

## Switchboard/Power Panel Kit NG1D for Branch Mounting Type VL N Frame Breakers

### Installation Instructions

9. Reference fig. 9 - Installing the Branch Neutral Lug (item 2) in a Switchboard. The Branch Neutral is located at the bottom of the "Z-rails", or mirrored at the top depending upon the feed cable location. Two (2) different Neutral lug assemblies are included in the kit, be sure to install the type pictured below. The Neutral lug assemblies can be mounted, as shown, on either side of the Branch Neutral depending on cable feed location. Torque all hardware as specified on the rear of the deadfront.

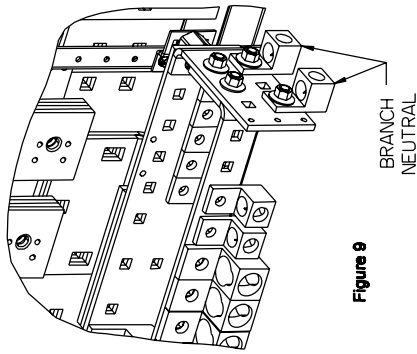


Figure 9

10. Re-install the deadfront using one of the breaker cover plates supplied with this kit. For Thermal Magnetic Trip Unit (TMTU) type breakers, use the cover with a single cut-out. For Electronic Trip Unit (ETU) type breakers, install the cover with "T" cut-out. Other filler plates may be required for proper fit. See filler plate kits listed on the rear of the deadfront.

## Installation Instructions

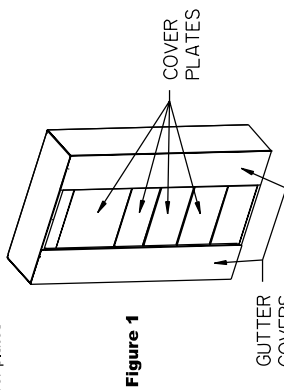
The following instructions are for the installation of Siemens VL N Frame breakers in switchboard or deep type panelboards. This kit will require 10" of unit space. The parts provided in this kit are for connections to a 3 phase / 3 wire or 3 phase / 4 wire system.

**⚠ DANGER**

**Hazardous voltage. Will cause death or serious injury.**

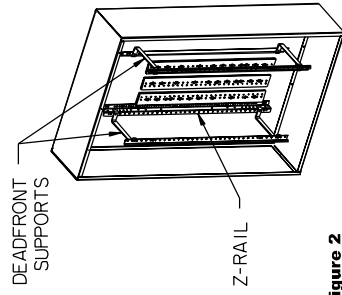
**Keep out. Qualified personnel only. Disconnect and lock off all power before working on this equipment.**

1. Lock off power supplying this equipment before working on it.
2. Reference fig. 1 - Remove the (2) gutter covers and all cover plates.



**Figure 1**

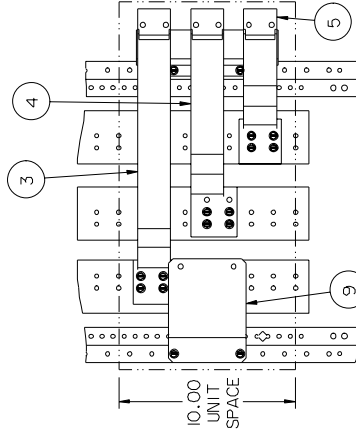
3. Reference fig. 2 - To mount a VL N Frame breaker, 10" of empty unit space is required. To locate the mounting position, measure from the top deadfront support to the top of the empty unit space filler on the deadfront. Transfer this dimension from the deadfront support along the Z-rail and mark. This will be the unit space as shown on Fig. 4. After marking the Z-rail, remove the deadfront.



**Figure 2**

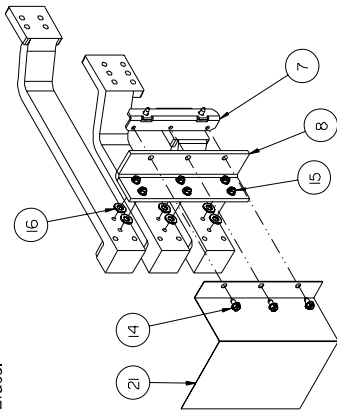
4. Open the shipping box and check the hardware against the following list:

