

OPERATIONS MANUAL

BAGJUMP® PRESSURE ALARM



READ THE INSTRUCTIONS BEFORE STARTING WORK

1. General	5
1.1 Information about this manual	5
1.2 Modification history and applicable documents	5
1.3 Obligations of operator and operating personnel	5
1.4 Explanation of the conventions	6
1.4.1 Hazard classes	6
1.4.2 Warning pictograms	7
1.4.3 Command pictograms	7
1.5 Customer service	7
2. Safety	8
2.1 Liability and warranty	8
2.2 Requirements for the operating personnel	8
2.3 Intended use	8
2.4 Non-intended use	9
2.5 Safety labels on the product	9
2.6 Operating manual	9
2.7.1 Electric shock	10
2.8 Residual risk	10
2.9 Procedure in case of accidents	10
3. Technical data / EC Declaration of Conformity	11
3.1 Technical data	11
3.1.1 Dimensions and weights	11
3.1.2 Operating conditions	11
3.1.3 Emissions - noise	11
3.1.4 Electrical connection values	11
3.1.5 Storage conditions	11
3.1.6 M12 cable	12
3.1.7 Hose	12
3.3 Nameplate	13
3.5 EC Declaration of Conformity	14
4. Description	15
4.1 Operating elements	15
4.1.1 Front	15
4.1.2 Connections	15
4.1.3 Signal light	16
5. Transport / Assembly / Disassembly	17
5.1 Safety	17
5.2 Transport	17
5.2.1 Improper transport	17
5.2.2 Transport inspection	17
5.2.3 Packaging	17



BAGJUMP® Action Sports GmbH
 Schloeglstrasse 55,
 6060 Hall in Tirol,
 Austria

Phone: +43 (0) 5223 21421
E-mail: office@bagjump.com
Internet: www.bagjump.com

Original operating manual

© BAGJUMP Action Sports GmbH 2022
 The copyright to this operating manual remains with BAGJUMP Action Sports GmbH. The instructions and drawings contained herein may not be reproduced in whole or in part, distributed or exploited for competitive purposes without authorization, or communicated to others.

5.4 Power supply (electrical)	18
5.5 Decommissioning / Taking out of operation	18
5.6 Disposal	18
6. Operation	18
6.1 Safety	19
6.2 Setting up the device	20
6.2.1 Connect the hose:	20
6.2.2 Connect DMX cable (optional)	20
6.2.3 Mount and connect signal lamp	20
6.2.4 Connect power cable:	20
6.3 Settings overview	21
6.3.1 Calibrate Pressure Sensor	21
6.3.2 Pressure Alarm Limits - Pressure alarm settings	21
6.3.3 Acoustic Alarm - Acoustic settings	23
6.4 DMX	23
6.5 Signal light	24
6.6 Decommissioning	24
7. Faults	25
7.1 Behavior in case of faults	25
7.2 Fault table	25
8. Maintenance and repair	26
8.1 Safety instructions	26
8.1.1 Maintenance personnel	26
8.1.2 Requirements	26
8.1.3 Handling of electrical energy	26
8.2 Maintenance	26
8.2.1 Maintenance schedule	26
8.3 Repair	27

1.1 INFORMATION ABOUT THIS MANUAL

These instructions enable the safe and efficient use of this device. The manual is part of the device and must be kept in the immediate vicinity of the device.

The personnel must have carefully read and understood these instructions before starting work. The basic prerequisite for safe working is compliance with the safety instructions and handling instructions in this manual.

In addition, the local accident prevention regulations and general safety regulations for the area of application of the machine apply.

Illustrations in these instructions are for basic understanding and may deviate from the actual design.

NOTE



If the device is handed over or resold to a third party, the following documents must be passed on to the new owner!

- This operating manual
- Proof of the maintenance work

1.2 MODIFICATION HISTORY AND APPLICABLE DOCUMENTS

Date	Modification	Name
14.03.2022	REV-00 Pressure Alarm operating manual	la-gl
16.03.2022	REV-01 Review process, comments incorporated	la-gl
01.04.2022	REV-02 Review process, comments incorporated	la-gl
01.09.2022	REV-03 Final release	TH

1.3 OBLIGATIONS OF OPERATOR AND OPERATING PERSONNEL

This technical documentation has been prepared in accordance with EN 82079-1.

