

# BISMARCK

## THE LEGENDARY BATTLESHIP



### Pack 12 | Build Instructions

Your 1:200 scale model of the legendary battleship Bismarck is packed with intricate details which precisely replicate every aspect of this state-of-the-art warship. Each piece has been created using premium quality materials to bring maximum enjoyment during your complete build.

In your twelfth model pack, you will assemble:

**STAGE 129: GEARBOX FOR THE  
FOURTH 38CM GUN TURRET**

**STAGE 130: MOTOR AND RAILINGS**

**STAGE 131: THE FOURTH CIRCUIT BOARD**

**STAGE 132: THE SECOND AIRCRAFT  
AND DETAILS**

**STAGE 133: CIRCUIT BOARD  
AND FUNCTION TESTS**

**STAGE 134: CRANES AND BOOMS**

**STAGE 135: THE BOATS**

**STAGE 136: STAND AND BATTERY BOX**

**STAGE 137: STAND AND ELECTRONICS**

**STAGE 138: STAND AND DECK DETAILS**

**STAGE 139: FITTING THE EYELETS AND THE RIG  
FOR THE ONBOARD CRANES**

**STAGE 140: THE REMOTE CONTROL**

### **WARNING**

Some parts are assembled using magnets. These magnets can cause serious injury if they are swallowed. Keep away from children. If you suspect a magnet has been swallowed, seek medical help straight away.

## Advice from the experts

Spare screws are included with each part. Occasionally, you may be instructed to keep spare or unused screws for a later stage.

Keep these spares in a safe place and label them correctly.

Please make sure you don't mix up the screws. They look quite similar, but the threads do vary slightly. Using the wrong screws may damage the parts.

When securing parts together using multiple screws, fit each screw loosely to ensure all the parts are correctly aligned before gently tightening them firmly, but not overtight, in the order in which you placed them.

Your screwdriver can be magnetised by stroking it with a magnet (fridge magnet, etc.) enabling it to hold the screws and make assembly easier.

If a screw is tight going into a metal part, do not force it as you may shear the head off. Remove it and put a tiny smear of Vaseline, soap or light oil on the thread. That will lubricate it and make it easier to drive home.

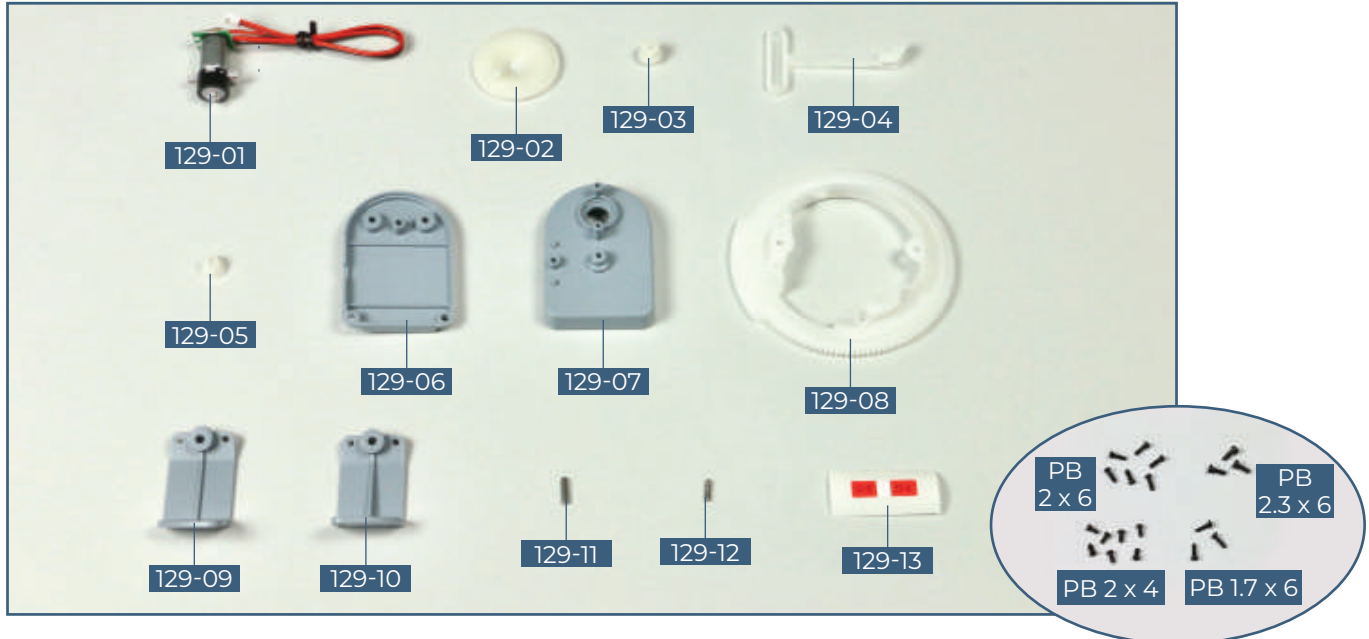
During the course of this build, you will receive many pieces that you will assemble immediately – following the instructions in the corresponding stage – and other pieces that you should store safely to one side, for use in future assembly stages.



Not suitable for children under the age of 14. This product is not a toy and is not designed for use in play. Keep the parts out of the reach of small children. Some parts may have sharp edges. Please handle them with care.

# STAGE 129

## GEARBOX FOR THE FOURTH 38CM GUN TURRET



### COMPONENTS CHECKLIST

**129-01:** Elevation motor

**129-02:** Cog

**129-03:** Cog

**129-04:** Gear arm

**129-05:** Hub

**129-06:** Gear housing

**129-07:** Gear housing

**129-08:** Large cog

**129-09:** Left support bracket (L)

**129-10:** Right support bracket (R)

**129-11:** Shaft

**129-12:** Shaft (with splines)

**129-13:** Cable label

**PB:** Six 2 x 6mm PB screws

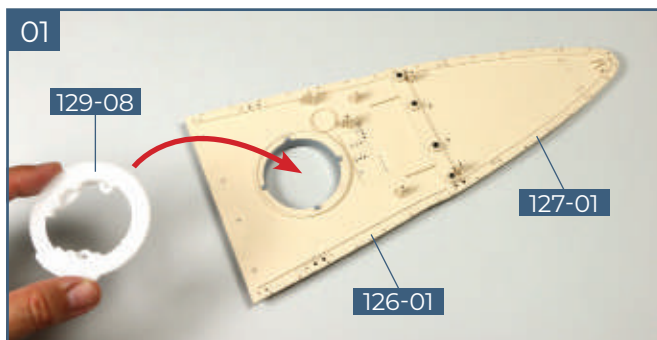
**PB:** Three 2.3 x 6mm PB screws

**PB:** Seven 2 x 4mm PB screws

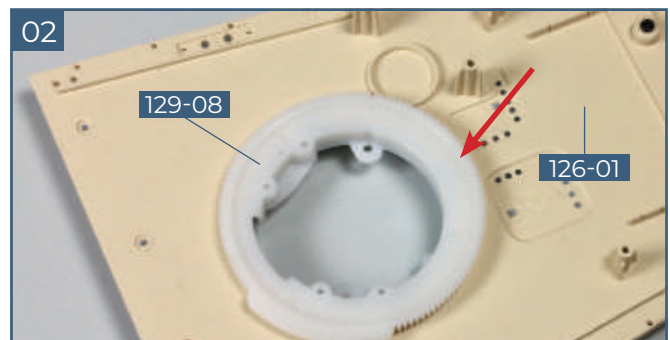
**PB:** Three 1.7 x 6mm PB screws

Check the screws carefully so that you do not confuse them when you start to use them.

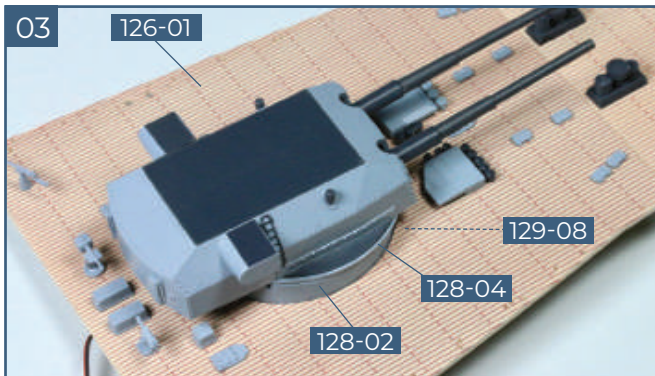
## 01. ASSEMBLING THE TURRET



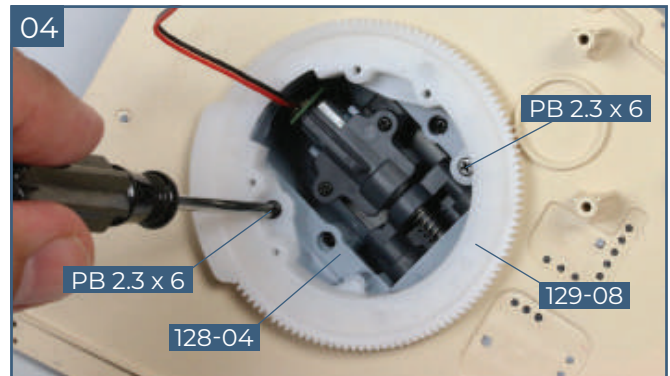
Take the two stern upper deck sections **126-01/127-01** and place the assembly upside down on your worktop. Fit the large cog **129-08** in the recess in the upper deck part **126-01**, as indicated.



The cog **129-08** has been fitted into the underside of the upper deck section **126-01** so that the triangle (arrow) points directly towards the stern.

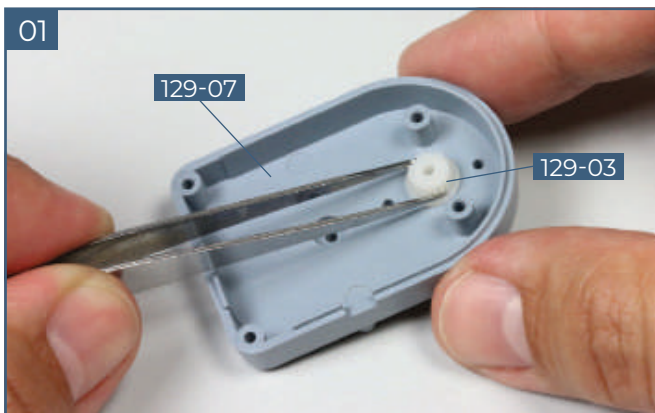


Holding the cog **129-08** in place, carefully turn the deck assembly **126-01/127-01** over. Fit the fourth 38cm gun turret **128-04** on the barrette **128-02**.

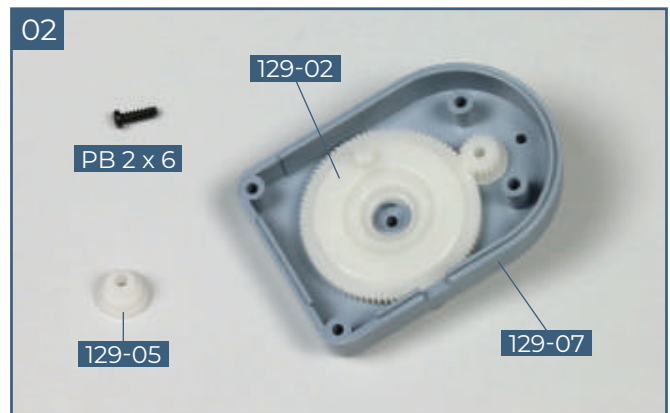


Holding all the parts in place, turn the deck assembly over again. Fix the turret **128-04** to the cog **129-08** with two **PB 2.3 x 6mm** screws, as shown.

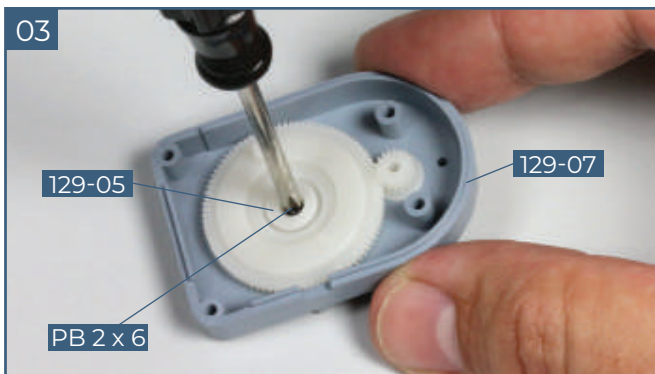
## 02. FITTING THE GEARBOX AND ELEVATION MOTOR



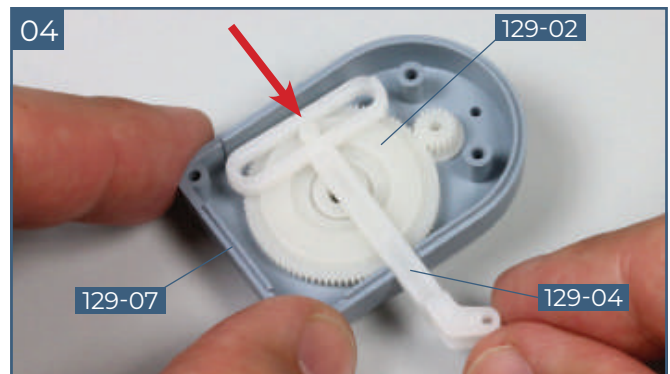
Take the gear housing **129-07** and fit the cog **129-03** into the large hole in the housing.



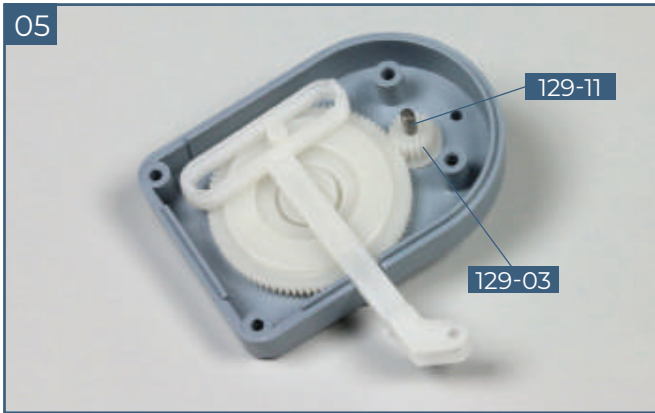
Fit cog **129-02** into the gear housing **129-07**. Have the hub **129-05** and a **PB 2 x 6mm** screw ready.



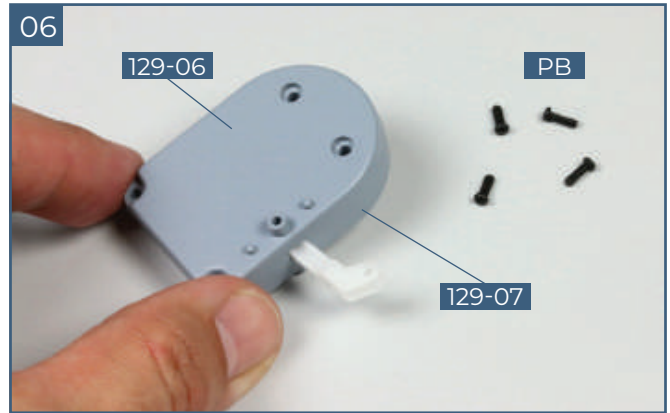
Fit the hub **129-05** into the central hole of cog **129-02** and fix in place with a **PB 2 x 6mm** screw.



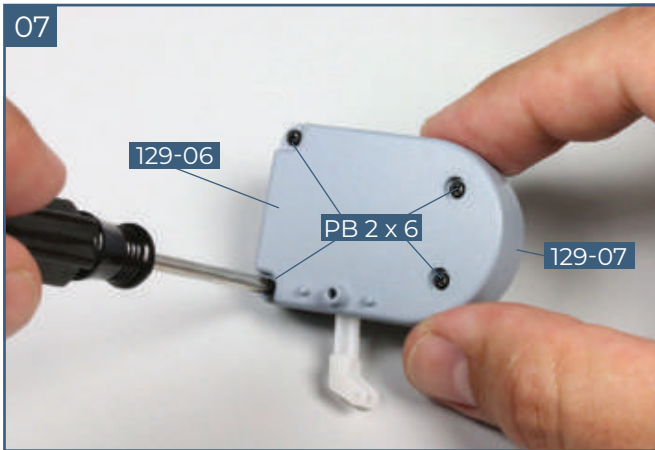
Fit the gear arm **129-04** in the gear housing **129-07** so that the peg on cog **129-02** fits into the oval opening (arrow).



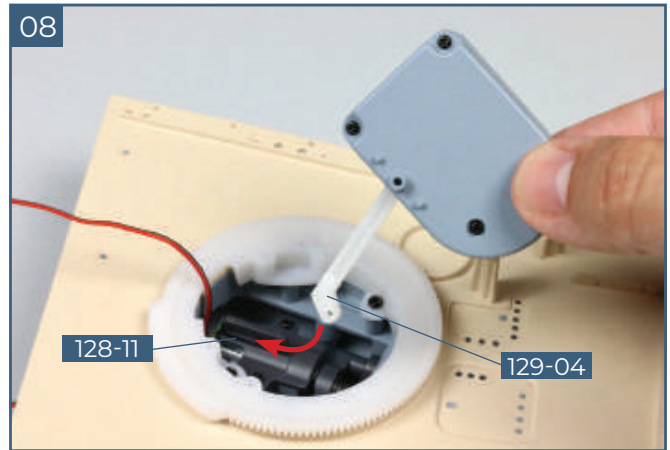
Fit the shaft **129-11** into the hole in cog **129-03**, as shown.



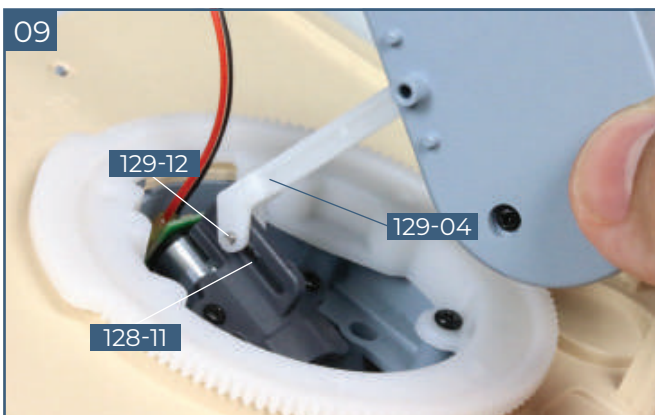
Fit the other half of the gear housing **129-06** on top of part **129-07**, as shown. You will need four **PB** 2 x 6mm screws.



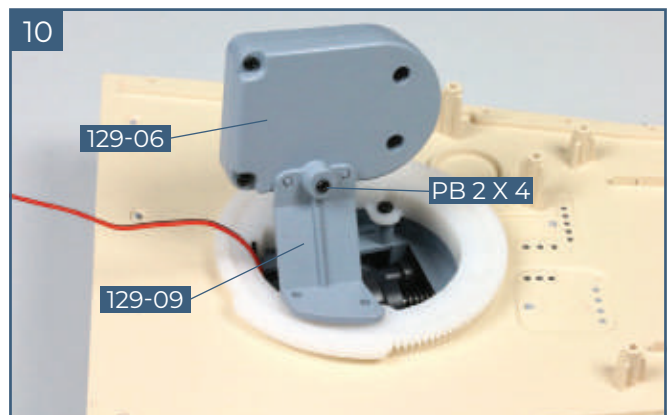
Use the four **PB** 2 x 6mm screws to fix the two halves of gear housing **129-06** and **129-07** together.



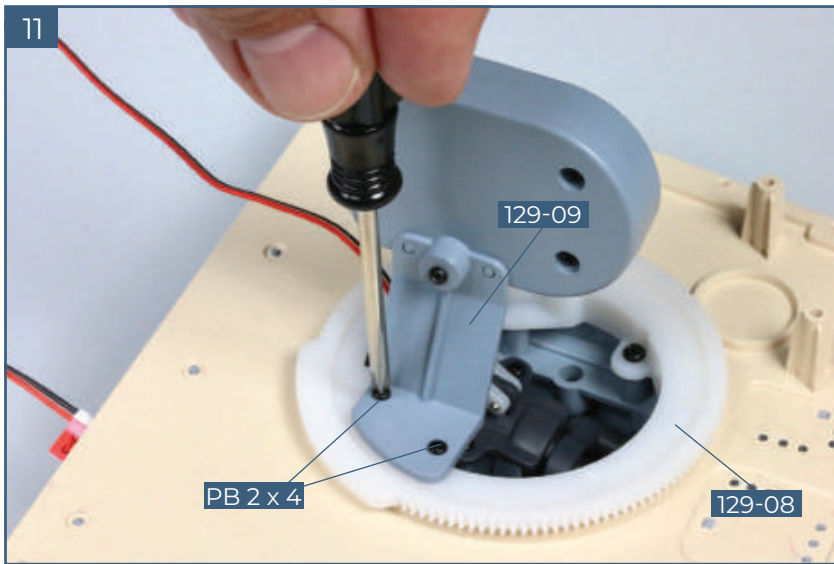
Fit the gear housing **129-06/129-07** into the opening beneath the 38cm gun so that the gear arm **129-04** fits over the slot in the motor mount **128-11** (arrow).



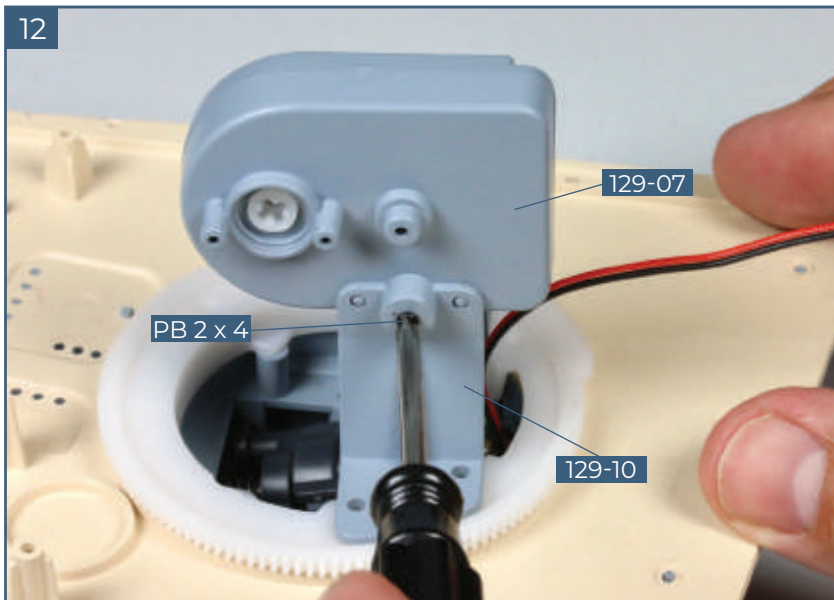
Fit the shaft **129-12** through the holes in the end of the arm **129-04** so that it is anchored in the slot in the motor mount **128-11**, as shown.



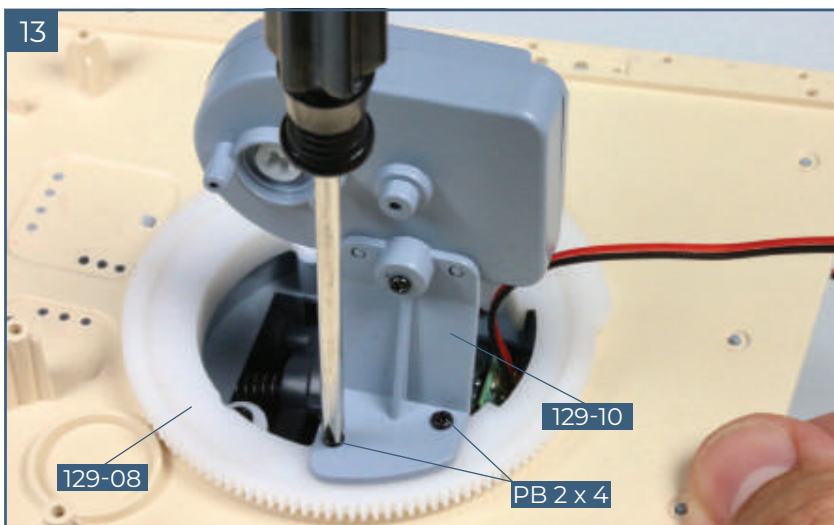
Take the left gearbox bracket **129-09** and fix it to the gearbox housing **129-06** using a **PB** 2 x 4mm screw, as shown.



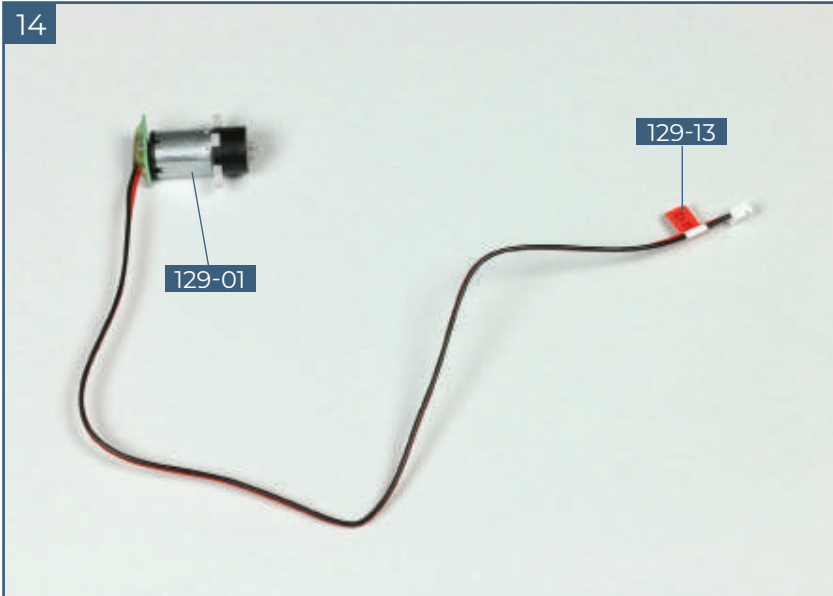
While supporting the deck from below, fix the broad tab of the gear bracket **129-09** to cog **129-08** with two more **PB 2 x 4mm** screws, as shown.



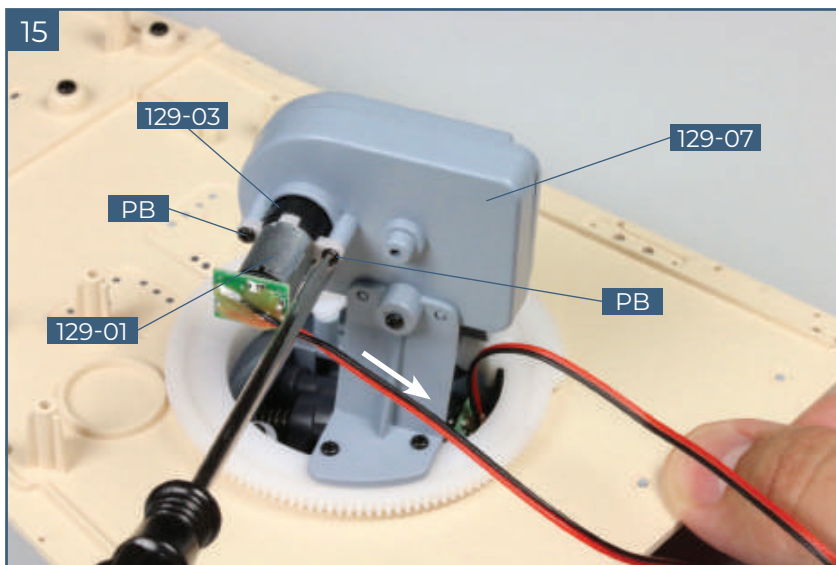
Turn the upper deck assembly round so that you can fit the right gearbox bracket **129-10**. It is fixed to the gear housing **129-07** using a **PB 2 x 4mm** screw, as shown.



Fix the broad tab of the gear bracket **129-10** to cog **129-08** with two more **PB 2 x 4mm** screws.

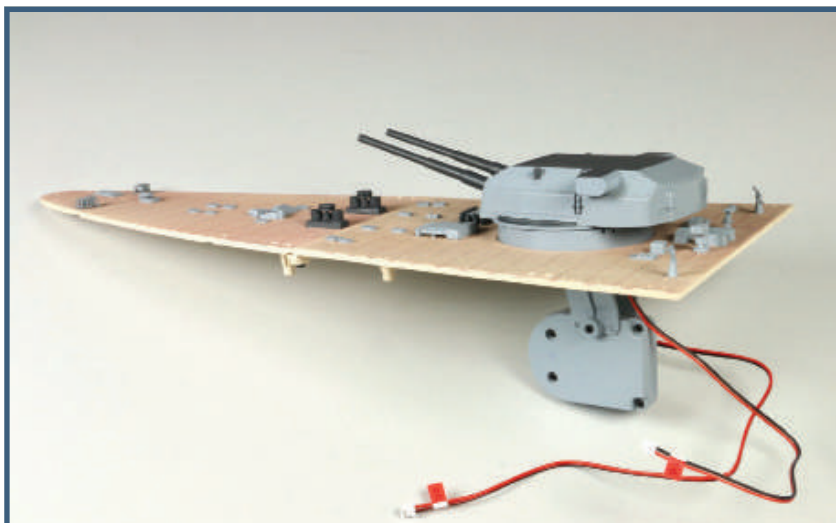


Take the elevation motor **129-01** and the cable label **129-13**. Remove the cable label from its backing and wrap it around the cable near the connector, as shown.



Take the elevation motor **129-01** and fit the motor shaft into the cog **129-03**. Fix the motor in place on the gear housing **129-07** using two **PB** 1.7 x 6mm screws.

**Note:** The cable from the motor runs away from the stern (arrow).

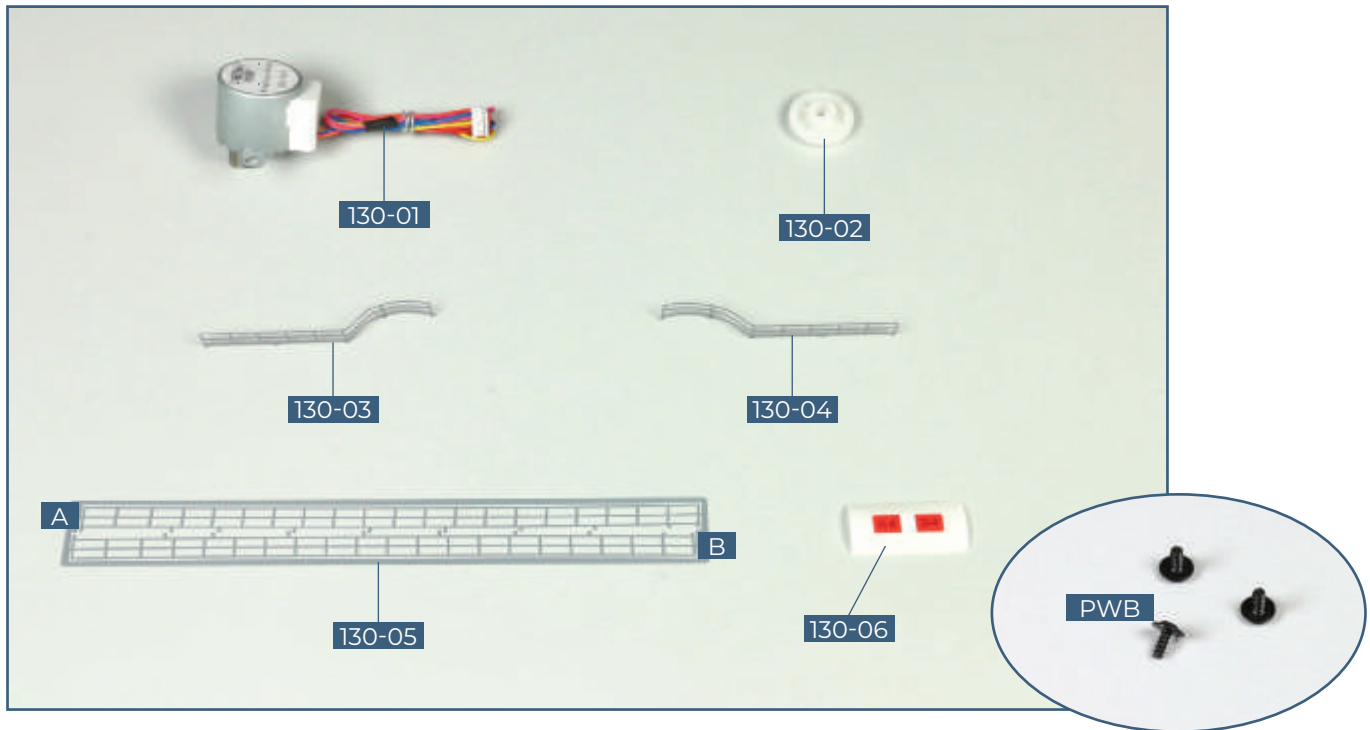


**Completed work**

The gearbox and the elevation motor for the fourth twin gun turret have been fitted to the underside of the upper deck.

# STAGE 130

## MOTOR AND RAILINGS



### COMPONENTS CHECKLIST

**130-01:** Motor

**130-02:** Cog

**130-03:** Railing (port)

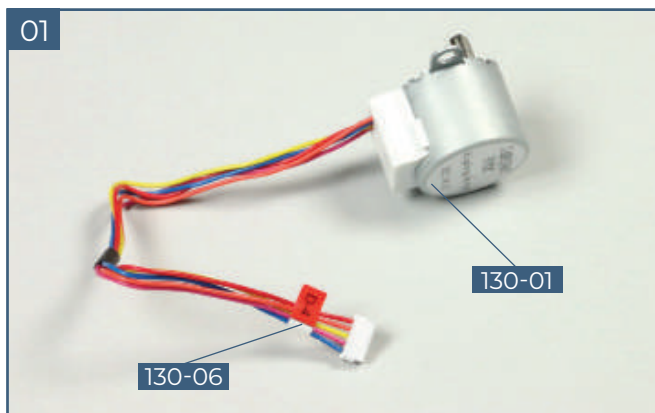
**130-04:** Railing (starboard)

**130-05:** Two straight railings  
(A and B)

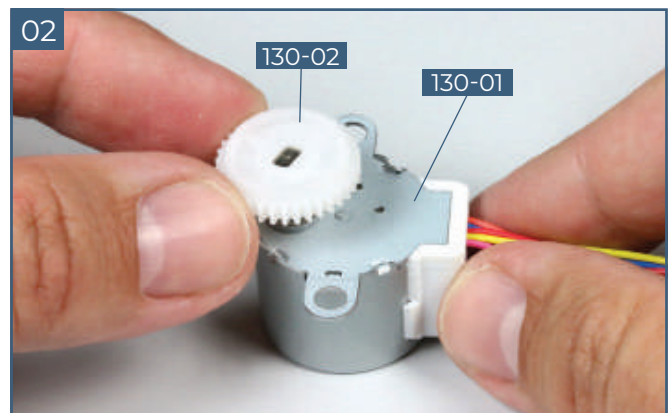
**130-06:** Cable label

**PWB:** Three 2.3 x 5mm screws

## 01. FITTING THE MOTOR

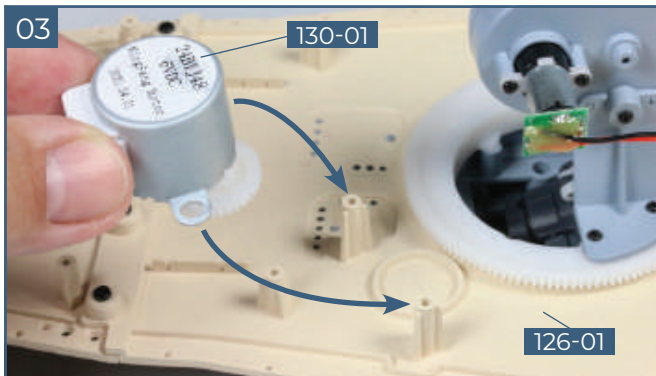


Place the motor **130-01** on your worktop. Fit the cable label **130-06** to the cable near the connector, as shown.

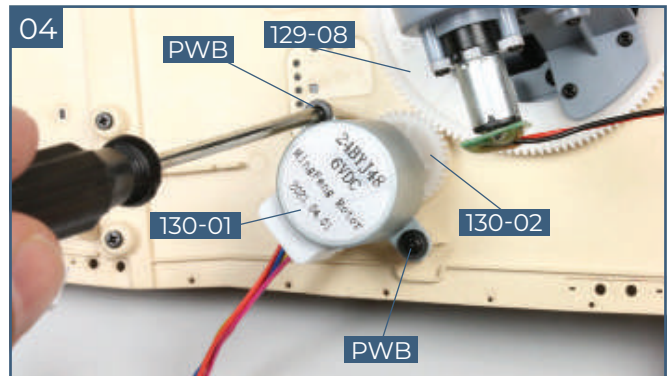


Fit the cog **130-02** on the shaft of the motor **130-01** and carefully press it down as far as it will go.



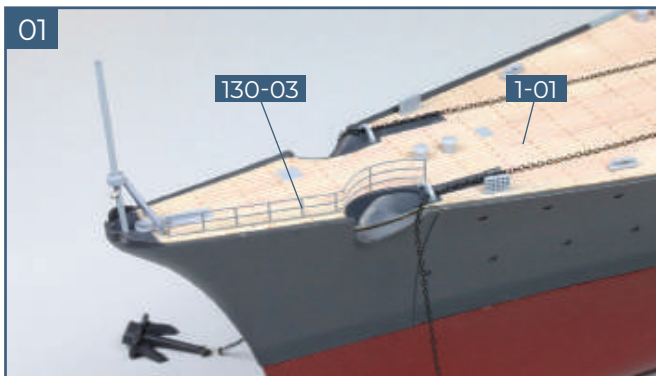


Fit the motor on the underside of the aft upper deck section **126-01** so that the screw holes in the tabs on the sides of the motor fit over the raised screw sockets on the deck, as indicated.



When the motor **130-01** is in the correct position, the cogs **130-02** and **129-08** engage with each other, as shown. Fix the motor to the underside of the deck with two **PWB** screws.

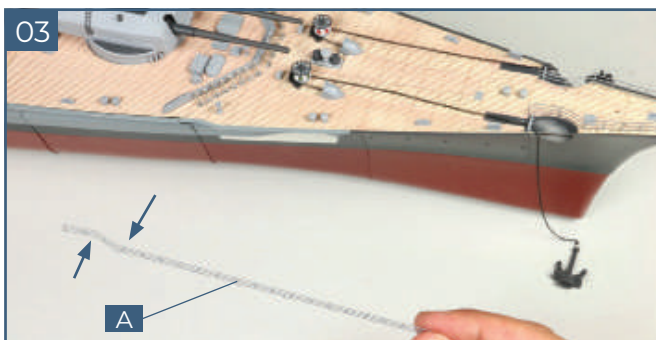
## 02. THE RAILINGS FOR THE UPPER DECK



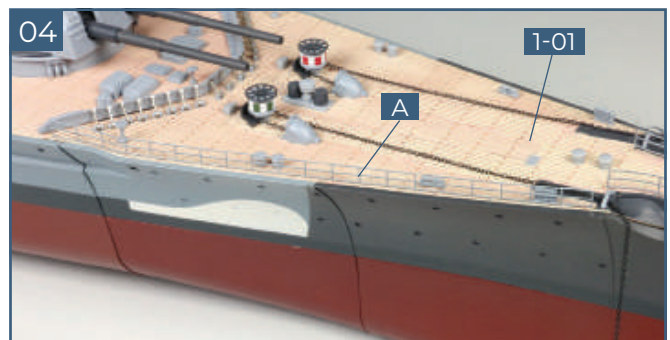
Place the model on your work surface so that you can access the bow. Check how the railing **130-03** fits on the port side of deck section **1-01**. Apply a little superglue to the five pegs of the railing and fix in place.



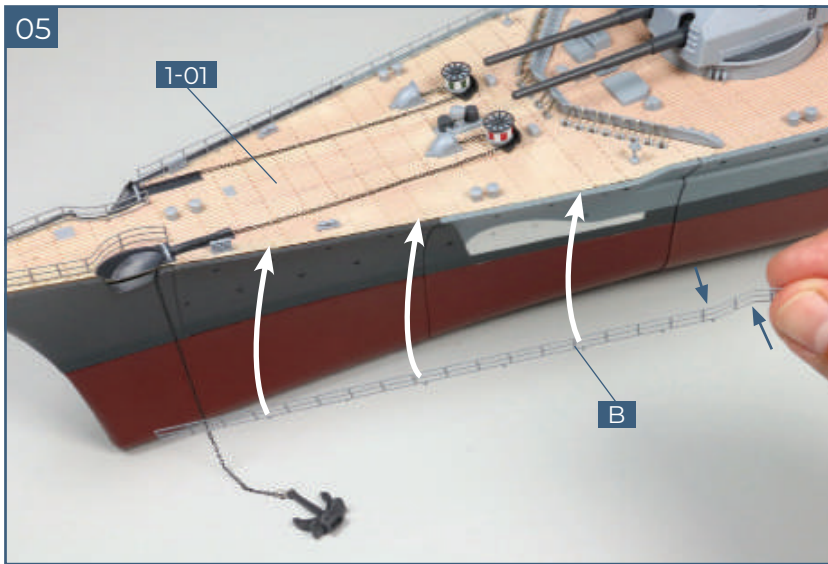
Glue railing **130-04** in place on the starboard side of the upper deck section **1-01**.



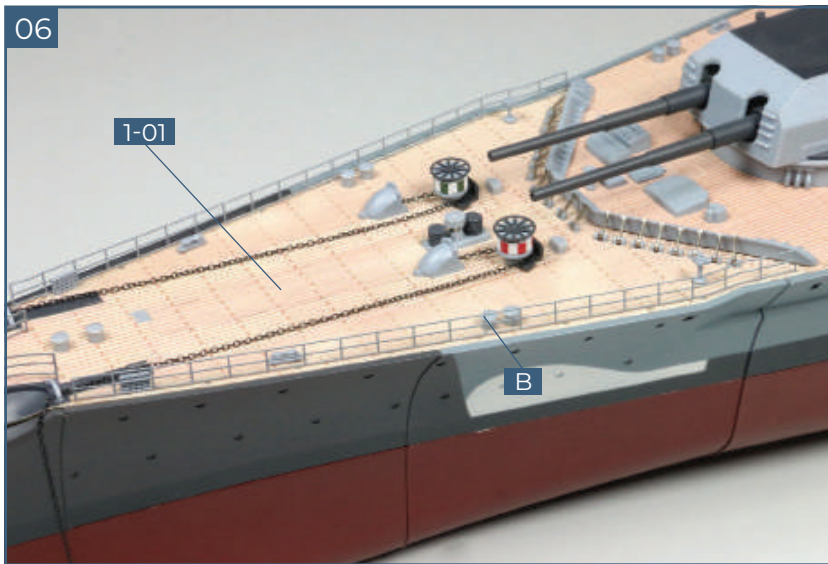
Remove railing **A** from the frame **130-05** and bend it slightly at the end where there are two indented marks, as shown (see also next step).



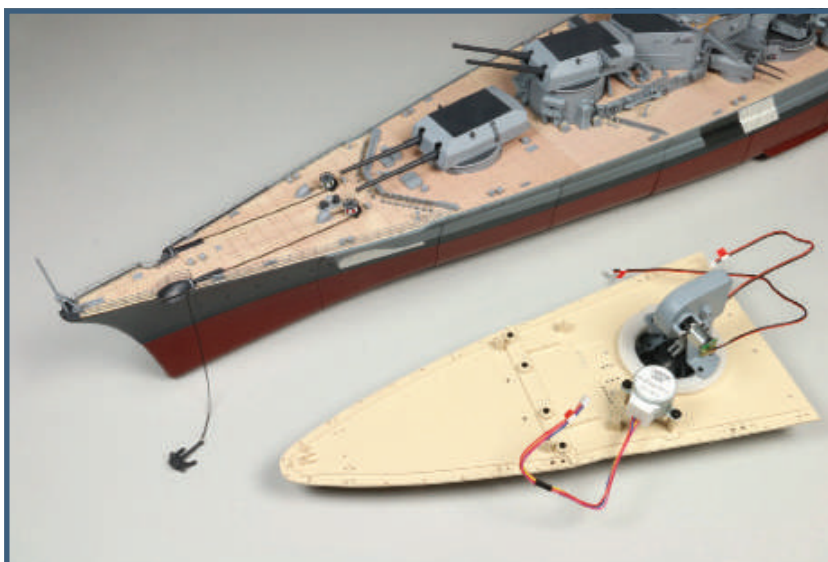
Check how railing **A** fits on the starboard side of the upper deck **1-01**. Apply a little superglue to the pegs on the lower edge of the railing and glue in place.



Take railing **B** from the frame **130-05** and bend it slightly at the indented marks (arrows). Check the fit on the port side of deck section **1-01**.



Apply a little superglue to the pegs on the lower edge of the railing **B** and glue in place on deck section **1-01**.

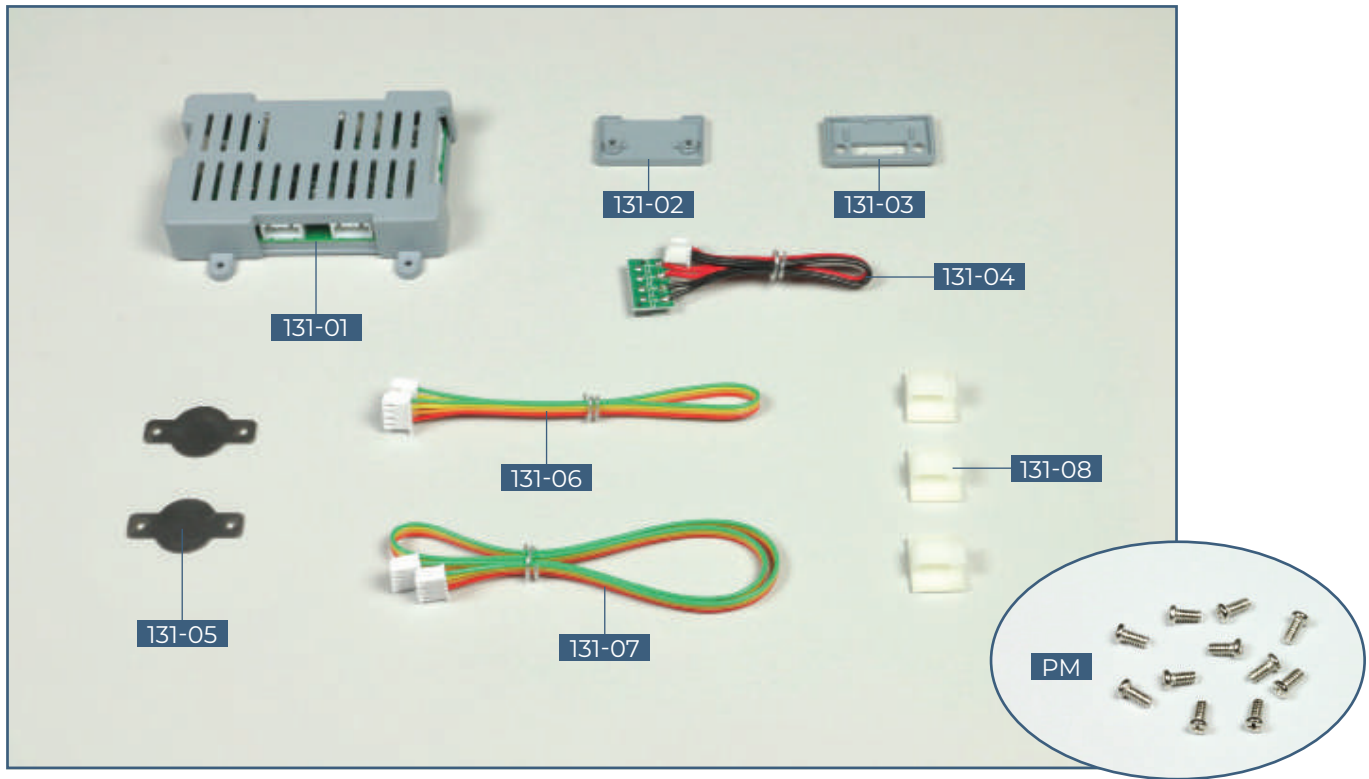


**Completed work**

The rotation motor has been fitted to the fourth 38cm tower. Railings have been fitted around the bow of the upper deck.

# STAGE 131

## THE FOURTH CIRCUIT BOARD



### COMPONENTS CHECKLIST

**131-01:** Fourth circuit board

**131-02:** Cover for PCB (top)

**131-03:** Cover for PCB (bottom)

**131-04:** Connection cable with small PCB

**131-05:** Two contact plates

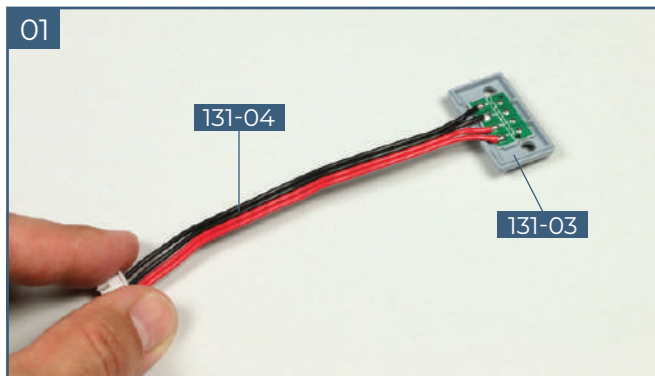
**131-06:** Cable

**131-07:** Cable

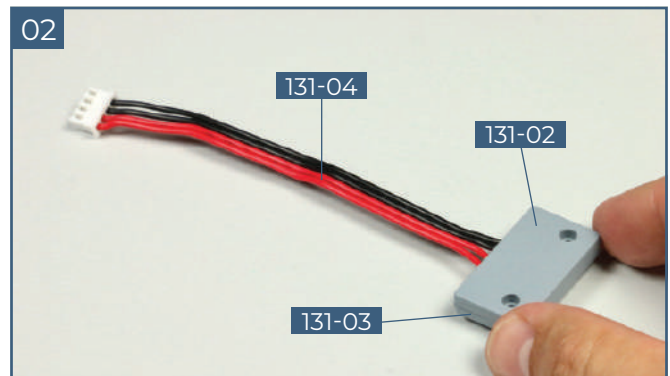
**131-08:** Three cable guides

**PM:** Eleven 2 x 4mm PM screws

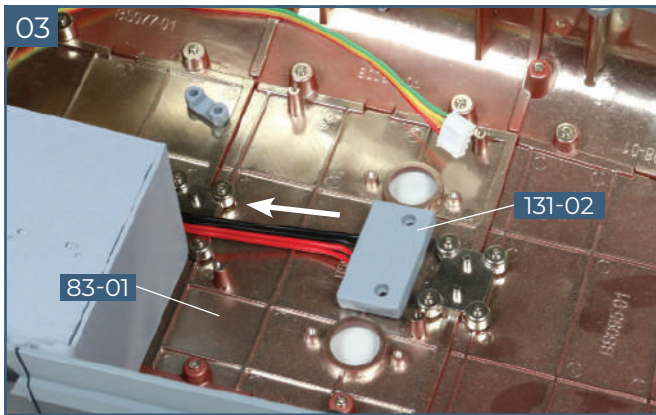
## 01. ASSEMBLING THE CONNECTION CABLE AND CONTACT PLATES



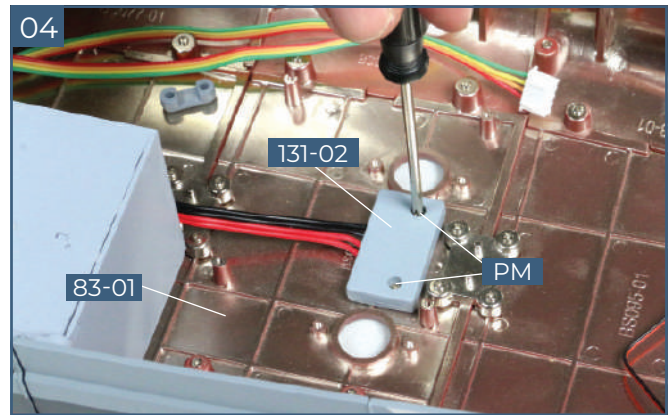
Place the bottom of the cover **131-03** on your worktop. Fit the small PCB on the end of the connection cable **131-04** into the recess in the cover, as shown.



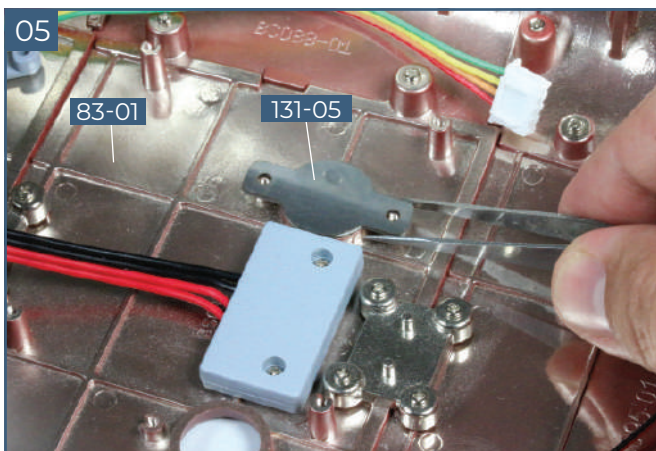
Fit the top of the cover **131-02** onto part **131-03**. This holds the small PCB in place.



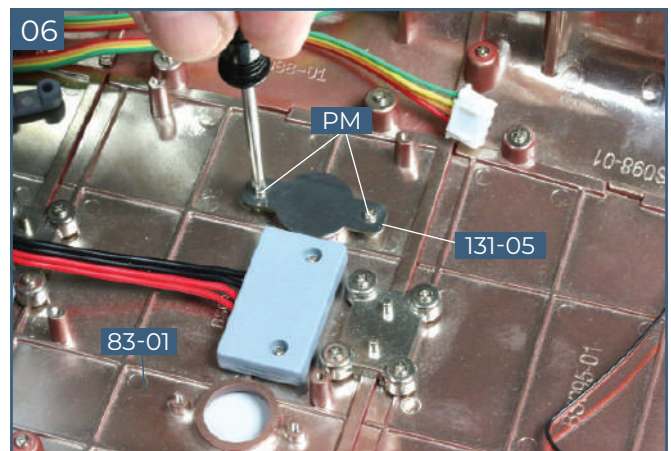
Position the assembled PCB cover **131-02/131-03** in the hull assembly, over the opening in keel section **83-01**. Note that the cable runs towards the bow (arrow).



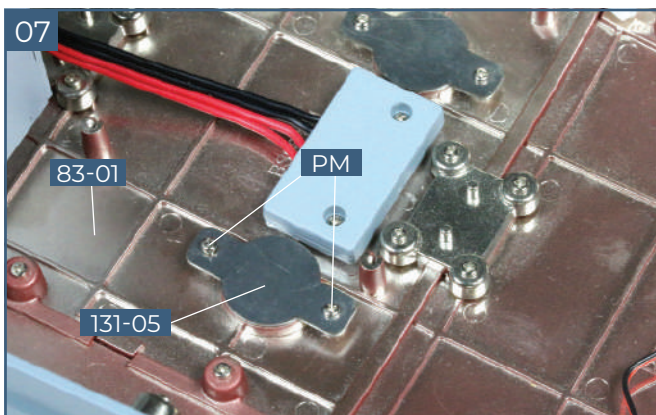
Fix the PCB cover assembly **131-02/131-03** to keel section **83-01** using two **PM** screws.



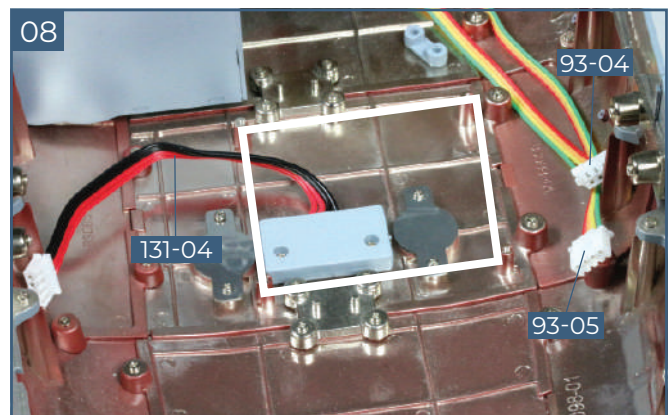
Fit one of the contact plates **131-05** over the circular opening on the starboard side of the keel section **83-01**.



Fix the contact plate **131-05** to the keel section **83-01** using two **PM** screws.

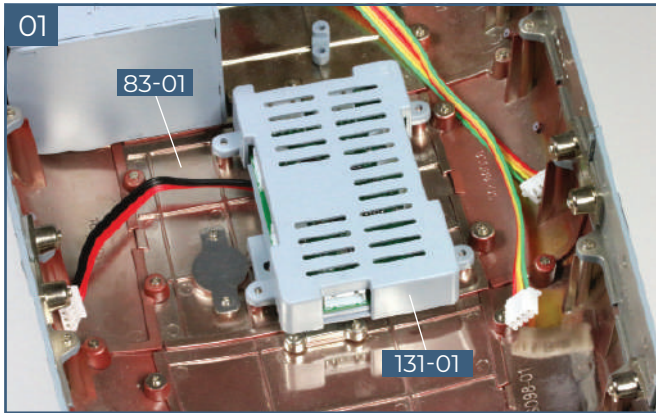


Position the second contact plate **131-05** over the other circular opening in keel section **83-01** and fix it in place with two **PM** screws.

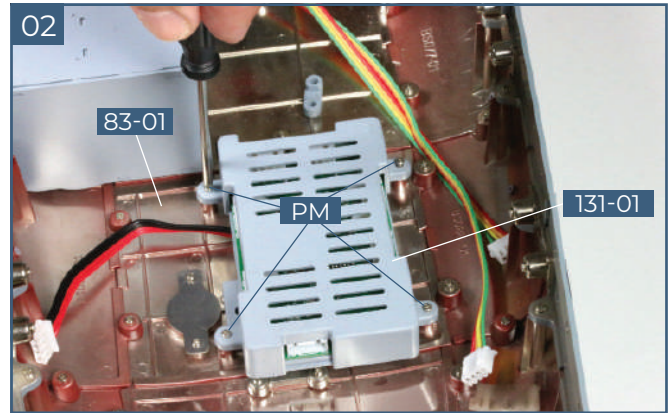


Make sure that the cables **93-04** and **93-05** run to the sides, and the plug at the end of cable **131-04** are clear of the area outlined in white.

