



Partner: Crestron

Model: CEC Device Control

Device Type: TV



GENERAL INFORMATIO	N		
SIMPLWINDOWS NAME:	Generic CEC Display Control v1.0		
CATEGORY:	Transport Decks		
VERSION:	1.0		
SUMMARY:	This module will control any CEC-controllable display device via HDMI.		
GENERAL NOTES:	This module control any CEC-controllable display 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_Out_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. 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. This module only supports configurations where the source is directly connected to the device with no 3 rd party repeaters in between. 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 Out port and monitor the		
	unit while it's connected to the DMC-HD HDMI Out port and monitor the "HDMI_Out_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. There is no need to resend commands as they are resent internally as part of the HDMI specification.		
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_On_IVO	D	Pulse to turn power on using the HDMI-CEC Image View On (IVO) function. If the device has implemented the IVO 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.
Input_*	D	Pulse to select the HDMI input source by using the HDMI-CEC Active Source function.
Setup_Menu	D	Pulse to select setup menu
Up	D	Pulse to navigate through menu.
Down	D	Pulse to navigate through menu.
Left	D	Pulse to navigate through menu.
Right	D	Pulse to navigate through menu.
Right_Up	D	Pulse to navigate through menu or area.
Right_Down	D	Pulse to navigate through menu or area.
Left_Up	D	Pulse to navigate through menu or area.
Left_Down	D	Pulse to navigate through menu or area.
Select	D	Pulse to select highlighted menu item.
Exit	D	Pulse to exit current menu section.
Number_Entry_Mode_1-12_Key	D	Pulse to set the number entry mode to use keys 1-12.





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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.
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.
Poll_Enable	D	Latch high to enable polling for power and OSD name.
To_Device	S	Serial signal to be routed to the "HDMI_Out_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.



Certified Module

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From_Device Serial signal to be routed from the "HDMI_Out_Receive_CEC_Message" serial output signal on a DMC-HD.

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 Display Control v1.0 Demo PRO2	
REVISION HISTORY:	v1.0 – Initial release	