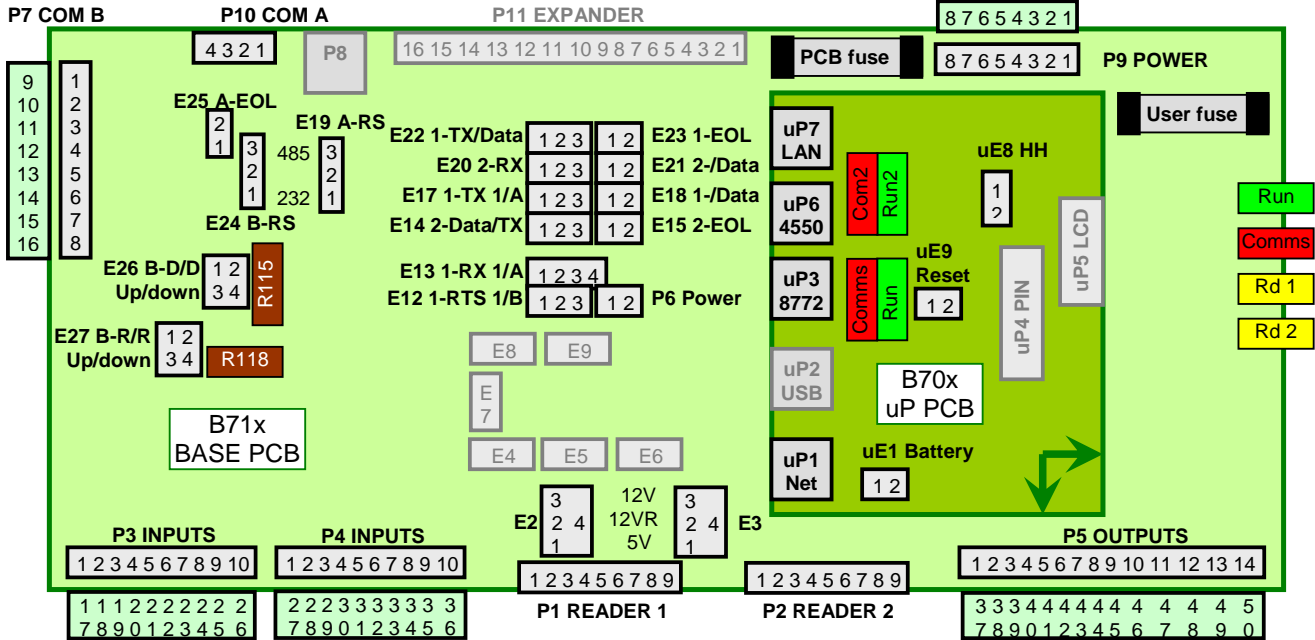




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# CR390 CONNECTIONS Revision 00.56



## uP PCB

- uP PCB mounts on BASE PCB with bottom edge against P5 and right edge against relays.
- Micro-processor PIC18F8772 programmed via **uP3**, PIC18F4550 via **uP6**. **uE9** must be removed when programming 8772. Future updates will allow programming via Net / USB (Net / USB drivers programmed via **uP6**). Microchip IDE programmers with cable are available from Softcon and the latest FW versions are available on [www.softconserv.com](http://www.softconserv.com).
- Standard NET (**uP1**) and USB (**uP2**) connections. NET crossover cable connected to PC, 1-to-1 to hub. The two LEDs on the Net connector flash alternatively when the CR390 is attempting to connect to the Net and no connection is found. Once connected, the left LED flashes when data is received and the right when data is transmitted.
- **uP7** (future use), **uP4** (PIN pad) and **uP5** (LCD) are generally not installed.
- **uE8** enables HH – **HAND PROGRAMMER** (plugged in at **P10**). Remove **uE8** if no HH. Inserting link changes SerA to HH if SerB is not HH. **uE9** **RESETS** the SRAM and ERAM to defaults when link is inserted (Rd1 and Rd2 LEDs light up) and removed (when Rd1 LED off, Rd2 on). First such a reset after power-up with uE8 in, defaults SerB to test.
- **uE1** links battery on base PCB to SRAM, RTC. When not in use, remove **uE1**.

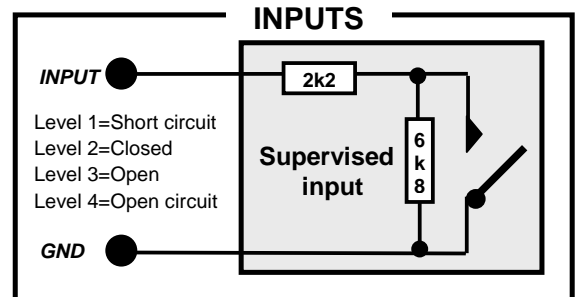
The Run and Comms LEDs match the LEDs on the base PCB. Run LED ticking once a second indicates that the 8772 is running and the Run2 LED that the 4550 is running. Comms LED indicates communication with the PC.

