

LONDON TRANSPORT ROUTEMASTER BUS

RM 857



Pack 06

BUILD INSTRUCTIONS

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WALL PANEL

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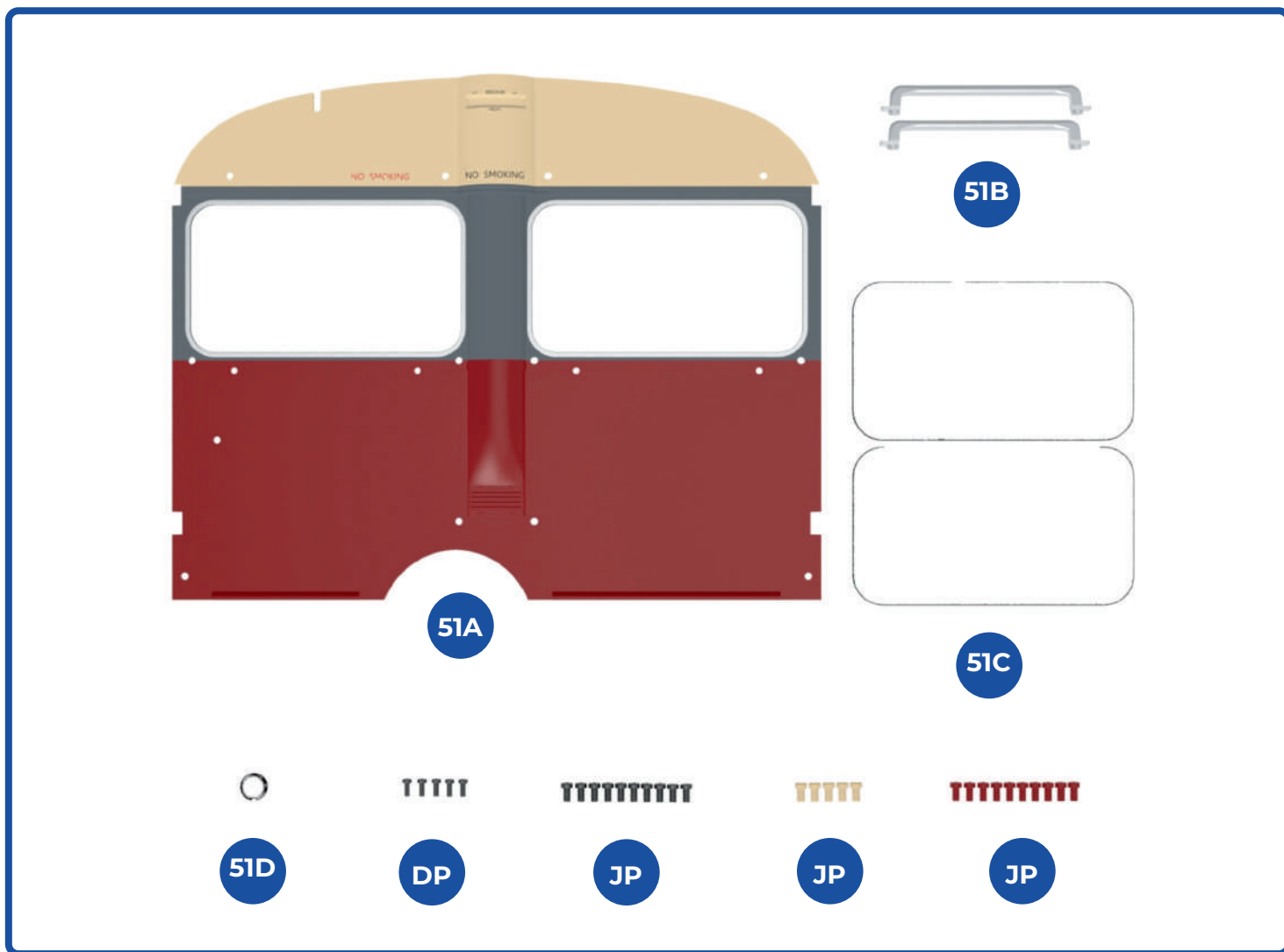
STAGE 59: KICK PLATES AND
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STAGE 60: PLATFORM AREA AND REAR WALL

STAGE 51

FITTING THE INNER FRONT WALL PANEL

In this stage, the inner front wall and windows are supplied, together with handrails and a sidelight lens. The parts are assembled and fitted to the lower deck.



KEY TO PARTS SUPPLIED	
51A	Inner front panel
51B	Hand rail (x2)
51C	Window panes (x2)
51D	Lens
DP	1.7 x 4mm (x5)
JP	2.3 x 4mm (x10 black)
JP	2.3 x 4mm (x5 cream)
JP	2.3 x 4mm (x10 red)

Note that the JP screws are supplied in three different colours – make sure you fit them in the correct places, to blend with the parts that they are fixing.

1

1 Fit the lens **51D** to the inside of the front wall **47A**, ensuring that the convex side faces forwards towards the front of the bus and the locating notch (indicated by the red arrow) is correctly placed. Put aside until step 3 when the lens will be held securely in place by the inner front panel **51A**.

2

2 Position the hand rails **51B** against the inner front panel **51A**, matching the screw holes as shown. Fix the front rails in place from the other side of the panel using four **DP** screws (inset).

3

3 Lay the inner front panel **51A** flat and fit the two window panes **51C** into the recesses around the windows, taking care not to get finger marks on them (inset below). Keeping the glass in place, locate the inner front panel **51A** against the front wall **47A**, ensuring the screw holes are aligned. Fix in place on the left-hand side with two cream **JP** screws and five red **JP** screws.

✓ To ensure the lens **51D** stays in the correct position, hold it in place with a piece of low-tak (masking) tape on the outside of the front wall.

