



**GROUND/TERM BAR  
ASSEMBLY  
PRODUCT MANUAL FOR  
111B-2240**

PM 990-2240-00, Rev. 7

UNIPOWER, LLC  
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Dunlap, TN 37327  
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## **RECEIVING INSTRUCTIONS & GENERAL EQUIPMENT INFORMATION**

*Please Note: For your protection, the following information and the product manual should be read and thoroughly understood before unpacking, installing, or using the equipment.*

UNIPOWER, LLC presents all equipment to the delivering carrier securely packed and in perfect condition. Upon acceptance of the package from us, the delivering carrier assumed responsibility for its safe arrival to you. Once you receive the equipment, it is your responsibility to document any damage the carrier may have inflicted, and to file your claim promptly and accurately.

### **1. PACKAGE INSPECTION**

- 1.1** Examine the shipping crate or carton for any visible damage: punctures, dents, and any other signs of possible internal damage.
- 1.2** Describe any damage or shortage on the receiving documents, and have the carrier sign their full name.
- 1.3** If your receiving freight bill notes that a Tip-N-Tell is attached to your freight, locate it. If the Tip-N-Tell arrow has turned even partially blue, this means the freight has been tipped in transport. Make sure the carrier notes this on your receipt before you sign for the freight.

### **2. EQUIPMENT INSPECTION**

- 2.1** Within fifteen days, open the crate and inspect the contents for damages. While unpacking, be careful not to discard any equipment, parts, or manuals. If any damage is detected, call the delivering carrier to determine appropriate action. They may require an inspection.

**\*SAVE ALL SHIPPING MATERIAL FOR THE INSPECTOR TO SEE!**

- 2.2** After the inspection has been made, call UNIPOWER. We will determine if the equipment should be returned to our plant for repair, or if some other method would be more expeditious. If it is determined that the equipment should be returned to UNIPOWER, ask the delivering carrier to send the packages back to UNIPOWER at the delivering carrier's expense.
- 2.3** If repair is necessary, we will invoice you for the repair so that you may submit the bill to the delivering carrier with your claim form.
- 2.4** It is your responsibility to file a claim with the delivery carrier. Failure to properly file a claim for shipping damages may void warranty service for any physical damages later reported for repair.

**3. HANDLING**

Equipment can be universally heavy or top-heavy. Use adequate manpower or equipment for handling. Until the equipment is securely mounted, be careful to prevent the equipment from being accidentally tipped over.

**4. NAMEPLATE**

Each piece of UNIPOWER equipment is identified by a part number on the nameplate. Please refer to this number in all correspondence with UNIPOWER.

**5. INITIAL SETTINGS**

All equipment is shipped from our production area *fully checked and adjusted*. Do not make any adjustments until you have referred to the technical reference or product manual.

**6. SPARE PARTS**

To minimize downtime during installation or operation, we suggest you purchase spare fuses, circuit boards and other recommended components as listed on the Recommended Spare Parts List in the back of the product manual. If nothing else, we strongly recommend stocking spare fuses for all systems.

**PRODUCT SUPPORT**

Product support can be obtained using the following addresses and telephone numbers.

Manufacturing facility:  
UNIPOWER, LLC  
65 Industrial Park Rd  
Dunlap, TN 37327  
United States

Phone: +1-954-346-2442  
Toll Free: 1-800-440-3504  
Web site – [www.unipowerco.com](http://www.unipowerco.com)

When contacting UNIPOWER, please be prepared to provide:

1. The product model number, spec number, S build number, and serial number - see the equipment nameplate on the front panel
2. Your company's name and address
3. Your name and title
4. The reason for the contact
5. If there is a problem with product operation:
  - Is the problem intermittent or continuous?
  - What revision is the firmware?
  - What actions were being performed prior to the appearance of the problem?
  - What actions have been taken since the problem occurred?

## REVISION HISTORY

| REV | DESCRIPTION    | CHECKED/APPROVED BY<br>& DATE |
|-----|----------------|-------------------------------|
| 6   | See PCO 45403. | CJM / 8-8-19                  |
| 7   | See ECN 46140  | JPR / 1-3-24                  |

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Throughout the remainder of this manual, "UNIPOWER" will mean "UNIPOWER, LLC."

