

# USER'S GUIDE



**TECH-AIR™**  
RACE\_AIRBAG SYSTEM

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





**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 used and fitted. 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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## 1. Introduction

The Tech-Air™ Race Airbag Vest is an active safety system optimized for use on the racetrack.

The Tech-Air™ Race Airbag Vest system also permits the ability to change the software running on the electronic unit to make it suitable for use on public roads (See section 18).

In the event of an accident or other triggering event, the airbag system provides upper body protection to the user. In addition, provided that such accident did not damage the system, the Dual Charge concept, provides upper body protection in a second accident without requiring the airbag to be returned to Alpinestars for recharge.

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



*Tip: Provides useful advice regarding the system.*

**IMPORTANT!** Provides important information regarding the limitations of the system.

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

The Tech-Air™ Race Airbag Vest is comprised of two components

1. The Alpinestars Tech- Air™ Race airbag Vest ("airbag Vest") and
2. An Alpinestars suit/jacket ("Alpinestars' Compatible Suit/Jacket") compatible with and to be used with the airbag vest. The airbag vest and the Alpinestars' Compatible Suit/Jacket are sold separately.

**WARNING! The airbag system, including its components (the airbag vest and the Alpinestars' Compatible Suit/Jacket), are technically 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 airbag vest MUST be used with an Alpinestars' Compatible Suit/Jacket.**

**WARNING! Use of an Alpinestars' Compatible Suit/Jacket without the airbag vest will provide the user with NO airbag protection.**

**WARNING! It is essential to read this manual carefully, understand it completely and to follow the advice and warnings. If you have any questions regarding the equipment contact Tech Air™ Support (Section 21).**

## 2. Principles of Operation

The Tech-Air™ Race airbag Vest contains an airbag control unit (with built-in sensor) integrated into the back protector, and two external sensors positioned on the shoulders (Figure 1). These three 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 airbag will inflate. This may occur when the rider loses control, falls from or (in the case of a high side) is launched from the motorcycle.

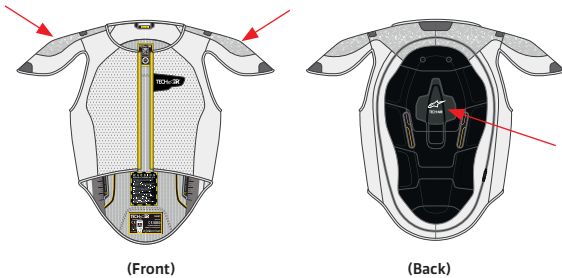


Figure 1 – Sensor Locations

## 3. Activation and non activation conditions

The Tech-Air™ Race airbag system offers protection to riders in the event of an accident; notwithstanding, like any other product, there are limitations to the protection that it can provide. NO PRODUCT CAN PROVIDE COMPLETE PROTECTION FROM INJURY, DEATH, OR DAMAGE TO PERSONS OR PROPERTY IN THE EVENT OF A FALL, ACCIDENT, COLLISION, IMPACT, LOSS OR CONTROL OR OTHER EVENT.

In general, there are three basic factors that determine whether an airbag system will provide protection to a user:

- (a) Whether the forces experienced by the user during a crash occur within an area covered by the airbag; and
- (b) Whether the airbag deploys during the event, and if so, whether it is fully inflated before the user hits the ground or collides with an obstacle.
- (c) Whether the airbag deploys before the user collides with parts or accessories of their own motorcycle. For example, the windscreen.

The deployment time consists of the time for the sensors to detect the event together with the time it takes to fill the airbag fully with gas, which is about 45 milliseconds ("ms"). The time available to deploy the airbag is dependent on the accident.

The Tech-Air™ Race airbag system provides impact protection for those areas of airbag coverage shown in Figure 2.

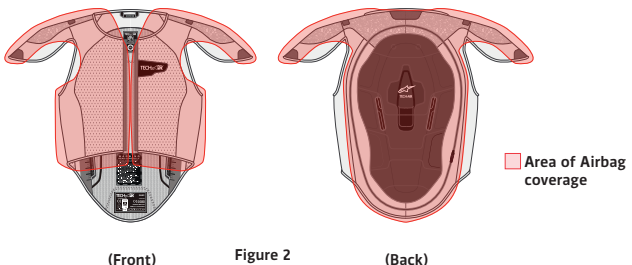


Figure 2

**WARNING! The Tech-Air™ Race airbag system provides only limited protection against forces experienced at the areas of airbag coverage depicted in Figure 2. No guarantee is given that the Tech-Air™ Race airbag system will prevent injuries (including severe or fatal injuries) inside and/or outside the covered/protected areas.**

**WARNING! The protective performance of the airbag is only warranted in the FIRST crash of a new system or after an airbag recharge. Even if there is no damage visible on the Vest.**

**WARNING! The Tech-Air™ Race airbag system cannot prevent accidents.**

**WARNING! No protective device, including the Tech-Air™ Race airbag system, can provide protection against all possible sources of injury and therefore cannot provide complete protection against injuries.**

**WARNING! Wearing the Tech-Air™ Race airbag system is not a substitute for wearing other protective motorcycling clothing and gear. To provide full potential protection, the Tech-Air™ Race airbag system must always be worn in conjunction with suitable motorcycling apparel, including a helmet, boots, gloves, and other appropriate protective equipment.**

The Tech Air™ Race airbag system will activate (provided the system is armed, see section 12) within the following parameters:

- A Highside crash\*
- A Lowside crash\*\* with at least one the following characteristics:
  - Crash start speed over 80km/h
  - Where there is a collision or sudden deceleration during the slide (such as hitting the curb or another bike)
  - Where there is high energy in the body limbs (tumbling or not).
  - A crash against an obstacle over 30km/h (such as hitting another bike or a tire barrier)
  - Falling off the bike without sliding (such as in a gravel trap)

The Tech Air™ Race airbag system will NOT activate under the following parameters:

- The system is switched off, or not armed.
- In a Lowside crash with at least one of the following characteristics
  - The speed of the crash is under 30km/h
  - The rider slides without touching the ground with their back or shoulder
- Crashes against obstacles under 30km/h

\* A Highside crash is where the rear tire momentarily loses grip, compressing the rear suspension which can catapult the rider into the air.

\*\* A Lowside crash is where the front tyre loses grip during cornering, causing the motorcycle to fall onto side.

**WARNING!** The user does not need to be involved in a crash for the system to deploy. For example, the system may deploy if the user falls while wearing the system, such as when dismounting from the motorcycle if the system is still armed. These types of “non-riding” deployments are not failures of the system because the user’s body was at risk of injury.

## Motorcycle Type

The Tech-Air™ Race airbag system can be utilized on any type of motorcycle, including electric motorcycles.

## 4. Limitations of Use

**WARNING!** The Tech-Air™ Race airbag system is to be used **ONLY** for motorcycling in a closed circuit race track within the conditions and limitations delineated above.

**WARNING!** Remember that when using your Tech-Air™ Race airbag system on a race track, the firmware must be the Race firmware. If you have downloaded the Street firmware onto your Tech-Air™ Race airbag system, you **MUST CHANGE** the firmware back to Race mode before using your Tech-Air™ Race airbag system on a race track.

