

***** READ CAREFULLY BEFORE PROCEEDING *****

E-Mon Energy Startup Checklist System Type: ☐ IDR/Smart Meters ☐ Multi-Mon

The following items must be COMPLETED AND INITIALED by the appropriate party before a technician can be scheduled for a site visit to perform the final checkout and startup of the E-Mon Energy system. If the following items are not completed/initialed before the final checkout and startup, CHARGES WILL BE ASSESSED based on the E-Mon daily service rate schedule.

- | | Complete | Initials |
|--|--------------------------|----------|
| 1. All meters must be installed and operational | <input type="checkbox"/> | _____ |
| 2. Class 1000 & 2000 meters must be cabled within 500 feet of the IDR. (if applicable) | <input type="checkbox"/> | _____ |
| 3. All IDR/Smart meter cabling must be run and installed (if applicable.) | <input type="checkbox"/> | _____ |
| 4. All IDR/Smart meter RS-485 communication cables must be installed and “wrung out” to ensure their integrity. | <input type="checkbox"/> | _____ |
| 5. RS-485 cabling extending to the computer must be run and “wrung out.” | <input type="checkbox"/> | _____ |
| 6. The software/hardware key and associated cables must be on site with the end user. | <input type="checkbox"/> | _____ |
| 7. The SPECIFIED computer and/or modem/LAN connections (if applicable), including telephone lines must be installed and operating. This includes associated 120V outlets and IP addresses if applicable. | <input type="checkbox"/> | _____ |
| 8. Forms #1-5 (attached) must be completed by the owner/installer and sent to E-Mon. | <input type="checkbox"/> | _____ |
| 9. Send a copy of your utility bill to E-Mon along with completed forms #1-6. Utility bill must include rate and schedule information. | <input type="checkbox"/> | _____ |

NO WORK CAN BE PERFORMED BY E-MON OR ITS REPRESENTATIVES UNTILL ALL OF THE ABOVE ITEMS ARE COMPLETED BY THE OWNERS CONTRACTOR.

THIS SHEET (AND ATTACHED FORMS) MUST BE SIGNED AND RETURNED BY E-MAIL OR FAX TO E-MON. E-MON'S SERVICE DEPARTMENT REQUIRES TWO WEEKS AFTER RECEIPT OF ALL COMPLETED SIGNED FORMS TO PREPARE FOR FINAL CHECKOUT AND STARTUP OF THE SYSTEM. E-MON WILL SCHEDULE THE FINAL CHECKOUT AND STARTUP AS CLOSE TO TWO WEEKS AFTER RECEIPT OF COMPLETED MATERIAL AS IS PRACTICAL.

Name: (print) _____ Signature: _____

To avoid scheduling delays all forms must be returned complete along with utility bill to: E-Mon, Attn: Startup Service, email: CustomerService@Emon.com or fax: (855) 272-8384.

Have questions, please contact E-Mon technical support department Monday through Friday 8:00AM to 7:30PM Eastern Time zone East Coast (800) 334-3666 or West Coast (800) 810-3666

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To be completed by the Electrical Contractor and End User.

This form should be completed by the installer/end user to identify the following:

- (a) Distributor contact information
 - a. Contact
 - b. Number
 - c. State
- (b) Local Manufacture Rep Agency
- (c) Purchase order number
- (d) Name and address of installed equipment (SITE LOCATION)
- (e) Name and address of software user (END USER)
- (f) Name and address of the installer (INSTALLER)
- (g) Purpose of the system (APPLICATION); for example, tenant billing, load profiling etc.
- (h) Distributor Purchase Order Number

A. SITE LOCATION (If multiple site locations, please include a list of each site address.)

Building Name:			
Company Name:			
Address:			
City/State/Zip:			
Contact Name:		Title:	
Phone:	Fax:	E-Mail:	

B. END USER INFORMATION (COMPUTER LOCATION)

Building Name:			
Company Name:			
Address:			
City/State/Zip:			
Contact Name:		Title:	
Phone:	Fax:	E-Mail:	

C. INSTALLER INFORMATION

Building Name:			
Company Name:			
Address:			
City/State/Zip:			
Contact Name:		Title:	
Phone:	Fax:	E-Mail:	

D. APPLICATION: _____

JOB SITE CONDITIONS: ☐ Construction ☐ Finished Office ☐ Other

Special Notes/Comments: _____

E. Distributor Purchase Order number _____

To avoid scheduling delays these forms must be filled out completely!

