



REDUCED TO PROTECTION

GEBRAUCHSANLEITUNG | INSTRUCTIONS FOR USE | MANUEL D'UTILISATION | ISTRUZIONI PER L'USO

ORTOVOX

DEUTSCH

Herzlichen Glückwunsch zum Kauf deines **AVABAG** Lawinenairbags.

Lies dieses Handbuch sorgfältig, beachte die Warnhinweise und Richtlinien. Sichere dir den bestmöglichen Service für deinen **AVABAG**. Registriere deinen AVABAG-Lawinenairbag auf unserer Homepage, damit wir dich aktiv über Neuerungen und Wartungszyklen informieren können.

Unter allen Registrierten **VERLOSEN** wir **JEDE SAISON 5 PLÄTZE** für einen **SAFETY ACADEMY TRAINING BASIC**.

ENGLISH

Congratulations on the purchase of your **AVABAG** avalanche airbag.

Read this handbook carefully and pay attention to the warnings and guidelines. To receive information about improvements and maintenance cycles and to receive the best service for your **AVABAG**, register your product.

Each season, all registered users are entered into a **DRAW** for one of **5 PLACES** in a **SAFETY ACADEMY TRAINING BASIC** course.

FRANCAIS

Félicitations pour avoir choisi un sac airbag **AVABAG**. Merci de lire attentivement cette notice et de respecter les consignes d'utilisation.

Nous vous recommandons vivement d'enregistrer votre produit afin d'être informé sur les innovations ou besoins de maintenance, et de bénéficier du meilleur service possible pour votre **AVABAG**.

Nous procéderons à un tirage au sort pour faire gagner **CHAQUE SAISON 5 PLACES** pour participer à un cours de la **SAFETY ACADEMY TRAINING BASIC**.

ITALIANO

Congratulazioni per l'acquisto dello zaino da valanga **AVABAG**.

Ti preghiamo di leggere attentamente le istruzioni e le linee guida.

Per poter essere informato riguardo ad aggiornamenti e servizio di manutenzione del tuo **AVABAG**, registra il tuo prodotto.

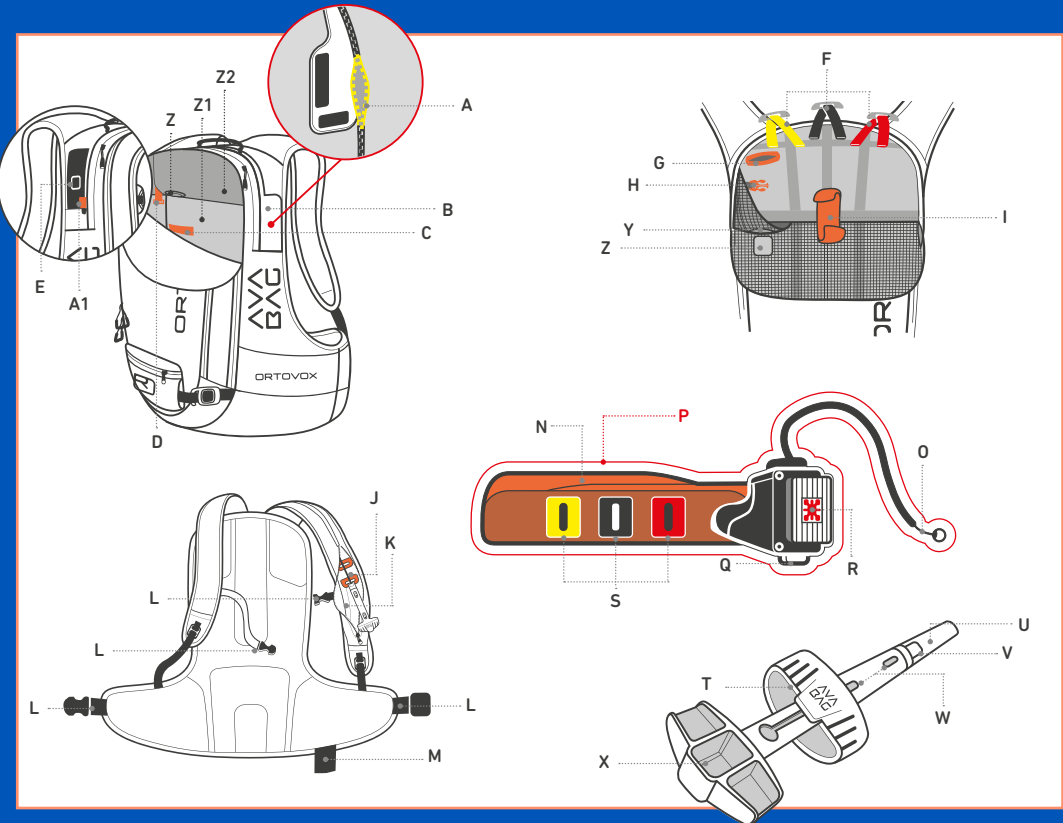
Tra tutti coloro che si registrano **SORTEGGIAMO OGNI STAGIONE 5 POSTI** per partecipare ad un **SAFETY ACADEMY TRAINING BASIC**.



ortovox.com/avabag/registration



ORTOVOX
SAFETYACADEMY



DEUTSCH

- A** Burst-Reißverschluss (RV)
- A1** RV-Garage
- B** Abdeckung Burst-RV
- C** Kartuschensicherung
- D** Ventilsicherung
- E** Entlüftungsmarke
- F** T-Haken
- G** Griffkabelzugang
- H** AVABAG-Klippfixierung
- I** AVABAG-Klettfixierung
- J** Führungskanal (S/L)
- K** Auslösegriff-Garage
- L** Hüft- & Brustgurt
- M** Sicherheitsbeinschlaufe
- N** AVABAG-Ballon
- O** Auslösekabel mit silberner Kugel
- P** AVABAG-System
- Q** Kartuschen-einschraubung
- R** Entlüftungsventil
- S** AVABAG-Ösen
- T** Auslösegriff
- U** Führungssteg
- V** Kabeleinführung
- W** Einstellung (L/S)
- X** Positionsschieber
- Y** AVABAG-Garage
- Z** Meshpocket Öse
- Z1** Hauptfach
- Z2** AVABAG-Fach

