PARASOUND

Ztuner v.2 Crestron Module Notes
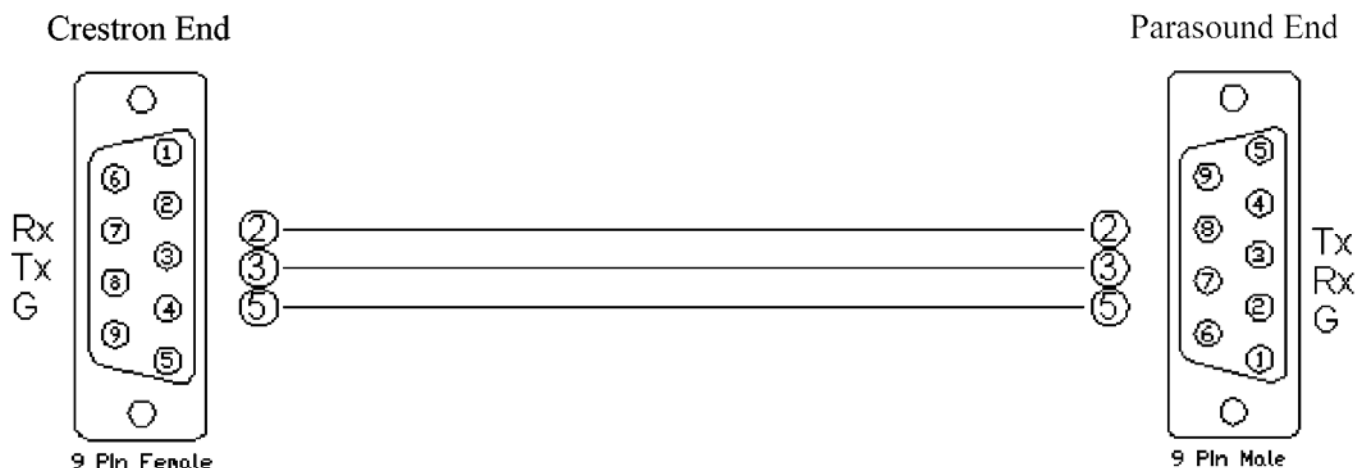
GENERAL:

SIMPLWINDOWS NAME: Parasound Ztuner v2.umc

MODULE VERSION: 1.0

SUMMARY: Controls all functions of the Parasound Ztuner v.2 Zone Tuner and provides feedback.

GENERAL NOTES: This module will control all RS-232 functions of the Parasound Ztuner v.2 AM/FM tuner. Control includes power, band, direct frequency access, preset select, auto tune, manual tune, preset tune, max preset select, preset memorize and mono/stereo operation. The Ztuner v.2 sends feedback automatically anytime you issue an RS-232, IR or front panel command, so there is no need to poll it. Feedback includes current frequency, current band and power status.

HARDWARE SETUP: RS-232

Baud rate: 9600
Parity: None
Data Bits: 8
Stop Bits: 1
TxD = Pin 2, RxD = Pin 3, Gnd = Pin 5

CONTROL:

