

# TB162 (Rev1) - Dynaper to Renco Encoder Connector Conversion

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## Overview

This document describes the procedure and pin-out for converting a Dynaper 10 pin (5x2) encoder plug to a Renco 9 pin (9x1) pigtail.

## Background

Centroid was using Dynaper encoders with a 5 x 2 header for the encoder connection. Our current configuration is a Renco encoder with a 9 x 1 header. This document shows the pin-out and procedure to connect a 9 x 1 plug that will fit into the Renco pigtail. The DB9 connector and pin-out is included for verification and troubleshooting purposes.

Your Dynaper encoder cable connector should look like this:

|              |                | KEY               |                     |              |  |
|--------------|----------------|-------------------|---------------------|--------------|--|
| 1            | 2              | 3                 | 4                   | 5            |  |
| NC           | Black<br>(GND) | Red/Black<br>(A') | White/Black<br>(B') | Blue<br>(Z') |  |
| 6            | 7              | 8                 | 9                   | 10           |  |
| RED<br>(VCC) | NC             | Green<br>(A)      | Orange<br>(B)       | White<br>(Z) |  |

Shield goes to solder tab.

This end should be cut.

The wires should be crimped with Centroid P/N 865 (Molex Pin ? Female) C-Grid.

Insert wires into Centroid P/N 933 Molex 9 pin C-Grid housing as shown below:

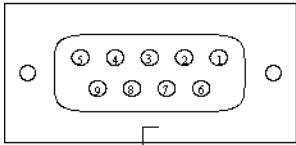
9 Pin connector:

|              |                   |               |                     | KEY          |              |              |                |        |  |
|--------------|-------------------|---------------|---------------------|--------------|--------------|--------------|----------------|--------|--|
| 1            | 2                 | 3             | 4                   | 5            | 6            | 7            | 8              | 9      |  |
| Green<br>(A) | Red/Black<br>(A') | Orange<br>(B) | White/Black<br>(B') | White<br>(Z) | Blue<br>(Z') | Red<br>(VCC) | Black<br>(GND) | Shield |  |

This 9-pin connector will plug directly into the provided Renco pigtail.

DB09 Connector Pin-out:

DB09 CONNECTOR (BACK VIEW)



SOLDER SHIELD WIRE  
TO DB09

1 = NC

2 = BLACK (GND)

3 = BLUE (Z?)

4 = RED/BLACK (A?)

5 = WHITE/BLACK (B?)

6 = WHITE (Z)

7 = GREEN (A)

8 = ORANGE (B)

9 = RED (+5)

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**Document History**

Rev1 Created on **2004-08-26**