ENGLISH

- A** Burst zipper (BZ)
- A1** BZ garage
- B** Cover for burst zipper
- C** Cartridge fastening
- D** Valve safety fastening
- E** Deflation mark
- F** T-hooks
- G** Handle cable opening
- H** AVABAG clip fastening
- I** AVABAG hook-and-loop fastening
- J** Feed channel (S/L)
- K** Activation handle garage
- L** Hip & chest strap
- M** Leg safety strap
- N** AVABAG balloon
- O** Activation cable with silver ball
- P** AVABAG system
- Q** Cartridge bushing
- R** Deflation valve
- S** AVABAG eyelets
- T** Activation handle
- U** Guide bar
- V** Cable inlet
- W** Length settings (L/S)
- X** Position slider
- Y** AVABAG garage
- Z** Mesh pocket eyelet
- Z1** Main compartment
- Z2** AVABAG compartment

FRANCAIS

- A** Zip à éclatement
- A1** Logement pour zip
- B** Patte protège-zip
- C** Attache cartouche cartouche
- D** Protection de valve
- E** Point de dégonflage
- F** Crochets en T
- G** Accès au câble de poignée
- H** Fixation à clip AVABAG
- I** Fixation scratch AVABAG
- J** Canal de guidage (S/L)
- K** Logement pour poignée de déclenchement
- L** Sangle pectorale et abdominale
- M** Sangle d'entrejambe
- N** Ballon AVABAG
- O** Câble de déclenchement avec boule argentée
- P** Système AVABAG
- Q** Emplacement pour visser la cartouche
- R** Valve de dégonflage
- S** Œillets AVABAG
- T** Poignée de déclenchement
- U** Tige de guidage
- V** Entrée de câble
- W** Réglage (L/S)
- X** Glissière de position
- Y** Logement pour AVABAG
- Z** Œillet de poche filet
- Z1** Compartiment principal
- Z2** Compartiment de l'AVABAG

ITALIANO

- A** Cerniera burst
- A1** Custodia cerniera
- B** Copertura cerniera burst
- C** Fissaggio cartuccia
- D** Protezione della valvola
- E** Indicazione punto di sfiato
- F** Gancio T
- G** Accesso cavo maniglia
- H** Fissaggio a clip AVABAG
- I** Fissaggio con fibbia a strappo AVABAG
- J** Canale di guida (S/L)
- K** Custodia maniglia di sgancio
- L** Cintura addominale e pettorale
- M** Passante di sicurezza alla gamba
- N** Pallone AVABAG
- O** Cavo di sgancio con sfera argentata
- P** Sistema AVABAG
- Q** Attacco filettato della cartuccia
- R** Valvola di sfiato
- S** Occhielli AVABAG
- T** Maniglia di sgancio
- U** Archetto di guida
- V** Entrata del cavo
- W** Impostazione (L/S)
- X** Barra di posizione
- Y** Custodia AVABAG
- Z** Occhiello tasca in rete
- Z1** Scoperto principale
- Z2** Scoperto AVABAG



PHOTO Hansi Heckmair



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ENGLISH



YOUR AVABAG AVALANCHE AIRBAG CAN, IN CERTAIN CONDITIONS, PREVENT A TOTAL BURIAL. DESPITE THIS, YOU SHOULD NOT TAKE GREATER RISKS, AND YOU SHOULD PLAN YOUR ACTIVITIES WELL, ADAPT TO SUIT THE EXTERNAL CONDITIONS AND ALWAYS BE ON THE LOOKOUT FOR SIGNS OF DANGER ON THE MOUNTAIN.

BEHAVIOR ON THE MOUNTAIN

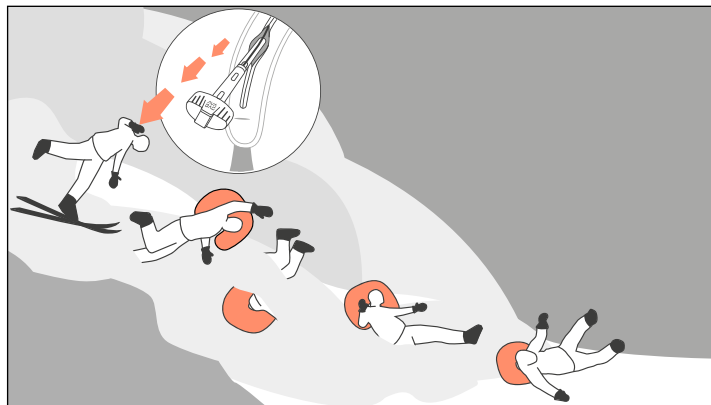
- An AVABAG avalanche airbag is simply an extension of your standard emergency equipment, consisting of: Shovel, probe and avalanche transceiver.
- An avalanche is always absolutely life threatening for you and the people around you.
- You should never take greater risks with the AVABAG avalanche airbag than you would without it.
- An AVABAG can prevent burial, but offers only limited protection against traps in the terrain (ditches, brooks, etc.), from a fall or from a collision with rocks, trees or other obstacles.
- You should not use wrist loops (anchoring effect in the avalanche).
- Take the local conditions and the current avalanche report into account.
- In order to react correctly in an emergency, it is necessary to regularly practice activating the AVABAG avalanche airbag.
- No amount of emergency equipment can replace regular practice or taking part in avalanche training courses. At www.ortovox.com, we offer interactive learning material and a broad selection of avalanche courses on the mountain for different levels of knowledge as part of the **SAFETY ACADEMY**.

