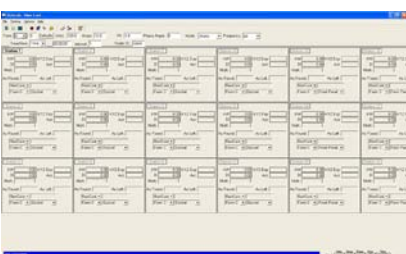# Model 5100

Computer Controlled Automated Meter Test System

The Model 5100 Demand Test System is a multi-position testboard designed to verify the proper operation and registration of mechanical, thermal, and electronic demand registers. With the pulse initiator inputs, contact devices within the meter(s) under test may also be verified. Unrivaled accuracy, precision, and stability are supplied by the NIST traceable Radian Research RD-2X series reference standard.

Designed for flexibility, the 5100 functions as either a time run or programmable standard revolutions test system. Meter socket bypassing allows the testboard to run with less than a full complement of meters. Meter form numbers must be identical for each run, but register multipliers (and Mp or C/R if optionally equipped) can be individually entered for each test station. Testboard operation at end-of-test is also programmable, including maintaining voltage for solid-state demand registers.

The Model 5100 is a PC based system that provides an operator interface that is easy to learn and use, yet powerful and flexible. All setup information, test parameters, and test results from each station are visibly displayed in a single window. The operator's job is greatly simplified by the use of one key commands, programmable default tables, and online user help screens.

Features:

- **Number of test stations:** *Available in 9, 12, and 15 station configurations*
- **Test voltage:** *60-540V*
- **Test current:**
  - *>>1.0A-200A*
  - *>>1-20A for transformer rated meters*
  - *>>25-200A for self-contained meters*
- **Power factor test angle:**
  - *>>0-359° lagging*
  - *>>Selectable in 1° increments*
- **Test time:** *Selectable from 1–9999 seconds*
- **Demand (KW) testing:**
  - *>>Standard revolutions (1-99999 revolutions)*
  - *>>Time run (up to 99 HRS, 59 MIN, 59 SEC)*
- **Contact device testing:** *Form "A" or "C" capability*
- **Potential clips closed for testing**
- **Minimal insertion force Smart Socket™**
- **The internal standard may be compared to an external standard for easy standard checks without removing the standard**
- **PC Minimum System:** *Dell™ standard business class Mini Tower PC, 20" flat screen monitor, Microsoft Windows®*
- **Windows® compatible Upscale™ software**

- **Smart Socket™**
- **UpScale™ Software**

Specifications:

- **Input Source:** *30A, 240V, 4 wire, 3Ø delta or 30A, 208V, 4 wire 3Ø Y (specify with order)*
- **System accuracy:** *+/–0.25%*

> *System accuracy is based upon the high accuracy of the NIST traceable Radian RD-20 series reference standard.*

- **Meter forms tested:** *1S-6S, 8S-17S, 19S, 21S, 25S, 26S, 29S, 35S, 36S, 45S, 46S, 56S, or 66S*
- **Weight:** *Twelve (12) stations — 1,400 lbs (approximately)*
- **Dimensions:** *71.25″ H × (19.5″ per three test station bay + 1.5)″ W × 33″ D cabinet model with writing ledge 30″ above base*
  Twelve (12) stations 82.5″ W
- **Housing:** *All aluminum construction*
- **Warranty:**
  Two (2) year limited warranty (all parts and labor). Manufacturer warranty on computer.

Optional Accessories:

- **RD-20-202 Radian Research™** standard for KW, KVar, KVA-RMS, and Q energy measurement capability
- **Single or multi stator A-base adapters - 2 per bay (top and bottom)**
- **Barcode reader**

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