



CPD20N

Dalet Control Panel emulator
INSTALLATION MANUAL

Standard EDITION

Document # CPD20N manual v1.1.0.DOC REV 1.1.0 9 Avril 2010
Subject to change without notice.

Tel: 514 332 6868
Fax: 514 332 5537
www.sonotechnique.ca

- **Physical Installation**

The CPD20N is in fact composed of 3 Parts.
The Control panel itself (figure 1)
The Breakout Box (figure 2)
And the Power supply.

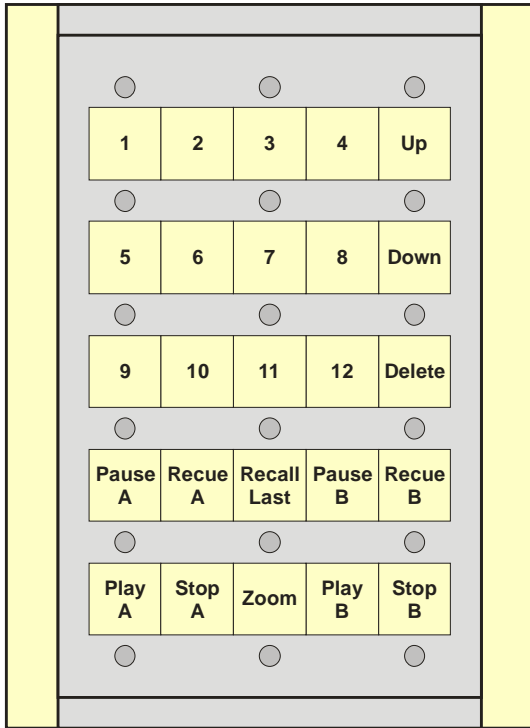


Figure 1 (Mode 0 & 2 shown)

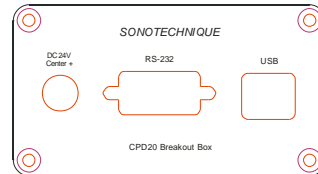


Figure 2

First, you must use the provided power supply or a Sonotechnique approved model. It's a 24 Volts Regulated PSU with Positive center. Using other model may damage the unit and void the warranty.

The Control panel is connected to the breakout box via a standard shielded straight cat5, cat5e or cat6 network cable (RJ45). The power needed for the remote is feed through the RJ45 cable along serial RS422 duplex information. Although the pin out is similar to standard network equipment with power over Ethernet (poe). It's not compatible with such equipments.

The break out box converts the serial RS422 link to either RS232 or USB.

The external power supply connects to this breakout box.

Normally the breakout box should be installed as close as possible to the computer running the Dalet software.

Do not connect any USB cable if you want to use the RS232 serial link.

The presence of the USB cable selects automatically the USB link.

Figure 3 shows the typical interconnection.

