

Gold Solo Mandolin Cable Kit



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Catalog Number

CBL-GSOLWHIKIT01

Revision History

Version	Date	Details
Ver. 1.000	July 2016	Initial release



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Chapter 1: Introduction

This document provides the wiring details for the cables used to connect the Gold Solo Mandolin with the end-user application. The servo drive-side pinouts are provided in Chapter 3 of the drive's installation guide.

The cables come in one length: 2 meters (6 ½ feet).

Note: CAN, EtherCAT, and RS-232 communication cables are not included in the CBL-GSOLWHIKIT01 cable kit.

1.1. Cable Kit (CBL-GSOLWHIKIT01)

The Catalog number of the Gold Solo Mandolin cable kit is **CBL-GSOLWHIKIT01**

The cable kit includes the following cables:

ELMO Part Number	Function
CBL-GPORTA-A2	Feedback port A
CBL-GPORTB-A2	Feedback port B
CBL-GPORTCIO-A2	Port C and I/O
CBL-GSTOCOM-A2	STO
CBL-GVLSNS-A2	Control Supply Cable

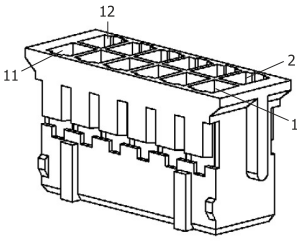


Chapter 2: Feedback Port A Cable (CBL-GPORTA-A2)

The feedback port A cable is made from five-pair 24-AWG shielded twisted-pair cable. There is one type of feedback cable, which uses a 12-pin Tyco 2 mm pitch plug to connect to the servo drive.

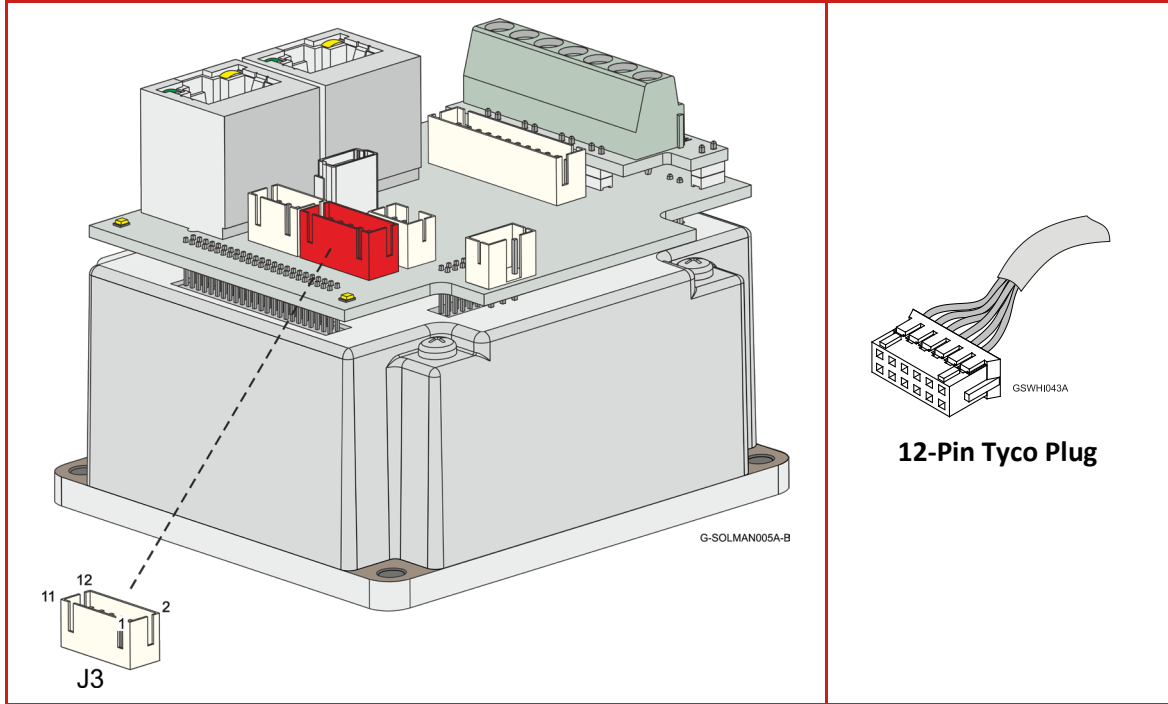
The feedback port A cable is open on the motor side so that it can be connected to the motor-feedback connector.

