

BISMARCK

THE LEGENDARY BATTLESHIP



Pack 08 | 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 eighth model pack, you will assemble:

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.

STAGE 81: A HULL SECTION AND CATWALKS

STAGE 82: MORE DETAILS FOR THE HANGARS AND MAIN DECK

STAGE 83: FITTING THE NEXT KEEL SECTION

STAGE 84: THE MAIN CIRCUIT BOARD

STAGE 85: A SECTION OF HULL AND DECK DETAILS

STAGE 86: TWO TWIN 10.5CM GUNS AND RAILINGS

STAGE 87: HEAVY AA GUNS AND BRIDGE WINGS

STAGE 88: THE NEXT SECTION OF THE HULL

STAGE 89: MOTOR FOR THE AFT FIRE CONTROL POST

STAGE 90: A HULL SECTION AND MAGNETS

STAGE 91: THE AFT FIRE CONTROL POST

STAGE 92: THE TURBINE ROOM

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.

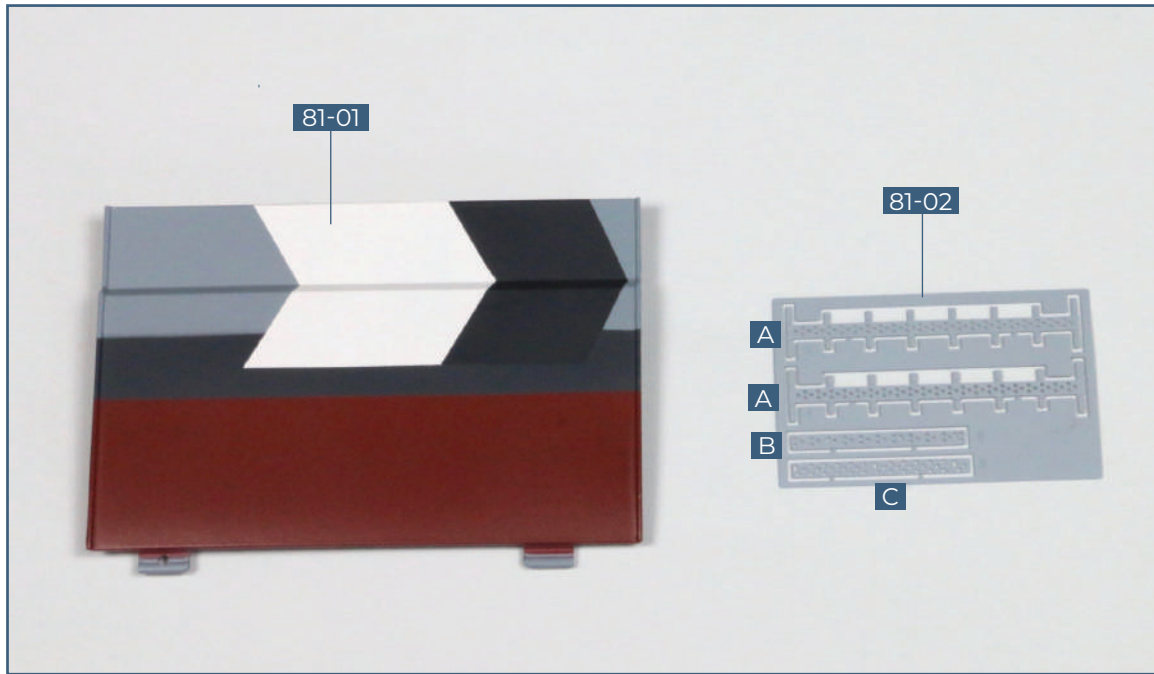
During the course of this build, you will receive many pieces that you will assemble immediately – following the instructions in the corresponding stage – and other pieces that you should store safely to one side, for use in future assembly stages.



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 81

A HULL SECTION AND CATWALKS

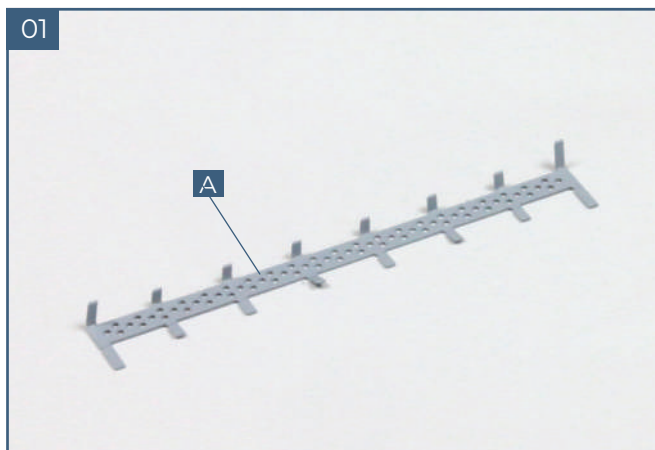


COMPONENTS CHECKLIST

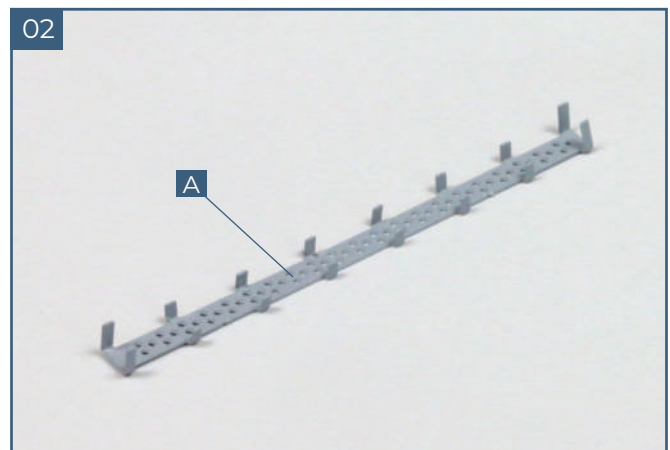
81-01: Upper hull section for port side

81-02: Four catwalks (A to C)

01. FITTING THE CATWALKS

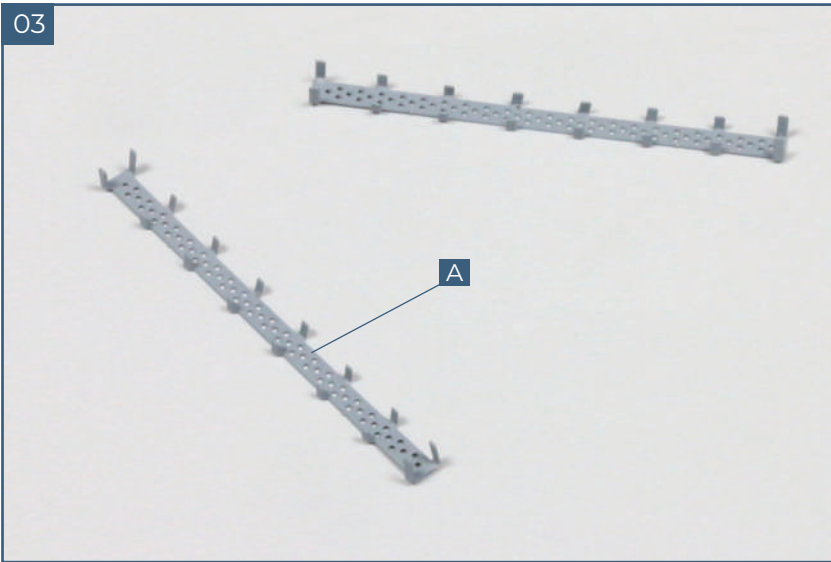


Cut one of the longer catwalks, **A**, from frame **81-02**. Use tweezers or fine pliers to bend the eight 'legs' up at right angles down one side of the catwalk, as shown.



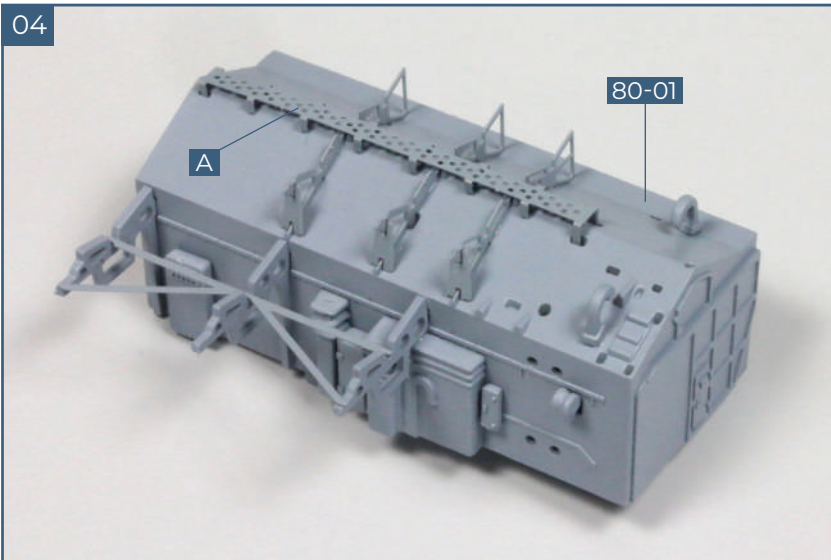
In the same way, bend the eight legs up at right angles on the other side of the catwalk, as shown.

03



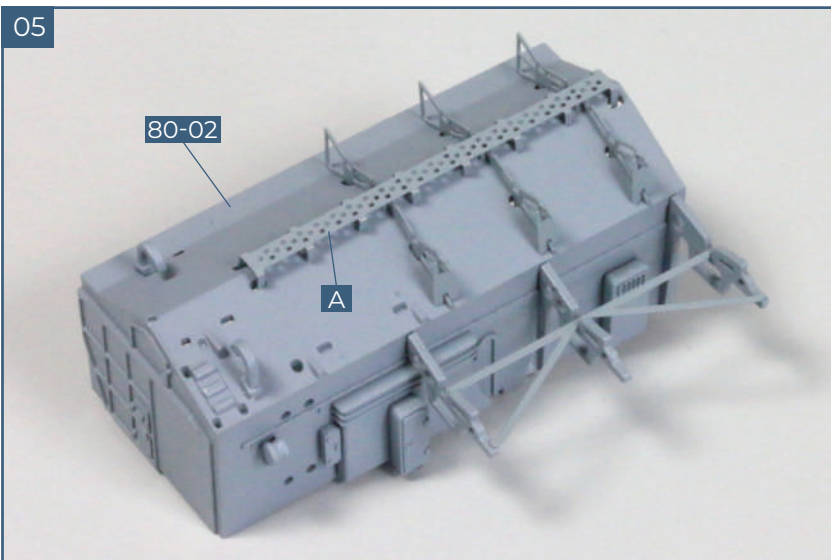
Repeat steps 1 and 2 with the second catwalk, **A**, so that the legs are bent up at right angles.

04

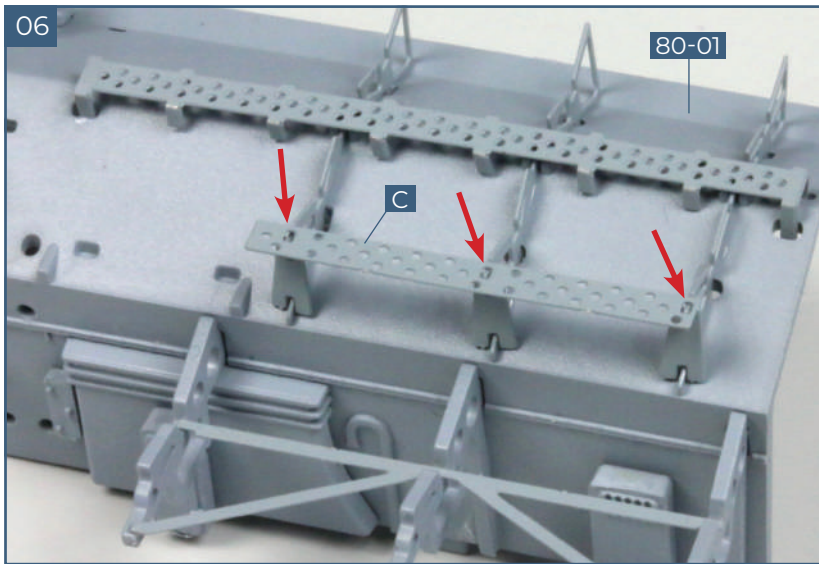


Take the port hangar **80-01** from the previous stage. Check the fit of the first catwalk down the centre of the roof, so that the legs fit down into the recesses. When you are happy with the fit, apply a little superglue to the base of each leg and fix the catwalk in place.

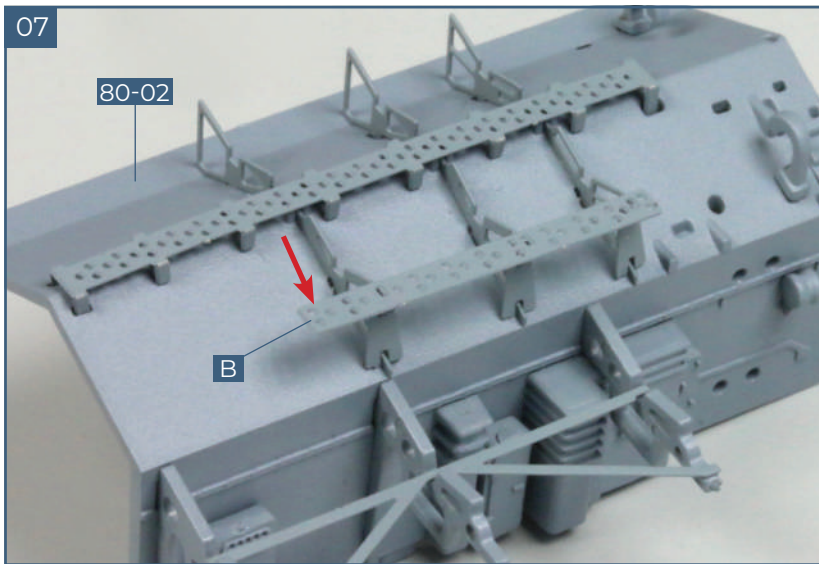
05



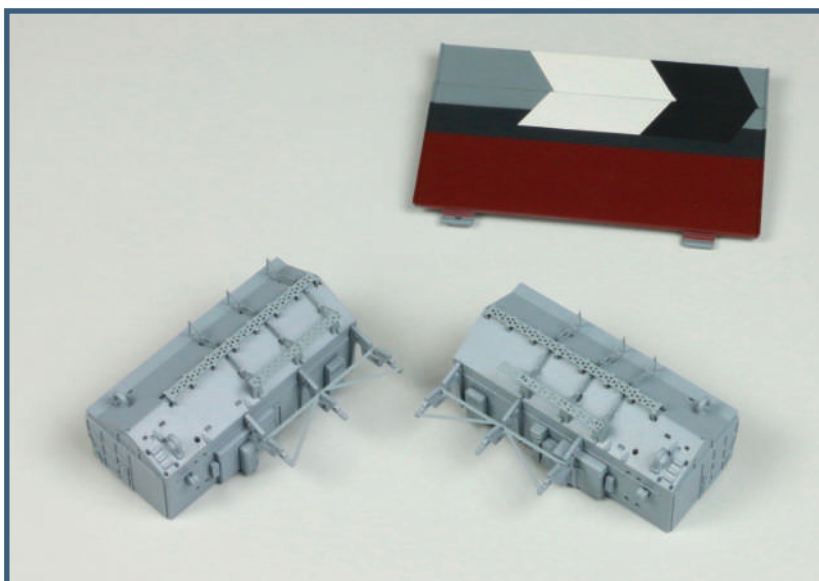
Repeat the previous step to fit the second catwalk **A** along the top of the starboard hangar **80-02**.



Cut the catwalk **C** from the frame **81-02**. Check the fit along the side of the boat cradle on the roof of the port hangar **80-01**. Pegs on parts **S**, **T** and **U** from frame **80-06** fit into three slightly larger holes at the ends and centre of the catwalk (arrows). Note how the catwalk overhangs slightly to the left in the photograph. When you are happy with the fit, glue in place.



Cut the catwalk **B** from frame **81-02** and check the fit on the boat cradle on the starboard hangar **80-02**. Again, there are slightly larger holes in the catwalk where the pegs on the frames fit. Ensure that you have it the right way round – one end extends further than the other (arrow). When you have it fitted correctly, glue it in place.

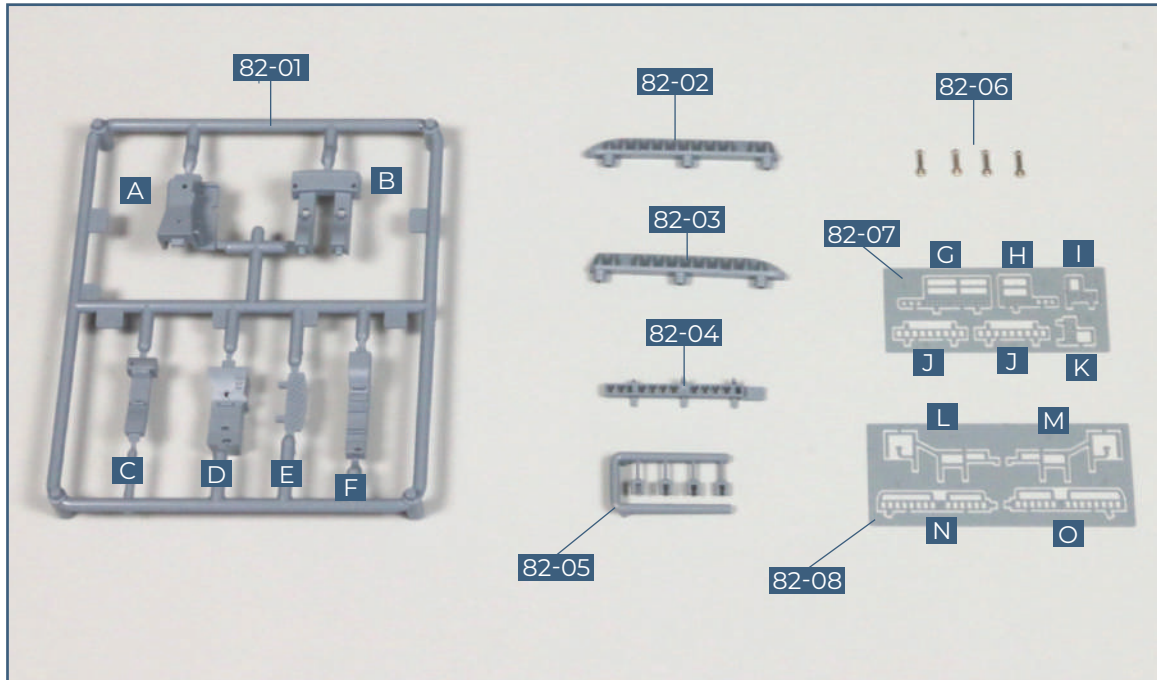


Completed work

Catwalks have been fitted to the top of the aircraft hangars. The hull section will be fitted in a future stage.

STAGE 82

MORE DETAILS FOR THE HANGARS AND MAIN DECK



COMPONENTS CHECKLIST

82-01: Vents and details for second main gun, Bruno (A to F)

82-02: Rear port breakwater

82-03: Rear starboard breakwater

82-04: Accommodation ladder

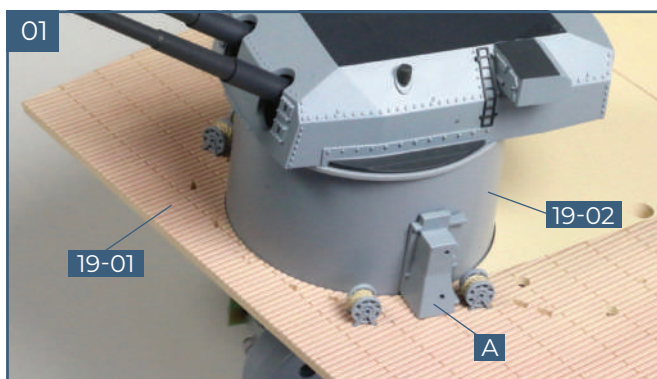
82-05: Frame with four joints

82-06: Four levers

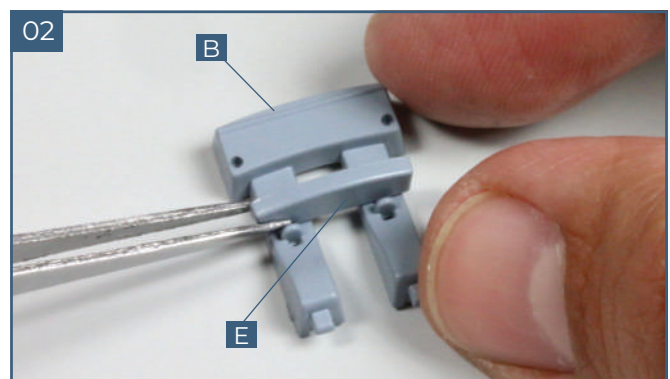
82-07: Catwalks and ladders (G to K)

82-08: Handrails and ladders (L to O)

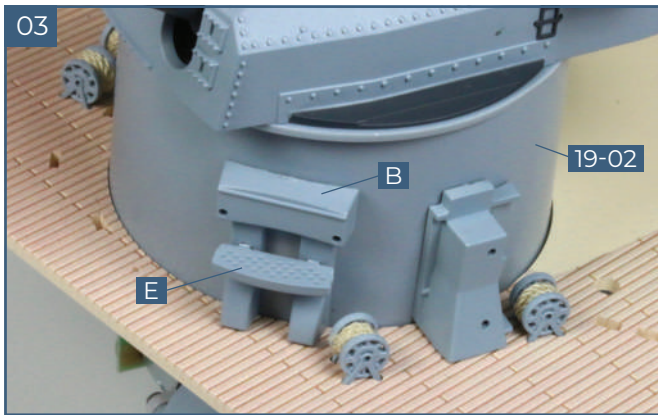
01. VENTS FOR THE BARBETTE OF THE SECOND MAIN GUN



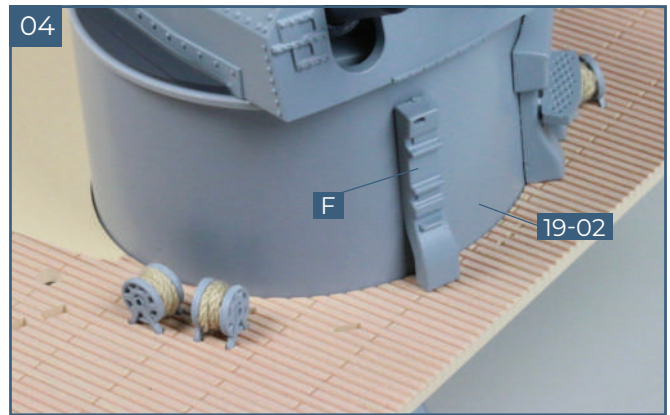
Take the upper deck structure **19-01**. Cut the vent **A** from the frame **82-01**. Check the fit on the port side of the barbette **19-02** as shown. Glue in place.



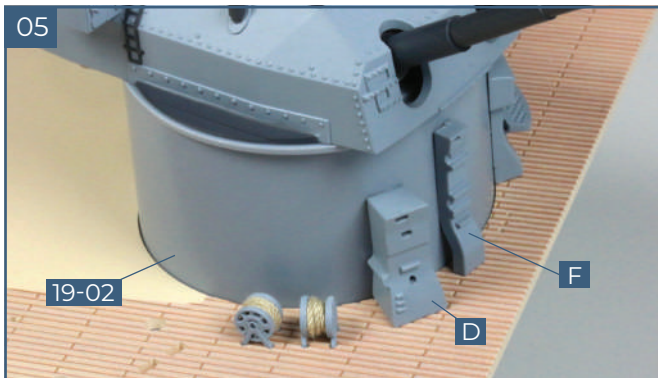
Cut the vent **B** and ledge **E** from frame **82-01**. Check the fit and glue the ledge into the holes in the vent as shown.



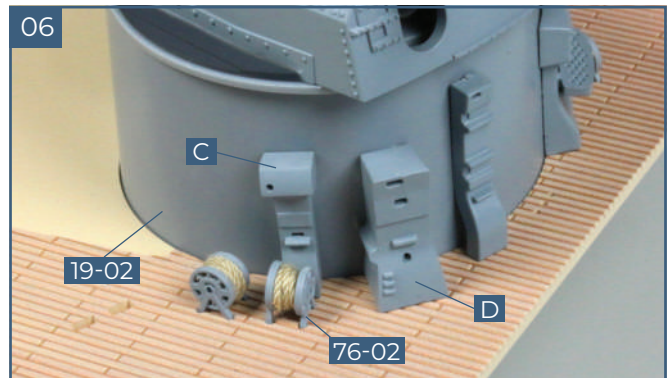
Check the fit of the vent **B** on the side of the barbette **19-02** and glue in place as shown.



Cut the vent **F** from the frame **82-01**. Check the fit to the starboard side of the barbette and glue in place as shown.

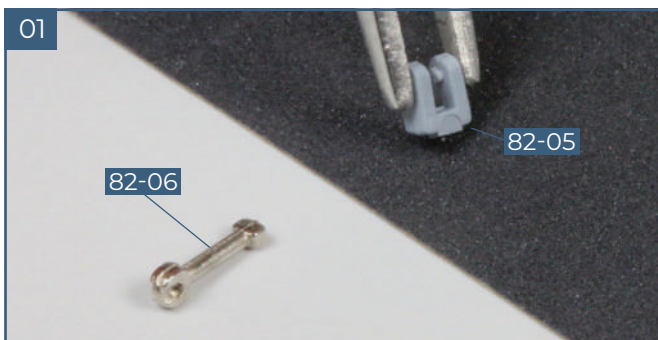


Cut vent **D** from frame **82-01**. Check the fit on the side of the barbette and glue in place as shown, near vent **F**.

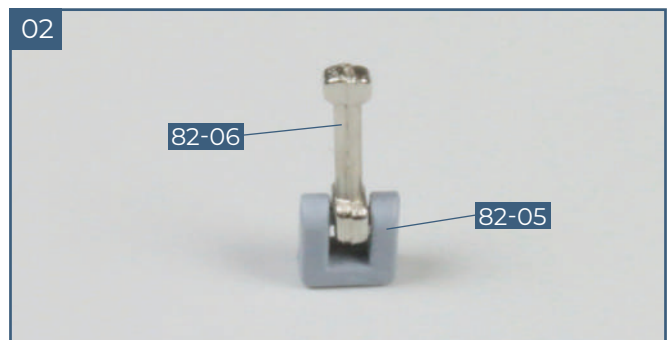


Finally, cut the vent **C** from the frame and check the fit near the vent **D**, slipping it behind the small rope reel **76-02**. Glue in place as shown.

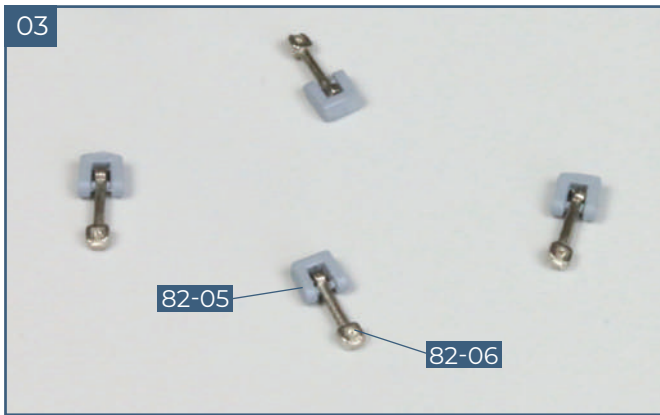
02. TWO BREAKWATERS AND A LADDER



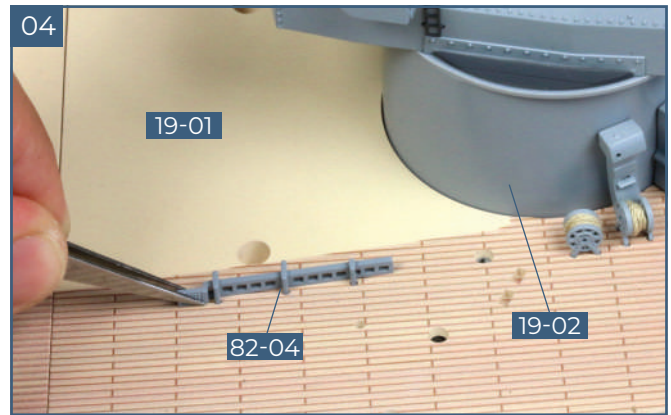
Cut a joint from frame **82-05** and smooth the underside with sandpaper. You will also need a lever **82-06**.



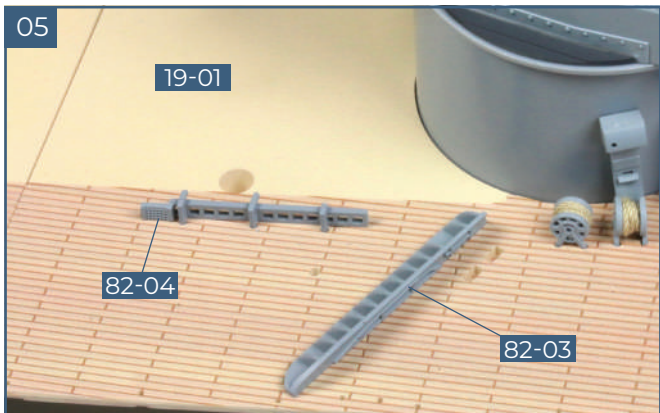
Push the end of the lever **82-06** into the joint **82-05** as shown. The lever clicks into place – do not use any glue.



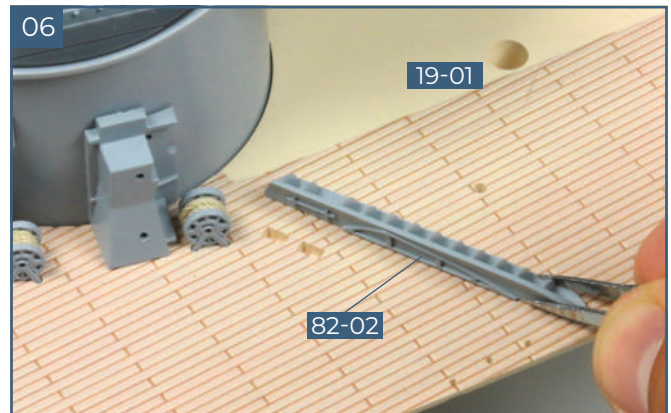
Repeat the process with three more levers **82-06** and joints **82-05** to make a total of four lever assemblies.



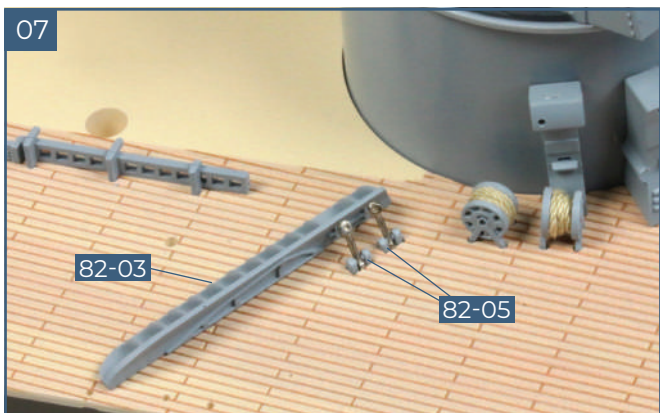
Identify three recesses in the starboard side of the deck **19-01** where the ladder **82-04** fits. When you are happy that you have it positioned correctly, apply a little superglue to the pegs on the ladder and glue in place.



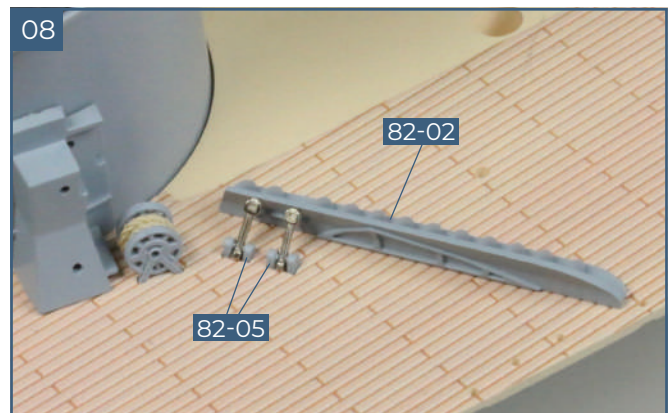
The starboard rear breakwater **82-03** is fitted to the starboard side of the upper deck section **19-01** not far from the accommodation ladder **82-04**. Glue in place.



The port rear breakwater **82-02** is fitted in the corresponding place on the other side of the upper deck section **19-01**. Glue in place.

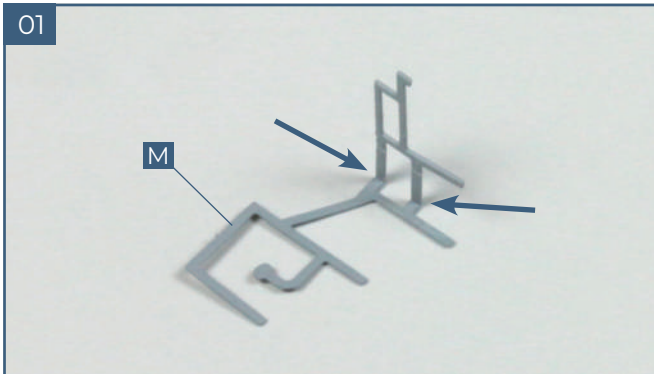


Take two of the lever joints **82-06/82-05**. They are positioned at one end of the starboard breakwater **82-03**, with the joints **82-05** fitted into recesses in the deck. When you are happy with the fit, glue in place so that the levers lean up against the breakwater.

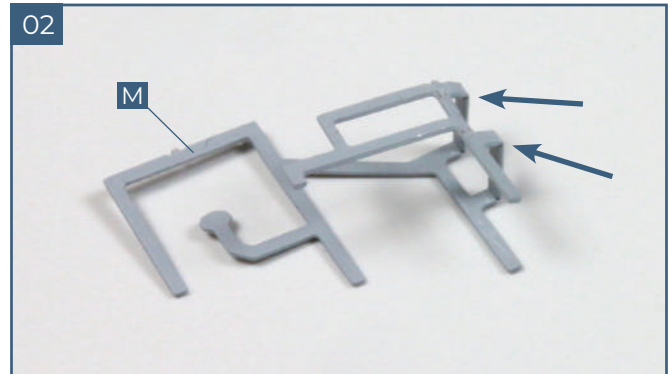


Similarly, glue two lever joints **82-06/82-05** in place at the end of the port breakwater **82-02**.

