

LONDON TRANSPORT ROUTEMASTER BUS

RM 857



Pack 09

BUILD INSTRUCTIONS

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UPPER DECK

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UPPER DECK

STAGE 90: FITTING THE CEILING FRAME TO THE
UPPER DECK

STAGE 81

BACK WALL PANEL

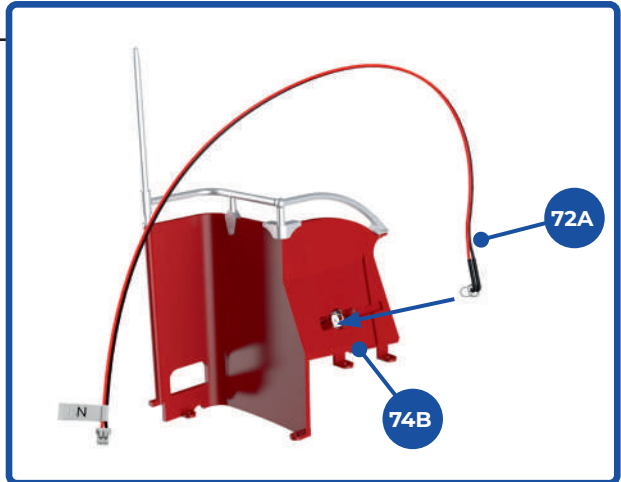
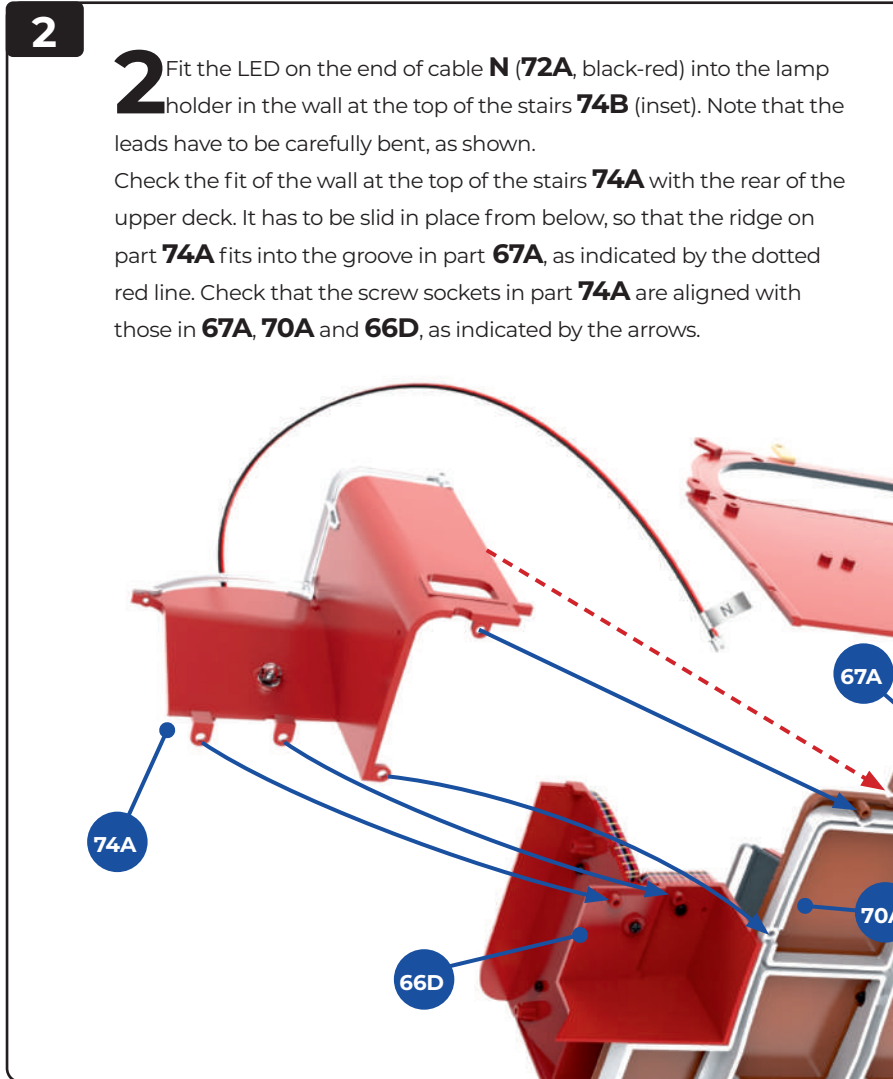
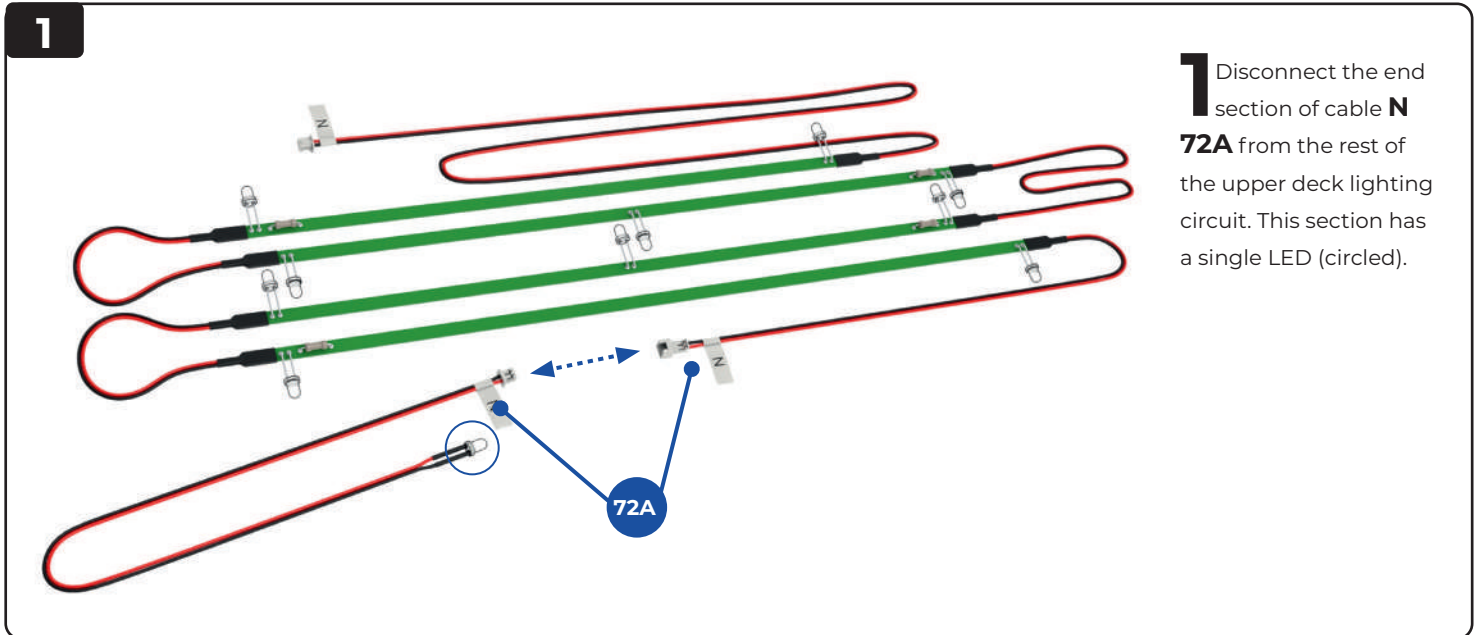
We fit the wall at the top of the stairs, together with an LED, and then fit the back wall panel. Finally, the upright poles on the upper deck are fitted to the seat backs.



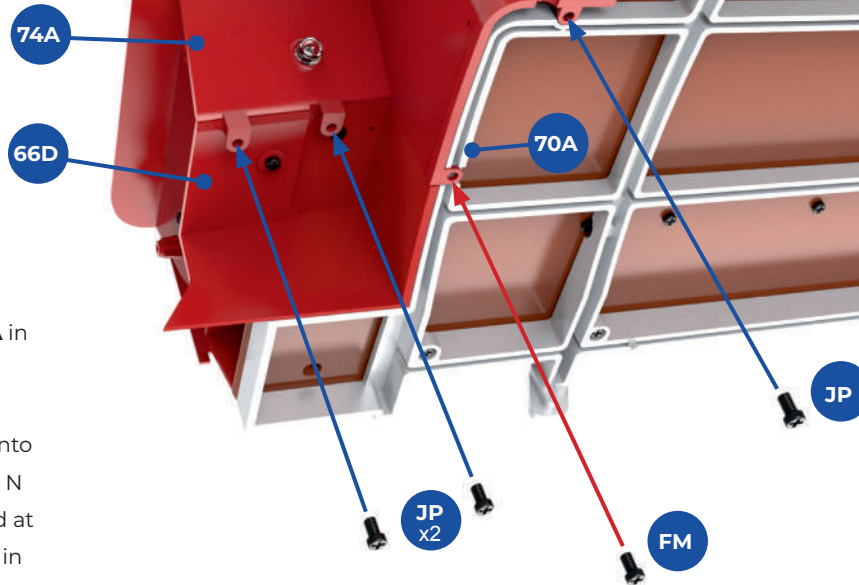
KEY TO PARTS

- 81A** Back wall panel
- 81B** Upright grab poles for upper deck (x8)
- FM** 2.3 x 4mm (x2)
- JP** 2.3 x 4mm (x11)

✓
 You will need the upper deck lighting circuit, from stage 72, and the wall for the top of the stairs, which was assembled in stage 74.



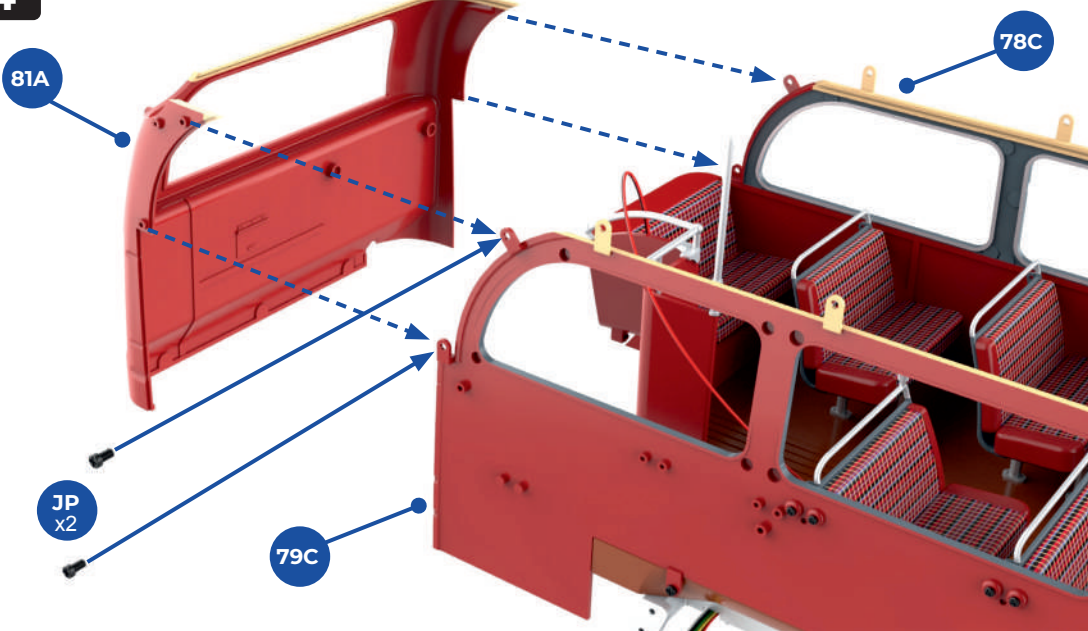
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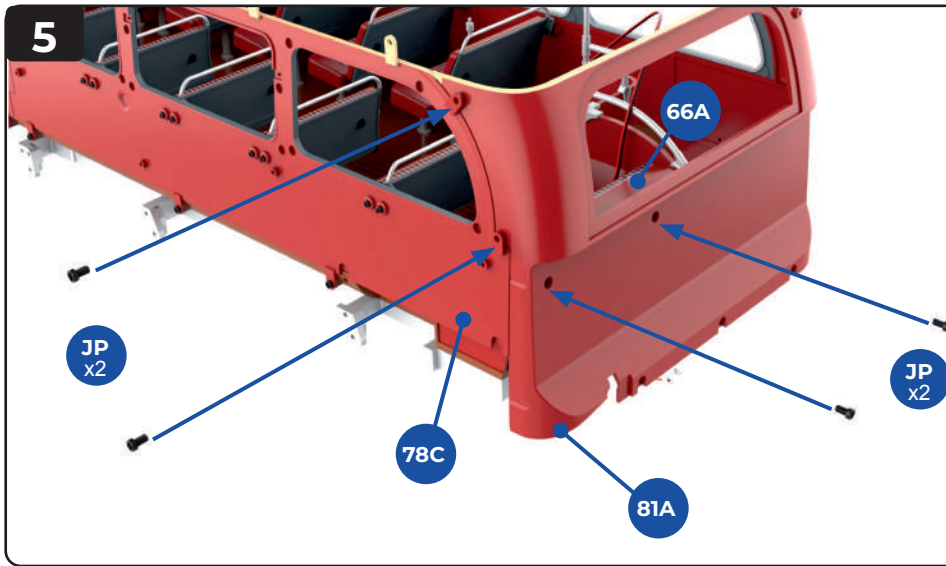
3 Fix the stair wall **74A** in place with three **JP** screws and one **FM** screw (highlighted in red, going into the frame **70A**). The cable N **72A** remains unconnected at this stage (inset). Anchor it in place with a little masking tape if necessary.



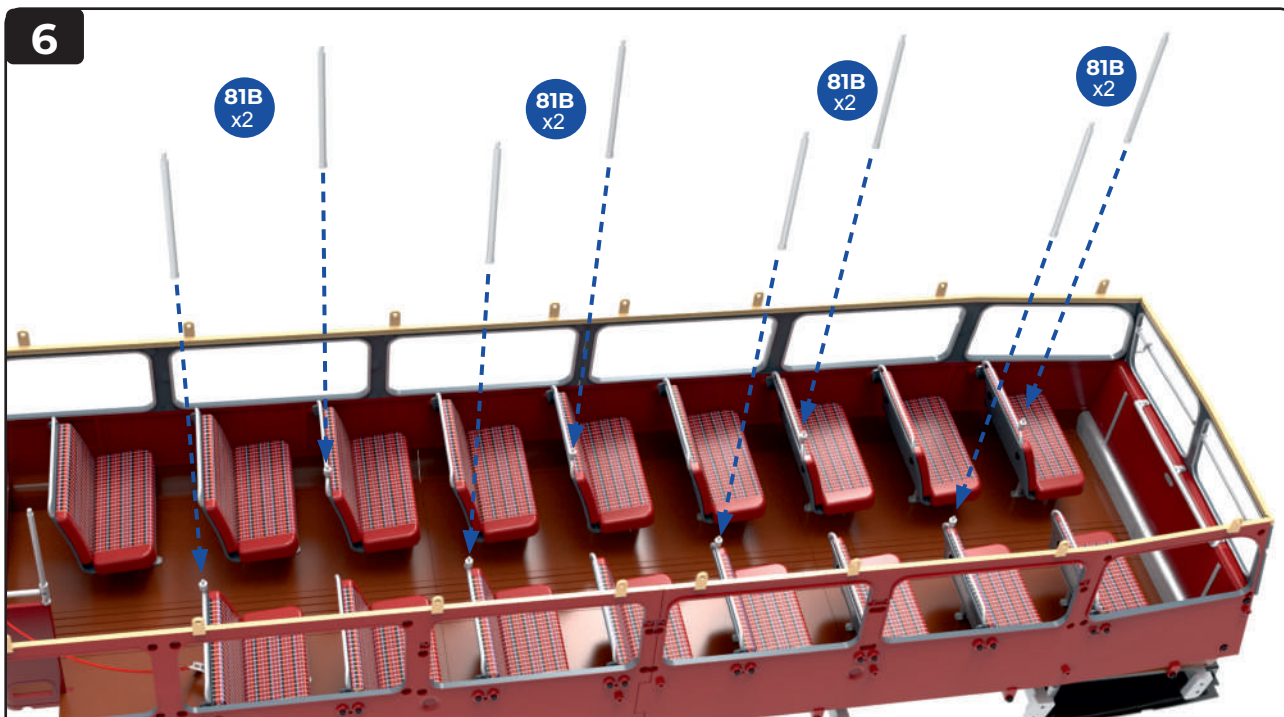
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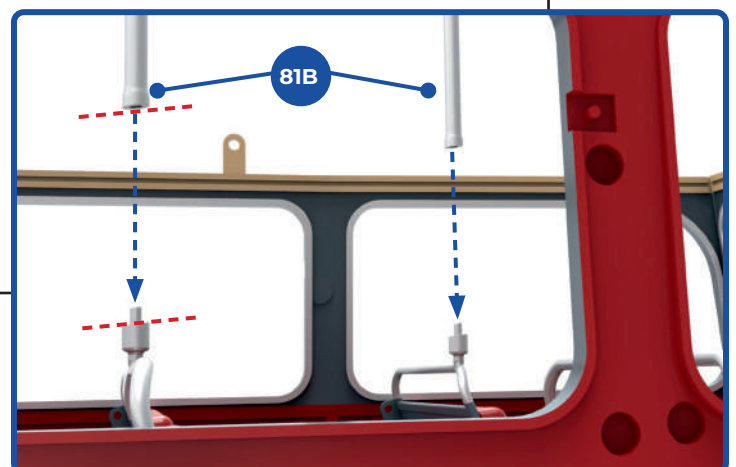
4 Fit the back wall panel **81A** in place, against the rear walls of the upper deck **78C** and **79C**. You will need to raise the floor of the upper deck above the work surface to get a proper fit, as part **81A** hangs down below the level of the floor. Fix the upper section of the rear wall **81A** to the curved section of the right wall panel **79C** using two **JP** screws.



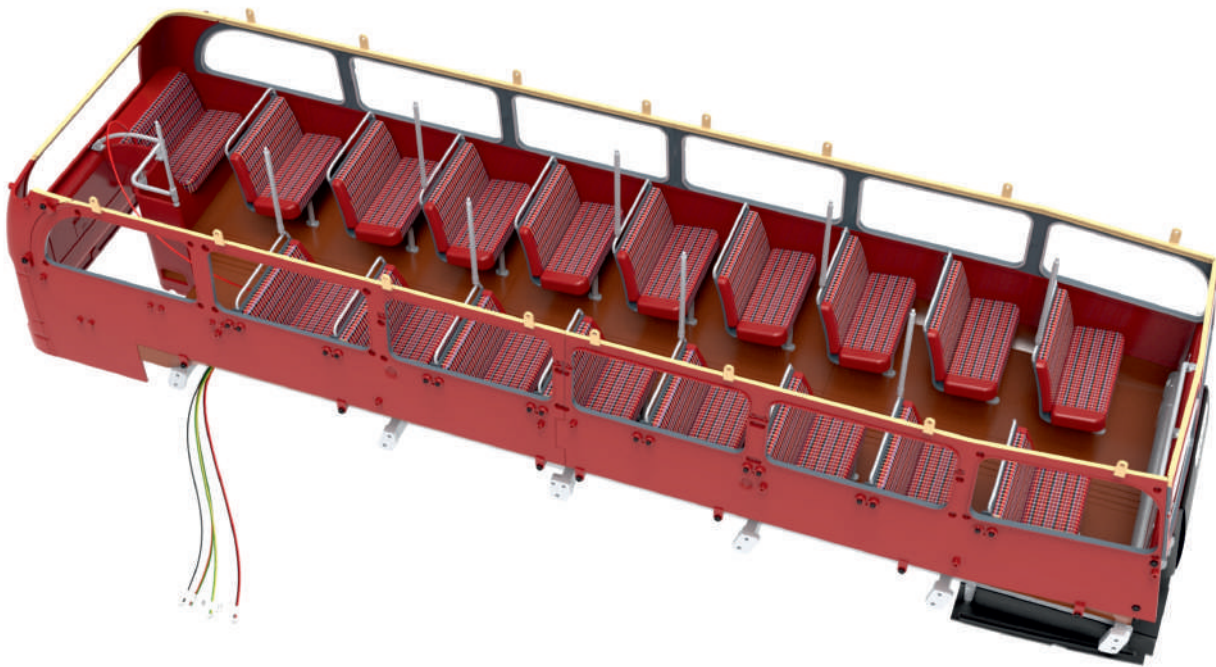
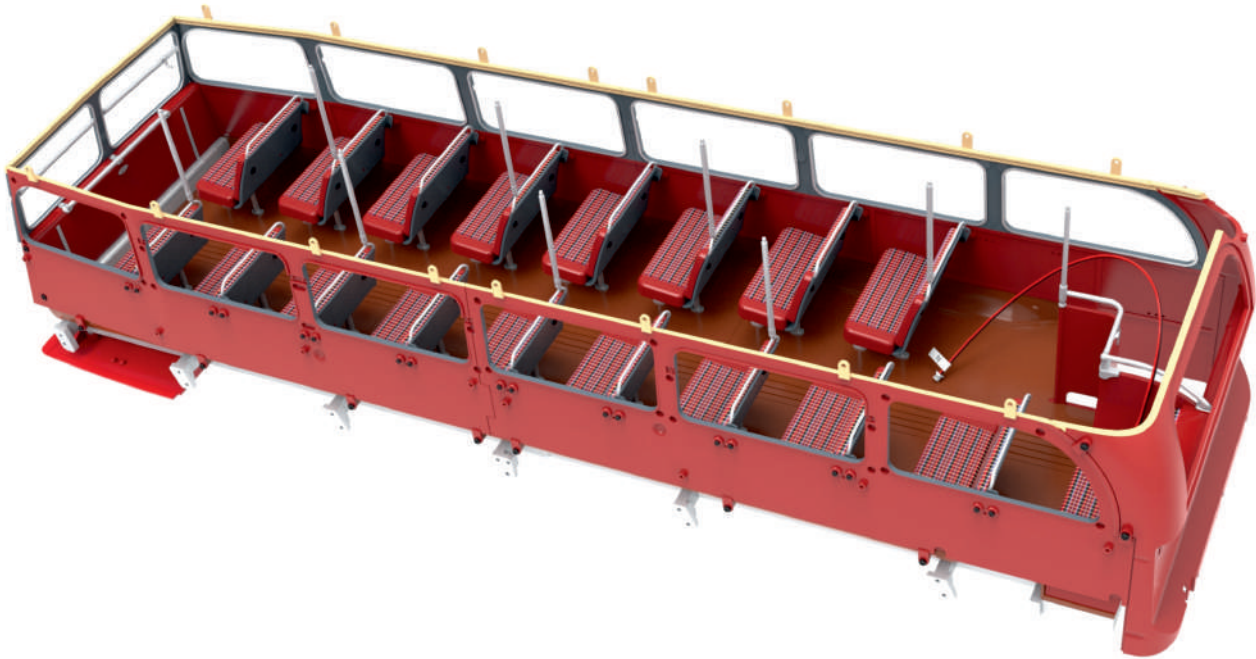
5 Similarly, fit the back wall **81A** to the left side wall **78C** using two **JP** screws. At the back of the upper deck, fix the wall panel **81A** to the rear seat back **66A** using two **JP** screws. You may need to push the seat back slightly to make sure the screws engage.



6 Take the eight upright grab poles **81B** and check which end of each one has a socket. Fit the sockets on to the pegs on the ends of the alternate seats on both sides of the upper deck. **NOTE:** The sockets are slightly angled, sloping down from front to back, as shown by the red dotted lines in the inset.



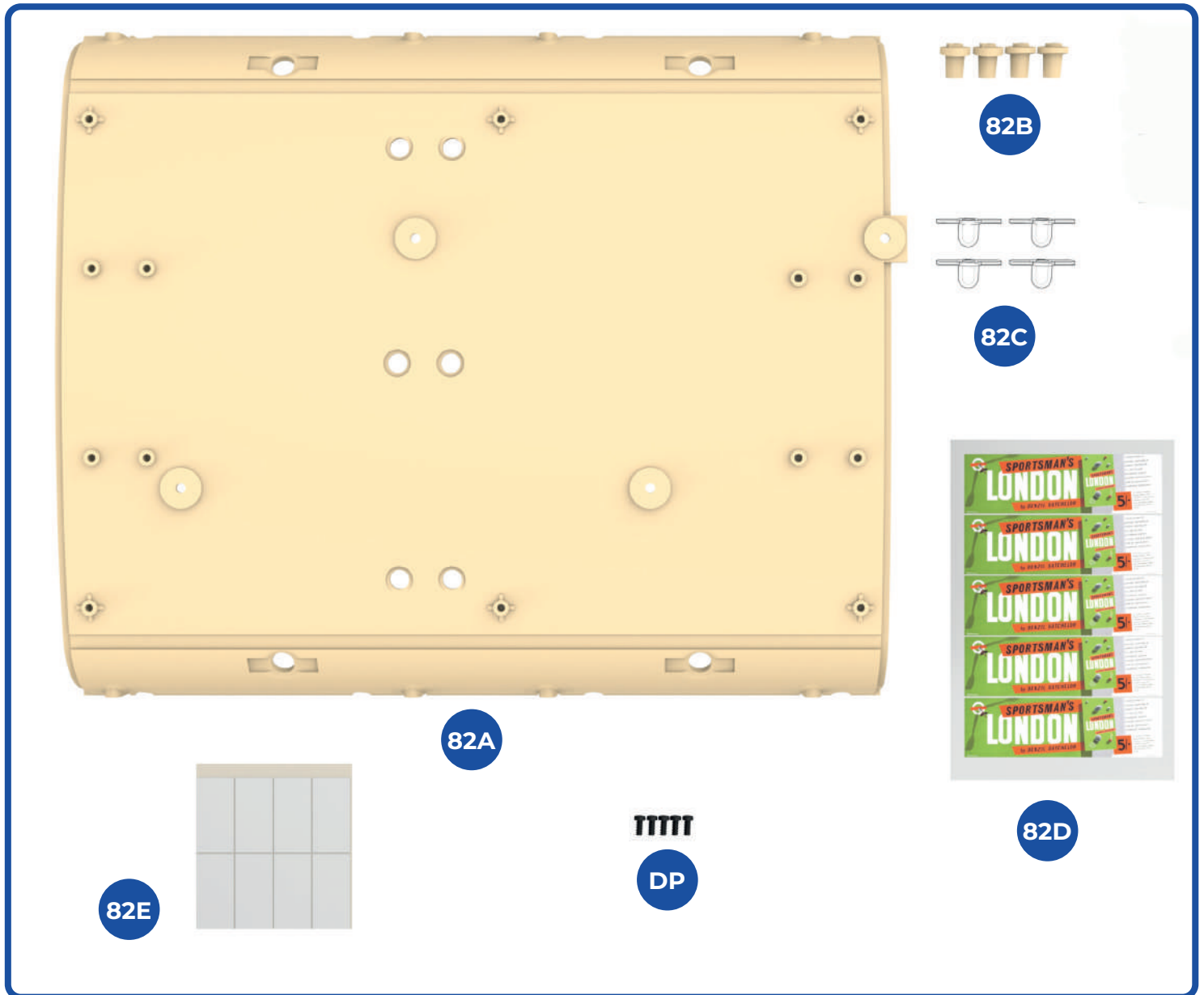
Finished views



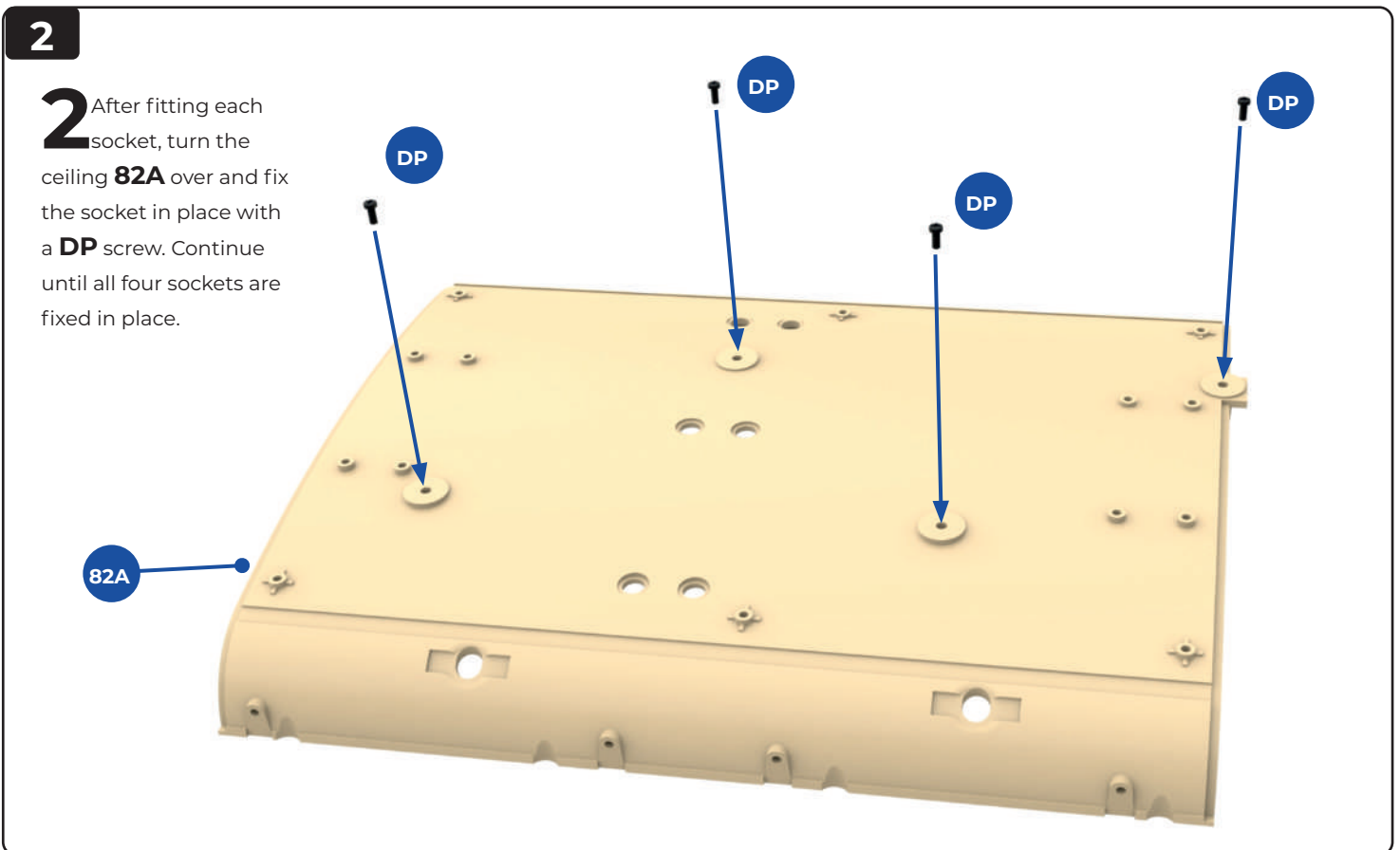
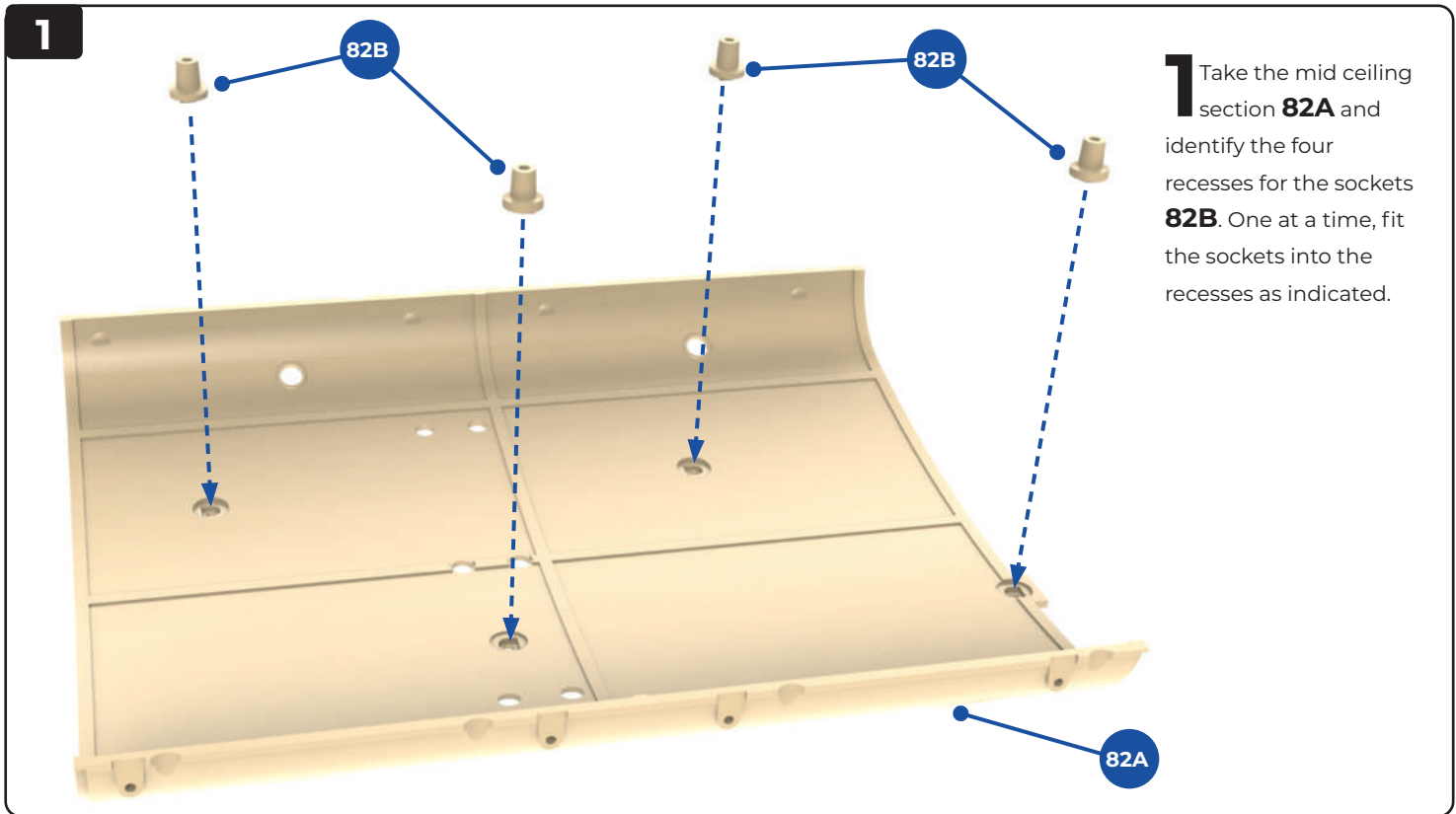
STAGE 82