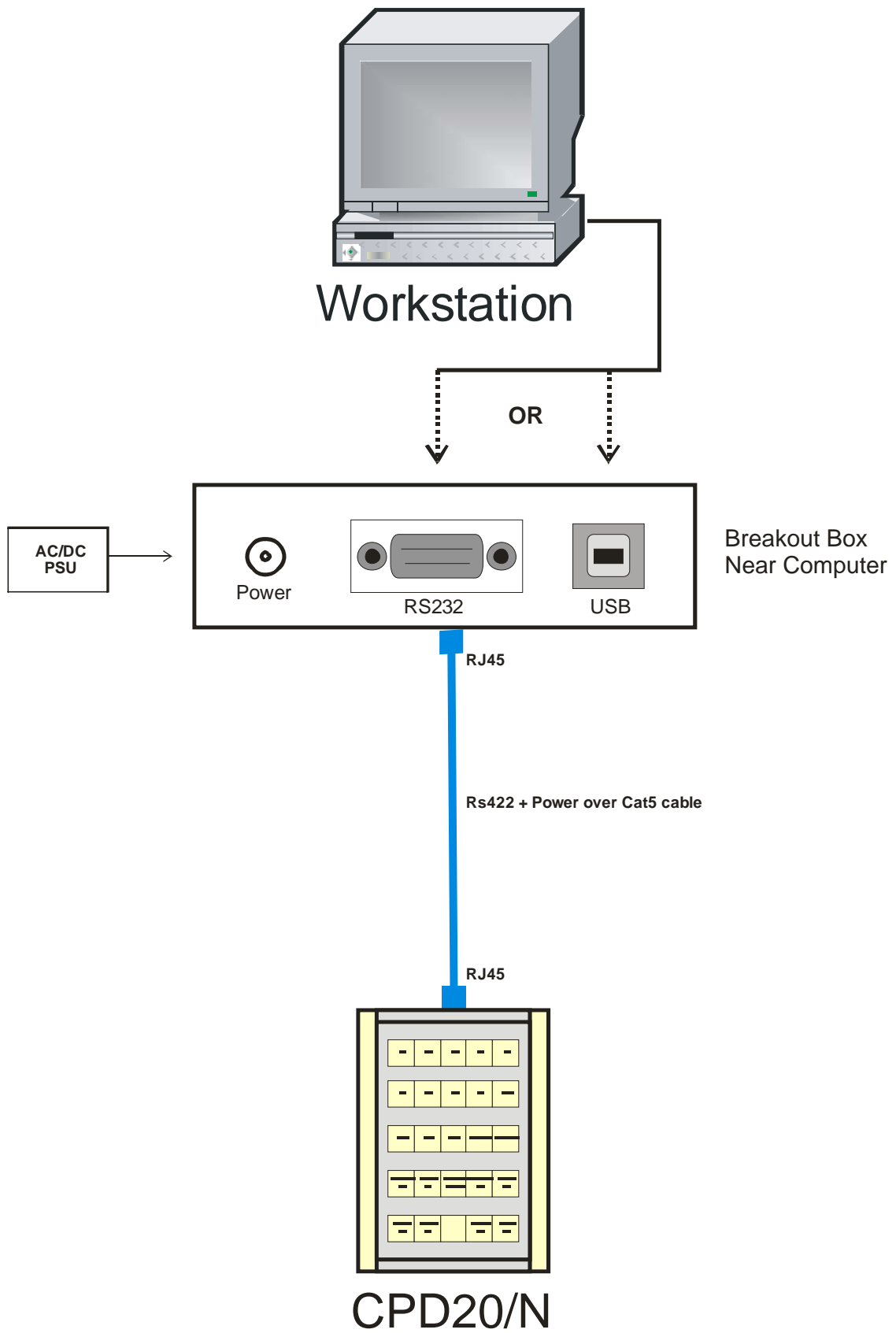


Figure 3

The control panel is a 25 switches remote that converts the switches activation to the DCP protocol. In fact, the CDP20N Emulates 2 Dalet control panels ie: The Cart panel and the Navigator panel.

Operation

First, there is presently 5 Mode of operation set by the rotary switch underneath the CPD20N. See Fig 4.

(Note that you need to power cycle the CPD20N to accept new settings)

Mode 0 is the original mode with the switch layout as shown in fig 1 and table 1.

Mode 1 is an alternate switch layout not as described in table 2.

The communication baud rate for mode 0 & 1 is 9600

Mode 2 is the same as Mode 0 except for the communication speed which is 19200 Baud

Mode 3 is the same as Mode 1 except for the communication speed which is 19200 Baud

Mode F is a diagnostic mode. This mode activates the switch tally when the switch is pressed.

(No need to be connected to a PC)

When powered, all the switches will illuminate red at low intensity.

The actual switches tallies will be bright green when displayed.

The switches activation will send the appropriated serial message to the Dalet software and respond to the Dalet software tally activation.

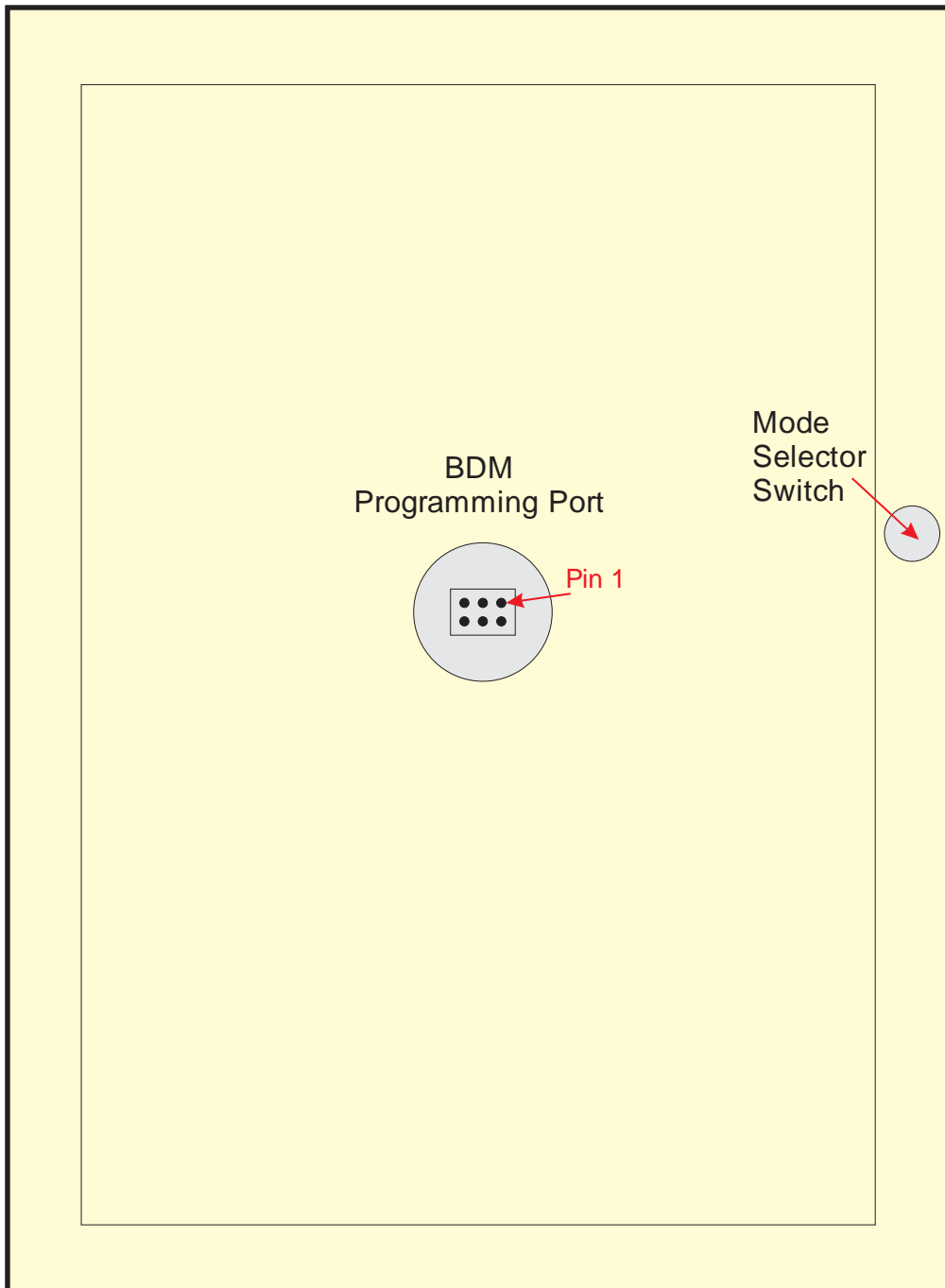
(The Dalet software must be configured to respond to a Cart & Navigator panel)