DISCLAIMER

The ORTOVOX AVABAG avalanche airbags are designed for the enormous forces that can be encountered in an avalanche. Therefore, all AVABAG systems are TÜV/CE (DIN EN 16716) certified (more detailed information on page 57). ORTOVOX is unable to warranty and accept liability towards the purchaser for the functioning of the AVABAG system in particular under the following conditions: improper use, repair attempts or parts replacement by unauthorized persons, and use of or connection to third-party components not authorized by ORTOVOX.

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FUNCTION AND OPERATING PRINCIPLE

By pulling the activation handle (T) during an avalanche, nitrogen is released from the high-pressure cartridges, additional air is sucked in from the surrounding environment and the 160 liter AVABAG balloon (N) inflates within three seconds. The operating principle of the AVABAG avalanche airbag is based on the physical principle of "inverse

segregation". When a mass of particles is in motion, this effect normally causes smaller particles to move to the bottom and larger particles to move toward the top. The AVABAG avalanche airbag increases the volume of the accident victim and strongly intensifies this effect. In this way, the AVABAG avalanche airbag can reduce the risk of total burial. It can also keep your head above the snow and, thanks to its volume, offer protection for the head and neck areas. Its bright color makes it easier to locate.

AVABAG ADVANTAGES AT A GLANCE:

- **LIGHTWEIGHT:**

At approx. 690g, it's one of the lightest systems (P) without attached cartridge).

- **PACKING MIRACLE:**

approx. 1.1 liter volume – more room for your equipment.

- **ERGONOMIC GRIP:**

The innovative shape makes it easier to activate while wearing gloves, regardless of whether you are right or left handed, and the length can be individually adjusted.

- **PRACTICE ACTIVATIONS:**

The activation process can easily be practiced without a cartridge, so that you can prepare yourself

for activating the AVABAG avalanche airbag in the case of an avalanche.

- **REMOVABLE:**

The AVABAG system (P) is removable and compatible with all **ORTOVOX AVABAG** backpacks.

- **REVOLUTIONARY AIRBAG DESIGN:**

The fully welded AVABAG balloon is air tight, tear resistant and has a very small pack size.

- **CLOSED SYSTEM:**

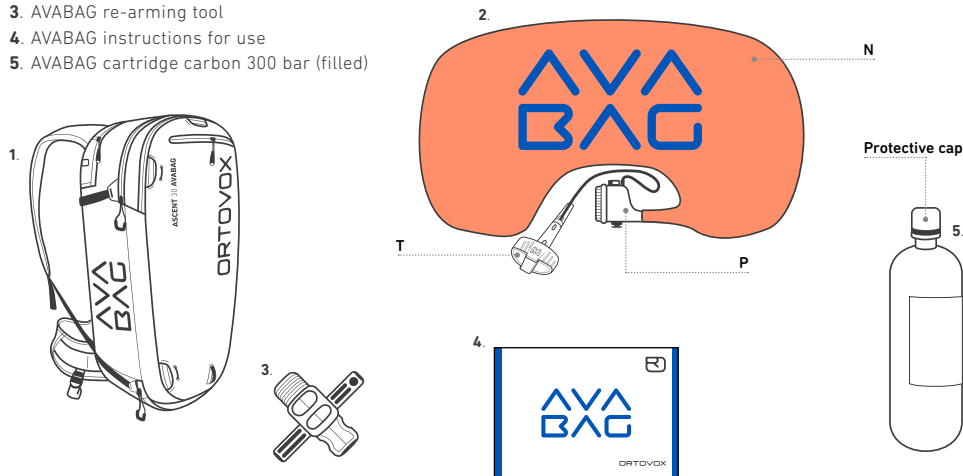
The AVABAG system's (P) closed mechanical design is insusceptible to external influences such as ice or corrosion.



COMPONENTS

For a complete, ready-to-use AVABAG avalanche airbag, you need the following components. All components are also available separately from your specialist dealer. Detailed labels of some components can be found on the envelope of the AVABAG instructions for use.

1. ORTOVOX AVABAG backpack
2. AVABAG system (P) (AVABAG balloon (N) is a fixed component of (P)) with activation handle (T)
3. AVABAG re-arming tool
4. AVABAG instructions for use
5. AVABAG cartridge carbon 300 bar (filled)



SYSTEM PREPARATION CHECK BEFORE EACH USE:

The following checks **MUST** be carried out before every use in order to ensure the system is functioning properly.

1. CORRECTLY INSTALLING THE AVABAG SYSTEM (P)

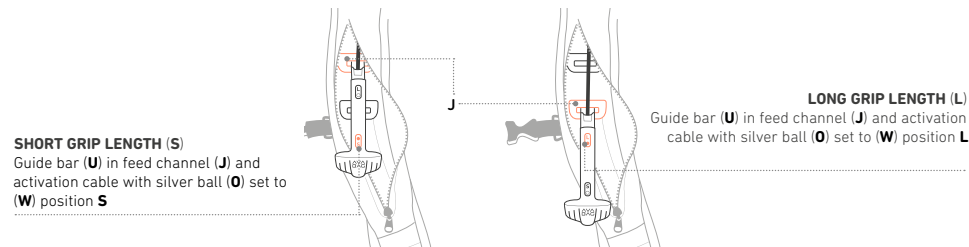
Ensure that the AVABAG system (P) has been installed correctly. For this, the AVABAG system (P) must be installed correctly, the activation cable with silver ball (O) must be able to pass through the feed channel with no restrictions (J) and the AVABAG balloon (N) must be correctly folded (see pages 46 – 51).

WARNING: Incorrect installation can cause the AVABAG avalanche airbag to malfunction.

2. CORRECTLY MOUNTING THE ACTIVATION HANDLE (T)

The silver ball on the activation cable (O) must be easily visible in one of the two settings (W), so in position L or S (see illustration). The position slider (X) must be firmly attached to the activation handle (T). The guide bar (U) on the activation handle (T) must be inserted into the feed channel (J) for the appropriate setting (W).

