

Kit Part Number: 100015GA

Breathe Safe

Part of **AireSafe**

Parts and Service Manual

TL4I

HEPA H14 Air Purification Unit | Including SBS Air Volume Control

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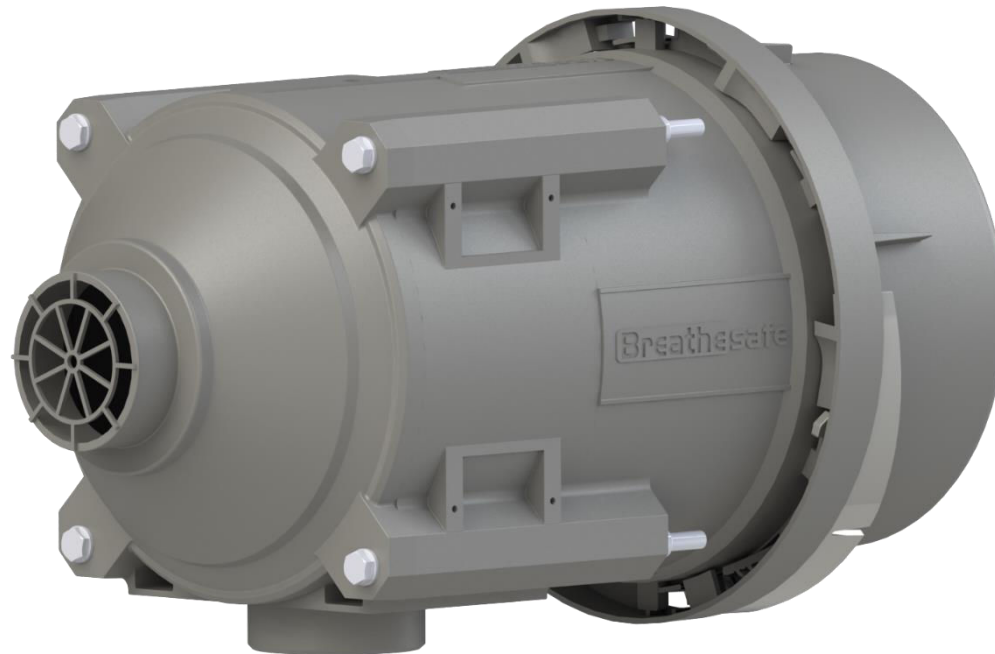
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INSTALLATION OVERVIEW

Manufacturer	Various
Type	Enclosed cabin or electrical compartment
Model	TBA
Site	
Serial Number	
Cabin Pressure Max	
Set Auto Cabin Pressure	

TL4I - 200037



WARNING

THE PRESSURISATION SYSTEM DESCRIBED IN THIS MANUAL HAS THE FOLLOWING AREAS WHICH MAY BE DANGEROUS IF NOT TREATED WITH GREAT CARE.

QUALIFIED STAFF MUST WEAR THE CORRECT PERSONAL PROTECTIVE EQUIPMENT WHEN CLEANING AND SERVICING THIS UNIT DUE TO DUST AND FIBRES WHICH MAY BE CAUGHT BY THE STAGES OF AIR FILTRATION DURING NORMAL UNIT OPERATION.

THE ELECTRICAL POWER SYSTEM IS SUPPLIED BY 12V DC OR 24V DC AND NO WORK SHOULD BE CARRIED OUT ON THE PRESSURISER SYSTEM WITHOUT THE CORRECT SAFE WORK PROCEDURES AND ELECTRICAL SAFETY MEASURES BEING TAKEN, AND ALL RELEVANT CIRCUIT BREAKER OPENED TO ISOLATE THE CIRCUIT.

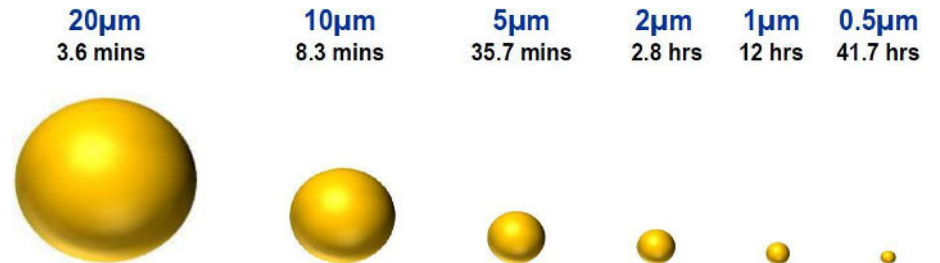
THE AIR FILTRATION SYSTEM MAY HAVE SEVERAL TYPES OF HIGH-SPEED ROTATING EQUIPMENT INSTALLED WITH VERY SHARP EDGES. ENSURE ALL SAFETY GUARD ARE IN PLACE WHILE THE SYSTEM IS RUNNING.