## PERSONNEL REQUIREMENTS

Installation, setup, operation, and servicing of this equipment should be performed by qualified persons thoroughly familiar with this Product Manual and Applicable Local and National Codes. A copy of this manual is included with the equipment shipment.

TABLE A, BUS BAR ASSEMBLIES

| GROUND BUS BARS                           |           |            |             |               |      |        |
|-------------------------------------------|-----------|------------|-------------|---------------|------|--------|
| CURRENT RATING                            | RACK SIZE | DEPTH (X") | TYPE NUMBER | MODEL NUMBER  | FIG. | RATING |
| 200 A                                     | 19"       | 5.125"     | 19PDG200    | 111B-2240-01  | 1    | STD    |
| 400 A                                     | 19"       | 5.250"     | 19PDG400    | 111B-2240-02  | 2    |        |
| 400 A                                     | 19"       | 5.250"     | 19PDG400S   | 111B-2240-79  | 4    |        |
| 600 A                                     | 19"       | 5.250"     | 19PDG600    | 111B-2240-03  | 3    |        |
| 800 A                                     | 19"       | 5.250"     | 10PDG800    | 111B-2240-04  | 3    |        |
| 200 A                                     | 23"       | 5.125"     | 23PDG200    | 111B-2240-11  | 5    | STD    |
| 400 A                                     | 23"       | 5.250"     | 23PDG400    | 111B-2240-12  | 6    |        |
| 400 A                                     | 23"       | 5.250"     | 23PDG400S   | 111B-2240-89  | 8    |        |
| 600 A                                     | 23        | 5.250"     | 23PDG600    | 111B-2240-13  | 7    |        |
| 800 A                                     | 23"       | 5.250"     | 23PDG800    | 111B-2240-14  | 7    |        |
| TERMINATION BUS BARS                      |           |            |             |               |      |        |
| 200 A                                     | 19"       | 7.125"     | 19PDT200    | 111B-2240-21  | 1    | STD    |
| 400 A                                     | 19"       | 7.250"     | 19PDT400    | 111B-2240-22  | 2    |        |
| 400 A                                     | 19"       | 7.250"     | 10PDT400S   | 111B-2240-80  | 4    |        |
| 600 A                                     | 19"       | 7.250"     | 19PDT600    | 111B-2240-23  | 3    |        |
| 800 A                                     | 19"       | 7.250"     | 19PDT800    | 111B-2240-24  | 3    |        |
| 200 A                                     | 23"       | 7.125"     | 23PDT200    | 111B-2240-31  | 5    | STD    |
| 400 A                                     | 23"       | 7.250"     | 23PDT400    | 111B-2240-32  | 6    |        |
| 400 A                                     | 23"       | 7.250"     | 23PDT400S   | 111B-2240-90  | 8    |        |
| 600 A                                     | 23"       | 7.250"     | 23PDT600    | 111B-2240-33  | 7    |        |
| 600 A                                     | 23"       | 7.250"     | 23PDT800    | 111B-2240-35  | 9    |        |
| 800 A                                     | 23"       | 7.250"     | 23PDT800    | 111B-2240-34  | 7    |        |
| COMBINATION GROUND & TERMINATION BUS BARS |           |            |             |               |      |        |
| 200 A                                     | 19"       | 5.125"     | 19PDG200S   | 111B-2240-500 | 10   | STD    |
| 200 A                                     | 23"       | 5.125"     | 23PDG200S   | 111B-2240-510 | 11   |        |

TABLE B

| NO. | HOLE SIZE            |
|-----|----------------------|
| A   | 0.281" DIA.          |
| B   | 0.375" DIA.          |
| C   | 0.406" DIA.          |
| D   | 0.406" x 0.781" OBR. |
| E   | 0.531" x 0.875" OBR. |

