Partner: Sherwood
Model: Newcastle R-965
Device Type: Receiver Processor

GENERAL INFORMATION

SIMPLWINDOWS NAME:	Sherwood Newcastle R-965 Receiver.umc
CATEGORY:	Receiver
VERSION:	1.0
SUMMARY:	This module will control most functions of the Sherwood Newcastle R-965 Receiver with true display feedback.
GENERAL NOTES:	This module will control most functions of Sherwood Newcastle R-965 Receiver. The module provides true "Display" feedback emulating the Sherwood's front text display. Functions provided include the control of both main and zone input selection, zone source selection, surround mode selection, tuner operation and preset selection. Separate discrete feedback is provided for the Main/Room2 source selection and the Main/Room2 volume level. It is not necessary for this module to poll the device for its current settings. The receiver will reply with a "global" feedback string every time a transmitted command is processed. At times, the indirect text field will "blank" at the end of command processing while controlling Room2. This is inherent in this manufacturer's protocol. Note that for surround mode selection, certain modes are only valid while certain sources are selected. So choosing a particular surround mode may actually cause a slightly different mode to be activated on the Sherwood receiver. However, since true feedback is provided, the actual surround mode currently active will be reflected on the output of this module via a serial text string. Also note that some functions for multi-zone are not valid at all times. **NOTE:** This module depends on feedback from the device. You cannot comment out the FROM_DEVICE$ serial input. This serial signal must be used for proper module operation.
CRESTRON HARDWARE REQUIRED:	CNCOMH-2, CNXCOM-2, ST-COM, C2-COM
SETUP OF CRESTRON HARDWARE:	RS232 Baud: 9600 Parity: N Data Bits: 8 Stop Bits: 1
VENDOR FIRMWARE:	**2004_10_28 v2 SEE MANUFACTURE'S PROCEDURES FOR VERIFICATION. THIS MUST BE THE CORRECT FIRMWARE**
VENDOR SETUP:	None

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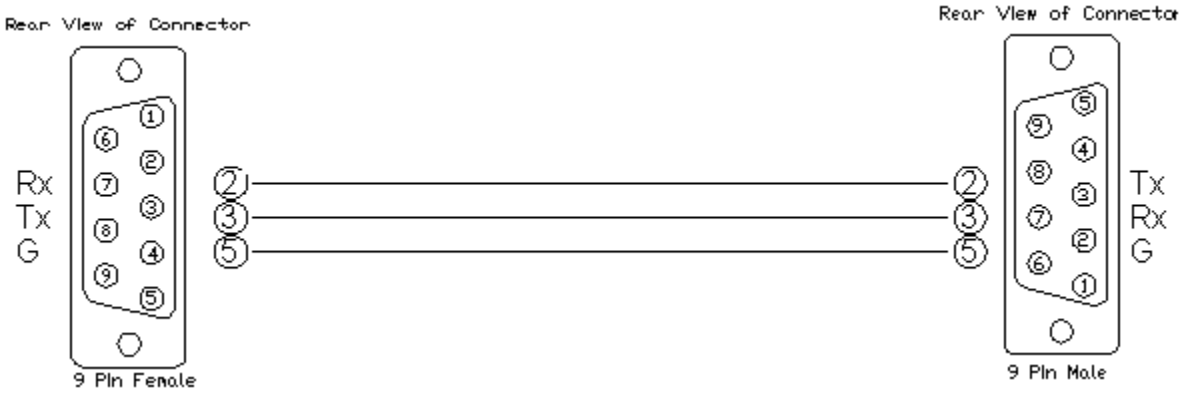
CABLE DIAGRAM:	CNSP-121



CONTROL:

Power_<State>	D	Pulse to change power state of device (on/off/Toggle)
Input_<Source>	D	Pulse to select desired master zone input source
Master_Volume_<Up/Down/Mute>	D	Assert to change device's current master volume level up/down, mute or preset level
OSD_<Menu Navigation>	D	Pulse to enable on screen display and menu navigation
Sleep	D	Pulse to increment through sleep modes
Display_Dimmer	D	Pulse to increment through receiver's display dimming levels
Surround_Mode_Rear_Speaker	D	Pulse to enable/disable rear speakers for various surround modes
Surround_Mode_Speaker	D	Pulse to select Surround speakers A, B or AB
Test_Tone_Toggle	D	Pulse to enable test tone
Decode_<Mode>	D	Pulse to increment through various decode modes
Digital/Analog_Select	D	Pulse to select desired audio input type (digital or analog)
Surround_Mode_Select_<Up/Down>	D	Pulse to increment up/down through all available surround modes

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ProLogicII_Music_Adjust	D	Pulse to increment through available PLII music modes
Pure_Toggle	D	Pulse to select pure analog direct
Surround_Mode_<Mode>	D	Pulse to discretely select some of the available surround modes. Not all modes were available discretely via RS232 commands.
Tuner_Preset_Scan	D	Pulse to enable auto tuning of programmed presets
Tuner_Preset_<Up/Down>	D	Pulse to increment up/down through 30 possible presets
Tuner_Tune_<Up/Down>	D	Pulse to increment up/down the tuner's frequency in AM or FM
Tuner_Preset_<Integer>	D	Pulse to select tuner's presets via direct preset entry
Tuner_RDS_<Mode>	D	Pulse to select Tuner's RDS modes
Tuner_EON_<Mode>	D	Pulse to select Tuner's EON modes
Room2_Power_Toggle	D	Pulse to change current power state of Room2's on or off
Room2_Volume_<Up/Down/Mute>	D	Assert to increase/decrease room2's current volume level
Room2_Input_<Source>	D	Pulse to select Room2's current input source
From_Device$	S	Serial data signal from a 2-way com port

FEEDBACK:

Power_<State>_FB	D	True feedback indicating receiver's current power state
Input_<Source>_FB	D	True feedback indicating receiver's current master input source
Master_Volume_Bar	A	Analog value of device's current master volume level. To be sent to a touch panel's analog bar graph
Sleep_Mode_On_FB	D	True feedback indicating receiver's sleep mode is activated
Decode_<Mode>_FB	D	True feedback indicating receiver's current surround decoding mode
Suround_Mode_Text$	S	True feedback, via serial text string, indicating receiver's current surround mode. To be sent to a touch panel's indirect text field

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Pure_Audio_On_FB	D	True feedback indicating receiver's current decoding mode is pure audio
Surround_Mode_<Mode>_FB	D	True feedback indicating receiver's current surround mode
Room2_Power_<State>_FB	D	True feedback indicating room2's current power state
Room2_Volume_Bar	A	Analog value of device's current room2 volume level. To be sent to a touch panel's analog bar graph
<Zone>_Mute_On_FB	D	True feedback indicating current zone's mute state is on
Room2_Input_<Source>_FB	D	True feedback indicating receiver's current room2 input source
Display_Text$	S	Serial text string emulating receiver's front panel display. To be sent to a touch panel's indirect text field
To_Device$	S	Serial signal to be routed to a 2-way RS232 port

TESTING:

OPS USED FOR TESTING:	PRO2 Cntrl Eng [v3.177 (Release)]
COMPILER USED FOR TESTING:	2.00.31
SAMPLE PROGRAM:	Sherwood Newcastle R-965 Receiver Demo Pro2.smw
REVISION HISTORY:	1.0

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