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http://www.WebBrickSystems.com for company information

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Contents

1 Command Structure

The WebBrick has a command interface that accepts command strings, these can be generated by the Web interface and can also be sent to the WebBrick over the network. For network delivery the commands can be sent using an HTTP URL with the command encoded in the parameters or a UDP transmission, the HTTP use is preferable as you get an indication of whether the command was received at the WebBrick.

1.1 General

All commands start with a 2 character identifier, and are followed by any required parameters and terminated by a colon (':') character after the parameters, which means end-command. Each parameter to a command is terminated by a semi-colon (;). In this document items in <is a user parameter> and should be replaced with real world values. Items in [...] are optional parameters, therefore are not essential to replace. Generally the first character within the 2 character identifier identifies the command group and the second identifies the entity type. No extra blank spaces should be inserted into the command as unexpected things may happen or the command be rejected.

These commands can be sent to the WebBrick in two ways:

1. By encoding the parameters into an HTTP URL and accessing that URL
2. or by sending a UDP packet to the WebBrick with a correct Siteplayer header on it for delivery to the PIC chip.

The embedded UI uses the HTTP URL approach and it is recommended that this approach is used for external systems. If you want to use UDP packets look at the python code in wbUdp.py for details.

The HTTP URL to be used is http://<ip Address>/cfg.spi?com=<commandString> Where <ip address> is the WebBricks IP address or host name. and <commandString> is one of the command strings documented here. Note some commands will need you logged in for them to be processed.

To make it easier to understand the command strings the first character is generally used as follows:

1.1.1 command groups

1st Letter	Command Group
C	Configure
S	Set
N	Name
D	Digital
A	Analogue
I	Infra Red
T	Thresholds

And the second character generally identifies the target channel type, as follows:

1.1.2 entity type

2nd Letter	entity type
D	Digital input
A	Analogue Output
I	Analogue input
O	Digital Output
T	Temperature
C	Scene
R	Serial comms or rotary encoder

1.1.3 Trigger Configuration

A lot of the commands take a sequence of parameters referred to as a Trigger sequence, this defines what is to happen when a trigger event occurs, for example a digital input or a temperature threshold being crossed.

The sequence of parameters is:

<A|D|S|T|I><targetChn>; <SetPointNr>; <actionType>; <DwellNr>; <UDPType>; <AssociatedValue> [; <OptValue>]:

Where:

Parameter	Description
<A|D|S|T|I>	is a single character that identifies whether the target channel is an analogue output(A), a digital output (D), a Scene (S), a Temperature sensor (T), or Infra Red Send
<targetChn>	is the channel number or Scene being targeted
<actionType>	is one of the values from the Action table (range 0-15) In the case of a Scene this is used as the action for all analogue channels that are not marked to be ignored and for digital channels marked for On in the scene configuration.
<DwellNr>	is a dwell number and is ignored if the actionType is not a dwell. Note for DT command dwell is passed in seconds and not as a dwell index.
<SetPointNr>	is a setpoint number and is ignored if the target channel is not analogue, Note a Scene is not an analogue channel and the SetPoint is taken from the Scene.
<UDPDo>	identifies whether a UDP packet type is to be sent
<AssociatedValue>	is a number associated with the action.
<OptValue>	is an optional reserved value.

1.1.4 Actions

Each trigger can cause one of the following actions to be performed on an output channel.

Nr	Action	Description
0	None	no action
1	Off	switch off
2	On	switch digital channels on or an analogue channel to a setpoint.
3	Momentary	Switch a channel on for a small time period circa 200mS.
4	Toggle	Turn an on channel off and an off channel on. For analogue channels if the current setting is greater than 0 it is deemed to be on.
5	Dwell Always	Always Switch a channel on for a configured time period, if lamp already on this will switch off after a time period.
6	Dwell-Cancel	If a channel is Off Switch the channel on for a configured time period. If the channel is already On then switch the channel Off immediately.
7	Next	Move a channel to its next higher state, for analogue channels this is to the next set point, for digital channels this is equivalent to a toggle. If the target is any Scene change the current scene at the web brick up by one.
8	Prev	Reverse of Next, Down Setpoint, Toggle, Previous Scene.
9	SetLowThreshold	Change the low threshold for one of the analogue input or temperature sensor
10	SetHighThreshold	Change the high threshold for one of the analogue input or temperature sensor
11	AdjustLowThreshold	Move the low threshold for one of the analogue input or temperature sensor
12	AdjustHighThreshold	Move the high threshold for one of the analogue input or temperature sensor
13	SendIR	Send a command over the Infra Red emitter, RC5 only, the target RC5 channel is the command code and associated value is the RC5 address.
14	Up	Take a channel up a step, generally used for analogue outputs.
15	Down	Take a channel down a step, generally used for analogue outputs.
16	Set Dmx	Set a DMX channel to a level.
17	Count	Sets the channel to count mode.
18	Dwell On	Switch a channel on for a configured time period if it is not already on.
19	Dwell Off	Switch a channel off after a configured time period.