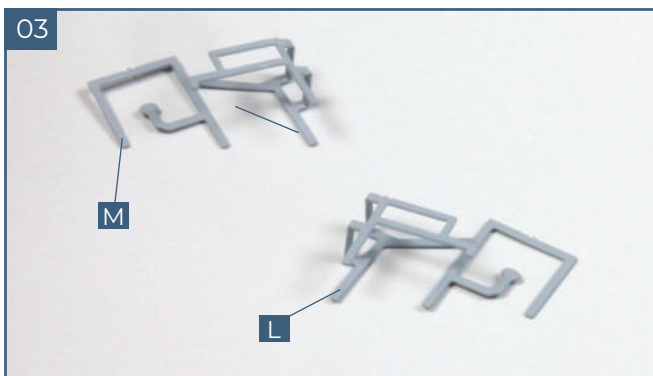
03. ADDING DETAILS TO THE HANGARS AND FIXING IN PLACE



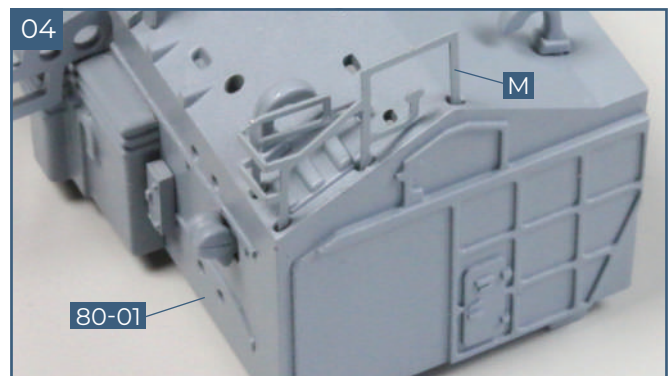
01 Cut handrail **M** from frame **82-08**. Bend the handrail at right angles along the two fold lines (arrows).



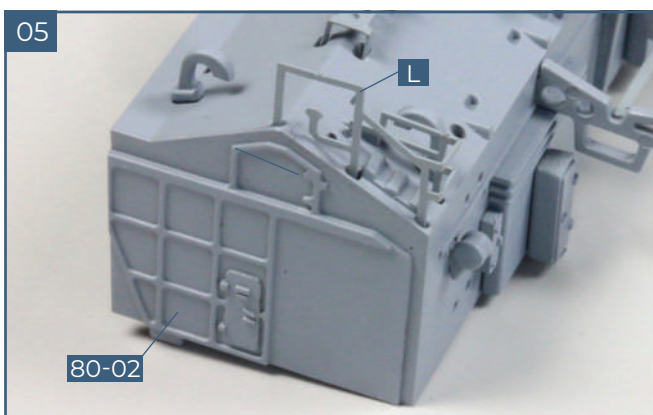
02 Bend the handrail **M** again at right angles at the next two fold lines, to make a U-shape as shown.



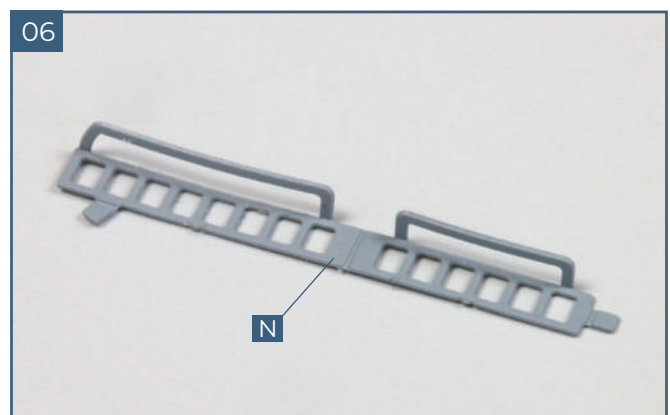
03 Cut handrail **L** from frame **82-08**. Bend it twice at right angles to make a U-shaped rail that is a mirror image of handrail **M**.



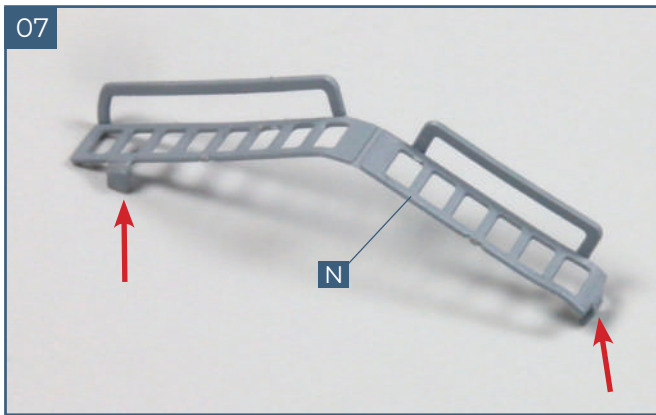
04 Take the port hangar **80-01**. Check the fit of handrail **M** on the roof. When you have it positioned correctly, apply a little superglue to the pegs and fix them into the recesses in the roof.



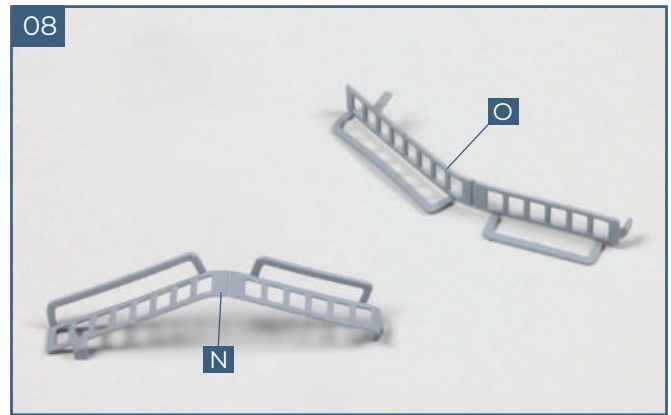
05 Similarly, fix handrail **L** in place on the roof of the starboard hangar.



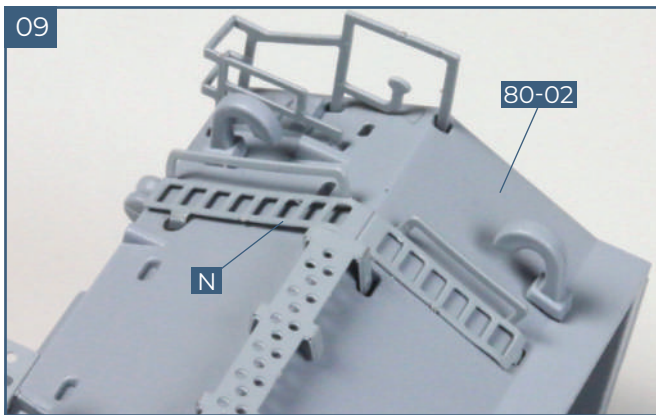
06 Cut ladder **N** from frame **82-08** and bend the two handrails upwards at right angles along the fold lines. Make sure you bend them in the correct direction, as shown.



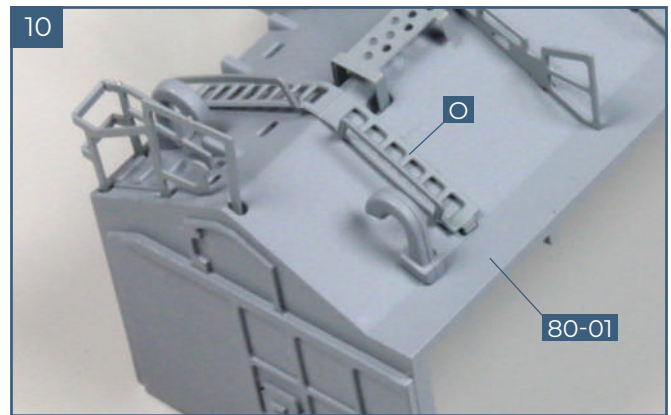
Bend the two legs of the ladder **N** at right angles (arrows) as shown, making sure you bend them in the correct direction. The ladder is then bent at the central fold line so that the angles of the ladders match the pitch of the roof (see step 9, below).



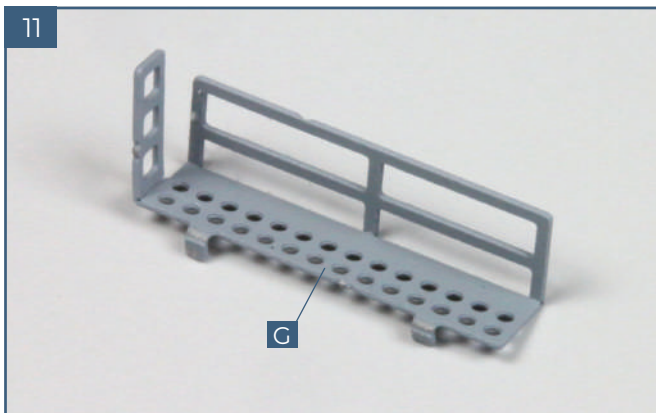
Cut ladder **O** from frame **82-08**. Repeat the instructions in the last two steps to create a double ladder with feet and handrails that will fit over the roof of the port hangar.



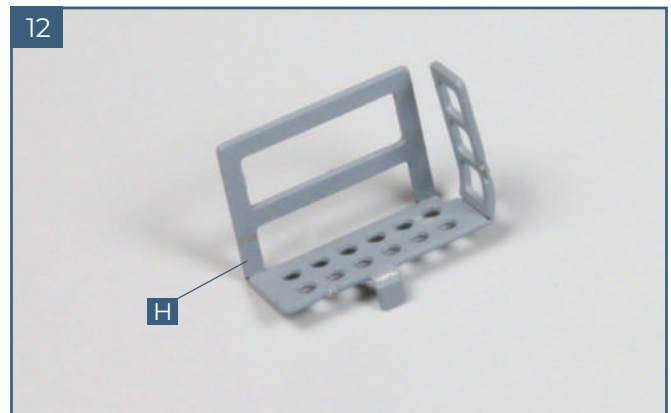
Check the fit of ladder **N** on the roof of the starboard hangar **80-02**. Glue the two legs into the corresponding holes in the roof.



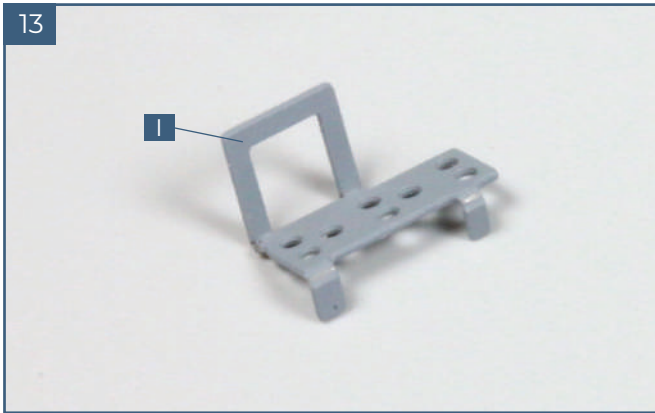
Fit ladder **O** into the roof of the port hangar **80-01** and glue in place as shown.



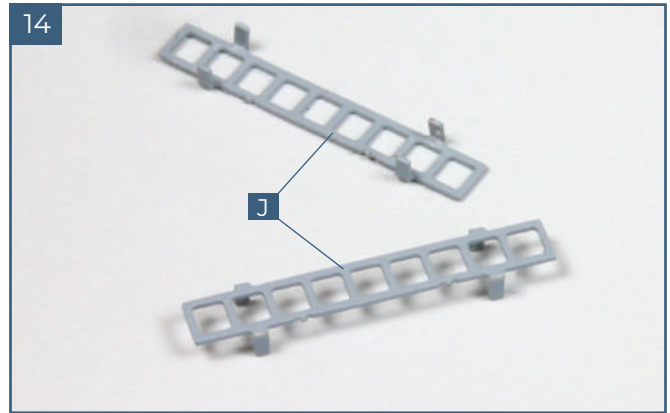
Cut catwalk **G** from frame **82-07**. Bend the rails upwards at right angles and the legs downwards, as shown.



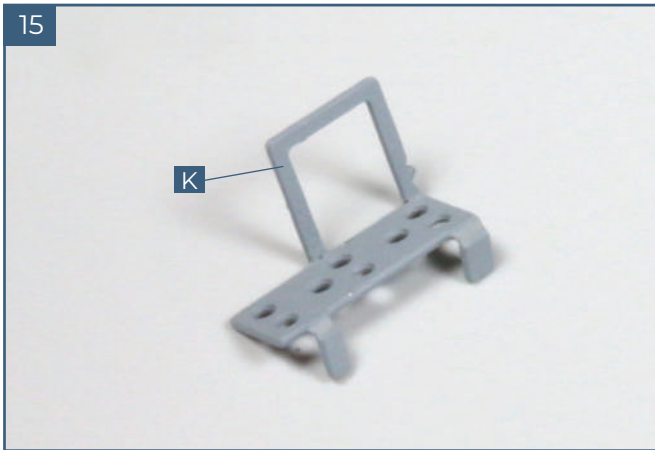
Cut the catwalk **H** from frame **82-07**. Again, bend the rails upwards at right angles and the legs downwards, as shown.



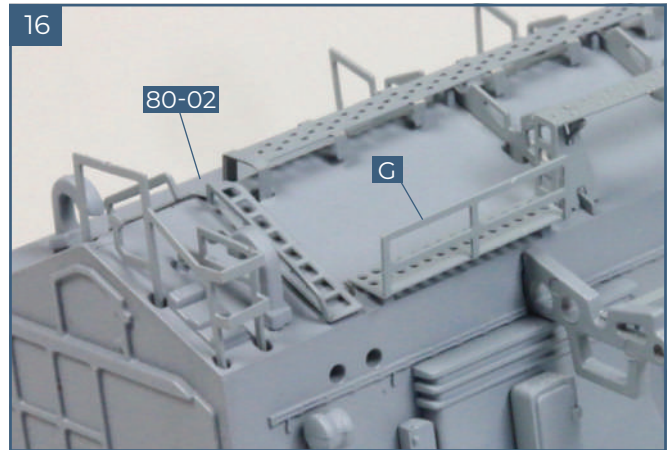
13 Cut the small catwalk **I** from frame **82-07** and bend the rails and legs again as shown.



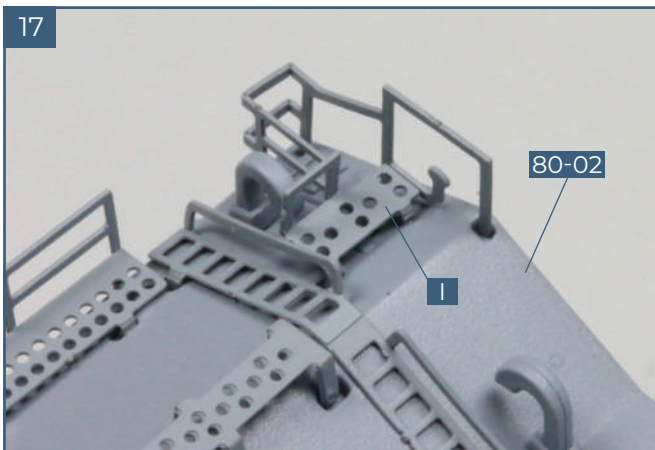
14 Take the two ladders **J** from frame **82-07** and bend the legs downwards at right angles as shown to create two identical ladders.



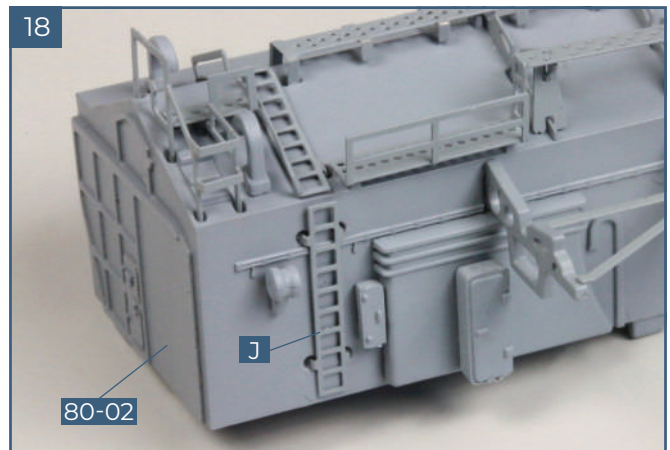
15 Take the small catwalk **K** from frame **82-07** and bend the handrail and feet as shown.



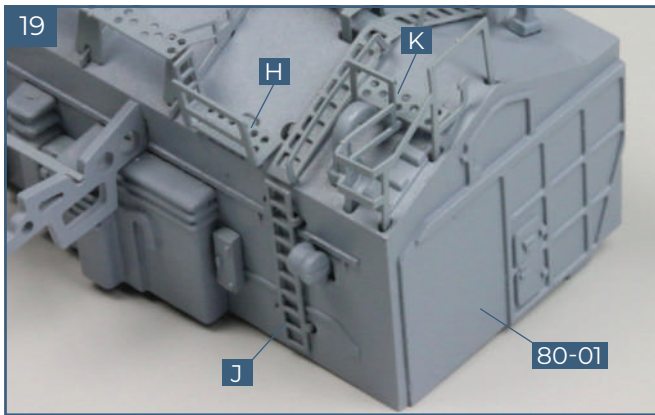
16 Take the starboard hangar **80-02** and check the fit of the catwalk **G** along the side of the roof. Glue in place as shown.



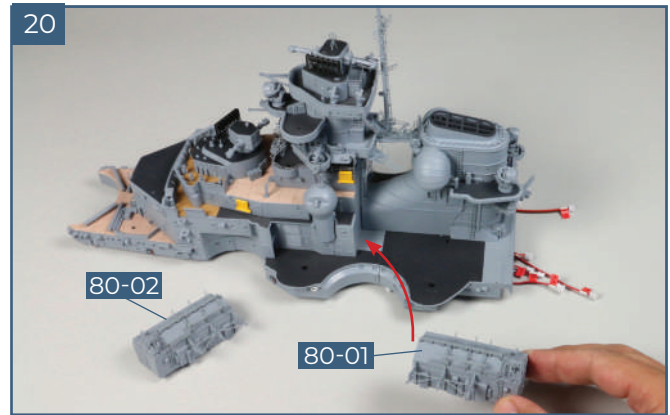
17 Glue the small catwalk **I** in place near the end of the starboard hangar **80-02** as shown.



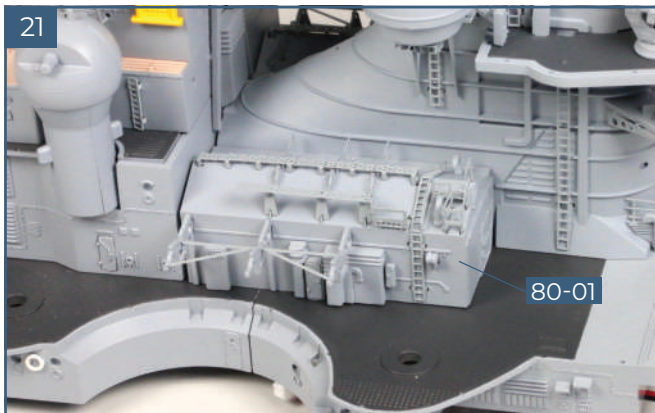
18 One of the two ladders **J** is glued to the outer wall of the starboard hangar **80-02**, as shown.



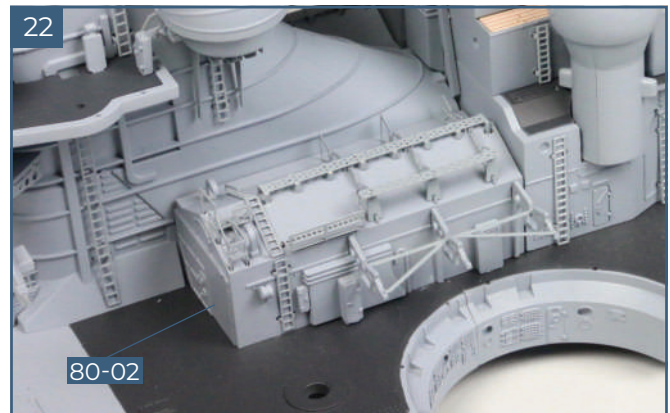
Glue the catwalks **H** and **K** to the roof of the port hangar **80-01**, as shown. Check the fit of the second ladder **J** and fix in place on the side of the hangar.



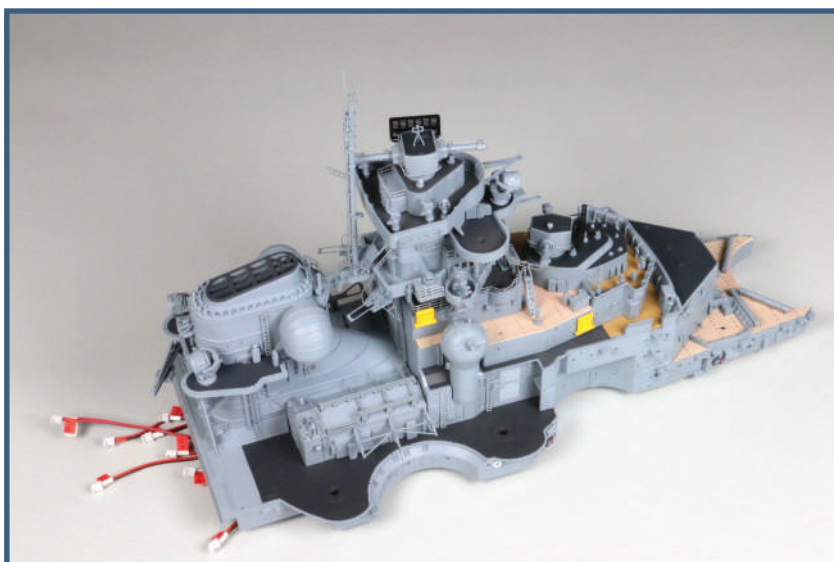
Take the forward superstructure and check the position of the port hangar **80-01** beside the funnel. The open end of the hangar butts up against the forward superstructure (arrow).



Two pegs on the base of the hangar **80-01** fit into recesses in the deck. Glue in place.



Similarly, the starboard hangar **80-02** fits on the other side of the funnel on the superstructure deck. When you are happy with the fit, glue it in place.

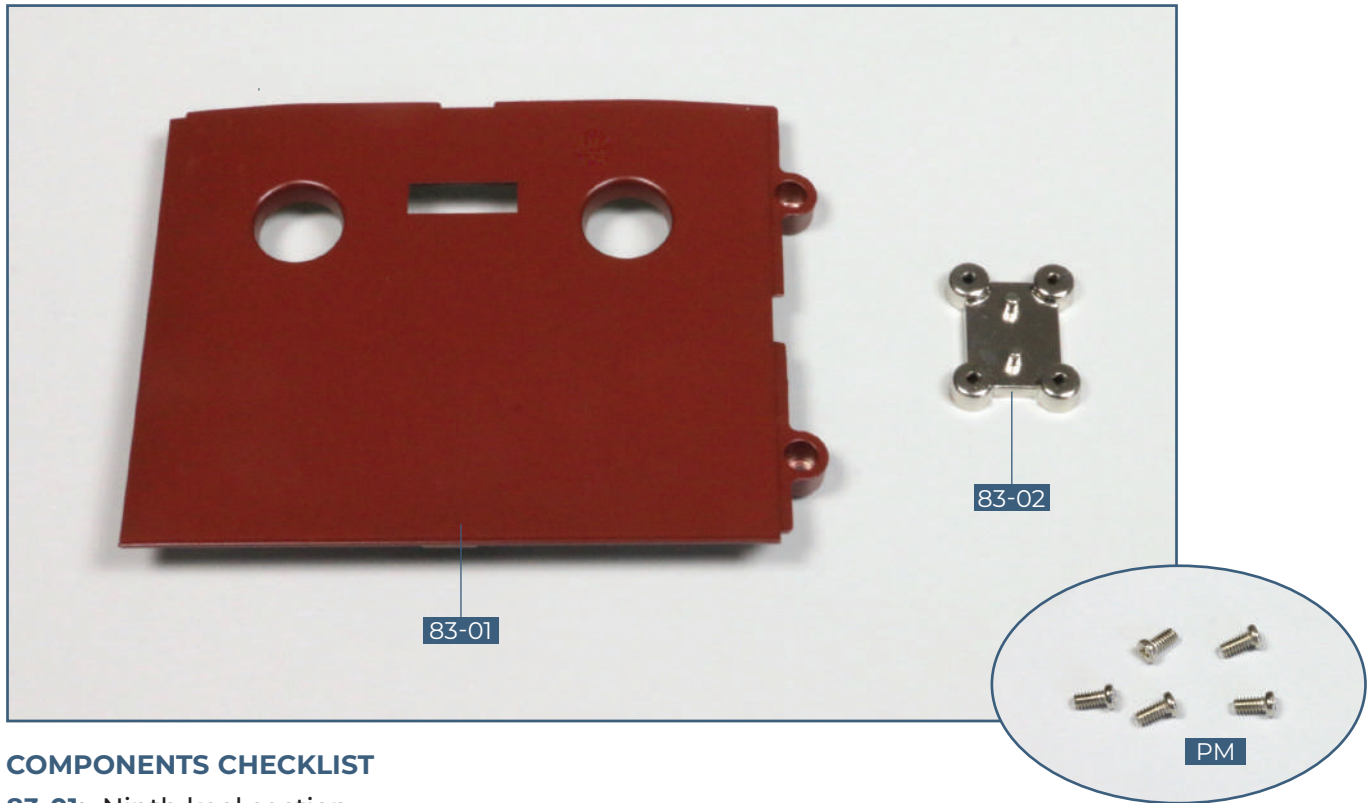


Completed work

Vents have been fitted to the barbettes and breakwaters have been fitted to the deck, along with the accommodation ladder (which is used for accessing the battleship from a boat). Ladders and catwalks have been attached to the aircraft hangars and the hangars have been fitted to the superstructure deck.

STAGE 83

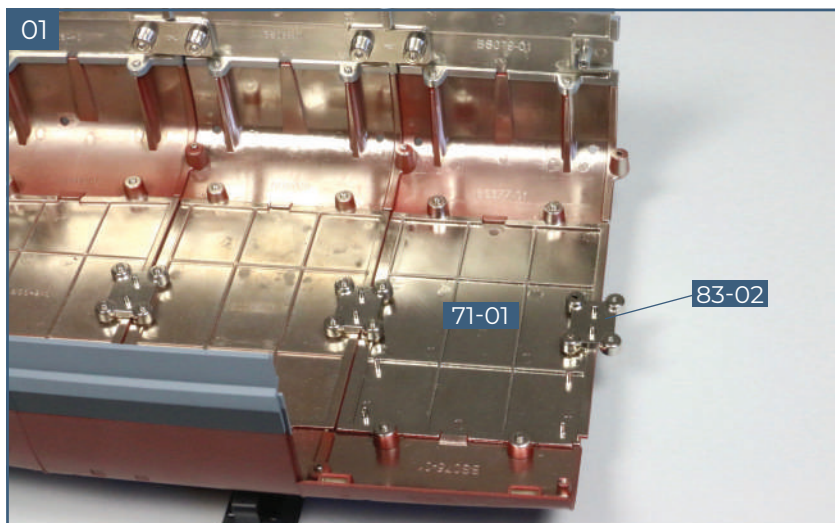
FITTING THE NEXT KEEL SECTION



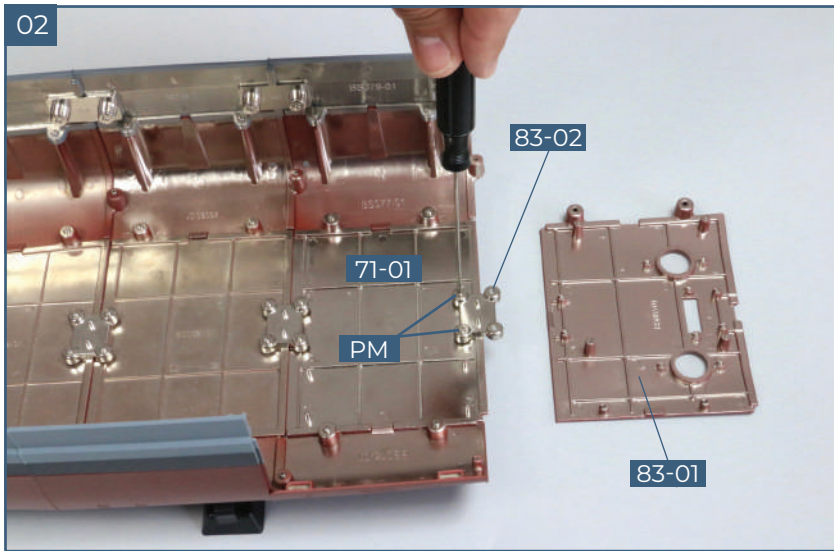
COMPONENTS CHECKLIST

- 83-01:** Ninth keel section
- 83-02:** Connector
- PM:** Five PM 2 x 4mm screws

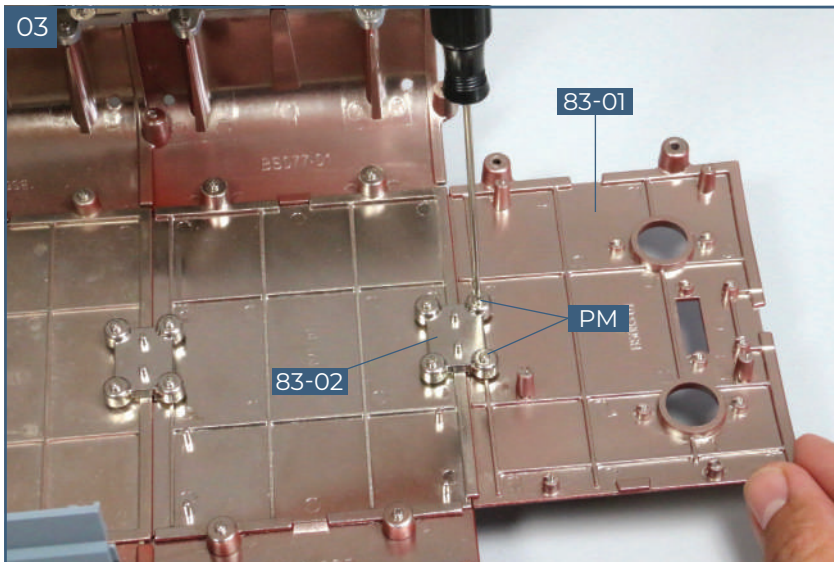
01. FITTING THE KEEL SECTION



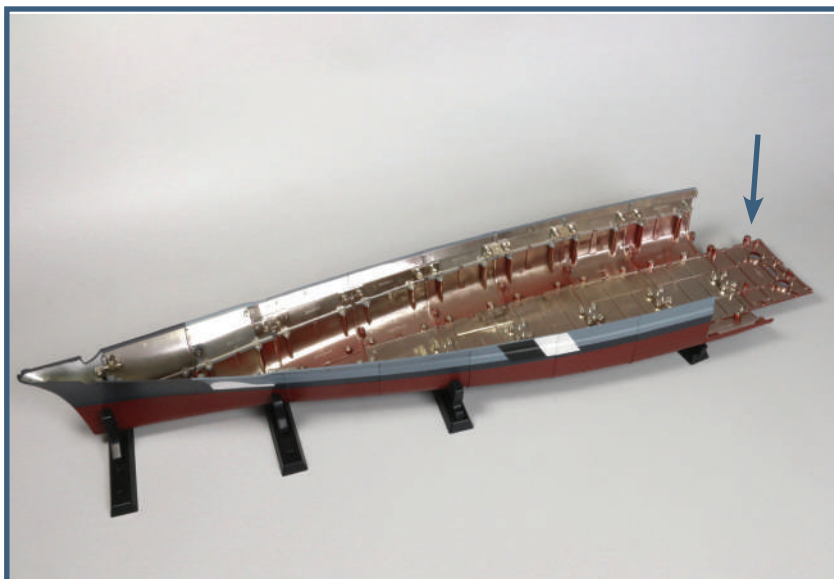
Take the hull assembly from stage 79. Fit the connector **83-02** on the two raised screw holes in the aft of the eighth keel section **71-01**.



Fix the connector **83-02** to the keel section **71-01** with two **PM** 2 x 4mm screws. Check the orientation of the ninth keel section **83-01**, aligning it as shown.



Fit the raised screw sockets of keel section **83-01** into the corresponding sockets in the connector **83-02**. Fix the parts together using two **PM** 2 x 4mm screws.

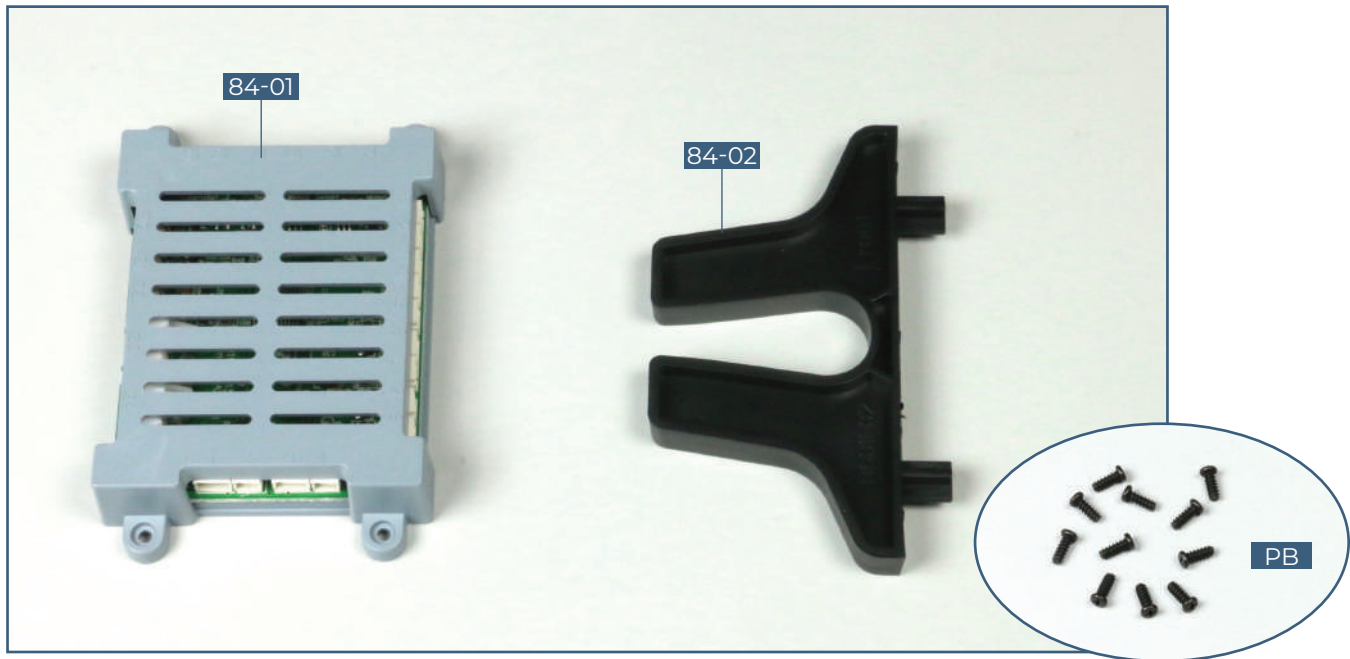


Completed work

The ninth keel section has been fitted to the hull assembly.

