CYPRES 2
Reliability made in Germany

User Guide

This User Guide is the original version of this document. This revision applies only to the CYPRES 2 models mentioned here and replaces and supersedes all previous applicable revisions*. Please see https://dl.cypres.aero/userguide/991002_cypres_2_user_guide_en.pdf to check/download the latest revision. Subject to change without notice.

CYPRES 2 User Guide as revised 11/2021 (c2) Art.No. 991002.

* If your CYPRES does not have the latest upgrades/updates installed, it may not offer all of the options that are included in the latest User Guide.

CYPRES 2
User Guide

- English version -

Dieses Handbuch ist in Deutsch erhältlich.
Ce manuel est disponible en français.
Este manual está disponible en español.
Questo manuale è disponibile in italiano.
Эта инструкция имеется на русском языке.

CYPRES 2
Reliability made in Germany

Congratulations on choosing CYPRES 2, without doubt the safest and most accurate AAD ever produced.

Like most skydiver, you probably assume that you will always have time to deploy your reserve canopy yourself and that situations requiring the use of an automatic activation device will always happen to others. We do hope you can avoid such trouble and that your CYPRES 2 will never have to take action to save your life. Nevertheless, situations requiring the activation of CYPRES 2 can happen to any skydiver, no matter how careful and experienced. Should CYPRES 2 ever decide to initiate your reserve opening, you will know that you have not left your safety to chance.

Airtec GmbH & Co. KG Safety Systems

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1. Function

1.1 Design philosophy

CYPRES 2 (which stands for “CYbernetic Parachute RElease System”) is an automatic activation device that meets all of the needs of today‘s skydivers.

The device is simple to operate: Switch it on prior to the first jump of the day when your DZ and airfield are at the same location and height. You do not need to switch it off because CYPRES 2 will do this automatically.

CYPRES 2 will check the weather conditions continuously during the day by measuring the air pressure twice a minute. This means that the unit should always be precisely calibrated to the ambient air pressure at ground level.

The parameters of the various CYPRES 2 models have been chosen to meet the needs of the vast majority of skydivers, without interfering with routine parachuting operations. Millions of jumps with CYPRES since 1991 have proven the soundness of these parameters. Certain specific activities may nevertheless require special considerations or CYPRES 2 settings. Freefall - or any vertical speed that is greater than the activation speed at the defined activation altitude (with an Expert CYPRES 2 this is set to 35 meters per second/78 mph at sea level) - will cause CYPRES 2 to activate. The CYPRES family of AADs is exceptionally reliable. CYPRES units have saved the lives of well over 5,100 skydivers to date and no unit has ever failed to activate when the appropriate conditions have been met. CYPRES 2 is truly the most reliable piece of parachuting equipment ever produced.

⚠WARNING

CYPRES 2 cannot open your reserve - it is only intended to cut your reserve closing loop. CYPRES 2 is strictly a backup device and is not a substitute for proper training and the timely execution of emergency procedures. It may show a faulty display or fail at any time for any reason, potentially causing injury or death. Do not use CYPRES 2 if you do not accept these risks. You must ensure that the reserve closing loop passes through the cutter hole. If you loan, rent or sell your CYPRES 2 to somebody else it is your responsibility to communicate this warning to them.

The CYPRES 2 combines tried and tested quality and reliability with a wealth of expertise and technological progress following many years of continuous research and development since 1991. CYPRES 2 offers numerous features and attributes including the following:

- The unit is waterproof for up to 15 minutes down to a depth of 15 feet (5 meters) in both freshwater and saltwater. At a depth of 8 feet (2.5 meters) or less the unit is waterproof for up to 24 hours.
- The unit's power supply is maintenance-free for the user. There is no need to observe a replacement date, record the number of jumps made, monitor the voltage during self-test, purchase a battery, or have a rigger open or repack the reserve for this reason.
- The serial number can be accessed from the display.
- The maintenance due date can be accessed from the display.
- The unit will remind you when it is approaching its next maintenance date.
- The unit is small and lightweight.
- The unit has a robust, rigger-friendly case with rounded corners and edges.
- The unit has an extended maintenance window of +/- 6 months from the month of manufacture. This allows the user to avoid downtime during the busy part of the year regardless of the month of manufacture.
- The unit completes its self-test in 10 seconds.

1.2 Components

CYPRES consists of a control unit, a processing unit and one release unit (cutter) for 1-pin reserve container or two release units (cutters) for 2-pin reserve container.

control unit

SAFETY INSTRUCTIONS

Do not pull, lift, carry or throw CYPRES by the cables

processing unit

release unit
(cutter)

1.3 How CYPRES 2 works

Each time CYPRES 2 is switched on it repeatedly measures the ambient air pressure over a short period of time and takes the average value as the value for ground level, thereby "zeroing" itself. This is performed during the integrated self-test.

While in use, CYPRES 2 continuously checks the air pressure while on the ground and adjusts to any fluctuations in air pressure due to changing weather conditions. While you might need to reset your altimeter before a jump, CYPRES 2 takes care of itself. This precise calibration should allow CYPRES 2 to recognize the exact activation altitude and speed.

The processing unit contains a factory-programmed microprocessor that can calculate the jumper's altitude and rate of descent in real time based on barometric pressure. By continuously monitoring this data, CYPRES 2 can make calculations regarding the jumper's altitude and rate of descent. Should CYPRES 2 decide that the jumper is in a dangerous situation (i.e., still in freefall at low altitude), the processing unit instructs the release unit to initiate the reserve container opening sequence.

The release unit (cutter) for the reserve container is completely independent of the primary reserve parachute activation system (the reserve ripcord). Rather than withdrawing the ripcord pin from the reserve closing loop, the release unit cuts the reserve closing loop inside the reserve container in order to initiate the opening sequence. Please note that the closing loop must pass through the cutter hole.

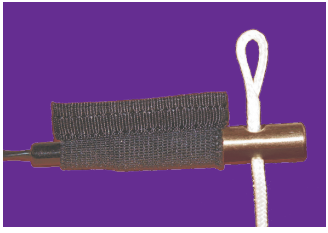
Initiating a reserve container's opening sequence by cutting the reserve closing loop is a method that was invented and patented by Airtec's founder Helmut Cloth in 1987.

The CYPRES 2 activation system offers numerous advantages:

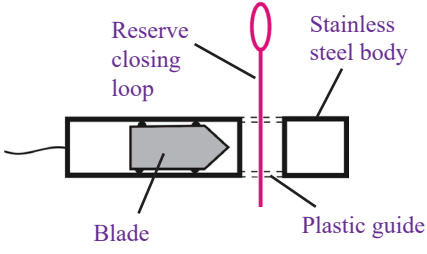
- The reserve container opening sequence can be initiated either by the jumper pulling the reserve handle or by CYPRES 2 cutting the reserve closing loop.
- The only mechanical component is a single movable piston in the release unit.
- The activation system is located inside the reserve container where it is not exposed to excessive shocks or other adverse influences.

- The system is unobtrusive and can be installed so that it is undetectable from the outside.

Release unit (cutter) with elastic keeper



Functional diagram:



In the event of an activation the piston moves a distance of approx. 5 mm.

The release unit (cutter) is completely self-contained and has been specifically developed for CYPRES 2. In the event of an activation, nothing escapes or is expelled.

An 18-month investigation by BAM (Bundesanstalt für Materialprüfung), Berlin, tested a total of 99 release units. Following this investigation, BAM and the U.S. DOT classified the CYPRES 2 as being non-hazardous.

Thanks to its high degree of reliability and other properties, the CYPRES 2 release unit is currently being used in aerospace applications (satellites).

1.4 Power supply

You do not need to worry about CYPRES 2's power supply in any way. The unit should function from the date of manufacture (DOM) until the end of its service life.
If CYPRES 2 ceases to function or displays an error code during the self-test please contact Airtec or SSK.
No CYPRES 2 user has ever had to pay for a battery since 2003, provided that the maintenance intervals have been adhered to.


don't worry, go skydiving

actually

no scheduling

no shipping costs

no battery costs

no installation costs

no repack costs

no downtime

1.5 Operational safety

There are two important points to remember regarding the operational safety of your CYPRES 2:

1. CYPRES 2 self-tests automatically every time it is switched on. After every switch-on procedure, CYPRES 2 executes a self-test routine that checks all key internal functions. A successful self-test gives you the best possible assurance that your unit will provide trouble-free operation for up to 14 hours. When the display unit shows "0", the self-test has been successfully completed. If the self-test has detected an error or discrepancy, CYPRES 2 will not enter normal operating mode but instead will switch itself off after displaying an error code indicating why the self-test process has been aborted (see Section 5).
2. CYPRES 2 has a fail-safe error detection system. Two processes are activated in CYPRES 2 once the unit has been switched on: a primary operational process and an independent control process that continuously monitors the operational process. Should an error occur while the operational process is active, the backup control process should switch the unit off. Depending on the type of error and its potential impact, CYPRES 2 can either be switched on again or it will remain permanently in shut-down mode. With certain error codes (see Section 5) the user will be unable to reactivate the unit. In these cases, CYPRES 2 must be sent to the manufacturer or to your service center for inspection and adjustment.

⚠WARNING

A malfunction can cause a false activation/failure to activate: Any technical device can fail. Every fault imaginable can happen with the CYPRES 2 including, but not limited to: displaying a faulty status, failing to function, or functioning at the wrong moment or in the wrong circumstances. Such a failure could easily injure or kill you or others. If you or your friends or relatives are unwilling to accept these uncertainties and risks you must not use CYPRES 2.

2. Product overview

CYPRES 2 is available in six models:

Expert CYPRES 2
Student CYPRES 2
Tandem CYPRES 2
Speed CYPRES 2
changeable MODE CYPRES 2
Wing Suit CYPRES 2

Converting models

A conversion between the four CYPRES 2 models Expert - Student - Tandem - Speed is possible. This procedure has to be performed by the manufacturer or the service center. This includes new settings, a new color corresponding button, a new label, and a complete functional test.
After a model change, the settings of the chosen model will be reset to the standard settings (see Section 14).

Use in a 1-pin reserve container and the use in a 2-pin reserve container

All CYPRES can be used in both container types. With the plug-and-socket cutter connection a swap from 1-pin cutter to 2-pin cutter or vice versa can be simply done by unplugging and plugging-in without opening the unit and without the use of any tools. (See Section 6)

Feet / Meter version

Every new CYPRES can either display altitude in feet or meters. If your CYPRES does not meet your personal preference, see Section 4.4.5 for changing the scale of the dropzone offset from feet to meter or vice versa. Once you have set it, leave it as long as the unit is in your use.
(If your CYPRES does not show meter or ft on the display when changing the dropzone offset, then it is an older version that is not capable of switching the scales.)

