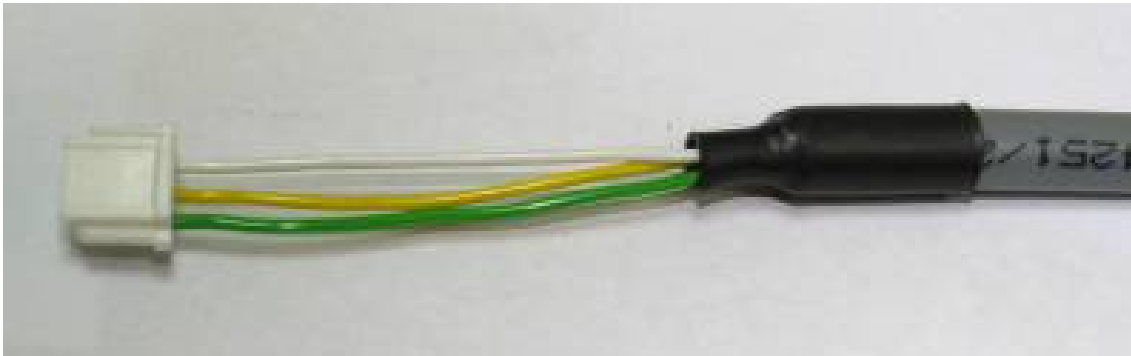
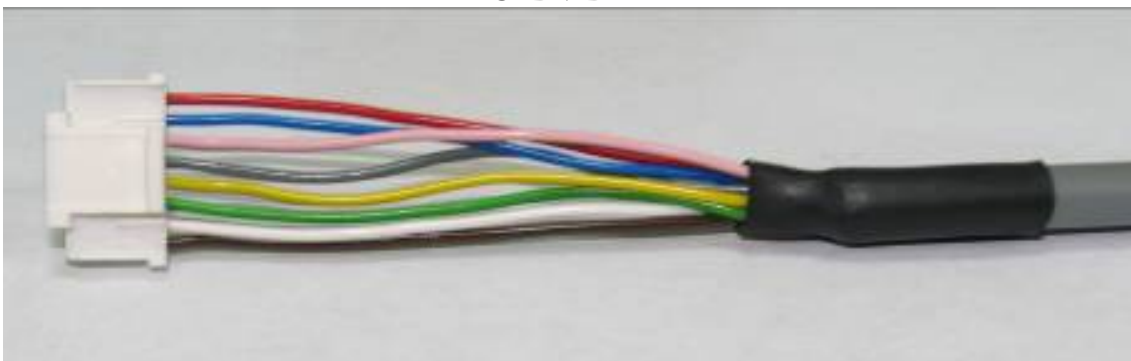


---

# Solo Whistle Digital Servo Drive Cable Kit



CBL-MLXAI



CBL-MLXAUX



CBL-MLXFDBK

**CBL-SOLKIT-001**

**December 2008 (Ver. 1.0)**



---

## ***Important Notice***

This guide is delivered subject to the following conditions and restrictions:

- This guide contains proprietary information belonging to Elmo Motion Control Ltd. Such information is supplied solely for the purpose of assisting users of the Solo Whistle servo drive in assembling the required cables for their drive.
- The text and graphics included in this manual are for the purpose of illustration and reference only. The specifications on which they are based are subject to change without notice.
- Elmo Motion Control and the Elmo Motion Control logo are trademarks of Elmo Motion Control Ltd.
- Information in this document is subject to change without notice.

MAN-CBLKIT-SOLWHI (Ver 1.0)  
Copyright © 2008  
Elmo Motion Control Ltd.  
All rights reserved.

