



**GROUND/TERM BAR
PRODUCT MANUAL FOR
P/N 111-3774**

PM 990-3774-00, Issue 5

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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 delivering 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 humanpower 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.

ISSUE HISTORY

ISSUE	PAGE(S)	DESCRIPTION	ISSUED BY /DATE
5	All	Updated UNIPOWER logo & contact information. See PCO# 44448.	WD 6/26/17

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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.

ENGINEERING NOTES:

- 51. BUBBLE REFERENCE DESIGNATORS REFER TO CALLOUT TABLE LINE NUMBER.
- 52. SELECT PAINT COLOR FROM TABLE C.
I.E. 111-3774-, COLOR A = ANSI 61 GRAY FINISH
I.E. 111-3774-, COLOR B = BEIGE

TABLE C	
COLOR	DESIGNATOR
ANSI 61 GRAY	A
BEIGE	B

- 53. ALL BUS BARS ARE DESIGNED FOR SINGLE OR DOUBLE HOLE MOUNTING LUGS. KITS INCLUDE 1 LUG AND MTG. HARDWARE. ORDER KITS FROM TABLE B.
- 54. ALL GROUND AND TERMINATION BARS ARE COPPER AND ARE INSULATED BY 1" FIBERGLASS SPACERS.
- 55. Bus bars rated voltage is 250 VDC (with cover)
See Table for Cover Kit.

MANUFACTURING NOTES:

- 101. MOUNT A GROUNDING STRAP USING 4", 14 GA. G WIRE, (051-1455-04) AND 2 RING LUGS, (253-0300-00)

TABLE B

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

TABLE A

GROUND / TERMINATION PANELS

PANEL WIDTH X"	DIMENSIONS		RACK SPACES	WEIGHT LBS	FIG. #	PART NUMBER	MAX AMP RATING	RATING	LUG MOUNTING HOLE QUANTITIES PER BAR							cover Kit
	HEIGHT	DEPTH							'SIZE A' 0.281 DIA 0.625 C-C	'SIZE B' 0.375 DIA 1" C-C	'SIZE C' 0.406 DIA 1" C-C	'SIZE D' 0.406 x 0.781 OBR, 1.375 C-C	'SIZE E' 0.531 x 0.875 OBR, 1.375 C-C	'SIZE F' 0.531 X 0.875 OBR, 1.750 C-C	'SIZE G' 0.250 X 5.000 OBR, 1.000 C-C	
	FRONT ACCESS GROUND/TERMINATION/LOGO PANEL															
19"	3.47"	5.25"	2	3	-	111-3774-01	200	STD	12	4	-	-	-	-	-	385.6153.1203
	6.97"	7.125"	4	10	-	111-3774-02	400		24	8	2	-	-	-	-	385.6153.1205
	10.47"		6	14	-	111-3774-04	800		40	-	-	6	4	-	-	385.6153.1203
FRONT ACCESS GROUND/TERMINATION PANEL W/O LOGO																
23"	3.47"	5.25"	2	4	-	111-3774-10	200	STD	16	6	-	-	-	-	-	385.6152.1203
	6.97"	7.125"	4	10	4	111-3774-90	600	SPL	-	-	18	-	-	-	-	385.6152.1205
FRONT ACCESS GROUND/TERMINATION/LOGO PANEL																
23"	3.47"	5.25"	2	4	1	111-3774-11	200	STD	16	6	-	-	-	-	-	385.6152.1203
	6.97"	7.125"	4	11	2	111-3774-12	400		36	-	12	-	-	-	-	385.6152.1205
	10.47"		6	15	3	111-3774-14	800		44	-	-	8	6	-	-	385.6152.1207
	10.47"		6	-	5	111-3774-16	1200		-	-	-	-	-	16	24	385.6152.1207
10.47"	-	6	-	-	-	-	-	-	-	-	-	10	52	385.6152.1207		

SHEET INDEX NOTE:

THE ISSUE OF SHEET REFLECTS THE LATEST ISSUE OF THE DRAWING SET. WHEN THE DRAWING SET IS REVISED, ONLY THE ISSUE NUMBERS OF MODIFIED SHEETS ARE CHANGED. THE ISSUE NUMBERS OF UNMODIFIED SHEETS ARE NOT CHANGED.

SHEET INDEX

SH NO	A1	B1	C1	D1	E1	F1
ISSUE	8	4	4	4	3	4

ISSUES

ISSUE #	DESCRIPTION	ISS. BY ISS. DATE
8	SEE PCO# 44448.	WD 6/26/17

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON:	APPROVALS		DATE
	HOLES ±0.004 -0.002	DRAWN TET	
FRACTIONS ±1/32	CHECKED VP		5/14/92
DECIMALS (XX) ±0.020	APPROVED JSN		5/18/92
DECIMALS (XXX) ±0.010	APPROVED		
ANGLES ±1/2°			

SQUARE CORNERS AND ANGLES ARE 90° UNLESS OTHERWISE SPECIFIED.
WORKMANSHIP:
PER SPEC ENG032

MATERIAL:

FINISH:

PROPRIETARY INFORMATION
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FRONT ACCESS
GROUND/TERMINATION/LOGO
PANEL, 200 TO 800 AMP