E-Mon Energy Startup - Computer Information Form #2

To be completed by the End User.

This form should be completed by the end user to ensure seamless integration between the end user PC and E-Mon Energy software. This form also allows E-Mon to recommend any needed changes before the final startup and software training.

1. Manufacturer & Model of Computer: _____ Model: _____
2. Amount of RAM installed on computer: _____ GB
3. Amount of available hard drive space: _____ GB
4. Operating System: ____ Windows 7 ____ Windows 8
5. Communication Method: USB Direct (COM port)_____ Modem_____ Ethernet_____
6. Communication Information
 - a. If a telephone modem (remote) connection is being used, specify remote location's phone number with area code.
(____) _____ - _____
 - b. If an Ethernet (LAN or WAN) connection is being used, specify the following information. If multiple locations, list each one separately. **Note: All IP addresses must be static and port 3000 TCP must be open on all routers or switches.**

Meter Location	Meter TCP/IP	Mask	Gateway

To avoid scheduling delays these forms must be filled out completely!

E-Mon Energy Startup - Utility Rate Structure**Form #3****To be completed by the End User.****If multiple rate structures apply, complete one form for each structure.**

This form should be completed by the end user to specify the parameters in which the IDR(s) meters will calculate demand and the manner in which meter data will be stored. Refer to your utility bill to complete this form.

If you are not familiar with how your utility bill is structured, please check the box at the bottom of this page and attach a copy of your latest utility bill.

The setup on this form applies to: _____ All IDRs/Meters on system
 _____ Specified IDRs/Meters (A-Z)

1. Peak demand calculation (choose one for each)

- a. Peak demand interval: _____ 15 Min (default) _____ 30 Min
 _____ 60 Min
- b. Demand sliding window: _____ 5 Min _____ 15 Min (default)
 _____ Reset
- c. Demand window sync: _____ Internal (default) _____ External

2. Profile Information (choose one for each)

- a. Profiling sample rate: _____ 5 Minutes (36 days of data storage)
 _____ 15 Minutes (72 days of storage) (default)
- b. Collection mode: _____ Flip (keep most recent data) (default)
 _____ Fixed (stop when storage is full)

☐ Don't know (copy of utility bill is attached)

☐ Duplicate utility bill – set up system to replicate utility bill, i.e. periods, rates, etc. Check all that apply below.

_____ Include tax
 _____ Include service fee
 _____ Include other _____

☐ Use flat rate _____

Other Notes/Comments: _____

To avoid scheduling delays these forms must be filled out completely!

E-Mon Energy Startup – IDR, Class 1000 & 2000 Meter Information

Form #4

To be completed by the Installer or End User.

This form should be completed by the installer (with input by the end user) to supply the necessary meter information REQUIRED to complete the final checkout and startup. This information is entered into the system during the software training. One form MUST be completed for EACH IDR in the system.

**** IMPORTANT ** THIS FORM IS THE FOUNDATION OF THE E-MON ENERGY DATABASE. IT IDENTIFIES THE TENANT AND THE METER ASSIGNED TO THAT TENANT. IT IS IMPERATIVE THAT THIS BE COMPLETED ACCURATELY AND COMPLETELY.**

IDR Information

IDR EZ7 Code* (Default 1A & 1B): _____ Serial #: _____
Installation Location: _____ Date: ____/____/____ Time: _____

Meter Information

Note: A "set" of sensors consists of three sensors, one per phase. 6 sensors equals 2 sets on a 3 phase application.

Note: Specify meter type: E=Electric, G=Gas, W=Water,

Note: Meter pulse value applies to products not supplied by E-Mon

Meter #1-Connected to IDR Port 1

Model #	Serial #
Name: (tenant, panel, etc.)	
Address for billing:	
Meter Type:	Meter Pulse Value:
Number of sets of sensors installed on this meter:	Amperage of current sensors:

Meter #2-Connected to IDR Port 2

Model #	Serial #
Name: (tenant, panel, etc.)	
Address for billing:	
Meter Type:	Meter Pulse Value:
Number of sets of sensors installed on this meter:	Amperage of current sensors:

Meter #3-Connected to IDR Port 3

Model #	Serial #
Name: (tenant, panel, etc.)	
Address for billing:	
Meter Type:	Meter Pulse Value:
Number of sets of sensors installed on this meter:	Amperage of current sensors:

** Note to installer: IDR Code's are by default 1A & 1B. Interval Data Recorders "IDR's" with duplicated EZ7 addresses for example two 1A recorder id's will not communicate on the same RS485 network.*

When installing IDR's on the same RS485 set the EZ7 id code (see the IDR manual for complete information) so they do not duplicate what is already been installed on the same RS485 network.

