CYPRES 2
Reliability made in Germany

Military CYPRES 2 User's Guide

This English user‘s guide is the original user‘s guide. It will not be further processed. The actual version of the manual can be downloaded at www.militarycypres.cc The latest revision is applicable for all herein mentioned CYPRES 2 models only and replaces and supercedes all previous applicable revisions*. See www.militarycypres.cc to verify / obtain the latest revision. Subject to change without notice.

Military CYPRES 2 User Guide C2MEUS-29-201812 as revised 12 / 2018 Art.No. 991105.

*If your CYPRES does not have the latest upgrades / updates installed it is possible that your unit does not have all options available, which are stated in the newest English user’s guide.

CYPRES 2
Military User’s Guide

- English version -

Dieses Handbuch ist in Deutsch erhältlich.
Ce manuel est disponible en français.
Este manual está disponivel em Português.
Este manual está disponible en español.

CYPRES 2
Reliability made in Germany

Congratulations on your choice of CYPRES, undoubtedly the safest and most accurate AAD ever produced.

Like most parachutists, you probably assume you will always have time to deploy your reserve canopy yourself, and that situations requiring use of an automatic activation device always happen to others. We do hope you will never have such trouble, and that your CYPRES will never have to take action to save your life.

Should CYPRES ever decide to activate your reserve, it will most likely happen at a moment which, no matter how experienced and cautious you are, justifies that you haven‘t left your safety to chance.

Airtec GmbH & Co. KG Safety Systems

Contents

1. Function

1.1 Design philosophy

CYPRES, which is the acronym of „CYbernetic Parachute RElease System“, is an automatic activation device which meets all needs, requirements, and desires of today‘s parachutists.
The operation is quite simple: Switch on in Training Mode when your DZ and Airfield are at the same location and height, use Operational Mode when jumping into a remote DZ. It is not necessary to switch it off, because CYPRES will do this itself.
When operated in Training Mode, the weather is constantly checked by CYPRES over the day by measuring the air pressure twice a minute. This means that the unit is always calibrated to the precise ground level.
The various CYPRES model parameters have been chosen to cover the needs of the vast majority of parachutists, and also not to restrict them during common parachuting operations. Millions of jumps since 1991 have proven the proper design of these parameters.
Though special activities may need special considerations or CYPRES settings.
Free fall or vertical speed greater than the activation speed (with an 1000/35 A Military CYPRES 35 meters per second / 78 mph at sea level) to the activation altitude will cause CYPRES to take action.
The CYPRES family of AAD‘s work with remarkable reliability. To date CYPRES units have saved the lives of far more than 4000 parachutists, without a single unit ever refusing to activate when the conditions were met.
CYPRES is truly the most reliable piece of skydiving equipment ever produced.

⚠WARNING

CYPRES is not able to open your reserve. It is only intended to sever your reserve closing loop. CYPRES is strictly a backup device and does not replace proper training or timely execution of emergency procedures. It may display a wrong status, fail whenever and for whatever reason and may cause injury or death. If you are not comfortable with these risks you must not use CYPRES. You must make sure that the loop passes through the cutter’s passing hole. If you loan, rent or sell your CYPRES to somebody it is your responsibility to inform him about the above circumstances.

The CYPRES 2 combines tried and true quality and reliability with achievements, technology and discoveries made during all the years of continued research and development since 1991. CYPRES 2 offers numerous features and attributes including:

- unit is waterproof for up to 15 minutes down to a depth of 15 feet (5 meters) in fresh and saltwater. If the depth is 8 feet (2.5 meters) or less, the water protection is given for a duration of up to 24 hours.
- power supply of CYPRES 2 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.
- unit serial number accessible from the display.
- maintenance due date accessible from the display.
- reminds you of the maintenance when close to the due date.
- small and light.
- robust, rigger friendly case, with rounded corners and edges.
- extended maintenance window: +/- 6 months from month of manufacture, no down-time during the busy part of the year regardless of month of manufacture.
- self test is completed 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)

1.2.1 How CYPRES works

Every time CYPRES is switched on, it measures the air pressure several times in a short period of time, takes the average value as the value for ground level, thus "zeroing" itself. This happens during the integrated self-test.

While it is in use, CYPRES constantly checks the air pressure while on the ground and, if necessary, adjusts to changing weather conditions, e.g. air pressure. Even though you might need to reset your altimeter before a jump, CYPRES takes care of itself. This very accurate calibration is the basis for CYPRES to recognize exactly the activation altitude and speed.

The processing unit contains a factory-programmed microprocessor that is capable of real-time calculations of the jumper's altitude and rate of descent based on barometric pressure.

By monitoring this data, certain criteria are generated from which conclusions are drawn. Should the conclusion be that the jumper is in a dangerous situation (i.e. still in freefall at a low altitude) the processing unit triggers the release unit to initiate the reserve container opening sequence.

The release unit (cutter) system for the reserve container is completely independent of the reserve-parachute's primary system (the ripcord), because it does not pull the ripcord pin out of the closing loop, but rather cuts the loop inside the reserve container to initiate the opening sequence.

The reserve closing loop has to pass through the cutters passing hole.

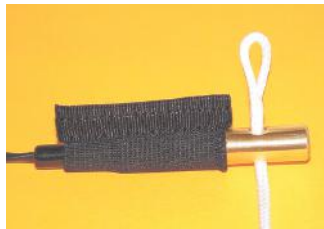
Initiating the opening sequence of a reserve container by cutting the loop is a method invented and patented by the founder of Airtec, Helmut Cloth, in 1987.

The CYPRES' activation system has these advantages:

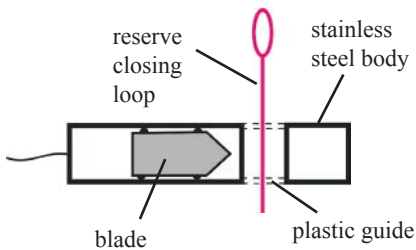
- The reserve container opening sequence can be initiated in two different ways. One method is by the jumper pulling the reserve release handle. The other method is used by CYPRES when it cuts the closing loop.
- Mechanical components are reduced to a single movable piston in the release unit.
- The activation system is located inside the reserve container where it is not exposed to excessive shock 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:



The distance which the piston moves in case of an activation is approx. 5 mm.

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

During an 18 month long investigation by BAM (Bundesanstalt für Materialprüfung), Berlin, 99 release units were tested. The result is that BAM and the U.S. DOT have classified the CYPRES as being non-hazardous.

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

The Training Unit

– ENTER Training Mode by switching on the CYPRES 2: click, click, click, click. That‘s it. There is nothing more to do. –

The features from the civilian CYPRES 2 properties with all it´s incredible convenience and reliability were adapted to the various military models. (The activation altitude and speed criteria are based on the Military model. Reference section 12. Technical Data for more info.)