SIZE	DOC TYPE / NUMBER	ISSUE
B	PN 111-3774	8

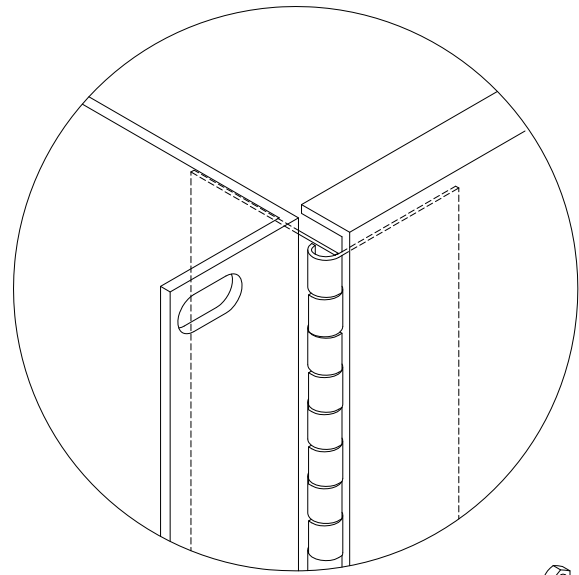
SCALE:	SHEET:	FILE NAME:
N/A	A1 OF	PN111-3774_SHT_A1_ISS_8

