

USER GUIDE



TECH-STAR 10

**IMPORTANT - READ THIS MANUAL
CRITICAL SAFETY INFORMATION INSIDE**

v. 1.0



Please read the following important WARNING and LIMITATION of use notice carefully:

Motorcycling is an inherently dangerous activity and an ultra-hazardous sport, which may result in serious personal injury, including death. Each individual motorcycle rider must be familiar with motorcycling, recognize the wide range of foreseeable hazards and decide whether to assume the risks inherent in such an activity with the knowledge of the dangers involved and accept any and all risks of injury, including death. While all motorcycle riders should utilize appropriate protective equipment, each rider should exercise extreme care for safety while riding and understand that no product can offer complete protection from injury including death or damage to individuals and property in case of fall, collision, impact, loss of control or otherwise. Riders should ensure that safety products are correctly fitted and used. DO NOT use any product that is worn out, modified or damaged.

Alpinestars makes no guarantees or representations, express or implied, regarding the fitness of its products for any particular purpose.

Alpinestars makes no guarantees or representations, express or implied, regarding the extent to which its products protect individuals or property from injury, death or damage.

ALPINESTARS DISCLAIMS ANY RESPONSIBILITY FOR INJURIES INCURRED WHILE WEARING ANY OF ITS PRODUCTS.

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0. Preliminary Notes

In this manual the following four presentation styles are used to provide information:

WARNING! Provides critical information which, if not followed, may cause injury, death, System malfunction or non-function, and/or an exaggerated expectation of the Tech-Air® 10 System's abilities.

IMPORTANT! Provides important information regarding the limitations of the System.



Tip: Provides useful advice regarding the Tech-Air® 10 System.



Provides information related to Tech-Air® App optional functionalities.

1. Introduction

Dear User, thank you for choosing an Alpinestars Product!

The Tech-Air® 10 System (hereinafter referred to as "System" and/or "Tech-Air® 10 System") is an active safety system for sport and recreational motorcycling, which offers protection to a motorcycle user. In the event of an accident or other triggering event, the System provides protection to the upper body and hips areas as it covers the user's shoulders, chest, full back and hips.

The Tech-Air® 10 System is specifically designed and dedicated to be used on a closed race track within the conditions and limitations delineated in this user manual. The Tech-Air® 10 System is supplied with a Race Mode to be used only when riding on a closed race track. The System can also be switched to a Street Mode with the Tech-Air® App when the System is used on public street roads.

The Tech-Air® 10 System consists of a standalone airbag system contained within a base layer which is designed to provide additional protection, from impacts occurring during a motorcycle accident, to motorcycle users. The System does not provide any protection against possible abrasion during an accident, therefore, the System must be always used in combination with an outer protective garment, compatible with the System (for further information see Section 8).

WARNING! The Tech-Air® 10 System does not offer the Dual Charge Concept. Once the airbag has deployed there is no additional airbag charge. This means that the User of the System is without further airbag protection until the System is serviced, and the airbag canisters are replaced.

WARNING! The System, including its components, are technologically advanced pieces of motorcycling safety equipment and should not be treated like a normal motorcycle garment. Similar to one's motorcycle, the System and its components must be cared for, serviced and maintained, so that they may function correctly.

WARNING! The System **MUST** be used in combination with an outer protective garment, compatible with the System (see Section 8).

WARNING! It is essential to read this user manual carefully, to understand it completely and to follow the advice and warnings illustrated in this user manual. If you have any questions regarding the equipment, contact Tech-Air® Support (see Section 19).

IMPORTANT! The Tech-Air® 10 System is an active safety system which can be used by a motorcycle user, both as a rider or passenger.

IMPORTANT! When the Street Mode is selected, the System can be used for road riding and light off-road riding situations (subject to the Off-Road limitations indicated in Section 3 below).

IMPORTANT! Without any additional notice, Alpinestars reserves all rights to, from time to time, update the software and/or the electronic components of the Tech-Air® 10 System.

2. Principles of Operation

The System consists of an Airbag Electronic Control Unit (with built-in sensors) integrated into the back protector, and two external sensors positioned on the shoulders (Figure 1). The cluster of sensors consists of 3 triaxial accelerometers (1 positioned on the back protector and 2 positioned on the shoulders) and 1 triaxial gyroscope (positioned on the back protector). These sensors monitor the user's body for shocks or unexpected movements. In the event the user's body is subject to a high and/or sudden amount of energy, the System will deploy. This may occur when the motorcycle is involved in an accident, such as when the motorcycle collides with another vehicle or with an object, when the rider loses control or when the rider falls off the motorcycle.

The System is equipped with a Bluetooth Low Energy (BLE) device located in the Electronic Control Unit (ECU). The BLE allows the System to connect directly to a mobile phone in order to receive important information from the System, while also permitting the users to access a number of other functions (for further information see "Tech-Air® App" in Section 17). The System does NOT need to be connected to the Tech-Air® App for the System to work, it functions independently of the Tech-Air® App.



To connect the System to the mobile phone via Bluetooth, remember to activate the Bluetooth module within your phone and to download the Tech-Air® App available at the Android Play Store or at the Apple Store.

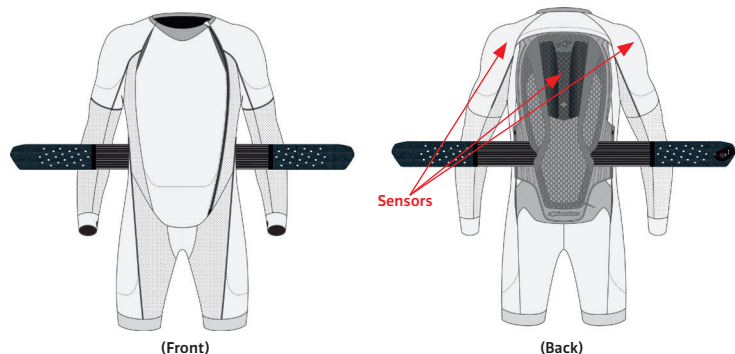


Figure 1 – Sensor Location

The Tech-Air® 10 System comes with two different riding modes that permit the use of the System on both closed race tracks (the "Race Mode") and on streets, as well as on light off-road paths (the "Street Mode"). Users can easily switch between these two riding modes by using the Tech-Air® App.



User must always ensure via the App that the System is running the most up to date software release.

3. Tech-Air® Envelope of Protection

The "Envelope of Protection" is a term used to generally describe situations and/or circumstances where the System may provide protection, denoted as "inside the Envelope", and those where it will not, denoted as "outside the Envelope".

WARNING! No product can provide complete protection from injury (or death), or damage to persons or property in the event of a fall, accident, collision, impact, loss of control or other event.

The System provides impact protection, for those areas where airbag coverage is shown in Figure 2, to the user (both as rider and as a passenger) wearing the System in the event of an accident or other triggering events. To note there are limitations to the protection it can provide as explained in this user manual.

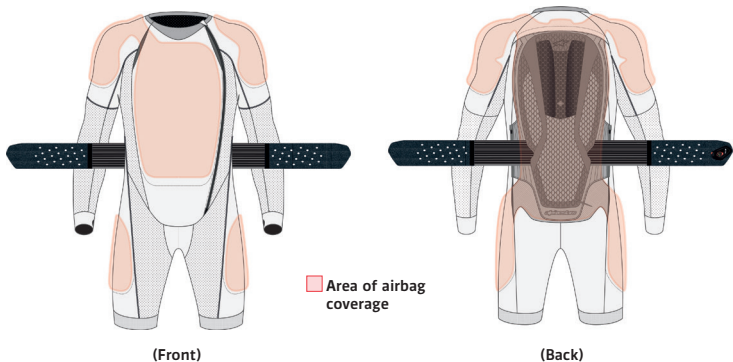


Figure 2: Area of Airbag coverage

For the Tech-Air® 10 System the Envelope of Protection includes, for both Race and Street Modes, crashes against obstacles and loss of control crashes (commonly referred to as 'low-side' and 'high-side' crashes).

Only in Street Mode does the Envelope of Protection also include situations in which the rider's motorcycle whilst stationary is hit by another vehicle.

Table 1 summarizes the Envelope of Protection for Race and Street Modes.

WARNING! The System provides only limited impact protection against forces in the areas of airbag coverage as depicted in Figure 2. No guarantee is given that the System will prevent injuries (including severe or fatal injuries) inside and/or outside the areas of airbag coverage or the Envelope of Protection.

WARNING! The System cannot prevent accidents or injuries to the user.

WARNING! No protective device, including the System, can provide protection against all possible sources of injury and therefore cannot provide complete protection against injuries.

WARNING! Wearing the System is not a substitute for wearing other protective motorcycling clothing and gear. To provide full potential protection, the System must always be worn in conjunction with suitable motorcycling gear and apparel that covers the rider from head to toe, including a helmet, protectors, boots, gloves, and other appropriate protective equipment.





Incident Type		Race Mode	Street Mode
Crashes	Crashes against Obstacles 	✓	✓
	Stationary Crashes 		✓
Loss Of Control	Low-Side Crashes 	✓	✓
	High-Side Crashes 	✓	✓

Table 1: Summary of the Envelope of Protection for Race and Street Modes.

