U 96
U-BOAT

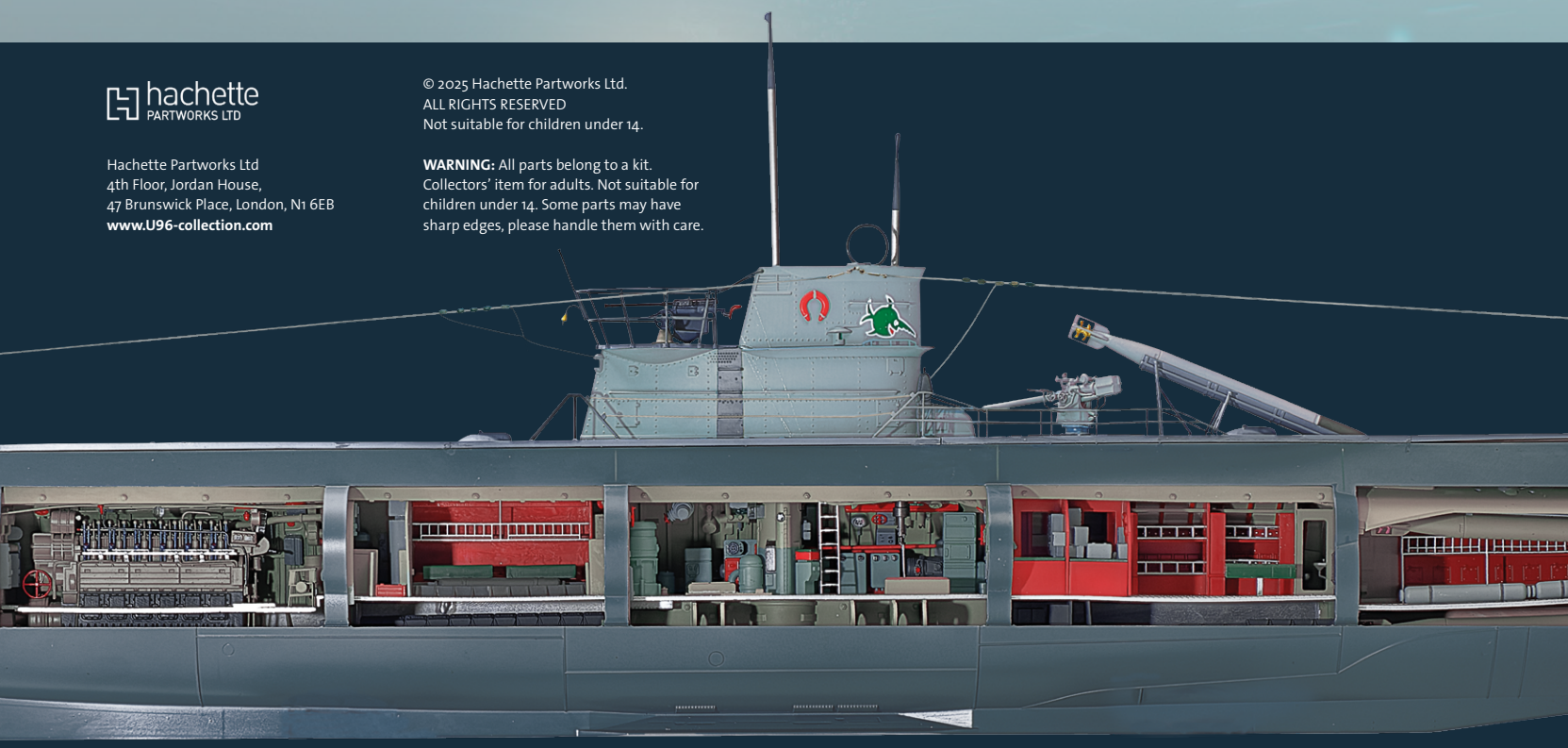
Pack 35
Assembly Instructions

Kit 137: **The next deck section**

Kit 138: **Forward torpedo hatch**

Kit 139: **Port hull section**

Kit 140: **Remote control and circuit boards**



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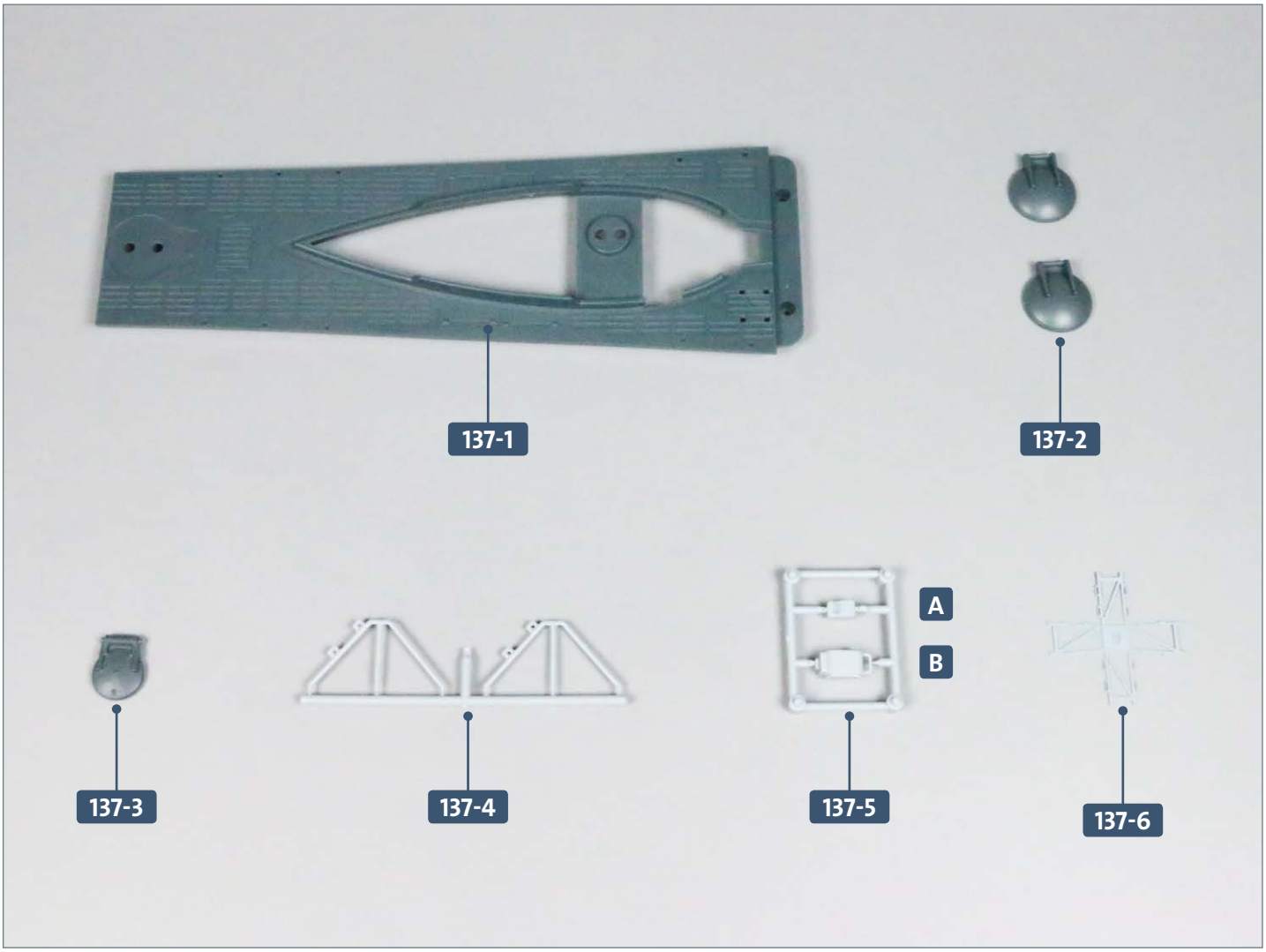
WARNING: All parts belong to a kit. Collectors' item for adults. Not suitable for children under 14. Some parts may have sharp edges, please handle them with care.

Kit 137: **The next deck section**

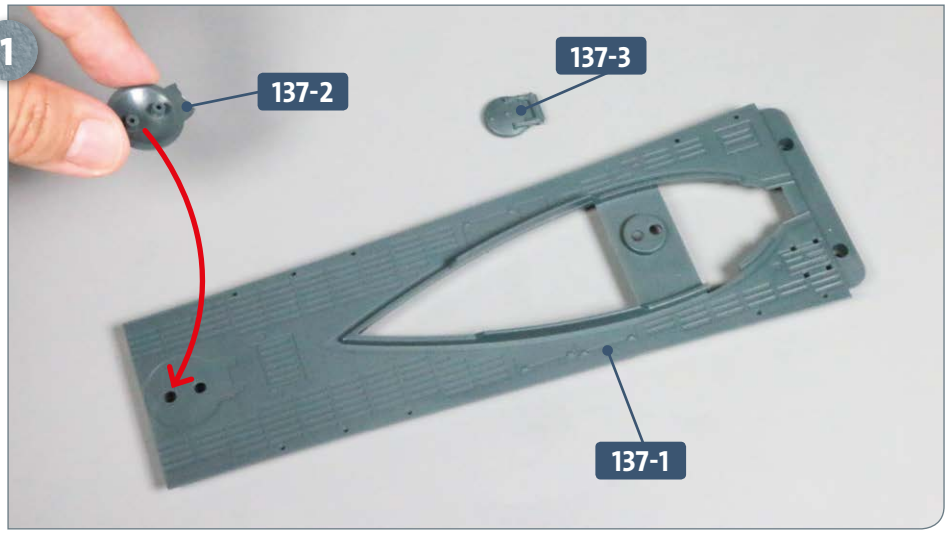
In this kit, you will attach two hatches, two trestles and the loading winch to another section of the deck.



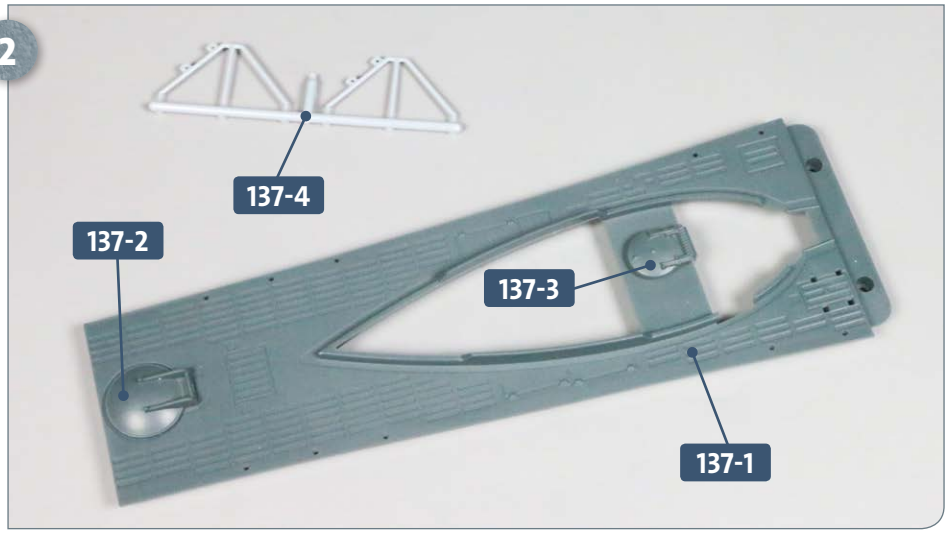
Parts reference list	
Part no.	**Name**
137-1	Deck section
137-2	Two hatches for life buoy locker
137-3	Central hatch
137-4	Trestles
137-5	Loading winch
137-6	Loading winch frame

Screws		
Ref	**No.**	**Dimensions**
CP	2 + 1	2 x 4 mm

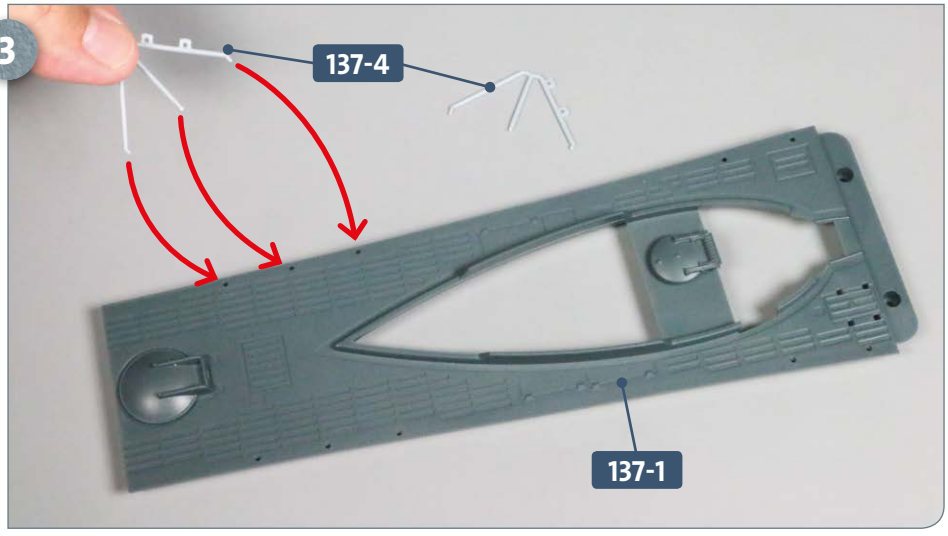
STAGE 1 → Attaching the parts to the deck section



Place the deck section **137-1** on your work surface. Next to it, place one of the two hatches **137-2** and the central hatch **137-3**. Apply a little glue to the two pegs on the underside of hatch **137-2** and insert them into the holes in the deck section, as indicated by the arrow.

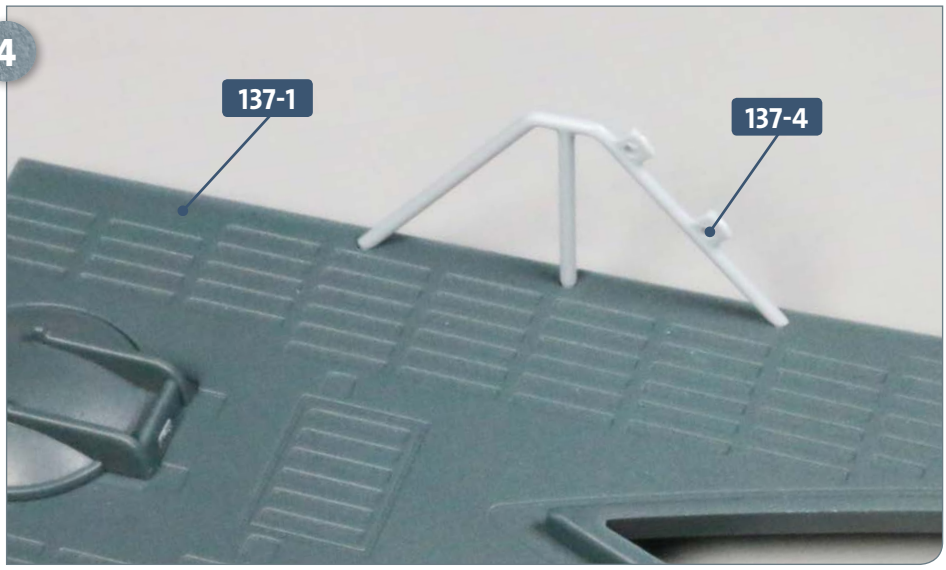


Glue the central hatch **137-3** to the crosspiece of the large conning tower opening of the deck section **137-1**. Have ready the frame with the trestle supports **137-4**.



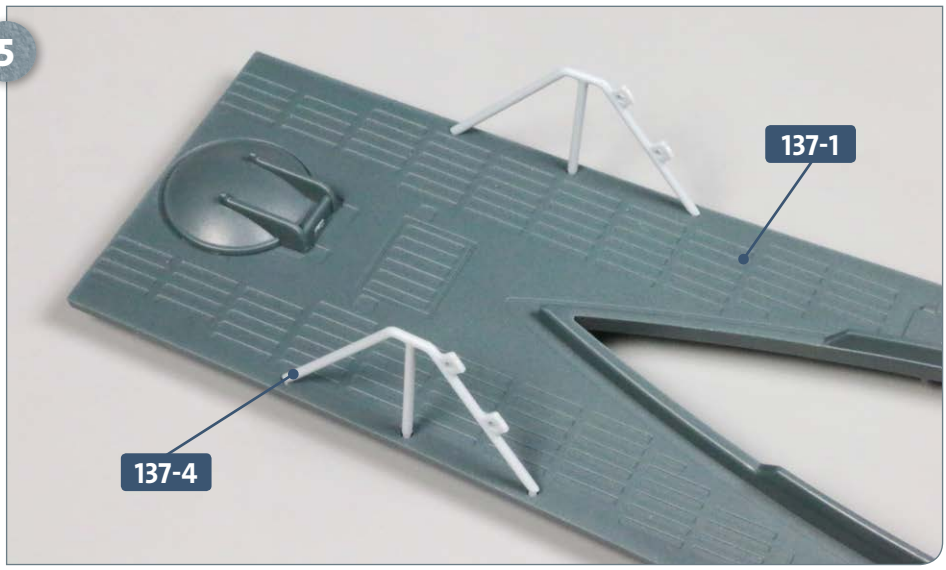
Remove the two trestles **137-4** from their frame. Apply a little glue to all three legs of the first trestle, and insert them into the corresponding holes on the port (L) side of the deck section **137-1**, as indicated by the three arrows. Note the position of the eyelets (see also next step).

4



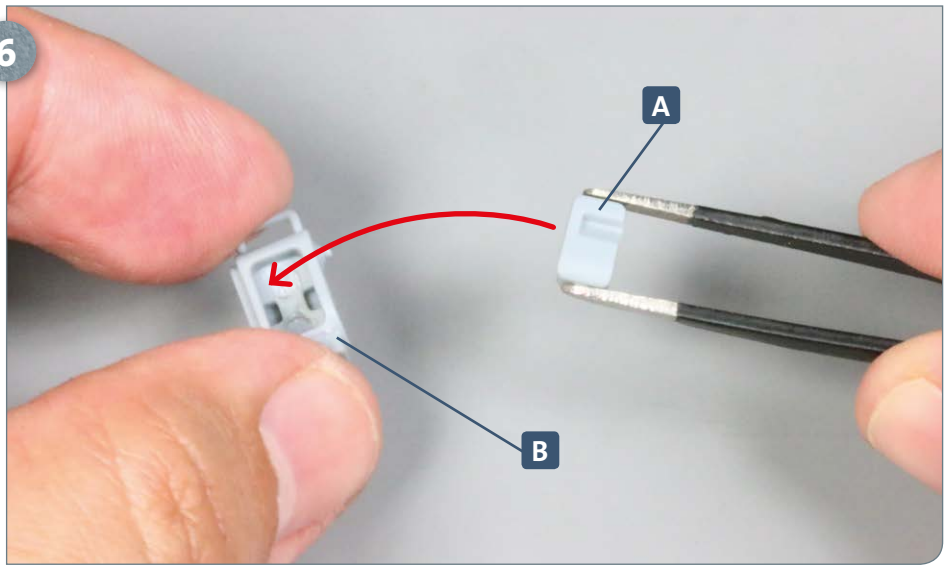
This photo shows the first trestle support **137-4** glued onto the port (L) side of the deck section **137-1**. Pay attention to the orientation: both eyelets point forward – i.e. to the right, as pictured here.

5



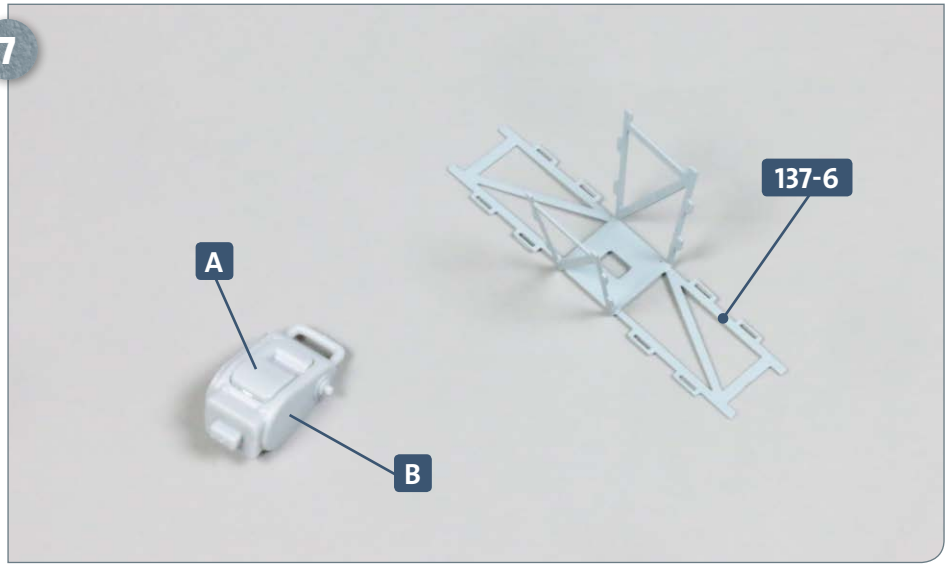
Glue the second trestle support **137-4** on the starboard (R) side of the deck section **137-1**, as shown left.

6



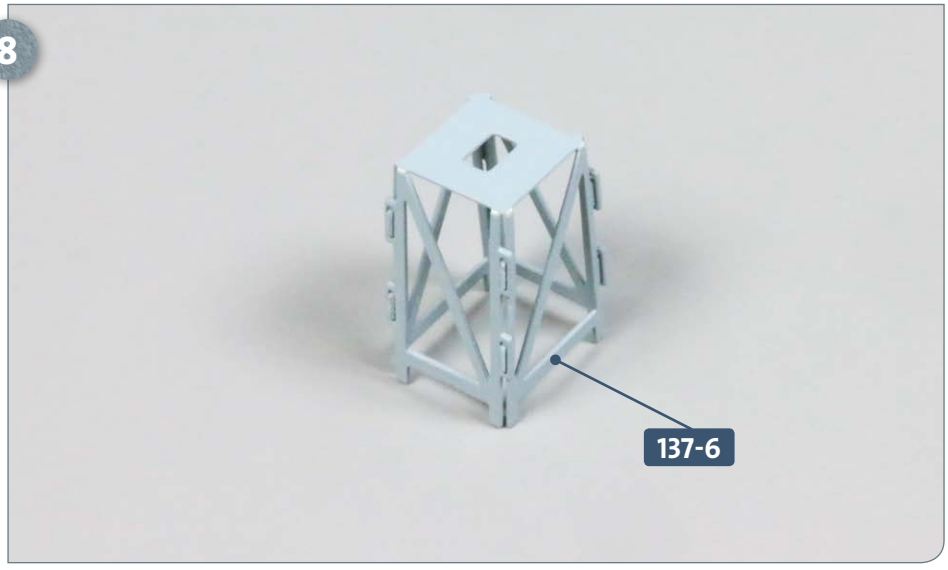
Separate the two parts of the loading winch, **A** and **B**, from frame **137-5**. Apply a little glue to the two small pegs of **A** and insert them into the slots of part **B**.

7



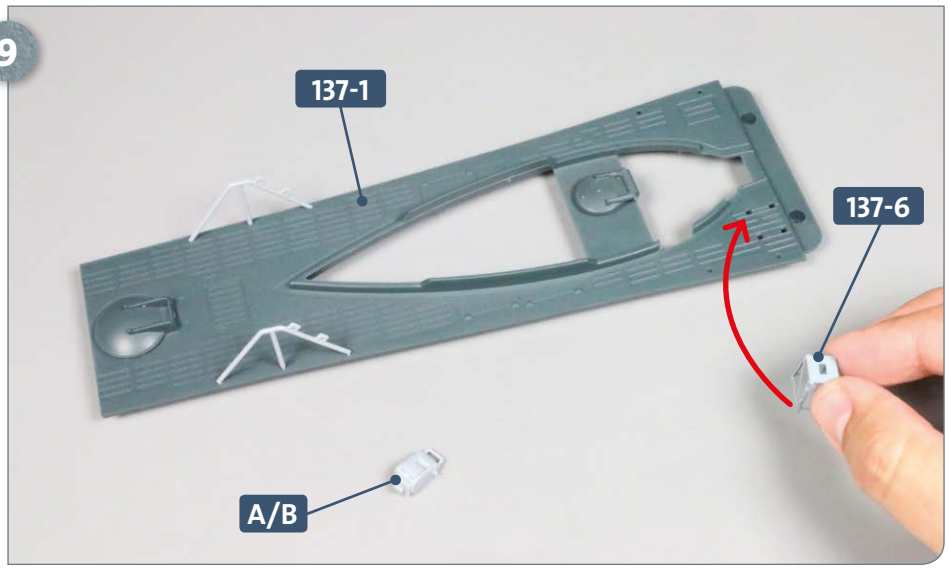
This photograph shows the assembled loading winch, comprising parts **A** and **B**. Next, take the frame containing the parts of the loading winch frame **137-6**. Bend the two opposite side pieces of the frame upwards at a right angle, along the folds, as shown here.

8



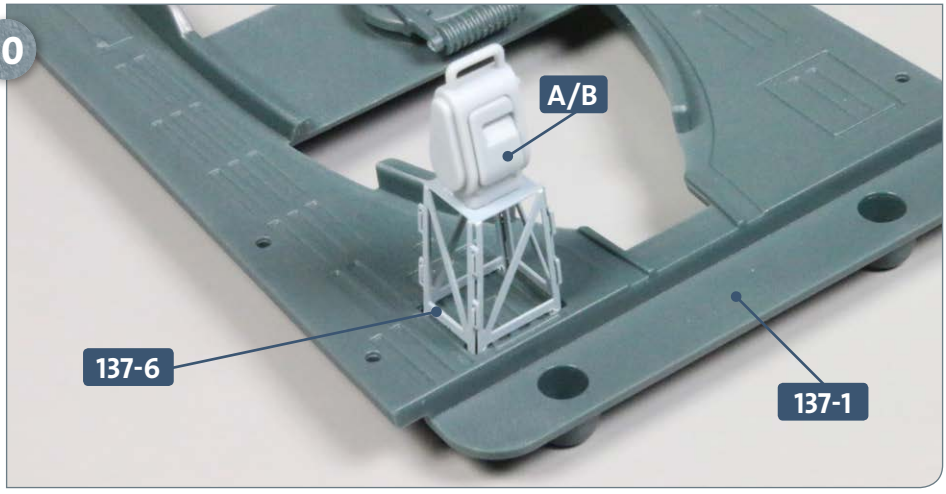
Next, bend the other two opposite side panels of the frame **137-6** upwards, again at a right angle, along the folds. Apply a little glue to the short, wide tabs on the side panels and insert them into the corresponding slots of the adjacent side panels.

9



Apply a small amount of glue to the four feet of frame **137-6** and insert them into the four rectangular slots at the very front of deck section **137-1**, as indicated by the arrow. Have ready the loading winch **A/B**.

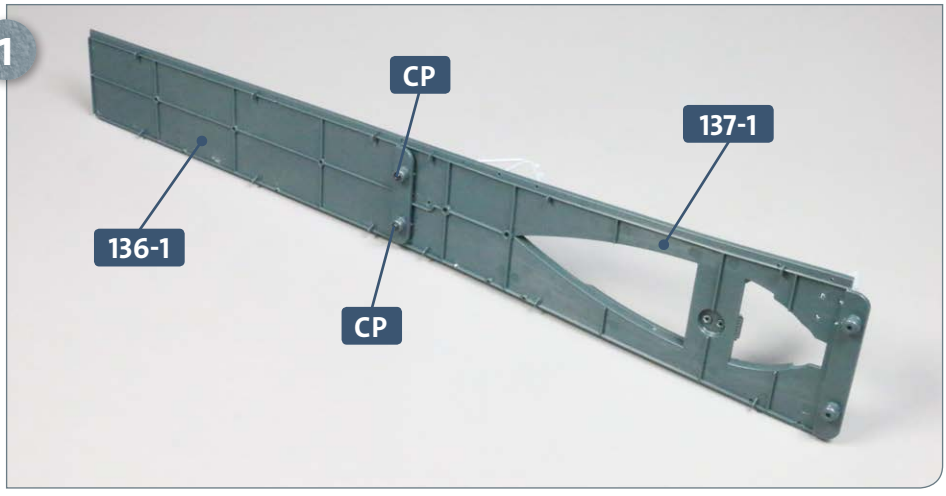
10



This photo shows the loading winch frame **137-6** glued to the deck section **137-1**. Apply a little glue to the underside of the loading winch assembly **A/B** and fit it into the slot on the frame **137-6**.

