



# Remote Activation of Avalanche Survival Gear

## ABS Wireless Activation



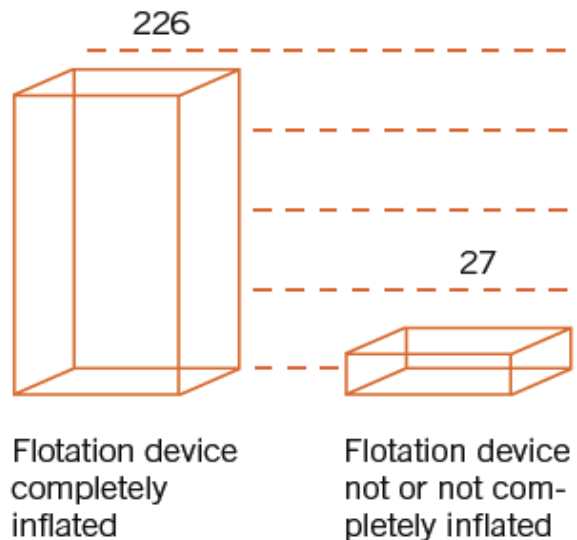
## Introduction

---

- Where as classical avalanche rescue devices are permanently in an active state of protection,
- many of the newer survival tools like flotation devices need to be activated by its user.
- The effectiveness of the ABS Airbag is deemed to be proven with an activated ABS Avalanche Airbag 98% of all avalanche victims survived
- The statistic of the Swiss Avalanche Institute shows that the vast majority of the failure rate of the System, where the airbags did not or not fully inflate are due to human failure (8.3%).

## Statistics

- Worldwide, a total of 253 cases (caught subjects) are known and registered in the database of the Swiss Institute for Snow and Avalanche Research, Davos



### Human failure

- 55% User did not see avalanche or was unable to pull handle due to mechanical/physical reasons
- 15% Equipment incomplete
- 8% User did not trigger on purpose

=>Lack of situational awareness, mental preparedness as well as physical incapability to pull or reach the trigger handle represent the core problem in the practical application of flotation devices.



## ABS Wireless Activation

---

- Whereas the failure of an individual to activate the device has to be considered high for a potentially life-saving system,
- the likelihood for all individuals of a group to fail is very low, in particular for those ones not caught.

=> This conclusion lead to the newest development:  
**The ABS Wireless Activation.**

The developed remote release technology is designed to fulfill the many functional, safety and environmental requirements for recreation and professional application in the winter mountain environment.

## ABS Wireless Activation The Principle

---

- If one group member pulls his wireless activation handle, he not only releases his own airbag, but
- also those of the release community he belongs to (normal setting).

=> In case of an avalanche release, this means that there is a second chance by remote triggering in case you are not able to release your own system.





