

sonotechnique

CPD16

MIDI/GPIO INTERFACE
INSTALLATION MANUAL

STANDARD EDITION

Document # CPD16 manual V1.1.DOC November 2005

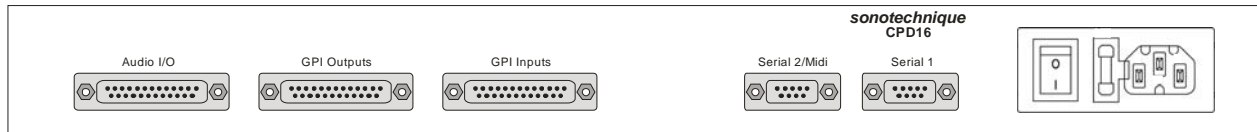
Tel: 514 332 6868
Fax: 514 332 5537
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- **Rack Installation**

The CPU unit should be installed in a proper ventilated Rack.

Default to proper ventilation may result in premature circuit degradation.

- **Rear panel connector layout**



- **Front View**



- **Audio I/O connector**

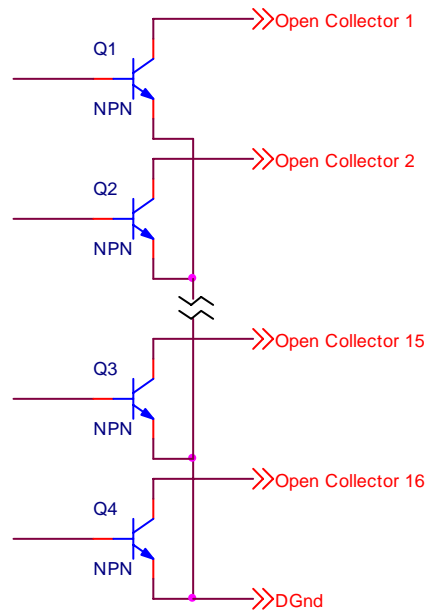
D25 Female chassis connector pin assignment

PIN #	Description	Notes
1	Audio 1 monitor Input Left (+)	From Audio 1 source Left (+)
14	Audio 1 monitor Input Left (-)	From Audio 1 source Left (-)
2	Analog Ground	
15	Audio 1 monitor Input Right (+)	From Audio 1 source Right (+)
3	Audio 1 monitor Input Right (-)	From Audio 1 source Right (-)
16	Analog Ground	
4	Audio 1 monitor Output Left (+)	To Audio 1 destination Left (+)
17	Audio 1 monitor Output Left (-)	To Audio 1 destination Left (-)
5	Analog Ground	
18	Audio 1 monitor Output Right (+)	To Audio 1 destination Right (+)
6	Audio 1 monitor Output Right (-)	To Audio 1 destination Right (-)
19	Analog Ground	
7	Audio 2 monitor Output Left (+)	To Audio 2 destination Left (+)
20	Audio 2 monitor Output Left (-)	To Audio 2 destination Left (-)
8	Analog Ground	
21	Audio 2 monitor Output Right (+)	To Audio 2 destination Right (+)
9	Audio 2 monitor Output Right (-)	To Audio 2 destination Right (-)
22	Analog Ground	
10	Audio 2 monitor Input Left (+)	From Audio 2 source Left (+)
23	Audio 2 monitor Input Left (-)	From Audio 2 source Left (-)
11	Analog Ground	
24	Audio 2 monitor Input Right (+)	From Audio 2 source Right (+)
12	Audio 2 monitor Input Right (-)	From Audio 2 source Right (-)
25	Analog Ground	
13	Not connected	

- **GPI Outputs (1-16)+(33-36)**

D25 Female chassis connector pin assignment

PIN #	Description	Notes	Notes 2	
1	GPI Output 1	Open Collector	100mA / 30V	
14	GPI Output 14	Open Collector	100mA / 30V	
2	GPI Output 2	Open Collector	100mA / 30V	
15	GPI Output 15	Open Collector	100mA / 30V	
3	GPI Output 3	Open Collector	100mA / 30V	
16	GPI Output 16	Open Collector	100mA / 30V	
4	GPI Output 4	Open Collector	100mA / 30V	
17	GPI Output 33	Open Collector	100mA / 30V	Red Light
5	GPI Output 5	Open Collector	100mA / 30V	
18	GPI Output 34	Open Collector	100mA / 30V	Green Light
6	GPI Output 6	Open Collector	100mA / 30V	
19	GPI Output 35	Open Collector	100mA / 30V	
7	GPI Output 7	Open Collector	100mA / 30V	
20	GPI Output 36	Open Collector	100mA / 30V	
8	GPI Output 8	Open Collector	100mA / 30V	
21	Dgnd			
9	GPI Output 9	Open Collector	100mA / 30V	
22	Dgnd			
10	GPI Output 10	Open Collector	100mA / 30V	
23	Dgnd			
11	GPI Output 11	Open Collector	100mA / 30V	
24	Dgnd			
12	GPI Output 12	Open Collector	100mA / 30V	
25	5 Volts	Fused at 500mA		
13	GPI Output 13	Open Collector	100mA / 30V	