STAGE 84

THE MAIN CIRCUIT BOARD



COMPONENTS CHECKLIST

84-01: Main circuit board

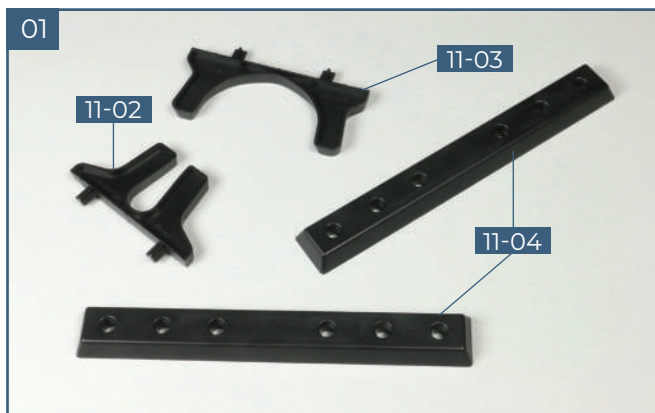
84-02: Hull support

PB: Eleven 2 x 5mm PB screws

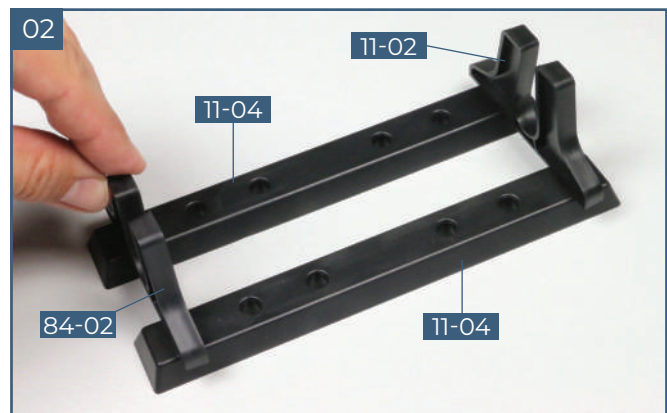
Note 1: Be extremely careful when fixing the superstructure (steps 6 to 8 on page 16). In order to avoid damaging the model, it is advisable to ask someone to help you. They can hold the superstructure firmly in place while you fit the 6 screws into the upper deck from below.

Note 2: In the assembly instructions, we have used the names on the cable labels, rather than the part numbers.

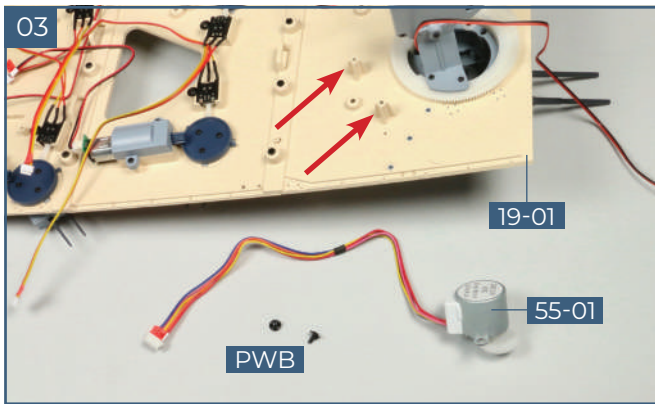
01. FIXING THE FORWARD SUPERSTRUCTURE



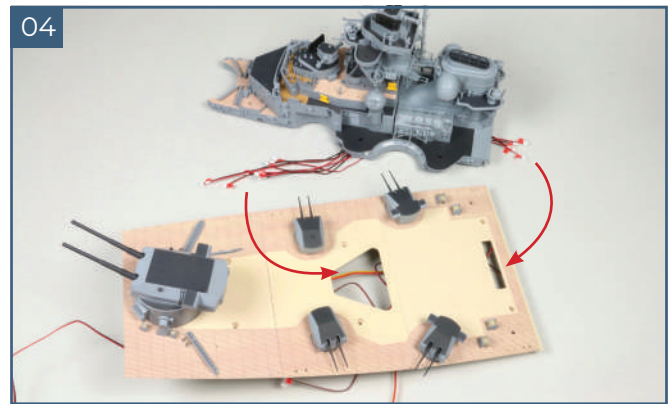
Take the two support stands assembled in stage 11. Remove the hull supports **11-02** and **11-03** from the bases **11-04**, as shown in the photo.



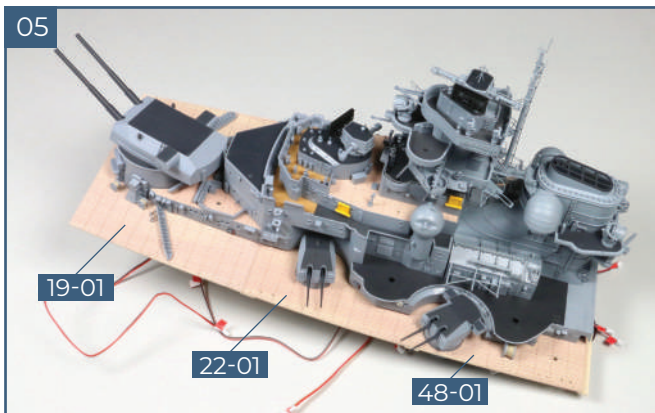
Position the two bases **11-04** side by side and spaced apart, as shown. Fit the pegs on the hull supports **11-02** and **84-02** into the sockets at each end of the bases **11-04**, to make a temporary support stand.



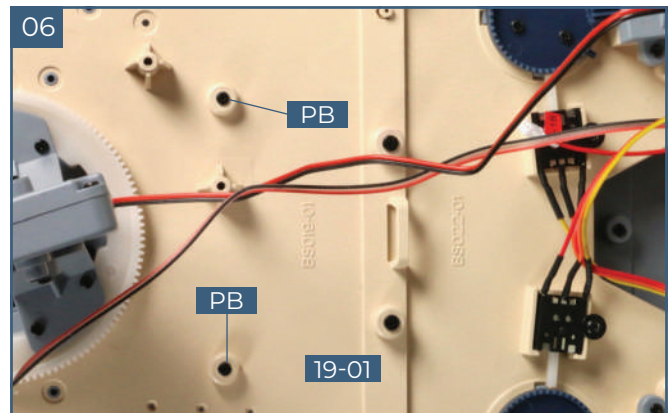
Place the deck assembly **19-01** upside down on your worktop, taking care not to damage any parts. Loosen the two **PWB** screws so that you can remove the motor **55-01**. The red arrows indicate where the screws were fixed.



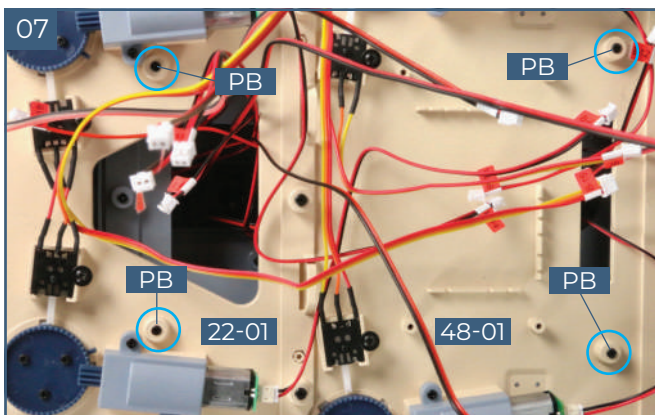
Take the forward superstructure and position it as shown next to the deck assembly, so that you can thread the cables from the bridge through the large triangular opening and the cables from the funnel through the slot at the rear of the deck (arrows).



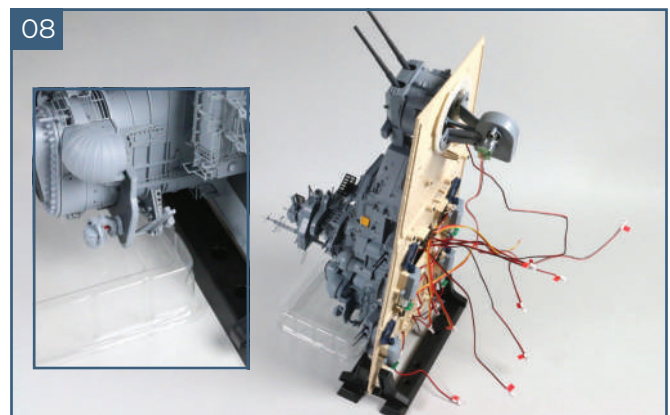
Fit the forward superstructure in place on the deck assembly **19-01** / **22-01** / **48-01**.



With the superstructure firmly supported, fix the front of the forward superstructure in place using two **PB** screws, fitted from underside of the deck section **19-01**.

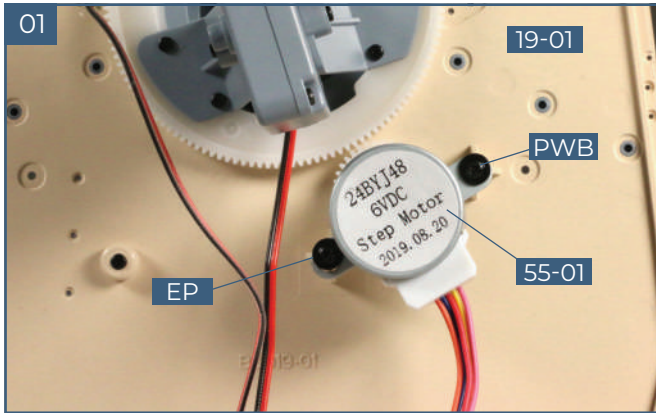


With the superstructure still carefully supported, use four more **PB** screws (circled) to fix the next two sections of deck, **22-01** and **48-01**, to the superstructure.

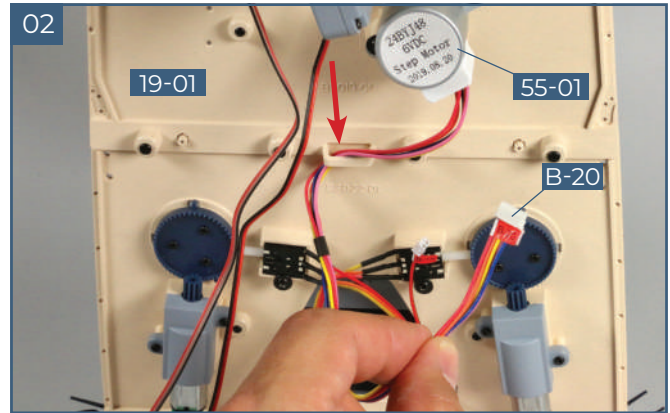


Place the support stand assembled in steps 1 and 2 (on the previous page) on your work surface. Fit the end of the deck into the stand and support the funnel on a blister pack, a bundle of bubble wrap or similar.

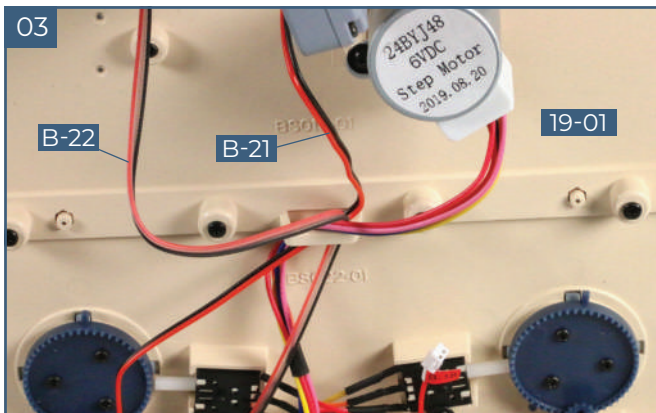
02. FITTING THE CABLES



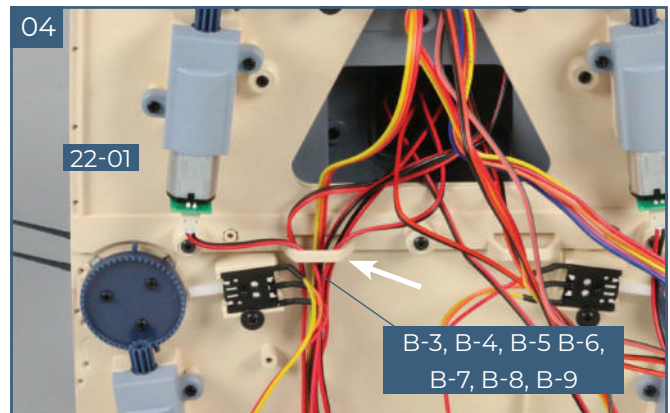
Supporting the deck from behind, fix the motor **55-01** in place with the two **PWB** screws that were removed.



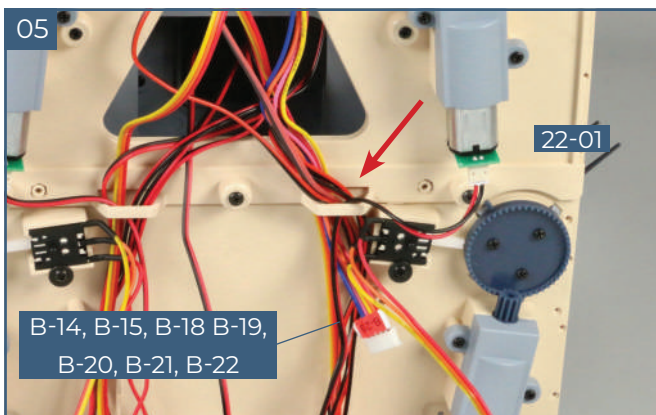
Thread the cable from the motor **55-01** (labelled **B-20**) through the slot at the edge of the deck **19-01** (arrow).



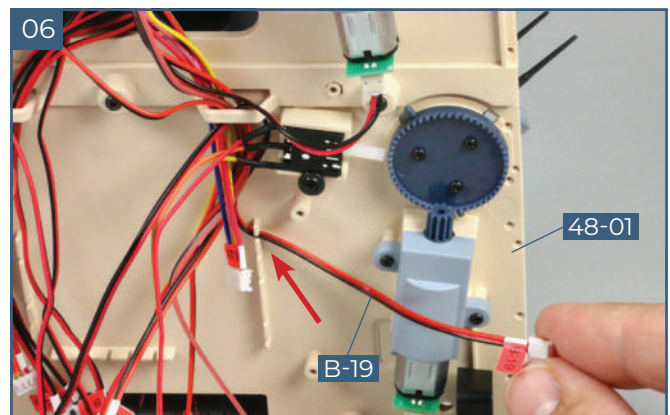
Thread the cables labelled **B-21** and **B-22** through the same slot, in the same direction.



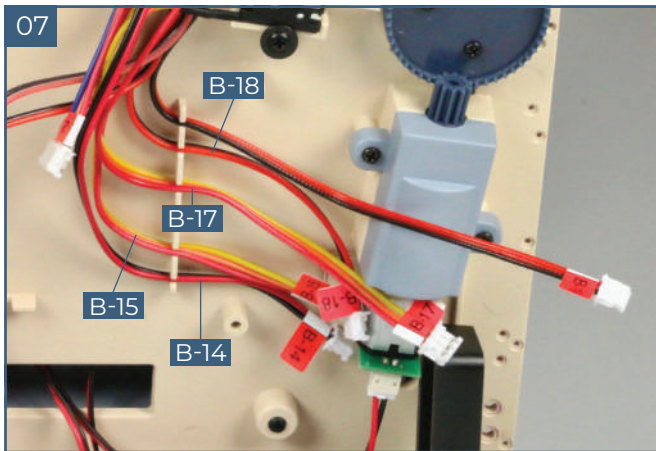
Identify the cable slot at the edge of deck section **22-01** (white arrow). Thread the cables labelled **B-3**, **B-4**, **B-5**, **B-6**, **B-7**, **B-8** and **B-9** through the slot.



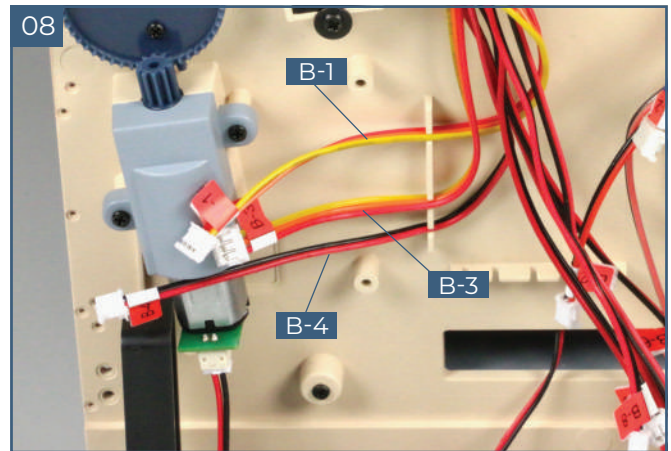
There is a second cable slot to the other side of the deck section **22-01**. Thread the cables labelled **B-14**, **B-15**, **B-18**, **B-19**, **B-20**, **B-21** and **B-22** through the slot, as shown (red arrow).



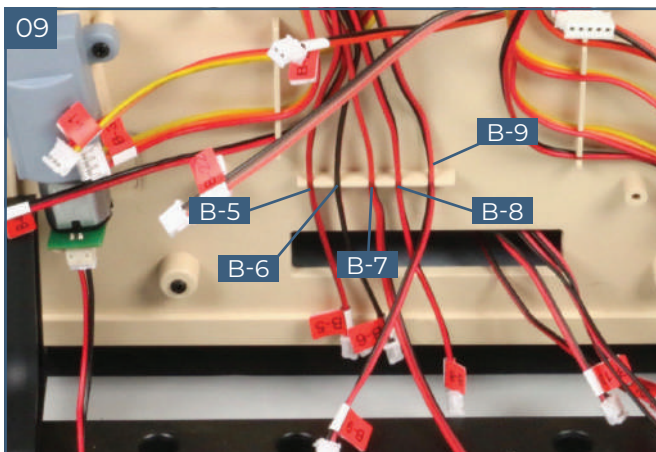
Identify the bracket with slots on the underside of deck section **48-01** (arrow). Fit the cable labelled **B-19** into the first slot as shown.



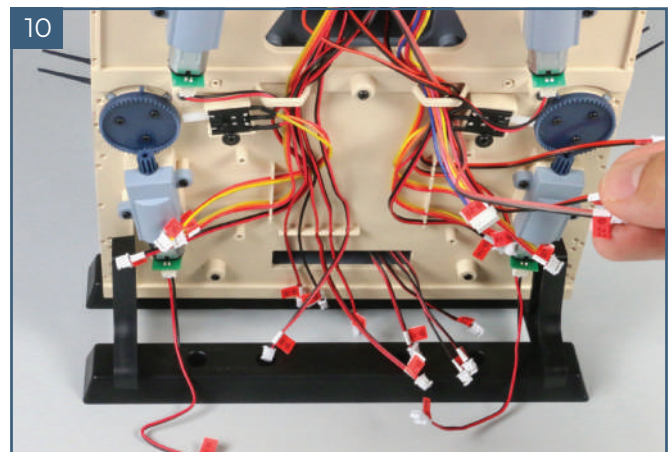
Fit the cables labelled **B-18**, **B-17**, **B-15** and **B-14** into the remaining slots in the bracket in the order shown.



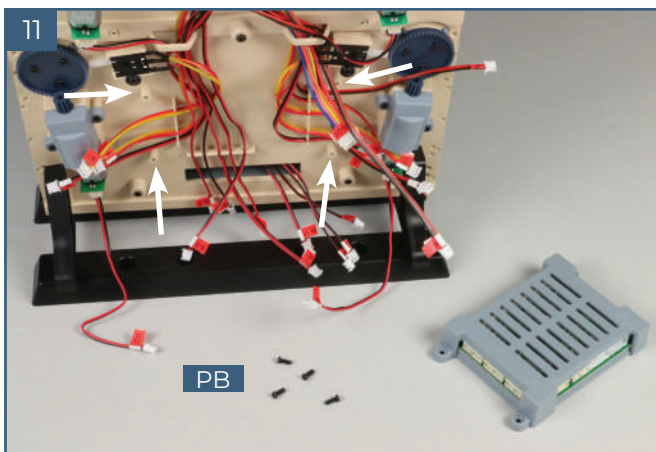
The cables labelled **B-1**, **B-3** and **B-4** fit into slots in the corresponding bracket at the other side of the deck.



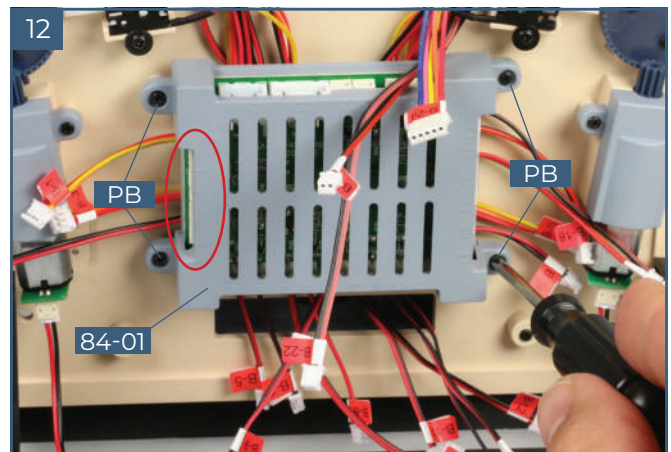
Another bracket with slots runs across the underside of deck section **48-01**. Fit the cables labelled **B-5**, **B-6**, **B-7**, **B-8** and **B-9** into the slots, as shown.



Make sure that all the cables are clear from the area where the main board **84-01** will be fitted (see also below).



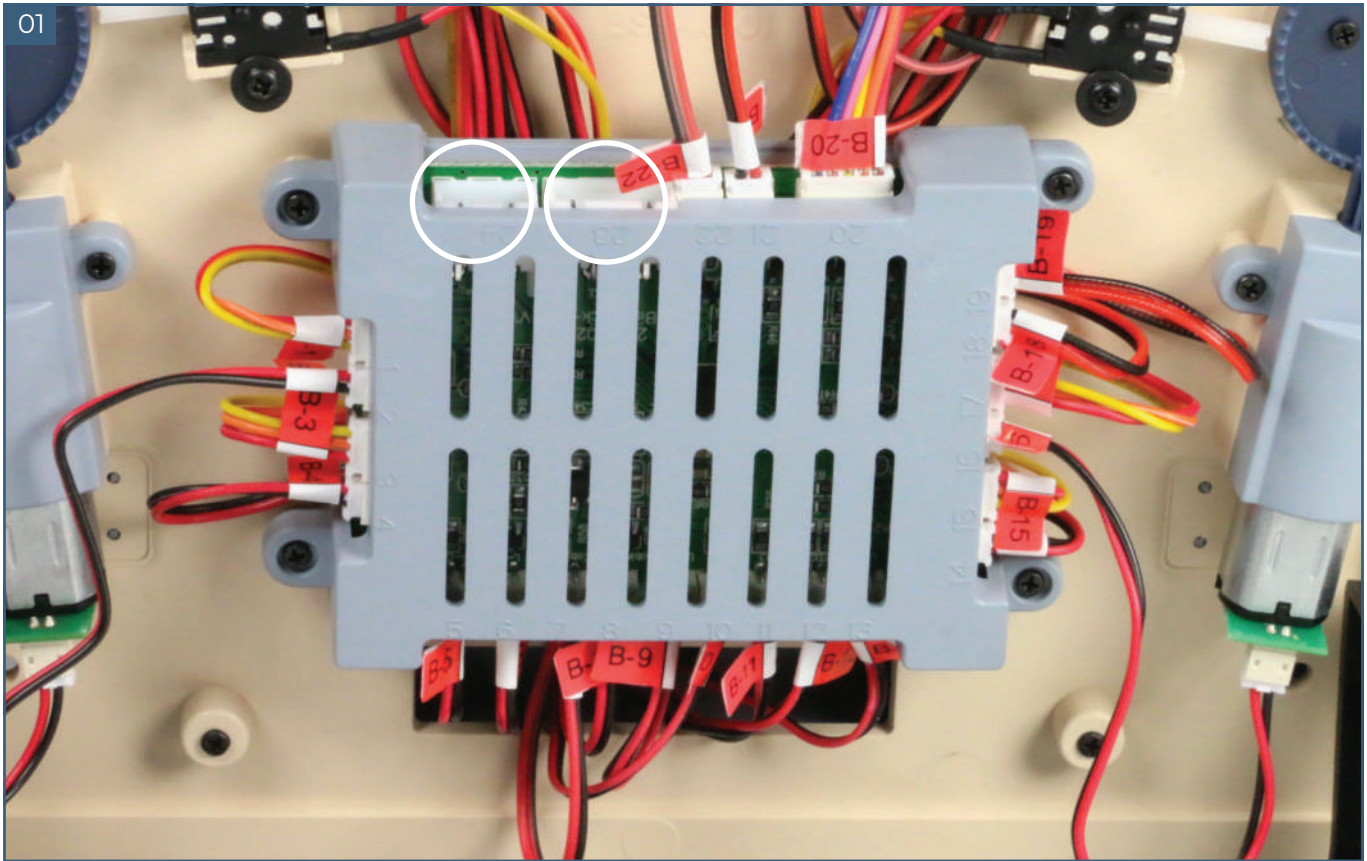
Position the main circuit board **84-01** on your work surface, together with four **PB** screws. Identify the four fixing points (white arrows).



Fix the main board **84-01** in place on the underside of the deck section **48-01** using four **PB** screws. Note that the ports marked 1 – 4 are on the left-hand side of the circuit board (circled).

03. CONNECTING THE CABLES

01



Fit the plugs on the ends of the 22 cables into the corresponding ports on the board **84-01**. The cable marked **B-1** fits into the port marked 1; the cable marked **B-2** fits into port 2, and so on. Work around the board, fitting each of the cables. The cables

should be inserted with the plain side facing away from the deck. You may find it helpful to use tweezers to hold the plugs and cables. Ensure that the plugs are fully inserted. The ports marked 23 and 24 (circled) remain empty at this stage.



Completed work

The forward superstructure has been fitted to the deck. The electrical wiring from the superstructure has been connected to the main circuit board. Double check that all of the wires are in the correct sockets, and that they are fully inserted.

Now you can carefully remove the superstructure from the temporary support and stow it horizontally again. Then reassemble the supports and bases **11-02/11-04** and **11-03/11-04** so that you can fit the model on its supports again.

STAGE 85

A SECTION OF HULL AND DECK DETAILS



COMPONENTS CHECKLIST

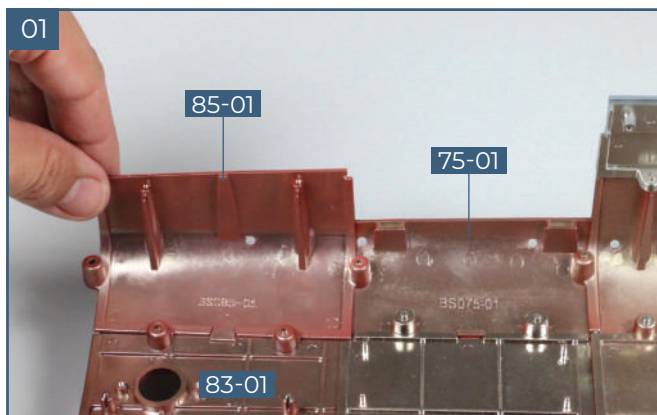
85-01: Lower port hull section

85-02: Details for the 'Bruno' barbette (A to E)

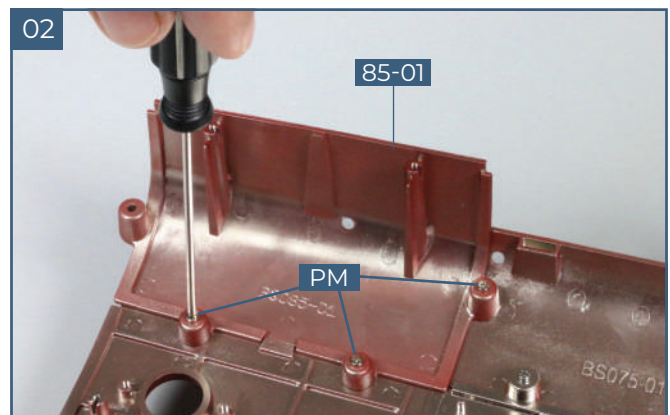
85-03: Further details for the 'Bruno' barbette (G to J)

PM: Four 2 x 4mm PM screws

01. FITTING THE HULL SECTION

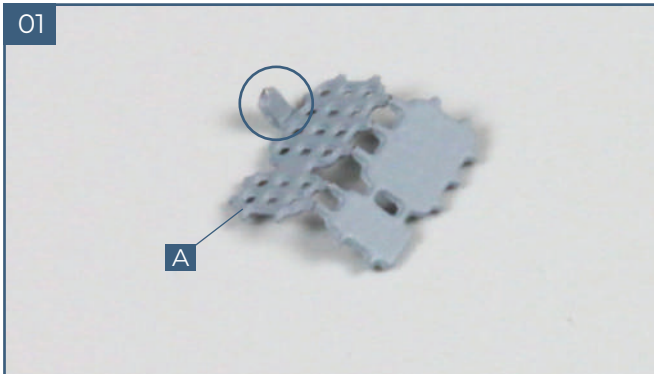


Place the hull assembly on your work surface so that you can access the port side. Take the hull section and fit the screw sockets over the raised screw sockets in parts **75-01** and **83-01**, as shown.

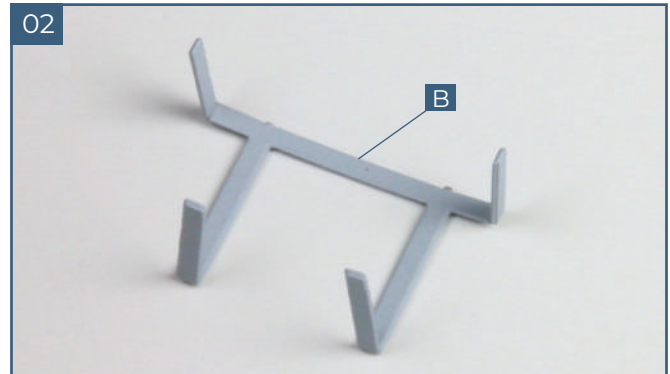


Fix hull section **85-01** in place using three **PM** screws, as shown.

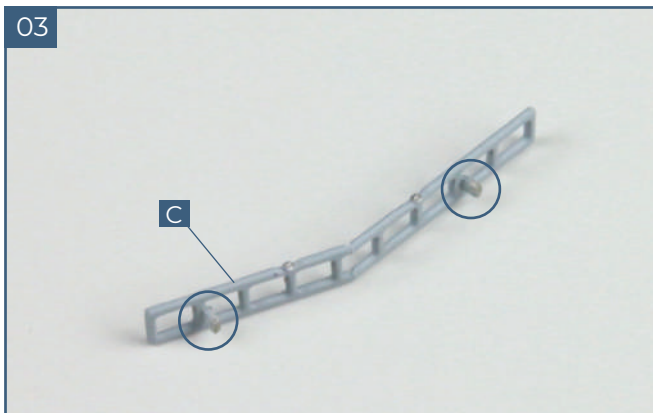
02. PREPARING THE METAL DETAILS



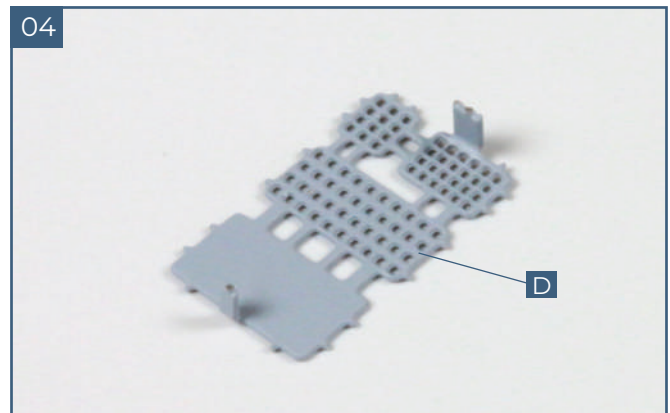
Remove the grille, part **A**, from frame **85-02**. Bend the small tab (circled) at right angles. Bend the part down the centre at a slight angle, as shown.



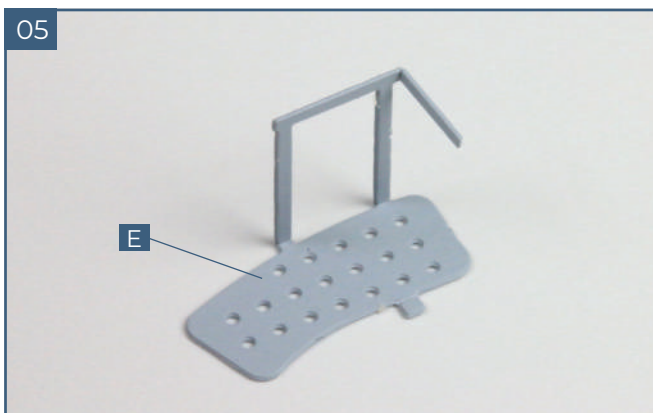
Take the handrail **B** from frame **85-02** and bend the ends at right angles along the fold lines, as shown.



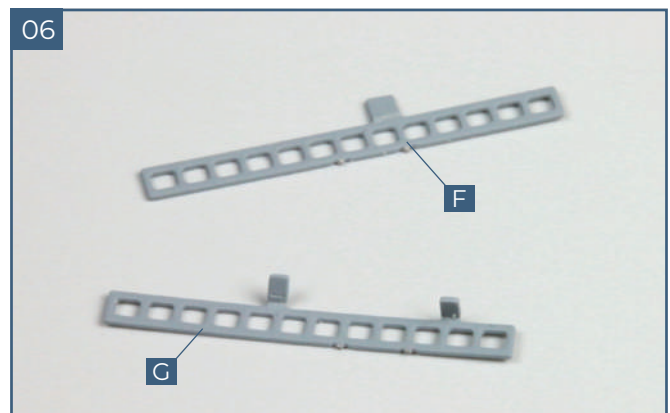
Take the ladder **C** from frame **85-02** and bend the two tabs (circled) at right angles. The ladder can be bent slightly as shown, although you may prefer to do this when you come to fit it in place.



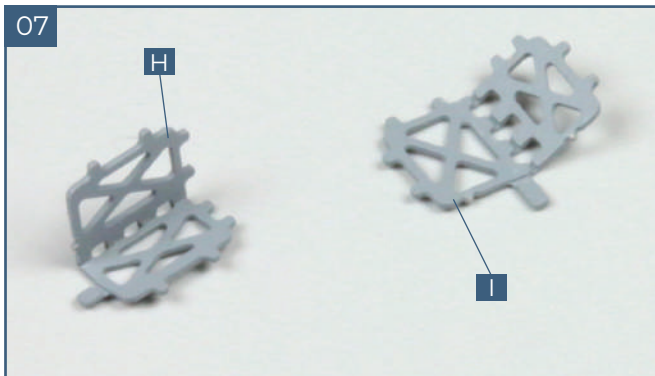
Take part **D** from frame **85-02** and bend the tabs at right angles, as shown.



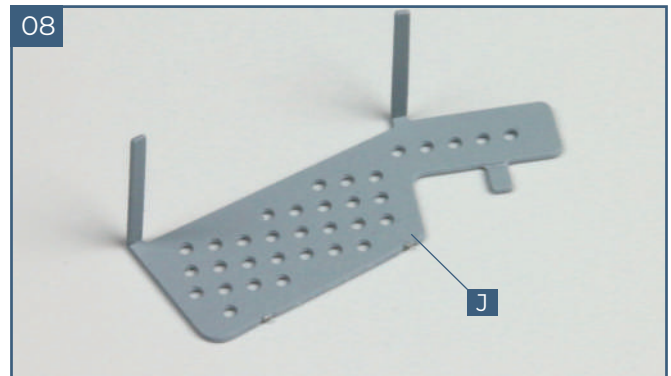
Take the walkway **E** from frame **85-02**. Bend the end of the rail at right angles along the fold line, and bend the two uprights at right angles close to the platform.



Take the two ladders, **F** and **G** from frame **85-03** and bend the tabs on ladder **G** at right angles, as shown.

