LONDON TRANSPORT

ROUTEMASTER BUS

RM 857

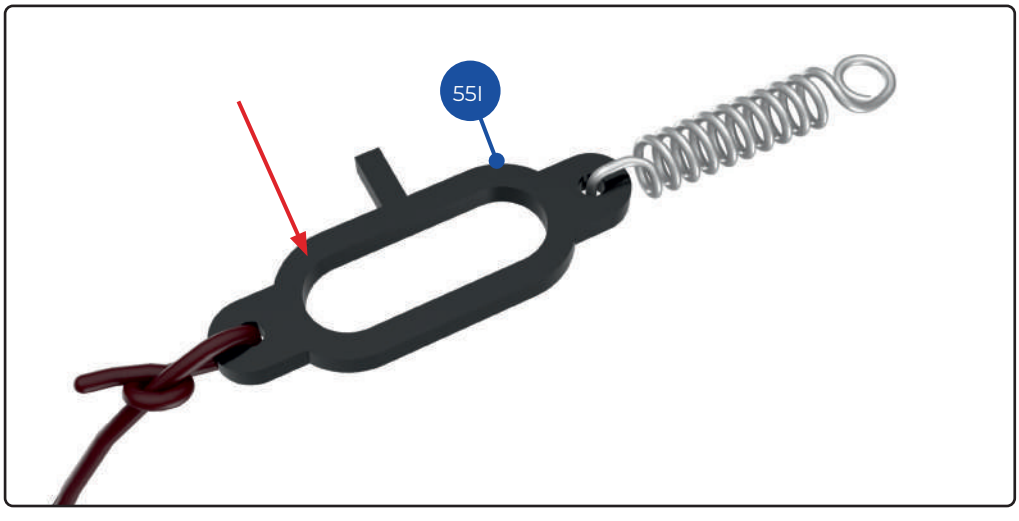
Pack 10

BUILD INSTRUCTIONS

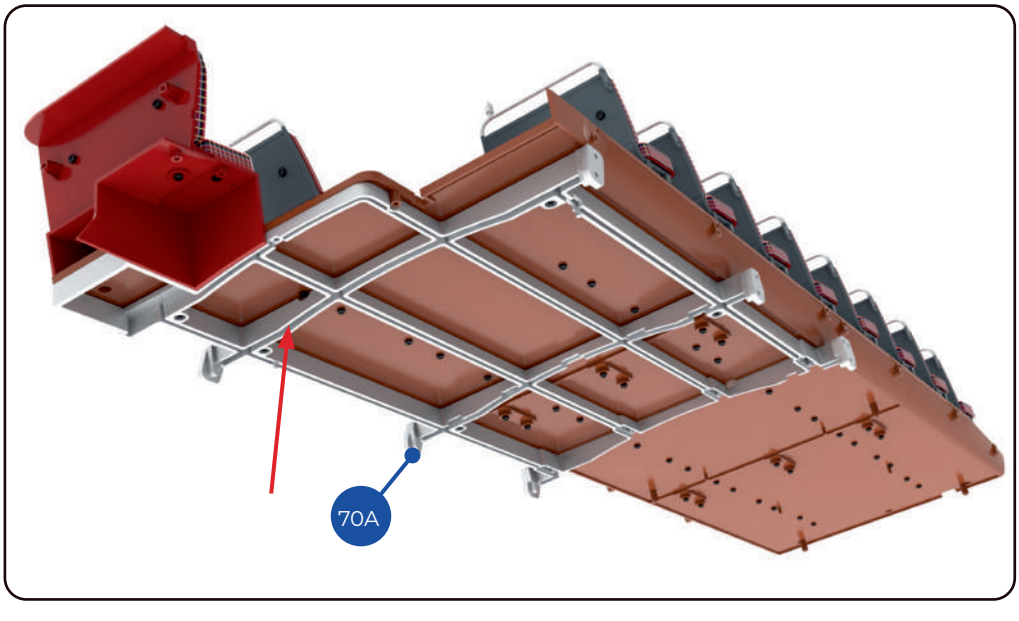
AGORA MODELS

EXPERT ADVICE: BELL PULL MECHANISM

You may find that there is not enough space for the bell pull mechanism to move before the knot tying the cord to the control slider touches the ceiling framework. Consequently, if the knot is too large, it will restrict the bell pull mechanism's function. To resolve this problem, please try re-tying the cord to a the section of the control slider **55I** shown by the red arrow in the image below.



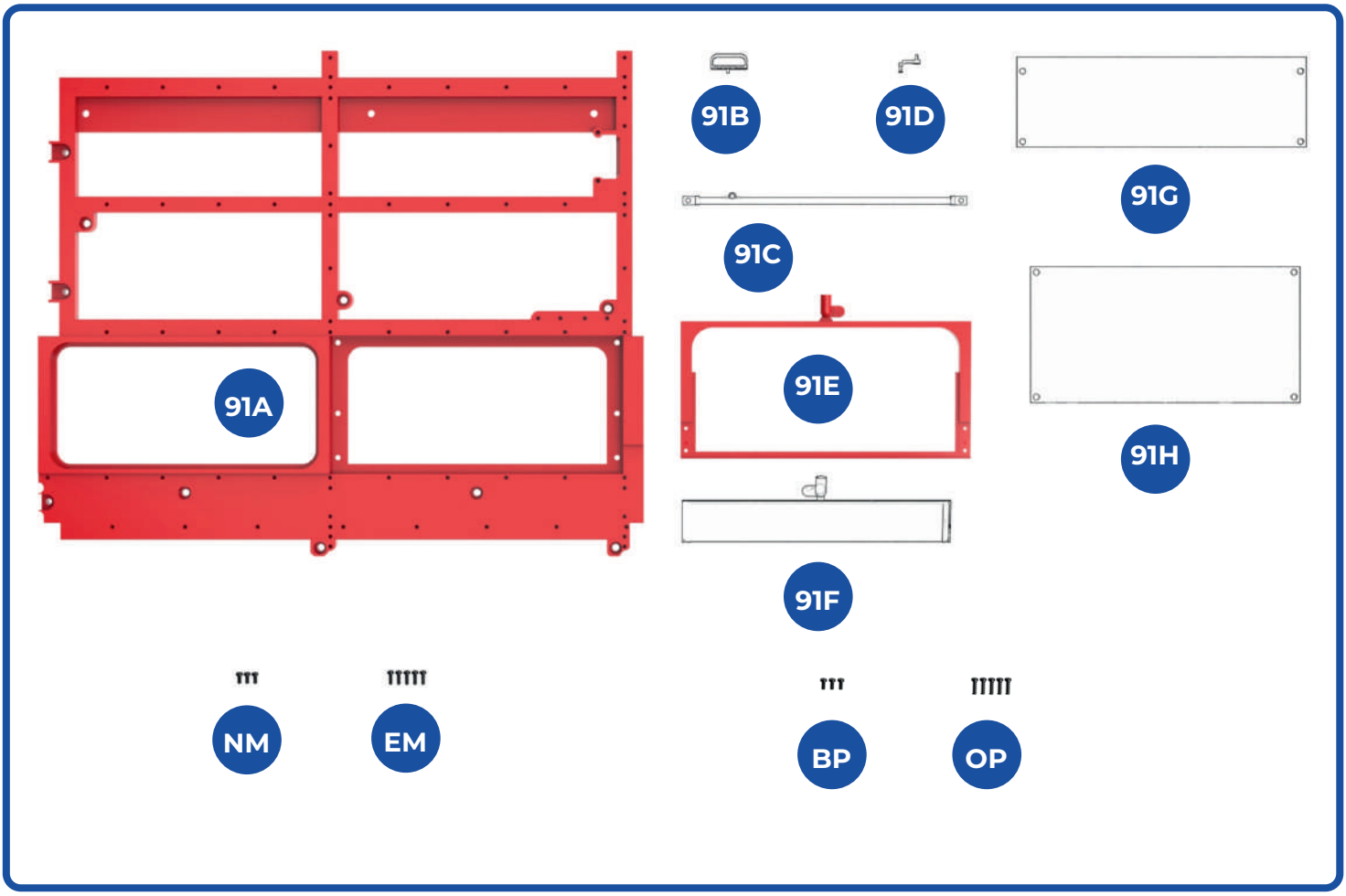
Alternatively, you can also file a notch in the crossbar of ceiling framework **70A** in the position shown by the red arrow in the image below to allow the knot to pass through.



STAGE 91

FRAMEWORK AND WINDOWS FOR THE LOWER DECK

A section of the lower deck framework is supplied and fitted with windows and a handle.

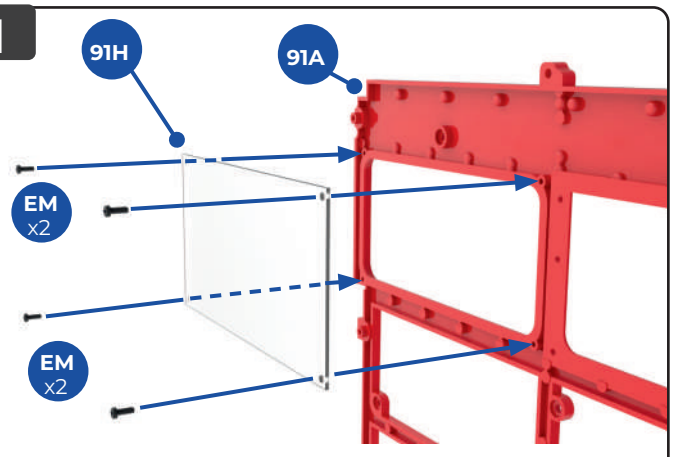


KEY TO PARTS

91A	Left wall framework	**91G**	Window pane
91B	Handle	**91H**	Window pane
91C	Window bar	**BP**	1.5 x 3mm (x3)
91D	Window winder	**OP**	1.7 x 5mm (x5)
91E	Window frame	**NM**	1.5 x 3mm (x3)
91F	Sliding window pane	**EM**	1.5 x 4mm (x5)

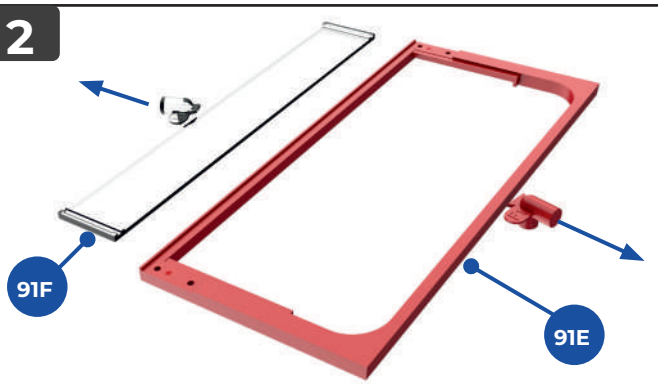
IMPORTANT! Store your model away from direct sunlight, to avoid damage to the windows.

1



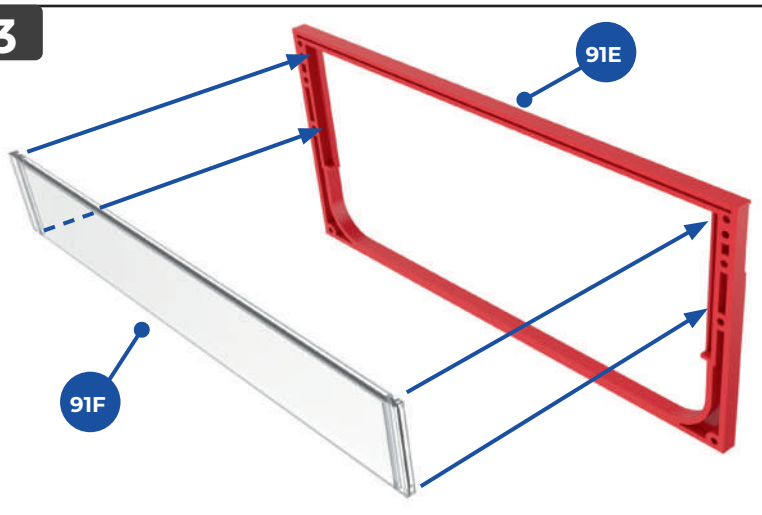
1 Fit the window pane **91H** to the inside of the left wall framework **91A**. Fix in place with four **EM** screws.

2



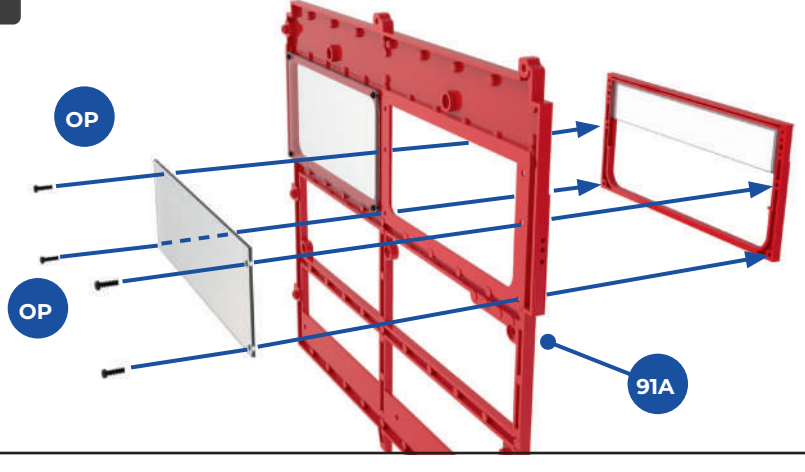
2 Cut away the mouldings that were used in manufacture from the sliding window pane **91F** and the window frame **91E**. Smooth any rough edges.

3



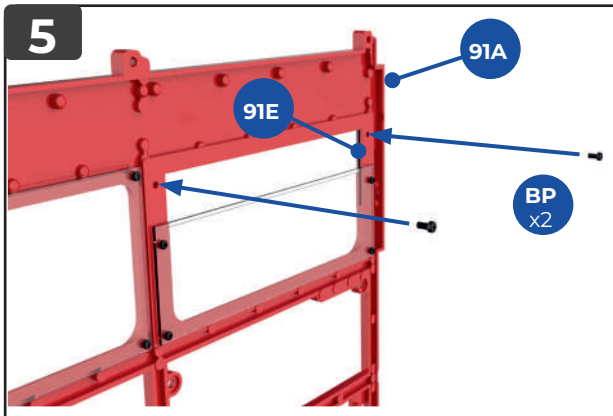
3 Fit the sliding window pane **91F** into the window frame **91E** so that ridges on the ends of part **91F** fit into the grooves in the frame **91E**. The 'metal' edge goes at the top.

4



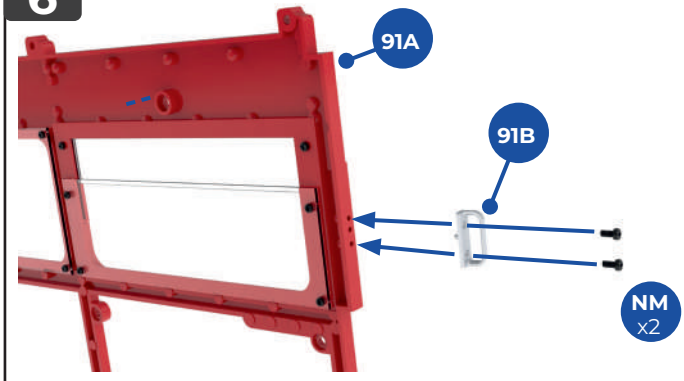
4 Fit the window frame **91E** (with sliding window pane **91F**) on to the outside of the left wall framework **91A**. Fit the window pane **91G** to the inside of the framework, as shown. Fix in place from the inside of the window pane **91G** with four **OP** screws.

5



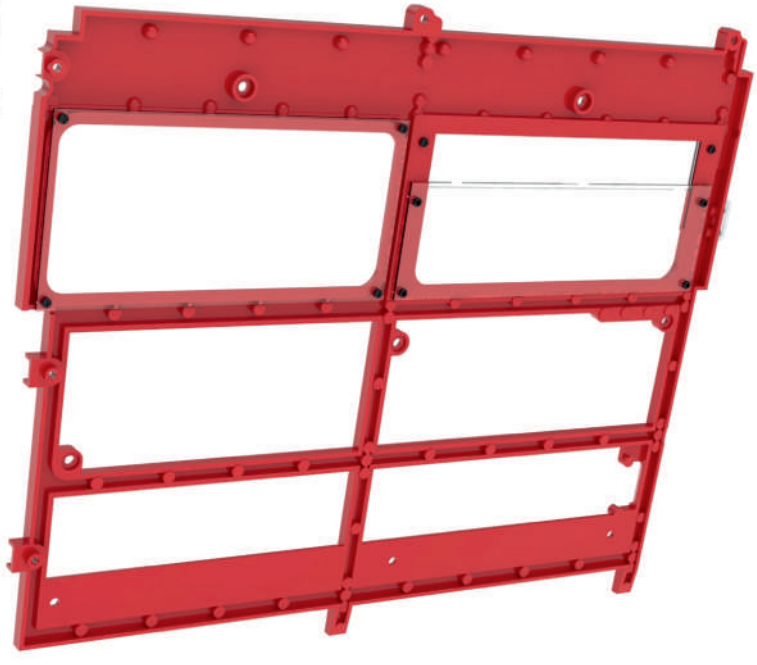
5 Fix the upper part of the window frame **91E** to the framework **91A**, from the inside, with two **BP** screws.

6

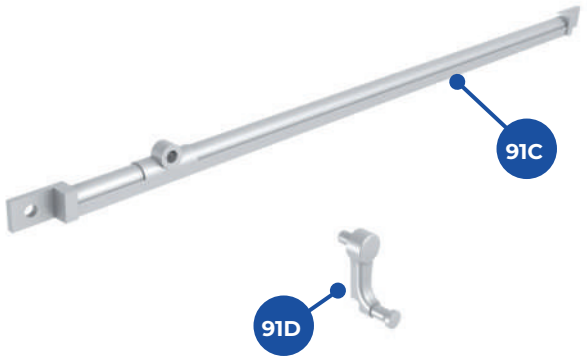


6 Identify the fixing points for the handle **91B** on the frame **91A**, adjacent to the sliding window. Note that a peg on the handle fits into a socket on the frame **91A**. Make sure it is the right way round. Fix in place with two **NM** screws.

A non-opening window and a sliding window have been fitted to the section of the left lower-deck framework.

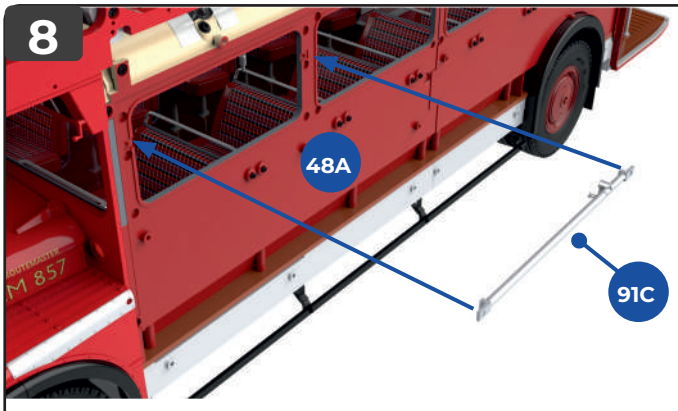


7



7 Fit the window winder **91D** to the bar **91C**. This is a push fit connection.

8



8 Take the upper and lower deck assembly from the previous stage. Handle with care to prevent the top deck from slipping. Fit the bar **91C** to the front left window on the lower deck (on part **48A**), with the winder inside the model. This part will be secured at a later stage.

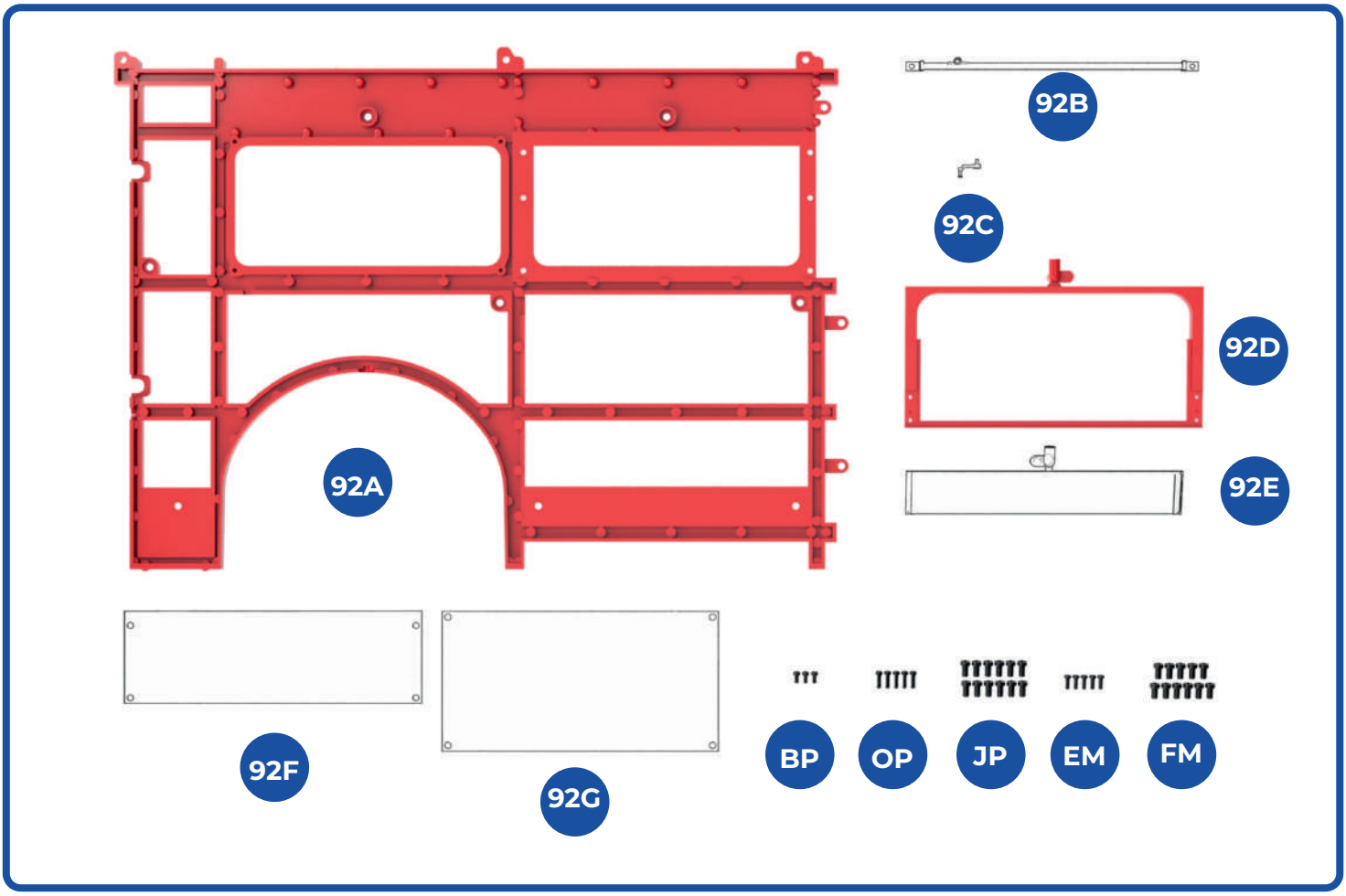
Finished views

A bar has been fitted to the front window of the lower deck. The section of framework (fitted with windows in steps 1–6) will be fitted in a future stage and hold the bar in place.

STAGE 92

FRAMEWORK AND WINDOWS FOR THE LOWER DECK

Another section of the lower deck framework is supplied and fitted with windows.

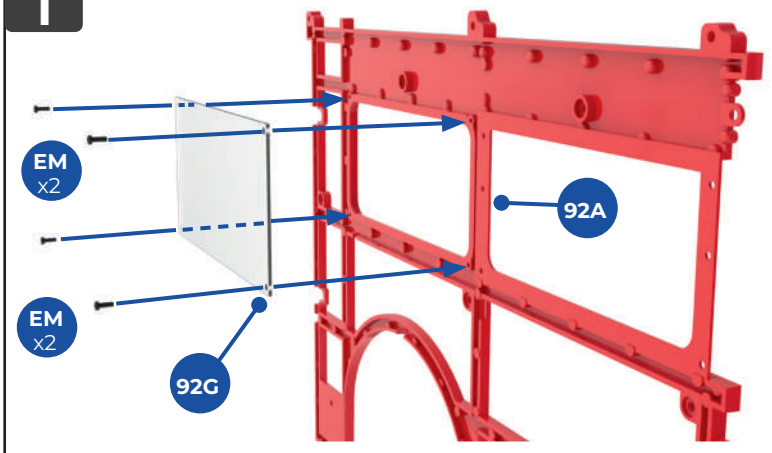


KEY TO PARTS

92A	Left wall framework
92B	Window bar
92C	Winder
92D	Window frame
92E	Sliding window pane
92F	Window pane
92G	Window pane

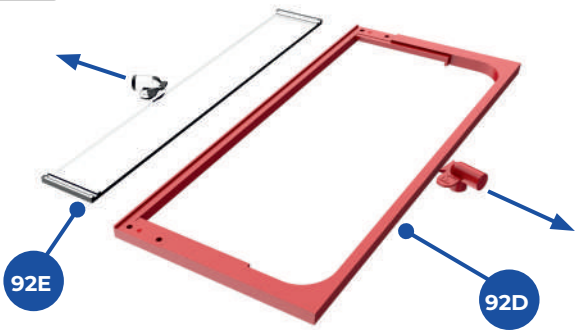
BP	1.5 x 3mm (x3)
OP	1.7 x 5mm (x5)
JP	2.3 x 4mm (x12)
EM	1.5 x 4mm (x5)
FM	2.3 x 4mm (x11)

1



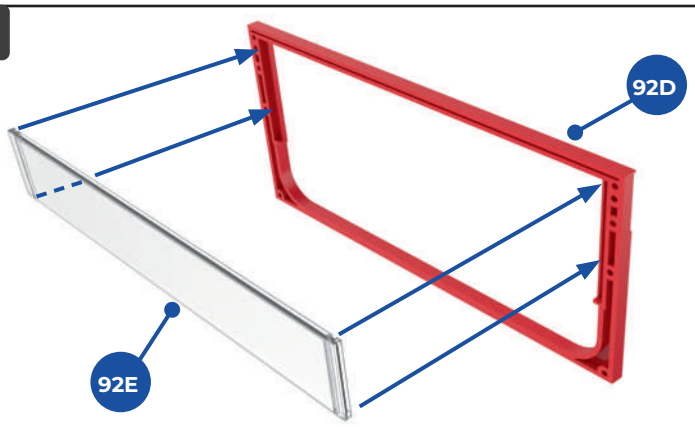
1 Fit the window pane **92G** to the inside of the left wall framework **92A**. Fix in place with four **EM** screws.

2



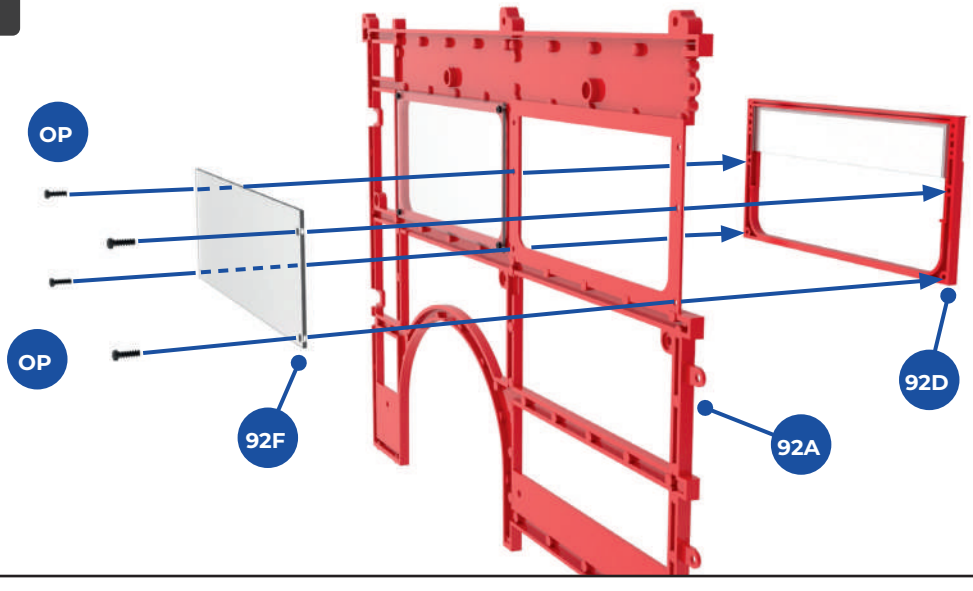
2 Cut away the mouldings that were used in manufacture from the sliding window pane **92E** and the window frame **92D**. Smooth any rough edges.

3



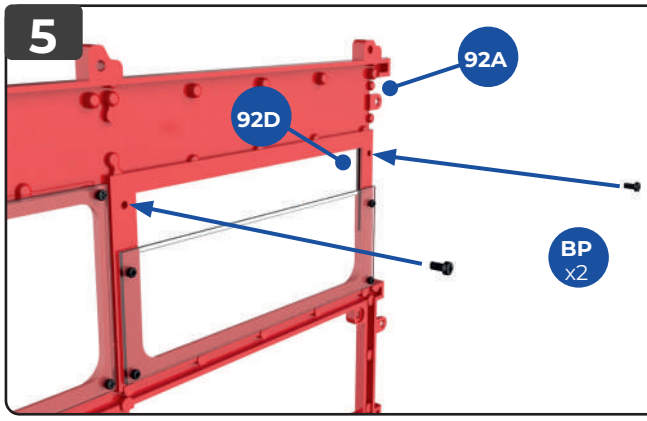
3 Fit the sliding window pane **92E** into the window frame **92D** so that ridges on the ends of part **92E** fit into the grooves in the frame **92D**. The 'metal' edge of the sliding window goes at the top.

4



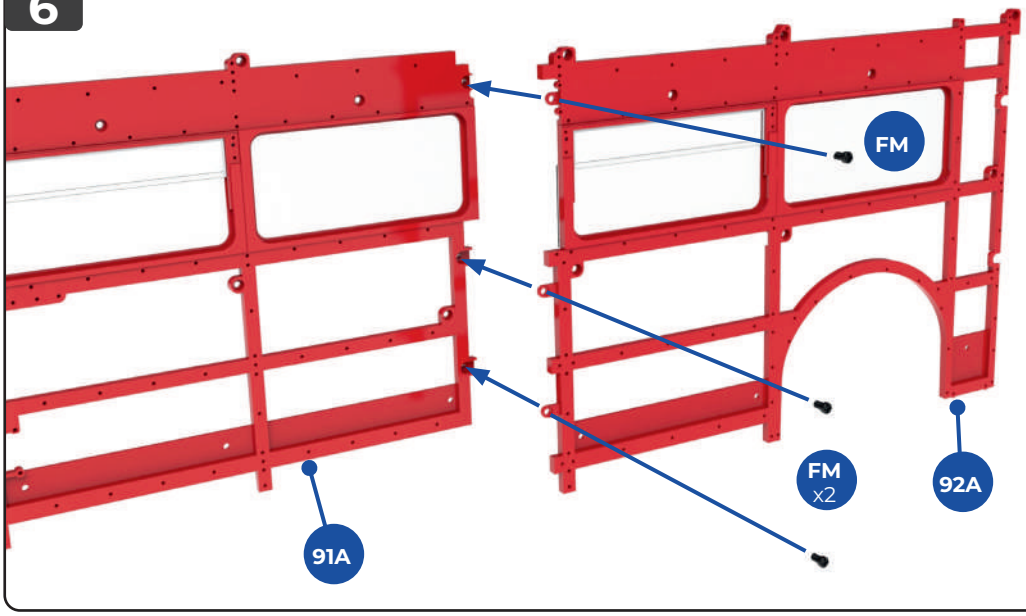
4 Fit the window frame **92D** (with sliding window pane **92E**) on to the outside of the left wall framework **92A**. Fit the window pane **92F** to the inside of the framework, as shown. Fix in place from the inside of the window pane **92F** with four **OP** screws.

5



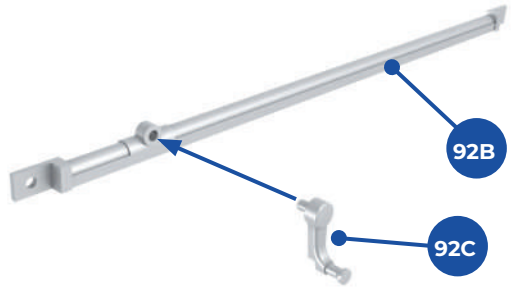
5 Fix the upper part of the window frame **92D** to the framework **92A**, from the inside, with two **BP** screws.

6



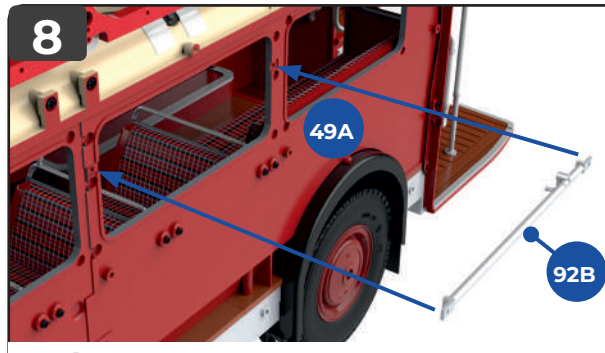
6 Turn the window frame **92A** over and take the left wall **91A** from the previous stage. Align the two parts so that the three tabs on part **92A** fit over corresponding screw sockets in part **91A**. Fix together with three **FM** screws. The image below shows the parts fitted together.

7



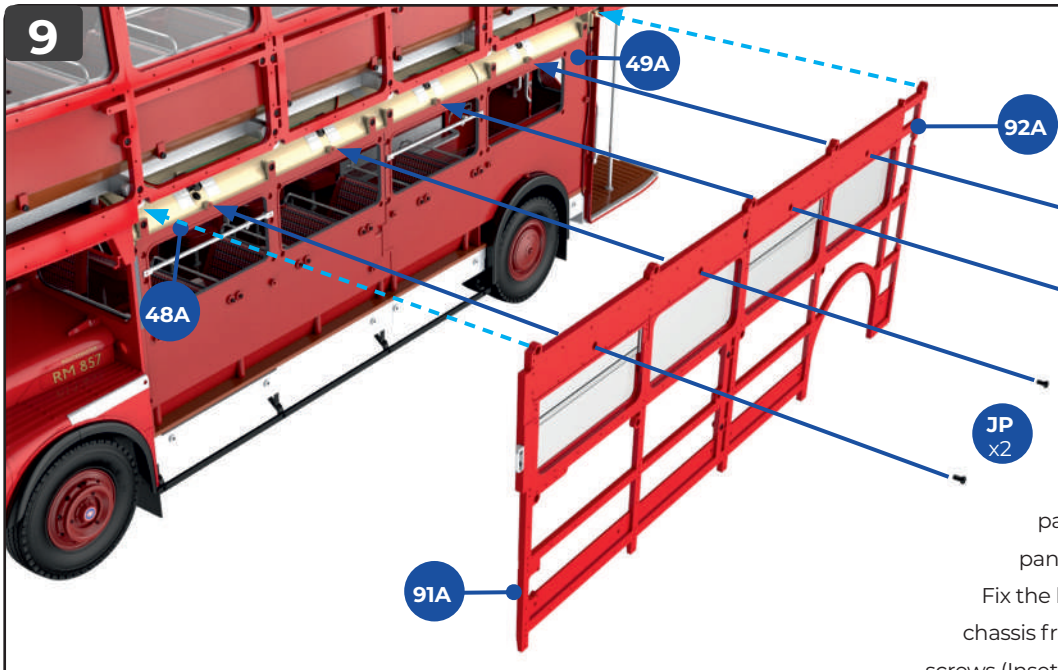
7 Fit the window winder **92C** to the bar **92B**. This is a push fit connection.