3.1 Envelope of Protection for STREET MODE

In Street Mode, the Tech-Air® 10 System is active only when the System Check is passed (see chapter 12) and after having started riding for approximately 10 seconds. Once activated, the System remains active even if the rider stops, and until the System is manually switched off, to offer protection also in a stationary condition when the motorcycle is hit by a vehicle as described in the Envelope of Protection conditions (see Section 3.1.2).

As summarized in Table 1, in Street Mode the Envelope of Protection includes:

- Crashes against Obstacles
- Stationary Crashes
- Low-Side Crashes
- High-Side Crashes

3.1.1 STREET MODE: Envelope of Protection for Crashes against Obstacles

Tech-Air® 10 System is expected to inflate and protect before the user's body contacts an obstacle, in Crashes Where a Motorcycle Strikes a Vehicle or Obstacle (Figure 3) in these conditions:

Relative Arrival Speed	From 25km/h (15mph) to 50km/h (31mph)
Impact Angle (Fig 3)	From 45° to 135°

Table 2: crash conditions

The above parameters are valid for both the rider and passenger.

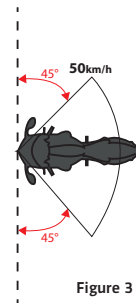


Figure 3

IMPORTANT! Figure 3 outlines the Envelope of Protection where the Tech-Air® 10 System is expected to inflate before the user's body contacts an obstacle. At speeds above 50km/h (31 mph) or outside the declared angle, the System is expected to deploy as well, however, outside the Envelope of Protection the System may not be fully inflated before there is contact between the obstacle and the user.

WARNING! Outside the conditions of Table 2, the System may not deploy before the first impact, but may deploy if the rider suddenly falls from the motorcycle after the impact, regardless of the impact angle.

3.1.2 STREET MODE: Envelope of Protection for Stationary Crashes

Only in Street Mode, the Tech-Air® 10 System is tested to activate in Crashes Where a Vehicle Strikes a Stationary Motorcycle (Figure 4) in these conditions:

Vehicle Arrival Speed	From 25km/h (15mph)
Impact Angle	From 45° to 135°, rear/front

The above parameters are valid for both the rider and passenger.

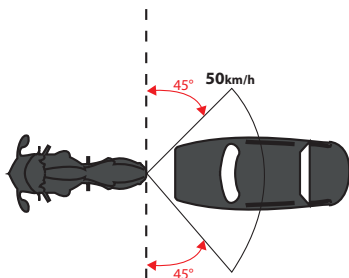


Figure 4

IMPORTANT! If the (relative) speed between the Motorcycle and the vehicle or obstacle during the impact is less than 25km/h (15 mph), the System may not deploy at the time of the collision/crash, but may deploy if the rider or passenger suddenly falls from the motorcycle after the impact.

3.1.3 STREET MODE: Envelope of Protection for Loss of Control Crashes

A Loss of Control Crash (Low-Side and High-Side Crashes) often results in the motorcycle falling over during riding, without necessarily being involved in a crash with other vehicles or obstacles. This commonly happens when tire grip on the roadway is lost during a turn or heavy braking.

WARNING! During Loss of Control Crashes, and in particular in Low-Side Crashes, the System may not deploy before the first impact with the ground, but may deploy during the following sliding phase, if present.

3.2 Envelope of Protection: RACE MODE

In Race Mode, the Tech-Air® 10 System is active only while riding above approximately 60 km/h (37mph) for at least 10 seconds. Before this activation or when the rider's speed drops steadily below such speed for at least 10 seconds, the System deactivates.

WARNING! Depending on the type of motorcycle, when the System is in Race Mode, the activation speed may vary, up to 100km/h. If the User stops or reduces the speed under this limit of 100km/h, for an extended period of time, the System will not activate in the case of an accident.

As summarized in Table 1, in Race Mode the envelope of protection includes:

- Crashes against Obstacles
- Low-Side Crashes
- High-Side Crashes

In Race Mode the Envelope of Protection does not include situations in which the rider's motorcycle whilst stationary is hit by another vehicle.

3.2.1 RACE MODE: Envelope of Protection for Crashes against Obstacles

In Race mode, Tech-Air® 10 System is expected to inflate and protect in Crashes where a Motorcycle Strikes a Vehicle or Obstacle in the same conditions as outlined in chapter 3.1.1 for the Street Mode.

WARNING! When Race Mode is selected, the System may not deploy before the first impact even inside the conditions of Table 2, but may deploy if the rider suddenly falls from the motorcycle after the impact, regardless of the impact angle.

3.2.2 RACE MODE: Envelope of Protection for Loss of Control Crashes

In Race mode, Tech-Air® 10 System is expected to inflate and protect in the same situations as outlined in chapter 3.1.3 for Street Mode

3.3 Envelopes of Protection: Limitation of use

There are some limitations to the deployment of Tech-Air® 10 System even inside the Envelopes of Protection, when, in general, the environmental conditions prevent the System from measuring acceleration and/or angular speed sufficiently to activate the System.

WARNING! If the crash conditions are outside the Envelope of Protection described above, the System may not deploy if the acceleration and angular speed measured by the System are not sufficient to activate the Tech-Air® 10 System.

WARNING! Always make sure to select the Street Mode when riding on roads. Use Race Mode only for closed race tracks.

WARNING! The user does not need to be involved in a crash for the System to deploy. For example, the System will deploy if the user falls while wearing the System, such as when dismounting from the motorcycle. These types of "non-riding" deployments are not failures of the System.

Motorcycle Type

The Tech-Air® 10 System can be utilized by riders or passengers on any type of motorcycle, including electric motorcycles.

Light Off-Road Riding

Only when Street Mode is selected, can the Tech-Air® 10 System be used off-road IN A LIMITED CAPACITY riding on gravel roads only. For the purpose of using the System off-road, the definition of a gravel road is:

- An unpaved road surfaced with gravel.
- Has a minimum width of 4m (13ft).
- Has no gradients +/-30%.
- Has no ruts, steps or holes greater than 50cm (19.5") in depth.



The Tech-Air® App permits the user to temporarily disable the System protection if, for instance, the user is undertaking heavy off-road riding. The System cannot be turned on again with the App, but only by means of opening and closing again the Activation Belt.

IMPORTANT! The chances of falling off a motorcycle are notably higher when riding off-road, particularly when a rider is inexperienced. Even when stopped, a fall may cause the System to deploy, leaving the user without protection until the System is returned and recharged (see Section 16).

4. Limitations of Use

WARNING! Since the System is sensitive to sudden body movements and shocks, the System is to be used ONLY for motorcycling within the conditions and limitations delineated above. The System is NOT for use in:

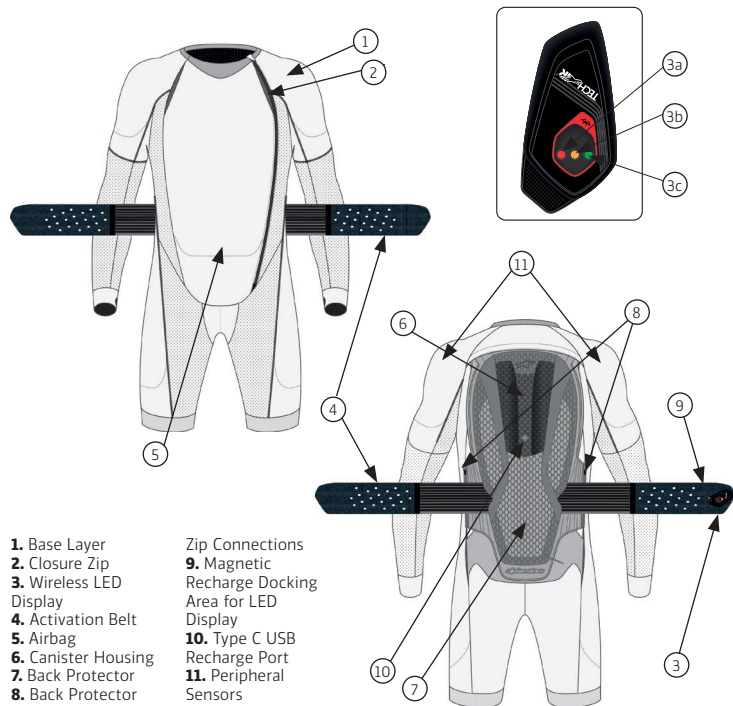
- a. Any racing or competitive events, unless the Race Mode is selected;
- b. Enduro, Motocross, or Supermoto events;
- c. Motorcycle stunts; or
- d. Side skidding, wheelies, etc.;
- e. ANY non-motorcycling activities.

WARNING! Due to shocks, movement and/or other input detected and/or received by the System while in use, although unlikely, the System may deploy even though there is no crash event.

5. System Overview

The diagrams below illustrate the different parts of the Tech-Air[®] 10 System. The numbered parts are used to guide you through this user manual.

