

INFORMATIVE NOTE FOR INFLATABLE PROTECTORS WORK AIR DL001 T U with integrated 002_W electronic control unit

NOTES

Thank you for choosing DAirlab!

The product you have chosen has been designed taking advantage of precious cooperation at national and international levels, combined with the most advanced technologies available and tests conducted constantly at the DAirlab laboratories. All this has made it possible to design a product offering maximum comfort and performance.

- **CRITICAL WARNING** could seriously affect the health of the user.
- **IMPORTANT WARNING**, could affect the safety of the user.
- **USEFUL INFORMATION**, could influence operation of the system.



WARNINGS:

- **At the time of purchase make sure that you check carefully, together with the dealer, your body measurements and choose the right size.**
- Before using the WORK AIR DL001 T U read this Informative Note carefully and make sure that you understand it correctly. Contact your nearest DAirlab service center (see list below) if you have any problems or doubts regarding use of the WORK AIR DL001 T U.
- Keep this Informative Note handy for future reference.
- Dainese S.p.A reserves the right to improve the electronic components and control software of the WORK AIR DL001 T U at any time without prior notice.



WARNINGS:

- The WORK AIR DL001 T U system you have purchased (hereinafter "System" and/or "WORK AIR DL001 T U") is Personal Protective Equipment provided with its own supports/fasteners.
- The WORK AIR DL001 T U system gives airbag protection to the chest area and covers the central area of the back with an airbag.

CONTENTS

1. PRELIMINARY INSTRUCTIONS AND SUGGESTIONS	3
2. INTENDED USE OF THE WORK AIR DL001 T U.....	5
2.1. OVERVIEW	5
2.2. PROTECTION OFFERED BY THE WORK AIR DL001 T U PROTECTIVE DEVICE	6
2.3. PROTECTIVE PERFORMANCE OF THE WORK AIR DL001 T U PROTECTIVE DEVICE.....	7
2.4. INSTRUCTIONS FOR UNDERSTANDING THE MARKING OF THE PROTECTIVE DEVICE WORK AIR DL001 T U AND OF THE INTEGRATED 002_W ELECTRONIC CONTROL UNIT	9
2.5. HOW TO CHOOSE AND WEAR THE WORK AIR DL001 T U	12
2.6. POSITION AND MINIMUM SIZE OF THE AREAS PROTECTED BY THE WORK AIR DL001 T U	13
2.7. USE, INTEGRITY AND EFFICIENCY OF THE WORK AIR DL001 T U DEVICE	13
2.8. INFORMATION ON THE MATERIALS USED	14
2.9. DURATION OF THE WORK AIR DL001 T U PROTECTIVE DEVICE	14
3. DESCRIPTION OF THE 002_W ELECTRONIC COMPONENT AND AIRBAG OF THE WORK AIR DL001 T U.....	15
3.1. OVERVIEW	15
3.1.1. 002_W Electronic control unit.....	15
3.1.2. User interface.....	16
3.1.3. Airbag.....	16
3.1.4. Batteries and battery life of the System.....	16
3.1.5. USB-C battery charger.....	16
3.2. REGISTERING THE SYSTEM AFTER PURCHASE	16
3.3. SYSTEM ON/OFF PROCEDURES	17
3.3.1. Checking correct functionality of the System	17
3.4. TRIGGERING OF THE WORK AIR DL001 T U.....	18
3.4.1. What to do if the WORK AIR DL001 T U is triggered.....	19
3.5. GUIDE TO THE LED SEQUENCES DURING USE.....	19
3.5.1. System operating mode	19
3.5.2. Summary of System notifications.....	20
3.5.3. Possible malfunctions of the System	21
3.6. CHECKING THE BATTERY CHARGE LEVEL AND CHARGING	21
4. MAINTENANCE OF THE WORK AIR DL001 T U SYSTEM	23
4.1. OVERVIEW	23
4.2. WASHING THE WORK AIR DL001 T U	23
4.3. TRANSPORTATION	24
4.3.1. Managing “Lock Mode”	24
4.4. CHANGE OF OWNERSHIP	24
5. ROUTINE MAINTENANCE	24
5.1. 5.1. ROUTINE MAINTENANCE OF THE SYSTEM.....	24
5.2. UPDATING THE ELECTRONIC CONTROL UNIT OF THE WORK AIR DL001 T U	24
6. ERROR CODES OF THE DEVICE.....	25
7. CERTIFICATIONS	25
8. F.A.Q. (FREQUENTLY ASKED QUESTIONS)	26
9. ASSISTANCE SERVICE	26
10. DECLARATION OF CONFORMITY	26
ATTACHMENT A: DISPOSING OF THE PRODUCT	26

1. PRELIMINARY INSTRUCTIONS AND SUGGESTIONS

A few general suggestions for the use of the system are provided below. For greater detail, read the corresponding parts of the text below.



WARNINGS:

- The WORK AIR DL001 T U has been designed to be used only by professional workers working at height.
 - The WORK AIR DL001 T U must only be used by a person who has been trained and has the expertise to use it in safety.
 - The WORK AIR DL001 T U has been designed to be used beneath the harness, which must be worn and adjusted following the indications in the specific Informative Note. The harness must be adjusted to the parameters indicated by its manufacturer, no tighter and no looser.
- TRIGGERING OF THE WORK AIR DL001 T U BENEATH A PROTECTIVE HARNESS THAT IS TOO TIGHT COULD HAVE SERIOUS CONSEQUENCES FOR THE HEALTH OF THE USER**, in particular if the harness has a sternum strap that encircles the chest.
- The WORK AIR DL001 T has been designed for use by adults only.
 - Do not use the WORK AIR DL001 T U in work environments that are not suitable for working at height.
 - Working at height is an intrinsically dangerous activity that can result in injury. While all professional workers should wear appropriate protective equipment, no product or protecting system can offer complete protection against injury or damage of any kind in the event of a fall, collision, impact, loss of control or otherwise. Each person should be familiar with the activity performed and be aware of their skills and limitations regarding the activity being performed and the equipment used, recognizing the potential risks and, therefore, decide whether to take said risks. DAirlab disclaims any responsibility for injuries or damages incurred while wearing any of its products.
 - Use of the WORK AIR DL001 T U does not exempt from the obligation to wear the Personal Protective Equipment the worker is provided with.
 - People who wear pacemakers or other medical devices should not use the system as electric disturbance or triggering of the system might interfere with correct operation of these devices.
 - People with back or neck problems, or who have recently undergone abdominal/chest surgery, should not use the System.
 - The user should not have silicone breast implants. The risk of rupturing the implants in the event of inflation has not been evaluated.
 - The user should not be pregnant. It is not possible to perform tests to determine the consequences in the event of triggering of the System.
 - Never use the system when working with tools that could damage the device, such as angle grinders or soldering irons.
 - Never use, or switch the system off, in the presence of sources of strong vibrations, such as a jackhammer.
 - Never use, or switch the system off, when driving some types of vehicles: cars, motorcycles, bicycles, etc... (only specific vehicles such as telescoping lift platforms for working at height can be used).
 - Make sure that there are no items in the pockets of garments used in combination with the WORK AIR DL001 T U that could perforate or damage the airbag in the event of an accident.
 - Never sew or modify your WORK AIR DL001 T U or its components in any way. Modification of any nature could compromise the functionalities of the WORK AIR DL001 T U and consequently its functions in the event of a fall or accident. Never add decorations, ribbons or patches above the airbag. Never connect any kind of electric

equipment or external battery to the existing cables. Components of the WORK AIR DL001 T U can only be modified by authorized DAirlab operators.