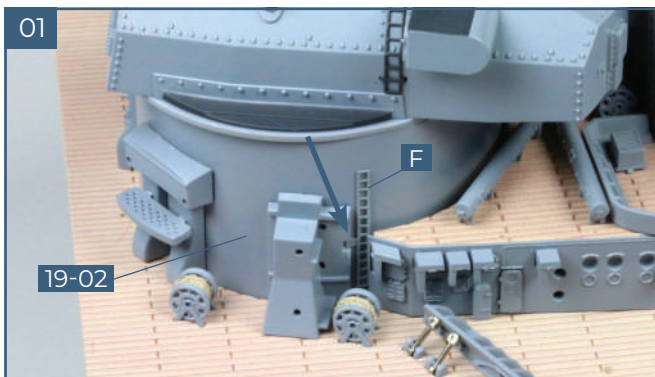


Take the two grilles **H** and **I** from frame **85-03**. Bend them as shown, taking care to get the correct angle. You may prefer to bend these parts when you fit them.

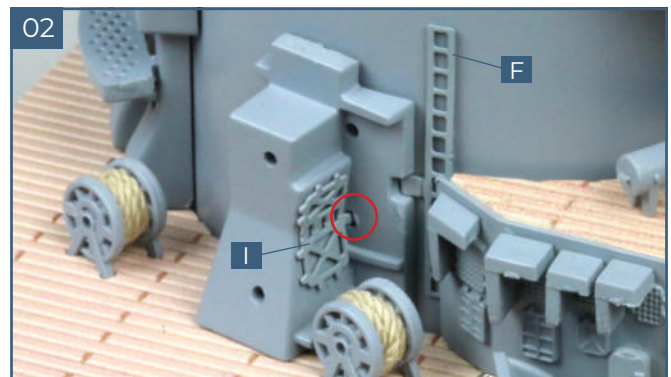


Take the walkway **J** from frame **85-03** and bend the two struts upwards at right angles as shown.

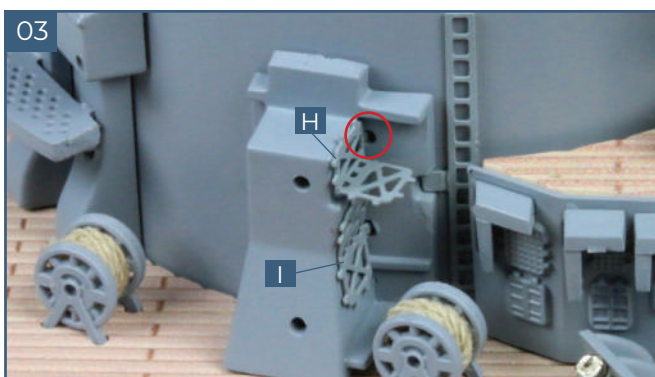
03. FITTING THE METAL DETAILS



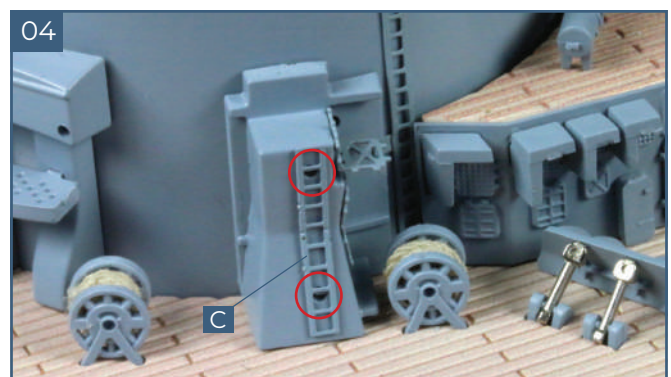
Take the forward superstructure and deck from the previous stage and place it on your worktop, taking care not to damage the parts on the underside. Fit the tab on ladder **F** from frame **85-03** into the recess on the vent. Glue in place.



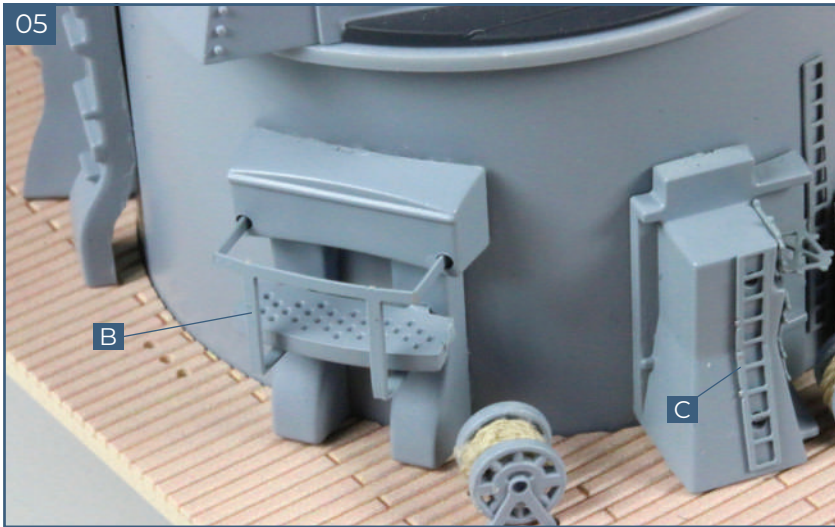
Fit the grille **I** from frame **85-03** on the vent near ladder **F**, as shown. The tab on the grille fits into a recess (circled red). Glue in place.



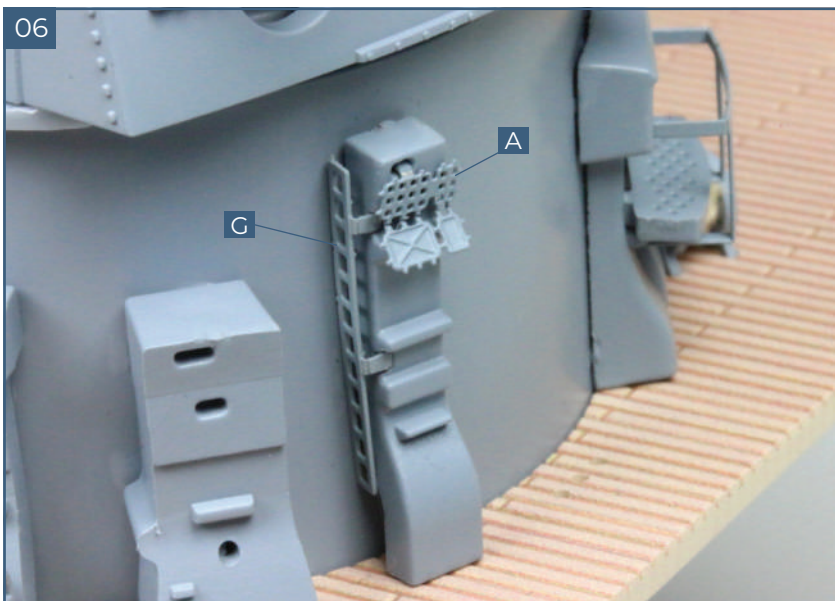
The grille **H** from frame **85-03** is glued to the same vent, above grille **I**, with the tab fitting into a recess. The larger section of the grille is horizontal, as shown.



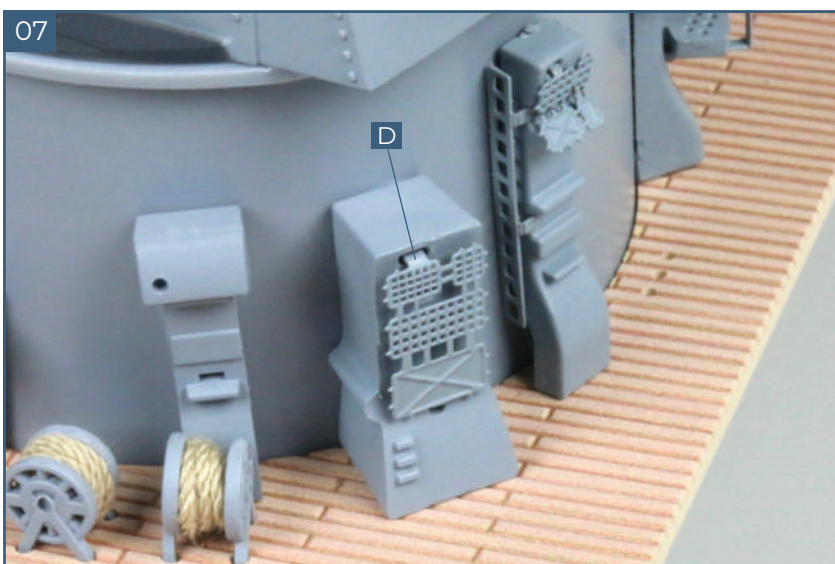
Ladder **C** from frame **85-02** fits on the outside of the same vent, with the tabs in recesses (circled). When you are happy with the fit, glue in place.



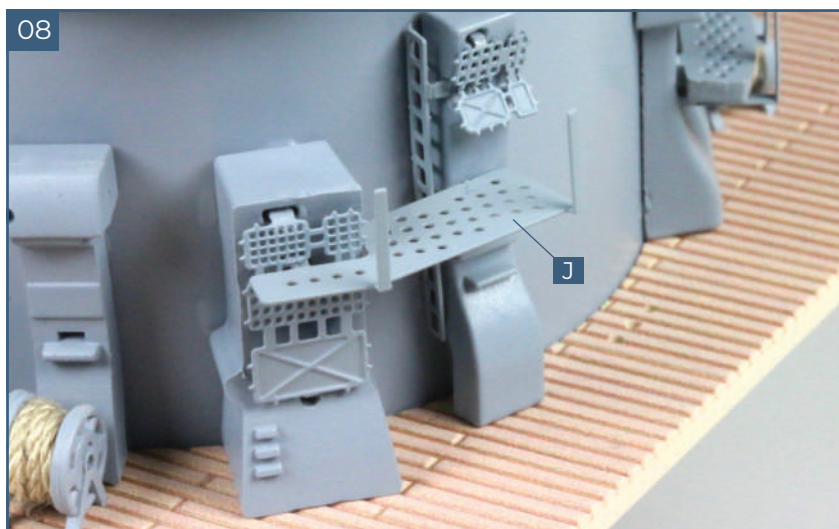
On the port side of the barbette, fit the ends of handrail **B** from frame **85-02** into the recesses. When you are happy with the fit, glue in place.



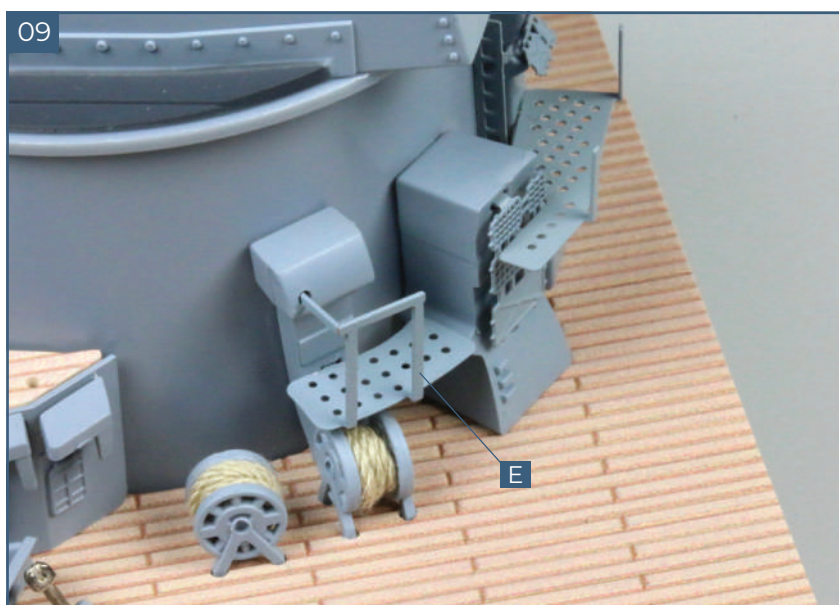
Ladder **G** from frame **85-03** and grille **A** from frame **85-02** fit on the fan on the starboard side at the front of the barbette, as shown. Glue in place.



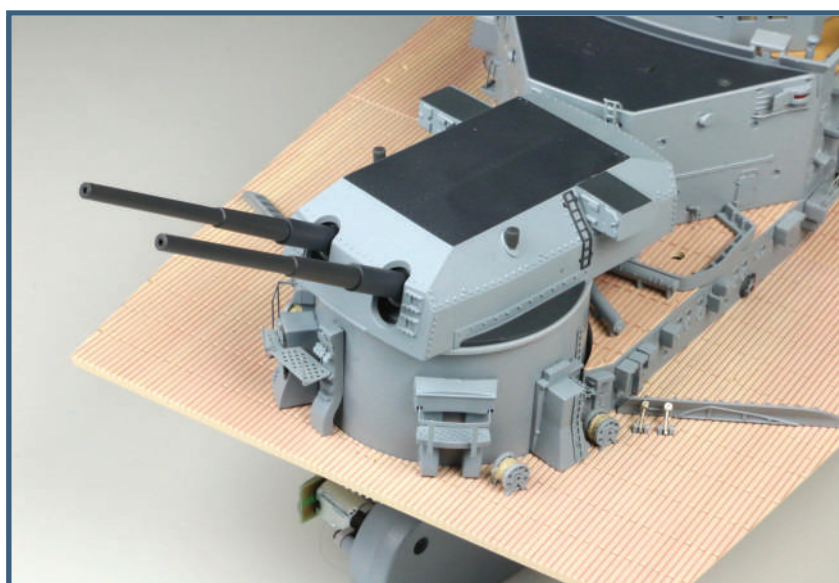
Fit grille **D** from frame **85-02** on the adjacent vent, as shown. When you are happy with the fit, glue in place.



The walkway **J** from frame **85-03** fits between the two vents, with the tab fitting into the recess on the left, as shown. The right-hand end of the walkway rests on a ledge on the vent. Glue in place.



Walkway **E** from frame **85-02** fits between the two vents on the starboard side of the barbette. Glue in place.

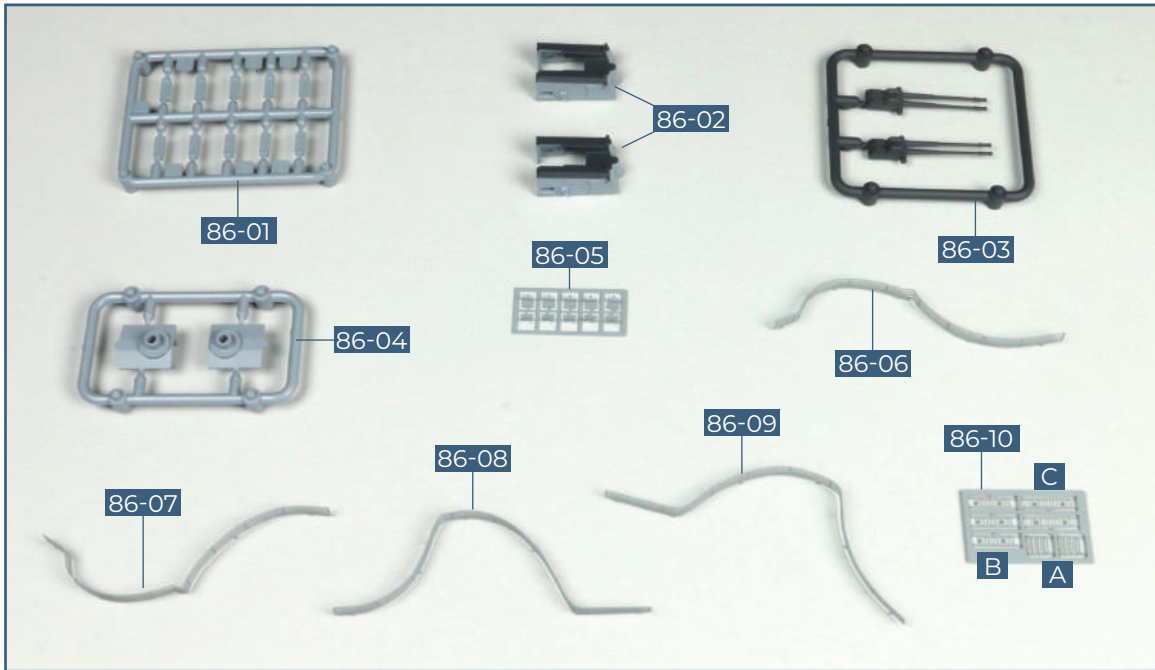


Completed work

Metal grilles, ladders and walkways have been fitted to the vents around the barquette of Bruno.

STAGE 86

TWO TWIN 10.5cm GUNS AND RAILINGS



COMPONENTS CHECKLIST

86-01: Vent shafts (x 10)

86-02: 10.5cm AA gun housing (x 2)

86-03: Twin barrels of 10.5cm guns (x 2)

86-04: Base plate of gun mounting (x 2)

86-05: Vent grilles (x 10)

86-06: Railing

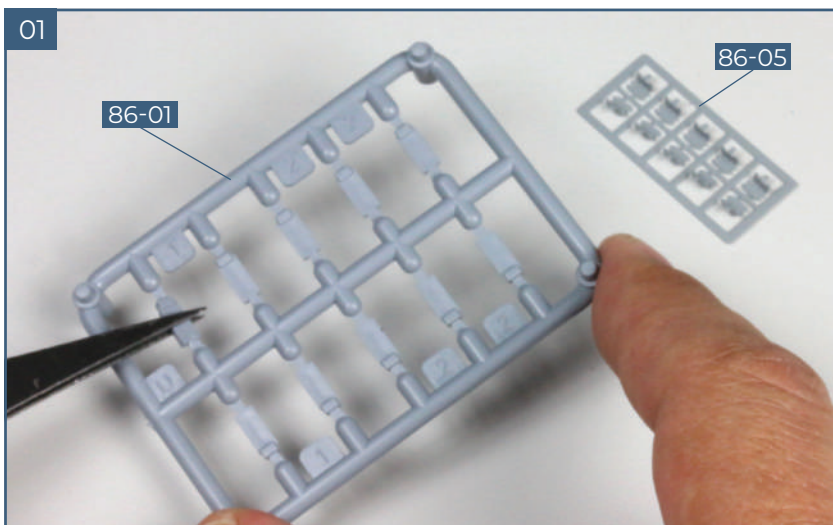
86-07: Railing

86-08: Railing

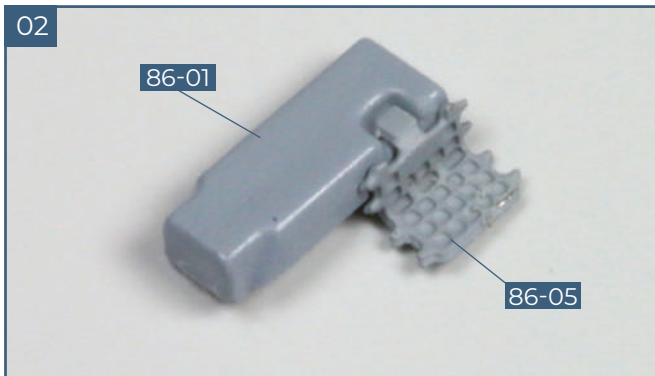
86-09: Railing

86-10: Frame with two railings (A) and five ladders (B and C)

01. ASSEMBLING AND FITTING THE VENTS



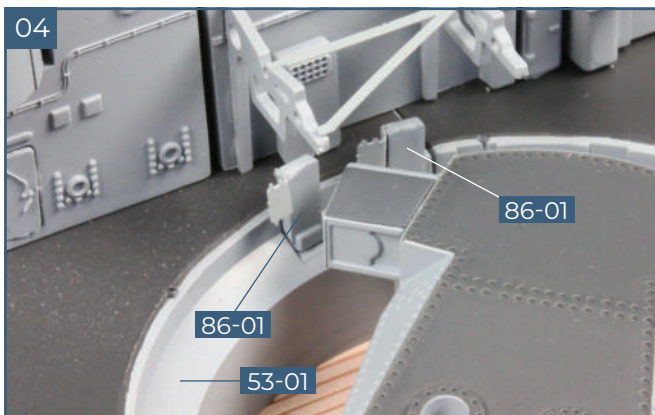
Take the two frames **86-01** and **86-05**. Remove the shafts and grilles from the frames.



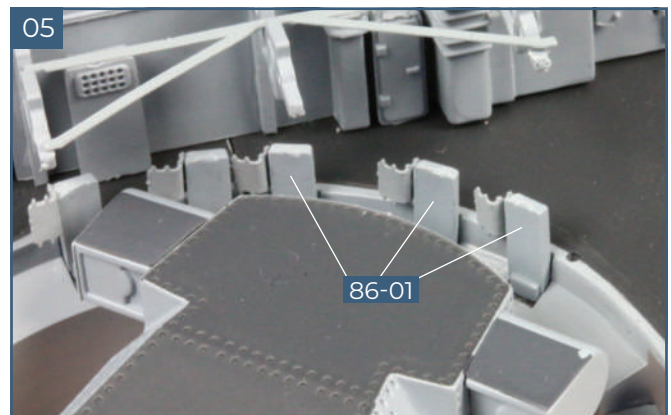
Identify the recess on one of the shafts **86-01** and check the fit of a grille **86-05**, ensuring they are aligned as shown. When you are happy with the fit, glue in place.



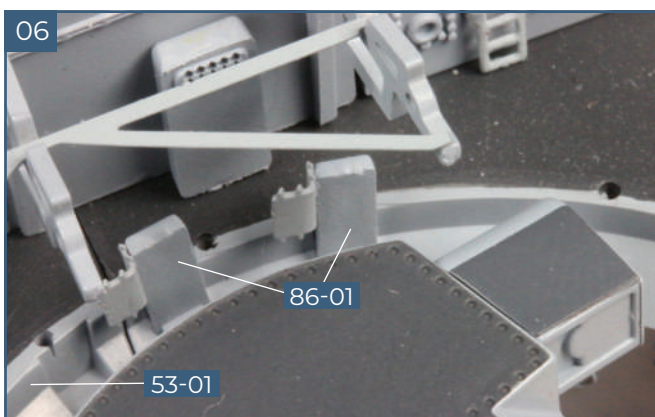
Repeat step 02 to assemble the remaining parts **86-01** and **86-05**, creating 10 identical vents.



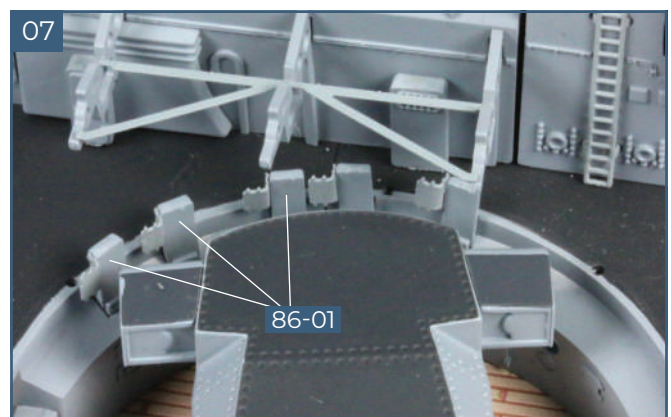
Place the forward superstructure on your workspace, supporting it carefully. The vents are fitted to the superstructure deck around the outside of the barbette of the second 15cm guns **53-01**. Here, the first two have been fitted.



Continue fitting the vents into the recesses around the outside of the 15cm gun on the port side, near the hangar. Glue each one in place.

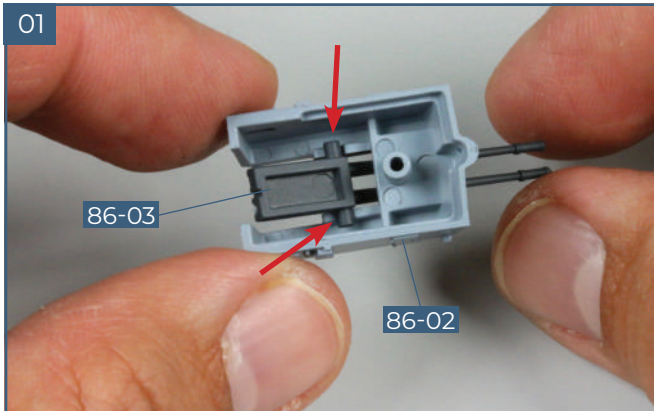


Turn the deck so that you can access the starboard side. Continue gluing the vents in place in the recesses around the starboard 15cm gun. The first two have been fixed on the starboard side.

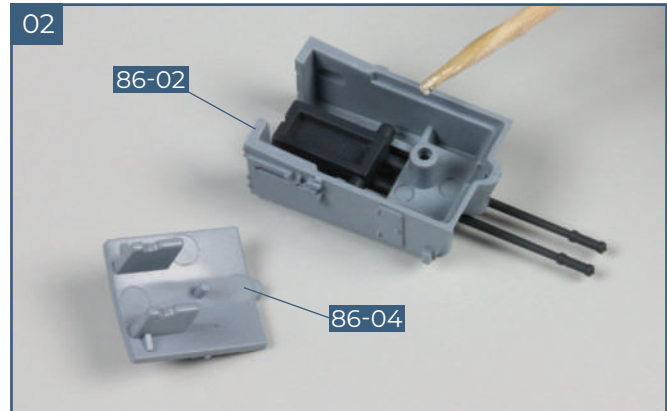


Fit three more vents around the starboard 15cm gun.

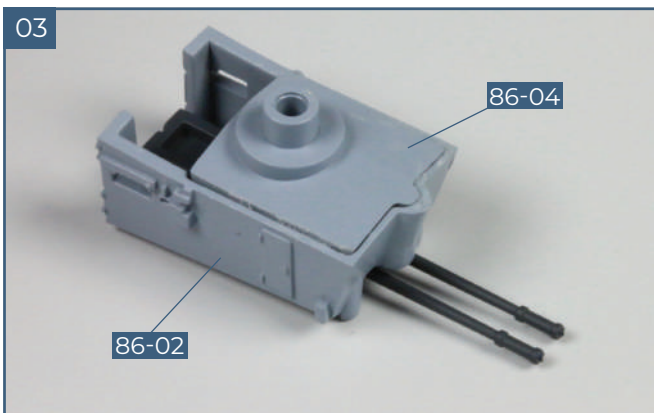
02. THE FIRST HEAVY ANTI-AIRCRAFT GUNS



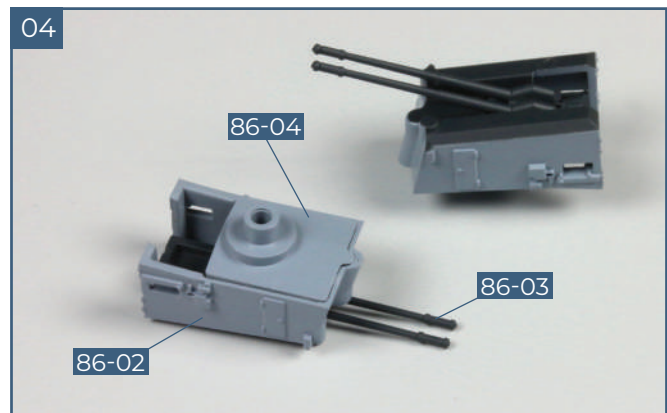
Take the first of the twin barrels **86-03** and fit it into one of the gun housings **86-02**. The pegs on the side of the gun fit into semicircular recesses (arrows).



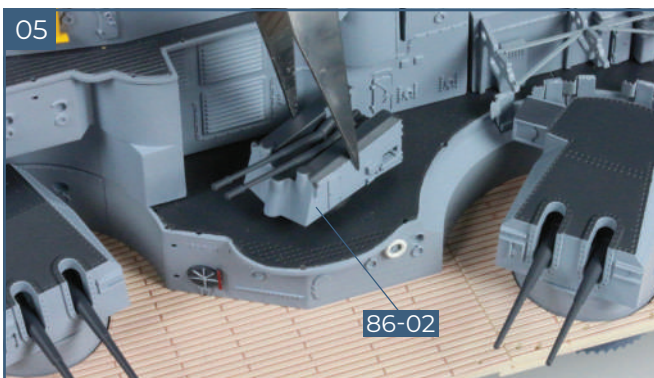
Check the fit of the base plate **86-04** in the base of the gun housing. Apply a little superglue around the lower edge of the housing **86-02**.



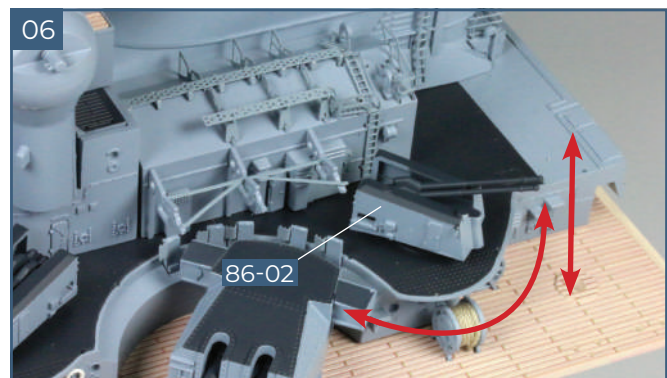
Fix the base plate **86-04** into the housing **86-02**.



Repeat the previous three steps to fit the second pair of gun barrels **86-03** into the second gun housing **86-02** and fix the second base plate **86-04** in place.

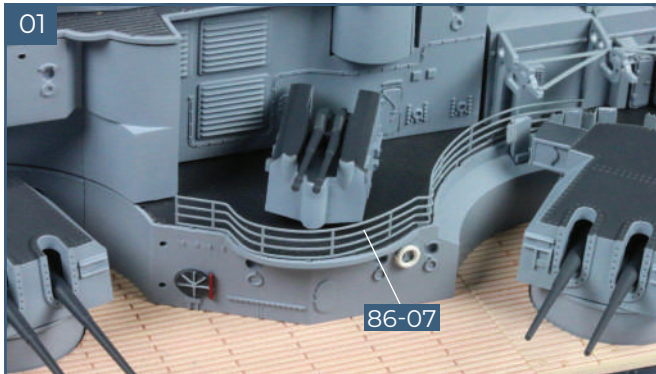


Identify the hole in the superstructure deck on the port side where the first 15cm AA gun **86-03/86-02/86-04** fits. Push the peg on the base of the gun into the hole. No glue is needed.

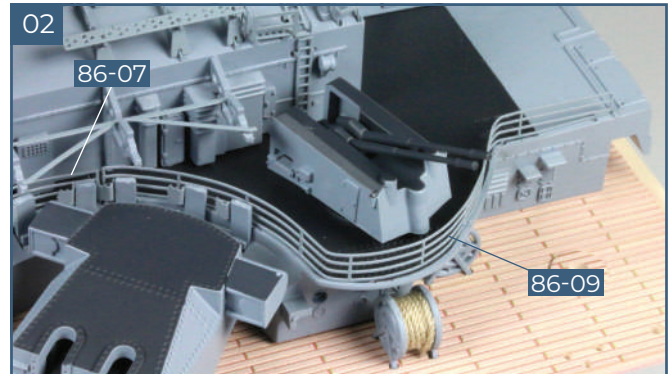


The second AA gun assembly fits into a hole slightly to the aft of the first one. Push it in place. Check that the guns can rotate and the barrels can go up and down. They are operated manually.

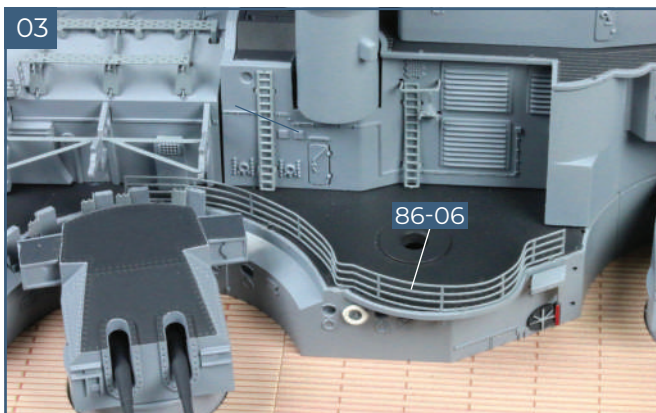
03. RAILINGS AND LADDERS



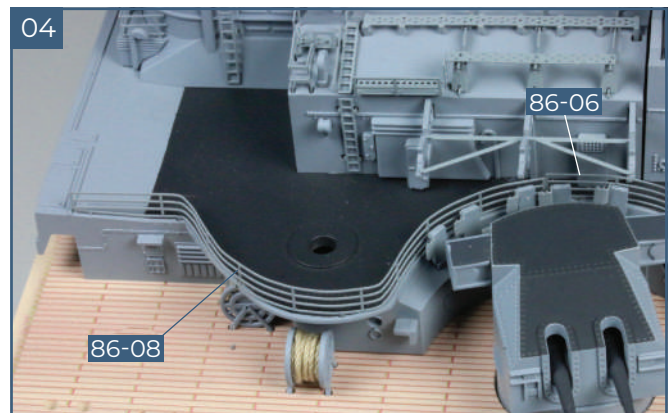
Continuing on the port side, take the first section of railing **86-07** and identify the fixing points along the outer edge of the superstructure deck. When you are happy with the fit, glue the pegs on the railing in place.



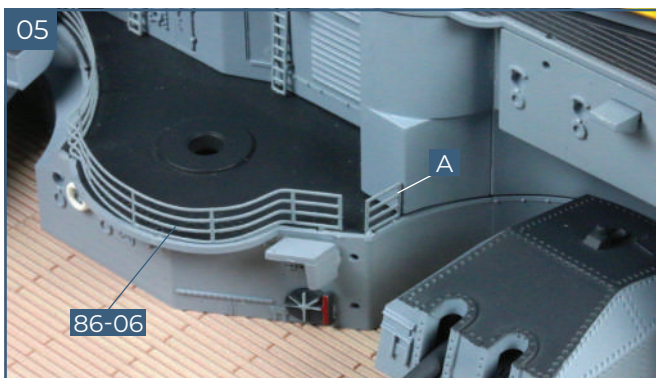
The second section of railing **86-09** fits directly to the aft of the first, continuing the line. Fix in place with a little superglue, as before.



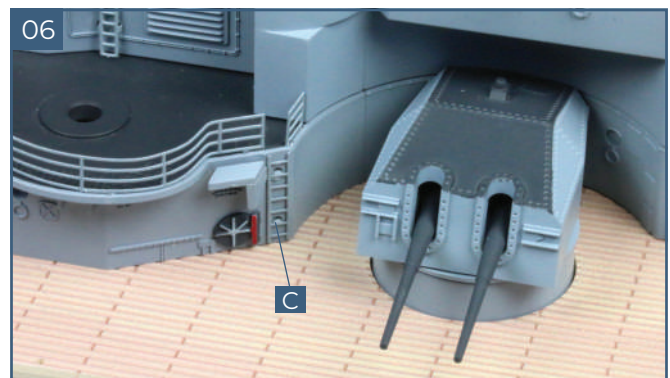
Turn the model so that you can access the starboard side. Test the fit and fix the railing **86-06** in place, as shown, using a little superglue.



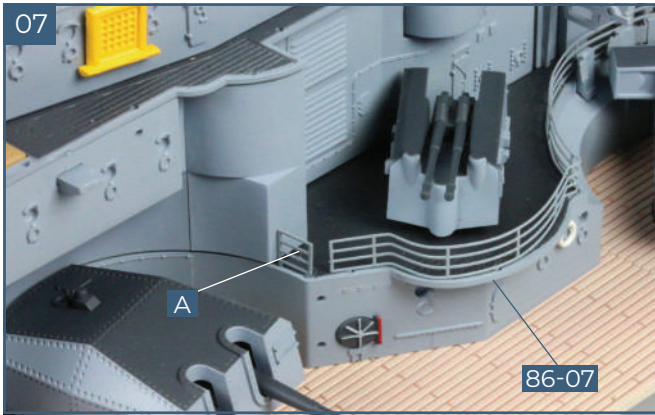
The length of railing **86-08** continues the line of railings to the aft of railing **86-06**. Test the fit and fix in place with a little superglue.



