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Arva Axis[®]

Version 3.0 - 2011/2012



Device description and advice

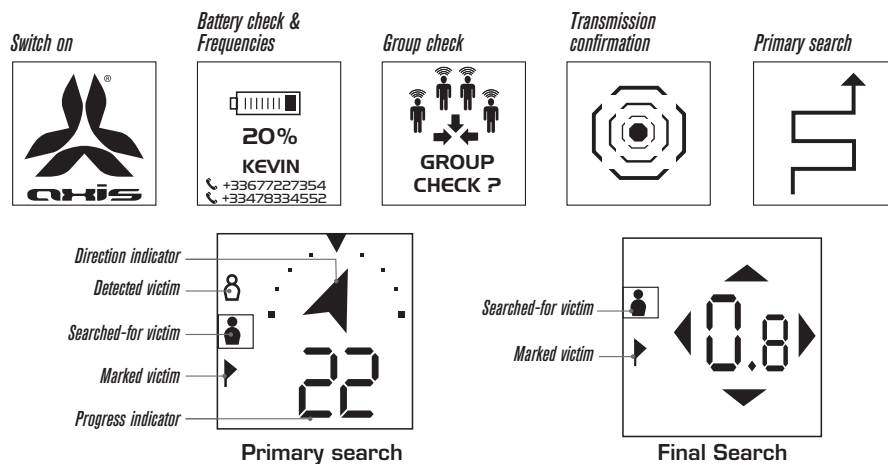


- Ⓐ On/off button
- Ⓑ LCD screen
- Ⓒ Sensitivity settings
Menu navigation
- Ⓓ Transmit/receive selector and
Marking / Menu Validation
- Ⓔ Clip for wrist loop
- Ⓕ Earphone socket
- Ⓖ Holster



Device carrying and holster

The holster must always be worn against your inner layer of clothing (underwear or next to skin). The ARVA should preferably be covered by a garment to prevent cold and impacts. If you use the device for searching, the little karabiner keeps it fastened to the holster.





Congratulations on buying your new Arva Axis.

This device combines the latest technologies on the market, including:

- ⦿ 2 search modes Digital and Analogue.
- ⦿ Motion detector for automatic switch to transmit.
- ⦿ Search band width of 50 m minimum in all conditions (for units manufactured to European standard ETS 300 718).
- ⦿ 457 kHz transceiver whose transmission power does not depend on battery status.
- ⦿ Simultaneous detection of multiple victims, with creation of a list.
- ⦿ Able to mark the found victim.
- ⦿ Device configurable to the user.
- ⦿ LCD screen allows programme updates over time.

Advice on device use and personal safety

When you exit a secure ski run, you enter a world of risk where an avalanche, in particular, may occur. If you do this, you are solely responsible for moving around the mountains:

- **Before leaving your base**, obtain information (from websites, mountain professionals, etc.) and equip yourself with an ARVA, shovel and probe. This equipment is not an avalanche detector or absolute protection.



To use your ARVA effectively, you must be trained. So practise using it!

- **Never leave a run alone**, and do not follow just any traces: they are not an absolute guarantee of safety. If unsure about the stability of a slope you absolutely have to take, increase the distance between you, or better, go one at a time. And keep an eye on each other.

- **Lastly, know when to stop**. And be very careful: snow changes, and so does avalanche risk! Learn about avalanches, and prepare your route with www.arva-equipment.com/experience



Using your ARVA:

Move SLOWLY so you don't take the wrong direction in haste. You must search the entire avalanche surface.

When doing a search or check, be sure to stay away from any electronic equipment (high-voltage power lines, radio, mobile phone, heartbeat meter, etc.) or impose radio silence. A pacemaker may also disrupt the device in search mode. This list is not exhaustive.

Applicable to any DVA or GPS type transceiver device. The progress indicator describes progress along a field line; it is not the straight-line distance in metres.

Fitting batteries and advice

The Arva Axis only operates with 4 standard AAA/LR03 alkaline batteries.

Open the battery compartment cover with a screwdriver or coin, or using the screws. The 4 batteries must always be of the same brand and replaced at the same time. Insert the batteries carefully, as per the directions shown in the compartment.