- The sound level reached by the airbag during deployment could exceed the maximum sound pressure level exposure value of 140 dB(C) according to Article 189 of Legislative Decree 81/2008.
- To make the best use of its functionalities, the WORK AIR DL001 T U must be worn correctly, carefully following the instructions and warnings provided in this Informative Note.
- Body piercings may increase any feeling of pain in the event of triggering.
- Do not switch on the WORK AIR DL001 T U when it is not being worn or when it is being worn but no work activities are being carried out. If used incorrectly the WORK AIR DL001 T could trigger and cause damage to property and pose a risk for people's safety. Always make sure that the WORK AIR DL001 T U has been switched off before transporting it. The WORK AIR DL001 T U must be switched off when not in use.
- After using the WORK AIR DL001 T U ensure the device is switched off before removing it.
- Never charge the WORK AIR DL001 T U while it is being worn.
- Never leave the WORK AIR DL001 T U device charging close to flammable surfaces or objects.
- Keep children away from the WORK AIR DL001 T U in order to avoid all possible risk.
- Whenever signs of malfunction appear, switch off the System, and contact the nearest DAirlab Assistance Service.
- Do not use the WORK AIR DL001 T U again after it has been triggered. Replace the deployed device with a new WORK AIR DL001 T U.
- In case of damage to the WORK AIR DL001 T U, contact the DAirlab Assistance Service.
- The system is sensitive to sudden body movements and to impacts; therefore, never deliberately perform movements that are not necessary for normal working activities, such as jumping, acrobatics or particularly sudden movements. If you must perform one of the movements described above, always switch off the Device first to prevent accidental triggering.
- The WORK AIR DL001 T U is a new intelligent device designed for professional workers working at height. The System can identify falls from a height of at least 1.20 m, as indicated in chapter 3.4.
- During inflation of the airbag device pressure may be felt in the body region subjected to the pressure of the airbag System.
- The WORK AIR DL001 T U should be used exclusively within a temperature range between -10°C and 40°C. Prolonged exposure of the System to temperatures outside this range may compromise its functionalities.
- The WORK AIR DL001 T U is subject to wear based on effective conditions of use. Before using or putting away the WORK AIR DL001 T U, always check for any signs of wear or damage.
- Even if it is operating correctly, contact the DAirlab Assistance Service once every 3 years for a maintenance check and servicing (for a fee) of any components subject to wear. Correct maintenance is essential for the correct operation of the system.
- Waterproof jackets or high visibility clothing can be worn over the WORK AIR DL001 T U.
- No tool belts, backpacks or the like must be worn over the WORK AIR DL001 T U.
- No keys, cellphones and other devices and accessories must be placed between the WORK AIR DL001 T U and the body of the user.
- Before each use, the functionality of the WORK AIR DL001 T U device must be carefully checked following the instructions in this Informative Note. Whenever there is a state of error or any other malfunction, do not use the WORK AIR DL001 T U device and contact the nearest DAirlab Assistance Service.
- The WORK AIR DL001 T U is composed of a chest protector and a central back protector with pneumatic technology.

2. INTENDED USE OF THE WORK AIR DL001 T U

2.1. Overview

The WORK AIR DL001 T U is an innovative system for the safety of professional workers working at height, from a height between 1.20 and 2 meters when the user is not connected to all the anchor points and over two meters when the user is connected to a safe anchor point with a full-body harness.

The aim is to reduce the risk of injuries caused by a fall without a harness, or swing fall with impact against an obstacle with a harness following a vertical free fall of at least 1.20 meters.



WARNINGS:

- Never use the WORK AIR DL001 T for purposes other than those for which it was designed.
- Never use the WORK AIR DL001 T U when there is a risk of electric arcing and in ATEX zones.
- Never use the WORK AIR DL001 T U when working with tools that could damage the device, such as angle grinders or soldering irons.
- Never use, or switch off the WORK AIR DL001 T U, in the presence of sources of strong vibrations, such as a jackhammer.
- Never use, or switch off the WORK AIR DL001 T U, when driving some types of vehicles: cars, motorcycles, bicycles, etc... The WORK AIR DL001 T U can be used and switched on only when using specific vehicles such as telescoping lift platforms required for working at height.
- The WORK AIR DL001 T U does not offer any additional protection in the areas not covered by the airbag.
- The WORK AIR DL001 T U does not offer any additional protection in the areas covered by the airbag during events that do not cause triggering and inflation of the airbag.

2.2. Protection offered by the WORK AIR DL001 T U protective device

In view of the particular protection offered by the WORK AIR DL001 T U protective device, it must be considered Personal Protective Equipment (PPE) and is therefore subject to the requirements established by Regulation (EU) 2016/425. The WORK AIR DL001 T U protective device covered by this Informative Note must be considered **Class 2 PPE** according to Regulation (EU) 2016/425, namely PPE to which DAirlab may affix the CE mark only once the product has passed the “EU type examination” at a notified body.

The Notified Body that certified your WORK AIR DL001 T U is:

EU NOTIFIED BODY No. 2008 DOLOMITICERT Scarl, Zona industriale Villanova 7/A – 32013 LONGARONE (BL) better specified in the CERTIFICATIONS chapter of this Informative Note.

Conformity with the essential health and safety requirements established by Regulation (EU) 2016/425 has also been achieved on account of compliance of the WORK AIR DL001 T U Personal Protective Equipment with the following technical specifications:

- DOLOMITICERT – Technical specifications for inflatable protectors with electronic activation for workers working at height – Revision n° 0 of 07 July 2020.

These technical specifications are based, among others, also on the following document:

- EN 1621-4:2013 Motorcyclists' protective clothing against mechanical impact – Part 4: Motorcyclists' inflatable protectors – Requirements and test methods.

The WORK AIR DL001 T U is equipped with an electronic control unit called **002_W**, which complies with the requirements and essential provisions of the following European Directive:

- Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonization of the laws of the Member States relating to electromagnetic compatibility.

Frequency bands and respective transmitted power limits applicable to the device (standardized frequencies and powers).

2.3. **Protective performance of the WORK AIR DL001 T U protective device**

The System to which this Informative Note refers must be considered Class 2 Personal Protective Equipment (PPE) as it has been designed and produced to provide limited protection against the risks of mechanical impact in the event of a fall with impact as described in Chapter 3.4. For the performance levels achieved by the WORK AIR DL001 T U Personal Protective Equipment refer to Table 1.

