iCon

Installation Manual

Title Page

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Product Support Department
Comeragh Controls Ltd
Upper Irish Town
Clonmel
Co. Tipperary

WARNING!

DO NOT ATTEMPT TO INSTALL THE ICON WITHOUT SWITCHING OFF THE ELECTRICAL SUPPLY.

A QUALIFIED ELECTRICIAN AND/OR PLUMBER SHOULD CARRY OUT INSTALLATION OF THE ICON.

POWER MUST BE DISCONNECTED BEFORE OPENING THE I/O CONTROLLER ENCLOSURE.

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1. Introduction

1.1 Scope

The scope of this document covers the installation of the iCon Heating Control System.

1.2 Purpose

The purpose of the document is to provide the relevant information to enable the distributor install the iCon Heating Control System.

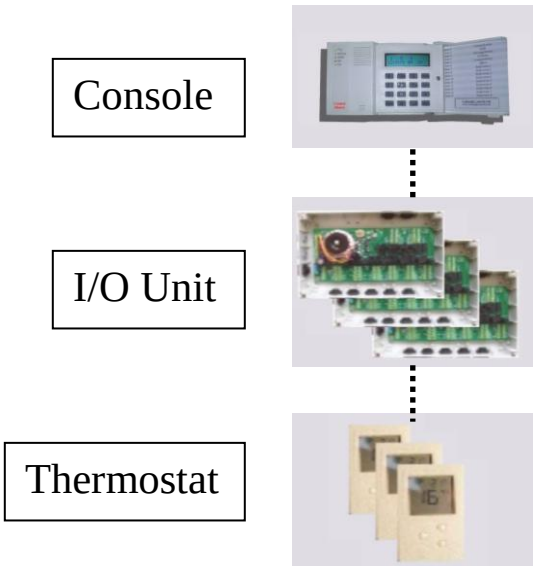
1.3 Product Description

The ***iCon*** is a complete heating & hot water management system. The system controls energy sources such as a boiler, geothermal pump, and solar panels through to energy exchangers such as underfloor heating, radiators and hot water cylinder in a single package. Management is from a central console, which schedules up to 32 zones.

1.4 System Components

The system comprise of the following components

System Component	Model Number	Description
Console	CC757	The Console is the central point of control and programming.
Thermostat	CC762	Serial Thermostats monitor temperature in a zone and communicate over a wired serial network.
I/O Controller or, Logic Controller	CC771	The I/O Controller is the wiring point to all pumps, 2 port valves, actuators etc.



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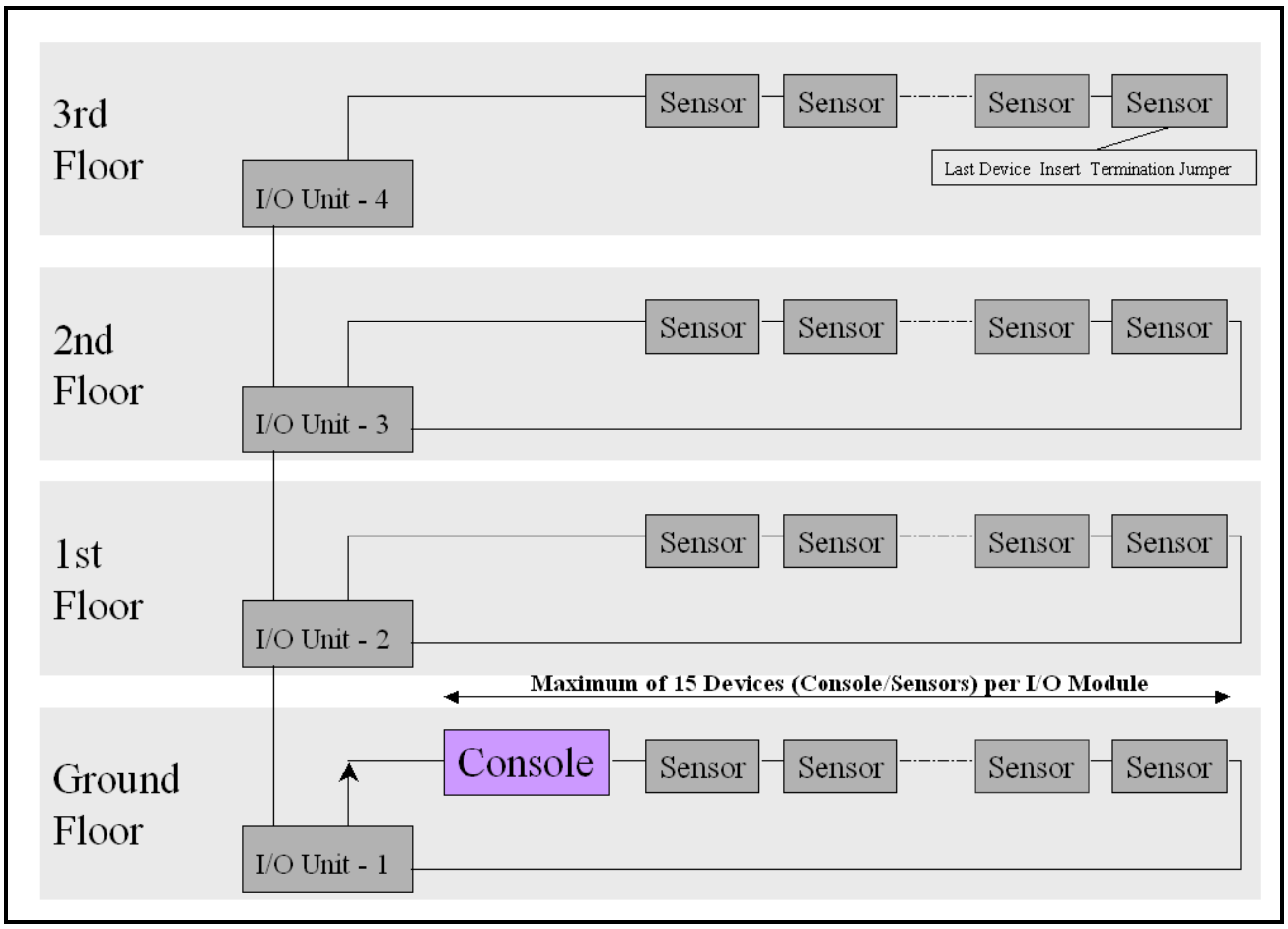
2. System Wiring

2.1 Communication Wiring

2.1.1 Communication Wiring Layout



Notes:

- **Maximum of 15 Devices (Console / Sensors) per I/O Module**
- **Last Device Insert Termination Jumper**

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2.1.2 Cable Type

0-250 meter installations - Domestic Applications)

Cable Type	General Data Cable
Number Of Cores	4
Core Strands	7 / 0.2
Cable O-D	3.4mm
Conductor Material	Tinned Copper

Reel Length	RS Stock no.
100 Meter	365-571
500 Meter	365-600

250 –1500 meter installations - Commercial Applications)

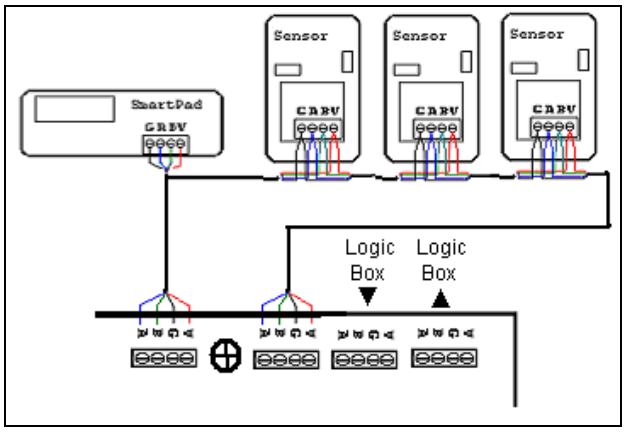
Cable Type	RS422 / RS485 Data Cable
Number Of Cores	4
Core Strands	7 / 0.2
Cable O-D	3.4mm
Conductor Material	Tinned Copper