The system is **NOT** for use in:

- Enduro, Motocross, or Supermoto events;
- Motorcycle stunts; or
- ANY non-motorcycling activities.

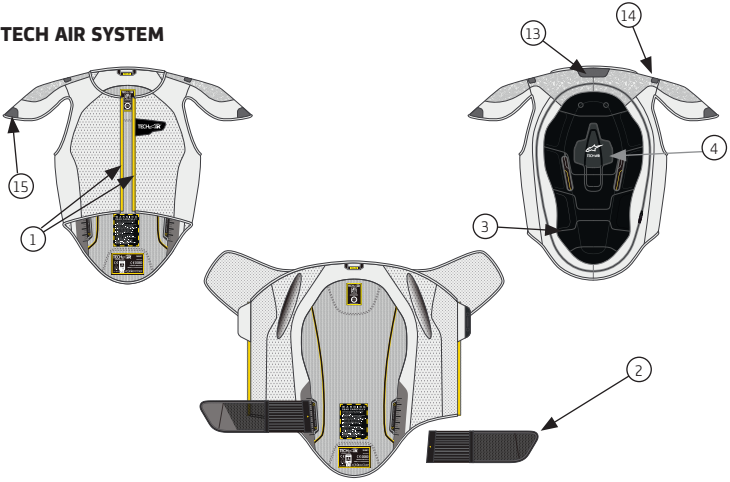
**WARNING!** Due to shocks, movement and/or other input detected and/or received by the system while in use, although unlikely the system may deploy even though there is no crash-event.

**WARNING!** Wearing the Tech-Air™ Race airbag system is not a substitute for wearing other protective motorcycling clothing and gear. To offer full potential protection the system must always be worn in conjunction with suitable motorcycling apparel that covers the rider from head to toe, including a helmet, boots, gloves, and other appropriate protective equipment.

## 5. System Overview

The diagrams below illustrate the different parts of the Tech-Air™ Race airbag system (airbag Vest and an Alpinestars' Compatible Suit/Jacket - Figure 3). The numbered parts are used to guide you through this user's guide.

### TECH AIR SYSTEM



### COMPATIBLE SUIT

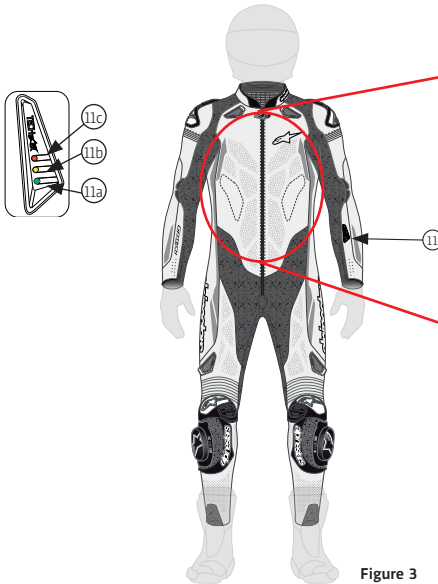


Figure 3

1. Vest attachment zips (Vest)  
2. Detachable belt  
3. Sealed Closure zip  
8 EN

4. Control Unit  
5. LED Display socket  
6. On board power LED RACE

7. On board power LED STREET  
8. Master Switch  
9. Micro USB Port

10. Vest attachment zips (Suit)  
11. LED Display  
11a. Green Indicator



## ELECTRONIC UNIT (4)

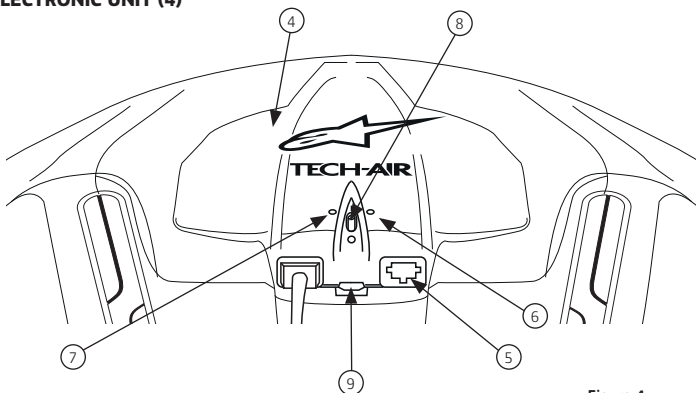
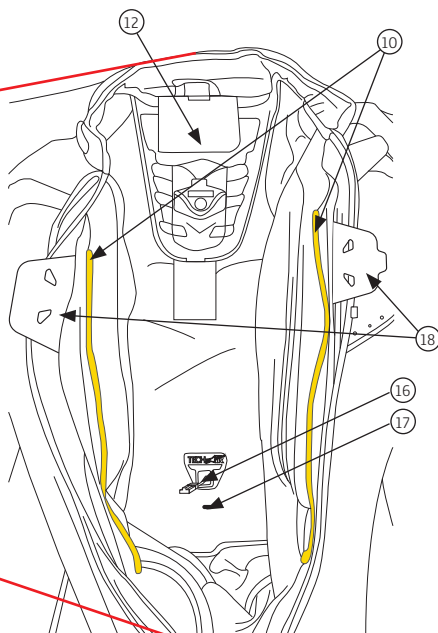


Figure 4



11b. Orange Indicator  
11c. Red indicator  
12. Collar Attachment  
Vecro Flap

13. Collar Attachment  
Velcro  
14. Upper Shoulder  
Attachment Velcro

15. Lower Shoulder  
Attachment Velcro  
16. LED Display cable

17. LED Display plug  
storage pocket  
18. Activation Flap

## 6. Sizing

The Tech-Air™ Race airbag Vest is available in sizes from S to 2XL. The airbag inside is available in five sizes that correspond to the waist to shoulder length of the user (Figure 5). Table 1 below lists the sizes of vest and the airbag size which they contain. This chart contains suggested sizing.

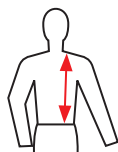


Figure 5

Table 1

Vest Size	Euro Size	US Size	User's Waist to Shoulder Range	Suggested Height Range	MTF
S	44,46	34,36	37 – 40cm (14.6" – 15.7")	1.41 – 1.52m (4'7" – 5'0")	<4.5 KN
M	48,50	38,40	40 – 43cm (15.7" – 17.0")	1.52 – 1.63m (5'0" – 5'4")	<4.5 KN
L	52,54	42,44	43 – 46cm (17.0" – 18.1")	1.63 – 1.75m (5'4" – 5'9")	<4.5 KN
XL	56,58	46,48	46 – 49cm (18.1" – 19.3")	1.75 – 1.86m (5'9" – 6'1")	<4.5 KN
2XL	60,62	50,52	49 – 51cm (19.3" – 20.1")	1.86 – 1.94m (6'1" – 6'4")	<4.5 KN

**IMPORTANT!** The airbag Vest must be installed inside an Alpinestars' Compatible Suit/Jacket first.

MTF = Mean Transmitted Force attained during testing.

## 7. Health and Age Restrictions

**IMPORTANT!** In Europe the pyrotechnic directive (2007/23) prohibits the sale of pyrotechnic articles to anyone under the age of 18.

