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## EMC Compliance Test Report

EN IEC 61000-6-1: 2019

Report Number: CE3310B

December 2021



Tru Blu Dog Wash  
TRU-BLU K9000  
Model: K9000 2.0

The results detailed in this test report relate only to the specific sample/s tested. It is the Manufacturer's responsibility to ensure that all production units are manufactured with equivalent EMC characteristics. This report is not to be reproduced except in full, without written approval from Compliance Engineering Pty Ltd.



# COMPLIANCE CERTIFICATE

<b>Client Contact:</b>	Phil Worrel, Tru Blu Dog Wash 36 Caramut Rd, Warrnambool VIC 3280, Australia Telephone: (03) 55629088 Email: <a href="mailto:office@trubludogwash.com.au">office@trubludogwash.com.au</a>
<b>Device:</b>	TRU-BLU K9000 Model: K9000 2.0
<b>Reference:</b>	EN IEC 61000-6-1: 2019 Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity standard for residential, commercial and light-industrial environments
<b>Summary Result:</b>	Electrostatic Discharge Immunity (IEC 61000-4-2) <b>Complied</b> Radiated RF Immunity Measurements (IEC 61000-4-3) <b>Complied</b> Fast Transient Burst Immunity (IEC 61000-4-4) <b>Complied</b> Surge Immunity (IEC 61000-4-5) <b>Complied</b> Conducted RF Immunity Measurements (IEC 61000-4-6) <b>Complied</b> Voltage Dips and Interruption Immunity (IEC 61000-4-11) <b>Complied</b> Radiated Magnetic Field Immunity (IEC 61000-4-8) <b>Complied</b>
<b>Test Dates:</b>	8 <sup>th</sup> December to 10 <sup>th</sup> December 2021
<b>Tests Performed By:</b>	Abdi Shire Compliance Engineering Pty Ltd 90 Indian Drive, Keysborough, Victoria, Australia 3173. Telephone: +61 3 9763 3079 Email: <a href="mailto:info@compeng.com.au">info@compeng.com.au</a>

The **TRU-BLU K9000 (Model: K9000 2.0)** complied with the immunity requirements detailed in EN IEC 61000-6-1: 2019 Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity standard for residential, commercial and light-industrial environments.

		10 <sup>th</sup> January 2022
<b>Prepared By:</b> Abdi Shire Test Engineer Compliance Engineering Pty Ltd	<b>Approved By:</b> Andrew Burden Technical Manager Compliance Engineering Pty Ltd	<b>Date</b>

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<b>Revision History</b>			
<b>Revision</b>	<b>Issue Date</b>	<b>Remarks</b>	<b>Revised by</b>
1	10-12-2021	Initial release	

# EMC Compliance Test Report

## 1. INTRODUCTION

EMC compliance tests were performed on a TRU-BLU K9000 (Model: K9000 2.0), in accordance with the immunity requirements detailed in EN IEC 61000-6-1: 2019.

## 2. RESULTS SUMMARY

EN IEC 61000-6-1: 2019

Description	Result
Electrostatic Discharge Immunity (IEC 61000-4-2)	Pass
Radiated RF Immunity Measurements (IEC 61000-4-3)	Pass
Fast Transient Burst Immunity (IEC 61000-4-4)	Pass
Surge Immunity (IEC 61000-4-5)	Pass
Conducted RF Immunity Measurements (IEC 61000-4-6)	Pass
Voltage Dips and Interruption Immunity (IEC 61000-4-11)	Pass
Radiated Magnetic Field Immunity (IEC 61000-4-8)	Pass

## 3. TEST SAMPLE

The equipment under test (EUT) is described as follows:

Equipment Under Test (Information supplied by client):	
<b>Product Name</b>	TRU-BLU K9000
<b>Model Number:</b>	K9000 2.0
<b>Weight:</b>	285 kg
<b>Serial Number:</b>	1875V2H2
<b>Electrical:</b>	220/240 V 50/60 Hz
<b>Maximum Load:</b>	27AMP



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#### 4. CONFIGURATION

The TRU-BLU K9000 (Model: K9000 2.0) was powered from a 240 Volts, 50 Hz mains supply. The EUT was tested while in operation with the heated dryer drawing 15 A. The EUT is configured in to the operation mode after it is powers up. The EUT was configured to operate without a water supply.

The system also contains insert coins and notes sections, and water pressure gauge and LCD display that provides feedback on the status of the TRU-BLU K9000.

During the Immunity testing, the LCD was monitored in order to determine the status of the EUT and as well as operational changes in state.

#### 5. MODIFICATIONS

For the TRU-BLU K9000 (Model: K9000 2.0) to comply with the conducted emission requirements, a 20A WE-CLFS Line Filter was attached to the mains supply for all tests, except radiated emission test. The following photos depict the filter installation:



#### 6. STANDARD DEVIATIONS

No deviation from the standard were made by Compliance Engineering Pty Ltd.

#### 7. TEST FACILITY

All measurements were performed inside Compliance Engineering's, 3m Semi-Anechoic (IOATS) enclosure located at 90 Indian Drive, Keysborough, Victoria, Australia.

