

BISMARCK

THE LEGENDARY BATTLESHIP



Pack 09 | 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 ninth model pack, you will assemble:

STAGE 93: A HULL SECTION AND CABLES

STAGE 94: TWO FUNNEL SEARCHLIGHTS

STAGE 95: THE NEXT KEEL SECTION

STAGE 96: A SECTION OF HULL AND TWO RAILINGS

STAGE 97: DECKING AND DETAILS FOR THE AFT SUPERSTRUCTURE

STAGE 98: THE NEXT HULL SECTION PLUS DETAILS FOR THE AFT SUPERSTRUCTURE

STAGE 99: THE FIFTH 15CM TWIN TURRET

STAGE 100: A HULL SECTION AND ELECTRICAL TESTING

STAGE 101: MOTOR FOR THE FIFTH 15CM GUN TURRET

STAGE 102: THE AFT SUPERSTRUCTURE DECK

STAGE 103: A HULL SECTION AND RAILINGS

STAGE 104: THE ELEVENTH KEEL SECTION

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.

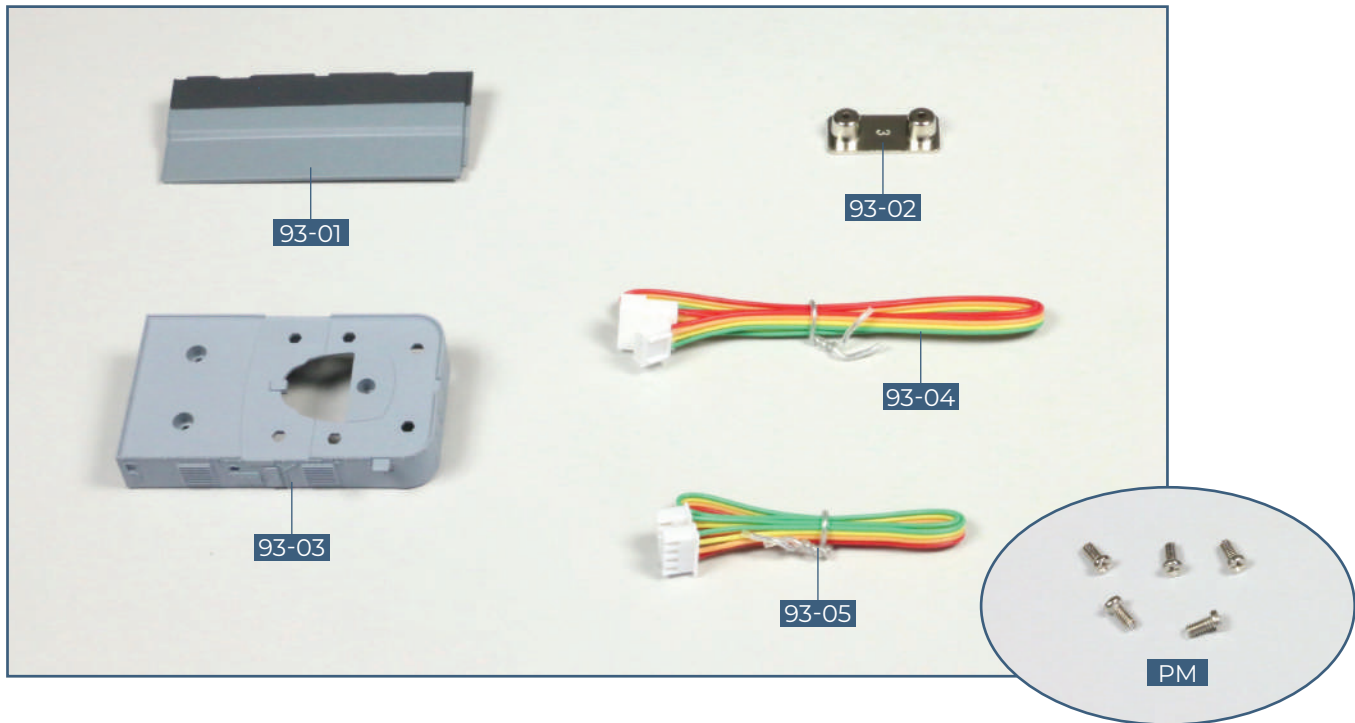
During the course of this build, you will receive many pieces that you will assemble immediately – following the instructions in the corresponding stage – and other pieces that you should store safely to one side, for use in future assembly stages.



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 93

A HULL SECTION AND CABLES



COMPONENTS CHECKLIST

93-01: Upper starboard hull section

93-02: Connector

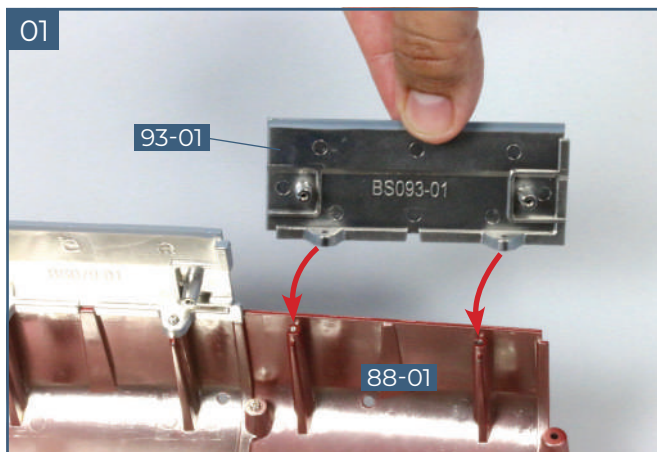
93-03: Aft deckhouse

93-04: Cable extension (400mm)

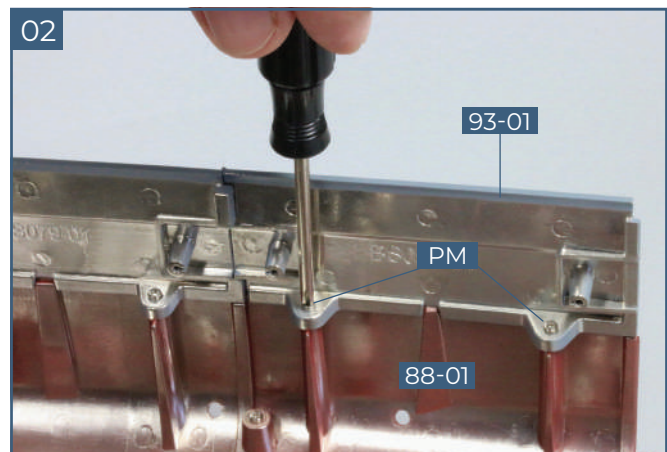
93-05: Cable extension (260mm)

PM: Five 2 x 4mm PM screws

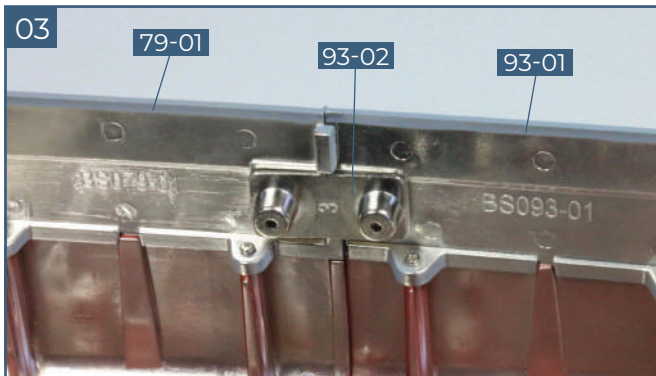
01. FITTING THE HULL SECTION



Take the upper starboard hull section **93-01** and fit it onto the hull assembly so that the screw holes are aligned with the raised sockets in hull section **88-01**, as indicated.



Fix hull section **93-01** to hull section **88-01** with two **PM** screws, as shown.

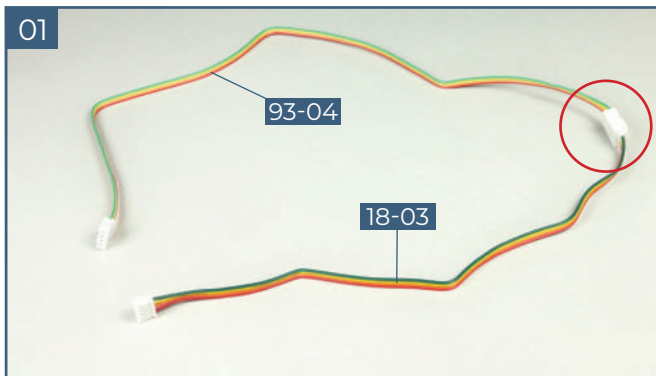


Fit the connector **93-02** over the raised screw sockets on hull sections **93-01** and **79-01**, as shown.

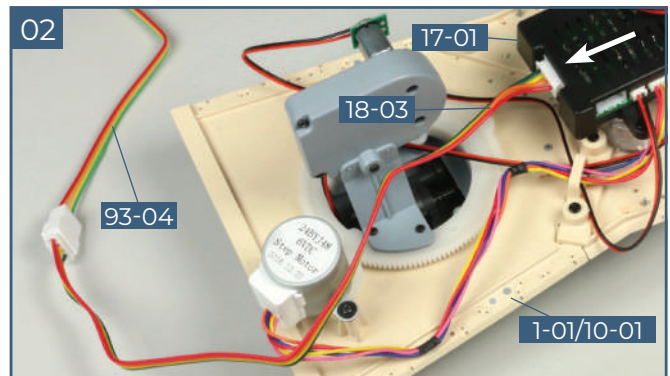


Fix the connector in place with two **PM** screws, as shown.

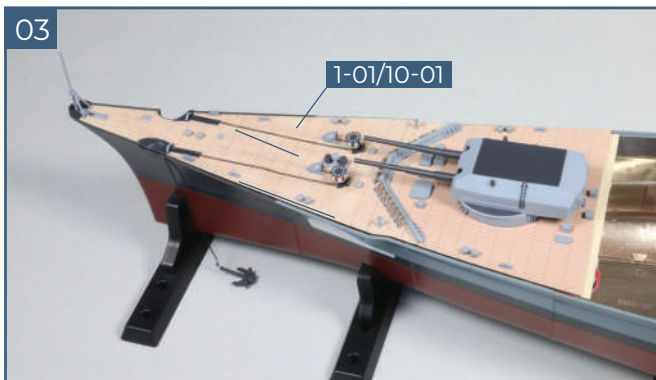
02. FITTING THE CABLE EXTENSIONS



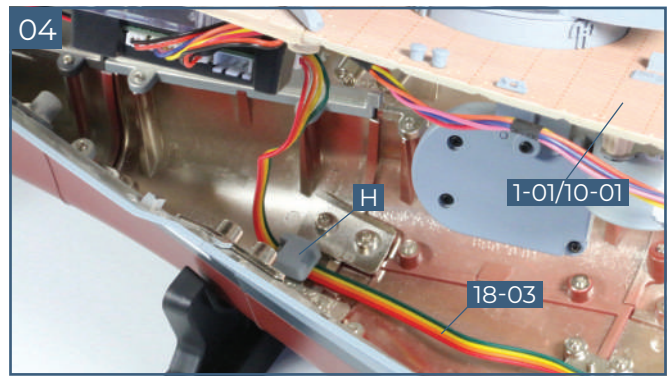
If you have not already done so, carefully remove the tester cable **18-02** and tester box (used in stage 75) from the circuit board box. Take the circuit board cable **18-03** that has not yet been connected. Fit one connector into the socket of the cable extension **93-04**, circled.



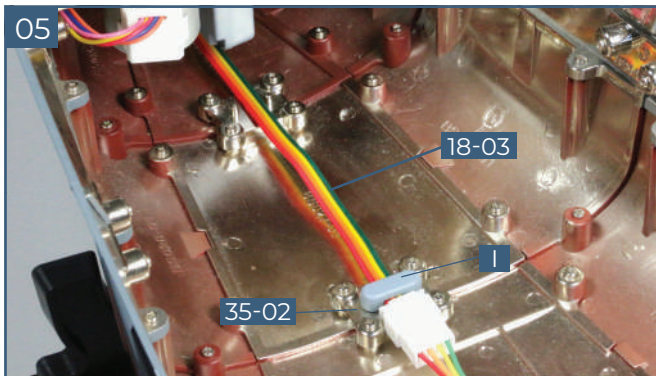
Take the upper deck assembly and carefully support it upside down on your work surface, so that you can access the underside of upper deck section **1-01 / 10-01**. Connect the other end of cable **18-03** to socket 4 of the circuit board box **17-01** (white arrow).



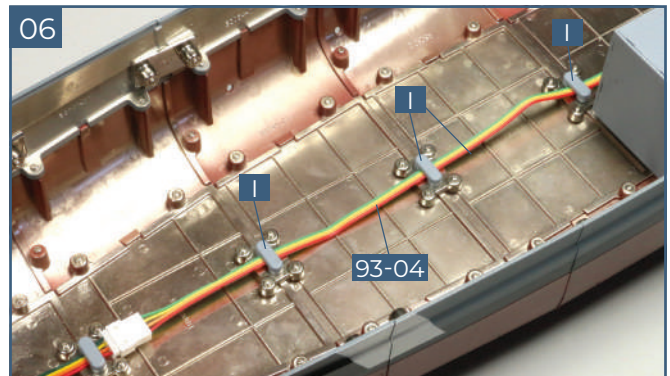
Fit the upper deck section **1-01 / 10-01** onto the front of the hull assembly, as shown.



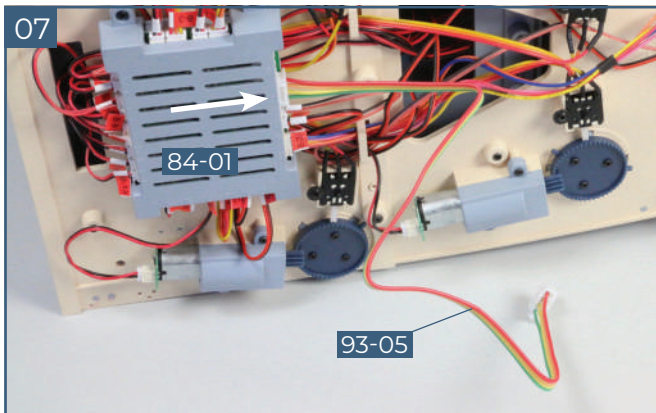
Lift up one side of the deck **1-01 / 10-01** and check that the cable **18-03** is running along the bottom of the hull. Support the deck while you fit the cable guide **H** from frame **92-10** (supplied with the previous stage) over the cable and on to corresponding pegs in the keel section.



Lower the deck back in place and carefully ease the cable **18-03** along the centre of the base of the hull. Attach the first guide **I** (from frame **92-10**) over cable **18-03** and on to the pins of connector **35-02** as shown.



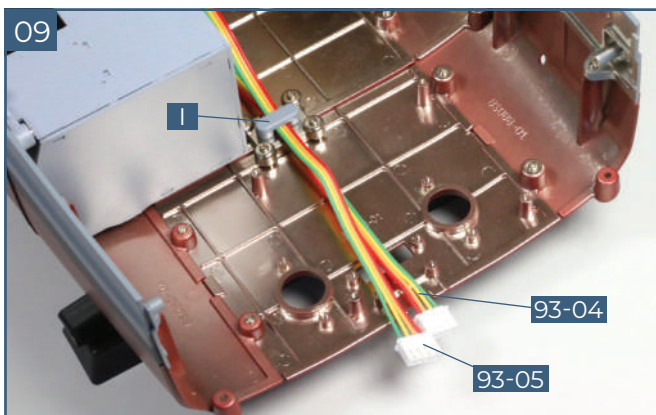
Continue fixing the cable in place using the cable guides **I** (from frame **92-10**): they fit onto pins on the connectors, as shown.



Take the upper deck assembly with the motherboard **84-01** and carefully support it so that you can access the motherboard. Fit the connector on the end of cable **93-05** into socket 23 (arrow) of the motherboard.



Carefully manoeuvre the upper deck assembly **19-01** / **22-01** / **48-01** on top of the hull structure so that it butts up to the forward upper deck section **1-01** / **10-01**, as shown.



Run the two cables **93-04** and **93-05** further aft down the centre of the hull and fit the last guide **I** in place, as shown.

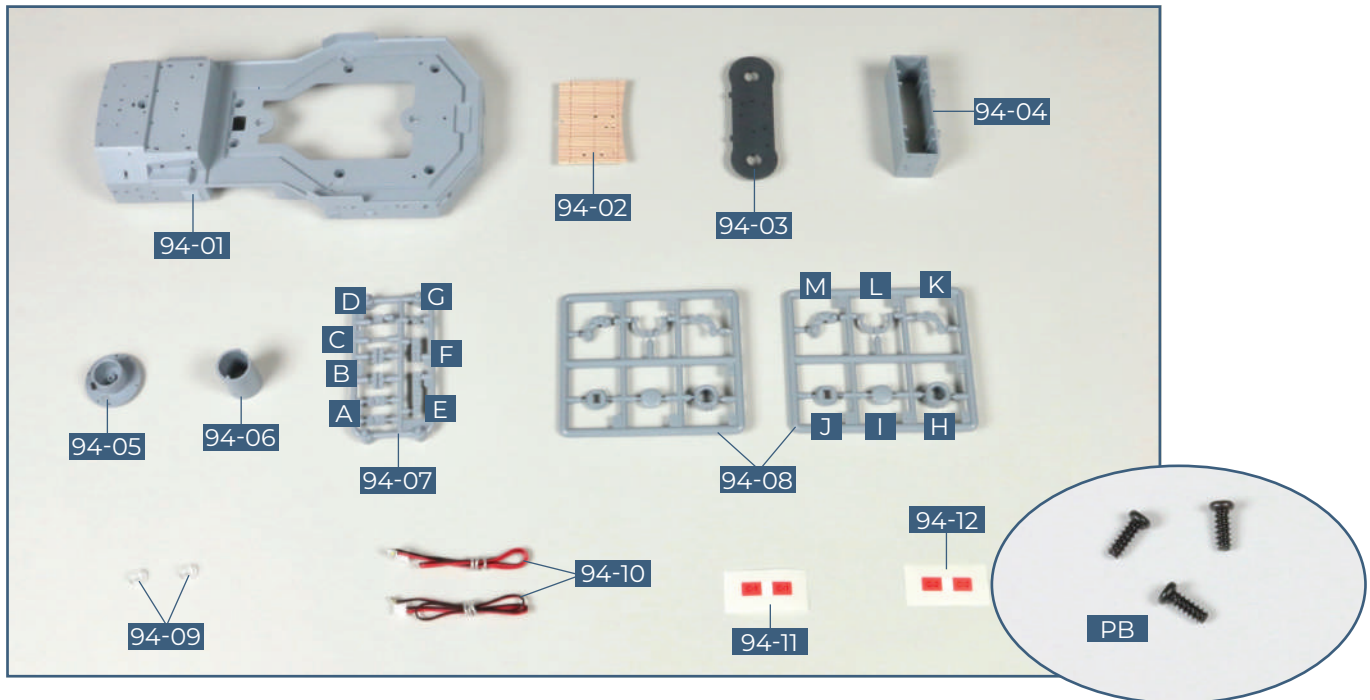


Completed work

The upper deck assemblies have been positioned on the hull, and cables have been fitted. Part **93-03** will be used in a future stage.

STAGE 94

TWO FUNNEL SEARCHLIGHTS



COMPONENTS CHECKLIST

94-01: Main section of the aft superstructure with central hangar

94-02: Decking panel

94-03: Searchlight platform

94-04: Searchlight platform base

94-05: Upper part of anti-aircraft control station

94-06: Aft anti-aircraft control station

94-07: Details for the searchlight platform (A to G)

94-08: Searchlight parts x 2 (H to M)

94-09: Two searchlight lenses

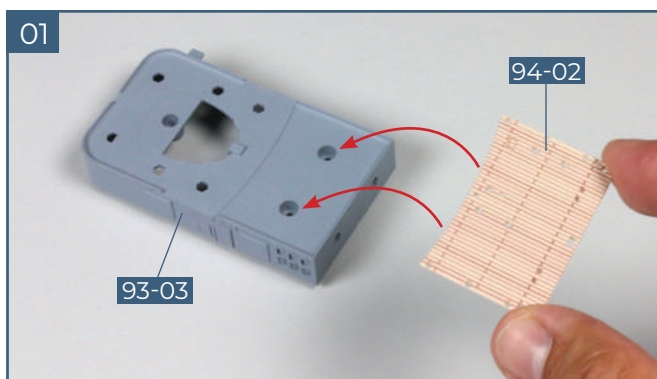
94-10: Two LED cables

94-11: Cable label C-1

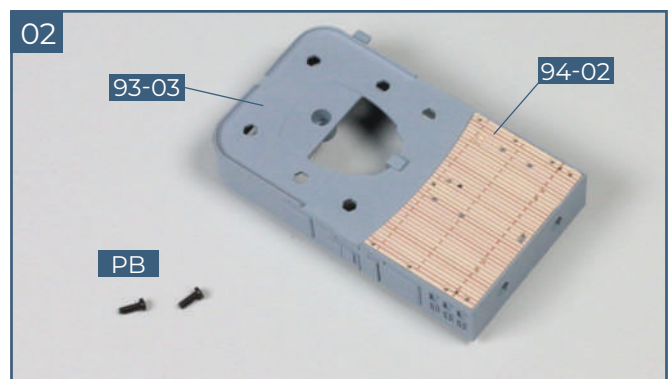
94-12: Cable label C-2

PB: Three 2 x 5mm PB screws (1 spare)

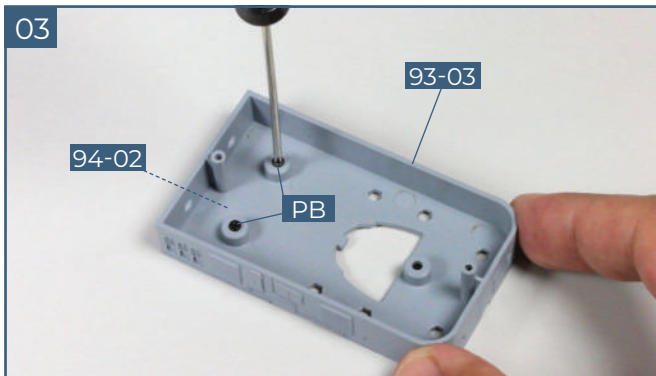
01. DECKHOUSE AND SEARCHLIGHT PLATFORM



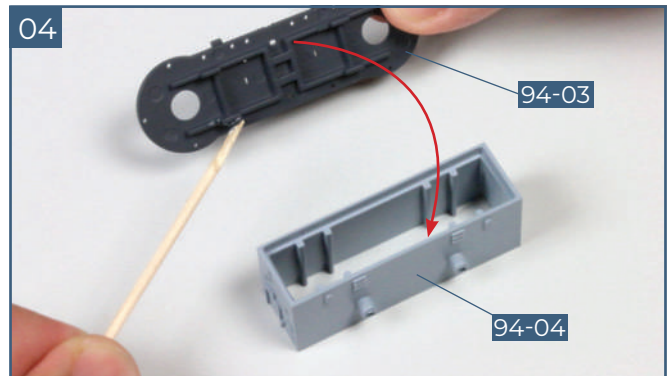
Take the aft deckhouse **93-03**, supplied with the previous stage. Take the decking panel **94-02** and fit the two pegs on the underside into the holes in part **93-03** as indicated.



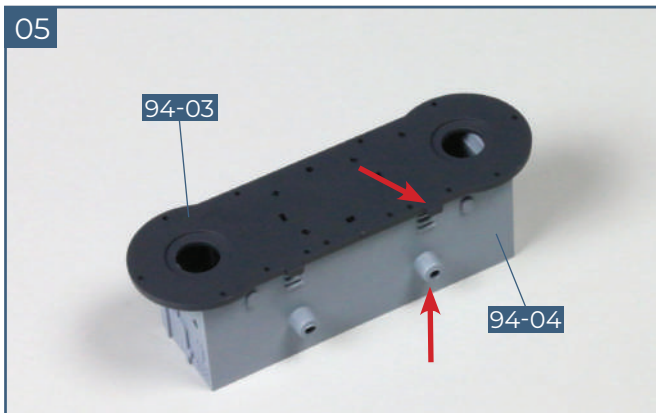
This shows the deck **94-02** in place on the deckhouse **93-03**. You will need two **PB** screws to fix it in place.



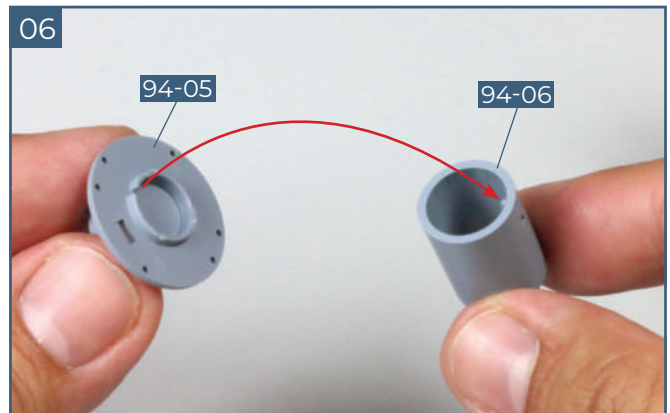
Holding the decking **94-02** in place, turn the deckhouse over. Use the two **PB** screws to fix the decking in place.



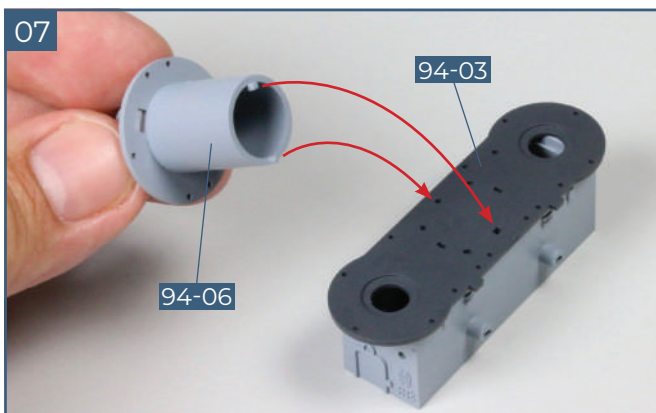
Take the searchlight platform base **94-04** and the searchlight platform **94-03**. Check the fit (see next step), and apply a little glue to around the rim of part **94-03**, as shown.



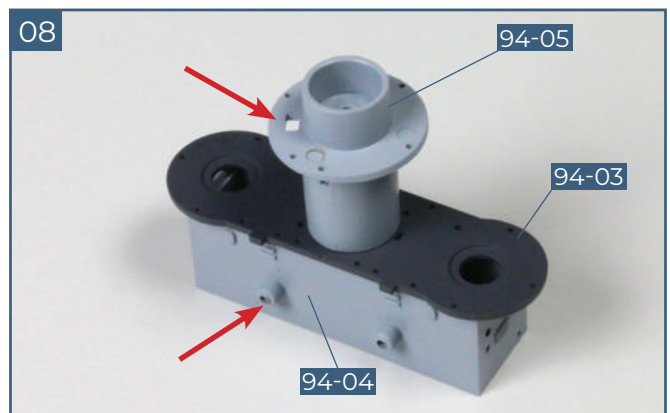
Ensure that the tabs on part **94-03** are aligned with the raised sockets in part **94-04** (arrows), then fix the searchlight platform in place. Note that the raised sockets are on the aft side of part **94-04**.



Take the upper part of the AA control station **94-05** and check how it fits on the aft AA control station **94-06**. A raised peg on the inside of part **94-06** fits into a recess in the rim on the underside of part **94-05**, as indicated. Glue in place

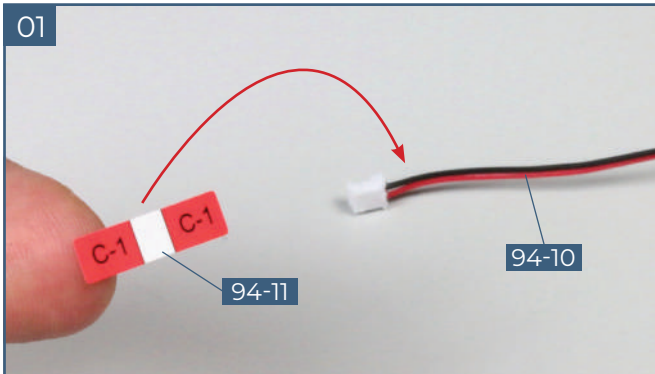


Check the fit of the aft AA control station **94-06** on the searchlight platform **94-03**. Two pegs on the lower edge of part **94-06** fit into recesses in part **94-03**, as indicated.

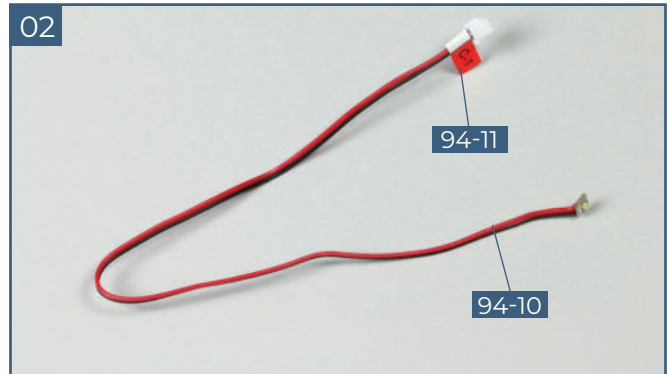


Note that the hole in the rim of part **94-05** should be aligned with the raised socket on part **94-04** (arrows). When you are happy with the fit, glue in place.

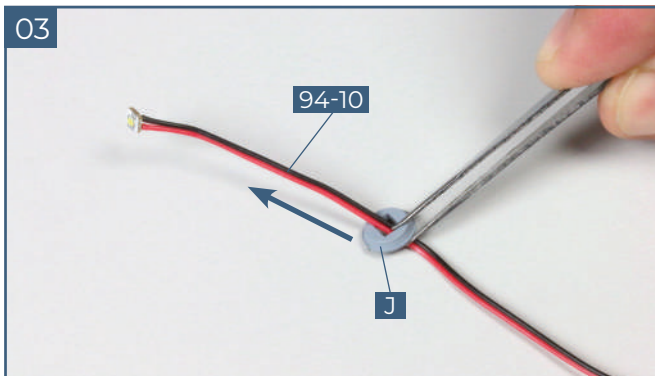
02. ASSEMBLING THE SEARCHLIGHTS



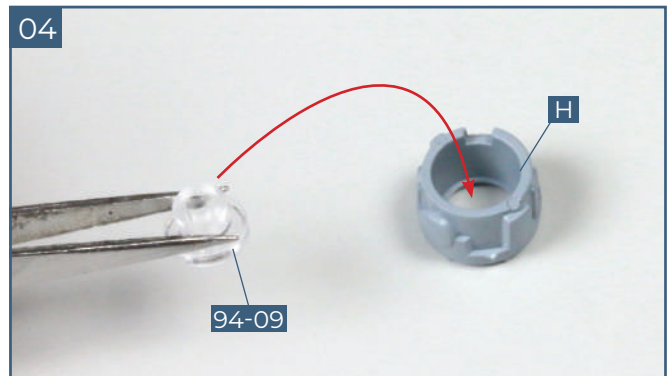
Take one of the two LED cables **94-10** and the cable label **94-11** (C-1). Remove the label from its backing.