Notes

- Toggle, On and Off actions all override a current Dwell command.
- A Dwell command issued during a current Dwell period will reset the Dwell time.
- A Dwell Cancel command issued during a current Dwell period will end the dwell. A Dwell Cancel issued outside a Dwell period will switch the output on for the Dwell

time.

- At the end of an analogue dwell the output will return to the level prior to the dwell, this is useful for setting lights to a low level and bringing them high on some trigger, e.g. security PIR.
- Channel numbers are zero based for the internal commands.
- Scenes are in two banks, one bank of 8 and one bank of 4, when performing Next and Prev Scene the scene change stays within the bank that the trigger definition identifies by selecting one of the scenes within the chosen bank.
- String parameters cannot contain any of the characters '<>&
- Analogue channels go up and down setpoints with Next/Prev and step the level the rotary step value with Up/Down &
- Some commands are meaningless with some outputs, where possible reasonable actions are chosen. i.e. for digital channels Next/Prev/Up/Down are treated as a toggle command

1.2 Error Codes

These may be displayed in the header of the webbpage and may appear in the xml status.

Value	Description
0	No Error.
1	Bad Command.
2	Bad Parameter.
3	Not Logged In.
4	Address Locked, attempt to change IP address on address locked webbrick.
5	In Startup state.
6	No Command yet issued, post startup state.

1.3 Command summary

1.3.1 Static configuration commands

Command	Function
ND	Name digital Input
NO	Name digital output
NI	Name analogue input
NA	Name analogue output
NT	Name temperature sensor
NN	Name node
CD	Configure digital input
CI	Configure analogue input
CT	Configure temperature input
CS	Configure set point
CW	Configure dwell
CR	Configure serial interface.
CE	Configure scheduled event
CC	Configure a scene
SN	Set node number
SF	Set fade rate
SM	Set mimic brightness levels for on and off signals, and fade rate
CM	Configure mimic channels for analogue and/or digital outputs
ST	Set Time
SD	Set Date
SR	Set rotary encoder step
SI	Set Internet address
SA	Set IP address with verified MAC address; the !WebBrick sets its IP address to the specified value only if its 48-bit MAC address matches that supplied. This command can be used with UDP broadcasts to set IP addresses when several WebBricks on a network have the same initial IP address.
SP	Set password for indicated security level
SO	Set option on (1) or Off (0) (Use with care: currently deprecated, and not reflected in XML configuration)
IR	Enable infrared receive
IT	Enable infrared transmit
IA	Sets the RC5 Infrared address for receiving

1.3.2 Dynamic status setting commands

Command	Function
DI	Trigger digital input
DO	Set digital output
DT	Invoke a trigger event action using the supplied parameters. The parameters are a full trigger definition as can be attached a local event source, i.e. digital input, but are acted upon when received. Note dwell is passed in seconds and not as a dwell index.
DM	Set one or more mimic outputs to specified levels
DA	Requests web brick to send a small number of UDP attention packets within a few seconds (currently: one immediately, and one more within a second). This is used for WebBrick discovery. (cf. factory reset causes attention packets to be sent every few seconds for a minute.)
AA	Set analogue output to one of the setpoints or to an absolute level.
SC	Set scene
SS	Set operational state
TA	Modify dynamic threshold for analogue input
TT	Modify dynamic threshold for temperature sensor

1.3.3 Miscellaneous WebBrick control commands

Command	Function
LG	Login to security level associated with password - also logout.
RT	Re scan 1-wire bus for new devices
RU	Refresh web user interface data
RS	Reboot Siteplayer, PIC chip delays a while and then rebuilds the UI data.
RB	Reboot PIC
RI	Set RS485 driver off, input mode
RO	Set RS485 driver on, output mode
RD	Send serial data
IS	Sends an RC5 infrared command (channel) over a configured infrared emitter

1.4 Commands

All command are listed here.