Please be aware that HEPA filters cannot be cleaned and must be replaced at the end of their lifecycle or if filter media has been damaged.



Particulate Behaviour

This is the length of time it takes for a particle to drop from a height of 1.5m in **STILL** air.



Warehouses and workshops do not have still air, so hazardous airborne particulates may remain in air for longer, increasing chance for workers to breathe in dust. Ensure PPE is worn when installing this system.



Maintenance Schedule

The following tables show our suggested maintenance schedule for all units. Please note that site conditions may alter this. Excludes high corrosion environments.

Data download is required to claim the 3-year warranty on Brushless Blower Motor.

Critical Parts

INPRESS TL PRESSURISER 24V

Item	Part Number	Qty.	Description	Service Interval
1	500000	1	Fresh Air HEPA H14 Filter TESTED AS PER EN1822	500 – 4000 Hours
2	200002	1	Brushless Blower motor – INPRESS TL4M	15,000 Hours
3	SBS Controller as required	1	BREATHESAFE air volume control may need adjusting annually	8,000 Hours

Inspect every 500 Hours and replace when filter is fully loaded*

Component / System	Action Required
Air intake	Ensure intake is clear of any obstructions or debris
Pressuriser Blower	Ensure blower is operational, feel for air coming out the discharge outlet.
HEPA Primary Filter p/n: 500000	Replace HEPA filter element. Vacuum out housing before replacing the filter elements.
Filter Frame Assembly, Mounts, Seals and Filter Housing.	Check door seals, all bolts, screws, and all mounts are secure. Check the filter canister & ensure it is correctly fitted. Check latches are operational and in good order. Replace / Re-tension fixtures and fittings required.

15,000 Hours / 36 months*

Component / System	Action Required
Pressuriser's Blower 15,000	Replace BRUSHLESS Purifier blower.

Specifications High-Capacity HEPA Pressuriser

Blower	: Brushless Blower P/N 200002 *Old P/N (TL4M)
Protection	: Locked Rota (Sub Zero Environments) Under Voltage, Under/Over Current & Over Temperature
Voltage	: 24v-28v
Current Draw	: 11 amps (peak). *Note Brushless Motors on excessive in rush current on start up.
Air Flow	: Up to 30-295 m ³ /h or 20-175 CFM. + / - 10%
Pre-cleaner	: N/A as it is an internal unit
Filter Element	: HEPA Primary Filter (H14=99.99% MPPS) TESTED AS PER EN1822 – P/N 500000
Plugs & Fittings	: Mining Spec. Deutsch electrical plugs as standard.
Construction	: High strength composite construction.
Serviceability	: Easy access HEPA filter with twist-lock (TL) dust cap single assembly.
Finish	: Satin Powder Coated throughout (Ducting).
Mounting	: Heavy Duty adjustable mounting brackets.
Design	: Fully designed in SolidWorks 3D CAD & Ansys Engineering Simulation Software.
FEA Testing	: Critical components FEA (Finite Element Analyst) tested in Solid Works Simulation.
CDF Testing	: CFD (Computational Fluid Dynamics) simulations in Flow Works to ensure optimum air flow through the system.