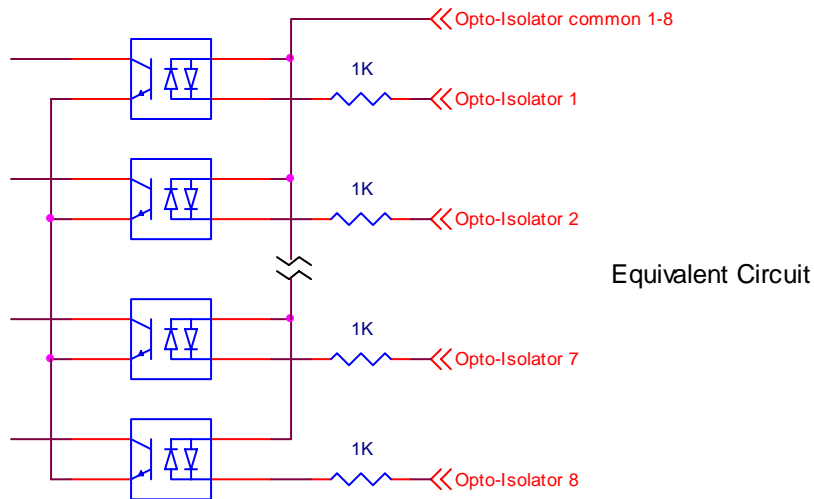


Equivalent Circuit

- **GPI Inputs (1-16)+(33-36)**

D25 Female chassis connector pin assignment

PIN #	Description	Notes	Notes 2
1	GPI Input 1	Opto-isolator 1K series	5 Volts Min / 30mA max
14	GPI Input 14	Opto-isolator 1K series	5 Volts Min / 30mA max
2	GPI Input 2	Opto-isolator 1K series	5 Volts Min / 30mA max
15	GPI Input 15	Opto-isolator 1K series	5 Volts Min / 30mA max
3	GPI Input 3	Opto-isolator 1K series	5 Volts Min / 30mA max
16	GPI Input 16	Opto-isolator 1K series	5 Volts Min / 30mA max
4	GPI Input 4	Opto-isolator 1K series	5 Volts Min / 30mA max
17	GPI Input 33	Opto-isolator 1K series	5 Volts Min / 30mA max
5	GPI Input 5	Opto-isolator 1K series	5 Volts Min / 30mA max
18	GPI Input 34	Opto-isolator 1K series	5 Volts Min / 30mA max
6	GPI Input 6	Opto-isolator 1K series	5 Volts Min / 30mA max
19	GPI Input 35	Opto-isolator 1K series	5 Volts Min / 30mA max
7	GPI Input 7	Opto-isolator 1K series	5 Volts Min / 30mA max
20	GPI Input 36	Opto-isolator 1K series	5 Volts Min / 30mA max
8	GPI Input 8	Opto-isolator 1K series	5 Volts Min / 30mA max
21	GPI common 1-8	Opto-isolator 1-8 common	
9	GPI Input 9	Opto-isolator 1K series	5 Volts Min / 30mA max
22	GPI common 9-16	Opto-isolator 9-16 common	
10	GPI Input 10	Opto-isolator 1K series	5 Volts Min / 30mA max
23	GPI common 33-36	Opto-isolator 33-36 common	
11	GPI Input 11	Opto-isolator 1K series	5 Volts Min / 30mA max
24	Dgnd		
12	GPI Input 12	Opto-isolator 1K series	5 Volts Min / 30mA max
25	5 Volts	Fused at 500mA	
13	GPI Input 13	Opto-isolator 1K series	5 Volts Min / 30mA max