2.1 Expert CYPRES

The Expert CYPRES can be recognized by the red button on the control unit.
It activates the release unit when it detects a rate of descent higher than approx. 78 mph (35 m/s) at an altitude of approx. 750 feet (approx. 225 meters) above ground level (AGL). In the event of a cutaway CYPRES will operate down to approx. 130 feet above ground level. Below approx. 130 feet (approx. 40 meters) above ground level opening is no longer useful. For this reason, CYPRES ceases operation below approximately 130 feet above ground level.

⚠WARNING

High speed at low altitude: If you exceed the vertical speed of 78mph (35 m/s) at an altitude below 1000 feet (300 meters) under your main canopy, then your Expert CYPRES is designed to cut the reserve closing loop. That can cause injury or death. Never do that.

2.2 Tandem CYPRES

The Tandem CYPRES can be recognized by the blue button with the imprint “Tandem” on the control unit.
It activates the release unit when it detects a rate of descent higher than approx. 78 mph (35 m/s) at an altitude of approx. 1900 feet (approx. 580 meters) above ground level.
Like the Expert CYPRES, the Tandem CYPRES ceases operation below approx. 130 feet (approx. 40 meters) above ground level.

For your information: 35 m/s is approximately 70% of freefall speed.

2.3 Student CYPRES

The Student CYPRES can be recognized by the yellow button with the imprint “Student” on the control unit.

It activates the release unit when it detects a rate of descent higher than approx. 29 mph (13 m/s). The activation altitude is split. In the case of rate of descent being approx. that of free fall, the opening altitude is at approx. 750 feet (the same as with Expert CYPRES). However, should the rate of descent be lower than that of freefall but still above the limit of 29 mph (e.g. with partially opened canopy, or after a cutaway), then Student CYPRES activates the release unit when the altitude falls below approx. 1000 feet (approx. 300 meters) above ground level. The student will then have more time to prepare for landing. If under an open canopy, between approximately 2700 ft and approximately 1000 ft (approximately 800 meters and approximately 300 meters), the vertical speed is between approximately 7 mph and approximately 30 mph (approximately 3 m/s and approximately 13m/s) for more than 10 seconds, then the unit switches activation speed from approx. 30 mph to approx. 45 mph (13 m/s to 20 m/s). This should reduce a possible activation under open canopy. The Student CYPRES ceases operation below approx. 130 feet (approx. 40 meters) above ground level.

Unlike the Expert and Tandem CYPRES models, we recommend that the Student CYPRES be switched off in the aircraft prior to descent if the jump is aborted and the student will land with the plane, because the aircrafts vertical speed will exceed the unit’s activation speed.

⚠WARNING

Vertical Speed: It is possible to exceed a vertical speed of 29 mph (13 m/s) under a fully inflated canopy! Avoid it. It can cause injury or death.

⚠WARNING

Activation on board: If a jump plane descends, switch the Student CYPRES off above 1500 ft (450 meters) above ground, or descend less than 1500 ft/min below 1500 feet above ground level. Close open doors.

2.4 Speed CYPRES

The Speed CYPRES can be recognized by the red button with the white imprint “Speed” on the control unit.

It will activate the release unit when it detects a rate of descent higher than approx. 102 mph (approx. 46 m/s) at an altitude below approx. 750 feet (approx. 225 meters) above ground level. Unlike the Expert CYPRES, the Speed CYPRES ceases operation below approx. 330 feet (approx. 100 meters) above ground level.

The Speed CYPRES is designed to allow extreme canopy piloting. The high activation speed plus the feature that the unit ceases operation below 330 feet are tailored for this discipline.

The Speed CYPRES is designed to activate reliably in all “regular” free fall situations (without special equipment or pilot chute) when no canopy is out.

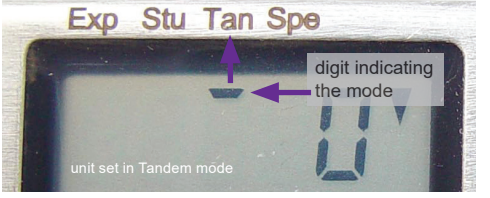
Although the 35 m/s (78 mph) vertical speed required for an Expert CYPRES to activate had not been reached under canopy for decades, an increasing number of skydivers try and manage to exceed that speed using low turns and small canopies. The capability of skydivers to enlarge their vertical speed under their canopy is further expanding. With the development, it can not be excluded that a vertical speed under canopy may even reach the values to activate a Speed CYPRES. If you aim for such extreme vertical speed, then have your unit switched off. For your interest: A typical freefall speed is approx. 50 m/s. The number of fatalities involving fully open parachutes show that these actions truly enhance the risk of skydiving dramatically. Please take all these facts into consideration and use common sense before making a choice.

⚠WARNING

For some activities, the Speed CYPRES may not be suitable. For instance, already the Expert CYPRES might not activate during a wing suit jump because the vertical speed can be too low, and there is even less chance that a Speed CYPRES will activate. Speed CYPRES should activate under an open main if the vertical speed is pushed above 46 m/s near or below the activation altitude. In case you exceed this vertical speed, then have your Speed CYPRES switched off.

2.5 changeable MODE CYPRES

The changeable MODE CYPRES can be recognized by the magenta button with the white imprint "changeable MODE" on the control unit.
The user can switch this unit between the modes Exp - Stu - Tan - Spe on his own. The device parameters are identical with the ones from the CYPRES models **Exp**ert - **Stu**dent - **Tan**dem - **Spe**ed. All handling is fully identical to these models.
When the unit is on, the current mode is indicated by a digit below the appropriate engraved mode.



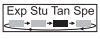
Note:
Default delivery setting of new changeable MODE units is: Type Expert, scale feet, user-selectable activation altitude adjustment A0 (see Section 4.4.2)

⚠WARNING

Inappropriate mode can result in false activation / no activation.
Using an inappropriate mode is most likely to injure or kill you or others.
Always use the unit in the appropriate mode.
Never, under any circumstances and for any reason, use the device in an inappropriate mode.

To change the mode:

1. Switch on the unit. When [0] appears
   immediately press + hold the button
2. Various information will be displayed (serial number, etc). Wait until you see the bar that shows the current mode setting 

3. Indicate that you want to change the mode by
   briefly releasing and then pressing + holding the button
4. CYPRES 2 will confirm by flashing the LED for 1 second
5. When the LED turns off
   immediately release the button
6. The bar will cycle through each of the modes 

   Click to select your new choice
7. To confirm the setting
   repeat the procedure once more

The mode will only change when you complete steps 1-7 of the procedure identically twice in a row. Otherwise, the unit will remain in its current mode.

Note:
Changing the mode will automatically reset the chosen mode to the standard settings for the relevant model (see Section 12).
You must always keep your control unit pocket (or window) clean and clear in order to ensure that you can recognize all of the signs on the display at all times.

⚠WARNING

A malfunction can cause a false activation/failure to activate:
Any technical device can fail. Every fault imaginable can happen with the CYPRES 2 including, but not limited to: displaying a faulty status, failing to function, or functioning at the wrong moment or in the wrong circumstances.
Such a failure could easily injure or kill you or others.
If you or your friends or relatives are unwilling to accept these uncertainties and risks you must not use CYPRES .

2.6 Wing Suit CYPRES (WSC)

The WSC can be recognized by the red button with the white Wing Suit Logo imprint on the control unit. As long as the WSC works in Wing Suit Status, it activates the release unit at a vertical speed higher than approx. 45 mph (20 m/s) at an altitude of approx 750 feet (approx 225 meters) above ground level and down to approx. 130 feet (40 meters). That criteria should arrange that in case you are unconscious and fly with your wing suit towards the ground the WSC initiates your reserve parachute.
If between the altitude of approx. 6500 feet (2000 meters) and approx. 1500 feet (450 meters)* above ground level the WSC descends with less than approx 19 mph (8.5 m/s) but more than 5.6 mph (2.5 m/s) for more than 10 seconds, then the WSC should change to Canopy Status with different activation criteria. (This duration can be altered, see Section 4.4.6)

Thereafter it will activate the release unit accordingly to the set Mode Expert or Speed (see Section 14). Default Mode is Expert.
The WSC System consists of the WSC unit and the WSC Audio. WSC unit and Audio are paired, only these two will function together. Both items carry the same serial number.

⚠WARNING

The WSC Audio is vital for providing the proper AAD safety for any jump with the WSC.
Using the WSC without the WSC Audio can lead to dangerous two-canopy-out-scenarios.

* If you have programed a user-selectable activation altitude, then you have to increase the 1500 feet by the programed value.

2.6.1 The WSC functionality

During a Wing Suit Flight you probably fly at a low vertical speed. Possibly too low for a usual AAD to function. To just lower the activation speed of the device to the needs of the Wing Suit Flight is not a suitable solution because you might exceed that low vertical speed while being under your main canopy and thereby trigger a reserve opening. That is dangerous. You possibly would generate a deadly entanglement or at least a two canopy out scenario, which bears a significant risk. In addition you must consult a rigger, pay for a cutter and pay for a repack.

The WSC wants to provide a solution for these new requirements, which are challenges caused by the use of modern Wing Suits.

The WSC attempt to this problem is: two different states providing two different sets of activation criteria for one jump.* For the first part of your descent the WSC uses the Wing Suit Status. For your canopy flight it uses the Canopy Status.

The Status change is done by the WSC and indicated by the WSC Audio.

To avoid any uncertainty or confusion for yourself it is mandatory that you always know in which Status the WSC is working.

While the WSC is designed to eliminate a part of the risk arising from the Wing Suit flight itself, it should not create limitations on your canopy flight manoeuvres. To cover this, the WSC allows you to choose from two different modes for the Canopy Status.

You can either use the Expert CYPRES mode or alternatively use the Speed CYPRES mode. The choice should be determined by your personal habits. The Expert mode is preferable, if you are a normal or a bit faster canopy pilot - therefore the Expert (see Section 2.5) is the WSC default setting.

* Patent pending

If you are an aggressive canopy pilot, the Speed mode should be used.
You can make your choice via the WSC's push button. To set the mode follow the steps accordingly Section 2.5, but enter the procedure when the choice 

is shown within the unit information sequence.

⚠WARNING

Inappropriate mode can result in false activation / no activation.
Using an inappropriate mode is most likely to injure or kill you or others.
Always use the unit in the appropriate mode.
Never, under any circumstances and for any reason, use the device in an inappropriate mode.