**WARNING!** The Tech-Air™ Race airbag system must not be handled by children at any time.

**WARNING!** In event of a crash, the inflation of the airbag will cause sudden pressure across the back and torso. This can cause discomfort and for users in poor health this may cause complications.

**WARNING!** The Tech-Air™ Race airbag 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 Tech-Air™ Race airbag system must not be used by persons fitted with a pacemaker or other implanted electronic medical devices. Note also that magnets are contained inside the activation flap (18).

**WARNING!** The Tech-Air™ Race airbag system must not be used by persons with neck or back problems.

**WARNING!** The Tech-Air™ Race airbag system must not be used by women during pregnancy.

**WARNING!** The Tech-Air™ Race airbag 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 Tech-Air™ Race airbag 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 Tech-Air™ Street airbag system is worn. If any irritation of the skin occurs, immediately stop wearing the system and seek medical advice and/or attention.

## 8. Vest Installation

**WARNING! The Tech-Air™ Race airbag Vest must ALWAYS be used with an Alpinestars' Compatible Suit/Jacket of corresponding and appropriate size. Use of the airbag vest with the incorrect size of Alpinestars' Compatible Suit/Jacket, or a non-compatible Alpinestars' Compatible Suit/Jacket, may result in injury, including severe injury and/or death.**

To install an airbag vest into a Alpinestars' Compatible Suit/Jacket:.

1. Remove the all the patches which are attached to the velcro panels on the Vest (13,14,15)
2. Detach the suit lining at the Velcro on the collar.

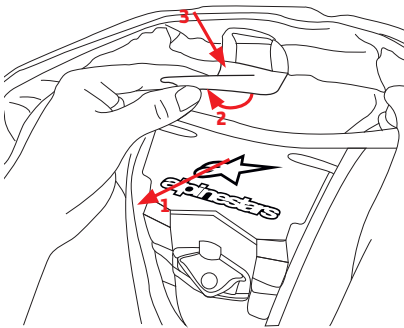


Figure 6

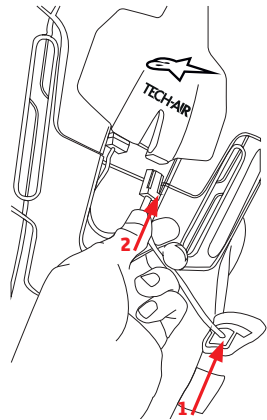



Figure 7

3. Fold out the second Velcro flap (12) and attach the collar Velcro on the Vest (13) to this new flap, centering it correctly (Figure 6).
4. Proceed to attach the lower shoulder velcro (15) and upper shoulder velcro (14) to the corresponding patches inside the suit lining on both the left and right shoulders.
5. Remove the LED display plug from the storage pocket (17) and plug it into the grey socket (5) (Figure 7).
6. Turn on the Master switch(8). Note that the master switch should remain always on, except during shipping or storage.
7. Place the rest of the Vest inside the leather suit .
8. Use the yellow zips on the suit (10) and the vest (1) to zip the Vest into the suit.
9. The suit is now ready for use.

 *Tip: If quickly trying only the fit of the garment, steps 5 and 6 can be skipped.*

### List of Compatible Garments


315 5016	GP PRO 1PC LEATHER SUIT TECH AIR COMPATIBLE
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## 9. Fitting

Once the airbag Vest has been installed inside the Alpinestars' Compatible Suit/Jacket it may be worn and fastened like any other garment. For those users who prefer the airbag Vest to fit snugly, the internal belt (2) can be used, however this is a matter of personal preference and the airbag Vest may be worn with the belt unfastened or removed.

When fitting the Tech-Air™ Race airbag system, users should check in particular that:

- The suit is not too tight across the chest
- The legs and arms are of acceptable length to work with the gloves and boots that will be worn.

 *Tip: It is recommended to try the Compatible Suit/Jacket seated on a sports motorcycle, to ensure that the suit is still comfortable when the arms and legs are bent. Note that leather stretches slightly over time and thus it is better to select the suit with a slightly tighter fit, rather than a slightly looser fit.*

**WARNING! It is imperative that the Tech-Air™ Race airbag system is fitted correctly in order to provide the maximum potential protection in an accident. Compatible Suit/Jacket which are too small will cause severe discomfort when the system is inflated, Compatible Suit/Jacket which are too large may not hold the airbag vest in place during a fall or accident. In case of doubts or questions regarding fit, seek advice from an Alpinestars dealer.**


## 10. Transportation of Objects Inside the Compatible Airbag Garment

Where pockets are present on an Alpinestars' Compatible Suit/Jacket consideration needs to be given to the objects which may be placed inside the Compatible Suit/Jacket pockets. For example:

- Sharp or pointed objects placed in pockets may pierce the airbag and compromise inflation.
- Bulky objects will reduce the amount that the airbag can expand, reducing or potentially reducing the efficacy of the airbag and/or making the system feel much tighter when inflated, possibly increasing discomfort or causing distraction or injury.

**IMPORTANT!** Where a breast pocket exists on an Alpinestars' Compatible Suit/Jacket extra attention should be paid to the contents stored in such breast pocket. ONLY flat objects such as a wallet should be stored there.

**WARNING! Under NO circumstances should a user attempt to transport objects of ANY size or shape, including sharp or pointed objects, stuffed inside the Alpinestars' Compatible Suit/Jacket, as they may cause injury to the user and/or damage to the airbag. Where pockets are provided, only blunt objects should be transported in the Alpinestars' Compatible Suit/Jacket provided that they fit completely inside the pockets.**

 *Tip: Users should note that Tech-Air™ airbag system has been tested to be safe when used in combination with backpacks loaded up to a maximum of 6kg (approximately 13 pounds) in weight.*


## 11. Battery Charging

Charge the unit fully before first use. To do this, connect the supplied charger to the Micro USB port (9) on the unit. The LED display (11) will display an animation. When the battery is fully charged all three LEDs will remain illuminated.

**IMPORTANT!** The battery will only recharge when the ambient temperature is between 0-45°C (32°F-113°F).

**IMPORTANT!** It is not possible to charge the Tech-Air™ Race airbag Vest when in use.

**WARNING! Do not leave the unit unattended while charging the battery. Charge only in a dry location with a temperature range of 0 to 45°C (32°F-113°F)**

 *Tip: When the Tech-Air™ Race airbag system is installed in a leather suit, the MicroUSB port can be accessed easier by unzipping one of the vest attachment zips (1) and partially lifting the vest outward. (See figure 8).*

## Charging and Use Times

Approximately six hours are required to recharge a discharged battery with the supplied charger. A fully charged battery will provide approximately 25 hours of use. If time is limited, charging the battery for approximately one hour will provide approximately three to four hours of use.

## Battery Life

If the system is not in regular use it is required to recharge the battery at least once every 12 months to prevent the battery dropping below a minimum charge after which the battery life would be notably reduced.

