



REV 1

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CC200 API CLIENT

REV 20.1.17+

CRIOSU CONTROLS



Table of Contents

Introduction.....	2
Geo Weather Compensation.....	2
Access the “App Client” Setup Screen	2
“App Client” Setup Screen	3
Operation.....	4
When Outside Temperature is greater than the Reference Temperature plus the Differential.....	4
When Outside Temperature is less than the Reference Temperature minus the Differential:	5
Zone Screen.....	5

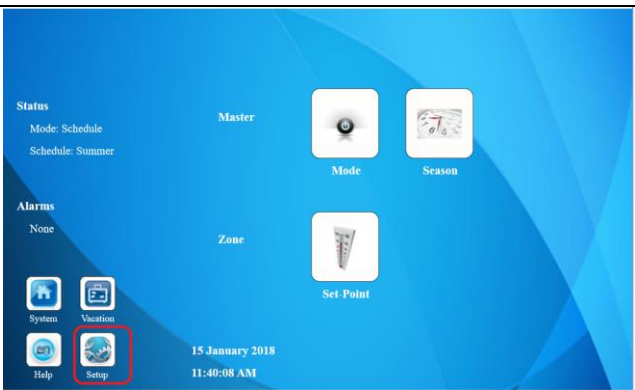
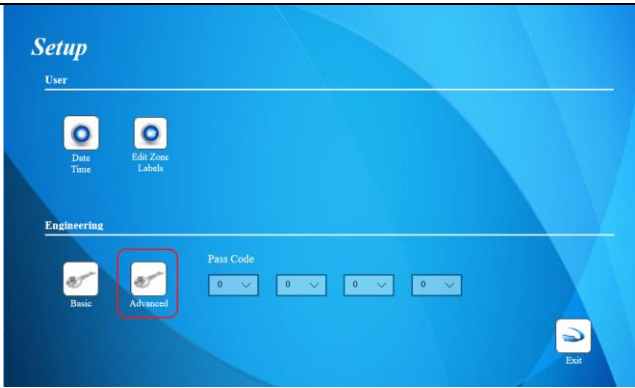
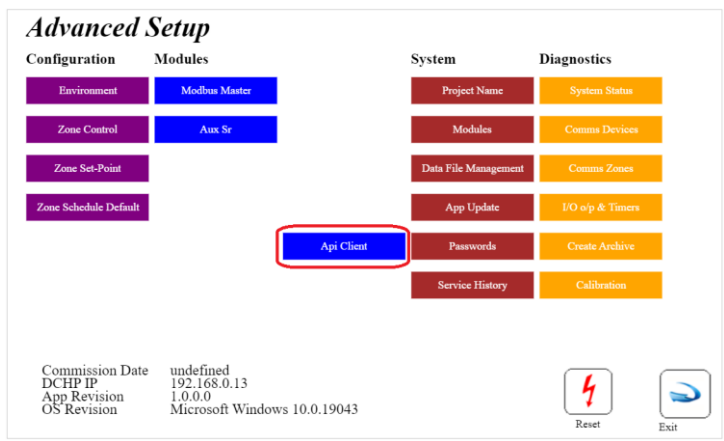
Introduction

Api Client connects to servers providing REST services for Geo Weather Compensation and Api Enabled Modules.

Geo Weather Compensation

Geo Weather Compensation adjusted a zone setpoint based on the outside Temperature.

Access the “App Client” Setup Screen

Step 1.	Press “Setup” on the Home Screen	
Step 2.	Press “Advanced” on the Setup Screen	
Step 3	Press “Api Client” in the Advanced Setup Screen	