Ideal whenever you are doing typical training jumps.
That means when you go to an airfield or a DZ, enter your airplane or helicopter, do a descent, repack there, do another jump and maybe more. No matter how many jumps you do and what kind of parachuting activity you carry out, the only attention that your Military CYPRES 2 Unit requires is your click, click, click, click switching on procedure before your first jump of the day.

The Military CYPRES 2 Unit in Training Mode takes care of all meteorologic influences during the day (even a bad weather front with it’s extreme pressure changes).

As long as the DZ and Airfield are at the same elevation / location, the Military CYPRES 2 Unit is particularly well adapted for training operations and requires little attention after switch on.

The Military CYPRES 2 Unit is designed

The Operational Unit

– ENTER Operational Mode by keeping the push button pressed after the last switch-on click and choose the intended landing elevation pressure –

This feature of the Military CYPRES 2 unit allows to protect the parachutist during every military operation that you can think of.

The unit can be set to every DZ on this globe, whether it is the Dead Sea or on the Himalaya in Asia or even to a higher virtual DZ on a HaHo jump.

It is possible to do the programming prior the take-off to another DZ elevation, while still being on the ground.

Or you can choose your DZ while you are already in flight and then program it at altitude.

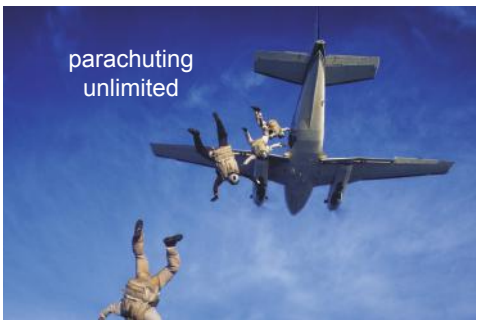
Or you can choose your DZ while you are already in flight in an active pressurized cabin and program it there.

The way to get that done is as simple as you can think of.
You just enter the air pressure value of your target DZ into your Military CYPRES 2 Unit.
The setting is intuitive, faulty-tolerant and takes less than 45 seconds.

A number of tools (digital calculator, downloadable apps) are available to help you in finding the right setting for any place in the world. The use of these tools is easy and can be learned in a few minutes.

1.4 Power supply

No user attention should be needed for the power supply of CYPRES 2.
The unit should function from the date of manufacture (DOM) to the end of service life.
If CYPRES 2 should cease to function contact Airtec or SSK.
No CYPRES 2 user has ever spent any money on battery since 2003.



1.5 Operational safety

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

1. CYPRES self-tests automatically every time it is switched on. After every switch-on procedure, CYPRES executes a self-test routine during which all important internal functions are checked. A positive outcome to this self-test gives you the best possible assurance for a trouble-free operation for up to 14 hours. When the display unit shows 0▾, the self-test has been completed successfully. If the self-test has detected an error or discrepancy, CYPRES will not assume operating mode but will switch itself off after displaying an error code. This error code indicates why the self-test process was aborted (see chapter 5).
2. CYPRES has fail-safe error detection. Two processes are activated in CYPRES once the unit has been switched on: a primary working process and an independently operating controlling process that monitors the working

process continuously. In case of errors while the working process is active, the backup controlling process will switch the unit off.
Depending on the type and potential impact of the error, CYPRES can either be switched on again or it will stay in shut-down mode permanently. With certain error codes (see Chapter 5), it is not possible for the user to reactivate the unit. In these cases, CYPRES must be sent to the manufacturer or service center for inspection and adjustment.

⚠WARNING

Malfunction can result in false activation / no activation: 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. Such inappropriate act can easily injure or kill you or others. If you or your friends or relatives are not willing to accept these uncertainties and risks, then you must not use CYPRES.

2. Product overview

Military CYPRES 2 is available in the following standard models:

1000/35 A
1500/35 A
1900/35 A
2500/35 A
2500/29 A
changeable MIL

The difference between the 4 first versions is the activation altitude. The fifth differs concerning the activation altitude and the vertical activation speed. The sixth version is the changeable Military CYPRES 2, where the user can switch between the modes **10**00/35 - **15**00/35 - **19**00/35 - **25**00/35. The A indicates that the setting of the pressure value of a target DZ at another elevation has to be done in an absolute pressure value (only in the Operational Mode).
All units can either carry a one-pin cutter or a two-pin cutter. A swap can be performed at any time by unplugging the old one and plugging in the new one.

1000/35 A

1000/35 A indicates that this unit is set to activate at approx. 1000 ft above the DZ if the vertical speed is faster than approx. 35 m/s (about 78mph). This model is designed for versatile military use and is recommended for Solo jumps carrying very light or no equipment. The activation setting reflects the short opening distance of smaller tactical square parachutes.
Can also be used on the bundle for MTTB jumps. Contact the manufacturer of your parachute/container system for additional assistance.

1500/35 A

1500/35 A indicates that this unit is set to activate at approx. 1500 ft above the DZ if the vertical speed is faster than approx. 35 m/s (about 78mph). This CYPRES is developed and suitable for various applications using tactical canopies and higher payload. It is recommended for Multi-Mission Solo operation jumps with or without drogue deployment systems.
The increased activation altitude of 1500 ft. is appropriate for a larger opening distance of the majority of tactical canopies in the field.
Can also be used on the bundle for MTTB jumps. Contact the manufacturer of your parachute/container system for additional assistance.

Model	Nato Stock Number
M-CYPRES 2 1000/35 1-pin absolute calibration	1670-12-361-9578
M-CYPRES 2 1000/35 2-pin absolute calibration	1670-12-361-9579

Model	Nato Stock Number
M-CYPRES 2 1500/35 1-pin absolute calibration	1670-12-361-9580
M-CYPRES 2 1500/35 2-pin absolute calibration	1670-12-361-9581

1900/35 A

1900/35 A indicates that this unit is set to activate at approx. 1900 ft above the DZ if the vertical speed is faster than approx. 35 m/s (about 78mph). This CYPRES is specialized for the needs of "slick" (no combat equipment) military tandem and Multi-Mission solo operations or with high payloads. Taking into consideration the higher altitude for tandem canopy deployment in conjunction with the extensive deployment distance of the tandem reserve canopy, this device is set to 1900 ft. activation altitude.

Do not use for solo jumps with tandem equipment including a big drogue system.

Contact the manufacturer of your parachute/container system for additional assistance.

