


Schedule to

CERTIFICATE OF ACCREDITATION

Laboratory	Spectrum Laboratories Limited	
Address	PO Box 204252, Highbrook, Auckland, 2161 Unit 1/25 Highbrook Drive, East Tamaki, Auckland, 2013	
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URL	www.spectrumlab.co.nz	
Authorised Representative	Mr Graeme Linton Managing Director	
Client No.	1044	
Programme	Electrical Testing Laboratory	
Accreditation Number	374	
Initial Accreditation Date	6 July 1988	
Conformance Standard	NZS ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories	
Testing Services Summary	3.80	Approval Tests on Electrical Appliances
Signatories	<div>Mr Chris Beazley</div> <div>3.80 (AS/NZS 31XX series, luminaire tests to AS/NZS 60598 series, lamp control gear tests to AS/NZS 61347 series & AS/NZS 60968 only)</div> <div>Mr Damian Farrelly</div> <div>3.80 (excluding 60335.2.76)</div> <div>Mr John Liu</div> <div>3.80 (AS/NZS 60598.1- Parts 2: 1,2 & 4 only, AS/NZS 60335.1 & part 2.2, 2.3, 2.6, 2.7, 2.8, 2.9, 2.14, 2.15, 2.16, 2.23, 2.24, 2.30, 2.31, 2.40, 2.41, 2.43, 2.45, 2.80, 2.102)</div> <div>Mr Carl Vroegop</div> <div>3.80</div>	

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3.80 Approval Tests on Electrical Appliances

Tests on electrical appliances and accessories in accordance with the following standards

Note: This laboratory will need to sub-contract the following tests where relevant:
Arc-tracking resistance, Izod impact test, EMC emission and EMC immunity

- (a) General requirements to AS/NZS 3100
- (b) Particular requirements to AS /NZS 31XXX
- (c) General requirements to AS/NZS 3350.1 or AS/NZS 60335.1
- (d) Particular requirements to AS/NZS 3350.2.XX or 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

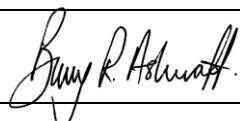
Australian Standards

- AS 1308 Electric water heaters – Thermostats and thermal cut-outs
- AS 3119 Normal bayonet lampholder adaptors
- AS 60529 Degrees of protection provided by enclosures for electrical equipment

Australian / New Zealand Standards

- AS/NZS 2053.1 Degrees of protection provided by enclosures for electrical equipment (IP Code) except for IP5X, IP6X, IPX2 and IPX6
- AS/NZS 3100 General requirements for electrical equipment
- AS/NZS 3105 Electrical portable outlet devices
- AS/NZS 3108 Isolating transformers and safety isolating transformers
- AS/NZS 3112 Plugs and sockets
- AS/NZS 3117 Bayonet lampholders
- AS/NZS 3120 Cord extension sockets
- AS/NZS 3122 Socket –outlet adaptors
- AS/NZS 3127 Cord-line switches
- AS/NZS 3128 Portable lamp standards and brackets
- AS/NZS 3133 Air break switches
- AS/NZS 3136 Electrical equipment for spa-baths and spa and swimming pools

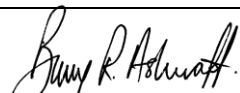
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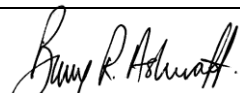


