



Anthem STR Crestron Module

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Overview	4
Installation	4
Module Configuration	5
IP Connection	5
RS-232 Connection	5
Input Signals	6
Enable [digital]	6
Refresh [digital]	6
PowerON [digital]	6
PowerOFF [digital]	6
PowerToggle [digital]	6
VolumeUp [digital]	6
VolumeDown [digital]	6
Mute [digital]	6
Trigger [digital]	6
GetSampleRate [digital]	7
GetInputFormat [digital]	7
Volume [analog]	7
InputSelect [analog]	7
Balance [analog]	7
IRCommand [analog]	8
CurrentInputProfile [analog]	8
VolumeIn\$ [analog]	8
Rx\$ [analog]	9
InputProfile [1 - x] [analog]	9
Feedback Signals	10
Enabled [digital]	10
PowerFB [digital]	10
MuteFB [digital]	10
TriggerType [analog]	10
SampleRate [analog]	10
InputFormatFB [analog]	10
This signal indicates the current input format. Valid values are	10
TotalInputs [analog]	11
VolumeFB [analog]	11



Anthem STR Crestron Module

InputFB [analog]	11
BalanceFB [analog]	11
Volume_FB\$ [string]	13
Tx\$ [string]	14
InputProfileFB[1 - 30] [analog]	14
InputName[1 - x] [string]	14



Anthem STR Crestron Module

Overview

The Anthem STR Crestron module allows for IP and RS-232 control over the Anthem STR range of preamplifiers and amplifiers. This module provides control over nearly every aspect of the Anthem devices.



The module provides control using native Crestron symbols for volume (standard analog 0% - 100%) as well as providing native Anthem type controls (string input -96.0 - +7.0). It also provides the ability to set speaker profiles for all of the inputs at the same time to allow for a complete reconfiguration of the amp with differing room conditions.

Installation

The zip file that included this documentation has the simpl+ module that needs to be copied in to your project folder. The files were built and tested on a Crestron 3-series processor.

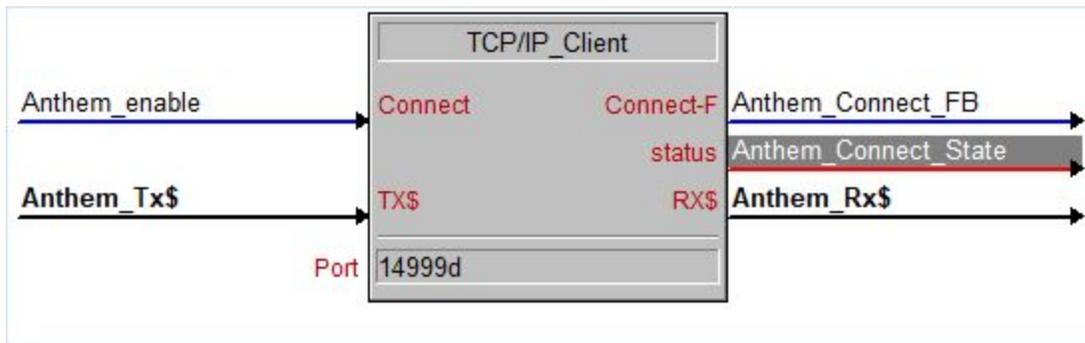
The zip file also contains a SIMPL project and a VT-Pro touchscreen design that you can use for testing. The default configuration is using an IP connection to the amplifier so the IP address will need to be set before you upload. Alternatively if you would like to use the RS-232 controls, you will need to move the transmit and receive joins to your chosen com port.

Module Configuration

This module can be configured to communicate over IP or RS-232.

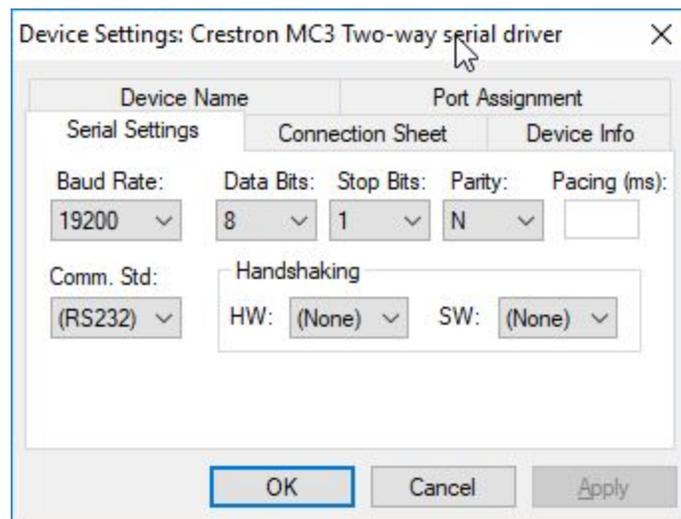
IP Connection

For IP communication you will need to include a TCP/Client. The default port is 14999.



RS-232 Connection

For RS-232 communication you will need to configure the serial settings for a baud rate of 19200, with 8 data bits, 1 stop bit and no parity. The connection cable needs to be a straight through type cable and can be either 3-wire or fully wired.





Input Signals

Enable [digital]

When this signal is high the module will communicate with the anthem. When the signal goes low the module will not send out any data.

Refresh [digital]

This signal is used to refresh the current state of the STR. It is designed to be hooked up to an oscillator so they refresh rate can be set by the installer.

PowerON [digital]

Raising this signal will turn the anthem on. A low value has no effect.

