

INSTALLATION INSTRUCTIONS

F-FRAME BREAKER (100A AND 225A)

PRL1a OR PRL2a PANELBOARD

THESE INSTRUCTIONS ONLY FOR USE WITH PRL1a/PRL2a PANELBOARD
AND THE FOLLOWING TYPE BREAKERS: FD/HFD/FDC/FDE/HFDE/ED/EDH
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:

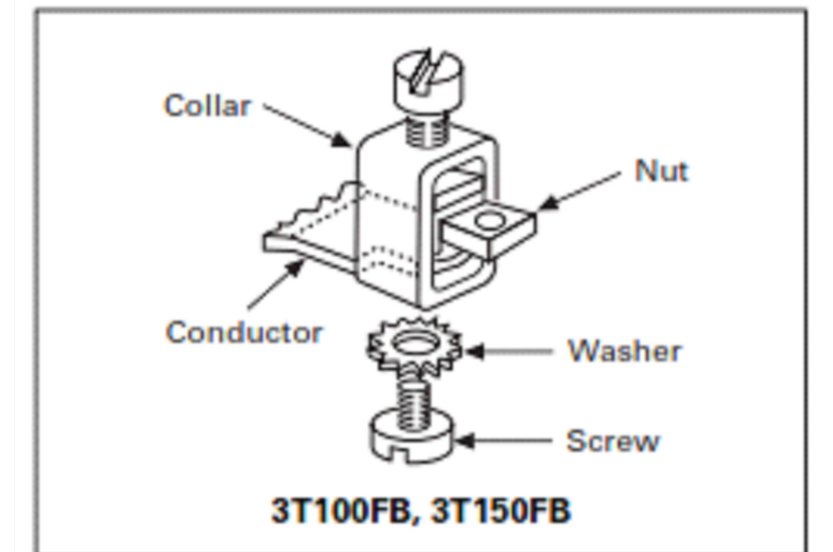
- a. Breaker assembly included in this kit is set up for top mounted application.
- b. Go to Step 5 (Sheet 2).

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.

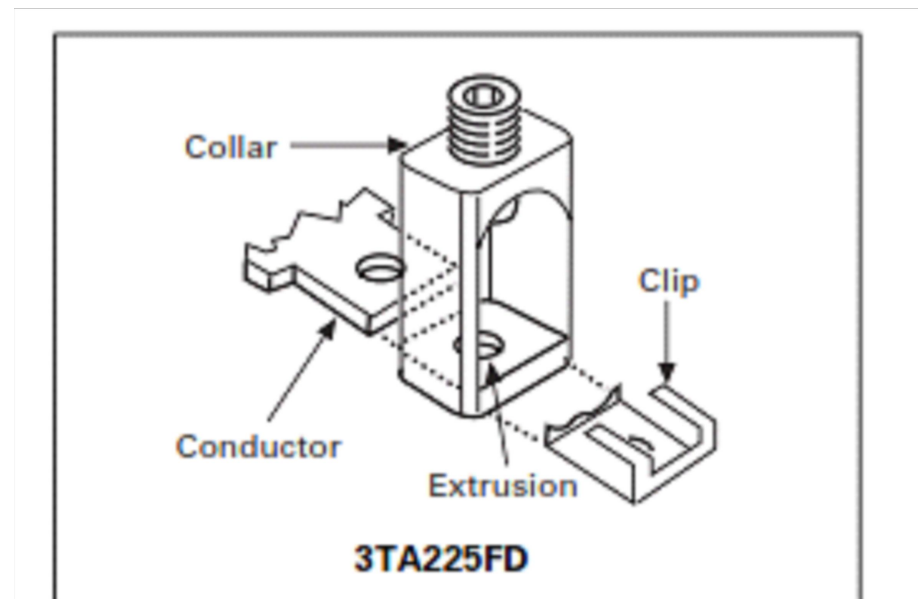
3. Bottom Mounted Only - Install breaker mounting bracket onto breaker:

- 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.



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



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-147753
DSF 9/20/18	RBH 9/20/18
MATCH PROCESS OF ASSEMBLING BREAKER KITS RECEIVED FROM THE FACTORY AS TOP - CUSTOMER INSTRUCTIONS TO REASSEMBLE FOR BOTTOM.	

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		ENGINEER RH	DATE 10/12/2017	
		REVISION 2	PARTS LIST	TITLE INSTALLATION INSTRUCTIONS F-FRAME MAIN BREAKER, (100A AND 225A)
		MODEL FILENAME	MODEL REV	DWG NO. 1A32081
FEDERAL ID NO.	PRODUCT U	SCALE NTS	TYPE STANDARD	UNLESS SPECIFIED TOLERANCES PER 5078A01
			SHEET 1 OF 5	



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.