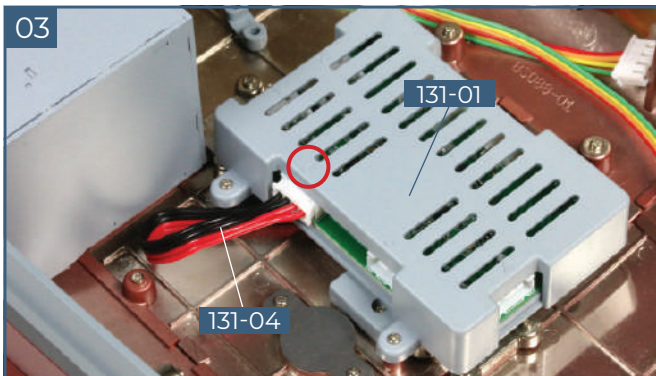
## 02. INSTALLING AND CONNECTING THE CIRCUIT BOARD



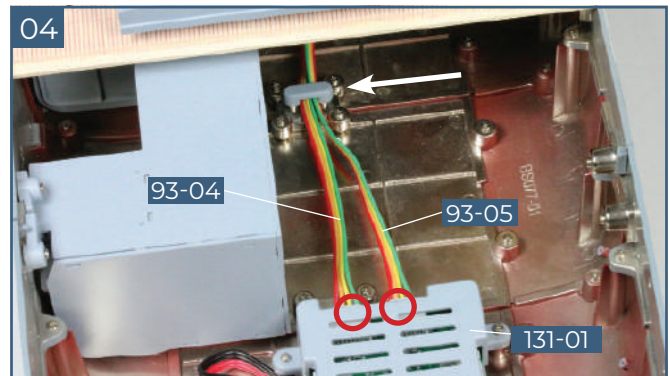
Fit the circuit board **131-01** into the hull assembly so that the screw holes in the four flanges align with raised screw sockets in keel section **83-01**. Note the orientation of the box.



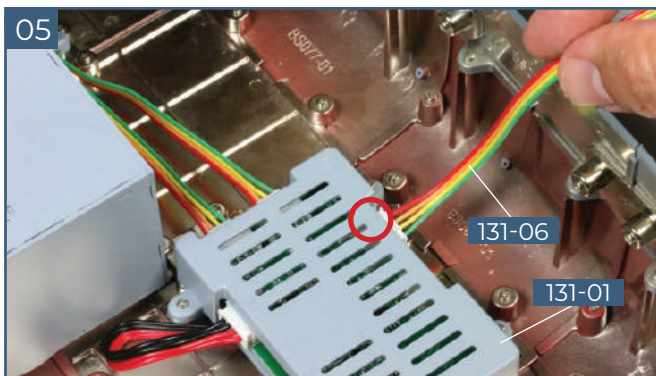
Fix the circuit board **131-01** in place on the keel section **83-01** using four **PM** screws.



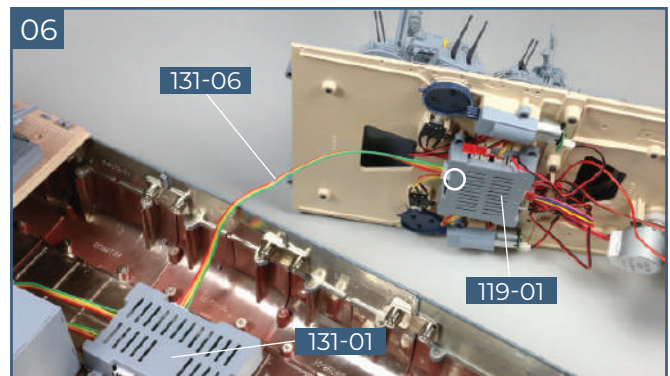
Identify the port on the circuit board **131-01** numbered 6 (circled). Connect cable **131-04** to port 6, as shown.



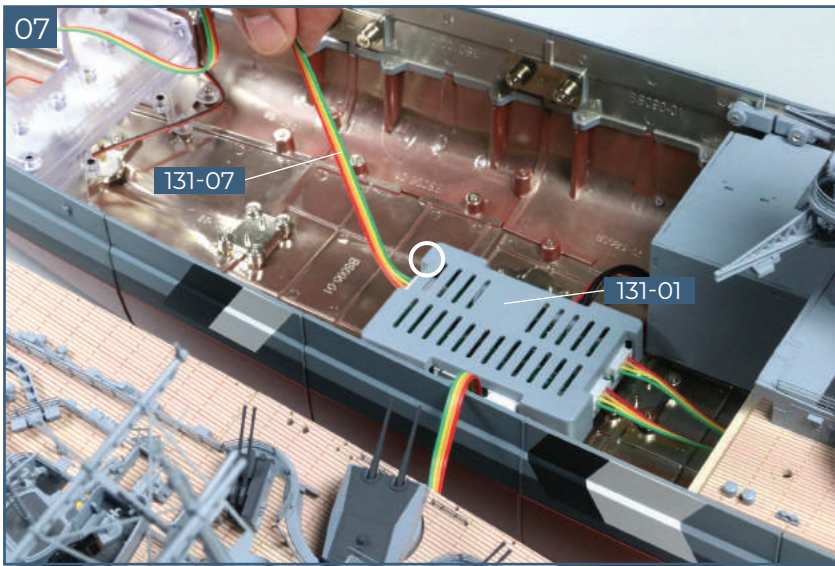
Identify ports 1 and 2 (circled). Connect the cables **93-04** and **93-05** to the port. The cables are held in place by a cable guide (white arrow).



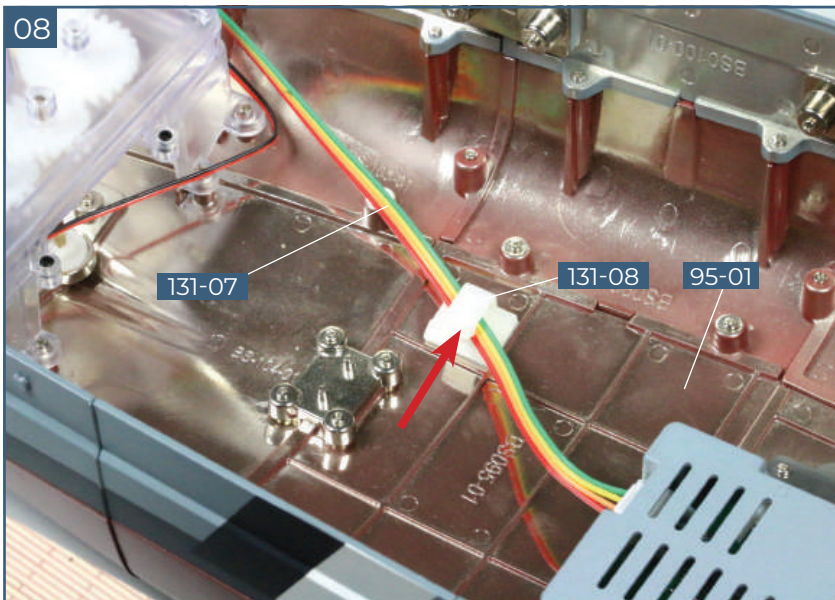
Connect one end of cable **131-06** to port 3 (circled) on circuit board **131-01**, as shown. This is the shorter of the two cables supplied with this Stage.



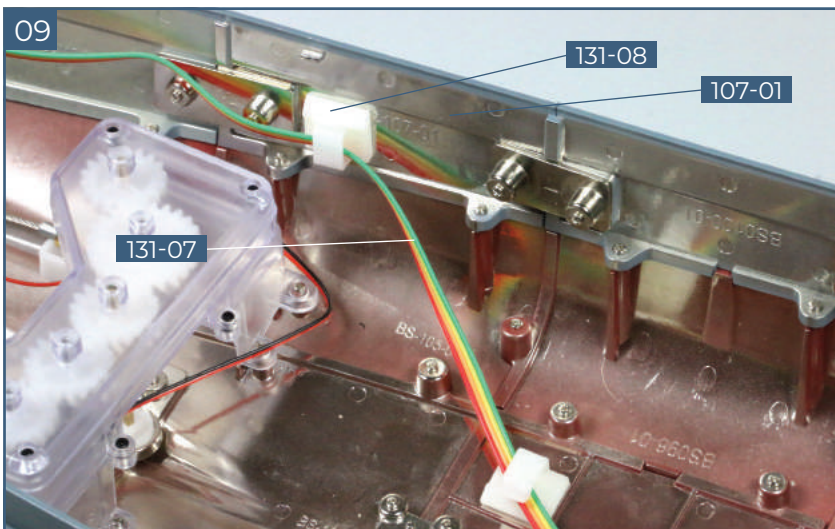
Connect the other end of the cable **131-06** to port 12 of the circuit board **119-01**, which is under the rear superstructure (circled white).



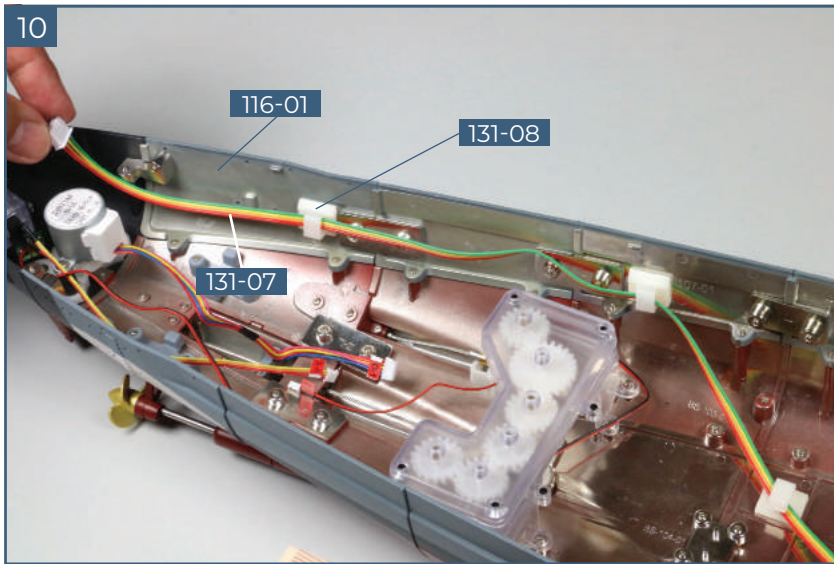
Connect one end of cable **131-07** to port 4 (circled white) on circuit board **131-01**, as shown.



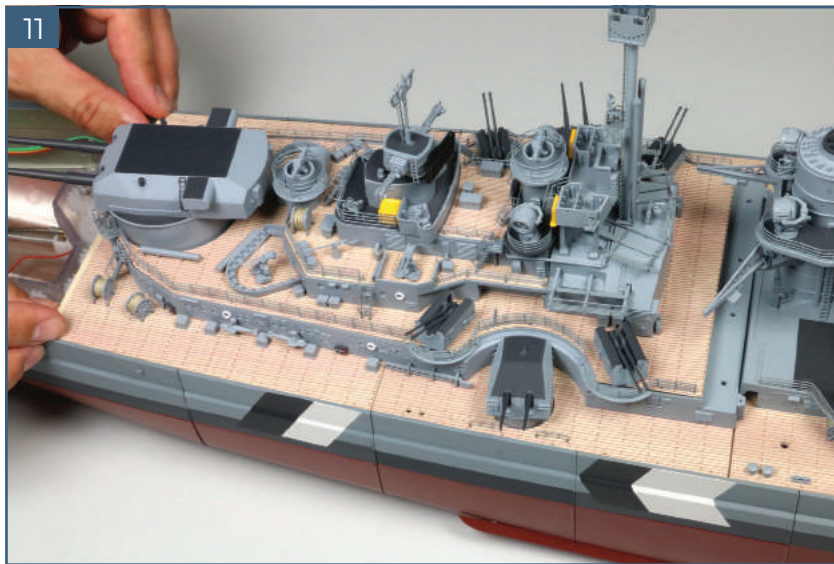
The first cable guide **131-08** is fitted to the tenth keel section **95-01**, on the port side. Note that the opening in the guide is towards the centre of the hull (arrow). Run cable **131-07** diagonally through the cable guide towards the stern of the hull.



Fit the second cable guide **131-08** to the upper port hull section **107-01**, with the opening facing upwards. Run cable **131-07** through the cable guide and towards the stern.



Fit the third cable guide **131-08** to the upper port section of the hull **116-01**, again with the opening facing upwards. Run cable **131-07** through this cable guide. The connector at the end of this cable is not connected yet.



Position the aft superstructure on the hull assembly as shown in the photo. It is not fixed in place at this Stage.

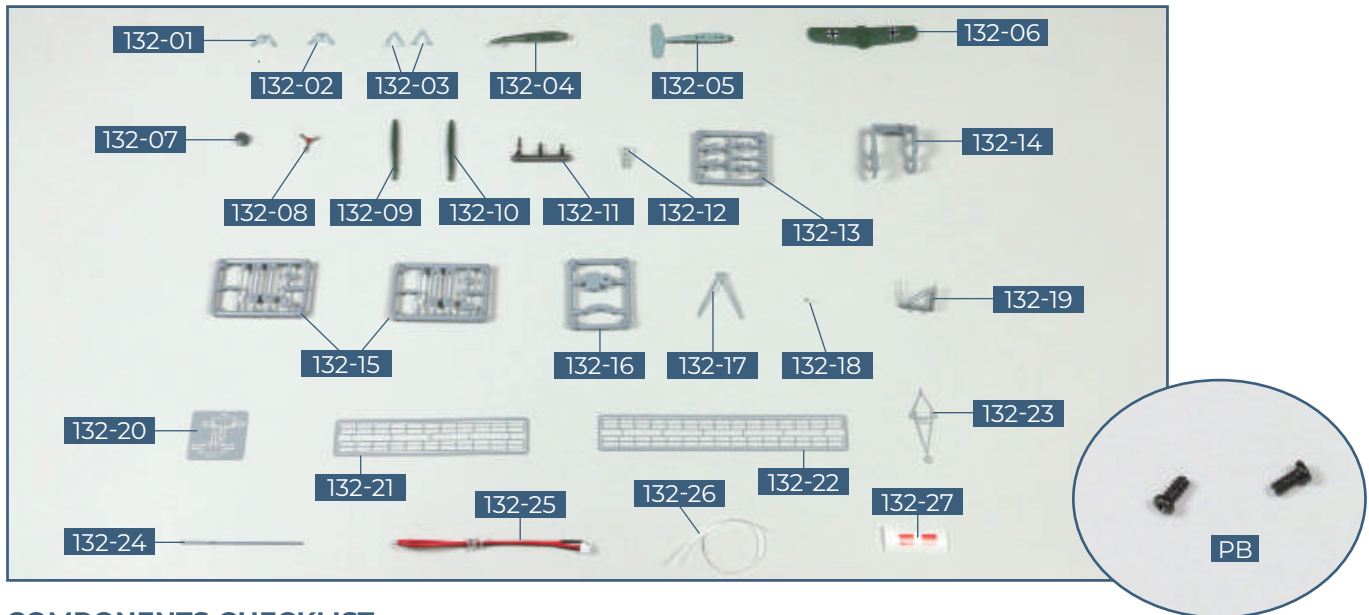


### **Completed work**

A connection cable, two contact plates and the fourth circuit board have been fitted to the hull. Various cables have been arranged and connected.

## STAGE 132

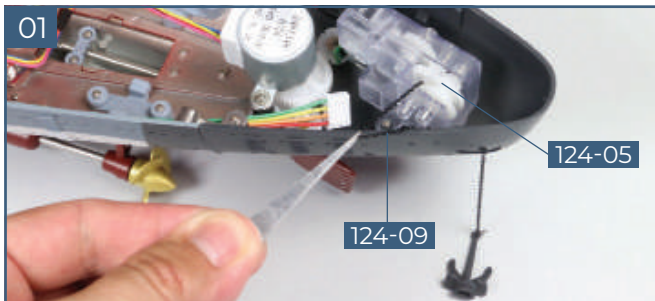
# THE SECOND AIRCRAFT AND DETAILS



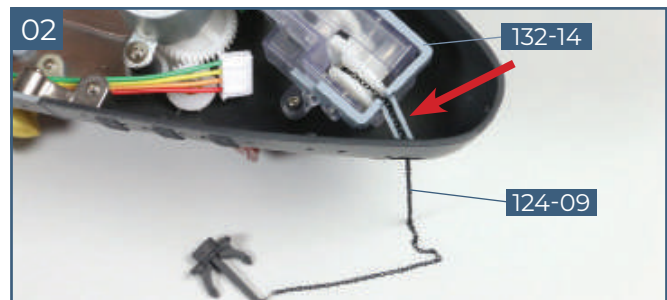
### COMPONENTS CHECKLIST

- |  |   |   |
|--|---|---|
| <b>132-01:</b> Front strut                 | <b>132-12:</b> Cockpit canopy                                 | <b>132-21:</b> Two railings (II)        |
| <b>132-02:</b> Rear strut                  | <b>132-13:</b> Details for the fourth 38cm gun turret (A - C) | <b>132-22:</b> Two railings (III)       |
| <b>132-03:</b> Two side struts             | <b>132-14:</b> Anchor chain guide                             | <b>132-23:</b> Ensign staff aft support |
| <b>132-04:</b> Aircraft fuselage (upper)   | <b>132-15:</b> Two quadruple mount AA guns                    | <b>132-24:</b> Ensign staff             |
| <b>132-05:</b> Aircraft fuselage (lower)   | <b>132-16:</b> Cover plate (D) and base of ensign staff (E)   | <b>132-25:</b> LED and cable            |
| <b>132-06:</b> Wings                       | <b>132-17:</b> Support for ensign staff                       | <b>132-26:</b> Fibre optic cable        |
| <b>132-07:</b> Engine                      | <b>132-18:</b> Propeller shaft                                | <b>132-27:</b> Cable label              |
| <b>132-08:</b> Propeller                   | <b>132-19:</b> Catapult launch carriage                       | Two <b>PB</b> 2 x 4 mm screws           |
| <b>132-09:</b> Right-hand float            | <b>132-20:</b> Seating for the AA guns                        |   |
| <b>132-10:</b> Left-hand float             |   |   |
| <b>132-11:</b> Details for cockpit (I - K) |   |   |

## 01. FITTING THE GUIDE FOR THE STERN ANCHOR CHAIN



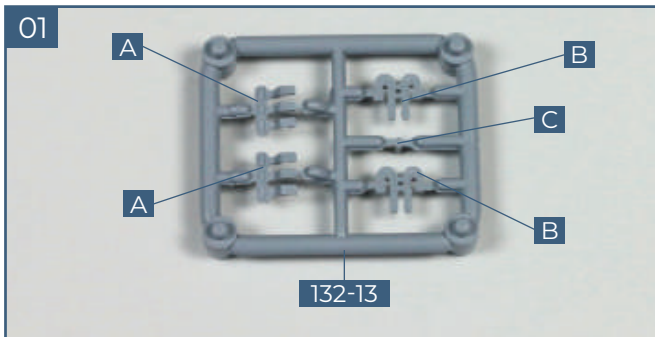
Place the model on your work surface. Carefully move the anchor chain **124-09** to one side, away from the cable reel **124-05**, as shown.



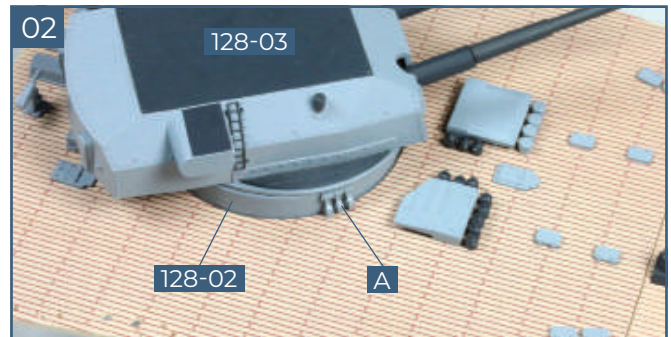
Fit the cable guide **132-14** on the gear housing and run the anchor cable **124-09** back into the cable reel and down the channel in the guide (arrow).



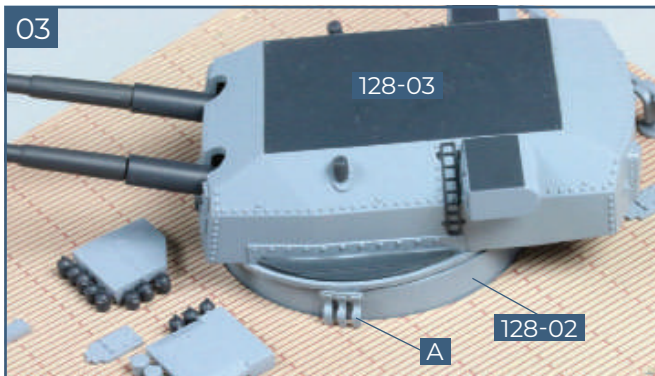
## 02. DETAILS FOR THE FOURTH 38cm TURRET



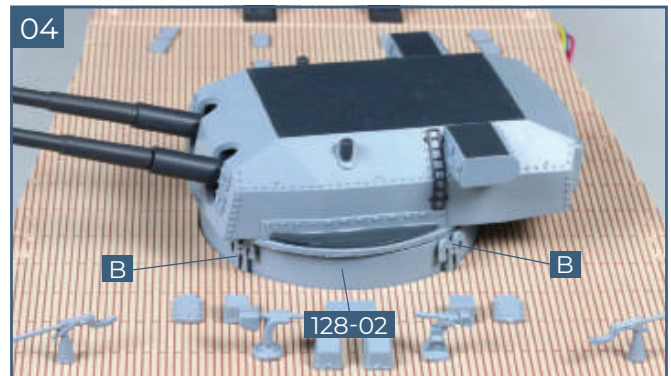
Separate the parts **A** and **B** from the frame **132-13**. They are all attached to the barbette of the fourth main gun turret.



Rotate the fourth gun turret **128-03** so that you can access the port side of the barbette **128-02**. Glue the first part **A** to the port side of the barbette as shown.

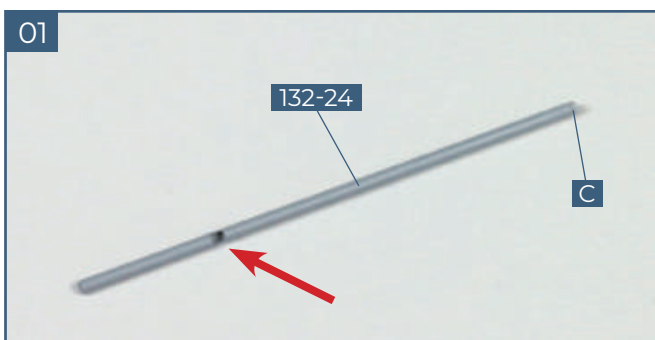


Turn the gun turret **128-03** so that you can glue the second part **A** to the starboard side of the barbette **128-02**.

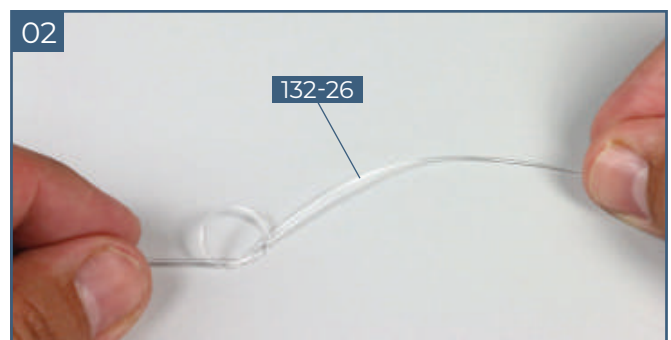


Glue the two parts **B** in place on the forward side of the barbette **128-02**. You will need to turn the turret to access this side.

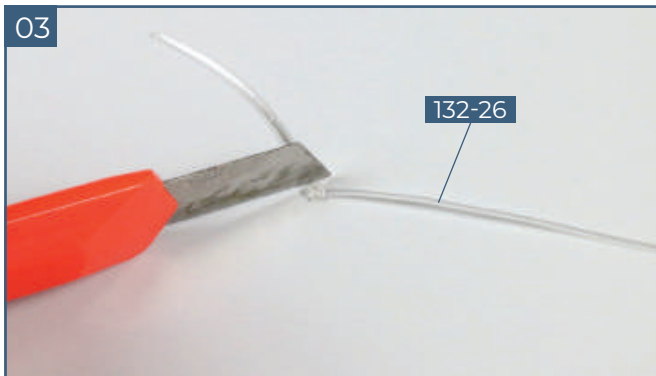
## 03. ENSIGN STAFF AND STERN LIGHT



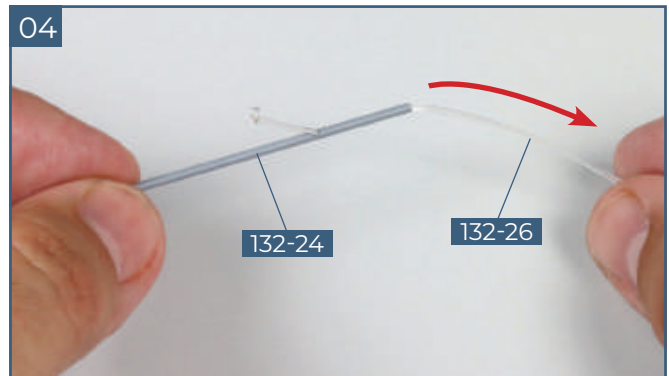
Take part **C** from frame **132-13** and the ensign staff **132-24**. Note the hole in the side of the staff (arrow). Glue part **C** to the end of the ensign staff that is furthest from the hole.



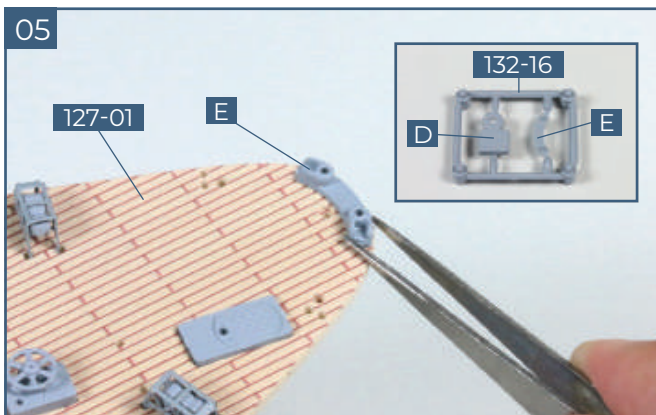
Take the fibre optic cable **132-26** and tie a knot a couple of centimetres from one end, as shown. Pull the knot tight.



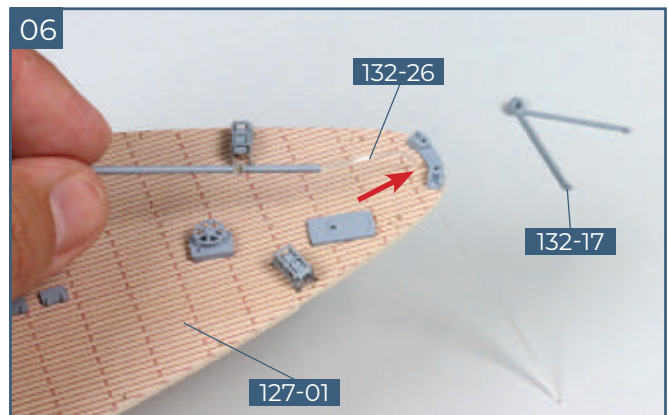
Cut off the short length of fibre optic cable **132-26** near the knot, leaving the knot on the longer length of cable.



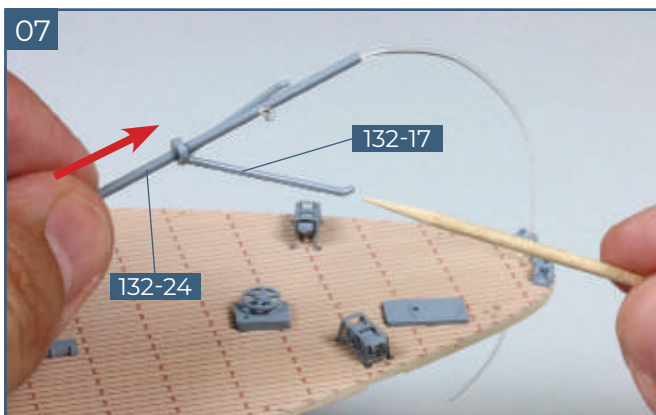
Thread the long end of the fibre optic cable **132-26** into the hole in the ensign staff **132-24**. Push the cable through so that it comes out at the open end.



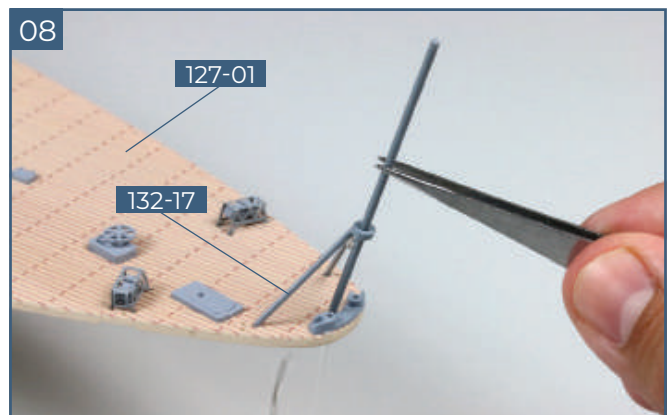
Remove the base **E** of the ensign staff from the frame **132-16**. Glue it in place at the end of the aft upper deck section **127-01**.



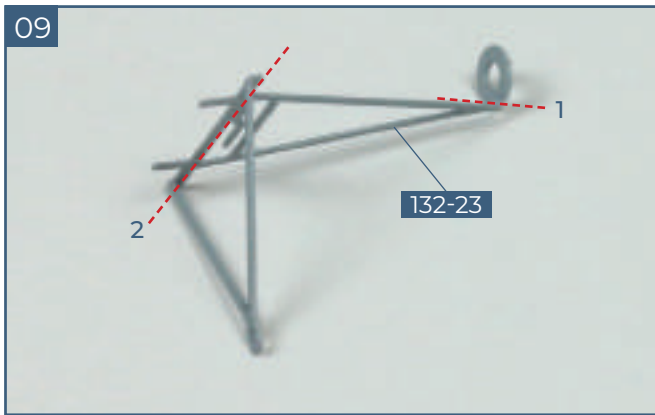
Thread the end of the fibre optic cable **132-26** through the hole at the end of the upper deck section **127-01** just inside the base **E** (arrow). You will need the ensign staff support **132-17**.



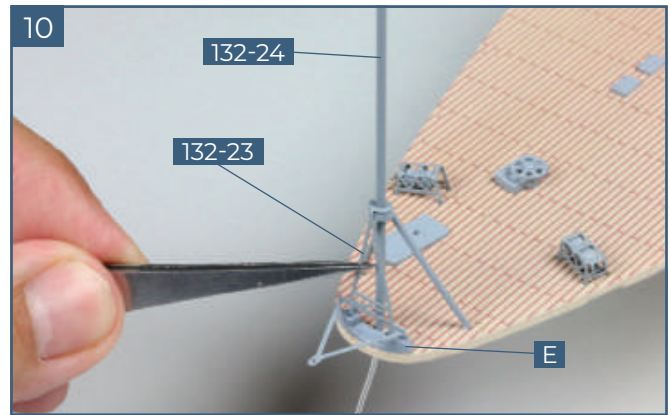
Fit the central eyelet in the support **132-17** over the top of the ensign staff **132-24**. Apply a little glue to the pegs on the ends of the support.



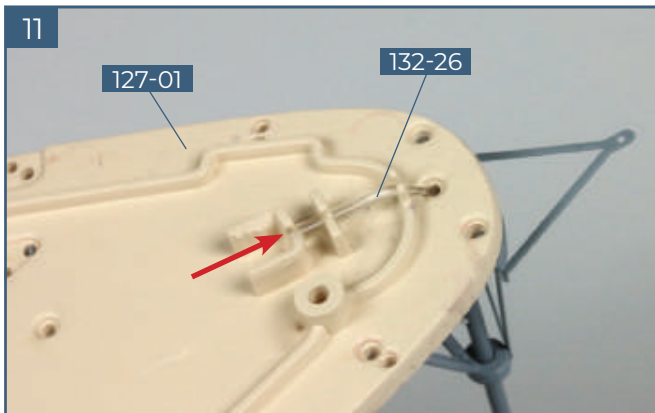
Glue the pegs of the support **132-17** into the two recesses in upper deck section **127-01**, as shown.



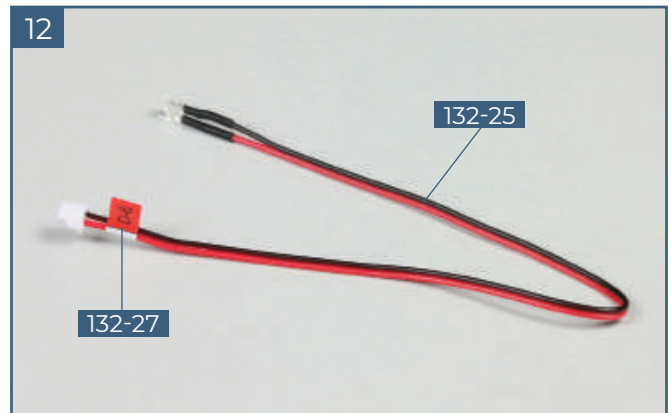
Take the ensign staff aft support **132-23** and bend it twice at right angles, as indicated by the dotted lines.



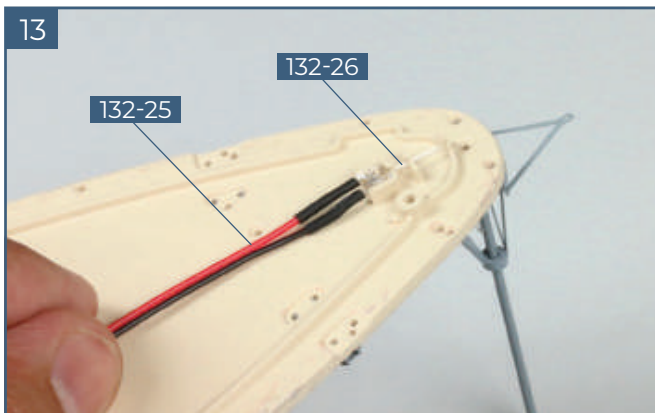
Thread the large eyelet on the aft support **132-23** over the top of the ensign staff **132-24**. Glue the two long pegs at the base of the support into the recesses in base **E**, as shown.



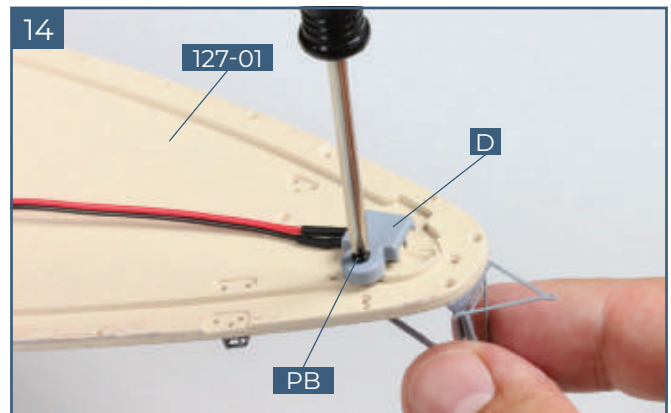
Carefully turn the upper deck section **127-01** over. Run the fibre optic cable **132-26** through the recesses in the underside of the deck. Cut the end of the cable so that it is flush with the inner edge of the rectangular recess (arrow).



Attach the cable label **132-27** to the end of the LED cable **132-25** near the connector, as shown.

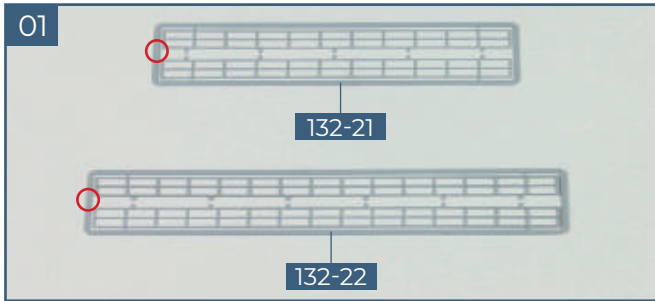


Take the LED cable **132-25** and fit the LED in the rectangular recess next to the end of the fibre optic cable **132-26**. The two parts should touch each other.



Take the cover plate **D** from frame **132-16** and fit it over the LED on the underside of upper deck section **127-01**. Fix it in place with a **PB** screw.

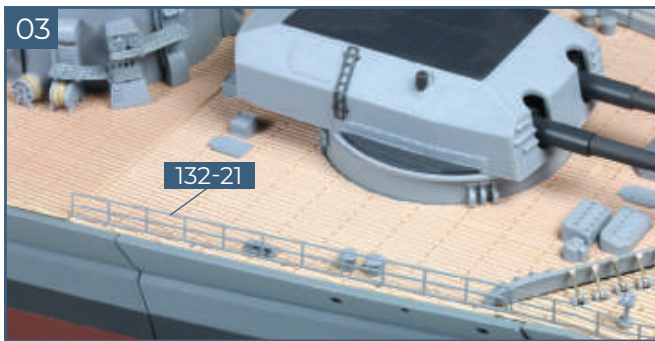
## 04. FITTING RAILINGS ON THE UPPER DECK



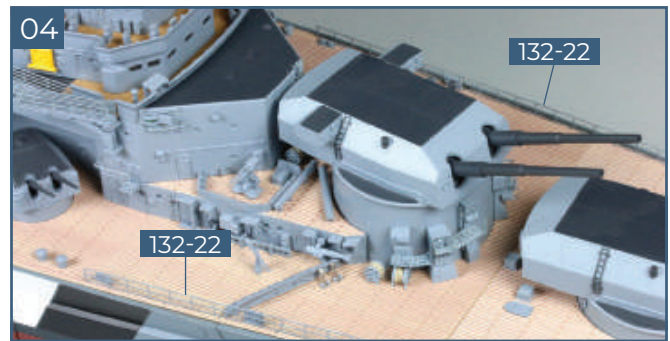
**Note:** Roman numerals II and III are engraved on the ends of the frames **132-21** and **132-22**. The ends of the railings near the numerals are the forward ends, pointing towards the bow (circled).



Fit the first railing from frame **132-21** to the port side of the upper deck, near the first 38cm gun turret. The end that was next to the II in the frame is on the left in the photo, so it is pointing towards the bow. Glue the feet in place.

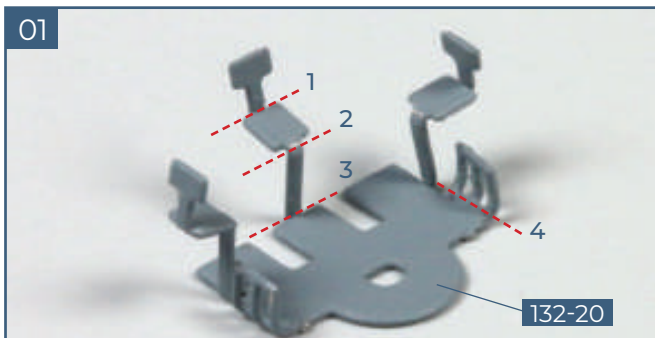


Fit the second railing from frame **132-21** in the same place on the starboard side of the upper deck. The end that was next to the II in the frame is on the right in this photo. Glue in place.

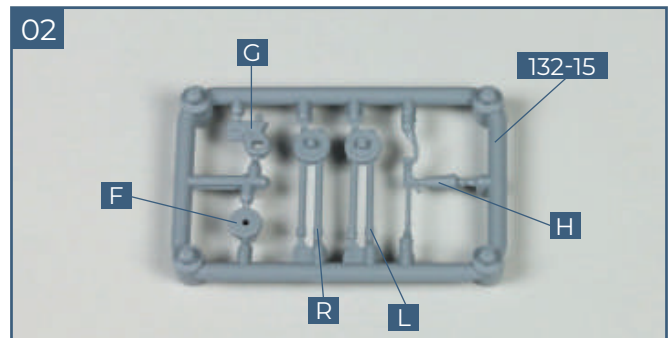


Fit the two railings from frame **132-22** on the upper deck, on either side of the second 38cm gun turret. The ends that were next to the III in the frame are on the right in the photo. Glue in place.

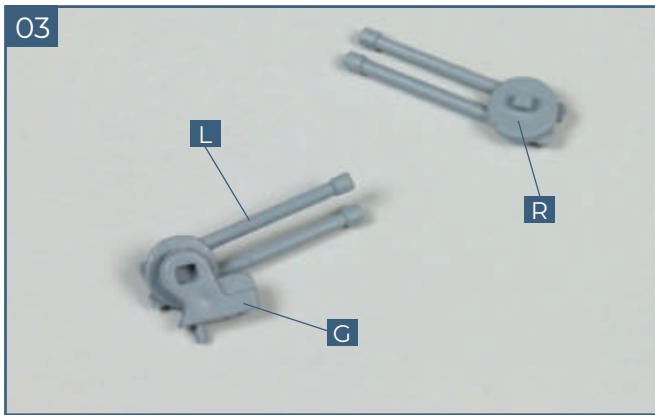
## 05. TWO QUADRUPLE MOUNT AA GUNS AND TWO 2cm AA GUNS



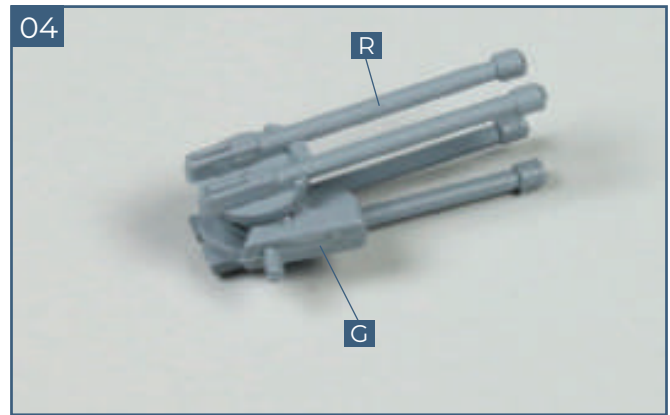
Take one of the seating groups from frame **132-20**. First bend the three seats three times at right angles (indicated by dotted lines 1, 2 and 3). Then bend the two small railings upwards (dotted line 4).



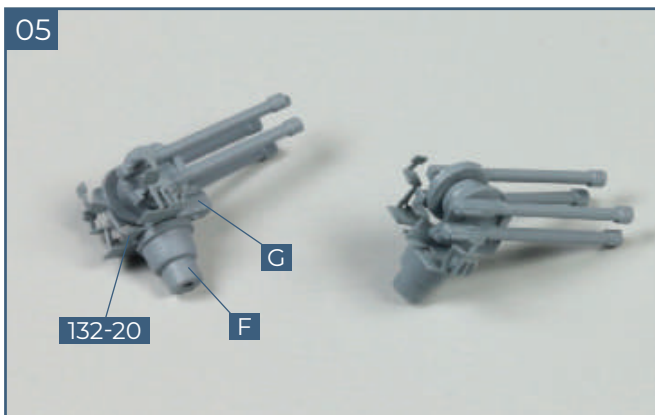
Identify the components of the two identical frames **132-15**: right (**R**) and left (**L**) pairs of barrels, the base **F**, the mount **G** and a 2cm AA gun **H**.



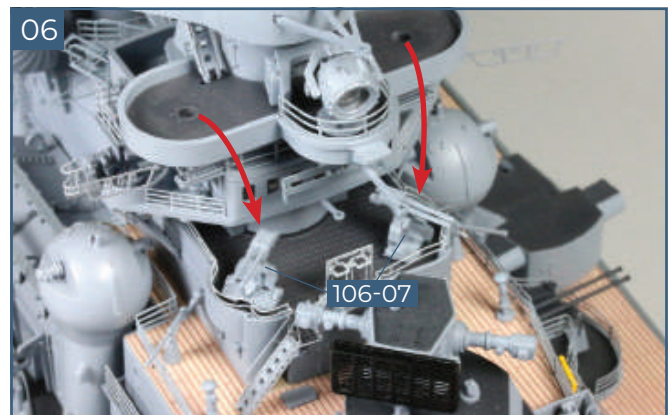
Separate the two pairs of barrels **L** and **R** and the mount **G** from frame **132-15**. Glue the left-hand pair of barrels to the mount as shown.



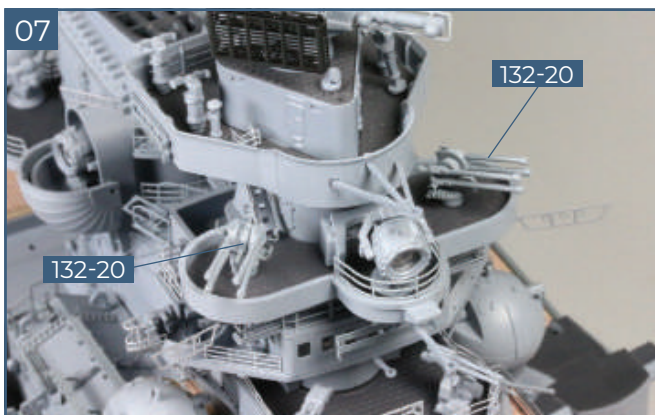
Glue the right-hand pair of barrels to the other side of the mount **G**.



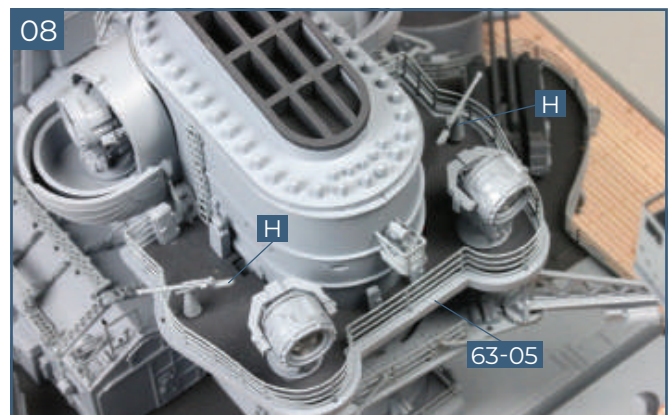
Take one of the seating groups **132-20** and glue it in place beneath the mount **G**. Take the base **F** from frame **132-15** and glue it to the underside of the seating group. Repeat steps 1-5 to make the second quadruple AA gun.



Identify the two 3.7cm AA guns **106-07**, which were fitted to the searchlight platform in Stage 106. Taking care not to damage the parts, remove these two guns and move them down to the upper mast deck. Glue in place, as shown.

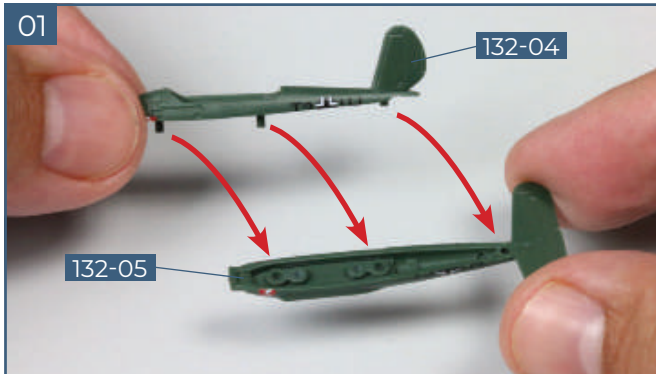


The two 2cm quadruple AA guns **132-20** can now be fitted on the searchlight platform. Remove any excess glue from the holes in the deck if necessary, and glue in place.

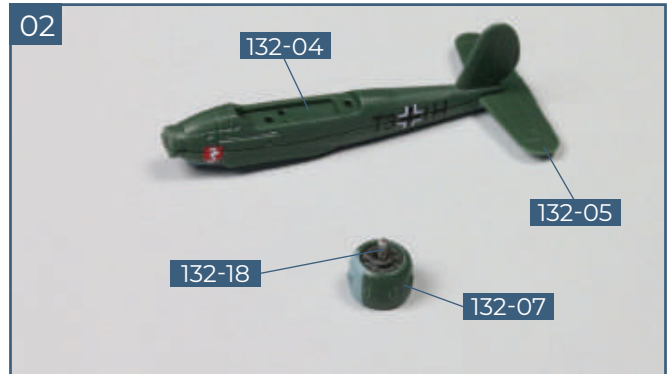


Remove the two 2cm AA guns **H** from the frames **132-15**. Glue them in place on the deck covering of the searchlight platform **63-05**, beside the funnel.

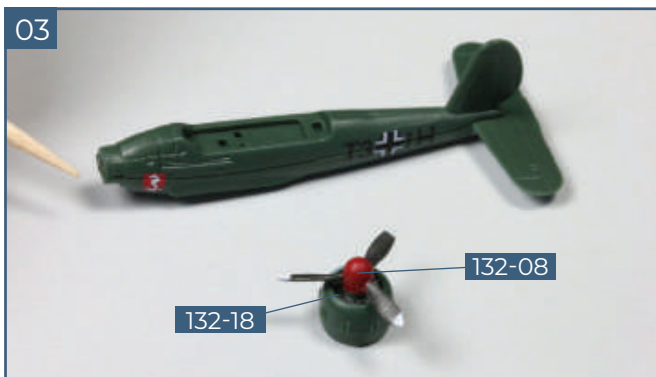
## 06. ASSEMBLING THE SECOND AIRCRAFT



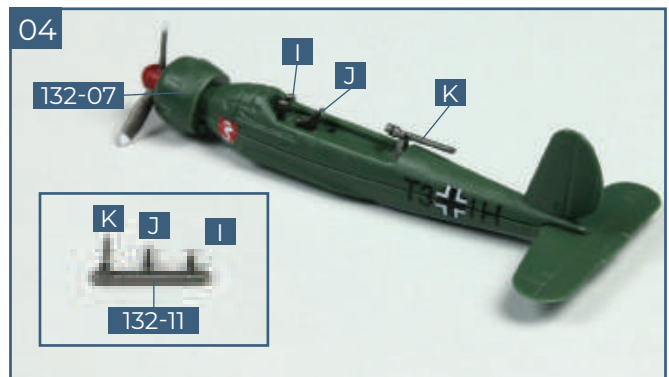
Take the two halves of the fuselage **132-04** and **132-05**. Apply glue to the three pegs on part **132-04** and fix the two pieces together.



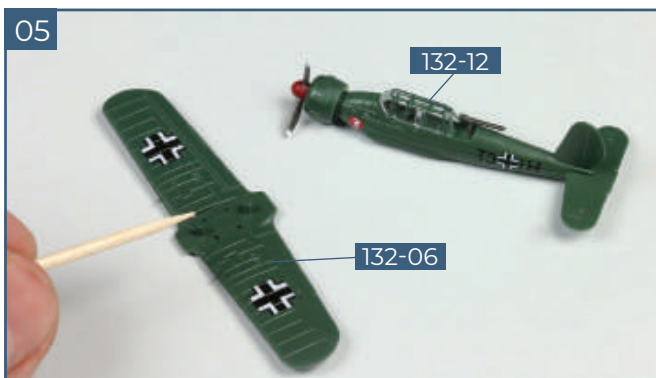
This shows the fuselage **132-04** and **132-05** assembled. Fit the propeller shaft **132-18** into the bore of motor **132-07**, as shown.



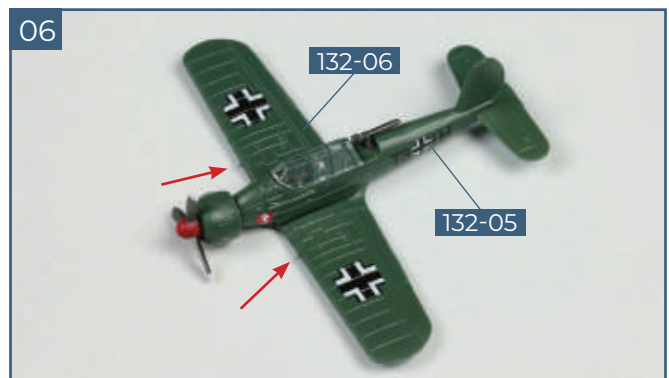
Fit the propeller **132-08** on to the propeller shaft **132-18**. **Do not glue: the propeller can be turned.** Apply some super glue to the tip of the fuselage as indicated.



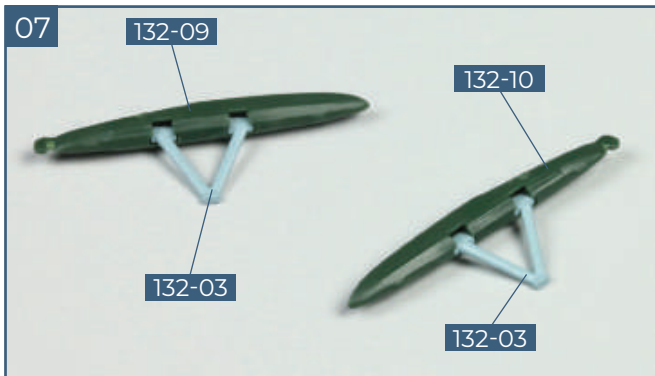
Fix the engine **132-07** on to the front of the fuselage. The control lever **I**, the pilot seat **J** and the machine gun **K** from the frame **132-11** are glued in place in the cockpit, as shown.



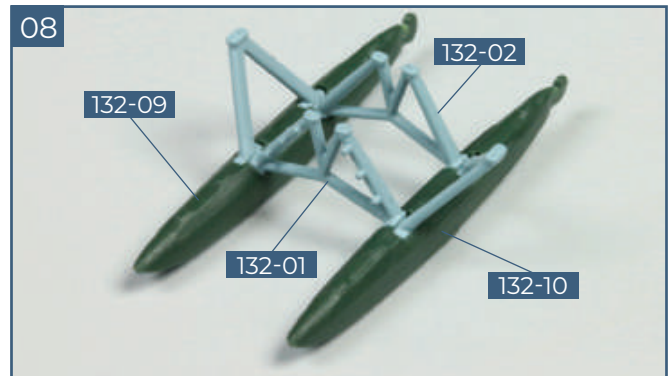
Glue the canopy **132-12** in place over the cockpit. Apply some superglue to the two pegs on the top of the wings **132-06** as shown.



Glue the wings **132-06** to the underside of the fuselage **132-05**. Make sure that the machine guns on the wings (arrows) are pointing forwards.



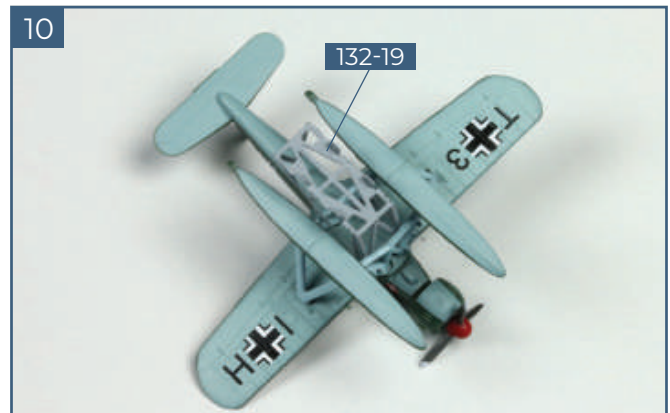
Study the photograph carefully to identify parts **132-09** and **132-10**. Glue the first side strut **132-03** to the right float **132-09** and the second one to the left float **132-10**, as shown.



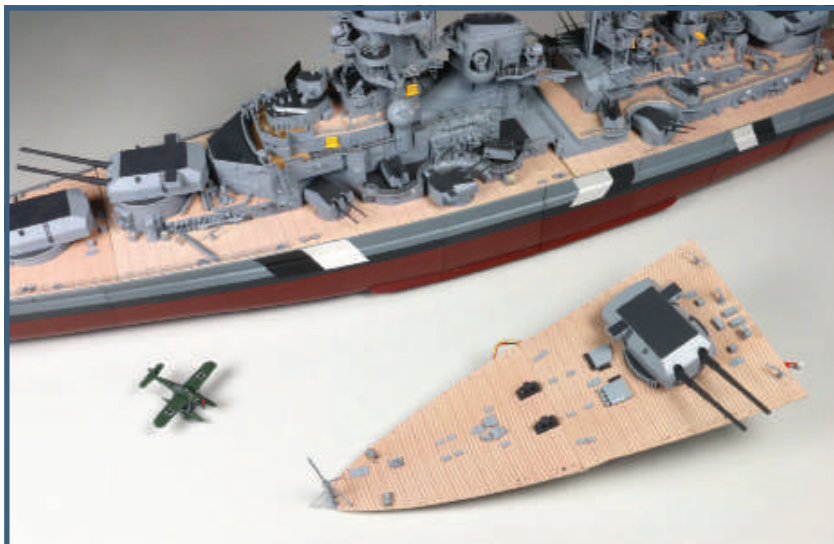
Glue the front and rear struts **132-01** and **132-02** to the two floats **132-09** and **132-10**. The small pegs on part **132-01** face forward.



Apply superglue to the tips of the side, front and rear struts and glue them to the underside of the wings **132-06**.



Check the fit of the catapult carriage **132-19**. Three tabs on part **132-19** fit into slots on the underside of the wings and fuselage. Glue in place.

