



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

F-SQUARED LABORATORIES
 26501 Ridge Road
 Damascus, MD 20872
 Wendy Fuster Phone: 301 253 4500

ELECTRICAL

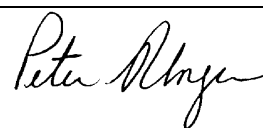
Valid to: September 30, 2013

Certificate Number: 0793.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests:

<u>Product Safety</u>	<u>(Excluding UV Tests, Where Applicable)</u>
<u>Test Methods</u>	<u>Technology</u>
IEC/EN/UL 60601-1	Medical Electrical Equipment Part 1: General Requirements for Safety
CSA 601.1	Medical Electrical Equipment Part 1: General Requirements for Safety
IEC/EN 60601-1-1	Medical Electrical Systems
IEC/EN/CSA 60601	Medical Electrical Equipment, All Part 2 Particular Requirements
IEC/EN/UL/CSA 61010-1	Electrical Equipment for Laboratory Use Part 1: General Requirements
IEC/EN/UL/CSA 61010	Electrical Equipment for Laboratory, All Part 2 Particular Requirements
IEC/EN/UL/CSA -1; AS/NZS 60950-1	Safety of Information Technology Equipment, Including Electrical Business Equipment
IEC/EN/UL/CSA 60065; AS/NZS 60065	Audio, Video and Similar Electronic Apparatus Safety Requirements
IEC/EN/UL/CSA 60745-1	Portable Electric Tools
IEC/EN/UL/CSA 60745	Portable Electric Tools; All Part 2 Particular Requirements
IEC/EN 60598	Luminaires
UL 1598	Luminaires
IEC/EN 60204-1	Safety of Machinery – General Requirements
IEC/EN 60204-11	Safety of Machinery – HV Equipment
IEC/EN 60204-31	Safety of Machinery – Sewing Machines
IEC/EN 60204-32	Safety of Machinery – Hoisting Machines
EN 1050	Safety of Machinery – Risk Assessment
EN 12100-2	Safety of Machinery – Technical Principles
CSA 107.2	Battery Chargers
CSA 107.1	General Use Power Supplies
IEC/EN/UL/CSA 60335-1	Safety of Household and Similar Electrical Appliances Part 1: General Requirements
IEC/EN/UL/CSA 60335	Safety of Household and Similar Electrical Appliances, All Part 2 Particular Requirements
CSA 04; CSA 14	Bonding and Grounding of Electrical Equipment Industrial Control Equipment
CSA 1017	Vacuum Cleaners, Blower Cleaners and Household Floor Finishing Machines
IEC/EN 60529	Degrees of Protection Provided by Enclosures (IP Code)
NEMA 250	Enclosures for Electrical Equipment (1000 Volts Maximum)
CSA 236	Heating and Cooling Equipment
CSA 128	Vending Machines

<u>Test Methods</u>	<u>Technology</u>
CSA 46	Electric Air Heaters
NFPA 496	Standard for Purged and Pressurized Enclosures for Electrical Equipment
ISA 12.12.01	Nonincendive Electrical Equipment
UL/CSA/60079 Series	Electrical Apparatus Equipment Used in Hazardous Locations
UL 22	Amusement and Gaming Machines
UL 45	Portable Electric Tools
UL 48	Electric Signs
UL 50	Electric Cabinets and Boxes
UL 67	Electric Panelboards
UL 73	Motor-Operated Appliances
UL 82	Electric Gardening Appliances
UL 94	Tests for Flammability of Plastic Materials for Parts in Devices and Appliances
UL 98	Enclosed and Dead-Front Switches
UL 122	Photographic Equipment
UL 130	Electric Heating Pads
UL 141	Garment Finishing Appliances
UL 153	Portable Electric Lamps
UL 174	Household Electric Storage-Tank Water Heaters
UL 187	X-Ray Equipment
UL 197	Commercial Electric Cooking Appliances
UL 213	Rubber Gasketed Fittings for Fire Protection Service
UL 244A	Solid State Controls for Appliances
UL 250	Household Refrigerators and Freezers
UL 294	Access Control System Units
UL 298	Portable Electric Hand Lamps
UL 325	Door, Drapery, Louver and Window Operators and Systems
UL 353	Limit Controls
UL 355	Cord Reels
UL 429	Electrically Operated Valves
UL 467	Grounding and Bonding Equipment
UL 469	Musical Instruments and Accessories
UL 471	Commercial Refrigerators and Freezers
UL 482	Portable Sun/Heat Lamps
UL 484	Room Air Conditioners
UL 496	Edison-Base Lampholders
UL 498	Attachment Plugs and Receptacles
UL 499	Electric Heating Appliances
UL 506	Specialty Transformers
UL 507	Electric Fans
UL 508	Industrial Control Equipment
UL 508A	Industrial Control Panels
UL 508B	Relays Used in Information Technology Equipment
UL 508C	Power Conversion Equipment
UL 508E	Short Circuit Tests of Electromechanical Motor Controllers
UL 514	Metallic Outlet Boxes
UL 541	Refrigerated Vending Machines
UL 542	Lampholders, Starters, and Starter Holders for Fluorescent Lamps
UL 544	Electric Medical and Dental Equipment
UL 561	Floor Finishing Machines
UL 563	Ice Makers
UL 609	Local Burglar-Alarm Units and Systems
UL 632	Electrically Actuated Transmitters
UL 696	Electric Toys



