

H01

(SHEET 1 OF 5)

INSTALLATION INSTRUCTIONS PD2 BREAKER (100A AND 225A) PRL1X OR PRL2X PANELBOARD

THESE INSTRUCTIONS ONLY FOR USE WITH PRL1X/PRL2X PANELBOARD
AND THE FOLLOWING TYPE BREAKERS: PDD2XF, PDD2XG, PDG2XM, PDG2XG
BREAKER COMES ASSEMBLED AS TOP MOUNTED DEVICE. IF BOTTOM MOUNTED DEVICE IS NEEDED,
DIS-ASSEMBLY AND RE-ASSEMBLY WILL BE REQUIRED.

1. FOR TOP MOUNTED APPLICATIONS:

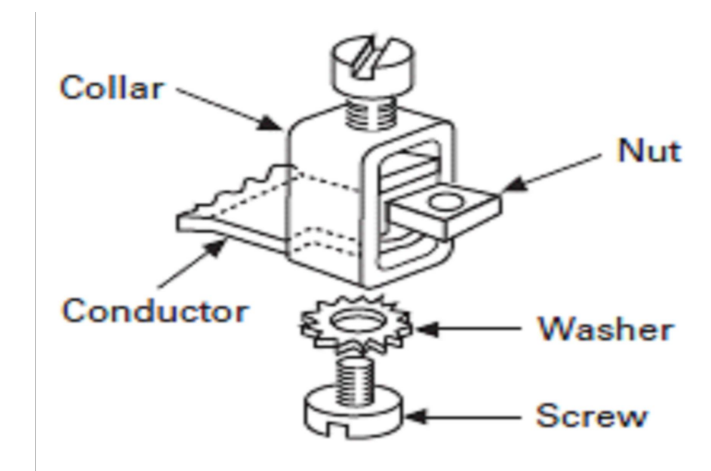
- a. Breaker assembly included in this kit is set up for top mounted application.
- b. Go to Step 5 (Sheet 2).

2. FOR BOTTOM MOUNTED APPLICATIONS, BREAKER ASSEMBLY MUST NOW BE RECONFIGURED:

- a. Disassemble the breaker assembly:
 - i. Retain all parts for re-assembly.
 - ii. Remove terminals and associated hardware from each breaker pole.
 - iii. Remove breaker mounting bracket and bracket insulation (items 1 & 2, Sheet 5 – Top Mounted Breaker Assembly Details).
 - iv. Remove phase isolator (item 8) and breaker connectors from each pole (items 5-7, Sheet 5 – Top Mounted Chassis Assembly Details).
 - b. Reassemble the breaker for Bottom Mounted Application:
 - i. Determine Top end of breaker by confirming that breaker handle is “up” when in the “ON” position and faceplate labels are right side up (with breaker held vertically).
 - ii. Install each terminal at bottom end of breaker as shown below in Figure 2A or Figure 2B as applicable.
- For Figure 2A, tighten securely with screw and washer to 20 Lb. In.**

3. **Bottom Mounted Only** - Install breaker mounting bracket onto breaker:

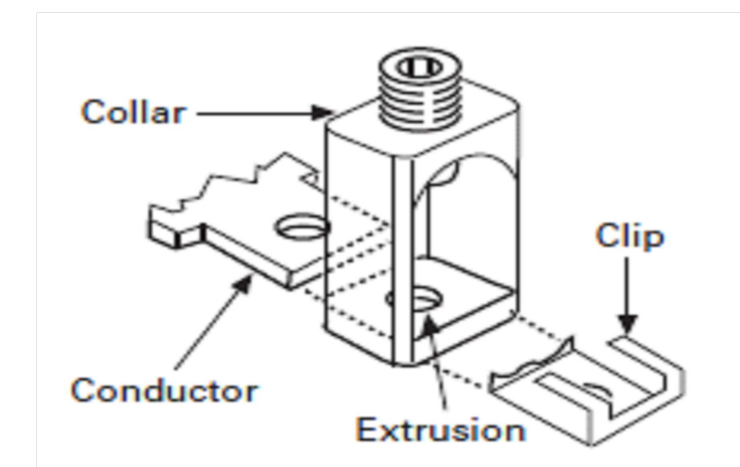
- a. Refer to Sheet 5 – Bottom Mounted Breaker Assembly Detail for specifics including orientation and placement of bracket (item 1) and bracket insulation (item 2), and cage nuts (item 4).
- b. Using a Phillips head screwdriver, start installation of breaker mounting screws (item 3) into cage nuts (item 4) but do not tighten all the way down at this time.



PDG2X3T100, PDG2X3T150

Insert collar enclosing conductor as shown. Locate nut on top of conductor and tighten securely with screw and washer. Caution: Collar must surround conductor.

Figure 2A



PDG2X3TA225

Insert collar enclosing conductor and center on extrusion on collar. Install clip with legs on top of conductor and snap end around bottom of collar.

Figure 2B

1	2
REVISION HISTORY	ECO-200117
DSF 1/18/21	CBH 1/18/21
INSTRUCTIONS TO INCLUDE MAIN BREAKER COVER INCLUDED IN KIT.	

THE INFORMATION ON THIS DOCUMENT IS CREATED BY EATON CORPORATION. IT IS DISCLOSED IN CONFIDENCE AND IS ONLY TO BE USED FOR THE PURPOSE IN WHICH IT IS SUPPLIED.		DRAFTER DSF	DATE 8/28/2020	SUMTER, SC TITLE INSTALLATION INSTRUCTIONS PD2-FRAME MAIN BREAKER, (100A AND 225A)
		ENGINEER RBH	DATE 8/28/2020	
		REVISION 2	PARTS LIST	DWG NO. 1A32091
FEDERAL ID NO.	PRODUCT	SCALE NTS	MODEL FILENAME	MODEL REV
				TYPE STANDARD
				UNLESS SPECIFIED TOLERANCES PER 5078A01
				SHEET 1 OF 8

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**WARNING**

DO NOT ATTEMPT TO INSTALL OR PERFORM MAINTENANCE ON EQUIPMENT WHILE IT IS ENERGIZED. DEATH, SEVERE PERSONAL INJURY, OR SUBSTANTIAL PROPERTY DAMAGE CAN RESULT FROM CONTACT WITH ENERGIZED EQUIPMENT. ALWAYS VERIFY THAT NO VOLTAGE IS PRESENT BEFORE PROCEEDING WITH THE TASK, AND ALWAYS FOLLOW GENERALLY ACCEPTED SAFETY PROCEDURES.

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4. **Bottom Mounted Only** - Install phase connectors and phase isolator onto main chassis bus as detailed below (refer to Sheet 5 - Bottom Mounted Chassis Assembly Detail):
- Use a tester to be sure that no voltage is present on the panelboard. Note Warning (inset to left).
 - Remove trim (do not discard).
 - Remove deadfront cover assembly (do not discard).
 - Attach phase connectors (Items 5-7) to main chassis bus using #10-32 X .875" screws (Item 9) but do not fully tighten at this time. Refer to Sheet 4 - Figure 1 for dimension from bus support to end of connectors (items 5-7).
Please note: Orientation of connectors must be as shown (note chamfer locations in Sheet 4 - Figure 1).
 - Using the large plastic rivet (Item 10), secure phase isolator (item 8) onto B phase connector (item 6) ensuring that phase isolator (item 8) properly separates opposite polarity connectors (items 5-7) as shown.
5. Install breaker assembly onto panelboard (refer to Sheet 5 - applicable Chassis Assembly Detail for specifics):
- Position panelboard to achieve installed orientation (rotate chassis assembly 180 degrees if applicable).
 - Place breaker assembly onto panelboard confirming breaker orientation is per Sheet 4 – Figure 1 as appropriate (top vs. bottom).
 - Fully secure breaker mounting bracket (Item 1) onto panelboard rails using #8-32 X .531" screws (Item 11). Refer to Sheet 4 - Figure 1 for dimension from bus support to breaker mounting bracket (item 1) as appropriate (top vs. bottom).
 - Top Mounted Only** - Secure phase connectors (Items 5-7) to main chassis bus using #10-32 X .875" screws (Item 9). (Skip to step h.)
 - Bottom Mounted Only** - Adjust breaker as needed to line up phase connectors (items 5-7) and breaker stabs.
 - Bottom Mounted Only** - Secure phase connectors (items 5-7) to breaker stabs using #10-32 X .5625" screws (item 12). Repeat for each phase.
 - Bottom Mounted Only** - Fully secure breaker to mounting bracket (item 1) by tightening breaker mounting screws (item 3).
 - Using a torque wrench, ensure that hardware (item 9) from phase connectors (item 5-7) to main chassis bus is properly seated and is tightened to a torque value of 28-32 lb-in (3.2-3.6 N-m). DO NOT OVERTIGHTEN.**
 - Using a torque wrench, ensure that hardware (item 12) from phase connectors (items 5-7) to breaker stabs is properly seated and is tightened to a torque value of 28-32 lb-in (3.2-3.6 N-m). DO NOT OVERTIGHTEN.**
 - All connections should be fully secured (tightened) at this time.**
6. Reinstall deadfront cover assembly and panelboard trim:
- Remove and discard existing main cover and filler cover from the deadfront cover assembly. Retain hardware (Refer to Sheet 4 - Figure 3).
 - Select appropriate main breaker cover (Item 16) received in kit and install on deadfront cover assembly with retained hardware (Refer to Sheet 4 - Figure 3).
 - Replace deadfront cover assembly.