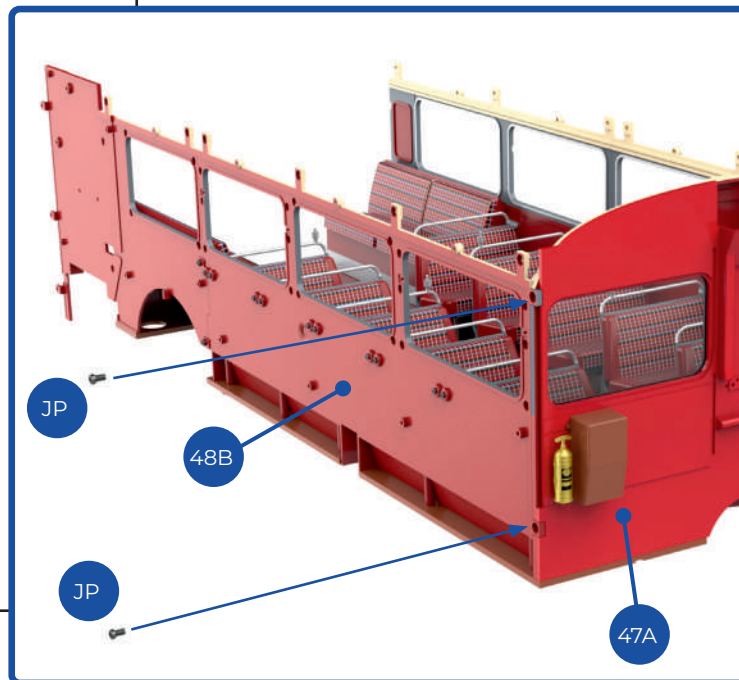
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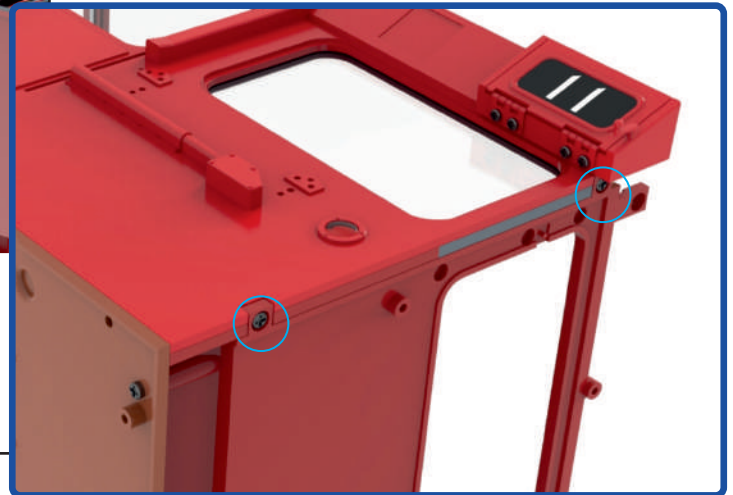
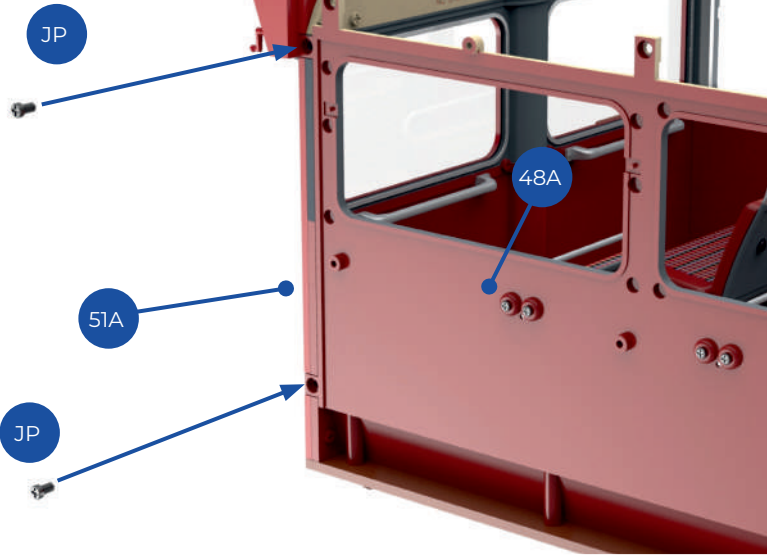
Ensuring that the window panes are still in place, fix the right-hand side of the inner front panel **51A** to the front wall **47A** using two cream **JP** screws and four red **JP** screws. The insets, right, show the finished front wall.



5

Position the front wall assembled in step 4 against the front end of the lower deck assembly. The front wall should sit on the floor **42A**, and the tabs on the front side walls **48B** and **48A** should fit into the recesses on the sides of the front wall (blue arrows). Fix the tabs in place on the right-hand side with two black **JP** screws (inset).

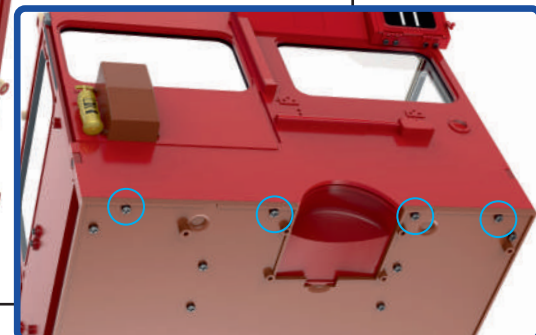
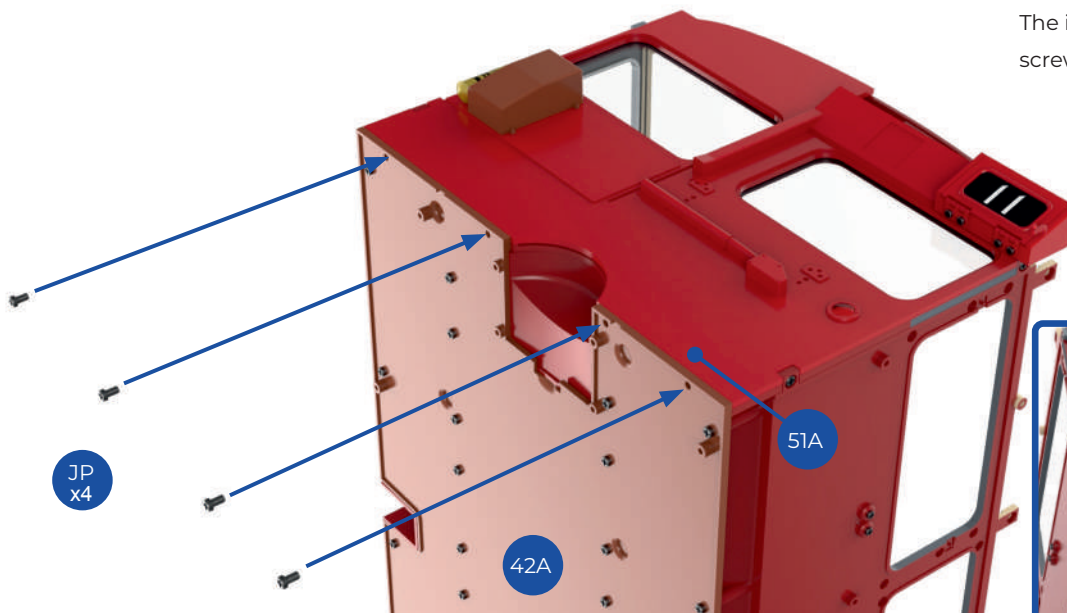


6

6 Fix the tabs on the left-hand front side wall **48A** in place in the recesses in the front wall using two **JP** screws. The insets show the tabs fixed in place (top: right front; bottom: left front), with the JP screws circled in blue.