WARNING: Incorrect mounting can lead to unintended automatic activation of the AVABAG avalanche airbag.

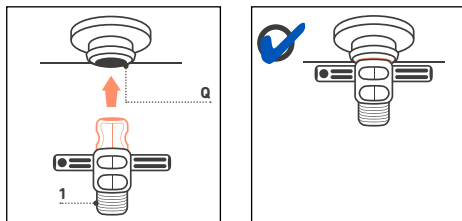


SYSTEM PREPARATION CHECK BEFORE EACH USE:

3. CHECKING / RE-ARMING THE AVABAG SYSTEM (P) ACTIVATION MECHANISM

a.

Insert the unthreaded side (smooth surface) of the AVABAG re-arming tool (1) without force into the cartridge bushing (Q). If you can insert the re-arming tool (1) right up to the stop (see illustration), the AVABAG system is (P) armed and ready to activate. If the re-arming tool (1) cannot be completely inserted, you must re-arm the system.



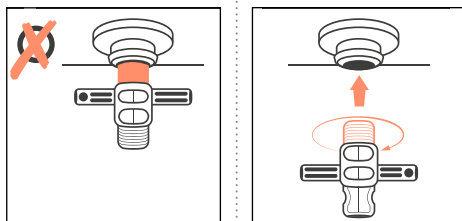
a.

System activated

b.

To re-arm the AVABAG system (P), screw the threaded side of the re-arming tool (1) into the cartridge bushing (Q) without force right up to the stop. Repeat step a to once again check that the activation mechanism has been re-armed.

WARNING: If the activation mechanism has not been checked or armed before screwing in a cartridge, it could lead to a failed or false activation.



System not activated

System activated (b.)

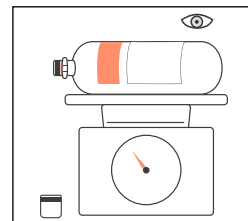
YOU WILL FIND A CORRESPONDING
WARNING IN THE BACKPACK:



BEFORE INSTALLING CARTRIDGE:
CHECK IF SYSTEM IS REARMED

SYSTEM PREPARATION CHECK BEFORE EACH USE:

4. CORRECT FILLING LEVEL OF THE AVABAG CARTRIDGE:

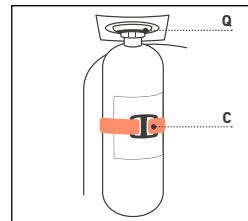


Check the actual weight of the AVABAG cartridge **WITHOUT THE PROTECTIVE CAP**. The weight must correspond to the weight specified on the AVABAG cartridge (+/- 5g / 0.18 oz). If the weight deviates from the specified value by more than +/- 5g / 0.18 oz, exchange the cartridge at a specialist dealer.



WARNING: If the AVABAG cartridge is not correctly filled, the AVABAG avalanche airbag might not activate.

5. CORRECTLY ATTACHING THE AVABAG CARTRIDGE



Step 3 **CHECKING / RE-ARMING THE ACTIVATION MECHANISM** must be carried out before attaching the AVABAG cartridge, otherwise there is a risk of piercing the AVABAG cartridge and the AVABAG avalanche airbag would then no longer be usable.

a. Screw the AVABAG cartridge into the cartridge bushing (Q) right up to the stop so that the sealing ring can no longer be seen on the AVABAG cartridge.

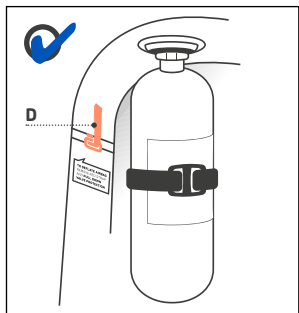
b. Fasten the backpack's orange cartridge clip (C) to keep the cartridge in place.



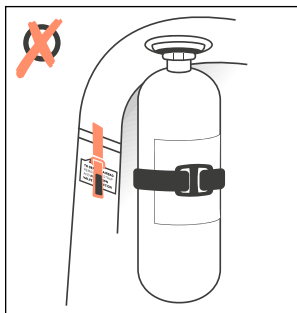
WARNING: If the AVABAG cartridge is not correctly attached, the AVABAG avalanche airbag might not activate.

SYSTEM PREPARATION CHECK BEFORE EACH USE:

6. ENSURE THAT THE VALVE SAFETY FASTENING (D) IS CLOSED.

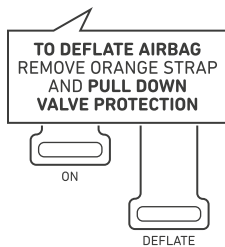


VALVE SAFETY FASTENING CLOSED



VALVE SAFETY FASTENING OPEN

IN THE BACKPACK, YOU WILL FIND A CORRESPONDING WARNING IN ENGLISH:



The valve safety fastening (D) is in the backpack's main compartment (Z1). Ensure that the safety fastening is in the upper position (for this, push the safety fastening upwards as far as possible) and the orange hook and loop fastener is correctly fastened (see illustration). This is only possible in the upper position. You will find a corresponding warning in the backpack.



WARNING: The safety fastening closes the deflation valve under the deflation mark (E).

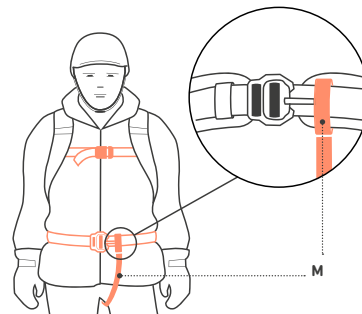
If the valve safety fastening (D) is open, it can cause air to leak out and therefore the AVABAG avalanche airbag to activate incorrectly.