**WARNING! The unit should be recharged as soon as possible when the red Battery Level LED light (11c) flashes, as this indicates low battery level.**



*Tip: The unit may be charged by connecting it to a computer, or to an alternative Micro USB charger, however if the current output is under 2 Amps then charging times will be longer than stated above.*

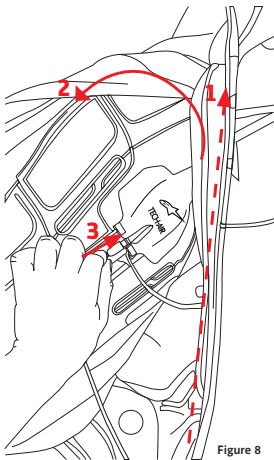


Figure 8

## 12. Race Mode Operation

### Turning On

1. Check that the Master switch (8) has been switched to the 'I' position (See section 8).
2. Put on the Compatible Suit/Jacket, but do not zip it closed.
3. Close the activation flap(18). This is best done by covering the velcro tab with your thumb and letting the magnets snap together first, then engage the velcro.
4. At this point the system will turn on – check that the LED Display (11) illuminates.
5. Close the outer zip of the Compatible Suit/Jacket.
6. Continue to follow the LED Display indications (Section 13 below) to check that the system starts correctly.



*Tip: If the system does not power on (No LED Indications illuminate) check that there is nothing in between the two activation flaps and that the two flaps are correctly overlaid.*



*Tip: The Activation Flap (18) functions using magnets. Magnetically sensitive items (such as credit cards) should be kept at least 1 cm away from the sensor area.*

**WARNING! In order to activate the Tech-Air™ Race airbag system, the Master Switch (8) must be turned on ("I" position) AND the activation flap (18) of the Apinestars' Compatible Suit/Jacket must be closed.**

## System Arming

Once the system has started up, the LED Display (11) will provide a Green (11a) and Orange (11b) indication. At this point the system is not live and will not inflate in case of an accident. The system will become live automatically once the user starts riding, and this is confirmed when the orange indication (11b) is switched off. Note that the sharp accelerations and braking from racing assist the arming – without them a constant speed of around 100km/h must be maintained in order to maintain the system in the armed state. If the rider stops or the speed drops below 100km/h for an extended time then the system will disarm.

**WARNING! If the rider chooses to ride a slow sighting (or celebratory) lap then the system may not be armed. This can be verified by checking for the steady Orange (11b) indication on the LED Display.**

**WARNING! The Tech-Air™ Race airbag system will not provide protection if the rider is stopped.**

**WARNING! ALWAYS Ensure that you have the Orange (11b) and Green (11a) indication on the LED Display (11) before starting to ride. It is also recommended to check the display status occasionally during riding to confirm that the system is live (Steady Green indication- 11a) and that there are no errors (Red indication – 11c)**


## Turning Off

Unzip the Alpinestars' Compatible Suit/Jacket and separate the two activation flaps (18). The orange LED (11b) will flash and the system will shut down after 5 seconds. Confirm that the system is off and/or not receiving power by checking to see that there are no indicator lights illuminated in the LED Display (11).

If you want to continue wearing the Alpinestars' Compatible Suit/Jacket after shutting the system down, then zip the garment closed again keeping the two halves of the activation flap (18) apart.

To make power unavailable to the system, move the Master Switch (8) to the off position.

Turn the Master Switch (8) off if the Tech-Air™ Race airbag vest is to be stored, transported or shipped.

 *Tip: It is easier to access the master switch (8) by first unzipping one of the Vest attachment zips (1) and partially lifting the Vest out of the suit (See Figure 8). Naturally after switching the master switch back on, the vest attachment zip requires to be reattached.*

**WARNING! ALWAYS turn the system off [by separating the activation flap] when you are not riding a motorcycle if you continue to wear the system. Keeping the system powered up and/or active increases the possibility of an unwanted deployment and drains the battery.**

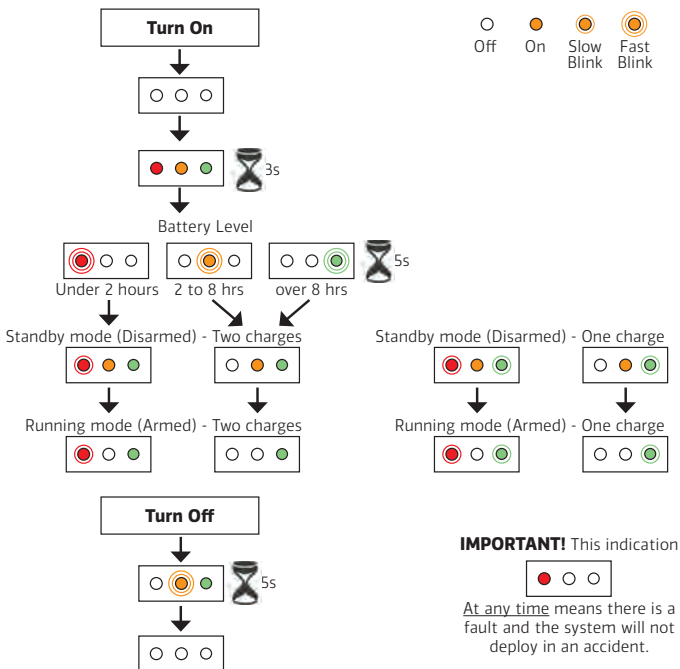
**Note also that the system will power back up if the activation flap is closed again.**

**WARNING! When not in use and being stored, transported or shipped, the system must be shut down at the Master Switch. This makes power unavailable to the system, prevents battery drain and possible reduced battery life, as well as inadvertent supplying of power to and powering-up of the system.**


## 13. Display Indications


The LED Display (11) has three coloured LEDs which are used to monitor indicate the status of the system.

### Indications During Use



**IMPORTANT!** The single Green LED  indicates that the system is functioning and will deploy in a crash.

**WARNING!** A single RED LED  or Orange + Green LEDs indicate that the system will NOT Deploy in a crash.

 **Tip:** With a single red indication, the red LED will blink a number of times to indicate the code of the system error for the problem that the system is experiencing. These codes and the corresponding errors are listed in Section 20, and the errors can also be viewed using the Tech-Air™ Connect software (Section 17, available from the DATA PORTAL).

## 14. Cleaning, Storage and Transportation

### Airbag Vest Cleaning

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

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

 *Tip: Whenever the system is returned for airbag replacement or routine servicing, the airbag vest will be disassembled and washed.*

## Outer Alpinestars' Compatible Suit/Jacket Cleaning

Once separated from the airbag Vest, the outer Alpinestars' Compatible Suit/Jacket may be cleaned according to the instructions on the garment.

## Storage

The Tech-Air™ Race airbag system (i.e.: airbag Vest + and outer Alpinestars' Compatible Suit/Jacket) is best stored hung from a rail. It may also be stored flat, provided no heavy or sharp objects are placed on top of it. The Tech-Air™ Race airbag system should be stored in a cool, dry place, out of direct sunlight and the Master Switch (8) should be turned off.

If storing the airbag Vest only, it is best stored in its original packaging. Likewise, it may be stored flat in a drawer provided that no heavy or sharp objects are placed on top of it. Also, it should be stored in a cool, dry place, out of direct sunlight, and the Master Switch (8) should also be turned off.