A

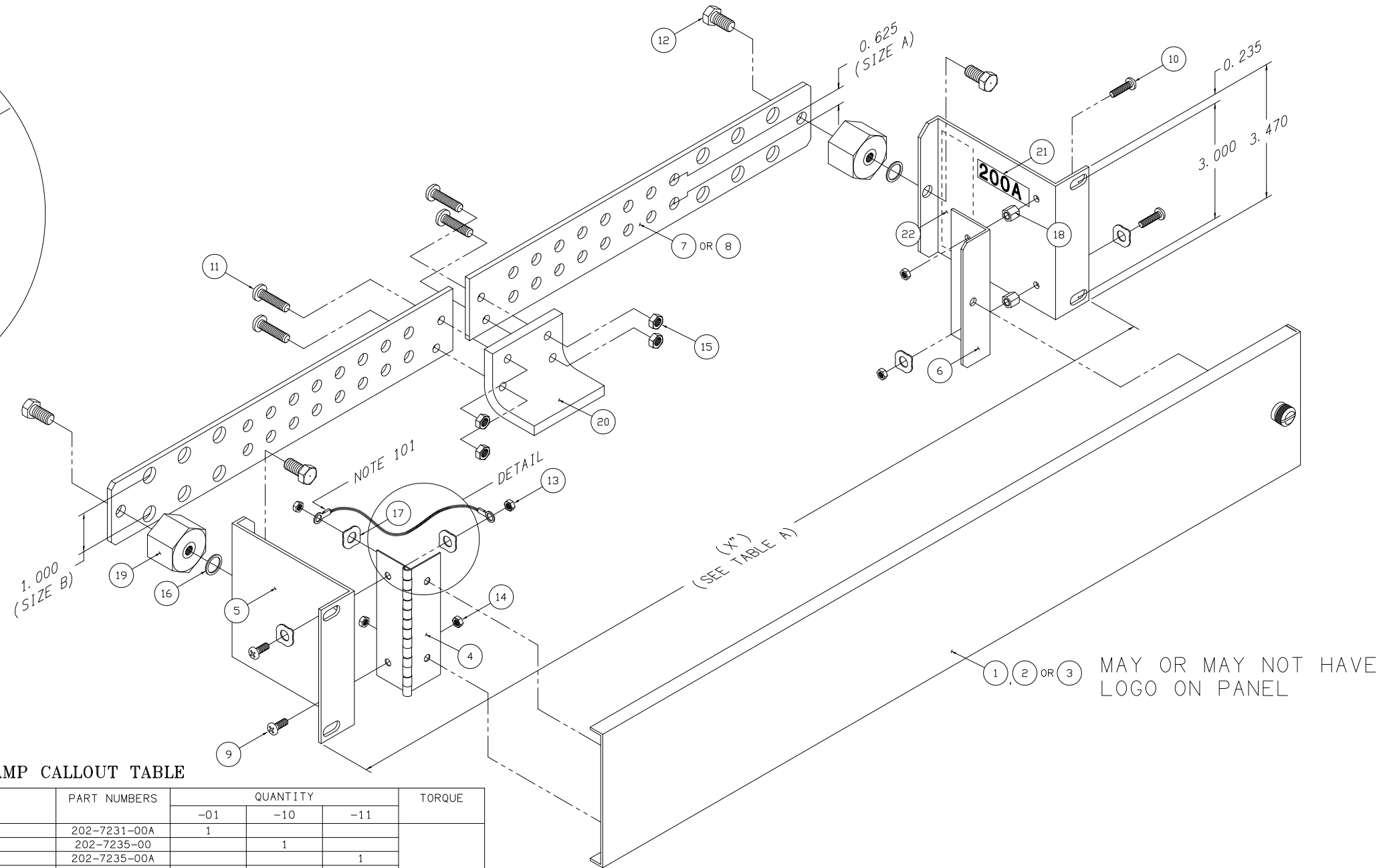
B

C

D



HINGE DETAIL



200 AMP CALLOUT TABLE

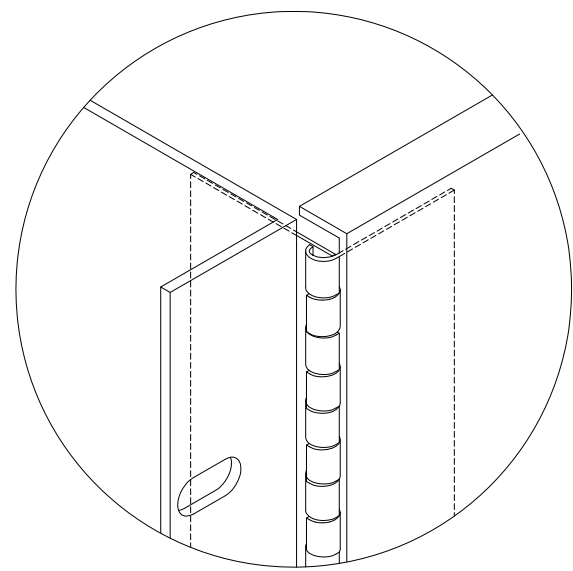
NOTE	REF #	DESCRIPTION	PART NUMBERS	QUANTITY			TORQUE
				-01	-10	-11	
	1	GRD/TERM HINGED PANEL, 19" x 3.5"	202-7231-00A	1			
		FRONT ACCESS HINGED COVER, 3.5" x 23"	202-7235-00		1		
		GRD/TERM HINGED PANEL, 23" x 3.5"	202-7235-00A			1	
		HINGE: 3.5" PANEL COVER	202-7240-00	1	1	1	
	5	BRKT, UNIVERSAL: FRONT ACCESS GRD/TERM/LOGO	208-7069-00	2	2	2	
		BRKT: 3.5" FRONT ACCESS COVER MTG	208-7070-00	1	1	1	
		BUS BAR: GRD/TERM, 200A, 0.125 x 1.25 x 8.25"	209-3300-00	2			
		BUS BAR: GRD/TERM, 200A, 0.125 x 1.6 x 10.25"	209-3301-00		2	2	
		SCREW: STL, MS, SEMS, 6-32 x 3/8 PHIL P/HD	210-1430-00	2	2	2	10 IN. LBS.
	10	SCREW: STL, SEMS, 6-32 x 7/8 PHIL P/HD	210-1470-02	2	2	2	10 IN. LBS.
		SCREW: STL, MS, 10-24 x 3/4" PHIL P/HD	210-1750-00	4	4	4	27 IN. LBS.
		SCREW: STL IND HEX HD SEM, 1/4 x 1/2", ZINC	210-7004-01	4	4	4	45 IN. LBS.
		NUT, HEX STL: 2-56, Z SMALL PATTERN	211-0463-00	2	2	2	10 IN. LBS.
		NUT, HEX STL: 6-32, ZINC, 5/16" AF "KEPS"	211-0476-00	4	4	4	10 IN. LBS.
	15	NUT, HEX STL: 10-24, ZINC, "KEPS"	211-0492-00	4	4	4	27 IN. LBS.
		LOCKWASHER, SHKPF: 1/4 INTERNAL	212-0500-00	2	2	2	
		LOCKWASHER: DISH, STL, SHKPF, #6	212-0501-05	5	5	5	
		SPACER: HEX BRASS, 6-32 x .250 2320 SM	213-0105-00	2	2	2	
		SPACER: HEATSINK, HEX FIBERGLASS, 1", GLASTIC	213-1409-00	2	2	2	
	20	INSULATED BRKT: BUS SUPPORT 200A	213-3377-00	1	1	1	
		LABEL: 200A, BLACK	225-2921-00	1	1	1	
		NOMINCLATURE LABEL	225-3094-09	1	1	1	

200 AMP GRD/TERM ASSEMBLY

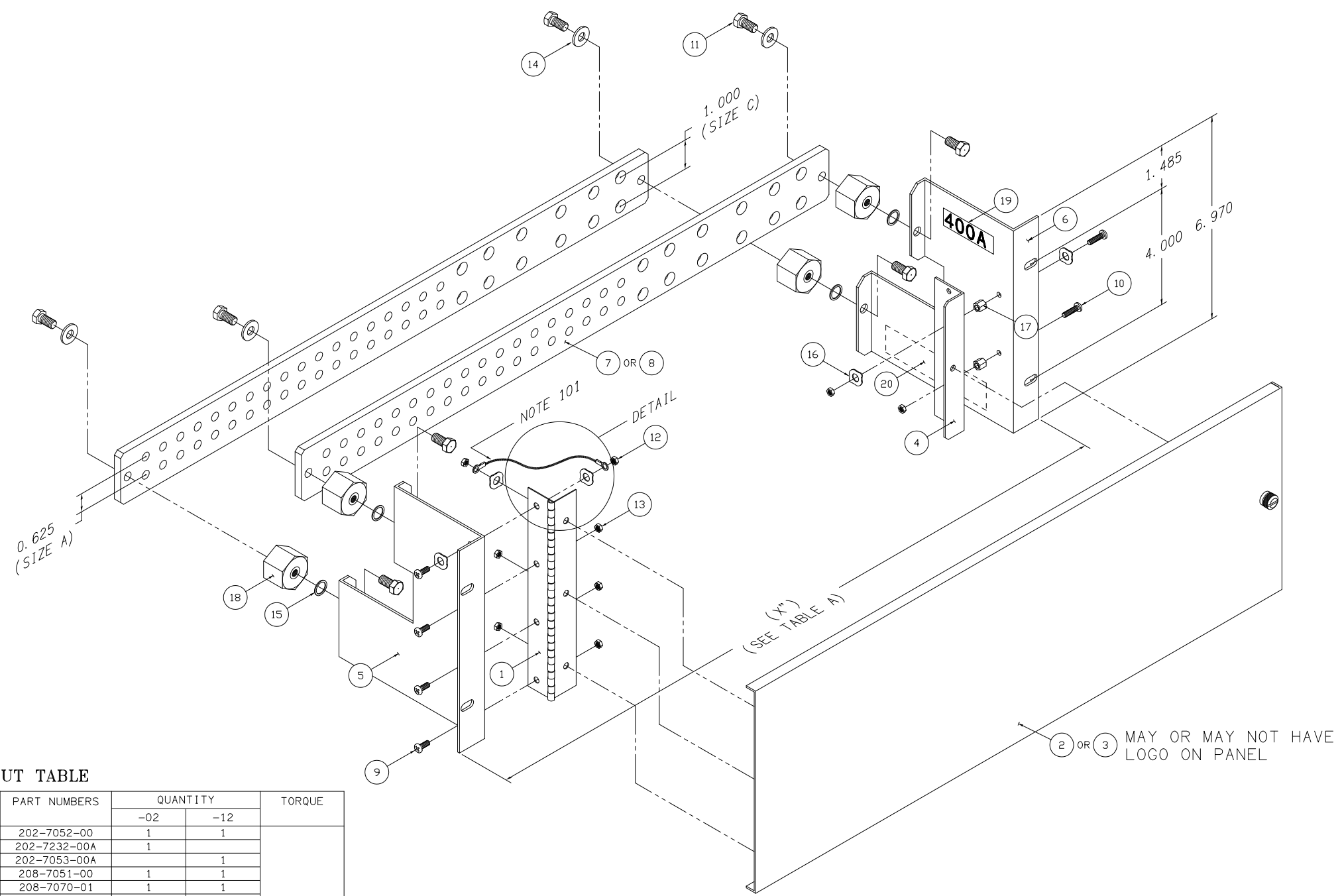
(111-3774-11 SHOWN)