8

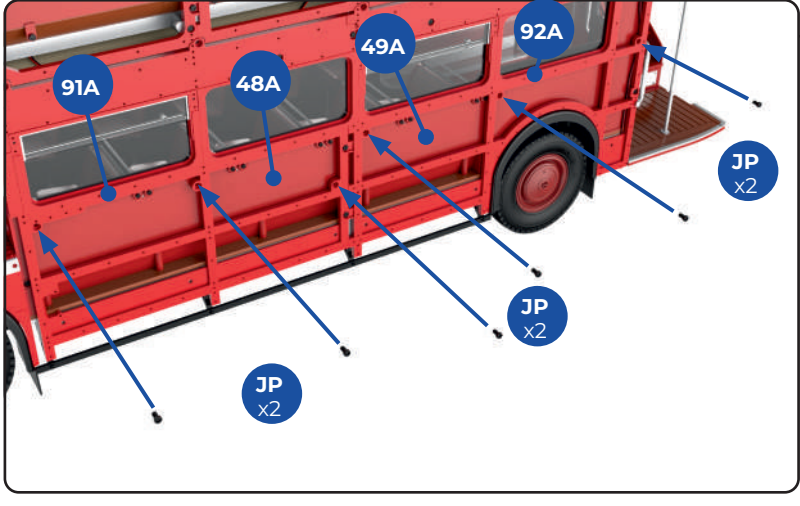


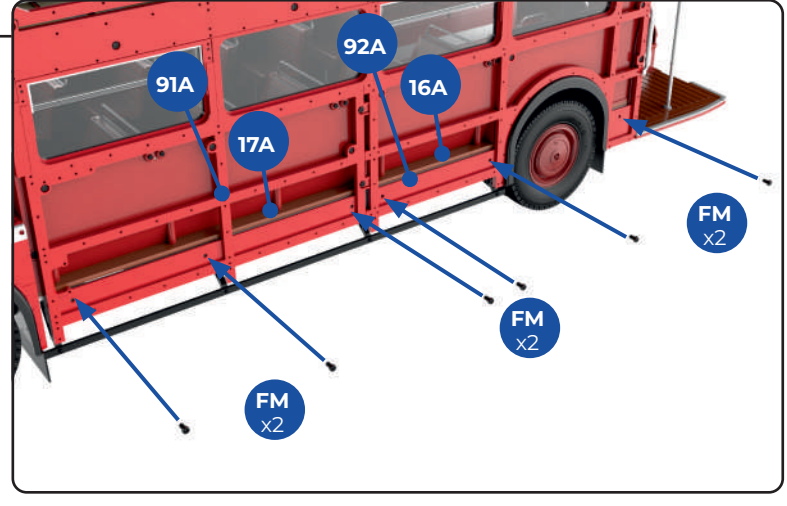
8 Take the upper and lower deck assembly from the previous stage. Handle with care. Fit the bar **92B** to the left window on the lower deck (on part **49A**), as shown, with the winder inside the model.

9



9 Position the framework assembly from step 6 against the side of the lower deck, enclosing the window bars. The tabs along the top fit into notches, as indicated by the light blue dotted lines. Fix in place along the top to parts **48A** and **49A** with four **JP** screws as shown. Use six **JP** screws to fit the middle part of the framework to the wall panels **48A** and **49A** (inset below left) Fix the lower edge of the framework to chassis frames **17A** and **16A** with six **FM** screws (Inset below).



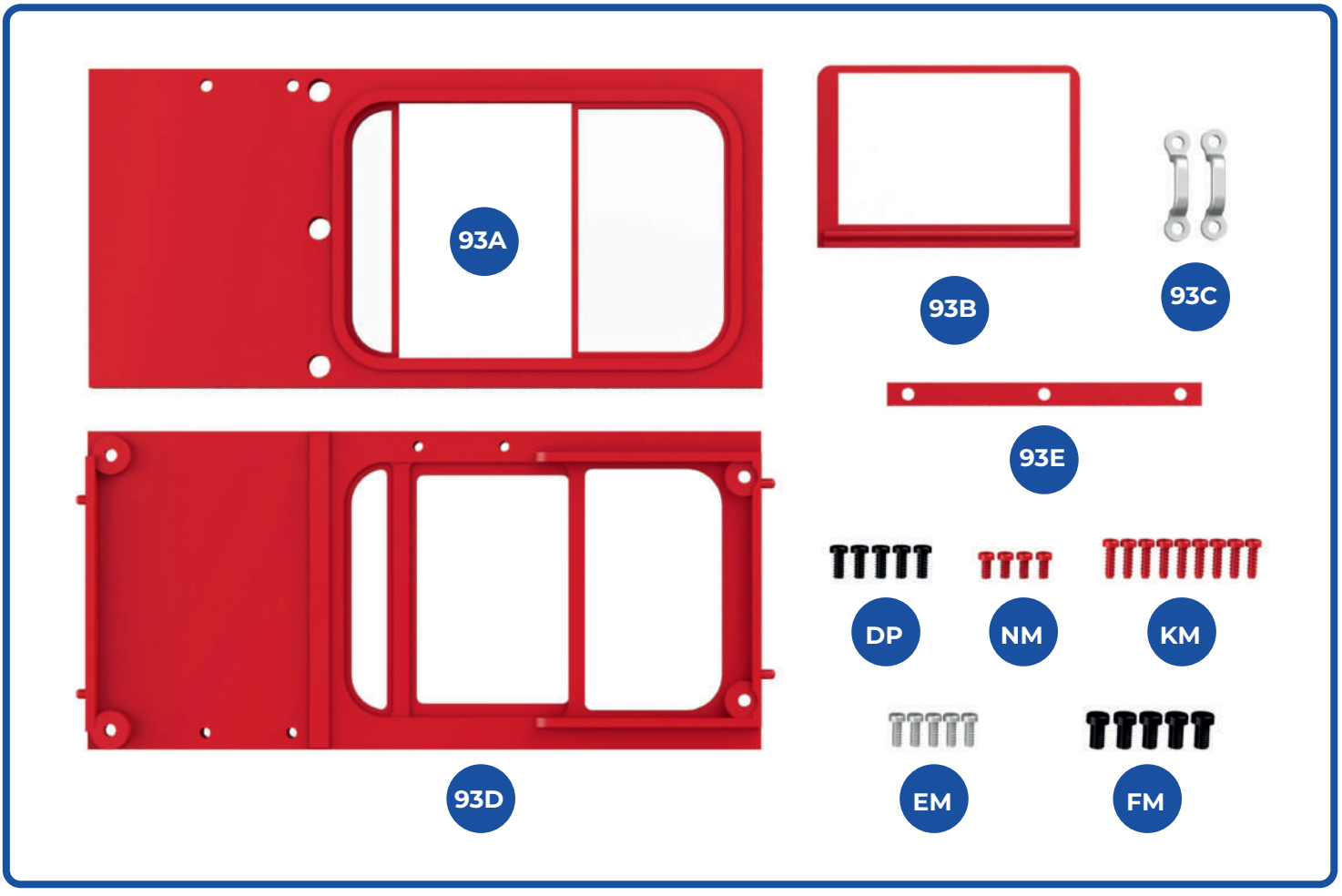


Finished views

STAGE 93

FITTING THE DRIVER'S DOOR AND A LIGHT FOR ONE OF THE BUS BLINDS

The driver's door is assembled and fitted. We also insert an LED lighting panel near the position of the blind over the open platform.



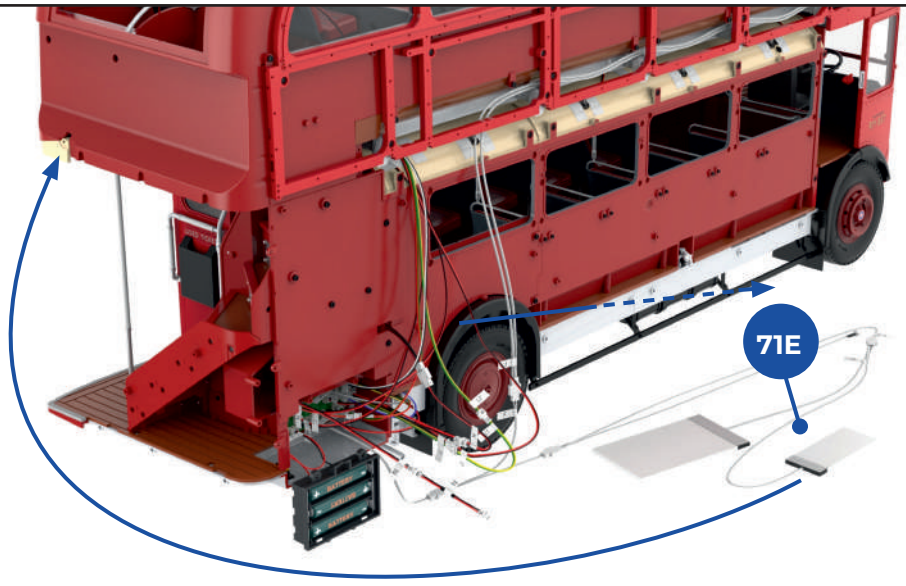
KEY TO PARTS

93A	Outer door panel	**DP**	1.7 x 4mm (x5, black)
93B	Window pane	**NM**	1.5 x 3mm (x4, red)
93C	Handle (x2)	**KM**	1.5 x 5mm (x10, red)
93D	Inner door panel	**EM**	1.5 x 4mm (x5, silver)
93E	Bar	**FM**	2.3 x 4mm (x5, black)

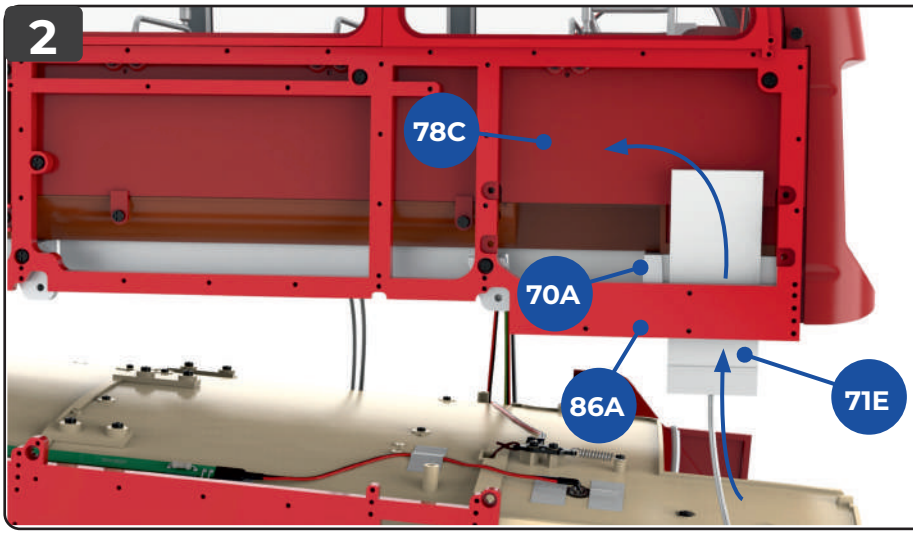
Before starting to fit the light panel, test that the light is working. Re-test once it has been fitted.

1

1 Identify the smaller blind light panel **71E** and bring it around to the rear left corner of the upper deck.

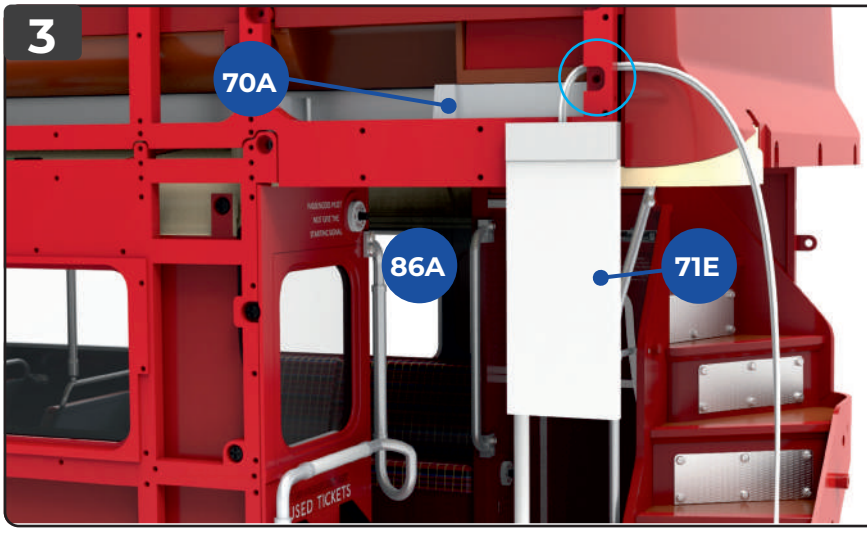


2



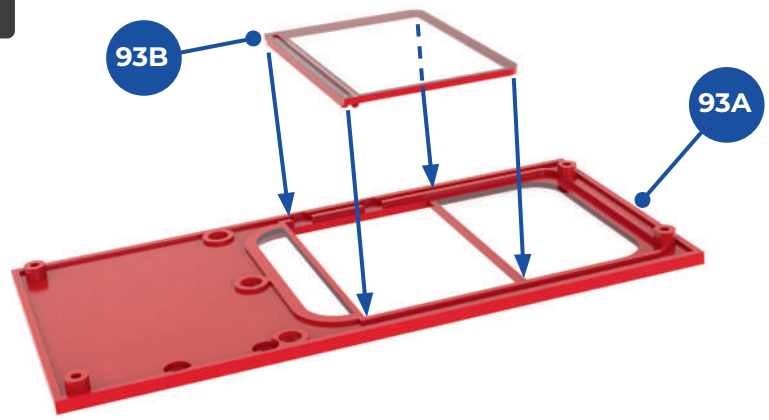
2 Carefully lift the upper deck slightly, so that you can slip the light panel **71E** in between the outer wall framework **86A** and the ceiling framework **70A**. Ensure that the backing paper is facing away from you.

3

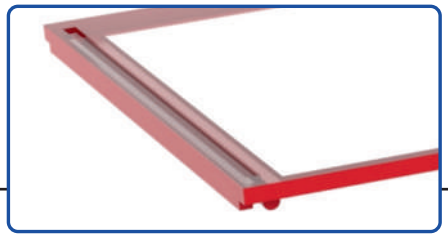


3 Bring the cable up behind the framework **86A** (circled). Bring the LED panel **71E** through the opening so that it hangs down in front of the framework **86A**. It is advisable to temporarily secure the panel in place with a piece of low-tack tape.

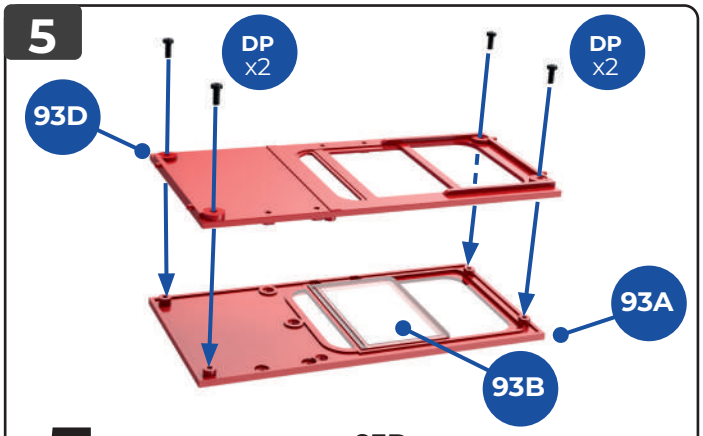
4



4 Take the outer door panel of the driver's door **93A** and position it on your work surface as shown. Take the window pane **93B** and position it on the door panel **93A** as indicated. Note the orientation of the ridge on part **93B** (see inset).

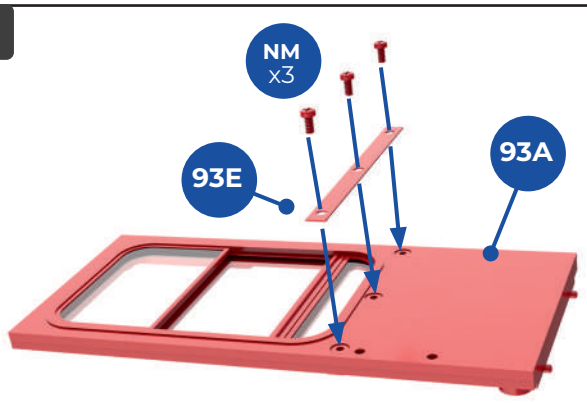


5



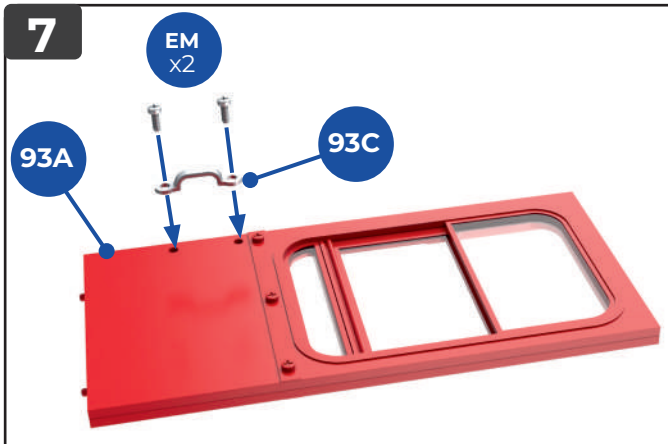
5 Fit the inner door panel **93D** over the outer door panel **93A** so that the screw holes at the corners are aligned and the window **93B** is enclosed. Fix in place with four **DP** screws.

6



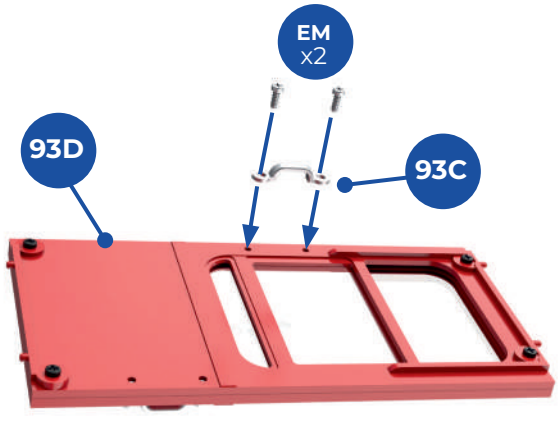
6 Turn the assembly over and fit the bar **93E** across the outer door panel **93A**. Fix in place with three **NM** (red) screws. Ensure the screws are fully inserted so they do not catch on the door frame when the sliding door has been fitted.

7



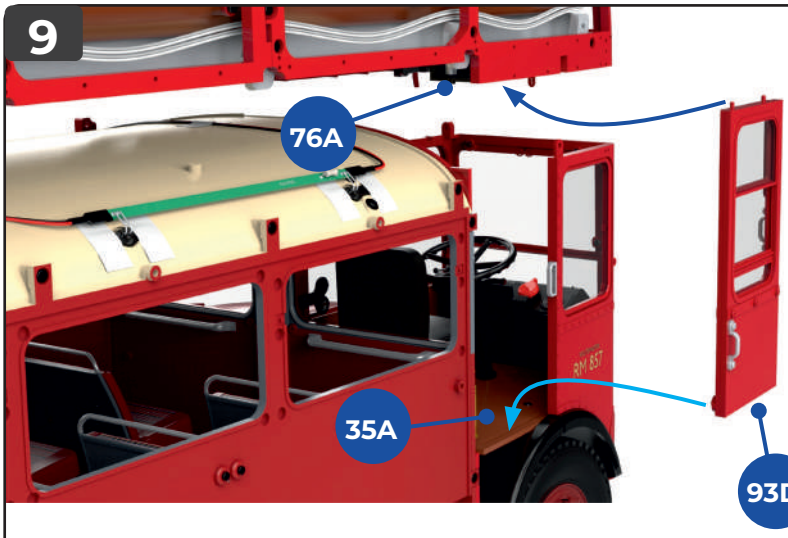
7 Identify the fixing points for the first handle **93C** on the outer door panel **93A**. Fix in place with two **EM** screws.

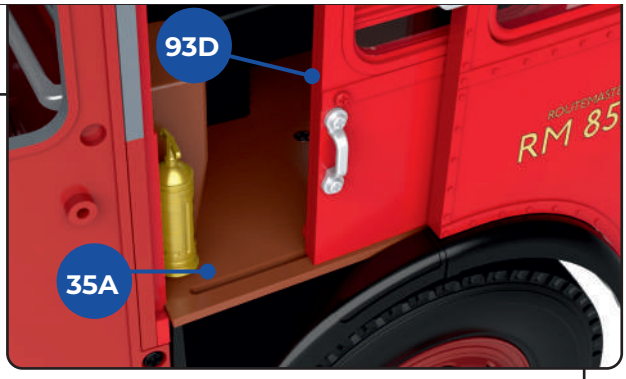
8

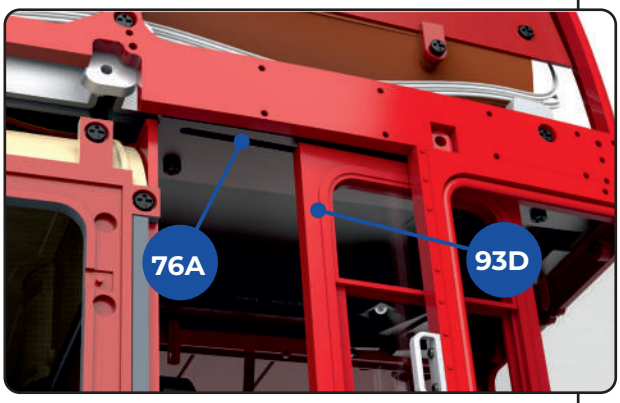


8 Turn the door over and position the second handle **93C** on the inner door panel **93D**, as shown. Fix in place by the window with two **EM** screws.

9

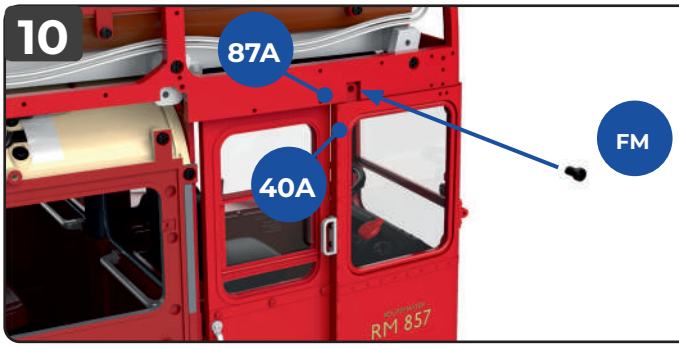






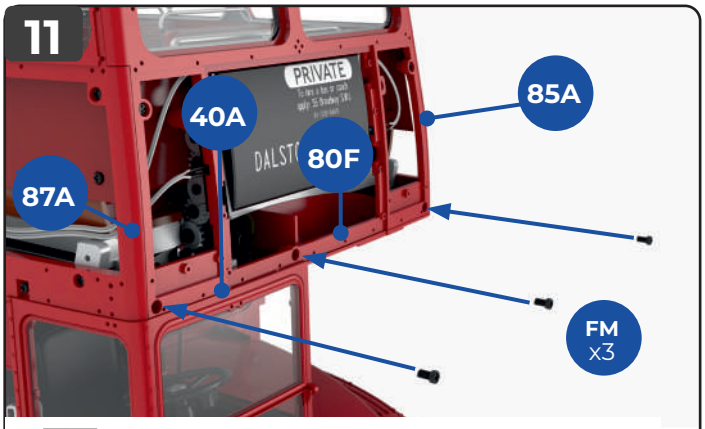
9 Carefully lift the upper deck away from the lower deck so that you can fit the driver's door in place. As you fit the door, ensure that the pegs on the bottom of the inner door panel **93D** fit into the slot in the cabin floor **35A** (inset above). Lower the upper deck in place, ensuring that the pegs on the top of the inner door panel **93D** fit into the groove in the cab ceiling **76A**.

10



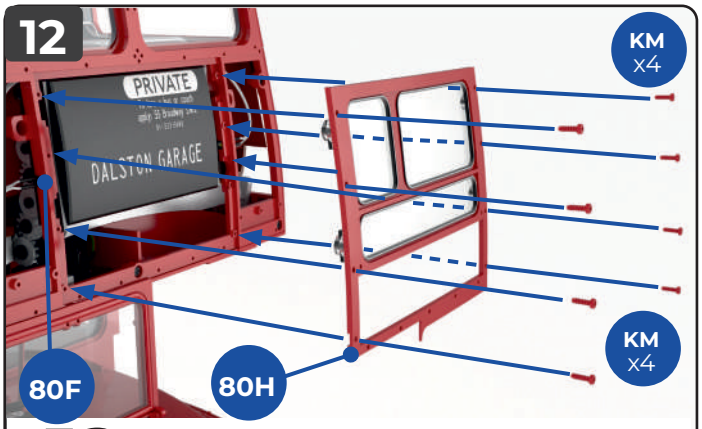
10 Check that the door is properly fitted and able to slide open and closed. Fix the right wall framework **87A** to the cab frame **40A** with an **FM** screw.

11



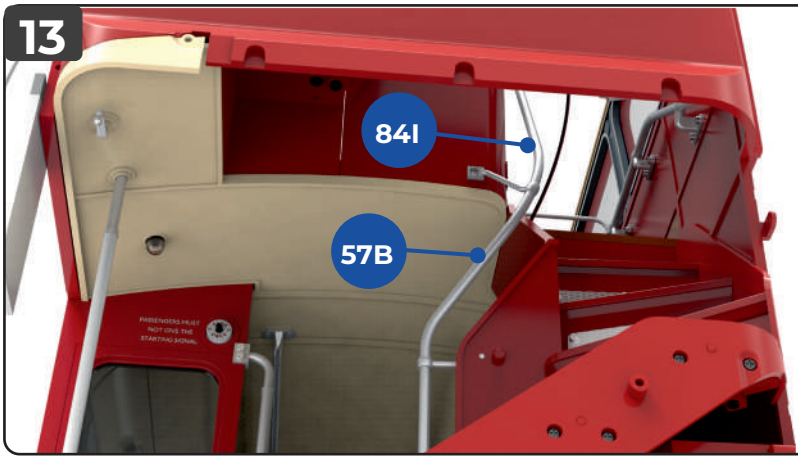
11 Fix the front framework **80F** to the right wall framework **87A**, the left wall framework **85A** and the cab frame **40A** using three **FM** screws.

12



12 Take the front (blind) frame **80H** (supplied with stage 80) and fit it against the front frame **80F**. Check that the screw holes are aligned, and fix in place with eight **KM** (red) screws.

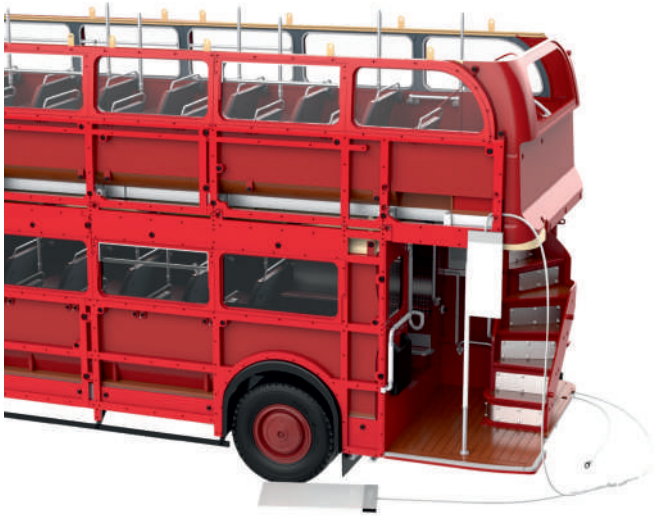
13

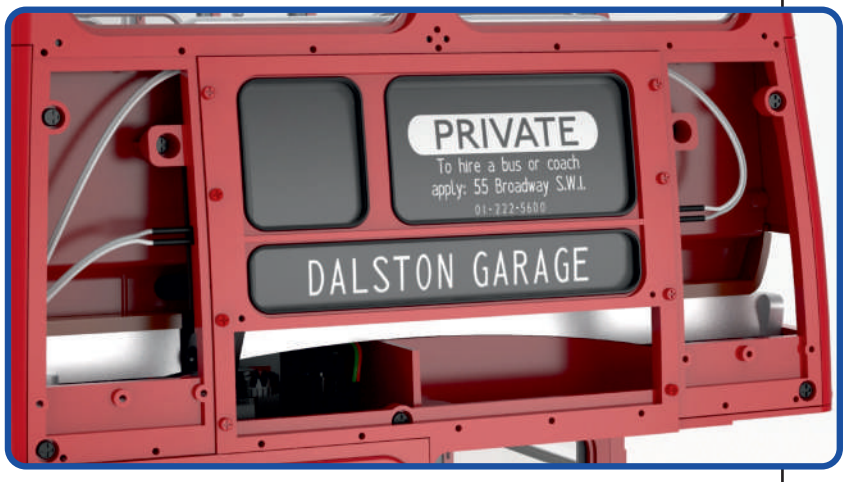


13 Turn the model around so that you can access the stair rail. Fit the ends of the handrails **84I** and **57B** together.

Finished views

The driver's door has been fitted and an LED has been inserted over the open platform. An outer frame section has been fitted around the front blind.

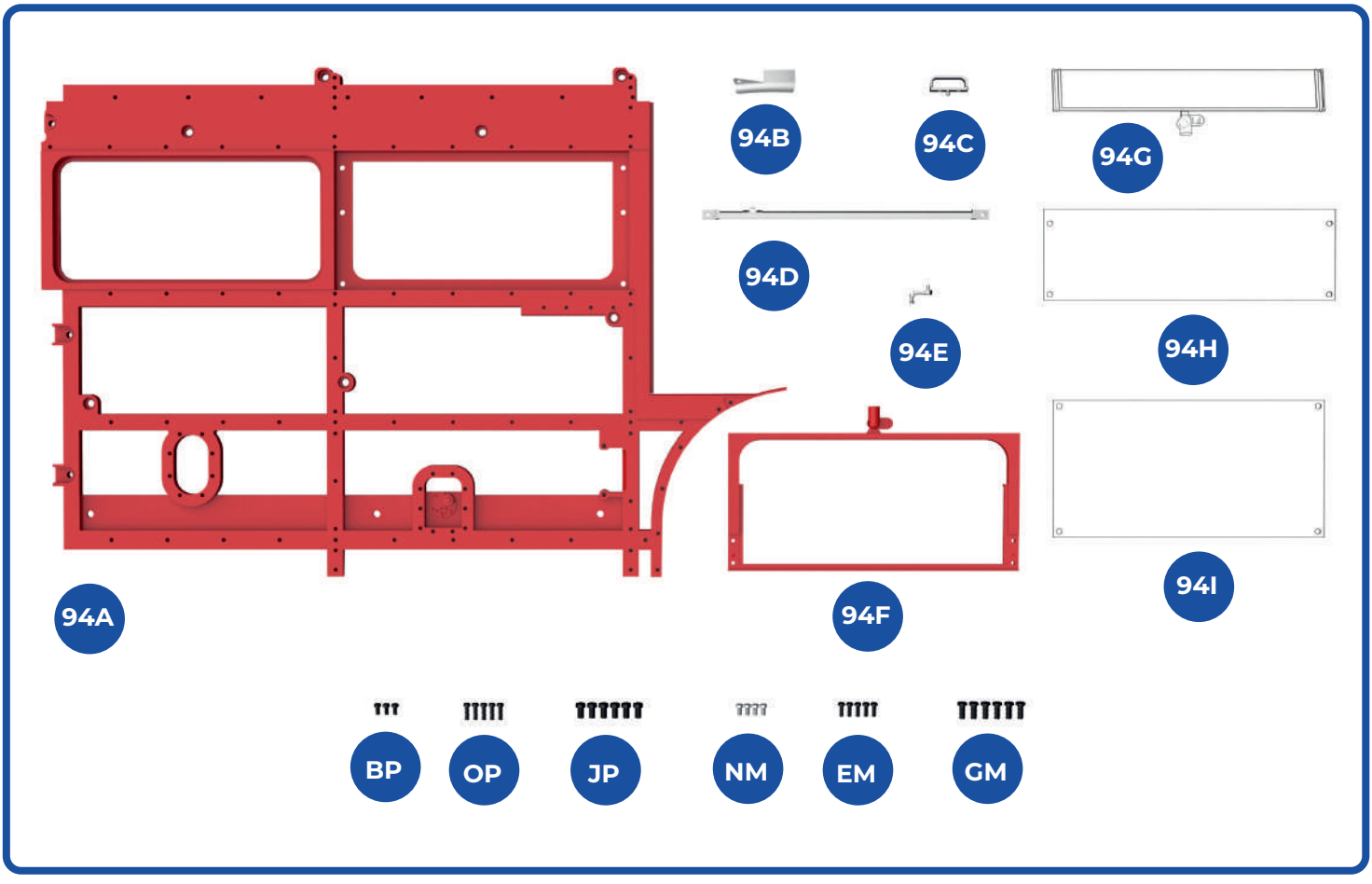




STAGE 94

FITTING THE RIGHT WALL FRAMEWORK

Windows and a handle are fitted to the right wall framework, which is then attached to the model.

