

Elmo's **Gold Line**
Our Best Ever Motion Solutions

Gold DC Trombone Cable Kit



September 2011 (Ver. 1.0)



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Elmo Worldwide

Head Office

Elmo Motion Control Ltd.

60 Amal St., P.O. Box 3078, Petach Tikva 49103
Israel

Tel: +972 (3) 929-2300 • Fax: +972 (3) 929-2322 • info-il@elmomc.com

North America

Elmo Motion Control Inc.

42 Technology Way, Nashua, NH 03060
USA

Tel: +1 (603) 821-9979 • Fax: +1 (603) 821-9943 • info-us@elmomc.com

Europe

Elmo Motion Control GmbH

Hermann-Schwer-Strasse 3, 78048, VS-Villingen
Germany

Tel: +49 (0) 7721-944 7120 • Fax: +49 (0) 7721-944 7130 • info-de@elmomc.com

China

Elmo Motion Control Technology (Shanghai) Co. Ltd.

Room 1414, Huawen Plaza, No. 999 Zhongshan West Road, Shanghai (200051)
China

Tel: +86-21-32516651 • Fax: +86-21-32516652 • info-asia@elmomc.com

Asia Pacific

Elmo Motion Control

#807, Kofomo Tower, 16-3, Sunae-dong, Bundang-gu, Seongnam-si, Gyeonggi-do,
South Korea

Tel: +82-31-698-2010 • Fax: +82-31-698-2013 • info-asia@elmomc.com

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Chapter 1: Introduction

This document provides the wiring details for the cables used to connect Elmo's Gold DC Trombone servo drive with the end-user application. The servo drive-side pinouts are provided in Chapter 3 of the *Gold DC Trombone Installation Guide*..

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

1.1. Cable Kit

The catalog number of the Gold DC Trombone cable kit is CBL-GDCTROKIT.

This cable kit includes the following cables:

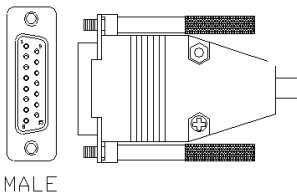
ELMO Part Number	Function
CBL-DFDBK	Feedback Port A
CBL-GDCPORTB	Feedback Port B
CBL-GDCPORTC	Feedback Port C
CBL-GDCI/O	Feedback Port I/O
CBL-MTRPWR	Drive Motor Cable
CBL-CEL24	24V Logic Cable

Chapter 2: Feedback Port A Cable (CBL-DFDBK)

The feedback port A cable is made from a six-pair 24-AWG shielded twisted-pair cable. There is one type of feedback cable, which uses a D-type 15-pin male plug to connect to the Gold DC Trombone on the servo drive side. The part number (P/N) of this cable is CBL-DFDBK.

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

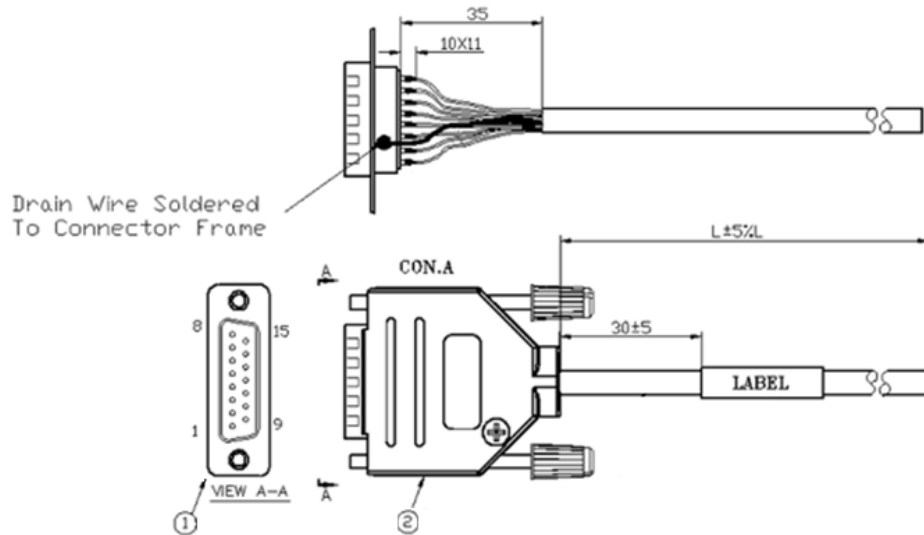
The general pinout of the feedback port A cable is as follows:

