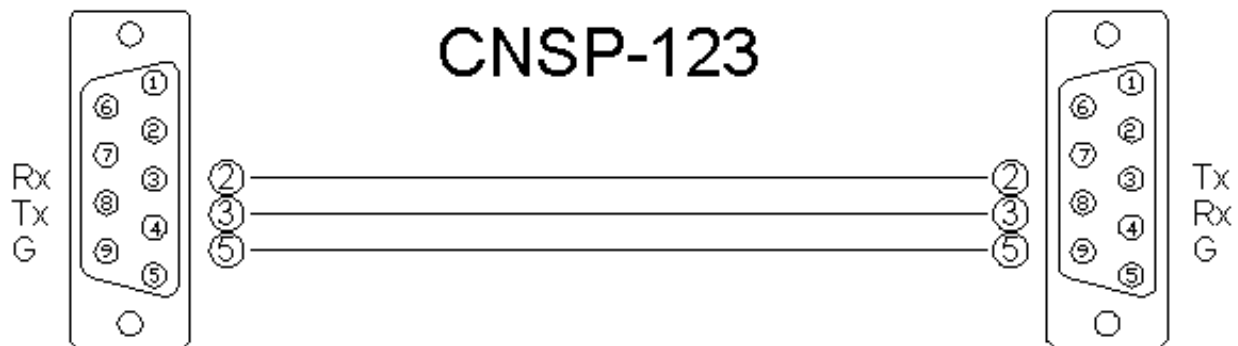


Partner: Marantz
 Model: AV8003
 Device Type: AV Surround Receiver



GENERAL INFORMATION

SIMPLWINDOWS NAME:	Marantz AV8003 v1.0
CATEGORY:	Audio Processor
VERSION:	1.0
SUMMARY:	Controls all standard functions and provides true feedback
GENERAL NOTES:	<p>This module will control all of the standard functions on a Marantz AV8003 AV Surround Receiver. The unit provides true feedback. Functions provided include main zone control, zone 2 control, menu selection and tuner band/preset selection.</p> <p>Note: XM and Sirius Tuner controls require Main Power On to function correctly. FM tuning needs 5 digits. XM and Sirius tuners are exclusive. If one is being used the other cannot be used elsewhere.</p>
CRESTRON HARDWARE REQUIRED:	ST-COM, C2I-COM6, C2COM-2/3
SETUP OF CRESTRON HARDWARE:	RS232 Baud: 9600 Parity: None Data Bits: 8 Stop Bits: 1
VENDOR FIRMWARE:	N/A
VENDOR SETUP:	IN THE PREFERENCES MENU, YOU MUST SET THE STBY MODE TO NORMAL. IF YOU DO NOT CHANGE THIS SETTING, YOU WILL NOT BE ABLE TO TURN THE RECEIVER ON VIA RS232. PRESETS MUST BE SETUP IN THE UNIT FOR RECALL ONLY FROM PROGRAM.
CABLE DIAGRAM:	CNSP-123



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CONTROL:

power_on/off/toggle	D	Pulse to turn the receiver's main power on and off
power_main&multi_off	D	Pulse to turn the receiver's main and zone's power off
<Input>	D	Pulse to select input
Input_7.1ch_on/off/toggle	D	Pulse to select the 7.1 ch input
*volume_up/down	D	Pulse to raise/lower selected zone's volume
*audio_mute_on/off/toggle	D	Pulse to mute/unmute selected zone's audio
volume_value(-72d_to_18d)	A	Force direct volume level for preset recall
volume_set_direct	D	Pulse to set volume direct for preset recall
volume_set_gradual	D	Pulse to set volume to gradual (ramping) for preset recall
attenuator_on/off/toggle	D	Pulse to select the attenuation mode
bass_up/down	D	Press and hold to adjust channel's bass up or down
treble_up/down	D	Press and hold to adjust channel's treble up or down.
video_mute_on/off/toggle	D	Pulse to mute/unmute video output
IP_converter_enable/disable	D	Pulse to turn the IP converter on/off
HDMI_out1/2/toggle	D	Pulse to select the HDMI output or toggle between them
HDMI_audio_enable	D	Pulse to enable HDMI audio to the speaker terminals
HDMI_audio through	D	Pulse to bypass speaker terminals and output directly to display
display_cycle	D	Pulse to cycle display
display_function	D	Pulse to select display function
display_input_mode	D	Pulse to change display input mode
display_surround_mode	D	Pulse to change display surround mode
display_auto_off	D	Pulse to change display auto off mode