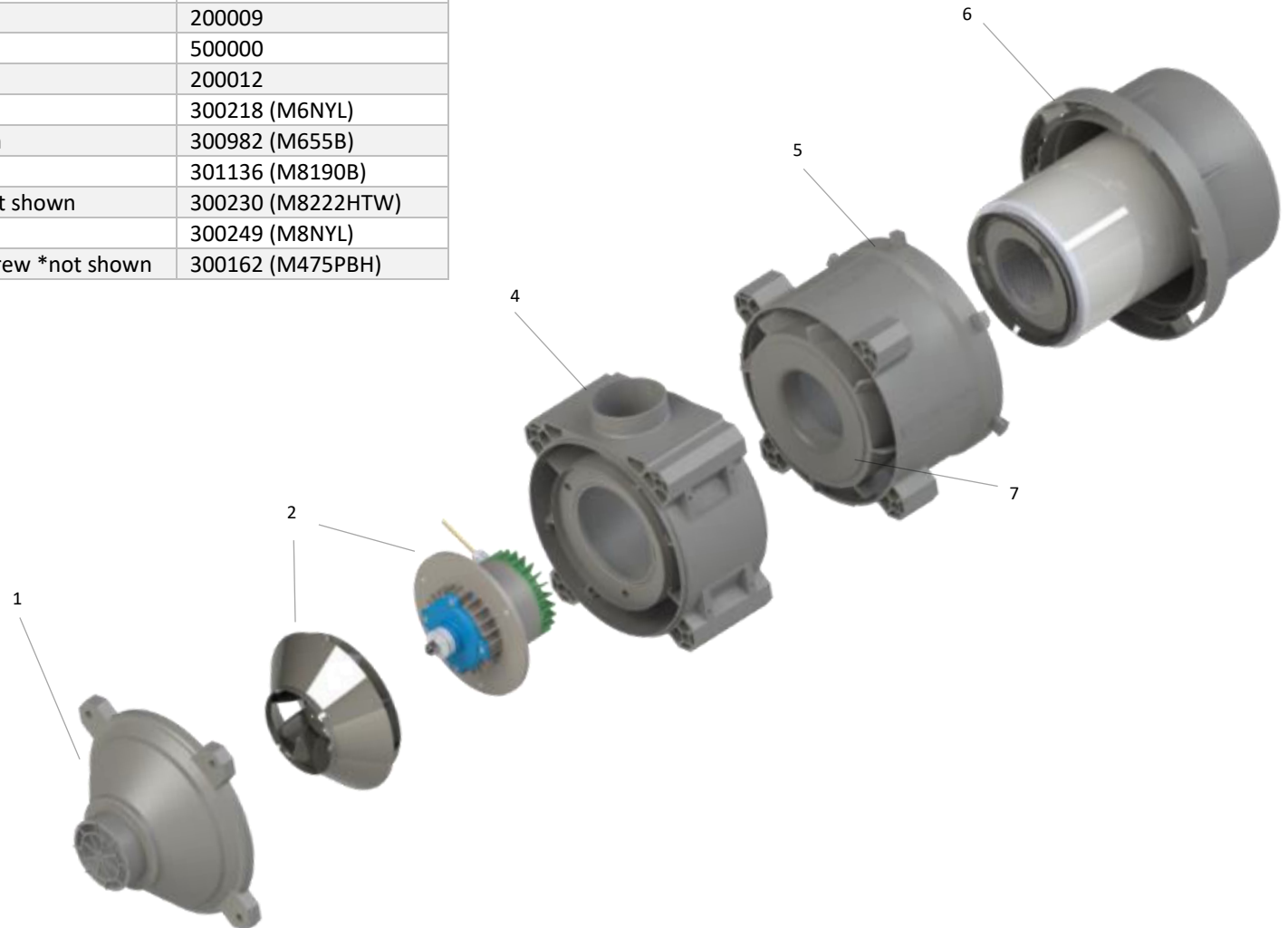
SPECIFICATIONS HIGH-CAPACITY HEPA PRESSURISER

List of Abbreviations	
DH	Dual HEPA
DHPR	Dual HEPA Powered Recirculation
DHAC	Dual HEPA Activated Carbon
DHACPR	Dual HEPA Activated Carbon Powered Recirculation
CPM	Cabin Pressure Monitor
CPU	Central Processing Unit
DB	Decibel Sensor
DPM	Diesel Particulate Matter
GAS	Gas Sensor
HEPA	High-Efficiency Particulate Air Filter
HPAFU	High Pressure Air Filtration Unit
HRAF	HEPA Return Air Filter
HVAC	Heating Ventilation and Air Conditioning
MAF	Mass Air Flow
OEM	Original Equipment Manufacturer
PM	Particulate Mass
RH	Relative Humidity
TEMP	Temperature
TS	Touch screen
UI	User Interface
VMS	Vehicle Monitoring System
VS	Vibration Sensor
OGSP	OnGuard Sensor Pod
CO2s	CO2 Sensor INPRESS TS
TL4I	HEPA H14 Air Purification Unit