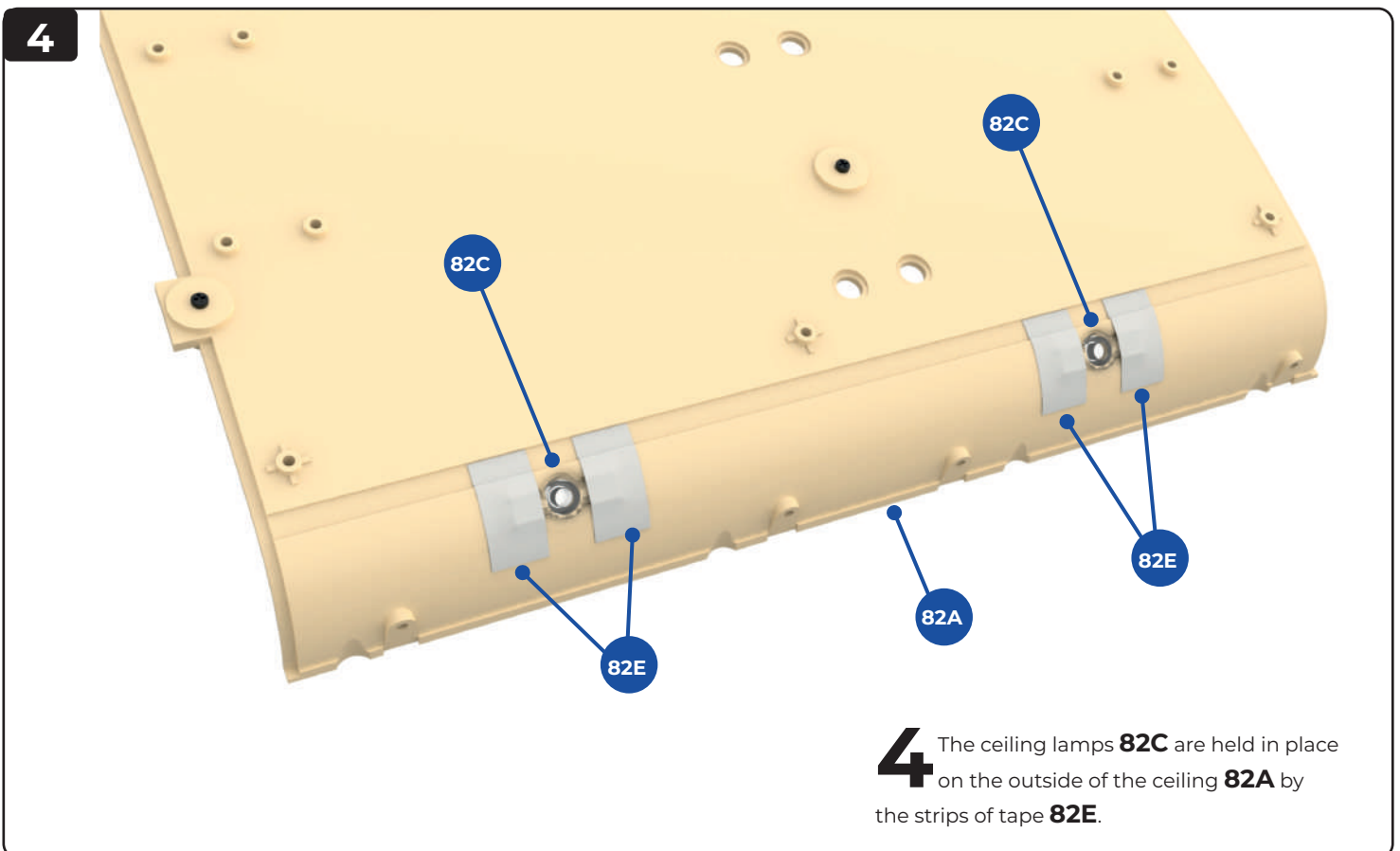
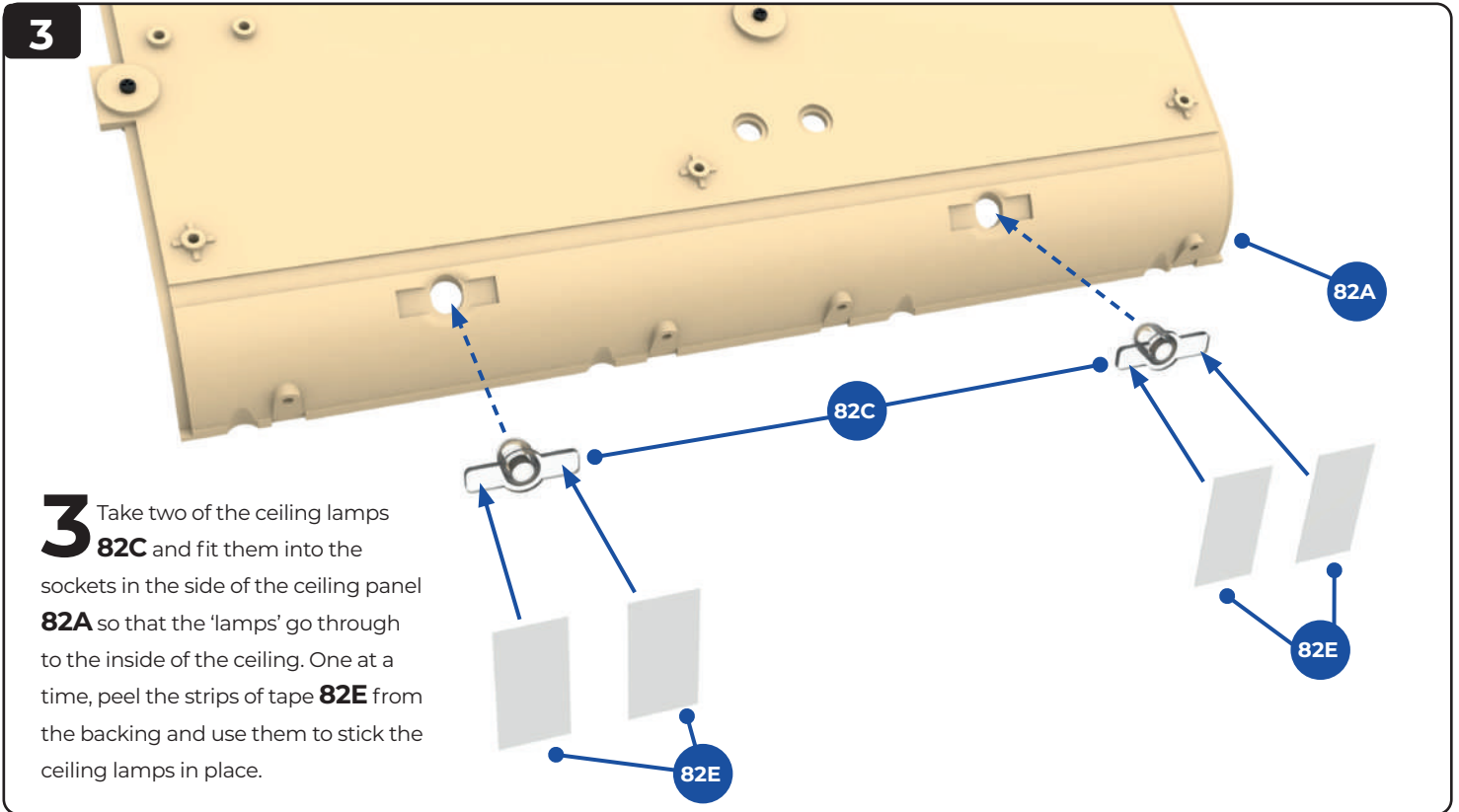
UPPER DECK CEILING

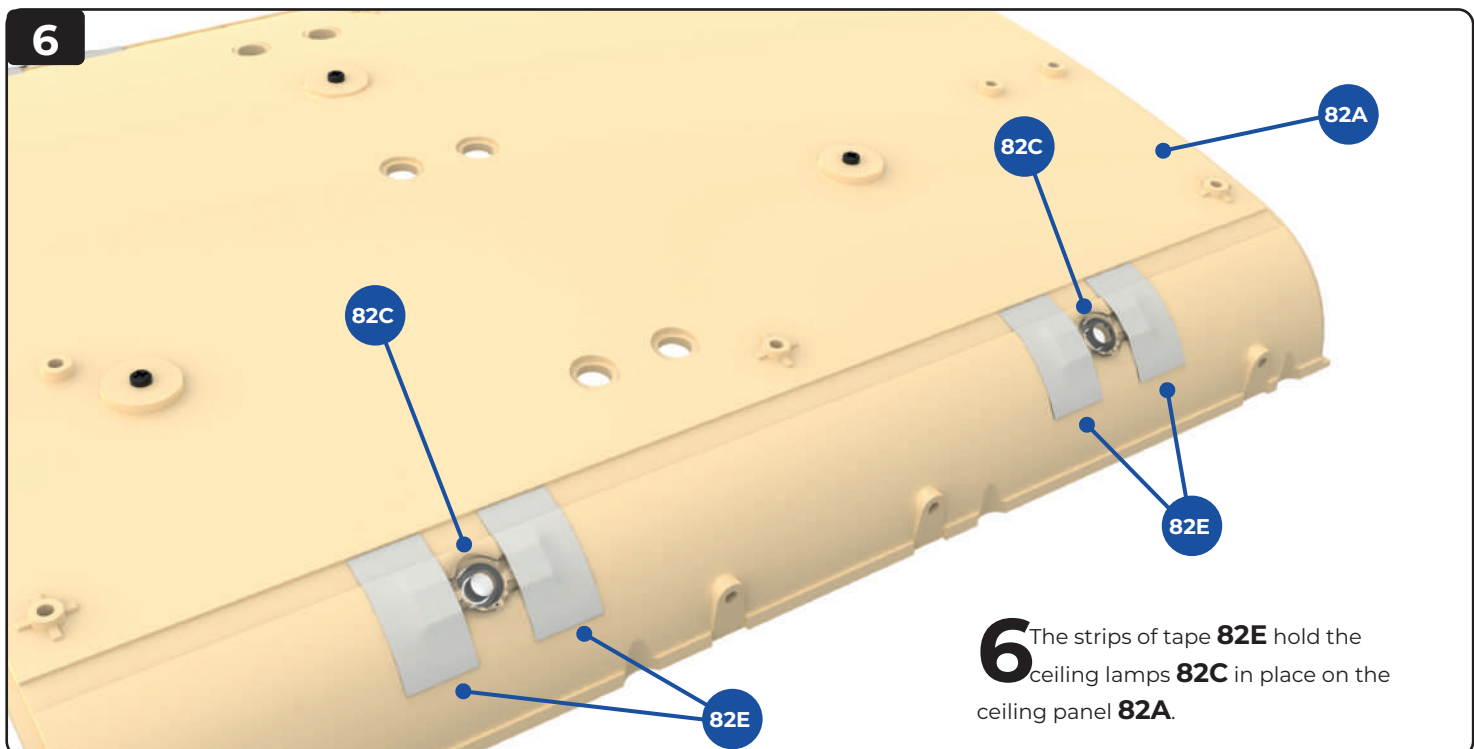
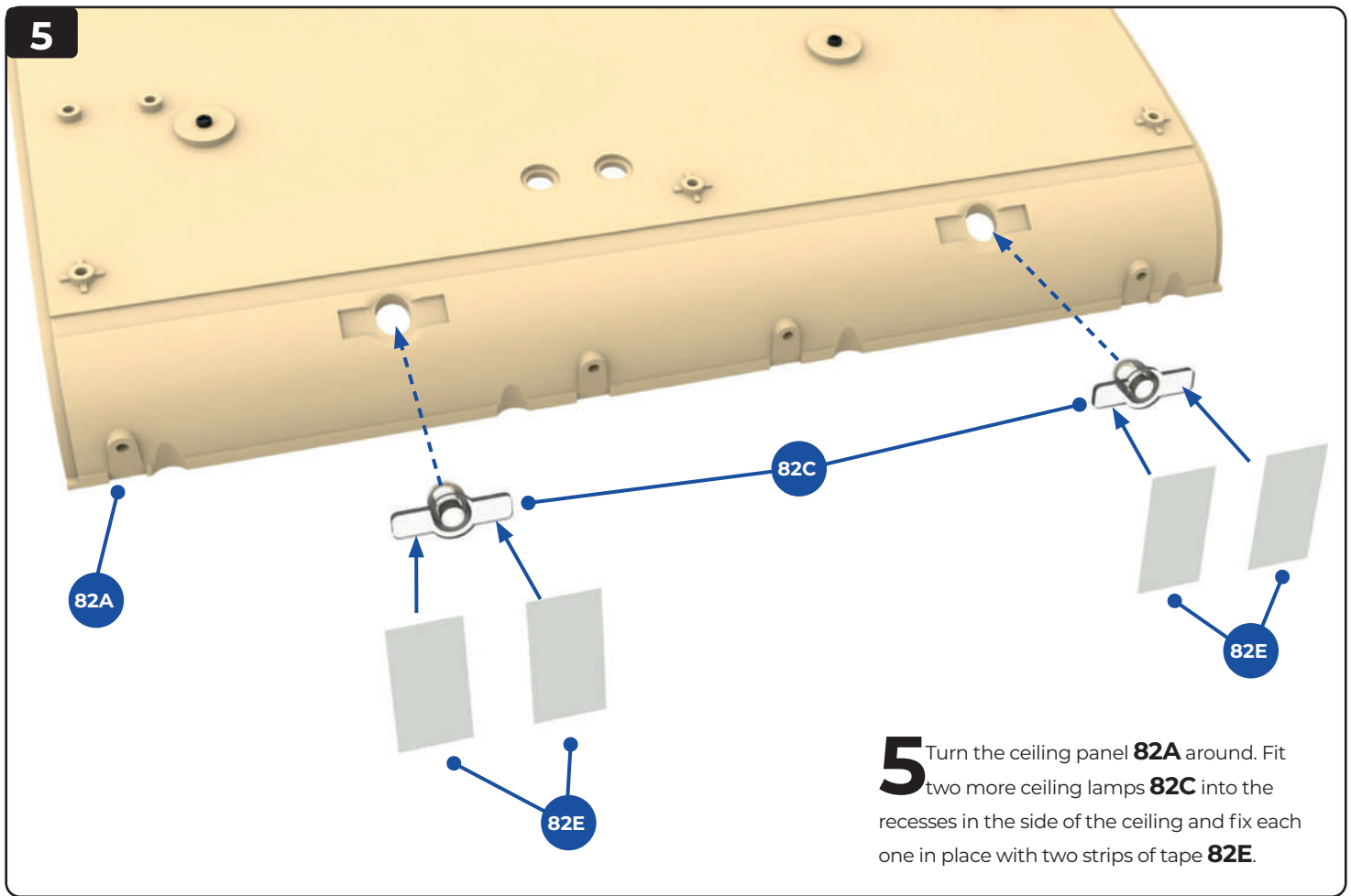
The middle ceiling panel for the upper deck is supplied, and we fit sockets, which will hold the upright grab poles in place when the ceiling is in place. We also fit lamps, to receive the LED lights at a later stage.



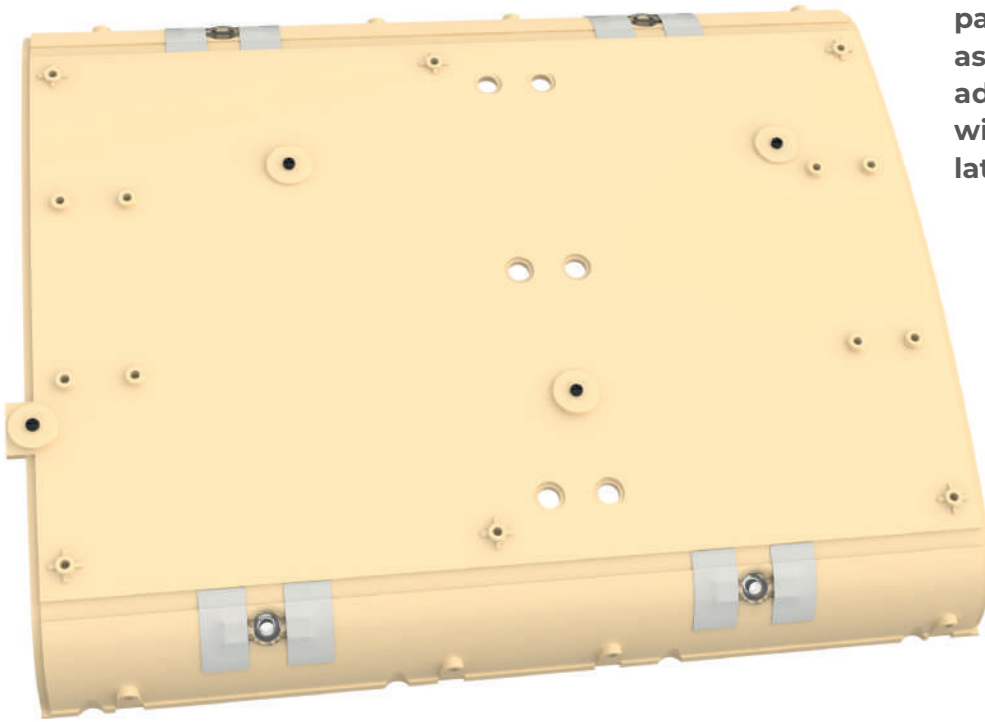
KEY TO PARTS	
82A	Mid ceiling section
82B	Sockets (x4)
82C	Ceiling lamps (x4)
82D	Advertising stickers (x5)
82E	Tape strips (x8)
DP	1.7 x 4mm (x5)



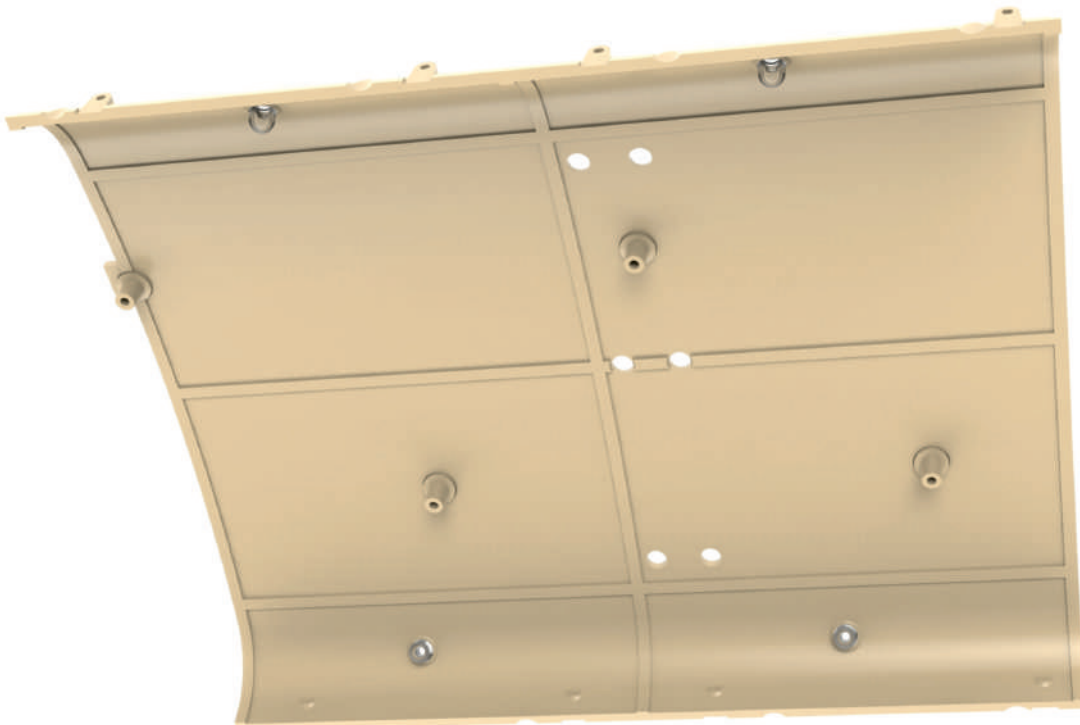




Finished views



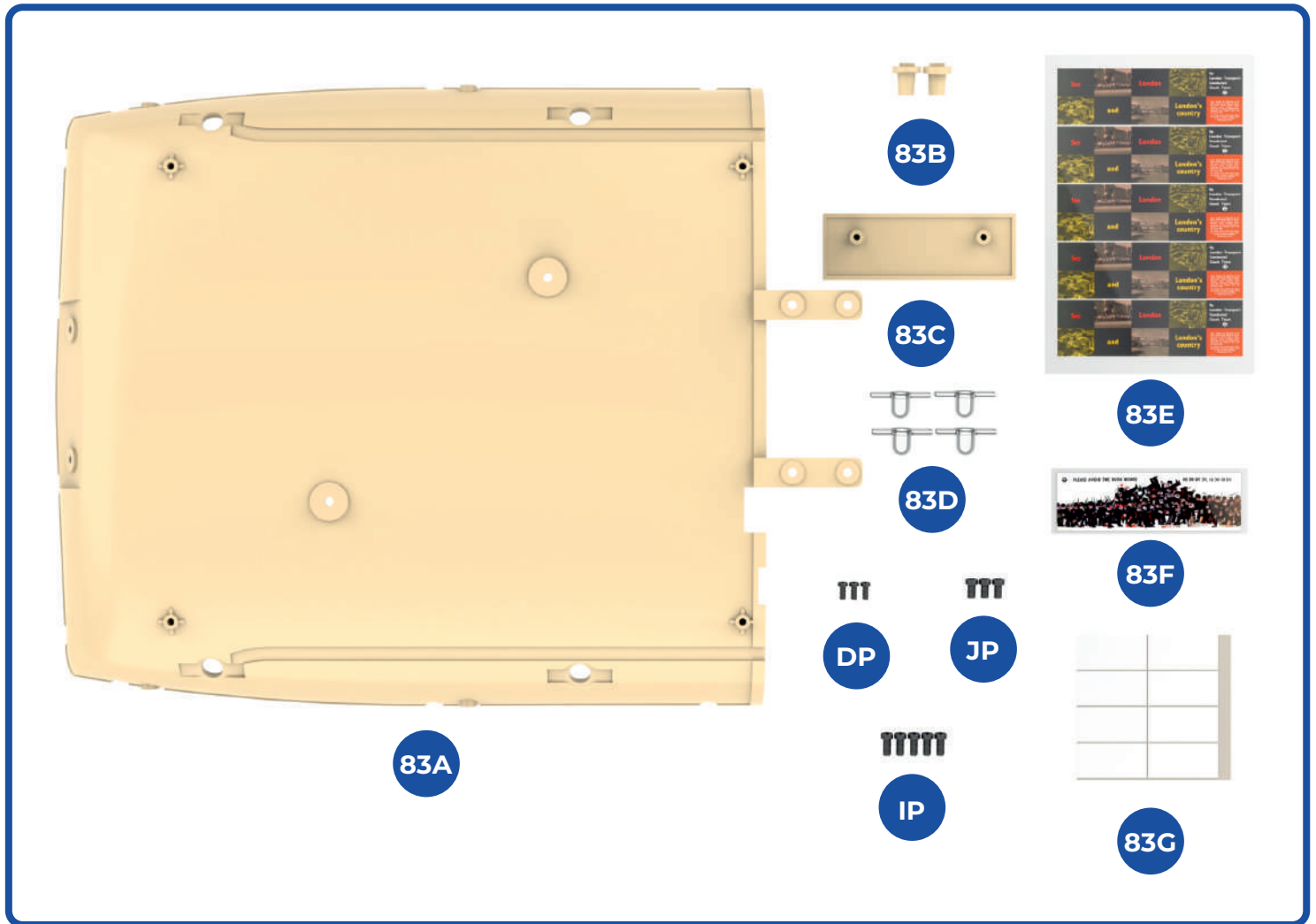
The first ceiling panel has been assembled. The advertising stickers will be fitted at a later stage.



STAGE 83

UPPER DECK CEILING

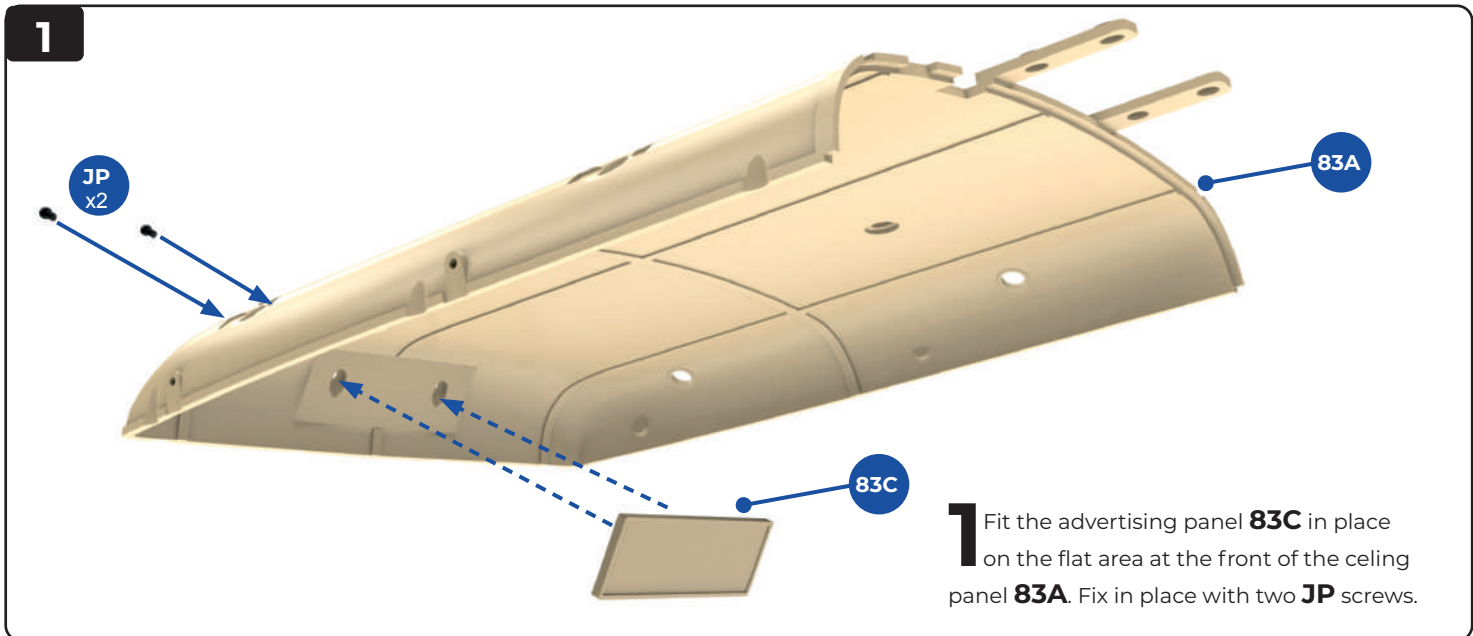
The front ceiling section for the upper deck is supplied, and we fit grab pole sockets, lighting and an advertisement. The additional advertisements will be used in a future stage.



KEY TO PARTS

83A	Front ceiling section	DP	1.7 x 4mm (x3)
83B	Sockets (x2)	JP	2.3 x 4mm (x3)
83C	Advertising panel	IP	2.3 x 5mm (x5)
83D	Ceiling lamps (x4)		
83E	Advertising stickers (x5)		
83F	Advertising sticker		
83G	Tape strips		

1




JP x2

83A

83C

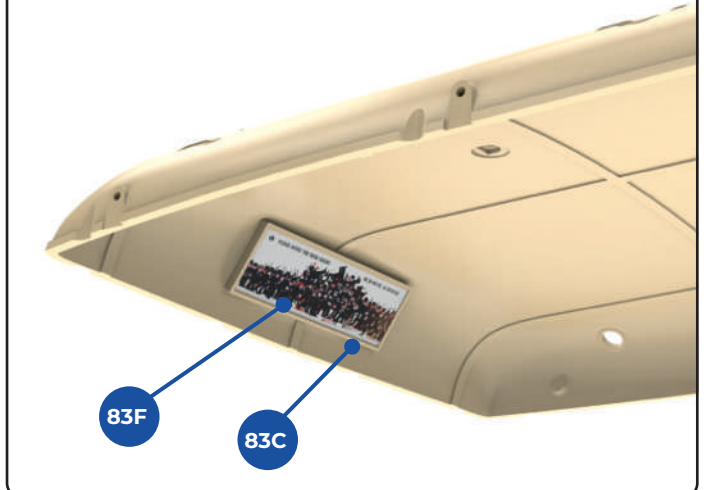
1 Fit the advertising panel **83C** in place on the flat area at the front of the ceiling panel **83A**. Fix in place with two **JP** screws.

2



83F

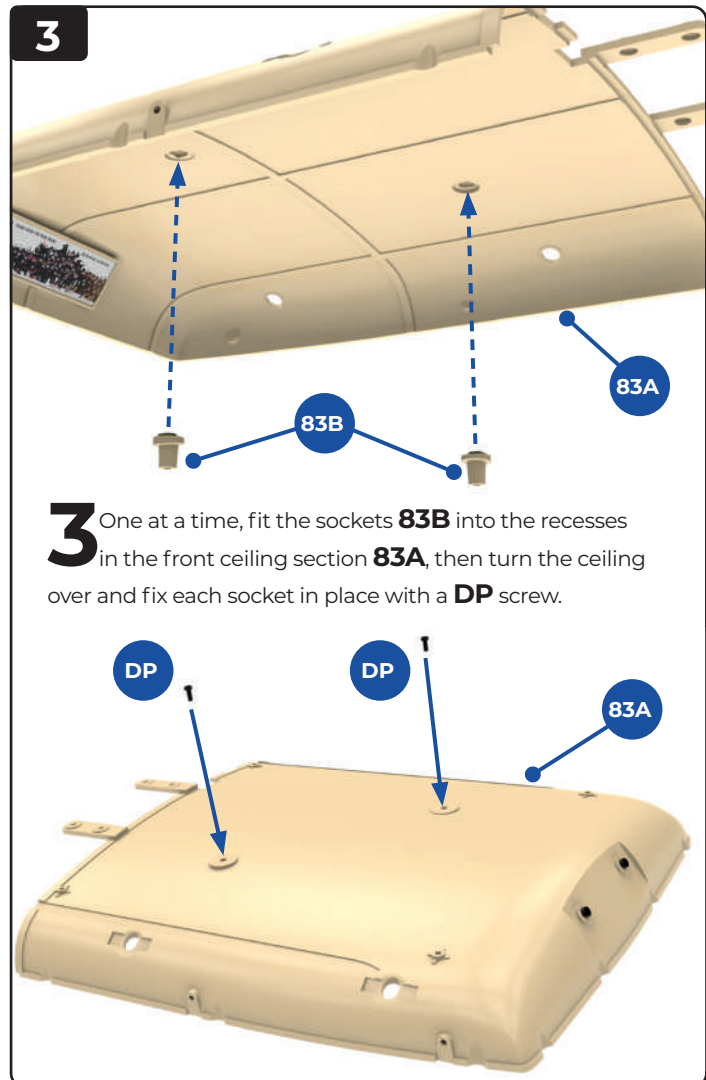
2 Peel the advertising sticker **83F** off its backing (inset above) and stick in place on the advertising panel **83C**.



