Nerv 2.0 owner's manual

Icaro 2000 congratulates you on your purchase of **Nerv 2.0** (IC2003-01), a new extreme sports helmet. Its predecessor Nerv has long been a favourite with paraglider, hang glider and microlight pilots all over the world, for its lightness, style and certified safety. But technology is constantly developing, and so we have completely redesigned it with **new features** offering even higher levels of performance, protection and comfort. We have recalibrated its **internal ventilation**, added an **inner cap** in the high-tech fabric **Coolmax**, and optimized sizes with **two new outer shells**. Characteristics that remain unchanged are the Italian design, the appealing style and colours, and the quality of a helmet made exclusively in Italy. We are sure that you will love your Nerv 2.0!

The principal purpose of our helmets, **safety**, has been achieved without sacrificing comfort or aerodynamic performance, by virtue of the innovative technology that we have applied.

All new Icaro 2000 helmets are certified by Italcert, obtaining **certification as free flight helmets for hang gliding and paragliding**, in compliance with the EU standard **EN 966:2012+A1:2012**, or as **water sports helmets** in compliance with the **EN 1385/2012** standard, or as **skiing and snowboard helmets** in compliance with the **EN 1077:2007** standard.
IC2003-01 is an open face helmet, providing protection from HPG (hang gliding and paragliding), alpine skiing & snowboard sport risks.

Icaro 2000 recommends the use of certified helmets only.

Our network of distributors worldwide ensures the availability of parts and service wherever you practice your sport.

This manual can be also viewed online.
In fact, the user manual for the helmet you have purchased can also be viewed at this web address:
https://www.icaro2000.com/Products/Helmets/Nerv2/Nerv2.htm

Or you can scan the QR code on the sheet included in the helmet box to access the helmet manual and other important information.

For further details or service, please consult your nearest Icaro 2000 retailer, or contact the company direct at:

Icaro 2000 srl
Via Vicolo Molino, 6
21014 Laveno Mombello - VA
ITALY
Phone: +39-0332-648-335
e-mail: staff@icaro2000.com
website: www.icaro2000.com

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General information

Choosing and purchasing a helmet

When you purchase a helmet, the most important moment is choosing the **right size**. If you have never purchased a helmet, you probably don't know your own size. The size of a helmet is specified by the **inner circumference** of the internal padding. The size number therefore corresponds to the head circumference in centimetres.



Take your time when choosing a helmet. Try several, and follow these criteria:

Put the helmet on and fasten the strap:

- The helmet should not be so loose that it moves around, but neither so tight that you can feel a continuous pressure on your head
- A helmet that is too large may slide down and obstruct your eyes
- Try to pull it off, moving it back and forth: if it tends to slip off or move around, it is too large
- Lean your head forwards, grip the helmet's rear edge, and try to pull the helmet off. If the helmet slides off, it is not suitable for the shape of your head.
- For **Nerv 2.0**, there are **two versions** of the **outer shell**, one larger for sizes 59 - 62, and a smaller version for sizes 53 - 58. It is important to choose the correct version. If you are in doubt whether to opt for the larger helmet with the size 59 or the smaller helmet with the size 58, we recommend that you choose the larger version. In fact, the size adjuster (rotor) on this helmet, it allows for sizes even smaller than the nominal 59 cm. In contrast, the smaller helmet with size 58, cannot be adjusted if it is too tight.

If, while trying on the helmet, it does not perform satisfactorily for just one of these criteria, you should try another size or another model.

When compared with the jet, or open-face, helmet, a full-face helmet also guarantees protection for the chin area. Consider this carefully when you are choosing your helmet.

Never purchase a second-hand helmet, even if the price is good. There is no way of discerning its real conditions (whether it has been involved in an accident, etc.).

