



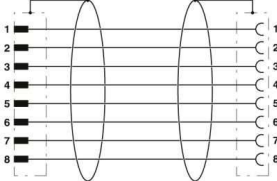



Encoder cable for Delta ASDA-B2 100/200/400/750W

24-8-2021 Kevin Damen & Micky Vork

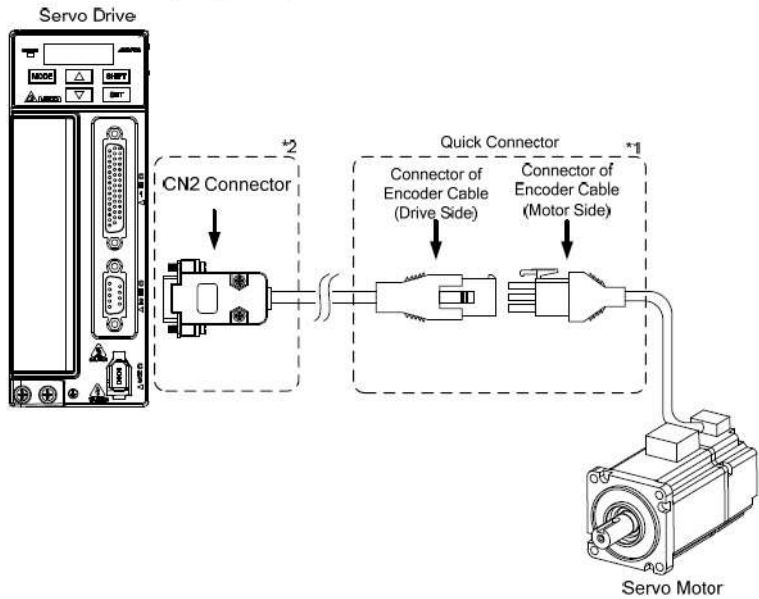
Encoder Wiring looms for DamenCNC RTR Servo controllers, using Delta ASDA-B2 drivers (100,200,400,750W). Starting from the servo driver. The CN2 screw connector (1510), has to be connected to the chassis cable, our part number 4638. From there we are in the middle column, these are just standard plug and play M12 8 pole Male/Female cables. You could also DIY these using a MALE and FEMALE 8 pole m12 connector. The pining is 1 to 1. Next step is to attach the M12 8 pole Male (4633) connector to the servomotor encoder connection.

 <p>(4638)</p> <p>(1510)</p>	 <p>(4640,4641,5473,5474,5475)</p>	 <p>(4633)</p>
		
A2 Driver CN2 Connection Pin number, color & function	M12 8 pole Male / Female Cable. Pin number and color	Cable colors on Servomotor Pin number, color & function
1 -	1 White	1 -
2 BAT- Battery Ground	2 Brown	2 Black/Red (BAT-)
3 BAT+ Battery 3.6V	3 Green	3 Black (BAT+)
4 T+	4 Yellow	4 White (T+)
5 T-	5 Grey	5 White/Red (T-)
6 GND	6 Pink	6 Blue (GND)
7 GND	7 Blue	7 -
8 +5VDC	8 Red	8 Brown (+5VDC)
Shield (to housing)	Shield (to housing)	Shield (to housing)
NOTE: The ABS ENC BAT- and BAT+ wiring are not present on 99.9% of servomotors. This is only relevant when you are using motors with absolute encoders. The B2 system does not support this feature. You need an A2 or ASD-M driver for that purpose.		

Reference Material from Delta B2 manual page 47 (3.1.5 Revision May 2018)
 Here you can see where the CN2 connector plugs into the driver
WARNING: We do not use the Quick connector. But the 4633 connector

3.1.5 Specification of Encoder Cable Connector

Encoder Connection (Diagram 1)



- NOTE** This diagram shows the connection between the servo drive and the motor encoder. It is not drawn by the practical scale and specification will be different according to the selected servo drive and motor model.
1. Please refer to the Section of Specification and Definition of Encoder Connector.
 2. Please refer to section 3.4 CN2 Connector.

Motor Model	Connector of Encoder Cable
ECMA-C△0401□S (100W) ECMA-C△0602□S (200W) ECMA-C△0604□S (400W) ECMA-C△0604□H (400W) ECMA-CM0604PS (400W) ECMA-C△0804□7 (400W) ECMA-C△0807□S (750W) ECMA-C△0807□H (750W) ECMA-CM0807PS (750W) ECMA-C△0907□S (750W) ECMA-C△0910□S (1000W)	<div><div><div>963</div><div>852</div><div>741</div></div><div>View from this side</div><div><div>HOUSING AMP (1-172161-9)</div><div>View from this side</div><div><div>369</div><div>258</div><div>147</div></div></div></div>

Reference Material from Delta B2 manual page 48 (3.1.5 Revision May 2018)