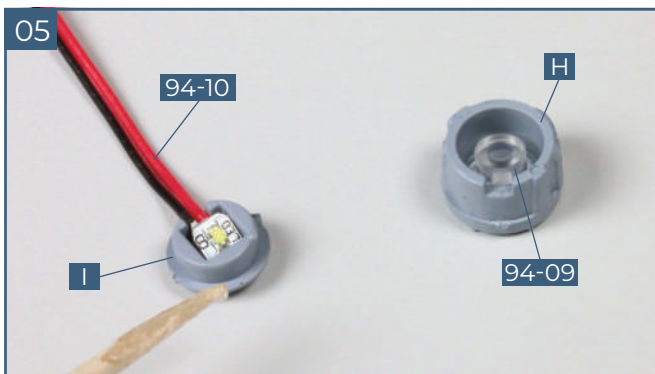
Wrap the label **94-11** around the cable **94-10** close to the connector, as shown.



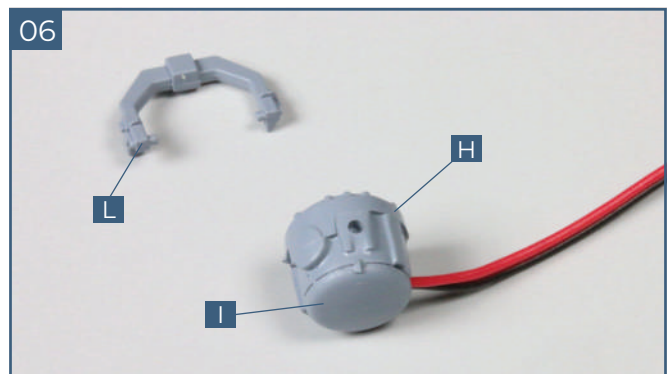
Separate a searchlight base **J** from one of the frames **94-08**. Thread the LED on the end of cable **94-10** through the searchlight base, making sure you thread it through in the direction shown.



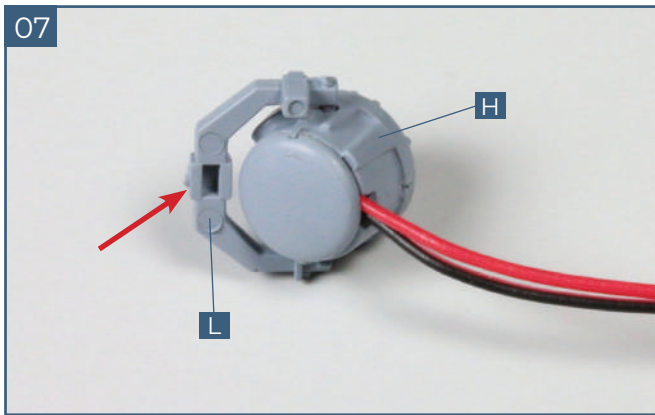
Take the headlight lens **94-09** and fit it into the headlight body **H** from one of the frames **94-08**, as indicated.



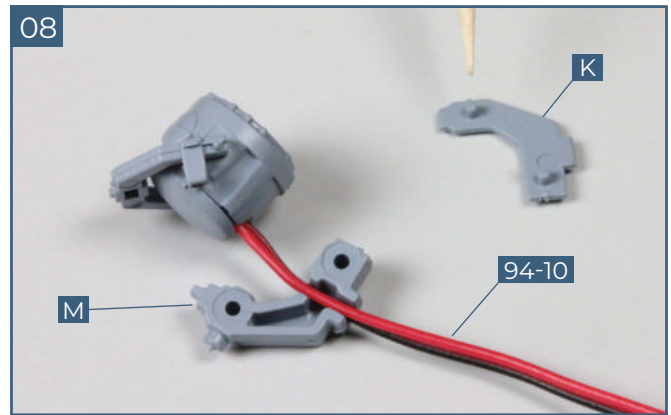
Take the searchlight backplate **I** from one of the frames **94-08**. Fit the LED on the end of cable **94-10** into the searchlight backplate so that the cable fits into the recess on one side. Ensure that the LED is facing outwards, as shown. Check how the backplate fits into the searchlight body **H**. Apply a little glue around the rim of the backplate, as shown.



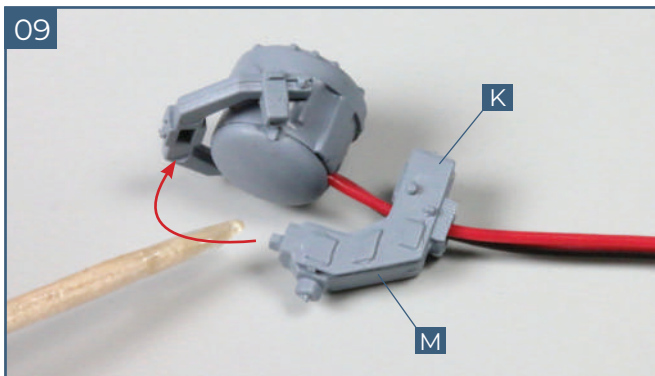
Glue the backplate **I** to the body **H**, as shown. Take a support arm **L** from one of the frames **94-08**.



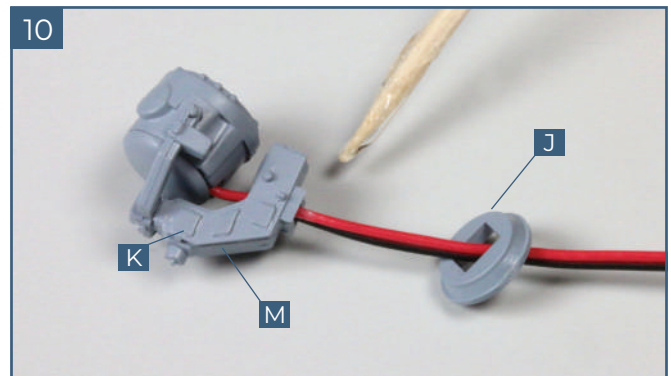
Fit the two pegs on the support arm **L** into the recesses on the sides of the searchlight body **H**. Make sure that you have part **L** the right way round, so that the recess (arrow) will face the cable at the base of the searchlight.



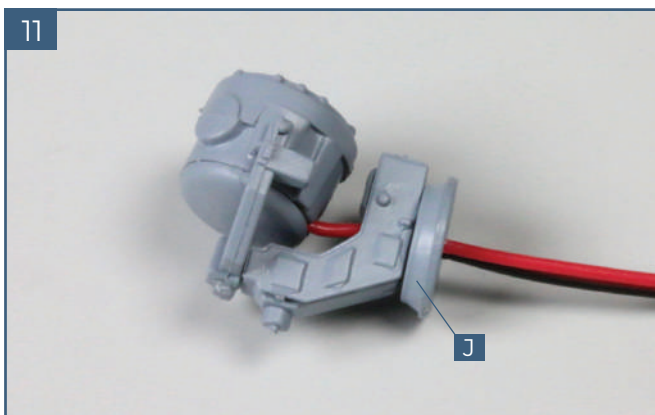
Take the two parts of the headlight stand **K** and **M** from frame **94-08**. Fit the cable into the recess in part **M**, then check the fit of part **K**: the pegs on part **K** fit into recesses in part **M**. Apply a little glue to the pegs and fix in place.



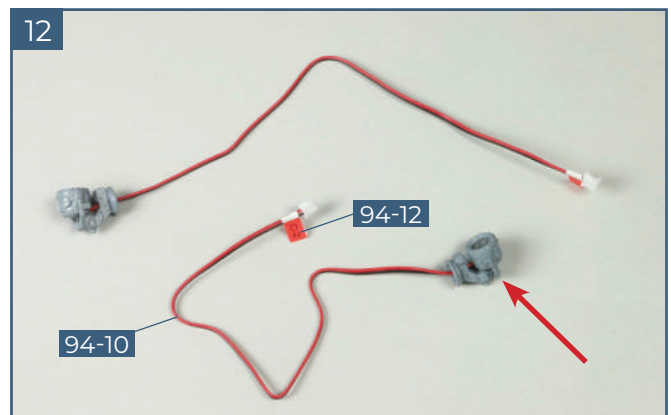
The ends of parts **K** and **M** form a peg, which fits into the recess in part **L**. Check the fit and glue in place.



Bring the searchlight stand **J** back up the cable so that you can fit the raised area on the base of parts **K** and **M** into the recess. Apply a little glue around the edge of the raised area.

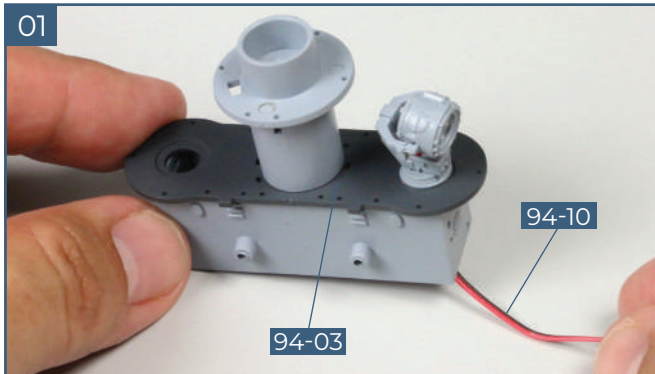


Glue the stand **J** in place as shown.

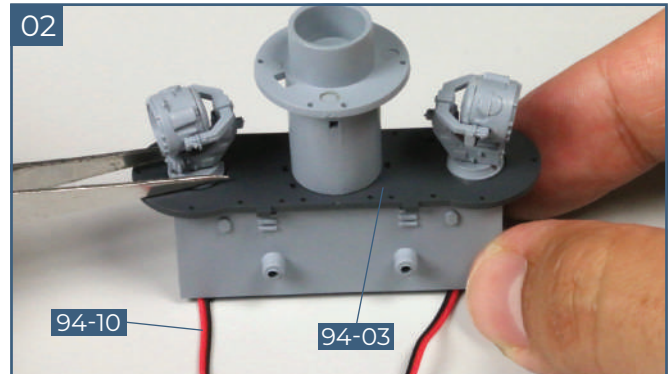


Wrap the cable label **94-12** (C-2) around the second cable **94-10**. Repeat steps 3 to 11 to assemble the second searchlight (arrow) using the parts on the second searchlight frame **94-08**.

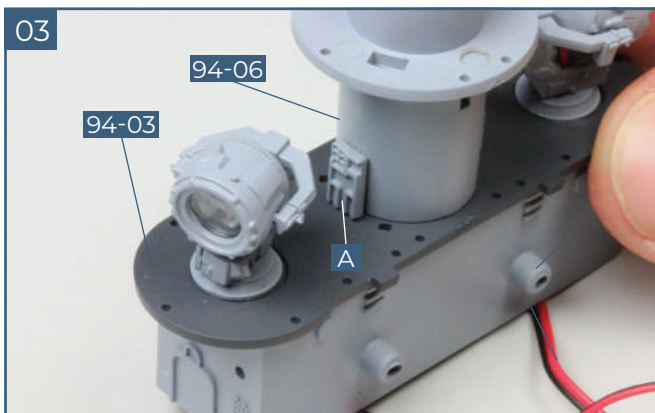
03. FITTING THE SEARCHLIGHTS AND OTHER DETAILS



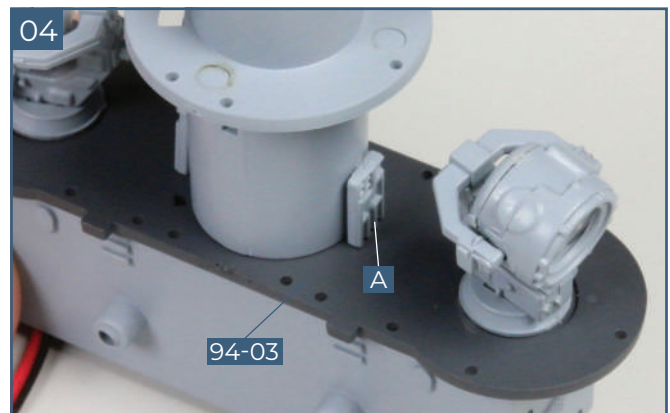
Thread cable **94-10**, labelled C-1, through the hole on the starboard side of searchlight platform **94-03**. Glue the spotlight onto the platform, directed outwards and slightly backwards as shown.



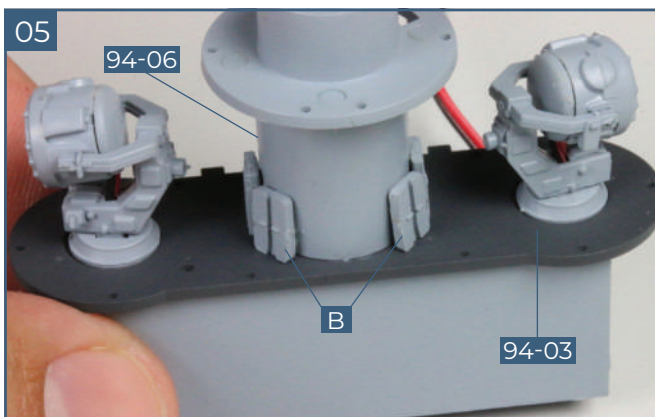
Thread cable **94-10**, labelled C-2, through the hole on the port side of searchlight platform. Glue the spotlight onto the platform, directed outwards and slightly backwards as shown.



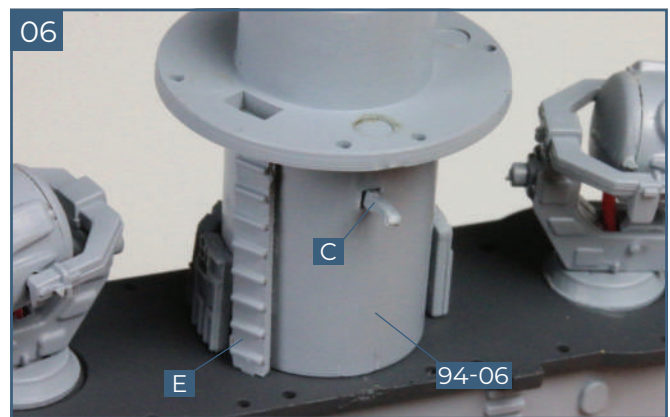
Take one part **A** from frame **94-07**. It fits on the searchlight platform **94-03**, against the fire control station **94-06**. Glue in place.



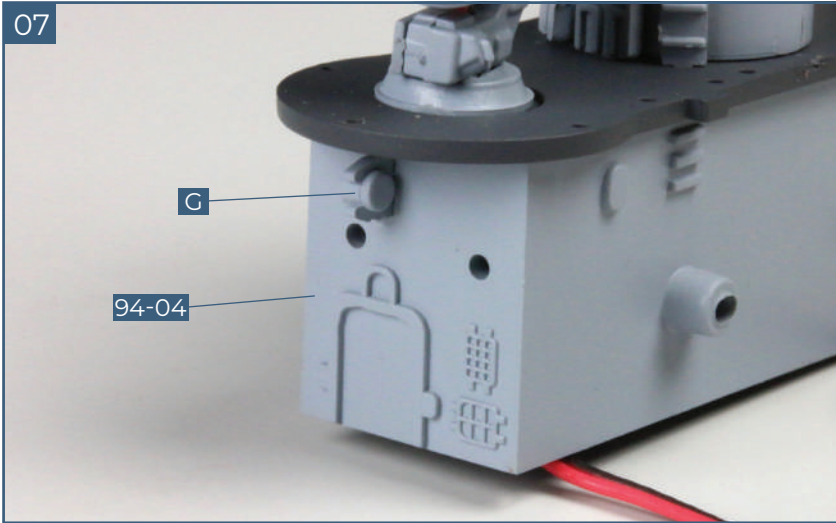
The second part **A** fits on the searchlight platform **94-03** on the other side of the control station, as shown. Glue in place.



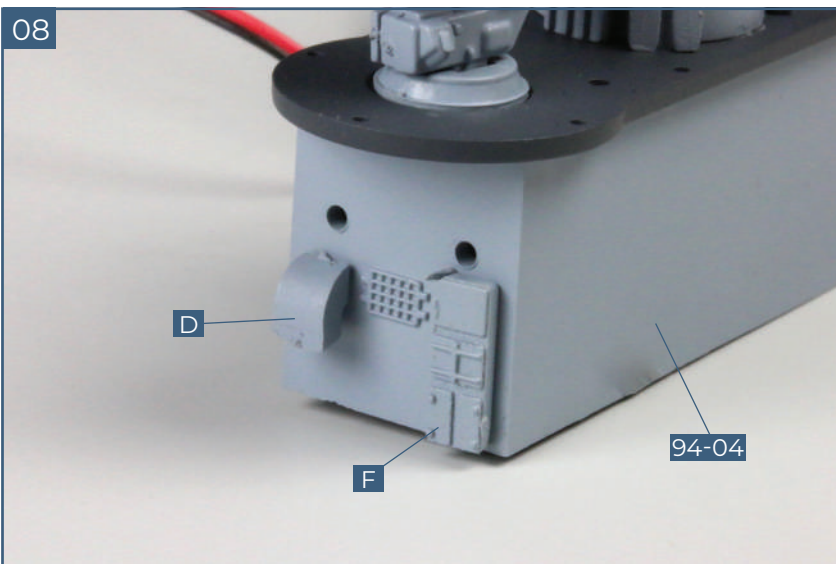
The two lockers **B** are glued to the platform **94-03** on the forward side of the AA control station **94-06**.



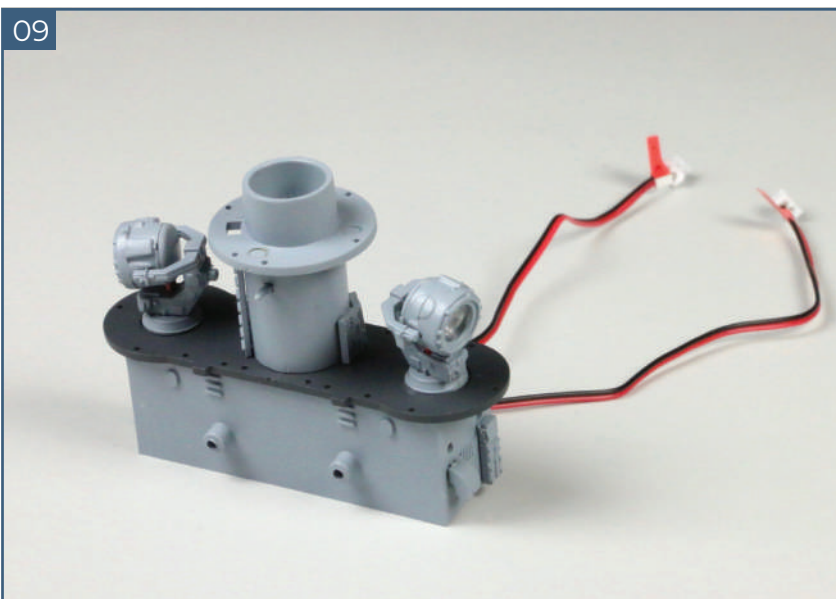
Take the ladder **E** and the spar **C** from frame **94-07**. Fix the ladder on the aft port side of the fire control station **94-06**. The spar fits into a socket on the aft of the fire control station.



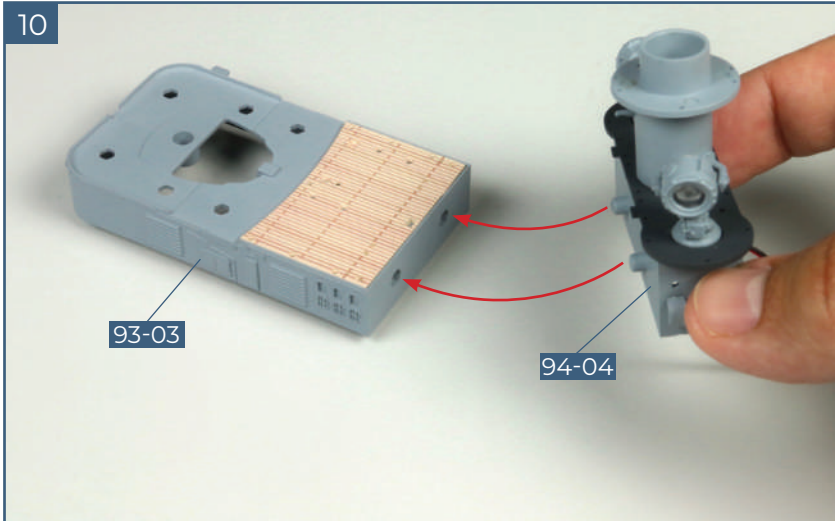
The loudspeaker **G** from frame **94-07** is glued to the port side of part **94-04**, as shown.



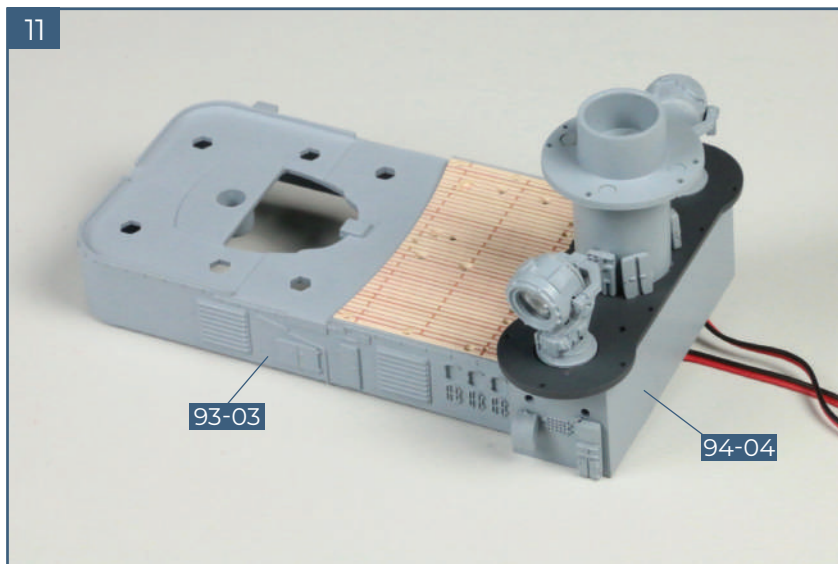
The vent **D** and locker **F** from frame **94-07** are glued to the starboard side of part **94-04** as shown.



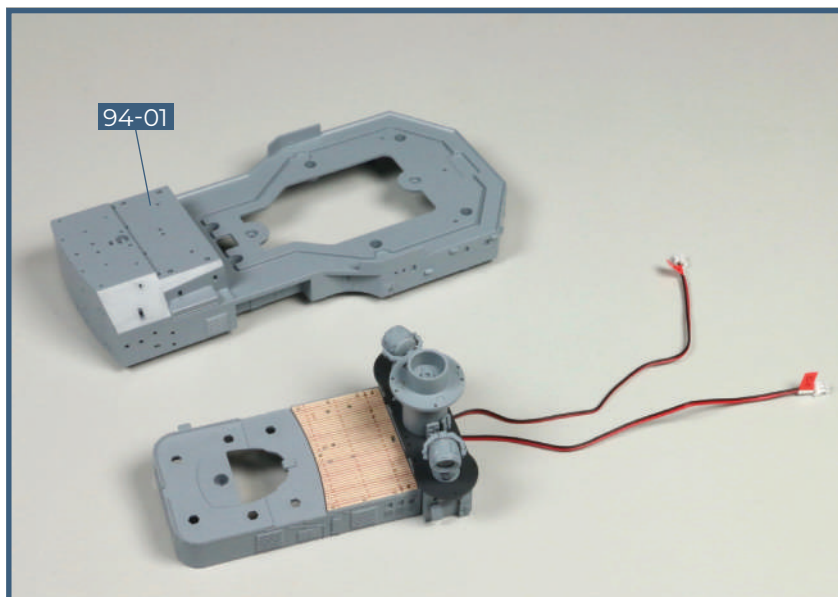
This shows the assembled searchlight platform with searchlights, AA control station and details in place.



Take the deckhouse assembly from step 1:3. Place it on your worktop and check the fit of the searchlight platform assembly against the deckhouse **93-03**, as indicated.



When you are happy with the fit, apply a little glue to the large pegs on the aft side of the searchlight superstructure **94-04** and fix in place.



Completed work

The two aft searchlights have been fitted to the searchlight platform, along with the control station and other details. The platform has been attached to the aft deckhouse. The main section of the aft superstructure **94-01** will be used in a future stage.

STAGE 95 THE NEXT KEEL SECTION



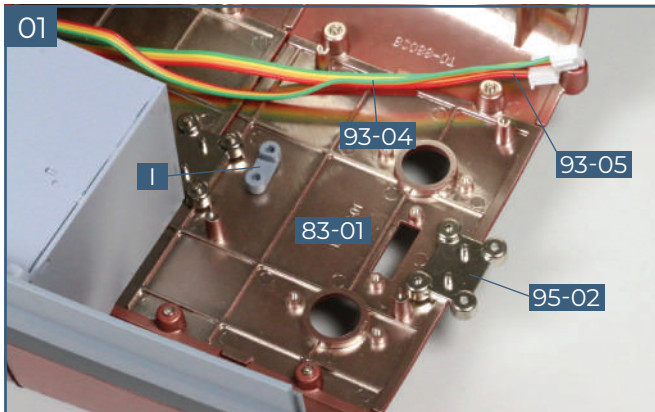
COMPONENTS CHECKLIST

95-01: Tenth keel section

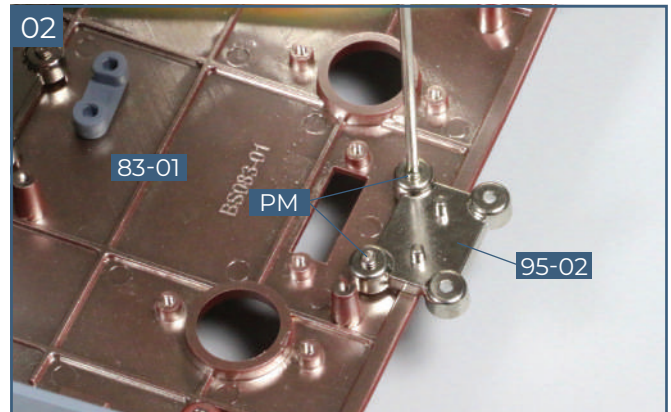
95-02: Connector

PM: Five 2 x 4mm PM screws

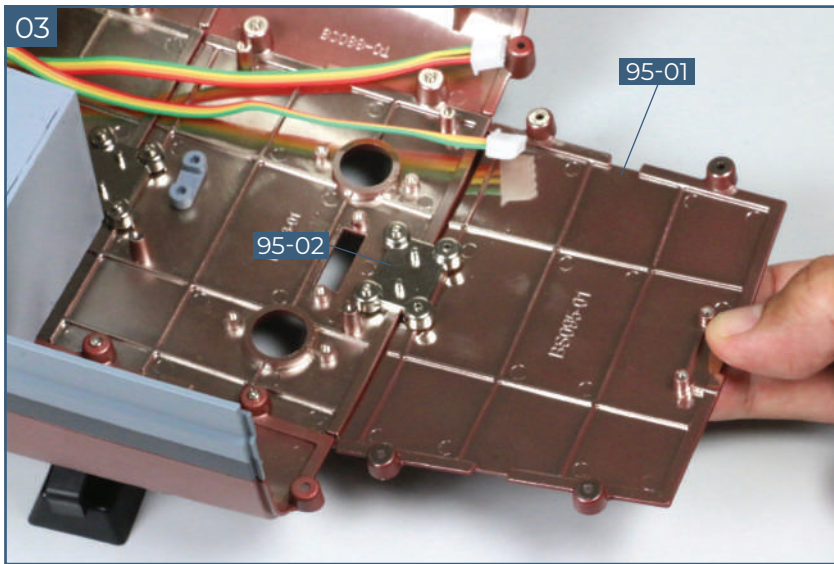
01. FITTING THE KEEL SECTION



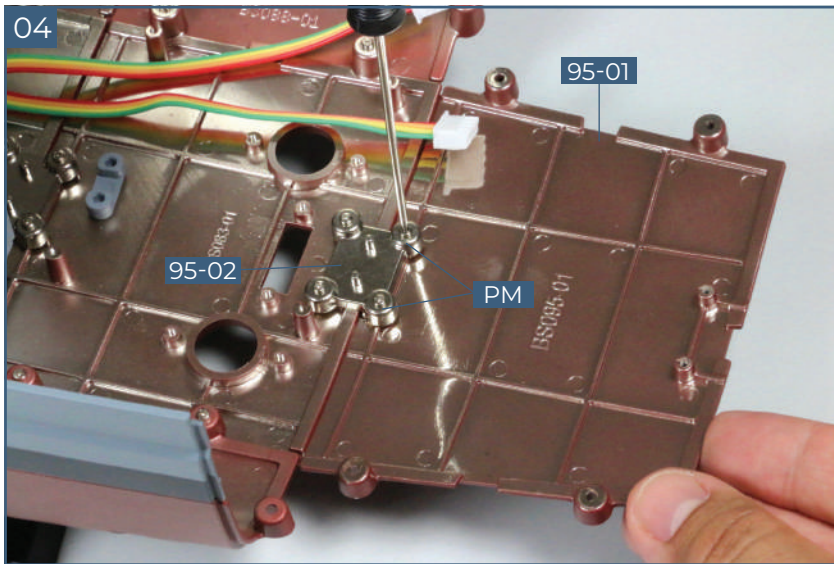
Move the two cables **93-04** and **93-05** to one side. Fit the connector **95-02** on the two pegs of the ninth keel section **83-01**. If necessary, temporarily remove the rearmost cable guide **I** (as shown here).



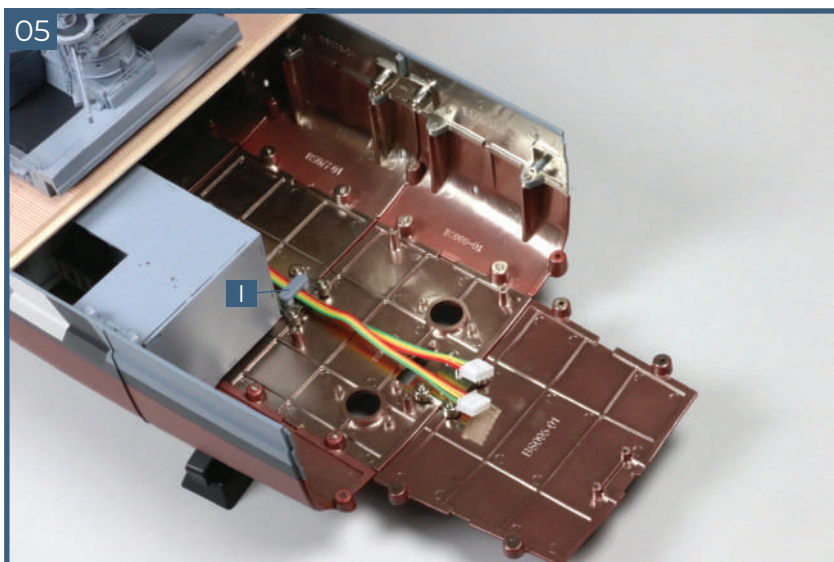
Fix the connector **95-02** to the keel **83-01** using two **PM** screws, as shown.



Take the tenth keel section **95-01** and fit it underneath the connector **95-02**, as shown.



Fix the connector **95-02** to the keel section **95-01** using two **PM** screws, as shown.

