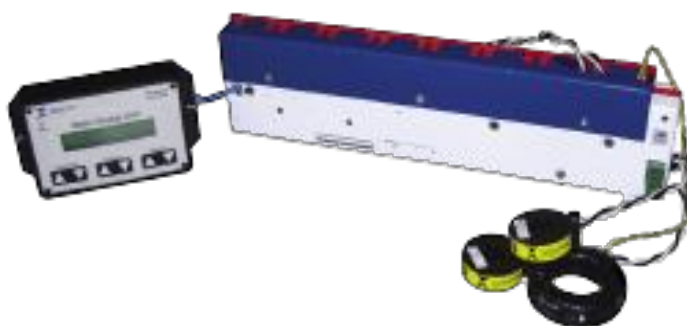


i-meter™ 636

– Installation Manual –



i-meter™ 636-INC



i-meter™ 636-EXTC

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WARNING

Field electrical installers must follow proper safety precautions during electrical installation, meter wiring, and CT installation. During normal operation of this device, hazardous voltages are present which can cause severe injury or death. It is strongly recommended that only qualified, properly trained personnel should perform installation and servicing.

DISCLAIMER

The information presented in this publication has been carefully checked for reliability; however, Intellimeter Canada Inc. (ICI) assumes no responsibility for inaccuracies. The information provided in this document is subject to change without notice.

CUSTOMER SUPPORT

To report any defect, please contact ICI at 905.839.9199. When returning any merchandise to ICI, a return material authorization (RMA) number should be obtained from ICI.

STATEMENT OF CALIBRATION

The accuracy and a calibration of our instruments are traceable to Measurement Canada, a division of Industry Canada.

MODELS

1. i-meter™636 INC (Uses onboard CT)
The current transformers are embedded inside the meter module.



2. i-meter™EXTC (Uses External CT)



Part One

1. Getting Ready

1.0 **Configuration**

i-meter™636 series **of meters** do not come with any configuration tool for configuration changes by customer.

1.1 **Installation Check List**

Make sure you have received the right meter as per your order and packing list.

1.2 **Electrical Code**

Installer is responsible and must ensure that all safety and local electrical codes are followed.

1.3 **Service**

All maintenance and service must be performed by the manufacture to satisfy warranty and Measurement Canada guidelines.

Part Two

2. Installation

- Review general information and wiring diagram
- Carefully read all the WARNING signs and notes.
- Check meter serial number and other information on the meter.
- All meter modules are assigned within the panel board and are identified with respect to position, or section of breakers.
- A label on the top of each unit indicates meter assignment. Follow the installation drawings that are supplied with the units.
- Do not leave the secondary of CT open when current is flowing through the primary circuit.
- Contact ICI if there has been any changes made to the layout or if the assigned drawings do not match the actual distribution panel layout.

2.1 ***i-meter™636 INC***

- Verify the number of breakers is the same as the number of meters assigned for that panel board. Follow the installation drawings. Group the assigned modules to the identified panel board.
- Referring to the diagram below, mount the meter module mounting bracket to the beaker mount so that it is not interfering with anything. It has two brackets that hold the unit in place.
- Install the modules into their appropriate position.
- Install the voltage connectors to the meter modules and dress the wires in flexible conduit so they are protected from damage during feeder and branch circuit installation.
- Terminate the voltage reference chain to the designated, 15Amp breaker.



- Install the communication connectors to the meter modules and dress the wires in flexible conduit so they are protected from damage during feeder and branch circuit installation.
- Communication cable is to be terminated to a junction box outside of the panel board by the electrical contractor.