TECH-AIR[®] 10 SYSTEM



- 1. Base Layer
- 2. Closure Zip
- 3. Wireless LED Display
- 4. Activation Belt
- 5. Airbag
- 6. Canister Housing
- 7. Back Protector
- 8. Back Protector
- 9. Magnetic Recharge Docking Area for LED Display
- 10. Type C USB Recharge Port
- 11. Peripheral Sensors

Figure 5

AIRBAG ELECTRONIC CONTROL UNIT

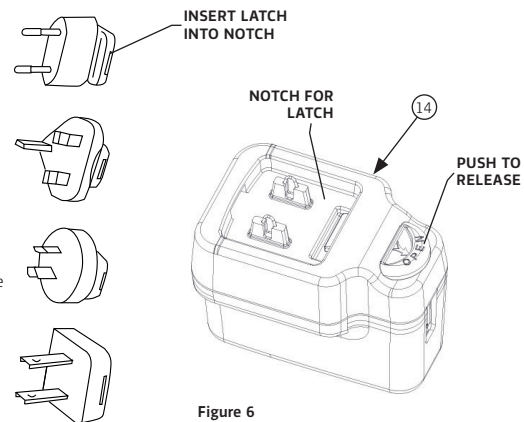
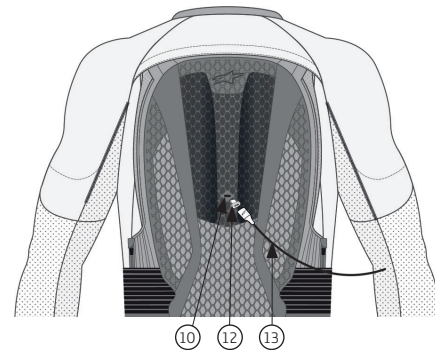


Figure 6

Wireless LED Display

The Tech-Air® 10 System is supplied with an LED Display (3) with wireless technology capable of communicating with the Airbag's Electronic Control Unit (ECU). The LED Display (3) indicates the System power on and the running operating mode. It also provides indication on the battery level of the Tech-Air® 10 System, as well as its own battery level. The Wireless LED Display (3) can be removed from its Docking Area (9) on the Activation Belt (4), and placed on the suit (where predisposed) or anywhere the rider prefers within a radius of approximately 1 meter. See Section 13, for the meaning of the LED light indications provided by the LED Display (3). To recharge, place the LED Display (3) on the Docking Area (9) present on the Activation Belt (4). Charging is carried out via magnetic recharge connection that activates when the LED Display (3) is paired with the Activation Belt (4). After the pairing, the LED Display (3) will show its battery level for 3 seconds and then will continue to function normally while in the charging state. The LED Display (3) recharges even when the Tech-Air® 10 System is not charging.



Figure 7

When fully charged, and removed from the Docking Area (9) on the Activation Belt (4), the battery duration of the LED Display (4) is approximately 20 hours. The condition of low battery of the LED Display (3) is indicated by blinking LEDs every 2 minutes (see Section 13).

IMPORTANT! The System is active even if the LED Display (3) is out of battery or not present on the System.

6. Sizing

The System is available in sizes ranging from XS to 3XL. Each size is characterized by a specific waist-to-shoulder length of the user (Figure 8). Table 1 below lists the sizes of the System, the waist-to-shoulder length and a suggested person height to assist with the selection.

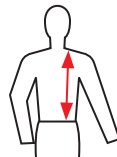


Figure 8

WARNING! The height range suggested is only for reference. Always check the correct waist-to-shoulder length before choosing the size of the System.

Table 1

Vest Size	Int. Size	User's Waist to Shoulder length	Suggested Height Range
XS	38-40	38 (14.9") to 43cm (16.9")	Up to 164cm (65.6")
S	42-44	41 (16.1") to 46cm (18.1")	Up to 175cm (68.9")
M	46-48	44 (17.3") to 48cm (18.9")	Up to 182cm (71.8")
L	50-52	46 (18.1") to 50cm (19.7")	Up to 190cm (74.8")
XL	54-56	46 (18.1") to 50cm (19.7")	Up to 190cm (74.8")
2XL	58-60	48 (18.9") to 53cm (20.9")	Up to 202cm (79.3")
3XL	62	48 (18.9") to 53cm (20.9")	Up to 202cm (79.3")

7. Health and Age Restrictions

IMPORTANT! In Europe the Pyrotechnic Directive EU 2013/29 prohibits the sale of pyrotechnic articles to anyone under the age of 18.

WARNING! The System must not be handled by children at any time.

WARNING! In the event of a crash, inflation of the System will cause sudden pressure across the back and torso. This can cause discomfort and/or pain and/or complications to users in poor health.

WARNING! The System must not be used by persons with a history of heart problems, or other diseases, conditions, afflictions or illnesses which may weaken the heart.

WARNING! The System must not be used by persons fitted with a pacemaker or other implanted electronic medical devices.

WARNING! The System must not be used by persons with neck or back problems.

WARNING! The System must not be used by women during pregnancy.

WARNING! The System must not be used by women with artificial breast implants.

WARNING! Any body piercings which coincide with the airbag coverage area should be removed before electing to use the System, as inflation of the airbag into and against the body piercings may cause discomfort and/or injury.

Allergy Advice

Persons with certain skin allergies to synthetic, rubber or plastic materials, should carefully monitor their skin each time the System is worn. If any irritation of the skin occurs, immediately stop wearing the System and seek medical advice and/or attention.

8. Compatible Outer Garment

The Tech-Air® 10 System must be used with a protective outer garment, as the System is not abrasion resistant. It is recommended that the user chooses a protective outer garment that, when worn over the Tech-Air® 10 System, does not cause discomfort and does not prevent the functioning or inflation of the System.

The System can be used with any protective garment that covers the upper body and the hips and that is designed for a motorcycle, provided that the garment has sufficient space to allow for the expansion of the airbag after the deployment.

Alpinestars offers many Tech-Air® compatible outer garments (Tech-Air® Compatible 1 and 2 piece suits, and the new generation of Tech-Air® Ready garments), specifically designed with stretch panels to accommodate the volume of the inflated airbag after deployment.

WARNING! Even if Tech-Air® Compatible and Tech-Air® Ready Garments are specifically designed according to certain standard sizing criteria to be used with Tech-Air® Systems, always try the outer garment together with the System in order to correctly select the appropriate fit accordingly to your body size. This will ensure that the outer garment has the necessary space to accommodate the System in its inflated state and that the System does not cause discomfort or prevent the correct functioning of the System when it expands.

Compatibility with any outer garment

If your outer garment is not Tech-Air® Compatible or Tech-Air® Ready, or in case of any doubts, follow the procedure described below to check if your outer garment is compatible with the System. Remember to ensure that you select an outer garment that has the proper fit and should any protectors be present on such outer garment, that the protectors are correctly positioned. If the outer garment you have chosen is made of leather or any different not-stretchable material, it must have stretch panels to accommodate the inflated airbag after deployment.

Upon inflation, the Tech-Air® 10 System's airbag covers shoulders, chest, hips and fullback area, accordingly, the System must not be used inside a leather suit or a 2-piece leather suit, if such leather suit or 2-piece leather suit has insufficient space to accommodate the inflation of the airbag or if too tight in the crotch area, in order to prevent discomfort in case of deployment. From a sizing guidelines perspective, it is important that you wear an outer garment that will accommodate for the inflation of the airbag.

Here are some guidelines on how to check if your outer garment is compatible with the Tech-Air® 10 System:

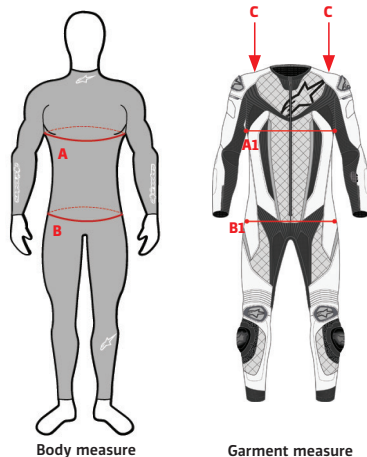


Figure 9

1. For the chest area, measure the circumference of the chest (A) and the garment width on the chest region (A1). The garment is compatible with Tech-Air® 10 System if $A1 > 0.5 \times A + 12$
2. For the hips area, be sure to have 2 cm of space all around the hips area (B).
3. For the Shoulders area (C), be sure that the suit can be raised up 4cm without creating any discomfort.

WARNING! The Tech-Air® 10 System must ALWAYS be used with a properly fitting outer garment to the user's appropriate body size. Use of the System inside an incorrectly sized outer garment, or with an outer garment that is not compliant with the size check recommendations above, may result in the System malfunctioning or failure and injury, including severe injury and/or death.

9. System Installation and Fitting

To use the Tech-Air® 10 System with an outer garment the user must go through the following steps:

1. Put on the System, close the Closure Zip (2) from bottom to the top.
2. Close the Activation Belt (4) taking care to correctly attach the hook-and-loop patches, as shown in Figure 10; the System automatically turns on as soon as the belt is attached with the hook-and-loop patches.
3. Once the Activation Belt (4) has been correctly closed, check the LED Display (3) to verify that the System has turned on and that has started correctly (see "Display Indications" in Section 13). In particular, the user must verify that, after the System starts-up, no system fault is present.