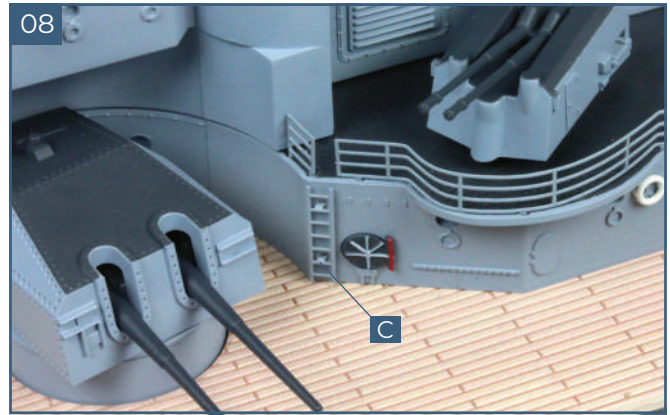
Cut one of the short rails **A** from frame **86-10**. Check how it fits at the front of the superstructure deck, near the first starboard 15cm gun. Glue the pegs on the base of the railing in place with a little superglue.



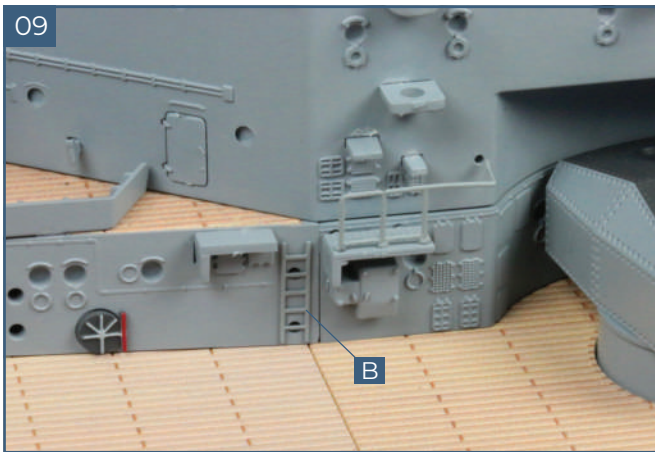
Take one of the two ladders **C** from the frame **86-10**. Identify the two recesses below the gap in the railings on the starboard side. Glue the pegs on the back of the ladder in place, as shown.



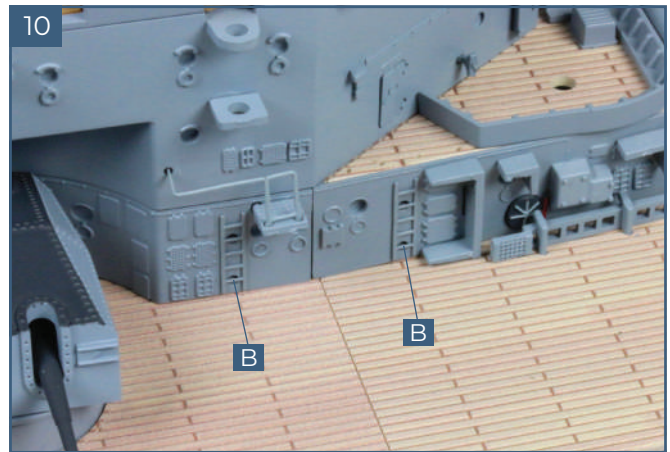
Cut the second short rail **A** from the frame **86-10**. Fix it in place on the port side of the superstructure, near the railing **86-07** as shown.



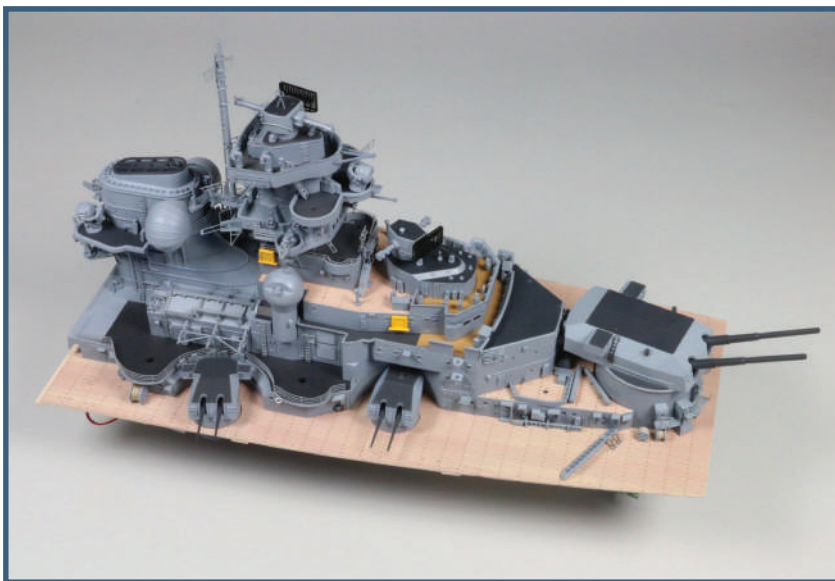
Take the second ladder **C** from the frame **86-10** and glue it in place so that it is aligned with the gap in the railings.



Take one of the three ladders **B** from frame **86-10**. Check the fit on the side of the superstructure, close to the forward 15cm gun on the port side. Glue in place.



The last two ladders **B** from frame **86-10** are fitted on the starboard side of the superstructure, towards the forward end, as shown.

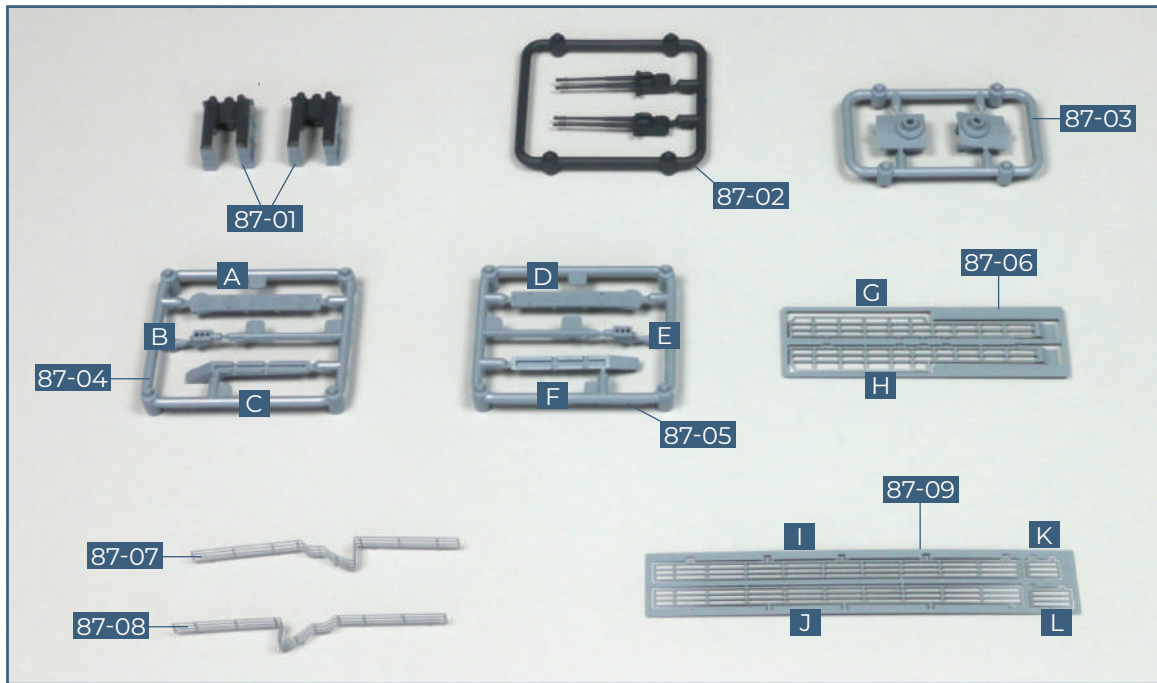


Completed work

Two AA guns have been assembled and fitted to the port side of the superstructure (not shown). Railings and ladders have been fitted around the superstructure deck.

STAGE 87

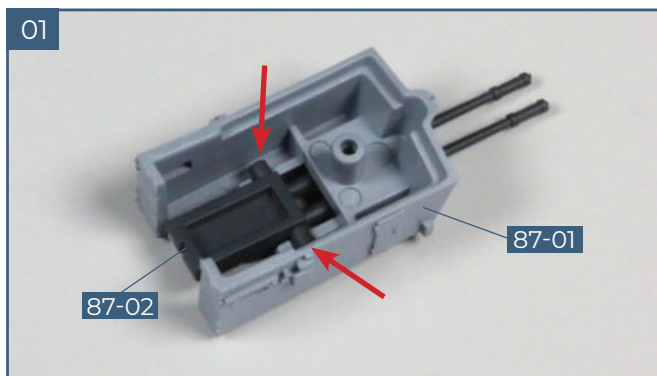
HEAVY AA GUNS AND BRIDGE WINGS



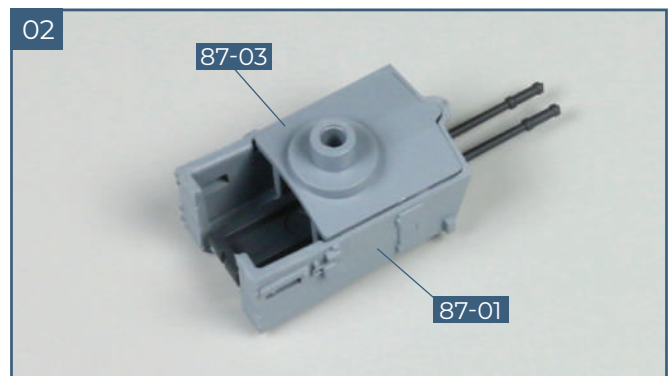
COMPONENTS CHECKLIST

- | | | |
|---|---|--|
| 87-01: 10.5cm AA gun housing (x 2) | 87-04: Bridge wing (port, A to C) | 87-06: Railings for the bridge wings (G, H) |
| 87-02: Twin barrels for guns (x 2) | 87-05: Bridge wing (starboard, D to F) | 87-07: Railing (port) |
| 87-03: Base plate for the guns (x 2) | | 87-08: Railing (starboard) |
| | | 87-09: Railings (I to L) |

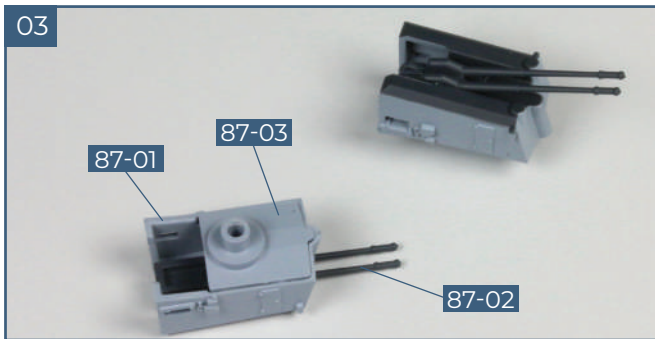
01. ASSEMBLING THE ANTI-AIRCRAFT GUNS



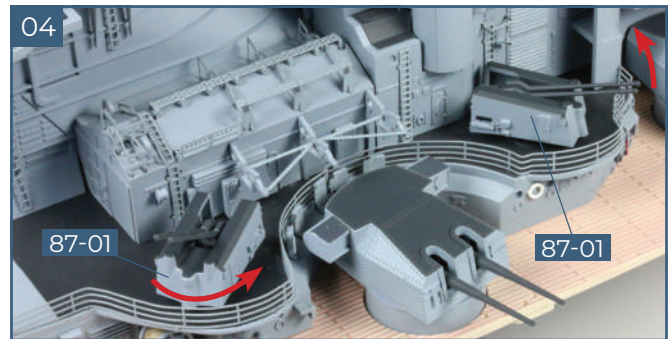
Take the first of the twin barrels **87-02** and, after checking the orientation, fit it into one of the gun housings **87-01**. The pegs on the side of the barrels fit into semicircular recesses (arrows).



Check the fit of the first base plate **87-03** in the base of the gun housing. Apply a little superglue around the lower edge of the housing **87-01** and fix the base plate in place.

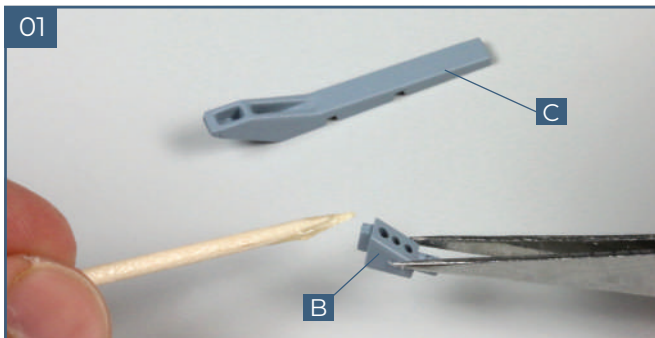


Repeat the previous two steps to fit the second pair of gun barrels **87-02** into the second gun housing **87-01** and fix the second base plate **87-03** in place.

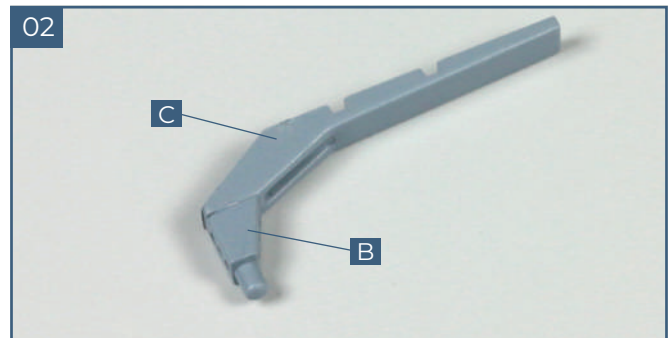


Fit the two anti-aircraft guns on the superstructure deck, near the funnel. The pegs on the base plates fit into holes in the deck. Do not use any glue – the guns rotate and the barrels can be raised and lowered by hand.

02. BRIDGE NAVIGATION WINGS



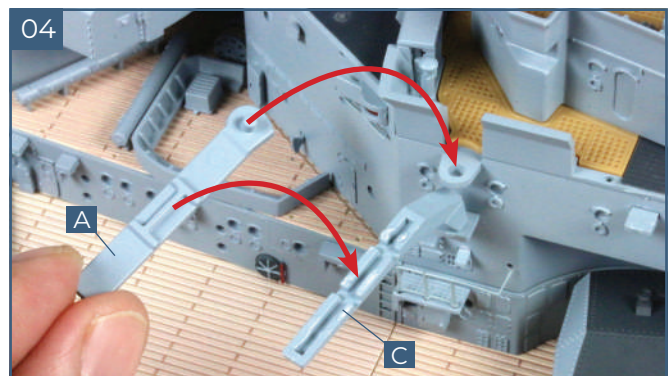
For the port navigation wing, separate parts **B** and **C** from frame **87-04**. Apply a little glue to the square peg of part **B** as shown.



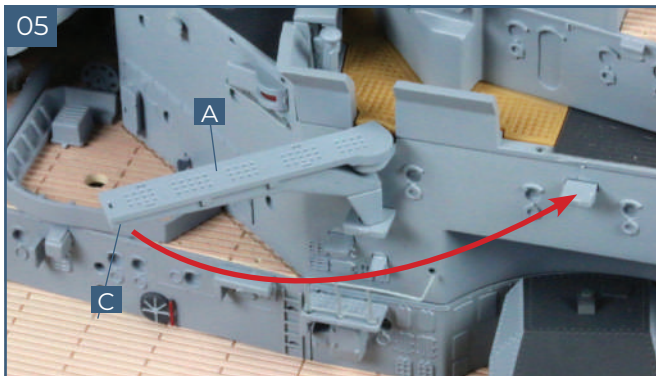
Fix part **B** into part **C** to create the support arm for the port bridge wing.



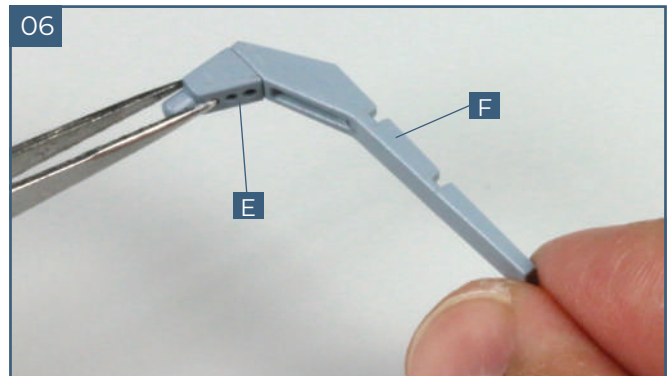
Fit the round peg on part **B** into the hole on the port side of the bridge deck. Do not use any glue as the arm needs to rotate.



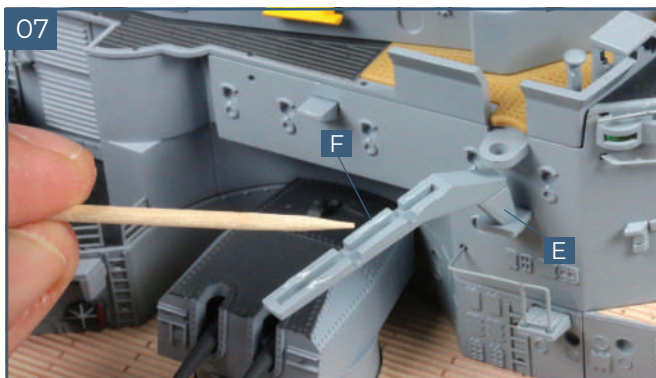
Remove the walkway **A** from the frame **87-04** and check the fit along the top of the support arm. The peg on the walkway fits into the hole in the flange at deck level – do not glue the peg. When you are happy with the fit, apply a little glue to the slot in the top of the arm and fix the walkway in place.



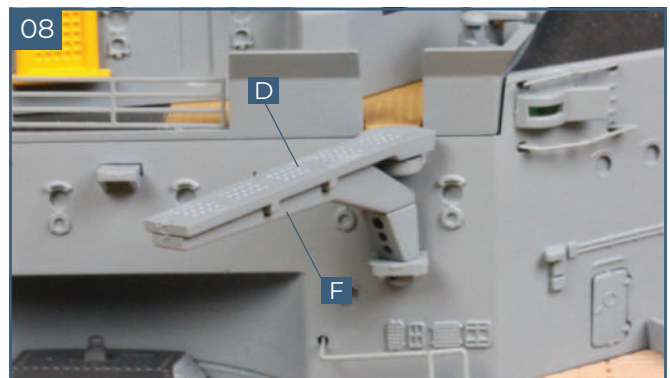
This shows the walkway in place on the wing. The wing can be swung back against the side of the bridge deck, as indicated by the arrow.



The starboard bridge wing is assembled in a similar way, using parts **D**, **E** and **F** from frame **87-05**. Start by fitting parts **E** and **F** together.

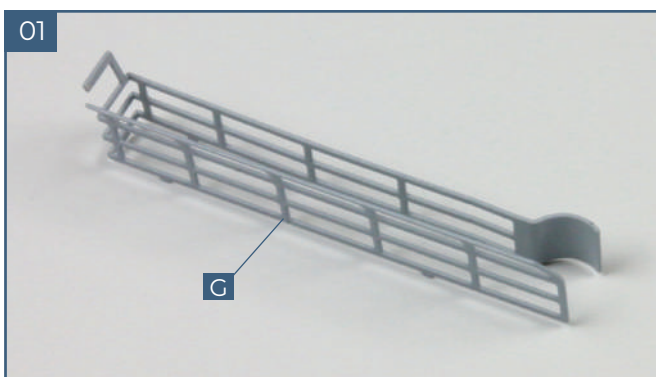


Fit the peg on the base of the support arm, part **E**, into the side of the bridge deck. Apply adhesive to the central slot in the arm, part **F**.

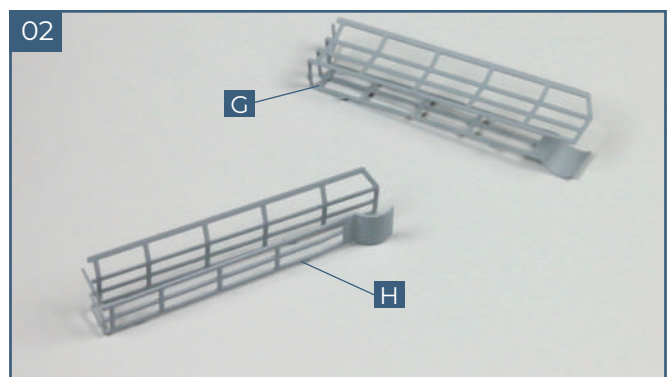


Fix the walkway, part **D**, in place, with the peg in the hole in the flange, so that it can swing backwards. Do not use any glue, as this part needs to move.

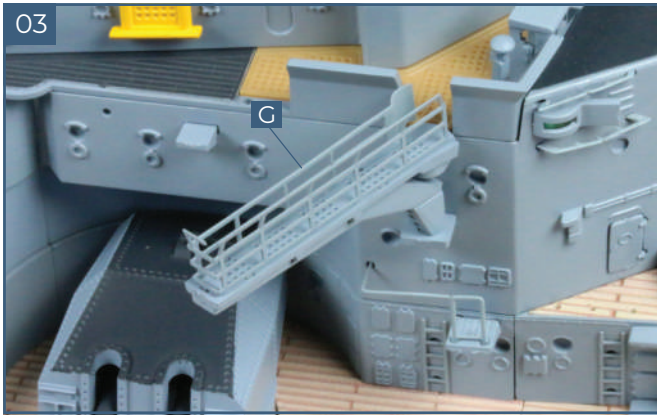
03. FITTING THE RAILINGS



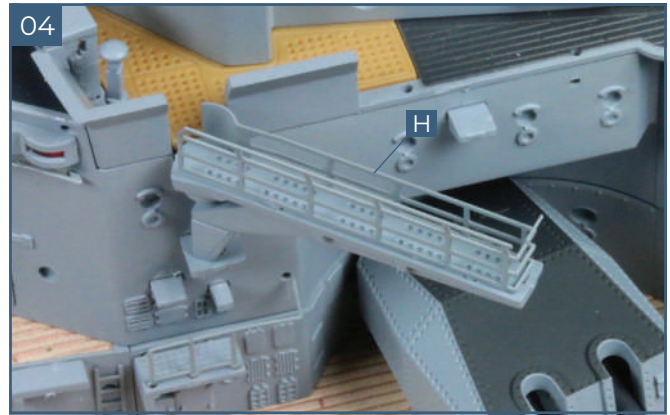
Cut part **G** from frame **87-06**. Bend it twice at right angles along the fold lines as shown.



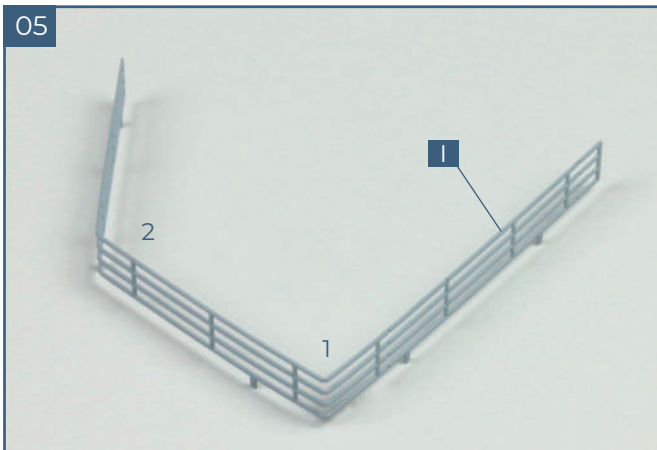
Cut railing **H** from frame **87-06**. In the same way, bend it at right angles as shown. This railing is a mirror image of part **G**.



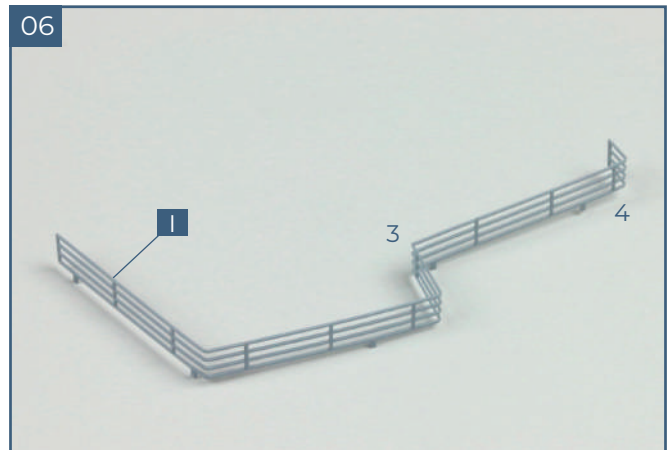
Identify the fixing points on the starboard walkway for the pegs on the lower edge of the railing **G**. Use a little glue to fix the pegs in place.



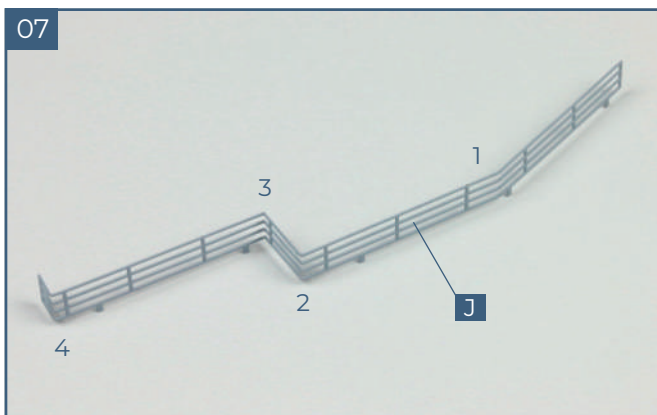
In the same way, fix the railing **H** in place on the port walkway.



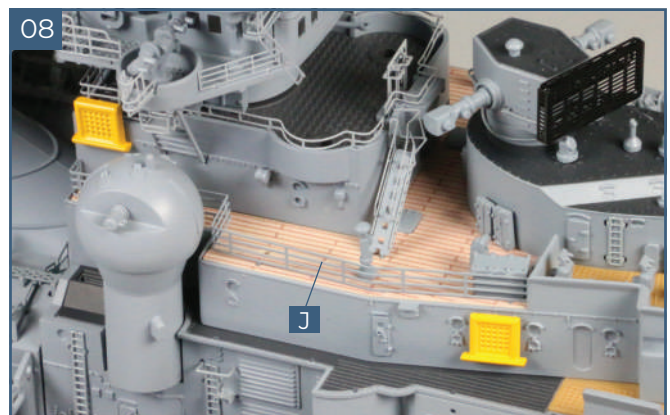
Separate railing **I** from frame **87-09**. Bend the railing along the folds, creating a right angle at point 1. Before bending at point 2, check the angle required with the photograph in step 11, opposite.



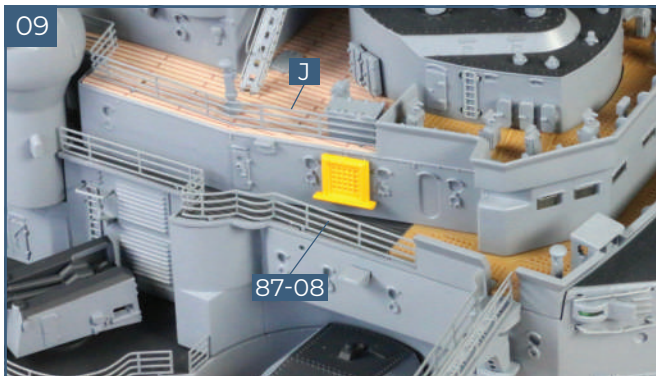
Make two further right angle bends in railing **I** at points 3 and 4, as shown.



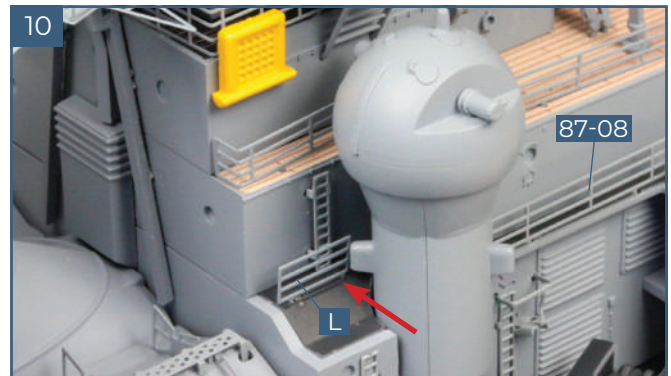
Take railing **J** from frame **87-09** and bend it at four points as shown. Check the angle for the bend at point 1 when you fit the railing in the next step. The other bends are right angles.



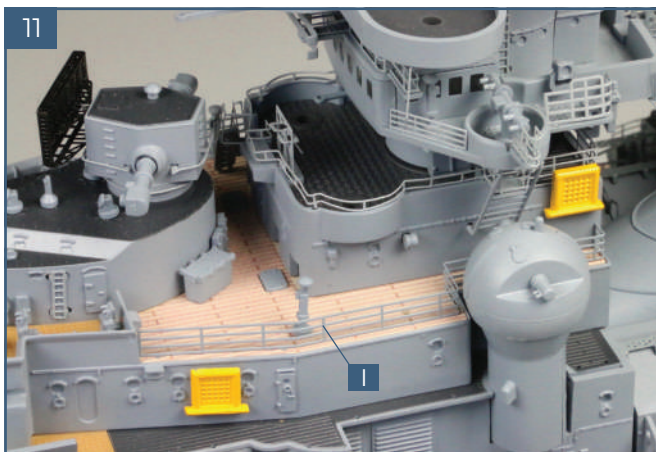
Check the fit of railing **J** along the starboard side of the lower mast deck, as shown.



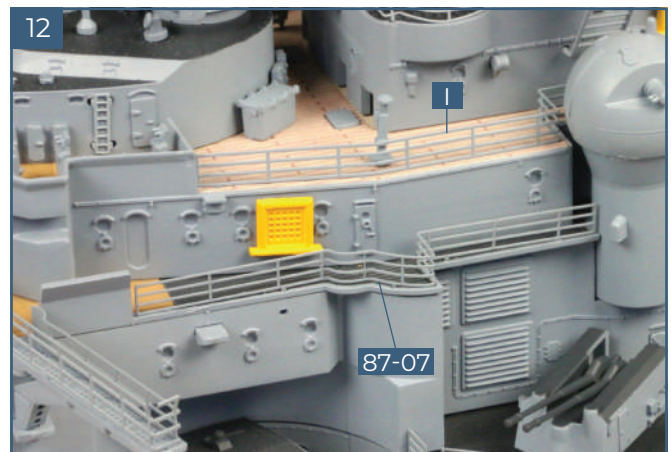
On the bridge deck, below the railing **J** fitted in the previous step, fit the railing **87-08**, gluing the pegs on the lower edge of the railing into the recesses in the deck.



Take the railing **L** from frame **87-09**. Fix it in place to the aft of railing **87-08**, on the other side of the rangefinder, as shown.



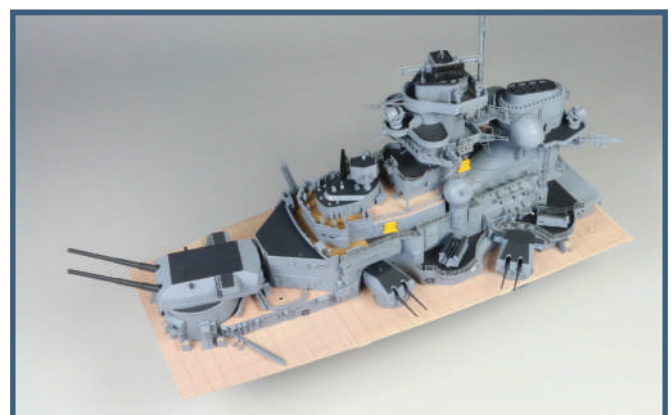
Turning to the port side of the superstructure, take the bent railing **I** from frame **87-09**. Fix it in place along the edge of the port side of the lower mast deck.



Fit the railing **87-07** in place on the bridge deck, below the railing **I**. Apply a little glue to the pegs along the lower edge to fix in place.



Take the short railing **K** from frame **87-09** and fit it to the edge of the bridge deck, to the aft of the rangefinder. Glue in place.

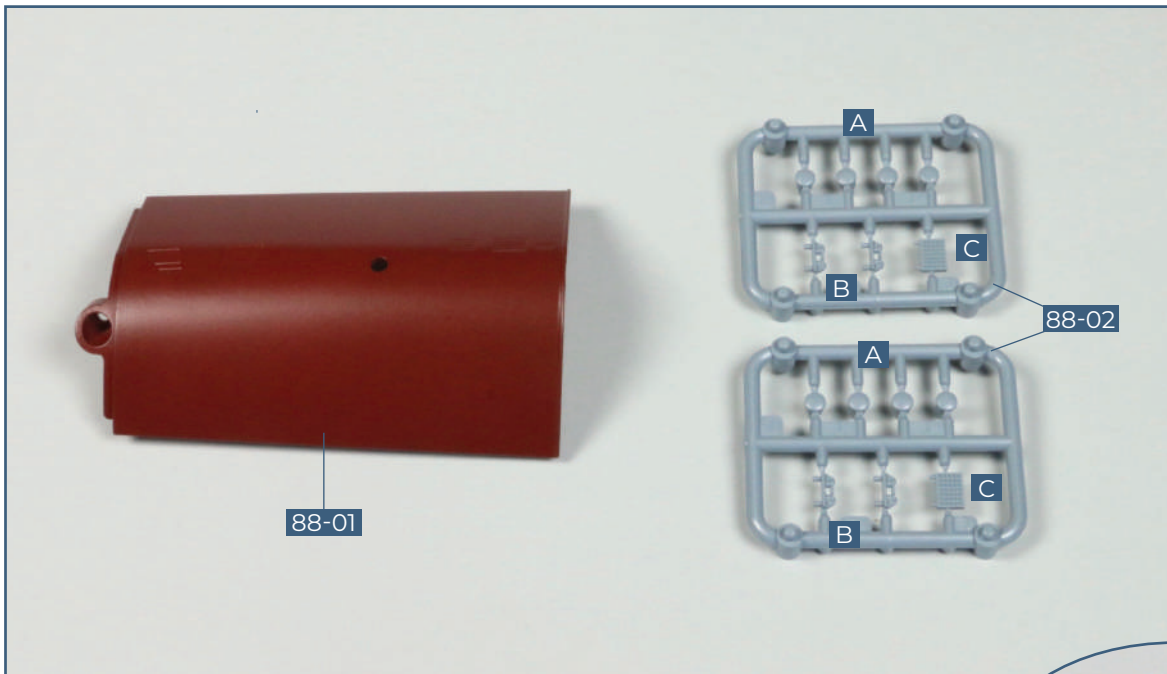


Completed work

Two more 10.5cm twin anti-aircraft guns have been assembled and fitted to the port side of the superstructure. Two navigation wings have been fixed in place, together with various railings on the lower mast deck and bridge deck.