The general pinout of the feedback port A cable is as follows:

Pin No.	Signal	Color	Twisted & Shielded Wire	Plug
1	+5V	Brown	Pair	 12-Pin Tyco 2 mm Pitch Plug
2	COMRET	White		
3	PortA_ENC_A+	Cyan	Pair	
4	PortA_ENC_A-	Orange		
5	PortA_ENC_B+	Purple	Pair	
6	PortA_ENC_B-	Black		
7	PortA_ENC_INDEX+	Red	Pair	
8	PortA_ENC_INDEX-	Blue		
9	HA	Green	Pair	
10	HB	Yellow		
11	HC	Pink		
12	PE	Drain Wire		



Pin Positions



12-Pin Tyco Plug

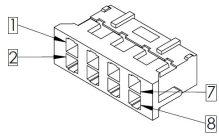


Chapter 3: Feedback Port B Cable (CBL-GPORTB-A2)

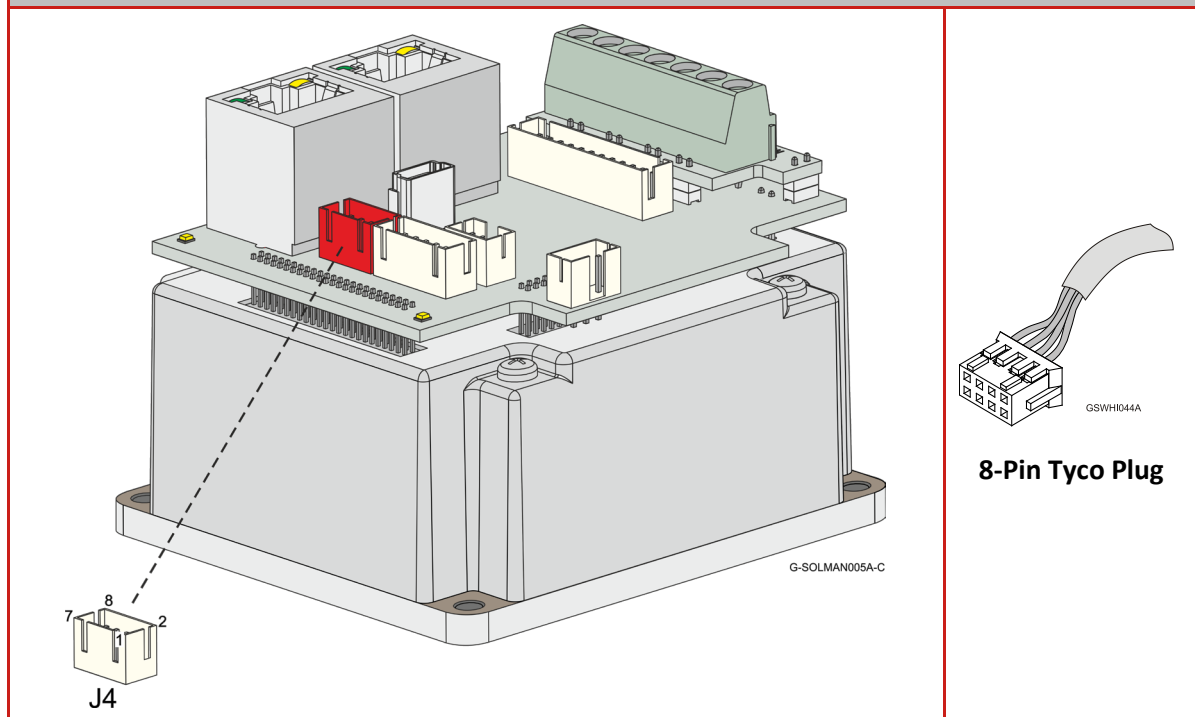
The feedback port B cable is a four-pair 24-AWG shielded twisted-pair cable. It is connected using an 8-pin Tyco 2 mm pitch plug.

The cable is open on the motor side so that it can be connected to the motor feedback connector.