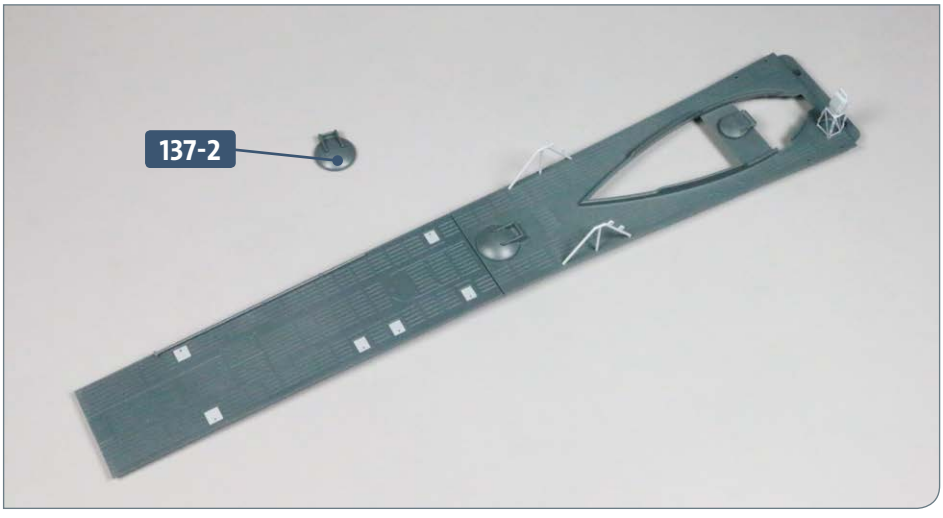
STAGE 2 → Joining the deck sections

1



Take deck section **136-1** and join it with deck section **137-1**. Fasten the two sections together using two **CP** screws applied from below, as shown, left.

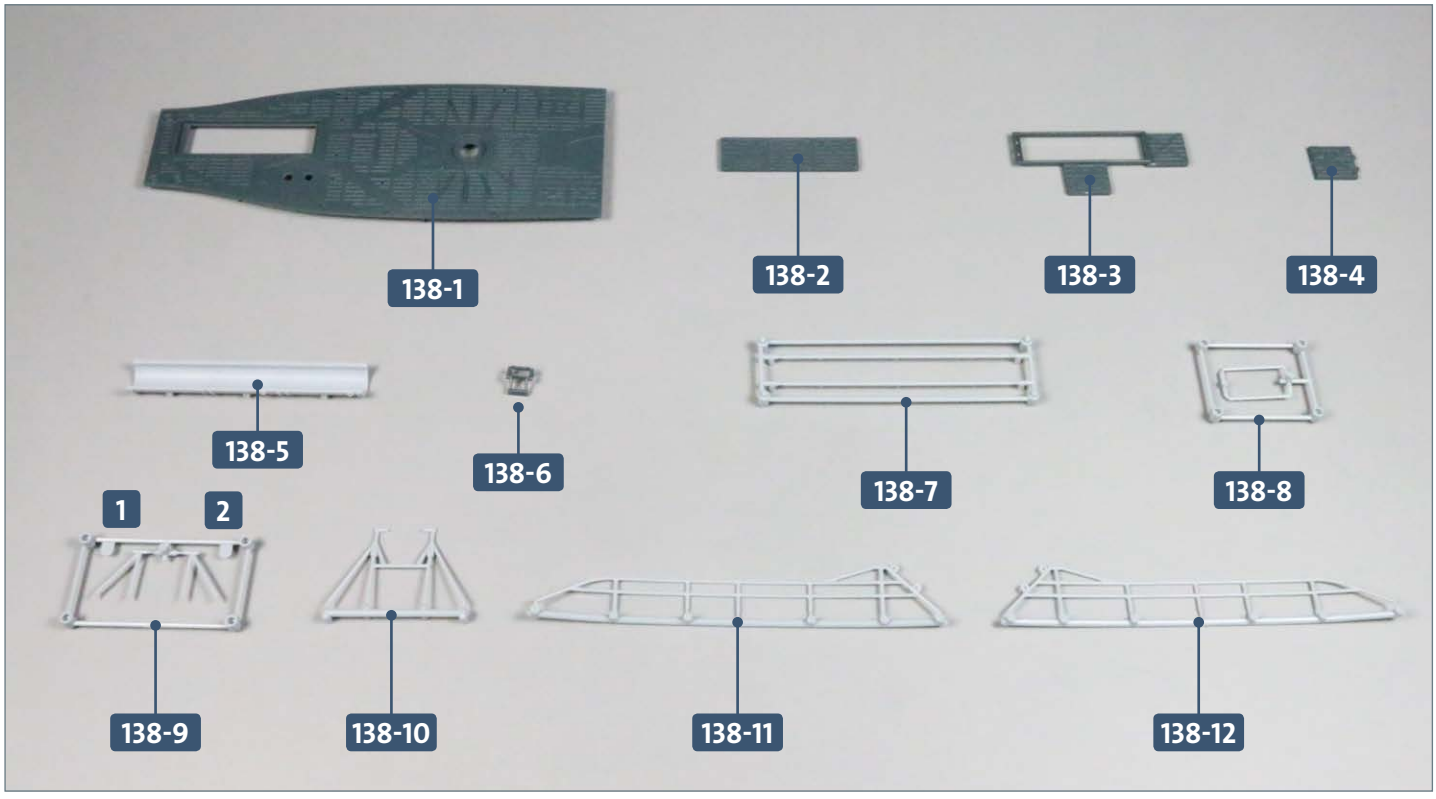
COMPLETED WORK



The loading winch, two hatches and two trestles have now been mounted onto the central deck section. This has been joined to the adjacent section of deck. Keep the second hatch (137-2) safe, for use in a future kit.

Kit 138: **Forward torpedo hatch**

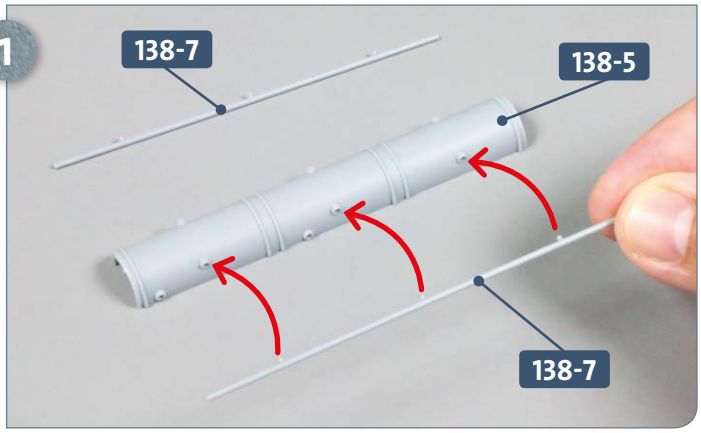
In this kit, the loading chute and deck hatch of the forward torpedo hatch are assembled. Two sections of the upper deck are screwed together and various components are then attached.



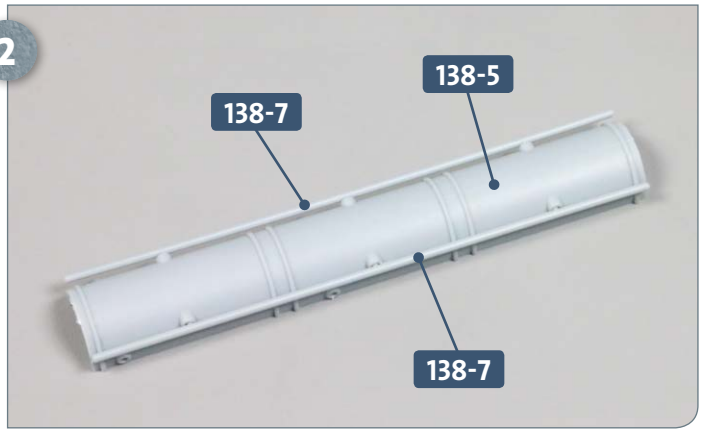
Parts reference list	
Part no.	**Name**
138-1	Foredeck
138-2	Deck hatches
138-3	Frame with open deck hatches
138-4	Deck hatch
138-5	Loading chute
138-6	Deck hatch rods
138-7	Rods for loading chute
138-8, 138-9	Supports for loading chute
138-10	Cradle for loading chute
138-11	Starboard (R) railing
138-12	Port (L) railing

Screws		
Ref	**No.**	**Dimensions**
CP	2 + 1	2 x 4 mm

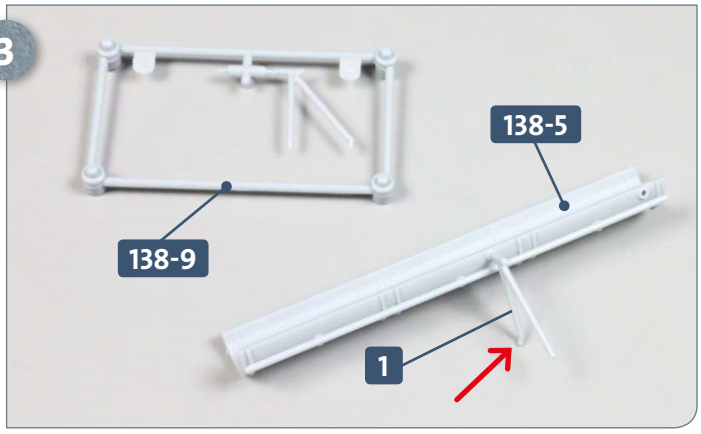
STAGE 1 → Work on the loading chute and torpedo hatch



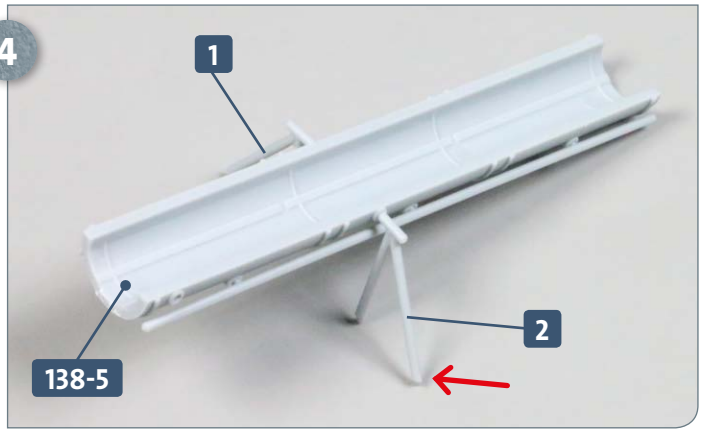
Have ready the loading chute **138-5**. Separate the two identical rods **138-7** from their frame. Add glue to the three pegs of one rod, and insert into the recesses of the chute, as shown.



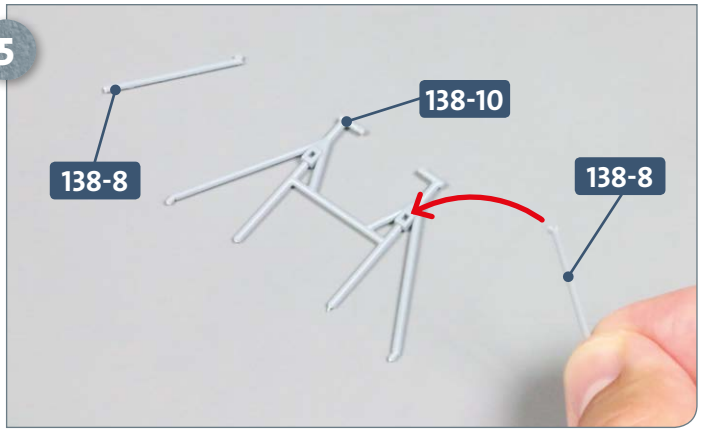
This photograph shows the first rod **138-7** attached to the loading chute **138-5**. Glue the second rod to the other long side of the chute, as shown.



Read through steps 3 to 8 before continuing. Separate support **1** from frame **138-9** and test-fit it to the side of the loading chute **138-5**, as pictured. The arrow indicates the correct orientation of the peg.



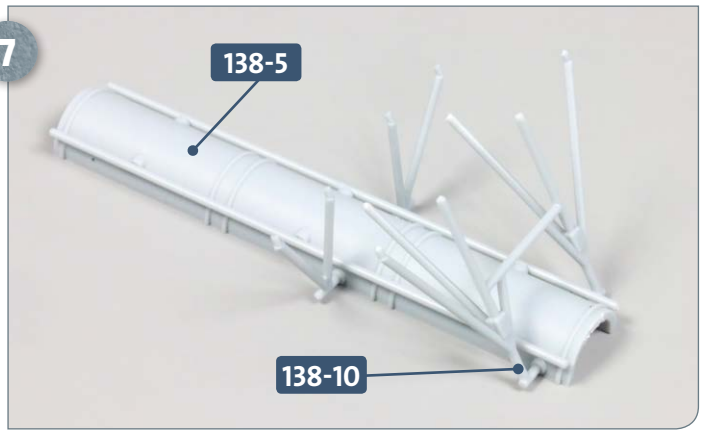
Next, detach support **2** from frame **138-9** and test-fit it to the other side of the loading chute **138-5**. Once again, the arrow shows the correct orientation of rod **2**.



Have ready the cradle for the loading chute **138-10**. Separate the two identical rods from frame **138-8** and glue one of them to the cradle.

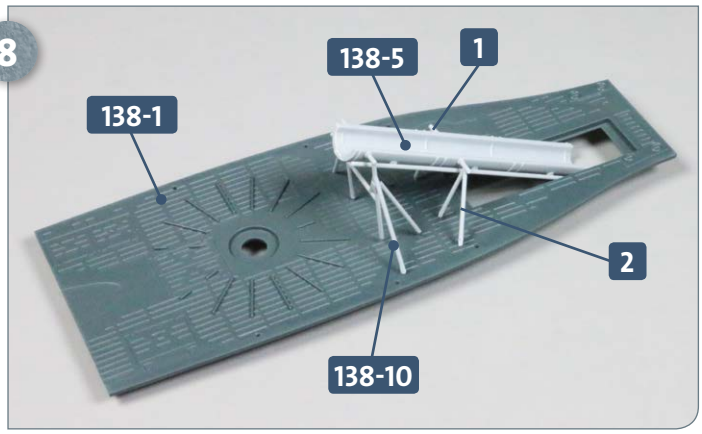
Next, glue the second rod to the other side of the cradle.

7



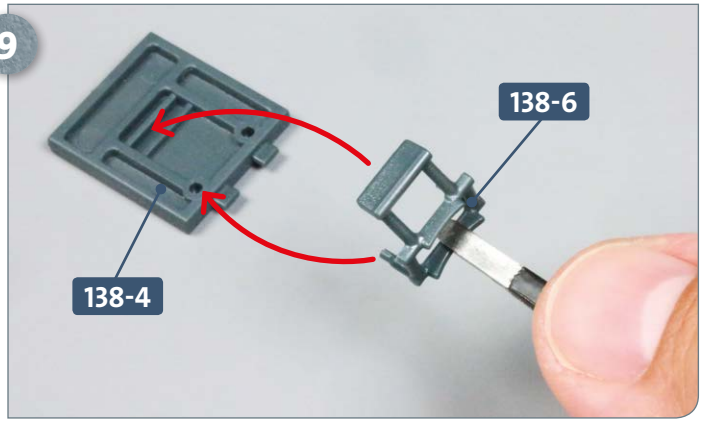
Test-fit the cradle **138-10** to both sides of the loading chute **138-5**. Check the photo for the correct alignment of the cradle.

8



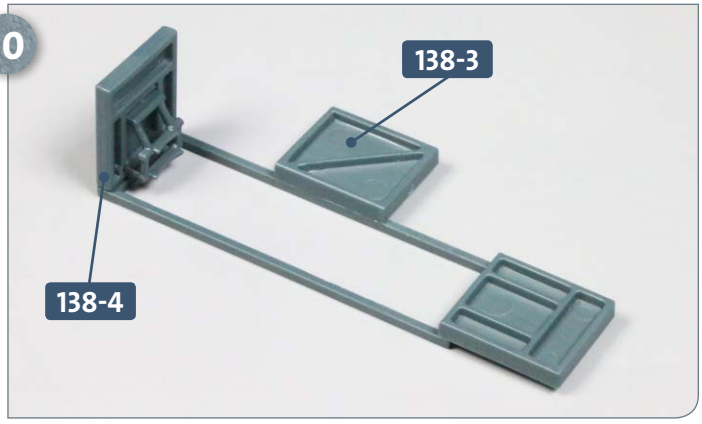
Place the loading chute **138-5** with its supports on the forward deck **138-1** to check that the pegs of the cradle **138-10** and supports **1** and **2** fit into the corresponding holes. Do not glue the chute to the deck as it needs to be removable. Once satisfied that the tops of supports **1** and **2** and cradle **138-10** are correctly aligned, glue these to the loading chute **138-5**.

9



Have ready the deck hatch **138-4**. Apply a little glue to the two round pegs and the wide peg of the rod **138-6** and insert them into the corresponding holes in the deck hatch, as shown.

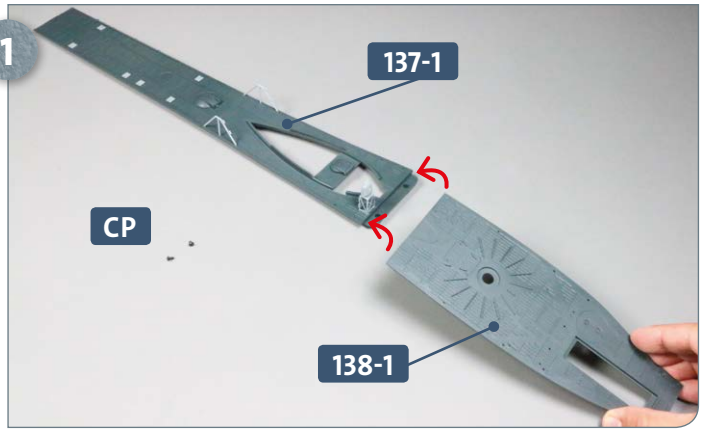
10



Fix deck hatch **138-4** to the frame with opened deck hatches, **138-3**, with some glue as shown.

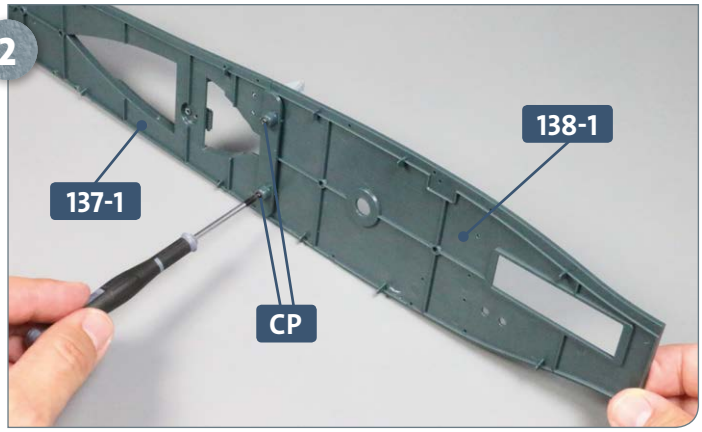
STAGE 2 → Upper deck assembly

1

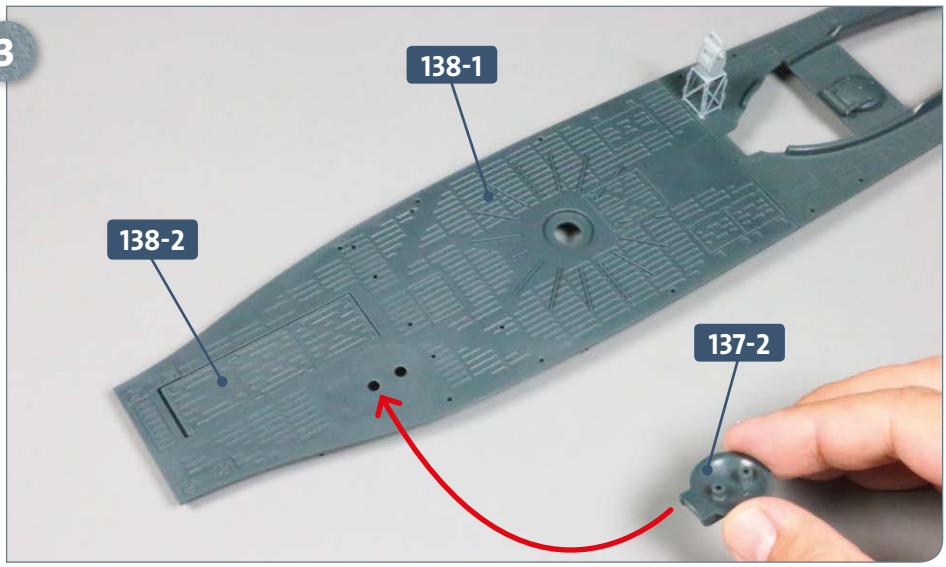


Have ready the deck section **137-1** and two **CP** screws. Remove the loading chute from the foredeck **138-1** and join the foredeck to the deck section as shown in the photograph above.

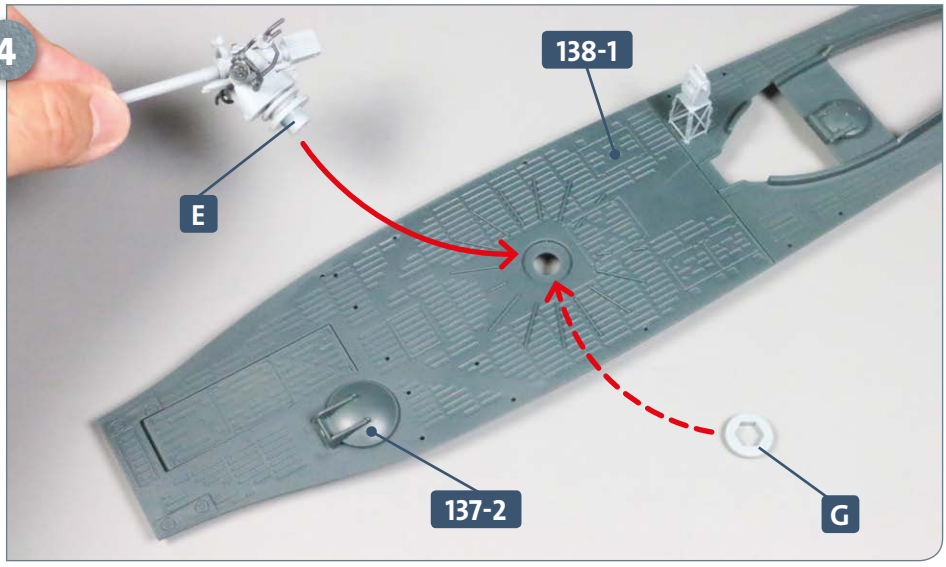
2



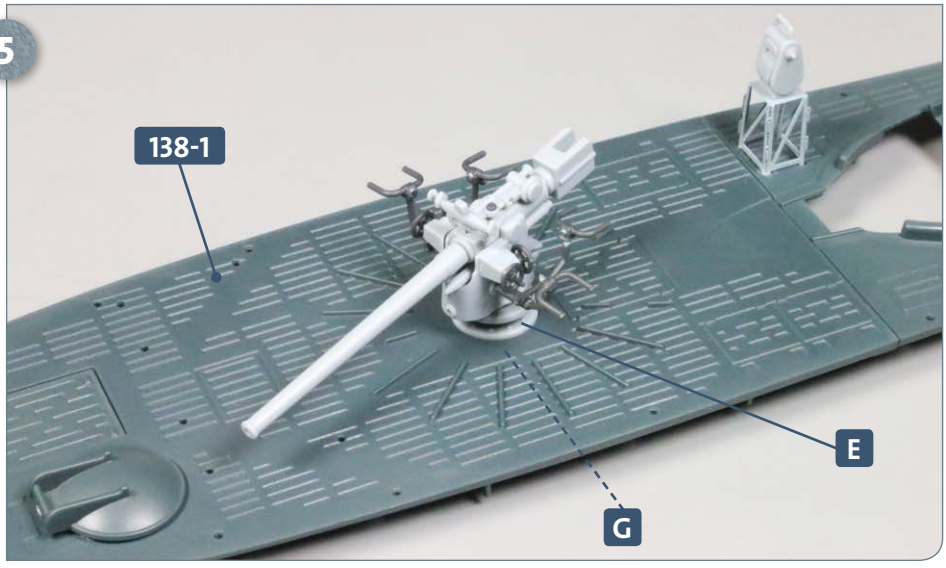
Fasten the two sections **137-1** and **138-1** together from below using two **CP** screws.



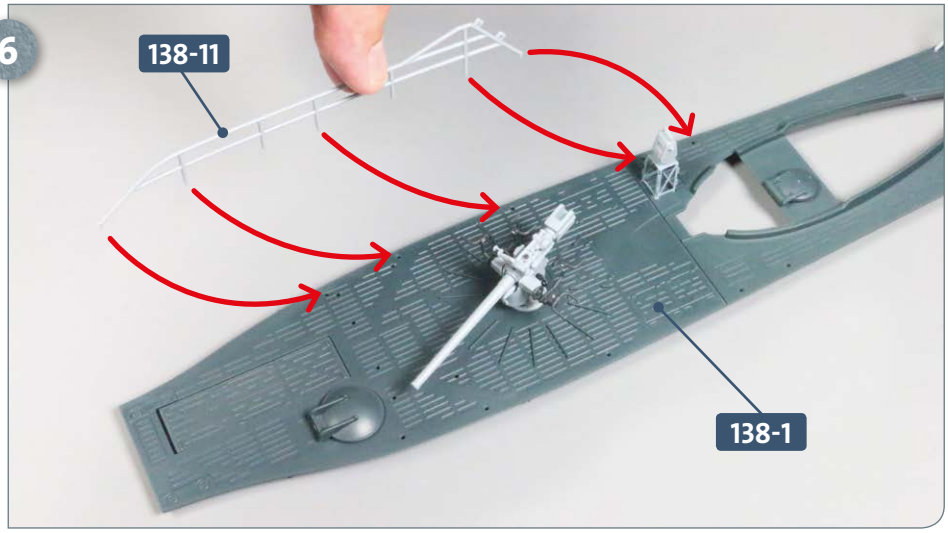
Turn the deck assembly over again. Now insert the deck hatch **138-2** into the large opening of the foredeck **138-1**, as pictured. Do not use any glue, as the component should remain movable. Take hatch **137-2**, from the previous kit and apply a little glue to the two pegs, and insert into the holes in the forward deck, as indicated by the arrow.



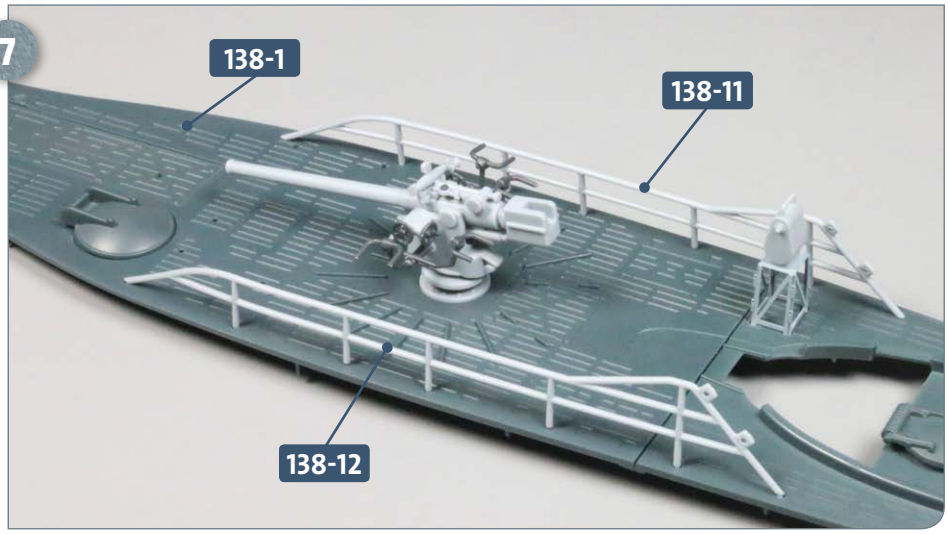
Detach part **G** from frame **136-14** (from kit 136). Take the 8.8cm gun and insert the rotating ring **E** into the round opening in the foredeck **138-1**. From beneath the deck, fit part **G** onto the rotating ring, as shown by the dashed arrow.



