

iCon – Quick Commissioning Manual

Title Page

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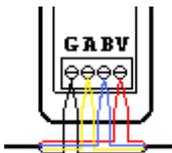
Ireland

IMPORTANT
Before Switching ON

CHECK
FOR ANY
ELECTRICAL
SHORTS

Check for any shorts

Use a DVM (Digital Volt Meter) and check for any shorts between A,B,G,V,
typically if there are no shorts the reading will be approx $1k\Omega$ or greater ,
if there is a short the reading will be approx $1-10\Omega$



Pass Approx. 1000Ω or greater
Fail Approx. $1-10\Omega$

iCon – Quick Commissioning Manual

1. Quick System Check

- Ensure System is Power OFF
- Check Communication wiring (A,B,G,V) at Stat, Console, I/O Boxes
- Check I/O Boxes {220v Outputs, Switch Lives & Inputs} are wired correctly
- Set address on all I/O Modules
- Power ON system
- Set Zone address on all stats
- Calibrate all stats
- Set Time at the Console
- Set all Zone SP to a value above Zero
- Ensure each Zone Schedule is set up.

2. Quick Operation Test

- Set to Timer Mode
- Set all Zone to Disable
- Set all Zone SP to 30 °C
- Individually De-Select Disable on each Zone and check if the correct Relay(s) /Actuator(s) are activated
- Check if all associated equipment is activated e.g. Manifold Pump, Boiler etc
- Edit Configuration if Required {Electrical Mistake or New plumbing layout }

3. Key Notes

Cable Type

0-250 meter installations (Domestic Applications)

| | | | |
|--------------------|--------------------|-------------|--------------|
| Cable Type | General Data Cable | Reel Length | RS Stock no. |
| Number Of Cores | 4 | 100 Meter | 365-571 |
| Core Strands | 7 / 0.2 | 500 Meter | 365-600 |
| Cable O-D | 3.4mm | | |
| Conductor Material | Tinned Copper | | |

Supplier

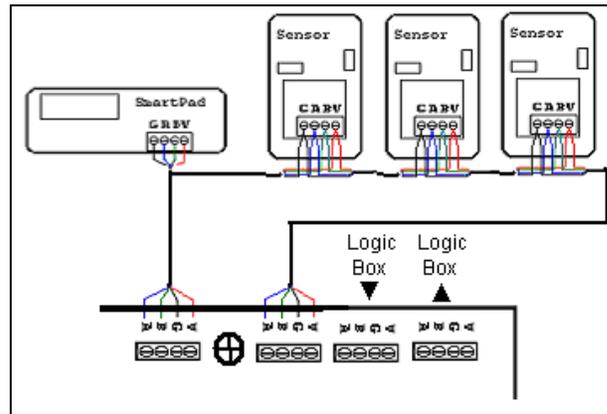
RS Components

Web: www.rswww.com

Tel: UK Orderline: 08457 201201

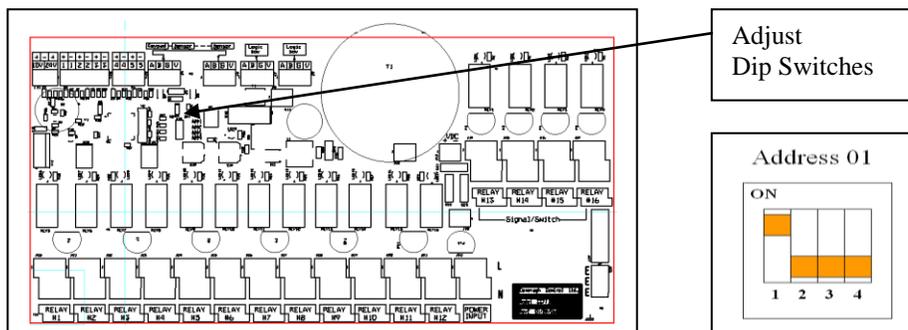
Tel: UK Online Help: 01536 444222

Communication Connection – Pin Outs



Addressing I/O Module

I/O Addressing (Rev 11)