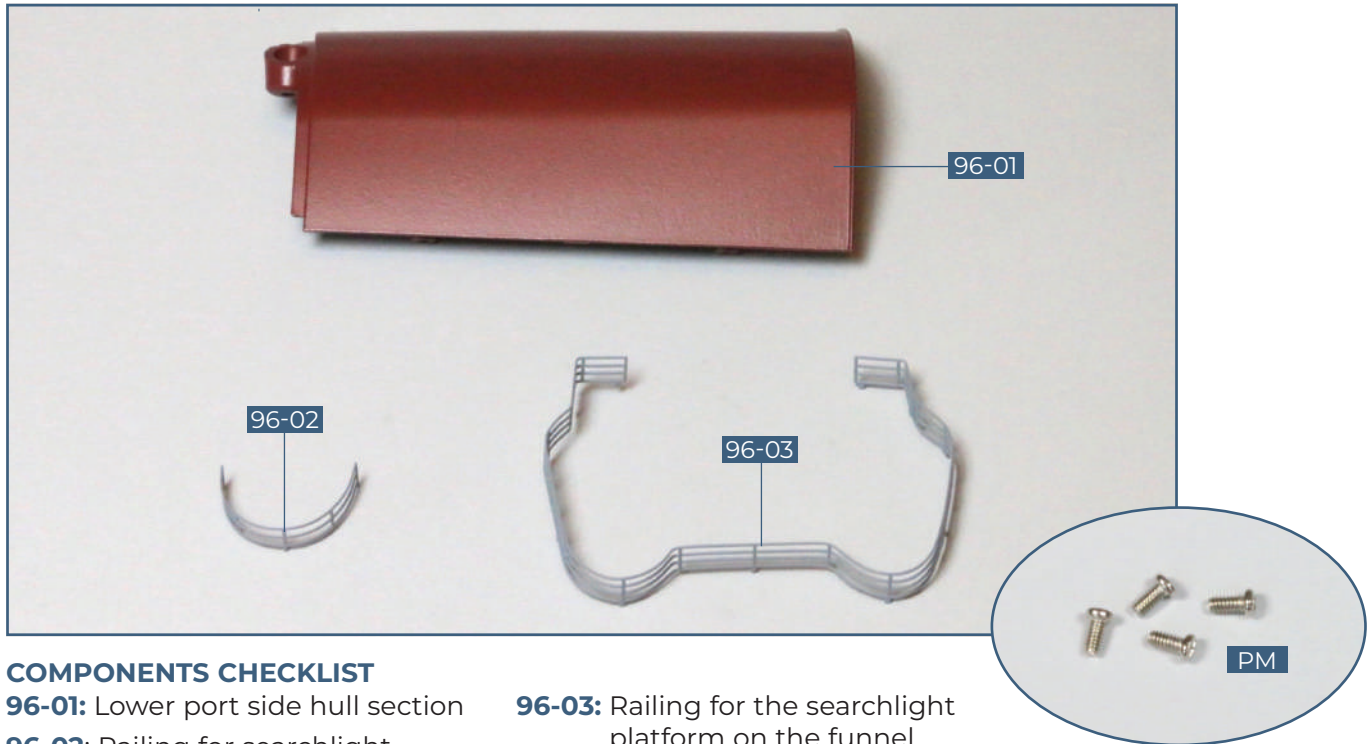


Completed work

The next keel section has been fitted. You can now re-fit the cable guide **I** to hold the cables in place.

STAGE 96

A SECTION OF HULL AND TWO RAILINGS



COMPONENTS CHECKLIST

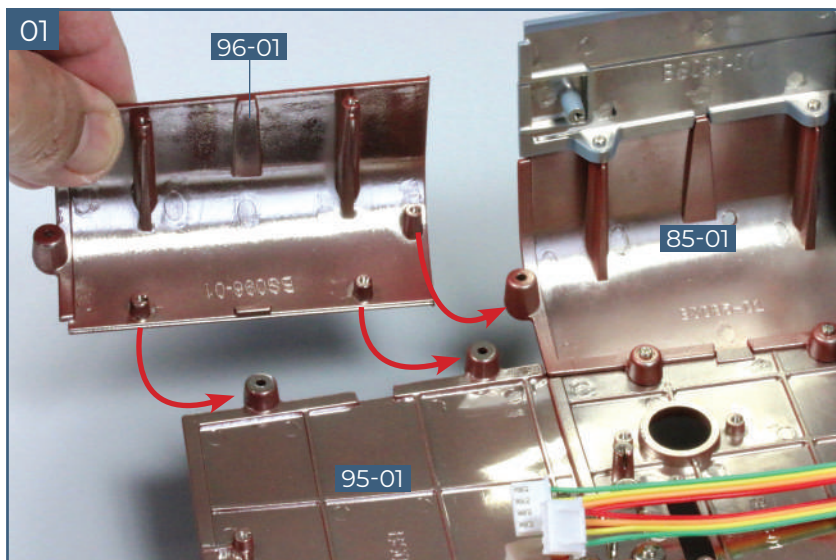
96-01: Lower port side hull section

96-02: Railing for searchlight platform on the superstructure

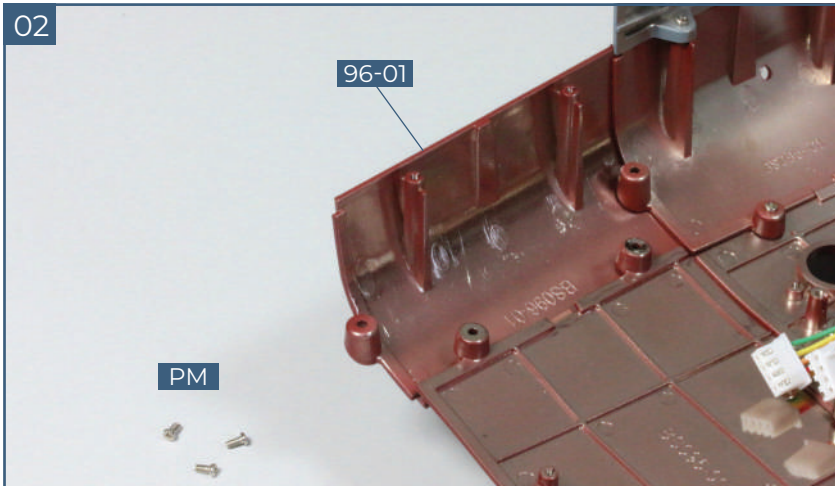
96-03: Railing for the searchlight platform on the funnel

PM: Four 2 x 4mm PM screws

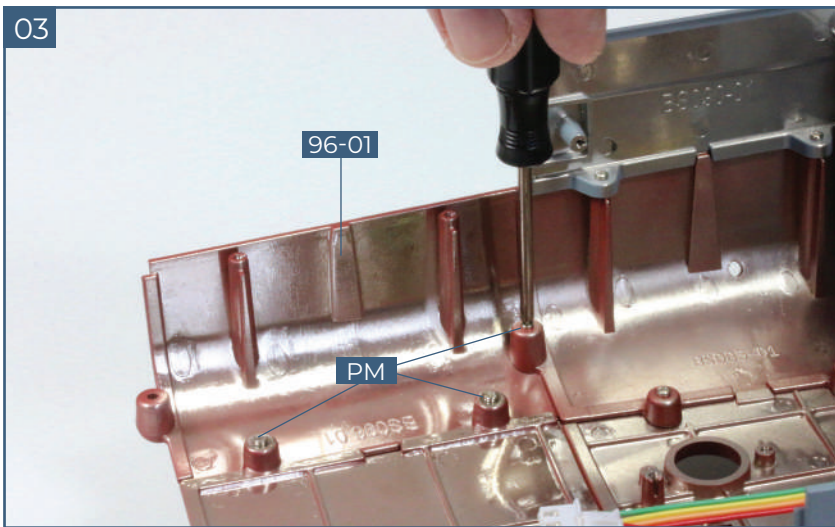
01. FITTING THE HULL SECTION



Take the lower port hull section **96-01** and fit the three raised screw sockets into the sockets in the lower port hull section **85-01** and the keel section **95-01** as indicated.

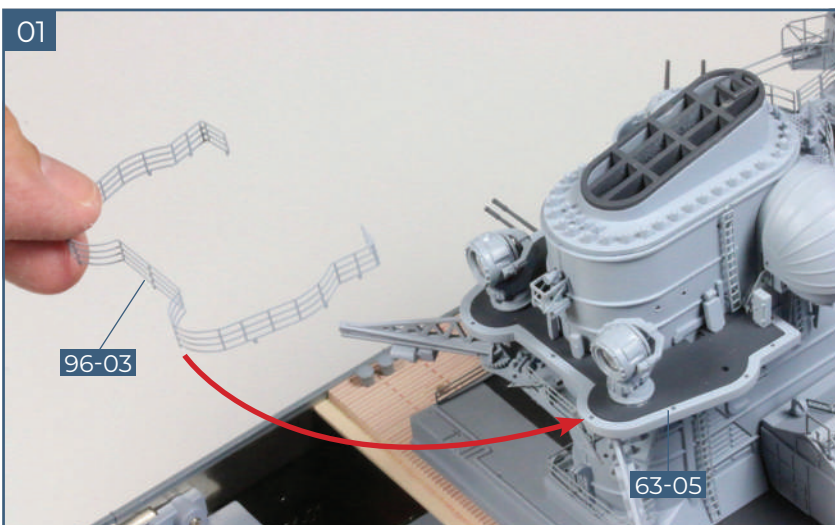


This shows the lower port hull section **96-01** fitted to the hull assembly. You will need three **PM** screws to fix it in place.

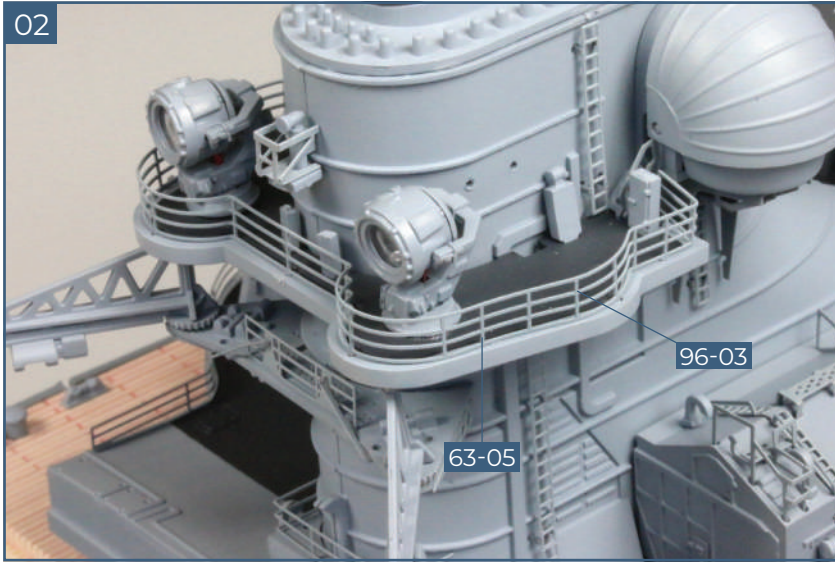


Fix the lower port hull section **96-01** in place using three **PM** screws.

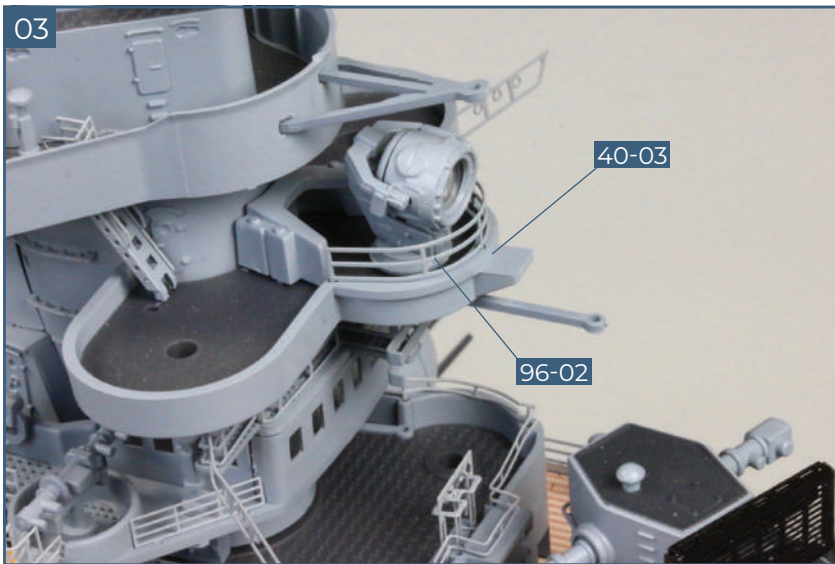
02. TWO SECTIONS OF RAILINGS



Take the railing **96-03** and identify the eleven recesses around the edge of the searchlight platform **63-05** on the funnel, where the railing will fit. Check the fit of the eleven pegs on the lower edge of the railing in the recesses.



Apply a little superglue to each of the pegs on the railing **96-03** and fix in place on the searchlight platform **63-05** as shown.



Identify the recesses on the searchlight platform **40-03** on the forward superstructure where the railing **96-02** will fit. Check how the pegs on the lower edge of the railing fit in the recesses. Apply a little superglue to the pegs and fix in place.

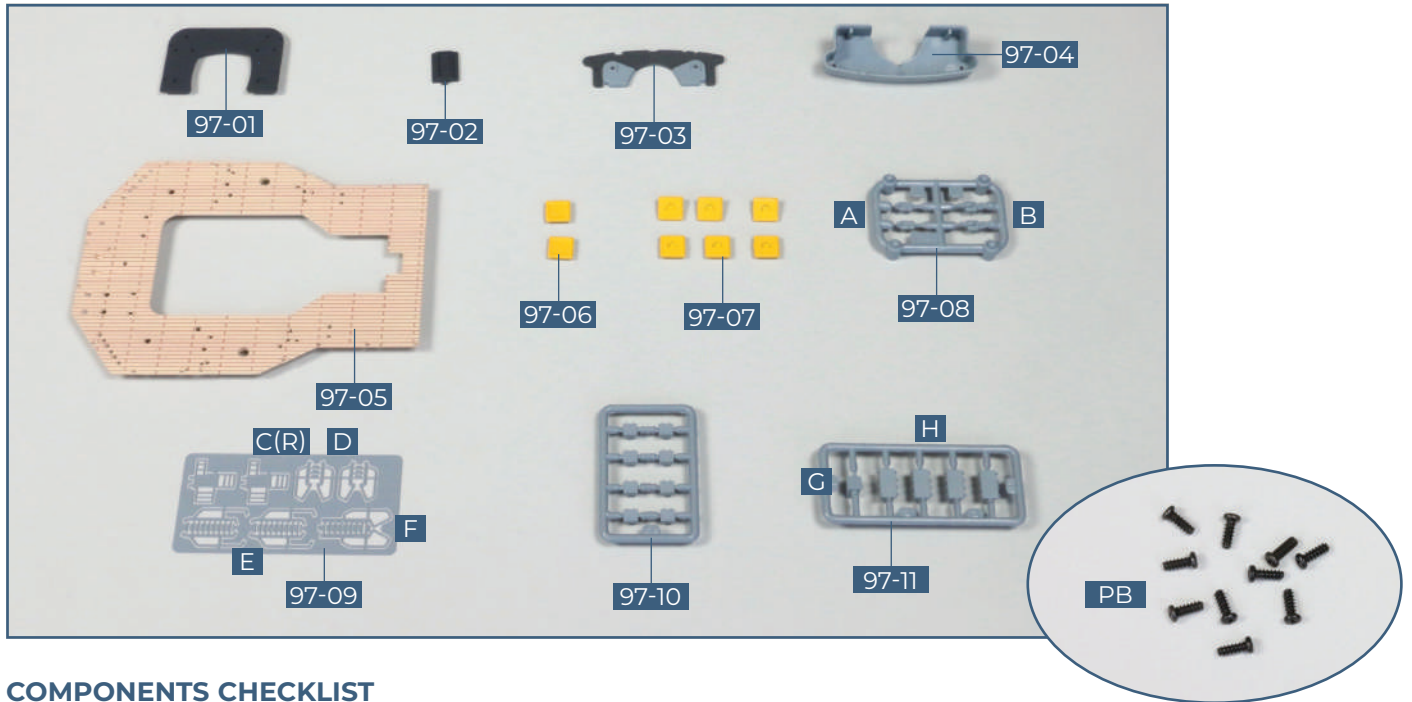


Completed work

Another section of the hull has been fitted and railings have been added to two searchlight platforms.

STAGE 97

DECKING AND DETAILS FOR THE AFT SUPERSTRUCTURE



COMPONENTS CHECKLIST

97-01: Decking to cover deckhouse

97-02: Priority passage indication frame

97-03: Decking for the bridge

97-04: Bridge in front of the aft control room

97-05: Decking for the superstructure deck

97-06: Two life rafts (top of stacks)

97-07: Six stacking life rafts

97-08: Two artillery target givers (A) and two headlight directors (B)

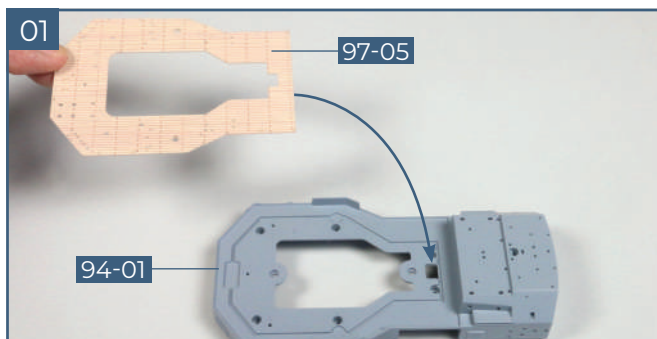
97-09: Ladders and platforms (C to F)

97-10: Eight lockers

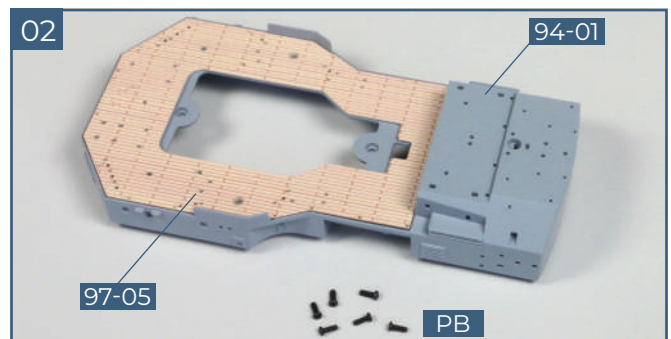
97-11: Five lockers (G and H)

PB: Ten 2 x 5mm PB screws

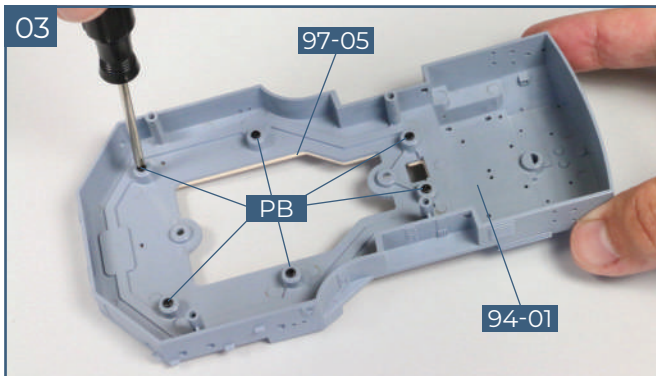
01. FITTING THREE PANELS OF DECKING



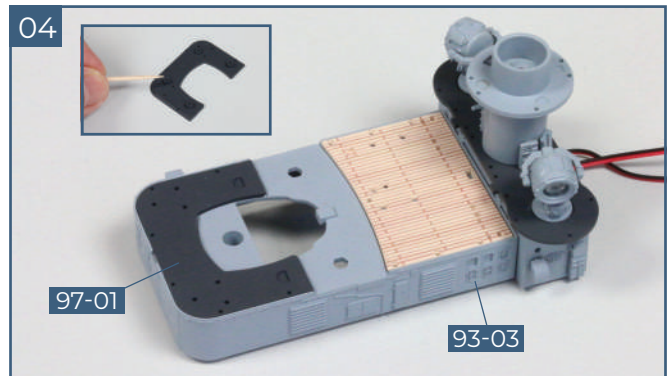
Take the main section of the aft superstructure **94-01**, supplied with stage 94. Fit the decking panel **97-05** on part **94-01** as indicated.



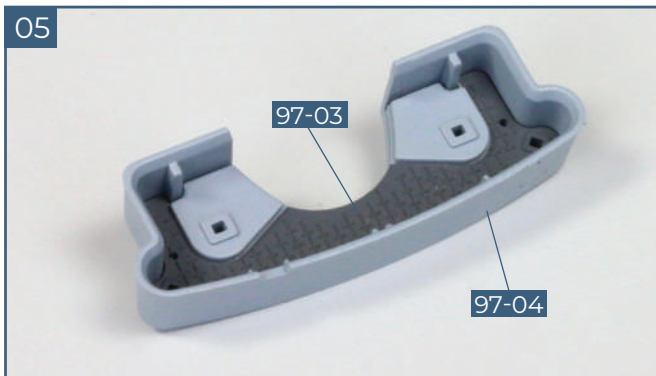
This shows decking panel **97-05** in position. You will need six **PB** screws to fix it in place.



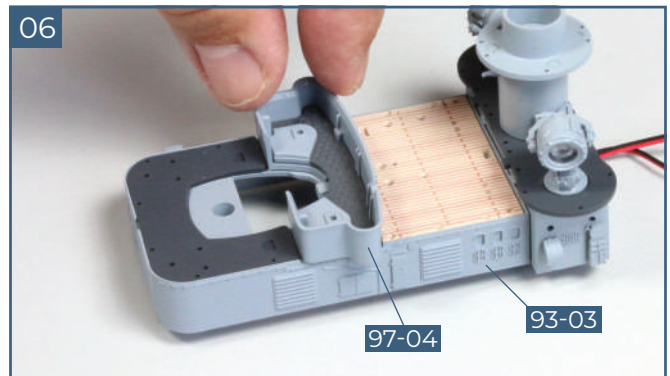
Holding the decking **97-05** in place, turn over the aft superstructure **94-01**. Fix the two parts together using six screws **PB** screws, as shown.



Take the deckhouse and searchlight assembly from stage 94. Check the fit of decking section **97-01** around the end of the deckhouse **93-03**. Apply a little glue to the pegs on the underside of part **97-01** (inset) and fix in place.

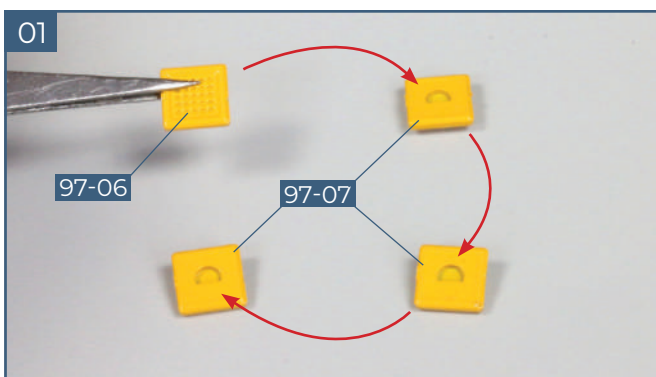


Check the fit of decking section **97-03** on the bridge **97-04**. When you are happy with the fit, glue in place, as shown.

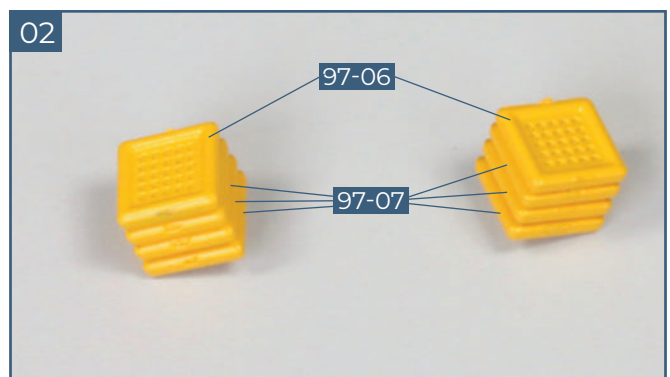


Check the fit of the bridge **97-04** on the roof of the deckhouse **93-03**, as shown. Glue in place.

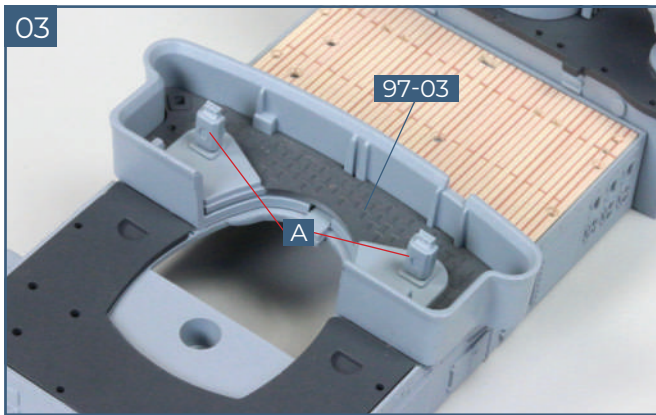
02. DETAILS FOR THE AFT SUPERSTRUCTURE



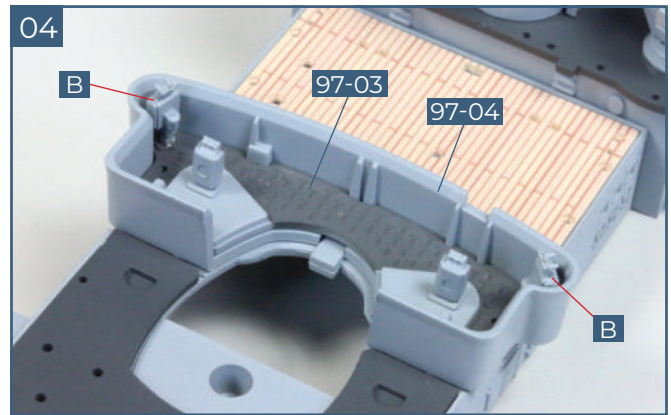
Take three stacking life rafts **97-07** and glue them together, as indicated. Take a top life raft **97-06** and glue in place on top of the stack.



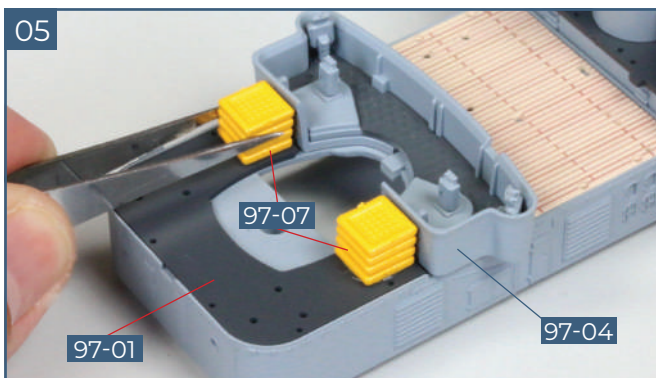
Repeat with the remaining life rafts **97-07** and **97-06** to make a second, identical stack.



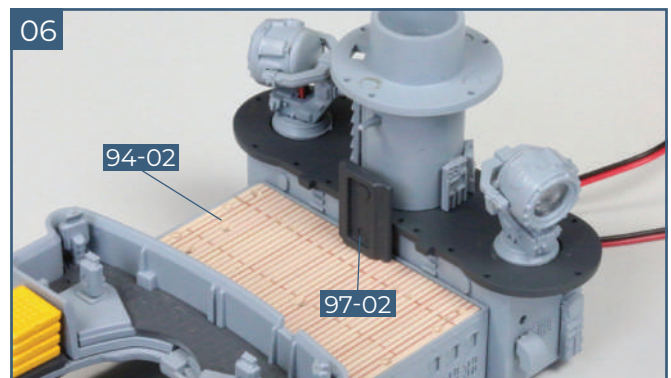
Take the two artillery target givers (**A**) from frame **97-08**. Pegs on the bases of parts **A** fit into recesses in the bridge decking **97-03**. Note the orientation of the target givers. Check the fit and glue in place.



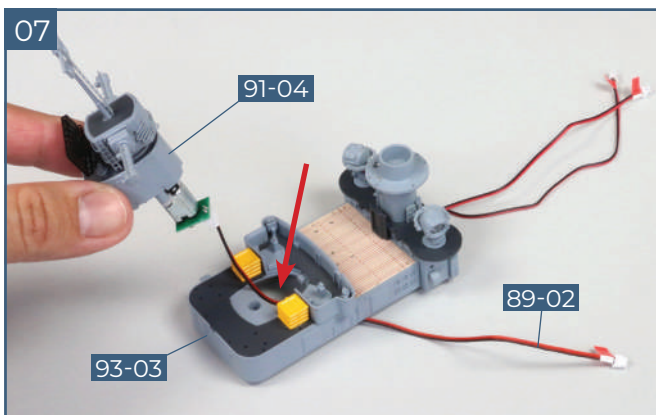
Take the two searchlight directors (**B**) from frame **97-08**. They fit on the decking **97-03** in the alcoves on part **97-04**. If necessary, reduce the size of the peg with a file or sandpaper. When you are happy with the fit, glue in place, ensuring that they point in the right direction.



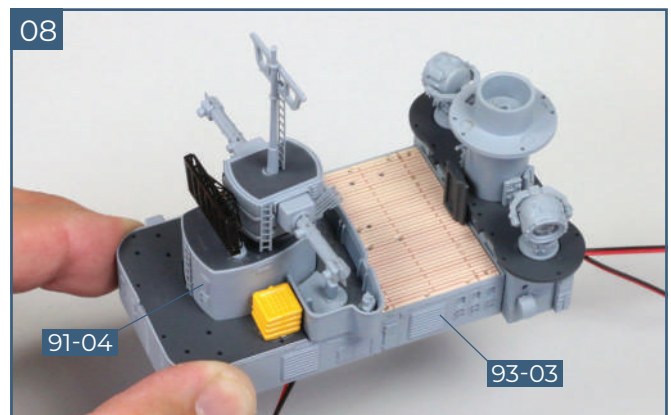
The two life raft stacks fit against the aft side of the bridge **97-04**, on the decking **97-01**. Glue in place.



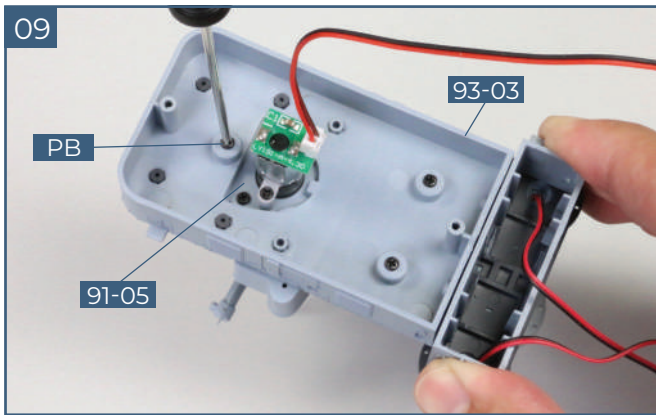
Take the priority passage indication frame **97-02** and check the fit behind the searchlight platform. A peg on the base of the frame fits in a recess in the decking **94-02**. Glue in place.



