



Cable Assembly

Bitsy DTE/DB9M Serial Adapter, Port 1
TOP MOUNT

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1.0 PURPOSE

This document describes how to build a cable that breaks out one DB9M plug suitable for use as a standard DB9 RS-232 serial port from the Bitsy 2mm connector J10.

The unused conductors of this cable can also be used for prototyping of other I/O functions on J10 (e.g. keypad/digital I/Os, RS-485/422).

2.0 TOOLS REQUIRED

- 2.1 IDC crimper
- 2.2 Wire cutters
- 2.3 Label printer

3.0 BILL OF MATERIALS:

ITEM	QTY	ADS PART NO.	DESCRIPTION
1	1/2	610111-0211A	Samtec 50-pin connector and ribbon cable, P/N TCSD-25-D-24.00-01-N (connectors on both ends, 24-inch; cut cable into two 12-inch lengths)
2	1	210020-00904	DB9 plug for ribbon cable attachment, AMP #747321-4 or equivalent

4.0 ASSEMBLY INSTRUCTIONS:

- 4.1 Separate wires 1-20 in ribbon cable (Item 1) from each other. Pull apart as short a length as practical (usually about 1.5 inches).
- 4.2 Trim off ribbon cable wires that won't be used in the cable (1, 3, 5, ..., 17, 19).
- 4.3 Lay separated wires onto DB9 connectors as shown in the following table.

<i>Signal</i>	<i>J7</i>	<i>Serial 1</i>
	<i>2mm 40-pin</i>	<i>DB9M</i>
<i>RXD1</i>	34	2
<i>TXD1</i>	36	3
<i>CTS1</i>	38	8
<i>RTS1</i>	40	7
<i>GND</i>	50	5
<i>DCD</i>	28	1
<i>DTR</i>	32	4
<i>DSR</i>	30	6
<i>(n/c)</i>		9

- 4.4 Crimp the DB9 connectors. Use wire strain relief, if available.
- 4.5 Place a permanent adhesive label on the cable that specifies the cable assembly part number. You may have to use a band of clear tape wrapped around the cable to hold the label in place.
- 4.6 Place a label on the DB9 connector indicating "Serial 1".

5.0 REVISION HISTORY

LTR	DESCRIPTION	DATE	APPROVAL
1	Draft	02/15/2001	