



Model: STR-DN1050



GENERAL INFORMATION		
SIMPLWINDOWS NAME:	Sony STR-DN1050 IP v1.0	
CATEGORY:	Receiver/Processor	
VERSION:	1.0	
SUMMARY:	Controls power, volume, input select and surround mode select, and displays true feedback via TCP/IP.	
GENERAL NOTES:	This module will control all available functions on a Sony STR-DN1050 AV surround receiver. Discrete power on/off, volume adjust/mute, input select, and surround mode select functions are included. True feedback is provided for power state, input selected, surround mode status, and volume status.	
	The Sony STR-DN1050 surround sound receiver is a two-zone receiver. The receiver can accept commands every 100ms. The zones on this module are referred to Main and Zone_2.	
	The zones are independently controllable. Only the Main zone's volume level will be displayed on the receiver's front panel. Surround modes are only selected for the Main zone. The Main zone has all input selections available to it. Zones 2 cannot select the multi-channel inputs, USB or internet sources. The user may set Zone 2 to select the same input as the Main zone by selecting the "Source" input.	
	The tuner has two tuning modes: Auto and Manual. When in Auto tuning mode, a "Tune_Stop" button is necessary for proper operation of the auto tuning functions. Manual tuning mode does not use the "Tune_Stop" button. When using the tuner in auto tuning mode the receiver is polled continuously. Some feedback will disappear during the tuning up or down. The feedback will return after "Tune Stop" is pressed.	
	The unit will be polled for its status after any function is triggered on this module. If it is desired to poll the unit at other times, you can assert the Poll_Enable input. This will cause the unit to be polled every 60 seconds.	
	Note that for controlling the receiver's 12V trigger, the 12V trigger on the STR-DN1050 has to be set to "CTRL".	
	This module was tested with the Sony STR-DN1050. Sony uses the same protocol on most of their receivers.	
	This module will NOT provide feedback from Internet services.	
CRESTRON HARDWARE REQUIRED:	2-Series Processor w/ Ethernet interface, 3-Series Processor	
SETUP OF CRESTRON HARDWARE:	TCP/IP Port 33335d.	
VENDOR FIRMWARE:	S9602.1005.0	
VENDOR SETUP:	TCP/IP control must be enabled by going into the Sony On-Screen Menu, selecting Settings->Network->External Control and set to "ON".	
CABLE DIAGRAM:	N/A	





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CONTROL:		
Main_Power_ <on off="" toggle=""></on>	D	Pulse to turn main zone power on or off.
Zone_2_Power_ <on off="" toggle=""></on>	D	Pulse to turn zone 2 power on or off.
Main_Volume_ <up down=""></up>	D	Press to adjust main zone volume.
Main_Mute_ <on off="" toggle=""></on>	D	Pulse to turn main zone mute on or off.
Zone_2_Volume_ <up down=""></up>	D	Press to adjust zone 2 volume.
Zone_2_Mute_ <on off="" toggle=""></on>	D	Pulse to turn zone 2 mute on or off.
Main_Input_*	D	Pulse to select input for main zone.
Zone_2_Input_*	D	Pulse to select input for zone 2.
Tuner_Select_ <am fm=""></am>	D	Pulse to select the AM or FM tuner.
Tuner_Key_<0-9>	D	Pulse to enter a tuner frequency value.
Tuner_Key_Clear	D	Pulse to clear tuner value entry field.
Tuner_Key_Enter	D	Pulse to send tuner value entry to receiver.
Manual_Tuning_ <up down=""></up>	D	Pulse to tune up or down manually.
Auto_Tuning_ <up down="" stop=""></up>	D	Pulse to initiate or stop auto tuning up or down.
Preset_ <up down=""></up>	D	Pulse to select the next/previous tuner preset.
Tuner_Preset_<1-30>	D	Pulse to select tuner preset.
Surround_Mode_*	D	Pulse to select surround mode.
Sound_Field_Headphone_*	D	Pulse to select sound field for headphones.
HD_DCS_*	D	Pulse to select HD-D.C.S. mode.
True_Concert_` <low high="" mid=""></low>	D	Pulse to set true concert mode.
Main_12V_Trigger_ <on off="" toggle=""></on>	S	Pulse to turn main 12V trigger on or off.
Enter	D	Pulse to select enter.
Memory	D	Pulse to store an AM/FM/Sirius station to a preset.
GUI_ <on off="" toggle=""></on>	D	Pulse to turn GUI on or off.