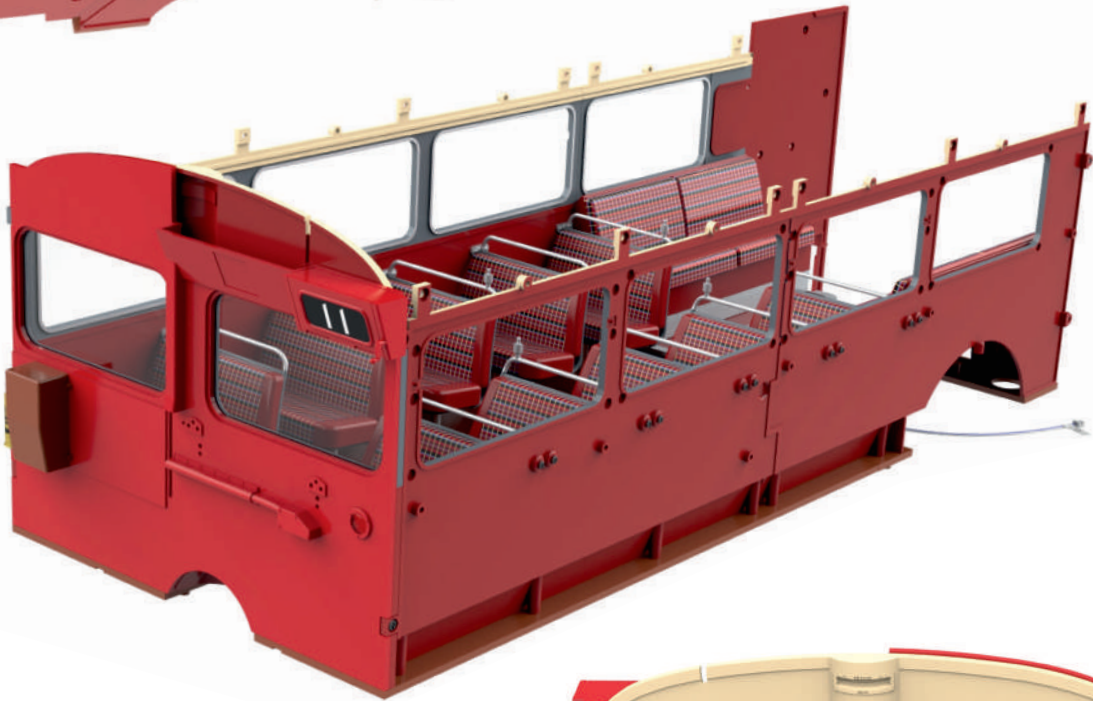
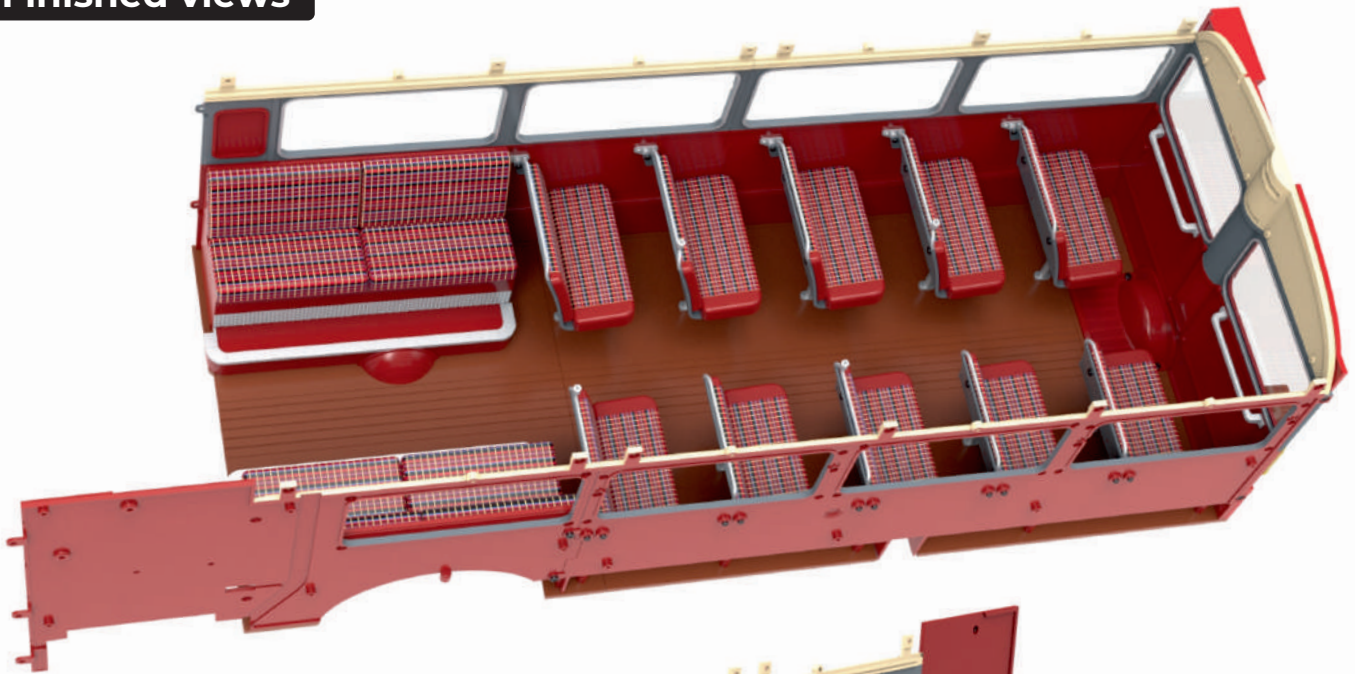
7

7 Use four **JP** screws to secure the inner panel **51A** to the floor **42A**. The inset below shows the screws in place.



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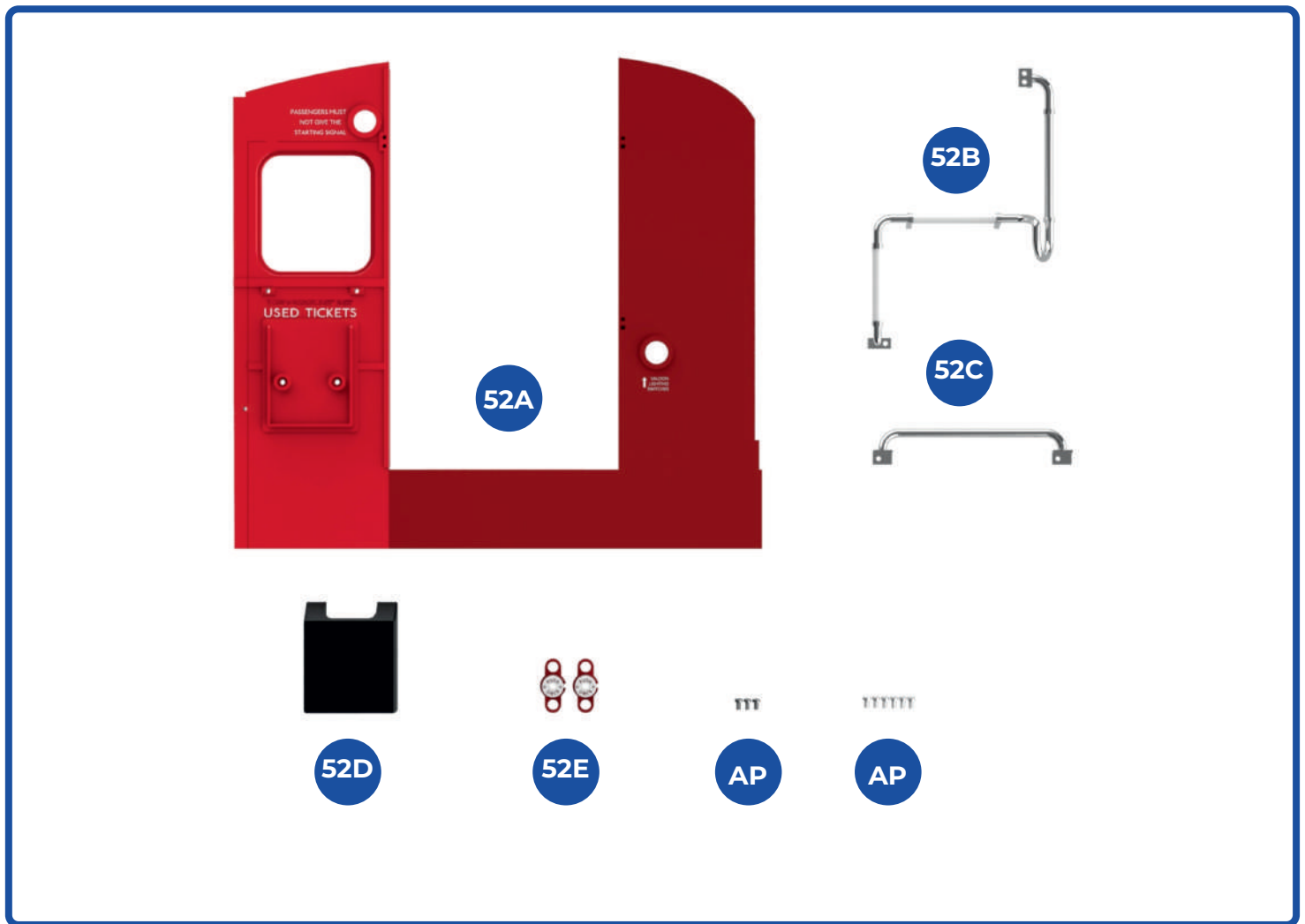
Finished views