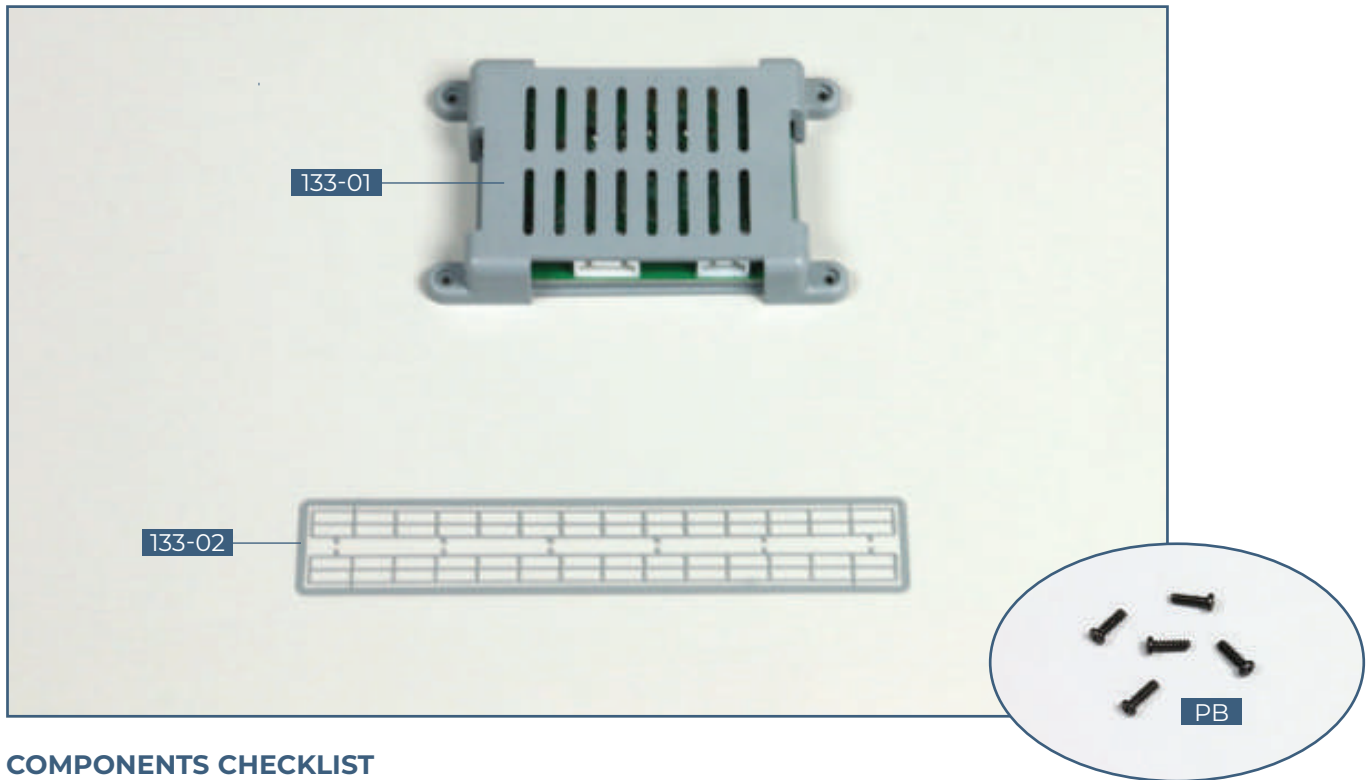


### Completed work

The ensign staff has been fitted with a fibre optic cable and fixed to the stern; four railings have been fitted to the upper deck; two quadruple mount AA guns have been assembled and fixed in place; and the second aircraft has been assembled.

## STAGE 133

# CIRCUIT BOARD AND FUNCTION TESTS



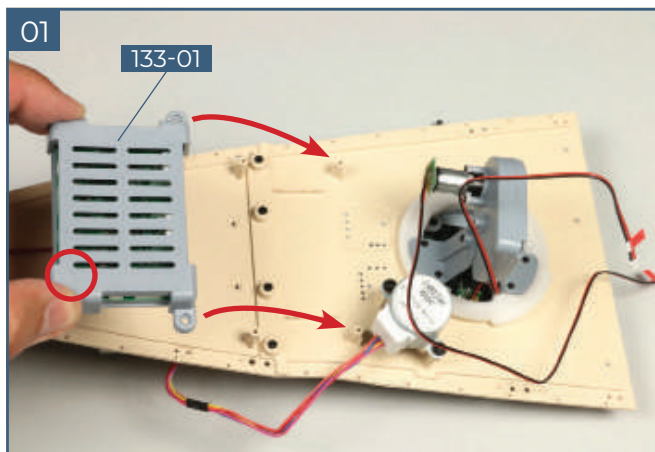
### COMPONENTS CHECKLIST

**133-01:** Fifth circuit board

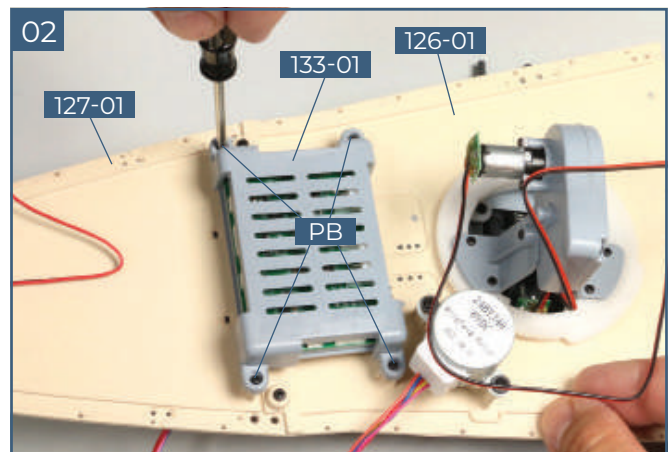
**PB:** Five 2 x 6mm PB screws

**133-02:** Two railings (IV)

## 01. CONNECTING THE NEXT CIRCUIT BOARD

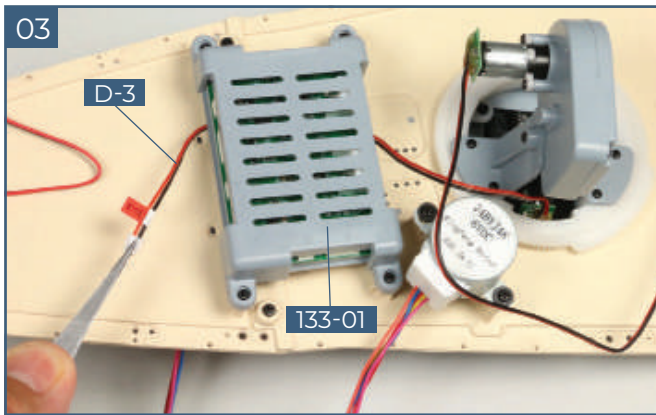


Carefully turn the aftmost upper deck sections upside down, taking care not to damage the components that are fitted to it. Position the fifth board **133-01**, as indicated. Make sure it is the right way round: there is a 'D' on one corner of the board (circled).

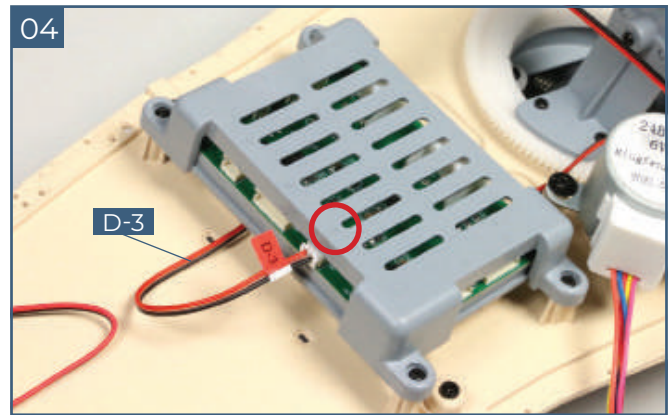


Fix the fifth board **133-01** to the two upper deck sections **126-01** and **127-01** using four **PB** screws.

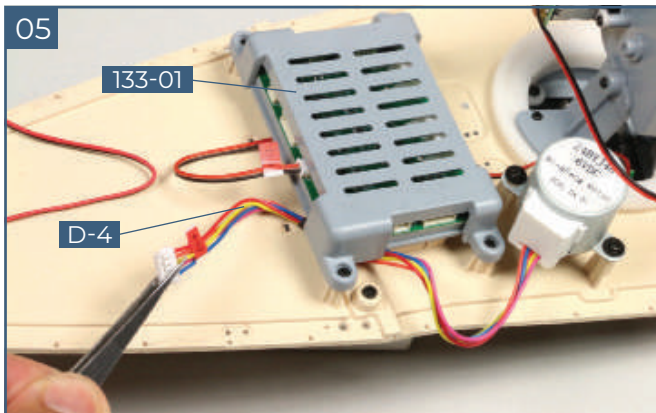




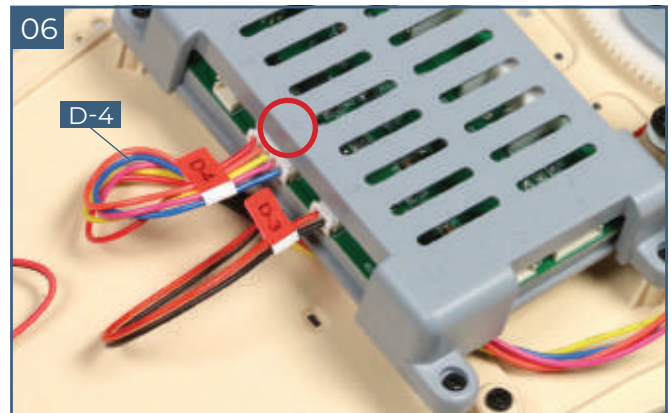
Run the cable labelled **D-3** from front to aft under the circuit board **133-01**, as shown in the photo.



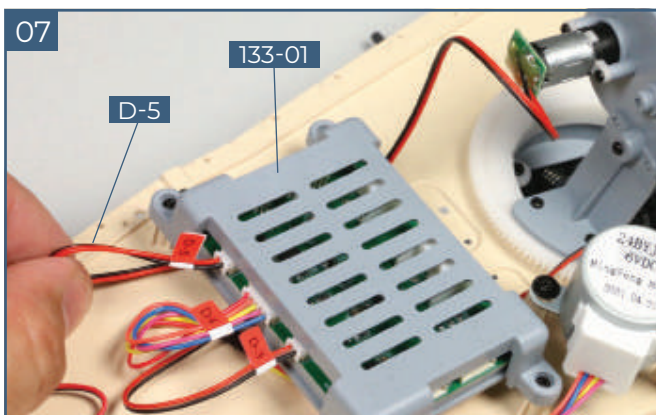
Connect the plug of the cable marked **D-3** into the corresponding socket on the board **133-01**, labelled **3** (circled).



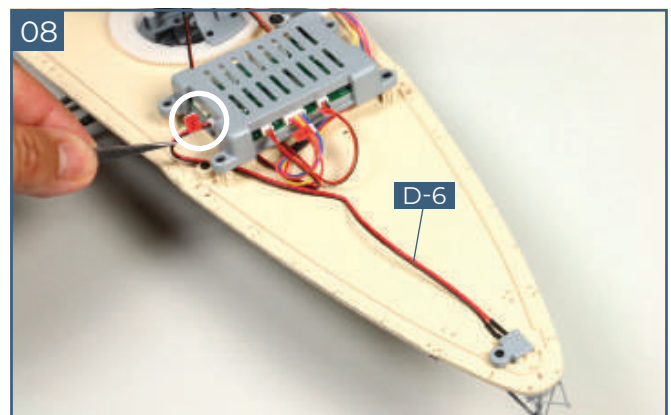
Take the cable labelled **D-4** and run it under the corner of the circuit board **133-01**. Draw the cable through to the aft side of the circuit board.



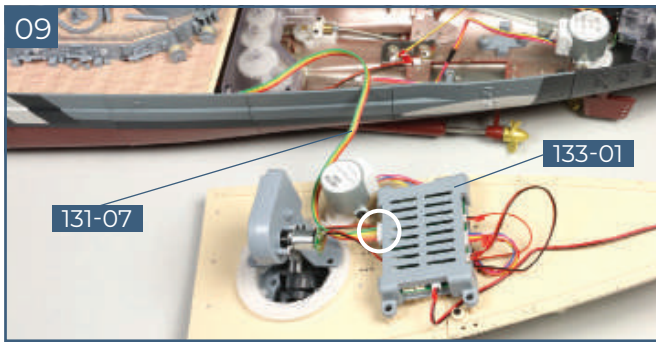
Plug the cable into the socket marked **4** (circled) on the circuit board **133-01**. Ensure that the plugs are fully pushed into the sockets. (This applies to the following steps as well.)



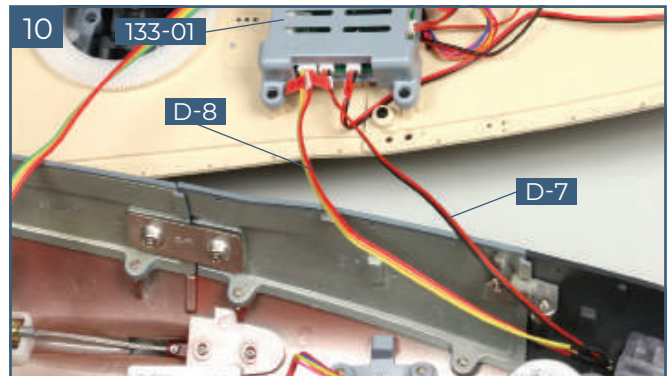
Run the cable labelled **D-5** to the aft, under the circuit board **133-01**. Plug it into the socket marked **5**.



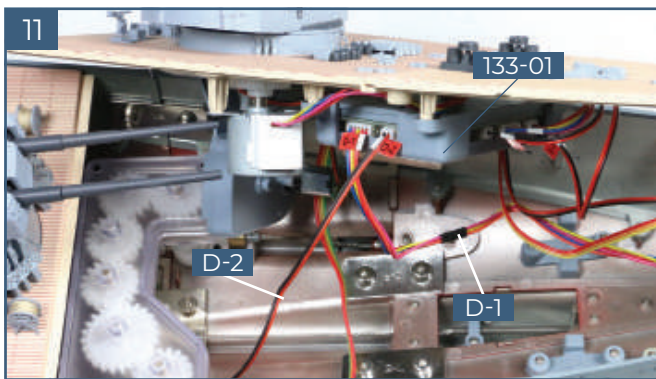
Run the cable labelled **D-6** forwards from the LED at the stern and under the corner of the circuit board. Plug it into the socket marked **6** at the side of the circuit board **133-01** (circled).



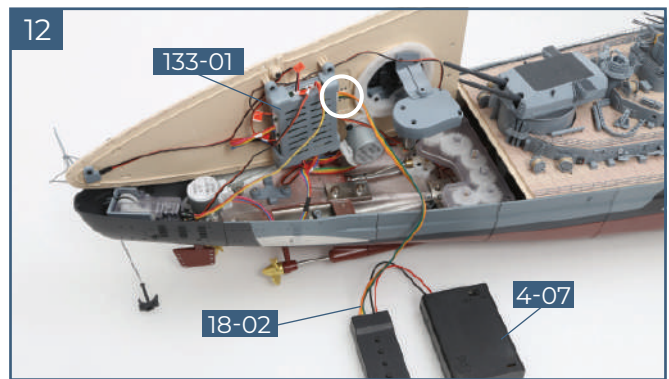
Position the aft upper deck structure near your model so you can fit the cables. Check the fit of the connector on the end of cable **131-07** in the four-pin, unnumbered port on circuit board **133-01** (circled in white). Then unplug the connection before testing the aft section.



The cables labelled **D-7** and **D-8**, both of which are connected to the stern anchor mechanism, are fitted into the sockets marked **7** and **8** on circuit board **133-01**.

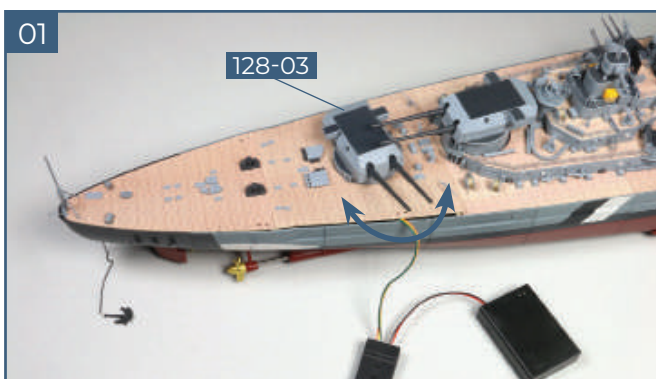


The cables labelled **D-1** and **D-2**, connected to the propeller gearbox and the rudder motor, fit into sockets **1** and **2** on circuit board **133-01**.

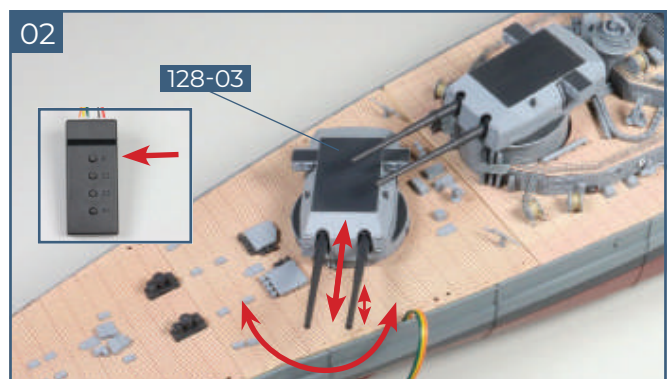


Set the battery box switch **4-07** to "Off". Connect the plug of the tester cable **18-02** to the three-pin, unnumbered socket of the circuit board **133-01** (circled). Ensure that the batteries are new/fully charged.

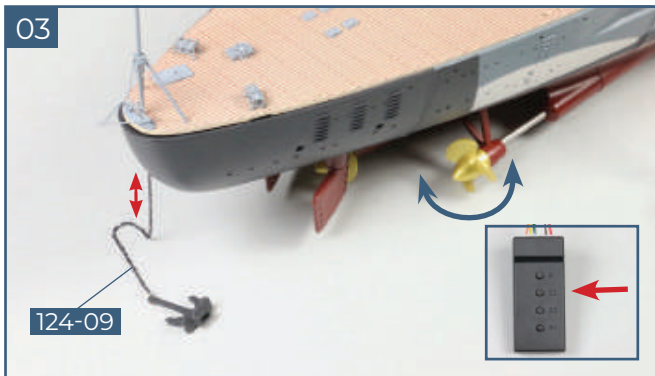
## 02. TESTING THE FIFTH CIRCUIT BOARD



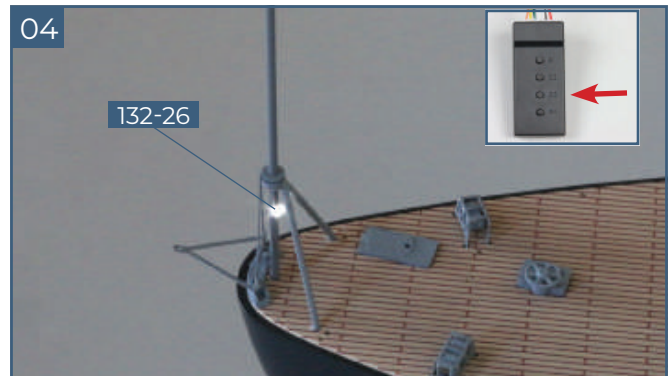
Fit the two aftmost upper deck sections on to the hull structure. Ensure that all parts, including the rudders and propellers, are free to move. Switch the battery box "On" and the turret **128-03** initializes. It rotates right, then stops and returns to the centre position.



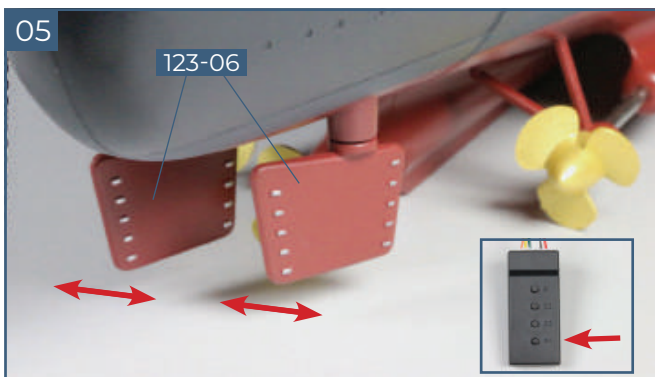
When the initialization is complete, press the "S1" button (inset) on the tester **18-01**: this will run the forward turret test. All three turret functions are carried out simultaneously. Press the button again to end the test.



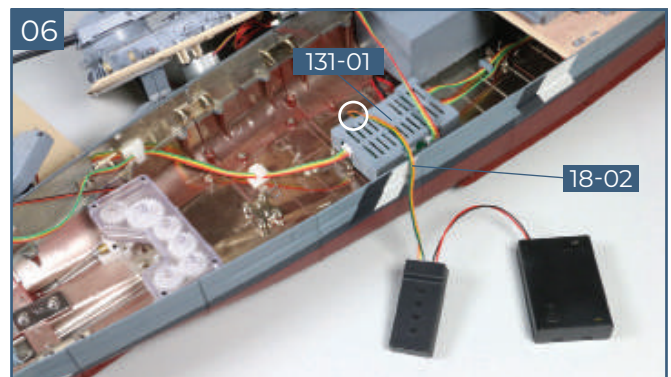
Press the “S2” button: the stern anchor chain **124-09** raises and lowers very slightly, and the three propellers turn. Press the button again to end the test.



When you press the “S3” button on the tester, the stern light (fibre optic **132-26**) will light up. As before, pressing the button again ends the test.

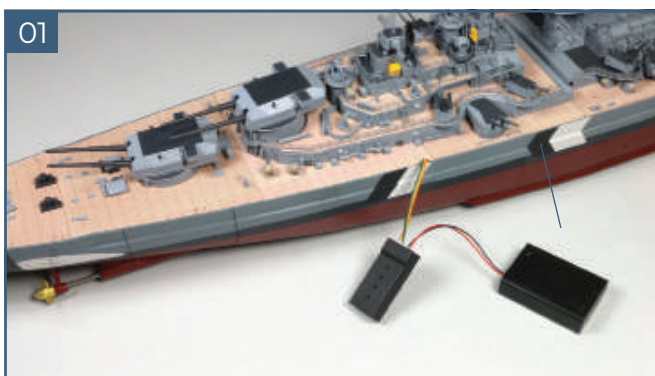


When you press button “S4” on the tester, the two rudders **123-06** move from side to side. This is the last test of the fifth board. Set the tester to “Off” and remove the tester cable **18-02** from the fifth circuit board.

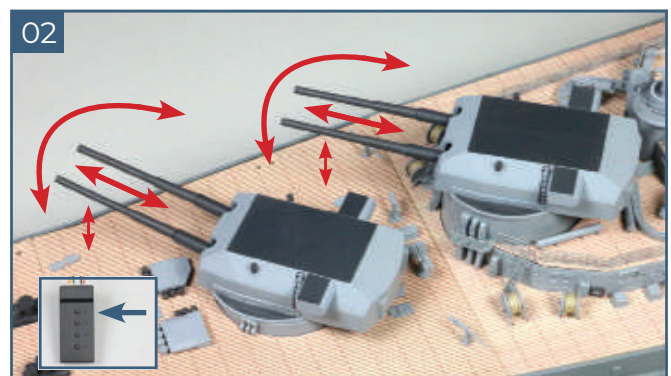


Reconnect the connector on the end of cable **131-07** in the four-pin, unnumbered port on circuit board **133-01** as described in step 9 on the previous page. Remove the aft superstructure from the hull and connect the tester cable **18-02** to the socket marked **5** (circled) on the circuit board **131-01**, inside the hull.

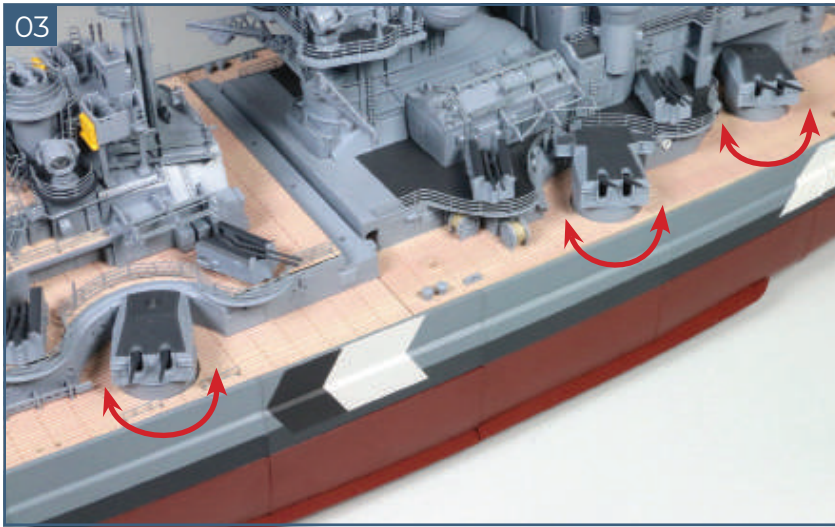
### 03. TESTING THE ELECTRONICS



Place the two aft upper deck sections on the hull as shown. Then set the tester to “On”.

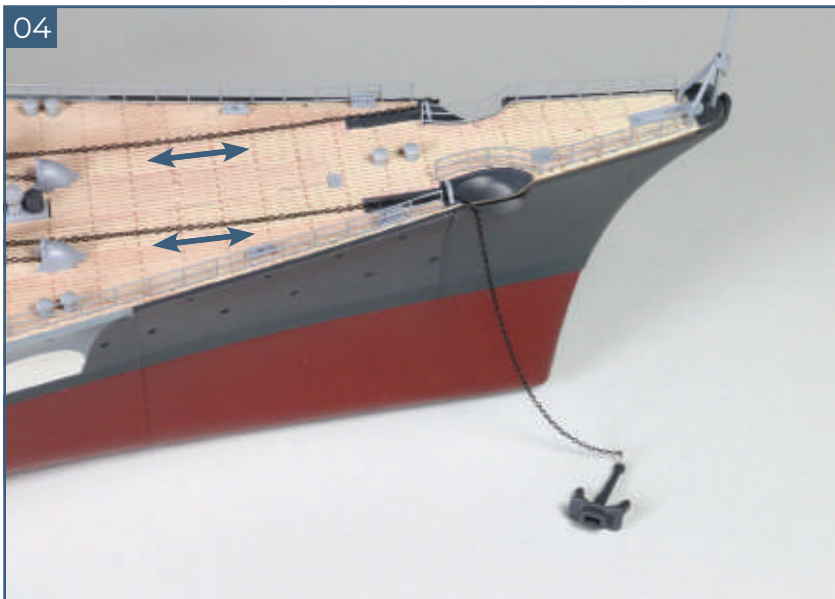
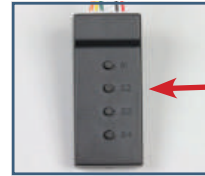


Press the button “S1” on the tester: this will test all three functions of all four main gun turrets simultaneously. Press the button again to end the test.

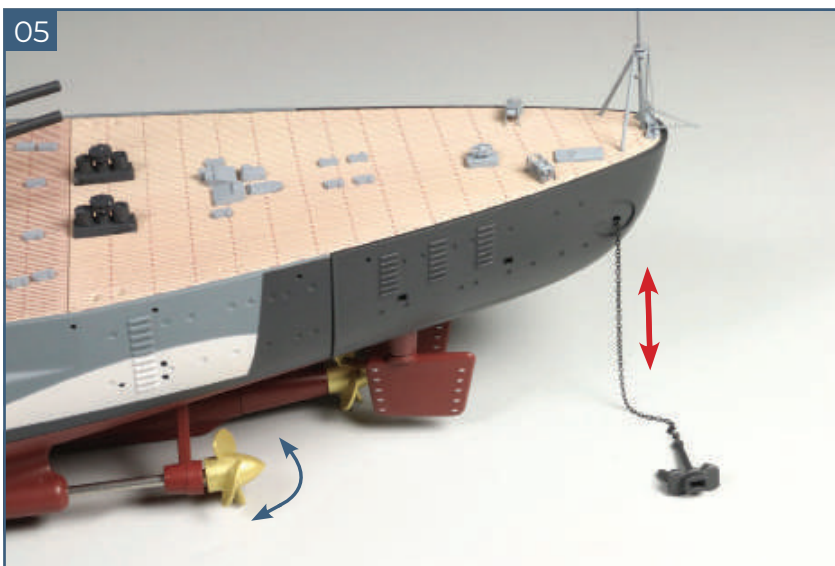


**Note:** Manually position the gun barrels of all six twin turrets so they are pointing upwards before the test.

Then press the “S2” button (inset): various function tests will run at the same time. First, all six 15cm turrets will swing back and forth at the same time.



The bow anchors will be dropped a little and then raised again.



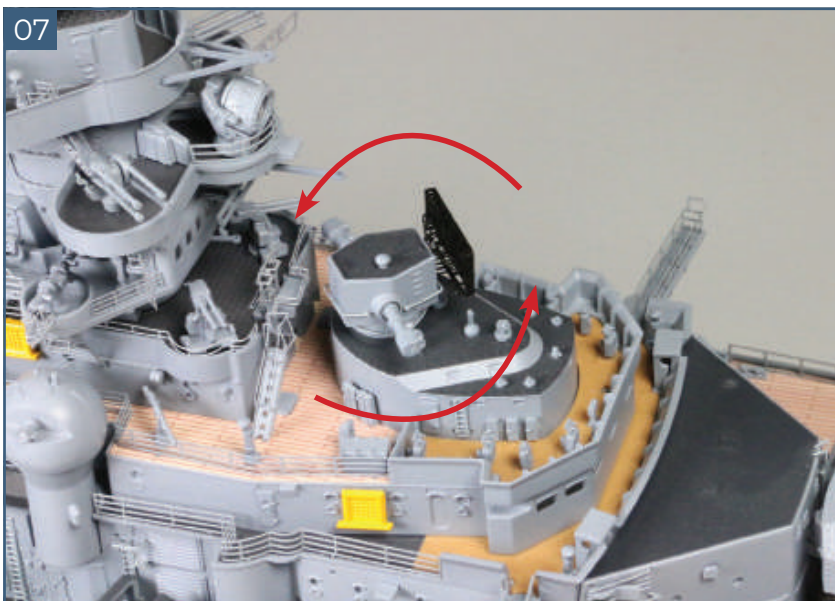
Then the stern anchor cable rises and falls; the three propellers turn back and forth.

End the test by pressing the “S2” button again.



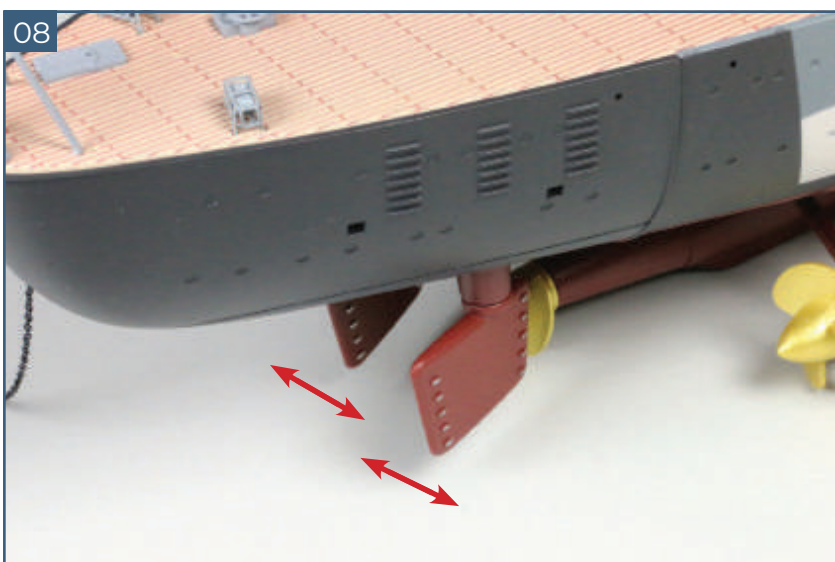
Press the "S3" button on the tester (inset): all the lights on the model come on simultaneously – the bow light, stern light, the two side lights, the lights on the navigation bridge and the admiral's bridge and all seven searchlights.

Press "S3" again to put the lights out.



When the "S4" button on the tester (inset) is pressed, two tests are carried out at the same time:

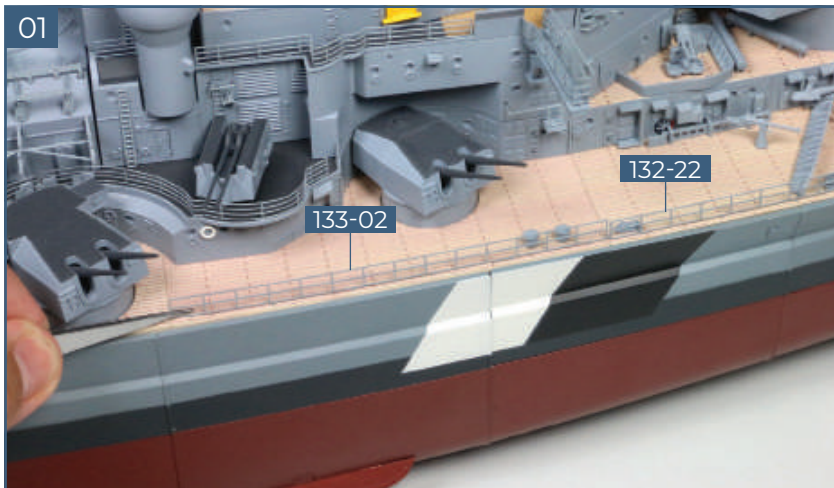
All three rangefinders rotate.



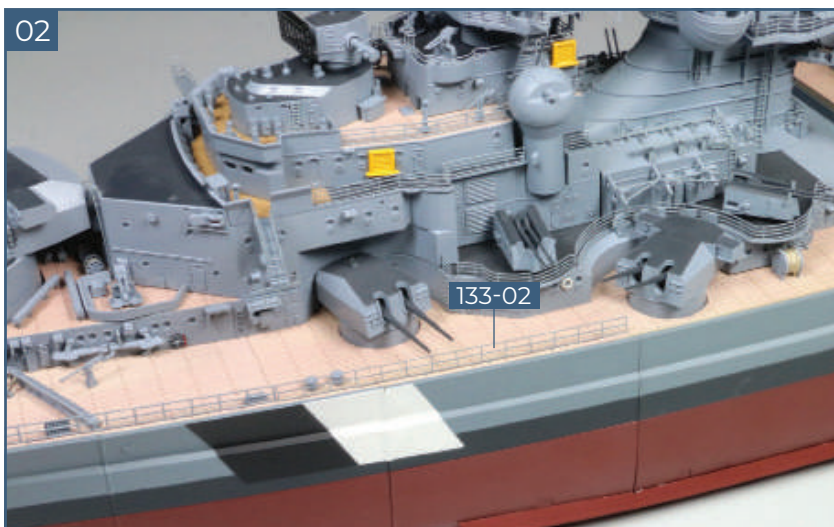
At the same time, the two rudders swivel left and right.

End the test by pressing the "S4" button again.

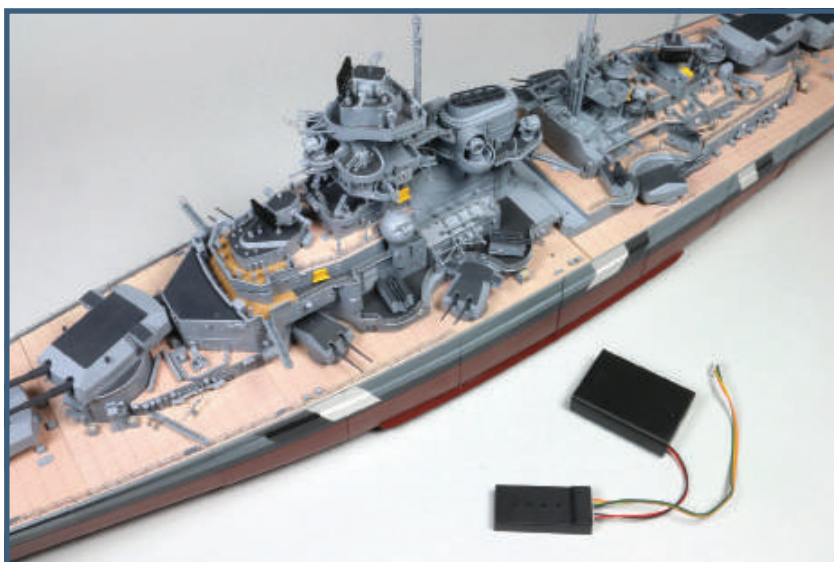
## 04. FITTING THE RAILINGS



Separate one of the two railings from frame **133-02**. Note which end of the railing is next to the Roman numeral IV on the frame. Make sure that the end of the railing that was next to the IV points towards the bow, i.e. to the right in the photo. Glue the railing to the starboard side of the upper deck, continuing the line of railings from part **132-22**.



The second railing **133-02** is fitted in the corresponding area on the port side of the upper deck. Here, too, the IV end of the railing points towards the bow, i.e. to the left in the picture.

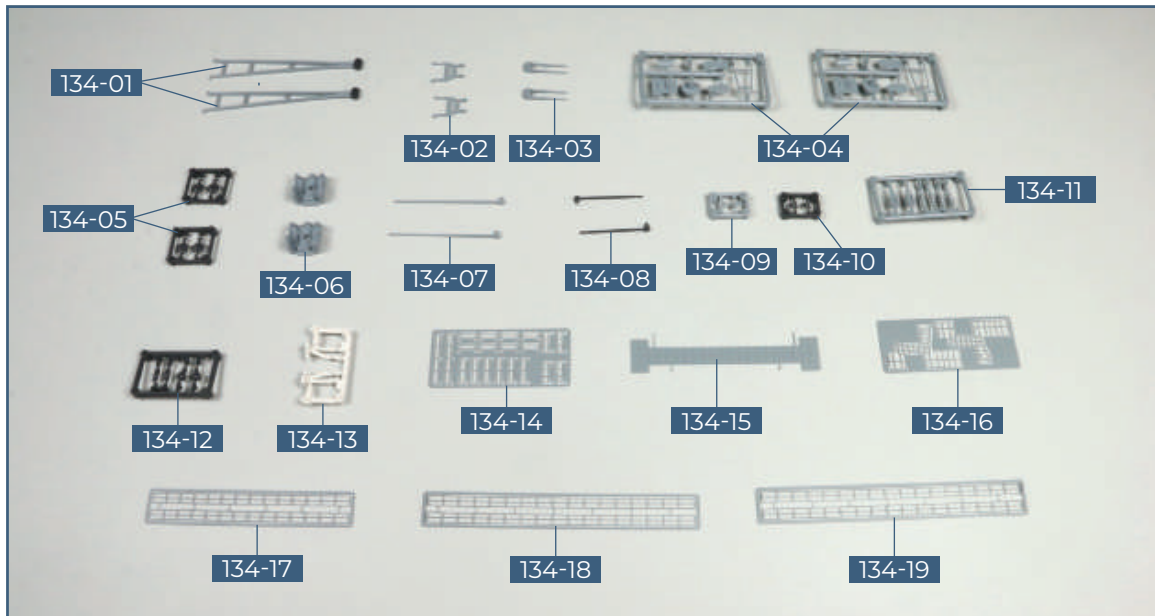


### Completed work

The fifth circuit board is fitted and cables are connected; all electronics so far fitted in the model have been tested; two more railings have been fixed in place.

# STAGE 134

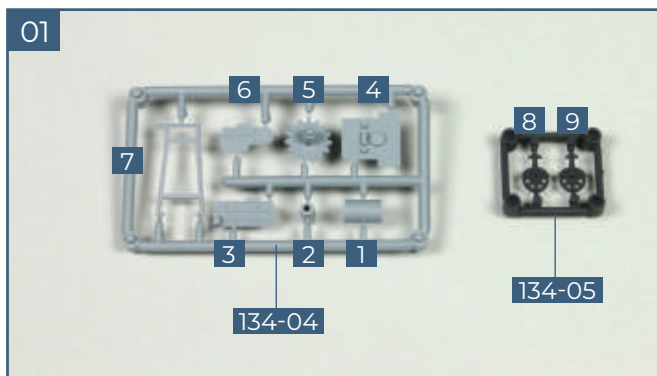
## CRANES AND BOOMS



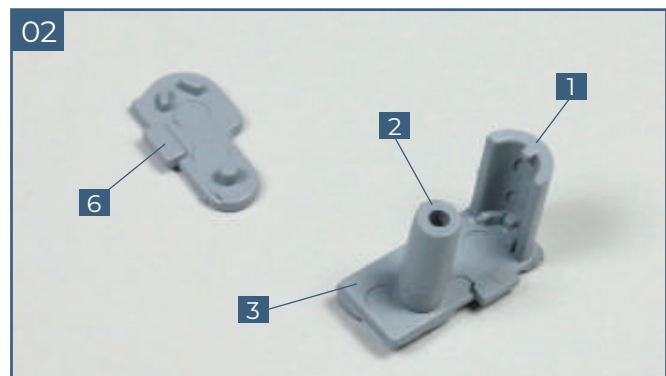
### COMPONENTS CHECKLIST

- |  |  |  |
|--|--|--|
| <b>134-01:</b> Two crane booms                             | <b>134-08:</b> Two stern booms           | <b>134-16:</b> Two catapult platforms  |
| <b>134-02:</b> Two crane support parts                     | <b>134-09:</b> Parts for the bow booms   | <b>134-17:</b> Two railings (V)  |
| <b>134-03:</b> Two hydraulic rods                          | <b>134-10:</b> Parts for the stern booms | <b>134-18:</b> Two railings (VI)   |
| <b>134-04:</b> Two frames with crane parts (1 to 7)        | <b>134-11:</b> Parts for the bow booms   | <b>134-19:</b> Two railings (VII)  |
| <b>134-05:</b> Two frames with block and hook parts (8, 9) | <b>134-12:</b> Parts for the stern booms | <b>You will also need the aircraft assembled in Stage 3 and the catapult tracks supplied with Stage 4.</b> |
| <b>134-06:</b> Two crane bodies                            | <b>134-13:</b> Two screw protectors      |  |
| <b>134-07:</b> Two bow booms                               | <b>134-14:</b> Safety rails              |  |
|  | <b>134-15:</b> Cover for catapult tracks |  |

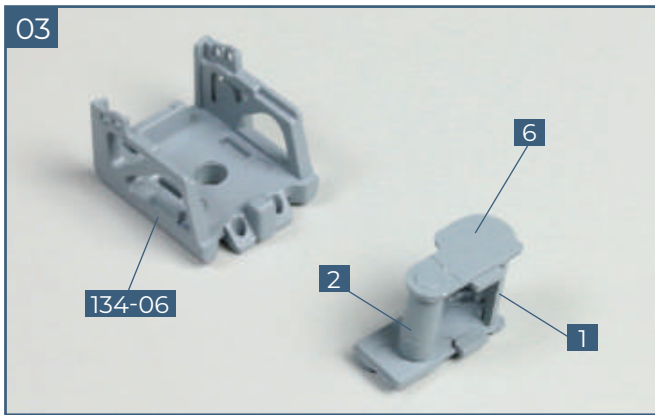
## 01. ASSEMBLING THE TWO AIRCRAFT CRANES



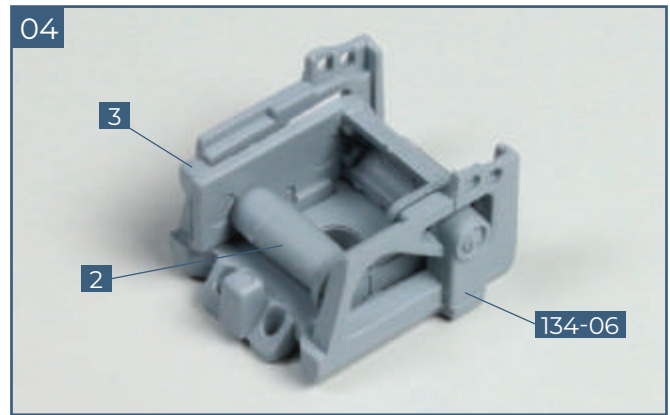
Take one of each of the frames **134-04** and **134-05** and identify the numbered parts, as shown here.



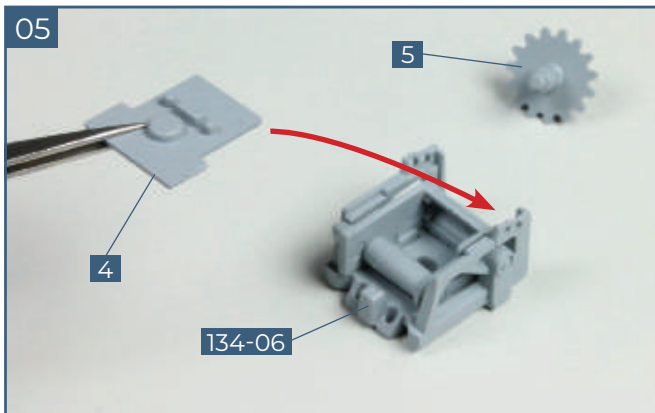
Separate parts **1**, **2**, **3** and **6** from frame **134-04**. Glue parts **1** and **2** on to part **3** as shown.



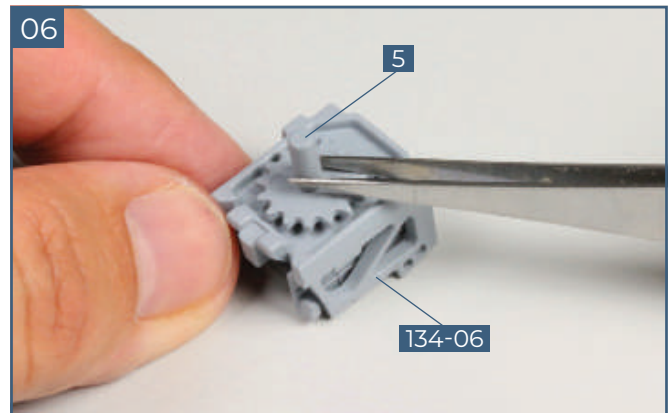
Glue part **6** across the free ends of parts **1** and **2** as shown. Have one of the crane bodies **134-06** ready.



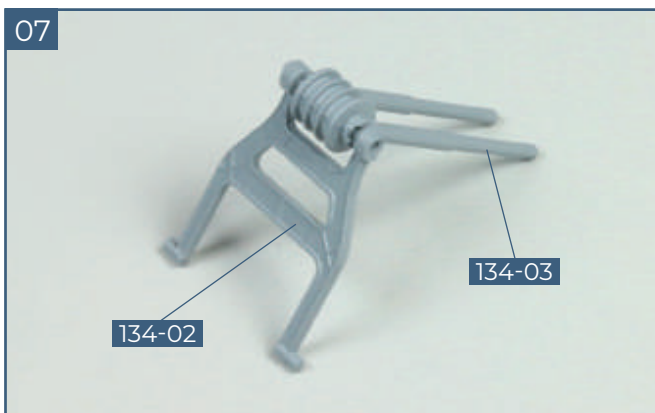
Fit the assembly of parts from step 3 into the crane body **134-06**, as shown.



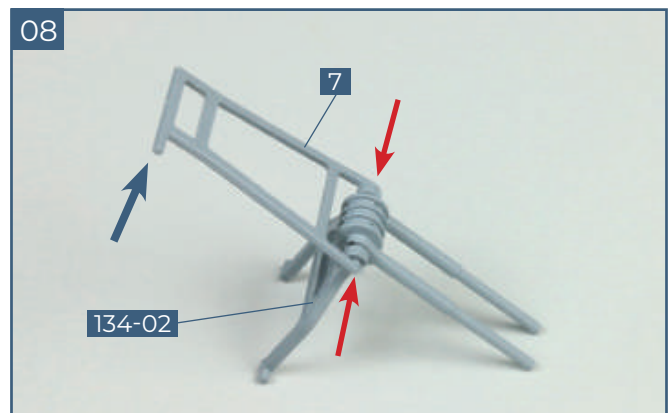
Fit part **4** from frame **134-04** on to the crane body **134-06** as indicated. When you are happy with the fit, glue it in place. Remove part **5** from frame **134-04**.



Turn the crane body **134-06** over and glue the spindle of part **5** into the hole in the crane body, as shown. Note that the end of the spindle with a recess is the end that fits into the crane body.

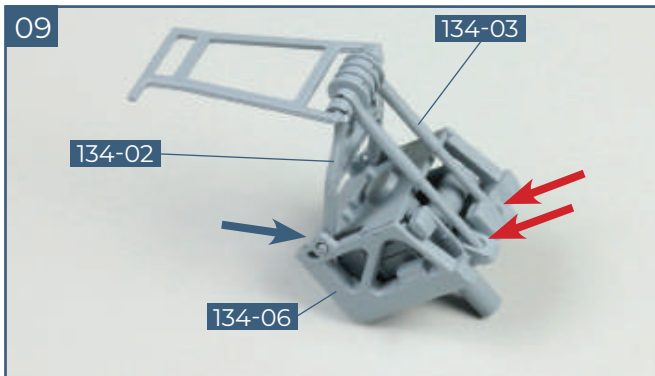


Align the crane support **134-02** and hydraulic rods **134-03** as shown in the photo. They fit together without any glue to form a hinged assembly.

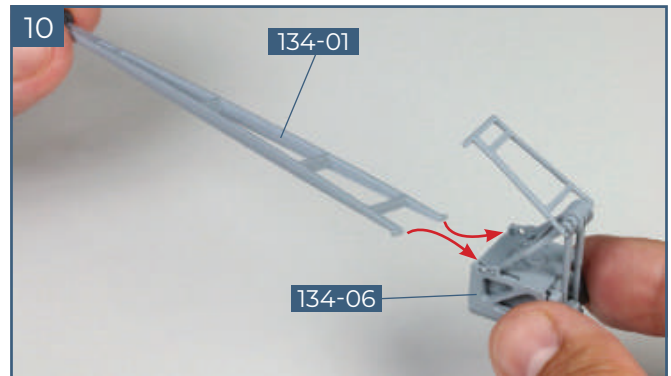


Separate part **7** from frame **134-04** and insert the two pegs (red arrows) into the recesses of the support **134-02**. Make sure that you fit it the right way round (see blue arrow).

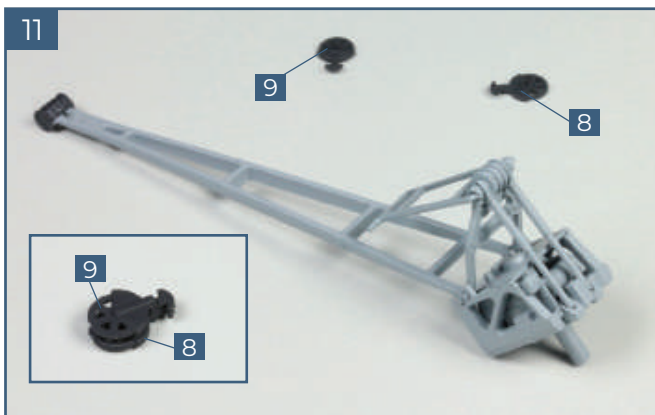




Insert the pegs on the outer sides of part **134-02** (blue arrow) and the ends of the hydraulic rods **134-03** (red arrows) into the holes in the crane body **134-06**. The arrows indicate where the parts are inserted.



Take one of the crane booms **134-01** and fit the two pegs into sockets in the crane body **134-06** (arrows).

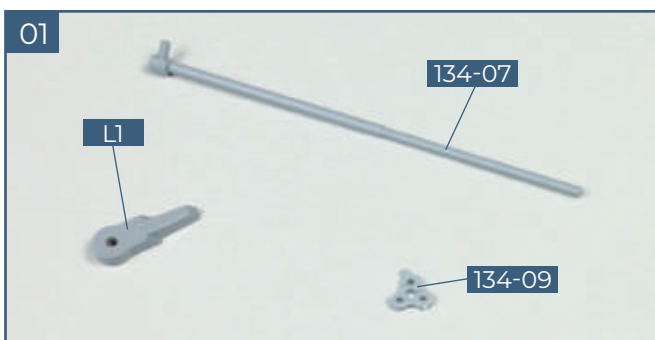


The first crane is almost complete. Separate the two block parts **8** and **9** from the frame **134-05** and glue them together to form a block (inset).

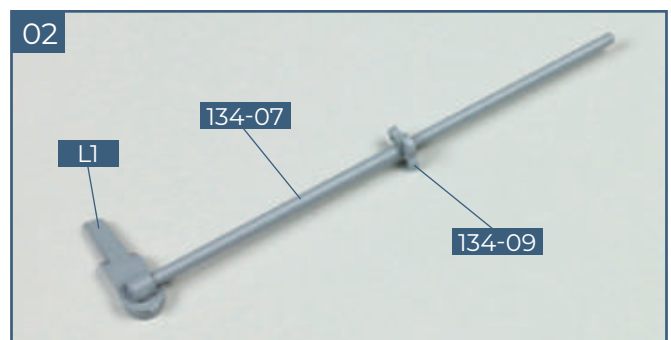


Repeat the previous steps to make a second crane assembly. The two cranes are completed in Stage 136.

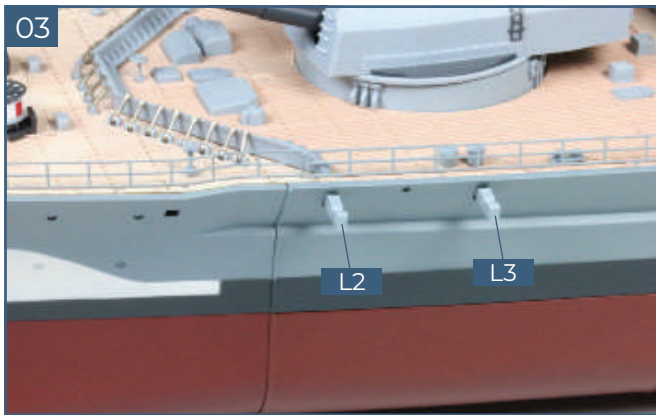
## 02. BOW BOOMS, STERN BOOMS AND PROPELLER PROTECTION



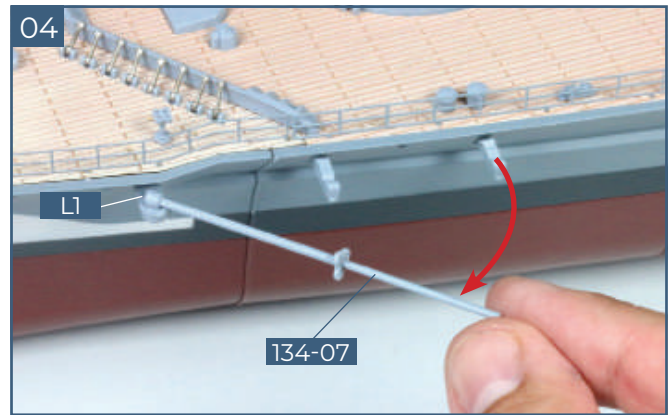
Prepare the parts for the first boat boom: you will need one bow boom **134-07**, one of the two identical parts from frame **134-09** and the bracket labelled **L1** from frame **134-11**.



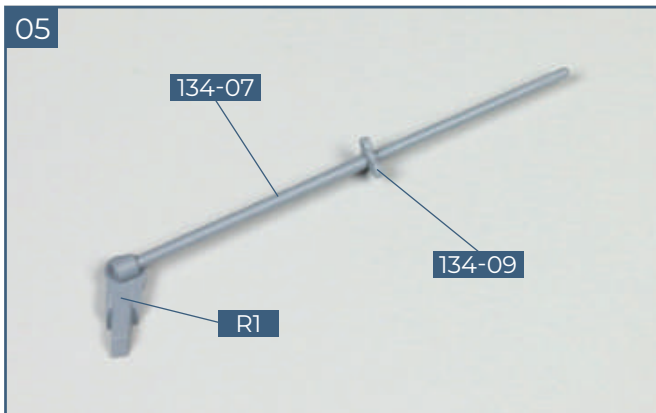
Glue the part from frame **134-09** to the bow boom **134-07** at the point where it changes diameter. Fit the peg at the end of the bow boom into the hole in part **L1** (without any glue).



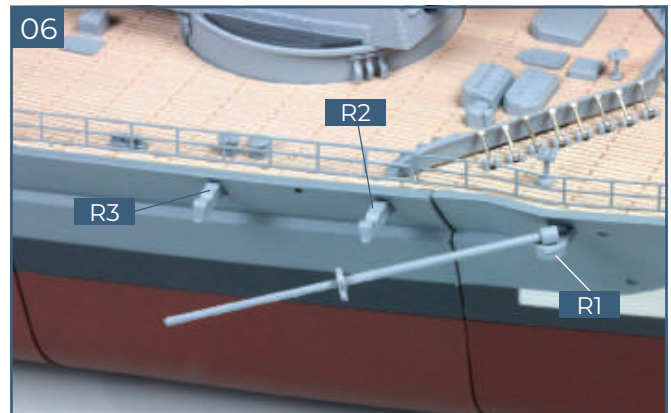
Place your model on your work surface so you can access the port side. Glue the two brackets **L2** and **L3** from frame **134-11** to the port side of the hull level with the first 38cm twin turret, as shown.



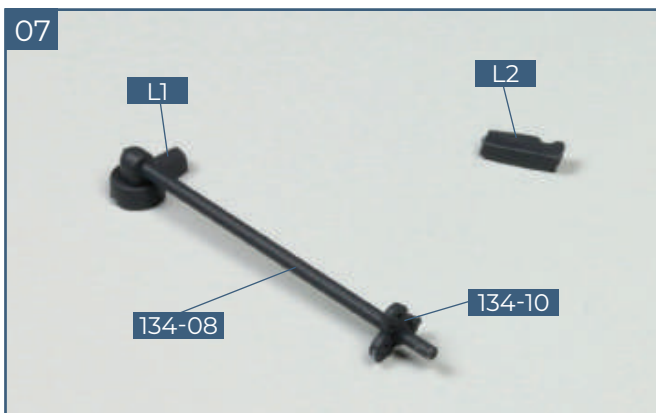
Bracket **L1** fits into a recess in the hull a little further forward. Glue the end in place, making sure that the bow boom **134-07** can swing in and out, as indicated.



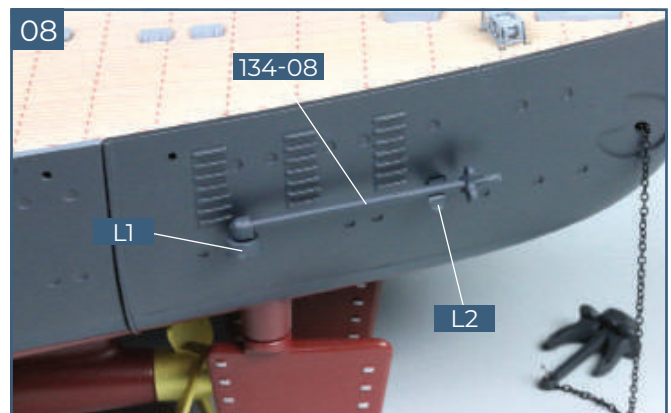
Assemble the starboard boom in the same way. The second part from frame **134-09** is glued to the second boom **134-07**. A pin at the end of the spar fits into the recess of the bracket **R1**.



