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User's Manual
Vigil®2+
with Cuatro Firmware

US v2026.01

Vigil®2+ Cuatro is developed, produced & tested in our factory, that is ISO 9001 certified.

Vigil®2+ Cuatro with Single-Pin Cutter

NATO Stock Number (NSN) 1377-13-122-3955

Vigil®2+ Cuatro with Dual-Pin Cutter

NATO Stock Number (NSN) 1377-13-122-5594

WARNING: SKYDIVING IS A DANGEROUS ACTIVITY, AND YOU RISK MINOR OR SERIOUS PERMANENT INJURY, OR DEATH, EACH TIME YOU SKYDIVE. THE CORRECT USE OF THE VIGIL®2+ CUATRO MAY REDUCE THIS RISK, HOWEVER, THERE ARE SITUATIONS IN WHICH A VIGIL®2+ CUATRO MAY NOT REDUCE, AND MAY ACTUALLY INCREASE THE RISK. THE VIGIL®2+ CUATRO IS A BACKUP DEVICE, WHICH MAY OR MAY NOT SAVE YOUR LIFE, AND IT IS IMPORTANT TO NEVER RELY ON THE VIGIL®2+ CUATRO AS A LIFESAVING DEVICE. PRIOR TO USING THE VIGIL®2+ CUATRO, IT IS IMPORTANT TO READ THE VIGIL®2+ CUATRO USER'S MANUAL VERY CAREFULLY.



ALWAYS READ AND OBSERVE ALL WARNINGS, AND FOLLOW ALL MANUFACTURER'S INSTRUCTIONS, RECOMMENDATIONS, AND SAFETY PROCEDURES. ALWAYS FOLLOW YOUR TRAINING, INCLUDING CORRECT OPENING PROCEDURES AND, IF NECESSARY, EMERGENCY PROCEDURES.

NEVER SKYDIVE UNLESS YOU ARE FULLY TRAINED IN THE NECESSARY SKILLS AND ARE COMPETENT IN THE USE OF ALL OF YOUR EQUIPMENT, INCLUDING BUT NOT LIMITED TO THE VIGIL®2+ CUATRO. IF YOU HAVE ANY DOUBTS ABOUT YOUR TRAINING OR COMPETENCY TO SKYDIVE, GET ADDITIONAL TRAINING PRIOR TO SKYDIVING.



WARNING

WARNING: THE INFORMATION, INSTRUCTIONS, AND SPECIFICATIONS PROVIDED HEREIN APPLY SOLELY TO THE VIGIL®2+ CUATRO AND MUST NOT BE USED WITH ANY OTHER VIGIL® MODELS OR FIRMWARE. USING THIS MANUAL FOR MODELS OR FIRMWARE OTHER THAN THE VIGIL®2+ CUATRO MAY RESULT IN IMPROPER USE, EQUIPMENT FAILURE AND/OR SERIOUS INJURY OR DEATH. ALWAYS ENSURE THAT YOU ARE REFERENCING THE CORRECT MANUAL FOR YOUR SPECIFIC VIGIL® MODEL.

IF YOU ARE UNSURE WHETHER THIS MANUAL APPLIES TO YOUR MODEL AND FIRMWARE, PLEASE CONTACT EITHER A.A.D. NV/SA, VIGIL AMERICA INC., OR YOUR PREFERRED VIGIL® DEALER FOR CLARIFICATION BEFORE PROCEEDING. LEGACY MANUALS CAN BE FOUND ON OUR WEBSITE:

WWW.VIGIL.AERO/MANUALS

IMPORTANT: YOU MUST CAREFULLY READ AND ENSURE THAT YOU FULLY UNDERSTAND THIS ENTIRE USER MANUAL BEFORE USING THE VIGIL®2+ CUATRO.

PRIOR TO USING THE VIGIL®2+ CUATRO, YOU MUST ALSO READ, FULLY UNDERSTAND, AND AGREE TO THE TERMS OF THE DISCLAIMER AND LIMITED WARRANTY CONTAINED IN THIS USER MANUAL.

IF YOU DO NOT FULLY UNDERSTAND AND AGREE TO EACH AND ALL OF THE TERMS OF THE DISCLAIMER AND LIMITED WARRANTY, YOU MUST NOT USE THE VIGIL®2+ CUATRO. YOU MAY RETURN IT, UNUSED, IN ITS ORIGINAL PACKAGING, FOR A FULL REFUND.

YOUR USE OF THE VIGIL®2+ CUATRO IN THE EQUIPMENT YOU USE FOR MAKING A PARACHUTE JUMP IS CONCLUSIVE PROOF THAT YOU AGREE TO EACH AND ALL OF THE TERMS OF THE DISCLAIMER AND LIMITED WARRANTY.



IMPORTANT



WARNING

WARNING: THE VIGIL®2+ CUATRO IS A LAST-RESORT SAFETY DEVICE THAT MAY OR MAY NOT SAVE YOUR LIFE. IT IS NEITHER INTENDED NOR DESIGNED TO SERVE AS A PARACHUTE'S PRIMARY OPENING SYSTEM.

TO ENSURE PROPER FUNCTIONING OF THE VIGIL®2+ CUATRO, THE PROCEDURES OUTLINED IN THIS MANUAL MUST BE STRICTLY FOLLOWED. INCORRECT SETUP OR USE CAN LEAD TO IMPROPER FUNCTIONING OF THE VIGIL®2+ CUATRO AND MAY RESULT IN SERIOUS INJURY OR DEATH.

THE USE OF A VIGIL®2+ CUATRO DOES NOT ELIMINATE THE NEED FOR EXECUTING PROPER EMERGENCY PROCEDURES.

SKYDIVERS MUST ALWAYS COMPLY WITH ALL APPLICABLE LAWS, RULES AND REGULATIONS.

THE VIGIL®2+ CUATRO IS DESIGNED TO CUT THE RESERVE CLOSING LOOP TO INITIATE THE DEPLOYMENT OF THE RESERVE PILOT CHUTE. THERE ARE MANY FACTORS WHICH COULD INTERFERE WITH THIS PROCESS, AND WHILE VIGIL® AAD DEVICES HAVE SAVED MANY LIVES, YOU SHOULD NEVER RELY SOLELY ON THE VIGIL®2+ CUATRO TO SAVE YOUR LIFE.

IN FURTHERANCE OF PROPER FUNCTIONING OF THE VIGIL®2+ CUATRO, THE PROCEDURES OUTLINED IN THIS MANUAL MUST BE STRICTLY FOLLOWED. INCORRECT SETUP, INSPECTION, OR USE CAN LEAD TO IMPROPER FUNCTIONING OF THE VIGIL®2+ CUATRO, RESULTING IN SERIOUS INJURY OR DEATH.

IF THE RESERVE CLOSING LOOP IS NOT PROPERLY ROUTED THROUGH THE CUTTER, THE VIGIL®2+ CUATRO CANNOT SAVE YOUR LIFE.

NEVER JUMP WITH A BLANK SCREEN ON YOUR VIGIL®2+ CUATRO!



AFTER MANUFACTURE, AAD NV/SA TESTS EACH VIGIL®2+ CUATRO. EACH VIGIL®2+ CUATRO HAS PASSED VARIOUS DOCUMENTED TECHNICAL INSPECTIONS, CALIBRATION TESTS, QUALITY CONTROL INSPECTIONS, AND A FINAL FUNCTIONAL TEST (INCLUDING SIMULATED JUMPS IN A TEST CHAMBER) BEFORE SHIPMENT. THE TEST RESULTS ARE ALL DOCUMENTED AND SAVED.



WARNING

THE FOREGOING NOTWITHSTANDING, ALTHOUGH THE VIGIL®2+ CUATRO IS A SAFETY DEVICE, IT MAY OR MAY NOT PREVENT INJURY, SERIOUS INJURY, OR DEATH TO THE USER, OR DAMAGE TO PROPERTY. THE RISK OF ELECTRONIC, MECHANICAL, OR EXTERNAL FACTORS CAUSING A MALFUNCTION OR FAILURE CANNOT BE TOTALLY ELIMINATED OR EXCLUDED. IT IS ESSENTIAL THAT THE USER NEVER RELY ON THE VIGIL®2+ CUATRO TO SAVE THEIR LIFE AND SHOULD INSTEAD FOLLOW THEIR TRAINING TO REDUCE THE INCIDENCE OF INJURY, SERIOUS INJURY, OR DEATH TO THE USER, OR DAMAGE TO PROPERTY.

IT IS IMPERATIVE THAT THE VIGIL®2+ CUATRO BE POWERED ON AT THE TAKEOFF ZONE, WHICH BECOMES THE GROUND ZERO REFERENCE.

NEVER POWER ON YOUR VIGIL®2+ CUATRO IN AN AIRCRAFT IN FLIGHT!

IF THE VIGIL®2+ CUATRO DETECTS VARIABLE AIR PRESSURE DURING THE POWER ON SEQUENCE, IT WILL NOT COMPLETE THE START-UP PROCEDURE AND WILL DISPLAY A FLASHING «GROUND 0» «WARNING» ON THE CONTROL UNIT AND WILL SHUTDOWN.





IMPORTANT

IMPORTANT ADDITIONAL SAFETY NOTES:

THE VIGIL®2+ CUATRO IS EQUIPPED WITH AN INTEGRATED PIEZORESISTIVE BAROMETRIC PRESSURE SENSOR.

DO NOT EXPOSE YOUR VIGIL®2+ CUATRO TO PRESSURES ABOVE 3000 HPA, (43.5 PSI) OR TO TEMPERATURES ABOVE 158°F (70°C). THE DUAL BATTERY PACK IS DESIGNED TO OPERATE WITHIN A TEMPERATURE RANGE FROM -13°F TO +158°F (-25°C TO +70°C).

EXPOSURE TO CONDITIONS THAT EXCEED THE PERMITTED MAXIMUM PRESSURE AND/OR THAT ARE OUTSIDE OF THE PERMITTED TEMPERATURE RANGE MAY RESULT IN PRODUCT DAMAGE AND/OR FAILURE OF THE VIGIL®2+ CUATRO TO PROPERLY FUNCTION.

YOU MUST ALWAYS POWER ON YOUR VIGIL®2+ CUATRO ONLY AT THE TAKEOFF ZONE (REFERENCE ALTITUDE OR GROUND ZERO).

IF YOU RELOCATE TO A DIFFERENT TAKEOFF ZONE, YOU MUST POWER OFF YOUR VIGIL®2+ CUATRO BEFORE TRAVELING, AND MUST POWER IT BACK ON AT THE NEW TAKEOFF ZONE, BEFORE THE AIRCRAFT TAKES OFF.

ADDITIONAL IMPORTANT SAFETY NOTES:

BEFORE EACH JUMP, IT IS ESSENTIAL TO VISUALLY CHECK YOUR LCD SCREEN TO ENSURE THAT YOUR VIGIL®2+ CUATRO IS POWERED ON, AND THAT IT DISPLAYS THE CORRECT ACTIVATION MODE («PRO», «STUDENT», «TANDEM» OR «XTREME»), AND ANY ADDITIONAL PRESELECTED SETTINGS, SUCH AS AN ALTITUDE CORRECTION.



READ THIS USER MANUAL CAREFULLY AND IN ITS ENTIRETY FOR OTHER IMPORTANT INFORMATION ABOUT THE USE OF THE VIGIL®2+ CUATRO.

THE VIGIL®2+ CUATRO HAS A MAXIMUM SERVICE LIFE OF 20 YEARS FROM ITS DATE OF MANUFACTURE (DOM) AND MUST NOT BE USED BEYOND THE 20 YEAR SERVICE LIFE, EVEN IF NO ERROR IS SHOWN DURING ITS SELF-TEST.



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1. DISCLAIMER AND LIMITED WARRANTY

IMPORTANT (READ CAREFULLY)

THE USER MUST READ, UNDERSTAND, AND AGREE TO THE TERMS OF THIS DISCLAIMER AND LIMITED WARRANTY BEFORE USING THE VIGIL® 2+ CUATRO.

1.1 LIMITED WARRANTY

THE MANUFACTURER MAKES ONLY THE FOLLOWING LIMITED WARRANTIES:

A. **DEFECTIVE PARTS: THE MANUFACTURER WILL REPLACE OR REWORK DEFECTIVE PARTS FREE OF CHARGE IF A CLAIM IS MADE WITHIN TWO (2) YEARS FROM THE DATE OF MANUFACTURE (DOM)**

B. **DUAL BATTERY PACK: THE DUAL BATTERY PACK IS WARRANTED FOR FIVE (5) YEARS OR 2000 JUMPS, WHICHEVER OCCURS FIRST.**

OTHER THAN THE FOREGOING LIMITED WARRANTIES, THE VIGIL®2+ CUATRO IS SOLD WITH ALL FAULTS AND WITHOUT ANY OTHER WARRANTY.