IDR's use dual channel technology so it is necessary to program the EZ-7 address in a way that each recorder blocks out four id's codes. For example, an IDR-8 with an EZ7 id of 1A uses 1A and three additional id codes 1B, 1C, & 1D. Another example an IDR-16 is set to 1A & 1B it also uses 1C and 1D id's. The next IDR-8 on the RS485 network cannot be set to 1C and must be set to 1E otherwise it overlaps the {1A, 1B, 1C, 1D} codes of the previous IDR's four id codes.

Set each IDR as needed block out four codes for each letter used. Blocks are as follows: {1A, 1B, 1C, 1D}, {1E, 1F, 1G, 1H}, {1I, 1J, 1K, 1L}, {1M, 1N, 1O, 1P}, {1Q, 1R, 1S, 1T}, {1U, 1V, 1W, 1X}, {2A, 2B, 2C, 2D}, {2E, 2F, 2G, 2H}, all the way through to 8X may be used.

Meter #4-Connected to IDR Port 4

Model #	Serial #
Name: (tenant, panel, etc.)	
Address for billing:	
Meter Type:	Meter Pulse Value:
Number of sets of sensors installed on this meter:	Amperage of current sensors:

Meter #5-Connected to IDR Port 5

Model #	Serial #
Name: (tenant, panel, etc.)	
Address for billing:	
Meter Type:	Meter Pulse Value:
Number of sets of sensors installed on this meter:	Amperage of current sensors:

Meter #6-Connected to IDR Port 6

Model #	Serial #
Name: (tenant, panel, etc.)	
Address for billing:	
Meter Type:	Meter Pulse Value:
Number of sets of sensors installed on this meter:	Amperage of current sensors:

Meter #7-Connected to IDR Port 7

Model #	Serial #
Name: (tenant, panel, etc.)	
Address for billing:	
Meter Type:	Meter Pulse Value:
Number of sets of sensors installed on this meter:	Amperage of current sensors:

Meter #8-Connected to IDR Port 8

Model #	Serial #
Name: (tenant, panel, etc.)	
Address for billing:	
Meter Type:	Meter Pulse Value:
Number of sets of sensors installed on this meter:	Amperage of current sensors:

Meters 9-16 only apply to IDR-16 Models.

Meter #9-Connected to IDR Port 9

Model #	Serial #
Name: (tenant, panel, etc.)	
Address for billing:	
Meter Type:	Meter Pulse Value:
Number of sets of sensors installed on this meter:	Amperage of current sensors:

Meter #10-Connected to IDR Port 10

Model #	Serial #
Name: (tenant, panel, etc.)	
Address for billing:	
Meter Type:	Meter Pulse Value:
Number of sets of sensors installed on this meter:	Amperage of current sensors:

Meter #11-Connected to IDR Port 11

Model #	Serial #
Name: (tenant, panel, etc.)	
Address for billing:	
Meter Type:	Meter Pulse Value:
Number of sets of sensors installed on this meter:	Amperage of current sensors:

Meter #12-Connected to IDR Port 12

Model #	Serial #
Name: (tenant, panel, etc.)	
Address for billing:	
Meter Type:	Meter Pulse Value:
Number of sets of sensors installed on this meter:	Amperage of current sensors:

Meter #13-Connected to IDR Port 13

Model #	Serial #
Name: (tenant, panel, etc.)	
Address for billing:	
Meter Type:	Meter Pulse Value:
Number of sets of sensors installed on this meter:	Amperage of current sensors:

Meter #14-Connected to IDR Port 14

Model #	Serial #
Name: (tenant, panel, etc.)	
Address for billing:	
Meter Type:	Meter Pulse Value:
Number of sets of sensors installed on this meter:	Amperage of current sensors:

Meter #15-Connected to IDR Port 15

Model #	Serial #
Name: (tenant, panel, etc.)	
Address for billing:	
Meter Type:	Meter Pulse Value:
Number of sets of sensors installed on this meter:	Amperage of current sensors:

Meter #16-Connected to IDR Port 16

Model #	Serial #
Name: (tenant, panel, etc.)	
Address for billing:	
Meter Type:	Meter Pulse Value:
Number of sets of sensors installed on this meter:	Amperage of current sensors:

To avoid scheduling delays these forms must be completely filled in!