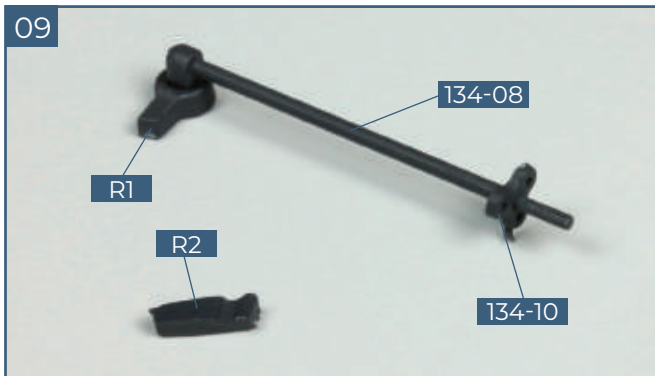
Turn the model round. The two brackets **R2** and **R3** from frame **134-11** and bracket **R1** are glued in place on the starboard side of the hull, as shown.



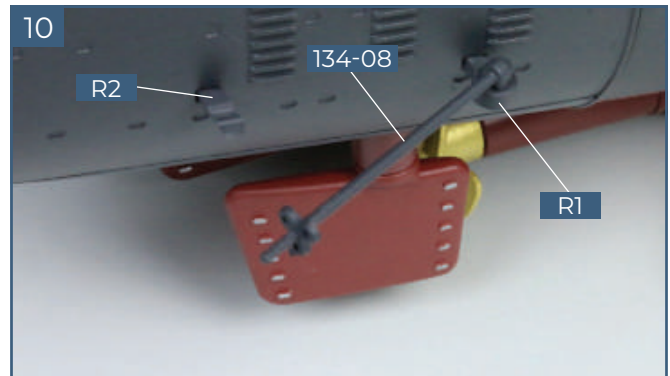
For the stern boom on the port side, take parts **L1** and **L2** from frame **134-12**. A peg on the stern spar **134-08** fits in the hole in bracket **L1** and one of the parts from frame **134-10** is glued to the spar.



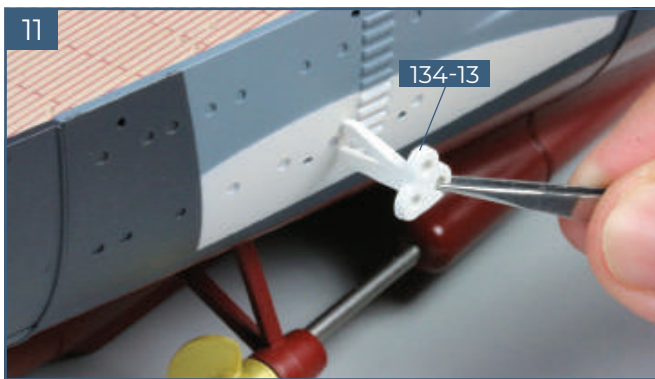
Glue parts **L1** and **L2** to the port side of the hull, towards the stern, as shown. The stern boom **134-08** also remains movable.



For the stern boom on the starboard side, take parts **R1** and **R2** from frame **134-12**. A pin on the stern boom **134-08** fits in a socket in part **R1** and the second part from frame **134-10** is glued to the boom.



Glue parts **R1** and **R2** to the starboard side of the hull, towards the stern, as shown. The stern boom **134-08** should still swing outwards.

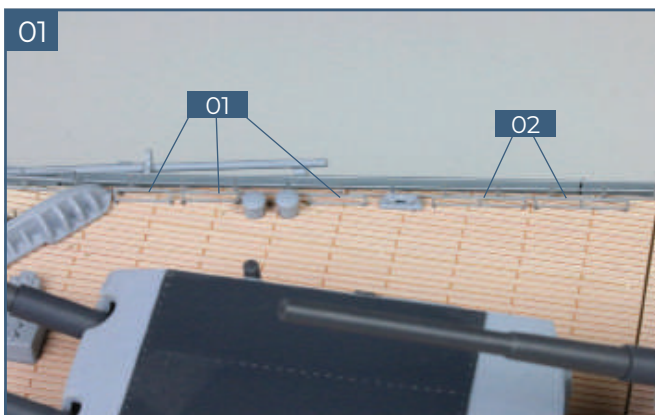


Fit the side screw propeller protectors **134-13**. The first is glued to the stern area on the starboard side of the hull.

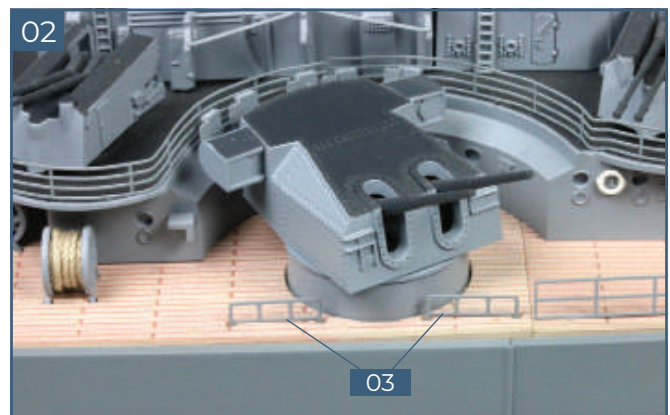


The second side propeller protector **134-13** is fitted in the same location on the port side of the hull.

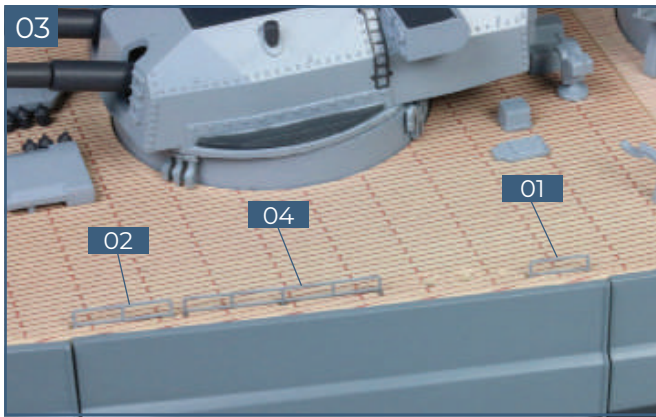
### 03. SAFETY RAILS FOR THE UPPER DECK



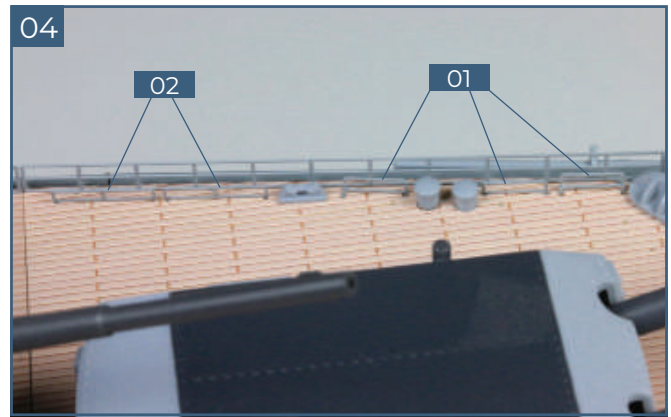
Take three safety rails labelled **01** and two safety rails labelled **02** from frame **134-14** and glue them to the starboard side of the upper deck, near the first 38cm twin turret.



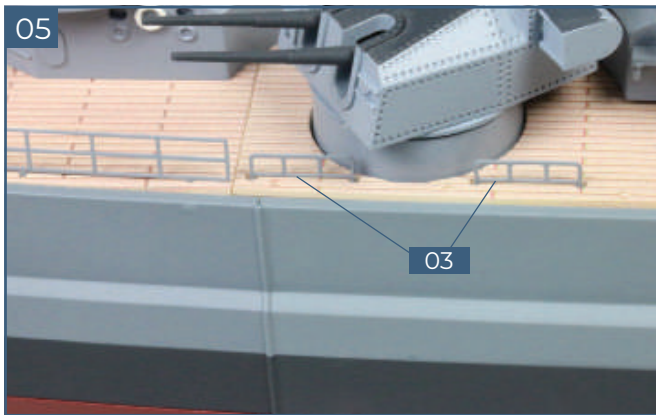
Still working on the starboard side, glue two safety rails **03** on either side of the twin 15cm turret in the midship area.



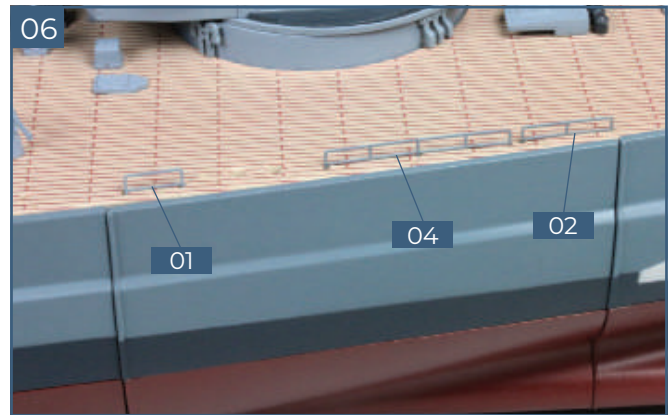
Move to the stern area on the starboard side. Take three safety rails labelled **01**, **02** and **04** and glue them in place, as shown.



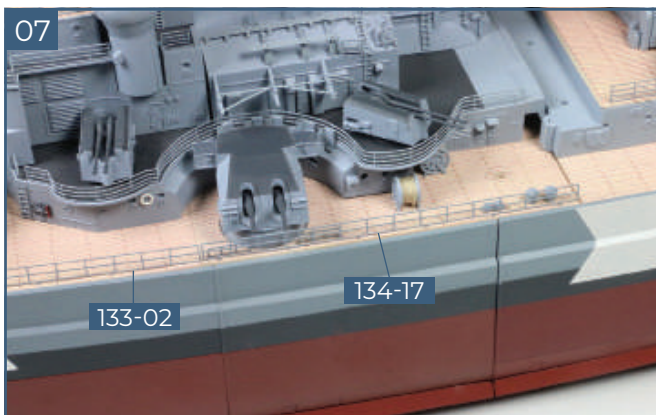
On the port side, the safety rails are fitted in the same way. Towards the bow, glue three safety rails **01** and two safety rails **02** in place, as shown.



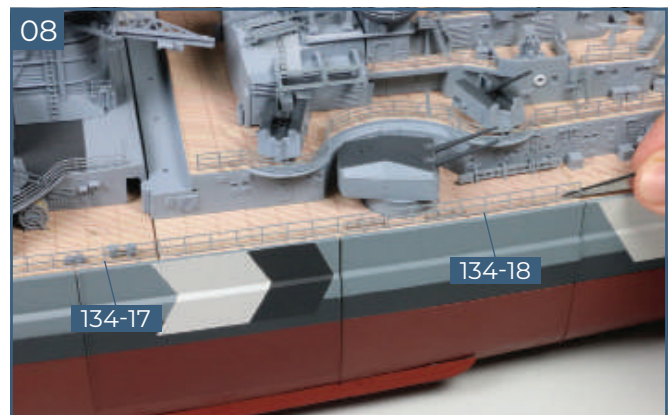
In the midship area, glue two safety rails **03** in place, as shown.



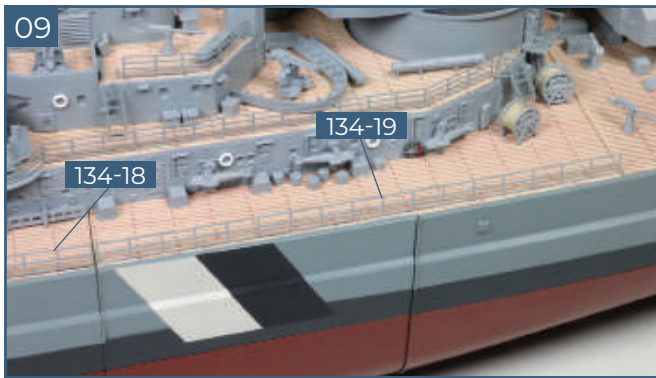
Towards the stern, glue three safety rails **01**, **02** and **04** in place.



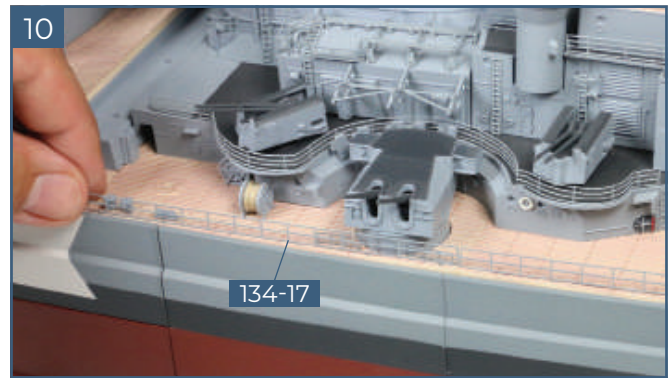
The first railing from **134-17** fits on the port side, continuing the line of railing **133-02**. Note the end of the railing next to the Roman number V and fix the railing in place with this end running towards the bow (to the left in the photo).



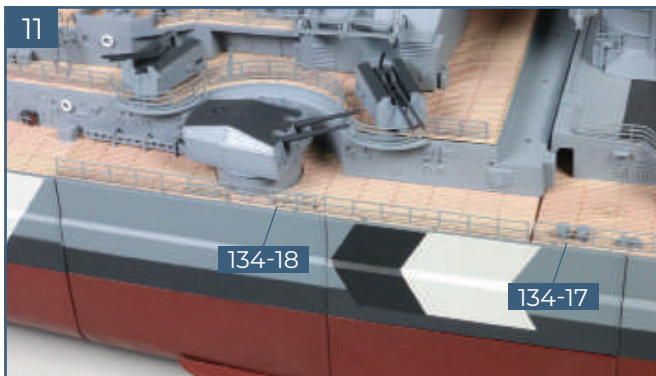
A railing from frame **134-18** continues the line of the railing **134-17**. Fix in place, ensuring that the end that was next to the Roman number VI runs towards the bow (to the left in the photo).



A railing from frame **134-19** continues to the aft of railing **134-18**. The end next to VII on the frame also points towards the bow (to the left in the photo).



Moving to the starboard side, fix the second railing from frame **134-17** in place with the V end running towards the bow (to the right in the photo).

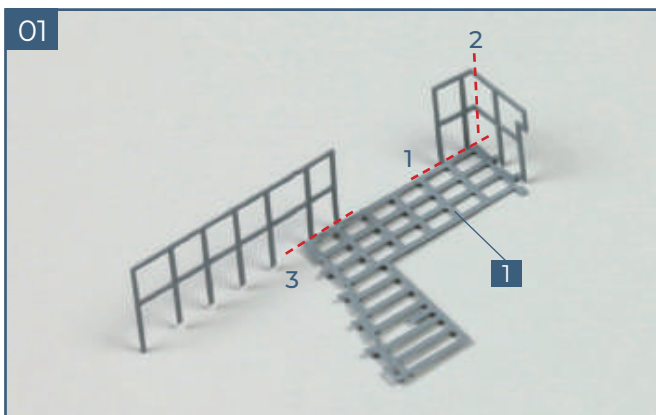


The second railing from frame **134-18** continues the line of railing **134-17**. The VI end is on the right in the photo.

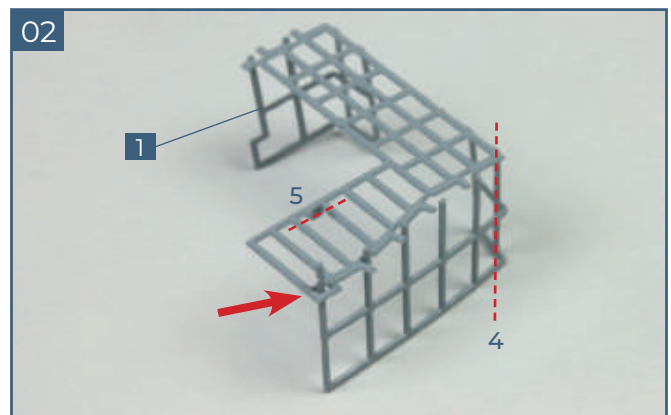


Finally, the railing **134-19** is glued in place, continuing the line of railing **134-18**, with the VII end on the right in the photo.

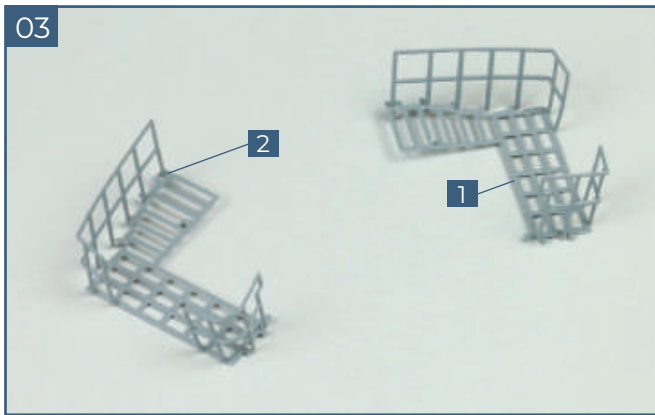
## 04. ASSEMBLING THE CATAPULTS



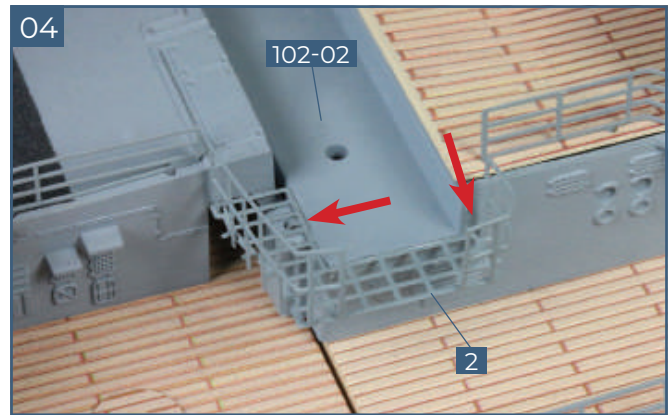
Take the catapult platform **1** from the frame **134-16**. Following the numbered order of the dotted lines, bend the part three times at right angles.



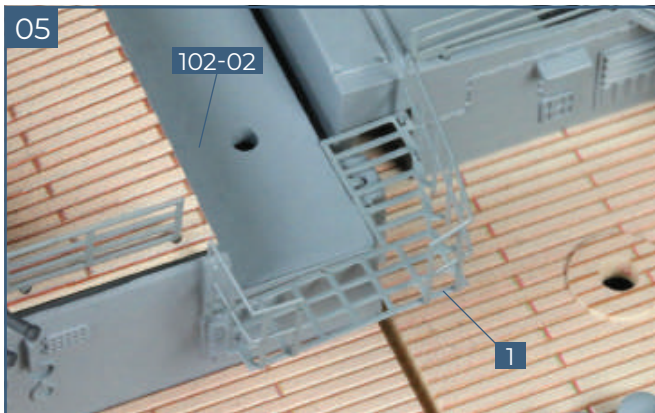
Bend platform **1** at right angles along the dotted line 4. Here the part has been turned the other way up so that you can see how the post at the end of the platform fits into an eyelet (arrow). Bend the small tab as shown (dotted line 5).



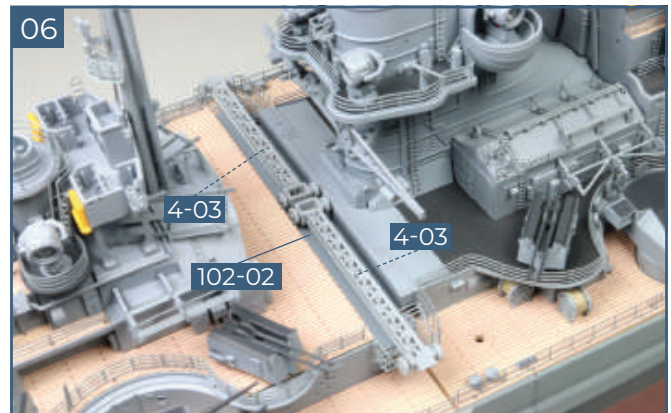
Take the second catapault platform from the frame **134-16**. Bend the part in a similar way to make a platform that is a mirror image of the first platform, as shown.



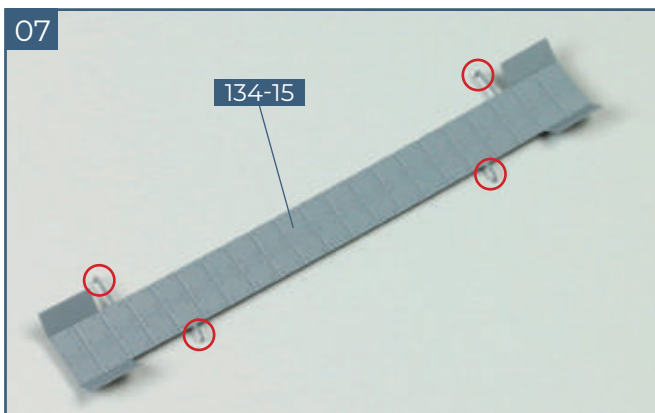
Identify the position for catapault platform **2** on the port side, behind the funnel. Two pegs on the platform fit into holes in part **102-02** (arrows). Glue the pegs in place.



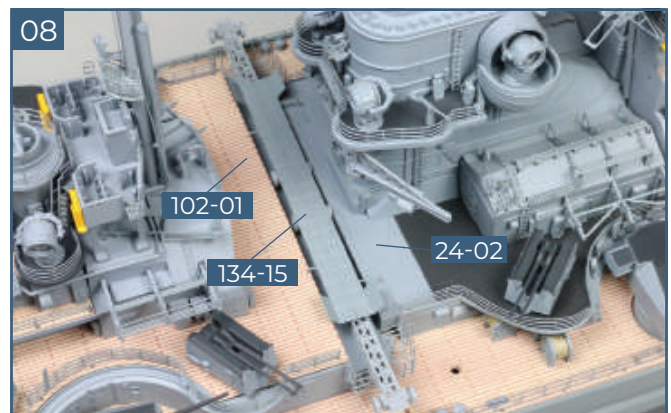
Fix the catapault platform **1** in place behind the funnel on the starboard side of the model. Again, two pegs on the platform are glued into the holes in part **102-02**.



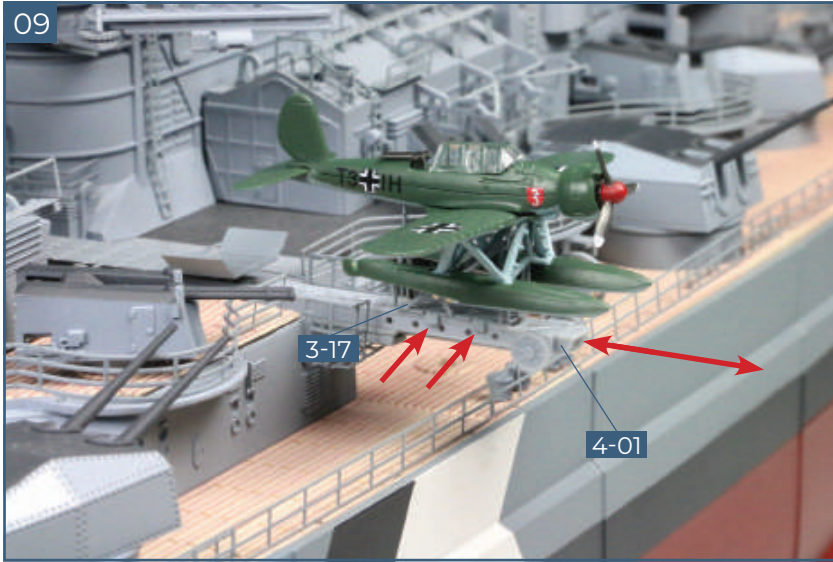
Take the catapault tracks **4-01/4-03**, supplied with Stage 4. Apply a little glue to the two pegs on parts **4-03** and fix them to part **102-02** behind the funnel.



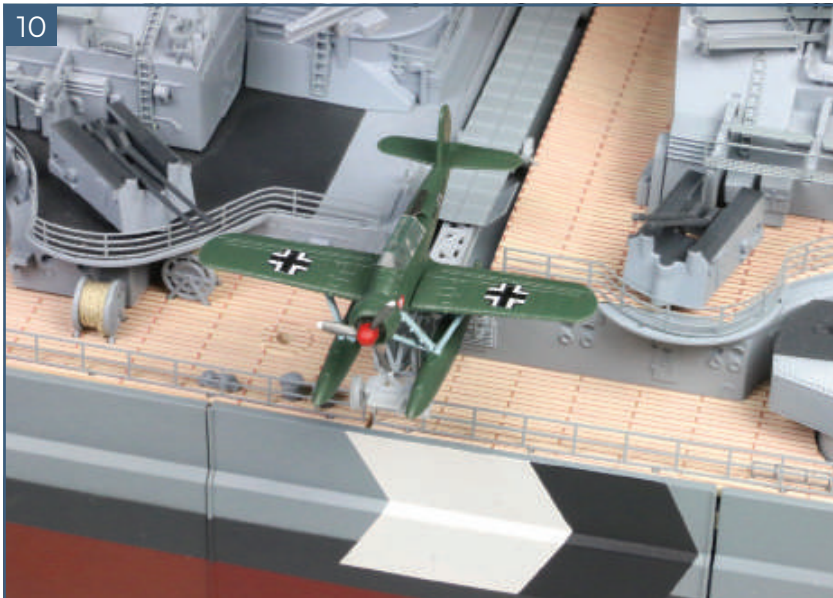
Take the catapault track cover **134-15** and bend the ends of the four small pegs down at right angles (circled). Bend the large flaps at each end upwards at a 45 ° angle, as shown.



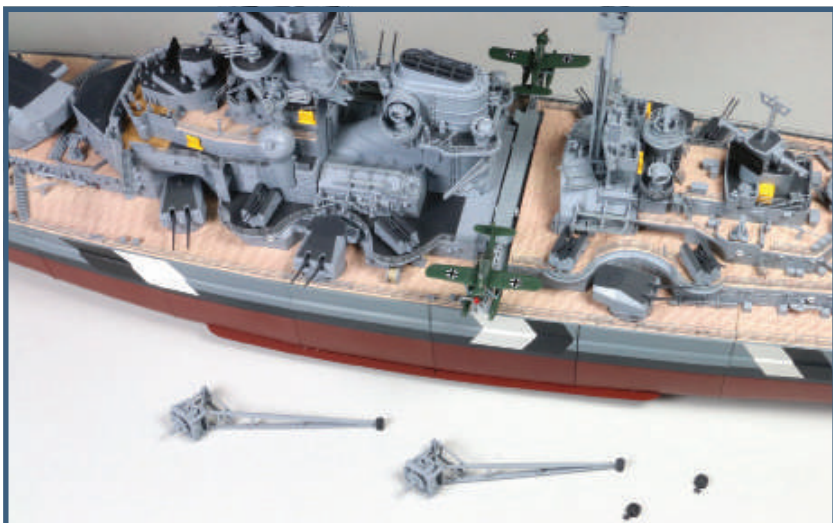
Place the cover **134-15** over the catapault tracks: the two front pegs are glued into sockets in part **24-02**. The rear pegs are NOT glued in place: they rest in grooves in the deck covering **102-01**.



The first aircraft is placed on the starboard catapult: four small pegs on the launch carriage **3-17** fit on either side of the catapult track **4-01**. The arrows indicate two of these pegs. The catapult track can be extended, as indicated by the double-headed arrow.



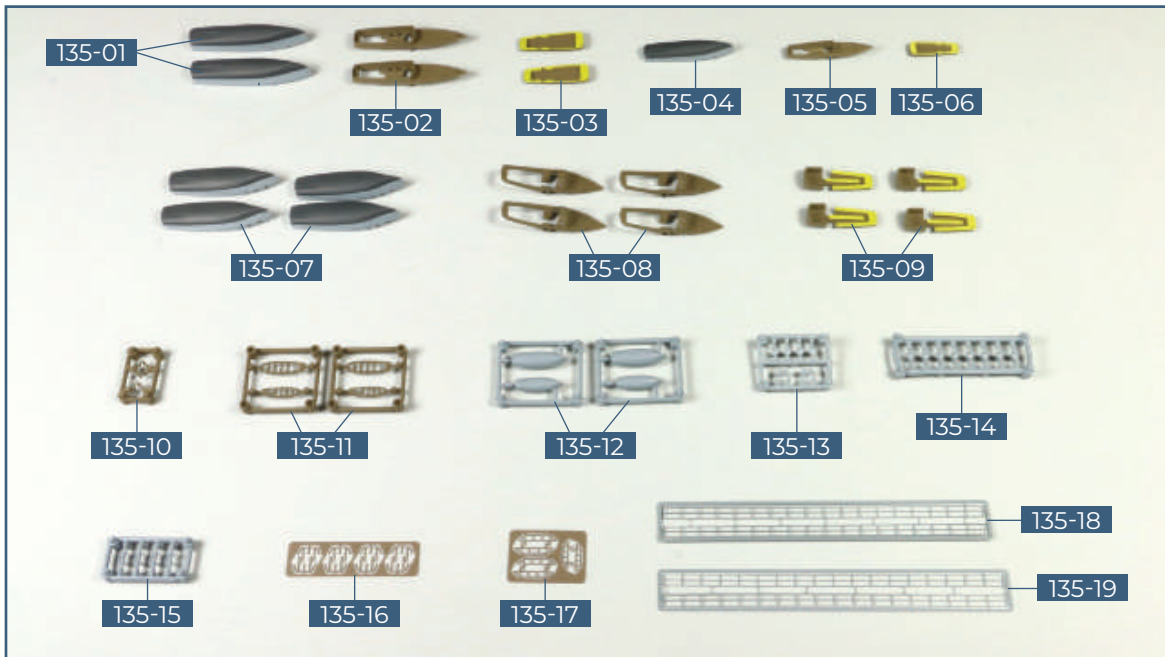
The second aircraft is fitted on the port catapult in the same way.



You have started to assemble the two aircraft cranes; the four booms and the two propeller guards have been fitted; the two catapults and their platforms have been attached to the model; and the two Arado Ar 196 aircraft are ready to launch.

# STAGE 135

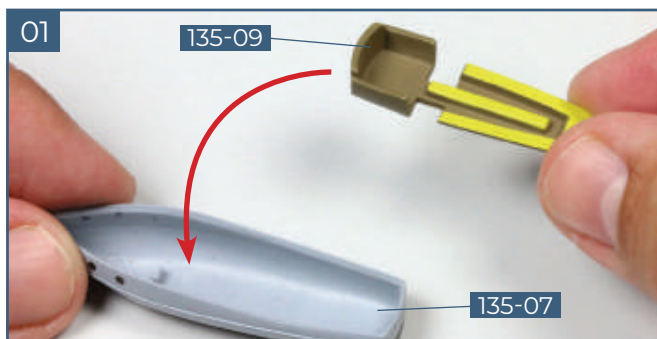
## THE BOATS



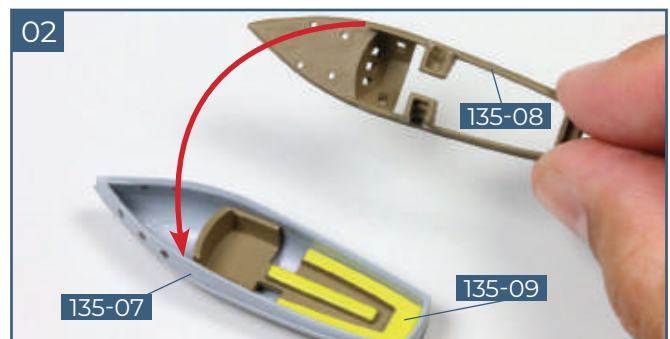
### COMPONENTS CHECKLIST

- |  |   |                                      |
|--|---|--------------------------------------|
| <b>135-01:</b> Two admiral's boats (hulls)       | <b>135-08:</b> Four deck parts for transportation boats | <b>135-14:</b> Eight bollards        |
| <b>135-02:</b> Two decks for admiral's boats     | <b>135-09:</b> Four boat interiors                      | <b>135-15:</b> Four roller fairleads |
| <b>135-03:</b> Two boat interiors                | <b>135-10:</b> Three railings                           | <b>135-16:</b> Eight safety rails    |
| <b>135-04:</b> Motor yawl (hull)                 | <b>135-11:</b> Four bench inlays (throws)               | <b>135-17:</b> Six safety rails      |
| <b>135-05:</b> Deck for motor yawl               | <b>135-12:</b> Two cutters + two yawls                  | <b>135-18:</b> Two railings (VIII)   |
| <b>135-06:</b> Yawl interior                     | <b>135-13:</b> Four bollards + two cleats               | <b>135-19:</b> Two railings (IX)     |
| <b>135-07:</b> Four transportation boats (hulls) |   |                                      |

## 01. ASSEMBLING THE BOATS

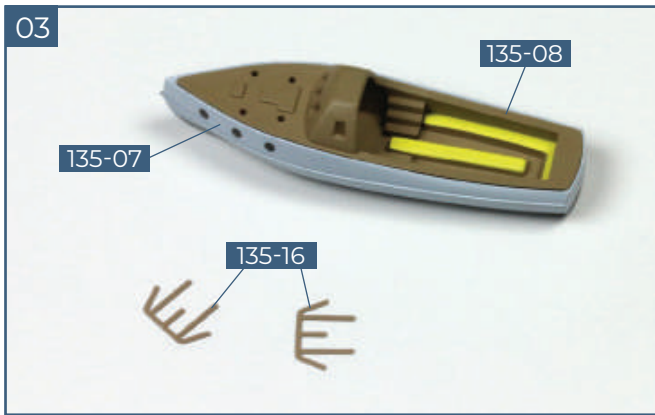


Take one of the boat interiors **135-09** and fit it in one of the transportation boat hulls **135-07** as indicated.

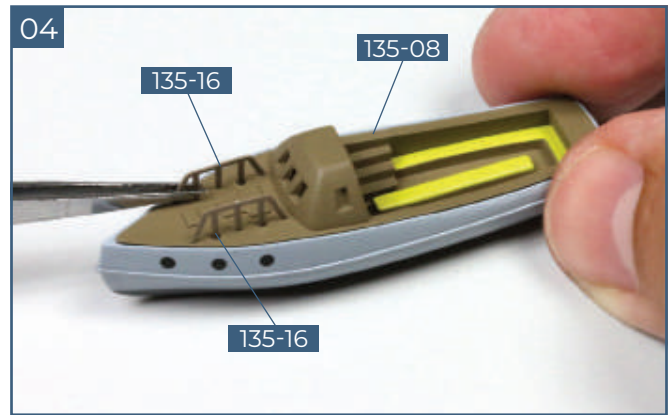


With the interior **135-09** in position in the hull **135-07**, fit one of the deck pieces **135-08**. When you are happy with the fit, glue it in place.

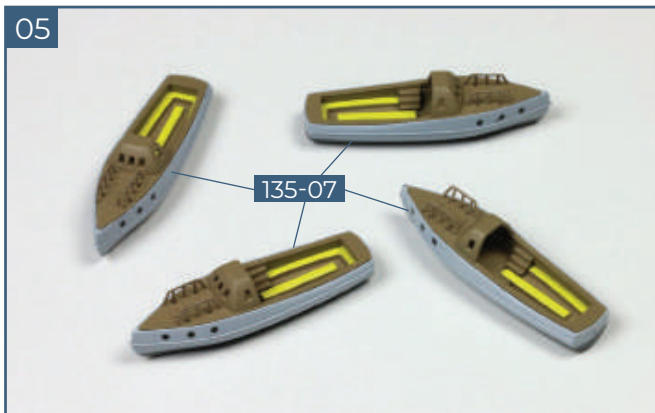




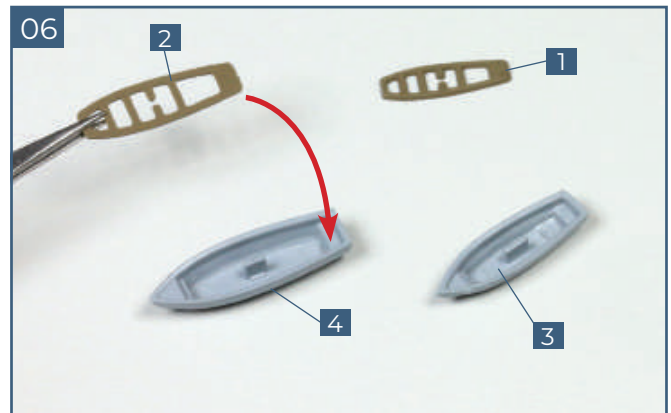
With the deck piece **135-08** glued in place, take two of the safety rails from frame **135-16**.



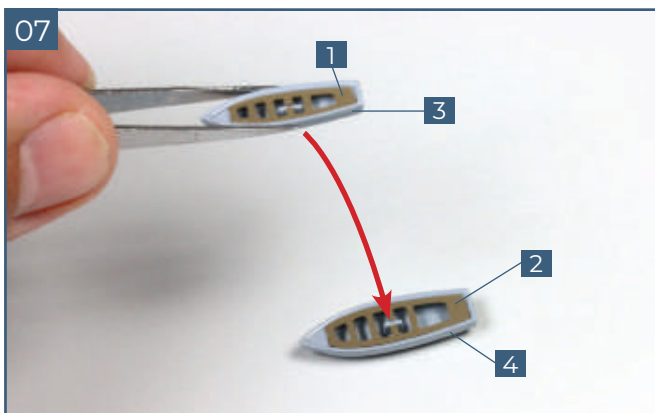
Glue the two safety rails **135-16** in place with the two longer uprights on each rail fitted into the holes of the deck part **135-08** as shown.



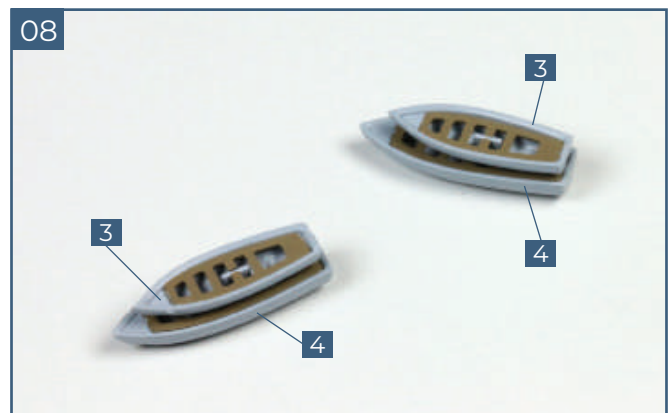
Repeat these four steps using the remaining sets of parts to build four identical transportation boats **135-07**, as shown in the photo.



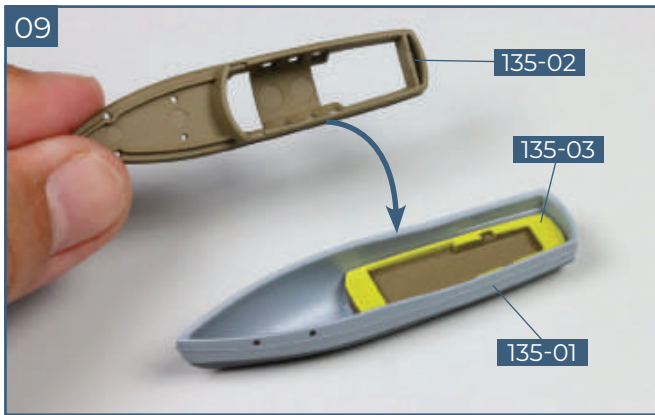
Take one larger and one smaller hull from frame **135-12** and a larger and smaller bench inlay from frame **135-11**. Fit the larger inlay into the cutter hull and the smaller one into a yawl hull. Glue the inlays in place.



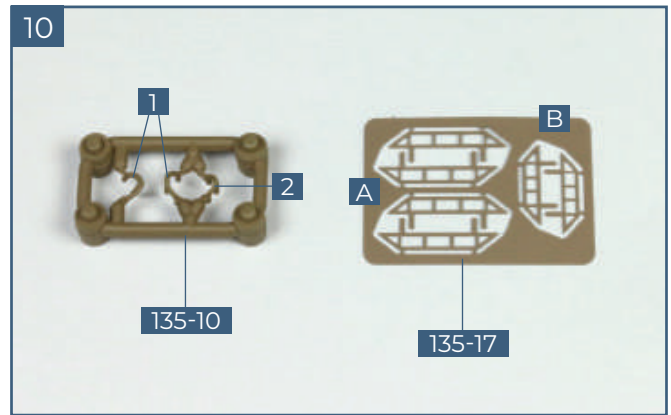
Fit the yawl on top of the cutter and glue in place.



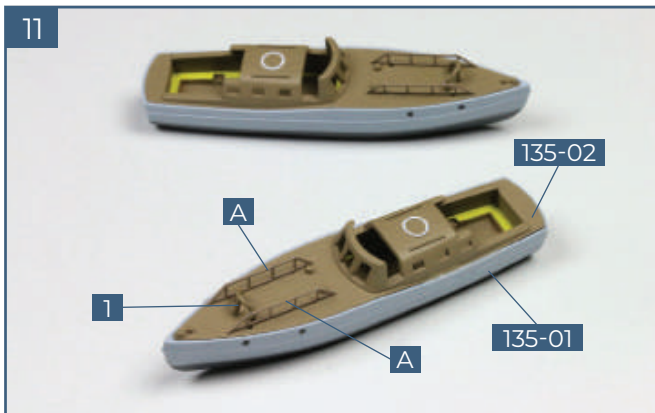
Repeat the previous two steps to build another yawl and cutter.



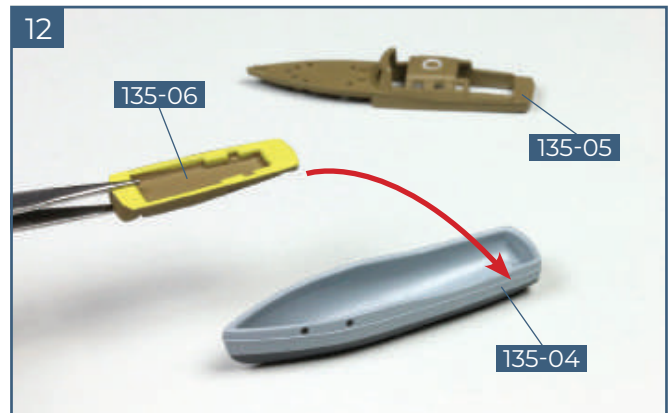
Take a boat interior **135-03** and fit it into the hull of an Admiral's boat **135-01**. Check the fit of the deck section **135-02** and apply a little glue to the contact point to fix it in place.



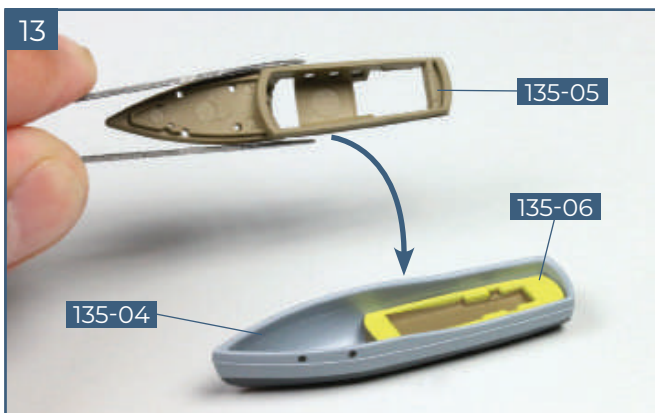
Identify the different types of railing in frames **135-10** and **135-17**.



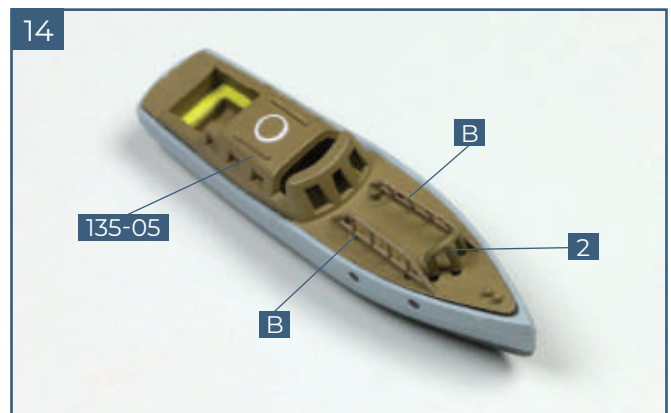
Take a railing **1** from frame **135-10** and two safety rails **A** from frame **135-17**. Glue them in place on the front of the deck **135-02**, as shown. Make an identical Admiral's boat **135-01**.



Next, assemble the motor yawl. Fit the interior **135-06** into the hull part **135-04**.

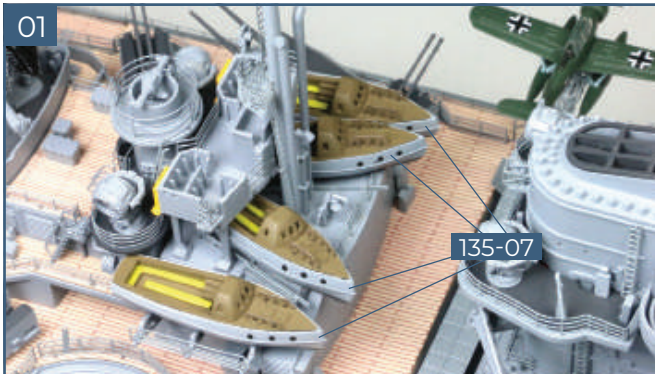


With the interior **135-06** fitted into the hull **135-04**, check the fit of the deck section **135-05**. Apply glue to the contact points and fix in place.

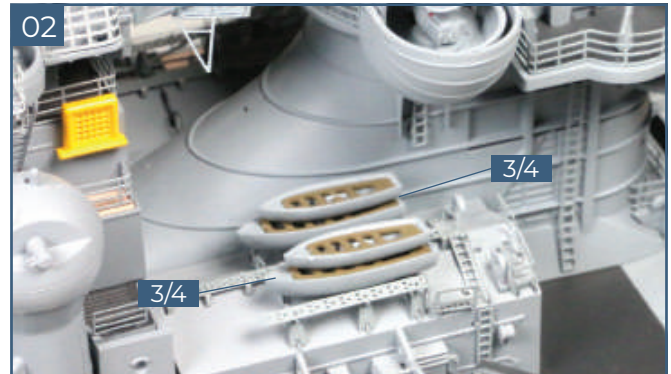


Take a railing **2** from frame **135-10** and two safety rails **B** from frame **135-17**. Glue them in place on the front of the deck part **135-05**.

## 02. POSITIONING THE BOATS



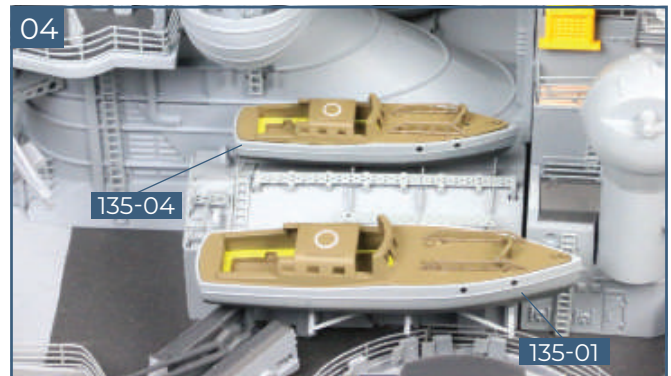
The four transportation boats **135-07** fit on the boat supports on the central hangar, as shown.



The two yawl/cutter assemblies fit on top of the port hangar, next to the funnel.

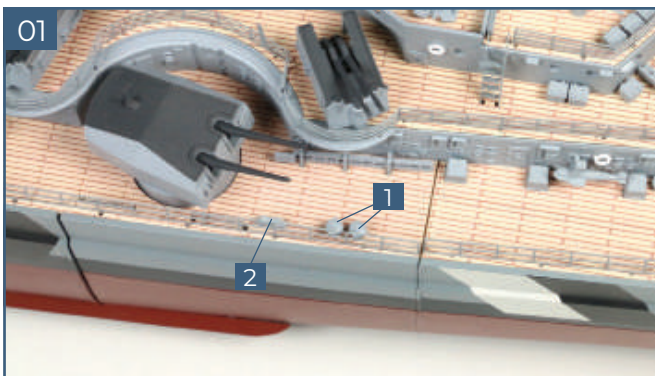


The first Admiral's boat **135-01** fits on the outer brackets of the port hangar, beside the yawl/cutter assemblies.

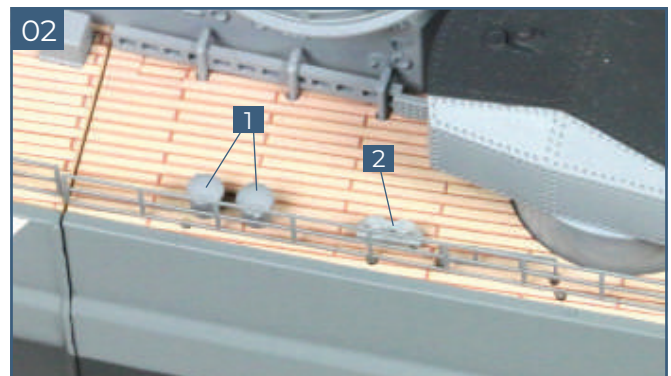


The motor yawl **135-04** fits on top of the starboard hangar, with the second admiral's boat **135-01** on the brackets.

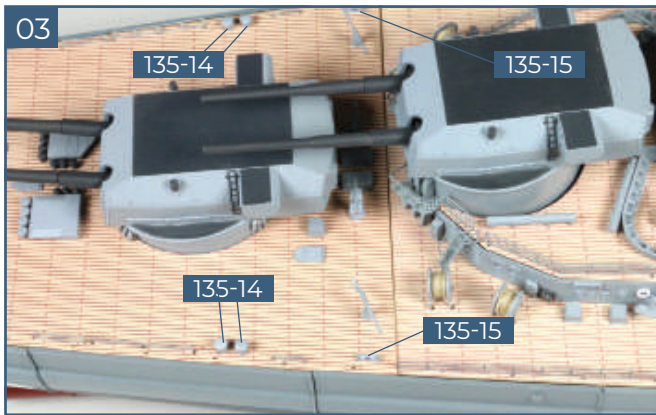
## 03. BOLLARDS, CLEATS AND RAILINGS



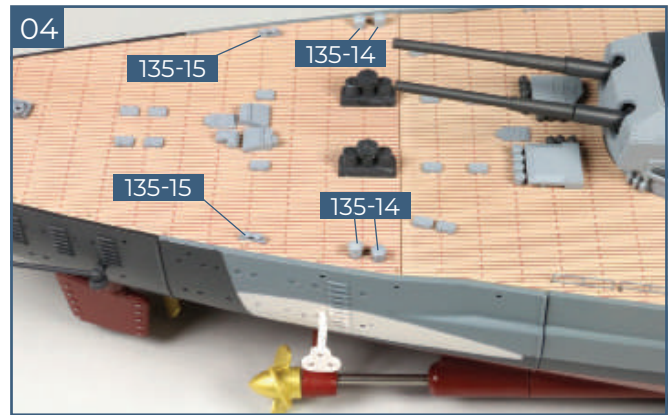
Take two bollards **1** and a cleat **2** from frame **135-13**. Glue them in place on the port side next to the eighth 15cm gun turret.



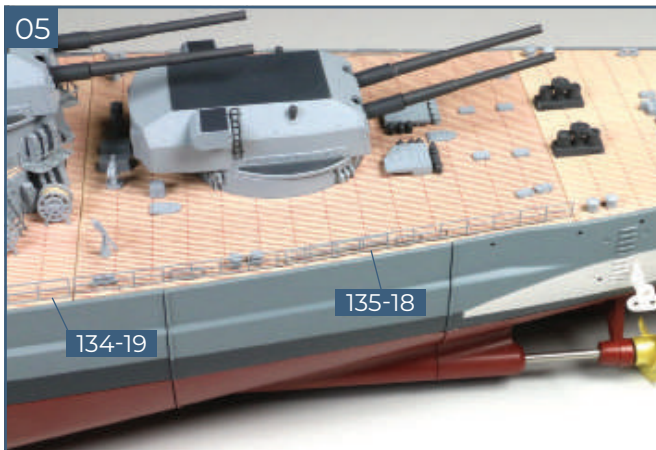
On the starboard side, fit the other two bollards **1** and the second cleat **2** from frame **135-13**.



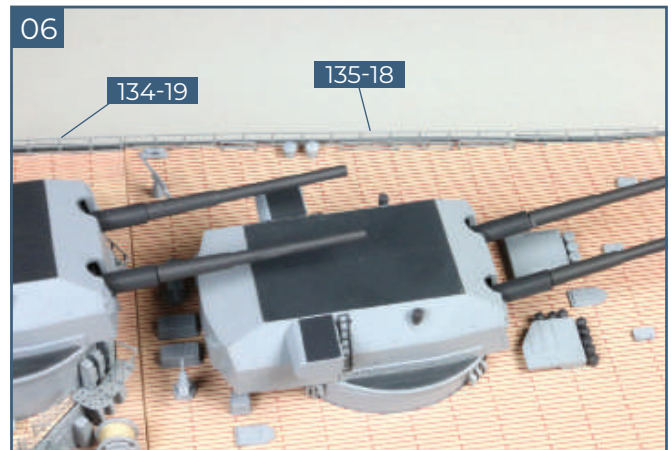
Take four bollards **135-14** and two roller fairleads from frame **135-15**. Glue them in place on either side of the main gun turret on each side of the upper deck, as shown.



The four remaining bollards **135-14** and the two remaining roller fairleads **135-15** are fixed in place on each side of the upper deck, towards the stern.



The first railing **135-18** continues the line of railing **134-19** on the port side. The end of the railing in the frame next to the Roman numeral VIII runs towards the bow.



The second rail **135-18** is fitted in the same way on the starboard side, as shown.



The two railings **135-19** are glued on either side of the aft deck. The end of the railing in the frame next to the engraved Roman numeral IX runs towards the bow.

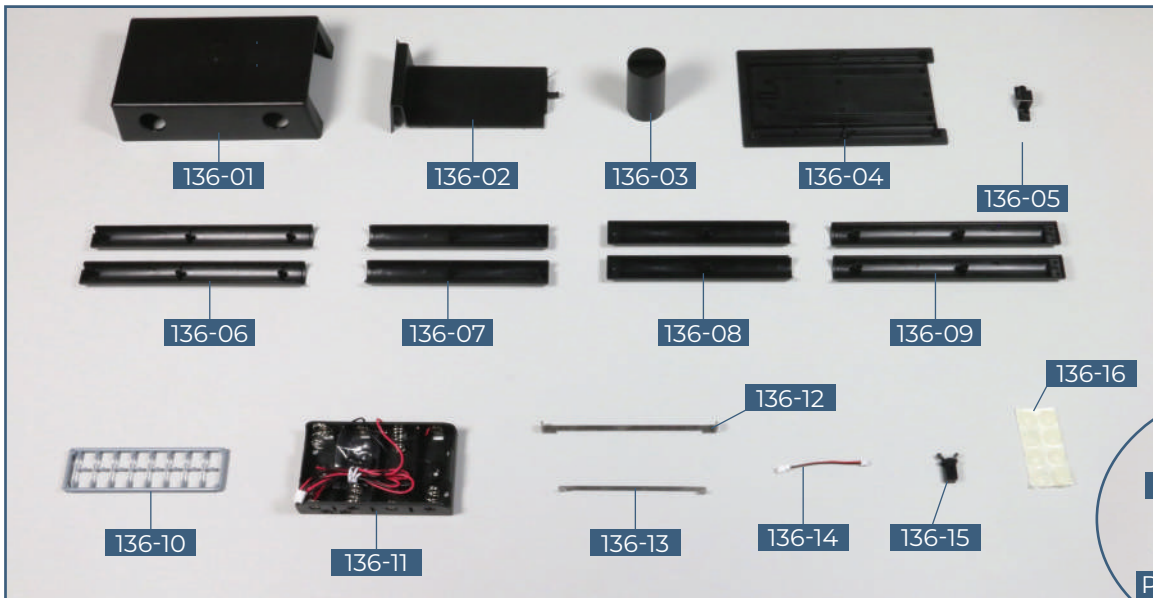


**Completed work**

The boats have been assembled and fitted deck and the upper deck railing is complete.

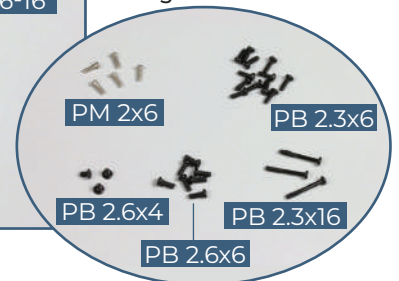
# STAGE 136

## STAND AND BATTERY BOX



**NOTE:**

There are extra 2.6 x 6mm screws supplied in this pack. Keep these screws for use in Stage 137.