The machine gun with rotating ring **E** sits in the round aperture in the foredeck **138-1**. On the underside of the deck, part **G** holds the rotating ring in position; the gun remains movable.

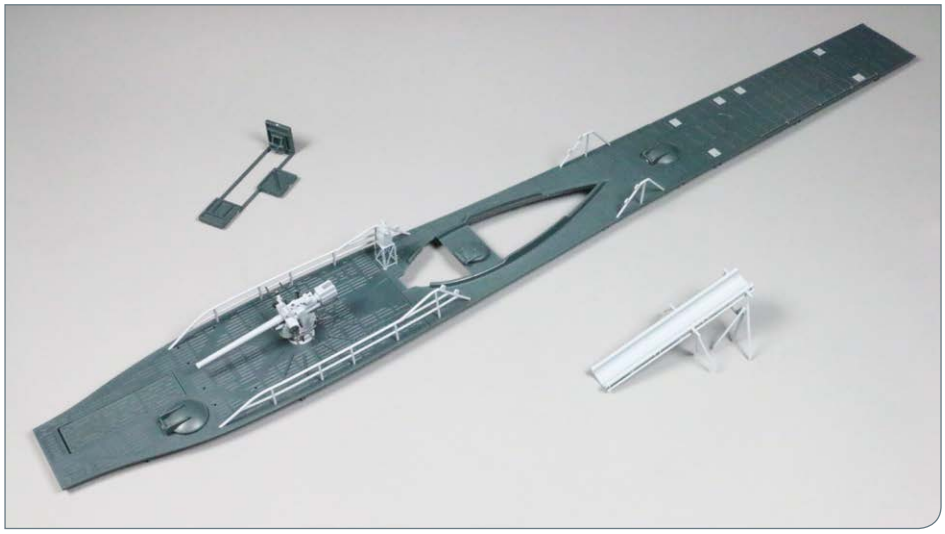


Separate both railings **138-11** and **138-12** from their frames. The railings each have five struts with small pegs on the underside: be careful not to accidentally remove these when cutting them from the frame. Apply some glue to the pegs of the starboard (R) railing **138-11** and insert them into the corresponding holes on the starboard (R) side of the foredeck **138-1**.



This photo shows the starboard (R) railing **138-11** installed on the foredeck **138-1**. Next, add glue to the pegs of the port (L) railing, **138-12**, and insert into the holes in the port (L) side of the foredeck, as shown.

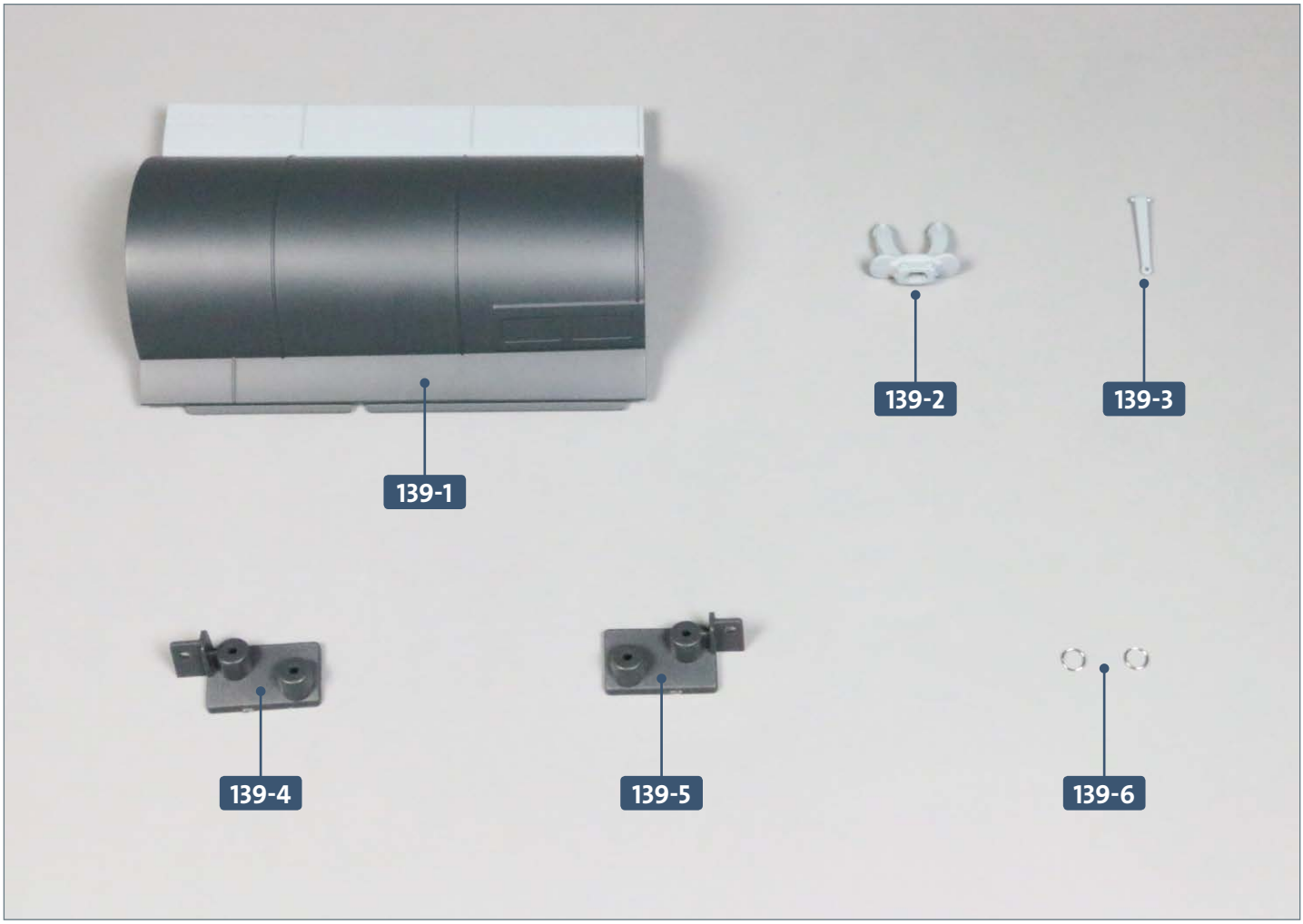
COMPLETED WORK



The upper deck assembly has now grown, with various components mounted on the foredeck. Keep the frame with the open deck hatches and the loading chute somewhere safe: both assemblies can be placed on the forward deck in place of the currently installed deck hatches.

Kit 139: **Port hull section**

In this kit, two connectors are attached to a new port (L) hull section. The anchor shank is attached to the fluke and the anchor is then connected to the anchor chain using a ring.

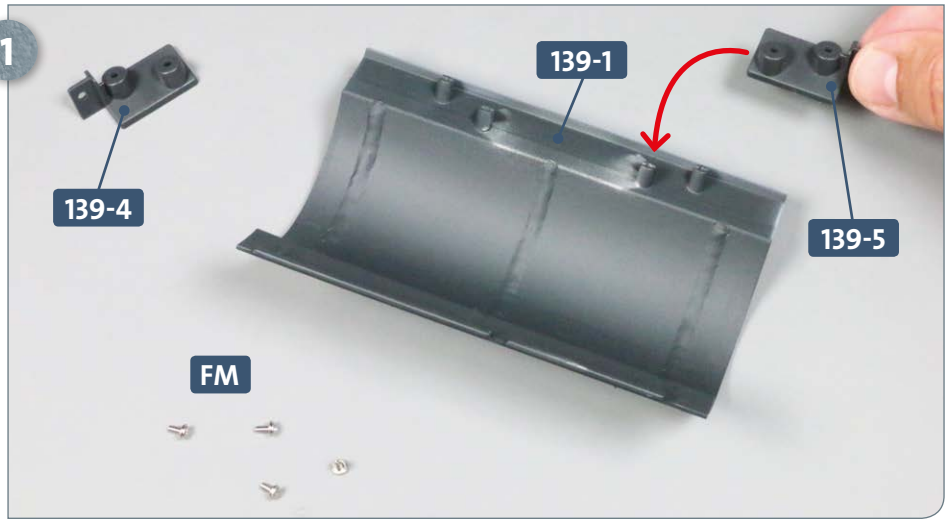


Parts reference list	
Part no.	**Name**
139-1	Port (L) hull section
139-2	Anchor fluke
139-3	Anchor shank
139-4	Connector
139-5	Connector
139-6	Jump rings (one is spare)

Screws		
Ref	**No.**	**Dimensions**
FM	4 + 1	2 x 4 mm (PWM)

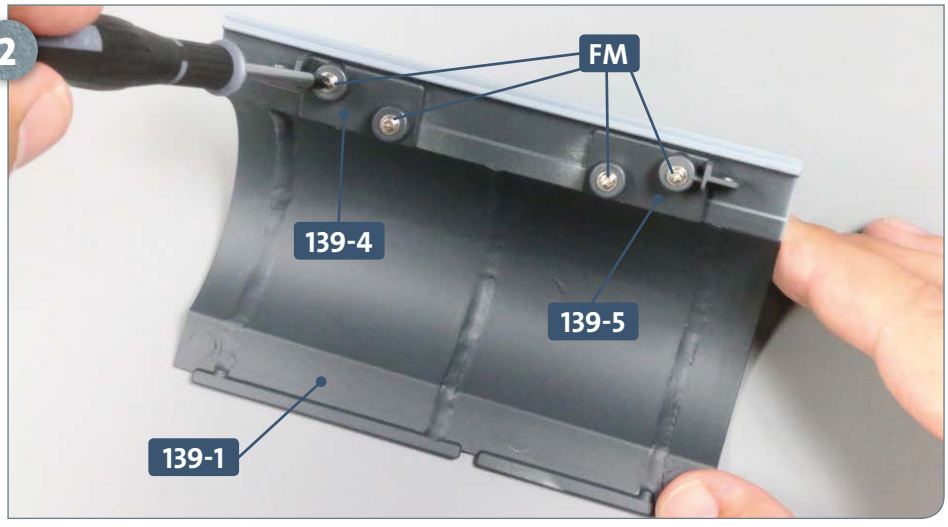
STAGE 1 → Fitting the connectors

1



Place the hull section **139-1** on your work surface with the inner side facing up. Place the connector **139-4** and four **FM** screws next to it. Take connector **139-5** and fit it onto the forward raised screw sockets on the hull section, as indicated.

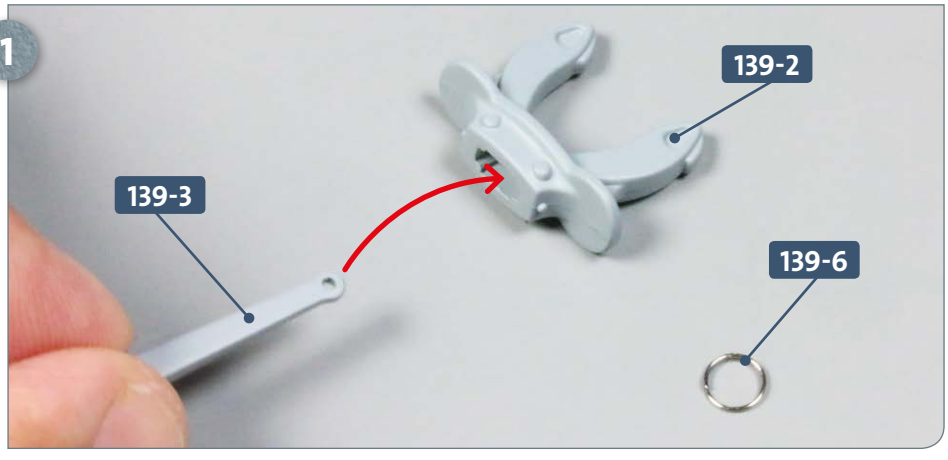
2



Fix the connector **139-5** in place using two **FM** screws. Next, place connector **139-4** on the rear raised screw sockets of the hull section and attach with two FM screws.

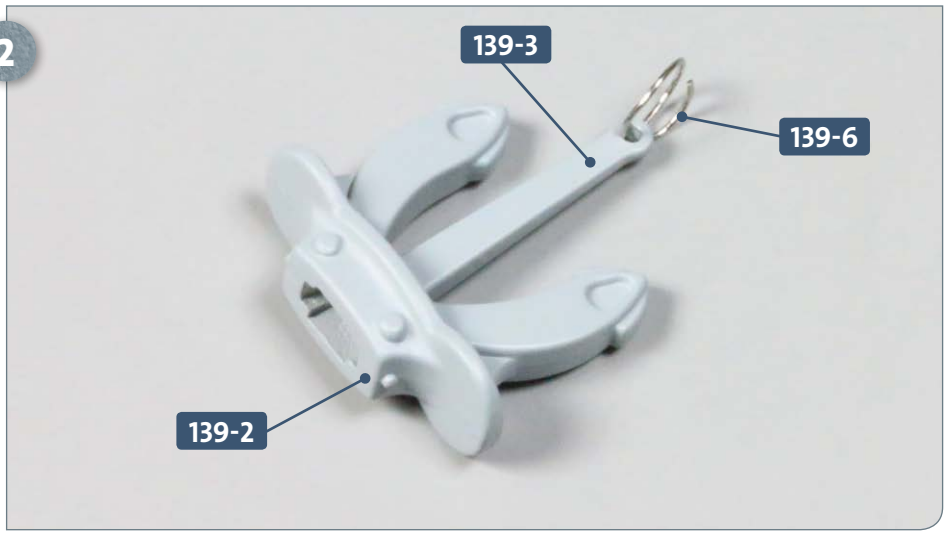
STAGE 2 → Assembling the anchor

1



Have ready the three anchor components: the fluke **139-2**, the shank **139-3** and the ring **139-6**. Insert the narrow end of the shank into the opening of the fluke from below, as shown.

2

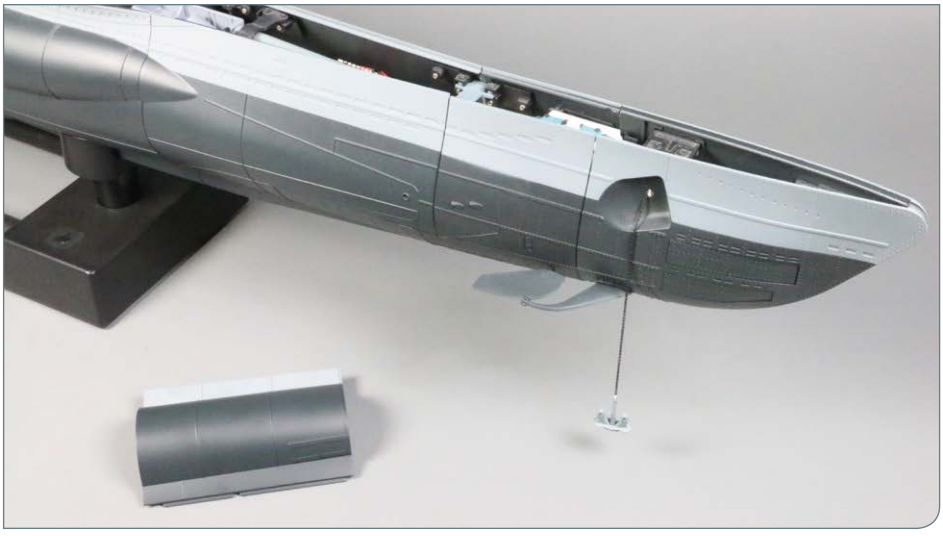


Once the shank **139-3** is joined to the fluke **139-2**, carefully open the ring **139-6** and thread it through the hole at the end of the shank, as shown here.

3

Place your model on your work surface so that you have access to the anchor chain on the starboard (R) side of the bow. Attach the ring **139-6** to the end of the anchor chain **14-10**, as shown in the photograph. If necessary, carefully press the ring together with flat nosed pliers.

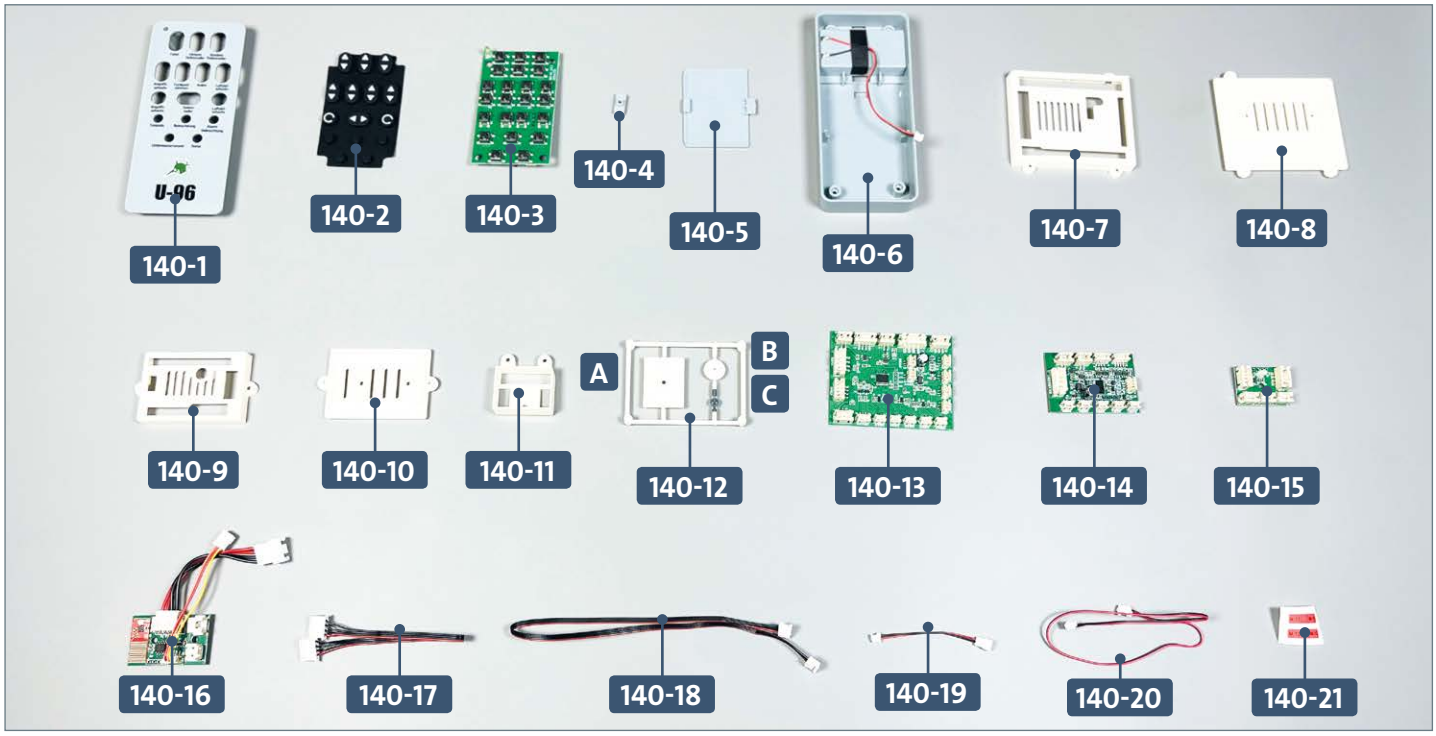
COMPLETED WORK



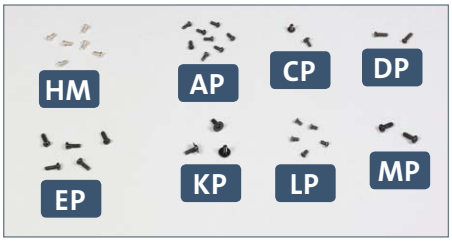
The newly formed anchor has now been attached to the anchor chain, and a new port (L) hull section has been fitted with two connectors.

Kit 140: **Remote control and circuit boards**

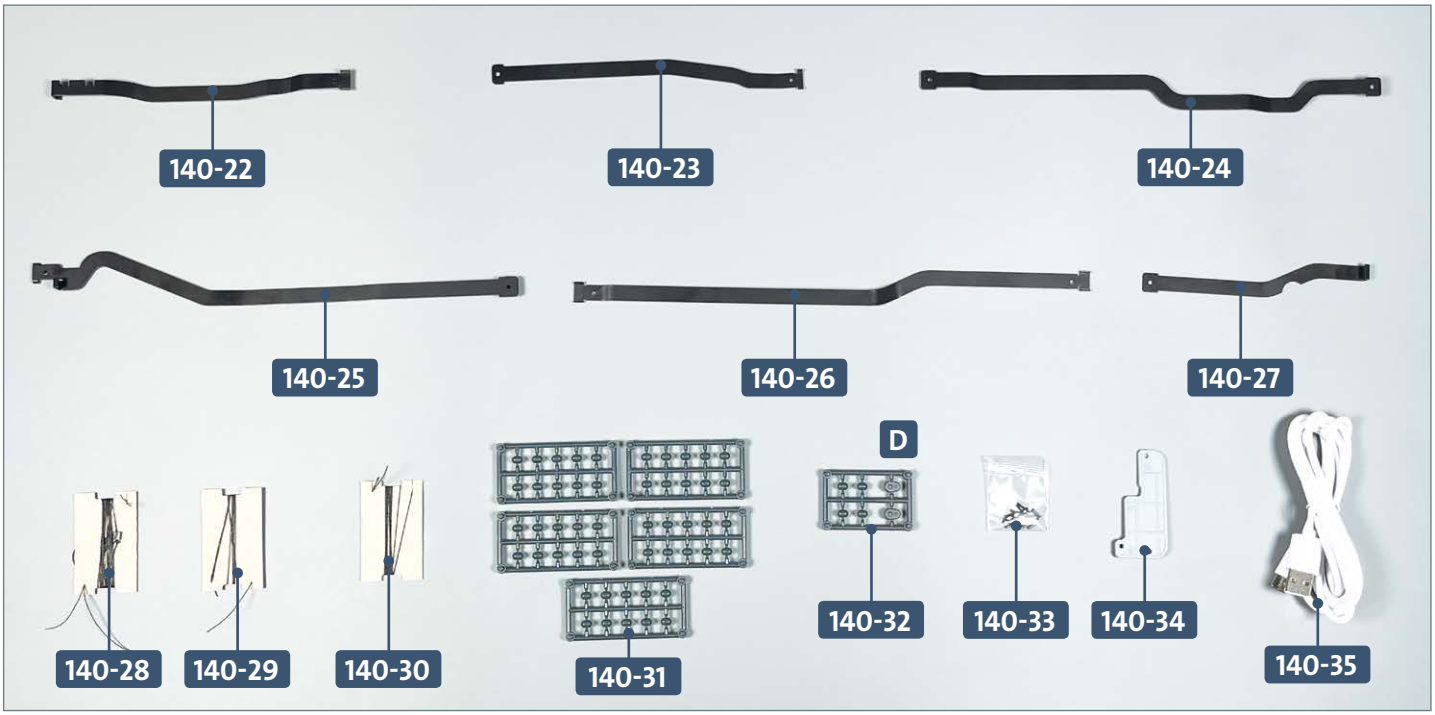
In this kit, you will replace a circuit board in the model stand and assemble the remote control. Three circuit boards are mounted on the model, and cables connected to them. Some longitudinal beams are screwed in place and attached to the model. The upper decks are fitted, and the conning tower is added. Finally, the rigging is attached to the U-Boat.



Parts reference list (I)	
Part no.	**Name**
140-1	Remote control (front)
140-2	Keypad
140-3	Remote control circuit board
140-4	On/off switch
140-5	Battery compartment cover
140-6	Remote control (back)
140-7, 140-9, 140-11	Circuit board covers (x 3)
140-8, 140-10	Circuit board cover backs (x 2)
140-12	Frame with back (A), lock (B) and handwheel (C) of torpedo hatch
140-13, 140-14, 140-15	Circuit boards (x 3)
140-16	Replacement circuit board with cables
140-17, 140-18	Connecting cables (x 2)
140-19	Cable extension
140-20	Replacement cable
140-21	Cable labels (x 2)



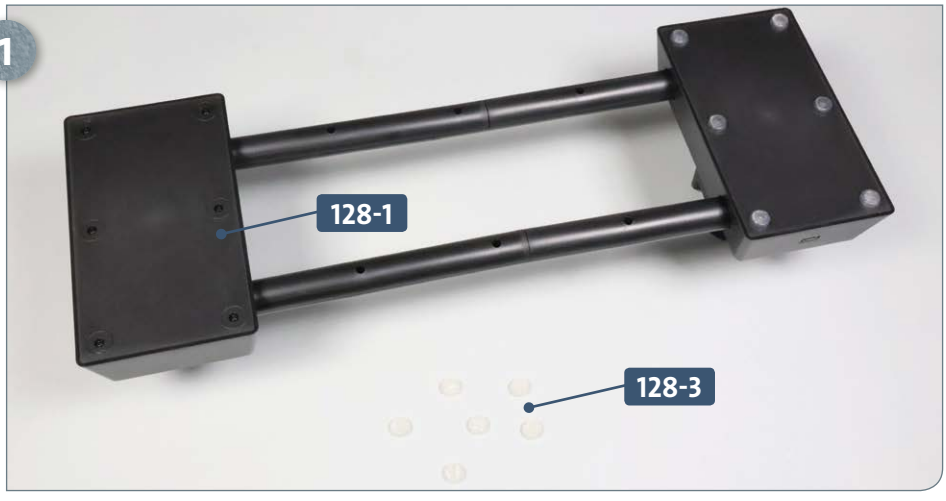
Screws		
Ref	**No.**	**Dimensions**
HM	5 + 1	2 x 4 mm (PM)
AP	7 + 1	2 x 4 mm (PB)
CP	1 + 1	2 x 4 mm (PWB)
DP	1 + 1	2 x 6 mm (PB)
EP	4 + 1	2.3 x 6 mm (PB)
KP	2 + 1	2.3 x 6 mm (PWB)
LP	4 + 1	2 x 4 mm (KB)
MP	1 + 1	2.6 x 6 mm (PB)



Parts reference list (II)	
Part no.	**Name**
140-22, 140-23, 140-24, 140-25, 140-26, 140-27	Longitudinal beams (x 6)
140-28, 140-29	Twine for the rigging (2 pieces)
140-30	Twine for the rigging
140-31	Frames with 10 insulator halves (x 5)
140-32	Frame with four insulator halves and two large insulator halves (D)
140-33	Rivets for rigging (x 20)
140-34	Guide rail with crossbeam
140-35	USB cable

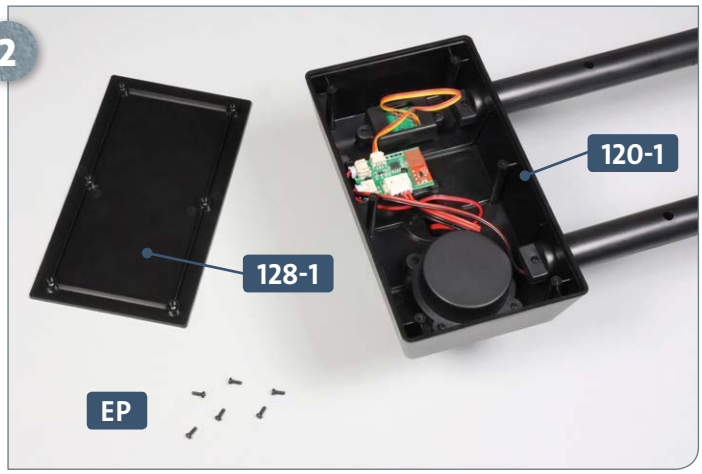
STAGE 1 → Replacing the stand circuit board

1



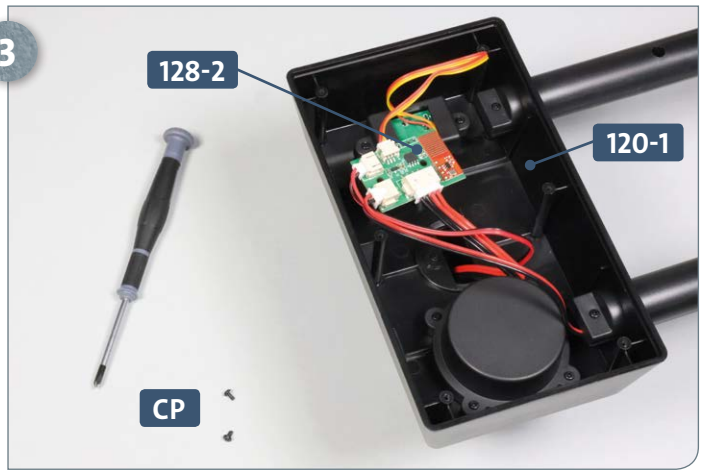
Place the stand upside down on your work surface. Carefully remove the six PVC feet **128-3** from the bottom of the rear section **128-1** (the end with the volume control), as shown.