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display_off	D	Pulse to change display auto off mode to off
frontkey_lock/unlock	D	Pulse to turn the front lock on/off
speaker_AB_on/off	D	Pulse to turn speakers A and B on/off
sleep_timer_off	D	Pulse to turn main sleep timer off.
sleep_timer_*min	D	Pulse to adjust main sleep timer
night_mode_auto/on/off/toggle	D	Pulse to turn night mode on/off
M-dax_high/low/off	D	Pulse to change M-DAX mode high/low/off
EQ_mode_*	D	Pulse to set EQ mode
DC_trig1_on/off	D	Pulse to set DC triggers 1 on/off
DC_trig2_on/off	D	Pulse to set DC triggers 2 on/off
re-EQ_on/off/toggle	D	Pulse to turn THX Cinema re-EQ on and off
bilingual_main	D	Pulse for bilingual main
bilingual_sub	D	Pulse for bilingual sub
bilingual_main+sub	D	Pulse for bilingual main and sub
setup_menu_on/off/toggle	D	Pulse to display/hide onscreen menu
menu_cursor_*	D	Pulse to navigate menu screen
surr._mode change_prev/next	D	Pulse to change surround modes up/down
surr._*	D	Pulse to change surround modes discretely
dolby_HP_*	D	Pulse to change HP mode discretely
test_tone_on(auto_mode)	D	pulse to change test tone auto mode
test_tone_off	D	Pulse to turn test tone off
test_tone_toggle	D	pulse to toggle test tone on/off
test_tone_channel_next/prev	D	Pulse to change test tone up or down
lip_sync_off	D	Pulse to disable lip sync

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lip_sync_up/down	D	Pulse to adjust lip sync function up/down
tuner_mode_HD_digital_auto	D	Pulse to set tuner mode to HD digital
tuner_mode_auto_stereo	D	Pulse to set tuner mode to auto stereo
tuner_mode_mono	D	Pulse to set tuner mode to mono
tuner_mode_cycle	D	Pulse to cycle through the tuner modes
tuner_freq_auto_up/down	D	Pulse to change tuner freq up/down
tuner_HD_freq_auto_up/down	D	Pulse to change tuner HD freq up/down
tuner_auto_up/down/stop	D	Pulse to scan stop tuner presets
tuner_preset_up/down	D	Pulse to recall stored tuner presets up or down
tuner_preset_scan_start/stop	D	Pulse to start/stop scan of all saved tuner presets
tuner_preset_info_on/off/toggle	D	Pulse to display/hide tuner preset information
tuner_key*	D	Pulse to direct enter a tuner key
tuner_preset_num_call	D	Pulse to direct enter a preset recall
tuner_freq_num_direct_set	D	Pulse to enter a tuner freq directly
tuner_satellite_disp.mode_normal	D	Pulse to change active satellite tuner display mode to normal
tuner_satellite_disp.mode_artist/song	D	Pulse to change active satellite tuner display mode to artist/song
tuner_satellite_disp.mode_category	D	Pulse to change active satellite tuner display mode to category
tuner_satellite_disp.mode_status	D	Pulse to change active satellite tuner display mode to status
tuner_satellite_disp.mode_toggle	D	Pulse to change active satellite tuner display mode to toggle states
tuner_xm_category_ch_up/down	D	Pulse to change XM tuner channels up/down
tuner_xm_category_next/prev	D	Pulse to change XM tuner categories up/down
tuner_xm_category_direct_set	D	Pulse to direct set XM tuner categories.
tuner_sirius_category_ch_up/down	D	Pulse to change SIRIUS tuner channels up/down
tuner_sirius_category_next/prev	D	Pulse to change SIRIUS tuner categories up/down