## ABS Wireless Activation

### How it works:

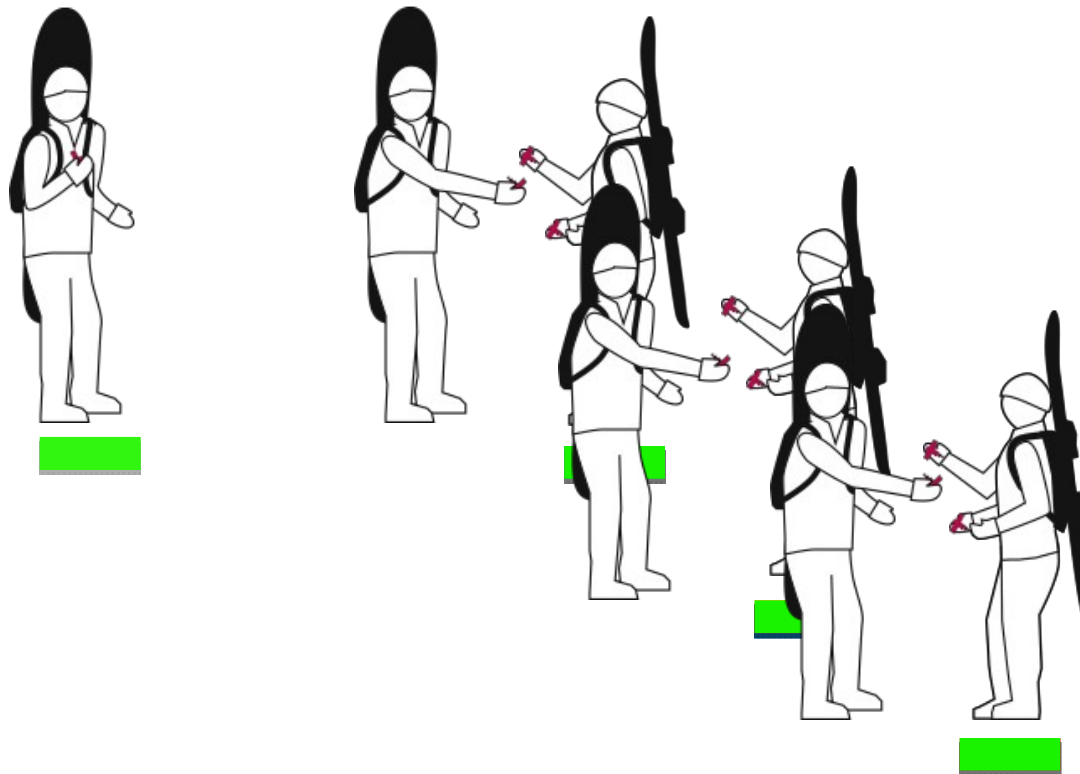
---

- A release community is formed by pairing the remote activation handles before you venture in to the back country.
- Only members of the same release community can activate each other's airbag.
- Interference with other release communities is impossible as each one has its unique ID.
- Triggering the own system is always possible, even when
  - No batteries or batteries empty
  - System did not join a release community
  - System is part of a release community it is not skiing with
  - Defective electronics

## FORMATION OF A “RELEASE COMMUNITY”

---

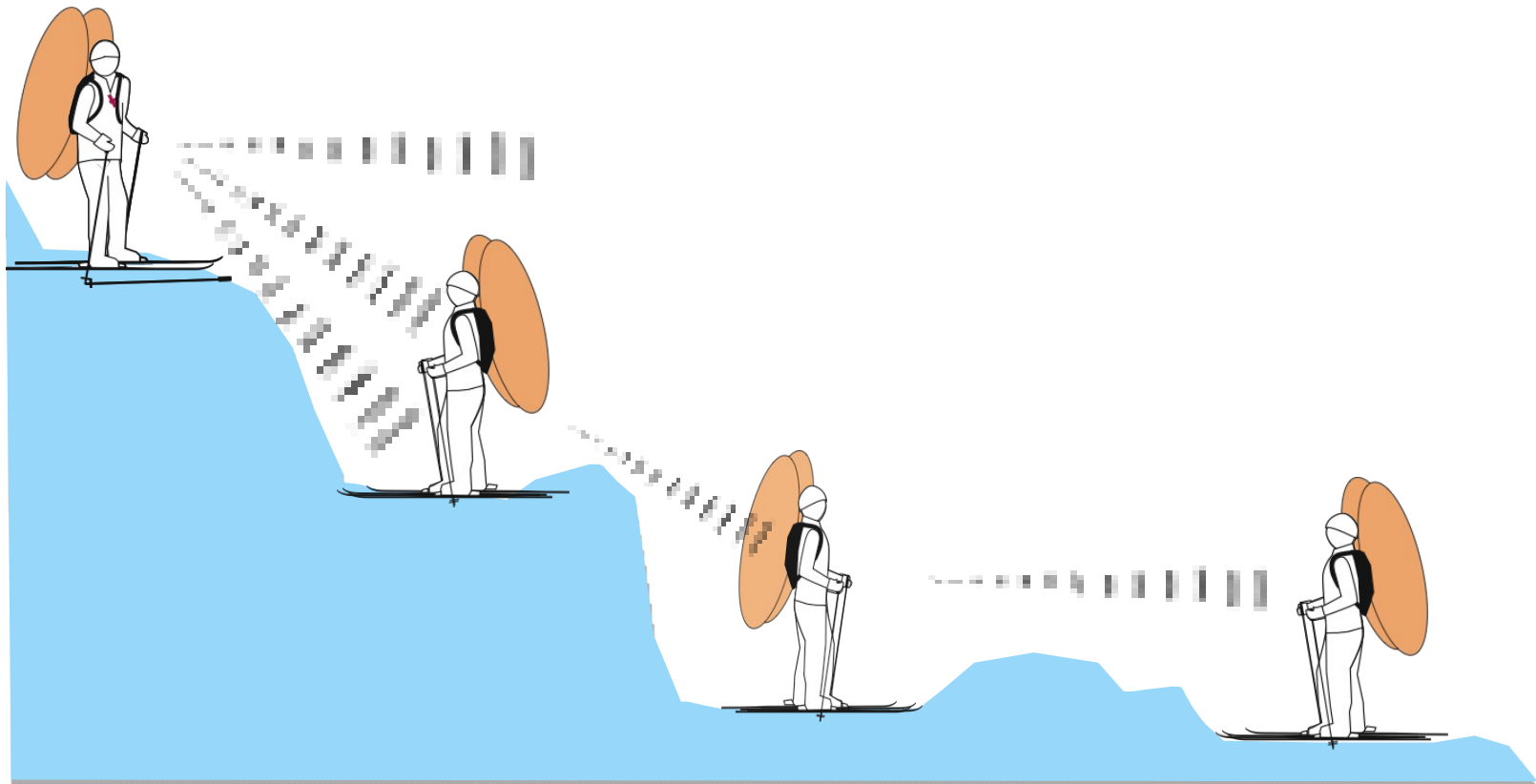
One member of the “release community” pairs all group members