Model	Nato Stock Number
M-CYPRES 2 1900/35 1-pin absolute calibration	1670-12-361-9582
M-CYPRES 2 1900/35 2-pin absolute calibration	1670-12-361-9583

2500/29 A

2500/29 A indicates that this unit is set to activate at approx. 2500 ft above the DZ if the vertical speed is faster than approx. 29 m/s (about 65mph). This CYPRES it is recommended for "heavy"(two jumpers with full combat equipment) tandem and MTTB (Bundle) operations.The activation altitude of 2500 ft addresses large size parachute deployment and heavy loads. The activation speed of 29 m/s is adjusted to the slower fall rate under a large drogue after cutaway of the bundle load.

For the bundle delivery parachute, we recommend a vertical separation of 1000 ft. minimum. A combination with the 1500/35A or 1000/35A model would be our recommendation.

Contact the manufacturer of your parachute/container system for additional assistance.

Model	Nato Stock Number
M-CYPRES 2 2500/29 1-pin absolute calibration	1670-12-361-9584
M-CYPRES 2 2500/29 2-pin absolute calibration	1670-12-361-9585

2500/35 A

2500/35 A indicates that this unit is set to activate at approx. 2500 ft above the DZ if the vertical speed is faster than approx. 35 m/s (about 78mph).

This CYPRES is made for operations where a higher activation altitude and 35 m/s (78 mph) is preferred.
Do not use for solo jumps with tandem equipment and MTTB (bundle)including a big drogue system. Contact the manufacturer of your parachute/container system for additional assistance.

Model	Nato Stock Number
M-CYPRES 2 2500/35 1-pin absolute calibration	n.a.
M-CYPRES 2 2500/35 2-pin absolute calibration	n.a.

changeable MIL CYPRES

The changeable MIL CYPRES can be recognized by the olive button with the white imprint „changeable MIL" on the control unit.

Features

- flexible mode change in the field
- safe setting procedure
- unwanted mode change blocked

The user can switch between the modes (1000/35 - 1500/35 - 1900/35 - 2500/35) on his own. A sophisticated handling procedure for the Mode Change prevents from an unintentional setting. All handling is fully identical to all other military CYPRES.

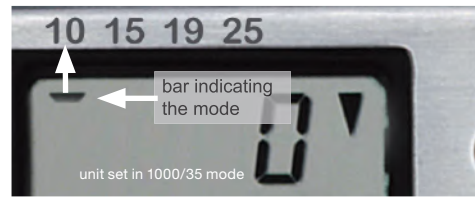
Each particular set mode is fully identical in it's behavior with the individual military origin model.

When the unit is on, the current mode is indicated by a bar below the appropriate engraved mode.

Note:

Default delivery setting of new changeable MIL units is: Type 1500/35

When you start the changeable MIL CYPRES it right away shows the set mode. When it is ON it permanently shows the set mode. When the indicating bar is covered by another indication, the bar blinks to show the set mode.



⚠WARNING

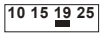
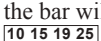
Inappropriate mode can result in false activation / no activation.

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 the unit on. When  appears
   instantly press+hold the button
2. you will see a series of information (serial number, etc)
   wait until you see the bar that shows the actual mode setting 
3. state that you want to change the mode by
   briefly release and press+hold the button
4. CYPRES confirms by turning on the LED for 1 sec
5. when LED is off
   instantly release the button
6. the bar will cycle through all modes  click your new choice
7. to confirm the setting
   repeat the procedure once more

The mode will only change when the procedure 1 - 7 is identically done two times 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 of the according model (see chapter 12).
You have to assure that your control unit pocket (or window) is always clean and clear. That is necessary to enable you to permanently recognize all signs on the display.

⚠WARNING

Malfunction can result in false activation / no activation:
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.
Such inappropriate behavior can easily injure or kill you or others.
If you or your friends or relatives are not willing to accept these uncertainties and risks, then you must not use CYPRES.

3. Installation

During the first years after introduction of the CYPRES AAD it was necessary to establish a testing and evaluation procedure for the installation of this new AAD into the existing harness/container systems, as there was no such AAD concept on the market.

The installation had to be tested and approved. This was solely done at Airtec GmbH & Co. KG in Germany until 2012. Airtec GmbH & Co. KG undertook this task in preference to the harness/container manufacturers to find out the best and safest possible installation for each system.

The resulting installation instructions, in all its variations, originated from the different constructions of the different harness/container systems, should not create any negative influence on the original function of the CYPRES unit, which is the cutting of the reserve closing loop. It had to be assured that the initiation of the reserve opening (severing the closing loop) did not hinder the reserve development in any way.

All CYPRES installations should be performed and approved by the harness/container manufacturer in collaboration with the AAD manufacturer.

Should you wish to install a CYPRES into a container which does not have a CYPRES set-up, you should contact the harness/container manufacturer for advice and instructions.

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

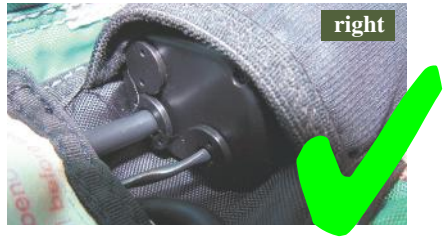
Retrofit: Comply with the specific retrofit instructions of the harness/container manufacturers.

CYPRES can be assembled into rigs with existing setups. Please refer to the harness/container manufacturer if in doubt.
It is necessary to place the processing unit into the pouch so that the cables lay flat on the bottom of the pouch. Control unit cable and cutter cable(s) must be placed without tension.
Excess cable is stowed in the flat part of the pocket underneath the velcro-adjustable flap. If you have to stow both the thinner cutter cable and the thicker control unit cable, be sure to place the thicker cable so that it lays 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.

⚠WARNING

Inappropriate installation can result in inappropriate container opening performance.
That can cause injury or death. Never install a CYPRES by trial and error.

Removal of CYPRES can be done by the owner without any problems. 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 up side down
- thin cable on top of thicker cable
- cable is bent

4. How to operate CYPRES 2

4.1 Handling the control unit

The push 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 middle of the button.

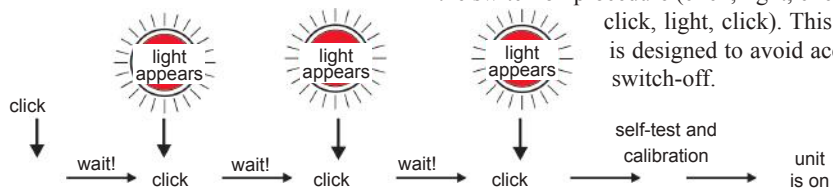
Please familiarize yourself with switching CYPRES 2 on and off (see chapter 4.2) and changing altitude reference (see chapter 4.4) prior to use. The push button is the only means the user has to control CYPRES 2 functions. For a parachutist necessary handling is reduced to the following actions:

- switching on
- switching off
- accept default Training Mode, or
  select Operational Mode
- viewing the flight counter
  viewing the serial number
  viewing the next maintenance date
  viewing the rev. number

The following sections provide thorough descriptions of these procedures.

