

## Important Information About Your New E-Mon Product

www.emon.com  
info@emon.com

**E-Mon D-Mon®**  
Metering Products & Systems

E-Mon is committed to producing and delivering quality products in appearance and performance. That is why our meters are covered with a limited warranty against defects in workmanship and material. (See below for details.)

If you have questions, we can handle them quickly and effectively with a telephone call. Please let us try to help you by phone, BEFORE you remove your E-Mon product. Call our technical department at (800) 334-3666 between the hours of 8:00 am and 7:30 pm, eastern time. To help us help you, please have all relevant information on hand (model or part numbers, nature of difficulty, etc.) when you call.

### Limited Warranty

Subject to the exclusions listed below, E-Mon will either repair or replace (at its option) any product that it manufactures and which contains a defect in material or workmanship. The following exclusions apply:

1. This limited warranty is only effective for a period of five (5) years following the date of manufacture when installed in accordance with manufacturer's instructions by qualified personnel.
2. E-Mon must be notified of the defect within ninety (90) days after the defect becomes apparent or known.
3. Buyer's remedies shall be limited to repair or replacement of the product or component which failed to conform to E-Mon's express warranty set forth above.
4. Buyer shall be responsible for all freight costs and shall bear all risk of loss or damage to returned goods while in transit.
5. This limited warranty does not cover installation, removal, reinstallation, or labor costs, and excludes normal wear and tear. Buyer shall provide labor for the removal of the defective component or item and installation of its replacement at no charge to E-Mon.
6. This limited warranty does not cover any product if: (i) a product is altered or modified from its original manufactured condition, (ii) any repairs, alterations or other work has been performed by Buyer or others on such item, other than work performed with E-Mon's authorization and according to its approved procedures; (iii) the alleged defect is a result of abuse, misuse, improper maintenance, improper installation, accident or the negligence of any party; (iv) damaged as a result of events beyond E-Mon's control or other force majeure events or (v) used in conjunction with equipment, components, accessories, parts or materials not supplied or approved by E-Mon.
7. This limited warranty is limited to the obligation to repair and replace the manufactured product. This is the sole and exclusive remedy for breach of any warranty. THE TOTAL LIABILITY OF E-MON, FROM ANY CAUSE WHATSOEVER, SHALL BE LIMITED TO THE PRICE PAID FOR THE PRODUCTS OUT OF WHICH SUCH CLAIM AROSE. IN NO EVENT SHALL E-MON BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL, CONSEQUENTIAL OR PUNITIVE DAMAGES (INCLUDING ANY DAMAGE FOR LOST PROFITS) ARISING OUT OF OR IN CONNECTION WITH FURNISHING OF PRODUCTS, PARTS OR SERVICES, OR THE PERFORMANCE, USE OF, OR INABILITY TO USE ANY PRODUCTS, PARTS OR SERVICES, SALE OF OR OTHERWISE, WHETHER BASED IN CONTRACT, WARRANTY, TORT, INCLUDING WITHOUT LIMITATION, NEGLIGENCE, OR ANY OTHER LEGAL OR EQUITABLE THEORY.
8. EXCEPT AS EXPRESSLY PROVIDED HEREIN, E-MON MAKES NO WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED WITH RESPECT TO ANY PRODUCTS, PARTS OR SERVICES PROVIDED BY E-MON INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. PRODUCTS OR COMPONENTS DISTRIBUTED, BUT NOT MANUFACTURED, BY E-MON ARE NOT WARRANTED BY E-MON AND BUYER MUST INSTEAD RELY ON THE REPRESENTATIONS AND WARRANTIES, IF ANY, PROVIDED DIRECTLY TO THE BUYER BY THE MANUFACTURER OF SUCH PRODUCT OR COMPONENT.

## kWh and kWh/Demand MMU-Style Meters

### Installation & Instruction Manual



Dear Valued Customer,

We are pleased that you chose to buy one of our products and want you to be just as pleased with owning it. To be sure that you are 100% satisfied with our products, we provide toll-free technical and sales support Monday through Friday, 8:00 am to 7:30 pm, eastern time, (800) 334-3666. You may also reach us via email at info@emon.com.

Before installing your new E-Mon product, please read the information on the following pages carefully.

We believe that you will find the E-Mon D-Mon<sup>®</sup> meters easy to install and to use for monitoring and evaluating your electrical usage.

If you have questions, we can handle them quickly and effectively with a telephone call. Please let us try to help you by phone BEFORE you remove your E-Mon product. Call our technical department at (800) 334-3666 between the hours of 8:00 am and 7:30 pm, eastern time. To help us help you, please have all relevant information on hand when you call (model or part numbers, nature of difficulty, etc.).

Be sure to forward this manual to the owner after installation is complete so that they may use it as a reference guide when reading the E-Mon D-Mon meters.

Thank you.

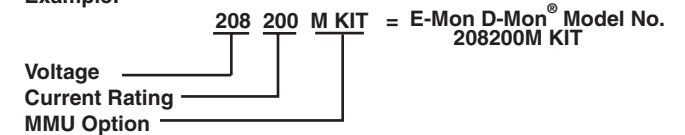
**E-Mon**<sup>®</sup>

## Technical Specifications

For Class 2000 MMU-Style Meters ONLY:

**Ordering Information:** For the meters that will be contained inside the MMU, simply state voltage, current rating and any options required.