2.6.2 Jumping the WSC

⚠WARNING

Not respecting the status of the WSC can lead to a two-canopy-out scenario

1. **Always** use the WSC unit together with the paired WSC Audio, regardless what discipline you execute. Wear the helmet with the Audio installed whenever you jump with your WSC.
2. **Always** prepare to recognize the melody indicating the WSC status.
3. **Always** adjust your skydive to the WSC status.

With the WSC you can execute all disciplines. After main deployment you probably will fly with a low vertical speed for a while. During that time you open your zippers and collapse your slider before you grab your toggles and fly your canopy. This phase at set brakes is likely long enough and slow enough to fulfill the WSC criteria for changing from Wing Suit Status to Canopy Status.
Right after your WSC has changed from the Wing Suit Status to the Canopy Status, the WSC Audio informs you of the transition by playing a melodic sound for 10 seconds.

If your flight scenario during that phase has not met the needed conditions (you hear no melody) then reduce your vertical speed by flying half brakes until you hear the melodic sound.

⚠WARNING

Only after the melodic sound the WSC switches to Canopy Status, allowing you to perform your usual canopy flight without restrictions. If you don't hear the melodic sound: The risk of a two-canopy-out scenario is increased dramatically.:
Two canopies out can easily hurt or kill you and / or others. After opening of your main be prepared to hear the sound of your Audio.
In case you don't, then fly at half breaks until you hear it. If you still do not hear it, then avoid high vertical speed below 1500 feet**.
Do not fly aggressive but smooth below 1500 feet**. Do not do sharp 90's or more below 1500 feet**.
Fly and land without rapid steering maneuvers.
**If you have programmed a user selectable activation altitude (see 4.4.2) then you have to increase the 1500 feet by the programmed distance. Land safely.

It is rare but possible for a WSC to switch over to the Canopy Status before your exit. That happens when the aircraft's flight scenario simulates the switch over criteria from Wing Suit Status to Canopy Status.
Then the difference to the "normal" situation is, that your WSC functions as a usual Expert or Speed CYPRES (depending on your choice) throughout only this one jump.

Have you heard about Sky Surfing?
Jumps with a Surf Board create similar physical conditions as jumps with a Wing Suit. The WSC can also handle the Sky Surf discipline.

2.6.3 The WSC Audio

The Audio should notify you with a melodic sound about the WSC change from Wing Suit Status to Canopy Status. (see 2.6.2) Being aware of the Status is vital for performing a safe flight scenario.

WSC Audio

Without the audible information you have no confirmation that your WSC has changed status.

Place the Audio into your helmet like an acoustic altimeter. It does not need handling, the function is fully automatic.

⚠CAUTION **The WSC Audio is not waterproof. Do not submerge it in water or similar.**

2.6.3.1 WSC Audio functionality check

When performing a gear check, also check your audio. There are materials which possibly may impede or prevent radio waves. Please ensure that your helmet is not made out of those. Feel free to contact us.

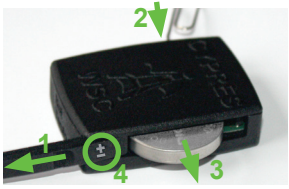
1. Have the Audio within a 3 foot range to your WSC unit.
2. Switch on your WSC.
3. Observe the self-test.
4. When the display shows `7` , gently insert a straightened paper clip* into the hole BAT Test of the Audio and keep it there.
5. When the display shows `3` you should hear the melodic sound. If that happens, then the functionality is given. When removing the paper clip, the sound is played again.

2.6.3.2 WSC Audio error code:

If the Audio's voltage decreases below a defined value, then the melodic sound that you hear will be played for approx. 1 minute instead of being played for the typical 10 seconds. Please change the battery.

2.6.3.3 WSC Audio battery change

1. open the slide
2. gently insert a straightened paper clip* into hole A on the opposite side
3. and slide the battery out.
4. Insert the new battery (one CR2450).
   Respect ± as shown on the slide.
   Please insert the new battery (+ pole up) within half a minute after the old one is slid out.



5. Then execute a battery check.

If you hear no sound, then slide the new battery out again right away because the new battery could be inserted upside down or the new battery could be empty. Correct the situation.

Our investigations found the Duracell CR2450 batteries showed the best performance for power supply and temperature stability.

2.6.3.4 WSC Audio battery check

Only on the ground: Gently insert a straightened paper clip* into the “Bat Test” hole as shown .When you pull it out you will hear the melodic sound confirming that the battery is o.k.

2.6.3.5 Air travel with WSC Audio

Air traveling might cause the battery to drain. Please do a battery check after an air travel. If the check fails: Take out the battery and slide it in again within 10 seconds. Repeat the battery check. If the check fails, change the battery. Either way: Check the Audio´s functionality afterwards

2.6.4 WSC Maintenance / Repair / Service

The Audio and the cutter should be sent in together with the WSC unit.

* The SIM card opener of your mobile might do as well.

3. Installation

When the CYPRES AAD was introduced it was necessary to establish a testing and evaluation procedure for the installation of this new AAD into existing harness/container systems, as no such AAD concept existed on the market. The installation had to be tested and approved. This testing was exclusively performed at Airtec GmbH & Co. KG in Germany until 2012. Airtec GmbH & Co. KG took on this task in preference to the harness/container manufacturers in order to establish the optimal installation for each system.

The variation in the resulting installation instructions was due to the different designs of the various harness/container systems. It was vital not to impede the CYPRES unit's primary function, which is to cut the reserve closing loop. It was also important to ensure that the initiation of the reserve opening (by cutting the reserve closing loop) did not hinder the reserve deployment in any way.

All CYPRES 2 installations should be performed and approved by the harness/container manufacturer in collaboration with the AAD manufacturer. If you want to install a CYPRES 2 into a container that has not been set up for CYPRES 2 you should contact the harness/container manufacturer for advice. CYPRES 2 can be integrated into rigs with existing setups. If in doubt, please contact the harness/container manufacturer.

NOTICE "Each parachute manufacturer approves the installation of the AAD on their equipment." 12/04/13 AC No:105-2E Page 4 part 2.b. of Advisory Circular of U.S. Department of Transportation, Federal Aviation Administration

⚠WARNING

Retrofit: Comply with the specific retrofit instructions of the harness/container manufacturers.

The processing unit must be placed into the pouch in such a way that the cables lie flat on the bottom of the pouch. No tension must be placed on the control unit cable and cutter cable(s).
Any excess cable is stowed in the flat part of the pocket underneath the velcro-adjustable flap. If you are stowing both the thinner cutter cable and the thicker control unit cable, be sure to place the thicker cable so that it lies on top of the thinner one. Cables should be placed in a circle in order to avoid twists. Always avoid pulling, bending, twisting, or kinking the cables.
CYPRES 2 can easily be removed by the owner. Do not pull on the cables - instead, push the processing unit, cutter and control unit from their keepers.

Wrong

- Cables not flat on bottom
- Unit is inserted upside down
- Thin cable on top of thicker cable
- Cable is bent

⚠WARNING

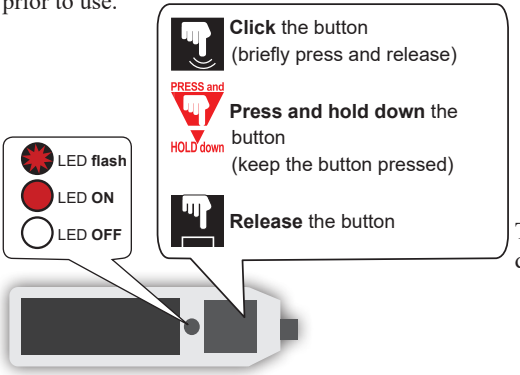
Poor installation can impede the proper opening of the container.
This may cause injury or death. Never install a CYPRES 2 by trial and error.

4. How to operate CYPRES 2

4.1 Handling the control unit

The button on the control unit should be pressed with the fingertip; please do not use a fingernail or any other object. Use a short click action in the centre of the button.

Please familiarize yourself with switching CYPRES 2 on and off (see Section 4.2) and changing the dropzone offset (see Section 4.4.1 prior to use.



The push button is the only means the user has to control CYPRES 2's functions. The user only needs to perform the following actions:

- Switch on
- Switch off
- Increase dropzone offset
- Decrease dropzone offset
- View the flight counter
  View the serial number
  View the next possible maintenance date
- Adjust the activation altitude
- Change the scale, feet / meter
- Wing Suit CYPRES: Choose canopy status Expert or Speed
- Wing Suit CYPRES: Choose time duration for status change

The following sections will describe these procedures in detail.

4.2 Switching CYPRES 2 on

CYPRES 2 is switched on by briefly clicking the push button four times. Start the switch-on cycle by clicking the button once. After approx. one second, the red LED light will flash. You must acknowledge the red light immediately by clicking the button again. This sequence - a click as soon as the red light appears - will be repeated two more times. After a total of four clicks, CYPRES 2 will enter self-test mode.

If you do not act promptly after seeing the LED light, or if you push the button too soon, CYPRES 2 will ignore the switch-on attempt.

This four-click switch-on cycle has been designed to prevent the unit from being switched on accidentally.

Once the switch-on procedure has been completed, the unit will run through its self-test. Initially, the display will show the number 10, and then a countdown ending with 0▼. When 0▼ with a down arrow appears, the unit is functional for the next 14 hours. After 14 hours have passed, the unit will switch itself off automatically. The unit can be switched off manually at any time using the push button. If the self-test is unsuccessful, an error code is shown on the display for approximately 2 seconds. The meaning of these error codes is explained in Section 5.

The manual switch-off sequence is identical to the switch-on procedure (click, light, click, light, click, light, click). This procedure is designed to prevent the unit from being switched off accidentally.

4.3 When to switch on or reset

As a rule, CYPRES has to be switched on at the takeoff site on the ground. Just prior to donning your rig is an ideal time. It should never be switched on inside an aircraft, helicopter, balloon, etc.
To reset CYPRES, switch off and then on again. The unit will then re-calibrate and "zero" itself to this elevation.

When the takeoff airfield and intended dropzone are in the same location, and all jumping activity is restricted to that place, an initial switch-on at the dropzone will suffice for any number of jumps, provided they all take place within 14 hours. Should any of the following situations occur, CYPRES must be reset before the next jump:

- The dropzone is missed and the landing takes place in an area with an elevation greater than 30 feet (10 m) above or below the dropzone level. Or, on the return journey to the dropzone the ground elevation changes similarly.
- The unit is taken away from the airfield/dropzone by vehicle or on foot and later brought back again.
- If the total time for a flight or a flight with jump (takeoff to landing) exceeds one and a half hours, CYPRES will function normally, but must be reset after landing as the weather could have changed the ambient air pressure significantly in the meantime.

