

Breathe Safe

Part of **Aire Safe**

Troubleshooting Guide

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PRESSURISER

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1.0 Pressuriser

1.1 Motor not starting

- Check 20A main fuse
- Ensure adequate wiring size (4mm minimum) throughout harness
- Check no voltage drop from power supply to pressuriser
- Check wiring schematic (sections 4 and 5)
 - Ensure correct pinout for pressuriser and controller
- Ensure correct voltage (12V or 24V) to the pressuriser motor pin A (red wire)
- Ensure continuity to earth from motor pin B (black wire)
- Ensure signal voltage (1.6V – 10V) to pressuriser motor pin C (yellow wire)
- Test motor by powering Pin A & C simultaneously

1.2 Pressuriser noisy / running at full speed

- Check filter condition
- Check filter securely fitted
- Check doors and windows are closing properly
- Check cabin sealing (250+ Pa requirement for system max speed test)
- Check pressure sense tube is connected, clear of blockages with no kinks

1.3 Filter blocking quickly

- Check controller logs:
 - Settings -> Event Log
- Has pressure been maintained?
- Is the fan speed consistently high?

BACK		FIRST PAGE				NEXT PAGE
Date	Time	Press.	CO ₂	Temp	Fan	Event Description
02/02/21	02:26	0001	0000	Err	30	System Shutdown
02/02/21	02:27	0000	0000	Err	30	Override Switched OFF
02/02/21	02:27	0000	0000	Err	30	Override Switched ON
02/02/21	02:26	0000	0000	Err	30	System Shutdown
02/02/21	02:13	0000	0000	Err	100	Press. Unit Changed
02/02/21	02:13	0000	0000	Err	100	Press. Unit Changed
02/02/21	01:50	0000	0000	Err	100	Alarm Mute Cleared
02/02/21	01:45	0000	0000	Err	100	Buzzer Setting Changed
02/02/21	01:45	0000	0000	Err	100	Alarm Mute Activated
02/02/21	01:45	0000	0000	Err	100	Alarm Mute Cleared
02/02/21	01:40	0000	0000	Err	100	Alarm Mute Activated
02/02/21	01:40	0000	0000	Err	100	Runtime Reset
02/02/21	01:39	0000	0000	Err	100	Alarm Mute Activated

No, pressure is consistently below the setpoint with fan speed at 100%:

- There is significant leakage in the cabin or the filter has not been fitted correctly
- Cabin may need to be resealed (250+ Pa requirement for system max speed test)
- Check doors and windows are closing properly
- Refer to 1.3

Yes, pressure is usually at set point (50Pa) with fan below 100%:

- This is a recent issue
- Check filter
- Check doors and windows are closing properly
- Check pressure sense tube is connected & clear of blockages / no kinks

1.4 Blade fouling against plastic housing

- Full pressuriser replacement required, swap unit with a new one
- Return faulty unit to BreatheSafe HQ

