

Type VII C Submarine

Order No.: 2059



Table of contents

<u>Foreword</u>	2
<u>Model summary description</u>	3
<u>Intended usage</u>	4
<u>Symbols and their meanings</u>	4
<u>Warning and safety notices</u>	4
<u>Environmental protection notices</u>	7
<u>Graupner GmbH & Co KG manufacturer's declaration</u>	8
<u>Assembly instructions</u>	10

Foreword

Thank you for choosing to purchase the Graupner model "Type VII C submarine", order no. 2059. Graupner models stand for high quality. We pay great attention to stability at the key points in series production. Due to extensive prefabrication, including motor and rudder system, as well as the high degree of detail made possible by CNC processing, this model very closely replicates the original.

It is quite important that these instructions are read completely prior to assembly and first-time use of the model. The safety rules stated in these instructions must be followed during trial runs as well as initial use and thereafter.

This U-boat is not designed for diving. Before every ride, check that all covers are waterproof.

Model summary description

The original class VII submarine served as the master design for this model. This series of submarines was used by the German Navy during the Second World War. More of these submarines were produced than any other class. Over 700 submarines of this class were put into service. Characteristic for type VII submarines were the outboard mounted fuel bunkers, so-called "saddle tanks", located in the hull bulges along the sides. Type VII submarines reached greater diving depths than any other submarine type built during the Second World War. Additional information about this ship can be found in Internet, e.g. at www.wikipedia.de.

- This is one of the models in the GRAUPNER PREMIUM product line series, the series of particularly high quality finished models offering a degree of detail previously unachieved on the market.
- In order to achieve such high-quality results, the hull is made of stable GRP material, the superstructure and deck are made of laser-formed ABS parts and many small parts made of metal are already attached. The hull, superstructure parts, the masts and fittings are spray painted with satin mat paints and the decorative items are attached. Thanks to its many details and fitting parts, this model gives a particularly authentic impression of the original.
- Installation of the RC components is made simple by the generously sized openings in the deck. Their installation can be accomplished quickly. Only the installation of the RC components and rechargeable battery as well as some minor soldering work are necessary to make the model operable.
- Please note that this model is not designed for diving operations.
- Before each trip check the tightness of the covers.

Technical data

Length, about	1390 mm
Breath, about	150 mm
Total height, about	290 mm
Total weight, about	7.5 kg
Scale, about	1:48

- Delivered items: GRP hull, deck, superstructure parts made of laser-formed ABS, laser-formed wooden ship stand, railing and other small parts made of metal, two motors, rudder system, pre-attached trim decals, instructions in German, English and French.

Intended usage

This model is designed to be a ship model for operation on bodies of water which meet the stipulations described in these instructions and is only suitable for this purpose. No guarantee or liability is accepted for any improper handling outside the scope of these stipulations.

Symbols and their meanings

	Attention! This symbol calls attention to the injury risks associated with operating a propeller which must absolutely be observed by the user! Any disregard for the adjacent notices can lead to severe injuries for the operator.
	Attention! This symbol calls attention to the injury risks associated with operating a propeller which must absolutely be observed by the user! Any disregard for the adjacent notices can lead to imbalance of the propeller, can severely damage the model and can produce most severe injuries for persons in the vicinity as a consequence of hurled parts.
	Attention! This symbol calls attention to the following notices which must absolutely be observed by the user! Any disregard for the adjacent notices can impair safe operation and even endanger the operator.
	Attention! This symbol calls attention to bans which must absolutely be observed by the user! Any disregard for the adjacent bans can impair the model's functionality and endanger the operator.
	This symbol calls attention to notices which must absolutely be observed by the operator to ensure safe operation of a device.
	This symbol calls attention to notices about care of the model which must absolutely be observed to ensure its long service life.

Warning and safety notices

This is a model that – together with appropriate accessories – can become a functional RC model. GRAUPNER cannot monitor adherence to the assembly and operating instructions for the model nor can GRAUPNER supervise the installation, operation or maintenance of the model and its components. Therefore GRAUPNER accepts no liability whatsoever for losses, damage or costs that arise from improper operation, improper behavior or which are associated with same in any manner. Unless mandated by prevailing law, the obligation of the GRAUPNER company to provide damage compensation arising from the use of the model, regardless of the grounds, is excluded (this exclusion includes personal injury, death, damage to buildings or structures as well as sales and business losses, consequential damage for business interruption or other direct and indirect consequential damages).