TITLE	PD2, 100-225A, INSTR. SHT	ALL REV. NOTES LISTED ON SHT. 1	DWG NO	1A32091
MODEL FILENAME	MODEL REV	C	T.BLK REV-4	EATON
			SHEET 2 OF 8	REV 2

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- d. If newly installed breaker assembly is to be used as a Main or Service Disconnect, apply the appropriate label (Item 14 or 15) to the deadfront cover directly beside the newly installed breaker handle.
 - e. If the panel is a Service Entrance Panel, use the "Service Disconnect" label (Item 15).
 - f. If the panel is not a Service Entrance Panel, use the "Main" label (Item 14).
 - g. Discard unused label(s).
- 7. BE SURE THAT ALL TOOLS AND ANY OTHER LOOSE ITEMS ARE REMOVED FROM THE PANELBOARD BEFORE REPLACING THE TRIM AND TURNING ON THE POWER.**

PARTS LIST FOR F-FRAME BREAKER - 100A MAX PRL1A OR PRL2A PANELBOARD			
ITEM #	QTY	COMPONENT DESCRIPTION	PART #
1	1	BREAKER MOUNTING BRACKET	4180B13H01
2	1	BRACKET INSULATION	4180B69H01
3	2	8-32 x 1.75" BREAKER MOUNTING SCREW	70010RBG69
4	2	CAGE NUT	70222BI21A
5	1	PHASE CONNECTOR 5, CUAG	4180B11H03
6	1	PHASE CONNECTOR 6, CUAG ¹	4180B12H03
7	1	PHASE CONNECTOR 7, CUAG	4180B11H07
8	1	PHASE ISOLATOR ¹	4180B07H01
9	6	10-32 X .875" THREADFORMING SCREW ²	70010RBB8M
10	1	LARGE PLASTIC RIVET	7499A46H01
11	2	8-32 x .531" THREADFORMING SCREW ²	70010RBB5V
12	3	10-32 x .5625" THREADFORMING SCREW	70010RBB8G
13	2	SMALL SNAP RIVET ²	5756B83H01
14	1	"MAIN" LABEL ²	267P442H01
15	1	"SERVICE DISCONNECT" LABEL ²	267P443H01
16A	1	MAIN BREAKER COVER (TOP)	42C8073H01
16B	1	MAIN BREAKER COVER (BOTTOM)	42C8073H04

NOTES:

- 1 - Omit B Phase Terminal, Connector, Isolator and associated hardware for Single Phase Applications
- 2 - Items included in hardware bag

TITLE	PD2, 100-225A, INSTR. SHT	ALL REV. NOTES LISTED ON SHT. 1	DWG NO	1A32091
MODEL FILENAME	MODEL REV	C	T.BLK REV-4	SHEET 3 OF 8 REV 2



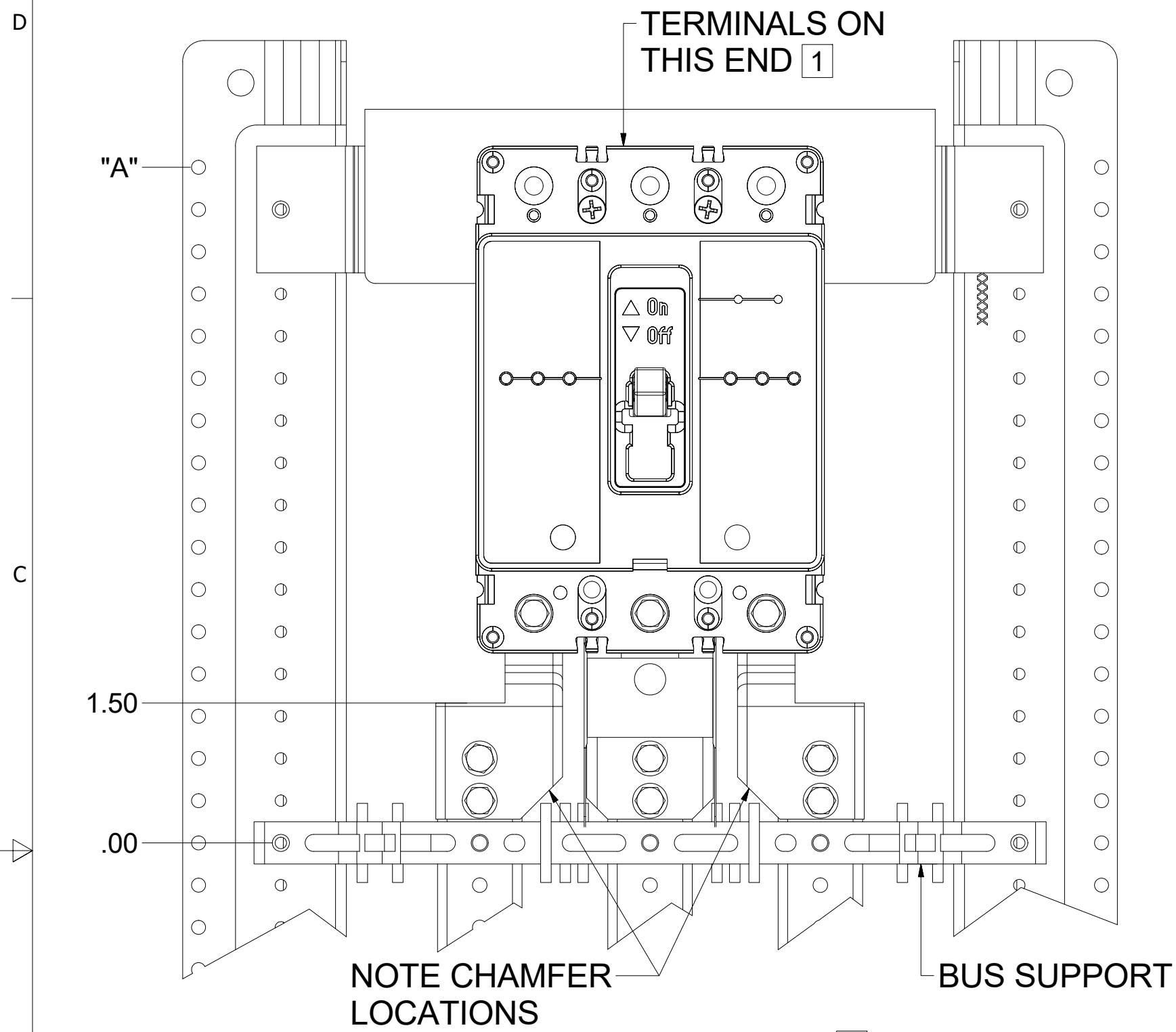
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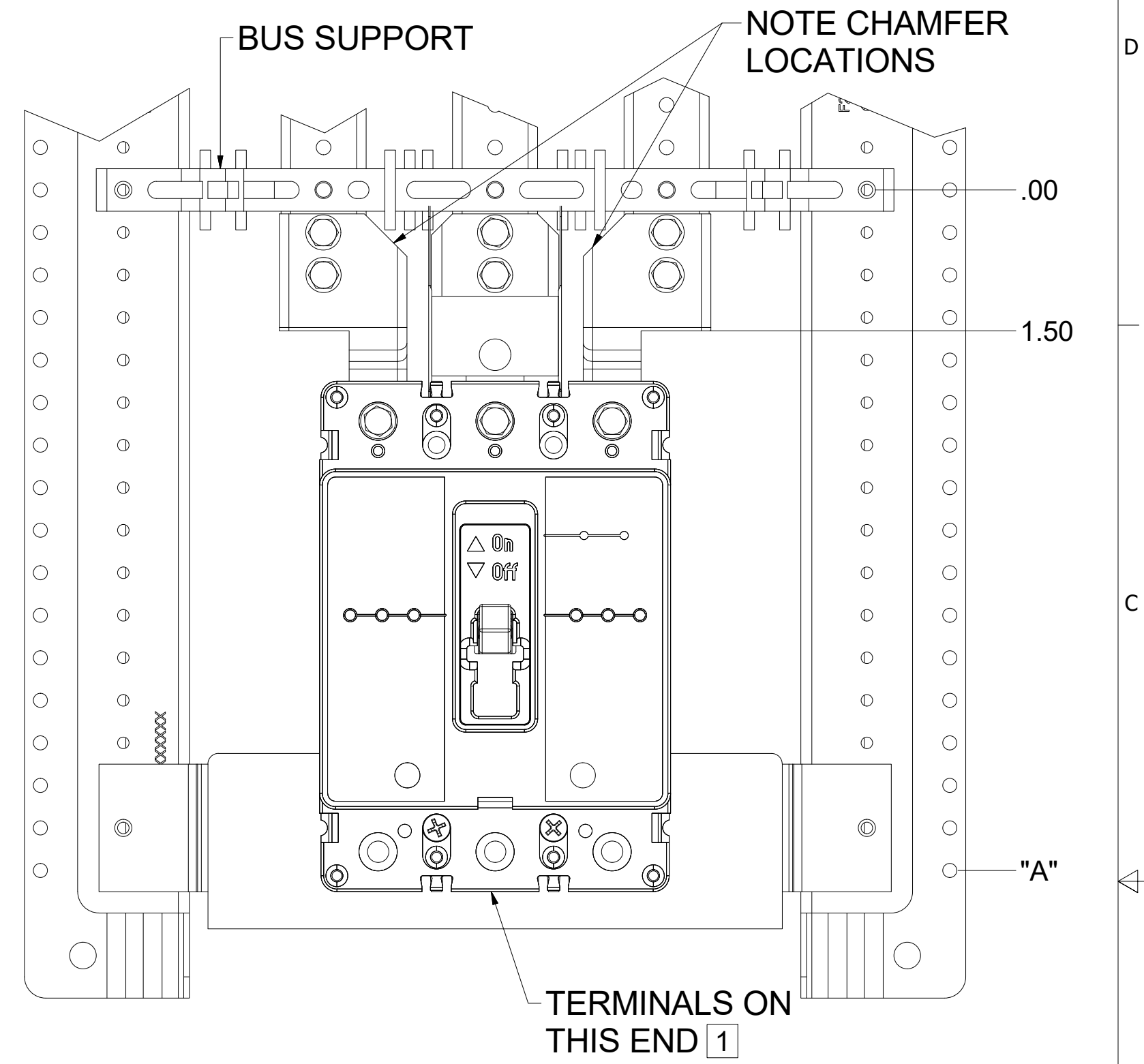
FIGURE 1