ITEM	DESCRIPTION	QTY.
1	VL N BREAKER INSTALLATION INSTR.	1
2	BRANCH NEUTRAL LUG ASSY	4
3	LONG PHASE CONNECTOR	1
4	MEDIUM PHASE CONNECTOR	1
5	SHORT PHASE CONNECTOR	1
6	STRAP - SECTION BUS HARDWARE KIT	1
7	PHASE BRACKET	1
8	PHASE BRACE	1
9	BREAKER MOUNT	1
10	BRANCH BRKR COVER PANEL	2
11	CARD HOLDER	1
12	CIRCUIT ID CARD	1
13	1/4-20 X 3/8" SHWHSW	2
14	1/4-20 X 1/2" SHWHSW	7
15	1/4-20 X 5/8" SHWHSW	6
16	5/16" WASHER	6
17	5/16-18 X 1-3/8" HHWSW SEMS	6
18	1/4-20 X 3-3/4" SHWHSW	2
19	PACKAGING ASSEMBLY	1
20	HANDLE HOLDER KIT - M/N BREAKERS	1
21	GUTTER BARRIER	1



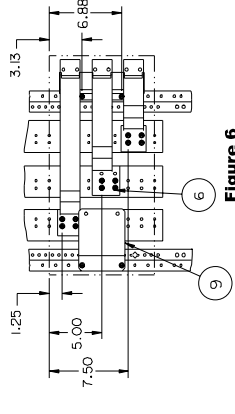
**Figure 4**

5. Reference fig. 5 - Attach the Phase Bracket and Brace. Insert one 1/4-20 X 5/8" (item 15) Screw into each of the two 0.312" diameter holes at the top of the Phase Brace (item 8) and through one 5/16" Washer (item 16) each and then into the corresponding 0.228" diameter holes in the Long Phase Connector (item 3) and tighten. Repeat this step for the Medium and Short Phase Connectors (items 4 & 5) using the remaining 0.312" diameter holes in the Phase Brace.



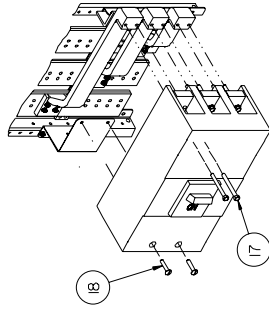
**Figure 5**

6. Reference fig. 6 - Installing the strap assembly. Locate 0.228" diameter holes on each Z-rail 3-1/8" down from the top and 3-1/8" up from the bottom of the empty 10" unit space. Insert one 1/4-20 X 1/2" Screw through each of the 0.312" diameter holes in the Phase Bracket (item 7) and into the selected holes in the Z-rail and tighten. Insert one 1/4-20 X 1/2" Screw through each of the 0.312" diameter holes in the Phase Brace (item 8) with attached straps and into the corresponding three 0.228" diameter holes in the Phase Bracket (item 7) and tighten. Insert one 1/4-20 X 1/2" Screw through each of the 0.312" diameter holes in the Breaker Mount (item 9) and into the selected holes in the other Z-rail and tighten. Insert four 1/4-20 Thread Forming Screws (see the Section Bus Hardware Kit for the proper length) through the 0.312" diameter holes in each Phase Connector and into the 0.228" diameter holes in the corresponding bus and tighten. Torque all hardware as specified on the rear of deadfront.



**Figure 6**

7. Reference fig. 7 - Install an VL N Frame breaker. For a Branch Breaker application, insert two 5/16-18 X 1-3/8" Thread Forming Screws (item 17) through each of the three contacts on the line side of the Breaker and into the 0.284" diameter holes at the end of the three Phase Connectors. Insert two 1/4-20 X 1-1/2" Thread Forming Screws (item 18) into the two 0.69" diameter holes toward the rear end of the Breaker and into the two 0.228" diameter holes in the Breaker Mounting Bracket (item 9) and tighten. Torque all hardware as specified on the rear of the deadfront.

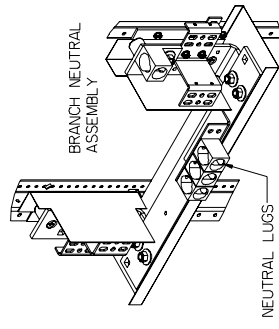


**Figure 7**

**NOTE:** If a Branch Neutral Lug Assembly is NOT Required, skip to Step 10.

**NOTE:** For switchboard applications, skip to Step 9.

8. Reference fig. 8 - Installing a Branch Neutral Lug Assy. The Branch Neutral is located at the bottom of the Z-rails, or mirrored at the top of the Z-rails depending upon the feed cable location. Different VL N Frame Breaker Mounting Kits will come with different quantities of Neutral Lug Assemblies (item 2). The Neutral Lug Assemblies can be mounted, as shown, or any other available hole on either side of the Branch Neutral and oriented depending on cable feed location. Torque all hardware as specified on the rear of the deadfront.



**Figure 8**