Structure of the Nerv 2.0 helmet

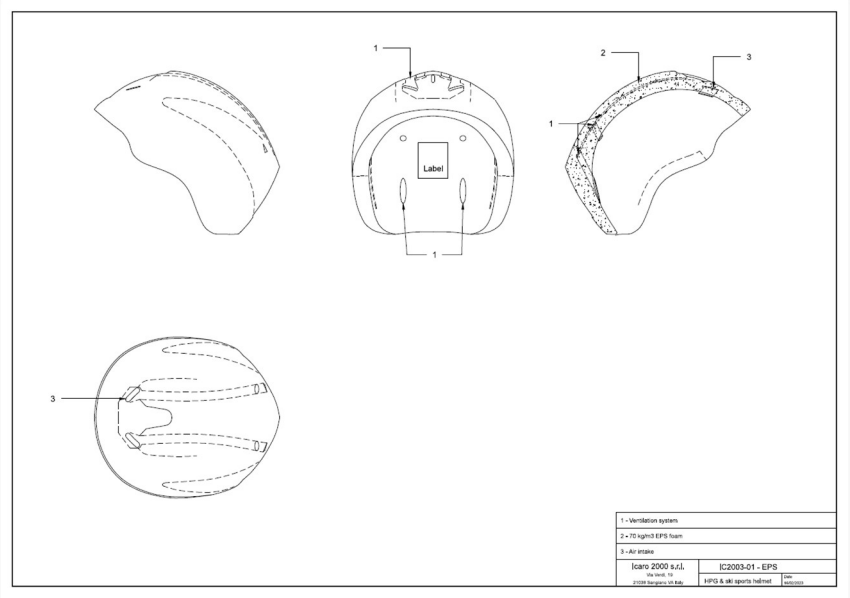
Outer shell

- Nerv 2.0 is made with an outer shell in 1.5 mm polycarbonate, giving it **high perforation**

resistance, strength, elasticity, and lightness.

Crushable foam inner shell

- Nerv 2.0 has an **inner polystyrene shell** of increased thickness, in order to further enhance the **safety** and **protection** provided by the helmet. This component can be damaged even by a minimal impact, and after such an event, the helmet should be replaced. This is part of the helmet's intrinsic protective role. In fact, polystyrene is easily deformable, and in this context its function is to **absorb shock** by means of deformation and/or partial destruction. A more rigid material would not have the effect of dissipating impact energy, and so it would transmit all the shock energy to the head.



Comfort lining

- **Nerv 2.0** has a comfort lining comprising a **cap** in the high-technology fabric **Coolmax**, which increases comfort by wicking perspiration away from the head and enabling it to evaporate rapidly, keeping you cool and dry. Every Nerv 2.0 helmet has a label that guarantees the use of this famous new textile, which is also soft to touch and so makes the product even more comfortable.