**Example:**



**MMUs are available in the following configurations: MMU8, MMU16, and MMU24. When ordering, specify configuration, meters to be contained inside cabinet, and blank spaces (if any).**

**Example:**

|    |              |
|----|--------------|
| 1  | MMU16        |
| 11 | 208200M KIT  |
| 5  | Blank Spaces |

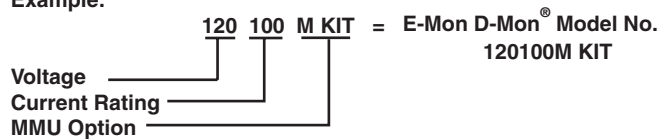
|                                     |  |
|-------------------------------------|--|
| <b>Voltage Input Configuration:</b> | 2-wire, 3-wire and 4-wire<br>This covers all secondary voltage supplies: single-phase, split secondary and three-phase, both grounded and ungrounded.  |
| <b>Voltage Input:</b>               | Up to 600 volts rms AC available   |
| <b>Current Input:</b>               | Up to 3200 amps rms AC available   |
| <b>Power Factor:</b>                | 0.5 leading or lagging   |
| <b>Frequency:</b>                   | 50 Hz to 60 Hz   |
| <b>Accuracy:</b>                    | Certified to ANSI C12.16   |
| <b>Voltage Operating Range:</b>     | +/- 25% of rated voltage   |
| <b>Temperature Range:</b>           | -20 degrees C to +50 degrees C   |
| <b>Voltage Overload:</b>            | +25% continuously  |
| <b>Current Overload:</b>            | Can be overloaded 100% without damaging meter  |
| <b>Display:</b>                     | Fully electronic 8-digit display. Manual reset to zero.  |
| <b>Standard Ranges:</b>             | 120/240 volts; 100, 200, 400, 800, 1600 or 3200 amps<br>115/208 volts; 100, 200, 400, 800, 1600 or 3200 amps<br>277/480 volts; 100, 200, 400, 800, 1600 or 3200 amps<br>Other voltages available as options. |
| <b>High-Voltage Metering:</b>       | Contact E-Mon's technical department for 2300V, 4160V and higher voltage applications, (800) 334-3666.   |

## Technical Specifications

For Class 1000 MMU-Style Meters ONLY:

**Ordering Information:** For the meters that will be contained inside the MMU, simply state voltage, current rating and any options required.

**Example:**



When ordering, specify configuration, meters to be contained inside cabinet, and blank spaces (if any).

**Example:**

- 1 MMU16
- 11 120100M KIT
- 5 Blank Spaces

**Voltage Input Configuration:** 2-wire, 120-volt; 2-wire, 277-volt;  
3-wire, 120/208-240-volt

**Current Input:** Up to 200 amps rms AC

**Power Factor:** 0.5 leading or lagging

**Frequency:** 50 Hz to 400 Hz

**Accuracy:** Certified to ANSI C12.1 & C12.16

**Voltage Operating Range:** +/- 25% of rated voltage

**Temperature Range:** -20 degrees C to +50 degrees C

**Voltage Overload:** +25% continuously

**Current Overload:** Can be overloaded 100% without damaging meter

**Display:** Fully electronic 8-digit display. Manual reset to zero.

**Standard Ranges:** 120 volt; 100 or 200 amps  
120/208-240 volt; 100 or 200 amps  
277 volt; 100 or 200 amps

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**This section applies to Class 1000 meters only.**

The E-Mon D-Mon® Class 1000 kWh meter is an electronic meter that is used to monitor electric power to individual loads after the utility meter. **Installation should be performed by qualified personnel and only according to these instructions and all applicable electrical codes.** E-Mon and its representatives assume no responsibility for damage or injury resulting from the improper installation of this meter.

**Check** the rating and configuration on the meter label to ensure it is suitable for the intended service. Meters listed for use on 120-volt services cannot be used on 277-volt services, and vice versa. Class 1000 meters can only be used in single-phase applications.

**Verify** that the meter rating (amperage) is suitable for the intended load. Compare the color of the arrows on the current sensors to the chart below to find the amperage of the current sensors.

| <b>Sensor Arrow Color Code</b> | <b>Sensor Rating</b> |
|--------------------------------|----------------------|
| Brown                          | 100 Amp              |
| Red                            | 200 Amp              |

**Mount** the meter in desired location using the mounting flanges located on the top and bottom of the meter enclosure. Class 1000 meters must be installed indoors, where they will not be affected by the elements.

**Assemble** and install current sensors around conductors to be monitored.

**Note:** The modular jacks located on the meter board are to be used only in conjunction with E-Mon-supplied peripherals. These jacks contain neutral-accessible circuits.