INPRESS TS CONTROLLER

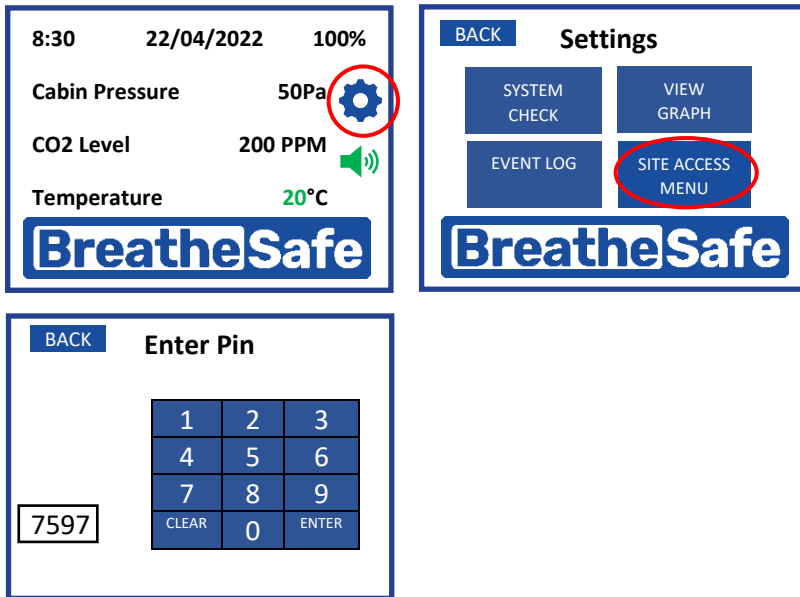
2.0 INPRESS TS Controller

2.1 Access Codes

Site Access: 7597

Factory Setup: 6759

How to access controller settings:



2.2 “LOW-PRESSURE WARNING” - Controller showing low pressure

Does “Cabin Pressure” read above 0?

Yes:

- Check cabin sealing (250+ Pa requirement for system max speed test)
- Check filter.
- Check doors and windows are closing properly.
- Refer to 1.3

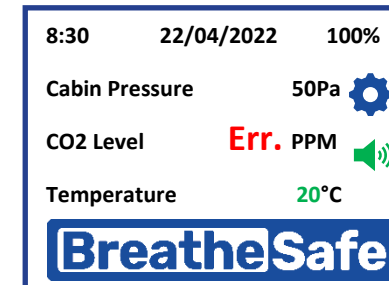
No, Cabin Pressure = 0:

- Ensure doors and windows are closed.
- Ensure pressure tube running to exterior of cab is connected to port A on the controller.
- Ensure pressuriser is plugged in and running. If not, refer to section 1.1.

2.3 Negative Pressure Reading

- Ensure filter is securely in place
- Ensure pressure tube running to external of cab is connected to port A
- Ensure outlet of pressuriser is ducted into cab

2.4 CO₂ Error / Temperature Error



Is the CO₂/Temperature sensor fitted?

No:

- Disable sensor in controller settings
- Access settings (See 2.1):
 - CO₂: Settings -> CO₂ Setting -> Disable CO₂ Sensor
 - Temperature: Settings -> Next -> Temp. Setting -> Disable Temp Sensor

Yes:

- CO₂: Unplug RJ45 cable from rear of controller and from CO₂ sensor. Inspect condition of cable to ensure undamaged. Wait 1 minute, reconnect.
- Temperature: Unplug 2-pin Deutsch plug from master loom connected to controller. Inspect condition of cable / plug to ensure undamaged. Wait 1 minute, reconnect.
- Power cycle unit

INPRESS TS CONTROLLER

2.5 Service Interval / Check filter alarm

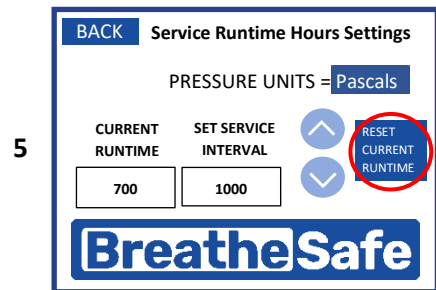
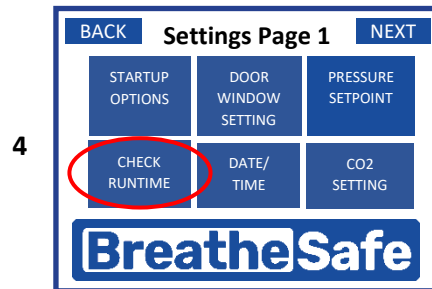
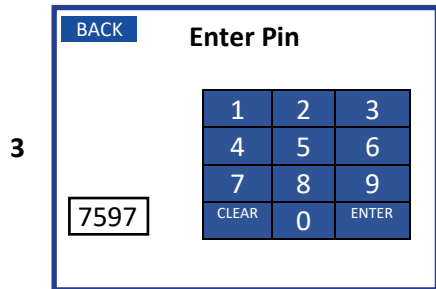
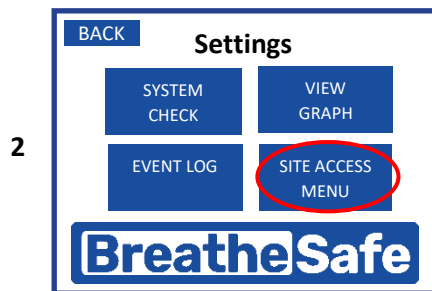
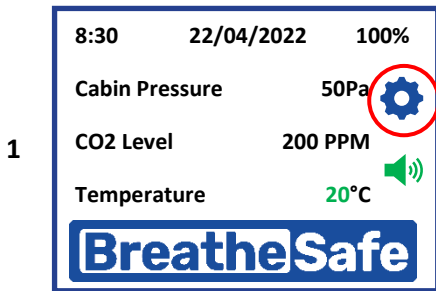
Has the pressuriser filter been replaced already?

