

Model CR-2 Milli-Ohm Meter Module

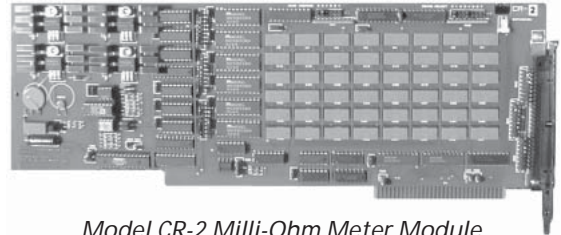
Product Features

- Milli-Ohm Resistance Measurements
- 24 Test Points per Module
- Expandable to 192 Test Points per System

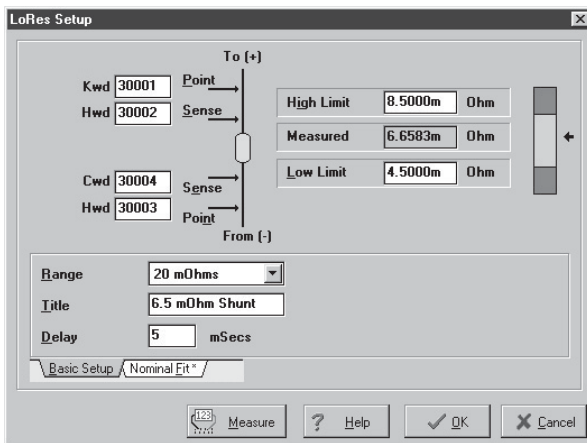
Applications

- *Circuit Assembly Testing*
- *Connector Resistance Testing*
- *Relay Contact Resistance Testing*
- *Shunt Testing*

The Model CR-2 is used to test low-resistance components on circuit assemblies such as connectors, relay contacts, PCB traces, and shunt resistance. The CR-2 can make accurate milli-ohm resistance measurements.



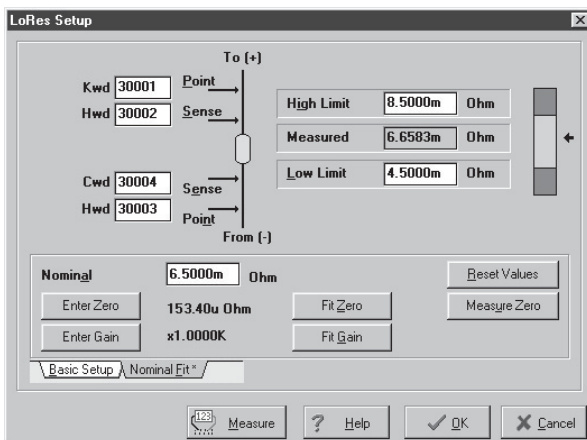
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The Model CR-2 is controlled by CheckSum Visual MDA™ Software. This software provides a variety of software functions to create a flexible test environment. The interactive environment includes a test-executive, test program editor, and statistical process control (SPC). All of the commands of the standard Visual MDA Software package are available to the CR-2 user.

Each CR-2 module uses one full-length, full-height ISA slot. Each module provides 24 test points, each of which can be used as low or high polarity measurement source. Each test point has a sense test point for the required 4-wire Kelvin resistance measurement. Up to eight CR-2 modules can be used in a test station, providing for up to 192 test-point capability.

Built-in math functions allow the measurements to be enhanced using zero offset and gain.



System Configuration

The Model CR-2 can be used as a standalone test system or integrated with a CheckSum Manufacturing Defects Analyzer (Visual MDA) test system to expand the MDA system's capabilities.

In the standalone configuration, the Model CR-2-SA consists of test electronics for up to 192 points and the Windows Visual MDA Software package. These can be installed in your test controller (PC), or integrated with a controller purchased from CheckSum, such as the Model T-120-WIN or T-120-WIN-IC. The system can be expanded by an additional 24 points with use of the CR-2 Module.

The MDA test system must be configured with Visual MDA software, and contain at least one full-length, full-height ISA expansion slot for each CR-2 Module.

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Custom Test Fixturing

Test fixture kits, or ready-to-use customized test fixtures can be purchased from CheckSum or can be built by a variety of fixturing contractors around the world.

Most standard fixturing systems (e.g., mechanical, pneumatic, and vacuum) can be customized to incorporate 4-wire Kelvin measurements to test for low resistance.

Connection to test fixturing is provided by a standard 50-pin male connector at the CR-2 back panel.

Contact the CheckSum fixture group for more information and competitive custom fixturing and test programming quotes.

CR-2 Specifications

Low Resistance (LoRes) Test

Range		Measurement	
Min	Max	Accuracy	Floor
0 Ω	20m Ω	10%	0.5m Ω
0 Ω	200m Ω	7%	2m Ω
0 Ω	2 Ω	6%	20m Ω

Maximum Short-Circuit Current: 1A
Maximum Open-Circuit Voltage: 12V

Note: The 4-wire Kelvin measurement and sense test points must be on the same CR-2 module.

Resistance uncertainty for a given measured value:

$$= \pm (MR \times MA + \text{Floor})$$

MR = Measured Resistance

MA = Measurement Accuracy percentage

Other Specifications

- Model CR-2 includes the measurement module and 50-pin ribbon cable. Order the CR-2 module to add onto any Visual MDA test system.
- Model CR-2-SA includes the measurement module, Visual MDA for Windows Software, 50-pin ribbon cable, and Visual MDA Instruction Manual.
- Self-test of each module
- Test Points per CR-2 module: 24
- Maximum Test Points per System: 192
- Mechanical: Full-length, full-height ISA module
- I/O Space requirements: 16 contiguous bytes, jumper-selectable

TEST
ACCESSORIES