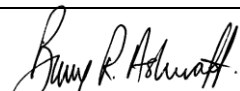
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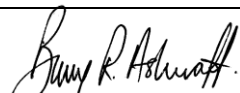
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Spectrum Laboratories Limited Electrical Testing Laboratory SCOPE OF ACCREDITATION		Accreditation No 374	
AS/NZS 3137	Luminaires (light fittings)		
AS/NZS 3140	Edison-type screw lampholders		
AS/NZS 3161	Thermostats and energy regulators		
AS/NZS 3190	Residual current devices (current operated earth leakage devices) excluding the tests of clauses 8.13 (Test No 17), 8.14 (Test No 18) and 8.16 (Test No 20)		
AS/NZS 3197	Portable electrical control or conditioning devices		
AS/NZS 3260	Information technology equipment (excluding Section 6 and Annex A)		
AS/NZS 3350.1	Safety of household and similar electrical appliances: General requirements		
AS/NZS 3350.2.2	Vacuum cleaners and water suction cleaning appliances		
AS/NZS 3350.2.3	Electric irons		
AS/NZS 3350.2.6	Stationary cooking ranges, hobs, ovens and similar appliances		
AS/NZS 3350.2.8	Shavers, hair clippers and similar appliances		
AS/NZS 3350.2.9	Grills, toasters and similar portable cooking appliances		
AS/NZS 3350.2.11	Tumble dryers		
AS/NZS 3350.2.13	Deep fat fryers, frying pans and similar appliances		
AS/NZS 3350.2.14	Kitchen machines		
AS/NZS 3350.2.15	Appliances for heating liquids		
AS/NZS 3350.2.16	Food waste disposers		
AS/NZS 3350.2.21	Storage water heaters		
AS/NZS 3350.2.23	Appliances for skin or hair care		
AS/NZS 3350.2.24	Refrigerating appliances and ice-cream appliances and ice-makers		
AS/NZS 3350.2.26	Clocks		
AS/NZS 3350.2.28	Sewing machines		
AS/NZS 3350.2.29	Battery chargers		
AS/NZS 3350.2.30	Room heaters		
AS/NZS 3350.2.31	Range hoods		
AS/NZS 3350.2.32	Massage appliances		
AS/NZS 3350.2.35	Instantaneous water heaters		
AS/NZS 3350.2.40	Electrical heat pumps, air-conditioners and dehumidifiers		
AS/NZS 3350.2.41	Pumps		
AS/NZS 3350.2.43	Clothes dryers and towel rails		
AS/NZS 3350.2.45	Portable heating tools and similar appliances		
AS/NZS 3350.2.54	Surface-cleaning appliances employing liquids		
AS/NZS 3350.2.60	Whirlpool baths		
AS/NZS 3350.2.76	Electric fence energisers		
AS/NZS 3350.2.80	Electric fans		
AS/NZS 3350.2.95	Drives for vertically moving garage doors for residential use		
AS/NZS 3439.1	Low-voltage switchgear and controlgear assemblies – Type-tested and partially type-tested assemblies (excluding the following clauses: 7.9, 7.10 8.2.3, 8.2.4.2, 8.2.7 partial - refer to AS 60529 listing, 8.2.8)		
AS/NZS 3439.4	Particular requirements for assemblies for construction sites (excluding the following clauses: 7.1.5, 8.2.8.3)		
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AS/NZS 4665.1 AS/NZS 4665.2 AS/NZS 60065 AS/NZS 60320.1 AS/NZS 60335.1 AS/NZS 60335.2.2 AS/NZS 60335.2.3 AS/NZS 60335.2.6 AS/NZS 60335.2.7 AS/NZS 60335.2.8 AS/NZS 60335.2.9 AS/NZS 60335.2.10 AS/NZS 60335.2.11 AS/NZS 60335.2.13 AS/NZS 60335.2.14 AS/NZS 60335.2.15 AS/NZS 60335.2.16 AS/NZS 60335.2.17 AS/NZS 60335.2.21 AS/NZS 60335.2.23 AS/NZS 60335.2.24 AS/NZS 60335.2.25 AS/NZS 60335.2.29 AS/NZS 60335.2.30 AS/NZS 60335.2.31 AS/NZS 60335.2.32 AS/NZS 60335.2.40 AS/NZS 60335.2.41 AS/NZS 60335.2.43 AS/NZS 60335.2.45 AS/NZS 60335.2.54 AS/NZS 60335.2.55 AS/NZS 60335.2.59 AS/NZS 60335.2.60 AS/NZS 60335.2.69 AS/NZS 60335.2.73 AS/NZS 60335.2.76 AS/NZS 60335.2.77	Performance of external power supplies – Test method and energy performance mark Performance of external power supplies - MEPS Audio, video and similar electronic apparatus – Safety Requirements Appliance couplers for household and similar general purposes General requirements (limited clauses 10.1, 10.2 and 13.4 only) Safety of household and similar electrical appliances – General requirements Vacuum cleaners and water suction cleaning appliances Electric irons Stationary cooking ranges, hobs, ovens and similar appliances Washing machines Shavers, hair clippers and similar appliances Grills, toasters and similar portable cooking appliances Floor treatment machines and wet scrubbing machines Tumble dryers Deep fat fryers, frying pans and similar appliances Kitchen machines Appliances for heating liquids Food waste disposers Blankets, pads and similar flexible heating appliances (marking clause 7 and Annex ZZ only) Storage water heaters Appliances for skin and hair care Refrigerating appliances and ice-cream appliances and ice-makers Microwave ovens Battery chargers Room heaters Range hoods Massage appliances Electrical heat pumps, air-conditioners and dehumidifiers Pumps Clothes dryers and towel rails Portable heating tools and similar appliances Surface-cleaning appliances employing liquids Electrical appliances for use with aquariums and garden ponds Insect killers [excluding clauses 31 (resistance to rusting) & 32 (radiation, toxicity and similar hazards)] Whirlpool baths and whirlpool spas 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) Fixed immersion heaters Electric fence energisers Pedestrian controlled mains-operated lawnmowers Excluding the following clauses: 20 (Stability & mechanical)
