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NORD
DYNAMIC

MANUAL
REGULATORS

TR-80 / IR-50 / CS-30

⚠ WARNING ⚠

This manual is no substitute for diving training! DYNAMICNORD diving equipment products may only be used by divers who have completed regular diving training conducted by a certified diving instructor. Using the diving equipment without a license or the necessary technical training can pose a risk to the diver's safety and even lead to death.

⚠ WARNING ⚠

**DO NOT use the regulator until you have carefully read this manual.
Make sure you fully understand the contents of this manual
and keep it for future reference.**

Your Outdoor Companion

DYNAMICNORD.COM

The regulators described in this user manual are manufactured in accordance with the specifications prescribed by **DYNAMIC**NORD. This user manual describes the construction, use, care, maintenance and potential risks associated with the use of regulators in scuba diving.

For more information and the user manual in additional languages please visit our our website at **DYNAMIC**NORD.COM.

Register your product on **DYNAMIC**NORD.COM, to receive all warranty services.

Contact Service

Mail
support@dynamicnord.com

CONTENT

INTRODUCTION

The product you have just purchased is the result of ongoing research and development by the **DYNAMIC**NORD team to ensure that you have a comfortable and safe diving experience for years to come. Our **DYNAMIC**NORD regulators are certified up to a depth of 50 m pursuant to the standard EN 250:2014 in accordance with EU Regulation 2016/425, which sets out the conditions for placing on the market and basic minimum safety requirements for personal protective equipment (PPE).

DYNAMICNORD regulators fall into the highest PSA category (category III). They meet the necessary requirements for tests specified by the standard EN 250:2014. This standard is recognized to be the technical reference standard for recreational diving regulators sold on the European market. All **DYNAMIC**NORD regulators therefore bear the CE mark, and the identification number 2452 of the certification body Vojenský technický ústav, a serial number and the reference standard for PPE, EN 250:2014

Vojenský technický ústav, is the registered testing center located in s.p.Mladoboleslavská 944 Kbely, 197 00 Praha 9, Czech Republic, which monitors manufacturing in accordance with form B+C2 of EU Regulation 2016/425 and critical health and safety requirements for category III PPE and regulates the conditions for placing such devices on the market.

Our production facility is ISO 9001 certified. Each regulator is subjected to quality controls and a final inspection. During this process, the inhalation and exhalation resistance are tested. These must be within the allowable limits so that the regulator can be shipped in a ready-to-use condition.
This ensures conformity with PPE class 3.

RISKS AND WARNINGS

- Before using the regulator, it is essential that you have completed diving training and that your diving skills have been confirmed by an internationally known diving training organization or association. Use of a regulator by untrained or unqualified persons is dangerous and can result in serious injury or even death.
- You should be able to produce a valid health certificate before each dive.
- This regulator must not be used to supply air on the water's surface.
- Open the tank valve slowly and thus gradually expose the regulator to the full tank pressure.
- Never use lubricants on your regulator and tank valve. For safety reasons, the use of lubricants is limited to trained **DYNAMIC**NORD technicians only.
- Never use a solvent to clean the regulator. Do not under any circumstances use a silicone spray etc. to lubricate the regulator as the ingredients may damage rubber or certain plastics parts such as the second stage housing.

- The service prescribed by the manufacturer for this regulator must be performed at least every 2 years. However, it is recommended to perform the service annually. Service must be performed by a service technician trained and authorized by **DYNAMIC**NORD. Repair, maintenance, disassembly or adjustment work on the first stage may only be carried out by persons trained and authorized by **DYNAMIC**NORD.
- Never place your compressed air tank with connected regulator in an upright position without securing it. If the compressed air tank falls over and onto the first stage, this can cause permanent damage to the tank valve or the regulator.
- Your regulator is not a "transport or lifting device" for your compressed air tank. Use a tank carrying handle to lift the compressed air tank, or carry the tank by grabbing the tank valve.
- Before diving in cold water (water temperature below 10º C or below 50º F), you should receive special training and a certification in cold water diving techniques by a competent diving organization. This requires specific equipment for cold water. Equipment marked with the "greater than 10° Celsius" symbol (> 10°C) can only be used for water temperatures above 10°C or 50°F.
- If you want to configure your regulator with an additional emergency breathing system (alternative air supply, octopus), proper equipment selection is required. Any device marked EN250A is suitable for use with an octopus.
- Visibility can have a big impact on air consumption for inexperienced divers. The poorer the visibility, the higher the air consumption. Keep this in mind when planning your dive.
- **DYNAMIC**NORD regulators are suitable for recreational diving only and are not intended for use in professional diving.

GENERAL INFORMATION BEFORE DIVING

The diver must be in possession of a medical fitness certificate in accordance with the guidelines of the recognized training associations in order to practice recreational diving. This certificate must not be older than 2 years for persons under 40 years of age, and not older than one year for persons over 40 years of age.
Dives may only be conducted using the buddy system – which means: Never dive alone!
The diver must have completed diving training with one of the recognized training associations and be trained with regard to possible emergency situations.
The breathing apparatus must enable the user to be supplied with a breathable gas mixture under the foreseeable conditions of use and in particular taking into account the maximum diving depth. If required under the foreseeable conditions of use, the diving equipment shall include: a) a diving suit to protect the user from the cold; b) an alarm device intended to warn the user in good time of any subsequent interruption in the supply of the breathable gas mixture; c) a rescue device that allows the user to return to the surface of the water.

