING:	v20.05.021.00
SYMBOL LIBRARY USED FOR TESTING:	V608
SAMPLE PROGRAM:	Generic CEC Source Control v1.0 Demo PRO2
REVISION HISTORY:	v1.0 – Initial release