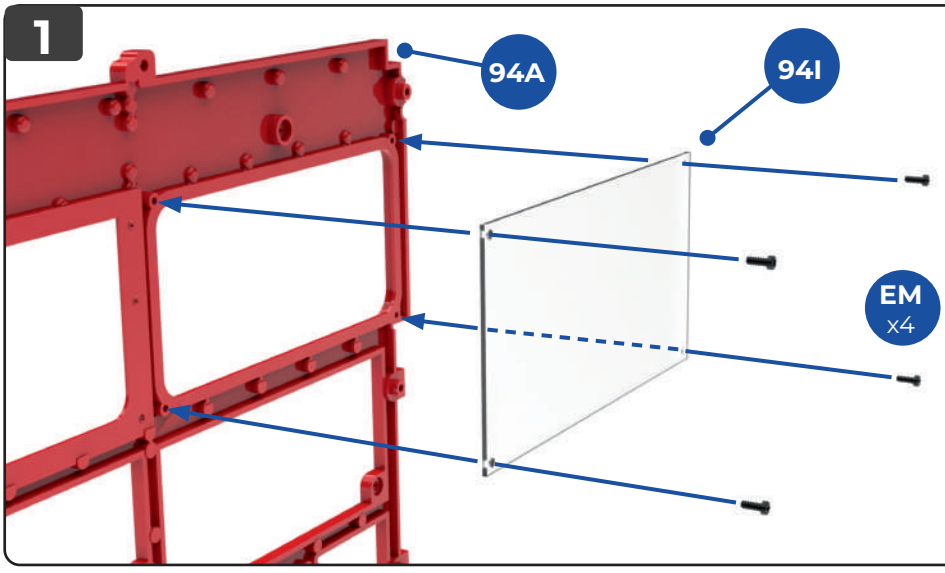


KEY TO PARTS

94A	Right wall framework
94B	Step
94C	Handle
94D	Window bar
94E	Winder
94F	Window frame
94G	Sliding window pane
94H	Window pane
94I	Window pane

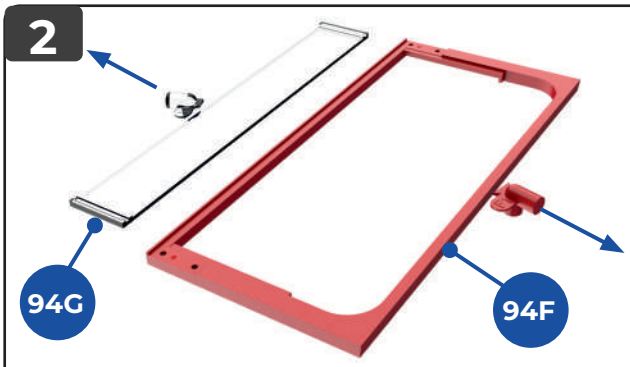
BP	1.5 x 3mm (x3)
OP	1.7 x 5mm (x5)
JP	2.3 x 4mm (x6)
NM	1.5 x 3mm (x4)
EM	1.5 x 4mm (x5)
GM	2.3 x 5mm (x6)

1



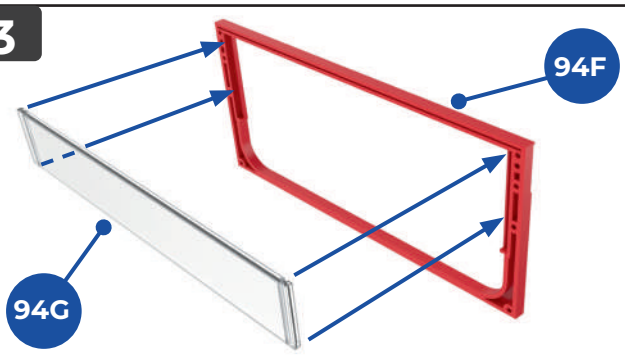
1 Take the right wall framework **94A** and the window pane **94I.** Fix the window pane to the inside of the framework using four **EM** screws..

2



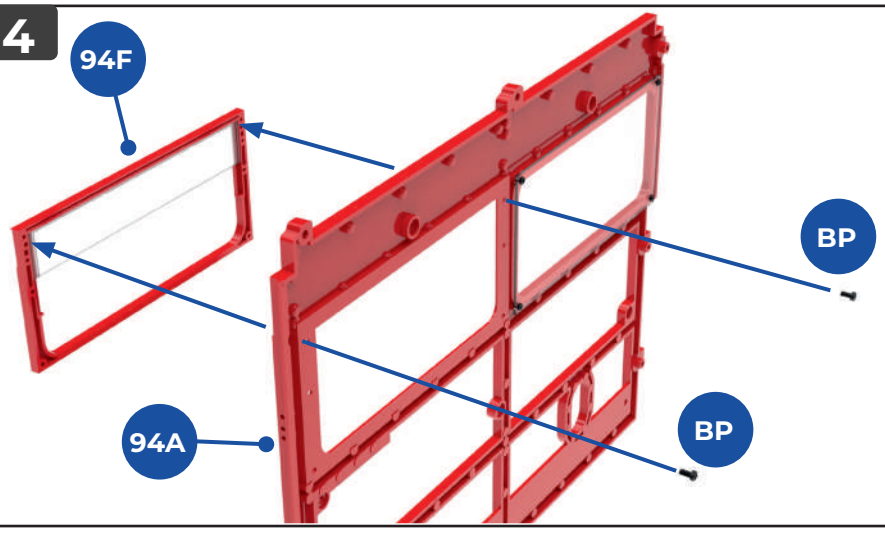
2 As in previous stages, remove the excess moulding from the manufacturing process on the sliding window pane **94G** and the window frame **94F**.

3



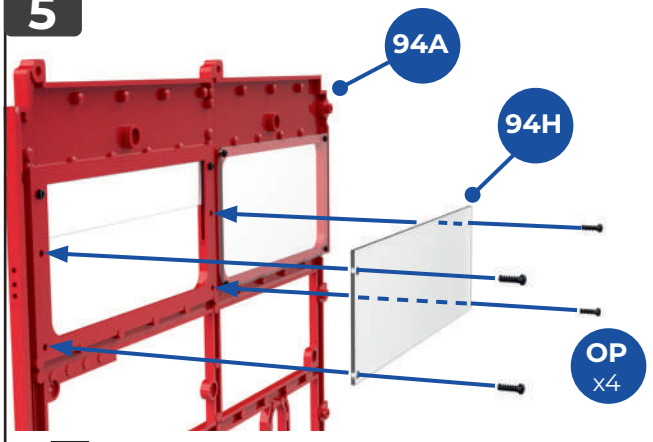
3 Fit the sliding window pane **94G** into the window frame **94F** so that ridges on the ends of part **94G** fit into the grooves in the frame **94F**. The 'metal' edge goes at the top.

4



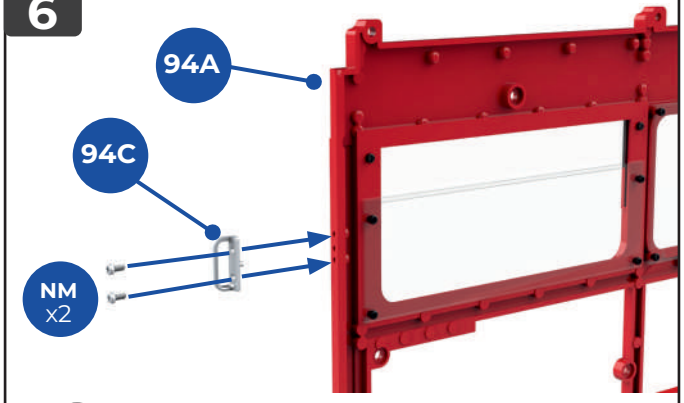
4 Fit the window frame **94F** (with sliding window pane **94G**) on to the outside of the right wall framework **94A**. Fix in place from the inside with two **BP** screws.

5



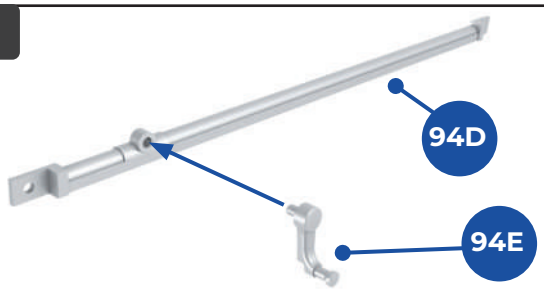
5 Fit the window pane **94H** on the inside of the right wall framework **94A** , beneath the sliding window. Fix in place with four **OP** screws.

6

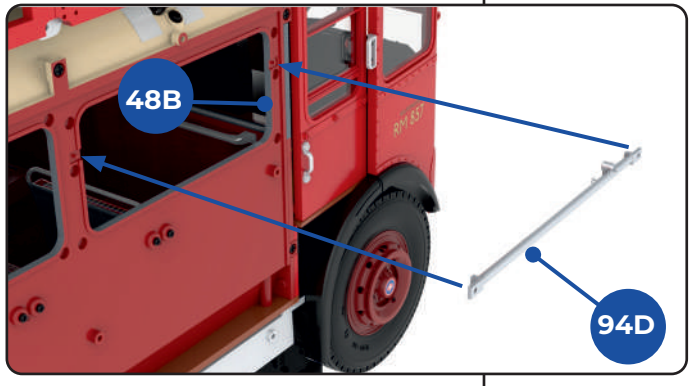


6 Identify the fixing point for the handle **94C** on the side of the right wall framework **94A**, next to the sliding window. Make sure you have the correct orientation. Fix in place with two **NM** screws.

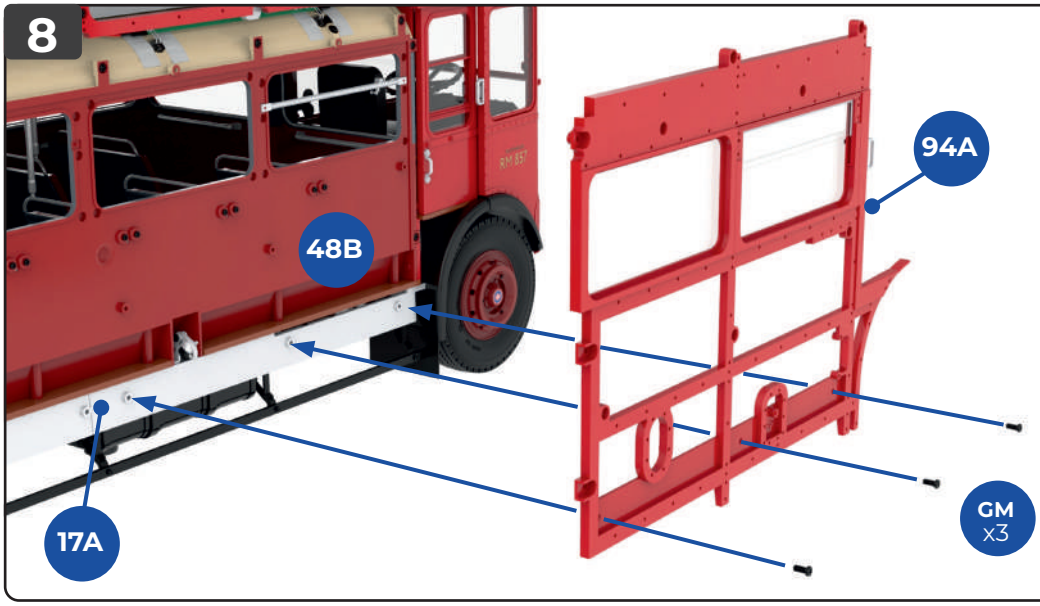
7



7 Fit the window winder **94E** into the hole in the window bar **94D**. Position the bar on the outside of the lower deck of the assembled model (**48B**), across the window behind the driver's seat. (inset).

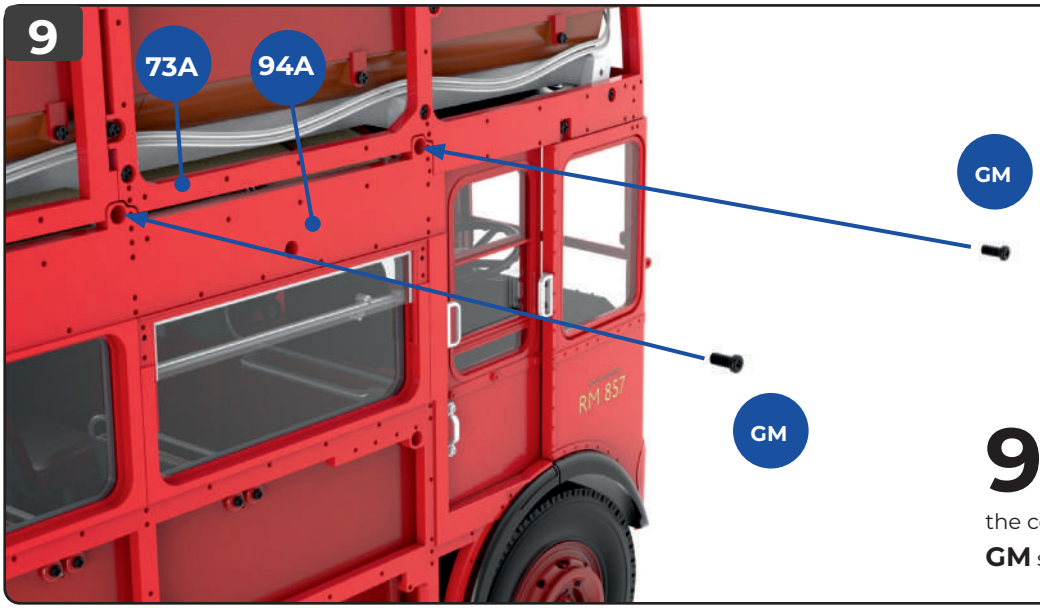


8

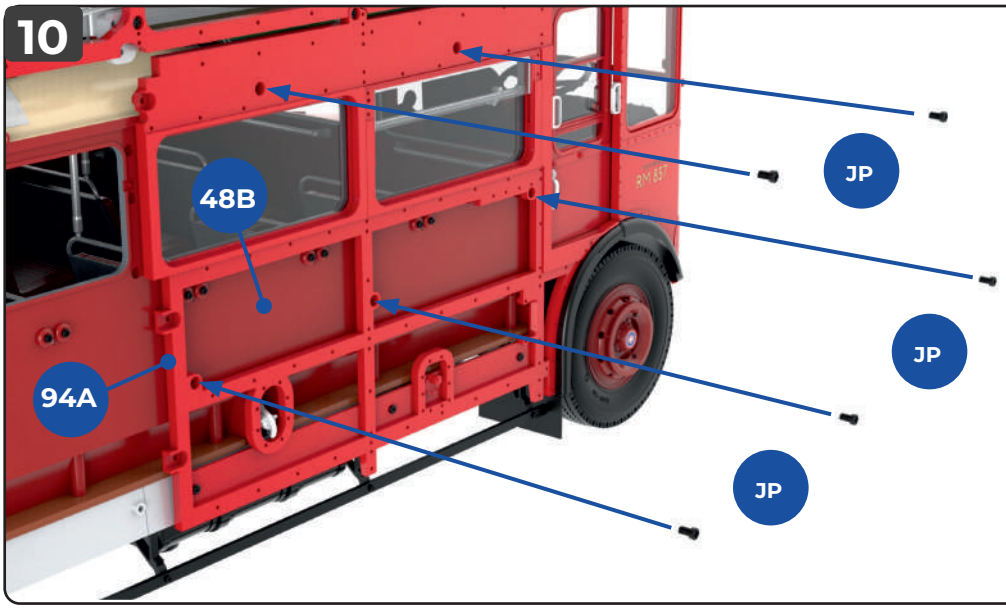


8 Position the right wall framework **94A** against the right side wall of the lower deck **48B** so that the window bar is enclosed. Fix the lower edge of part **94A** to the edge of the chassis frame **17A** using three **GM** screws.

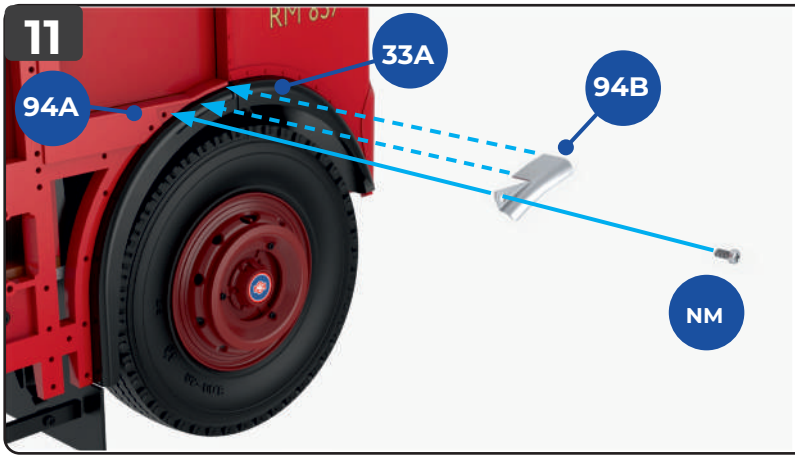
When you are fitting large frames with numerous screws, it may help to only partially fit the screws at first and then fully tighten once they are all in place.



9 Fix the top edge of the right wall framework **94A** to the edge of the ceiling framework **73A** using two **GM** screws.

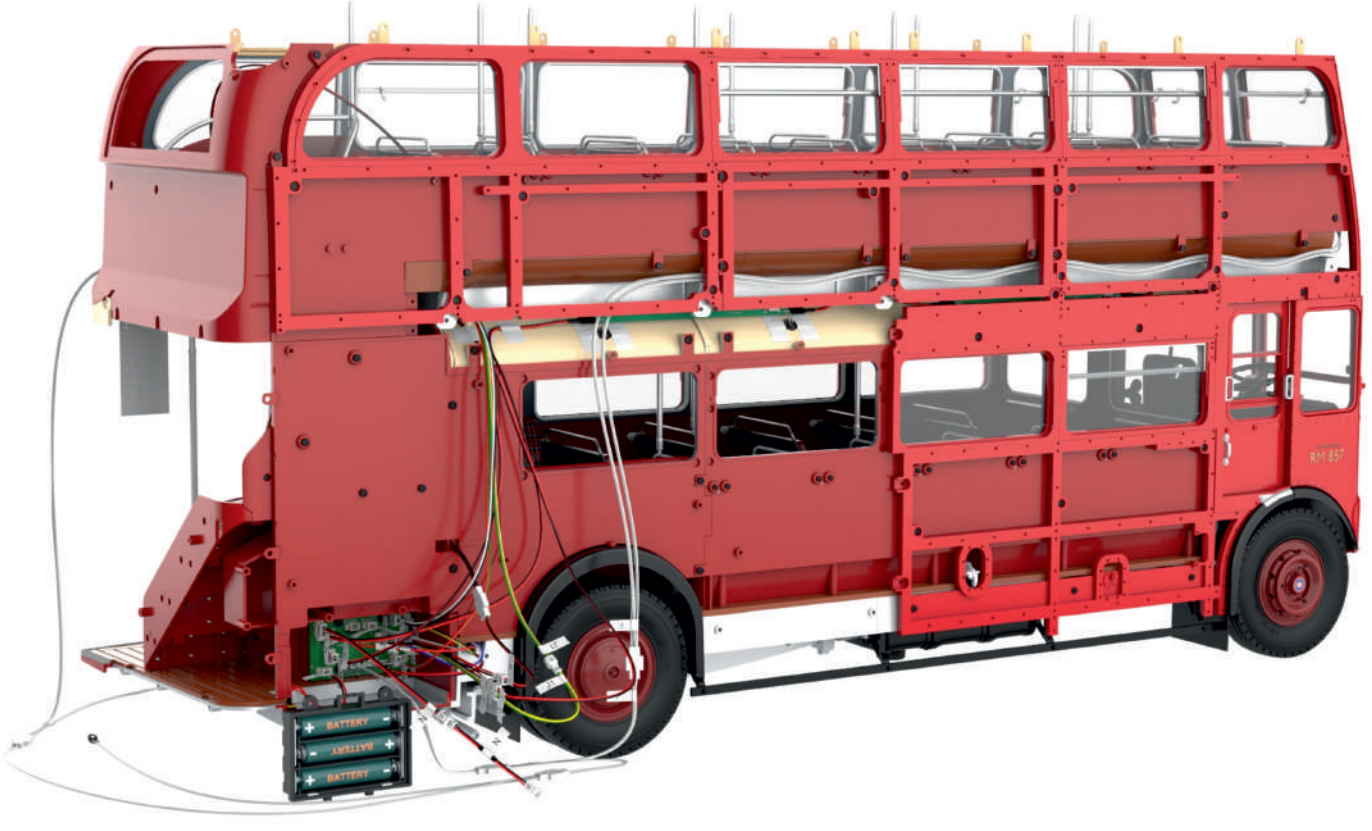


10 Identify the five screw holes where the right wall framework **94A** is attached to the side wall **48B**. Fix in place with five **JP** screws.



11 Fit the long tab on the step **94B** between the front right wheel arch **33A** and the right wall framework **94A**, as indicated by the dotted lines. You may need to loosen the screws holding part **94A** in place in order to create space to fit the tab on the step between parts **94A** and **33A**. Fix the step in place with an **NM** screw.

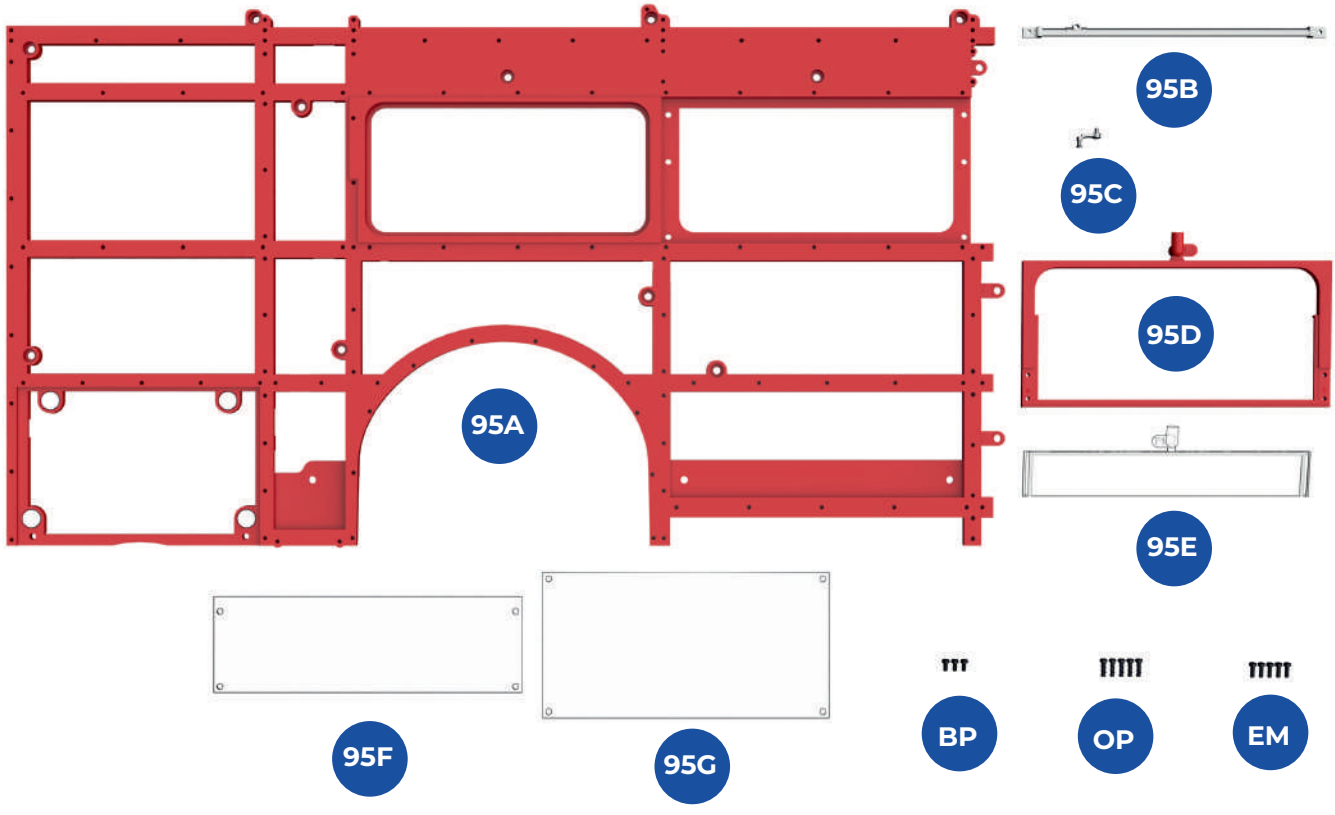
Finished views



STAGE 95

FITTING THE RIGHT WALL FRAMEWORK

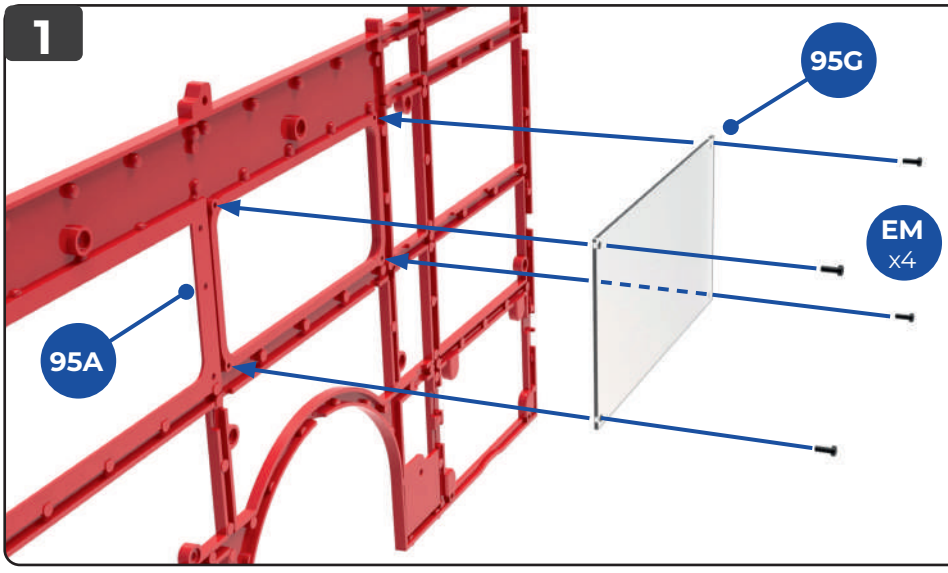
Another section of the right wall framework is supplied and fitted with windows.



KEY TO PARTS

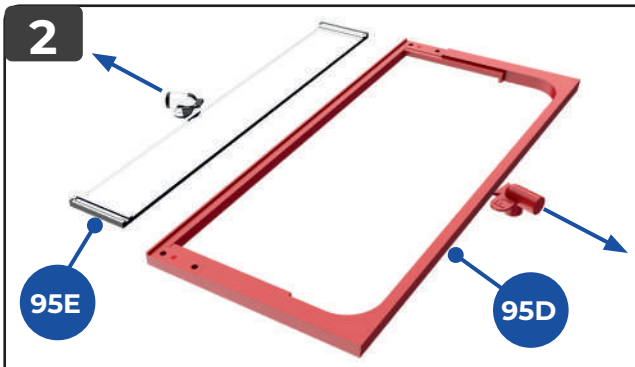
95A	Right wall framework	**95F**	Window pane	**BP**	1.5 x 3mm (x3)
95B	Window bar	**95G**	Window pane	**OP**	1.7 x 5mm (x5)
95C	Winder			**EM**	1.5 x 4mm (x5)
95D	Window frame				
95E	Sliding window pane				

1



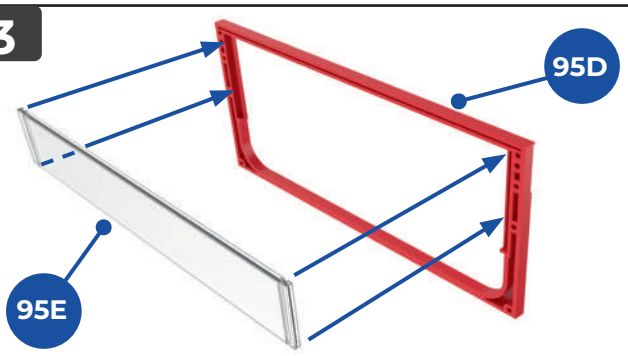
1 Take the right wall framework **95A** and the window pane **95G.** Fix the window pane to the inside of the framework, over the wheel arch, using four **EM** screws.

2



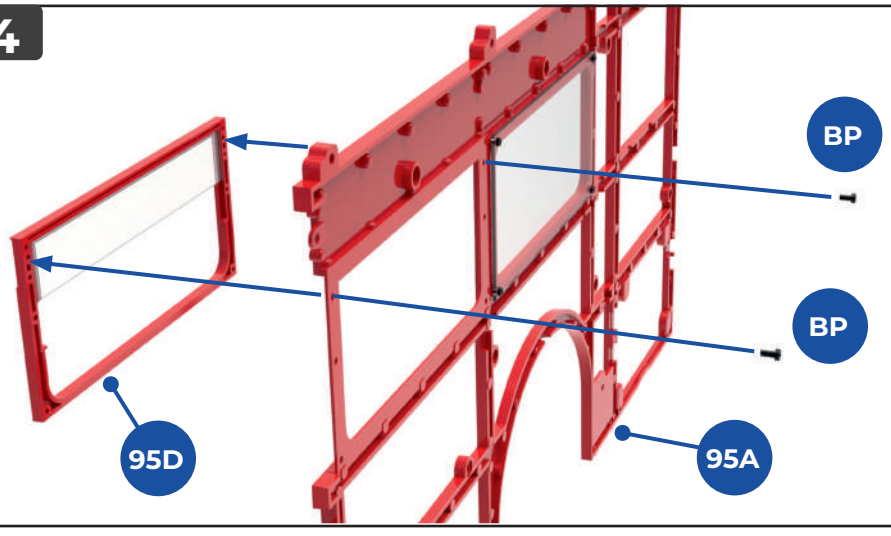
2 As in previous stages, remove the excess moulding from the manufacturing process on the sliding window pane **95E** and the window frame **95D**.

3



3 Fit the sliding window pane **95E** into the window frame **95D** so that ridges on the ends of part **95E** fit into the grooves in the frame **95D**. The 'metal' edge goes at the top.

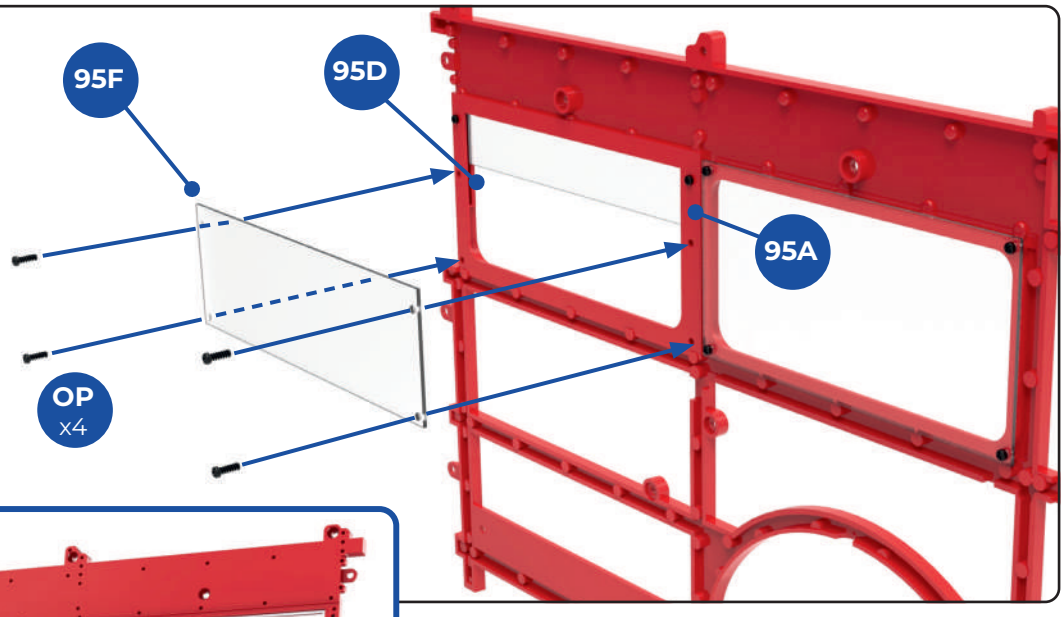
4

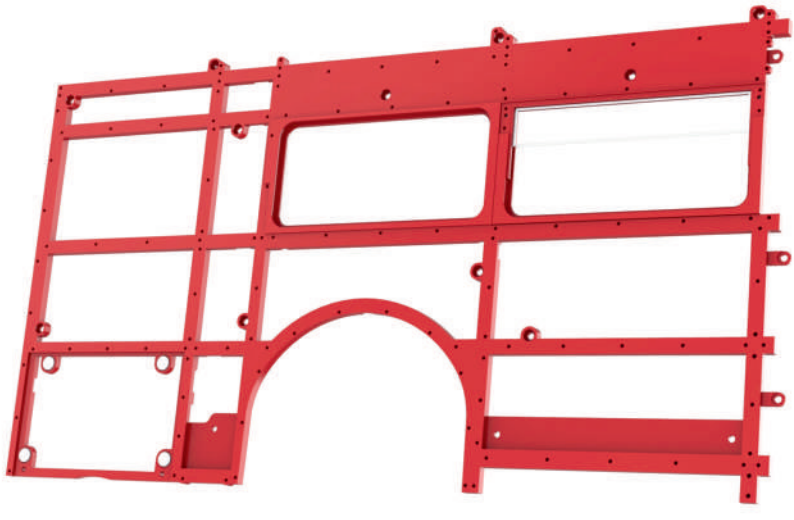


4 Fit the window frame **95D** on to the outside of the right wall framework **95A**. Fix in place from the inside with two **BP** screws.

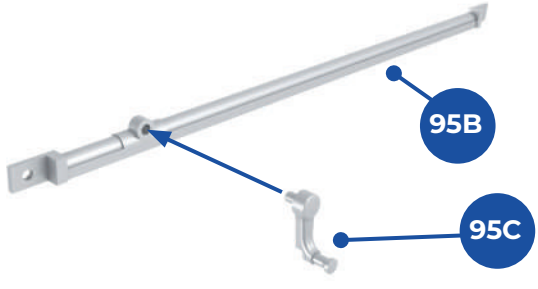
5

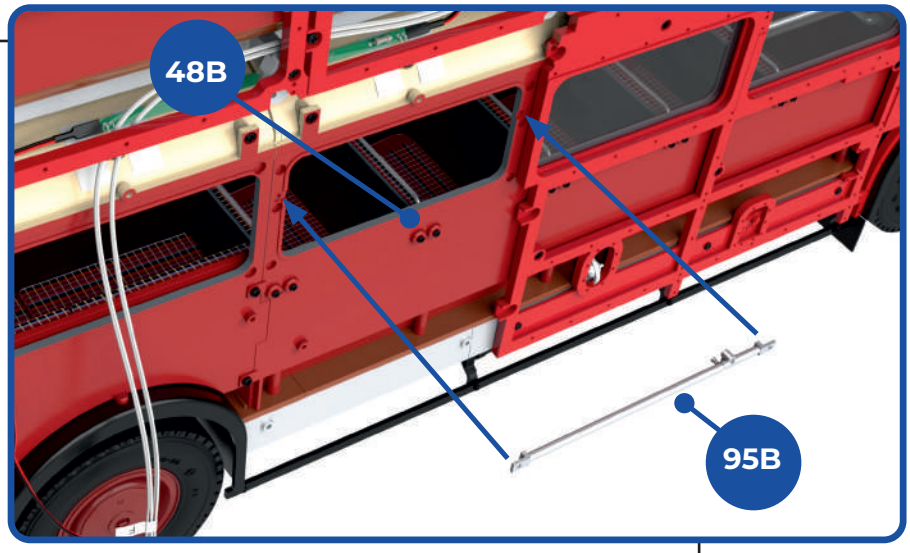
5 Fit the window pane **95F** on the inside of the right wall framework **95A**, beneath the sliding window. Fix in place with four **OP** screws, so that the screws go through to frame **95D**. The inset below shows the framework assembled.