“App Client” Setup Screen

Api Client

Weather Api

Longitude: -7.695040 Edit

Latitude: 52.354279 Edit

Reference: 24°C Differential: 2°C

☒ Enable

Test

External Temperature: 21.4
External Humidity: 74.7
Geo Offset: -1

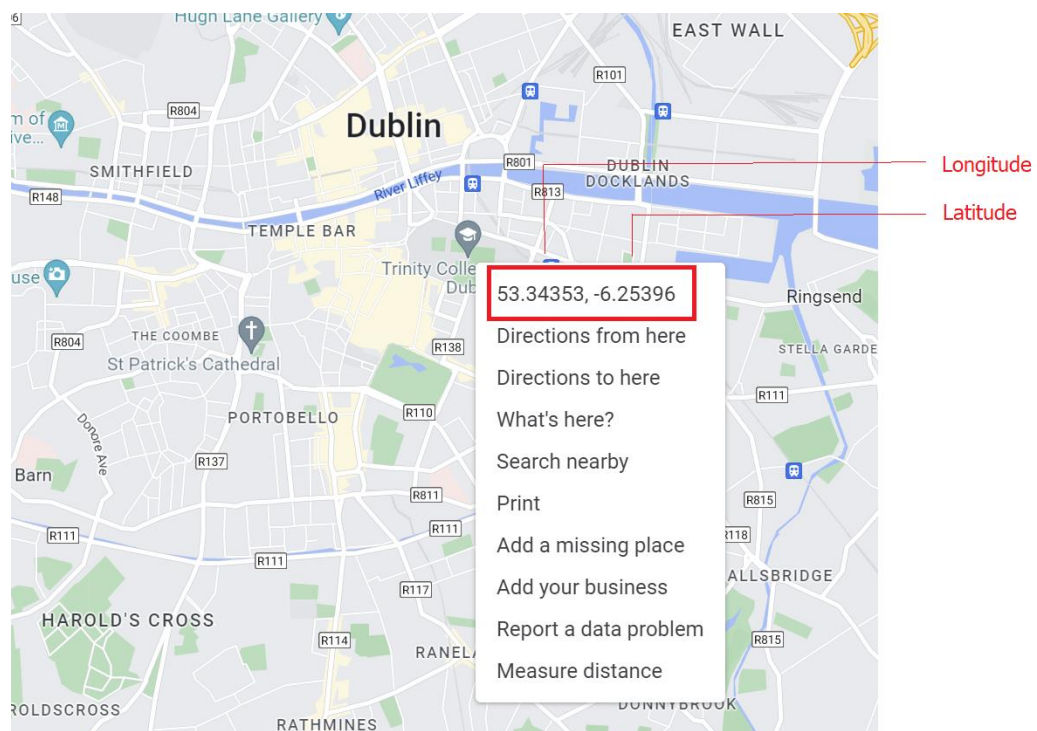
Exit

1. Longitude and Latitude

Longitude and Latitude are required to determine the exact location of the system. Use Google Maps to find the location

On your computer, open [Google Maps](https://www.google.ie/maps) (<https://www.google.ie/maps>)

Right-click the place or area on the map. This will open a pop-up window. You can find your latitude and longitude in decimal format at the top.



2. Reference Temperature

The temperature against which the outside temperature is compared in order to set the temperature adjustment to the Schedules Zone Setpoint.

3. Differential

The temperature adjustment is applied when the outside temperature is greater than the reference temperature plus the differential.

4. Enable

Check to enable Geo Weather Compensation.

Operation

Outside temperature is read every 30 minutes.

The Zone Setpoint is adjusted if the Outside Temperature greater than Reference Temperature plus the Differential or less than the Reference Temperature minus the Differential.

When Outside Temperature is greater than the Reference Temperature plus the Differential

$$\text{Offset} = \text{Outside Temperature} - (\text{Reference Temperature} + \text{Differential})$$

$$\text{Zone Setpoint} = \text{Schedule Zone Setpoint} + \text{Offset}$$

e.g Outside Temperature: 26°C
 Reference Temperature: 21°C
 Differential Temperature: 4°C
 DeadBand: 2°C
 Setback: 4°C
 Zone Setpoint: 20°C

$$\text{Offset} = 26^{\circ}\text{C} - (21^{\circ}\text{C} + 4^{\circ}\text{C})$$

$$\text{Offset} = 1^{\circ}\text{C}$$

When Heating is Scheduled ON

Heat when Zone T is less than 21°C (**20°C**+1°C)

Cool when Zone T is greater than 23°C (**20°C**+2°C+1°C)

When Heating is Scheduled OFF

Heat when Zone T is less than 17°C (**20°C** -4°C +1°C)

Cool when Zone T is greater than 19°C (**20°C**-4°C+2°C +1°C)

When Outside Temperature is less than the Reference Temperature minus the Differential:

$$\text{Offset} = (\text{Reference Temperature} - \text{Differential}) - \text{Outside Temperature}$$

$$\text{Zone Setpoint} = \text{Schedule Zone Setpoint} + \text{Offset}$$

e.g Outside Temperature: 16°C
Reference Temperature: 21°C
Differential Temperature: 4°C
DeadBand: 2°C
Setback: 4°C
Zone Setpoint: 20°C

$$\begin{aligned}\text{Offset} &= 16^{\circ}\text{C} - (21^{\circ}\text{C} - 4^{\circ}\text{C}) \\ \text{Offset} &= -1^{\circ}\text{C}\end{aligned}$$

When Heating is Scheduled ON

Heat when Zone T is less than 19°C (**20°C-1°C**)
Cool when Zone T is greater than 22°C (**20°C+2°C-1°C**)

When Heating is Scheduled OFF

Heat when Zone T is less than 15°C (**20°C -4°C -1°C**)
Cool when Zone T is greater than 17°C (**20°C -4°C+2°C -1°C**)

Zone Screen