83F

83C

3



83A

83B

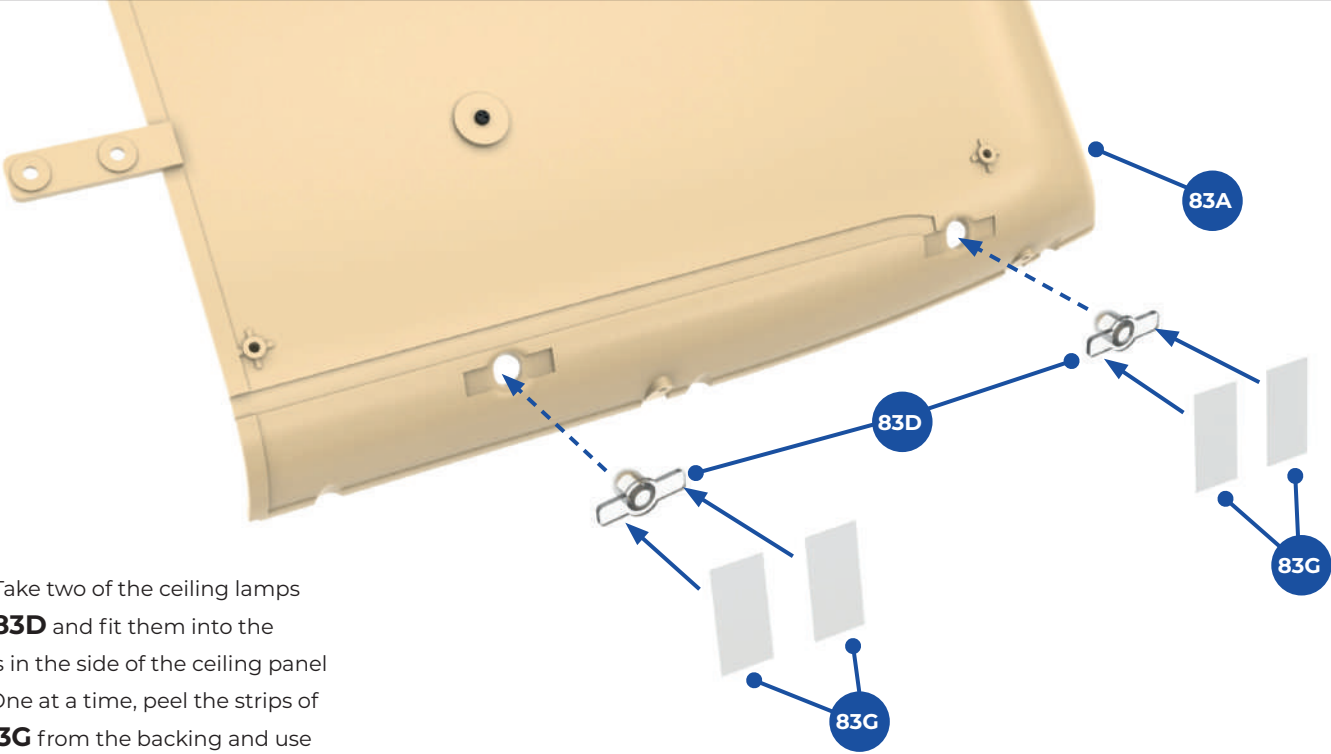
3 One at a time, fit the sockets **83B** into the recesses in the front ceiling section **83A**, then turn the ceiling over and fix each socket in place with a **DP** screw.

DP

DP

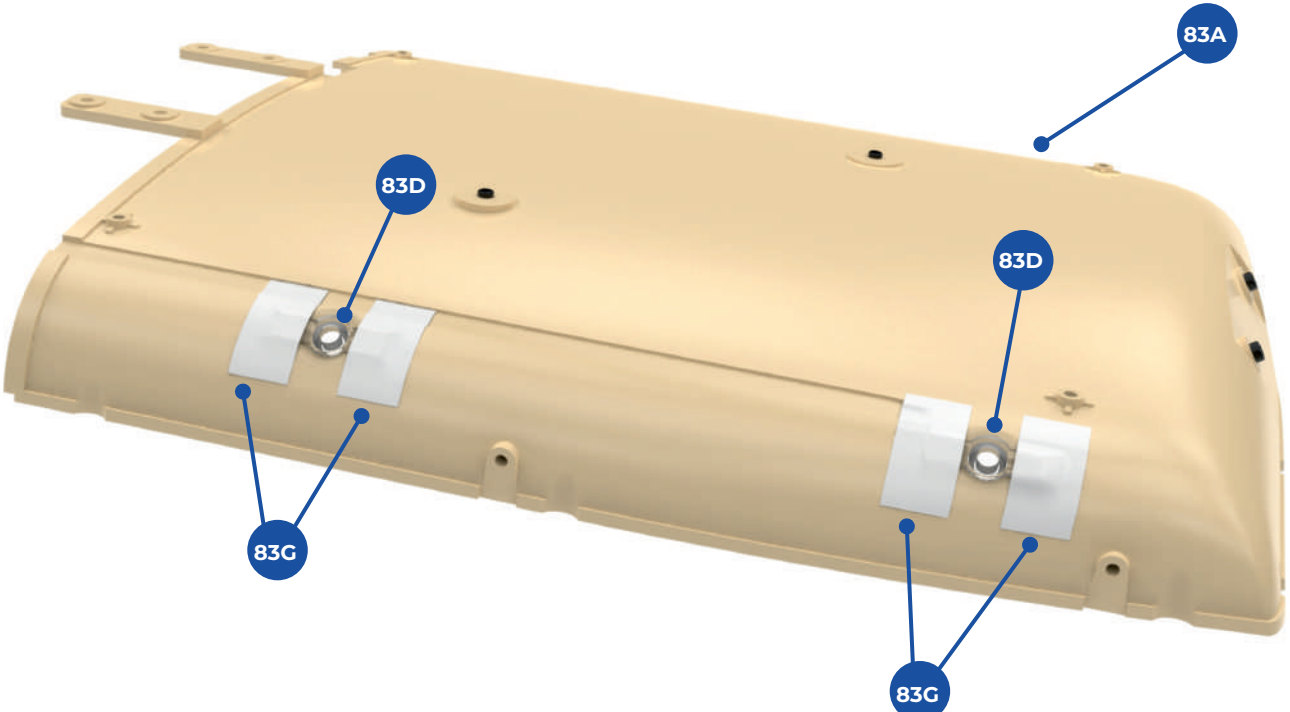
83A

4



4 Take two of the ceiling lamps **83D** and fit them into the sockets in the side of the ceiling panel **83A**. One at a time, peel the strips of tape **83G** from the backing and use them to stick the ceiling lamps in place.

5



5 The ceiling lamps **83D** are held in place on the outside of the ceiling **83A** by the strips of tape **83G**.

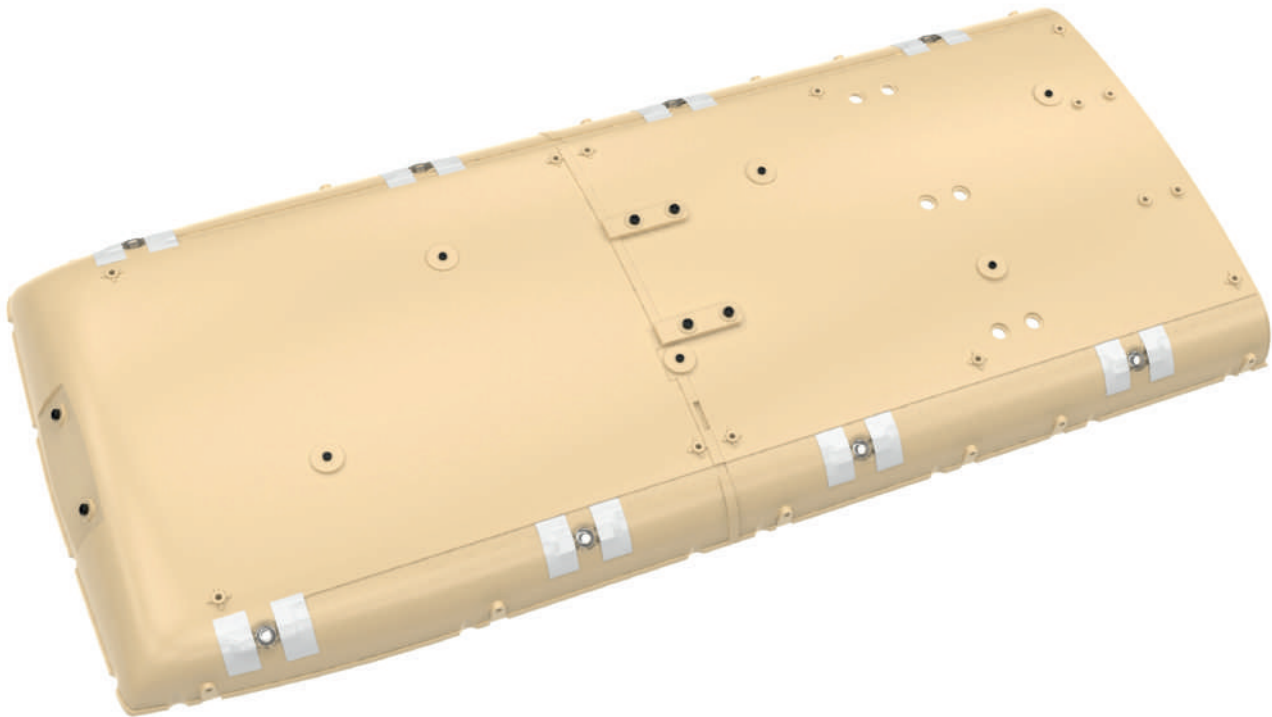
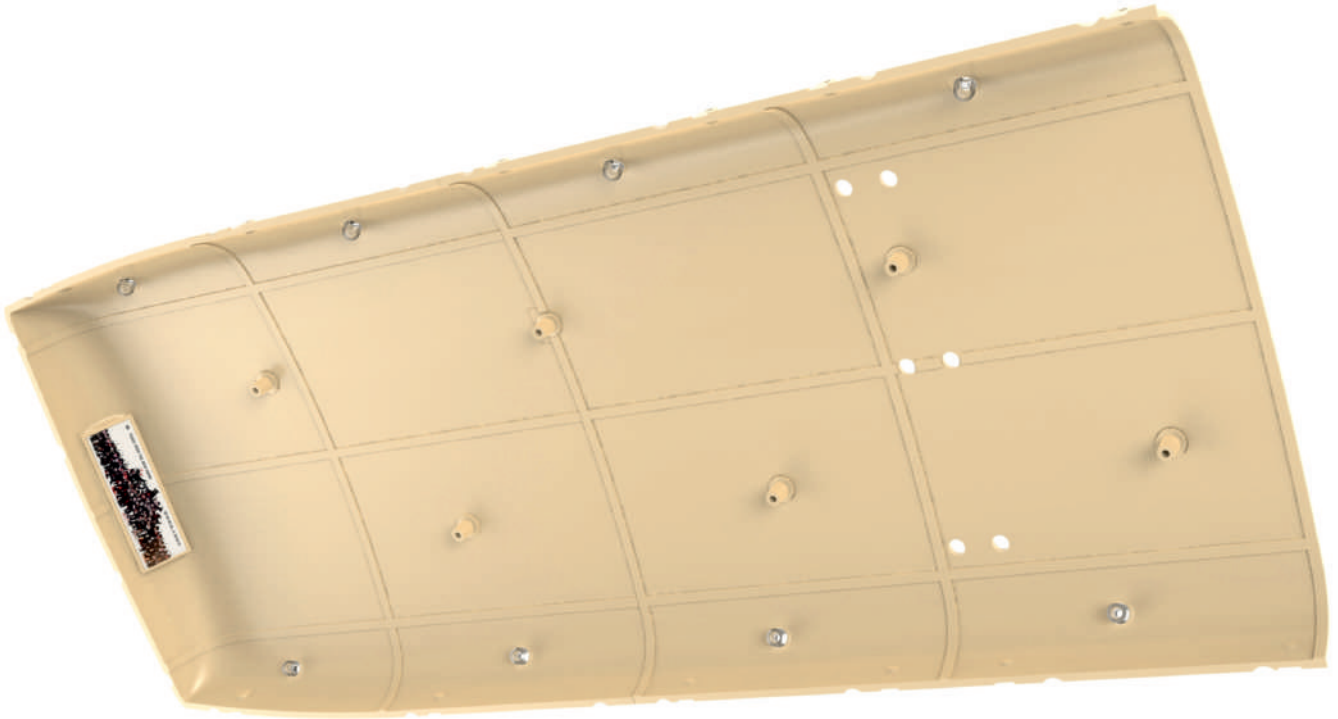
6

6 Turn the ceiling panel **83A** around. Fit two more ceiling lamps **83D** into the recesses in the side of the roof and fix each one in place with two strips of tape **83G**. The inset above shows the ceiling lamps **83D** fixed in place.

7

7 Take the mid ceiling assembly **82A** from the previous stage. Fit the two long tabs on the front ceiling section **83A** over the holes in front ceiling section **82A**. Fix together with four **IP** screws.

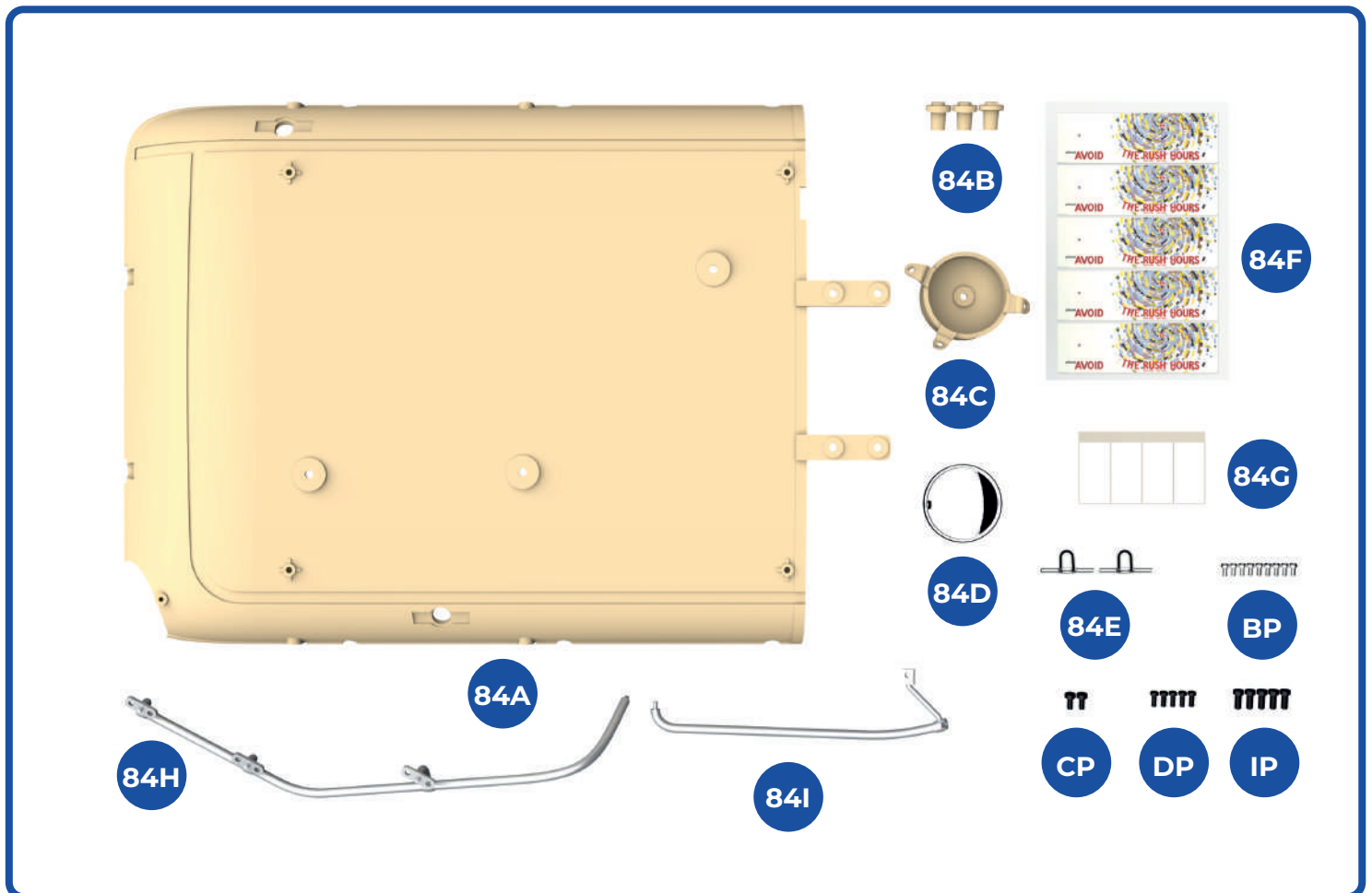
Finished views



STAGE 84

UPPER DECK CEILING AND HANDRAILS FOR THE STAIRS

We complete the assembly of the upper deck ceiling and fit the mirror and handrails on the stairwell.



KEY TO PARTS

84A Rear ceiling section
84B Sockets (x3)
84C Mirror housing
84D Mirror
84E Ceiling lamps (x2)

84F Advertising sticker (x5)
84G Tape strips (x4)
84H Handrail
84I Handrail

BP 1.5 x 3mm (x9, silver)
CP 2.0 x 4mm (x2)
DP 1.7 x 4mm (x5)
IP 2.3 x 5mm (x5)

1

1 Take the ceiling section **84A**. One at a time, fit one of the three sockets **84B** into a recess in part **84A**, as shown.

2

2 After fitting each socket **84B**, turn over part **84A** and fix the socket in place with a **DP** screw. Repeat to fit all three sockets in place.

3

3 As described in the previous stage, fit a lamp **84E** into one of the recesses on the ceiling section **84A**. Fix in place with two pieces of tape **84G**.

4

4 Fit the second lamp **84E** into the recess on the other side of the ceiling section **84A**. Fix in place with two pieces of tape **84G**.

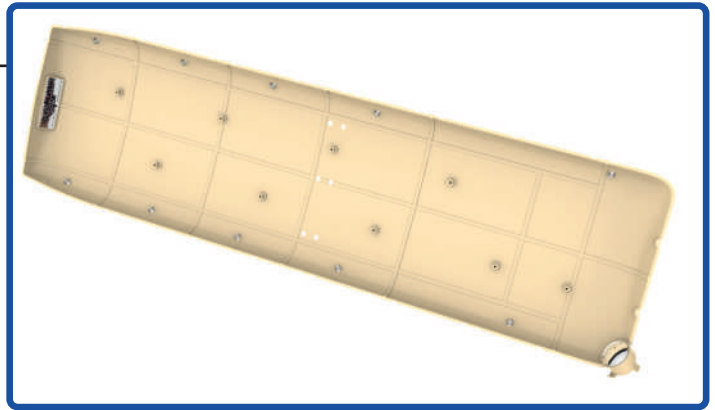
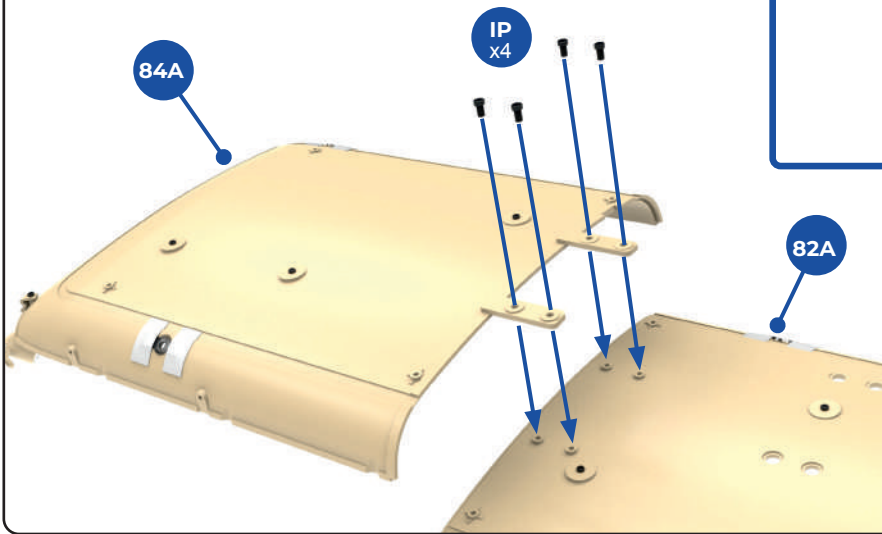
5

5 Fit the mirror **84D** into the mirror housing **84C**. Fix the mirror in place with a **CP** screw, through the housing and into the screw socket in the back of the mirror.

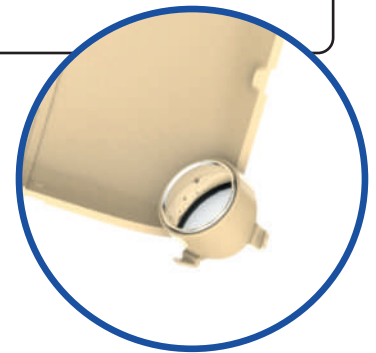
6

6 Study the diagram and identify the flange on the mirror housing **84C** that fits over the screw socket on the ceiling section **84A**. Fix in place with a **DP** screw.

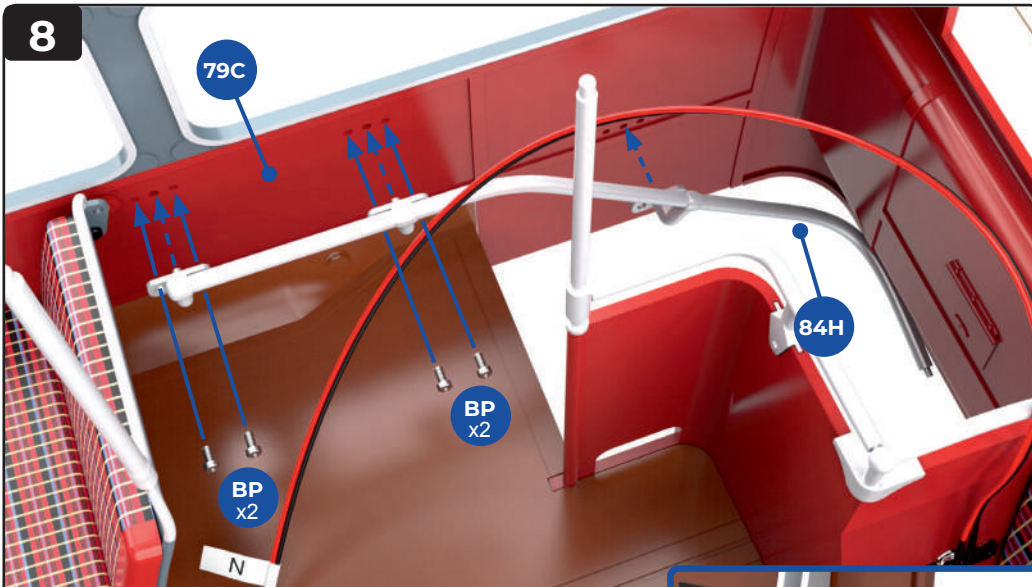
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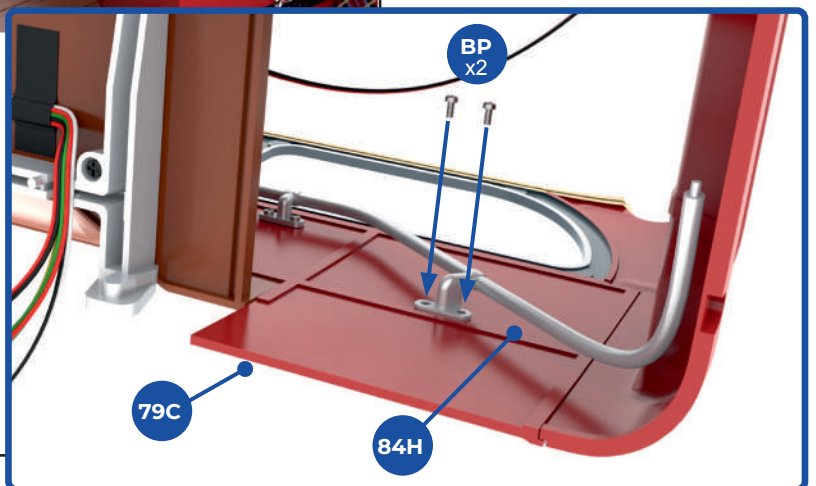
7 Take the ceiling assembly completed in the previous steps, and fit the tabs in part **84A** over the sockets in part **82A**. Fix in place with four **IP** screws. The inset (top) shows the ceiling assembly. Note the position of the mirror and housing, and check that you have fitted it correctly (inset below).



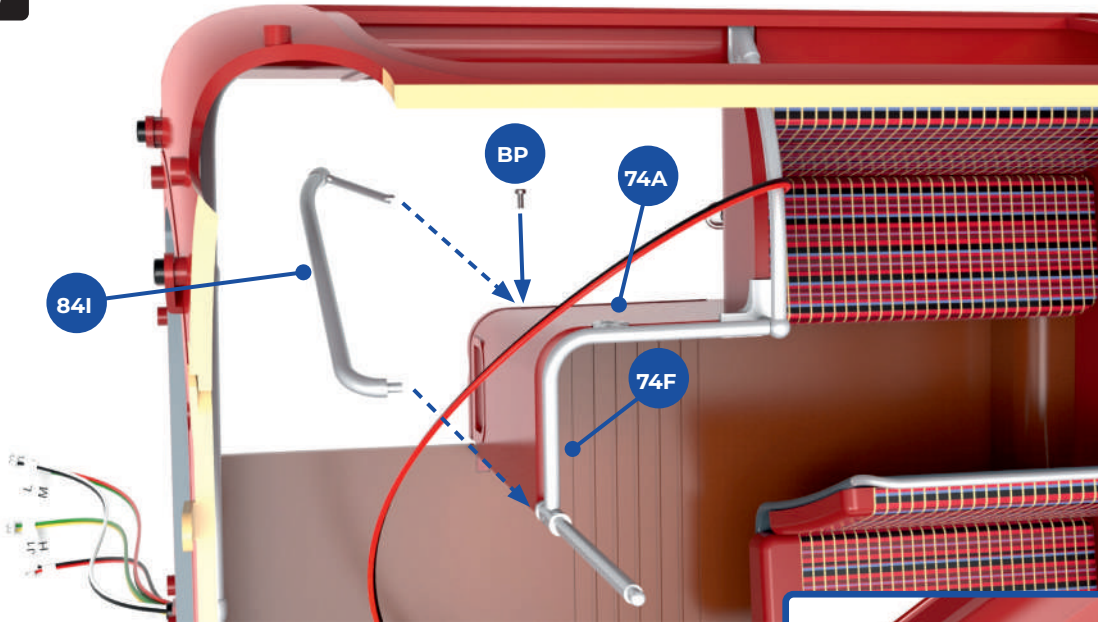
8



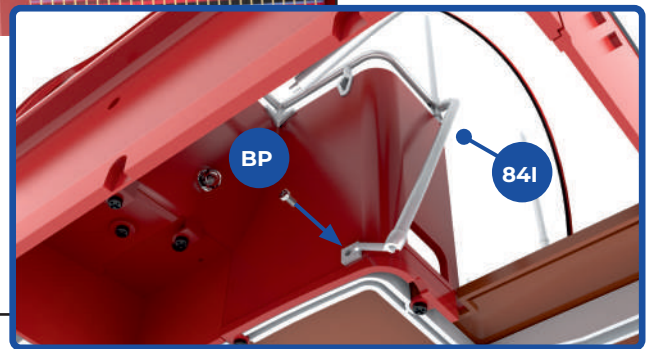
8 Take the upper deck assembly from stage 27, and the handrail **84H**. Identify the fixing points and fit the handrail into the stairwell. There are three brackets on the handrail, each with a central peg. Fit the pegs into the holes in the side of the stairwell **79C** so that the screw holes in the brackets align with the sockets in the stairwell. Fix each bracket in place with two silver **BP** screws. The fixing of the lower bracket is easier if it is done from below as shown in the inset (right). Take care not to damage previously fitted parts when turning the model.



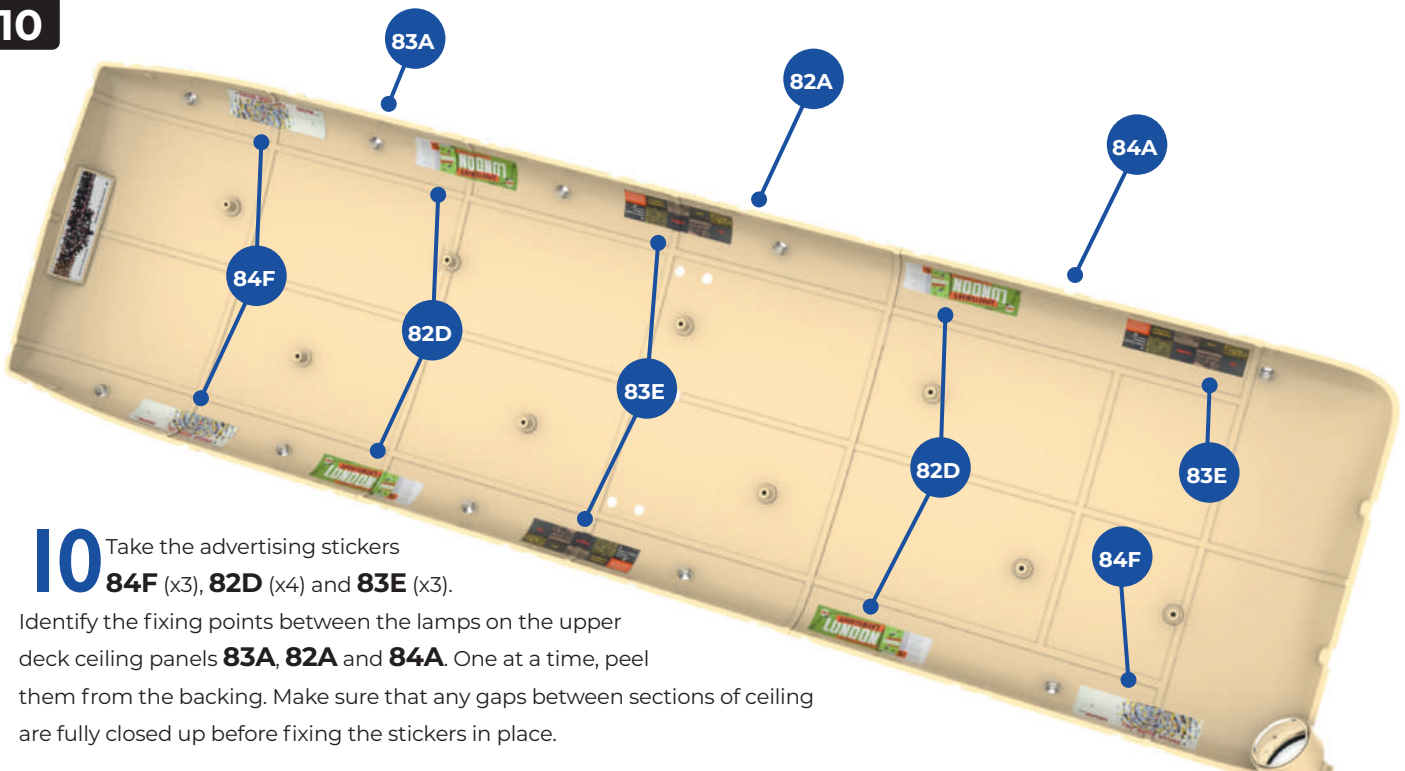
9



9 Take the second handrail, **84I**, and identify the fixing points on the inside of the stairwell. The peg on the top of the handrail fits into the socket on the grab pole **74F**, and the bracket on the lower end of the handrail **84I** fits against the screw socket in part **74A**. When the handrail **84I** is in position, fix in place from below with a silver **BP** screw as shown in the inset (right).

