



## **INSTRUCTION MANUAL**

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# **24 / 120 VAC Interface Option Card for the C10**

**Part Number 100 - 0179 - 01**

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## **LETHAL VOLTAGES MAY BE PRESENT**

**PLEASE READ THIS MANUAL THOROUGHLY BEFORE ATTEMPTING ANY INSTALLATION, OPERATION, MAINTENANCE, OR INSPECTION. FAILURE TO FOLLOW THE RECOMMENDED PROCEDURES OR CAUTIONS IN THIS MANUAL COULD RESULT IN INJURY TO PERSONNEL AND / OR DAMAGE TO THE EQUIPMENT.**

### **CAUTION**

- 1 – CHECK THE NAME WRITTEN ON THE PRODUCT AND INSURE THAT THE PROPER PART HAS BEEN RECEIVED.
- 2 – THOROUGHLY INSPECT THE PART(S) FOR ANY DAMAGE DUE TO SHIPMENT OR HANDLING.
- 3 - THE PART(S) MAY CONTAIN CMOS CHIPS AND CAN BE DAMGED BY STATIC ELECTRICITY. HANDLING SHOULD BE IN ACCORDANCE WITH INDUSTRY STANDARDS.
- 4 - BEFORE INSTALLING THE PART(S) TURN OFF ALL POWER TO THE EQUIPMENT AND INSURE THE CHARGE INDICATOR LAMP ON THE INVERTER IS **OFF**. **LETHAL VOLTAGES ARE PRESENT**
- 5 - DO NOT CONNECT OR DISCONNECT WIRING WHILE POWER IS **ON!**
- 6 - FOLLOW GOOD STANDARD WIRING PRACTICES AND ANY APPLICABLE CODES THAT MAY APPLY.

## C10 24 / 120 VAC Interface Option Card Kit

**P/N 100 – 0179 – 01**

### Description

The **100 – 0179 – 01** Option Card is designed for use with the **Saftronics C10** Inverter series. It provides a hardware interface between the users' 24 to 120 VAC input control circuitry and the inverter. It has 8 inputs, including FWD, REV, Eb, RESET and (4) multi-function, all with 5Kvac isolation.

### Specifications

Input Control Voltage	-	24 to 120 VAC
Input Resistance	-	50 kohm
Input Isolation Voltage	-	5 Kvac