E-Mon Energy Startup – Class 3200, 3400, or 5000 Smart Meter Information Form #5

To be completed by the Installer or End User.

This form should be completed by the installer (with input by the end user) to supply the necessary meter information REQUIRED to complete the final checkout and startup. This information is entered into the system during the software training.

SMART METER INFORMATION

Note: A “set” of sensors consists of three sensors, one per phase. 6 sensors equals 2 sets on a 3 phase application.

Note: Specify meter type: E=Electric, G=Gas, W=Water (applies when external input channel is used)

Note: Meter pulse value applies to third party products tied into the Class 3400 expanded feature package (option X) or the Class 5000 INP 1 and INP 2 screw terminals.

Smart Meter EZ7 ID* (default is 1A): _____ (to be programmed by installer)

Model #	Serial #
Name: (tenant, panel, etc.)	
Address for billing:	
INP 1 Meter Type:	Meter Pulse Value:
INP 2 Meter Type:	Meter Pulse Value:
Number of sets of sensors installed on this meter:	Amperage of current sensors:

Smart Meter EZ7 ID: _____ (to be programmed by installer)

Model #	Serial #
Name: (tenant, panel, etc.)	
Address for billing:	
INP 1 Meter Type:	Meter Pulse Value:
INP 2 Meter Type:	Meter Pulse Value:
Number of sets of sensors installed on this meter:	Amperage of current sensors:

Smart Meter EZ7 ID: _____ (to be programmed by installer)

Model #	Serial #
Name: (tenant, panel, etc.)	
Address for billing:	
INP 1 Meter Type:	Meter Pulse Value:
INP 2 Meter Type:	Meter Pulse Value:
Number of sets of sensors installed on this meter:	Amperage of current sensors:

Smart Meter EZ7 ID: _____ (to be programmed by installer)

Model #	Serial #
Name: (tenant, panel, etc.)	
Address for billing:	
INP 1 Meter Type:	Meter Pulse Value:
INP 2 Meter Type:	Meter Pulse Value:
Number of sets of sensors installed on this meter:	Amperage of current sensors:

Smart Meter EZ7 ID: _____ (to be programmed by installer)

Model #	Serial #
Name: (tenant, panel, etc.)	
Address for billing:	
INP 1 Meter Type:	Meter Pulse Value:
INP 2 Meter Type:	Meter Pulse Value:
Number of sets of sensors installed on this meter:	Amperage of current sensors:

Smart Meter EZ7 ID: _____ (to be programmed by installer)

Model #	Serial #
Name: (tenant, panel, etc.)	
Address for billing:	
INP 1 Meter Type:	Meter Pulse Value:
INP 2 Meter Type:	Meter Pulse Value:
Number of sets of sensors installed on this meter:	Amperage of current sensors:

Smart Meter EZ7 ID: _____ (to be programmed by installer)

Model #	Serial #
Name: (tenant, panel, etc.)	
Address for billing:	
INP 1 Meter Type:	Meter Pulse Value:
INP 2 Meter Type:	Meter Pulse Value:
Number of sets of sensors installed on this meter:	Amperage of current sensors:

Smart Meter EZ7 ID: _____ (to be programmed by installer)

Model #	Serial #
Name: (tenant, panel, etc.)	
Address for billing:	
INP 1 Meter Type:	Meter Pulse Value:
INP 2 Meter Type:	Meter Pulse Value:
Number of sets of sensors installed on this meter:	Amperage of current sensors:

** Note to installer: Smart meter EZ7 ID code's are by default 1A. Smart meters with duplicated EZ7 addresses for example two 1A smart meters id's will not communicate on the same RS485 network.*

When installing smart meters on the same RS485 set the EZ7 id code (see the meter installation manual for complete information) so they do not duplicate what is already been installed on the same RS485 network. Always program the EZ-7 id's so that the smart meter id's are consecutive (1A, 1B, 1C, 1D, 1E, 1F, 1G, 1H, 1I, 1J, 1K, 1L, 1M, 1N, 1O, 1P, 1Q, 1R, 1S, 1T, 1U, 1V, 1W, 1X, 1Y, 1Z, all the way through to 8X may be used.