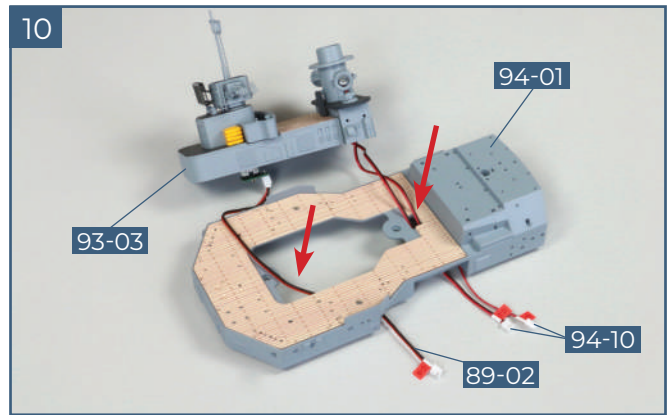
Take the aft control post **91-04** and thread the cable **89-02** (attached to the motor) through the large central opening of the deckhouse **93-03** (arrow).



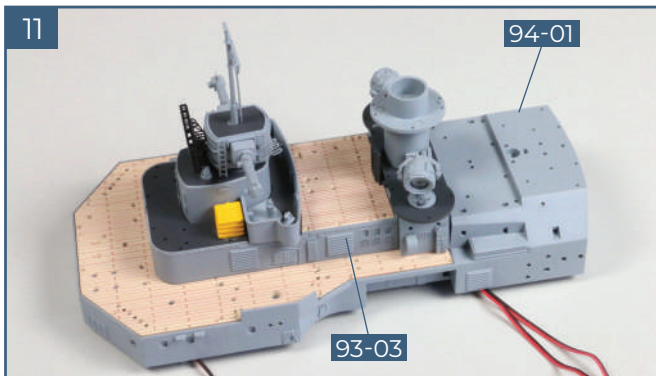
This shows the aft control post **91-04** in the correct position on top of the deckhouse **93-03**.



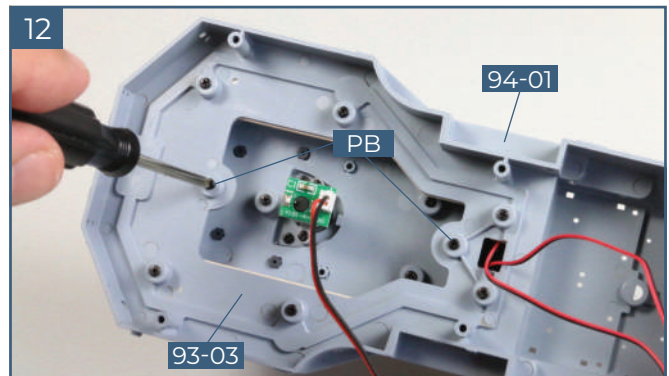
Holding the aft control post in place, carefully turn the assembly over. Fix the base of the control post **91-05** to the deckhouse **93-03** using a **PB** screw, as shown.



Place the main section of the aft superstructure **94-01** on your worktop. Thread the motor cable **89-02** through the large opening, and thread the two LED cables **94-10** through the small opening (arrows).

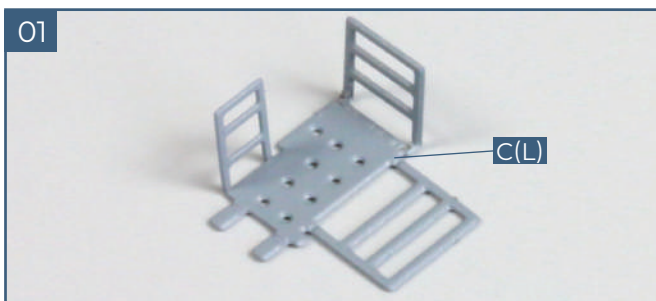


Fit the deckhouse **93-03** onto the main section of the aft superstructure **94-01**, as shown. It fits inside the cut-out area of decking and the base of the searchlight platform fits against the hangar.

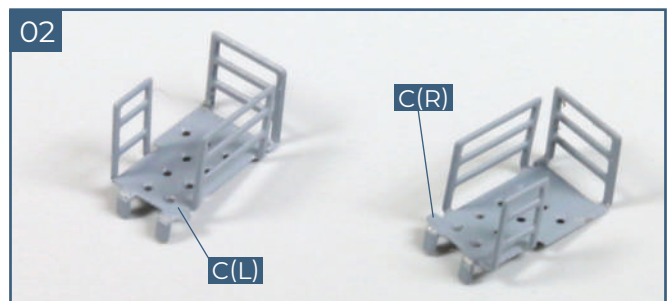


Carefully turn the assembly over, holding the parts in place. Use two **PB** screws to attach part **93-03** to part **94-01**, as shown.

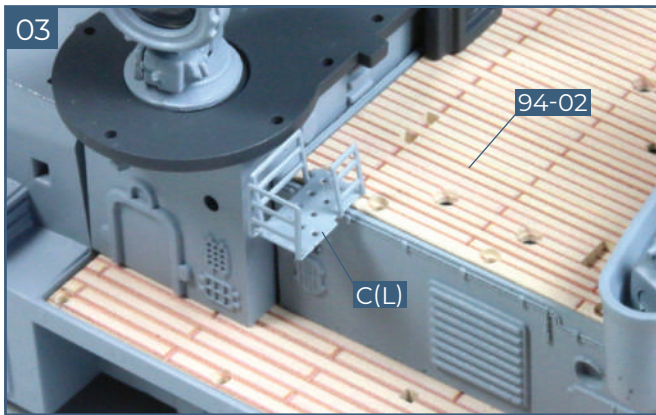
03. ASSEMBLING AND FITTING THE LADDERS AND WALKWAYS



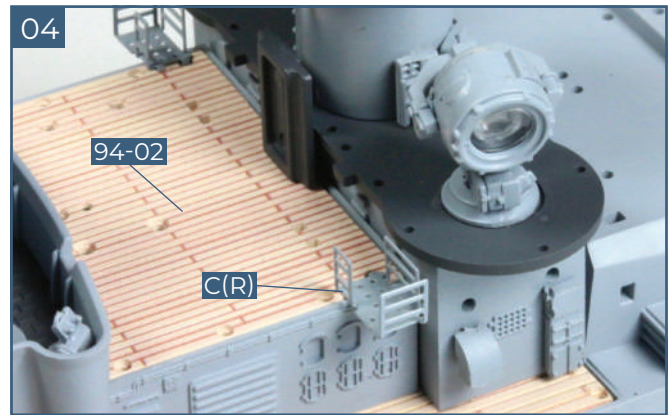
Separate the platform **C(L)** from the frame **97-09** and bend two railings upwards at right angles, as shown.



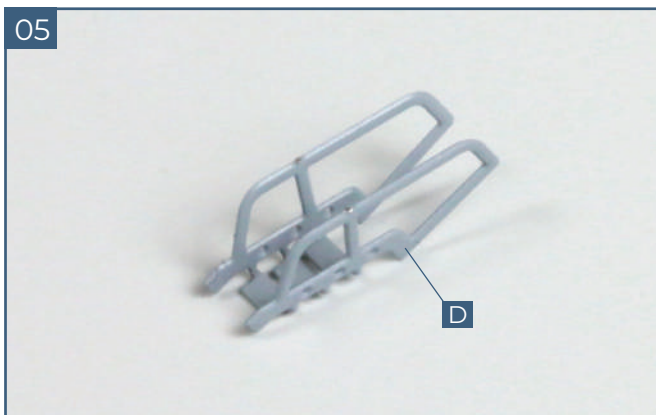
Bend the third railing on the platform **C(L)** upwards at right angles and bend the two tabs downwards at right angles. Repeat the bending process on part **C(R)** from frame **97-09**, which is a mirror image.



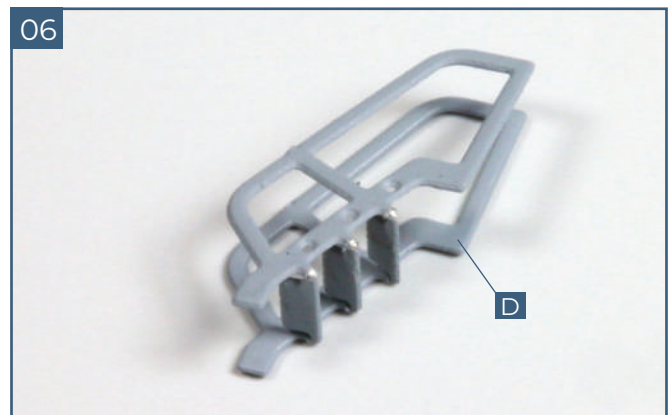
Take platform **C(L)** and check how it fits on the port side of decking panel **94-02**. Apply a little superglue to the two tabs to fix in place, as shown.



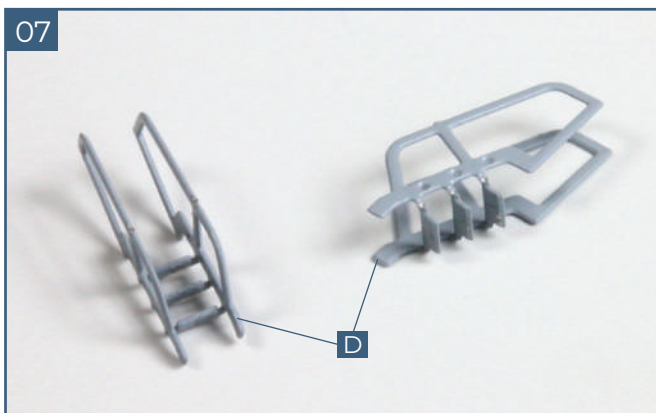
Similarly, fix platform **C(R)** in place on the starboard side of decking panel **94-02**.



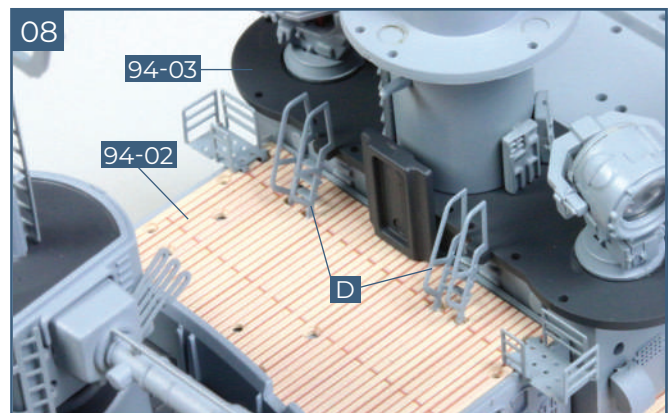
Remove one of the two companionways, **D**, from the frame **97-09**. Note the point at which the sides and handrails are bent upwards, at each end of the steps. Bend the two handrails up at right angles as shown.



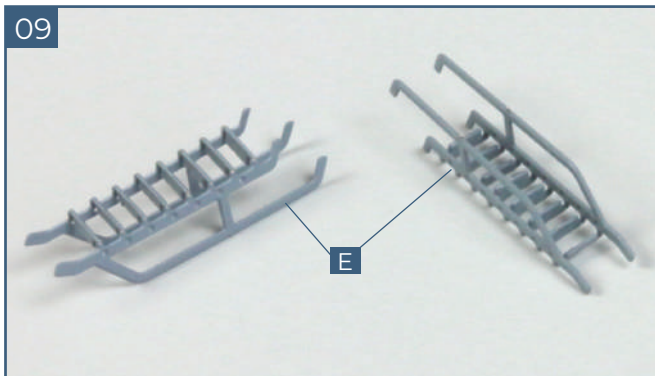
Use a pair of tweezers to grip the top step of the companionway **D**. Bend through almost 90° so that the step is horizontal when the ladder is upright (see step 8). Repeat for the remaining two steps.



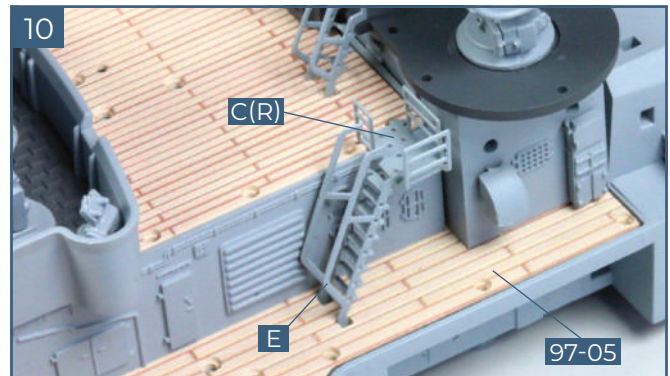
Repeat steps 5 and 6 to bend the second companionway **D** from frame **97-09** in the same way.



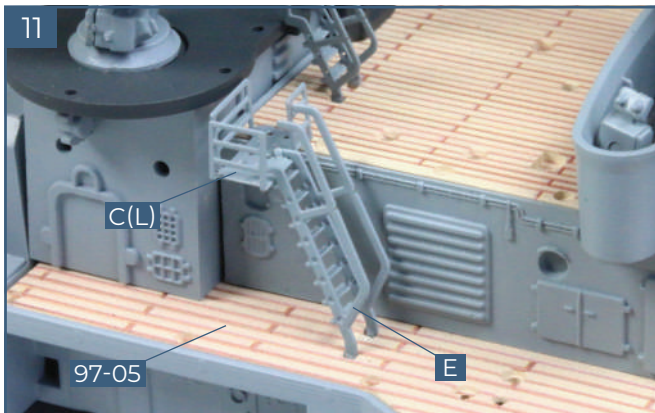
Identify the fixing points for the companionways **D** on either side of the searchlight platform **94-03**. Glue the lower ends of the companionways into recesses in the decking section **94-02**. The railings fit on either side of small projections on the searchlight platform.



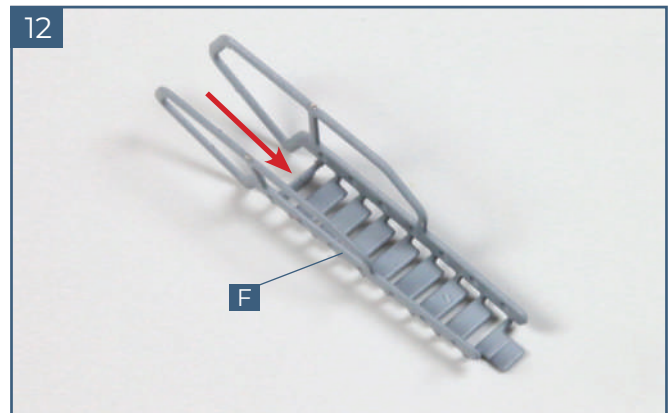
Take the two companionways **E** from the frame **97-09**. Bend the sides and handrails up at right angles (bend them at each end of the steps). Then bend each step so that it is horizontal when the ladder is upright (see step 10).



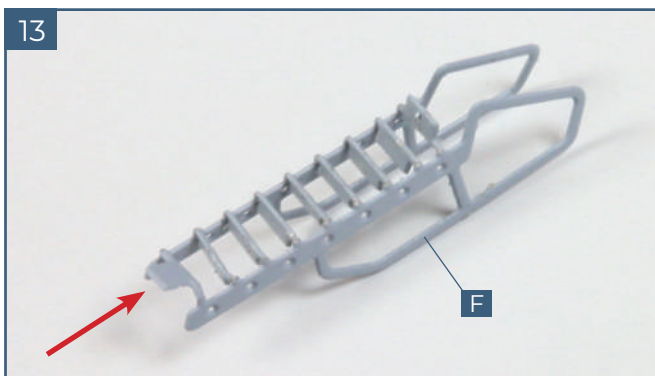
Identify the fixing point for the first companionway **E** on the starboard side of the aft superstructure. It runs from the decking panel **97-05** up to the platform **C(R)**. Glue in place.



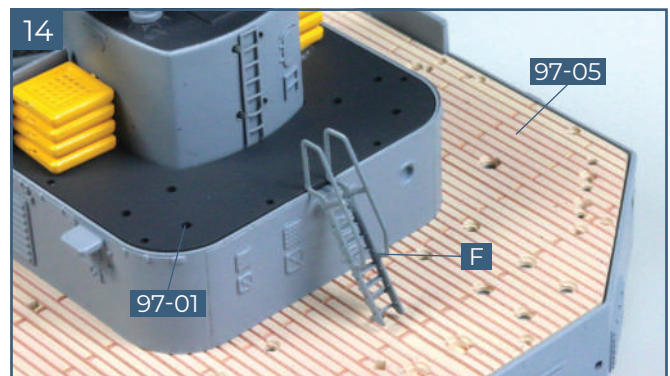
The second companionway **E** runs from the decking panel **97-05** up to the platform **C(L)** on the port side of the superstructure. Glue in place.



Take companionway **F** from frame **97-09**. Bend the handrails upwards at right angles. Use tweezers to bend the steps as shown – only the top step has been bent into position here.

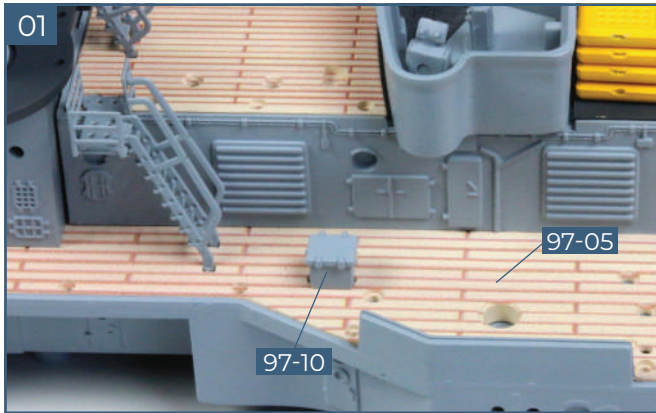


Bend each of the steps on companionway **F**. The tab at the bottom of the companionway is bent very slightly so that it can be used to fix the companionway in place (arrow; see also step 14).

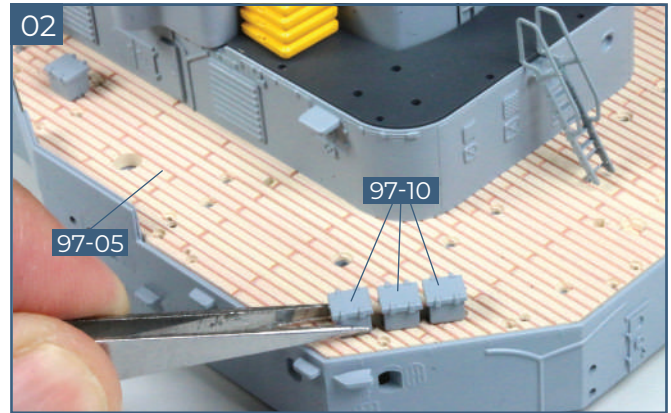


Identify the fixing point for the companionway **F** at the rear of the aft superstructure. Check the fit: it runs from the decking **97-05** to the decking **97-01** on top of the deckhouse. When you are happy with the fit, glue in place.

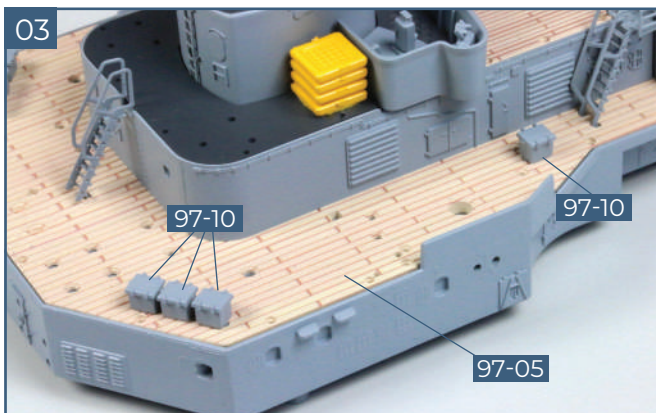
04. LOCKERS FOR THE AFT SUPERSTRUCTURE



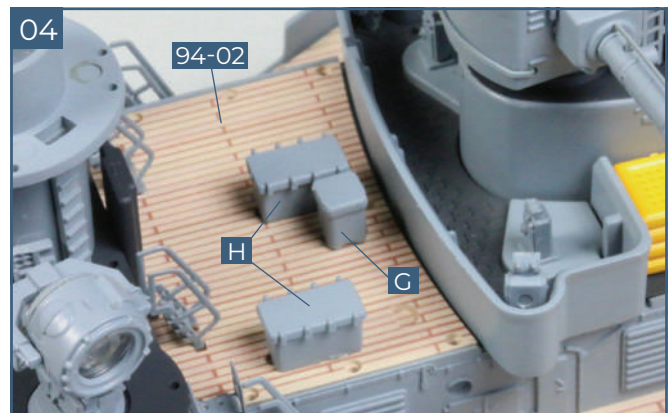
Start with the eight lockers from frame **97-10**. The first one is fitted on the port side of the superstructure on decking panel **97-05**. Glue in place.



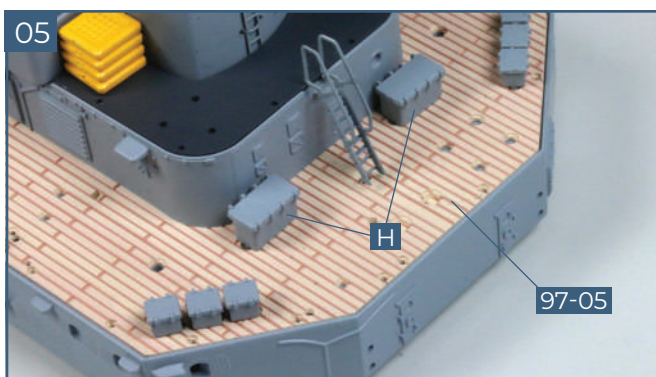
Glue three more lockers **97-10** across the angled corner of the decking panel **97-05**.



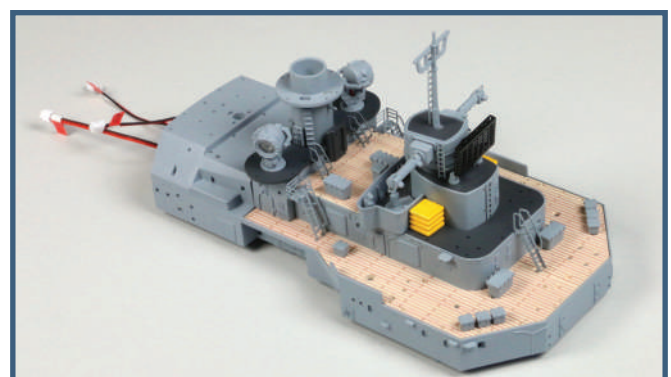
Similarly, glue one locker **97-10** in place on the starboard side of the superstructure and three across the angled corner of the decking **97-05**.



Take the smaller locker **G** and two large lockers **H** from frame **97-11**. Glue in place on the decking panel **94-02** between the searchlight platform and the aft bridge, as shown.



The two remaining lockers **H** from frame **97-11** are glued in place to decking panel **97-05** to the aft of the superstructure, as shown.

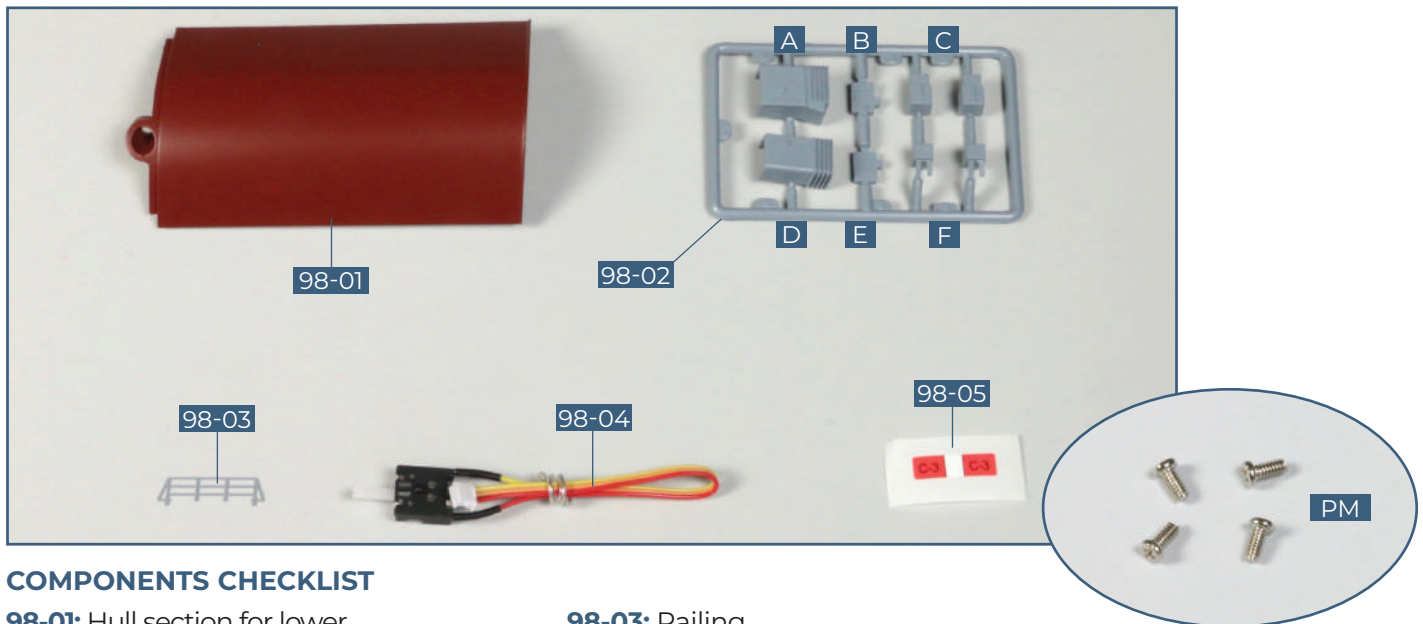


Completed work

Sections of the aft superstructure have been assembled. Companionways and lockers have been fitted.

STAGE 98

THE NEXT HULL SECTION PLUS DETAILS FOR THE AFT SUPERSTRUCTURE



COMPONENTS CHECKLIST

98-01: Hull section for lower starboard side

98-02: Details for aft superstructure

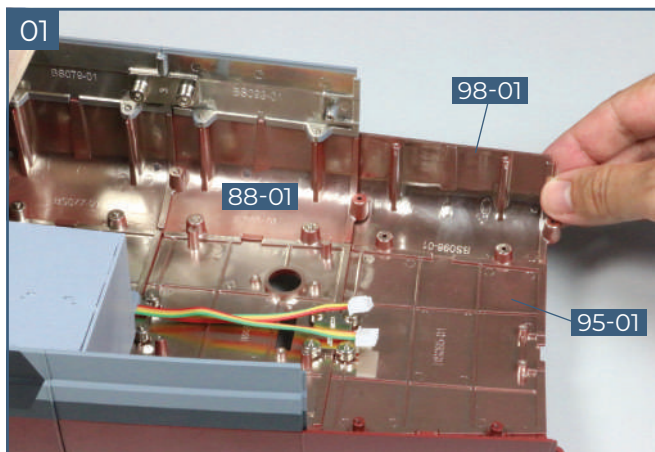
98-03: Railing

98-04: Cable and switch

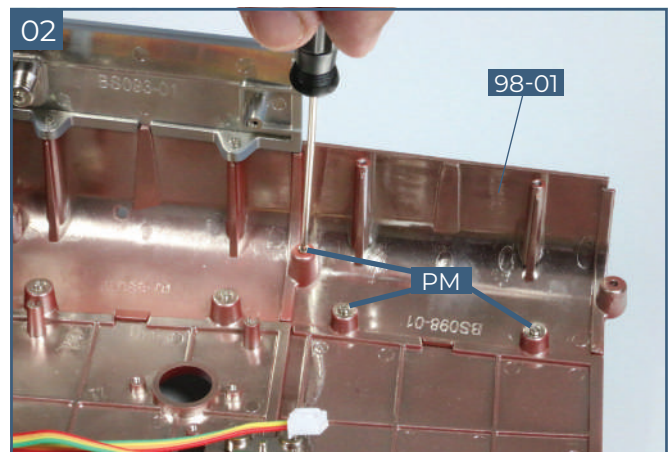
98-05: Cable label

PM: Four 2 x 4mm PM screws

01. FITTING THE HULL SECTION

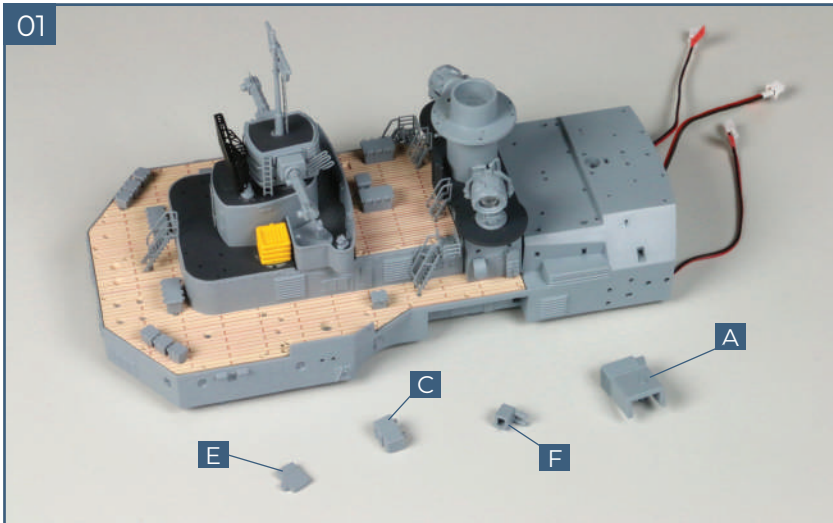


Take the lower starboard hull section **98-01** and fit the three raised screw sockets into the sockets in the lower starboard hull section **88-01** and the keel section **95-01**, as shown.

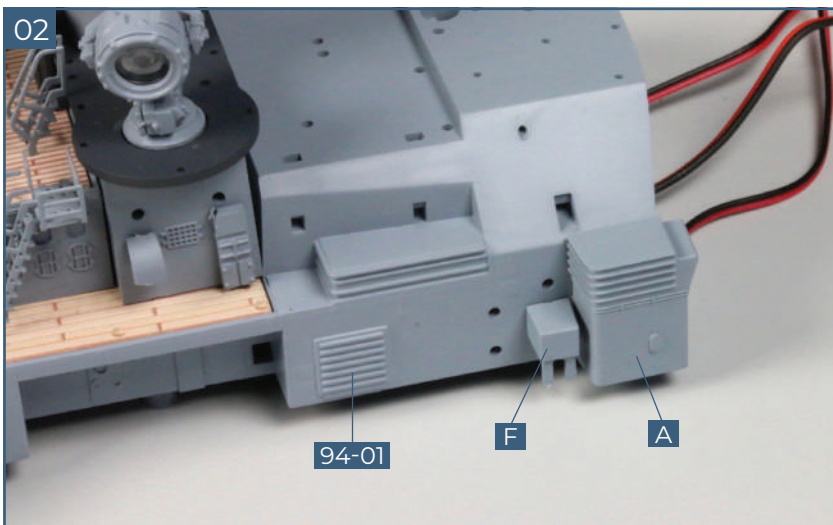


Fix the hull section in place with three **PM** screws, as shown.

