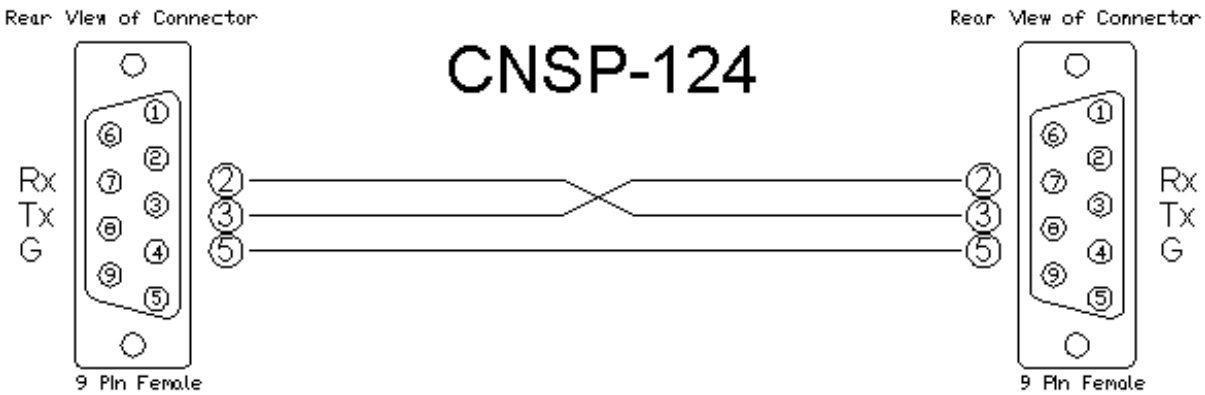
Partner: Audio Control
Model: Concert AVR-4
Device Type: AV Receiver

GENERAL INFORMATION

SIMPLWINDOWS NAME:	Audio Control Concert AVR-4 v1.0
CATEGORY:	Receiver/Processor
VERSION:	1.0
SUMMARY:	This module will control power, volume, input select and surround mode select, and displays true feedback.
GENERAL NOTES:	This module provides control for most functions of the Audio Control Concert AVR-4. It also provides true feedback for several functions. Some front panel presses on the unit do NOT generate feedback. If all controls are done through the module, feedback should be true. Other models this module will control: -M4 *Tuner functions not present for Maestro M4 processor*
CRESTRON HARDWARE REQUIRED:	2-Series Processor, C2COM3, 3-Series Processor
SETUP OF CRESTRON HARDWARE:	RS232 Baud: 38400 Parity: None Data Bits: 8 Stop Bits: 1
VENDOR FIRMWARE:	N/A
VENDOR SETUP:	N/A
CABLE DIAGRAM:	CNSP-124



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CONTROL:

From_Device	S	Serial Data from device – tie to processor's COM Port RX
Poll	D	Pulse to poll for all possible feedbacks. Runs for approx 1 min.
Z1_Power_Toggle/On/Off	D	Pulse to power Zone 1 accordingly
Z1_Volume_Mute_Toggle/On/Off	D	Pulse to mute Zone 1 accordingly
Z1_Volume_Up/Down	D	Press and hold to raise or lower Zone 1 Volume
Z1_Select_*	D	Pulse to select Zone 1 input
Z1_Audio_Input_*	D	Pulse to select which audio input to use (Analog/Digital Audio/HDMI)
Z2_Power_On/Off	D	Pulse to power Zone 2 accordingly
Z2_Volume_Mute_On/Off	D	Pulse to mute Zone 2 accordingly
Z2_Volume_Up/Down	D	Press and hold to raise or lower Zone 2 Volume.
Z2_Select_*	D	Pulse to select Zone 2 input
Z3_Power_On/Off	D	Pulse to power Zone 3 accordingly
Z3_Volume_Mute_On/Off	D	Pulse to mute Zone 3 accordingly
Z3_Volume_Up/Down	D	Press and hold to raise or lower Zone 3 Volume
Menu	D	Pulse to bring up the main menu
Select	D	Pulse to press "select"
Navigate_Up/Down/Right/Left	D	Pulse to navigate the menus in the desired direction
Random	D	Pulse to press "random"
Repeat	D	Pulse to press "repeat"
Display_Brightness	D	Pulse to change display brightness
Display_Processing_Mode/TimeDate/Cycle	D	Pulse what to show on the main unit's display
Track_Foward/Back	D	Pulse to select Track Forward or Track Back
Cycle_Between_Decode_Modes	D	Pulse to cycle between all available decode modes