Item No.	Qty.	Description	Part No.
1	1	TLI Nose Cone	200007
2	1	24v DC Brushless VSD Motor & TL Fan Blade	200002 & 200006
3	1	O Ring Seal Kit 2 Parts *not shown	200010 & 200011
4	1	TL Motor Housing	200008
5	1	TL Filter Housing	200009
6	1	HEPA H14 Filter	500000
7	1	Wiring Sleeve	200012
8	3	M6 Nyloc Nut *not shown	300218 (M6NYL)
9	3	M6 x 55mm Hex Bolt *not shown	300982 (M655B)
10	4	M8 x 190 Hex Bolt *not shown	301136 (M8190B)
11	8	M8 x 22mm O/D HD Washer *not shown	300230 (M8222HTW)
12	4	M8 Nyloc Nut *not shown	300249 (M8NYL)
13	5	M4 x 75mm Pan Head Phillips Screw *not shown	300162 (M475PBH)

PARTS LIST – HEPA H14 AIR PURIFICATION UNIT

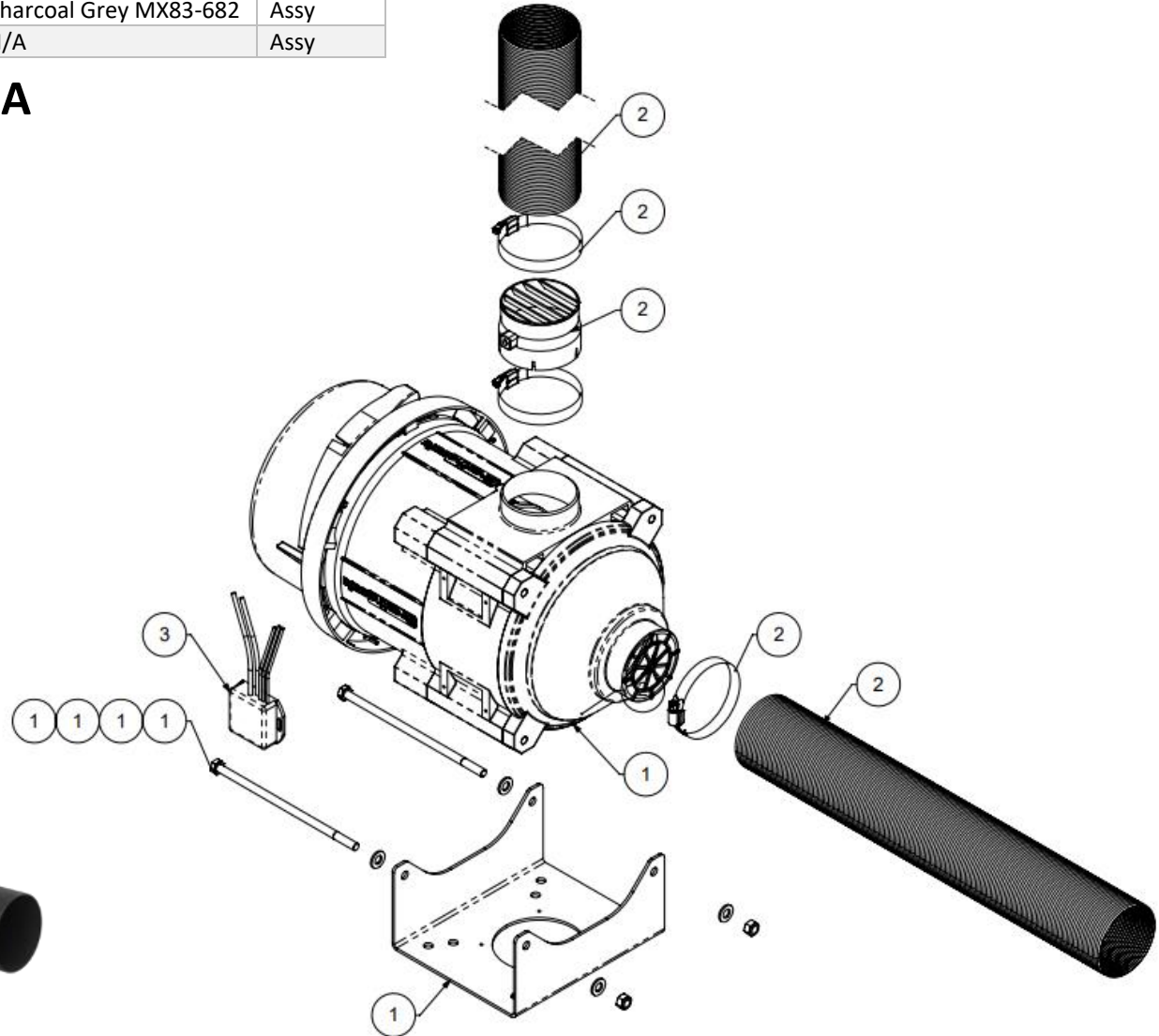
PRESSURISER ASSEMBLY No: 200037



