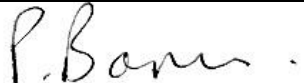


## Laboratory Accreditation Programmes

Schedule to  
**CERTIFICATE OF ACCREDITATION**

<b>Laboratory</b>	Spectrum Laboratories Limited	
<b>Address</b>	PO Box 204252, Highbrook, Auckland, 2161 Unit 1/25 Highbrook Drive, East Tamaki, Auckland, 2013	
<b>Telephone</b>	09 271-1616	
<b>URL</b>	www.spectrumlab.co.nz	
<b>Authorised Representative</b>	Mr John Mason Managing Director	
<b>Client No.</b>	1044	
<b>Programme</b>	Electrical Testing Laboratory	
<b>Accreditation Number</b>	374	
<b>Initial Accreditation Date</b>	6 July 1988	
<b>Conformance Standard</b>	ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories	
<b>Testing Services Summary</b>	3.60	Environmental Tests
	3.80	Approval Tests on Electrical Appliances
<b>Signatories</b>	Mr Chris Beazley	3.60, 3.80 (AS/NZS 31XX series, AS/NZS 60598 series, AS/NZS 61347 series, AS/NZS 60968 only) incl. any IEC or BS EN variants included on the scope of accreditation
	Mr Arun Kumar	3.60, 3.80

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### 3.60 Environmental Tests

(d) Impact tests

- BS EN 60068-2-75 Environmental testing. Test methods. Test Eh. Hammer tests (IK10+ impact tests only)
- BS EN 62262 Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code - IK10+ impact tests only)

### 3.80 Approval Tests on Electrical Appliances

Note: This laboratory will need to sub-contract the following tests where relevant:  
 Arc-tracking resistance, Izod impact test, EMC emission and EMC immunity, Impulse test, Proof Tracking Index (PTI) test, Vibration and Shock tests, Flammable Refrigerant tests, Photometric tests and electronic controls using software for safety purposes to Annex R of IEC 60335 Part 1 and Annex H of IEC 60730 Part 1 (and equivalent EN AS/NZS standards).

Marking, instructions and AS/NZS National Variations can be tested for any National or International test standards.

- (a) General requirements to AS/NZS 3100
- (b) Particular requirements to AS /NZS 31XXX
- (c) General requirements to AS/NZS 60335.1
- (d) Particular requirements to AS/NZS 60335.2.XX
- (e) IP ratings to AS/NZS 60529
- (f) Fire hazard testing of electrotechnical products to AS/NZS 60695 series
- (g) Insulation tests
- (h) Temperature measurements
- (i) DC component from AC equipment
- (j) Switch endurance tests
- (k) Motor rating tests
- (l) Socket outlet's current-breaking tests
- (m) Other tests and other IEC equivalents

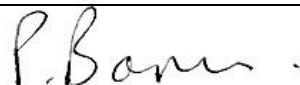
#### Australian Standards

- AS 60529 Degrees of protection provided by enclosures for electrical equipment (IP Code) except for IPX2

#### Australian / New Zealand Standards

- AS/NZS 3100 General requirements for electrical equipment
- AS/NZS 3105 Electrical portable outlet devices
- AS/NZS 3112 Plugs and sockets
- AS/NZS 3117 Bayonet lampholders
- AS/NZS 3119 Lampholder adaptors

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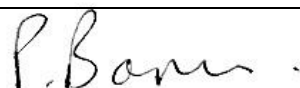
# CERTIFICATE OF ACCREDITATION