Figure 10

4. Once the regular functioning of the System is verified as indicated by the green (3a) or the yellow (3b) and green (3c) LEDs, the user may proceed to put on the outer garment taking care to ensure that the System remains well fitted underneath the outer garment, and that the System and the outer garment all fit perfectly in place. Particular care must be taken to the shoulder areas of the System which must be correctly positioned within the sleeves of the outer garment.

5. Once the System has been correctly installed, fasten the outer garment.

6. Once the Tech-Air® 10 System is switched on (see "Display Indications" in Section 13), the System is ready to deploy under the conditions explained in Section 3 above.

WARNING! It is imperative that the System is fitted correctly in order to provide the maximum potential protection in the event of an accident. Outer garments which are too small will cause severe discomfort when the System is inflated, and outer garments which are too large may not hold the System in place during a fall or accident. In case of doubt or questions regarding proper fit, please seek advice from an authorized Alpinestars' Dealer.

WARNING! Always ensure that the Activation Belt (4) is open when the Tech-Air® 10 System is not worn by the user; check the LED Display (3) to verify that the System is not turned on.

10. Transportation of Objects Inside the Outer Garment

When using an outer garment, particular consideration needs to be given to the objects which may be placed inside the pockets. For example:

- Sharp or pointed objects placed in pockets may pierce the airbag and will compromise the inflation of the airbag.
- Bulky objects may limit the airbag expansion after deployment, potentially reducing the effectiveness of the airbag and/or making the System feel much tighter when inflated, thereby increasing discomfort or causing distraction or injury.

IMPORTANT! Particular attention should also be paid to the contents of the outer garment's internal breast pocket. ONLY flat objects such as a wallet or a mobile phone should be stored within the outer garment's internal breast pocket.

WARNING! Provided that they fit comfortably inside the pockets, only blunt objects should be transported in an outer garment's pockets. Under NO circumstances should a user attempt to transport objects of ANY size or shape, including sharp or pointed objects, that will be tightly stuffed inside an outer garment's pockets, as such objects will cause injury to the user and/ or damage to the airbag when the System becomes inflated.



Tip: Users should note that the System has been tested to be safe when used in combination with backpacks (worn over the outer garment) loaded up to a maximum of 6kg (approximately 13 pounds) in weight.

11. Battery Charging

The Tech-Air® 10 System is supplied with a wall USB Charger (13), a Magnetic Charging Cable (12) and a Type C USB Adapter (11), for an easy and fast plug-in to the Type C USB Recharge Port (10).

The wall USB Charger (13) is supplied with 4 different plugs to adapt to the most common power sources.

IMPORTANT! Always connect the proper plug to the USB Charger (13), correctly fitting the power source available; always check that the plug is properly connected to the USB Charger (13) before connecting to the power source.

IMPORTANT! While charging, always be sure that the USB Charger (13) is connected to a power source sufficiently near to Tech-Air® 10 System, and be sure that the power source is always easily accessible.

Fully charge the System before the first use. To do this, connect the supplied Magnetic Charging Cable (12), or a standard Type C USB charging cable, to the Type C USB Port (10) present on the upper part of the Back Protector (7). Once on charge, the LED display (3) will display a different combination of solid and blinking LEDs, according to the description provided in "LED Indications" (See Section 13).

IMPORTANT! The battery will only recharge when the ambient temperature is between 0°C and 40°C (32°F – 104°F).

IMPORTANT! If the battery is not periodically charged, it may take longer to fully charge it.

WARNING! Do not leave the System unattended while charging the battery. Charge only in a dry location with a temperature range of 0°C to 40°C (32°F – 104°F).

Charging and Use Times

Approximately 4 hours are required to recharge a discharged battery with the supplied USB Charger (13), with exception of the first battery charge which may require a longer time (approx. 12 hours). A fully charged battery will provide approximately 24 hours of use. If limited time is available, charging the battery for approximately 1 hour will provide approximately 6 hours of use.



Tip: The System may be charged by connecting it to a computer, or to an alternative Micro USB Charger. However, if the current output is under 1 Ampere, the charging times will be longer than those stated above.

WARNING! In the case of a user using a charger different from that supplied with the System, for a safe operation always ensure that the used USB charger is compliant to EN 62368-1 as a class 1 (ES1) and class 1 (PS1) or 2 (PS2) power source, with a maximum output current of 2 Amperes.

WARNING! The System should be recharged as soon as possible when the red Battery Level LED light (3c) flashes, as this indicates a low battery level.

LED Display Charging

To charge the LED Display (3), position it on the Docking Area (9) present on the Activation Belt (4), taking care to ensure that the LED Display is well attached to the support. If properly connected, the LED Display (3) will show the indication of its battery level (see Section 13) in the first 3 seconds following the connection.

A fully charged LED Display (3) operates for at least 20 hours.

12. System Operation

a) Turning On “Race Mode” and “Street Mode”

To turn on the System, zip up the Zip Closure (2) and close the Activation Belt (4) taking care that the hook-and-loop patches are correctly attached. An internal sensor detects that the Activation Belt (4) is closed and the System will turn on. At this point, the user MUST check the LED Display (3) to verify that the System starts correctly. See “Display Indications” in Section 13 below for the meaning of the LED indicator lights.

WARNING! In order to activate the Tech-Air® 10 System, the Activation Belt (4) must be correctly closed taking care that the hook-and-loop patches are correctly attached.



Tip: If the System does not power on (no LED Indications illuminate) check that the Activation Belt (4) has been correctly closed. In addition, check that the Tech-Air® 10 battery has charge and that the LED Display (3) is correctly positioned on the Docking Area (9). In case the LED Display (3) is not connected to the Activation Belt (4), be sure that its battery is charged by positioning it on the Docking Area (9). If the problem persists, contact Tech-Air® Support (see Section 19 “Tech-Air® Support”).

WARNING! Always check that the appropriate Riding Mode is selected either by means of the Tech-Air® App and/or by checking the LED Display (3) Indications during the System start up.



The status of the Tech-Air® System can be checked by connecting the System using the Tech-Air® App. When the System Check has been successfully passed and the System is active, the Tech-Air® App will display the indication “System On.”



System inactivation can also be “forced” directly using the App. This functionality can be useful in case the user wants to turn off the airbag protection, for instance before undertaking some heavy off-road riding [please note that the System cannot be turned on again by means of the App. To turn on the System, open and close the Activation Belt (4)].

b) System Check and activation for “Race Mode”

When Race Mode is selected, after the completion of the System start up, the LED Display (3) will show solid green and yellow LED lights, meaning that the system will not deploy and is checking to see a valid riding speed. The yellow light will turn off only when the rider reaches 60 km/h (37 mph) and only then, the System will be ready to deploy. If the rider stops or the speed drops under the 60 km/h (37 mph) for an extended period of time, the System will return in the System Check phase (indicated by the solid yellow and green LEDs – see Section 13 below).

WARNING! In Race Mode, the Tech-Air® 10 System is active only while riding above approximately 60 km/h (37mph) for at least 10 seconds. Before this activation or when the rider's speed drops steadily below such speed for at least 10 seconds, the System deactivates.

WARNING! Depending on the type of motorcycle, when the System is in Race Mode, the activation speed may vary, up to 100km/h. If the User stops or reduces the speed under this limit of 100km/h, for an extended period of time, the System will not activate in the case of an accident.

c) System Check and activation for “Street Mode”

After the System is correctly turned on, if the Street Mode is selected, the System starts performing the System Check as in the Race Mode. This operation is indicated by the solid yellow (3b) and green (3a) LED indicator lights. However, for Street Mode the System doesn't look to the riding speed, but checks if the System is correctly worn, since in this mode the System must be active even if the speed is null. As in Race Mode, during the System Check, the System will not deploy. This phase may take several seconds.

Whilst the System Check is being performed, the System is looking for the user's body movements to conduct one or all of the following activities:

- Walking (including up and down stairs)
- Mounting the motorcycle
- Riding the motorcycle.

Note that the following activities are unlikely to pass the System Check:

- Zipping up the jacket without wearing it
- Standing still
- Sitting down – INCLUDING sitting on the motorcycle with the engine at idle.

If the System Check is passed, a solid green (3a) LED indicator light will illuminate.

WARNING! In Street Mode, the Tech-Air® 10 System is active only after having started riding for approximately 10 seconds. Once activated, the System remains active even if the rider stops, and until the System is manually switched off, to offer protection also in a stationary condition when the motorcycle is hit by a vehicle as described in the Envelope of Protection conditions (see Section 3).

WARNING! In Street Mode, you MUST ALWAYS check the LED Display (3) after the System Check to confirm you have the solid green (3a) LED illuminated before starting to ride/use the Tech-Air® 10 System. The System will not deploy if a solid green LED (3a) is not present on the LED Display (3).

d) Turning Off

Turn the System off by opening the Activation Belt (4). The System will shut down after approximately 1 second. Confirm that the System is off by checking that the LED Display (3) is recharging or off.

To keep the System turned off, keep the Activation Belt (4) open as shown in Figure 11. Always keep the System in this condition while stored, transported or shipped.

WARNING! ALWAYS turn the System off [by opening the Activation Belt (4)] when you are not riding a motorcycle, even if you continue to wear the System. Although the System has been evaluated for a number of non-riding activities, keeping the System turned on and/or active increases the possibility of an unwanted deployment and drains the battery. So as a rule, when not riding, always open the Activation Belt.