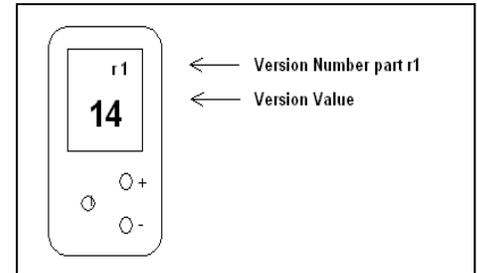


Configuring Sensor

Accessing Engineering Mode

Steps

- i. Press and hold Power Button – Revision Number appears
- ii. When the revision number appears, press buttons in the following sequence
 - Press \odot 3 times
 - Press + 3 times
 - Press - 3 times

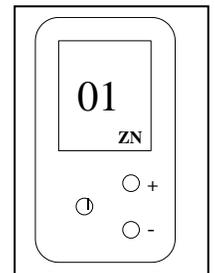


Setting the Zone Number

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

- i. After accessing engineering mode (steps 1&2 above)
- ii. Press \odot to move between state “ST” and Parameter
- iii. Set ST = 0 for Zone
- iv. Press \odot
- v. Use the + and - Keys to set the (ZN) Zone Number

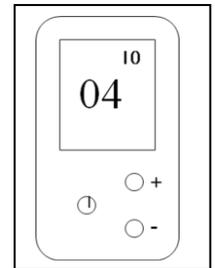
Ensure that all zones are set correctly matching the console



Configuring Sensor as a HW Relay

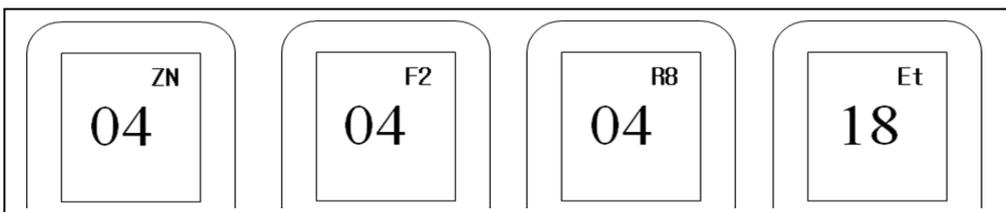
Overview: Any stat can be configured as a hw rELAY

- i. After accessing engineering mode (steps 1&2 above)
- ii. Press \odot to move between state “ST” and Parameter
- iii. Set ST = 1 for Relay .
- iv. Press \odot [I/O appears in top left] – Set To 1
- v. Use the + and - Keys to set the I/O box number (1-8) the stat is compensating