**COMPONENTS CHECKLIST**

**136-01:** Body of forward end of stand

**136-02:** Battery compartment base

**136-03:** Support column

**136-04:** Base plate

**136-05:** Bracket

**136-06:** Two parts of side arms (1)

**136-07:** Two parts of side arms (2)

**136-08:** Two parts of side arms (3)

**136-09:** Two parts of side arms (4)

**136-10:** Eight 2cm flak guns

**136-11:** Battery box

**136-12:** Cross bracing strut

**136-13:** Lengthways bracing strut

**136-14:** Cable

**136-15:** Latch

**136-16:** Eight cushion pads

Five 2 x 6mm **PM** screws

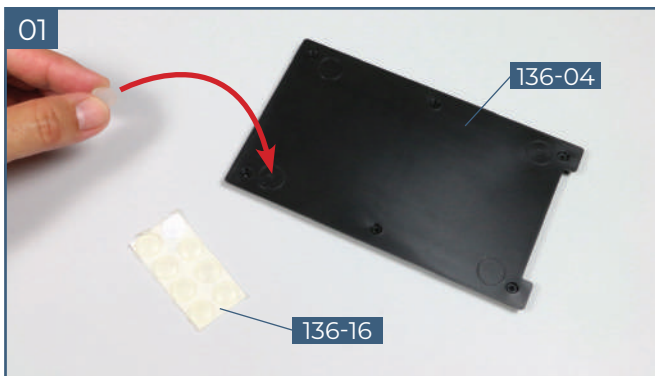
Twelve 2.3 x 6mm **PB** screws

Three 2.6 x 4mm **KB** screws

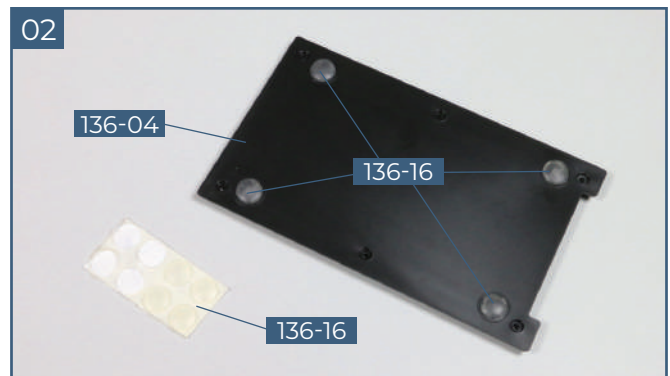
Seven 2.6 x 6mm **PB** screws

Three 2.3 x 16mm **PB** screws

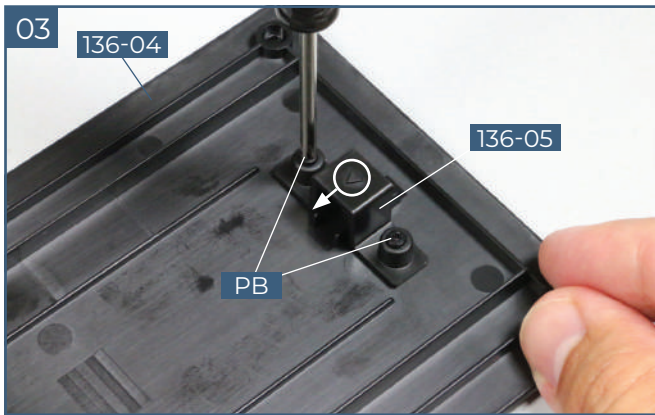
### 01. STARTING TO ASSEMBLE THE STAND



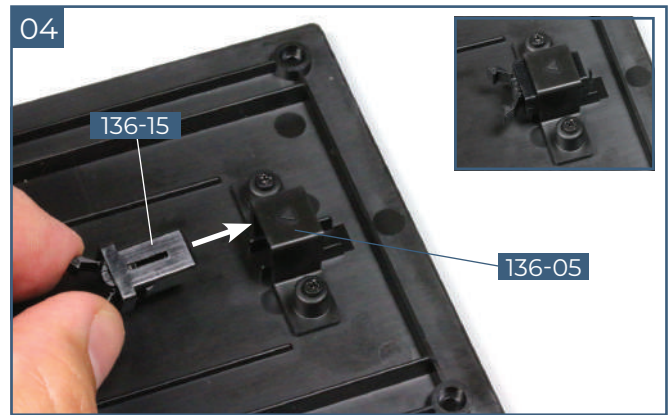
Take the base plate **136-04** and place it upside down on your worktop. Remove a cushion pad **136-16** from its backing and stick it in one of the circular recesses in the base plate.



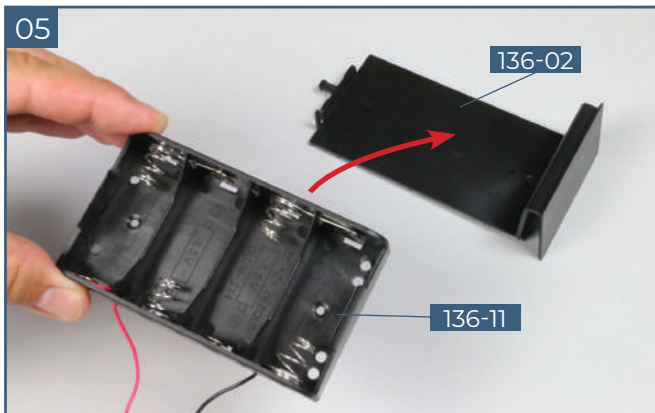
Stick three more cushion pads **136-16** in the remaining three recesses on the underside of the base plate **136-04**. Keep the remaining pads **136-16** in a safe place.



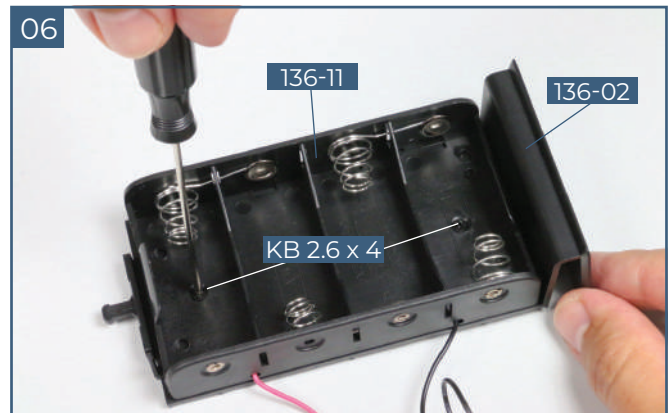
Turn the base plate **136-04** over and check the fixing point for the bracket **136-05**. Note the orientation of the arrow (circled). Fix it in place with two 2.3 x 6mm **PB** screws.



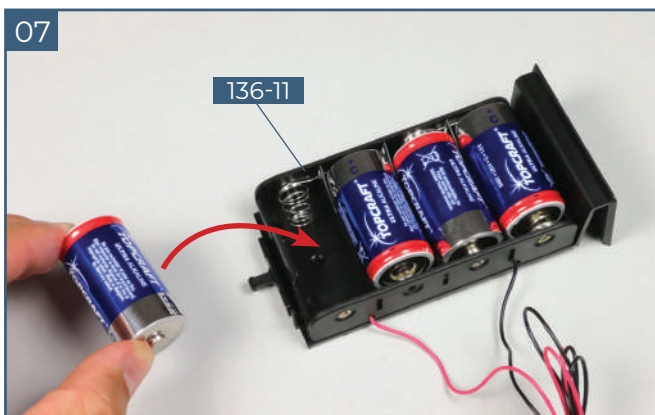
Fit the clasp **136-15** into the bracket **136-05**, as shown. The clasp clicks into place, as shown in the inset photograph. Put the assembly aside until it is needed again in step 24.



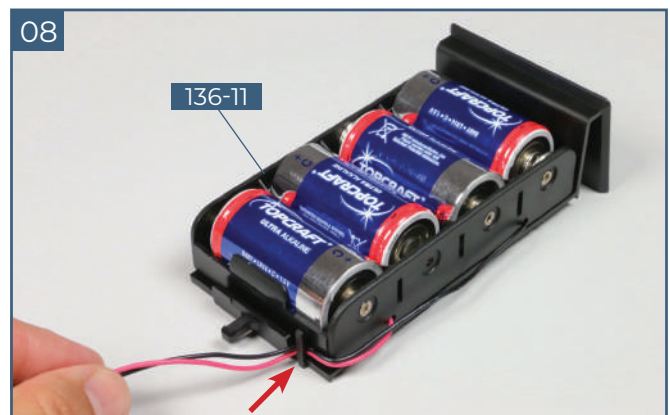
Take the battery box **136-11** and place it on the battery compartment base **136-02** as indicated by the arrow. Note the orientation of part **136-11**.



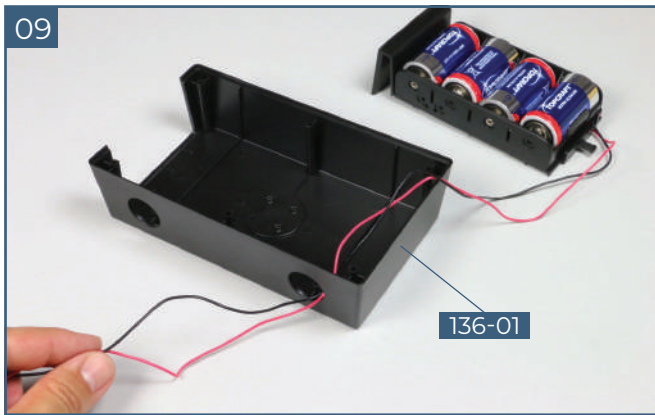
Fix the battery box **136-11** to the battery compartment base **136-02** using two 2.6 x 4mm **KB** screws.



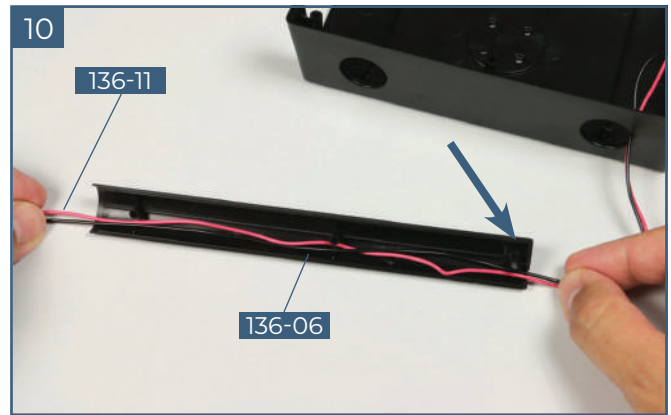
Insert four C-type batteries into the battery box **136-11** as shown (with + and - terminals positioned as indicated inside the box).



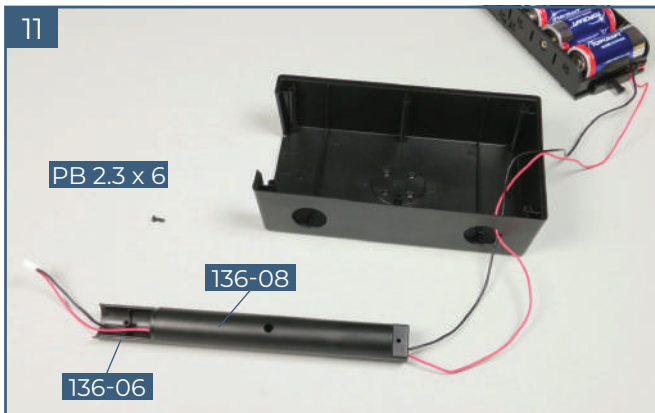
Take the two cables attached to the battery box **136-11** and run them behind the small vertical tab (see arrow).



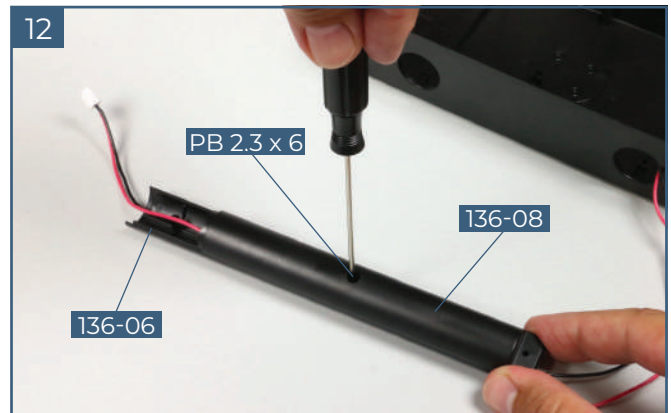
Take the body of the stand **136-01** and position it upside down on your work surface next to the battery box, as shown. Run the connector on the end of the cables through the circular opening in part **136-01**.



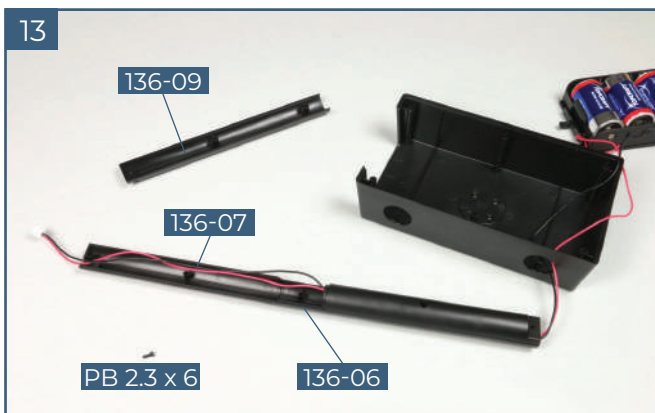
Take one of the parts of the side arm **136-06**, which has a "1" marked on it at one end (arrow). Run the cables from the battery box **136-11** along the side arm part.



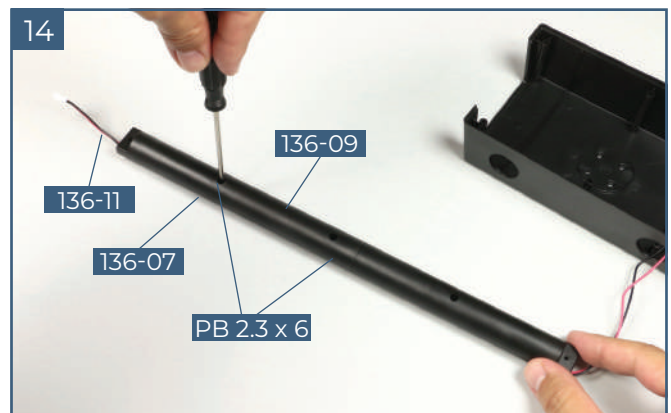
Take one of the parts of the side arm **136-08**, which has a "3" marked at one end. Fit it over the first part **136-06**. You will need a 2.3 x 6mm **PB** screw.



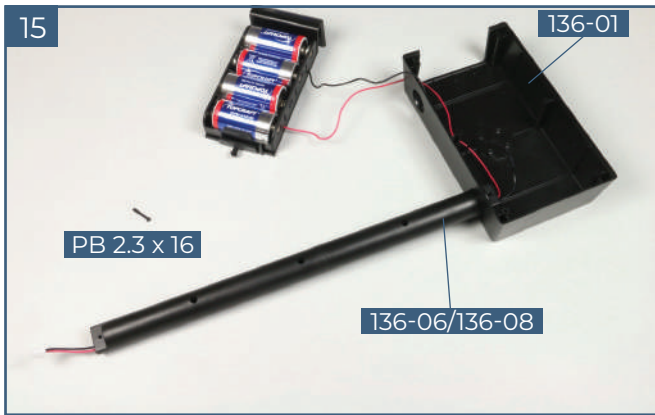
Fix the two halves of the side arms **136-06** and **136-08** together with a 2.3 x 6mm **PB** screw.



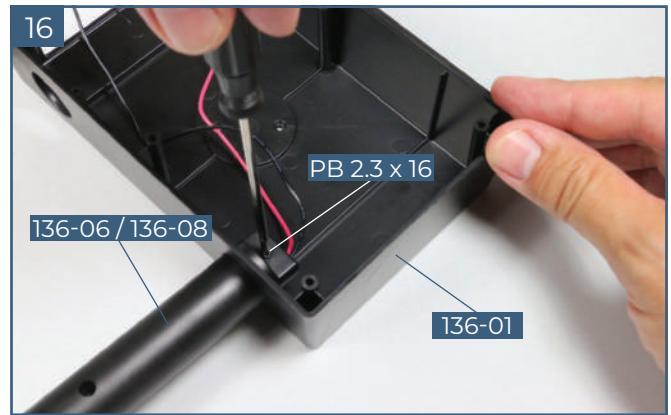
Fit a side arm part **136-07** ("2") next to the side member half **136-06**. Run the cable along part **136-07**. Take a side arm part **136-09** (marked "4") and two 2.3 x 6mm **PB** screws.



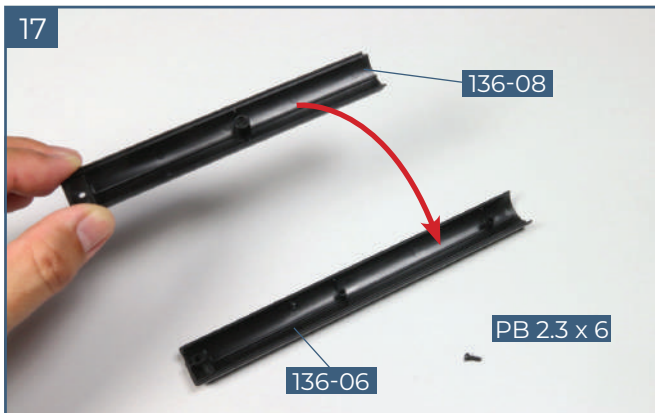
Fit the side arm part **136-09** over part **136-07** and fix them together with two 2.3 x 6mm **PB** screws. The battery box **136-11** cable extends from the end of the arm as shown.



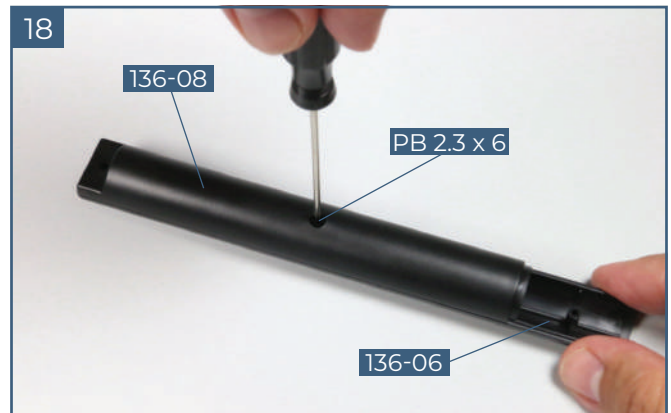
Fit the end of the assembled arm into the circular opening in the stand body **136-01**, as shown. You will need a 2.3 x 16mm **PB** screw.



Fix the assembled end of the side arm (parts **136-06** / **136-08**) to the stand body **136-01** with the 2.3 x 16mm **PB** screw.



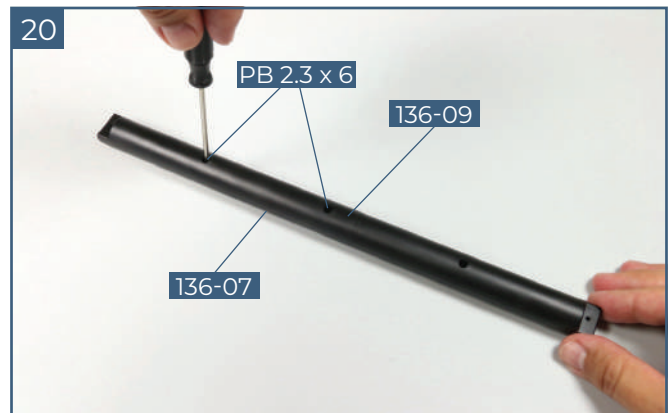
Now assemble the second side arm: fit the next two parts **136-06** (1) and **136-08** (3) together as indicated.



Fix the two side arm parts **136-06** and **136-08** together using 2.3 x 6mm **PB** screw.

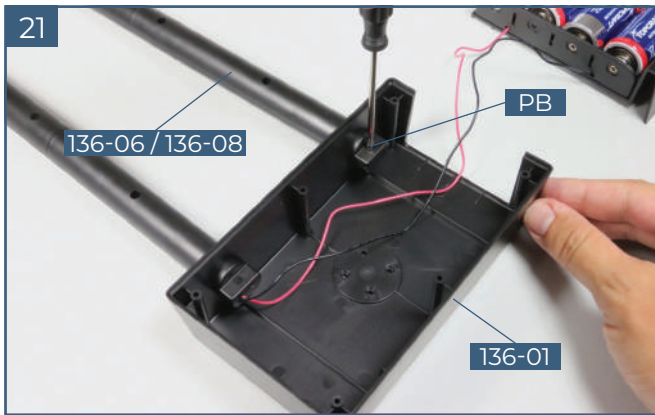


Fit the second side arm part **136-07** (2) on the end of part **136-06**. Fit the second part **136-09** (4) over part **136-07**.

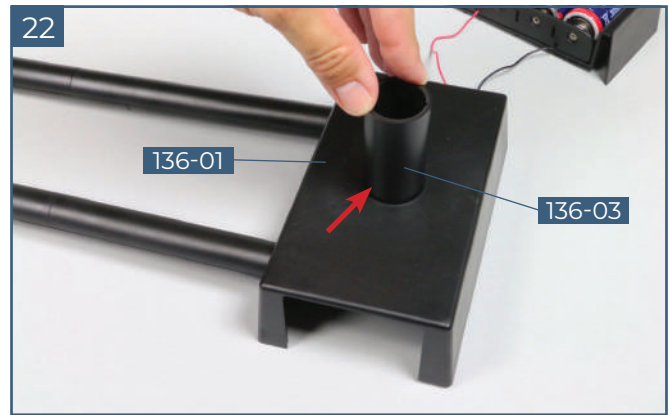


Fix the side arm parts **136-07** and **136-09** together using two 2.3 x 6mm **PB** screws.

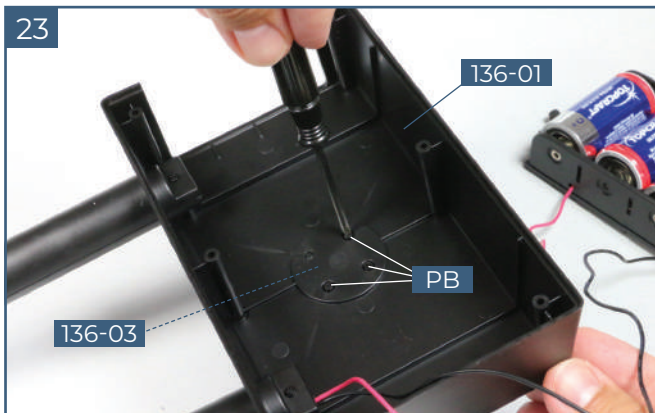




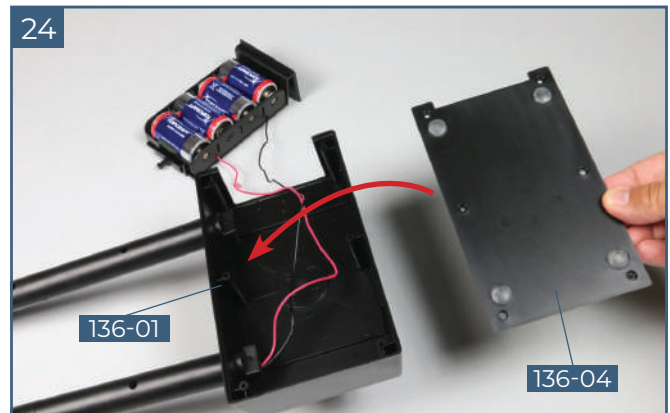
Fit the ends of parts **136-06/136-08** through the second round opening in the stand body **136-01** and fix it in place with a 2.3 x 16mm **PB** screw.



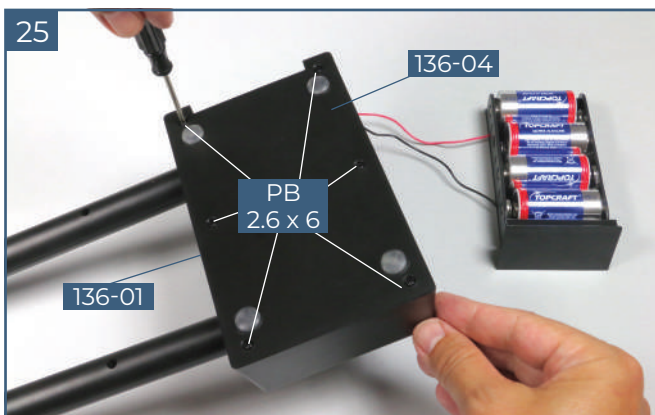
Turn the stand assembly the right side up and fit the support column **136-03** in the central recess of the stand body **136-01**. There is a peg on the column (arrow), which should be positioned as shown.



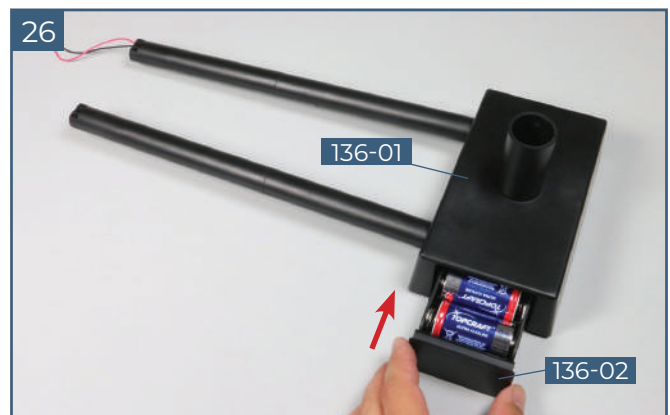
Holding the support column **136-03** in place, turn the stand upside down again. Fix the column in place with three 2.3 x 6mm **PB** screws, as shown.



Take the base plate **136-04** and fit it on the underside of the stand body **136-01** as indicated.

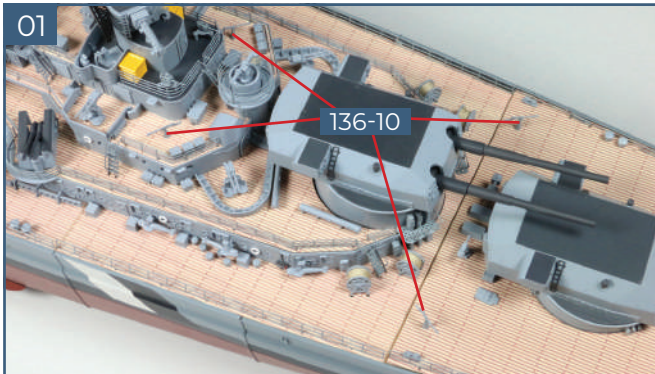


Fasten the base plate **136-04** to the stand body **136-01** using six 2.6 x 6mm **PB** screws.

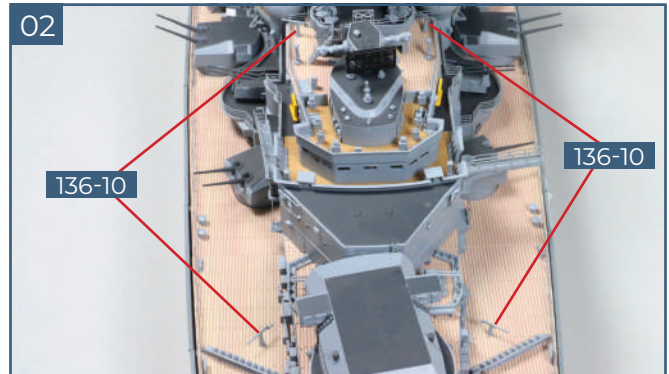


Turn the stand the right way up and slide the battery compartment **136-02** into the opening in the stand body **136-01**. It clicks into place.

## 02. FITTING EIGHT 2cm FLAK GUNS

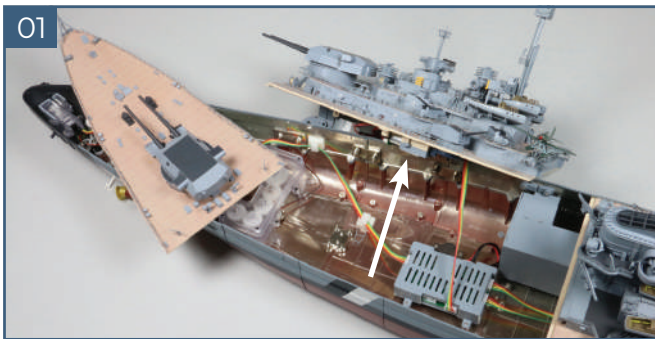


Remove four 2cm flak guns from frame **136-10**. Glue them in place in recesses in the decks, as indicated.

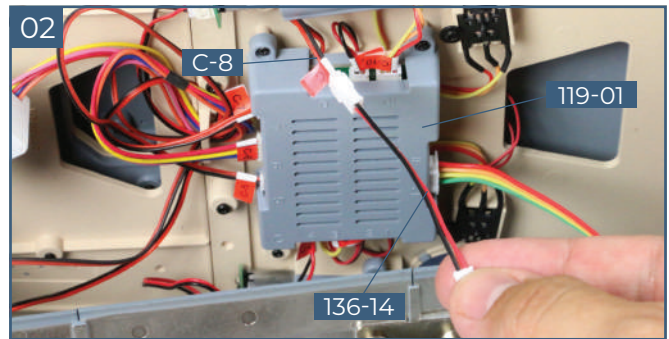


The remaining four 2cm flak guns from frame **136-10** are glued in place on and around the forward superstructure, as shown.

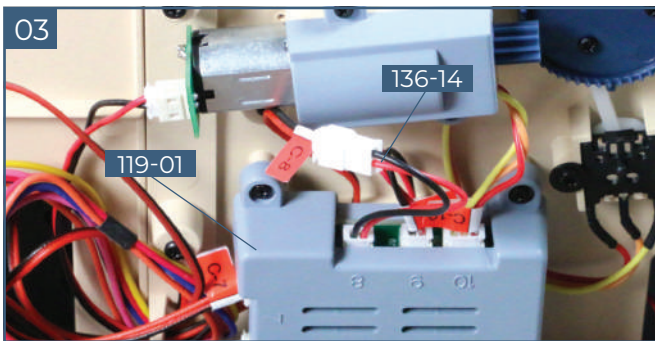
## 03. ADDING ELECTRONIC CONNECTIONS



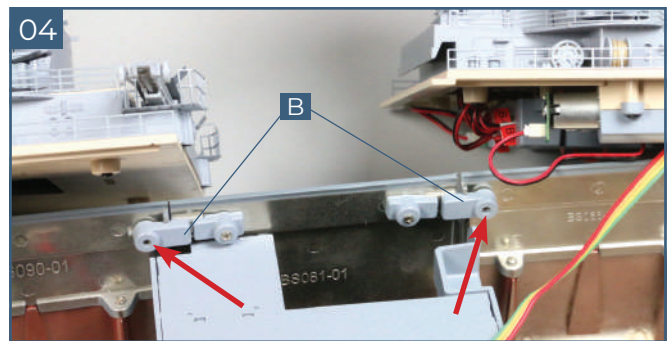
Carefully remove the two aft deck section assemblies, as shown. Work will start on the underside of the aft superstructure, indicated by the white arrow.



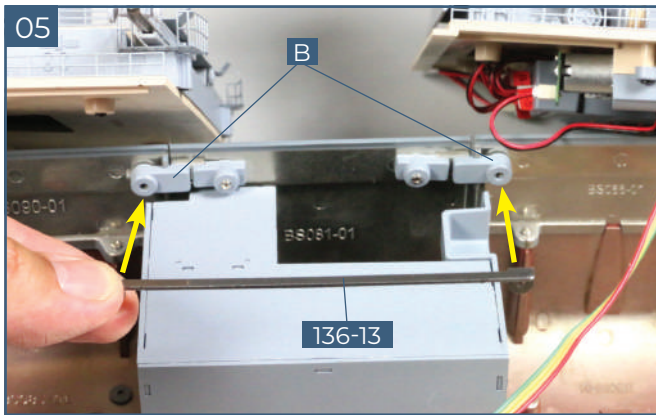
Carefully remove the plug of cable **C-8** from port 8 of circuit board **119-01**. Take the cable extension **136-14** and connect it to the plug on the end of cable **C-8**.



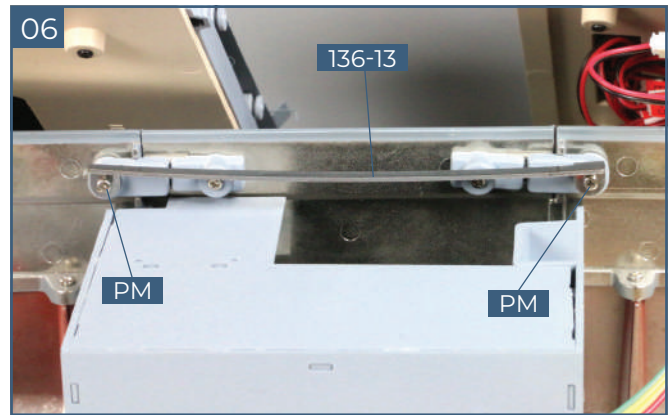
Connect the other end of the cable extension **136-14** to port 8 of the circuit board **119-01**.



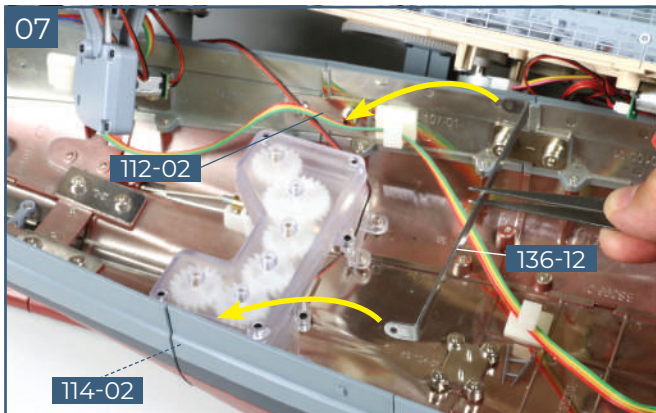
Now remove the forward superstructure assembly from the hull. Remove the two screws from the magnet holders **90-02 (B)**, taking care to ensure that the holders and the hull section remain in place. The red arrows indicate the empty holes.



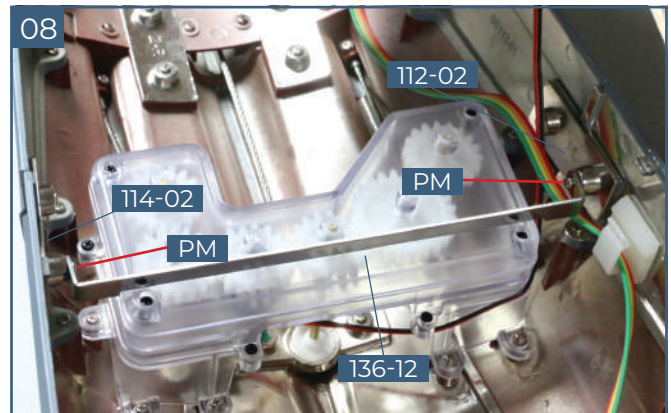
Take the lengthways bracing strut **136-13** and fit the screw holes in the two tabs over the holes in the two brackets **B**, as indicated.



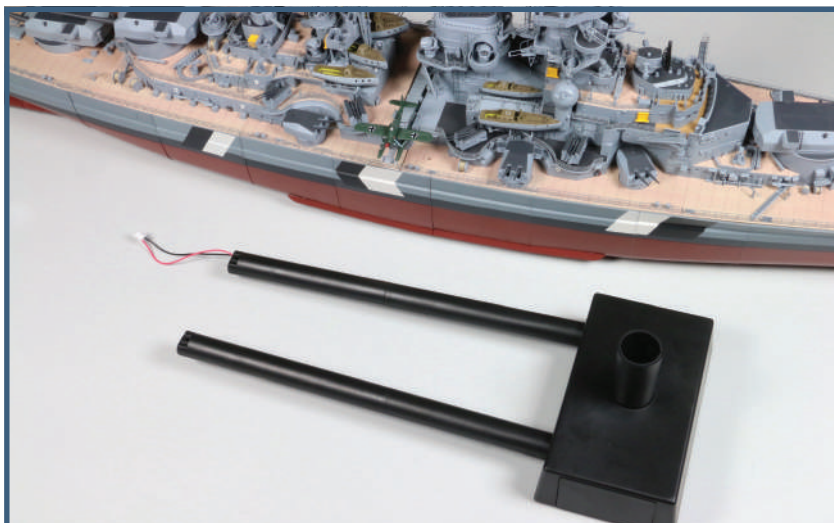
Fix the brace **136-13** in place with two 2 x 6mm **PM** screws, as shown. These screws replace the original ones.



Identify the fixing points for the cross bracing strut **136-12**: it fits over the gear box in the aft section of the hull. Remove the front **PM** screw from the two connectors **112-02** and **114-02**. Fit the bracing strut **136-12** in place so that the screw holes are aligned.



Fix the cross bracing strut **136-12** in place to the two connecting pieces **112-02** and **114-02** using two 2 x 6mm **PM** screws. Again, these longer screws replace the original ones. Replace all the superstructures and deck sections.

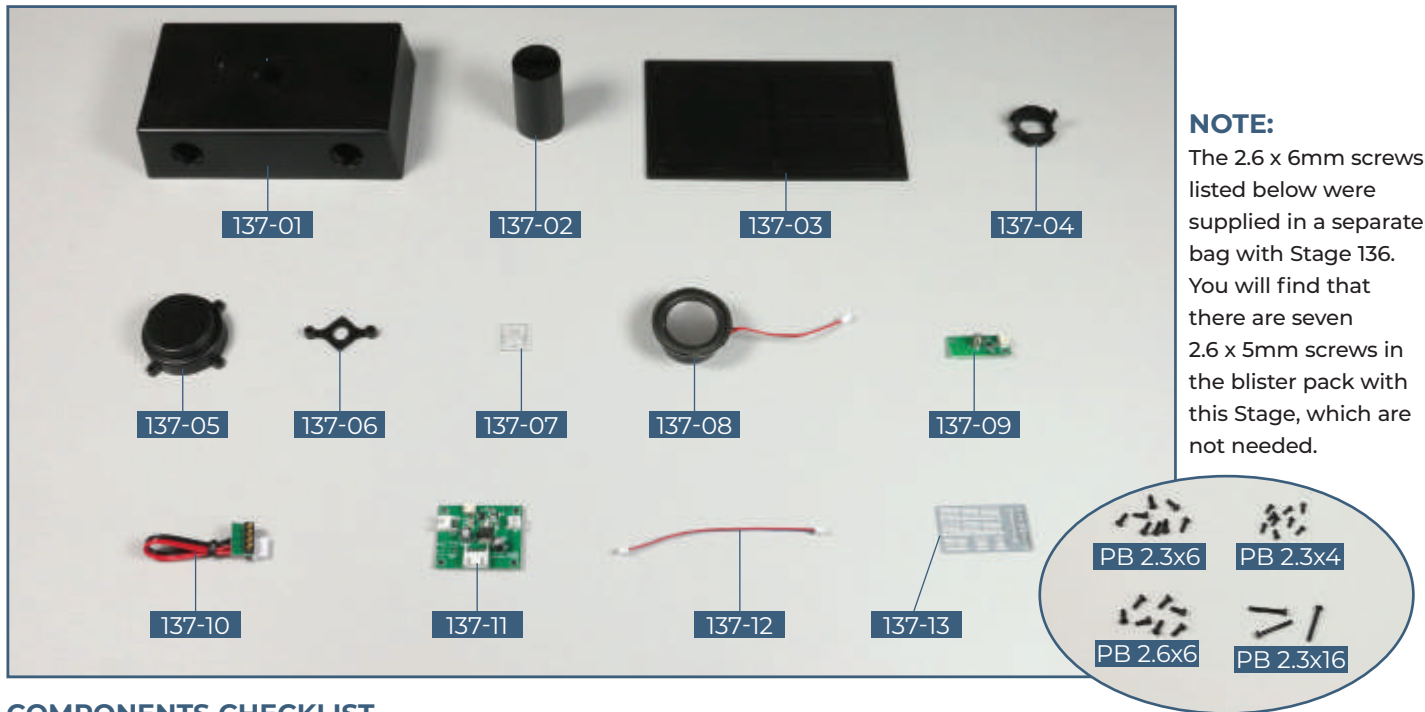


### Completed work

The stand has been partially assembled. Eight 2cm flak guns have been fitted, together with two braces for the hull.

# STAGE 137

## STAND AND ELECTRONICS

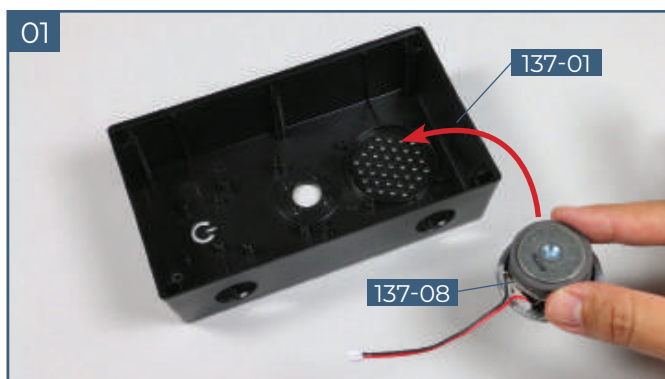


**NOTE:**  
The 2.6 x 6mm screws listed below were supplied in a separate bag with Stage 136. You will find that there are seven 2.6 x 5mm screws in the blister pack with this Stage, which are not needed.

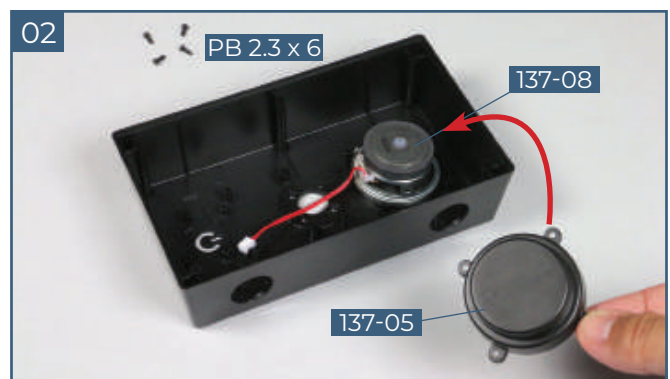
### COMPONENTS CHECKLIST

- |   |  |                                     |
|---|--|-------------------------------------|
| <b>137-01:</b> Body for aft part of stand | <b>137-07:</b> Switch plate            | <b>137-13:</b> Railings and ladders |
| <b>137-02:</b> Support column             | <b>137-08:</b> Speaker                 | Seven 2.3 x 6mm <b>PB</b> screws    |
| <b>137-03:</b> Base plate                 | <b>137-09:</b> Switch circuit board    | Nine 2.3 x 4mm <b>PB</b> screws     |
| <b>137-04:</b> Connector                  | <b>137-10:</b> Connection cable        | Six 2.6 x 6mm <b>PB</b> screws      |
| <b>137-05:</b> Speaker casing             | <b>137-11:</b> Circuit board for stand | Three 2.3 x 16 mm <b>PB</b> screws  |
| <b>137-06:</b> Fixing plate               | <b>137-12:</b> Cable                   |                                     |

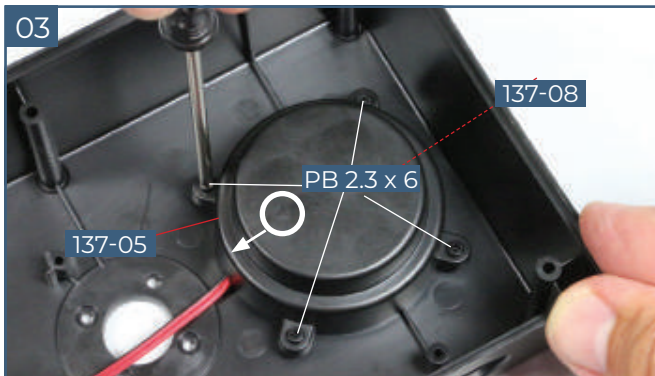
## 01. ASSEMBLING THE REAR OF THE STAND



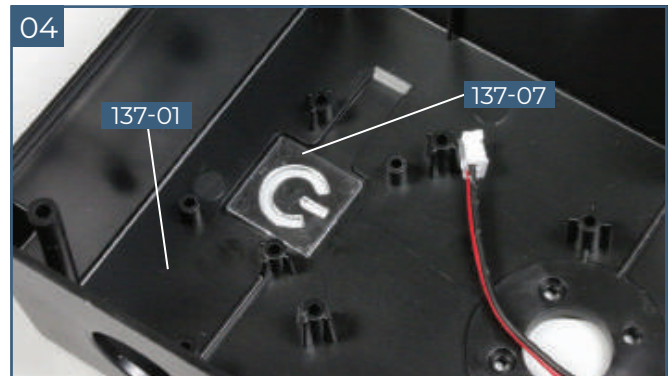
Place the body of the aft part of the stand **137-01** upside down on your worktop. Fit the speaker **137-08** over the holes in the recess. Note the alignment of the cable.



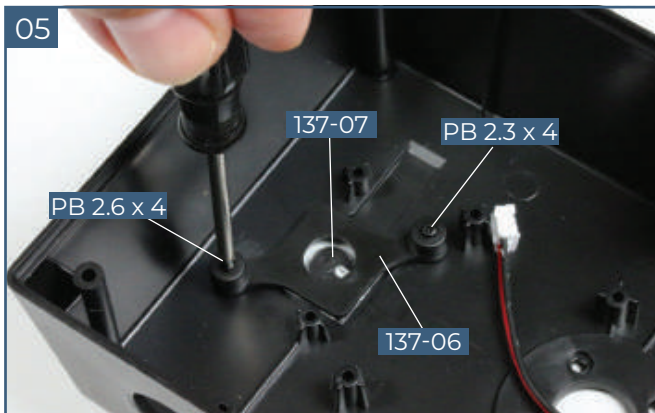
Fit the speaker casing **137-05** over the speaker **137-08** as shown. You will need four 2.3 x 6mm **PB** screws.



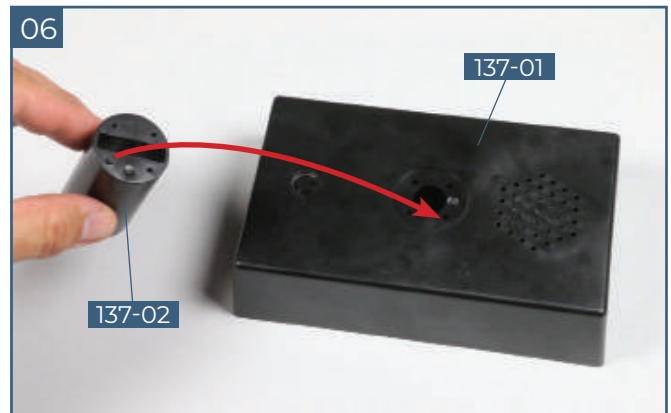
Check that the screw holes in the tabs on the speaker casing align with screw holes in part **137-01** and that the arrow is aligned as shown (circled). Fix in place with four 2.3 x 6mm **PB** screws.



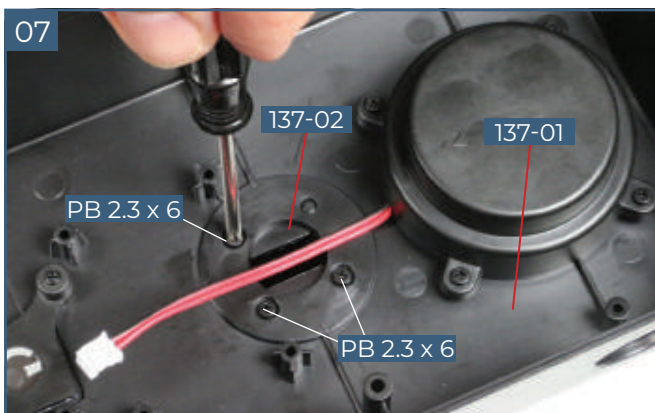
Position the switch plate **137-07** at the other end of the stand body **137-01**, as shown.



Fit the fixing plate **137-06** over the switch plate **137-07**. Fix the fixing plate in place with two 2.3 x 4mm **PB** screws.



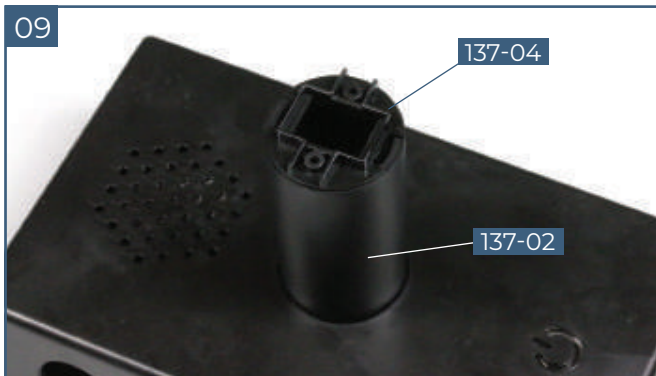
Turn the stand body **137-01** the right way up. Check how the support column **137-02** fits into the central recess on the body. The arrow indicates how a peg on the column fits into a hole in the body. At the same time, the screw holes should align.



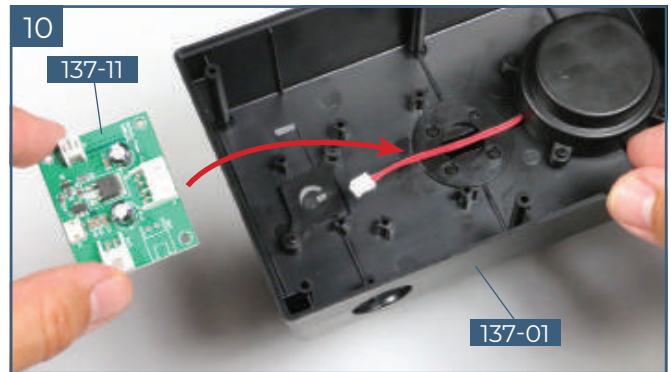
Holding the support column **137-02** in place, turn the stand body **137-01** upside down again. Fix the two parts together with three 2.3 x 6mm **PB** screws.



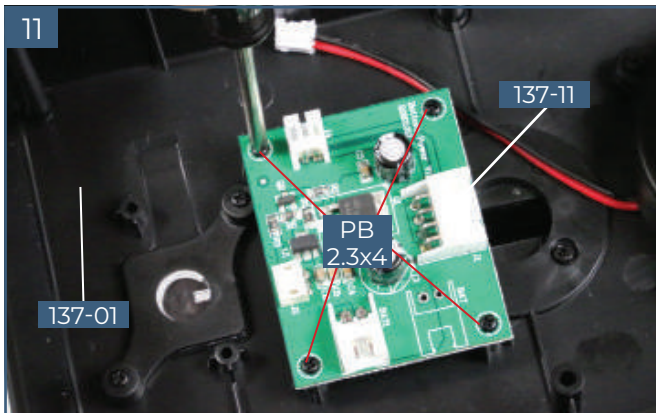
Turn the stand assembly right way up and insert the connector **137-04** into the support column **137-02**. A peg on part **137-04** fits into a notch on part **137-02** (red arrows).



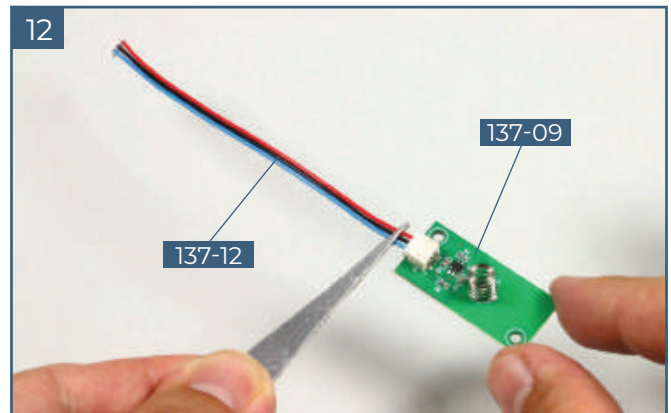
Push the connector **137-04** into the support column **137-02** so that it clicks into place, as shown.



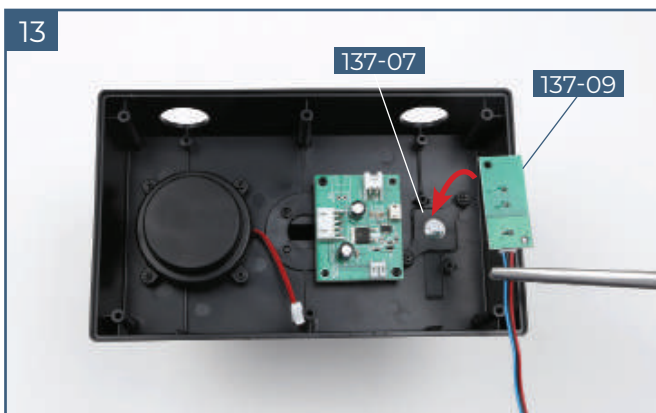
Take the stand circuit board **137-11** and fit it into the underside of the stand body **137-01**. Ensure that you position it in the orientation shown.



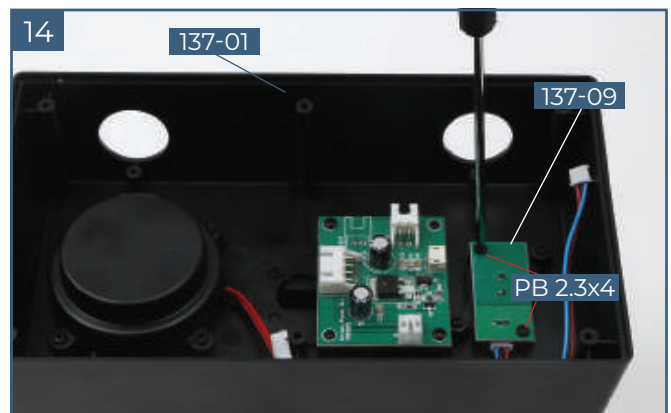
When you have it in the correct position, with the screw holes aligned, fix the circuit board **137-11** in place on the underside of the stand body **137-01** using four 2.3 x 4mm **PB** screws.



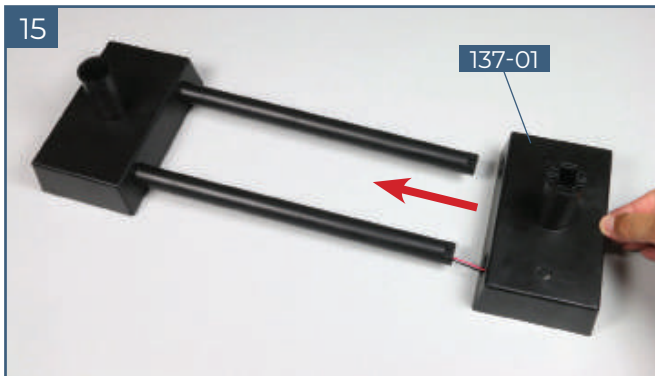
Take the cable **137-12** and insert one of its two plugs into the port on the switch circuit board **137-09**, as shown.



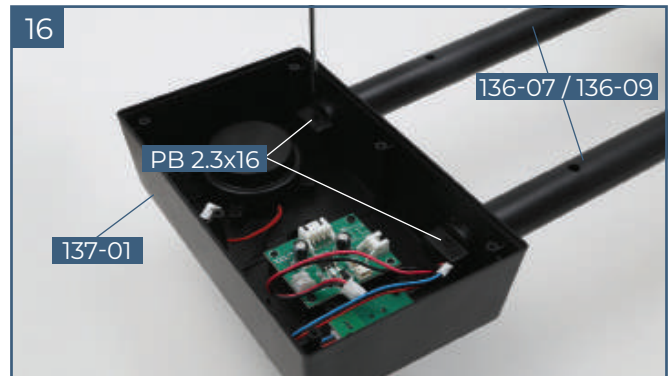
Turn the switch circuit board **137-09** over and position the spring on the underside of the board over the On/Off switch **137-07** as indicated.



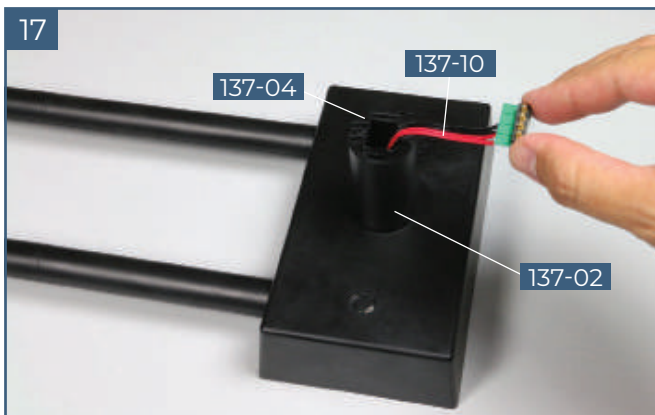
Fix the switch circuit board **137-09** in place on the stand body **137-01** with two 2.3 x 4mm **PB** screws.



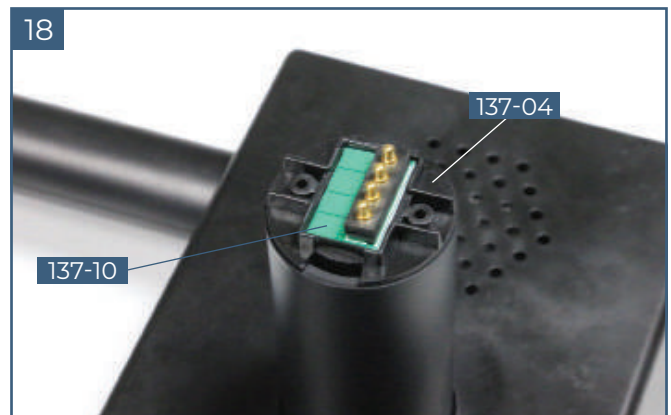
Turn the stand body **137-01** the right way up. Fit the two side arms that are fixed to the forward end of the stand into the openings in part **137-01**, as indicated.



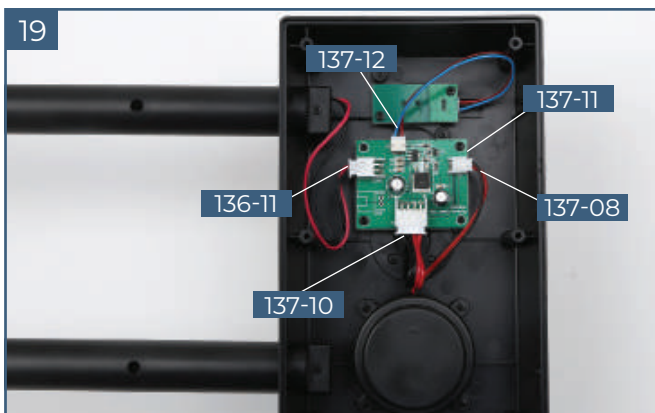
Turn the stand over again and fix the ends of the two side arms **136-07/136-09** to the stand body **137-01** using two 2.3 x 16mm **PB** screws.



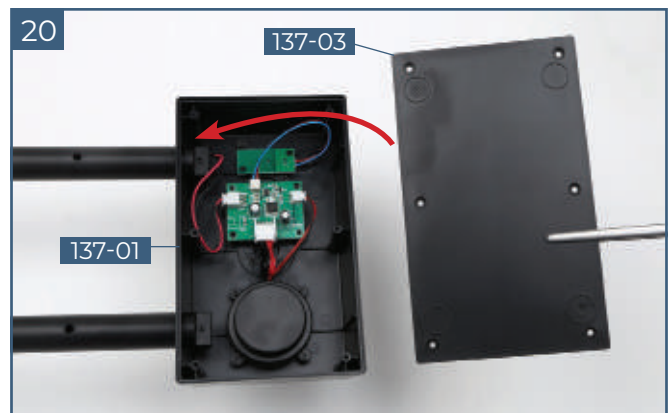
Take the connecting cable **137-10** and thread the connector into the connection part **137-04** and down through the support column **137-02**, as shown.