The operator or an authorized person ensures that:

- Only adequately trained operating personnel, who have read and understood the operating manual and in particular the chapter.
- 'Safety' as well as the corresponding chapters of the supplier documentation, operate and maintain the product.
- Determines the competences and responsibilities of the operating personnel for the product.

- checks the safety-conscious work of the operating personnel at regular intervals
- is responsible for the safety condition of the product
- immediately takes the product out of operation or initiates necessary steps for its elimination, if defects occur that affect safety
- performs the nationally required inspections in addition to the product inspections recommended by BAGJUMP Action Sports GmbH in a timely manner
- verifies the proper performance of the required and prescribed inspections
- Reports any accident involving the product that results in serious injury or major property damage.

The operating personnel:

- checks the product for obvious defects before each start-up
- is responsible for the safe operation of the product
- operates the product as intended within the limits
- reports any changes to the product that affect safety to the responsible supervisor or the operator
- stops operation immediately if safe operation is no longer possible.


1.4 EXPLANATION OF THE CONVENTIONS

1.4.1 Hazard classes



Safety instructions are reproduced in this document with standardized representation and symbols. Depending on the probability of occurrence and the severity of the consequences, the following hazard classes are used.

DANGER
 <p>Indicates an immediate danger to humans! Will lead to irreversible injuries or death if not observed!</p>
WARNING
 <p>Indicates a recognizable danger to humans! Can lead to irreversible injuries or death if not observed!</p>
CAUTION
<p>Indicates a recognizable danger to humans! Can lead to reversible injuries if not observed!</p>



CAUTION
<p>Can or will lead to damage to property if not observed!</p>

NOTE
 <p>Application tips and particularly useful information!</p>

1.4.2 Warning pictograms

CAUTION	ELECTRICAL VOLTAGE
	

1.4.3 Command pictograms

GENERAL COMMAND SIGN	READ INSTRUCTION MANUAL
	

1.5 CUSTOMER SERVICE

For technical information, please contact our customer service:

BAGJUMP Action Sports GmbH
Schloeglstrasse 55
6060 Hall in Tirol, AUSTRIA

E-mail: support@bagjump.com

2.1 LIABILITY AND WARRANTY

No liability for damages is assumed in case of:

- non-observance of these instructions,
- use deviating from the intended use,
- use by insufficiently qualified personnel,
- unauthorized modifications,
- technical modifications,
- use of non-approved spare parts.

2.2 REQUIREMENTS FOR THE OPERATING PERSONNEL

WARNING



Risk of injury in case of insufficient qualification!!

- Improper handling can lead to considerable personal injury and material damage!

Only persons who can be expected to carry out this work reliably are permitted for all work.

Safety-conscious work is only guaranteed if:

- The product is operated by trained, competent, authorized and instructed operating personnel,
- the responsibilities for operation by several operators are clearly defined and observed,
- from the point of view of safety, there are no ambiguities concerning the competences of operators working with the product,
- unauthorized persons are kept away from the working area,
- the safety and hazard-conscious work is regularly checked in compliance with the operating manual and the supplier documentation.

2.3 INTENDED USE

The **BAGJUMP pressure alarm system (Pressure Alarm)** is used to monitor the differential pressure in inflatable structures. If the differential pressure exceeds or falls below certain limits and/or no current voltage is applied to the device, an audio-visual alarm is triggered.

The product must not be opened!

Other uses may destroy the product, cause considerable damage, as well as unforeseeable accident hazards and operating hazards.

The product has been built according to the state of the art and recognized safety regulations. Nevertheless, its use may cause danger to life and limb of the user or third parties or impairment of the product and other material assets. The operator must ensure that the product is only operated in a technically faultless condition and in accordance with its intended use, observing the operating manual. In particular, faults that could impair safety must be rectified immediately.