Total liability under all circumstances and in each case is limited to the amount actually paid for this model.

	Attention! Never reach into a running propeller or attempt to hold the propeller by hand when it is operating. This leads to hand injuries. Rotational forces can readily cause the propeller to get out of control.
	Attention! Never put objects/foreign materials into a running propeller. Always ensure that objects/foreign materials cannot get into the propeller when it is running. If this does happen, the propeller's sudden imbalance can cause heavy damage to the model. Persons in the vicinity can be severely injured by parts hurled through the air.
	Attention! Never dwell in front or back of a propeller. Improper assembly or unforeseen circumstances can cause the propeller to come off of its shaft. Stop the propeller if unusual noises are heard.
	Attention! The propeller must be securely attached. Do not direct the propeller toward persons or animals, do not test the propeller in the hand. Never dwell in front of a propeller. Unforeseen circumstances can cause the propeller to come off of its shaft. Persons in the vicinity can be severely injured by parts hurled through the air.
	Attention! Do not touch any part of the drive train (i.e. motor + propeller + shaft) while it is operating as this can lead to injuries. Allow the motor, shaft, regulator and battery time to cool off after operation before touching any of these parts!
	Warning! Operating the model while under the influence of medication, alcohol, drugs, etc. is forbidden.
	Attention! The operator of a model ship must be aware of the legal stipulations before putting a model ship into operation because a model ship is subject to applicable laws. Applicable laws are always to be followed in every case. In this respect, pay attention to the laws applicable in the given country. Before operating the model for the first time, check if your private liability insurance provides coverage for model ships of this type. If this is not the case, obtain special liability insurance coverage for RC models.
	Warning! Any deviation from the model's instructions can have an effect on the model's functionality and operational safety. This must be avoided under all circumstances.
	Warning! The model has been designed for operation on water and is only suitable for this purpose. Any other use can lead to property damage and/or personal injuries. You are responsible for safe operation of the model and the safety of other persons and animals.
	Attention! The model may only be operated with accessories which we recommend as otherwise functionality cannot be guaranteed.
	Attention! The commissioning and operation of the model is solely at the risk of the operator. Only cautious, considered handling during operation of the model will prevent personal injuries and property damage.
	Attention! This model is not suitable for children under 14 years of age.
	Attention! Protruding model parts can be sharp and the antennas and masts can cause eye injuries.
	Attention! Pay attention to the potential dangers associated with the tools that are used.
	Attention! Never operate the model in saltwater.

	Attention! Never operate the model when persons or animals are in the water! Persons and animals are exposed to substantial injury hazards due to this model's relatively high speed capability.
	Attention! Do not operate the model in nature reserves, landscape protection areas or water conservation areas. Ask local authorities about the water bodies where operating model ships is permitted.
	Attention! Never operate the model in adverse weather conditions like rain, storms, strong wind, high waves or strong water currents.
	Attention! Comply with the recommendations and notices associated with the remote control set and accessories.
	Attention! Before operating the model, check it for reliable response to the remote control unit and all plug-in connections for secure connection.
	Attention! Never attempt to recharge any primary cell batteries used as a power supply. Only rechargeable (i.e. secondary cell) batteries may be charged.
	Attention! The remote control unit's effective range must be checked prior to operation of the model. To check this, switch the model on then walk with it away from the transmitter as far as about 100 m while a helper operates various controls on the transmitter. At this distance it must be possible to operate all model functions without any problem.
	Attention! Check if the radio channel to be used is free. Never operate the model if it is not sure that the radio channel is free.
	Attention! Pay attention to radio devices or transmitters which could substantially affect the model's functionality. Try to ensure that such devices are not operated in the vicinity while the model is being operated.
	Attention! Do not exceed the recommended power supply voltage. Higher voltage can lead to motor and/or speed regulator overheating or melt wiring conductors. This can destroy the model.
	Attention! Pay attention to the smooth, free movement of all drive components. This is particularly applicable while the model is operating because leaves and other materials in the water can get caught up in drive components. If this should happen, the motors and/or speed regulator can be destroyed by overload conditions.
	Attention! Batteries must never be short-circuited or come into direct contact with water.
	Attention! Never operate the model on strongly moving water (e.g. a river) as the model may drift away if it becomes disabled.
	Attention! Never endanger yourself or others in an attempt to recover the model.
	Notice! Remove the battery/batteries from the model when it is not in use.