1.2 DISCLAIMER OF WARRANTIES

EXCEPT AS EXPRESSLY OTHERWISE STATED IN THIS OWNER'S MANUAL, MANUFACTURER MAKES NO EXPRESS OR IMPLIED WARRANTY WHATSOEVER WITH RESPECT TO THE VIGIL®2+ CUATRO, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THOSE EXPLICITLY STATED IN THIS OWNER'S MANUAL.

THE WARRANTIES SET FORTH ABOVE AND THE OBLIGATIONS AND LIABILITIES OF THE MANUFACTURER THEREUNDER, ARE EXPRESSLY IN LIEU OF, AND BUYER HEREBY WAIVES AND RELEASES, ANY AND ALL OTHER WARRANTIES, AGREEMENTS, GUARANTEES, CONDITIONS, DUTIES, OBLIGATIONS, REMEDIES OR LIABILITIES, EXPRESS OR IMPLIED, ARISING BY LAW OR OTHERWISE, INCLUDING WITHOUT LIMITATION GUARANTEES, CONDITIONS, DUTIES, OBLIGATIONS, REMEDIES.

MANUFACTURER EXPRESSLY DISCLAIMS ANY LIABILITY IN LAW OR IN EQUITY, IN TORT, STRICT LIABILITY, CONTRACT, OR OTHERWISE, FOR DIRECT OR CONSEQUENTIAL OR OTHER DAMAGES, INCLUDING BUT NOT LIMITED TO DAMAGES FOR PERSONAL INJURY, WRONGFUL DEATH, LOSS OF CONSORTIUM, PROPERTY DAMAGE AND LOSS OF USE OF EQUIPMENT, RESULTING FROM ANY MALFUNCTION, OR FROM ANY DEFECT IN DESIGN, MATERIAL, WORKMANSHIP OR MANUFACTURING, WHETHER CAUSED BY NEGLIGENCE ON THE PART OF THE MANUFACTURER, OR ANY MANUFACTURER OF ANY PART, ACCESSORY, COMPONENT, OR APPLIANCE MADE A PART OF, OR APPURTENANT TO, THE VIGIL®2+ CUATRO.

1.2 DISCLAIMER OF WARRANTIES ... cont

BUYER, BY USE OF THE VIGIL®2+ CUATRO, AND/OR ALLOWING IT TO BE USED BY OTHERS, EXPRESSLY WAIVES ANY CLAIM FOR LIABILITY ON THE PART OF THE MANUFACTURER FOR PERSONAL INJURIES, WRONGFUL DEATH, LOSS OF CONSORTIUM, PROPERTY DAMAGE AND LOSS OF USE OF EQUIPMENT.

AAD NV/SA OPERATES A POLICY OF CONTINUOUS DEVELOPMENT, THEREFORE, WE RESERVE THE RIGHT TO MAKE MODIFICATIONS AND/OR IMPROVEMENTS TO ANY OF THE PRODUCTS DESCRIBED IN THIS MANUAL, WITHOUT NOTICE.

ALL TRADEMARKS MENTIONED IN THIS MANUAL ARE THE PROPERTY OF THEIR RESPECTIVE OWNERS.



IMPORTANT

IMPORTANT: THERE IS A QUALITY CONTROL (Q.C.) NUMBER HOLOGRAM (4 ALPHANUMERIC DIGITS) ON EACH OF THE PARTS OF A VIGIL®2+ CUATRO (PYROTECHNIC CUTTER, PULSES PLUS ELEMENT, CONTROL UNIT, AND MAIN BOX). REMOVAL OF ANY Q.C. HOLOGRAM STICKER, OR THE BLUE SEALING PAINT, (EXCEPT BY THE MANUFACTURER) VOIDS ANY AND ALL WARRANTIES.

1. Welcome to the Vigil®2+ Cuatro World!

Congratulations on your purchase of today's most sophisticated and modern, Multi-Mode Automatic Activation Device (AAD). The **Vigil®2+ Cuatro** will automatically check all of its functional features each time it is Powered ON. The **Vigil®2+ Cuatro** will automatically perform a self-test when it is Powered ON. Should an anomaly be found, the Control Unit will display an error message (see § 6.2), and the **Vigil®2+ Cuatro** unit will not Power ON. In this case, the **Vigil®2+ Cuatro** must be sent back to the factory for analysis.

The **Vigil®2+ Cuatro** is designed for a service life of a maximum of 20 years from the date of manufacture (DOM). The above service life is based on the fact that the Cutter, the Pulses Plus Element, and the electronic components have been designed for a maximum functional service life of 20 years.

WARNING: ALL VIGIL®2+ CUATRO AADS HAVE A MAXIMUM SERVICE LIFE OF 20 YEARS FROM DATE OF MANUFACTURE (DOM) AND CANNOT BE USED BEYOND THE 20 YEAR SERVICE LIFE LIMIT.



The **Vigil®2+ Cuatro** is very user-friendly. It can be used in your choice of 4 Activation Modes: **«Pro», «Student», «Tandem»** or **«Xtreme»**.

The **Vigil®2+ Cuatro**, is an ALL-IN-ONE Automatic Activation Device (AAD). It will operate in either U.S. or Metric standards units.

When traveling on any commercial flight with your **Vigil®2+ Cuatro**, you should bring this manual as well as the **Vigil® X-Ray Card** (see page 65). They contain information that may be useful to the airport security staff to authorize its carriage on the flight.

The most recent **Vigil®2+ Cuatro** manual is available on the **Vigil®** website at **www.vigil.aero/manuals**

2. Introduction

Your **Vigil®2+ Cuatro** was designed and developed by a professional team of engineers and skydivers, and was the first Multimode Automatic Activation Device (AAD) on the market.

The **Vigil®2+ Cuatro** function is to cut the reserve closing loop when its activation parameters are met.

The **Vigil®2+ Cuatro** can be used in four MODES.
These user-programmable MODES are: **«Pro», «Student», «Tandem»** or **«Xtreme».**

The **Vigil®2+ Cuatro** has a data recorder function capable of recording up to 16 minutes of the most recent freefall data or 16 jumps (whichever comes first).

The Maximum Feeefall Speed and freefall time of the last jump can be viewed directly from the Control Unit's LCD display. All data can be downloaded to a PC through an infrared communication port. The IR Download Box and its associated software are available as an option to purchase (see § 10).

The Kevlar®-reinforced cables are specially developed for **AAD nv/sa - Advanced Aerospace Designs** and deliver a unique combination of strength and flexibility.

The gold-plated contacts and the locking system, with a special locking clip on the connectors, ensure optimal connection reliability.

The Control Unit is equipped with a 32 x 96 dot LCD display, encased in a stainless steel protective cover, which allows interactive and clear communication with the user.

The ergonomic zinc alloy Main Box is exceptionally strong and is designed to easily fit into most skydiving rigs.

The electromagnetic shielding protects the **Vigil®2+ Cuatro** from electromagnetic interferences, such as those found in airports and aircraft (see § 3.1).

3. Vigil®2+ Cuatro Components

The **Vigil®2+ Cuatro** Dual Battery Pack (see § 3.2), the Pulses Plus Element (see § 3.3), and the Electronic Unit (see § 3.4) are located in a durable zinc alloy Main Box (see § 3.1). Two flexible Kevlar® reinforced cables ensure the connection between the Main Box, Cutter (see § 3.5) and the Control Unit (see § 3.6).

3.1 Main Box

The **Vigil®2+ Cuatro** electromagnetic shielding has been rigorously tested to ensure proper functionality when exposed to electromagnetic interference (up to 100 volts/m) that could be encountered in airports and aircraft. This special shielding serves as protection against electromagnetic interference from:

- Radio Communications
- Transponders
- Mobile Phones
- Radar
- Static Electricity

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AND SO MUCH MORE

The Main Box includes two connectors and three integrated stainless steel filters. These filters protect against pollutants such as dust, and allow for the immediate transfer of external air pressure to the pressure sensor. It is crucial to keep the filters clean and dry.

WARNING: OTHER THAN PLACING THE MAIN BOX IN AN APPROVED POUCH, DO NOT COVER THE FILTERS.

WARNING: NEVER OPEN THE MAIN BOX OF THE VIGIL®2+ CUATRO. DOING SO WILL VOID ALL WARRANTIES.



3.2 Dual Battery Pack (NATO Stock Number (NSN) 6130-13-119-7106)

The Dual Battery Pack is composed of 2 metal lithium AA cells in the lower half of the case. It is not subject to any memory effect and is extremely long-lasting. The Dual Battery Pack works at a temperature range from -13°F to +158°F or from -25°C to +70°C. The use of low-power electronics in conjunction with sophisticated power management has significantly improved the battery's life span.

The battery warranty is 5 years or 2000 jumps, whichever occurs first.

***Battery Life for Vigil®2+ Cuatro: Refer to the «DOM Vigil» date** on the unit label (see label example below):

- **Vigils® Manufactured Before 1st October 2018:**
  - Battery lifespan: **Maximum 10 years +3 months** from the Date of Manufacture (DOM) of the unit.
  - **Mandatory Replacement:** Before 10 years +3 months from the date of manufacture (DOM) of the unit.

- **Vigils® Manufactured After 1st October 2018 or with Battery Replacement After 1st October 2018:**
  - Battery lifespan: **Maximum 12 years** from the Date of Manufacture (DOM) of the unit. or the date of new battery installation, whichever is later.
  - **Mandatory Replacement:** Before 12 years from the Date of Manufacture (DOM) of the unit.

Serial Nr	#75420
DOM Vigil	NOV 2025
Bat Rpl Before	NOV 2037
Firmware	Cuatro
Firmware Ver	07.03

Example: New Unit Label

Serial Nr	#45228
DOM Vigil	MAY 2015
Vigil Expires	MAY 2035
Firmware	Cuatro
Firmware Ver	07.03
Serviced On	11 DEC 2025

Example: Serviced Unit Label (Vigil Expires)

Serial Nr	#56294
DOM Vigil	APR 2018
Bat Rpl Before	APR 2028
Firmware	Cuatro
Firmware Ver	07.03
Serviced On	27 AUG 2025

Example: Serviced Unit Label (Bat Rpl Before)

Battery replacements must be performed by either A.A.D. nv/sa, or Vigil America Inc.

WARNING: DO NOT USE A VIGIL®2+ CUATRO AAD WITH AN EXPIRED BATTERY AS THIS COULD RESULT IN THE DEVICE MALFUNCTIONING, WHICH CAN LEAD TO INJURY OR DEATH.



3.3 Pulses Plus Element

The Pulses Plus technology supplies the high peak current necessary for the Cutter to activate and cut the loop. This element has an operational lifespan of 20 years, and under normal operating conditions, it will never need replacement.

3.4 Electronic Unit

The **Vigil®2+ Cuatro** utilizes an entirely automated assembly process for surface-mounted electronic components, adhering to the highest standards, including military grade quality and reliability. This process includes permanent electronic and optical production controls. The electronic unit also functions as a data recorder, storing parameters such as the total number of jumps, the duration of the last freefall, and the total freefall time, all of which can be viewed directly on the LCD display. Additionally, the **Vigil®2+ Cuatro** memory retains data of the last 16 jumps or 16 minutes (whichever occurs first) of freefall and partial canopy ride. All data can be downloaded to a PC through an infrared communication port. The IR Download Box and its associated software are available as an option to purchase (see § 10).

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3.5 Cutter (NATO Stock Number (NSN) 1377-13-122-0198)

The Cutter of the **Vigil®2+ Cuatro** is a patented component specifically designed for this device, with a service life of a maximum 20 years +6 months. It operates by cutting the reserve loop through a pyrotechnical cutting action utilizing a circular knife. The high internal temperature generated during activation also melts the loop, further assisting its separation. **DURING THE RESERVE PARACHUTE PACKING PROCESS, THE LOOP MUST BE PROPERLY PLACED THROUGH THE CUTTER, OR THE CUTTER CANNOT CUT THE RESERVE LOOP, AS IS REQUIRED FOR PROPER OPERATION OF THE VIGIL®2+ CUATRO.**

The Cutter is fully encapsulated to prevent damage to the parachute. If the Cutter is activated in a lifesaving event, **A.A.D. nv/sa or Vigil America Inc** will provide a replacement Cutter FREE of charge upon submission and approval of a completed Life Saving Report. This report can be submitted online at **www.vigil.aero/submit-life-saving-report**

Key points regarding the Cutter include:

- Field Replaceability: The Cutter is replaceable in the field (see § 8.2).
- Regulatory Compliance: Some countries require a certified rigger to perform such replacements, and it is essential to comply with local regulations.
- Dual-Pin Cutter Option: A Dual-Pin Cutter is available for reserve containers that utilize a dual-pin closure system.