TOP MOUNTED

BOTTOM MOUNTED



BREAKER FRAME	AMPS (MAX)	"A"
PD2	100A	8.00
PD2	225A	9.00

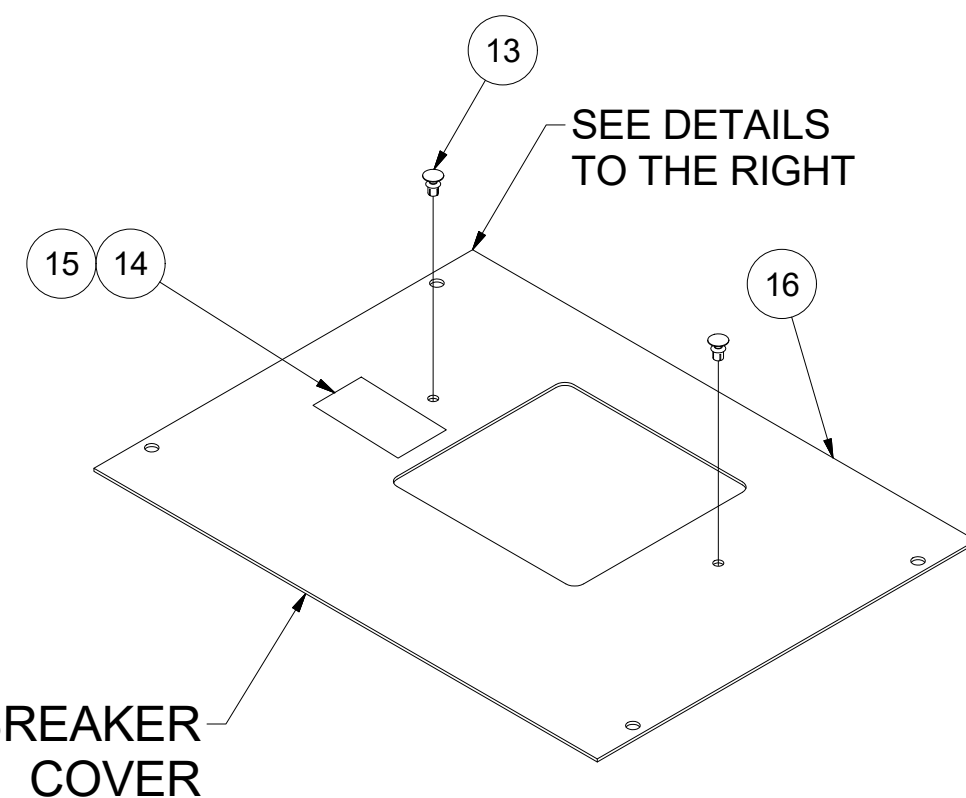
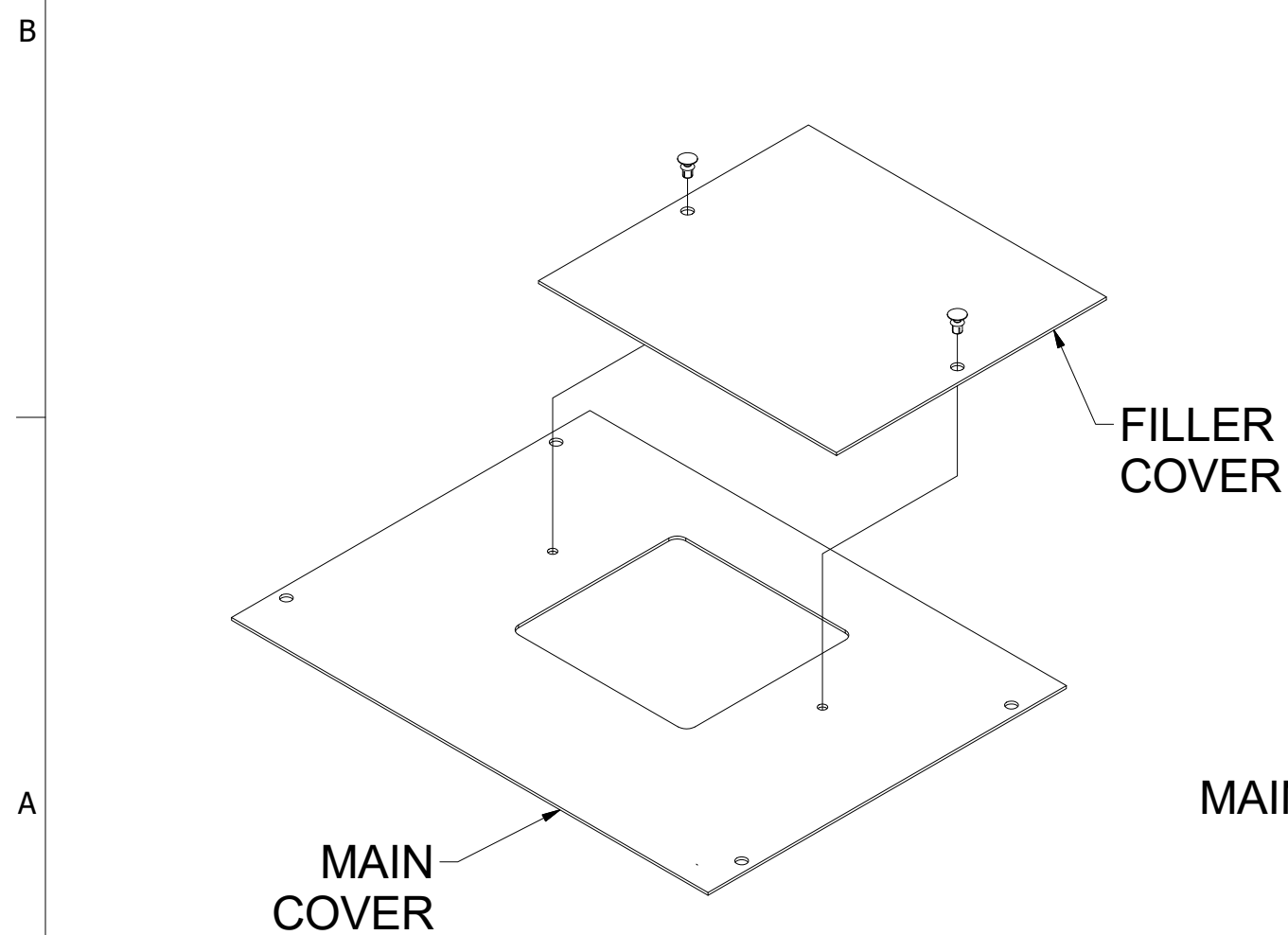