General recommendation: If in doubt, reset CYPRES.

When the takeoff airfield and intended dropzone are in different locations, CYPRES must be switched on at the departure airfield. Prior to each jump, on return to the airfield from the dropzone, it must be reset again before takeoff.

When the takeoff airfield and intended dropzone are at different elevations, CYPRES must be switched on at the departure airfield and adjusted to the elevation of the dropzone (see Section 4.4.1).This is extremely important when making demonstration/display jumps. Prior to each jump, on return to the airfield from the dropzone, it must be reset before jumping again.

4.4 Changing settings

⚠WARNING

Settings: Make sure all settings are correct before use. Wrong settings can cause injury or death.
After changing settings as described in Section 4.4.2 and following, switch the unit ON and verify the settings within the unit information sequence (see Section 4.5)
Any adjustment solely on the user's risk.

4.4.1 Dropzone Offset

You must set the dropzone offset whenever the airfield and the dropzone where you intend to land are at different elevations.
CYPRES allows for adjustments of up to ± 3000 feet, or ± 1000 meters. (± 1050 feet or ± 350 meters for WSC). If an adjustment has been made, either "meter" or "ft" is shown on the display. If "meter" is shown, the displayed value is in meters. If "ft" is shown, the value is in feet.
Switch on CYPRES only at the takeoff site on the ground. In order to make the dropzone offset adjustment, simply leave your finger pressed firmly on the button when you press it for the fourth time during switch-on. CYPRES will continue with its self-test, and once it has finished, it will display 30 feet 30▲ft (or 10 meters) with an arrow pointing up (▲). If you are going to jump to an elevation which is 30 feet higher than your take off, then release the button.
If you keep it pressed, then CYPRES displays 30 feet 30▼ft (10 meters) with an arrow pointing down (▼). If you are going to jump to a 30 feet lower elevation, then release the button.

DZ 360 feet above airfield

DZ 360 feet below airfield

If you keep pressed, then CYPRES displays 60 feet 60▲ (20 meters) with an arrow pointing up (▲). If you are going to jump to a 60 feet higher elevation, then release the button.
If you keep pressed, then CYPRES displays...
This carries on until 3000 feet (1000 meters). So you have the possibility to adjust to a higher or lower landing elevation of up to 3000 feet (1000 meters) in a real simple way. At the WSC the dropzone offset is limited to ± 1050 feet (± 350 meters). The dropzone offset that you select will remain indicated on the display, and CYPRES will adjust automatically for this change during the next jump (only).
Even the shortest release of the button during the self-test cycle causes an interruption in the process and CYPRES will ignore further attempts to change the dropzone offset. In such cases the unit will run through its self-test and end with 0▼ on the display, ready for operation (without adjustment). Simply repeat the procedure as necessary.
If you need to make changes, you have to start

over again by switching off then back on.
Once you have made a dropzone offset adjustment, it will be displayed until the jump has been made, or until CYPRES switches itself off or is switched off by you.
On landing, CYPRES will accept the new ground level as its actual “Ground Zero” reference, when the preset altitude has been hit precisely or if the landing elevation is lower than the one set. This action can be observed by noticing that immediately after the landing (within a maximum of 30 seconds), the preset dropzone offset is automatically replaced by  .
It would then be possible to take off from and land at this location again under canopy without doing any further adjustment.
But, if you take off at this location and jump into a dropzone with a different elevation you have to do another dropzone offset adjustment.
If the landing elevation is higher than set, the unit will not change to zero display right away. In such a case, CYPRES must be recalibrated to the correct Ground Zero by switching it off and on again prior to the next jump. Do this on the airfield where the aircraft will take off.
In case you want the same dropzone setting, that you have used on your last jump to another elevation: your CYPRES 2 makes it easy for you. It automatically offers you this value immediately after the end of the self-test and before it starts to offer the regular steps. You can choose this setting again by just releasing the button while you see its value on the display.

Note:
After a model change, the settings of the chosen model will be reset to the standard settings (see Section 14).

⚠WARNING

Dropzone Offset: It is necessary to do a dropzone offset adjustment before each individual jump, whenever the airfield and the dropzone where you intend to land are at different elevations.
Not doing so can cause injury or death.

4.4.2 User-selectable activation altitude

CYPRES 2 offers (since 01 2013) users the option of increasing the activation altitude up to 9 steps of approximately 100 feet (30 meters) each. The steps are named “A 1” thru “A 9” (“A” for altitude). “A 1” indicates approximately a 100 ft. (30 meters) increase to the standard CYPRES activation altitude, “A 2” indicates approximately a 200 ft. (60 meters) increase to the standard activation altitude, etc.

If selected, the A1 thru A9 is displayed during the self-test countdown between the “10” and the “0”. (For example, if “A 1” is selected, the self-test countdown will be: 10; 9; 8; 7; 6; 5; 4; 3; 2; A 1; 0)

Also, after the self-test is complete, the selected number (1-9) will blink on the far left location of the display. At altitude the selected number is visible permanently.

Note:

- All activation altitude references in this User guide are based on the standard setting with no user-selectable activation altitude selection.
- The CYPRES 2 disarm altitudes of approx. 130 ft (40 meters), [approx. 330 ft (100 meters) on a Speed CYPRES 2], do not change with user-selectable modification.
- Default delivery setting of new units is A0.
- After a model change, the settings of the chosen model will be reset to the standard settings (see Section 14).

indicating 100 ft (30 m) increase to activation altitude ***during self-test***

indicating 100 ft (30 m) increase to activation altitude ***after self-test*** (operating mode display)

SAFETY INSTRUCTIONS

Opening altitude: Always plan your main container opening altitude and skydive to have your main canopy functionally open (fully open, flying, controllable, even landable) a minimum of 1000 ft. above your CYPRES activation altitude. For example, if your CYPRES activation altitude is 750 ft above ground level then your minimum functionally open altitude is 1,750 ft. above ground level; if your CYPRES activation altitude is 850 ft. above ground level then your minimum functionally open altitude is 1,850 ft. above ground level, etc. Take into consideration your altitude loss during main canopy deployment (opening characteristics of main canopy, main container opening characteristics, type of skydive, reaction time, etc.)

SAFETY INSTRUCTIONS

Making a decision: The decision to increase the activation altitude, and by how much, is the user's choice and decision, and may be taken in consultation with the reserve & main canopy and harness/container manufacturers.

⚠WARNING

Higher / lower activation altitude: The higher the CYPRES activation altitude, the more likely that a two-canopy out scenario will occur if your main canopy is deployed low. The lower the CYPRES activation altitude, the greater the possibility of your reserve not being fully inflated at a sufficient altitude.
Both secenarios can cause injury or death.

⚠WARNING

An inappropriate activation altitude is likely to injure or kill you or others.
Always use this unit set at the appropriate activation altitude. Never, under any circumstances and for any reason at an inappropriate activation altitude.

⚠WARNING

Malfunction: A malfunction can easily injure or kill you or others.
Every technical device can fail. So everything imaginable can happen with the CYPRES, including, but not limited to: displaying a status which is not true, failing to function, or functioning at a wrong moment or at a wrong occasion.
If you or your friends or family are not willing to accept these uncertainties and risks, then you must not use CYPRES.

4.4.3 User-selectable activation altitude setting procedure

If you decide to select a different CYPRES activation altitude, you must enter the unit information area by pressing the button down immediately when the zero has appeared at the end of the self-test, and then keep it pressed down (see User guide Section 4.5).

- After your CYPRES 2 has shown the flight counter, the serial number, the next possible maintenance date, it shows the feet or meter setting*. The next information you will see is the current Activation Altitude Setting (A0 , A1 etc.).
- After ½ second release the button and immediately press it again.
- The LED (red indicator light) will turn on.
- When the LED turns off, immediately release the button.
- Then you see the sequence A 0; A 1; A 2; A 3; A 4; A 5; A 6; A 7; A 8; A 9; (repeated) on the display.
- Click once on your choice of number and CYPRES will shut down.

Next for safety purposes (to make certain that this setting is never changed accidentally), you have to repeat this same procedure once more, confirming the new setting.

During the confirmation, if you do anything else other than the identical procedure, your attempt is invalid and you will have to start over again (performing the procedure two times).

Once a User-Selectable Activation Altitude has been set on your CYPRES, it remains in effect until another setting is selected. During the self-test your CYPRES will indicate this setting by displaying it (A1 to A9) at the appropriate time during the self-test countdown. After the self-test is complete, the selected number (1-9) will blink on the very left location of the display as long as your CYPRES is on.

The procedure takes 80 seconds and can not be unintentionally executed.

⚠WARNING

Because of the variables involved, it is the user alone who bears all responsibility and consequences of the activation altitude setting. Airtec GmbH & Co. KG, the manufacturer of the CYPRES device, does not take any responsibilities thereof.

4.4.4 User selectable activation altitude & dropzone offset feature combined

The User-Selectable Activation Altitude feature (Sections 4.4.2 & 4.4.3 and the Dropzone Offset feature (Section 4.4.1) can be used independently or in combination. When used in combination, the selected Activation Altitude Setting number blinks on the very left location of the display, and the Dropzone Offset (up to ±3000 ft. or ±1000 meters; up to ± 1050 ft. or ± 350 meters for WSC) is shown on the right side of the display when CYPRES is on.

4.4.5 Changing the scale

If your CYPRES 2 Dropzone Offset scale is set in meters and you want feet or vice-versa, you must enter the unit information area by pressing the button down immediately when the 0 has appeared at the end of the self-test, and then keep it pressed down (see User guide Section 4.5). After your CYPRES 2 has shown the flight counter, the serial number, the next possible maintenance date, it shows the feet or meter setting*.

- Just release the button ½ second after the current feet or meter setting is displayed,
- immediately press it again,
- release it when the LED turns off,
- then click on your choice of feet or meter and CYPRES will shut down.

This procedure only needs to be done one time.

(Note: For units produced or updated after 01/2013 this procedure replaces the one described in the last paragraph of User guide Section 4.4 edition 1/2012 and earlier.)

*Feet or meter selection option not available on CYPRES 2 manufactured prior to August 2005.