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Menu	D	Pulse to select menu function.
Display	D	Pulse to select display function.
Cursor_Up	D	Pulse to move on screen selection up.
Cursor_Down	D	Pulse to move on screen selection down.
Cursor_Left	D	Pulse to move on screen selection left.
Cursor_Right	D	Pulse to move on screen selection right.
Cursor_Enter	D	Pulse to select highlighted on screen selection.
Return	D	Pulse to go back one menu item.
Option	D	Pulse to select option function.
Quick_Click	D	Pulse to select quick click function.
HDMI_Out_ <a b=""></a>	D	Pulse to enable HDMI output a or b.
HDMI_Out_A+B	D	Pulse to enable HDMI outputs a and b.
HDMI_Out_Off	D	Pulse to disable HDMI outputs a and b.
Poll_Enable	D	Latch high to enable polling every 30s.
{{TCP/IP_Client_>>_Connect-F}}	D	To be connected to the "Connect_F" input on the TCP/IP client definition.
{{TCP/IP_Client_>>_status}}	Α	To be connected to the "status" input on the TCP/IP client definition that will be communicating with the unit being controlled.
{{TCP/IP_Client_>>_RX\$}}	S	To be connected to the "RX\$" input on the TCP/IP client definition that will be communicating with the unit being controlled.





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FEEDBACK:		
Main_Power_Is_ <on off=""></on>	D	Indicates the main zone power status.
Zone_2_Power_Is_ <on off=""></on>	D	Indicates the zone 2 power is status.
Main_Volume_Gauge	Α	Indicates the main zone volume level. For a gauge object on touchpanel.
Main_Mute_ls_ <on off=""></on>	D	Indicates the main zone mute status.
Zone_2_Volume_Gauge	Α	Indicates the zone 2 volume level. For a gauge object on touchpanel.
Zone_2_Mute_Is_ <on off=""></on>	D	Indicates the zone 2 mute status.
Main_Input_Is_*	D	Indicates the currently selected main zone input.
Zone_2_Input_Is_*	D	Indicates the currently selected zone 2 input.
Tuner_ <am fm="">_Is_Selected</am>	D	Indicates that the AM or FM tuner is selected for control.
Tuner_Entry_Text	S	Displays a tuner station request that will be sent to the receiver upon pulsing the "Tuner_Key_Enter" signal.
Tuner_Preset_Text	S	Displays the currently selected tuner preset.
Tuner_Frequency_Text	S	Displays the current tuner frequency.
Tuner_Preset_Is_*	D	Indicates the currently selected tuner preset.
Tuner_Is_Not_Tuning	D	Indicates that the tuner is not scanning through stations.
Tuner_Is_Tuning_ <down up=""></down>	D	Indicates that the tuner is tuning up or down.
Tuner_Mono_ls_ <off on=""></off>	D	Indicates the tuner is mono mode status.
Tuner_Is_Not_Tuned	D	Indicates that the tuner is not tuned.
Tuner_ls_Tuned	D	Indicates that the tuner is tuned to a frequency.
Tuner_Is_Not_On_RDS_Station	D	Indicates that the tuner is not on an RDS station.
Tuner_Is_On_RDS_Station	D	Indicates that the tuner is on an RDS station.
Surround_Mode_Is_*	D	Indicates the current surround mode.





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Sound_Field_Is_Headphone_*	D	Indicates the current headphone sound field.
HD_DCS_Is_*	D	Indicates the HD-D.C.S. mode.
True_Concert_Is_ <low high="" mid=""></low>	D	Indicates the true concert mode.
Surround_Lock_Is_ <off on=""></off>	D	Indicates that the surround lock is on or off.
Main_12V_Trigger_Is_ <on off=""></on>	D	Indicates the main 12V trigger status.
Main_Headphone_Is_ <on off=""></on>	D	Indicates that the headphone is plugged in.
Connected	D	High to indicate that there is an IP connection to the unit.
Connection_Status_Text	S	Indicates the current IP connection status to the unit.
{{Connect_>>_TCP/IP_Client}}	D	To be connected to the "Connect" output on the TCP/IP client definition that will be communicating with the unit being controlled.
{{TX\$_>>_TCP/IP_Client}}	S	To be connected to the "TX\$" output on the TCP/IP client definition that will be communicating with the unit being controlled.

TESTING:			
OPS USED FOR TESTING:	2-Series: v4.007.0004 3-Series: v1.008.0040		
SIMPL WINDOWS USED FOR TESTING:	v4.02.38.00		
DEVICE DB USED FOR TESTING:	v55.00.002.00		
CRES DB USED FOR TESTING:	v44.05.005.00		
SYMBOL LIBRARY USED FOR TESTING:	v508		
SAMPLE PROGRAM:	Sony STR-DN1050 IP v1.0 Demo PRO2.smw Sony STR-DN1050 IP v1.0 Demo MC3.smw		
REVISION HISTORY:	v1.0 – Original release.		