The product may only be used by operating personnel who are familiar with it and have been informed about the dangers.

2.4 NON-INTENDED USE

WARNING



Danger due to improper use!

- Any use beyond the intended use and/or use beyond the intended use can lead to dangerous situations!
- Use only as intended!

2.5 SAFETY LABELS ON THE PRODUCT

WARNING



Risk of injury due to illegible safety labels!

- In the course of time, safety labels may become soiled or otherwise unrecognizable!
- Always keep all safety labels in a legible condition!
- Replace damaged safety labels immediately

All safety labels on the device must always be kept complete, in legible condition and observed, such as:

- Warnings
- Commands
- Prohibitions

All safety labels must be replaced in case of:

- Damage
- Soiling

2.6 OPERATING MANUAL

For all work concerning operation, production adjustment, retooling or setting, its safety devices, the switch-on and switch-off procedures and control indications specified in this documentation and in the supplier documentation must be observed.

2.7.1 ELECTRIC SHOCK

WARNING

Danger due to dangerous electrical voltage or current!

- Access to live parts only for authorized operating personnel!
- Never touch live parts!
- When handling conductive material, keep a safe distance to live and current-carrying parts!
- The device must be connected to the potential equalization, an operation of the machine without potential equalization is not permitted!



2.8 RESIDUAL RISK

WARNING

Danger due to remaining residual risks!

- Despite all technical protective measures taken, not all hazards could be reduced!
- The operating personnel must be instructed on the remaining residual risks!



Due to the high acoustic pressure of the audio-visual alarm unit the operator must install the device in such a way or otherwise provide measures so that people are not getting closer than 1m / 3ft to the audio-visual alarm unit.

The operator must ensure that all cables and tubes are positioned in a way that they don't present a fall or trip hazard

2.9 PROCEDURE IN CASE OF ACCIDENTS

NOTE



In general, the company accident prevention regulations and emergency plans apply.

3.1 TECHNICAL DATA

3.1.1 Dimensions and weights

Dimensions

Specification	Value	Unit
Length	221	mm
Width	150	mm
Height	58	mm

Weight

Specification	Value	Unit
Weight	1.6	kg

3.1.2 Operating conditions

Specification	Value	Unit
Ambient temperature	-10 to +35°C	
Humidity max.	75	%

3.1.3 Emissions - noise

Specification	Value	Unit
Continuous sound pressure level at alarm (1m)	105	dB (A)

3.1.4 Electrical connection values

Specification	Value	Unit
Voltage	230/110	V AC
Frequency	50/60	Hz
Power consumption max.	92	W

3.1.5 Storage conditions

Specification	Value	Unit
Ambient temperature	- 10 to +30	°C
Humidity	5 to 60	%

3.1.6 M12 cable

Specification	Value	Unit
Length	10	m
Ambient temperature	- 20 to +70	°C
Humidity	15 to 75	%

3.1.7 Hose

Specification	Value	Unit
Length	3	m
Ambient temperature	- 10 to +30	°C
Humidity	5 to 90	%

3.3 NAMEPLATE



3.5 EC DECLARATION OF CONFORMITY

The manufacturer: BAGJUMP Action Sports GmbH
Schlöglstrasse 55
A-6060 Hall in Tirol, Austria

Hereby declares that the following product:

BAGJUMP Pressure Alarm System (BAG-A)

- complies with the Essential Requirements of the CE, FCC and RoHS Directives
- complies with all relevant provisions of the Electrical Equipment Directive (2014/35/EU).