4.4.6 WSC: Changing the setting for status change

The WSC changes from WS Status to Canopy status if the vertical speed at an altitude between 6500 feet (2000 meters) and 1500 feet (450 meters) ranges between 2.5 m/s and 8,5 m/s for a duration of 10 seconds. This duration can be altered by the user.
It is selectable from 6 seconds to 20 seconds. The needed procedure is the same as with seting a user selectable activation altitude. (see Section 4.4.3)
The default setting 10 seconds seems to be the appropriate setting. Please do not alter this unless there is a very valid reason and you have 100% understood and are fully aware about every technical circumstances and physical details concerning all aspects of Wing Suiting and the Wing Suit CYPRES and all consequences of any actions. The reason to have this value selectable is to allow for upcoming developments in the discipline. It should only be used very, very carefully and solely very wise.

⚠WARNING

Any adjustment solely on the user's risk. Inappropriate settings can cause injury or death.

4.5 Access to unit information

CYPRES 2 provides an easy way to view / select

1. the flight counter,
2. the unit's serial number,
3. the next possible maintenance date*
4. the scale meter or feet
5. the user selected activation altitude
6. Wing Suit CYPRES canopy status Expert or Speed
7. Wing Suit CYPRES time duration for status change

When  appears at the end of the switch-on procedure press the button immediately and hold it down.
Each value is displayed for 5 seconds, then the next value will appear.

You can stop the information sequence at any time by simply releasing the button.

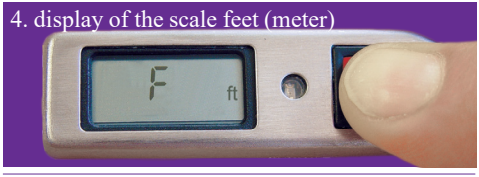
* After the last maintenance has been performed, the words 'maint. no' and the final date of the unit's service life (end of life) are displayed.

1. display of the flight counter

2. display of the serial number

3. next possible maintenance in 08 / 2023

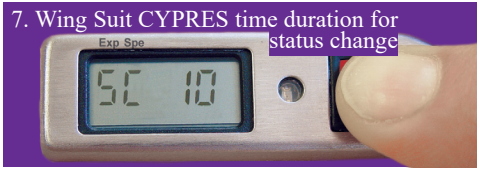
4. display of the scale feet (meter)



5. user selected activation altitude setting

6. Wing Suit CYPRES canopy status Expert or Speed

7. Wing Suit CYPRES time duration for status change



⚠WARNING

Verify settings: After changing settings as described in Section 4.4.2 and following, switch the unit ON and verify the settings within the unit information sequence (see Section 4.5) Wrong settings can cause injury or death.

4.6 CYPRES 2 and Water jumps

CYPRES 2 allows water jumps without removal of the unit. CYPRES 2 is waterproof for a duration of up to 24 hours down to a water depth of 8 feet (2.5 meters). This is achieved through a water-resistant casing, sealed plug connections, a sealed cutter, a sealed control unit, and a special filter. The filter allows precise measurement of the air pressure and at the same time keeps water away from the inside of the unit. As long as there is no contact with water, the filter never needs to be replaced by the user.

After water contact, the unit must be switched off immediately after exiting the water. The filter must be replaced before next use. Do not leave the CYPRES / Filter in a wet condition over a long period of time. After a water jump, dry the CYPRES unit separately from the wet parachute and replace the filter in a timely manner.

The CYPRES 2 filter changer tool is made from stainless steel, specifically for the purpose of filter removal and replacement. Filter replacement (see Section 4.7) can be done by your rigger (packer).

After water contact, the rig and the reserve must be dried according to the manufacturer's instructions. After that the rig and CYPRES 2 with the new filter can be used again.

4.7 Changing the filter

⚠CAUTION The unit must be switched off before changing the filter.

Filter removal: Hold the CYPRES 2 filter changer by the non-slotted end and push it straight (without tilting) onto the filter up to the stop position.

Tightly grip the filter changer, twist it off by turning it counterclockwise and remove the filter. If there is water in the casing (behind the filter), dry it with a cloth.

Remove the old filter from the filter changer by pushing it with your finger or with the eraser end of a pencil. Discard it.

Filter installation: Place the new filter with the labeled side facing, and into, the slotted end of the filter changer up to the stop (flush) position. Do not tilt.

Hold the filter changer by the non-slotted end and gently slide the filter fitting into the unit while holding it straight (without tilting it). Turn the filter changer clockwise - initially there will be little resistance. Continue turning the filter changer until it slips on the filter (the filter stops turning but the changer continues to turn). Remove the filter changer from the filter by pulling it straight back.

⚠CAUTION Do not use other tools!

5. Error display

If an error condition is detected during the self-test countdown, CYPRES 2 will show an error code on the display.

1111 or 2222 One or both of the attached release units are not correctly electrically connected to the unit. This could be due to a cable break, the cutter plug could be disconnected, or the release unit(s) may have activated. Check/replace the release unit(s).

3333 Excessive variations in ambient air pressure have been measured during the self-test period. The unit is unable to obtain consistent values for the ambient air pressure at ground level. Possible reasons could be that the user has attempted to switch CYPRES 2 on while driving uphill or downhill in a car, or while in an elevator or in an aircraft in flight.

The switch-on procedure can be repeated several times after a 3333 error has appeared. If 0 appears, the unit's self-test has been successful.

Codes 1-3 are displayed for approx. 2 seconds, then the unit switches itself OFF (display goes blank).

AGE will appear within the last month of the unit's service lifetime and the unit will continue to display this through the future. It will appear for approx. 5 seconds before continuing to 0

7777 low battery. Please contact Airtec or SSK prior to next use.

After one of the following three error codes appears, the unit switches OFF and cannot be switched on again. Please discontinue use and send the unit in for service.

Pdo Power down

CHS Checksum error

PSE Pressure sensor error

If other error codes appear, if the unit switches itself off and cannot be switched on again, if the unit does not switch off after 14 hours, if there is no red light when the button is pressed, or if anything else unusual occurs please record the error code and contact Airtec or SSK before further use.

⚠WARNING

A malfunction can cause a false activation/failure to activate: Any technical device can fail. Every fault imaginable can happen with the CYPRES 2 including, but not limited to: displaying a faulty status, failing to function, or functioning at the wrong moment or in the wrong circumstances. Such a failure could easily injure or kill you or others. If you or your friends or relatives are unwilling to accept these uncertainties and risks you must not use CYPRES 2.

6. Changing the release unit(s)

After an activation the release unit can be changed by any rigger (packer) via the plug-and-socket connection.

Disconnecting the release unit:
Hold the plug and socket by their aluminium grips and pull them apart using a smooth straight motion.
Do not twist or bend!

Connecting the release unit(s):
Hold the plug and socket by their aluminium grips. Place the plug directly in front of the socket and connect them by pushing together with a smooth straight motion until the plug is completely seated.
Do not twist or bend!

It is easy to change a 1-pin CYPRES 2 to a 2-pin CYPRES 2 or vice-versa, by swapping cutter types.

1-pin Cutter

2-pin Cutter

Notes:

1. Release units (cutters) have a serial number on heat shrink tubing attached to the cable. This number identifies the cutter. A table of cutter numbers with their corresponding dates of manufacture is available at www.cypres.cc.
2. It is possible that the cutter plug may separate from the socket after a CYPRES 2 activation. In the unlikely event of this occurring in combination with a water landing, the socket must be dried out before further use. To do this, tap the open end of the socket onto a flat surface such as a table top. Keep tapping the socket until no more water comes out, then store the CYPRES 2 with the open end of the socket facing down for another 24 hours in a dry area to allow the socket to fully dry out. When completely dry, insert the plug of the new cutter. Never insert an object (such as a Q-tip) to dry out the plug.
3. Use a one-pin cutter in a one-pin container and a two-pin cutter in a two-pin container.

⚠WARNING

Do not use release units (cutters) after the end of the cutter service life (16.5 years after DOM) Used release units (cutters) that are/were attached to a CYPRES unit are also subject to technical servicing/maintenance. See Section 14.1. New release units (cutters) that have never been attached to a CYPRES unit and were in storage (according to the manufacturer's instructions) do NOT need to be sent in for maintenance within the service time frame.

7. Technical servicing/maintenance

CYPRES 2's extremely reliable functioning is attributable to four factors: the exclusive use of carefully pretreated and approved parts, strict and detailed manufacturing procedures, continuous quality control and monitoring throughout the manufacturing process, and regular periodic technical servicing (maintenance). We offer maintenance for four main reasons:

1. Deviations between nominal and actual values are corrected to ideal values. Every detail is observed. Signs of wear and tear are often corrected and sometimes even 'cosmetic' treatment is performed.
2. The technical condition of each unit is analyzed. The fact that a very high percentage of units are returned for periodic maintenance allows us to see statistical trends and predict potential problems at a very early stage. This means that it is often possible to prevent situations by making modifications during the maintenance process, rather than having to fix problems that result in downtime later.
3. Experience has shown that during the period of a maintenance cycle (4 or 5 years), changes and improvements do happen. Applicable updates are performed during maintenance. Such updates may arise from technical improvements or enhanced knowledge or may result from environmental changes or changes in the sport (e.g., new disciplines), which Airtec is always researching and taking into consideration.
4. The most important maintenance element is the individual pre-adjustment of each unit for the next cycle. A unit will not be returned until a high level of confidence is reached in terms of predicting the unit's correct function for the next cycle.

CYPRES 2 offers two scheduled maintenance events within the unit's service life.

7.1 Maintenance reminder

Approaching the beginning of the first maintenance window your CYPRES 2 will start to show you that maintenance is available and the unit will display the proposed month and year (e.g., 

for unit DOM 11/2020). This will happen after the unit is switched on during the self-test between the unit showing

and 

. From the day when this appears you have 13 months to send in the unit and be within the maintenance window.
After these reminders the unit will continue and switch to 

.

Starting time/display duration	Display (DOM 11/2020)
6 months prior to the maintenance date, the beginning of the maintenance window appears for 2 seconds.	
At the maintenance date, this appears for 3 seconds.	
3 months after the maintenance date, this appears for 5 seconds.	
6 months after the maintenance date, the end of the maintenance window appears for 5 seconds.	

If the first maintenance has been performed on your CYPRES 2, then your unit will notify you of the second (and last) maintenance as it approaches the beginning of the second maintenance window. This will happen regardless of when the first maintenance was performed. The reminders are only deactivated during maintenance.
After the second maintenance, your CYPRES 2 should be usable until the end of its service life. For the service life schedule see Section 12.1.
During the service life of a CYPRES 2 unit, the skydiver should not incur any costs of operation other than the two maintenance fees (except for any replacement cutters or waterproof filters that may be required).
Please contact your local CYPRES 2 dealer regarding maintenance. See https://www.cypres.aero/dealers/ or contact Airtec or SSK if you do not know who your local dealer is.