USE:

HOW TO WEAR THE BACKPACK:

1. Fasten the leg safety strap (M). To do this, thread the hip strap through the colored loop on the leg safety strap (M) (see image below).
2. Fasten both buckles on the hip and chest straps (L) one after the other and ensure that they are properly locked into place (see image below).

If you have followed all of the system preparation and usage points, your AVABAG avalanche airbag is ready to use.



WARNING!

In areas where activation would put yourself or other people in danger (in vehicles, on a lift, in crowds of people, on a ridge, etc.), you must ensure that the activation handle (T) is not pulled accidentally, therefore mistakenly activating the AVABAG avalanche airbag. For this reason, the activation handle should be stored away in the shoulder strap (see page 44).

USE IN AN AVALANCHE SITUATION

ACTIVATING THE AVABAG AVALANCHE AIRBAG:

In the case of an avalanche, activate the AVABAG avalanche airbag immediately. It is better to activate once too often than once too seldom. To do this, pull the activation handle abruptly and as firmly as possible.

The AVABAG balloon will fill automatically. **THE INFLATED AVABAG BALLOON WILL NOT NORMALLY PREVENT YOU FROM PERFORMING POSSIBLE ESCAPE OR EVASIVE MANEUVERS.**

IN THE CASE OF AN AVALANCHE, PULL ABRUPTLY AND AS FIRMLY AS POSSIBLE ON THE ACTIVATION HANDLE TO ACTIVATE THE AVABAG AVALANCHE AIRBAG AND INFLATE THE AVABAG BALLOON!



BEHAVIOR AFTER THE AVALANCHE:

Get yourself into a safe position as quickly as possible. If you are able, help other people. Leave the AVABAG balloon inflated and on your body until the immediate avalanche danger has past and you have left the danger area.

After an avalanche during which your AVABAG avalanche airbag was actively used and inflated, your AVABAG avalanche airbag must be taken to a specialist dealer for maintenance.

PRACTICING INSTRUCTIONS FOR YOUR AVABAG AVALANCHE AIRBAG

Many airbag users (12%) do not manage to activate their airbag in an avalanche. Regular training is therefore important for being able to activate the AVABAG avalanche airbag safely and get a feeling for the required activation force in an avalanche. You should train for an emergency as often as possible so that grabbing the activation handle becomes intuitive. **WITHOUT A SCREWED-IN CARTRIDGE**, the system can easily be used for practice (dry run) without opening the AVABAG balloon and therefore incurring no additional cost or effort.

Remove the AVABAG cartridge **BEFORE** a practice activation. Make sure that the AVABAG system (**P**) is armed (see page 38). Pull the activation handle abruptly and as firmly as possible. A clear "CLACK" signals successful activation. Even with an AVABAG airbag that is ready to use, this would be exactly the amount of power you need for activation.



PRACTICE WITH GLOVES, MITTENS, SKI POLES, WHEN SKIING IN A SECURED SKIING AREA, ETC. SO THAT YOU ARE AS SURE AS POSSIBLE WHEN HANDLING THE AVABAG AVALANCHE AIRBAG.

NOTE THAT YOU DO NOT NEED AN AVABAG CARTRIDGE FOR PRACTICING. THE AVABAG AVALANCHE AIRBAG IS NOT READY FOR USE IN AN AVALANCHE EMERGENCY WITHOUT A SCREWED-IN AVABAG CARTRIDGE!

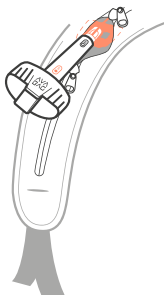
STORING/ADJUSTING THE LENGTH OF THE ACTIVATION HANDLE

The activation handle can be set in two different length positions (illustration left and middle), (**S** = **SHORT**; **L** = **LONG**).

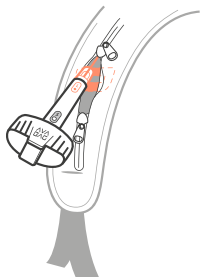
Change the length of the grip only when the **CARTRIDGE HAS BEEN REMOVED**, otherwise it may cause a failed or false activation.

Ensure the handle has been inserted into the correct feed channel (**J**) (as in the illustration below) in the shoulder strap. (See page 37: check before each use).

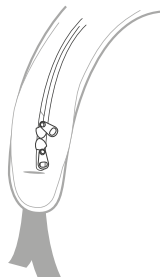
WARNING! In areas where you could put yourself and others at risk, you should always secure your activation handle to prevent false activation. Do this by pushing the activation handle (**T**) up as far as it will go and storing it in the activation handle garage (**K**). Completely close the activation handle garage (**K**) on the backpack shoulder strap using the zip (see illustration, right).



ACTIVATION HANDLE (T) SETTING (W) SHORT = S



ACTIVATION HANDLE (T) SETTING (W) LONG = L



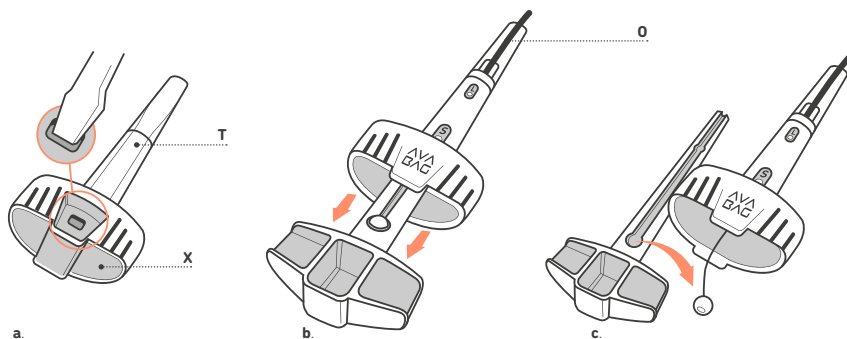
ACTIVATION HANDLE (T) STORED IN ACTIVATION HANDLE GARAGE (K)

REMOVING/DISMANTLING THE ACTIVATION HANDLE

Remove the cartridge before removing the activation handle (**T**).