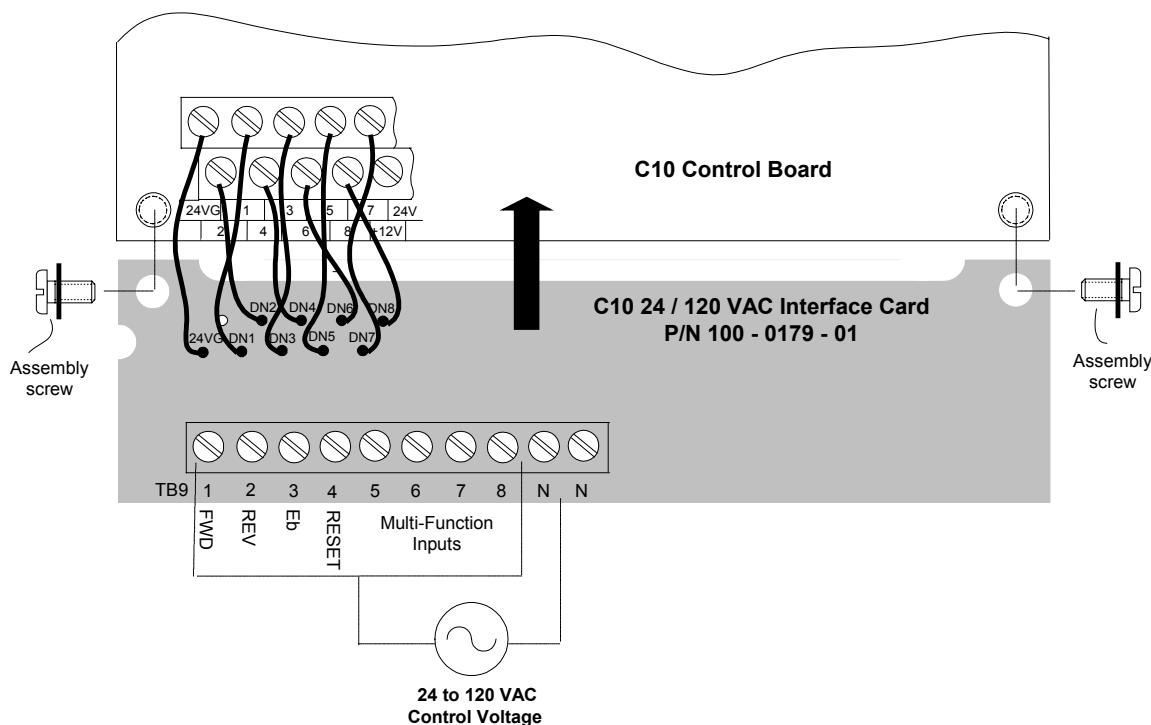
### Installation

***Please read this manual in its' entirety before attempting any installation!***

**Turn off all power to the equipment being worked on.** Referring to **Fig.1**, the option card is mounted inside the inverter directly to the **C10** control board. To do this the cover of the **C10** needs to be removed. Depending upon the **C10** Model, (**HP rating**) closely follow the instructions on **page 3 or 4**. Once the cover has been removed, remove the 2 assembly screws and washers from the front of the **C10** control board. Refer to **Fig.1**. Next, make the wire connections from the option card to the **C10** control board terminals as shown. Slide the option card on top of the front edge of the control board, align the assembly holes, and secure with the assembly screws.


Through the conduit openings of the **C10**, and in accordance with good standard practices, observing all applicable codes, make the control voltage wiring connections to the option card terminal block **TB9**, See **Fig. 4, Pg. 4**. Replace the cover in accordance with **page 3 or 4**.

The installation is now complete.



**Fig. 1 Product Appearance and Assembly**

❑ **Removing/Attaching the Digital Operator and Front Cover**

	<h2>Caution</h2>
<p>1. Do not remove or attach the LCD digital operator and/or the front cover of the unit using methods other than those described below, otherwise the inverter may be damaged or malfunction.</p> <p>2. Never hang the front cover on the inverter with the LCD digital operator still attached or damage to the inverter may result.</p>	

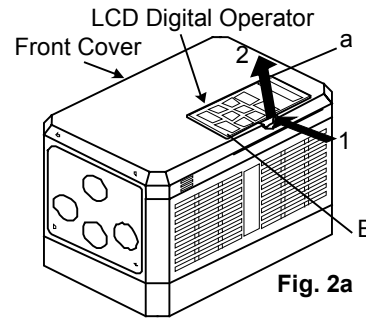
**For Standard Size Type 230V : 3-10HP, 460V : 3-10HP**

- |             |             |
|-------------|-------------|
| • C102003-1 | • C104003-1 |
| • C102005-1 | • C104005-1 |
| • C102007-1 | • C104007-1 |
| • C102010-1 | • C104010-1 |

❑ **Removing the digital operator:**

**Referring to Fig. 2a**

Remove the screws a and b. Press the lever on the side of the digital operator in the direction of arrow 1 to unlock the digital operator. Disconnect the RS-232 cable connector on the backside of the LCD digital operator. Lift the digital operator in the direction of arrow 2 to remove the LCD digital operator.

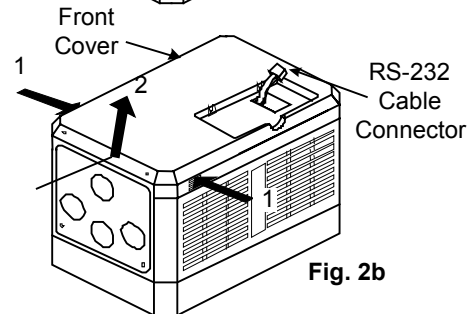


**Fig. 2a**

**Removing the front cover:**

**Referring to Fig. 2b**

Press the left and right sides of the front cover in the directions of arrow 1. Lift the bottom of the cover in the direction of arrow 2 to remove the front cover.