The CYPRES Service Center for the USA, Canada, South America and other countries in the Western Hemisphere is:

SSK Military Industries, Inc.,
1008 Monroe Road
Lebanon, OH 45036 - USA
Tel: ++ 1 513 934 3201
Fax: ++ 1 513 934 3208
email: info@SSK.us
www.SSK.us

⚠WARNING

Reliability: As nothing lasts forever, the longer you use a device without having it thoroughly checked the greater the chance that it does not work properly every time you need it. If you choose not to have maintenance performed on your device you are assuming the risk that it will be less reliable (see Section 12.1 for the CYPRES 2 maintenance/utilization cycle).

7.2 Timing of maintenance

If we receive your unit at our facilities for maintenance from exactly 6 months before the proposed date until 6 months after the proposed date (in other words, within the 13-month maintenance window), our maintenance procedures will be performed using our highly standardized process. This maintenance will be charged at the flat CYPRES maintenance rate, even when a unit requires extensive individual attention.

NOTICE We strongly encourage every CYPRES 2 owner who decides to have their unit maintained to stay within the maintenance windows. Please do not be late, because this will result in higher costs and longer turnaround times.

Due to the significantly greater technical and organizational demands for individual unit processing, a service outside the prescribed maintenance windows may take considerably longer and incur significantly higher costs.

8. Important Notes

8.1 Important notes for jump pilots

- A Student, Expert, Speed or Wing Suit CYPRES will not work if the aircraft is exited before it reaches 1500 feet (450m) above the airfield takeoff elevation and 1500 feet (450m) above the intended dropzone elevation. In the case of a Tandem CYPRES 3000 feet (900m) has to be reached.
- After take off please ascend at more than 180 feet per minute (1 meter per second) for at least 30 seconds.
- Never descend to an altitude below the airfield takeoff elevation.
- If CYPRES has been adjusted to a dropzone elevation above airfield takeoff elevation and the aircraft has climbed above the intended dropzone elevation, it must not descend below the intended dropzone elevation again.
- If CYPRES has been adjusted to a drop zone elevation altitude below the airfield takeoff elevation, the aircraft must not descend below the intended dropzone elevation.
- When you have a CYPRES on board, never exceed 26,000 feet above sea level.

  When you have a CYPRES on board manufactured or maintained after October 2021 never exceed 65,000 feet above sea level.

A simple rule: Never descend below the elevation of the takeoff airfield or the intended DZ!

- When using an aircraft capable of pressurization, make sure that the cabin remains open when the turbines are started up. Leave a window, a door, or the ramp open a bit until after lift-off. It has to be ensured that the cabin pressure cannot build up above the air pressure on the ground. (Hint, skydivers altimeters should never go below "0".)

It is the skydiver's responsibility to make sure that jump pilots are informed of these circumstances that will interfere with the proper function of CYPRES. Should a jump pilot be unable to comply with these requirements, or should you discover after a jump that the requirements have not been met, you have to switch CYPRES off and on again prior to the next jump. Note that the above conditions will only lead to a low, or no activation - therefore there is no risk of a high activation. Take care to not exceed the activation velocity near or below the activation altitude(s) when descending with skydivers. Our measurements indicate that extraordinary rates of descent are achieved

in turbine aircraft, as the pilot is concentrating on max airspeed, and typical aircraft VSI instruments are heavily damped and "peg" at 3,000 ft./minute.

⚠WARNING

Flight limitations:

- Never fly below the airfield takeoff elevation
- Always go above 1500 feet (450 meters), for Tandems 3000 feet (900 meters)
- If dropzone offset has been adjusted, never fly below the intended DZ elevation

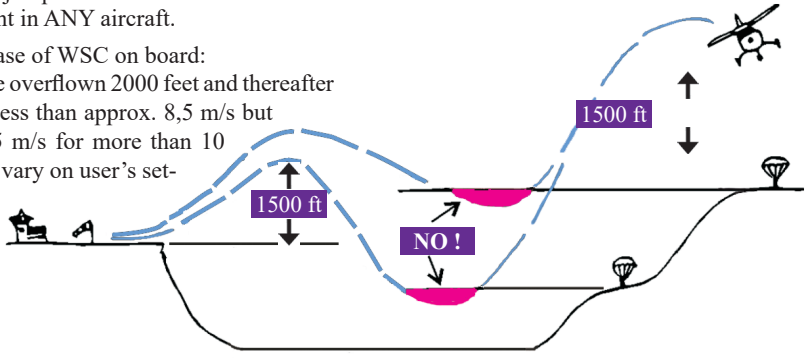
Failure to observe these limitations can cause injury or death.

Note: in the case of Student CYPRES, always make sure the jumpmaster has switched them off prior to descent in ANY aircraft.

Note: in the case of WSC on board:
Once you have overflown 2000 feet and thereafter descent with less than approx. 8,5 m/s but more than 2.5 m/s for more than 10 seconds (may vary on user's settings) in the range of between approx. 6500 feet and approx. 1500 feet above the ground and have WSC users on board you might trigger their units to change from Wing Suit Status to Canopy Status. That does not apply for the first 500 feet which you descend.

⚠WARNING

Inappropriate descend rate can result in unintended reserve activation, causing serious damages or even plane crash. When descending with WSC users on board, do not exceed 3500 feet/min vertical below 2000 feet.



Only if you descend more than 500 feet, then it may apply. In case it happens the additional Wing Suit Status of their units is not active on that one jump. The units behave like an Expert or like a Speed CYPRES, depending on the choice of their users. Please avoid that.

8.2 Important notes for users

- CYPRES 2 must not be used for parascending or paragliding/-sailing.
- CYPRES 2 cannot be used for base jumps (jumps from fixed objects), and must be switched off prior to making a base jump.
- A Student, Expert, Speed or Wing Suit CYPRES will not activate if the aircraft is exited before it reaches 1500 feet (450m) above the airfield and intended DZ. In case of a Tandem CYPRES 3000 feet (900m) must be reached.
- A two-canopy scenario can be caused by a CYPRES activation if the main is deployed too low.
- CYPRES is shielded against radio transmitter signals. We have gone to considerable lengths to protect CYPRES 2 from “radio pollution”. Although CYPRES 2’s exceptional shielding system has been investigated thoroughly, it is impossible to provide 100% protection. Users are still recommended to avoid strong radio transmitters. Please contact Airtec if you have any questions.
- A release unit that has activated builds up a high level of internal pressure and will remain pressurized. Never attempt to open it by force.
- The reserve closing loop must be under tension, caused by the pilot chute spring, of no less than 10 pounds (5 kg approximately).
- A good reserve pilot chute is an important safety factor. On systems with an internally-mounted pilot chute, we recommend that owners equip their rigs with one that has been tested and subsequently qualified by both Airtec and the rig manufacturer. Typically the rig manufacturer delivers these pilot chutes with the rig. If in doubt, please contact Airtec.

- Don‘t forget: After water contact shut your CYPRES 2 off immediately and change the filter.
- Make sure that the reserve closing loop passes through the cutter’s passing hole.
- The maximum allowed altitude for a civilian CYPRES is 26,000 feet above sea level.
  For civilian CYPRES manufactured or maintained after October 2021 the maximum allowed altitude is 65,000 feet above sea level.
  If you need to exceed these hights just give us a call at Airtec +49 2953 98990

From your skydiving friends at Airtec

Although the maximum allowed altitude for a CYPRES is 26,000 feet or even higher we recommend strongly to not jump from higher than 15,000 feet.
There are so many risks increasing so rapidly that it is not at all worthwhile to accept these risks.

⚠WARNING

Verify settings: After changing settings as described in Section 4.4.2 and following, switch the unit ON and verify the settings within the unit information sequence (see Section 4.5) Wrong settings can cause injury or death.

9. Repacking of reserves

The following tips are only brief suggestions. Please contact the harness/container manufacturer for advice and detailed packing instructions for riggers (packers or equivalent) in relation to the CYPRES AAD installation and rigging specifications.

General:

The reserve closing loop must be under tension, caused by the pilot chute spring, of no less than 10 pounds (5 kg approximately).
Please check the grommets closely during each repack.
Grommets with rough edges will ultimately destroy any loop. Replace damaged grommets immediately. Use original CYPRES loops/loop material, pull-ups, and discs when a CYPRES 2 is installed in the container. Even if you do not have an AAD in your container, a CYPRES loop will markedly improve your safety. The use of CYPRES accessories (loops, discs, setups) in combination with AADs from other brands is prohibited as we have

not performed any compatibility tests.
LOR loops for Parachute de France rigs are an original PdF spare part and can be purchased only from PdF dealers. Non-adjustable loops that are attached to a CYPRES disc and mounted in containers with an internal pilot chute should be replaced at each repack. Following attachment to the disc, CYPRES loops should be treated with CYPRES loop silicone on no more than the upper 4 cm (1 1/2 inch), but well away from the knot. The loops provided by Airtec have already been pre-treated with silicone.

1-Pin pop top:
Please check the loop carefully and replace if necessary. Silicone should not be used on all adjustable loops. The adjustment will not remain fixed.

2-Pin pop top:
Please contact the harness/container manufacturer for advice and detailed packing instructions for riggers (packers or equivalent) regarding CYPRES 2 AAD installation and rigging specifications.

Tips for riggers (packers):
The 'Packer's Kit' is available from CYPRES 2 dealers. It contains lots of things to make life easier, including:

1 spool of CYPRES loop material, 1 fingertrapping needle, 1 container of silicone gel, 1 container with siliconized cloth, 2 temporary pins, 5 discs, 1 filter changer, 3 filters, 1 CYPRES User Guide, CYPRES Rigging Tips.

For specific instructions please contact your h/c manufacturer.

SAFETY INSTRUCTIONS

Repack: Please follow your country's requirements with respect to repack cycles and authorizations for reserve pack jobs.

10. The CYPRES loop and disk system

Previous reserve closing loops were made from old parachute suspension lines or similar material made of Kevlar, Dacron, Spectra, etc. They were often thick and rough and became stiff while under tension in a packed container for a prolonged period of time. As a result, these loops could delay the reserve container opening or even prevent it after the ripcord was pulled because they became trapped between the grommets.

A number of skydivers died because the reserve flaps did not open in time.

Riggers and packers used normal metal washers to fasten the reserve closing loops at the bottom of the container. Sometimes these washers had sharp edges. A loop that was under a lot of tension in the container could be damaged and cut accidentally by those sharp edges, particularly when coupled with vibration in a car or in an aircraft.

Skydivers were killed by premature reserve openings caused by fraying loops. In one case, an aircraft actually crashed because of a premature reserve opening.