Pin No.	Signal	Color	Twisted & Shielded Wire	Plug
1	HC	Green	Pair	 <p>MALE</p> <p>15-Pin Plug</p>
10	HB	Yellow		
3	SUPRET	White	Pair	
4	+5V	Brown		
5	PortA_ENC_A-	Orange	Pair	
6	PortA_ENC_A+	Cyan		
7	PortA_ENC_INDEX-	Blue	Pair	
8	PortA_ENC_INDEX+	Red		
10	HA	Pink		
14	PortA_ENC_B-	Black	Pair	
15	PortA_ENC_B+	Purple		

Note. The specific functionality of each pin is described fully in Chapter 3 of the *Gold DC Trombone Installation Guide*.



Figure 1: Single-Sided Feedback Port A Cable (Part No. CBL-DFDBK)



Item	Quantity	Manufacturer	P/N	Description
1	1	Weitronic	105-15-1-60-B00-0-60-1-U	CON D-type 15-pin male straight wiring
2	1	AMP	1-1478762-5	D-Sub metal hood 15 pins 4/40 long screw

Chapter 3: Feedback Port B Cable (CBL-GDCPORTB)

The feedback port B cable is a four-pair 24-AWG shielded twisted-pair cable. It is connected using a D-type 9-pin male plug to connect to the Gold DC Trombone on the servo drive side. The part number (P/N) of this cable is CBL-GDCPORTB.

The cable is open on the motor side so that it can be connected to customer-specific connectors.

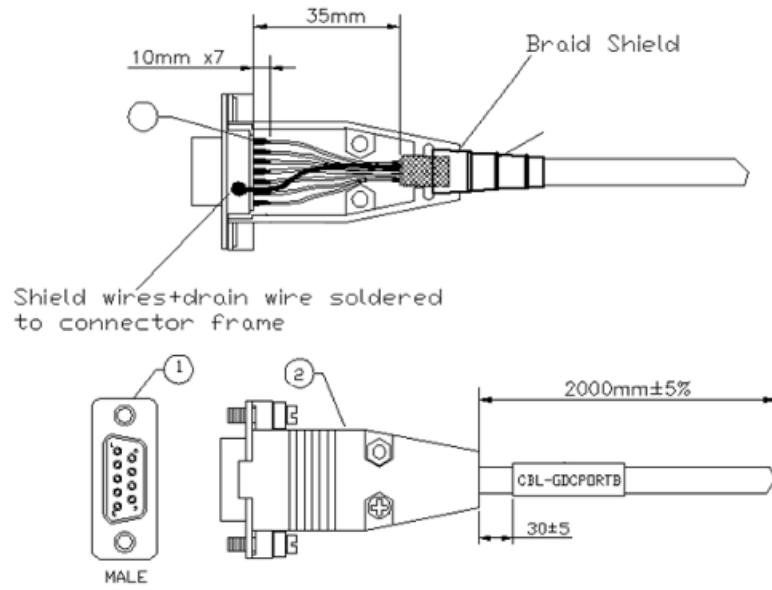
The general pinout of the feedback port B cable is as follows:

Pin No.	Signal	Color	Twisted & Shielded Wire	Plug
1	PortB_ENC_A+/SIN+	Brown	Pair	 <p>MALE</p> <p>9-Pin Plug</p>
6	PortB_ENC_A-/SIN-	White		
3	PortB_ENC_INDEX+	Red	Pair	
8	PortB_ENC_INDEX-	Blue		
5	SUPRET	Gray	Pair	
4	+5V	Pink		
7	PortB_ENC_B-	Green	Pair	
2	PortB_ENC_B+	Yellow		

Note. The specific functionality of each pin is described fully in Chapter 3 of the *Gold DC Trombone Installation Guide*.