**Chapter 1**  
**Pre-Installation Information**

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**This section applies to Class 2000 meters only.**

The E-Mon D-Mon<sup>®</sup> Class 2000 meter is wired as a single-, dual- or three-element unit that is used to monitor electric power to individual loads after the utility meter. **Installation must be performed by qualified personnel and ONLY according to these instructions and all applicable electrical codes.** E-Mon and its representatives assume no responsibility for damage or injury resulting from the improper installation of this meter.

**Check** the rating and configuration on the meter label to ensure it is suitable for the intended service. Meters listed for use on 120/208 volt services cannot be used on 277/480 volt services, and vice versa.

**Verify** that the meter rating (amperage) is suitable for the intended load. Compare the color of the arrows on the current sensor assembly to the chart below to find the amperage of the current sensors.

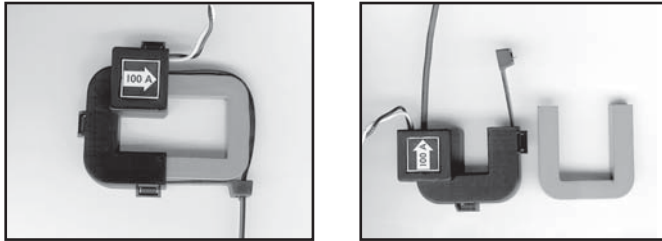
| Sensor Arrow Color Code | Sensor Rating |
|-------------------------|---------------|
| Brown                   | 100 Amp       |
| Red                     | 200 Amp       |
| Yellow                  | 400 Amp       |
| Black                   | 800 Amp       |
| Blue                    | 1600 Amp      |
| Blue                    | 3200 Amp      |

**Mount** the meter in the desired location using the mounting flanges located on the top and bottom of the meter enclosure. The Class 2000 meter must be installed indoors, where it will not be affected by the elements.

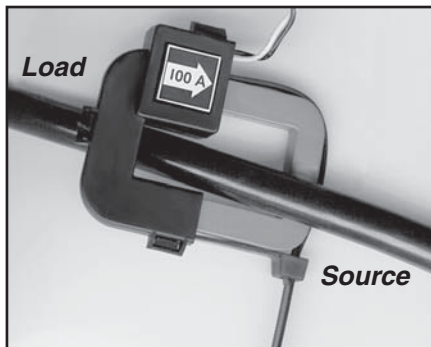
**Assemble** and install the current sensors around the conductors that are to be monitored.

**Note:** The modular jacks located on the meter board are to be used only in conjunction with E-Mon-supplied peripherals. The jacks contain neutral-accessible circuits.

STEP 1: For each phase being monitored you will need one two-piece current sensor assembly. (A single-phase meter will require one (1) assembly; a three-phase meter will require three (3) assemblies.) Open the two-piece current sensor assembly by releasing the nylon clamp using a flathead screwdriver.



STEP 2: Reassemble the current sensor assembly around the conductor(s) to be monitored. Be sure that the current sensor halves marked "load" are both facing the load side of the conductor. The colored arrow will be on the source side of the conductor being monitored and **MUST** be pointed in a clockwise direction around the conductor being monitored. Tighten the nylon clamp to complete the assembly.



**IMPORTANT:** When looking from the source side of the conductor(s) being monitored, you should see the arrow on the current sensor assembly, and the arrow should be pointing clockwise around the conductor(s) being monitored. If the arrow is not on the source side, inaccurate readings will result.

## Chapter 10

### Frequently Asked Questions

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**Q. How do I figure out if my meter is a kWh or a kWh/demand meter?**

A. Your meter has the demand option if its model number contains a "D" (e.g., 208-200-D-M-KIT).

**Q. When providing line voltage to the E-Mon D-Mon<sup>®</sup> meter, can I tap off the same breaker I am monitoring?**

A. Yes, the voltage can be pulled off the same breaker being monitored. The meter draws .025 amps, so the load from the meter will have minimal affect on your readings. (Refer to proper fusing instructions.)

**Q. Can the meter line voltage wires be run in the same conduit as the current sensor leads?**

A. Yes; there will be no effect on the meter if the sensor leads and the meter line voltage wires are run in the same conduit.

**Q. What size wire do I use for the line voltage leads?**

A. These wires are normally #14 AWG, but be sure to check your local electrical codes for proper sizing.

**Q. What size wire do I use to extend the current sensor leads?**

A. These wires are normally 14-22 AWG wire, but consult your local electrical codes for proper sizing. The sensor wires do not have to be twisted, and can be extended up to 2000 feet.

**Q. The load I need to monitor has parallel feeds. How do I install the sensors for this application?**

A. Clamp the sensors around all feed wires for that phase; if the core supplied with your meter is not large enough, contact your local distributor and ask them to order a larger core size for your meter.

**Q. I have two subpanels that I would like to monitor with one meter. These subpanels are fed by different transformers in the building. Can I parallel sensors and monitor both panels with one meter?**

A. No. These panels cannot be monitored by one meter because they are from different power sources. When you parallel current sensors, all loads being monitored must be from the same voltage source.

**Q. I have 5 breakers in one subpanel I would like to monitor with one meter. Can this be done without having to parallel current sensors?**

A. Yes. Simply run all the breaker wires through one set of current sensors. Make sure all A-phase circuits are through the A-phase sensor, and the same for phases B and C. The meter should be sized by the highest amount of current being monitored by one sensor.

