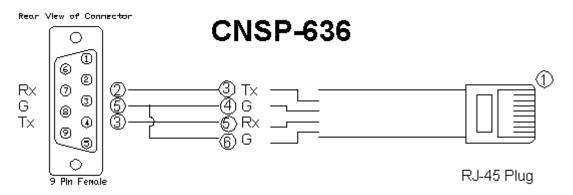




GENERAL INFORMATION		
SIMPLWINDOWS NAME:	Rotel RSX-1562 v1.0	
CATEGORY:	Receiver/Processor	
VERSION:	1.0	
SUMMARY:	This module provides serial control and feedback for the Rotel RSX-1562 receiver.	
GENERAL NOTES:	This module controls the Rotel RSX-1562 receiver via serial connection. It also provides true feedback. NOTE: There is feedback for the iPod/USB metadata, however, that will only be sent from the Rotel if the iPod/USB input is the currently selected input for the main zone. NOTE: If the front panel display is turned off, the only feedback the Rotel will send is the 12 volt trigger and iPod/USB metadata.	
CRESTRON HARDWARE REQUIRED:	2-Series Processor, 3-Series Processor	
SETUP OF CRESTRON HARDWARE:	RS-232 Baud: 115200 Parity: None Data Bits: 8 Top Bits: 1	
VENDOR FIRMWARE:	v1.0	
VENDOR SETUP:	N/A	
CABLE DIAGRAM:	CNSP-636	









CONTROL:		
Main_Zone_Power_ <on off="" toggle=""></on>	D	Pulse to turn the main zone power on and off.
Main_Zone_Input_*	D	Pulse to select the desired main zone input.
Main_Zone_Volume_ <up down=""></up>	D	Press and hold to adjust the main zone volume.
Main_Zone_Volume_Mute_ <on off="" toggle=""></on>	D	Pulse to turn the main zone volume mute on and off.
Main_Zone_Tune_ <up down=""></up>	D	If pulsed while the Main_Zone_Tuning_Mode_Is_Tuning is high, this will adjust the tuner frequency. If pulse while the Main_Zone_Tuning_Is_Preset is high, this will step through the tuner presets.
Main_Zone_Preset_ <up down=""></up>	D	Pulse to step through the tuner presets. Will also set the tuning mode to preset.
Main_Zone_Frequency_ <up down=""></up>	D	Press and hold to adjust the tuner frequency. Will also set the tuning mode to tuning.
Main_Zone_Memory	D	Pulse to allow the current tuner band and frequency to be stored in a preset. To complete the process enter the two digits of the desired preset using the Main_Zone_Numeric_Key_<09> inputs. You MUST enter two digits even for presets 1 to 9. i.e. 01
Main_Zone_ <am band_toggle="" fm=""></am>	D	Pulse to select the AM or FM band.
Main_Zone_Tuning_Mode	D	Pulse to put the tuner into tuning mode. This allows the Tune Up/Down and Numeric Keys to adjust the frequency.
Main_Zone_Preset_Mode	D	Pulse to put the tuner into preset mode. This allows the Tune Up/Down and Numeric Keys to select the tuner preset.
Main_Zone_Tuning/Preset_Mode_Toggle	D	Pulse to put the tuner into either tuning mode or preset mode.
Main_Zone_Frequency_Direct	D	Pulse to allow the numeric key input to enter the frequency.
Main_Zone_Preset_Scan	D	Pulse to start scanning through the tuner presets.
Main_Zone_Tuner_Display	D	Pulse to cycle through the main zone's tuner display modes.
Main_Zone_RDS_ <pty ta="" tp=""></pty>	D	Pulse to activate the different RDS settings.
Main_Zone_FM_Mono	D	Pulse to toggle the FM Mono on and off.
Main_Zone_Numeric_Key_<09>	D	Pulse to enter the tuner preset number or tuner frequency.
Zone_<2/3/4>_Power_ <on off="" toggle=""></on>	D	Pulse to turn the power on and off for zone 2, zone3 or zone 4.







