

OPERATION AND USER MANUAL

IntelliBlast Lite



MANUAL CONTENTS



2	INTRODUCTION Safety Warnings		RULES FOR SAFE OPERATION
3	Introduction, Description	20	Know Your Equipment
3	Features	20	Receive Proper Training
		20	Use Proper Personal Protective Equipment (PPE)
	OPERATIONAL MODES AND POWER USAGE	20	Adhere To All Regulations
4	Power Supplies	20	Use Correct Replacement Parts
4	Acquisition	20	Save This Operation And Maintenance Manual
	BLASTONE PORTAL		MAINTENANCE AND FAULT FINDING
5	Account Setup	21	Led Status Guide
6	Device Management	22	Daily Component And Work Area Checklist
12	Device Access And Data Analysis	23	Risk Assessment Worksheet
17	Raw Data Export Options	20	Mak Addedament Worksheet

△ WARNING △

Do not attempt to operate this equipment without first reading and understanding the manual enclosed with this device. Suitability for use of this device lies solely with user.

Fill in your model and serial number in the blank spaces below. These can be used for reference whenever service or maintenance is required.

Unit Serial Number	
Date Of Issue	

INTRODUCTION

Congratulations on the purchase of your new BlastOne product! This product was carefully designed and manufactured to give you many years of dependable service. Only minor maintenance is required to keep it in top working condition. Be sure to observe all maintenance procedures and safety precautions in this manual and on any safety decals located on the product and on any equipment on which the attachment is mounted.

This manual has been designed to help you do a better, safer job. Read this manual carefully and become familiar with its contents.

BEFORE OPERATION

The primary responsibility for safety with this equipment falls to the operator. Make sure the equipment is operated only by trained individuals that have read and understand this manual. If there is any portion of this manual or function you do not understand, contact BlastOne International to obtain further assistance. Keep this manual available for reference..

△ NOTE **△**

This equipment is only designed to be used with air blast surface preparation equipment

SERVICE

Use only BlastOne replacement parts. Warranty and Safety compliance is obviated if non-conforming parts are used. Substitute parts may not meet the required standards.

DESCRIPTION

The IntelliBlast Lite is designed to be used on an abrasive blasting system as a device that monitors pressure relative to time and transmits this data to cloud-based solution. This data can be viewed via a dashboard on the BlastOne portal.

To function optimally, the system requires a constant 12VDC supply but does have backup batteries to prevent data loss during short intervals (2 days) of power loss.

FEATURES

- Total active time.
- Pot angle.
- Pot GPS location.
- Pusher line pressure.
- Nozzle Pressure
- Number of activations.
- Active time per shift / day.
- Time remaining to service.
- Pressure warning when operating below recommended pressure.
- Fatigue warning.
- Pot service date notification.
- Pot certification renewal date notification.
- Suitable for all types of blast pots pressure release or pressure hold systems.
- Easy Installation.

OPERATIONAL MODES AND POWER USAGE

POWER SUPPLIES

The NEO has a few options for operational power depending on requirements.

1. Internal rechargeable power

This is an internal Lithium-Ion battery that is used to maintain parameters but will not power the system for operational acquisition and transmission of data

2. Four AA batteries

Internal batteries can be placed within the NEO for operation without an external power supply but this source of power does not allow long term higher data rates. Operational times of up to 5 years can be achieved for a system that would acquire and transmit data twice a day but will not give more than 24 hours if data is acquired at a 5 second interval.

3. External 12VDC

External 12VDC power can be supplied to the Orb from a battery, solar panel, or 240VAC to 12VDC plugpack.

Addition of external 12VDC power will NOT charge the 4xAA batteries but will recharge the internal Lithium-Ion battery.

4G LTE Transmission

Battery	Base interval	Transmit interval	Sensors enabled	Battery life
AA 1.6V Lithium	1 per day	1 per day	All internal sensors except GPS	7.1 years
AA 1.6V Lithium	1 per hour	1 per day	All internal sensors except GPS	6.5 years
AA 1.6V Lithium	1 per hour	1 per hour	All internal sensors except GPS	0.9 years
AA 1.6V Lithium	1 per day	1 per day	All internal sensors and GPS	6.3 years
AA 1.6V Lithium	1 per hour	1 per day	All internal sensors and GPS	1.9 years
AA 1.6V Lithium	1 per hour	1 per hour	All internal sensors and GPS	0.6 years