Mode 0 & 2. Switch emulation table. (Table 1)

Switch #	Label	Cart Equivalent	Nav Equivalent
1	1	Play 1	-
2	2	Play 2	-
3	3	Play 3	-
4	4	Play 4	-
5	UP	-	Scroll UP
6	5	Play 5	-
7	6	Play 6	-
8	7	Play 7	-
9	8	Play 8	-
10	Down	-	Scroll Down
11	9	Play 9	-
12	10	Play 10	-
13	11	Play 11	-
14	12	Play 12	-
15	Delete	-	Delete
16	Pause A	-	Pause A
17	Recue A	-	Skip Next A
18	Recall Last	-	Recall Last
19	Pause B	-	Pause B
20	Recue B	-	Skip Next B
21	Play A	-	Play A
22	Stop A	-	Stop A
23	Zoom	-	Display Text
24	Play B	-	Play B
25	Stop B	-	Stop B

Mode 1 & 3. Switch emulation table. (Table 2)

Switch #	Label	Cart Equivalent	Nav Equivalent	
1	1	Play 1	-	
2	2	Play 2	-	
3	3	Play 3	-	
4	4	Play 4	-	
5	UP	-	Scroll UP	
6	5	Play 5	-	
7	6	Play 6	-	
8	7	Play 7	-	
9	8	Play 8	-	
10	Down	-	Scroll Down	
11	9	Play 9	-	
12	10	Play 10	-	
13	11	Play 11	-	
14	12	Play 12	-	
15	Delete	-	Delete	
16	Pause A	-	Pause A	
17	Recue A	-	Skip Next A	
18	Recall Last	-	Recall Last	
19	Recue B	-	Skip Next B	Alternate layout
20	Pause B	-	Pause B	Alternate layout
21	Play A	-	Play A	
22	Stop A	-	Stop A	
23	Zoom	-	Display Text	
24	Stop B	-	Stop B	Alternate layout
25	Play B	-	Play B	Alternate layout



Bottom View

Figure 4

Breakout Box Connections

- **RS 232**

D9 Female connector pin assignment

PIN #	Description	NOTES
1	N/C	
6	N/C	
2	232TX	
7	CTS	Not Used
3	232RX	
8	RTS	Not Used
4	N/C	
9	N/C	
5	Ground	

- **USB**

Type B Female connector pin assignment

Note: The simple presence of the USB 5 volts will route the Serial link to USB instead of RS232

PIN #	Description	NOTES
1	USB 5 Volts	
2	USB DM	
3	USB DP	
4	USB 0 Volt	

- **Link to Control panel**

RJ45 Female connector pin assignment

PIN #	Description	NOTES
1	TX+	Converted PC TX
2	TX-	Converted PC TX
3	RX+	Converted PC RX
4	DC+	+ 24 Volts, NEVER EXCEED + 30 Volts
5	DC+	+ 24 Volts, NEVER EXCEED + 30 Volts
6	RX-	Converted PC RX
7	DC-	0 Volt/Ground
8	DC-	0 Volt/Ground
Shield	DC-	0 Volt/Ground

Control Panel Connections

- **Link to Breakout Box**
RJ45 Female connector pin assignment

<i>PIN #</i>	<i>Description</i>	<i>NOTES</i>
1	RX+	CPD20 RX
2	RX-	CPD20 RX
3	TX+	CPD20 TX
4	DC+	+ 24 Volts, NEVER EXCEED + 30 Volts
5	DC+	+ 24 Volts, NEVER EXCEED + 30 Volts
6	TX-	CPD20 TX
7	DC-	0 Volt/Ground
8	DC-	0 Volt/Ground
Shield	DC-	0 Volt/Ground