	Notice! Do not expose the model to strong humidity, hot or cold temperatures or contamination.
	Notice! Do not expose the model for extended periods to strong sunlight or the radiating heat of hot lamps. The different expansion coefficients of the hull and wooden deck materials can cause cracks.
	Notice! Protect the model and transmitter against damage or slipping while they are being transported.
	Notice! Pay particular attention to the model's water-tightness. A model boat will sink if it takes on too much water. Prior to every use, check the model for any damage and also ensure the hull is watertight where drive shafts and rudder control shafts penetrate the hull.
	Notice! Allow the model dry out good after it is used.
	Notice! Be sure to check the water-tightness of shaft penetrations through the hull several times during the model's maiden voyage. If water is intruding, remove the shafts and lubricate the stern tube with sufficient grease (order no. 570).
	Notice! The electric motors built into the model may not be thrown away along with household waste. They must be removed and turned in at an appropriate disposal facility.
	Notice! If batteries are connected in parallel they may only be so connected when the model is operated as otherwise reciprocal effects could take place between the batteries and cause them damage. Therefore, connect batteries only just before running the model and disconnect them again afterward. Batteries must never be stored with connected parallel wiring.
	Care! Clean the model after every use. Remove any water which may have intruded. If water has gotten into RC components, lay them out to dry then send them to the responsible GRAUPNER service center for inspection.
	Care! Clean the model and transmitter only with suitable cleaning materials. A lint-free cloth is suitable. Never use chemical cleaning agents, solvents, gasoline, spirits or similar.
	Care! After operating the mode, lubricate drive shafts with a small drop of oil on the bearings. The outer shaft bearings for the propellers must also be lubricated. To lubricate the drives, use only oil which does not contaminate or pollute water (e.g. order no. 206). At the end of the operating season, the shafts should be removed and lubricated anew with a water-neutral grease (e.g. order no. 570).

Environmental protection notices



The symbol on this product, its operating instructions or packaging gives notice that this product may not be discarded as common household waste at the end of its service life. It must be turned over to a recycling collection point for electric and electronic apparatus.

The materials can be recycled according to their markings. You make an important contribution to protection of the environment by utilizing facilities for reuse, material recycling or other means of exploiting obsolete equipment.

Batteries must be removed from the unit and disposed of separately at an appropriate collection point. Please inquire with local authorities about the responsible waste collection locations.

Graupner GmbH & Co KG manufacturer's declaration

Content of the manufacturer declaration

If there should be an evident material or processing defect in one of the objects marketed in the Federal Republic of Germany and purchased by a consumer (§ 13 BGB) we, the company Graupner GmbH & Co KG, Kirchheim/Teck, accept responsibility for eliminating the object's defect within the scope as specified below.

The rights acquired through this manufacturer declaration cannot be asserted by the consumer when the object's usage impairment is due to natural wear, use under competitive conditions, improper usage (including improper installation), or external causes.

This manufacturer declaration leaves the legal or contractual provisions for defect claims and the consumer's rights in the purchase contract with respect to the seller (dealer) unaffected.

Scope of guarantee performance

In the event of a guarantee claim, we reserve the right to choose between a repair or the replacement of defective goods. Further reaching claims, in particular claims for compensation of costs in conjunction with the defect (e.g. assembly/disassembly costs) and remuneration for consequential damages – when legally permitted – are excluded. Claims based on legal regulations, in particular those associated with product liability law, are unaffected by this.

Prerequisite to guarantee performance

The purchaser must assert claim for guarantee performance in writing, which is to be accompanied by the original purchase receipt (e.g. invoice, receipt, delivery note) and this guarantee card. The purchaser must also return the defective goods to the following address at his/her own cost.

Fa. Graupner GmbH & CO KG, Service Department,

Henriettenstr. 94 -96, 73230 Kirchheim/Teck, Germany

The purchaser is to state in the claim the nature of the material or processing defect or the defect's symptoms specifically enough that a review of our guarantee obligation is possible.

The transportation of the object from purchaser to us as well as return transportation is at the risk of the purchaser.

Period of validity

This declaration is only valid during the entitlement period for making claims as stipulated by this declaration. The entitlement period is 24 months from the item's date of purchase by the consumer from a dealer in the Federal Republic of Germany (purchase date). If claims are made for defects after expiration of the entitlement period or the defects in the claim are not substantiated as required by this declaration or documents are only submitted after

expiration of the entitlement period, then the purchaser is not entitled to rights or claims under this declaration.