Test Methods	Technology
UL 697	Toy Transformers
UL 749	Household Dishwashers
UL 751	Vending Machines
UL 756	Coin and Currency Changers and Actuators
UL 763	Motor Operated Commercial Food Preparing Machines
UL 778	Motor-Operated Water Pumps
UL 796	Printed-Wiring Boards
UL 813	Commercial Audio Equipment
UL 817	Cord Sets & Power-Supply Cords
UL 826	Household Electric Clocks
UL 840	Insulation Coordination Including Clearances and Creepage Distances for Electrical Equipment
UL 858	Household Electric Ranges
UL 859	Household Electric Personal Grooming Appliances
UL 863	Electric Time-Indicating and Recording Appliance
UL 867	Electrostatic Air Cleaners
UL 869A	Reference Standard for Service Equipment
UL 873	Electrical Temperature-Indicating and Regulating Equipment
UL 913	Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II, Division I, Hazardous (Classified) Locations
UL 916	Energy Management Equipment
UL 917	Clock Operated Switches
UL 921	Commercial Electric Dishwashers
UL 923	Microwave Cooking Appliances
UL 924	Emergency Lighting and Power Equipment
UL 935	Fluorescent-Lamp Ballasts
UL 961	Electric Hobby and Sports Equipment
UL 969	Marking and Labeling Systems
UL 982	Motor Operated Household Food Preparing Machines
UL 984	Hermetic Refrigerant Motor-Compressors
UL 987	Stationary and Fixed Electric Tools
UL 998	Humidifiers
UL 1004	Electric Motors
UL 1005	Electric Flatirons
UL 1008	Transfer Switch Equipment
UL 1012	Power Units Other Than Class 2
UL 1017	Vacuum Cleaners, Blower Cleaners and Household Floor Finishing Machines
UL 1018	Electric Aquarium Equipment
UL 1026	Electric Household Cooking and Food-Serving Equipment
UL 1028	Hair Clipping and Shaving Appliances
UL 1029	High-Intensity Discharge Lamp Ballasts
UL 1042	Electric Baseboard Heating Equipment
UL 1069	Hospital Signaling and Nurse-Call System
UL 1082	Household Electric Coffee Makers and Brewing-Type Appliances
UL 1083	Household Electric Skillets and Frying Type Appliances
UL 1086	Household Trash Compactors
UL 1088	Temporary Lighting Strings
UL 1206	Electric Commercial Clothes Washing Machines
UL 1230	Amateur Movie Lights
UL 1236	Battery Chargers For Charging Engine-Starter Batteries
UL 1244	Electrical and Electronic Measuring and Testing Equipment