Zone _<2/3/4>_ Volume_D Pulse to select the desired input for zone 2, zone 3 or zone 4. Zone _<2/3/4>_ Volume Mute_< On/Off/Toggle> D Press and hold to adjust the volume for zone 2, zone 3 or zone 4. Zone _<2/3/4>_ Volume_Mute_< On/Off/Toggle> D Pulse to turn the volume mute on and off for zone 2, zone 3 or zone 4. Zone _<2/3/4>_ Tune_< Up/Down> D Pulse to turn the volume mute on and off for zone 2, zone 3 or zone 4. Zone _<2/3/4>_ Tune_< Up/Down> D Pulse to turn the volume mute on and off for zone 2, zone 3 or zone 4. Zone _<2/3/4>_ Tuning_ Mode_ Is_Tuning is high, this will step through the tuner presents. Description in the tuner frequency. In pulse thing the tuner presets is high, this will step through the tuner presets. Zone _<2/3/4>_ Preset Up/Down> D Pulse to step through the tuner presets. Will also set the tuning mode to preset. Zone _<2/3/4>_ Frequency_ < Up/Down> D Pulse to select the AM or FM band. Zone _<2/3/4>_ Tuning_ Mode D Pulse to put the tuner into tuning mode. This allows the Tune Up/Down and Numeric Keys to adjust the frequency. Zone _<2/3/4>_ Preset_Mode D Pulse to put the tuner into either tuning mode or preset mode. Zone _<2/3/4>_ Preset_Mode_ Toggle D Pulse to start scanning through the tuner preset. Zone _<2/3/4>_ FM_Mono	- .		
Description	Zone_<2/3/4>_Input_*	D	Pulse to select the desired input for zone 2, zone 3 or zone 4.
If pulsed while the Zone <2/3/4>_Tuning_Mode_is_Tuning is high, this will adjust the tuner frequency. If pulse while the Zone <2/3/4>_Tuning_is_Preset is high, this will step through the tuner presets. Zone <2/3/4>_Preset_ <up down=""></up>	Zone_<2/3/4>_Volume_ <up down=""></up>	D	Press and hold to adjust the volume for zone2, zone 3 or zone 4.
Zone_<2/3/4>_Tune_ <up down=""> D will adjust the tuner frequency. If pulse while the Zone_2/3/4>_Tuning_Is_Preset is high, this will step through the tuner presets. Zone_<2/3/4>_Preset_<up down=""> D Pulse to step through the tuner presets. Will also set the tuning mode to preset. Zone_<2/3/4>_Frequency_<up down=""> D Press and hold to adjust the tuner frequency. Will also set the tuning mode to tuning. Zone_<2/3/4>_Frequency_<up down=""> D Pulse to select the AM or FM band. Zone_<2/3/4>_Tuning_Mode D Pulse to put the tuner into tuning mode. This allows the Tune Up/Down and Numeric Keys to adjust the frequency. Zone_<2/3/4>_Preset_Mode D Pulse to put the tuner into preset mode. This allows the Tune Up/Down and Numeric Keys to select the tuner preset. Zone_<2/3/4>_Preset_Mode D Pulse to put the tuner into either tuning mode or preset mode. Zone_<2/3/4>_Preset_Scan D Pulse to start scanning through the tuner presets. Zone_<2/3/4>_Preset_Scan D Pulse to start scanning through the tuner presets. Zone_<2/3/4>_Pulse_to totagle the FM Mono on and off. Zone_<2/3/4>_Numeric_Key_<09> D Pulse to enter the tuner preset number or tuner frequency. Zone_<2/3/4>_Party_Mode_Toggle D Pulse to enter the tuner preset number or tuner frequency. Zone_<2/3/4>_Party_Mode_Toggle D Pulse to turn the party mode on and off for zone 2, zone 3 or zone 4. Record_Zone_Input_* D Pulse to turn the 12 volt triggers on and off for the main zone. Zone_<2/3/4>_12V_Trigger_<16>_<0n/0ff/Toggle> D Pulse to turn the 12 volt triggers on and off for zone 2, zone 3, or zone 4. Surround_Mode_* D Pulse turn the on-screen menu on and off and select the highlighted item.</up></up></up></up>	Zone_<2/3/4>_Volume_Mute_ <on off="" toggle=""></on>	D	Pulse to turn the volume mute on and off for zone 2, zone 3 or zone 4.