Figure 2: Feedback Port B Cable (Part No. CBL-GDCPORTB)

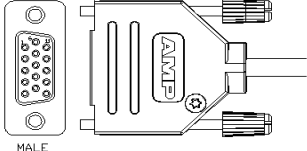


Item	Quantity	Manufacturer	P/N	Description
1	1	Weitronic	105-09-1-50-B00-0-60-1-U	CON D-type 9-pin male straight wiring
2	1	Yimtex Electronic	573-09-S	D-Sub metal hood type for 9-pin D-type

Chapter 4: Feedback Port C Cable (CBL-GDCPORTC)

The feedback port C cable is an eight-pair 24-AWG shielded twisted-pair cable. It is connected using D-type 15-pin male plug to connect to the Gold DC Trombone on the servo drive side. The part number (P/N) of this cable is CBL-GDCPORTC. The cable is open on the motor side so that it can be connected to customer-specific connectors.

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

Pin No.	Signal	Color	Twisted & Shielded Wire	Plug
1	PortC_ENCO_A+	Cyan	Pair in OUTPUTS	 <p>15-Pin Plug</p>
2	PortC_ENCO_A-	Orange		
3	PortC_ENCO_B+	Purple	Pair in OUTPUTS	
4	PortC_ENCO_B-	Black		
5	PortC_ENCO_Index+	Red	Pair in OUTPUTS	
10	PortC_ENCO_Index-	Blue		
7	STO_RET	Gray	Pair in OUTPUTS	
6	STO1	Pink		
8	Reserved	Brown	Pair in INPUTS	
12	Reserved	White		
9	COMRET	Green	Pair in INPUTS	
13	ANARET	Yellow		
15	ANALOG1+	White/Red	Pair in INPUTS	
14	ANALOG1-	White/Black		
11	STO2	White/Yellow		

Note. The specific functionality of each pin is described fully in the *Gold DC Trombone Installation Guide*.

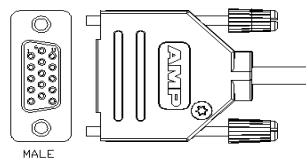
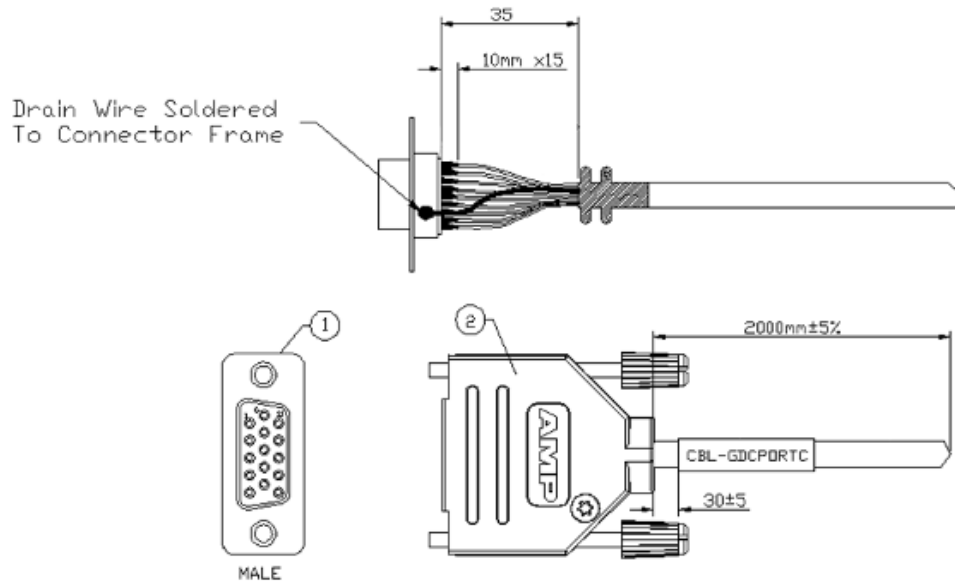