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<p>AS/NZS 60335.2.79</p> <p>AS/NZS 60335.2.80</p> <p>AS/NZS 60335.2.84</p> <p>AS/NZS 60335.2.89</p> <p>AS/NZS 60335.2.91</p> <p>AS/NZS 60335.2.95</p> <p>AS/NZS 60335.2.96</p> <p>AS/NZS 60335.2.100</p> <p>AS/NZS 60335.2.102</p> <p>AS/NZS 60598.1</p> <p>AS/NZS 60598.2.1</p> <p>AS/NZS 60598.2.2</p> <p>AS/NZS 60598.2.4</p> <p>AS/NZS 60598.2.5</p> <p>AS/NZS 60598.2.8</p> <p>AS/NZS 60598.2.18</p> <p>AS/NZS 60598.2.20</p> <p>AS/NZS 60695.1</p> <p>AS/NZS 60695.2</p> <p>(Parts 2.10-2.13)</p> <p>AS/NZS 60745.1</p> <p>AS/NZS 60745.2.1</p> <p>AS/NZS 60745.2.2</p> <p>AS/NZS 60745.2.3</p> <p>AS/NZS 60745.2.4</p> <p>AS/NZS 60745.2.5</p> <p>AS/NZS 60745.2.6</p> <p>AS/NZS 60745.2.8</p> <p>AS/NZS 60745.2.9</p> <p>AS/NZS 60745.2.11</p> <p>AS/NZS 60745.2.13</p> <p>AS/NZS 60745.2.14</p> <p>AS/NZS 60745.2.16</p> <p>AS/NZS 60745.2.17</p>	<p>hazards), 21 (Mechanical strength) and 22 (Construction)</p> <p>High pressure cleaners and steam cleaners, for industrial and commercial use</p> <p>Clause 7 (marking & instructions), clause 25 (supply cord connection) and Annex ZZ only</p> <p>Electric fans</p> <p>Toilets (limited to selected clauses 7, 10, 25, 30.2 – Annex ZZ only)</p> <p>Commercial refrigerating appliances with an incorporated or remote refrigerant condensing unit or compressor (excluding clause 22 test for flammable refrigerants)</p> <p>Walk-behind and hand-held lawn trimmers and lawn edge trimmers</p> <p>Drives for vertically moving garage doors for residential use</p> <p>Flexible sheet heating elements for room heaters (clauses 7, 30.2 and Annex ZZ only)</p> <p>Hand-held mains-operated garden blowers, vacuums and blower vacuums</p> <p>Particular requirements for gas, oil and solid-fuel burning appliances with electrical connections</p> <p>Luminaires – General requirements and tests</p> <p>Fixed general purpose luminaires</p> <p>Recessed luminaires</p> <p>Portable general purpose luminaires</p> <p>Floodlights</p> <p>Handlamps</p> <p>Luminaires for swimming pools and similar applications</p> <p>Lighting chains</p> <p>Fire hazard testing – Guidance for assessing the fire hazard of electrotechnical products</p> <p>Fire test methods for solid insulating materials and non-metallic enclosures used in electrical equipment</p> <p>Safety of hand-held motor operated electric tools – General requirements</p> <p>Drills (Drills and impact drills)</p> <p>Screwdrivers</p> <p>Grinders and polishers</p> <p>Sanders and polishers</p> <p>Circular saws</p> <p>Hammers</p> <p>Shear and nibblers</p> <p>Tappers</p> <p>Reciprocating saws (jig and sabre saws)</p> <p>Chain saws (excluding clauses 19 – mechanical hazards and 21 – construction)</p> <p>Planers</p> <p>Tackers</p> <p>Routers and trimmers</p>		
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<p>AS/NZS 60745.2.19 Joiners</p> <p>AS/NZS 60898.1 Electrical accessories – Circuit-breakers for overcurrent protection for household and similar installations – Circuit breakers for a.c. operation (Annex ZZ only)</p> <p>AS/NZS 60950.1 Safety of information technology equipment–General requirements AS/NZS 60968 Self ballasted lamps for general lighting services – Safety requirements (AS/NZS variations to IEC only)</p> <p>AS/NZS 61008.1 Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCBs) – General rules (Annex ZZ only)</p> <p>AS/NZS 61009.1 Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses (RCCBs) – General rules (Annex ZZ only)</p> <p>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 AS/NZS 61347.2.13 d.c. or a.c. supplied electronic controlgear for LED modules (excluding clause 1.6.3.3 vibration test)</p> <p>AS/NZS 61558.1 Safety of power transformers, power supply units and similar General Requirements AS/NZS 61558.2.4 Isolating transformers for general use AS/NZS 61558.2.6 Safety isolating transformers for general use AS/NZS 61558.2.17 Transformers for switch mode power supplies</p> <p>AS/NZS 62301 Measurement of standby power</p> <p>IEC Standards</p> <p>IEC 60065 Audio, video and similar electronic apparatus – Safety requirements IEC 60335-1 Safety of household and similar electrical appliances - General requirements IEC 60335-2-2 Vacuum cleaners and water suction cleaning appliances IEC 60335-2-3 Electric irons IEC 60335-2-6 Stationary cooking ranges, hobs, ovens and similar appliances IEC 60335-2-7 Washing machines 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 60335-2-11 Tumble dryers 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</p>			
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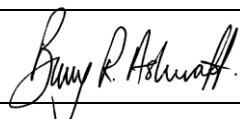
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IEC 60335-2-16	Food waste disposers
IEC 60335-2-21	Storage water heaters
IEC 60335-2-23	Appliances for skin or hair care
IEC 60335-2-24	Refrigerating appliances and ice-cream appliances and ice-makers
IEC 60335-2-25	Microwave ovens
IEC 60335-2-29	Battery chargers
IEC 60335-2-30	Room heaters
IEC 60335-2-31	Range hoods
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 60335-2-54	Surface-cleaning appliances employing liquids
IEC 60335-2-55	Electrical appliances for use with aquariums and garden ponds
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 60335-2-76	Electric fence energisers
IEC 60335-2-77	Pedestrian controlled mains-operated lawnmowers Excluding the following clauses: 20 (Stability & mechanical hazards), 21 (Mechanical strength) and 22 (Construction)
IEC 60335-2-79	High pressure cleaners and steam cleaners Clause 7 (marking & instructions), clause 25 (supply cord connection) and Annex ZZ only
IEC 60335-2-80	Electric fans
IEC 60335-2-89	Commercial refrigerating appliances with incorporated or remote refrigerant condensing unit or compressor (excluding clause 22 test for flammable refrigerants)
IEC 60335-2-95	Drives for vertically moving garage doors for residential use
IEC 60335-2-102	Safety- Particular requirements for gas, oil and solid-fuel burning appliances with electrical connections
IEC 60529	Degrees of protection provided by enclosures for electrical equipment
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 60598-2-8	Handlamps
IEC 60598-2-18	Luminaires for swimming pools and similar applications
IEC 60598-2-20	Lighting chains
IEC 60730-1	Automatic controls for household and similar use- General requirements