SINCE 2003 VIGIL HAS REPLACED EVERY CONFIRMED LIFE SAVE CUTTER FOR FREE!

3.6 Control Unit (NATO Stock Number (NSN) 6110-13-122-0294)

The **Vigil®2+ Cuatro** Control Unit is designed for clear and effective communication with the user, featuring several key components:

- **Reversible Display:** The Control Unit includes a 32 x 96 dot display that provides clear alphanumeric information. This display is reversible, allowing for flexible viewing options, depending on the user's preference.

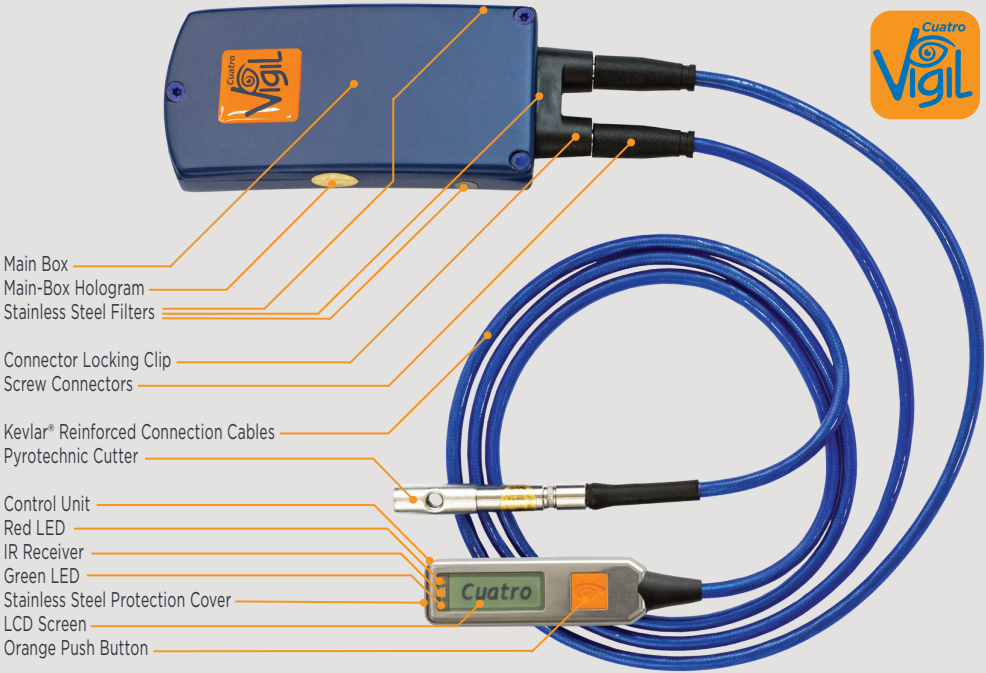
- **LED Indicators:**
  - **Red LED:** The red LED is crucial for both the Power ON and Power OFF procedures. It also functions as a transmitter for the infrared communications port (see § 10).
  - **Green LED:** The green LED confirms the successful completion of the Power ON and Power OFF procedure.

- **Push Button:** The Orange Push Button, located on the right side of the display (in the standard configuration), is used to interact with the unit, including navigating menus and selecting options.

- **Stainless Steel Cover:** The display is protected by a durable stainless steel cover, ensuring it remains secure and resistant to potential damage.

This combination of features allows for intuitive and reliable operation of the **Vigil®2+ Cuatro**, providing critical information and control in an accessible format for the parachutist.





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4. Installation

The **Vigil®2+ Cuatro** has been designed to be compatible with most sport harness/container systems on the market today.

If a suitable installation kit for an electronic AAD is not yet installed by the rig manufacturer, a **Vigil®2+ Cuatro** Installation Kit (Pouch, Control Unit Window, and Cutter Holder) can be supplied and installed in your container by the harness/container manufacturer, or by a certified authorized rigger. It can be easily sewn into any harness/container system designed for an electronic AAD.

All reserve closing loops currently on the market that are similar to **Vigil® Loop** (Dyneema or Spectra) or the Cypres™ loop are acceptable for use in the installation of the **Vigil®2+ Cuatro**. The **Vigil®2+ Cuatro** Cutter must be positioned and rigged as specified by the harness/container manufacturer's instructions for electronic AADs.

WARNING: IF THE CLOSING LOOP IS NOT ROUTED THROUGH THE CUTTER, THE VIGIL®2+ CUATRO WILL NOT CUT THE LOOP!



NOTE: EACH PARACHUTE HARNESS/CONTAINER MANUFACTURER APPROVES THE INSTALLATION OF THE AAD ON THEIR EQUIPMENT. U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL AVIATION ADMINISTRATION ADVISORY CIRCULAR AC-105-2E, PAGE 4, PART 2.B. FOLLOW THE HARNESS/CONTAINER MANUFACTURER'S GUIDELINES FOR INSTALLATION AND SPECIFIC RETROFIT INSTRUCTIONS.

5. General Working Principle

The **Vigil®2+ Cuatro** must only be Powered ON at the **Takeoff Zone**. This will become the Ground Zero Reference once the Power ON is completed.

Once Powered ON, in Standby State the **Vigil®2+ Cuatro** will measure once every 32 seconds and recalibrate itself every two minutes to compensate for weather changes.

After takeoff once you reach +90 feet (+27.5 meters) or -90 feet (-27.5 meters) the **Vigil®2+ Cuatro** enters fast measuring state, switching to measuring 8 times per second. You can identify this change when the LCD screen pixels invert. (see page 27).

5.1 Arming

Once your **Vigil®2+ Cuatro** is Powered ON, at each takeoff, it will become Armed when 1000 feet (305 meters) above the Ground Zero Reference is detected. This arming applies to the device if there is no Altitude Correction, or if there is a positive (+) Altitude Correction.

When a negative Altitude Correction is set, the **Vigil®2+ Cuatro** will become Armed 1000 feet (305 meters) above the preset negative Altitude Correction. If the negative Altitude Correction is over 1000 feet (305 meters), the **Vigil®2+ Cuatro** will become Armed when you enter Airborne State.

- The green LED will flash three times when entering Airborne State.
- During your aircraft ascent, the **Vigil®2+ Cuatro** red LED will briefly flash three times when it passes through its pre-set Activation Altitude.
- The red LED will flash three times when exiting Airborne State.

Vigil®2+ Cuatro will then stay Armed until two minutes after it has returned back to within + 90 feet (+27.5 meters) or – 90 feet (-27.5 meters) of the Ground Zero Reference.

Standby State
Normal display of the Control Unit on the ground (not Airborne)



Airborne State
Inverted display of the Control Unit (Airborne in fast measuring mode)



NOTE: BECAUSE OF CONVERSION ROUNDING, ALL ALTITUDES AND SPEEDS IN FEET, METERS, FEET/SECOND AND METERS/SECOND IN THIS MANUAL ARE APPROXIMATE.

For two minutes after landing, the jump information (freefall time and Maximum Freefall Speed), will be displayed on the inverted LCD. This information can also be accessed at any time (displayed for 30 seconds) by pressing the Orange Push Button once.

In freefall, the **Vigil®2+ Cuatro** continuously calculates the altitude. When the jumper reaches the Activation Altitude (or lower) at a speed equal to or greater than the factory-set parameters, the **Vigil®2+ Cuatro** will activate immediately provided the Activation Parameters (see § 12) have been met.

Each mode **«Pro», «Student», «Tandem»** or **«Xtreme»** has its own factory-set Activation Altitude and speed. You can select the desired mode in the **«SETUP»** menu (see § 6.3).

WARNING: NEVER POWER ON YOUR VIGIL®2+ CUATRO IN AN AIRCRAFT!



5.2 Using Altitude Corrections for Landing Altitude Offset

An Altitude Correction can be used to compensate for the difference in altitude between the Takeoff Zone and Landing Zone (Landing Altitude Offset) with a range of +6000 feet to -6000 feet, in increments of 150 feet OR +2000 meters to -2000 meters, in increments of 50 meters.

This enables the **Vigil® 2+ Cuatro** to calculate the Activation Altitude at that Landing Zone. This feature is particularly useful when the takeoff airport and Landing Zone are at different altitudes, or when there is a hillock/knoll or other isolated higher terrain near the drop zone.

NOTE: BECAUSE OF CONVERSION ROUNDING, ALL ALTITUDES AND SPEEDS IN FEET, METERS, FEET/SECOND AND METERS/SECOND IN THIS MANUAL ARE APPROXIMATE.



WARNING: ALWAYS SET UP THE DEVICE IN THE PREFERRED UNIT OF MEASUREMENT (FEET OR METERS) PRIOR TO IMPLEMENTING AN ALTITUDE CORRECTION. CHANGING THE UNIT OF MEASUREMENT AFTERWARD MAY RESULT IN AN INCORRECT ALTITUDE CORRECTION.

EXAMPLE: 6000 FEET IS NOT EQUAL TO 2000 METERS.

WARNING: FOR A LANDING ALTITUDE OFFSET IT IS NECESSARY TO DO AN ALTITUDE CORRECTION WHENEVER THE TAKEOFF ZONE AND THE LANDING ZONE ARE AT DIFFERENT ELEVATIONS. NOT DOING SO CAN CAUSE INJURY OR DEATH.

5.3 Using Altitude Corrections for Increasing Activation Altitude

An Altitude Correction can also be used to increase the Activation Altitude in increments of 150 feet or 50 meters.

WARNING: NEVER USE A NEGATIVE ALTITUDE CORRECTION TO SOLELY ADJUST ACTIVATION ALTITUDE.



The **Vigil®2+ Cuatro** will remain Powered ON for 14 hours from the time it is Powered ON, and will automatically Power OFF after the 14 hours. It can be manually Powered OFF before then. The selected activation mode (**«Pro», «Student», «Tandem»** or **«Xtreme»**) will remain visible on the LCD display until the device is manually Powered OFF, or automatically Powers OFF after 14 hours. The **Vigil®2+ Cuatro** will always automatically Power OFF after 14 hours regardless of location or altitude.

NOTE: ALWAYS MANUALLY POWER OFF YOUR VIGIL®2+ CUATRO BEFORE LEAVING THE DROP ZONE WITH YOUR EQUIPMENT.

Traveling in a closed vehicle (car, bus, train ...) or placing the **Vigil®2+ Cuatro** in a closed travel bag or case while the **Vigil®2+ Cuatro** is Powered ON may cause an unexpected Cutter Activation, due to possible air pressure variations. However, there is no problem traveling in an open vehicle at the drop zone altitude.

WARNING: THE VIGIL®2+ CUATRO WILL ALWAYS AUTOMATICALLY POWER OFF AFTER 14 HOURS REGARDLESS OF LOCATION OR ALTITUDE.





WARNING

WARNING: BEFORE EACH JUMP IT IS ESSENTIAL TO VISUALLY CHECK YOUR LCD SCREEN TO ENSURE THAT THE VIGIL®2+ CUATRO AND ITS FUNCTIONALITY, ITS ACTIVATION MODE (PRO, STUDENT, TANDEM OR XTREME), AND ITS PRE-SELECTED PARAMETERS, (ALTITUDE CORRECTION IN FEET OR METERS) ARE CORRECTLY SET FOR THE INTENDED JUMP.

WARNING: FAILURE TO ENSURE THE PROPER SETTINGS FOR THE TYPE OF JUMP YOU INTEND TO MAKE CAN RESULT IN UNINTENDED ACTIVATION OR NO ACTIVATION, LEADING TO INJURY OR DEATH.

5.4 The Four Activation Modes

The **Vigil®2+ Cuatro** has four Activation Modes that can be selected by the user in the **«SETUP»** menu (see 6.4). Each Mode has its own Activation Parameters and will only activate when those parameters are met.

5.4.1 «Pro» Mode

«Pro» Mode activates when it measures* 1100 feet (335 meters) (average altitude** between 840 feet and 1100 feet, depending on body position) and below, until 150 feet (46 meters), if the freefall speed is equal or greater than 115 feet/sec. (78 mph or 35 meters/sec) and the Activation Parameters are met.