1 OMIT B PHASE TERMINAL FOR SINGLE PHASE APPLICATIONS

FIGURE 3

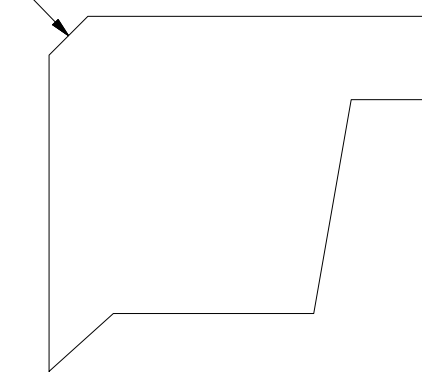
TOP MOUNTED

BOTTOM MOUNTED



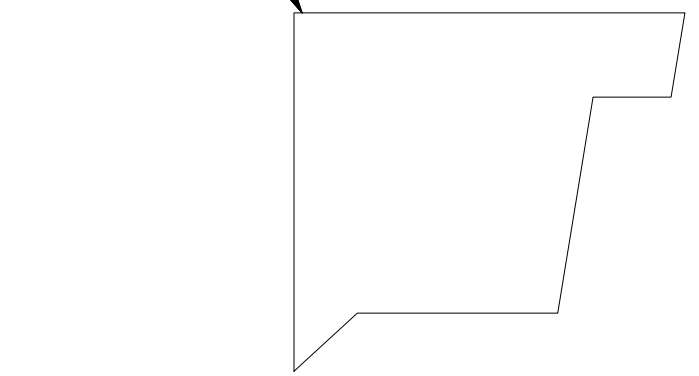
COVER CORNER DETAIL (TYPICAL ALL OUTSIDE CORNERS)

.125x45° CHAMFER



COVER CORNER DETAIL (TYPICAL ALL OUTSIDE CORNERS)

NO CHAMFER

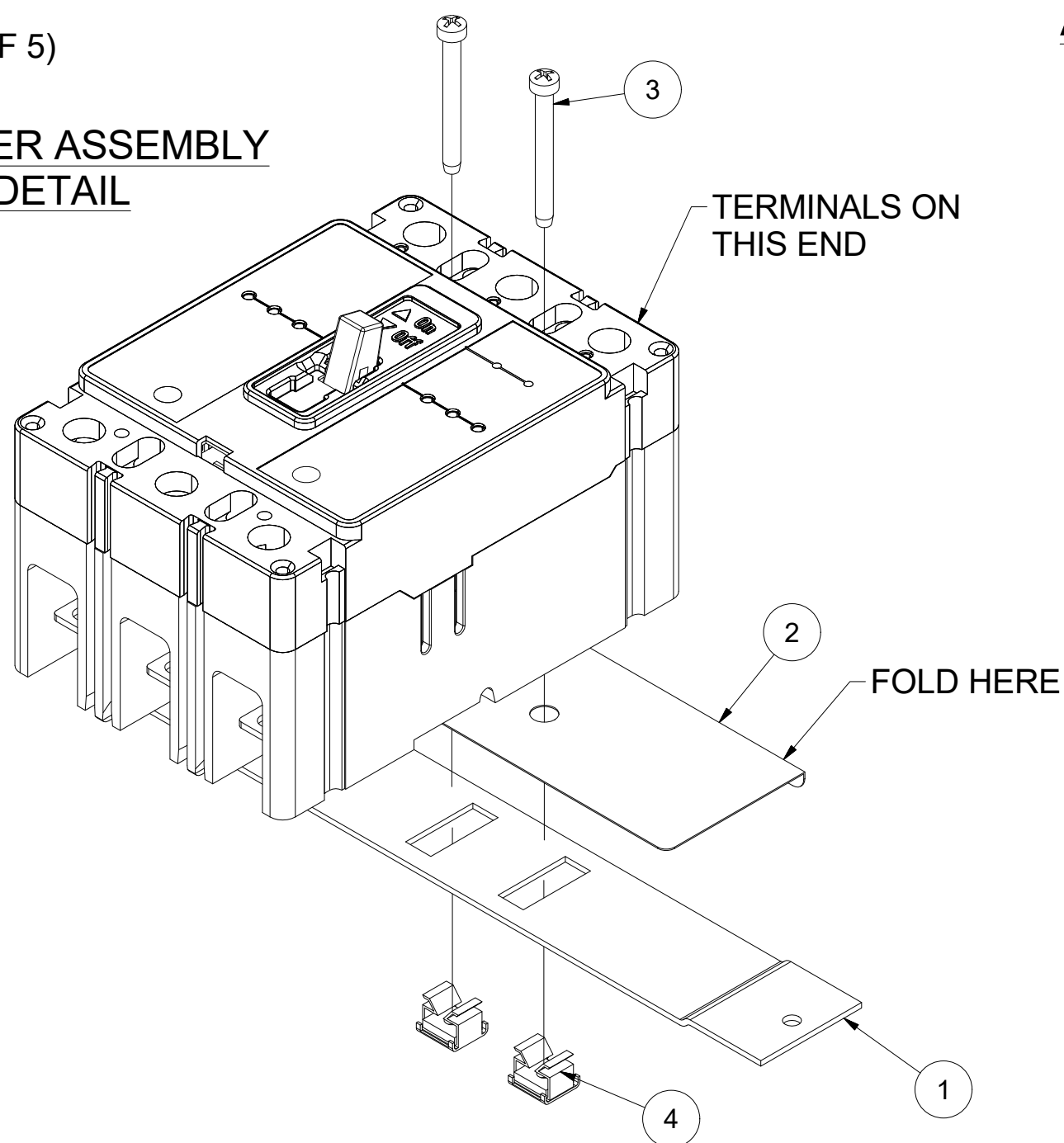


TITLE	PD2, 100-225A, INSTR. SHT	ALL REV. NOTES LISTED ON SHT. 1	DWG NO	1A32091
MODEL FILENAME	1A32091G02.iam	MODEL REV	2	C
T.BLK REV-4	FATON	SHEET 4 OF 8	REV	2