STAGE 88

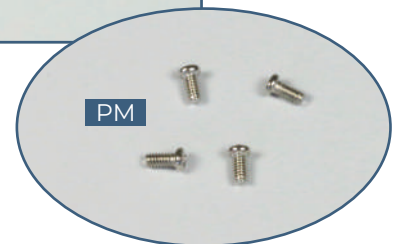
THE NEXT SECTION OF THE HULL



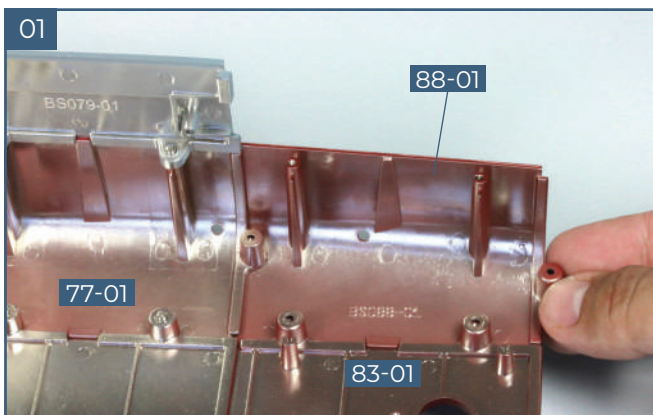
COMPONENTS CHECKLIST

88-01: Lower starboard hull section

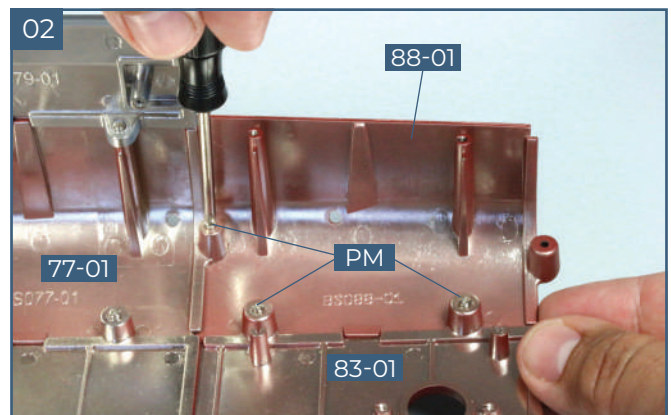
88-02: Bollards (A), fairleads (B), sounding line platforms (C) Four 2 x 4mm **PM** screws



01. FITTING THE HULL SECTION

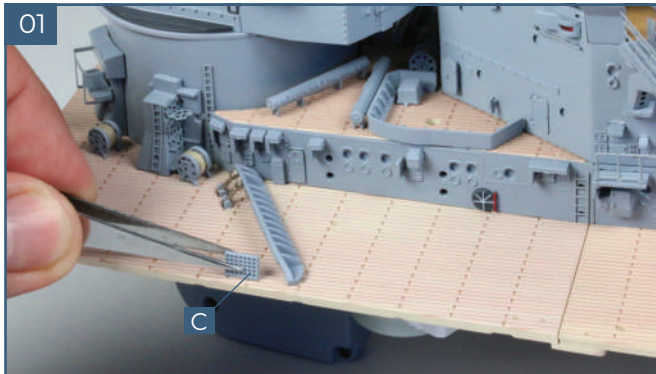


Take the lower starboard hull section **88-01** and fit the three raised screw sockets into the raised screw sockets in parts **77-01** and **83-01** as shown in the photo.

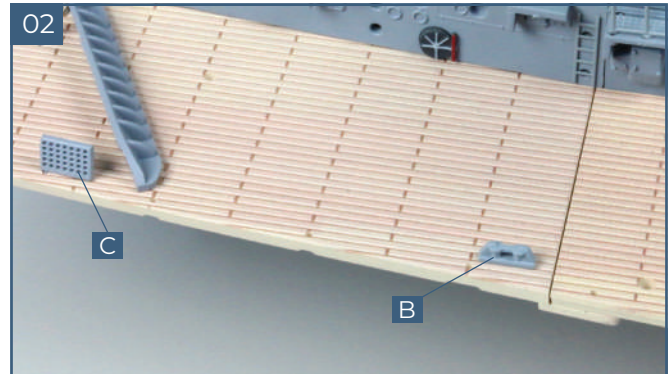


Fix the lower starboard hull section **88-01** to hull section **77-01** and keel section **83-01** using three **PM** screws.

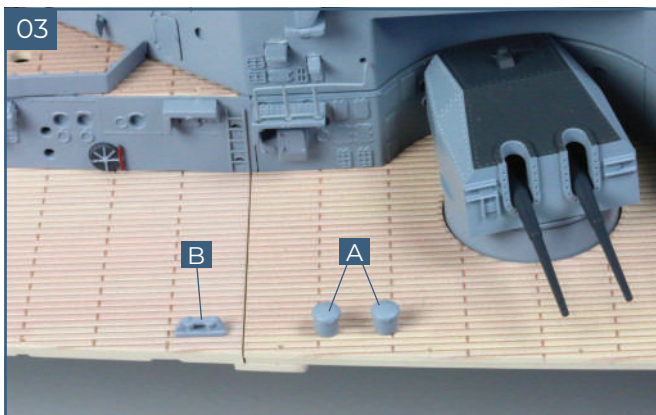
02. DETAILS FOR THE UPPER DECK



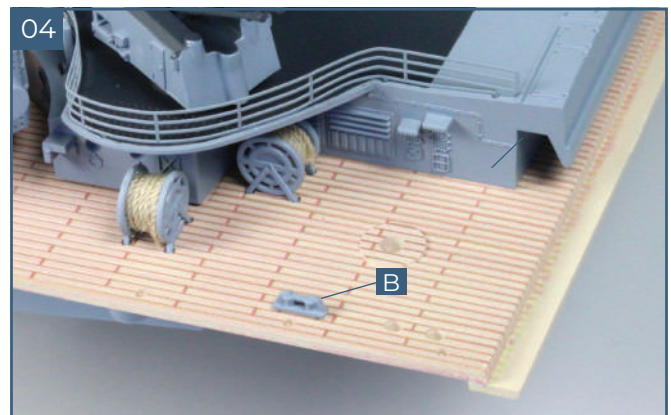
Take the upper deck structure with the forward superstructure. Cut a sounding line platform **C** from one of the two frames **88-02**. Fix it in place on the port side in front of the rear breakwater, using a little superglue.



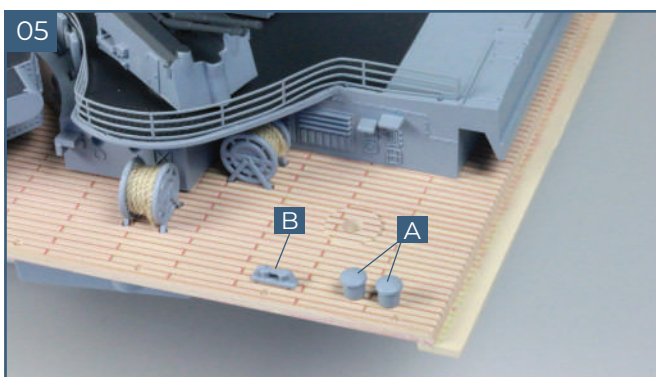
Slightly further aft, a fairlead **B** from one of the frames **88-02** is glued to the port side of the upper deck, as shown in the photo.



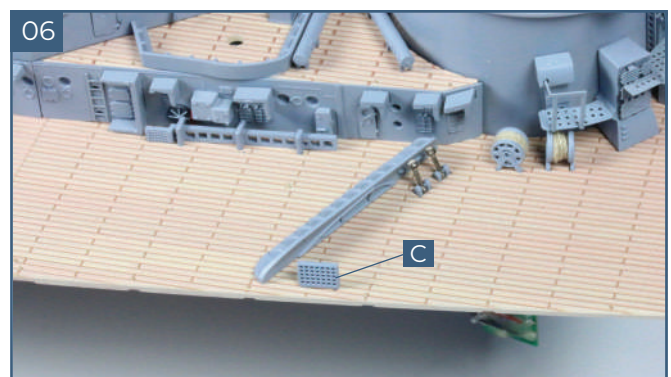
Two bollards **A** from one of the frames **88-02** are glued into the holes in the upper deck, as shown.



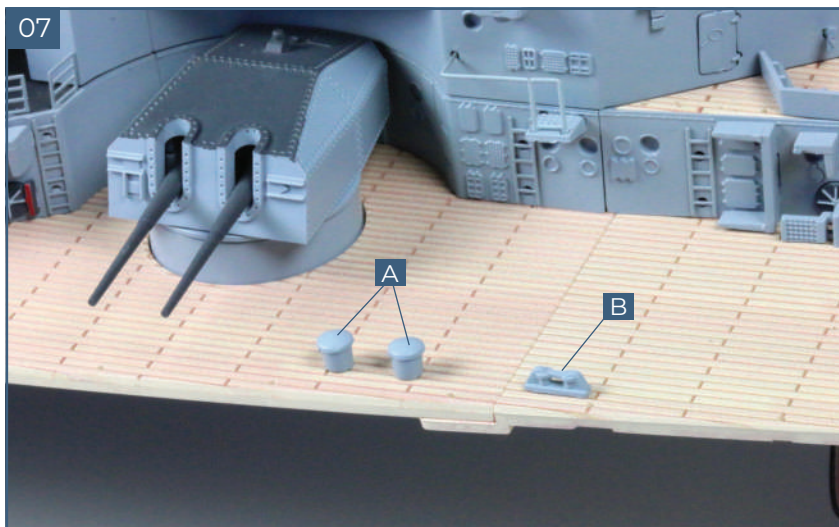
Another fairlead **B** is fixed in place towards the aft of the upper deck assembly on the port side.



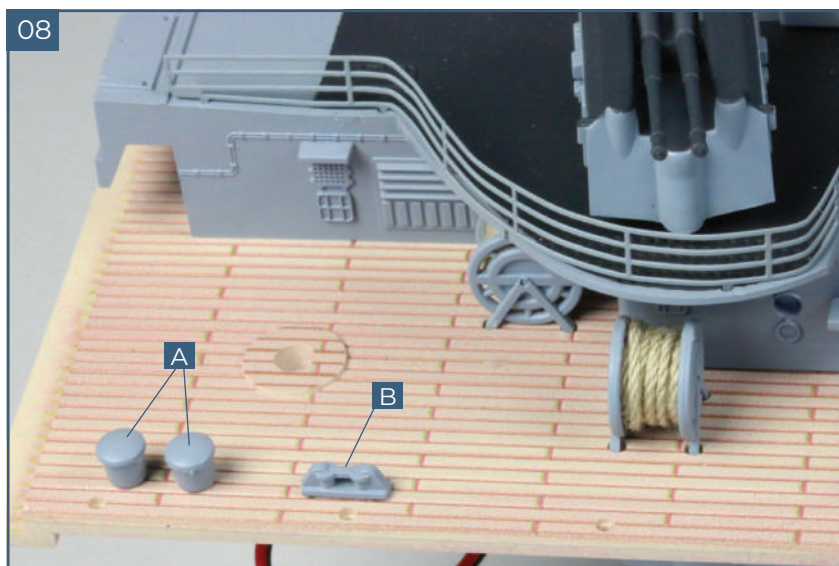
Two more bollards **A** are glued in place to the aft of the previous fairlead **B**.



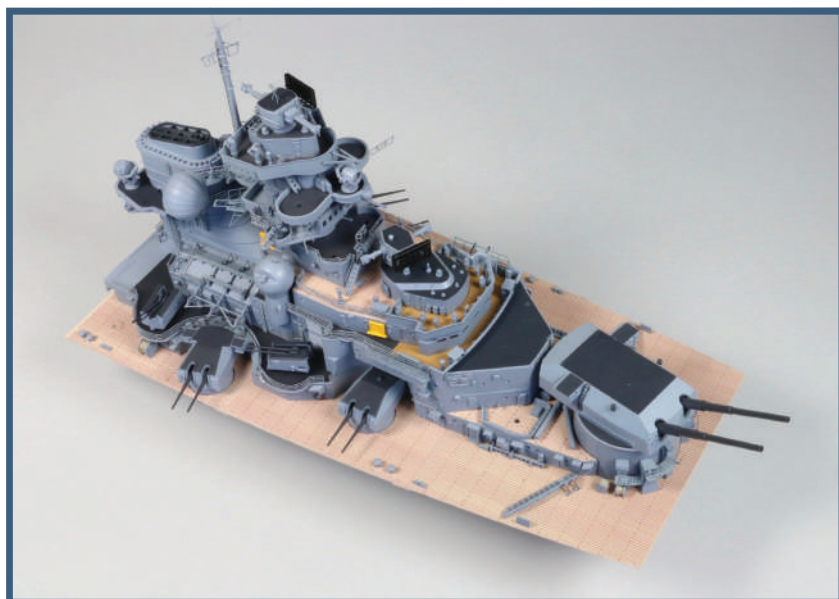
Moving to the starboard side, the second sounding line platform **C** is fitted in front of the rear breakwater. Glue in place, as shown.



Halfway down the starboard side of the upper deck assembly, two bollards **A** and one fairlead **B** are glued in place, as shown.



The last two bollards **A** and the last fairlead **B** are glued to the aft of the starboard side of the upper deck assembly.

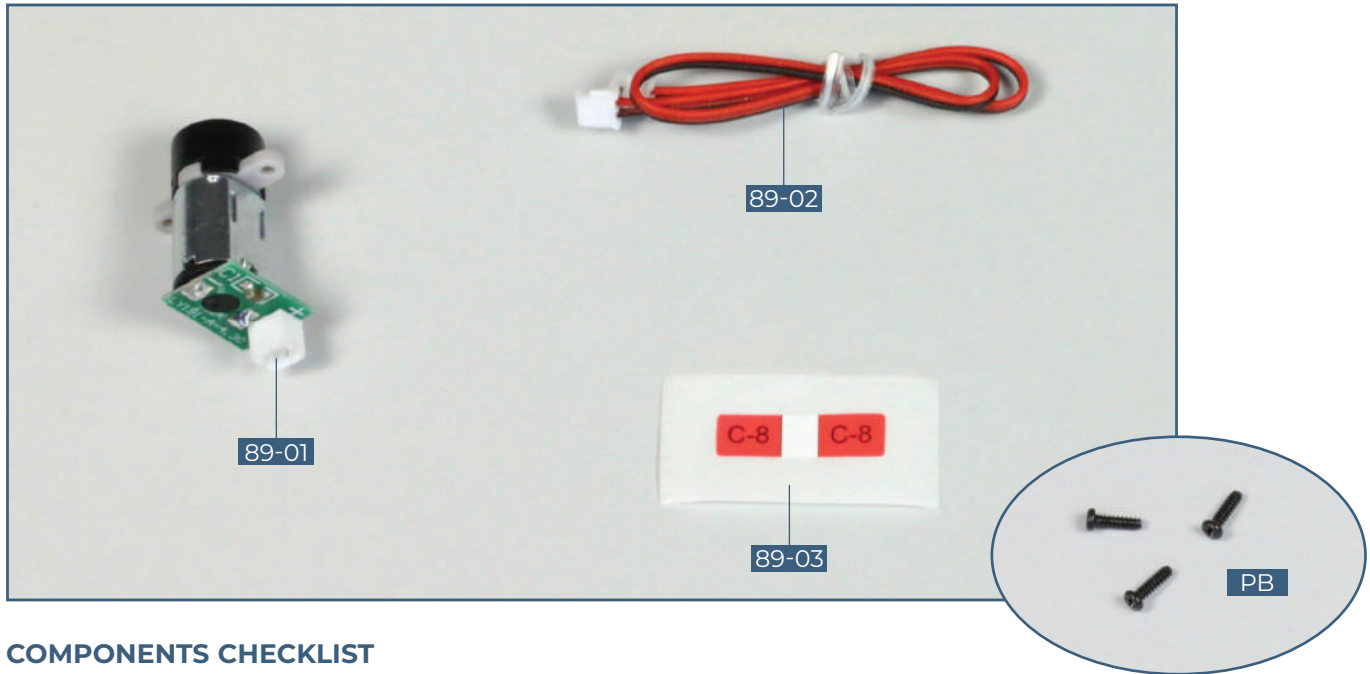


Completed work

Various details have been fitted to the upper deck and another section of the hull has been fitted (not shown).

STAGE 89

MOTOR FOR THE AFT FIRE CONTROL POST



COMPONENTS CHECKLIST

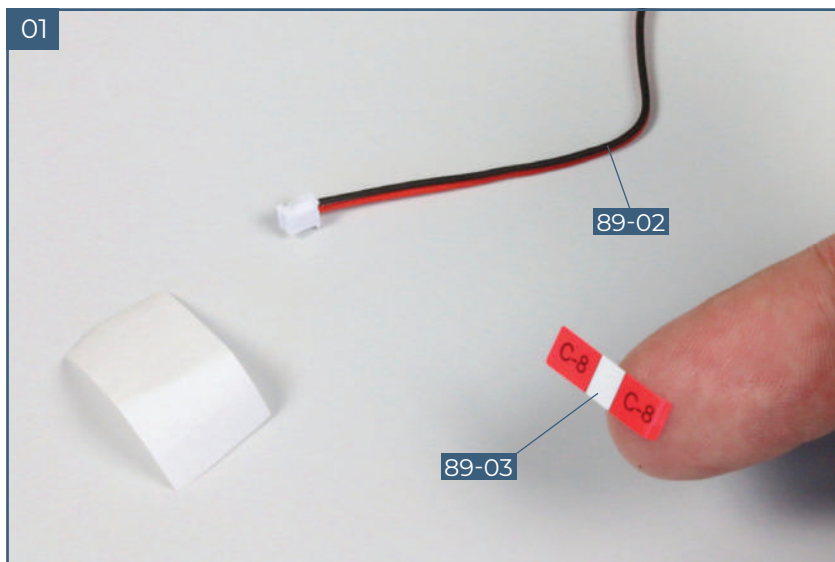
89-01: Motor for the aft fire control post

89-02: Cable

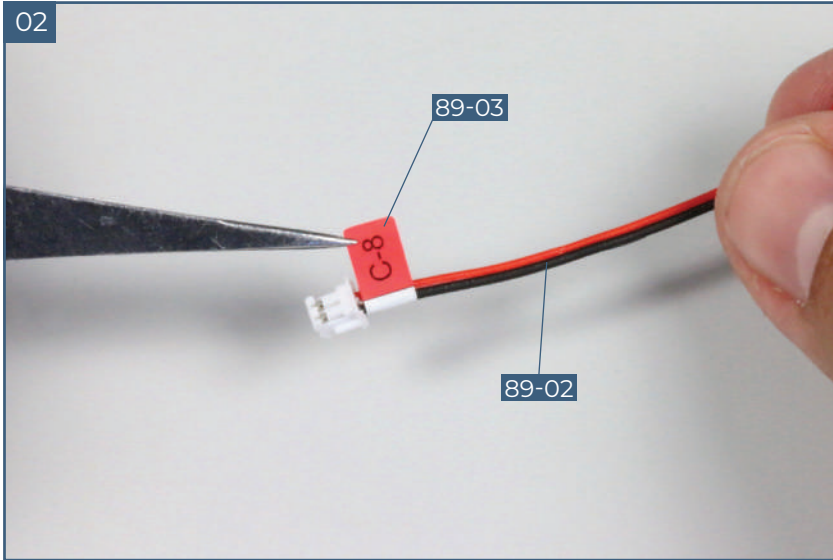
89-03: Cable label

PB: Three 1.7 x 6mm PB screws

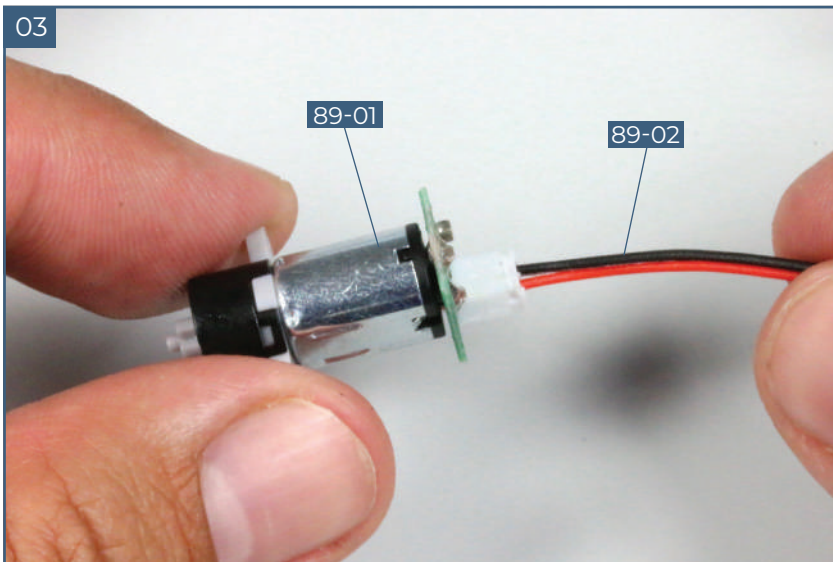
01. ASSEMBLING THE ENGINE



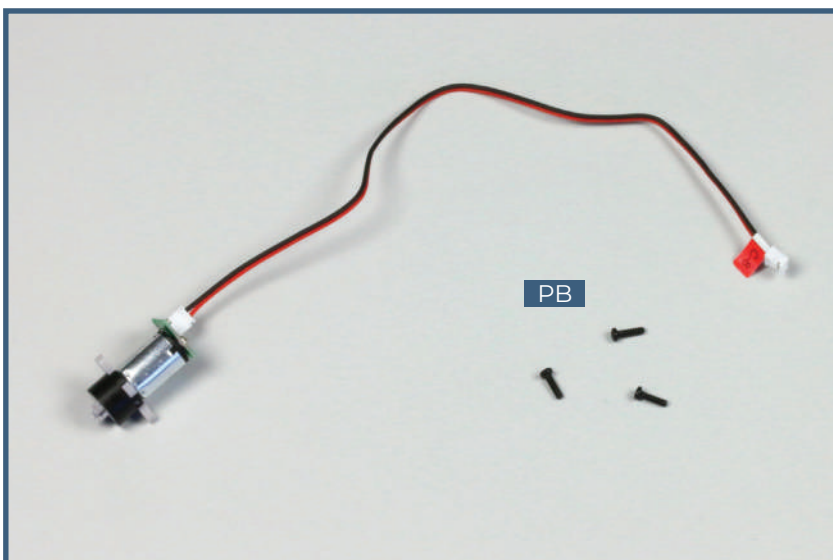
Take the cable **89-02** and the cable label **89-03**. Remove the cable label from its backing as shown.



Wrap the cable label **89-03** around one end of the cable **89-02**, close to the connector.



Fit the connector on the other end of the cable **89-02** into the socket in the motor **89-01**.

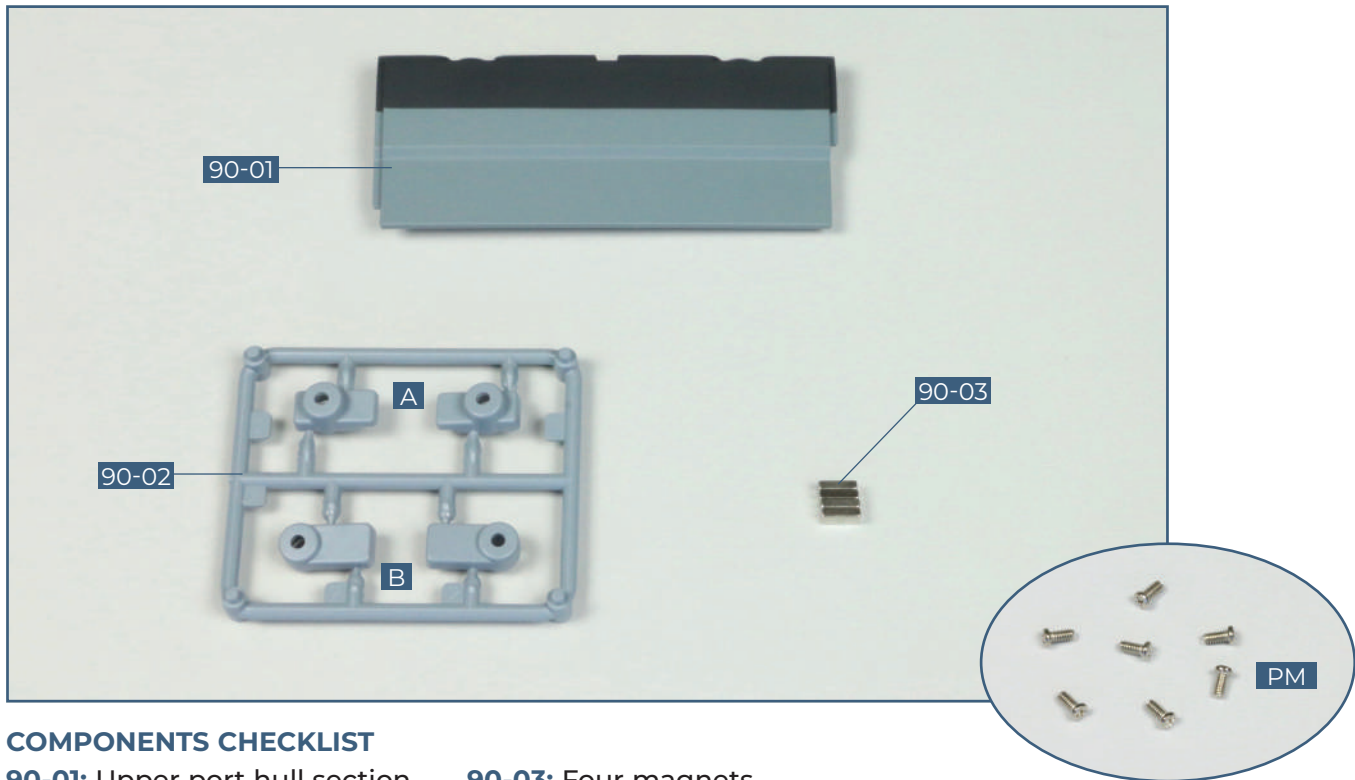


Completed work

A labelled cable has been fitted to the motor for the aft fire control post. The screws will be used in a future stage, when the motor is fitted to the control post, so store them carefully.

STAGE 90

A HULL SECTION AND MAGNETS



COMPONENTS CHECKLIST

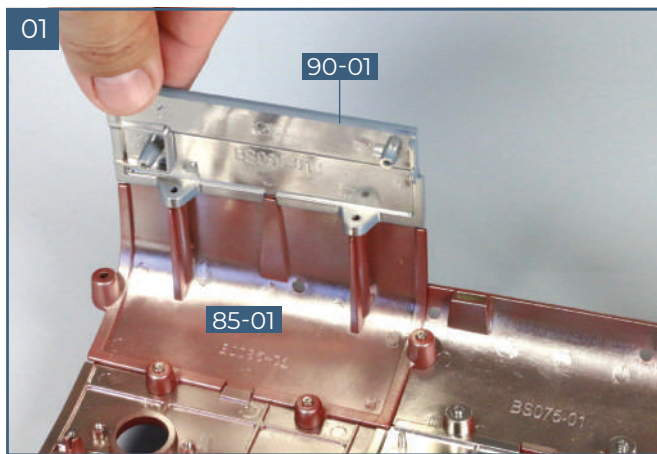
90-01: Upper port hull section

90-02: Four magnet holders
(2 x A, 2 x B)

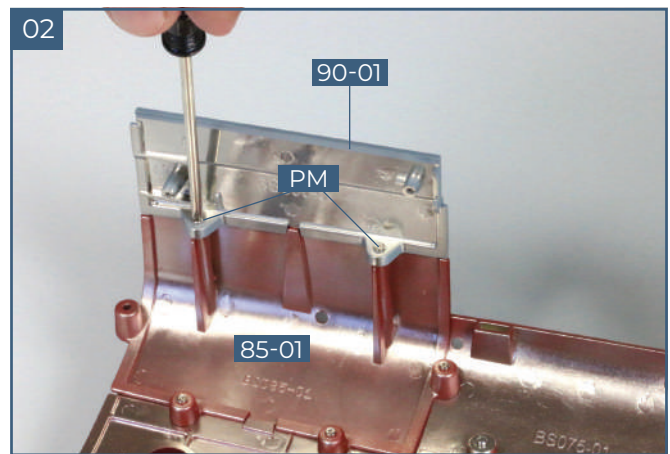
90-03: Four magnets

PM: Seven 2 x 4mm PM screws

01. FITTING THE HULL SECTION

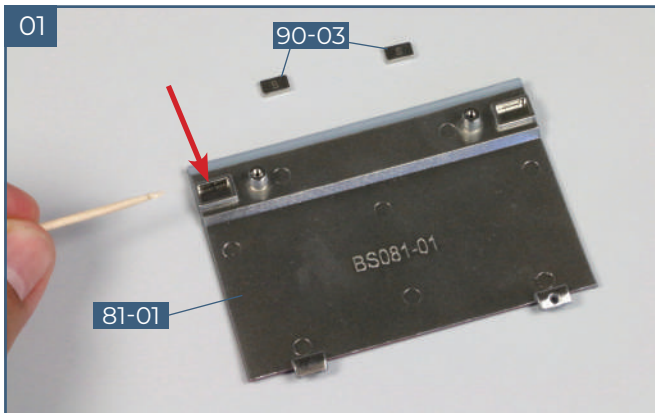


Take the port hull section **90-01** and position it above hull section **85-01** so that the screw holes are aligned with the sockets, as shown.



Fix the hull section **90-01** in place with two **PM** screws.

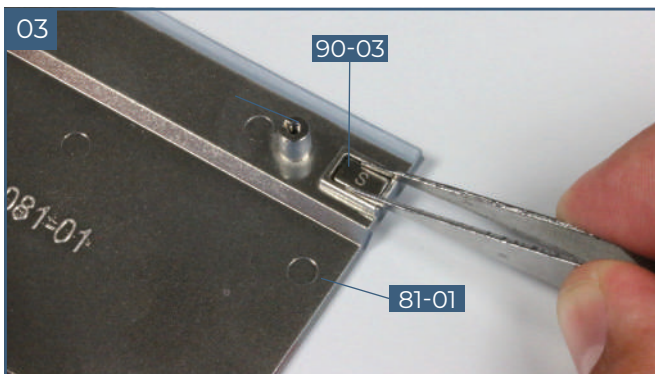
02. FITTING THE MAGNETS



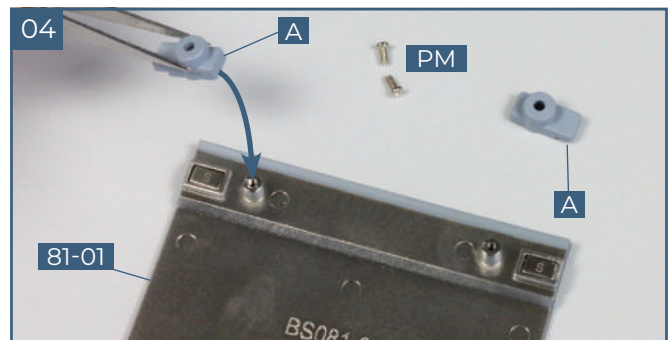
Take the upper port hull section **81-01**, supplied with stage 81. Place two magnets **90-03** on your worktop, with the letter S facing upwards. Apply a little superglue in the first recess (arrow).



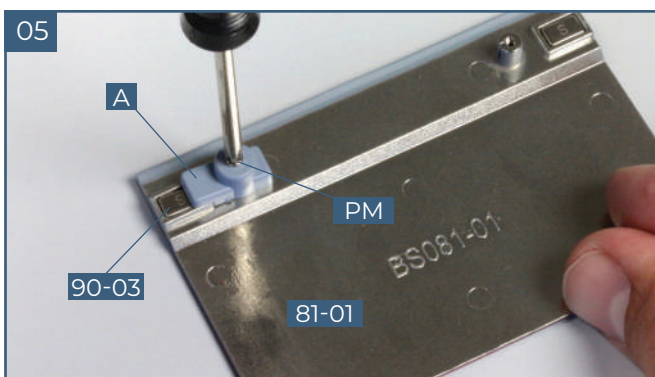
Fix one of the magnets **90-03** into the first recess in part **81-01**, positioning it so that the letter S (circled) is facing you.



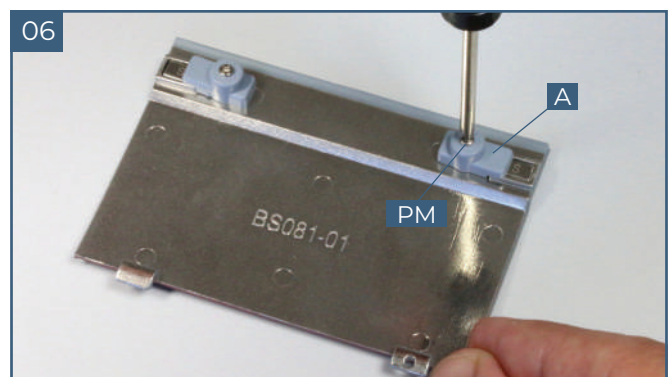
Fix a second magnet **90-03** into the second recess at the top of part **81-01**, using superglue, as before. Ensure that the letter S is facing you.



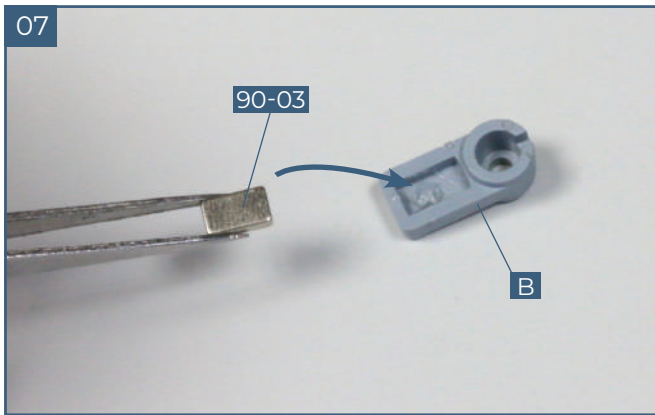
Check the difference between the magnet holders **A** and **B** on frame **90-02**. The holders **A** are slightly smaller than **B**. For the two magnets that have been fitted, you will need two **A** holders and two **PM** screws. Fit one of the brackets in place, as indicated.



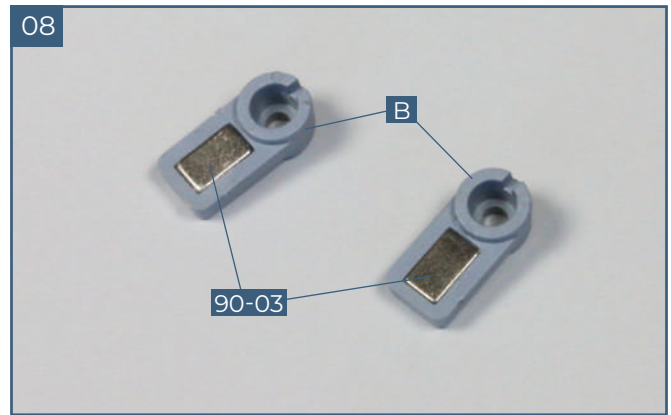
Fix the first magnet holder **A** to the hull section **81-01** with a **PM** screw. The holder covers the end of the first magnet **90-03**.