**Q. I've gone through the troubleshooting guide and I still can't get my meter to work. What should I do?**

A. Contact E-Mon's technical department at (800) 334-3666 before removing the meter. E-Mon's technical department will help you do detailed troubleshooting of the meter installation in the field and assist you in getting the meter up and running without you having to remove and return the meter.

**Q. How accurate are the E-Mon D-Mon meters?**

A. E-Mon D-Mon meters are certified to ANSI C12.1 metering standards. (+/-1% from 1-100% of the rated load.)

**Q. What are the plugs inside the meter used for?**

A. The plugs inside the meter are used to interface E-Mon D-Mon meters with several available options, including pulse output, D/A output, high-resolution displays and Automatic Meter Reading systems.

**Q. How do I find the cost for kWh to bill my tenants?**

A. Your local utility electric bill should list the cost per kWh; if it does not, give your utility company a call and ask them the cost per kWh.

**Q. I have an existing meter that I would like to interface with my energy management system. Can I field install the pulse output option into the E-Mon D-Mon meter?**

A. Yes. Simply contact your local distributor and order the Pulser option.

## Chapter 3

### Meter Terminal Block Connections

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#### Current Sensor Connections

**STEP 1:** Connect the black and white leads from the current sensor assembly to the meter terminal block. **The current sensor leads can be extended up to 2000 feet using #14-22 AWG wire and do not have to be twisted, but consult your local electrical codes for proper sizing.** When extending the sensor leads, be sure to note what color lead on the extension is connected to the black lead from the sensor, and what color lead on the extension is connected to the white lead from the sensor. **There is no hazardous voltage across the current sensor wires and there will be no damage if the sensor wires are shorted together.**

When connecting current sensor leads to the meter terminal block, it is important to note which phase sensor you bring to each of the terminals, because line voltage inputs must correspond to current sensor inputs. Also be sure that the black wire is connected to the "B" terminal for each phase, and the white wire is connected to the "W" terminal.

**Note:** For further information on current sensor connections, refer to Chapter 4, Wiring Diagrams.

#### Voltage Connections

**STEP 1:** Verify that the voltage supplied to the meter is from the same source as the loads being monitored by the current sensors. Connect the line voltage input wires to the meter terminal block. (See the various installation diagrams in Chapter 4.) **NOTE: LINE VOLTAGE INPUTS MUST CORRESPOND TO THE SAME CONDUCTOR BEING MONITORED BY THE CURRENT SENSOR INPUTS. THE CONFIGURATION SHOWN MUST BE FOLLOWED OR INACCURATE READINGS WILL RESULT.** These wires are normally #14 AWG, but consult your local electrical codes for proper sizing. Voltage input conductors require protection; it is recommended that in-line fuses with a one-amp rating be installed to protect all phases. **Do not connect the voltage wires to the unit while they are live.** Push insulating cover down over meter terminal block. Apply voltage to meter only after installation is complete.

**IMPORTANT:** The line voltage and current sensor inputs must correspond. If the phasing between the voltage and the current sensors does not correspond, inaccurate readings will result. **Note:** Refer to Chapter 4, Wiring Diagrams, for further details.

## Chapter 3

### Meter Terminal Block Connections

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#### Voltage Connections (continued)

**Note:** The line voltage input may be taken from wherever it is most convenient (lugs, another breaker, another subpanel, etc.) as long as it is the same power source as the items being monitored. **Line voltage cannot be pulled from a subpanel powered from a different transformer than the item(s) being monitored.**

**Note:** Push the insulating cover down over the terminal block inside the meter. Apply voltage to meter only after installation is complete.

Refer to Chapter 4, *Wiring Diagrams*, for further details.

## Chapter 9

### Troubleshooting Guide

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The E-Mon D-Mon® meters are calibrated and tested at the factory before being packaged and shipped. If installed properly and in accordance with these installation instructions, your E-Mon D-Mon meter should provide years of trouble-free service. If the meter should not function, the following guide will assist in troubleshooting the installation.

#### PROBLEM:

#### PROCEDURE TO FOLLOW:

- 
- |                             |   |
|-----------------------------|---|
| 1. Display window is blank. | A. Check wiring to voltage terminals.<br>B. Check circuit breaker or fuses.<br>C. Verify that the power is turned on.<br>D. Test source for correct voltage.<br>(Phase-to-phase.) |
|-----------------------------|---|
- 
- |  |  |
|--|--|
| 2. Display shows incomplete figures or numbers other than zeros when power is turned on. | A. Press <i>RESET</i> button located on door inside the meter and hold for 5 seconds.<br>B. Press <i>CPU</i> button on door circuit board. |
|--|--|
- 
- |  |   |
|--|---|
| 3. Display reads all zeros (00000000). | A. Determine if load is sufficient to update the display.<br>B. Check <i>RESET</i> button to be sure there are no wires or other objects pressing against it when the door is closed.<br>C. Check the current sensors for installation and polarity.<br>(See Chapter 2 for instructions.)<br>D. Be sure the current and voltage inputs have the proper phase relationship. (See Chapter 4.)<br>E. Check wiring to voltage terminals.<br>F. Check circuit breaker or fuses.<br>G. Test source for correct voltage. |
|--|---|
- 
- |  |   |
|--|---|
| 4. Display reads only a fraction of the power consumption. | A. Check the supply voltage to be sure that it is on continuously 24 hours a day.<br>B. Check the current sensor installation and polarity.<br>(See Chapter 2 for instructions.)<br>C. Check sensor wiring to the terminal strip in meter (color coding W & B). |
|--|---|

## Chapter 8 Meter Display Setup

This section applies **ONLY** to Class 2000 meters with the demand option.

