REV 1

IO SETUP
(REV 20.1.19+)

CRIOSU CONTROLS

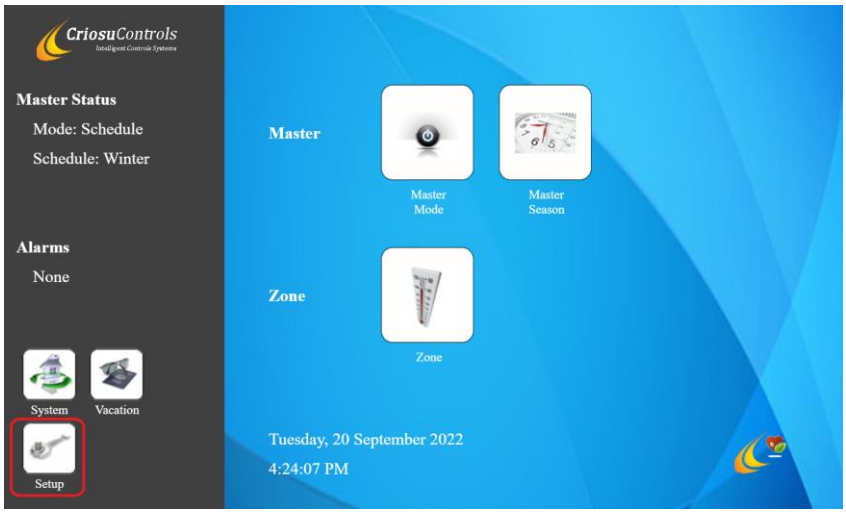
Table of Contents

Introduction

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

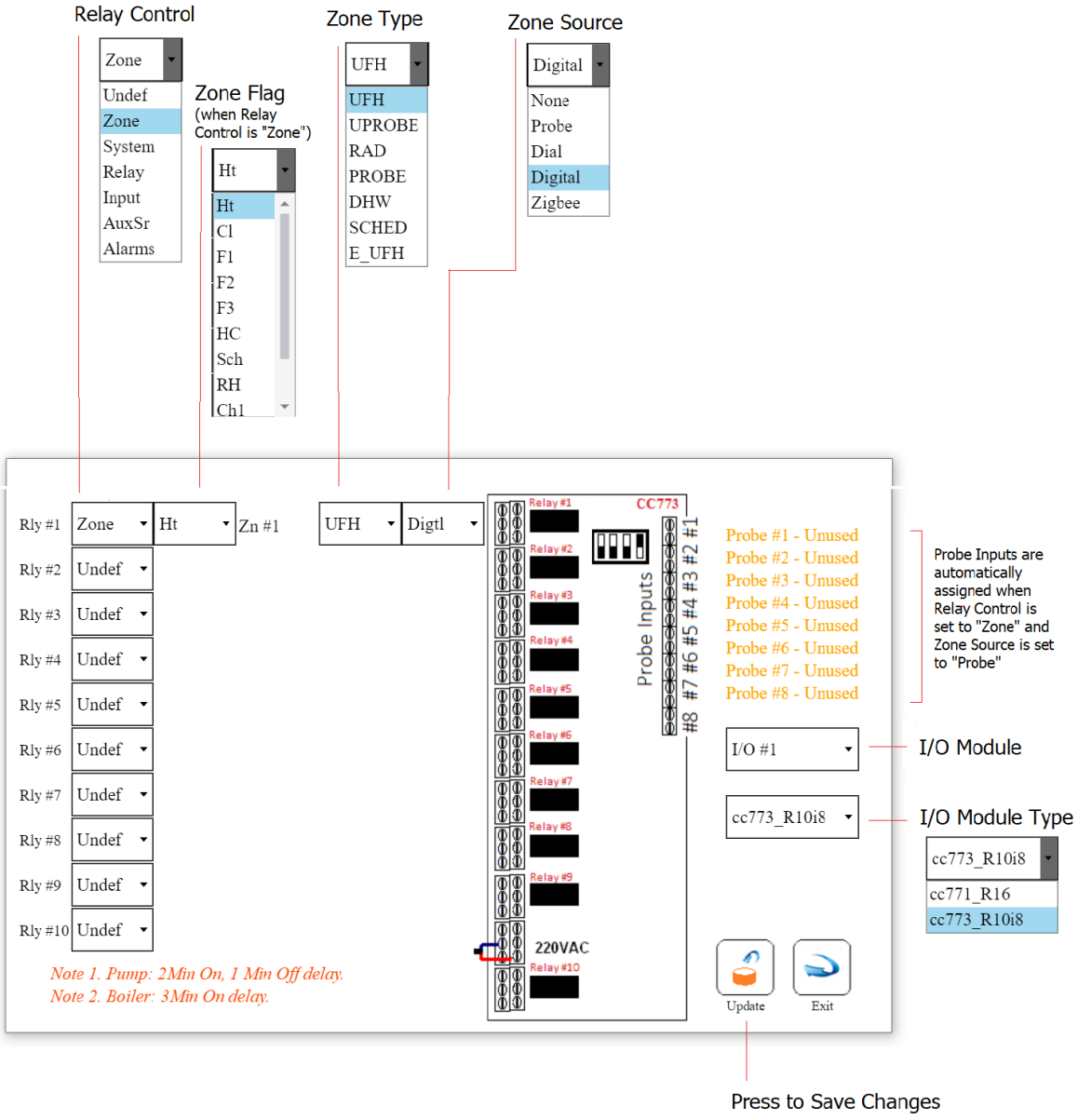
Access IO Setup

Step 1. Press "Setup" on the Home Screen



Step 2. Press "Basic" on the Setup Screen

IO Setup Screen



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)
Unused	Zone source is undefined.
Zn_Plate	Set when zone cc767 probe input calls for heat.
Zn_Dial	Set when zone Dial STAT input calls.
Zn_Digital	Set when zone cc764 Digital Sensor calls for heat.
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.

Source	Description (condition to set relay output)
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.
P_SysHt	Set when any zone calls for heat AND P_SysCl_OH is NOT set.
P_SysCl	Set when any zone calls for cooling.
P_Cl_Oh	Set when any zone calls for cooling. (this flag is used to override heating zones but only when in use).

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
UFH[1,2,3]	Tch1 less than SP + Bh + Op Override Heat to OFF if Tch2 is greater than Screed Max Override Heat to ON if Tch2 is less than Screed Min	Tch1 less than SP - SB. Override Heat to OFF if Tch2 is greater than Screed Max	Tch1 less than FP. Override Heat to OFF if Tch2 is greater than Screed Max
E_UFH[2,3]	if Tch1 less than SP + Op Override Heat to OFF if Tch2 is greater than Screed Max Override Heat to ON if Tch2 is less than Screed Min	Tch1 less than SP OFF. Override Heat to OFF if Tch2 is greater than Screed Max	Tch1 less than FP. Set to OFF if Tch2 is greater than Screed Max