The general pinout of the feedback port B cable is as follows:

Pin No.	Signal	Color	Twisted & Shielded Wire	Plug
1	+5V	Brown	Pair	 8-Pin Tyco 2 mm Pitch Plug
2	COMRET	White		
3	PortB_ENC_A+/SIN+	Gray	Pair	
4	PortB_ENC_A-/SIN-	Pink		
5	PortB_ENC_B+/COS+	Green	Pair	
6	PortB_ENC_B-/COS-	Yellow		
7	PortB_ENC_INDEX+/Analog_Index+	Red	Pair	
8	PortB_ENC_INDEX-/Analog_Index-	Blue		

Pin Positions



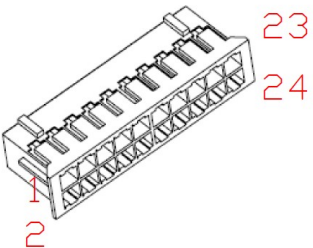


Chapter 4: Port C & I/O Cable (CBL-GPORTCIO-A2)

The Port C & I/O cable is a 24-AWG shielded twisted-pair cable. It is connected using a 24-pin Tyco 2 mm pitch plug.

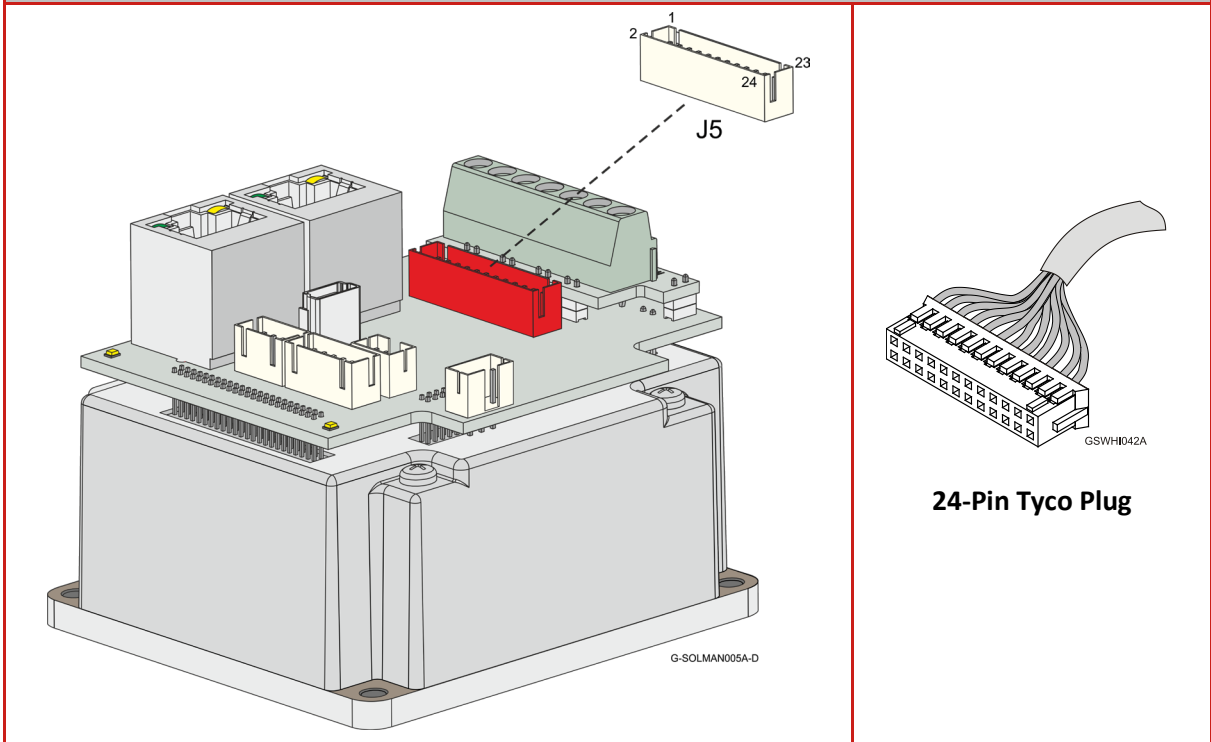
The cable is open on the motor side so that it can be connected to the controller interface connector.