Table 1: Performance of the Device

Chest Area (airbag protector), tested in accordance with the technical specifications applied, which establish the following requirements:				
<ul style="list-style-type: none"> Average value ≤ 4.5 kN, Value of single blow ≤ 6 kN. 				
Protector identification code	Standard used for the test method applied in tests	Temperature [°C] at which the protector was tested	Force transmitted with impact energy of 30 J, Value Average/Maximum	Distribution of the force transmitted with impact energy of 30 Joule (Optional test), Value Average/Maximum
WORK AIR DL001 T U.1, .2	EN1621-3:2018	+ 23°C +23°C (*) +40°C -10°C	Average: < 1.80 kN Max: < 1.80 kN	Average: < 1.80 kN Max: < 1.80 kN

(*) after hydrolytic treatment

Back area (airbag protector), tested in accordance with the technical specifications applied:			
<ul style="list-style-type: none"> Average value ≤ 4.5 kN, Value of single blow ≤ 6 kN. 			
Protector identification code	Standard used for the test method applied in tests	Temperature [°C] at which the protector was tested	Force transmitted with impact energy of 30 J, Value Average/Maximum
WORK AIR DL001 T U.1, .2	EN1621-2:2014	+23°C +23°C (*) +40°C -10°C	Average: < 1.80 kN Max: < 1.95 kN

(*) after hydrolytic treatment

In particular the WORK AIR DL001 T U protective device:




- When triggered** covers with an airbag the chest area (DC-Divided Chest), divided chest protector and the central area of the back (CB - Central Back), central protector covering only the central area of the back, this type of protector does not offer protection in the shoulder blade area.
- Gives a “stealth” protection: comfort and ergonomics. This stealth protection is imperceptible and is triggered when required, offering a high level of comfort and safety. Protective performance is correlated to choosing the correct size of WORK AIR DL001 T U, following the guidelines provided in Chapter 2.5.

During certification the WORK AIR DL001 T U was tested and can be integrated with the following “PPE” harness models: “Gravity - Art. 126501(C.A.M.P S.p.a)”, “B02 B1020S (FAT Pro S.r.l)” and “EKO (Kong S.p.a)”.

This list does not represent the complete range of harnesses compatible with the WORK AIR DL001 T U and is purely an indication of the harnesses used in the Certification tests.

The range and number of harnesses available on the market are many; they can be incorporated and classified in Table 2 below.

Table 2: Harness classification

Class	Configuration	Description
Class H		Viewed from the front, the shoulder straps descend vertically and are connected to each other by a secondary strap and/or by the front attachment. These harnesses are divided into: <ul style="list-style-type: none"> - Class H/ A (Class H with front attachment) - Class H/ P (Class H with rear attachment) - Class H/ AP (Class H with front and rear attachment)
Class X		Viewed from the front, the shoulder straps descend crossing over at the height of the chest at the sternum attachment forming an «X». These harnesses are divided into: <ul style="list-style-type: none"> - Class X/ A (Class X with front attachment) - Class X/ P (Class X with rear attachment) - Class X/ AP (Class X with front and rear attachment)
Class Y		Viewed from the front, the shoulder straps cross over in the sternum attachment point and descend to the belt by means of a single vertical central strap. These harnesses are divided into: <ul style="list-style-type: none"> - Class Y/ A (Class Y with front attachment) - Class Y/ P (Class Y with rear attachment) - Class Y/ AP (Class Y with front and rear attachment)



WARNINGS:

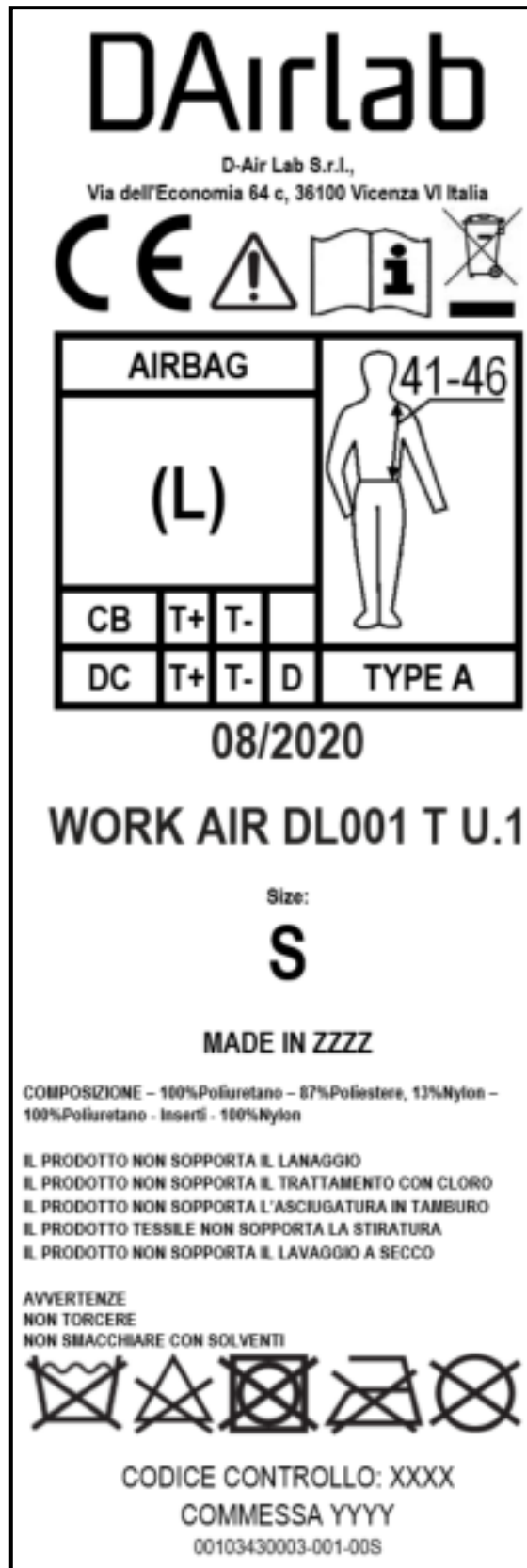
●●● When using the WORK AIR DL001 T U in combination with the harness, always ensure that your harness is in the harness classes indicated in Table 2, evaluated during Certification

●●● Never use the WORK AIR DL001 T U in combination with different harnesses to those evaluated during Certification.





●●● Never use the WORK AIR DL001 T U in combination with harnesses that have a structure with a retaining sternum strap that encircles the chest.

- 2.4. Instructions for understanding the marking of the protective device
WORK AIR DL001 T U and of the integrated 002 W electronic control unit
 To learn the meaning of the indications provided on the marking of the device refer to Table 3.

