

size: 4.60" x 2.75"

Supervised Door Logic Board # H197-200

Inputs for:

- Door control pushbutton
- Lamp Test pushbutton
- Silence pushbutton
- Supervised 2-wire connection to door limit switch
- Interlock input

Outputs for:

- Red LED
- Green LED
- Door control relay coil
- Sonalert
- Interlock Output

Requires 5 volt DC power.

LOGIC FUNCTIONS:

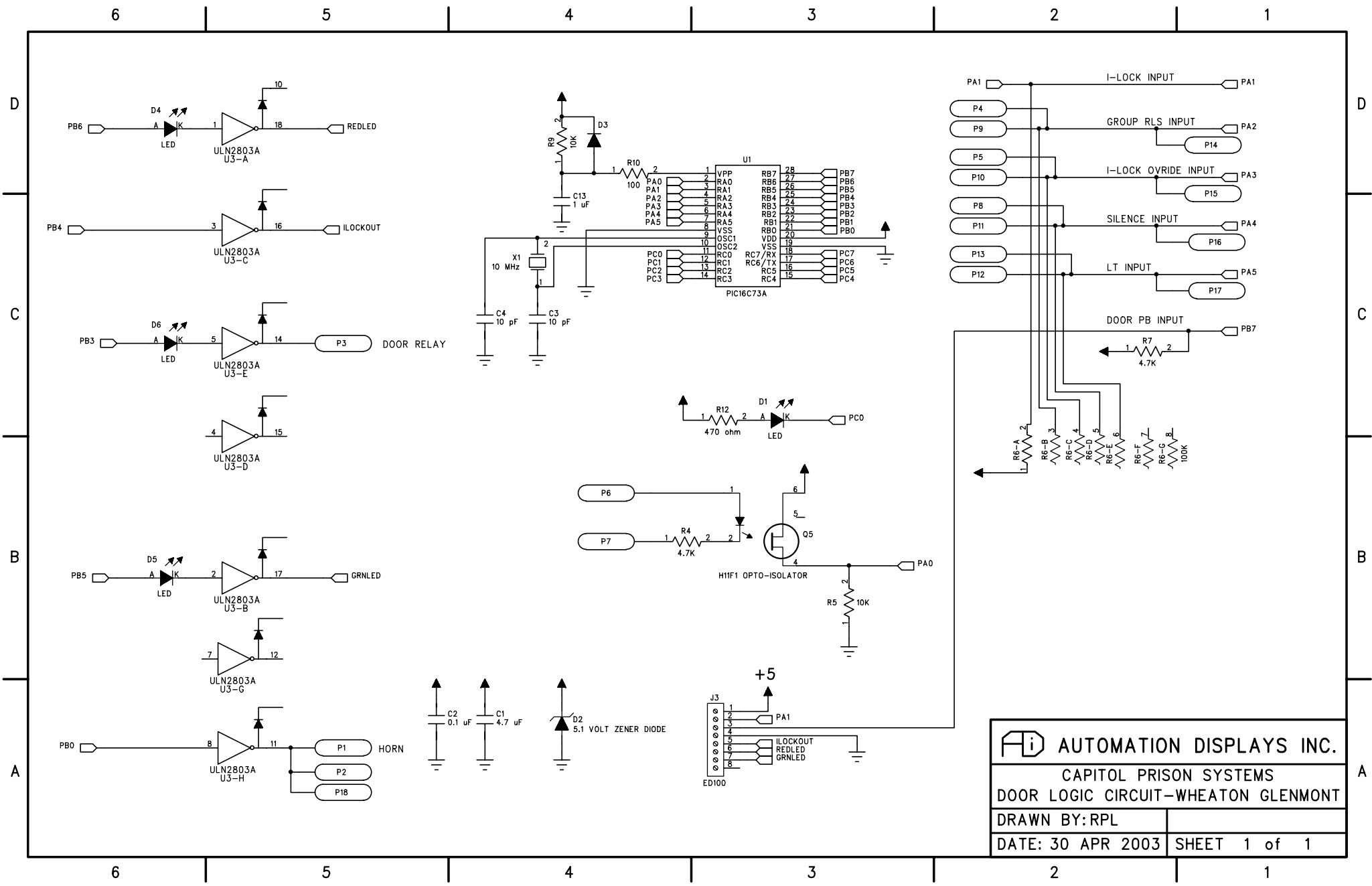
If the door is closed, the green LED is turned on steady.

If the supervised connection to the door limit switch is open-circuited, the red and green door LEDs alternate flash & the sonalert sounds.

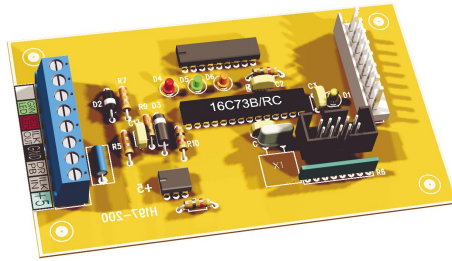
If the door contact opens and the door pushbutton has not been pressed within the previous five seconds, the red door LED flashes and the sonalert sounds. If the door closes before SILENCE is pressed, the green LED turns on and the red LED remains flashing until SILENCE is pressed, extinguishing the red LED. If the door push-button was pressed within five seconds prior to the limit switch opening, the red door LED is turned on steady and the horn is not sounded.

When the door pushbutton is pressed, a beep is generated and the door control relay is activated for three seconds. If the door LED was flashing red, it is turned to steady red.

