Intuition-9 Controller Relay Interlocks

There are several different types of interlocks that can be programmed into the controller. This document discusses using the Interlock Channel field in the Relay menu, specifically, enabling one relay to interlock another relay.

Intuition-9 Controllers

To navigate to the Relay Interlock menu, please follow the screen shots below.

Intuition-9: Go to Outputs.

A	Home Inputs Outputs	G	raphs 👸 HOA	Config 🛕
	▲ T-1A Level (S11)		P-1A Pump (R11)	Off
	Inch	es	CV-5 (R12)	Off
	<u>∧</u> PS-3 (S13)		CV-6 (R13)	0.0%
		osi	P-2A (R14)	0.0%
	▲ LS-9 (S21)		MP-7 (R21)	Off
	Inch	es 🔺	MP-7A (R22)	Off 🔿
	PS-4 (S22)		Alarm (R23)	Off 🔵
•	64.61	psi	P-3A (R24)	Off

Select the Relay, R11.

Home Inputs	Outputs	Graphs	🕉 НОА	Config	▲		
P-1A Pump (R11)	P-1A Pump (R11)						
Off			Of	F			
CV-6 (R13)	CV-6 (R13)						
0.0	%		0.0		%		
MP-7 (R21)	MP-7 (R21)			MP-7A (R22)			
Off			Of	F			
Alarm (R23)	P-3A (R2	24)					
Off			Of	F			

Go to Settings.

P-1A Pump (R11) Off	
Status	Auto Mode
Time On	0:00
24-Hour Time	0:00
Total Time	0:00

Go to Interlock Channels.

P-1A Pump (R11) Off	
HOA Setting	Auto
On Delay Time	0:00:00
Off Delay Time	0:00:00
Interlock Channels	

Press on the Interlock Channels field (shown above).

P-1A Pump (R11) Interlock Channels X ~ **Digital Inputs Relay Outputs Control Outputs** D2 D1 D3 R11 R12 R13 C1 C2 C3 C4 D4 D5 D6 R21 R14 R22 C5 **C6** C7 C8 D7 D8 D9 R23 R31 C9 C10 C11 C12 R24 R D10 D11 D12 C13 R32 R33 R34 C14 C15 C16

Press on R21 (shown below), and you will see this screen:

In this example, you've programmed the R1 relay such that if R21 activates, R11 will be interlocked. If R11 is On when R21 activates, R11 will immediately shut Off. If R11 is Off when R21 activates, R11 will not be able to activate until R21 deactivates. This is referred to as Permissive Interlock.

Now keeping the above programming in R11 menu, let's say you go to Relay21 menu, **Outputs/R21/Settings/Interlock Channels** and press on R11, as shown in the screen shot below.

MP-7 (R21) 🔗 🔀 Interlock Channels									
Digital Inputs			Relay Outputs			Control Outputs			
D1	D2	D3	R11	R12	R13	C1	C2	C3	C4
D4	D5	D6	R14	R21	R22	C5	C6	C7	C8
D7	D8	D9	R23	R24	R31	C9	C10	C11	C12
D10	D11	D12	R32	R33	R34	C13	C14	C15	C16

Since the R11 menu has Interlock Channels R21, and the R21 menu has Interlock Channels R11, whichever relay activates first will prevent the other relay from activating. This is referred to as Mutual Interlock.