Item No.	Part No.	Rev	Description	Qty	Colour	Category
1	100015A01	0	Pressuriser Module	1	Charcoal Grey MX83-682	Assy
2	100015P01	0	Pipework Module	1	Charcoal Grey MX83-682	Assy
3	200046	0	SBS Controller	1	N/A	Assy

COMPLETE ASSEMBLY No: 100015GA

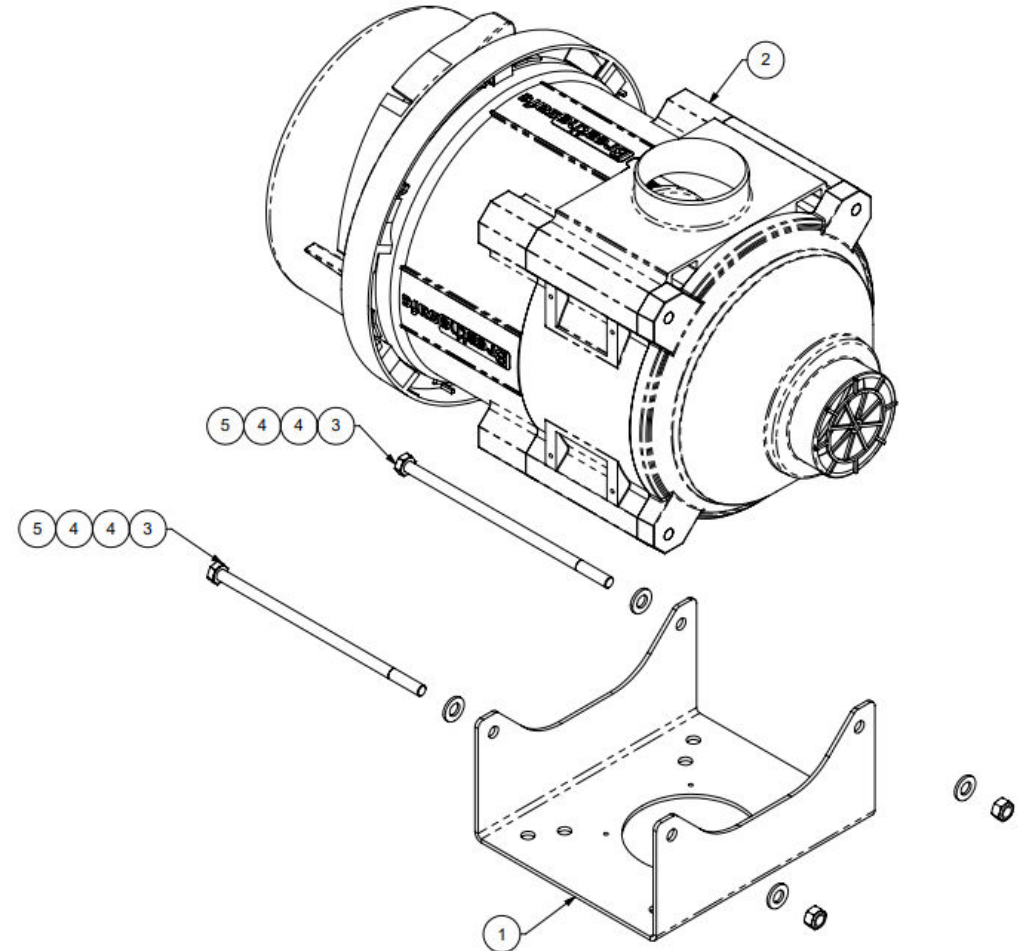
Kit Part Number: 100015GA



Item No.	Part No.	Rev	Description	Qty	Material	Thickness	Colour	Category
1	ST100008	[*]	TL Mount Bracket H	1	Mild Steel	3	Charcoal Grey MX83-682	Stock Item
2	200037	[*]	TL4I – 24V	1	N/A	N/A	-	Stock Item
3	301136 (M8190B)	-	M8 X 190mm Bolt	2	Zinc Plated	-	-	Fasteners
4	300225 (M818FWSS)	-	M8 X 18mm Flat Washer ZP	4	Zinc Plated	1.6	-	Fasteners
5	300249 (M8NYL)	-	M8 Nyloc Nut	2	Zinc Plated	-	-	Fasteners