Avoid touching the contactors. Store the unit above 0°C to prevent battery deterioration.

⚠ NEVER USE rechargeable or lithium batteries. These do not resist cold and/or discharge in one go (unlike alkaline batteries, which discharge gradually).

Remove the batteries if the device is left unused for a long time (especially in summer). If batteries leak, the warranty does not apply.

Initial start-up (on removal from box)

Switch the unit on **①**

When you briefly press the top-right button, the screen facing you lights up and performs its self-tests (transmission power, screen, loudspeaker, etc.)

For first use:

The Config screen appears automatically **②**. You must:

- 1 - Select a language
- 2 - Enter your contact details (surname / first name, and contact telephone number in case of emergency)

To access a configuration line, press the central flag button in the parameter to be changed. To scroll up and down, press the left- and right-hand arrow buttons, and validate using the central flag button.

If you reset the device, these steps must be repeated (Reset function in configuration menu).

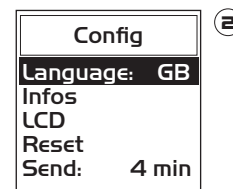
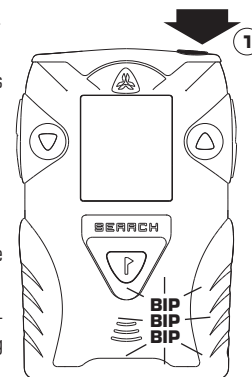
If your device has been switched on in-store for testing, refer to page 6 to re-access the configuration menu.

The available settings are:

- Language (French / English / German / Italian / Spanish / Norwegian / Japanese)
- Owner contact details (name, telephone number, etc.)
- Mode (Novice, p.9; or Expert, p.10)
- Automatic return to transmit (4 minutes / 8 minutes or inactive)
- Marking distance (3 m / 5 m)
- LCD contrast (Very Low, Low, Medium, Strong, Very Strong)
- Reset (all settings return to default configuration)
- Exit (to exit the configuration menu)

To configure the other settings, see page 14.

The underscored options in the above list are default settings. They are obtained if you reset.



Switching on

Briefly press the ON/OFF button ① on the top of the device.

During start-up, the unit performs an automatic check (then a self-test every 5 minutes). The microprocessor, antennas, batteries and display are checked. Three beeps indicate that the loudspeaker is working correctly.

At the same time, the LCD screen displays the battery charge (in %) and the data you recorded during initial start-up (surname, first name, telephone numbers, etc.) ③

The device then enters transmit mode. The green diode on the side flashes to show the device is working correctly. The transmit sign on the screen flashes.



Just before it starts transmitting, **the device offers to run a Group Check** ④. To run the check, press on the centre button before the window disappears.

If you press on the centre button, the device switches to Analogue mode with minimal reception (the equivalent of about 1 metre) to check the whole group. Each group member must switch to transmit mode in front of this "test" device. The tester must then switch his device to transmit mode and check it is working too.

Once the tests are done, you can exit this function by pressing the centre button. If you do nothing, the device will automatically switch to transmit mode after 5 minutes.

If the device detects an anomaly, it gives a long 5-second beep. This long beep is repeated 5 and 10 minutes later:

There are 3 possible explanations:

- Battery charge has dropped to 20% (the device can still transmit for 48 hours or search for 30 minutes). To warn you, the device gives a long 5-second beep. This long beep is repeated 5 and 10 minutes later.
- Technical problem (transmission or program). After a long 5-second beep, the LCD screen displays "Error"; this long beep is repeated 5 and 10 minutes later. **If this occurs, do not exit a run with the device. Contact your nearest reseller.**
- 457 kHz Emission power failure : if the transmission power is getting too low, the following message will appear : PROBLEME EMISSION 457 kHz. If the failure is temporarily (due to the proximity of a large amount of metal), there's only one message. If the failure is permanent, the message will be displayed every five minutes (electronic problem). If this occurs, do not exit a run with the device. Contact your nearest reseller.

Switching off the device

Briefly press the ON/OFF button ⑤ on the top of the device. A double-beep alarm sounds to validate switch-off. To validate, press the centre button ⑥.

