



Model: SoundStructure Device Type: DSP



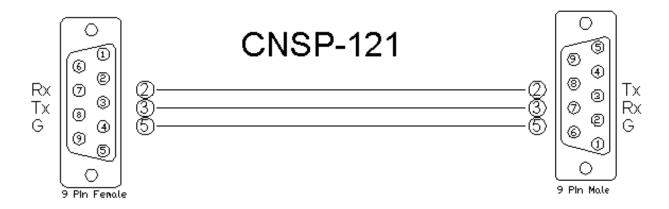
GENERAL INFORMATIO	N
SIMPLWINDOWS NAME:	Polycom SoundStructure Telephone In Advanced Control v2.1
CATEGORY:	Conferencing
VERSION:	2.1
SUMMARY:	This module will control the Telephone inputs on the Polycom SoundStructure.
GENERAL NOTES:	This module will control the telephone input on the Polycom SoundStructure. The Virtual_Name_Out\$ must be connected to one of the Virtual_Name_In_*\$ inputs on the feedback processor module. The From_Processor\$ input must be connected from the corresponding To_Virtual_Name_*_Module\$ output. For this module to work, the Initialize input on the Feedback Processor module must be pulsed. Once the initialization is complete, the module should work and provide true feedback. The Level and Fader correspond to the Level and Fader controls for the input when using the Polycom SoundStructure software. It also controls the DTMF Tone Gain, Tone Gain and Dial Tone Gain. Level is the pstn in gain. NOTE: POLYCOM RECOMMENDS END-USER VOLUME ADJUSTMENTS TO INPUTS AND OUTPUTS SHOULD BE PERFORMED WITH THE FADER CONTROLS AS SHOWN IN THE BASIC MODULE. INPUT AND OUTPUT GAIN CONTROLS FOUND ON THE ADVANCED MODULE SHOULD ONLY BE USED TO SET THE APPROPRIATE GAIN OR ATTENUATION REQUIRED TO BE COMPATIBLE WITH THE ELECTRICAL SIGNAL LEVELS COMING FROM ANY EXTERNAL EQUIPMENT (SUCH AS MICROPHONES, AMPLIFIERS, ETC.) THAT ARE CONNECTED TO THE SOUNDSTRUCTURE DEVICE. THE INPUT AND OUTPUT GAINS SHOULD BE SET DURING THE ROOM INSTALL PROCESS USING THE SOUNDSTRUCTURE STUDIO DESIGN SOFTWARE THAT IS SHIPPED WITH THE PRODUCT AND AVAILABLE FROM POLYCOM'S WEBSITE. END-USER ADJUSTMENTS OF THE INPUT AND OUTPUT GAIN SETTINGS AFTER
CRESTRON HARDWARE REQUIRED:	INSTALLATION ARE NOT REQUIRED. C2I-COM6, C2COM-2/3, C2ENET-1/2, C2I-MC3-COM2-232, C2I-MC3ENET-1
SETUP OF CRESTRON HARDWARE:	RS232 Baud: 9600 Parity: None Data Bits: 8 Stop Bits: 1 TCP/IP: Port: 52774
VENDOR FIRMWARE:	1.6.0-Beta2
VENDOR SETUP:	The Polycom SoundStructure must have a program loaded. The virtual channel names from that program must be entered in the parameter fields on the control modules.



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CABLE DIAGRAM: CNSP-121



CONTROL:		
Input_Level_Up/Down	D	Press and hold to adjust the input level (pstn in gain).
Input_Level_Value_In	Α	Analog input to allow preset values to be sent to the Polycom SoundStructure. These values must be in the range set by the maximum and minimum parameters. They would generally come from a symbol like the Analog Initialize. These cannot come from a slider on a touch panel. Valid range is –20d to 20d. This input may be commented out if you do not wish to use presets from inside the Crestron.
Input_Mute_On/Off/Toggle	D	Pulse to mute the incoming signal from the phone.
Input_Fader_Up/Down	D	Press and hold to adjust the input fader.
Input_Fader_Value_In	Α	Analog input to allow preset values to be sent to the Polycom SoundStructure. These values must be in the range set by the maximum and minimum parameters. They would generally come from a symbol like the Analog Initialize. These cannot come from a slider on a touch panel. Valid range is –100d to 20d. This input may be commented out if you do not wish to use presets from inside the Crestron.
DTMF_Tone_Gain_Up/Down	D	Press and hold to adjust the DTMF Tone Gain.
DTMF_Tone_Gain_Value_In	Α	Analog input to allow preset values to be sent to the Polycom SoundStructure. These values must be in the range set by the maximum and minimum parameters. They would generally come from a symbol like the Analog Initialize. These cannot come from a slider on a touch panel. Valid range is –20d to 20d. This input may be commented out if you do not wish to use presets from inside the Crestron.
Tone_Gain_Up/Down	D	Press and hold to adjust the Tone Gain.
Tone_Gain_Value_In	Α	Analog input to allow preset values to be sent to the Polycom SoundStructure. These values must be in the range set by the maximum and minimum parameters. They would generally come from a symbol like the Analog Initialize. These cannot come from a slider on a touch panel. Valid range is –20d to 20d. This input may be commented out if you do not wish to use presets from inside the Crestron.
Dial_Tone_Gain_Up/Down	D	Press and hold to adjust the Dial Tone Gain.