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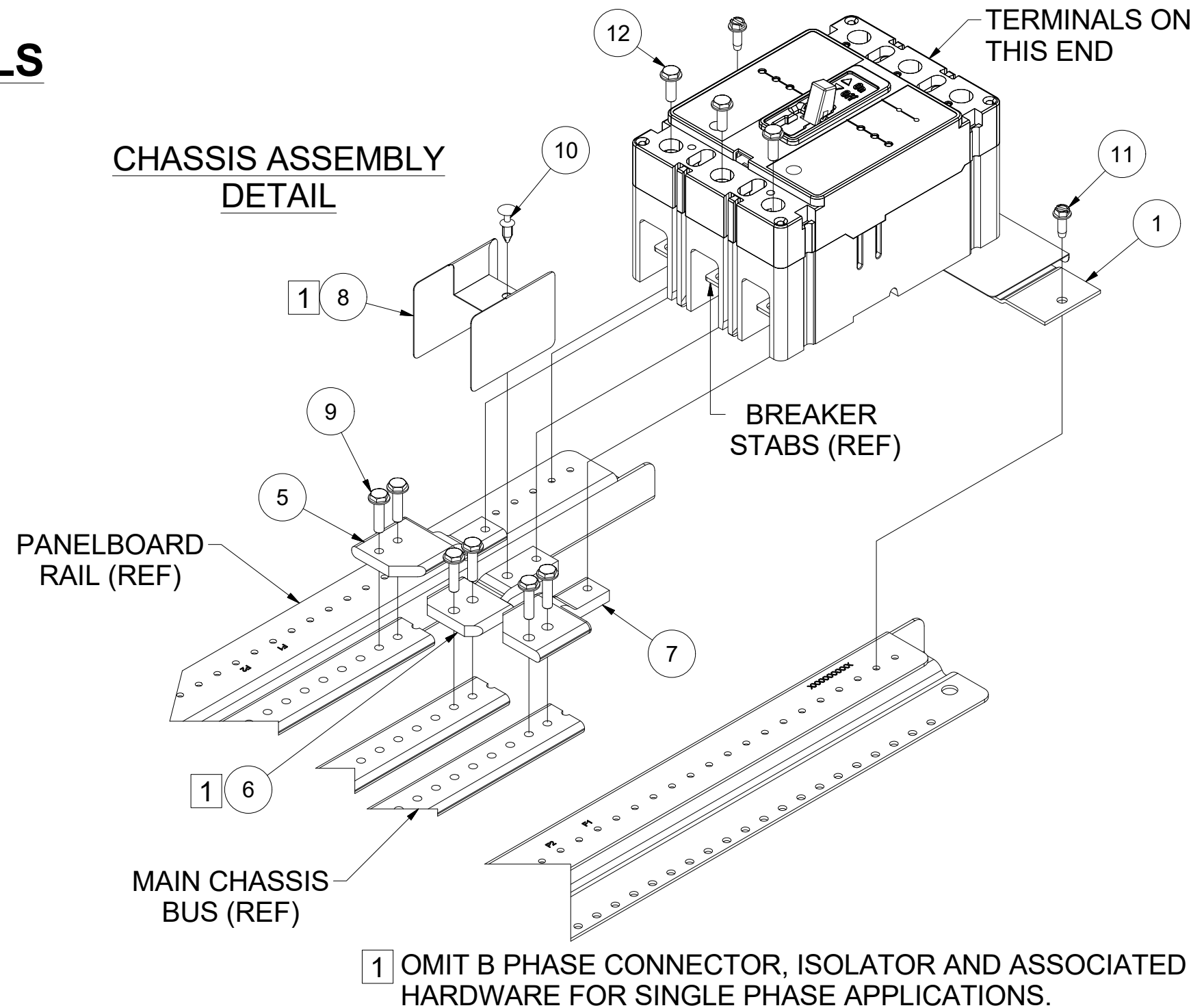
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BREAKER ASSEMBLY DETAIL