Table 3: Marking of the WORK AIR DL001 T U



The Marking is indicated on a label stitched to the protector. The label contains the following information:

DAirLab	Manufacturer's Name and Trademark
D-Air Lab S.r.l., Via dell'Economia 64 c, 36100 Vicenza VI Italy	Manufacturer's identification
	CE marking certifying that the protective garment complies with the requirements of Regulation (EU) 2016/425
	Pictograms indicating the need to read the Instructions for Use attached to the protector
	Indication that the product and related electronic accessories must not be disposed of with other household waste.
AIRBAG	Indicates that the protector is inflatable
(L)	Indicates that the protector is for exclusive use in a work environment
CB	Specification of the body area protected according to the standard EN 1621-2:2014. (CB - Central Back) = Central protector, covering only the central area of the back, this type of protector does not offer protection in the shoulder blade area.
DC	(DC = Divided Chest) Specification of the body area protected, as established by Standard EN1621-3:2018.
T+	Indicates that the protector is able to provide adequate protection also in conditions of high environmental temperature 40°C.
T-	Indicates that the protector is able to provide adequate protection also in conditions of low environmental temperature -10°C.
D	Indicates that the protector complies with the optional requirement of distribution of the force transmitted for the chest area.
	Size of the protector, supplied with indication of the distance between the waist and shoulder of the user, for correct choice of the protector. To find the size of the protected area, refer to table 5.
TYPE A	Specification of the size of the protected area, as established by Standard EN1621-3:2018, TYPE A or TYPE B (smaller for TYPE A). To find the size of the protected area, refer to table 5.
WORK AIR DL001 T U.1	(WORK AIR DL001 T U) Protector identification code; each protector model is allocated a different internal code. (.1) The numeric extension of the code .1 .2, identifies the size of the Device. The value can range from 1 to 2 (.1 small size, .2 large size)
08/2020	Month and year of manufacture
S	Size of the adjustment systems




MADE IN ZZZZ	Indication of the country of origin
	International Garment Care Symbols.
YYYYY	Indication of the production batch

Table 3: Marking of the 002_W electronic control unit



The marking is stamped directly on the plastic case and contains the following information:

DAir lab	Manufacturer's Name and Trademark
D-Air Lab S.r.l., Via dell'Economia 64 c, 36100 Vicenza VI Italy	Manufacturer's identification
CE	CE marking certifying that the product complies with the requirements of the applied Directives
	Pictogram indicating the need to read the Instructions for Use attached to the product.
	Indication that the product and related electronic accessories must not be disposed of with other household waste.
002_W	Identification code.
IP54	IP54 indicates that the enclosure is protected against dust to a level that prevents interference with device operation and against water splashing from any direction. Only if correctly installed on the garment and worn.

Indication of the production batch is provided directly on the Airbag, as the 002_W is sold solely and exclusively assembled to a finished product.

2.5. How to choose and wear the WORK AIR DL001 T U

The device must be chosen with attention to the indications and the symbols on the marking. To choose the correct WORK AIR DL001 T U back and chest protector, refer to the distance between waist and shoulder, as there is no constant relation with body height.

This is the maximum vertical length, measured at the back, from the waistline to the point in which the shoulder joins the neck. To find the waistline, stand upright and pass a measuring tape around your waist 50 mm above the iliac crests.

"Note: 50 mm is an example that refers to a person with a height of 1.78m, this measurement should be decreased in proportion to the person's actual height; some examples are indicated in table 4. "

Table 4: Iliac crest distances

Height of wearer (m)	1.56	1.60	1.64	1.68	1.72	1.78	1.82	1.88	1.92	1.96
Distance above the iliac crests (mm)	44	45	46	47	48	50	51	53	54	55

To find the WORK AIR DL001 T U most suited to the distance between your waist and shoulder consult Table 5 in the chapter (Position and minimum sizes of the areas protected by the WORK AIR DL001 T U).

For the recommended correlation between the size of the supports and chest circumferences, consult the table below:

Size of supports and fasteners	Chest ranges in cm	
S	80	92
M	92	104
L	104	116
XL	116	128

In order for a protective device to perform its protective action correctly, the body area to be protected must remain effectively covered.

The WORK AIR DL001 T U is Personal Protective Equipment provided with its own supports and fasteners, designed only to be worn over workwear; if used in combination with a harness, the harness must be worn over the WORK AIR DL001 T U.

Always close the front buckles and adjust the supports and fasteners, ensuring it fits snugly against the body.



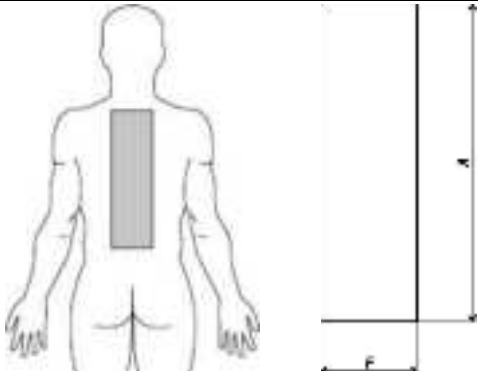
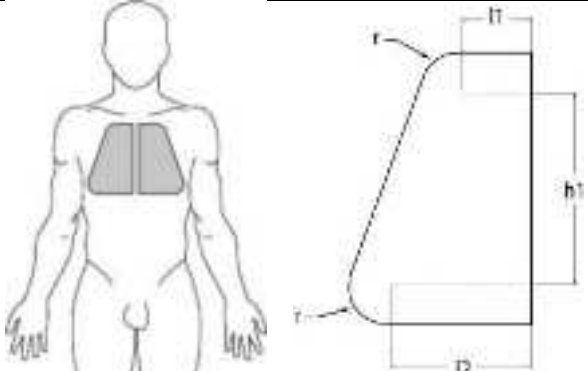
WARNINGS:

- **Never use the WORK AIR DL001 T U without first having closed all the fastening systems, in particular fully close the front buckles: it could be dangerous and/or FAIL TO protect in the event of triggering.**
- **Do not choose too large a size of WORK AIR DL001 T U, as if triggered it could interfere with the helmet, creating dangerous situations.**
- Always adjust the WORK AIR DL001 T U in such way that it fits snugly against the body.
- After using the WORK AIR DL001 T U always ensure the device is switched off before removing it.
- Carefully check the size of your WORK AIR DL001 T U at the time of purchase.
- When choosing the WORK AIR DL001 T U always refer to the distance between waist and shoulder, as only one size cannot adapt to all body sizes (height and shape).
- The WORK AIR DL001 T U must be considered as personal property.

2.6. Position and minimum size of the areas protected by the WORK AIR DL001 T U

Table 5 below indicates the minimum size of the protected areas and shows the positions of the body areas protected by the WORK AIR DL001 T protective device.

Table 5 - Position and minimum size of the airbag protected areas

Protector identification code	Back Area (CB Central Back)			Chest area (DC = Divided Chest)				
	Waist-Shoulder	A (cm)	F (cm)	Type	r (mm)	L1 (mm)	l2 (mm)	H1 (mm)
WORK AIR DL001 T U.1	41 - 46	33,1	11,5	TYPE A	25	42	84	118
WORK AIR DL001 T U.2	46 - 51	36,7	12,8					
								

2.7. Use, integrity and efficiency of the WORK AIR DL001 T U device

The functions for which the WORK AIR DL001 T U was designed will only be performed correctly if it is registered and worn correctly and switched on.