#### A2LA (ISO 17025-2017) – Certificate No: 2829.01

Compliance Engineering Pty Ltd, is accredited to ISO 17025-2017 by American Association for Laboratory Accreditation (A2LA) which is an ILAC member and has mutual recognition agreements with the National Voluntary Laboratory Accreditation Program (NVLAP) .

All tests within this report have been conducted in accordance with Compliance Engineering's scope of A2LA accreditation.

The current full scope of accreditation can be found on the A2LA website: [www.a2la.org](http://www.a2la.org)

**FCC – Registration No: 982700**

Compliance Engineering Pty Ltd, has been recognized and is listed as an FCC part 47 CFR 2.948 measurement facility to perform compliance testing on equipment under Parts 15 and 18. The Designation Number is AU0006 and the Test Firm Registration Number is 982700.

**Innovation, Science & Economic Development Canada (ISED) - Registration No: 27266**

Compliance Engineering's 3m indoor semi-anechoic chamber (iOATS) has been accepted by Innovation, Science & Economic Development Canada (ISED) for performing radiated measurements in accordance with RSS-102, RSS-GEN, RSS-210, RSS-247, RSS-248 – ISED Canada Registration No: 27266.

## 8. IMMUNITY PERFORMANCE CRITERION

The performance of the EUT was subject to the following performance criterion as specified in the referenced Standard:

**Performance Criterion A:** The EUT shall continue to operate as intended during and after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the EUT is used as intended. If the performance level is not specified by the manufacturer, this may be derived from the product description and documentation, and what the user may reasonably expect from the equipment if used as intended.

**Performance Criterion B:** The EUT shall continue to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the EUT is used as intended. However, during the test, degradation of performance is allowed, but no change of actual operating state or stored data is allowed. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, either of these may be derived from the product description and documentation, and what the user may reasonably expect from the equipment if used as intended.

**Performance Criterion C:** Temporary loss of function is allowed during the test, provided the function is self-recoverable or can be restored by the operation of the controls.

## 9. ELECTROSTATIC DISCHARGE IMMUNITY

### 9.1 REQUIREMENTS

EN IEC 61000-6-1: 2019 (Referencing IEC 61000-4-2)

Applications: 10 discharges per type, polarity and level  
Contact Discharge:  $\pm 4$  kV  
Air Discharge:  $\pm 8$  kV  
Discharge Network: 150 pF/330  $\Omega$

## 9.2 TEST EQUIPMENT

Asset	Equipment	Model No	Serial No	Cal Due
182	ESD Simulator	NSG 437	115	Aug 23
266	150pF/330Ω Network	INA 4380	721	Aug 23
760	Semi-Anechoic Chamber iOATS (11m x 7m x 6m)	CE-iOATS	2021	Oct 23

## 9.3 ENVIRONMENTAL CONDITIONS

Environment	Typical Range	Uncertainty (k=2)	Actual	Comment
Temperature	15.5°C to 24°C	0.5°C	22°C	Ok
Humidity	15% to 60%	2%	50.5%	Ok

## 9.4 PROCEDURE

This test was performed 0.35 m above a conductive reference ground plane. The EUT was located no closer than 1 metre from the enclosure walls or any other metallic structure. A vertical coupling plane (VCP) was placed on top of a support foam due to the height of the EUT. The coupling plane, of dimensions 0.5 m X 0.5 m, is placed parallel to the EUT, and positioned at a distance of 0.1 m from the EUT. The VCP was connected to the ground reference plane via a cable with a 470 kΩ resistor located at each end. The EUT and its cables were isolated from the VCP by an insulating film 0.5 mm thick (*Note: Floor standing equipment is isolated from the ground reference plane by an insulating support 100 mm thick*).

The contact discharge method was used to apply discharges to all conductive surfaces of the EUT. Discharges were applied to the VCP at each side of the EUT; at least 10 single discharges (in each polarity) were applied to the center of the vertical edge of the coupling plane (VCP).

The air discharge method was used to apply discharges to insulating surfaces and to all accessible ports of the EUT.

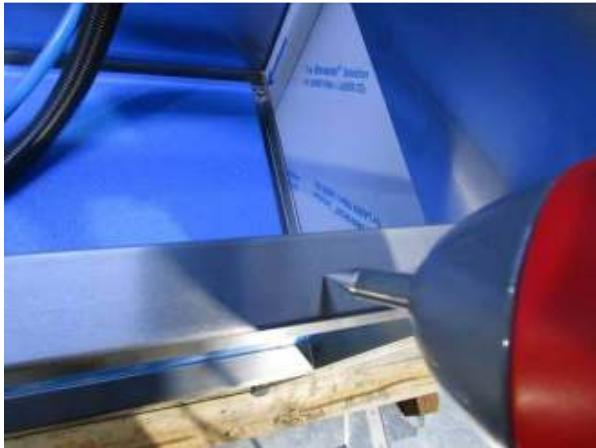
The applied ESD voltage was increased from the minimum severity level up to the required test level, in order to determine any threshold of failure.