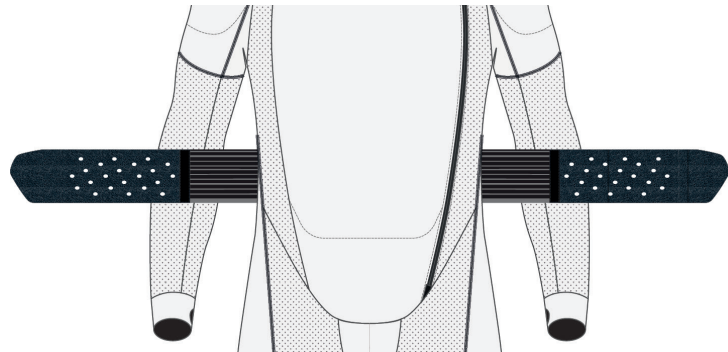


Figure 11

WARNING! When not in use and being stored, transported or shipped, the System must be turned off by leaving the Activation Belt (4) open. This prevents the System from accidentally turning on and inadvertently deploying, and it will preserve battery and battery life.

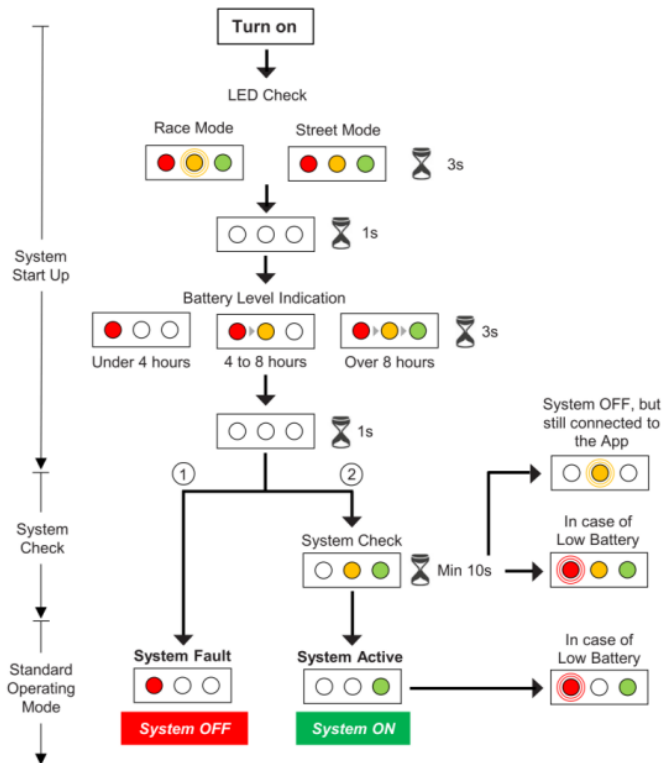
IMPORTANT! Even when the System Check has successfully been completed, the System will automatically turn off should the System detect:

- a rider position incompatible with the normal wearing of the System or
 - no movements
- for more than 10 minutes. When either of the above situations occur, open and close the Activation Belt (4) to restart the System and perform a new System Check.

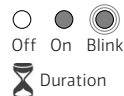
13. LED Display Indications

The LED Display (3) has three coloured LEDs which are used to indicate the status of the System.

LED Indications During Normal Use



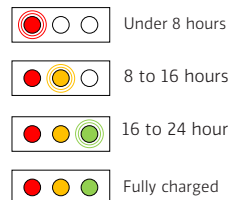
Glossary



- ① System Fault: Operating Mode that verifies in case of "Empty Gas Canister" or "System Error" (see Section 18, "Troubleshooting")
- ② System Active: Operating Mode that verifies in case the System Check is successfully passed (see Section 12, "System Operation")

LED Indications During Recharge

Battery Recharge



Glossary



IMPORTANT! The solid green LED (3a) indicates that the System is on.

WARNING! Any LED indication different from the solid green LED (3a) indicates that the System is not active and accordingly will NOT deploy in a crash.

Indications during battery charging

When the Tech-Air@ 10 is charging and the LED Display is correctly placed in the Docking Area (9) of the Activation Belt (4), the LED Display (3) will show a continuous blinking as indicated in the above diagram LED Indications during Recharge. When the battery is fully charged, all 3 LEDs will remain illuminated.

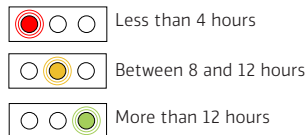
In the case the LED Display (3) is removed from the Docking Area (9), LED Display (3) will show the blinking as indicated above only for 5 seconds and then it will automatically switch off in order to save the battery.

When the Tech-Air@ 10 is charging, the LED Display (3) indicates the battery level of the System, disregarding the status of charge of the LED Display (3), with LED lights blinking as indicated above.

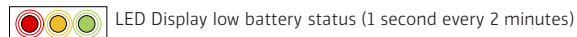
LED Display Battery Level Indication

The LED Display (3) is powered by an internal battery. Every time it is positioned on the Docking Area (9), the internal battery is recharged, disregarding the fact that the entire System is recharging through the Recharge Port (10) or not.

After the connection of the LED Display (3) to the Docking Area (9), the Display will show its battery level for 3 seconds, by blinking the LED light according to the figure below:



When the LED Display (3) battery is low (less than 4 hours) the LED Display (3) will indicate the low battery status by blinking all the three LED lights (3a), (3b) and (3c) for 1 second, every 2 minutes.



14. Cleaning, Storage and Transportation

Back Protector and Airbag

Use only a cloth dampened with water to clean the Back Protector (7) and the Airbag (5) (fabric and plastic parts). Solvents or chemical cleaners must not be used, as they may compromise the integrity of the System.

WARNING! Under NO circumstances should the back protector and the airbag be washed in a washing machine, submerged in water, tumble dried or ironed. This may cause permanent damage to the System and cause malfunction.

Base Layer Cleaning

The Base Layer (1) can be washed according to the instructions reported on the care label. Before washing, remove the Back Protector (7) and the Airbag (5) from the Base Layer (1), unzip the Back Protector Zip Connections (8) and detach the hook-and-loop patches on the neck. Remove the Peripheral Sensors (11) positioned on the back of the shoulders by opening the hook-and-loop pocket and removing the component from its seat. Before removing the Airbag (5) from the Base Layer's (1) pockets, detach the clips inside each pocket as detailed in Figure 12.

WARNING! Detach the Airbag (5) only to wash the Base Layer (1). The Airbag (5) is a very critical safety part of Tech-Air® 10 System. Always use extreme caution when handling the Airbag (5). Any scratches, holes, or damage to the Airbag (5) will lead to the System's malfunction, accordingly if there is any such damage to the Airbag (5) do not use the System and send the System to Alpinestars or an authorized Alpinestars Tech-Air® Service Centre for service.

After cleaning the Base Layer (1), proceed with the correct reassembly of the Airbag (5) on the Base Layer (1) following the instructions below and Figure 12:

1. Attach the hook-and-loop patch present at the upper part of the Airbag (5) with the corresponding patch present on the Base Layer (1)
2. Close both the Back Protector Zip Connections (8)
3. Reposition the Peripheral Sensors (11) on the back of the shoulders. To do this, access the sensor pocket through the appropriate opening, open the hook-and-loop pocket, place the sensor in its seat and close the hook-and-loop pocket so that the sensor is fixed. Note: the direction in which the sensor is positioned at the point of its seat is not important, but it is essential that the sensors coming out on the right and left side of the Back Protector (7) are placed, respectively, on the right and left shoulder, and not vice versa.
4. Insert each protective area of the Airbag (5) inside the corresponding pocket taking care to position the Airbag (5) correctly (avoiding twisting or folds) and to anchor the Airbag (5) using all the clips available on the Base Layer (1). There are 9 clips in total and are divided as follows: 3 clips on the Left Shoulder (LS) area, 2 clips on the Right Shoulder (RS) area, 2 clips for the Chest (C) area, 1 clip for the Left Hip (LH) area and 1 clip for the Right Hip (RH) area.

IMPORTANT! Particular attention must be paid during the insertion of the region of the Airbag (5) that protect the chest area to avoid twisting the narrower region passing on the right shoulder. The obstruction of the canal could compromise the correct inflation and therefore the protection of the Airbag (5) in the chest area (see Figure 13).