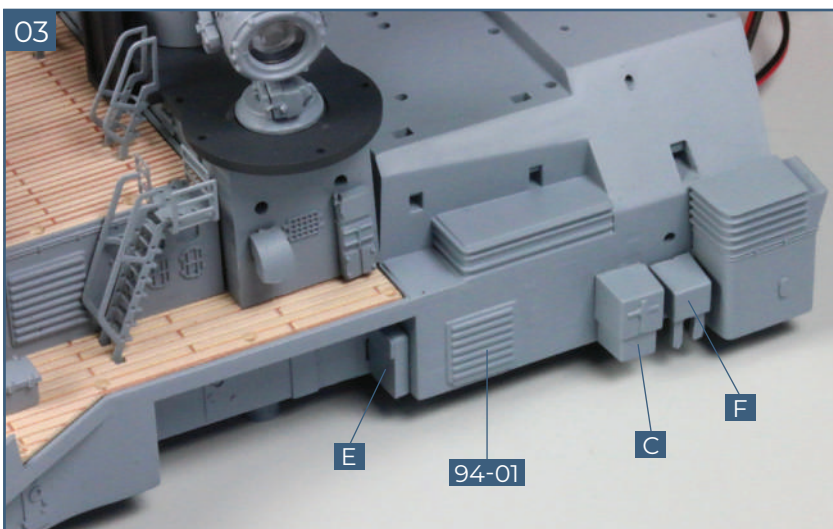
02. DETAILS FOR THE AFT SUPERSTRUCTURE



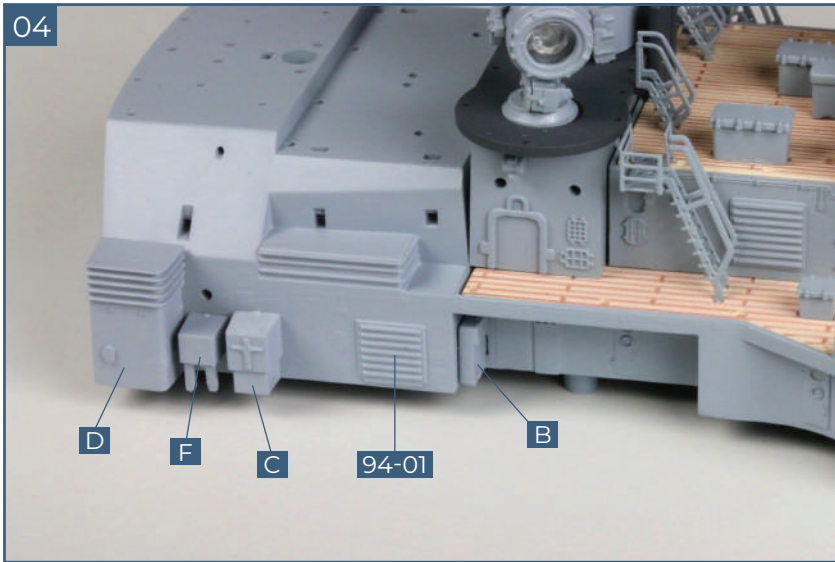
Remove the parts **A**, **C**, **E** and one part **F** from frame **98-02**. These will be fitted on the aft superstructure from stage **97**.



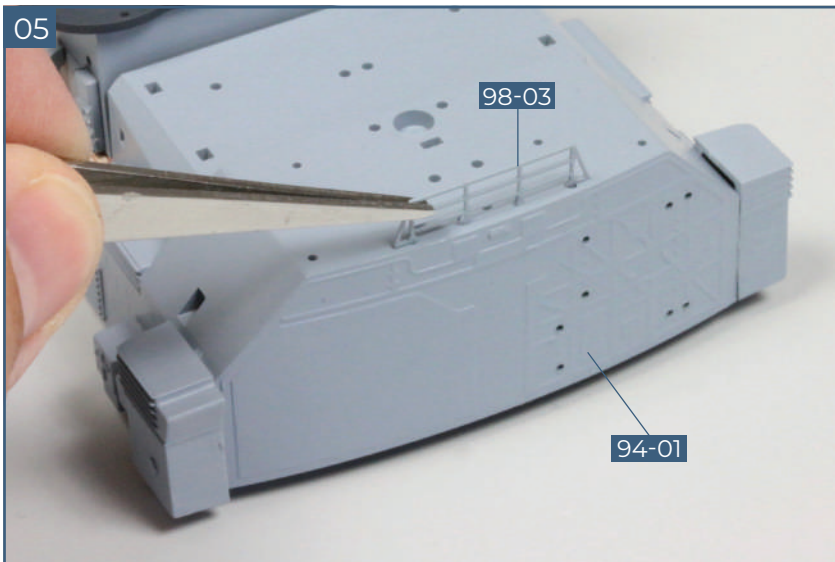
Parts **A** and **F** from frame **98-02** fit on the starboard side of the central hangar of part **94-01**. Check the fit and glue in place.



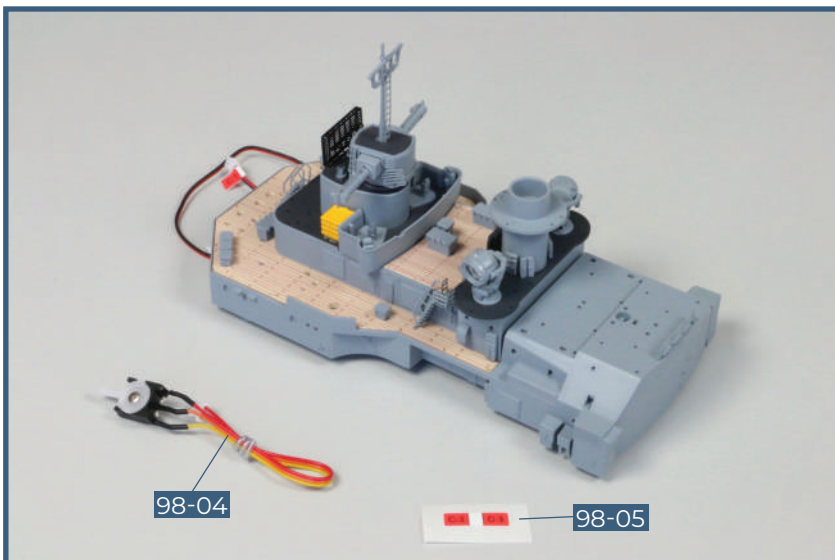
Fit part **C** from frame **98-02** next to part **F**. Fit part **E** in the recess beneath the deck of part **94-01**, as shown. Glue in place.



Parts **D**, **F**, **C** and **B** from frame **98-02** fit in similar positions on the port side of the superstructure **94-01**. Check the fit and glue in place.



The railing **98-03** fits on the forward edge of the hangar of part **94-01**. Check the fit and glue in place, as shown.

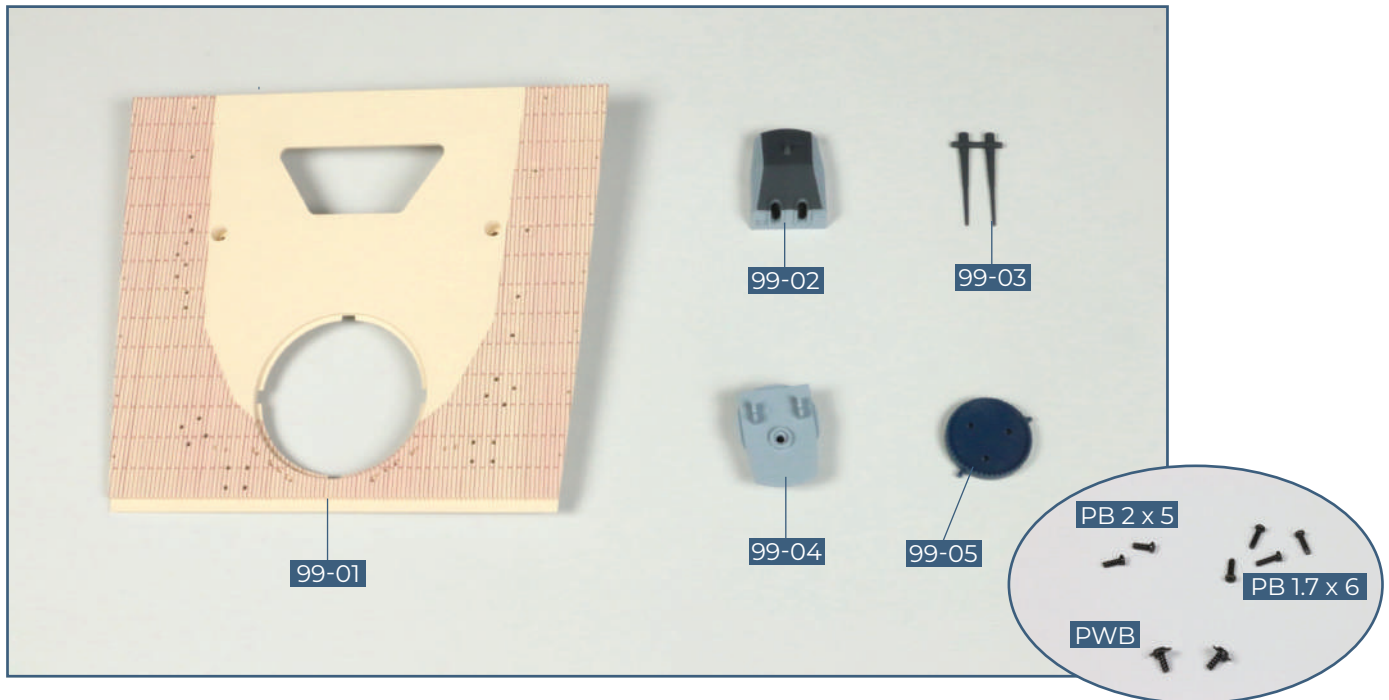


Completed work

Another section of hull has been fitted (not shown) and more details have been added to the aft superstructure. The cable and switch **98-04** and label **98-05** will be used in a future stage.

STAGE 99

THE FIFTH 15CM TWIN TURRET



COMPONENTS CHECKLIST

99-01: Seventh section of the upper deck

99-02: 15cm turret housing (third turret on port side)

99-03: Barrels and support

99-04: Base plate of the turret

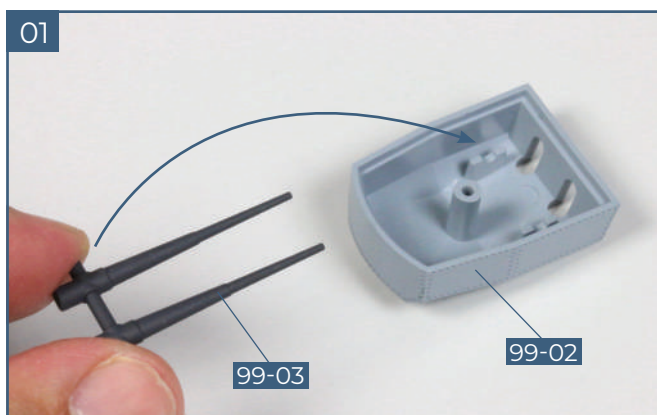
99-05: Cog

PB 2 x 5: Two 2 x 5mm PB screws

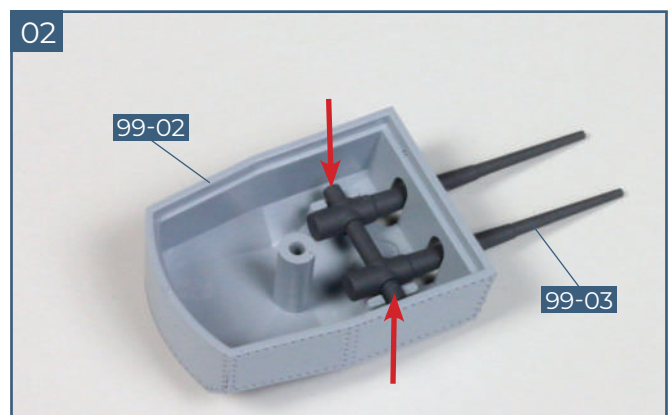
PB 1.7 x 6: Four 1.7 x 6mm PB screws

PWB: Two 2 x 5mm PWB screws

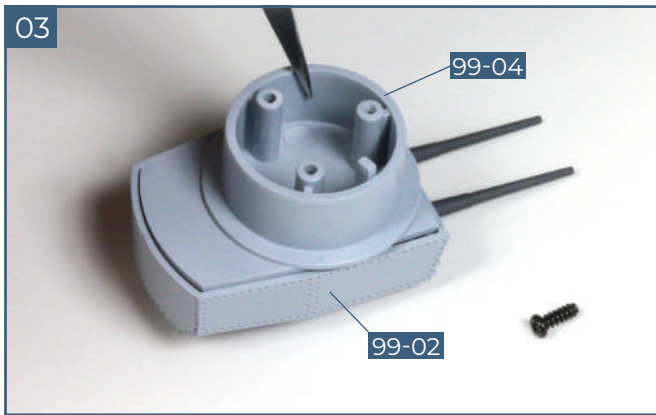
01. ASSEMBLING THE FIFTH 15cm GUN TURRET



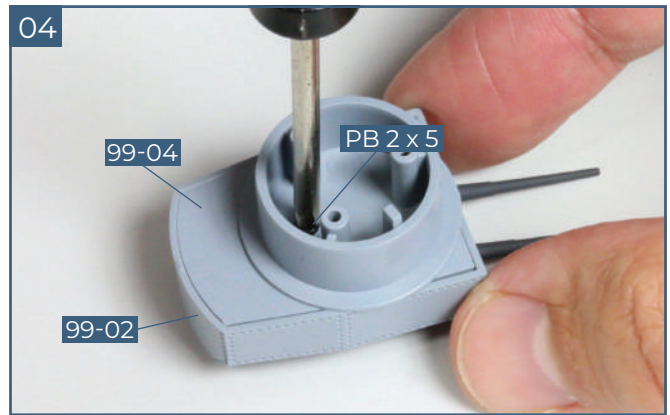
Place the gun turret housing **99-02** upside down on your worktop. Take the barrels **99-03** and fit them to the tower as indicated.



Insert the gun barrels **99-03** into the gun housing **99-02** so that the pins of the support rest in the recesses in the housing (arrows).

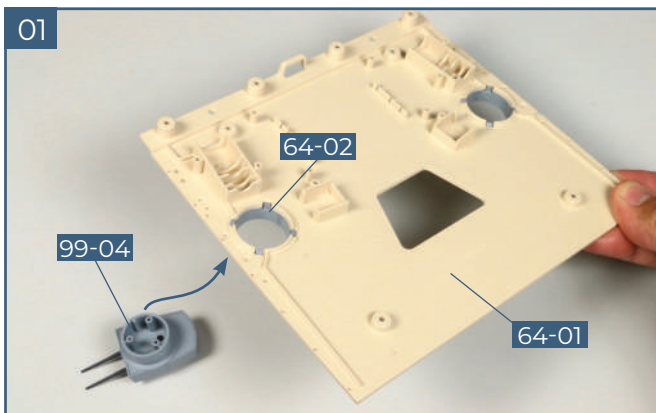


Fit the base plate **99-04** into the bottom of the turret housing **99-02**. You will need a **PB 2 x 5mm** screw.

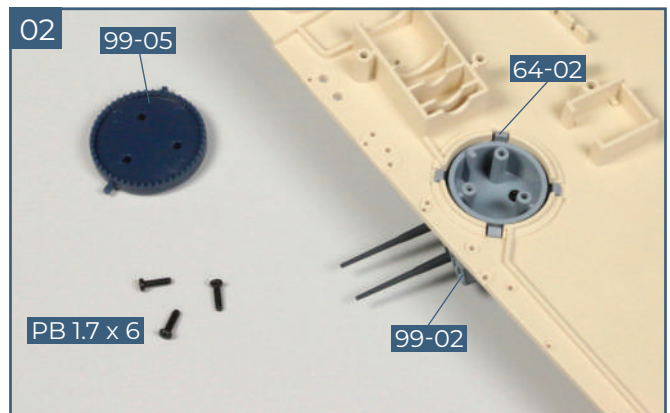


Fix the base plate **99-04** in place with a **PB 2 x 5mm** screw as shown.

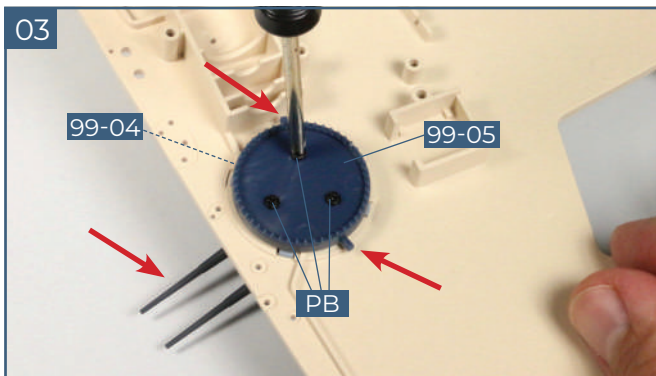
02. FITTING THE GUN TURRET TO THE UPPER DECK



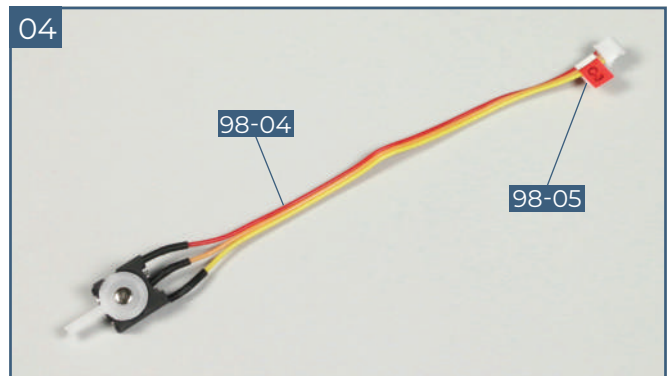
Take the sixth upper deck section **64-01** (supplied with stage 64) and fit the base of the 15cm turret **99-04** into the barrette **64-02**, as indicated.



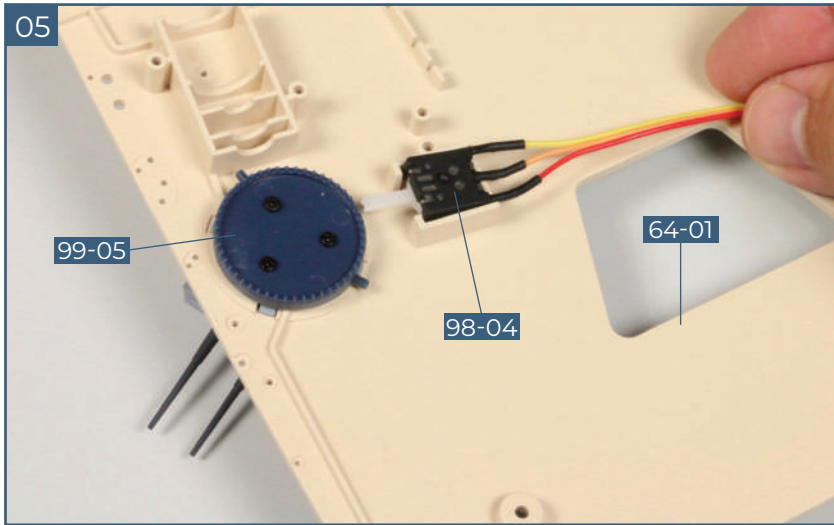
This shows the 15cm gun turret **99-02** in place. For the next step you will need the cog **99-05** and three **PB 1.7 x 6mm** screws to fix it in place.



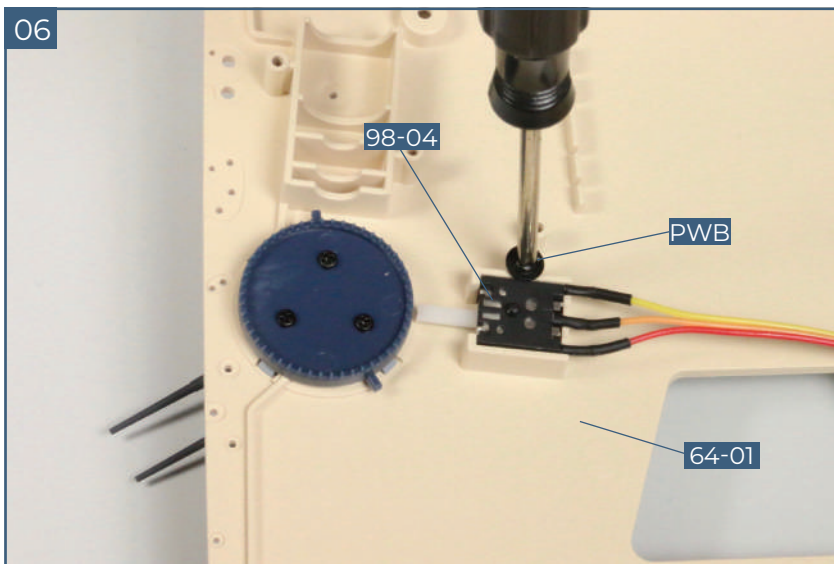
Fit the cog **99-05** over the base of the gun turret **99-04** and fix it in place with three **PB 1.7 x 6mm** screws, noting the positions of the tabs and gun barrels (arrows).



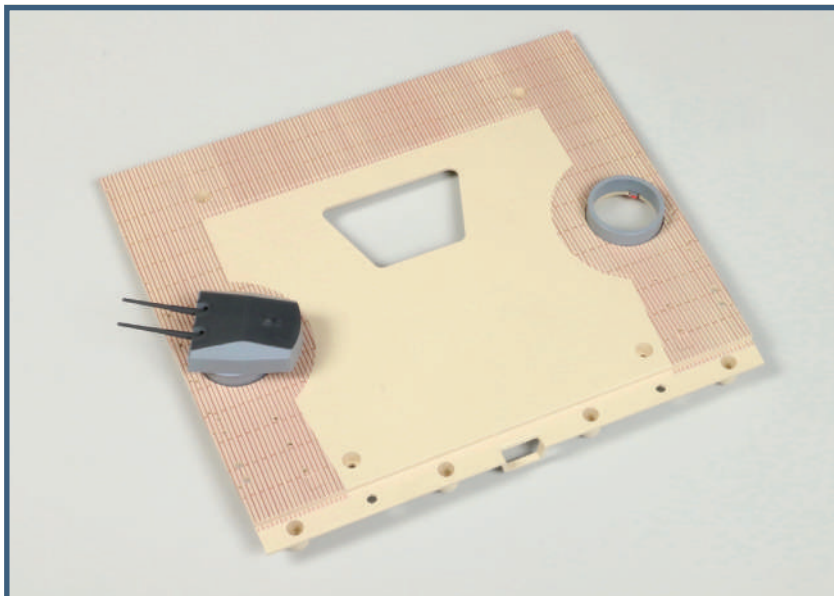
Remove the cable label **98-05** from its backing and wrap it around the switch cable **98-04** close to the connector. These parts were supplied with the previous stage.



Fit the switch **98-04** into the recess on the underside of the upper deck section **64-01**, near the cog **99-05**.



Fix the switch **98-04** to the underside of the upper deck section **64-01** using a **PWB** screw.

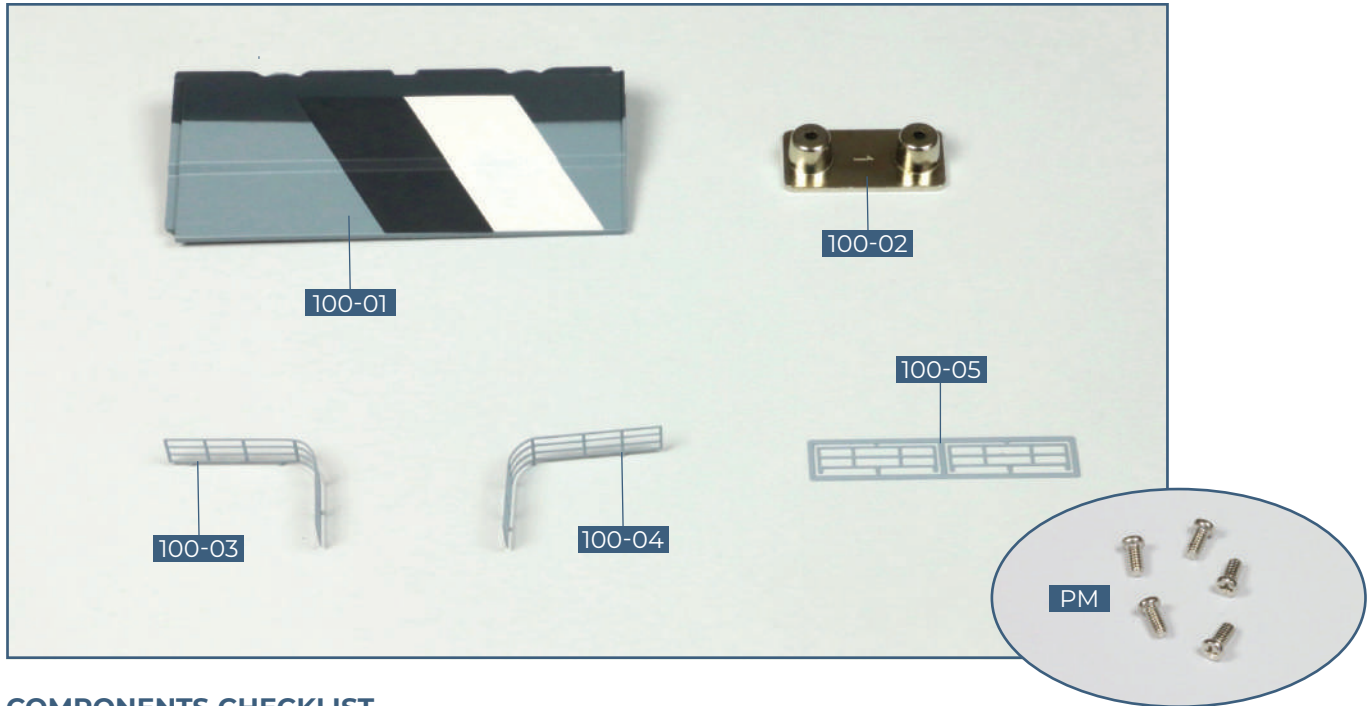


Completed work

The fifth 15cm gun turret has been fitted to the upper deck. It is the third 15cm twin gun on the port side.

STAGE 100

A HULL SECTION AND ELECTRICAL TESTING



COMPONENTS CHECKLIST

100-01: Upper port hull section

100-03: Railing

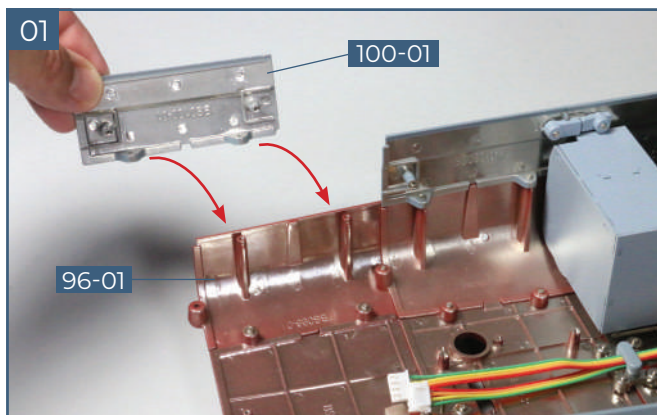
100-05: Two railings

100-02: Connector

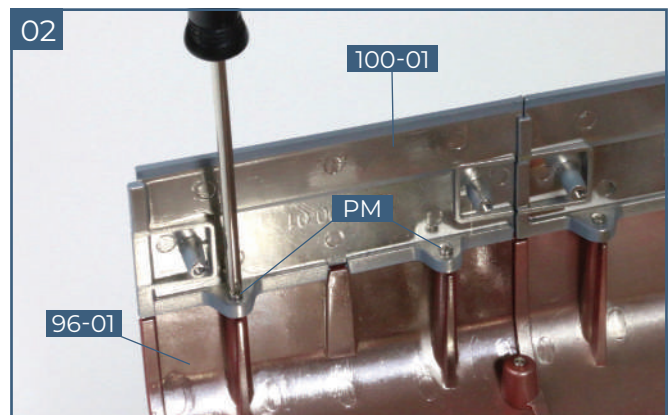
100-04: Railing

PM: Five 2 x 4mm PM screws

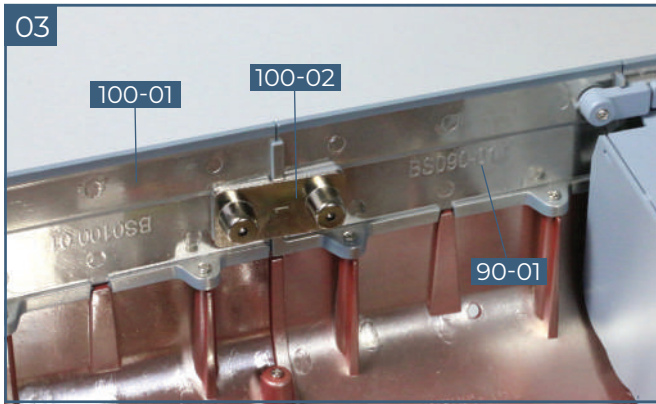
01. FITTING THE HULL SECTION



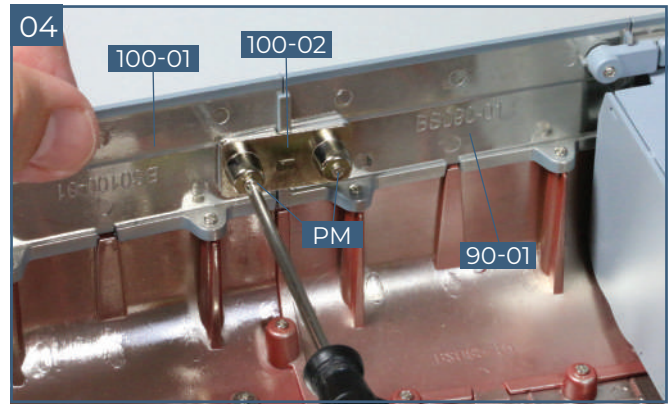
Take the upper port hull section **100-01** and check the fit against the port hull section **96-01**. The screw holes should align with the screw sockets as indicated.



Fix the hull section **100-01** in place using two 2 x 4mm **PM** screws.

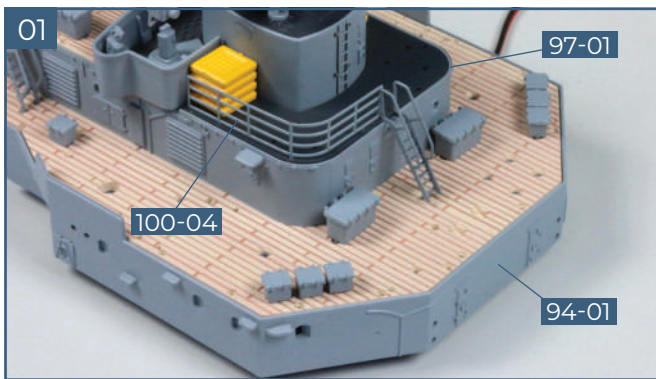


Take the connector **100-02** and fit it over the raised screw sockets on parts **100-01** and **90-01**, as shown.

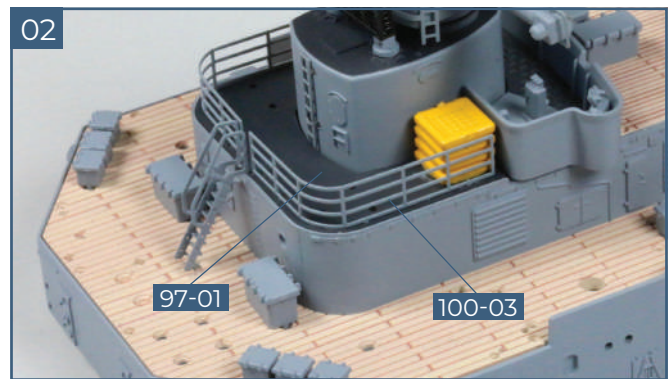


Fix part **100-02** in place with two 2 x 4mm **PM** screws.