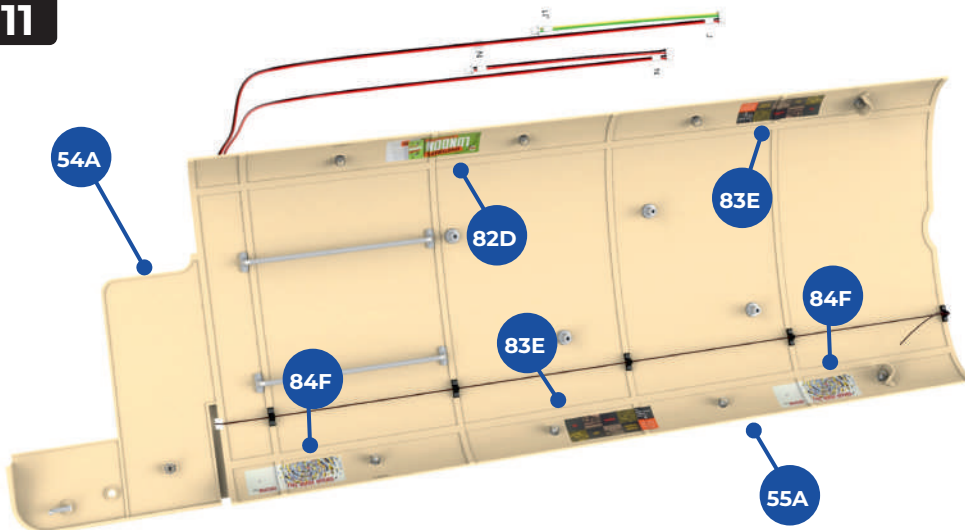


10



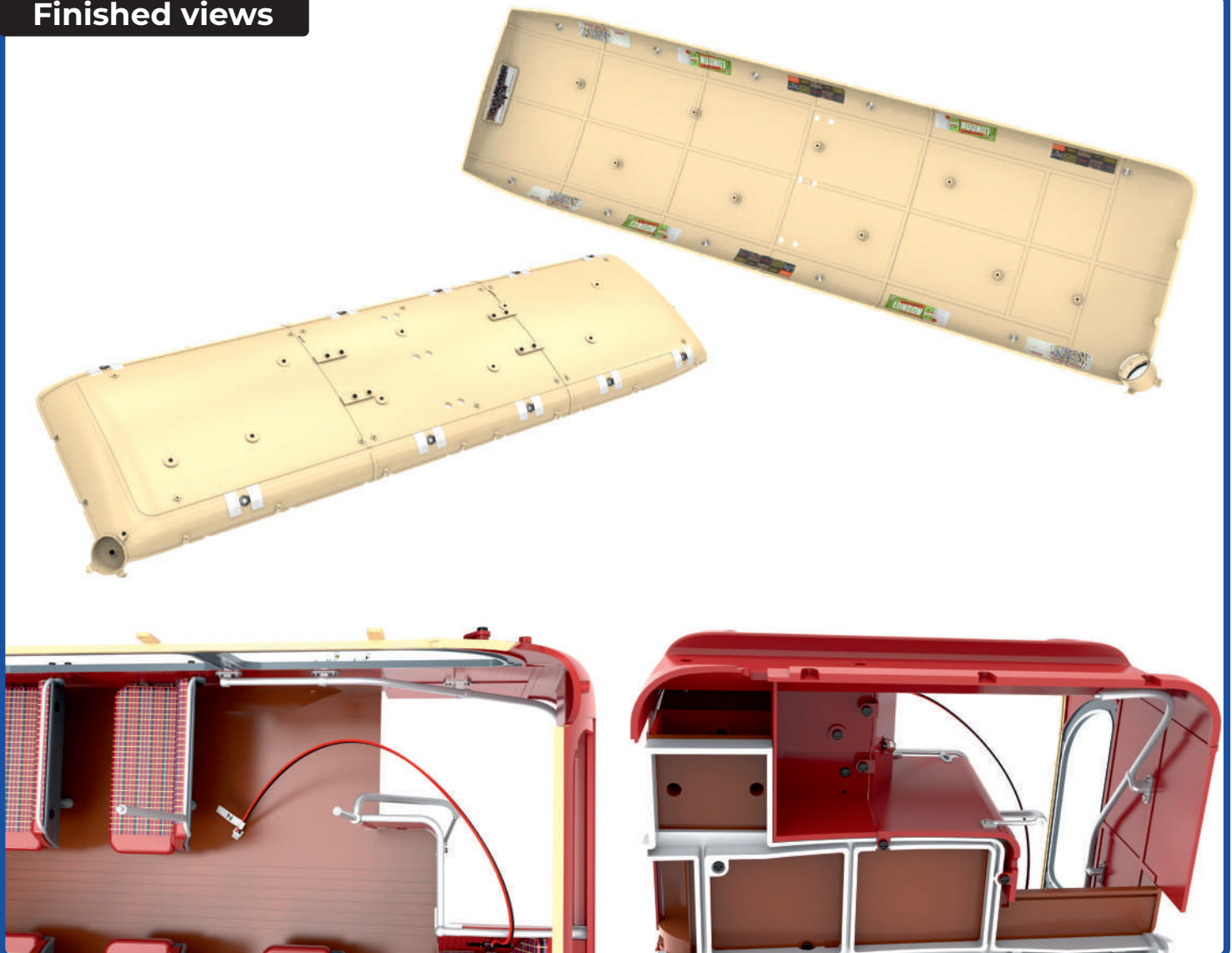
10 Take the advertising stickers **84F** (x3), **82D** (x4) and **83E** (x3). Identify the fixing points between the lamps on the upper deck ceiling panels **83A**, **82A** and **84A**. One at a time, peel them from the backing. Make sure that any gaps between sections of ceiling are fully closed up before fixing the stickers in place.

11



Take the advertising stickers **84F** (x2), **83E** (x2) and **82D** (x1) and identify the fixing points on the lower deck ceiling panels **54A** and **55A**. One at a time, remove the stickers from the backing and fix in place. Take extra care should you decide to temporarily disconnect cables attached to the roof.

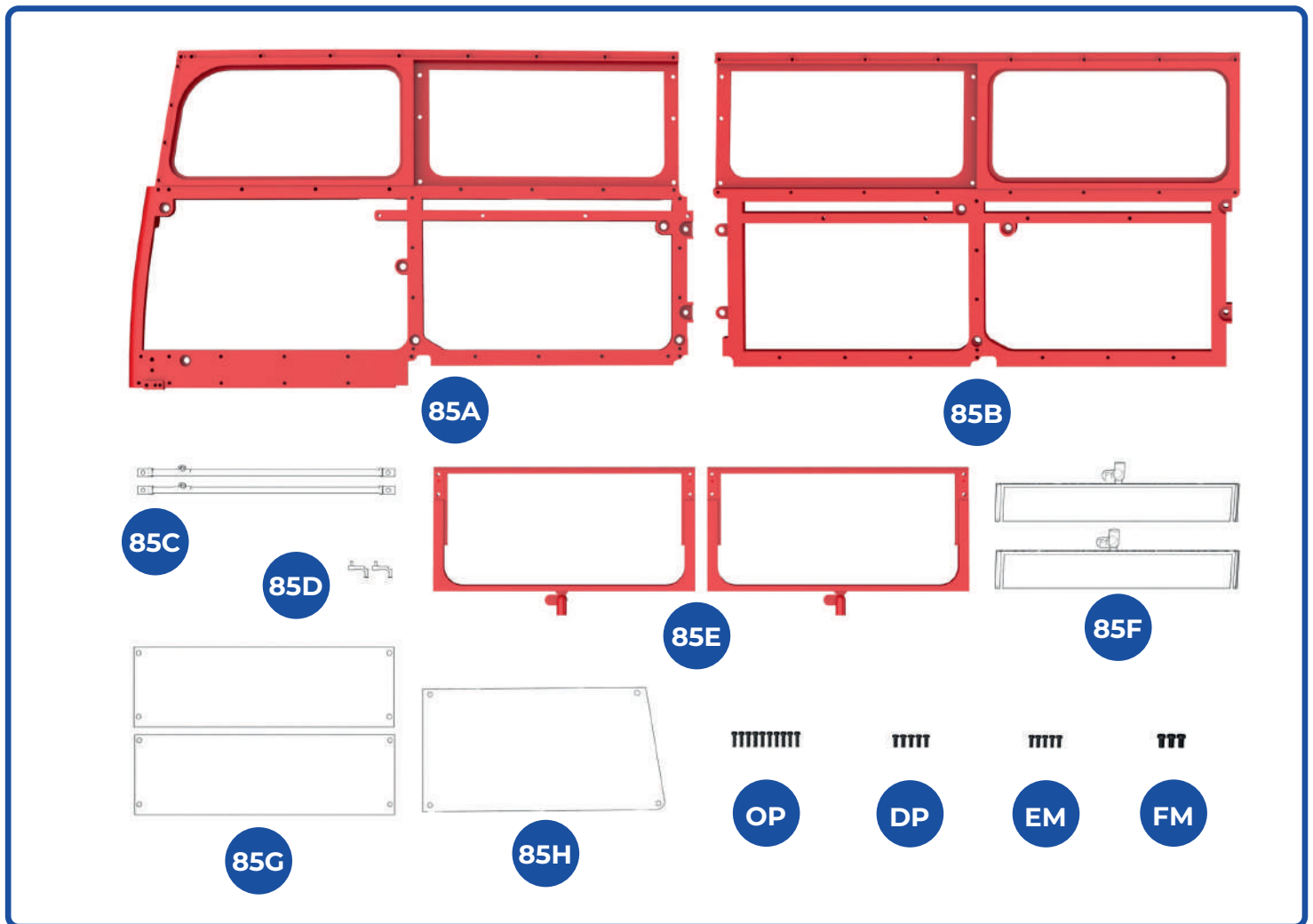
Finished views



STAGE 85

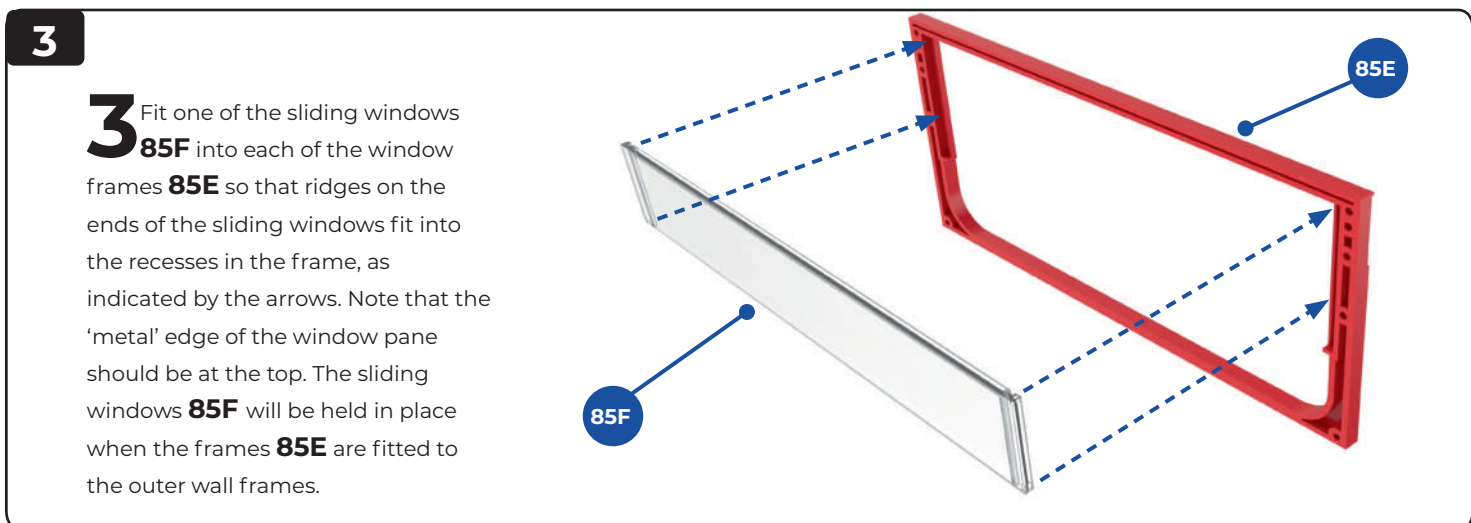
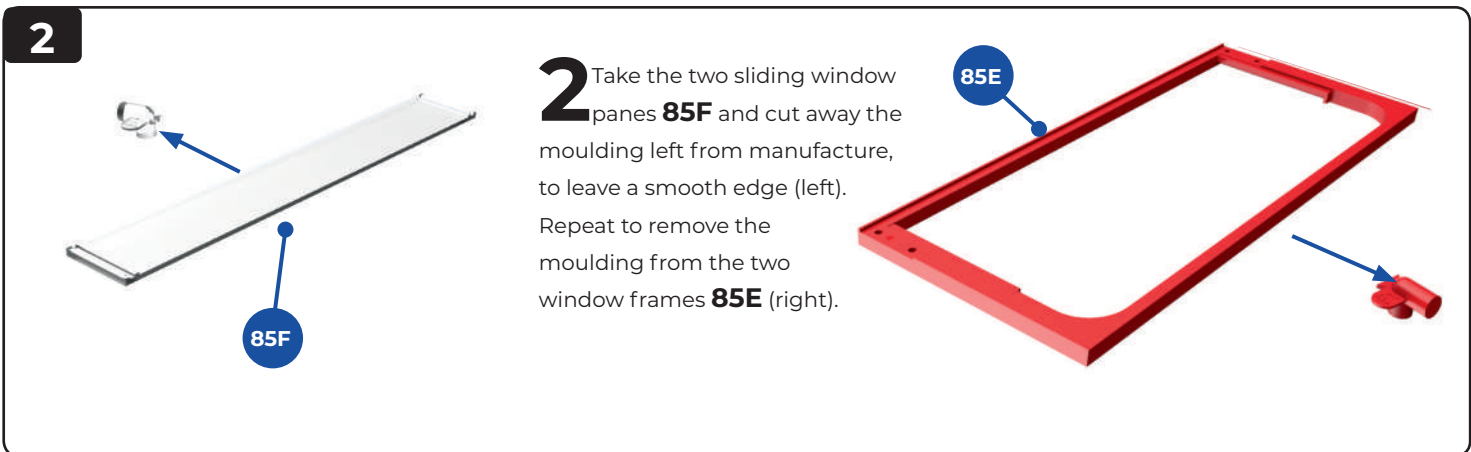
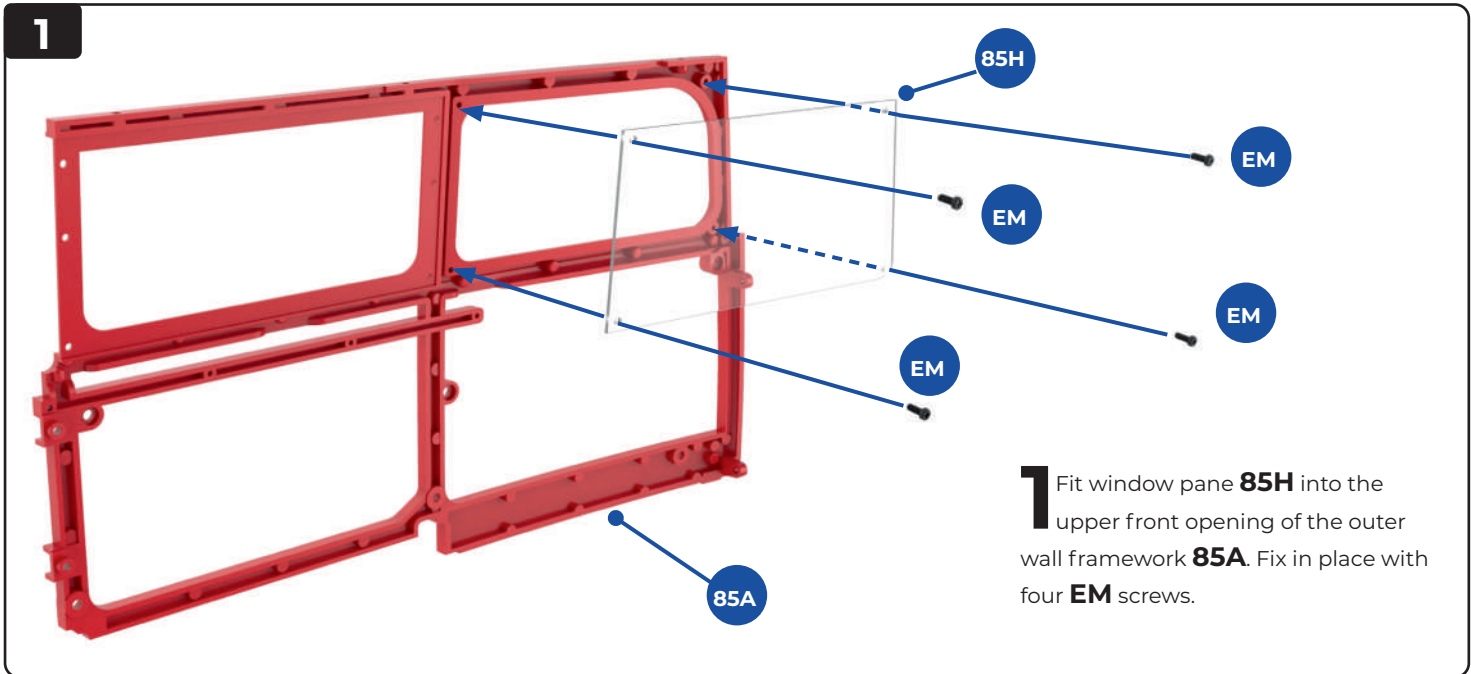
FRAMEWORK FOR THE OUTER WALLS OF THE UPPER DECK

We start work on fitting windows into the framework of the left-hand side of the upper deck.

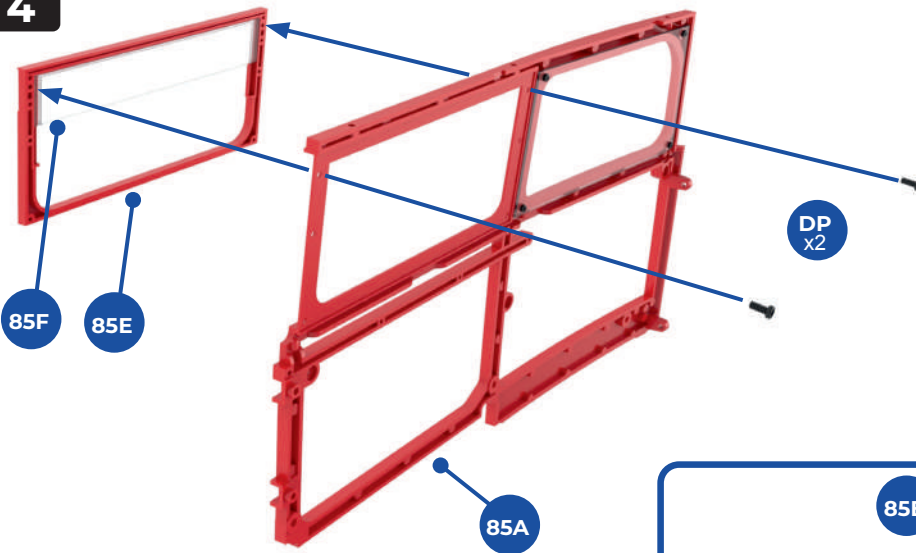


KEY TO PARTS SUPPLIED

85A	Left outer wall framework	85F	Sliding window pane (x2)	OP	1.7 x 5mm (x10)
85B	Left outer wall framework	85G	Window pane (x2)	DP	1.7 x 4mm (x5)
85C	Window bar (x2)	85H	Window pane	EM	1.5 x 4mm (x5)
85D	Window winder (x2)			FM	2.3 x 4mm (x3)
85E	Window frame (x2)				



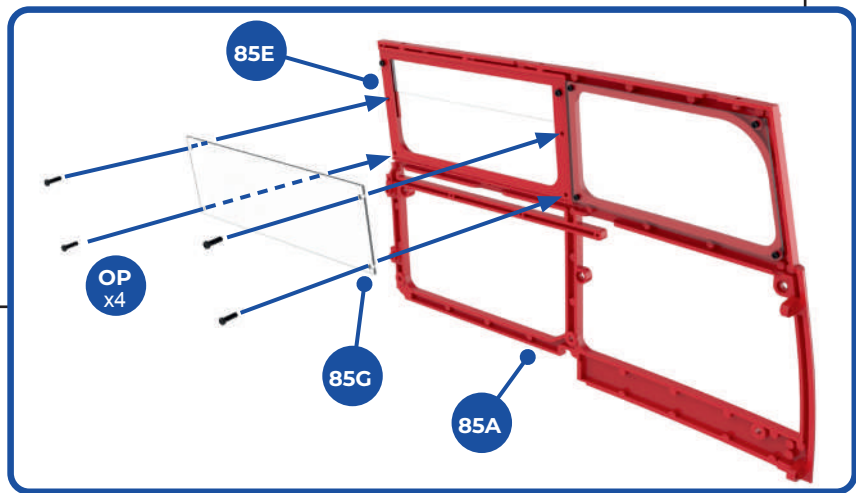
4



4 Fit the window frame **85E** into the next upper half of the framework **85A**, so that the sliding window **85F** is held in place. Fix the window frame in place with two **DP** screws, fitted from the inside of part **85A**.

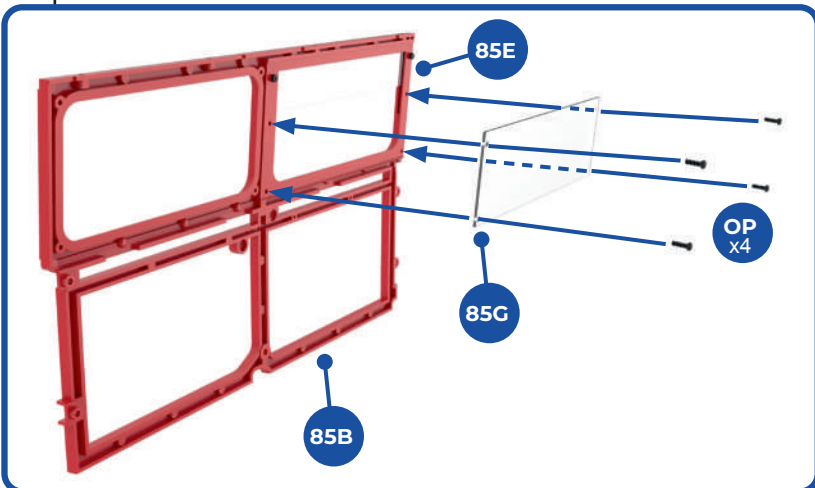
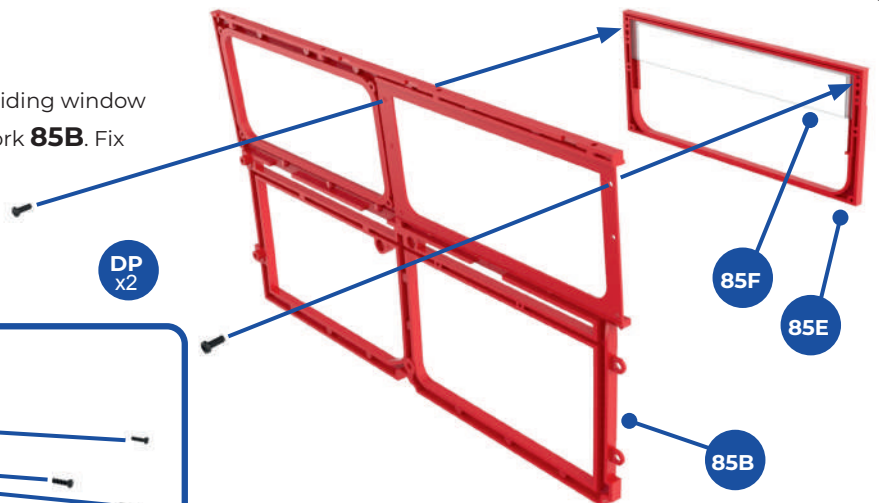
Fit the window pane **85G** to the inside of the frame **85A** so that it slightly overlaps the sliding window. Fix in place with four **OP** screws (inset below).

Take care not to get fingerprints or smears on the window panes when you fit them.

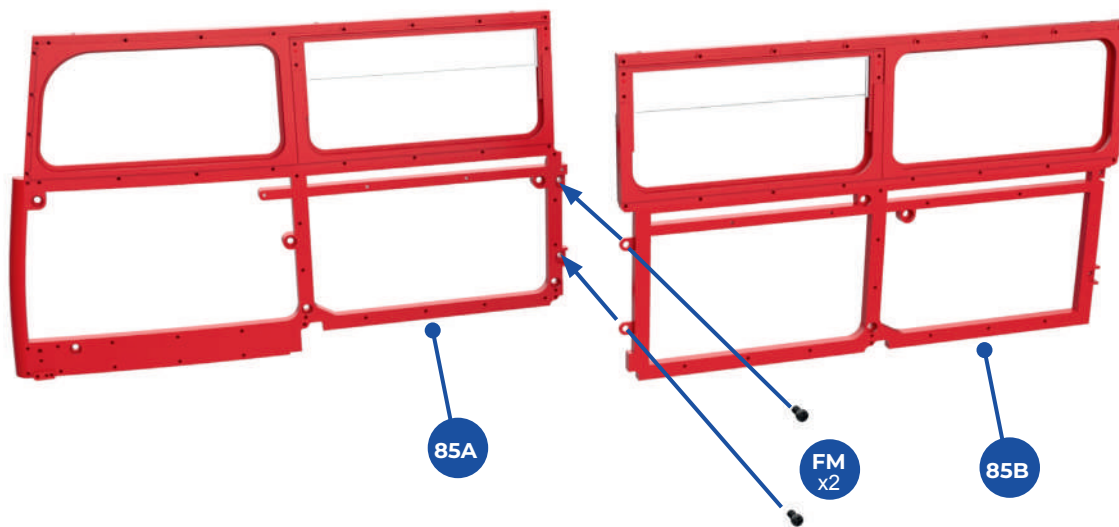


5

5 Take the second window frame **85E** with sliding window **85F** and fit it to the outside of the framework **85B**. Fix in place from the inside with two **DP** screws. Fit the next window pane **85G** to the inside of the framework **85B** and fix in place with four **OP** screws (inset below).

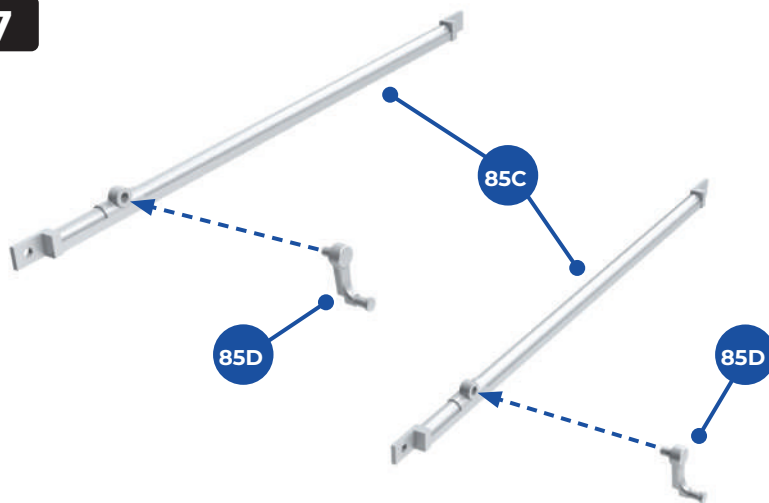


6



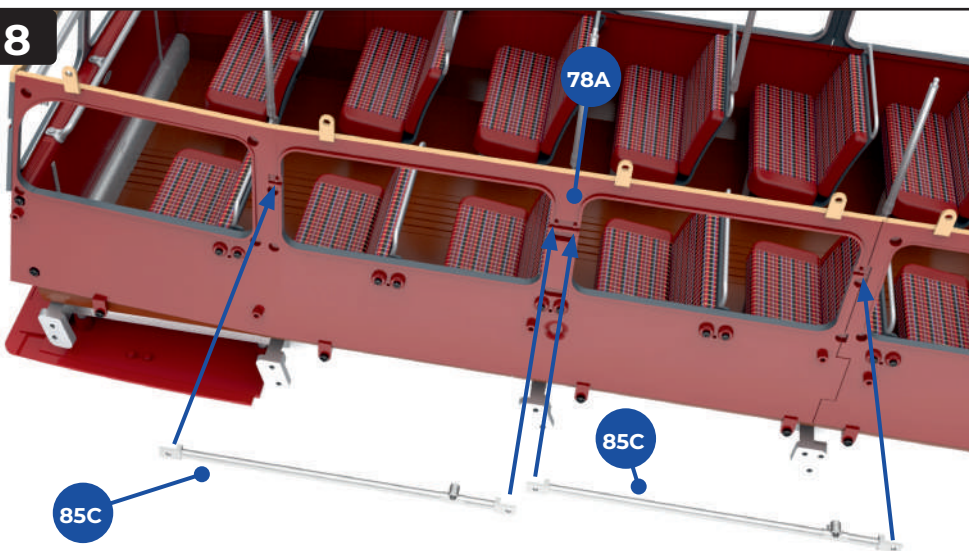
6 Take the two framework sections **85A** and **85B**, with the sliding windows in place, and align the screw holes as indicated. Hold the parts firmly together and support them from below while you fix the framework sections together with two **FM** screws.

7



7 Fit a window winder **85D** to each of the window bars **85C**. These are push fit connections.

8



8 Take the two window bars **85C** and fit them across the openings for the second and third left-hand windows on part **78A** as shown. The holes at the ends of the bars fit over pegs in part **78A**, and the bars should be level. They will be held in place when the outer framework is fitted.

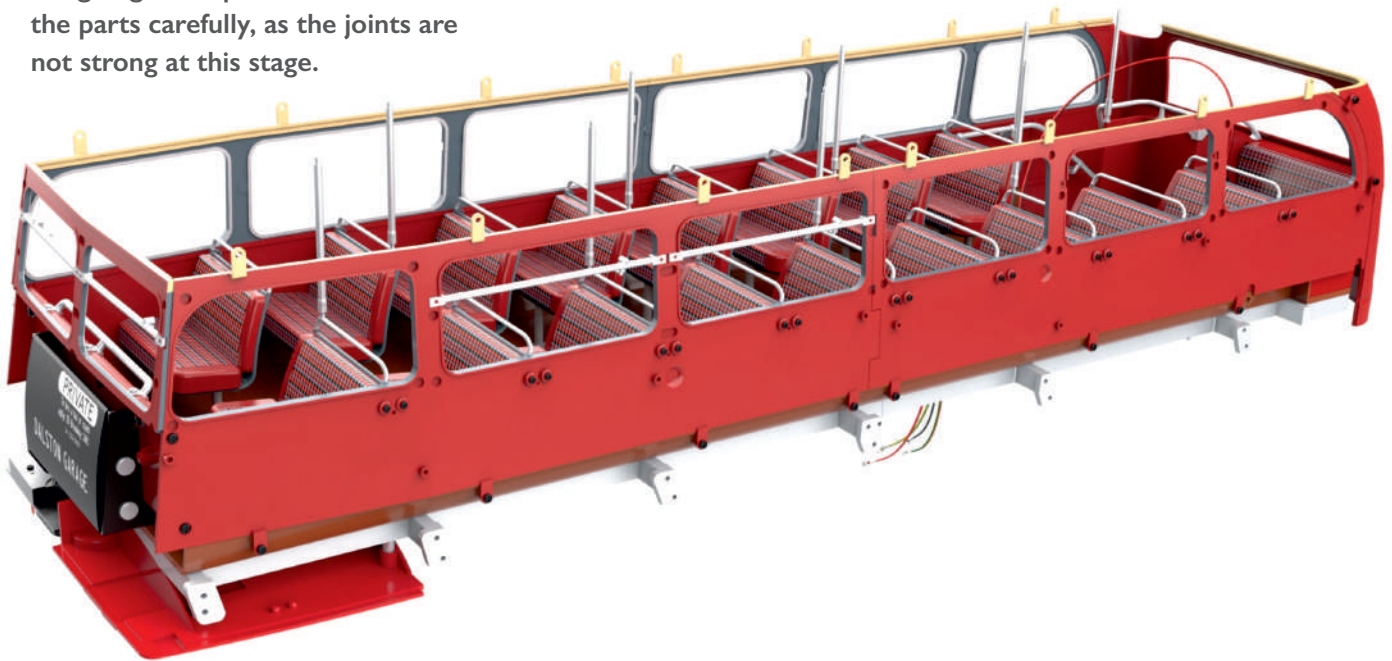


You might find it helpful to temporarily hold the bars in place with a low-tac tape.

Finished views



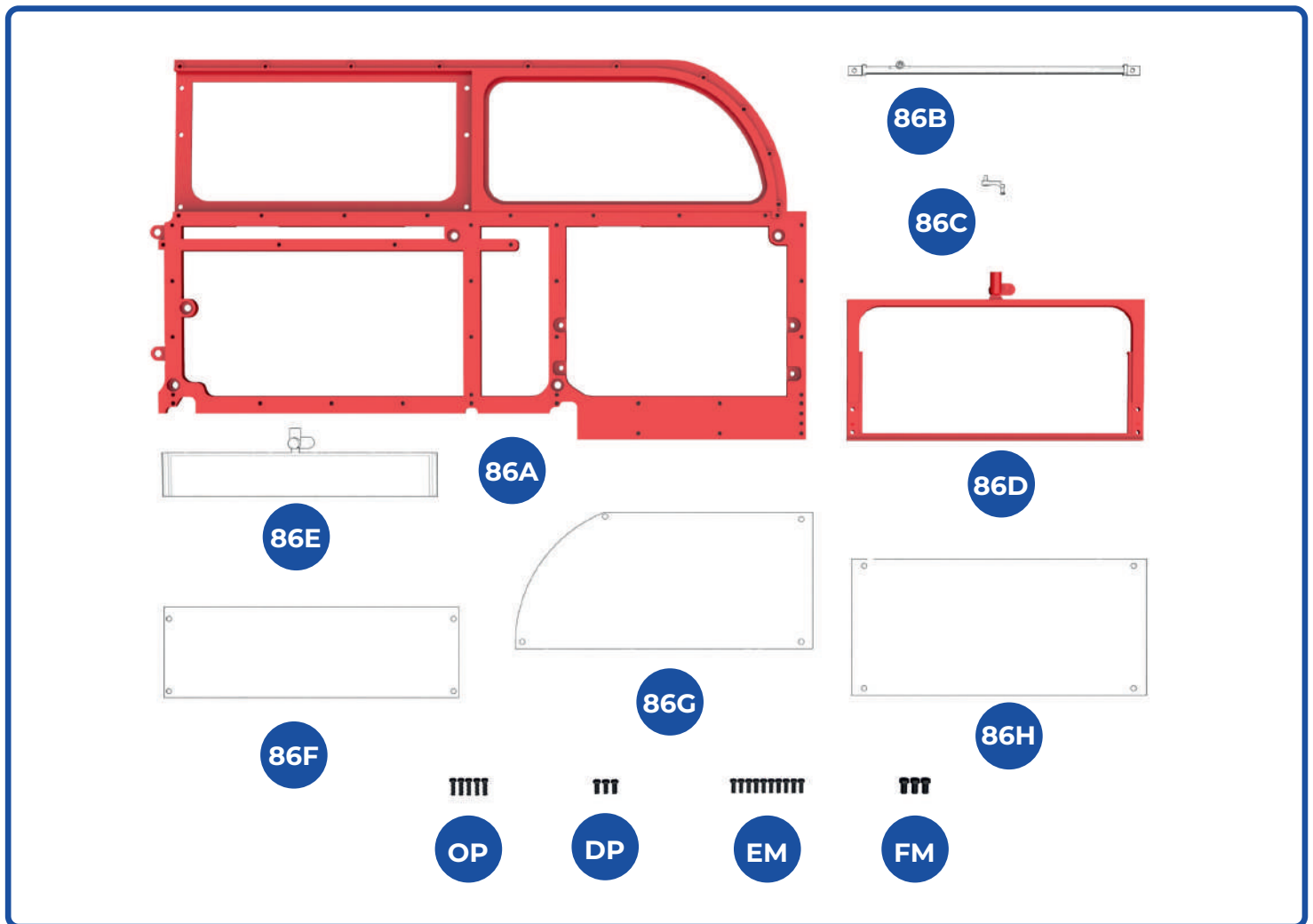
The front part of the outer wall on the left-hand side is taking shape and bars, with winders, have been fitted where the sliding windows are going to be positioned. Store the parts carefully, as the joints are not strong at this stage.