Signal Name	Signal Type	Description
ZTUNER_RS232_COMMAND$	S	Serial commands going to the Ztuner v.2 for control
POWER_TOGGLE	D	Toggles the power on and off
POWER_ON	D	Turns the power on
POWER_OFF	D	Turns the power off
BAND_FM	D	Change to FM band
BAND_AM	D	Change to AM band
Keypad_1	D	Keypad digit 1 for direct tuning
Keypad_2	D	Keypad digit 2 for direct tuning
Keypad_3	D	Keypad digit 3 for direct tuning
Keypad_4	D	Keypad digit 4 for direct tuning
Keypad_5	D	Keypad digit 5 for direct tuning
Keypad_6	D	Keypad digit 6 for direct tuning
Keypad_7	D	Keypad digit 7 for direct tuning
Keypad_8	D	Keypad digit 8 for direct tuning
Keypad_9	D	Keypad digit 9 for direct tuning
Keypad_0	D	Keypad digit 0 for direct tuning
Keypad_POINT	D	Keypad point (.) for direct tuning
Keypad_ENTER	D	Keypad enter for direct tuning
PRESET_TUNE	D	Pulse to access direct preset tune (more info page 3)
DIRECT_TUNE	D	Pulse to access direct tuning (more info page 3)
MEMORIZE	D	Pulse to memorize current station as a preset (more info page 3)
PRE_MAX	D	Pulse to set maximum preset for current band (more info page 3)
MONO	D	Forces mono FM reception
STEREO	D	Allow stereo FM reception
MANUAL_TUNE_UP	D	Pulse or hold to manually tune up
MANUAL_TUNE_DOWN	D	Pulse or hold to manually tune down
AUTO_TUNE_UP	D	Pulse to Auto tune up (seek)
AUTO_TUNE_DOWN	D	Pulse to Auto tune down (seek)
PRESET_TUNE_UP	D	Pulse to select next preset
PRESET_TUNE_DOWN	D	Pulse to select previous preset
PRESET_1	D	Selects preset # 1
PRESET_2	D	Selects preset # 2
PRESET_3	D	Selects preset # 3
PRESET_4	D	Selects preset # 4
PRESET_5	D	Selects preset # 5
PRESET_6	D	Selects preset # 6
PRESET_7	D	Selects preset # 7
PRESET_8	D	Selects preset # 8
PRESET_9	D	Selects preset # 9
PRESET_10	D	Selects preset # 10
PRESET_11	D	Selects preset # 11
PRESET_12	D	Selects preset # 12
PRESET_13	D	Selects preset # 13
PRESET_14	D	Selects preset # 14
PRESET_15	D	Selects preset # 15
PRESET_16	D	Selects preset # 16
PRESET_17	D	Selects preset # 17
PRESET_18	D	Selects preset # 18
PRESET_19	D	Selects preset # 19
PRESET_20	D	Selects preset # 20
FULL_STATUS_REQUEST	D	Pulse to poll Zhd for full status

CONTROL DETAILS:

PRESET_TUNE	This feature allows the user to jump to a particular preset. Proper use is to pulse the PRESET_TUNE signal then pulse the desired preset number and then pulse the keypad_ENTER signal. AM and FM presets are separate therefore you must select desired band first.
DIRECT_TUNE	This feature allows the user to jump to a particular frequency. Proper use is to pulse the DIRECT_TUNE signal then pulse the desired numbers including decimal point (keypad_POINT) then pulse the keypad_ENTER signal. There is no need to select AM or FM band first because the Ztuner v.2 can automatically tell if the frequency entered is FM or AM.
MEMORIZE	This feature allows a user to memorize the current frequency as a preset. Proper use is to pulse the MEMORIZE signal then pulse the desired preset number and then pulse the keypad_ENTER signal. Remember that AM and FM presets are kept separate. In other words, there is both an AM preset number 3 and a FM preset number 3.
PRE_MAX	This feature allows the user to limit the total number of presets anywhere from 1 to 20. This allows for easier preset scrolling because the user won't have to go through the unprogrammed presets. AM and FM are independent and must be set separately. See the owner's manual for more details on the preset max feature.

FEEDBACK:

Signal Name	Signal Type	Description
ZTUNER_RS232_FEEDBACK$	S	Serial feedback from the Ztuner v.2
CURRENT_STATION_fb$	S	Current station, like: 88.5 or 107.3 or 1050
BAND_IS_FM_fb	D	Indicates the current band is FM
BAND_IS_AM_fb	D	Indicates the current band is AM
POWER_IS_OFF_fb	D	Indicates the power is off
POWER_IS_ON_fb	D	Indicates the power is on

TESTING:

Control Processor	Pro2 v3.137
Sample Program	Ztuner v2 module test.smw
Compiler	SIMPL Windows 2.06.20
Touch Panel	TPS-3000
Touch Panel Program	Ztuner v2 module test.vtp
Revision History	None

For the complete Ztuner v.2 RS-232 protocol, please see our website: www.parasound.com