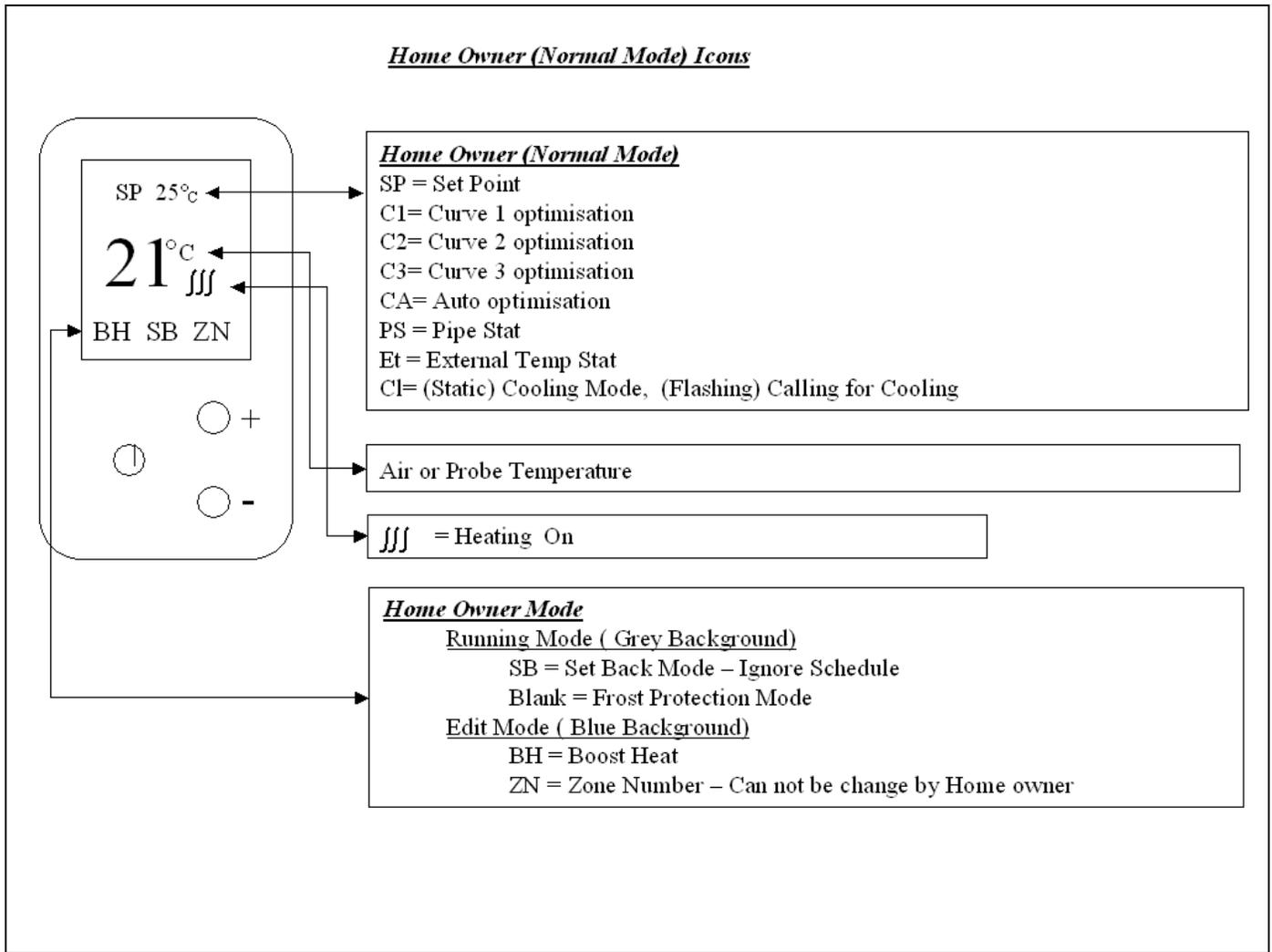
St - Sensor Types

| Type | Sensor Type (St) | Headings | Range | Comments |
|------|--------------------------|----------|-----------|---------------------------------------|
| 0 | Zone(ufh/rads/DHW/probe) | ZN | ZN (0-32) | IO= I/O Module (Manifold) Address 1-8 |
| 1 | Flow | F1 | IO (0-8) | F4= “F” Flow Stat . “4” I/O Box 4 |
| 2 | Return | R1 | IO (0-8) | R6= “R” Return Stat . “6” I/O Box 6 |
| 3 | External Temperature | ET | None | Et= External Temp |



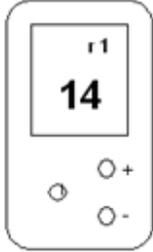
Stat Symbols

Home Owner (Normal Mode) Icons



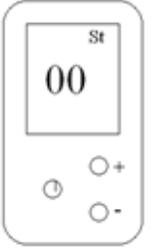
Stat Symbols - Engineering Mode Icons

Engineering Mode Icons

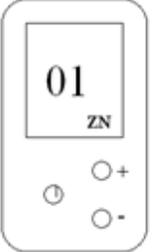


← Version Revision
← Version Number

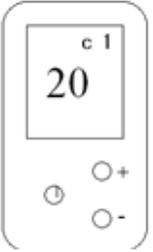
Access Eng Mode Press & Hold Power Key
 Press Power x 3
 Press Up x 3
 Press Down x 3



| Type | Sensor Type (St) | Setting |
|------|-------------------------------|-----------|
| 0 | Zone (u/fh/rads/DHW/probe) | ZN (0-32) |
| 1 | Flow | IO (0-8) |
| 2 | Return | IO (0-8) |
| 3 | External Temperature | None |