PowerOFF [digital]

Raising this signal will turn the anthem off. A low value has no effect.

PowerToggle [digital]

Pulsing this signal will turn the power on or off based on the current state.

VolumeUp [digital]

Raising this signal will turn the volume up but the amount set by the VolumeSkip parameter (default is 1.0dB)

VolumeDown [digital]

raising this signal will turn the volume down but the amount set by the VolumeSkip parameter (default is 1.0dB)

Mute [digital]

When this signal is high the Anthem volume will be muted. When the signal goes low the volume will be restored to its previous level.

Trigger [digital]

When this signal is high this will turn on the 12V trigger. When the signal is low the 12V trigger will turn off.



Anthem STR Crestron Module

GetSampleRate [digital]

Raising this signal will retrieve the sample rate of the current signal

GetInputFormat [digital]

Raising this signal will fetch the current input format. The format feedback will be shown on the InputFormatFB signal (detailed below)

Volume [analog]

This signal can be set from 0 to 100% to set the matching volume.

InputSelect [analog]

This signal changes the current input. Any value greater than the TotalInputs (analog output) will be ignored.

Balance [analog]

This take a value between 0 and 100% with 0% shifting the balance all the way to the left and 100% shifting the balance all the way to the right and 50% would being evenly matched in the left and right.



IRCommand [analog]

This takes a value between 10 and 27 that simulates sending an IP command. The acceptable values are as follows.

Value	IR Command
10	Power On
11	Power Off
12	Setup
13	Input
14	Mode
16	Level
17	Info
18	Up
19	Down
20	Left
21	Right
22	Select
25	Volume Up
26	Volume Down
27	Mute Toggle

CurrentInputProfile [analog]

This signal can be used to set the speaker profile for the current input. The valid values are 1 to 4. This will overwrite any value that has been set for the specific input using the InputProfile input for this input.

VolumeIn\$ [analog]



Anthem STR Crestron Module

- This signal is a string representing the current volume. Valid values are from -96.0 to +7.0 if a value higher than 7 is used it will jump straight to 7 (or 100% volume). Do not omit the - (negative) sign unless you are quite sure that's what you want.

Rx\$ [analog]

The data from the IP or RS-232 connection to the amp should be connected here.

InputProfile [1 - x] [analog]

These signals can be used to set the speaker profile for each of the inputs. Using these signals it is possible to reset all the inputs for a specific room setting. The valid values are 1 to 4.



Feedback Signals

Enabled [digital]

This signal will go high to indicate the module is active.

PowerFB [digital]

This signal will go high to indicate the Anthem is currently powered on.

MuteFB [digital]

This signal will be high when the mute is active, low when it is inactive.

TriggerType [analog]

This signal will indicate what the current trigger setting is. It will be 0 if the trigger is under menu control and 1 if it is under the module control. **NOTE:** If you use the trigger input (detailed above) the system will force this to be under module control.

SampleRate [analog]

This will show the sample rate of the current input. It is an analog value representing the sample rate in Hz.

InputFormatFB [analog]

This signal indicates the current input format. Valid values are

Value	Input Format
0	No Input
1	Analog
2	PCM
3	Dolby
4	DSD
5	DTS
6	Atmos



Anthem STR Crestron Module

TotalInputs [analog]

This signal indicates the current number of outputs that have been programmed into the STR. **NOTE:** Any number higher than this value will be ignored on the InputSelect input.

VolumeFB [analog]

The signal indicated the current Volume level as a analog (0% - 100%)

InputFB [analog]

This indicates the current input that has been selected.

BalanceFB [analog]

This signal indicates the current speaker balance as a value between 0 and 100% with 0% indicating the balance is all the way to the left and 100% indicating the balance is all the way to the right and 50% indicating the balance is evenly matched in the left and right.



Anthem STR Crestron Module

ListenModeFB **[analog]**

This indicates the current listening mode. Valid values are as follows

Value	Listening Mode
0	None
1	AnthemLogic-Movie
2	AnthemLogic-Music
3	PLIIx Movie
4	PLIIx Music
5	Neo:6 Cinema
6	Neo:6 Music
7	All Channel Stereo
8	All Channel Mono
9	Mono
10	Mono Academy
11	Mono (L)
12	Mono (R)
13	High Blend
14	Dolby Surround
15	Neo:X Cinema
16	Neo:X Music



Anthem STR Crestron Module

FrontPanel [analog]

This signal indicates the front panel brightness. Valid values are as follows

Value	Front Panel
0	Off
1	Low Brightness
2	Medium Brightness
3	High Brightness
4	Maximum Brightness

Volume_FB\$ [string]

This signal outputs the current volume as a string (as it appears on the unit itself).

Current_Source\$ - This outputs the current source as a sting. The name is the one given as part of the input setup on the STR itself.

Model [string]

This signal indicates the STR model name.

Firmware [string]

This signal indicates the current firmware version.

FirmwareDate [string]

This signal indicates the date of the current firmware.

Hardware [string]

This signal indicates the hardware version.

MAC [string]

This signal indicates the mac address of the unit.



Anthem STR Crestron Module

Tx\$ [string]

This signal is for the STR transmit data. It needs to be connected to the Tx\$ join on your IP Client or RS-232 symbol.

InputProfileFB[1 - 30] [analog]

These signals indicate the currently set speaker profile for the matching input. The valid values are between 1 and 4.

InputName[1 - x] [string]

These signals indicate the current input names for the matching input. These names are configured on the unit itself.