Limitation period

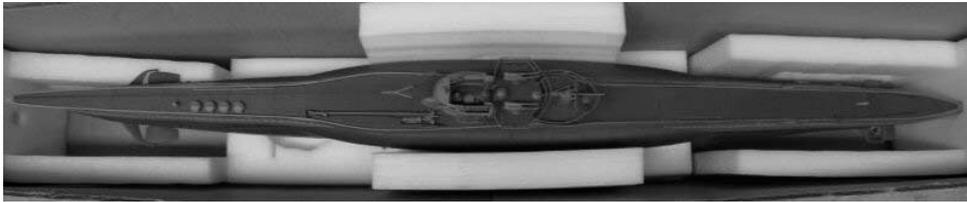
To the extent we do not acknowledge liability for a properly submitted claim as specified by this declaration within the entitlement period, all rights of this declaration have a 6 month period of limitation from the point in time of claim submission but not earlier than the end of the entitlement period.

Applicable law

This declaration and all claims, rights and obligations arising therefrom are governed exclusively by German substantive law without the norms of international private law and under exclusion of applicability for the UN Convention on the International Sales of Goods.

Assembly instructions

- Unpack the model and the ship's stand carefully.



- To open the model, first take note of the positions of the riggings.



IMPORTANT: Rigging is secured with small brass hooks. **TIP:** These can best be disconnected and reconnected with fine tweezers. **NOTICE:** At the end of these instructions there is a detail picture of the assembled model. That picture can be used as an orientation aid during assembly.



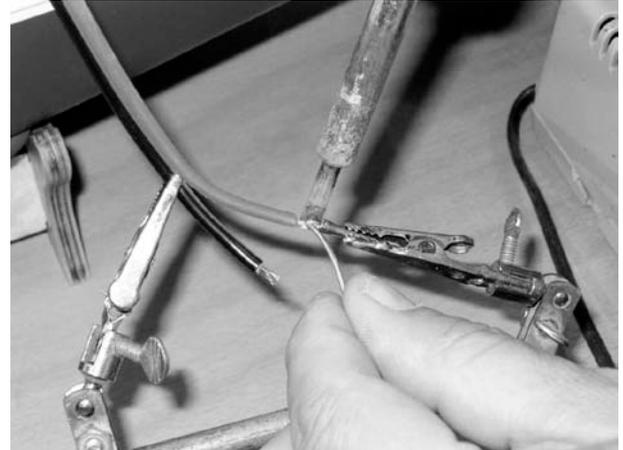
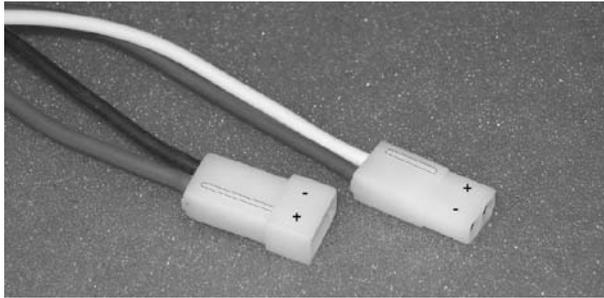
- To remove the superstructure, loosen the rigging. Place a raised (at least 18 cm) surface next to the hull (a transmitter carrying case is ideal), carefully lift the superstructure off and away then place it on the raised surface.



IMPORTANT: When doing this, pay attention that rigging do not get entangled or caught on the superstructure. Do not pull too strongly on rigging as it can be damaged. The superstructure can then be cautiously taken off upward. Hold it carefully as otherwise railing parts can be broken off.

- The deck of the type VII C submarine is divided into three sections which can be removed completely. However, this is primarily intended for maintenance. For assembly and operation of the model it is normally only necessary to remove the model's middle section to insert the main battery.

- Solder a G2 plug onto the regulator's leads (+ is red, - is black). Check the direction of the motor's rotation when the battery is connected. The ship's screw should turn in the direction that would propel the model forward. **NOTICE:** Polarity of the G2 connector system is designed such that the burl on the plastic housing always marks the positive pole (red). When one complies consistently with this scheme, the batteries and regulator are exchangeable and reversed polarity conditions are prevented by this connector system. Follow one of the following tips to make soldering of the connector pins easier. These tips also reduce the chances of damaging model details during the soldering process. **TIP 1:** Remove the regulator. Do this by disconnecting all connectors. Reassembly is done in exactly the reverse order. **TIP 2:** With the help of a so-called "third hand", the connector can be soldered right next to the model (see photo).