zone_<2/3/4>_Frequency_ <up down=""> Description Descriptio</up>	Zone_<2/3/4>_Tune_ <up down=""></up>	D	will adjust the tuner frequency. If pulse while the Zone<2/3/4>_Tuning_Is_Preset is high, this will step through the tuner
Zone_<2/3/4>_Tuning_Mode	Zone_<2/3/4>_Preset_ <up down=""></up>	D	
Zone_<2/3/4>_Tuning_Mode D Pulse to put the tuner into tuning mode. This allows the Tune Up/Down and Numeric Keys to adjust the frequency. Zone_<2/3/4>_Preset_Mode D Pulse to put the tuner into preset mode. This allows the Tune Up/Down and Numeric Keys to select the tuner preset. Zone_<2/3/4>_Tuning/Preset_Mode_Toggle D Pulse to put the tuner into either tuning mode or preset mode. Zone_<2/3/4>_Preset_Scan D Pulse to start scanning through the tuner presets. Zone_<2/3/4>_FM_Mono D Pulse to toggle the FM Mono on and off. Zone_<2/3/4>_Numeric_Key_<09> D Pulse to enter the tuner preset number or tuner frequency. Zone_<2/3/4>_Party_Mode_Toggle D Pulse to turn the party mode on and off for zone 2, zone 3 or zone 4. Record_Zone_Input_* D Pulse to select the desired record zone input. Main_Zone_12V_Trigger_<16>_ <on off="" toggle=""> D Pulse to turn the 12 volt triggers on and off for zone 2, zone 3, or zone 4. Surround_Mode_* D Pulse to select the desired surround mode. OSD_<menu enter="" exit=""> D Pulse turn the on-screen menu on and off and select the highlighted item.</menu></on>	Zone_<2/3/4>_Frequency_ <up down=""></up>	D	
and Numeric Keys to adjust the frequency. Zone_<2/3/4>_Preset_Mode D Pulse to put the tuner into preset mode. This allows the Tune Up/Down and Numeric Keys to select the tuner preset. Zone_<2/3/4>_Tuning/Preset_Mode_Toggle D Pulse to put the tuner into either tuning mode or preset mode. Zone_<2/3/4>_Preset_Scan D Pulse to start scanning through the tuner presets. Zone_<2/3/4>_FM_Mono D Pulse to toggle the FM Mono on and off. Zone_<2/3/4>_Numeric_Key_<09> D Pulse to enter the tuner preset number or tuner frequency. Zone_<2/3/4>_Party_Mode_Toggle D Pulse to turn the party mode on and off for zone 2, zone 3 or zone 4. Record_Zone_Input_* D Pulse to select the desired record zone input. Main_Zone_12V_Trigger_<16>_ <on off="" toggle=""> D Pulse to turn the 12 volt triggers on and off for zone 2, zone 3, or zone 4. Surround_Mode_* D Pulse to select the desired surround mode. OSD_<menu enter="" exit=""> D Pulse turn the on-screen menu on and off and select the highlighted item.</menu></on>	Zone_<2/3/4>_ <am band_toggle="" fm=""></am>	D	Pulse to select the AM or FM band.