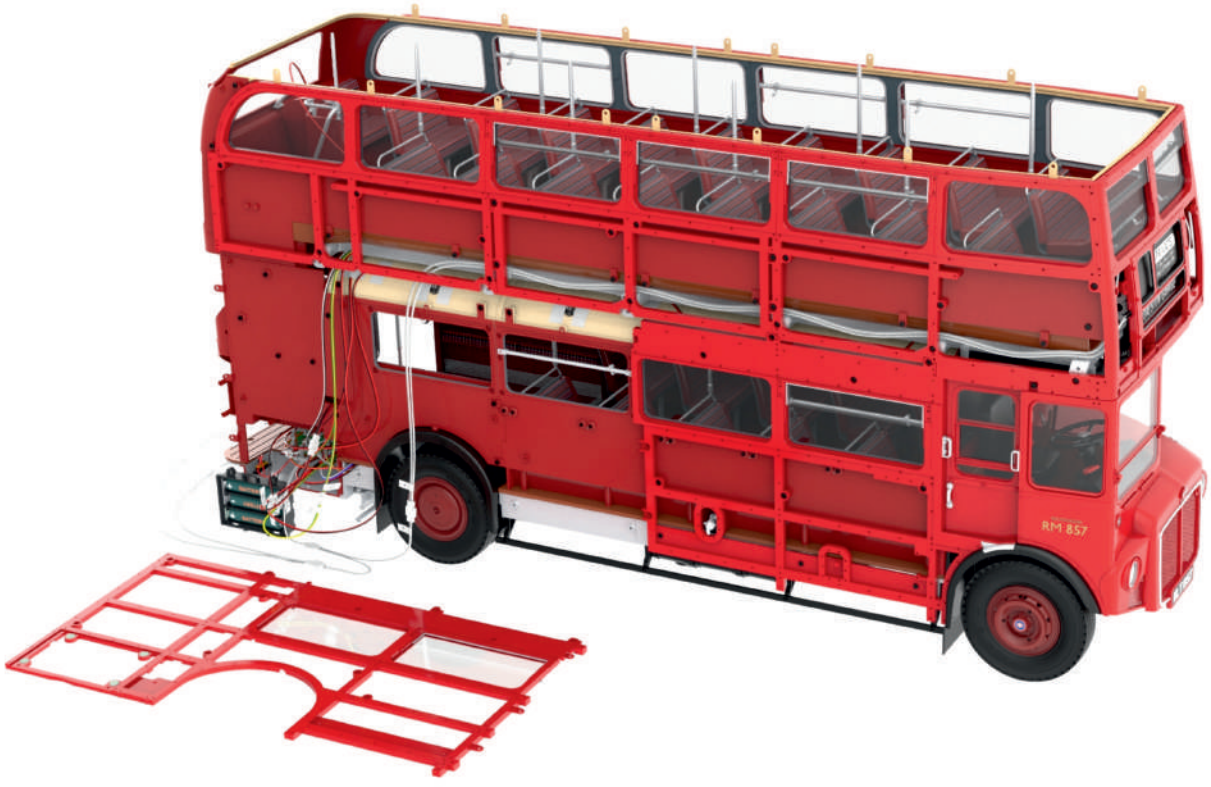
6

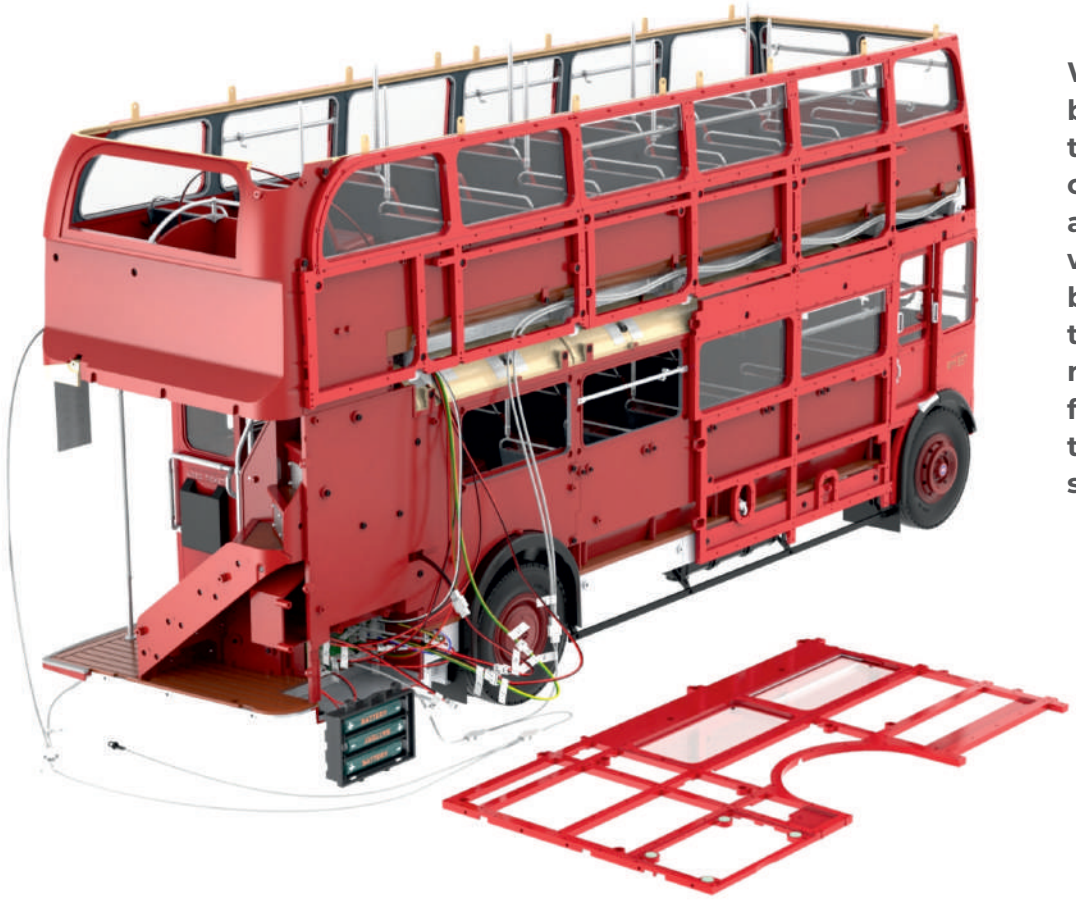




6 Fit the window winder **95C** into the hole in the window bar **95B**. Position the bar on the outside of the lower deck of the assembled model (**48B**), across the window opening adjacent to the framework that was fitted in stage 94 (inset).

Finished views



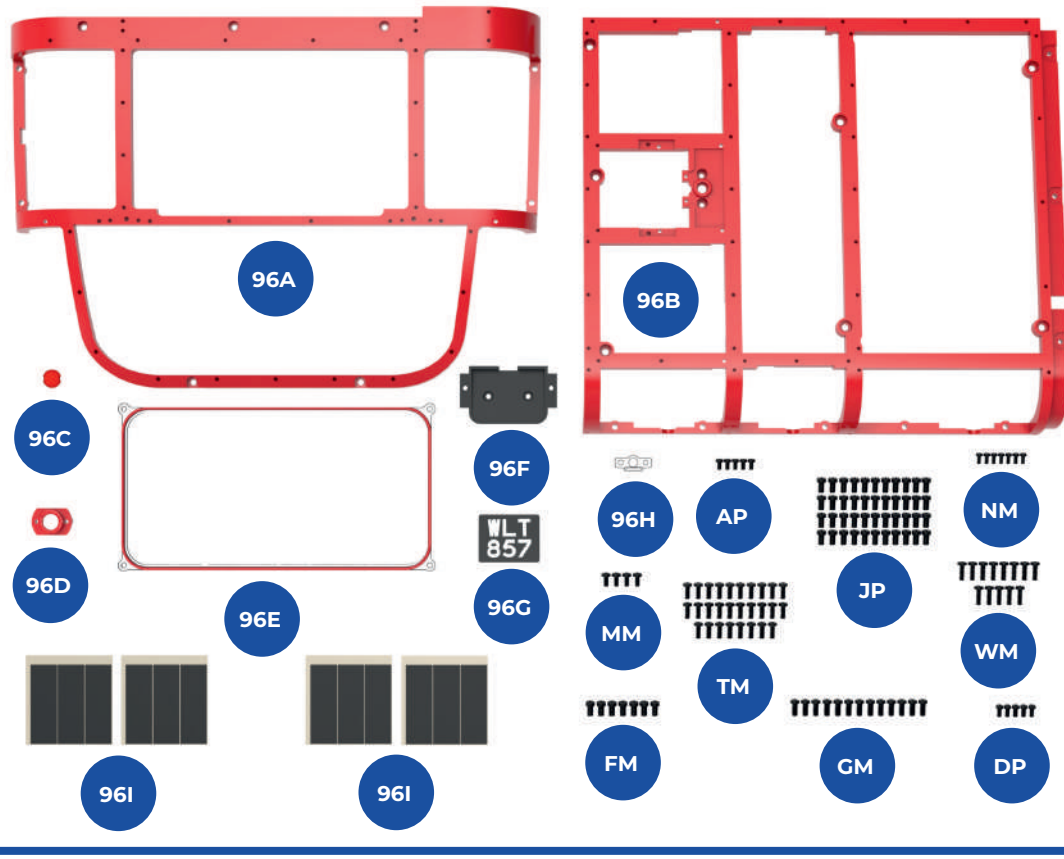


Windows have been fitted to the next section of framework, and a bar and winder have been fitted to the model. Do not attach the framework to the model at this stage.

STAGE 96

FITTING THE CEILING ASSEMBLY TO THE UPPER DECK

The framework for the rear of the bus is assembled, together with the number plate. We also fit the ceiling of the upper deck.



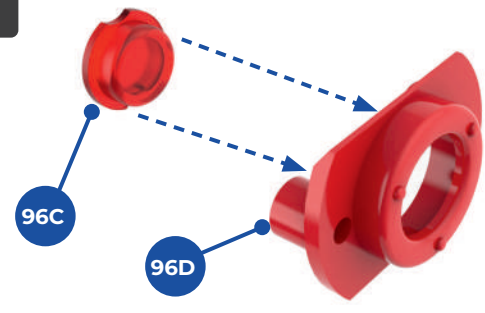
Before starting assembly, identify all the screws and keep them to hand in separate containers for easy handling. Some will be used in future stages.

KEY TO PARTS SUPPLIED

96A	Rear frame	**AP**	1.7 x 3mm (x5)
96B	Rear frame	**JP**	2.3 x 4mm (x44)
96C	Brake light	**NM**	1.5 x 3mm (x7)
96D	Bracket	**MM**	2.0 x 4mm (x4)
96E	Window pane	**TM**	2.0 x 5mm (x28)
96F	Number plate frame	**WM**	2.0 x 6mm (x13)
96G	Number plate	**FM**	2.3 x 4mm (x7)
96H	Bracket	**GM**	2.3 x 5mm (x13)
96I	Tape (x12)	**DP**	1.7 x 4mm (x5)

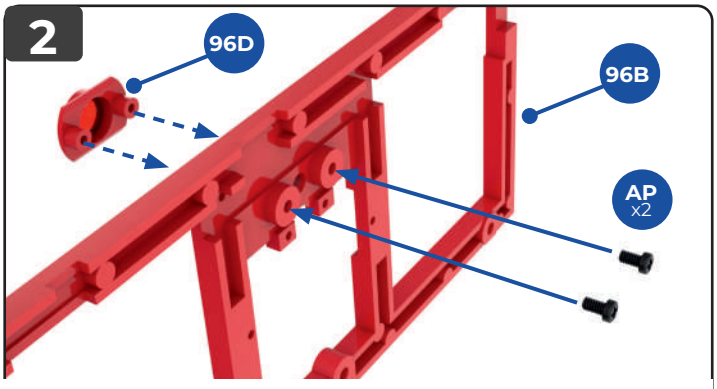
(spare screws are included)

1



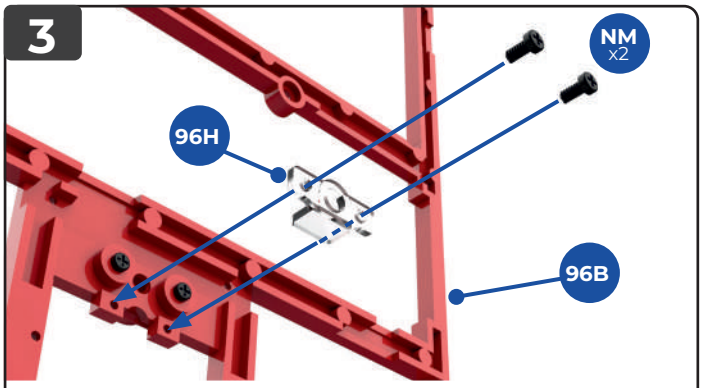
1 Fit the brake light **96C** into the bracket **96D**. This is a push-fit connection.

2



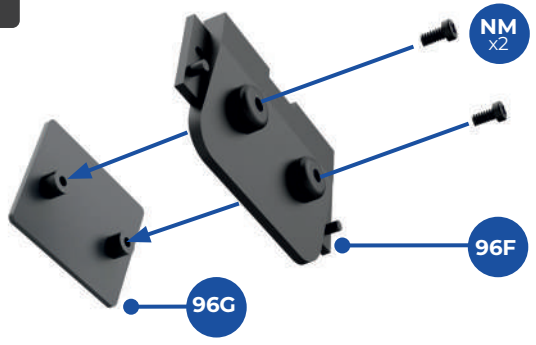
2 Fit the screw sockets on the bracket **96D** into the recesses in the rear frame **96B**. (Only the lower part of the frame is shown here.) Fix in place with two **AP** screws.

3



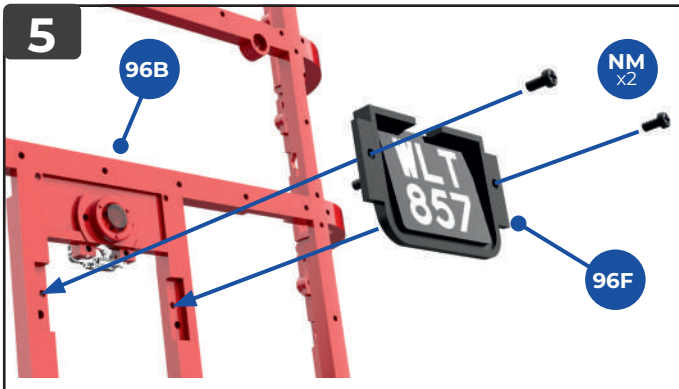
3 Fit the light bracket **96H** to the inside of the rear frame **96B** with screw sockets aligned. Fix in place with two **NM** screws. This bracket forms a light over the number plate.

4



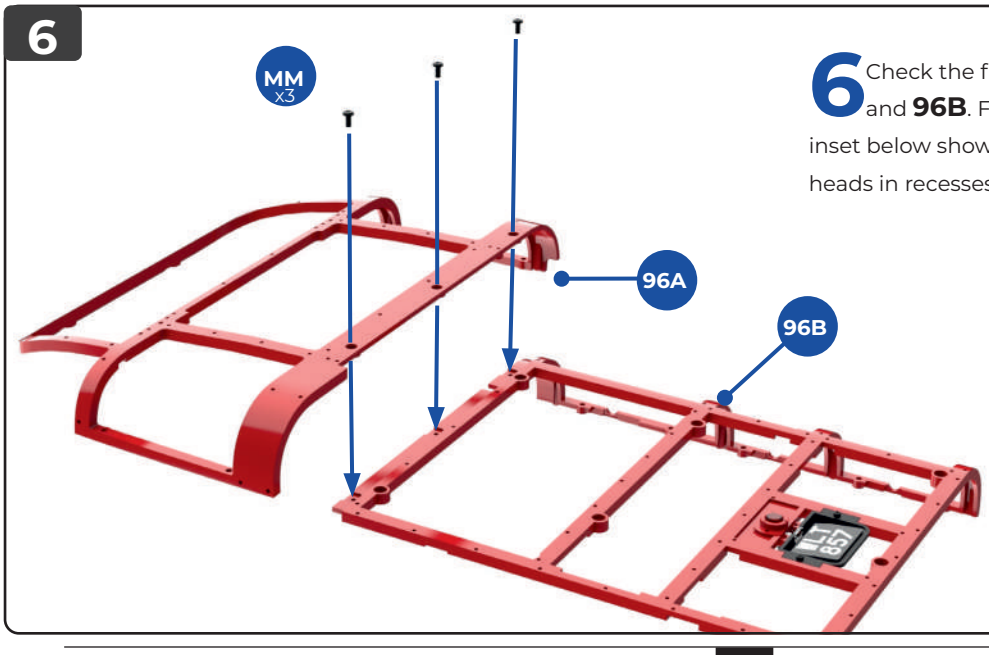
4 Fix the number plate **96G** to the number plate frame **96F**, postioning it as shown. Fix in place with two **NM** screws.

5

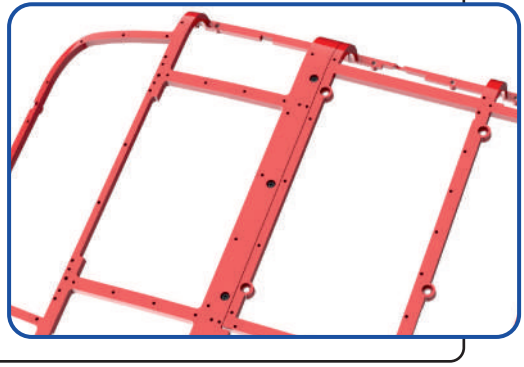


5 Fit the number plate frame **96F** to the rear frame **96B** beneath the brake light. The light bracket **96H** fits into the slot in the top of part **96F**. Fix in place with two **NM** screws.

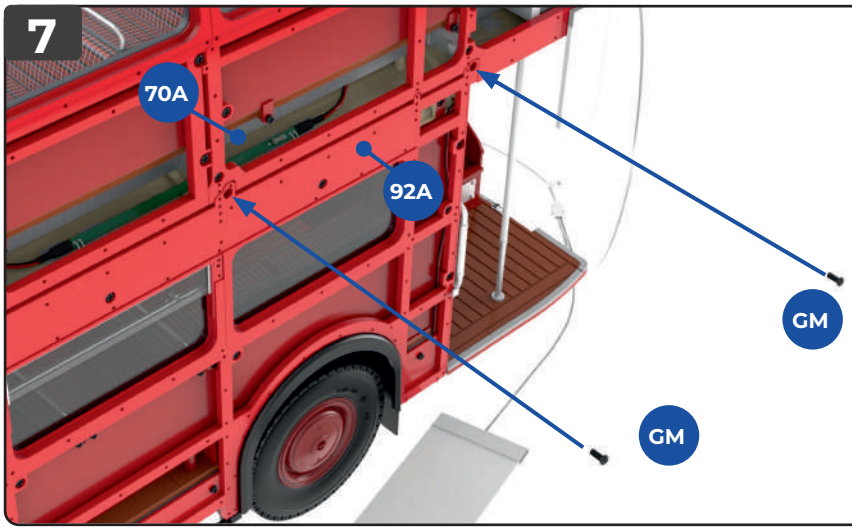
6



6 Check the fit of the two parts of the rear frame, **96A** and **96B**. Fix together with three **MM** screws. The inset below shows the part fixed together, with the screw heads in recesses in part **96A**.



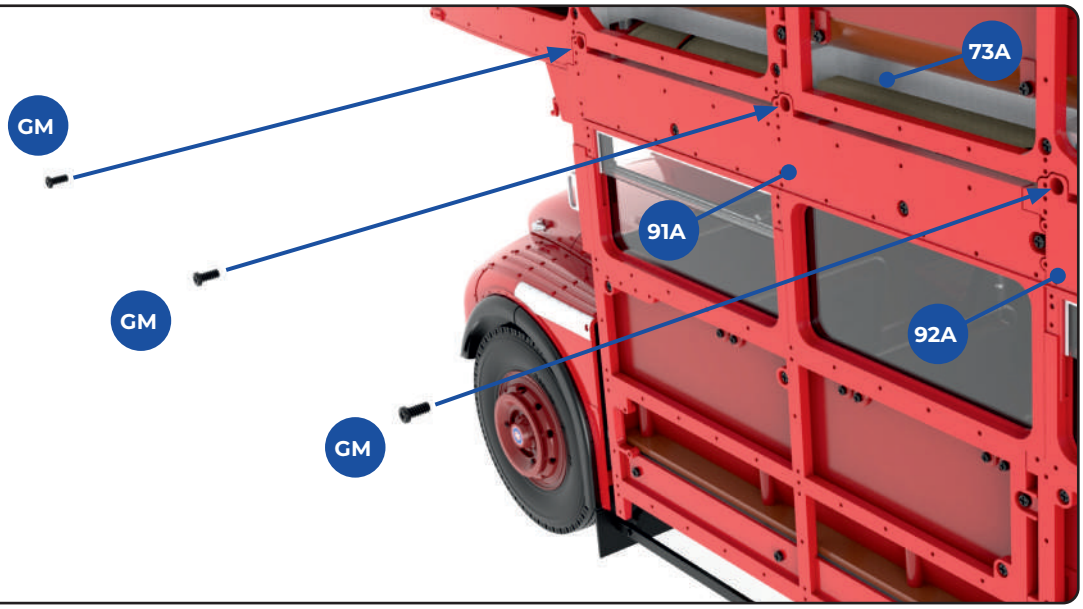
7



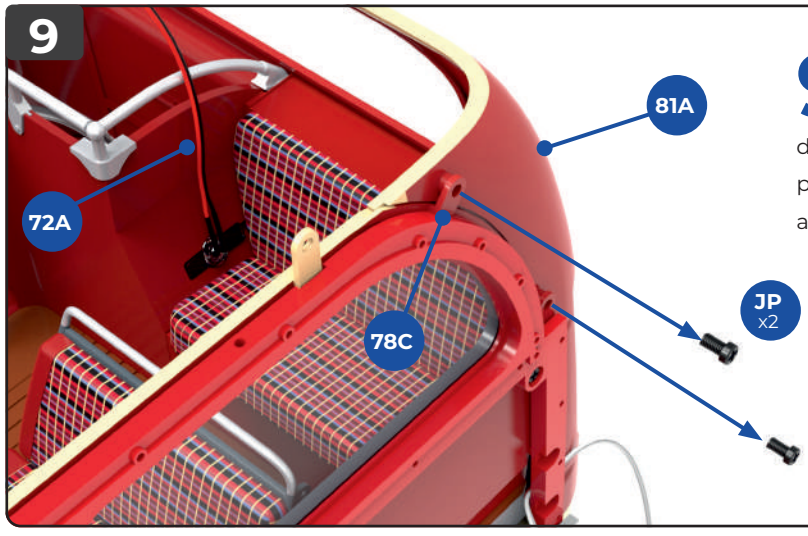
7 Fix the rear left wall framework **92A** to the lower deck ceiling framework **70A** with two **GM** screws.

8

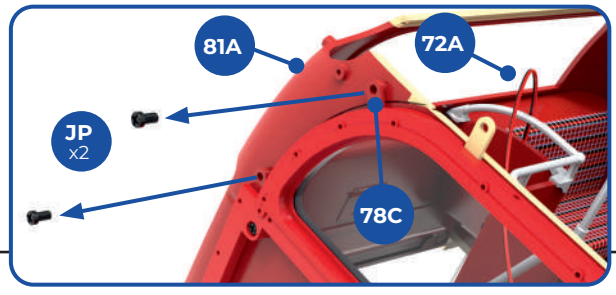
8 Fit the front left wall framework **91A** and the front of the rear left wall framework **92A** to the lower deck ceiling framework **73A** with three **GM** screws.



9

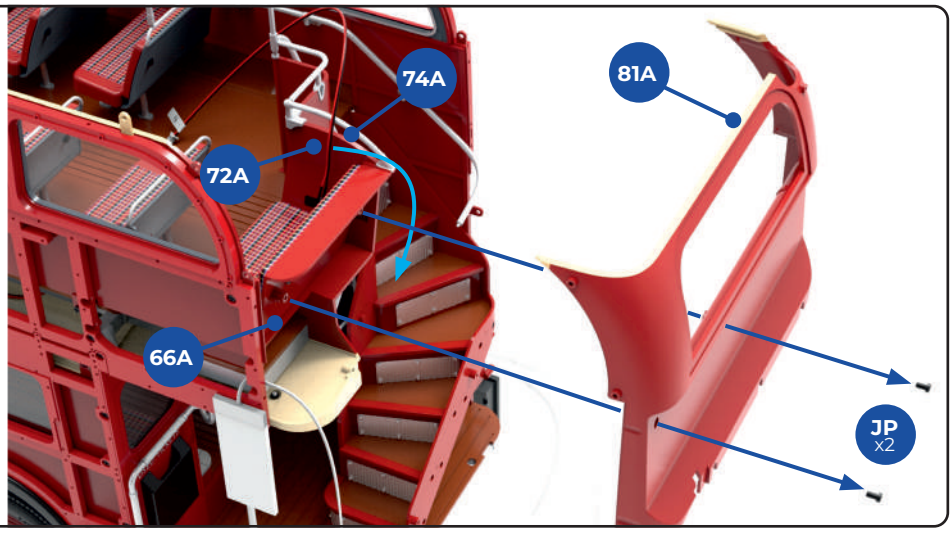


9 In order to reposition cable **72A**, carefully remove the two **JP** screws holding the inner side wall of upper deck **78C** to the back wall panel **81A**. Holding the back wall panel in place, remove the two **JP** screws holding parts **78C** and **81A** together on the right-hand side (inset).

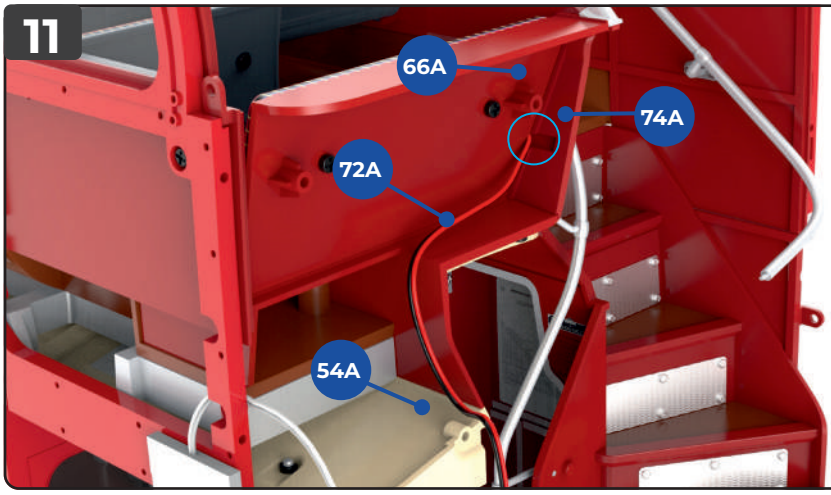


10

10 After removing the two **JP** screws holding the back wall panel **81A** to the rear seat back panel **66A**, remove the back wall panel, as shown. Guide the cable **72A** into the crevice between the rear wall **74A** and the rear seat back panel **66A**. Ease the cable down into the crevice as indicated by the light blue arrow.

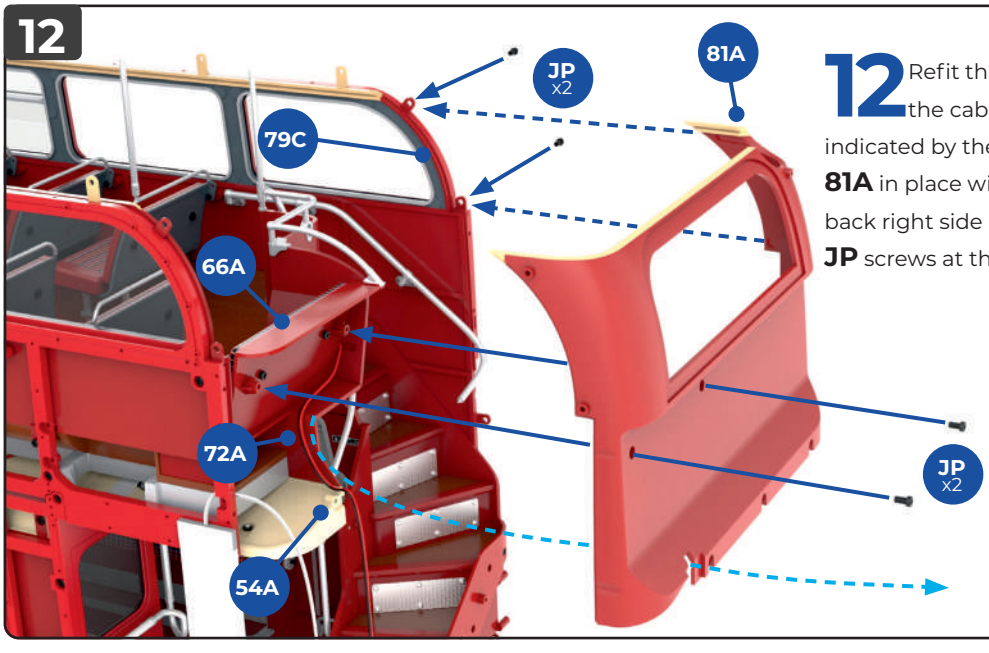


11

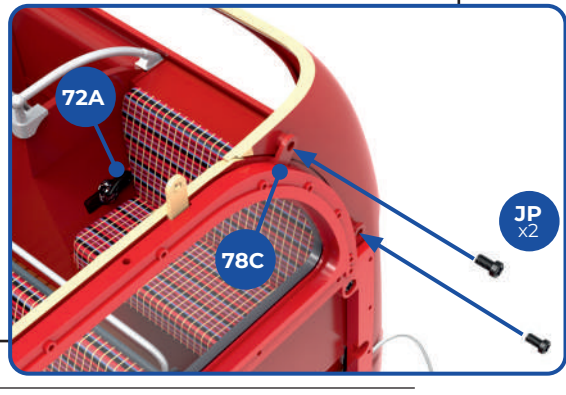


11 Note where the cable comes through to the back of the rear seat (circled). Continue re-routing cable **72A** from the middle of the back of the seat down over the structure behind the seat to the top of the rear lower deck ceiling panel **54A**, as shown.

12



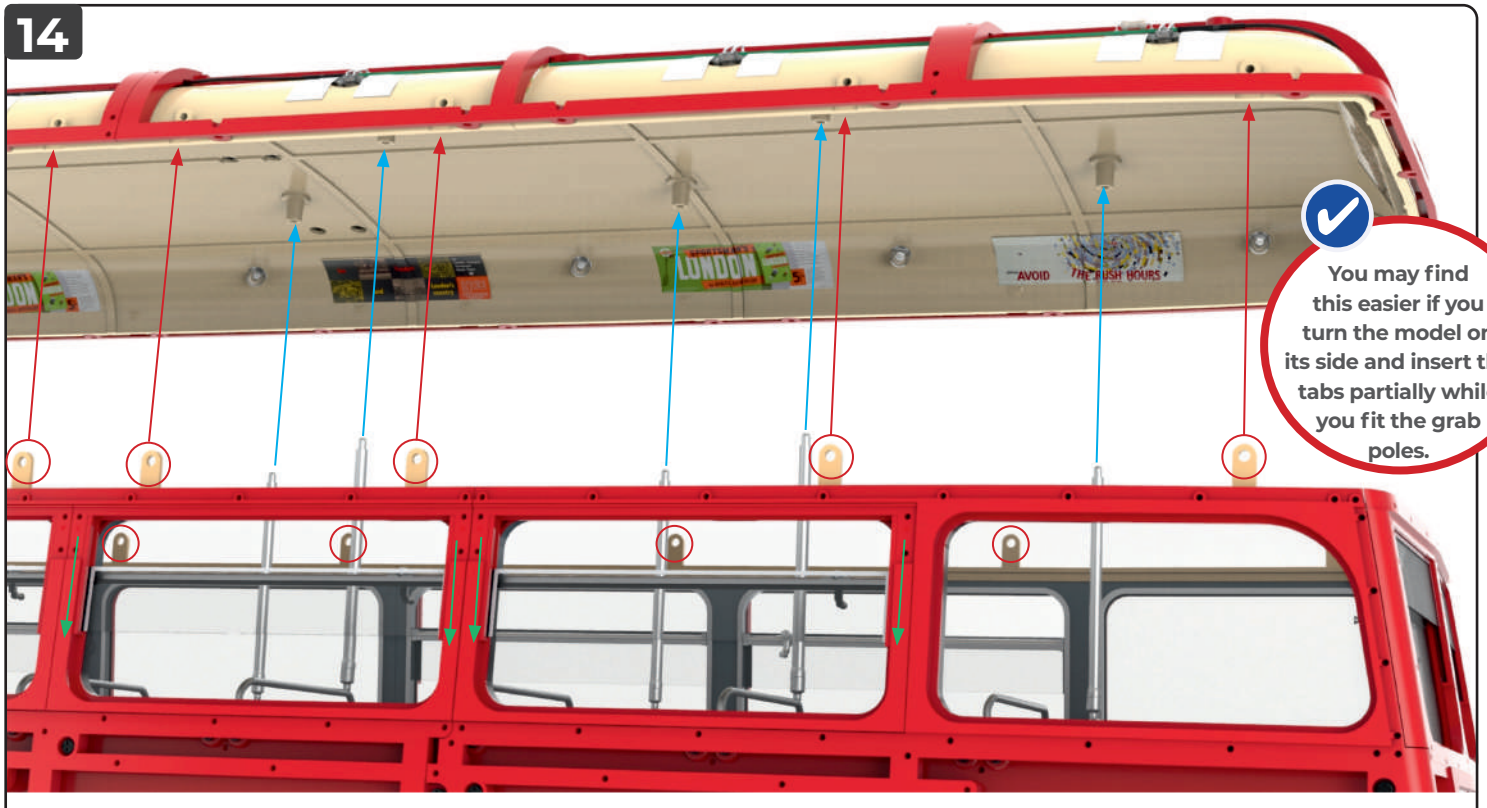
12 Refit the rear wall panel **81A**. As you do so, guide the cable **72A** through the notch in part **81A**, as indicated by the light blue dotted line. Fix the rear panel **81A** in place with two **JP** screws in the rear and two at the back right side (fixing to part **79C**). Finally, replace the two **JP** screws at the back left side (fixing to part **78C**, inset).