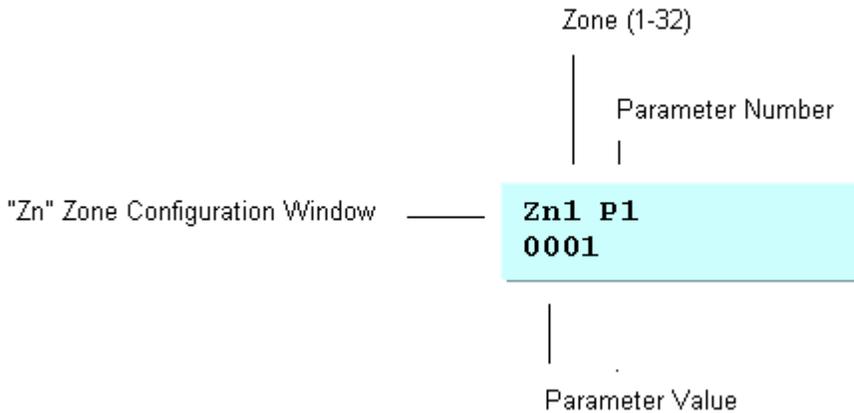
State Setting
 ZN = Zone Number (Range 1-32)
 IO = I/O Module (Manifold) Address 1-8
 F4 = "F" Flow Stat . "4" I/O Box No. 4
 R6 = "R" Return Stat . "6" I/O Box No. 6
 Et = External Temp



Calibration
 c1= Channel 1 Temp – Air Temp
 c2= Channel 2 Temp – Probe Temp

Access Calibration Mode Press & Hold Power Key

Zone Configuration



Press  to change Zone. Press  to change the zone parameter number. Use Numerical keys to enter the parameter value.

The following Table identifies the Zone parameters. Refer to the “iCon Sensor Operation” document for a detailed description of the use of the parameters.

| # | Parameter | Max Valve |
|---|---|-----------|
| 1 | Zone Type 0: UFH 1: RAD 2: DHW 3: PROBE | 3 |
| 2 | Zone Deadband | 20 |
| 3 | Zone Cooling Fan 1 Offset | 20 |
| 4 | Zone Cooling Fan 2 Offset | 20 |
| 5 | Zone Cooling Fan 3 Offset | 20 |
| 6 | Zone Secondary Maximum | 80 |

Zone will be forced to the OFF state if the temperature of the secondary channel is greater than the Secondary Maximum.

The override condition is not applied if the Screed Maximum is 0.

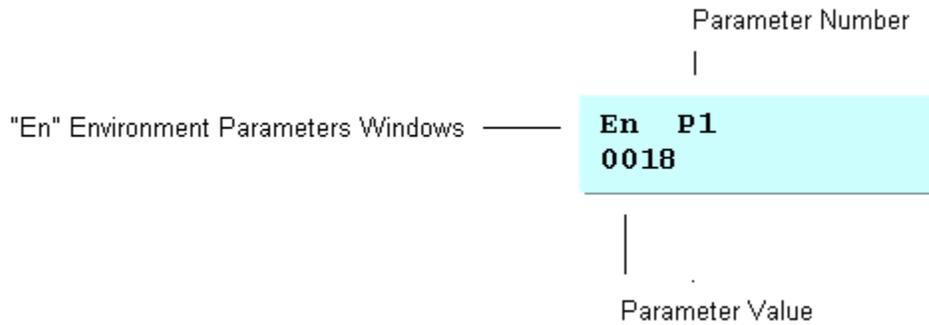
| | | |
|---|------------------------|----|
| 7 | Zone Secondary Minimum | 80 |
|---|------------------------|----|

Zone will be forced to the ON state if the temperature of the secondary channel is less than the Secondary Maximum.

The override condition is not applied if the Screed Minimum is 0.

| | | |
|---|-----------------------|----|
| 8 | Zone DHW Energy Saver | 80 |
|---|-----------------------|----|

Environment Parameters



Press  to change the system parameter number. Use Numerical keys to enter the parameter value.

| # | Parameter | Max |
|---|---------------------------|-----|
| 1 | Frost Protection | 18 |
| 2 | Minimum Heating Set-point | 18 |
| 3 | Minimum Cooling Set-point | 35 |

A cooling set-point cannot be set below the Minimum Cooling Set-point (e.g if the Minimum Cooling Set-point is 23 and a zone set-point plus Deadband is 21, then cooling set-point is set to 23).

Cooling is disabled if the Minimum Cooling Set-point is 0.

| | | |
|---|------------------|----|
| 4 | Module 1 Input 5 | 1 |
| 5 | Max Zones | 32 |
| If not programmed ("0") then the default number of zones (32) is assumed. | | |
| 6 | Max I/O | 8 |

If not programmed ("0") then the default number of I/Os (8) is assumed.

Virtual I/O modules must be included.