4.2 Switching CYPRES on

CYPRES is switched on by clicking the push button four times with very short clicks. Start the switch-on cycle by clicking the button once. After approx. one second, the red LED-light will glow. You must acknowledge the red light immediately by clicking the button again. This sequence - a click following appearance of the red light - will be repeated two more times. After a total of four clicks, CYPRES goes into self-test mode.
If you do not act promptly after seeing the LED-light, or if you push the button to soon, CYPRES will ignore the switch-on attempt.
This four-click initiation cycle has been designed to avoid accidental switch-on.



Once the switch-on procedure is finished, the unit will run through its self-test. Initially, the display will show the number 10, and then a count-down ending with 0. Between displaying 1 and displaying 0 CYPRES shows the actual ambient air pressure. When the 0 with the arrow down is shown, the unit is functional for the next 14 hours. After 14 hours have passed, the unit will switch itself off automatically. A manual switch-off is always possible using the push button. If the self-test is not successful, an error code is shown on the display for approximately 2 seconds. The meaning of this error code can be read in chapter 5.
The manual switch-off sequence is identical to the switch-on procedure (click, light, click, light, click, light, click). This routine is designed to avoid accidental switch-off.

4.3 Using CYPRES in Training Mode

In the Training Mode, CYPRES must be switched on at the takeoff site on the ground. It must never be switched on inside a flying 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 drop zone are on 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 drop zone is missed and the landing takes place in an area with an elevation greater than 30 feet (10 m) above or below the drop zone level. Or, on the return journey to the drop zone the ground elevation changes similarly.
- The unit is taken away from the airfield/drop zone by vehicle or carried by hand and later brought back again.
- If the total time for a single jump (takeoff to landing) exceeds one and a half hours, CYPRES will function normally, but must be reset after landing.

General recommendation: If you have a doubt, reset CYPRES.

4.4 Using CYPRES in Operational Mode

Whenever you want to land at a DZ elevation that is different from your takeoff elevation, you must use the Operational Mode of your Military CYPRES 2 Unit. The only information that your Military CYPRES 2 Unit needs is the air pressure of your target DZ.

Get the information from your pilot, meteorologist or your officer in charge. This value has to be programmed in. You can set Military CYPRES to the target DZ airpressure prior to take off on the ground, or during flight, or even in a pressurized aircraft . In case you cannot acquire the target DZ air pressure info, it can be calculated using one of the various calculator tools as described (see 4.4.1 and following).

How can you enter this value in the CYPRES 2?

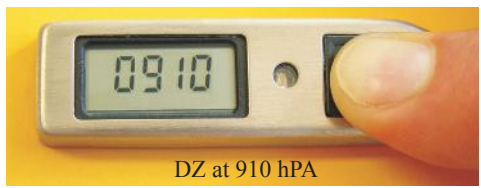
So: Switch on the unit and after the fourth click hold the push button pressed until immediately after the self test the number 1000 appears. The 1000 alternates with 0000 . Let the button go to choose 0000 or 1000 .
The chosen figure remains visible on the display.

Press the button again – The second digit counts from 0000 through 0900 .
Let the button go at the chosen figure. This figure remains visible on the display.

Press the button again – The third digit counts from 0900 through 0990 .
Let the button go at the chosen figure. This figure remains on the display.

Press the button again – The fourth digit counts from 0910 through 0919 .
Let the button go at the chosen figure. This figure remains on the display.

If you missed a figure, just keep the finger on the button until the figure shows up again.
(After 0900 the display restarts automatically with 0000 .)



DZ at 910 hPA

When you have done that, the red LED confirms by lighting for four seconds.
In case you have made a mistake you can restart the programming during that time.
Just press the button, look at the alternating first digit and choose.
When the LED shuts off, everything is fixed.

The pressure adjustment and the display indication remains until the unit is switched off . If you have to change your setting, you must switch the CYPRES off and on again.

If you try to enter a pressure of less than 200 hPa (approx. 39000 feet above sea level) or more than 1094 hPa (approx. -2140 feet below sea level), the CYPRES switches itself off. The blank display indicates that the desired adjustment is outside the specified parameters.

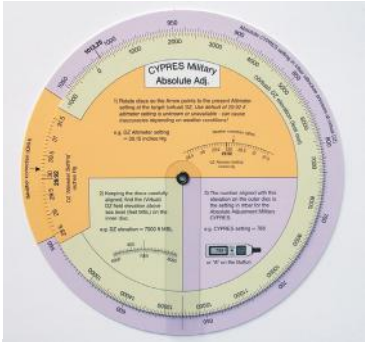
A civilian CYPRES stops all actions at ground level. All functions are ceased below this level. An optional feature will make the Military CYPRES in Operational Mode behave different: When a jumper descends below the target DZ (e.g. target DZ is on a mountain and he descends aside the mountain towards a valley), then this optional feature will allow the unit to stay active even below the original programed target DZ. If in such a mission the vertical speed exceeds the activation speed, then the Military CYPRES in Operational Mode will cut the reserve closing loop. (This feature is build to order only and indicated through the sign on the left side of the control unit.)

4.4.1 Using the circular calculator

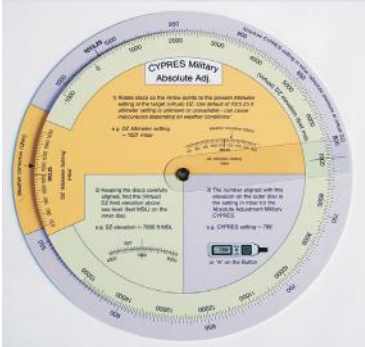
If the atmospheric (absolute) air pressure value of the target DZ is not known, it is possible to calculate this value using the ft/hPa-(or m/hPa-) circular calculator. This calculator can be ordered separately and is available in different languages. When using the calculator, the following vital points are to be considered:

- Use this calculator for ‚Absolute Adjustment' Military CYPRES Units only (‚Abs. Adj.' or 'A' nomenclature on Control Unit)
- Small inaccuracies can occur with the use of this calculator because of its' physical properties.
- Greater accuracy can be achieved with the use of the following methods listed in sections 4.4.2 and 4.4.3

circular calculator inches Hg scale



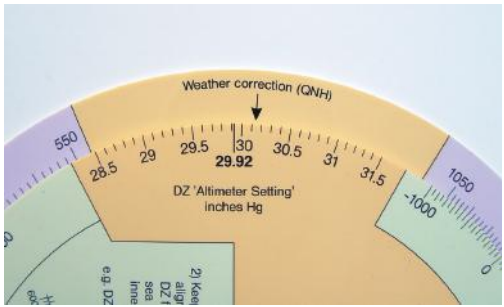
circular calculator mbar scale



Circular calculator procedure:

1.) Rotate discs so the Arrow points to the current altimeter setting at the target (virtual) DZ.