TABLE C

| SINGLE HOLE LUG KIT |            |                     |
|---------------------|------------|---------------------|
| WIRE RANGE GA       | AMP RATING | RATELCO PART NUMBER |
| 14 TO 6             | 35         | 253-2010-00         |
| 14 TO 2             | 90         | 253-2020-00         |
| 8 TO 1/0            | 125        | 253-2030-00         |
| 6 TO 250MCM         | 225        | 253-2040-00         |
| 1/0 TO 350MCM       | 300        | 253-2045-00         |
| 1/0 TO 500MCM       | 400        | 253-2050-00         |
| 4/0 TO 1000MCM      | 650        | 253-2060-00         |
| TWO HOLE LUG KIT    |            |                     |
| 14 TO 6             | 35         | 253-0035-00         |
| 8 TO 2              | 70         | 253-0036-00         |
| 2 TO 1/0            | 125        | 253-0037-00         |
| 2 TO 4/0            | 225        | 253-0038-00         |
| 1/0 TO 350MCM       | 300        | 253-0039-00         |
| 1/0 TO 500MCM       | 400        | 253-0041-00         |
| 600 TO 1000MCM      | 650        | 253-0041-00         |


NOTES:

- 1) A MINIMUM OF ONE RACK SPACE (1.750") MUST BE PROVIDED BETWEEN EACH BUS BAR AND AN ADJOINING PIECE OF EQUIPMENT.
- 2) 200 AMP AND 400 AMP BUS BARS REQUIRE ONE RACK SPACE (1.750"). 600 AMP AND 800 AMP BUS BARS REQUIRE TWO RACK SPACES (3.500").
- 3) ALL BUS BARS ARE DESIGNED FOR SINGLE OR DOUBLE HOLE MOUNTING LUGS. ORDER LUG KITS FROM TABLE C.
- 4) ALL GROUND AND TERMINATION BUS BARS ARE COPPER AND ARE INSULATED BY ONE INCH FIBERGLASS SPACERS.

SHEET INDEX

|       |   |   |   |
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| SH NO | 1 | 2 | 3 |
| ISSUE | 6 | 5 | 4 |

ISSUES

| ISSUE #                                                                                                                              | DESCRIPTION                              | ISS. BY<br>ISS. DATE                 |
|--------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|--------------------------------------|
| 6                                                                                                                                    | UPDATED UNIPOWER LOGO.<br>SEE PCO# 44417 | WD<br>6/12/17                        |
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON:                                                                   |                                          |                                      |
| ±                                                                                                                                    | APPROVALS                                | DATE                                 |
|                                                                                                                                      | DRAWN IY                                 | 1/11/99                              |
| HOLES                                                                                                                                | +0.004<br>-0.002                         | CHECKED                              |
| FRACTIONS                                                                                                                            | ±1/32                                    | APPROVED                             |
| DECIMALS (XX)                                                                                                                        | ±0.020                                   |                                      |
| DECIMALS (XXX)                                                                                                                       | ±0.010                                   | APPROVED ES                          |
| ANGLES                                                                                                                               | ±1/2°                                    | 1/11/99                              |
| SQUARE CORNERS AND ANGLES ARE 90° UNLESS OTHERWISE SPECIFIED.                                                                        |                                          |                                      |
| WORKMANSHIP:<br>PER SPEC ENG032                                                                                                      |                                          |                                      |
| MATERIAL:                                                                                                                            |                                          |                                      |
| FINISH:                                                                                                                              |                                          |                                      |
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|                                                 |                                          |                                      |
| BUS BARS<br>200AMP - 800 AMP                                                                                                         |                                          |                                      |
| SIZE B                                                                                                                               | DOC TYPE / NUMBER<br>J 111B-2240         | ISSUE<br>6                           |
| SCALE:<br>N/A                                                                                                                        | SHEET:<br>1 OF 3                         | FILE NAME:<br>J111B-2240_SHT_1_ISS_6 |