Protective feature of the regulator:
Our regulators protect against lack of air or drowning during the dive. They allow natural breathing under water by reducing the tank pressure to the respective ambient pressure. This is a prerequisite for safe breathing under water.

NOTE:

The instructions and directions in this manual are based on the latest equipment information available prior to printing. **DYNAMIC**NORD reserves all rights to make changes at any time.

COMPONENTS OF A REGULATOR

The main function of a regulator is to adjust the compressed breathing gas in a scuba tank to the same level as that of the environment, thus providing breathing air.
Regulators consist of a "1st stage" that acts as the main pressure regulator and a "2nd stage" with mouthpiece that precisely adjusts the pressure to the prevailing ambient pressure.
The regulator is part of a complete underwater breathing system known as SCUBA (Self Contained Underwater Breathing Apparatus).

All **DYNAMIC**NORD regulators have technical features
which ensure compatibility with various components from the product range.
This manual describes all models of the **DYNAMIC**NORD series.

NOTE:

The standard EN 250:2014 defines SCUBA as an independent compressed air diving apparatus with an open circuit that includes a scuba tank.
The equipment must include at least the following items:

① Scuba tank(s) with valve(s);
② Regulator;
③ Finimeter or a device to monitor the pressure in the tank(s);
④ Diving mask;
⑤ System for transport, support, and connection to the diver (e.g. harness);
⑥ Manufacturer's user manual

An alternative air supply, e.g. an octopus, as well as a dive computer can be additional components of the SCUBA equipment.

NOTE:

Pursuant to the certified combinations in accordance with EU Regulation 2016/425 and standard EN 250:2014, DYNAMICNORD regulators can be used with SCUBA equipment.

OUR REGULATORS

CS-30

This is our workhorse regulator for diving centers. Non-compensated piston. Known for its design, reliability and robustness in its daily use at diving clubs. Recommended for open and confined waters above 10°C.

The second stage is preferred by instructors and diving students due to its reliability. In its design the adjustable Venturi (dive/predive) has been prioritized to prevent unintentional free-flow, thus reassuring the student and facilitating breathing during the dive. To ensure comfortable and easy exhalation, the exhaust valve provides minimal resistance, and the exhaust deflector is designed to reduce bubbles on the diver's face.

The LP hose is tested for a maximum pressure of 34 bar. The mouthpiece is made of high-end anti-allergic silicone for maximum comfort. The breathing effort of the first and second stage of the CS-30 averages: 0,78 J/L.

IR-50

With its compensated membrane, it allows deeper dives and more natural breathing. Certified in waters below 10°C and suitable for depths below 30 m.

The adjustable venturi (dive/predive) is primarily designed to prevent unintentional free-flow on the surface and to reduce the effort required to inhale during the dive. The adjustment knob allows you to set your personal inhalation comfort. To provide comfortable and easy exhalation, the exhaust valve and cover offer minimal resistance, and the deflector has been designed to reduce bubbles on the diver's face.

The LP hose is tested for a maximum pressure of 34 bar. The mouthpiece is made of high-end anti-allergic silicone for maximum comfort. The breathing effort of the IR-50's first and second stage averages: 0,84 J/L.

TR-80

The compensated membrane design includes dry sealing of the first stage. Its structural design of solid brass makes it ideal to minimize the emission of cold. This structural thickness is important for delaying any possible freezing of the first stage on the surface. This feature is even more important for preventing the first stage from freezing during the dive.

The second stage is recommended for technical divers during demanding dives. The adjustable venturi (dive/predive) is primarily designed to prevent unintentional free-flow on the surface and to reduce the effort required to inhale during the dive. The adjustment knob allows you to set your personal inhalation comfort. To provide comfortable and easy exhalation, the exhaust valve and cover offer minimal resistance, and the deflector has been designed to reduce bubbles on the diver's face.

The LP hose is tested for a maximum pressure of 34 bar. The mouthpiece is made of high-end anti-allergic silicone for maximum comfort. The breathing effort of the TR-80's first and second stage averages: 0,86 J/L.

MARKING

On our regulators, the first and second stages are marked on the bottom.
The marking contains the serial number and the EN standard.

