



SPECIALTY COATING SYSTEMS™



SCS Ionograph® Series

SCS Ionograph Test Systems

Specialty Coating Systems' name is synonymous in the industry with automated ROSE (Resistivity of Solvent Extract) testing systems. SCS Ionograph ionic contamination test systems utilize the dynamic extraction method to measure resistivity change when a substrate is submerged in the ultra-pure test solution. The degree of change in resistivity indicates the level of contamination, which is often the result of residues from fabrication and board assembly processes.

SCS offers a full range of capacity and control to meet the needs of any lab or manufacturer. Designed for fast and accurate ionic contamination cleanliness testing, SCS Ionographs:

- Determine the cleanliness of electronic components, assemblies with SMT devices, and bare and assembled printed circuit boards.
- Provide an accurate, repeatable and rapid method for determining cleanliness on location.
- Provide immediate process control results, negating the need for outside laboratory testing.
- Verify proper cleanliness of surfaces prior to the application of conformal coatings or potting compounds.
- Comply with current industrial specifications such as ANSI/J-STD-001D and IPC-TM-650, and obsolete military specifications, e.g., MIL-STD-2000A.

SCS Ionograph SMD II and IV

SCS Ionograph SMD II and IV are floor units commonly used for production and high-volume ionic contamination testing. Submerged agitation jets and heated extract solution provide outstanding sensitivity, operation efficiency and the ability to test ultra-fine pitch components with ease and accuracy.

The SCS Ionograph SMD II and IV offer users the ability to test components with a heated or non-heated test solution. IPC-TM-650 describes the benefit of a heated solution to “accelerate and improve the efficiency of extraction of ionic material from poorly accessible regions, such as under surface-mounted components.” In addition to increasing cleaning efficiency, a heated system also ensures temperature consistency of the test solution, whereas solution temperature in an unheated system can vary due to circulation pump friction created during the testing process.

The SMD IV is the first ionic testing system in the market to offer Bluetooth® technology for wireless communication. In addition to NFPA compliance, the SMD IV is also the first cleanliness testing unit that is ETL-listed to UL STD 61010-1, ATEX and CE compliant, and nitrogen-inerted for added safety.

SCS Ionograph 500M Benchtop Models

SCS also offers convenient benchtop Ionographs for the quick and accurate testing of individual parts, complete assemblies or small devices. The units enable users to match the test cell size with common substrate sizes to provide enhanced testing accuracy.

SCS Benchtop Ionographs range in test cell size and capacity, including:

- Small Parts (SP): 6 x 6 in
- Standard Parts (STD): 12 x 14 in
- Large Parts (LP): 14 x 20 in



SCS PowerView™ Software

SCS Ionographs are controlled by proprietary PowerView software, specifically developed for the ultimate programming and supervision of SCS ionic contamination test equipment. Users can create, save and run unlimited test profiles, and collected data can be archived, exported and analyzed.

The Windows®-based program establishes contamination testing parameters and calibrates equipment for consistent, repeatable and accurate measurements. Data is transmitted to the controlling computer for export, reporting and comparison. This feature provides unparalleled ease of analysis and flexibility in creating data charts and tables. The Bluetooth-enabled SMD IV communicates wirelessly with PowerView, providing additional freedom and flexibility.

PowerView Features Include:

- Enhanced 32-bit user interface
- Enhanced graphical and database capabilities
- Built-in profile and test data query system
- Simplified database export capabilities
- Multi-level password protection for added security
- Operates on multiple Windows platforms
- Network connectivity for remote access/archiving
- PDF test results for ease of dissemination

Ionograph Specifications

Characteristic	SMD II Module*	SMD IV Module**	500M SP Test Module	500M STD Test Module	500M LP Test Module
Test Cell Size	18 x 20 in / 45.7 x 50.8 cm 20 x 26 in / 50.8 x 66 cm 26 x 30 in / 66 x 76.2 cm 26 x 38 in / 66 x 96.5 cm	18 x 20 in / 45.7 x 50.8 cm 20 x 26 in / 50.8 x 66 cm	6 x 6 in / 15.2 x 15.2 cm	12 x 14 in / 30.5 x 35.5 cm	14 x 20 in / 35.3 x 50.8 cm
Solution Capacity	7 - 17.1 g / 26.5 - 64.8 L	7 - 12 g / 26.5 - 45.5 L	0.8 g / 2.8 L	2.7 g / 10.2 L	5 g / 18.9 L
Dimensions (W x D x H)	43.3 x 23 x 38.5 in / 110 x 58.5 x 97.8 cm	43.3 x 23 x 38.5 in / 110 x 58.5 x 97.8 cm	23 x 27 x 19 in / 58.4 x 68.6 x 48.2 cm	23 x 27 x 19 in / 58.4 x 68.6 x 48.2 cm	23 x 27 x 30 in / 58.4 x 68.6 x 76.2 cm
Weight	240 lb / 108 kg	345 lb / 157 kg	65 lb / 29 kg	75 lb / 34 kg	75 lb / 34 kg
Power Requirements	120 VAC, 60 Hz, 12 A / 240 VAC, 50 Hz, 6 A	120 VAC, 60 Hz, 12 A / 240 VAC, 50 Hz, 6 A	120 VAC, 60 Hz, 5 A / 240 VAC, 50 Hz, 2.5 A	120 VAC, 60 Hz, 5 A / 240 VAC, 50 Hz, 2.5 A	120 VAC, 60 Hz, 5 A / 240 VAC, 50 Hz, 2.5 A
Maximum Operating Temp.	113° F / 45° C	113° F / 45° C	—	—	—
Pump	Expl. Proof: Class 1, Div. 1, Groups C and D	Expl. Proof: Class 1, Div. 1, Groups C and D	—	—	—

*Over temperature control: double fault protection.

**Over temperature control: double fault protection. Intrinsically safe barriers: Class I, II and III, Div. 1, Groups A through G.



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087 4/10