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Direct_Mode_On/Off/Toggle	D	Pulse to select Direct mode accordingly
Room_EQ_On/Off_Toggle	D	Pulse to toggle Room EQ on or off
Dolby_Volume_On/Off_Toggle	D	Pulse to toggle Dolby Volume on or off
Bass_Control_Menu	D	Pulse to bring up the Bass control menu
Bass_Increment/Decrement	D	Pulse to increase or decrease bass levels
Speaker_Trim	D	Pulse to affect Speaker Trim
Subwoofer_Control_Menu	D	Pulse to bring up the Subwoofer control menu
Subwoofer_Increment/Decrement	D	Pulse to increase or decrease subwoofer levels
Treble_Control_Menu	D	Pulse to bring up the Treble control menu
Treble_Increment/Decrement	D	Pulse to increase or decrease treble levels
Cycle_Output_Resolutions	D	Cycle between all available output resolutions
Cycle_Aspect_Ratios	D	Cycle between all available aspect ratios
Lipsync_Control_Menu	D	Pulse to increase or decrease the lipsync timing by 1ms
Favorite_Up/Down	D	Pulse to move through the favorites
Home	D	Pulse to press “home”
Zone_Toggle	D	Pulse to toggle between zones
Follow_Zone_1	D	Pulse to follow zone 1
Headphones_Activate/Deactivate	D	Pulse to trigger zone 1 mute relay so that one may listen to the headphones Without the speakers active
Tuner_Num_*	D	Pulse to press the Tuner numbers
Tuner_Preset_Up/Navigate_Up	D	Pulse to move up in the Tuner preset list, SELECT must be pushed afterword to take the selection
Tuner_Preset_Down/Navigate_Down	D	Pulse to move down in the Tuner preset list, SELECT must be pushed afterword to take the selection
Tuner_Up/Navigate_Right	D	Pulse to tune up or navigate right
Tuner_Down/Navigat_Left	D	Pulse to tune down or navigate left

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Tuner_Band	D	Pulse for IR code for BAND (documented code, questionable functionality)
Tuner_Menu	D	Pulse for IR code for Tuner menu
Tuner_Preset_Up/Sirius_Category_Up	D	Pulse for Tuner preset up or Sirius category up
Tuner_Preset_Down/Sirius_Category_Down	D	Pulse for Tuner preset down or Sirius category down
Tuner_Page_Down_-_Preset_List	D	Pulse to move down in the pages of the preset lists
Tuner_Store_Preset_X	D	Pulse to store preset X
Tuner_Delete_Selected_Preset	D	Pulse to delete selected preset
RESET_TO_FACTORY_DEFAULTS	D	Pulse to reset entire unit to factory defaults
REQUEST_*	D	Pulse to request
Z1_Set_Tuner_Preset_*	D	Pulse to set zone 1 tuner preset #'s 1 through 50
Z2 _Set_Tuner_Preset_*	D	Pulse to set zone 2 tuner preset #'s 1 through 50
Z3_Set_Tuner_Preset_*	D	Pulse to set zone 3 tuner preste #'s 1 through 50

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FEEDBACK:

To_Device$	S	Serial Data to device – tie to processor's COM Port TX
Polling_Busy	D	Shows that polling is busy. Polling runs once at system startup.
Z1_Power_is_*	D	High when power is on or off accordingly
Z1_Mute_is_*	D	High when mute is on or off accordingly
Z1_Volume_Level	A	Zone 1 Volume level reported as an analog value between 0-65535
Z1_Volume_Level_Percent$	S	Zone 1 Volume level reported back as TEXT with a "%" sign
Z1_Current_Input$	S	Zone 1 Current input name as TEXT, correlates to **Z1_Input_*_Selected**
Z1_Input_*_Selected	D	Indicates which input is selected. Feedback is logic based, Front panel controls on unit do not all produce true feedback, so it is recommended that you only use the module to control the unit for feedback
Z1_Current_Audio_Input$	S	Zone 1 Current Audio input reported back as text – correlates to **Z1_Audio_Input_*_Selected**
Z1 _Audio_Input_*_Selected	D	Indicates which type of audio is currently being used as the source
Z1_Current_Video_Input$	S	Zone 1 Current Audio input reported back as text – correlates to **Z1_Video_Input_*_Selected**
Z1_Video_Input_*_Selected	D	Indicates which video input is currently selected, this is true feedback from the unit
Z1_Current_Video_Type$	S	Zone 1 Current Video Type reported back as Text – Correlates to **Z1_Video_Type_is_***
Z1_Video_Type_is_*	D	Indicates which video type is currently selected
Z2_Power_is_*	D	High when power is on or off accordingly
Z2_Mute_is_*	D	High when mute is on or off accordingly
Z2_Volume_Level	A	Zone 2 Volume level reported as an analog value between 0-65535
Z2_Volume_Level_Percent$	S	Zone 2 Volume level reported back as TEXT with a "%" sign
Z2_Current_Input$	S	Zone 2 Current input name as TEXT, correlates to **Z2_Input_*_Selected**
Z2_Input_*_Selected	D	Indicates which input is selected. Feedback is logic based, Front panel controls on unit do not all produce true feedback, so it is recommended that you only use the module to control the unit for feedback