## VALUE OF A REPEATER FUNCTION WITHIN THE “RELEASE COMMUNITY”

---

The repeater function minimizes consequences of terrain shading and increases the effective range within a “release community”

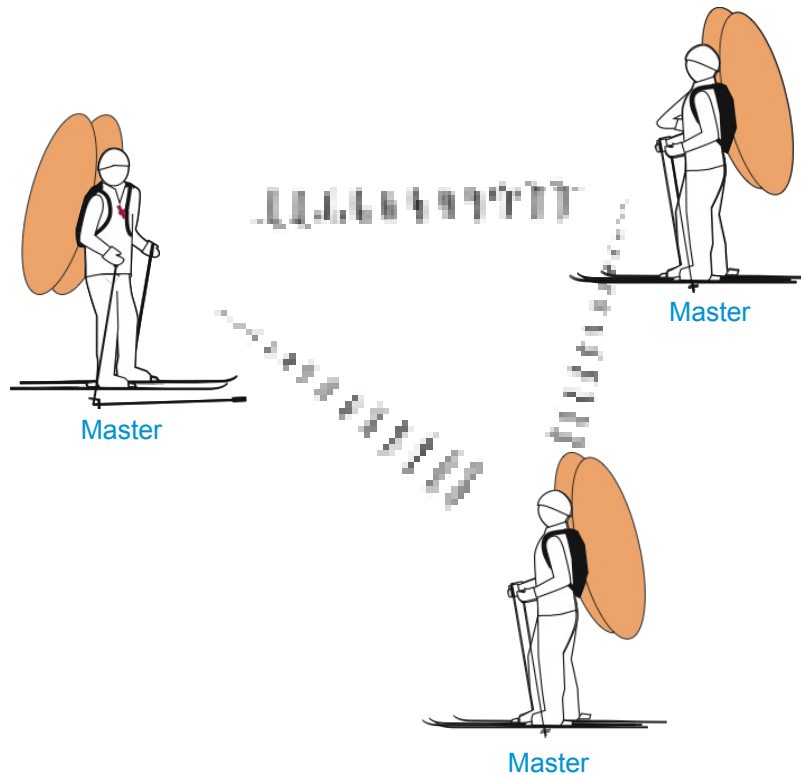




# A “RELEASE COMMUNITY” IN MASTER / MASTER CONFIGURATION

---

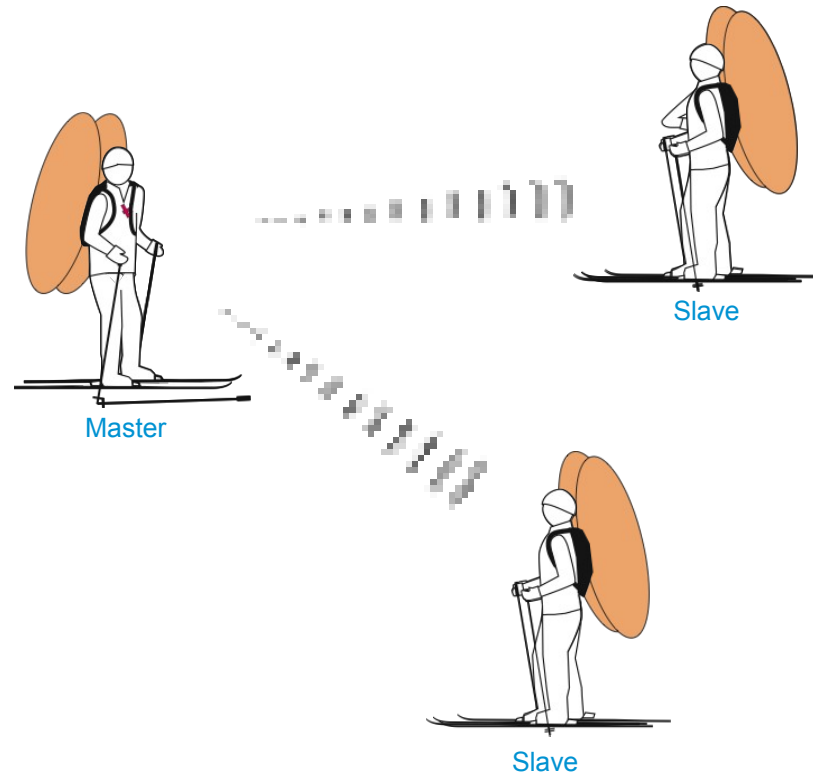
Every group member may remotely trigger all group members within range



## A “RELEASE COMMUNITY” IN MASTER / SLAVE CONFIGURATION

---

- Selected group members may remotely trigger all group members in range
- All group members may trigger their own system and act as repeaters



# BACKWARD COMPATIBILITY WITH ALL ABS SYSTEMS WITH PYROTECHNIC TRIGGER MECHANISM

---



- Trigger handles with and without remote triggering available
- Remote triggering system upgradable by the user



THANK YOU FOR YOUR ATTENTION!