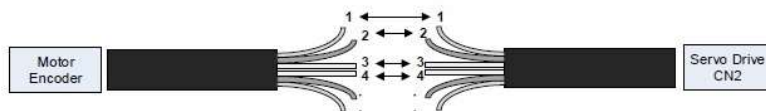
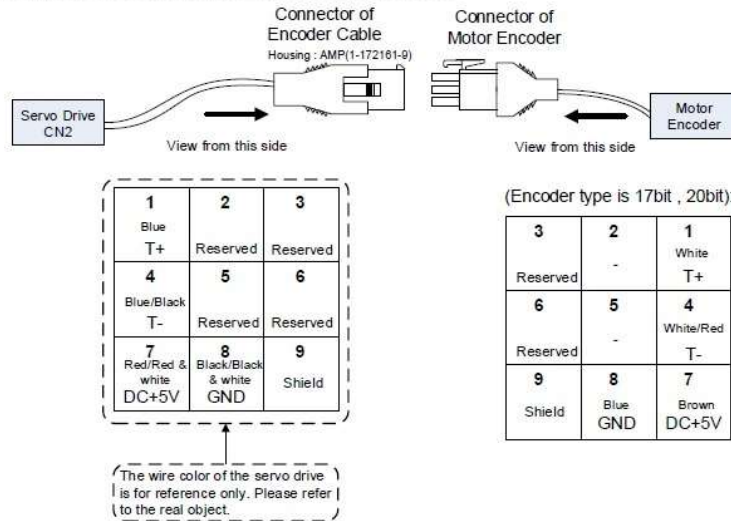
Here you can verify that color coding for the servomotor is correct (third column)

WARNING: We do not use the Quick connector. But the 4633 connector. Use the right side of the image only to verify that you have the correct color wiring on the encoder/motor side.

ASDA-B2

Chapter 3 Wiring

Terminal Identification of Encoder Connector



If not using housing and directly wire the cores, please follow the corresponding core number for wiring.
For example, core number 1 from the servo drive CN2 should connect to core number 1 from the motor encoder; core number 2 from the servo drive CN2 should connect to core number 2 from the motor encoder and so on. Please number the cores from the servo drive in order and then connect it to the encoder.

Revision May, 2018

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Reference Material from Delta B2 manual page 74 (3.4 Revision May 2018)

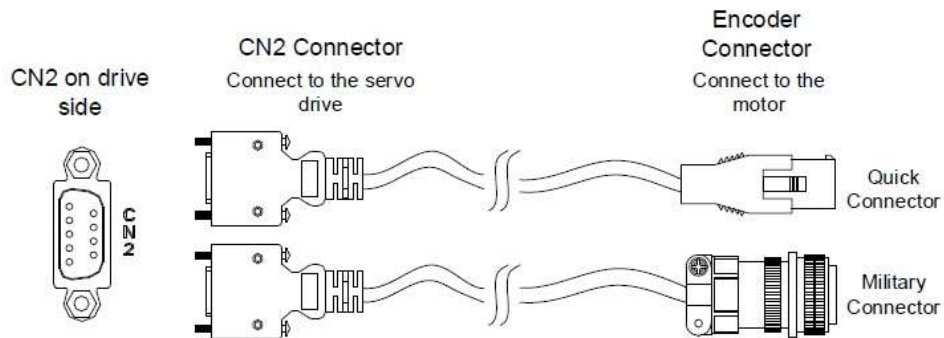
Here you can see all the other types of cable that Delta has.

WARNING: We do not use the Quick connector. But the 4633 connector.

This information is only here, for reference, it could be useful if you used the cheaper cable sets 5059,5060

3.4 CN2 Connector

There are two types of CN2 encoder cable which shown as below:

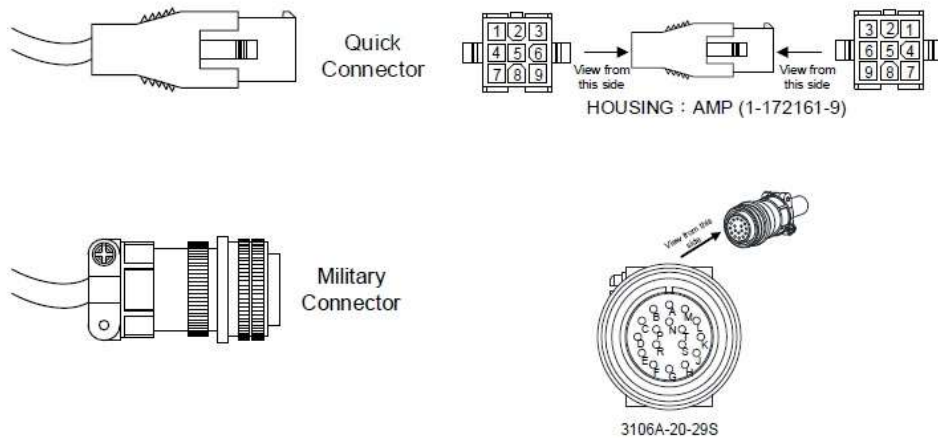


Definition of two sides:

(1) Encoder Connector



(2) Motor Connector



Reference Material from Delta B2 manual page 75 (3.36 Revision May 2018)
Here you can verify that color coding for the servodrive is correct (first column)
WARNING: We do not use the solder connector. But the 1510 screw-connector.

The definition of each signal is as follows:

Drive Connector			Encoder Connector		
PIN No.	Terminal Symbol	Description	Military Connector	Quick Connector	Color
4	T+	Serial communication signal input / output (+)	A	1	Blue
5	T-	Serial communication signal input / output (-)	B	4	Blue & Black
8	+5V	+5V power supply	S	7	Red / Red & White
7, 6	GND	Ground	R	8	Black / Black & White
Shell	Shielding	Shielding	L	9	-

The shielding procedures of CN2 encoder connector are as followings:



- (1) Solder the centre cores on the metal part of the connector adequately for good ground contact with the plate and shielding.



- (2) Trim the ends of the cores and install the cores with shielding into the plastic case of the connector as shown in the figure.



- (3) Tighten the screws to complete the shielding.