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AS/NZS 3120	Cord extension sockets
AS/NZS 3122	Socket – outlet adaptors
AS/NZS 3127	Approval and test specification – Cord-line switches
AS/NZS 3133	Air break switches
AS/NZS 3136	Electrical equipment for spa-baths and spa and swimming pools
AS/NZS 3140	Edison-type screw lampholders
AS/NZS 3161	Thermostats and energy regulators
AS/NZS 3190	Residual current devices
AS/NZS 3197	Portable electrical control or conditioning devices
AS/NZS 60065	Audio, video and similar electronic apparatus – Safety Requirements (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60335.1	Safety of household and similar electrical appliances – General requirements
AS/NZS 60335.2.2	Vacuum cleaners and water suction cleaning appliances (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60335.2.3	Electric irons (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60335.2.6	Stationary cooking ranges, hobs, ovens and similar appliances (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60335.2.7	Washing machines (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60335.2.8	Shavers, hair clippers and similar appliances
AS/NZS 60335.2.9	Grills, toasters and similar portable cooking appliances
AS/NZS 60335.2.10	Floor treatment machines and wet scrubbing machines
AS/NZS 60335.2.11	Tumble dryers (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60335.2.12	Warming plates and similar appliances (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60335.2.13	Deep fat fryers, frying pans and similar appliances
AS/NZS 60335.2.14	Kitchen machines
AS/NZS 60335.2.15	Appliances for heating liquids
AS/NZS 60335.2.16	Food waste disposers (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60335.2.17	Blankets, pads and similar flexible heating appliances (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60335.2.21	Storage water heaters
AS/NZS 60335.2.23	Appliances for skin and hair care
AS/NZS 60335.2.24	Refrigerating appliances and ice-cream appliances and ice-makers
AS/NZS 60335.2.25	Microwave ovens (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60335.2.29	Battery chargers (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60335.2.30	Room heaters
AS/NZS 60335.2.31	Range hoods (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60335.2.32	Massage appliances
AS/NZS 60335.2.35	Instantaneous water heaters (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60335.2.40	Electrical heat pumps, air-conditioners and dehumidifiers (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60335.2.41	Pumps
AS/NZS 60335.2.43	Clothes dryers and towel rails
AS/NZS 60335.2.45	Portable heating tools and similar appliances
AS/NZS 60335.2.52	Oral hygiene appliances (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60335.2.53	Sauna heating appliances

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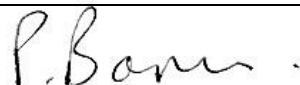
# CERTIFICATE OF ACCREDITATION

Spectrum Laboratories Limited  
 Electrical Testing Laboratory  
**SCOPE OF ACCREDITATION**

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AS/NZS 60335.2.55	Electrical appliances for use with aquariums and garden ponds (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60335.2.59	Insect killers [excluding clauses 31 (resistance to rusting) & 32 (radiation, toxicity and similar hazards)]
AS/NZS 60335.2.60	Whirlpool baths and whirlpool spas
AS/NZS 60335.2.61	Thermal-storage room heaters
AS/NZS 60335.2.65	Air-cleaning appliances (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60335.2.69	Wet and dry vacuum cleaners, including power brush, for industrial and commercial use- (excluding clause 22.35 + need to sub contract clauses 21.102 to 21.106)
AS/NZS 60335.2.73	Fixed immersion heaters
AS/NZS 60335.2.74	Portable immersion heaters
AS/NZS 60335.2.76	Electric fence energisers (battery operated with rated voltage ≤ 42.4 Volts only)
AS/NZS 60335.2.77	Pedestrian controlled mains-operated lawnmowers, excluding the following clauses: 20 (Stability & mechanical hazards), 21 (Mechanical strength) and 22 (Construction)
AS/NZS 60335.2.78	Outdoor barbecues (excluding clause 31 salt mist test)
AS/NZS 60335.2.80	Electric fans
AS/NZS 60335.2.81	Foot warmers and heating mats (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60335.2.84	Toilets (clauses 7, 10, 11, 13, 15, 16, 17, 19, 22, 24, 25, 29, 30 & AS/NZS National variations only)
AS/NZS 60335.2.85	Fabric steamers (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60335.2.89	Commercial refrigerating appliances with an incorporated or remote refrigerant condensing unit or compressor (excluding clause 22 test for flammable refrigerants)
AS/NZS 60335.2.91	Walk-behind and hand-held lawn trimmers and lawn edge trimmers (clauses 7, 25 & AS/NZS National variations only))
AS/NZS 60335.2.95	Drives for vertically moving garage doors for residential use (clauses 7, 25, 20.104 & AS/NZS National variations only)
AS/NZS 60335.2.96	Flexible sheet heating elements for room heaters (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60335.2.97	Drives for rolling shutter awnings blinds and similar equipment (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60335.2.98	Humidifiers (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60335.2.100	Hand-held mains-operated garden blowers, vacuums and blower vacuums (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60335.2.102	Particular requirements for gas, oil and solid-fuel burning appliances with electrical connections
AS/NZS 60335.2.109	UV radiation water treatment (excluding clauses 32.101, 32.102 and Annex AA concerning UV radiation and ozone emission measurements)
AS/NZS 60598.1	Luminaires – General requirements and tests
AS/NZS 60598.2.1	Fixed general purpose luminaires
AS/NZS 60598.2.2	Recessed luminaires
AS/NZS 60598.2.4	Portable general purpose luminaires
AS/NZS 60598.2.5	Floodlights
AS/NZS 60598.2.6	Luminaires with built-in transformers or convertors for filament lamps