Reel Length	RS Stock no.
500 Meter	528-2178

Supplier

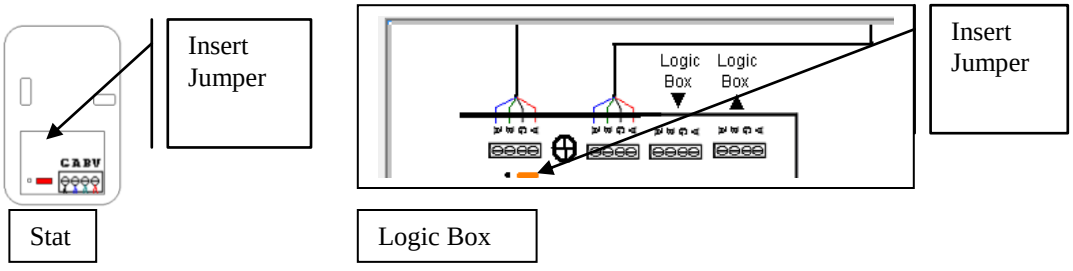
RS Components
Web: www.rswww.com
Tel: UK Orderline: 08457 201201
Tel: UK Online Help: 01536 444222

2.1.3 Communication Connection – Pin Outs



2.1.4 Termination

Last Device - Insert Termination Jumper in area highlighted in red (Function 120 ohm termination)



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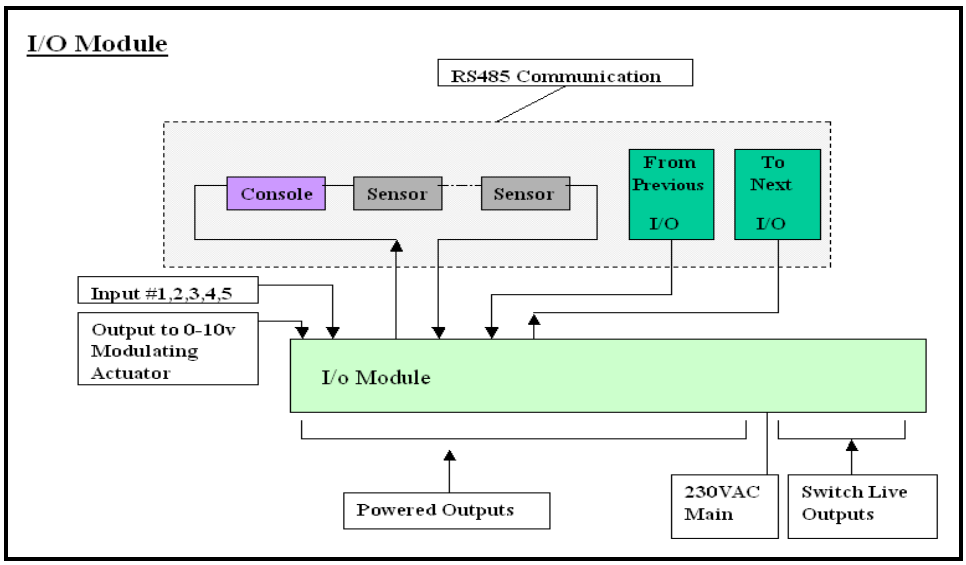
2.2 Logic I/O Unit Wiring

2.2.1 I/ O Wiring (Rev 11)



Powered Outputs	Output Voltage	220v AC or 24 v AC
	Fuse	Pairs
	Max Load	2 Amps
	Terminations Per Relay	3
Switch Live	Max Load	4 Amp
	Facility to convert to Individual Powered Outputs	Yes
Inputs	Type	Volt Free
	Satisfied (Short Circuit)	S/C
	Not Satisfied (Open Circuit)	O/C
Modulation Actuator Output (0-10v)	Output	0-10v
	Supply	24v AC (+/- 10%)
	Max Supply Load	3 Watts
Communications	Communications	RS485
	Range	1500 M
	Max qty linked to a console	1 to 8
Supply Voltage	Supply Voltage / Frequency	220v AC (50/60 Hz)
	Fuse (Slow Blow)	1Amp
Dimensions (In mm)		D (60), L 300, H 200
LED Indicators		Yes
Boiler Interlock		Yes

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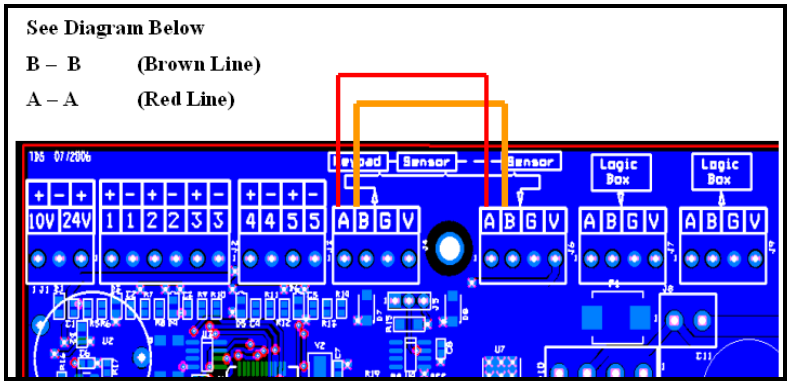
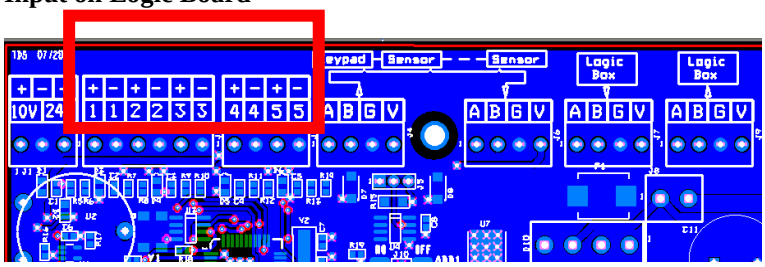
2.2.2 Wiring a Logic Box with no Sensors or console

If no console or sensor connected to a logic box the RS485 network connection must be jumper



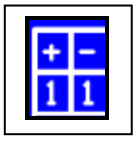
2.2.3 Wiring Inputs

Input on Logic Board



Comments
All inputs must be VOLT FREE

Operation
Inputs can be use at Activation, Overrides or Enables
Input are operate similar to stat



Example:
Input signal from cylinder stat is used to overriding a pump, lets use input I on Logic Box 1 (I1:1)
If the cylinder is not satisfied the input should be short circuited (e.g. input [1+] [1-] joined)
When the cylinder is satisfied the input should go open circuit (e.g. input [1+] [1-] unconnected)

Summary
Call for Heat = Short Circuit
Satisfied = Open Circuit

Technical Comment
The logic board set the input High (+5v).
If Open Circuit or nothing attached the input are activate
If Closed Circuit the input is de-activate (Satisfies)

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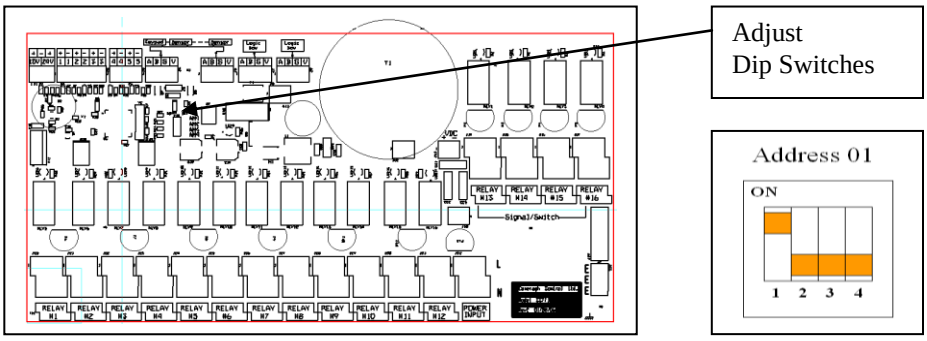
2.2.4 Addressing I/O Module

I/O Addressing (Rev 11)



Dip Switch Table

Logic Box Number	Dip Switch Settings			
	1	2	3	4
1	ON	OFF	OFF	OFF
2	OFF	ON	OFF	OFF
3	OFF	OFF	ON	OFF
4	OFF	OFF	OFF	ON
5	ON	OFF	OFF	ON
6	OFF	ON	OFF	ON
7	ON	ON	OFF	ON
8	ON	OFF	ON	ON

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2.2.5 Modulation Actuator Output

Overview: Weather Compensation Facility via 0-10v output

Software algorithms compare the External Temp, Max External Temp, Max Flow Temp, Min Flow Temp and derive the required flow temp and the desired flow temp is achieved by regulating the flow temp via the 0-10v output.