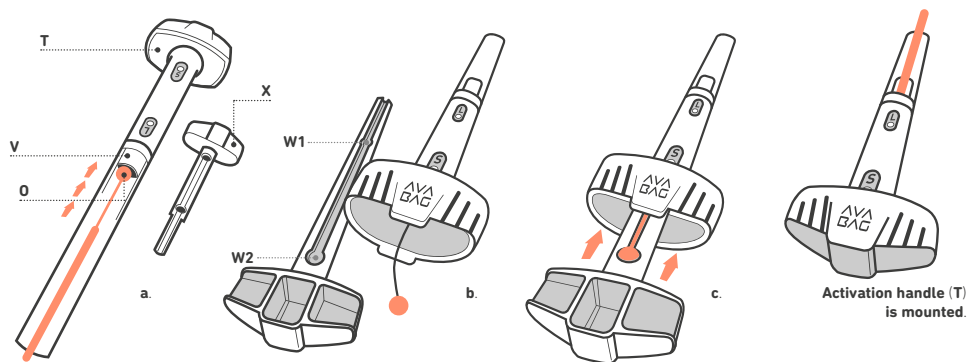
Remove the activation handle (**T**) from the feed channel (**J**) using the following steps:

- Open the lock on the position slider (**X**) on the back of the activation handle (**T**) by pressing on the lock with a suitable object.
- By pressing the activation cable with silver ball (**O**) above the activation handle (**T**) and pushing it downward toward the position slider (**X**), you can push the position slider (**X**) out of the activation handle (**T**).
- Now remove the silver ball on the activation cable (**O**) from the position slider (**X**).



MOUNTING THE ACTIVATION HANDLE (T)

- a. Lead the activation cable with silver ball (O) through the cable inlet (V) in the activation handle (T).
- b. Position the silver ball on the activation cable (O) so that the silver ball is in the position slider (X) in the position for the desired length setting L or S (W1/2).
- c. Push the positioning slider (X) into the activation handle (T) until it is locked into position and the position slider (X) is flush with the activation handle (T).

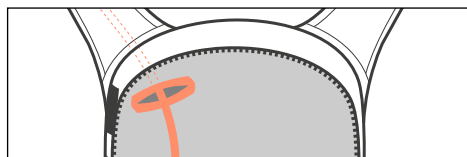


REMOVING THE AVABAG SYSTEM

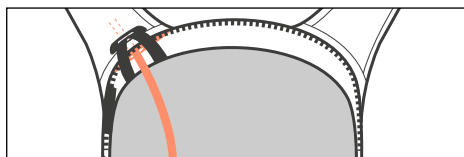
1. Unscrew the cartridge from the AVABAG system (P). If the cartridges are still full, store them with the protective cap screwed on in their original packaging in a safe place, out of the reach of children, at room temperature (approx. 20°C).
2. Remove the activation handle (T) from the activation cable with silver ball (O) (see page 45).
3. Open the AVABAG compartment (Z2) completely by pulling on and opening the yellow burst zipper (A).
4. Remove the three T hooks (F) from the three AVABAG eyelets (S).
5. Open the orange AVABAG hook and loop fastener (I) and the orange AVABAG clip fastening (H) that are used to mount the AVABAG system (P).
6. Remove the AVABAG system (P) and store it, safely packed, in a dry place at room temperature (approx. 20°C). For this, the AVABAG balloon (N) should only be loosely folded.

INSTALLING THE AVABAG SYSTEM

WARNING: THE AVABAG BACKPACK MODELS HAVE DIFFERENT HANDLE CABLE OPENINGS (G)



Handle cable opening (G) for **ASCENT 30 / 28 S**



Handle cable opening (G) for **FREE RIDER 22 / 20 S // ASCENT 22**

1. To open the AVABAG compartment (**Z2**) open the cover of the burst zipper (**B**) and the burst zipper (**A**).
2. Remove the activation handle (**T**) from the activation cable with silver ball (**O**) (see page 45). Lead the activation cable with silver ball (**O**) through the handle cable opening (**G**) in the shoulder strap.
3. Insert the AVABAG system (**P**) into the AVABAG garage (**Y**) and attach to the backpack using the orange AVABAG clip fastening (**H**) and AVABAG hook and loop fastener (**I**).
4. Now, to secure the system, insert the cartridge bushing (**Q**) into the mesh pocket eyelet (**Z**) which will connect the main compartment (**Z1**) with the AVABAG compartment (**Z2**).
5. Using the three T-hooks, (**F**) attach the AVABAG balloon (**N**) to the AVABAG eyelets (**S**) according to the specified color code.
To make installation easier, start with the hook (**F**) with red strap and connect it with the red AVABAG eyelet (**S**) on the AVABAG balloon (**N**). Make sure that the AVABAG balloon (**N**) is not twisted when installed.
6. Fold the AVABAG balloon (**N**) (as on page 50/51) into the AVABAG compartment (**Z2**) and close it.
7. Remount the activation handle (**T**) on the activation cable with silver ball (**O**) in the desired position (see page 46).

THE RIGHT WAY TO PACK

PACKING THE BACKPACK:

Ensure you pack the backpack so that pointed or sharp objects cannot damage the AVABAG compartment (**Z2**), the cartridge or the AVABAG system (**P**). There must not be any long objects protruding out of the main compartment (**Z1**) into the AVABAG compartment so that they block the activation of the AVABAG balloon (**N**).
When the AVABAG system is installed, you should not pack any items in the AVABAG compartment (**Z2**).

SKI/SNOWBOARD TRANSPORT AND PACKING THE BACKPACK:

ORTOVOX AVABAG avalanche airbag backpacks offer you diverse possibilities for attaching your sports equipment (see backpack properties on the product hang tags or visit ortovox.com).
Make sure that the AVABAG compartment (**Z2**) and the deflation mark (**E**) are not obstructed when packing. When carrying ice axes, ice gear or ski poles, ensure these have with protective caps.