2



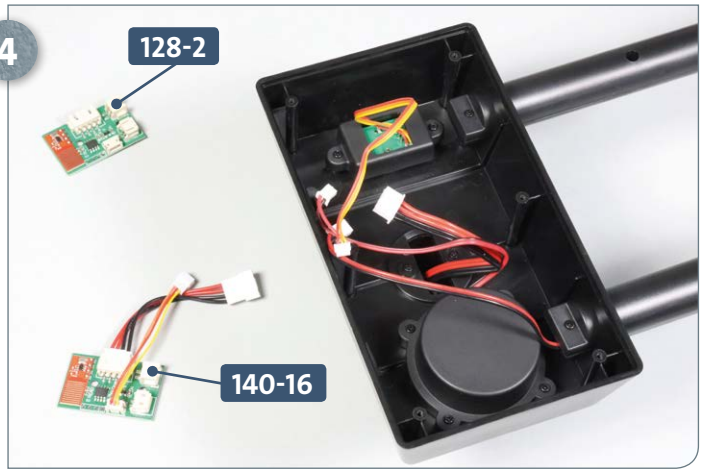
Unscrew the six **EP** screws and remove the base **128-1** of the rear stand section **120-1**.

3



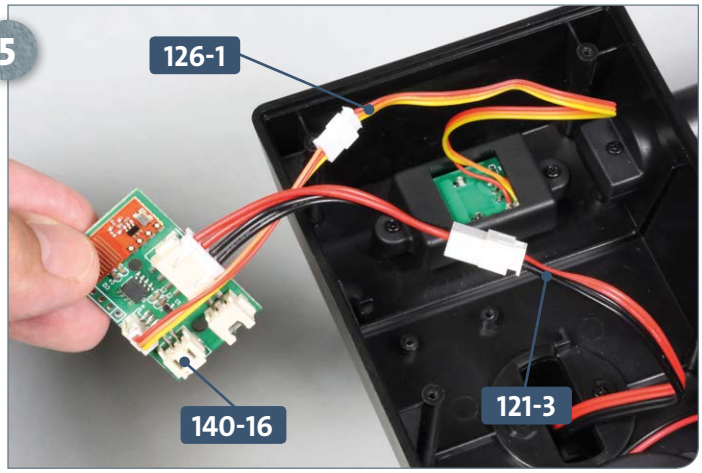
Temporarily remove the two **CP** screws that secure the circuit board **128-2** to the stand body **120-1**.

4



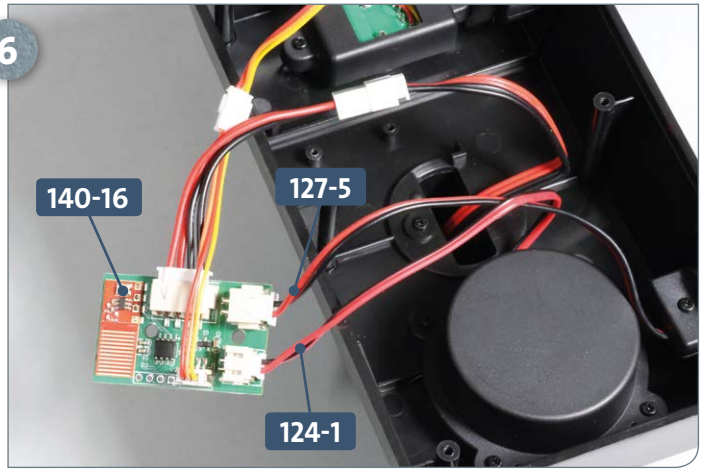
Remove board **128-2**: it is no longer needed. Replace it with board **140-16**, which already has two short cables attached, as shown.

5



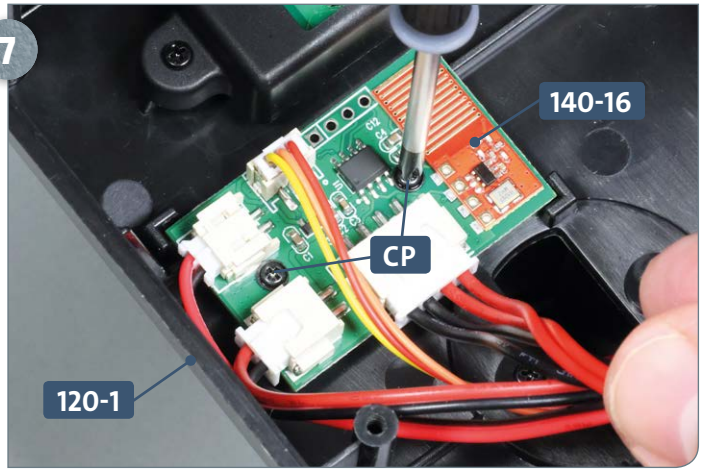
Connect the plug terminals of cable **121-3** and control knob cable **126-1** to the sockets of the two cables already connected to the board **140-16**.

6

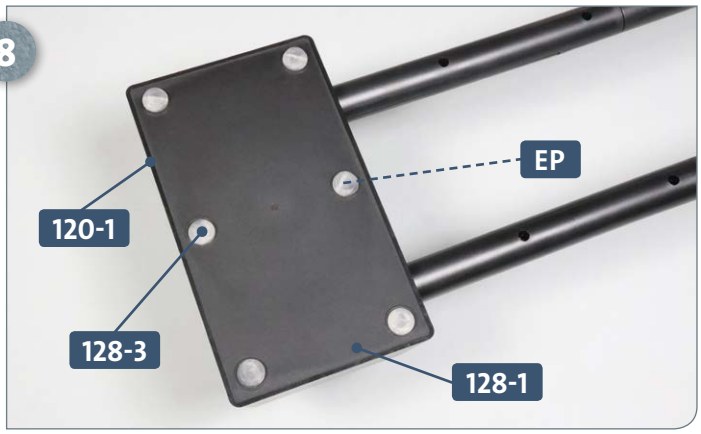


The connectors of the speaker cable **124-1** and cable **127-5** are inserted into the other two sockets of circuit board **140-16**.

7



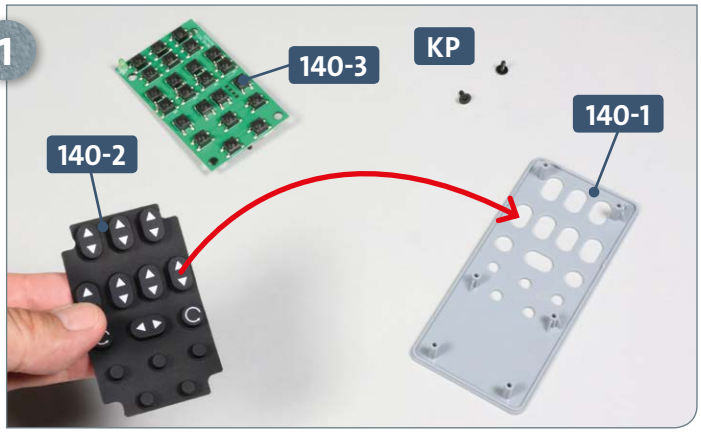
Place the board **140-16** onto the two raised screw sockets of the stand **120-1** and secure in place using the two previously removed **CP** screws.



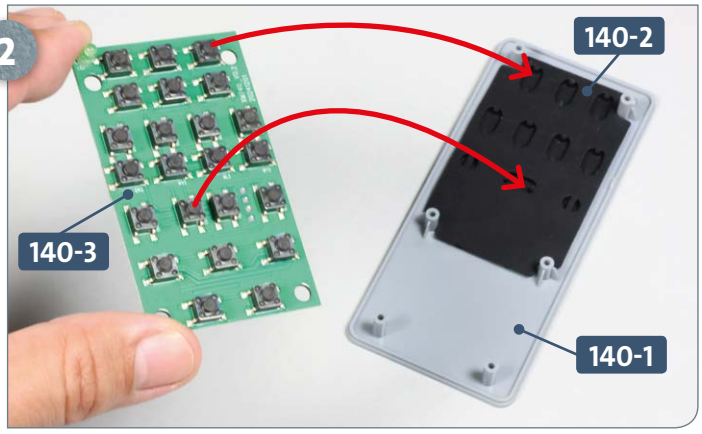
Fit the base **128-1** back onto the stand **120-1** and secure in place with the six **EP** screws. Then firmly fit the six PVC feet **128-3** back in place.

As previously mentioned in the instructions in kit 121, make sure that the opening for the contacts **121-3** (arrow) is not in the centre, but slightly offset to the left in the holder **121-1**.

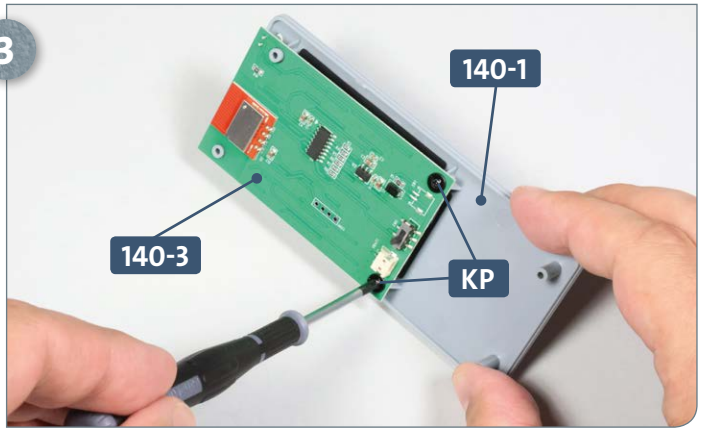
STAGE 2 → Assembling the remote control



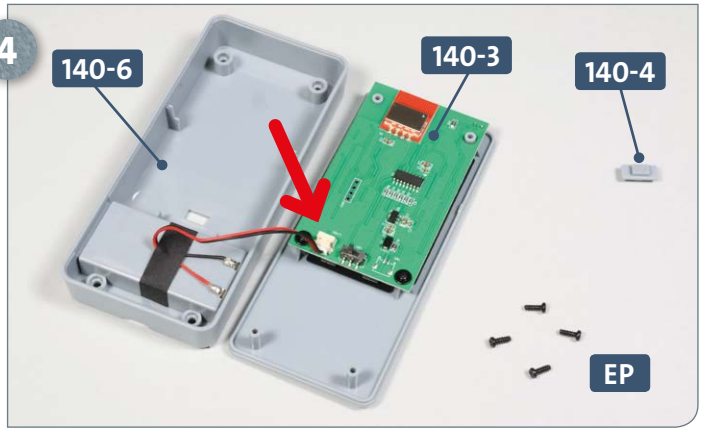
Two front panels for the remote control have been supplied. You can either use the authentic German version or swap it for the English one. Take either front panel **140-1**, the circuit board **140-3** and two **KP** screws. Insert the keypad **140-2** into the front panel, as shown.



Once the keypad **140-2** is inserted into the front panel **140-1**, align the circuit board **140-3** as shown in the photo, fitting its buttons into the keypad recesses.

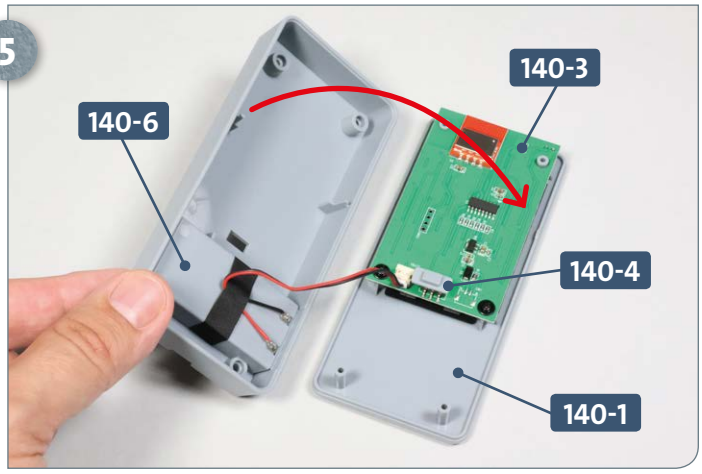


Attach the circuit board **140-3** to the front of the remote control **140-1** by fitting two **KP** screws.



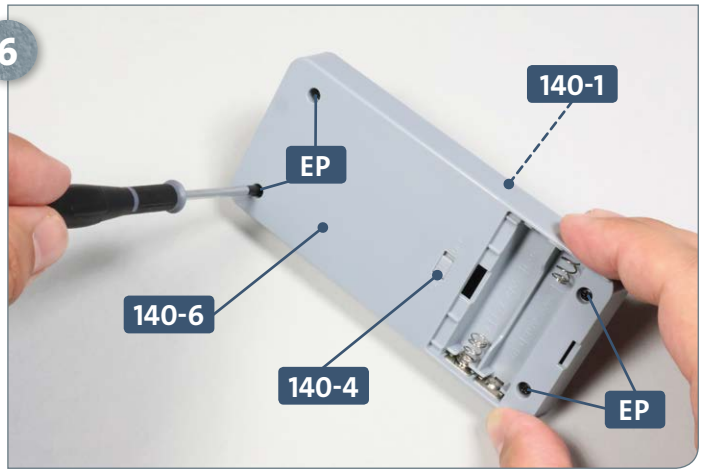
Next, have ready the on/off button **140-4** and four **EP** screws. Take the back of the remote control **140-6** and connect the plug of the battery compartment to the socket on the circuit board **140-3** (indicated by the arrow).

5



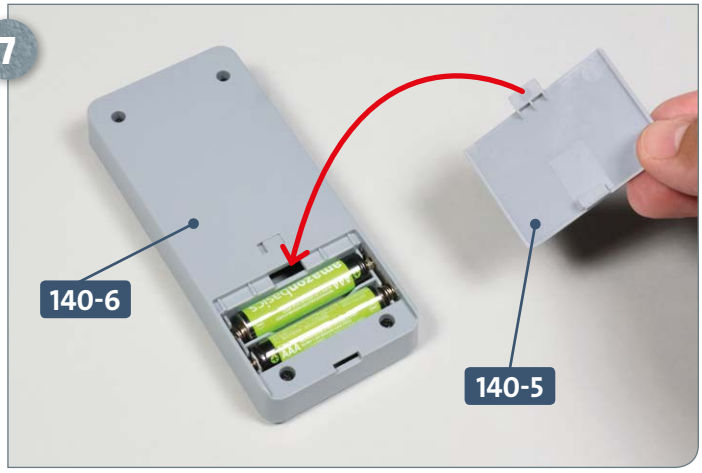
Place the on/off switch **140-4** over the switch located on the back of the circuit board **140-3**, as pictured. Fit the back of the remote **140-6** over the front **140-1**, as indicated by the arrow.

6



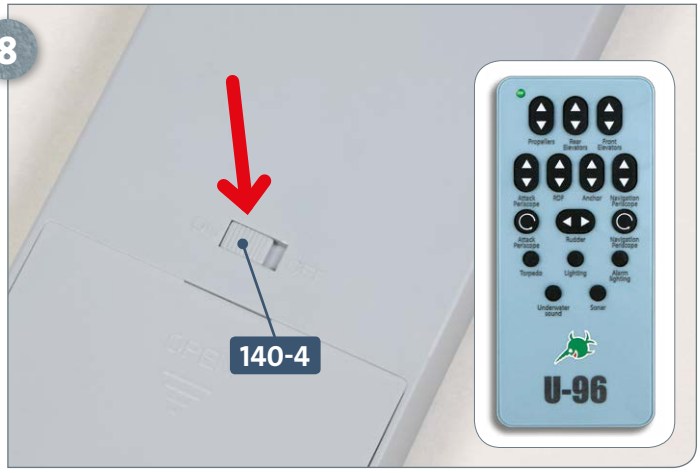
Fix the back of the remote control **140-6** to the front **140-1** with four **EP** screws.

7



Insert two AAA batteries in the battery compartment at the back of the remote control **140-6**. Fit the battery compartment cover **140-5** over the compartment as indicated by the arrow and slide to close.

8

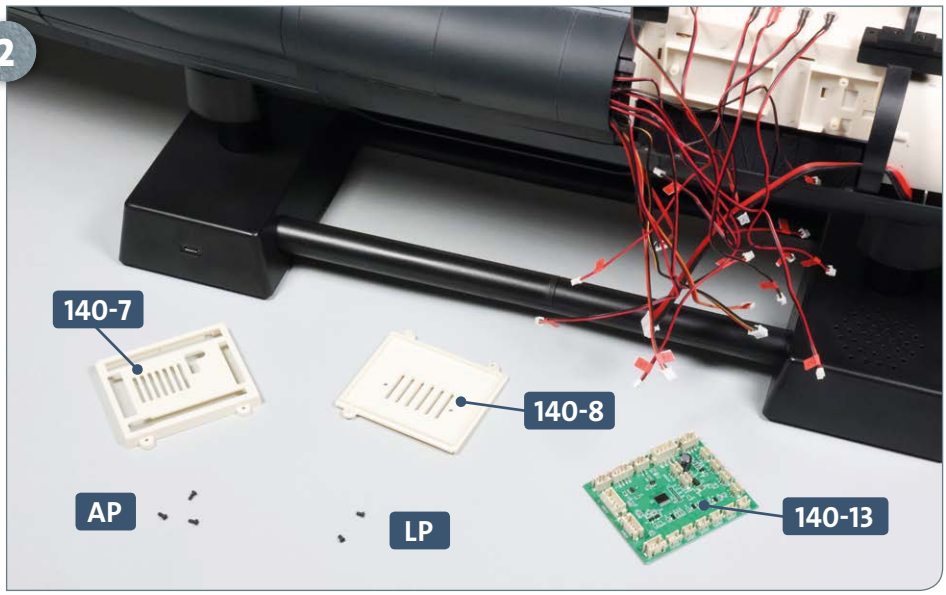


The remote control is now ready. If you set the switch **140-4** to ON (see arrow), the green LED on the front of the remote will light up (see inset photo). Turn the remote OFF for now.

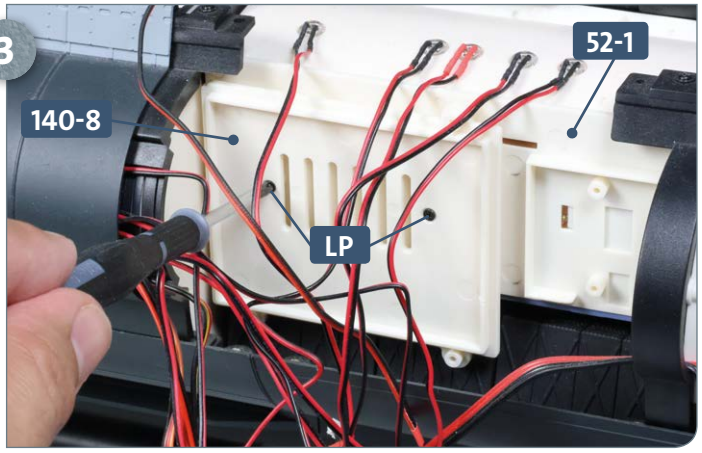
STAGE 3 → Installing the two hull circuit boards and connecting the cables

1

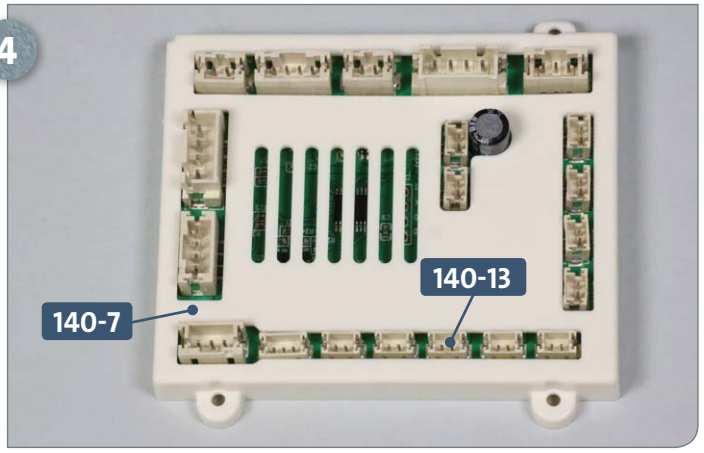
Place the model seated on its stand on your work surface, as pictured. The next stage is to fit two new circuit boards and connect their cables.



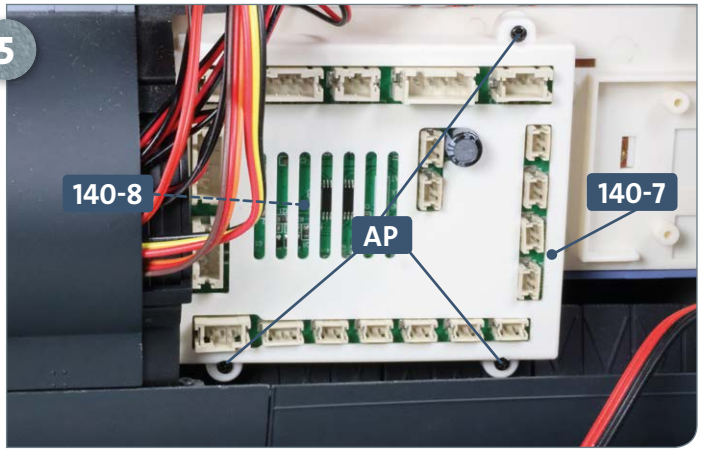
Turn your model so you have access to its port (L) side. Have ready the circuit board cover **140-7**, its back part **140-8**, the large circuit board **140-13**, three **AP** screws and two **LP** screws.



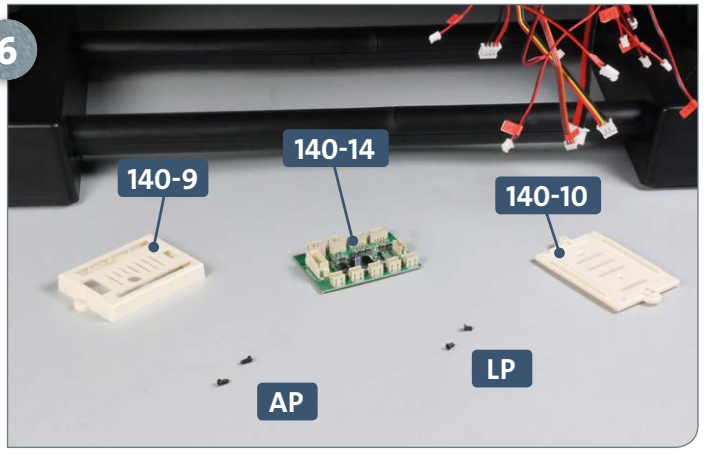
Attach the back part of the circuit board cover **140-8** to the forward part of the fourth compartment **52-1** using the two **LP** screws.



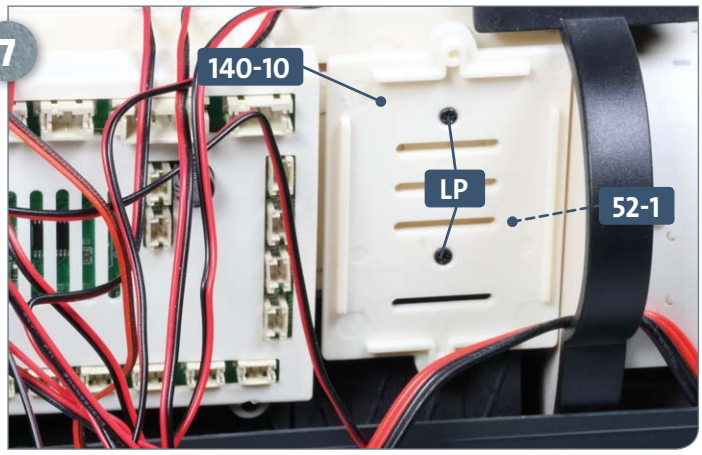
Insert the large circuit board **140-13** into its cover **140-7**. Ensure that the two parts are carefully aligned, guiding all the sockets through the corresponding openings in the cover. If necessary, enlarge the holes in the cover slightly so that the circuit board is a good fit.



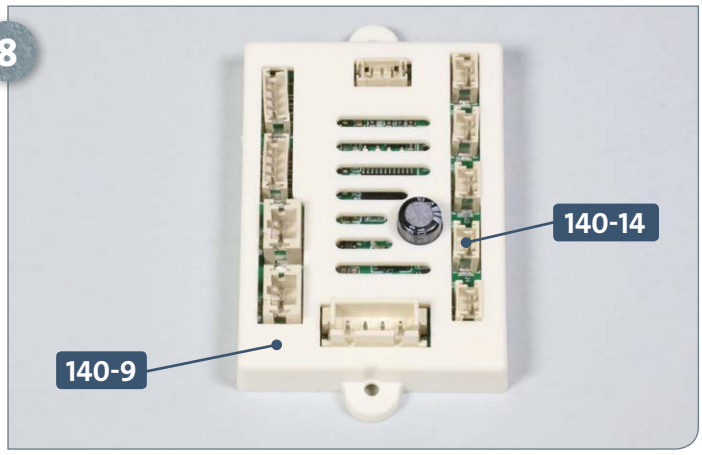
Attach the circuit board cover **140-7** to the back part, **140-8**, with three **AP** screws, as pictured.



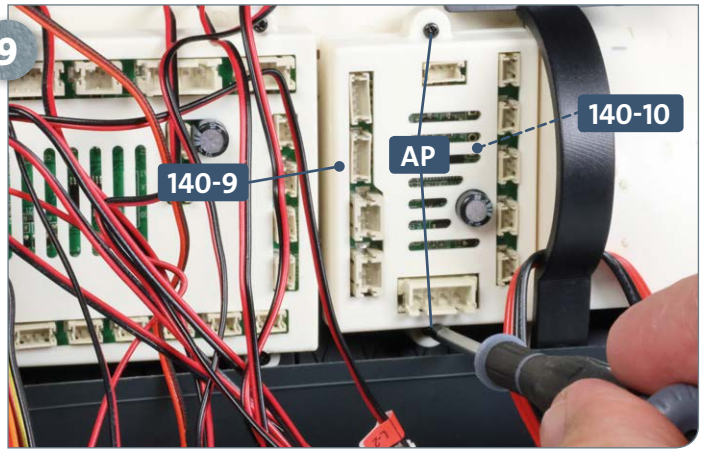
Have ready the circuit board cover **140-9**, its back plate **140-10**, the medium sized board **140-14**, two **AP** screws and two **LP** screws.