- If not already done, check that the screws on the shaft coupling and propeller are securely seated as these could have become loose during transport. This can be checked by pulling on the propeller. If the shaft can be pulled out toward the rear then one of the stud screws is loose. Tighten down a loose screw carefully. First remove the superstructure so the stud screw becomes accessible. **NOTICE:** Secure a stud screw that has become loose with screw lock lacquer, e.g. UHU thread-lock fluid (order no. 952), because otherwise vibration could cause it to become loose again during operation.
- Attach the speed regulator and receiver in the hull with a strip of Velcro or double-sided adhesive tape. These should be fixed in place at the sides beneath the superstructure opening.
- Connect the servo and the regulator to the receiver. Use cable ties or adhesive tape to fasten the cables in place in the hull.
- Route the antenna in the hull near the deck opening and fasten it in place with adhesive tape.



IMPORTANT: To assure good reception, the antenna must be routed as close as possible to the hull's rim! The GRP hull diminishes reception only very little.

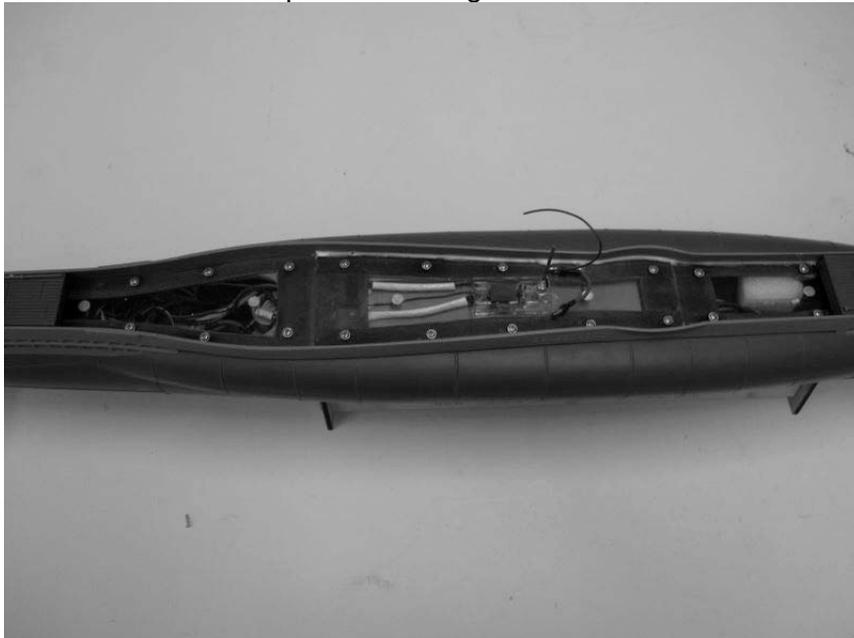
- Plug in the battery to the speed regulator. Lay the battery into the model and test the RC system's functions. It is absolutely necessary to fix the batteries in place so they cannot slide about while operating the model. Attach a strip of Velcro ribbon to the battery and the complementary strip onto the hull to hold the batteries securely in place.



Switch on the power with the power plug. Turn on the radio before switch on the boat.



ATTENTION: Be sure to secure the cover's screws good as otherwise water can get into the model and do irreparable damage or even cause loss of the model.





- Replace the superstructure onto the hull and carefully reconnect the rigging.

Maiden voyage

Charge all batteries and test the model's functions. Check if all plug-on parts are securely seated. Now the maiden voyage can begin. Take it easy during the maiden voyage. Take the time to become familiar with the model's maneuvering behavior. This model travels quite fast, has a large turning radius and a long braking distance. Therefore it should be operated in a body of water with an adequate surface area. Do not maneuver too far away from the shoreline.



ATTENTION: You have purchased a submarine; never charge the battery while it is in the model ! Always remove the main battery and recharge it in a safe place with an appropriate battery charger (e.g. order no.: 6411 ULTRAMAT 8).

