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DCB

# **Digital Communications Bus**

Prior to MIDI, this was implemented on the Roland Jupiter-8 (some units) and Roland Juno-60

#### From Hyperreal:

From tmoravan@netcom.comTue May 30 10:16:25 1995

Date: Tue, 30 May 1995 03:57:58 -0700 (PDT) From: Tom Moravansky tmoravan@netcom.com

To: rbclll robot@crl.com

Cc: analog analogue@hyperreal.com Subject: Re: DCB cable pinouts

Some folks have asked about the Roland DCB pinouts. Here is what I have from the Jupiter-8 service manual:

DCB Pin Configurations

\_\_\_\_\_

07 06 05 04 03 02 01 14 13 12 11 10 09 08

\_\_\_\_\_

## (view from rear panel)

- 1 Busy (receive)
- 2 Data (receive)
- 3 Clock (receive)
- 4 Ground
- 5 Busy (transmit)
- 6 Data (transmit)
- 7 Clock (transmit)
- 8 unregistered
- 9 VCA lower
- 10 VCA upper
- 11 VCF lower
- 12 VCF upper
- 13 VCO-2
- 14 VCO-1

There were 2 different shapes of DCB cable and 2 different types. Early shape was a flat cable used to connect early OP-8 converters to the Jupiter-8's with the OC-8 interface installed. This was part # H146

Later cables used the D-sub shell.

Cable # H172 is a uni-directional cable with the signal flow indicated by the arrow on the connector. Cable # H172 is wired up like this:

Receiver	Sender	
1	5	
2	6	
3	7	
4	4	

Cable # H165 is bi-directional. The manual warns: "DCB Cable H165 is a bi-directional cable in which sent from the TX-terminal on a unit returns to the RX-terminal on the unit, causing regeneration." So, if you get regenerated don't say you weren't warned.

Receiver Sender

1	5		
2	6		
3	7		
4	4		
5	1		
6	2		
7	3		
8	8		
9	9		
0	10		
1	11		
2	12		
3	13		
4	14		

Hope this helps.

\_\_\_\_

Tom Moravansky tmoravan@netcom.com

### quiet electronics \\

From squishy@bga.comTue Jun 13 12:10:01 1995

Date: Tue, 13 Jun 1995 14:04:59 -0500

From: Drum Machine Wanker squishy@bga.com

To: analogue@hyperreal.com

Subject: Re: MD-8/DCB (pinout info)

I've done the unthinkable (for me), i've opened my DCB cable to finally find out the truth on the pinout. I tried building one awhile back without success, I now know why.

If you want to build your own, you'll need a piece of 15 conductor cable, 14 wires and 1 ground. The

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ground is what I screwed up. You'll also need two Centronics 14 conductor connections.

The pinout...

The ground is connected to the front housing snap-in piece. Positions 8-14 are wired 1 to 1, that's the bottom row.

Below you'll see the pinout for the top row, positions 1-7.

р				р
0				0
S				S
i				i
t				t
i				i
0				0
n				n
1 wir	e 1	1	wire	5
2 wir	e 2	2	wire	6
3 wir	e 3	3	wire	7
4 wir	e 4	4	wire	4
5 wir	e 5	5	wire	1
6 wir	e 6	6	wire	2
7 wir	e 7	7	wire	3

Hope this helps.

Vince.

Squishy Records

From tmoravan@netcom.comWed Jun 14 11:49:55 1995

Date: Wed, 14 Jun 1995 04:34:38 -0700 (PDT) From: Tom Moravansky tmoravan@netcom.com To: MARSHALLR@opsusa.sms.siemens.com

Cc: analog analogue@hyperreal.com Subject: Re: Jupiter8: DCB vs DCIB?

Well, since there are a couple of open threads regarding Jupiter8/MD8 questions, I might as well jump in with my own.....

I have a Jupiter8 that has some sort of factory interface, but I don't think it is DCB, since it doesn't have the typical 14 pin 'D' connector up near the "Roland" logo. Rather it has a 20 pin IDC ribbon connector w/ a slide switch

down low, near the serial plate. Could this be the earlier version of DCB,

known as DCIB, and can I use the MD8 or PRO4 DCB interface with it?

Any Roland/Jupiter experts have a clue?

Well - I can't find my original DCB post, so I hope someone archived it at the analogue site. Basically, it sounds like you have the Jupiter-8 version with the OC-8 DCB retrofit. The earliest versions used the flat cable scheme. The OP-8 (not OP-8M) cv→DCB converter has both types of DCB connections on it. After some time, Jupiter-8's were made with the DCB stuff built in and they switched to the 'classic' d-sub connector.

My post had the pinouts so you could make your own cables. There were 2 different kinds of cables - one that was only half-wired and provided one-way communication and the other was fully wired for 2-way traffic.

Tom Moravansky tmoravan@netcom.com

### quiet electronics \\

From fEEd@maroon.tc.umn.eduWed Jun 14 13:13:59 1995

Date: Wed, 14 Jun 95 14:58:32 CST From: fEEd fEEd@maroon.tc.umn.edu

To: analogue@hyperreal.com Subject: Re: More DCB/MSQ-700?

On Wed, 14 Jun 1995 08:42:46 -0700 (PDT), Michael Winton <a href="mailto:kmwinton@uclink.berkeley.edu">mwinton@uclink.berkeley.edu</a> wrote:

I know the 700 can send MIDI or DCB out. I know from reading in the

archives that it cannot "convert" MIDI to DCB. Can I record a DCB

sequence from my Juno 60 into the MSQ-700 and then play it back, WITH the

700 "synced" to the MIDI clock?

Sorry, but no. The bastards.

Rob

fEEd/>tEMpESt<\http://www.umn.edu/nlhome/m211/feed/<\fEEd@maroon.tc.umn.edu/>

"FILTER MAINTENANCE- After every 100 hours of operation apply a sine wave to the output of the FILTER to back flush the trapped overtones to unclog your filter."

- EML 101 Manual

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## Links:

http://www.chd-el.cz/index.php?id=93&lngid=en

http://www.chd-el.cz/index.php?id=312&Ingid=en

http://mkv.itm.miun.se/personal/per/diy/DCB/DCB.html

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