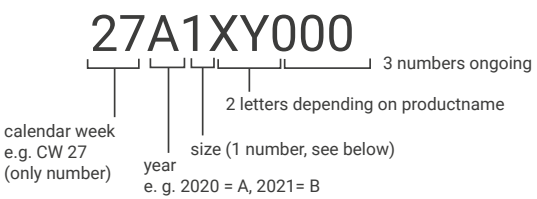
CS-30

Regulators that are not suitable for cold water are marked with "> 10 °C".
Regulators that are suitable for use with an emergency breathing system are marked with an "A".
1st STAGE:
EN 250 A > 10 °C
2nd STAGE:
EN 250 A > 10 °C

IR-50 and TR-80

Regulators suitable for cold water are marked without °C specification.
Regulators that are suitablefor an emergency breathing system are marked with an "A".
1st STAGE:
EN 250 A
2nd STAGE:
EN 250 A

SERIAL NUMBER



overview

Number	0	1	2	3	4	5	6	7	8
Size	**one size**	**XS**	**S**	**M**	**ML**	**L**	**XL**	**XXL**	**XXXL**

35D0IR012

EXAMPLE:

WEEK/YEAR: 35/2023
TYPE: IR-50,
SIZE:ONE SIZE
PRODUCTION NUMBER: 012

If the specified year of manufacturing is more than 2 years ago, the regulator must be serviced to be fit for use again.

FIRST STAGES

The first stage is a pressure reducing valve and uses either a piston or a membrane. It is used to reduce the compressed breathing air to a correct mean pressure. This is critical for proper second stage operation and allows it to reduce the breathing gas to the respective ambient pressure throughout the dive.

Our first stages are attached to the valve of the scuba tank via a connection. Either via an INT connection (yoke) in accordance with UN EN ISO 12209:2013/A1:2016 (max. operating pressure 232 bar) or via a DIN threaded connection in accordance with EN ISO 12209:2013/A1:2016 (max. operating pressure 232/300 bar) – consistent with the standard EN 250:2014.

In addition, all **DYNAMIC**NORD first stages are equipped with several pressure connections (threaded connections). These can be used to connect combinations of second stages, buoyancy compensators and dry suits. Likewise, all first stages offer one or more HP ports (high pressure ports with 7/16-20 UNF thread) to enable finimeter connection.

OUR FIRST STAGES IN DETAIL:

Piston-controlled first stage DIN / INT CS-30

⟶ Connection: DIN 300 bar
⟶ Sandblasted brass, matt chrome finish
⟶ Outlets: 1 HP 7/16UNF, 3 LP 3/8UNF
⟶ Non-compensated piston
⟶ Known for its construction characteristics, reliability and robustness
⟶Adjustable Venturi to prevent free-flow on the surface and to reduce the effort required to inhale during the dive
⟶ Exhaust valve and cover for minimal exhalation effort
⟶ The LP hose is tested for a maximum pressure of 34 bar
⟶ Mouthpiece made of high-end silicone
⟶ Average breathing effort for the entire regulator: 0,78 J/L

Compensated first stage DIN / INT IR-50

⟶ Connection: DIN 300 bar
⟶ Sandblasted brass, matt chrome finish
⟶ Outlets: 2 HP 7/16UNF, 4 LP 3/8UNF
⟶ Membrane-controlled, compensated
⟶ Adjustable venturi to prevent free-flow on the surface and to reduce the effort required to inhale during the dive

⟶ Adjustment knob for setting your personal inhalation comfort
⟶ Exhaust valve and deflector offer minimal exhalation effort
⟶ The LP hose is tested for a maximum pressure of 34 bar
⟶ Mouthpiece made of high-end silicone
⟶ Average breathing effort for the complete regulator: 0,84 J/L

Compensated dry first stage DIN / INT TR-80

⟶ Connection: DIN 300 bar
⟶ Sandblasted brass, matt chrome finish
⟶ Outlets: 2 HP 7/16UNF, 4 LP 3/8UNF
⟶ Membrane compensated design with dry sealing of the first stage
⟶ Optimized emission of cold due to dry sealing
⟶ Adjustable venturi to prevent free-flow on the surface and to reduce the effort required to inhale during the dive
⟶ Adjustment knob for setting your personal inhalation comfort
⟶ Exhaust valve and cover offer minimal resistance
⟶ The LP hose is tested for a maximum pressure of 34 bar
⟶ The front cover is designed to prevent free-flow in strong currents
⟶ Mouthpiece made of high-end silicone
⟶ Average breathing effort for the complete regulator: 0,86 J/L

CAUTION:

For dives in cold waters (temperature <10°C), **DYNAMIC**NORD recommends using a tank that features a valve with two separate outlets for connecting two complete regulators.

CAUTION:

For dives in cold waters (temperature <10°C), appropriate technical training is required. **DYNAMIC**NORD recommends this type of diving only after completion of an appropriate course taught by a licensed diving instructor. The regulator should not be dampened and then exposed to air (which may be several degrees below zero) before use. Do not press the purge button, especially if the Venturi effect adjustment lever is in the PLUS "+" position. If possible, the regulator should be stored in a warm environment before use.

⚠ WARNING ⚠

For the same function, a finimeter or computer pressure sensor must be connected to a first stage HP port/connector. Without a pressure indicator, the diver cannot control his own air reserve. It could suddenly run out, posing a serious risk to the diver's life.

A finimeter must always be used to indicate progressive air consumption during the dive. The same applies to the clear display of the reserve pressure as scuba tanks do not have any back-up device.
This reserve is to be strictly classified as an emergency air supply.

It must not be slated for the dive itself!

