DENT INSTRUMENTS | PART OF BEMSIQ GROUP

PowerScout™ 12/24/48 HD Multi-Circuit Power Meter
Quick Start Guide
FOR QUALIFIED PERSONNEL ONLY

c UL us LISTED | CE | BTL

Rev080425

This Quick Start Guide provides a general overview for basic installation. For more in-depth information and troubleshooting steps, please refer to the full Operator's Guide for your meter.

INSTALLATION OVERVIEW

1. Install ViewPoint HD Software Required

Scan the QR code below or visit:

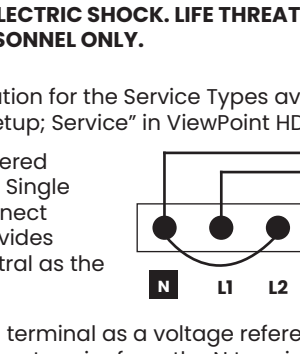
- dentinstruments.com/viewpoint
- This free tool is required to configure your PowerScout HD Series meter.

Step 2: Install and Launch ViewPoint HD

- Once the download is complete:
- Open the installer and follow the prompts.

2. Remove covers

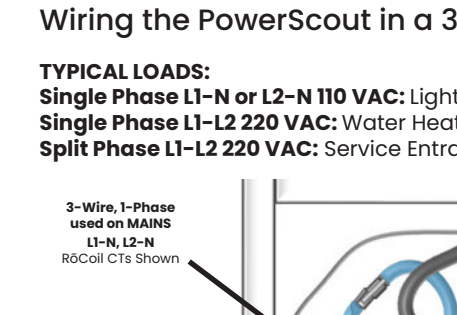
Loosen top cover screws (x4) [**Note:** Screws are captured in the case.] Remove the High Voltage Cover Screws (x2). [**Note:** These screws are NOT captured; do not lose.]



3. Mount

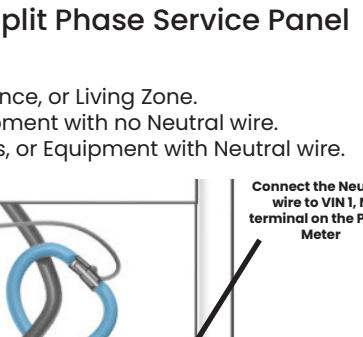
Use the enclosure as a template to mark mounting holes.

Note: Mechanical specifications and drawings are found in the Operator's Guide.



4. Connect

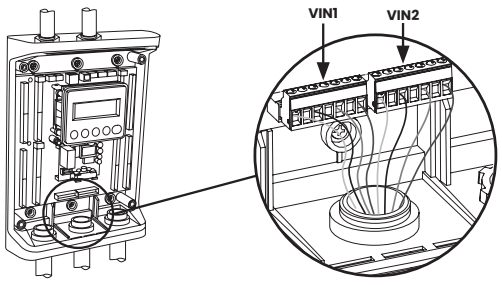
- Attach 1" EMT Conduit fittings (or reducer bushing)
- Attach flexible Conduit
- Plug unused holes with blanking plugs (provided)



5. Connect AC voltage wires

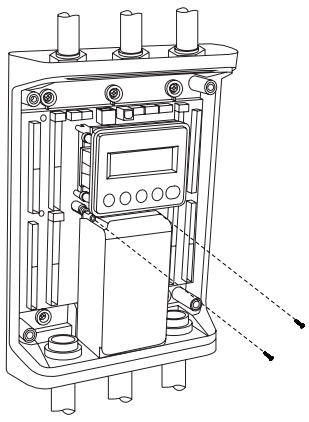
WARNING: RISK OF ELECTRIC SHOCK. DO NOT ENERGIZE METER WITH VOLTAGE COVER REMOVED. FOLLOW ALL STATE AND FEDERAL ELECTRICAL CODES.