### **Revision History:**

<b>Version</b>	<b>Release Date</b>	<b>Status</b>	<b>Changes/Remarks</b>
Ver. 1.0	December 2008	Initial Release	

<b>Elmo Motion Control Ltd.</b> 64 Gissin St., P.O. Box 463 Petach Tikva 49103 Israel Tel: +972 (3) 929-2300 Fax: +972 (3) 929-2322 <a href="mailto:info-il@elmomc.com">info-il@elmomc.com</a>	<b>Elmo Motion Control Inc.</b> 1 Park Drive, Suite 12 Westford, MA 01886 USA Tel: +1 (978) 399-0034 Fax: +1 (978) 399-0035 <a href="mailto:info-us@elmomc.com">info-us@elmomc.com</a>	<b>Elmo Motion Control GmbH</b> Steinkirchring 1 D-78056, Villingen-Schwenningen Germany Tel: +49 (0) 7720-85 77 60 Fax: +49 (0) 7720-85 77 70 <a href="mailto:info-de@elmomc.com">info-de@elmomc.com</a>	 <a href="http://www.elmomc.com">www.elmomc.com</a>
--	--	---	---

# Contents

1. Introduction .....	1-1
1.1 Solo Whistle Connectors .....	1-1
1.2 Cable Cross Reference .....	1-2
1.2.1 Solo Whistle .....	1-2
2. Cable Kit.....	2-1
3. Main Feedback Cable (CBL-MLXFDBK) .....	3-1
4. Auxiliary Feedback Cable (CBL-MLXAUX).....	4-1
5. Communication Cables .....	5-1
5.1 RS232 Communication Cable (CBL-MLXAI).....	5-1
5.2 CAN In & Out Communication Cables (CBL-MLXAI).....	5-1
6. I/O Cable (CBL-MLXFDBK).....	6-1

# 1. Introduction

This document provides the wiring details for the cables used to connect the Elmo Solo-Whistle digital servo drive 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).

## 1.1 Solo Whistle Connectors

The table below presents the connector panel of the Solo Whistle drive and specifies the cable connectors.

Pins	Type	Connector Manufacturer and Part Number	Port
9	3.5 mm Pitch	Wires	J1
12	2 mm Pitch	Molex 35507-1200	J2
8	2 mm Pitch	Molex 35507-0800	J3
12	2 mm Pitch	Molex 35507-1200	J4
3	2 mm Pitch	Molex 35507-0300	J5
3	2 mm Pitch	Molex 35507-0300	J6
3	2 mm Pitch	Molex 35507-0300	J7
8	3.81mm Pitch/16-18 AWG Wires	Wires	J8

Connector Locations	
<p>SOLW032A</p>	<p>SOLW035A</p>

Table 1-1: Connectors on the Solo Whistle Drive

## 1.2 Cable Cross Reference

### 1.2.1 Solo Whistle

Cable Application	Cable Part. No.	Pins	Pin Location	Page
Main Feedback	CBL-MLXFDBK	12	J4	3-1
Auxiliary Feedback	CBL-MLXAUX	8	J3	4-1
RS232 Communication	CBL-MLXAI	3	J5	5-1
CANIN	CBL-MLXAI	3	J6	5-1
CANOUT	CBL-MLXAI	3	J7	5-1
I/O	CBL-MLXFDBK	12	J2	6-1

Table 1-2: Cable and Pin Cross-Reference for the Solo Whistle Drive

## 2. Cable Kit

The Solo Whistle Cable Kit (CBL-SOLKIT-001) is available for purchase directly from Elmo Motion Control. The cable kit includes the six cables listed in Table 2-1. All the cables are 2 m long.

<b>Cable Application</b>	<b>CBL-SOLKIT-001</b>
Main Feedback	CBL-MLXFDBK
Auxiliary Feedback	CBL-MLXAUX
RS232 Communication	CBL-MLXAI
CANIN	CBL-MLXAI
CANOUT	CBL-MLXAI
I/O	CBL-MLXFDBK

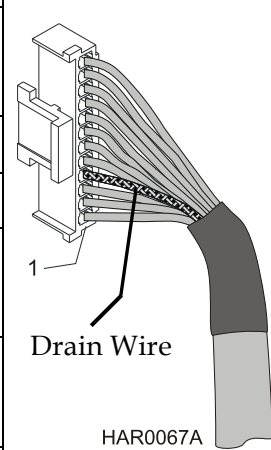
Table 2-1: Cable Kit for the Solo Whistle Drive

### 3. Main Feedback Cable (CBL-MLXFDBK)

The main feedback cable is made from 24-AWG, six twisted-pair shielded cable. There is one type of feedback cable, which uses a 12-pin Molex 2 mm pitch plug on the *SimplIQ* side.