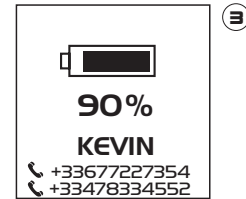
Transmit/receive selector

The centre switch is locked in the up position (transmit) ⑦.

To switch to receive mode, press the centre button and slide it down. The word SEARCH becomes visible: you are now in Search mode. To revert to transmit mode, switch the centre button to the up position, where it will relock mechanically.

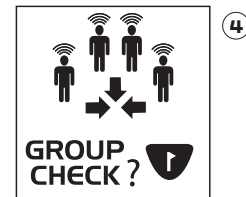


The device can be in transmit mode while the selector switch is in the down position, especially after the software automatically reverts to transmit mode (see p.17). In this case, to correctly change to receive mode: firstly reset the switch to transmit mode, then change to receive mode.

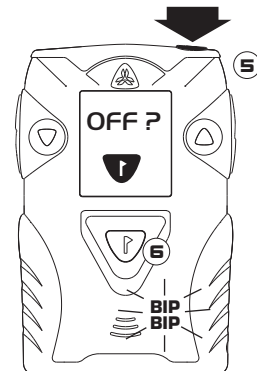


Start-up screen

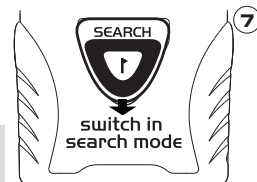
- battery status
- user name
- user phone number
- contact phone number in emergency



Group check



Switching off the device



Switching to search mode

Setting your device - Configuration menu



To access the Configuration menu whenever you wish, you must:

Switch off the device (press top right button, then validate switch-off with centre button: see page 5, diagram ⑤)

Hold down the left- and right-hand buttons simultaneously ①

While still holding these two buttons down, press the On/Off button 2 for 5 seconds ②.



Selecting a language (default: English)

To select a language, scroll down the list using the two up/down arrows, and validate with the centre button.

The language options are French, English, German, Italian, Spanish, Norwegian and Japanese.

To enter your contact details, proceed in the same way. If you do not want to enter your details now, select EXIT.

Entering your contact details

You have three lines of alphanumerical marks. We advise you to start with your surname and first name, to identify your device in case of loss.

The first telephone number can be the owner's. The second can be a number to call in case of emergency.

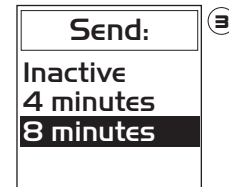
This information is displayed each time the device is switched on.

Automatic switch to transmit mode (default time: 8 minutes)

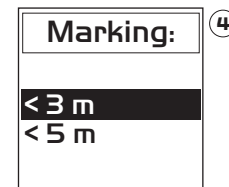
The device has a motion detector. This lets the device automatically switch to transmit mode if it detects that, in receive mode, you have not moved for 4 or 8 minutes. This function can be very useful in case of a second accident, if searchers have not had time to switch their device from search (receive) to transmit mode. The default time before switching is 8 minutes ③.

However, if you are in search mode, the device asks for validation ("SEARCH?") to authorise the switch to transmit. If you do not operate the centre button, the device switches even if your selector is set to SEARCH.

This function can be deactivated (no automatic switch to transmission mode). This means only you can switch from SEARCH (receive) mode to transmit mode



Automatic return to transmit mode



Maximal distance for marking a victim

Marking distance :

This lets you choose the marking function from 3 meters or from 5 meters ④.

3 meters marking is the standard for normal users, 5 meters marking is a special setting for particular snow conditions and should only be used by trained professionals

Adjusting LCD contrast (default: Medium)

This lets you adapt the display to ambient light ⑤.

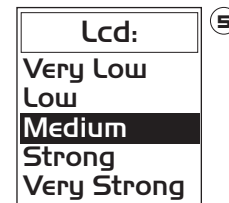
Reset

This lets you restore all the default settings.

Exit




Once you have set your device, validate Exit to record your settings and return to transmit mode.