No:

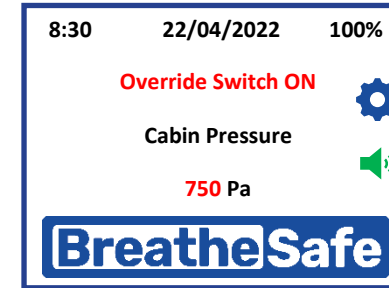
- Replace pressuriser filter then proceed to next step

Filter has been replaced:

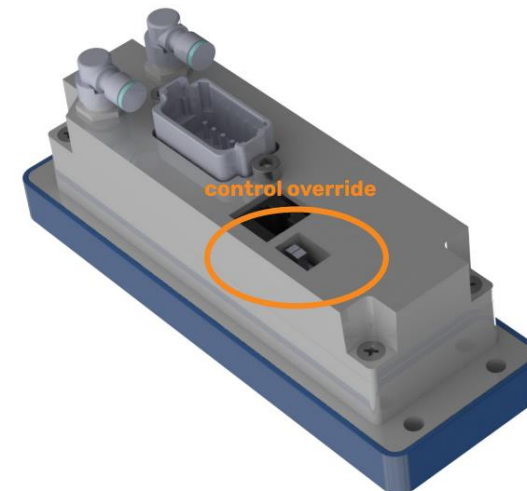
- Reset service runtime according to guide below



2.6 Override Switch ON



- Locate override switch on rear of monitor case
- Use pen/flathead to slide switch OFF.



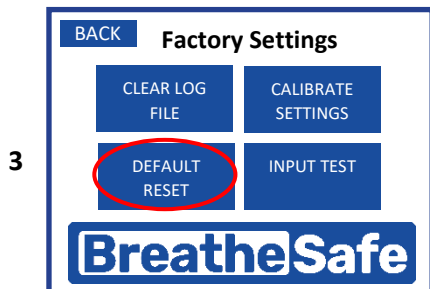
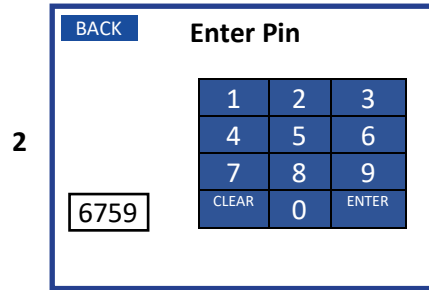
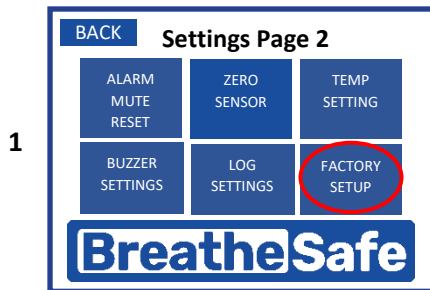
INPRESS TS CONTROLLER