This output regulates a Modulating Actuator on the manifold. (Modulating Actuator not included)

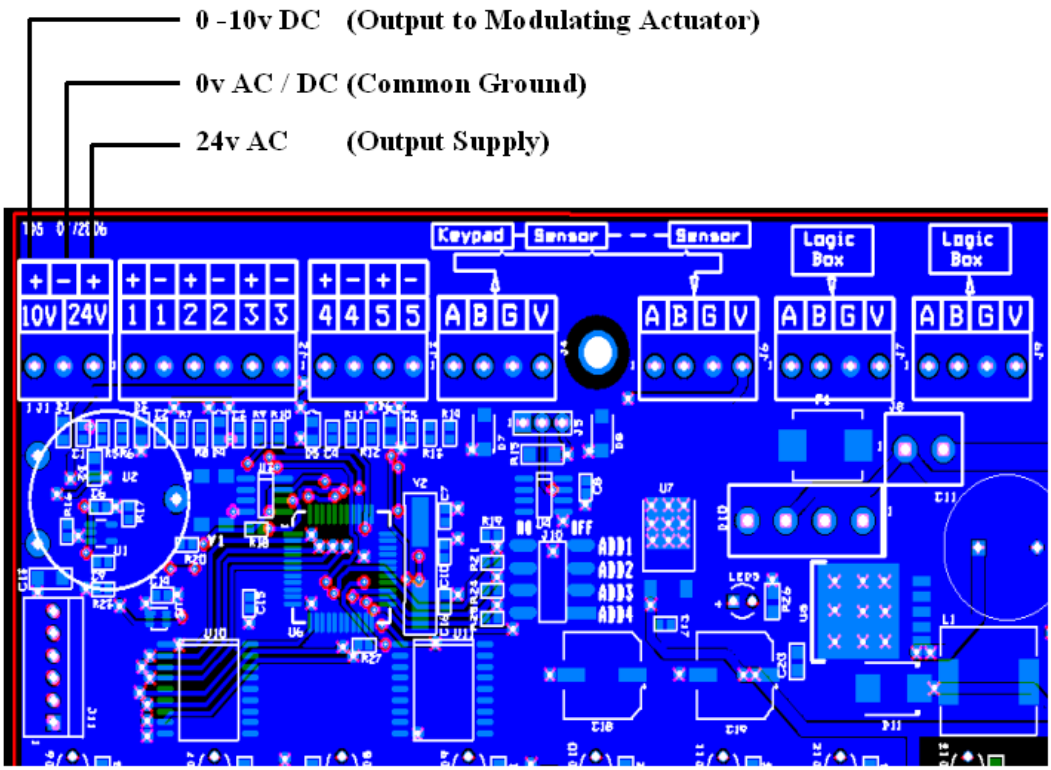
The system is Self-Compensating via a manifold pipe stat.

Specifications

Supply Output	24v AC (± 10%)
Max Load	3 Watt
Modulation Output	0v 10v DC

Connections

Outline below are the relevent connection



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3. Engineering Mode

3.1 Accessing Engineering Mode

Press MODE & HOME together.

Enter the Engineering Code **3105** & Press ↵

Console Displays the following

```
0000000111111100
St34567890[1/01]
```

Press TIME to move between the following fields

Output Status →

```
0000000111111100
St34567890[1/01]
```

To move through relays press 4 ← and 6 →
Press the ↵ to Activate or Deactivate a relay
See Section: 3.2 Output Relay Manual Override

Time On Delay →

```
1407000000000000
To34567890[1/01]
```

To move through relays press 4 ← and 6 →
Press the ↵ to set the Time On Delay
1=1 Min. 2=2 Min. 3=3 Min …..99 = 99 Min

Time Off Delay →

```
1407000000000000
Tf34567890[1/01]
```

To move through relays press 4 ← and 6 →
Press the ↵ to set the Time Off Delay
1=1 Min. 2=2 Min. 3=3 Min …..99 = 99 Min

Pump Cycling Routine →

```
1407000000000000
Cy34567890[1/01]
```

To move through relays press 4 ← and 6 →
Press the ↵ to activate pump Cycling Routine
0=Deactivation . 1= Cycle 20 Sec once a week

Relay Output Configuration

```
Z                T
1          [1/01]
```

Description detailed in following section
3.4 Output - Relay Configuration

View Status of Inputs

```
11000
12345
```

Description detailed in following section
3.5 View Status of Inputs

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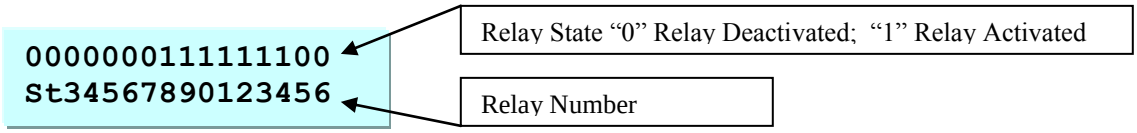
3.2 Output Relay Manual Override

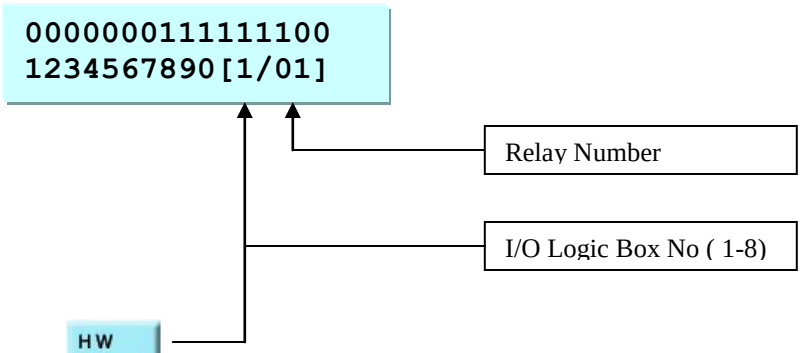
The I/O Module Output Status Window displays the state of each the relay output.



To move through relays press  and 

Press the  to Activate or Deactivate a relay

3.3 Moving between I/O Logic Box 1- 8



Press  to toggle between I/O logic box 1-8

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3.4 Output - Relay Configuration

Press TIME to move to configuration mode

Console Displays similar to the following

```
Z                T
1          [1/01]
```

Each relay can be Activated & De- Activated by multiple factors

ACTIVATION Configurations 1-13

ENABLE Position 14

OVERRIDE Positions 15 & 16

```
ZZ               IRR
12               145
```

Each output relay is activated by any one of 13 possible configuration type states.
Each output relay is also enabled by 1 possible configuration type states.
Each output relay is also Overridden by 2 possible configuration type states.

Step 1 – Select Relay

Select the Relay to be configured

```
Z                T
1          [2/12]
```

Relay Number

To toggle through relays press 4 ← and 6 →.

I/O Logic Box No (1-8)

Press HW to toggle between I/O logic box 1-8

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Step 2 – Relay Activation

A relay can be configured to Activate/Enabled/Overridden in response to a number of factors.

Press 

to select the factor.

	Factors
Z	Below Zone Calling for Heat
A	Air Cooling
I	Input
R	Another Relay
E	DHW Energy Saver Threshold – Follows Zone Schedule
C	Hi Cylinder Stat – No Schedule – Activated above SP
S	TSTAT SP
H	Relay activated by HW Boost Key
M	Mixer activate

Z - Relay activated by a Zone

Press 

to toggle through the zone numbers .
(Note 32 Zones)

```
Z
2~4          [1/01]
```

Press  to store the desired zone.
As there can be up to 32 zones per logic box,
when the zone number is 10 – 32 the display will flash
between both digits. I.e. Zone 24 displays as a flashing 2 then 4

```
Z
2  (Appears for 1 Sec =20)
4  (Appears for ½ Sec = 4)
Actual Zone          24
```

A - Relay activated by a Zone in Air Conditioning (Cooling)

Press 

repeatedly to select the factor - A

Press 

to toggle through the zone numbers .
(Note 32 Zones)

```
A
2~4          [1/01]
```

Press  to store the desired zone.
As there can be up to 32 zones per console,
when the zone number is 10 – 32 the display will flash
between both digits. I.e. Zone 24 displays as a flashing 2 then 4

```
A
2  (Appears for 1 Sec =20)
4  (Appears for ½ Sec = 4)
Actual Zone          24
```


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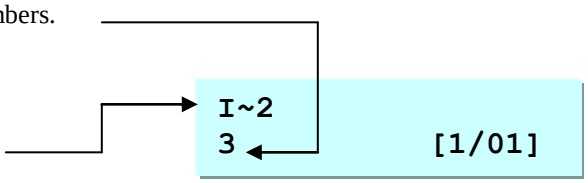
I - Relay activated by an Input

Press 1 repeatedly to select the factor - I.