EATON IS NOT LIABLE FOR THE MISAPPLICATION OR MISINSTALLATION OF ITS PRODUCTS.

The user is cautioned to observe all recommendations, warnings, and cautions relating to the safety of personnel and equipment as well as all general and local health and safety laws, codes, and procedures.

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 filler cover from the deadfront cover. Discard filler cover and hardware (Refer to Sheet 4 - Figure 3).
 - Insert small plastic snap rivets (Item 13) into holes in deadfront cover (Refer to Sheet 4 - Figure 3).
 - Replace deadfront cover assembly.

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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.
 If the panel is a Service Entrance Panel, use the "Service Disconnect" label (Item 15).
 If the panel is not a Service Entrance Panel, use the "Main" label (Item 14).
 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

NOTES:

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


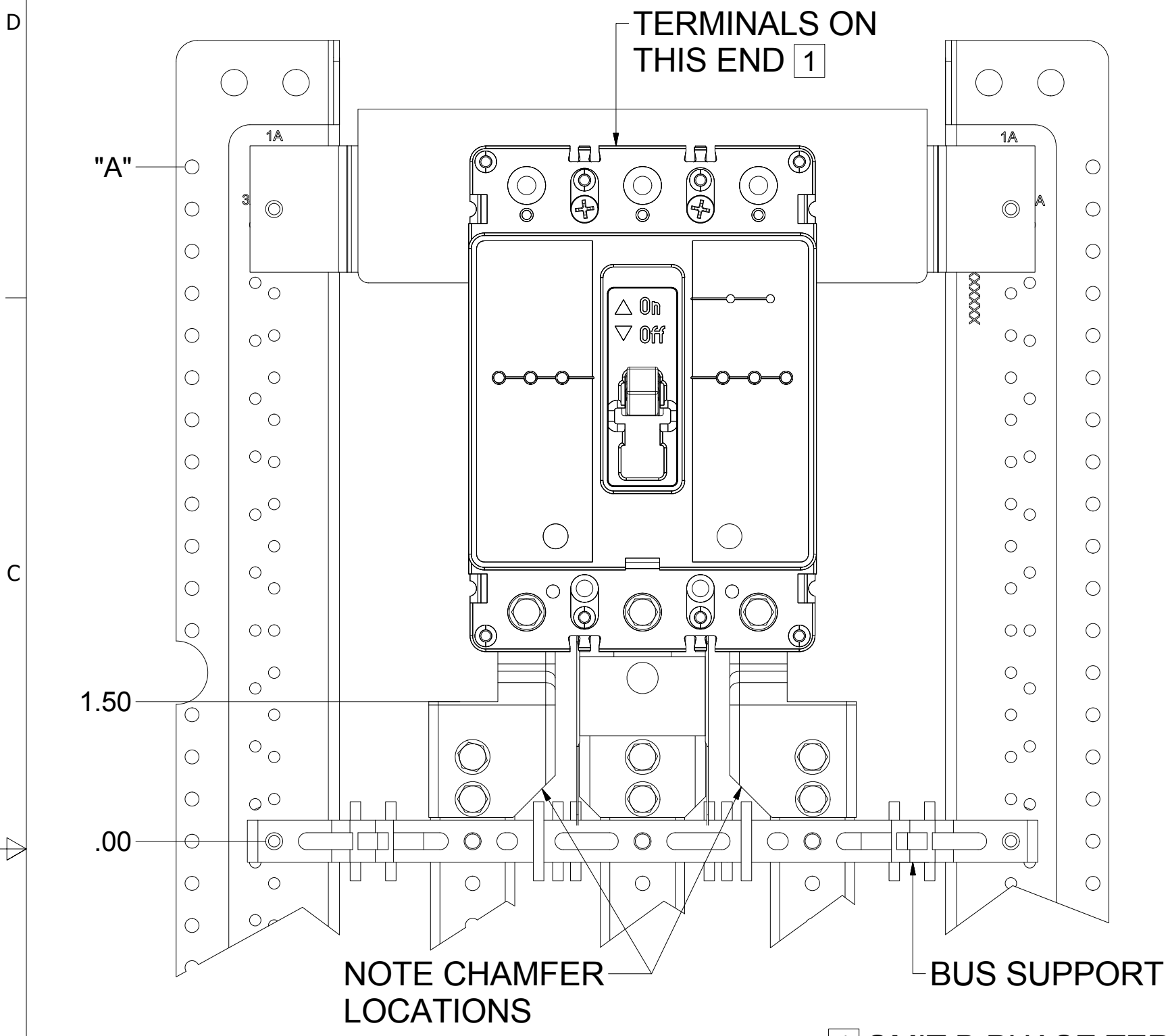
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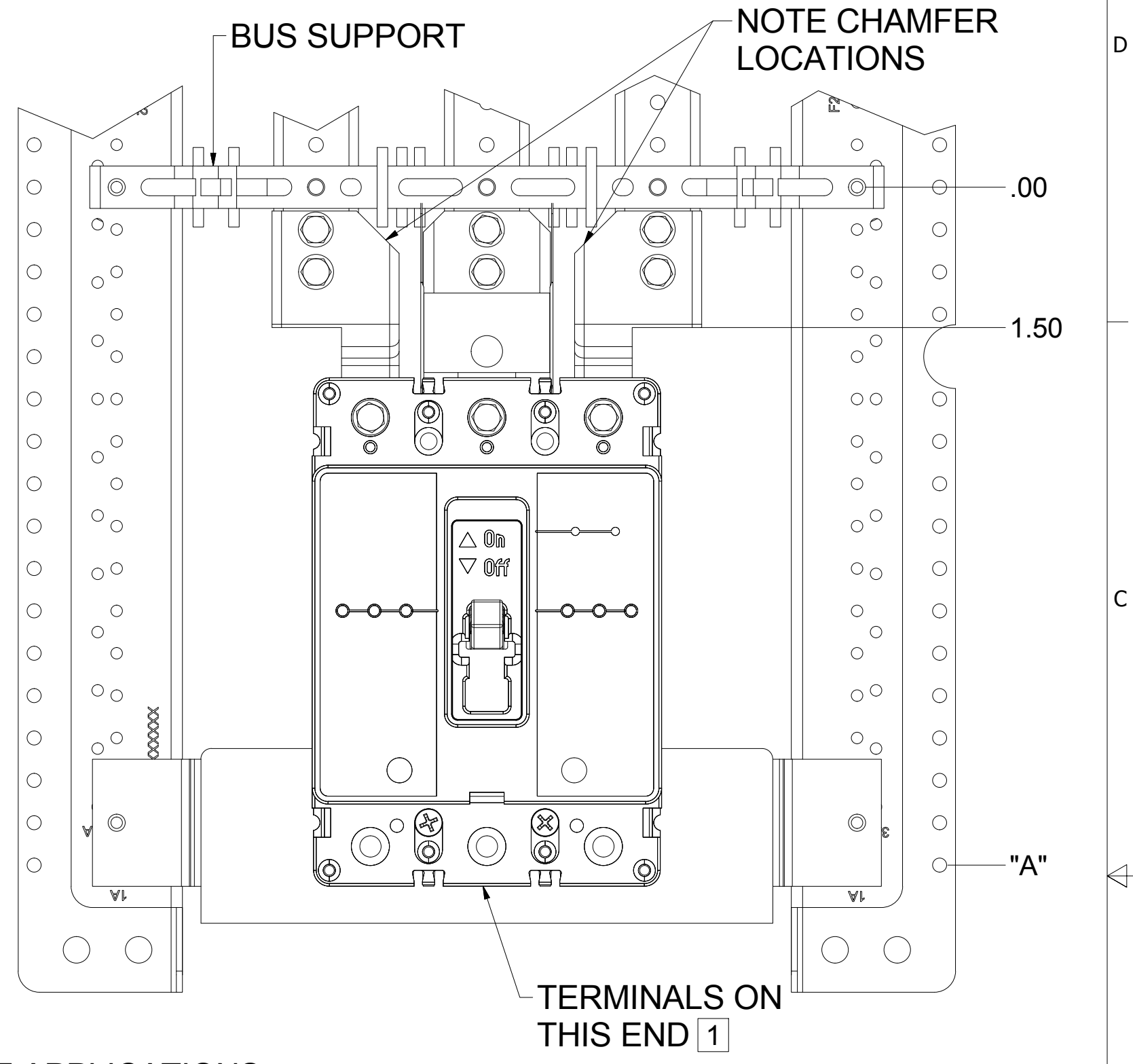
FIGURE 1