2.7 Display blank or frozen

- Ensure correct voltage (24V) to pin 1 (red wire)
- Ensure continuity to earth from pin 12 (black wire)
- Check unit serial number on rear of controller:
 - Units that display – “SW:143-35144” on start-up (or higher than “144”) have had both the PCB upgrade and are running the latest Software. Anything below “144” needs to be replaced and returned to BreatheSafe QLD

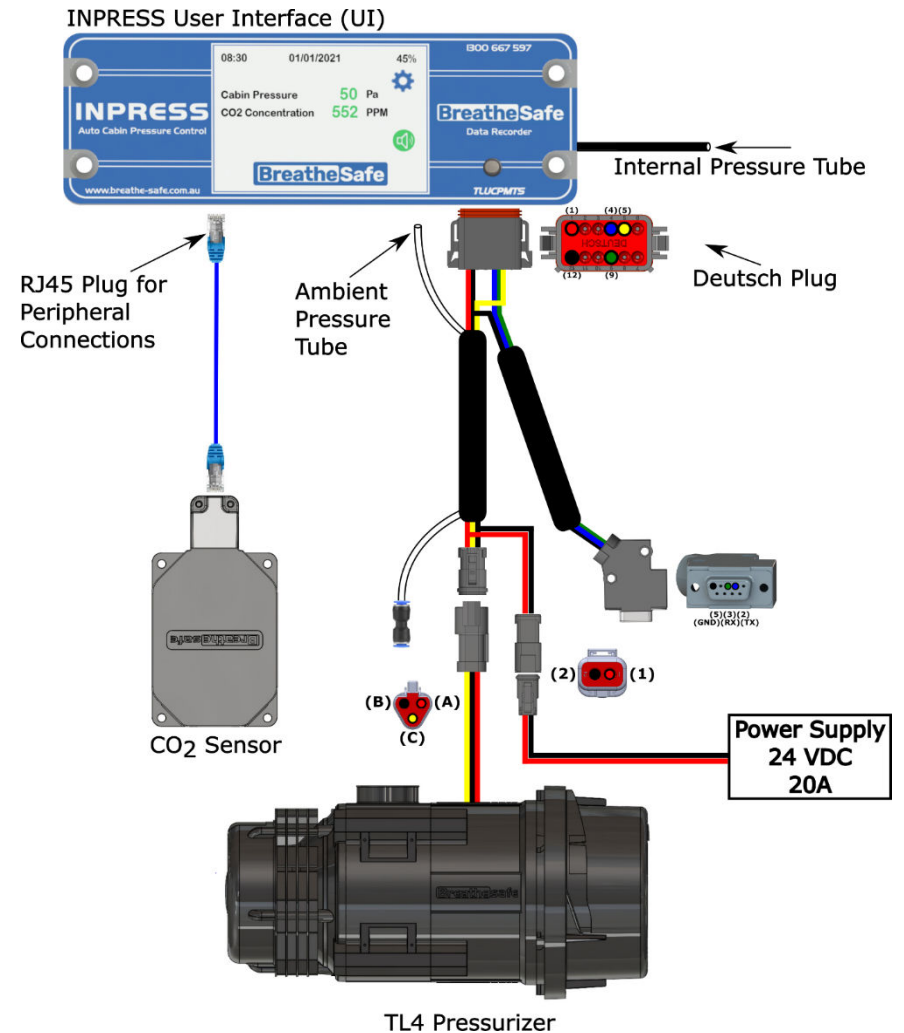
2.8 Display showing incorrect units (inH₂O instead of Pa or °F instead of °C)

- Reset controller to factory defaults
- Ensure SW: 143-35-144 or greater (see 2.5)
- Access settings -> page two -> factory setup -> 6759 -> default reset