SECOND STAGES

The second stages adjust the mean pressure delivered by the first stage to the ambient pressure. They only provide breathable air when the diver demands it by inhaling. A flexible low-pressure hose (LP) connects the second stage to a mean pressure connection (threaded connection) on the 1st stage.
If the medium pressure suddenly increases, the 2nd stage valve opens automatically. (downstream principle)

As a result, any excess pressure in the second stage causes the air to flow freely, and thus the regulator never gets blocked.

All **DYNAMIC**NORD second stages have a bubble deflector. The venturi effect can be controlled and optimized by two operating positions. WHEN DIVING – marked with a "+" – Venturi on. BEFORE DIVING – marked with a "-" – Venturi off. The inhalation resistance can be adjusted by using the external control.

OUR SECOND STAGES IN DETAIL:

Mouthpiece (CS-30, IR-50, TR-80, OP-30):

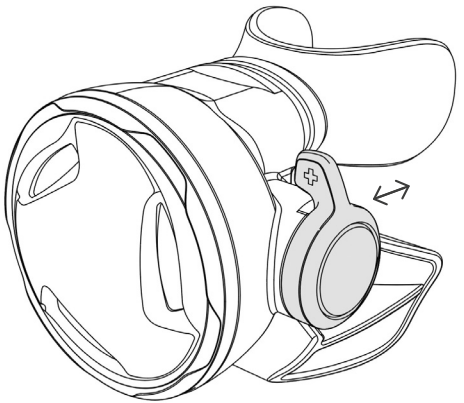
Our mouthpiece is an **DYNAMIC**NORD development and it made of anti-allergic silicone. It ensures a firm and comfortable fit inside the jaw and can be easily replaced in a few steps as needed. It is also available as a spare part from specialist retailers.

Bubble deflector (CS-30, IR-50, TR-80, OP-30):

Our bubble deflector is an advancement of the previous standard as well. Not only does it direct gas bubbles away from your field of vision, but in conjunction with our enlarged exhalation membrane, it also reduces the exhalation effort, increasing the overall breathing comfort of our second stages.

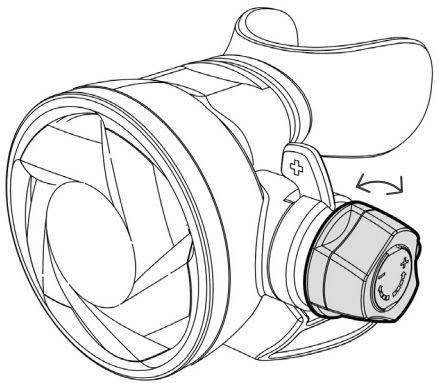
Controllable Venturi effect (CS-30, IR-50, TR-80, OP-30):

By choosing "-" the Venturi effect is reduced to prevent unintentional free-flow from the second stage on land. Under water, the "+" position is used to increase the Venturi effect and enable easy and comfortable inhalation.



Setting the response resistance (IR-50, TR-80):

Every diver has their own perception of what is the "optimal" inhalation resistance. Using the adjustment knob, everyone can find their own optimal setting and thus ensure maximum breathing comfort.



Compensated Second Stage (IR-50, TR-80):

The compensation of the second stage ensures that your inhalation comfort remains unchanged, regardless of the residual pressure in the tank.

Front cover TR (TR-80):

This special front cover design prevents unwanted free-flow from the second stage when diving in strong currents or strong fast scooters. The dynamic pressure cannot affect the inhalation membrane because the front cover has no water inlet openings at the front. The necessary inlet openings are located on the side and thus allow the respective ambient pressure to impact the inhalation membrane and ensure correct functioning.

⚠ WARNING ⚠

When using the regulator, always set the Venturi lever to the MINUS (-) position first. This prevents unintentional free-flow on the surface. The PLUS (+) position should only be used with the regulator inside the mouth during the dive.

OCTOPUS CONFIGURATION

In the octopus configuration, in addition to the main regulator, a spare regulator (octopus) is connected to a 1st stage, which is generally marked in yellow.

NOTE:

The octopus configuration is not the safest configuration imaginable, since a possible malfunction of the first stage may also lead to a malfunction of the 2nd stage and thus to a potential danger for the diver. This risk increases significantly when diving in cold water. **DYNAMIC**NORD advises against the use of this configuration in cold water.

The standard EN 250:2014 also advises against the use of an octopus for dives in water temperatures below 10 °C. It considers this configuration, under these conditions, to be less than ideal. Instead, it is recommended to use two complete, separate regulators attached to a tank valve with two connections.

⚠ WARNING ⚠

Using an octopus configuration can pose a significant accident risk, especially in water temperatures below 10°C! DYNAMICNORD, in accordance with the standard EN 250:2014, recommends the use of a scuba tank valve with two independent connections to enable attachment of two complete regulators.

⚠ WARNING ⚠

If the octopus configuration is used by several divers at the same time, it should not be used in depth of more than 30 m or in water temperatures below 10 °C

USE AND RISK ASSESSMENT

⚠ WARNING ⚠

DYNAMICNORD recommends the use of a scuba tank valve with two independent connections to enable attachment of two complete regulators.