1.4.1 AA - Analogue output control

AA<chn>;[S<nn>|<nn>] Set Analogue output setpoint or absolute

Set an analogue output to a specific level. chn is the analogue output channel number. If the output value is S<nn> then <nn> is the setpoint, otherwise <nn> is the output level as an absolute value of between 0-100%.

e.g. AA1;S1:

1.4.2 CC - Configure Scene

CC<nr>;[NFI][NFI][NFI][NFI][NFI][NFI][NFI][NFI]; [I|S<nn>]; [I|S<nn>]; [I|S<nn>]; [I|S<nn>]:

Configure a scene. A scene consists of optional settings for all the digital and analogue channels. Any channel may be marked as Ignore (do not change). Digital channels also be marked as On or Off, whilst analogue channels can be given a set point. The first group [NFI] is for the digital channels and is repeated as many times as required to cover the digital channels where a change is required, i.e. if you only want to modify digital channels 0, 1, 2 then you only need list 3 entries. If you want to only affect channel 8 (or 16) then you must send all the preceding ignore's (I). Similarly for the analogue channels where each later entry is optional if you have already specified the required changes.

e.g. CC0;NFNFNFNF;I;S1;S2;S3: CC1;NF: CC3;NF;S0;S1;S2;S3:

1.4.3 CD - Configure Digital Input

CD<chn>; <A|D|S><targetChn>; <sp>; <actionType>; <dwell>; <udpType>; <AssociatedValue> [; <OptValue> [; <Options>]]:

Configure one of the digital inputs. chn is the digital input channel number from 0 to 7 (or more). Remaining parameters are a Trigger Sequence. Options is a set of flags that controls the digital input event generation.

Bit	Value	Description
0	1	generate trigger event on rising edge, i.e. 0v to 5v transition.
1	2	generate trigger event on falling edge (Default) i.e. 5v to 0v transition, a normally open switch is pressed.
2	4	This input and the next is connected to a rotary encoder, when the rotary encoder is turned 'down' this trigger is actioned
3	8	
4	16	
5	32	
6	64	
7	128	

To create the option value add the required Value's from the above table together. You can set both rising and falling edge flags and this is useful if you have a latching switch of some sort, i.e. standard MK light switch.

e.g. CD7;A1;2;2;0;1;1: Configure Digital in 7 to target analogue output 1. setpoint 2, action On(2), dwell (0) ignored, UDP

1.4.4 CE - Configure scheduled event

CE<chn>; <Days>; <hours>; <Min>; <A|D|S><targetChn>; <sp>; <actionType>; <dwell>; <udpType>; <AssociatedValue>[; <OptValue>];

Configure scheduled event. chn is event number, currently 16 scheduled events are catered for. Days is a set of day numbers from 0-6 to identify which days the event occurs on, e.g. "06" is Sunday and Saturday. hours (0-23) and min (0-59) identifies the time within the day when it occurs. The remaining parameters constitute a Trigger set as described else where,

e.g. CE6;12345;12;30;A1;2;2;0;1;1: Configure event 6, at 12:30 on Mon to Fri to target analogue output 1. setpoint 2, action On(2), dwell (0) ignored, UDP.

1.4.5 CI - Configure Analogue Input

CI<chn>; <L|H>; <Threshold>; <A|D|S><targetChn>; <sp>; <actionType>; <dwell>; <udpType>; <AssociatedValue>[; <OptValue>];

Configure one of the analogue inputs. L or H identify whether this is setting a High or Low threshold and Threshold is the analogue threshold as a value from 0-100%. The low level hardware is 0-5V but so as to avoid issues when some signal conditioning is added the input is scaled.

e.g. CI0;L;20;A1;2;2;0;1;1:

1.4.6 CM - Configure Mimics

CM<A|D><source>; <mimicChn>[...]:

Configure mimic channels for one or more analogue and/or digital outputs.

A target indicates an analogue output number target for a which a mimic channel is specified

D target indicates an digital output number target for a which a mimic channel is specified

mimicChn indicates a mimic channel number that will be associated with the corresponding analogue or digital output, to break the connection between a channel and a mimic use a

mimic channel number of 15.