- Using 14 AWG THHN, 600VAC rated wire, connect the voltage leads (L1, L2, L3, and N) as necessary to the meter through a dedicated disconnect or circuit breaker. **DO NOT EXCEED 346V L-N or 600V L-L.**
- Mark the circuit breaker as "PowerScout Meter"



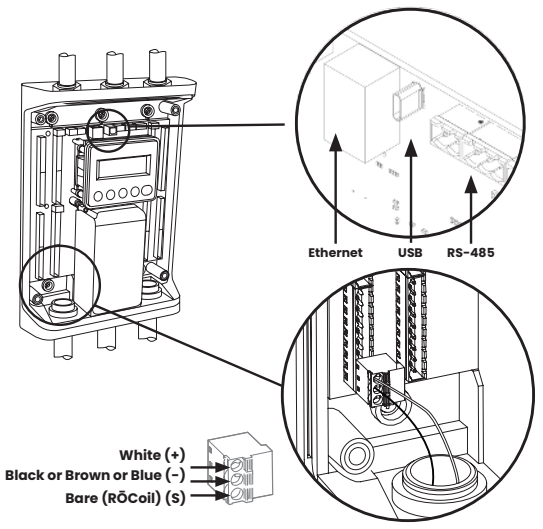
6. Re-attach high voltage cover

Meter is IP30 **(TouchSäf™)** with internal cover installed.



7. Connect CT & communications wiring

Use only 333.3mV (1/3 V) output CTs or DENT RōCoils.

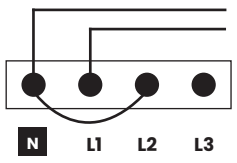


WIRING

HIGH VOLTAGE MAY BE PRESENT. RISK OF ELECTRIC SHOCK. LIFE THREATENING VOLTAGE MAY BE PRESENT. QUALIFIED PERSONNEL ONLY.

These diagrams show the wiring configuration for the Service Types available in the Service drop-down list under "Meter Setup; Service" in ViewPoint HD Software.

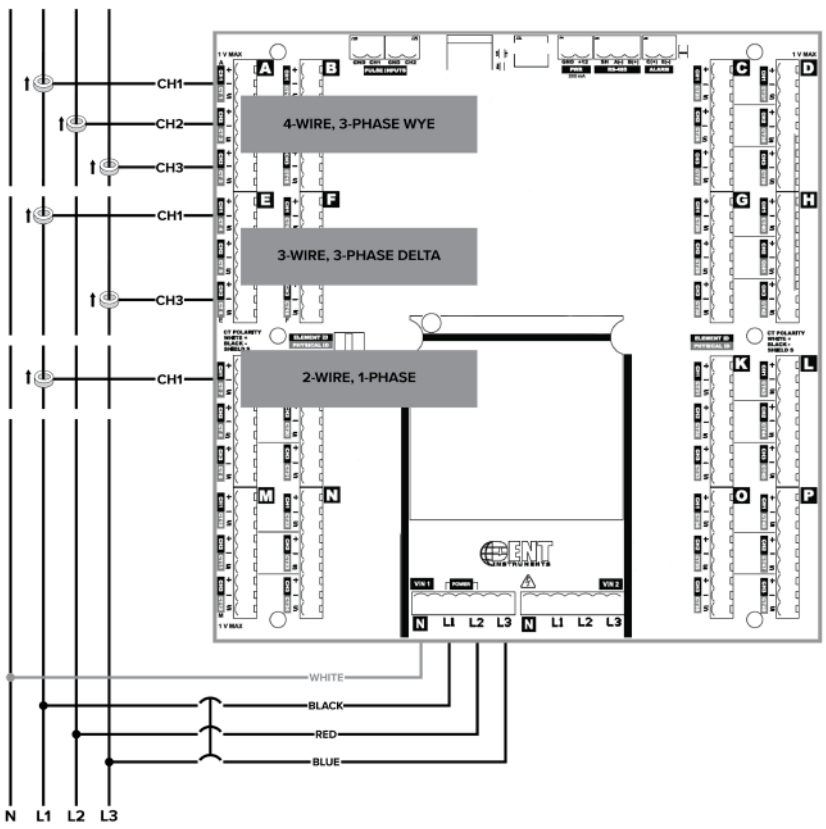
The PowerScout HD Meter is internally powered through the voltage between L1 and L2. For Single Phase installations, where no L2 exists, connect a jumper from N to L2. This connection provides power to the meter while maintaining Neutral as the metering voltage reference.



The PowerScout HD Meter uses the Neutral terminal as a voltage reference. For systems without a neutral conductor, connect a wire from the N terminal to ground.