**WARNING! Do NOT leave the airbag Vest in direct sunlight inside a closed car or otherwise exposed to high temperatures. High temperatures will damage the battery and possibly the other electronics of the unit.**

**WARNING! Do not use the activation flap on the Alpinestars' Compatible Suit/Jacket as a means to stop the garment falling off a clothes hanger. This will cause the system to activate. To prevent this, it is essential that the Master Switch (8) be turned off or that only the main zip of the suit is closed, without closing the activation flaps (18) Failure to do so will cause the unit to remain powered, which will cause the battery to drain. Confirm the system is off by checking that there are no indicator lights illuminated on the LED Display (11).**

## Transportation

Users should be aware that the airbag inflators are pyrotechnic devices, however the Tech-Air™ system has been classified as 'Not Dangerous' with reference to the UN shipping regulations. This means that the system can be safely transported – including by air provided that the airbag vest is checked into the aircraft's hold as checked luggage.

When transporting the vest by air, users are strongly recommended to download and print a copy of the Material Safety Data Sheet (MSDS) in the event they may be questioned by airport staff. This can be downloaded from the Tech-Air™ Data Portal (Section 17) or obtained from your Alpinestars dealer.

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

## 15. Maintenance, Servicing 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 Tech-Air™ Race airbag system (Alpinestars' Compatible Suit/Jacket and the airbag vest), looking for any signs of wear (loose threads, holes, marks on the airbag surface) or damage. If found, the system should be inspected further by an authorized Alpinestars dealer.

### Post Crash Inspection

After a crash the following must be checked:

- Compatible Suit/Jacket: That there are no holes anywhere in the leather suit (checking carefully the joining seams between leather and stretch areas) and that all three bulbs of the LED Display are undamaged.



• Tech-Air™ Race airbag system: that there are no holes in the Vest, no frayed seams, no cracks to the back protector plastics or electronics casing, and no exposed areas of the airbag.


**WARNING! If any of the above damage is found then the Compatible Suit/Jacket and/or the Tech-Air™ Race airbag system MUST be returned for service, otherwise it may not provide any protection in a second crash event. If in doubt seek advice from your Alpinestars dealer.**

**IMPORTANT!** For the dual charge feature, even if no damage is observed on either the Tech-Air™ Race airbag system or Compatible Suit/Jacket, the performance of the airbag in the second deployment (reuse of the same airbag) cannot be warranted to be the same as the first.

## Routine Service

A routine service by Alpinestars must be conducted at least every 2 years, in cases where the airbag vest has never previously been returned for recharge. Where the airbag vest has been recharged, then the 2 years start from the recharge date. The routine service permits the wear of the airbag and the unit's components to be inspected in detail. Service can be requested directly from an Alpinestars Tech-Air™ dealer. The following work is undertaken as part of the routine service:

- All components are removed from the airbag vest and the airbag vest is washed.
- The diagnostics of the electronic unit are checked (and firmware upgraded, if applicable).
- The airbag is inspected for wear and/or damage.
- The system is reassembled into the airbag vest and function checked as per new production items.

 *Tip: Two years is the maximum recommended period between inspections, however if the airbag vest is used extensively, then a recommended inspection and service interval of 6 months to 1 year is recommended.*

**WARNING! If no service or recharge operation has been conducted after two years of the purchase date or last service/recharge date, there is the possibility that the system will not always function in accordance with the activation and non activation conditions listed in section 3.**

**IMPORTANT!** Even if serviced regularly, Alpinestars cannot guarantee that after 10 years the system will always function in accordance with the activation and non activation conditions conditions listed in section 3.

**WARNING! There are NO user serviceable parts inside the airbag vest. Under no circumstances should users attempt to open, service, disassemble or modify the airbag vest. Any and all work performed on the airbag vest must be done by Alpinestars or an authorized service provider. Severe injury or damage may result otherwise.**


**IMPORTANT!** The access zipper to the airbag vest is sealed (3). Cutting this seal voids the warranty on the product.

## Disposal – Alpinestars' Compatible Suit/Jacket

The outer Alpinestars' Compatible Suit/Jacket should be disposed of in accordance with local waste regulations. Note that under the European WEEE regulation, the LED Display cannot be disposed of in normal household waste. This must be removed from the airbag garment and disposed of at a suitable facility for the recycling of electronic parts.

## Disposal – Fired Airbag Vest

A deployed airbag vest contains electronic components. Under the European WEEE regulation these must be removed and disposed of at a suitable recycling facility. The remaining airbag vest chassis and used airbag can be disposed of in accordance with local waste regulations.

 *Tip: A deployed Vest can be confirmed by turning on the system and checking that the 'airbag fired' fault is indicated on the LED Display, which gives 25 blinks of the red LED (11c).*

## Disposal – Unfired Airbag Vest


**WARNING! An undeployed airbag Vest still contains live pyrotechnic charges and thus must NOT be disposed of in household waste or incinerated.**

Undeployed airbag Vests must be returned to an Alpinestars 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

### Accident WITHOUT Deployment

In the case of minor accidents which fall inside the non activation conditions in section 3, it is likely that the airbag will not activate. Nonetheless, a thorough inspection of the Tech-Air™ Race airbag system (i.e.: Alpinestars' Compatible Suit/Jacket and the airbag vest) must be made as per the post crash check outlined in Section 15.

 *Tip: If the outer Alpinestars' Compatible Suit/Jacket has sustained considerable damage, but the airbag Vest is completely undamaged, then it may be more economical and faster to purchase a replacement outer Alpinestars' Compatible Suit/Jacket instead of arranging for repair.*

### Accident WITHOUT Deployment, BUT Where The User Believes The System Should Have Deployed.

**IMPORTANT!** In these circumstances the system must be turned off IMMEDIATELY after the accident because the electronic unit only holds 2 minutes of data. After that, the crash data will be overwritten and the possibility to analyze the data will be lost.

The airbag Vest should be returned to an Alpinestars Tech-Air™ dealer along with a detailed account of the event (including photos, if possible). Alpinestars will then analyze the information and respond.

### Accident WITH Deployment.

Where the airbag has deployed a recharge service is available from Tech-Air™ dealers to have the airbag and inflators replaced. During this service, a full inspection will be made of the airbag Vest and of its electronic equipment.

The outer Alpinestars' Compatible Suit/Jacket should also be inspected. For an extra fee, the user may have the Alpinestars' Compatible Suit/Jacket inspected for damage and repaired while the airbag vest is being recharged.

### Accident or Other Situation WITH Deployment, BUT Where The User Believes The System Should Not Have.

The airbag Vest should be returned to an Alpinestars Tech-Air™ dealer along with a detailed account of the event (including photos, if possible). Alpinestars will then analyze this the information and respond.

## 17. Tech-Air™ Data Portal

The Tech-Air™ Data Portal is an on line resource which records information on the manufacture and servicing of each individual airbag system. By using the Data Portal users can access the following information:

- The service history of Tech-Air™ system(s) (Race and Street) owned.
- The status of any systems undergoing service.
- Manufacturing information on Tech-Air™ system(s) owned.
- Ask to be sent a reminder when the next service is due.
- Download the Tech-Air™ Connect software.

- Download the street version of the firmware and firmware upgrade instructions, which are important for Street Mode use.
- Download the Material Safety Data Sheet (See Section 14)
- Locate the nearest Alpinestars dealer who can handle Tech-Air™ Systems.
- Be kept up to date on news relevant to your system.