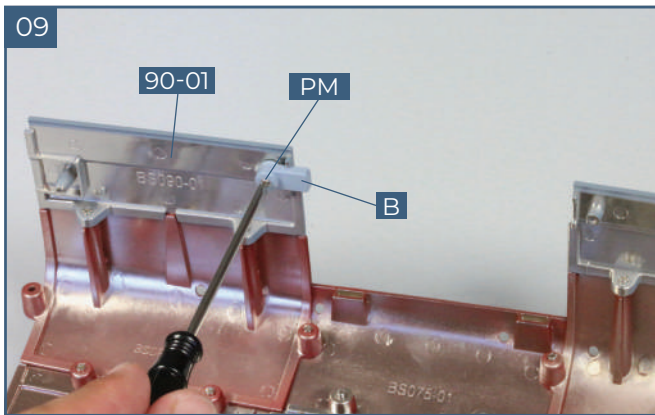
Fix the second magnet holder **A** in place on the other side of the hull section with a **PM** screw.



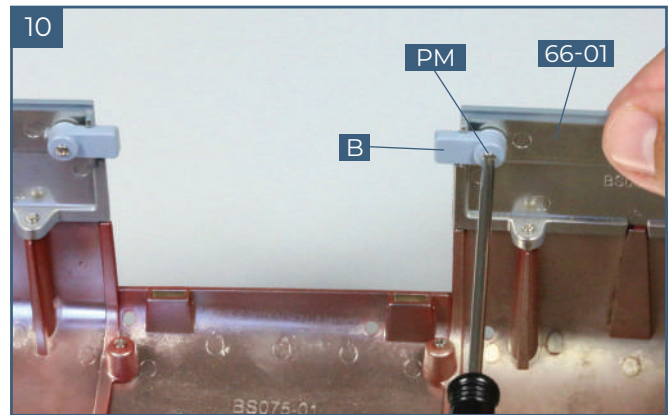
Take one of the magnet holders **B** and another magnet **90-03**. Apply a little superglue into the recess on the back of the magnet holder and fit the magnet in place so that you CANNOT see the letter S.



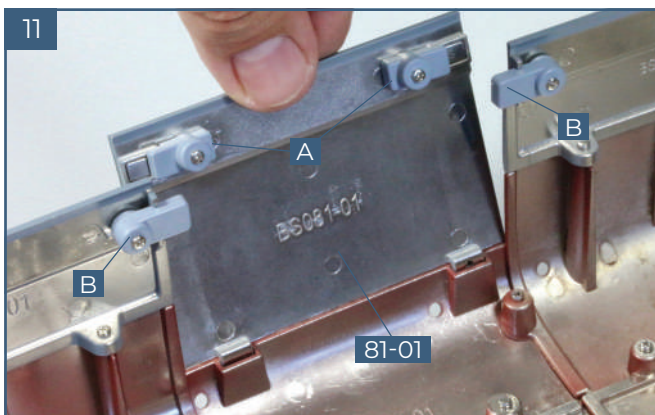
Fit the last magnet into the second magnet holder **B**, again gluing it in place so that you CANNOT see the letter S.



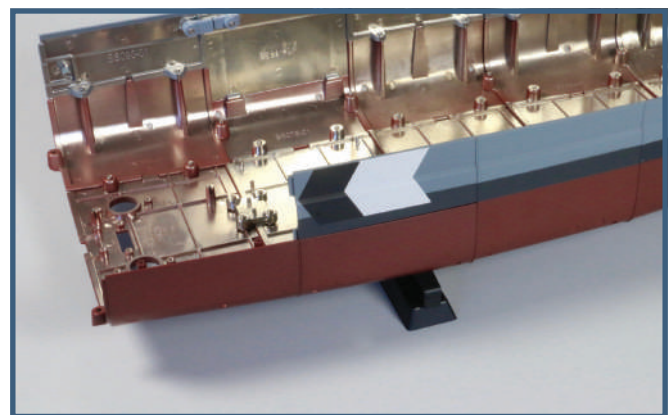
Attach one of the magnet holders **B** to the hull section **90-01** using a **PM** screw.



The last magnet holder is fixed in place to hull section **66-01** using a **PM** screw.



Fit the hull section **81-01** in place between the hull sections **91-01** and **66-01**. The magnets fitted into magnet holders **B** connect with the magnets in the hull section **81-01** to hold the panel in place.

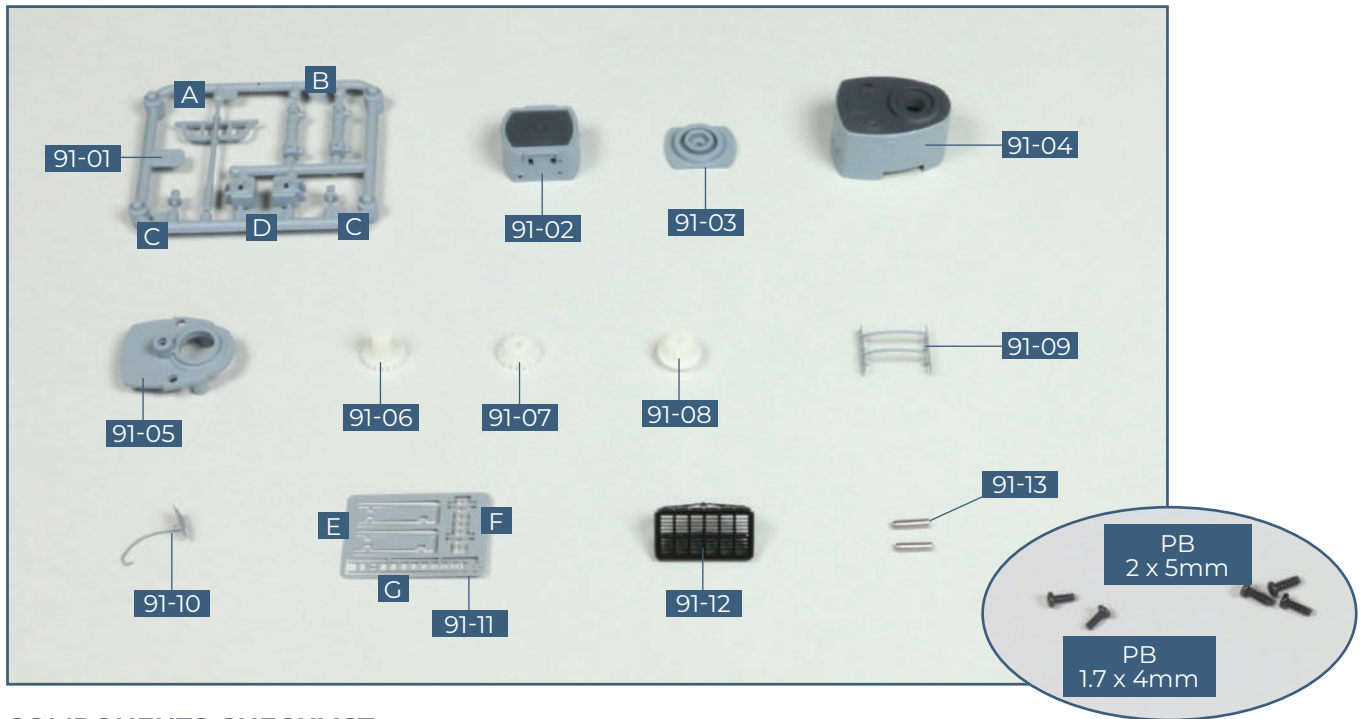


Completed work

A hull section has been fitted with magnets and inserted into the hull assembly so that it can be removed.

STAGE 91

THE AFT FIRE CONTROL POST



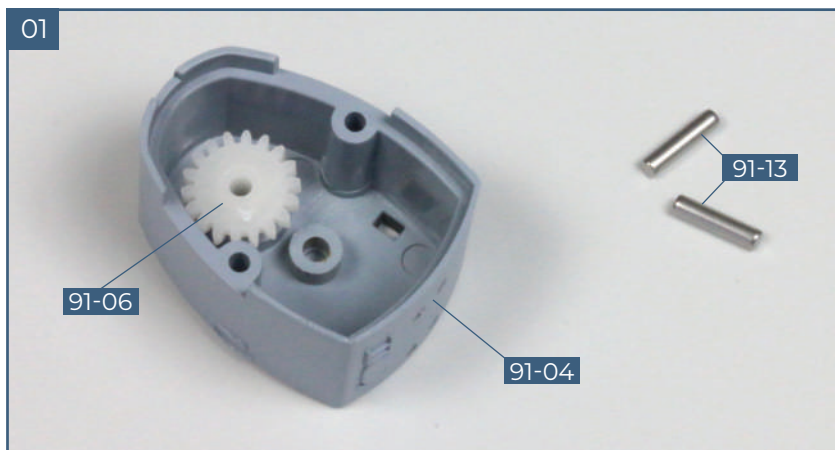
COMPONENTS CHECKLIST

91-01: Small parts for the rotating dome and the control post (A to D)
91-02: Aft rotating dome
91-03: Base of the rotating dome
91-04: Aft control post

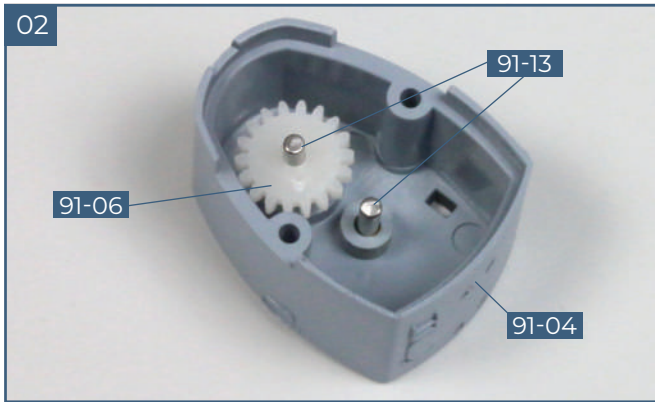
91-05: Base plate
91-06: Cog
91-07: Cog
91-08: Cog
91-09: Ladders with rails
91-10: Cooling coil

91-11: Rails and ladders (E to G)
91-12: Radar antenna
91-13: Two shafts
PB: Three 2 x 5mm PB screws
PB: Two 1.7 x 4mm PB screws

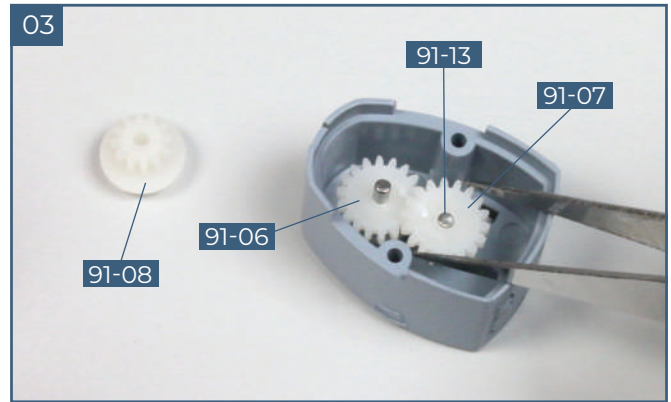
01. FITTING THE MOTOR IN THE AFT CONTROL POST



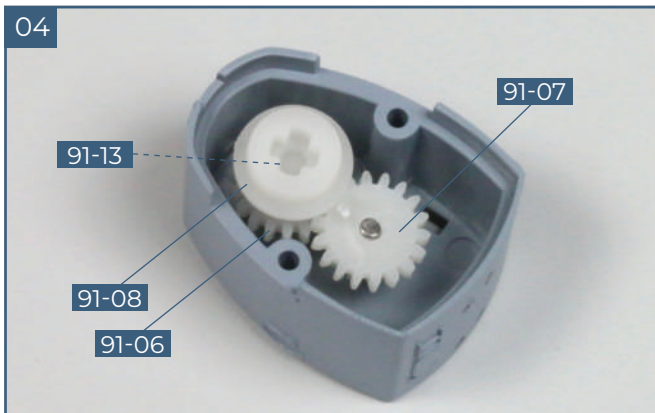
Place the aft control post **91-04** on your worktop and fit the cog **91-06** in place as shown. Have two shafts **91-13** ready.



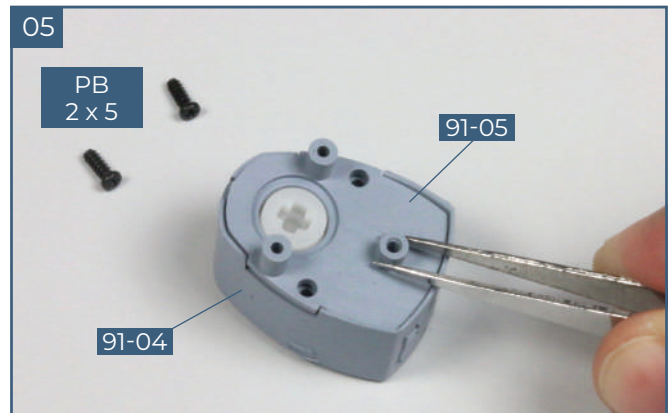
Fit one shaft **91-13** through the centre of the cog **91-06** and into the socket in the control post **91-04**. Fit the second shaft into the hole in the aft control post **91-04**.



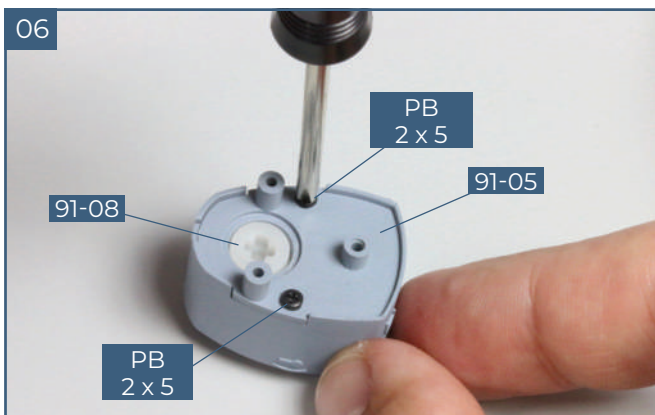
Fit cog **91-07** on the second shaft **91-13** (on the right in the orientation shown). The teeth on the base of cog **91-07** interlock with the teeth on the rim of cog **91-06**. Cog **91-08** will be fitted next.



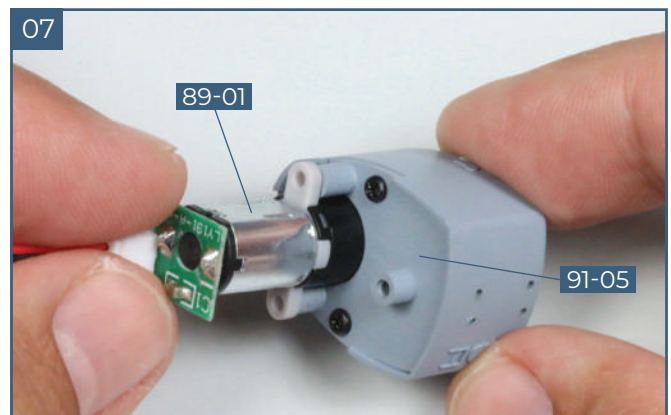
Fit cog **91-08** on the shaft **91-13** (not visible) on top of cog **91-06**. The teeth on cog **91-08** interlock with the teeth on the rim of cog **91-07**.



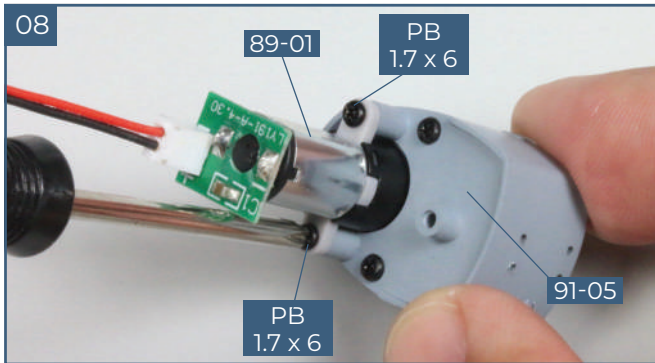
Fit the base plate **91-05** on the base of the aft control post **91-04**. You will need two 2 x 5mm **PB** screws.



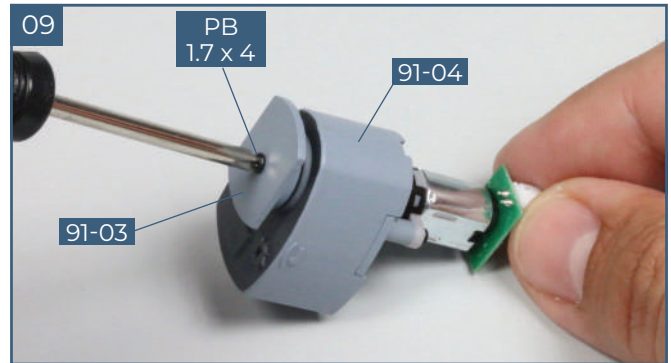
Fix the base plate in place with two 2 x 5mm **PB** screws.



Take the motor **89-01** and fit it into the base plate **91-05** so that the shaft of the motor engages in the centre of cog **91-08** (the cog is not visible from this angle).

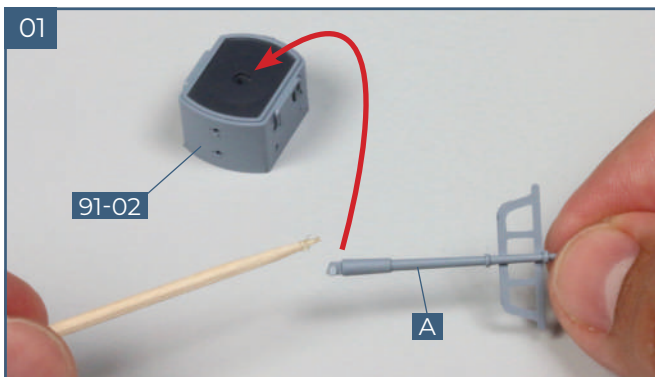


Fix the motor **89-01** in place on the base plate **91-05** using two 1.7 x 6mm **PB** screws (supplied with stage 89).

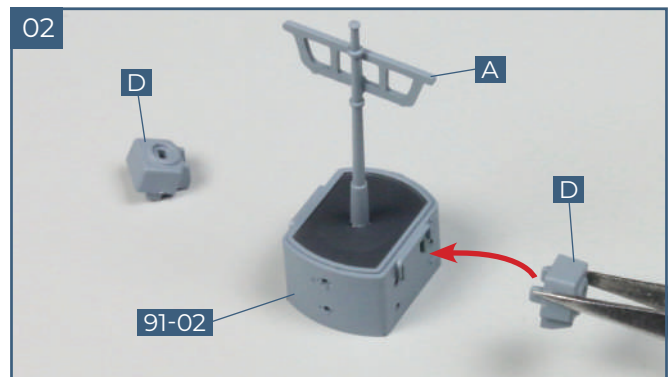


Turn the control post **91-04** over. Fit the base of the dome **91-03** on the top of the control post. Fix it in place with a 1.7 x 4mm **PB** screw.

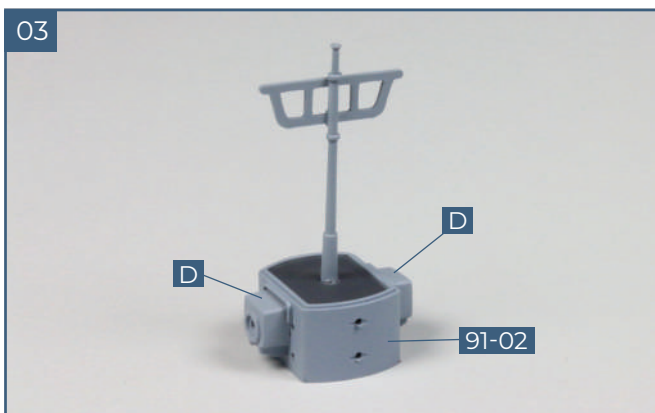
02. ASSEMBLING THE ROTARY DOME



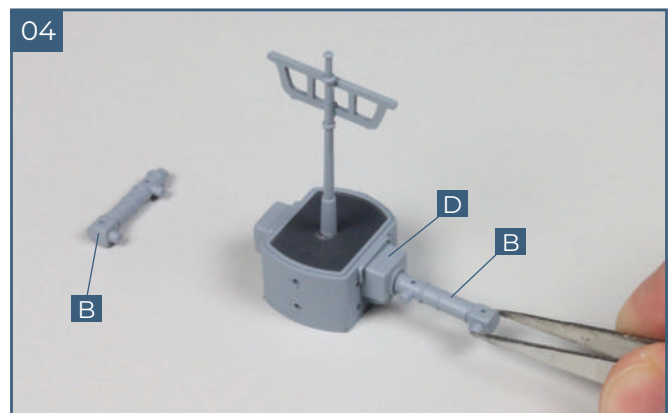
Place the aft rotating dome **91-02** on your worktop. Separate the aft mast **A** from frame **91-01** and check how it fits into part **91-02**. Apply some adhesive to the peg on the base of the mast.



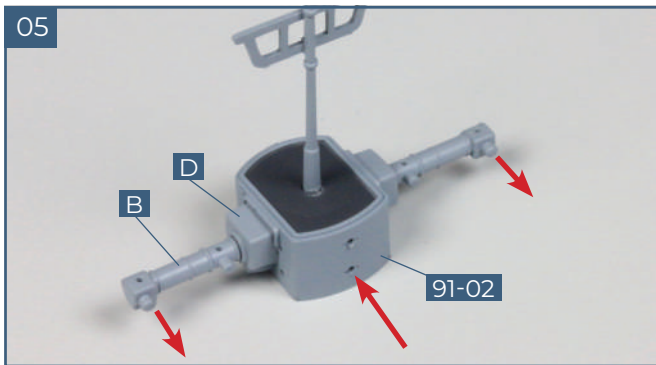
Fix the mast **A** in place on the rotating dome. Cut the two side parts **D** from frame **91-01**. Check the fit of the side parts **D** on the side of part **91-02**.



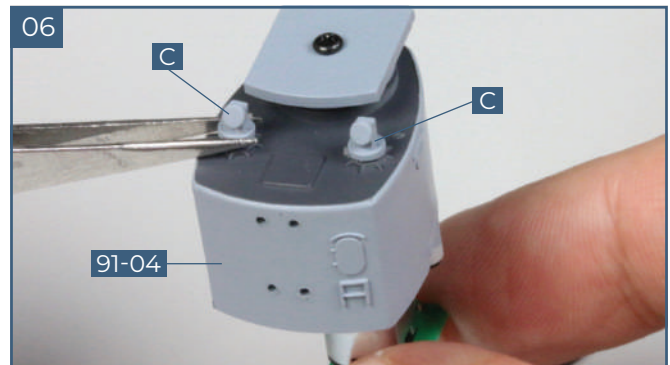
Apply a little superglue to the pegs on parts **D** and fix in place as shown.



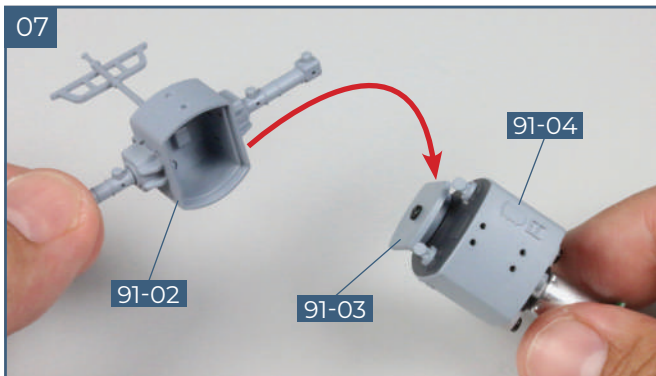
Separate the two rangefinder arms **B** from frame **91-01**. Check the fit of the first part **B** into one of the side pieces **D**, as shown.



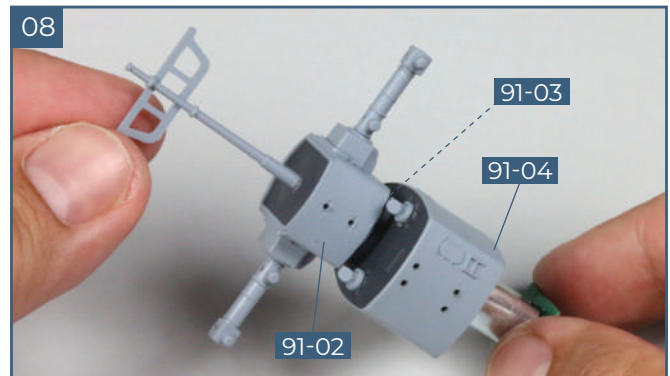
Identify the back of the rotating dome **91-02** (arrow). Make sure that the peg on the end of arm **B** faces backwards (arrow). Apply a little glue to the end of the first part **B** and fix in place. Repeat to fit the second part **B**, ensuring the peg is pointing backwards (arrow).



Cut the two target indicators **C** from frame **91-01**. Check the fit on the roof of the control post **91-04**, ensuring that they are facing the right way, as shown. Glue in place.



Check how the rotating dome **91-02** fits on the base **91-03**. Apply a little glue to the rim of part **91-02**.

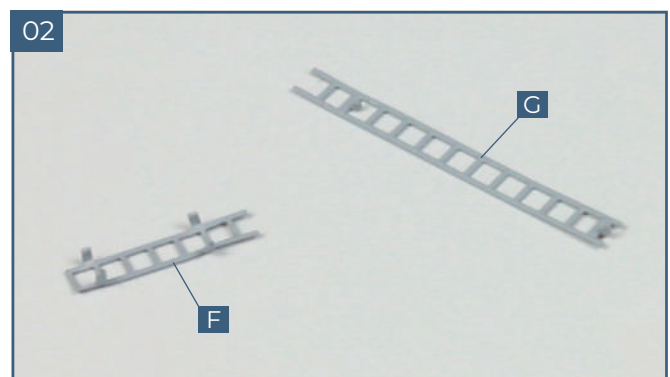


Fix the rotating dome **91-02** in place on the base **91-03** (not visible)

03. METAL DETAILS FOR THE ROTATING DOME AND CONTROL POST



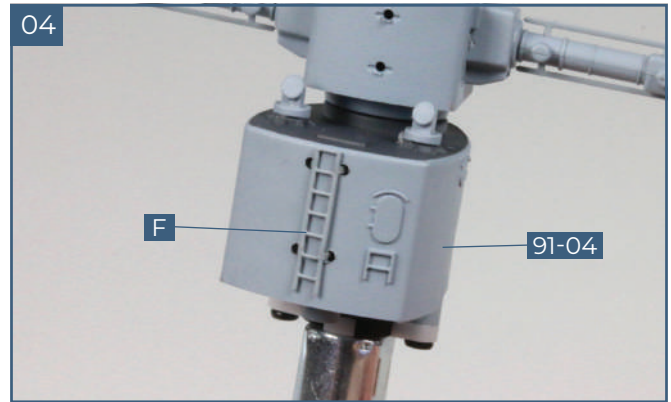
Cut the hand/foot rails structures **E** from frame **91-11**. Check how they fit on the rangefinder arms. Glue in place as shown.



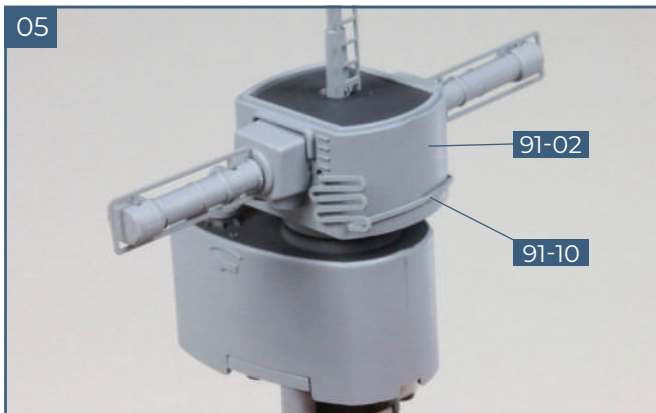
Cut the ladders **F** and **G** from frame **91-11**. Bend the fixing tabs (four on part **F** and two on part **G**) at right angles, as shown.



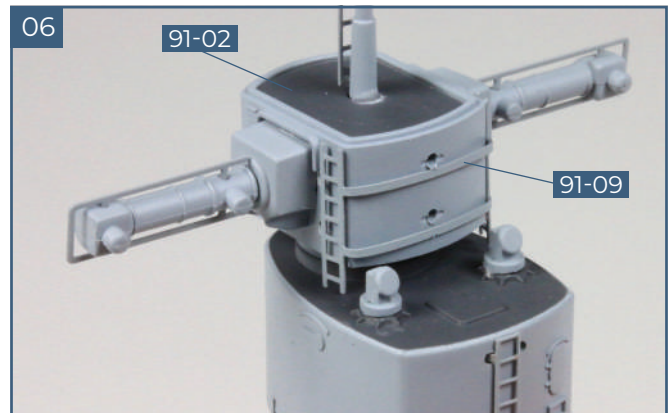
Check how ladder **G** fits on the front of the aft mast. Glue in place.



Ladder **F** fits on the back of the control post **91-04**. Glue in place.



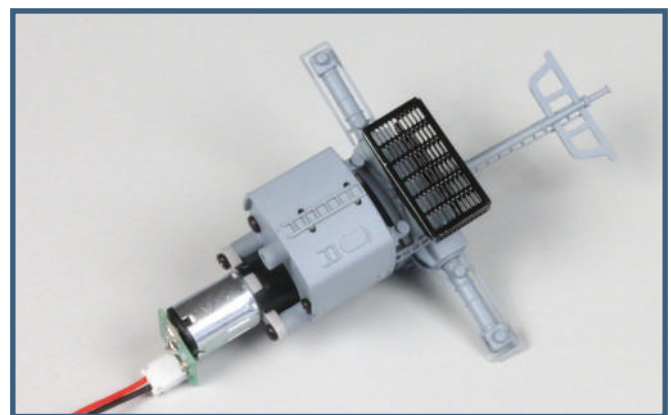
The cooling coil **91-10** fits on the front of the rotating dome **91-02**: pegs on each end fit into holes in the rotating dome. Glue in place.



The ladders with rails **91-09** fit across the back of the rotating dome **91-02**. Pegs on the ladders fit into corresponding holes in the rotating dome. Glue in place.



The radar antenna **91-12** has two pegs that fit into the two central holes on the back of the rotating dome **91-02**. Make sure you have it the right way up, as shown. Glue in place.

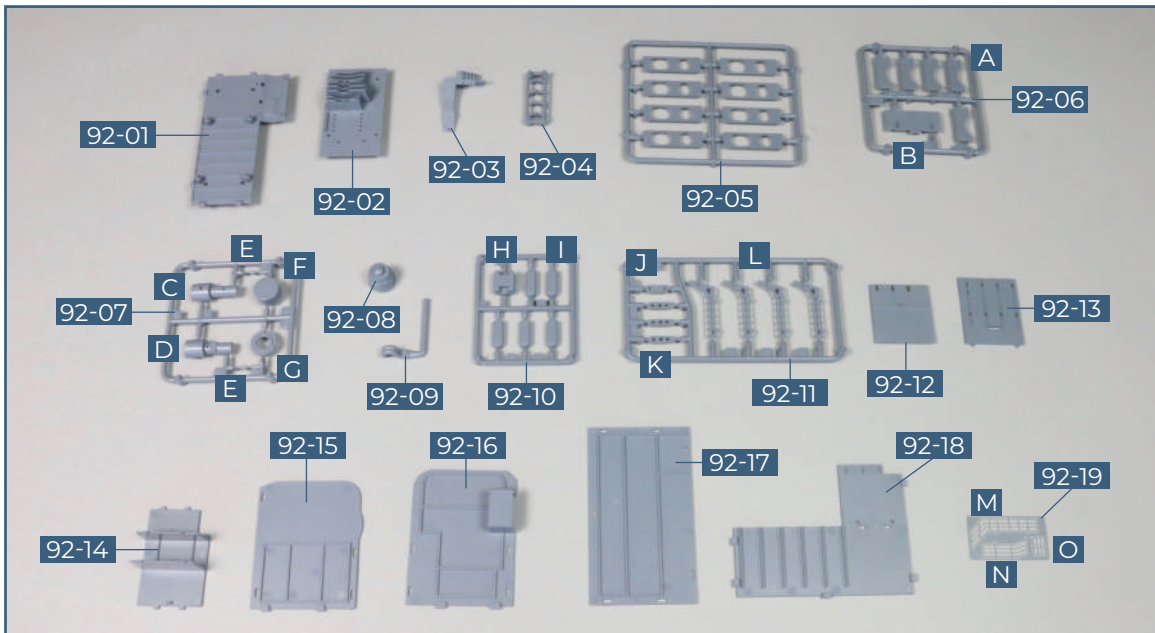


Completed work

The aft fire control post has been assembled, with many detailed features. The motor has been attached to the base of the fire control post.

STAGE 92

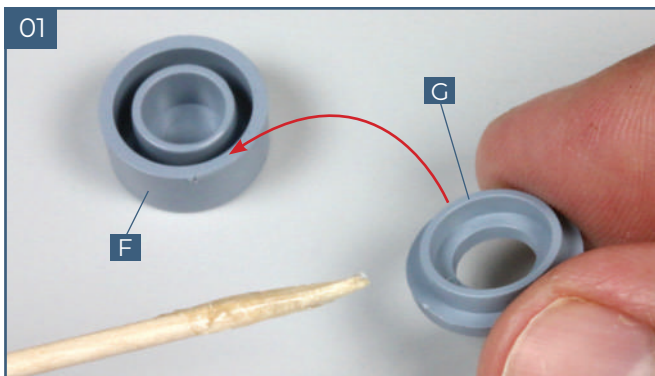
THE TURBINE ROOM



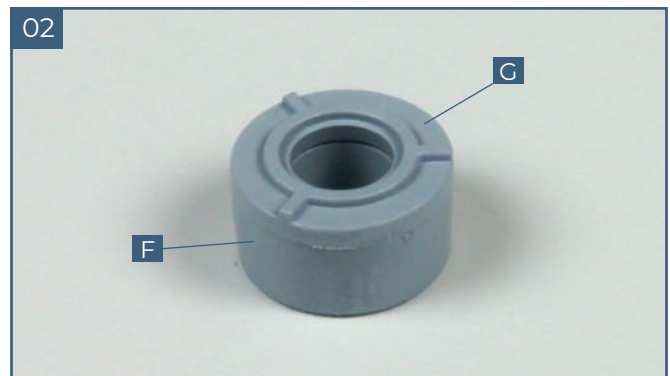
COMPONENTS CHECKLIST

- | | | |
|---|---|---|
| 92-01: Floor section | 92-07: Turbine parts (C to G) | 92-13: Torpedo bulkhead |
| 92-02: Turbine support | 92-08: Turbine head | 92-14: Longitudinal bulkhead |
| 92-03: Gangway | 92-09: Turbine pipe | 92-15: Front transverse bulkhead |
| 92-04: Bolts x 4 | 92-10: Cable guides (H, I) | 92-16: Rear transverse bulkhead |
| 92-05: Transverse dividers x 8 | 92-11: Gangway (J), supports (K) and angled brackets (L) | 92-17: Back wall |
| 92-06: Transverse support brackets (A) and a longitudinal bulkhead (B) | 92-12: Angled bulkhead | 92-18: Armoured deck |
| | | 92-19: Three railings (M to O) |

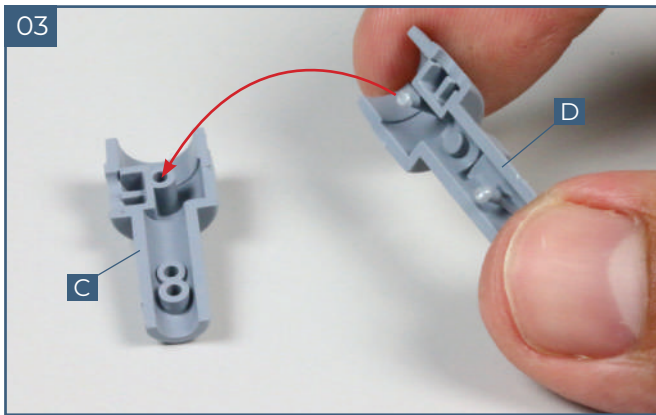
01. ASSEMBLING THE TURBINE



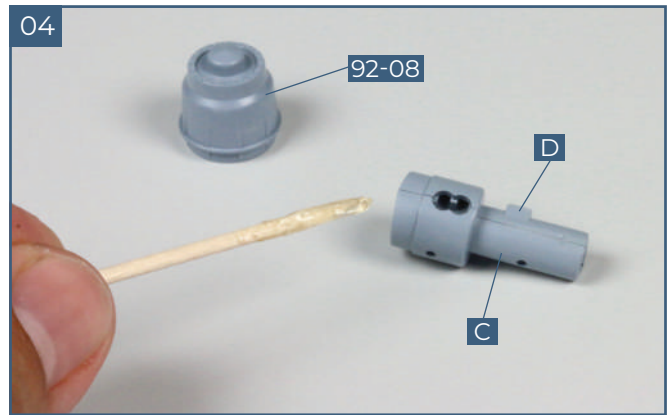
Take the frame **92-07** and separate the turbine parts **F** and **G** from it. Check how the parts fit together. Apply some glue to the rim of part **G**.