5.4.2 «Student» Mode

«Student» Mode activates when it measures* 1300 feet (396 meters) (average altitude** between 1040 feet and 1300 feet, depending on body position) and below, until 150 feet (46 meters), above the Ground Zero Reference (or Landing Zone in case of a negative Altitude Correction) if the freefall speed is equal or greater than 65 feet/sec. (45 mph or 20 meters/sec) and the Activation Parameters are met.

5.4.3 «Tandem» Mode

«Tandem» Mode activates when it measures* 2300 feet (701 meters) (average altitude** between 2040 feet and 2300 feet, depending on body position) and below, until 150 feet (46 meters), above the Ground Zero Reference (or Landing Zone in case of a negative Altitude Correction) if the freefall speed is equal or greater than 115 feet/sec. (78 mph or 35 meters/sec) and the Activation Parameters are met.

5.4.4 «Xtreme» Mode

«Xtreme» Mode activates when it measures* 1100 feet (335 meters) (average altitude** between 840 feet and 1100 feet, depending on body position) and below, until 300 feet (91 meters), above the Ground Zero Reference (or Landing Zone in case of a negative Altitude Correction) if the freefall speed is equal or greater than 141 feet/sec (96 mph or 43 meters/sec) and the Activation Parameters are met.

***Once the pre-determined Activation Parameters are met, the Vigil®2+ Cuatro Cutter will activate.**

****Please take this information into consideration when determining your main canopy deployment altitudes! Always allow enough time to have a fully open main canopy approximately 1000 feet (305 meters) above the Activation Altitude!**



WARNING: THE «XTREME» MODE IS DEVELOPED FOR HIGH-PERFORMANCE CANOPY LANDINGS WHEN THE USER'S VERTICAL SPEED CAN EXCEED 115 FT/SEC (78 MPH OR 35 METERS/SEC) WHILE UNDER CANOPY.

WARNING: IN «XTREME» MODE, THE VIGIL®2+ CUATRO WILL NOT ACTIVATE IF THE VERTICAL SPEED DOES NOT EXCEED 141 FT/SEC (96 MPH OR 43 METERS/SEC).

WARNING: IN CERTAIN CIRCUMSTANCES, IT WILL MOST LIKELY TAKE LONGER TO REACH THE REQUIRED VERTICAL SPEED OF 141 FT/SEC (96 MPH OR 43 METERS/SEC) OF THIS «XTREME» MODE, COMPARED TO THE «PRO» MODE (115 FT/SEC). THIS CAN MAKE A DIFFERENCE. THE VIGIL®2+ CUATRO IN «XTREME» MODE WILL NOT ACTIVATE BELOW 300 FEET (91 METERS) ABOVE THE GROUND ZERO REFERENCE LEVEL OR BELOW 300 FEET (91 METERS) ABOVE A NEGATIVE ALTITUDE CORRECTION WHEN SET.

5.5 Information Regarding the Activation Altitude

Please be aware that the **Vigil®2+ Cuatro** functionality is based on measured air pressure. This data permits the calculation of the altitude, in function of the registered air pressure, as well as the vertical speed related to a pressure variation in a certain period of time.

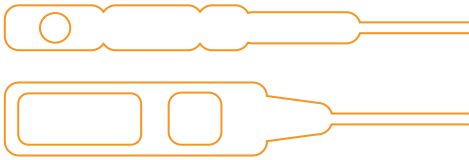
The **Vigil®2+ Cuatro** is able to register pressure differences of 0.1 hPa which is equivalent to an altitude difference of approximately 2.6 feet (or 0.8 meters).

IMPORTANT: IT IS IMPORTANT TO UNDERSTAND THAT THE REGISTERED PRESSURE MEASURED BY THE SENSOR WILL VARY ACCORDING TO THE BODY POSITION OF THE SKYDIVER.

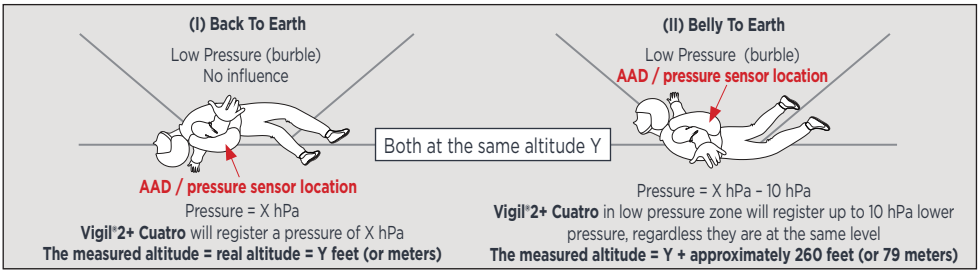
IF YOU ARE IN FREEFALL BELLY TO THE EARTH, YOUR VIGIL®2+ CUATRO IS IN THE LOW PRESSURE AREA (BURBLE) AND COULD MEASURE APPROXIMATELY 260 FEET (79 METERS) HIGHER THAN YOUR ACTUAL ALTITUDE (SEE PAGE 34).



OUR SINGULAR PURPOSE
IS TO HELP ENSURE YOU'RE HERE
FOR EVERY SUNSET LOAD



Example: Consider two skydivers in freefall, at exactly the same altitude. One skydiver is falling back to earth and the other skydiver is falling belly to earth. The influence of their body position on their respective measured altitude by the **Vigil®2+ Cuatro** is as follows:



The activation parameters of the **Vigil 2+ Cuatro** must be effective regardless of the body position of the skydiver. When a skydiver is in freefall, an area of reduced pressure (the "burble") is created above them by the downward motion of their body through the air. The **Vigil 2+ Cuatro** interprets the lower pressure as an indication that the skydiver is at a higher altitude above the ground than their actual altitude.

Compensation for this positional induced error is necessary to ensure that regardless of the skydiver's body position, the **Vigil 2+ Cuatro** will activate at the set activation altitude for the selected mode, and this compensation is provided by the **Vigil 2+ Cuatro** software. The **Vigil 2+ Cuatro** software is programmed to activate at an air pressure equivalent altitude of 260 ft (79 m) above the set activation altitude. This air pressure equivalent altitude increase is applied in each of the operational modes of the **Vigil 2+ Cuatro**. See Pages 30-31 for the activation altitudes for each mode.

For example, in **«Pro»** mode, the **Vigil 2+ Cuatro** is set to activate at an average air pressure equivalent altitude of approximately 840 ft (256 m) above the ground, with a descent rate of 115 ft/sec (78 mph or 35m/sec) or greater. If the **Vigil 2+ Cuatro** is set in **«Pro»** mode, the activation would occur at approximately 840 ft (256 m) if the skydiver were belly to earth (because the sensor would be in the burble) and would occur at approximately 1100 ft (335 m) if the skydiver were back to earth (because the sensor would not be in the burble).

Note: In a pressure chamber, the AAD would activate at 1100 ft (335 m) regardless of the sensor location because there is no burble.

A reminder to be



Don't end up with two canopies out!

Allow enough time to have a fully open canopy by the altitude in **RED** below.
Depending on body position, your Vigil AAD will activate between these ranges.
Please take this information into consideration when determining your canopy deployment altitudes.

Pro: 840 ft - **1100 ft** (78 mph)
256 m - **335 m** (35 m/sec)

Tandem: 2040 ft - **2300 ft** (78 mph)
622 m - **701 m** (35 m/sec)

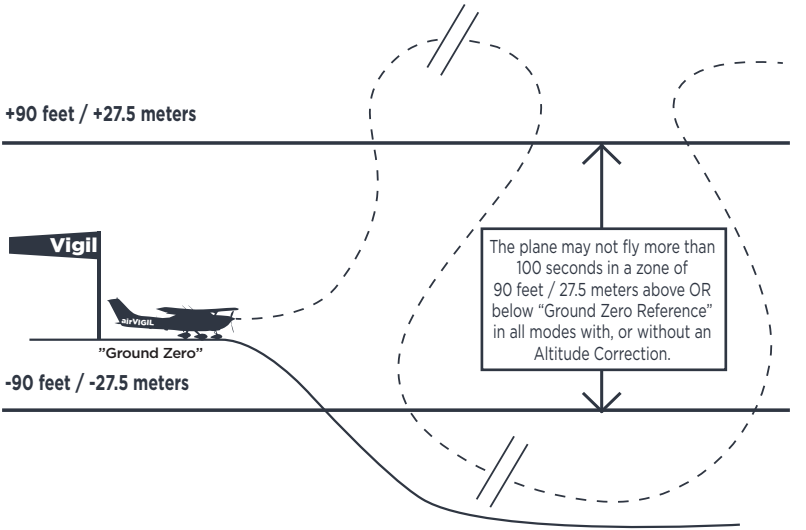
Student: 1040 ft - **1300 ft** (45 mph)
314 m - **397 m** (20 m/sec)

Xtreme: 840 ft - **1100 ft** (96 mph)
256 m - **335 m** (43 m/sec)

Xtreme mode only available on **Vigil Cuatro**

ALWAYS check your LCD display before each jump!
NEVER switch your Vigil on in the plane, but **ALWAYS** at the take off zone!
NEVER jump with a blank screen!
ALWAYS manually shut down your Vigil before leaving the Drop Zone or at the end of the day!
NEVER try to restart your Vigil after a "Ctrl Err" has occurred on the screen!

5.6 Flight Restriction for the Pilot - Airborne State



The **Vigil®2+ Cuatro** will function correctly even in a pressurized cabin, provided the cabin pressure differs by at least ±4 hPa from the Ground Zero Reference.

When the ±4 hPa is exceeded from the Ground Zero Reference, the **Vigil®2+ Cuatro** switches to Airborne State, preventing recalibration to the ambient pressure (cabin pressure).

The **Vigil®2+ Cuatro** will not activate below 150 feet (46 meters) above the Ground Zero reference in **«Pro», «Student»**, or **«Tandem»** Modes when no Altitude Correction, or a positive Altitude Correction, is applied.

If a negative Altitude Correction is used, it will not activate below 150 feet (46 meters) above the preset negative Altitude Correction in these modes.

In **«Xtreme»** Mode, the device will not activate below 300 feet (91 meters) above the Ground Zero reference when no Altitude Correction, or a positive Altitude Correction, is applied, or below 300 feet (91 meters) above the preset negative Altitude Correction when a negative Altitude Correction is applied.

As long as the **Vigil®2+ Cuatro** has not detected the Ground Zero Reference (±90 feet / ±27.5 meters), it remains in Airborne State, measuring eight times per second.



WARNING

WARNING: BE AWARE WHEN OPENING THE DOOR OF AN AIRCRAFT WITHIN THE ACTIVATION ZONE, CERTAIN AIRCRAFT CONFIGURATIONS CAN CAUSE A PRESSURE SPIKE THAT MAY ACTIVATE A VIGIL®2+ CUATRO WHEN OPERATING IN «STUDENT» MODE. (SEE § 5.4.2)

WARNING: YOU MUST ALWAYS POWER OFF YOUR VIGIL®2+ CUATRO BEFORE MOVING TO A NEW LOCATION. POWER ON AGAIN AT THE NEW TAKEOFF ZONE TO SET THE NEW GROUND ZERO REFERENCE.

When an Altitude Correction is applied, you must manually remove the Altitude Correction if it is no longer required.

If descending in an aircraft with an Armed **Vigil®2+ Cuatro** the pilot should be informed so they can limit the descent rate to less than 115 feet/sec (6,900 feet per minute) before entering, and while in the Activation Zone during descent.

For **Vigil®2+ Cuatro** devices set to **«Student»** Mode, it is mandatory to Power OFF the **Vigil®2+ Cuatro** prior to descending in the aircraft.



WARNING: DUE TO POSSIBLE PRESSURE VARIATIONS IN A DESCENDING AIRCRAFT, IT IS RECOMMENDED TO SWITCH OFF YOUR VIGIL®2+ CUATRO. A VIGIL®2+ CUATRO SET IN STUDENT MODE MUST BE SWITCHED OFF PRIOR TO DESCENT.

WARNING: AN INAPPROPRIATE DESCENT RATE CAN RESULT IN UNINTENDED RESERVE ACTIVATION, WHICH MAY CAUSE SERIOUS INJURY OR DEATH AND/OR PROPERTY DAMAGE.

5.7 Recommendations

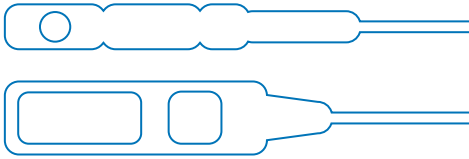
To obtain the correct Ground Zero Reference, only Power ON the **Vigil®2+ Cuatro** at the Takeoff Zone. During the Power ON sequence you may enter any necessary Altitude Corrections or setting adjustments.