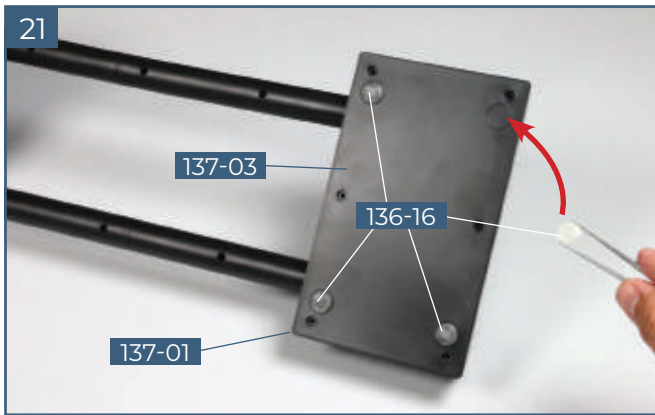
The board with connecting points on the end of the connecting cable **137-10** fits into the recess in the connector **137-04**.



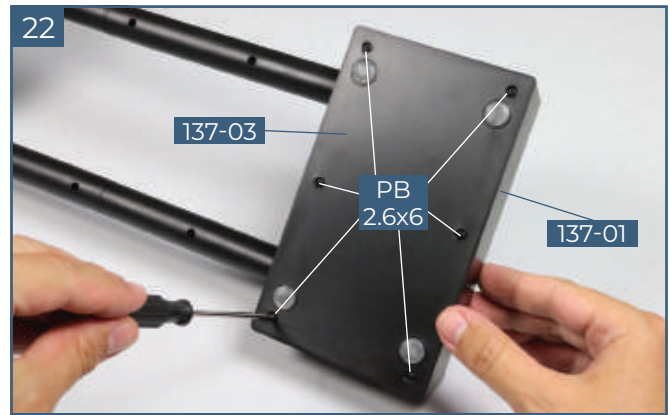
Turn the stand over and connect the four cables **137-08**, **137-10**, **136-11** and **137-12** into the appropriate ports in the circuit board **137-11**, as shown.



Take the base plate **137-03** and fit it on the underside of the stand body **137-01**, as indicated.

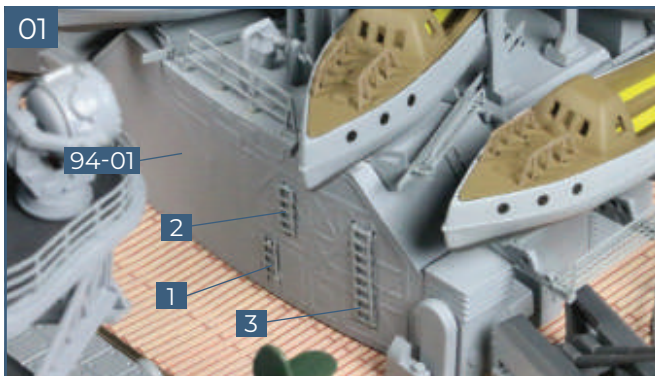


Gently push the base plate **137-03** into place on the stand body **137-01**. Stick the four remaining cushion pads **136-16** in the recesses on the underside of the base plate.

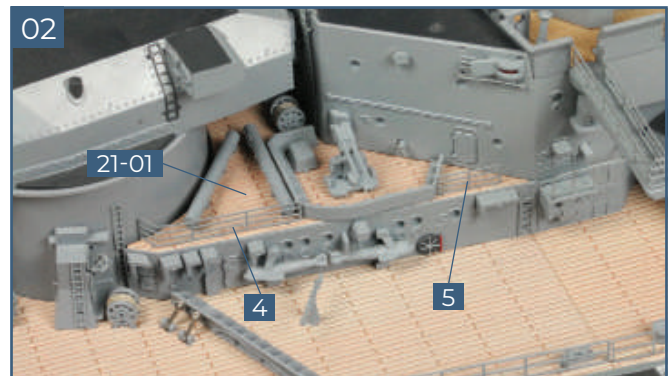


Fasten the base plate **137-03** in place on the underside of the stand body **137-01** using six 2.6 x 6mm **PB** screws.

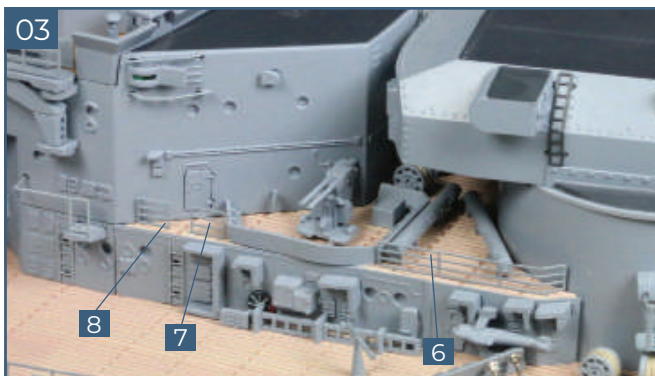
## 02. FITTING THE LADDERS AND RAILINGS



Glue the ladders **1**, **2** and **3** from frame **137-13** in place on the central hangar **94-01**, as shown.



The two railings **4** and **5** from frame **137-13** are glued to the superstructure deck **21-01** on the port side of the forward superstructure. Note the position of the bent end.



The railings **6**, **7** and **8** from the frame **137-13** are glued in place in the corresponding points on the starboard side of the front superstructure. Note the position of the bent end of railing **6**.



### Completed work

The aft base has been fitted to the stand. Further details have been attached to the superstructure.



# STAGE 138

## STAND AND DECK DETAILS



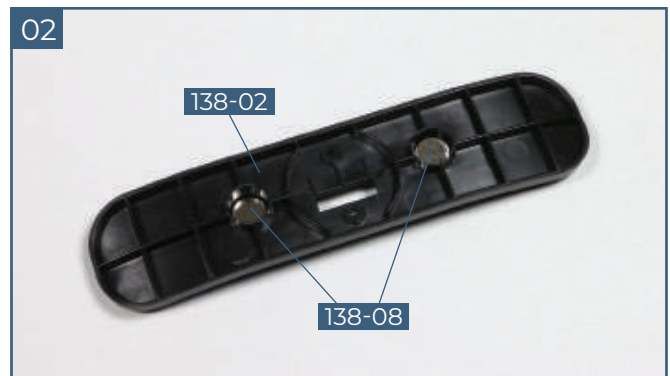
### COMPONENTS CHECKLIST

- |  |                                      |   |
|--|--------------------------------------|---|
| <b>138-01:</b> Forward support                       | <b>138-06:</b> Anchor shank          | <b>138-12:</b> Antenna mounts               |
| <b>138-02:</b> Aft support                           | <b>138-07:</b> Anchor head           | <b>138-13:</b> Frames and grating (1 and 2) |
| <b>138-03:</b> Connector                             | <b>138-08:</b> Two magnets           | <b>138-14:</b> 'Wire' for the rig           |
| <b>138-04:</b> Magnet covers                         | <b>138-09:</b> Bow anchor stoppers   | <b>138-15:</b> 'Rope' for the anchor buoys  |
| <b>138-05:</b> Two anchor buoys (port and starboard) | <b>138-10:</b> Stern anchor stoppers | Five 2.3 x 6mm <b>PB</b> screws             |
| <b>138-11:</b> Eyelets                               |                                      |   |

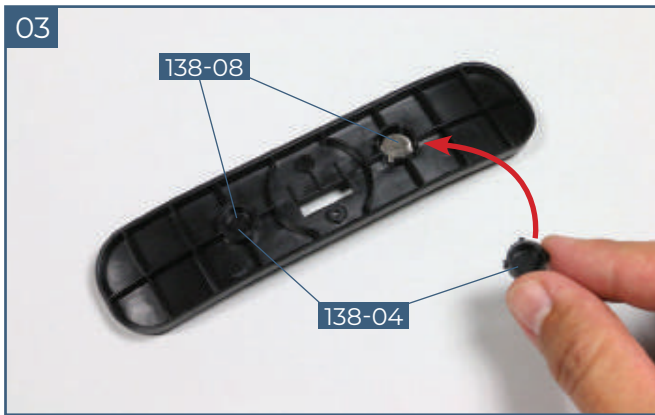
## 01. COMPLETING THE STAND



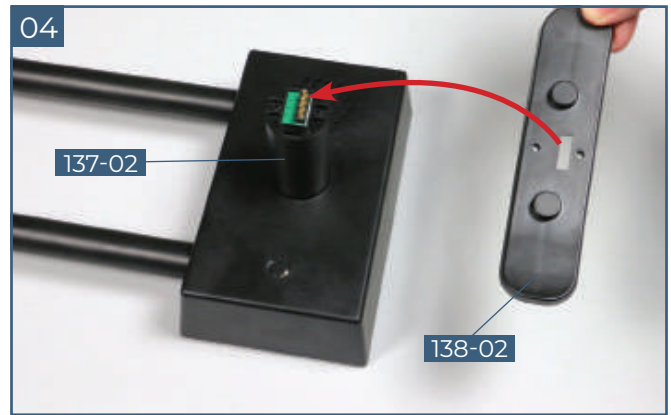
Take the aft support **138-02**, the two magnets **138-08** and the frame with the magnet covers **138-04**. Fit a magnet in each of the circular recesses in the support, as indicated.



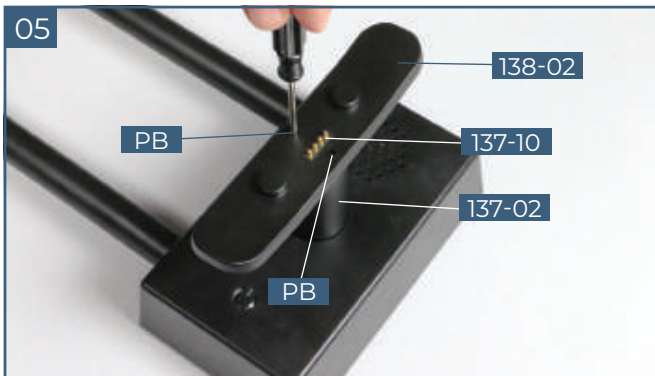
This shows the two magnets **138-08** fitted in the aft support **138-02**.



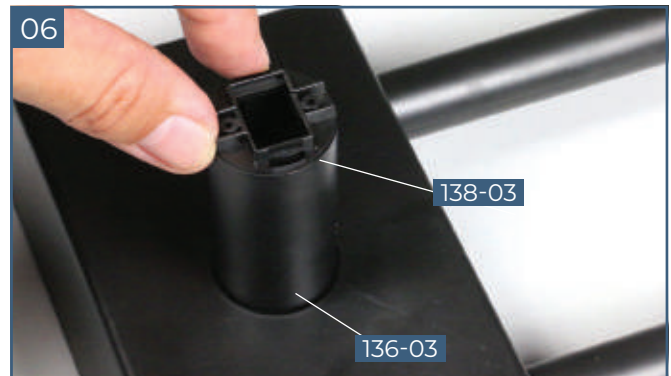
Remove the two magnet covers **138-04** from the frame and fit them over the magnets **138-08**, as shown.



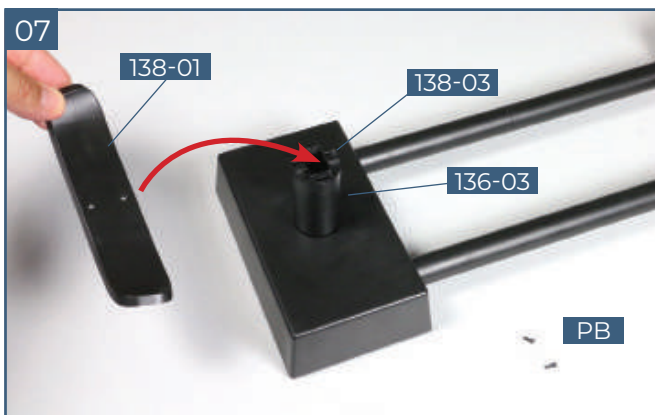
Take the stand assembly from the previous Stage and fit the aft support on the top of the column **137-02** as indicated. Note that the slot in part **138-02** and the connectors are to the rear of the stand.



When the aft support **138-02** is correctly positioned, the connections from the cable **137-10** come through the opening in the support. Fix the support to the column **137-02** with two **PB** screws.



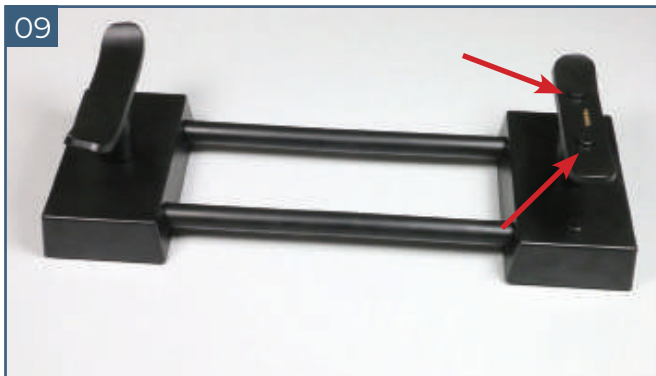
At the forward end of the stand, fit the connector **138-03** into the top of the column **136-03**, as shown.



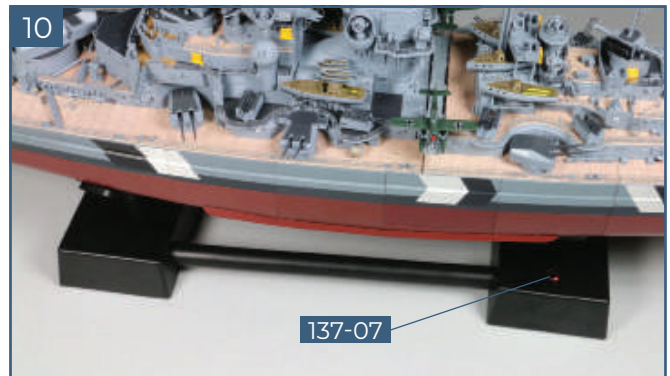
Take the forward support **138-01** and fit it on the top of the front column **136-03/138-03**. You will need two **PB** screws.



Fix the forward support **138-01** to the column **136-03/138-03** using two **PB** screws, as shown.

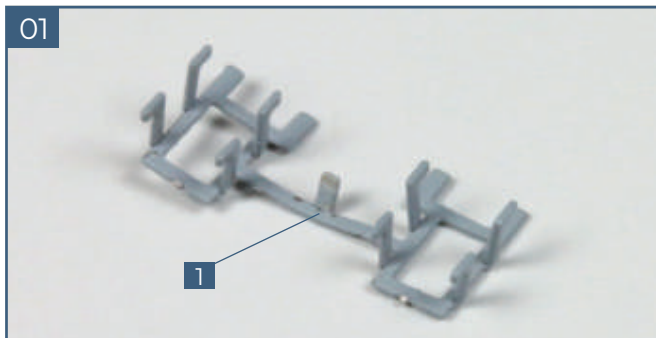


This completes the stand. When positioning the model, make sure that the two magnets (arrows) fit into the circular openings in the underside of the hull.

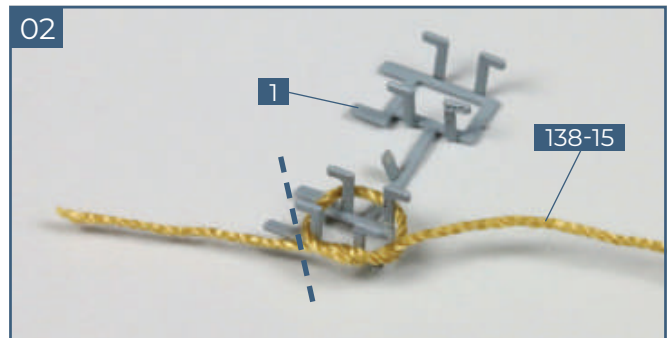


Place the hull on the stand. If you touch the On/Off switch **137-07**, the LED on the body of the stand lights up red and the four main gun turrets initialize. Touching the switch again switches the unit off.

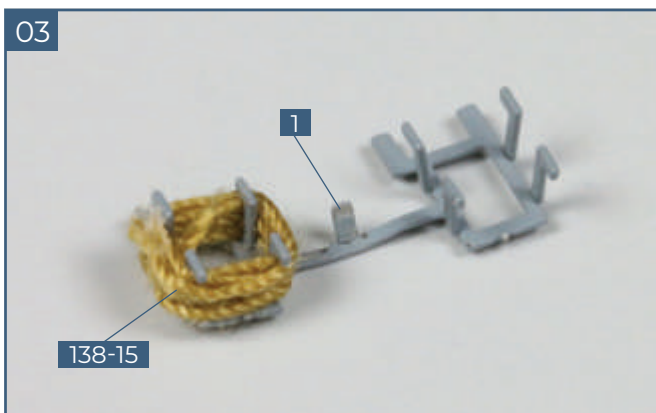
## 02. ASSEMBLING THE ANCHOR BUOYS AND FITTING THE ANCHOR STOPPERS



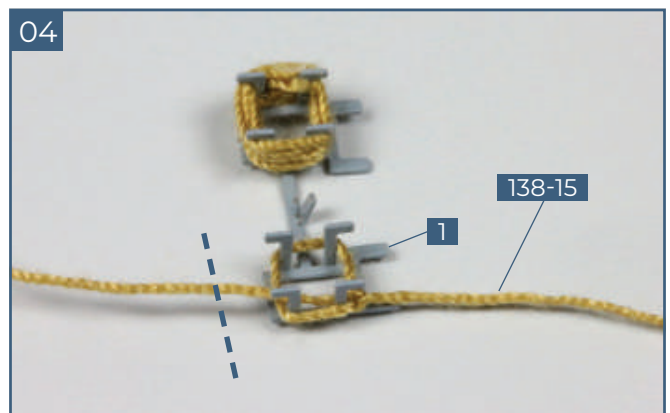
Take one of the two frames (**1**) from part **138-13**. Bend the eight arms and the peg in the middle upwards at right angles, as shown.



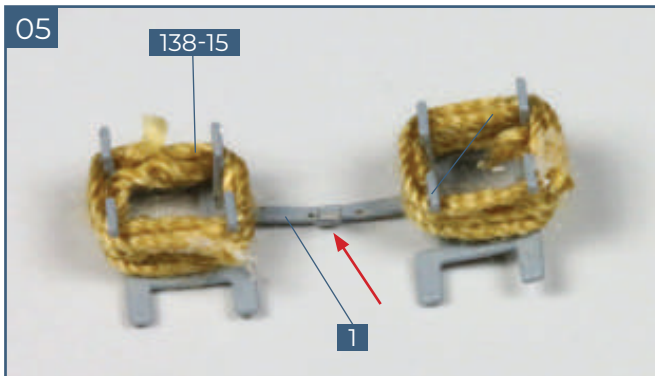
Take the 'rope' **138-15** and wrap it around four of the arms of the frame **1**. Secure the end with a small dot of glue and cut off the short end of the yarn as indicated (dotted line).



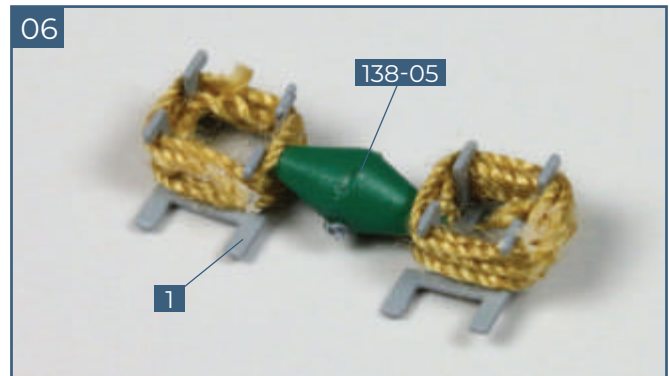
Wrap the thread **138-15** three or four more times around the arms of **1**. Secure the thread with a small dot of glue, and cut off the surplus yarn.



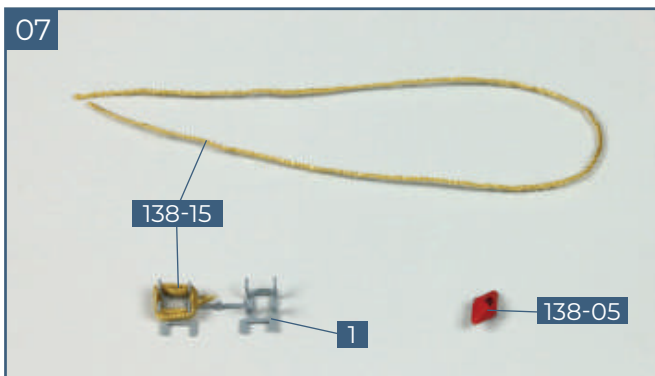
Similarly, wrap the 'rope' **138-15** around the other arms of the frame **1**. Secure the rope with a small dot of glue and cut off the short end of the yarn.



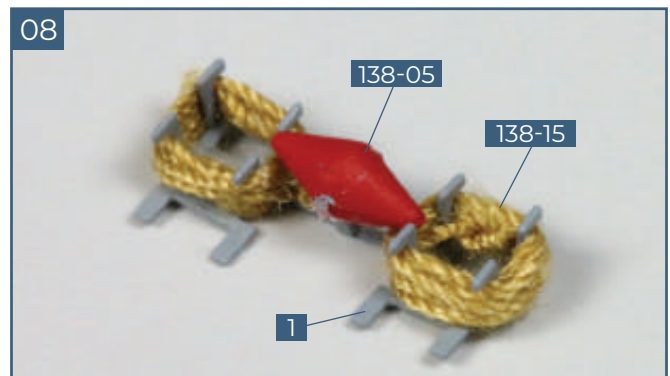
Continue to wrap the yarn **138-15** three or four times around the arms of frame **1**. Secure the thread with a small dot of glue and cut off the long end of the yarn.



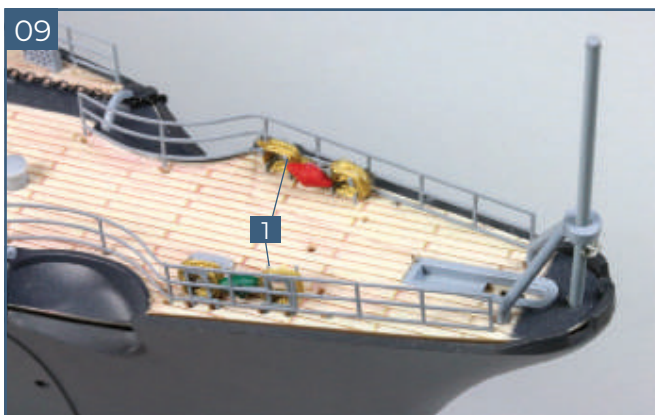
Remove the green (starboard) anchor buoy from frame **138-05**. Glue it to frame **1**: the central peg on the frame (indicated by the arrow in step 5) fits into a recess in the buoy.



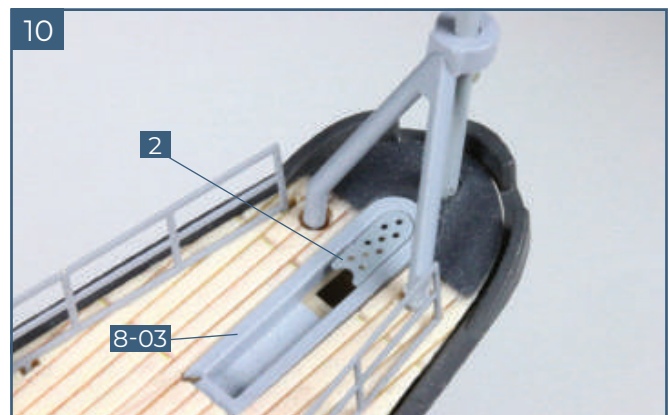
Repeat steps 1 to 3 from the previous page to make the second frame **1** from frame **138-13**. Start to wrap 'rope' **138-15** around the arms of the frame, holding it in place with small dots of glue. Remove the red (port) anchor buoy from frame **138-05**.



Continue with the previous steps 4 to 6 to complete the second frame and fix the anchor buoy in place.



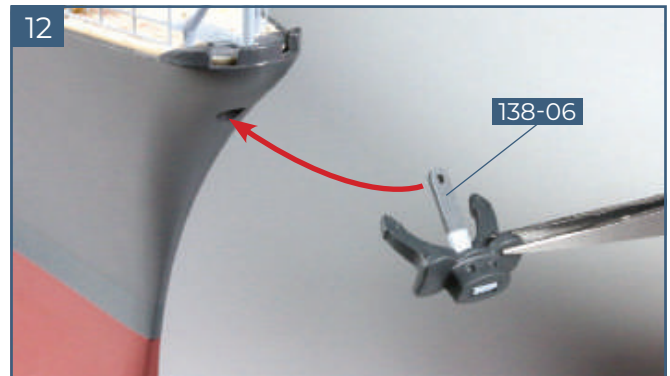
Identify the fixing points for the two anchor buoy frames on either side of the bow: four pegs on each of the frames are glued into the holes in the upper deck, with the red buoy to port, and the green one to starboard.



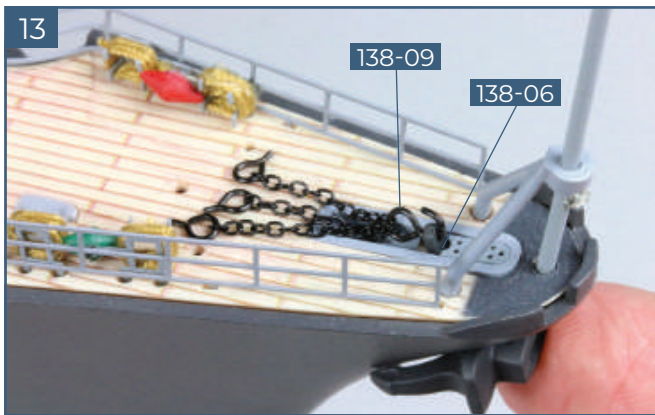
Remove the small grating (**2**) from the frame **138-13** and glue it over the guide for the bow anchor **8-03**, as shown.



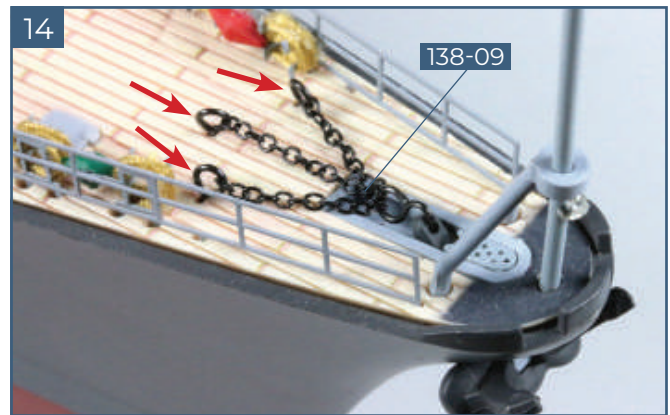
Insert the anchor shank **138-06** into the anchor head **138-07**. The shank is not firmly fixed.



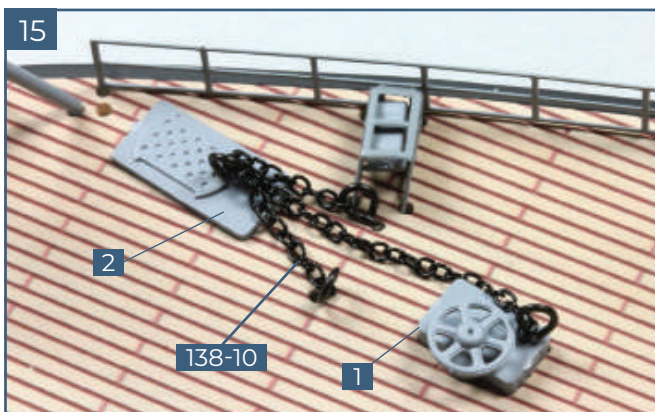
Fit the anchor shank **138-06** into the small hole on the bow of the model as indicated. Note the orientation of the anchor, with the shank sloping upwards.



Push the anchor shank **138-06** through the hole in the bow as far as it will go and position the anchor stoppers **138-09** so you can fit the hook through the hole at the end of the shank, as shown.



There are three small eyelets on the ends of the anchor stopper chains **138-09**. Glue the pins of the eyelets into the holes in the upper deck (arrows).



The anchor stopper **138-10** is fitted at the stern of the model. Glue the eyelet on the end where the three chains meet in place on the anchor chain inlet (2). Two of the eyelets are glued in place in the holes in the upper deck. The eyelet on the end of the longer chain stopper is glued in place on the base of the wheel (1).

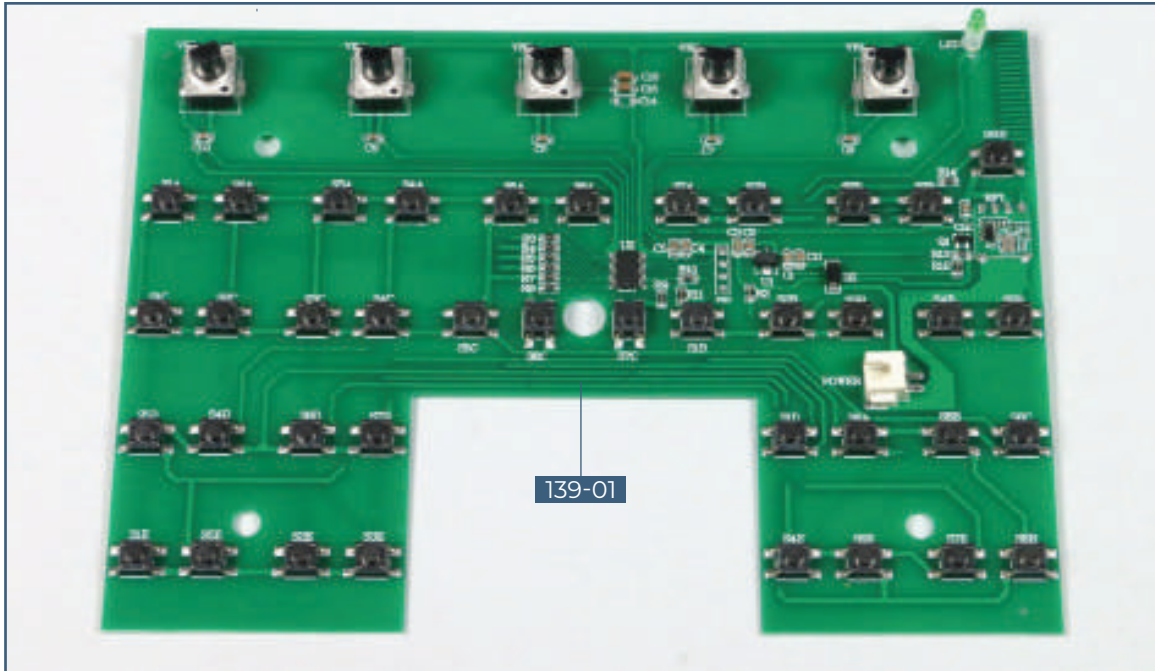


### Completed work

The stand has been assembled. An anchor and two anchor buoys have been fitted to the bow. The eyelets **138-11**, antenna mounts **138-12** and rig wire **138-14** will be fitted in future Stages.

## STAGE 139

# FITTING THE EYELETS AND THE RIG FOR THE ONBOARD CRANES



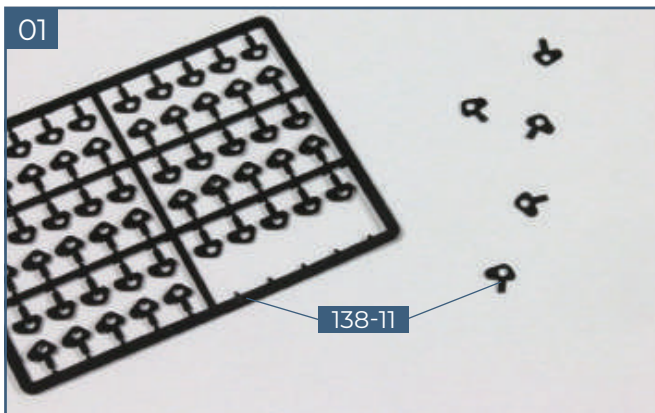
### COMPONENTS CHECKLIST

**139-01:** Remote control circuit board

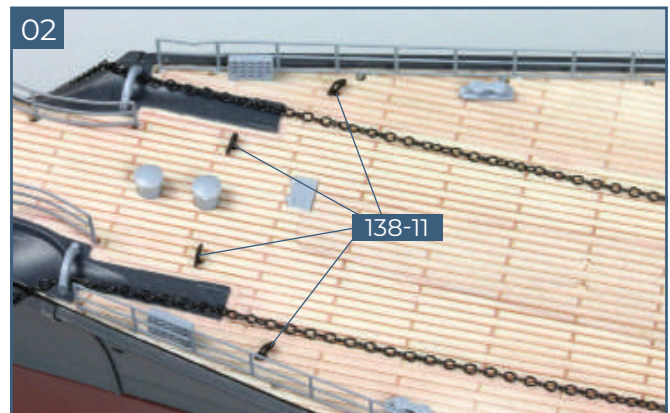
**Eyelets and 'Wire' for the Rig**  
from the previous Stage

**NOTE:** Instructions for fitting the circuit board will be given in the next Stage.

## 01. EYELETS FOR THE RIG



Place the frame **138-11** on your work surface and remove some of the eyelets. Continue to remove the eyelets from the frame as you need them.



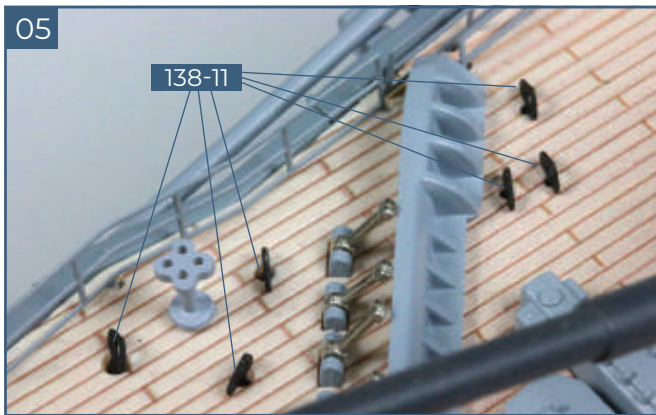
The first four eyelets **138-11** are fitted in the holes at the front of the upper deck. Secure each eyelet with a little superglue.



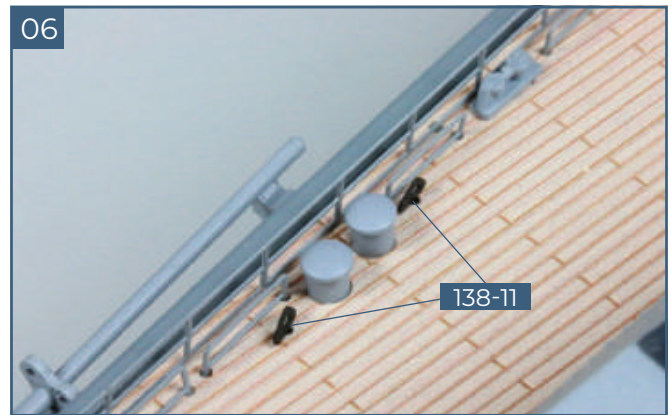
Six more eyelets **138-11** are glued in place on the port side of the upper deck, near the forward breakwater.



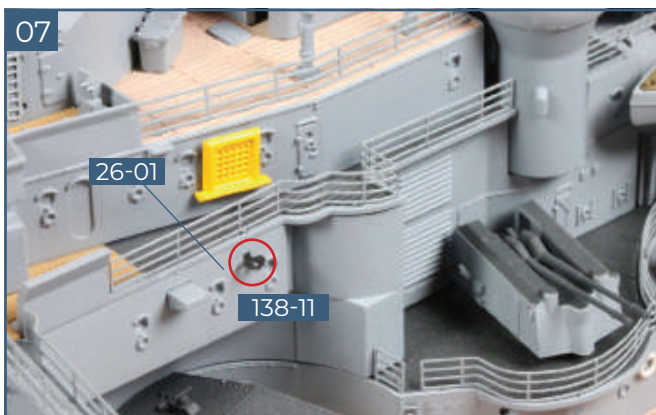
Two more eyelets **138-11** are glued in place a little further aft, next to two bollards, as shown.



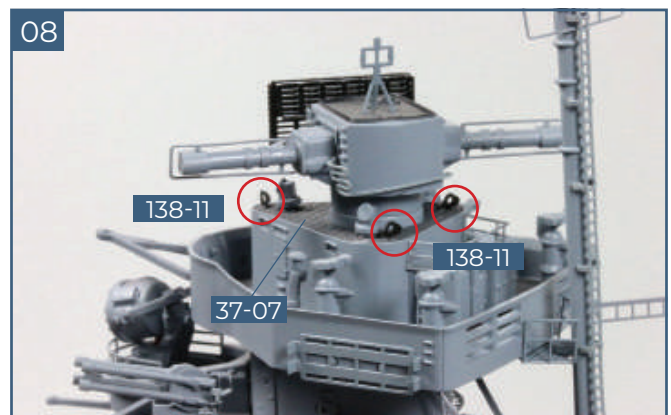
Moving to the starboard side of the upper deck, fix six eyelets **138-11** in place near the forward breakwater, as shown.



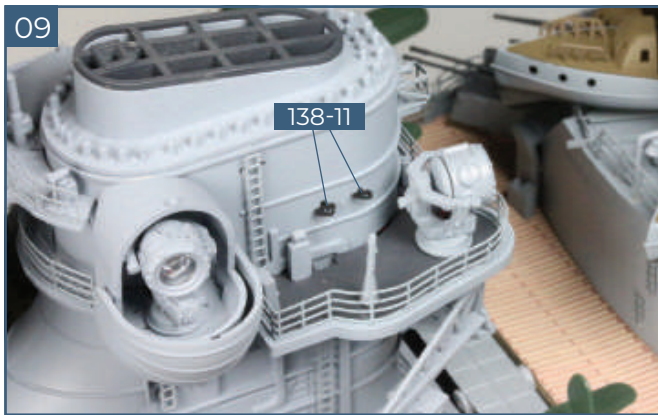
Continuing to the aft on the starboard side, glue two more eyelets **138-11** in place next to the two bollards.



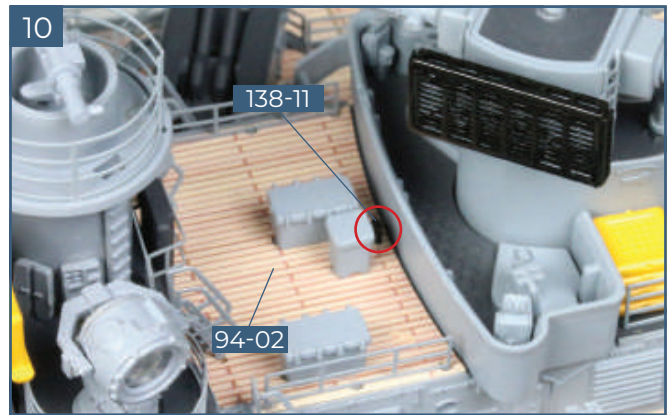
An eyelet **138-11** is attached to the wall of the bridge deck **26-01** on the port side of the forward superstructure (circled).



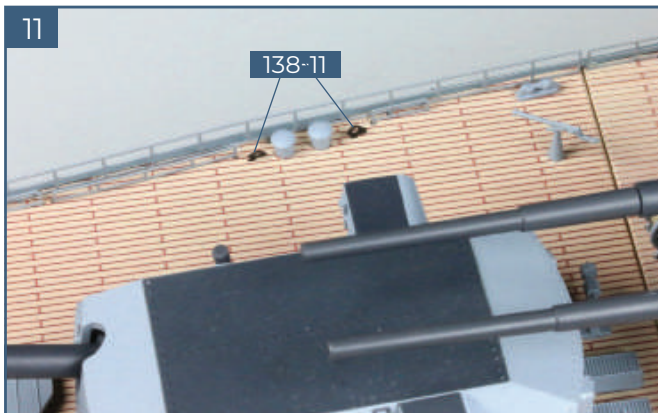
Three eyelets **138-11** are glued to the deck covering **37-07** at the top of the forward superstructure (circled).



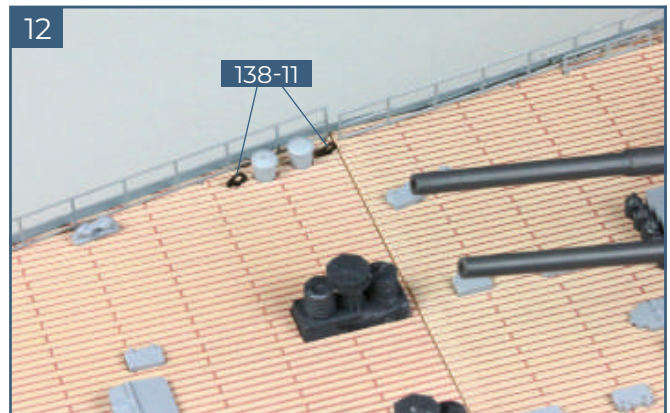
Further aft, two eyelets **138-11** are attached to the port side of the funnel.



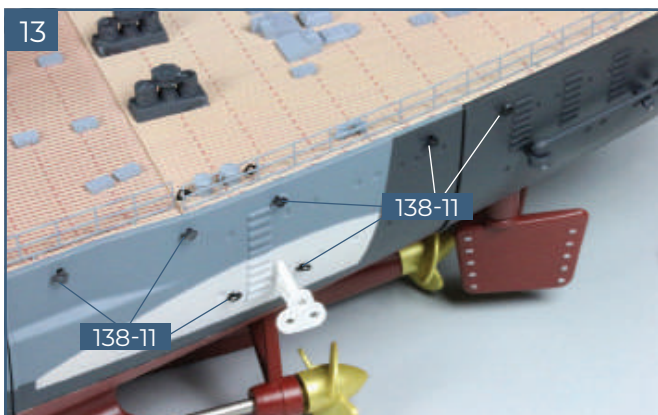
Moving to the aft superstructure, another eyelet **138-11** (circled) is glued to deck section **94-02**.



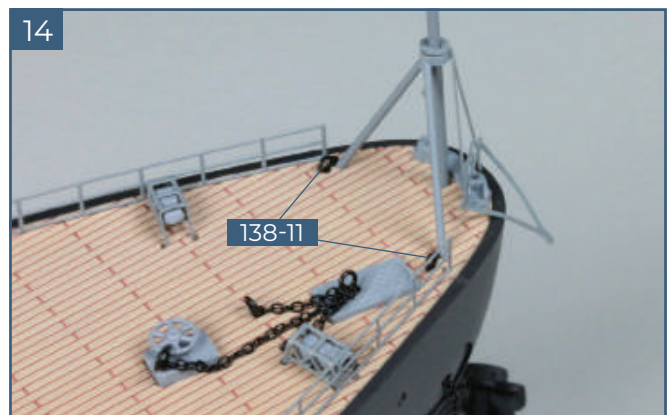
On the port side of the upper deck, two eyelets **138-11** are glued in place next to two bollards beside turret Dora.



A little further aft, two more eyelets **138-11** are glued beside the bollards on the port side of the upper deck, as shown.

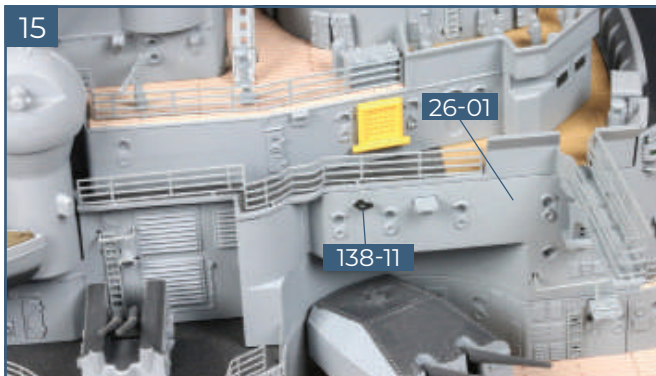


Seven eyelets **138-11** are attached to the port side of the hull, near the stern spar and the screw guard.



Two more eyelets **138-11** are glued to the upper deck beside the jackstaff at the stern.

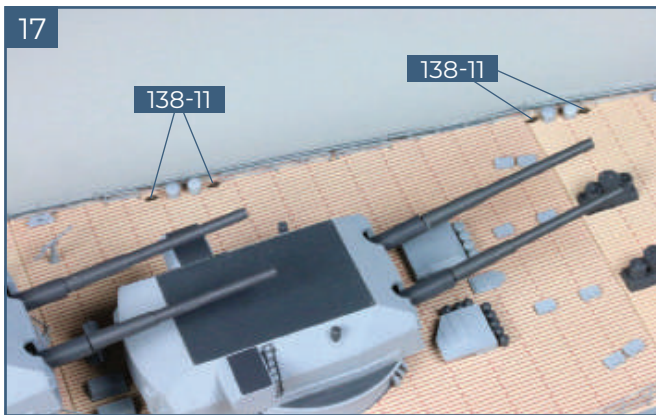




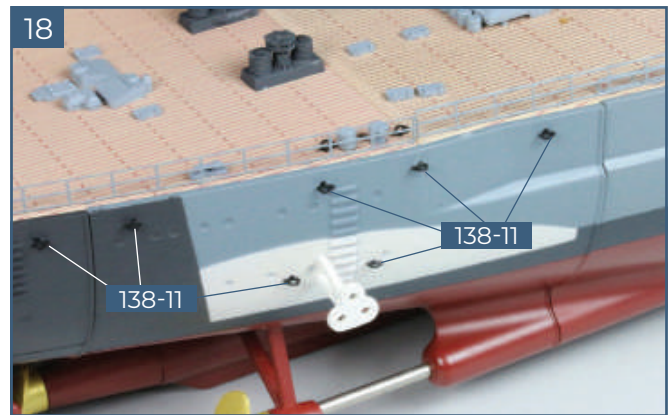
Moving to the starboard side of the model, glue an eyelet **138-11** in place on the wall of the bridge deck **26-01**, on the forward superstructure.



Attach two eyelets **138-11** to the starboard side of the funnel.

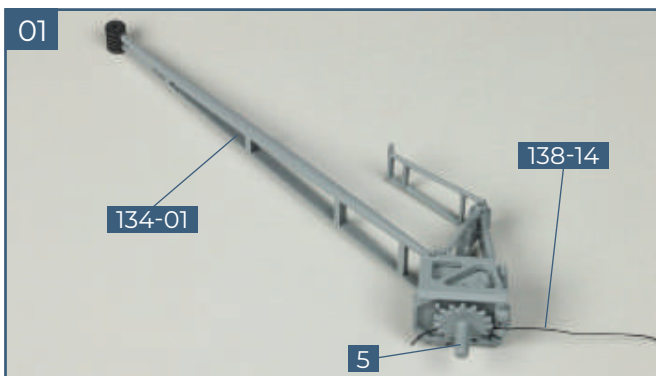


Glue four eyelets **138-11** in place beside the bollards, near the aft gun turret Dora, as shown.

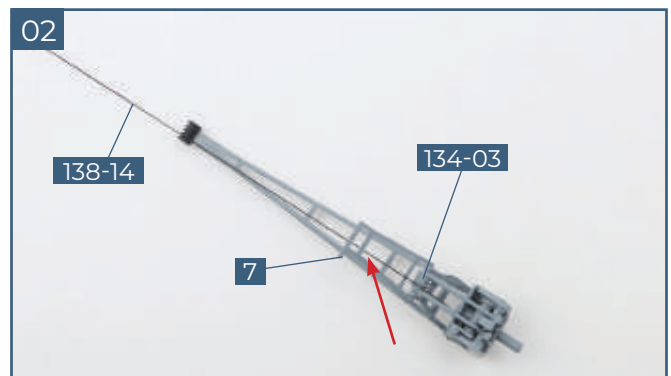


Attach seven eyelets **138-11** to the starboard side of the hull, near the stern spar and the screw guard.

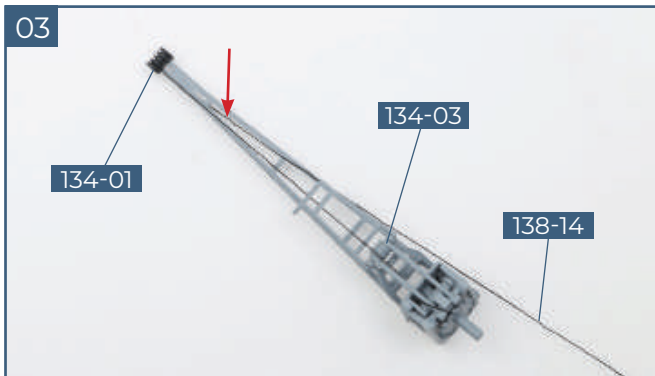
## 02. THE RIG FOR THE TWO ONBOARD CRANES



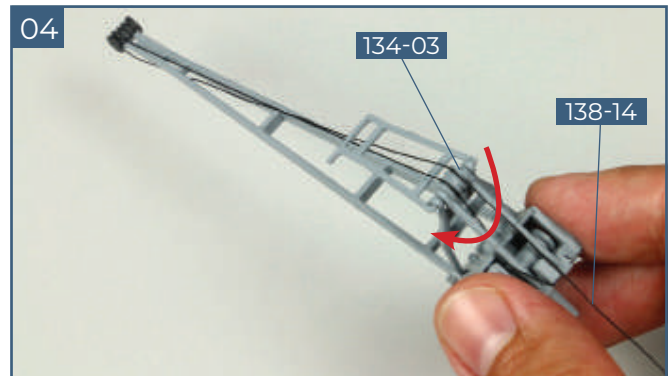
Place one of the two on-board cranes **134-01** on your worktop. Cut a length of about 1.3m (4 feet) of 'wire' **138-14**. Fix one end of it with a knot and some glue to the peg on part **5** at the base of the crane.



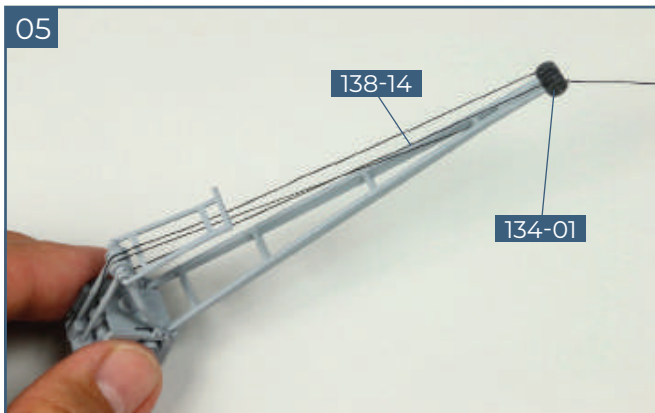
Thread the 'wire' **138-14** over the reel of part **134-03**, and through the large opening of part **7** (arrow) to the top of the boom as shown.



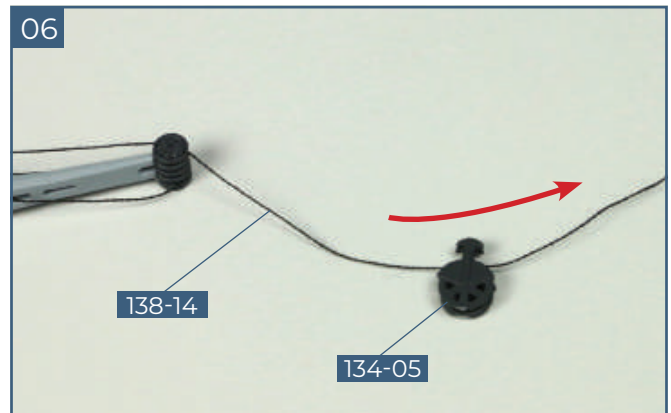
Feed the 'wire' **138-14** around the guide at the tip of the boom **134-01** and then back through the slot in the boom (arrow) towards the reel of part **134-03**.



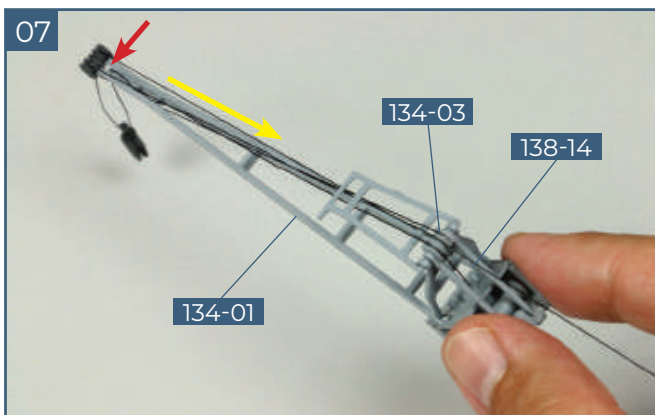
Pass the 'wire' **138-14** around the reel of part **134-03**, as shown.



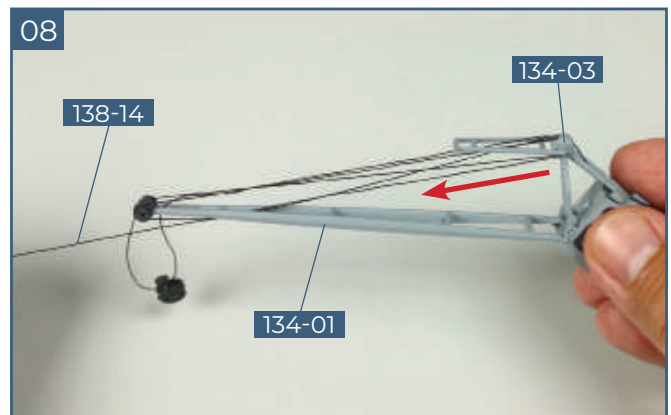
Feed the 'wire' **138-14** back to the front of the guide at the tip of boom **134-01**, as shown in the photo. Note how the 'wire' is threaded through the parts of the crane.



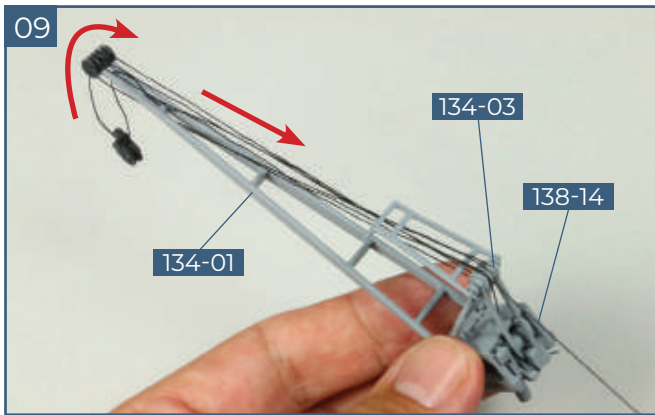
Thread the 'wire' **138-14** through the opening in the block **134-05**.



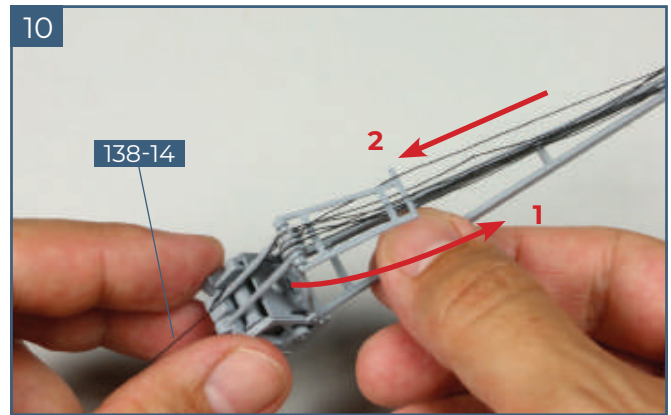
Next, run the 'wire' **138-14** from below through the small opening on the boom **134-01** (red arrow) and then along the top of the boom to the reel of part **134-03** (yellow arrow).



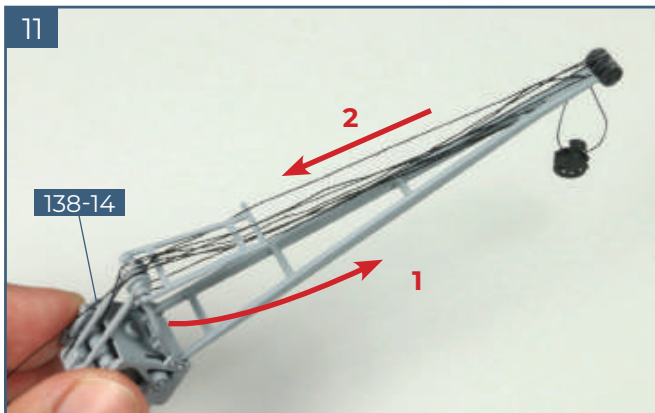
Run the 'wire' **138-14** around the reel of part **134-03**, and back to the tip of boom **134-01**.



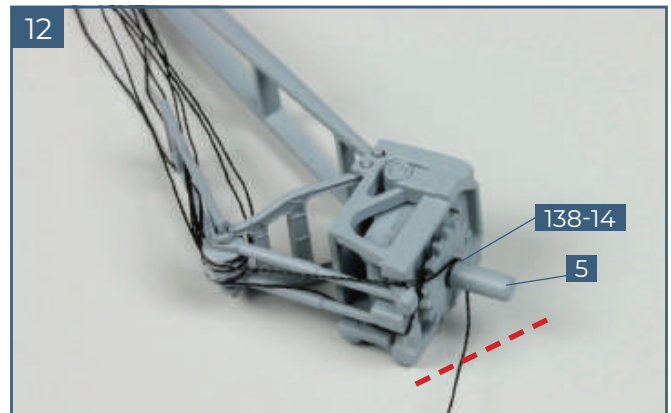
Loop the 'wire' **138-14** back around the guide at the top of boom **134-01** and then back to the spool, part **134-03**.



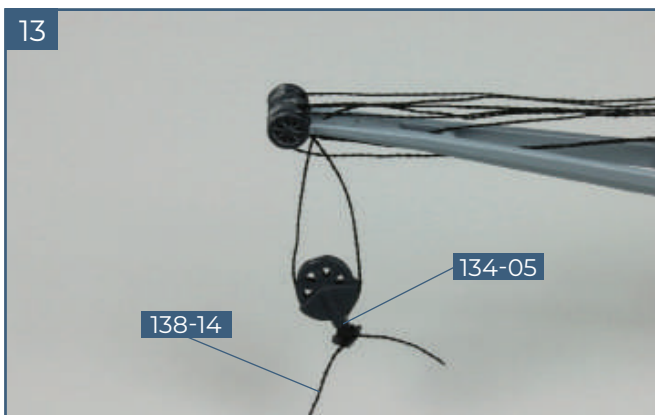
Continue looping the 'wire' **138-14** around the guide and spool once again.