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tuner_sirius_category_direct_set	D	Pulse to direct set SIRIUS tuner categories.
component2out_select_main	D	Pulse to change to component2 output main
component2out_select_multi	D	Pulse to change to component2 output multi
mrA/B_power_on/off/toggle	D	Pulse to change power state for zones 1 and 2 (Called multi zones)
mrA/B_input_*	D	Pulse to change zone 1 and 2 input sources
mrA/B_volume_up/down	D	Pulse to change volume level for zone 1 or 2
mrA/B_audio_mute_on/off/toggle	D	Pulse to change zone 1 and 2 audio mute status
mrA/B_volume_variable/fixed	D	Pulse to change zone 1 and 2 volume variable/fixed status
mrA/B_stereo	D	Pulse to set zone 1 or 2 to stereo
mrA/B_mono	D	Pulse to set zone 1 or 2 to mono
mrA/B_stereo/mono	D	Pulse to toggle zone 1 or 2 stereo/mono
mrA/B_sleep_timer_off	D	Pulse to set zone 1 or 2 sleep timer to off
mrA/B_sleep_timer_*min	D	Pulse to set zone 1 or 2 sleep timer in minutes
mrA/b_tuner_mode_HD_digital_auto	D	Pulse to set zone 1 or 2 tuner mode to HD digital auto
mrA/b_tuner_mode_auto_stereo	D	Pulse to set zone 1 or 2 tuner mode to auto stereo
mrA/B_tuner_mode_mono	D	Pulse to set zone 1 or 2 tuner mode to mono
mrA/B_tuner_mode_toggle	D	Pulse to toggle zone 1 or 2 tuner stereo/mono
mrA/B_tuner_freq_up/down	D	Pulse to change zone 1 or 2 tuner freq up or down
mrA/B_tuner_auto_up/down/stop	D	Pulse to change zone 1 or 2 auto up/down/stop
mrA/B_tuner_hd_freq_auto_up/down/stop	D	Pulse to change zone 1 or 2 HD Freq up/down/stop
mrA/B_preset_up/down	D	Pulse to change zone 1 or 2 presetr up/down
mrA/B_tuner_preset_scan_start/stop	D	Pulse to start/stop zone 1 or 2 tuner preset scan
mrA/B_tuner_key*	D	Pulse to direct enter zone 1 or 2 tuner key
mrA/B_tuner_preset_num_call	D	Pulse to direct enter zone 1 or 2 preset

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mrA/B_tuner_freq_num_direct_set	D	Pulse direct enter zone 1 or 2 freq number
msA/B_power_on/off/toggle	D	Pulse to change power states for zones 1 or2 speakers (multi speaker)
msA/B_volume_up/down	D	Pulse to change volume level for speaker zones 1 or 2
msA/B_audio_mute_on/off/toggle	D	Pulse to change volume mute status for speaker zones1 or 2
msA/B_volume_variable/fixed	D	Pulse to change volume variable/fixed state for zones 1 or 2
auto_status_on/off	D	Pulse to change auto status on/off
From_Device	S	Serial signal to be routed from a 2 way serial com port

FEEDBACK:

power_is_on/power_is_off	D	High to indicate main power state of unit
global_power_is_off	D	High to indicate that main and both zone power is off
video_input_*_selected	D	High to indicate current video input selected on unit
audio_input_*_selected	D	High to indicate current audio input selected on unit
input_is_analog	D	High to indicate current analog status of audio input selected
input_is_digital	D	High to indicate current digital status of audio input selected
input_is HDMI	D	High to indicate current HDMI status of the audio input selected
volume_bargraph	A	Analog value indicating the current main zone volume level
volume_text	S	Serial string representing volume level
audio_is_muted	D	High to indicate current main volume mute state
audio_is_not_muted	D	High to indicate current main volume unmute state
attenuator_is_on	D	High to indicate current attenuator on state
attenuator_is_off	D	High to indicate current attenuator off state
bass/treble_bargraph	A	Analog value to indicate current bass/treble level
bass/treble_text	S	Serial string representing bass/treble level

