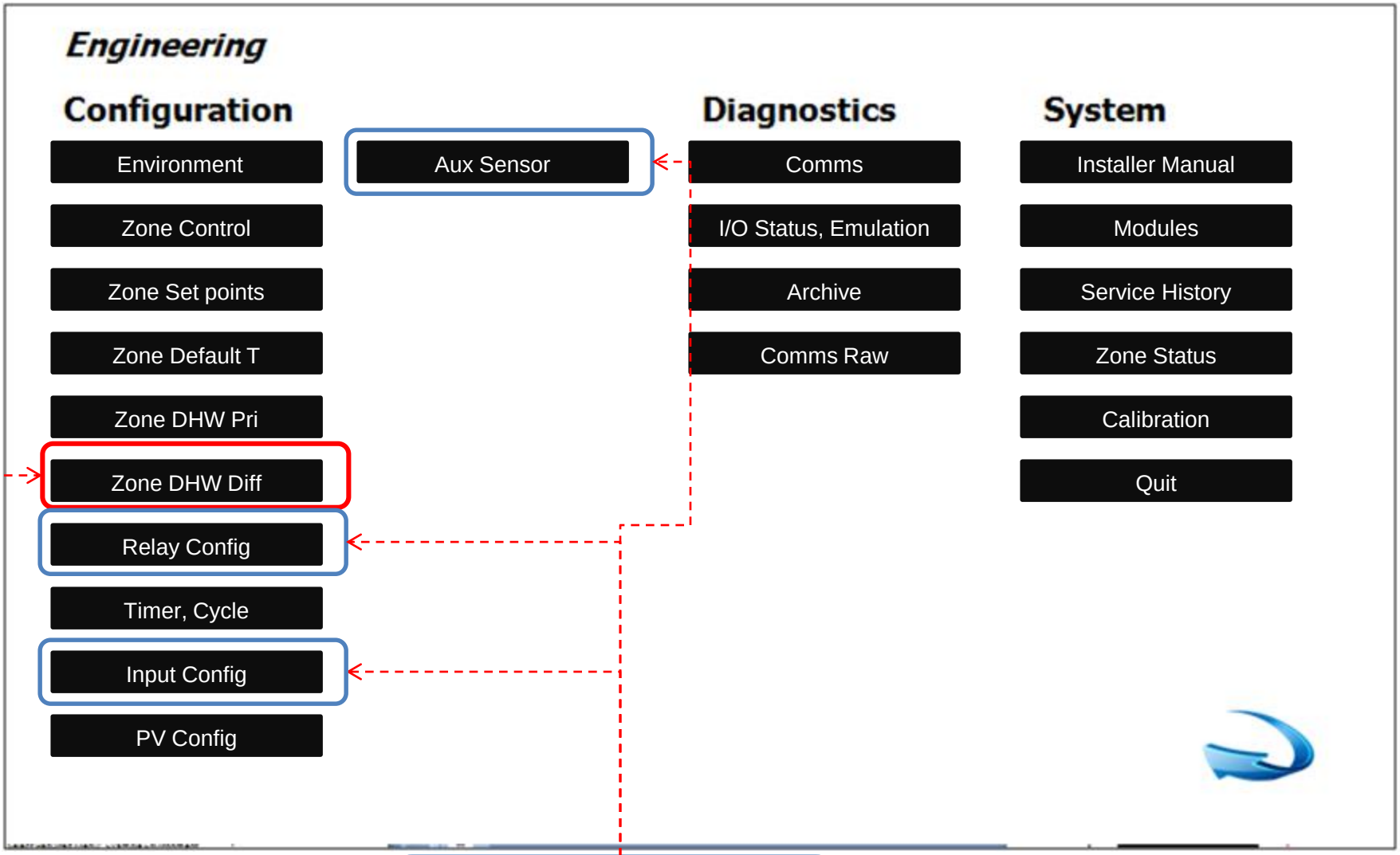
ComeraghControls
Intelligent Control Systems

iCon

Differential
DHW & Energy Source

Touch Screen CC200
Ver 18.6.1.105



Select
Zone DHW Diff

Other Module need to setup Diff
- ❖Relay Configuration
- ❖Aux Sensors
- ❖Input Config
- ❖DHW Diff