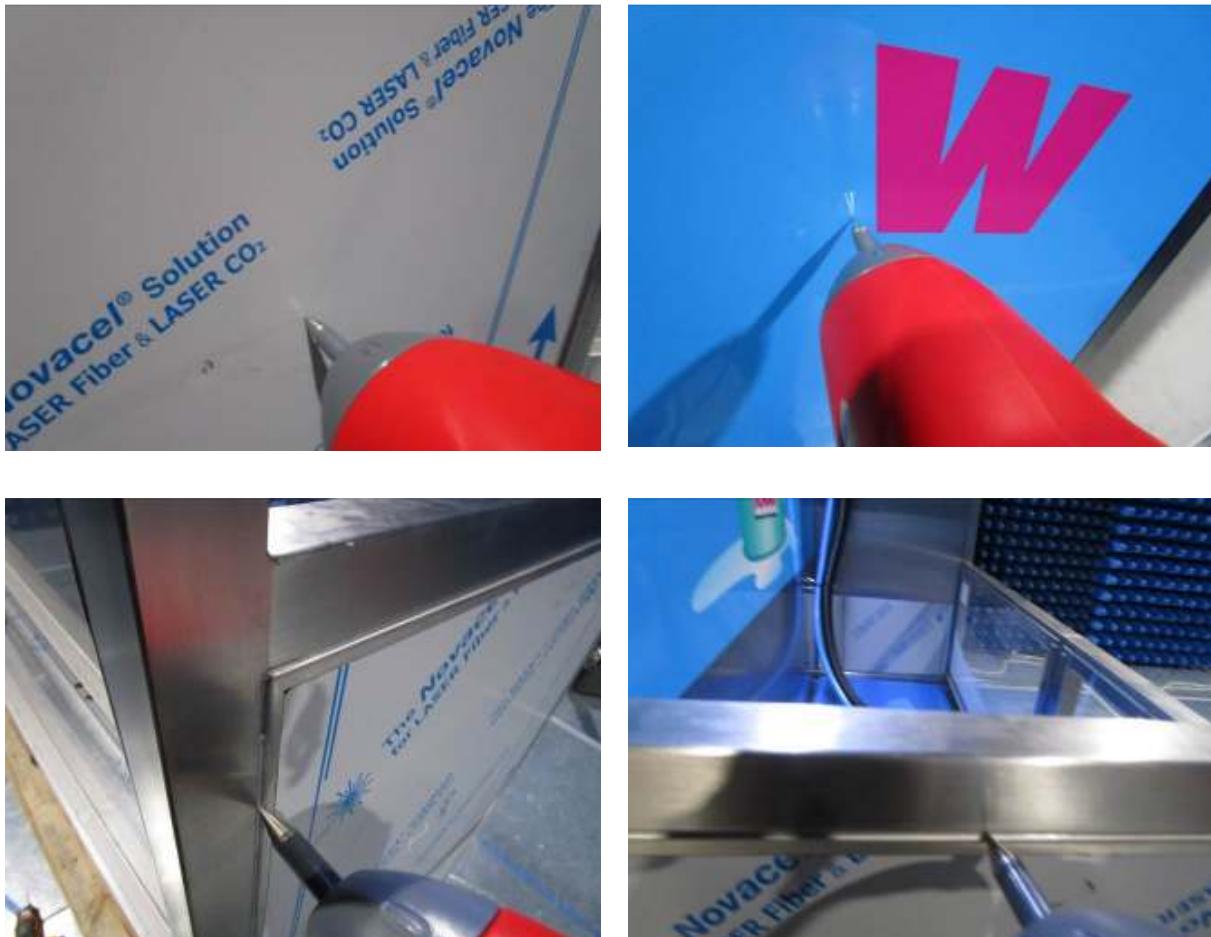
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## 9.5 RESULTS

Electrostatic Discharge Immunity			
Contact Discharge	Voltage	Observation	Result
VCP	$\pm 2.0 \text{ kV}$ $\pm 4.0 \text{ kV}$	No interference evident	Pass Criterion A
Different positions on the Metal surfaces		No interference evident	Pass Criterion A
HCP		Not Applicable to Floor standing devices	-
Air Discharge	Voltage	Observation	Result
Different positions on the Plastic surfaces	$\pm 4.0 \text{ kV}$ $\pm 6.0 \text{ kV}$ $\pm 8.0 \text{ kV}$	No interference evident	Pass Criterion A

## 9.6 ASSESSMENT

The TRU-BLU K9000 (Model: K9000 2.0) complied with the Electrostatic Discharge immunity requirements detailed in EN IEC 61000-6-1: 2019.