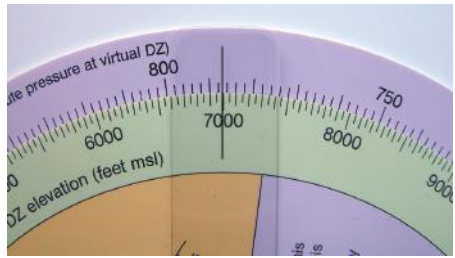
e.G. DZ altimeter setting = 30.15 inches HG



2.) Keeping the discs carefully aligned, find the (virtual) DZ field elevation above sea level (feet MSL) on the inner disc.

e.G. DZ elevation = 7000 feet MSL

The number aligned with this elevation on the outer disc is the setting in mbar for the Absolute Adjustment Military CYPRES



4.4.2 Using the Military CYPRES Calculator

If the atmospheric (absolute) air pressure value of the target DZ is not known, it is possible to calculate this value using the Airtec-developed Military CYPRES Calculator feet / meter / hPa / InHG.

Usage as described on the calculators backside:

If your target is where your take off location is but at a higher altitude:

- enter your ambient ground pressure (Military CYPRES 2 tells you that in the self-test)
- press “hPa“
- press “+“
- enter the amount of feet between yourself and your Target Drop Zone
- press “feet”

Display shows the air pressure in hPa of your Target Drop Zone.

If your target is at another location and air pressure at target is unknown:

- find out how many feet your Target Drop Zone is above sea level
- enter that number (followed by “ - “, if target should be below sea level)
- press “feet”
- press “hPa”

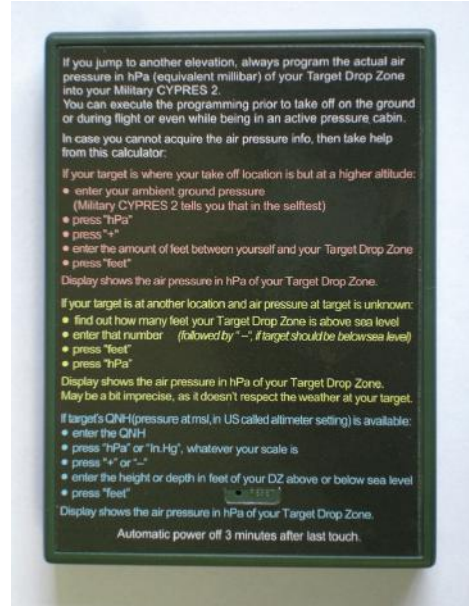
Display shows the air pressure in hPa of your Target Drop Zone.
May be a bit imprecise, as it doesn’t respect the weather at your target.

If target’s QNH (pressure at msl, in US called altimeter setting) is available:

- enter the QNH
- press “hPa” or “In.Hg”, whatever your scale is
- press “+” or “-”
- enter the height or depth in feet of your DZ above or below sea level
- press “feet”

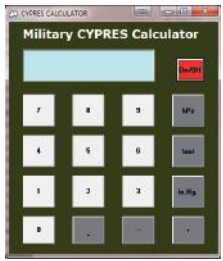
Display shows the air pressure in hPa of your Target Drop Zone.


Military CYPRES Calculator
0
7
8
9
hPa
4
5
6
feet
1
2
3
In.Hg
0
.
–
+


If you jump to another elevation, always program the actual air pressure in hPa (equivalent millibar) of your Target Drop Zone into your Military CYPRES 2.
You can execute the programming prior to take off on the ground or during flight or even while being in an active pressure cabin.
In case you cannot acquire the air pressure info, then take help from this calculator:
If your target is where your take off location is but at a higher altitude:
• enter your ambient ground pressure (Military CYPRES 2 tells you that in the selftest)
• press "hPa"
• press "+"
• enter the amount of feet between yourself and your Target Drop Zone
• press "feet"
Display shows the air pressure in hPa of your Target Drop Zone.
If your target is at another location and air pressure at target is unknown:
• find out how many feet your Target Drop Zone is above sea level
• enter that number (followed by "–", if target should be below sea level)
• press "feet"
• press "hPa"
Display shows the air pressure in hPa of your Target Drop Zone.
May be a bit imprecise, as it doesn't respect the weather at your target.
If target's QNH (pressure at msl, in US called altimeter setting) is available:
• enter the QNH
• press "hPa" or "In.Hg", whatever your scale is
• press "+" or "–"
• enter the height or depth in feet of your DZ above or below sea level
• press "feet"
Display shows the air pressure in hPa of your Target Drop Zone.
Automatic power off 3 minutes after last touch.

4.4.3 Military CYPRES Calculator in software versions

The Military CYPRES Calculator is also available in software versions.
On www.militarycypres.cc it is available as a Windows version.

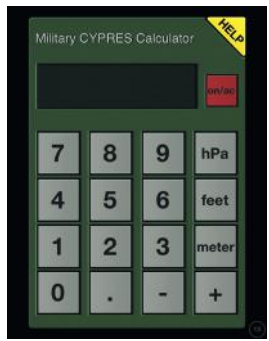


On http://ssk.us/Calculator/ it is available as an online version.

Further is it available online as an App for Android and for iOS free of charge. They feature exactly the Military CYPRES Calculator as described in chapter 4.4.2

Download on the App Store

Google play



4.5 Access to unit information

CYPRES 2 provides an easy way to view

1. the flight counter*,
2. the unit's serial number,
3. the next maintenance date**
4. and the rev. number:

When the 0 appears at the end of the switch-on procedure press the button immediately and keep it pressed.
Each value is displayed for 5 seconds, then the next value shows up.

You can stop the information sequence whenever you want by just letting go of the button.

* The flight counter only counts flights which are made in Training Mode.
** After the last maintenance has been performed, the words 'maint. no' and the date of the total service life (end of life) is shown.

This procedure is valid for units manufactured or maintained 12/2010 or later.

1. display of the flight counter

2. display of the serial number

3. next maintenance possible in 08 / 2023

4. display of the rev. number

4.6 CYPRES 2 and Water jumps

The design of the CYPRES 2 allows water jumps without removal of the unit. CYPRES 2 is waterproof for up to 15 minutes down to a depth of 15 feet (5 meters) in fresh and saltwater. If the depth is 8 feet (2.5 meters) or less, the water protection is given for a duration of up to 24 hours. This is achieved through a waterproof 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. CYPRES 2 comes with one spare filter and a filter changing tool. The CYPRES 2 filter changer tool is made from stainless steel, specifically for the purpose of filter removal and replacement. Filter replacement (see chapter 4.7) can be done by your rigger (packer). After water contact, the rig and the reserve must be dried according to the manufacturers 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 filter change.**

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

Tightly grip the filter changer, twist off by turning in a counter-clockwise direction 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 with your finger or with the eraser end of a pencil. Discard it.