Figure 1. Battery Life depending on operational mode

ACQUISITION

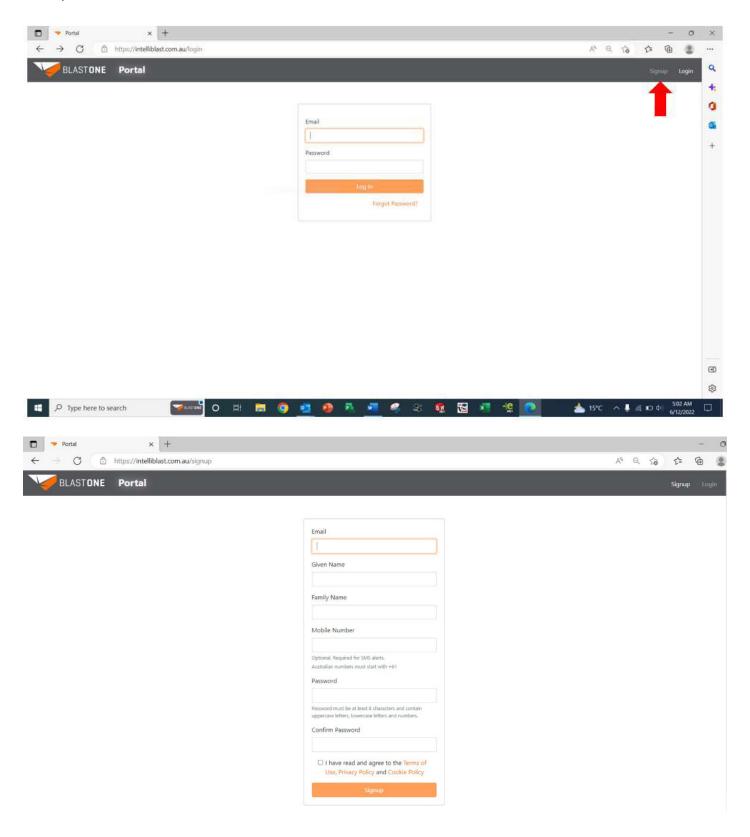
The NEO devices allow the user to be flexible in the data acquisition and data transmitting rates. The systems can be configured to acquire data at 1 second intervals and transmit the data at 6 hour intervals, through to 5 acquisition times of hours or days. Acquisition of the GPS data signal can also be changed from rarely to often depending on requirements.

The system operates by sleeping until the acquisition interval has passed and then the device will awake and take data depending on its configuration.

Higher data rates consume more power so if the system is operating on 4AA batteries then.

ACCOUNT SETUP

To be able to view the data from the IntelliBlast Lite unit on the BlastOne Portal a Login ID and Password are required. These are a created by going to https://intelliblast.com.au/ and signing up as depicted below.



On completion of the sign up you will receive a verification email (Note: be sure to complete this on a desktop computer and to check your spam and junk folders, the verification email may take up to 30mins to arrive.)

Contact BlastOne once verified at Craig.smith@blastone.com with your email and unit ID, found on the inside of the lid of the device (see Figure 2 below).



Figure 2. Device details found inside lid and unit (i.e. X1X2X3X4X)

DEVICE MANAGEMENT

Once logged in for the first time, you will see the screen below (Figure 3) until you have access to a device provided to you.

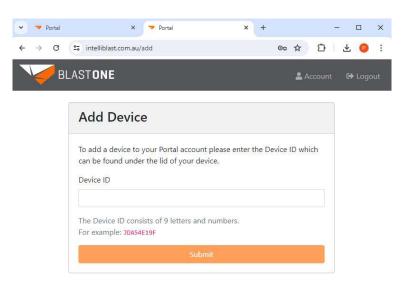


Figure 3. Initial access screen

Once your device has been setup you will need to reload the page to see the device screen (Figure 4). This device management screen will show all the devices that are presently assigned to your account and that you presently have access to.

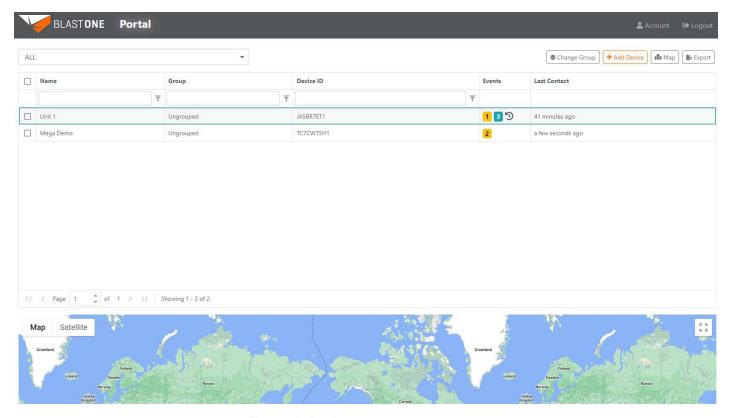


Figure 4. Device management screen

On the device management screen, you will have access to the following options:

- Account (Figure 6)
- Logout
- Change group (Figure 8)
- Add device (Figure 9)
- Map (Figure 10)
- And export (Figure 11)

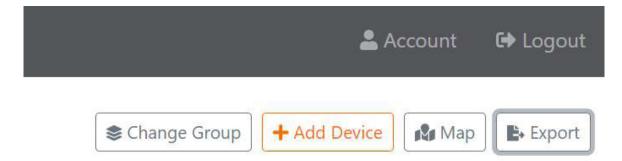


Figure 5. Device management options

Pressing the "Account" button will open the below page wherein you can manage your account information.

