

## GENERAL METER REQUIREMENTS

The following are general requirements only, we encourage you to consult with Engineering or the Meter Shop before you purchase and install your meter equipment.

### GENERAL PROVISIONS

Grounds: Bond all meter sockets and CT enclosures to your ground in accordance with the National Electrical Code.

Meter Location: Check with Engineering before equipment is installed.

Meters shall be:

- Front (roadside) or side exterior wall of the building within 4' of the front of the building.
- Accessible to PUD personnel on a 24-hour basis.
- Height at 5 ft - 6 ft above finished grade.
- In developments with existing facilities along a rear lot line, verify the meter location with Engineering.
- Other locations will be at the discretion of Franklin PUD.

Non-Residential Underground Services: If underground conductor is customer-owned, you make up service conductor connections in CT can. The PUD will mount CT's and make meter connections.

Single Family Residential Underground Services: The underground service conductor is owned and installed by the PUD. The PUD provides service connections and CT installation in the enclosure.

### SELF-CONTAINED METERING

General – Customer provides the meter base, conduit for line side of meter base, and conductor as outlined below:

- Overhead Entrances - You provide the service wire from the weather head to the line side of the meter base.
- Underground Entrances - The PUD, or you in some cases, may provide the service wires. Check with the PUD Engineer for details.
- Meter sockets should be U.L. approved and meet the requirements of the National Electrical Code.
- Meter socket enclosures:
  - Overhead minimum of 15" H x 8" W x 4.125" D
  - Underground minimum of 15" H x 12" W x 5" D

Single-phase installation, 120/240 volt:

- Class 200 Amp Sockets: Self-contained meter sockets shall be rated 200 amps continuously. **Meter bases with lever actuated jaw clamping or lever bypasses are not acceptable. Meter bases with link by-pass are acceptable for commercial services.** Typical meter sockets meeting PUD requirements include:

Cooper B-Line 204 series (with tension springs on terminals)

Milbank U4517-DL-M4 (overhead)

Milbank U4518-O-W (underground)

For multiple meter applications such as apartments, the customer must provide materials specifications and catalog cut sheets for prior approval. All the meter bases must be clearly marked according to "Meter base Identification Drawings 263.1." In addition, all apartment units must be permanently labeled prior to connection.

Should meter base labeling be incorrect, District personnel will not connect the service until corrections are made. If additional trips are required due to incorrect labeling, the customer will be required to pay actual cost for the additional trip (s) prior to the service being connected.

- Class 320 Amp Sockets: Class 320 Amp sockets may be used for residential services with 40 kW connected heat load. Check with Engineering and the State Electrical Inspector to assure compatibility with available fault current.
- Class 320 Amp sockets shall be rated 320 Amps continuous. Meter socket design shall incorporate a manually installed bypass link. Compression or setscrew type connectors are acceptable. Typical meter sockets meeting PUD requirements include:

Cooper B-Line 324 N (Link Bypass) for overhead or 324C for underground  
Milbank U3548X or U5056-0

Three-phase Installation:

- 120/240 volt delta - Self-contained meters are used up to 160 amps NEC computed load, (200 amp panel), or 60 kW or 60 HP. **Terminate the wild leg on the far-right terminal, C Phase.** Call Engineering if you have any questions.
- 240/480 Three Phase Delta – Terminate the wild leg on the far-right terminal, C Phase
- 277/480 volt wye, 240/ 480 volt delta – Self-contained meter are used through 125kW or 125 HP.
- 120/208 volt wye- self contained meters are used up to 160 amp NEC computed load, (200 amp panel) or 57.5 KW 50 HP.

Self-contained meter sockets shall be rated 200 amps continuously. **Meter bases with lever actuated jaw clamping or lever bypasses are not acceptable.** Manual link & Bypass type meter bases are acceptable. Typical meter socket that meet PUD requirements include:

Cooper B-Line 207 series  
Milbank U4517 (overhead)  
Milbank U4518 (underground)

## CURRENT TRANSFORMER (CT) METERING

### Sockets:

- Single- phase sockets are to be six terminal with space in socket for a test switch. The test switch is provided and installed by Franklin PUD.
- Three-phase sockets are to be thirteen terminal with space in socket for a test switch. The test switch is provided and installed by Franklin PUD
- **Approved Meter Base Sockets for all CT installations should be brought to the Franklin PUD meter shop to be pre-wired and to have the test switch installed.**

The following meter sockets are approved for use.