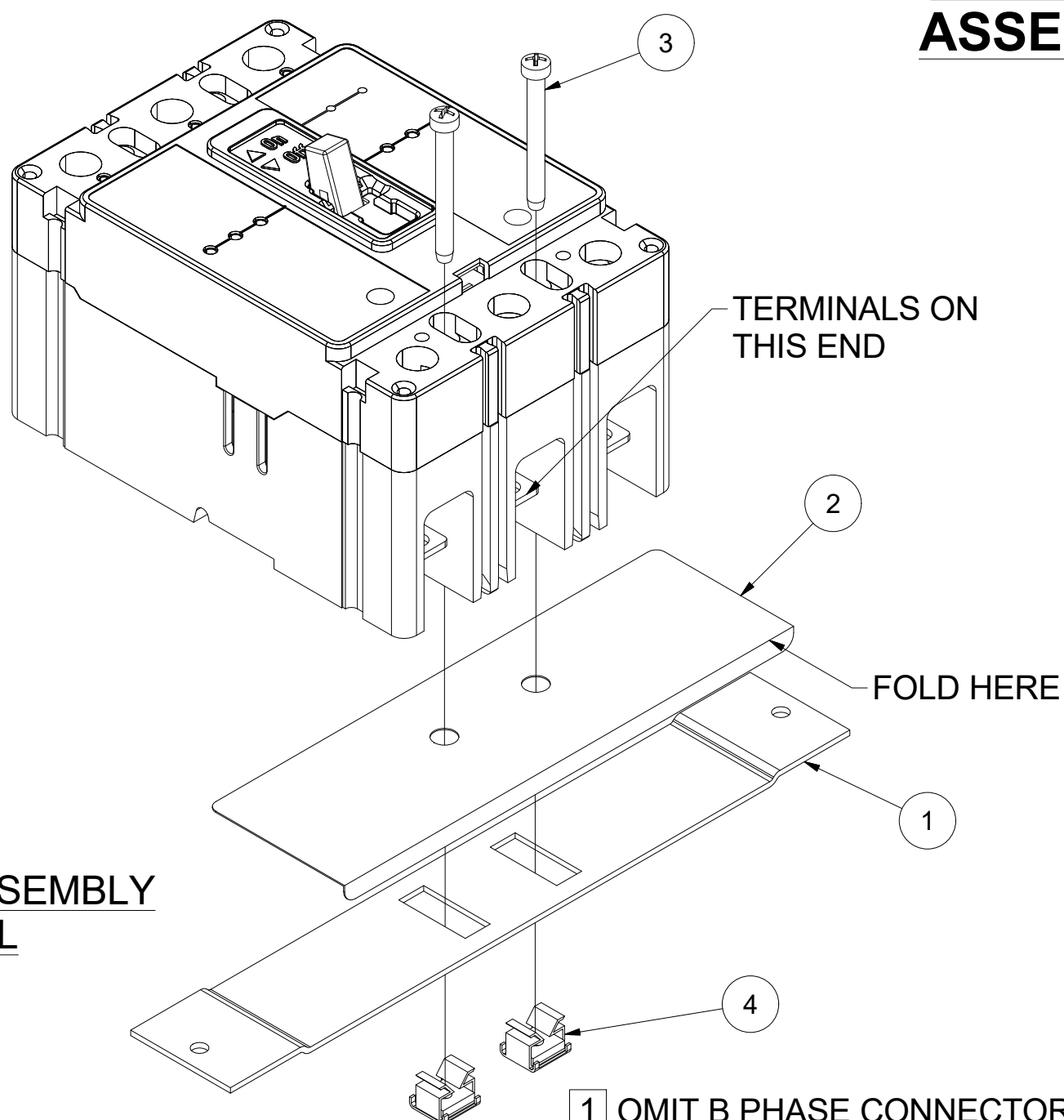
TOP MOUNTED ASSEMBLY DETAILS

CHASSIS ASSEMBLY DETAIL

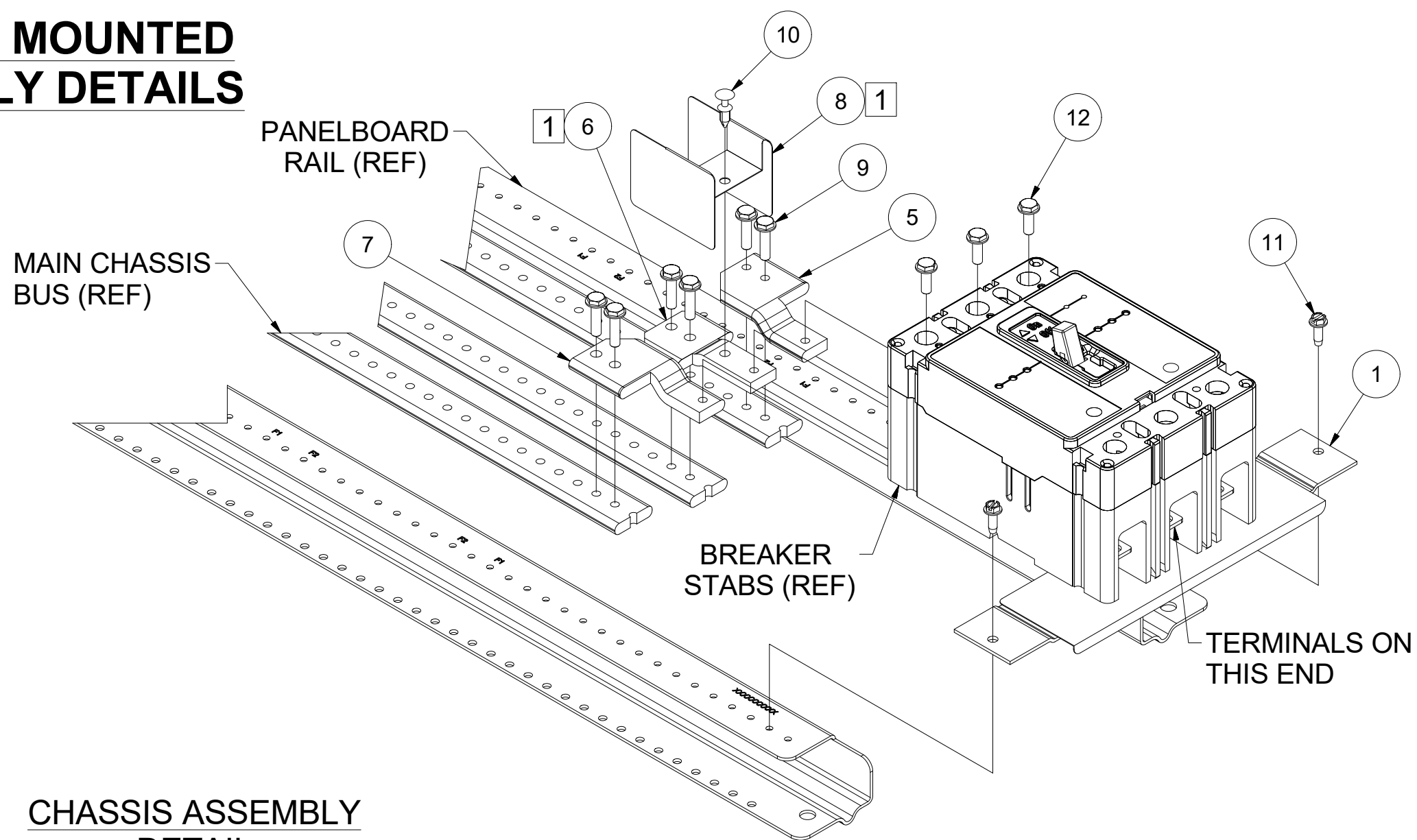


BOTTOM MOUNTED ASSEMBLY DETAILS

BREAKER ASSEMBLY DETAIL



CHASSIS ASSEMBLY DETAIL




TITLE	PD2, 100-225A, INSTR. SHT	ALL REV. NOTES LISTED ON SHT. 1	DWG NO	1A32091
MODEL FILENAME	1A32091G01.iam	MODEL REV	2	SHEET 5 OF 8
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INSTALLATION INSTRUCTIONS PD2 BREAKER (100A AND 225A) PRL1X OR PRL2X PANELBOARD (BOTTOM MOUNTED ONLY)

THESE INSTRUCTIONS ONLY FOR USE WITH PRL1X/PRL2X PANELBOARD
AND THE FOLLOWING TYPE BREAKERS: PDD2XF, PDD2XG, PDG2XM, PDG2XG


WARNING

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1. PREPARE PANEL FOR BREAKER INSTALLATION

- a. Use a tester to be sure that no voltage is present on the panelboard. Note Warning (inset to left).
- b. Remove trim (do not discard).
- c. Remove deadfront cover assembly (do not discard).

2. Install breaker assembly onto panelboard (refer to Sheet 3 - Chassis Assembly Detail for specifics):

- a. Position panelboard to achieve installed orientation (rotate chassis assembly 180 degrees if applicable).
- b. Place breaker assembly onto panelboard confirming breaker orientation is per Sheet 3 – Figure 1.
- c. Fully secure breaker mounting bracket (Item 1) onto panelboard rails using #8-32 X .531” screws (Item 11). Refer to Sheet 3 - Figure 1 for dimension from bus support to breaker mounting bracket (item 1) as appropriate.
- d. Secure phase connectors (Items 5-7) to main chassis bus using #10-32 X .875” screws (Item 9).
- e. **Using a torque wrench, ensure that hardware (item 9) from phase connectors (item 5-7) to main chassis bus is properly seated and is tightened to a torque value of 28-32 lb-in (3.2-3.6 N-m). DO NOT OVERTIGHTEN.**
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- g. **All connections should be fully secured (tightened) at this time.**

<small>TITLE</small> PD2, 100-225A, INSTR. SHT (BOT ONLY)	<small>ALL REV. NOTES LISTED ON SHT. 1</small>	<small>DWG NO</small> 1A32091
<small>MODEL FILENAME</small>	<small>MODEL REV</small> C	<small>T.BLK REV-4</small> EATON
<small>SHEET 6 OF 8</small>		<small>REV</small> 2

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3. Reinstall deadfront cover assembly and panelboard trim:
 - a. Remove and discard existing main cover and filler cover from the deadfront cover assembly. Retain hardware (Refer to Sheet 3 - Figure 3).
 - b. Attach main breaker cover (Item 16) received in kit, to dead front cover assembly using retained hardware. (Refer to Sheet 3- Figure 3).
 - c. Replace deadfront cover assembly.
 - d. If newly installed breaker assembly is to be used as a Main or Service Disconnect, apply the appropriate label (Item 14 or 15) to the deadfront cover directly beside the newly installed breaker handle.
 - e. If the panel is a Service Entrance Panel, use the "Service Disconnect" label (Item 15).
 - f. If the panel is not a Service Entrance Panel, use the "Main" label (Item 14).
 - g. Discard unused label(s).
4. **BE SURE THAT ALL TOOLS AND ANY OTHER LOOSE ITEMS ARE REMOVED FROM THE PANELBOARD BEFORE REPLACING THE TRIM AND TURNING ON THE POWER.**

PARTS LIST FOR PD2 FRAME BREAKER PRL1X OR PRL2X PANELBOARD			
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9	6	10-32 X .875" THREADFORMING SCREW ²	70010RBB8M
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12	3	10-32 x .5625" THREADFORMING SCREW	70010RBB8G
13	2	SMALL SNAP RIVET ²	5756B83H01
14	1	"MAIN" LABEL ²	267P442H01
15	1	"SERVICE DISCONNECT" LABEL ²	267P443H01
16	1	MAIN BREAKER COVER (BOTTOM)	42C8073H04

NOTES:

1 - Omit B Phase Terminal, Connector, Isolator and associated hardware for Single Phase Applications

2 - Items included in hardware bag

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MODEL FILENAME	MODEL REV	C	T.BLK REV-4	FATON
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FIGURE 1