Please note that the use of diving equipment without a license or the necessary technical training can pose a risk to the diver's safety and even lead to death. Before use, all environmental factors such as weather and water conditions, visibility, currents, and water temperature must be carefully observed and evaluated. The diver's physical and mental condition, including health problems, emotional or physical stress, lack of physical training, fatigue, active digestion after eating, etc., must also be taken into consideration. The dive should only be performed if none of these factors pose a risk.
Open circuit regulators are designed and tested in accordance with EN 250:2014 for use at depths of up to 50 m (164 feet). Sport dives (without any type of underwater work) should still be planned and conducted no deeper than 40 m (131 feet).

NOTE:

Find out in advance about the applicable national law for the transport of equipment. The transport is subject to local, applicable legislation.

USE IN COLD WATER

⚠ WARNING ⚠

For dives in cold water (temperatures below 10 °C/50 ° F), DYNAMICNORD recommends the use of a scuba tank valve with two independent connections to enable the attachment of two complete regulators.

To reduce the risk of icing of the regulator, **DYNAMIC**NORD recommends (in accordance with the standard EN 250:2014) that the following recommendations be followed when using the regulator in cold water (water temperatures < 10 °C or < 50°F):

① Prevent water from entering directly into the first and second stages;

② Store the equipment in a dry place before diving

③ Before diving, avoid breathing through the regulator and pressing the purge button if the air is freezing cold

④ Keep the mouthpiece inside your mouth when entering and leaving the water to prevent cold water entering into the second stage

⑤ If possible, avoid using large amounts of air during the dive (repeatedly inflating buoys, repeatedly inflating the buoyancy chamber, sharing air with another diver, etc.)

⑥ Make sure that the air in the scuba tank meets the requirements of the standard EN 12021 and is free from excessive humidity.

⚠ WARNING ⚠

Diving in cold water at water temperatures below 10 °C/50 °F requires special technical training. Please note that the use of diving equipment without a license or the necessary technical training can pose a risk to the diver's safety and even lead to death. If possible, store the regulator in a warm place before use. The regulator must never be dampened or exposed to freezing air before use. Pressing the purge button should also be avoided, especially if the venturi effect adjustment lever is in the MINUS (-) position.

⚠ WARNING ⚠

SCUBA equipment that complies with the standard EN 250:2014 must not be used by more than one diver at a time.

⚠ WARNING ⚠

The performance of the SCUBA equipment may not meet the prescribed requirements in cold water (standard EN 250:2014) when used by multiple divers simultaneously.

USE WITH OXYGEN-ENRICHED AIR (NITROX)

⚠ WARNING ⚠

Nitrox dives expose the diver to different risks than air dives. This can also lead to serious physiological damage and, in extreme cases, death. Without proper training, DYNAMICNORD advises against nitrox diving.

⚠ WARNING ⚠

In accordance with the requirements of the standard EN 12021, DYNAMICNORD regulators and octopuses can only be used with atmospheric compressed air in EEC member states. These devices must not be used there with other gas mixtures or with oxygen-enriched air (oxygen 02 > 22 %). Failure to observe this warning may result in operational defects, equipment wear, or even explosion, causing serious damage.

⚠ WARNING ⚠

Outside EEC borders, DYNAMICNORD regulators and octopuses are compatible with SCUBA equipment (open circuit) that uses compressed air or oxygen-enriched mixtures (NITROX) with an oxygen content of 40% or less. Please note that use may still result in serious, or fatal, injury to the user due to fire, explosion, destruction or breakage of the equipment.

All equipment used with gas mixtures containing more than 22% oxygen, as determined by the European reference standard EN13949 for nitrox, must withstand adiabatic compression with pure oxygen.

Regulators designed for nitrox should not be confused with conventionally manufactured regulators for compressed air. That is why the standard EN 144/3 specifies that the first stage connections required for the use of nitrox must be designed and manufactured exclusively for use with nitrox tanks and valves.

DYNAMICNORD regulators are therefore CE certified only for air and mixtures containing less than 22% oxygen and may not be used with oxygen-enriched air in EEC countries.

TESTING BEFORE USE

Before using the regulator, please perform these simple but important functional tests.

- ⟶ Check for proper connection of all hoses at the first stage; if they have come loose, tighten them again with a wrench before pressurizing the equipment.
- ⟶ Check the hoses for wear or cuts of any kind. If you find any damage, we recommend that you do not perform the dive – contact a **DYNAMIC**NORD authorized center.
- ⟶ Check both the first and the second stage for any signs of damage, e.g. check that the mouthpiece of the 2nd stage has no nicks or scratches and that it is firmly connected to the housing with a fastening strap. If you discover any damage, we recommend that you do not perform the dive – contact a **DYNAMIC**NORD authorized center.
- ⟶ Check the pressure in the scuba tank with a finimeter or a dive computer: After the tank valve is opened, the finimeter must indicate the correct working pressure of the scuba tank.

⚠ WARNING ⚠

Point the Finimeter away from you and others to avoid any risks posed by a device malfunction.

All regulators must be tested before being used in the water.
Press the purge button repeatedly to ensure sufficient fresh air flow. Breathe in and out a few times with the mouthpiece between your teeth to confirm proper operation (not before using in cold water below 10° C). Afterwards, the same tests must be performed in the water. Put the mouthpiece in your mouth and keep your head tilted so that the regulator is fully submerged. Check the air supply by breathing deeply in and out.