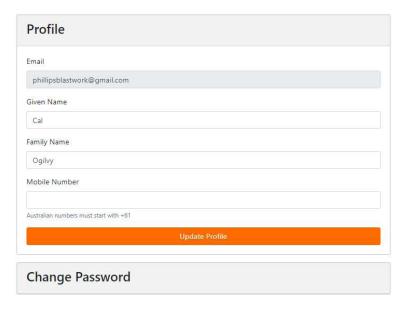


Figure 6. Account management page

Different devices can be grouped to assist with sorting through devices. This can be done by pressing the cheque box next to the device, as seen in Figure 7 below, then pressing the "Create Group" button.

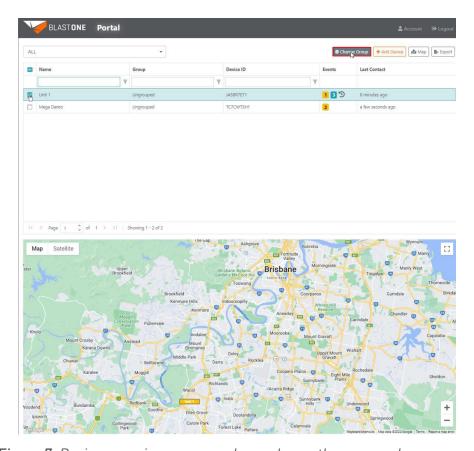


Figure 7. Device grouping process: cheque boxes then press change group

Pressing the "Change group" button with the desired devices selected will cause the below popup to appear wherein you can assign and change groupings for devices. (Note: remember to press apply to save changes)

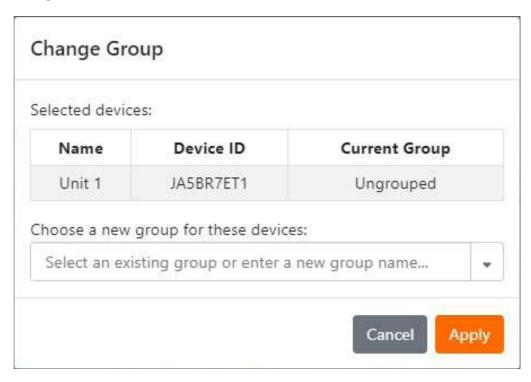


Figure 8. Device grouping popup

Pressing the "Add Device" button will open the screen in Figure 9. This screen can be used to add a device to your dashboard that you have been assigned to by BlastOne personnel but hasn't automatically appeared yet.

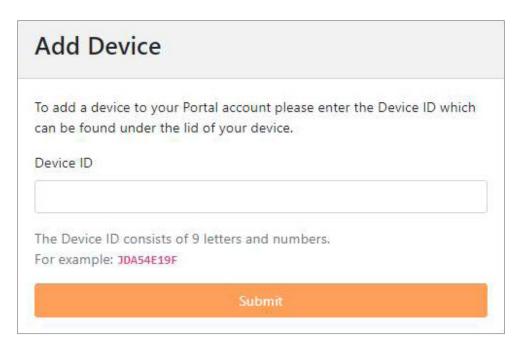


Figure 9. Add device screen

Pressing the "Map" button will scroll your browser and scale the screen to the world map at the bottom of the dashboard wherein all your assigned devices last know locations will be overlayed.



Figure 10. World map with devices overlayed

Pressing the "Export" button will download a excel file summarizing the selected devices with the below fields.

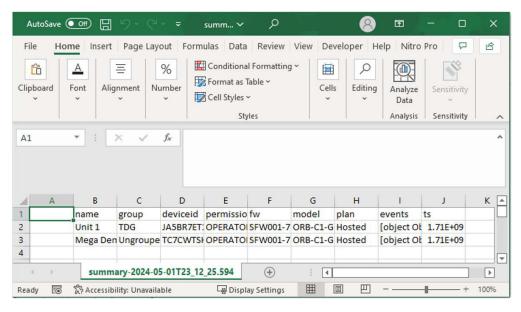


Figure 11. Excel file summary of selected devices

Specific devices can also be searched for using the search fields below: Name, Group, and Device ID. The funnel icon can also be pressed to sort for specific device identifiers.