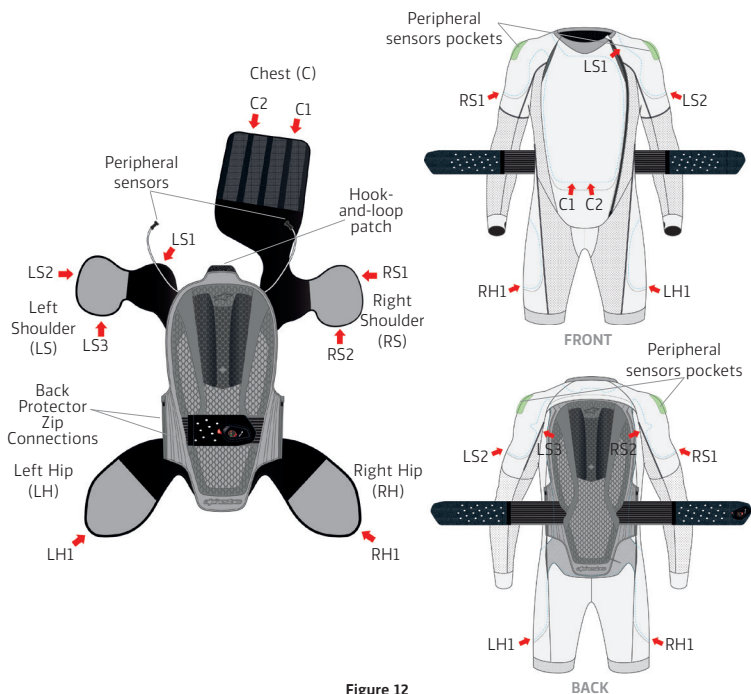


Figure 12

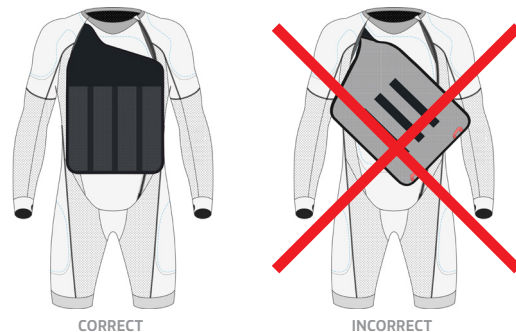


Figure 13

WARNING! Always check that all the connection clips are properly closed after the reassembly of the Airbag (5) on the Base Layer (1).

Storage

When not in use, it is recommended that users store the System in its original packaging. It may be stored flat provided that no heavy or sharp objects are placed on top of it. The System can also be stored hung up on a hanger. The System should always be stored in a cool, dry place, out of direct sunlight.

The battery of the System slowly self-discharges, even if the System is not turned on, especially if the System is stored in a warm environment. It is thus recommended that even whilst in storage, the System be periodically recharged (at least once every 18 months) to prevent battery drainage and shortening of the battery life.

IMPORTANT! If the battery becomes fully drained, the System may require a longer time to recharge. It is thus recommended that the System be periodically recharged as indicated.

WARNING! Do NOT leave the System in direct sunlight inside a closed car, or otherwise exposed to high temperatures. High temperatures will damage the battery and possibly the electronic components of the unit.

WARNING! Zipping up the Base Layer (1) and closing the Activation Belt (4) will cause the System to turn on. To prevent this, it is essential that the Activation Belt (4) is opened, in order to prevent accidental activations of the System. Failure to do so will cause the System to turn on, which will cause the battery to drain. When storing the System remember to keep the Activation Belt (4) open and check that there are no indicator lights illuminated on the LED Display (3).

WARNING! The System's storage temperature must be between -20°C and +60°C (-4°F to 140°F). Exposure to a temperature lower than -20°C (-4°F) may cause permanent damage to the battery.

Transportation

Users should be aware that the Tech-Air® 10 is classified as a Life-Saving, self-inflating Jacket, UN class 2990; Under the European pyrotechnic Directive (2013/29/EC) the Tech-Air® 10 System is certified safe for transportation, including by air. Detailed instructions for the transportation can be found in the Safety Data Sheet (SDS) related to the Tech-Air® 10 System available in the Documentation Section of the TechAir® App.

When transporting the System by air, users are strongly recommended to download and print a copy of the Safety Data Sheet (SDS) in case they are questioned by airport staff. See also Section 17 for the PIS download from the Tech-Air® App.

Note: Not all countries worldwide permit the import of pyrotechnic devices. Prior to traveling, users should check with the appropriate authorities of countries through which and to which they will be traveling to determine if the System will be permitted entry or not.



The Safety Data Sheet (SDS) can be downloaded using the Tech-Air® App and found in the Documentation section.

15. Maintenance, Servicing, Lifespan and Disposal

Garments with electronically activated airbags are critical safety systems which must be maintained in good working order to ensure their correct function. If not, they may not function properly or at all.

Maintenance

Prior to each use, the user should conduct a check of the System, looking for any signs of wear (loose threads, holes, marks) or damage. If any signs of wear are found, the System should be inspected further by an authorized Alpinestars Tech-Air® Service Centre.

Servicing

Alpinestars recommends that the System be routinely inspected at least every 2 years or after 500 hours of functioning by Alpinestars or an authorized Alpinestars Tech-Air® Service Centre. During the inspection service, the airbag and the unit's components will be examined. Inspection can be requested directly at an Alpinestars Tech-Air® Dealer. The following work is undertaken as part of the routine service:

- All components are removed from the System and the Base Layer is washed.
- The diagnostics of the electronic unit are checked (and firmware upgraded, if applicable).
- The airbag is inspected for any sign of wear and/or damage.
- The System is reassembled into the base layer and checked functionally.



Tip: Two years or 500 hours of functioning is the maximum recommended period between inspections.

WARNING! If no service or recharge operation has been conducted after two years or 500 hours of functioning from the purchase date, there is the possibility that the System will not function inside the Envelope of Protection.

WARNING! There are NO user serviceable parts inside the System. Under no circumstances should users attempt to open, service, disassemble or modify the System. Do not remove or change the internal battery. Any and all work performed on the System must be done by Alpinestars or an authorized Alpinestars' Tech-Air® Service Centre. Severe injury or damage may result otherwise.

Lifespan and disposal

The materials and components used by Alpinestars in the System are selected to maximize durability.

Properly caring for, including regularly servicing and updating your System, will help ensure the longest possible lifespan.

Notwithstanding in the long run the System, similar to any product, has a limited lifespan as it is subject to natural degradation and breakdown of materials and/or components through factors such as use, wear and tear, improper care for your System, incorrect storage and/or common environmental conditions – all of which affects the practical lifespan of products.

For safety issues and to ensure that the above factors have not reduced the integrity or product performance levels, Alpinestars strongly recommend replacing your System 10 years from date of first worn.

As written in this manual, always before any use, check the System for any damage to any part of the product. Regardless of the age of the product, do not use any product if you notice any damage.

Disposal of the System at the end of life span



Deployed System

IMPORTANT! The System contains electronic components, accordingly, at the end of its working life, the System must be disposed of following the European Directive 2012/19/EU requirements. The symbol of the crossed bin displayed on the System indicates the electronic parts of the System which, at the end of its life span, must be separately disposed from other waste, for appropriate waste processing and recycling. The user must therefore take the Electronic Control Unit (8), Magnetic Cable (12) and all other electronic parts marked with the crossed bin, to those sites assigned for the disposal of electrical and electronic waste or return the System to an Alpinestars Tech-Air® Dealer for disposal in accordance with the local waste requirements.

An adequate waste disposal System allows for a correct and environmentally-friendly recycling, processing and disposal of the System itself, thus avoiding the dispersion of dangerous substances and any negative effects on the environment and health and favouring the reuse and/or recycle of the materials from which the System is made of. The unauthorized disposal of the System on behalf of the user, entails application of fines pursuant to the current law. We urge you to check the current legislation and the measures adopted by the public services operating in your territory.



Tip: A deployed airbag can be confirmed by turning on the System and looking for the red LED (3c) on the LED Display (3) (See Section 13) or checking the System status using the Tech-Air® App (See Section 17).

Undepleted System

WARNING! An undepleted System still contains live pyrotechnic charges and thus must NOT be disposed of in household waste or incinerated.

An undepleted System must be returned to an Alpinestars' Tech-Air® Dealer for subsequent return to Alpinestars who will handle the disposal. This service is free of charge.

16. Actions in the Event of an Accident

Whenever the System deploys, a service must be undertaken by an authorized Alpinestars Tech-Air® Service Centre that will check the status of the System and consequently advise on the type of service needed.

The Tech-Air® 10 System features an airbag that is certified for up to three inflations. However, after each deployment, when the System is received for service, the authorized Alpinestars Tech-Air® Service Centre will perform an inflation test on the airbag to check if the airbag has been damaged during the deployment.

- a. If such inflation test is passed, confirming that the airbag was not damaged during the deployment, the service will involve only the replacement of the gas inflators.
- b. If such inflation test is not passed, the airbag was damaged during the deployment and, accordingly, the System will undergo the full service that will involve the replacement of the gas inflators and the airbag.

At the third deployment, the System will mandatorily undergo a full service as indicated in point b. above, with the gas inflators and airbag being replaced.

IMPORTANT! The Tech-Air® 10 Electronic Control Unit records the number of deployments. After the third deployment, the System will permanently indicate a System Fault (displaying a steady red light on the LED Display (3)). The System will remain locked until a full service is performed by an authorized Alpinestars Tech-Air® Service Centre.



The Tech-Air® App displays a warning indicating that the Airbag (5) needs to be replaced at the next deployment. In addition, the App displays the warning when, after the System deployment, it is necessary to replace the Airbag (5).

In case of deployment, in a situation where the user believes the System should not have deployed, the System should be returned to an Alpinestars Tech-Air® Dealer along with a detailed report of the event (including photos, if possible).