FIG. 1

PROPRIETARY INFORMATION NOT TO BE COPIED, USED, TRANSMITTED, OR DISCLOSED WITHOUT PRIOR WRITTEN PERMISSION FROM UNIPOWER, LLC.		
SIZE B	DOC TYPE / NUMBER PN 111-3774	ISSUE 4
SCALE: NONE	SHEET: B1 OF	FILE NAME: PN111-3774_SHT_B1_ISS_4



HINGE DETAIL



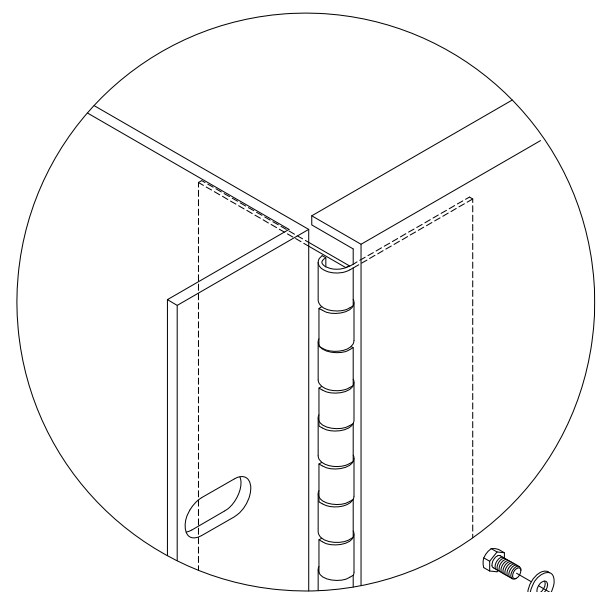
400 AMP CALLOUT TABLE

NOTE	REF #	DESCRIPTION	PART NUMBERS	QUANTITY		TORQUE
				-02	-12	
1		HINGE: 7" PANEL COVER	202-7052-00	1	1	
		GRD/TERM HINGED PANEL, 19" x 7"	202-7232-00A	1		
		GRD/TERM HINGED PANEL, 23" x 7"	202-7053-00A		1	
		BRKT: 7" FRONT ACCESS COVER MTG	208-7051-00	1	1	
5		BRKT, LEFT: FRONT ACCESS GRD/TERM/LOGO, 7"	208-7070-01	1	1	
		BRKT, RIGHT: FRONT ACCESS GRD/TERM/LOGO, 7"	208-7070-02	1	1	
10		BUS BAR: GRD/TERM, 400A, 0.25 x 1.6 x 17.0"	209-3308-00	2		
		BUS BAR: GRD/TERM, 400A, 0.25 x 1.6 x 21.0"	209-3309-00		2	
		SCREW: STL, MS, SEMS, 6-32 x 3/8 PHIL P/HD	210-1430-00	4	4	10 IN. LBS.
		SCREW: STL, SEMS, 6-32 x 7/8 PHIL P/HD	210-1470-02	2	2	10 IN. LBS.
15		SCREW: STL, SEMS, HEX HD, 1/4-20 x 5/8"	210-7004-40	8	8	45 IN. LBS.
		NUT, HEX STL: 2-56, Z SMALL PATTERN	211-0463-00	2	2	10 IN. LBS.
		NUT, HEX STL: 6-32, ZINC, 5/16" AF "KEPS"	211-0476-00	7	7	10 IN. LBS.
		WASHER: FLAT STL, 1/4 SAE, 5/8"	212-0099-00	4	4	
20		LOCKWASHER, SHKPF: 1/4 INTERNAL	212-0500-00	4	4	
		LOCKWASHER: DISH, STL, SHKPF, #6	212-0501-05	5	5	
		SPACER: HEX BRASS, 6-32 x .250 2320 SM	213-0105-00	2	2	
		SPACER: HEATSINK, HEX FIBERGLASS, 1", GLASTIC	213-1409-00	4	4	
20		LABEL: 400A, BLACK	225-2922-00	1	1	
		NOMINCLATURE LABEL	225-3094-09	1	1	