If your Landing Zone's altitude differs by more than 90 feet (27.5 meters) from your initial Takeoff Zone, and becomes your new Takeoff Zone, it is recommended to Power OFF and then Power ON the **Vigil®2+ Cuatro** again to allow it to recalibrate in case of changes to ambient pressure. You must manually remove the Altitude Correction if it is no longer required.

Manually Power OFF your **Vigil®2+ Cuatro** after your last jump of the day and **before you leave the drop zone**. If you forget, the **Vigil®2+ Cuatro** will automatically Power OFF 14 hours after being Powered ON regardless of location or altitude.

When intending to jump from an aircraft with a pressurized cabin, to prevent an unintended activation, inform the pilot that pressurization tests must not be conducted at pressures equivalent to the **Vigil®2+ Cuatro** Activation Parameters.

You cannot enter a negative Altitude Correction of more than 1,500 feet (500 meters) below mean sea level (ambient pressure combined with Altitude Correction cannot be more than the equivalent of >1090 hPa). In such cases, the Control Unit will display **«Invalid»** and the **Vigil®2+ Cuatro** will not complete the start-up sequence, until a valid Altitude Correction is entered.



6. How to Operate your Vigil®2+ Cuatro

6.1 Power ON and Power OFF Sequence



WARNING

WARNING: IT IS IMPERATIVE THAT THE VIGIL®2+ CUATRO BE POWERED ON AT THE TAKEOFF ZONE, WHICH BECOMES THE GROUND ZERO REFERENCE.

WARNING: NEVER POWER ON YOUR VIGIL®2+ CUATRO IN AN AIRCRAFT!

WARNING: IF THE VIGIL®2+ CUATRO DETECTS VARIABLE AIR PRESSURE DURING THE POWER ON SEQUENCE, IT WILL NOT COMPLETE THE START-UP PROCEDURE. IT WILL DISPLAY A FLASHING «GROUND 0» «WARNING» ON THE CONTROL UNIT AND WILL SHUTDOWN.

6.1.1 Start Up – Control Unit

The **Vigil®2+ Cuatro** is operated by the Orange Push Button on the Control Unit. The red LED indicates the timing of the start-up sequence. The green LED confirms the end of the start-up sequence.

The **Vigil®2+ Cuatro** LCD is reversible (see § 6.5) **«view» / «wəIV»**

6.1.2 Powering ON the Vigil®2+ Cuatro

To Power ON the **Vigil®2+ Cuatro**, press the Orange Push Button on the Control Unit four times.
Each button press should be made immediately after each flash of the red LED.
First Press: The word **«Cuatro»** will appear on the LCD. If it doesn't, push the button again.
Second Press: Press the button immediately after the red LED flashes for the first time.
Third Press: Press the button immediately after the second flash of the red LED.
Fourth Press: Press the button immediately after the third flash of the red LED.

Once all four button presses are completed, the **Vigil®2+ Cuatro** will automatically initiate its self-test sequence.

Action	Result	
1. Push	**«Cuatro»** followed by **«Vigil»** appears + flash ⇨ (Action 2)	**« VIGIL»**
2. Push	Flash ⇨ (Action 3)	**« VIGIL»**
3. Push	Flash ⇨ (Action 4)	**« VIGIL»**
4. Push	Start of self test	**«BAT OK»**

NOTE: THE POWER ON AND POWER OFF PROCEDURES OUTLINED IN THIS MANUAL ARE DESIGNED TO MINIMIZE THE RISK OF AN UNWANTED POWER ON OR POWER OFF SEQUENCE, AND TO ENSURE THAT THE VIGIL®2+ CUATRO CANNOT BE POWERED ON OR POWERED OFF BY ACCIDENTALLY PRESSING THE ORANGE PUSH BUTTON ON THE CONTROL UNIT.

6.2 Self-Tests

Each time the **Vigil®2+ Cuatro** is Powered ON, it automatically runs a complete self-test sequence to ensure proper functioning. This sequence verifies the state of the Dual Battery Pack, Cutter, and electronic circuits (main functions).

The following messages are displayed during the test sequence:

- **«Bat OK»**: The Dual Battery Pack has sufficient charge.
- **«Cut OK»**: The Cutter resistance and connection has been tested.
- **«Ctrl OK»**: The electronic circuits are functioning correctly.

If an error is detected, the following messages may be displayed:

- **«Bat Low»**: The Battery is low. The **Vigil®2+ Cuatro** is still operational, but the Dual Battery Pack should be replaced as soon as possible (see § 8.1)
- **«Bat Rpl»**: The Battery needs to be replaced. The **Vigil®2+ Cuatro** will no longer complete the start-up sequence. (see § 8.1)
- **«Cut Rpl»**: Cutter has been activated. This message will display during the remaining time of the current power cycle.
- **«Cut Err»**: A discrepancy has been detected in the electronic circuit of the Cutter assembly, or the Cutter has been activated. The unit will not Power ON.
- **«Ctrl Err»**: A discrepancy has been detected in one of the electronic circuits. The unit will not Power ON. Further attempts to Power ON the unit should be avoided and the unit should be sent back for service.
- **«GROUND 0» «WARNING»**: If the **Vigil®2+ Cuatro** detects variable air pressure during the Power ON sequence, it will not complete the start-up sequence and will display a flashing **«GROUND 0» «WARNING»** on the Control Unit and will shutdown. Restart your **Vigil®2+ Cuatro** in an area with stable pressure.

If **«Bat Rpl»**, **«Cut Err»**, **«Ctrl Err»** or **«GROUND 0» «WARNING»**, are displayed the Power ON procedure will terminate, and the **Vigil®2+ Cuatro** will Power OFF automatically.

WARNING: IF THE «CTRL ERR» MESSAGE IS DISPLAYED, DO NOT ATTEMPT TO POWER ON THE VIGIL®2+ CUATRO AGAIN. CONTACT AAD NV/SA OR VIGIL AMERICA INC., OBTAIN A RMA AND RETURN THE UNIT FOR INSPECTION AND/OR SERVICE (SEE § 8.4).



If the **«Bat Low»** message appears, the Dual Battery Pack should be replaced as soon as possible. (See § 8.1)

If the **«Bat Rpl»** message appears, the Dual Battery Pack must be replaced before your next jump. (See § 8.1)

ALL BATTERIES MUST BE REPLACED BY AAD nv/sa or Vigil America, Inc. - Batteries cannot be replaced "in the field."

If the **«Cut Rpl»** message appears as a result of an activation, the cutter must be replaced before your next jump. (See § 8.2)

If the **«Cut Err»** message appears and there has been no activation, contact **AAD nv/sa or Vigil America Inc**. (See § 8.2)

A replacement cutter will be provided FREE of charge if a completed "Life Saving Report" is submitted and approved (see our website **www.vigil.aero/submit-life-saving-report**).

We recommend that a **Vigil®2+ Cuatro** Cutter, Controller Unit and Connector Locking Clip be replaced by a certified and authorized rigger, or by **AAD nv/sa or Vigil America Inc.** Users may not be authorized to replace the Cutter, Controller Unit and Connector Locking Clip themselves. Always adhere to the rules and regulations of your country.

IMPORTANT: IF THE VIGIL®2+ CUATRO IS NOT CONFIGURED TO YOUR PREFERRED UNITS OF MEASUREMENT, NAVIGATE TO THE «CONFIG» MENU (SEE § 6.5) TO SET THE REQUIRED UNITS OF MEASUREMENT (U.S. OR METRIC) BEFORE ADJUSTING OTHER SETTINGS.



6.3 «INFO» Menu (Information)

The **«INFO»** menu allows you to view your **Vigil® 2+ Cuatro** reference parameters, including the Main Box Firmware Version, Control Unit Firmware Version, Serial Number, Date of Manufacture (DOM), Total Jumps, Total Freefall Time, Maximum Freefall Speed and Freefall Time of Last Jump, Number of saves, as well as the Temperature and Atmospheric Pressure.

To access the **«INFO»** menu, press the Orange Push Button as soon as **«INFO»** appears on the display after the red light flashes.

This information is displayed in clear language according to the selected units of measurement in the **«CONFIG»** Menu (see § 6.5):

Display	**Note: the number 8 is used for illustration**
***Ver**: 88.88*	Main Box Firmware **Ver**sion
***Icd**: 88.88*	Control Unit Firmware Version
#88888	Serial Number
8888 (WWYY)	Production week and year / Date of Manufacture (DOM) (for example 26/06 = week 26 in 2006)
***TJ**: 8888*	**T**otal **J**umps (Total number of jumps with this unit)
***TFF**: 88h88m88s*	**T**otal **F**ree**F**all - Total freefall time with this unit in hours, followed by minutes and seconds
***LFF**: 188s888 km/h*	**L**ast **F**ree**F**all - Duration displayed in seconds and Maximum Freefall Speed of the last freefall displayed in **km/h** or **mph**
***Saves** 88*	Number of activations on your **Vigil® 2+ Cuatro**
*T:+88°**C** or +88°**F***	Temperature of **Vigil® 2+ Cuatro** main unit in **°F** or **°C** depending on the configuration
*88.88 in**Hg or** 8888 **hPa***	Atmospheric Pressure in **inches of mercury** (inHg) or **hectopascal** (hPa)

6.4 «SETUP» Menu (Parameters) Altitude Correction & Mode Change

The **«SETUP»** menu allows you to apply an Altitude Correction (**«AltiCor»**) and/or to select the desired Mode (**«Pro», «Student», «Tandem»**, or **«Xtreme»**) (see example on page 30).

To access the **«SETUP»** menu, during the Power ON sequence, press the Orange Push Button on the Control Unit as soon as **«SETUP»** appears on the display after the red LED flashes.

«AltiCor» - Altitude Correction
You can apply an Altitude Correction from +6000 feet to -6000 feet or from +2000 meters to -2000 meters. To enter or modify a positive (+) or negative (-) Altitude Correction, press the Orange Push Button on the Control Unit when **«AltiCor»** or the actual Altitude Correction value appears.
Up Arrow: Increases the Altitude Correction value.
Down Arrow: Decreases the Altitude Correction value.

The correction is made in increments of 150 feet (or 50 meters when the **Vigil®2+ Cuatro** is set in meters). Repeated pressing of the Orange Push Button on the Control Unit is necessary until the desired positive (+) or negative (-) Altitude Correction is displayed.

For example:

- +300 feet (+100 meters) for a higher Landing Zone compared to the Takeoff Zone.
- -300 feet (-100 meters) for a lower Landing Zone.

HIDDEN TECHNOLOGY | BUILT TO SAVE LIVES | GO PLAY
THE ORIGINAL MULTIMODE AAD

SAVING LIVES SINCE 2003



WARNING

WARNING: IF YOUR LANDING ZONE ALTITUDE DIFFERS BY MORE THAN 90 FEET (27.5 METERS) FROM YOUR INITIAL TAKEOFF ZONE AND BECOMES YOUR NEW TAKEOFF ZONE, YOU MUST POWER OFF AND THEN POWER ON THE VIGIL®2+ CUATRO AGAIN TO ALLOW IT TO RECALIBRATE TO ACCOMMODATE CHANGES IN AMBIENT PRESSURE. YOU MUST MANUALLY REMOVE THE ALTITUDE CORRECTION IF IT IS NO LONGER REQUIRED.

NOTE: WHEN AN ALTITUDE CORRECTION IS APPLIED AND THE UNITS OF MEASUREMENT IS CHANGED IN THE «CONFIG» MENU (FROM U.S. TO METRIC OR VICE VERSA), THE APPLIED ALTITUDE CORRECTION WILL BE DIVIDED OR MULTIPLIED BY 3. FOR EXAMPLE: 900 FT BECOMES 300 METERS, OR 150 METERS BECOMES 450 FT.

WARNING: IT IS THE RESPONSIBILITY OF EACH INDIVIDUAL TO ENSURE THEY HAVE A FULLY OPEN MAIN CANOPY WELL ABOVE THE ACTIVATION ALTITUDE. WE RECOMMEND ALLOWING APPROXIMATELY 1000 FEET (305 METERS) BETWEEN A FULLY OPEN MAIN CANOPY AND THE ACTIVATION ALTITUDE. THIS SHOULD PROVIDE ENOUGH TIME TO HANDLE EMERGENCY PROCEDURES (IF NECESSARY) AND REDUCE THE LIKELIHOOD OF A TWO-OUT CANOPY SITUATION.