The following harmonized standards have been applied:

EN ISO 12100:2010

Safety of machinery - General principles for design - Risk assessment and risk reduction

EN 61000-6-1:2019

Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity standard for residential, commercial and light-industrial environments

EN 61000-6-3:2007 + A1:2011

Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments

EN 61000-3-2: 2005 + A1:2008 + A2:2009

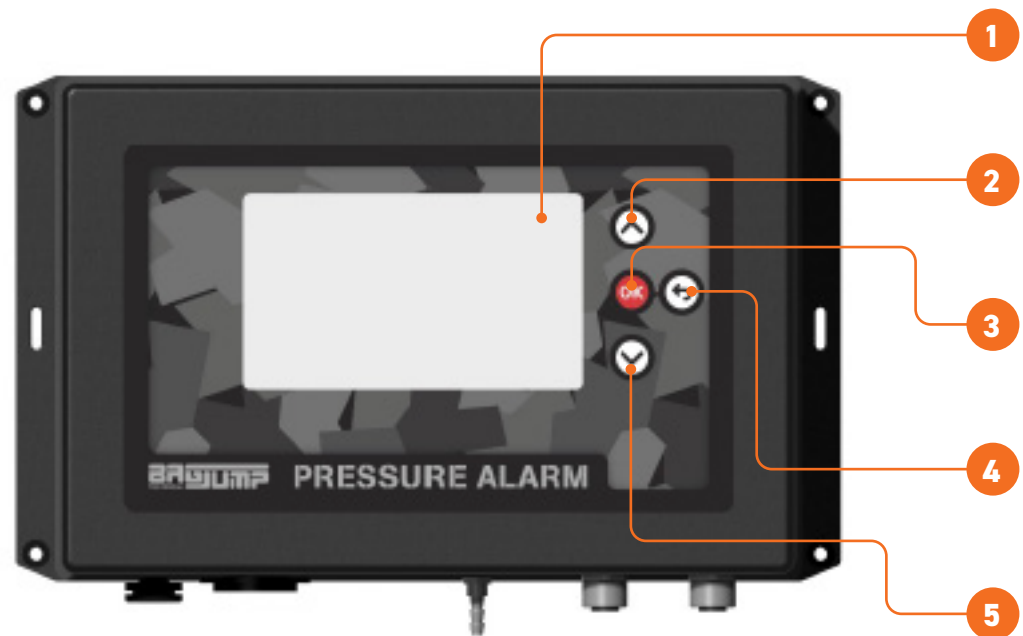
Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)

EN 61000-3-3: 2008

Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection

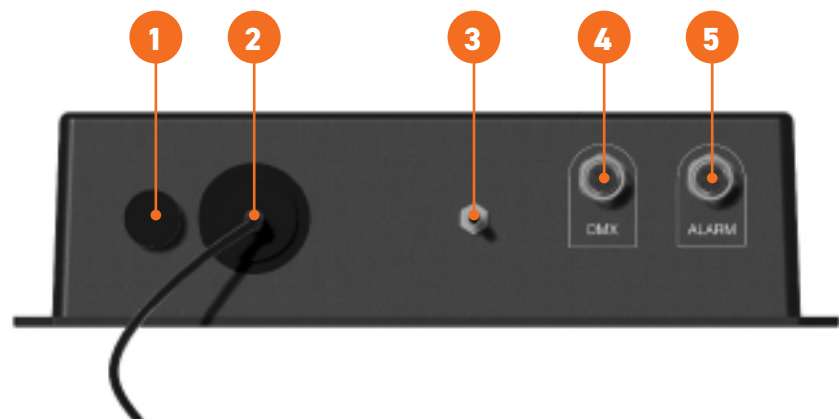
4.1 OPERATING ELEMENTS

4.1.1 Front



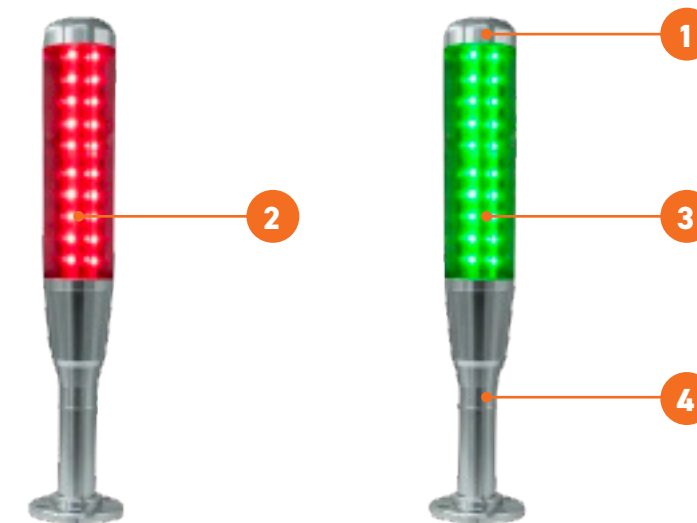
1	Display
2	"Up" button
3	"Enter" button
4	"Back" button
5	"Down" button