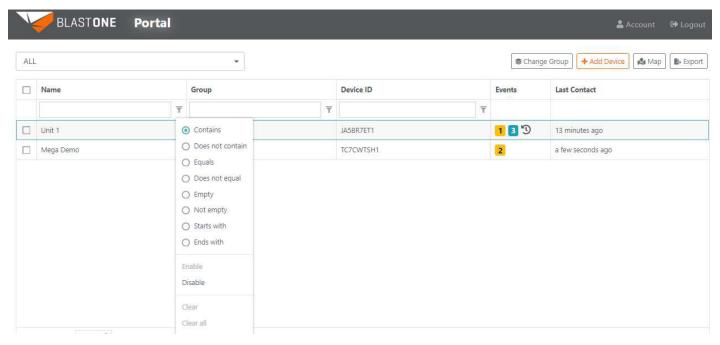


Figure 12. Sorting functions for searching for specific devices or groups

If you have more devices than can be viewed on a single page, you can navigate between pages of different devices using the navigation arrows circled in Figure 13 below:

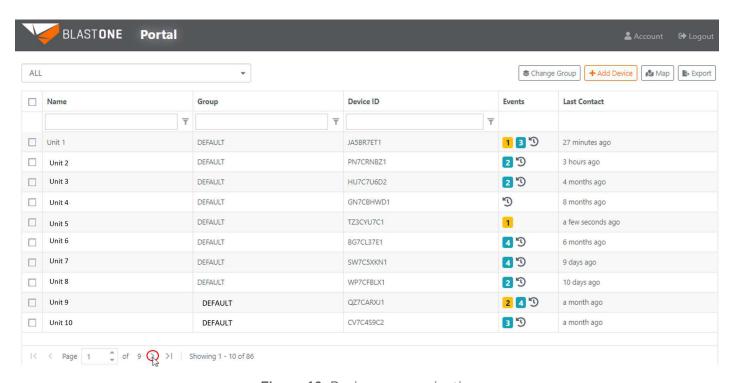


Figure 13. Device page navigation

DEVICE ACCESS AND DATA ANALYSIS

To access a specific device, simply click on the banner for the device that you want to access/view (see Figure 14 below)

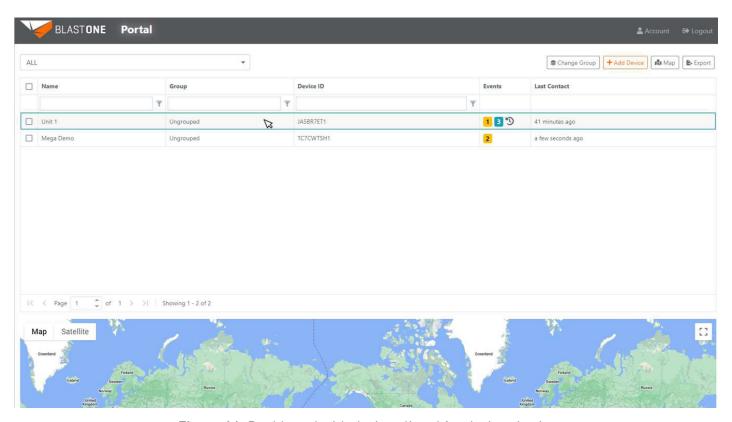


Figure 14. Dashboard with devices listed for device viewing

Selecting the device will open a display like the one seen in Figure 15 below which can show widgets such as: Total active time; Pot location, Nozzle Pressure, Number of activations, Active time per shift/day, etc.

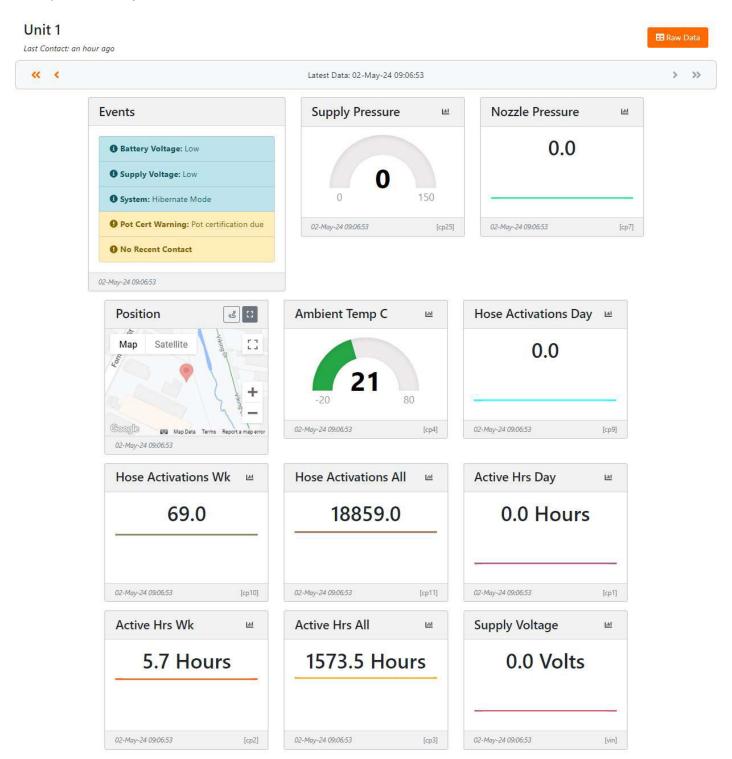


Figure 15. Unit details display page

The displays will all show the single value measurements by default. The data range can however be converted into a line graph by pressing the little bar graph icon in the top right of each measurement, circled in Figure 16 below.