The general pinout of the Port C & I/O cable is as follows:

Pin No.	Signal	Color	Twisted & Shielded Wire	Harness (Cable)	Plug
1	PortC_ENCO_A+	Brown	Pair	ENC_OUT	
2	PortC_ENCO_A-	White			
3	PortC_ENCO_B+	Grey	Pair		
4	PortC_ENCO_B-	Pink			
5	PortC_ENCO_Index+	Green	Pair		
6	PortC_ENCO_Index-	Yellow			
7	COMRET	Red			
8	PE	Drain wire			
9	ANALOG1-	Green	Pair	INPUTS	
10	ANALOG1+	Yellow			
11	ANARET	Brown			
12	INRET1_6	White			
13	IN1	Cyan			
14	IN2	Purple			
15	IN3	Orange			
16	IN4	Black			
17	IN5	Pink			
18	IN6	Blue			
19	Reserved	Brown		OUTPUTS	
20	Reserved	White			
21	OUT2	Gray			
22	OUT1	Pink			
23	VDD	Green	Pair		
24	VDDRET	Yellow			



Pin Positions



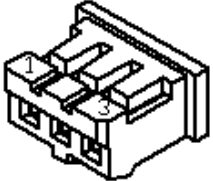


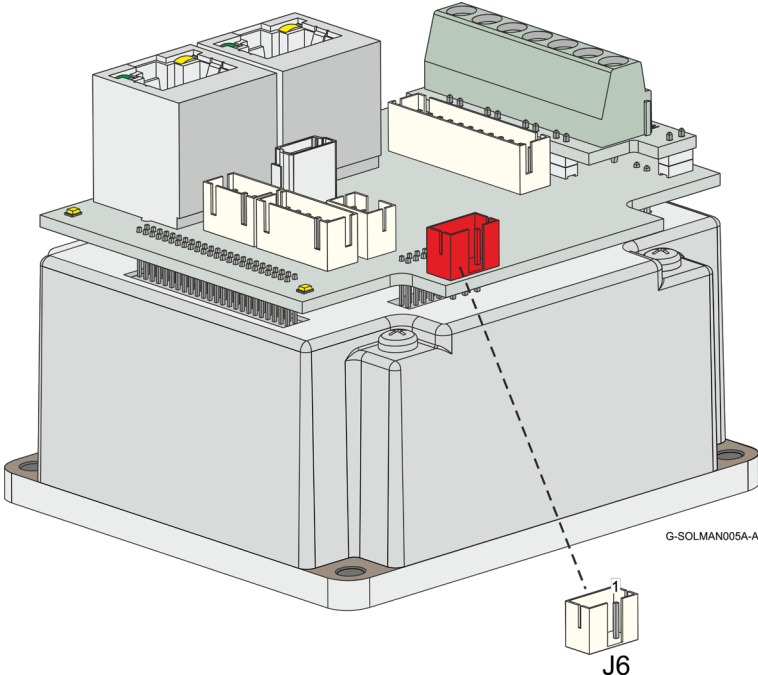
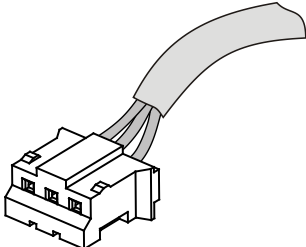
Chapter 5: STO Cable (CBL-GSTOCOM-A2)

The STO cable is a 24-AWG twisted-pair shielded cable. It is connected using a 3-pin Tyco 2 mm pitch plug.

The cable is open on the end-side so that it can be connected to the STO interface connector.

The general pinout of the STO feedback cable is as follows:

Pin No.	Signal	Color	Twisted & Shielded Wire	Plug
1	STO1	Yellow	Pair	 3-Pin Tyco 2 mm Pitch Plug
2	STO2	Green		
3	STO_RET	White		