Accident WITHOUT Deployment

In the case of minor, low energy and/or low speed accidents, such as those involving speeds below those described in Section 3 ("Tech-Air® Envelope of Protection"), it is likely that the System will not deploy. Nonetheless, a thorough inspection of the System should be made to ensure that there is no significant damage (tears, holes, etc.) which could compromise the functioning of the System, as per the maintenance check outlined in Section 15.

In case of situations where the user believes that the System should have deployed, feedback can be sent to Alpinestars through the Tech-Air® App and/or given to Alpinestars directly by contacting Tech-Air® Support. If the System is returned to an authorized Alpinestars Tech-Air® Service Centre for an inspection, a detailed description of the event (including photos where possible) must be included.



The user can notify any feedback related to deployment events to Alpinestars through Tech-Air® App and/or by contacting Tech-Air® Support (see Section 19).

17. Tech-Air® App

The Tech-Air® 10 System is equipped with a Bluetooth Low Energy (BLE) device which allows users to directly connect their mobile phone to the System, in order to get certain information from the System and have access to several functions, such as:

- monitoring the status of the System;
- verifying the installed software version and, eventually, performing the latest software updates;
- sending feedback related to the System and its performance;

WARNING! Alpinestars is not responsible for reporting possible accidents or for providing any assistance to those involved. User agrees that Alpinestars has no duty or responsibility to report any accidents or the possibility of any accidents based on the data transmitted to Alpinestars. Users assumes the risk of any accidents or injuries whether or not data is being transmitted to Alpinestars.

The Tech-Air® App is available for download in the Android Play Store and in the Apple Store.

IMPORTANT! The Tech-Air® App is not necessary for the Tech-Air® 10 System to work as an impact protector. The Tech-Air® 10 System will protect the user as described in Sections 2 to 13, even if Tech-Air® App is not installed or not running on the user's mobile phone. The Tech-Air® 10 System does not need to be connected to the Tech-Air® App to work.

User Registration

To have access to the Tech-Air® App, the user must log in or, if not, sign up. In order to configure the Tech-Air® App, the user must turn on Bluetooth within the user's mobile phone settings.

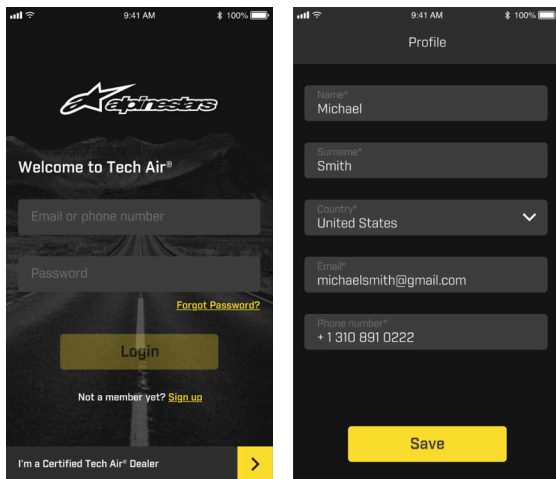


Figure 14

Pair the System

Once the Bluetooth is turned on, the App will automatically attempt to establish a connection with an available Tech-Air® System, if already paired with the System. Should no Tech-Air® System have been already paired to the App, the System can be easily paired to the App by scanning the QR code present on the tag found on the System' s Activation Belt (4). Once the System has been correctly paired with the App, it will be possible to visualize the overall status of the System, such as battery level and installed software, and users will be able to enable or disable some of the functions provided by the App.

When the Tech-Air® System turns off, the Bluetooth® connection will stay active to allow for the dialogue between the System and the mobile phone, provided that the System is in the vicinity. In this case, the active connection with the App is indicated by the blinking yellow light (3b) on

the LED Display (3) and the User can interact with the App. The LED Display (3) will definitively turn off when the System doesn't detect any connection with the App.

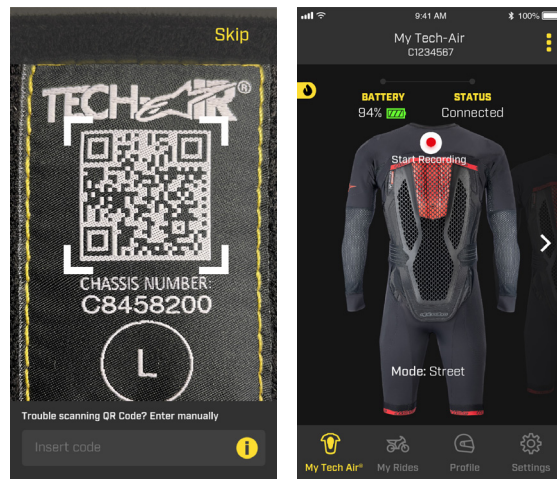


Figure 15

Monitoring the System Status

The App provides information about the actual operating mode of the System, verifying if the System is functioning correctly or not. The indication "System On" displayed on the screen indicates that the System Check has been successfully passed and that the System is active.

While riding, "System On" mode is active and accordingly, for safety reasons, the user cannot access most of the App functions. In case the System needs to be disabled by the user, such as during a heavy off-road riding session, the System can be turned off using the slide icon on the App (as shown in Figure 16). To reactivate, open and close the Activation Belt (4). In case of deployment, the App will show the relevant status with the wording "SYSTEM DEPLOYED" as depicted in Figure 16.

WARNING! On every such notification the System must be sent to an authorized Alpinestars Tech-Air® Service Centre for a service in order to replace the gas inflators and, eventually, the Airbag is as described in Section 16. above.

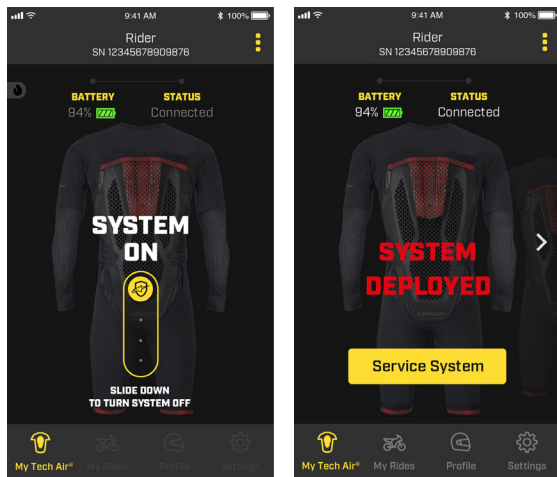


Figure 16

As indicated in Section 16 above, the System's airbag is certified for up to 3 deployments, after which the airbag needs to be changed during the servicing. The App will inform the user when there is one deployment left. Once the airbag has deployed for the third time, the airbag will be replaced together with the gas inflators during the servicing of the System.

Enjoy the Ride with MyRide

The Tech-Air® App contains the MyRide function which displays information about the ride, such as duration, distance and route related to the ride. MyRide can also be used to send feedback regarding any events that occurred during the use of the System, during a specific ride.

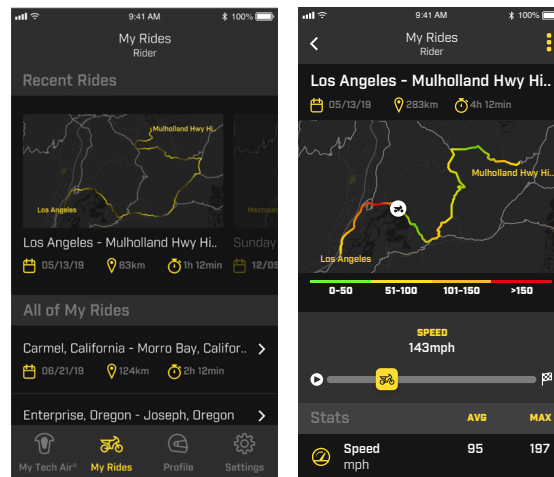


Figure 17

18. Troubleshooting

Problem	Possible Cause	Possible Solutions
LED Display (3) does not switch on when Activation Belt (4) is closed	System Battery fully discharged	Recharge battery (see Section 11) and check the correct LED behaviour during the recharge. If the battery is very low, the system may not activate the led display, until a proper charge level has been reached.
	LED Display (3) Battery fully discharged	Place the LED Display (3) on the Docking Area (9) and check the LED Display battery level (see Section 13). If the battery is very low, the system may not activate the led display, until a proper charge level has been reached.
	Activation Belt (4) not correctly positioned on the hook-and-loop patch	Check the correct positioning of the Activation Belt (4).
SOLID red LED (3c) on the LED Display (3)	Gas inflators empty and/or Airbag must be replaced	After a deployment, the gas inflators must be replaced. Until such replacing, the System will not work even though the battery is charged and the LED Display (3) will show the red light until the gas inflators are replaced. If the same airbag has deployed more than 3 times, the red LED (3c) will indicate a System fault even after the replacement of the gas inflators. In this case, the airbag itself must be replaced and the System reactivated by an Authorized Tech-Air® Service Centre.
	System Error	If gas inflators are not empty (double check this using the TechAir® App), The System may have an internal error. Contact an Authorized Alpinestars Tech-Air® Service Centre to check the System.