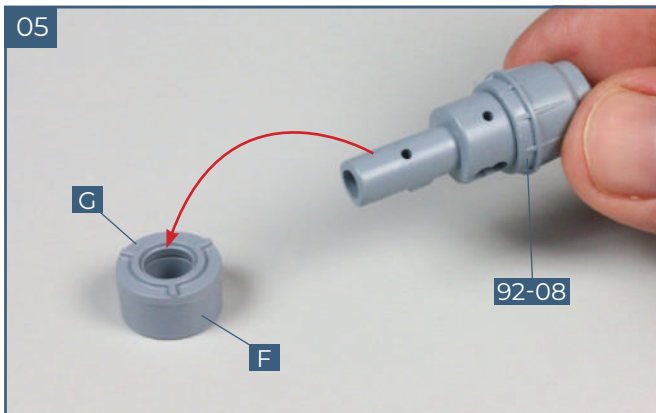
Glue parts **F** and **G** together as shown.



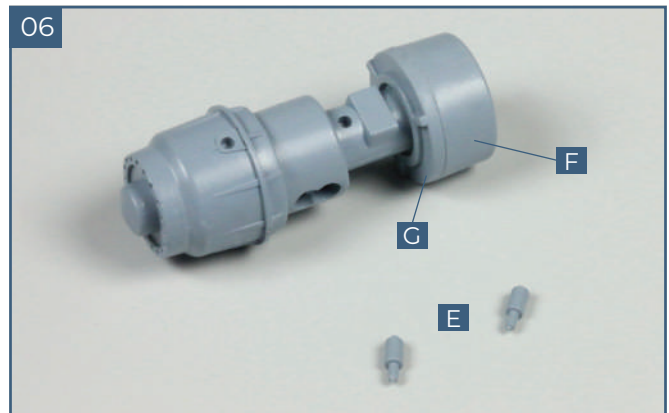
Take the two halves of the turbine, **C** and **D**, from frame **92-07**. Two pegs on part **D** fit into sockets in part **C**. Apply a little glue to the pegs and fix the parts together.



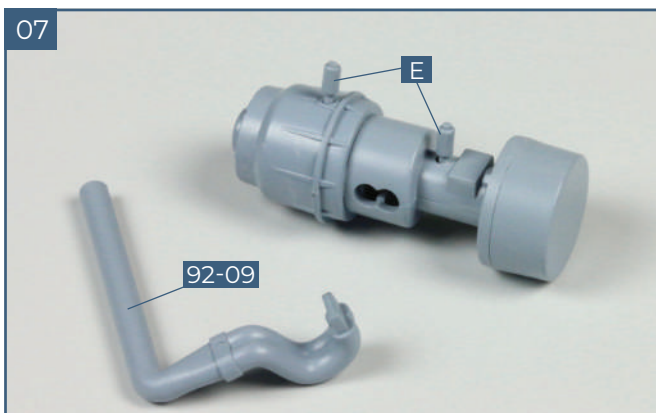
Check the fit of the turbine head **92-08** on the wider end of the turbine assembly. Apply a little glue to the end of the turbine and fix part **92-08** in place.



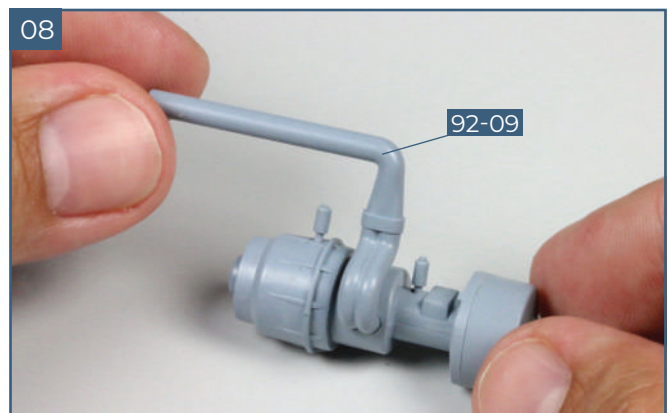
Check the fit of the shaft of the turbine in the centre of assembly **F/G**. Apply some glue to the turbine shaft and glue in place to the assembly **F/G**, as indicated.



This shows the turbine assembly. Next you will need the two small parts **E** from frame **92-07**.

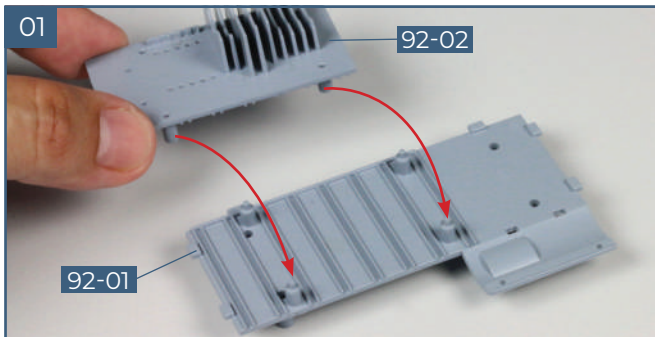


Apply a little glue to the ends of the pegs of parts **E** and fix in place on the side of the turbine assembly, as shown. Next you will need the pipe **92-09**.

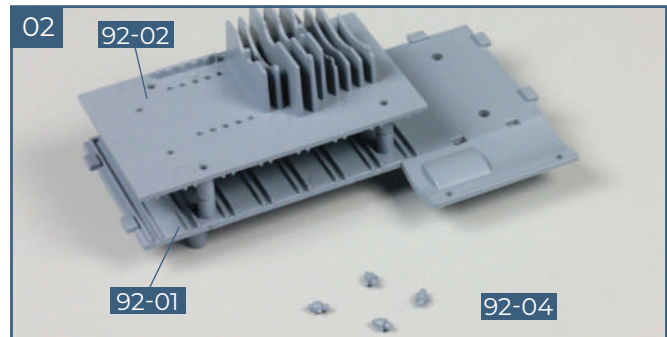


Check the fit of part **92-09** on the turbine. Two pegs on the end of the pipe fit into the double hole on the side of the turbine. Glue in place, as shown.

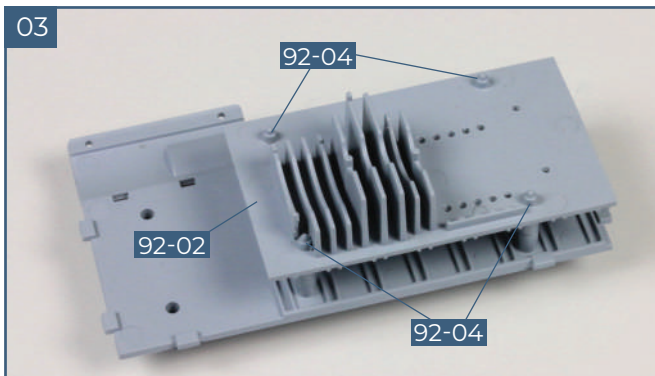
02. ASSEMBLING THE TURBINE ROOM



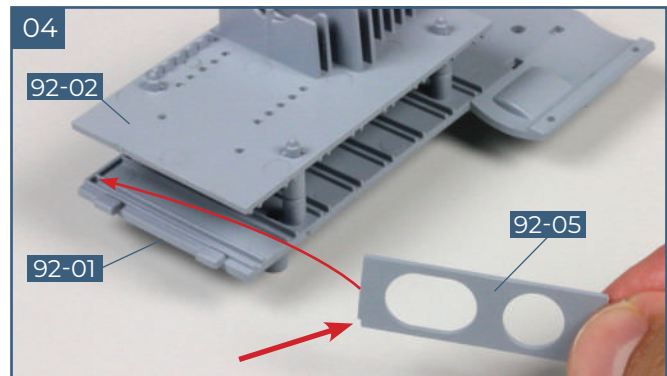
Place the floor **92-01** on your worktop. Check how the turbine support **92-02** fits on the floor: four raised sockets on the underside of part **92-02** fit over raised pegs on the floor **92-01**, as indicated.



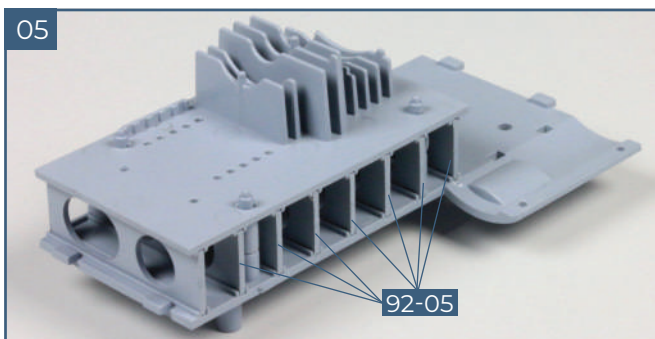
Apply some glue to the four pegs on the floor **92-01** and fix the turbine support **92-02** in place. Remove the four bolts from the frame **92-04**.



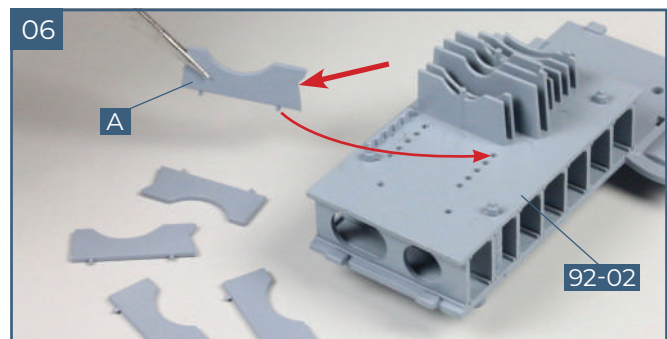
Glue the four bolts **92-04** into the sockets in the turbine support **92-02**, as shown.



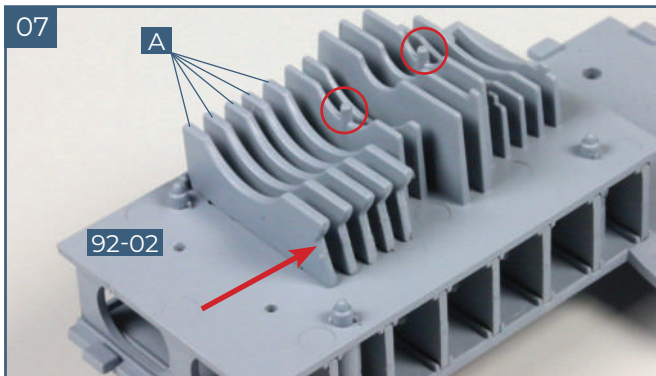
Take the eight transverse dividers from frame **92-05**. Slide the first divider into the slots on the floor **92-01** and underside of the turbine support **92-02**. Note the orientation of the floor/support assembly and the notch on the corner of the divider (thick red arrow).



Insert the remaining seven transverse dividers from frame **92-05**. They slot into the guides in the same way as the first divider.



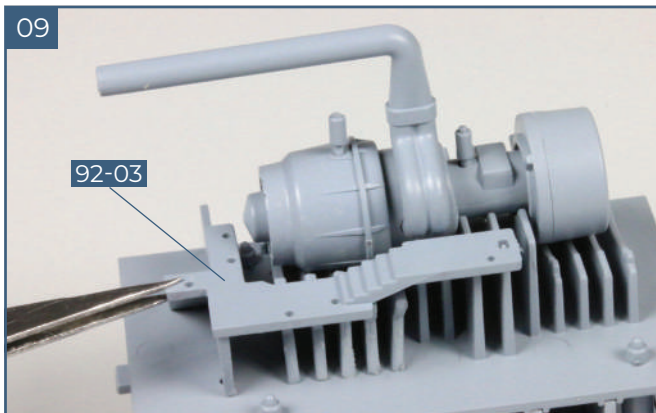
Take the five matching transverse support brackets **A** from frame **92-06**. These fit on the top of the turbine support **92-02**, parallel to the brackets that are part of the support panel. Pegs on the lower edges of the brackets fit into holes in part **92-02**. Note the position of the notched edge of the brackets (thick red arrow).



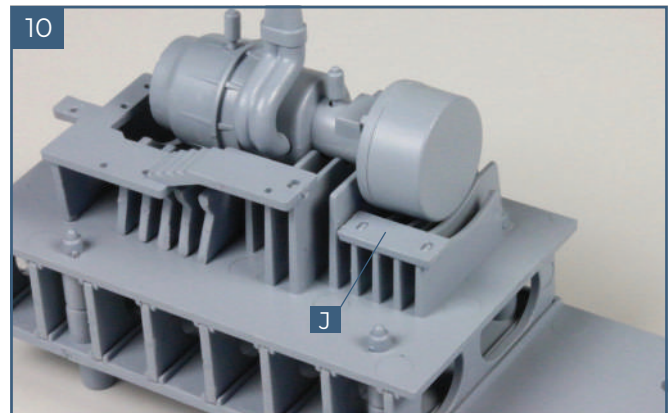
This shows the five support brackets **A** in place on part **92-02**, with the notched edges aligned (arrow). Note the pegs on the support brackets (circled).



Check how the turbine assembly fits on the turbine support **92-02** and brackets **A** so the pegs (circled in previous step) are located in sockets in the turbine assembly. When you are happy with the fit, apply a little glue to the pegs and fix in place.

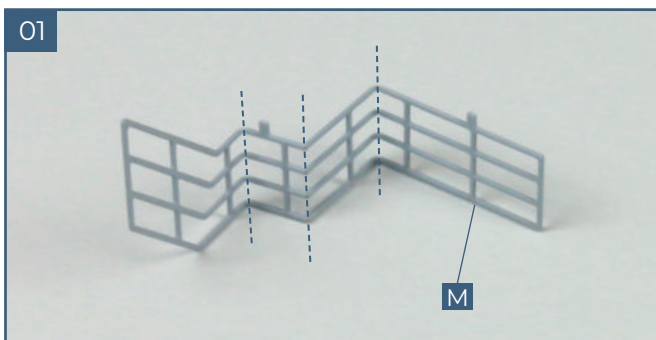


Glue the gangway **92-03** onto the turbine support brackets as shown. Two pegs on the base of part **92-03** fit into corresponding holes in part **92-02**.

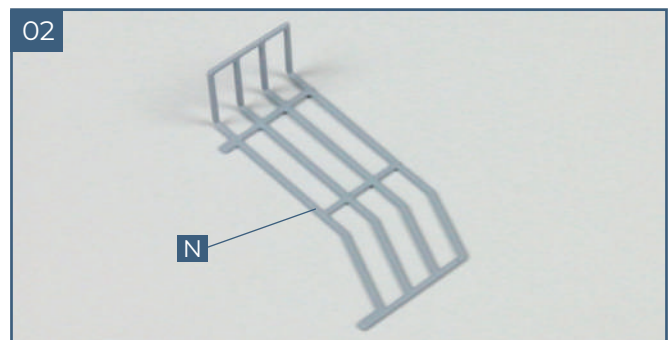


Take the small gangway **J** from frame **92-11** and glue in place across the support brackets as shown.

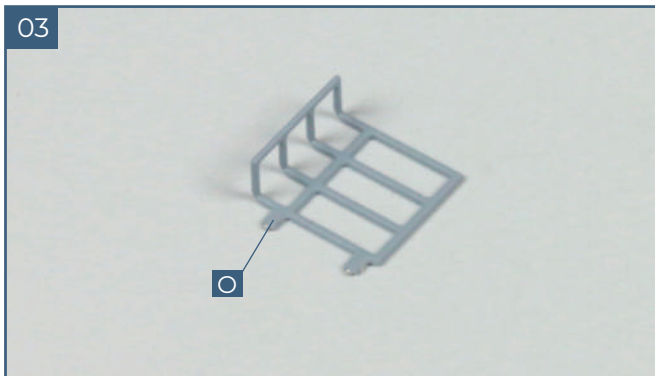
03. SHAPING AND FITTING THE RAILINGS



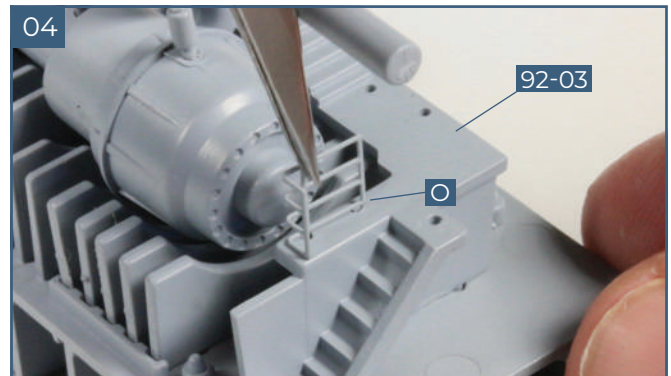
Separate the railing **M** from the frame **92-19**. Bend the railing three times at right angles at the notched points as shown. See also step 5.



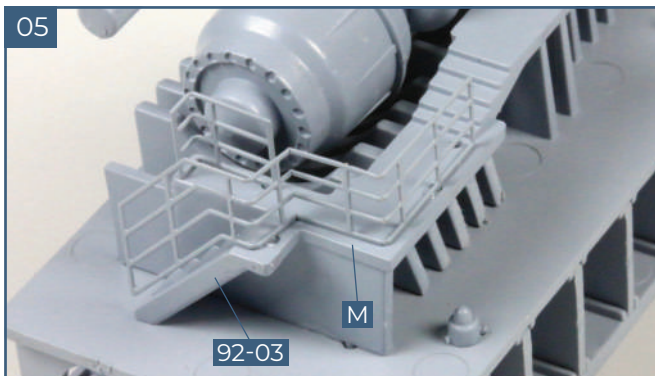
Take the railing **N** from frame **92-19**. Bend it once at a right angle, as shown.



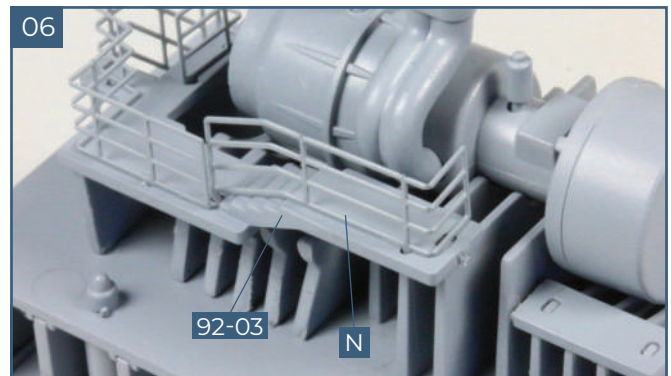
Take railing **O** from frame **92-19** and bend it once at a right angle.



Check the fit of the railing **O** on the gangway **92-03**. Apply a little glue to the two pegs on the lower edge of the railing and fix in place, as shown.

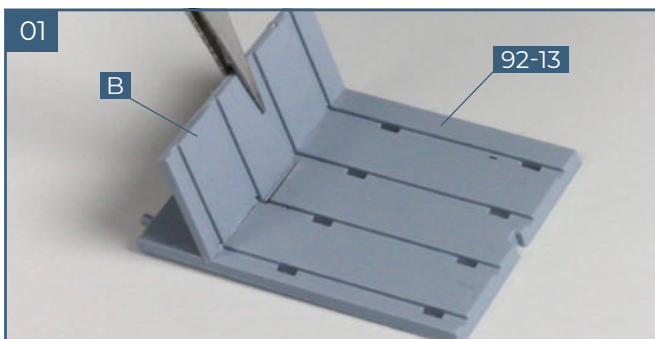


Check the fit of the railing **M** on the stairs and corner of the gangway **92-03**. Apply a little glue to the two pegs on the lower edge of the railing and fix in place, as shown.

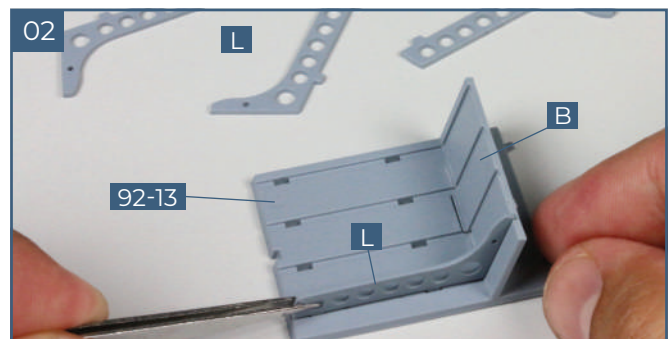


Check the fit of the railing **N** on the short flight of stairs and top of the gangway **92-03**. Apply a little glue to the two pegs on the lower edge of the railing and fix in place, as shown.

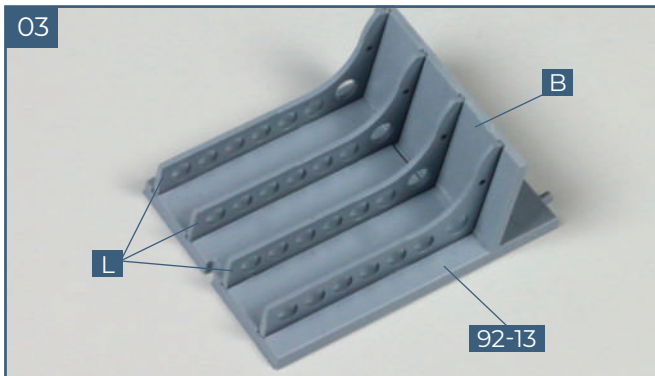
04. THE BULKHEADS, ANGLED BRACKETS AND SUPPORTS



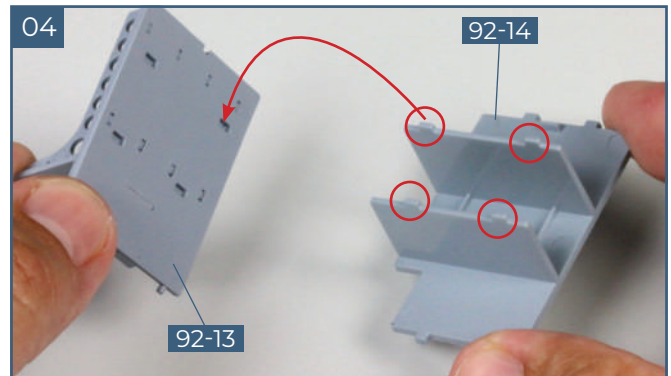
Take the longitudinal bulkhead **B** from frame **92-06**. Check how the tab on part **B** fits into the torpedo bulkhead **92-13**. To get the bulkhead **B** at the correct angle, use the angled brackets **L** from frame **92-13** as a guide (see next step). Glue the bulkhead **B** in place.



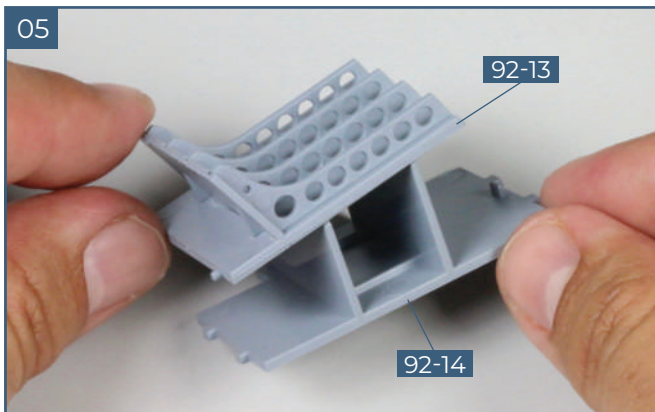
Take the four angled brackets **L** from frame **92-11**. They fit into the grooves in torpedo bulkhead **92-13** and longitudinal bulkhead **B**, with tabs located in the slots, as shown.



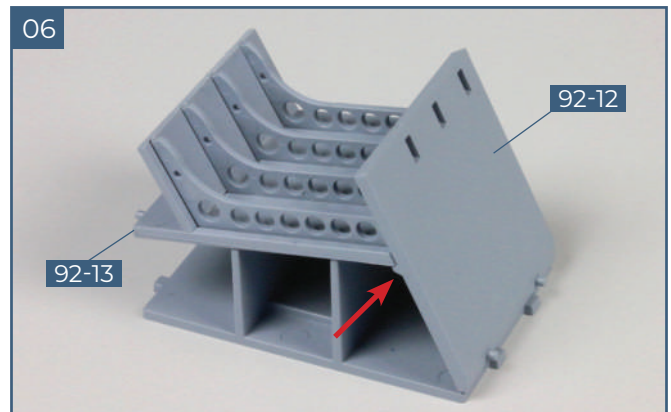
Glue the angled brackets **L** to the torpedo bulkhead **92-13** and longitudinal bulkhead **B** as shown.



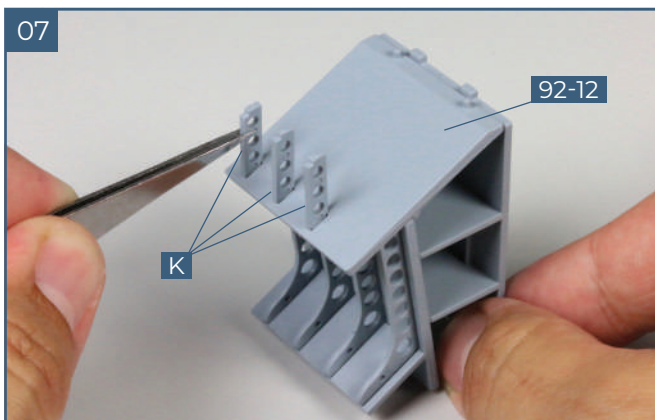
Identify four tabs on the longitudinal bulkhead **92-14** (circled). Check how they fit into the slots on the bulkhead **92-13**.



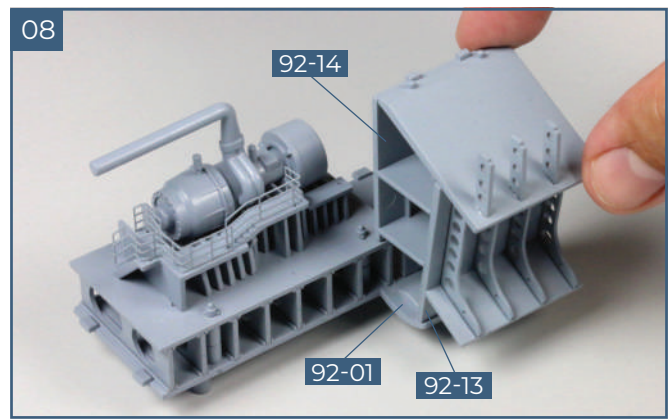
When you are happy with the fit, glue the bulkhead **92-13** in place. It sits at a slight angle, as shown.



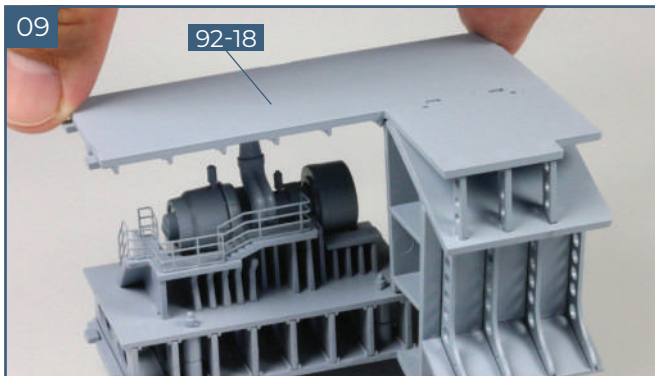
Check the fit of the angled bulkhead **92-12** on the bulkhead assembly: a rib on part **92-12** fits beneath the edge of the bulkhead **92-13** (arrow). Apply a little glue to the edge of the bulkhead **92-13** and the lower edge of bulkhead **92-12** and fix in place, as shown.



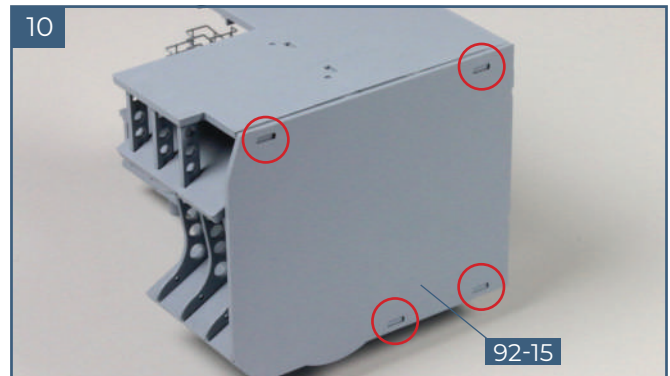
The three small supports **K** from the frame **92-11** are glued into the three openings of the angled bulkhead **92-12**. The angled end of the supports fit into part **92-12** so they appear vertical, as seen in the next step.



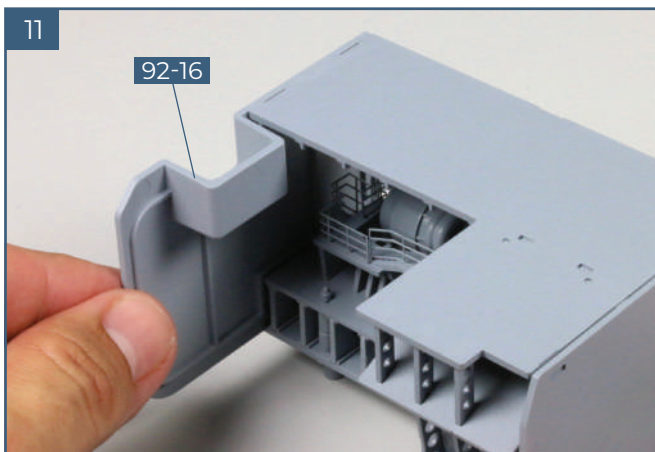
Check the fit of the bulkhead assembly from step 7 on the curved part of the floor **92-01**. Pegs on the edges of the longitudinal bulkhead **92-14** and torpedo bulkhead **92-13** fit into recesses of the floor panel **92-01**. When you are happy with the fit, glue in place.



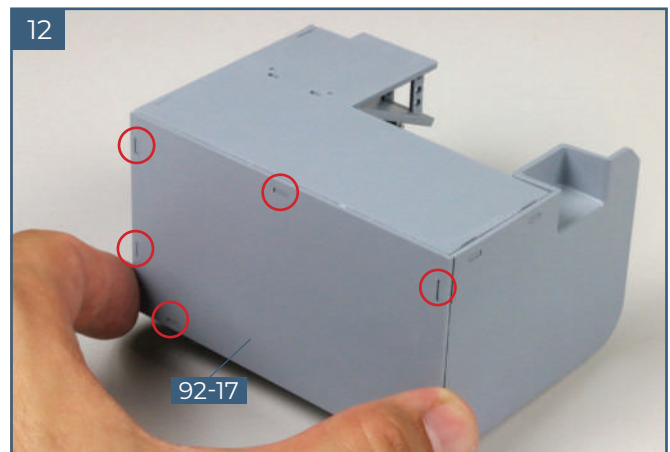
Take the armoured deck **92-18** and check the fit on the longitudinal bulkhead, the angled bulkhead and the three small supports, as shown. Glue in place.



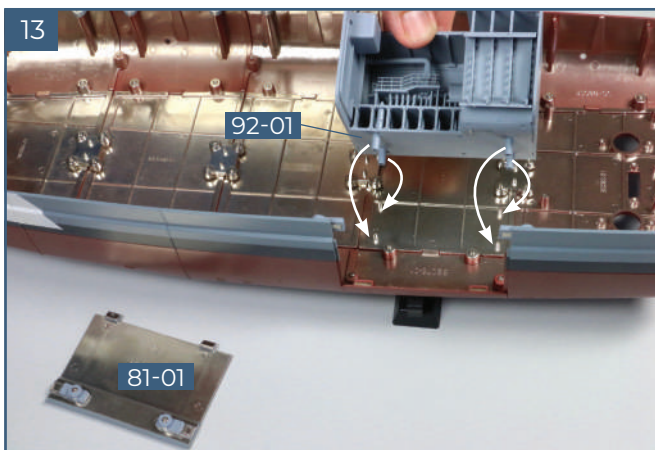
Check the fit of the transverse bulkhead **92-15** on the aft end of the turbine room assembly. Tabs at the top and bottom of the turbine room assembly fit into slots in the transverse bulkhead (circled). Glue in place.



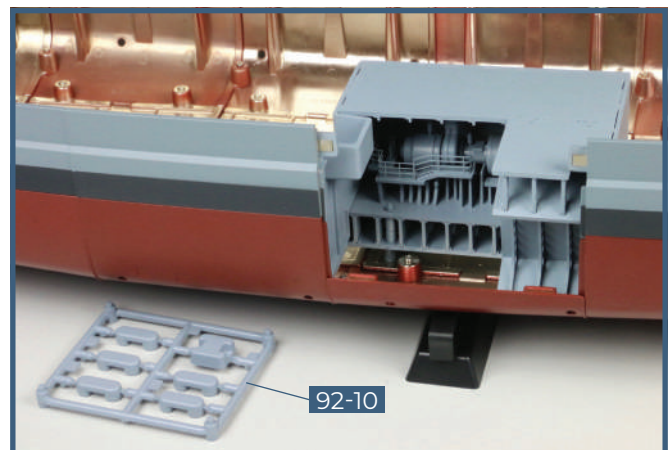
Fit the transverse bulkhead **92-16** to the forward end of the turbine room as shown. Again, it is held in place by tabs located in slots. Glue in place.



Fit the back wall **92-17** onto the turbine room, locating the tabs on the turbine room assembly into the slots in part **92-17** (circled). Glue in place.



Remove the hull section **81-01** from the hull assembly (held in place by magnets). Four raised sockets on the base of the turbine room assembly floor **92-01** (white arrows) fit onto corresponding pins on the keel section. No glue is needed.



Completed work

The turbine room has been assembled and fitted into the hull. You can now fit magnetised part **81-01** back in place. The guides from frame **92-10** will be used in a future stage.