- **Serial 2 / MIDI.**

D9 Female chassis connector pin assignment

<i>PIN #</i>	<i>Description</i>	<i>Notes</i>
1	No Connection	
6	No Connection	
2	Midi RX -	Equivalent to Midi input, Din 5, pin 5
7	Midi RX +	Equivalent to Midi input, Din 5, pin 4
3	Midi TX +	Equivalent to Midi output, Din 5, pin 4
8	Midi TX -	Equivalent to Midi output, Din 5, pin 5
4	No Connection	
9	No Connection	
5	Dgnd	Equivalent to Midi output, Din 5, pin 2

- **Serial 1 / RS232.**

D9 Female chassis connector pin assignment

<i>PIN #</i>	<i>Description</i>	<i>Notes</i>
1	No connection	
6	No connection	
2	TX	TX RS 232
7	No connection	
3	RX	TX RS 232
8	No connection	
4	No connection	
9	No connection	
5	Digital Ground	

Operation Mode:

As per firmware 1.0

Mode 0 is the normal operating mode as configured by file dump into CPD16 via the configuration software.

Mode 1 to D are not valid.

Mode E is a diagnostic mode, see below.

Mode F is the monitor mode, this the mode that you have to be to dump the configuration file.

Mode E

Diagnostic mode.

In this mode, the CPD16 will echo all GP inputs to their respective GP output.

All Audio channel will be muted.

The front LED A & B are lighted, Ctl Room A & Ctl Room B muted.

Led C to H will count up in binary mode.

Mode 0

Normal mode.

In this mode, the CPD16 will respond to GP Inputs and midi messages as configured in the dumped file.

Led A & B will display the status of the Ctl Room A & B respectively.

Lighted = Muted

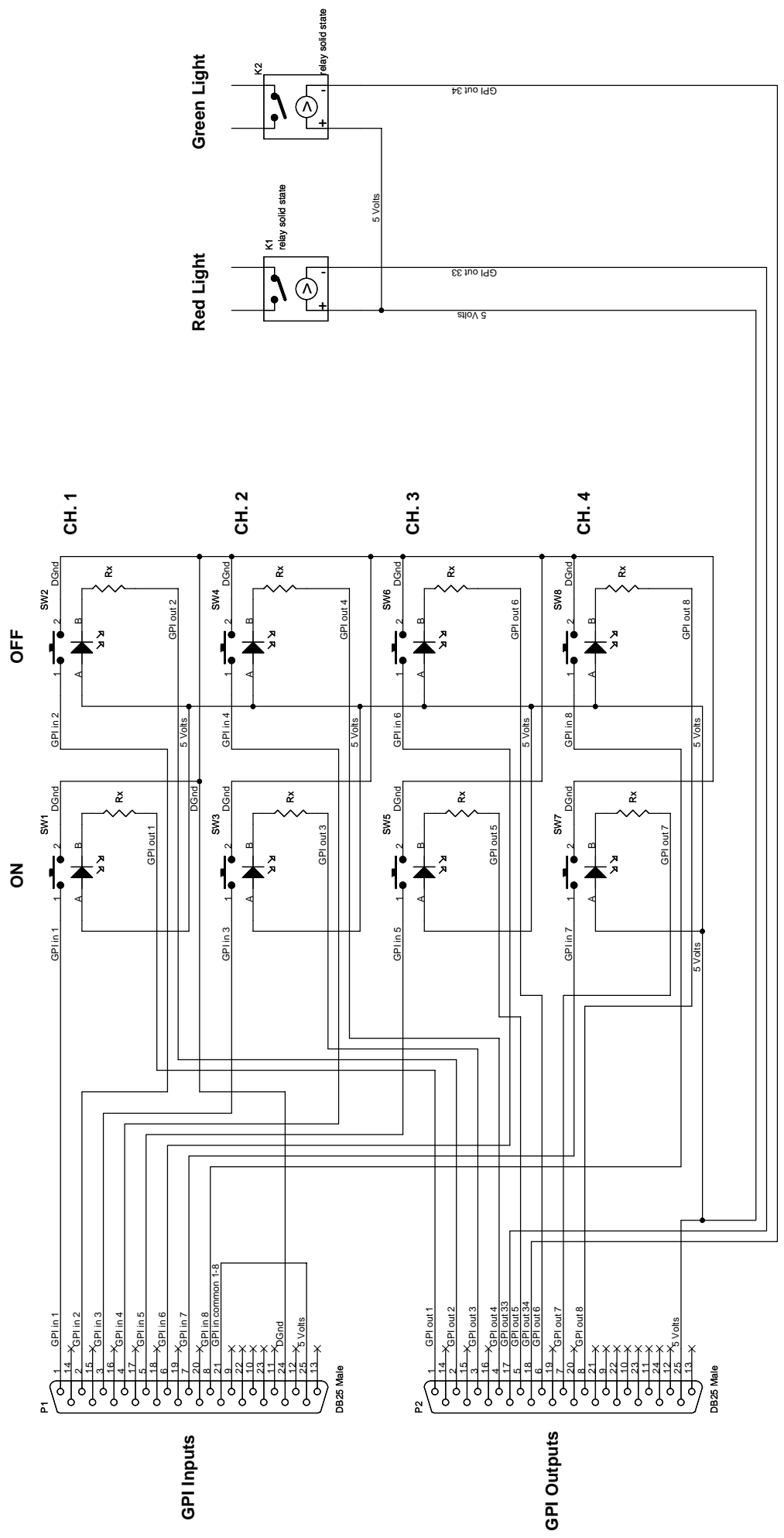
Led C to H are not used and will be off.