### STEP 1: Date Setting

00-00-00

Press the *Mode Select* button and the display screen to the left will appear. The date is entered MM-DD-YY. A zero will proceed a single-digit entry. Using the *Up* and *Down* buttons, enter the correct numbers. After

entering the correct number in the first set of digits, press the *Mode Select* button to move to the next set of digits. When completed, pressing the *Mode Select* button will advance the display to the next screen.

### STEP 2: Day-of-Week and Time Setting

05 09-25

The first section of the next screen calls for the entry of the recent day of the week. Using the *Up* and *Down* buttons, enter "1" for Sunday, "2" for Monday, "3" for Tuesday, "4" for Wednesday, "5" for Thursday, "6" for

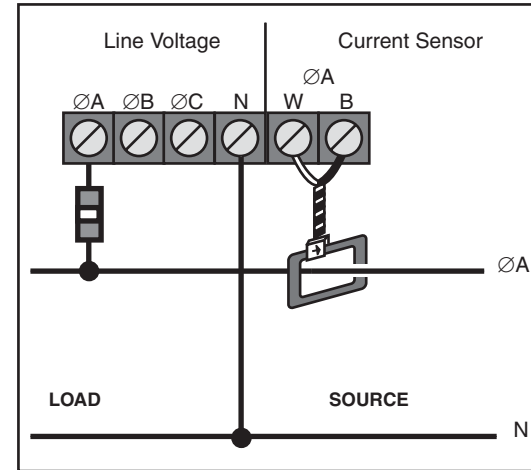
Friday, or "7" for Saturday. This is important so the meter can automatically keep track of daylight savings time. Using the *Mode Select* button, move to the next field where the hour is entered with the *Up* and *Down* buttons. Because the meter uses a 24-hour clock, this number will be from 1 to 24, e.g., 2:00 PM = 14. The final field will be the minute display, that can also be entered by pressing the *Up* and *Down* buttons. Press the *Mode Select* button again to move to the final display screen.

## Chapter 4 Wiring Diagrams

This chapter provides you with various installation diagrams depending on your monitoring needs. **Note:** Proper phase relationship between the voltage inputs and the current sensors is critical.

The diagrams on this page apply only to Class 1000 meters.

### Single-Phase, 2-Wire Connection 120-Volt or 277-Volt Single-Phase



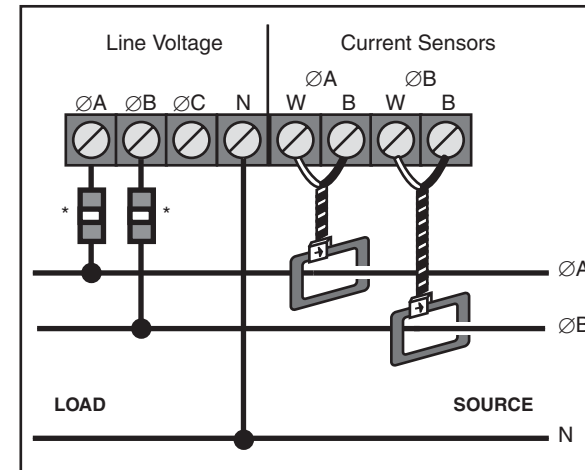
Line voltage connection: #14 AWG

Sensor Connection:  
B = Black  
W = White

\* One-amp inline fuse recommended

**Shorting link MUST be installed on B- & C-phase current sensor terminals.**

### Single-Phase, 3-Wire Connection 120/240-Volt Single-Phase



Line voltage connection: #14 AWG

Sensor Connection:  
B = Black  
W = White

\* One-amp inline fuses recommended

**IMPORTANT:** Line voltage MUST be present at the A- & B-phase voltage terminals.

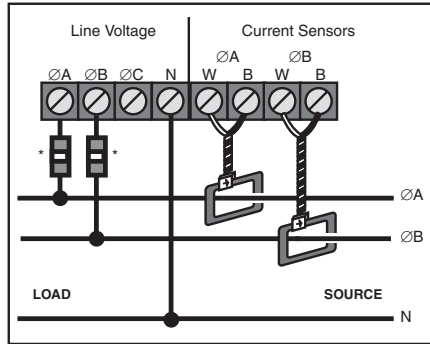
**Shorting link MUST be installed on C-phase current sensor terminals.**

## Chapter 4 Wiring Diagrams

The diagrams on this page apply to all Class 1000 and Class 2000 kWh meters.