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To avoid scheduling delays these forms must be filled out completely!

Multi-Mon Multiple Circuit Energy Monitor Startup Form #6

Complete one form for each Multi-Mon

IP Address of Multi-Mon (If applicable) _____

Input	Phase A, B, or C	Sensor Amperage	Cable Number	Customer or Panel Name
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				
31.				
32.				
33.				
34.				
35.				
36.				

Record your current sensor inputs 1 – 36 in the tables above. See page eleven for more information.

Important! The High Accuracy Current Sensor (HACS) arrow must point in the direction that the load is flowing.

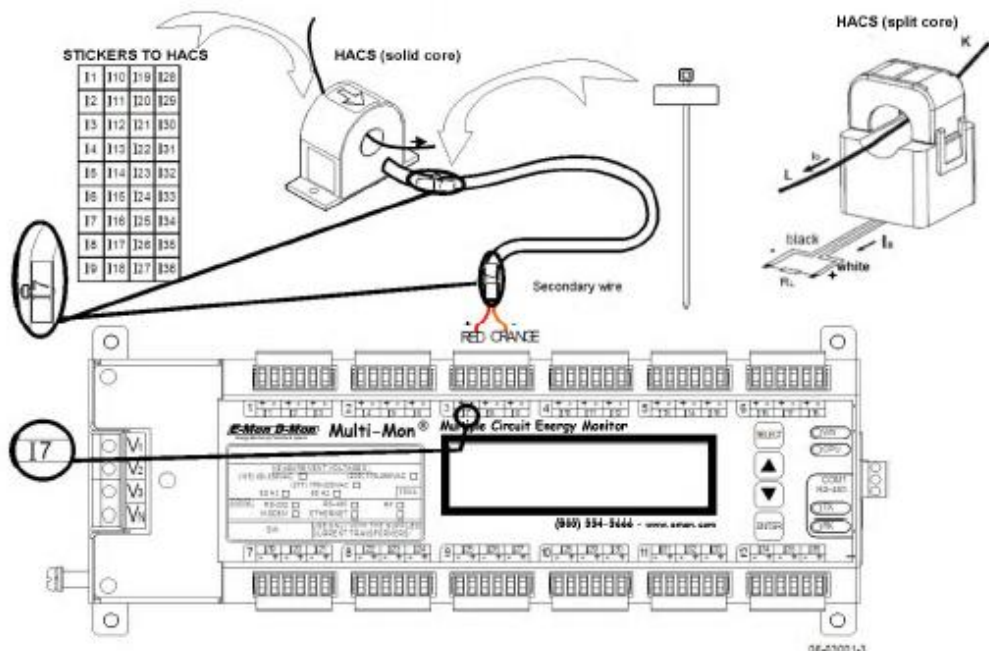


Figure 2-6 Single Highly Accurate Current Transformer wiring and labeling

USE ONLY WITH SUPPLIED BFM CURRENT TRANSFORMERS!

Connect the wires to the + and - inlets according to the following polarity colors:

Polarity	Solid Core Current Transformer secondary	Split Core Current Transformer secondary
+	RED	WHITE
-	ORANGE	BLACK

It is recommended to mark the cables and CTs with the supplied tie markers.

CTs stickers I1 through I36 correspond to the Multi-Mon current inputs with matching labels. Cable stickers 1 through 12 correspond to the Multi-Mon current terminal blocks with matching labels.

Use the table from Appendix B to annotate your input assignments and wiring connections.

Labeling example:

Assume you want to connect three HACSs to the device terminal block 3 so these three HACSs would be connected to the device inputs I7, I8, and I9 respectively:

1. Take a CT connection cable, attach a tie wrap marker to each side of the cable and mark them as 3 to indicate that it should be connected to the device terminal block 3.
2. Put the CT label stickers I7, I8, and I9 directly on HACSs to indicate that these HACSs will be associated with the device current terminals I7, I8, and I9.

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