STAGE 52

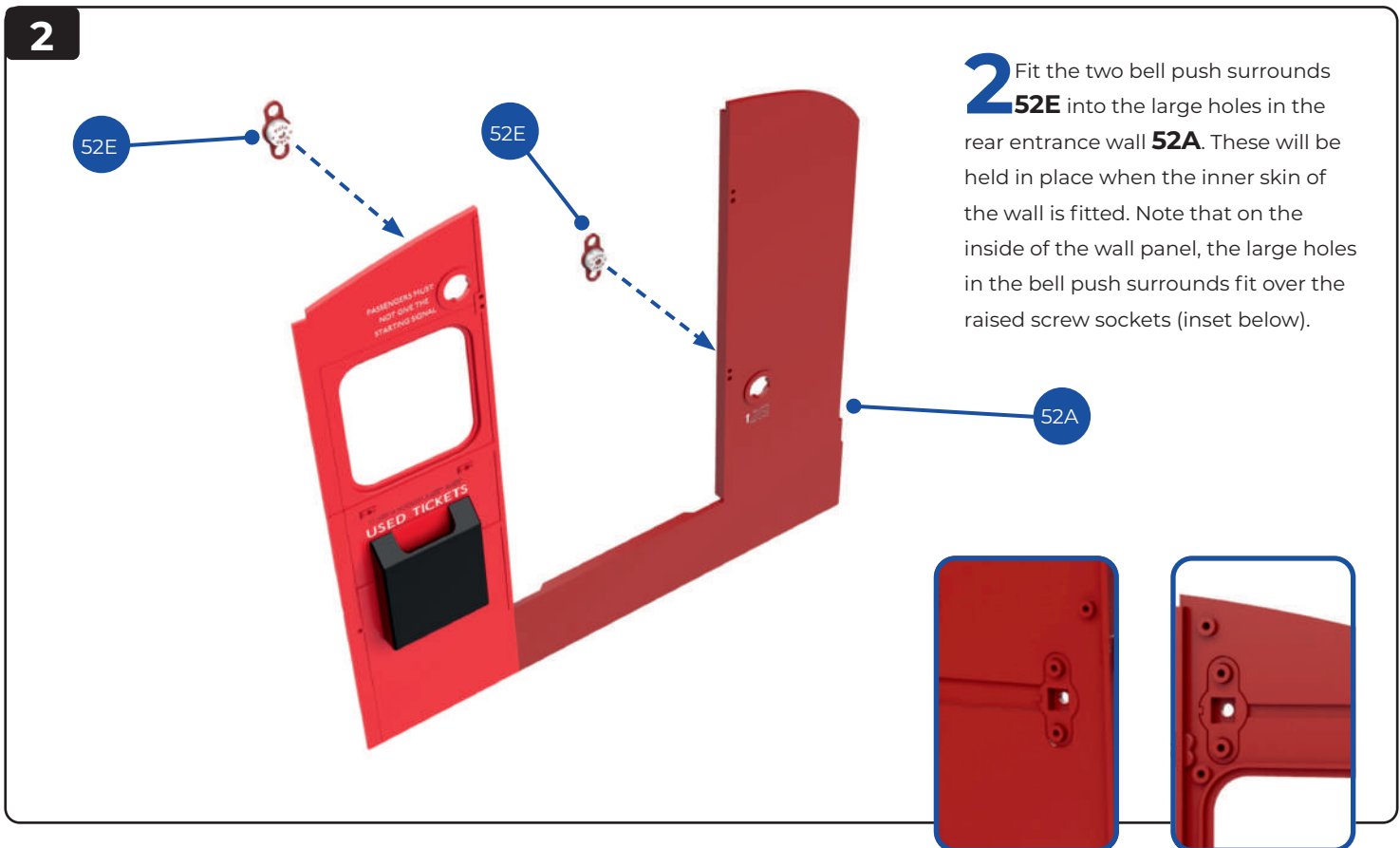
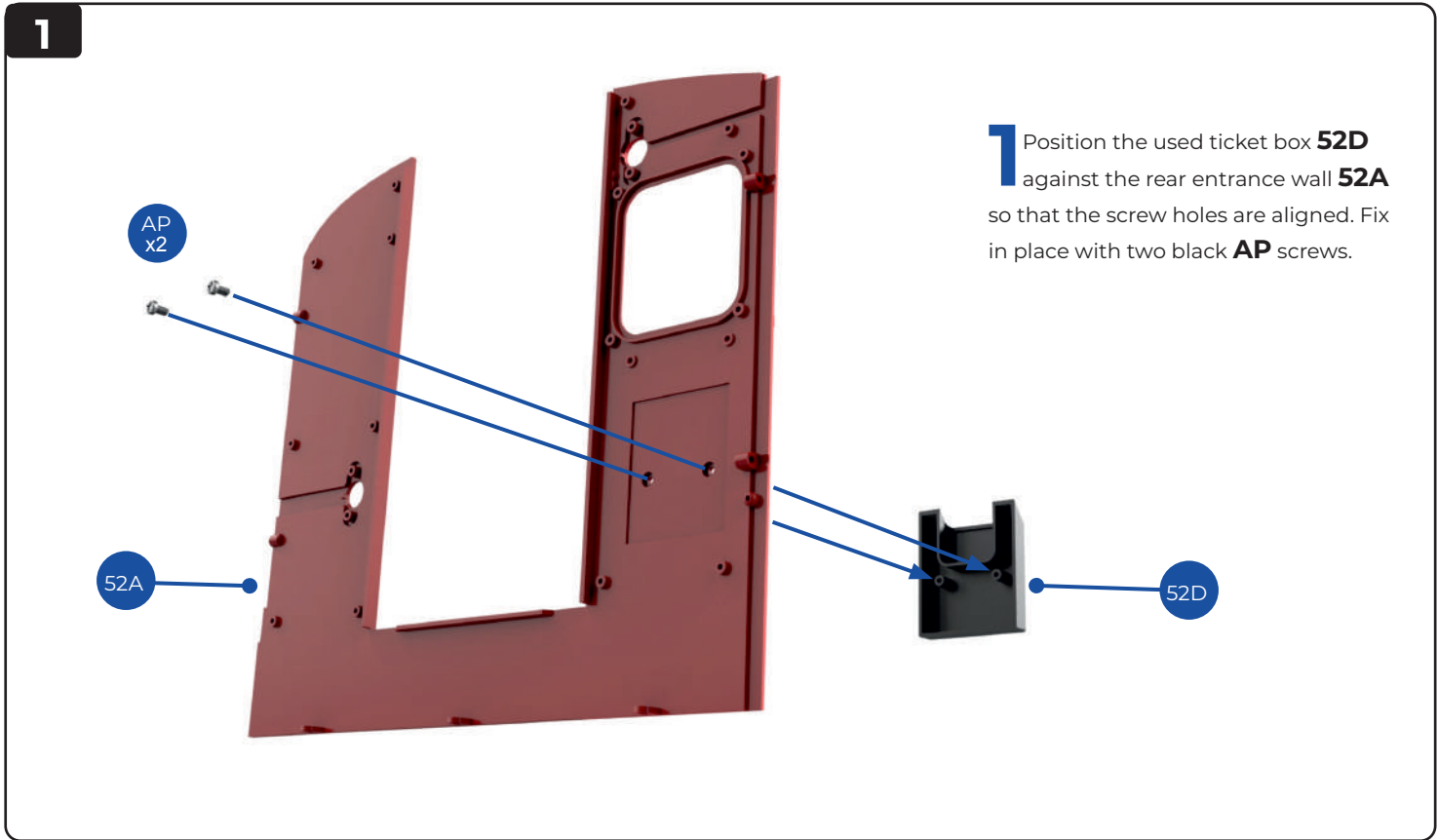
REAR ENTRANCE WALL AND ACCESSORIES