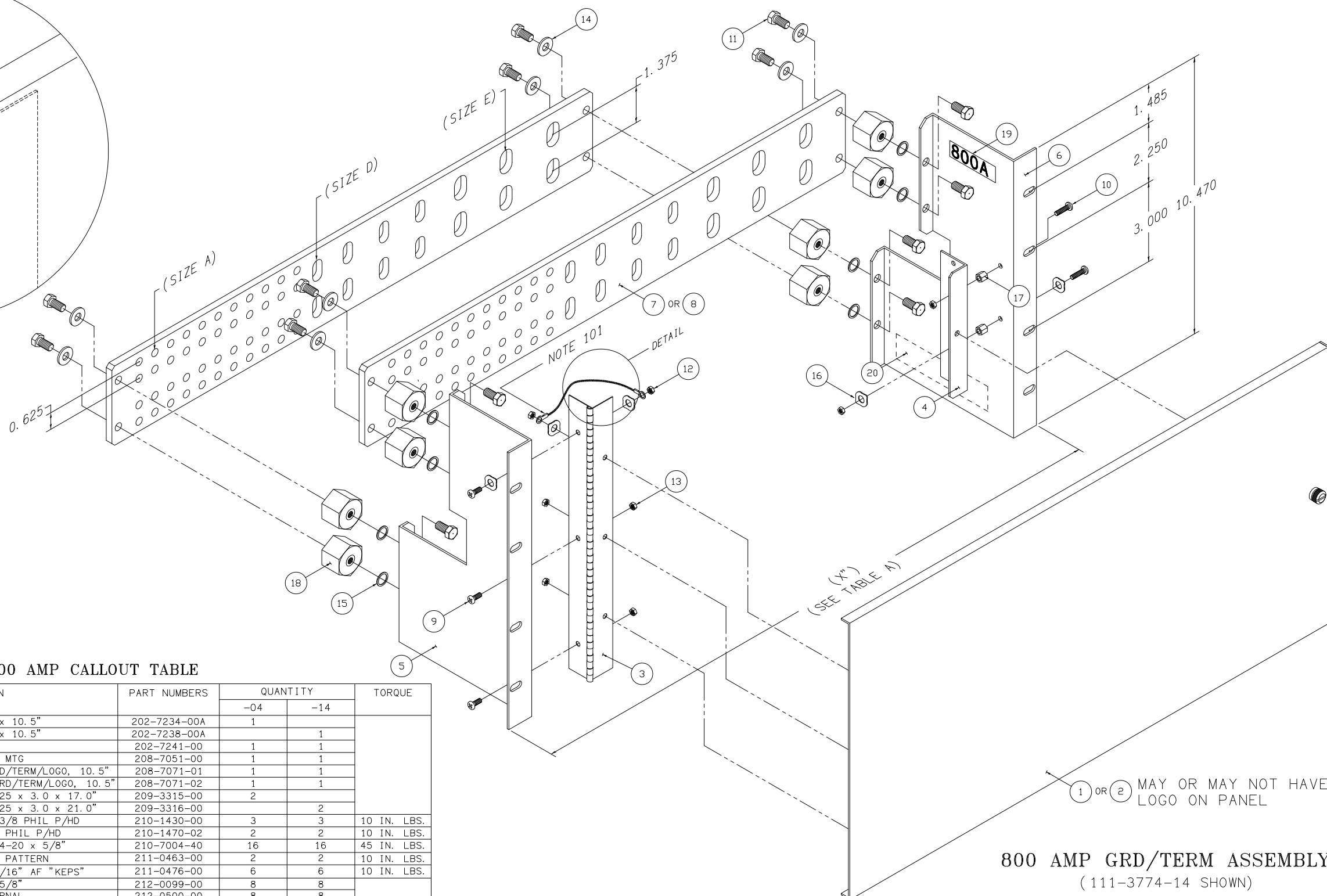
400 AMP GRD/TERM ASSEMBLY
(111-3774-12 SHOWN)

FIG. 2

PROPRIETARY INFORMATION NOT TO BE COPIED, USED, TRANSMITTED, OR DISCLOSED WITHOUT PRIOR WRITTEN PERMISSION FROM UNIPOWER, LLC.		
SIZE B	DOC TYPE / NUMBER PN 111-3774	ISSUE 4
SCALE: NONE	SHEET: C1 OF	FILE NAME: PN111-3774_SHT_C1_ISS_4