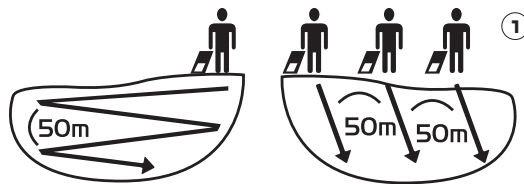
If the configuration menu is inactive for 1 minute, the device automatically switches to transmit mode, starting with a self-test.



Adjusting LCD contrast

There are two search modes that can be Digital and Analog.
 You can easily switch from Digital into Analogue, to check information or resolve complex cases.
 The first letter of the mode is displayed in the top-right of the screen (N, A).
 Below, each mode and its specific features is outlined.

Possibility to Analogue option		
DIGITAL mode N	ANALOGUE mode A	STANDBY option
		
<ul style="list-style-type: none"> List of detected victims Possible to mark the found victim Progress number displayed Direction arrow 	<ul style="list-style-type: none"> Accessed simply by pressing +/- buttons Estimation of number of victims Advice on setting sensitivity Estimation of distance relative to sensitivity Manual variation of sensitivity Optimised range with screen unlit (max. sensitivity) 	<ul style="list-style-type: none"> This function need to be in case you are on an avalanche situation as a rescuer and but you're not searching with your beacon because you are probing, shoveling, or communicating with rescuers. <p>To exit the Standby function: Press On/Off.</p>



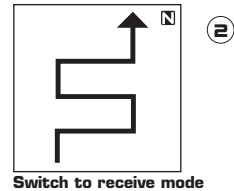
DIGITAL mode N

Primary search (approach phase)

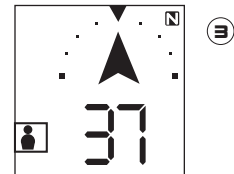
- Press the centre button and slide it down (transmit position). The screen continuously displays symbol (2) until you detect a signal.
- Zig-zag over the avalanche (1)
- Hold the device horizontally, pointing it down and sweeping slowly (left to right, then right to left, over 180°)
- Continue until you obtain a first clear signal (direction arrow lit and AND progress number displayed) (3).

Secondary search (locating phase). This phase starts once you receive the victim's signal.

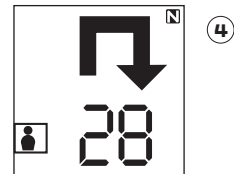
- Once a direction arrows lights up, orient your device so that the central digital arrow is lit, and move in the direction shown. **If the number falls, you are getting closer. If you move in the wrong direction, sign (4) appears: turn around and check the number is falling.** Then continue, trying to reach the lowest figure.
- In case of multiple burials**, the device creates a list on the left of the screen, and automatically searches for the nearest victim. The searched-for victim is framed on the screen (5). Continue your progress until the number falls to about 3.0.



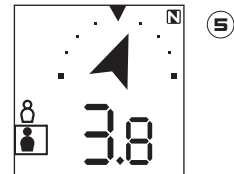
Switch to receive mode



Secondary search



Turnaround function



Multi-victim function

Search methods



■ Final search (detecting phase) ①.

When you reach this number, with the arrow lit, lower the device horizontally, in the same position, to just above the snow. The beeps quicken, and the search number falls further.

Continue progressing to the smallest number. When it begins rising again, return to the lowest number and **locate the victim using the cross technique, keeping the device in exactly the same position** (parallel to snow).

During this phase, each time you obtain the lowest distance, the device must always point in the same direction (do not turn it to the left or right).

With an ARVA, you don't need to an extremely precise location. It is often quicker to immediately start probing once you have defined the like location zone to about 50 cm precision.

Marking a nearby signal

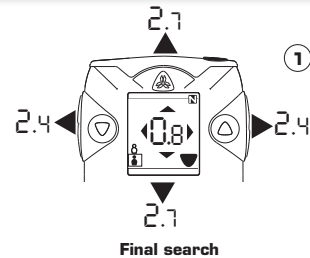
When the progress indicator falls to 3.0 (or 5.0 according to the settings), the device offers to mark (i.e. mask) the detected signal. Pictogram ② flashes in the bottom right of the screen. Only mark the signal once you have pinpointed/touched the victim with the probe.