Handrails, a used ticket box and the bell push surrounds are fitted to the rear wall of the passenger compartment. The wall is then almost ready to fit to the lower deck.



KEY TO PARTS SUPPLIED	
52A	Rear entrance wall
52B	Right-hand rail
52C	Left-hand rail
52D	Used tickets box
52E	Bell push surround (x2)
AP	1.7 x 3mm (x3 black)
AP	1.7 x 3mm (x6 silver)

✓
 Note that the AP screws are supplied in two different colours, black and silver. Make sure that you fit them in the right places, as shown in the instructions.

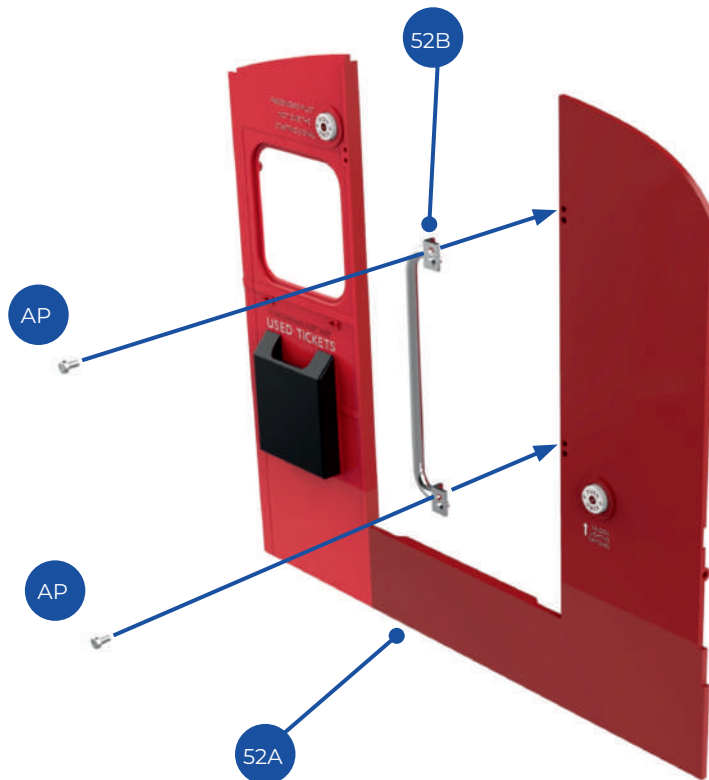


3

3 Identify the fixing points on the rear entrance wall **52A** for the right hand rail **52B**. Position the hand rail and fix in place with two silver **AP** screws.

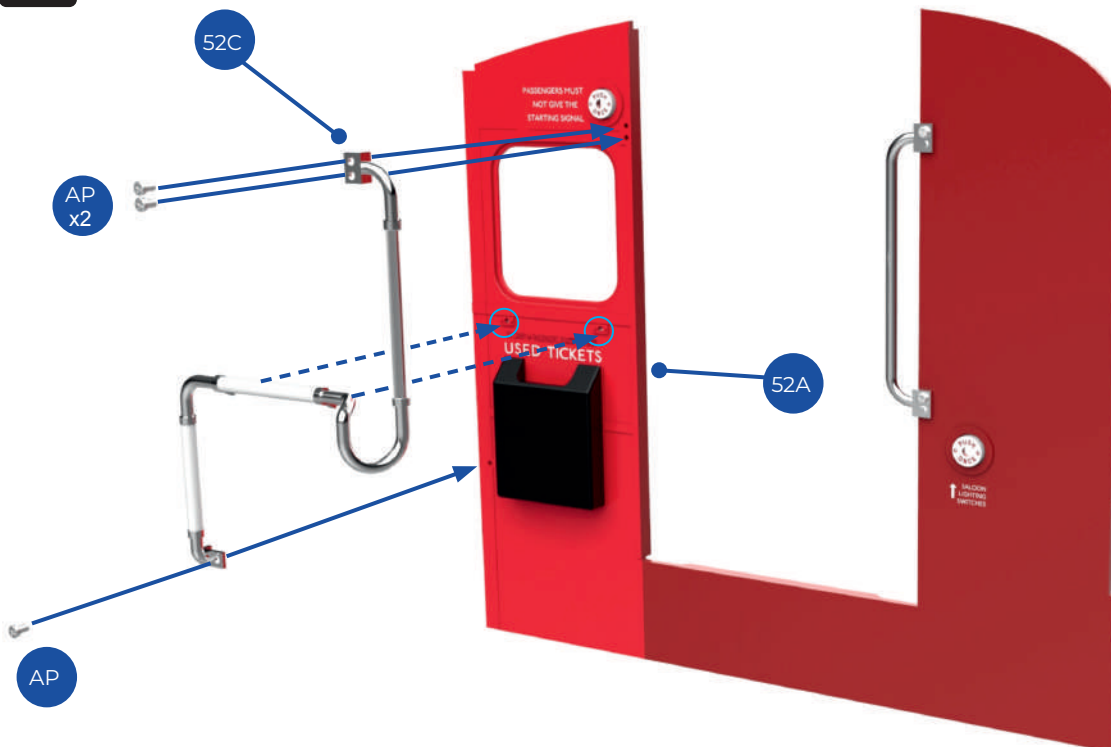


Note that there are two fixing points on the handrail and the side of the entrance. At each fixing point, the top hole is for the screw and the bottom hole is for the locating peg.