The Main Feedback Cable (CBL-MLXFDBK) is open on the motor side so that it can be connected to customer-specific connectors.

Pin No.	Color	Twisted & Shielded Wire	Description
1	Green	Pair	see Installation Guide
2	Yellow		
3	Pink		see Installation Guide
4	Drain wire		see Installation Guide
5	White	Pair	see Installation Guide
6	Brown		
7	Blue	Pair	see Installation Guide
8	Red		
9	Black	Pair	see Installation Guide
10	Purple		
11	Orange	Pair	see Installation Guide
12	Cyan		





The specific functionality of each pin is fully outlined in the Solo Whistle *Installation Guide*.

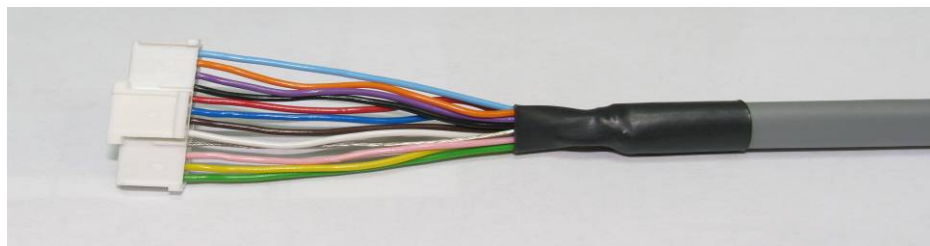


Figure 1: *Single-sided Main Feedback Cable* (Part No. CBL-MLXFDBK)

## 4. Auxiliary Feedback Cable (CBL-MLXAUX)

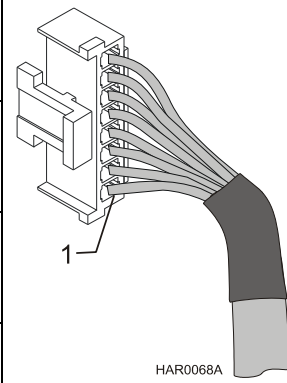
The auxiliary feedback cable is a 24-AWG twisted-pair shielded cable. It is connected using an 8-pin Molex 2 mm pitch plug.

Four options – described in the *Auxiliary Feedback* section(s) in the Solo Whistle *Installation Guide* – are available for auxiliary feedback:

- Main encoder buffered outputs
- Differential encoder inputs
- Single-ended encoder input
- Pulse-and-direction input

The Auxiliary Feedback cable (CBL-MLXAUX) is open on the motor side so that it can be connected to customer-specific connectors.

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

Pin No.	Color	Twisted & Shielded Wire	Description	
1	Brown	Pair	see Installation Guide	
2	White			
3	Green	Pair	see Installation Guide	
4	Yellow			
5	Gray	Pair	see Installation Guide	
6	Pink			
7	Blue	Pair	see Installation Guide	
8	Red			



The specific functionality of each pin is fully outlined in the Solo Whistle *Installation Guides*.

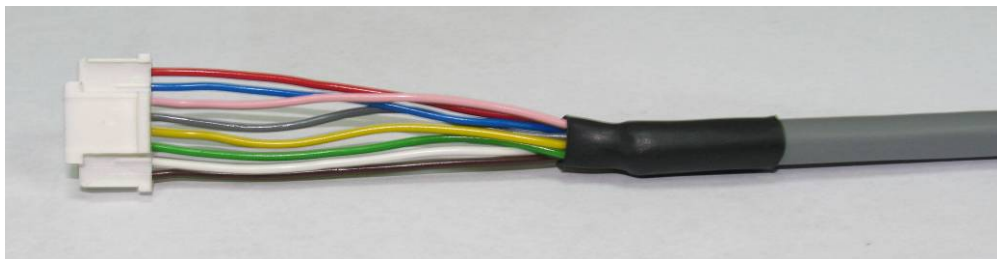


Figure 2: Auxiliary Feedback Cable (Part No. CBL-MLXAUX)