and Numeric Keys to select the tuner preset. Zone_<2/3/4>_Tuning/Preset_Mode_Toggle Description of the pulse to put the tuner into either tuning mode or preset mode. Zone_<2/3/4>_Preset_Scan Description of the pulse to start scanning through the tuner presets. Zone_<2/3/4>_FM_Mono Description of tuner frequency. Zone_<2/3/4>_Numeric_Key_<09> Description of tuner frequency. Zone_<2/3/4>_Party_Mode_Toggle Description of tuner the tuner preset number or tuner frequency. Zone_<2/3/4>_Party_Mode_Toggle Description of tuner the party mode on and off for zone 2, zone 3 or zone 4. Record_Zone_Input_* Description of the main zone. Zone_<2/3/4>_12V_Trigger_<16>_<0n/Off/Toggle> Description of tuner the 12 volt triggers on and off for zone 2, zone 3, or zone 4. Surround_Mode_* Description of the main zone and off for zone 2, zone 3, or zone 4. Pulse to turn the 12 volt triggers on and off for zone 2, zone 3, or zone 4. Surround_Mode_* Description of the main zone and off for zone 2, zone 3, or zone 4. Pulse to select the desired surround mode. Description of the main zone and off for zone 2, zone 3, or zone 4. Surround_Mode_* Description of the main zone and off for zone 2, zone 3, or zone 4. Pulse to select the desired surround mode.	Zone_<2/3/4>_Tuning_Mode	D	
Zone_<2/3/4>_FM_Mono Description Descripti	Zone_<2/3/4>_Preset_Mode	D	
Zone_<2/3/4>_FM_Mono D Pulse to toggle the FM Mono on and off. Zone_<2/3/4>_Numeric_Key_<09> D Pulse to enter the tuner preset number or tuner frequency. Zone_<2/3/4>_Party_Mode_Toggle D Pulse to turn the party mode on and off for zone 2, zone 3 or zone 4. Record_Zone_Input_* D Pulse to select the desired record zone input. Main_Zone_12V_Trigger_<16>_ <on off="" toggle=""> D Pulse to turn the 12 volt triggers on and off for the main zone. Zone_<2/3/4>_12V_Trigger_<16>_<on off="" toggle=""> D Pulse to turn the 12 volt triggers on and off for zone 2, zone 3, or zone 4. Surround_Mode_* D Pulse to select the desired surround mode. OSD_<menu enter="" exit=""> D Pulse turn the on-screen menu on and off and select the highlighted item.</menu></on></on>	Zone_<2/3/4>_Tuning/Preset_Mode_Toggle	D	Pulse to put the tuner into either tuning mode or preset mode.
Zone_<2/3/4>_Numeric_Key_<09>DPulse to enter the tuner preset number or tuner frequency.Zone_<2/3/4>_Party_Mode_ToggleDPulse to turn the party mode on and off for zone 2, zone 3 or zone 4.Record_Zone_Input_*DPulse to select the desired record zone input.Main_Zone_12V_Trigger_<16>_ <on off="" toggle="">DPulse to turn the 12 volt triggers on and off for the main zone.Zone_<2/3/4>_12V_Trigger_<16>_<on off="" toggle="">DPulse to turn the 12 volt triggers on and off for zone 2, zone 3, or zone 4.Surround_Mode_*DPulse to select the desired surround mode.OSD_<menu enter="" exit="">DPulse turn the on-screen menu on and off and select the highlighted item.</menu></on></on>	Zone_<2/3/4>_Preset_Scan	D	Pulse to start scanning through the tuner presets.
Zone_<2/3/4>_Party_Mode_Toggle D Pulse to turn the party mode on and off for zone 2, zone 3 or zone 4. Record_Zone_Input_* D Pulse to select the desired record zone input. Main_Zone_12V_Trigger_<16>_ <on off="" toggle=""> D Pulse to turn the 12 volt triggers on and off for the main zone. Zone_<2/3/4>_12V_Trigger_<16>_<on off="" toggle=""> D Pulse to turn the 12 volt triggers on and off for zone 2, zone 3, or zone 4. Surround_Mode_* D Pulse to select the desired surround mode. OSD_<menu enter="" exit=""> D Pulse turn the on-screen menu on and off and select the highlighted item.</menu></on></on>	Zone_<2/3/4>_FM_Mono	D	Pulse to toggle the FM Mono on and off.
Record_Zone_Input_* D Pulse to select the desired record zone input. Main_Zone_12V_Trigger_<16>_ <on off="" toggle=""> D Pulse to turn the 12 volt triggers on and off for the main zone. Zone_<2/3/4>_12V_Trigger_<16>_<on off="" toggle=""> D Pulse to turn the 12 volt triggers on and off for zone 2, zone 3, or zone 4. Surround_Mode_* D Pulse to select the desired surround mode. OSD_<menu enter="" exit=""> D Pulse turn the on-screen menu on and off and select the highlighted item.</menu></on></on>	Zone_<2/3/4>_Numeric_Key_<09>	D	Pulse to enter the tuner preset number or tuner frequency.