- 1- phase: six terminal with provision for test switches
  - Cooper B-Line 12146
  - Milbank UC-3436XL (Ring Type)
- 3-phase: thirteen terminal single socket with provision for test switches
  - Cooper B-Line 121413
  - Milbank UC-3433-XL (Ring Type)
- All overhead services with CT metering are required to install a CT compartment. Franklin PUD will not install CT's at the service mast.
- **If an existing service with CT's at the service mast is upgraded or altered the customer is required to install a CT compartment.**

### Current Transformer (CT) Mounting Bases:

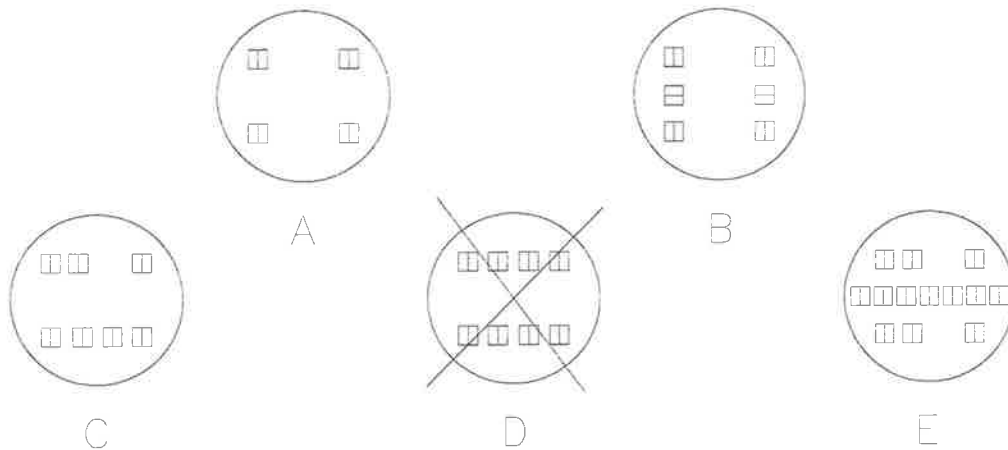
You need to provide a CT mounting base with the necessary continuous and fault withstand ratings.

<u>Type</u>	<u>Continuous Rating</u>	<u>Withstand Rating</u>	<u>Approved Mounting bases</u>
1 - phase	400 A	50,000 A	Cooper B-line 6019 - HA Milbank A4-k4797
1 - phase	800 A	50,000 A	Cooper B-line 6019 - HE Milbank A-k4797
3 – phase	400 A	50,000 A	Cooper B-line 6067 - HA Milbank B4-K4798
3 – phase	800 A	50,000 A	Cooper B-Line 6067 - HE Milbank B –L4798

- Conduit
  - Single-phase – ¾” EMT or Rigid
  - Three-phase – 1” EMT or Rigid
  - Runs need to be less than 50 feet and contain no condulets
  - The PUD installs the CT metering wires

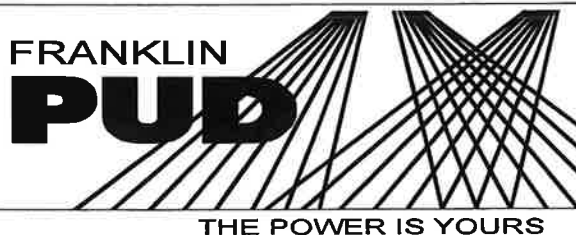
SINGLE PHASE							
		SELF-CONTAINED			WITH CURRENT TRANSFORMERS		
VOLTAGE	WIRES	AMP	NO. CLIPS	SOCKET	NO. C.T.	NO. CLIPS	SOCKET
120/240	3	200	4	A	1 or 2	6	B
120/240	3	320	4	A	-	-	-
240/480	3	200	4	A	-	-	-

THREE PHASE							
		SELF-CONTAINED			WITH CURRENT TRANSFORMERS		
VOLTAGE	WIRES	MAX AMP	NO. CLIPS	SOCKET	NO. C.T.	NO. CLIPS	SOCKET
208/120	4	200	7	C	3	13	E
120/240	3 or 4	200	7	C	3	13	E
240/480	3 or 4	200	7	C	3	13	E
480/277	4	200	7	C	3	13	E



1. THE CUSTOMER PROVIDES AND INSTALLS ALL SOCKETS.
2. THE PUD PROVIDES AND INSTALLS TEST SWITCHES.
3. E SOCKETS NEED TO BE BROUGHT TO THE PUD METER SHOP FOR TEST SWITCH INSTALLATION AND PRE-WIRING BEFORE CUSTOMER INSTALLS.