Filter Installation: Place the new filter with the labeled side toward and into the slotted end of the filter changer up to the stop (flush) position. Do not angle.

Hold the filter changer by the non-slotted end, gently slide the filter fitting into the unit holding it straight without tilting. 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 straight back.

⚠CAUTION **Do not use other tools!**

5. Error Display

If there is an error condition detected during the self-test countdown, CYPRES 2 shows 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. The reason may be 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 an attempt to switch CYPRES on has been made in a car driving uphill or downhill, in an elevator or in a flying aircraft. The switch-on procedure can be performed several times after a 3333 error was displayed. If 0 is displayed, the unit has successfully gone through the self-test.

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

AGE unit reached last month of the total service life, displayed for approx. 5 seconds, unit remains ON

7777 low battery condition. 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 in the display, if the unit switches itself off and can not 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

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.

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 plug and socket by their aluminium grips and pull them apart using a smooth straight motion. Do not twist!

Connecting the release unit(s):
Hold 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 it is completely seated. Do not twist!

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

1-pin Cutter

2-pin Cutter

Notes:

1. CYPRES 1 field replaceable cutters (no aluminum grip) can be used with CYPRES 2. They will function properly, however this combination is not water-resistant.
   CYPRES 2 cutters (identified by aluminum grip) can be used with any CYPRES 1 with the field replaceable cutter connector. They function properly - but this combination is not water-resistant.
2. Release units (cutters) have a serial number on a heat shrink tubing placed on the cable. This number identifies the cutter. A table of cutter numbers with their corresponding dates of manufacture is available at www.cypres.cc
3. It is possible that the cutter plug separates from the socket after a CYPRES activation. In the rare combination of this event and a water landing, the socket must be dried out before further use. Do that by tapping the open end of the socket onto a flat surface such as a table top. Once no additional water comes out while tapping on the table top, store the CYPRES with the open end of the socket hanging downward for another 24 hours in a dry area, to allow the socket to dry out completely. When completely dry, insert the plug of the new cutter. Never insert an object (i.e. Q-tip) to dry out the plug.
4. 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 cutter service life (16,5 years after DOM)
Used release units (cutters) that are / were attached to a CYPRES unit are also subject to a technical service / maintenance. See chapter 12.1.
New release units (cutters) that were never attached to a CYPRES unit and were stored (according to manufacturers instructions) do NOT need to be sent in for maintenance within the service time frame.

7. Technical service / maintenance

The extremely reliable function of CYPRES is based on 4 facts: exclusive use of carefully pretreated and approved parts, strict detailed manufacturing procedures, continuous quality control and monitoring through the manufacturing process, and regular periodic technical service (maintenance). We offer a maintenance for 4 primary reasons:

1. Deviations between nominal and actual values are corrected to ideal values. Every detail is observed. It is common that signs of wear and tear are corrected and sometimes even 'cosmetic' treatment is done.
2. The technical condition of each unit is analyzed. The fact that a very high percentage of units are returned for the periodic maintenance gives the ability to see statistical trends and to predict potential problems at a very early stage. The advantage: it is often possible to prevent situations by modifications during the maintenance procedures, rather than having to fix problems with downtime later.
3. Experience shows that during a period of a maintenance cyle (4 or 5 years), changes and improvements do happen. Applicable updates are performed during maintenance. Such updates may have the background of technical improvements, or enhancement of 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 part of the maintenance is the individual pre-adjustment of each unit for the next cycle. A unit will not be returned before a high confidence level is reached regarding the prediction of the unit's proper function for the next cycle.

For maintenance cycle schedule see chapter 12.1
The earliest possible date for the CYPRES 2 maintenance is 6 months early, the latest 6 months after the month of manufacture. This maintenance window gives you more freedom, and avoids maintenance down-time at the wrong time of the year. It's smart to choose a suitable time during the 13 month window for sending the unit in for maintenance, rather than waiting until the last possible moment, or until the beginning of the next season.

Reaching the end of the first maintenance cycle your CYPRES will start to tell you that there is a maintenance possible in six month from then and the unit will display the proposed month and year. That will happen after switch on in the self test between the unit showing 1 and 0'. From there on you have one year to give it to us and be in the maintenance window.
If you don`t do it until the proposed date, then the unit will show month and year for a little bit longer then it did before.
Three month after the proposed date it will show month and year for an even longer time.
However, after this remembering your unit will always proceed and will go to 0' and be usable for you.
If we receive your unit from exactly 6 month before the proposed date until six month after the proposed date (that means in the maintenance window) in our place for a maintenance, we will execute the procedure with all the details and consequences as described in this manual. The price for this treatment will be the CYPRES maintenance flat rate, even when a unit requires extensive repairs.
If you want us to do the maintenance, we really ask you to please give us your CYPRES in the meaningful time span. And not earlier and not later.
In case we receive your unit in our place outside of this time window we will possibly still be willing to execute a treatment, but the details and the consequences will likely be different and the price will be significantly higher.

If a first maintenance has been done on your CYPRES, then your unit will give a second notice for a second (and last) maintenance when reaching the end of the second maintenance cyle. This will happen regardless of when a first maintenance was done.

After the second maintenance, CYPRES 2 should be usuable until the end of life. For service life schedule see chapter 12.1

During the service life of a CYPRES 2 unit, the parachutist should not have any operation costs other than the 2 maintenance fees (except for any required replacement cutters or waterproof filters).

Please contact your local CYPRES dealer concerning the maintenance. Please contact Airtec when you don't know who your local dealer is.

The CYPRES Service Center for the USA, Canada, South America and other Western Hemisphere countries 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 a thorough check, the greater the chance that it does not work properly every time you need it. If you choose to not have maintenance performed on your device you're taking the risk that the reliability level will decrease.
Return your CYPRES 2 for maintenance (see chapter 12.1 for utilization cycle).

8. Important Notes

8.1 Important notes for jump pilots

The following 3 points are only to be taken into account when the Military CYPRES 2 Unit is used in Training Mode.

- Every Military CYPRES 2 Unit has to exceed an altitude of more than 1500 feet above its firing altitude to become fully armed.

- Never descend to an altitude below the airfield takeoff elevation.

- If the aircraft can be pressurized, make sure that the cabin remains open when the turbines are started up. Leave a window, a door, or the ramp open slightly until after lift-off. Make sure that the cabin pressure cannot build up above the air pressure on the ground. (Hint: the parachutist's altimeters should never go below „0".)