Figure 3: Feedback Port C Cable (Part No. CBL-GDCPORTC)



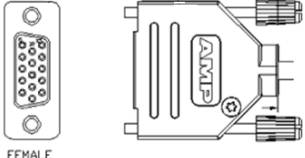
Item	Quantity	Manufacturer	P/N	Description
1	1	Amphenol	G17SH-1510-110	D-type connector, 15-pin male, high density
2	1	AMP	1478762-9	D-Sub metal hood 9 pins 4/40 long screw

Chapter 5: Feedback Port I/O Cable (CBL-GDCI/O)

The feedback port I/O cable is an eight-pair 24-AWG shielded twisted-pair cable. It is connected using a D-type 15-pin female connector. The part number (P/N) of this cable is CBL-GDCI/O.

The cable is open on the motor side so that it can be connected to customer-specific connectors.

The general pinout of the port I/O feedback cable is as follows:

Pin No.	Signal	Color	Twisted & Shielded Wire	Plug
1	IN1_HS	Orange	Pair	 <p>FEMALE</p> <p>15-Pin Female</p>
2	IN2_HS	Cyan		
3	OUT1	Blue	Pair	
4	OUT2	Red		
5	OUT3	Yellow	Pair	
13	OUT4	Green		
7	IN3_HS	Purple	Pair	
8	IN4_HS	Black		
9	VDDRET	White	Pair	
10	VDD	Brown		
11	IN5_HS	Gray	Pair	
12	IN6_HS	Pink		
14	VDDRET	White/Black	Pair	
15	VDD	White/Red		
6	INRET1-6	White/Yellow		

Note. The specific functionality of each pin is described fully in the *Gold DC Trombone Installation Guide*.

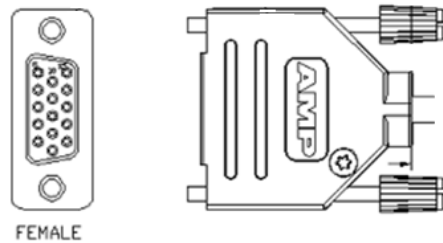
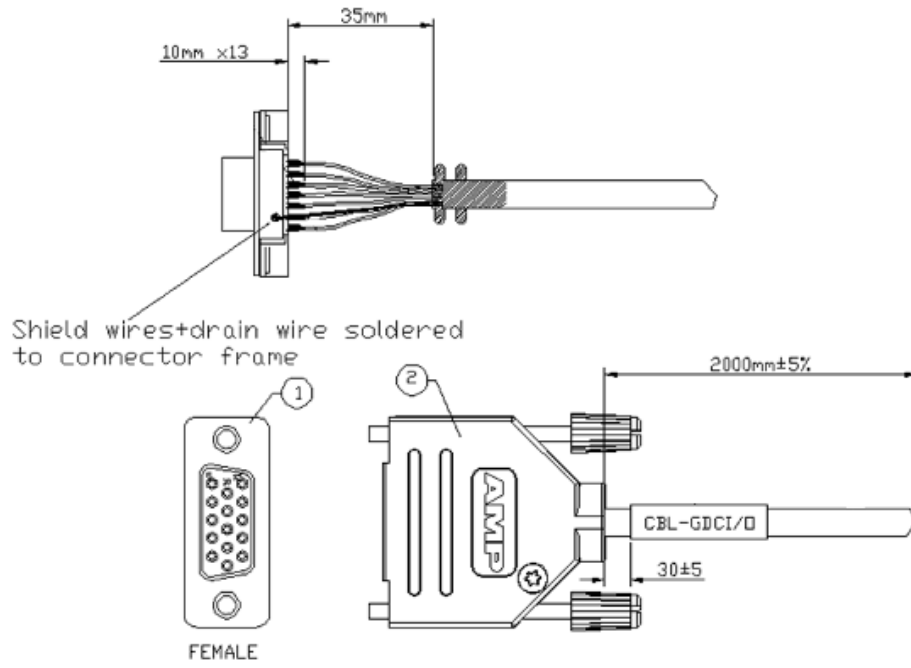