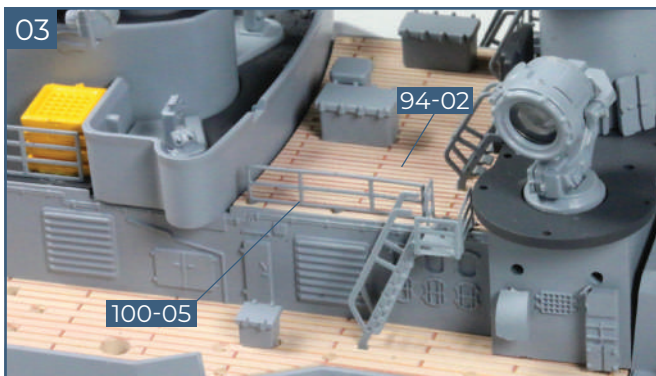
01. RAILINGS FOR THE AFT SUPERSTRUCTURE



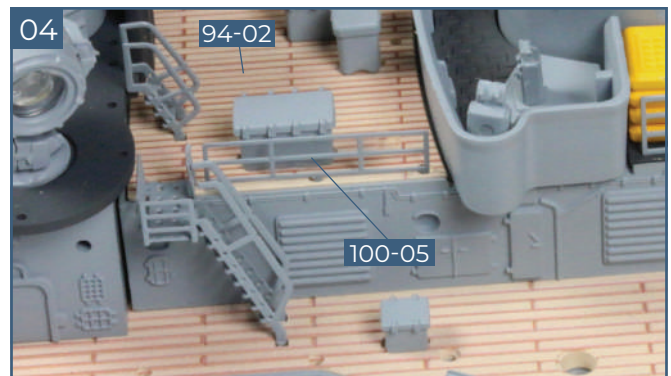
Take the aft superstructure assembly from the previous stage. Check the fit of the railing **100-04** around the port side of deck part **97-01**. Glue the three pegs on the base of the railing in place, as shown.



Glue the railing **100-03** in place on the starboard side of the deck, as shown.

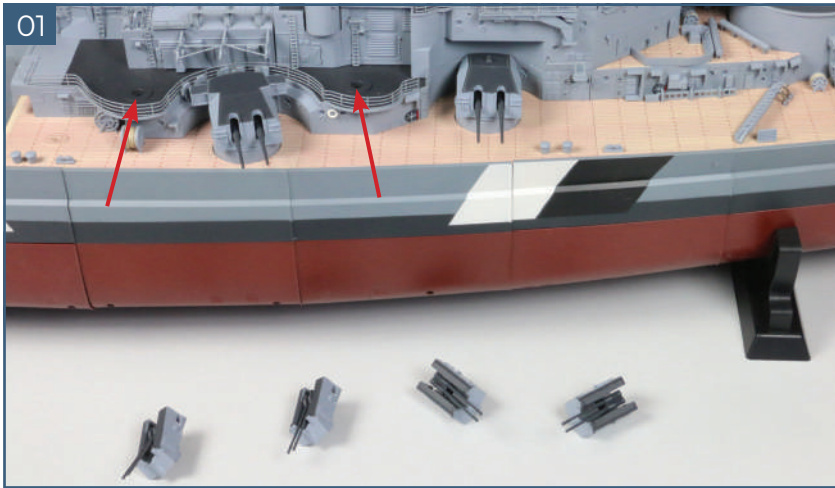


Take one of the railings **100-05** and check the fit along the starboard side of the deck part **94-02**. Glue the three feet in place as shown.



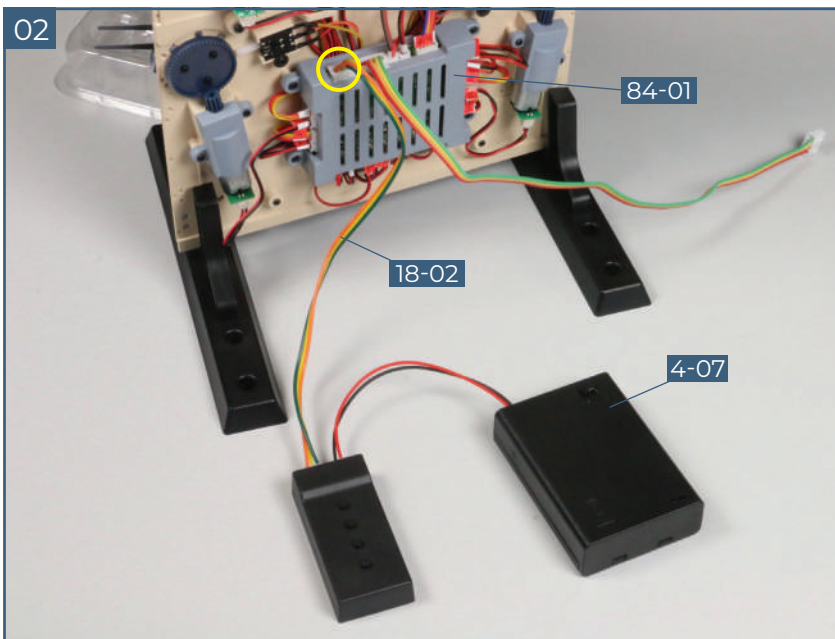
The second railing **100-05** is glued in place on the port side of deck part **94-02**.

02. TESTING THE ELECTRONICS OF THE FORWARD SUPERSTRUCTURE



Before testing the electronics, remove the four heavy anti-aircraft guns that were fitted in stages 86 and 87. They were fitted into holes in the superstructure: the holes on the starboard side are indicated by the arrows.

Note: The base plates of the four heavy anti-aircraft guns will be fitted with a rubber sleeve in a future stage, to prevent the guns from falling out.

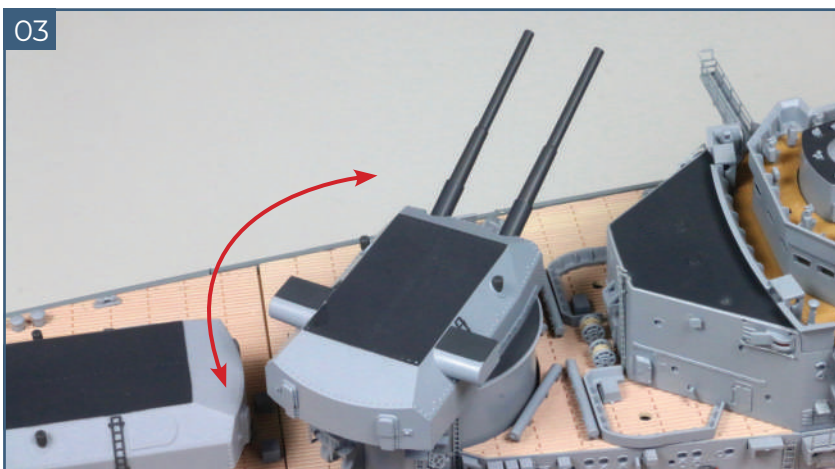


Create a temporary support stand for the forward superstructure and circuit board, as shown in stage 84. Carefully remove the forward superstructure and decking from the hull assembly, temporarily removing any cable guides, and set it in the temporary stand – you may need to ask someone to help you with this.

Check that the switch of the battery box **4-07** is “Off” (below). Connect

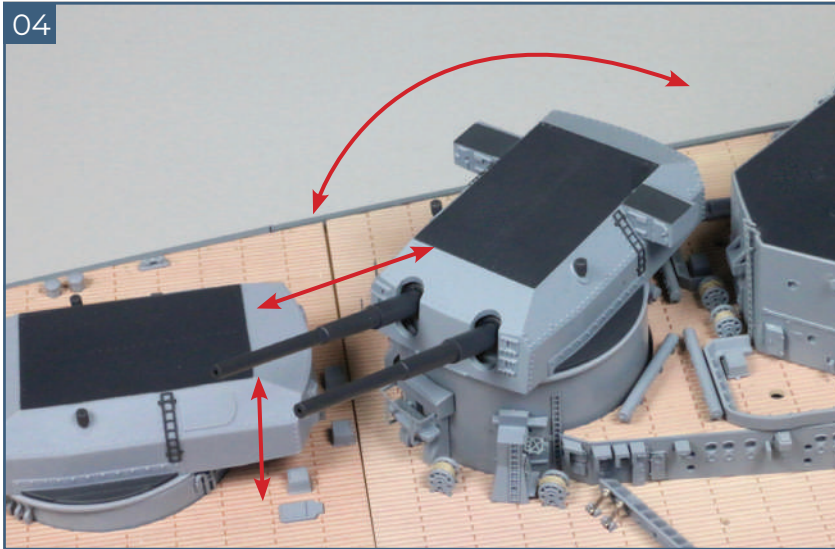


the tester cable **18-02** to port 24 (circled) on the motherboard **84-01**.



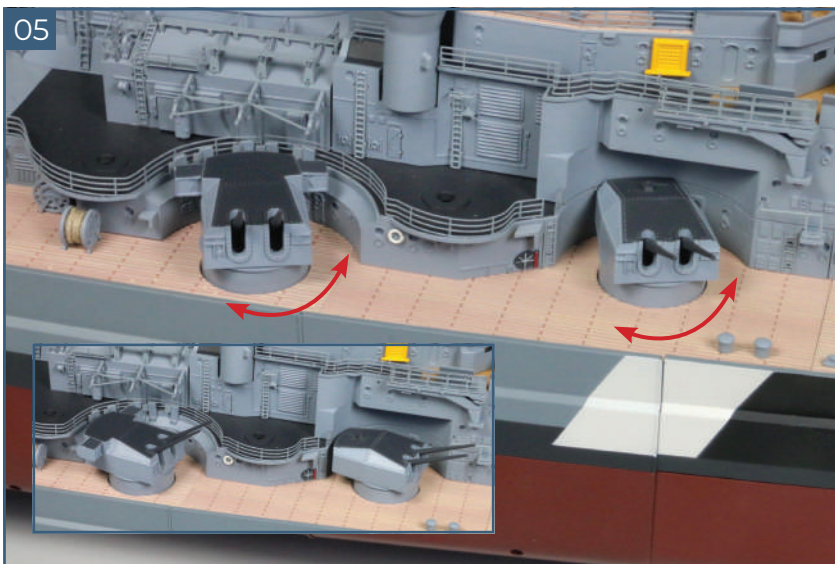
Fit the forward superstructures back on the hull assembly. When you turn the switch on the battery box to “On”, the initialization will begin: the turret turns fully to starboard, remains there for a few seconds and then returns to the starting position.

Note: During initialization, the buttons on the tester box do not operate.

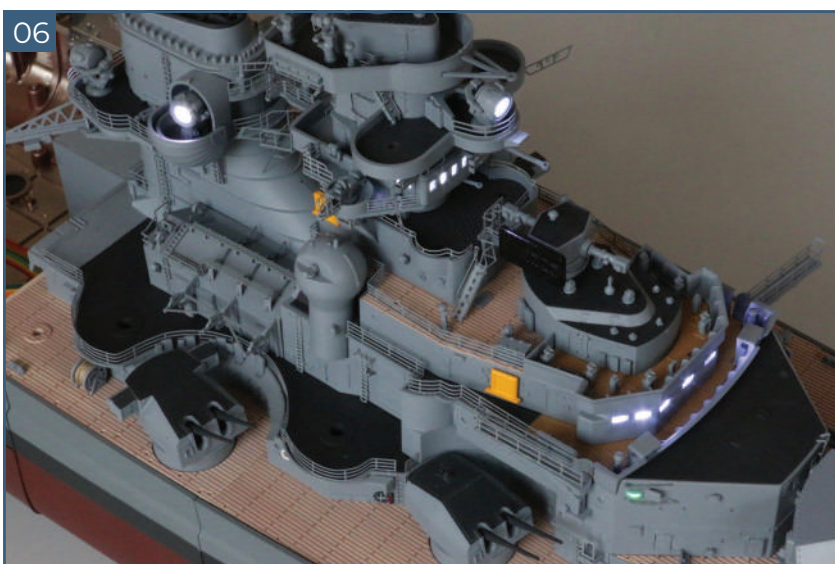


When the initialization is complete, press the "S1" button on the Tester **18-01** (below): this starts the main gun tower test. During the test, after initialization the gun only turns and fires to the port side. When fully operational, all three tower functions are carried out simultaneously: turning, raising and lowering, and firing. Press

button "S1" again to end the test.

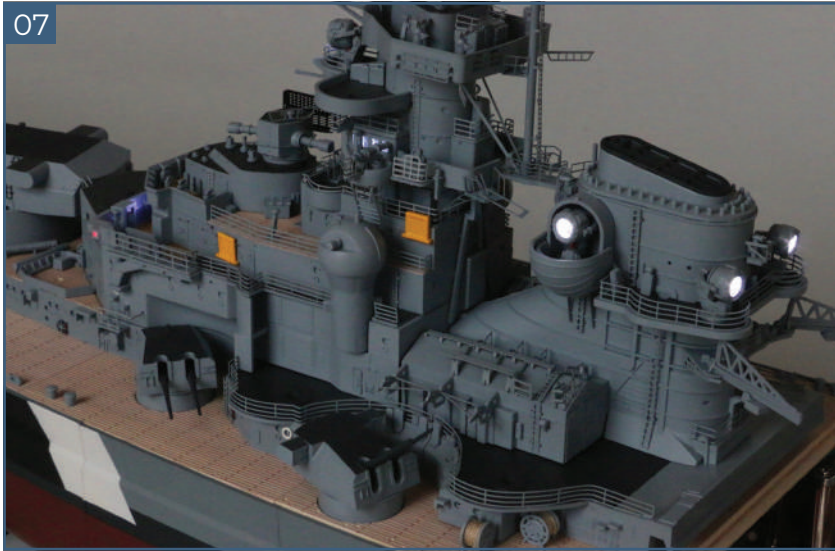


To test the 15cm guns, start by aligning them all manually in the raised position, pointing forwards. Press the "S2" button on the tester **18-01** (below): the four 15-cm gun towers rotate forwards and back to their starting position. End the test by pressing the S2 button again.

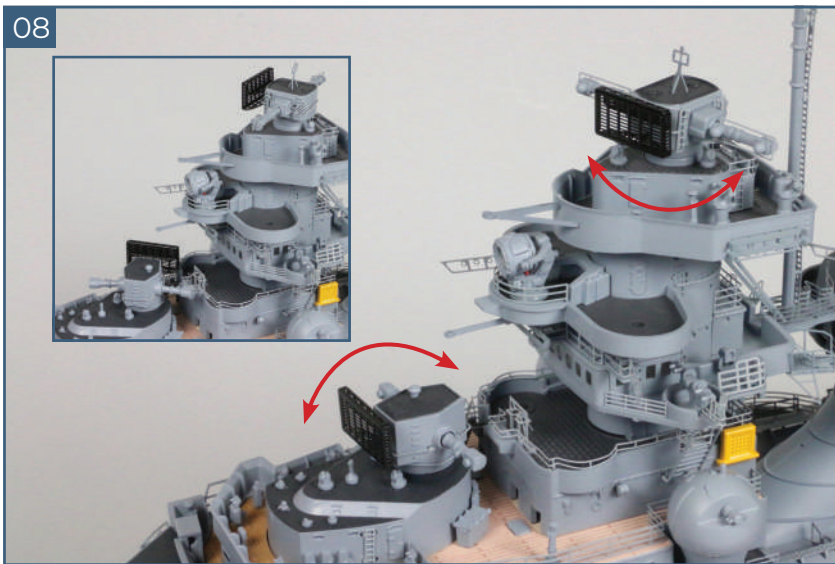


To test the LEDs on the forward superstructure, press the "S3" button (below) on the tester **18-01**. This view of the starboard side shows the lights on the command bridge, the admiral's bridge, two of the five searchlights and the green navigation light.

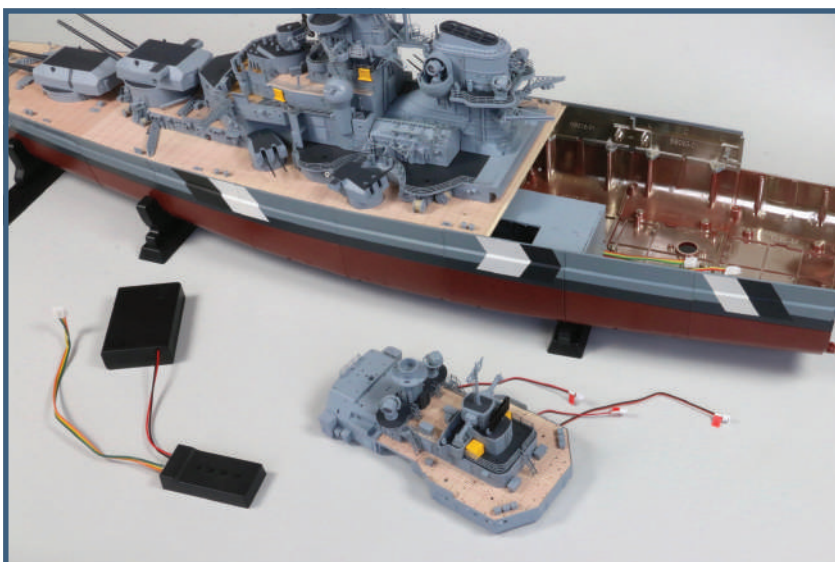




Viewing the superstructure from the opposite direction shows the other three searchlights and the red navigation light. End the test by pressing the "S3" button again.



The "S4" button on tester **18-01** (below), operates the rotating rangefinders on the forward control station and the main control station. Press the button again to end the test.



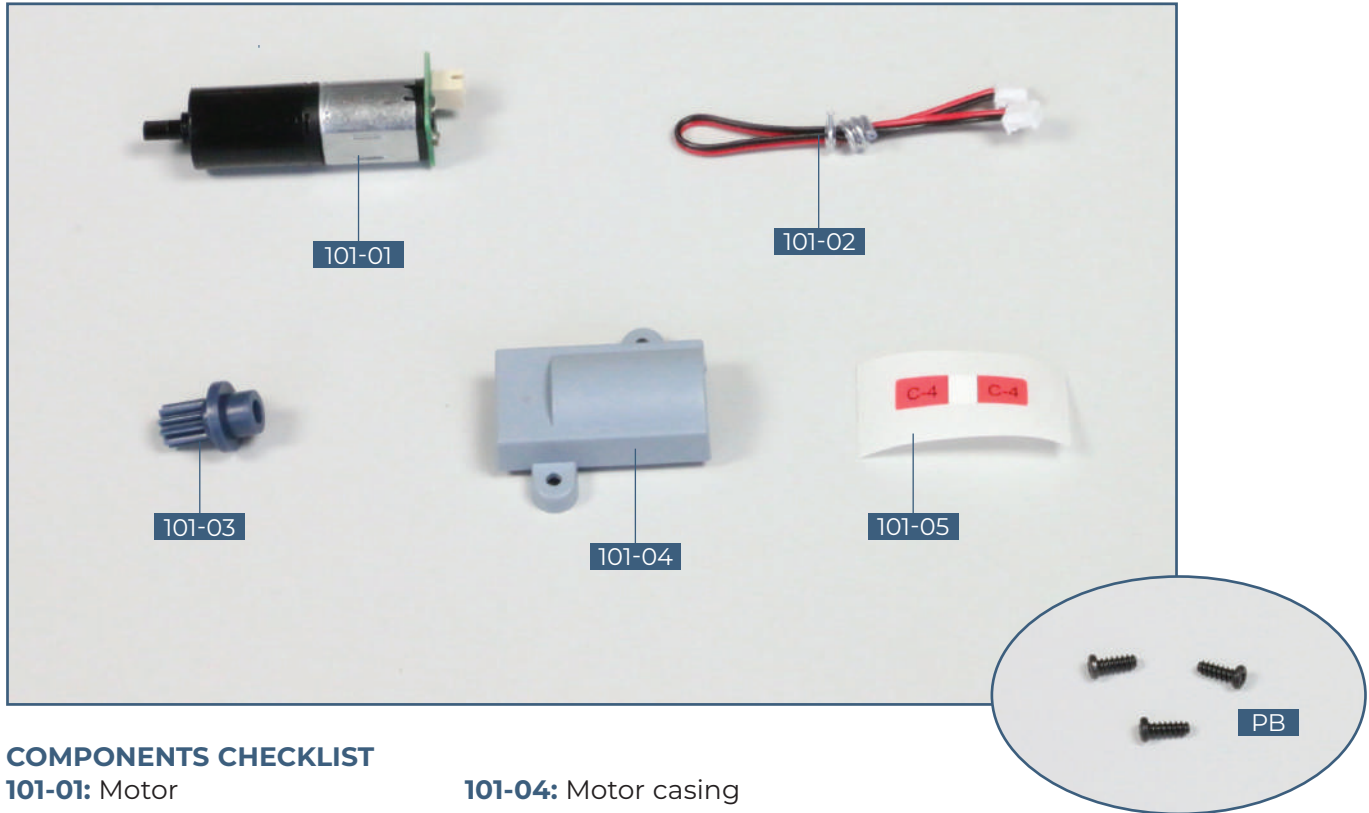
Completed work

Another hull section has been fixed in place, and four railings have been fixed to the aft superstructure. We have tested the movement of the guns and rangefinders and checked the operation of the lights.

Note: After completing the tests, carefully remove the tester cable from port 24 of the motherboard.

STAGE 101

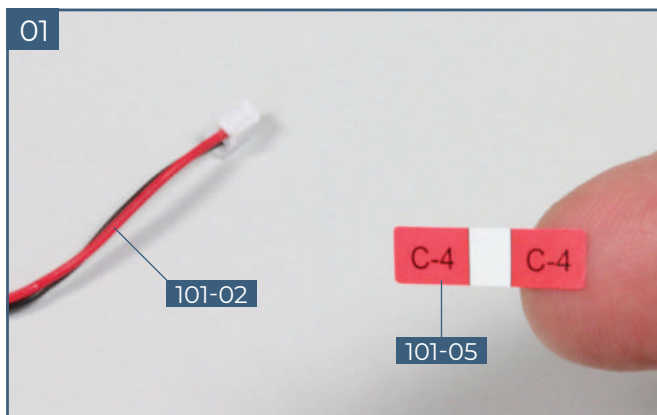
MOTOR FOR THE FIFTH 15CM GUN TURRET



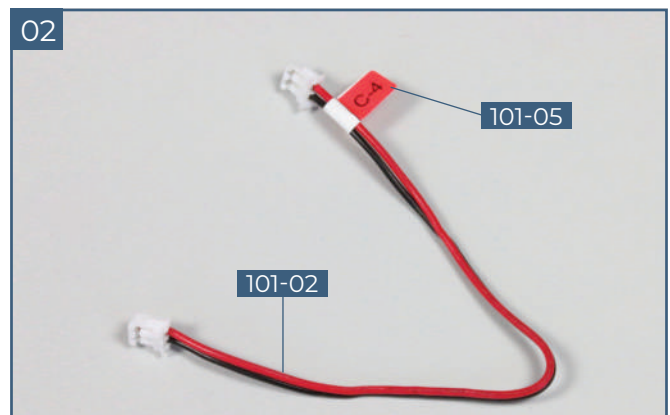
COMPONENTS CHECKLIST

- 101-01:** Motor
- 101-02:** Cable for the motor
- 101-03:** Cog
- 101-04:** Motor casing
- 101-05:** Cable label
- PB:** Three 2 x 5mm PB screws

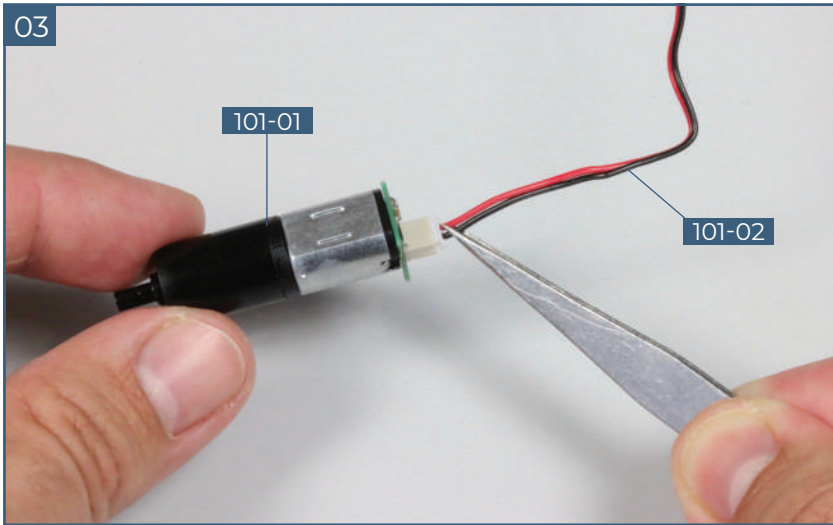
01. PREPARING THE MOTOR



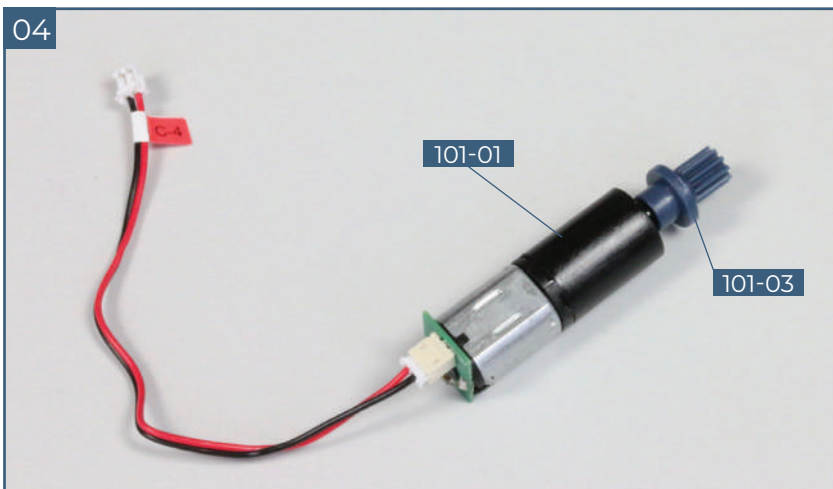
Take the cable **101-02** and the label **101-5**. Remove the label from its backing.



Wrap the cable label **101-05** around the end of the cable **101-02** near one of the connectors, as shown.

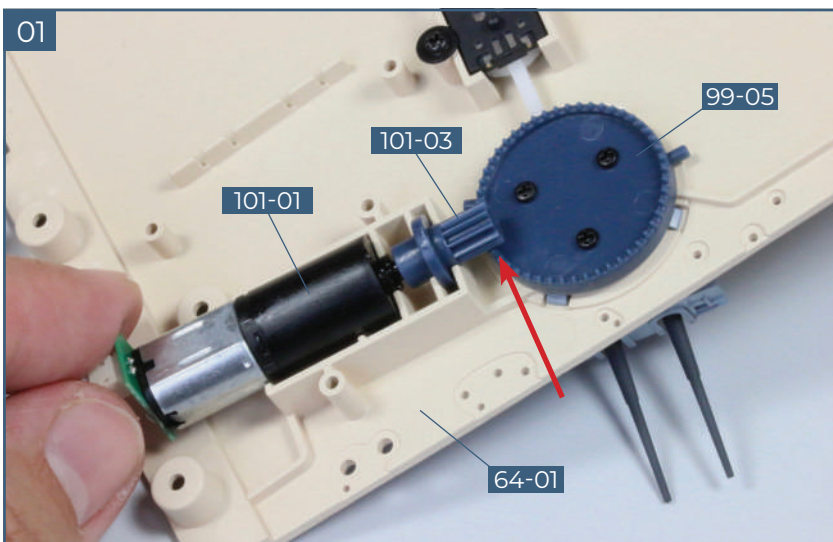


Fit the connector at the other end of the cable **101-02** into the socket on the motor **101-01**, as shown.

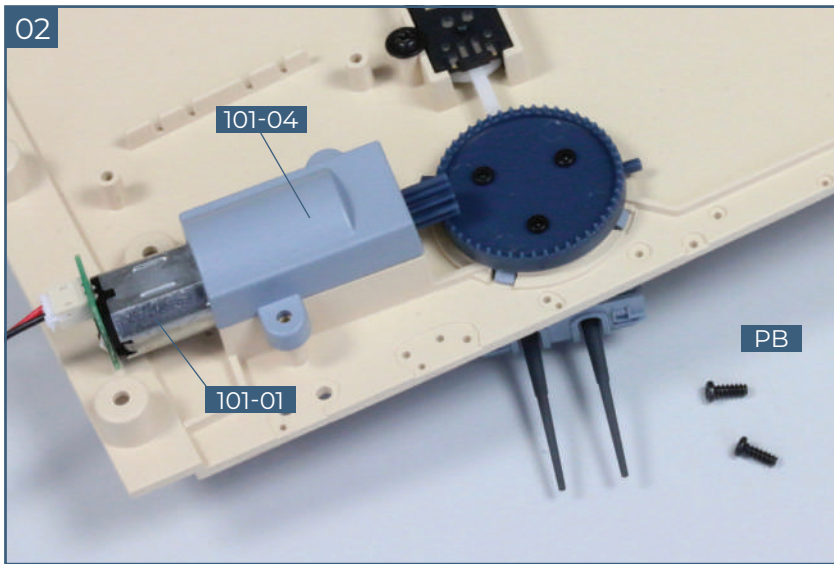


Fit the cog **101-03** onto the shaft of the motor **101-01**, as shown.

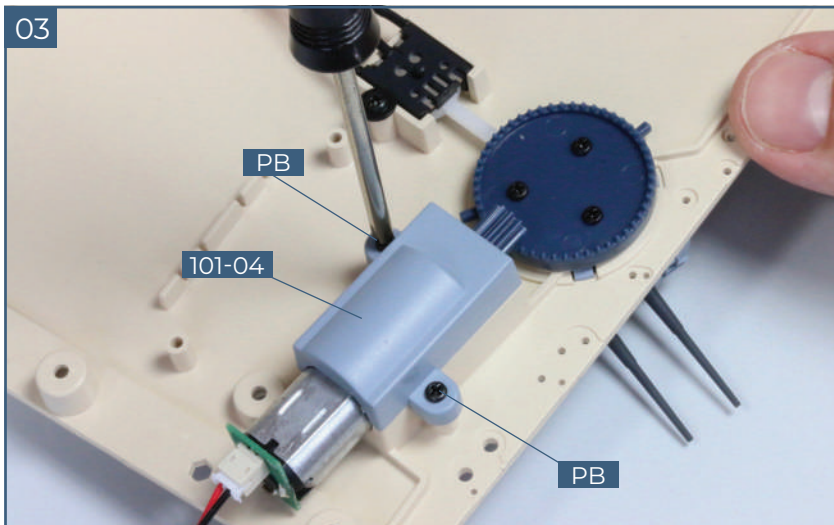
02. FITTING THE MOTOR TO THE UPPER DECK



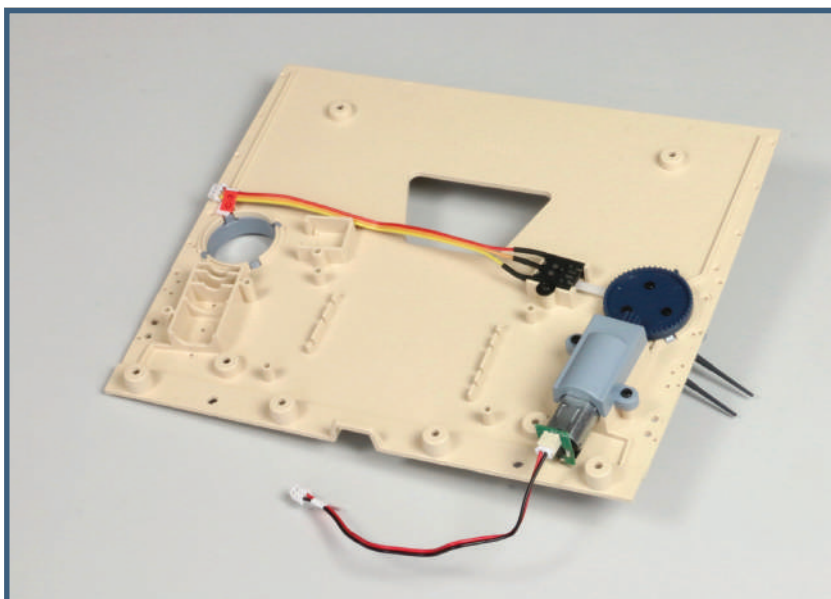
Take the upper deck section **64-01** and carefully turn it upside down, taking care not to damage any of the parts that are fitted to it. Fit the motor **101-01** in the recess on the underside of the deck panel so that the cog **101-03** connects with the cog on the base of the gun turret, **99-05** (arrow).