Always: in training Mode **and** Operational Mode
Stay below the vertical activation speed in the activation window (6900 feet/min or 5700 feet/min for 2500/29/A CYPRES) if you are on descent in an aircraft, or simulated by changing the cabin airpressure.

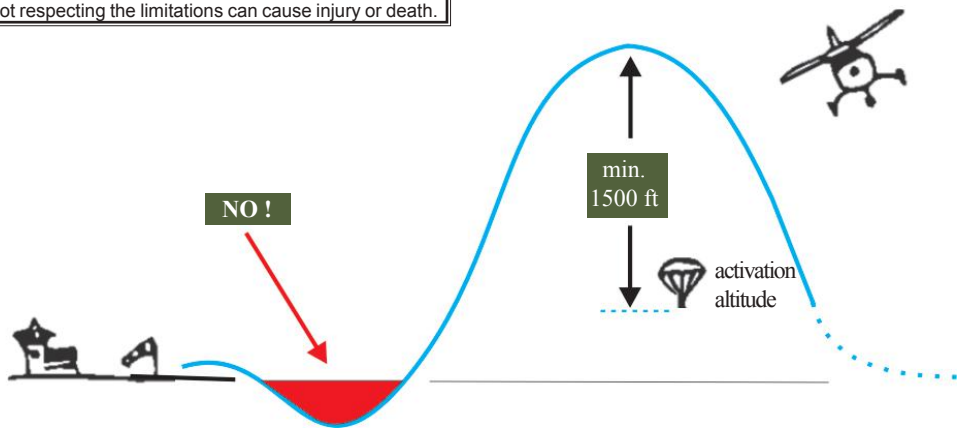
The sketch below shows what must not be done / should be done when the unit is in Training Mode

⚠WARNING

Flight limitations in Training Mode:

- Never fly below the airfield takeoff elevation
- Always go at least 1500 feet above the activation altitude.

Not respecting the limitations can cause injury or death.



If the Military CYPRES 2 Unit is used in Operational Mode, the above mentioned limitations do not apply.

8.2 Important notes for users

- CYPRES must not be used for parascending or paragliding/sailing.
- CYPRES cannot be used for base jumps (jumps from fixed objects), and must be switched off prior to making a base jump.
- To make sure that a Military CYPRES 2 device is armed when it is used in the Training Mode, you must fly at least 1500ft above the preset firing altitude (rule of thumb. Exact specifications available from Airtec / SSK). The Military CYPRES 2 device is always armed when in the Operational Mode.
- A two canopy scenario can be generated via a CYPRES activation, if the main deploys too low.
- CYPRES is shielded against radio transmitter signals. Extreme concerted efforts have been taken to protect CYPRES 2 from "radio pollution". Although the extraordinary shielding system of CYPRES 2 has been investigated thoroughly, it is impossible to have 100% protection. It is still recommended to avoid strong radio transmitters. Please contact Airtec if you have questions.
- A release unit that has activated builds up a high internal pressure and will remain pressurized. Never attempt to open it by force.
- In case of training mode only: After take off please ascend at more than 180 feet per minute (1 meter per second) for at least 30 seconds.
- The reserve container closing loop must be under a tension, caused by the pilote chute spring, of at least 10 pounds (approx. 5 kg).
- 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 Airtec tested and subsequently qualified by Airtec and the rig manufacturer. Typically the rig manufacturer delivers these pilot chutes with the rig. If there is any doubt, please contact Airtec.
- Don't forget: After water contact shut your CYPRES 2 off and change the filter.

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) concerning the CYPRES AAD Installation and rigging specifications.

General:

The reserve container closing loop must be under tension, caused by the pilot chute spring, of at least 10 pounds (approx. 5 kg).
Please closely check the grommets at each repack. Grommets with rough edges ultimately will destroy any loop. Replace damaged grommets immediately. Use original CYPRES loops / loop material, pull ups, and discs when a CYPRES 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) with other brand AADs 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 which are attached to a CYPRES disc and are mounted in containers with internal pilot chute should be replaced at each repack. After attachment to the disc, CYPRES loops should be treated with CYPRES loop silicone on the upper maximum 4 cm (1 1/2 inch) but well away from the knot. The loops provided by Airtec are pre-treated with silikon already.

1-Pin Pop Top:

Please check the loop carefully and replace if necessary. On all adjustable loops, silicone should not be used. 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) concerning the CYPRES AAD Installation and rigging specifications.

Tips for Riggers (packers):

The 'Packer's Kit' is available from CYPRES dealers. It contains a lot of things that 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's Guide, CYPRES Rigging Tips

For specific instructions, please contact your h/c manufacturer.

SAFETY INSTRUCTIONS

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

9.1 The CYPRES Loop and Disc System

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

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

To fasten the reserve closing loops in the container bottom riggers and packers used normal metal washers. Sometimes these washers had sharp edges. A loop which is under a lot of tension in the container could be damaged and cut accidentally by those sharp edges. Especially from vibration in a car or in an aircraft.

Parachutists were killed by premature reserve openings, caused by fraying loops. Even an aircraft crashed because of a premature reserve opening.

Our intention is to make parachuting safer, so we took care of 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 upper 1.5 inch (4 centimeters) to maximize the smoothness of its surface giving it even less friction.

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

The CYPRES washer (often called a smiley because of its looks) is a small piece of artwork. It is a round aluminium disc with no sharp edges on its outer contour. Within its surface it has 3 passing 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.

With this, the knot only realizes one third of the force when the loop is under tension. Without reducing the extreme tension the knot will shrink and pull it through the disc.
The three holes have no sharp edges. It is a very extensive procedure to manufacture this disc, but loop tearing has reduced to almost zero by using this product.

- extremely flexible
- extremely slippery
- breaking strength: 408 lbs
- diameter: 11/16 inch

- no sharp edges
- minimal loop tearing

Both, loop and washer together as a system has certainly made parachuting significantly safer during the last and a half decade. Totally separate from CYPRES.
Since the system was introduced to the scene in 1992 approx. 1,010,000 discs and approx. 4,000,000 loops have been manufactured by Airtec and given to rig manufacturers, riggers and packers worldwide to improve the safety in parachuting.
Nowadays it‘s unlikely to find a rig worldwide, with a reserve container that is not closed by the CYPRES Closing Loop System.

In addition to making its technical effect inside the reserve container, this CYPRES Loop System has another advantage. It reduces the necessary pull force on the reserve ripcord handle by up to 50%. A huge help for all those parachutists who, for one reason or another, have difficulties with the pull force.