Main_Zone_12V_Trigger_<16>_ <on off="" toggle=""> D Pulse to turn the 12 volt triggers on and off for the main zone. Zone_<2/3/4>_12V_Trigger_<16>_<on off="" toggle=""> D Pulse to turn the 12 volt triggers on and off for zone 2, zone 3, or zone 4. Surround_Mode_* D Pulse to select the desired surround mode. OSD_<menu enter="" exit=""> D Pulse turn the on-screen menu on and off and select the highlighted item.</menu></on></on>	Zone_<2/3/4>_Party_Mode_Toggle	D	Pulse to turn the party mode on and off for zone 2, zone 3 or zone 4.
Zone_<2/3/4>_12V_Trigger_<16>_ <on off="" toggle=""> D Pulse to turn the 12 volt triggers on and off for zone 2, zone 3, or zone 4. Surround_Mode_* D Pulse to select the desired surround mode. OSD_<menu enter="" exit=""> D Pulse turn the on-screen menu on and off and select the highlighted item.</menu></on>	Record_Zone_Input_*	D	Pulse to select the desired record zone input.
Surround_Mode_* D Pulse to select the desired surround mode. OSD_ <menu enter="" exit=""> D Pulse turn the on-screen menu on and off and select the highlighted item.</menu>	Main_Zone_12V_Trigger_<16>_ <on off="" toggle=""></on>	D	Pulse to turn the 12 volt triggers on and off for the main zone.
OSD_ <menu enter="" exit=""> D Pulse turn the on-screen menu on and off and select the highlighted item.</menu>	Zone_<2/3/4>_12V_Trigger_<16>_ <on off="" toggle=""></on>	D	Pulse to turn the 12 volt triggers on and off for zone 2, zone 3, or zone 4.
	Surround_Mode_*	D	Pulse to select the desired surround mode.
OSD_Cursor_ <up down="" left="" right=""> D Press and hold to move through the on-screen menus.</up>	OSD_ <menu enter="" exit=""></menu>	D	Pulse turn the on-screen menu on and off and select the highlighted item.
	OSD_Cursor_ <up down="" left="" right=""></up>	D	Press and hold to move through the on-screen menus.
iPod/USB_ <play pause="" repeat="" shuffle="" stop=""> D Pulse to control the connected iPod/USB device.</play>	iPod/USB_ <play pause="" repeat="" shuffle="" stop=""></play>	D	Pulse to control the connected iPod/USB device.







iPod/USB_ <track scan=""/> _ <forward back=""></forward>	D	Press and hold to control the connected iPod/USB device.
All_Zones_Off	D	Pulse to turn all zones off.
Record_Function_Setting	D	Pulse to activate the record function setting.
Dynamic_Range	D	Pulse to activate the dynamic range function.
Digital_Input_Select	D	Pulse to activate the digital input function.
Zone_2/Main	D	Pulse to toggle the zone 2 power on and off.
Temporary_ <center subwoffer="" surround="">_Trim</center>	D	Pulse to enable/disable setting the temporary trim levels for the Center, Subwoofer and Surround speaker.
Cinema_EQ_Toggle	D	Pulse to turn the cinema EQ on and off.
Front_Display_ <on off="" toggle=""></on>	D	Pulse to turn the front display on and off. NOTE: If the front panel display is turned off, the only feedback the Rotel will send is the 12 volt trigger and iPod/USB metadata.
Display_Refresh	D	Pulse to request the front display text. THIS SHOULD NOT BE USED AS A REGULAR POLLING INPUT. THE ROTEL AUTOMATICALLY SENDS US THE FRONT DISPLAY TEXT.
Party_Mode_Toggle	D	Pulse to turn the party mode on and off.
Output_Resolution	D	Pulse to cycle through the output resolutions.
