

REV 1

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# IO SETUP (REV 20.1.19+)

CRIOSU CONTROLS

## Table of Contents

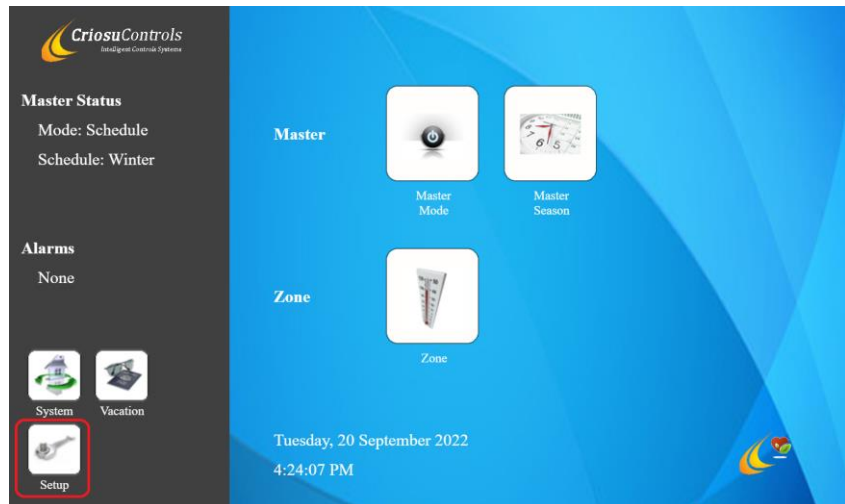
Introduction.....	2
Access Basic Configuration.....	2
Basic Configuration Screen .....	3
Zone Type.....	4
DHW Zone Type .....	4
Relay Source .....	4
Key.....	6

## Introduction

IO Setup associated Module Relay Outputs with zone heating& cooling and system status flags.

## Access IO Setup

Step 1. Press “Setup” on the Home Screen



Step 2. Press “Basic” on the Setup Screen



# IO Setup Screen

**Relay Control**

Zone

- Zone
- Undef
- System
- Relay
- Input
- AuxSr
- Alarms

**Zone Type**

UFH

- UFH
- UPROBE
- RAD
- PROBE
- DHW
- SCHED
- E\_UFH

**Zone Source**

Digital

- None
- Probe
- Dial
- Digital
- Zigbee

**Zone Flag (when Relay Control is "Zone")**

Ht

- Ht
- Cl
- F1
- F2
- F3
- HC
- Sch
- RH
- Ch1

Rly #	Zone	Ht	Zn #1	Zone Type	Zone Source	Relay #	Probe Inputs
Rly #1	Zone	Ht	Zn #1	UFH	Digitl	Relay #1	#1
Rly #2	Undef					Relay #2	#2
Rly #3	Undef					Relay #3	#3
Rly #4	Undef					Relay #4	#4
Rly #5	Undef					Relay #5	#5
Rly #6	Undef					Relay #6	#6
Rly #7	Undef					Relay #7	#7
Rly #8	Undef					Relay #8	#8
Rly #9	Undef					Relay #9	#9
Rly #10	Undef					Relay #10	#10

CC773

I/O #1

cc773\_R10i8

220VAC

Update Exit

*Note 1. Pump: 2Min On, 1 Min Off delay.*

*Note 2. Boiler: 3Min On delay.*

Probe Inputs are automatically assigned when Relay Control is set to "Zone" and Zone Source is set to "Probe"

I/O Module

I/O Module Type

- cc773\_R10i8
- cc771\_R16
- cc773\_R10i8

Press to Save Changes

The Zone Set-Point is reset to the default setting when the zone type is changed to/from DHW.


Configuration are only saved to memory when the "Update" button is pressed.

## Relay Source

Source	Description (condition to set relay output)	Source	Description (condition to set relay output)
Unused	Zone source is undefined.	P_Boiler	Set when DHW zone calls for heat or, when any space zone (non DHW zone) calls for heat AND P_SysCl_OH is NOT set.
Zn_Plate	Set when zone cc767 probe input calls for heat.	P_SysHt	Set when any zone calls for heat AND P_SysCl_OH is NOT set.
Zn_Dial	Set when zone Dial STAT input calls.	P_SysCl	Set when any zone calls for cooling.
Zn_Digital	Set when zone cc764 Digital Sensor calls for heat.	P_Cl_Oh	Set when any zone calls for cooling. (this flag is used to override heating zones but only when in use).
Zn_Sched	Set when the zone schedule calls.		
P_UfhHt	Set when any UFH zone calls for heat AND P_SysCl_OH is NOT set.		
P_Mf	Set when any UFH or UProbe zone calls for heat on THIS logic Box AND P_SysCl_OH is NOT set.		
P_EUfhHt	Set when any EUfh zone calls for heat AND P_SysCl_OH is NOT set.		
P_RadHt	Set when any RAD zone calls for AND P_SysCl_OH is NOT set.		
P_DHW	Set when any DHW zone calls for heat.		