Press 2 to toggle through the Input numbers.
(Note: 3 Inputs per Logic Box)

Press 3 to select the correct logic box.
(Display alternated between I & Logic Box No. 1,2,3)

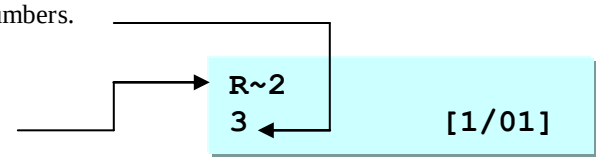


R - Relay activated by a another Relay

Press 1 repeatedly to select the factor - R.

Press 2 to toggle through the Relay numbers.
(Note: 16 Relay per Logic Box)

Press 3 to select the correct logic box.
(Display alternated between R & Logic Box No. 1,2,3)



E -DHW Energy Saver Threshold – Follows Zone Schedule

Press 1 repeatedly to select the factor - D.

Press 2 to toggle through the zone numbers .

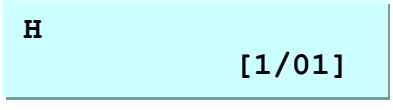
C - Hi Cylinder Stat – No Schedule – Activated above the Zones SP

Press 1 repeatedly to select the factor - C.

Press 2 to toggle through the zone numbers

H- Relay activated by HW Boost

Press 1 repeatedly to select the factor - H.



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S - TSTAT SP

Press 1 repeatedly to select the factor - S.

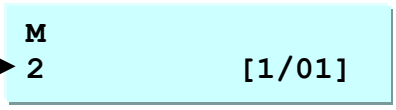
Press 2 to toggle through the zone numbers

Note If an input needs to be temperature dependant.
Configure a virtual relay e.g. on an un-install logic box (LB8) i.e. R8:16.
The input can be overridden by a Zone's SP.
The configured relay (e.g. R8:16) can then be use an the override, instead of the input.
Thus making the input temperature dependant

M - Relay activated when Mixer is activate

Press 1 repeatedly to select the factor - M.

Press 3 to select the correct logic box.
(Display alternated between R & Logic Box No. 1,2,3)



NOTE: Each output can be activated by up to 13 factors, Enabled by 1 factors and Over-ridden by 2 factors.

To enter the next factor press 9 and repeat the steps above.

[Activation (13)] [Enable (1)] [Override (2)]

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Step 3 – Relay Enable

Each output relay can be enabled by 1 possible configuration type states.

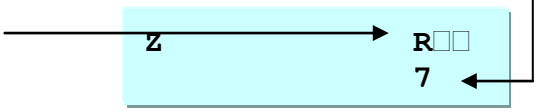
Press 9 until you reach the 3rd last field

Press 7 to sep back if you move too far

Press 1 repeatedly to select the factor - Z.

Press 2 to toggle through the factor numbers.
(e.g. Z,A,I,R,E,C,S,H,M)

Press 3 to select the correct logic box.
(Applied only to Inputs & Relays)



Step 4 – Relay Override

Each output relay is also over-ridden and deactivated by 2 possible configuration type states.

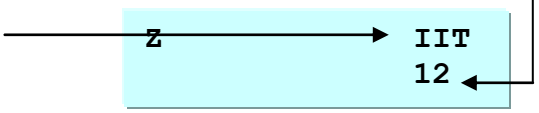
Press 9 until you reach the last 2 fields

Press 7 to sep back

Press 1 repeatedly to select the factor - R.

Press 2 to toggle through the factor numbers.
(e.g. *Z,A,I,R,E,C,S,H,M)*

Press 3 to select the correct logic box.
(Applied only to Inputs & Relays)



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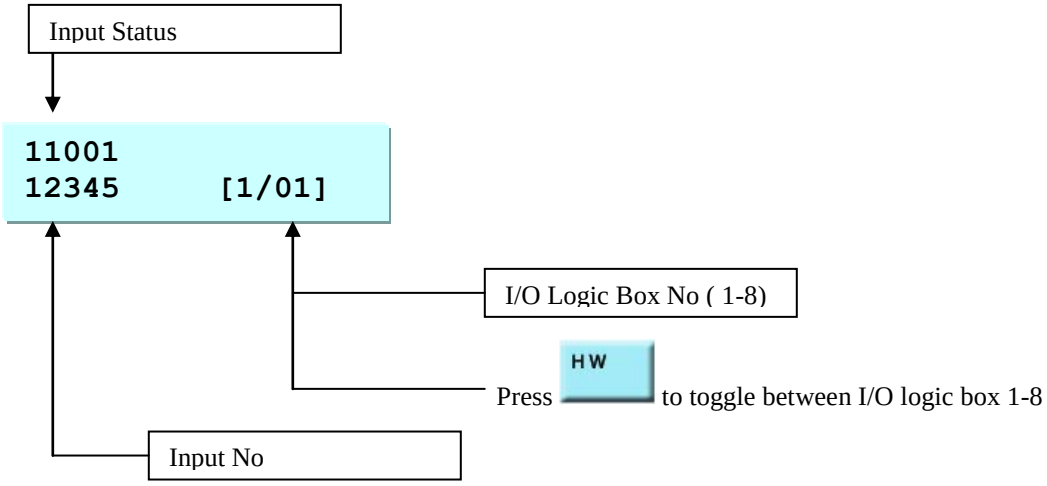
3.5 View Status of Inputs

Press TIME to move to INPUT mode



Any **Input** can be configured at programming stage to activate or deactivate any set of relays

Sample Configuration

S1 – Heatpump is producing hot water. It is to be connected through a normally closed contactor to pin 15 on HP panel.
i.e. when hp is producing hot water S1 input is to be open

S2 – Hot Water Cylinder Stat. is to be open when calling.
i.e. closes when temp. Is reached

S3 – Heat Pump Help. It is to be connected through a normally closed contactor operated by pin 6 on HP panel.
When open 2nd heat source i.e. boiler and mixing pump should be called.

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4. Weather Compensation

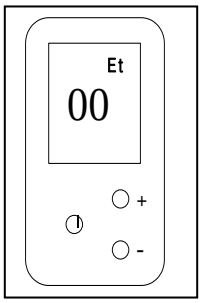
Two levels of weather compensation are available

Level 1:	Roaming Thermostat	External Probe Only
Level 2:	Manifold Flow Control	External Probe & 0-10v Modulating Actuator

Level 1: Roaming Thermostat External Probe Only

Overview:
By simply configuring a thermostat & probe to Et (External Temperature), the iCon system activates weather compensation automatically. The iCon system compares each room's temperature to the external temperature and depending on the situation initiates the required level of optimisation.

Configuring Steps:
1. System must be in Timer Mode
2. Attach an external probe to the stat.
3. Locate the probe's metal end outside the building
   Note – Do not locate in Direct Sun Light, Shade, or Adjacent to Heating Vent
4. Configure a stat in the following manner.



Accessing Steps
a) Press and hold Power Button – ZN number is displayed
b) Press and hold Power Button Again, I/O Pipe stat address is displayed
c) Press Power Button Again, Exterior Setting (Et) is displayed

Setting Steps
d) Use + key to set to 01 (Sensor now set as exterior)
(Weather Compensation Activates Automatically)

(After 5 sec the stat time out and reverts back to normal)

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Level 2: Manifold Flow Control External Probe & 0-10v Modulating Actuator

Overview:
If modulating actuators are utilized within the heating system the iCon system will initiate Weather Compensation through Flow Temperature Control.
Flow Temp Control. Adjusts the manifold flow temperature via a 0-10 modulation actuator to achieve the desired flow temp.