13

13 This shows the rear platform with the rear wall panel **81A** replaced. The cable **72A** (labelled N), comes through the notch between the rear wall **81A** and the ceiling **54A**. The cable reaches almost to the platform.

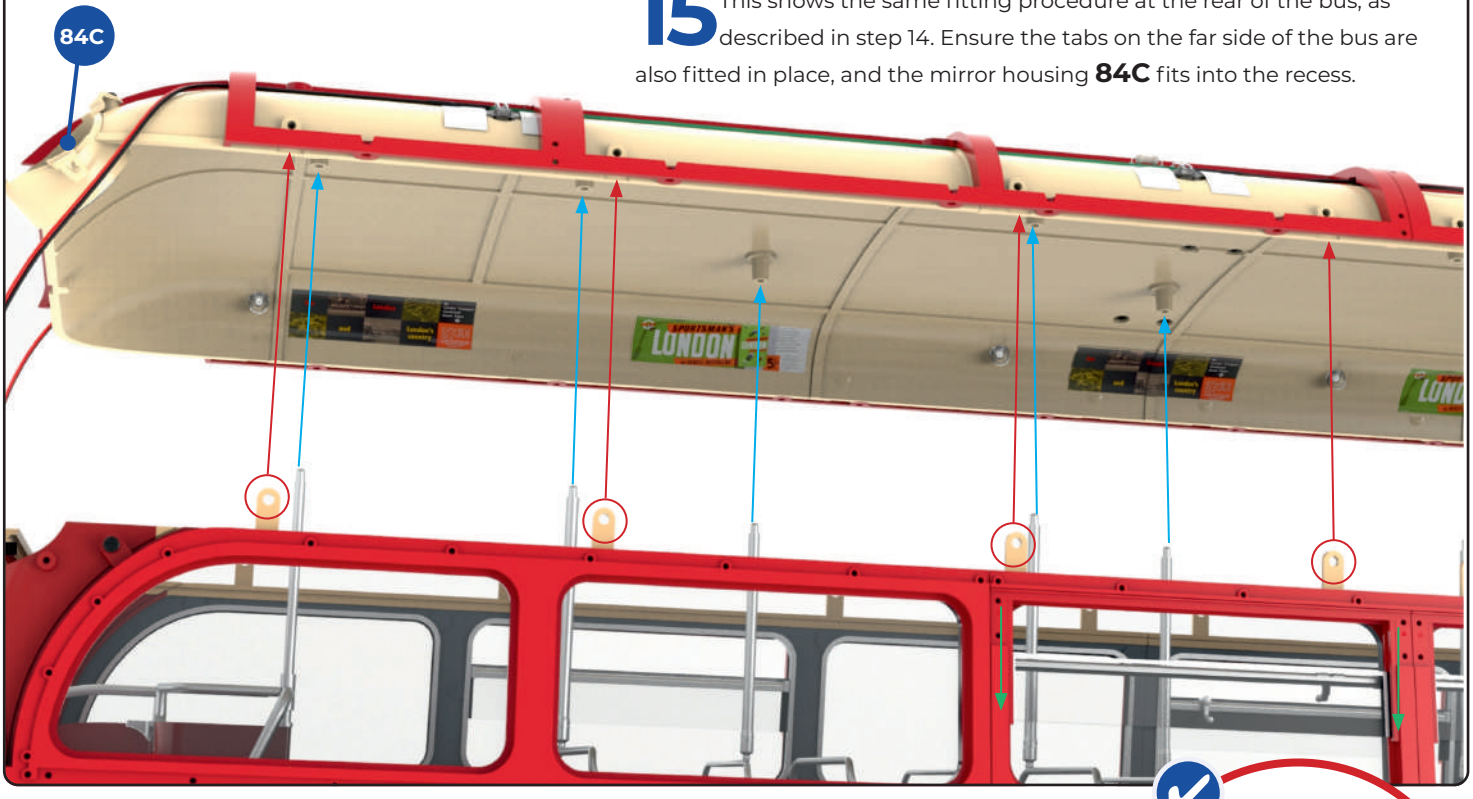
14



You may find this easier if you turn the model on its side and insert the tabs partially while you fit the grab poles.

14 The next step is to fit the roof of the upper deck (see also step 15). Open the windows (green arrows) and align the roof assembly with the framework of the upper deck. As you do so, on both sides of the bus, ensure that the grab poles fit into the ceiling sockets (blue arrows): it is advisable to use tweezers (through the windows) to guide them into place. The tabs on both sides (red circles) fit into slots between the ceiling and the frame and align with the holes in the ceiling.

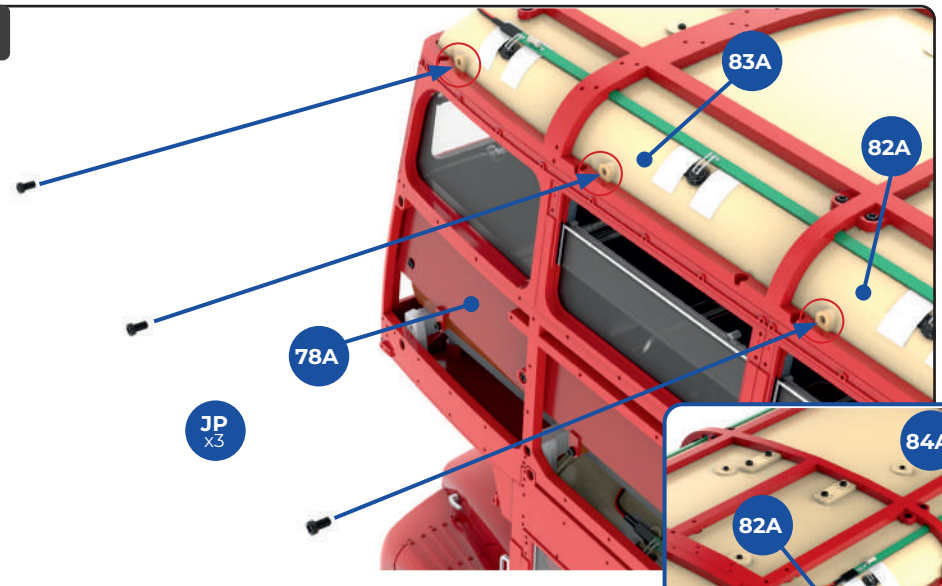
15

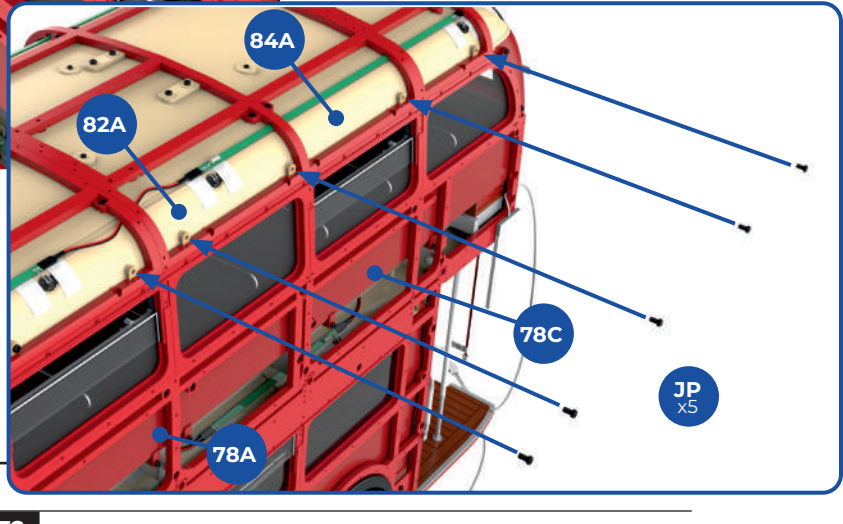


15 This shows the same fitting procedure at the rear of the bus, as described in step 14. Ensure the tabs on the far side of the bus are also fitted in place, and the mirror housing **84C** fits into the recess.

Check that all the tabs (circled in red) are correctly aligned, as shown in steps 16 and 17. Also, ensure that the grab poles are correctly fitted before proceeding.

16

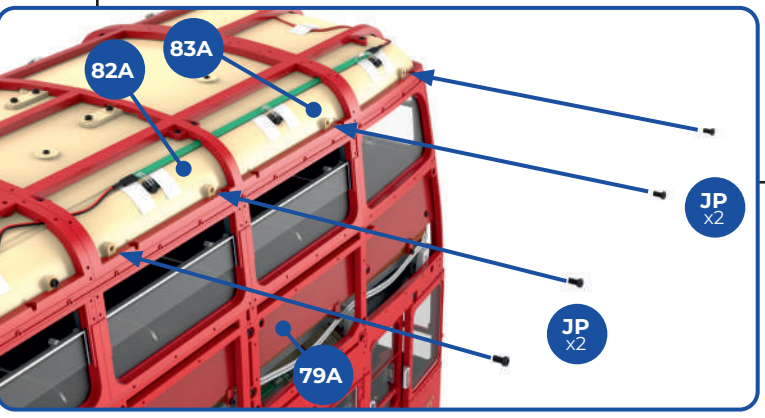


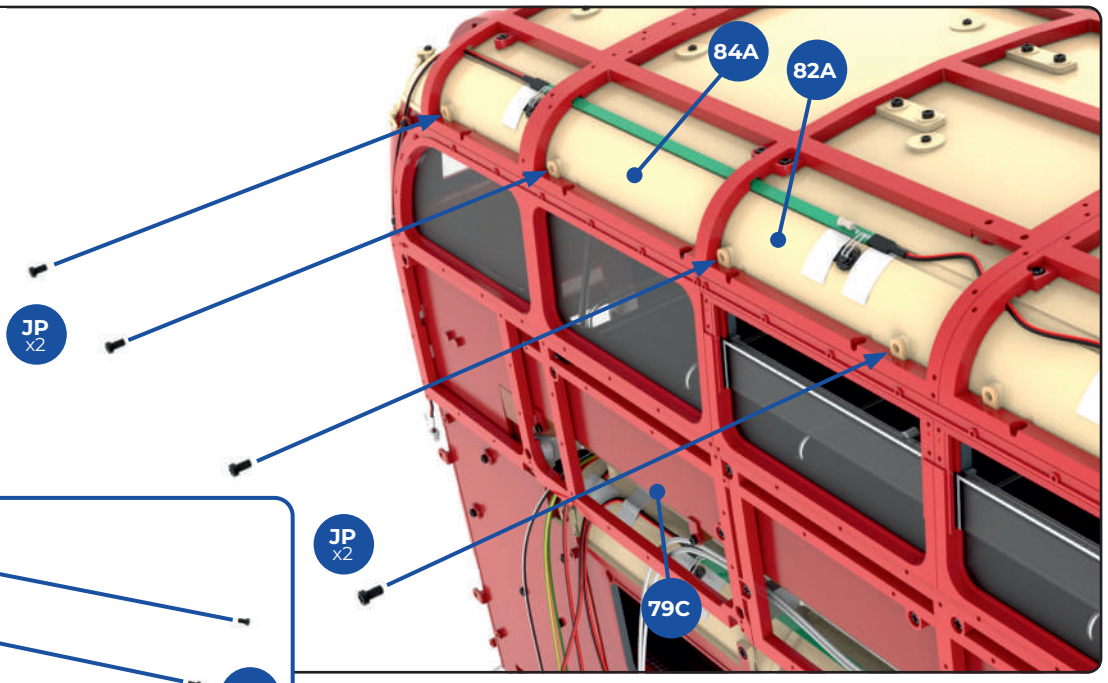


16 Working down the left-hand side of the model, starting from the front, fix the tabs (on parts **78A** and **78C**) to the corresponding fixing holes on the ceiling (**82A**, **83A** and **84A**) using eight **JP** screws (the inset shows the rear fixings).

17

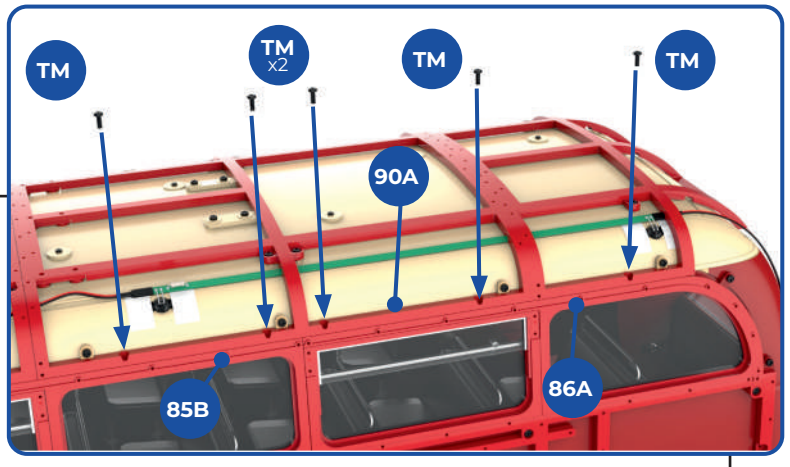
17 Continue working around the model, fixing the tabs on parts **79C** and **79A** to the ceiling sections **84A**, **82A** and **83A** down the right-hand side of the model, using eight **JP** screws.

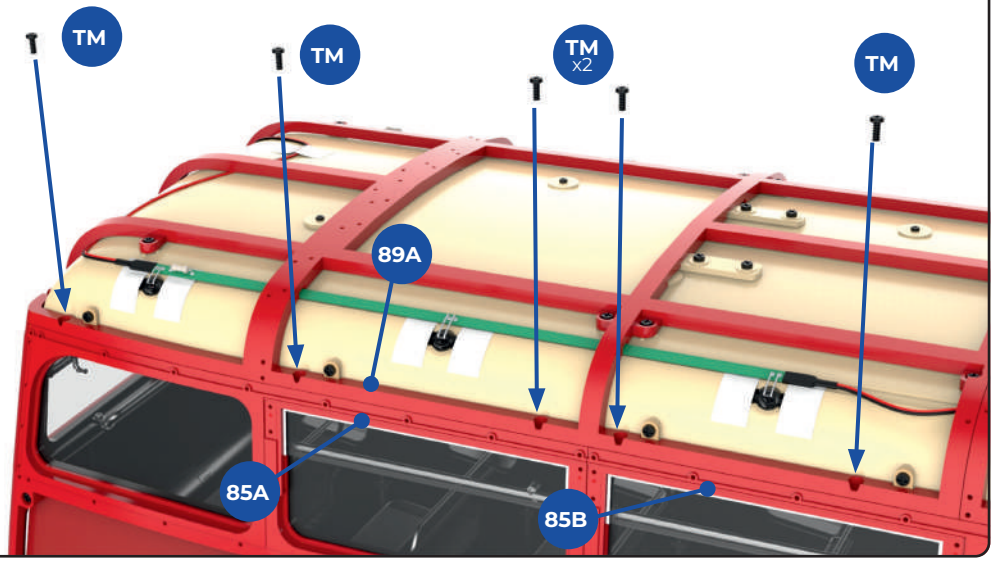




18

18 **TM** screws are used to fix the ceiling frames to the side frameworks. Starting on the left-hand side of the model, at the front, fix the ceiling framework **89A** to the side framework **85A** and **85B** using five **TM** screws. Continue to the back of the model, fixing the ceiling framework **90A** to the side framework **85B** and **86A** using five **TM** screws (inset).

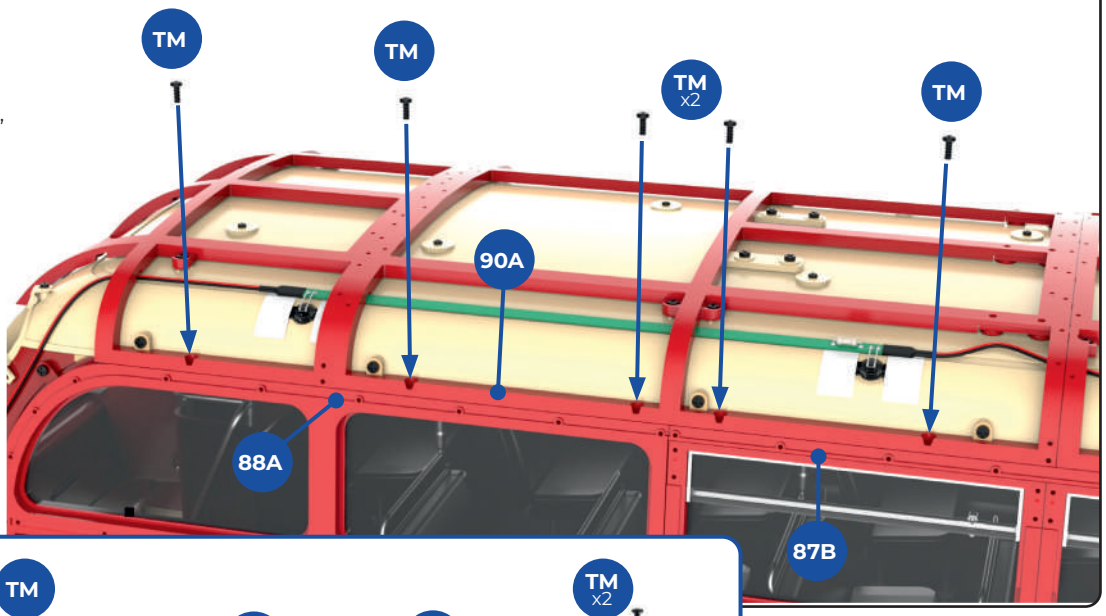


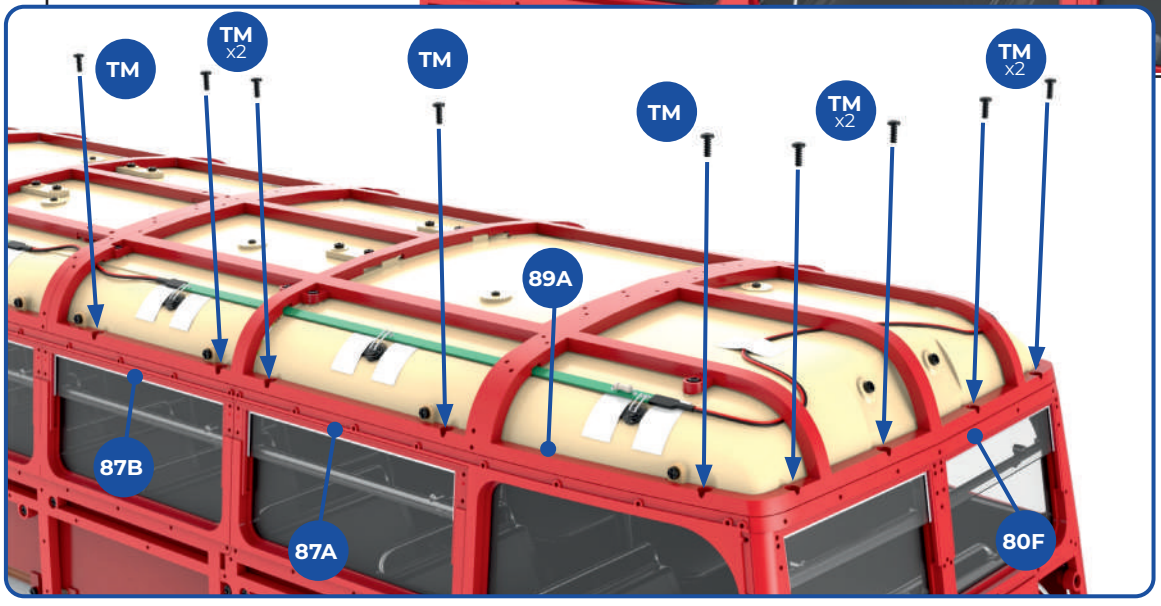


When fixing parts together at multiple points, it is advisable to drive the screws in only part of the way, and then go around the model again tightening all the screws fully.

19

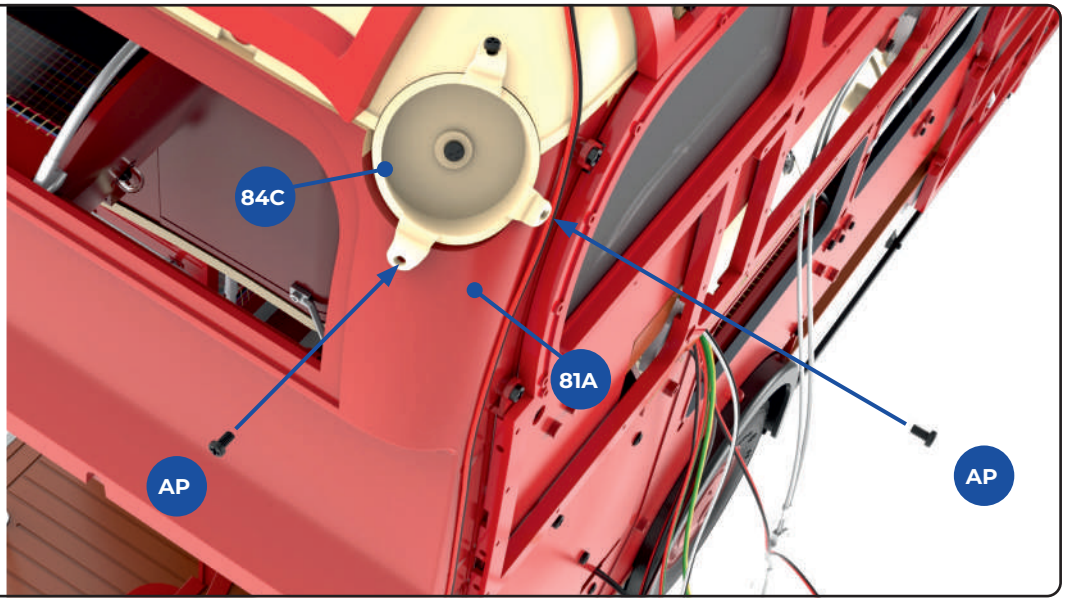
19 Continue up the right-hand side of the model, fixing ceiling frame **90A** to side frames **88A** and **87B** with five **TM** screws. Then fix frame **89A** to frames **87B** and **87A** with five **TM** screws (below). Across the front of the model, fix frame **89A** to **80F** with four **TM** screws.



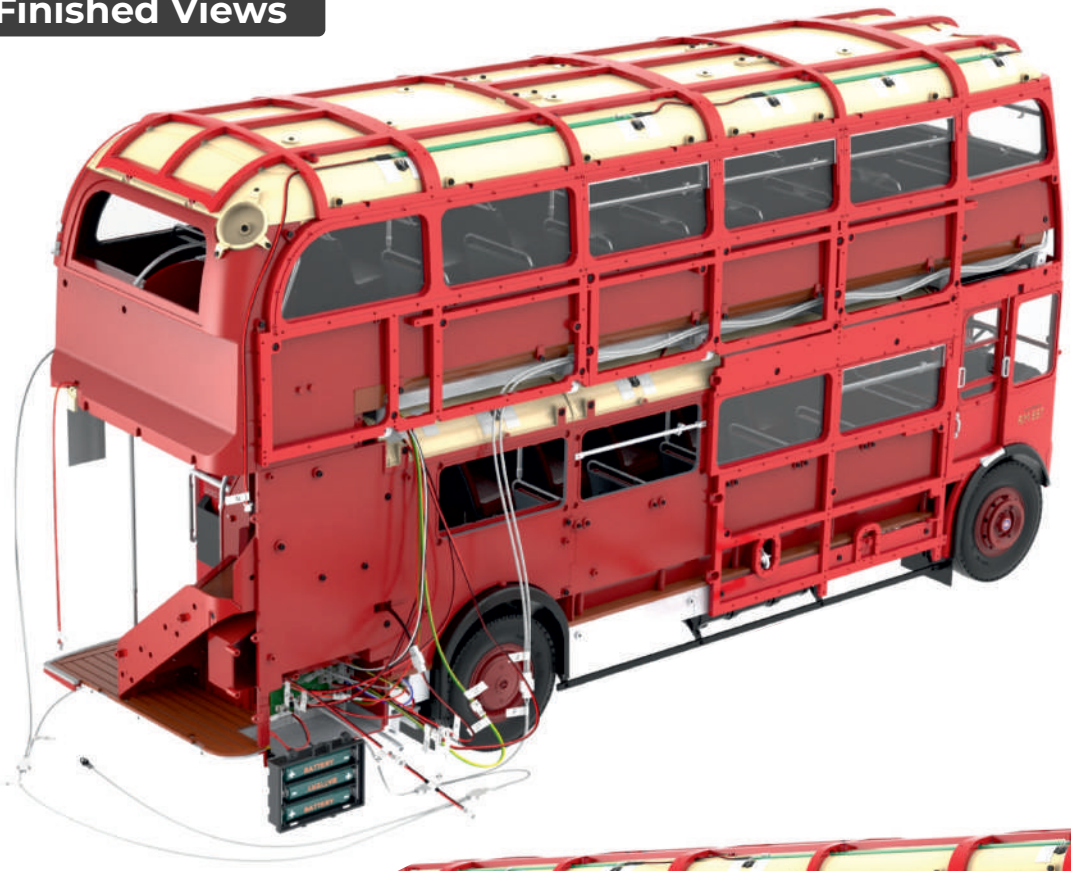


20

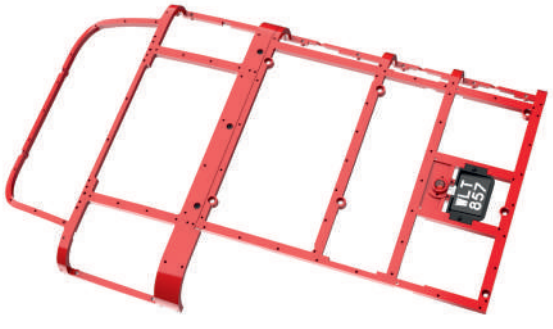
20 Fix the tabs on the mirror housing **84C** to the rear panel **81A** using two **AP** screws.



Finished Views



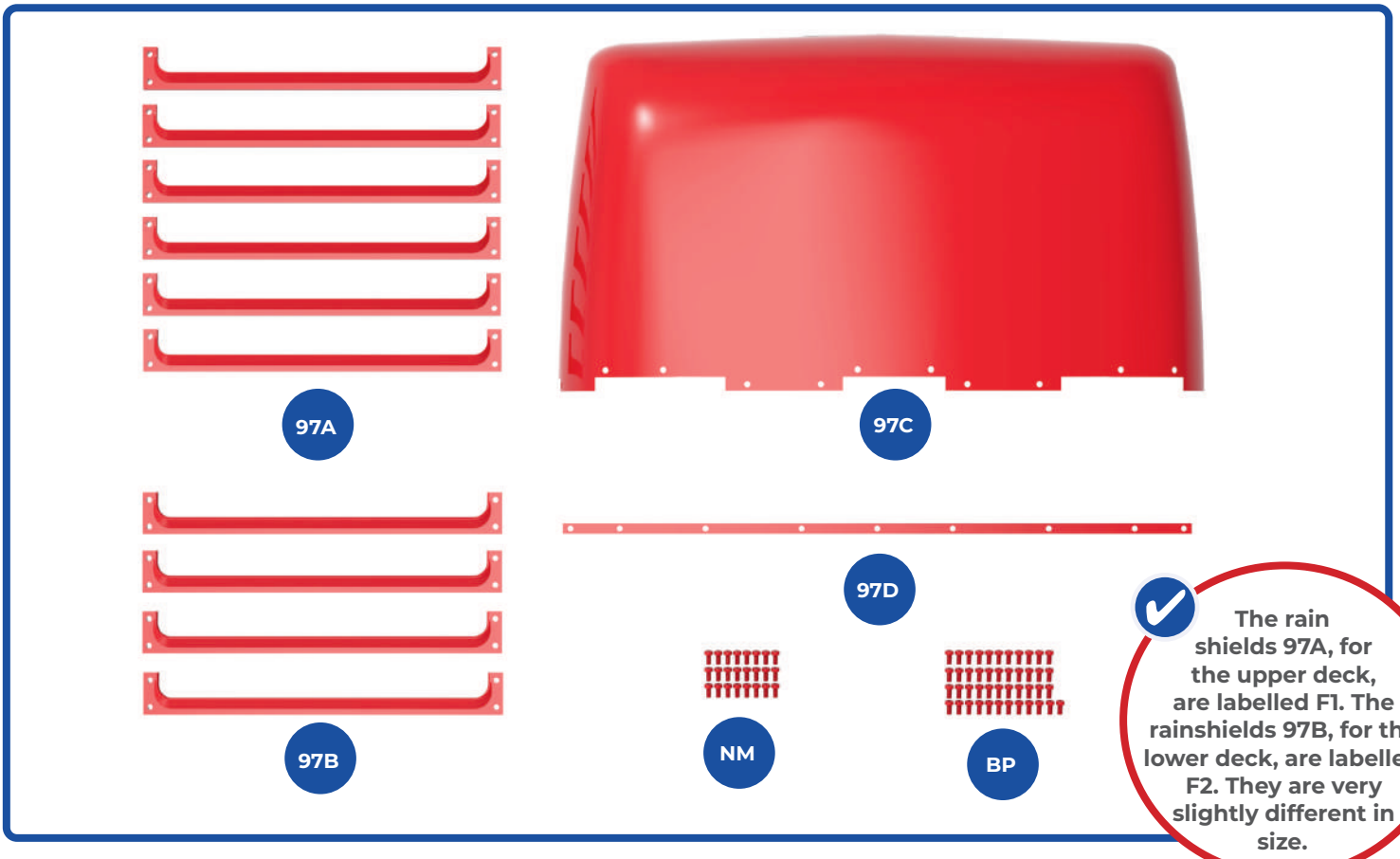
The upper deck ceiling has been fitted and the rear framework has been assembled. Tape and spare screws will be used in a future stage.



STAGE 97

FITTING THE FIRST ROOF PANEL AND RAIN SHIELDS

The rear platfrom wall is fitted, together with the front outer panel of the roof. Rain shields are fitted above the sliding windows.

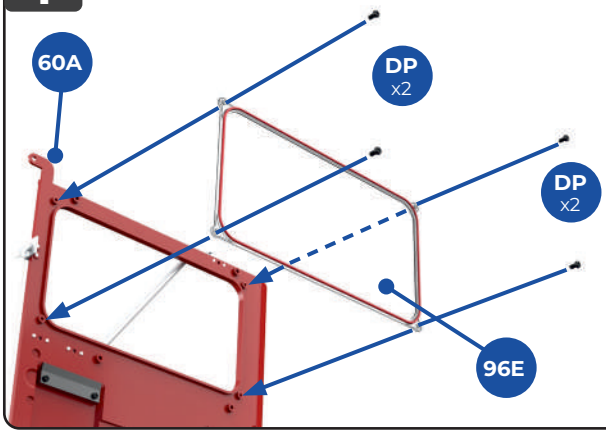


The rain shields 97A, for the upper deck, are labelled F1. The rainshields 97B, for the lower deck, are labelled F2. They are very slightly different in size.

KEY TO PARTS SUPPLIED

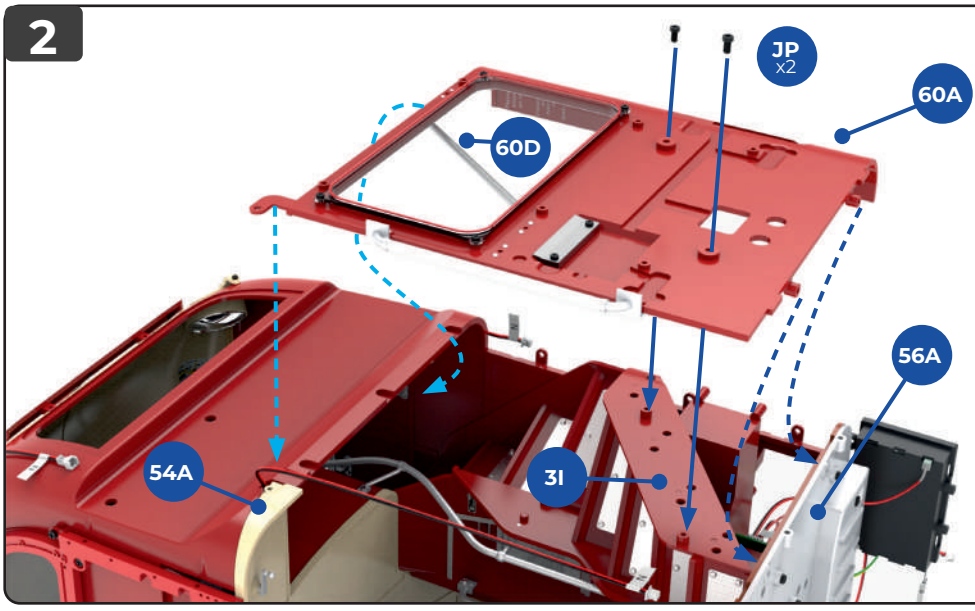
97A	Rain shield (upper deck) (x6)
97B	Rain shield (lower deck) (x4)
97C	Roof panel
97D	Front strip
NM	1.5 x 3mm (x24, red)
BP	1.5 x 3mm (x45, red)

1



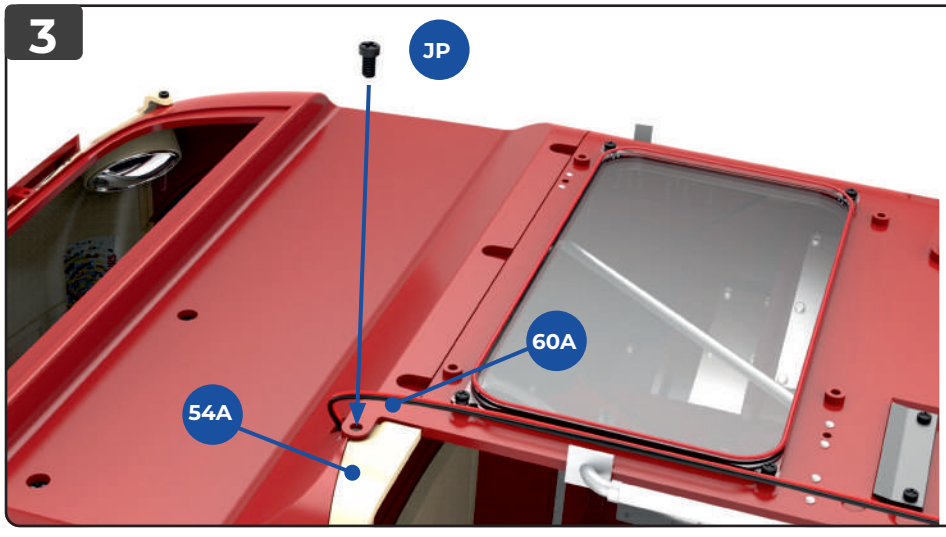
1 Take the window pane **96E**, supplied with the previous stage, and fit it over the window opening in the platform rear wall **60A**. Fit it on the outside of the wall, with the red rim on the window pane facing outwards. Fix in place with four **DP** screws, supplied with the previous stage.