4

4 Identify the fixing points for the left hand rail **52C**: there are two screw sockets next to the bell push and one to the right of the used ticket box. Along the horizontal part of the hand rail there are two small brackets which push-fit into corresponding holes (circled in blue). **NOTE:** These are very delicate and extreme care is needed when inserting. Fit these, as indicated by the dotted lines. Then check that the screw holes on part **52C** are aligned with the sockets on part **52A** and fix in place with three silver **AP** screws.



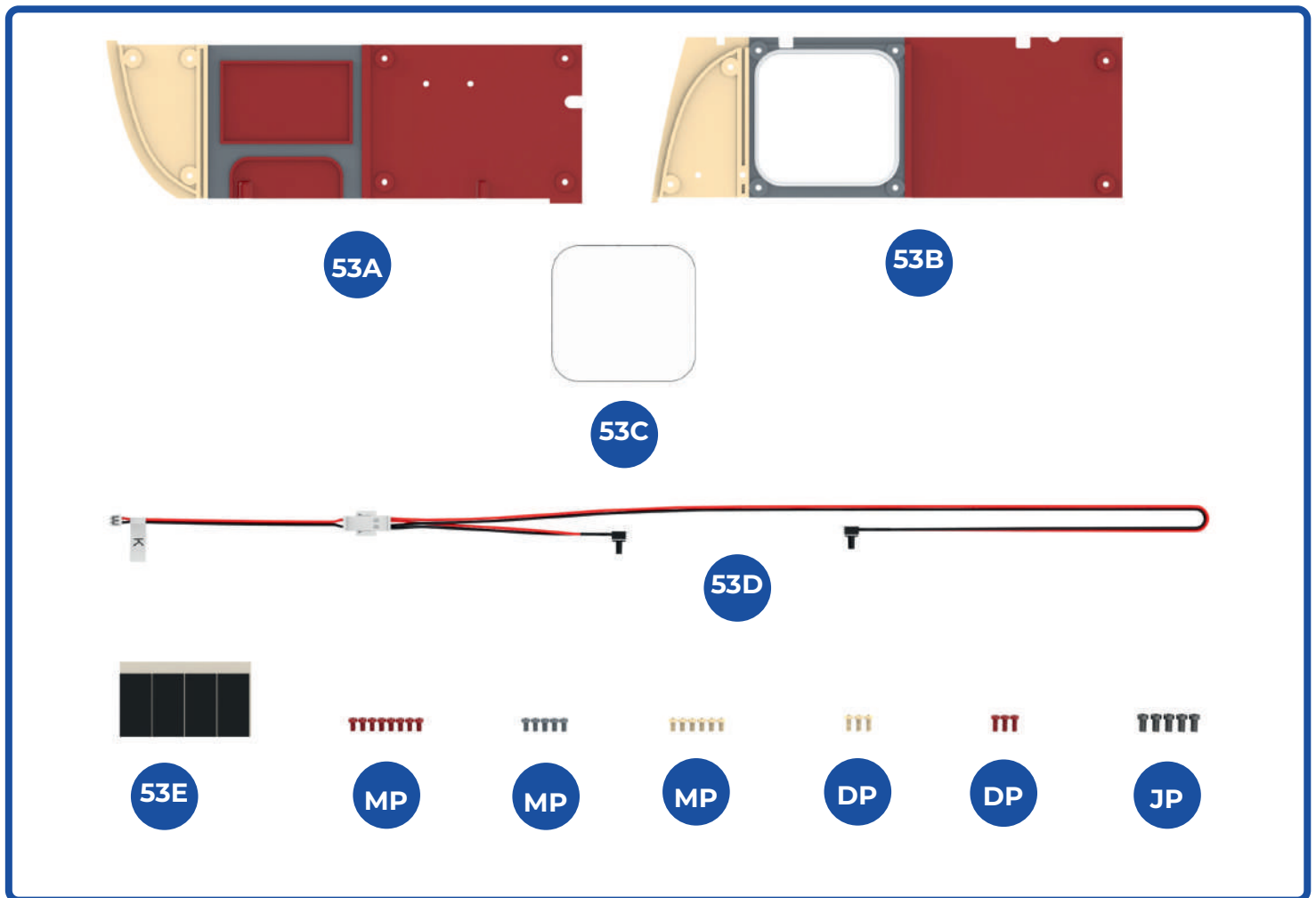
Finished views



STAGE 53

FITTING CABLES TO THE BELL PUSHES AT THE REAR ENTRANCE

We add some finishing touches to the rear entrance wall
and then fit the wall to the end of the lower deck
passenger compartment.



KEY TO PARTS SUPPLIED

53A	Right end wall	MP	1.7 x 3mm (x8 red)
53B	Left end wall	MP	1.7 x 3mm (x5 grey)
53C	Window pane	MP	1.7 x 3mm (x6 cream)
53D	Cable K	DP	1.7 x 4mm (x3 cream)
53E	Tape strips (x4)	DP	1.7 x 4mm (x3 red)
		JP	2.3 x 4mm (x5)

1

1 Arrange cable K (**53D**) around the inside of the doorway panel **52A** in the orientation shown. Start by fitting the bell push in place near the top of the entrance, as indicated by the red dotted line. Arrange the cable around the doorway as shown, ending by fitting the second bell push, as indicated by the light blue dotted line.

2

2 Check that the cable **53D** runs across the bottom of the panel 9mm from the top of the door sill (indicated in light blue). There should be a little slack in the cable at the side of the panel as indicated by the red arrows. Tape the cable in place using four strips of tape **53E**. You may find that the lengths of red and black cable at the end (circled in red) are uneven. This is not a problem.

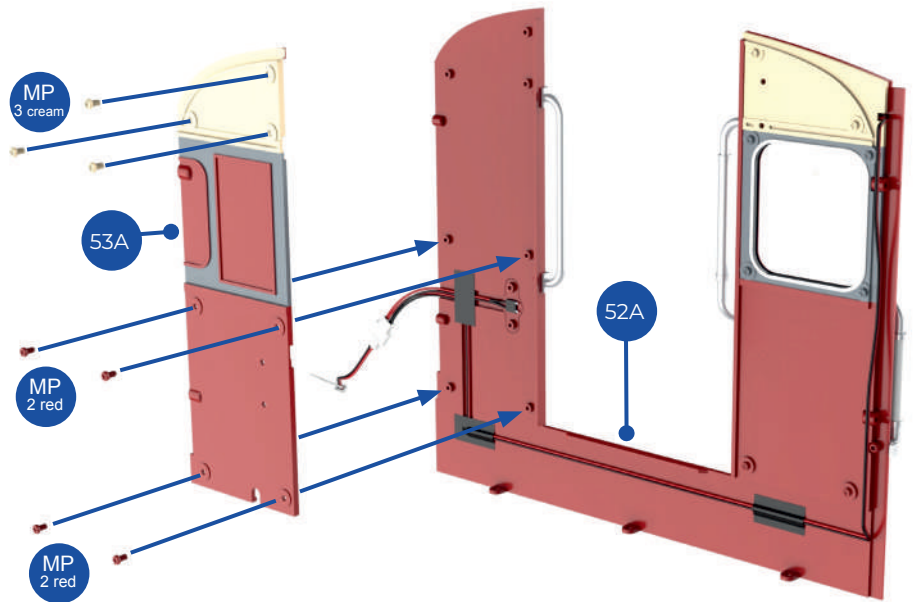
3

3 Position the window pane **53C** in the opening in the rear entrance wall **52A**. Position the left inner rear wall **53B** as indicated, so that the window pane is held in place. Fix part **53B** in place using **MP** screws: two cream at the top, four grey in the middle and two red at the bottom. Note that the cable K (**53D**) does not fit between these two panels at the side (see step 4). Do not overtighten the **MP** screws.