Key Steps
Configuring thermostat & probe to Et (External Temperature) (Install probe externally) (See section 4.1)
Configuring a thermostat & probe to I/O (I/O Module address – Manifold number)(Attached probe to Manifold Flow)

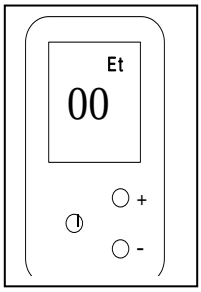
a) I/O – Ender the manifold address
b) PT – Enter the max manifold flow temp
c) FT – Enter the min manifold flow temp

Configuring Steps:

Step 1 System must be in Timer Mode

Step 2 Set up External Thermostat

1. Attach an external probe to the stat.
2. Locate the probe's metal end outside the building
   Note – Do not locate in either Direct Sun Light, Shade, or Adjacent to Heating Vent
3. Configure a stat in the following manner.



Accessing Steps
a) Follow Sec 8.2 **Setting the Zone Number**
Press and hold Power Button Again, I/O Pipe stat address is displayed
Press Power Button Again, Exterior Setting (Et) is displayed

Setting Steps
Use + key to set **Max External Temp**. e.g. 25° (Sensor now set as exterior)
(Weather Compensation Activates Automatically)
Note Zone address must be 00

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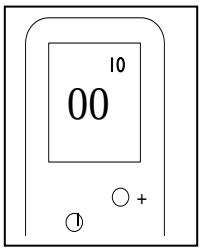
Step 3 Set up Pipe Stat

1. Attach an external probe to the stat.
2. Clamp metal probe end to the manifold flow
3. Configure a stat in the following manner.

3.1 Set Stat's I/O Address



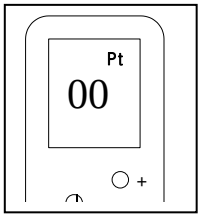
Accessing Steps

a) Follow Sec 7.2 **Setting the Zone Number**
b) Press and hold Power Button Again , I/O Pipe stat address is displayed

Setting Steps

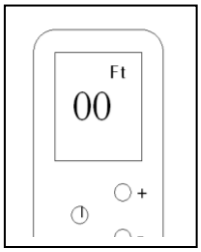
c) Use the "+" key to select the manifold number (address) (I/O Module Pipe Stat address)

3.2 Set Max Flow Temp (Pt- Pipe Temp)



d) Press Power Button again, PT (Pipe Temp) is displayed
e) Use the "+" key to select the **Max Flow Temp** for this manifold.
(After 5 sec the stat time out and reverts back to normal)
Note Zone address must be 00

3.3 Set Min Flow Temp (Ft- Flow Temp)



f) Press Power Button again, Ft (Flow Temp) is displayed
g) Use the "+" key to select the **Min Flow Temp** for this manifold.
(After 5 sec the stat time out and reverts back to normal)
Note Zone address must be 00

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Step 4 Attached 0-10v Modulating Actuator

Modulation Actuator Output

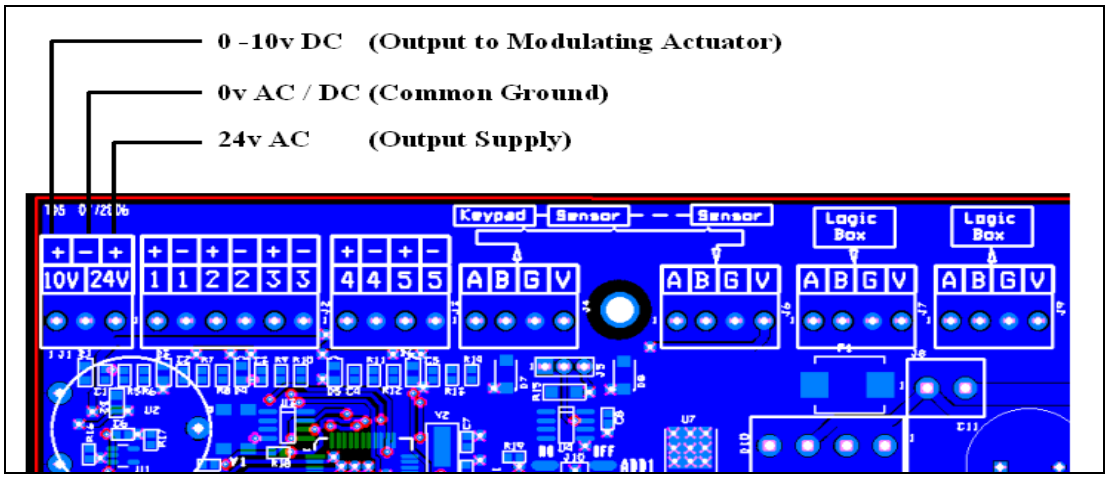
Overview: Weather Compensation Facility via 0-10v output
Software algorithms compare the External Temp, Max External Temp, Max Flow Temp, Min Flow Temp and derive the required flow temp and the desired flow temp is achieved by regulating the flow temp via the 0-10v output.
This output regulates a Modulating Actuator on the manifold. (Modulating Actuator not included)
The system is Self-Compensating via a manifold pipe stat.

Specifications

Supply Output	24v AC (± 10%)
Max Load	3 Watt
Modulation Output	0v 10v DC

Connections
Outline below are the relevent connection

WARNING: Cables must be wired as show, failure to do so will result in the 0-10v port failure



Step 5 Configuring a Zone Stat to be both a Zone Stat and Pipe Stat or External Stat

Overviw:
To reduce the overall system cost a zone stat can be used as a Zone Stat and Pipe Stat or External Stat
The stat will not display ET(External Temp) or PT (Pipe Temp).
The stat will appear as a normal zone stat

Setup:
Follow steps outline in following
a) ***Set up External Thermostat***
b) ***Set up Pipe Stat***
Set the Zone address Number

Note: These Zone stat can only be configured as T1 (Air Temp)

5. Communication – Diagnostics Function

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Step 1 Access Engineering Mode

Press MODE & HOME together.

Enter the Engineering Code **3105** & Press ↵

Console Displays the following

```
0000000111111100
St34567890[1/01]
```

Step 2 Thermostats & I/O Communications

Thermostats Communications

Press ZONE

Console Displays the following

```
123?567890123456
789012345678901
```

← These Represent Thermostat 1-31

The console automatically attempts to communicate with the thermostats, and displays a **?** at each Zone ,

- If Communication is OK - * displayed ,
- If communication Error – The Zone number continuous to display.

```
****5**890123456
789012345678901
```

← Stats 1234_67 are ok
5 not responding

Possible Communication Issues

- Check wiring - Ensure 12V, Gnd, A and B connections are not mixed up
- Check if correct Zone number is programmed into thermostat
- Check there are no duplications of Zone numbers

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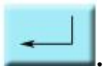
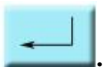
6. Parameter Edit – Diagnostics Function

While in Engineering Mode – Press 

There are 4 parameters that may be edited:

- ❖ User Password Edit & Press  .
- ❖ Frost Protection Edit & Press  .
- ❖ Minimum Temperature. Edit & Press  .

7. Exit Engineering/ Diagnostic Mode

Press the 

key to exit.

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8. Programming Thermostat

8.1 Setting the Sensor Type (At Console)

Overview: The thermostat can be configured to the following

At the Console enter the Zone Number & press 

Press MODE. Console displays

```
<NORML>      NORML
ZO1      LK OFF
```

Press MODE & HOME simultaneously Console displays

Press 2 & 8 to select T1,T2,T3,T4

```
<  T1 >      NORML
ZO1      LK OFF
```

Default – Air temp
Air — Type 1 (T1) — (CH1) — [Air settings SP + SB+ BH]

Console displays

```
<SP20> SB06  BH02
ZO1
```

SP = Air Set Point
SB = Air Set Back
BH = Air Boost Heat

External Probe Terminal
Bathroom Probe, Screed etc — Type 2 (T2) — (CH2) — [Setting SP + SB+ BH]

Console displays

```
<SP20> SB06  BH02
ZO1
```

SP = Probe Set Point
SB = Probe Set Back
BH = Probe Boost Heat

Floor Surface Hi Limit Protection – Max floor temps setting
Air & Floor — Type 3 (T3) — (CH1/CH2) — [Air settings SP + SB] & [Floor Hi Limit Safety Settings]

Console displays

```
<SP20> SB06  BH02
ZO1          UP27
```

SP = Air Set Point
SB = Air Set Back
BH = Air Boost Heat
UP = Probe Upper Limit (Floor surface Protection)