TOP MOUNTED

BOTTOM MOUNTED

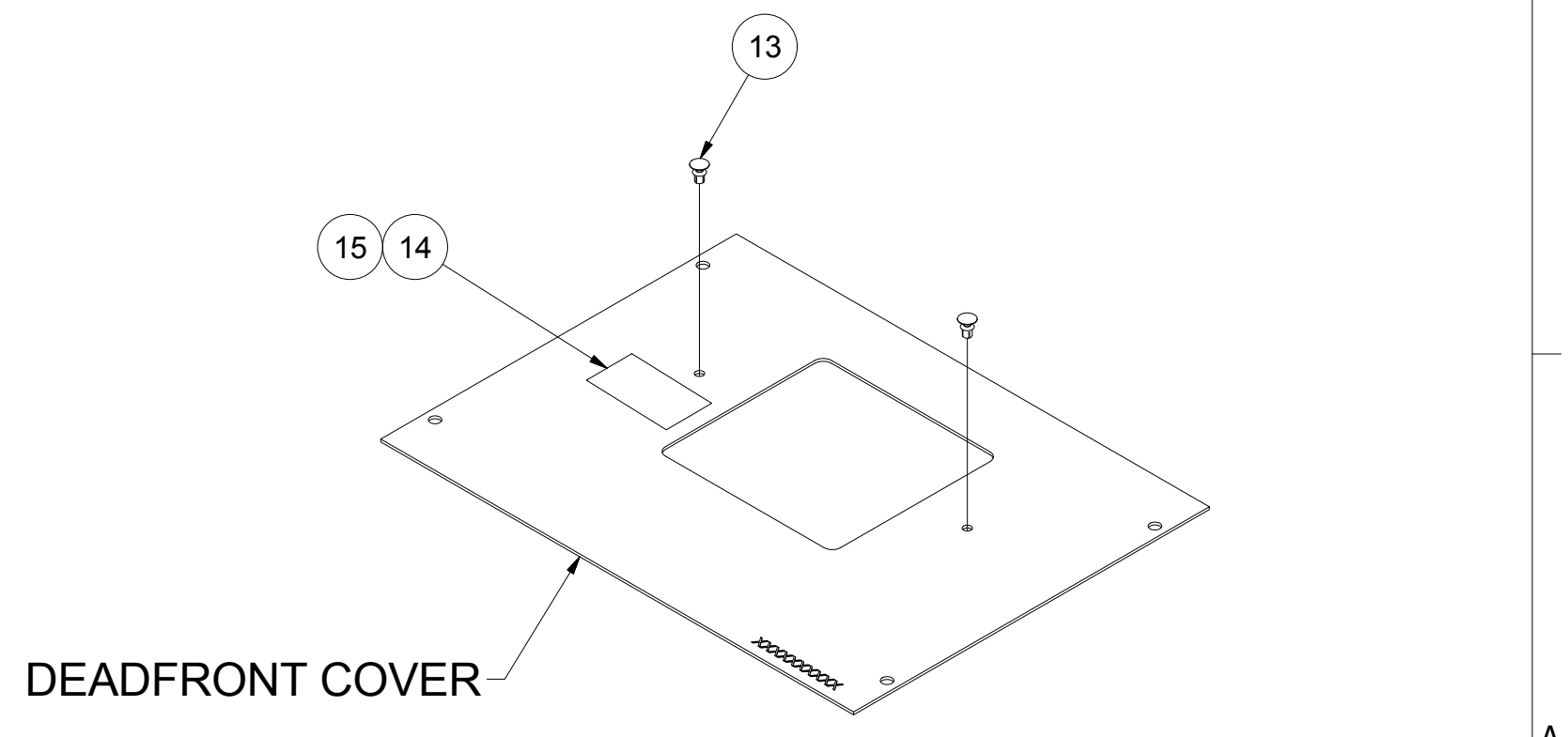
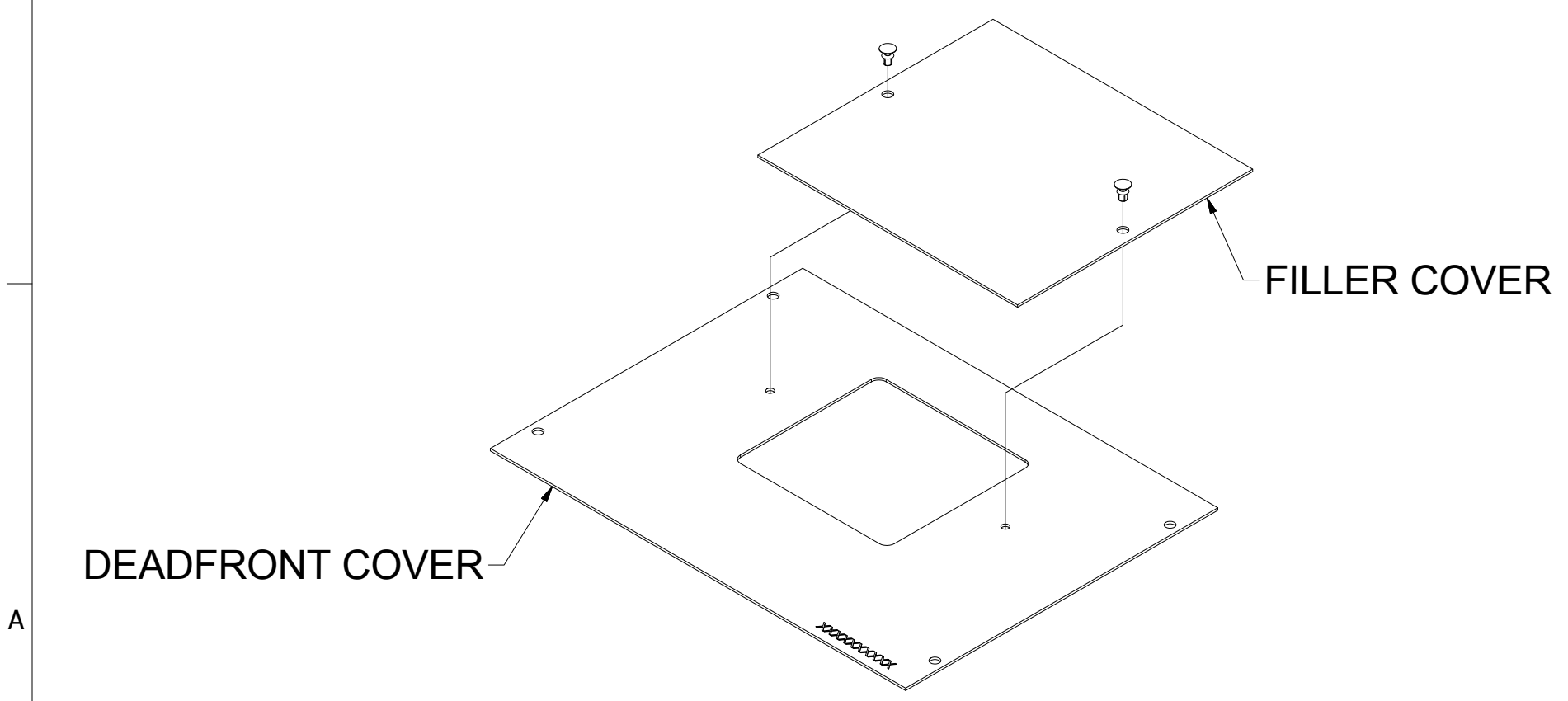