4.1.2 Connections



1	Pressure compensation valve
2	Power cable
3	Hose connection
4	DMX cable connection
5	Signal light cable connection

4.1.3 Signal light



1	Buzzer
2	Red signal light
3	Green signal light
4	Angle adjustment mechanism

5.1 SAFETY

NOTE



Before starting the assembly work, observe chapter "Safety", especially chapters "General hazards" and "Residual risk"! The instructions contained therein must be observed!

5.2 TRANSPORT

5.2.1 Improper transport

Improper transport can cause considerable damage to property, therefore:

- Care must be taken during delivery and internal transport and the symbols and instructions on the packaging must be observed,
- the packaging is to be removed only shortly before assembly.

5.2.2 Transport inspection

Check the delivery for completeness and transport damage immediately upon receipt. In case of externally visible transport damage, proceed as follows:

- Do not accept delivery or accept it only with reservations,
- Note the extent of the damage on the transport documents or on the carrier's delivery bill,
- Take photos of the damage,
- Initiate a complaint.

Claim any defect as soon as it is detected. Claims for damages can be made within the applicable claim periods.

5.2.3 Packaging

The product is packed according to the expected transport conditions.

The packaging is intended to protect against transport damage, corrosion and other damage until installation. Therefore, do not destroy the packaging and remove it only shortly before assembly.

If no return agreement has been made for the packaging, separate materials according to type and size and send them for further use or recycling.

Packaging materials are valuable raw materials and can in many cases be reused or sensibly processed and recycled.

- Dispose of packaging materials in an environmentally friendly manner.
- Observe locally applicable disposal regulations.

5.4 POWER SUPPLY (ELECTRICAL)

WARNING

Danger due to dangerous electrical voltage or current!

- Access to live parts only for authorized operating personnel!
- Never touch live parts!
- When handling conductive material, keep a safe distance to live and current-carrying parts!



IMPORTANT



The electrical connection may only be carried out by an authorized specialist! The relevant regulations and other generally accepted rules must be observed! Always observe the local safety and accident prevention regulations.

The connection data according to the technical data must be observed.

5.5 DECOMMISSIONING / TAKING OUT OF OPERATION

A planned decommissioning can be:

- temporary (decommissioning)
- permanent (decommissioning / dismantling).

5.6 DISPOSAL

IMPORTANT



Separate all parts and auxiliary and operating materials according to type and dispose of them in accordance with the local regulations and directives!

NOTE



In case of open questions concerning destruction/recycling, please contact the manufacturer!

6. OPERATION

6.1 Safety

NOTE



Before starting the assembly work, observe chapter "Safety", especially chapters "General hazards" and "Residual risk"! The instructions contained therein must be observed!

WARNING

**Danger due to improper operation!**

- Improper operation can lead to serious injuries and considerable material damage.
- Carry out all operating steps in accordance with the information and notes in this operating manual!
- Never disable or bypass safety devices during operation.
- Work in connection with the operation of this product must be carried out in accordance with the provisions of this chapter and the local work safety regulations.

DANGER



All work performed by persons without the appropriate authorization is prohibited.