2



2 Fit the platform rear wall **60A** to the back of the model assembly, tucking the handrail 60D under the rear wall of the upper deck (as indicated by the curved light blue dotted line). Two screw sockets at the base of the panel fit into slots in the platform, as indicated by the dark blue dotted lines. A screw socket bracket at the top of the panel fits beneath (light blue dotted line). Fix the rear wall to the side stair panel **3I** with two **JP** screws (supplied with the previous stage), fitting them through the raised screw sockets, as shown.

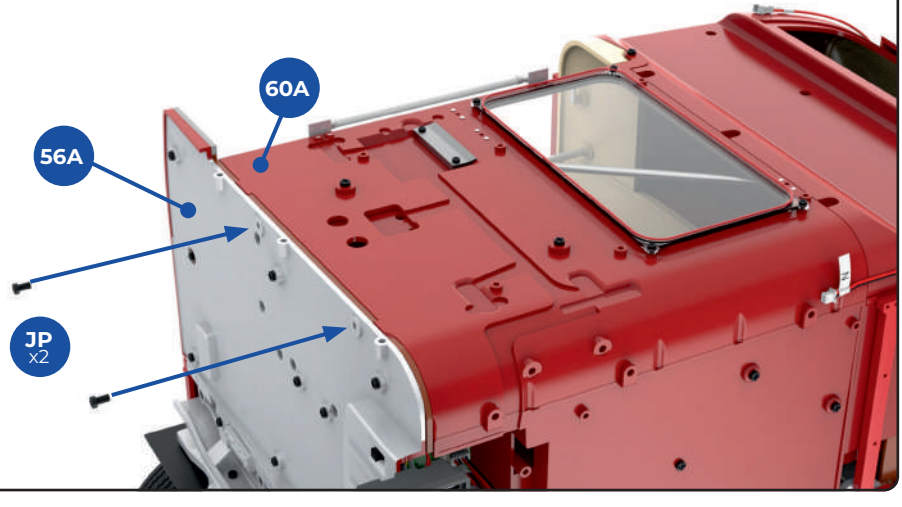
3



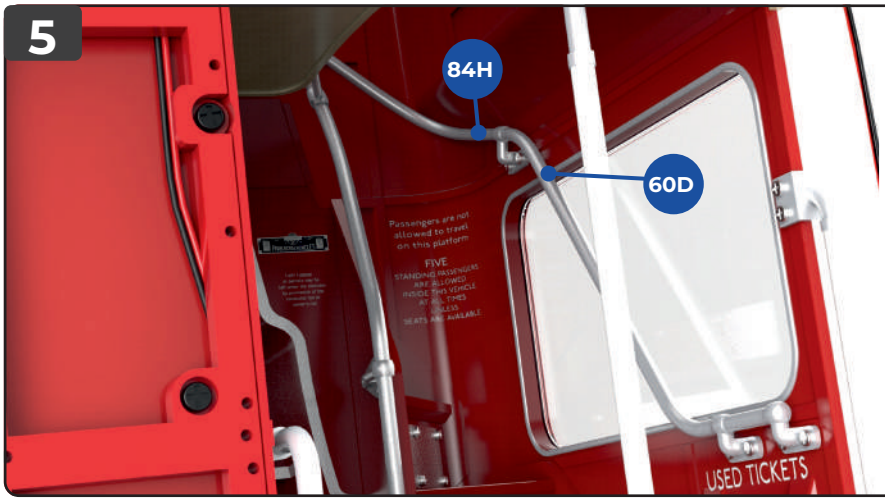
3 Fix the screw socket bracket at the top of the platform rear wall **60A** to the lower deck ceiling **54A** with a **JP** screw. Note the position of the cable.

4

4 On the underside of the model, anchor the platform **56A** to the screw sockets on the platform rear wall **60A** with two **JP** screws. (The screw sockets were fitted in place in step 2.)

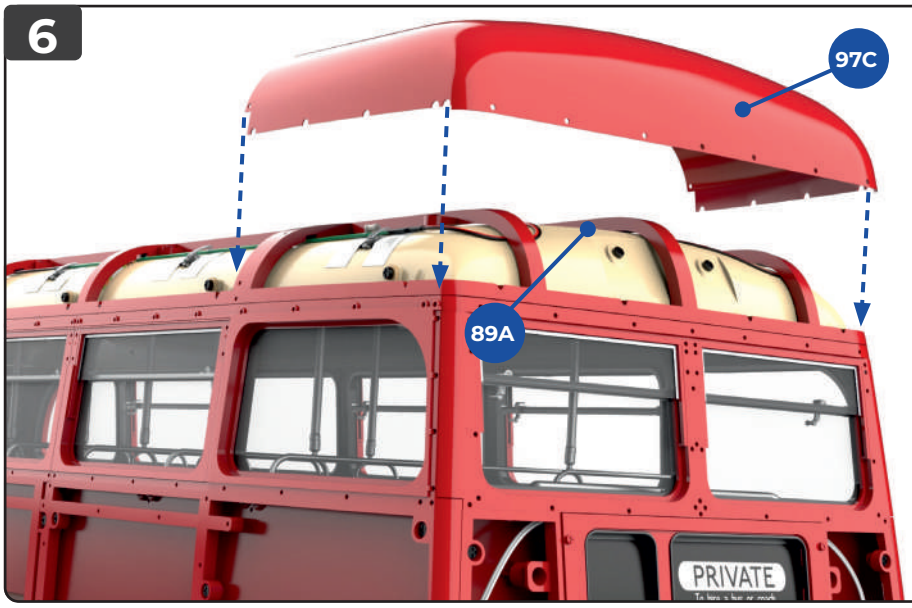


5



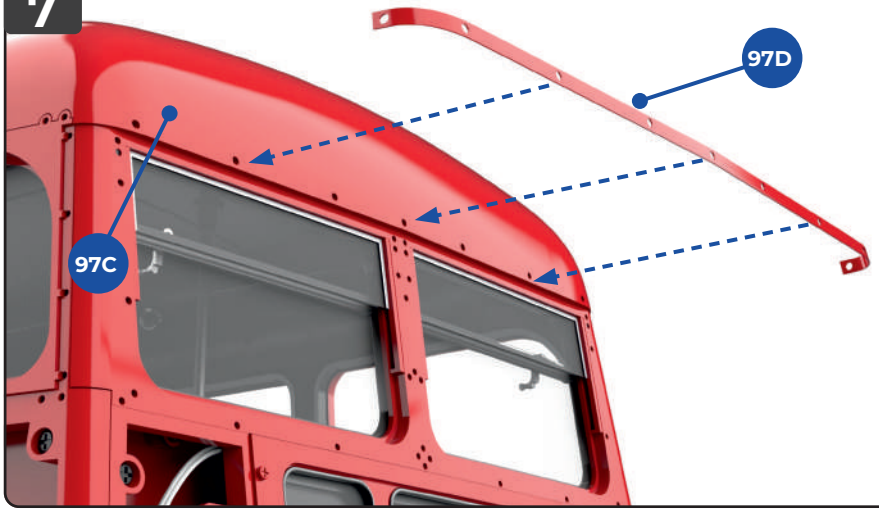
5 On the inside of the platform, using long tweezers, manoeuvre hand rail **84H** to fit into handrail **60D**.

6



6 Position the roof panel **97C** on the top of the model, over the upper deck ceiling frame **89A**, as shown here.

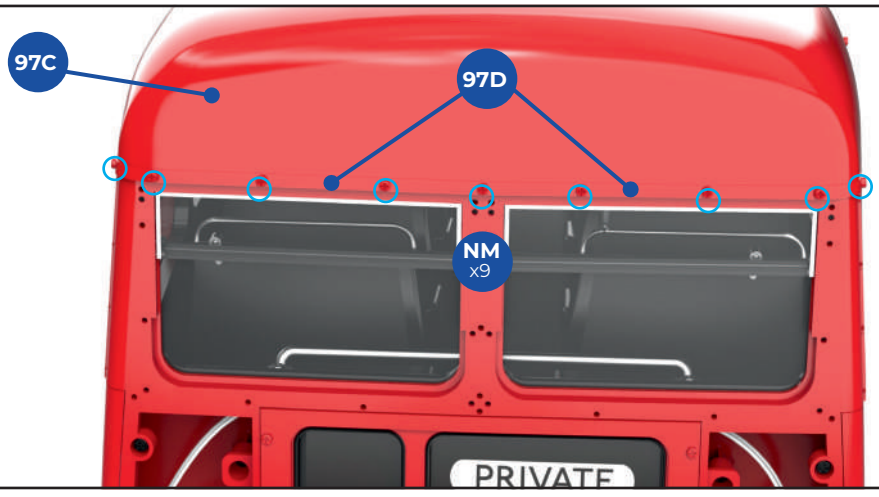
7



7 Position the front strip **97D** around the lower front edge of the roof panel **97C**, checking that it is central and the screw holes are aligned. The ends of the strip will be bent around the sides of the roof, but do not bend the strip until it has been fixed in place across the front of the bus (see step 8).

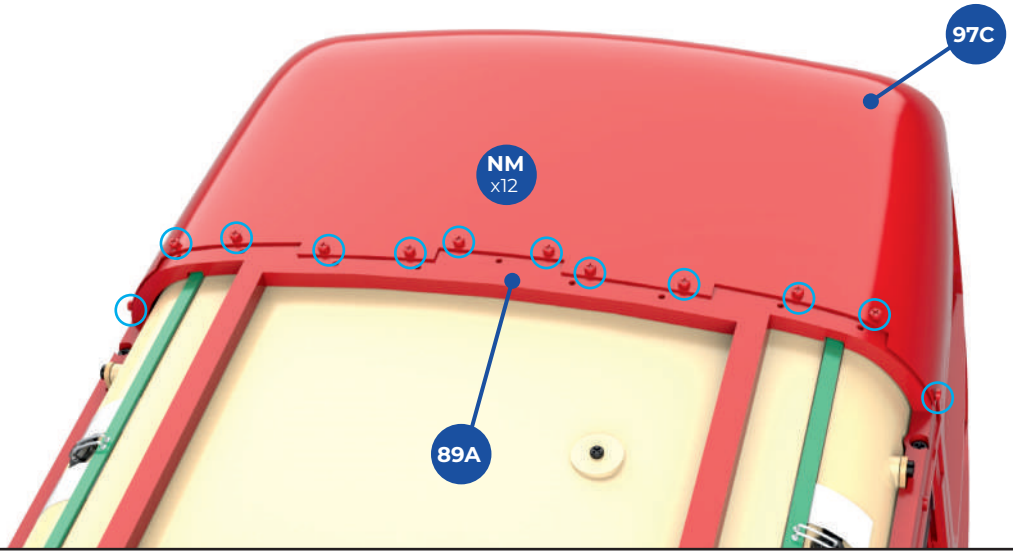
8

8 Fix the front strip **97D** to the roof panel **97C**, using nine red **NM** screws (circled in light blue). Start from the middle and work outwards, bending the ends around to the side of the roof before fitting the last two screws.



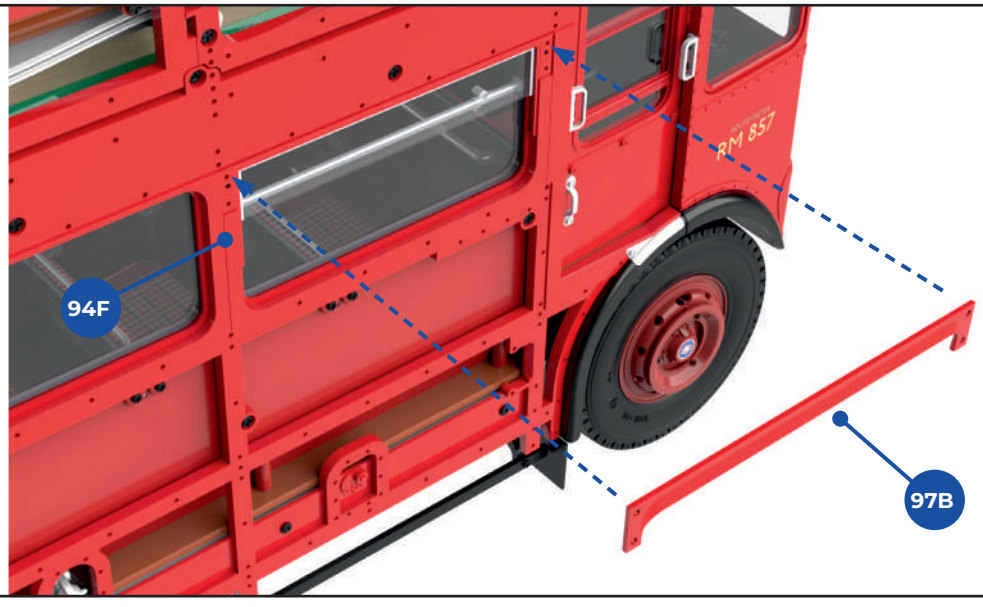
9

9 Fix the roof panel **97C** in place with 12 **NM** red screws (circled in light blue).

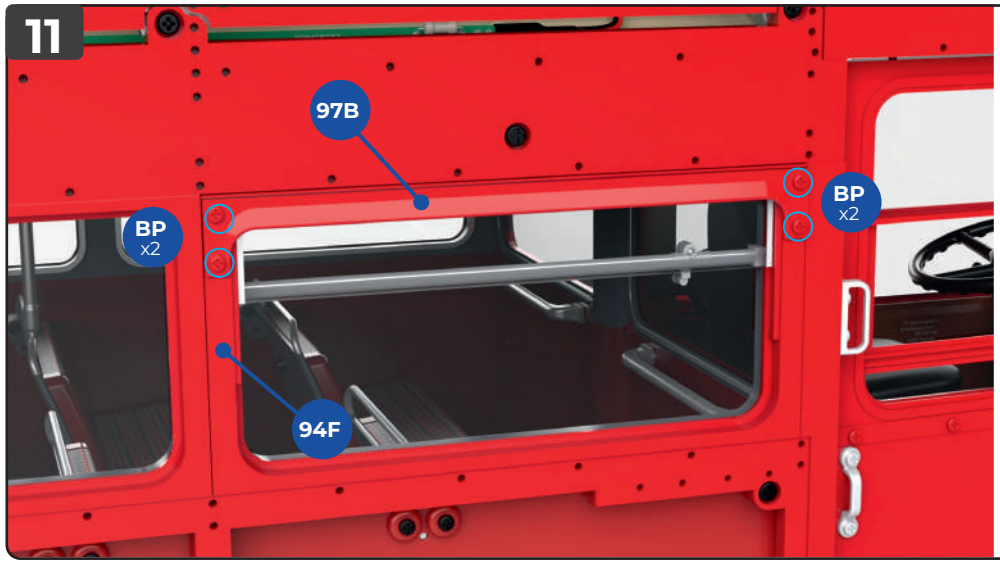


10

10 Take the first lower deck rain shield **97B** and position it above the first window behind the driver's door on the righthand side of the model. Ensure the screw holes in part **97B** align with those in the frame **94F.**

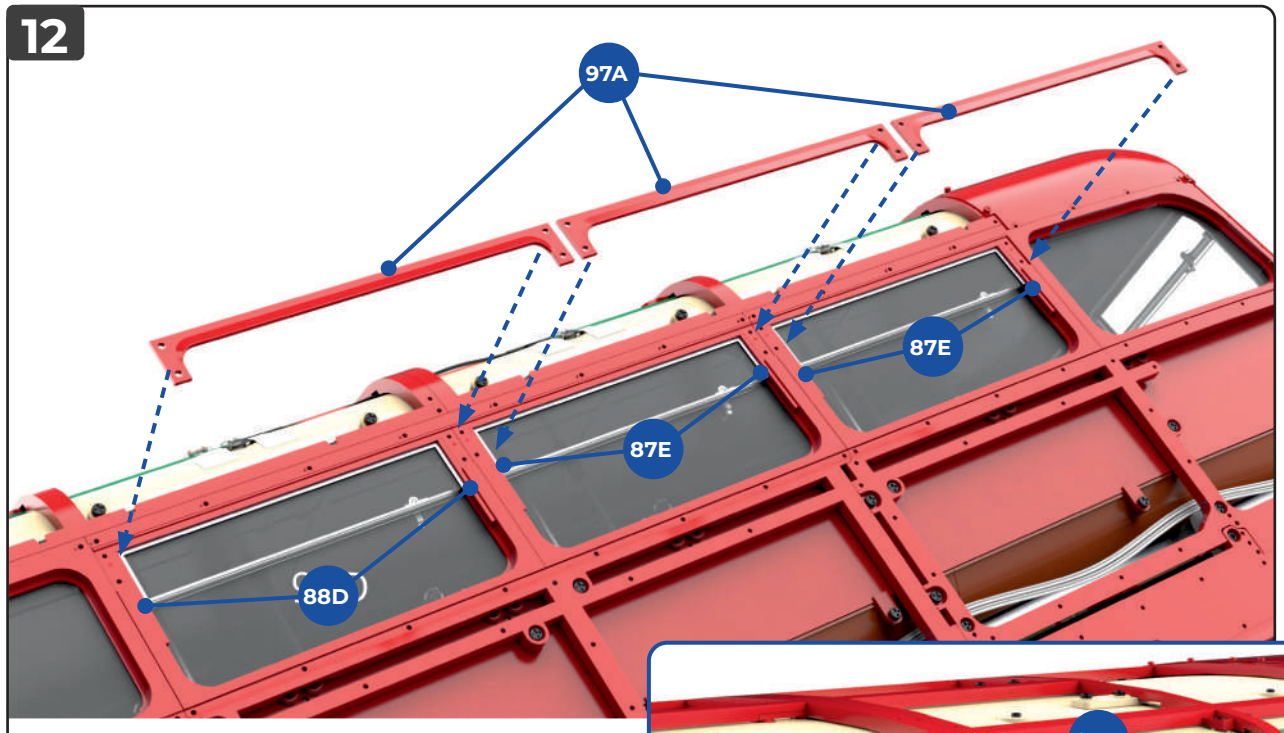


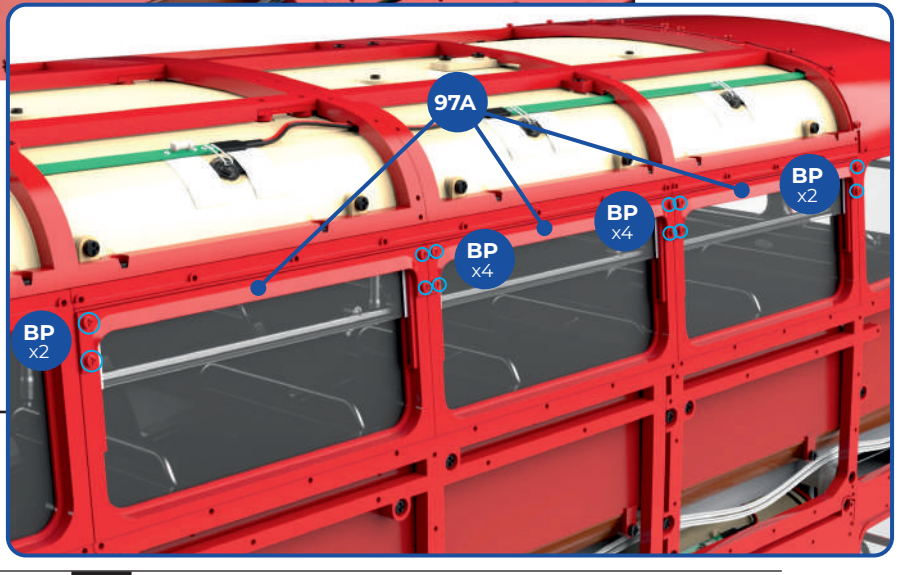
11



11 Fix the rain shield **97B** in place with two red **BP** screws on each side (circled in light blue).

12

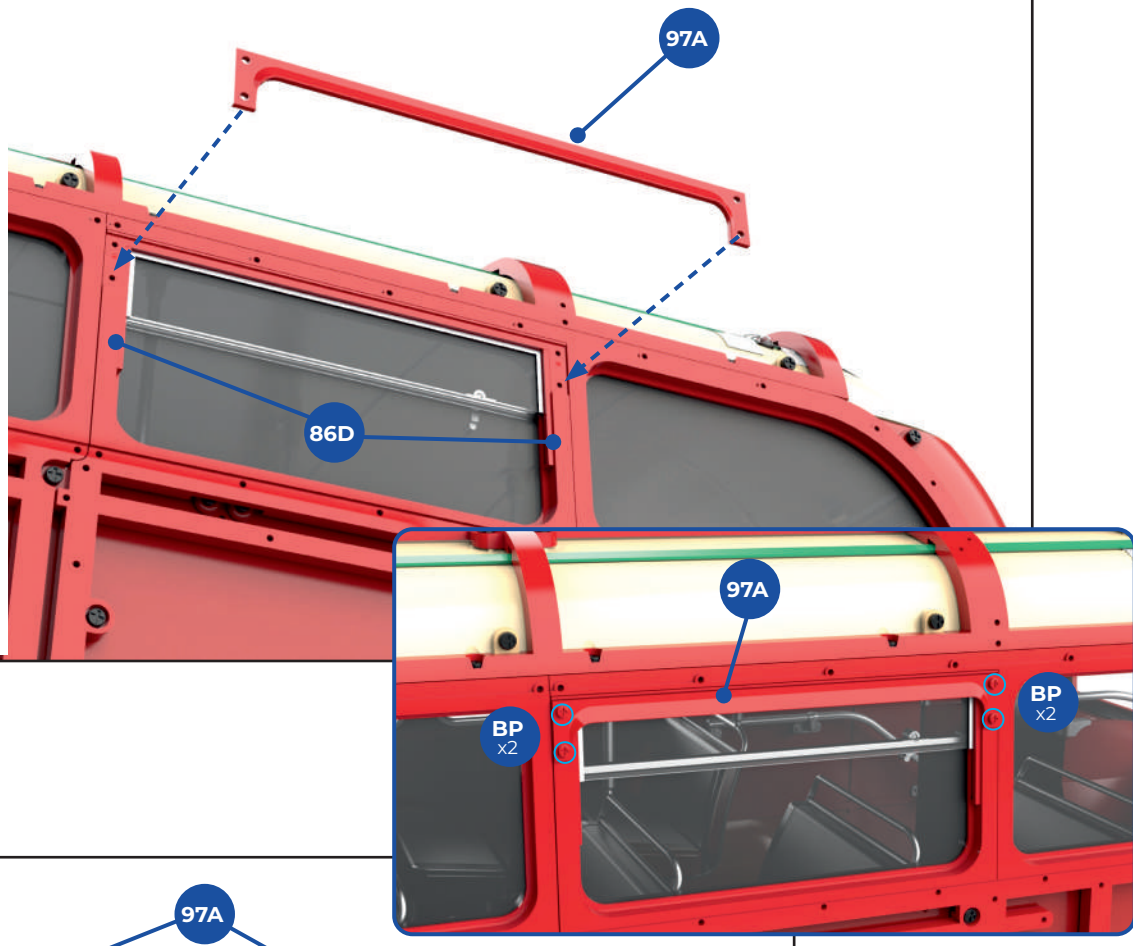




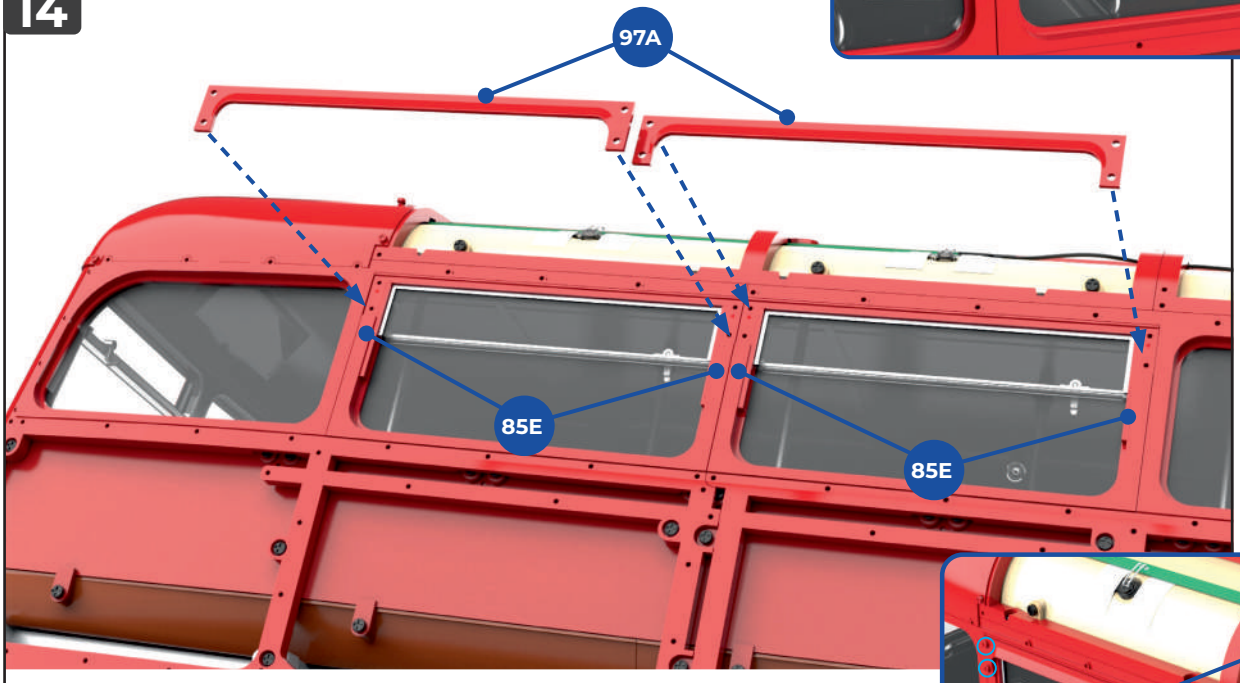
12 Take three upper deck rain shields **97A** to fit above the front three opening windows on the righthand side of the upper deck. Ensure that the screw holes in the rain shields are aligned with the holes in frames **87E** and **88D**. Fix in place with two red **BP** screws on each side of each rain shield (circled in light blue, inset).

13

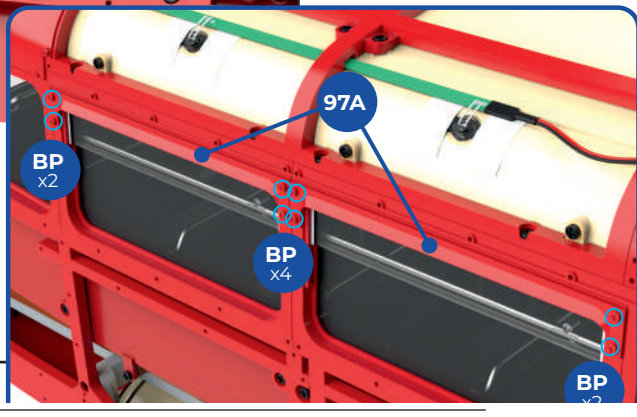
13 Position an upper deck rain shield **97A** above the rear opening window on the lefthand side of the upper deck. Ensure that the screw holes in the rain shield are aligned with the holes in frame **86D**. Fix in place with two red **BP** screws on each side (circled in light blue, inset).

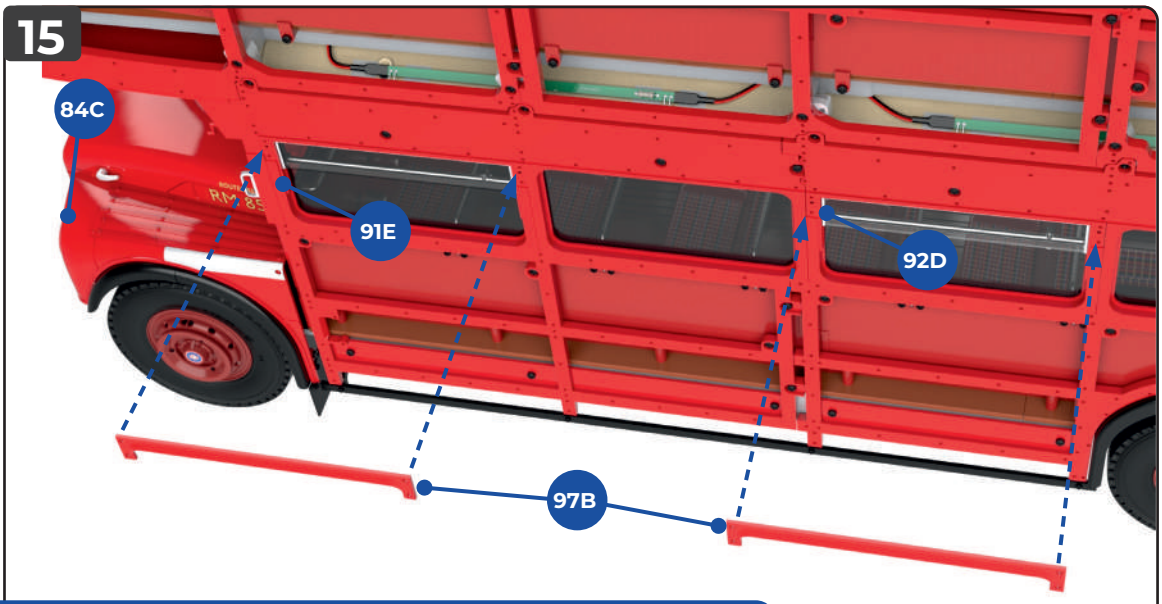


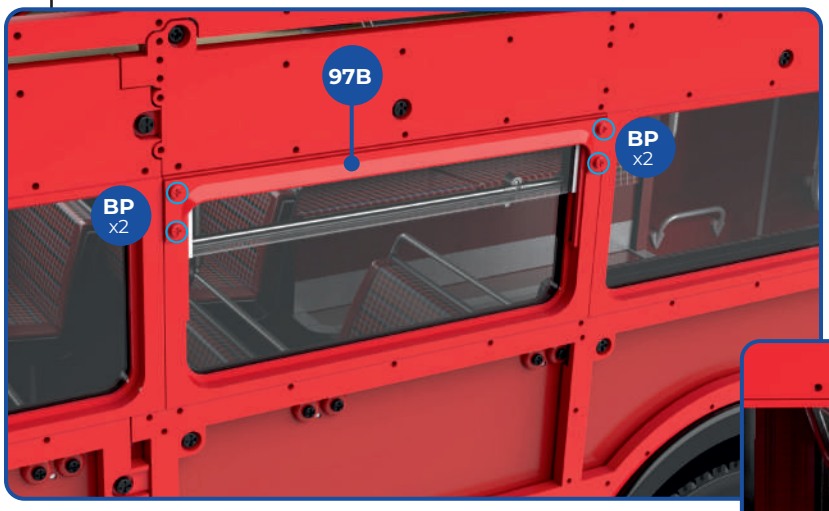
14



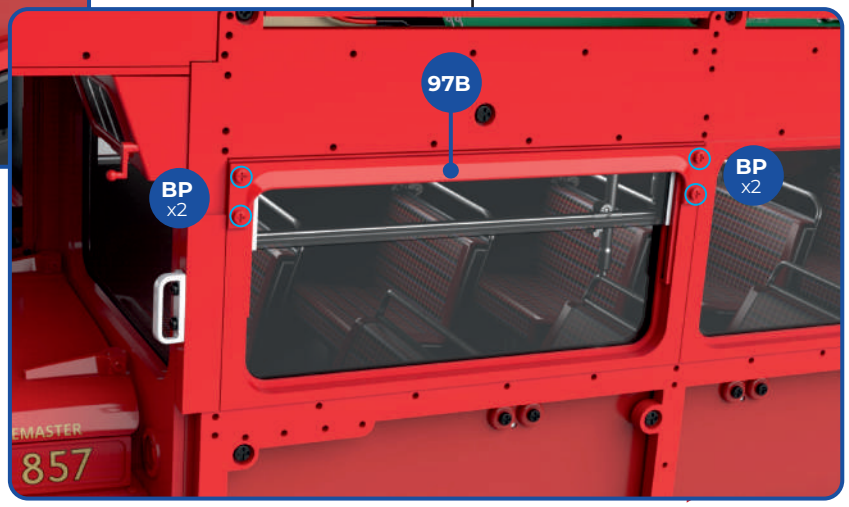
14 Position two upper deck rain shields **97A** above the front two opening windows on the lefthand side of the upper deck. Ensure that the screw holes in the rain shields are aligned with the holes in frames **85E**. Fix in place with two red **BP** screws on each side (circled in light blue, inset).



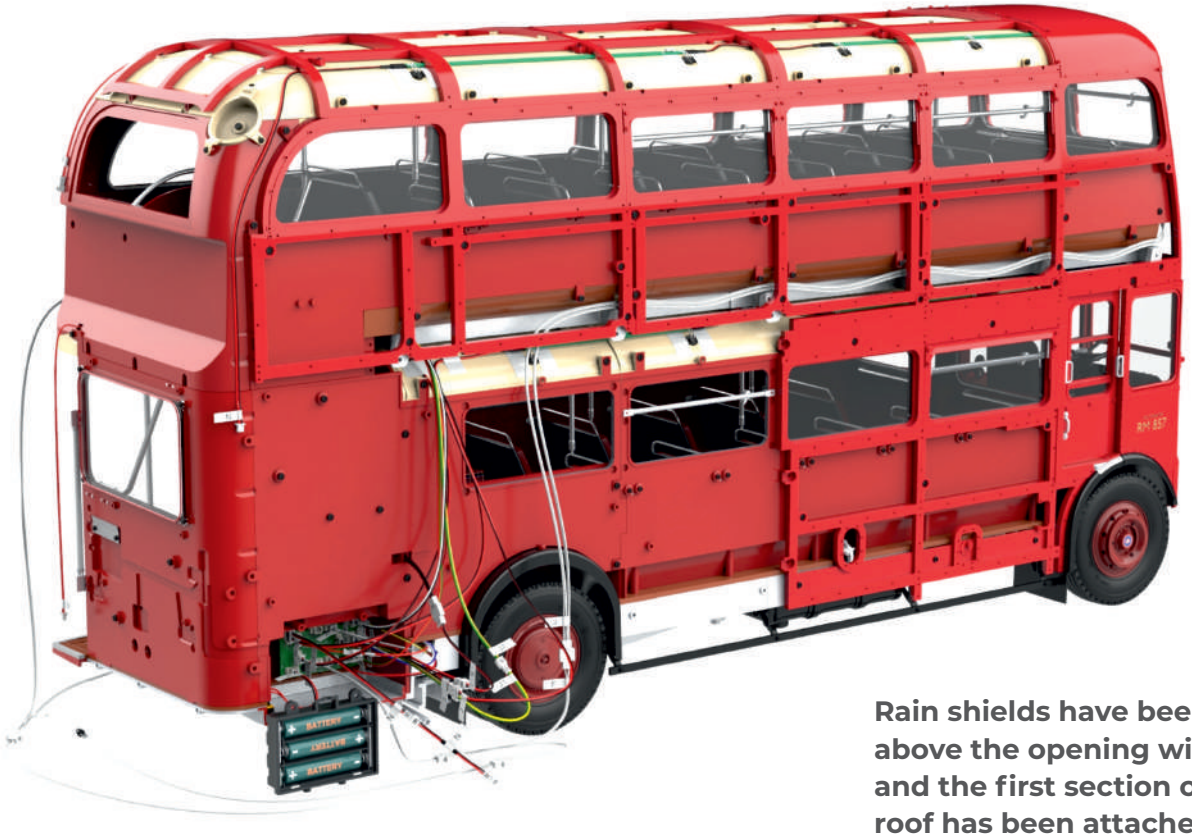




15 Position the last two lower deck rain shields **97B** above the front two opening windows on the lefthand side of the lower deck. Fix in place with two red **BP** screws on each side (circled in light blue, inset left and below).