Led 33 represent the red light signal state "on air ". GPO 33

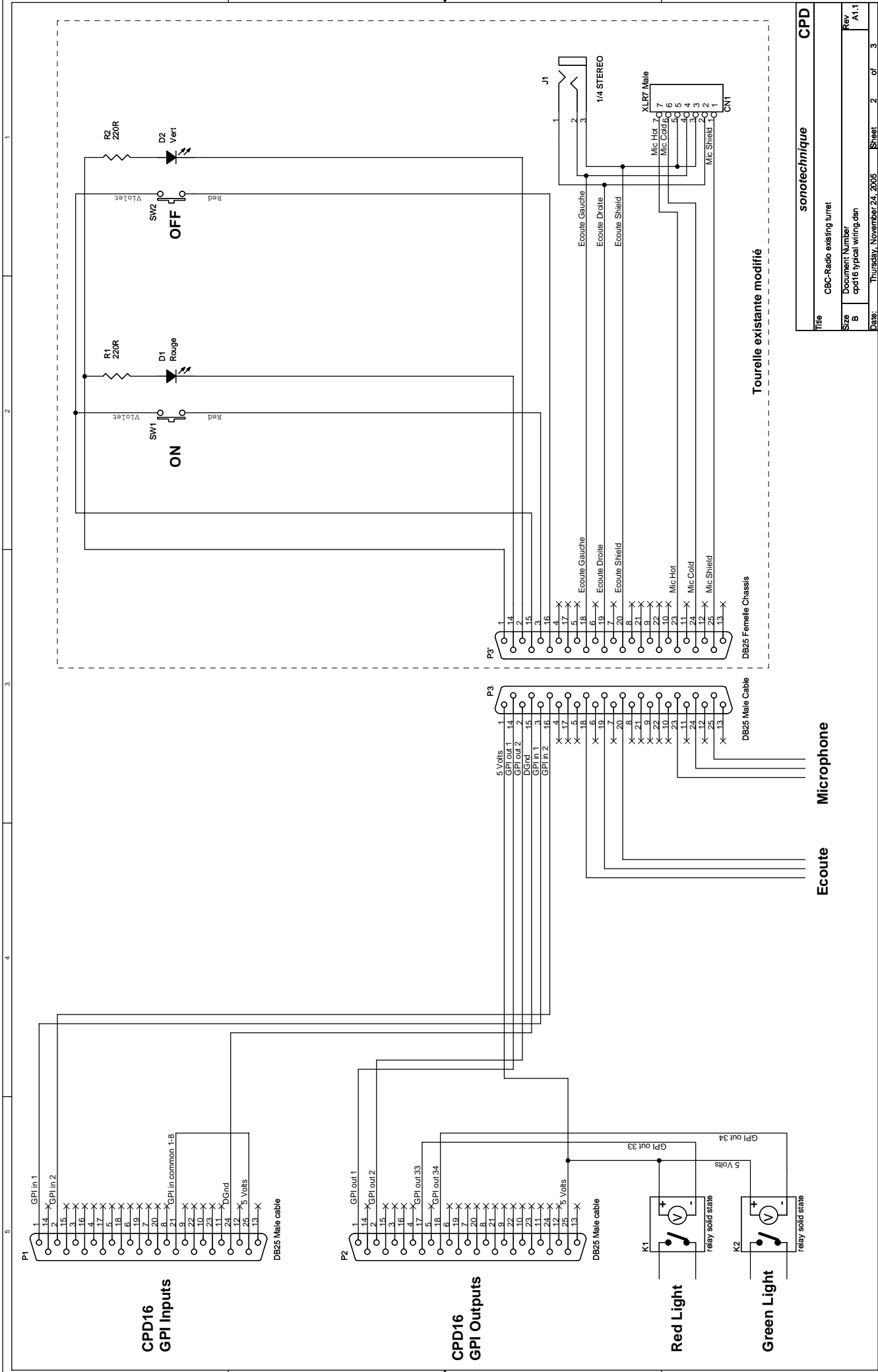
Led 34 represent the Green light signal. GPO34