Pairs of outputs and corresponding mimic channels may be repeated for each association that is required to be specified. (Or, a separate command may be used for each.)

The default setting is that Digital outputs 0 to 7 are associated with mimic output 0-7. The off level and on level can be reconfigured with the SM command.

e.g. CMA0;0;A1;1;A2;2;A3;3: target mimics 0 to 3 from analogue 0 to 3.

1.4.7 CS - Configure Preset point

CS<chn>; <val>

Configure one of the set points (Preset point) used for the analogue outputs. chn is the setpoint number and val is the setpoint value in the range 0-100%. The low level hardware generates 0-10V but this may be passed through some signal conditioning to suit the application.

1.4.8 CT - Configure Temperature Sensor

CT<chn>; <L|H|B>; <Threshold>; <A|D><targetChn>; <sp>; <actionType>; <dwell>; <udpType>; <AssociatedValue>[; <OptValue>];

Configure one of the temperature inputs. L or H or B identify whether this is setting a High or Low or Both threshold(s) and Threshold is the temperature threshold as a decimal temperature between -50 and +150 degrees Celsius

1.4.9 CR - Configure Serial

CR<mode>; <baudIdx>:

The following modes exist:

mode	Description
0	No mode change.
2	RS232.
4	RS485
3	DMX mode

The following baud rates exist:

index	Speed
0	300
1	600
2	1200
3	2400
4	4800
5	9600
6	19200
7	38400
8	57600
9	115200
10	250000
11	9600
12	9600
13	9600
14	9600
15	9600

See commands RO, RI, RD

1.4.10 CW - Configure Dwell

CW*[0-3];DwellValue*:

There are 4 Dwell values that may be set, 0-3. DwellValue is a number between 2 and 32767, it is measured in 'near seconds'. Dwell is measured in more or less seconds. Note that it is the transition between 1 and 0 that marks the end of a Dwell countdown, therefore a Dwell value of 10 really gives a Dwell of between 9 and 10 seconds, depending on when it was started.

1.4.11 DA - Do Attention

DA

Request the WebBrick to send 1 or 2 attention packets, command is generally sent using UDP and broadcast to all WebBricks on the network.

1.4.12 DI - Trigger Digital input

DI<chn>

Trigger input, generates a trigger just as if digital input chn had been triggered.

1.4.13 DM - Do Mimic

DM<mimicChn>; <mimicLevel>[; <mimicChn>; <mimicLevel>]

Set one or more mimic channels to a set level. The mimic channel and level can be repeated to send more than one request in a single command. This overrides the values set by any recent output change targeted to the mimics at the WebBricks.

1.4.14 DO - Switch Digital output

DO<chn>;N|F|T|D[; <dwell>]:

Set digital output. Sets the state of one of the digital outputs. chn is the channel number to operate.

Action	Description
N	On
F	Off
T	Toggle
D	Dwell

If Dwell is specified then this can either be a DwellNumber <0-3> or if greater than 3 is a dwell in seconds.

1.4.15 DT - Trigger from External

DT; <A|D|S><targetChn>; <sp>; <actionType>; <dwell>; <udpType>; <associated-Value>; <optValue>[; <options>]]:

The packet contains trigger configuration which is actioned on receipt and not stored for later use. This enables an external source to do what an internally generated event can do.

NOTES:

Parameter	Notes
dwell	This is set in seconds and not an index into the dwell table
udpType	this is either 0,None or 1,Send
associatedValue	If this is relevant to the action then this can be set
optValue	This is not used and should be left at 0
options	This is not used and should be left at 0

1.4.16 FR - Factory Reset

FR Configuration Factory reset.

FR1 Full Factory reset.

Perform a factory reset of the WebBrick, the base version only resets user configuration, the later version also resets all options and the IP address (Unless IP address locked at Factory).

1.4.17 IA - InfraRed Address

IA<address>:

Sets the RC5 infra red address to be recognised. The command values 1-8 are mapped to generating digital triggers, i.e. another soft key input.

1.4.18 InfraRed On Off

IR<N|F>:

Switch on/off infra red reception, uses Digital input 11 and disables any other use for this connection.