Finished Views

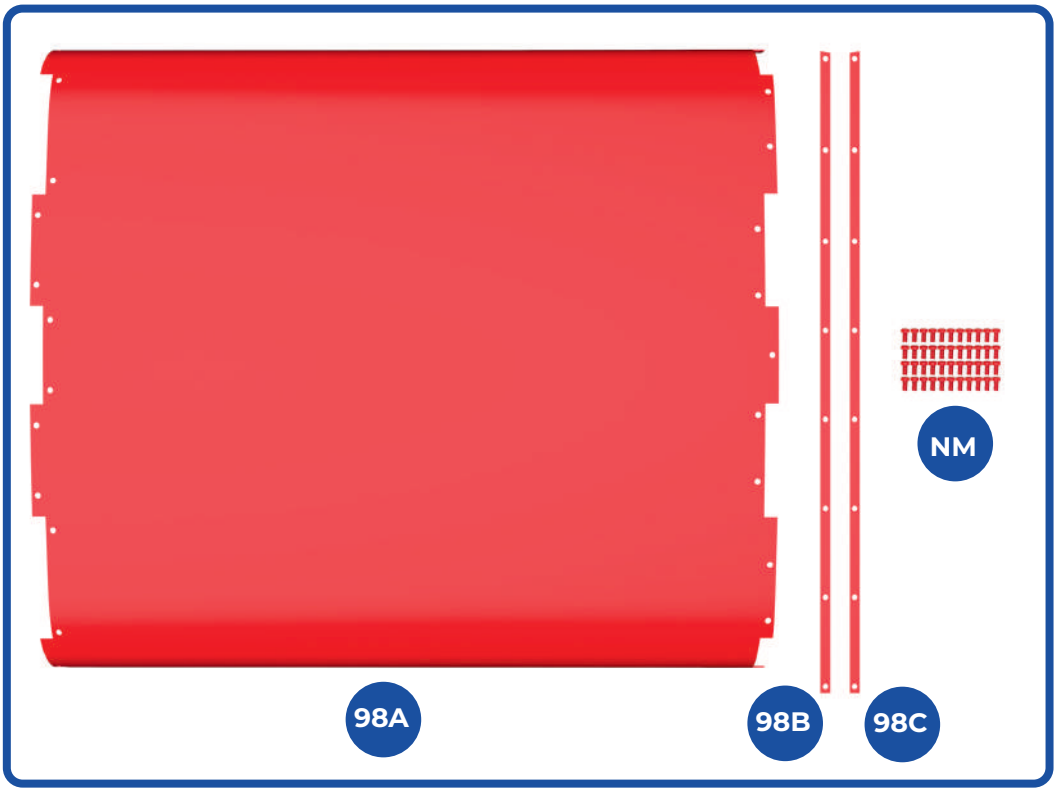


Rain shields have been fitted above the opening windows, and the first section of the roof has been attached. Store the spare lower deck rain shield carefully until needed.

STAGE 98

ORGANISING THE WIRING AND FITTING A ROOF PANEL

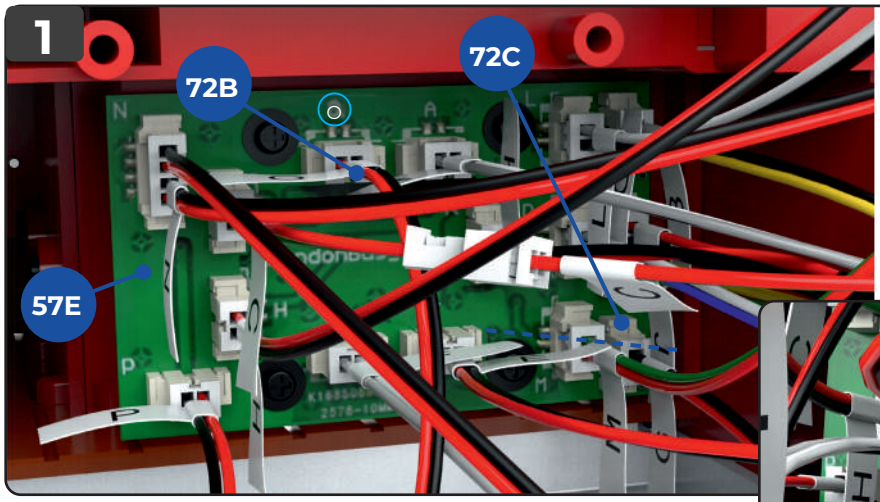
The second roof panel is supplied, together with finishing strips. We also arrange the wiring neatly around the circuit board.



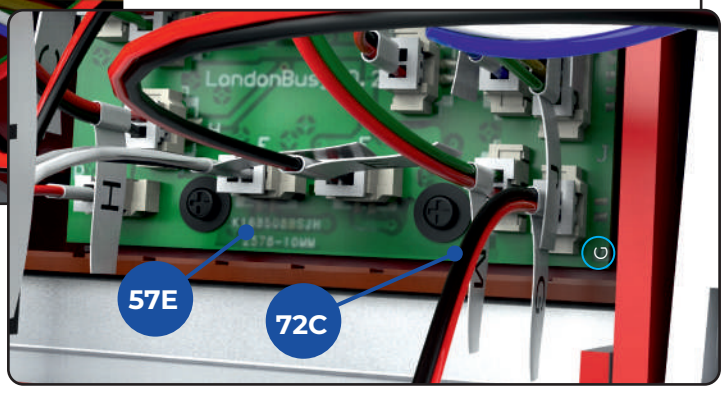
KEY TO PARTS

98A	Roof panel
98B	Side strip (marked A190)
98C	Side strip (marked A190M)
NM	1.5 x 3mm (x44, red)

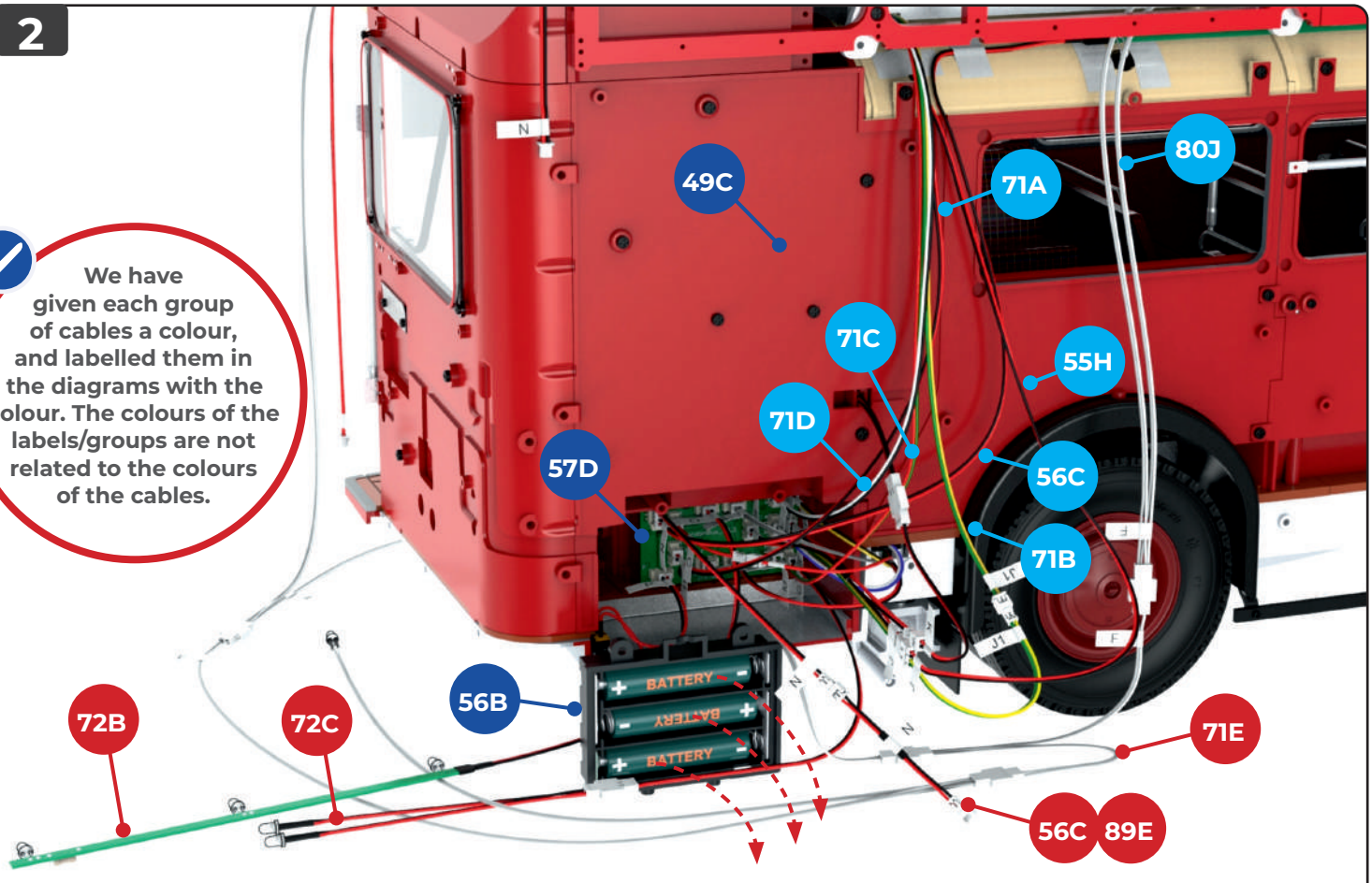
Some of the screws used in the following instructions were supplied with stage 96.



1 Plug cable **72B** (labelled O) and **72C** (labelled G, inset) back into the circuit board **57E**. Ensure that each of the sockets on the circuit board has a cable plugged into it, and that that the labels on the cables match the letters on the circuit board.



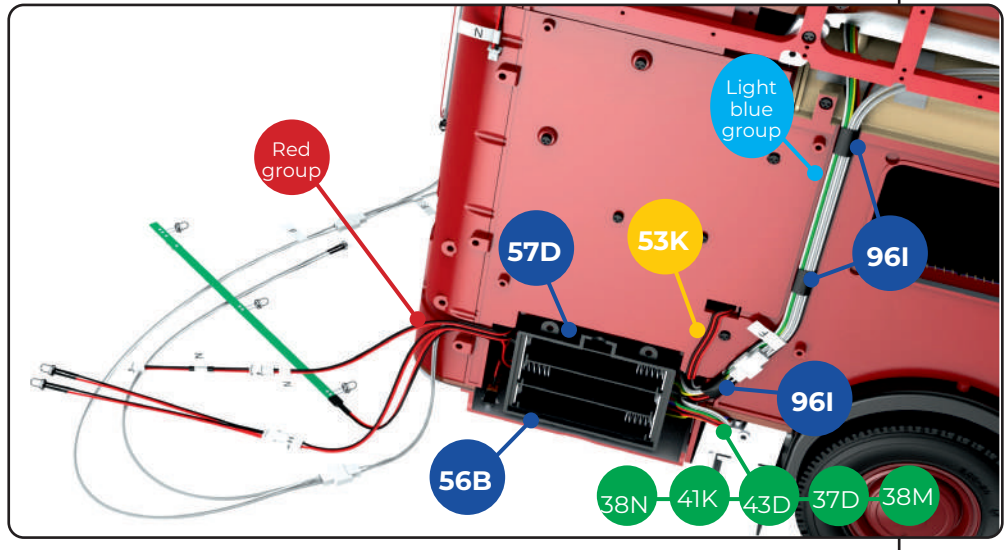
2



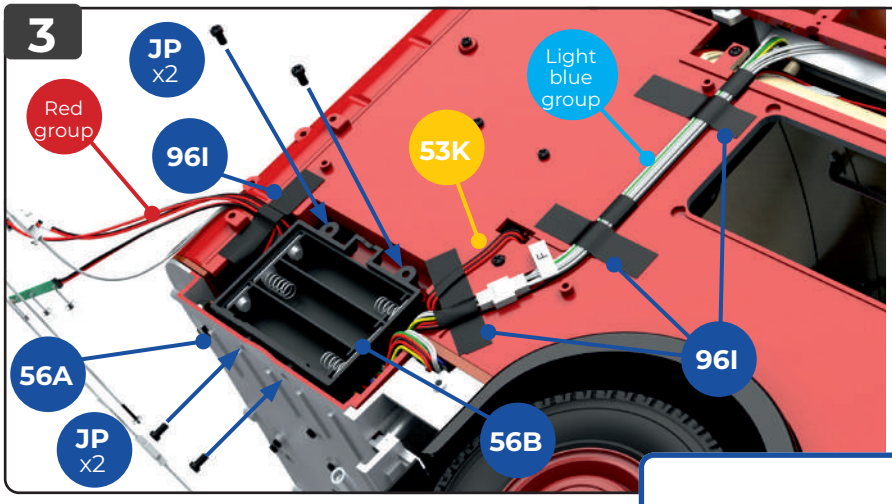
We have given each group of cables a colour, and labelled them in the diagrams with the colour. The colours of the labels/groups are not related to the colours of the cables.

2 Group the cables together into strands as follows:

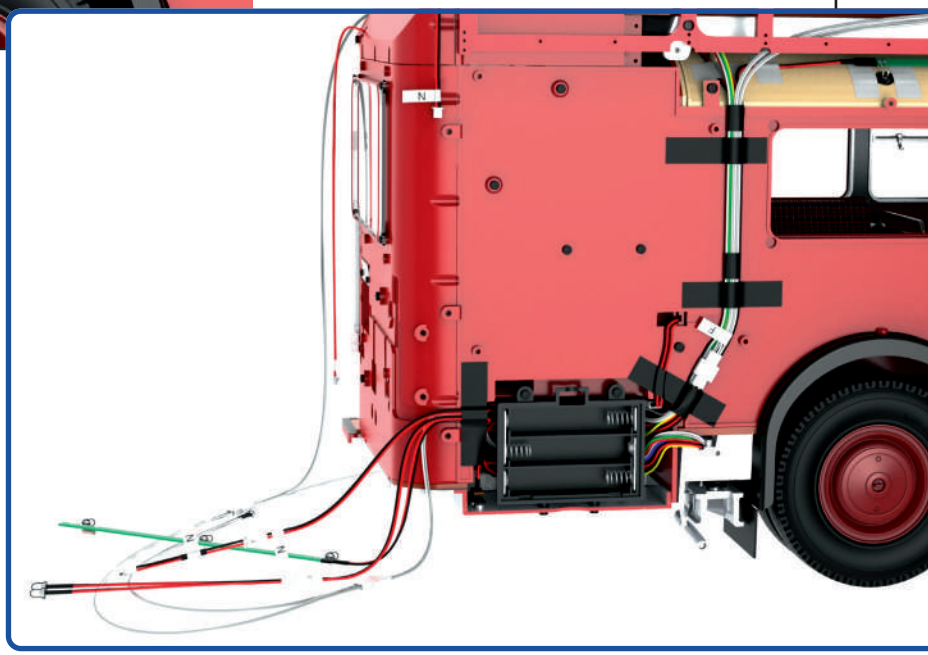
- Take the cables (labelled above in light blue) coming down from the upper deck **55H** (J), **56C** (N), **71A** (H), **71B** (J1), **71C** (M), **71D** (L) and **80J** (F) and arrange them the wall panel **49C**. When you are happy with the fit, wrap strips of tape **96I** around them to hold them together (inset).
- Group together the cables (labelled in green, inset) **38N** (B), **41K** (C), **43D** (D), **37D** (E) and **38M** (A). Arrange them together so that they come from beneath the model to the circuit board.
- Group together cables (labelled in red) **72B** (O), **71E** (F), **72C** (G) and **56C** (N, connected to **89E**), bringing them together through the recess at the rear of the model (inset).
- Note the position of cable **53D** (K), labelled in yellow in the inset.

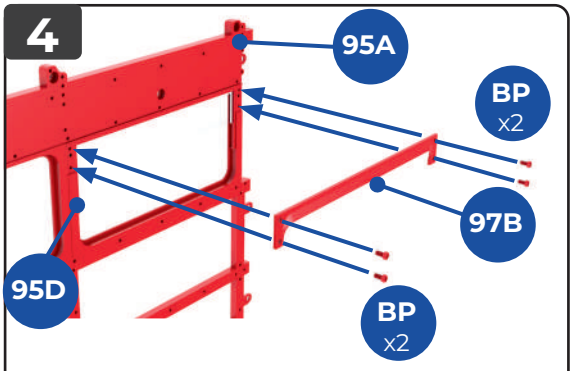


- Remove the batteries from the battery box **56B** (red dotted arrows, top diagram).
- Arrange any excess length of the grouped cables around or across the circuit board. Position the battery box **56B** in front of the circuit board so that the holes at the top are aligned with the screw holes in part **57D**.

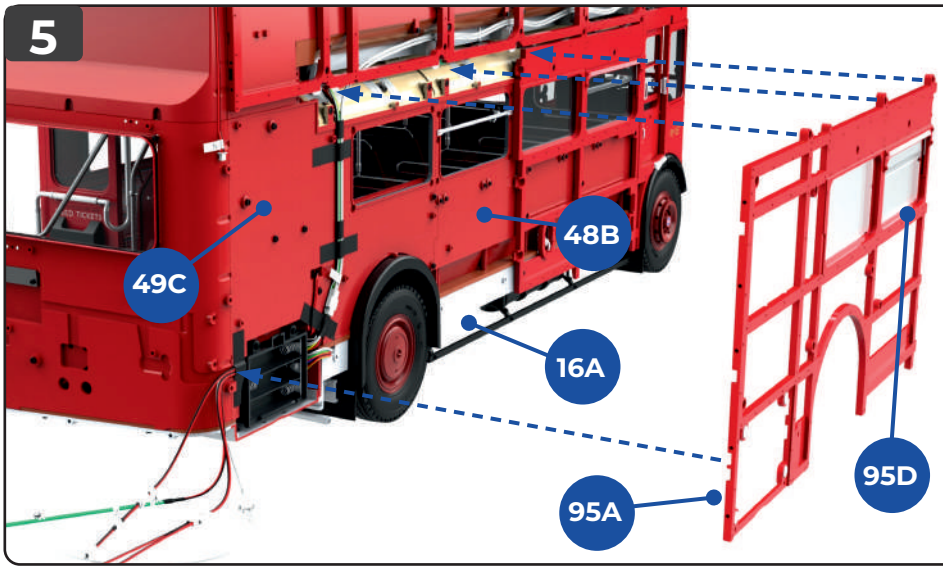


3 Fix the top edge of the battery box **56B** in place with two **JP** screws (supplied with stage 96). Use two more **JP** screws to fix the battery box to the rear platform **56A**, inserting them from the underside of the rear platform. Use four strips of tape **96I** to fix the 'red', 'light blue' and 'yellow' (**53K**) cables in place. The inset below shows the finished arrangement of the cables.

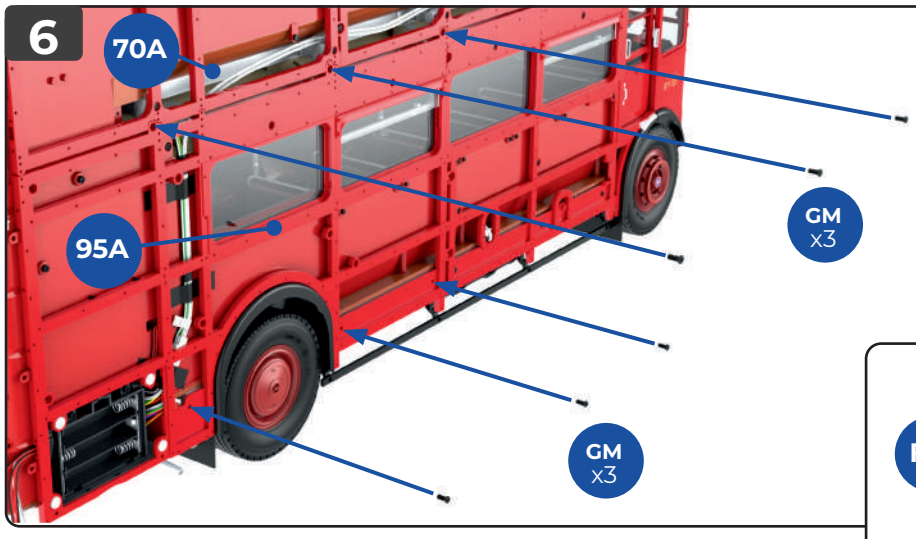




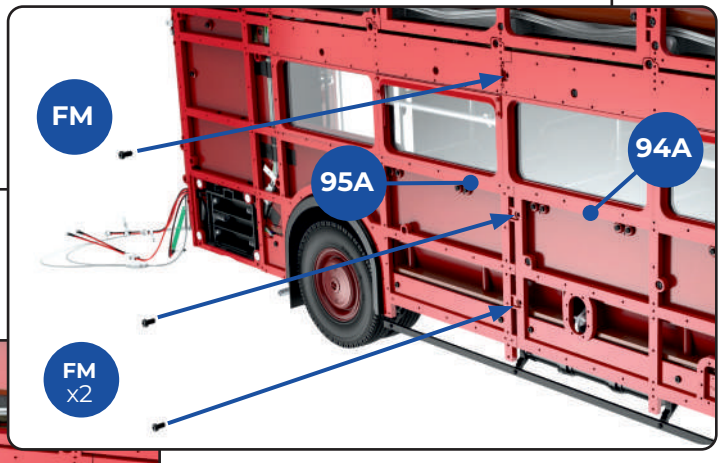
4 Fit the rain shield **97B** (supplied with the previous stage) against the window frame (**95D**) in the rear right wall frame **95A**. Fix in place with four red **BP** screws.

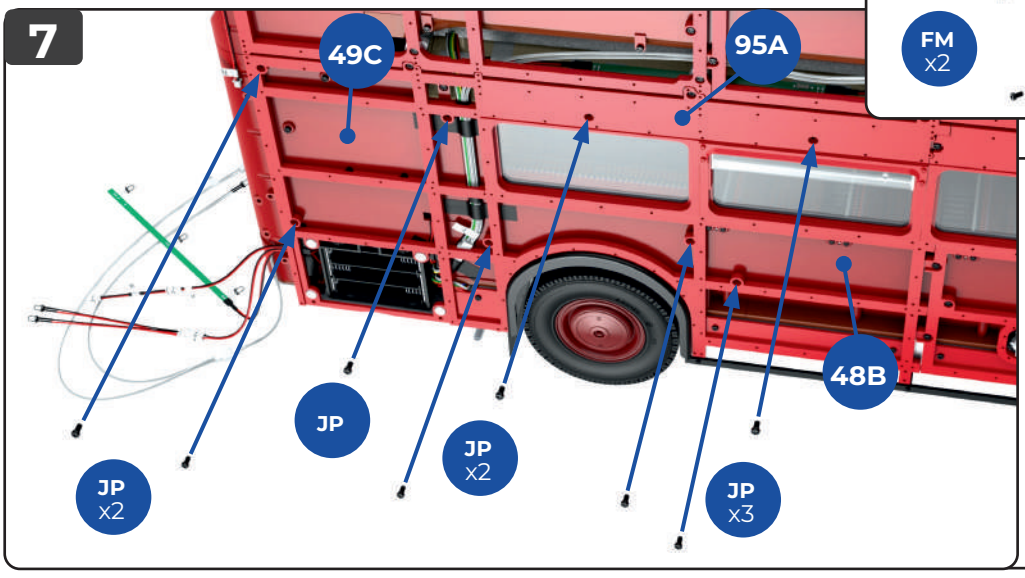


5 Position the right wall framework **95A** aganst the rear right wall of the model. The tabs along the top of part **95A** fit into recesses in the upper wall framework. At the right rear corner, the cables running across part **49C** fit into a recess in the framework **95A**. At the base of the framwork, screw holes align with holes in the rear chassis frame **16A**.

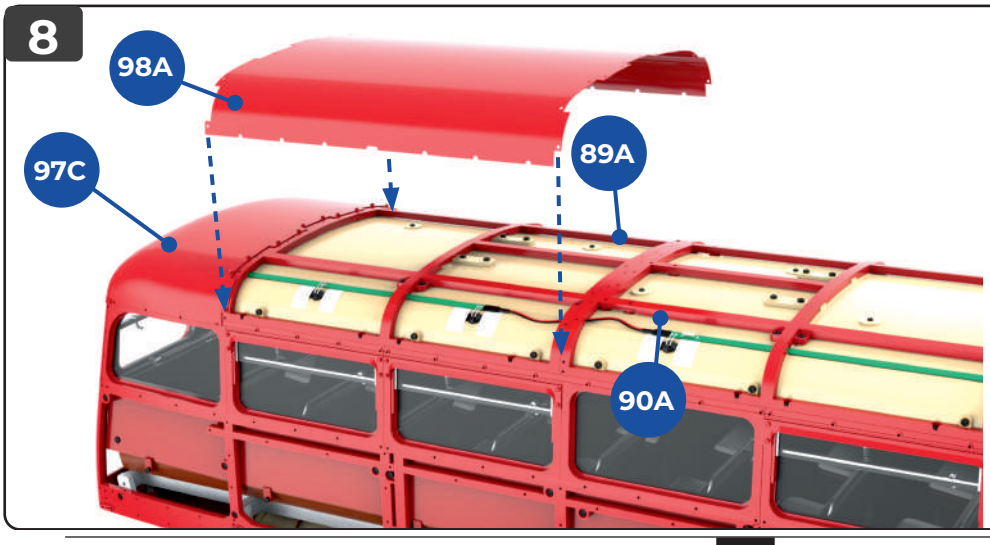


6 Start to fix the rear right wall framework in place using **GM** screws. There are three along the top, fixing into the lower deck ceiling framework **70A** and three along the bottom. Fix the right wall framework **95A** to framework **94A** with three **FM** screws (inset).



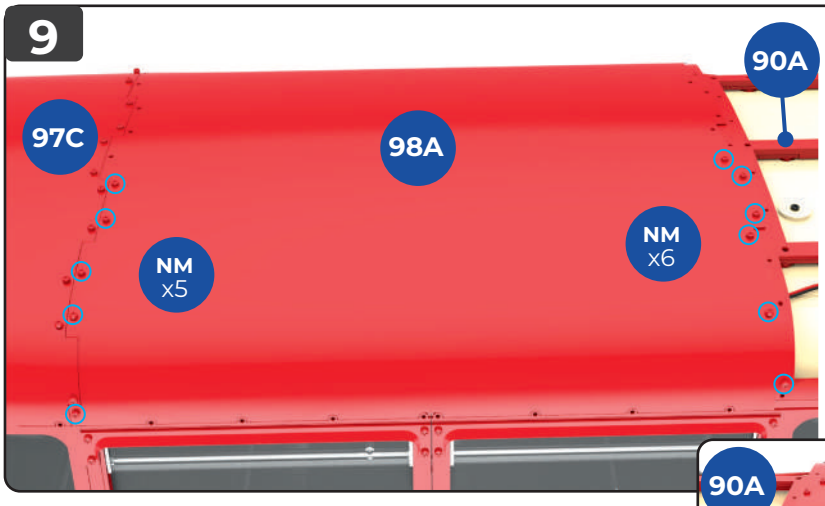


7 To complete the fixing of frame **95A**, use eight **JP** screws to fix it to side walls **49C** and **48B**.

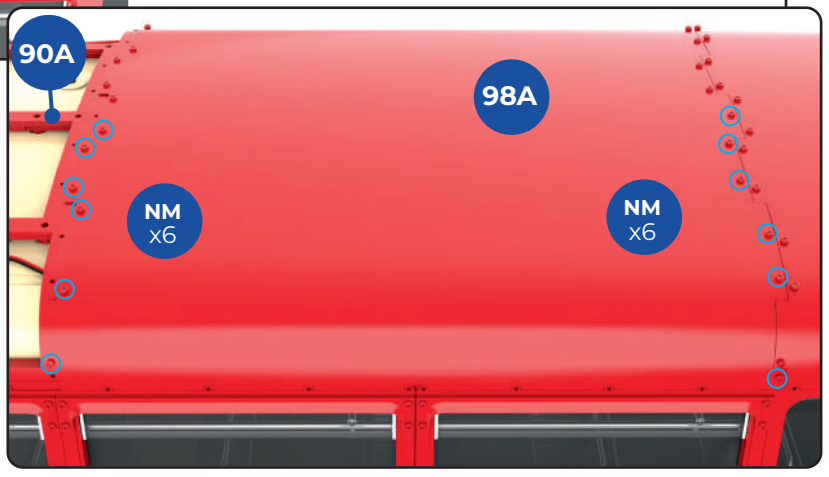


8 Position the roof panel **98A** on top of the model so that it butts up to the front roof panel **97C**.

9



9 Fix the roof panel **98A** in place, using a total of 23 red **NM** screws: the screws at the front fix into ceiling frame **89A**, and along the rear edge they fix into ceiling frame **90A.** The diagram on the left shows the view from the left-hand side, and the inset below shows the view from the right-hand side.



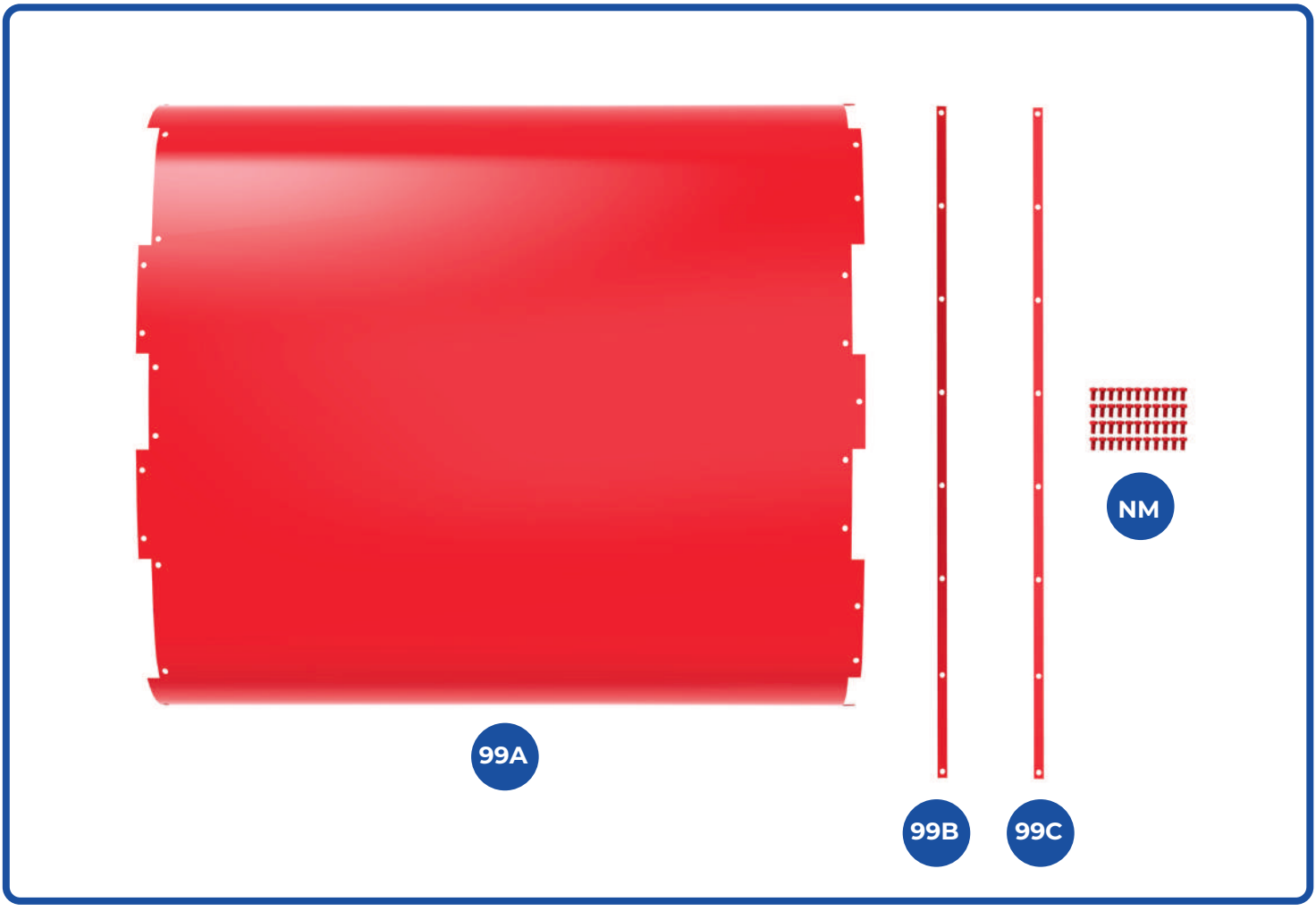
The strips 98B and 98C will be fitted using the remaining red NM screws in the following stage. (The Finished view, below, shows these strips already in place.)

Finished view

STAGE 99

ROOF PANEL AND SIDE STRIPS

The third roof panel is fitted, together with side strips for a neat finish above the upper deck windows.



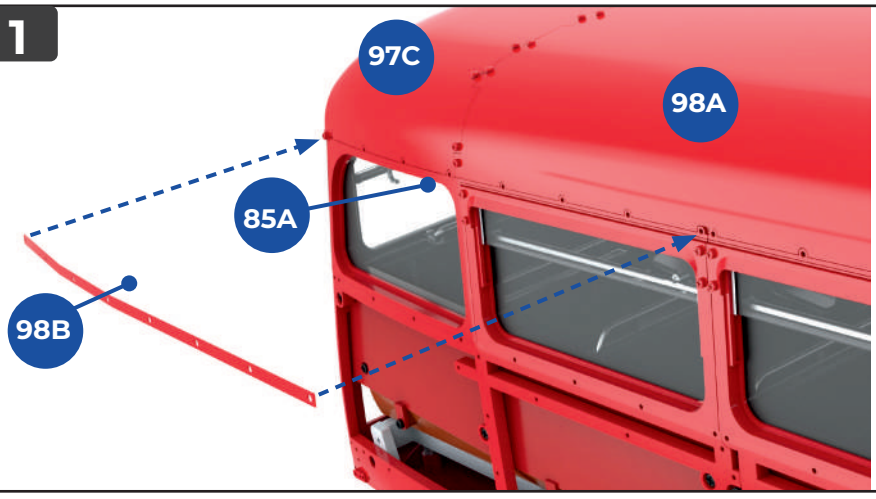
KEY TO PARTS

99A Roof panel
99B Side strip (marked A189)
99C Side strip (marked A189M)

NM 1.5 x 3mm (x44)

You will also need the side strips 98B (marked A190) and 98C (marked A190M) supplied with the previous stage.