NOTE:

Do NOT perform the dive if, during the test, there are noises and leaks detected at the connections and hoses, or if there is a free flow of air coming from the second stage.

⚠ WARNING ⚠

The O-rings on the tank valve must be in perfect condition with no visible signs of wear or damage. They must be replaced at regular intervals – even if they are completely intact – because they are exposed to high tank pressure and weather effect. Use only original spare parts by DYNAMICNORD!

ASSEMBLING THE REGULATOR AND THE SCUBA TANK

⚠ WARNING ⚠

Before connecting the regulator, check that the scuba tank has been filled with compressed air to the appropriate working pressure using a suitable compressor (standard EN 12021).

⚠ WARNING ⚠

A certificate indicates the time interval in which only tested and certified scuba tanks may be filled.

NOTE:

The finimeter must not indicate any pressure before the tank valve is opened!

For first stages with INT connection: Remove any residual water from the valve end by briefly opening the tank valve. After loosening the locking screw of the INT connection, the protective cap must be removed from the guide and the first stage must be placed on the tank valve end. Check the correct alignment of the second stage. Then tighten the locking screw on the INT connection to attach the first stage to the tank valve.

NOTE:

Do not overtighten the locking screw between the regulator and the tank valve.
Open the tank valve counterclockwise while briefly pressing the manual purge button (avoid during cold water dives).

⚠ WARNING ⚠

You need special technical training for diving in cold water (water temperature below 10 °C/50 °F) DYNAMICNORD recommends this type of diving only after a special diving course with a certified instructor has been completed. Without a license or the necessary diving training, the use of diving equipment can pose a risk to the diver's safety or even lead to death.

It is important that the regulator does not come into contact with water or moist air before use (especially at temperatures below 0°C). If possible, store the regulator in a warm place before use. Do not press the purge button, especially if the venturi effect adjustment lever is in the PLUS "+" position.

NOTE:

We recommend opening the tank valve carefully so that the regulator is filled slowly. If the regulator is pressurized too quickly, it may malfunction due to adiabatic compression in the first stage.
If the air then escapes from the second stage, the purge button must be released and the tank valve fully opened.

To avoid damaging the valve thread, turn the valve's handwheel back clockwise a quarter turn. The assembly procedure described above is similar to that of the first stages with DIN connection. In this case, the connection is simply screwed directly into the tank valve. Again: To achieve a secure connection between the regulator and the tank valve, the locking screw must not be overtightened.

If an additional regulator is used, connect it to the additional valve outlet as described above.

⚠ WARNING ⚠

Do not turn the first stage of the regulator when the system is pressurized, and never use it to carry the equipment – this can damage the tank valve, regulator and their O-rings.

If the hoses are not positioned correctly, do not try to rearrange them under pressure. First, close the valve and release the pressure! After that, the hoses can be realigned.

It is important to place the equipment horizontally after assembly. This prevents accidental tipping over, which could cause damage to components or injure people.

DYNAMICNORD recommends the use of **DYNAMIC**NORD original products. The various elements of the **DYNAMIC**NORD regulators are compatible with each other. Third-party products, on the other hand, are not necessarily compatible, even if they use the matching 3/8 or 7/16 threads.
A finimeter and dive computer as well as an emergency breathing system can be connected.

DURING USE

When you are ready to descend, unscrew the breathing resistance adjustment knob on the left side of the second stage as much as possible (counterclockwise). Then turn the knob back (clockwise) until the regulator allows you to breathe comfortably without it appearing overly sensitive.

When descending, you can loosen the breathing resistance adjustment knob further to make it easier for you to breathe. This becomes especially important during deep dives when the air density increases.

The second stage is equipped with a deflector (deflecting surface) to minimize the effect of strong currents on the membrane.
When working underwater in a sideways or upside-down position, or in strong currents, it might make sense to tighten the breathing resistance adjustment knob (clockwise). This causes your regulator to become less sensitive and increases the inhalation resistance. You will also feel the need to tighten the breathing resistance adjustment knob when ascending to the water surface.

If you have set the venturi lever to the PLUS (+) position during the dive, be sure to return the lever to the MINUS (-) position as you ascend to the surface.

⚠ WARNING ⚠

Deep diving requires specialized training and equipment and substantially increases the risk of decompression illness and other diving-related diseases. DYNAMICNORD is not an advocate of dives deeper than 40 m (130 feet), nor of diving activities with dive times that exceed predetermined no-decompression limits.

AFTER USE

NOTE:

If you have fresh water available, flush your regulator completely before releasing the pressure and removing it from the tank valve. This process ensures that no contaminants can accumulate on the sealing surfaces.

Dismounting the regulator from the tank valve (INT)

① Stop the air supply by turning the tank valve's handwheel clockwise as far as it will go.

② Watch the finimeter while pressing the purge button on the second stage. Once the finimeter indicates a pressure of 0 bar and you no longer hear any outflowing air, you can release the purge button.

③ To loosen the yoke connection, turn the yoke screw counterclockwise and remove the first stage from the tank valve.