Similar to a motorcycle, each airbag system has a serial number called the Chassis Number. This can be found under the QR code on the inside of the airbag vest near the collar. Scanning the QR code with a mobile phone will automatically connect to the Data Portal and provide manufacturing and service history for that system.

The Data Portal also records details on the ownership of the system (customer name and a contact e-mail address). Normally ownership is registered by the dealer during purchase of the system, however if this did not happen registration can be executed following the instructions below.

**IMPORTANT!** It is essential that each owner is correctly registered in the Data Portal. Alpinestars will not use owner information for marketing purposes or pass the information to third-parties.

**IMPORTANT!** Requests made for servicing, recharge, or warranty returns will only be carried out if the system ownership has been registered with Alpinestars.

## New User Registration

In order to register ownership there are two steps, first to create a customer record, and then to transfer the ownership.

Registration can be made directly from the Tech-Air™ website: [techair.alpinestars.com](http://techair.alpinestars.com)

Click on the "New User registration" button and a dialogue as shown in Figure 9 below will appear:

Complete the details requested and click "Register". A customer number will be assigned, which the customer should note for future reference. Note that at this point this customer does not "own" any systems.

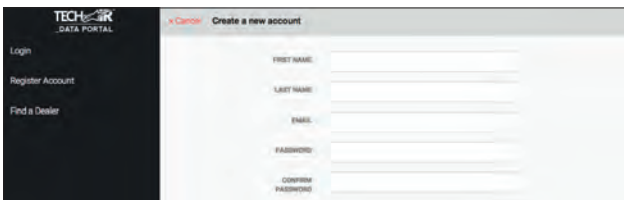


Figure 9 – User Registration Dialogue

## Transfer of Ownership


Ownership of a system can only be assigned by a Tech-Air™ dealer or by Alpinestars Tech-Air™ support. Transfer of Ownership is applicable for first owners (brand new systems) as well as systems that have then been sold privately, second-hand.

- At a dealership:

The user shall present the airbag vest and provide the dealer their customer number. The dealer will then register ownership of the system.

- By Tech-Air™ support:

The user shall advise the chassis number and (for brand new systems) provide proof of purchase. Alpinestars will then register ownership of the system.

 **Tip:** System ownership can be transferred by any Tech-Air™ dealer, it does not need to be the dealer where the system was purchased. A list of dealers which handle Tech-Air™ systems can also be obtained from the Tech-Air™ web page.

## Customer Login

Once registered, customers can login from the Tech-Air™ website. This presents a main screen (Figure 10) where the following information can be seen:

1. Account info - use to verify an update user details.
2. Change Login Password.
3. List of products owned.
4. Download area.
5. News Bulletins



Figure 10

By clicking on one of the products owned, manufacturing information and the service history can be viewed. If the product has been submitted for servicing, the progress of the service can also be viewed here.

## IMPORTANT! - Download Area

The download area is the most important resource of the data portal.

From here you can download:

- The firmware upgrade instructions (for changing from race mode to street and vice versa)
- The Material Safety Data Sheet for the shipping or air transport of the system.
- The Tech Air™ Connect software.
- The latest firmware versions – for both street and race mode.

Note that the download area is customised depending on the products that you own – if the Street version of the system is additionally owned, further documentation will be available.

## 18. Street Mode Operation

**WARNING! STREET MODE OPERATION DIFFERS FROM RACE MODE! IT IS CRITICAL THAT USERS, READ AND UNDERSTAND FULLY THE FOLLOWING INFORMATION WHICH APPLIES TO STREET MODE.**

As supplied new the Tech Air™ Race vest has the racing firmware installed – which is optimized for detecting crashes on the racetrack. It is possible to install the street firmware on the unit to permit the use of the street algorithm for those users who will wear a Compatible Alpinestars Suit/Jacket on the road for street riding, instead of the race track. The alternative firmware version and the instructions on how to change it can be downloaded from the Data Portal.

**IMPORTANT!** Street mode can only be used if BOTH charges are NOT activated. If the first charge has been activated, then the software will give an error and no protection will be provided.

**WARNING! The airbag system, including its components (the airbag Vest and the Alpinestars' Compatible Suit/Jacket), are technically 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 airbag vest MUST be used with an Alpinestars' Compatible Suit/Jacket.**

**WARNING! Use of an Alpinestars' Compatible Suit/Jacket without the airbag vest will provide the user with NO airbag protection.**

**WARNING! It is essential to read this manual carefully, understand it completely and to follow the advice and warnings. If you have any questions regarding the equipment contact Tech Air Support.**

## 18-1 Tech-Air™ 'Envelope of Protection'

The Tech-Air™ Race airbag system when used in street mode offers protection to both riders and passengers in the event of an accident or other triggering event; however, like any other product there are limitations to the protections that it can provide.

**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 OR CONTROL OR OTHER EVENT.**

The "Envelope of Protection" is used to generally describe situations and/or circumstances where the Tech-Air™ Race airbag system may provide protection ("inside the envelope"), and those where it will not ("outside the envelope").

In general, there are three basic factors that determine whether an airbag system will provide protection to a user:

- (a) Whether the forces experienced by the user during an event (such as an accident) occur within an area covered by the airbag; and
- (b) Whether the airbag deploys before the user collides with a vehicle, an obstacle or the ground.
- (c) Whether the airbag deploys before the user collides with parts or accessories of their own motorcycle. For example, mirrors, windscreens or tank bags.

The deployment time consists of the time for the sensors to detect the event plus the time it takes to fill the airbag fully with gas, which is about 45 milliseconds ("ms"). The time available to deploy the airbag is dependent upon factors such as the type of the accident, the type of motorcycle (e.g.: scooter, custom, sports) and the speed of involved vehicles.

The Tech-Air™ airbag system provides impact protection for those areas of airbag coverage shown in Figure 2.

**WARNING! The Tech-Air™ airbag system provides only limited protection against forces experienced at the areas of airbag coverage depicted in Figure 2. No guarantee is given that the Tech-Air™ Street airbag system will prevent injuries (including severe or fatal injuries) inside and/or outside the covered/protected areas.**

**WARNING! The Tech-Air™ airbag system cannot prevent accidents.**

**WARNING! No protective device, including the Tech-Air™ Street airbag system, can provide protection against all possible sources of injury and therefore cannot provide complete protection against injuries.**

**WARNING! Wearing the Tech-Air™ airbag system is not a substitute for wearing other protective motorcycling clothing and gear. To provide full potential protection, the Tech-Air™ airbag 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.**

## Envelope of Protection

Crashes Where a Vehicle Strikes a Stationary Motorcycle:

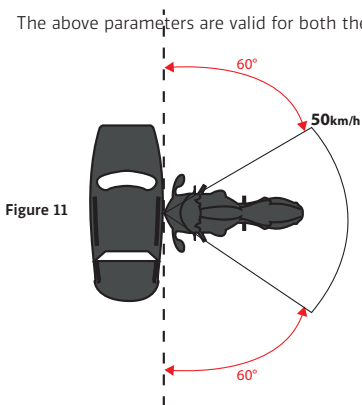
<b>Arrival Speed</b>	<b>From 25km/h (15mph)</b>
<b>Impact Angle</b>	<b>ANY</b>

- Valid for both rider and passenger

## Crashes Where a Motorcycle Strikes a Vehicle or Obstacle (Figure 11):

<b>Arrival Speed</b>	<b>From 25km/h (15mph) to 50km/h (31mph)</b>
<b>Impact Angle (Fig 11)</b>	<b>From 60° to 120°</b>

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



**IMPORTANT!** If the speed of the vehicle is less than 25km/h, the system may not deploy at the time of the collision, but may deploy if the rider or passenger suddenly falls from the motorcycle after the impact.