We recommend that you inspect the device carefully prior to each use to check integrity and that you REFRAIN from use whenever any parts show signs of evident wear or malfunction, until complete functionality is restored.

In particular, check that the fastening and adjustments systems operate correctly.

Should any breaks or cracks occur through use, or if the integrity of the materials forming the product is compromised, including accessory parts, have the integrity and efficiency of the product checked by DAirlab assistance service, through the retailer where it was purchased. In the event of impact and/or triggering, replace the device with a new WORK AIR DL001 T U.



IMPORTANT:

●●● The WORK AIR DL001 T U serves to reduce the risk of injury by limiting the impact force transferred in the event of a fall and impact against an obstacle. However, it is stressed that no protector is able to protect from twisting, bending or extreme movements. No back protector can provide protection against serious injuries of the spinal column. NO PROTECTIVE DEVICE CAN PROVIDE PROTECTION AGAINST ALL POSSIBLE IMPACT IN ACCIDENTS AND THEREFORE CANNOT PROVIDE COMPLETE PROTECTION AGAINST INJURIES.



WARNINGS:

- Avoid contact with petrol, oil, or any other type of chemical agent. These substances could damage the component materials, compromising their original characteristics.
- Do not rest or rub against walls, sharp edges, sharp objects, hot objects, fences or any other type of object that could cut or abrade the product, causing irreversible damage.
- For the temperatures of use of the WORK AIR DL001 T U, please refer to the temperatures at which it was tested, indicated in Table 1. In any case, we recommend avoiding exposing the protector to temperature extremes; climatic variations such as sudden increases in temperature can drastically reduce the protection offered by the device; moreover, the device should not be left in an outdoor environment at high or low temperatures before use.
- The WORK AIR DL001 T U may have spare parts; for original DAirlab spare parts contact the dealer that sold the product or consult the following link: <https://dairlab.com/ricambi/>.
- To replace any parts, refer to the Informative Note provided with the spare part

2.8. Information on the materials used

It is hereby certified that the materials that come into contact with the wearer have been produced with suitable non-toxic and non-harmful products, as established by EC Regulation 1907/2006 (R.E.A.C.h) - Annex XVII. It is specified that, as established by Regulation EC 1907/2006 (R.E.A.C.h), such materials have no azo colorants capable of releasing dangerous aromatic amines through the cleavage of one or more azo groups - Annex XVII. Moreover, the articles marketed do not contain any Substances of Very High Concern (SVHC), identified according to Article 59 and listed in the Candidate List published by the ECHA (European Chemical Agency), in concentrations greater than 0.1% weight/weight.

2.9. Duration of the WORK AIR DL001 T U Protective Device

The duration of a protective device depends on its frequency of use and the care with which it is looked after by the user

In any case, contact the DAirlab Assistance Service once every 3 years to request a maintenance check or servicing (for a fee) of components subject to wear.



WARNINGS:

- **DAirlab does not guarantee the suitability of the device and therefore shall in no way be held liable if it is used after expiry of the time limit established for servicing/maintenance if this has not actually been performed.**
- Check the WORK AIR DL001 T U for signs of possible wear, breakage or damage prior to every use. Contact the DAirlab Assistance Service or an authorized DAirlab dealer in all cases of doubt.

3. DESCRIPTION OF THE 002_W ELECTRONIC COMPONENT AND AIRBAG OF THE WORK AIR DL001 T U

3.1. Overview

The WORK AIR DL001 T U is an innovative system for the safety of professional workers working at height.

3.1.1. 002_W Electronic control unit

The WORK AIR DL001 T U is controlled by the 002_W electronic control unit that triggers inflation of the system whenever one of the pre-set conditions arises. The system has an internal diagnostics routine and whenever malfunction occurs, the indicator light of the user interface will begin flashing red and the system will vibrate when the light flashes.

The electronic control unit is powered by a rechargeable lithium ion battery, the charge level of which is shown during use of the device (see chapter 3.6 “Checking the battery charge level and charging” below).

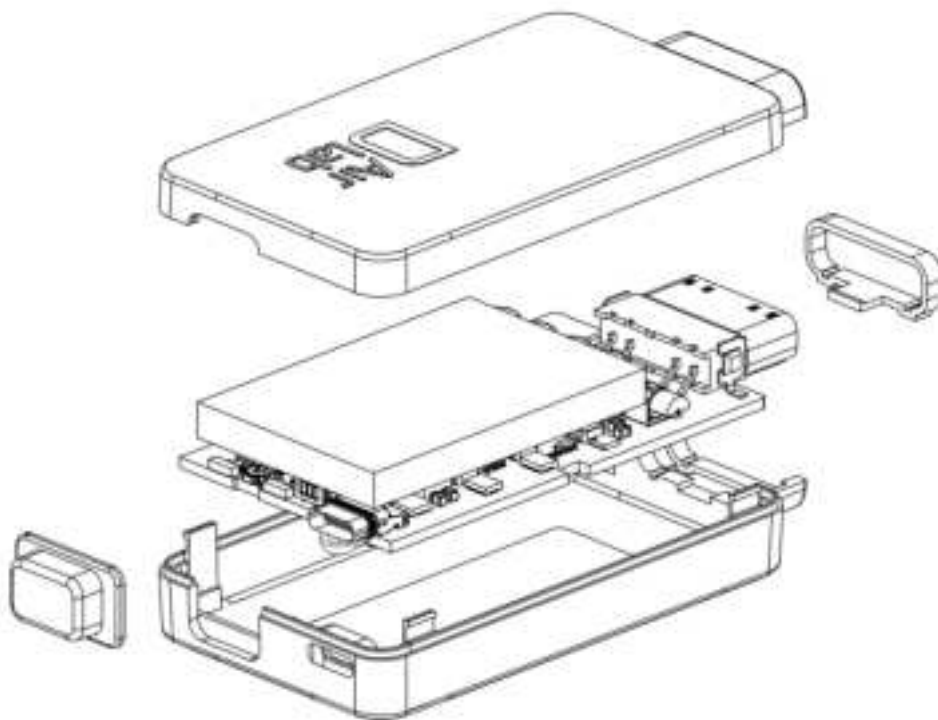


WARNINGS:

- in the event of malfunction do not use the System (flashing red LED and vibrating). In this case contact the DAirlab Assistance Service.
- people who wear pacemakers or other medical devices should not use the System as electric disturbance might interfere with correct operation of these medical devices.

The 002_W electronic control unit is contained in the WORK AIR DL001 T U, inside a special case, represented in Figure 1.

Figure 1: electronic control unit



The electronic control unit is contained inside the case; it is powered by a rechargeable battery located inside, which controls operation of the System.