19" BUS BARS

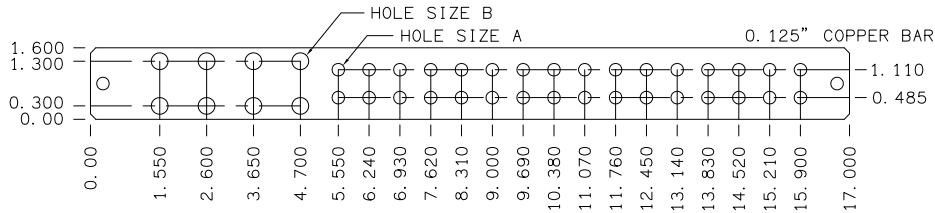


FIG. 1  
200A

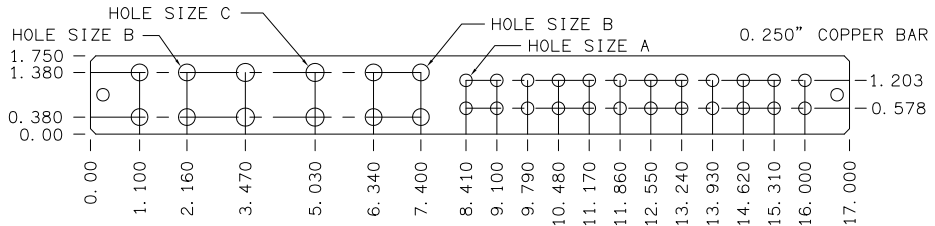


FIG. 2  
400A

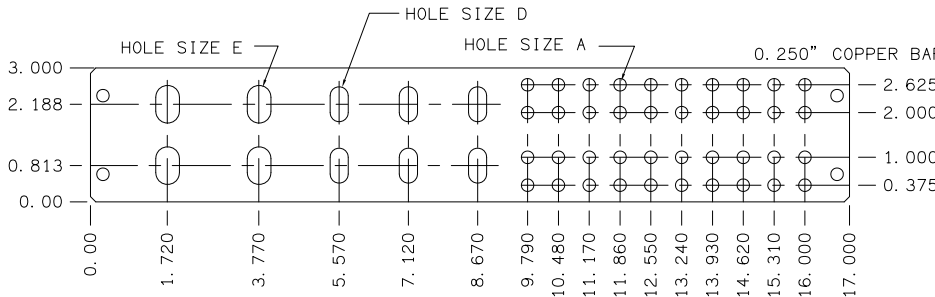


FIG. 3  
600A  
AND  
800A

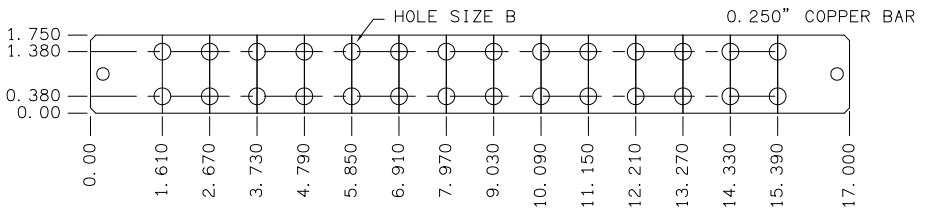
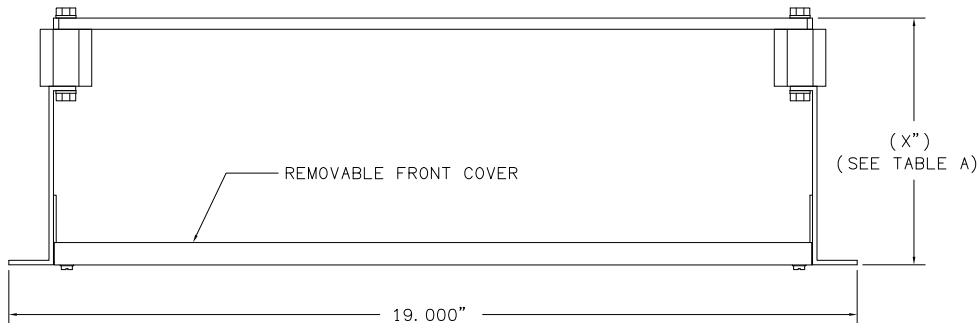