④ To dry the dust cap, use a towel or other lint-free cloth. If you blow compressed air from your tank to dry the dust cap, you risk blowing out and losing the dust cap O-ring.

⑤ Place the dust cap back on the seal seat and secure it by tightening the yoke screw.

Dismounting the regulator from the tank valve (DIN)

① Turn the tank valve's handwheel clockwise as far as it will go to cut off the air supply.

② Watch the finimeter while pressing the purge button on the second stage. Once the finimeter indicates a pressure of 0 bar and you no longer hear any outflowing air, you can release the purge button.

③ To loosen the DIN connection, turn the DIN handwheel counterclockwise and remove the first stage from the tank valve.

④ Blow all water out of the dust cap or wipe it dry with a towel. In addition, you should rub the threads of the DIN connection dry. Screw the dust cap onto the DIN connection.

NOTE:

It is very important that you remove the first stage carefully to prevent moisture from entering the first stage and the tank valve.

⑤ Your compressed air tank should be positioned with the valve opening facing away from you. Open the tank valve slightly to allow a burst of air to escape and then immediately close the valve again. This process removes moisture and any other contaminants from the tank valve. Then attach the dust cap or the thread protection plug to the tank valve to prevent moisture or other contaminants from entering the valve.

CARE

After using the regulator, the tank valve must be closed. To do this, turn it clockwise, but do not overtighten it. Then press the purge button of the second stage to remove water from hoses and connections.

By loosening the locking screw counterclockwise, the first stage can be separated from the valve. When blowing water and impurities out of the cap, protect the sinter filter with your finger.

Afterwards, the cap should be placed on the air inlet of the first stage and attached with the locking screw.

The pressurized regulator should be rinsed with fresh water after use; this allows the second stage to be cleaned without debris entering the critical sealing areas of the regulator.

Rinse the first stage and run water through the mouthpiece over the bubble deflectors of the second stage. Remove all dirt and foreign objects in this manner.

CAUTION!

The manual purge button should not be pressed during this process to prevent water from entering the hoses and the interior of the first stage.

Allow the regulator to dry in a cool, well-ventilated area and arrange the hoses so that they do not form sharp angles or kinks.

If a regulator is used by more than one person (schools, clubs, etc.) it should be disinfected with products approved for external use and recommended for diving equipment.

They usually need to be diluted with cold water. This should be done in a well ventilated area, always wearing protective gloves as a precaution. Take special care that the disinfectant solution completely covers all parts of the regulator (1st stage, 2nd stage, hoses, etc.).

⚠ WARNING ⚠

Make sure that no disinfectant solution gets inside the first stages! The regulators must be placed inside the disinfectant solution with all LP and HP caps of the first stage closed or with the connection (yoke or DIN) cap of the first stage to the tank closed. Do NOT disassemble the regulator!

It is recommended that the regulators are thoroughly rinsed under running water following each disinfection. Afterwards, they should be stored in a dry and well-ventilated place or dried with clean compressed air that complies with all legal requirements before being used again.

Please pay attention to the following when sterilizing/disinfecting:
⟶ Wash your hands multiple times with soap or disinfecting aqueous alcohol solutions;
⟶ Avoid touching eyes, nose and mouth;
⟶ Use certified PPE such as gloves and protective masks

MAINTENANCE

⚠ WARNING ⚠

Recommendation by DYNAMICNORD: The regulator should be serviced at least once a year, no matter how often it has been used. More often if used intensively. The required service interval of 2 years must not be undercut.

Good regulator maintenance is critical to the diver's safety.
This includes a complete inspection of the equipment, a general overhaul and any repairs, which are carried out by an authorized **DYNAMIC**NORD repair shop**.** The maintenance work must be documented. Documentation shall include the following information and identify work performed:
As long as maintenance is performed regularly and the regulator test is positive, it can be used.

⟶ Date
⟶ Model / serial number
⟶ Cleaning performed
⟶ Specification of installed spare parts
⟶ Functional test performed

⟶ Release for operation
⟶ Technician in charge
⟶ Dealer name
⟶ Signature

See also table on the following pages.

NOTE:

Only original spare parts by **DYNAMIC**NORD must be used for maintenance work (or repair work).

⚠ WARNING ⚠

Maintenance must be carried out by DYNAMICNORD affiliates, never by the user himself. In case of improper maintenance of the equipment by anyone other than DYNAMICNORD authorized personnel or in case of use for any other than the intended purpose, responsibility for proper and safe operation returns to the owner/user and the warranty expires.

⚠ WARNING ⚠

Maintenance must be carried out by DYNAMICNORD authorized service centers using original spare parts. Failure to do so can result in high risks to the diver's health and even put their life in danger. DYNAMICNORD declines all responsibility for any maintenance and calibration of regulators performed by unauthorized personnel.