## 10. RADIATED RF IMMUNITY

### 10.1 REQUIREMENTS

EN IEC 61000-6-1: 2019 (Referencing IEC 61000-4-3)

Frequency: 80 MHz to 1 GHz (3 V/m), 1.4 GHz to 6 GHz (3 V/m)  
 Step Size: 1%  
 Dwell: 2 seconds  
 Modulation: 80% AM, 1 kHz  
 Antenna: 80 MHz to 6 GHz  
 Distance: 2.5 m < 1 GHz > 2.9 (EUT to tip of antenna)

### 10.2 TEST EQUIPMENT

Asset	Equipment	Model No	Serial No	Cal Due
71	Biconilog Antenna	CBL6111B	1919	NR
688	Stacked Log Antenna	STLP9149	699	NR
402	RF Power Amplifier	MT400	1203	NR
510	RF Power Amplifier	AS0822-55	1016377	NR
575	RF Power Amplifier	KB2060S46B	2016090001	NR
630	RF Signal Generator	SMIQ	100695	Jan 23
81	RF Field Probe	HI-4433 GRE	96706	May 22
155	RF Field Monitor	FM5004	22286	NR
64	Power Sensor	8482A	2652A22102	Sep 22
563	Power Meter	E4418B	US38470602	Sep 22
562	Power Meter	E4418B	GB43316707	Sep 22
88	Power Sensor	437B	3125U19690	Sep 22
611	Dual Directional Coupler	LDDC-1/6-40N	2017093067	Apr 22
267	Dual Directional Coupler	5982	8919	Apr 22
760	Semi-Anechoic Chamber iOATS (11m x 7m x 6m)	CE-iOATS	2021	Oct 23
TER-S004	Measurement Software	RadiMation	Rev: 2021.1.9	-

*NR: Not Required*

### 10.3 ENVIRONMENTAL CONDITIONS

Environment	Typical Range	Uncertainty (k=2)	Actual	Comment
Temperature	15.5°C to 24°C	0.5°C	21°C	Ok
Humidity	15% to 60%	2%	48%	Ok

### 10.4 PROCEDURE

**Calibration:** The electric field was calibrated at a set distance from the transmitting antenna. The frequency range of 80 MHz to 6 GHz was swept incrementally using 1% step sizes, whilst the RF field was measured using an electric field probe and leveled to 3 V/m (unmodulated). The drive level to the amplifiers and forward power into the antenna were recorded and stored for reference.

**Device Testing:** The electric field probe was replaced with the device and the frequency range 80 MHz to 6 GHz was swept incrementally, using the pre-recorded data for reference. Amplitude modulation (80% AM, 1 kHz) was applied to the interfering field with a dwell time of 2 seconds at each frequency increment.

Both horizontal and vertical radiating antenna polarisations were used to illuminate the device in turn.

The test sample was positioned on a non-conductive support, 0.35 m above the reference ground plane. Where applicable, cabling to the device was left exposed to the electromagnetic field for a distance of 1 m. All wiring less than or equal to 3 m, was bundled low-inductively to a 1 m length. All wiring greater than 3 m, had RF absorbing beads placed 1 m along the wiring.

The test sample construction was inspected (enclosure material, PCB layout, cabling orientation, etc) and a technical determination was made regarding the faces of the test sample that will be subjected to the radiated RF field.



## 10.5 RESULTS

Radiated RF Immunity							
EUT Face	Field	Frequency	Polarisation	Observation	Result		
Front	3 V/m	80 MHz – 1 GHz	Vertical	No Interference Evident	Pass Criterion A		
			Horizontal				
Back			Vertical	No Interference Evident	Pass Criterion A		
			Horizontal				
Front	3 V/m	1.4 – 2 GHz	Vertical	No Interference Evident	Pass Criterion A		
			Horizontal				
Back			Vertical	No Interference Evident.	Pass Criterion A		
			Horizontal				
Front	3 V/m	2 – 6 GHz	Vertical	No Interference Evident	Pass Criterion A		
			Horizontal				
Back			Vertical	No Interference Evident.	Pass Criterion A		
			Horizontal				

## 10.6 ASSESSMENT

The TRU-BLU K9000 (Model: K9000 2.0) complied with the Radiated RF Immunity requirements detailed in EN IEC 61000-6-1: 2019.

## 11. FAST TRANSIENT BURST IMMUNITY

### 11.1 REQUIREMENTS

EN IEC 61000-6-1: 2019 (Referencing IEC 61000-4-4)

Level:	±1 kV
Application Time:	1 minute per polarity for each test
Repetition Frequency	100 kHz
Burst Duration	300 ms
Test Ports:	AC Inputs Port

### 11.2 TEST EQUIPMENT

Asset No	Equipment	Model No	Serial No	Cal Due
188	Transient Generator	HAR1000-1P	168	Feb 22
760	Semi-Anechoic Chamber iOATS (11m x 7m x 6m)	CE-iOATS	2021	Oct 23