6.2 SETTING UP THE DEVICE

6.2.1 Connect the hose:

- 1 Insert hose into hose connection
- 2 Insert hose into the air cushion, at any opening
- ✓ Hose must be inserted at least one meter into the air cushion

6.2.2 Connect DMX cable (optional)

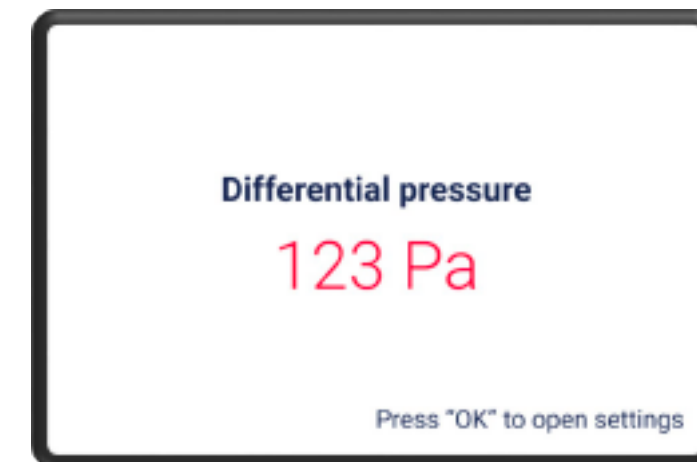
- 1 Connect M12 cable to connector marked DMX

6.2.3 Mount and connect signal lamp

- 1 Screw the signal lamp to a suitable surface and in a clearly visible place. In any case the signal lamp shall be positioned in a way that a minimum distance of 1m / 6ft is kept to people
- 2 Lead the cable through the cable gland at the base
- 3 Connect 10 meter extension cable to plug marked Alarm
- 4 Connect the plug of the signal lamp to the extension cable

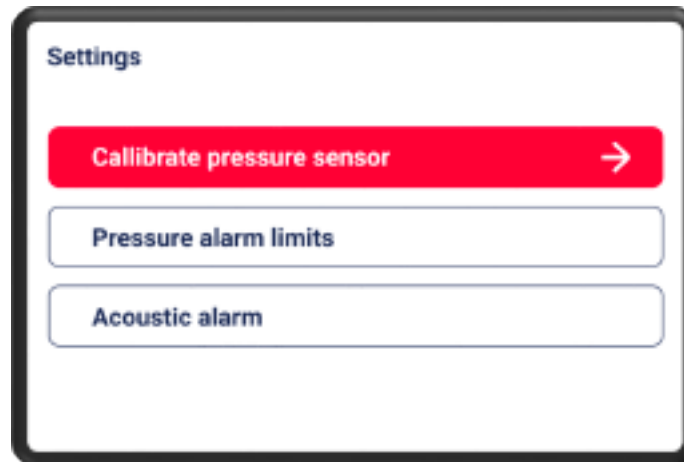
6.2.4 Connect power cable:

- 1 Plug power cable into socket
- ✓ Product is ready for use
- ✓ Main screen appears on the display
- ✓ The current differential pressure is displayed
- 2 Press the "Ok" key
- ✓ Settings overview opens



6.3 SETTINGS OVERVIEW

The following settings can be viewed in the "Settings overview" menu:



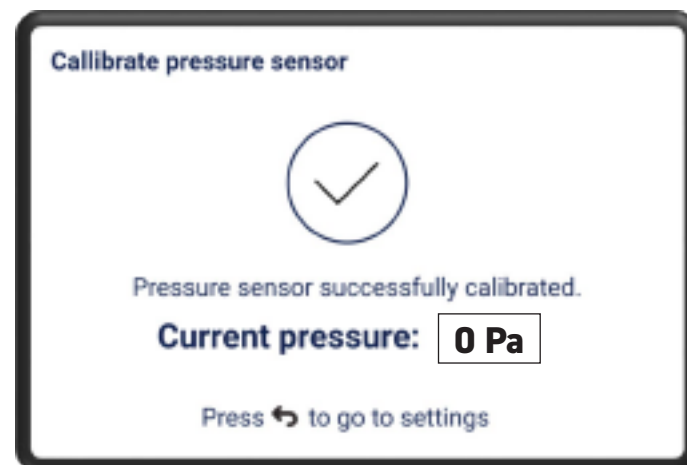
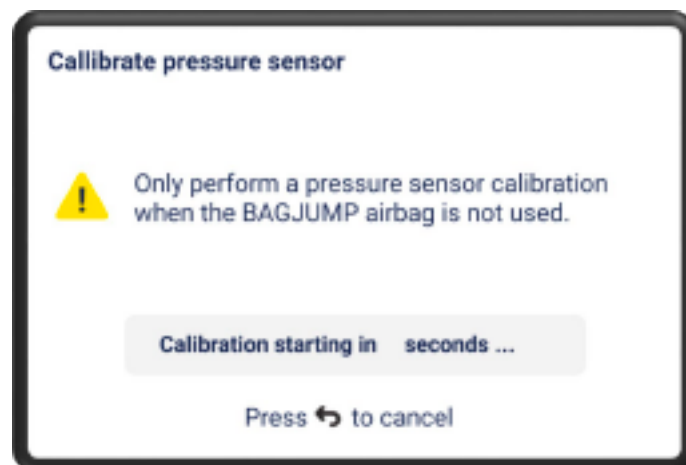
Buttons "Up" and "Down" - change to the respective setting

