

Quick Start Guide

SERIES DM3 or DM2 1/8 DIN UNIVERSAL DC INPUT PANEL METER

This Quick Start Guide describes steps to help you start-up the DM3 or DM2 meter.

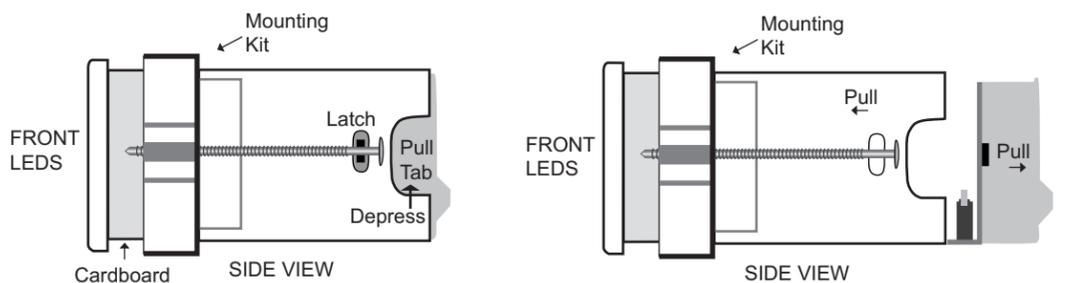
STEP 1 *Unpack*

- ◇ **DM3 or DM2 meter**
- ◇ **Mounting Kit** (attached to the meter)
- ◇ **Panel Gasket** (loose black rubber frame)
- ◇ **User's Bulletin**
- ◇ **Accessories** (If purchased, they will be packaged separately. Do not install them during this start-up.)

CAUTION: Read the complete instructions in the step before performing the step.

STEP 2 *Open Case*

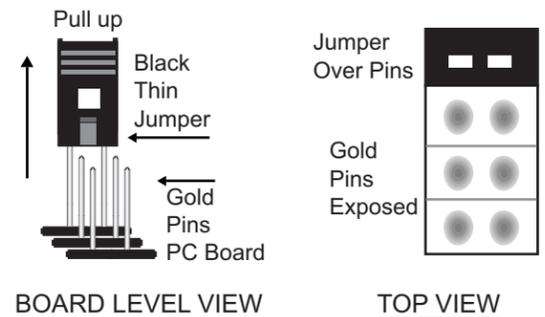
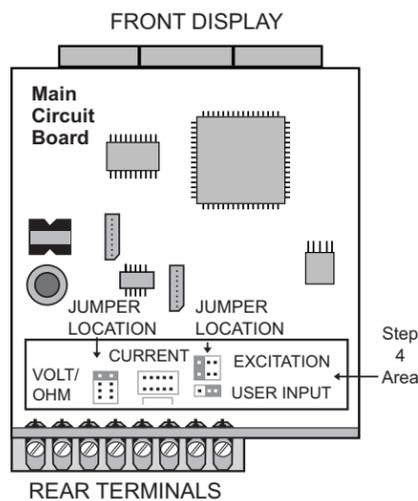
Remove the meter base from the case by **firmly** depressing and pulling back on the side rear base finger tabs. This should lower the base latches behind the case slot. Get one side started then do the other side and pull back. The mounting kit bracket could be removed later.



STEP 3 *Identify Jumpers*

Three with DM3, Two with DM2 (Jumpers are moved later)

Jumpers are black thin clips which pull up and down over gold pins. The Top View will be used in this step to show where to place the jumpers. (The selections are not labeled on the main board.) With the DM2, Excitation is a white soldered in wire.



CAUTION: These jumpers must be in the correct position for the particular application before applying Power or Input Signal to the meter.

Do not touch User Input nor Excitation jumpers for this start-up.