Our intention is to make parachuting safer, so we addressed this issue. In 1991 and 1992 we designed a loop and disc solution to reduce these risks as much as possible.

The CYPRES loop is woven like a tube so it can be inserted into itself to create the closing loop's eye. At the same time it is only 11/16 inch in diameter (1.8 mm), is extremely flexible and has an extra smooth surface to make it extremely slippery. In addition, CYPRES loops are treated with a special silicone on the top 1.5 inches (4 centimeters) to maximize the smoothness of its surface, thereby further reducing the friction.

Although the loop is very narrow, its breaking strength is in excess of 410 lbs (185 kg).

The CYPRES disk washer (often called a smiley due to its appearance) is a round aluminum disk with no sharp edges on its outer contour. It has three holes. The finger-trapped loop is threaded through the middle hole and then through the left hole. The loop then gets threaded through the right hole and knotted.

The three holes have no sharp edges. It is a very

complex procedure to manufacture this disc, but loop-tearing has reduced to almost zero by using this product.
There is no doubt that both the loop and washer working together as a system have certainly made parachuting much safer, quite apart from CYPRES itself.

CYPRES loop

CYPRES disc

"Smiley"

- no sharp edges
- minimal loop tearing

- Extremely flexible
- Extremely slippery
- Breaking strength: 408 lbs
- Diameter: 11/16 inch

Since the system was introduced to the parachuting scene in 1992, approximately 1,010,000 disks and around 4,000,000 loops have been manufactured by Airtec and given to rig manufacturers, riggers and packers around the world to improve safety. These days you are unlikely to find a rig worldwide with a reserve container that is not closed using the CYPRES reserve closing loop system.

In addition to achieving its technical purpose inside the reserve container, this CYPRES closing loop system has another advantage: It reduces the necessary pull force on the reserve ripcord handle by up to 50%. This is a huge help for all those skydivers who, for one reason or another, have difficulties with the pull force.

11. Abbreviated User guide

Switch CYPRES on only when you are at the dropzone on the ground !

When airfield and dropzone are at the same place, always switch CYPRES off and back on again when:

- CYPRES arrives at the dropzone by any means other than under an open canopy (e.g., by car, or by walking back from landing away from the dropzone.)
- total flight time (leaving the ground until back to the ground) was longer than 1.5 hours.

If airfield and dropzone are at different locations:

- Before every jump, switch CYPRES off and then back on at the airfield where your aircraft takes off from, and change the dropzone offset as appropriate.

General recommendation: If in doubt, reset CYPRES by switching it off and on again.

12. Switching rigs

Switching your CYPRES 2 to another CYPRES 2-ready rig will require only a few moments of work for your rigger.

If the container swap requires a change in the number of release units (cutters), this can be done quickly on-site by unplugging the old cutter and swapping it with the required cutter type (1-pin or 2-pin). It is not necessary to send the CYPRES 2 to the manufacturer. The required cutter can be purchased from your CYPRES dealer.

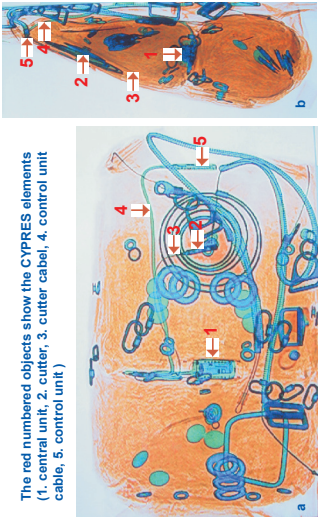
13. Air travel

A CYPRES 2-equipped rig may be transported in freight and passenger aircraft without restrictions. All of its components (e.g., measuring systems, electronics, power supply, loop cutter, control unit, plugs, cables, and casing) as well as the entire system, contain parts and materials that are approved by U.S. DOT and other competent agencies worldwide, and are not subject to any transport regulations.

Given the size of a rig we recommend that it be checked in as normal luggage and not taken on board as hand luggage. Should your rig prompt any queries or objections from security personnel, please use the card shown on the right which you'll find in the back cover of this book. It shows an x-ray of a complete rig fitted with CYPRES 2. The x-ray imagery may vary depending on the type and design of the rig.

The Parachute Industry Association and the USPA have worked with the Transportation Security Agency in relation to traveling with parachutes.

Please refer to USPA's website (www.USPA.org) for the latest documents and recommendations.



The red numbered objects show the CYPRES elements (1. central unit, 2. cutter, 3. cutter cabel, 4. control unit cable, 5. control unit)

original card located in the back cover

If you've lost the card, you can get a new one from Airtec or SSK.

14. Technical Data

Data common to Expert, Tandem, Student, Speed, changeable Mode and WSC models:

Length, width, height of the processing unit: ..... approx. 85 x 43 x 32 mm
Length, width, height of the control unit: ..... approx. 65 x 18 x 6,5 mm
Length, diameter of the release unit:..... approx. 43 x 8 mm
Cable length of the release unit (including release unit): ..... approx. 500 mm
Storage temperature: ..... +71° to -25° Celsius
Storage pressure: ..... 200 to 1094 hPa (5.906 to 32.306 In.Hg)
Working temperature: ..... +63° to -20° Celsius *
Maximum allowable humidity:..... up to 99,9 % rel. humidity
Waterproof: ..... up to 24 hours down to a depth of 8 feet (2.5 meters)
Dropzone offset adjustment limits: ..... ±3000 feet or ±1000 m (WSC ±1050 feet or ±350 m)
Allowed minimum and maximum altitude .....-2140 feet to +26,000 feet MSL (-650 m to +8,000 m)
Allowed minimum and maximum altitude for units produced or maintained after October 2021 ..... -2140 feet to +65,000 feet MSL (-650 m to +20,000 m)
Functioning period:..... 14 hours from switch-on
Power supply:..... service life warranty**
Maintenance:..... see Section 14.1***
Warranty period: ..... see Section 15
Service life: ..... see Section 14.1***

* These temperature limits do not refer to outside (ambient) temperatures but rather to temperatures inside the processing unit. These limits are therefore not relevant until the processing unit itself has reached the temperatures in question. In reality, these limits will rarely be reached due to the fact that CYPRES 2 must be located inside the reserve container, and due to the insulating properties of the processing unit pouch and parachute canopy.
** If maintenance has been performed.
*** Based on currently available information

Standard settings for EXPERT CYPRES:
Cable length of control unit: ..... approx. 650 mm
Volume: ..... approx. 139 cm³
Weight: .....approx. 198 grams
Activation altitude:..... approx. 750 - 130 feet
..... (approx. 225 - 40 meter)
Activation speed: .....approx. > 78 mph (35 m/s)

Standard settings for TANDEM CYPRES:
Cable length of control unit: ..... approx. 650 mm
Volume: ..... approx. 139 cm³
Weight: .....approx. 198 grams
Activation altitude:..... approx. 1900 - 130 feet
..... (approx. 580 - 40 meter)
Activation speed: .....approx. > 78 mph (35 m/s)

Standard settings for STUDENT CYPRES:
Cable length of control unit: .... approx. 1000mm
Volume: ..... approx. 144 cm³
Weight: .....approx. 214 grams
Activation altitude: approx. 1000 / 750 - 130 feet
..... (approx. 300 / 225 - 40 meter)
Activation speed: .....approx. > 29 mph (13 m/s)

Standard settings for SPEED CYPRES:
Cable length of control unit: ..... approx. 650 mm
Volume: ..... approx. 139 cm³
Weight: .....approx. 198 grams
Activation altitude:..... approx. 750 - 330 feet
..... (approx. 225 - 100 meter)
Activation speed: ...approx. > 102 mph (46 m/s)

Standard settings for changeable MODE CYPRES:
Cable length of control unit: ..... approx. 650 mm
Volume: ..... approx. 139 cm³
Weight: .....approx. 198 grams
Activation altitude:.....according to set MODE
Activation speed: .....according to set MODE

SAFETY INSTRUCTIONS

Activation altitude: All activation altitude references in this User guide are based on the standard setting with no User-selectable activation altitude selection.

NOTICE In the event of a cutaway, activation will not occur until CYPRES has verified all necessary parameters.

Standard settings for Wing Suit CYPRES (WSC):

Cable length of control unit: ..... approx. 650 mm
Volume: ..... approx. 139 cm³
Weight: .....approx. 198 grams
Dropzone offset adjustment limits: .....
.....±1050 feet or ±350 m

Wing Suit Status:
Activation altitude:..... approx. 750 - 130 feet
Activation speed: .....approx. > 45 mph (20 m/s)

Canopy Status:
Activation altitude:.....according to set MODE
Activation speed: .....according to set MODE

Status change:

- between approx. 6500 feet (2000 meters) and approx. 1500 feet (450 meters) above ground,
- when descending
  less than approx. 19 mph (8.5 m/s), but more than approx. 5.6 mph (2.5 m/s)
  for 6-20 seconds depending on where this status change time is programmed.

Default status change time ..... 10 seconds

14.1 Versions

For units with a DOM of 12/15 and earlier, maintenance is mandatory 4 and 8 years after the original DOM. The service life of these units is 12.5 years.***

For units manufactured in 2016, maintenance can be performed on a voluntary basis 4 and 8 years after the original DOM. The service life of these units is 12.5 years.***

For units with a DOM of 01/17 and later the maintenance can be performed on a voluntary basis 5 and 10 years after the original DOM. The service life of these units is 15.5 years.***

15. Warranty

Airtec GmbH & Co. KG provides the two-year warranty required by law and an additional three years during which all repairs are free of charge, except where the unit has been damaged intentionally or through negligence.

Thereafter, at its own discretion Airtec will consider providing repairs or replacements for all non-intentional or non-negligent damage free of charge to all customers who submit their units for maintenance on schedule. This has been a long-standing CYPRES practice since 1991.

The manufacturer reserves the right to decide whether the unit will be repaired or replaced. Neither repair nor replacement will affect the original warranty.

When a CYPRES 2 unit is returned to the manufacturer or service center, it must be packed in the original box or an equivalent shipping package including a fully completed service form/proper documentation for billing purposes, return shipping information, contact information, and any other relevant notes.

No claims will be accepted if the unit has been damaged or opened by an unauthorized individual or if an attempt has been made to open the processing unit, release unit (cutter) or control unit.

16. Disclaimer

In designing and manufacturing CYPRES 2, the aim of Airtec GmbH & Co. KG Safety Systems is that the device should not accidentally sever the reserve closing loop, but that the device should attempt to sever the reserve closing loop when the activation criteria are met.