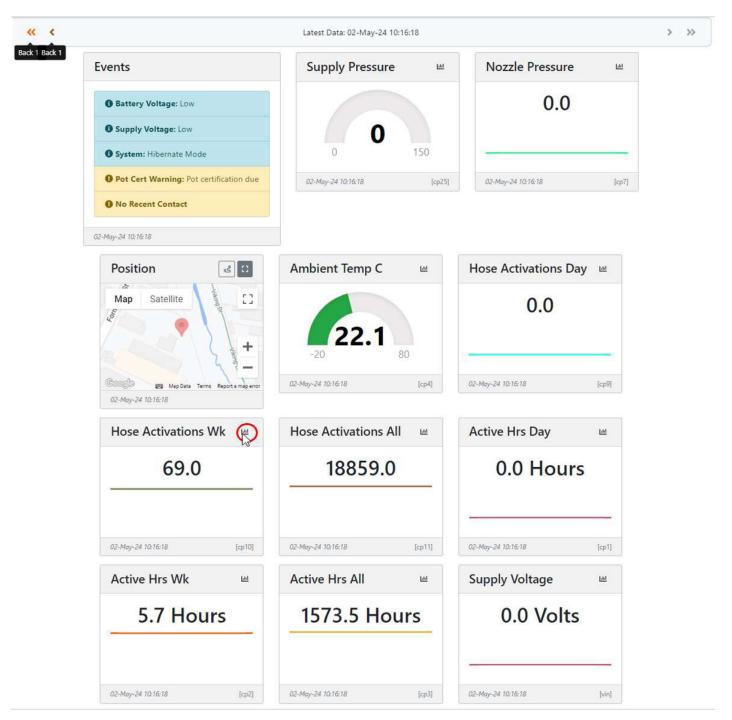


Figure 16. Selection of graph icon for finding trend data

Pressing this bar graph icon will open the below popup which allows the user to select their desired time range from Month, Week, Day, or Hour.

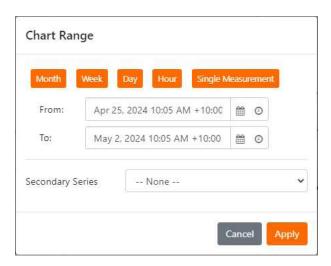


Figure 17. Date range selection for generated trend graph

After selecting a time range and some loading, the plot will be converted into a line graph like the one seen in Figure 18 below (Note: due to limitations of the server, the charts can only display the data for up to 10 days prior)

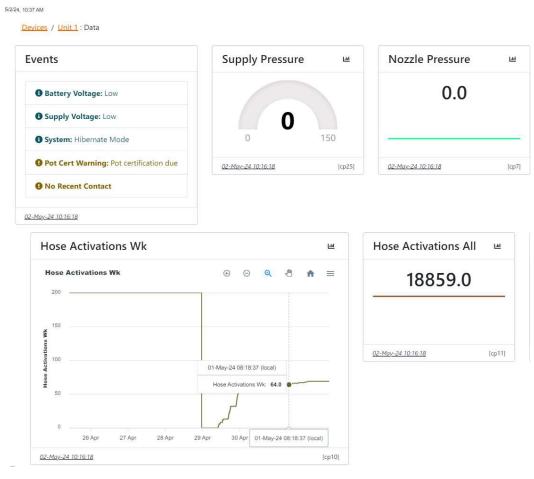


Figure 18. Generated trend graph for weekly hose activations

The generated trend graph will have the desired measurement on the y-axis, and the date of measurement (or time of measurement depending on selected time range). A specific instantaneous measurement value can be found by hovering the mouse over the graph with the snapshot moving as the mouse moves across the x-axis.

A specific section of the trend can also be zoomed in on for closer interrogation by clicking and dragging a box around the area of interest while the magnifying glass is selected.



Figure 19. Section selection on the line graph

The plot can also be navigated by selecting the hand icon then dragging backwards and forwards, up and down. The graph can then be navigated to the default section using the home icon.

Pressing the three lines at the top right of the plot allows the plot to be exported as a **SVG**, **PNG**, or for the data across the range to be downloaded as a **CSV**.



Figure 20. Graph data exporting options

RAW DATA EXPORT OPTIONS

Pressing the "Raw Data" button on the top right of the screen, circled in Figure 21 below, will open the screen seen in Figure 22.