HDMI_ <amp tv="">_Mode</amp>	D	Pulse to set the HDMI audio mode to amp or TV.
Temporary_Room_EQ	D	Pulse to turn the room EQ adjustment screens on and off.
Speaker_Level_Setting_Toggle	D	Pulse to turn the speaker level setting screens on and off.
Force_Factory_Default	D	Pulse to force the Rotel to return to the factory defaults. DO NOT PUT A BUTTON FOR THIS FUNCTION ON A TOUCH PANEL.
From_Device	S	Serial signal to be routed from a 2-way serial com port.

FEEDBACK:		
Main_Zone_Power_Is_ <on off=""></on>	D	High to indicate the current main zone power state.
Main_Zone_Input_Is_*	D	High to indicate the currently selected main zone input.
Main_Zone_Volume_Level_Gauge	Α	Analog signal indicating the current main zone volume level. To be displayed using a gauge on a touch panel.







5.		
Main_Zone_Volume_Mute_Is_ <on off=""></on>	D	High to indicate the current main zone volume mute state.
Main_Zone_Tuner_Band_Is_ <on off=""></on>	D	High to indicate the currently selected tuner band.
Main_Zone_Tuning_Mode_Is_ <tuning preset=""></tuning>	D	High to indicate the current tuning mode.
Zone_<2/3/4>_Power_Is_ <on off=""></on>	D	High to indicate the current power state for zone 2, zone 3 and zone 4.
Zone_<2/3/4>_Input_Is_*	D	High to indicate the currently selected input for zone2, zone 3 and zone 4.
Zone_<2/3/4>_Volume_Level_Gauge	Α	Analog signal indicating the current volume level for zone 2, zone 3 and zone 4. To be displayed using a gauge on a touch panel.
Zone_<2/3/4>_Volume_Mute_Is_ <on off=""></on>	D	High to indicate the current volume mute state for zone 2, zone 3 and zone 4.
Zone_<2/3/4>_Tuner_Band_Is_ <on off=""></on>	D	High to indicate the currently selected tuner band.
Zone_<2/3/4>_Tuning_Mode_Is_ <tuning preset=""></tuning>	D	High to indicate the current tuning mode.
Record_Zone_Input_Is_*	D	High to indicate the currently selected record zone input.
Main_Zone_12V_Trigger_<16>_ls_ <on off=""></on>	D	High to indicate the current state of the 12 volt triggers for the main zone.
Zone_<2/3/4>_12V_Trigger_<16>_ls_ <on off=""></on>	D	High to indicate the current state of the 12 volt triggers for zone 2, zone 3 and zone 4.
iPod/USB_ls_*	D	High to indicate the current iPod/USB device playback state.
iPod/USB_Line_<110>_Text	S	Serial signal indicating the current metadata from the iPod/USB device. NOTE: There is feedback for the iPod/USB metadata, however, that will only be sent from the Rotel if the iPod/USB input is the currently selected input for the main zone.
All_Zones_Power_Is_Off	D	High to indicate that all zones are powered off.
Front_Display_Is_ <on off=""></on>	D	High to indicate whether the front display is on or off. NOTE: If the front panel display is turned off, the only feedback the Rotel will send is the 12 volt trigger and iPod/USB metadata.
Front_Display_Line_<1/2>_Text	S	Serial signals indicating the current front display text. NOTE: If the front panel display is turned off, the only feedback the Rotel will send is the 12 volt trigger and iPod/USB metadata.
LED_*_Is_On	D	Digital signals indicating the current state of the LED front panel indicators. NOTE: If the front panel display is turned off, the only feedback the Rotel will send is the 12 volt trigger and iPod/USB metadata.
To_Device	S	Serial signal to be routed to a 2-way serial com port.







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:	v45.00.019.00
CRES DB USED FOR TESTING:	v33.05.005.01
SYMBOL LIBRARY USED FOR TESTING:	V828
SAMPLE PROGRAM:	Rotel RSX-1562 v1.0 Demo
REVISION HISTORY:	v1.0 – Original release.