All investigations and experiments performed during the product's development and all laboratory and field tests accompanying the device's trial and production phases have indicated that CYPRES 2 meets both of these goals.

However, as an electromechanical device the possibility of CYPRES 2 malfunctioning cannot be excluded. Such a malfunction may cause injury or death. We accept no responsibility for any damage or loss resulting from any malfunction. Airtec GmbH & Co. KG Safety Systems also accepts no responsibility for any damage or problems caused by the use of non-original Airtec parts and accessories.

The use of CYPRES 2 is voluntary and does not automatically prevent injury or death. Risk can be reduced by ensuring that each component has been installed in strict compliance with the manufacturer's instructions, by obtaining proper instruction in the use of this system, and by operating each component of the system in strict compliance with this User Guide. If used in the USA, CYPRES 2 shall be used in accordance with USPA BSRs.

Automatic activation devices (AADs) sometimes display an incorrect status, fail to operate or fail to operate properly, and activate when they should not, even when properly installed and operated. The user therefore risks serious injury or even death to themselves and others during each use.

By using or allowing others to use CYPRES 2, you acknowledge that you accept responsibility for the proper use of this device, as well as accepting the consequences of any and all use of this device.

The sole and complete responsibility of Airtec GmbH & Co. KG Safety Systems, its dealers, service centers and agents is limited to the repair or replacement of any defective device.

CYPRES 2 is strictly a backup device and is not intended to replace proper training or timely execution of appropriate emergency procedures. If you, your friends or family do not agree to these disclaimers please do not use CYPRES 2.

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18. Packing list

In addition to the CYPRES 2 unit and the User Guide, the following items will be delivered:

For 1-pin CYPRES 2:

2 1-pin Loops
1 pull up
1 disc

For 2-pin CYPRES 2:

1 2-pin Loop
2 pull ups
2 soft bodkins
2 discs

Trademarks

CYPRES is the abbreviation of **CY**bernetic **P**arachute **RE**lease **S**ystem.

Cybernetic is an historic Greek word which means "self regulating".

If your rig is lost or stolen it maybe helpful to have this data:

Container

Manufacturer + Model:

Size / Color:

Options:

Serial Number:

Date of Manufacture:

Purchased from:

Date:

AAD

Model:

Serial Number:

Date of Manufacture:

Purchased from:

Date:

Main Canopy

Manufacturer + Model:

Size / Options:

Color / Pattern:

Serial Number:

Date of Manufacture:

Purchased from:

Date:

Reserve Canopy

Manufacturer + Model:

Size:

Color / Pattern:

Serial Number:

Date of Manufacture:

Purchased from:

Date:

Personal Info

SAFETY REGULATION GROUP

Dangerous Goods Office
Aviation House
Gatwick Airport South
West Sussex RH6 0YR
United Kingdom

Direct Dial 01293 573600
Direct Fax 01293 573991
E-Mail dgo@srg.caa.co.uk

Switchboard 01293 567171
Fax 01293 573999
Telex 878753

CIVIL AVIATION AUTHORITY

Our ref 10A/216/02

6 April 1998

TO WHOM IT MAY CONCERN

CYBERNETIC PARACHUTE RELEASE SYSTEM (CYPRES)

In the opinion of the United Kingdom Civil Aviation Authority, the Cybernetic Parachute Release System (CYPRES) Automatic Activation Device may be regarded as not subject to the provisions of the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air, and may therefore be carried without restriction.

Yours sincerely

G A LEACH
Deputy Head, Dangerous Goods Office
Flight Operations Technical

In case someone from the security personnel has concerns:

U.S. Department
of Transportation
**Research and
Special Programs
Administration**

400 Seventh St., S.W.
Washington, D.C. 20590

**The US Department of Transportation
Competent Authority for the United States**

CLASSIFICATION OF EXPLOSIVES

Based upon a request by Gerard Fetter on behalf of Airtec GmbH, Mittelstrasse 69, 33181 Wunnenberg, Wunnenberg, Germany, the following items, which have components that appear to conform to the definition of an explosive, have been examined in accordance with Section 173.56, Title 49, Code of Federal Regulations (49 CFR) and have been found to be not regulated as an explosive. Although it is the responsibility of the shipper to make classification determinations of materials other than explosives, we suggest that these items be classed as follows:

U.N. PROPER SHIPPING NAME AND NUMBER: Not Regulated as an Explosive

REFERENCE NUMBER	PRODUCT DESIGNATION/PART NUMBER
Ex-0003152	Electrical Rope Cutter ESKV 11

Approved by:

Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety

AUG 8 2000
(DATE)

CIVIL AVIATION
SAFETY AUTHORITY
AUSTRALIA
GPO Box 2005
Canberra City ACT 2601
Telephone (06) 2685602
Facsimile (06) 2684892

F96/2664

Mr John Chapman
Technical Support Officer
Australian Parachute Federation
PO Box 144
Curtin ACT 2605
Facsimile: 285 3989

Dear Mr Chapman

CLASSIFICATION OF "CYPRES CUTTERS"

I refer to your letter of 11 July 1996 requesting a determination by CASA on the dangerous goods status of the "Cypres Cutters" contained in the reserve parachutes used by your members.

I am able to advise that the "Cypres Cutter" described in the letter from the German Authorities for Material Research and Tests as "Electrical Rope Cutter ESKV 11" does not meet the criteria for classification as a Class 1 explosive. The devices may be carried on aircraft unrestricted whether fitted to a reserve parachute or carried separately.

Yours sincerely

Peter Fletcher
Inspector (Air Cargo)
Flying Operations Branch

19 July 1996

Das Luftfahrt-Bundesamt
Sachgebiet Gefahrgut informiert

Sicherheitssystem für Fallschirmspringer

Es wird darauf hingewiesen, dass der pyrotechnische Gegenstand im Sicherheitssystem für Fallschirmspringer „CYPRES“ komplettiert mit den Bestandteilen:

Elektronische Seilkappvorrichtung ESKV11
(Electrical Rope Cutter ESKV 11)

KEIN Gefahrgut im Sinne der Transportvorschriften ist.

Auf den folgenden Seiten finden Sie die Bescheinigungen der / des:

- Bundesanstalt für Materialforschung und -prüfung (BAM), Deutschland
- U.S. Department of Transportation, USA
- Civil Aviation Authority, United Kingdom
- Civil Aviation Safety Authority, Australia
- Civil Aviation Authority, New Zealand
- Direction générale de l'aviation civile, France

Liberté • Égalité • Fraternité
RÉPUBLIQUE FRANÇAISE

Transport par Air du CYPRES,

dénommé Electrical Rope Cutter ESKV 11,

en bagage de soute ou en fret aérien

Validité permanente

En application de la réglementation relative au transport par voie aérienne des marchandises dangereuses telle que publiée dans les Instructions Techniques de l'OACI (Doc 9284 – AN/905 – Edition actualisée), le matériel répertorié sous l'appellation commerciale CYPRES et dénommé " Electrical Rope Cutter ESKV 11 " n'est pas considéré comme marchandise dangereuse pour le transport aérien.

Par conséquent, son transport par voie aérienne ne nécessite pas d'autorisation spécifique délivrée par la DGAC.

Néanmoins les mesures de contrôle de sûreté applicables aux vols commerciaux peuvent entraîner des contraintes supplémentaires. Aussi, ce matériel (Cyprès) dûment reconnu et identifié comme composant de parachute utilisé lors d'entraînements et de compétitions, *ne peut être transporté en bagage cabine*, mais, incorporé au parachute peut être transporté en bagage de soute ou en fret aérien.

Paris, le 29 MAI 2007

DIRECTION GÉNÉRALE DE L'AVIATION CIVILE
Direction du Contrôle de la Sécurité

Joseph LE TONQUEZE
Le Chargé de Mission
Marchandises Dangereuses

CIVIL AVIATION AUTHORITY
OF NEW ZEALAND

S-A765-03/3 (DW1174609-0)

16 March 2009

Kate Wills
Skydivezone Limited
P O Box 91
DANNEVIRKE 4942

Dear Kate

CYPRES Automatic Activation Device

Your letter dated 16 March 2009 regarding the carriage of the above items on passenger aircraft refers.

This is to advise you that based on the Material Safety Data Sheet supplied by Airtec GmbH, Germany issued 3 September 1997, and the report from the German Authorities for Material Research and Tests Tgb. No II-4582/97, I am satisfied that these articles do not meet the classification criteria for dangerous goods.

These articles may therefore be carried without restriction on passenger and cargo aircraft.

Yours sincerely

Max W Evans
Aeronautical Services Officer

Parachuting

Skydiving rigs with and without Automatic Activation Devices (AAD) are permitted as a carry-on or as checked luggage.

Typically, a rig will move through the checked luggage or carry-on security screening process without need for physical inspection. However, TSA screeners have a duty to thoroughly inspect any item that raises suspicion. If screeners determine that it is necessary to open a rig for complete inspection, then the owner of the rig must be present and will be allowed to assist. **For this reason, skydivers are advised to add at least 30 minutes to the airline's recommended arrival window when traveling with their parachute.**

The following recommendations are provided to assist skydivers traveling with parachutes:

Checking the Parachute as Luggage

- Pack the rig separately without any other items in the bag. Additional items, if suspicious, could trigger an inspection of the entire bag.
- Screeners will not unpack a parachute without the owner present to provide assistance. This means that the passenger will be paged and asked to return to the ticket counter, so they can be present for inspection. Depending on the size of the airport and passenger volume, it is likely that the checked rig will be screened within 30 minutes. Remain in the area of the air carrier ticket counter and pay close attention to airport announcements for up to 30 minutes after checking in.
- If TSA cannot locate the parachute owner, the uncleared parachute will not be transported on the flight.
- Parachute owners may assist TSA screeners to unpack and repack the rig.

Carry the Parachute on the Aircraft

- Pack the rig separately without any other items in the bag. Additional items, if suspicious, could trigger an inspection of the entire bag.
- If a further search is required, all efforts will be made to search the item without out opening the chute(s).
- If a chute is opened, the owner can assist. The search may be done in a location away from the checkpoint to provide adequate space for the search, and space for the owner to repack the rig.

Parachutists should thoroughly inspect their parachutes at their destination to ensure that it has not been tampered with or damaged in a manner that renders it unsafe.

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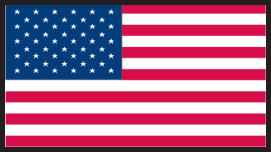

Airtec GmbH & Co. KG Safety Systems
Mittelstrasse 69
33181 Bad Wünnenberg - Germany
Tel: +49 2953 98990 Fax: +49 2953 1293
www.cypres.cc