261\_1.DGN

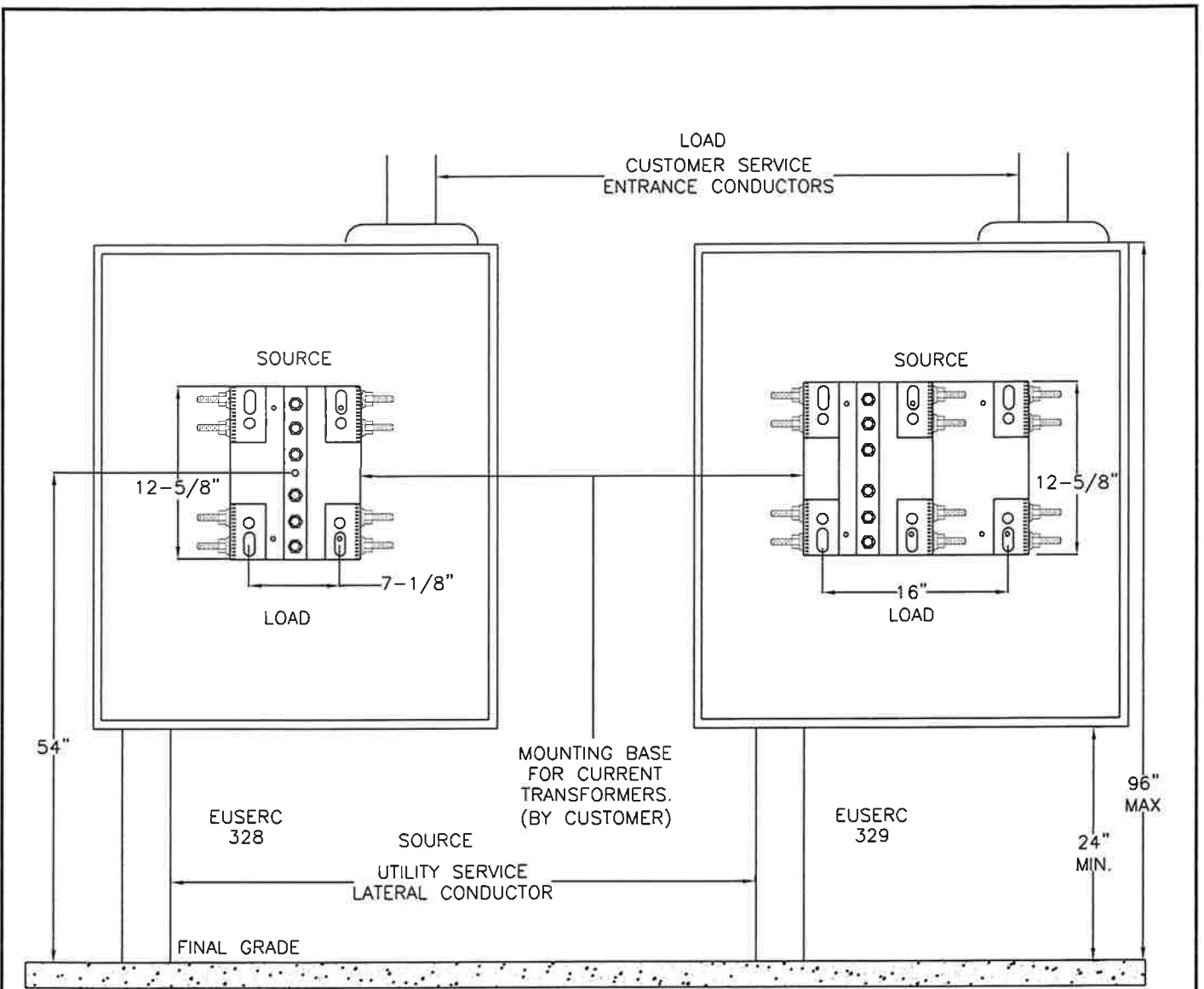


### METER SOCKET CLIP ARRANGEMENT

DWN. DBO/SKH      DATE: 12-26-96      DWG. NO.

APP.

**261.1**



PHASE	AMPACITY	ENCLOSURE SIZE	MODEL NUMBER
1 $\phi$	201-800	24x48x11 MINIMUM	MILBANK #CT244811-SC COOPER B-LINE #244811 RTCT
3 $\phi$	201-800	30x48x11 MINIMUM	MILBANK #CT304811-HC COOPER B-LINE #304811 HRTCT

SWITCHBOARDS SHALL BE USED ON SERVICE 801 AMPERES AND ABOVE.