### 120/208-Volt, Single-Phase, Three-Wire Connection (Derived from three-phase connection.)

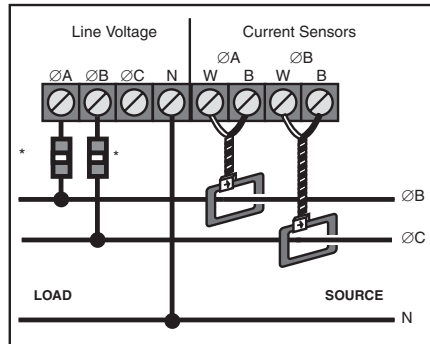
#### Conductors A-B



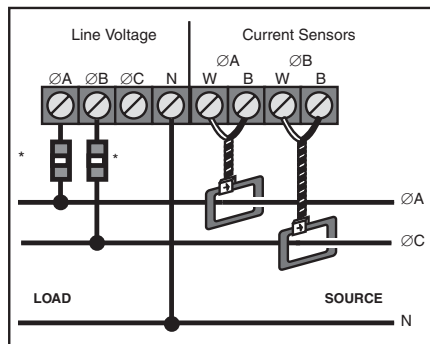
Use the diagram that corresponds to the existing circuit(s) being monitored.

**Note:** The C-phase terminals are NEVER used in the single-phase, three-wire connection.

#### Conductors B-C



#### Conductors A-C



## Chapter 8 Meter Display Setup

This section applies to Class 2000 demand meters ONLY.

The demand meter display is set up using the *Mode Select*, *Up* and *Down* buttons located on the display board which is mounted to the meter door. The *CPU Reset* button may also be utilized for certain functions.

When first energized, or after pressing the *CPU Reset* button, the display will appear as the two screens seen below. The display screen on the right indicates the amp size of the meter. The four digits on the right side of this screen indicate the current rating, from 100 to 3200 amps.



Once the meter has been installed and energized, follow the display setup as outlined on the next page.

## Chapter 7 Meter Display Features

This section applies **ONLY** to Class 2000 meters with the demand option.

If you selected the demand option for your Class 2000 meter, your meter's display will have the capability to cycle through four (4) screens: kWh consumed, kW demand, date of demand peak, and time of demand peak.

04-22-02

The date display shows the date of the demand (kW) peak.

12-30

The time display shows the time of the day that the demand peak occurred.



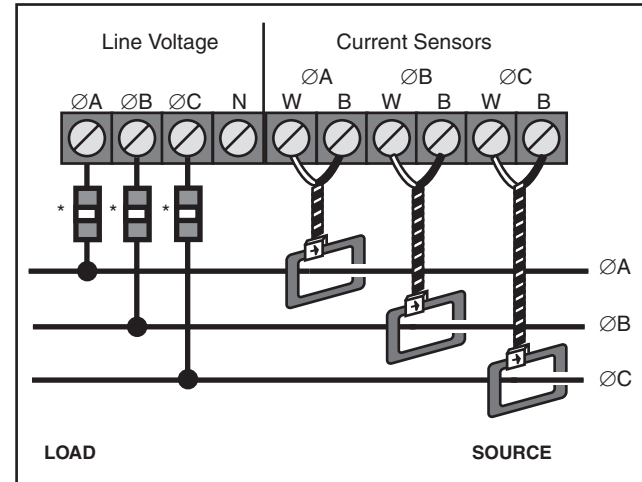
12-30

The low battery indicator will light up in the upper left-hand margin of the display when the battery's capacity drops below 2.4Vdc.

## Chapter 4 Wiring Diagrams

The diagrams on this page apply only to Class 2000 meters.