The operating status is controlled by an on/off button, while the battery level can be checked using the button backlighting.



WARNINGS:

●● The electronic control unit case is sealed by DAirlab during manufacture. Tampering with this seal invalidates the product warranty. Do not tamper with and/or remove the electronic control unit. Contact the nearest DAirlab Assistance Service in case of need.

3.1.2. User interface

The user interface comprises an illuminated button and a VIBRAMOTOR. The purpose of the interface is to communicate the information required by the user. Notes for the correct comprehension and use of the WORK AIR DL001 T U user interface are provided below.

3.1.3. Airbag

The WORK AIR DL001 T U incorporates an airbag that contains two high pressure gas generators for inflation of the airbag.

3.1.4. Batteries and battery life of the System

When completely charged, the system stays on for around 18 hours of use.

The battery has no memory effect, and therefore the System can be completely charged at any time.

For more information on battery operation and charging, see chapter 3.6. "Checking the battery charge level and charging".

The time required to charge the system completely is around 3 hours.

3.1.5. USB-C battery charger

A USB-C charger with 5 V 1000 mA output can be used to charge the system. Whenever a USB-C charger is not available, the battery can be charged by connecting the USB cable directly to a computer; in this case charging will be slower.

After connecting the USB-C cable from the charging source, the LED system or the user interface will display a color corresponding to the current charge level (see chapter 3.6 "Checking the battery charge level and charging" below). When 100% charge has been reached, the light will flash green.

3.2. Registering the System after purchase

After purchasing the WORK AIR DL001 T U system and before initial use, to ensure correct traceability for updates/communications/recalls, it is necessary to provide DAINESE with information on the owner of WORK AIR DL001 T U through the services offered at the following link: <https://dairlab.com/signin>

Failure to register the system will make it impossible to ensure correct traceability for updates/communications/recalls.



IMPORTANT:

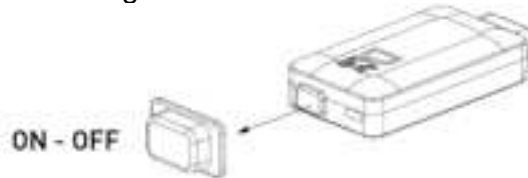
●●● If the information regarding the owner-user of the WORK AIR DL001 T U is not registered, operation of the system will be disabled, and therefore the system will NOT protect the chest. This situation is indicated when the device is switched on by an orange warning light, as specified in the chapter 3.5 "Guide to the LED sequences during use".

3.3. System on/off procedures

Make sure that the System's battery is fully charged, the battery charge has a duration of around 18 hours; charge the WORK AIR DL001 T U before the battery charge runs down completely and whenever possible.

- After putting on the WORK AIR DL001 T U correctly (see chapters above) switch the device on using the on/off button located on the front left-hand side, as indicated in Figure 2 below and then close the front buckles completely.

Figure 2: on/off button



- Before starting to work, check that the system is operating correctly, indicated by the illuminated button flashing every 1,5 seconds; its color depends on the battery charge level. The system is only correctly operating and ready for use in this condition. The sequence indicating that the system is operating correctly and ready for use is shown below in relation to the battery charge level:

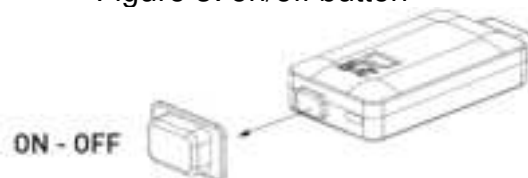
Green	from 100% to 50%
Yellow	from 50% to 25%
Red	from 25% to 0%



WARNING:

••• After you have finished using the System, deactivate the WORK AIR DL001 T U immediately using the on/off button indicated in Figure 3.

Figure 3: on/off button



WARNING:

••• When the System is not in use, always ensure it is switched off. If switched on the system could be triggered accidentally during transport.

3.3.1. **Checking correct functionality of the System**

Always check correct functionality of the System before use. Use of the system in the event of malfunction must be considered as being performed at the user's own risk.

After putting on the System, switch it on and check that the illuminated button is on and flashing. For more information, check the flash codes in the chapter 3.5 "Guide to the LED sequences during use".



WARNING:

••• Before using the WORK AIR DL001 T U always ensure that the LED interface of the System has no error messages.

3.4. Triggering of the WORK AIR DL001 T U

The sensors installed inside the case of the WORK AIR DL001 T U constantly monitor its dynamics; information from the sensors is processed by the central unit and, if the values registered exceed the pre-set thresholds, the System inflates the airbag.

The conditions in which the WORK AIR DL001 T U is triggered are indicated below:

- **Without a harness** – Vertical free fall from a height of at least 1.20 meters and subsequent impact with the ground
- **With a harness** – Vertical free falls from a height of at least 1.20 meters and subsequent swinging with impact against an obstacle.



WARNING:

●●● This condition for triggering is closely related to the distance between the anchor point and the position during working activities; in the event of a fall in which the distance from the anchor point does not permit a vertical free fall of at least 1.20 meters, the WORK AIR DL001 T U might not be effective and protect.



WARNING:

●●● The WORK AIR DL001 T U will not be triggered and not protect unless there is a vertical free fall of at least 1.20 meters.

Triggering time of the WORK AIR DL001 T U varies according to circumstances and the intensity of the event considered. The air bag is designed to ensure protection for at least 5 seconds after deployment.



WARNINGS:

●●● The events described above are only some examples of triggering conditions. In some cases included in the aforesaid events, the WORK AIR DL001 T U might NOT be triggered or might be triggered without being fully inflated before the impact against an obstacle or with the ground and hence the WORK AIR DL001 T U might NOT protect, especially in cases in which said events produce a low level of acceleration that the System is unable to identify as a fall.

●●● In the case of violent events the WORK AIR DL001 T U could be triggered and hence the airbag could inflate. Therefore, when the WORK AIR DL001 T U is switched on DO NOT:

- jump, perform acrobatics or particularly sudden movements not normally performed during normal and correct working practices;
- go down steps higher than 50 cm jumping, or removing both feet from the ground at once.
- use in the presence of sources of strong vibrations, such as a jackhammer;
- drive vehicles such as cars, motorcycles, bicycles, etc... (only specific vehicles such as telescoping lift platforms for working at height can be used).

●●● The WORK AIR DL001 T U has an on/off button which allows operation of the device to be managed and avoids accidental triggering.

●● The WORK AIR DL001 T U has been designed to provide a suitable degree of protection for 5 seconds after triggering.

3.4.1. What to do if the WORK AIR DL001 T U is triggered

When triggered, the system will inflate and then deflate slowly. The airbag can only inflate once, After each deployment the WORK AIR DL001 T U must be replaced; contact the DAirlab Assistance Service for the replacement procedure.



WARNING:

●●● in the event of a fall during which the System is triggered, do not use it again until the airbag has been replaced by the DAirlab assistance service, as the System will not function.