### 11.3 ENVIRONMENTAL CONDITIONS

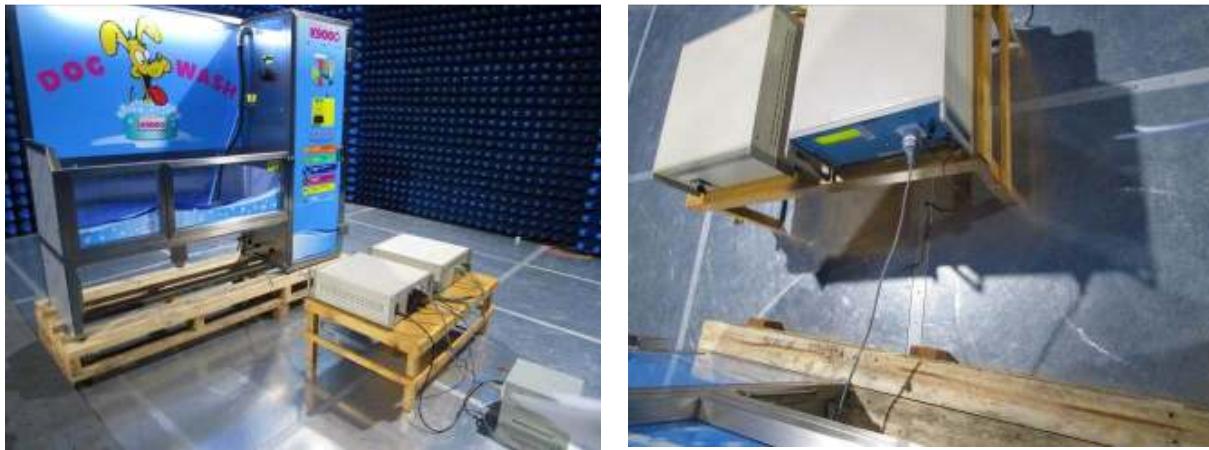
Environment	Typical Range	Uncertainty (k=2)	Actual	Comment
Temperature	15.5°C to 24°C	0.5°C	23°C	Ok
Humidity	15% to 60%	2%	51%	Ok

### 11.4 PROCEDURE

The EUT was placed on a wooden support 0.35 metre above a ground reference plane.

The length of the power cables between the coupling devices and the EUT was 0.5 m. (non-detachable supply cables more than 0.5 m long, have the excess cable folded to avoid a flat coil and situated 0.35 metre above the ground reference plane).

Transients on mains supply lines were applied via the transient generator's internal coupling fixture. The applied transient burst voltage was increased from the minimum severity level up to the required test level, in order to determine any threshold of failure.



## 11.5 RESULTS

Fast Transient Burst Immunity				
Application	Test Voltage	Coupling Method	Observation	Result
Live	$\pm 500 \text{ V}$ & $\pm 1 \text{ kV}$	Direct Coupling	No Interference evident	Pass Criterion A
Neutral				
PE (Earth)				
Live & Neutral				
Live & PE				
Neutral & PE				
Live & Neutral & PE				

## 11.6 ASSESSMENT

The TRU-BLU K9000 (Model: K9000 2.0) complied with the Fast Transient Burst immunity requirements detailed in EN IEC 61000-6-1: 2019.

## 12. SURGE IMMUNITY

### 12.1 REQUIREMENTS

EN IEC 61000-6-1: 2019 (Referencing IEC 61000-4-5)

Coupling:  $2 \Omega$  generator source impedance  
 Amplitude:  
 L-L:  $\pm 1 \text{ kV}$   
 L-E:  $\pm 2 \text{ kV}$   
 Application: 5 pulses at each polarity @  $0^\circ, 90^\circ, 180^\circ, 270^\circ$   
 Applications: 1 every 5 seconds (prefer 1/min)

### 12.2 TEST EQUIPMENT

Asset No	Equipment	Model No	Serial No	Cal Due
188	Transient Generator	HAR1000-1P	168	Feb 22
760	Semi-Anechoic Chamber iOATS (11m x 7m x 6m)	CE-iOATS	2021	Oct 23

## 12.3 ENVIRONMENTAL CONDITIONS

Environment	Typical Range	Uncertainty (k=2)	Actual	Comment
Temperature	15.5°C to 24°C	0.5°C	22°C	Ok
Humidity	15% to 60%	2%	49%	Ok

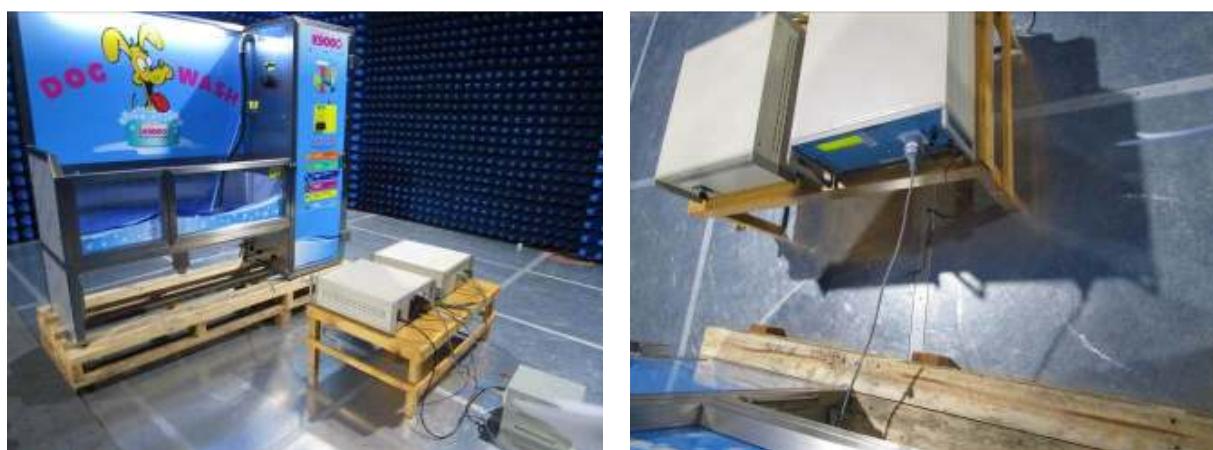
## 12.4 PROCEDURE

The EUT was placed on a wooden support 0.35 metre above the reference ground plane.