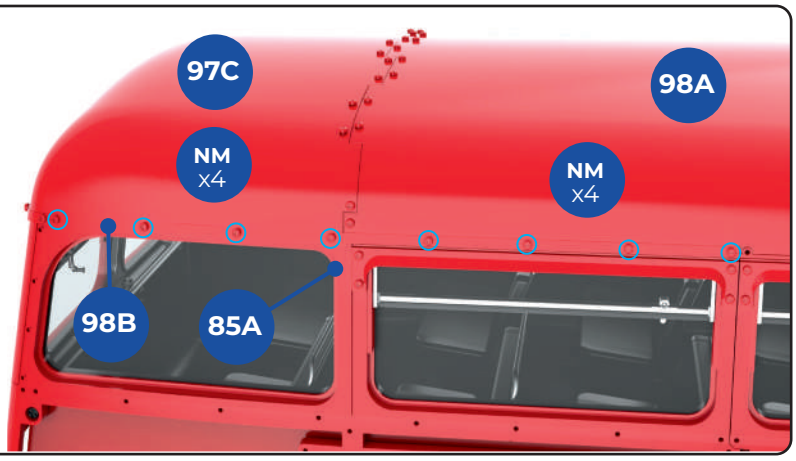
1



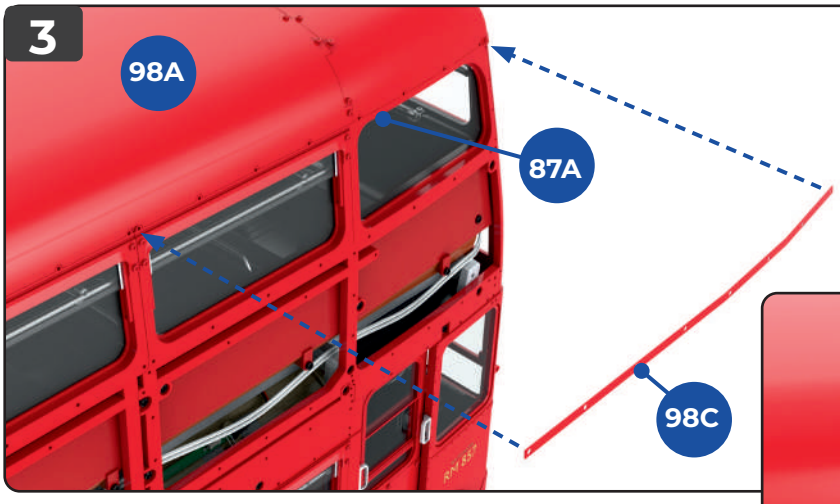
1 Position the left side strip **98B** along the front left side of the upper deck, covering the edge of the roof panels **97C** and **98A**. Note that one end of the strip is slightly angled at the end – this should be at the front of the model.

2

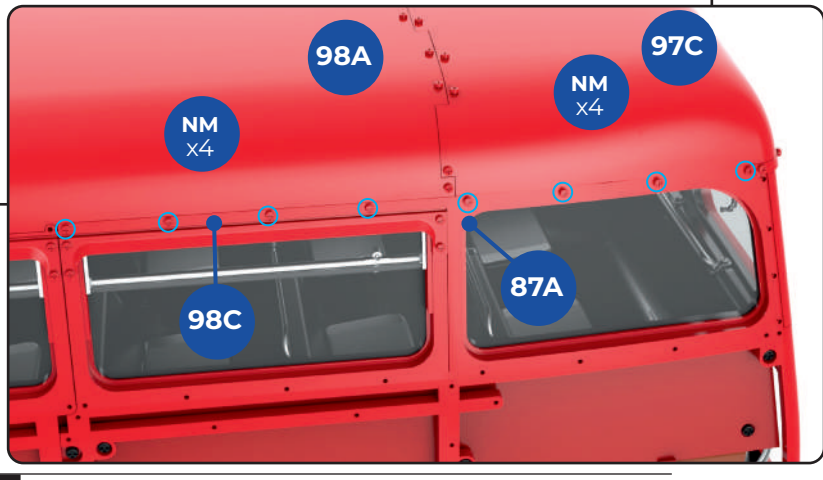
2 Fix the strip to the left wall framework **85A** with eight red **NM** screws. Start from the rear end of the strip and work forwards, so that the strip bends to match the shape of the roof.



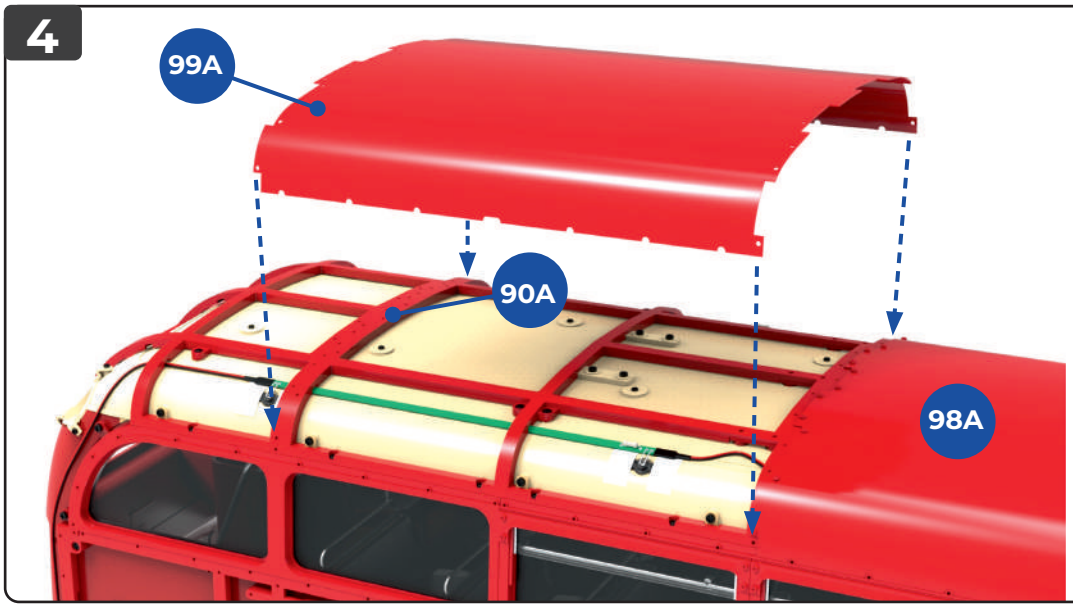
3



3 In the same way, fit the right side strip **98C** to the right-hand side of the model over the edge of the roof panels. Fix in place to framework **87A** using eight red **NM** screws (inset below).

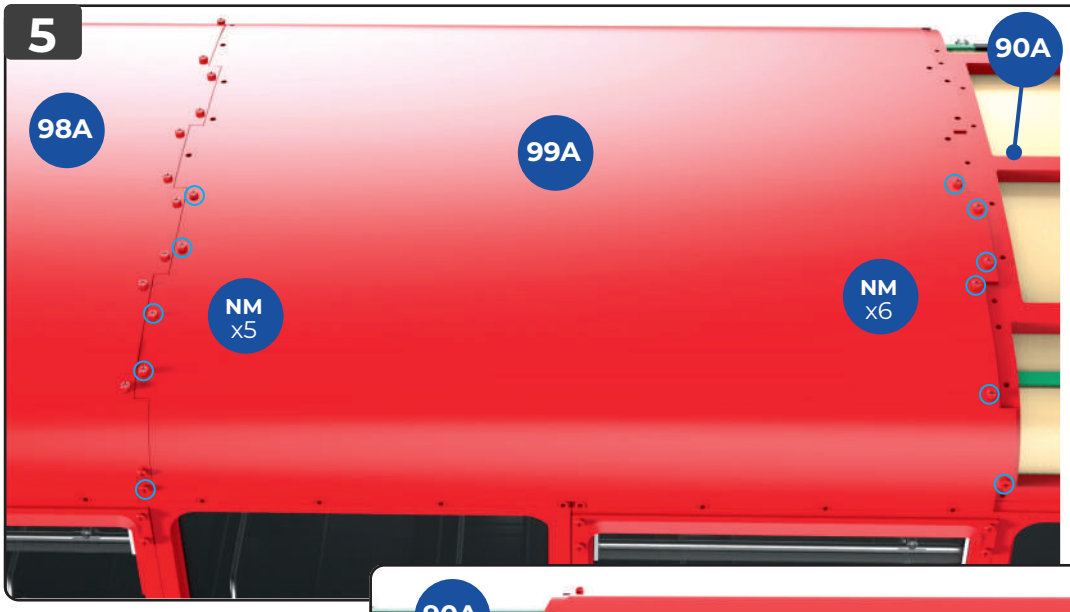


4



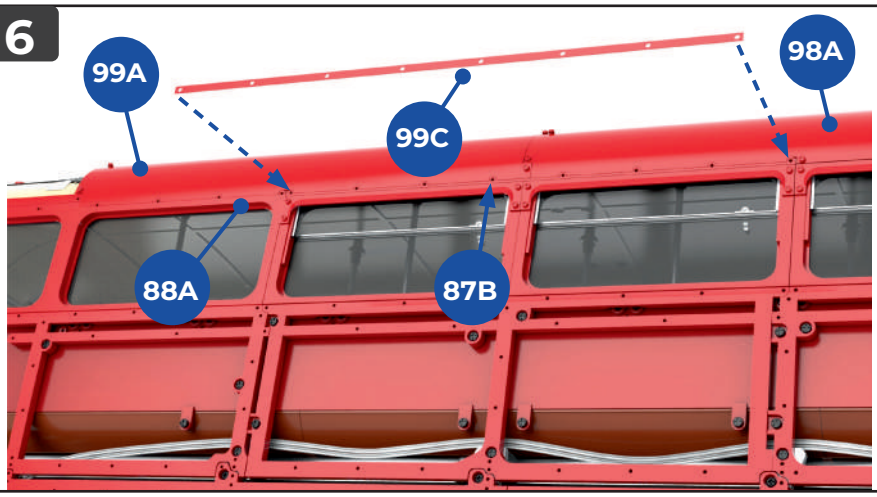
4 Position the roof panel **99A** on top of the ceiling frame **90A** so that it butts up to roof panel **98A**.

5



5 Fix the roof panel **99A** in place to ceiling frame **90A**, using a total of 23 red **NM** screws. The image on the left shows the view from the left side of the bus, and the inset shows the view from the right side of the model.

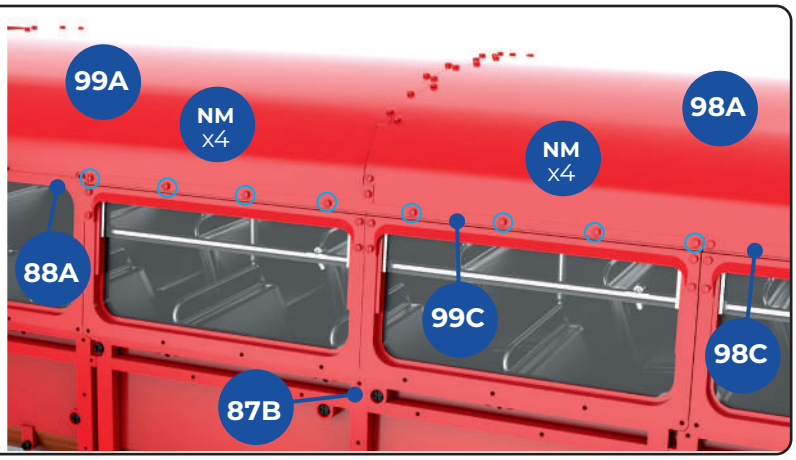
6



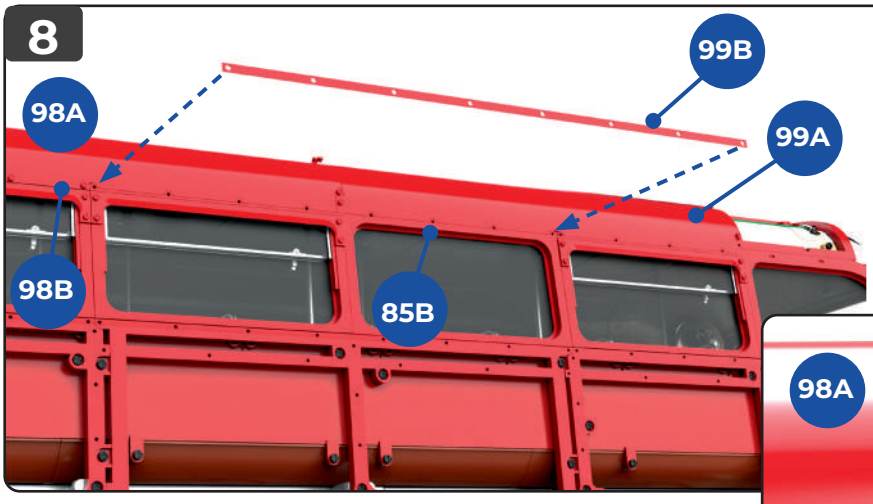
6 Fit the right side strip **99C** (marked A189M on the back) to the right wall frameworks **88A** and **87B**, covering the edge of the roof panels **99A** and **98A**.

7

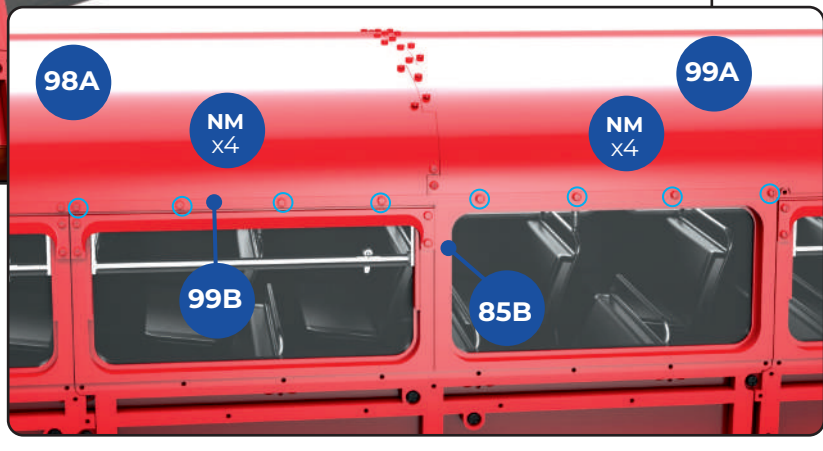
7 Fix the strip to the right wall frameworks **88A** and **87B** with eight red **NM** screws. Ensure that the end of the strip butts up neatly with strip **98C** (fitted in step 3).



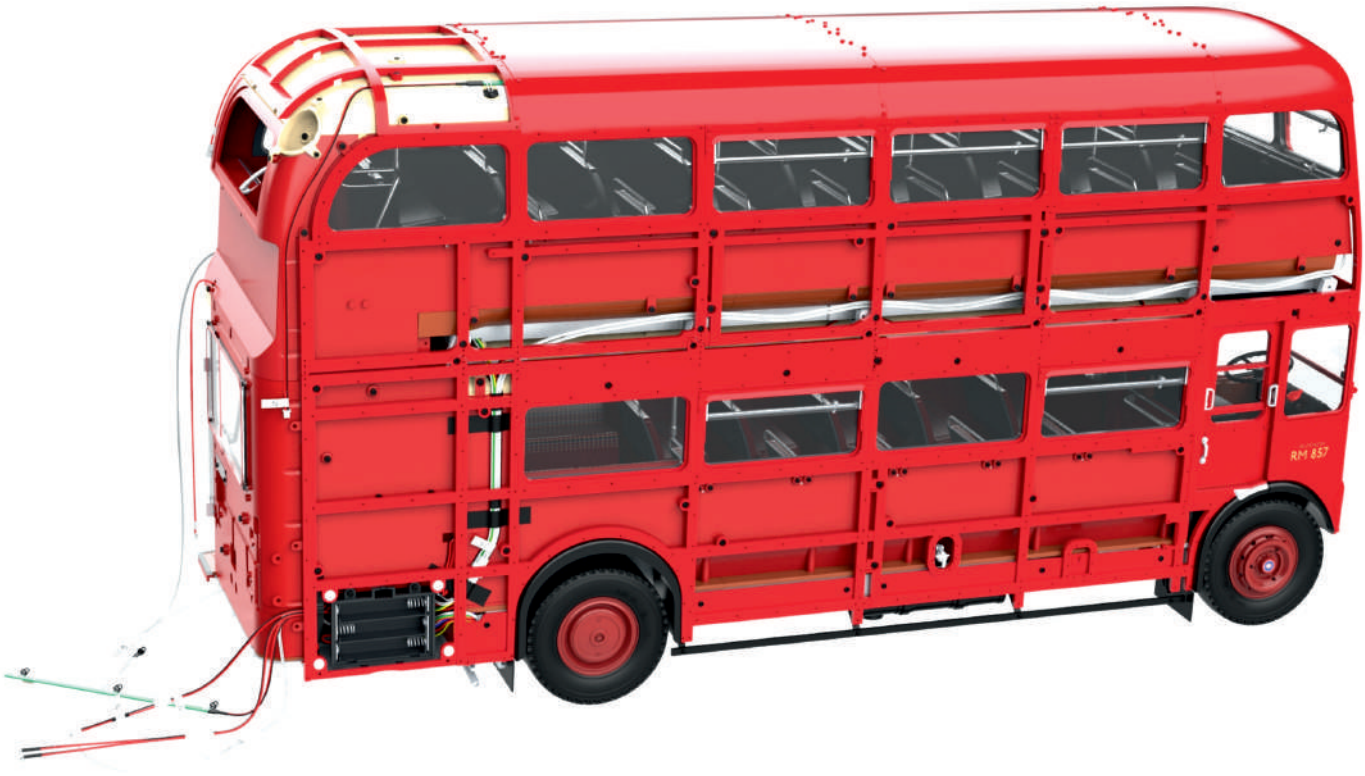
8



8 In the same way, fit the left side strip **99B** to the left-hand side of the model over the edge of the roof panels. Fix in place to framework **85B** using eight red **NM** screws (inset below).



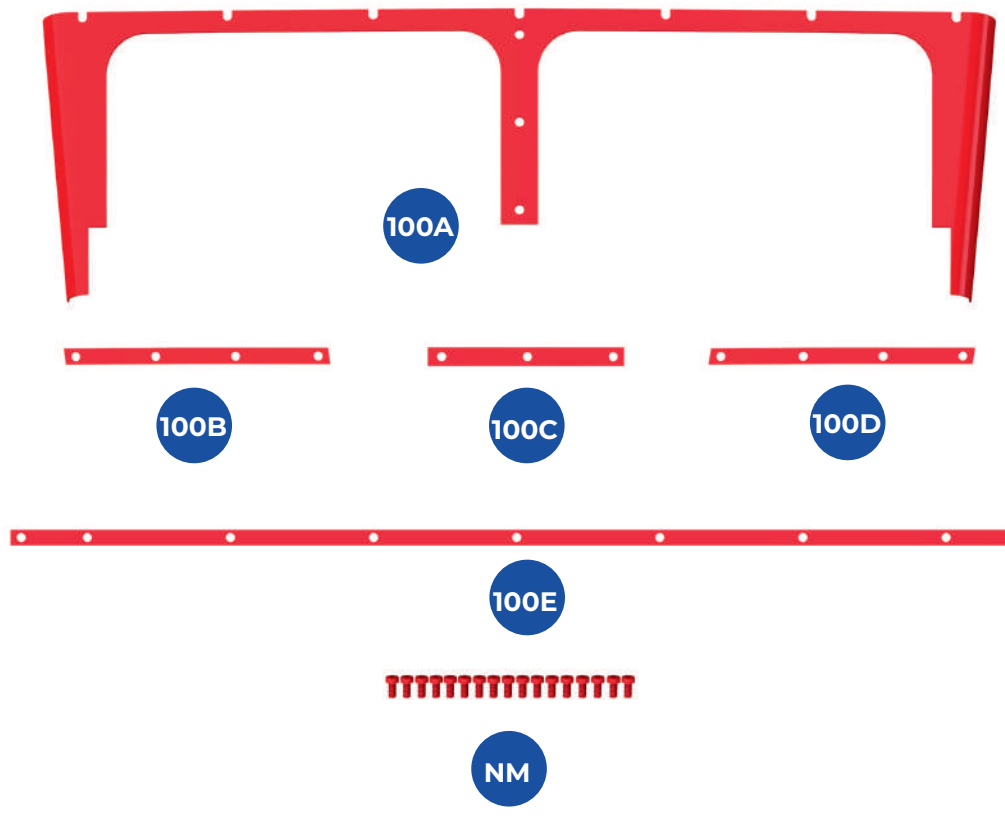
Finished views



STAGE 100

FRONT WINDOW TRIM AND FINISHING STRIPS

A trim is added around the upper deck front windows, together with strips that finish off the joints.

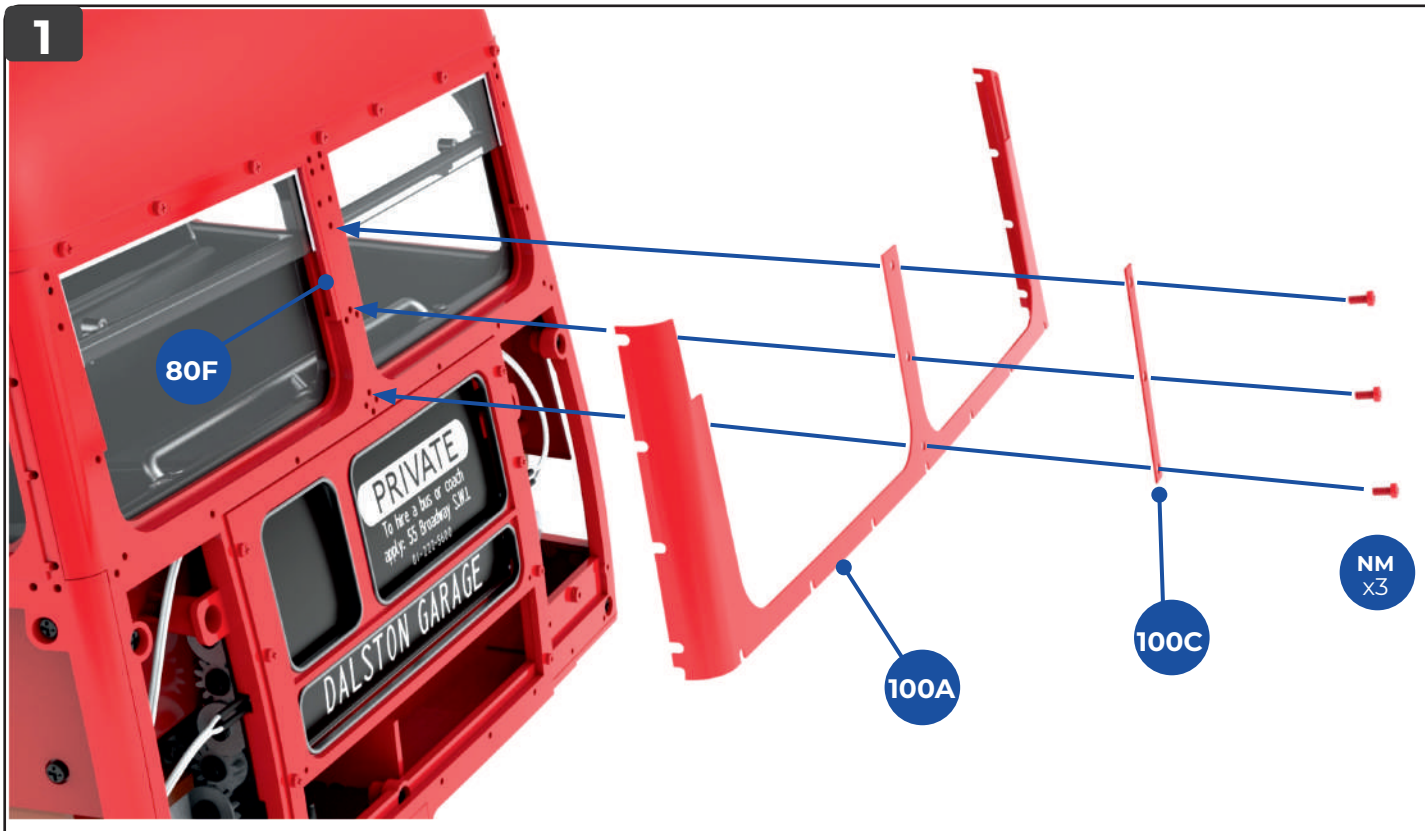


KEY TO PARTS

100A	Front window trim
100B	Strip (marked A199)
100C	Strip (marked A164B)
100D	Strip (marked A199M)
100E	Strip (marked A193)
NM	1.5 x 3mm (x17, red)

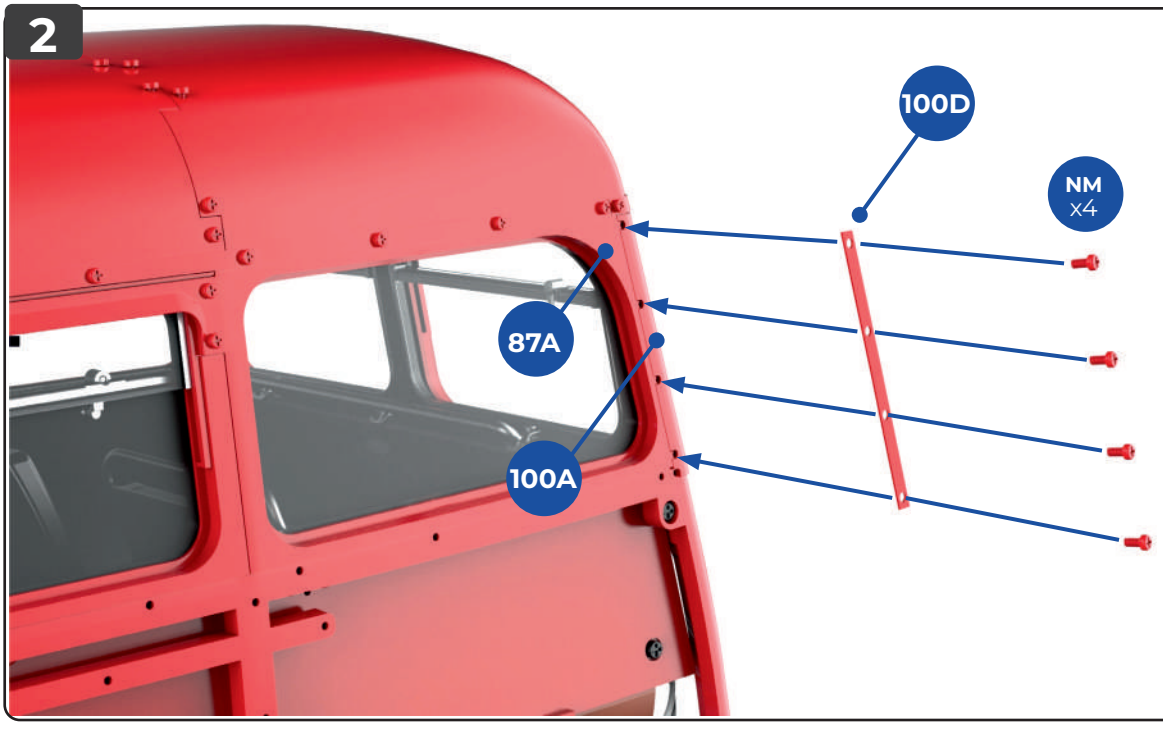
Identify the strips by checking their markings before starting assembly. Each strip is very slightly different.

1



1 Fit the front window trim **100A** around the lower and side edges of the front windows of the upper deck. Hold it in place and position strip **100C** (marked A164B) down the centre of the trim **100A**. Fix both pieces in place to the front frame **80F** using three red **NM** screws.

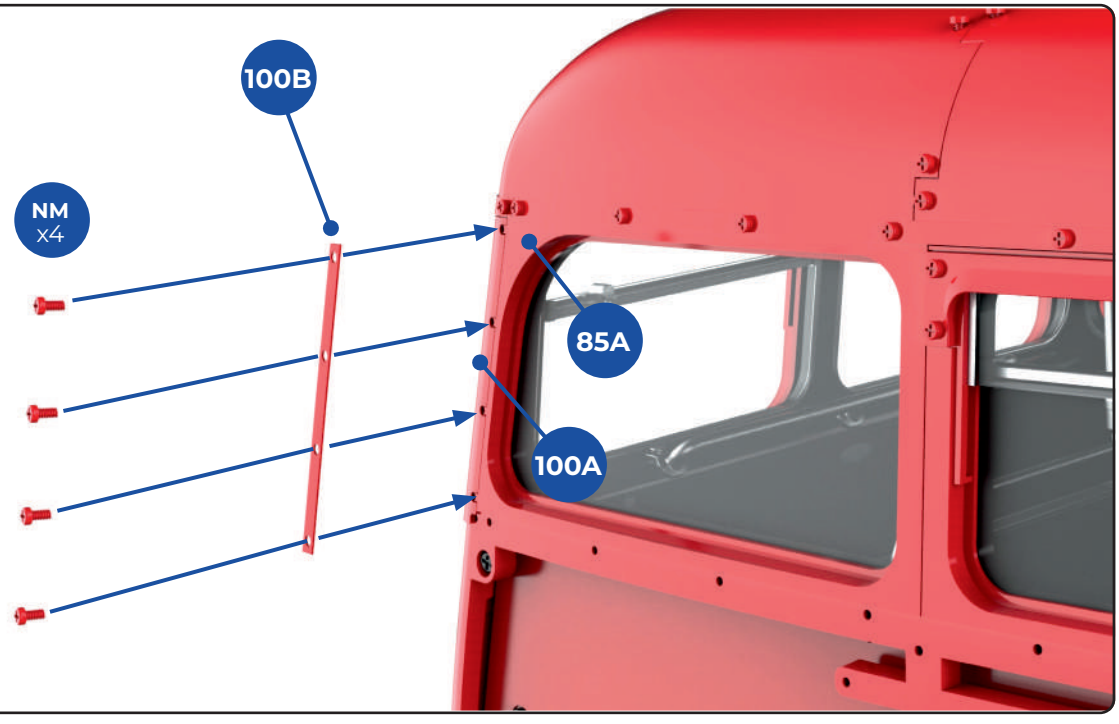
2



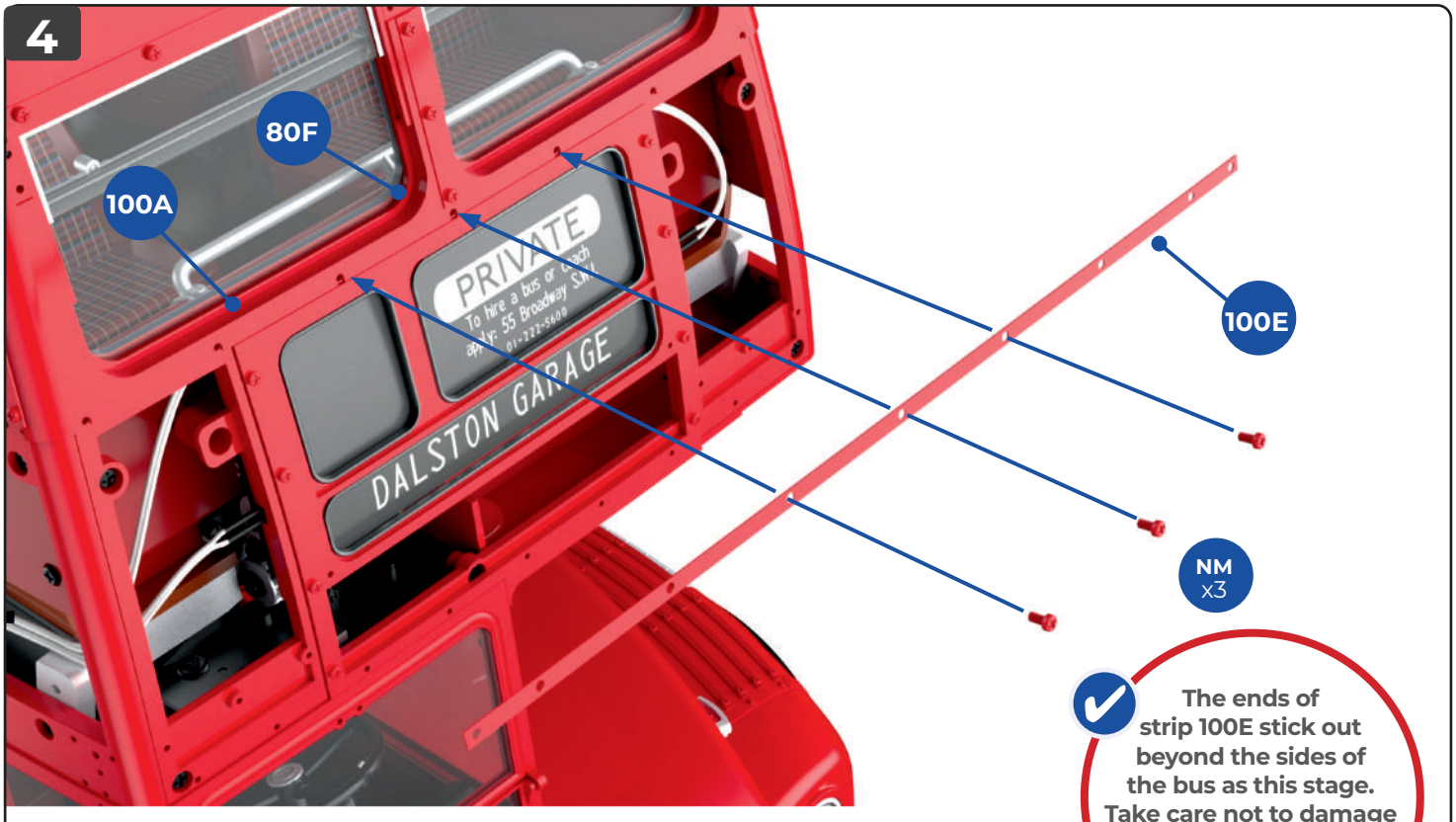
2 At the front of the right-hand side of the upper deck, position strip **100D** (marked A199M) over the edge of the trim **100A**, so that the screw holes are aligned. Fix in place with four red **NM** screws, which go through into screw holes in the right wall framework **87A**.

3

3 On the front of the left-hand side of the upper deck, position strip **100B** (marked A199) over the edge of the front trim **100A**. Fix in place with four red NM screws, which go into screw holes in the left wall framework **85A**.



4



4 Position the trim **100E** (marked A193) across the lower edge of the front trim **100A,** so that screw holes are aligned. Fix in place with three **NM** screws in the centre three holes only. The screws go through part **100A** and into the front frame **80F**.

The ends of strip 100E stick out beyond the sides of the bus as this stage. Take care not to damage the ends. They will be fitted and fixed in place at a later time.

Finished views