Differential : DHW & Energy Source

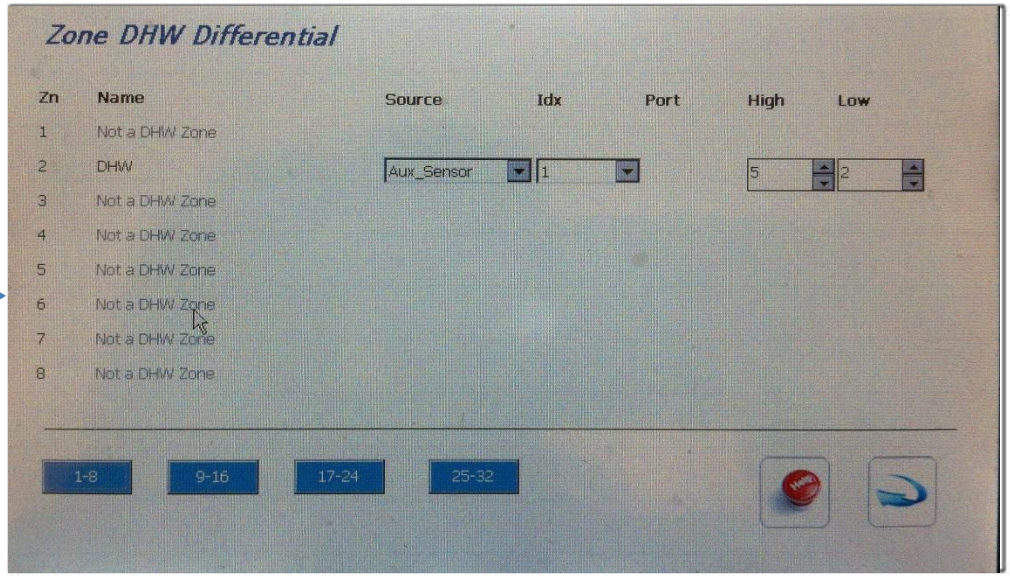
Overview

Any DHW zone can have a “Aux Sensor” attached to addition heat source (e.g. Solar Pane , Landlord Plate Heat Exchanger , etc).

If the difference between the [DHW Cylinder and the Heat Source] is Greater Than [Hi ΔT setting] Then Diff Flag is Active

Diff Flag remains active until between the [DHW Cylinder and the Heat Source] is Less Than [Lo ΔT setting]

Zone DHW Diff



Relay Configuration

Relay Config

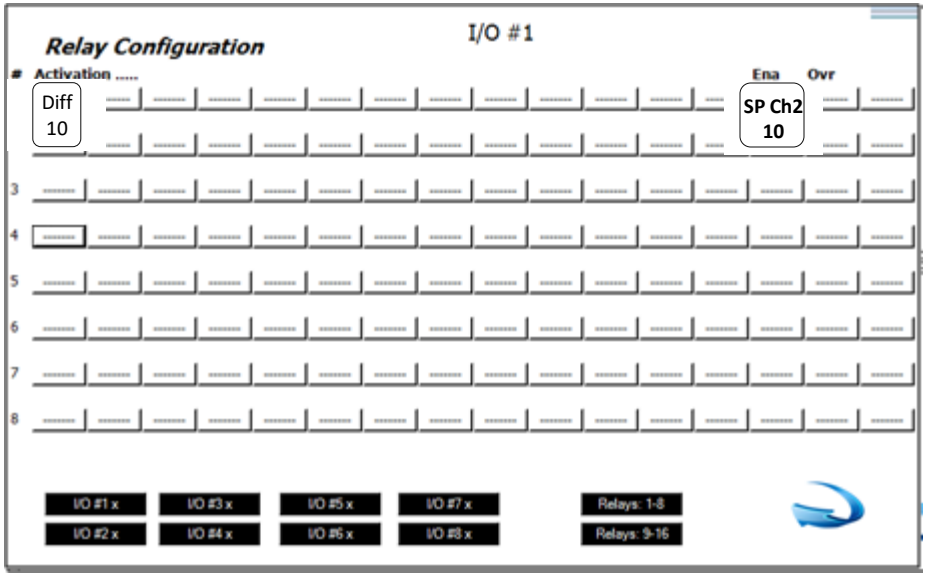
Command in Config List ***“Diff”***

Diff Flag can be use to activate pump , digit on bottom refers to the **Zone No**