3.5. Guide to the LED sequences during use

The user interface consists of a multicolor illuminated button and a vibramotor integrated in the printed circuit board located in the front left part of the System.

3.5.1. System operating mode

The system has the following operating modes:

- “*Init Mode*” (Initialization mode): airbag protection is not available.
- “*Normal Mode*”:
Typical mode of use of the system, airbag protection is available. When the battery level is below 25%, airbag protection is available, the residual charge is less than 2 hours of continual use. Charge the battery as soon as possible.
- “*Error Mode*”: Mode of use when the diagnostic system detects an error involving the electronic components integrated in the main board or involving the state of the gas generators integrated in the airbag.



WARNING:

●● In the event of an error, switch off, check the status of the connections and then switch the System on again. If the error persists when the System is switched off and on consecutively more than three, it will always start in “*Error Mode*”. This might indicate a System malfunction, in which case contact the DAirlab Assistance Service.

- “*Fired Mode*”: deployed mode following triggering of the airbag
- “*Charging Mode*”: mode activated during charging.

3.5.2. Summary of System notifications

The System notifications are described below.

- During use:

	Type	Vibration	Mode	Description
	Flashes orange every second for 5 seconds	Vibration every second for 5 seconds	<i>"Lock Mode"</i>	System not registered or activated
	Steady blue for 1 second	Single vibration	<i>"Init Mode"</i>	Switch-on
	Flashes green every second for 5 seconds	None	<i>"Init Mode"</i>	Battery charge status, from 50% to 100%
	Flashes yellow every second for 5 seconds	None	<i>"Init Mode"</i>	Battery charge status, from 25% to 50%
	Flashes red every second for 5 seconds	None	<i>"Init Mode"</i>	Battery charge status, from 10% to 25%
	Flashes red every second for 5 seconds	Vibration every second for 5 seconds	<i>"Init Mode"</i>	Battery charge status, from 0% to 10%
	Flashes green every 1,5 seconds	None	<i>"Normal Mode"</i>	Battery charge status, from 50% to 100%
	Flashes yellow every 1,5 seconds	None	<i>"Normal Mode"</i>	Battery charge status, from 25% to 50%
	Flashes red every 1,5 seconds	None	<i>"Normal Mode"</i>	Battery charge status, from 0% to 25%
	Steady purple for 1 second	None	<i>"Fired Mode"</i>	Fall detected, deploy airbag command
	Flashes purple 3 times ever 2 seconds	3 vibrations every 2 seconds	<i>"Fired Mode"</i>	Airbag deployed, data saved
	Flashes red every second	Vibration every second	<i>"Error Mode"</i>	System error
	Steady red for 5 seconds	Initial vibration	<i>"Shutdown Mode"</i>	Shutdown in progress

- During charging:

	Type	Vibration	Percentage of charge
	Flashes green every second	None	Complete charged to 100%
	Steady green	None	Between 75% and 99%
	Steady yellow	None	Between 40% and 75%
	Steady red	None	Between 0% and 40%

3.5.3. Possible malfunctions of the System

Table 6 below describes possible malfunctions of the WORK AIR DL001 T U.




Table 6: possible malfunctions

Problem	Possible cause	Possible Solution
The system will not switch on	Battery flat	Charge the battery for at least 2 hours.
When switched on the system automatically goes into "Error Mode"	One or more airbag cables disconnected	Check whether the airbag cables are connected to the printed circuit board, if disconnected reconnect the cable, switch the system off and back on again.
	Internal system error	Switch the system off and back on again, if the error persists contact the DAirLab assistance service
When switched on the system automatically goes into "Fired Mode"	Airbag already deployed	Contact the DAirLab assistance service
When switched on the system automatically goes into "Lock Mode"	Product not registered	Register the product on the website https://dairlab.com/signin

3.6. Checking the battery charge level and charging

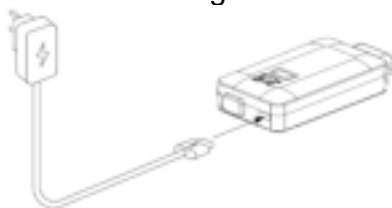
You can always check the battery charge level before and during use as the illuminated button will flash once every 1,5 seconds with the color corresponding to the charge level.

The colors of the illuminated button according to charge level are described below:

	Green, from 100% to 50%
	Yellow, from 50% to 25%
	Red, from 25% to 0%





If the charge level is low, connect the cable provided to the connector located in the lower part of the case of the WORK AIR DL001 T U. Then connect the USB-C cable to the charging source, as shown in Figure 4.

Figure 4: Illustration of charger with USB-C connector



If a USB-C charger is not available, the battery can be charged by connecting the USB-C cable directly to a personal computer; in this case charging will be slower.

After connecting the USB-C cable to the charging source, the user interface will indicate that charging is taking place by switching on the illuminated button as follows:

	Steady red, between 0% and 40%
	Steady yellow, between 40% and 75%
	Steady green, between 75% and 99%
	Flashing green every second, charged to 100%



WARNINGS:

- **Never charge the System while wearing it. Always remove the WORK AIR DL001 T U before charging the System. Any voltage overload that occurs might pose a risk to the user's safety.**
- **Never charge the System while wearing it; operation of the system is disabled during charging.**
- **Never leave the System charging close to flammable surfaces or objects. If it were to overheat during charging, this could start a fire.**
- **Comply with the following general precautions for the use of rechargeable lithium-ion batteries:**
 - **Always check the charge level of the system prior to use and charge if necessary.**
 - **Charge the System at least once every 2 months even when it has not been used in order to prevent deterioration of battery performance.**
 - **Always supervise battery charging and never leave the system unsupervised while charging is in process.**
 - **Do not disassemble the battery**
 - **Do not short circuit the battery**
 - **Do not replace the battery**
 - **The ideal storage temperature to maintain the battery charged should be between 15°C and 35°C**
 - **Do not store the battery at temperatures exceeding 50°C**
 - **Do not dip the battery in fresh or salt water; do not wet it in general**
 - **Do not charge the battery at environmental temperatures exceeding 35°C**
 - **Do not use chargers with different characteristics to those indicated in this manual.**
 - **Do not modify the charging process or the charging hardware**
 - **Do not expose the battery to naked flames**
 - **Do not use the battery for uses other than that for which it was designed**
 - **Never touch a leaking battery directly, should leakage occur contact a dealer or the DAirlab Assistance Service immediately.**
 - **Do not allow children near the battery**
 - **Do not charge the battery for more than the established time**
 - **Do not place the battery in a microwave oven or in a pressurized container**
 - **Stop charging the battery if abnormal operation is noted**
 - **Do not continue to use the battery if abnormal operation is noted**
 - **Do not expose the battery to abnormal electrostatic charges**



IMPORTANT:

- **If the recommendations above are violated the battery could generate smoke, rupture or explode with potential high risk for people's safety and the risk of causing damage to property.**
- In the event of problems related to the battery, contact the DAirlab Assistance Service immediately.**

4. MAINTENANCE OF THE WORK AIR DL001 T U SYSTEM

4.1. Overview

The WORK AIR DL001 T U System has been designed and produced according to high quality standards to ensure correct operation over time. However, it is advisable to carry out periodic maintenance on the system, consisting of a few simple operations.