RE-USE AFTER ACTIVATION

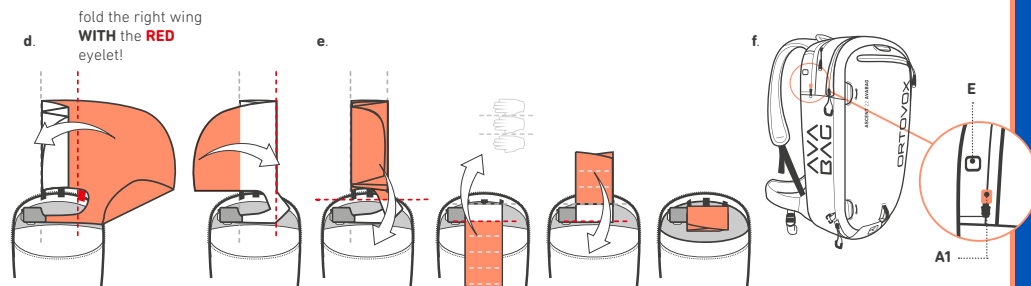
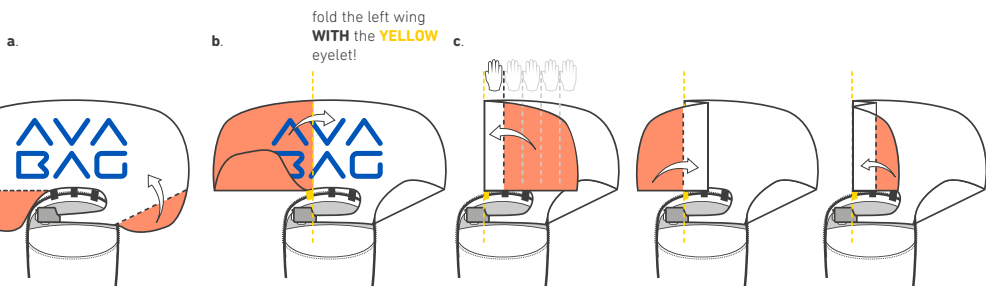
Please note **MAINTENANCE AFTER AVALANCHE DEPLOYMENT** on **page 54!**

1. Unscrew the used cartridge from the AVABAG system (P).
2. Open the valve safety fastening (D) in the main compartment (Z1) of the AVABAG backpack (see page 40). To do this, release the highlighted, orange hook and loop fastener and pull the valve safety fastening downwards.
3. Deflate the AVABAG balloon completely (N) using the deflation valve (R), by pressing the deflation mark (E) on the outside of the AVABAG backpack.

4. Move the AVABAG compartment (Z2) zipper to the beginning of the burst zipper (A). For this to work, the burst zipper (A) must be completely separated.
5. With the shoulder straps to the bottom, lay the backpack on a clean surface that is free of sharp or pointed objects and spread the AVABAG balloon (N) out flat.
6. Fold the airbag following illustrations a. to e., always using a **zigzag** concertina fold. Make sure, as shown in b. & d., to fold the outer wings **WITH** the AVABAG eyelets (S). In steps c, d (second image) and e, the folds should be about **HAND WIDTH**.

7. If there is any air still in the AVABAG balloon (N) when folding, this can be removed by repeatedly pressing the deflation mark (E) on the outside of the backpack.
8. Completely close the zipper on the AVABAG compartment (Z2) and make sure not to catch the balloon fabric.
9. Stow the zipper in the orange zipper garage (A1) to the left (see f.).

10. Close the cover for the burst zipper (B) and make sure that the yellow burst zipper (A) is not under tension. Stow the loose tab under the cover for the burst zipper (B) in the backpack.
11. In the main compartment (Z1) push the orange valve safety fastening (D) upward and secure it with the orange hook and loop fastener (see page 40).
12. Arm the AVABAG system (P) by screwing in the re-arming tool (see page 38).
13. Screw in a filled cartridge (see page 39).



AVABAG CARTRIDGES (CARBON 300 BAR) (AVAILABLE SEPARATELY)

- The AVABAG system may only be used in combination with an AVABAG cartridge.
- AVABAG cartridges are designed for use only with an AVABAG system.
- AVABAG cartridges comply with EC Directive 1999/36/EC.
- Check the weight of the AVABAG cartridge before every installation (see page 39).
- AVABAG cartridges must not be manipulated
- Do not expose AVABAG cartridges to heat (direct sunlight; stovetop; oven; radiator).
- Store AVABAG cartridges at room temperature (approx. 20°C) in a safe, dry place in the original packaging and with the protective cap screwed on.
- The AVABAG cartridge is filled with nitrogen.
- At room temperature, the AVABAG cartridge has a filling pressure of 300 bar.
- This AVABAG cartridge is designed for operating temperatures from -30 to +40°C.
- Use the AVABAG cartridge only within the specified temperature range.

EXCHANGE:

Empty AVABAG cartridges can be returned to an authorized specialist dealer. There, you can purchase a filled AVABAG cartridge following the bottle deposit principle.

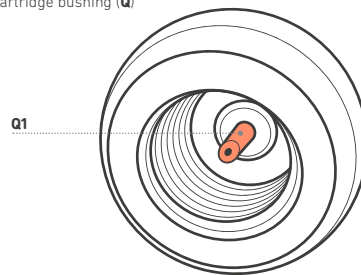


ANNUAL CHECK-UP

By carrying out the following checks, you ensure that the AVABAG system remains largely maintenance free.

1. Unfold the AVABAG balloon (**N**) every new season and at least once per year (**THIS DOES NOT MEAN ACTIVATION WITH A CARTRIDGE**). Check the balloon for possible damage and fold it back up (see page 50 / 51). Ensure that the entire AVABAG system (**P**) is completely dry when installed.
2. Carry out a practice activation **WITHOUT CARTRIDGE** at least once per year.
3. Regularly check the condition of the backpack for possible damage.
4. Check the AVABAG system (**P**) in its inactivated state: A piercing needle (**Q1**) can be found inside the cartridge bushing (**Q**). This must be easily visible (see image).