HINGE DETAIL



800 AMP CALLOUT TABLE

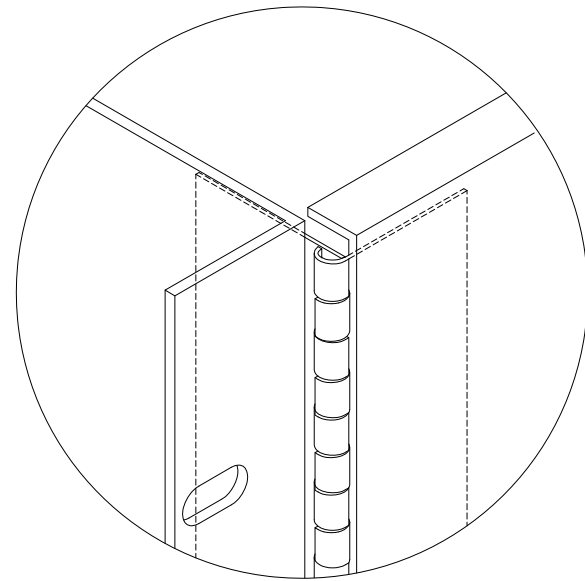
NOTE	REF #	DESCRIPTION	PART NUMBERS	QUANTITY		TORQUE
				-04	-14	
1		GRD/TERM HINGED PANEL, 19" x 10.5"	202-7234-00A	1		
		GRD/TERM HINGED PANEL, 23" x 10.5"	202-7238-00A		1	
		HINGE 10.5" PANEL COVER	202-7241-00	1	1	
		BRKT: 7" FRONT ACCESS COVER MTG	208-7051-00	1	1	
5		BRKT, LEFT: FRONT ACCESS GRD/TERM/LOGO, 10.5"	208-7071-01	1	1	
		BRKT, RIGHT: FRONT ACCESS GRD/TERM/LOGO, 10.5"	208-7071-02	1	1	
		BUS BAR: GRD/TERM, 800A, 0.25 x 3.0 x 17.0"	209-3315-00	2		
		BUS BAR: GRD/TERM, 800A, 0.25 x 3.0 x 21.0"	209-3316-00		2	
10		SCREW: STL, MS, SEMS, 6-32 x 3/8 PHIL P/HD	210-1430-00	3	3	10 IN. LBS.
		SCREW: STL, SEMS, 6-32 x 7/8 PHIL P/HD	210-1470-02	2	2	10 IN. LBS.
		SCREW: STL, SEMS, HEX HD, 1/4-20 x 5/8"	210-7004-40	16	16	45 IN. LBS.
		NUT, HEX STL: 2-56, Z SMALL PATTERN	211-0463-00	2	2	10 IN. LBS.
		NUT, HEX STL: 6-32, ZINC, 5/16" AF "KEPS"	211-0476-00	6	6	10 IN. LBS.
		WASHER: FLAT STL, 1/4 SAE, 5/8"	212-0099-00	8	8	
15		LOCKWASHER, SHKPF: 1/4 INTERNAL	212-0500-00	8	8	
		LOCKWASHER: DISH, STL, SHKPF, #6	212-0501-05	5	5	
		SPACER: HEX BRASS, 6-32 x .250 2320 SM	213-0105-00	2	2	
		SPACER: HEATSINK, HEX FIBERGLASS, 1", GLASTIC	213-1409-00	8	8	
20		LABEL: 800A, BLACK	225-2924-00	1	1	
		NOMINCLATURE LABEL	225-3094-09	1	1	

(1) OR (2) MAY OR MAY NOT HAVE LOGO ON PANEL

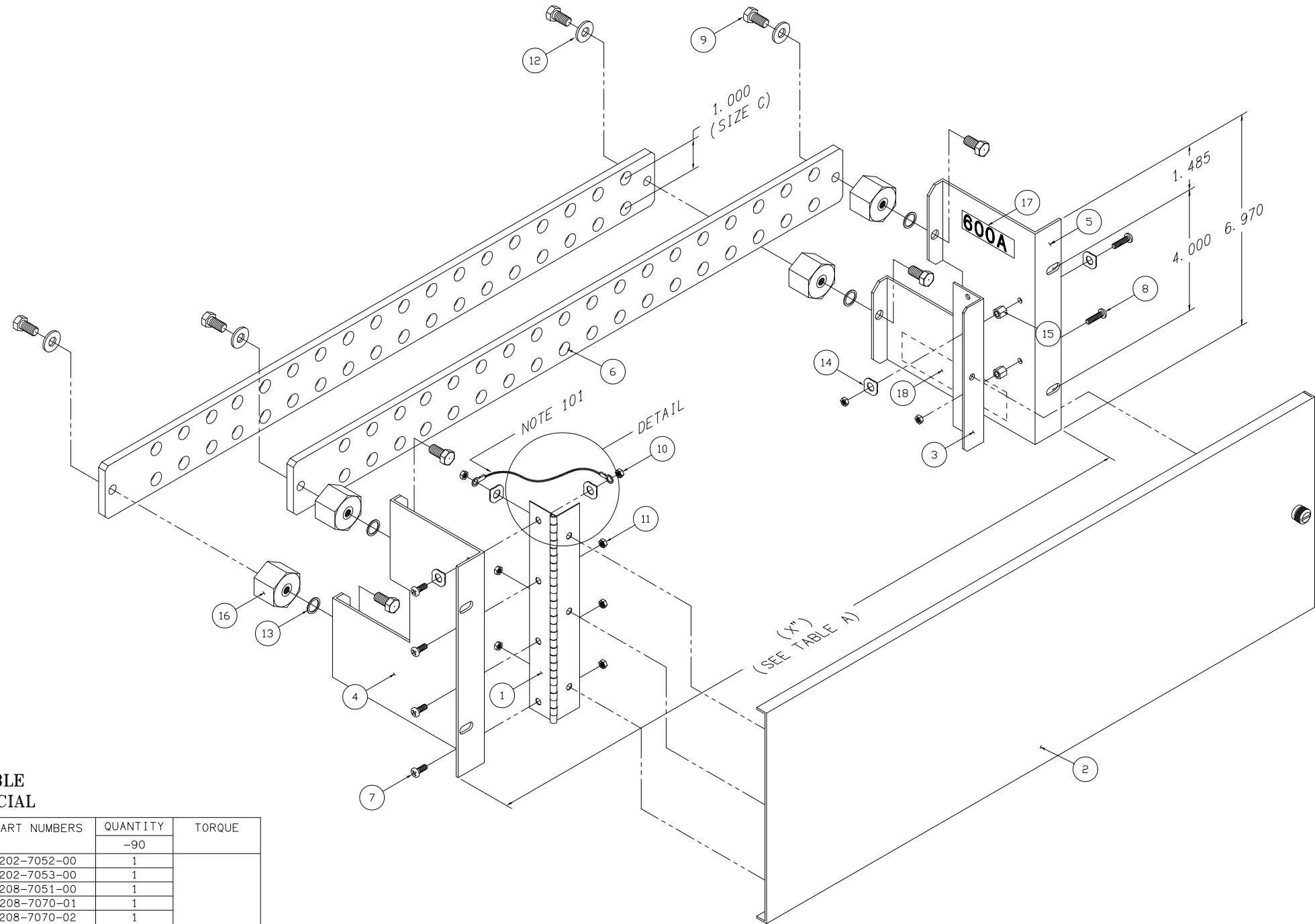
800 AMP GRD/TERM ASSEMBLY
(111-3774-14 SHOWN)