STAGE 86

FRAMEWORK AND WINDOWS FOR THE UPPER DECK

We continue fitting windows into the framework of the left-hand side of the upper deck.



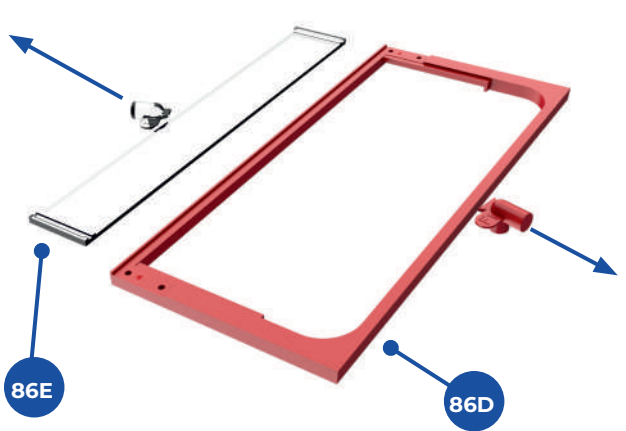
KEY TO PARTS SUPPLIED

86A Left outer wall framework
86B Window bar
86C Winder handle
86D Window frame
86E Sliding window pane

86F Window pane
86G Window pane
86H Window pane

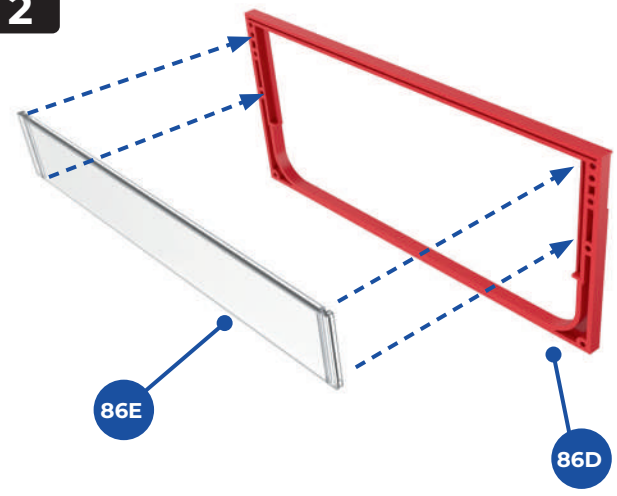
OP 1.7 x 5mm (x5)
DP 1.7 x 4mm (x3)
EM 1.5 x 4mm (x10)
FM 2.3 x 4mm (x3)

1



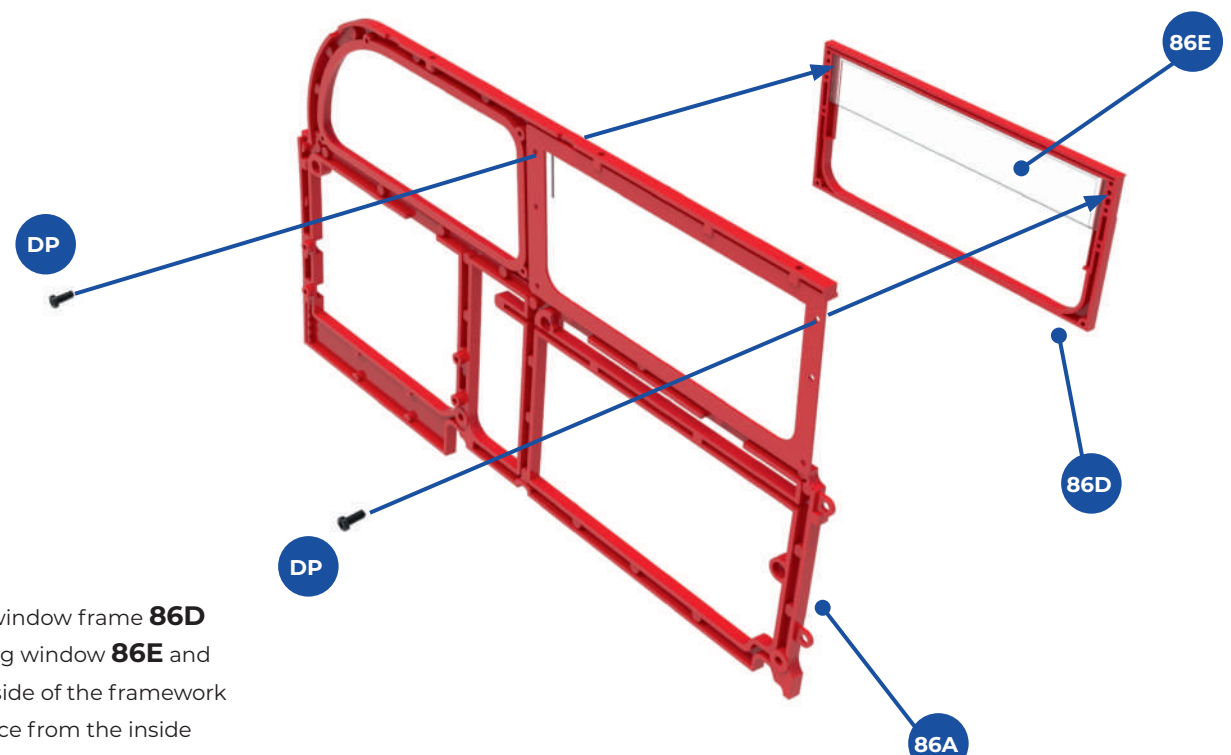
1 Cut away the mouldings that were used in manufacture from the sliding window **86E** and the window frame **86D**. Smooth down any rough edges that are left.

2



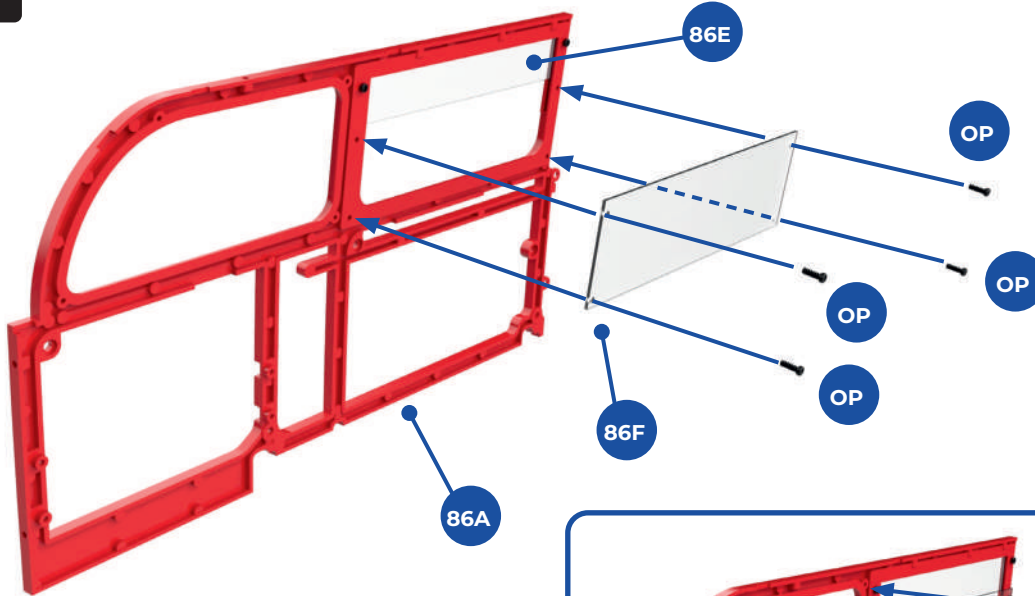
2 Fit the sliding window **86E** into the frame **86D**, so that ridges on the ends of the sliding window fit into the recesses in the frame, as indicated by the arrows. Note that the 'metal' edge of the window pane should be at the top. The sliding window **86E** will be held in place when the frame **86D** is fitted to the outer wall frames.

3

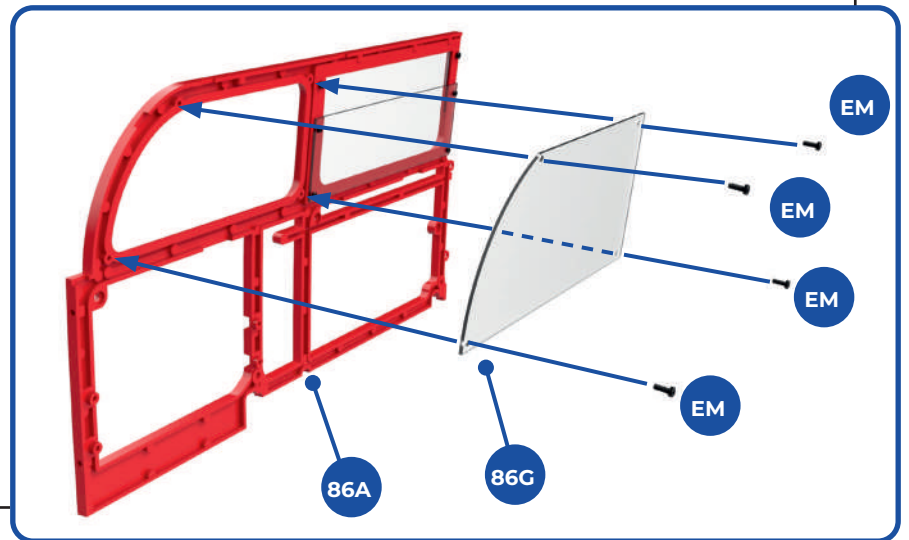


3 Take the window frame **86D** with sliding window **86E** and fit it to the outside of the framework **86A**. Fix in place from the inside with two **DP** screws.

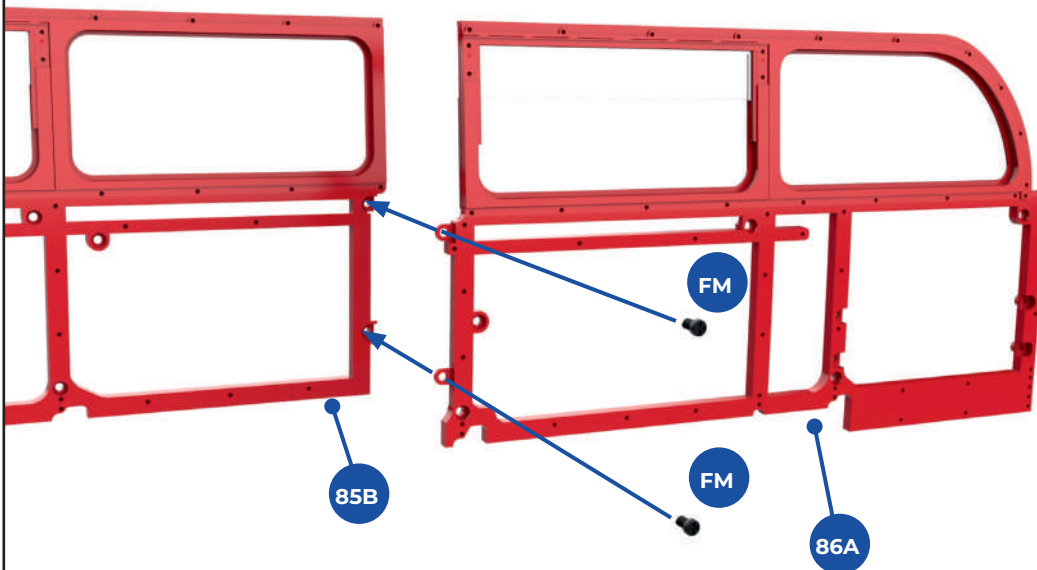
4



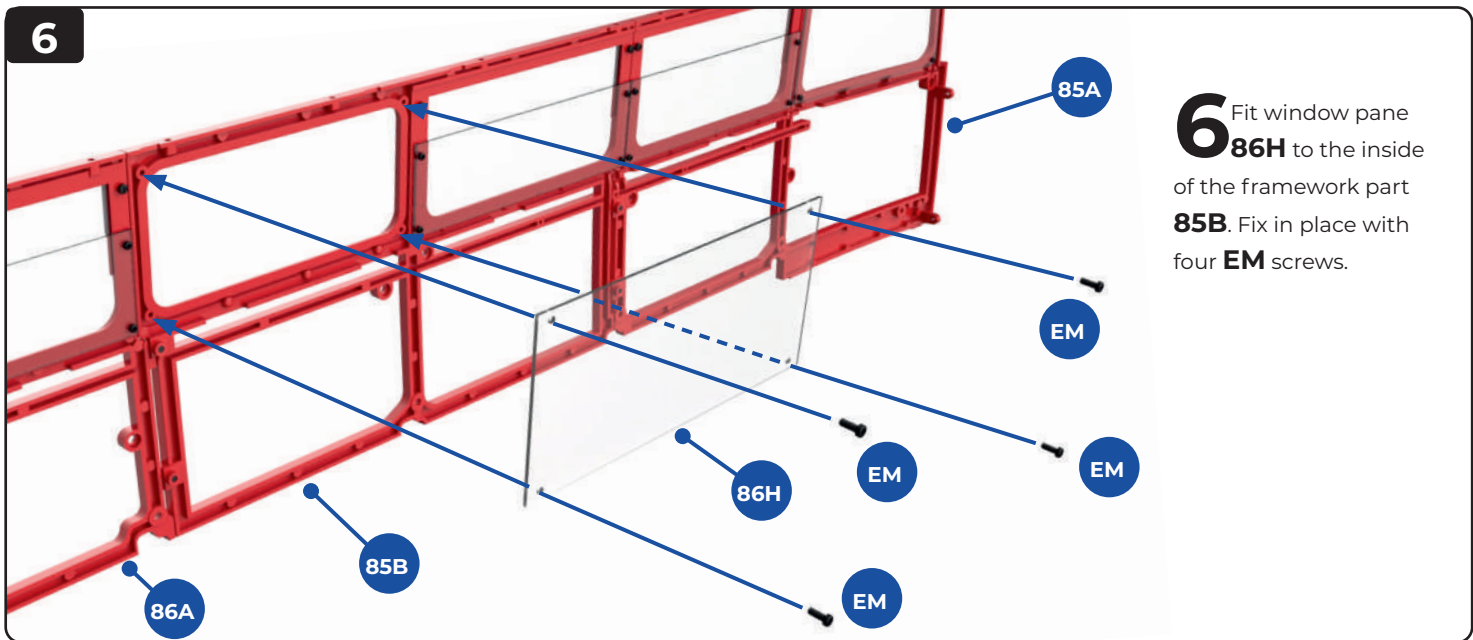
4 Fit the window pane **86F** to the inside of the framework **86A**, beneath the sliding window pane **86E**. Fix in place with four **OP** screws. Fit the curved window pane **86G** to the framework **86A** and fix in place with four **EM** screws (inset).



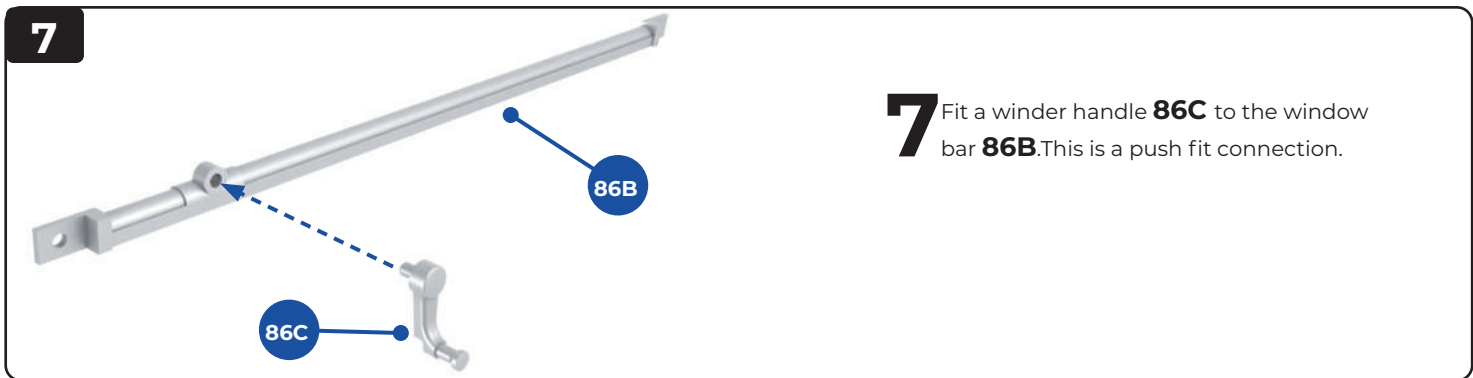
5



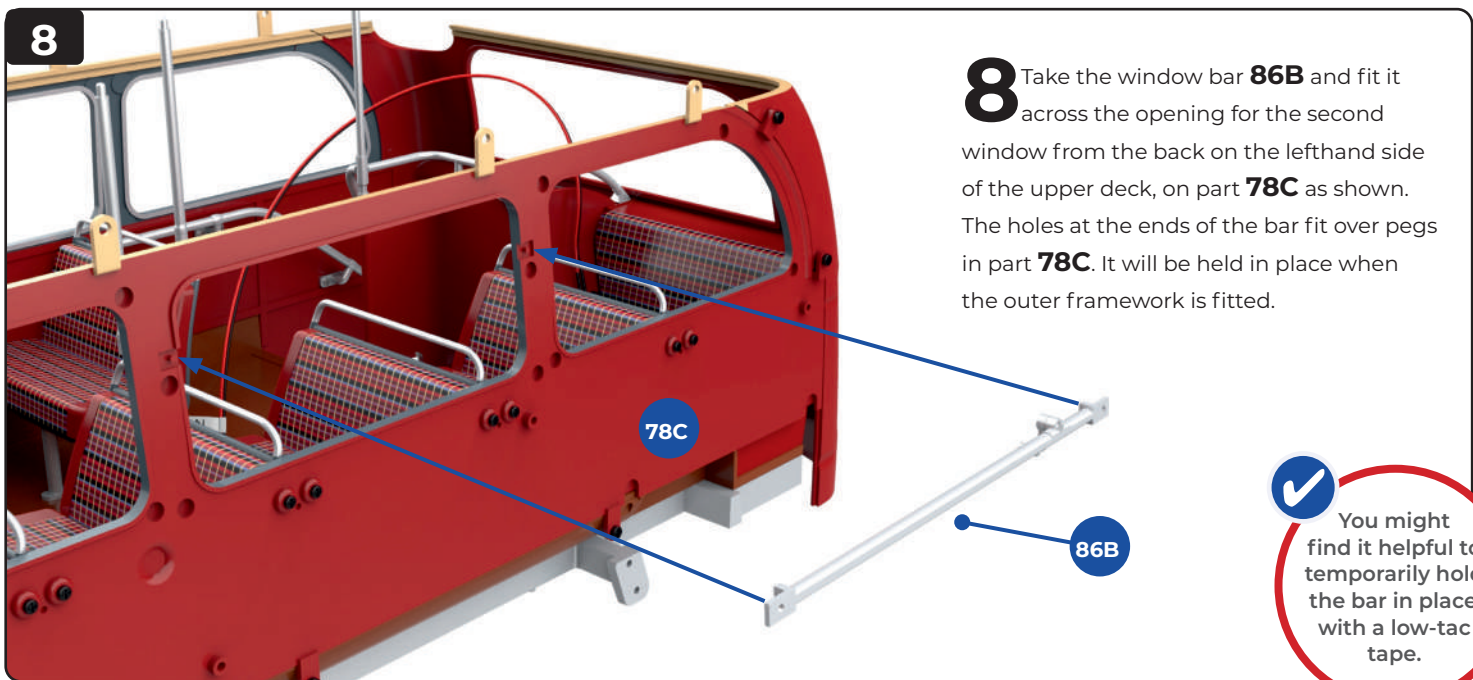
5 Take the framework assembly from the previous stage and align the screw holes on the edge of the framework **86A** with those on part **85B**. Supporting the framework from behind, fix the sections together with two **FM** screws.



6 Fit window pane **86H** to the inside of the framework part **85B**. Fix in place with four **EM** screws.



7 Fit a winder handle **86C** to the window bar **86B**. This is a push fit connection.



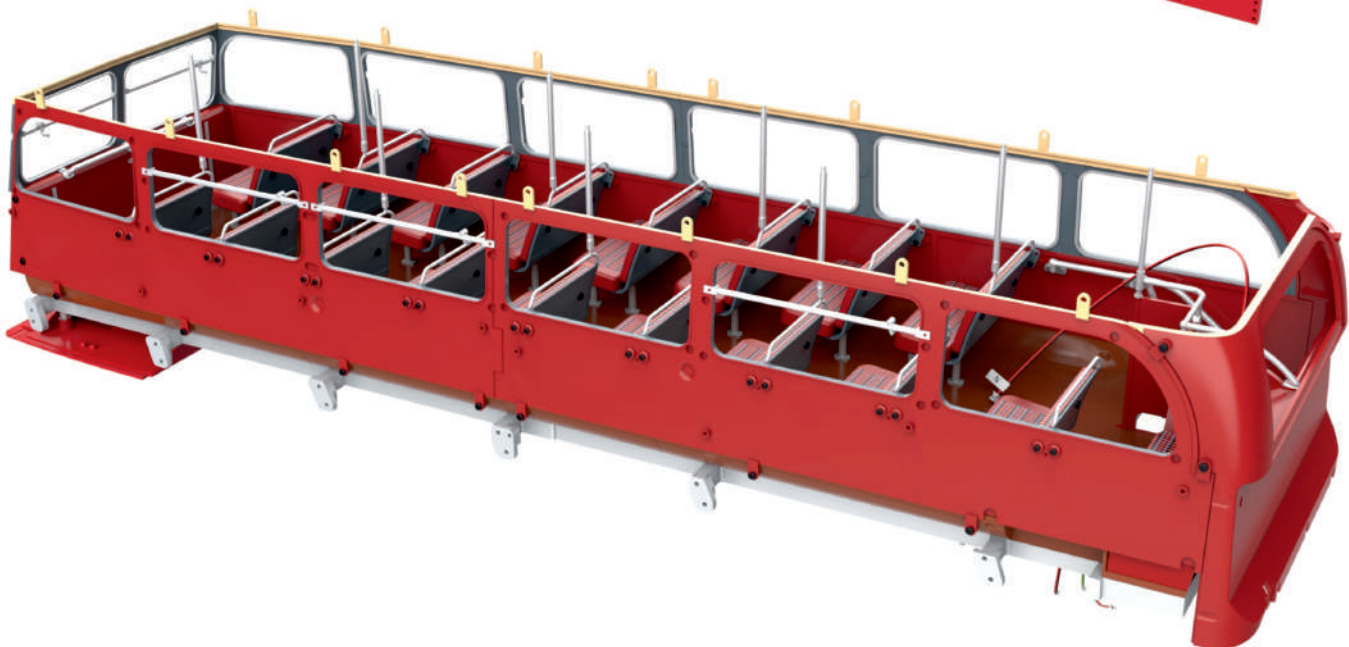
8 Take the window bar **86B** and fit it across the opening for the second window from the back on the lefthand side of the upper deck, on part **78C** as shown. The holes at the ends of the bar fit over pegs in part **78C**. It will be held in place when the outer framework is fitted.

You might find it helpful to temporarily hold the bar in place with a low-tac tape.

Finished views



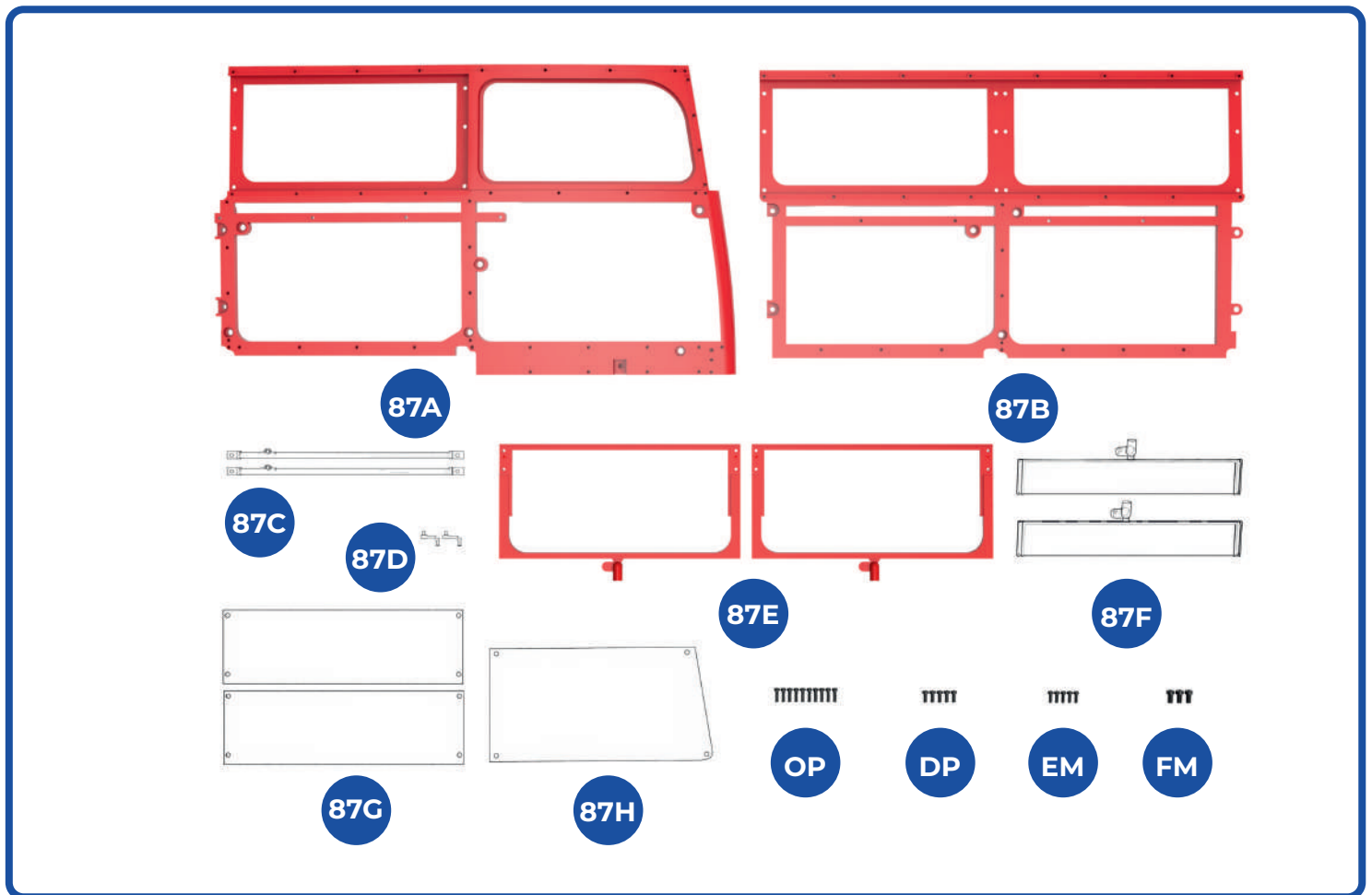
The outer framework for the wall on the left-hand side of the upper deck is complete, with window bars in place on the inner wall of the upper deck. Store the parts carefully until they are needed.



STAGE 87

FRAMEWORK AND WINDOWS FOR THE UPPER DECK

We start to assemble and fit the framework and windows for the righthand side of the upper deck.



KEY TO PARTS

87A	Right wall framework	87F	Sliding window pane (x2)	OP	1.7 x 5mm (x10)
87B	Right wall framework	87G	Window pane (x2)	DP	1.7 x 4mm (x5)
87C	Window bar (x2)	87H	Window pane	EM	1.5 x 4mm (x5)
87D	Winder (x2)			FM	2.3 x 4mm (x3)
87E	Window frame (x2)				

1

1 Fit the window pane **87H** to the inside of the right wall framework **87A**. Fix in place with four **EM** screws.

2

2 Cut away the mouldings that were used in manufacture from the sliding window panes **87F** and the window frames **87E**. Smooth any rough edges.

✓ Try to avoid getting marks on the windows when you fit them.

3

3 Fit the sliding window pane **87F** into the window frame **87E** so that ridges on the ends of part **87F** fit into the grooves in the frame **87E**.

4

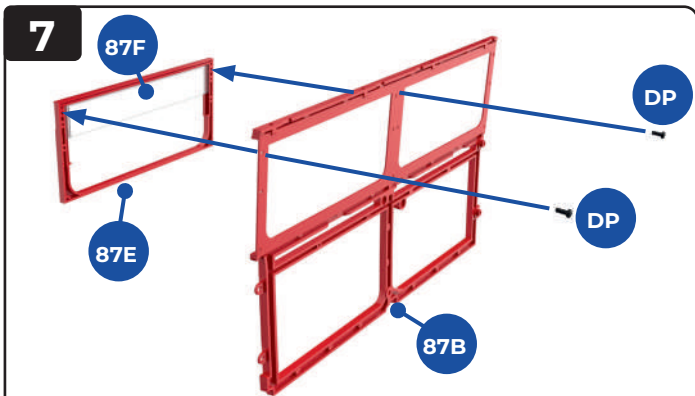
4 Fit the window frame **87E** (with sliding window pane **87F**) on to the outside of the right wall framework **87A**. Fix in place from the inside of the framework with two **DP** screws.

5

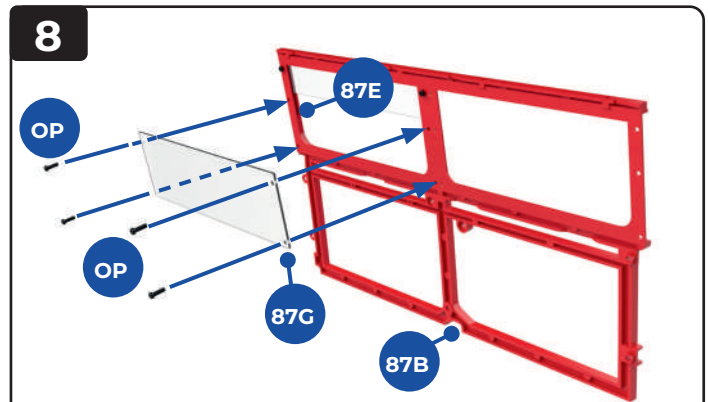
5 Fit the window pane **87G** into the inside of the right wall framework **87A**. Fix it in place with four **OP** screws, which are fixed through into frame **87E**.

6

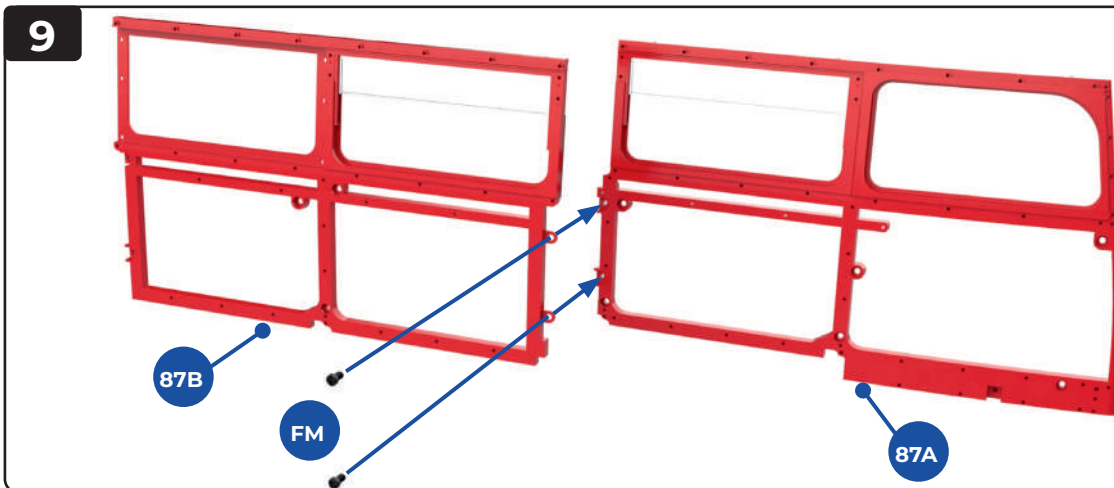
6 Fit the second sliding window pane **87F** into the second window frame **87E** so that the ridges on the window fit into the grooves in the frame.