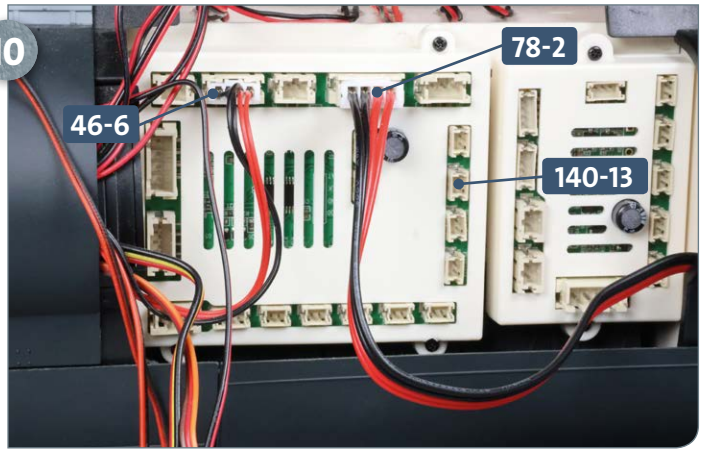
Next to the previously mounted circuit board, fix the back plate of the circuit board cover **140-10** to the aft bulkhead of the fourth compartment **52-1** with two **LP** screws.



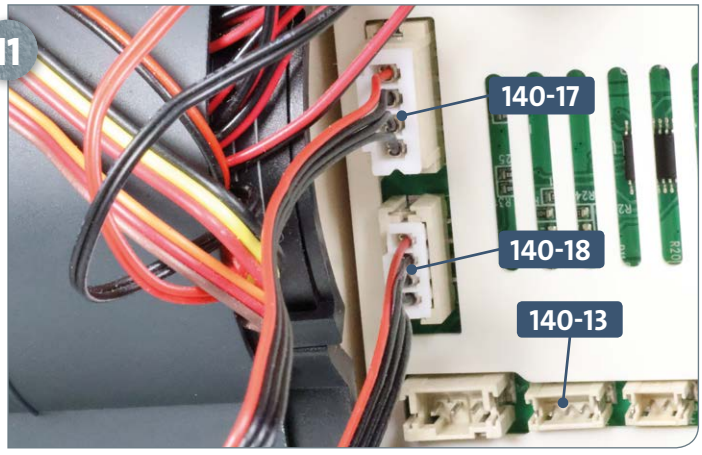
Insert the circuit board **140-14** into its cover **140-9**, ensuring that the two parts are carefully aligned, and all sockets are guided through the corresponding openings in the cover, as shown.



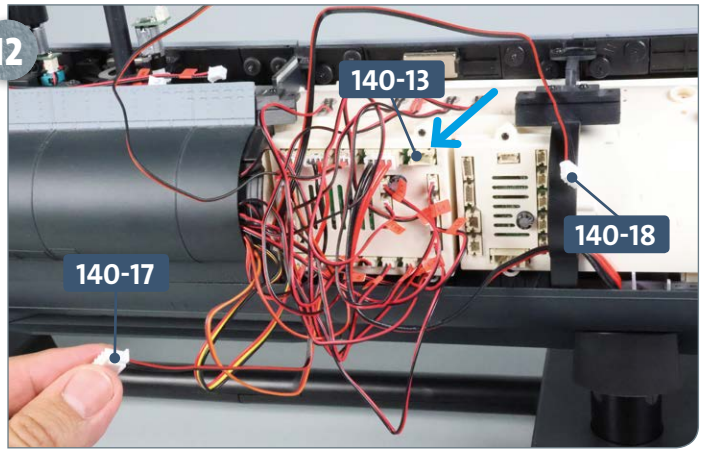
Attach the circuit board cover **140-9** to the back plate **140-10** with two **AP** screws.



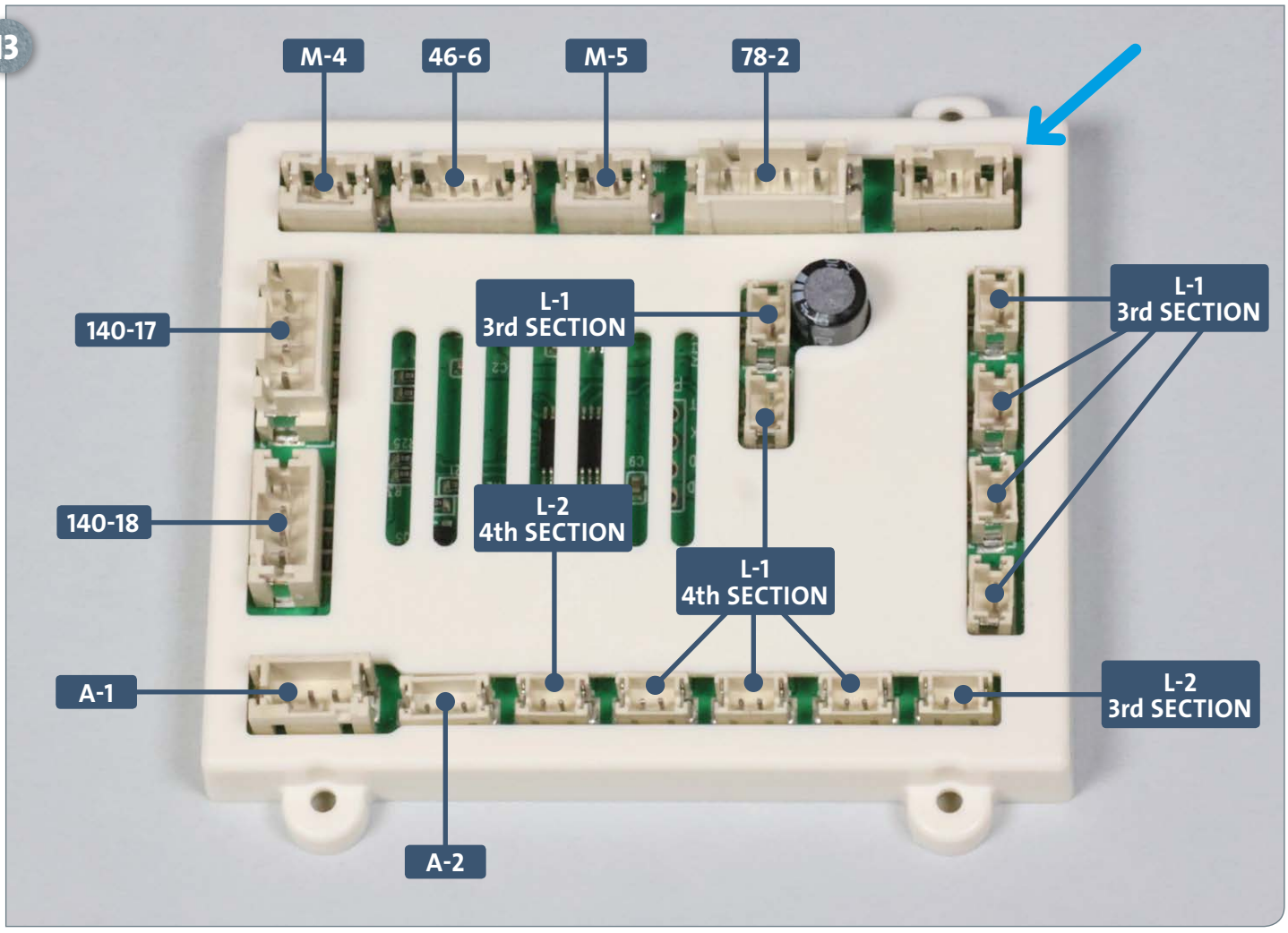
Focusing on the large circuit board **140-13**: here, the connectors for various cables have been inserted into its sockets. First, the four-pin cable of the limit switch for the attack periscope **46-6** and the four-pin contact cable **78-2**.



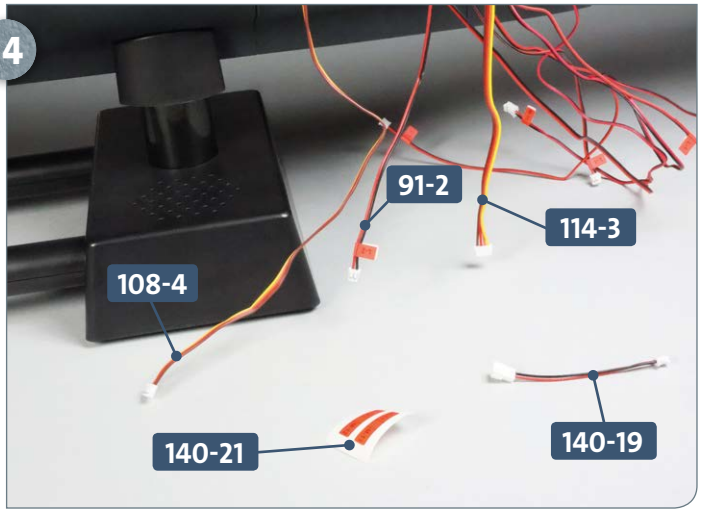
Next, the two connecting cables **140-17** (the shorter) and **140-18** supplied with this kit are connected to the two left sockets on the board **140-13**.



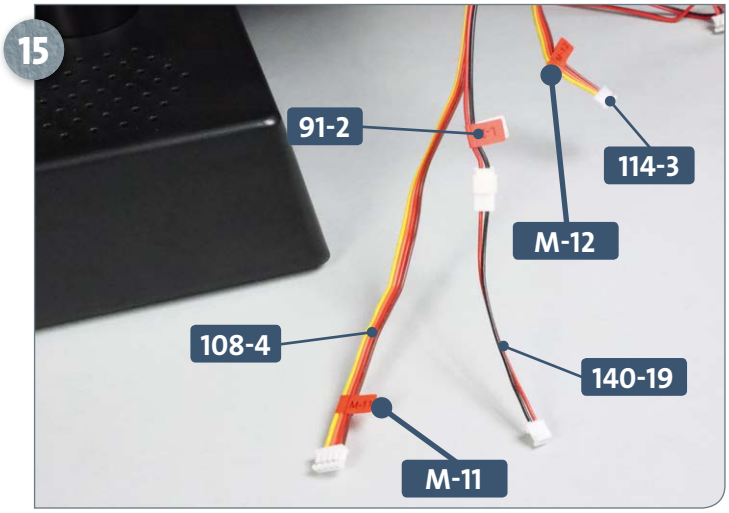
The free ends of cables **140-17** and **140-18** will later be connected to the board **140-14** and the conning tower board **140-15** respectively. Now, connect all the remaining sockets on board **140-13** with cables that have cable labels (see next page). Only the socket at the top-right (blue arrow) remains free.



This photograph shows the socket assignment of board **140-13** at a glance: the LED cables come from sections 3 and 4, as noted. The socket at the top-right of the board (see light blue arrow) remains free.

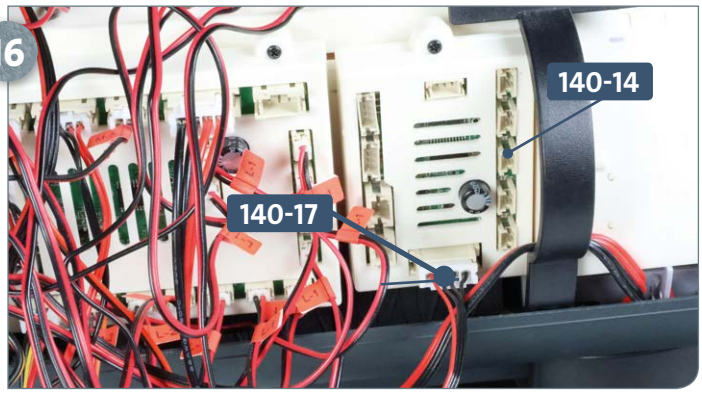


Have ready the cable extension **140-19** and the two cable labels **140-21**. Additionally, locate the **L-2** labelled cable, **91-2**; the three-pin cable from the aft elevator motor **108-4** and the three-pin cable from the rudder motor, **114-3**.



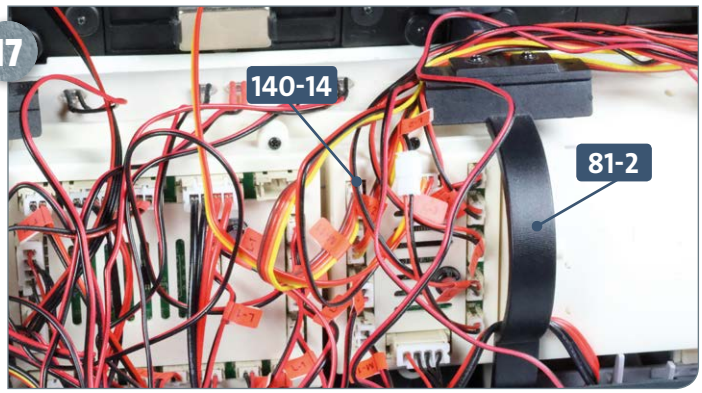
Connect the cable extension **140-19** to the cable marked **L-2** – cable **91-2**. Remove the two cable labels from the backing film **140-21**: **M-11** should be attached to cable **108-4**, and **M-12** to cable **114-3**, as shown in the photo. **Note:** cable **M-11** is the longer of the two cables.

16



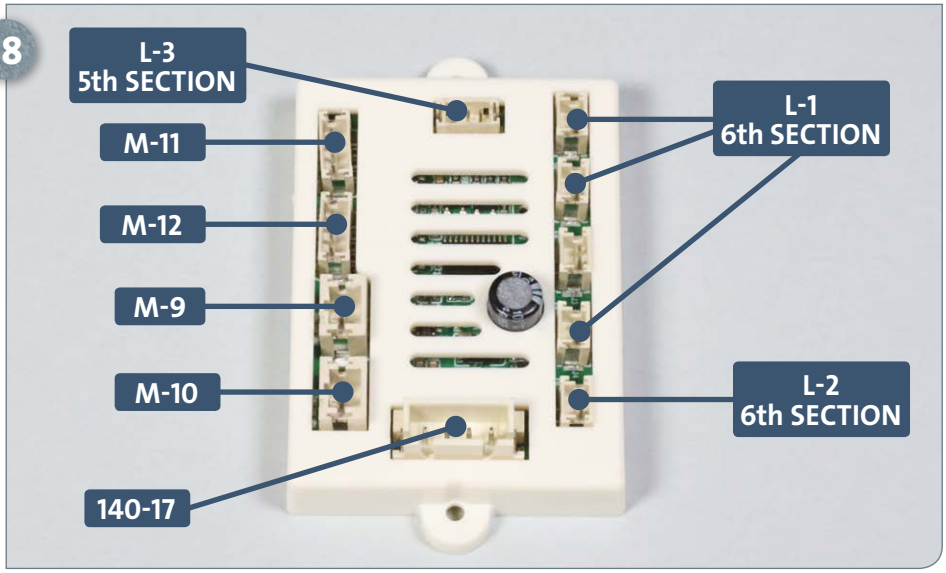
The cables will now be connected to board **140-14**. First, connect cable **140-17** (from circuit board **140-13**), by inserting it into the lower four-pin socket.

17



The remaining sockets of **140-14** are occupied by terminals of cables routed from aft, above connector **81-2** (see also the next photograph).

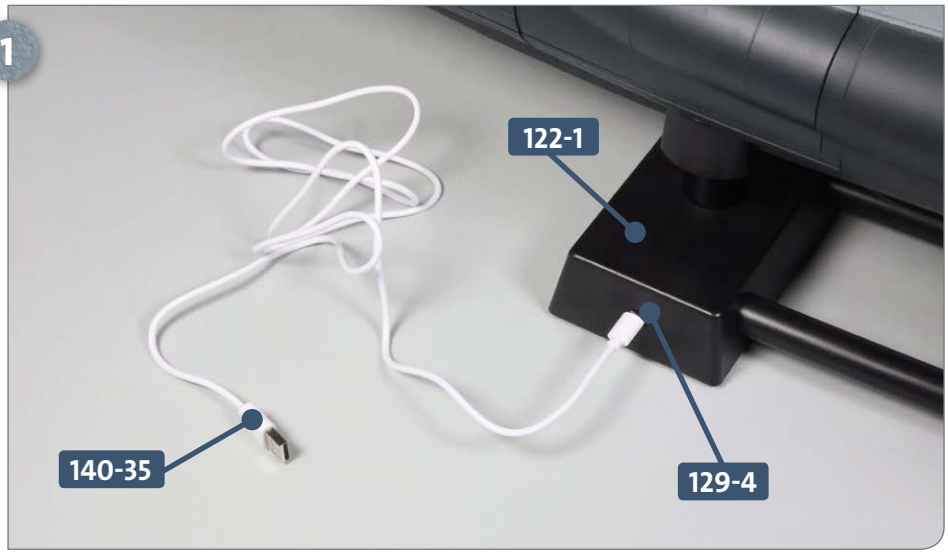
18



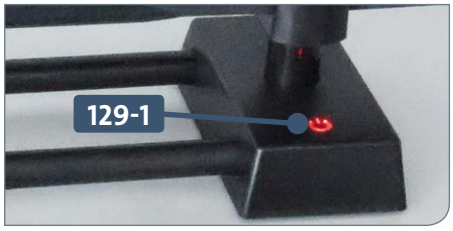
This photo shows the socket assignments of circuit board **140-14** at a glance: the LED cables come from sections 5 and 6, as noted. The motor cables are routed from the stern of the boat.

STAGE 4 → Testing function

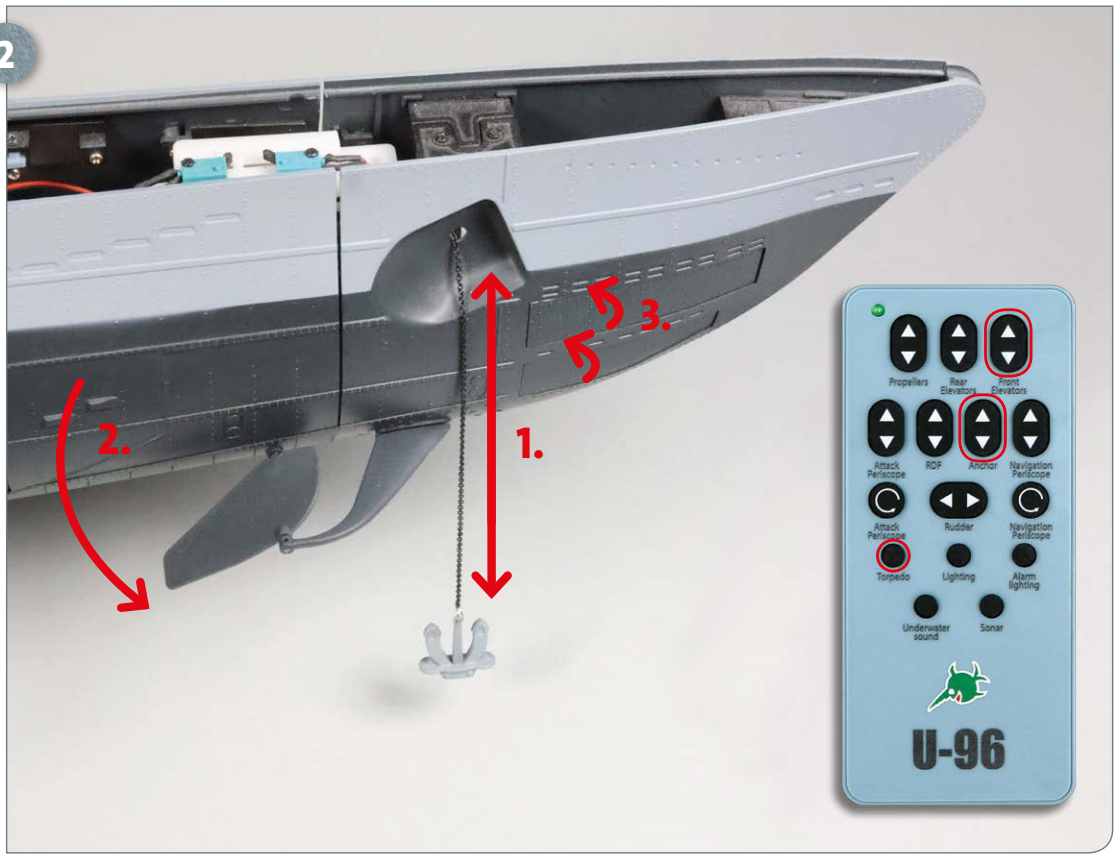
1



Now you can start testing the functioning of the model. Start by connecting the USB-C connector of USB cable **140-35** to the port on board **129-4**. Connect the USB-A connector of the cable to a 5 V, high power USB power supply. Press button **129-1** (see photo below), and the LED will light up as the model initialises.



2

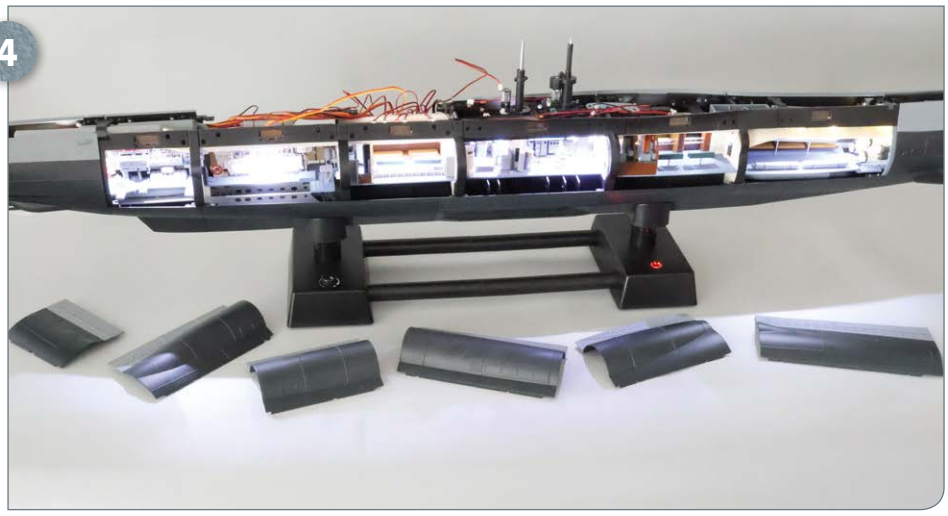


Test the bow functions: drop and retrieve the anchor (1.), move the forward dive plane/front elevators in both directions (2.) and press the torpedo button (3.): the bow torpedo hatches should open and a 'firing' sound play; pressing the button again closes the hatches.

3

Test the stern functions next: move the rudder (4.), tilt the aft dive plane/rear elevators (5.) and run the propellers both forward and in reverse by pressing the 'propellers' button (6.) – you should hear a corresponding sound.

4



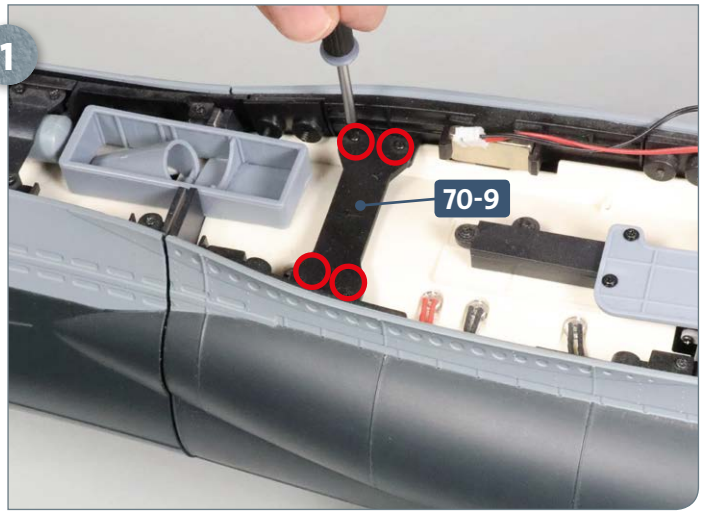
Remove the six magnetised hull sections on the starboard (R) side and press the 'lighting' button to turn on the lights. A second press turns it off again.

5

Pressing 'alarm lighting' lights the red LEDs. 'Sonar' and 'underwater sound' emit characteristic sounds.

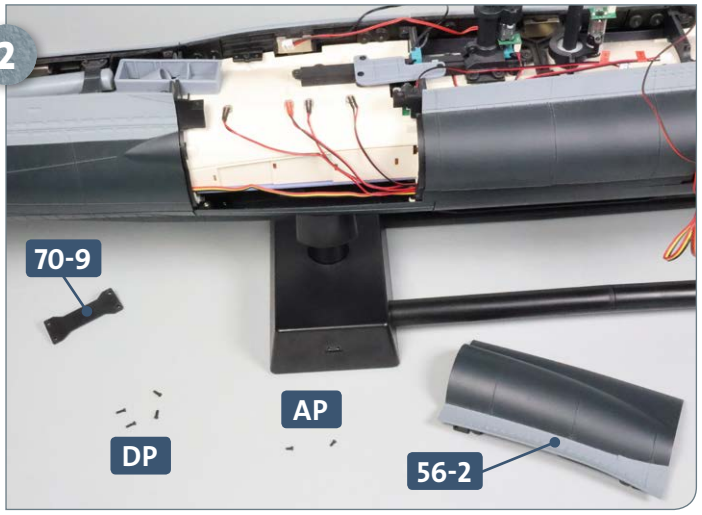
STAGE 5 → Replacing parts, attaching the conning tower PCB and hull section assembly

1

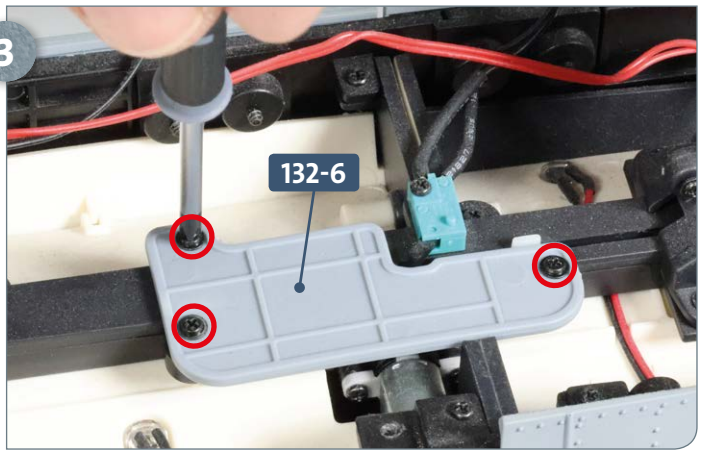


Start by replacing a guide rail and a cable. To do so, first loosen the four **DP** screws (circled), to temporarily remove crossmember **70-9**.

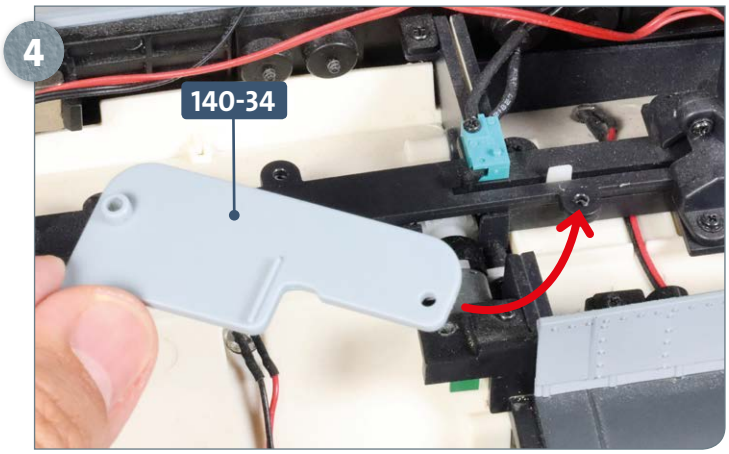
2



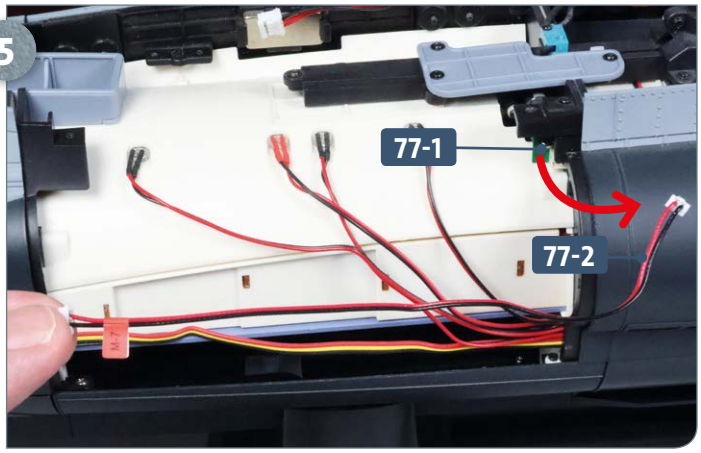
This photograph shows the crossmember **70-9** and the four **DP** screws removed. Next, unscrew the two **AP** screws and remove the port (L) hull section **56-2**.