Action	Description
N	On
F	Off

1.4.19 IS - InfraRed Send

IS<address>; <channel>:

Sends the IR command using RC5 and the address (0-31) and channel (0-63) given. Allows a remote system to send RC5 infra red commands.

1.4.20 IT - InfraRed emitter

IT<N|F>:

Switch on/off infra red transmission. Uses DigOut 7 and disables any other use for this connection.

Action	Description
N	On
F	Off

1.4.21 LG - Login and Logout

LG; <password>

Try to login to the WebBrick to enable the command interface. Up to 3 passwords may be set Level 1 allows access to the Home page controls, its default is blank so the WebBrick automatically enters this state. Level 2 is for reconfiguration Level 3 is full reconfiguration access for installers. Note Login times out 5 minutes after the last valid configuration command (Level 3 is 1 Hour timeout).

Entering an invalid password will logout the user interface.

1.4.22 NA - Name Analogue Output

NA<chn>; <nameStr>:

Give a name to an analogue output, chn is the channel number from 0 to max analogue outputs-1.

1.4.23 ND - Name Digital Input

ND<chn>; <nameStr>:

Give a name to a digital input, chn is the channel number from 0 to max digital inputs-1. The name string cannot contain any of the characters '<>&

1.4.24 NI - Name Analogue Input

NI<chn>; <nameStr>:

Give a name to an analogue input, chn is the channel number from 0 to max analogue inputs-1. The name string cannot contain any of the characters '<>&

1.4.25 NN - Name Node

NN<NodeName>:

Give a name to the WebBrick node. NodeName is limited to 10 characters The name string cannot contain any of the characters '<>&

1.4.26 ND - Name Digital Output

NO<chn>; <nameStr>:

Give a name to digital output, chn is the channel number from 0 to max digital outputs-1. The name string cannot contain any of the characters '<>&

1.4.27 NT - Name Temperature sensor

NT<chn>; <nameStr>:

Give a name to a temperature input, chn is the channel number from 0 to max temperature inputs-1. The name string cannot contain any of the characters '<>&

1.4.28 RB - Reboot

RB Reboot.

Hardware reboot/reset of the PIC chip and Siteplayer.

1.4.29 RS - Reboot Siteplayer

RS Reboot of Siteplayer.

Hardware reboot/reset of the Siteplayer.

1.4.30 RT - Re scan 1 Wire

RT Re scan 1 wire bus.

Scan the one wire bus for new sensors.

1.4.31 RU - Refresh User Interface

RU Refresh User Interface.

Resends all data from the PIC chip to the Siteplayer, for use if the PIC chip and Siteplayer are out of step.

1.4.32 RI - RS485 driver off

RI: Set RS485 driver off, input mode

1.4.33 RO - RS485 driver on

RO: Set RS485 driver on, output mode

1.4.34 RD - Serial send data

RD <databyte as Decimal ASCII>: Send serial data, the databyte parameter can be repeated multiple times.

Example, send 'A' character - RD65:

1.4.35 SI - Set IP Address

Set Internet protocol address SI<n>; <n>; <n>; <n>:

Where each <n> is an element of the IP address.

SA<m>; <m>; <m>; <m>; <m>; <m>; <n>; <n>; <n>; <n>:

Where each <m> is an element of the network MAC address. Where each <n> is an element of the IP address. This is to enable a bunch of WebBricks to be added to a network, identified and addresses set by a discovery process.

1.4.36 SC - Set Scene

SC<nr>:

Set the output channels to match a specific scene. The result is the equivalent of issuing On, Off or SetScene for any channel not marked as Ignore. NOTE there is a slight difference when a trigger is used to set a scene in that instead of the ON action for digital channels marked as On and the analogue channels being sent the action from the trigger will be sent i.e. Dwell, some possible actions will not make sense.

1.4.37 SD - Set Date

SD<years>; <mon>; <date>

Set Date for the WebBrick. Not currently implemented or used.

1.4.38 SF - Set FadeRate

SF<rate> Set Fade rate

Set the rate at which the analogue channels are adjusted to meet the desired output value. The smaller the number the quicker the analogue output channel swings.

With a setting of 1 the analogue will swing full range in approx 200mS, with a value of 255 the swing full range will take circa 50 seconds.