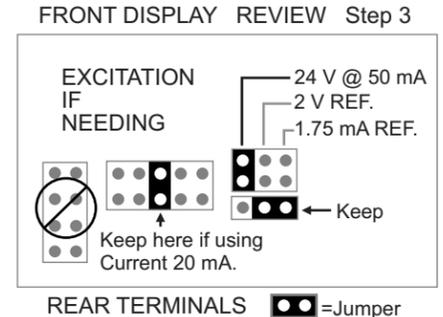
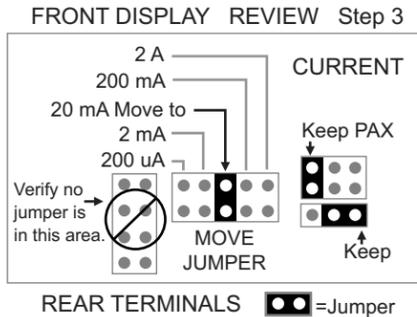
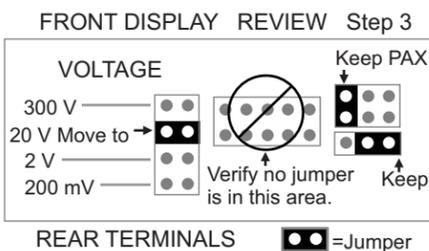
STEP 4 *Move Jumpers*

VOLTAGE/OHM JUMPER
 Example: 0-10 V input *
 Move one jumper to 20 V position

CURRENT JUMPER
 Example: 4-20 mA input *
 Move one jumper to 20 mA position

If using Excitation (DM3 only) verify that:

EXCITATION JUMPER
 Example: 24 V @ 50 mA position*



* If using a different signal than example, still move the jumper but to the appropriate position.

STEP 5 *Reassemble Case*

Reassemble the meter base into the case. (Reverse Step 2)

STEP 6 *Switches*

There are no power or configuration switches nor adjustment potentiometers on this meter.

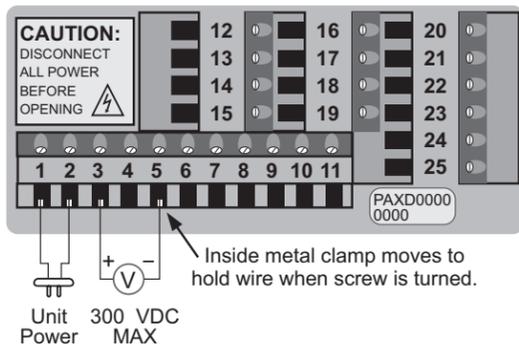
✓ STEP 7

Wire Connections Voltage or Current Input

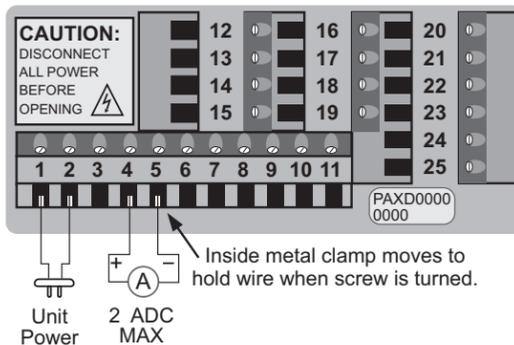
Locate terminals 1-6 on the rear of the meter. (Terminals 7-25 are explained in the User's Bulletin.)
Insert appropriate Power and Input Signal wires per below drawing. Turn screw above wire clockwise until wire is tight.

Terminals 1 & 2 Unit Power, Terminal 3 Volt/Ohm, Terminal 4 Current Input, Terminal 5 Common Input, Terminal 6 Excitation Output

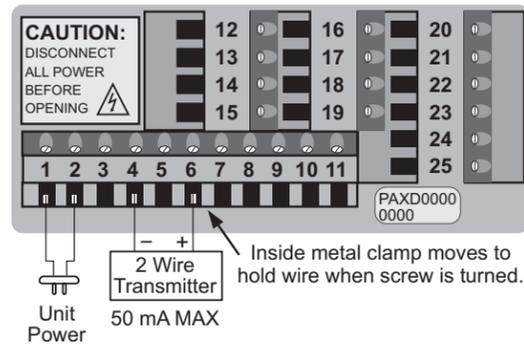
VOLTAGE Example: 0-10 V input.



WITHOUT EXCITATION CURRENT Example: 4-20 mA input.



WITH EXCITATION CURRENT Example: 4-20 mA input.