Diff 10

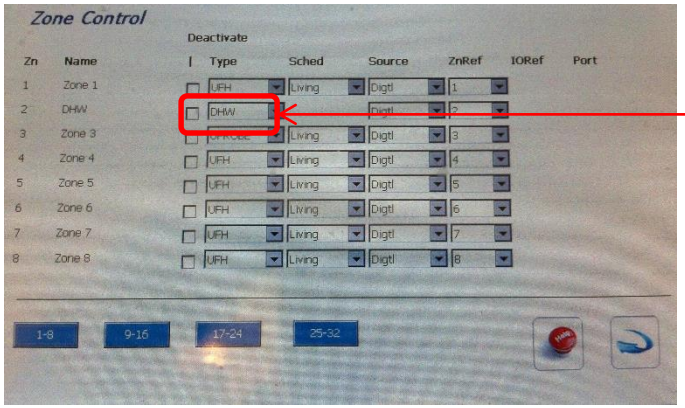
NB:

- Diff ignores the respective zone schedule (Always ON)
- Always use SPCH2/1 as enable , so zone only heats to required SP.



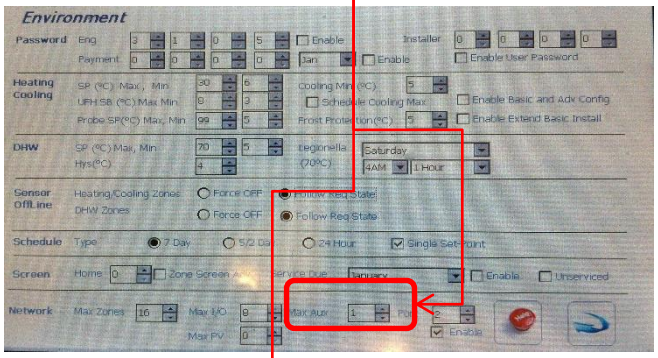
Differential : Set Up

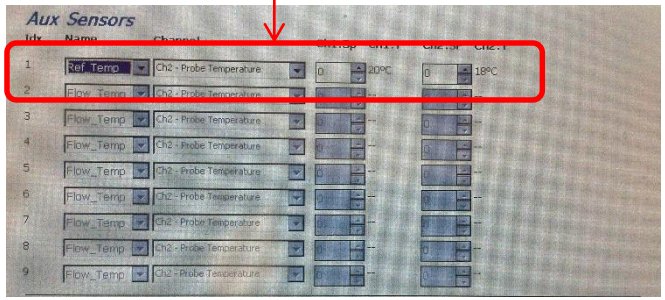
Step 1: Assign a DHW Zone e.g. Zone 10



Step 2: Assign a Differential Ref sensor i.e. Aux Sensor

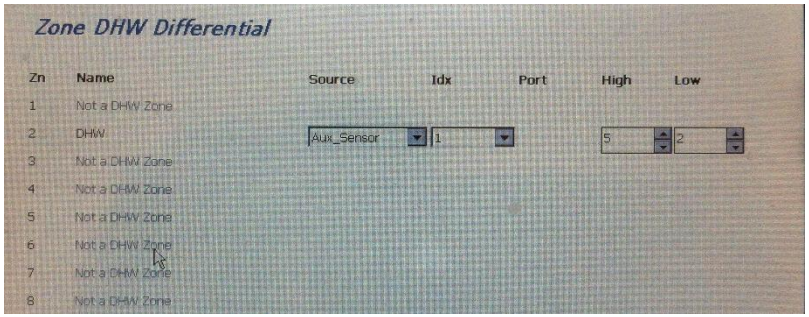
- In Environment Tab : Enter Qty of Aux needed i.e.
- Make this Aux sensor a Type : Name: Ref Temp