Test Methods	Technology
UL 1261	Electric Water Heaters for Pools and Tubs
UL 1262	Laboratory Equipment
UL 1286	Office Furnishings
UL 1310	Class 2 Power Units
UL 1418	Cathode-Ray Tubes
UL 1431	Personal Hygiene and Health Care Appliances
UL 1433	Control Centers for Changing Message Type Electric Signs
UL 1445	Electric Water Bed Heaters
UL 1447	Electric Lawn Mowers
UL 1448	Electric Hedge Trimmers
UL 1459	Telephone Equipment
UL 1472	Solid-State Dimming Controls
UL 1492	Audio and Video Equipment
UL 1563	Electric Spas
UL 1564	Industrial Battery Chargers
UL 1573	Stage and Studio Lighting Units
UL 1574	Track Lighting Systems
UL 1585	Class 2 and Class 3 Transformers
UL 1594	Sewing and Cutting Machines
UL 1598	Luminaries
UL 1604	Electrical Equipment for use in Class I and II, Division II and Class III Hazardous (Classified) Locations
UL 1638	Visual Signaling Appliances
UL 1647	Motor-Operated Massage and Exercise Machines
UL 1727	Commercial Electric Personal Grooming Appliances
UL 1786	Nightlights
UL 1838	Low Voltage Landscape Lighting Systems
UL 1993	Self-Ballasted Lamps and Lamp Adapters
UL 1995	Heating and Cooling Equipment
UL 2044	Commercial Closed Circuit Television Equipment
UL 2157	Electric Clothes Washing Machines and Extractors
UL 2158	Electric Clothes Dryers
UL 2161	Neon Transformers and Power Supplies
UL 2305	Exhibition, Display Units, Fabrication and Instillation
UL 2601-1	Medical Electrical Equipment Part 1: General Requirements for Safety
UL 3044	Surveillance Closed Circuit Television Equipment
UL 3111-1	Electrical Measuring and Test Equipment Part 1: General Requirements
UL 61010A-2-10	Electrical Equipment for Laboratory Use Part 2: Particular Requirements for Laboratory Equipment for the Heating of Materials
UL 61010A-2-20	Electrical Equipment for Laboratory Use Part 2: Particular Requirements for Laboratory Centrifuges
UL 61010A-2-41	Electrical Equipment for Laboratory Use Part 2: Particular Requirements for Autoclaves Using Steam for the Treatment of Medical Materials and for Laboratory Processes
UL 61010A-2-42	Electrical Equipment for Laboratory Use Part 2: Particular Requirements for Autoclaves and Sterilizers Using Toxic Gas for the Treatment of Medical Materials and for Laboratory Processes
UL 61010A-2-51	Electrical Equipment for Laboratory Use Part 2: Particular Requirements for Laboratory Equipment for Mixing and Stirring
UL 61010A-2-61	Electrical Equipment for Laboratory Use Part 2: Particular Requirements for Laboratory Atomic Spectrometers with Thermal Atomization and Ionization
UL 61010B-1	Electrical Measuring and Test Equipment Part 1: General Requirements

Test Methods	Technology
UL 61010B-2-31	Electrical Equipment for Measurement, Control, and Laboratory use Part 2: Particular Requirements for Hand-Held Probe Assemblies for Electrical Measurement and Test-First Edition
UL 61010B-2-32	Electrical Equipment for Measurement, Control, and Laboratory use Part 2: Particular Requirements for Hand-Held Current Clamps for Electrical Measurement and Test
UL 61010C-1	Process Control Equipment
UL 60730-1A	Automatic Electrical Controls for Household and Similar use; Part 1: General Requirements
UL 60730-2-3	Automatic Electrical Controls for Household and Similar use; Part 2: Particular Requirements for Thermal Protectors for Ballasts for Tubular Fluorescent Lamps
UL 60730-2-4	Automatic Electrical Controls for Household and Similar use; Part 2: Particular Requirements for Thermal Motor Protectors for Motor-Compressors of Hermetic and Semi-Hermetic Type
UL 60730-2-16A	Automatic Electrical Controls for Household and Similar use; Part 2: Particular Requirements for Automatic Electrical Water Level Controls
UL 6500	Audio, Video and Similar Electronic Apparatus Safety Requirements
<u>On the Following Types of Products / Equipment:</u> Information Technology Equipment (ITE); Scientific Equipment; Industrial Equipment; Test & Measurement Equipment; Lighting Equipment; Household Appliances / Electric Tools; Audio / Video Equipment; Medical Equipment; Electrical Control Equipment and Electrical Laboratory Equipment.	



World Class Accreditation

The American Association for Laboratory Accreditation

Accredited Laboratory

A2LA has accredited

F-SQUARED LABORATORIES

Damascus, MD

for technical competence in the field of

Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General Requirements for the Competence of Testing and Calibration Laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009*).

Presented this 18th day of October 2011.



A handwritten signature in black ink, appearing to read "Peter Abney", written over a horizontal line.

President & CEO
For the Accreditation Council
Certificate Number 0793.01
Valid to September 30, 2013
Revised November 07, 2011

For the tests or types of tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.