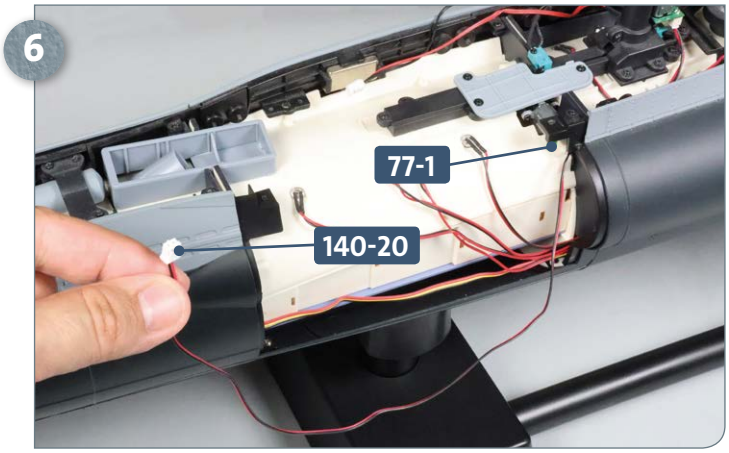
Remove the three **JP** screws (circled) and remove the guide rail **132-6**: this is no longer needed.



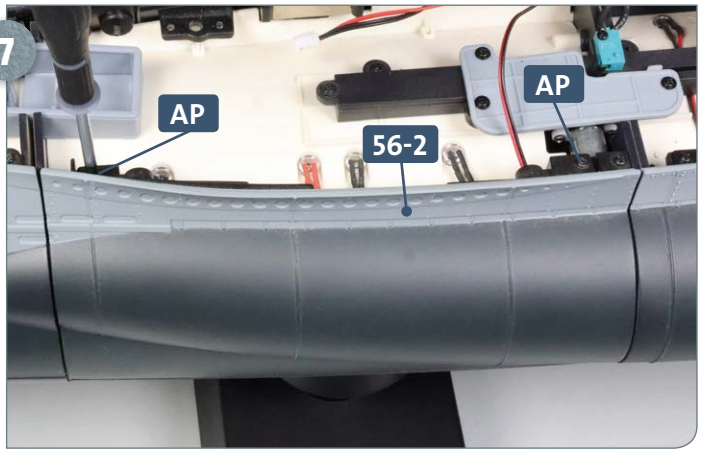
Replace the old guide rail with a new one with a ridge on the underside, **140-34**. Place it in position and secure with the three **JP** screws.



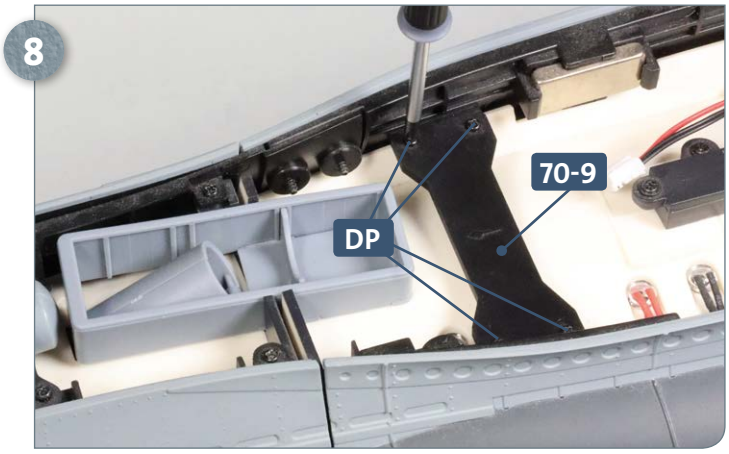
Disconnect cable **77-2**, labelled **M-7**, from the motor circuit board **77-1**.



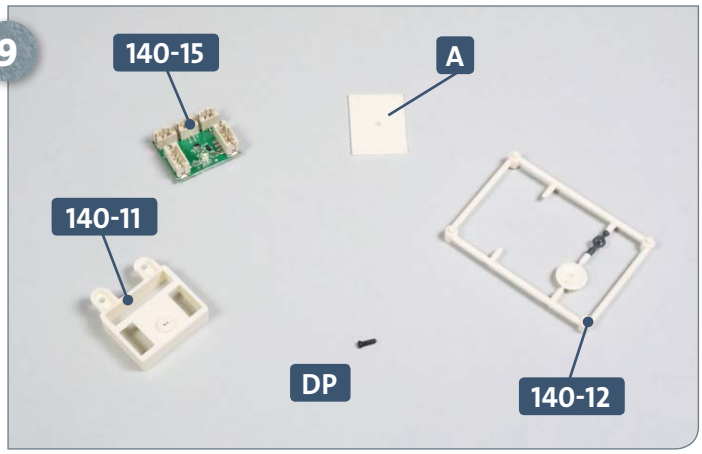
Replace cable **77-2** with cable **140-20**, to be connected to a socket on circuit board **77-1**, as pictured. It might be helpful to label the replacement cable as **M-7**, by either reusing the existing cable label or using a small piece of masking tape.



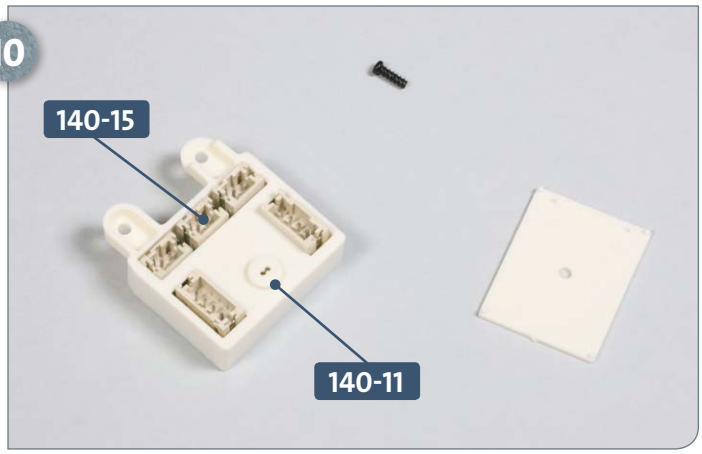
Reattach the port (L) hull section **56-2** using the two previously removed **AP** screws.



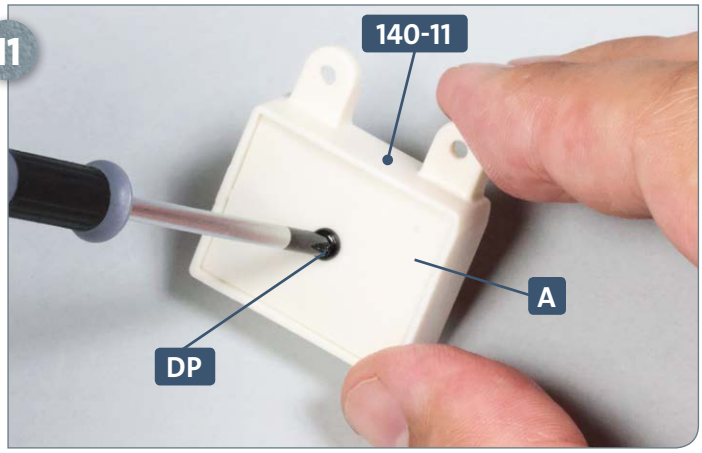
Reattach the crossbeam **70-9** with the four previously removed **DP** screws.



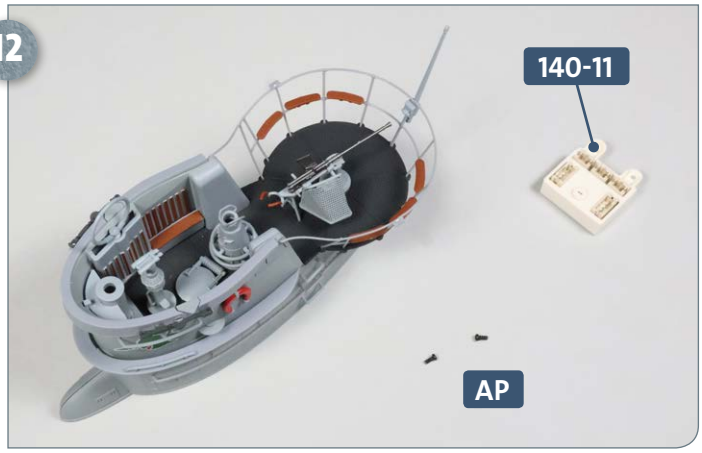
Take the board for the conning tower **140-15**, its cover **140-11** and one **DP** screw. Detach back part **A** from frame **140-12**.



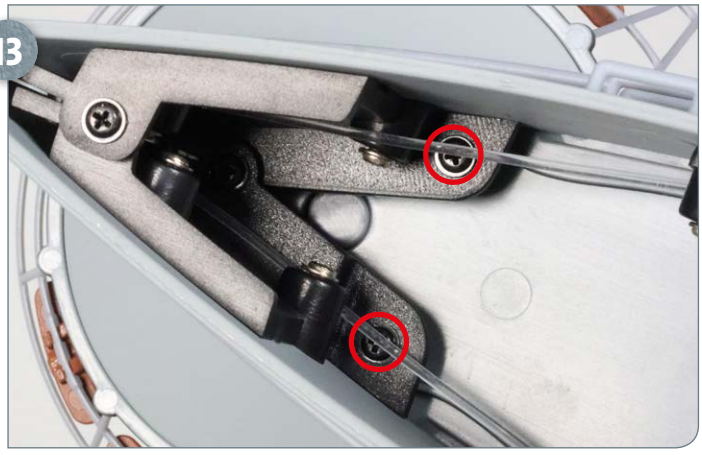
Fit the circuit board **140-15** into its cover **140-11** , making sure to carefully feed all the sockets through the corresponding openings, as shown above.



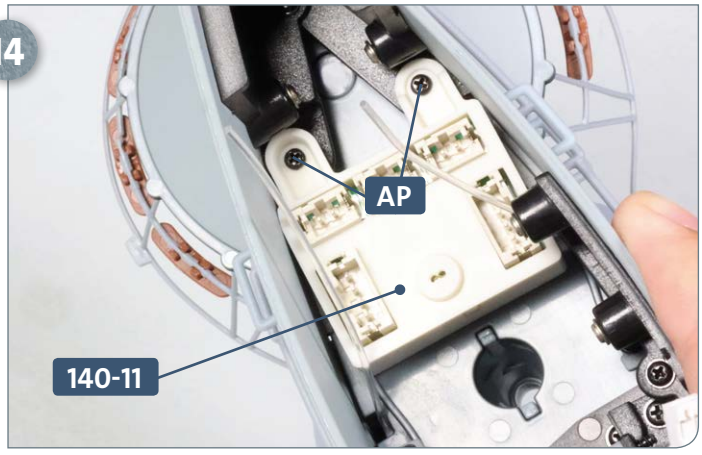
Turn the circuit board cover **140-11** over and attach the back part **A** using the **DP** screw. Make sure that the small pegs on the corners of the back part point inwards towards the board.



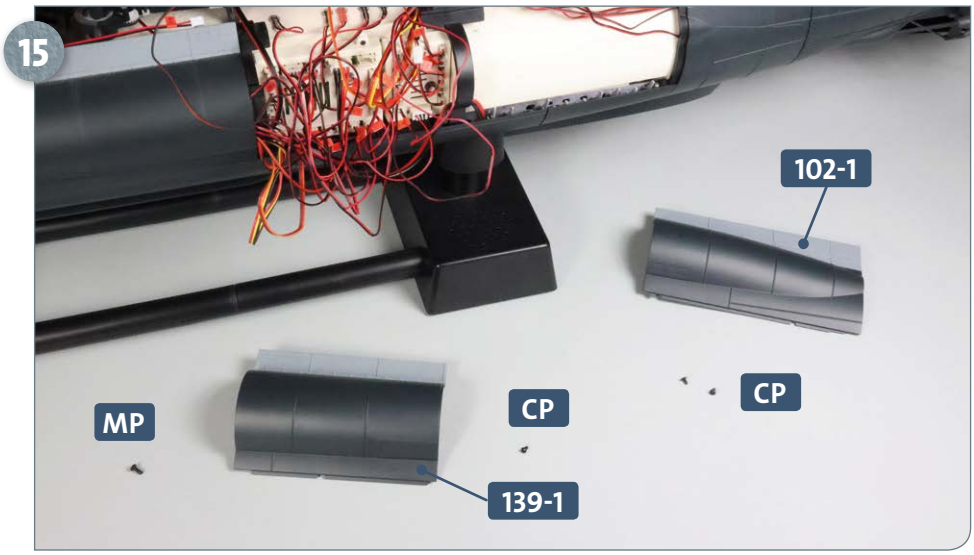
Place the conning tower assembly on your work surface. Next to it, place the circuit board assembly **140-11** and two **AP** screws.



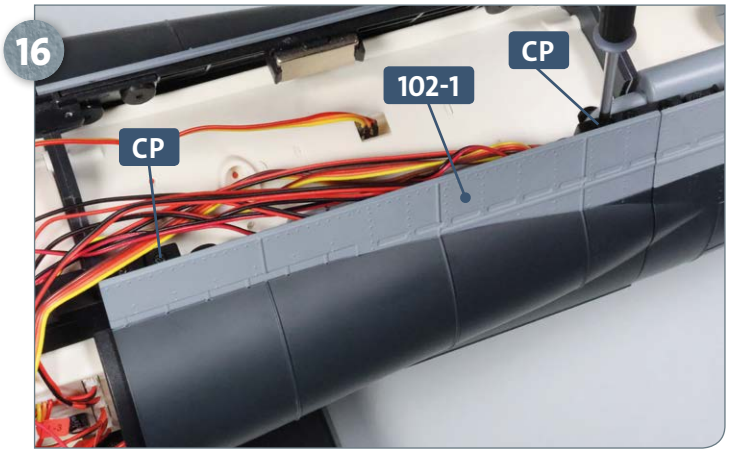
Carefully turn the conning tower over, hold it in one hand, and unscrew the two circled **CP** screws. These will be needed again in step 16.



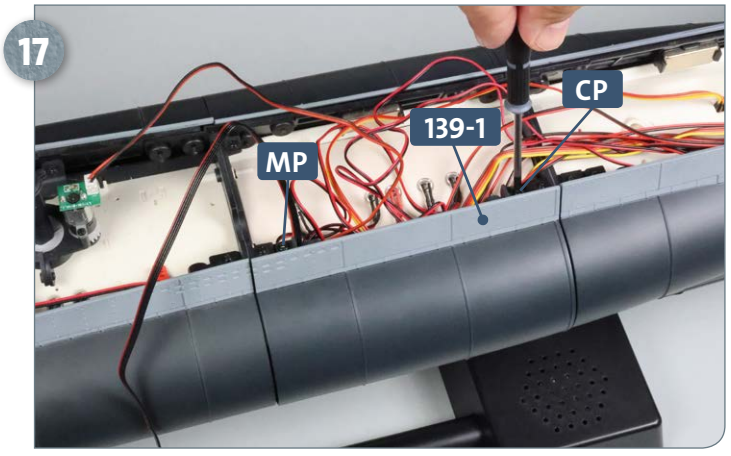
Making sure that the optical fibre cables **5-11** do not become trapped underneath, attach the circuit board cover **140-11** to the connectors using the two **AP** screws, in the holes which previously held the **CP** screws. As work on the conning tower has finished for now, keep it safely aside until it is needed again in stage 9.



Now you will attach the final two hull sections, **102-1** and **139-1**, to the model. First locate the two **CP** screws previously removed from the conning tower, an additional **CP** screw, and one **MP** screw.



Secure section **102-1** to the hull structure using two of the **CP** screws.

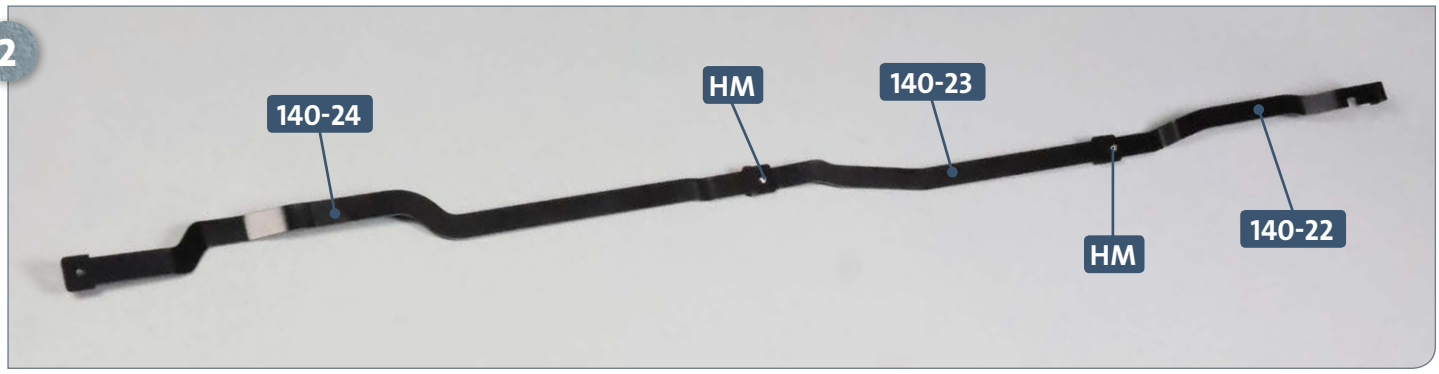


Take time and care to arrange the cables neatly so that the hull section **139-1** doesn't squash or damage the cables. When the cables are neatly positioned, fit the hull section over the cables and secure in place with one **CP** screw and one **MP** screw.

STAGE 6 → Attaching the longitudinal bracing

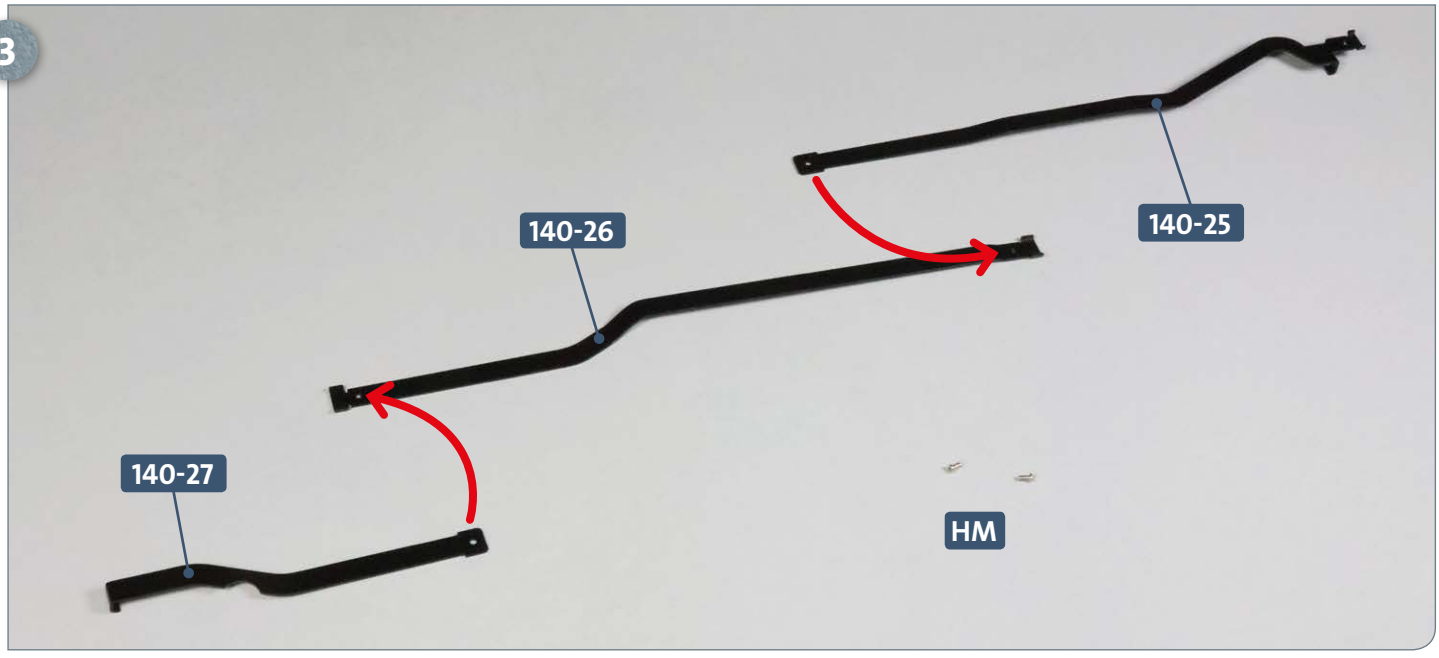
Next you will add bracing that will extend almost the entire length of the model. The front section is made from beams **140-22**, **140-23** and **140-24**, which you should arrange as pictured above. Have ready two **HM** screws.

2



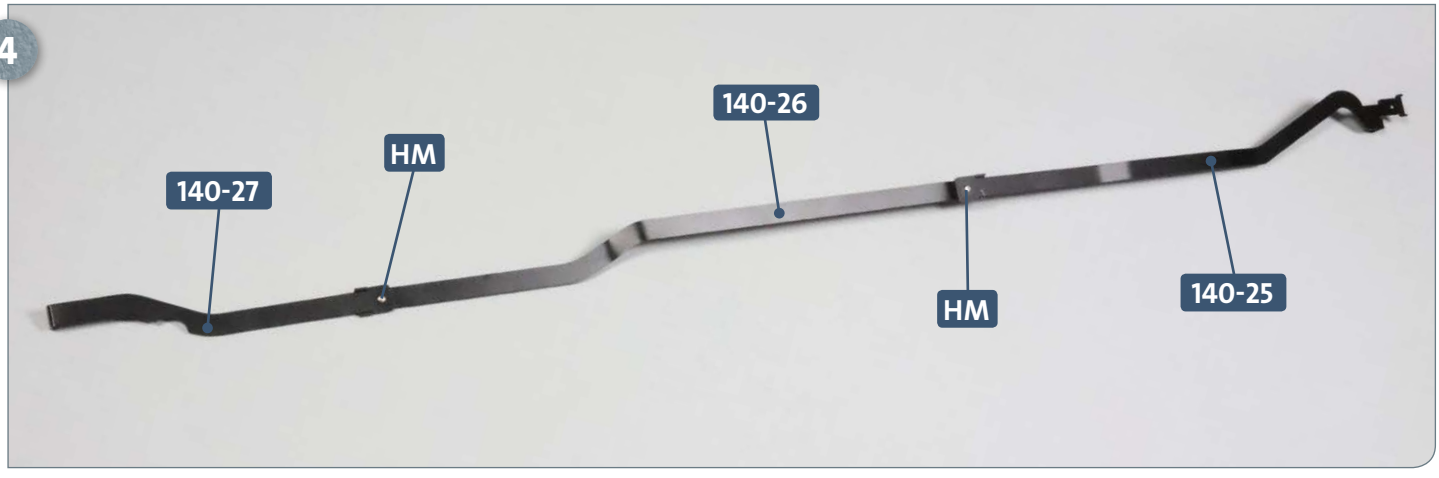
Screw beam sections **140-22**, **140-23** and **140-24** together using the two **HM** screws: the right end of **140-23** overlaps the left end of **140-22**; the right end of **140-24** likewise overlaps the left end of **140-23**.

3

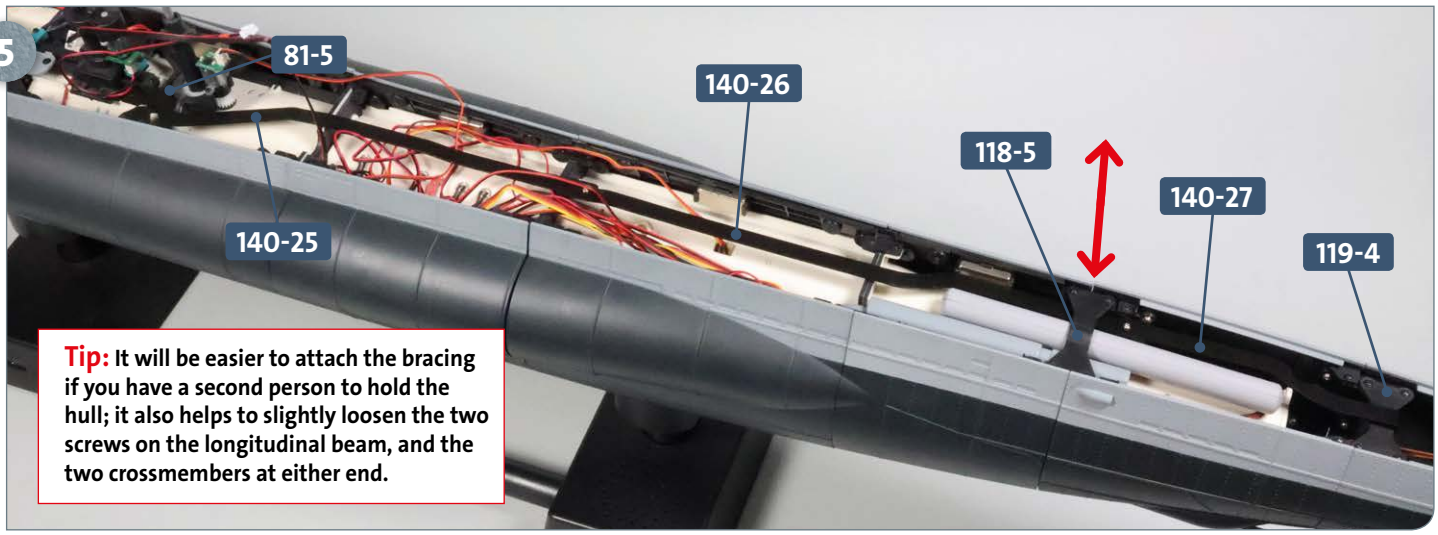


The aft section of bracing is constructed from beams **140-25**, **140-26** and **140-27**, which you should lay out on your work surface as pictured here. Have ready two **HM** screws.

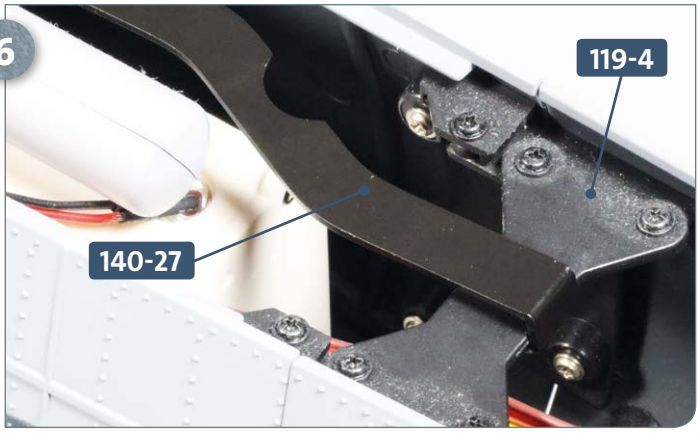
4



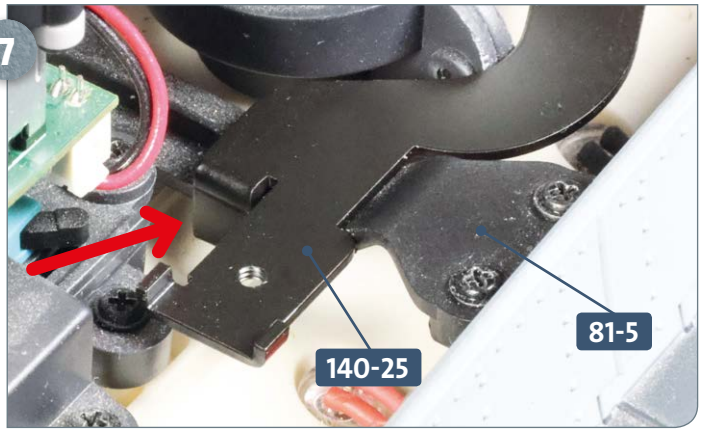
Screw beams **140-25**, **140-26** and **140-27** together using the two **HM** screws: the left end of **140-25** sits on top of the right end of **140-26**; the right end of **140-27** is positioned over the left end of **140-26**.