Button "Ok" - the menu highlighted in red or the setting to be changed is viewed

Button "Back" - switch back to the main view or cancel selected function

6.3.1 Calibrate Pressure Sensor

- 1 Deflate inflatable completely
- 2 Select "Calibrate Pressure Sensor" menu
- 3 Press the "Ok" key
- ✓ This function performs an offset that changes the currently measured pressure to 0 Pa.
- ✓ After 10 seconds the text "Current pressure" appears followed by the offset, which is added to the measured differential pressure from now on. It has to be understood that the pressure sensor detects small changes in the atmospheric pressure already and minor deviations from 0 Pa are permissible.
- 4 Press the "Back" button
- ✓ Settings overview is displayed

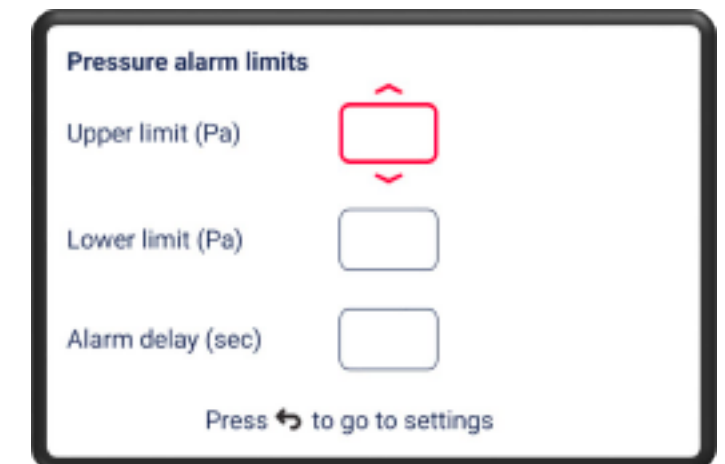
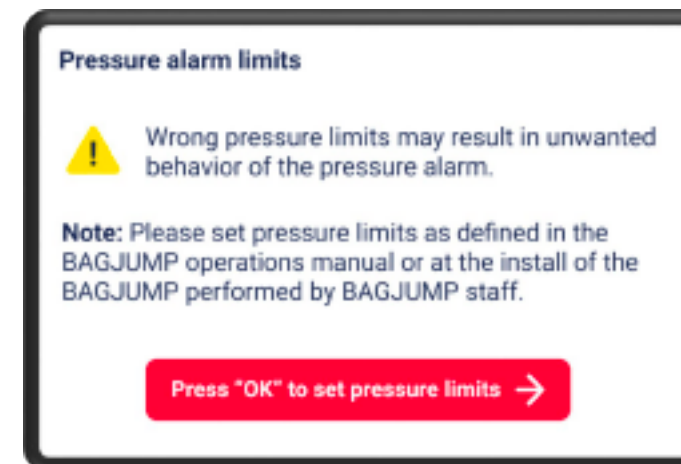


6.3.2 Pressure Alarm Limits - Pressure alarm settings

- 1 Select the "Pressure Alarm" menu
- 2 Select "Upper Limit" setting
- 4 Set "Upper Limit" to nominal pressure + 50Pa.
- 5 Select "Lower Limit" setting
- 6 Set value "Lower Limit" to nominal pressure -10Pa
- 7 Select "Alarm Delay" setting
- 8 Factory setting of the alarm delay = 2 seconds.