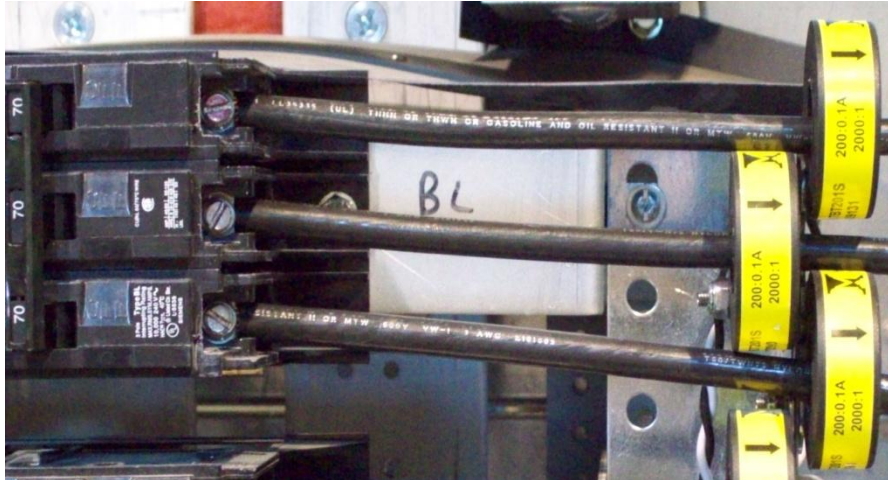


Typical i-meter™ 636 INC Installation

2.2 i-meter™ 636 EXTC

- Referring to the installation drawings, mount the module, complete with mounting brackets, to the back frame rail or pre-assigned location as per installation drawings for the specific project.
- The CT can be supplied on rails or loose. The rail option is permanently fastened to the interior panel rails in their designated position; this serves for spacing and support for the CT's. Loose CT's are to be installed on the feeders as close to the breaker as possible and to their designated position based on their number in reference to the panel drawing.
- CT DIRECTION – The ARROW points to the LOAD!!!
- Dress in the CT wire back to the metering modules using flexible conduit.
- A CT that is not connected to the proper metering module and/or not in its designed position will give incorrect readings.
- All CT wire connectors and terminal position on the meter module are identified. Typically the CT leads do not need to be removed from the meter module. If required, connect the CT wire connector to the identified terminal on the correct meter module. There may be several modules within a panel board, confirm the meter number on the CT connector label.
- Install the voltage reference connectors to the meter modules and dress the wires in flexible conduit so they are protected from damage during feeder and branch circuit installation.
- Terminate the voltage reference chain to the designated 15Amp breaker or fuse block.

- Install the communication connectors to the meter modules and dress the wires in flexible conduit so they are protected from damage during feeder and branch circuit installation.
- Communication cable is to be installed as per the overview drawing for the project.



Typical i-meter™ 636 EXTCT Rail Installation

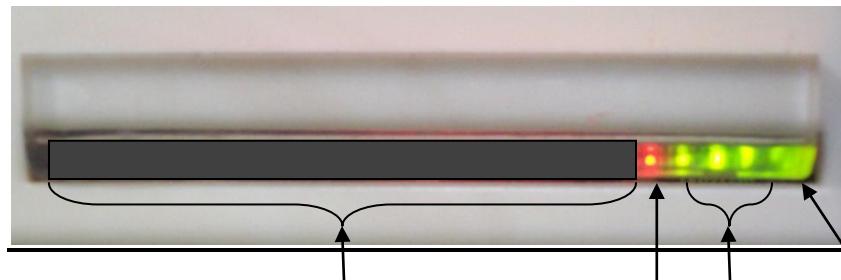
Part Three

3. Operation And Trouble Shooting

3.1 Configuration of i-meter™ 636 INC & i-meter™ 636 EXTCT

- The meter is configured at the factory for:
 - Single phase 2 wire: For up to 16 meters
 - Single phase 3 wire: For up to 8 meters
 - Two phase 3 wire: For up to 8 meters
 - Three phase 4 wire: For up to 5 meters

3.2 LED indicators



LED (16) Not used for Single phase 2 wire Stat(1) Config(3) PWR(1)

PWR:	This LED (Green) indicates power is ON.
Meter Config	These three green LED's identify the voltage is applied to the phase and they flash the configuration code the meter is programmed for.
Stat:	This red LED is on always. For service diagnostic only.