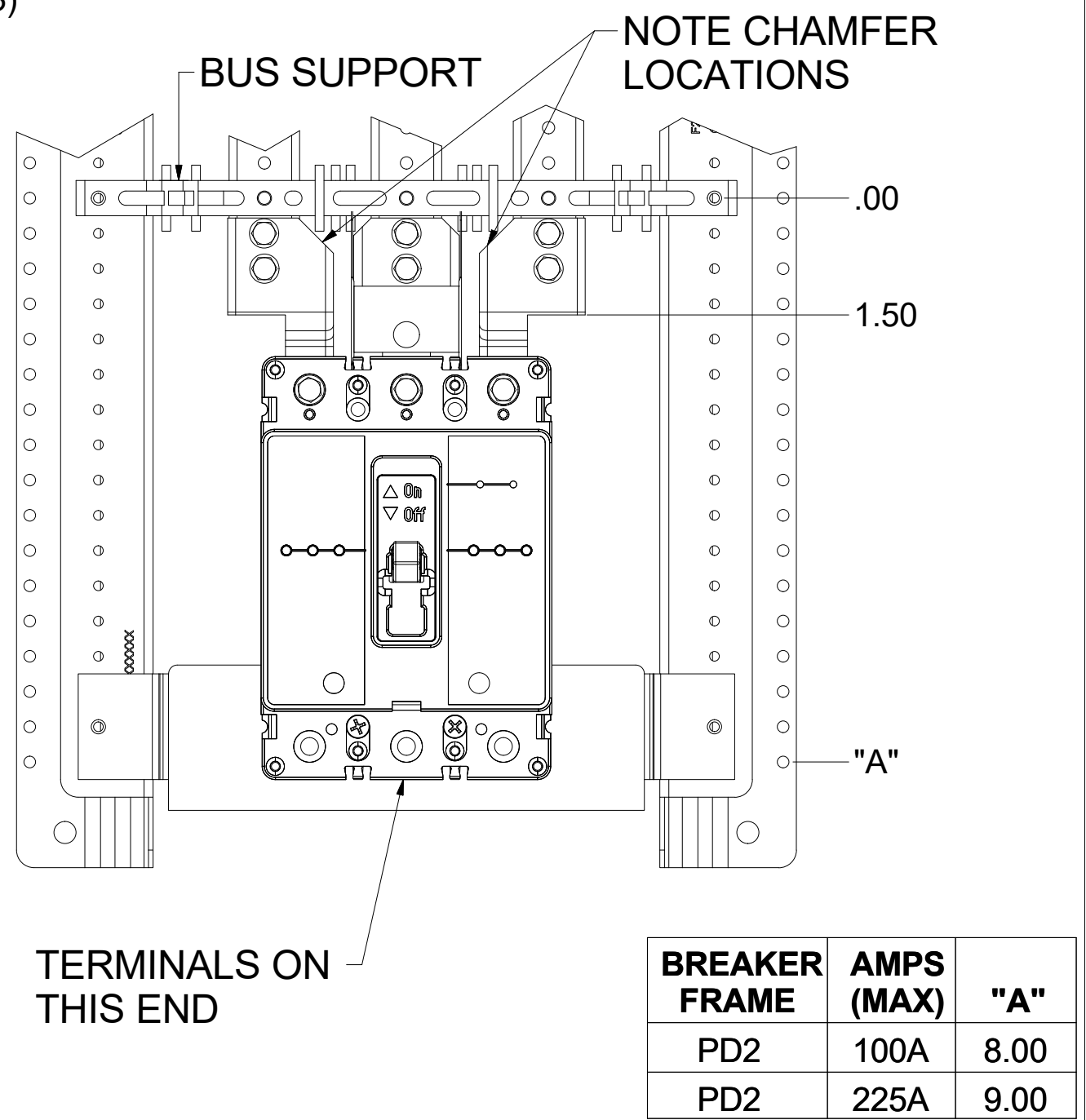
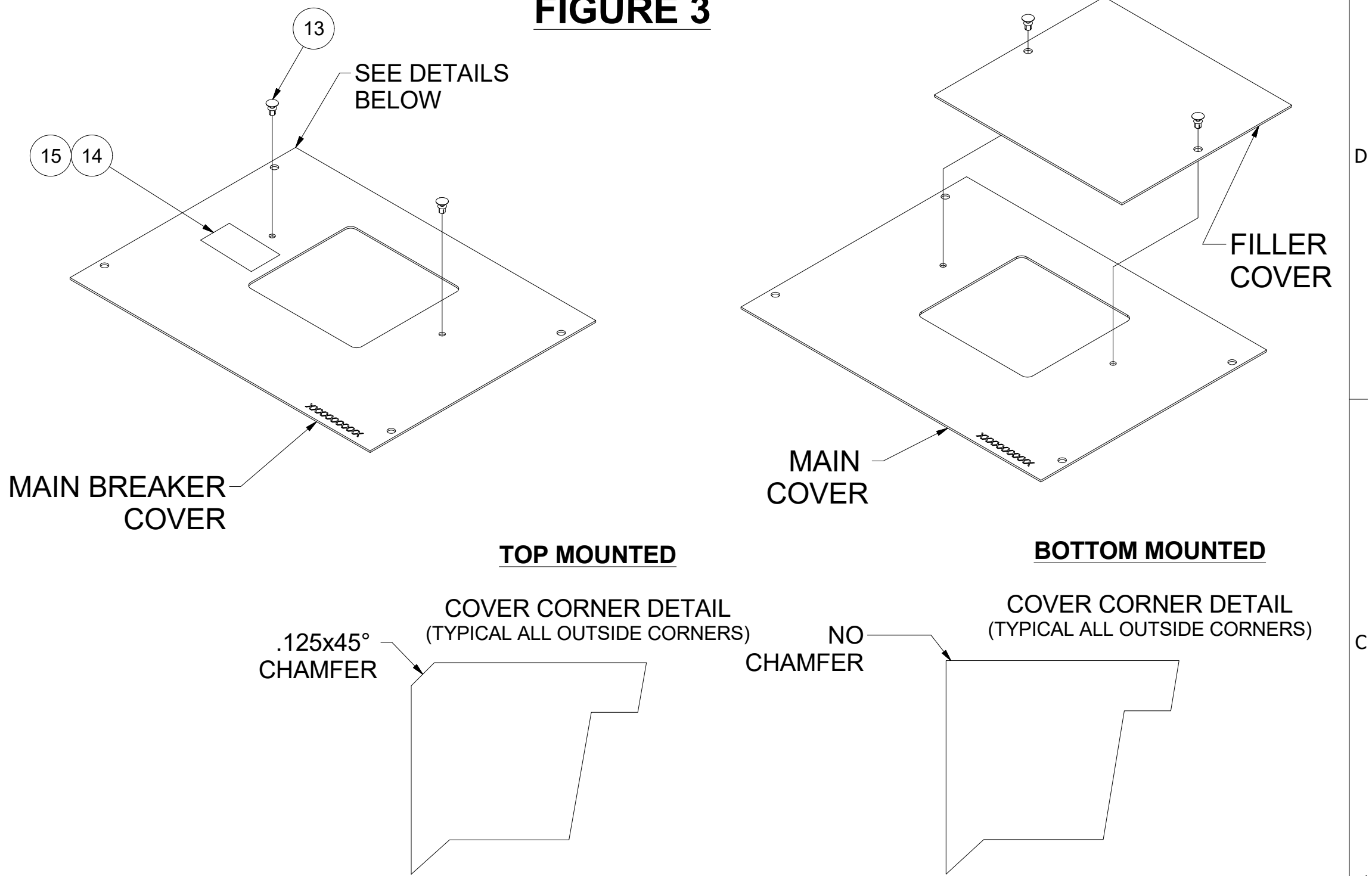
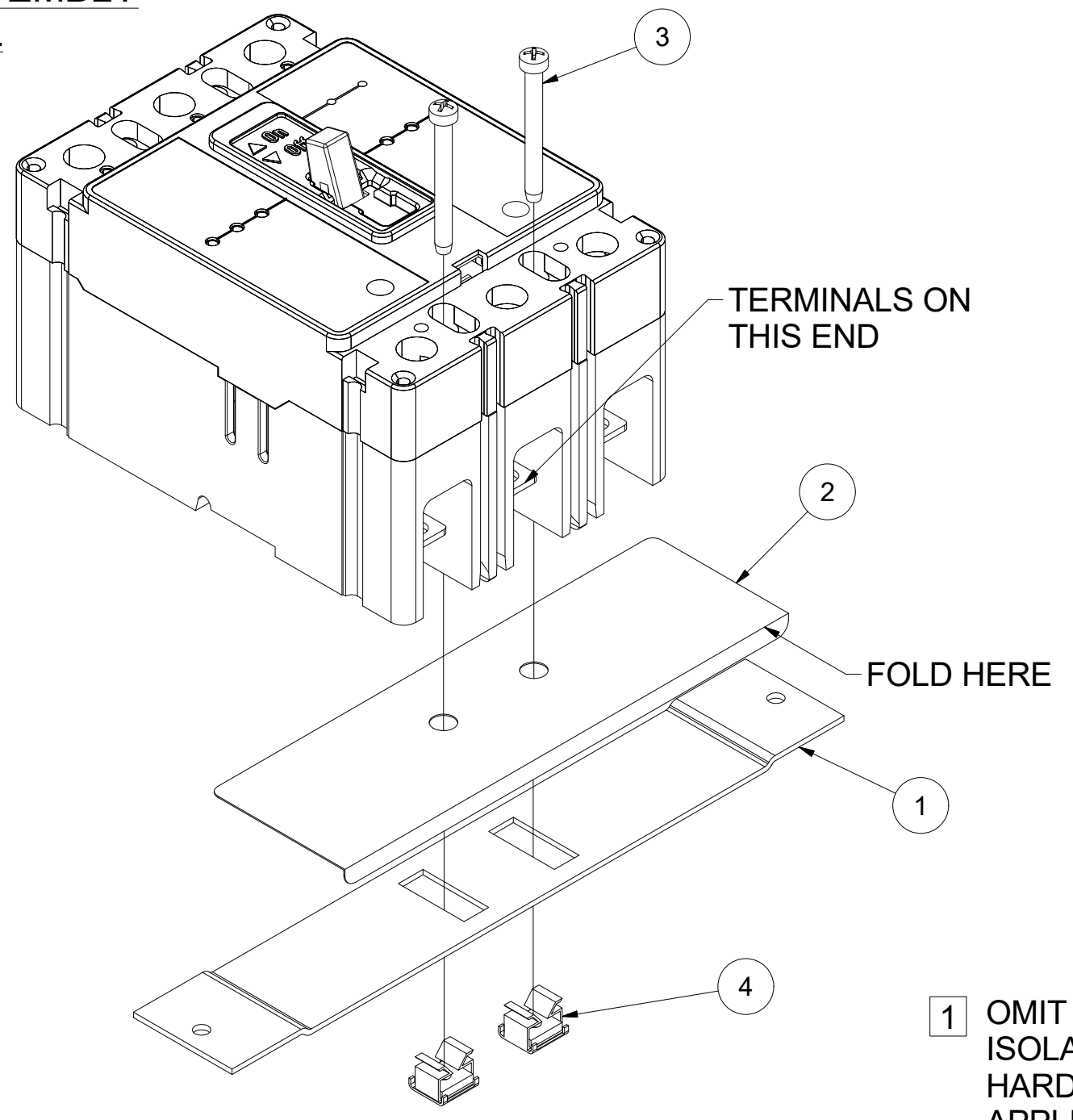