FIG. 3

PROPRIETARY INFORMATION NOT TO BE COPIED, USED, TRANSMITTED, OR DISCLOSED WITHOUT PRIOR WRITTEN PERMISSION FROM UNIPOWER, LLC.		
SIZE B	DOC TYPE / NUMBER PN 111-3774	ISSUE 4
SCALE: NONE	SHEET: D1 OF	FILE NAME: PN111-3774_SHT_D1_ISS_4



HINGE DETAIL



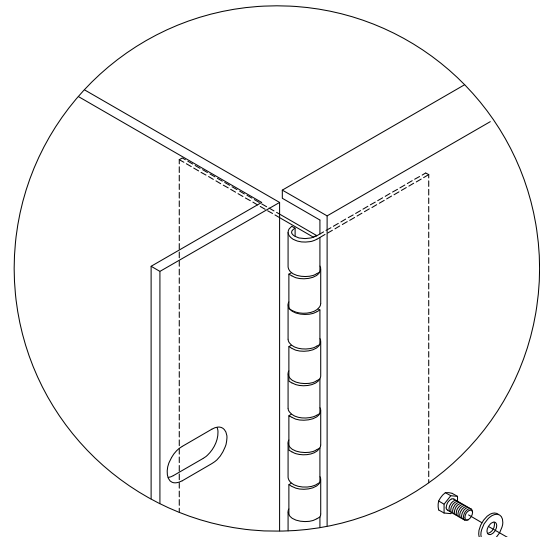
CALLOUT TABLE
600 AMP SPECIAL

NOTE	REF #	DESCRIPTION	PART NUMBERS	QUANTITY	TORQUE
				-90	
	1	HINGE: 7" PANEL COVER	202-7052-00	1	
		GRD/TERM/LOGO HINGED PANEL, 23" x 7"	202-7053-00	1	
		BRKT: 7" FRONT ACCESS COVER MTG	208-7051-00	1	
		BRKT, LEFT: FRONT ACCESS GRD/TERM/LOGO, 7"	208-7070-01	1	
	5	BRKT, RIGHT: FRONT ACCESS GRD/TERM/LOGO, 7"	208-7070-02	1	
		BUS BAR: GRD/TERM, 600 AMP, SPECIAL PATTERN	209-2961-20	2	
		SCREW: STL, MS, SEMS, 6-32 x 3/8 PHIL P/HD	210-1430-00	4	10 IN. LBS.
		SCREW: STL, SEMS, 6-32 x 5/8 PHIL P/HD	210-1460-01	2	10 IN. LBS.
		SCREW: STL, SEMS, HEX HD, 1/4-20 x 5/8"	210-7004-40	8	45 IN. LBS.
	10	NUT, HEX STL: 2-56, Z SMALL PATTERN	211-0463-00	2	10 IN. LBS.
		NUT, HEX STL: 6-32, ZINC, 5/16" AF "KEPS"	211-0476-00	7	10 IN. LBS.
		WASHER: FLAT STL, 1/4 SAE, 5/8"	212-0099-00	4	
		LOCKWASHER, SHKPF: 1/4 INTERNAL	212-0500-00	4	
		LOCKWASHER: DISH, STL, SHKPF, #6	212-0501-05	5	
	15	SPACER: HEX BRASS, 6-32 x .250 2320 SM	213-0105-00	2	
		SPACER: HEATSINK, HEX FIBERGLASS, 1", GLASTIC	213-1409-00	4	
		LABEL: 600A, BLACK	225-2923-00	1	
		NOMINCLATURE LABEL	225-3094-09	1	
	20				