PARTS LIST – PRESSURISER MOUNT

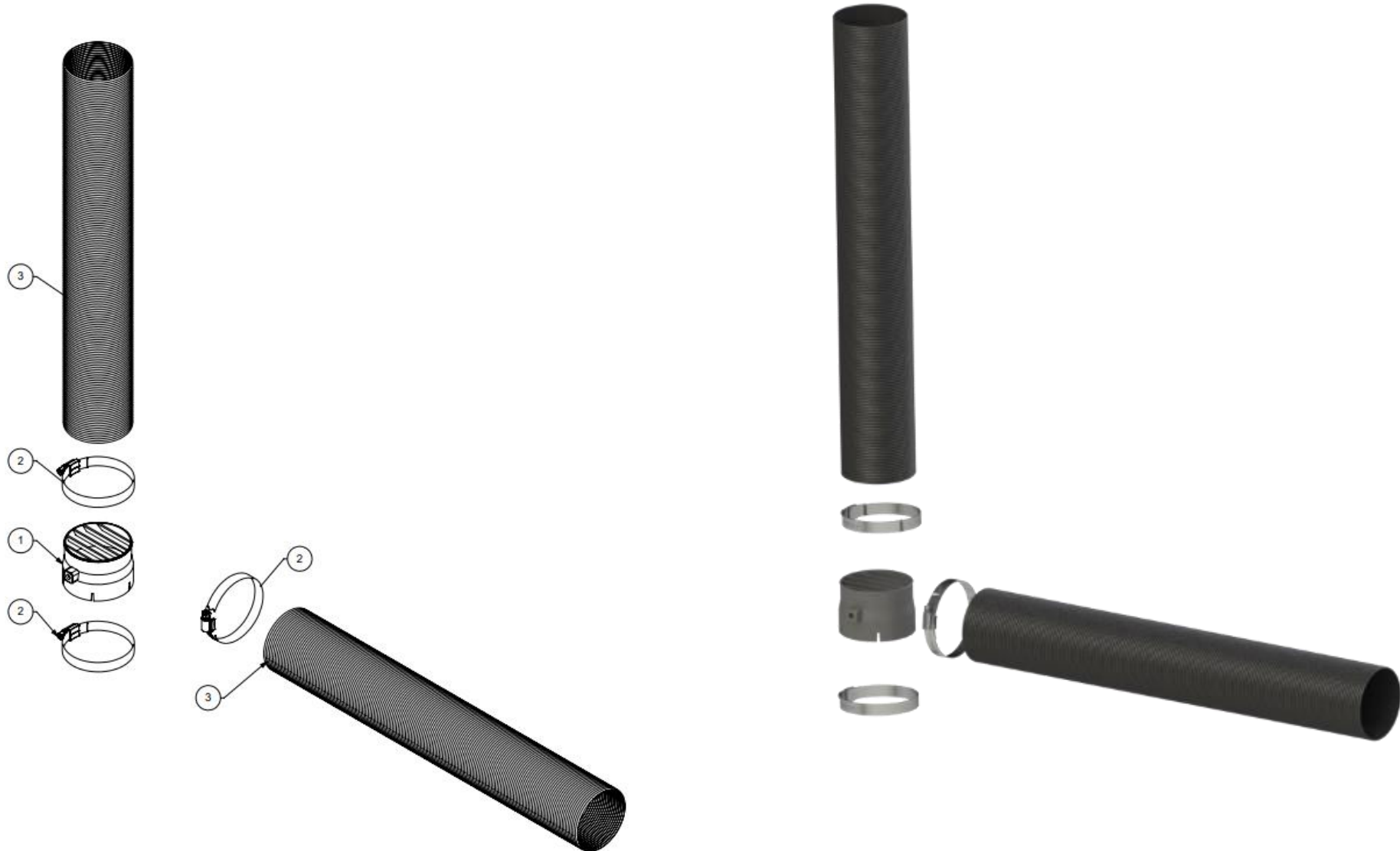
PRESSURISER MOUNT No: **100015A01**



Item No.	Part No.	Rev	Description	Qty	Material	Colour
1	200035	[*]	TL4I Outlet Vent	1	N/A	Stock Item
2	300001	-	65-89mm Hose Clamp	3	-	Pipework
3	300002-mm	-	3" FLEXI Rubber Tube – 2000mm	2	-	Pipework