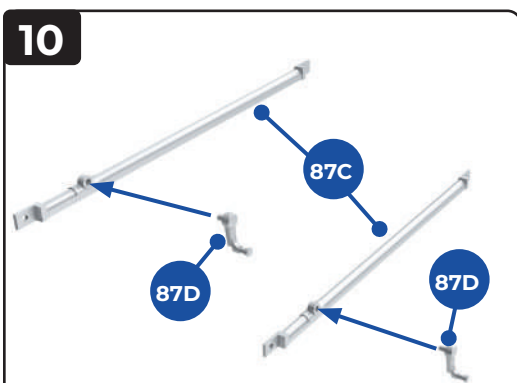
7 Fit the second window frame **87E** (with sliding window pane **87F**) onto the outside of the right wall framework **87B**. Fix in place with two **DP** screws.



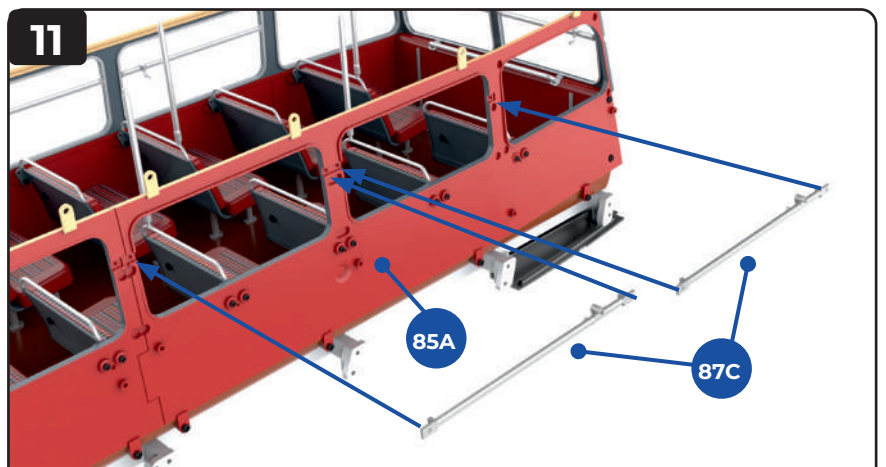
8 Fit window pane **87G** into the inside of the right wall framework **87B**. Fix in place with four **OP** screws, which go through into the window frame **87E**.



9 Take the two sections of wall framework **87B** and **87A** and check how they fit together so that the screw holes are aligned. Fix together with two **FM** screws. Take care to support the assembly when handling.

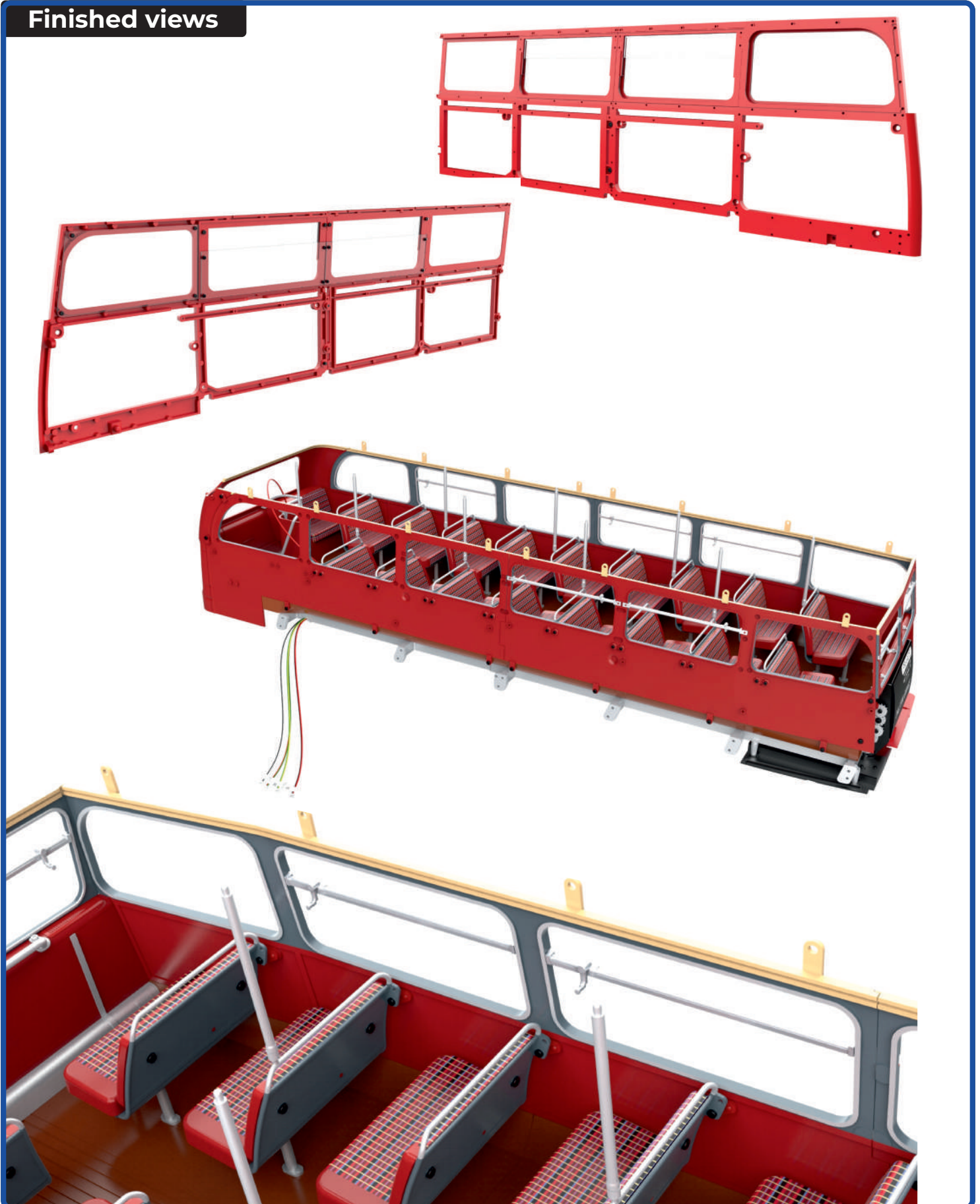


10 Fit the two window winders **87D** into the sockets in the window bars **87C**. These are push-fit connections.

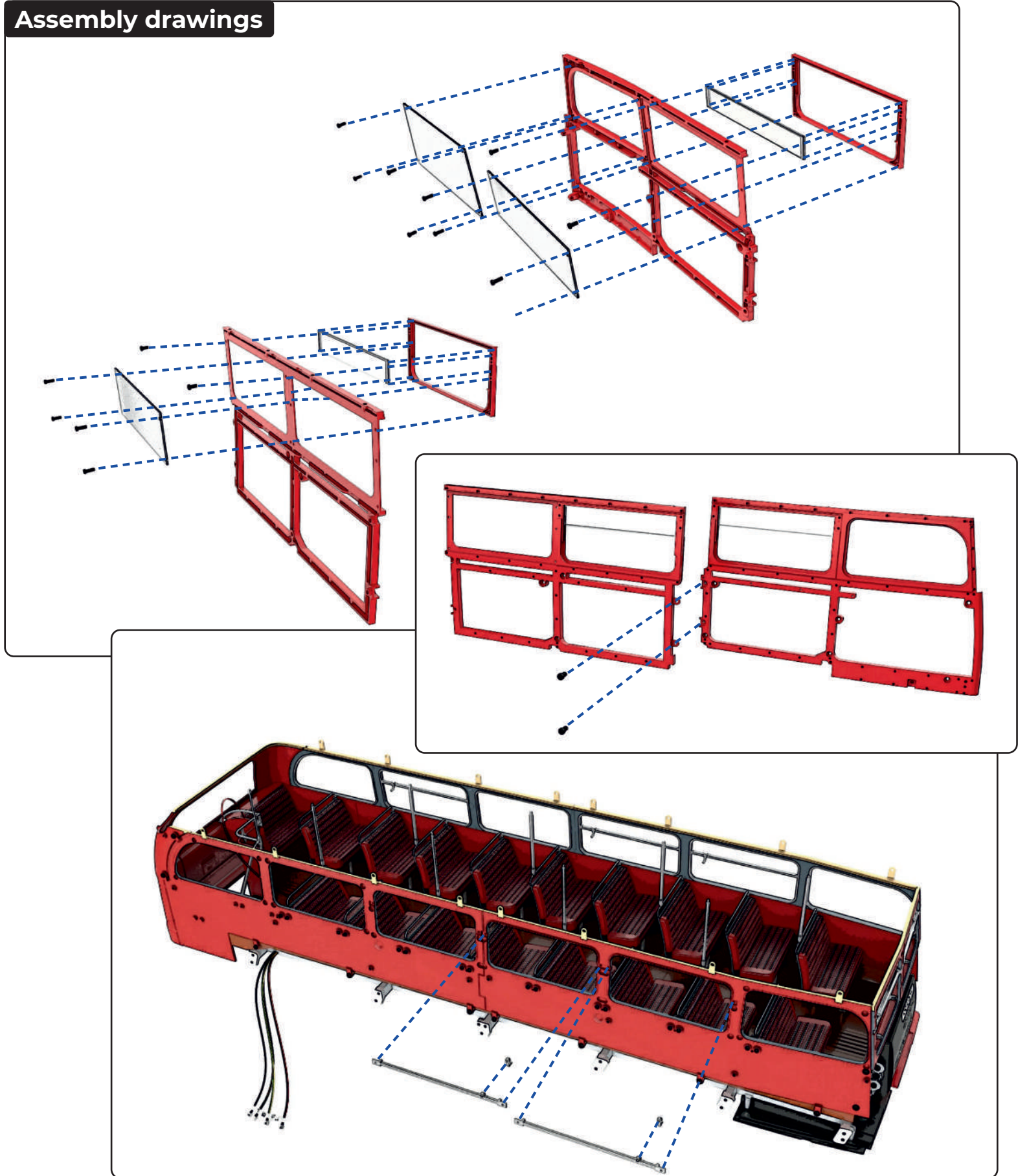


11 Fit the window bars **87C** across the second and third window openings in the right side wall **85A**. These are push-fit connections.

Finished views



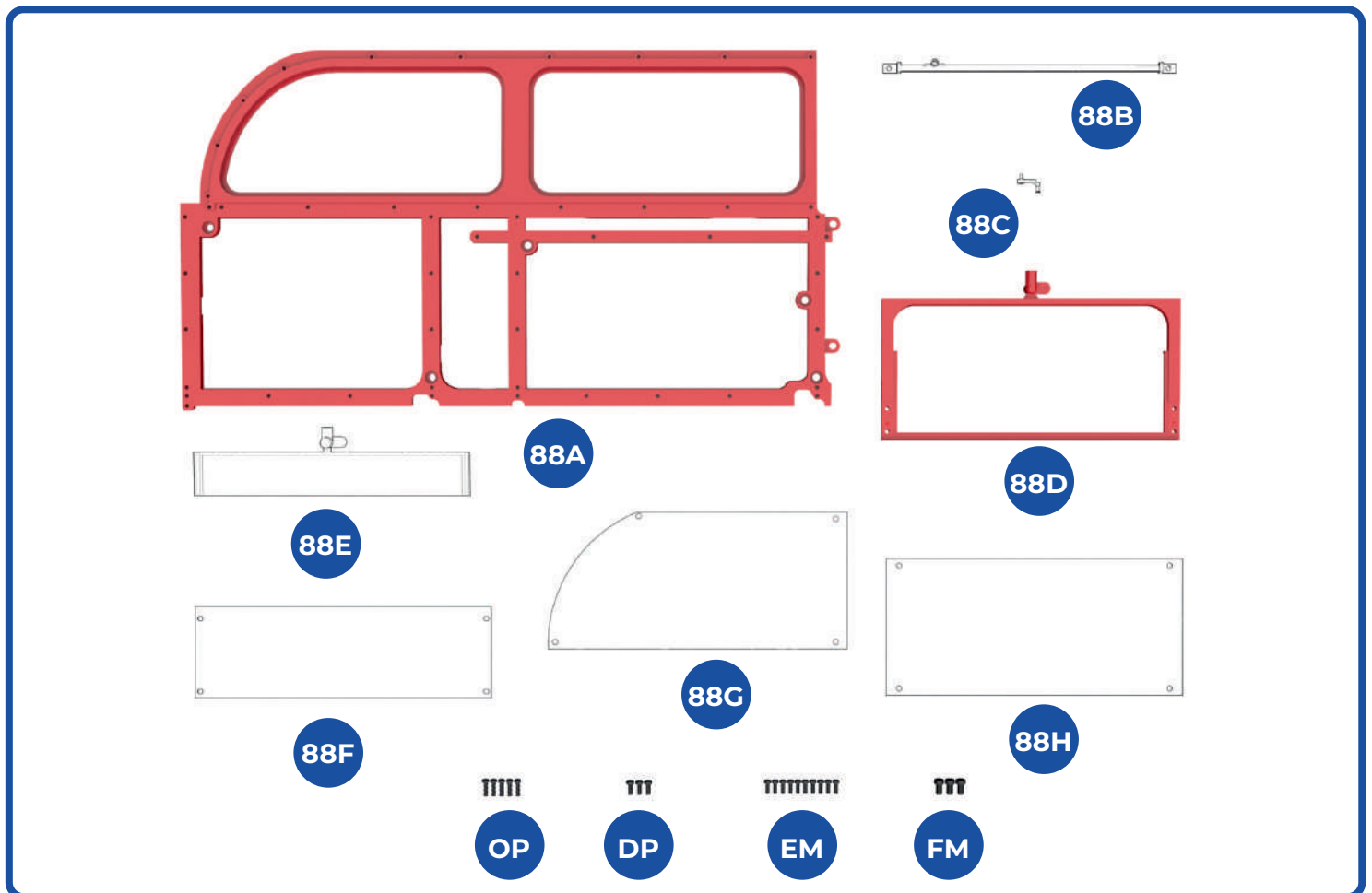
Assembly drawings



STAGE 88

FRAMEWORK AND WINDOWS FOR THE UPPER DECK

Here we continue to assemble and fit the framework and windows for the right-hand side of the upper deck.



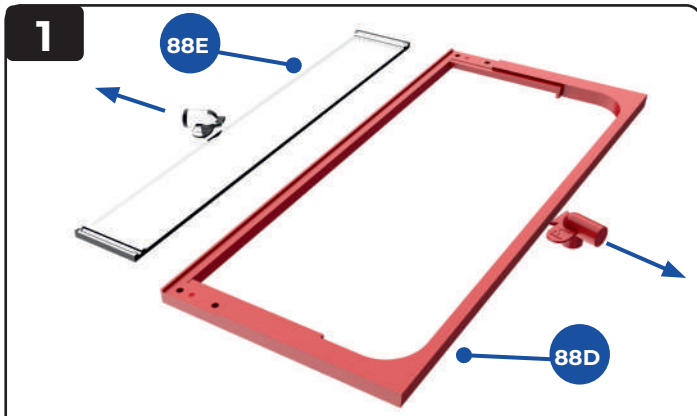
KEY TO PARTS

88A Right wall framework
88B Window bar
88C Winder
88D Window frame
88E Sliding window pane

88F Window pane
88G Window pane
88H Window pane

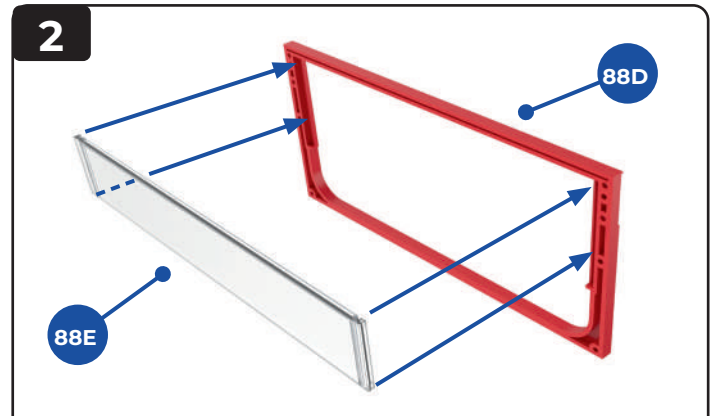
OP 1.7 x 5mm (x5)
DP 1.7 x 4mm (x3)
EM 1.5 x 4mm (x10)
FM 2.3 x 4mm (x3)

1



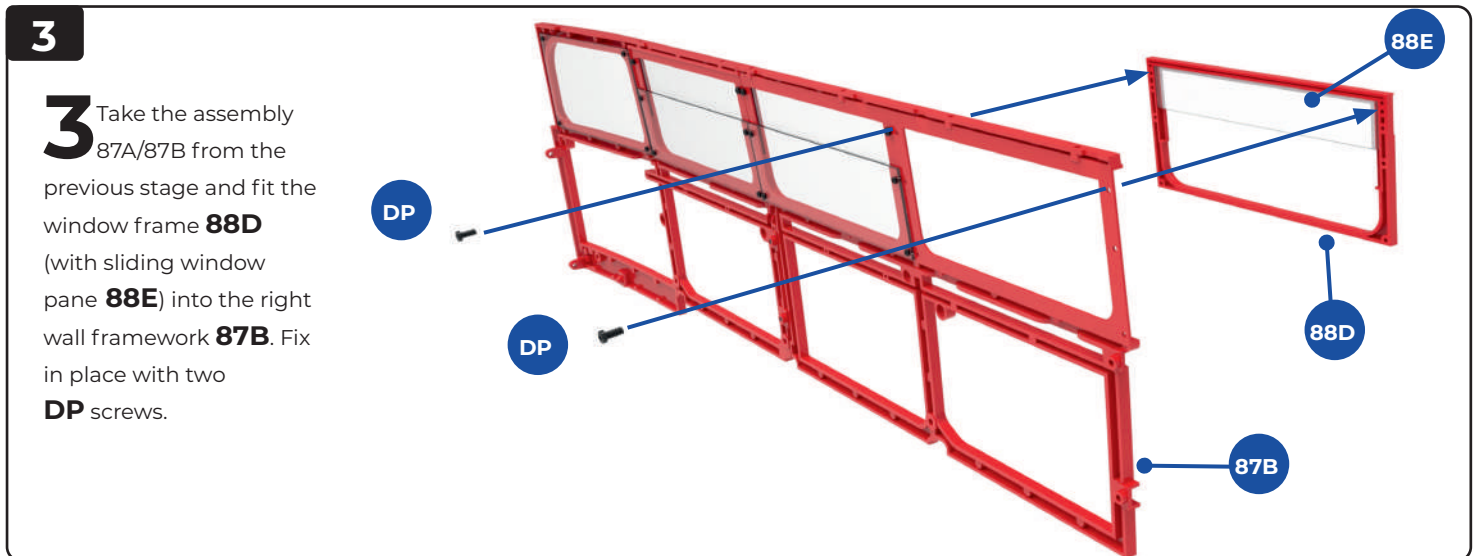
1 Cut away the mouldings that were used in manufacture from the sliding window panes **88E** and the window frame **88E** and smooth any rough edges.

2



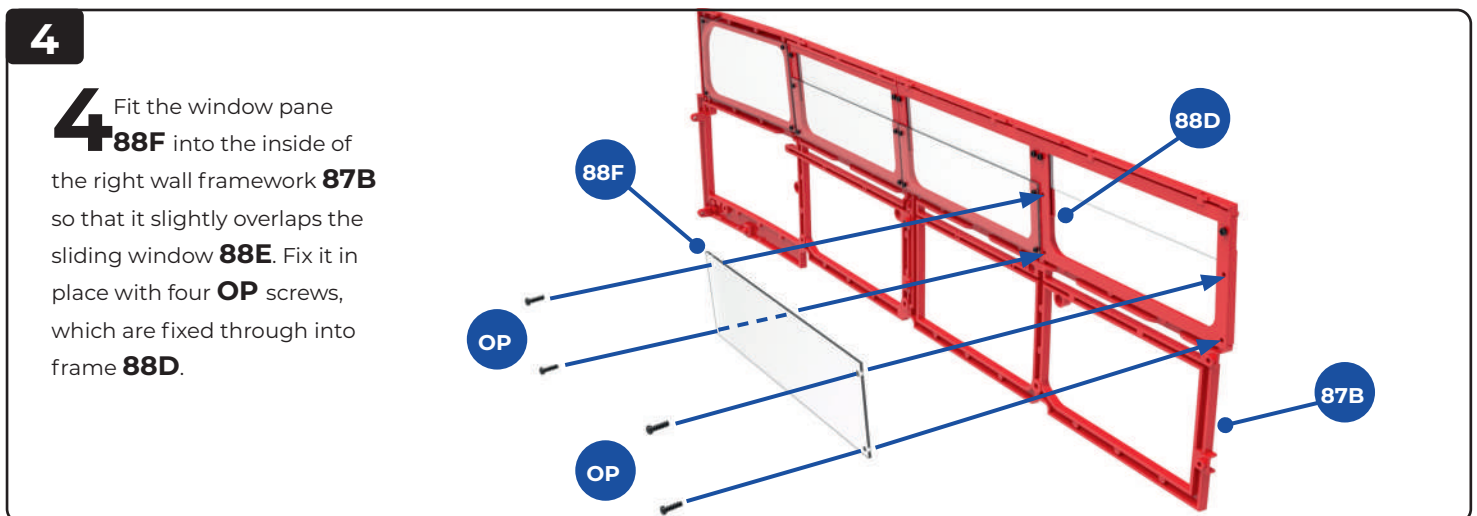
2 Fit the ridges on the ends of the sliding window pane **88E** into the grooves on window frames **88D**. The 'metal' edge of part **88E** should be at the top.

3

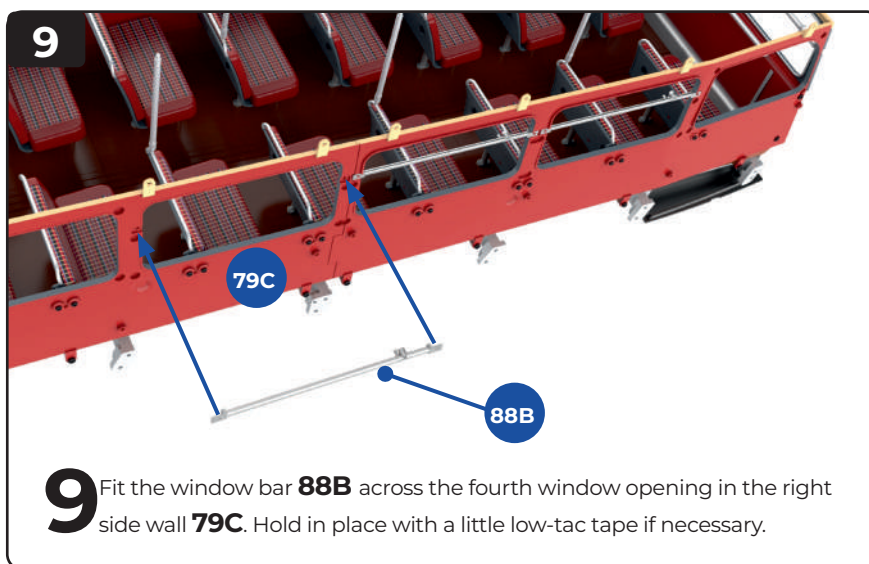
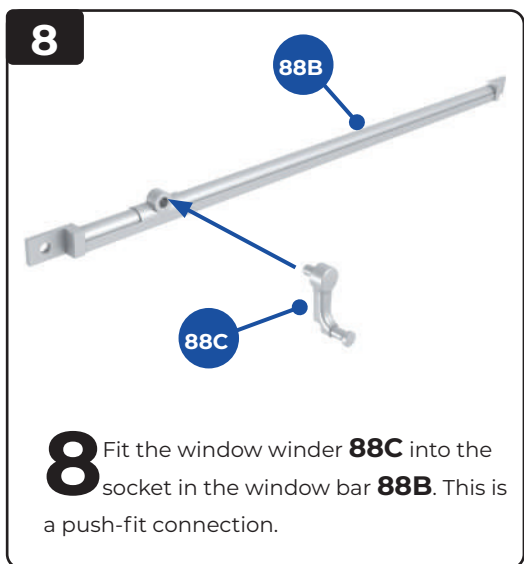
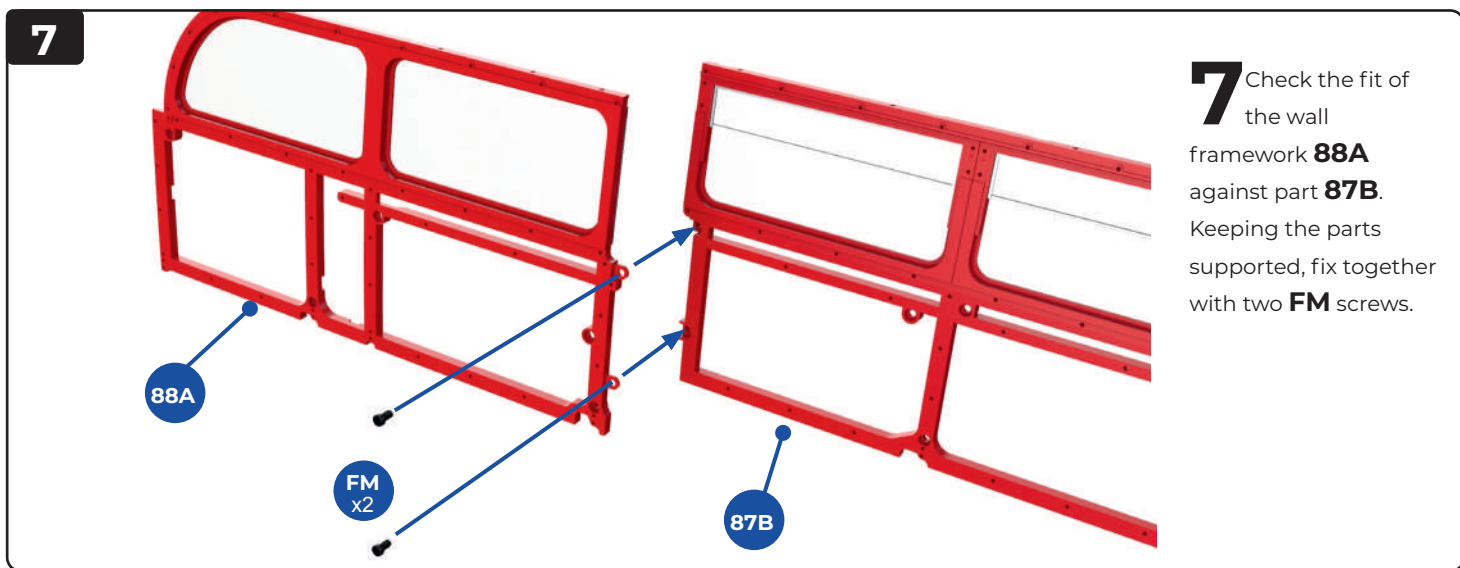
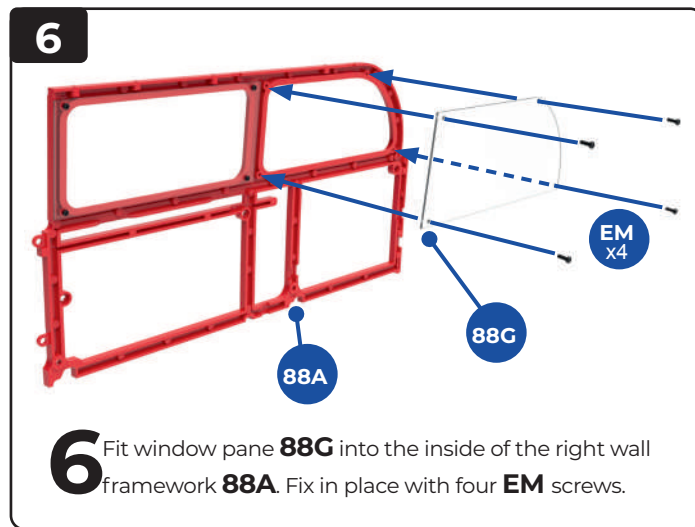
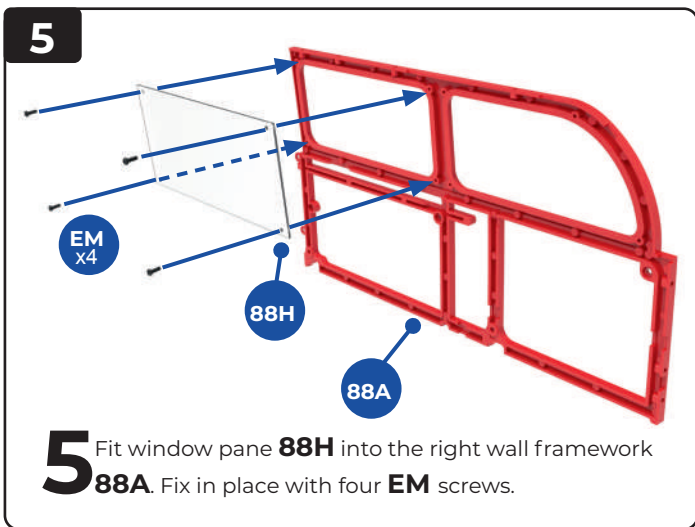


3 Take the assembly **87A/87B** from the previous stage and fit the window frame **88D** (with sliding window pane **88E**) into the right wall framework **87B**. Fix in place with two **DP** screws.

4



4 Fit the window pane **88F** into the inside of the right wall framework **87B** so that it slightly overlaps the sliding window **88E**. Fix it in place with four **OP** screws, which are fixed through into frame **88D**.



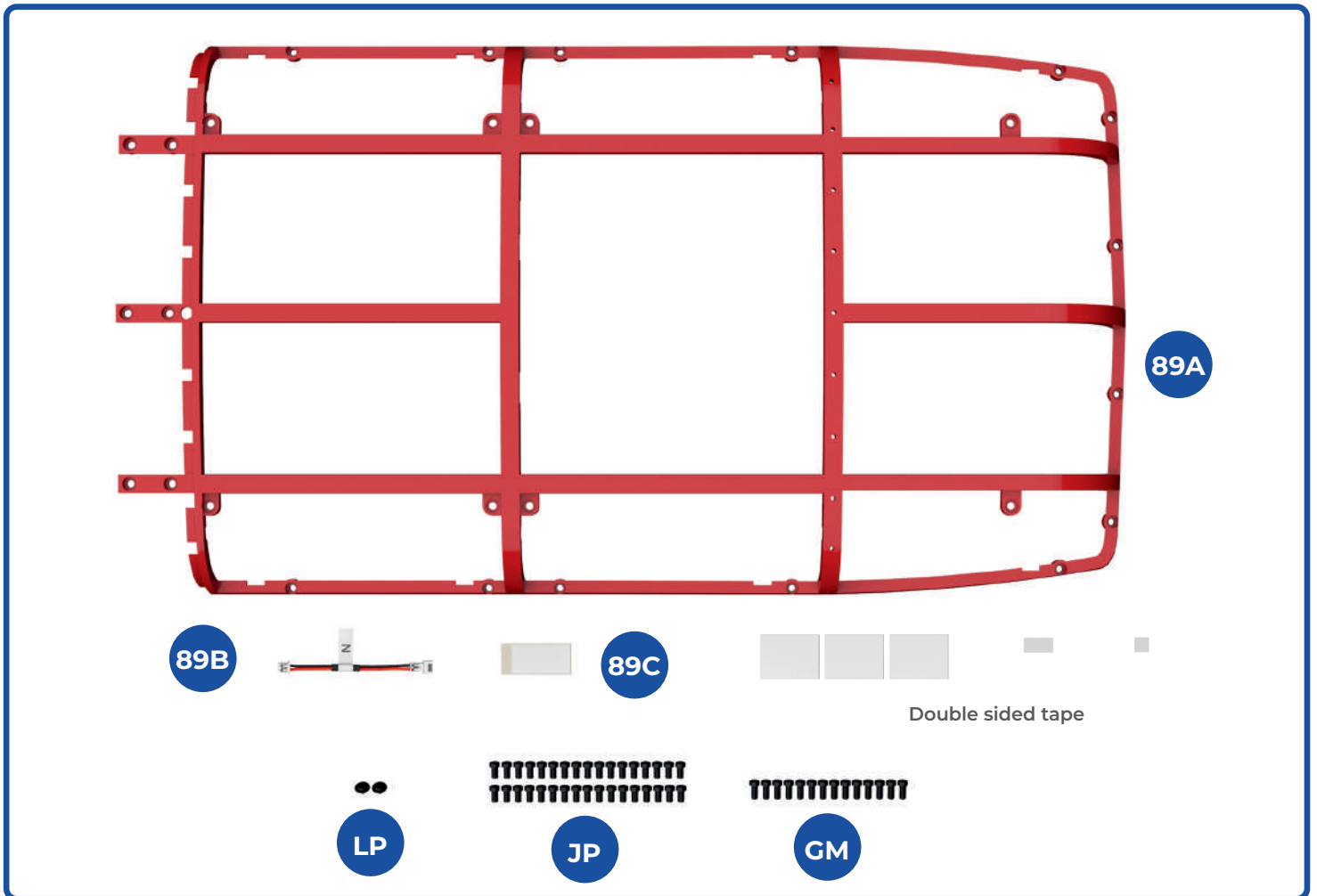
Finished views



STAGE 89

WORK ON THE LOWER DECK AND UPPER DECK

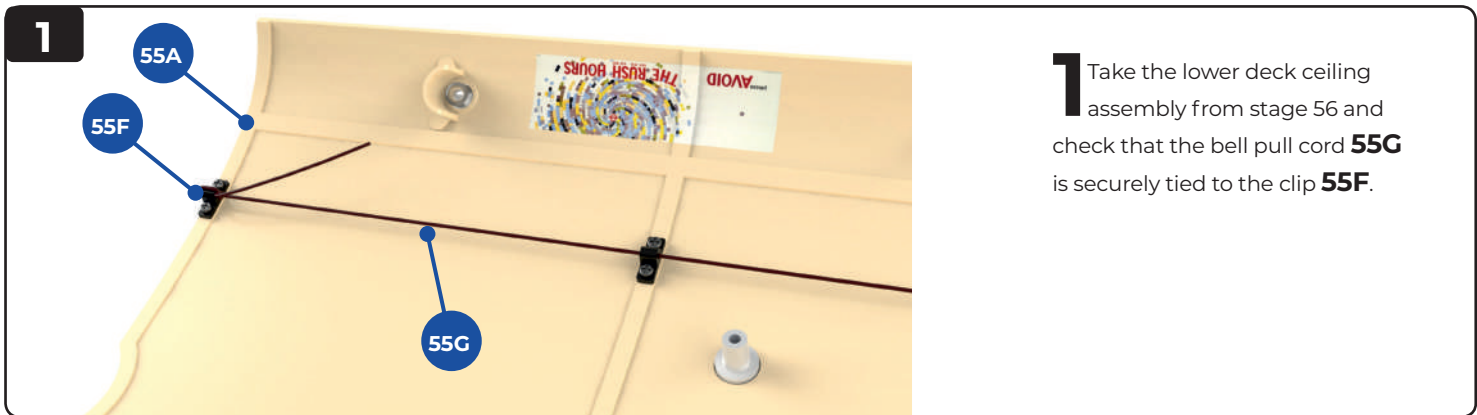
We fix the ceiling to the lower deck, and fit the framework around the walls of the upper deck. We also fit the LED lights on the upper deck.



