

CONTACTS, GUIDELINES FOR COMMERCIAL METERING

Electricians working on commercial projects and projects requiring CT metering must coordinate the project with United Power's metering personnel. The following positions at United Power are responsible for commercial metering.

1. Meter and Special Equipment Foreman 303-637-1326
2. Meter and Special Equipment Superintendent 303-637-1239

Single-phase self-contained (straight) metering may be used up to and including 400-amp service. Any service above 400 amps requires CT metering. 400-amp self-contained meter bases are available from United Power. Please contact the United Power Warehouse, telephone 303 637-1226.

Three-phase self-contained (straight) metering may be used up to and including 200-amp service. Any service above 200 amps requires CT metering.

If the project has cold sequencing, the customer is responsible for the initial installation, operation, and any required maintenance, repair, and/or replacement of disconnect gear, fuses, or breakers from the point of connection in the secondary compartment of the United Power electric transformer.

CT Metering:

United Power shall provide the meter base and the CTs for CT metering. Electricians must call the Meter and Special Equipment Foreman or Superintendent to schedule pick up of meter base and CTs at United Power.

Standard CTs provided by United Power are bar-type, outside hole to outside hole, approximately 11 inches, commonly two-hole, top and bottom, slotted hole on inside. Any variation will be a special order, which takes approximately six weeks for delivery. Electrician must advise United Power in advance to avoid delay in acquisition of CTs.

Slip over buss CT's: maximum buss width is 4 ¼ inches, maximum thickness is ¾ inch.

Customer shall provide the CT cabinet and install the meter base and CTs.

The meter base and CTs shall not be mounted on the transformer. Meter bases must be mounted 5 feet 6 inches to the center of the meter base above the ground on an exterior wall of a building for easy access by United Power personnel 24 hours a day, seven days a week. The CT cabinet may be on either exterior or interior walls, but must be accessible to United Power upon request. Maximum acceptable length between meter base and CT cabinet is 100 feet with a maximum of three 90 degree turns in the one-inch conduit. Coordinate exact location with United Power meter department personnel.

Meter Raceway: Customer shall provide and install a 1-inch conduit from the CT cabinet to the meter base. United Power will wire between the CT cabinet and meter base. Electrician must call United Power's Meter and Special Equipment Foreman to schedule wiring.

A maximum of eight conductors per phase, maximum size of 1000 MCM copper, shall be permitted in the secondary compartment of the transformer. If more and/or larger conductors are specified, the customer shall furnish and install a secondary connection cabinet as approved by United Power.

Customer's electrician must trench and install both the secondary conduits and the secondary service conductors into transformer from the meter base, main disconnect, or CT cabinet. United Power will **NOT** trench or hand dig to install any facilities on the secondary side of the transformer.

Customer's electrician must schedule with the Meter and Special Equipment Superintendent to open the transformer for electrician to pull in secondary service conductors from the meter base, main disconnect, or CT cabinet. Call the Meter and Special Equipment Superintendent at 303-637-1239.