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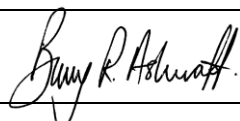
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IEC 60730-2-7	(excluding clause 26 of A2) Timers and time switches
IEC 60950-1	Safety of information technology equipment–General requirements
IEC 61347-2-11 IEC 61347-2-13	Miscellaneous electronic circuits used with luminaires d.c. or a.c. supplied electronic controlgear for LED modules (excluding clause 1.6.3.3 vibration test)
IEC 62301	Household electrical appliances – Measurement of standby power
EN (BS EN) Standards	
EN 60065	Audio, video and similar electronic apparatus – Safety requirements
EN 60335-1	Safety of household and similar electrical appliances – General requirements
EN 60335-2-15	Appliances for heating liquids
EN 60335-2-24	Refrigerating appliances and ice-cream appliances and ice-makers
EN 60335-2-31	Range hoods
EN 60335-2-41	Pumps
EN 60335-2-60	Whirlpool baths
EN 60335-2-76	Electric fence energisers
EN 60529	Degrees of protection provided by enclosures for electrical equipment
EN 60950-1	Safety of information technology equipment–General requirements
EN 61558-1	Safety of power transformers, power supply units and similar -General requirements
EN 61558-2-4	Isolating transformers for general use
EN 61558-2-5	Shaver transformers and shaver supply units
EN 61558-2-6	Safety isolating transformers for general use
EN 61558-2-17	Transformers for switch mode power supplies

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