Surges were applied to the supply cables via a transient generator which was configured to apply the required surge pulses.

The length of the power cable between the coupling devices and the EUT was less than 2 metres. (Non-detachable supply cables more than 1 metre long have the excess length gathered into a flat 0.4 metres diameter coil).

The applied surge voltage was increased from the minimum severity level up to the required test level, in order to determine any threshold of failure.



## 12.5 RESULTS

Surge Immunity - AC Input Power Port				
Application	Voltage	Phase	Observation	Result
Line to Earth	± 500 V	0°, 90°, 180° & 270°	No Interference evident	Pass Criterion A
Line to Earth	± 1kV	0°, 90°, 180° & 270°	No Interference evident	Pass Criterion A
Line to Earth	± 2kV	0°, 90°, 180° & 270°	No Interference evident	Pass Criterion A
Line to Line	± 500 V	0°, 90°, 180° & 270°	No Interference evident	Pass Criterion A
Line to Line	± 1kV	0°, 90°, 180° & 270°	No Interference evident	Pass Criterion A

## 12.6 ASSESSMENT

The TRU-BLU K9000 (Model: K9000 2.0) complied with the Voltage Surge requirements detailed in EN IEC 61000-6-1: 2019.

## 13. CONDUCTED RF IMMUNITY MEASUREMENTS

### 13.1 REQUIREMENTS

EN IEC 61000-6-2: 2019 (Referencing IEC 61000-4-6)

Frequency: 0.15 MHz to 80 MHz  
 Test Level: 3 Vrms  
 Dwell Time: 2 seconds  
 Modulation: 80% AM, 1 kHz

### 13.2 TEST EQUIPMENT

Asset	Equipment	Model No	Serial No	Cal Due
743	Spectrum Analyser	DSA 815	DSA8B223300443	Sep 22
720	RF Power Amplifier	DR220S	2004-2693	On use
292	Signal Generator	SMHU	DE22370	Aug 22
87	Power Meter	437B	3125U19690	Sep 22
564	Power Sensor	8482A	1551A01499	Sep 22
63	Power Meter	437B	3125U18812	Sep 22
565	Power Sensor	8482A	MY41093032	Sep 22
345	Directional Coupler	C2630	5143	Apr 24
251	Current Probe	F-35-1	81	Dec 22
518	240V Isolation Transformer	TC4000-240-240		NR
132	6dB Attenuator (100W)	CE06-50-100	6100	Dec 22
591	100Ω Direct Injection Probe	DI-100	1	May 23
192	EM Clamp	KEMZ 801	21048	Jun 23
139	Coupling/Decoupling Network	FCC-801-M3-16A	7014	Feb 22
760	Semi-Anechoic Chamber iOATS (11m x 7m x 6m)	CE-iOATS	2021	Oct 23
TER-S004	Measurement Software	RadiMation	Rev: 2021.1.9	-

NR= Not Required

### 13.3 ENVIRONMENTAL CONDITIONS

Environment	Typical Range	Uncertainty (k=2)	Actual	Comment
Temperature	15.5°C to 24°C	0.5°C	22°C	Ok
Humidity	15% to 60%	2%	49%	Ok

### 13.4 PROCEDURE

**Calibration:** Prior to measurements, a CDN calibration was performed with the signal generator drive level and forward power required to produce 3 Vrms over the frequency range of 0.15 MHz to 80 MHz (using 1% frequency steps). This was recorded for future reference.

**Device Testing:** The EUT was located on a non-conductive support, 0.35 metre above the reference ground plane. The CDN was coupled to the cable at a distance of 300 mm away from the input connector. Cables not being tested were decoupled with ferrite RF absorbing beads. Cables attached to different connector ports were tested individually. The earth connection from the chassis of the EUT was connected to a CDN and tested individually.

The frequency range 0.15 MHz to 80 MHz was swept incrementally using the pre-recorded reference data. Modulation (80%, 1 kHz AM) was applied to the CW signal with a dwell time of 2 seconds at each frequency increment. The following pictures demonstrate the test set up of AC input power ports.



### 13.5 RESULTS

Conducted RF Immunity – AC Input/Output power ports				
Application	Frequency (MHz)	Level (V RMS)	Observation	Result
AC Input (M3 - CDN)	0.15 - 80	3	No Interference Evident	Pass Criterion A

### 13.6 ASSESSMENT

The TRU-BLU K9000 (Model: K9000 2.0) complied with the Conducted RF Immunity requirements detailed in EN IEC 61000-6-1: 2019.

