Partner: Wavetrend
Model: L-RX900
Device Type: RF Tag Reader

GENERAL INFORMATION

SIMPLWINDOWS NAME:	Wavetrend L-RX900 v1.0
CATEGORY:	Miscellaneous
VERSION:	1.0
SUMMARY:	Controls functions of the Wavetrend **L-RX900** Reader via TCP/IP and reports the status of up to 30 RF tags.
GENERAL NOTES:	Controls functions of the Wavetrend L-RX900 Reader via TCP/IP and reports the status of up to 30 RF tags. The **Start_Noise_Calc function**, when used, takes the reader 40 seconds to perform and will prevent the reader from communicating with the control system during this time.
CRESTRON HARDWARE REQUIRED:	C2NENET-1, C2NENET-2
SETUP OF CRESTRON HARDWARE:	TCP/IP Port 10001d is the default.
VENDOR FIRMWARE:	Firmware version 3.1/ Hardware version 2.1.
VENDOR SETUP:	None
CABLE DIAGRAM:	N/A

CONTROL:

Relay_1_Open	D	Pulse to open relay 1.
Relay_1_Close	D	Pulse to close relay 1.
Relay_2_Open	D	Pulse to open relay 2.
Relay_2_Close	D	Pulse to close relay 2.
Enable_Auto_Polling	D	Pulse to enable auto polling. The reader will continuously report any tag information that it receives.
Disable_Auto_Polling	D	Pulse to disable auto polling. The reader will not report any tag information that it receives.
Tag_Filter_All	D	Pulse to enable the reader to report information on all tags.
Tag_Filter_Alarm	D	Pulse to enable the reader to report information on alarm tags only.
Tag_Filter_No_Alarm	D	Pulse to enable the reader to report information on non-alarm tags only.
Receiver_Gain_High	D	Pulse to set the reader to high gain (long range) mode.
Receiver_Gain_Low	D	Pulse to set the reader to low gain (short range) mode.
Heartbeat_ID_Sel	D	Pulse in order to adjust the heartbeat interval using the KP buttons (range 1-255). Interval value of 0 is used to disable heartbeat.
RSSI_ID_Sel	D	Pulse in order to adjust the reader's Received Signal Strength Indicator threshold value using the KP buttons (range 0-255). Any tags that transmit to the reader with a signal strength below this threshold will be ignored.
KP_*	D	Pulse to select numbers 0-9.
KP_Clear	D	Pulse to clear number field.
KP_Enter	D	Pulse to submit number in field for adjust the heartbeat interval or RSSI threshold.
Start_Noise_Calc	D	Pulse to calculate the environmental RF noise level. NOTE: this function takes the reader 40 seconds to perform and will prevent the reader from communicating with the control system during this time.
Clear_Buffer	D	Pulse to clear the current buffers within the reader.

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Poll_Enable	D	Latch High to enable continuous polling of reader.
Connect-F	D	Signal from the TCP/IP Client symbol indicating connection active.
Status	A	Signal from the TCP/IP Client symbol indicating connection status.
From_Device$	S	Serial data signal to be routed from a 2 way com port.

FEEDBACK:

Relay_1_Open_Fb	D	High to indicate that relay 1 is open.
Relay_1_Close_Fb	D	High to indicate that relay 1 is closed.
Relay_2_Open_Fb	D	High to indicate that relay 2 is open.
Relay_2_Open_Fb	D	High to indicate that relay 2 is closed.
Input_1_Open_Fb	D	High to indicate that input 1 is open.
Input_1_Close_Fb	D	High to indicate that input 1 is closed.
Input_2_Open_Fb	D	High to indicate that input 2 is open.
Input_2_Close_Fb	D	High to indicate that input 2 is closed.
Enable_Auto_Polling_Fb	D	High to indicate that auto polling is enabled.
Disable_Auto_Polling_Fb	D	High to indicate that auto polling is disabled.
Tag_Filter_All_Fb	D	High to indicate that the reader is reporting information on all tags.
Tag_Filter_Alarm_Fb	D	High to indicate that the reader is reporting information on alarm tags only.
Tag_Filter_No_Alarm_Fb	D	High to indicate that the reader is reporting information on non-alarm tags only.
Receiver_Gain_High_Fb	D	High to indicate that the reader to high gain (long range) mode.
Receiver_Gain_Low_Fb	D	High to indicate that the reader to low gain (short range) mode.
Heartbeat_ID_Fb	D	High to indicate the heartbeat interval can be adjusted.

RSSI_ID_Fb	D	High to indicate the RSSI threshold can be adjusted.
KP_Value	A	Displays the numeric value generated from the KP buttons. This value is used to set the heartbeat interval or RSSI (Received Signal Strength Indicator) threshold.
Error$	S	Displays the last error that the reader generated.
Reader_Site_Code$	S	Displays the site code assigned to the reader.
RF_Firmware_Ver$	S	Displays the reader's firmware version.
RF_Hardware_Ver$	S	Displays the reader's hardware version.
Heartbeat_Interval$	S	Displays the reader's heartbeat interval.
Invalid_Tag_Count$	S	Displays the number of invalid tags read.
RSSI_Value$	S	Displays the reader's current RSSI (Received Signal Strength Indicator) threshold setting.
Noise_Level$	S	Displays the RF environmental noise level.
Tag_ID_*_In_Range_fb	D	High to indicate that a tag is in range. This will triggered whenever the reader receives tag information. Note: When the reader is set to read alarm tags only, this will be triggered only upon a tag's Motion or Reed alarm state changing.
Tag_ID_*_In_Motion_Alarm_Fb	D	High to indicate that a tag's motion alarm has been triggered. This can trigger from a tag with a motion sensor and also when a tag's reed status changes.
Tag_ID_*_Reed_Alarm_Fb	D	High to indicate that a tag's reed alarm has been triggered.
Tag_ID_*$	S	Displays the tag ID's being used.
Connect	D	This is used to cause the TCP/IP client to connect to the device.
Connected	D	Connected feedback. This signal is passed through the module in case some one wants to use for something.
Connection_Status	S	Serial string to indicate the connection status.
To_Device$	S	Serial data signal to be routed to a 2 way com port.

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15 Volvo Drive • Rockleigh, NJ 07647
800.237.2041 / 201.767.3400

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PARAMETERS:

Site_Code	S	Site code that the reader will be assigned. The reader will filter out any tags that it receives that do not correspond to the stored site code value entered here. A setting of 0 will enable the reader to read all tags.
Interval	A	The amount of time to hold a tag's In_Range_Fb status before timing out. Recommended value is 5 to 10 minutes.
Network_ID	A	Network ID of the reader.
Receiver_ID	A	Receiver ID of the reader.
Node_ID	A	Node ID of the reader
Tag_ID_*	S	Enter the ID's of the tags to be read. The tag ID's entered here will correspond with the In_Range, In_Motion_Alarm, and Reed_Alarm feedback signals.
Port	A	This port is used for SystemBuilder only.

TESTING:

OPS USED FOR TESTING:	3.155_1240
SIMPL WINDOWS USED FOR TESTING:	2.08.41
CRES DB USED FOR TESTING:	18.8.8
SYMBOL LIBRARY USED FOR TESTING:	487
SAMPLE PROGRAM:	Wavetrend L-RX900 v1.0 Demo PRO2
REVISION HISTORY:	v1.0