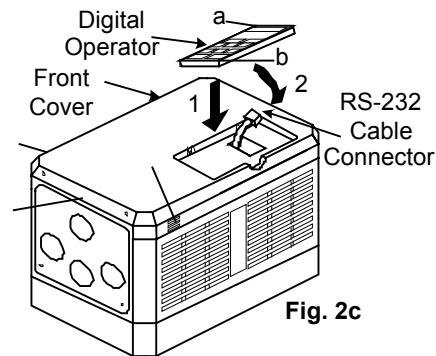


**Fig. 2b**

❑ **Attaching the front cover and digital operator:**

**Referring to Fig. 2c**

Insert the tabs of the upper part of front cover into the groove of the inverter and press the lower part of the front cover onto the inverter until the front cover snaps shut. Connect the RS-232 cable connector on the backside of the LCD digital operator and hook the digital operator at on the front cover in the direction of arrow 1. Press the digital operator in the direction of arrow 2 until it snaps into place and then tighten the screws a and b. (on the front cover)



**Fig. 2c**

For 230V 15-20HP and 460V 15-20HP

- C102015-1
- C102020-1
- C104015-1
- C104020-1

Referring to Fig. 3

- **Removing the digital operator:**  
Remove the screws a and b. Disconnect the RS-232 cable connector on the backside of the LCD digital operator and then lift the digital operator upwards to remove.
- **Removing the front cover:**  
Loosen the two screws of the front cover c and d and then lift the bottom of the front cover and remove.
- **Attaching the front cover and digital operator:**  
Insert the tabs of the upper part of front cover into the groove of the inverter and tighten the screws c and d.  
Connect the RS-232 cable connector on the backside of the LCD digital operator.  
Attach the digital operator and tighten the screws a and b.

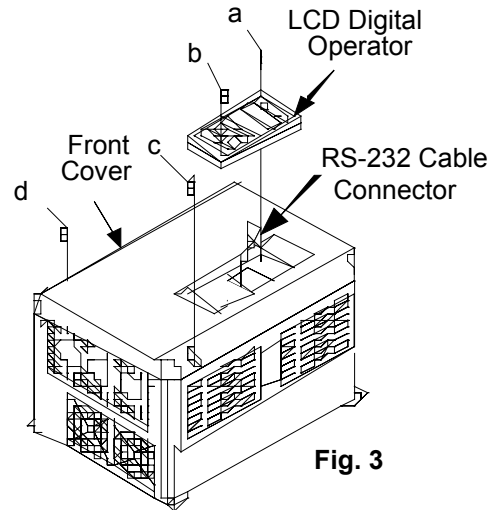


Fig. 3

### Terminal Connection on Option Card

The wire size range that the option card connection terminal(s) can accommodate, is AWG: 16-26. Referring to the figure below, strip the wire back about 1/4 " (6 mm) and make the connection to the terminals by inserting wire into the upper side of the metal bracket on the terminal block, and tighten the screw.

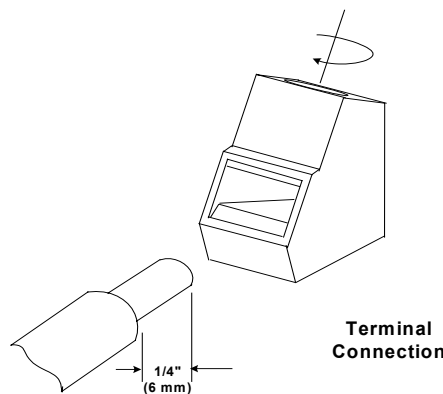


Fig. 4

## **WARNING!**

*Saftronics* manufactures component parts that can be used in a wide variety of industrial applications. The selection and application of *Saftronics* products remains the responsibility of the equipment designer or end user. *Saftronics* accepts no responsibility for how its products may be incorporated into the final design.

Under no circumstances should any *Saftronics* product be incorporated into any product or design as the exclusive or sole safety control. Without exception, all controls should be designed to dynamically fault detect and fail safe under all circumstances. All products designed to incorporate a component part manufactured by *Saftronics*, must be supplied to the end user with appropriate warnings and instructions as to the safe use and operation. Any warnings provided by *Saftronics* must be passed through to the end user.

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