6.4.1 Using a Positive Altitude Correction to Raise the Activation Altitude

In the **«Pro»** setting (see § 5.4), the **Vigil®2+ Cuatro** activates at a measured altitude of 1100 feet (335 meters) (actual altitude varies between 840-1100 feet depending on body position). To increase safety margins, an Altitude Correction can be applied (see § 6.4).

Important Points to Remember:

- Once an Altitude Correction is applied, it will remain in the **Vigil®2+ Cuatro** memory until you manually remove it in the **«SETUP»** menu.
- When raising the Activation Altitude, always ensure there is sufficient altitude to have a fully open main canopy at least 1000 feet above your new Activation Altitude. During a slow opening, it will take longer to achieve a fully open canopy, which could bring you closer to the chosen Activation Altitude.
- The **Vigil®2+ Cuatro** will activate at the measured altitude to which it is set. Please read the applicable paragraphs (see § 5.4, see § 5.5) carefully to fully understand this.
- When a positive Altitude Correction is applied, the **Vigil®2+ Cuatro** can activate at the preset/default altitude plus the set Altitude Correction, until 150 feet (or 300 feet in the **«Xtreme»** Mode) above the Ground Zero Reference. This effectively increases the activation window, but the No Fire Zone altitude remains unchanged at 150 feet (or 300 feet in the **«Xtreme»** Mode) above the Ground Zero Reference.
- When a negative Altitude Correction is applied, the **Vigil®2+ Cuatro** can activate at the preset/default altitude minus the set Altitude Correction, until 150 feet (or 300 feet in the **«Xtreme»** Mode) above the preset negative Altitude Correction (the new Landing Zone).

The ability to raise the Activation Altitude and keep it raised until it is manually changed in the **«SETUP»** menu has been a feature of all **Vigil® AADs** produced since 2003.

Mode Change:

Mode selection will display after **«AltiCor»**. By pushing the Orange Push Button on the Control Unit, you can cycle between the modes **«Pro», «Student», «Tandem»**, or **«Xtreme»**. A few seconds after the desired Mode is selected, the **Vigil®2+ Cuatro** will continue with the menu options.



Vigil®2+ Cuatro in **«Pro»** Mode
without an Altitude Correction.



Vigil®2+ Cuatro in **«Pro»** Mode
with a positive Altitude Correction of 100 meters.



Vigil®2+ Cuatro in **«Student»** Mode
without an Altitude Correction.



Vigil®2+ Cuatro in **«Student»** Mode
with a negative Altitude Correction of 600 feet.



Vigil®2+ Cuatro in **«Tandem»** Mode
without an Altitude Correction.



Vigil®2+ Cuatro in **«Tandem»** Mode
with a negative Altitude Correction of 300 meters.



Vigil®2+ Cuatro in **«Xtreme»** Mode
without an Altitude Correction.



Vigil®2+ Cuatro in **«Xtreme»** Mode
with a positive Altitude Correction of 1200 feet.

6.5 «CONFIG» Menu (Configuration)

The **«CONFIG»** menu allows you to select the type of units of measurement you want to utilize, and flip the display.
To enter the **«CONFIG»** menu, press the Orange Push Button on the Control Unit as soon as the display shows **«CONFIG»** and the red LED flashes.

The display will indicate **«Feet»** or **«Meters»**, depending on the current configuration.
To change between **«Feet»** or **«Meters»**, press the Orange Push Button while **«Feet»** or **«Meters»** is displayed.

After a few seconds, the display will allow you to choose between **«U.S.»** or **«Metric»** units, by pressing the Orange Push Button, while **«U.S.»** or **«Metric»** is displayed.

Configuration	Units of Measurement
«U.S.»	°Fahrenheit, mph, inches of mercury
«Metric»	°Celsius, km/h, hectoPascal.

A few seconds later, the display will allow you to choose between **«View»** or **«ʍǝ!Ʌ»** to select whether to view the display in its normal orientation or flipped 180°.

Once the **«CONFIG»** menu is completed, the **Vigil®2+ Cuatro** will display **«☺Enjoy»** and be operational and retain the chosen configuration in memory (see § 6.6).

For example:

Action	Display
1. Wait	**«CONFIG»** displayed
2. Push	Choose between **«Feet»** or **«Meters»**
3. Push	Choose between **«U.S. »** or **«Metric»** (°**F**ahrenheit, **mph**, **in**ches of **m**ercury or °**C**elsius, **km/h**, **h**ecto**Pa**scal)
4. Push	Choose between normal or reversed display **«View»** or **«ʍǝ!Ʌ»**

THE GOAL AND PURPOSE OF YOUR VIGIL, IS TO HELP SAVE LIVES

All of the **«INFO»**, **«SETUP»**, and **«CONFIG»** steps are illustrated in the Road Map Flow Chart (see § 13).

6.6 Choice Confirmation

Once your **Vigil®2+ Cuatro** is ready for use, the green LED will flash five times, and the message **«☺Enjoy»** will appear on the display for a few seconds to confirm its readiness.
Note: While the **«☺Enjoy»** message is displayed, you can press the Orange Push Button on the Control Unit to return to the **«INFO»**, **«SETUP»**, and **«CONFIG»** menus for any necessary verification or adjustments.

If no Altitude Correction is applied, the selected mode (**«Pro», «Student», «Tandem»**, or **«Xtreme»**) will remain displayed.

If an Altitude Correction has been entered, the mode will be displayed as **«P»** (PRO), **«S»** (STUDENT), **«T»** (TANDEM), or **«X»** (XTREME), followed by a **«+»** or **«-»** sign and the corresponding Altitude Correction value in **ft** (feet) or **m** (meters) (see page 48).



WARNING: BEFORE EACH JUMP, CHECK TO ENSURE THE UNIT IS IN THE DESIRED ACTIVATION MODE AND DESIRED ALTITUDE CORRECTION (IN FEET OR METERS) APPROPRIATE TO THE JUMP BEING MADE.

After Power ON, the **Vigil®2+ Cuatro** will automatically Power OFF 14 hours after being Powered ON, regardless of location or altitude (see § 5.7 for more details). Upon the next Power ON, the **Vigil®2+ Cuatro** will retain all previous settings, except for the Ground Zero Reference, which is recalibrated each time the **Vigil®2+ Cuatro** is Powered ON.

6.7 Power OFF your Vigil®2+ Cuatro

To Power OFF the **Vigil®2+ Cuatro**, the process is similar to the Power ON sequence. A quick press of the Orange Push Button on the Control Unit after each LED flash (four times in total) will initiate the shutdown.

- **First Press:** When you press the Orange Push Button on the Control Unit for the first time, the display will show the message **« Sys OFF»**.
- **Second and Third Presses:** Press the button again immediately after the red LED flashes for a second and third time.
- **Fourth Press:** On the fourth press, immediately after the red LED flashes, the display will show **«Goodbye»** followed by **«Vigil»** for a few seconds. The green LED will flash briefly, signaling that the **Vigil®2+ Cuatro** has successfully shut down.

Action	Result
First Press	Short flash ⇨ (Action 2) **« Sys OFF»**
Second Press	Short flash ⇨ (Action 3) **« Sys OFF»**
Third Press	Short flash ⇨ (Action 4) **« Sys OFF»**
Fourth Press	**«Goodbye»** followed by **«Vigil»** are displayed before the AAD shuts down.

WARNING: THE MAIN BOX OF THE VIGIL®2+ CUATRO SHOULD NEVER BE OPENED BY THE USER. IT MAY CAUSE OR CONTRIBUTE TO A MALFUNCTION OF THE VIGIL®2+ CUATRO AND INCREASE THE RISK OF SERIOUS INJURY OR DEATH AND/OR DAMAGE TO PROPERTY. OPENING OF THE MAIN BOX BY THE USER, OR ANY OTHER UNAUTHORIZED OPENING OF THE MAIN BOX, VOIDS ALL WARRANTIES.



7. Water-resistance – IP 68

The **Vigil®2+ Cuatro** is engineered to be **dust-tight** and **water-resistant** with an IP 68 rating. This means it can withstand immersion in water up to a depth of **6 feet (2 meters) for a maximum of 24 hours**.

Immediate action after water contact:

Power OFF:
DO NOT OPEN THE MAIN BOX UNIT
Always Power OFF the **Vigil®2+ Cuatro** immediately after any immersion or contact with water.

Rinse all parts with clean fresh water:
The **Vigil®2+ Cuatro** should be rinsed with clean fresh water immediately after the device has been in contact with water, especially in the case of salt water.

- Do not use high-pressure water for rinsing.

Unscrew the Connector Locking Clip, Control Unit and Cutter (see page 55).

Drying the Filters & Device:
The device is equipped with three built-in stainless steel filters that do not require replacement. These filters, device and parts should be dried carefully using a water-absorbent cloth or household paper towel.

- Do not use high-pressure air for drying. Doing so may cause severe damage to pressure sensors.

Post-Drying:
After drying, the **Vigil®2+ Cuatro** should be kept in an environment with an ambient temperature of +65°F (+18°C) for a minimum of 12 hours before it is installed back into a rig.

Mandatory Factory Inspection:
The **Vigil®2+ Cuatro** must be sent back to A.A.D nv/sa or Vigil America Inc. for inspection before the next jump **IF:**

- It has been immersed in water deeper than **6 feet (2 meters).**
- It has been immersed in water for more than **24 hours.**

WARNING: ALWAYS ENSURE THE VIGIL®2+ CUATRO IS POWERED OFF BEFORE STARTING ANY VIGIL-APPROVED DISASSEMBLY OR REASSEMBLY OPERATIONS. REFER TO § 6.7 FOR THE PROPER SHUTDOWN PROCEDURE.

WARNING: IT IS HIGHLY RECOMMENDED THAT THE VIGIL®2+ CUATRO CUTTER OR CONTROL UNIT REPLACEMENT BE PERFORMED BY A CERTIFIED RIGGER OR THROUGH AN AUTHORIZED VIGIL® DEALER. DAMAGE DURING REPAIR OUTSIDE OF A.A.D NV/SA OR VIGIL AMERICA INC. OR AN AUTHORIZED DEALER IS NOT COVERED BY WARRANTY.



8. Replacement of Components of the Vigil®2+ Cuatro

8.1 Replacing the Dual Battery Pack

The **Vigil®2+ Cuatro** Dual Battery Pack can only be replaced by A.A.D nv/sa or Vigil America Inc. The device can be returned directly to A.A.D nv/sa or Vigil America Inc., or you can contact your certified rigger or Authorized **Vigil®** Dealer (Refer to § 8.4.).



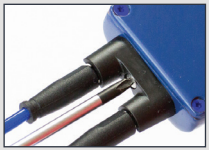
8.2 Replacing the Cutter or Control Unit

Ensure the Vigil®2+ Cuatro is Powered OFF:

- **Verify Power OFF:**
  Press the Orange Push Button on the Control Unit a single time to display **«Cuatro»** on the screen.
  Wait until the screen goes blank, confirming that the unit is Powered OFF.
- **Perform the Replacement:**
  Follow the procedure detailed on page 55 of the manual for the replacement process.
- **Final Check:**
  After the replacement, Power ON the unit as outlined in § 5.1. to ensure the **Vigil®2+ Cuatro** is functioning correctly.
- **Service Documentation:**
  Complete the Service Card as required, following the guidelines provided in § 8.3.
- **Vigil Cutter Service Life:**
  The expected service life is 20 years + 6 months from the date of manufacture (“DOM”) of the Cutter.
  Use of a Cutter that is 6 months older than the DOM of the Vigil unit, may result in the Cutter exceeding its expected service life before the end of the service life of the Vigil unit, making the Vigil unusable beyond the service life of the Cutter. If the end date of the expected service life of the Cutter will be reached before the next mandatory reserve repack, the Cutter must be replaced at the current reserve repack.

Identification: Vigil Cutter DOM MM/YY





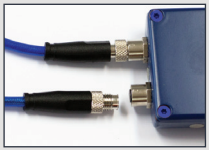
I. Unscrew Connector Locking Clip.



II. Remove Connector Locking Clip.



III. Manually unscrew the connector of the part being replaced.



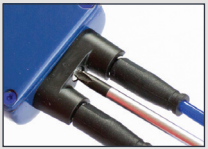
IV. Unplug connector of the part being replaced.