TROUBLESHOOTING

PROBLEM	CAUSES	SOLUTION
The finimeter displays zero after opening the valve of the compressed gas tank.	1. Compressed gas tank empty. 2. Malfunction of the finimeter. 3. Malfunction of the tank valve	Fill compressed gas tank. Have the finimeter replaced by a **DYNAMIC**NORD authorized technician. Have the valve of the compressed gas tank checked by an authorized technician.
No air is supplied	Malfunction of the regulator (first or second stage).	Have the regulator checked by an **DYNAMIC**NORD authorized technician.
Free-flow coming from the regulator.	The venturi effect has been triggered.	Cover the opening of the mouthpiece or immerse the mouthpiece in water with the opening facing downwards.
If the free-flow from the regulator continues.	Malfunction of the regulator.	Do not perform the dive (or abort the dive) and have the regulator checked by an **DYNAMIC**NORD authorized technician.
When water enters the 2nd stage.	Dirt or defect on the outlet valve or mouthpiece or membrane damaged.	Have the regulator checked by an **DYNAMIC**NORD authorized technician.
HP or MP leaks	Damaged O-rings.	Have the O-rings checked by an **DYNAMIC**NORD authorized technician.
The valve leaks.	Valve or shaft defective.	Have the valve checked by an **DYNAMIC**NORD authorized technician.

LIMITED WARRANTY

DYNAMICNORD guarantees that this product functions properly. The **DYNAMIC**NORD regulator comes with a warranty of 2 years from the date of purchase covering

- Manufacturing and/or assembly defects of the product or its parts;
- Design flaws

The warranty is validated by a proof of purchase or an invoice and starts from the date of purchase. The warranty does not cover:

- Damage due to improper use, poor maintenance, neglect or modifications, alterations, adaptations or tampering with the original product
- Repair damage caused by personnel not authorized by **DYNAMIC**NORD. The warranty claim automatically expires as soon as one of these circumstances occurs.

All defects in workmanship, materials, and design will be repaired by **DYNAMIC**NORD or **DYNAMIC**NORD authorized centers free of charge and within a reasonable period of time during the warranty period or the product will be replaced in accordance with the limited warranty claim.

If it is determined that the product does not comply with the terms of the limited warranty, **DYNAMIC**NORD reserves the right to charge service and/or repair costs.

The warranty claim cannot be transferred to third parties.
The buyer bears the cost of any repairs not covered by the warranty.

Prerequisite for warranty service is a dated proof of purchase from **DYNAMIC**NORD or a **DYNAMIC**NORD authorized dealer. Documents or warranties granted by dealers or agents beyond this warranty provision are not included.
No dealer or agent is authorized to modify this warranty or to provide any additional warranty. For repairs during the warranty period, please send the product (free of charge) to your **DYNAMIC**NORD dealer or to an authorized service center. Attach the proof of purchase or invoice as well as your full name and shipping address.

DYNAMICNORD assumes no responsibility for any work performed by personnel not authorized by **DYNAMIC**NORD.

The instructions and directions in this manual are based on the latest equipment information available prior to printing. **DYNAMIC**NORD reserves all rights to change the content at any time.

The instructions and notes in this manual are based on the latest device information available at the time of printing. **DYNAMIC**NORD reserves the right to change the content at any time.

MAINTENANCE AND SERVICE RECORD

Date			
Model / serial number			
Cleaning performed			
Specification of installed spare parts			
Functional test performed			
Release for operation			
Dealer name			
Technician in charge			
Signature			
Notes			

Add your original proof of purchase or a copy of your proof of purchase to this booklet and keep it in a safe place. Your receipt may be required for warranty verification if you take your regulator to another **DYNAMIC**NORD dealer for service. Location and service support: The dealer you purchased your regulator from can assist you with additional questions regarding product operation, warranty, and service. Visit www.**DYNAMIC**NORD.com to find dealers near you.

NOTIFIED BODY

Testing and certification body:
Vojenský technický ústav,
s.p.Mladoboleslavská 944
Kbely, 197 00 Praha 9,
Czech Republic
Notified Body No. 2452

Sources
EN250:2014
www.europa.eu

DECLARATION OF CONFORMITY

Reference numbers and designation:
CS-30, IR-50, TR-80, OP-30

Manufacturer:
Fifth Element GmbH, Pettenkoferstr. 12, 83052 Bruckmühl – Germany

Brand:
DYNAMICNORD

The manufacturer Fifth Element GmbH is solely responsible for this EU declaration of conformity.

EU regulation: Regulation (EU) 2016/426 Personal Protective Equipment (PPE) EN250:2014

Risk category of PPE: Category III in accordance with Annex I of Regulation (EU)2016/426 Personal Protective Equipment.

Determination of conformity: In accordance with the provisions of EU Regulation 2016/426 (PPE – Personal Protective Equipment) and with the harmonized standard EN250:2014

Applied CE certification:
Module B, according to regulation (EU)2016/426 Personal Protective Equipment (PPE), harmonized standard EN250:2014

Testing carried out by:
Vojenský technický ústav,
s.p.Mladoboleslavská 944
Kbely, 197 00 Praha 9,
Czech Republic

Notified Body No. 2452

EU test certificate numbers: OOP-2452/EU-021/2023/40

Testing and certification body:
Vojenský technický ústav,
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Czech Republic
Notified Body No. 2452

Applied Standard: EN250:2014

Bruckmühl, September 20rd, 2023
For Fifth Element GmbH

Martin Kusche (General Manager)