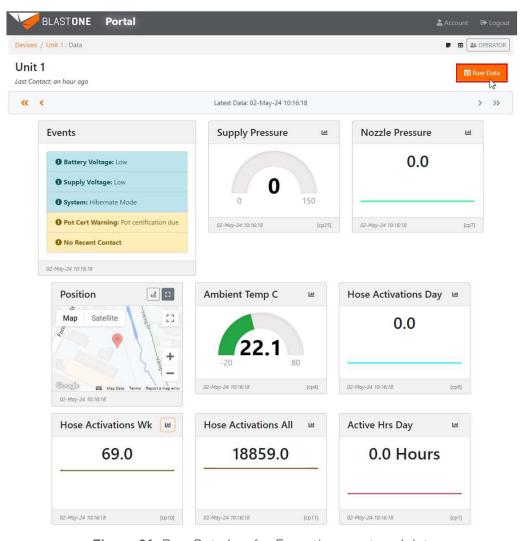


Figure 21. Raw Data box for Exporting raw trend data



Figure 22. Raw data export screen

After selecting the desired date range and pressing the load data button the screen will appear like the one seen in Figure 23 below. (Note: due to server limitations, data over larger ranges will need to be downloaded in separate lots)

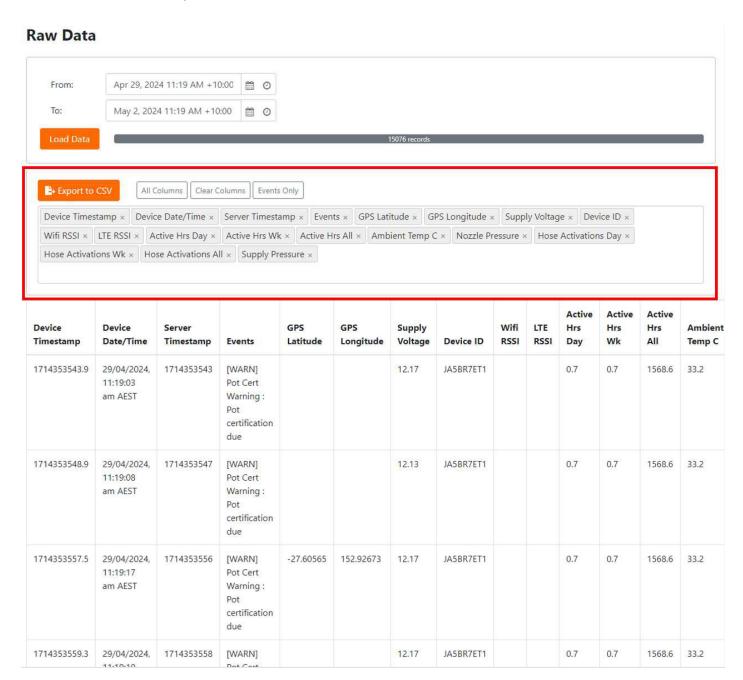


Figure 23. Example exported data

Different device data can be either added or removed from this data set by pressing the x next to the data tags in the boxed region seen in Figure 23 above. Alternatively, the data can be cleared with the "Clear Columns" button; all available data is added with the "All Columns" button; or only the events can be added with the "Events Only" button.

The data can then be exported to a CSV for further analysis by pressing the "Export to CSV" button, which will download a file with the selected columns which, when opened in excel, appears as below:

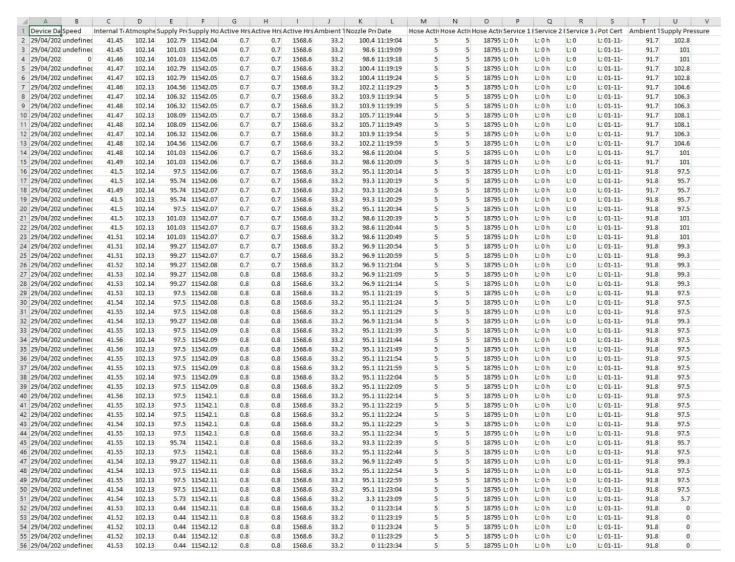


Figure 24. Example exported data

RULES FOR SAFE OPERATION

Know your equipment

Do Not operate this equipment in a manner other than its intended application.

Do Not operate this equipment without following the Rules for Safe Operation and all the operating procedures. Failure to do so could result in serious injury or death.