In case of frequent false alarms, follow the procedure below:

- a) Check whether the "Lower Limit" value can be reduced by a further -10Pa. To do this, carry out the appropriate tests according to the airbag manual. If yes, reduce the "Lower Limit" value by a further -10Pa.
- b) If not, increase the "Alarm Delay" value gradually (+1 second) to a maximum of 5 seconds. If false alarms continue to occur frequently, carry out point a) above again. Otherwise see chapter "7 - Faults".



6.3.3 Acoustic Alarm - Acoustic settings

- 1 Select the "Acoustic Alarm" menu
- 2 Select the "Set Startup Inactivity" setting (inactivity period after switching on the instrument)
- 3 Set the period during which the alarm is inactive after the device is switched on
- 4 Select "Set Alarm Duration" setting
- 5 Set the duration of the acoustic signal
- 6 Select the "Acoustic Alarm" activation
- 7 Activate (ON) or deactivate (OFF) "Acoustic Alarm"

6.4 DMX

Each time the alarm status changes, the corresponding channel is switched via the DMX interface as described in the table.

Signal light is on	Channel
Red	0x01
Green	0x02
Acoustic signal	0x04

7. FAULTS

7.1 Behavior in case of faults

WARNING



Danger of electrical energy!

- Only remedy faults when the product is switched off.

The following applies in principle:

- Immediately interrupt/switch off the on-site power supply.
- Determine cause of fault.
- Immediately inform the person responsible at the place of operation about the fault.
- Depending on the type of fault, have it rectified by authorized specialists or contact customer service.

The faults listed in the following fault table can generally be eliminated by the operating personnel, unless a different group of persons is specified in the fault table.

7.2 Fault table

If faults occur which are not listed in the fault table, please contact the customer service.

Display Error	Cause	Remedy
 ERROR! No connection to alarm unit. Please check if the cable of the alarm unit is connected.	Signal lamp not connected or defective	Connect signal lamp / Check plug connections
 DEVICE ERROR!	Differential pressure sensor defective	Contact customer service

8.1 SAFETY INSTRUCTIONS

8.1.1 Maintenance personnel

WARNING



Risk of injury in case of insufficient qualification!

- Improper handling can lead to considerable personal injury and material damage!
- Maintenance work may only be carried out by qualified personnel!

8.1.2 Requirements

NOTE



Before starting the assembly work, observe chapter "Safety", especially chapters "General hazards" and "Residual risk"! The instructions contained therein must be observed!

Maintenance work may only be carried out when the product has been disconnected from the mains.

8.1.3 Handling of electrical energy

IMPORTANT



The electrical connection may only be carried out by an authorized specialist!
The relevant regulations and other generally accepted rules must be observed!
Always observe the local safety and accident prevention regulations.

A qualified person in the sense of the accident prevention regulations is a person who, on the basis of his technical training, knowledge and experience as well as knowledge of the relevant regulations, can judge the work assigned to him and recognize possible dangers.

8.2 MAINTENANCE

The following section describes the maintenance work required for optimum and trouble-free operation. Safety components must not be dismantled, moved or bridged. The intervals specified in the maintenance table for checking their functionality must be observed.

8.2.1 Maintenance schedule

Ongoing maintenance is based on the regular performance of the following maintenance tasks:

Interval	Maintenance work
Daily	Minimum functional test <ul style="list-style-type: none"> • Verification of compliance of the differential pressure indicated on the display with the determined nominal pressure after complete filling of the air cushion. • Check for error message on the display.
Annually	Full function test <ul style="list-style-type: none"> • Verification of the measured value by means of a suitable and intended differential pressure measuring device for correct values. • Check device, signal lamp, hose and all cables for wear and defects. Repair according to 8.3 • Check display. • Check settings.

8.3 REPAIR

NOTE



The product may only be repaired by the manufacturer or by specialist workshops authorized by the manufacturer!