By pressing the centre button, you mark the nearby signal received. The device then locks onto the next nearest signal (③). The selection frame on screen moves to the current searched-for victim, and the found/marked victim is replaced by this pictogram ¶. Then continue searching until the final-search phase.

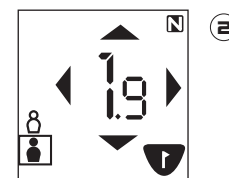
Once all the detected signals have been marked, the device reverts to analogue mode and invites you to check the entire avalanche by displaying the X sign.

NB: The marking mode works in most cases. However, some signal stacks are hard to separate, and multiple burials (more than 4 signals) reduce the searcher's ability to mark the signal. An alert message "Ⓜ" may appear.

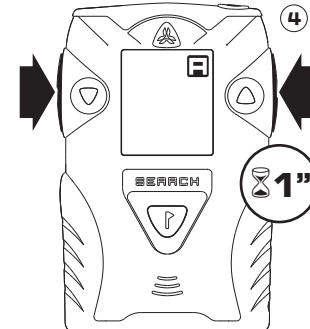
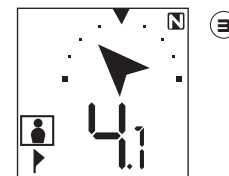
Move away and try again. Or, to increase your chance of success, proceed using the three-circle method or the micro-strip search method.



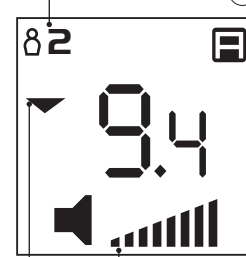
Final search



Marking function



Estimated number of victims



Sensitivity

Arrow telling you to reduce sensitivity

Analogue mode ④

To select/exit this option, simultaneously press the left- and right-hand buttons for 1 second ④.

To indicate Analogue mode, the symbol ④ appears in the top right of the screen.

In this search mode, the user controls his receiver's sensitivity. The more he presses the right-hand arrow, the more sensitive it becomes, and vice versa.

An estimated number of detected victims appears in the top left.

The device gives sensitivity advice ⑤. If sensitivity relative to the proximity of a victim is too high or low, the values displayed on screen will be wrong or unreliable. The device displays small flashing arrows on the left and right of the screen, so the user can optimise the sensitivity.

When these arrows disappear, the sensitivity is correct.

This mode has no direction feature. Assistance is by sound and number only.

You can increase sensitivity even further by pressing in the right-hand arrow: the display disappears and the device is subject to only very low interference, which can further increase its sensitivity. When you reduce sensitivity again, the display reappears.

Analogue searching is complex and requires lots of training.

You must listen for the strongest signal, and use the numbers to guide you closer. Proceed at right angles, keeping the device vertical. You can use the earphone (optional) to better perceive sound-level differences.


■ Standby function:


This function need to be in case you are on an avalanche situation as a rescuer and but you're not searching with your beacon because you are probing, shoveling, or communicating with rescuers.

In this situation, you can't be in emission mode not to disturb the searching process, and you don't want to be in search mode to avoid the big noises. Nevertheless you can't turn off your device in case a second avalanche would occur.

By activating the stand by function, the device is still turn on and in case you're not moving during 4 minutes (2nd avalanche), it switch into emission mode. To launch the Standby function: Press On/Off twice and press central button to confirm. To exit the Standby function: Press On/Off.


■ Victim Plus function :

If the victim plus logo  appears in the upper part of the screen, that means that your beacon is detecting a signal that is stronger than the one selected in the list. This information could be really helpful in a complicated multiple buried victim situation. When you switch into research mode, your device detects the signals and classifies them from the closest one (stronger signal) to the remote one (weaker signal). By moving on the field while searching, this ranking may evolve.

This symbol  appears right before the automatic switch from the selected victim to the new closest one.

Important informations

■ Informations about Error messages

If you search in a complex, multi-burial situation or encounter heavy interference, your device may take longer to provide relevant information: in this case, the  sign appears. If this happens, do not move for a few seconds, until the device tells you which direction it thinks is optimal.