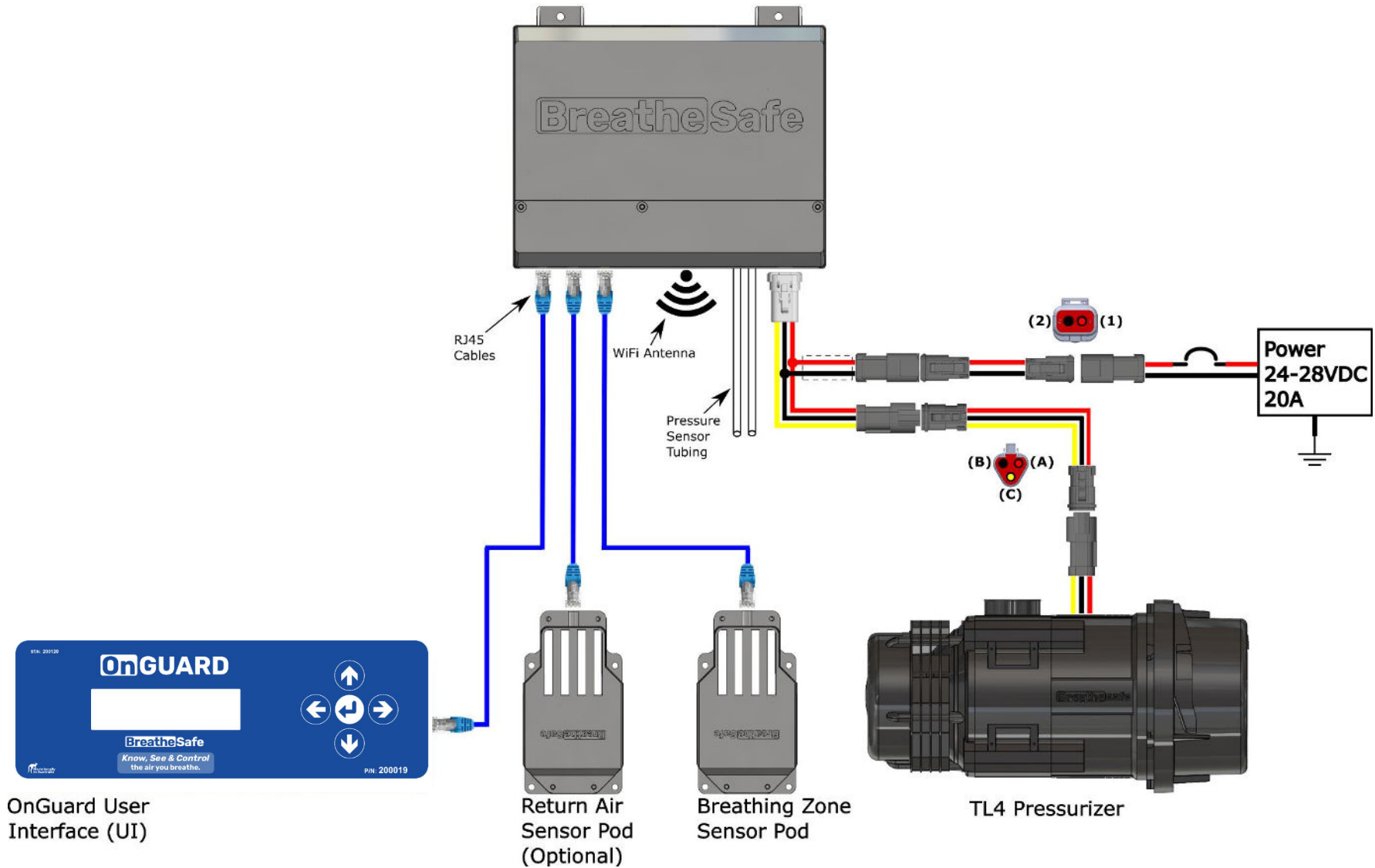


3.0 General

3.1 INPRESS Kit Wiring



3.2 OnGuard Kit Schematic



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.**