PARTS LIST – PIPING / DUCTING

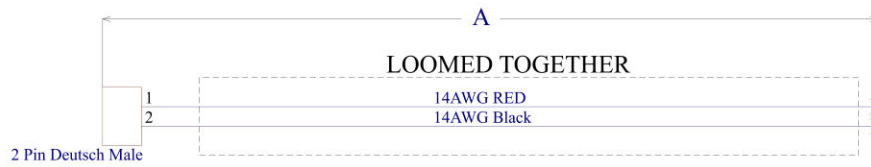
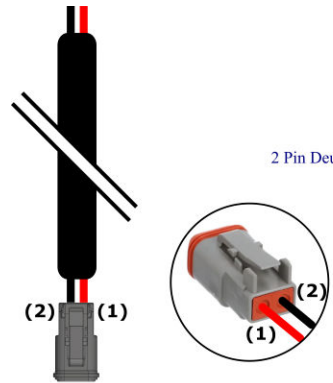
PIPEWORK ASSEMBLY No: **100015P01**



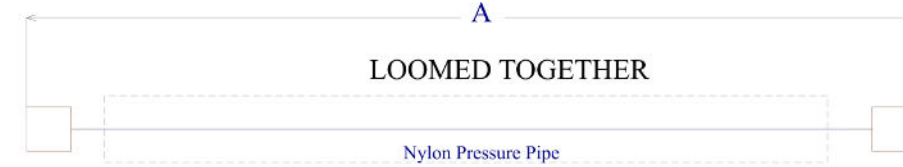
Item No.	Part No.	Rev	Description	Qty	Colour	Category
1	400002 (L100002)	N/A	2 Pin 5m Main Power & Earth Supply Loom	1	-	Stock Item
2	400003 (L100003)	N/A	3 Pin 5m Power, Earth & Speed Control Loom	1	-	Stock Item
3	400004 (L100004)	N/A	5m Air Pressure Sense Pipe w/ Sleeving	1	-	Stock Item

PARTS LIST – PIN LOOMS & AIR PRESSURE PIPE

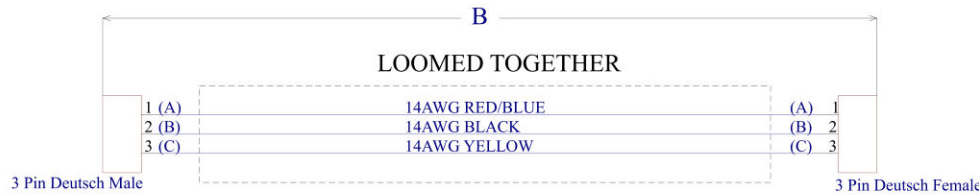
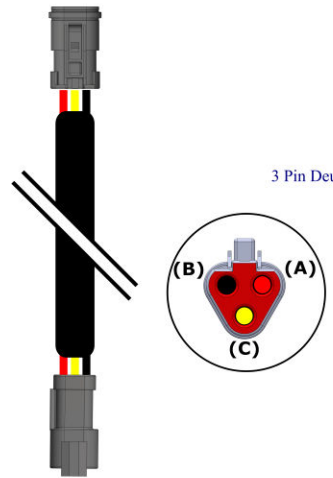
WIRING ASSEMBLY No: L100001



Part Number	Dimension A
400002 (L100002)	5000.0 mm
To be Advised	-
To be Advised	-
To be Advised	-
To be Advised	-
To be Advised	-
To be Advised	-



Part Number	Dimension B
400004 (L100004)	5000.0 mm
To be Advised	-
To be Advised	-
To be Advised	-
To be Advised	-
To be Advised	-
To be Advised	-



Part Number	Dimension B
400003 (L100003)	5000.0 mm
To be Advised	-
To be Advised	-
To be Advised	-
To be Advised	-
To be Advised	-
To be Advised	-

*Plug Assemblies Provided Loose

Express Warranty

All BreatheSafe products carry a warranty against defects in materials or workmanship, provided the defects are not from factors outside of BreatheSafe's control (including neglect, lack of maintenance, improper installation or operation, unauthorized servicing repair, etc.). BreatheSafe will replace goods defected in material or workmanship at our Queensland factory or designated branch*. All parts deemed as failed or faulty must be returned to BreatheSafe for evaluation unless otherwise stated in writing.