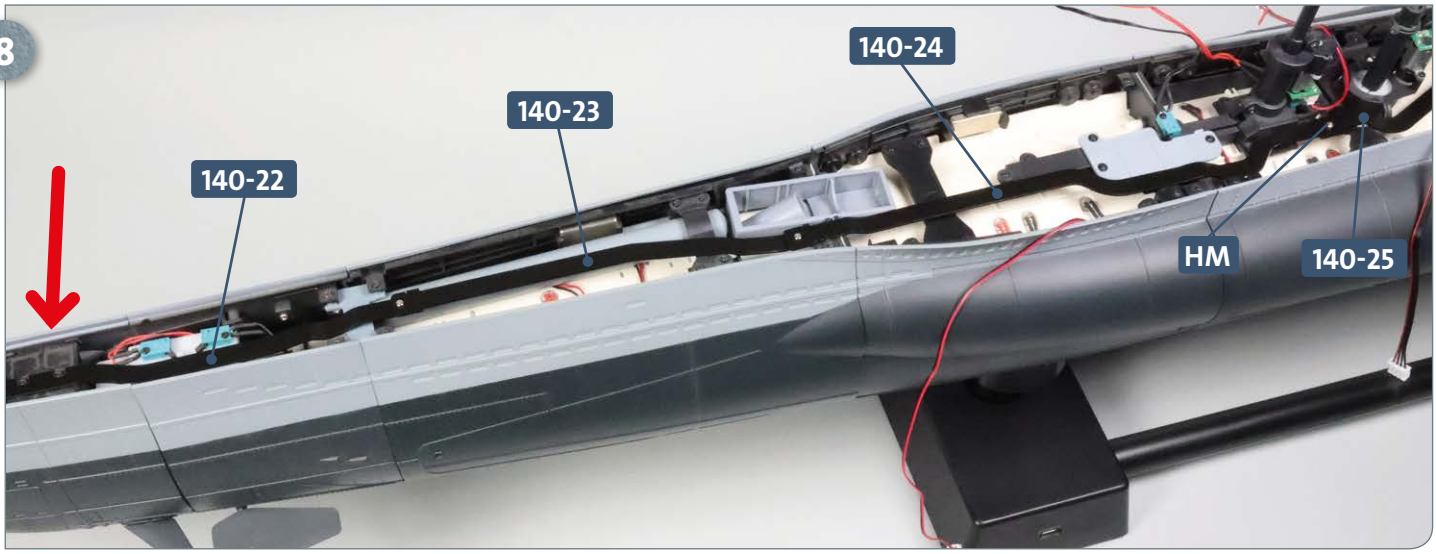
Unscrew the four screws and temporarily remove crossbeam **118-5**. Mount the aft section of longitudinal bracing (**140-25**, **140-26** and **140-27**) on the model: it runs aft from crossmember **119-4** to the centre of the hull at crossmember **81-5**. The next two photos will show each end in detail. Now reattach crossmember **118-5**.



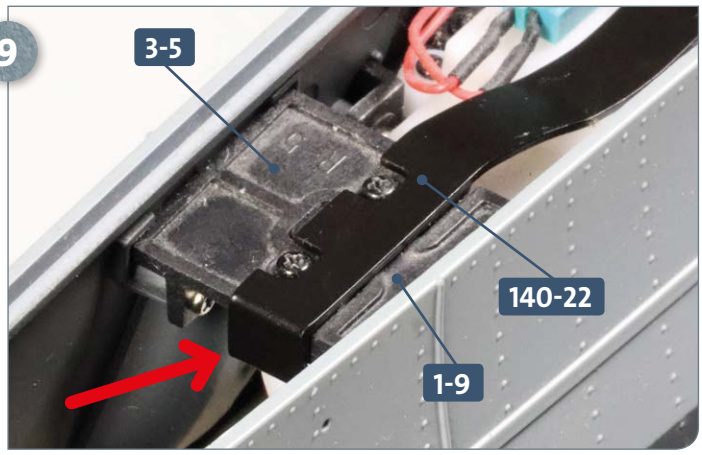
The angled aft end of longitudinal beam **140-27** fits over crossbeam **119-4**, as shown here.



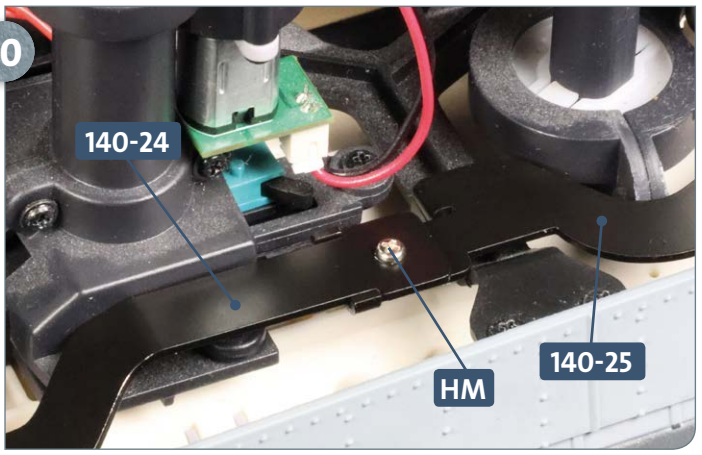
The shorter front end of **140-25** (see red arrow) fits over crossbeam **81-5**, as shown above.



Next, mount the forward section of the longitudinal bracing (**140-22**, **140-23** and **140-24**) on the model: this runs from the front connectors (see arrow) to the end of beam **140-25**. Align the holes of beams **140-24** and **140-25** and fix together with an **HM** screw.



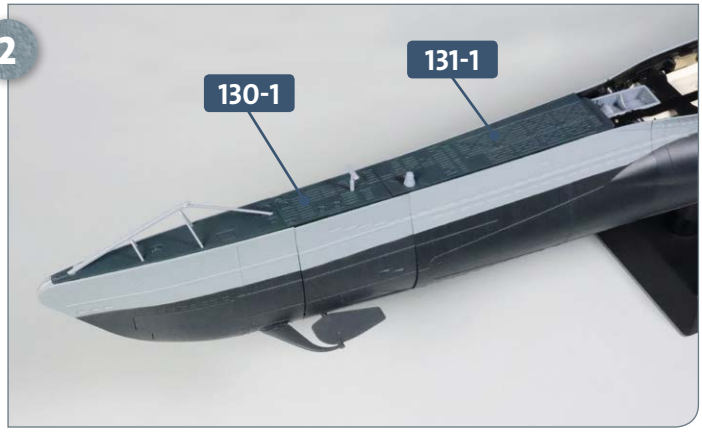
This photograph shows a detailed view of the forward end of the longitudinal bracing: the angled end of **140-22** (see arrow) fits over the connector **1-9/3-5**.



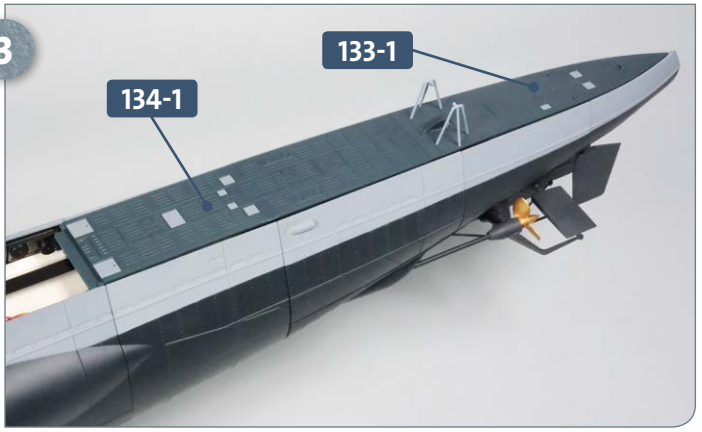
The aft end of beam **140-24** rests on top of the forward end of **140-25** and is secured in place with an **HM** screw.

STAGE 7 → Assembling the upper decks

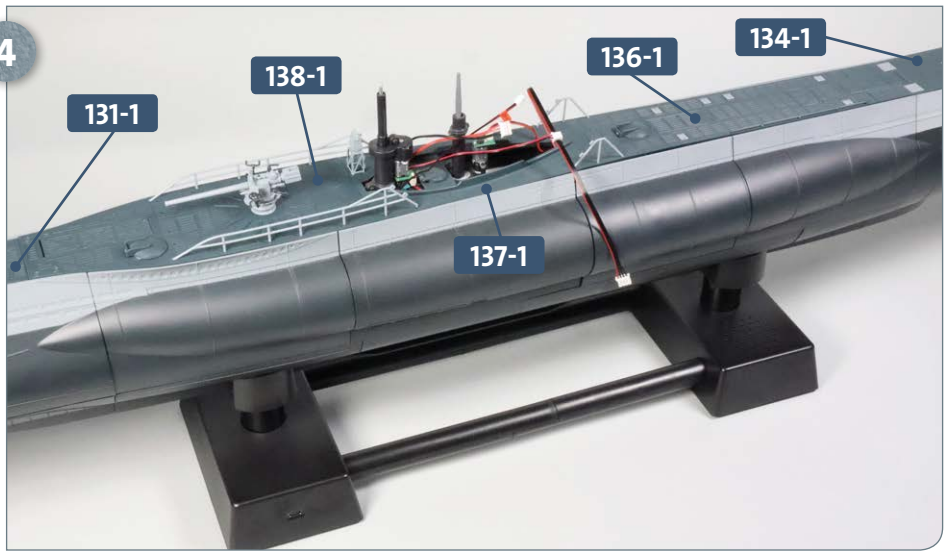
Place the three sections of upper deck and the conning tower in front of your model.



Fit the forward upper deck section (**130-1** and **131-1**) onto the model.

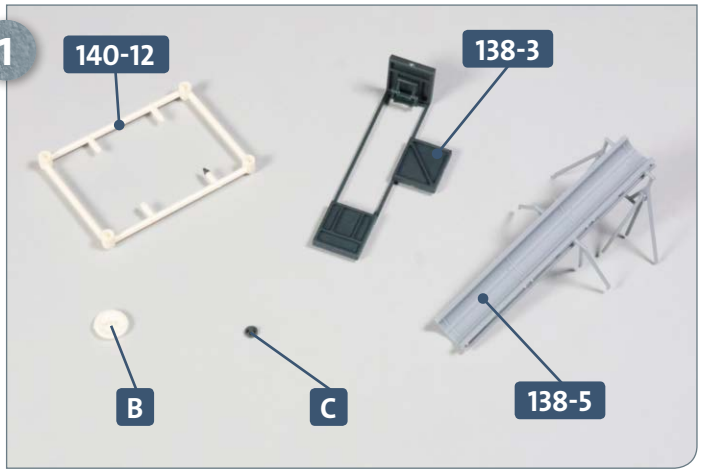


At the stern end, fit the aft upper deck section (**133-1** and **134-1**).

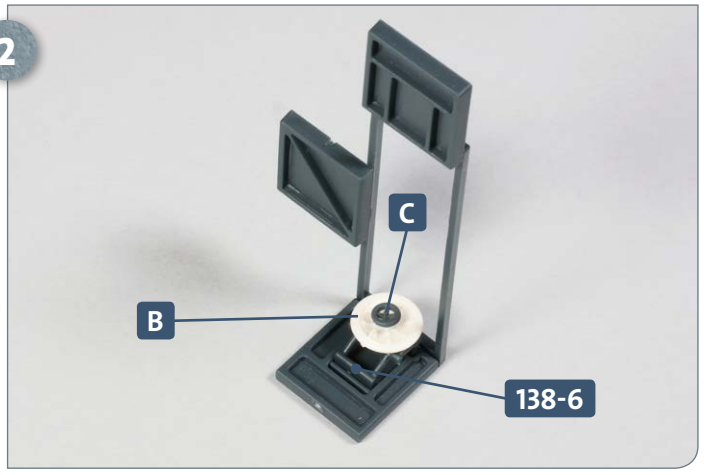


The central section (136-1, 137-1, 138-1) fits between the forward and aft sections. Ensure that all four cables are routed up through the two openings, as pictured.

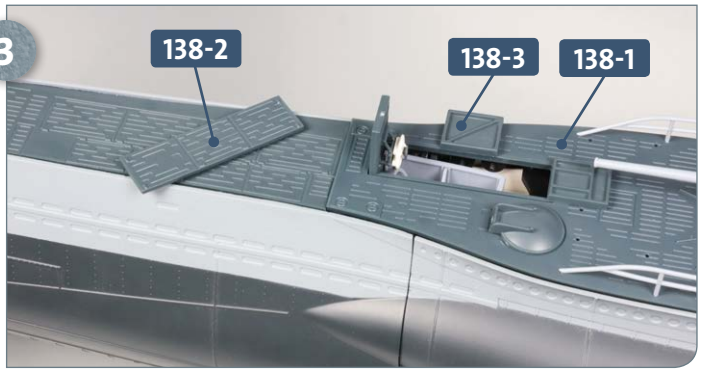
STAGE 8 → The forward torpedo hatch



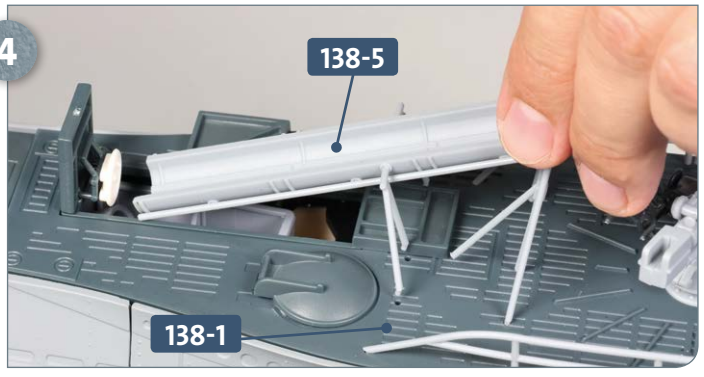
Have ready the loading chute 138-5 and the frame with the open deck hatches 138-3. Remove the lock B and the handwheel C, from frame 140-12.



Note the orientation of lock B in the above photo carefully. Glue the lock B to the rod 138-6. Then apply a little glue to the peg of the handwheel C and fit it into the recess of the lock.



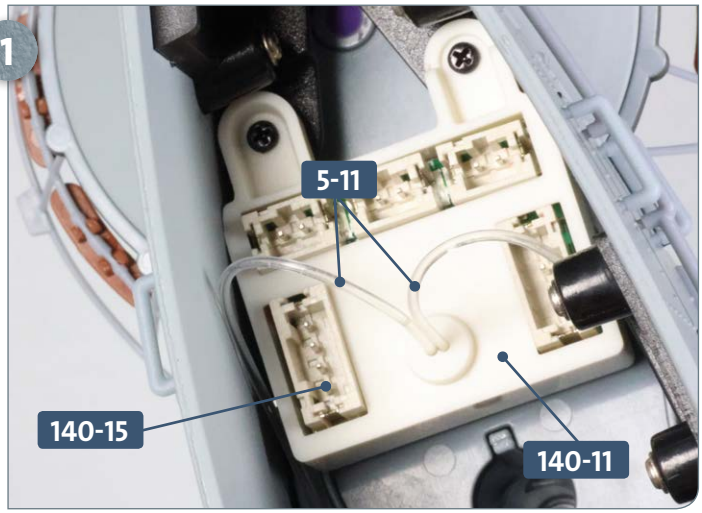
You can choose to leave the deck hatches 138-2 in place or remove them and insert the assembly with the open hatches 138-3 in the opening of the foredeck 138-1.



If you choose the assembly with the open hatches, you can place the loading chute 138-5 with its feet on the foredeck 138-1, as pictured.

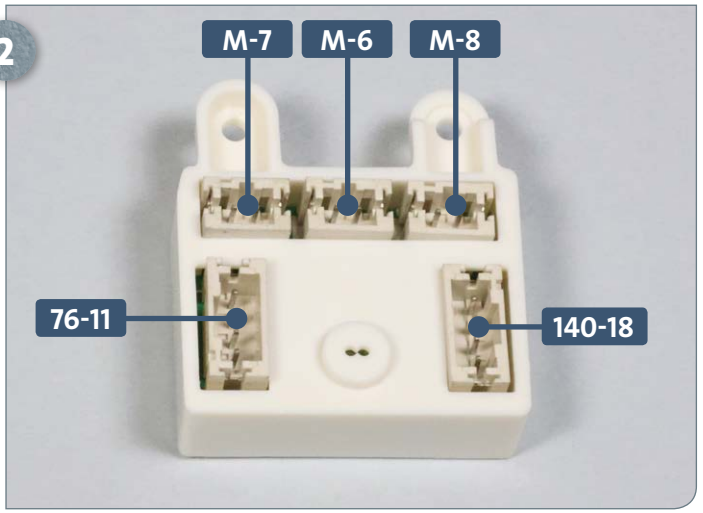
STAGE 9 → Conning tower installation and function testing

1



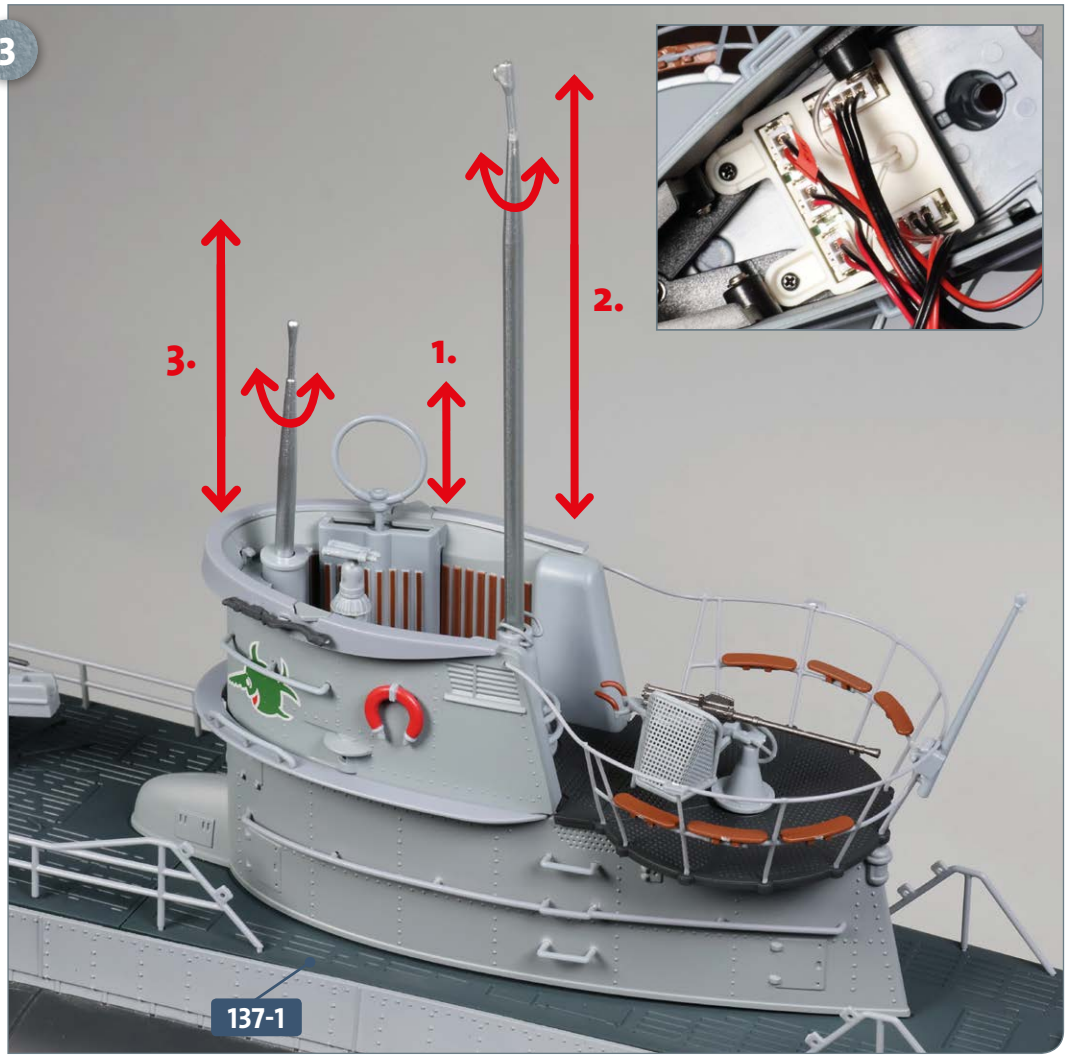
Carefully turn the conning tower over and insert the ends of the two navigation light cables **5-11** into the two circular openings of the circuit board cover **140-11**, so that they are in contact with the small LED located on the circuit board **140-15**.

2



After connecting cable **M-8**, connect the remaining four cables to the four sockets on the underside of the conning tower circuit board **140-15**: the photo above shows an overview of the socket arrangement.

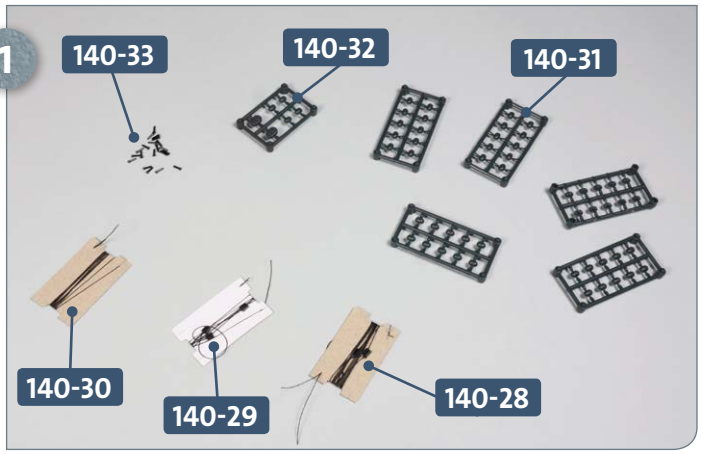
3



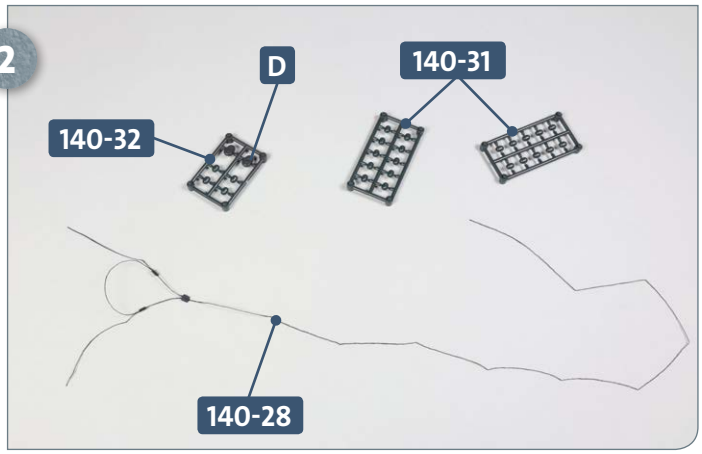
The upper inset photo shows the socket arrangement of the conning tower circuit board. Making sure that the cables do not become trapped, place the conning tower on the upper deck **137-1** and press it down. Make sure to carefully feed the two periscopes through the openings in the bridge deck. You should now be able to: raise and lower the radio direction finding array (1.); extend and retract the attack periscope and rotate it (2.); extend and retract the navigation periscope and rotate it (3.).

STAGE 10 → The rigging

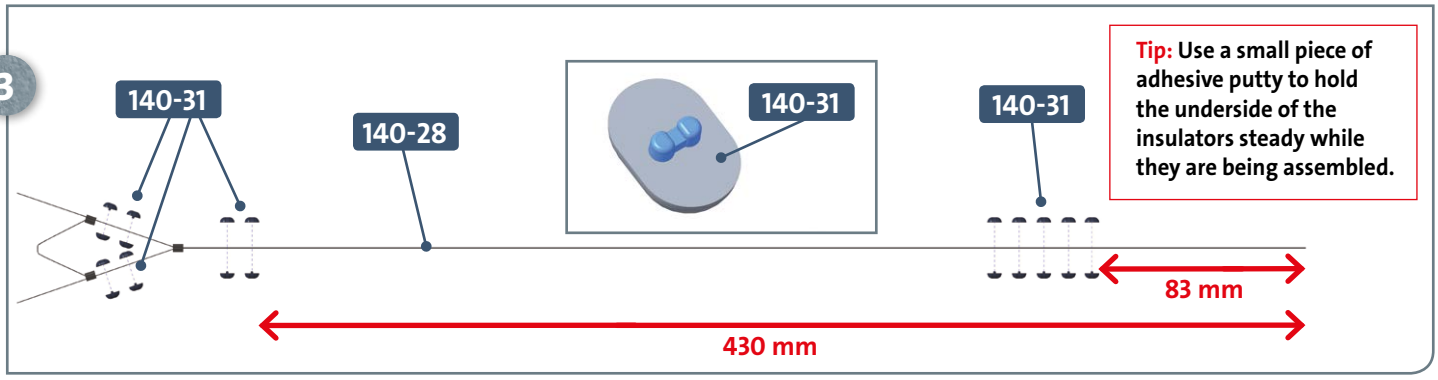
Tip: Before starting this stage, read carefully to the end and only apply glue after test-fitting the twine in place. You may find it easier to first attach the rivets to the model and then attach the twine to ensure that the twine is taut. Carefully applying a very small amount of glue may help hold the twine in place.



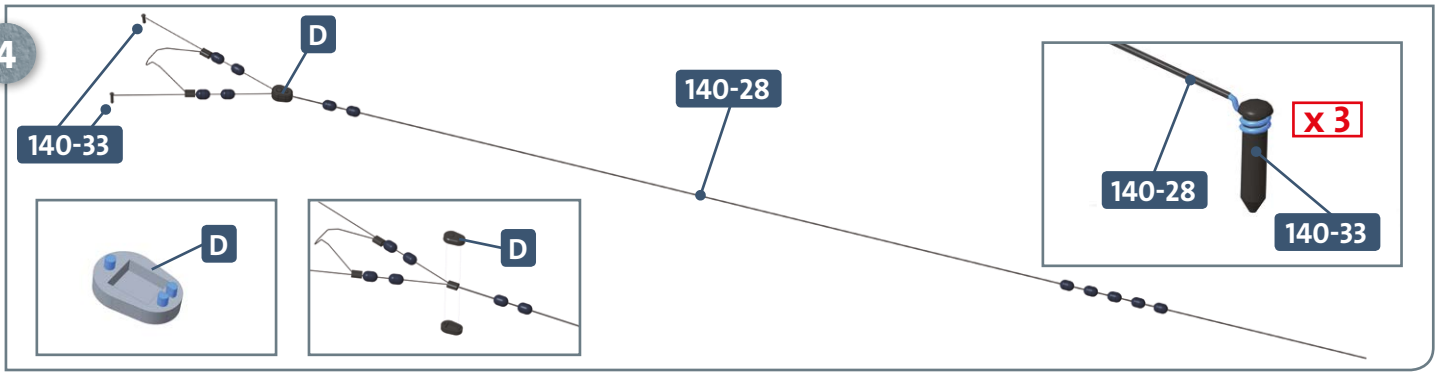
To assemble and attach the rigging, you will need the two prefabricated twine pieces **140-28** and **140-29**, twine part **140-30**, the five identical frames with insulator halves **140-31**, frame **140-32** and the 20 rivets **140-33**.



You will attach several insulators **140-31** and the two large insulator halves **D** to the prefabricated piece of twine **140-28**, which will run from the conning tower to the bow of the vessel. The following steps show the positioning of the various parts.