DHW - Safety Feature, Installer set the Max temp
DHW — Type 4 (T4) — (CH2) — [Max +Min set by installer] & [SP set by home owner]

Console displays

```
<SP68> ES30  UP80
ZO1
```

SP = DHW Set Point
ES = Energy Saver – Threshold level to switch to low cost energy source to generate DHW
UP = DHW Upper Limit (Max Safety Limit)

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8.2 Setting the Zone Number

Overview: Each area (room) must have a zone number

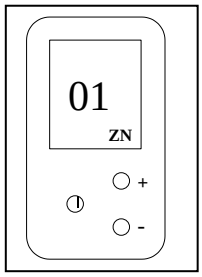

Image No. 1

Steps

a) Press and hold Power Button

b) When 00 appears at TOP AND CENTER press buttons in the following sequence

- Press ◔ 3 times
- Press + 3 times
- Press + 3 times

c) Use the + and - Key to set the (ZN) Zone Number
Note: Ensure that all zones are set correctly matching the console

8.3 Setting to I/O Pipe Stat

Overview: Manifold Stat Type 5 (CH2) [I/O (Manifold) Stat]

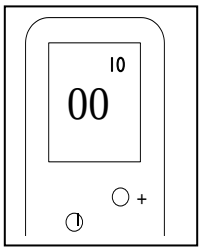

Image No. 2

Accessing Steps

h) Repeat Steps for **Setting the Zone Number (See Section 8.2)**

i) Press and hold Power Button Again , I/O Pipe stat address is displayed

Setting Steps

j) Use the "+" key to select the manifold number (address) (I/O Module Pipe Stat address)

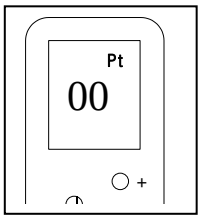

Image No. 3

k) Press Power Button again, PT (Pipe Temp) is displayed

l) Use the "+" key to select the **Max Pipe Stat Flow Temp** for this manifold.

(After 5 sec the stat time out and reverts back to normal)

8.4 Setting to Exterior (For weather Compensation)

Overview: Exterior Temp Type 6 (CH2) [External Temp]

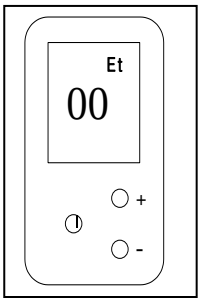

Image No. 4

Accessing Steps

a) Repeat Steps for **Setting the Zone Number (See Section 8.2)**
Press and hold Power Button Again, I/O Pipe stat address is displayed
Press Power Button Again, Exterior Setting (Et) is displayed

Setting Steps

Level 1 Weather Compensation – External Probe Only
Use + key to set to 01 (Sensor now set as exterior)
(Weather Compensation Activates Automatically)

Level 2 Weather Compensation – External Probe & Modulating Actuator
Use + key set the desired Max External Temp (Sensor now set as exterior)
(Note Pipe stat must be configured & fitted on each manifold flow.)
(Weather Compensation Activates Automatically)
(After 5 sec the stat time out and reverts back to normal)

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8.5 Calibration

Overview: Each thermostat can be calibrated up to a max of 3 degrees.

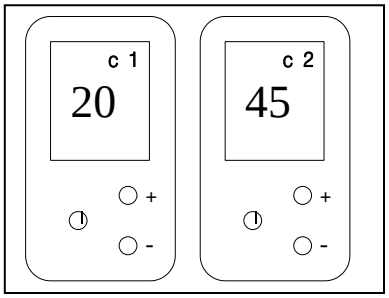

Image No. 5 *Image No. 6*

Steps

a) See **Setting the Zone Number (See Section 8.2)** (*Image No. 1)*
b) Press and hold Power Button Again, I/O Pipe stat (*Image No. 2)*
c) Press Power Button Again, Exterior Setting (Et) (*Image No. 3)*
d) Press Power Button Again, Pipe Temp (Pt) (*Image No. 4)*
e) Press Power Button Again, c1 – Channel 1 –Air (*Image No. 5)*
f) Press Power Button Again, c2 – Channel 2 –Probe (*Image No. 6)*

Use + and -keys to calibrate, Increments of .5° (Max of 3°)
(After 5 sec the stat time out and reverts back to normal)

8.6 Attaching an External Probe

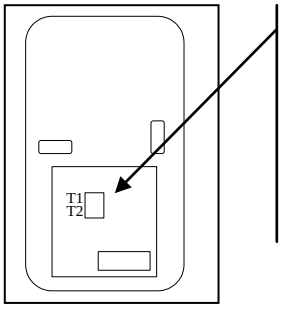

Image No. 7

Attached Probe to T1 & T2

Note

1) **Do not Extend or Reduce the length of the probe cable**
2) **Sensor design to work with Probe supplied, alternative probes will result in incorrect temperature values.**

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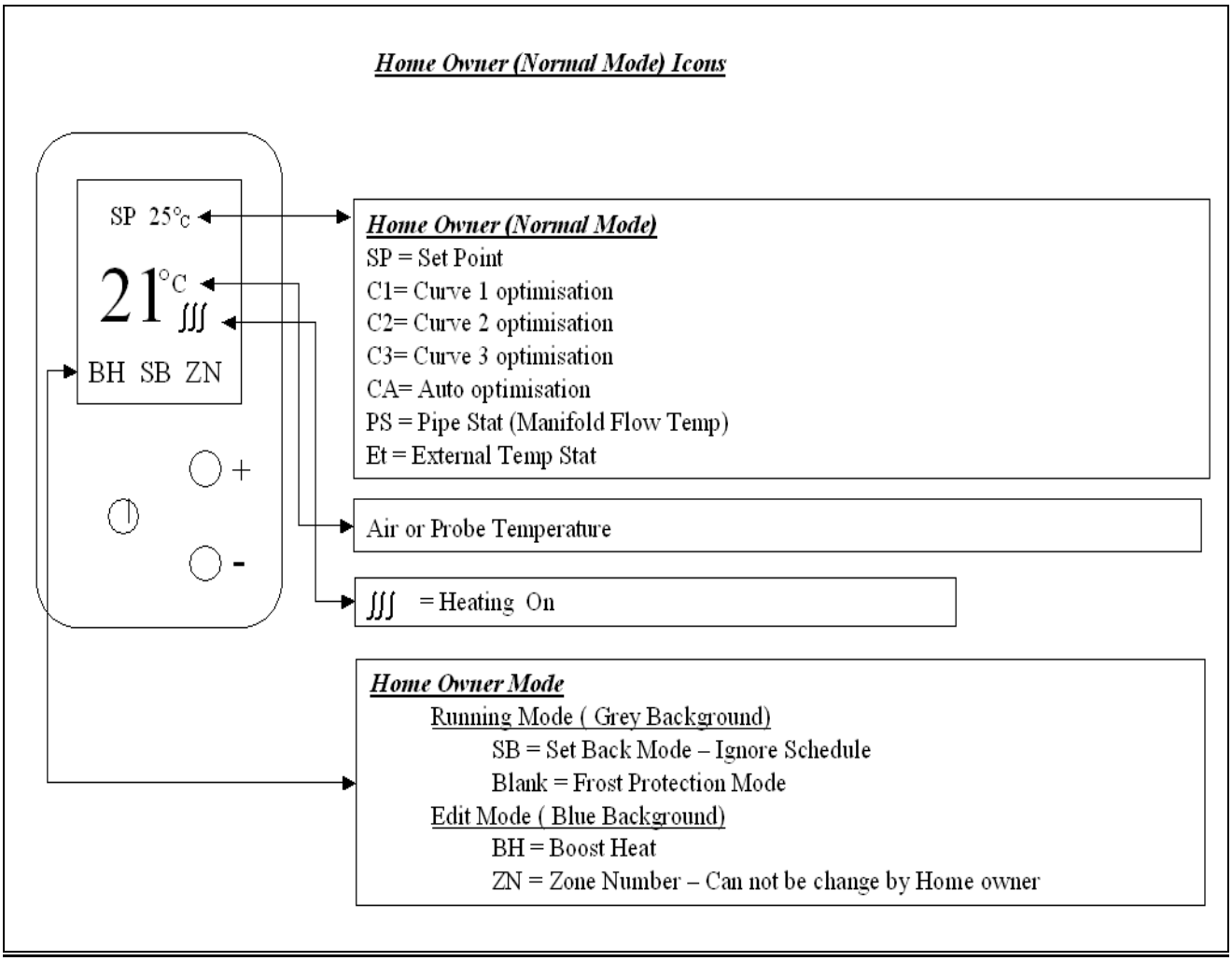
8.7 Stat Symbols