CONNECTING VOLTAGE WIRING AND CTs TO THE METER

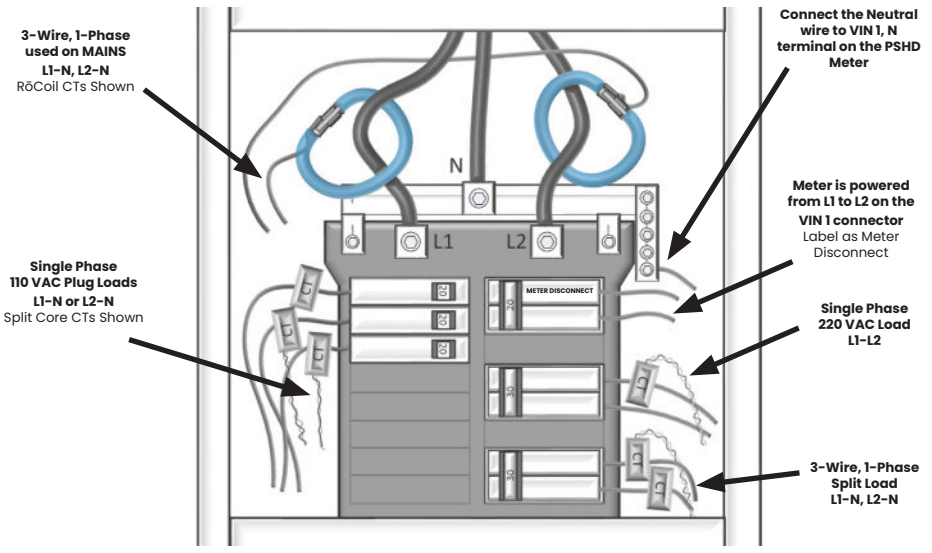
This image shows how to connect CTs to the PowerScout HD Meter for Three Phase services. For other service types (Single Phase and Split Phase), see the Operator's Guide. Three Phase loads are shown on the left only for illustration and may be used on the right as well. All meter elements are fully configurable and interchangeable.



EXAMPLE 1

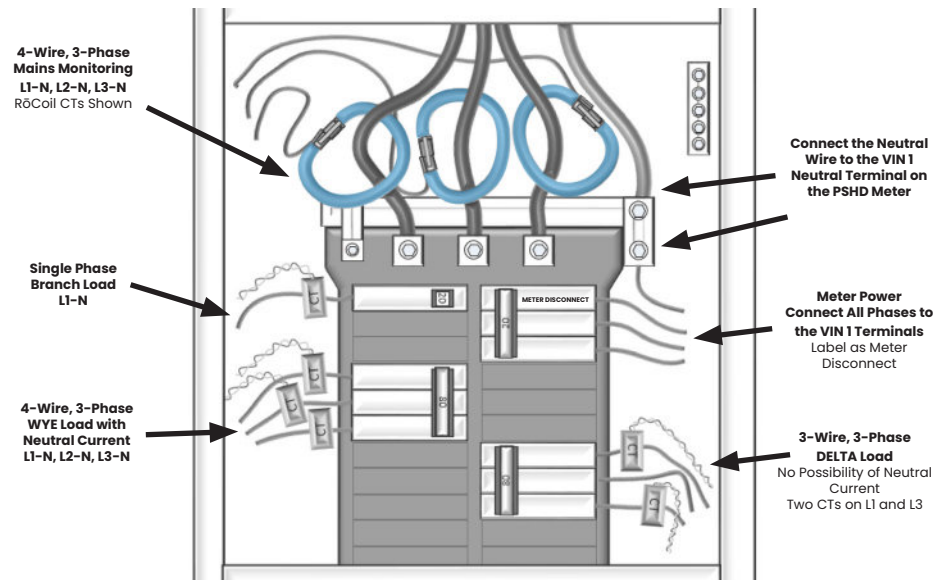
Wiring the PowerScout in a 3-Wire, Split Phase Service Panel

TYPICAL LOADS:
Single Phase L1-N or L2-N 110 VAC: Lighting, Appliance, or Living Zone.
Single Phase L1-L2 220 VAC: Water Heater or Equipment with no Neutral wire.
Split Phase L1-L2 220 VAC: Service Entrance, Dryers, or Equipment with Neutral wire.