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video_mute_is_on/off	D	High to indicate current video mute on/off state
IP_converter_enabled/disabled	D	High to indicate current IP converter on/off state
HDMI_out1/out2_selected	D	High to indicate the current HDMI 1 or 2 output state
HDMI_audio_enabled	D	High to indicate HDMI audio enable state
HDMI_audio_through_is_on	D	High to indicate current HDMI audio through state
display_function_is_on	D	High to indicate the current display function state
display_input_mode_is_on	D	High to indicate the current display input mode state
display_surround_mode_is_on	D	High to indicate the current surround mode state
display_auto_off_selected	D	High to indicate the display's auto/off state
display_is_off	D	High to indicate the display's off state
frontkey_is_locked/unlocked	D	High to indicate the display's front panel lock state
speaker_A_is_on/off	D	High to indicate speaker A's on/off state
speaker_B_is_on/off	D	High to indicate speaker B's on/off state
sleep_timer_is_off	D	High to indicate the sleep timer is off
sleep_timer_bargraph	A	Analog value indicating the sleep timer's value in minutes
sleep_text	S	Serial string data representing sleep time
night_mode_auto_selected	D	High to indicate night mode auto is selected
night_mode_is_on/off	D	High to indicate the night mode is on/off
M-Dax_high/low_selected	D	High to indicate M-Dax mode is high/low
M-Dax_is_off	D	High to indicate M-Dax is off
eq_mode_is_off	D	High to indicate EQ mode is off
eq_mode_*_selected	D	High to indicate current EQ mode
DC_trig1/2_is_on/off	D	High to indicate DC trigger1 is on/off
re-EQ_is_on/off	D	High to indicate DC trigger2 is on/off

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lingual_main_selected	D	High to indicate bilingual main
lingual_sub_selected	D	High to indicate bilingual sub
lingual_main+sub_selected	D	High to indicate bilingual main+sub
setup_menu_is_on/off	D	High to indicate setup menu on/off state
surr_*_selected	D	High to indicate surround mode selected
surr_THX_is_on/off	D	High to indicate THX on/off
surr_THX_*_selected	D	High to indicate THX mode selected
surr_dolby_headhp_selected	D	High to indicate dolby HP on/off
surr_dolby_HP_*_selected	D	High to indicate dolby HP mode selected
test_tone_is_on/off	D	High to indicate test tone on/off state
test_tone_auto_mode_selected	D	High to indicate test tone auto mode selected
test_tone_manual_mode_selected	D	High to indicate test tone mono selected
test_tone_ch_*_is_on	D	High to indicate test tone channel state
lip_sync_is_on/off	D	High to indicate lip sync on/off state
lip_sync_bargraph	A	Analog value representing current lip sync delay value
lip_sync_text	S	Serial string representing current lip sync delay value
lip_sync_auto_enabled/disabled	D	High to indicate lip sync auto enabled/disabled
tuner_mode_hd_digital_selected	D	High to indicate tuner mode HD selected
tuner_mode_auto_stereo_selected	D	High to indicate tuner mode auto stereo selected
tuner_mode_mono_selected	D	High to indicate tuner mode mono selected
tuner_frequency_fm	A	Analog value indicating current FM tuner frequency
tuner_frequency_am	A	Analog value indicating current AM tuner frequency
tuner_frequency_or_channel_text	S	Serial string representing frequency or channel
tuner_hd_multicast_prog_num_text	S	Serial string representing HD multi cast program number

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tuner_hd_category_character_text	S	Serial string representing HD Category
tuner_hd_channel_character_text	S	Serial string representing HD channel
tuner_hd_artist_character_text	S	Serial string representing HD artist
tuner_hd_song_character_text	S	Serial string representing HD song
tuner_preset_number	A	Analog value representing current preset value
tuner_preset_info_is_on/off	D	High to indicate preset info on/off state
tuner_keyin_value	A	Analog value indicating current tuner key input value
tuner_sat_disp.mode_normal_selected	D	High to indicate current satellite display mode normal selected
tuner_sat_disp.mode_artist/songl_sel	D	High to indicate current satellite display mode artist/song selected
tuner_sat_disp.mode_category_selected	D	High to indicate current satellite display mode category selected
tuner_sat_disp.mode_status_selected	D	High to indicate current satellite display mode status selected
tuner_xm_category_num_text	S	Serial string representing XM category number
tuner_xm_category_in_search	D	High to indicate XM tuner category in search state
tuner_xm_category_character_text	S	Serial string representing XM category
tuner_xm_channel_character_text	S	Serial string representing XM channel
tuner_xm_artist_character_text	S	Serial string representing XM artist
tuner_xm_song_character_text	S	Serial string representing XM song
xm_check_antenna	D	High to indicate XM tuner antenna needs to be checked
xm_satellite_signal_strength	A	Analog value indicating the current signal strength of the XM antenna
tuner_sirius_category_num_text	S	Serial string representing Sirius category number
tuner_sirius_category_in_search	D	High to indicate Sirius tuner category in search state
tuner_sirius_category_character_text	S	Serial string representing Sirius category
tuner_sirius_channel_character_text	S	Serial string representing Sirius channel
tuner_sirius_artist_character_text	S	Serial string representing Sirius artist