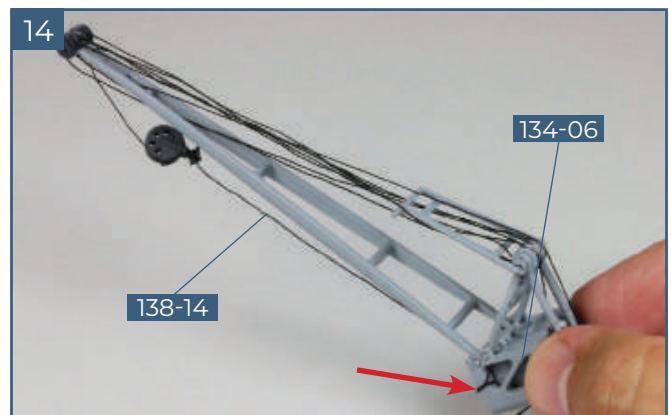
Loop the 'wire' **138-14** around the guide and spool one final time, threading it through the parts of the crane as shown.



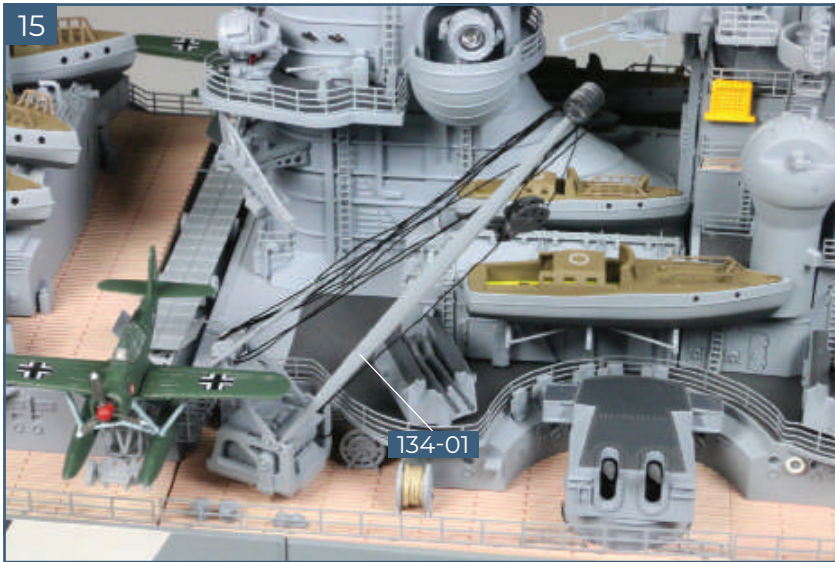
Attach the 'wire' **138-14** to the peg of part **5** with a little glue and cut off the excess 'wire' as indicated by the dashed red line.



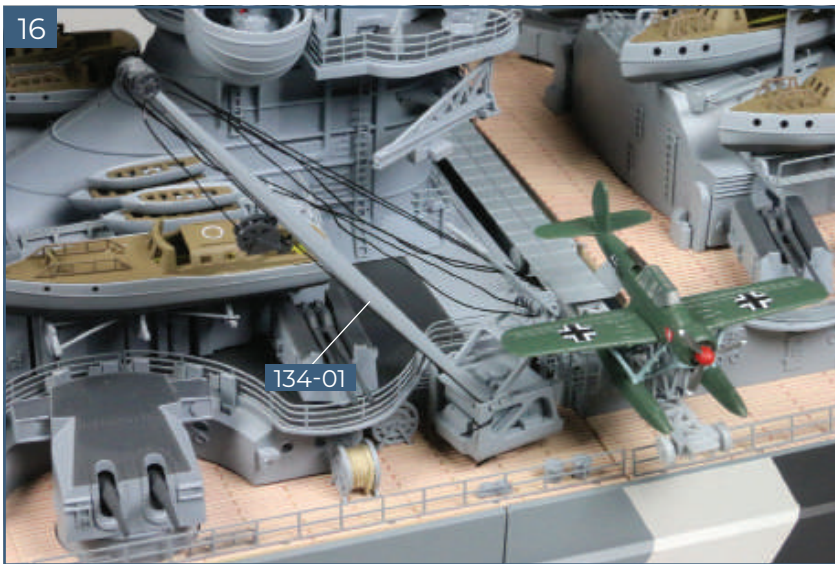
Cut another piece of 'wire' **138-14** about 15cm (6 inches) long. Knot one end of it on the hook of the block **134-05**, as shown.



Attach the free end of the 'wire' **138-14** to the crane body **134-06** with a knot at the point indicated by the red arrow. Rig the second onboard crane in the same way.



Fit the first onboard crane **134-01** on the starboard side of the upper deck, next to the aircraft. Do not glue the crane in place as it needs to be able to rotate.



Fit the second onboard crane **134-01** in the corresponding place on the port side of the upper deck. Again, do not glue it in place, as it needs to be able to rotate.

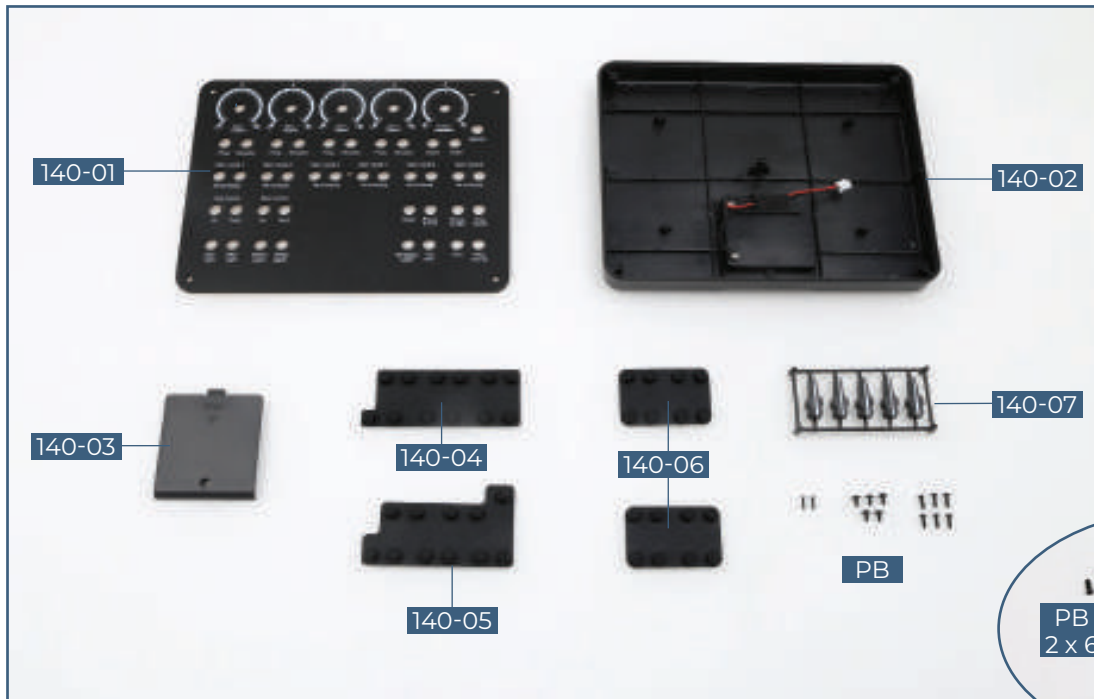


### Completed work

A total of 54 eyelets have been fixed to the hull, the upper deck and the superstructure. The two onboard cranes have been rigged and placed on the model.

# STAGE 140

## THE REMOTE CONTROL



You will also need four AAA batteries. For the best performance we recommend alkaline batteries. Always remove the batteries when the remote control is not in use.



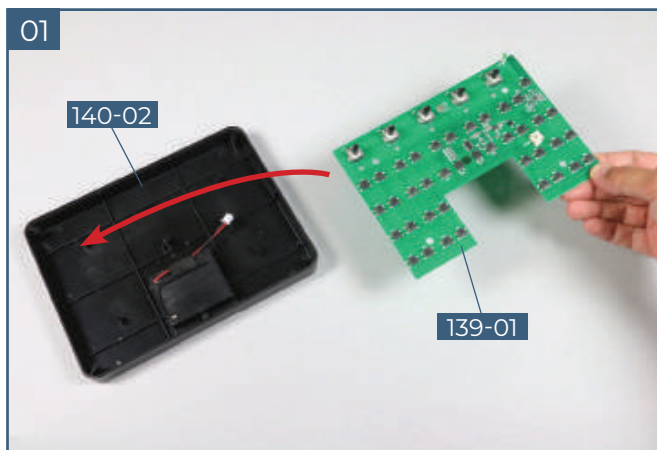
### COMPONENTS CHECKLIST

**140-01:** Remote control cover  
**140-02:** Remote control box  
**140-03:** Battery compartment cover

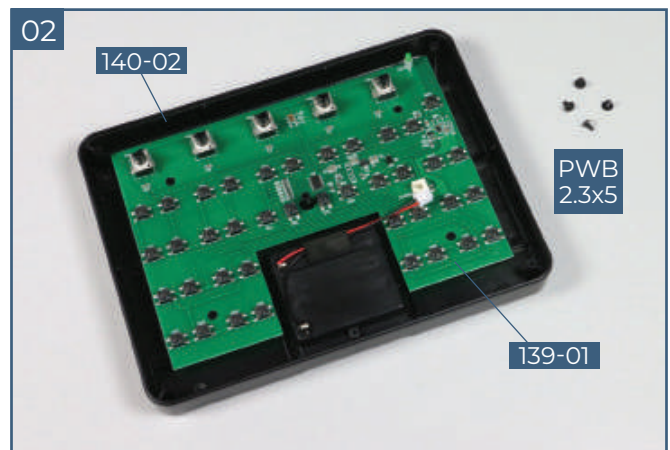
**140-04:** Button mat  
**140-05:** Button mat  
**140-06:** Two button mats  
**140-07:** Five control levers

Two 2 x 6mm **PB** screws  
Five 2.3 x 5mm **PWB** screws  
Six 2.6 x 8mm **KB** screws

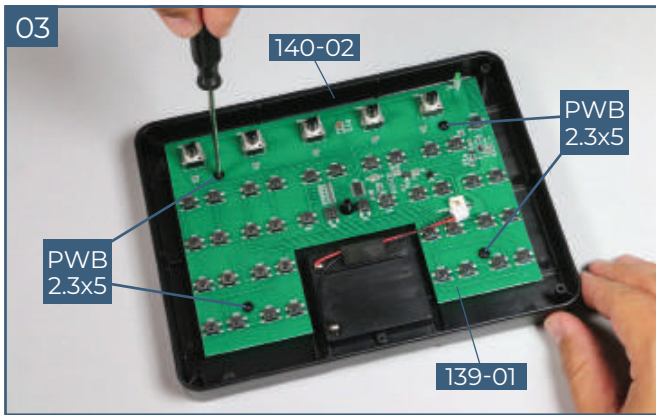
## 01. ASSEMBLING THE REMOTE CONTROL



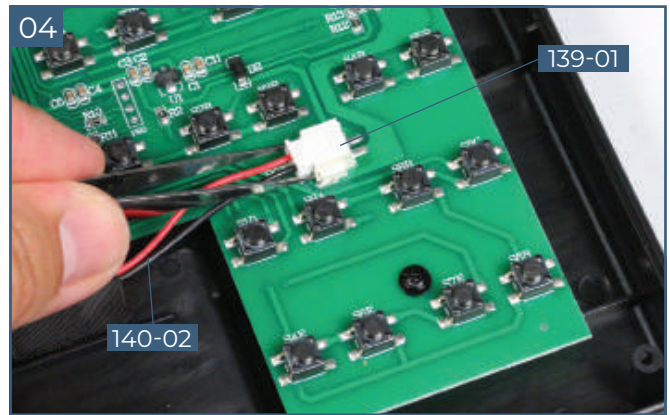
Take the box **140-02** and the circuit board **139-01** supplied with the previous Stage. Check how the circuit board fits into the box, as indicated.



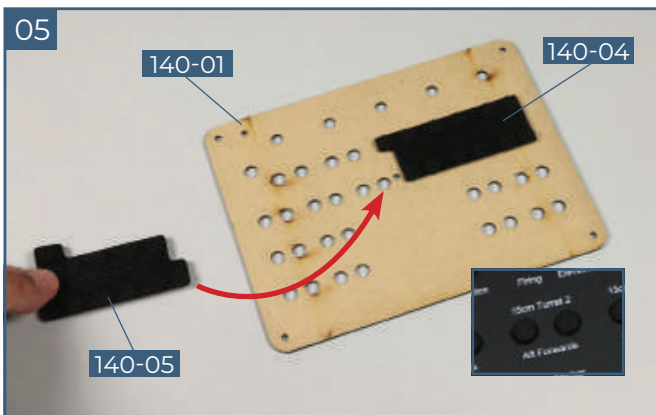
This shows the circuit board **139-01** correctly inserted in the box **140-02**. You will need four 2.3 x 5mm **PWB** screws.



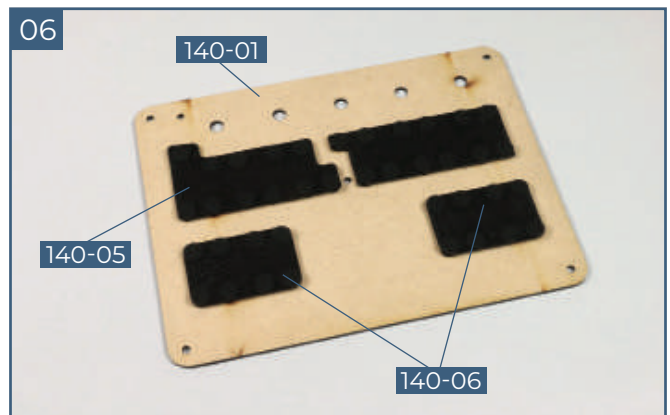
Fix the circuit board **139-01** into the box **140-02** with the four 2.3 x 5mm **PWB** screws, as shown.



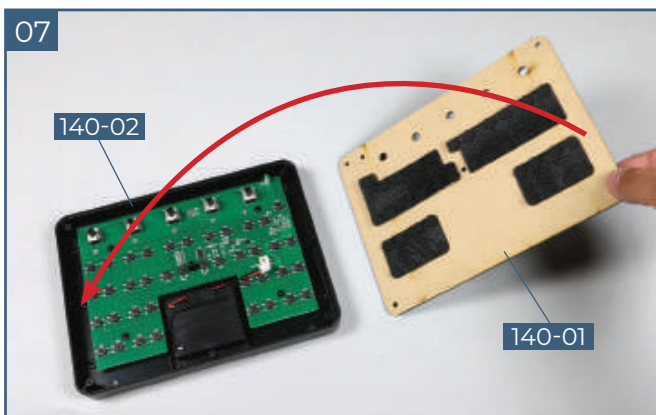
Take the connector from the end of the cable in the remote control box **140-02** and fit it into the socket on circuit board **139-01**.



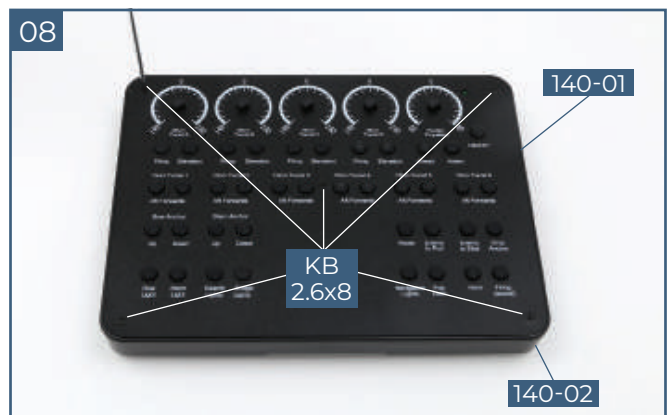
Take the remote control cover **140-01** and turn it over. Fit the buttons on the button mat **140-04** into the holes in the cover plate in the position shown. The inset shows how the buttons come through the holes in part **140-01**. Similarly, fit the button mat **140-05** on the cover **140-01**.



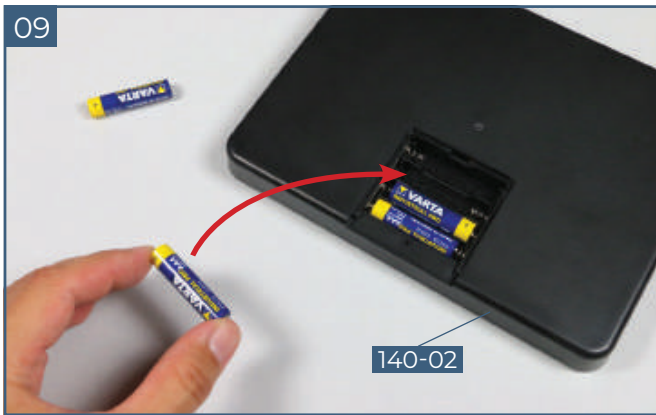
With button mat **140-05** fitted in place, as shown, fit the buttons on the two button mats **140-06** into the holes in the cover **140-01**.



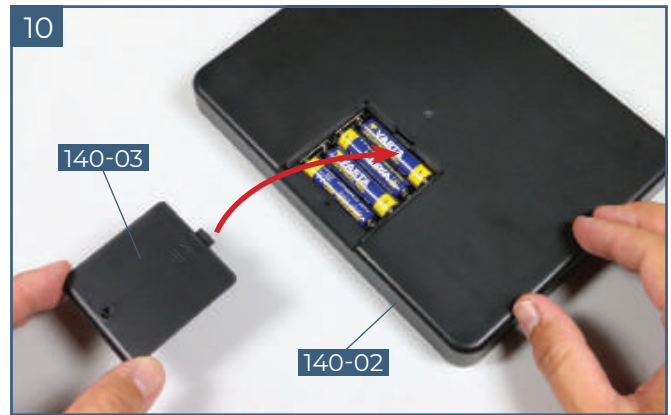
Fit the cover plate **140-01** over the circuit board in the box **140-02** as indicated. You may find it easier to keep the buttons and part **140-01** on the worktop and lower the circuit board **140-02** on to them.



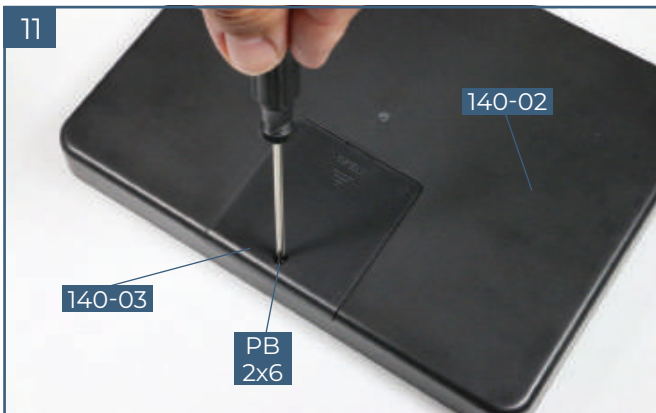
Fix the cover plate **140-01** in place with five 2.6 x 8mm **KB** screws, as indicated.



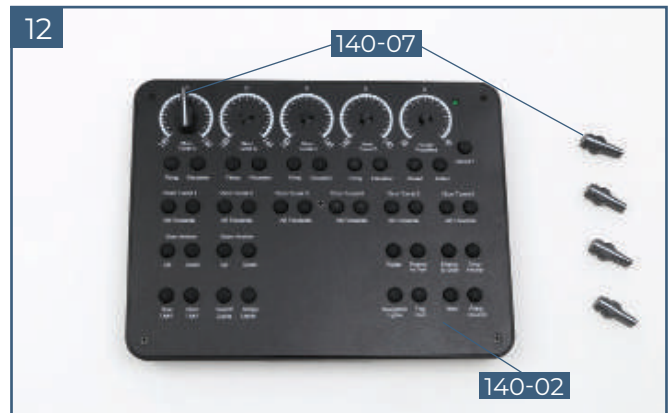
Turn the remote control box **140-02** over and insert four AAA batteries into the battery compartment, as indicated, making sure you have the terminals the right way round.



Take the battery compartment cover **140-03** and fit the tab into the recess at the back of the compartment, as indicated.



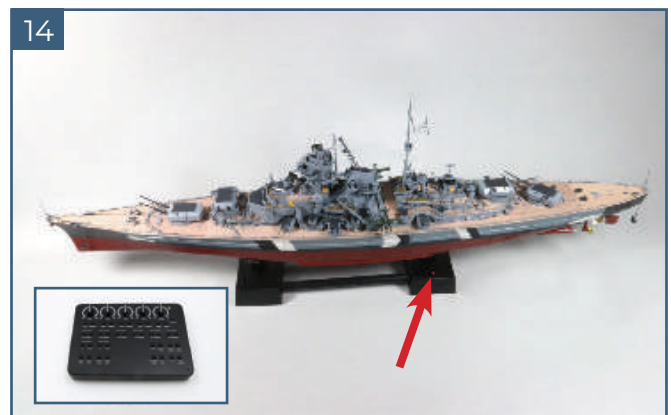
Push the other side of the battery compartment cover into place and secure with a 2 x 6mm **PB** screw.



Turn the box **140-02** the right way up. Remove the five control levers from the frame **140-07**. Take the first lever and fit it onto one of the five pegs at the top of the circuit board. This is a push-fit connection.



Fit the remaining four control levers **140-07** to the pegs at the top the board. Press the ON/OFF button (arrow) and the indicator lamp lights up green, as shown.

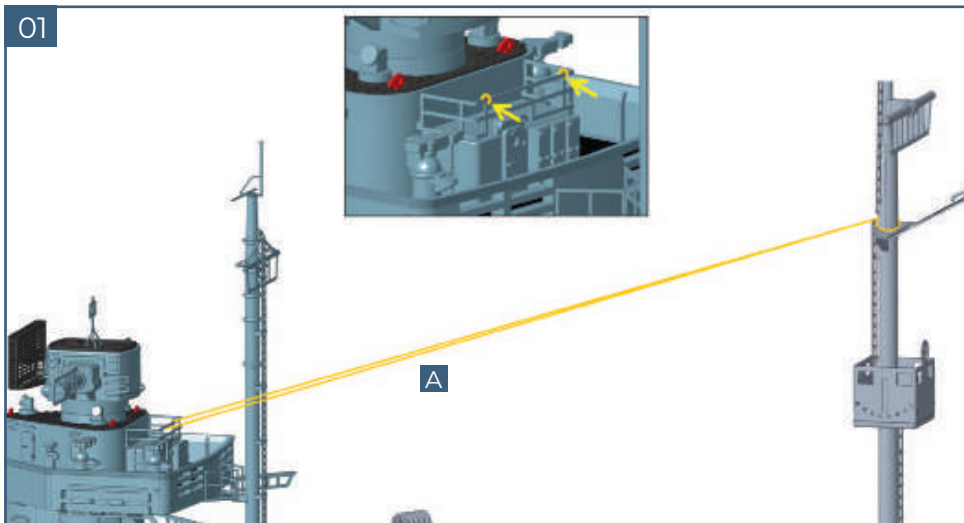


Now touch the power switch **137-07** on the stand. The LED lights up red and the initialization of the four main gun turrets starts. You can then run the functions of your model remotely.

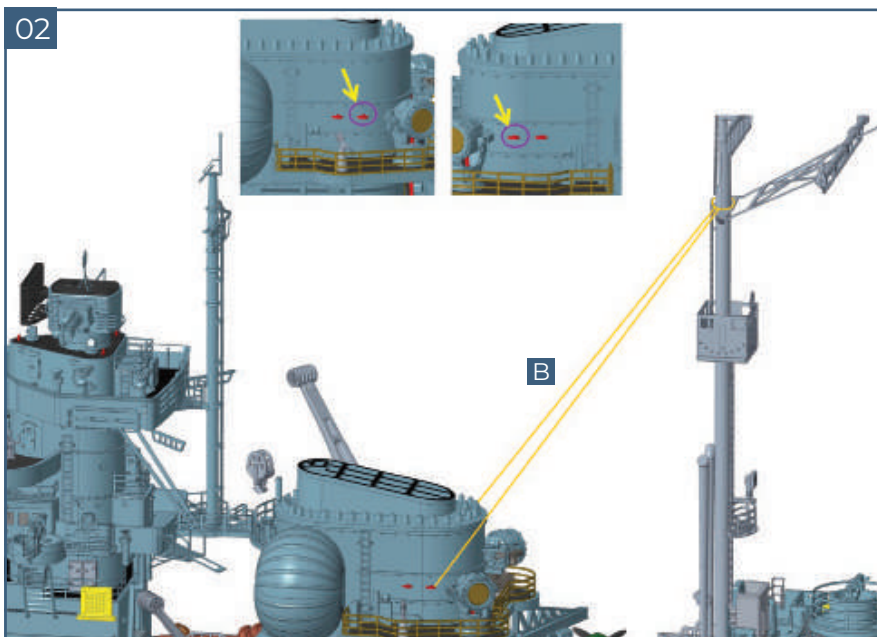
## 02. THE RIG

You will need the 'wire' **138-14** and the antenna mounts **138-12** to attach the rigging. For each section, knot one end in place, then use a suitable length of 'wire' and tension it as you knot the other end in place. Ensure each line is taut and securely fixed as you work through the steps. Apply a drop of glue to each knot to hold the wires in place. At each step we only show the rig that is described in the step. We have referred to the rig as 'line' throughout: some of the lines are transmitting or receiving antennae, some are stays, and so on.

**NOTE:** Much of the rig (running between the two masts and from the main mast to the funnel) is connected between two different sections of the upper deck. It will be difficult to remove the upper deck sections once you have completed the rig. You should only complete the following steps after you have successfully tested all the functions of your model and you no longer need access to the inside of the hull. Take time to test the operation thoroughly before proceeding.

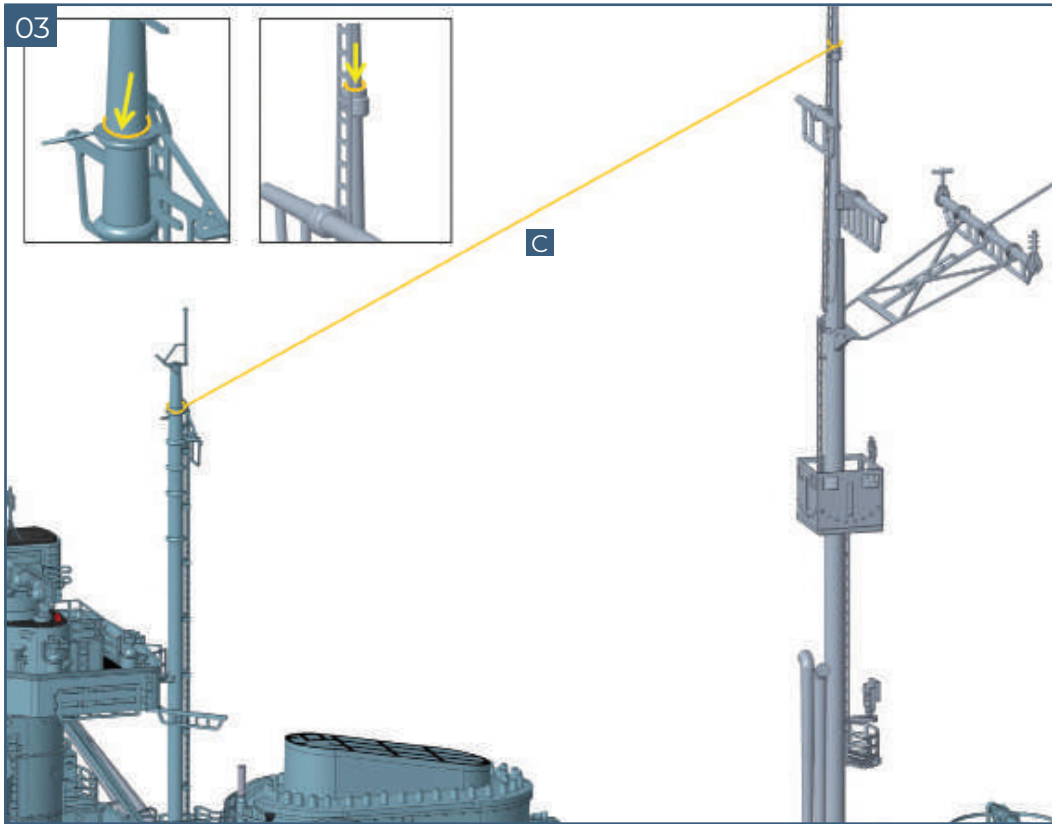


The lines **A** run from the two rails at the rear of the forward superstructure behind the rangefinder (inset) to the main mast, on the aft superstructure.

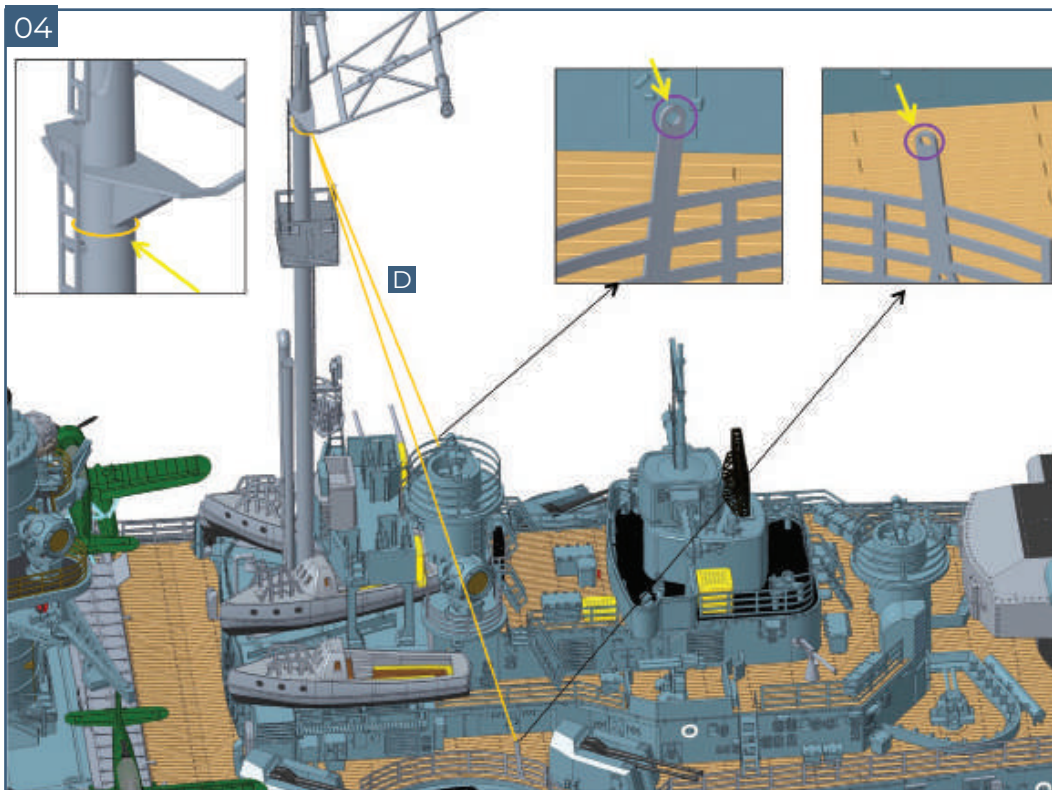


The lines **B** run from the aft eyelets **138-11** on either side of the funnel (insets) up to the main mast.

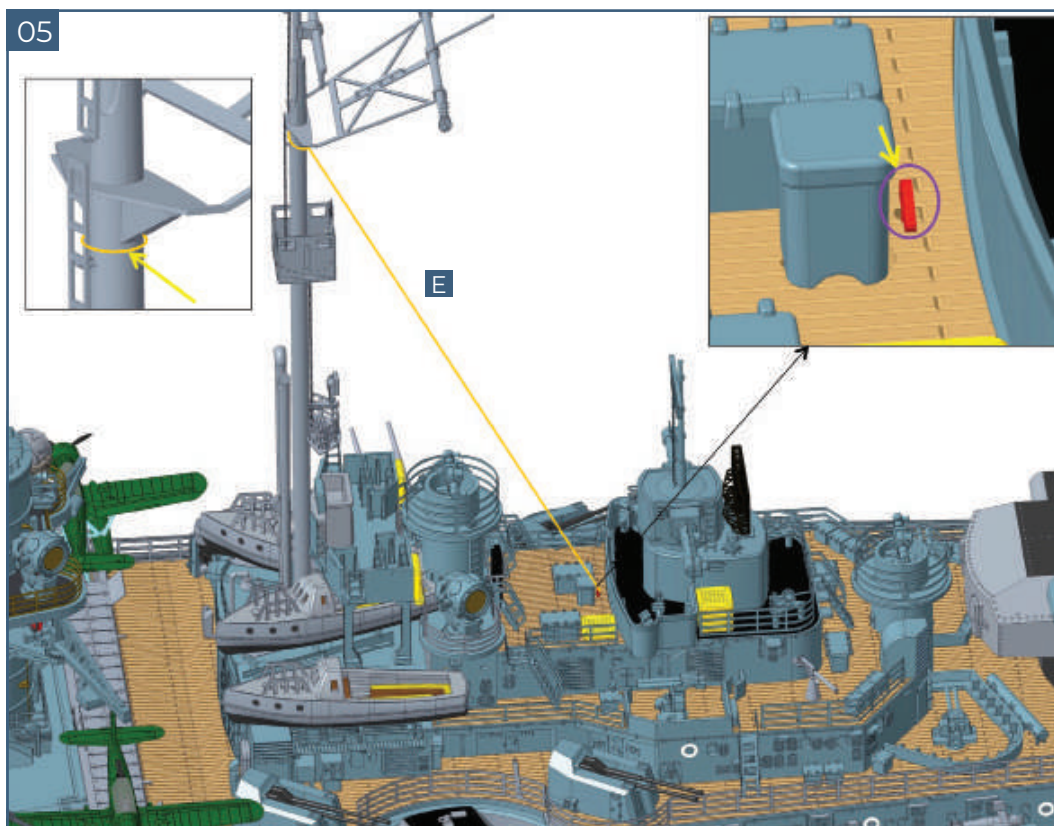




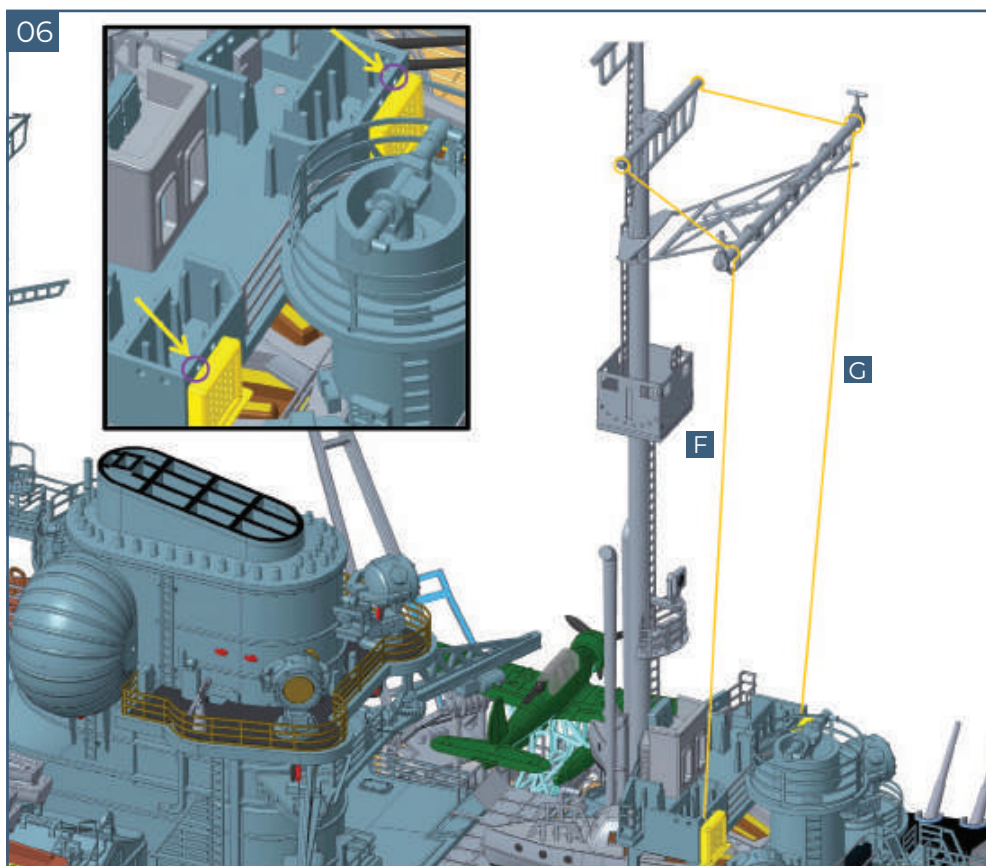
The line **C** is tensioned between the foremast and the mainmast. The two insets show where the ends are attached around the masts, above wider sections of each mast.



The lines **D** run from the main mast to the tie points on the railings on each side of the superstructure deck (insets).



The line **E** runs from the eyelet **138-11** on the deck of the aft superstructure up to the mainmast. The two insets show the position of the knot on the mast and the position of the eyelet.



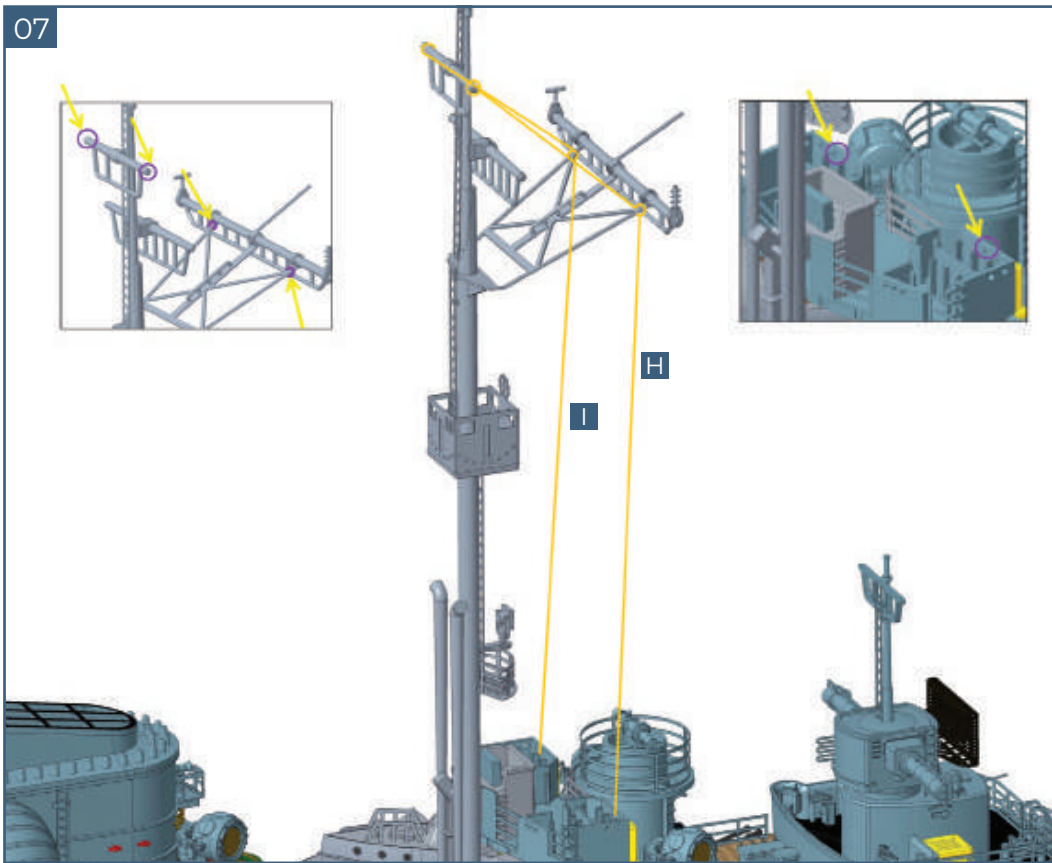
Ensure that the lines fitted here are taut and securely attached, as further lines will be attached to them (steps 8 and 9).

The line **F** runs from the outer hole at the back of the port side of the aft signal bridge **107-03** up to the port end of the longest spar on the mainmast and from there on to the end of the middle spar.

Similarly, the line **G** runs from the outer hole on the back of the starboard side of the aft signal bridge to the starboard ends of the same two spars.

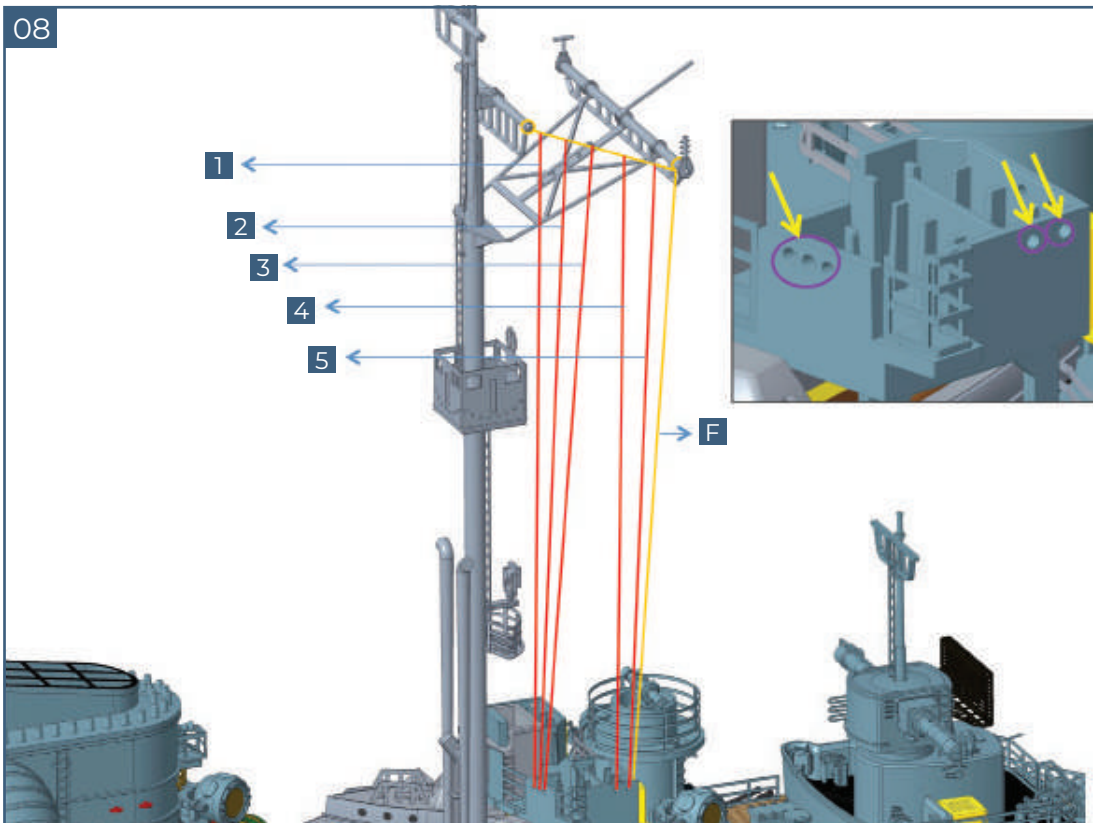
The inset shows the position of the two holes on the aft signal bridge.

07

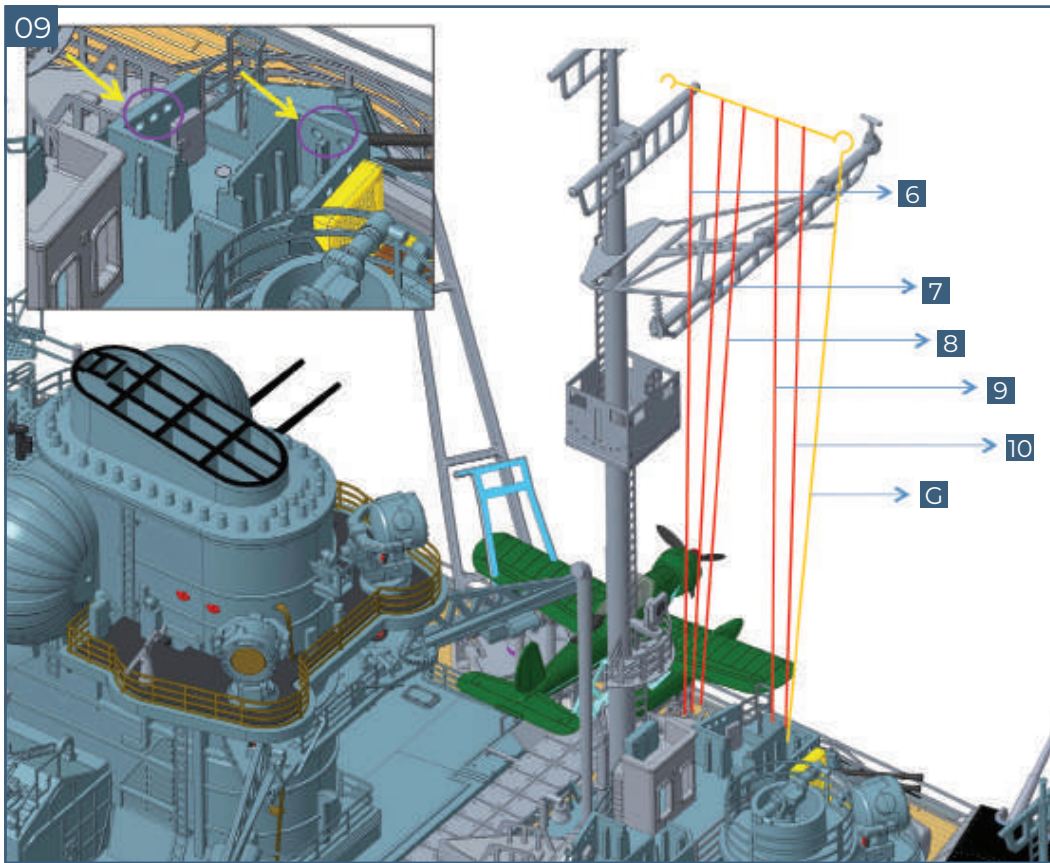


The lines **H** and **I** run from the two inner holes on the back of the aft signal bridge **107-03** up to the longest spar on the main mast and from there on the top spar. The insets indicate the position of the holes on the signal stand and the points on the spars where the lines are knotted.

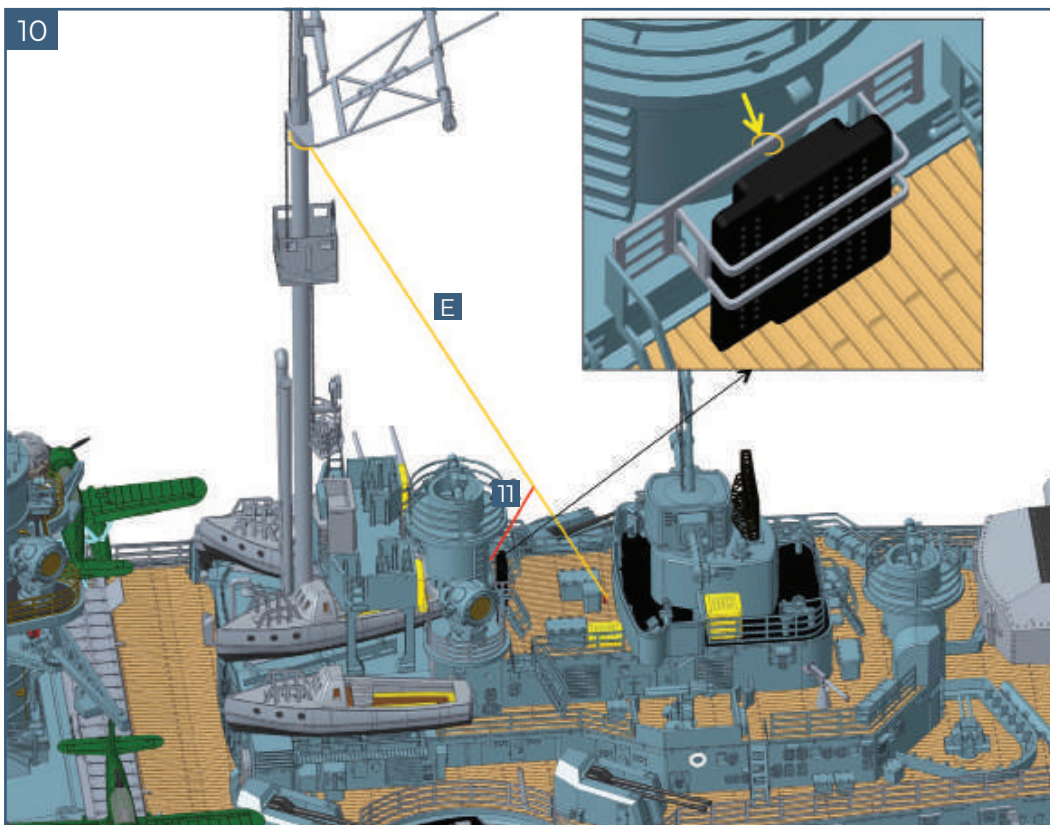
08



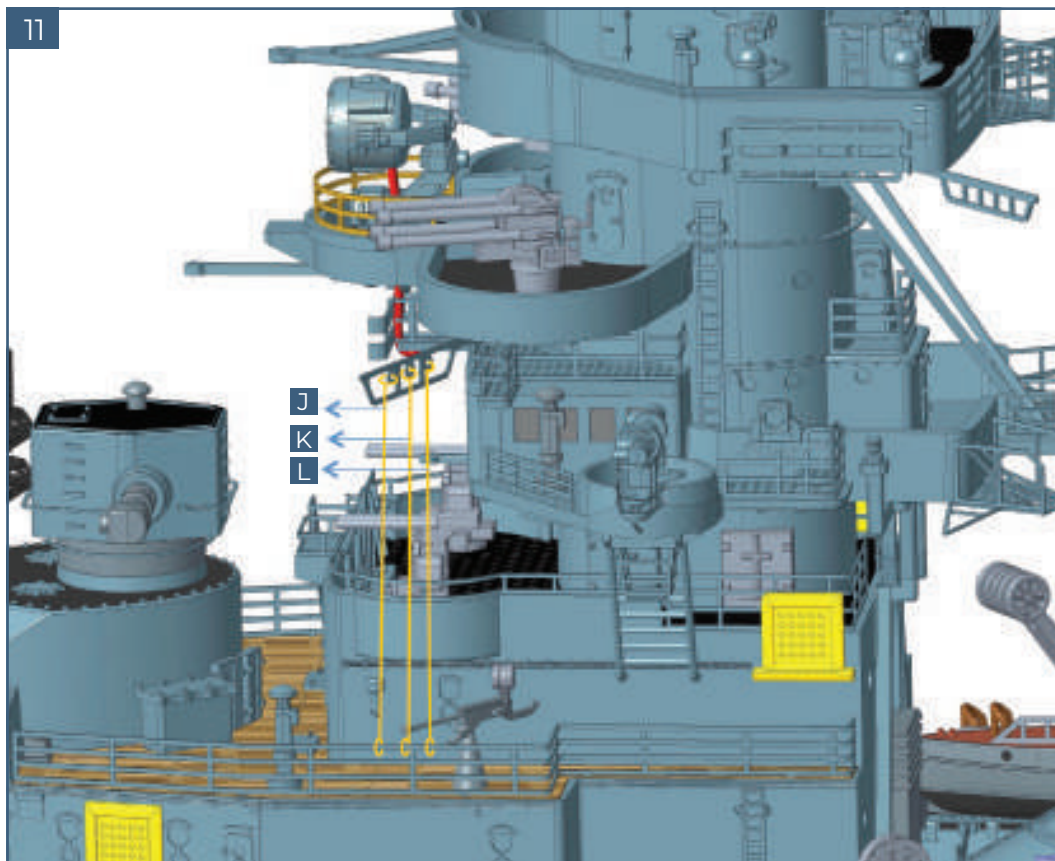
Five lines **1-5**, shown in red, run from the holes on the port side and the front of the aft signal stand (see inset) up to line **F**, which was fitted in step 6.



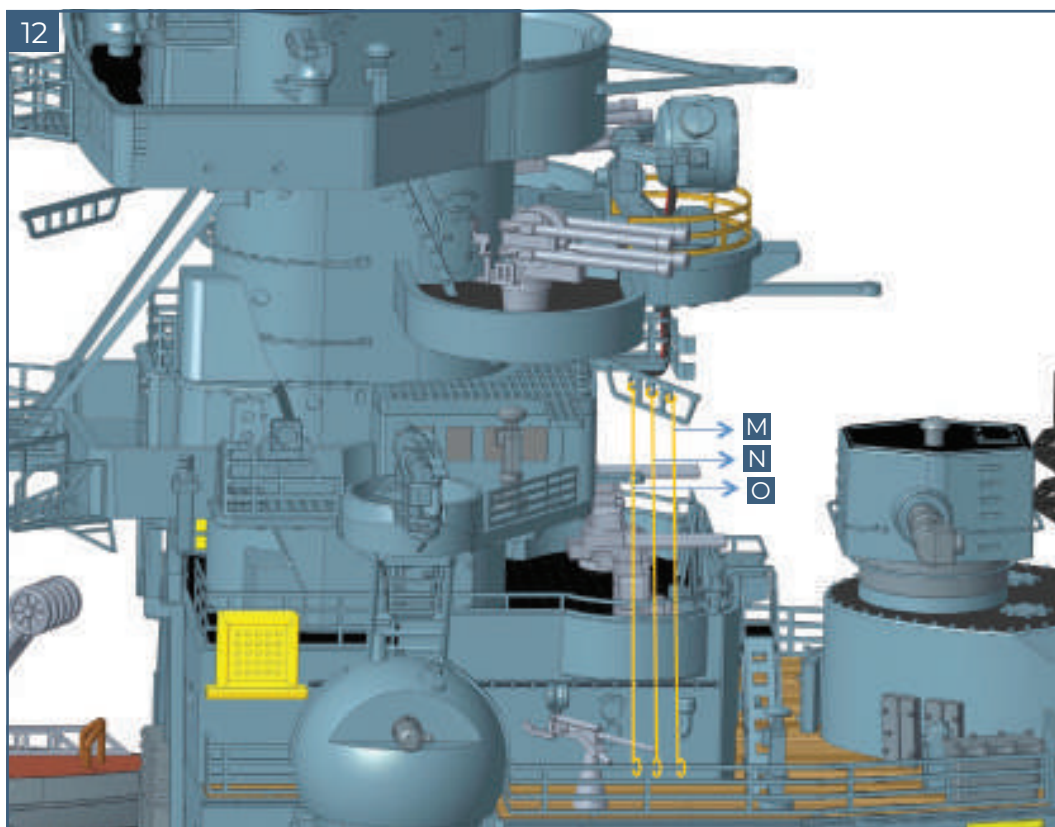
Similarly, on the starboard side run five lines **6–10**, shown in red, from the holes on the starboard side and the front of the aft signal stand (inset) up to line **G**, which was fitted in step 6.



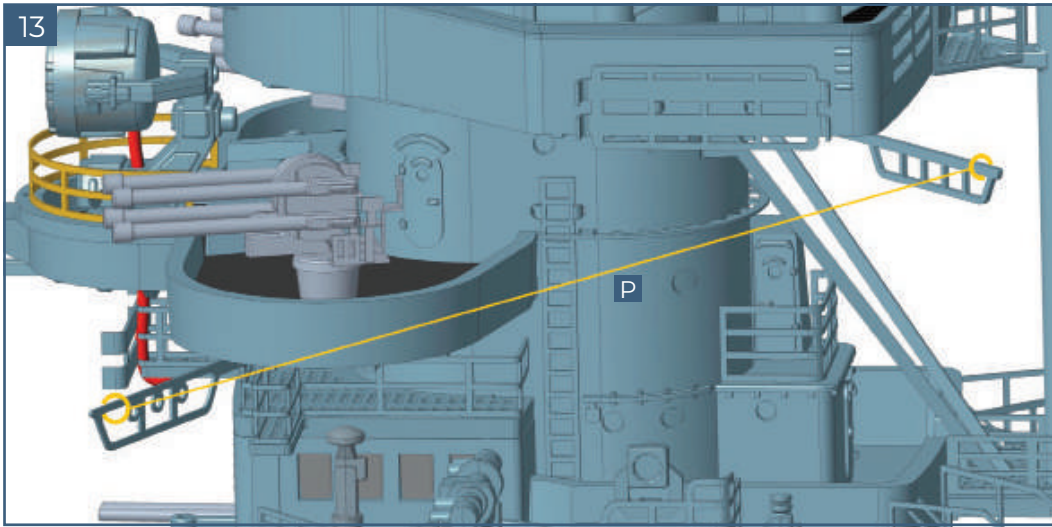
The line **11** (shown in red) runs from the rail on part **104-05** (inset) to the line **E**, which you fitted in step 5.



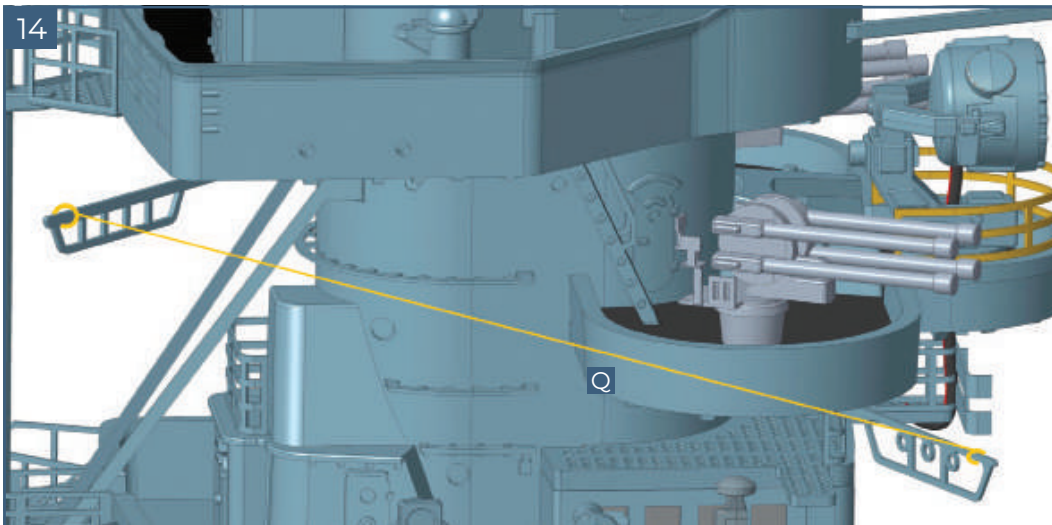
On the port side of the forward superstructure, lines **J**, **K** and **L** run from the railing of the lower mast deck up to loops on the antenna arm below the searchlight deck.