## Zone Type

The conditions under which a zone will CALL FOR HEAT when the REQUESTED ZONE STATE is **Heat On** (Scheduled On, On for 1/2/3 hour, or Constant On), **Heat Off** (Scheduled Off, Off for Today or Constant Off) or, **Disable**.

	Heat On	Heat OFF	Disable
<b>UFH</b> <sup>1,2,3</sup>	Tch1 less than SP + Bh + Op Override Heat to OFF if Tch2 is greater than Scred Max Override Heat to ON if Tch2 is less than Scred Min	Tch1 less than SP - SB. Override Heat to OFF if Tch2 is greater than Scred Max	Tch1 less than FP. Override Heat to OFF if Tch2 is greater than Scred Max
<b>E_UFH</b> <sup>2,3</sup>	if Tch1 less than SP + Op Override Heat to OFF if Tch2 is greater than Scred Max Override Heat to ON if Tch2 is less than Scred Min	Tch1 less than SP OFF. Override Heat to OFF if Tch2 is greater than Scred Max	Tch1 less than FP. Set to OFF if Tch2 is greater than Scred Max
<b>RAD</b> <sup>2,3</sup>	Set Heat to On if Tch1 is less than SP Override Heat to OFF if Tch2 is greater than Scred Max Override Heat to ON if Tch2 is less than Scred Min	Tch1 is less than SP OFF Override Heat to OFF if Tch2 is greater than Scred Max	Tch1 is less than FP Override Heat to OFF if Tch2 is greater than Scred Max
<b>Probe</b> <sup>2,3</sup>	Tch2 is less than SP	Tch2 is less than SP OFF	Tch2 is less than FP
<b>UProbe</b> <sup>1,2,3</sup>	Tch2 is less than SP + Bh + Op	Tch2 is less than SP - SB	Tch2 is less than FP
<b>SCHED</b>	SCHED is a special zone type. The zone ON state follows the Requested Zone state (set manually or by the schedule). There is no Temperature component.		
<b>DHW</b>	Tch2 less than SP.	Tch2 less than SP	Tch2 less than FP.
<b>Note 1</b>	BH - Boot Heat is applied at a user defined period in the Zone Advanced Screen. Boost heat must be enabled in the Master Season Screen.		 Exit
<b>Note 2</b>	Op - optimization set in the Zone Advanced Screen and is only applied in schedule mode.		
<b>Note 3</b>	Scred - Scred measurement are used as overrides. Scred min and max are set in the Setup Zone Set-Point Screen. Scred functionality is disabled when screed setting are set to '0'.		

## DHW Zone Type

- Hysteresis** The Hysteresis is set in the Setup Environment Screen.
- Legioella** Heat is ON when Legionella Scheduling is Active AND T is greater than 70°C
- Note 1. Legionella is set in the Environment screen.
  - Note 2. Legionella can only run in the system schedule, Heating all OFF and ALL ON mode.
  - Note 3. Legionella overrides the normal DHW Operation (zDHW flag).
- Differential** The DHW Differential Flag (zDiff) is set when the DHW is greater or less than a user defined reference.
- Differential Flag is set when  $\text{Diff\_T}$  is greater then T plus Diff Hi  
Differential Flag is unset when  $\text{Diff\_T}$  is less than or equal to then T plus Diff Lo
- Note 1.  $\text{Diff\_T}$  is the differential reference temperature.
  - Note 2.  $\text{Diff\_Hi}$  and  $\text{Diff\_lo}$  are the hysteresis values.
  - Note 3. The reference temperature source may be Aux Sensor or IO probe.
  - Note 4. Differential is independent of the zone state.
  - Note 5. The 'zDiff' flag in the 'Relay Config' screen may be used for output control.

## Key

<b>UFH</b>	Underfloor Heating	<b>TCh1</b>	Channel 1 - Sensor Air Temperature
<b>E_UFH</b>	Electric Underfloor Heating	<b>TCh2</b>	Channel 2 - Probe Temperature
<b>RAD</b>	Radiator	<b>SP</b>	Set-Point
<b>Probe</b>	Probe input Acts like a Radiator type zone for the Heat Off state The probe input is CH2 on the cc763 digital sensor	<b>SB</b>	Set-Back (set in the Zone Advanced Screen)
<b>UProbe</b>	Probe input Acts like a UFH type zone for the Heat Off state The probe input is CH2 on the cc763 digital sensor	<b>SP Off</b>	Off Set-Point(set in the Zone Advanced Screen)
<b>SCHED</b>	Schedule type zone. There is no temperate component.	<b>FP</b>	Frost Protection (set in the Setup Environment Screen)
<b>DHW</b>	Domestic Hot Water		