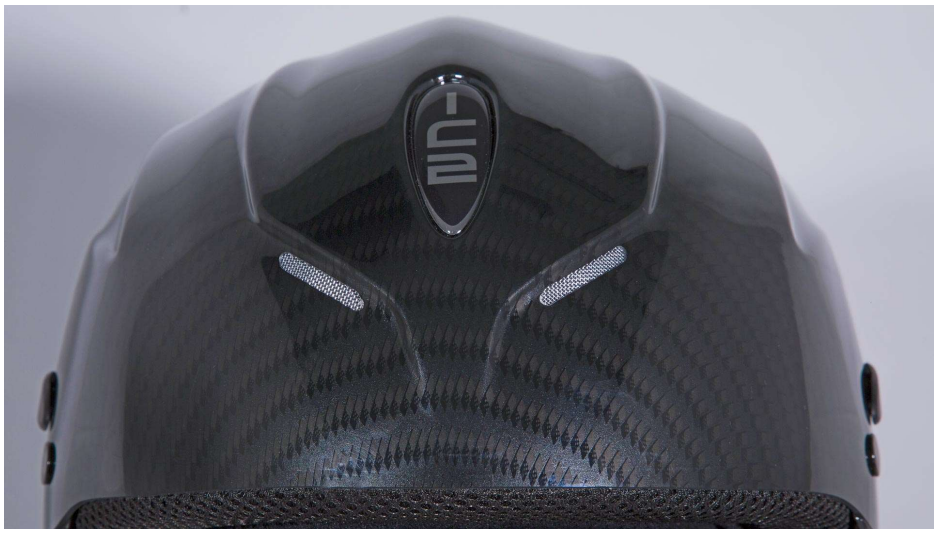
Rotary size regulator

- The **new rotary size regulator** can be used to modify not only the helmet's internal circumference, but also its position with respect to the back of the neck. It is simple to adjust and the operation can be performed directly by the pilot. Comfort is ensured by padding on the size regulator's inner surface.



Vents

- Vents on the helmet's exterior guarantee **internal air flow**, with two channels between the outer shell and the polystyrene inner shell optimizing comfort and temperature in flight.



Micrometric chin strap

- The chin strap has a **rapid fastening system**, with a slider that is inserted into the buckle by pressing the red button, selecting the preferred position before releasing the button. The canvas part of the strap can also be **adjusted in length**, by sliding up the padding cover to expose the canvas strap and adjusting its length through the buckle. Then refold the strap loop, thread it into the rubber loop, and slide the padding back over the strap. This type of adjustment can also be used to adjust the angle of the chin strap by regulating the front and back straps on each side. The strap system is designed for controlled breakage in the case of impact.

- The chin strap is padded with soft, comfortable fabric.



Visor

- For the Nerv 2.0 helmet, the visor is an **optional accessory**. It is made in polycarbonate, with anti-scratch treatment. Three types are available: transparent, tinted grey, orange.
- The visor should be replaced when vision is impeded by small scratches on the surface. **Wind tunnel tests have shown that for a free flight helmet, a visor is essential for achieving the best possible aerodynamic efficiency.**

  The visor increases active safety, providing better wind protection and increasing the width of the field of vision when compared to the use of any type of sunglasses.

- **Visor fixing system:**

  In order to further increase safety for paraglider pilots, we have introduced a **new visor fastening system**. It was essential to ensure that the aluminium disc does not project from the outer shell by more than 5 mm, so that paraglider lines cannot get caught on the helmet.
  This modification was also mandatory for EN 966 certification.
  There is an O-ring inside the aluminium disc which provides the friction necessary to adjust visor position continuously and smoothly.
  When the visor is lifted completely, it is entirely outside the field of vision.



Ear covers

- Nerv 2.0 has very soft ear covers. They are easy to remove and replace (see below).
  For optimum protection, we recommend always using the helmet with the **ear covers in**

position.



Rollbar

- A **titanium-anodized aluminium rollbar** adds additional chin protection for Nerv 2.0, in itself a tough, exclusive helmet.
  The Rollbar can be retrofitted to any Nerv helmet: you just have to change the two ear protectors. It is also available as a standard feature (see also "Rollbar installation and removal").



Technical specifications

- **Weight**:
  - Nerv 2.0 helmet with large outer shell, 600 grams
  - Nerv 2.0 helmet with small outer shell, 600 grams
  - Visor: 93 grams.

- **Sizes**:
  - The Nerv 2.0 helmet is available in **two outer shell sizes**, with **four Coolmax caps**, ensuring a perfect fit for the head. The cap is quick and easy to change. If the helmet is not a perfect fit, we can send you a new cap free of charge, independently from where you bought the helmet. Another important benefit of this internal padding system is that you can easily remove it and replace it with a new cap, or simply wash it.
    - Small outer shell
      - Cap size Small (S), sizes 55 - 56
      - Cap size Medium (M), sizes 57 - 58
    - Large outer shell
      - Cap size Large (L), 59 – 60
      - Cap size Extra Large (XL), 61 – 62

  - The Extra Small (XS), 53 – 54 cm size, it is achieved by means of the rotary size regulator.