BREAKER FRAME	AMPS (MAX)	"A"
F	100A	8.00
F	225A	9.00



1 OMIT B PHASE TERMINAL FOR SINGLE PHASE APPLICATIONS

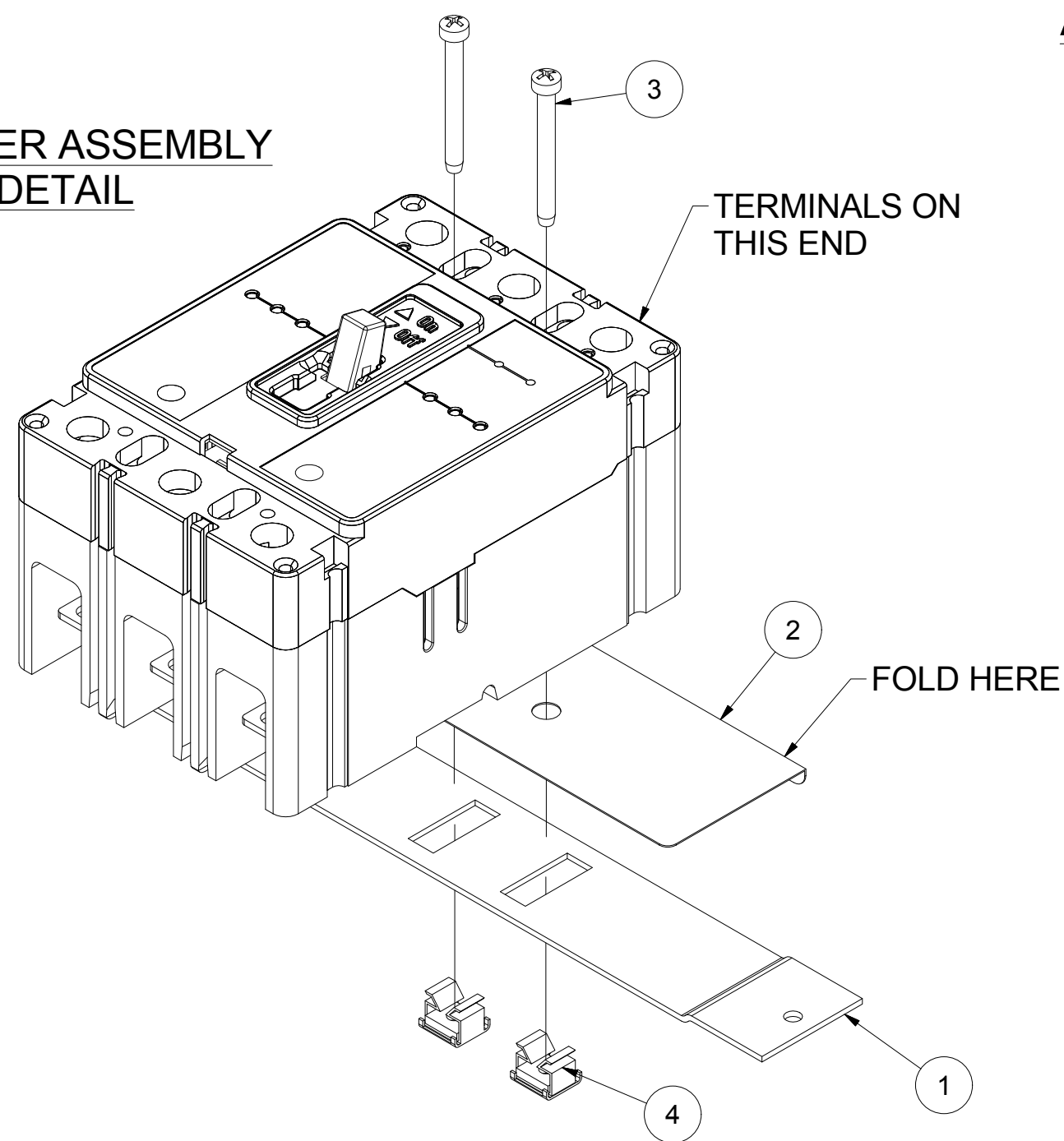
FIGURE 3