Led 35 & 36 represent the state of GPO 35 & 36

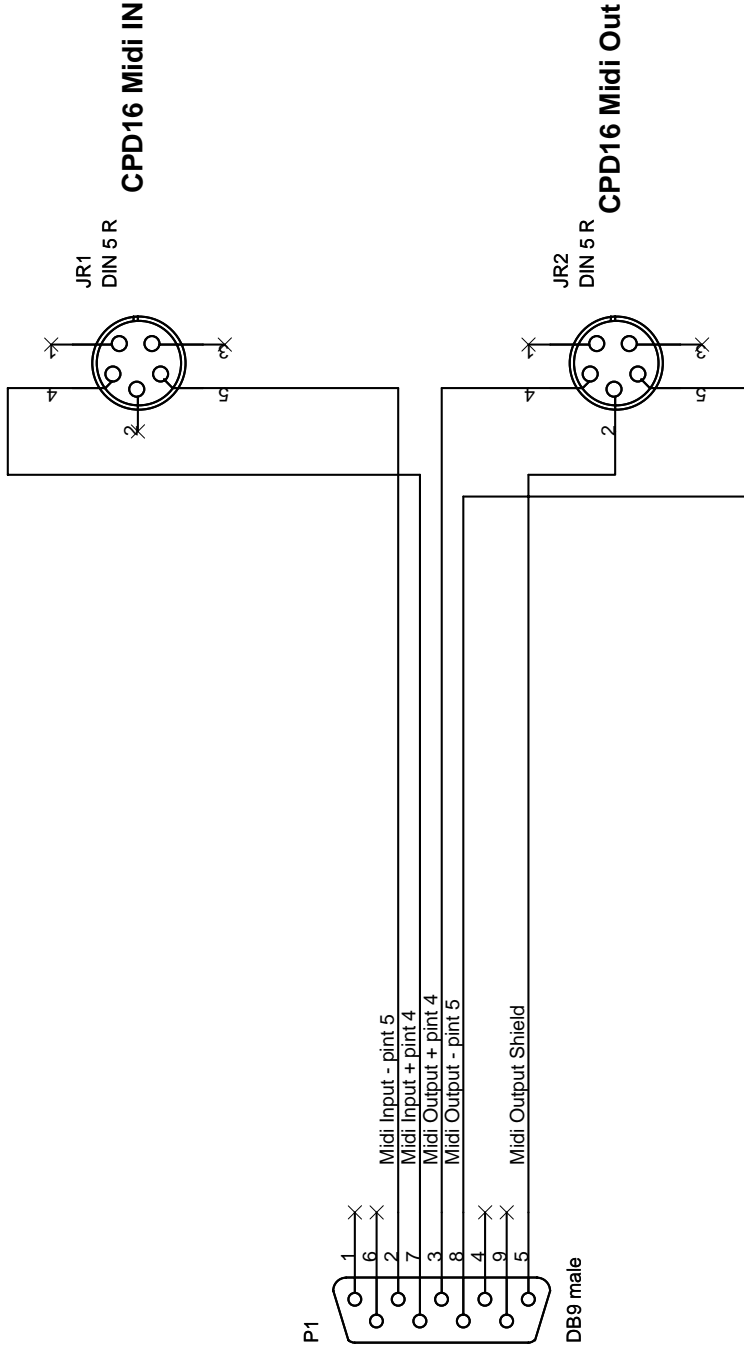
The GPI Output Internal 5 Volts source is limited to a total of 500mA. If more current is needed or higher voltage, you will need an external power source



Title		sonotechnique	
CPD		CPD16 typical IO wiring / 4 ch.	
Size	B	Document Number	cpd16 Typical wiring.dsn
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Title		CBC-Radio existing turret	
Document Number		cpd16 typical wiring.dsn	
Size	B	Rev	A1.1
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Title		sonotechnique		CPD	
Size		Document Number		Rev	
A		cpd16 Typical wiring.dsn		A	
Date:		Friday, October 14, 2005		Sheet 3 of 3	