Certification

- Nerv 2.0 was certified by the Italian notified body Italcert.
  - The Nerv 2.0 helmet is manufactured specifically for **hang glider**, **paraglider** and **microlight** pilots. It is designed and built to be as light as possible, while optimizing safety. For **free flight**, Nerv 2.0 has **EN 966 certification**.
  - Nerv 2.0 is also suitable for **skiing and snowboarding**, and in fact it also has **EN-1077 certification**.

Using the helmet

Once you have **chosen** the most suitable helmet, make sure that you **wear it correctly.** For safety, it should always fit snugly, and the strap should be tightly fastened.
A helmet will never be able to guarantee total protection for the head when subjected to the forces produced by whatever type of impact. However this is no excuse to forego wearing a helmet. You should **always wear your helmet,** in order to exploit the protection that it provides, whatever impact may occur.

4 things that you should never forget

1. **Before using the helmet,** read all the instructions, and follow the suggestions carefully to ensure a correct fit.
2. **Do not use the helmet without fastening the strap.** An unfastened helmet will fall off during the first impact, leaving the head unprotected for successive impacts. There is also the risk of it falling off during flight.
3. **Do not** fasten the helmet **using just the Velcro.** The Velcro that may be present on the strap serves purely to stop it flapping in the wind.
4. **To ensure maximum performance, never modify your helmet, whatever the circumstances.**

In case of accident

- If the accident happens to you:
  - The inner shell will be deformed – though the deformation may not be visible to the naked

eye – because it has absorbed the impact.
    - **After an accident, even if the impact was minor, the helmet should be replaced, regardless of whether there is visible damage or not.**

- If you witness an accident:
    - Keep calm.
    - Report the accident immediately, if possible by phoning for an ambulance (dial 118 in Italy). Only medically-qualified personnel know exactly how to deal with injuries.
    - Never move an injured person, unless this is absolutely essential because of a situation of greater danger.
      If the spinal column is damaged, moving the injured person could harm the spinal cord, causing permanent paralysis.
    - If the victim is wearing a helmet, do not remove it, but open the visor to facilitate breathing.
    - Keep the victim calm, and, if possible, cover him/her. Shock provokes shivering and a sensation of cold.
    - Do not give the victim alcoholic drinks.
    - Stem the flow of blood from wounds, protecting your hands with gloves or similar, throwing them away later if they have been soiled with blood. Do not apply tourniquets: if you place a tourniquet in the wrong position, you could worsen the situation.
    - Never put the victim into a private car. Wait for the ambulance. If the victim is conscious, talk to him or her and try to calm him or her down.

Helmet maintenance

The helmet protects your head, and so it should be **treated with care.**
The **visor** should be **changed** when it has **scratches** preventing satisfactory vision.

To prevent damage and errors in assembly, ask your dealer or Icaro 2000 directly to change your visor, or contact us for further information. (See contact details at the beginning of this manual).

The helmet can be **seriously damaged by:**

- Paints and varnish
- Petrol
- All types of chemical solvent
- Excessive heat (do not leave your helmet exposed to the sun)
- Inappropriate modifications

Scrupulously follow the instructions provided by the manufacturer.
If you think that the helmet that you have chosen is not right for the shape of your head, replace it… and this time choose more carefully!
A helmet does not have a fixed lifespan. However, it is a good rule to replace it after five years of normal use.

Important!

- **THE EXTERNAL SHELL OF THE HELMET SHOULD NEVER BE ALTERED IN ANY WAY.**
- **INTERNAL POLYSTYRENE PARTS SHOULD NEVER BE MODIFIED OR REMOVED.**
- **NEVER APPLY PETROL, DILUENTS, TOLUENE OR OTHER SOLVENTS OR CHEMICAL SUBSTANCES TO ANY PART OF THE HELMET.**

Personalization

Removal and reassembly of internal padding

Important: do not use sharp or pointed tools such as screwdrivers, etc., in order to not to scratch or damage the helmet and its structural components

Nerv 2.0 has a **comfort lining** that can be removed and re-installed in order to personalize the helmet's fit, or to wash the lining.