**Three-phase, three-wire connection (delta system).**  
(In four-wire delta system, NEUTRAL is not used.)

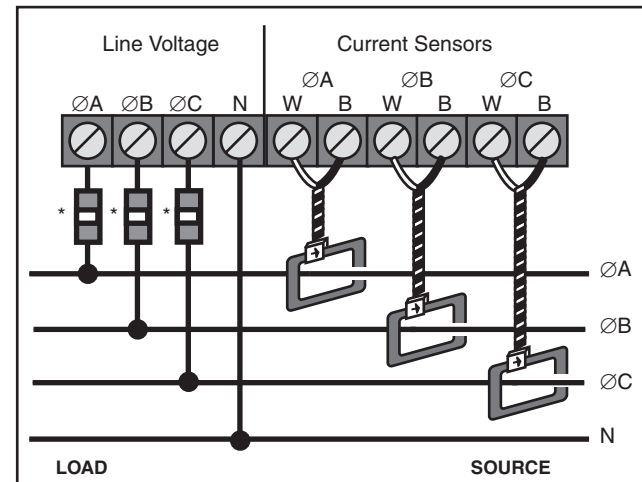


Line voltage connection: #14 AWG

Sensor Connection:  
B=Black  
W=White

\* One-amp inline fuses recommended

**Three-phase, four-wire connection (wye system).**



Line voltage connection: #14 AWG

Sensor Connection:  
B=Black  
W=White

\* One-amp inline fuses recommended



## Chapter 6 Meter Circuit Board Functions

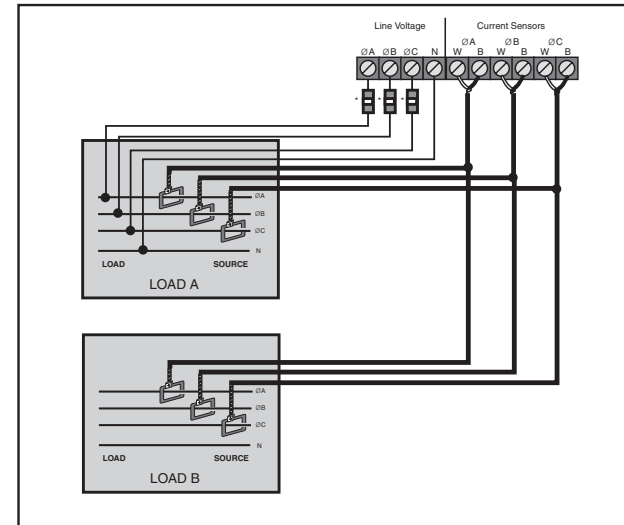
|  |  |
|--|--|
| <b>AMR Jack</b>  | 8-pin RJ-45, used to connect meters to RightEnergy™/IDR Automatic Meter Reading system   |
| <b>Peripheral Jack</b>                                     | 6-pin RJ-11 jack used to interface meter with peripherals such as the P2 Pulser or the D/A converter   |
| <b>Check Sensor LED</b>                                    | When lit, indicates that the current sensor is backwards or on the incorrect phase   |
| <b>Meter Pulse LED</b>                                     | Blinks to show meter load. Blink rate increases with load.   |
| <b>Power On LED</b>  | When lit, indicates power to meter is on   |
| <b>Real-Time Load Push Button</b><br>(Up in demand option) | Press <i>Up</i> once and wait 6 seconds to display present load in kW; press again to return to standard kWh display (update is not instantaneous). Used when adjusting time and date for meter display for demand option. |
| <b>Reset Push Button</b>                                   | Press <i>Reset</i> to reset display to zero  |
| <b>CPU Reset Push Button</b>                               | Press <i>CPU</i> to test display. Shows "88888888" then amp rating of meter; <b>to be used by field service personnel ONLY.</b>  |
| <b>CPU Active LED</b>                                      | LED D1 blinks to indicate that the CPU is active and operating. One blink per second indicates normal operation.   |
| <b>Mode Select Push Button</b><br>(Demand only)            | Used to select adjustment mode when setting up the meter (clock adjust, date adjust, input select).  |
| <b>Down Push Button</b><br>(Demand only)                   | Used when adjusting time and date for meter display.   |
| <b>DIP Switch</b>  | Set by factory to match meter with supplied current sensors. <b>Must not be changed by installer or user.</b>  |

## Chapter 5 Monitoring Multiple Loads with One Meter

This section applies only to Class 2000 meters.

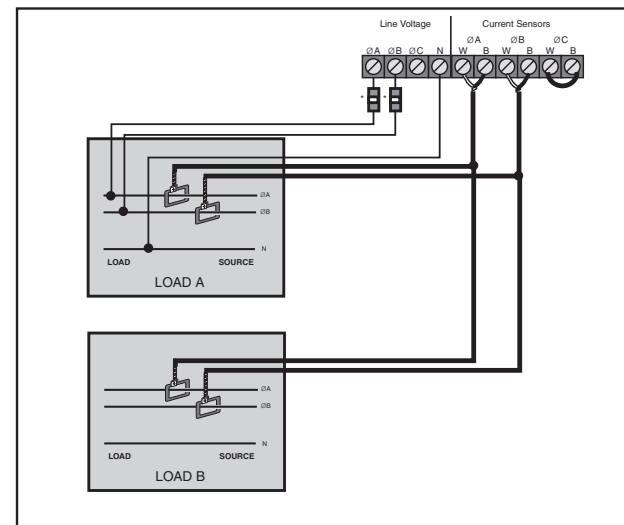
### Parallel Current Sensor Wiring Diagrams

#### Monitoring two three-phase loads



When reading the E-Mon D-Mon® meter, be sure to multiply the meter reading by the number of sets of sensors in parallel.