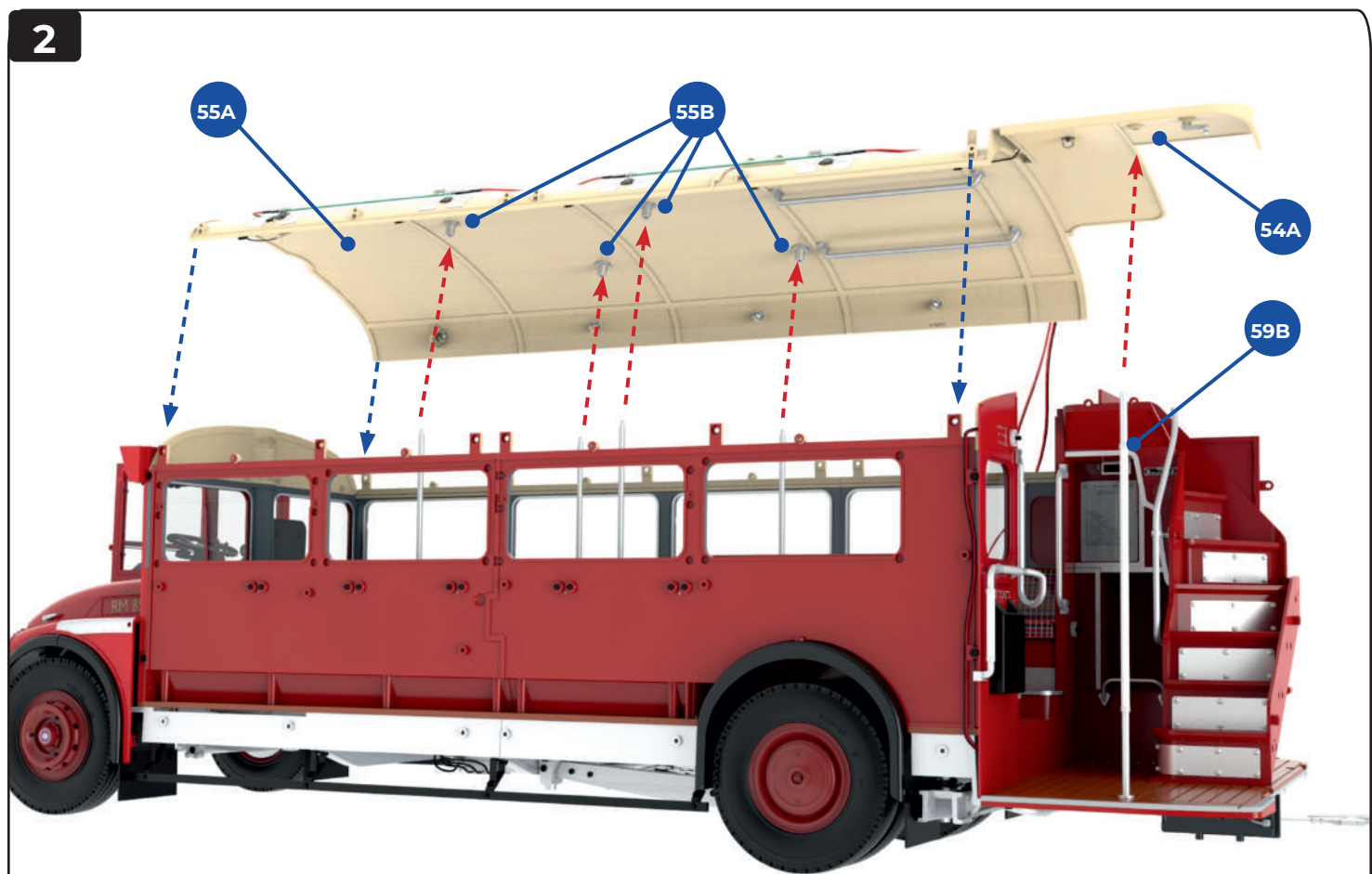
KEY TO PARTS SUPPLIED

89A	Upper deck ceiling frame (store for use in a future stage)	LP	1.7 x 2.5 x 5mm (x2)
89B	N cable extender	JP	2.3 x 4mm (x34)
89C	Tape	GM	2.3 x 5mm (x14)

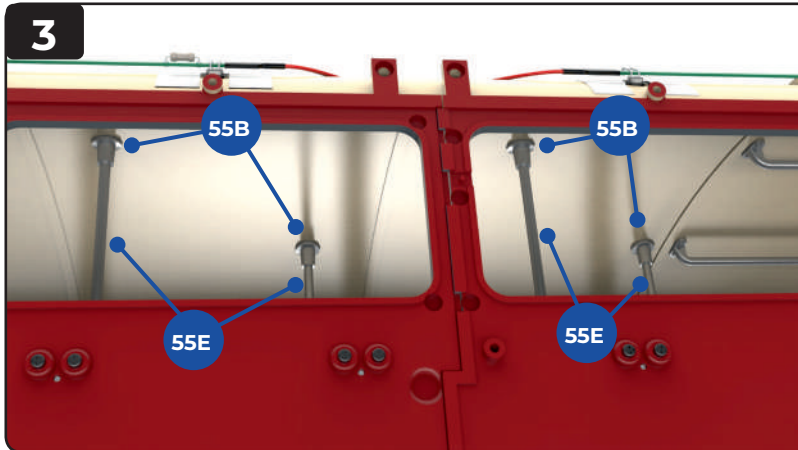
Before starting to fix the LEDs on the cable 72A in place (see step 15), position the cable around the ceiling and make sure that the lengths of the green sections match the distances between the relevant light sockets.



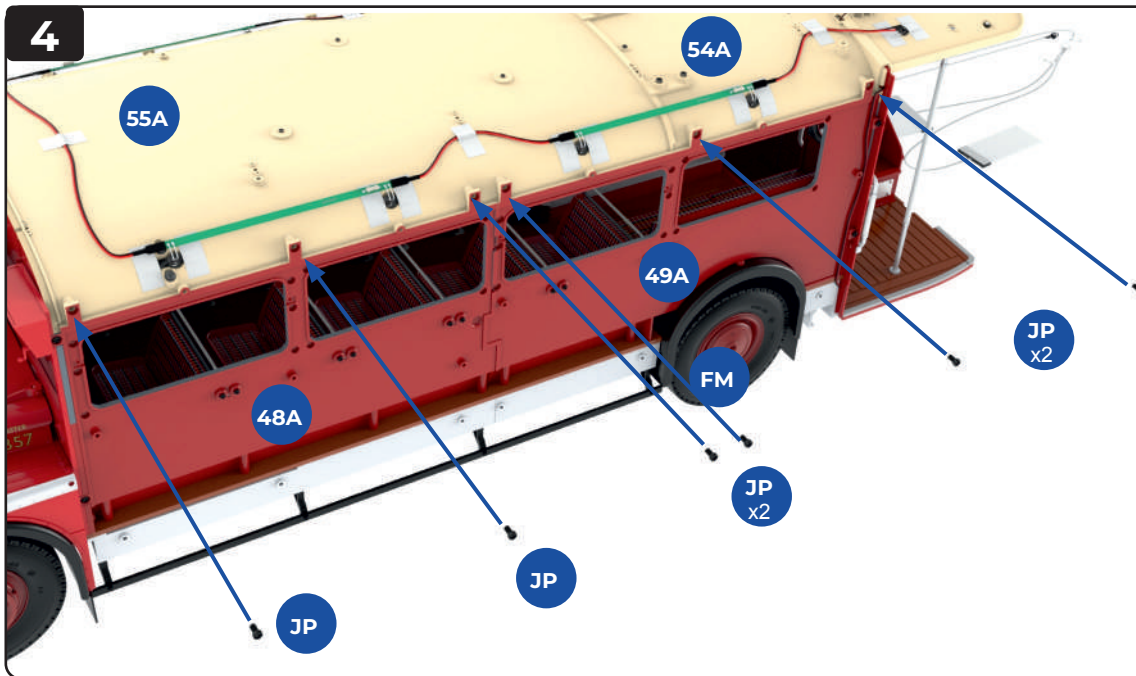
1 Take the lower deck ceiling assembly from stage 56 and check that the bell pull cord **55G** is securely tied to the clip **55F**.



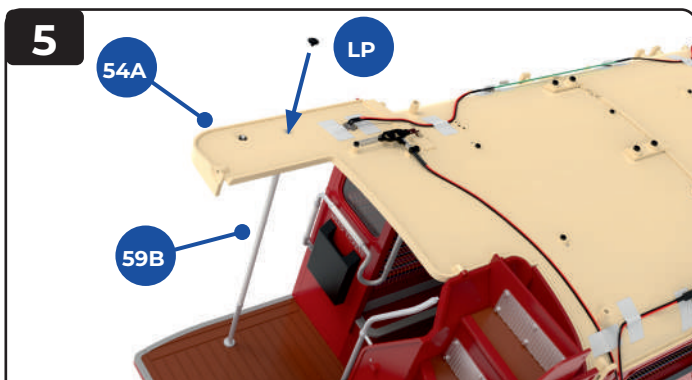
2 Fit the upright pole **59B** on the rear platform if you have not already done so. Fit the ceiling assembly **55A** and **54A** to the top of the lower deck. As you position it, use tweezers to fit the upright poles into the ceiling sockets **55B**. Fit pole **59B** in socket in ceiling panel **54A** (red arrows). Screw holes along the edge of the ceiling should align with holes in the side panels (blue arrows).



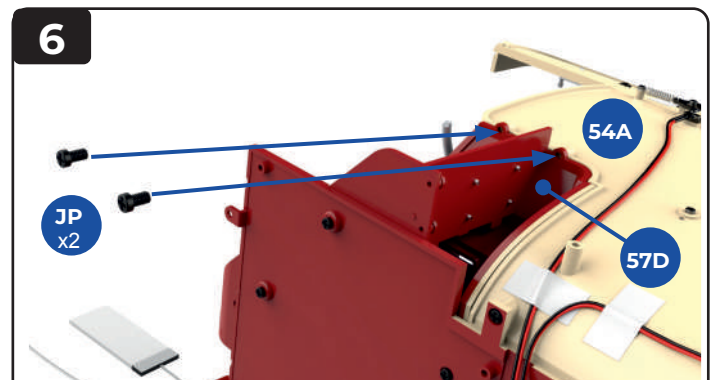
3 Ensure that the poles **55E** are fitted into the sockets **55B** before fixing the ceiling in place.



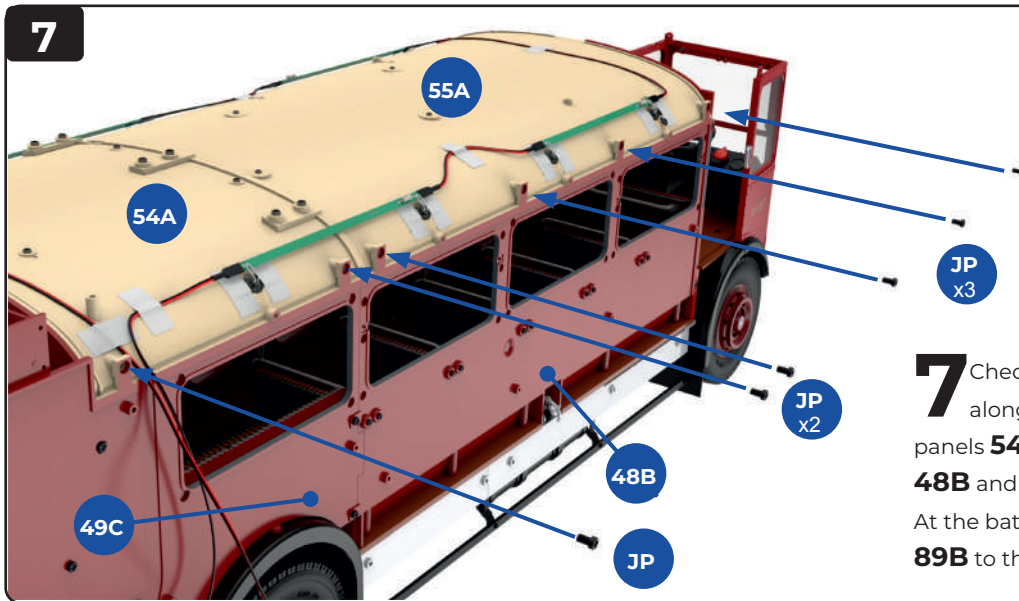
4 With the ceiling and poles in position, fix the ceiling panels **55A** and **54A** to the left side walls **48A** and **49A** using six **JP** screws.



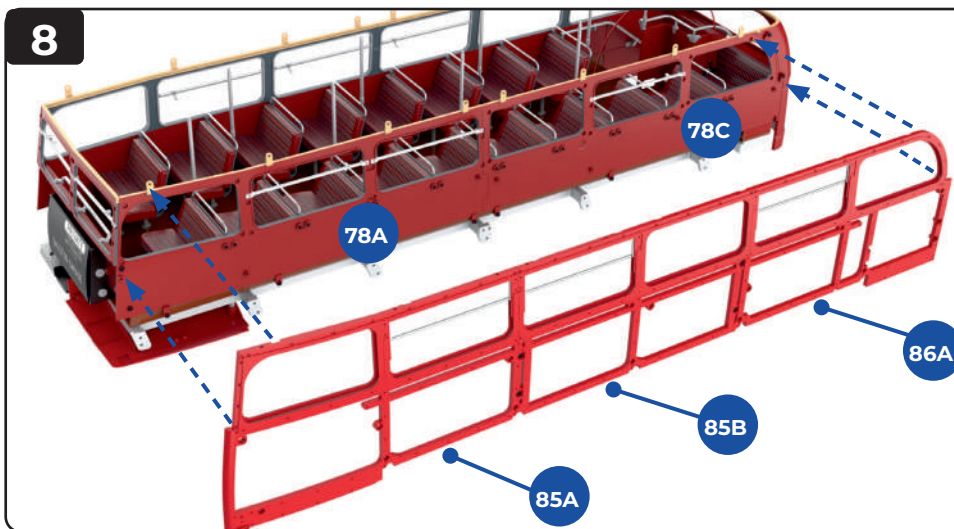
5 Use an **LP** screw to hold the top of the platform pole **59B** in place in the socket in the ceiling panel **54A**.



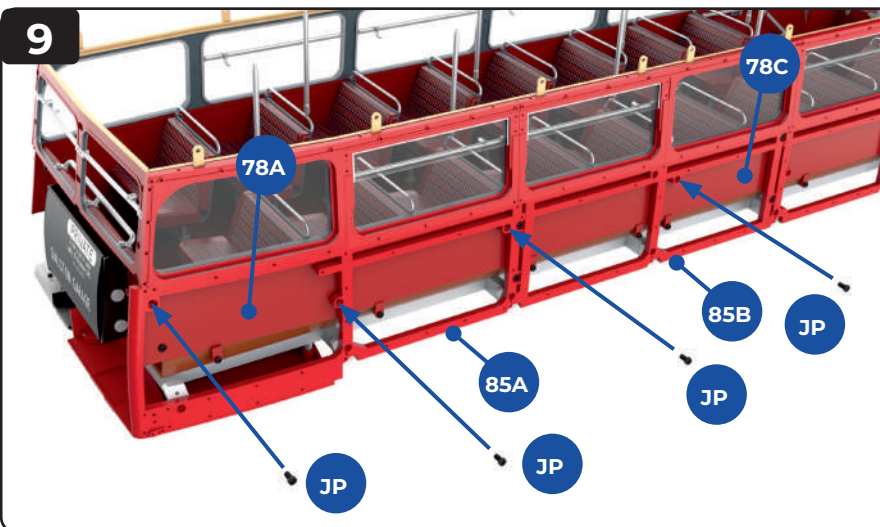
6 At the side of the top step, fix part **57D** of the staircase structure to the rear roof section **54A** using two **JP** screws.



7 Check the alignment of the screw holes along the right-hand edge of the ceiling panels **54A** and **55A**. Fix the right side walls **48B** and **49C** in place with six **JP** screws. At the battery box, connect the N cable extender **89B** to the N cable **56C** (inset above).



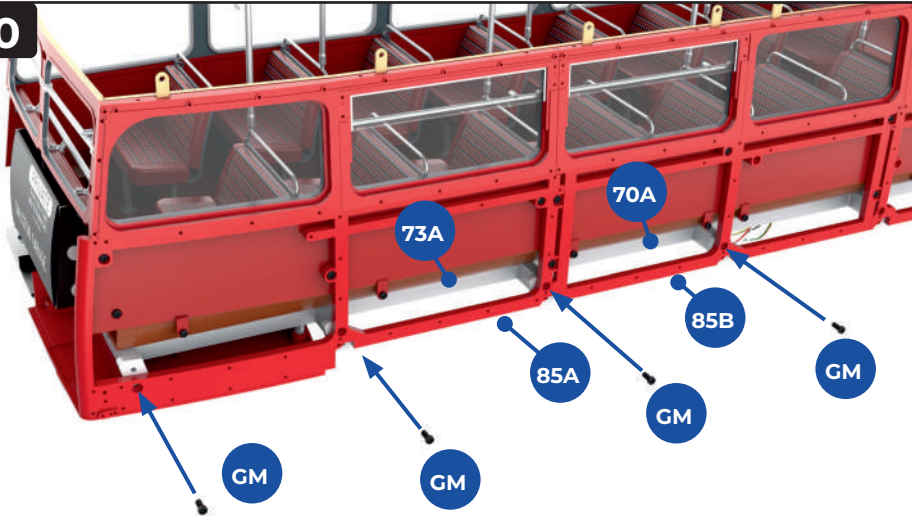
8 Take the left wall framework from stage 86 and the upper deck assembly from stage 79. Fix the framework **85A**, **85B** and **86A** in place on the left inner wall of the upper deck **78A** and **78C**. You will need to slightly raise and support the deck in order to do this.



9 Fix the struts of the left wall framework **85A** and **85B** to the left side walls **78A** and **78C** with four **JP** screws.

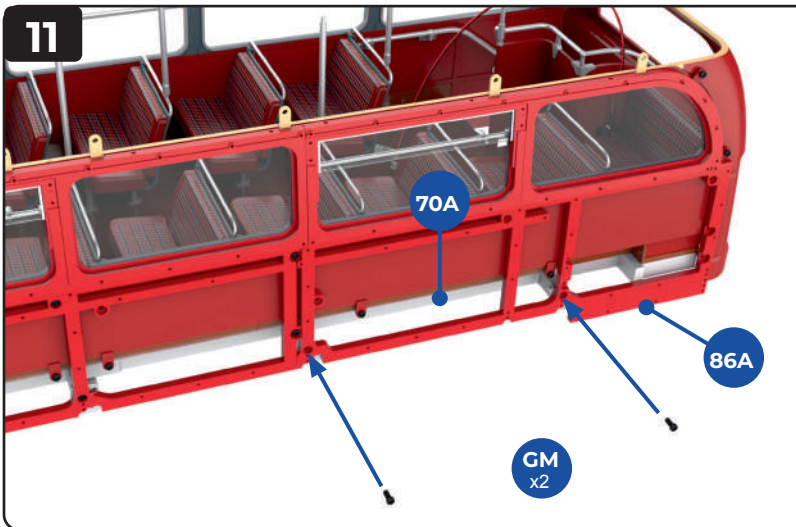
 Over the following steps, you may find that you get a better fit if you fit all the screws but do not tighten them. When all the screws are in place, work around the model again ensuring that they are fully screwed in.

10

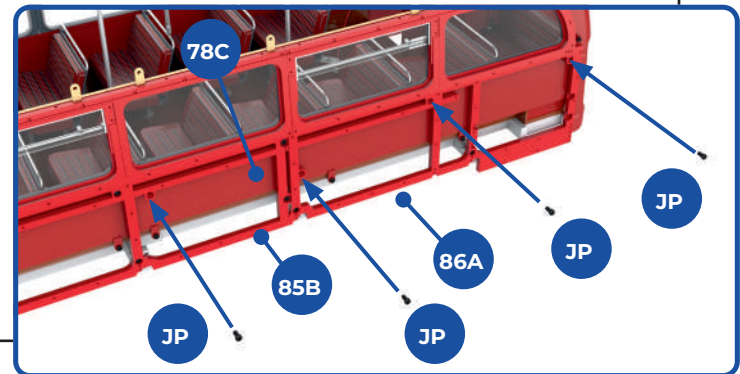


10 Fix the lower edge of parts **85A** and **85B** to the upper deck floor framework **70A** and **73A** with four **GM** screws.

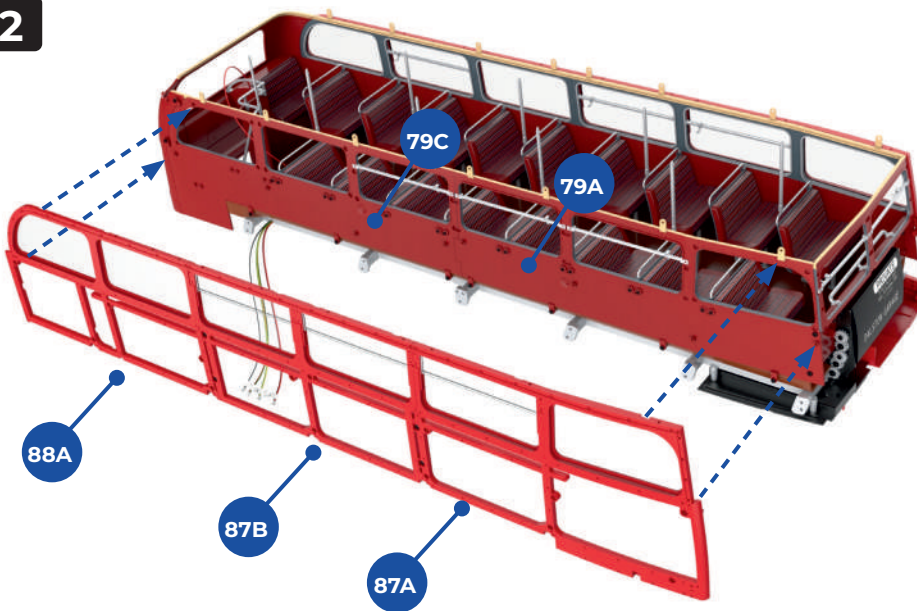
11



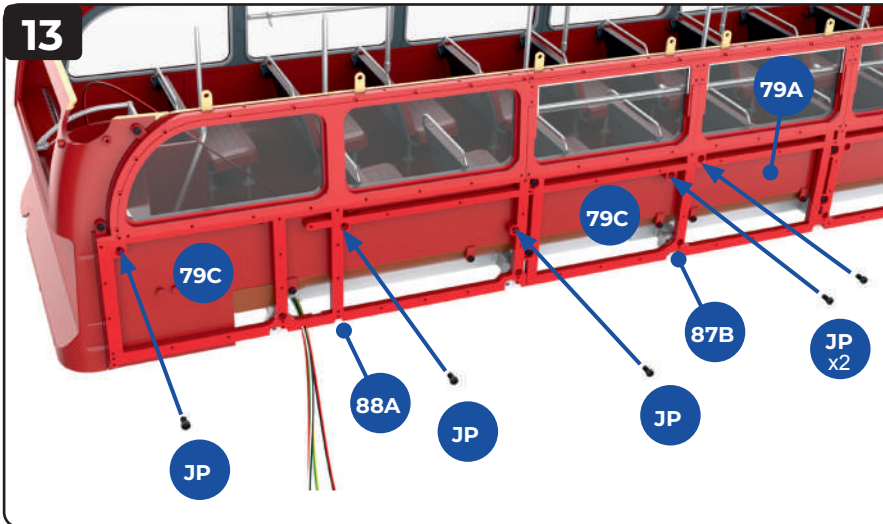
11 Towards the rear of the upper deck, fix the left framework **86A** to the floor frame **70A** with two **GM** screws. Fix the left wall framework **85B** and **86A** to the left side wall **78C** with four **JP** screws (inset below).



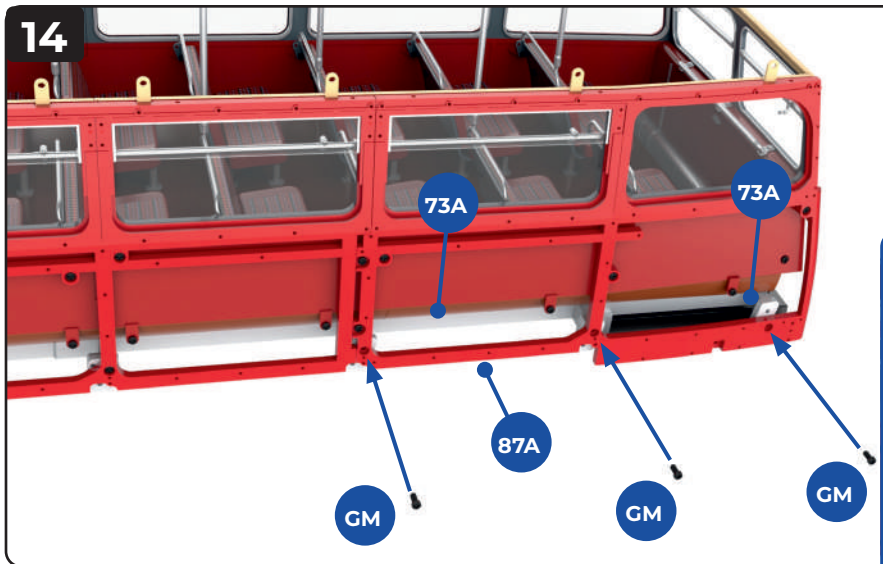
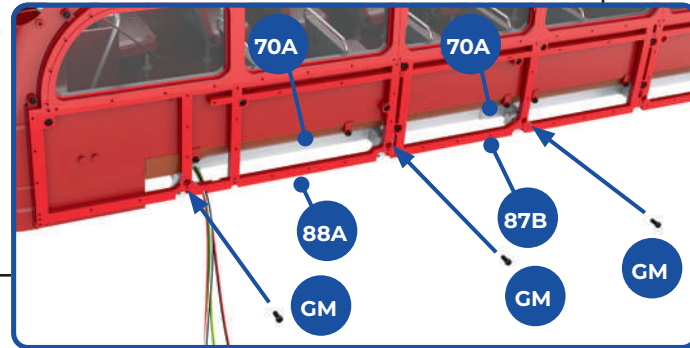
12



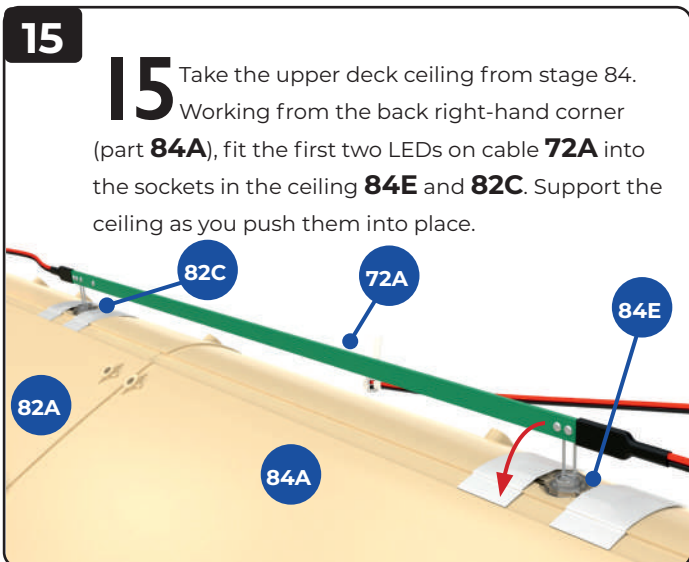
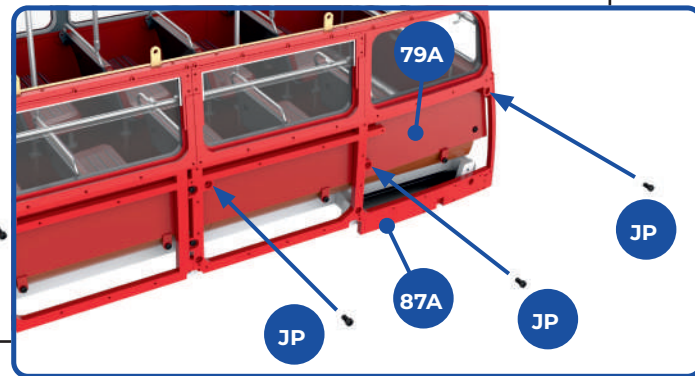
12 Turn the upper deck around so that you can fit the right wall framework **87A**, **87B** and **88A** to the right inner walls **79A** and **79C**.



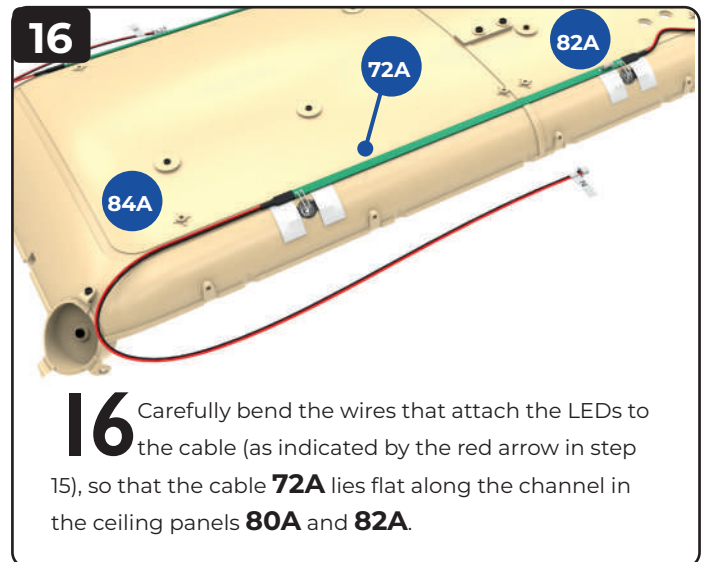
13 Fix the right wall framework **87B** and **88A** to the right side inner walls **79A** and **79C** with five **JP** screws. Fix the lower edge of the right wall framework **87B** and **88A** to the upper deck frame **70A** with three **GM** screws (below).



14 Fix the lower edge of the right wall framework **87A** to the upper deck floor frame **73A** with three **GM** screws. Fix the right wall framework **87A** to the inner wall of the upper deck **79A** with three **JP** screws (below).