Flashing red LED (3c), while green LED is on (3a)	Battery Low	Remaining battery level is lower than 4 hours. Recharge the battery as soon as possible.
LED Display LEDs Blink for a second	LED Display Battery Low (less than 4 hours remaining)	Position the LED Display (3) on the Docking Area (9) to recharge. Check the proper connection verifying that the LED Display (3) shows its battery level.
SOLID yellow LED (3b), while green LED is on (3a)	Tech-Air® 10 is performing the System Check: speed or wearing detection, respectively, in case of Race or Street Mode.	Normal operation to enter in the protecting airbag mode.

19. Tech-Air® Support

In case of questions or should users need further information, they may contact the Tech-Air® Dealer where they purchased the System or Alpinestars directly:

E-mail: techairsupport@alpinestars.com

Tel: +39 0423 5286 (asking for Tech-Air® Support)

20. Certification Information

The Tech-Air® 10 System is manufactured by:

Alpinestars SpA

5, Viale Fermi – Asolo (TV) 31011 Italy

And it is covered by a number of certifications.

Personal Protective Equipment

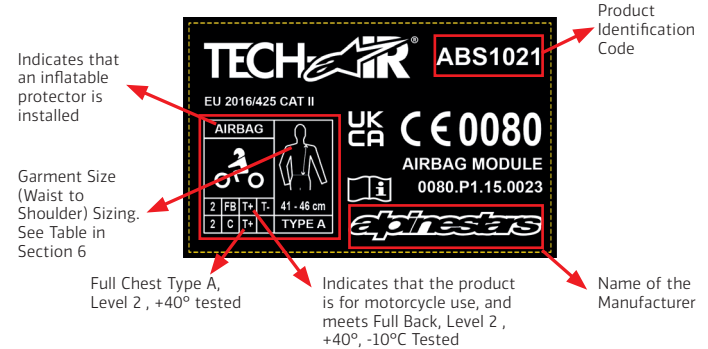
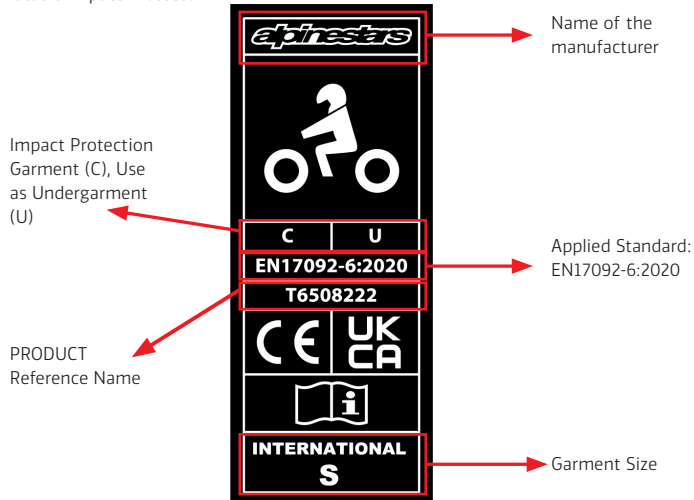
The Tech-Air® 10 System is considered Category 2 Personal Protective Equipment under EU Regulation 2016/425. As an impact protector garment, the standard 17092-6 has been applied; as a motorcyclist inflatable protector, the standard (EN1621-4:2013) has been used in all applicable parts only, since Tech-Air® 10 is an electronically triggered System. Finally, as a passive back protector the standard EN1621-2:2014 has been applied.

The examination was conducted by:

- Notified Body #0598 SGS Fimko Oy, Takomotie 8, 00380, Helsinki, Finland

The explanation of the product markings are as follows:

- Protective garments for Motorcycle Riders (EN 17092 – 6: 2020)
- Inflatable Impact Protector



Protection Level

The following table summarizes and explains the performance level reported on the product marking as an inflatable impact protector:

Tested Area	Standard Used for tests	Temperature	Force Transmitted	Level
				Level 1 requirements: average value ≤ 4.5kN; No impact above 6kN Level 2 requirements: average value ≤ 2.5kN; No impacts above 3kN
Full Back	1621-4:2013	20°, -10°, 40°	Average 1.42kN Peak 1.96kN	Level 2
Full Chest	1621-4:2013	20°, 40°	Average 1.71kN Peak 1.9kN	Level 2

Passive Back Protector

The Tech-Air® 10 System, is equipped with a passive back protector that provides protection to the back area even if the System should not deploy. This back protector is certified as a Personal Protective Equipment Category 2, Level 1, under the Regulation EU 2016/425, according to the 1621-2:2014 standard. The examination was conducted by:

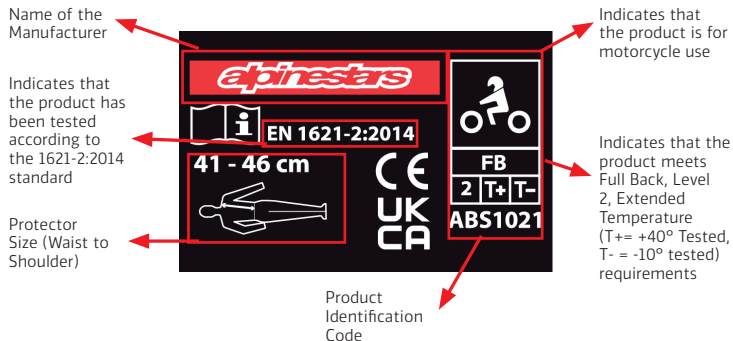
The UE examination was conducted by:

- Notified Body #0598 SGS Fimko Oy, Takomotie 8, 00380, Helsinki, Finland

The UKCA examination was conducted by:

- Approved Body #0120 SGS United Kingdom Limited, Rossmore Business Park, Ellesmere Port, South Wirral, Cheshire, CH65 3EN, UK

For this kind of certification, the product markings are as follows:



Protection Level

The following table summarizes and explains the performance level reported on the product marking as a passive impact protector:

Tested Area	Standard Used for tests	Temperature	Force Transmitted	Level
Full Back	1621-2:2014	20°, -10°, 40°	Average 6.49kN Peak 9.85kN	Level 2

EU DECLARATION OF CONFORMITY & UKCA DECLARATION OF CONFORMITY

The EU Declaration of Conformity of this PPE can be downloaded at:

eudeclaration.alpinestars.com

The UK Declaration of Conformity of this PPE can be downloaded at:

ukdeclaration.alpinestars.com

Pyrotechnic Articles

The Tech-Air® 10 System contains two pyrotechnically activated cold gas inflators, and as such, the whole item is considered as an "AIRBAG MODULE" category P1 under EU Directive 2013/29. As such a EU Type Examination (Module B) has been conducted on the design of the System, and an EU Type Examination and Audit (Module E) has been conducted on the assembly of the System.

The EU Type Examination and Audit have been conducted by Notified Body #0080, Ineris, Parc Technologique ALATA BP2, Verneuil-en-Halatte, 60550, France.

Electromagnetic Stability

The Electronic Control Unit of the Tech-Air® 10 System has been tested according to different regulations for electronic and radio devices.

FCC compliance Statement:

The System 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 to 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.

WARNING! Changes or modifications not expressly approved by Alpinestars could void the User's authority to operate the equipment. (Part. 15.21).

FCC ID: YCP – STM32WB5M001

Canadian compliance Statement:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to RSS-210 of the IC 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 to 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.

WARNING! Changes or modifications not expressly approved by the party responsible for compliance could void the User's authority to operate the equipment. (RSS-210)

IC: 8976A-STM32WB5M01

EU compliance Statement:

The Tech-Air® 10 System contains a Bluetooth Low Energy Radio Module, with the following characteristics:

Frequency Band	2402-2480 Mhz
Rated Output Power	0.00313 Watts

Alpinestars SpA hereby declares that this wireless device is in compliance with the Directive 2014/53/EU. A copy of the EU Declaration of Conformity is available at: eudeclaration.alpinestars.com

21. Important Information for Users WARNING!

The Tech-Air® 10 System is an active safety protection system that is different from normal motorcycle clothing and as a result requires additional care and precautions. You must read and understand this user manual fully before using the System, as well as pay close attention to the following warnings:

- The System can only provide a limited amount of protection in an accident or event. As such, there always remains a possibility that a serious or fatal injury could occur even when using the System.
- Certain types of movement could be interpreted as a crash by the System and cause a deployment though no crash has occurred.
- The System has been designed to deploy in crashes above a minimum energy threshold. This is to prevent wasteful use of the charges in situations where protection typically would not be needed. Thus, in low speed/low energy crashes it is likely and reasonable that the System will not deploy.
- The System contains no parts which may be serviced by final customers, and accordingly must be serviced and recharged ONLY by approved Alpinestars Service Personnel.
- Do not attempt to make any modifications or adjustments to the electronics and to the System.
- The System must only be used for motorcycle street riding and limited off-road use when in Street Mode, and for close race track use when in Race Mode. This System is NOT to be used for any other purpose, motorcycle-related or otherwise. This includes: hard off-road use, Enduro, Motocross, Supercross, performing stunts and any type of non-motorcycling activity. Wearing the System during any non-intended activity (with the unit switched on) may cause the System to deploy and cause injury or death to you or others and may cause damage to property. Alpinestars does not accept any claims for malfunctions of the System used outside the environments for which its use is intended.
- When not in use and being stored, transported, or shipped the System must be turned off by keeping the Activation Belt (4) open.