Nerv's 2.0 comfort lining, comprising a cap in **Coolmax**, is fixed to the polystyrene inner shell by means of a series of Velcro strips. It is easy to remove. Just ensure that you **detach the Velcro strips by holding and pulling the strips themselves. Don't just pull the inner cap out from the helmet**.

Reassembly
To reassemble the lining, reverse the removal sequence, ensuring that the Coolmax cap is positioned centrally and symmetrically.
When you are sure that the cap is in the correct position inside the helmet, press firmly over the Velcro fastening strips in order to fasten the lining.

Ear covers

Nerv 2.0's ear covers are **soft** and easily removable. They are important in **completing the protection** offered by the helmet, and **we recommend always using them**. If you use the optional roll bar, you will have to change the ear covers.

How to remove the ear covers

Removing the ear covers is a **quick and simple operation**.

- Place the helmet onto a table offering firm support.
- Pull the webbing chinstraps up through the loop on the ear cover.
- Using one hand, gently lift the flap in glossy black polycarbonate to which the ear cover is attached by means of the two tabs
- Using the other hand, pull on the ear cover, thus releasing the tabs.

To reassemble, follow the inverse procedure.



Before using the helmet, read all the instructions, and follow the suggestions carefully to ensure a correct fit.We recommend purchasing **Nerv 2.0 complete with rollbar** for the **extra protection** it provides. If you wish to add the rollbar to your Nerv 2.0 helmet, you can order it direct from Icaro 2000 or from our network of distributors worldwide. Please bear in mind that the ear covers also have to be replaced in this case.

The rollbar is supplied already fixed to the respective ear covers. So it can be installed simply by fastening the ear covers to the helmet, as described above.

Visor installation and removal

The visor can be removed if it has to be cleaned thoroughly or replaced, or if you have purchased a new visor for your Nerv 2.0 helmet.

Important: when fitting and removing the visor, be careful not to scratch the surface of the helmet or visor with a screwdriver or other sharp or abrasive objects.
Don't touch a mirror-finish visor with your hands, because it may be opacified by the acid contained in perspiration.

Adding a visor to a Nerv 2.0 helmet:

The visor is supplied with the two screws and separators needed for assembly.

Removal of the visor

- Place the helmet onto a table, ensuring that it is entirely stable, and lower the visor into its position of normal use.
- Unscrew the two lateral fixing screws. When the first screw has almost been completely unscrewed, be careful not to lose the rubber O-ring, positioned inside the aluminium, and the Mylar washers between the visor and the outer shell.
- If you decide to fly without a visor, remove all the elements that are not part of the outer shell, and cover the threaded bushes in the shell using the stickers provided.
- It may be necessary to periodically replace the rubber O-rings in order to guarantee the correct damping of visor closure.

Fixing the visor to the helmet

On each side of the outer shell, there is a single hole with a threaded bush.

- Place the rubber O-ring into the circular housing on the aluminium washer.
- Then place the aluminium washer with the O-ring into one of the holes on the side of the visor.
- Insert the screw into the aluminium washer and then position the Mylar washer on the inside of the visor.
- Holding the washers and the screw in their correct position in the hole in the visor, position the screw into the threaded bush on the helmet, and screw it in using the appropriate hex key.
- Follow the same procedure for the other side of the helmet.

Cleaning

External shell

- Remove the visor, ear covers and other accessories. Use **only a damp microfibre cloth** for cleaning. If the external shell is soiled with mud, insects etc., soak a microfibre cloth with warm water, wring out excess water, place on the helmet and leave for a few minutes. This will loosen the grime. Use damp microfibre cloths to gently clean the outer surface of the helmet. Dry with a dry microfibre cloth. **Do not use solvents, chemicals or petroleum-based products** which may cause damage to the helmet's structure.