Pin Positions	
 G-SOLMAN005A-A J6	 GSWHI040B 3-Pin Tyco Plug




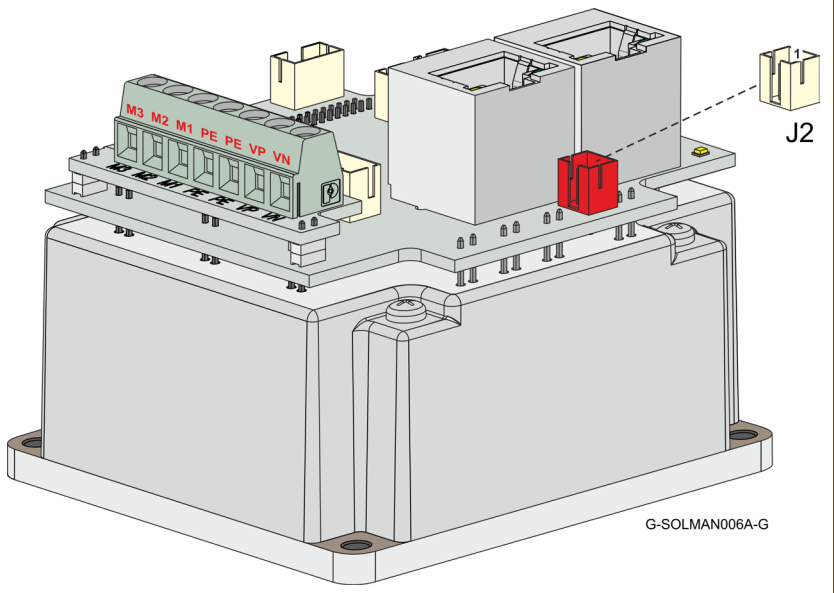
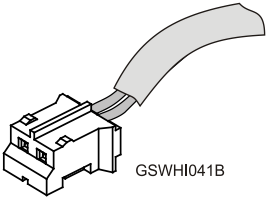
Chapter 6: Control Supply Cable (CBL-GVLSNS-A2)

The Control Supply cable is a 24-AWG twisted-pair shielded cable. It is connected using a 2-pin Tyco 2 mm pitch plug.

The cable is open on the end-side so that it can be connected to the power supply.

The general pinout of the Control Supply cable is as follows:

Pin No.	Signal	Color	Twisted & Shielded Wire	Plug
1	COMRET	Black	Pair	 2-Pin Tyco 2 mm Pitch Plug
2	VL+	Red		

Pin Positions	
 G-SOLMAN006A-G	 GSWHI041B 2-Pin Tyco Plug



6.1. Cable Connectors and Cable Crimping Kit (ACC-CONGSOLWHI-E)

Notes:

1. The ACC-CONGSOLWHI-E is not included in the CBL-GSOLWHIKIT01 cable kit.
2. ACC-CONGSOLWHI-E is a 100-sets of GOLD SOL-MAN Connector kit.

Rather than purchase a cable kit from Elmo, it is at the discretion of the customer to purchase the following connectors and terminals necessary to build his own Gold Solo Mandolin cable kit.

Conn. Name & Description	QTY	Tyco	Neltron	Wurth
 J3 Feedback Port A 2X6, 2MM PITCH ,CRIMP HOUSING	1	1-1470107-2	2418HJ-12-PHD	-----
 J4 Feedback Port B 2X4, 2MM PITCH ,CRIMP HOUSING	1	1470107-8	2418HJ-8-PHD	-----
 J5 I/O & Feedback Port C 2X12, 2MM PITCH ,CRIMP HOUSING	1	2-1470107-4	2418HJ-24-PHD	-----
 J6 STO & J8 RS232 1X3, 2MM PITCH ,CRIMP HOUSING	2	6-440129-3	2418HJ-03	620 003 113 322
 J2 Control Supply 1X2, 2MM PITCH ,CRIMP HOUSING	1	6-440129-2	2418HJ-02	620 002 113 322
 CRIMP CONTACT FOR 2 ROWS 2.0 MM PITCH	44	1470106-1	2418TJ-PHD	-----
 CRIMP CONTACT FOR 1 ROW 2.0 MM PITCH	8	-----	2418TJ	620 101 13722

Figure 1: Gold Solo Mandolin Connectors and Terminals



6.2. Crimping Pliers

Elmo recommends using the following types of crimping pliers to connect cables to the Gold Solo Mandolin top interface:

Kely Crimping Tool	WURTH Crimping Tool	Elmo Tool	Terminal Type
<p>P/N-YS-09B-1-2001-T-L http://www.kely-tools.com/Product-2008516155228.html</p> 	<p>P/N- 600 624 228 220 http://www.we-online.com/web/en/wuerth_elektronik/start.php</p> 	<p>P/N TOOL-600624</p>	<p>2mm single row terminal</p>
<p>P/N-YS-09B-1-2004-T http://www.kely-tools.com/Product-2008516155228.html</p>			<p>2 mm dual row terminal</p>



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