HXL-88Plus/HXL-44Plus
HDMI 2.0 Video/Audio Matrix Switch

ZIGEN

Model: HXL-88Plus/HXL-44Plus
Device Type: AV Switching
Control System: Crestron® 3-Series

CRESTRON®

GENERAL INFORMATION	
SUMMARY:	Controls video/audio routing and audio tone control for the Zigen HXL-88Plus and HXL-44Plus.
GENERAL NOTES:	All inputs/outputs with names surrounded by square braces are optional, and do not need to have signals defined on them. A SIMPL module is provided that interface with Zigen. Under the hood this SIMPL module uses SIMPL# and the Zigen API over HTTP. Version 2.5.0
CRESTRON® HARDWARE REQUIRED:	3-Series Processor.

CONTROL		
Init	D	Initializes the module and does an initial poll of current settings. Should be pulsed or set high before using module. (May be tied to 1 or other startup logic.) *High/1 (rising edge) = Initialize and Poll* *Low/0 = No effect*
[Poll]	D	Refreshes all outputs on this module with current values in the HXL-44/88Plus *(A poll is done once automatically at startup)*. Generally not needed if Crestron is the only system interfacing with the HXL-44/88Plus.
[Video_Out_1] through **[Video_Out_8]**	A	Selects the input to be switched to the corresponding output. Valid values are 1–8d on the HXL-88Plus and 1–4d on the HXL-44Plus.
[RCA_Audio_Out_1] through **[RCA_Audio_Out_12]**	A	Selects the input to be switched to the corresponding RCA output. Valid values are 1–12d on the HXL-88Plus and 1–8d on the HXL-44Plus.
RCA Selectable Audio Settings		
[Select_Output_To_Configure]	A	Selects which RCA Output to apply EQ, and Tone settings to. Also selects which output to display EQ and Tone feedback for. *Applies to inputs and outputs in the RCA-Selectable_Audio_Settings section.* Valid values are 1–12d on the HXL-88Plus and 1–8d on the HXL-44Plus.
[Tune_Mode_*]	D	Selects EQ/Tone mode for RCA outputs (only). *High/1 (rising edge) = Select Tune_Mode* *Low/0 = No effect*
[Preset_*]	D	**Tune_Mode_Presets** must be selected for these inputs to have effect. *High/1 (rising edge) = Select Preset* *Low/0 = No effect*
[Band_*]	A	**Tune_Mode_Equializer** must be selected for these inputs to have effect. Equalizer db is adjustable in .25db increments. *Valid values are -117d (-11.75db) to 120d (12db)*
[Bass] **[Treble]**	A	**Tune_Mode_Tone_Control** must be selected for these inputs to have effect. Bass and treble db are adjustable in .25db increments. *Valid values are -117d (-11.75db) to 120d (12db)*

CONTROL		
[Surround]	D	Enables the Surround Effect on the RCA outputs (only). *High/1 = Surround Fx On; Low/0 = Surround Fx Off*
[Surround_Toggle]	D	*High/1 (rising edge) = Surround Toggle/On/Off*
[Surround_On], [Surround Off]	D	*Low/0 = No effect*
[Surround_Level]	A	Sets the Surround Effect level from narrow (0d) to wide (65535d)
[Bass_Enhancement]	D	Enables Bass Enhancement on the RCA outputs (only). *High/1 = Bass_Enhancement On* *Low/0 = Bass_Enhancement Off*
[Bass_Enhancement_Toggle]	D	*High/1 (rising edge) = Bass Toggle/On/Off*
[Bass_Enhancement_On]	D	*Low/0 = No effect*
[Bass_Enhancement Off]	D	
[Bass_Enhancement_Level]	A	Sets the Bass Enhancement *Valid values are 0 to 65535d*
[High_Pass]	D	Enables High Pass filter. 1 = On / 0 = Off
[High_Pass_Toggle]	D	*High/1 (rising edge) = High_Pass Toggle/On/Off*
[High_Pass_On], [High_Pass_Off]	D	*Low/0 = No effect*
[Bass_Cut_Freq*]	D	Sets the Low Pass/High Pass (if enabled) cutoff frequency: 80 Hz–225 Hz. *High/1 (rising edge) = Select frequency; Low/0 = No effect*
RCA Audio Settings Sections		
Sections: **RCA_1_Audio_Settings through RCA_12_Audio_Settings**		These sections allow discrete control of the 8 RCA outputs on the HXL-44Plus or the 12 RCA outputs on the HXL-88Plus *See section above for details on each input.*
Advanced		
[Debug_Http_To_Console]	D	Prints http calls to Crestron console for debugging purposes, so calls and responses can be viewed. *High/1 = Print http calls to console.* *Low/0 = Do not print http calls to console.*

FEEDBACK		
[Video_Out_F_1] through [Video_Out_F_8]	A	Video input that has been routed to the output.
[RCA_Audio_Out_1] through [RCA_Audio_Out_12]	A	Audio from HDMI input that has been routed to the RCA output.
RCA Selectable Audio Settings		
[Mute]	D	Mutes the RCA outputs (only). *High/1 = Mute On; Low/0 = Mute Off*
[Mute_Toggle]	D	*High/1 (rising edge) = Mute Toggle/On/Off*
[Mute_On], [Mute_Off]	D	*Low/0 = No effect*
[Volume]	A	Sets the volume of the RCA outputs (only). *Valid values are 0 to 65535d.*
[Volume_Up]	D	High/1 momentary = increment/decrement volume.
[Volume_Down]	D	High/1 held = continuously raise/lower volume.
[Tune_Mode_*_F]	D	*High/1 = Selected tune mode is active.*
[Preset_*_F]	D	*High/1 = Selected Preset is active.*
[Band_*]	A	Current setting of the corresponding Eq Band. *Values are -117d (-11.75db) to 120d (12db)*
[Band*$]		Current setting of the corresponding Eq Band ("-11.75" to "12").
[Bass_F] [Treble_F]	A	Current setting of Bass or Treble. *Valid values are -117d (-11.75db) to 120d (12db)*
[Surround_F]	D	*High/1 = Surround Fx On; Low/0 = Surround Fx Off*
[Surround_Level_F]	A	Current Surround Effect level from narrow (0d) to wide (65535d)
[Bass_Enhancement_F]	D	*High/1 = Bass Enhancement On* *Low/0 = Bass Enhancement Off*
[Bass_Enhancement_Level]	A	Current Bass Enhancement level *Valid values are 0 to 65535d*
[High_Pass_F]	D	*High/1 = High Pass filter on* *Low/0 = High Pass filter off*
[Bass_Cut_Freq*_F]	D	Selected cutoff frequency: 80 Hz–225 Hz.
RCA Audio Settings Sections		
Sections: **RCA_1_Audio_Settings through** **RCA_12_Audio_Settings**		These sections allow discrete control of the 8 RCA outputs on the HXL-44Plus or the 12 RCA outputs on the HXL-88Plus *See section above for details on each output.*

PARAMETER		
Host_Name		IP Address or DNS Host Name of the SW-41Plus. *Format: http://hostname[:port]/*
Model		Select HXL-88 Plus or HXL-44 Plus based on which model you are controlling.