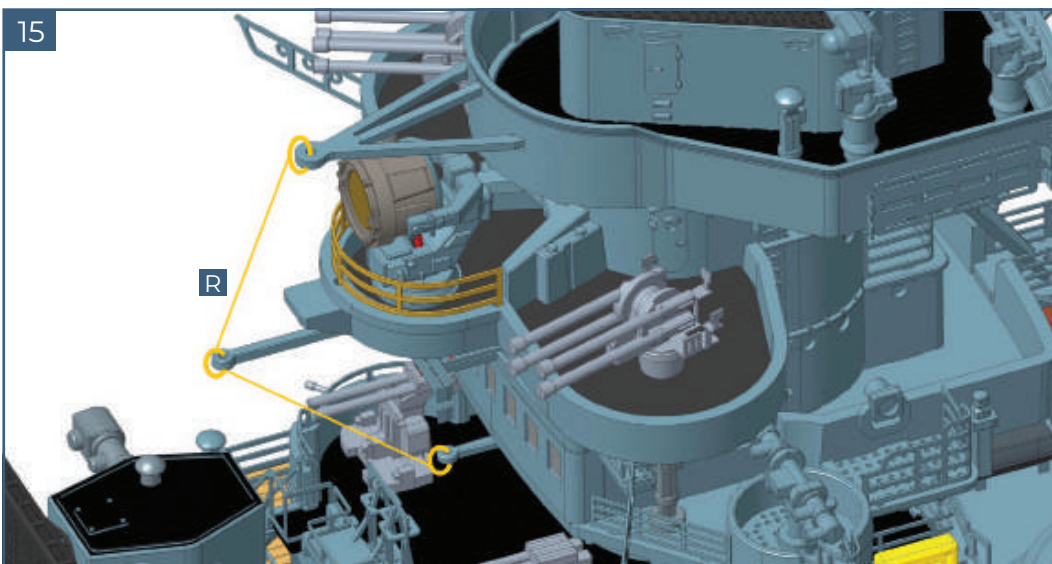
Similarly, on the starboard side of forward superstructure, lines **M**, **N** and **O** run from the railing of the lower mast deck to the antenna arm below the searchlight deck.



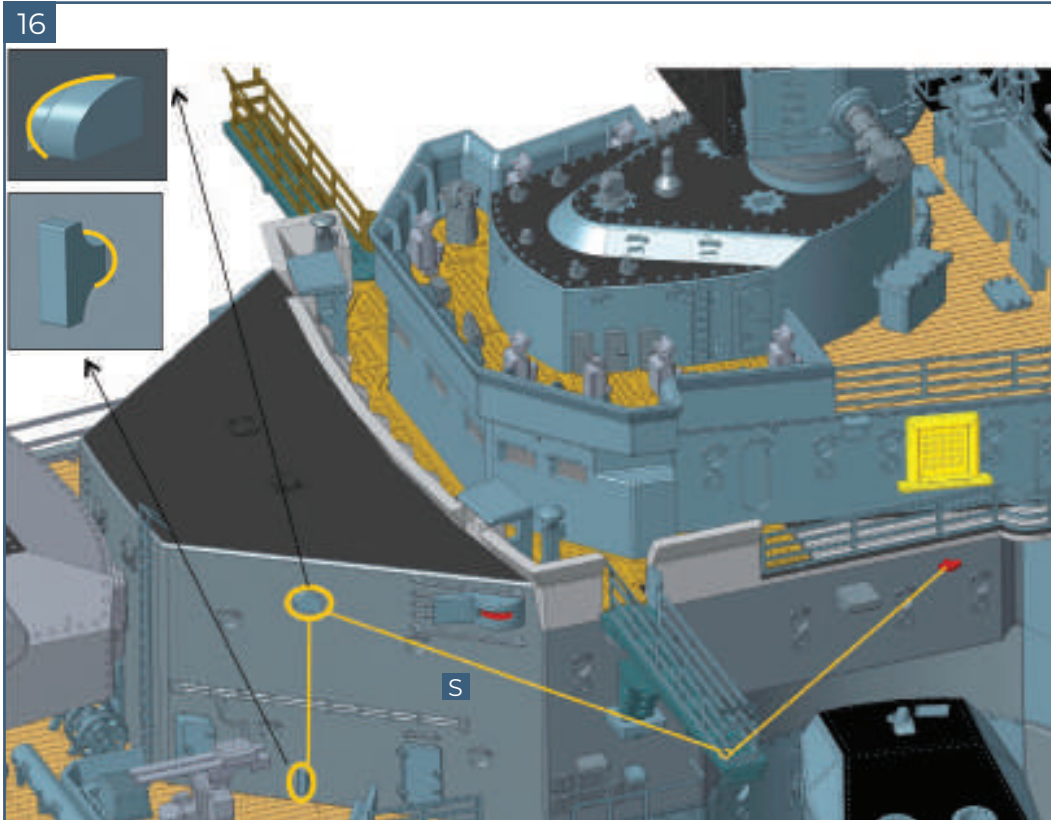
On the port side of the forward superstructure, line **P** runs between the two antenna arms, as shown.



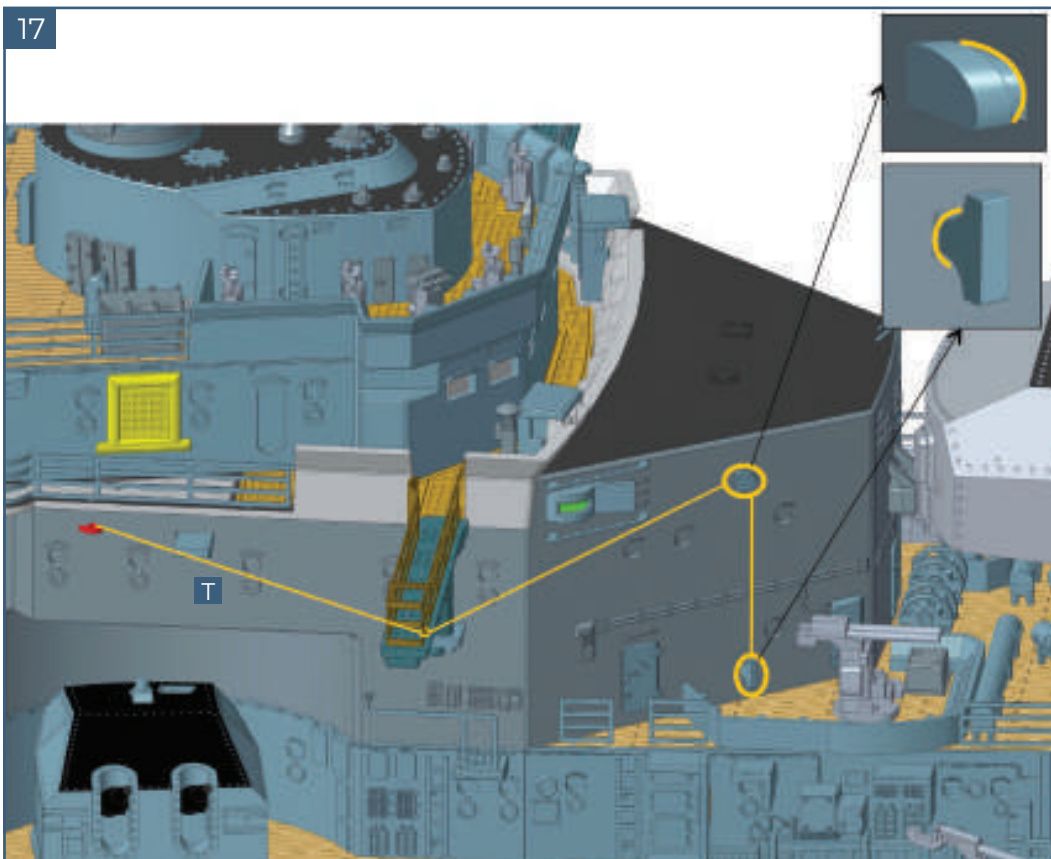
Similarly, on the starboard side, line **Q** runs between the two antenna arms, as shown.



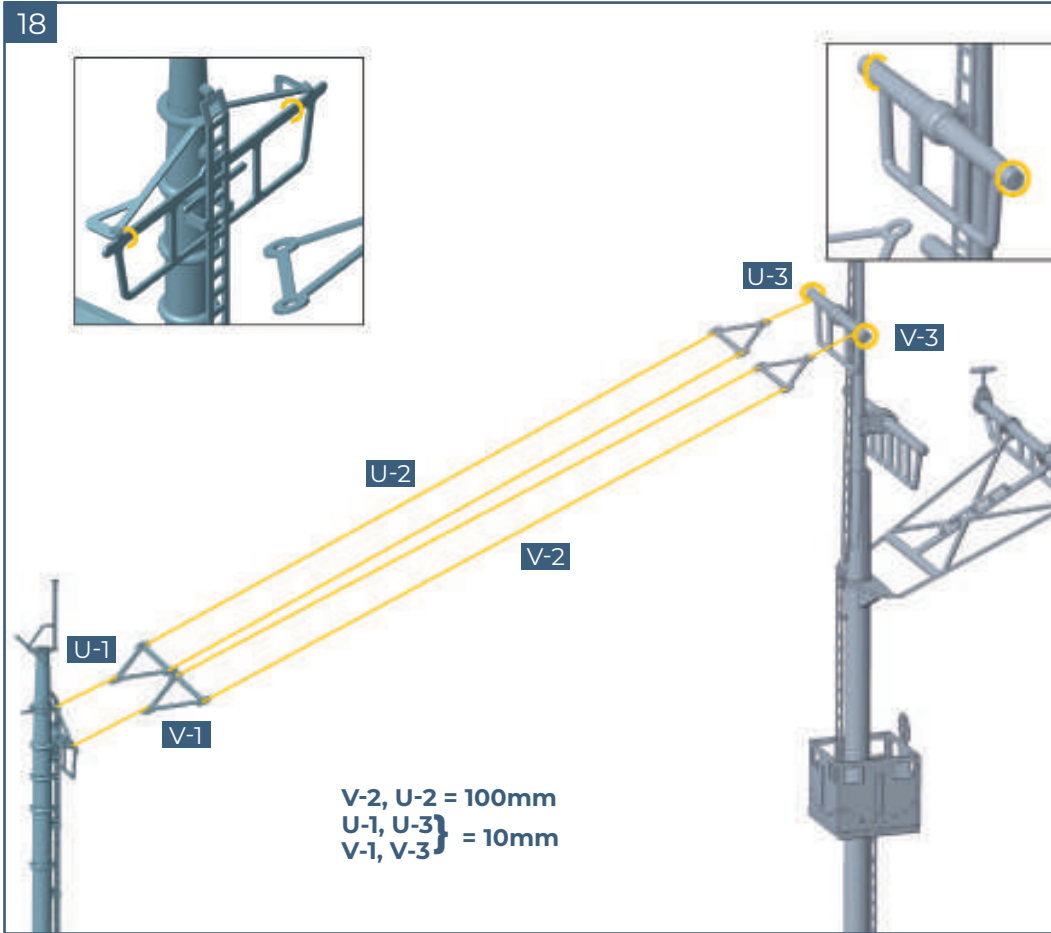
The line **R** is fitted at the front of the forward superstructure. It runs from the lower antenna fixing point, through the middle one to the upper fixing point, as shown.



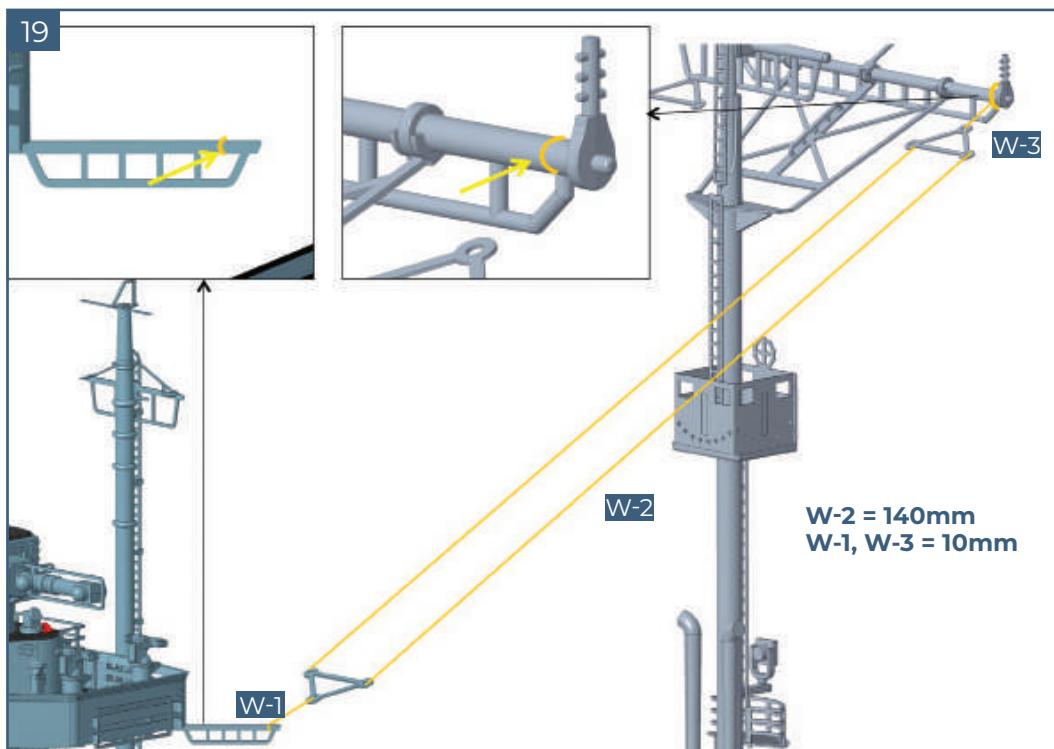
The line **S** runs along the port side of the forward superstructure. Fix one end to the bracket on the superstructure wall behind one of the 3.7cm guns (inset, lower), then run the line over the curved bracket near the navigation light (inset, upper), out to the end of the wing and back to eyelet **138-II** near the forward twin 15cm gun.



Similarly, on the starboard side, line **T** is fixed to the bracket on the superstructure wall behind one of the 3.7cm guns, then runs over the curved bracket near the navigation light, out to the end of the wing and back to eyelet **138-II** near the forward twin 15cm gun.

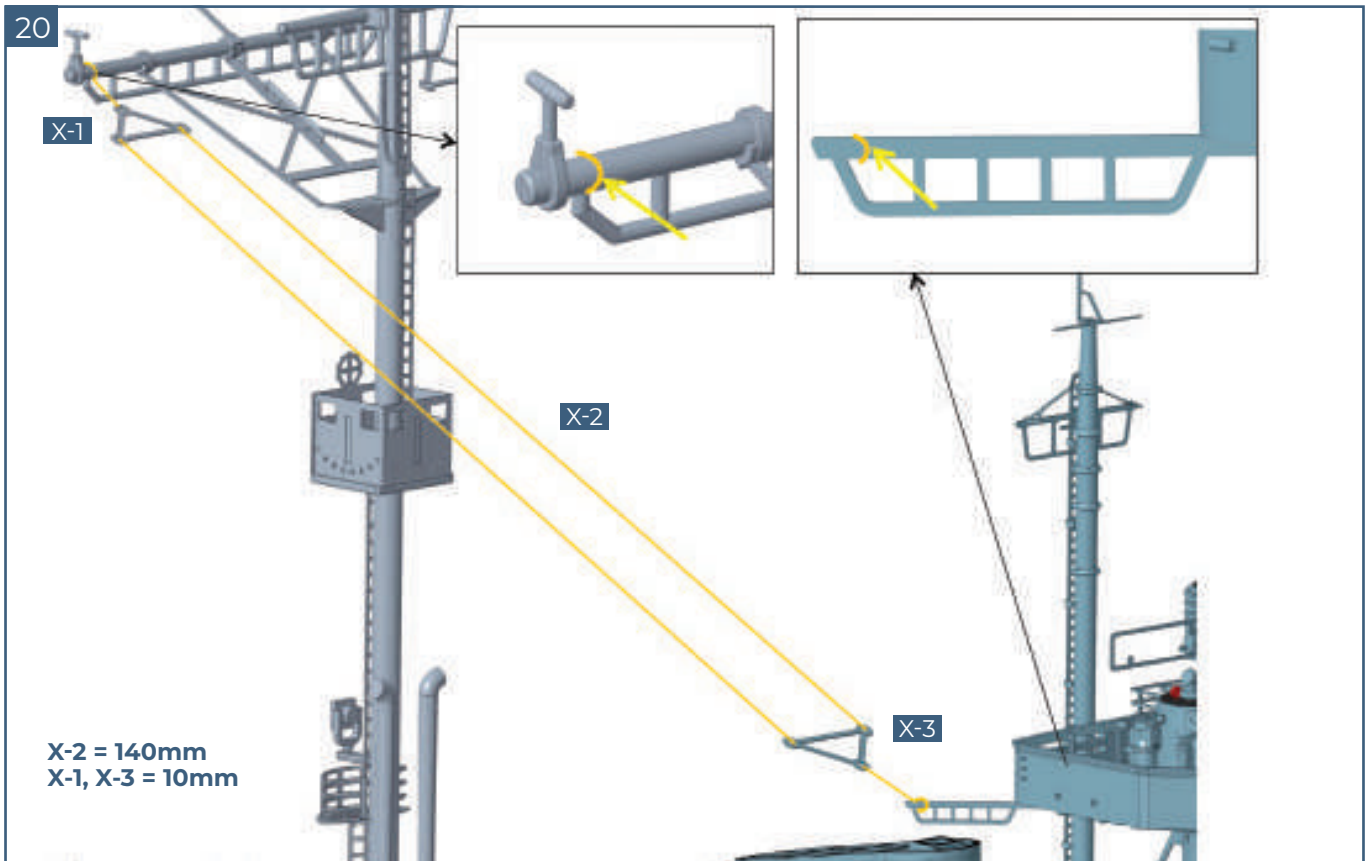


In the next steps, antennae are fitted between the two masts. Separate four antenna mounts from frame **138-12**. Run 'wires' **V-2** and **U-2** between each pair of antennae mounts so that the mounts are 100mm apart. Connect one mount to each end of the top spar on the aft mast, with short lengths of 'wire' (**U-3** and **V-3**). These should be 10mm long. Connect one mount to each end of the spar on the forward mast (**U-1** and **V-1**; see inset). These should also be 10mm long. Ensure that the lines are all taut.



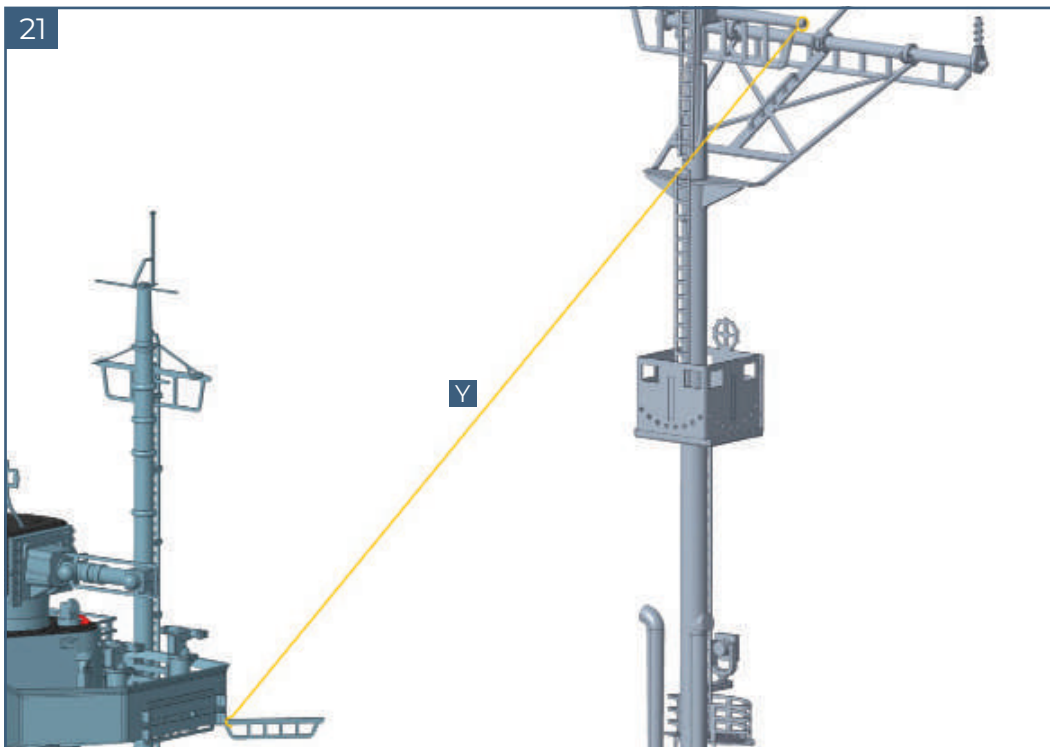
Separate two more antenna mounts from frame **138-12**. Connect the mounts with two 'wires', **W-2**. These should be 140mm long. Use a short length of 'wire' to connect one mount to the port end of the longest spar on the aft mast (**W-3**; inset, 10mm long), and fit the other mount to the end of the antenna arm on the forward superstructure (**W-1**; see also inset and step 13; 10mm long).



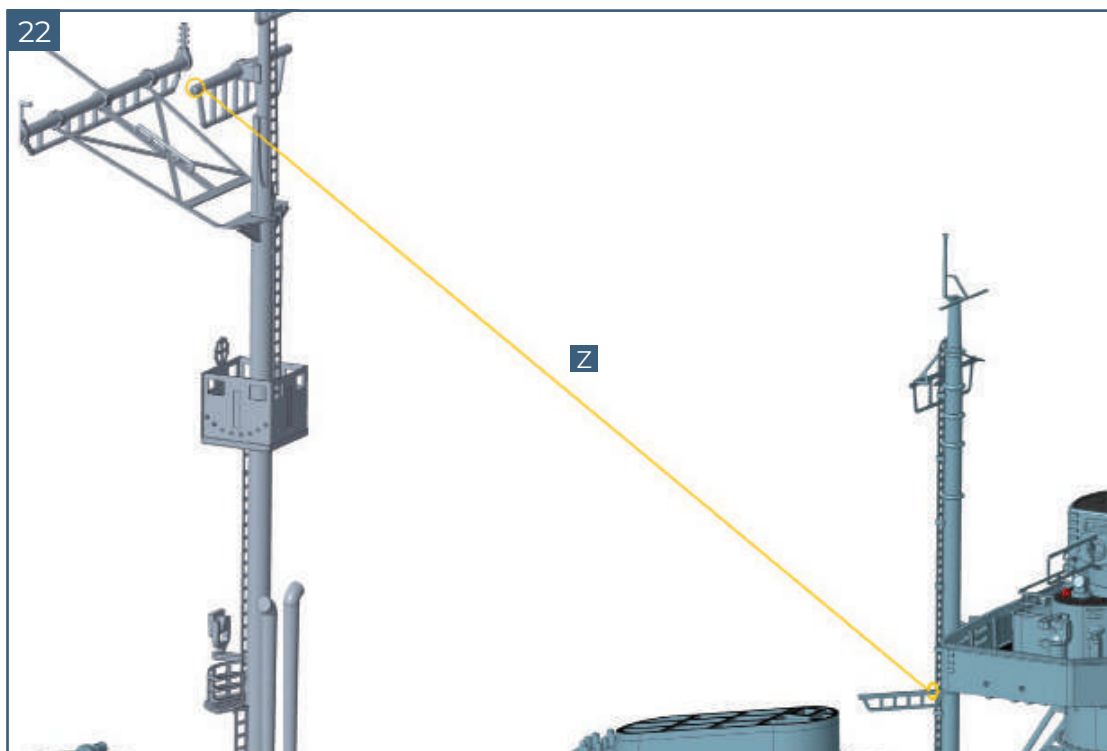


Take the last two antenna mounts from frame **138-12**. Connect two lines (**X-2**) between the mounts; 140mm long. Connect one mount to the starboard end of the

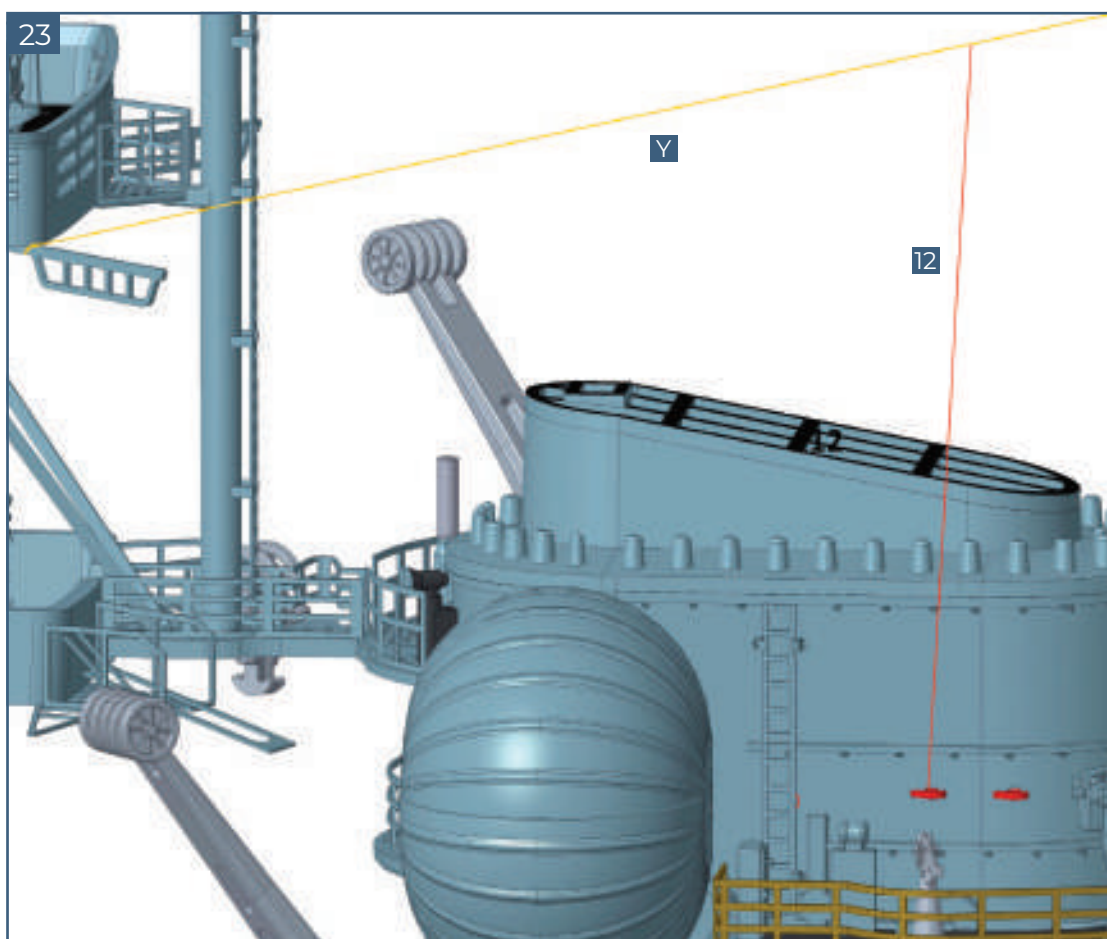
longest spar on the aft mast (**X-1**, inset, 10mm long). Attach the other mount to the antenna arm on the forward superstructure (**X-3**, inset, see step 14, 10mm).



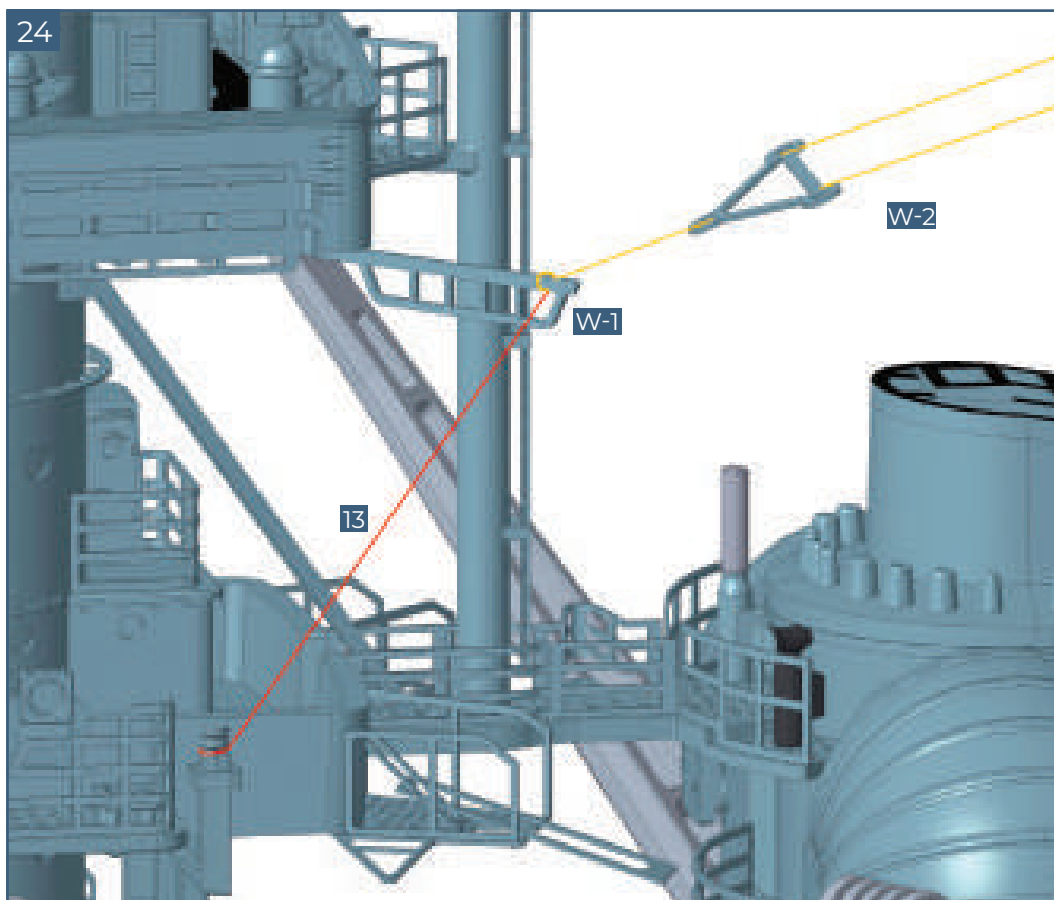
Returning to the port side, line **Y** runs from the inner end of the antenna support on the forward superstructure to the port end of the longest spar on the aft mast.



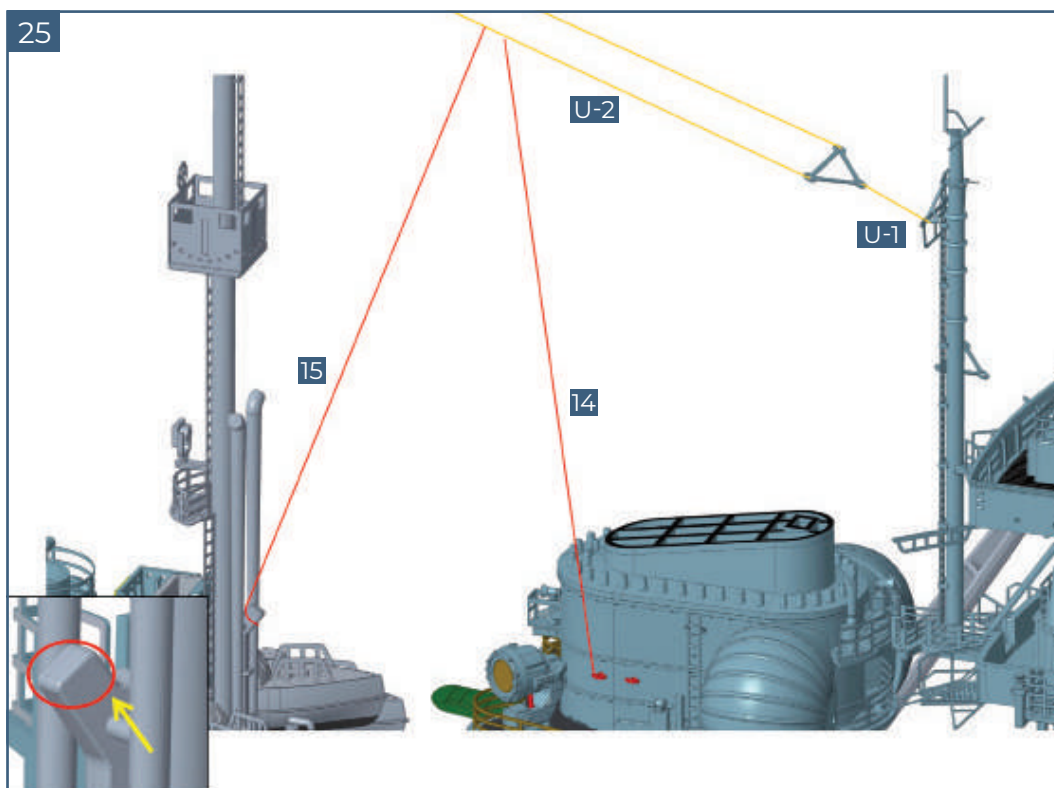
Similarly, on the starboard side, line **Z** runs from the inner end of the antenna arm on the forward superstructure to the starboard end of the longest spar on the aft mast.



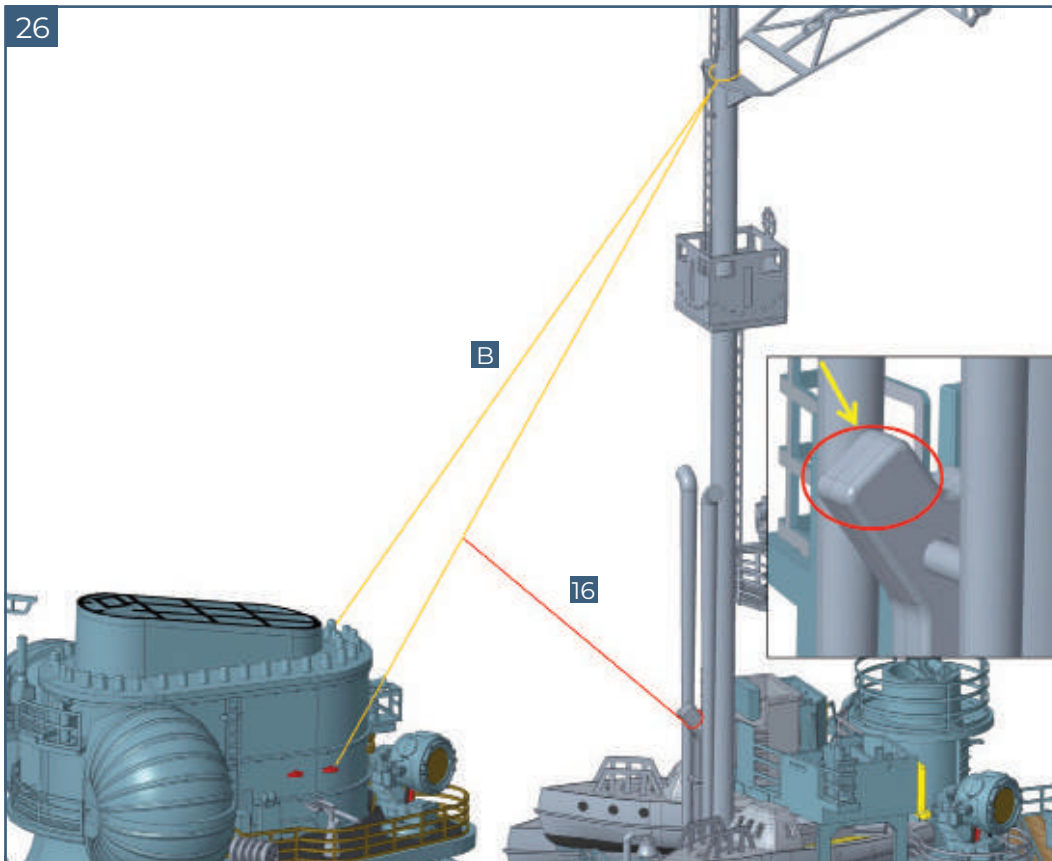
Line **12** runs from the forward eyelet **138-11** on the port side of the funnel up to line **Y**.



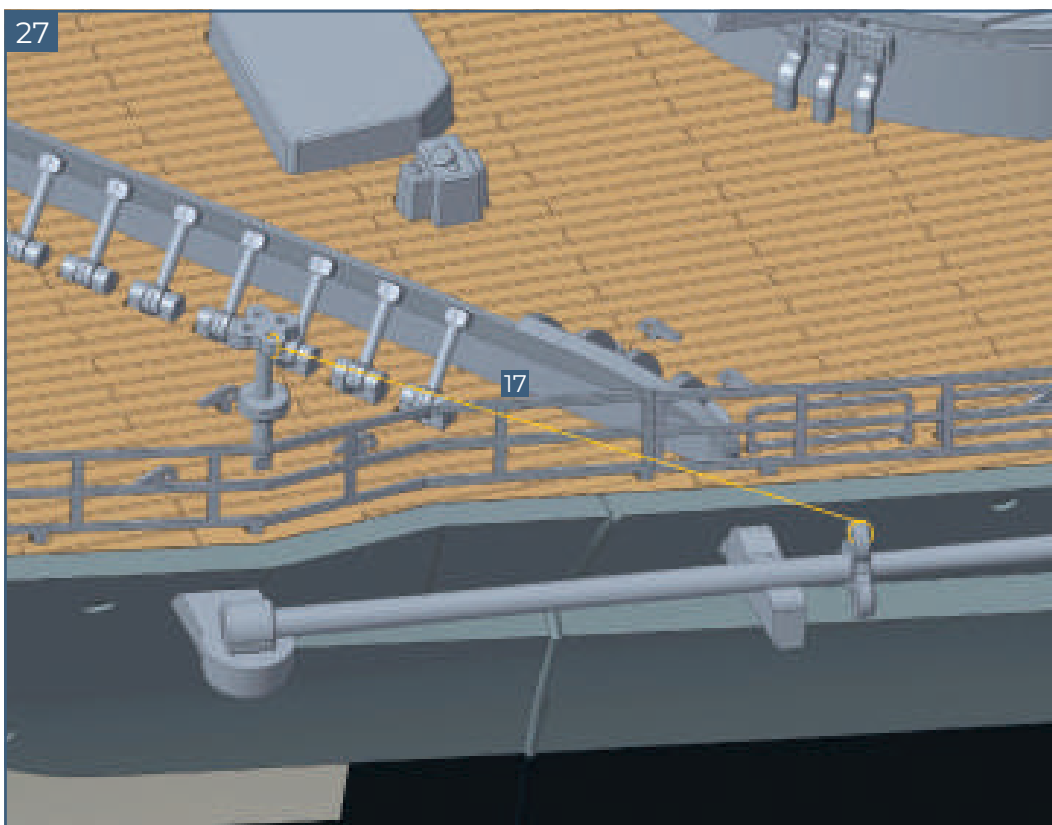
Still on the port side, line **13** runs from the admiral's bridge to the antenna arm on the forward superstructure.



On the starboard side, line **14** runs from the forward eyelet **138-11** on the funnel up to one of the lines **U-2**. Line **15** runs from the antenna tab on the aft mast (see inset), up to the line **U-2**.

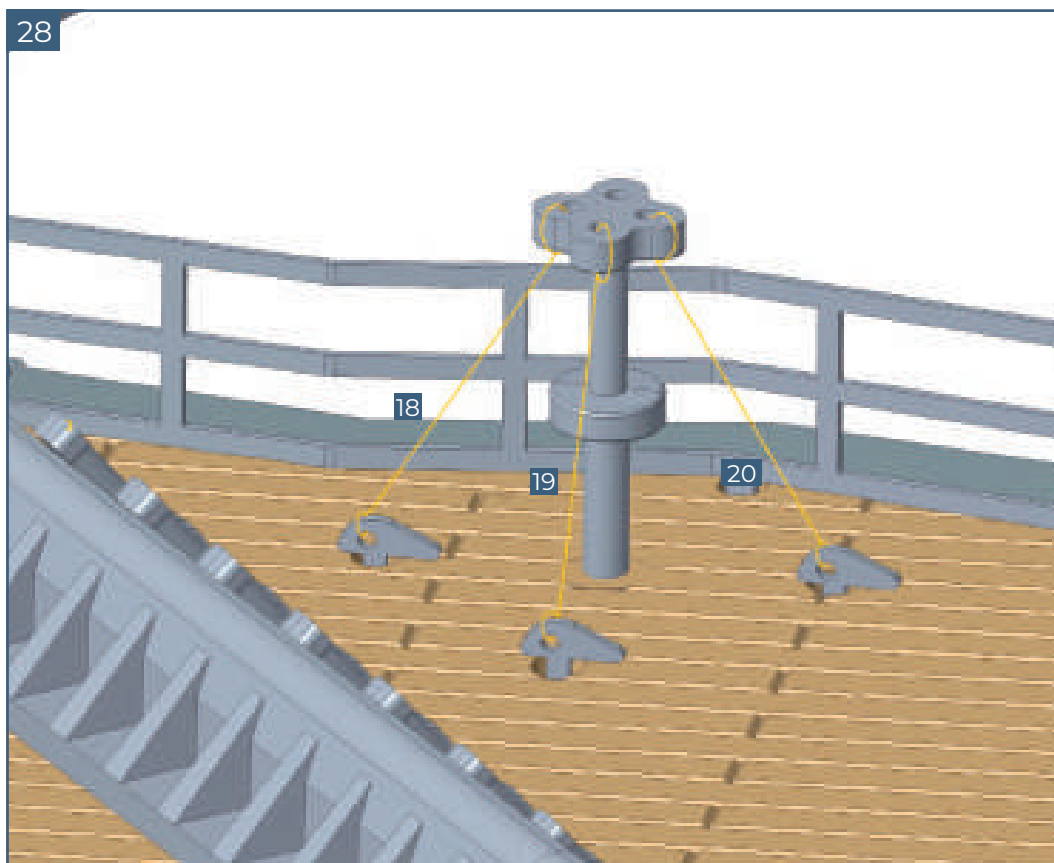


Line **16** runs from the antenna tab (inset) up to the port side thread **B**.

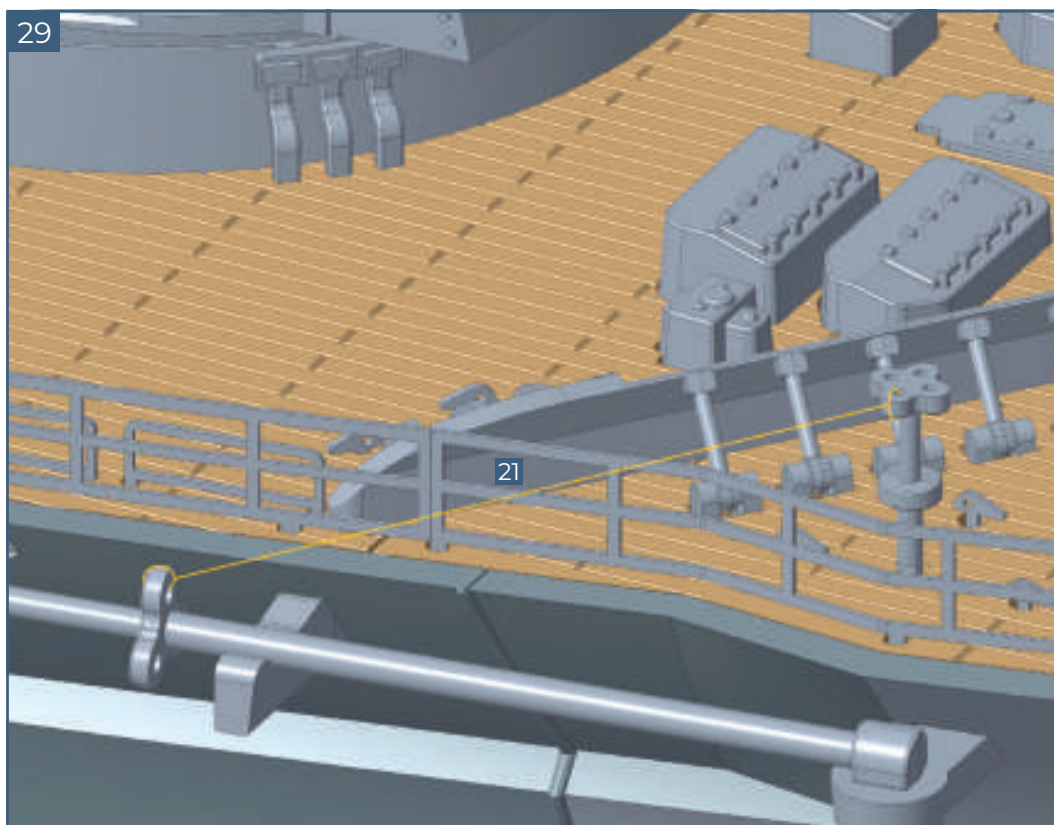


On the port side of the hull, line **17** runs from the bow boom **134-07** to the attachment point fitted near the forward breakwater in Stage 8.

**NOTE:** If you should ever want to remove the front deck, you will have to remove this line.

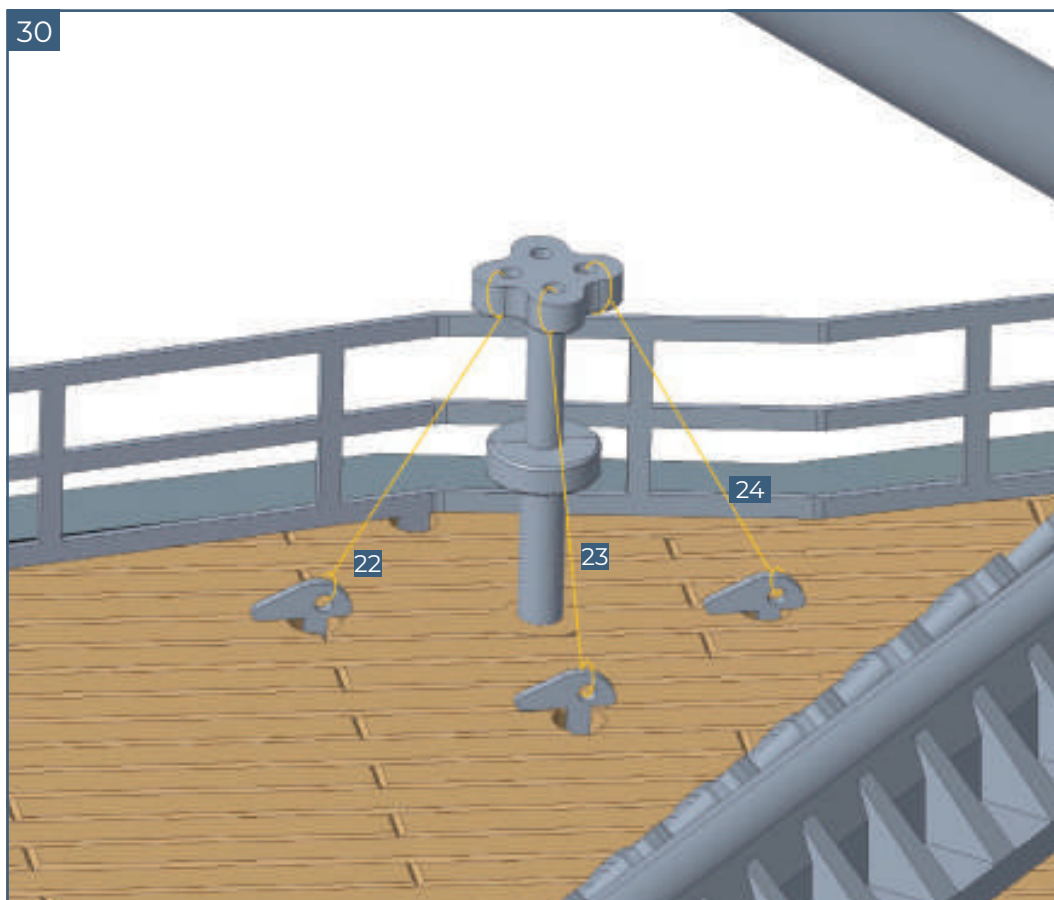


On the port side of the upper deck, lines **18**, **19** and **20** are fitted from the attachment point to the eyelets **138-11** on the deck.

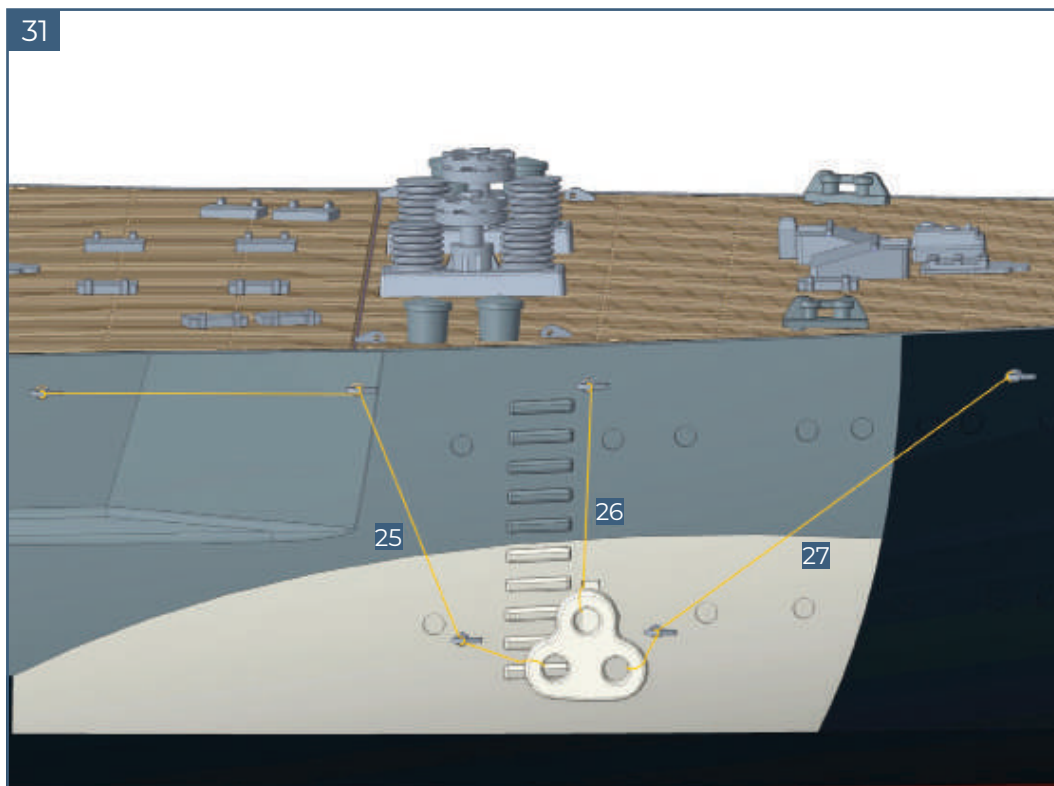


On the starboard side, line **21** runs from the bow boom **134-07** to the attachment point fitted in Stage 8 near the forward breakwater.

**NOTE:** If you should ever want to remove the front deck, you will have to remove this line.



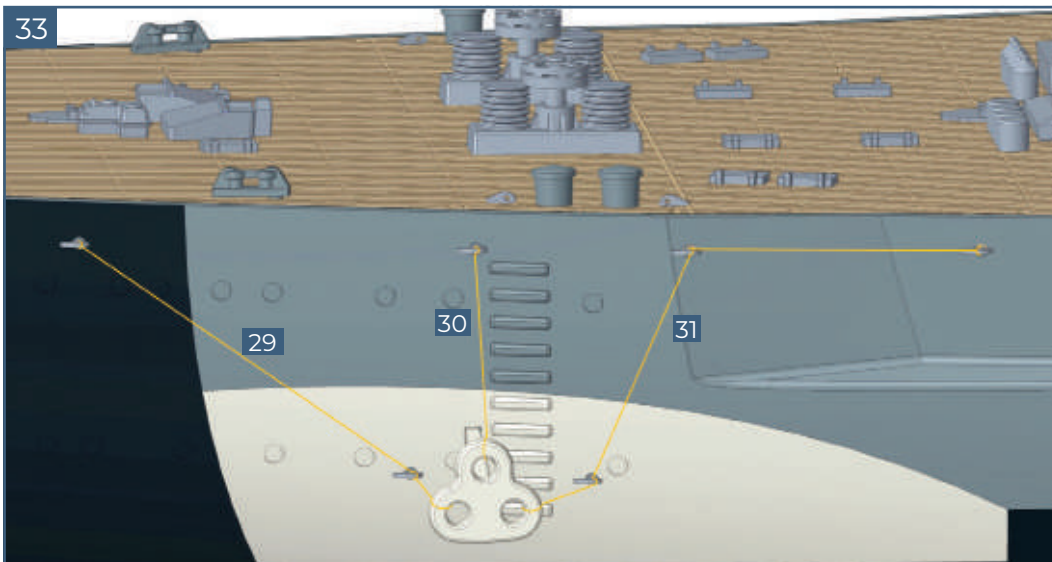
Lines **22**, **23** and **24** are fitted between the attachment point and the eyelets **138-11** on the starboard side of the deck.



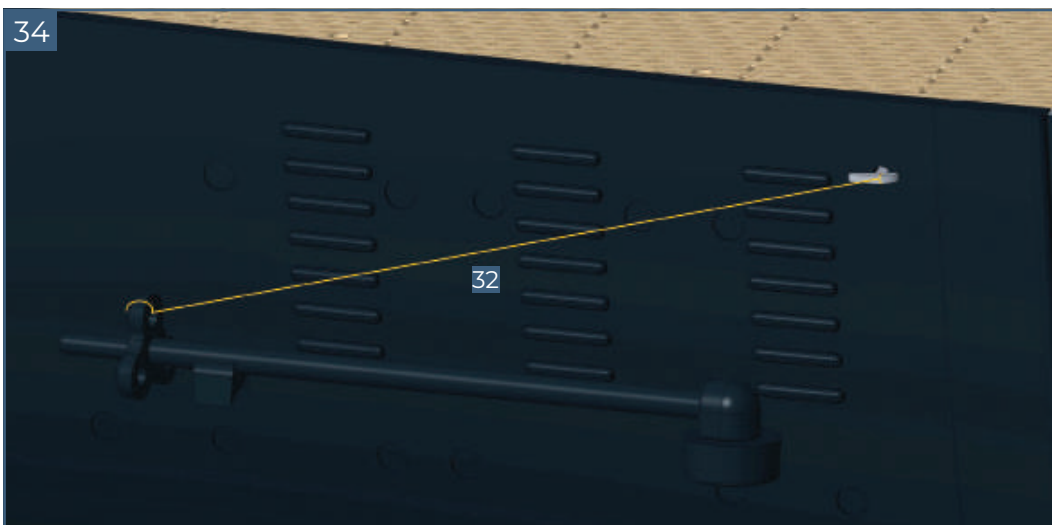
Moving to the port side of the stern, the lines **25**, **26** and **27** are attached to the screw protector **134-13**. The lines are tensioned through the eyelets **138-11** as shown. Note that line **25** goes through two eyelets and is tied to a third; line **27** runs through one eyelet and is tied to a second eyelet.



Further aft on the port side, line **28** runs from the eyelet **138-11** to the stern boom.



On the starboard side towards the stern, fit the lines **29, 30** and **31** from the screw protector **134-13** and out to the eyelets **138-11**, as shown. Note that line **29** runs through one eyelet and is tied to a second eyelet; line **31** goes through two eyelets and is tied to a third.



Further aft, line **32** runs from the eyelet **138-11** to the stern boom.

## BISMARCK IS COMPLETE

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FORWARD VIEW

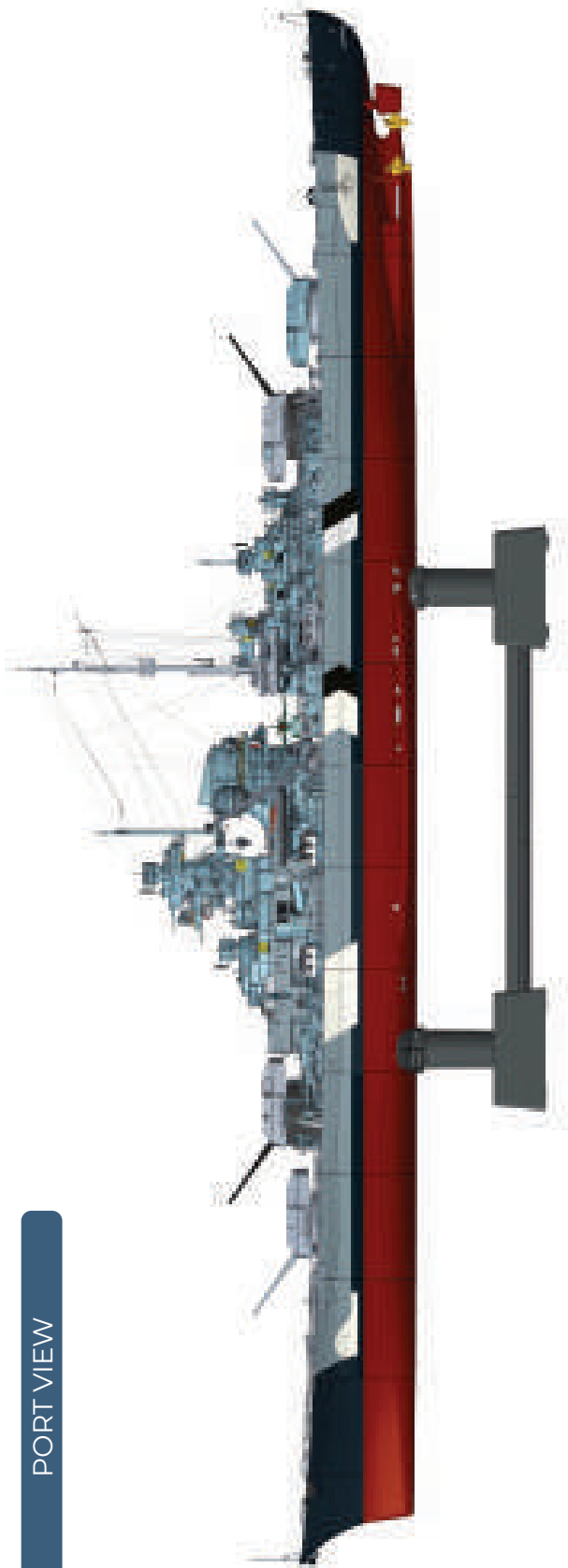


AFT VIEW





PORT VIEW



STARBOARD VIEW