■ Informations about Automatic switch to transmit mode

The device automatically reverts to transmit mode in the following cases:

- If you turn on your device with the centre button in SEARCH position: the device asks you to validate that you want to stay in search mode by pressing on the centre button. If after 10 seconds you have not pressed it, the device automatically reverts to transmit mode.
- If you are in search mode and motionless, and if your time before automatic revert to transmit mode is configured at 4 or 8 minutes: when this time elapses, your device will ask you to validate that you want to stay in search mode by pressing on the centre button. If after 10 seconds you have not pressed it, the device automatically reverts to transmit mode.
- If you do a group check that lasts more than 5 minutes: when this time elapses, your device will ask you to validate that you want to stay in group-check mode by pressing the centre button. If after 10 seconds you have not pressed it, the device automatically reverts to transmit mode.

Certificate of warranty

ARVA provides a statutory warranty against duly observed manufacturing or latent defects. The warranty expiry date is shown on the label in the battery compartment. The warranty is rendered void if the label is missing or falsified, or if the device housing screws are tampered with.

During the warranty period, any required repairs will, as per the conditions of warranty, be performed free of charge (excluding cost of carriage) or, if you prefer, the device will be replaced at no cost. This device is not subject to any other express or implicit warranty. We decline liability for loss or inappropriate use of the device.

If the device malfunctions, it must be returned to the store/retailer with a description of the faults observed. This warranty is granted only if the device is used in compliance with the instructions for use and has not been subject to any tampering.

Register your arva beacon on www.arva-equipment.com to confirm the warranty



Arva Axis® Version 3.0 - 2011/2012

FR Caractéristiques techniques :

- Emetteur / Récepteur: 457 kHz, fréquence internationale.
- Numérique et analogique.
- 3 antennes.
- Une détection simultanée des multi-victimes avec la création d'une liste.
- Fonction Stand By.
- La possibilité de marquer la victime trouvée.
- Largeur de bande de recherche 50 m.
- 260 g - Autonomie + 250 heures.
- Détecteur de mouvement pour le passage automatique en émission
- Alimentation 4 piles alcalines AAA/LR03.
- Réalisé suivant norme européenne ETS 300718.

GB Technical characteristics:

- Transceiver: 457 kHz, international frequency.
- Digital and analogue.
- 3 antennas.
- Simultaneous detection of multiple victims with creation of scrollable list.
- Standby Function.
- Possible to mark the found victim.
- Search band width: 50 m.
- 260 g – Operating time: 250+ hours.
- Motion detector for automatic switch to transmit mode.
- Power supply: 4 AAA/LR03 alkaline batteries.
- Manufactured to European standard ETS 300718.

R&TTE Declarations of Conformity

Hereby

Name of manufacturer : AsteelFlash France
 Adress : 43, rue du Vieux Chêne
 Zip Code : 38240
 City : Meylan
 Country : France
 Declares that the avalanche beacon
 Type designation : AXIS
 Trademark : ARVA

is in compliance with the essential requirements and other relevant provisions of directive 1999/5/EC

The compliance of the device has been evaluated according to the Electromagnetic compatibility standard test : FCC CFR 47 part 15, Subpart C

The complete declaration of conformity is available at the address above.

Name : TORRES

Fonction : Establishment Development Director

Date : 19/08/2011

Signature :

FCC requirements: - FCC ID: O9BARVAAXIS

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a

particular installation. If this equipment does cause harmful interference to radio or television reception which can be determined by turning the equipment off and on, the user is encouraged to try to correct interference by one or more of the following measures:
 - Reorient or relocate the receiving antenna.
 - Increase the separation between the equipment and receiver.
 - Connect the equipment into an outlet on circuit different from that to

which the receiver is connected.

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

- Information to user:

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Register your arva beacon on www.arva-equipment.com to confirm the warranty

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www.arva-equipment.com

Distribution internationale / International Distribution /
 Internationaler Vertrieb / Distribuzione internazionale /
 Distribución internacional

NIC-IMPEX - BP 10120 - 74941 ANNECY LE VIEUX CEDEX - FRANCE

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<http://www.arva-equipment.com> - info@nic-impex.com



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