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Dial_Tone_Gain_Value_In	Α	Analog input to allow preset values to be sent to the Polycom SoundStructure. These values must be in the range set by the maximum and minimum parameters. They would generally come from a symbol like the Analog Initialize. These cannot come from a slider on a touch panel. Valid range is –100d to 20d. This input may be commented out if you do not wish to use presets from inside the Crestron.
From_Processor\$	S	Serial signal to be routed from a To_Virtual_*_Module\$ output on the feedback processor module.

PARAMETER:		
Phone In Name	Р	Name entered in the Polycom SoundStructure software for the phone input you want to control.
Input Level Maximum	Р	Maximum value for the input level. The range for level is $-20d$ to 20d. That means the range for maximum is $-19d$ to 20d. Default is 20d.
Input Level Minimum	Р	Minimum value for the input level. The range for level is $-20d$ to $20d$. That means the range for minimum is $-20d$ to $19d$. Default is $-20d$.
DTMF Tone Maximum	Р	Maximum value for the DTMF Tone. The range for DTMF Tone is –20d to 20d. That means the range for maximum is –19d to 20d. Default is 20d.
DTMF Tone Minimum	Р	Minimum value for the DTMF Tone. The range for DTMF Tone is $-20d$ to 20d. That means the range for minimum is $-20d$ to 19d. Default is $-20d$.
Tone Maximum	Р	Maximum value for the Tone. The range for Tone is –20d to 20d. That means the range for maximum is –19d to 20d. Default is 20d.
Tone Minimum	Р	Minimum value for the Tone. The range for Tone is –20d to 20d. That means the range for minimum is –20d to 19d. Default is -20d.
Dial Tone Maximum	Р	Maximum value for the Dial Tone. The range for Dial Tone is -100d to 20d. That means the range for maximum is -99d to 20d. Default is 20d.
Dial Tone Minimum	Р	Minimum value for the Dial Tone. The range for Dial Tone is $-100d$ to 20d. That means the range for minimum is $-100d$ to 19d. Default is $-100d$.

FEEDBACK:		
Input_Level_Bar	Α	Analog value indicating the current level value. To be displayed using a bar graph on a touch panel.
Input_Mute_On/Off_Fb	D	High to indicate the current mute state.
Input_Fader_Bar	Α	Analog value indicating the current fader value. To be displayed using a bar graph on a touch panel.
DTMF_Tone_Gain_Bar	Α	Analog value indicating the current DTMF tone gain value. To be displayed using a bar graph on a touch panel.
Tone_Gain_Bar	Α	Analog value indicating the current tone gain value. To be displayed using a bar graph on a touch panel.
Dial_Tone_Gain_Bar	Α	Analog value indicating the current dial tone gain value. To be displayed using a bar graph on a touch panel.
Ringing_Fb	D	High to indicate there is an incoming call. NOTE: THIS WILL GO HIGH AND LOW WITH THE RINGING. IN OTHER WORDS, WHILE YOU HEAR THE RING THIS WILL BE HIGH. BETWEEN THE RINGS THIS WILL BE LOW.





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Incoming_Call_Fb	D	This will go high until after the phone stops ringing. This will allow a subpage to be displayed on a touch panel.
Virtual_Name_Out\$	S	Serial signal to be routed to one of the Virtual_Name_In_*\$ inputs on the feedback processor module.
To_Device\$	s	Serial signal to be routed to a 2-way serial com port or a TCP/IP Client.

TESTING:	
OPS USED FOR TESTING:	PRO2: 4.003.0015 MC3: 1.003.0008
SIMPL WINDOWS USED FOR TESTING:	4.03.20
DEVICE DB USED FOR TESTING:	73.05.002.00
CRES DB USED FOR TESTING:	55.00.011.00
SYMBOL LIBRARY USED FOR TESTING:	985
SAMPLE PROGRAM:	Polycom SoundStructure v2.1 Demo
REVISION HISTORY:	 V. 1.0 – Original Release V. 1.1 – Added level maximum and minimum feedback from the Polycom. These values are used to adjust the scale of the bar graph and prevent ramping beyond these points. Removed the maximum and minimum parameter fields on the module. V. 1.2 – Created separate basic and advanced controls. The basic controls do not offer control of the Level. Polycom recommends using the basic modules to control the SoundStructure. V. 2.0 – Now 3-Series compatible. Improved performance by reducing extraneous find() calls. Added logic to handle virtual names containing double quote characters by escaping them with a backslash. V. 2.1 – Incorporated 3-series best practices as needed in all Simpl+.