10. Switching Rigs

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

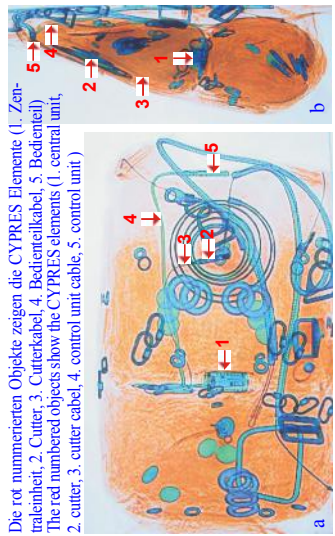
If the container swap requires a change in the number of release elements (cutters), this can be done quickly on-site by unplugging the old cutter and swapping with the required type cutter (1-pin or 2-pin). It is not necessary to send the CYPRES to the manufacturer. The necessary cutter can be purchased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

11. Regarding Air Travel

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

Because of the size of a rig we recommend to check it in as normal luggage and to not take it on board as hand luggage. In case of questions or objections from the security personnel, please use the card shown on the right which you'll find in the back cover of this book. The card shows an X-ray of a complete rig with CYPRES 2. Depending on type and design of the rig the X-ray on the security's screen may vary.

The Parachute Industry Association and the USPA have worked with the Transportation Security Agency concerning traveling with parachutes. Refer to USPA's web site (www.USPA.org) for the latest recommendations and documents.



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

original card located in the back cover

12. Technical Data

Technical data for all Military CYPRES:

Length, width, height of the processing unit.....approx. 3 1/3 x 2 2/3 x 1 1/4 inch (85 x 43 x 32 mm)
Length, width, height of the control unit .....approx. 2 1/2 x 3/4 x 1/4 inch (65 x 18 x 6.5 mm)
Length, diameter of the release unit.....approx. 1 5/8 x 3/8 inch (43 x 8.0 mm)
Cable length of the control unit .....approx. 47 1/3 inch (1200 mm)
Cable length of the release unit.....approx. 20 inch (500 mm)
Volume .....9,15 cubic inch (150 cm³)
Weight .....8,18 ounces (232 grams)
Storage temperature ..... +160° F to -58° F (+ 71° to - 50° centigrade)
Storage pressure..... 200 to 1094 hPa (approx. - 2140 to + 38633 feet MSL)
Working temperature..... +145° F to -25° F * (+ 63° to - 32° centigrade *)
Maximum allowable humidity.....up to 99,9 % rel. humidity
Waterproof .....up to 15 minutes down to a depth of 15 feet (up to 24 hours down to a depth of 8 feet)
Target DZ elevation range..... 200 to 1094 hPa (approx. - 2140 to + 38633 feet MSL)
Operating range..... - 2140 feet to + 65500 feet MSL
Functioning period..... 14 hours
Power supply..... service life warranty**
Maintenance ..... see chapter 12.1
Total service life..... see chapter 12.1

* These temperature limits do not mean the outside (ambient) temperatures but rather temperatures inside the processing unit. Therefore, these limits won‘t have any meaning until the processing unit itself has reached the temperatures in question. In fact, these limits will rarely be reached due to the mandatory location of the CYPRES in the reserve container, and the insulating properties of the processing unit pouch and parachute canopies.

Standard settings for the 1000/35 A CYPRES:
Activation altitude .....approx. 1000 feet
Activation speed.....approx. 78 mph at sea level

Standard settings for the 1500/35 A_CYPRES:
Activation altitude .....approx. 1500 feet
Activation speed.....approx. 78 mph at sea level

Standard settings for the 1900/35 A_CYPRES:
Activation altitude .....approx. 1900 feet
Activation speed.....approx. 78 mph at sea level

Standard settings for the 2500/29 A_CYPRES:
Activation altitude.....approx. 2500 feet
Activation speed.....approx. 65 mph at sea level

** If maintenance has been performed.
*** According to the present knowledge base.

Standard settings for the 2500/35 A_CYPRES:
Activation altitude.....approx. 2500 feet
Activation speed.....approx. 78 mph at sea level

Standard settings for the changeable MIL CYPRES:
Activation altitude.....according to set MODE
Activation speed.....according to set MODE

12.1 Versioning

For units with DOM 12/15 and earlier the maintenance is mandatory to be performed 4 and 8 years after the original DOM. Service Life is 12.5 years.***

For units made in 2016 the maintenance can be performed on a voluntary basis 4 and 8 years after original DOM. Service Life is 12.5 years.***

For units with DOM 01/17 and later the maintenance can be performed on a voluntary basis 5 and 10 years after the original DOM. Service Life is 15.5 years.***

13. Warranty

Airtec GmbH & Co. KG provides the 2 year warranty required by law, and 3 additional years where all repairs are free of charge, except resulting from intentional or negligent damages.
Thereafter, on a voluntary base Airtec will be open to provide repairs or replacements for all non intentional or non negligent damages free of charge to all those customers who submit their units for maintenance on schedule.
This is a CYPRES practice already 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 an entirely 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 has been opened by an unauthorized individual, or if an opening of the processing unit, release unit (cutter) or control unit has been attempted.

14. Disclaimer

In designing and manufacturing CYPRES, the aim of Airtec GmbH & Co. KG Safety Systems, is that the device should not accidentally sever the loop but should try 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 trial and production phases have indicated that CYPRES meets both these goals. However, as an electro-mechanical device the possibility of CYPRES malfunctioning cannot be excluded. Such may cause injuries or death. We accept no responsibility for damages and consequences resulting from any malfunction.
Airtec GmbH & Co. KG Safety Systems also accepts no responsibility for damages or problems which are caused by the use of non-original Airtec parts and supplies.
The use of CYPRES is voluntary, and does not automatically prevent injury or death. Risk can be reduced by assuring 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‘s Guide.
If used in the United States, the use of CYPRES shall be in accordance with USPA BSRs.
Automatic activation devices (AADs) sometimes display a wrong status, fail to operate or operate properly, and sometimes activate when they should not, even when properly installed and operated. Therefore the user risks serious injury or even death to themselves and others during each use.
By using or allowing others to use CYPRES, you acknowledge that you accept responsibility for the proper use of the device, as well as accepting the consequences of any and all use of this device.
Airtec GmbH & Co. KG Safety Systems, their Dealers, Service Centers, and Agents total and complete responsibility is limited to the repair or replacement of any defective device.
CYPRES 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 are not in agreement of these disclaimers please do not use CYPRES. Please note that even though CYPRES has an extraordinary track record, your results may vary.

15. Index

16. Packing List

In addition to the CYPRES 2 unit and the user's guide, the following items will be delivered:

- Military CYPRES 2
- Military CYPRES 2 User Guide
- spare CYPRES 2 Filter
- CYPRES 2 Filter Changer tool
- Test Certificate

If applicable:
- CYPRES closing loop(s)
- CYPRES disc(s)
- pull-up cord(s)
- soft bodkin(s)

Trade Marks

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CYPRES 2

Reliability made in Germany

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