#### Monitoring two two-phase loads



#### IMPORTANT!

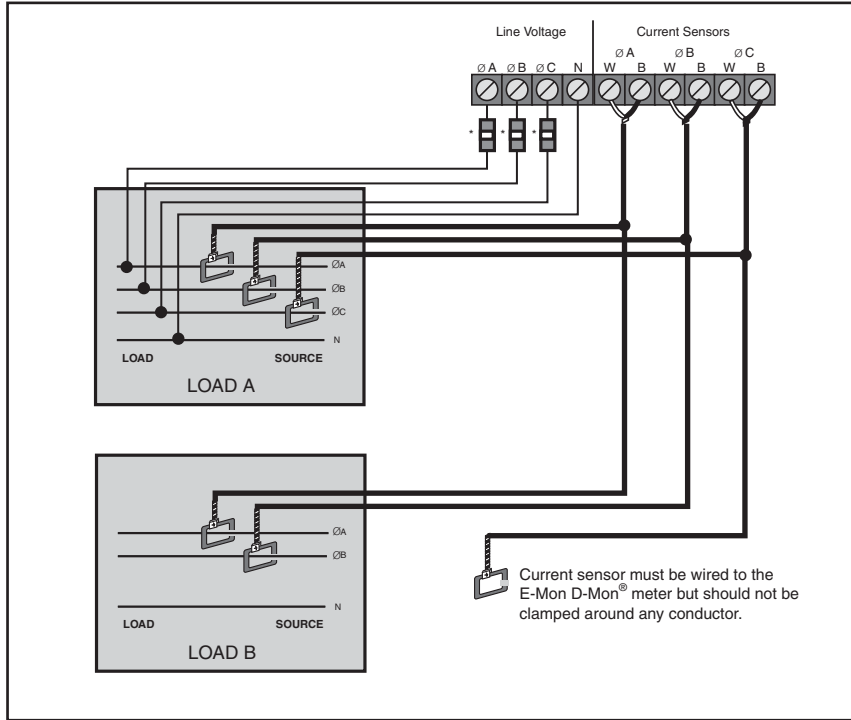
Line voltage MUST be provided to the A & B line voltage terminals in the E-Mon D-Mon meter. (You cannot bring power to only the B & C phases, or only the A & C phases.)

Shorting link must be installed on the C-phase current sensor terminals.

## Chapter 5 Monitoring Multiple Loads with One Meter

This section applies only to Class 2000 meters.

### Monitoring one three-phase load and one single-phase load



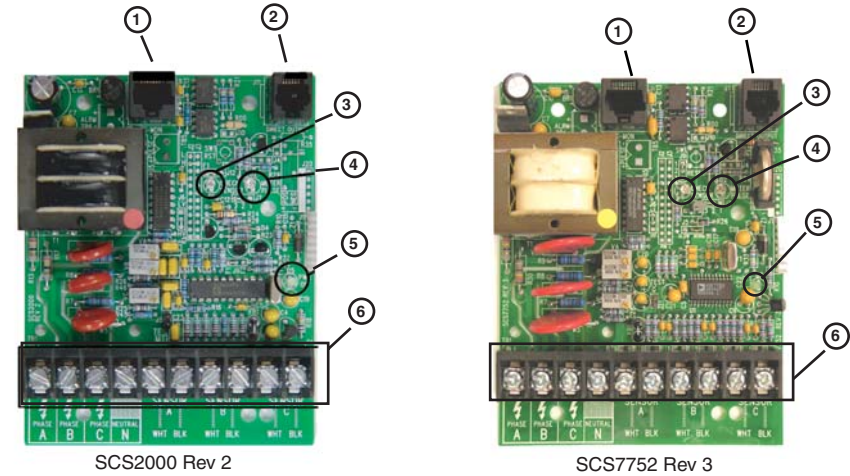
**Note:** Three-phase line voltage **MUST** be provided to the E-Mon D-Mon meter. When reading the E-Mon D-Mon meter, be sure to multiply the meter reading by the number of sets of sensors in parallel.

**IMPORTANT:** Current sensors **MUST** be installed in complete sets of three (3); bring the third sensor into the terminal block at the meter but do not clamp the actual sensor assembly around any conductors or the neutral.

For other applications contact E-Mon's technical department, toll-free, at (800) 334-3666.

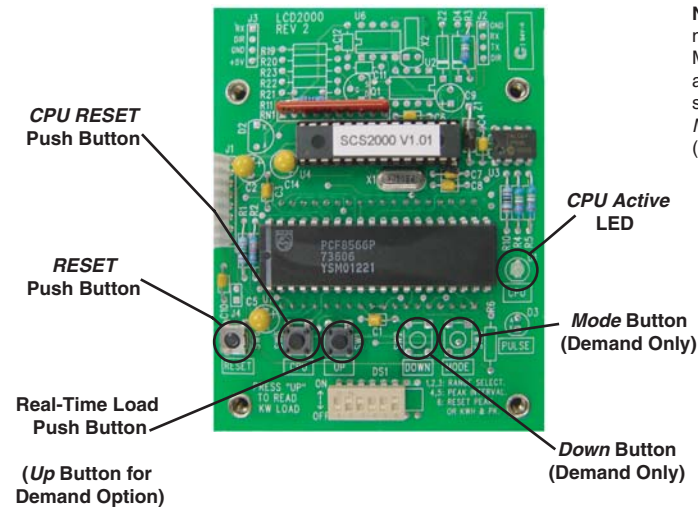
## Chapter 6 Meter Circuit Board Functions

Main circuit board located inside meter enclosure:



1. AMR Jack
2. Peripheral Jack
3. Check Sensor LED
4. Meter Pulse LED
5. Power On LED
6. Meter Terminal Block  
(Note: Terminals 9 and 10 not used in Class 1000 models.)

Circuit board located inside door of meter enclosure:



(front of cabinet)