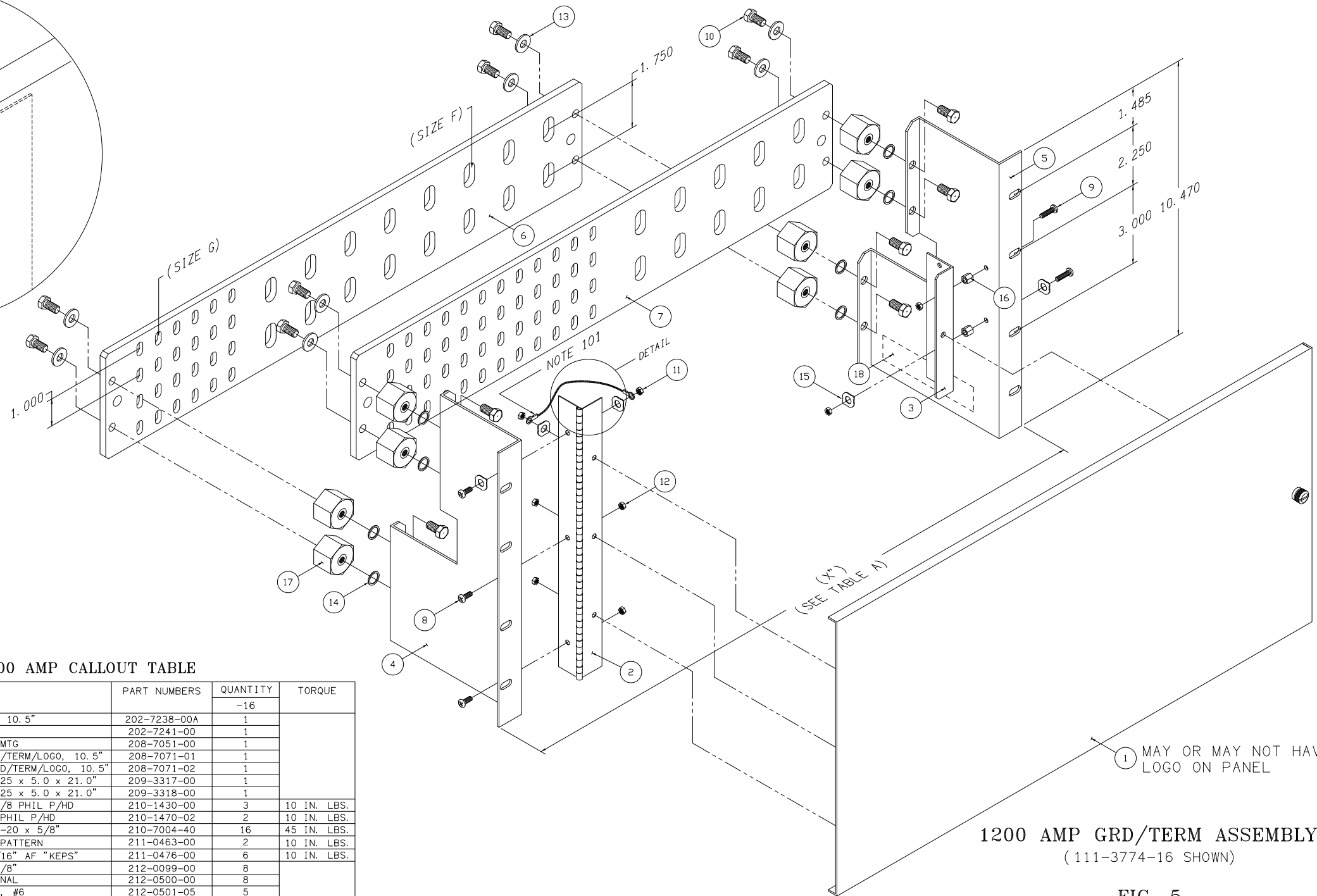
600 AMP SPECIAL
GROUND/TERM ASSEMBLY
(111-3774-90 SHOWN)

FIG. 4

PROPRIETARY INFORMATION NOT TO BE COPIED, USED, TRANSMITTED, OR DISCLOSED WITHOUT PRIOR WRITTEN PERMISSION FROM UNIPOWER, LLC.		
SIZE B	DOC TYPE / NUMBER PN 111-3774	ISSUE 3
SCALE: NONE	SHEET: E1 OF	FILE NAME: PN111-3774_SHT_E1_ISS_3



HINGE DETAIL



1200 AMP CALLOUT TABLE

NOTE	REF #	DESCRIPTION	PART NUMBERS	QUANTITY	TORQUE
				-16	
	1	GRD/TERM HINGED PANEL, 23" x 10.5"	202-7238-00A	1	
		HINGE" 10.5" PANEL COVER	202-7241-00	1	
		BRKT: 7" FRONT ACCESS COVER MTG	208-7051-00	1	
		BRKT, LEFT: FRONT ACCESS GRD/TERM/LOGO, 10.5"	208-7071-01	1	
	5	BRKT, RIGHT: FRONT ACCESS GRD/TERM/LOGO, 10.5"	208-7071-02	1	
		BUS BAR: GRD/TERM, 1200A, 0.25 x 5.0 x 21.0"	209-3317-00	1	
		BUS BAR: GRD/TERM, 1200A, 0.25 x 5.0 x 21.0"	209-3318-00	1	
		SCREW: STL, MS, SEMS, 6-32 x 3/8 PHIL P/HD	210-1430-00	3	10 IN. LBS.
		SCREW: STL, SEMS, 6-32 x 7/8 PHIL P/HD	210-1470-02	2	10 IN. LBS.
	10	SCREW: STL, SEMS, HEX HD, 1/4-20 x 5/8"	210-7004-40	16	45 IN. LBS.
		NUT, HEX STL: 2-56, Z SMALL PATTERN	211-0463-00	2	10 IN. LBS.
		NUT, HEX STL: 6-32, ZINC, 5/16" AF "KEPS"	211-0476-00	6	10 IN. LBS.
		WASHER: FLAT STL, 1/4 SAE, 5/8"	212-0099-00	8	
		LOCKWASHER, SHKPF: 1/4 INTERNAL	212-0500-00	8	
	15	LOCKWASHER: DISH, STL, SHKPF, #6	212-0501-05	5	
		SPACER: HEX BRASS, 6-32 x .250 2320 SM	213-0105-00	2	
		SPACER: HEATSINK, HEX FIBERGLASS, 1", GLASTIC	213-1409-00	8	
		NOMINCLATURE LABEL	225-3094-09	1	
	20				

1200 AMP GRD/TERM ASSEMBLY
(111-3774-16 SHOWN)

FIG. 5

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