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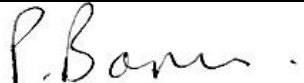
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AS/NZS 60598.2.7	Portable luminaires for garden use
AS/NZS 60598.2.8	Handlamps
AS/NZS 60598.2.10	Portable luminaires for children
AS/NZS 60598.2.12	Mains socket-outlet mounted nightlights
AS/NZS 60598.2.18	Luminaires for swimming pools and similar appliances
AS/NZS 60598.2.20	Lighting chains
AS/NZS 60598.2.22	Emergency lighting
AS/NZS 60695.1	Fire hazard testing – Guidance for assessing the fire hazard of electrotechnical products
AS/NZS 60695.2	Fire test methods for solid insulating materials and non-metallic enclosures (Part 2.10-2.13) used in electrical equipment
AS/NZS 60745.1	Safety of hand-held motor operated electric tools – General requirements (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60745.2.1	Drills and impact drills (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60745.2.2	Screwdrivers (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60745.2.3	Grinders, polishers and disk-type sanders (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60745.2.4	Sanders and polishers other than disk type (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60745.2.5	Circular saws (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60745.2.6	Hammers (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60745.2.8	Shear and nibblers (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60745.2.11	Reciprocating saws (jig and sabre saws) (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60745.2.13	Chain saws (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60745.2.14	Planers (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60745.2.15	Hedge trimmers (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60745.2.16	Tackers (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60745.2.17	Routers and trimmers (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60745.2.19	Joiners (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60898.1	Electrical accessories – Circuit-breakers for overcurrent protection for household and similar installations – Circuit breakers for a.c. operation (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60950.1	Safety of information technology equipment–General requirements (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 60968	Self ballasted lamps for general lighting services – Safety requirements (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 61008.1	Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCBs) – General rules (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 61009.1	Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses (RCCBs) – General rules (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 61058.1	Switches for appliances (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 61347.1	Lamp controlgear
AS/NZS 61347.2.2	d.c. or a.c. supplied electronic step-down converters for filament lamps
AS/NZS 61347.2.3	a.c. supplied electronic ballasts for fluorescent lamps
AS/NZS 61347.2.11	Miscellaneous electronic circuits used with luminaires

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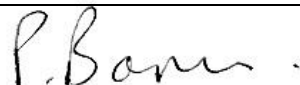
# CERTIFICATE OF ACCREDITATION