8.7.1 Home Owner (Normal Mode) Icons



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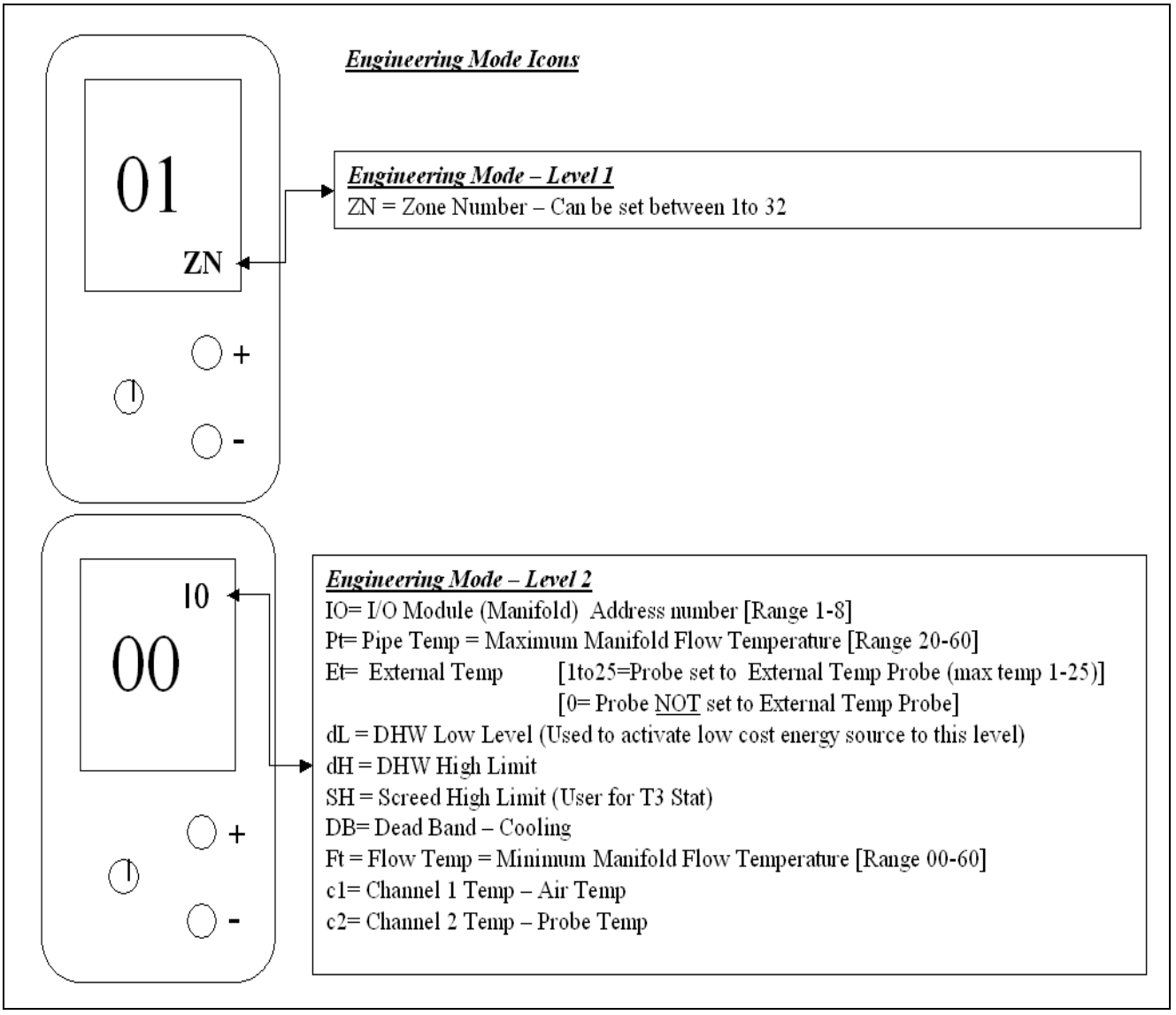
8.7.2 Stat Symbols - Engineering Mode Icons



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9. Set Time

Press TIME key .

Console Displays

```
Time          09:40
25/02/06    < FRI >
```

Move brackets press 4 and 6.

Change value press 2 or 8

10. Set Service Date

Press TIME key .

Console Displays

```
Time          09:40
25/02/06    < FRI >
```

Press ↵ key

3 Times

Console Displays

Service Time

```
Service       <09>40
25/02/06
```

Service Date

Move brackets press 4 and 6.

Change value press 2 or 8

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11. Vacation Activation

Setting Vacation Date in Console

Press TIME key . Console Displays

```
Time          09:40
25/02/06    < FRI >
```

Vacation Begin — *Start Time*

```
VAC BEG       <00>00
01/01/01
```

Start Date

Move brackets press 4 and 6.

Press key Console Displays

Change value press 2 or 8

Vacation Ends

```
VAC END       <00>00
01/01/01
```

Move brackets press 4 and 6.

Press key Console Displays

Change value press 2 or 8

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Activating Vacation Through Phone

Overview:

The system allows a volt free sign to be attached to Input 5 on the 1st logic box and this can be used to activate vacation mode .
In vacation mode all zones will move to Setback and the DHW will be switched off.
As the phone facility is required Input 1:5 (Logic Box 1, Input 5), must be set up for Vacation mode this is activated in the Engineering mode, outlined below.

Access Engineering Mode

Press MODE **&** HOME together.

Enter the Engineering Code **3105** & Press ↵

Console Displays the following

```
0000000111111100
St34567890[1/01]
```

While in Engineering Mode – Press MODE

Press ↵ **x 3** until

```
Hol Ph (I1:5)
00
```

is displayed

Press 1 to activated –

```
Hol Ph (I1:5)
01
```

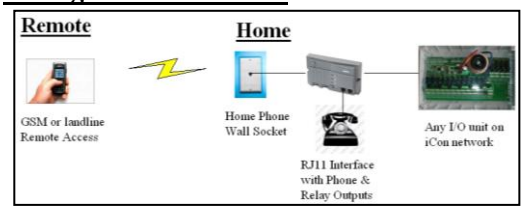
is displayed

Press ↵ **to enter and activated -**

```
0000000111111100
St34567890[1/01]
```

is displayed

Wiring Phone Activation



Using a Phone Interface Unit (PUI) , the relay output muts be attached to Input 1:5 (Logic Box 1, Input 5).
The relay output from the Phone Interface Unit (PUI) muste be Volt Free.

Operation

Closed Circuit = Normall Operation
Open Circuit = Holiday Mode

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12. Connecting PC to a RS485 Serial Adaptor

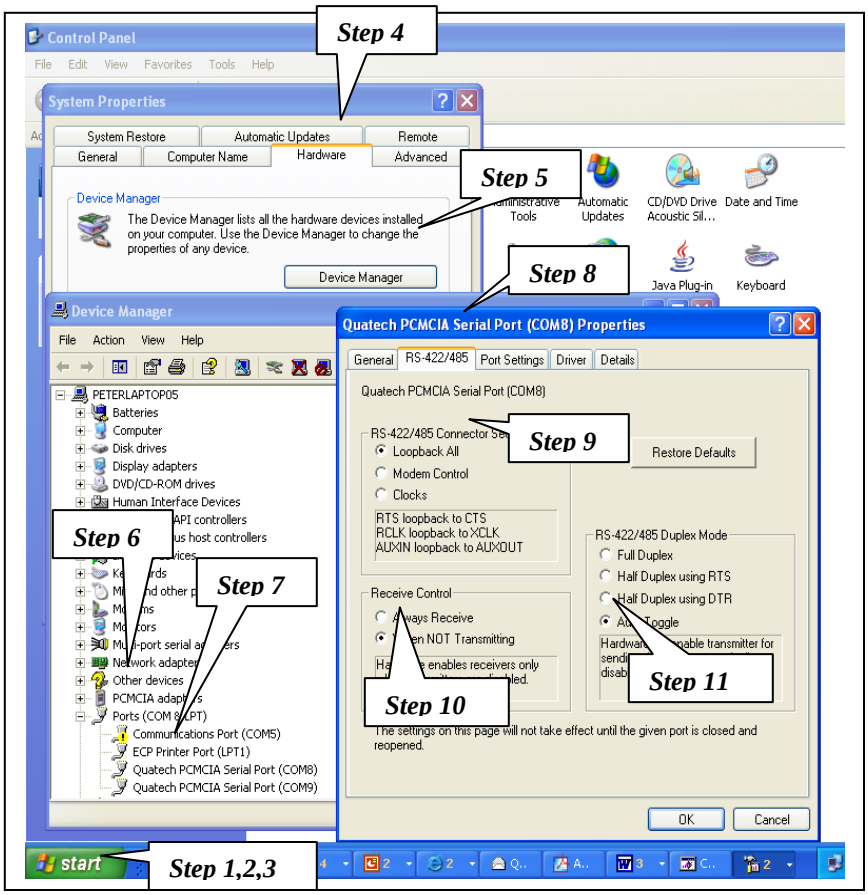
Warning:	Do Not attached RS485 Adaptor to Logic Box until the adaptor has been Configure (Green Led on Front of Adaptor- Do not attach if Red.)