V. Reconnect and firmly tighten the new spare part (Cutter or Control unit).



VI. Place Connector Locking Clip and check if Connector Locking Clip locks both connectors.



VII. After the Connector Locking Clip is positioned correctly, secure it with the original screw.



VIII. Check that the Connector Locking Clip is attached with no space between the Clip and Main Box.

WARNING: THE CORRECT PLACEMENT OF THE CONNECTOR LOCKING CLIP IS MANDATORY FOR THE SAFE OPERATION OF THE VIGIL® 2+ CUATRO. THE CONNECTOR LOCKING CLIP IS ESSENTIAL FOR SECURING THE CONNECTORS AND FOR ENSURING THE PROPER FUNCTION OF THE DEVICE. DO NOT JUMP IF THE CONNECTOR LOCKING CLIP IS MISSING, DAMAGED, OR INCORRECTLY POSITIONED.



Connector Locking Clip Placement:

If you find that the Connector Locking Clip is missing, damaged, or not correctly placed:

- **DO NOT USE THE VIGIL® 2+ CUATRO. DO NOT ATTEMPT TO JUMP WITH A MISSING CONNECTOR LOCKING CLIP.**
- **PRIOR TO FURTHER USE OF THE VIGIL® 2+ CUATRO, OBTAIN AND INSTALL A REPLACEMENT CONNECTOR LOCKING CLIP. THIS MAY BE ORDERED AND WILL BE SUPPLIED FREE OF CHARGE FROM YOUR DEALER, A.A.D. NV/SA OR VIGIL AMERICA INC.**
- **ENSURING THAT THE CONNECTOR LOCKING CLIP IS IN PERFECT CONDITION, AND CORRECTLY PLACED, IS CRUCIAL FOR YOUR SAFETY AND THE PROPER FUNCTIONING OF YOUR VIGIL® 2+ CUATRO.**

8.3 Vigil® AAD Spare Part Card

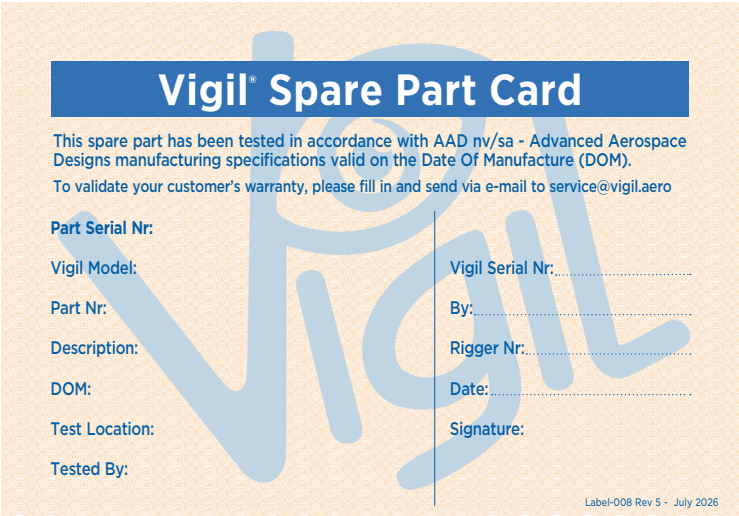
Every replacement Cutter or Control Unit comes with a **Vigil® AAD Spare Part Card** with the Date of Manufacture (DOM), along with firmware version for Control Units.

When the replacement of a spare part has been performed, it is mandatory that the following procedures be followed:

Fill out the **Vigil® AAD Spare Part Card**.

Send a copy of the **Vigil® AAD Spare Part Card** to **A.A.D. nv/sa** by e-mail to: **service@vigil.aero**

Ensure that the owner retains the original **Vigil® AAD Spare Part Card** with the original Test Certificate Card and the documents of the other components of the parachute rig.



Vigil® Spare Part Card

This spare part has been tested in accordance with AAD nv/sa - Advanced Aerospace Designs manufacturing specifications valid on the Date Of Manufacture (DOM).

To validate your customer's warranty, please fill in and send via e-mail to service@vigil.aero

Part Serial Nr:

Vigil Model:

Part Nr:

Description:

DOM:

Test Location:

Tested By:

Vigil Serial Nr:.....

By:.....

Rigger Nr:.....

Date:.....

Signature:

Label-008 Rev 5 - July 2026

8.4 Returning your Vigil®2+ Cuatro for Service or Repair

If your **Vigil®2+ Cuatro** needs to be returned for repair, firmware upgrade, Battery replacement, or other reasons, a Return Merchandise Authorization ("RMA") number will be required. To obtain an RMA number, please complete the online RMA Form at **www.vigil.aero/rma-after-sales** and follow the instructions.

9. Technical Specifications

9.1 Dimensions

- Main Box: 102 x 51 x 20 mm
- Cutter: 55 x 9 mm
- Control Unit: 64.3 x 19.1 x 8.5 mm
- Total Weight: 400 g
- Standard Length: Cutter: ± 700 mm
  Control Unit: ± 980 mm
- Volume: 130 cm3

9.2 Operating Description

- Altitude Correction: From +6000 feet (+2000 meters) up to -6000 feet (-2000 meters).
- Operating Range: -1800 feet MSL (-600 meters MSL) up to 65,000 feet MSL (20,000 meters MSL).
  If planning to make a parachute jump higher than 65,000 feet MSL (20,000 meters.
  MSL), contact the manufacturer AAD nv/sa or Vigil America Inc., prior to making the jump.
- Working Temperature: from -13°F (-25°C) to 158°F (+70°C).
- Service Life: Maximum 20 years.
- Maintenance: No scheduled maintenance required - Battery replacement between 8 and 12 years.
  In function of self-tests messages during Power On.
- Water-resistance: IP 68 - Dust-tight and water immersion at 6 feet (2 meters) for a maximum of 24 hours.
- Operating Time: 14 hours.
- Dual Battery Pack: 3.65V dual lithium Vigil® AA battery; Maximum life span is 12 years;
  guaranteed for 5 years or 2000 jumps, whichever occurs first.

9.3 Units and Conversion Factors

- Length: ... feet x 0.3048 = ... meters or ... meters x 3.281 = ... feet
- Pressure: ... inHg x 33.86 = ... mbar/hPa or ... mbar/ hPa x 0.02953 = ... inHg
- Speed: ... mph x 1.6093 = ... km/h or ... km/h x 0.6214 = ... mph
- Temperature: ... C° x 9/5 + 32 = ... F° or ... F°- 32 x 5/9 = ... C°

IMPORTANT: BECAUSE OF CONVERSION ROUNDING, ALL ALTITUDES AND SPEEDS IN FEET, METERS, FEET PER SECOND AND METERS PER SECOND IN THIS MANUAL ARE APPROXIMATE.



10. Infrared Communication Port – IR Download Box (optional)



The **Vigil®2+ Cuatro** Control Unit is equipped with an infrared communication port, which enables users to download recorded data from previous jumps. This data recorder function is capable of recording up to 16 minutes of the most recent freefall data or 16 jumps (whichever occurs first). To access this data, an optional IR Download Box and associated software are available through **Vigil®** Dealers.

The NATO Stock Number (NSN) 7025-13-119-7111 is associated with this equipment and indicates its categorization and availability within military inventory systems.

NOTE: The Vigil®2+ Cuatro is primarily a safety device and should not be relied upon as a data logger.

11. Service Life of Vigil®2+ Cuatro Units

The **Vigil®2+ Cuatro** has been designed for a maximum service life of 20 years.

12. Glossary

Activation Parameters:
A predefined user **Mode** setting (speed parameters and Activation Altitude for **«Pro», «Student», «Tandem»**, or **«Xtreme»**) in combination with meeting the **Vigil®2+ Cuatro** proprietary algorithm parameters.

Activation Zone:
The **Activation Zone** is the altitude range above the Landing Zone in which the **Vigil®2+ Cuatro** is capable of activating the Cutter.

This range begins at the user-defined Mode's Activation Altitude including any Altitude Correction that has been implemented and extends downward to 150 feet (300 feet in case of Xtreme Mode) above the Landing Zone.

Altitude Correction:
A manual setting that adjusts for the following conditions:

- An adjustment for differences between the Takeoff Zone and Landing Zone elevations. Both in a positive (+) or negative (-) altitude.
- An adjustment to increase the Activation Altitude of the **Vigil®2+ Cuatro** (this setting should **NEVER** be used for the purpose of decreasing the Activation Altitude).
- Or a combination of both.

Range from +6000 feet to -6000 feet or from +2000 meters to -2000 meters (depending on **«CONFIG»** feet/meters setting).
These settings will remain on the **Vigil®2+ Cuatro** until manually reset by the user.

WARNING: ALWAYS SET UP THE DEVICE IN THE PREFERRED UNIT OF MEASUREMENT (FEET OR METERS) PRIOR TO IMPLEMENTING AN ALTITUDE CORRECTION. CHANGING THE UNIT OF MEASUREMENT AFTERWARD MAY RESULT IN AN INCORRECT ALTITUDE CORRECTION. EXAMPLE: 6000 FEET IS NOT EQUAL TO 2000 METERS.

Airborne State: (also referred to as **Airborne**)
After takeoff once you reach +90 feet (+27.5 meters) or -90 feet (-27.5 meters) the **Vigil®2+ Cuatro** enters fast measuring state, switching to measuring 8 times per second. You can identify this change when the LCD screen pixels invert.

Armed State: (also referred to as **Armed**)
A state at which the **Vigil®2+ Cuatro** is ready to activate the Cutter once the Activation Parameters are met.
The **Vigil®2+ Cuatro** enters **Armed State** when the following conditions are met:

- Measures an altitude of 1000 feet above the Ground Zero reference when there is no Altitude Correction or a (+) positive Altitude Correction and in **Airborne State**.
- Measures an altitude of 1000 feet above the preset (-) negative altitude correction and when in **Airborne State**.

The **Vigil®2+ Cuatro** returns to non-armed status when the device enters **Standby State.**

Connector Locking Clip:
A plastic fiber-reinforced clip used to secure the connectors of the Cutter and Control Unit to the Main Box, preventing unintentional disconnection.

Control Unit: - NATO Stock Number (NSN) 6110-13-122-0294
The Control Unit is comprised of a reversible display, a red LED that sets the rhythm of the start up and shut down procedure, a green LED that confirms the end of the start up and shut down procedure and an Orange Push Button. The red LED functions as an infrared transmitter for the IR communications port. The display on the Control Unit allows for a clear alphanumerical dialog with the parachutist.

Cutter:
A pyrotechnic device that performs a double cut of the reserve container's closing loop.

Electromagnetic Shielding:
A protective metal shield designed to safeguard the electronic circuits of the **Vigil®2+ Cuatro** from electromagnetic interference caused by sources such as radar and cellular phones.

Ground Zero Reference:
The baseline altitude recorded when the **Vigil®2+ Cuatro** is Powered On (this should be at the Takeoff Zone). **Armed State, Airborne State** and activation calculations are based on this reference.



IR Download Box:
An IR Download Box is a small hardware device that uses infrared (IR) communication to transfer jump data wirelessly from the **Vigil®2+ Cuatro** via the Control Unit to a computer, using proprietary software and a proprietary communication protocol.

The IR Download Box can be used to download jump data and activation data.

Kevlar®:
A durable, non-elastic carbon fiber material used to reinforce the **Vigil®2+ Cuatro** cables to enhance their mechanical strength, and to protect the electrical connections between the Control Unit, Cutter and the Main Box.

Landing Zone:
The **Landing Zone** is equal to the Ground Zero reference if no Altitude Correction is applied.

- In case of a positive (+) Altitude Correction, the **Landing Zone** is equal to the Ground Zero reference plus the Altitude Correction.
- In case of a negative (-) Altitude Correction, the **Landing Zone** is equal to the Ground Zero reference minus the Altitude Correction.

LCD (Liquid Crystal Display):
The display component of the Control Unit that visually presents information to the user.

LED (Light Emitting Diode):
An indicator that flashes during the Power ON, Power OFF, menu sequence of the **Vigil®2+ Cuatro** or during communication via the infrared communication port.

Maximum Freefall Speed:
The fastest vertical descent speed measured during the last jump. Displayed on the **Control Unit**'s screen after landing and available in the **«INFO»** menu. The recorded **Maximum Freefall Speed** may be influenced by events like body transitions during canopy deployment.

Mode:
The operational setting selected on the **Vigil®2+ Cuatro** that determines the Activation Parameters of the device. Each mode is designed for a specific type of skydiving activity and uses predefined Activation Altitude and speed criteria. Available modes include **«Pro», «Student», «Tandem»**, or **«Xtreme».**

No Fire Zone:
The altitude range below which the **Vigil®2+ Cuatro** will no longer activate the Cutter.

When a positive Altitude Correction is applied, the **Vigil®2+ Cuatro** can activate at the preset/default altitude plus the set Altitude Correction, until 150 feet (or 300 feet in the **«Xtreme»** Mode) above the GROUND ZERO reference. This effectively increases the activation window, but the No Fire Zone altitude remains unchanged at 150 feet (or 300 feet in the **«Xtreme»** Mode) above the Ground Zero Reference.