## BASE PCB

- Links **E4** to **E11** generally not installed and have etched tracks between pins 1 and 2. See manual for touch readers.
- For all other reader link 1-2 (etched). **E2** (reader 1), **E3** (reader 2) provide 12V (2-3), 12V via 90 ohm (2-4), 5V (1-2).
- For non-serial readers, links **E6** and **E7** for reader 1, and **E10** and **E11** as etched 1-2. For serial readers links 2-3 (etched link must be cut).
- Serial COM A: **E19** selects RS232 (1-2) or RS485 (2-3). **E27** (1-2, 3-4) RS485 pull-up/down, **R115** terminator.
- Serial COM B: **E24** selects RS232 (1-2) or RS485 (2-3). **E26** (1-2, 3-4) RS485 pull-up/down, **R118** terminator.
- **E23** (reader 1), **E15** (reader 2) provide 120 ohm termination for RS485 readers (10k ohm pull-up, down provided).

T	P9	POWER
	1	5V from regulator.
	2	Ground.
	3	12V to regulator.
	4	AC 12V.
	5	AC 12V.
	6	AC 9.7V.
	7	AC 9.7V.
	8	Ground.

T	P7*	COMMS B
9	1	RTS (RS232).
10	2	Ground.
11	3	Data (RS485).
12	4	/Data.
13	5	RX (RS232).
14	6	TX (RS232).
15	7	RTS (RS485).
16	8	/RTS (RS485).



T	P5	PORT	OUTPUTS**
37	1	4	Relay 4 NC (Capture).
38	2		Relay 4.
39	3	3	Relay 3 NC (Aux output 1).
40	4		Relay 3.
41	5	2*	Relay 2 NO (Latch 2).
42	6		Relay 2.
43	7	1*	Relay 1 NO (Latch 1).
44	8		Relay 1.
45	9		12VAC (user).
46	10		12VAC (user).
47	11		12V (user).
48	12		Ground (user).
49	13		Ground (user).
50	14		12V (user).

P8	COM A (RS232)
1	12V.
2	RX.
3	TX.
4	RTS.
5	Ground.
6	5V.

P10 COM A (RS485 HH)	
1	12V.
2	Data.
3	/Data.
4	Ground.

\*Note: Levels set-up of output 1=closed, 2=open, 3=open permanently (unlocked), 4=closed permanently (locked).

\*\* Reserved port allocations are for CR351-4 mode. Port allocations are configurable in CR355 mode.

T	P3	PORT	INPUTS(supervised)**
17	1		Ground.
18	2	1	Input 1 (Egress 1).
19	3	2*	Input 2 (Action complete 1).
20	4	3	Input 3 (Egress 2).
21	5	4*	Input 4 (Action complete 2).
22	6		Ground.
23	7		Input 5 (Booth occupied).
24	8		Input 6 (Capture monitor).
25	9		Input 7 (Reader 1 enable).
26	10		Input 8 (Reader 2 enable).

T	P4	PORT	INPUTS(supervised)**
27	1		Ground.
28	2		Input 9 (APB reader 1).
29	3		Input 10 (APB reader 2).
30	4		Input 11 (APB reset).
31	5		Input 12 (Input for CR355 mode).
32	6		Ground.
33	7	5	Input 13 (Aux input 1).
34	8	6	Input 14 (Aux input 2).
35	9	7	Input 15 (Aux input 3).
36	10	8	Input 16 (Aux input 4).

\*Note: Levels set-up of input 1=closed, 2=open, 3=illegally open, 4=open too long, 5=door not opened.

CR390 supervised input 1=SS, 2=closed, 3=open, 4=OC, 5=illegally open, 6=open too long, 7=door not opened.

\*\* Reserved port allocations are for CR351-4 mode. Port allocations are configurable in CR355 mode.

P9	READER 1
1	Power 5V (link E3 1-2), 12VR (2-4) or 12V (2-3).
2	Data/LO/Touch.
3	Clock/HI.
4	Ground.
5	Green LED.
6	Yellow LED.
7	Red LED.
8	Data – TX.
9	/Data – RX.

P10	READER 2
1	Power 5V (link E4 1-2), 12VR (2-4) or 12V (2-3).
2	Data/LO/Touch.
3	Clock/HI.
4	Ground.
5	Green LED.
6	Yellow LED.
7	Red LED.
8	Data – TX.
9	/Data – RX.

- Node address set with programmer.
- Front processors require the setting (with hand programmer) ABCD where:  
A=node 2 on P2            B=node 1 on P2 (A and B currently not possible)  
C=node 2 on P10         D=node 1 on P10  
0=none, 1=installed

<b>CR Name / NODE</b>	name		node			
<b>CR type / PC type</b>	CR		PC			
<b>IP / MASK</b>	ip		mask			
<b>Gate / MAC</b>	gate		mac			
<b>Front / Serial</b>	front	type	baud		bits	parity
<b>*Prev/Next CR</b>	previous			next		

\*Note: Only earth LAN segment to previous controller (towards MUX)