EXAMPLE 2

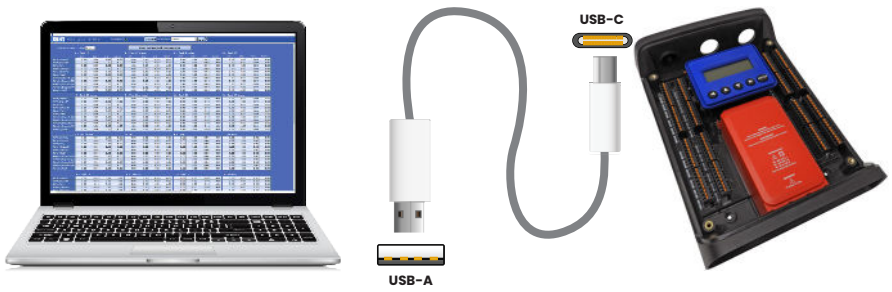
Wiring the PowerScout in a 4-Wire, 3-Phase Service Panel



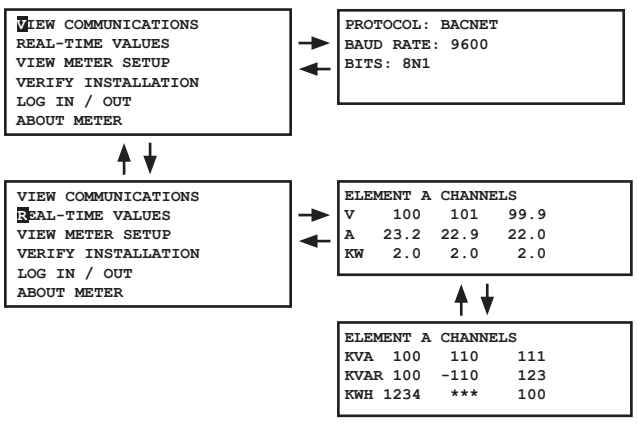
SETUP THE METER WITH A PC

1. Connect a powered, or unpowered, PowerScout meter to a USB port of your computer with a USB A to USB C cable (provided). [Note: The PC will power the meter for setup even without AC mains power connected.]
2. Launch the ViewPoint HD application and, when prompted, click “Connect over USB”
3. The meter will now be communicating with the PC
4. Use ViewPoint HD to configure the meter and view real-time data to verify the installation is wired correctly

The meter can also be setup without using ViewPoint HD and instead using a web browser. Plug in the USB cable and set the browser to 169.254.1.5.



NAVIGATING THE METER’S DISPLAY



USING THE LCD SCREEN

Use the arrow keys to move from one menu display to the next. The ENTER button is used to make a change. Note that changes to the meter configuration are limited to the communication interface when using the LCD. If additional changes (such as CT type) are required, they must be made using either ViewPoint HD software or web server interface.

FOR MORE INFORMATION

- www.DENTinstruments.com
- 1.800.388.0770
- support@DENTinstruments.com

DENT INSTRUMENTS

SAFETY SYMBOLS

DENOTES HIGH VOLTAGE. RISK OF ELECTRIC SHOCK. LIFE THREATENING VOLTAGES MAY BE PRESENT. QUALIFIED PERSONNEL ONLY.

Denotes caution. See full Operator’s Guide for description of the meanings.

Equipment protected throughout by double insulation or reinforced insulation.

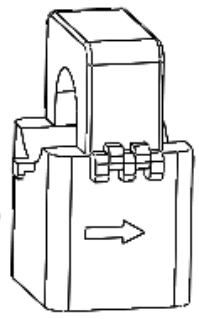
Contains additional information pertinent to the current subject.

WARNING

DO NOT EXCEED 346V Line-to-Neutral or 600V Line-to-Line. This meter is equipped to monitor loads up to 346V L-N. Exceeding this voltage will cause damage to the meter and danger to the user. Always use a Potential Transformer (PT) for voltages in excess of 346V L-N or 600V L-L. The PowerScout HD is a 600 Volt Over Voltage Category III device.

- RISK OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH. CAREFULLY READ AND FOLLOW INSTRUCTIONS.
- THIS METER MAY CONTAIN LIFE THREATENING VOLTAGES. RISK OF ELECTRIC SHOCK. QUALIFIED PERSONNEL ONLY. USER MUST DISCONNECT ALL HIGH VOLTAGE WIRING BEFORE SERVICING THE METER WITH THE HIGH VOLTAGE COVER REMOVED.
- TO AVOID FIRE, SHOCK, OR DEATH, TURN OFF ALL POWER SUPPLYING EQUIPMENT BEFORE WORKING ON OR INSIDE THE EQUIPMENT. USE PROPERLY RATED VOLTAGE SENSING DEVICE TO CONFIRM POWER IS OFF.
- FOLLOW SAFE ELECTRICAL WORK PRACTICES. FOLLOW ALL APPLICABLE LOCAL ELECTRICAL CODES.
- THIS EQUIPMENT MUST BE INSTALLED AND SERVICED BY QUALIFIED ELECTRICAL PERSONNEL WITH THE REQUISITE KNOWLEDGE, TRAINING, AND EXPERIENCE RELATED TO THE INSTALLATION AND OPERATION OF THIS EQUIPMENT.
- PRODUCT MAY USE MULTIPLE VOLTAGE/POWER SOURCES. BE SURE ALL SOURCES OF POWER HAVE BEEN DISCONNECTED BEFORE SERVICING.
- DO NOT DEPEND ON THIS PRODUCT FOR VOLTAGE INDICATION.