1.4.39 SM - Set Mimic

SM<offLevel>; <onLevel>; <fadeRate>[;<0|1>]:

Set Mimic high and low level and the fade rate between them. These high and low values are used when connected as mimics for analogue and digital outputs, by use of an off level that is not quite off we have a seek light in the dark. The fade rate controls the speed that the mimic shifts from one level to the next, the next level could be selected by the DM command. The final optional parameter sets the mimic output to low voltage (approx 4V) or high voltage (approx 10.5V).

1.4.40 SN - Set NodeNumber

SN<NodeNumber>:

Set node number NodeNumber should be between 1-254, 0 is reserved for 'new' WebBricks that will be configured by a remote server before they go into production.

1.4.41 SO - Set options flag

Set an option flag value, some are bit mapped and others just on/off. SO<num>; <value>:

Options control some small bits of a WebBrick's operation. Most options are not intended for general use and are undocumented.

Option	Description
1	Manages UDP event transmission.
2	Manages Analogue input options.
3	Manages Analogue output options.
4	Manages Digital input options.
5	Manages Digital output options.
6	Manages Temperaure sensor options.
7	Manages Scene options.

UDP event transmission option.

Bit	Value	Description
0	1	Enable sending temperature changes.
1	2	Enable analogue input changes.
2	4	Enable analogue output changes.
3	8	Enable Infra red reception UDP packets.
4	16	Enable RTC debug UDP packets.
5	32	Enable Digital output UDP packets.

Analogue input options.

Bit	Value	Description
0	1	None.

Analogue output options.

Bit	Value	Description
1	2	Update DMX channels with analogue output changes.

Digital input options.

Bit	Value	Description
0	1	None.

Digital output options.

Bit	Value	Description
0	1	None.

Temperature sensor options.

Bit	Value	Description
0	1	None.

Scene options.

Bit	Value	Description
0	1	Scenes setpoints target analogue outputs.
1	2	Scenes setpoints target DMX channels.

Note: scenes can target analogue outputs and/or dmx channels.

1.4.42 SP - Set password

Set a password. SP<level>; <new password>:

level is the password level number 1-3. password is the new password to set. If the same password is set at multiple levels then login using that password will set itself to the highest of the levels using that password string. If Level 1 password is blank the WebBrick will default to being logged in at level 1 at start and after login timeout. This enables the Home page controls.

1.4.43 SR - Rotary Encoder Step

Configure rotary encoder. SR<chn>;<Steps>:

Steps should be between 2-254, Analogue outputs are set in the raw range 0-1023, where 1023 is 5V, Steps controls how far the output is indexed 'up' or 'down' for each step turn of the rotary encoder. The configuration value sets the step for all rotary encoders and chn should be 0. Older webbricks had dedicated pins for rotary encoders and this only targetted analogue 0, Since 6.4 a rotary encoder may be connected to any even/odd pair

of digital inputs and target any analogue output or what ever the trigger definition can target.

1.4.44 SS - Set Operating Mode

Set operational state SS<ToD>:

ToD is a value between 0-255 that lets the WebBrick know a bit about its operating environment, the current recognised values are:

Value	Description
0	This locks out any commands from the WebBrick holding any outputs at their current state (any Dwell in progress will complete).
1	Holiday state, digital inputs ignored.
2	This is normal operation.

1.4.45 ST - Set Time

ST<dd>; <hh>; <mm> Set Time

Set the WebBrick clock. dd is day number from 0-6. hh and mm are the 24 hour time. The WebBrick will send out starting packets until the clock is set.

1.4.46 TA - Adjust Analogue Input Threshold

TA<chn>; <L|H|B>; <Threshold>;

Configure the active threshold on one of the analogue inputs. This does not update the persistent configuration only the active configuration. L or H or B identify whether this is setting a High or Low or Both threshold and Threshold is the analogue threshold as a value from 0-100%. The low level hardware is 0-5V but so as to avoid issues when some signal conditioning is added the input is scaled.

1.4.47 TT - Adjust Temperature Sensor Threshold

TT<chn>; <l|H|B>; <Threshold>;

Configure the active threshold on one of the temperature sensors. This does not update the persistent configuration only the active configuration. L or H or B identify whether this is setting a High or Low or Both threshold and Threshold is the temperature threshold as a decimal temperature between -50 and +150 to 1 decimal place degrees Celsius. i.e. these are valid 50, 43.3, -43, -54.9. These are not valid 34.95, -43.12.