



## 400 Amp, Class T Fuse Block

**CFB2-400**

## Owner's Manual

Please read this  
manual before  
installing your  
fuse block

## INTRODUCTION

### Fuse Protection in the Battery Circuit

A battery is an unlimited source of current. If there is a short circuit along the length of the cables that connect the battery to the inverter, thousands of Amperes of current can flow from the battery causing shorting: a section of the cable can overheat, the insulation can melt and the cable can ultimately break. This interruption of high current can generate hazardous, high temperature, high energy arc accompanied by a high pressure wave that may cause fire, damage to nearby objects or injury. To prevent the occurrence of such hazards under short circuit conditions, an appropriate fuse should be used in the battery circuit with the required current interrupting capacity (Termed AIC – Ampere Interrupting Capacity). For this purpose, fuses with an AIC rating of 10000 A at 14 V / 5000 A at 32 V, or higher should be used.

## CONSTRUCTION

The Class T Fuse Block (Fig. 1) contains the following components:

- Class T Fuse – Fig. 2: This is rated at 125 V, 400 A. It is UL Class “T” rated and UL listed as per UL Standard 248-15. It has AIC (Ampere Interrupting Capacity) of 20,000 A.
- Fuse Holder – Fig. 3: This consists of a fibreglass insulated base with studs / bolts (5/16” diameter, 18 Threads Per Inch) and nut (requires ½” size wrench) for holding the fuse. The two terminals for cable entry are designed for #4/0 cable (Hole size is 0.6” / 15.5 mm). Hexagonal headed socket screws (requires Allen Key size 5/16”) are used to clamp the cable ends.
- Snap on cover: Is made of clear polycarbonate and provides touch safety.



Fig. 1. Class “T” Fuse Assembly



Fig. 2. Class "T" 400 Amp Fuse  
Replacement JLLN 400 Amp fuses are also sold separately. Samlex Model: JLLN-400

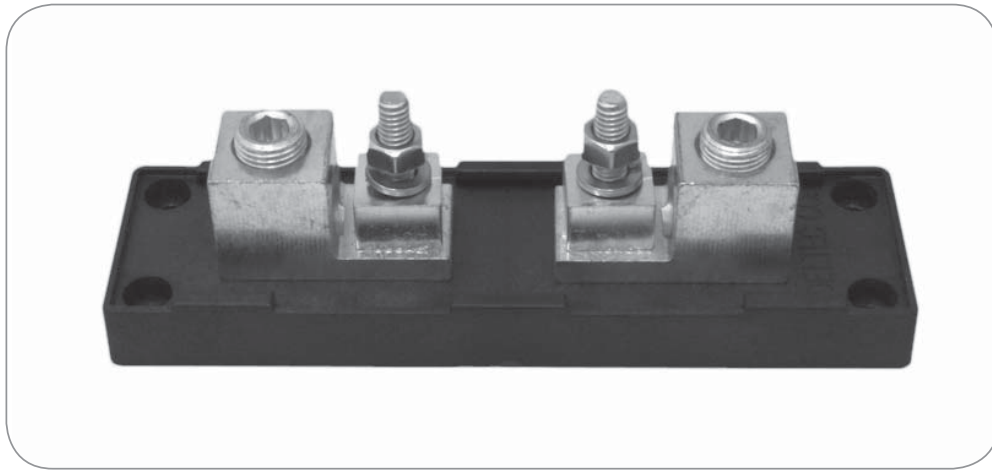


Fig. 3. Fuse Holder

## INSTALLATION

A. The fuse should be installed within 7 inches of the Positive Terminal of the battery. Cut the Positive cable based on the desired location of the Class "T" Fuse Block using wire cutter. Strip 1.05" of the insulation at the cut ends using a stripper. Please ensure that the innermost layer of the tape separator is completely removed. See Fig. 4.



Fig. 4. Battery end of Positive cable cut and prepared for inserting into the Class "T" Fuse Block

B. Insert the bare ends of the cable into the hole for the cable entry and tighten the screw down terminals firmly. Attach the clear polycarbonate snap on cover for touch safety. See Fig. 5.