Receive proper training

Do Not operate or perform maintenance on this equipment unless you have received operational and maintenance training. Begin by thoroughly reading and understanding this document and any operational and maintenance manual or instructions for the equipment that will be used in conjunction with the IntelliBlast Lite.

Should you require assistance with training, consult an authorized BlastOne representative.

• Use proper personal protective equipment (PPE)

Do Not operate or perform maintenance on this equipment without wearing OSHA approved eye, ear, foot, and lung protection.

Adhere to all regulations

Do Not operate or perform maintenance on this equipment without observing all local, state, and federal safety regulations including, but not limited to, OSHA (Occupational Health and Safety Administration).

• Use correct replacement parts

Do Not use replacement parts that are not manufactured and furnished by an authorized distributor.

Incorrect replacement parts can result in equipment failure and cause serious injury or death.

• Save this operation and maintenance manual

Refer to this operation and maintenance manual as well as any other manufacturers information included for equipment that is used in conjunction with the IntelliBlast Lite.

Never permit anyone to operate this equipment without having him/her first read this manual and receive proper training. Provisions should be made to have this manual readily available to the operating and maintenance personnel. If for any reason the manual becomes lost or illegible, have it replaced immediately.

This operation and maintenance manual should be read periodically to maintain the highest skill level; it may prevent a serious accident.

MAINTENANCE AND FAULT FINDING

LED STATUS GUIDE

STATUS	NETWORK	Description
Off	Off	Device is sleeping
Flash (1Hz)	Off	Setup Mode
On	Flash (1Hz)	No internet connection
On	On	Internet connection
Fast Flash	Fast Flash	Factory Reset
Off	Fast Flash	Firmware Update
Slow Flash	Off	Pre-charge mode

△ WARNING △

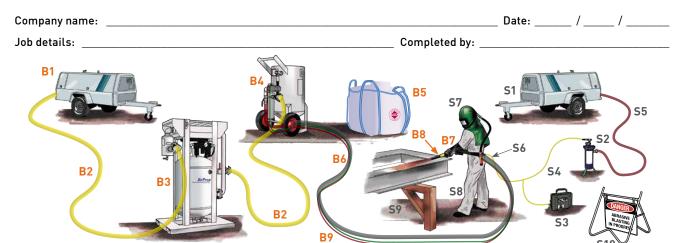
When maintaining the unit, the trained and qualified technician must use the appropriate PPE before performing maintenance.

MAINTENANCE AND FAULT FINDING



DAILY COMPONENT AND WORK AREA CHECKLIST

S1 BREATHING AIR SOURCE



BLAST COMPONENTS B1 AIR COMPRESSOR Fully maintained, serviced and fuelled Located upwind and away from the blasting area B2 AIR SUPPLY - BULL HOSE Large bore hose (4 times nozzle orifice minimum) Large connector fittings with whipchecks and/or safety chains installed П Coupling gaskets in place Coupling pins fitted AIR MOISTURE CONTROL Condensate drained and air motor lubricant filled B4 BLAST MACHINE Handle and twinline free from leaks Abrasive metering valve cleaned, fittings checked/ Lid and screen (portable hoppers) fitted Blast outlet gasket checked Test pressure relief valve B5 BLAST ABRASIVE Kept dry and protected Certificates and batch numbers recorded Kept as straight and as short as possible – checked daily for wear or soft spots Coupling gaskets in place Coupling pins fitted Whipchecks installed Check gasket and components for wear, and air leaks Certificates and batch numbers recorded B7 REMOTE CONTROL HANDLE Check operation for fast start/stop Deadman operating and safety latch in place BLAST NOZZLE Checked routinely for air pressure and liner/thread wear or damage Check nozzle pressure Check nozzle size for wear Nozzle gasket in place (where applicable) B9 DEADMAN HOSE Check fittings Check hose for pin holes or cracks

DISCLAIMER: The information on this page is only a guide and does not represent nor claim to be either a full or complete or accurate nor an approved or standard method of checking blast cleaning equipment or components. It is the responsibility of the reader and/or users of this information to separation to or components. It is the responsibility of the reader and/or users of this information to separation to expert and or components of the components of th

List all parts that need to be ordered to maintain a safe and efficient work site

CONSUMABLE

Coupling Clips
Blast Tape
Power Ties
Containment
Garnet
Tyvek
Blast Couplings
Screws
Gloves