AVABAG system (**P**)
cartridge bushing (**Q**)



After every instance of damage, the functionality of the AVABAG system must be checked by the manufacturer.

MAINTENANCE, STORAGE, TRANSPORT

MAINTENANCE AFTER AVALANCHE DEPLOYMENT:

Each avalanche deployment can push the material to its limit and damage the AVABAG avalanche airbag. That's why a comprehensive general service is essential after an avalanche deployment.

After an avalanche, your AVABAG system (P) and backpack must be checked by the manufacturer. For this you should take your AVABAG system to your specialist dealer.

CUSTOMER SERVICE:

The AVABAG system (P) is designed for 20 activations with cartridge and 100 practice activations without cartridge.

Every system that has been activated often must be subject to a complete check-up. A comprehensive general service must be carried out not later than 5 years after the purchase date.

The service (subject to charge) includes an inspection of the entire AVABAG avalanche airbag.

For this, take your AVABAG backpack with the AVABAG system and AVABAG cartridge to an authorized specialist AVABAG dealer.

STORAGE:

The AVABAG system must be stored in a dry place, out of the reach of children, at room temperature (approx. 20°C).

The AVABAG cartridge can remain attached to the system for storage. However, its weight must be checked before every use. For longer storage periods, we recommend storing the cartridges separate from the AVABAG system.

When separated from the AVABAG system, the AVABAG cartridge must always have its protective cap in place and be stored in its original packaging.

CLEANING:

Only water should be used for cleaning the AVABAG system and the AVABAG backpack. Do not use solvents or aggressive cleaning agents.

After being cleaned, the AVABAG system must be completely dried at room temperature before being reused, otherwise it is at risk of icing up.

SERVICE LIFE:

Provided that the recommended maintenance schedule, the annual check-ups and appropriate handling are correctly adhered to, the AVABAG system has a maximum service life of 10 years.

TRANSPORT:

Taking AVABAG avalanche backpacks onto planes is generally allowed. Together with the filled cartridge, they fall under the IATA (International Air Transport Association) dangerous good regulations and are listed in table 2.3A. During transport, the AVABAG cartridge must remain disconnected from the AVABAG system to prevent accidental activation. The cartridge must only be transported with its protective cap screwed on.

Transporting the AVABAG backpack is allowed by airlines, but only in accordance with the following points: The AVABAG system must be installed in the AVABAG backpack. The cartridge must not be screwed in, but must be transported inside the AVABAG backpack. Ask your airline about their guidelines.

SENDING THE AVABAG CARTRIDGES:

If you wish to send the AVABAG cartridge, inform the transport company about the filled cartridge. The information required by the transport company can be found on the cartridge.

WARNINGS

- An AVABAG avalanche airbag cannot prevent avalanches.
- You should not, in any way, take more risks because you are using an AVABAG avalanche airbag.
- The function and operating principle of the AVABAG avalanche airbag is designed to reduce the risk of burial. However, there are situations in which this is not possible or is only possible to a limited extent.
- The AVABAG system must be activated manually. A filled AVABAG cartridge is necessary for correct activation.
- The AVABAG avalanche airbag requires careful handling and an exact check to ensure that it is in proper working order before each use.
- The AVABAG system may only be used in combination with an AVABAG cartridge.
- The AVABAG system may only be used in combination with one of the following AVABAG backpack models: ASCENT 22 AVABAG, ASCENT 30 AVABAG, ASCENT 28 S AVABAG, FREE RIDER 22 AVABAG and FREE RIDER 20 S AVABAG. Only when installed correctly can the AVABAG system reduce the risk of burial in an avalanche. ORTOVOX excludes all responsibility or liability if the AVABAG unit is used in combination with a backpack not listed above.
- ORTOVOX is not responsible for injuries that could occur as a result of an avalanche during which an AVABAG avalanche airbag is being worn.
- An AVABAG avalanche airbag is **NOT** a replacement for other avalanche rescue equipment (avalanche transceiver, probe, shovel).
- Any manipulation of the airbag whatsoever is forbidden and can cause the AVABAG avalanche airbag to malfunction.
- Maintenance and complete system checks may only be carried out by the manufacturer. For this you should take your AVABAG system to your specialist dealer.
- Store your AVABAG system in a dry place, out of the reach of children, at room temperature (approx. 20°C).

TECHNICAL INFORMATION

- Airbag volume: approx. 160 liters
- System weight: approx. 690g
- Filling time: approx. 3 seconds
- Operating temperature: from -30 to +40°C

CERTIFICATION / CONFORMITY

MANUFACTURER:

ORTOVOX Sportartikel GmbH,
Rotwandweg 5,
82024 Taufkirchen
Germany

TYPE: AVABAG avalanche airbag system
Product standard: Pr EN 16716:2015

AVABAG is a registered trademark of
ORTOVOX Sportartikel GmbH.

The AVABAG avalanche airbag system is certified by TÜV Süd Product Service GmbH in the context of a GS mark audit (a product safety mark), in accordance with PPE directive 89/686 EEC as well as the CE guidelines.

TÜV Süd Product Service GmbH,
Daimlerstr. 11, D-85748 Garching
Test center number 0123



SERVICE:

Please contact your specialist AVABAG dealer for customer service or for questions about service in relation to your AVABAG avalanche airbag.



BEING PREPARED

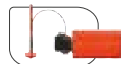
EDUCATION AND PRODUCTS FOR
MAXIMUM PROTECTION



PHOTO Hansi Heckmair



We show you how to stay safe –
in the **SAFETY ACADEMY LAB**
on ortovox.com



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REDUCED TO PROTECTION