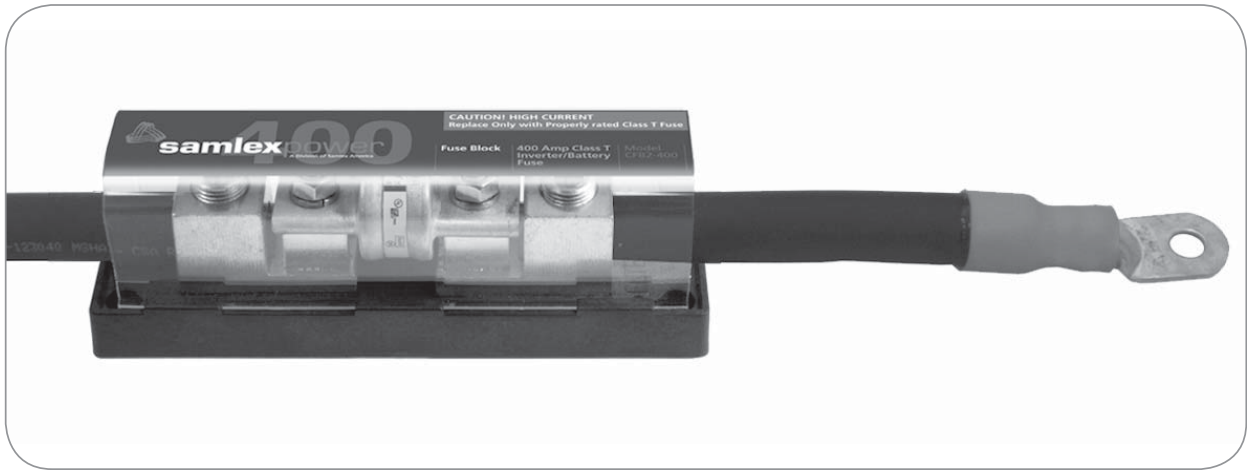


Fig. 5. Fitted Class "T" Fuse Assembly

**NOTE:** The diameter of the hole in the screw down terminal for the cable entry is 0.6" and is just big enough for the diameter of the bare AWG #4/0 stranded cable. It is likely that the ends of the strands towards the cut face of the cable get bent / frayed / spread outwards during cutting and thereby, the diameter of the cable near the cut face may increase slightly. Also, the strands towards the cut face should be pressed together closely to reduce the diameter near the cut face to less than 0.6". To help keep the strands towards pressed together for easier entry into the terminal, tightly warp insulation tape around 0.2" to 0.3" from the cut face. If required, straighten and compress the bent / frayed / spread out ends to reduce the diameter to the minimum. Now insert the leading 0.2" to 0.3" bare portion into the hole. Once this leading portion has entered the hole, remove the insulating tape and insert the bare end of the cable fully.



### Caution!

Please ensure that all the strands get inserted into the hole and that no strand(s) is left forced out of the hole.

## 2 YEAR LIMITED WARRANTY

The CFB2-400 Samlex DC Install Kit manufactured by Samlex America, Inc. (the "Warrantor") are warranted to be free from defects in workmanship and materials under normal use and service. This warranty is in effect for 2 years from the date of purchase by the user (the "Purchaser").

For a warranty claim, the Purchaser should contact the place of purchase to obtain a Return Authorization Number. The defective part or unit should be returned at the Purchaser's expense to the authorized location. A written statement describing the nature of the defect, the date of purchase, the place of purchase, and the Purchaser's name, address and telephone number should also be included.

If upon the Warrantor's examination, the defect proves to be the result of defective material or workmanship, the equipment will be repaired or replaced at the Warrantor's option without charge and returned to the Purchaser at the Warrantor's expense.

No refund of the purchase price will be granted to the Purchaser unless the Warrantor is unable to remedy the defect after having a reasonable number of opportunities to do so. Warranty service shall be performed only by the Warrantor. Any attempt to remedy the defect by anyone other than the Warrantor shall render this warranty void. There shall be no warranty for defects or damages caused by faulty installation or hook-up, abuse or misuse of the equipment including exposure to excessive heat, salt or fresh water spray, or water immersion.

No other express warranty is hereby given and there are no warranties which extend beyond those described herein. This warranty is expressly in lieu of any other expressed or implied warranties, including any implied warranty of merchantability, fitness for the ordinary purposes for which such goods are used, or fitness for a particular purpose, or any other obligations on the part of the Warrantor or its employees and representatives.

### DISCLAIMER OF LIABILITY

There shall be no responsibility or liability whatsoever on the part of the Warrantor or its employees and representatives for injury to any persons, or damage to person or persons, or damage to property, or loss of income or profit, or any other consequential or resulting damage which may be claimed to have been incurred through the use or sale of the equipment, including any possible failure of malfunction of the equipment, or part thereof.

The Warrantor assumes no liability for incidental or consequential damages of any kind.

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