Overview: An RS485 serial adaptor is required to download the configuration setting from the PC to the Console.

Equipment Required					
Item	Model	Part No	Supplier	Address	Cost
1	2 port USB to RS-422/485 serial adapter	DSU2-400	Quatech	www.quatech.com	€179
2	3 Core Serial Cable with 9way Connector	CC 100	Comeragh Controls	www.comeraghcontrols.com	€28

Step 1: **Do Not attached RS485 Adaptor to Logic Box until the adaptor has been Configure**
Connected the RS485 adaptor to your PC USB Port

Step 2. Configure the setting on the PC Port **Model DSU200-300 (2006)**



Steps
1. Click START
2. Select Control Panel
3. Select System
4. Select Hardware
5. Select Device Manager
6. Click Ports
7. Right Click on RS485 attached
8. Select 5S-422/485 Tab
9. Set RS422/485 Connectors Setup to Loopback All
10. Set RS422/485 Receive Control to When NOT Receiving
11. Set RS422/485 Duplex Mode to Auto Toggle

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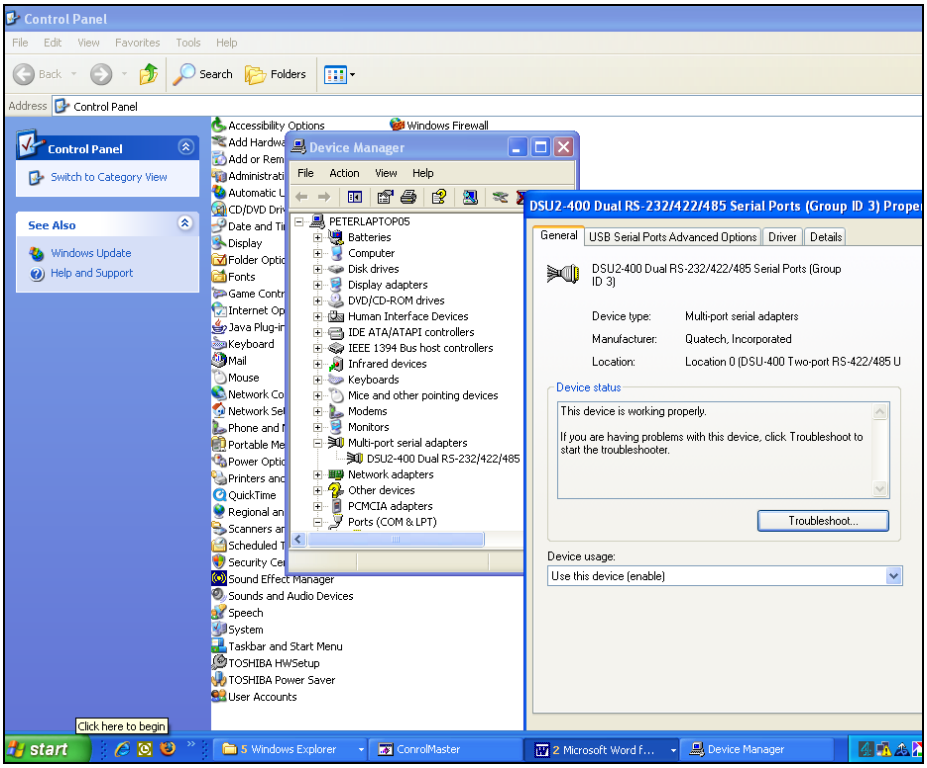
Step 2. Configure the setting on the PC Port **Model DSU2-400 (2007)**

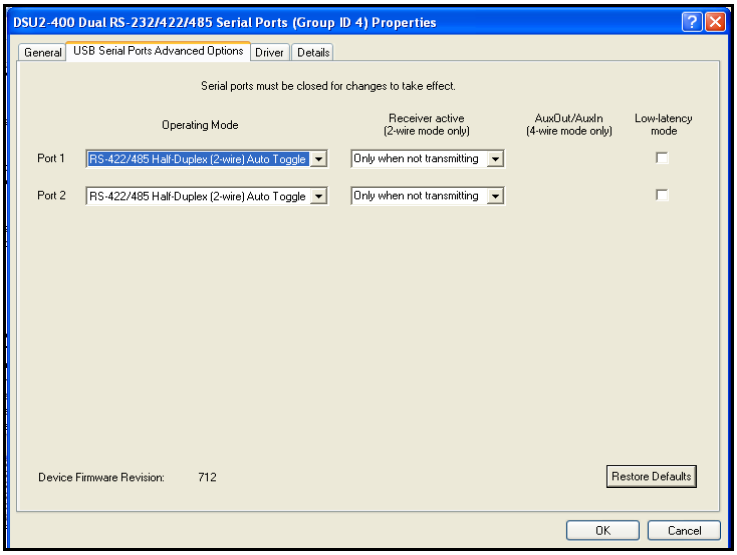
Step 21. Configure Multi Port Serial Adaptor



Steps

1. Click START
2. Select Control Panel
3. Select System
4. Select Hardware
5. Select Device Manager
6. Click Multi Port Serial Adaptors
7. Double Left click on DSU2-400Dual RS232/422/485(Serial Port)
8. Select "USB Serial Port Advanced Options" Tab
9. See Setting on following Image

Settings



13. System Download

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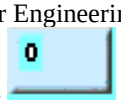
The download window places the system into a download enable state. System parameters may be transfers from the Control Master PC Application to the console. The system will reset when the download has completed.

Connect Cable

Connect PC to Console (via cable provide)

At Console

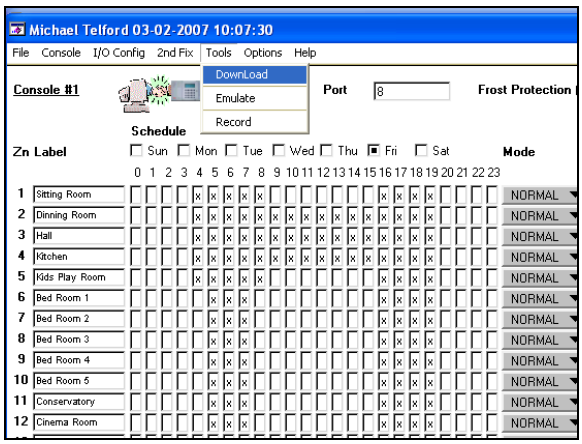
Step 1 Enter Engineering Mode on Console (See Section 3.1above)

Step 2 Press 

(Zero) on the console

At PC

Step 1 Select the Port No.
(Your PC will allocate a Port for the RS485 adaptor attached)
(See Section 12: Connecting PC to a RS485 Serial Adaptor - Step 7 will identify the Port Number)



Step 2 Select Tools
Step 3 Select Download

14. System Reset

Press the 

key to force a system reset.

15. System Erase

The System Erase function erases ALL setup data including zone names, output relay configurations, user password, minimum temperature, frost protection temperature and all TSTAT settings. Press the keys 5, HOME and MODE simultaneously.

IMPORTANT - ALL SETTINGS WILL BE LOST

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