## 14. VOLTAGE DIPS AND INTERRUPTION IMMUNITY

### 14.1 REQUIREMENTS

EN IEC 61000-6-1: 2019 (Referencing IEC 61000-4-11)

Supply Dip:	0% for 10 ms, 0% for 20 ms and 70% for 0.5s.
Voltage interruption:	0% for 5 s.

## 14.2 TEST EQUIPMENT

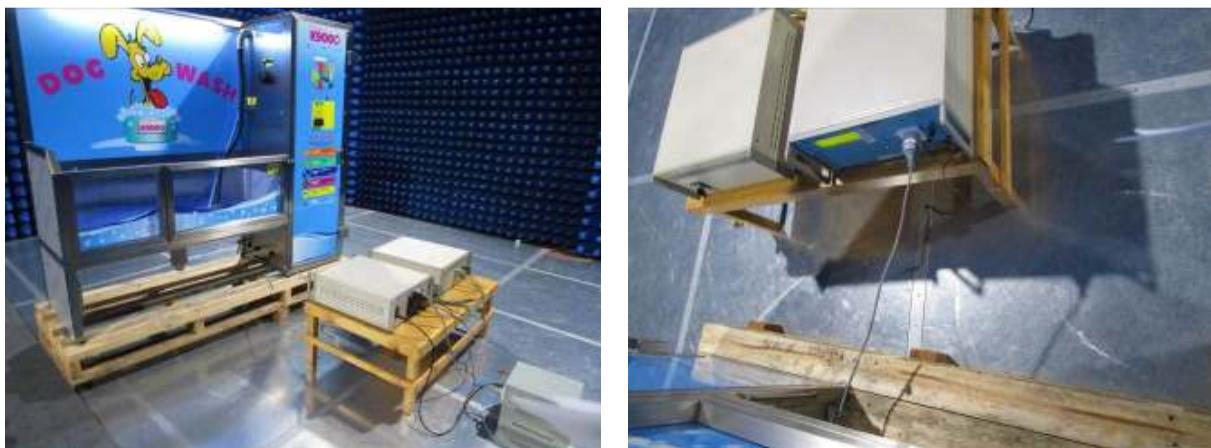
Asset No	Equipment	Model No	Serial No	Cal Due
188	Supply Dip Generator	HAR1000-1P	168	Nov 23
297	20 A Variac	VAREXT1000-07	TRA1Z19B	-
760	Semi-Anechoic Chamber iOATS (11m x 7m x 6m)	CE-iOATS	2021	Oct 23

## 14.3 ENVIRONMENTAL CONDITIONS

Environment	Typical Range	Uncertainty (k=2)	Actual	Comment
Temperature	15.5°C to 24°C	0.5°C	22°C	Ok
Humidity	15% to 60%	2%	49%	Ok

## 14.4 PROCEDURE

The EUT was connected to the test generator with the power supply cable supplied by the EUT manufacturer. Voltage dips of 0% for 10 ms, 0% for 20 ms, 70% for 500 ms and 0% for 5 seconds duration was applied to the AC Input Power port.



## 14.5 RESULTS

Mains Supply Dip and Interruption Immunity					
Interruption (%)	Duration (ms)	Supply Voltage	Supply Frequency	Observation	Result
0	10	240 VAC	50 Hz	No Interference	Pass Criterion A
0	20			No Interference	Pass Criterion A
70	500			<b>Note 1 (Dip)</b>	Pass Criterion B
0	5000			<b>Note 2 (Interrupt)</b>	Pass Criterion B

**Note 1:** During the supply voltage dip testing, the blowing sound of the EUT decreased at every dip, but the EUT self-recovered after the test was completed.

**Note 2:** During the supply voltage interruption testing, the EUT powered off at the beginning of every interruption and then self-recovered at the end of every interruption. After the test was completed, the EUT self-recovered.

## 14.6 ASSESSMENT

The TRU-BLU K9000 (Model: K9000 2.0) complied with The Voltage Dips & Interruption Immunity requirements detailed in EN IEC 61000-6-1: 2019.

## 15. RADIATED MAGNETIC FIELD IMMUNITY

### 15.1 REQUIREMENTS

EN IEC 61000-6-1: 2019 (REC 2016) (Referencing IEC 61000-4-8)

Magnetic Field: 50 Hz, 3 A/m (37.7 Milligauss)  
 Orientation: All sides of the EUT (Front, right, left and rear of the device)  
 Method: Proximity Method

### 15.2 TEST EQUIPMENT

Asset	Equipment	Model No	Serial No	Cal Due
26	Magnetic Field Meter	HI-3624	102214	Apr 22
150	Magnetic Field Generator	MFG1000	1650	NR
760	Semi-Anechoic Chamber iOATS (11m x 7m x 6m)	CE-iOATS	2021	Oct 23