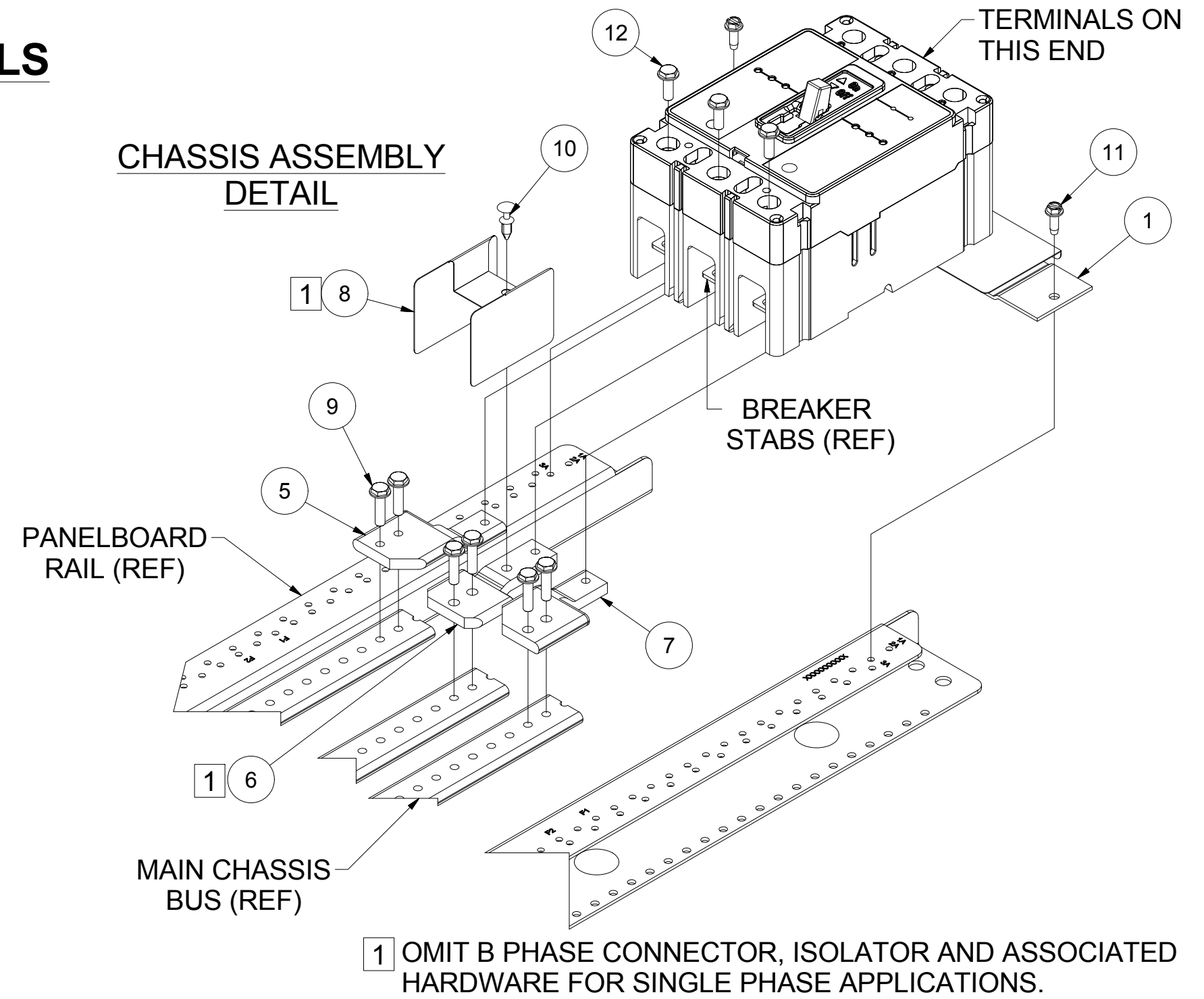
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		TYPE STANDARD	UNLESS SPECIFIED TOLERANCES PER 5078A01	SHEET 4 OF 5