**IMPORTANT!** Figure 11 outlines the envelope where the Tech-Air™ Street airbag system is expected to inflate before the user's body contacts an obstacle. At speeds above 25km/h the system will deploy regardless of the impact angle, but outside the envelope the airbag may not be fully inflated before there is contact between the obstacle and the user.

## Loss of Control Crashes

A Loss of Control Crash often results in the motorcycle falling over during riding. This commonly happens when tire grip on the roadway is lost during a turn or heavy braking. These are often similar to crashes in racing (known as "low-side" crashes).

**WARNING! The user does not need to be involved in a crash for the system to deploy. For example, the system may 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™ airbag system can be utilized, by riders or passengers, on any type of motorcycle, including electric motorcycles.

## Off-Road Riding

The Tech-Air™ airbag system in Street Mode may be used off road IN A LIMITED CAPACITY riding on gravel roads only.

For the purpose of using the Tech-Air™ airbag 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.

**IMPORTANT!** The chances of falling are notably higher when riding off-road, particularly when a rider is inexperienced. Even when stopped, a fall may cause the Tech-Air™ airbag system to deploy, leaving the user without protection until the system is returned for recharging (See Section 16).

## 18-2 Limitations of Use

**WARNING! The Tech-Air™ Race airbag system in Street Mode is to be used ONLY for motorcycling within the conditions and limitations delineated above. The system is NOT for use in:**

- Any racing or competitive events;
- Enduro, Motocross, or Supermoto events;
- Motorcycle stunts; or
- 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.**

**WARNING! Depending on the motorcycle type, for example a scooter or trials bike, it cannot be guaranteed that the system will inflate before the user collides with parts or accessories of the motorcycle.**

**WARNING! Wearing the Tech-Air™ Race airbag system in Street Mode is not a substitute for wearing other protective motorcycling clothing and gear. To offer full potential protection the system must always be worn in conjunction with suitable motorcycling apparel that covers the rider from head to toe, including a helmet, boots, gloves, and other appropriate protective equipment.**

## 18-3 Health and Age Restrictions

**IMPORTANT!** In Europe the pyrotechnic directive (2007/23) prohibits the sale of pyrotechnic articles to anyone under the age of 18.

**WARNING! The Tech-Air™ Race airbag system in Street Mode must not be handled by children at any time.**

**WARNING! In event of a crash, the inflation of the airbag will cause sudden pressure across the back and torso. This can cause discomfort and for users in poor health this may cause complications.**

**WARNING! The Tech-Air™ Race airbag system in Street Mode 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 Tech-Air™ Race airbag system in Street Mode must not be used by persons fitted with a pacemaker or other implanted electronic medical devices. Note also that magnets are contained inside the activation flap (18).**

**WARNING! The Tech-Air™ Race airbag system in Street Mode must not be used by persons with neck or back problems.**

**WARNING! The Tech-Air™ Race airbag system in Street Mode must not be used by women during pregnancy.**

**WARNING! The Tech-Air™ Race airbag system in Street Mode 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 Tech-Air™ Race airbag system in Street Mode, 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 monitor carefully their skin each time the Tech-Air™ Race airbag system in Street Mode is worn. If any irritation of the skin occurs, immediately stop wearing the system and seek medical advice and/or attention.



## 18-4 Transportation of Objects inside the compatible airbag garment

See section 10.

## 18-5 Battery Charging

See section 11.

## 18-6 Operation

### Turning On

The operation to turn on the garment is the same as outlined in section 12.

### Stability Check (Only in Street Mode)

During the first 20-60 seconds after the system is activated, the system remains disarmed while it performs a stability check with a flashing green indication (11a). During this period the system is looking for the body to conduct one or all of the following activities:

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

If the check is passed a solid green indication will be given (11a).

Note that the following activities are unlikely to pass the stability check:

- Closing the activation flaps without wearing the suit
- Standing still
- Running or other dynamic actions (such as sharp changes of direction or speed when walking)
- Sitting down – INCLUDING on the motorcycle with the engine at idle

If after 60 seconds the system cannot see stable use it will give an error indication by illuminating a single red indicator light (11c) in the LED Display (11). In this case the garment must be unzipped and closed again to restart the stability check.

**WARNING! you MUST ALWAYS check the LED Display (11) after the Stability Check to confirm you have the solid green LED before starting to ride/using the Tech-Air™ airbag system. The system will not deploy if needed while the 20-60 second Stability Check is proceeding and will not deploy if needed unless the Stability Check registers no errors in the system, as indicated by a solid green indicator light (11a).**

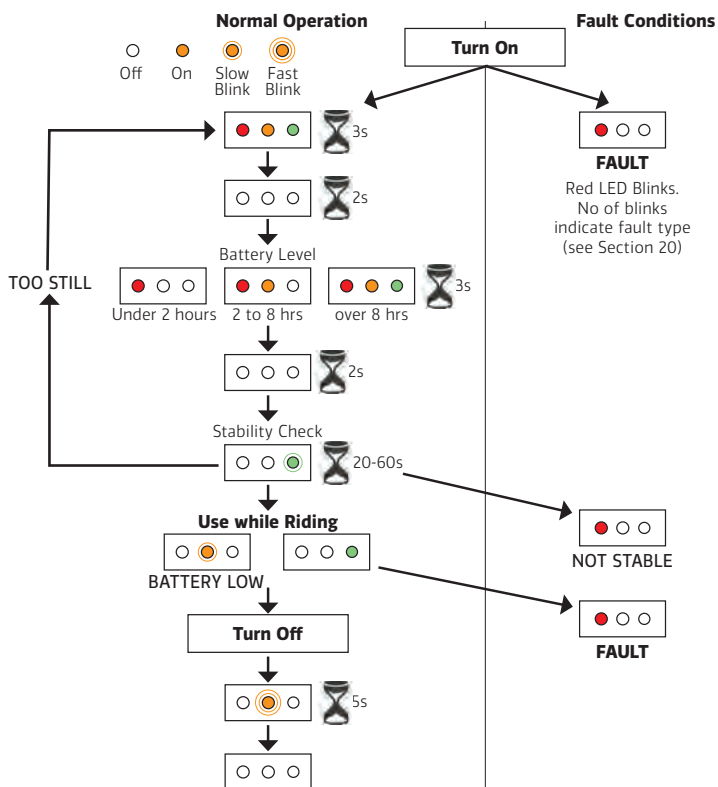
## Turning Off

This is the same as in section 12.