Remember that when we refer to left or right, it is the left or right side when facing in the direction of travel.

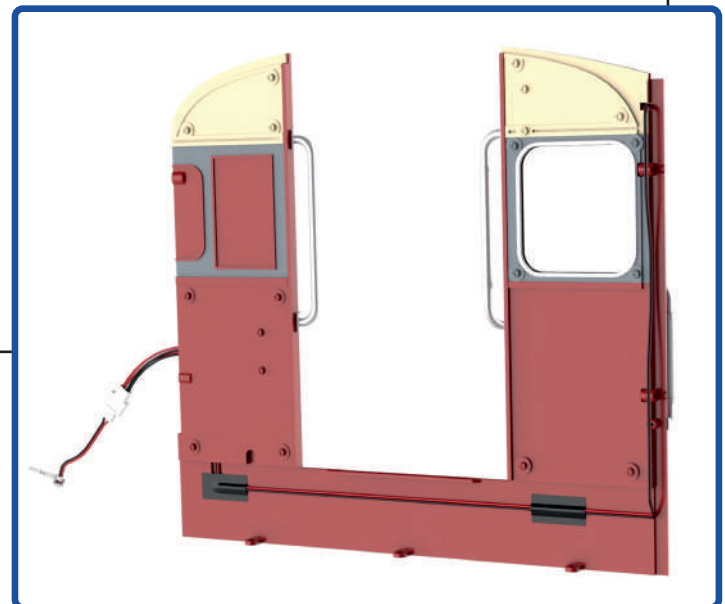
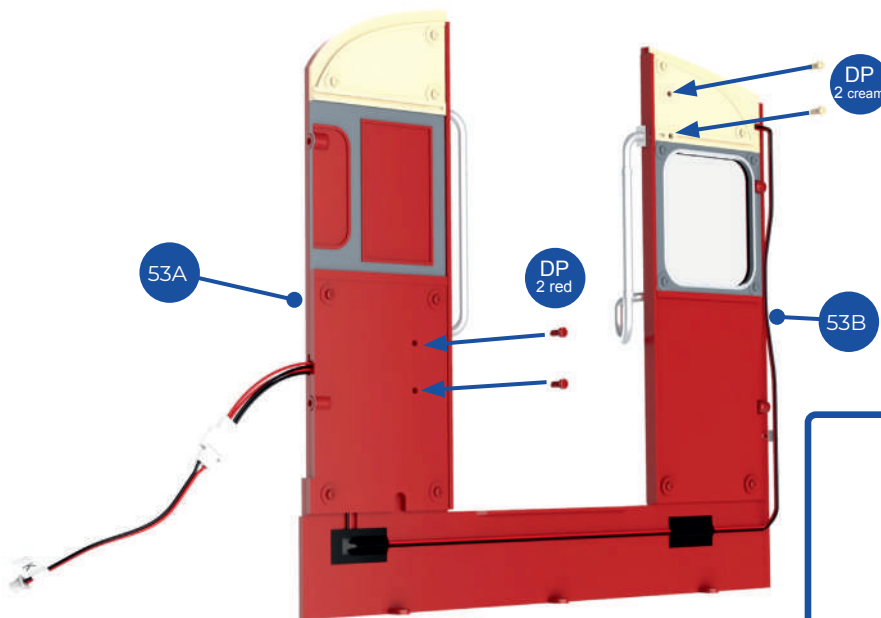
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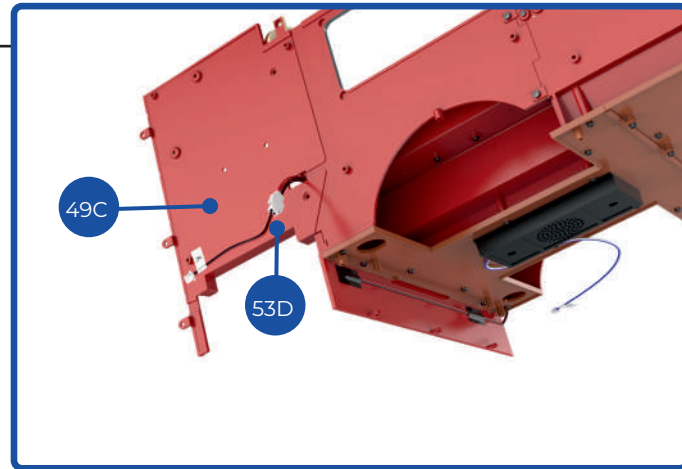
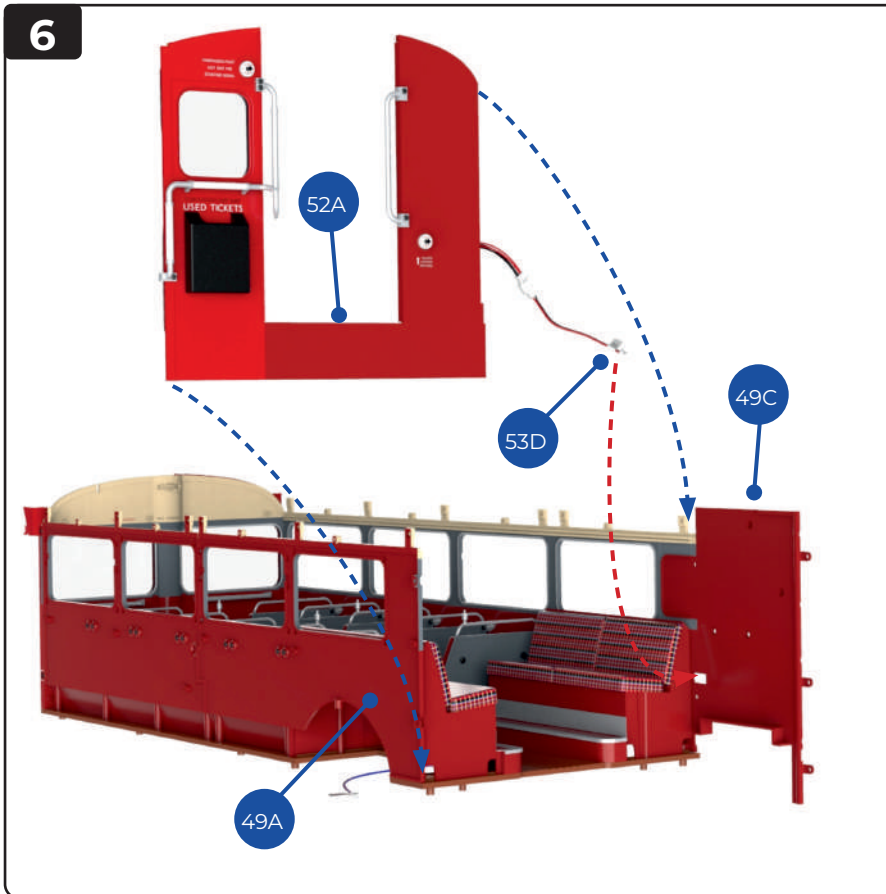
4 Position the right inner rear panel **53A** on the other side of the rear entrance wall **53A**. Fix in place with **MP** screws as indicated: three cream ones at the top, two red ones in the middle and two red ones at the bottom. Do not overtighten the screws.