*NR = Not Required*

### 15.3 ENVIRONMENTAL CONDITIONS

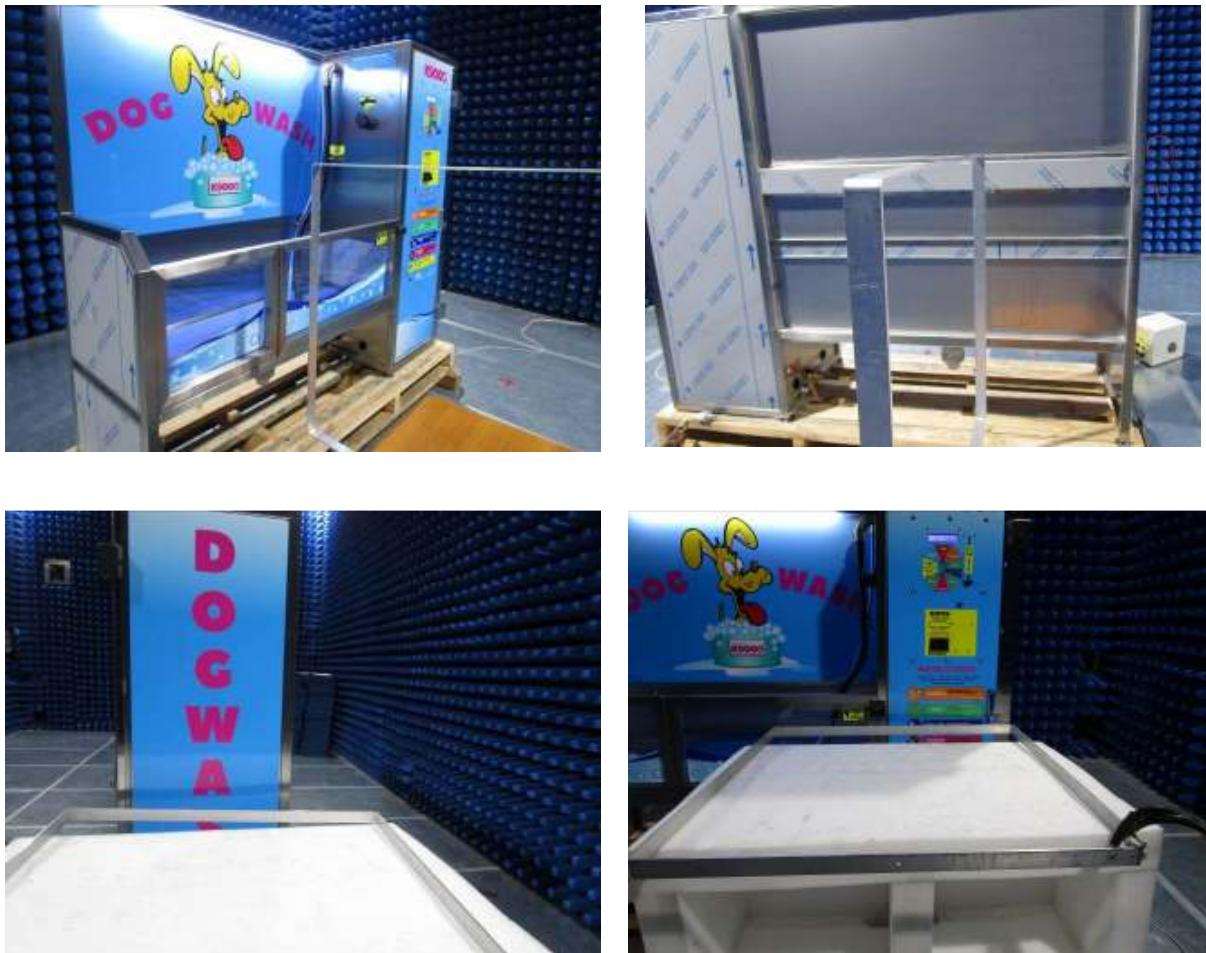
Environment	Typical Range	Uncertainty (k=2)	Actual	Comment
Temperature	15.5°C to 24°C	0.5°C	23°C	Ok
Humidity	15% to 60%	2%	49.5%	Ok

### 15.4 PROCEDURE

Due to the large size of the EUT the proximity method was used. Prior to exposure, a magnetic field calibration was performed, with a magnetic field probe positioned 10 cm from the loop antenna. The magnetic field was increased until the required field level was achieved.

The EUT was then placed on a non-conductive support above the ground reference plane with the loop antenna placed 10 cm from all sides of the EUT as shown in the pictures.

The unit was monitored for any change in state. The EUT was tested on all sides (front, right, left and rear faces) using the Proximity Method.



## 15.5 RESULTS

Magnetic Field Immunity				
EUT Face	Frequency	Field	Observation	Result
Front	50 Hz	3 A/m	No Interference evident	Pass Criterion A
Right			No Interference evident	
Left			No Interference evident	
Rear			No Interference evident	

## 15.6 ASSESSMENT

The TRU-BLU K9000 (Model: K9000 2.0) complied with the Radiated Magnetic Field Immunity requirements detailed in EN IEC 61000-6-1: 2019.

## 16. CONCLUSION

The **TRU-BLU K9000 (Model: K9000 2.0)** complied with the applicable requirements detailed in EN IEC 61000-6-1: 2019 Electromagnetic Compatibility Immunity for residential, commercial and light-industrial environments.