SITE REQUIREMENTS

Safety Vest First Aid Fire Extinguisher Toilet Safety Glasses Ear Protection

HIRE REQUIREMENTS

Vacuload
Dust Collector
Decontamination
Unit

OOLS REQUIRED

800-999-1881 sales@blastone.com www.BlastOne.com

OPERATOR SAFETY COMPONENTS

51	BREATHING AIR SOURCE	
	Check replacement date on inlet filter	Т
	Checked and maintained on a regular basis	Ť
	Located in a clean air atmosphere, upwind and away from the blast area and engine exhaust fumes	Ē
S2	BREATHING AIR FILTER	
	Check replacement date on filter	T
	Cartridges require regular programmed replacement	ĪĒ
	Pressure gauge in place and operating	Ť
	Filters and regulates the breathing air supply	ĪĒ
	Test pressure relief valve	Ť
S3	CARBON MONOXIDE MONITOR OR CONVERTER MONITOR	
	Checked, tested and calibrated (calibration certificate on file)	Ī
	Batteries checked	╠
S4	BREATHING AIR LINE	
54		Т
	Fitted with threaded screw-type connector or AS 1715 approved 'Safety Type' coupling with two distinct actions to avoid accidental disconnection	
	Free from kinks, abrasion	I
S5	AIRLINE BREATHING AIR	
	Airline for maximum airflow 1" or C\v"	Ī
	Coupling gaskets in place	ĪĒ
	Coupling pins fitted	
S6	FATIGUE MANAGEMENT AND NOXIOUS GAS PROTECTION	
	Air temperature control within 15°C – 25°C range for operator comfort	
	Suitable Personal Gas Monitor (H ₂ S, O2, CO, CO ²)	L
S7	BLAST HELMET (RESPIRATOR)	
	Inspected and maintained for wear and tear to the cape, collar, head gear and visor as per AS 1715 requirements	
	New/clean inner and outer lens in place	T
	Inner lens securely in place for impact protection	īĒ
	Helmet sanitized between operators	Ī
	Supplied with minimum 170 litres/minute breathing quality air as per AS 1715	Ē
S8	OTHER PROTECTIVE CLOTHING	
	Safety footwear	
	Ear plugs and blasters gauntlets	
	Glasses	L
S9	WORK HAZARDS	
	Check, control and eliminate wherever possible:	Ļ
	Physical dangers - tripping, falling, crushing	L
	Toxic substances e.g. lead, arsenic, cyanide, heavy metals, chromates, free silica, etc. present either in the abrasive, the coating, the substrate or the environment	
S10	WARNING SIGNS AND BARRIERS	
	On display and not obstructed	
		TE
	Site Specific PPE signs displayed and not obstructed	IL

MAINTENANCE AND FAULT FINDING



Company name: _

RISK ASSESSMENT WORKSHEET

_____ Date: _____ / ____ / _____

Job details:						Co	Completed by:				
SITE	HAZA	RD CHART									
NO			EGORY CHART BELOW)		HAZARD	:	RISK SCORE		CONTROLS		RISK SCORE
			Dhusiasl	Naiss	tamananatura limbt m	- diabia a	F:== / F	xplosion	Can flammahla ayala		
			Physical Chemical		, temperature, light, r dous substances or da		Electric		Gas, flammable, explo Cables, power points,		
CV	TFG	ORIES	Mechanical	_	equipment – entangle	-	Ergono		Man handling, posture		load
07		OILIES	Biological		ances – Hepatitis, HIV,		Slip/Tri		Fall from height, same		
			Psychological	_	s, violence	,			Vessels, pits, tanks, se		
,,				<u> </u>							
							CON	SEQUENCE	E		
					1. INSIGNIFICANT	2. MINOR	3. MO	DERATE	4. MAJOR	5. CATASTE	ROPHIC
			RATING ART		No injury or damage expected	Could cause First Aid injury or minor damage	medic and so days o	I require cal attention everal off work or rate damage	Could cause serious long term illness or injury or major damage	Could kill, permanent disability o health or cavery seriou damage	: rill ause
	E	ALMOST CE			Н	Н		Е	E	E	
00	D	LIKELY At some poi	nt in time		M	Н		Н	E	E	
KELIHOOD	С	POSSIBLE Possible it r	night happen		L	M		Н	Е	E	
¥	_	UNLIKELY						1			

DISCLAIMER: The information on this page is only a guide and does not represent nor claim to be either a full or complete or accurate nor an approved or standard method of checking plast cleaning equipment or components. It is the responsibility of the reader and/or users of this information to separately determine and verify each and/or any guideline, regulations, tests, checks, etc. for equipment and/or setup as directed or indicated or required in or by any work specifications and/or standards. BlastOne expressly disclaims any liability for the use or misuse of the information on this page.

Not likely to happen

Could happen, but probably never will

RARE

CLASS E	Extreme Risk	Immediate action required
CLASS H	High Risk	Senior management attention required
CLASS M	Moderate Risk	Management responsibility must be specified
CLASS L	Low Risk	Manage by routine procedures

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DISCLAIMER: It is the sole responsibility of the user of this equipment to ensure that the equipment is operated, maintained, and used in strict accordance with these instructions.

Do not use titration tubes beyond their expiration date or that have a colour different than referred to under performance. The manufacturer and manufacturer's distributor shall not be otherwise liable for an incorrect measurement or any damages, whether damages result from negligence or otherwise.