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Z2_Current_Video_Input$	S	Zone 2 Current Audio input reported back as text – correlates to **Z2_Video_Input_*_Selected**
Z2_Video_Input_*_Selected	D	Indicates which video input is currently selected, this is true feedback from the unit
Z3_Power_is_*	D	High when power is on or off accordingly
Z3_Mute_is_*	D	High when mute is on or off accordingly
Z3_Volume_Level	A	Zone 3 Volume level reported as an analog value between 0-65535
Z3_Volume_Level_Percent$	S	Zone 3 Volume level reported back as TEXT with a "%" sign
Current_Menu_Status$	S	Text name value of Menu Status, Correlates to **Menu_Status_***
Menu_Status_*	D	Indicates which menu is currently open
Current_Display_Brightness$	S	Text name value of current front panel display brightness (high, medium, low, off). Correlates to **Display_Brightness_is_***
Display_Brightness_is_*	D	Indicates the current display brightness level
Current_Decode_Mode_(2Ch)$	S	Text name value of the current decode mode. Correlates to **Decode_Mode_(2ch)_***
Decode_Mode_(2ch)_*	D	Indicates what 2ch decode mode is currently being usee
Current_Decode_Mode_(MultiCh)$	S	Text name value of the current decode mode. Correlates to **Decode_Mode_(MultiCh)_***
Decode_Mode_(MultiCh)_*	D	Indicates what MultiCh decode mode is currently being usee
Current_Direct_Mode_Status$	S	Text name value of Direct Mode Status. Correlates to **Direct_Mode_is_***
Direct_Mode_is_*	D	Indicates Direct Mode accordingly
Current_Video_output_Resolution$	S	Text value of current video output resolution. Correleates to **Video_Out_Resolution_is_***
Video_Out_Resolution_is_*	D	Indicates what the current Video output resolution is accordingly
Headphones_ARE_connected	D	Indicates after polling or requesting status of headphone that they are physically connected to the unit
Headphone_are_NOT_connected	D	Indicates after polling or requesting status of headphones that they are Not connected to the unit
Current_AM_Freq$	S	Text value of current AM Frequency

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Current_FM_Freq$	S	Text value of current FM Frequency
Current_FM_Genre$	S	Text value of current FM Genre
Current_Sirius_Station_Name$	S	Text value of current Sirius station name
Current_Sirius_Program_Type$	S	Text value of current Sirius program type
Curerent_Sirius_DLS$	S	Text value of current Sirius DLS
Network_Playback_Status_*	D	Indicates the current state of network playback
Current_Network_Playback_Status$	S	Text value of current network playback status. Correlates to **Network_Playback_Status_***
Current_Network_FILE/FOLDERName$	S	Text value of current network file or folder name
Current_Z*_Tuner_Preset$	S	Text Value of Tuner Preset. Manufacturer lists values for all 3 zones, however only 1 tuner is available so these will typically mirror each other
Z*_Tuner_Preset_is_*	D	Indicates what preset is currently selected
Poll_Time	A	Parameter setting for polling time of Network Playback Status feedback

TESTING:

OPS USED FOR TESTING:	2-Series: v4.007.0004 3-Series: v1.005.0007
SIMPL WINDOWS USED FOR TESTING:	v3.11.15
DEVICE DB USED FOR TESTING:	v44.06.001.00
CRES DB USED FOR TESTING:	v33.01.004.10
SYMBOL LIBRARY USED FOR TESTING:	V821
SAMPLE PROGRAM:	Audio Control Concert AVR-4 v1.0 Demo PRO2.smw Audio Control Concert AVR-4 v1.0 Demo MC3.smw
REVISION HISTORY:	v1.0 – Original release.

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