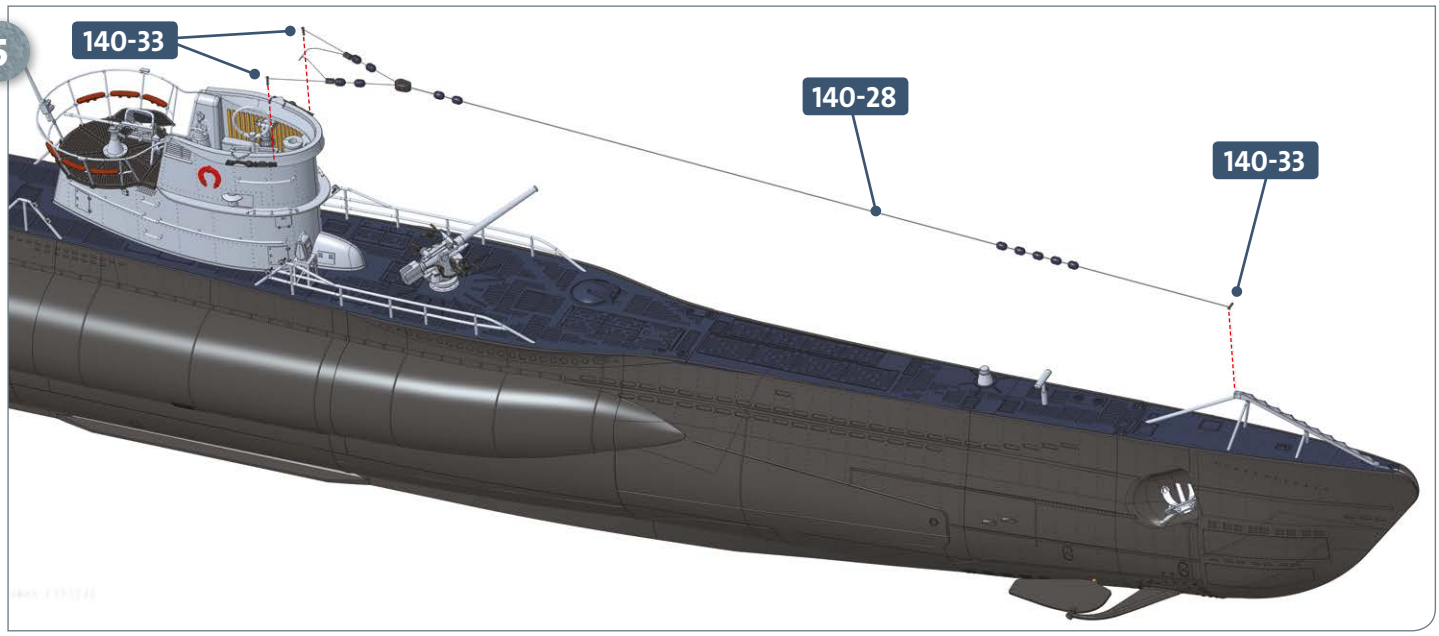


A total of 11 insulators **140-31** are attached to the twine **140-28**. First, apply a little glue to the pegs of one half of insulator **140-31** (the area is shown light blue in the inset detail), position the part at the location indicated on the twine, then fit the other half of the insulator on top. The lengths in the annotations refer to the distance from the forward end of the twine (on the right in the image).



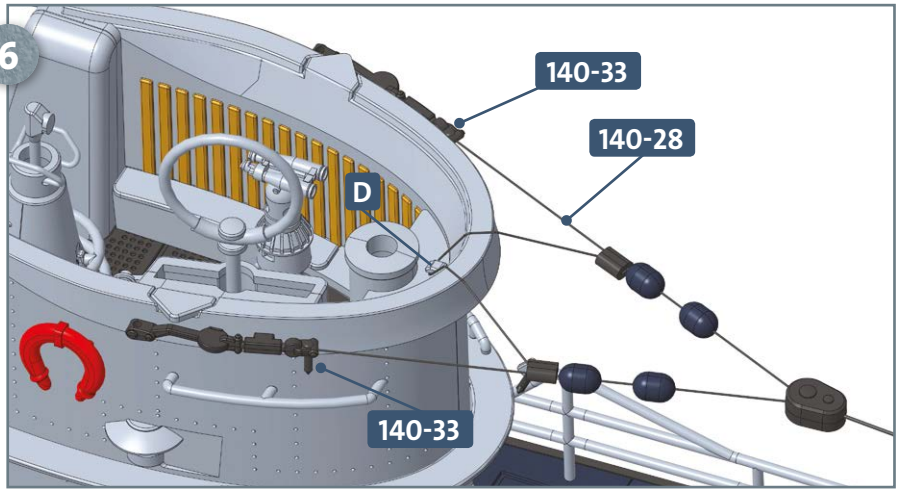
The two large insulator halves **D** are attached to the already attached plate at the fork in the twine (see two inset detail images, bottom left). A rivet **140-33** is glued to all three ends of the length of twine **140-28** (inset detail upper right). However, before attaching the rivet at the forward end, wait until you've adjusted the length of the twine during installation on the model (in the next step).

5

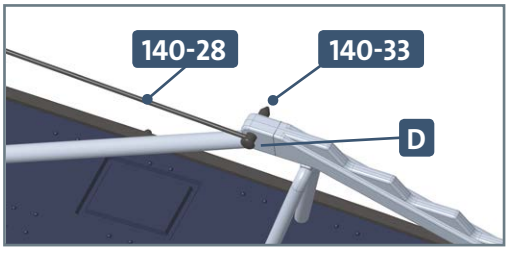


The twine **140-28** is strung between the conning tower and the bow of the model: glue the rivets **140-33** on the ends of the twine into the corresponding eyelets (see also the diagrams in the next step). First attach the rigging to the conning tower. Then adjust the length so that the twine is taut and the end rivet fits into the hole of the net cutter at the front.

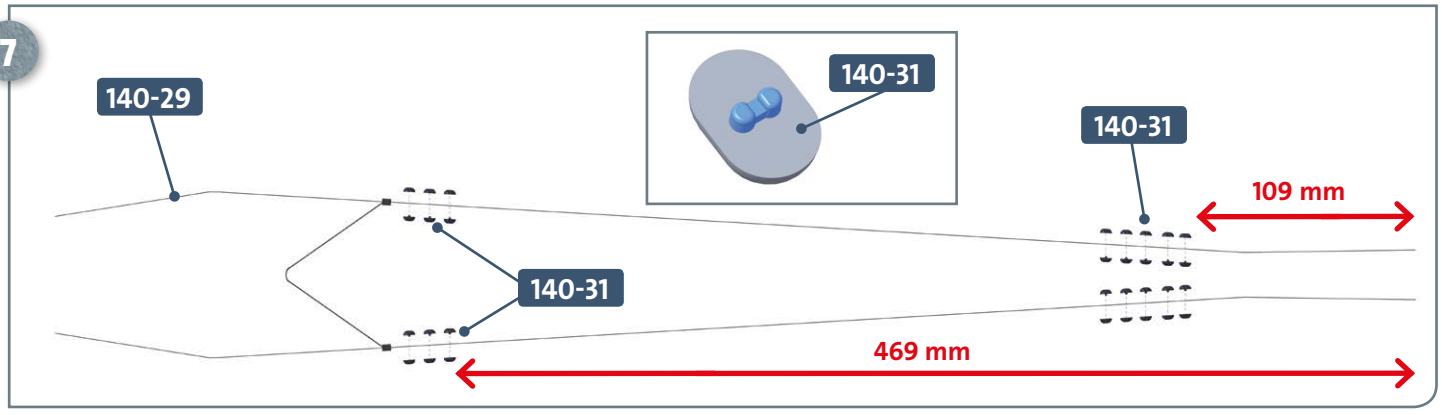
6



Attach the middle length of twine **140-28** to bracket **D**, which you mounted on the conning tower in kit 136. Next, glue the two rivets **140-33** to the antenna mounts on the sides of the conning tower. Finally, glue the forwardmost rivet **140-33** into the hole in the cutter part **D** (see photo below).

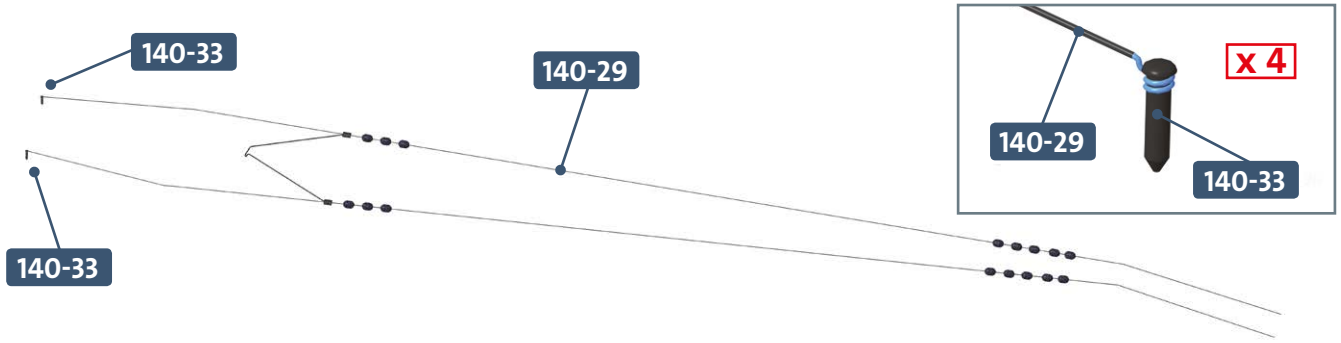


7



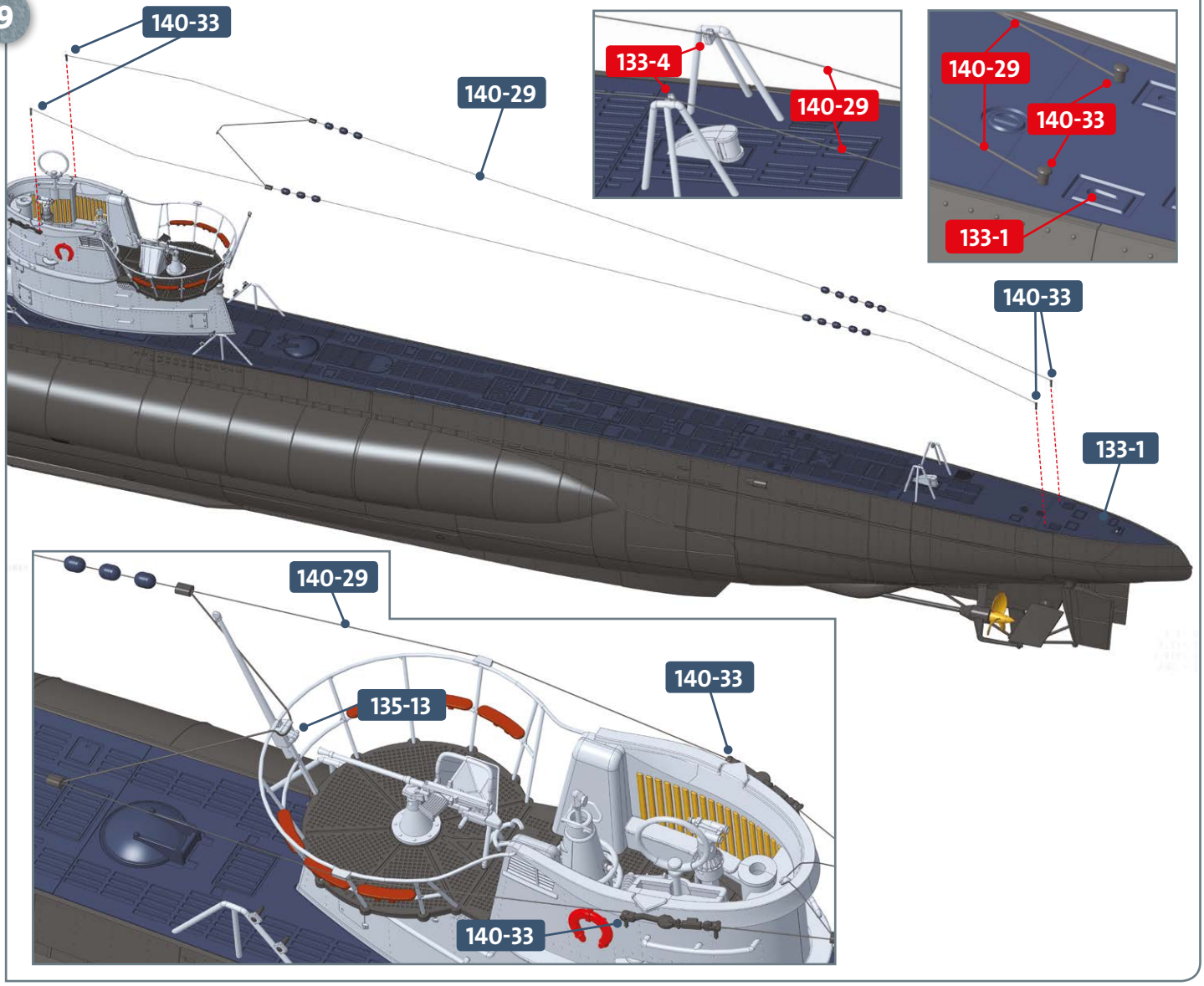
Next, proceed with the second prefabricated twine **140-29**, which will run from the conning tower to the stern. You will attach a total of 16 insulators **140-31** to this part. Apply a little glue to the pegs on one insulator half (shown light blue in the inset picture), position the part at the indicated position along the twine, then attach the other half of the insulator. The lengths refer to the distance along the twine from the aft end (on the right of this picture).

8



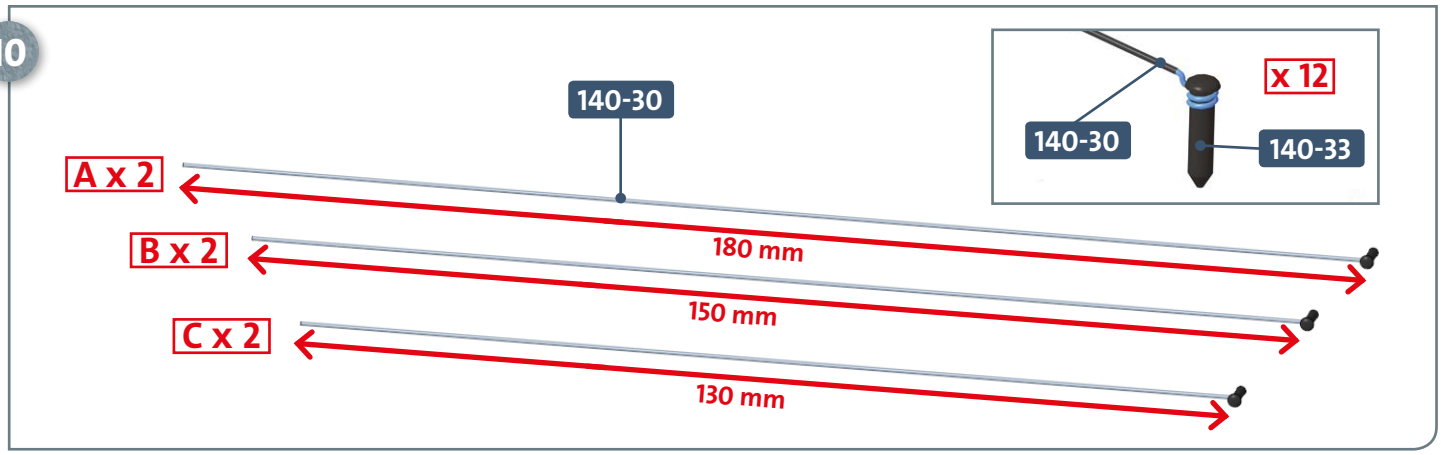
You will glue a rivet **140-33** to all four ends of the rigging part **140-29** (inset detail). However, wait to attach the two rivets at the aft ends (to the right of the image), so that you can precisely adjust the length of the rigging when you add it to the model in the next step.

9



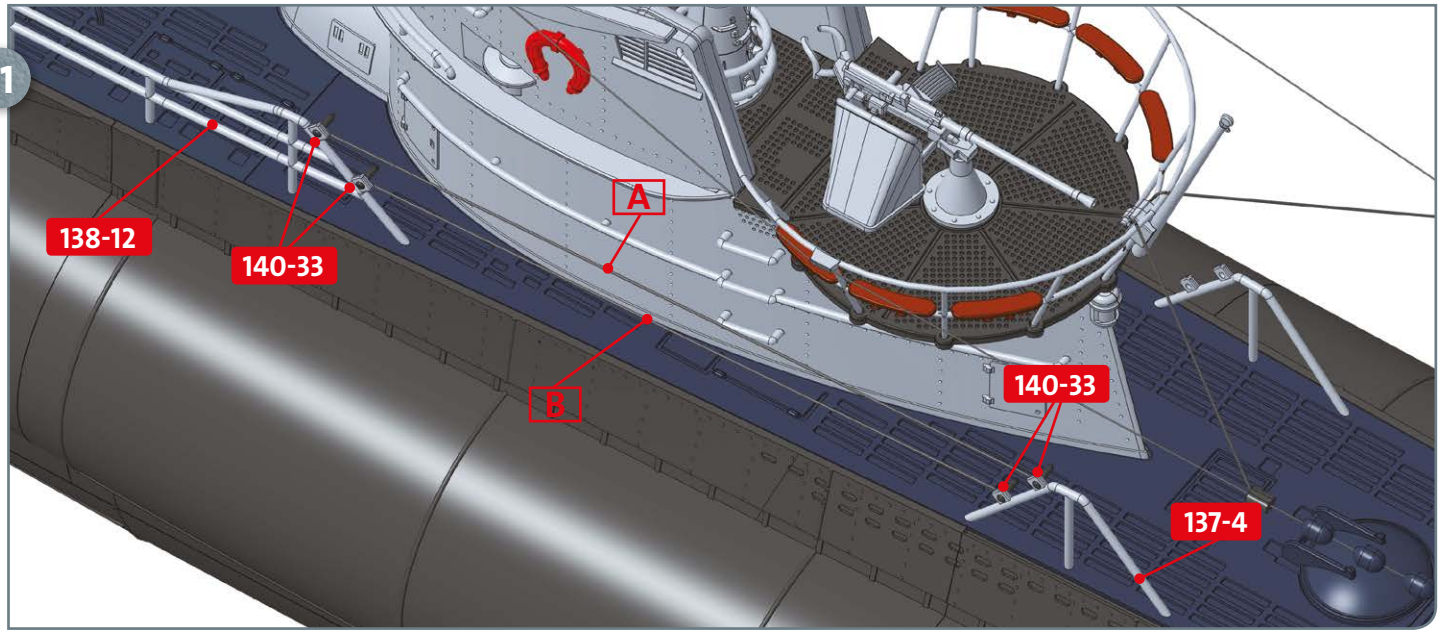
You will now attach the rigging **140-29** between the conning tower and the stern of the model. First, glue the twine to the bracket **135-13** on the safety railing. Next, glue the two front rivets **140-33** into the rear holes of the antenna mounts attached to the sides of the turret (inset detail). The aft ends of the rigging run through the antenna mounts **133-4**, and the two aft rivets **140-33** are glued into holes in the stern section **133-1** (inset detail, top right).

10



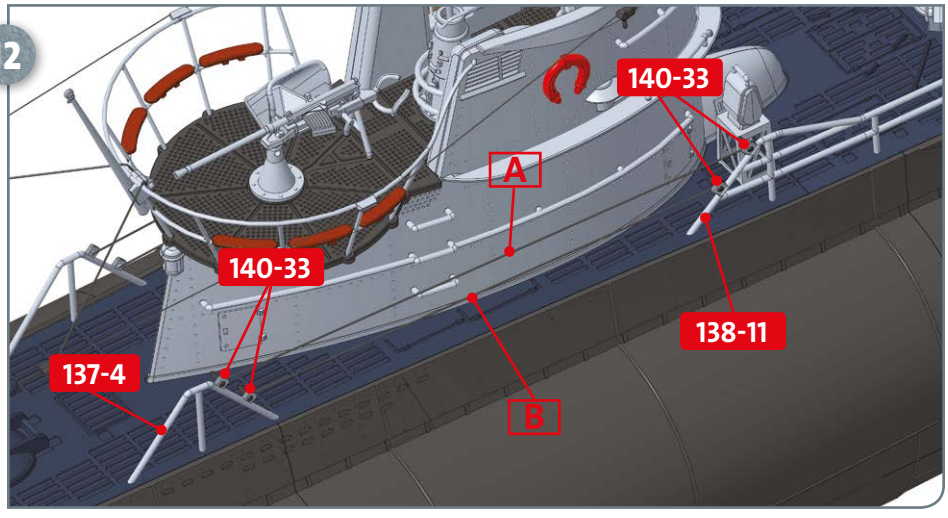
Cut six lengths of twine **140-30**: two pieces 180mm long (A), two 150mm long (B) and two pieces 130mm long (C). Attach one rivet **140-33** to each end of each of the six pieces, a total of 12 rivets (see inset detail). However, start with one end only. It is easiest if the rivet at the other end is first fitted to the model to ensure that when the twine is glued in place it is taut.

11



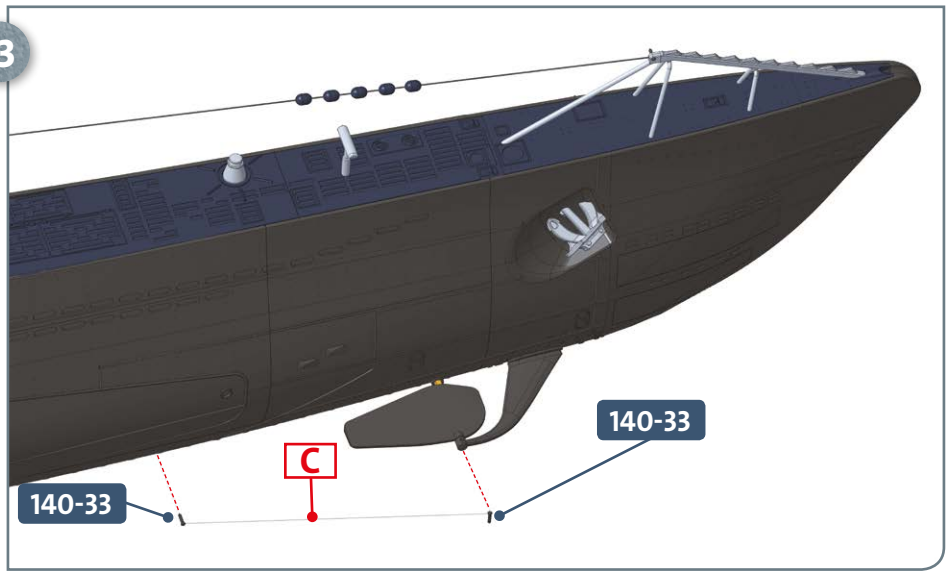
Attach one length A and one length B to the port (L) side of the model: the two pieces run between the port (L) railing **138-12** and the trestle support **137-4**. Secure them with four rivets **140-33**, which are glued into the holes in the railing and trestle respectively.

12



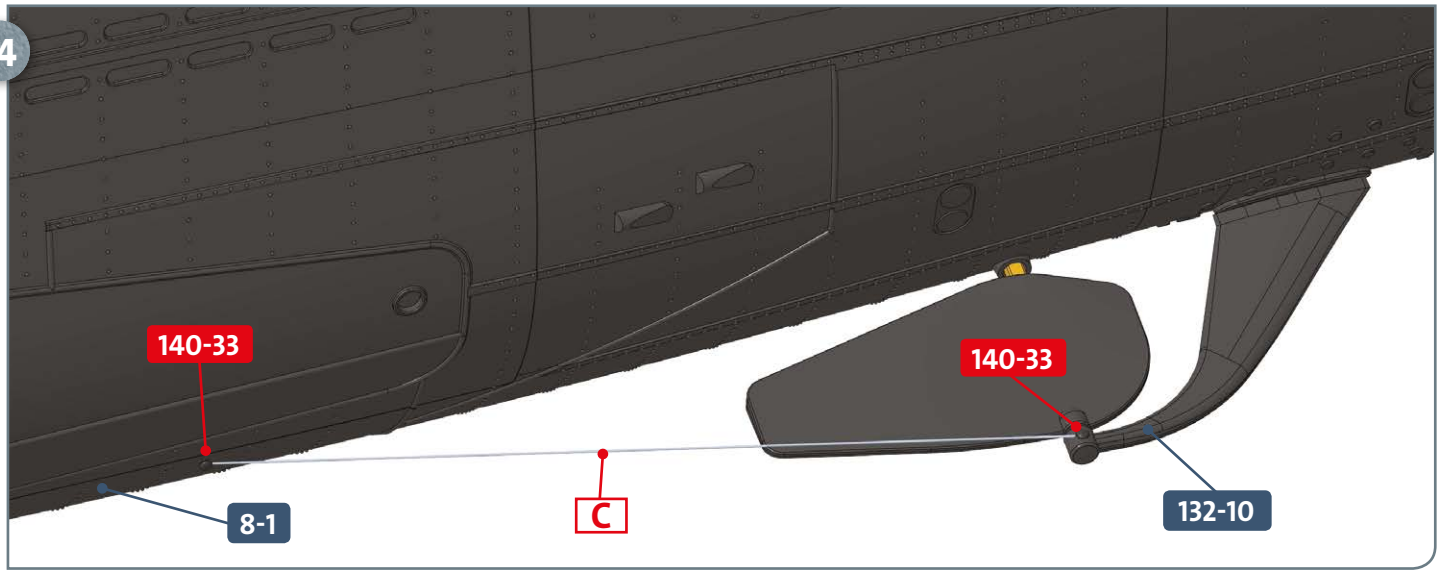
Repeat the process on the starboard (R) side of the model, attaching another length A and length B: this runs between the starboard (R) rail **138-11** and the trestle support **137-4**. They are likewise secured with four rivets **140-33**, as pictured.

13



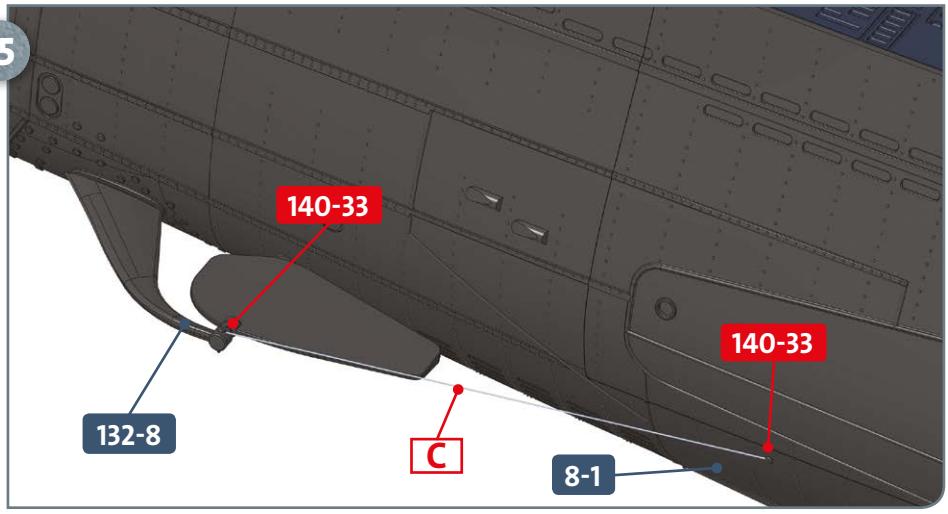
Finally, attach the two pieces of length C, one each side of the bow. The first piece runs along the starboard (R) side from the forward dive plane to the hull and is secured with two rivets **140-33**. The next image shows this in greater detail.

14



Mount the first rigging of length C by inserting the forward rivet **140-33** from above into the hole in the forward dive plane guard **132-10**. The aftmost rivet **140-33** is glued into the small hole in the lower hull section **8-1**.

15



On the port (L) side, the second length C runs from the hole in the forward dive plane guard **132-8** to the hole in the lower hull section **8-1** and is secured with two rivets **40-33**. This completes the assembly of both the rigging and the model as a whole.

COMPLETED WORK