Step 3 Access "Zone DHW Diff" Tab

- Against the DHW zone assign Source as AUX
- Idx is associated wit IDX in aux Sensor Tab
- High(e.g. 5) Heat DHW is the Ref Temp is above 5 °C above DHW
- Low (e.g.) Stop heat DHW if Ref Temp fall to within 2 °C above DHW



Relay Config

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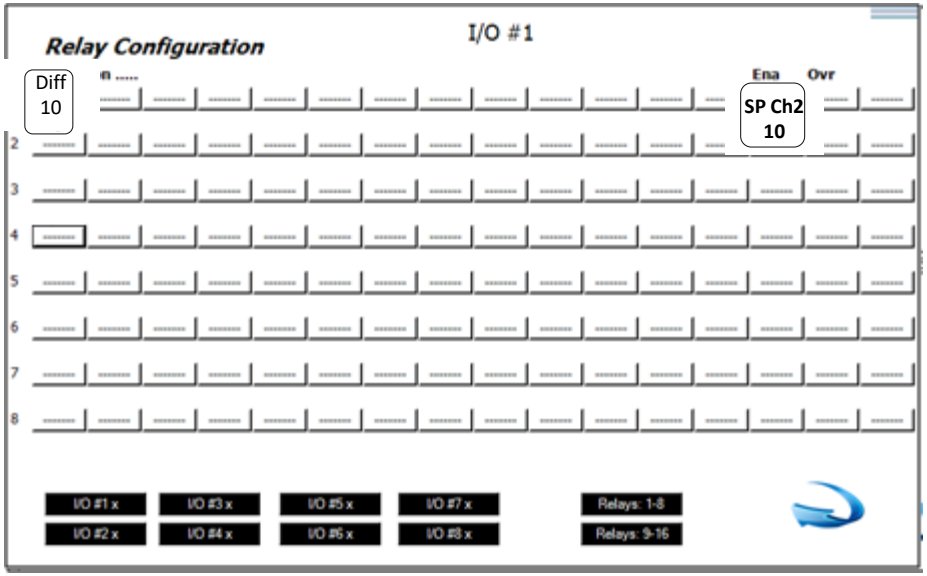
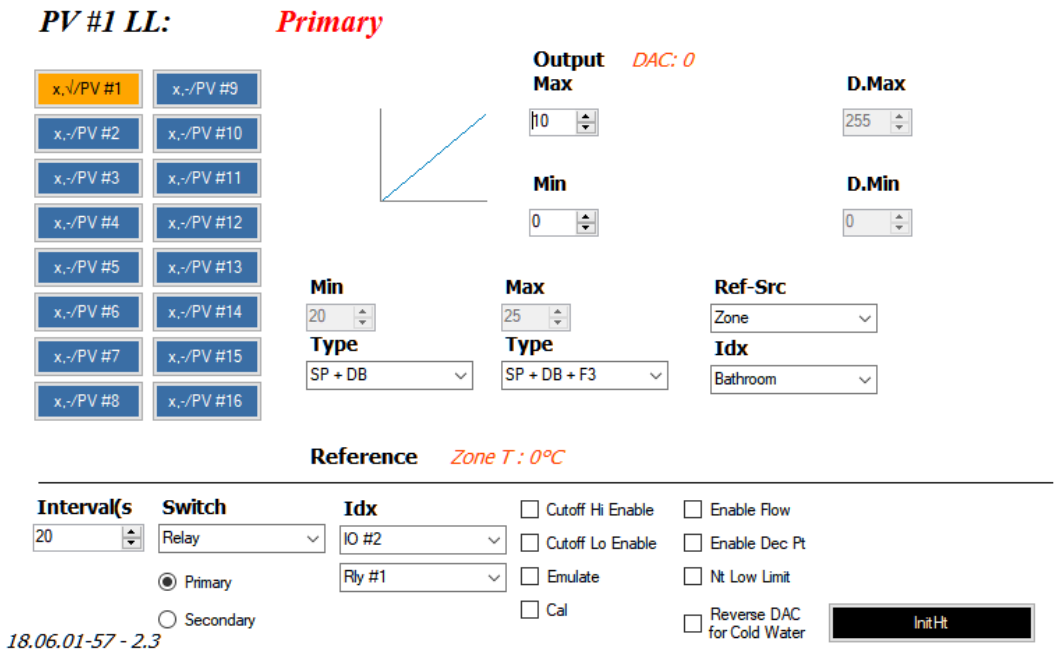