## 5. Communication Cables

The communication cables use 26-AWG two twisted pair shielded cable. They are connected using a 3-pin Molex 2 mm pitch plug. Elmo drives can communicate using the following options:

- RS-232, full duplex
- CAN open (CAN in & CAN out)

The Communication Cables (CBL-MLXAI) are open on the motor side so that it can be connected to customer-specific connectors.

### 5.1 RS232 Communication Cable (CBL-MLXAI)

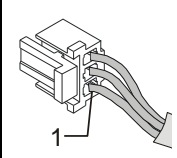
Pin No.	Color	Twisted & Shielded Wire	Signal	Description	
1	Green	Pair	RX	RS-232 receive	
2	Yellow		TX	RS-232 transmit	
3	White		COMRET	Communication return	



Figure 3: RS232 Communication Cable (Part No. CBL-MLXAI)

### 5.2 CAN In & Out Communication Cables (CBL-MLXAI)

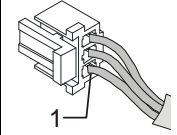
Pin No.	Color	Twisted & Shielded Wire	Signal	Description	
1	Green	Pair	CAN_GND	CAN ground	
2	Yellow		CAN_L	CAN_L busline (dominant low)	
3	White		CAN_H	CAN_H busline (dominant high)	

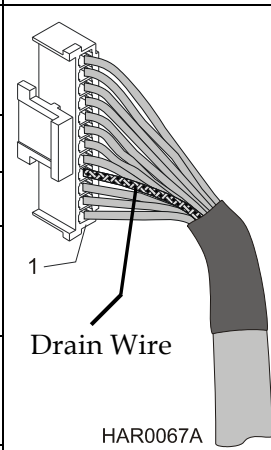


Figure 4: CAN In and Out Communication Cable (Part No. CBL-MLXAI)

## 6. I/O Cable (CBL-MLXFDBK)

The I/O cable is made from 24-AWG, six twisted-pair shielded cable. There is one type of I/O cable, which uses a 12-pin Molex 2.0 mm pitch plug on the *SimplIQ* side.

The I/O Cable (CBL-MLXFDBK) is open on the motor side so that it can be connected to customer-specific connectors.

Pin No.	Color	Twisted & Shielded Wire	Description	
1	Green	Pair	see Installation Guide	
2	Yellow			
3	Pink		see Installation Guide	
4	Drain wire		see Installation Guide	
5	White	Pair	see Installation Guide	
6	Brown			
7	Blue	Pair	see Installation Guide	
8	Red			
9	Black	Pair	see Installation Guide	
10	Purple			
11	Orange	Pair	see Installation Guide	
12	Cyan			



The specific functionality of each pin is fully outlined in the Solo Whistle *Installation Guide*.

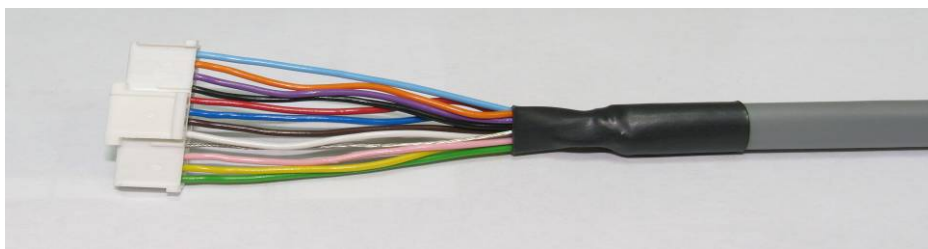


Figure 5: I/O Cable (Part No. CBL-MLXFDBK)