Fit the housing **101-04** over the motor **101-01** so that the screw holes on the housing align with the sockets on the underside of the upper deck. You will need two **PB** screws.



Fix the housing **101-04** in place using two **PB** screws.

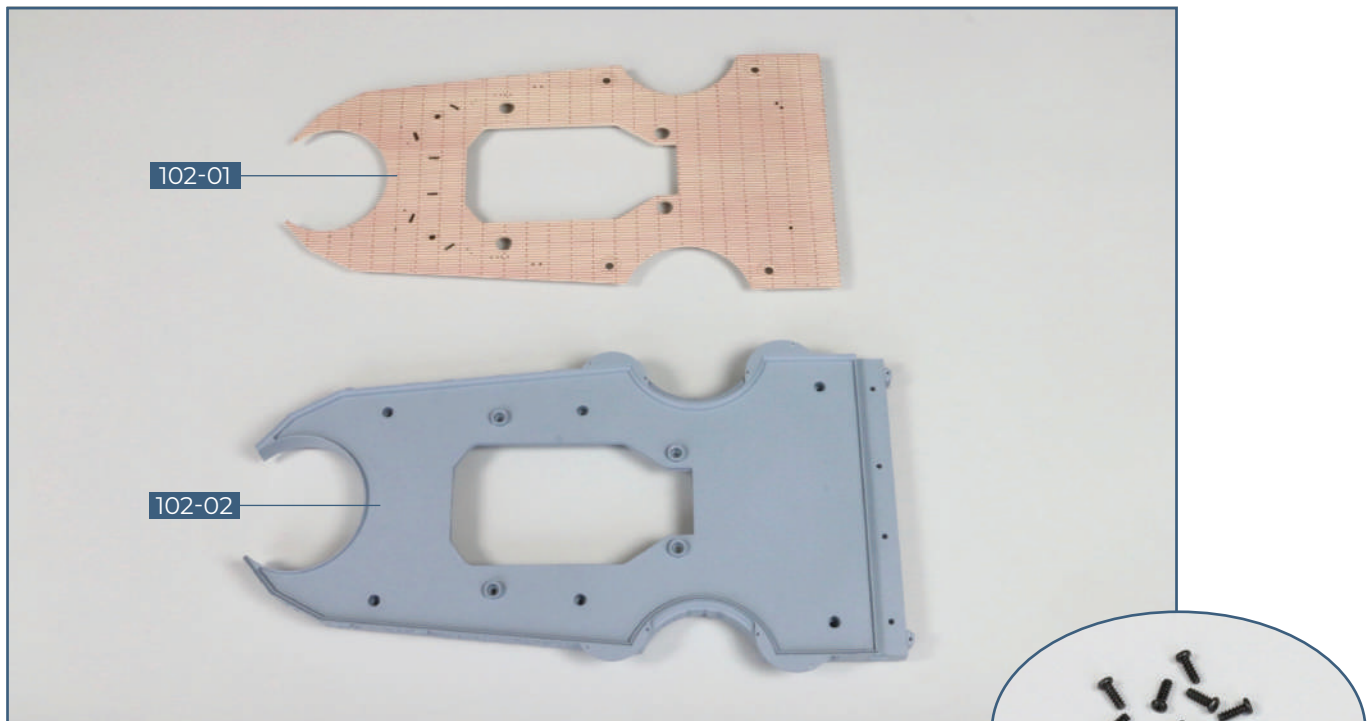


Completed work

The motor for the fifth 15cm gun turret has been fitted to the underside of the sixth upper deck section.

STAGE 102

THE AFT SUPERSTRUCTURE DECK



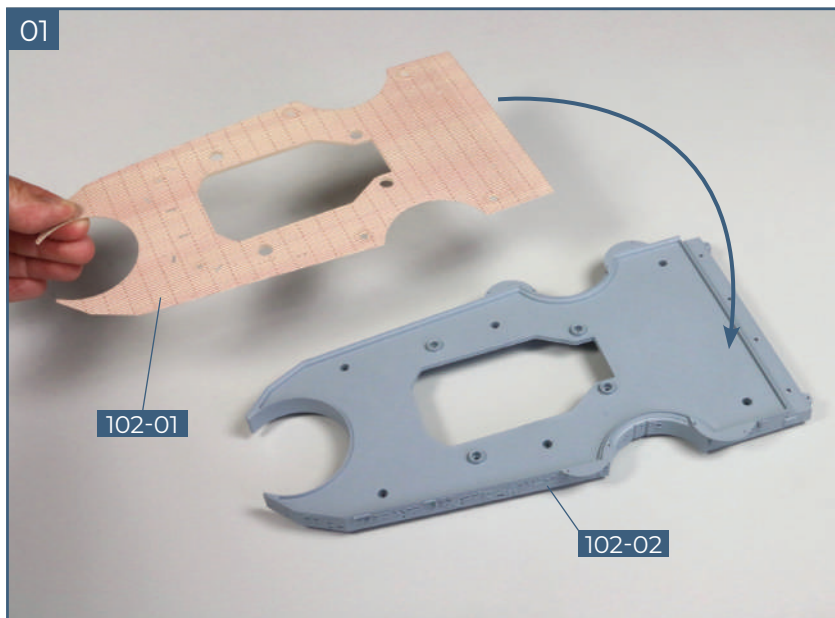
COMPONENTS CHECKLIST

102-01: Decking

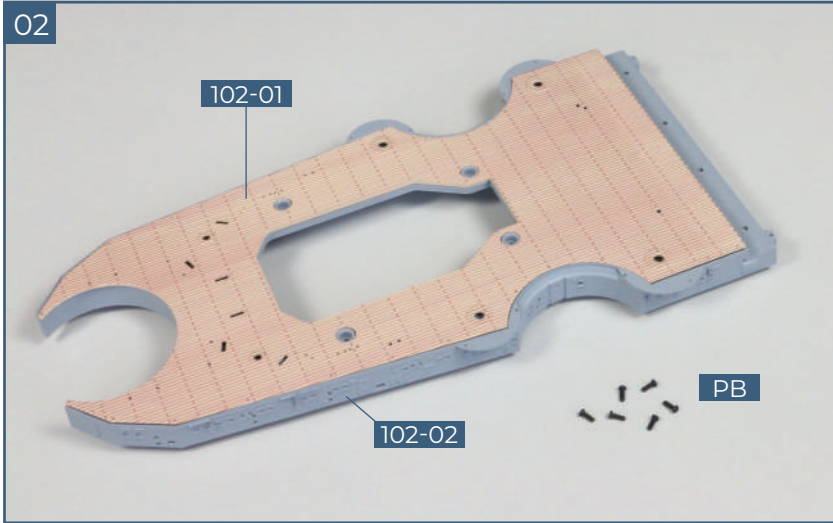
PB: Eleven 2 x 5mm PB screws

102-02: Aft superstructure deck

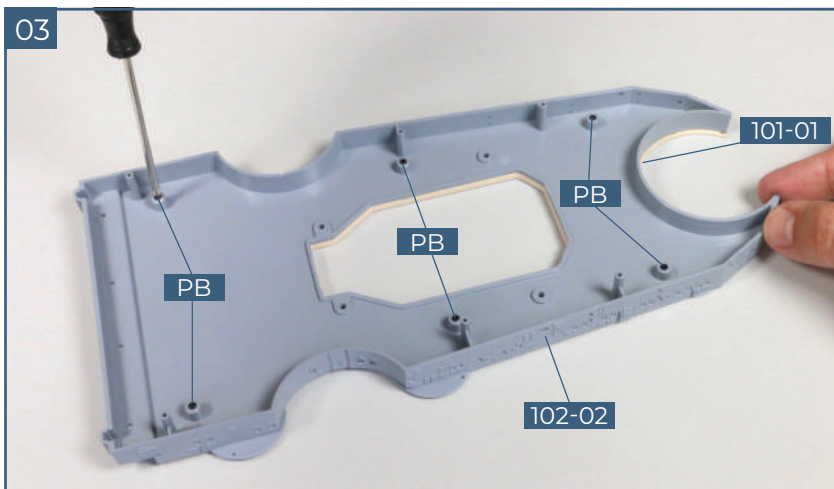
01. ATTACHING THE DECKING



Take the aft superstructure deck **102-02** and check how the decking **102-01** fits, as indicated.

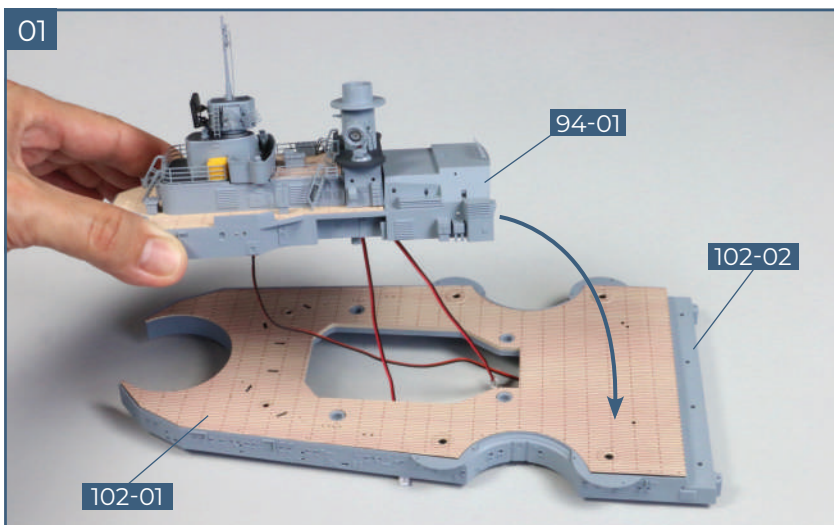


This shows the decking **102-01** in place on the deck **102-02**. You will need six **PB** screws.

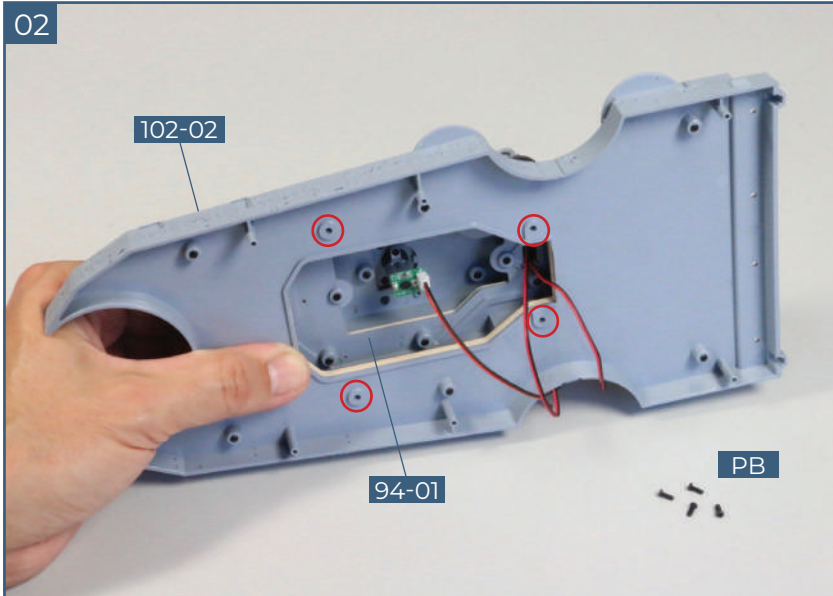


Holding the decking **102-01** in place, turn the aft superstructure deck **102-02** over. Fix the two parts together using six **PB** 2 x 5mm screws, as shown.

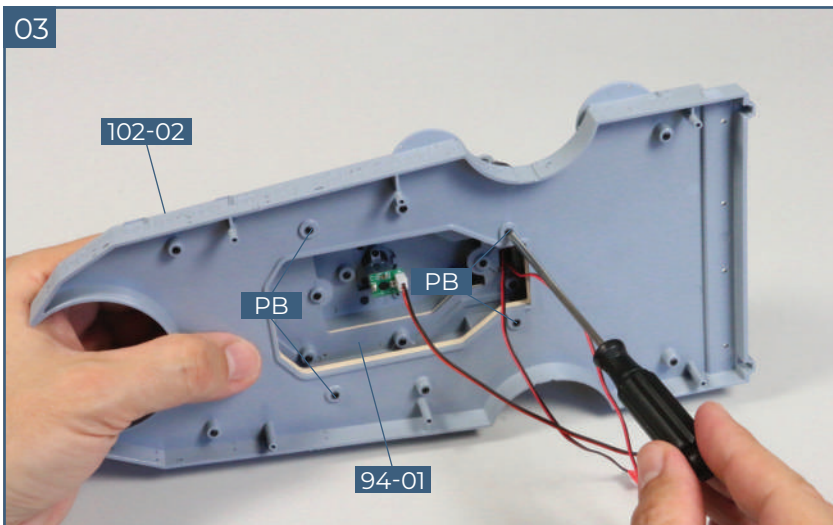
02. FITTING THE AFT SUPERSTRUCTURE



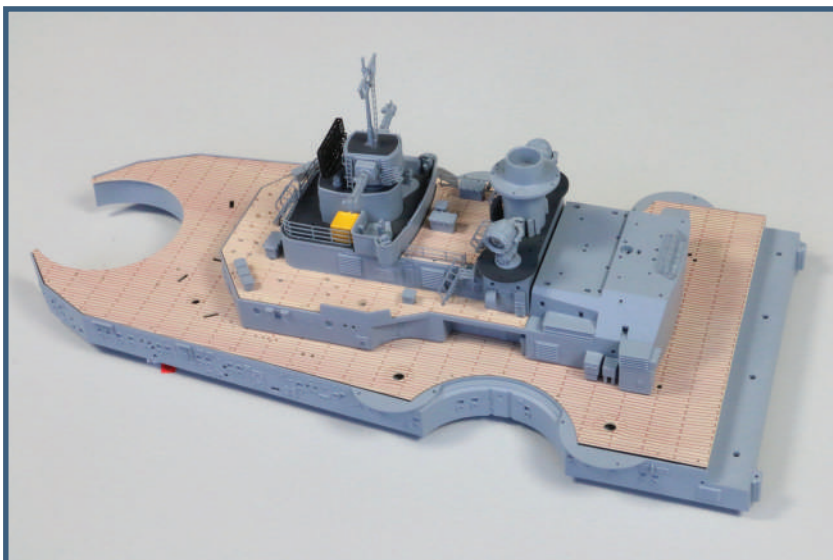
Turn the aft superstructure deck **102-02** the right way up again. Take the aft superstructure assembly from stage 100 and thread the three cables through the large opening in the superstructure deck. Fit the main section of the aft superstructure **94-01** on the decking **102-01**, as indicated.



Holding the superstructure in place, carefully turn the assembly on one side so that you can access the screw holes (circled). You will need four **PB** screws.



Fix the superstructure **94-01** to the deck **102-02** using four **PB** 2 x 5mm screws.

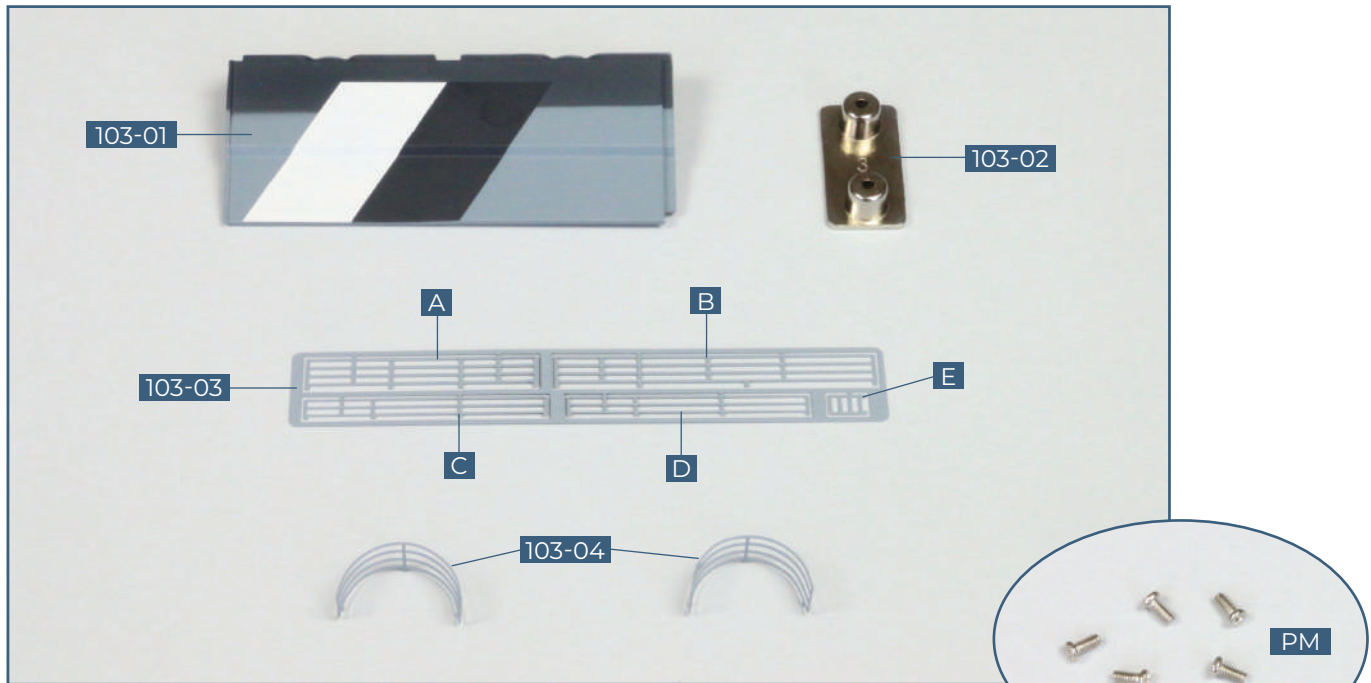


Completed work

The aft superstructure has been fitted to the aft superstructure deck.

STAGE 103

A HULL SECTION AND RAILINGS



COMPONENTS CHECKLIST

103-01: Upper starboard hull section

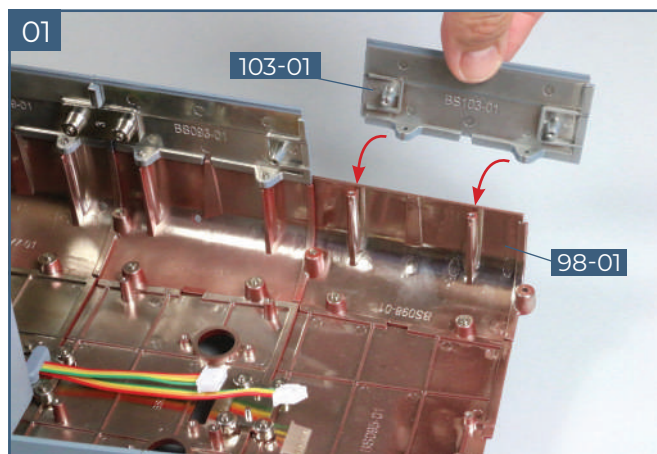
103-02: Connector

103-03: Five railings

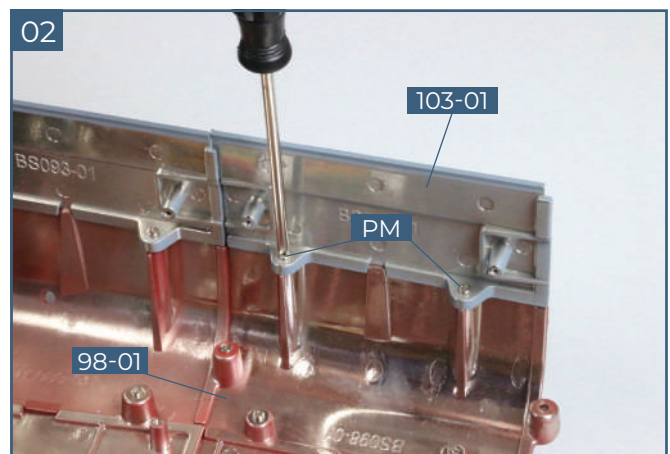
103-04: Two railings

PM: Five 2x4mm PM screws

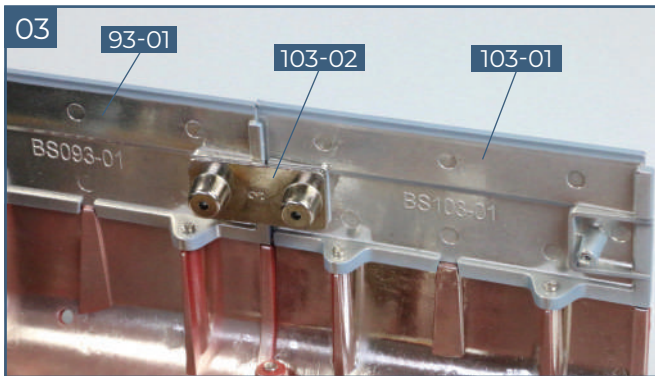
01. FITTING THE HULL SECTION



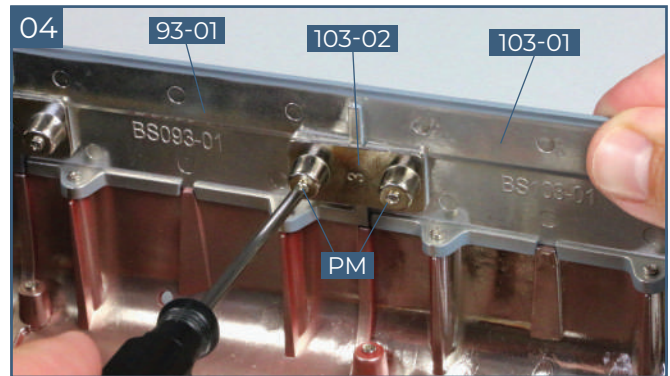
Take the upper starboard hull section **103-01** and fit the two tabs against the screw sockets in hull section **98-01**, as indicated.



Fix the upper starboard hull section **103-01** to hull section **98-01** using two **PM** screws.

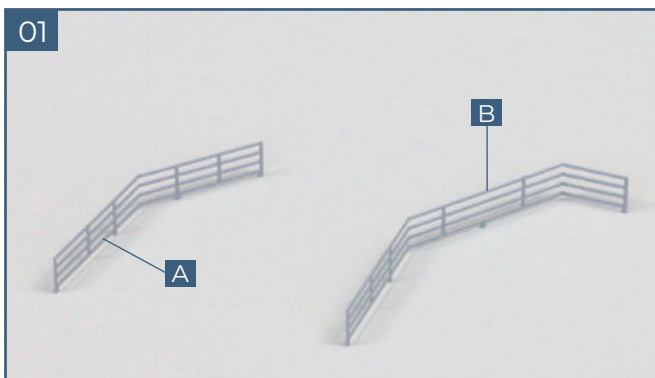


Fit the connector **103-02** onto the two raised screw sockets of hull sections **103-01** and **93-01**, as shown.

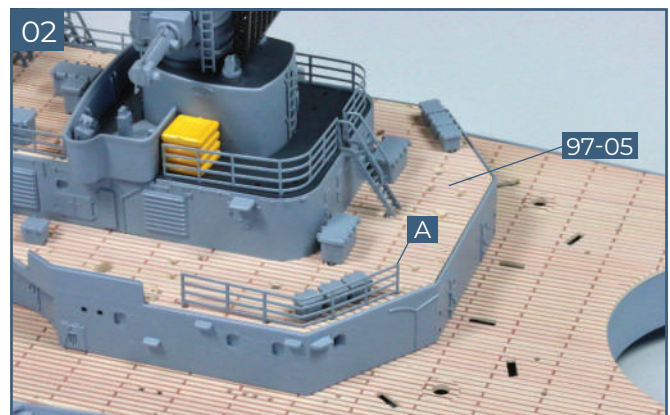


Fix the connector **103-02** in place with two **PM** screws.

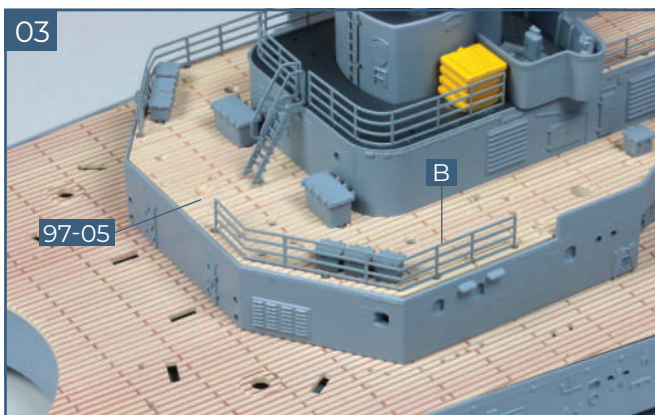
02. FITTING RAILINGS TO THE AFT SUPERSTRUCTURE



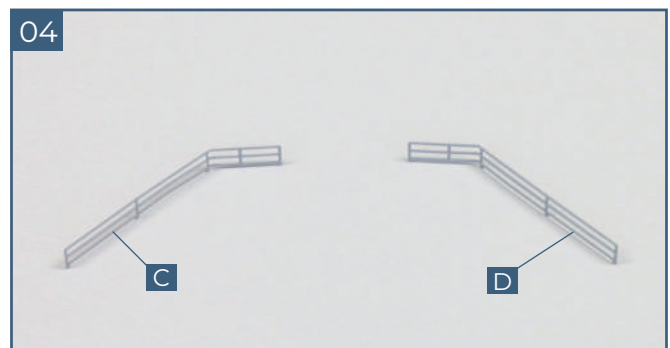
Cut railings **A** and **B** from the frame **103-03**. Noting that there are pegs at the bottom of the parts, bend railing **A** once and railing **B** twice, as shown. For the exact angle of the bends, check the fit of the railings on the aft superstructure (see steps 2 and 3).



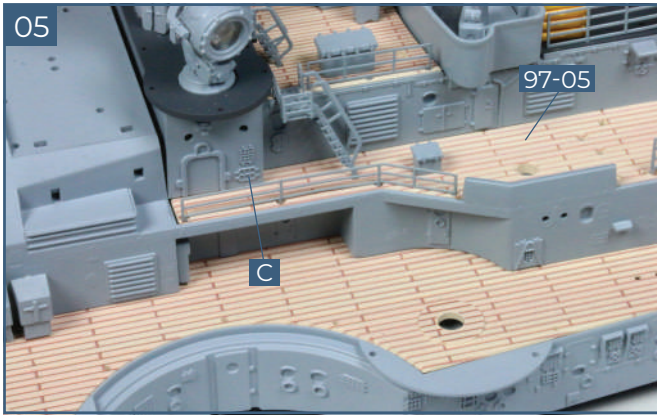
Check the fit of railing **A** on the aft port side of the decking **97-05**. Glue the four pegs in place in the decking.



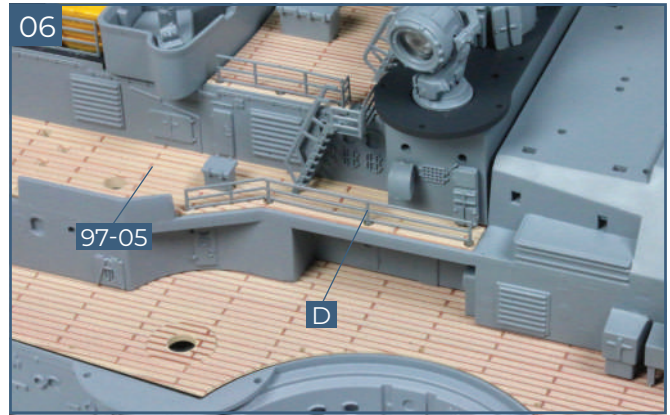
Check the fit of railing **B** on the aft starboard side of the decking **97-05**. Glue the four pegs in place in the decking.



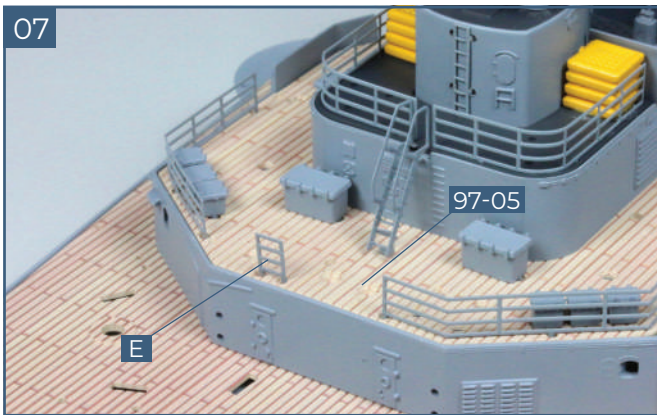
Cut railings **C** and **D** from the frame **103-03**: these sections of railings have to be bent once, as shown. Again, there are pegs at the bottom of the railings. For the exact angle of the bends, check the fit of the railings on the aft superstructure (see steps 5 and 6).



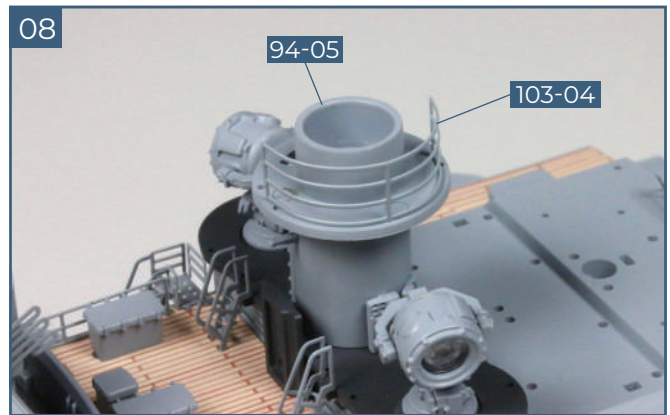
Check the fit of railing **C** on the forward port end of the decking **97-05**. Glue the four pegs in place in the decking.