Diff – Zone

Application:	Diff switch FCU to heating
Comments:	1. If Room SP is ΔT(e.g. 5°C) above same room air temp, switch FCU to cooling 2. Limit the above operation , if room temp is above a limit e.g. 24°C)
Solution	0-10v LL1 – Cooling (as usual) Switch : Relay x:x (R2:1 Virtual I/O) Activate By Differential between SP & Air 0-10v LL2 – Heating (Factoring in Diff user setting)

Diff – Zone
LL1 – Cooling (as usual)

0-10v LL1 – Cooling (as usual)
Switch : Relay x:x (R2:1 Virtual I/O) Activate By Differential between SP & Air



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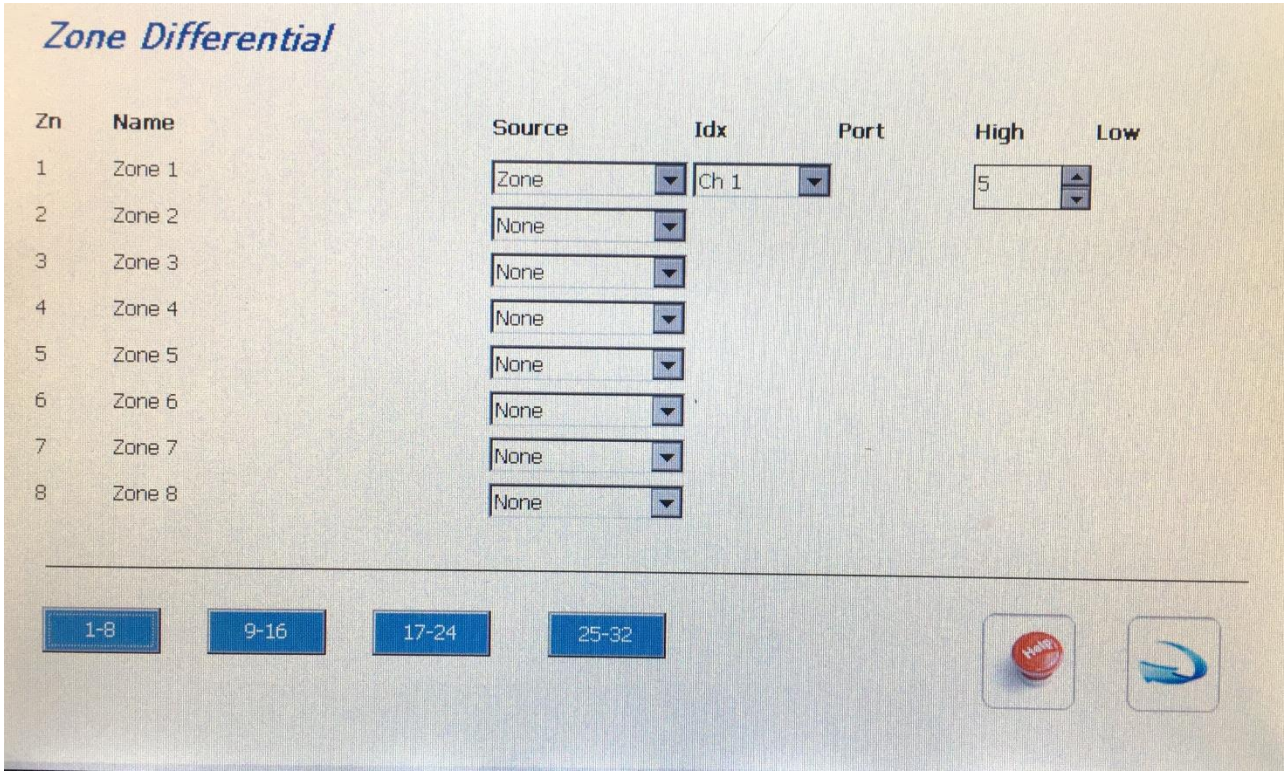
Intelligent Control Systems