RAD[2,3]	Set Heat to On if Tch1 is less than SP Override Heat to OFF if Tch2 is greater than Screed Max Override Heat to ON if Tch2 is less than Screed Min	Tch1 is less than SP OFF Override Heat to OFF if Tch2 is greater than Screed Max	Tch1 is less than FP Override Heat to OFF if Tch2 is greater than Screed Max
Probe[2,3]	Tch2 is less than SP	Tch2 is less than SP OFF	Tch2 is less than FP
UProbe[1,2,3]	Tch2 is less than SP + Bh + Op	Tch2 is less than SP - SB	Tch2 is less than FP
SCHED	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.		
DHW	Tch2 less than SP.	Tch2 less than SP	Tch2 less than FP.

Note 1 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.
Note 2 Op - optomization set in the Zone Advanced Screen and is only applied in schedule mode.
Note 3 Screed - Screed measurement are used as overrides. Screed min and max are set in the Setup Zone Set-Point Screen. Screed functionality is disabled when screed setting are set to '0'.


Exit

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 Diff_T is greater then T plus Diff Hi
Differential Flag is unset when Diff_T is less than or equal to then T plus Diff Lo

Note 1. Diff_T is the differential reference temperature.
Note 2. Diff_Hi and 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

UFH	Underfloor Heating
E_UFH	Electric Underfloor Heating
RAD	Radiator
Probe	Probe input Acts like a Radiator type zone for the Heat Off state The probe input is CH2 on the cc763 digital sensor
UProbe	Probe input Acts like a UFH type zone for the Heat Off state The probe input is CH2 on the cc763 digital sensor
SCHED	Schedule type zone. There is no temperate component.
DHW	Domestic Hot Water

TCh1	Channel 1 - Sensor Air Temperature
TCh2	Channel 2 - Probe Temperature
SP	Set-Point
SB	Set-Back (set in the Zone Advanced Screen)
SP Off	Off Set-Point(set in the Zone Advanced Screen)
FP	Frost Protection (set in the Setup Environment Screen)