FIG. 4  
400A



TOP VIEW

23" BUS BARS

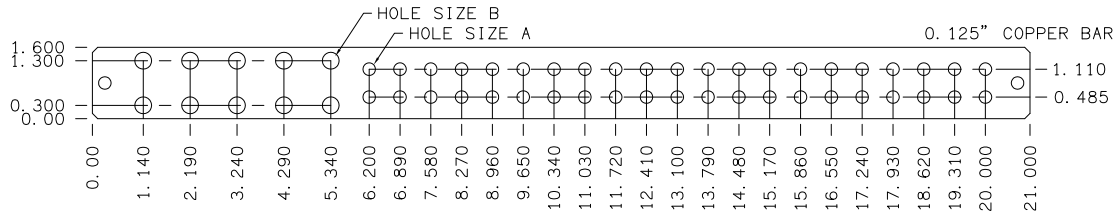


FIG. 5  
200A

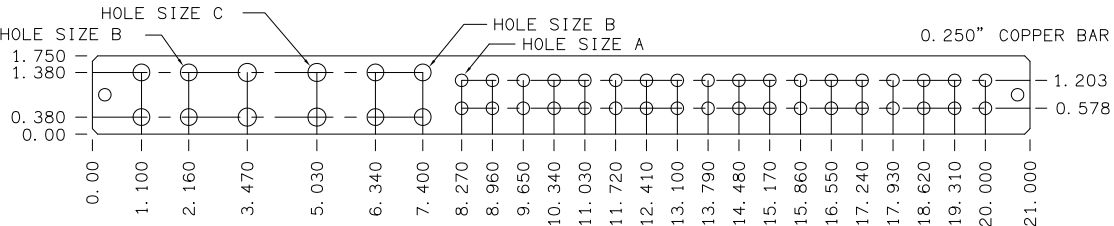


FIG. 6  
400A

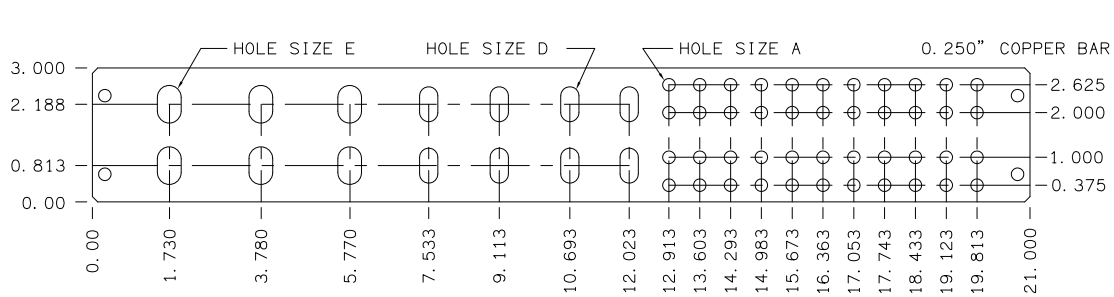


FIG. 7  
600A  
AND  
800A

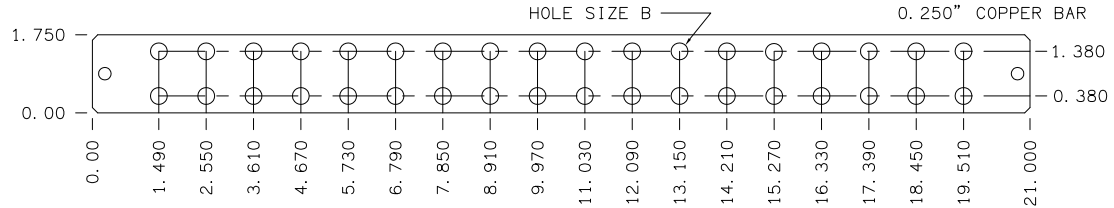


FIG. 8  
400A

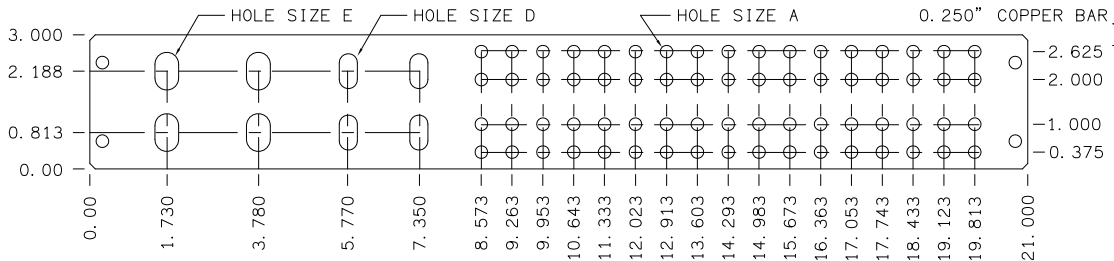
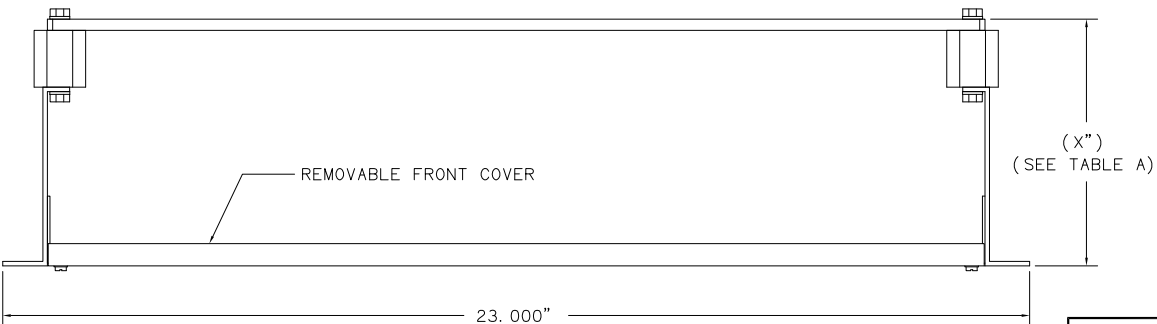


FIG. 9  
600A  
AND  
800A



TOP VIEW

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| SIZE <b>B</b>                                                                                          | DOC TYPE / NUMBER<br>J 111B-2240 | ISSUE<br>5                           |
| SCALE:<br>NONE                                                                                         | SHEET:<br>2 OF 3                 | FILE NAME:<br>J111B-2240_SHT_2_ISS_5 |