Sheet	0	Title	IO_Pv1_LL1
Ref	Dove House Tech	Client	Alternative Heat
Date	10/08/2018	Contact	()

Diff – Zone
Set up Diff

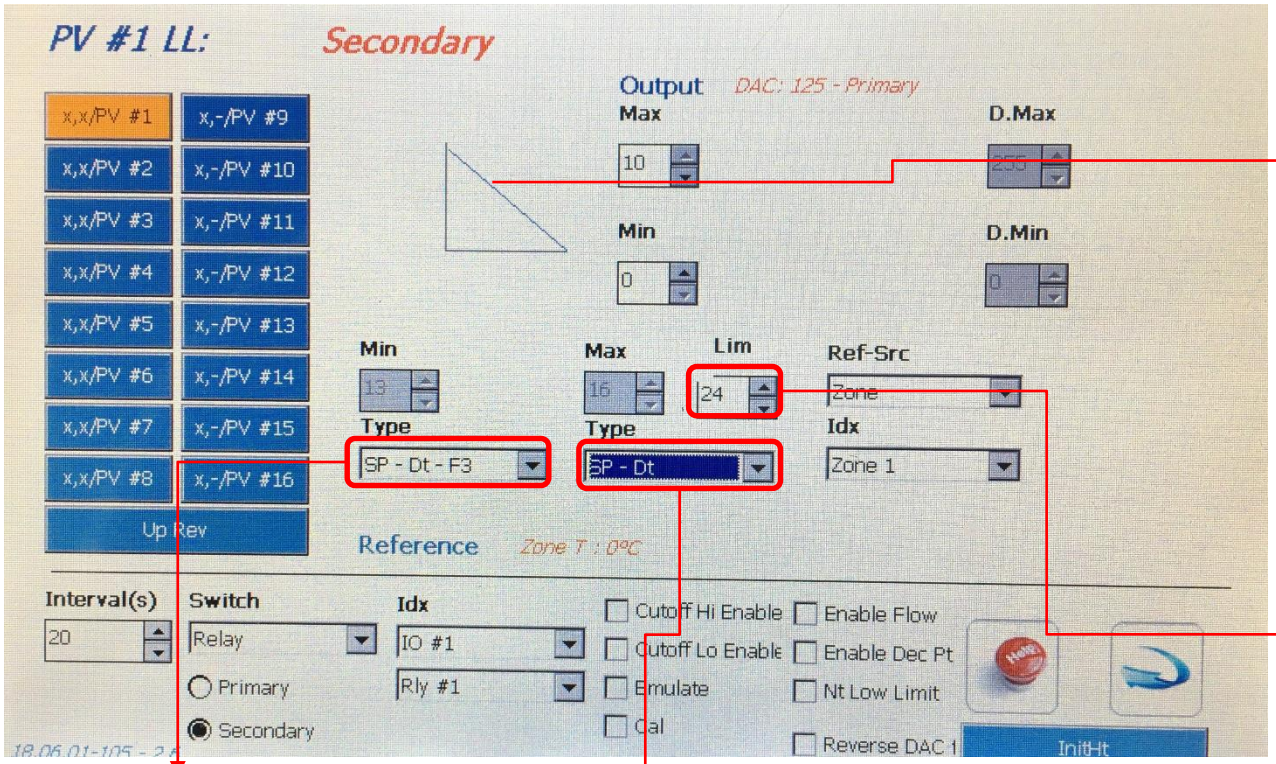
Comments:

Diff between air & SP (Currently Ref is I/O probe or Aux Sensor)
Diff Hi & Low (If ref Zone air):
Hi & Low valve would be same = 5



Diff – Zone
Set up LL2

0-10v LL2 – Heating (Factoring in Diff user setting)



Load Line:
Rectangular Option

Limit
Max Set to Valve = 24

Min Limit
Options
SP-Δ
SP-Δ-F1
SP-Δ-F2
SP-Δ-F3(Use This)

Max Limit
Options
SP-Δ (Use This)
SP-Δ-F1
SP-Δ-F2
SP-Δ-F3