TOP MOUNTED ASSEMBLY DETAILS

BREAKER ASSEMBLY DETAIL

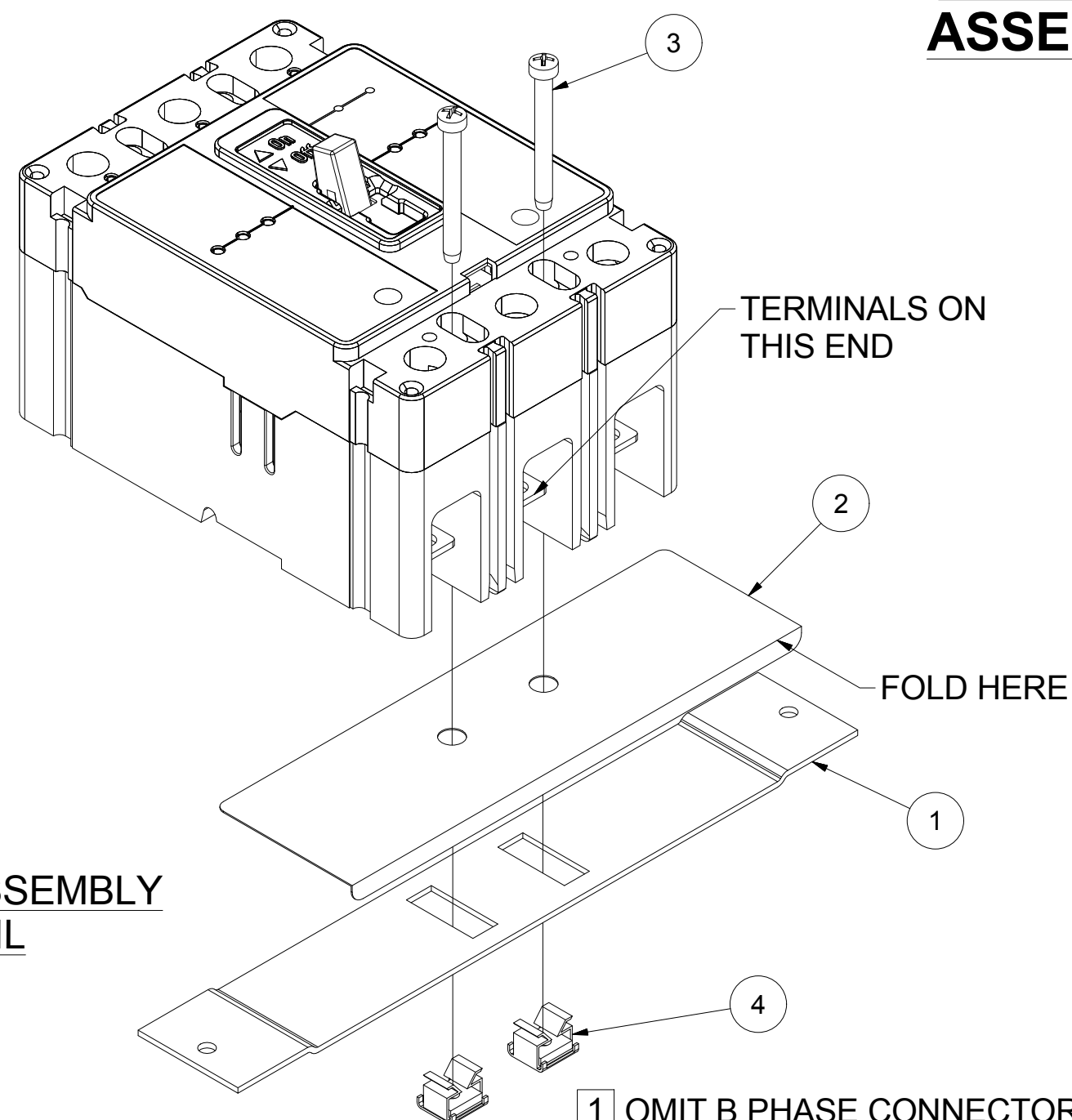


CHASSIS ASSEMBLY DETAIL

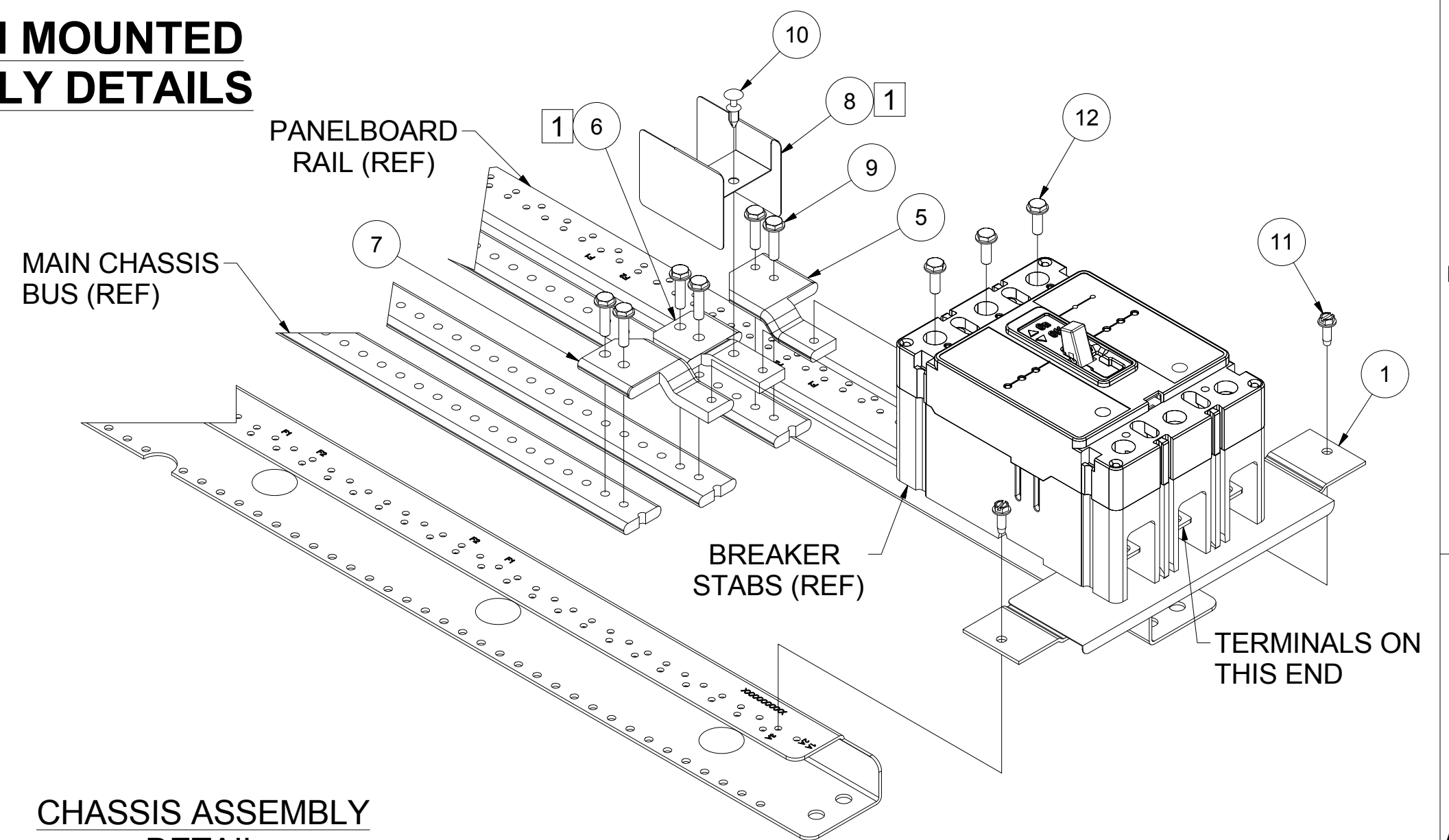


BOTTOM MOUNTED ASSEMBLY DETAILS

BREAKER ASSEMBLY DETAIL



CHASSIS ASSEMBLY DETAIL



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

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