A

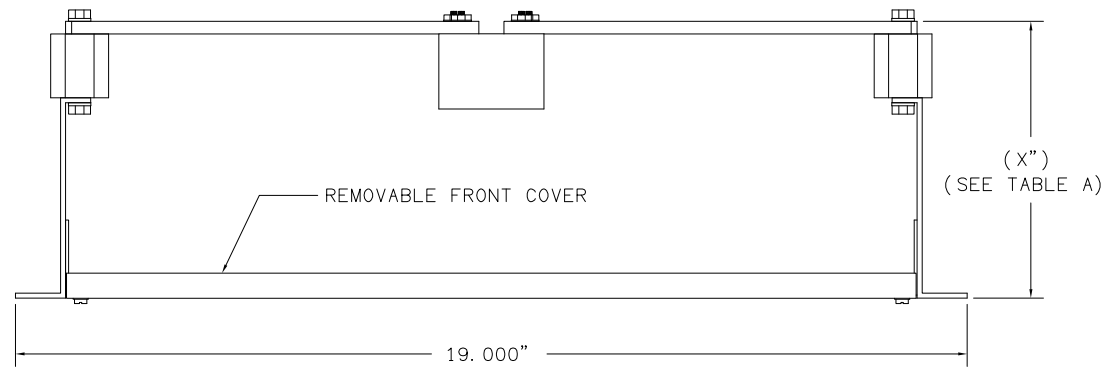
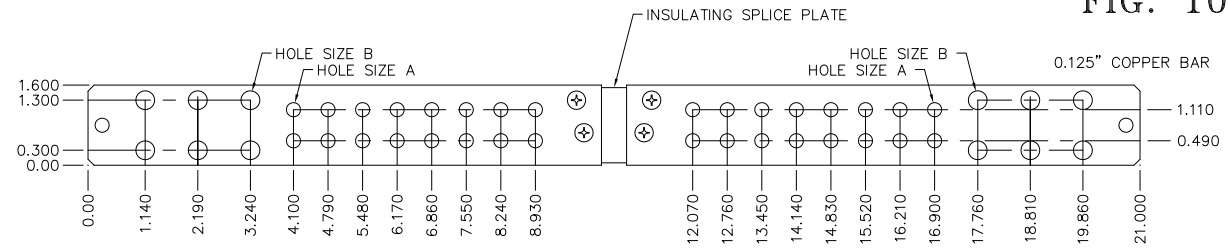
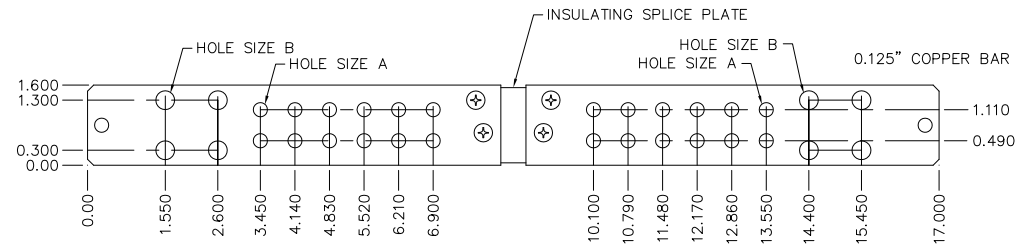
A

# 19" BUS BAR ASSEMBLY

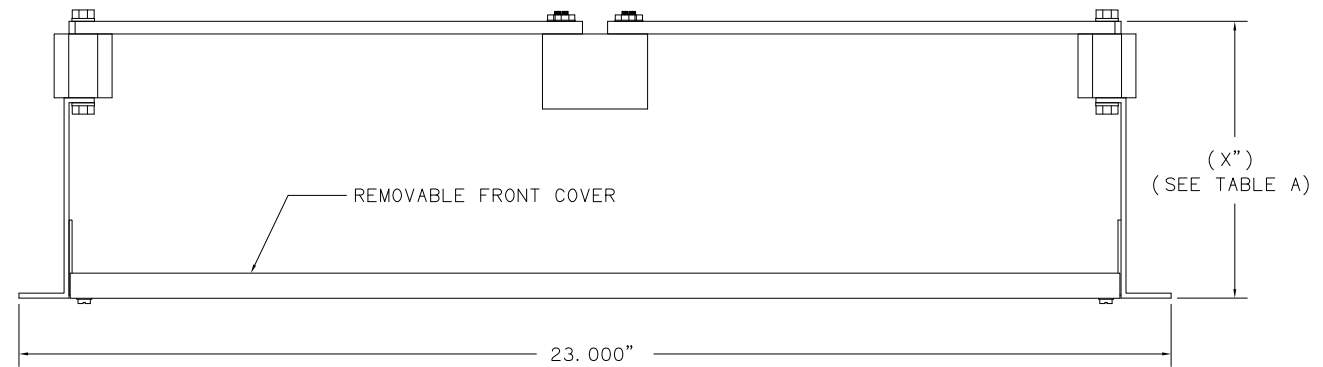
# 23" BUS BAR ASSEMBLY

FIG. 9

FIG. 10



TOP VIEW



TOP VIEW

C

C

D

D

| PROPRIETARY INFORMATION                                                                                |                                  |                                      |
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| SIZE <b>B</b>                                                                                          | DOC TYPE / NUMBER<br>J 111B-2240 | ISSUE<br>4                           |
| SCALE:<br>NONE                                                                                         | SHEET:<br>3 OF 3                 | FILE NAME:<br>J111B-2240_SHT_3_ISS_4 |