✓ STEP 8

Power Up



CAUTION: Risk of electric shock.
Before applying power make sure the meter base is inside the case and the power wires are connected properly.

Wait until Step 10 to turn on the Signal Input.

Turn on the Power to the meter. Ignore what is being displayed for now. If nothing shows in the display, verify power wiring and voltage.

✓ STEP 9

Programming

To achieve proper operation, it is important to change the program to meet the application parameters.

FOR VOLTAGE Example: 0-10 V input program to display 0-100%
FOR CURRENT Example: 4-20 mA input program to display 0-100%
(With or without Excitation use same programming.)

EXPLANATION:

- ◆ In Program Mode, the Main Display will alternate between **Display 1** (Parameter) and **Display 2** (Range or Unit).
When **Display 2** is correct then proceed to the next step. (Details on Parameters and Range or Unit are in the User's Bulletin.)
- ◆ If lost or confused while programming press **DSP** and start again from the beginning.
- ◆ Everywhere this appears @ it means: Hold **F1** ▲ or **F2** ▼ until correct **Display 2**.

NOW START using the below chart by pressing the **DSP** key.

Press	Display 1 Parameter	Display 2 Range or Unit	Comments
(DSP)	Does not matter.	Does not matter.	Display Mode
(PAR)	<i>Pro</i>	<i>no</i>	Program Mode
(F1▲)	<i>1-INP</i>	<i>Pro</i>	1-INP Input Parameter
(PAR)	<i>rANGE</i>	<i>20u</i>	@ Set same as signal jumper selection. See Step 4.
		<i>0.02A</i>	@ For 20 V jumper (0-10 V)
			@ For 20 mA jumper (4-20mA)
(PAR)	<i>decPt</i>	<i>0</i>	@ Change to no decimal. First time press F2, F2 .
(PAR)	<i>round</i>	<i>1</i>	@ Keep at factory setting for this start-up.
(PAR)	<i>FILtEr</i>	<i>10</i>	@ Keep at factory setting for this start-up.
(PAR)	<i>bANd</i>	<i>10</i>	@ Keep at factory setting for this start-up.
(PAR)	<i>PE5</i>	<i>2</i>	@ This determines the number of <i>INP</i> & <i>dSP</i> .
(PAR)	PAX only <i>StYLE</i>	PAX only <i>KEY</i>	@ KEY-in method for this start-up.
(PAR)	<i>INP 1</i>	<i>0.000</i>	@ Low Input signal value
		<i>4.000</i>	@ For voltage example 0 V*
			@ For current example 4 mA*
(PAR)	<i>dSP 1</i>	<i>0</i>	@ Display value for above INP 1 signal. (ex. 0%)
(PAR)	<i>INP 2</i>	<i>10.000</i>	@ High Input signal value
		<i>20.000</i>	@ For voltage example 10 V*
			@ For current example 20 mA*
(PAR)	<i>dSP 2</i>	<i>100</i>	@ Display value for above INP 2 signal. (ex. 100%)**
(PAR)	<i>Pro</i>	<i>no</i>	Program mode
(DSP)	<i>End</i>	If MAX , MIN , or TOT are shown, then press DSP .	Display mode.

* If input signal is different than example then use that value for **INP 1** and **INP 2**.

** **RST** together with **F1** or **F2** moves by 1000.

✓ STEP 10

Input Signal Display

Turn on the external Input Signal to the meter.

The display should show a percentage of the Input Signal. If the display is approximate even when changing the input value, then this quick start is complete. Continue with specific programming and setup for your application using the User's Bulletin.

Signal to Display Examples			
Input Voltage	Display in %	Input Current	Display in %
0.0 V	<i>0</i>	4.0 mA	<i>0</i>
5.0 V	<i>50</i>	12.0 mA	<i>50</i>
10.0 V	<i>100</i>	20.0 mA	<i>100</i>

✓ STEP 11

Troubleshooting

If the display is not correct, then do the following and try Step 10 again.

Check programming per Step 9.

Check Input Signal connections per Step 7.

Check external Input Signal level with a volt/current meter.

Check jumpers (after power down) per Step 4.