Visor

- For daily cleaning of the visor, as well as the outer shell, use **only a damp microfiber cloth**.
- However, in the event that more thorough cleaning is needed, allow lukewarm water **(max 30° C)** to run over the visor (to avoid getting everything else wet, it may be appropriate to remove the visor from the helmet)
- With a damp microfiber cloth and a little mild soap, gently wipe the visor
- Then rinse under running water
- Using a dry microfiber cloth, proceed with drying
- **Do not use solvents, chemicals or petroleum-based products** that could **damage** the structure of the **visor**.

Internal parts

Interior polystyrene

- Use **only a damp cloth**.
- Leave to **dry** at room temperature, protected from direct sunlight.

Comfort lining

- Hand-wash carefully, using just water at maximum 30° C and **neutral soap.**
- Rinse in cold water.
- Leave to **dry** at room temperature, protected from direct sunlight.

Important information

Pilots who are used to flying with just sunglasses, or even with no eye protection at all, **may take a few flights to get accustomed to the visor.** If you don't feel comfortable with the visor to start with, just lower and raise the visor during your first flights with the helmet until you get used to it.
In conditions of high humidity and/or large temperature excursions, the visor may fog. On such occasions you will immediately appreciate the difference between flying with sunglasses and with a visor: in the latter case, you just have to open the visor slightly to obtain the complete clearance of any fogging.
A helmet with a visor produces a different air sound, and it makes it easier to hear your flight instrument.
If you rotate your head into a lateral position, the detachment of the airflow from the visor could give rise to anomalous sounds (the jet effect), which disappear immediately after the normal flight position has been resumed.

- Never fly without a helmet
  - Your life is too precious to risk losing it just because you have forgotten something.

- Use only certified helmets
  - The IC2003-01 helmet is constructed in compliance with regulation EU 2016/425, and it is certified in compliance with the EU standards EN 966:2012+A1:2012 and/or EN 1077:2007
  - Never trust a helmet that has no label guaranteeing these standards.

- Helmet classes
  - Class A and class B helmets are for alpine skiers, snowboarders and similar groups. Class A helmets offer comparatively more protection. Class B helmets may offer greater ventilation and better hearing, but protect a smaller area of the head and provide a lower degree of protection against penetration.
- We recommend the use of a full-face helmet
  - A full-face helmet offers optimized protection in every situation.
- Never modify your helmet for whatever reason
  - Modifications could reduce the level of protection, and could annul the helmet's certification.
- Never use headphones under the helmet
  - Any rigid components placed inside the helmet, between polystyrene lining and the head, could become percussive and damaging elements.
- Always ensure that the chin strap is tightly fastened.
  - An unfastened helmet will fall off during the first impact, leaving the head defenceless for successive impacts. There is also the risk of it falling off while using it.
- Transportation
  - During transportation keep your helmet in the protective bag provided.
  - If you keep your helmet in the backpack, don't sit on it.
  - Ensure that the helmet never falls onto the ground or the floor.
  - Handle the helmet and visor (if present) with great care at all times.
- In case of accident
  - After an accident, even when the impact is minimal, the helmet should be replaced, regardless of whether there is any visible damage or not.
- Helmets and action cameras

  Many pilots mount an action camera onto their helmets in order to record their adventures. It is important to remember that **any object projecting for more than 5 mm above the level of the outer shell annuls the helmet's certification**, just as for any other modification that is not specified in the user manual. The reason for this is that an object mounted onto the external shell could concentrate a percussive force onto a small area. Therefore, it is potentially dangerous and reduces the level of protection that the helmet can provide. Considering that even the most compact action camera projects at least 30/40 mm from the helmet's outer shell, there is no doubt that a helmet equipped with this sort of device can no longer be considered as compliant with its respective certification. For this reason, because we at **Icaro2000** wish to offer the highest possible level of protection for our customers, we recommend **not fitting action cameras** or other devices onto the outer shell of a helmet.

Icaro 2000 wishes you happy and safe flying.

Icaro 2000 is committed to the ongoing development of its technology, and therefore it reserves the right to modify the characteristics of its products at any time and in any way, without prior notice.