**WARNING! ALWAYS turn the system off [by separating the activation flap] when you are not riding a motorcycle, even if you continue to wear the system. Keeping the system powered up and/or active increases the possibility of an unwanted deployment and drains the battery.**

**Note also that the system will power back up if the activation flap is closed again.**

## Display indicates - street mode



**IMPORTANT!** The solid Green LED indicates that the system is functioning and will deploy in a crash.

**WARNING! A single RED LED or a flashing green LED indicates that the system will NOT deploy in a crash.**



*Tip: With a single red indication, the red LED will blink a number of times to indicate the code of the system error for the problem that the system is experiencing. A list of these codes and corresponding errors are listed in Section 20.*

## 18-7 Cleaning, Storage and Transportation

See section 14.

## 18-8 Maintenance, Servicing and Disposal

See section 15.

## 18-9 Actions in the Event of an Accident

See section 16.

## 19. Troubleshooting

Problem	Possible Cause	Possible Solutions
Vest does not startup when the activation flaps (18) are closed.	Master Switch not on	Turn on Master Switch (8)
	Battery fully discharged	Recharge battery (Section 11)
	Suit and vest not connected	Connect LED Display wires to unit (section 8)
	Activation flaps open	Close the activation flaps, checking that as they are closed the magnets attract one another.
	Activation Flaps obstructed or not aligned	Check that there is nothing in between the activation flaps and that the velcro closure is only used AFTER the magnets have attracted both parts together.
Single Red Indication on LED Display	Dependent on error	Consult list of error codes in Section 20 for recommended solution

## 20. Index of Error Codes

Where 'Red LED' is crossed marked with an "X", the error number will correspond directly to the number of blinks of the Red LED.

Code Number	Red LED	Error Description	Possible Solution
001	x	Firmware Error	Reflash Firmware / Return for Service
002	x	Power Supply Error	Recharge Battery / Return for Service
003	x	Battery Voltage Too Low	Recharge Battery
004	x	Reset Squib Error	Restart Unit, if error persists, Return for Service
005	x	Squib Configuration Error	Recharge Battery, Restart Unit, if error persists, Return Service
006	x	Squib Diagnosis Fail	Restart Unit, if error persists, Return for Service
007	x	Inflator 1 error	Restart Unit, if error persists, Return for Service
008	x	Left Sensor Error	Return for Service
009	x	Right Sensor Error	Return for Service
010	x	Central Sensor Error	Return for Service
011	x	Gyro Sensor Error	Return for Service
012	x	Squib Arming Error	Restart Unit, Recharge Battery, if error persists, Return Service
013	x	Synchronization Error	Reflash Firmware / Return for Service
015	x	Load Algorithm Error	Reflash Firmware
018	x	Inflator 2 Error	Restart Unit, if error persists, Return for Service
019	x	Left Sensor Power Supply	Return for Service
020	x	Right Sensor Power Supply	Return for Service
024	x	Algorithm Not Stable	Switch system off and on, sitting on motorcycle
025	x	Unit Locked	Indicates that both charges have been fired and that the airbag must be replaced.
128		First Charge Activated	No action.
136		Second Charge Activated	Return for service / Dispose of System.

## 21. Tech-Air™ Support

In case of questions or if customers need further information, they may first contact the Tech-Air™ dealer where the product was purchased, however support is also available direct from Alpinestars:

E-mail: [techairsupport@alpinestars.com](mailto:techairsupport@alpinestars.com)

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

 **Tip:** Remember that a full list of Tech-Air™ dealers in your country is available from the Tech-Air™ Data Portal.

## 22. Certification Information

The Tech-Air™ Race Vest is covered by a number of certifications.

### Personal Protective Equipment

The Tech-Air™ Race Vest is considered Category 2 Personal Protective Equipment under EU Directive 89/686/EEC. As such a CE Type examination has been conducted. As the motorcyclists' inflatable protectors standard (EN1621-4:2013) is for mechanically triggered systems, this has been used with reference to impact performance and ergonomics only. The examination was conducted by Notified Body #0120 SGS United Kingdom Limited, Park Way, Weston Super Mare, BS22 6WA, UK. The explanation of the product markings are as follows:



Name of the manufacturer

RAV1

Unique identification code



Garment Size (waist to shoulder)

Sizing table in Section 6



Indicates that an inflatable protector is installed



Indicates that the product is for motorcycle use, meets level 1 airbag requirements and provides protection to the full back of the user

### Pyrotechnic Articles

The Tech-Air™ Race Vest contains two pyrotechnically activated cold gas inflators, and as such, the whole item is considered as an "AIRBAG MODULE" category P1 under EU Directive 2007/23. As such a CE Type Examination (Module B) has been conducted on the design of the system, and a CE Type Examination and Audit (Module E) has been conducted on the assembly of the system.

The CE 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 unit of the Tech-Air™ Race Vest has been homologated to ECE R10 04 which dictates minimum requirements for electromagnetic stability, electromagnetic interference, and electrostatic discharge for automotive electronic devices.

Homologation No: **E13 10R - 04 - 12891**

## Important Information for Users WARNING!

**The Tech-Air™ 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 the instruction manual fully before use, as well as pay close attention to the following warnings:**

- An airbag 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 airbag system.
- The Tech-Air™ system is designed and developed ONLY for:- Race use when in Race Mode; Street use when in Street Mode and in Street Mode in limited off-road use. This product has not been designed for hard off-road use, stunt use or any non-motorcycling applications. Alpinestars does not accept any claims for malfunctions of the system used outside the environments for which its use is intended.
- Certain types of movement could be interpreted as a crash by the Tech-Air™ system and cause a deployment though no crash has occurred.
- The Tech-Air™ 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 product will not deploy.
- The Tech-Air™ system contains no parts which may be serviced by final customers, and must be serviced and recharged ONLY by approved Alpinestars Service Personnel, in order to ensure this equipment is sealed into the vest. Breaking this seal will void any claims against warranty or system malfunctions.
- Do not attempt to make any modifications or adjustments to the electronics, airbag vest or Alpinestars' Compatible Suit/Jacket of the Tech-Air™ system.
- The Tech-Air™ system must only be used for motorcycle Race riding when in Race Mode, or Street riding when in Street Mode or limited off- roading in Street Mode – it is not to be used for any other purpose, motorcycle-related or otherwise. This includes: Enduro, Motocross, Supermoto, performing stunts and any type of non-motorcycling activity. Wearing the product 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.
- When not in use and being stored, transported, or shipped the Tech-Air™ system must be powered off at the Master Switch.
- Prior to each use, the Tech-Air™ system should be inspected for any signs of wear or damage. Additionally when powered on, the LED display must be checked. In the event that the system reports a fault (Red LED is illuminated), users should not use the product and must follow the instructions in this booklet.
- Whenever the LED Display gives a low battery indication the unit MUST be recharged as soon as possible.
- The Tech-Air™ system must never be machine washed, submerged in water, tumble dried or ironed.
- After a deployment, the unit must be returned to the Tech-Air™ Support Team which can arrange the unit to be recharged.
- Even if the Tech-Air™ system has not been used, or the airbag never fired, it is important that the equipment be serviced at least once every two years, or if the system is used extensively, that it be serviced every 6 months to a year. This can be arranged through a Tech-Air™ authorized dealer.