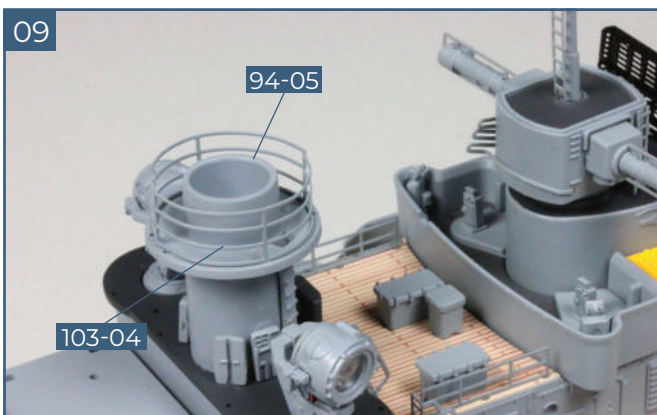
Check the fit of railing **D** on the forward starboard end of the decking **97-05**. Glue in place.



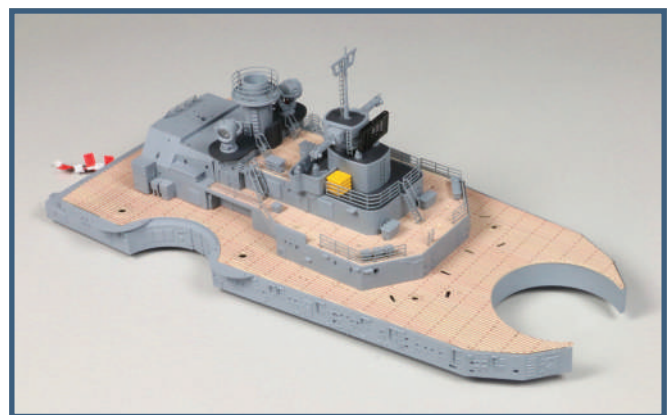
Cut the small railing **E** from frame **103-03**. It fits near the centre of the aft end of the decking **97-05**, as shown. Glue in place.



Check the fit of the first semicircular railing **103-04** around the aft anti-aircraft control station **94-05**. Glue the three pegs in place.



Fit the second semicircular railing **103-04** around the other side of the AA control station **94-05**. Glue in place.

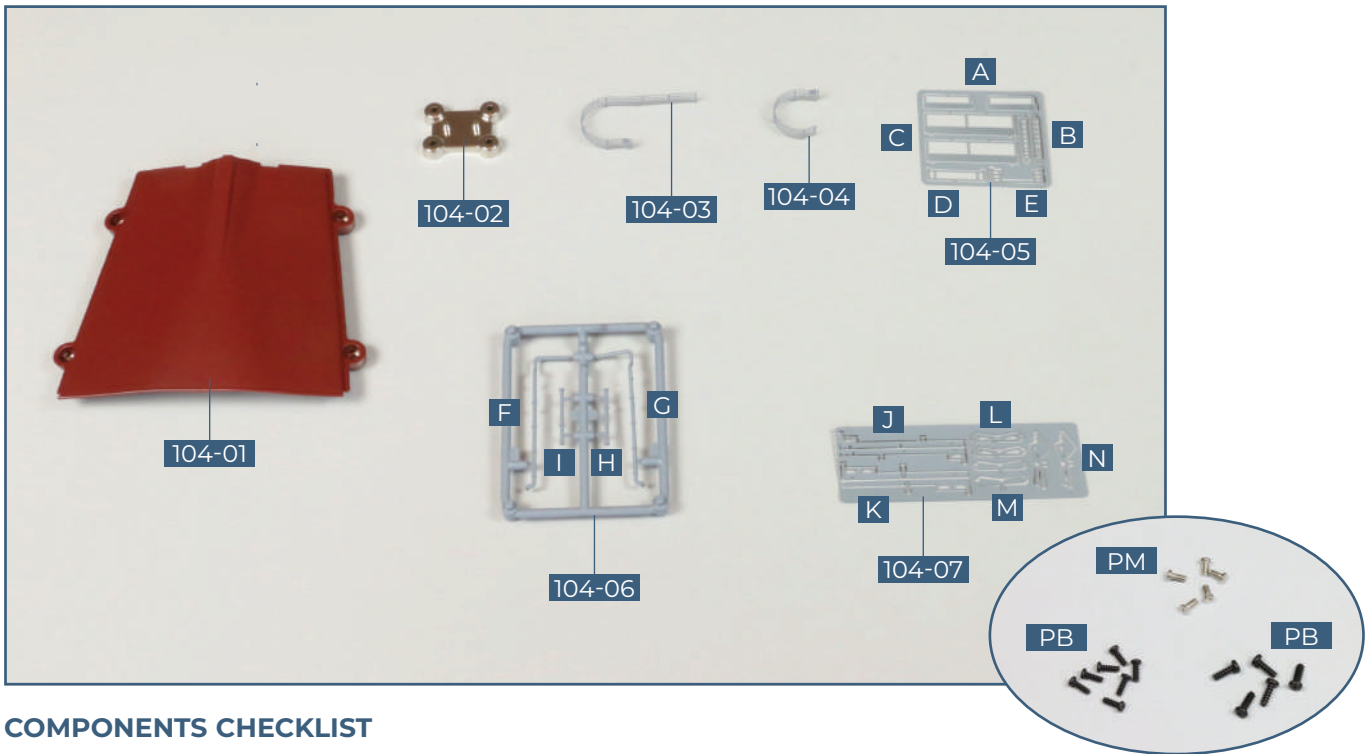


Completed work

Seven lengths of railing have been fitted to the aft superstructure. Another section has been added to the hull assembly (not shown).

STAGE 104

THE ELEVENTH KEEL SECTION



COMPONENTS CHECKLIST

104-01: Eleventh keel section

104-02: Connector

104-03: Railing

104-04: Railing

104-05: Gangways, ladders, frames, railings (A to E)

104-06: Pipework (F to I)

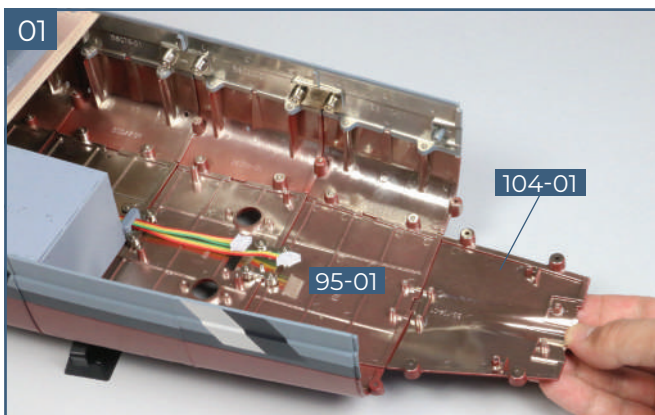
104-07: Boat mounts (J to N)

PM: Five 2 x 4mm PM screws

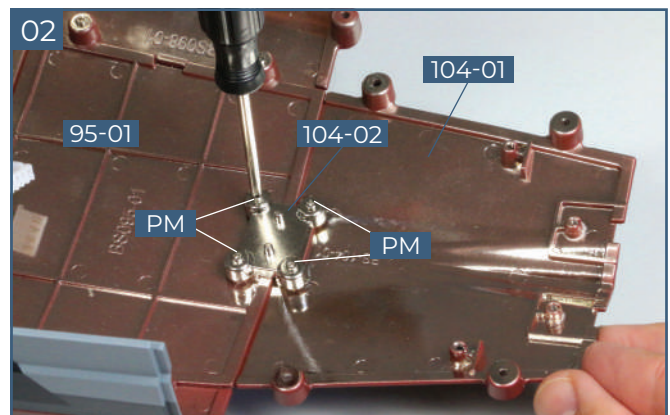
PB: Seven 2 x 5mm PB screws

PB: Five 2.3 x 6mm PB screws

01. FITTING THE KEEL SECTION

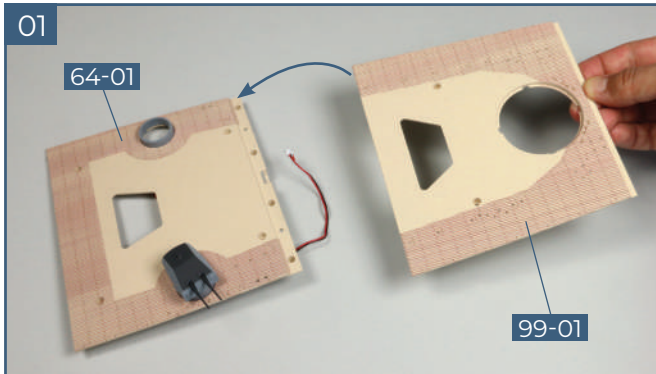


Place the hull assembly on your work surface and position the eleventh keel section **104-01** against the aft of the tenth keel section **95-01**, as shown.

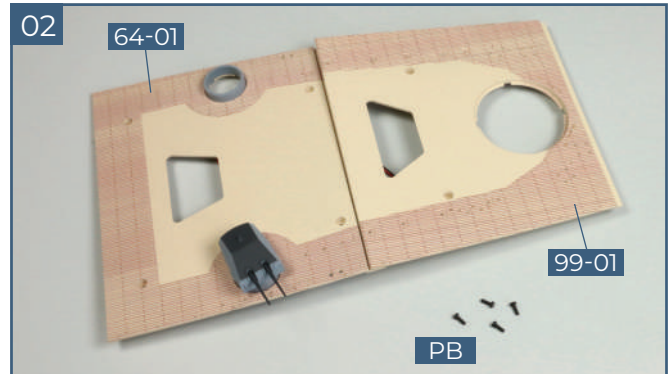


Fit the connector **104-02** on the four raised screw sockets and fix the keel sections **104-01** and **95-01** together using four 2 x 4mm **PM** screws.

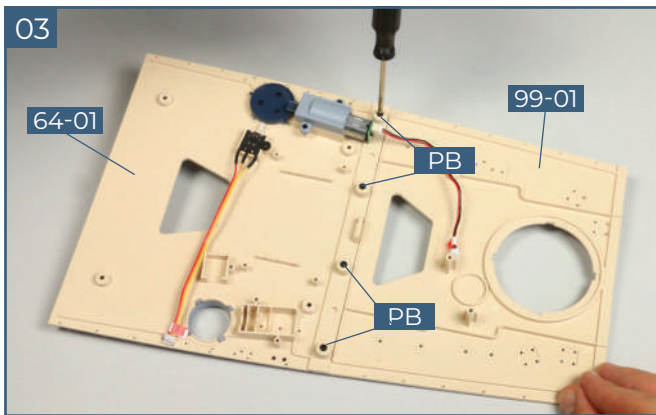
02. ASSEMBLING THE AFT SUPERSTRUCTURE



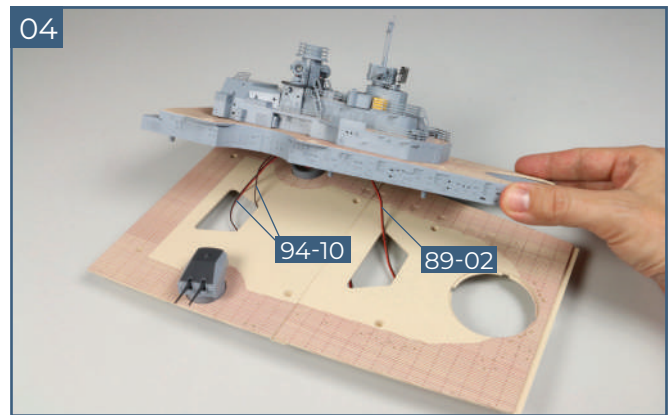
Place the upper deck section **64-01** on your work surface. Fit the upper deck section **99-01** to the rear edge of deck **64-01**, as indicated (blue arrow).



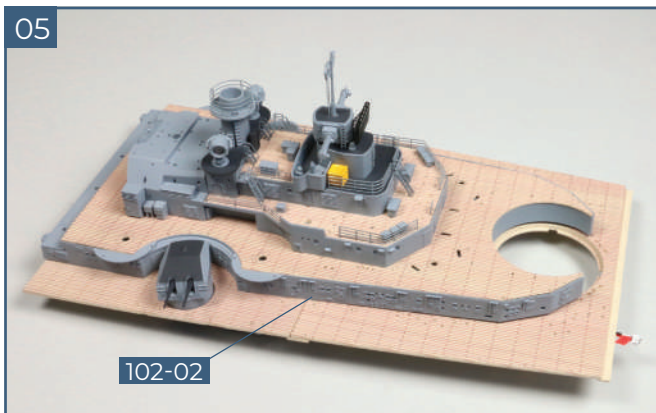
The lip of deck section **99-01** fits over the edge of deck section **64-01**. You will need four 2.3 x 6mm **PB** screws.



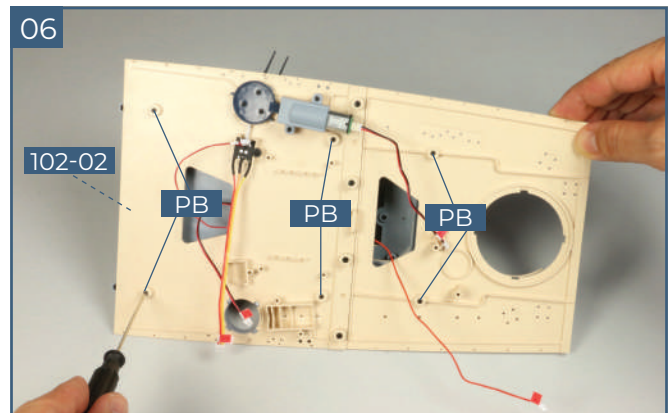
Holding the deck sections together, carefully turn them over. Identify the four fixing points and fix the deck sections together with the four 2.3 x 6mm **PB** screws.



Carefully turn the deck sections the right way up again. Take the aft superstructure assembly from stage 103 and thread the searchlight cables **94-10** and motor cable **89-02** through the holes in the deck, as shown.

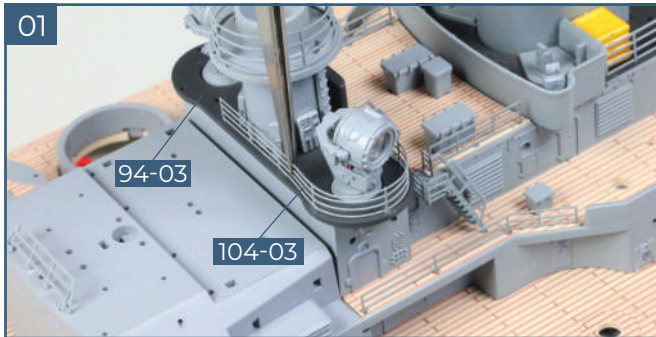


When correctly positioned, the aft superstructure covers the plain section of the deck (the area without any decking texture).



Holding the superstructure in place, carefully tip up the assembly. Fix the superstructure **102-02** in place from below the deck using six 2 x 5mm **PB** screws.

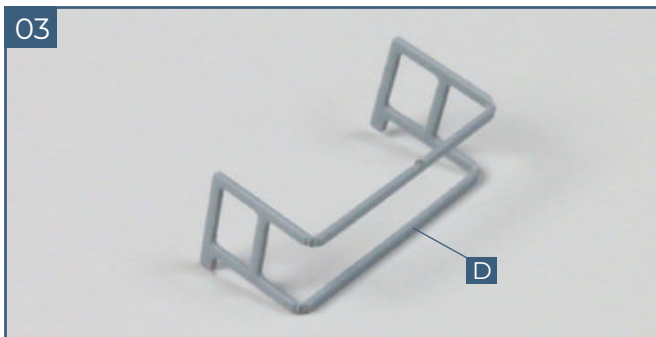
03. MORE DETAILS FOR THE AFT SUPERSTRUCTURE



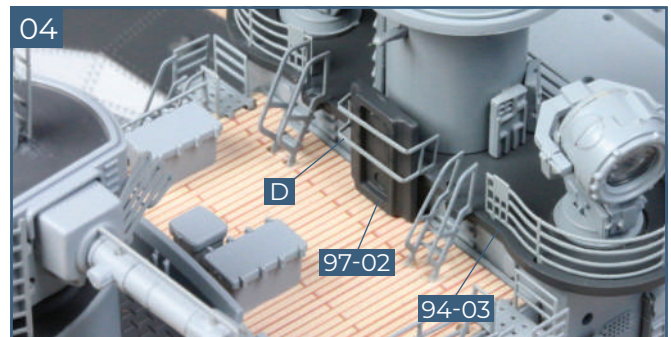
Place the assembly from the previous step the right way up on your work surface, taking care not to dislodge any of the details on the underside. Check the fit of the railing **104-03** on the port side of the searchlight platform **94-03**. Pegs on the lower edge of the railing fit into holes in the platform. When you are happy with the fit, glue in place.



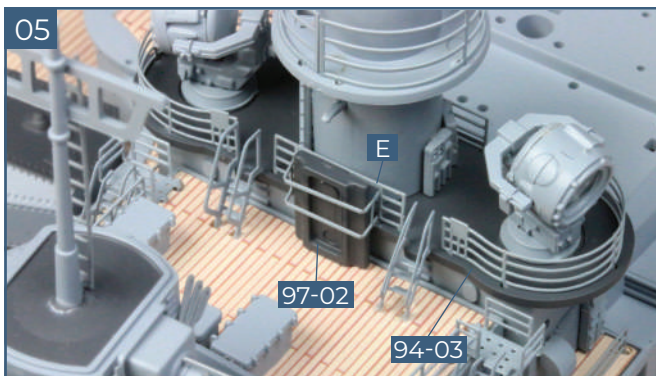
Similarly, fix the railing **104-04** in place on the other side of the searchlight platform.



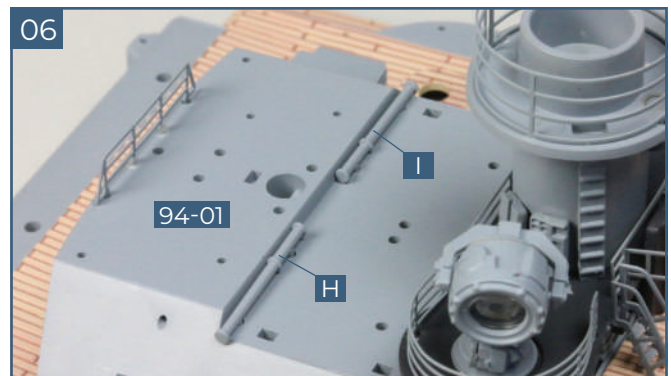
Cut part **D** from the metal frame **104-05**. Bend it at right angles along the marked lines as shown.



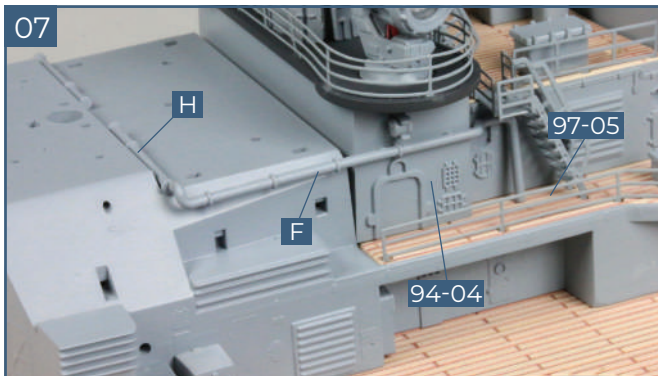
Check the fit of the frame **D** on the searchlight platform **94-03**: it wraps around the priority passage indicator **97-02**. When you are happy with the fit, glue the pegs in place.



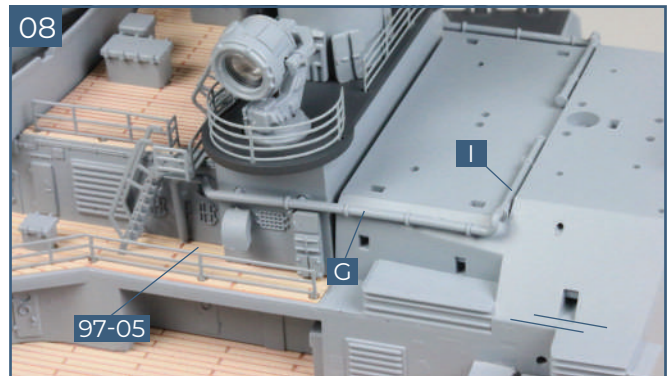
Cut railing **E** from the metal frame **104-05** and check the fit on the searchlight platform **94-03**, behind the priority passage indicator **97-02**. Glue in place.



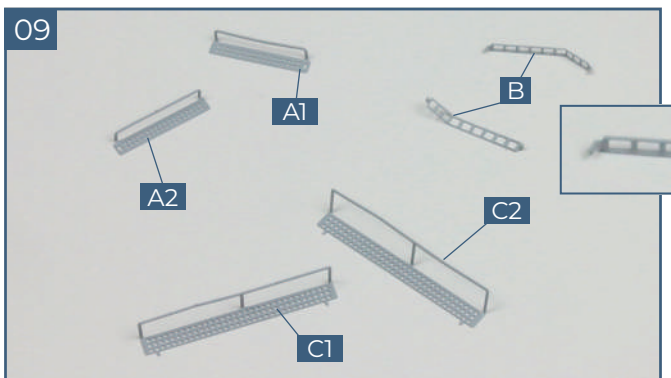
Cut the two identical pipes **H** and **I** from frame **104-06**. Noting the orientation, check the fit on the roof of the central hangar **94-01** and glue in place.



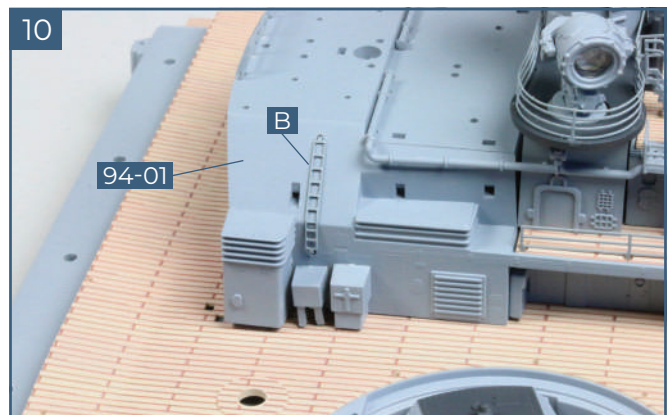
Pipe **F** from frame **104-06** fits down the side of the hangar, continuing the line of pipe **H**. Glue in place



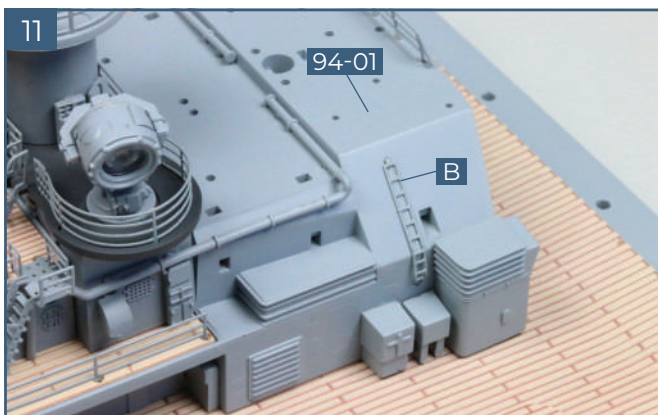
Pipe **G** from frame **104-06** fits down the other side of the hangar, continuing the line of pipe **I**. Glue in place.



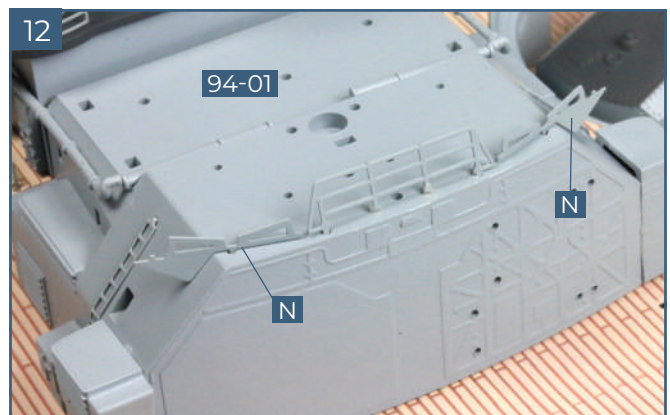
Cut two catwalks **A** and two ladders **B** from frame **104-05**. Bend the walkways of the catwalks at right angles, as shown, to create mirror images of each other, **A1** and **A2**. Bend the ladders **B** slightly, with the pegs bent at right angles as shown (see inset and steps 10 and 11). Cut two catwalks **C** from frame **104-05** and bend the walkways at right angles, as shown, to create mirror images, **C1** and **C2**. These will be fitted in a future stage, so store them carefully until needed.



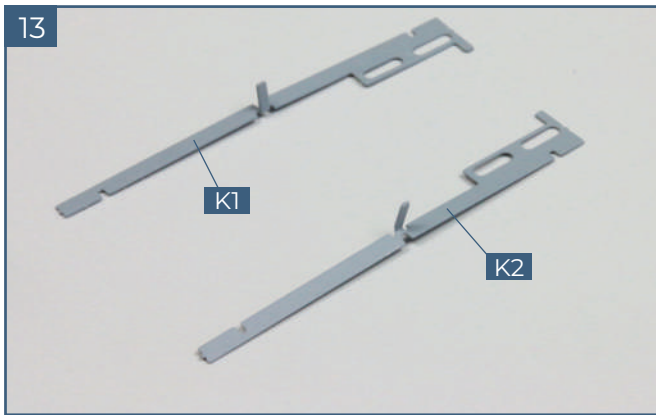
The first ladder **B** is fitted to the port side of the central hangar **94-01**. Check that you have bent it so that it fits correctly and glue in place.



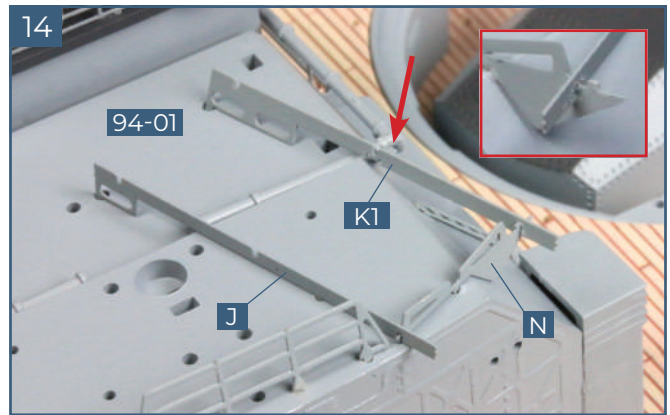
The second ladder **B** is fitted to the starboard side of the central hangar **94-01**. Check that it fits correctly and glue in place.



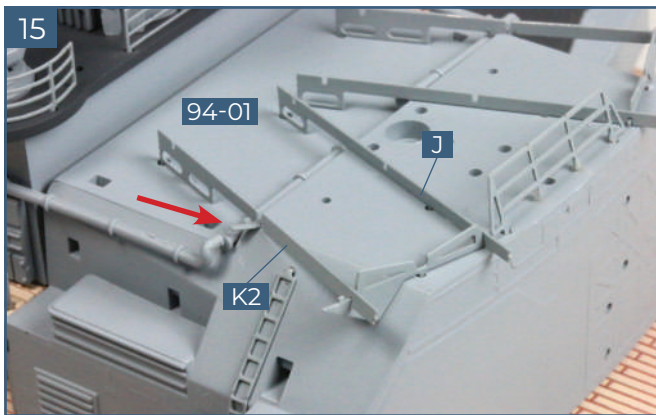
Cut the boat mounts **N** from frame **104-07**. Check the fit on either side of the hangar and glue in place, as shown.



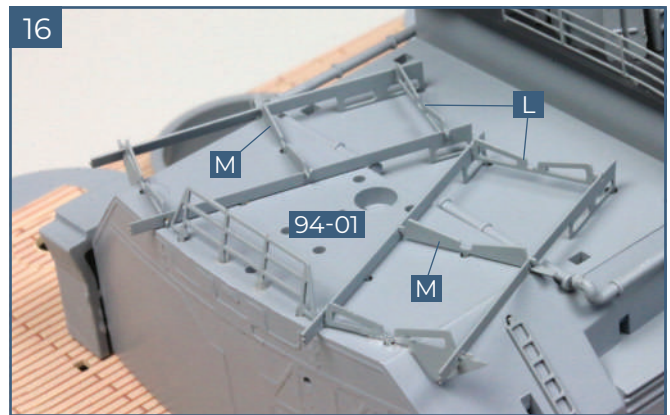
Cut the two supports **K** from the frame **104-07**. There is a small peg halfway along each bracket: bend these at right angles in opposite directions to create mirror images of each other, **K1** and **K2**. Cut the supports **J** from the frame **104-07**.



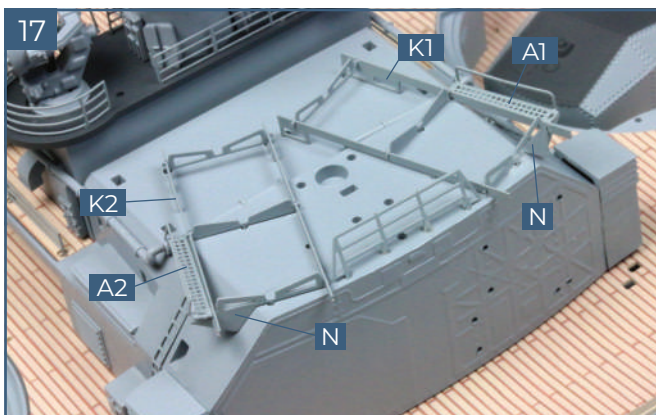
A support **J** and support **K1** fit at an angle across the port side of the roof of the hangar **94-01**. The bent peg of part **K1** points outwards (arrow). Recesses near the ends of parts **J** and **K1** fit over the ends of the boat mount **N** (see inset). Glue the parts in place.



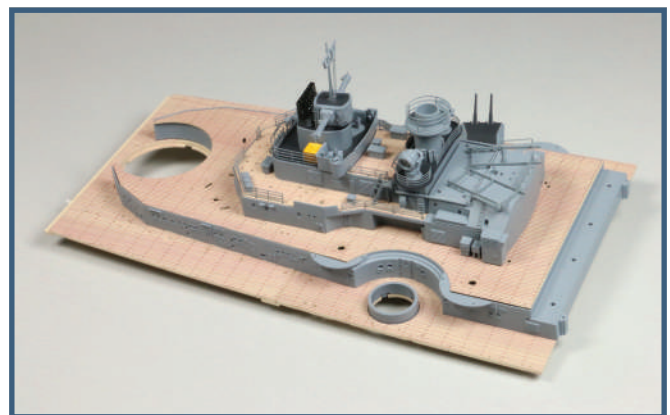
Similarly, the second support **J** and support **K2** fit on the other side of the roof of the hangar **94-01** with the peg pointing outwards (arrow). Glue in place, as shown.



Cut the boat mounts **L** and **M** from frame **104-07**. Fit boat mounts **M** into the notches at the middle of the boat supports. Fit boat mounts **L** in the notches near the end of the the supports. Glue in place, as shown.



Finally, fit the two catwalks **A1** and **A2** to the sides of the boat support structure: they are glued to the boat mounts **N** and the bent peg of the supports **K1** and **K2**.



Completed work

The aft superstructure has been fitted to the upper deck, and further details have been added. We have also fitted another section of the hull (not shown).