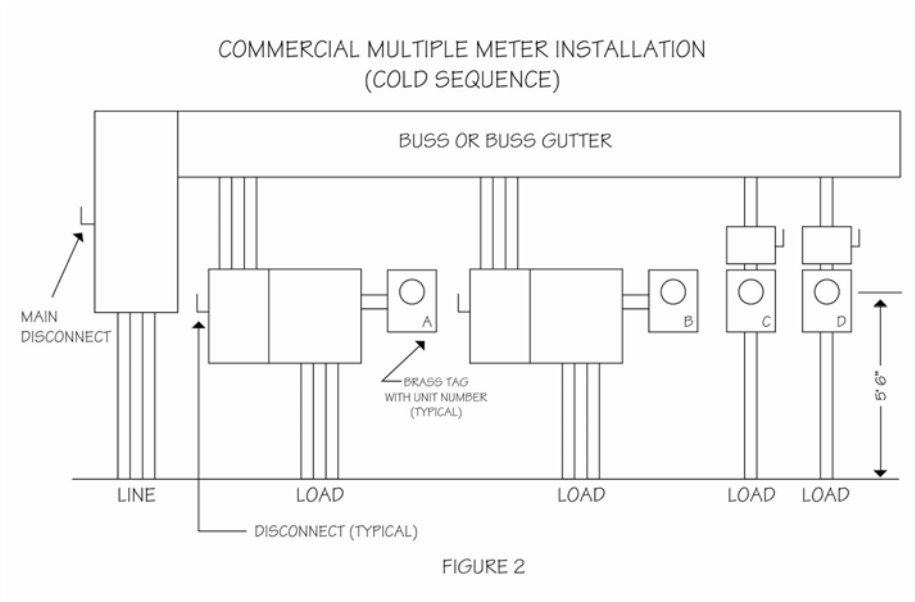
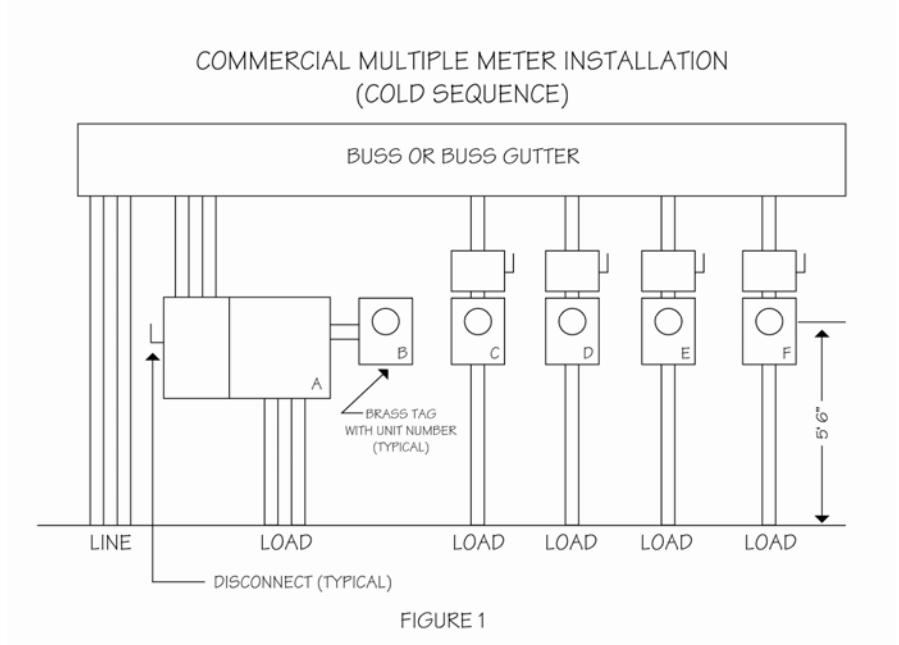
Commercial buildings (including apartment buildings) having two or more meters must have each meter base identified with a brass tag showing the unit number or address. The Customer's electrician shall also provide a drawing of the building showing BOTH the location of each unit AND the configuration of the meter bases on the building. (See Figures 1 & 2)

United Power requires multiple meter install verification: The customer's electrician must call the United Power automated construction number, (303)637-1323, and provide contact information for a representative that will meet with United Power on site when meters are ready to be set and verify that each meter serves the individual unit identified by the respective brass tag.

Cold Sequencing (individual disconnect on the line-side of the meter) is required for all installations with two or more electric meters, one or more of which requires CT Metering. (See Figure 1)

A main disconnect is required if all individual disconnects are not installed at the time of the initial set of the first meter. (See Figure 2)

A main disconnect and individual Cold Sequencing are required for all installations where two or more electric service entrances or buildings are to be served by one Utility electric transformer. (See Figure 2)



Finally, electricians shall schedule terminations and connection of service wires to the transformer. Termination must be scheduled after inspection and approval of the service by the electrical inspector. Electricians must provide wire size and number of runs to be terminated. Please fax the attached form to the Meter Shop at 303-659-2172, to the attention of the Meter and Special Equipment Superintendent. Terminating and energizing of service shall be completed by the end of the fifth business day following receipt by United Power of inspection release.