When a negative Altitude Correction is applied, the **Vigil®2+ Cuatro** can activate at the preset/default altitude minus the set Altitude Correction, until 150 feet (or 300 feet in the **«Xtreme»** Mode) above the preset negative Altitude Correction (the new Landing Zone).

Power Cycle:
The time from start up to shutdown, which can be initiated manually or will occur automatically after 14 hours. The **Vigil®2+ Cuatro** will always automatically Power OFF after 14 hours regardless of location or altitude.

Standby State: (also referred to as Standby)
The **Vigil®2+ Cuatro** enters **Standby State** during the following conditions:

- Being powered on at the takeoff zone.
- Two minutes after returning back to within + 90 feet (+27.5 meters) or – 90 feet (-27.5 meters) of the GROUND ZERO reference.

In **Standby State** the device measures air pressure every 32 seconds and recalibrates every two minutes until **Airborne State** is entered.

Takeoff Zone: (also referred to as **Ground Zero**)
Is an altitude and air pressure reference taken during Power ON of the **Vigil®2+ Cuatro.**

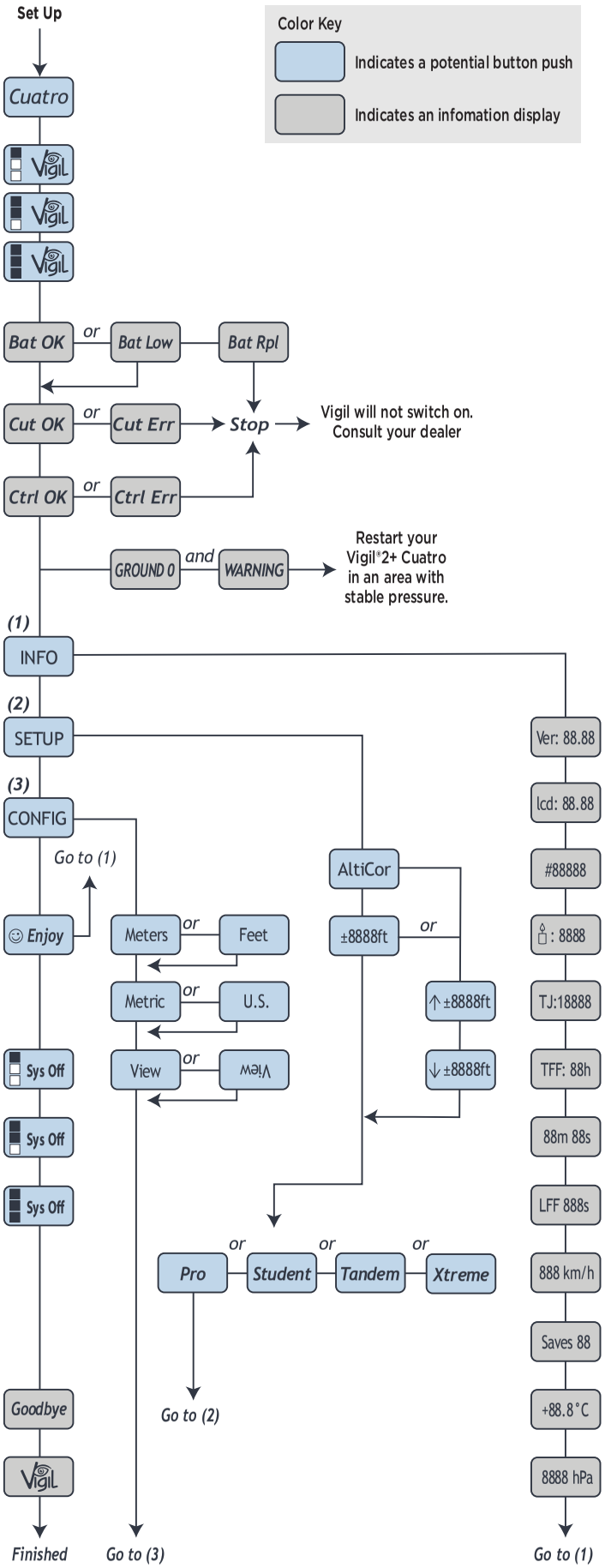
Orange Push Button:
The **Orange Push Button** on a **Vigil®2+ Cuatro** is the unit's single user-interface control. It is used to Power ON and Power OFF the device, and to navigate the internal menu system displayed on the LCD screen.

Vertical Speed:
Is the rate of descent calculated by the **Vigil®2+ Cuatro.**

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13. Grafcet / Road Map

(Parameter sequence flow chart)



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U.S. Department
of Transportation

East Building, PHH – 32
1200 New Jersey Avenue, Southeast
Washington, D.C. 20590

Pipeline and Hazardous Materials Safety Administration

The US Department of Transportation
Competent Authority for the United States

CLASSIFICATION OF EXPLOSIVES
FIRST REVISION

Based upon a request by R. Stresau Laboratory, Inc., N8265 Medley Rd, Spooner, WI 54801-7819, US, the following items are classed in accordance with Section 173.56, Title 49, Code of Federal Regulations (49 CFR). A copy of your application, all supporting documentation and a copy of this approval must be retained and made available to DOT upon request.

An EX approval is non-transferable in any merger, acquisition, sale of assets, or other business transaction. For more information, please visit: [https://www.phmsa.dot.gov/registration/faq-mergers-acquisitions-and-legal-status-changes-pdf]

U.N. PROPER SHIPPING NAME AND NUMBER:
Not Regulated as Class 1

U.N. CLASSIFICATION CODE: N/A

REFERENCE NUMBER:
EX2002030123

PRODUCT DESIGNATION/PART NUMBER:
Assembly, Cutter, Electric Reefing Cord
(P/N: 9582006-1 thru -10)

NOTES:
It is the responsibility of the shipper to determine whether this article meets the definition of any other hazard class, in accordance with the Hazardous Materials Regulations.
This approval as revised supersedes all previous versions.

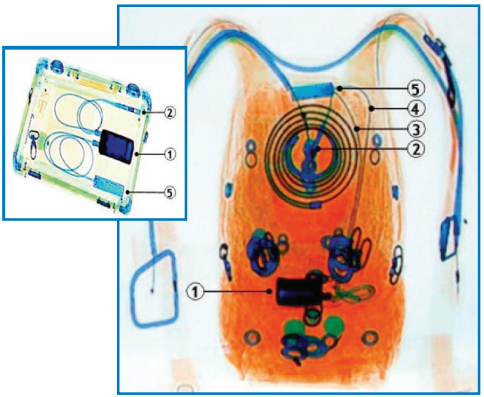
DATED: February 08, 2019

for William Schoonover
Associate Administrator for Hazardous Materials Safety

Tracking No: 2018104634

X-RAY CARD

NATO Stock Number (NSN): 1377-13-122-3955



The Vigil parts
1. Main Unit
2. Cutter Unit
3. Cutter Wire
4. Control Wire
5. Control Unit

Les composants du Vigil
1. Unité Principale
2. Guillotine Pyrotechnique
3. Câble de la Guillotine
4. Câble du Contrôleur
5. Contrôleur

AAD nv/sa
Advanced Aerospace Designs

www.vigil.aero
Phone: +32 12 210 250 | info@vigil.aero

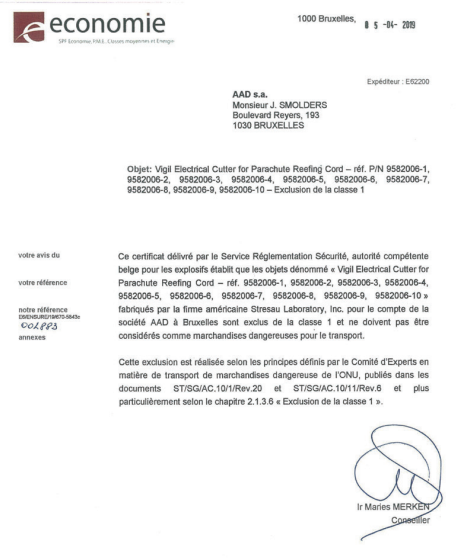
Label-002 Rev 2 - Sept 2026

To airport security personnel:

Transporting a parachute system fitted with a Vigil on commercial aircraft is both permitted and safe. The Vigil is a lifesaving, electronic activation device designed to automatically open a reserve parachute. On the back is an X-Ray picture of the Vigil installed in a complete parachute system. X-Ray viewing of a Vigil may appear slightly different to this picture due to variations in parachute type or packing techniques. The Vigil security device is composed of a main unit, power pack (battery), electronic unit, control unit and a cutter unit (P/N 9582006). The cutter unit has obtained a U.N. Classification Code, Ref. EX2002030123 by the U.S. Department of Transportation (DOT). The Belgian Ministry of Economic Affairs, Department of Explosives has excluded the cutter unit from Class 1 (see Annex).

Au personnel de sécurité de l'aéroport :

Le transport d'un système de parachute équipé d'un Vigil dans un avion de ligne commercial est à la fois autorisé et sans danger. Le Vigil est un appareil d'activation électronique de sauvetage conçu pour ouvrir automatiquement un parachute de secours. Au verso se trouve deux images aux rayons-X du Vigil installé dans un système de parachute complet ou dans un emballage. La visualisation aux rayons X d'un Vigil peut parfois légèrement différer de ces images en raison des variations du type de parachute ou de la façon dont il est emballé. L'appareil de sécurité Vigil est composé d'une unité principale comprenant le bloc d'alimentation (batteries) et du circuit électronique, d'une unité de contrôle et d'une unité de coupe (P/N 9582006). L'unité de coupe a obtenu un code de classification U.N., Réf. EX2002030123 par le U.S. Department Of Transportation (DOT). Le ministère des Affaires économiques belge, Département des explosifs a exclu l'unité de coupe de la classe 1. (voir annexes).



economie
SPF Economie, P.M.E., Classes moyennes et Energie

1000 Bruxelles, 0 5 -04- 2019

Expéditeur : E62200

AAD s.a.
Monsieur J. SMOLDERS
Boulevard Reyers, 193
1030 BRUXELLES

Objet: Vigil Electrical Cutter for Parachute Reefing Cord – réf. P/N 9582006-1, 9582006-2, 9582006-3, 9582006-4, 9582006-5, 9582006-6, 9582006-7, 9582006-8, 9582006-9, 9582006-10 – Exclusion de la classe 1

votre avis du

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DSEXCLBEF/19/0170-0645e
EX1883
annexes

Ce certificat délivré par le Service Réglementation Sécurité, autorité compétente belge pour les explosifs établit que les objets dénommé « Vigil Electrical Cutter for Parachute Reefing Cord – réf. 9582006-1, 9582006-2, 9582006-3, 9582006-4, 9582006-5, 9582006-6, 9582006-7, 9582006-8, 9582006-9, 9582006-10 » fabriqués par la firme américaine Stresau Laboratory, Inc. pour le compte de la société AAD à Bruxelles sont exclus de la classe 1 et ne doivent pas être considérés comme marchandises dangereuses pour le transport.

Cette exclusion est réalisée selon les principes définis par le Comité d'Experts en matière de transport de marchandises dangereuse de l'ONU, publiés dans les documents ST/SG/AC.10/1/Rev.20 et ST/SG/AC.10/11/Rev.6 et plus particulièrement selon le chapitre 2.1.3.6 « Exclusion de la classe 1 ».

Ir Maries MERKEN
Conseiller

Personne de contact: Ir Arnaud VANDENBROUCKE, Attaché
Direction générale Qualité et Sécurité – Service Réglementation Sécurité
Chaque jour ouvrable de 9 à 16 heures. En cas d'impossibilité pendant ces heures, le mardi et le vendredi, sur rendez-vous, jusqu'à 20 heures.

Boulevard du Roi Albert II, 16
1000 Bruxelles
+32 (0) 2 277 93 70
arnaud.vandenbroucke@economie.fgov.be
http://economie.fgov.be

.be

AAD nv/sa
Advanced Aerospace Designs

www.vigil.aero
Phone: +32 12 210 250 | info@vigil.aero



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AAD nv/sa - Advanced Aerospace Designs
220 Luikersteenweg, 3700, Tongeren, Belgium
info@vigil.aero
Phone: +32 12 210 250

Vigil America, Inc
1400 Flightline Blvd Suite “C”, Deland, FL 32724, USA
info@vigilamerica.com
Phone: +1 386 736 8464

www.vigil.aero