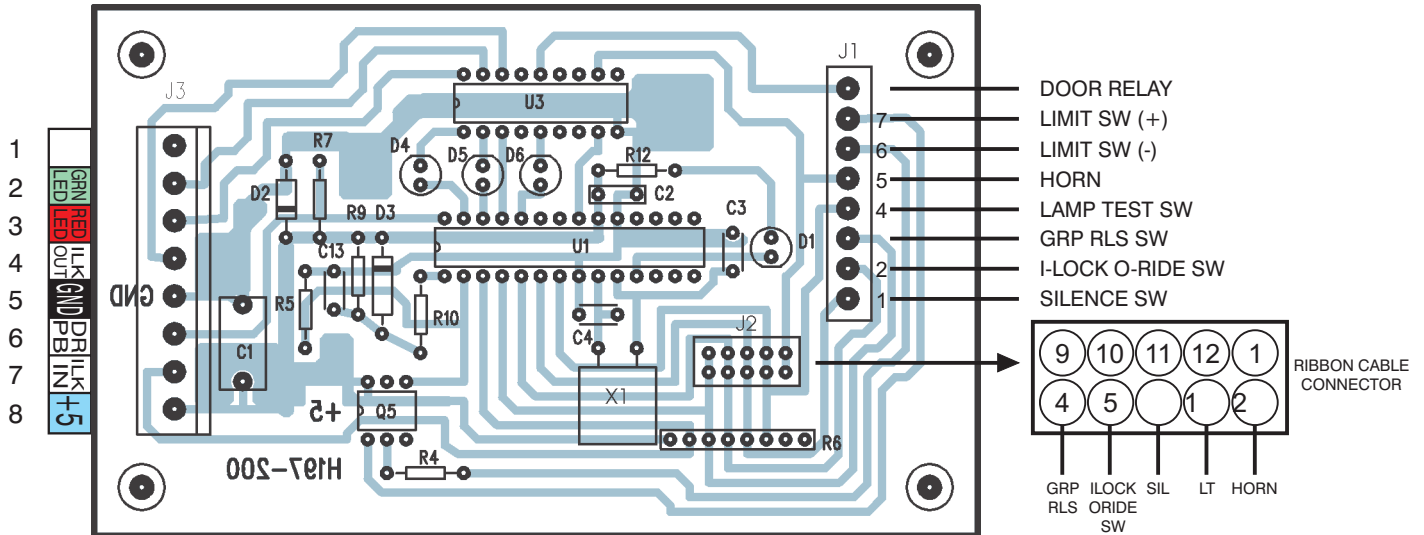
Interlocked groups of doors are formed by connecting interlock outputs to interlock inputs as shown in the wiring information.



Ai AUTOMATION DISPLAYS INC.	
CAPITOL PRISON SYSTEMS	
DOOR LOGIC CIRCUIT-WHEATON GLENMONT	
DRAWN BY: RPL	
DATE: 30 APR 2003	SHEET 1 of 1



Supervised Door Logic Board # H197-200



Reference	Qty	Part Name	Manufacturer	Description	Value	Digi-Key part #	Cost/ea.	Cost/100
	1	PC Board H197-200	Elec Ind	4.6" x 2.75" single sided				
C1	1			electrolytic capacitor	4.7 uF			
C2	1	CAP-CC05	Panasonic	mylar capacitor	0.1 uF	P4525-ND	0.1	0.1525
C3, C4	2				27 pF			
C13	1				1 uF, 10V			
D1	1	D1	Lite-On LTL-16KY	T1 LED, Yellow		160-1079-ND	0.1	0.08
D4	1	D4	Lite-On LTL-16KE	T1 LED, Red		160-1078-ND	0.1	0.08
D5	1	D5	Lite-On LTL-16KG	T1 LED, Green		160-1080-ND	0.1	0.08
D6	1	D6	Lite-On LTL-4296N	T1 LED, Amber		160-1141-ND	0.23	0.13
D3	2	DIODE				1N4004DICT-ND	0.26	0.0765
D2	1	ZENER-DIODE	Microsemi	5.1 volt zener	5.1 V, 1W	1N4733AMSCT-ND	0.25	0.14
J2	1	HEADER	Tyco/AMP	10-pos 0.1" ribbon header		A26267-ND	0.44	0.36
J3	1	ED100		8-pos screw term, 5mm		ED2235-ND	1.38	1.104
R4, R7	2	R1/8W			4.7K			
R5	2	R1/8W			10K			
R6	1	SIP resistor	Bourns	8-pin 100K SIP resistor	100K	4308R-1-104-ND	0.54	0.344
R9	1	R1/8W			10K			
R10	1	R1/8W			100 ohm			
R12	1	R1/8W			470 ohm			
U1	1	PIC16F873	MicroChip			PIC16F873-20/SP-ND	7.63	4.51
U1 socket	1		Mill Max	28 pin .300" DIP socket		ED3128-ND	1.13	0.635
U3	1	ULN2803						
U3 socket	1			18 pin .300" DIP socket				
Q5	1	H11F1	Fairchild	opto-isolator IC		H11F1-ND	2.33	1.4
Q5 socket	1	AR06-HZL/01-TT	Assman	6-Pin .300" DIP socket		AE7300-ND	0.43	0.3
X1	1	Crystal, 10 MHz, series load	CTS, HC49 series	MP100 crystal 10 MHz	10 MHz	CTX057-ND	0.94	0.57