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tuner_sirius_song_character_text	S	Serial string representing Sirius song
sirius_check_antenna	D	High to indicate Sirius tuner antenna needs to be checked
sirius_satellite_signal_strength	A	Analog value indicating the current signal strength of the Sirius antenna
sirius_terr_check_antenna	D	High to indicate Sirius tuner antenna needs to be checked
sirius_terrestrial_signal_strength	A	Analog value indicating the current signal strength of the Sirius antenna
tuner_busy_on_Main	D	High to indicate tuner busy in the main zone
component2out_select_main_selected	D	High to indicate component 2 out is main
component2out_select_multi_selected	D	High to indicate component 2 out is multi
mrA/B_power_is_on/off	D	High to indicate zone 1 and 2's power state
mrA/B_video_input_*_selected	D	High to indicate zone 1 and 2's video input state
mrA/B_audio_input_*_selected	D	High to indicate zone 1 and 2's audio input state
mrA/B_volume bargraph	A	Analog value indicating zone 1 and 2's current volume level
mrA/B_volume_text	S	Serial string representing zone 1 and 2's volume level
mrA/B_audio_mute_is_on/off	D	High to indicate zone 1 and 2's audio mute state
mrA/B_volume_variable/fixed_selected	D	High to indicate zone 1 and 2's volume fixed/variable state
mrA/B_stereo/mono_fb	D	High to indicate zone 1 and 2's stereo/mono state
mrA/B_sleep_timer_is_off	D	High to indicate zone 1 and 2's sleep timer is off
mrA/B_sleep_timer bargraph	A	Analog value indicating zone 1 and 2's sleep timer level
mrA/B_sleep_text	S	Serial string representing zone 1 and 2's sleep timer level in minutes
mrA/B_tuner_mode_hd/auto_stereo/mono_fb	D	High to indicate zone 1 and 2's current tuner mode
mrA/B_tuner_frequency_fm/am	A	Analog value indicating zone 1 and 2's current fm/am frequency
mrA/B_tuner_freq.text	S	Serial string representing zone 1 and 2's current fm/am freq text
mrA/B_tuner_hd_multicast_ch_num_text	S	Serial string representing zone 1 and 2's current HD multicast channel
mrA/B_tuner_preset_number	A	Analog value indicating current zone 1 and 2 preset number

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mrA/B_tuner_keyin_value	A	Analog value indicating current keypad entry value
msA/B_power_is_on/off	D	High to indicate zone 1 and 2's speaker on/off state
msA/B_volume bargraph	A	Analog value indicating current volume lev for zone 1 and 2's speaker zones
msA/B_volume_text	S	Serial string representing zone 1 and 2's volume lev for speaker zones
msA/B_audio_mute_is_on/off	D	High to indicate speaker zone audio mute status on or off
msA/B_volume_variable/fixed_selected	D	High to indicate zone 1 and 2's speaker volume variable/fixed status
auto_status_on/off_fb	D	High indicating auto status on/off
signal_*_fb	D	High to indicate signal state
sampling_out_range_fb	D	High to indicate sampling out of range state
sampling_*k_fb	D	High to indicate sampling rate in kHz
ch_status_*_fb	D	High to indicate channel status
To_Device	S	Serial signal to be routed to a 2 way serial com port

TESTING:

OPS USED FOR TESTING:	3.155.1240
SIMPL WINDOWS USED FOR TESTING:	2.10.32
CRESTRON DB USED FOR TESTING:	20.00.005.00
DEVICE DB USED FOR TESTING:	20.00.011.00
SAMPLE PROGRAM:	Marantz AV8003 Demo Pro2
REVISION HISTORY:	V. 1.0