4.2. Washing the WORK AIR DL001 T U

The WORK AIR DL001 T U must only be cleaned using a damp cloth with water or with water and a conditioner-free neutral soapy solution.






Remove the soapy solution using a soft cloth dampened with fresh cold water only.

Do not rub with abrasive materials and do not leave the device to soak.

Leave the device to dry hanging, away from direct sources of light and heat.

Also refer to the instructions and international care symbols on the label affixed to the device, listed in Table 7 below.

Table 7: List and meaning of international care symbols on the label affixed to the device

1		2		3		4		5	
<ol style="list-style-type: none">1. THIS GARMENT CANNOT BE WASHED IN WATER2. THIS GARMENT CANNOT BE TREATED WITH CHLORINE3. THIS GARMENT CANNOT BE TUMBLE DRIED4. THIS GARMENT CANNOT BE IRONED5. THIS GARMENT CANNOT BE DRY CLEANED									



WARNINGS:

- Do not immerse the WORK AIR DL001 T U in water or other liquids. Immersing the WORK AIR DL001 T in water or other liquids could cause irreparable damage to the electronic components of the System.
- Do not iron the WORK AIR DL001 T U
- Do not wash under running water.
- Do not use solvents or other chemical substances for cleaning.
- Do not paint the protective device, or use dyes of any kind on it.
- Avoid or limit the exposure to UV rays, moisture and ice.
- Do not expose the device to high or low temperatures.
- Never tamper with any part of the device.
- Do not bend or twist the device as these actions constitute improper use for which the item has not been designed; in fact, this could cause loss of its protective properties or breakage. Therefore, DAirlab will not accept claims or requests for replacement of Devices that it finds have been used improperly.
- When not in use, the protective device must be stored in a dry and well ventilated place where it is not subjected to impact or pressure.
- Avoid storing the device with its weight concentrated in only a few points.
- Should the WORK AIR DL001 T U be used in the event of rain, protect the System with a rainproof jacket worn over it.
- After use, if necessary leave the device to dry in a ventilated place at room temperature; do not use hair dryers or other heating devices.

4.3. Transportation

Store and transport the device using the bag provided at the time of purchase.



WARNINGS:

- Always make sure that the system is placed in “Lock Mode” to prevent the System from being switched on accidentally during transportation.
- Always make sure that the system has been switched off using the on/off button to prevent accidental triggering of the System.
- Due to the presence of gas generators and related triggering system, air transport might be prohibited or subject to special transport procedures. Before shipping your WORK AIR DL001 T by air, check with the airport authorities and with the airline to find out the correct procedure to follow.

4.3.1. **Managing “Lock Mode”**

If you wish to place the system in “Lock Mode” or reactivate it from “Lock Mode”, download and use the specific software.



WARNING:

- With the system in Lock Mode it is not possible to switch on the system using the on/off button.

4.4. Change of ownership

If you intend to sell your WORK AIR DL001 T U to a third party, place the system in “Lock Mode” using the specific software, so that the new owner can register it as described in Chapter 3.2 Registering the System after purchase.



WARNING:

- To ensure correct traceability for updates/notifications/recalls the system must be placed in “Lock Mode” so that the new owner registers it correctly.

5. **ROUTINE MAINTENANCE**

5.1. **5.1. Routine maintenance of the System**

Contact the DAirlab Assistance Service once every 3 years to request a maintenance check or servicing (for a fee) of any components subject to wear.

5.2. **Updating the electronic control unit of the WORK AIR DL001 T U**

As described above, the WORK AIR DL001 T U has an internal electronic control unit that manages airbag inflation in the appropriate circumstances. The *firmware* of the electronic control unit may be updated from time to time to improve its performance or to offer the user new features. New features may regard an expansion of the fall recognition functionalities, or also the addition of new functions.

The *firmware* can be updated by the registered final user using the software available in their personal area at the link: <https://dairlab.com/signin>, or during operations by DAirlab at the headquarters in Via dell'Economia 64 /c 36100 Vicenza (VI), Italy.

In the future there may be other ways of updating the firmware; in this case consult the DAirlab website.

6. ERROR CODES OF THE DEVICE

For information regarding the main error codes of the System, consult chapter 3.5.3 "Possible malfunctions of the System" of this Informative Note.

7. CERTIFICATIONS

WORK AIR DL001 T U

The Notified Body that certified your WORK AIR DL001 T U is EU NOTIFIED BODY No. 2008 DOLOMITICERT Scarl, Zona industriale Villanova 7/A – 32013 LONGARONE (BL).

002_W

EU:

This electronic device complies with complies with Directive 2014/30 / EU.

USA:

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by DAirlab could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

FCC ID: 2AWM3-002W

CA:

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

8. F.A.Q. (FREQUENTLY ASKED QUESTIONS)

Q: Is the WORK AIR DL001 T U device absolutely safe?

A: No. No protective system can protect the wearer from every possible risk or in every possible condition of use. All protective equipment has its limits and injury and even death can occur even while wearing the WORK AIR DL001 T U.

Q: Has the system been certified by an authorized certification agency?

A: Yes. The EU NOTIFIED BODY No. 2008 DOLOMITICERT Scarl, Zona industriale Villanova 7/A – 32013 LONGARONE (BL) executed the “EU type examination” as per Regulation (EU) 2016/425 and issued the corresponding Certification.

Q: Can the system be updated?

A: Yes, the system has updatable firmware, the updates can be installed by the registered final user using the software available in their personal area at the following link: <https://dairlab.com/signin>, or during operations by DAirlab at the headquarters in Via dell'Economia 64 /c 36100 Vicenza (VI), Italy.

In the future there may be other ways of updating the firmware, in this case consult the DAirlab website.

9. ASSISTANCE SERVICE

D-Air Lab S.r.l.

Via dell'economia 64 c

36100 Vicenza VI Italia

Tel: 0444 1429920

Fax: 0444 1429929

mail: support@dairlab.com

10. DECLARATION OF CONFORMITY

To view the Declaration of conformity established by REGULATION (EU) 2016/425 consult the following link: <https://dairlab.com/conformity>; entering the “Protector identification code” indicated on the marking found on the label stitched to the protector or stamped on the protector.

The declarations of conformity concerning the 002_W electronic platform are available at the same link.

ATTACHMENT A: Disposing of the product



WARNING:

The WORK AIR DL001 T U contains electronic components and a pressurized gas canister that cannot be disposed of in the same way as traditional waste.



In order to dispose of the product correctly at the end of its working life, contact the DAirlab assistance service.

DAirlab will take care of disposal, arranging for collection and correct disposal of the product. Important: incorrect disposal of the product can create dangerous situations or cause environmental pollution.