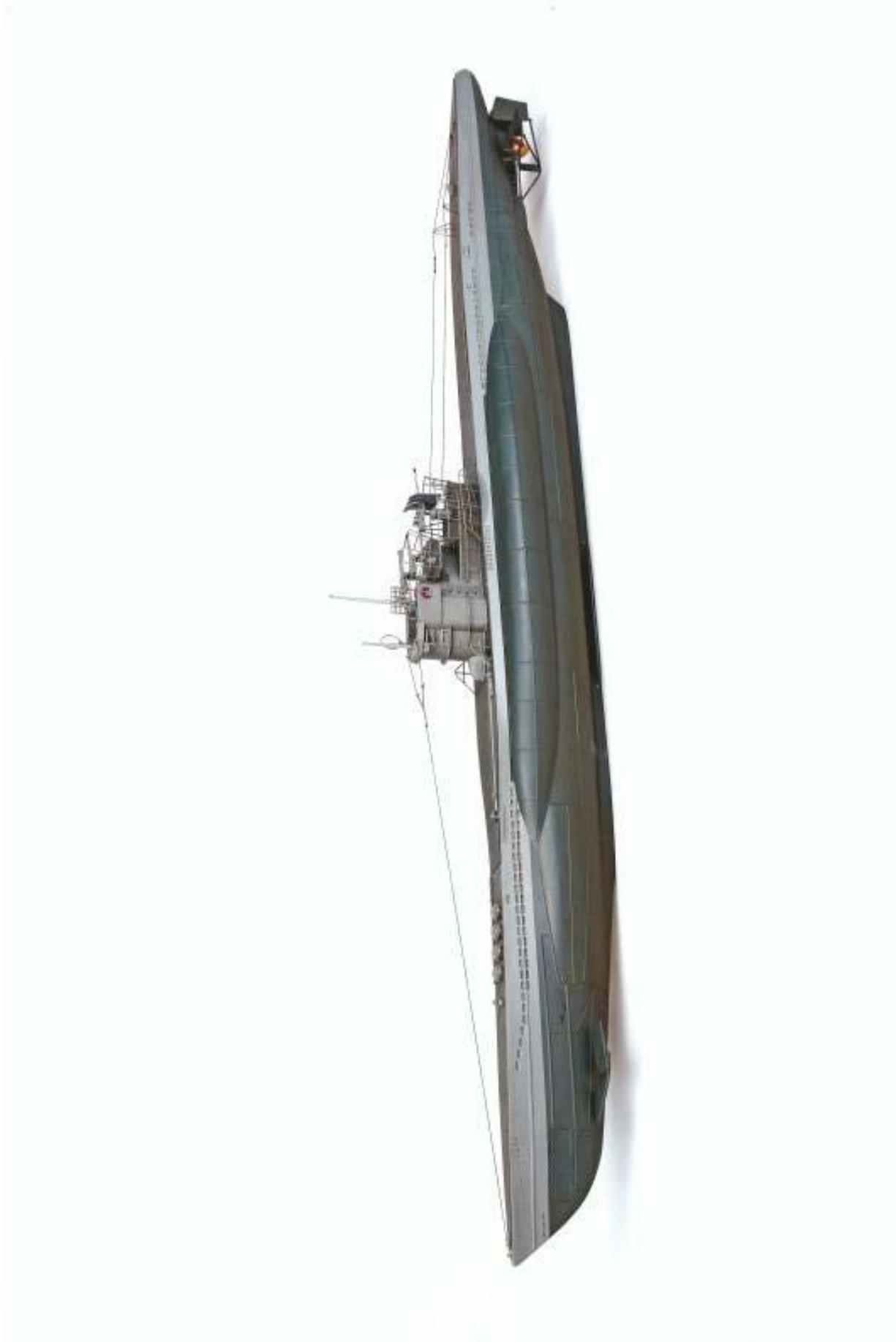


WARNING: This U-boat is not designed for diving. Before every ride, check that all covers are waterproof.

Now have a lot of fun with your model Type VII C class submarine.

Also necessary for 2059 (but not in the delivered items)

Order no.	Designation
33124	MX-20 Computer system Graupner HoTT, 12 channel
2490.7	GM Power Pack 36007N-3600 8.4 V G2 NiMH 3.6 Ah
2989	G2 connector system (2 each necessary)
3368	Hook- and loop ribbon (Velcro)



GRAUPNER GmbH & Co. KG D-73230 KIRCHHEIM/TECK GERMANY

No liability for printing errors. Technical changes reserved!

06/2012