Note- Systems must be installed and commissioned as per BreatheSafe installation and commissioning instructions. Once commissioned, the online commissioning sheet must be filled in, extending the components warranty as below. In addition, the system must be serviced and maintained correctly and by trained and qualified personnel. This requisite includes BreatheSafe technicians, qualified automotive air-conditioning technicians, or qualified auto electricians.

Warranty period – Standard

- 1 year or 10,000 hours (whichever occurs first).
- Controllers – 1 year no extended warranty option.
- Warranty Period Extension when commissioning documents are registered online within 28 days of installation
- Extended warranty** only offered if commissioning maximum pressure test reaches at least 250Pa.
- Brushless motor fixed speed two years, or 10,000 hours (whichever occurs first).
- Variable speed brushless motor 15,000 hours, or 3 years** (whichever occurs first).

Must be supplied with a variable speed pressure controller, data download required for 3-year warranty option. Link to online Commissioning and Extended Warranty Registration form <https://www.breathe-safe.com.au/commission/>

What is not covered under Express Warranty?

- Failures are due to incorrect application.
- Damage resulting from neglect, misuse, lack of maintenance, improper installation, or operation, inappropriate or abnormal use, accidental or unauthorized servicing repair.
- Failures are due to parts not being sold or approved by BreatheSafe.
- Failures arising from any other cause that is not directly related to a defect in material or workmanship.

This Express Warranty is VOID if the product is altered, modified, or used in the manner it was not designed for, also including unauthorized repairs, or using maintenance and repair parts other than those supplied by BreatheSafe.

BreatheSafe responsibilities

If there is a defect in material or workmanship not caused by the excluded failures during the warranty period, BreatheSafe will either replace the defective goods at our Queensland factory, or designated branch. *

Alternatively, BreatheSafe may elect to provide new replacement parts, BreatheSafe approved repair parts or assembled components needed to repair the defect. BreatheSafe reserves the right to provide a refund of the purchase price in lieu of replacement or repair at BreatheSafe's discretion. The replacement or repaired product will be sent to you freight prepaid by the customer or made available for pick-up on site.

Users Responsibilities

The customer should ensure that the system is maintained according to BreatheSafe service requirements and only authorized parts must be used to service and maintain BreatheSafe systems. In the event of a suspected warranty claim, BreatheSafe should be contacted in the first instance to arrange the repair or to assist with diagnosis. Claims should be made within one week of the repair.

After contacting BreatheSafe, you may be required to deliver or send the parts to BreatheSafe's Queensland factory or designated branch. * Link to online Warranty claim form <https://www.breathe-safe.com.au/warranty/>

Exclusion and Limitations on Damages and Remedies

This warranty is provided in lieu of all other warranties, written or oral, whether expressed by affirmation, promise, description, drawing, model, or sample. To the extent allowed by law, all warranties other than this warranty, whether express or implied, including implied warranties of fitness for a particular purpose, are disclaimed. The maximum liability of BreatheSafe under this warranty shall not exceed the original purchase price of the product. Interference with the equipment by or abuse, or by operating the equipment at ambient temperatures or with electrical power characteristics outside the ranges indicated in our specification shall be excluded from this warranty, as shall consequential damages.

Excluded from any express warranty are costs incurred in relation to service outside our factory our designated service branch, including traveling time, waiting time, transport costs, mechanical and overtime payments required. As per Australian Consumer Law: You are entitled to choose a refund or replacement for major failures with goods. If a failure with the goods or service does not amount to a major failure, you are entitled to have the failure rectified in a reasonable time. If this is not done, you are entitled to a refund for the goods and to cancel the contract for the service and obtain a refund of any unused portion. You are also entitled to be compensated for any other reasonably foreseeable loss or damage from a failure in the goods or service.

*This express warranty gives you specific legal rights, and you may also have other rights that vary from country to country.

**Extended warranty for (RS20 & ISO 23875) BreatheSafe Variable Speed Systems is only applicable to operator enclosures meeting this requirement.