Figure 4: I/O Cable (Part No. CBL-GDCI/O)



Item	Quantity	Manufacturer	P/N	Description
1	1	Kycon	K86-EA-15S	D-type connector, 15-pin female, high density
2	1	AMP	1478762-9	D-Sub metal hood 9 pins 4/40 long screw

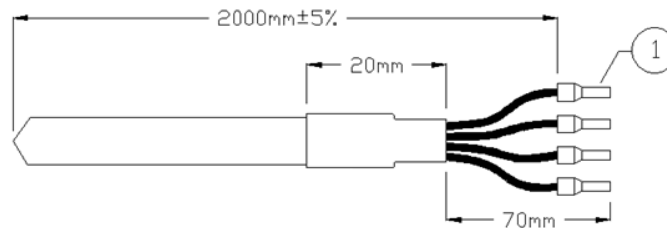
Chapter 6: Drive Motor Cable (CBL-MTRPWR)

The power (PWR) cable contains four single-core 14-AWG shielded conductors. It is connected using end ferrules. The part number (P/N) of this cable is CBL-MTRPWR.

The cable is open on the motor side so that it can be connected to customer-specific connectors.

The general pinout of the PWR cable is as follows:

Signal	Color
M1	White
M2	Black
M3	Red
PE	Green



Item	Quantity	Manufacturer	P/N	Description
1	4	Phoenix	AI2,5-8GY	End ferrule, 14g, gray

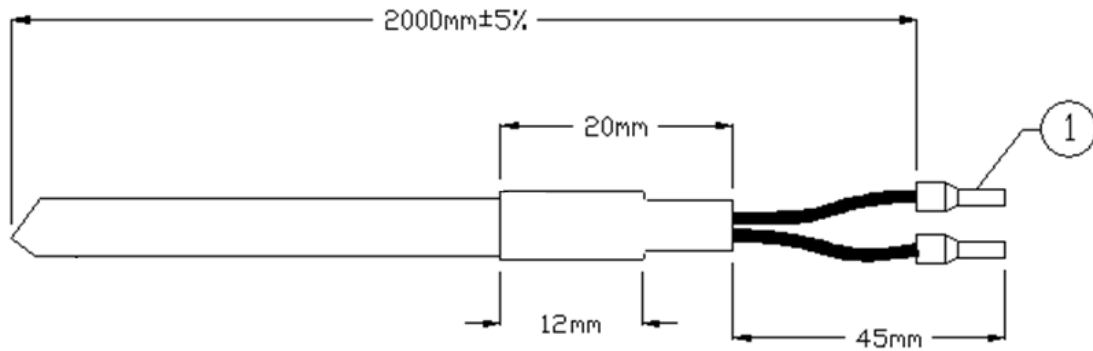
Chapter 7: 24VDC Logic Cable (CBL-CEL24)

The 24VDC logic cable is a two single twisted-pair 24-AWG double-shielded cable. It is connected using an Ending ferrule. The part number (P/N) of this cable is CBL-CEL24.

The cable is open on the second side so that it can be connected to customer-specific connectors.

The general pinout of the 24VDC LOGIC cable is as follows:

Pin No.	Signal	Color	Twisted & Shielded Wire
1	+24VDC	Red	Pair
2	24VDC_RET	Black	



Item	Quantity	Manufacturer	P/N	Description
1	2	Phoenix	AI 0.5-8 WH,2040-016	End ferrule, 20g, gray