CURRENT TRANSFORMER BASICS

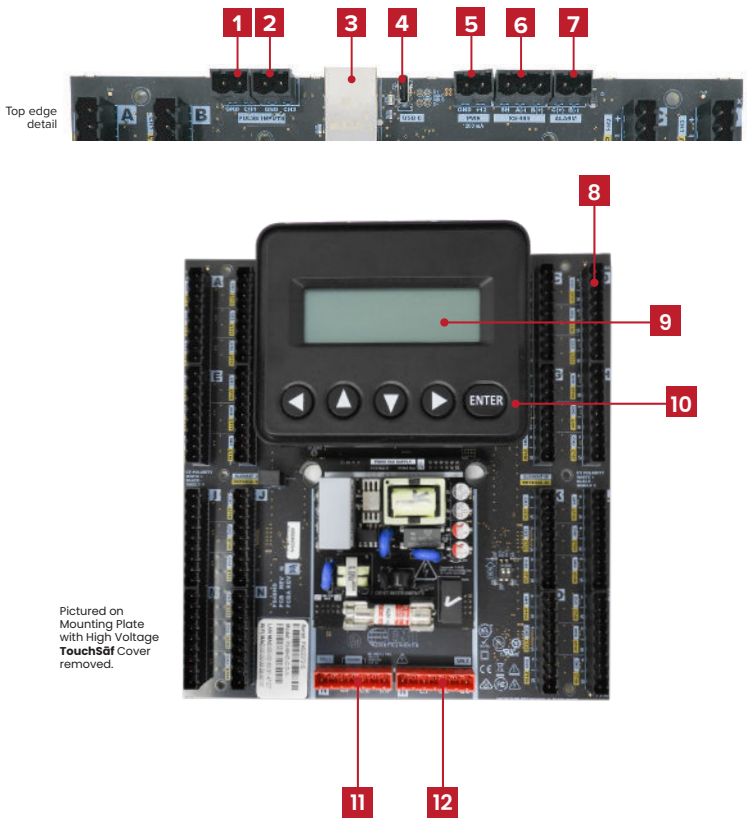


To ensure safety and maintain UL listings, use only CTs provided by DENT Instruments.

- Do not use on services greater than 600VAC
- CTs are 333.3 mV (1/3 V) output voltage, or DENT RōCoil
- Select CTs of appropriate current range for the circuit (5-120% of CT rating recommended)
- Ensure arrow points towards load (or as instructed by CT label)
- Place CT on first conductor of voltage reference. Example: for L1-L2 circuits without neutral, place CT on L1
- Observe wiring color and polarity: For millivolt CTs, the white wire is (+) and the black wire is (-). For RoCoils, the white is (+), brown or blue is (-), and the bare (shield) wire connects to the terminal marked “S”.

POWERSCOUT 24/48

1. Pulse Input 1
2. Pulse Input 2
3. Ethernet
4. USB
5. 12V Out (2W)
6. RS-485
7. Alarm Output
8. CT Inputs (24 or 48)
9. Display
10. Navigation Buttons
11. Voltage Input 1
12. Voltage Input 2
13. Mounting Plate (Optional)
14. High Voltage Cover (IP30)
15. 1” EMT Conduit Connection (x6)
16. ABS Plastic Enclosure



POWERSCOUT 12

1. Alarm Output
2. Ethernet
3. USB
4. RS-485
5. 12V Out (2W)
6. Mounting Hole
7. Display
8. Navigation Buttons
9. Voltage Connection
10. 1” EMT Conduit Connection (x5)
11. Pulse Inputs (4 total)
12. CT Inputs (12 total)
13. High Voltage Cover (IP30)
14. Mounting Plate
15. ABS Plastic Enclosure

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