262.1.DWG



**CURRENT TRANSFORMER (C.T.)  
ENCLOSURE REQUIREMENTS**

DWN. N. RUMMEL	DATE: 12/95 12/11	DWG. NO.
APP. B. WYATT		262.1

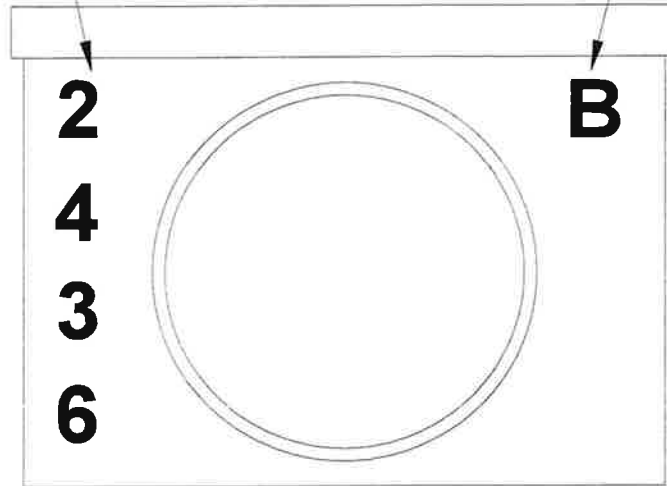
## CURRENT TRANSFORMER (CT) ENCLOSURE REQUIREMENTS

NOTES: (Consult the PUD regarding any exceptions to these requirements.)

- Consult the PUD for available fault current before purchasing mounting base.
- Cover needs to be raintight.
- 30 x 48 x 11 enclosure and mounting base.
- PUD will provide and install CT's.
- Customer provides and installs enclosure and mounting base.
- Maximum of two (2) load conductors per phase without prior PUD approval.
- The PUD will provide and install source side connectors for residential applications.
- **The customer will provide and install both source and load side connectors for commercial and irrigation applications.**
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- Check with the PUD for alternate conduit locations.
- Only conductors associated with metering or grounding are permitted in the current transformer enclosure. No connections may be made in any current transformer enclosure to supply any other meter.
- Consult with the PUD on CT compartment location. If possible, the meter base is to be located within 25 feet of CT compartment. No condulets or junctions are allowed in meter conductor conduit. More than 270° in bends is not acceptable.
- When current transformers or other equipment are installed in a location where it might be struck by a motorized vehicle, the customer is to install and maintain PUD approved barrier posts to protect the equipment.
- Customer service entrance conductors in CT compartment need to be left with at least a 6-foot tail.
- **All overhead services with CT metering require a CT compartment. Franklin PUD will not install CT's at the service mast.**
- **If an existing service with CT's at the service mast is upgraded or altered the customer is required to install a CT compartment.**

ADDRESS NUMBER

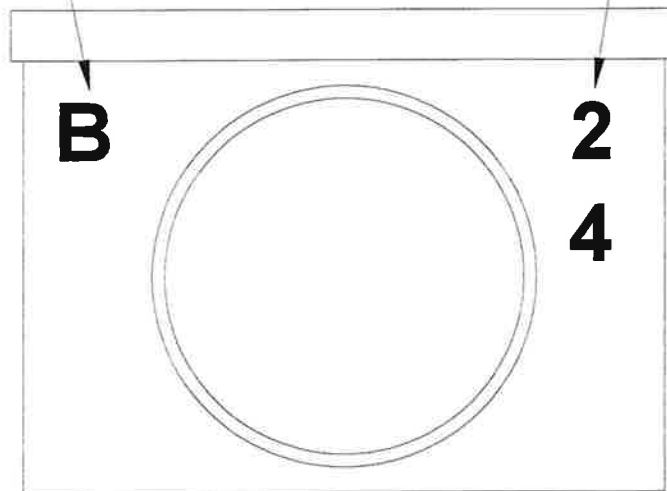
APT. OR UNIT LETTER



OR

BUILDING LETTER

APT. OR UNIT NUMBER



ALL MULTIPLE METERBASE INSTALLATIONS NEED TO BE APPROPRIATELY LABELED PRIOR TO CONNECTION OF SERVICE. ACCEPTABLE MARKING METHODS ARE SHOWN ABOVE.

LETTERS AND NUMBERS ARE TO BE A 1" MINIMUM HEIGHT, SECURELY FASTENED TO THE METERBASE BY SCREWS, RIVETS OR WATERPROOF ADHESIVE.

263\_1.DGN



### METERBASE IDENTIFICATION

DWN.  
D. OBERLANDER  
APP.

DATE:  
1-13-97

DWG. NO.

263.1