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 Electrical Testing Laboratory  
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AS/NZS 61347.2.13 AS/NZS 61558.1	d.c. or a.c. supplied electronic controlgear for LED modules Safety of power transformers, power supply units and similar –General Requirements and tests
AS/NZS 61558.2.4 AS/NZS 61558.2.6 AS/NZS 61558.2.16	Isolating transformers for general use Safety isolating transformers for general use Switch mode power supply units and transformers for switch mode power supply units (clauses 7, 25 & AS/NZS National variations only)
AS/NZS 62560	Self-ballasted LED-lamps for general lighting services by voltage > 50 V – Safety specifications (clauses 7, 25 & AS/NZS National variations only)
<b>IEC Standards</b>	
IEC 60204-1	Electrical equipment of machines – General requirements
IEC 60335-1	Safety of household and similar electrical appliances - General requirements
IEC 60335-2-8	Shavers, hair clippers and similar appliances
IEC 60335-2-9	Grills, toasters and similar portable cooking appliances
IEC 60335-2-10	Floor treatment machines and wet scrubbing machines
IEC 60335-2-13	Deep fat fryers, frying pans and similar appliances
IEC 60335-2-14	Kitchen machines
IEC 60335-2-15	Appliances for heating liquids
IEC 60335-2-21	Storage water heaters
IEC 60335-2-23	Appliances for skin or hair care
IEC 60335-2-24	Refrigerating appliances and ice-cream appliances and ice-makers
IEC 60335-2-30	Room heaters
IEC 60335-2-32	Massage appliances
IEC 60335-2-40	Electrical heat pumps, air-conditioners and dehumidifiers
IEC 60335-2-41	Pumps
IEC 60335-2-43	Clothes dryers and towel rails
IEC 60335-2-45	Portable heating tools and similar appliances
IEC 60335-2-59	Insect killers [excluding clauses 31 (resistance to rusting) & 32 (radiation, toxicity and similar hazards)]
IEC 60335-2-60	Whirlpool baths and whirlpool spas
IEC 60335-2-69	Wet and dry vacuum cleaners, including power brush, for industrial and commercial use- (excluding clause 22.35 + need to sub contract clauses 21.102 to 21.106)
IEC 60335-2-73	Fixed immersion heaters
IEC 60335-2-74	Portable immersion heaters
IEC 60335-2-76	Electric fence energisers (battery operated with rated voltage ≤ 42.4 Volts only)
IEC 60335.2.77	Pedestrian controlled mains-operated lawnmowers, excluding the following clauses: 20 (Stability & mechanical hazards), 21 (Mechanical strength) and 22 (Construction)
IEC 60335-2-78	Outdoor barbecues (excluding clause 31 salt mist test)
IEC 60335-2-80	Electric fans
IEC 60335-2-89	Commercial refrigerating appliances with an incorporated or remote refrigerant condensing unit or compressor (excluding clause 22 test for flammable refrigerants)
IEC 60335-2-102	Safety- Particular requirements for gas, oil and solid-fuel burning appliances with electrical connections

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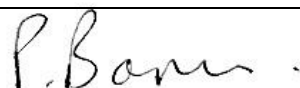
# CERTIFICATE OF ACCREDITATION

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 Electrical Testing Laboratory  
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Accreditation No 374

IEC 60519-1	Installations for electroheating and electromagnetic processing – General Requirements
IEC 60529	Degrees of protection provided by enclosures for electrical equipment (IP Code) except for IPX2
IEC 60598-1	Luminaires – General requirements and tests
IEC 60598-2-1	Fixed general purpose luminaires
IEC 60598-2-2	Recessed luminaires
IEC 60598-2-4	Portable general purpose luminaires
IEC 60598-2-5	Floodlights
IEC 60598-2-6	Luminaires with built-in transformers or convertors for filament lamps
IEC 60598-2-7	Portable luminaires for garden use
IEC 60598-2-8	Handlamps
IEC 60598-2-10	Portable luminaires for children
IEC 60598-2-18	Luminaires for swimming pools and similar appliances
IEC 60598-2-20	Lighting chains
IEC 60598-2-22	Emergency lighting
IEC 61347-1	Lamp controlgear
IEC 61347-2-2	d.c. or a.c. supplied electronic step-down converters for filament lamps
IEC 61347-2-3	a.c. supplied electronic ballasts for fluorescent lamps
IEC 61347-2-11	Miscellaneous electronic circuits used with luminaires
IEC 61347-2-13	d.c. or a.c. supplied electronic controlgear for LED modules (excluding clause 1.6.3.3 vibration test)
IEC 61558-1	Safety of power transformers, power supply, reactors and similar products - General requirements and tests (excluding insulated winding wire tests in Annex K)
IEC 61558-2-4	Isolating transformers for general use
IEC 61558-2-6	Safety isolating transformers for general use
EN Standards	
EN 60335-1	Safety of household and similar electrical appliances – General requirements
EN 60335-2-76	Electric fence energisers

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