3.3 Troubleshooting

PWR" LED NOT ON	- Power not connected or not ON	- Verify the voltage reference is energised and check at the terminal connector for voltage.
No Communications	- MDU is not displaying the reading and consumption	- Power cycle the MDU - Check that the connectors are properly seated - Are all the meters ON? - Is the power in the PTLs ON?
Meter Configuration	- To determine the configuration of the meter	- The three flashing LED's represent the configuration of the meter. Count the pulses, there will be a slight pause before it repeats again.

This is a sealed measuring device approved for revenue billing and designed not to be tampered with. Beside the basic operation and LED indicators, the meter is to be serviced by authorised technicians only. Any tampering or alteration can void the warranty. Please contact the service department for support or directions.

3.4 Communication

Refer to the installation drawings for communication cable pathway connection and termination configuration between all automation.



Appendix

6. Pre Site Visit Check List for i-meter™636 Systems

**** Please return to ICI Service office ASAP! ****

Thank you for installing the ICI Metering System on your Project. To prepare for the commissioning of the system we require the confirmation of the schedule below for each of the metering panels and the overall system. **Please take the time to complete the following pre site visit check list and return it to our office as soon as possible. We will do our best to accommodate but site scheduling may take up to 4 WEEKS from time of receiving this document.** Thank you for your cooperation and we look forward to providing our services to you in this regard.

PART A

	Description of Work	Yes / No
1	All distribution/metering equipment is installed.	
2	The installation drawings are accurate and as installed, (As-Built Drawings).	
3	All feeders for the distribution panel(s) are pulled, connected, and energised.	
4	All suite feeders has been pulled and connected to their designated breaker through the designated CT's provided.	
5	All loads have been identified and confirmed at the distribution panels. *Suite to Breaker Verification by Contractor.	
6	*All suites or loads have been documented on the metering panel schedule drawings attached.	
7	All communication cables are installed between meter units in a daisy-chain format (CAT5e) back to the PTLs, MDU and/or BAS system.	
8	At each metering unit, the communication cable is identified and has enough length for proper termination.	
9	**The PTLs communication cabinet is mounted in designated area with 120VAC, 15A circuit and a communication link to the internet is provided (Room temperature not to exceed 32°C/90°F) PTLS = Local Server as supplied with the metering system, (computer in a box)	
10	All metering units are energised and working. The voltage reference should stay on always.	

* This installing contractor will be responsible to ensure the proper load is identified for billing/energy monitoring.

**If a PTLs is supplied for this project.



PART B Contact Information

Contractor/Company:	Office Number:
Site Forman:	Site Number:
Sign off that all is ready for Commissioning:	Date:
Date Requesting for Site Visit:	
Site Address:	
Any Safety Equipment Required?	

To facilitate the commissioning process, it is requested that the installation technician/electrician be available for the inspection to assist in the removal of panel covers and if any changes need to be made throughout the inspection. Your cooperation is appreciated.

Terms and Conditions of Sale

11. Safety

Site and working conditions must meet conditions as laid out in the applicable Health and Safety Act and Regulations.

If applicable, the Purchaser must provide upon request to ICI personnel copies of appropriate WHMIS manuals and floor plans indicating areas where hazardous materials and chemicals are located and emergency exits for service rooms and other areas of operation.

No ICI employee is required to work on equipment which has not, in his or her sole opinion, been placed in an electrically safe state for the work to be performed. It is at the sole discretion of ICI to accept the safety procedures, working conditions and required number of support staff to commence with the work. The purchaser shall supply to ICI at the request of ICI and at no cost to ICI a qualified tradesman when working on equipment.

ICI Service Department: Phone: 905-839-9199, Fax: 905-839-919

Comments:



PART C

Power Panel ID _____

Date _____

Meter to Breaker to Suite Schedule

Meter Number	Breaker Number	Suite Number (ID)	Notes:
Meter 1			
Meter 2			
Meter 3			
Meter 4			
Meter 5			
Meter 6			
Meter 7			
Meter 8			
Meter 9			
Meter 10			
Meter 11			
Meter 12			
Meter 13			
Meter 14			
Meter 15			
Meter 16			