15 Take the upper deck ceiling from stage 84. Working from the back right-hand corner (part **84A**), fit the first two LEDs on cable **72A** into the sockets in the ceiling **84E** and **82C**. Support the ceiling as you push them into place.



16 Carefully bend the wires that attach the LEDs to the cable (as indicated by the red arrow in step 15), so that the cable **72A** lies flat along the channel in the ceiling panels **80A** and **82A**.

17 Continue working along the right-hand side of the ceiling, fitting LEDs on cable **72A** into socket **82C** in ceiling panel **82A** and sockets **83D** (x2) in ceiling panel **83A**.

18 Carefully bend the wires that attach the LEDs to the cable **72A**, as indicated by the red arrows in the previous step, so that the cable sits in the channel. Hold the red/black section of cable in place at the front of the ceiling with a piece of tape, **89C**.

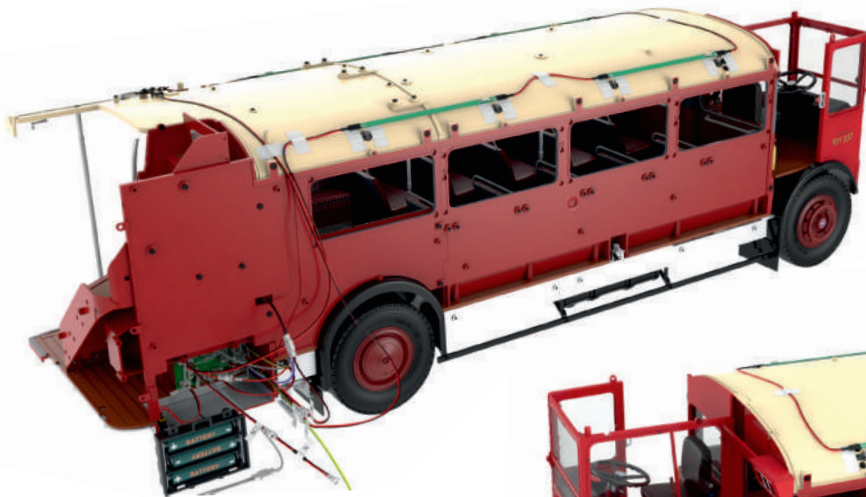
19 Work back down the left-hand side of the ceiling panels **83A** and **82A**, fitting the LEDs on cable **72A** into sockets **82C** and **83D** (x2).

20 Bend the LED wires so that the cable sits in the channel in parts **83A** and **82A**.

21 Working to the rear of the left-hand side of the ceiling, fit the last two LEDs on cable **72A** into the sockets **82C** and **84E** in ceiling panels **82A** and **84A**.

22 Bend the LED wires so that the cable sits in the channel in parts **82A** and **84A**.

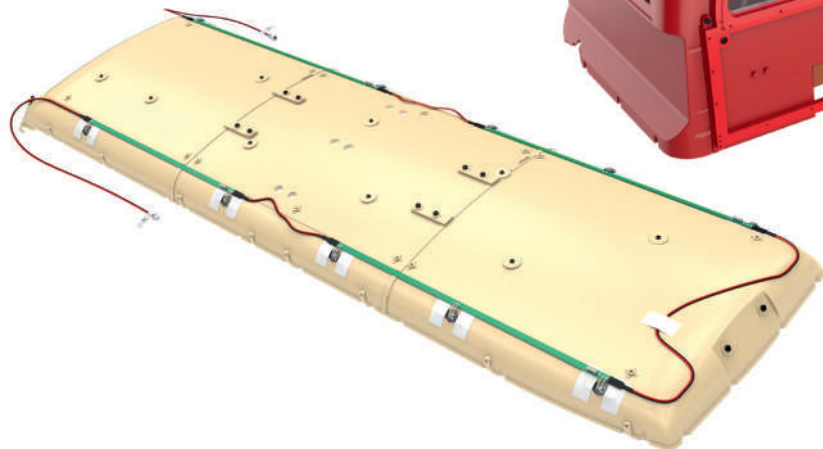
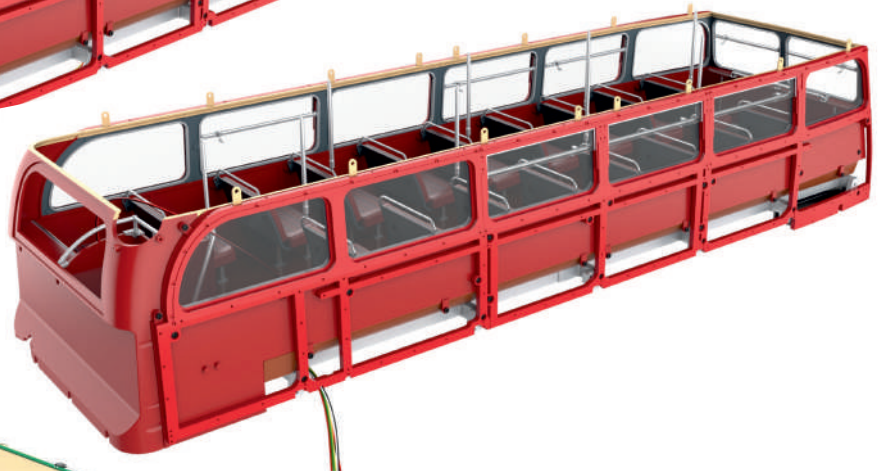
Finished views



In steps 1–7, the ceiling was attached to the lower deck.



In steps 8–14, the outer framework was fitted to the upper deck.

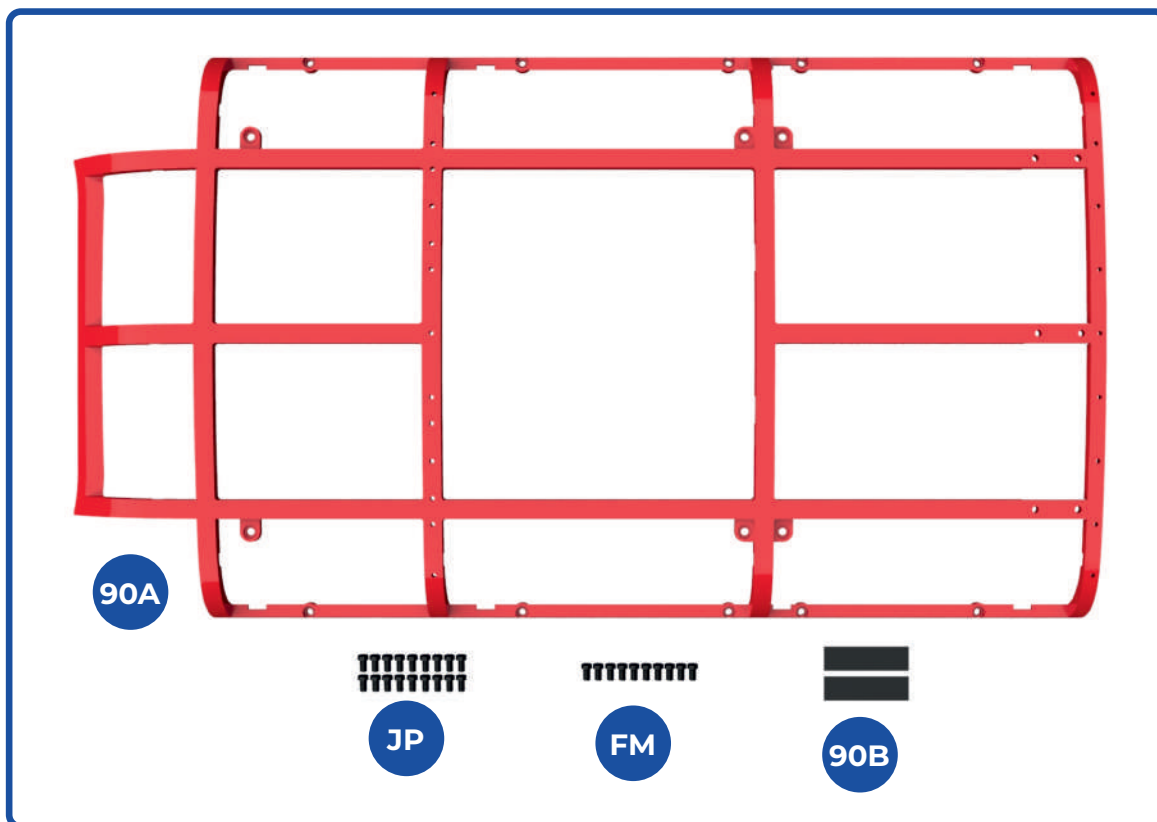


Finally, the N cable and LEDs have been fitted around the ceiling of the upper deck.

STAGE 90

FITTING THE CEILING FRAME TO THE UPPER DECK

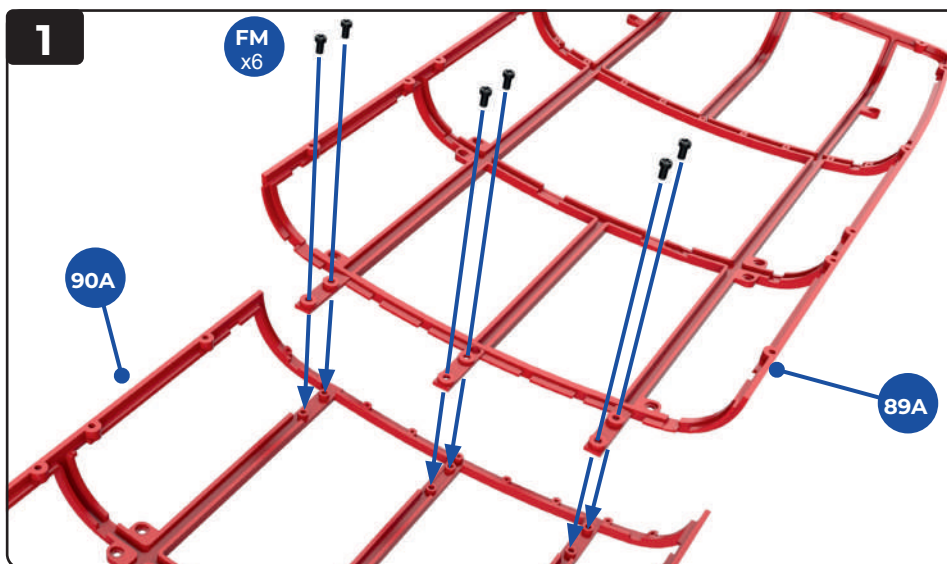
The ceiling framework is assembled and fitted to the outside of the upper deck ceiling. We also position the upper deck on the lower deck so that wiring can be connected.



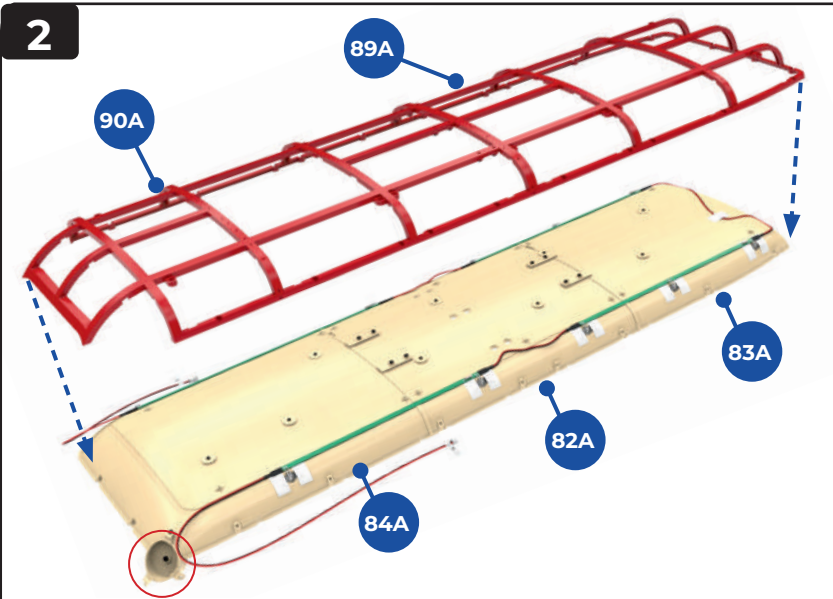
KEY TO PARTS SUPPLIED

- 90A** Ceiling frame
- 90B** Tape (x2)

- JP** 2.3 x 4mm (x18)
- FM** 2.3 x 4mm (x10)



1 Take the two sections of upper deck ceiling frame **90A** and **89A** (supplied with the previous stage). Check how they fit together, with the screw holes on the tabs on part **89A** aligned with the screw holes in part **90A**. Fix together with six **FM** screws.



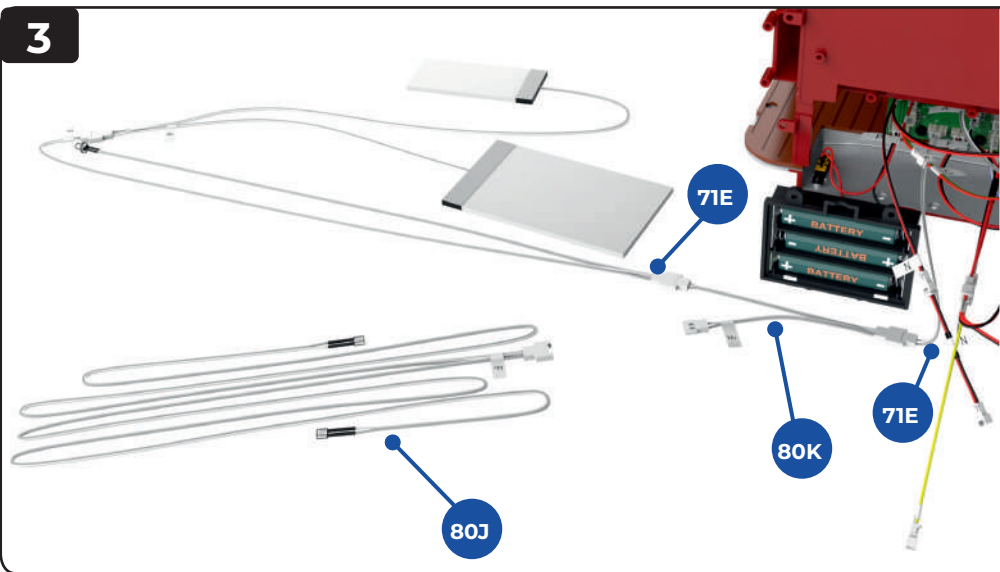
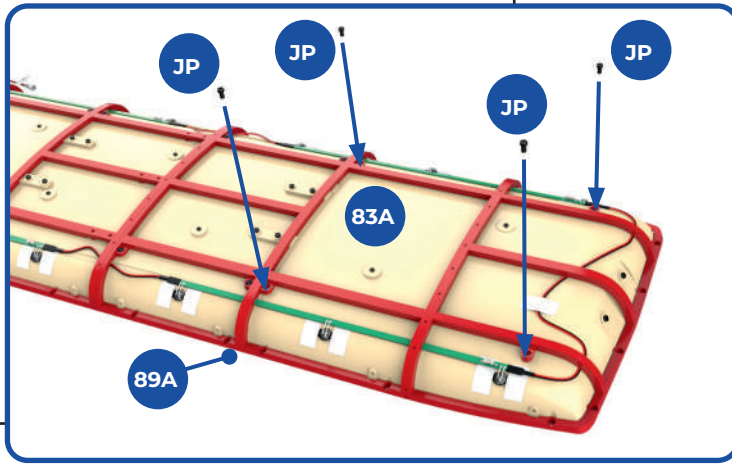
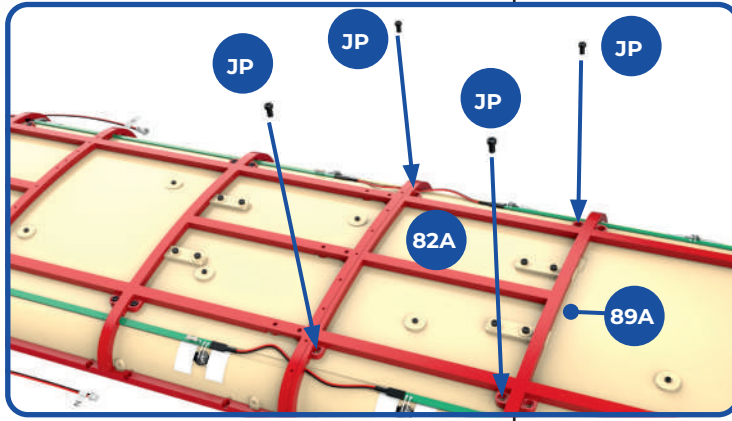
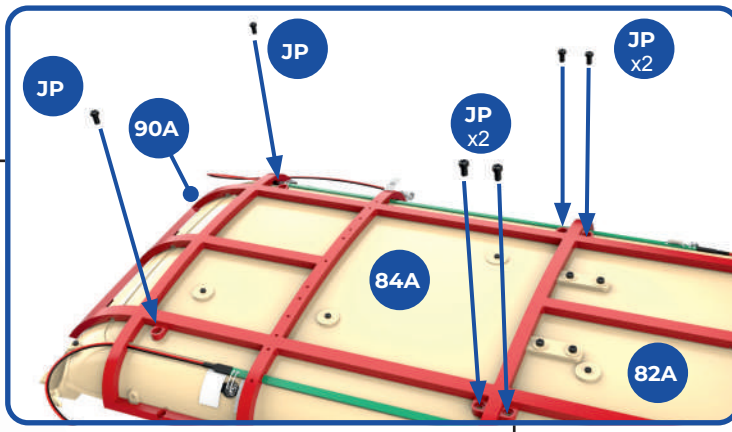
2 Fit the ceiling frame from step one over the ceiling frame and wiring assembled in the previous stage. Ensure that the wiring runs through channels and recesses, to avoid any damage. To avoid damaging the mirror (circled), temporarily remove it for this step or make sure the ceiling is fully supported from below. Fix the ceiling frame in place with **JP** screws as follows:

At the rear of the ceiling, four **JP** screws go through the screwholes in frame **90A** into screw sockets in part **84A**, with two **JP** screws through **90A** into **82A** (inset, top).

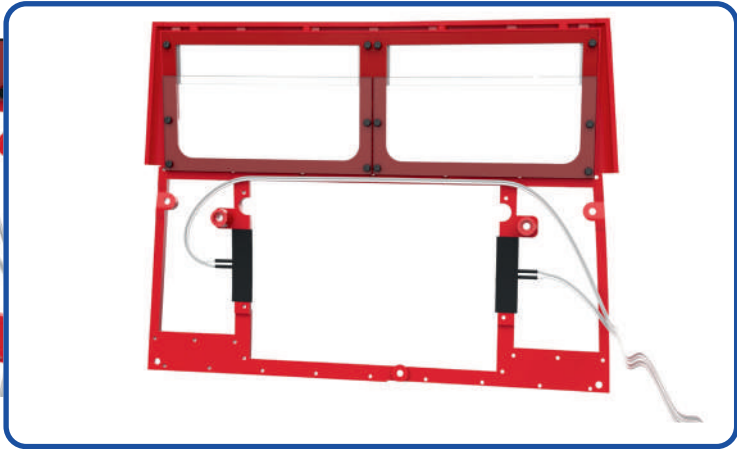
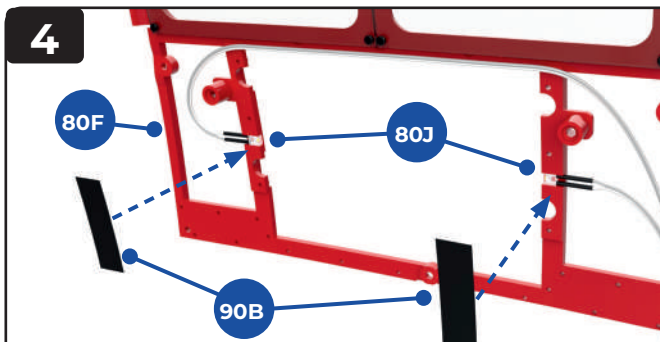
In the middle, four **JP** screws go through part **89A** into part **82A**.

At the rear of the ceiling, four **JP** screws go through ceiling frame **89A** into ceiling panel **83A** (inset right).

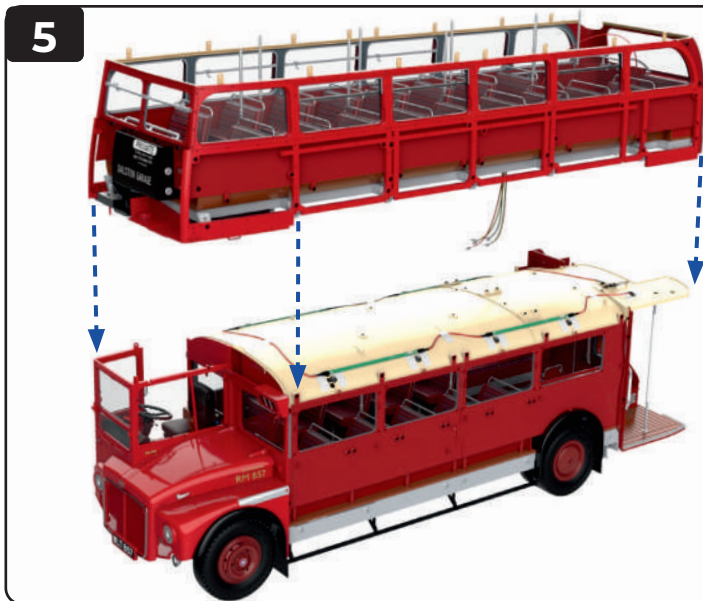
NOTE: When fixing the screws in place, make sure the frame is held firmly against the ceiling and take care not to over-tighten.



3 Place the lower deck assembly on your work surface so that you can see the batteries and circuit board. Arrange all the wires neatly as shown. Disconnect cable F (**80J**) from extender cable F (**80K**).

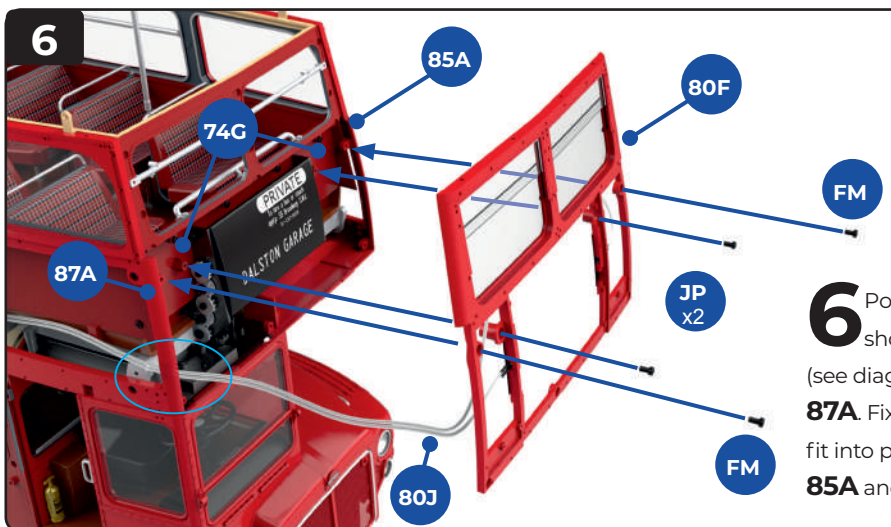


4 Take the front frame **80F**. Fit the LEDs on the end of cable F (**80J**) into the recesses on either side of the blind window. Note how the longer of the two wires runs over the top of the opening (see also inset, right). Fix the LEDs in place with two pieces of tape **90B**.

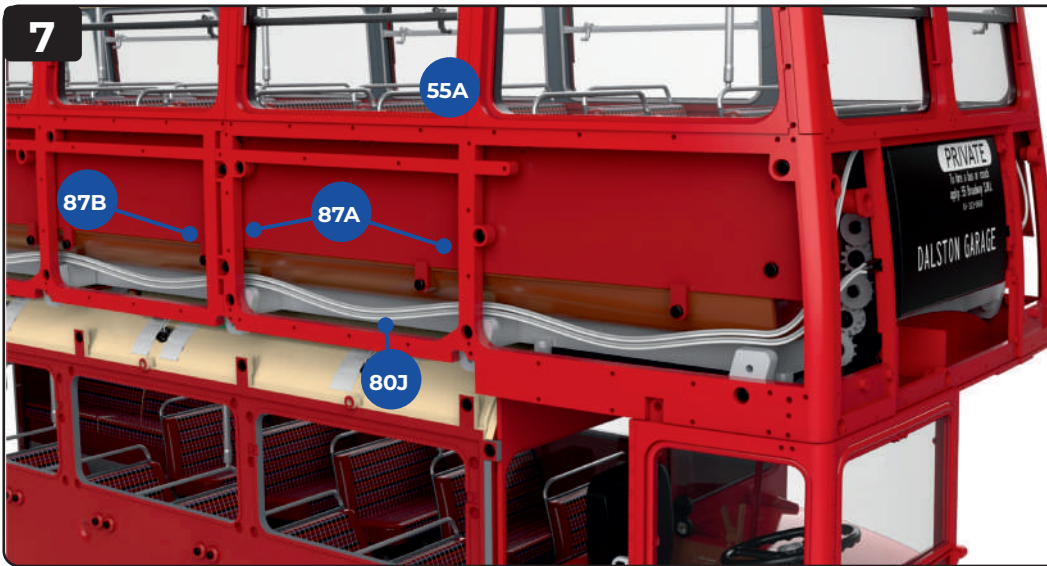


5 Stand the lower deck and chassis assembly on a stable work surface. Take the upper deck assembly and lower it on to the lower deck assembly so that it rests in place.

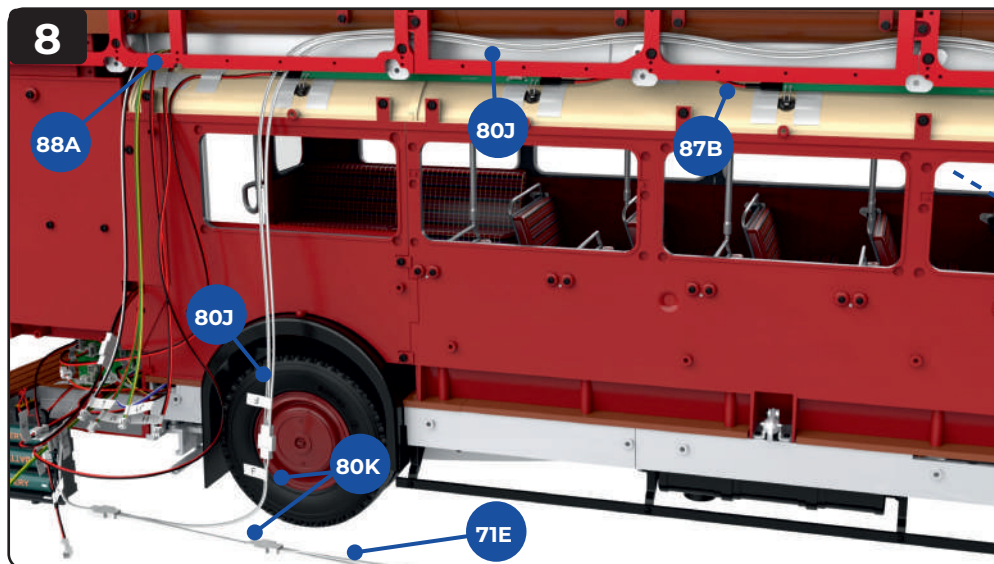
✓ At this stage, the upper deck is not fixed to the lower deck. It simply rests in place, held there by its weight. (It will be fixed firmly at a later stage.) Until it is fixed, handle the model very carefully and keep it upright.



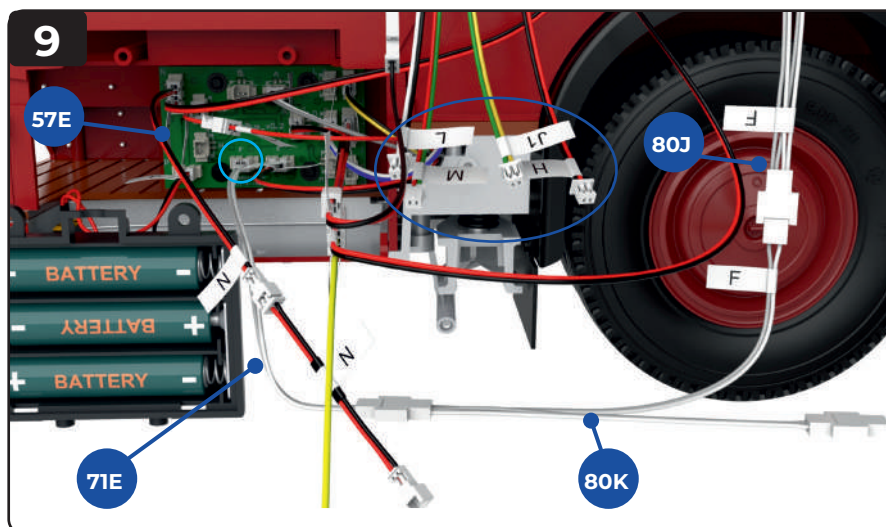
6 Position the front frame **80F** on the front of the bus as shown. Tuck the cable **80J** behind the destination blind (see diagram in step 7) and feed it through beneath the frame **87A**. Fix in the frame **80F** place with two **JP** screws which fit into part **74G** and two **FM** screws which fit into parts **85A** and **87A**.



7 Continue to feed the cable F (**80J**) through the gap between the frame **87A** and the inner wall of the bus, and then behind the frame **87B**, down the right-hand side of the model.

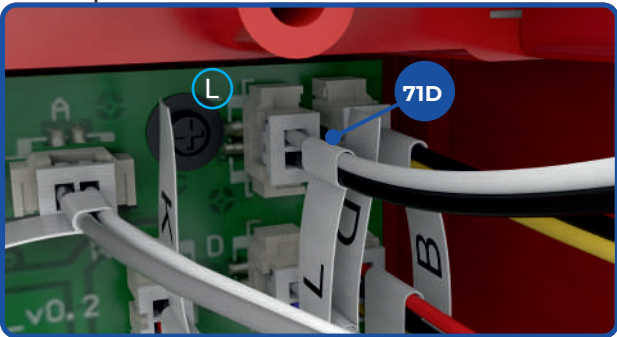


8 Towards the rear of the model, fit cable F (**80J**) behind the joint between frames **87B** and **88A**, then allow it to drop down towards the circuit board. Plug cable **80J** into extender cable F (**80K**) as shown.

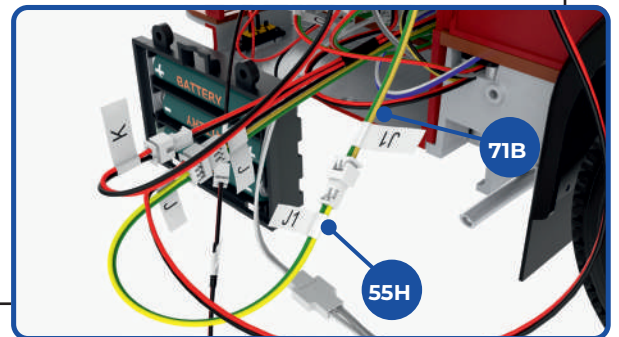
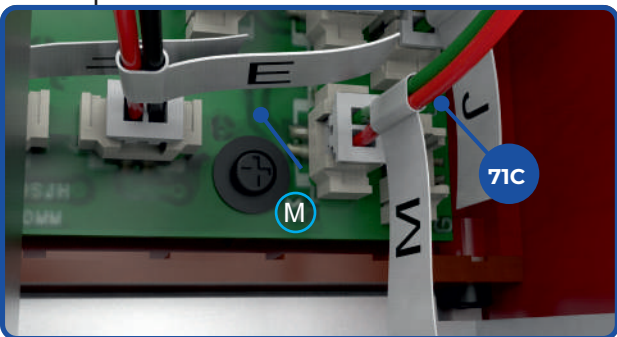
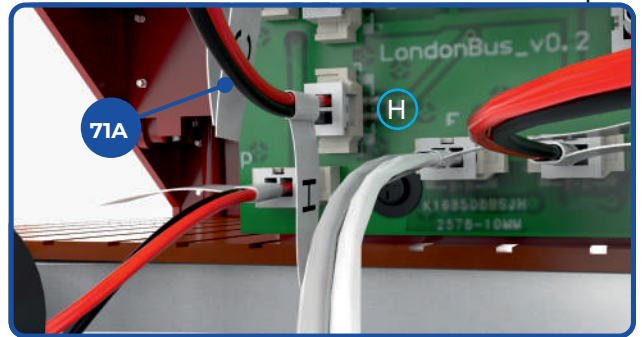


9 Check that all the connections of cable F (**80J**), including the extender cable (**80K**), are secure, and the end of the cable (**71E**) is connected to the socket marked F on the circuit board **57E** (circled in light blue). Identify the cables L, M, H and J1 (circled in blue), which we now need to plug into the circuit board **57E**.

10



10 Plug cable L (**71D**, black/white) into the socket marked L on the circuit board (top left). Plug cable M (**71C**, red/green) into the socket marked M on the circuit board (below left). Plug cable H (**71A**, red/black) into the socket marked H on the circuit board (top right). Plug cable J1 (**71B**, yellow/green) into the socket on the end of cable J-J1 (**55H**, yellow green), below right.



Finished views

