

Testing The Ohm Metrics Series Verification Units: CM410PV and CM420PV

According to ANSI/ESD S20.20-2007, the compliance verification procedure for continuous monitors are "manufacturer defined". The [Ohm Metric series ESD constant monitors](#) (CM300, CM310, CM320, CM400, CM410, CM420) use 20% tolerance resistors to monitor the wrist strap and work surface. They are fixed and factory calibrated so they will never need recalibration. It is recommended to verify calibration with the CM400 periodic verification units (CM410PV / CM420PV / TM9202/ TM9203) which use 5% tolerance resistors at least once per year.

The (CM410PV / CM420PV / TM9202/ TM9203) constant monitor verification units are factory calibrated and do not require annual re-calibration. Calibration can be verified by comparing them to 3% tolerance resistors although this procedure is unnecessary and is not recommended. If the CM410PV / CM420PV / TM9202/ TM9203 are unable to operate, contact Transforming Technologies for more information.

The CM410PV / CM420PV / TM9202/ TM9203 have resistor values of 6.8M for Operator and 1M for Bench.

Items Needed:

- Phillips Head Screwdriver—QTY1
- Calibrated Multimeter—QTY1



CM420PV / TM9203



CM410PV / TM9202

Step 1:



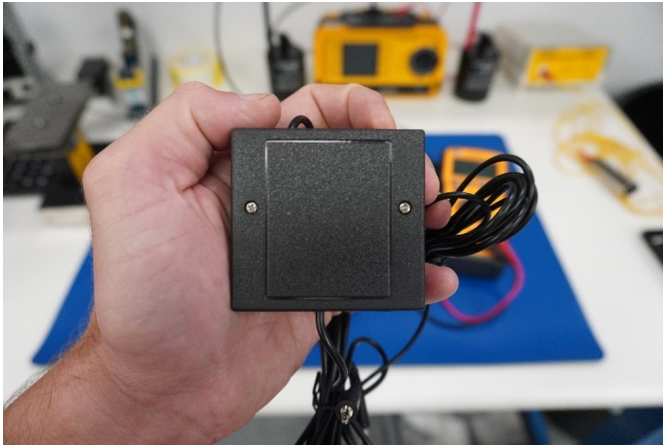
Step 1: Prior to testing the periodic verification devices, prepare an ESD-Safe workstation. Use a properly grounded [ESD mat](#) and wear a personal grounding device such as a [wrist strap](#).

Multimeters are designed for the testing, diagnosing, and troubleshooting of electrical circuits, components, and devices. Verify the calibration of the multimeter is up to date with the manufacture. [How to Use a Multimeter.](#)

This document is prepared for our customers as a service, and is to the best of our knowledge true and accurate. However, it is understood and agreed by the users of this document that we will accept no liability for the conclusions reached. Users of this document may therefore wish to perform additional testing before determining that products mentioned are suitable.

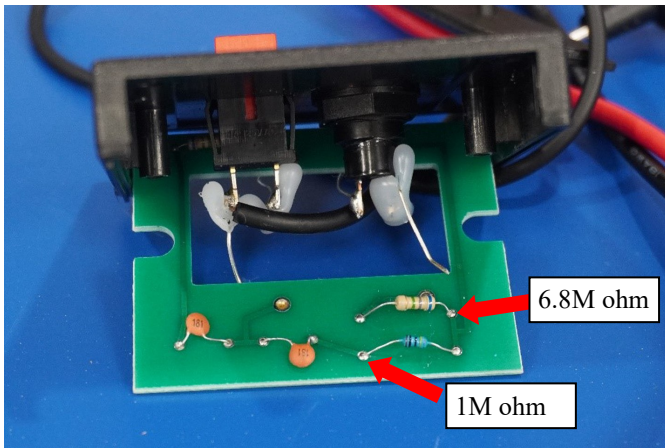
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Step 2:



Step 2: Remove the two screws on the back of the periodic verification unit with Phillips head screw driver. Do not lose the screws. Carefully remove the cover and locate the resistors on the circuit board.

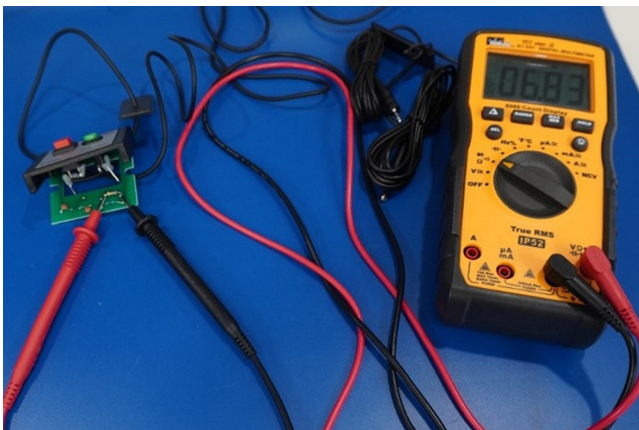
Step 3:



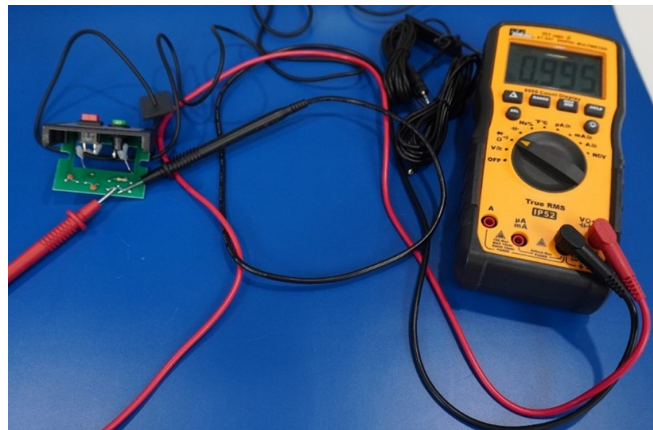
Step 3: The two resistors inside of the Periodic Verification Should measure at 6.8M and 1M. Using the multimeter leads, test the two test points below and record the result. If the results are within 3%, the periodic verification units are in calibration and you can close the case.

If the resistors are out of tolerance, contact Transforming Technologies at 419-841-9552.

Test Point 1: 6.8M ohm



Test Point 2: 1M ohm



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