FIGURE 3

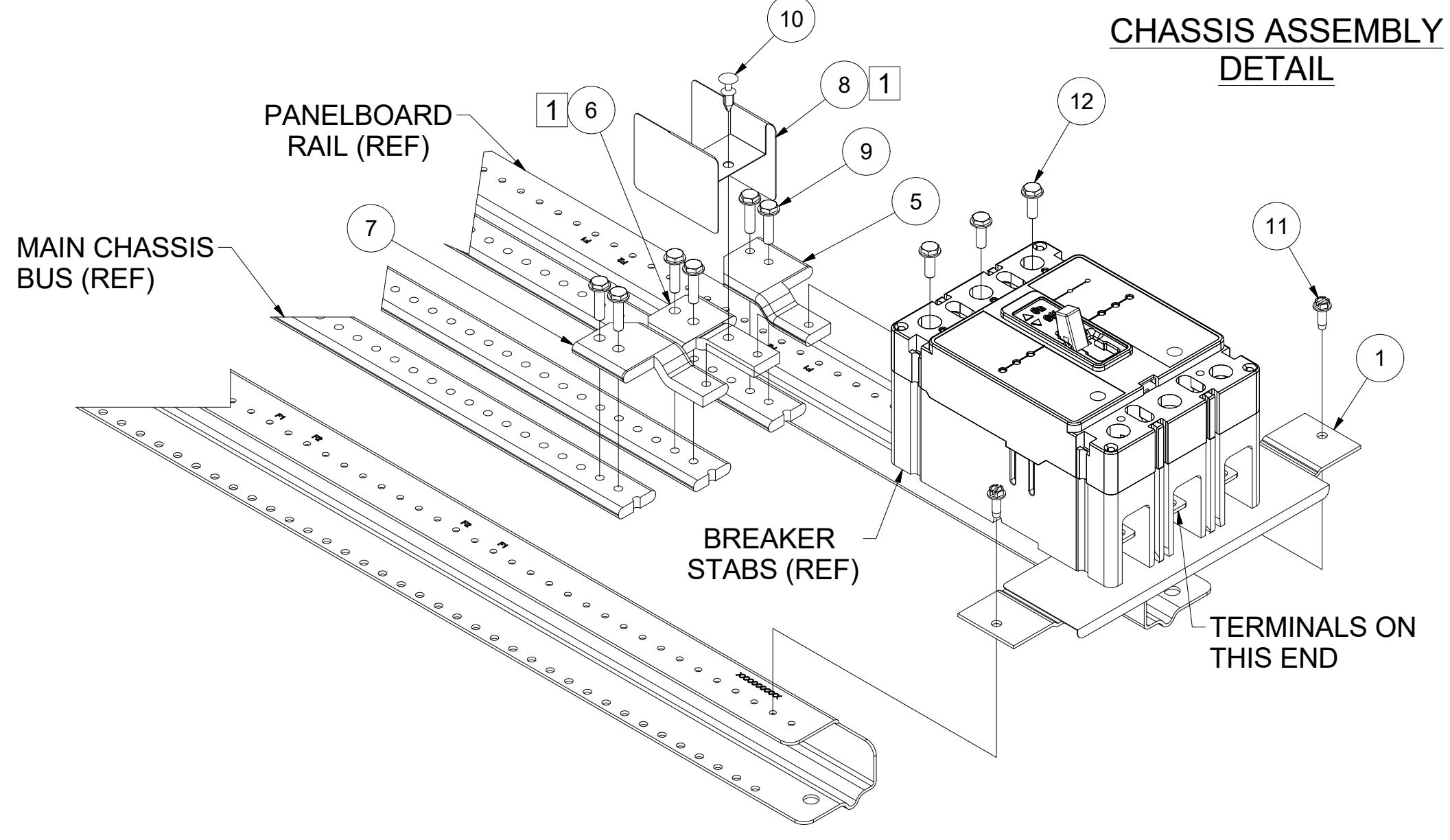


BREAKER ASSEMBLY DETAIL



1 OMIT B PHASE CONNECTOR, ISOLATOR AND ASSOCIATED HARDWARE FOR SINGLE PHASE APPLICATIONS.

CHASSIS ASSEMBLY DETAIL



TITLE	PD2, 100-225A, INSTR. SHT (BOT ONLY)	ALL REV. NOTES LISTED ON SHT. 1	DWG NO	1A32091
MODEL FILENAME	1A32091G02.iam	MODEL REV	2	C
T.BLK	REV-4	EATON		SHEET 8 OF 8
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