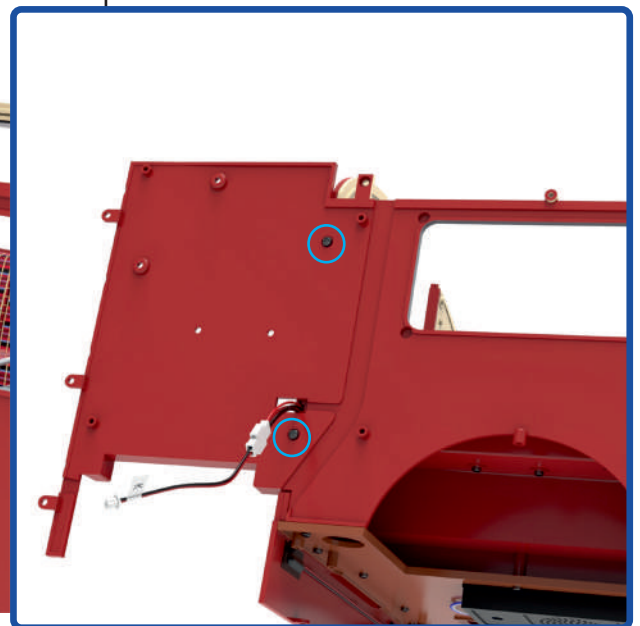
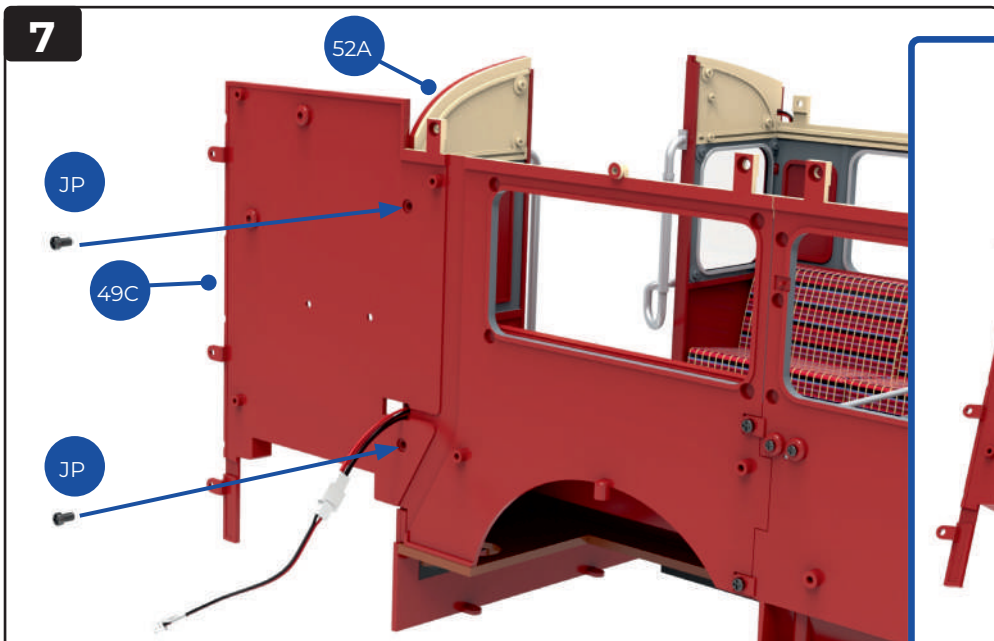
5

5 To fix the inner bell pushes firmly in place, add further **DP** screws as indicated: two red **DP** screws on the right inner panel; two cream **DP** screws on the left inner panel. The inset below shows all the screws in place.

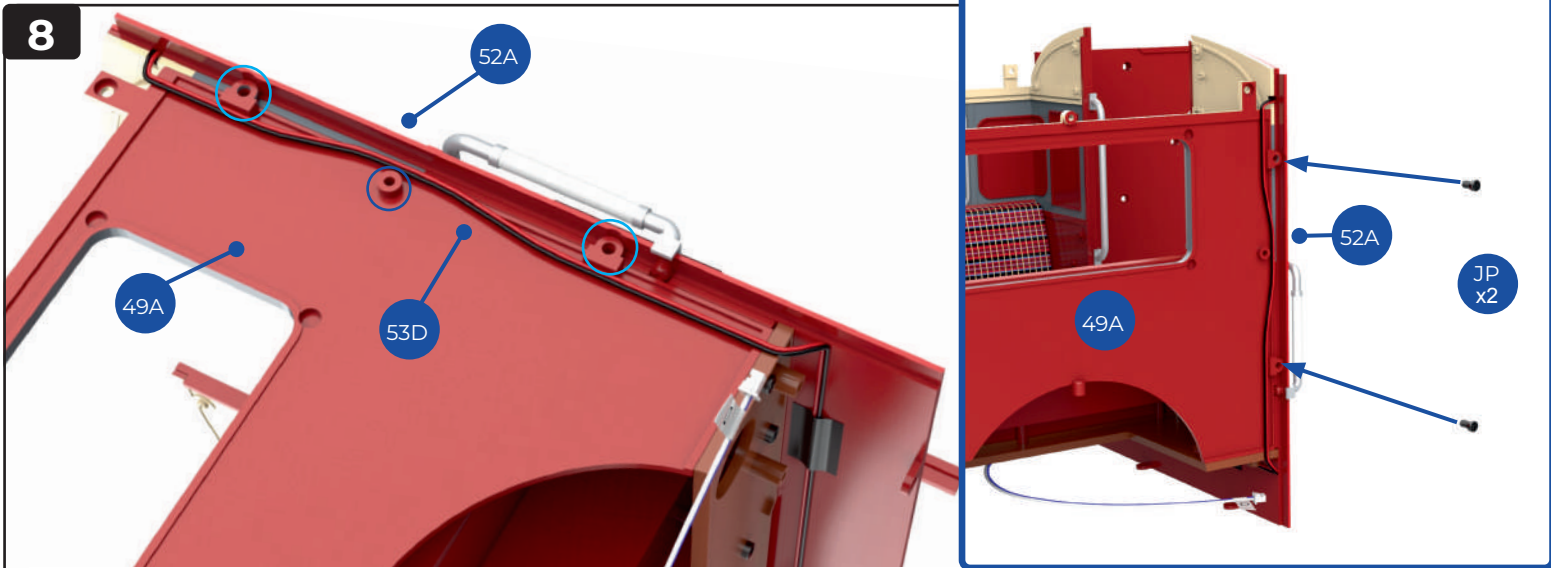




6 Fit the assembled rear entrance wall **52A** in place at the rear of the passenger compartment. At the same time, thread cable K (**53D**) through the hole in part **49C** near the bench seat. The inset above shows the view from the outside.

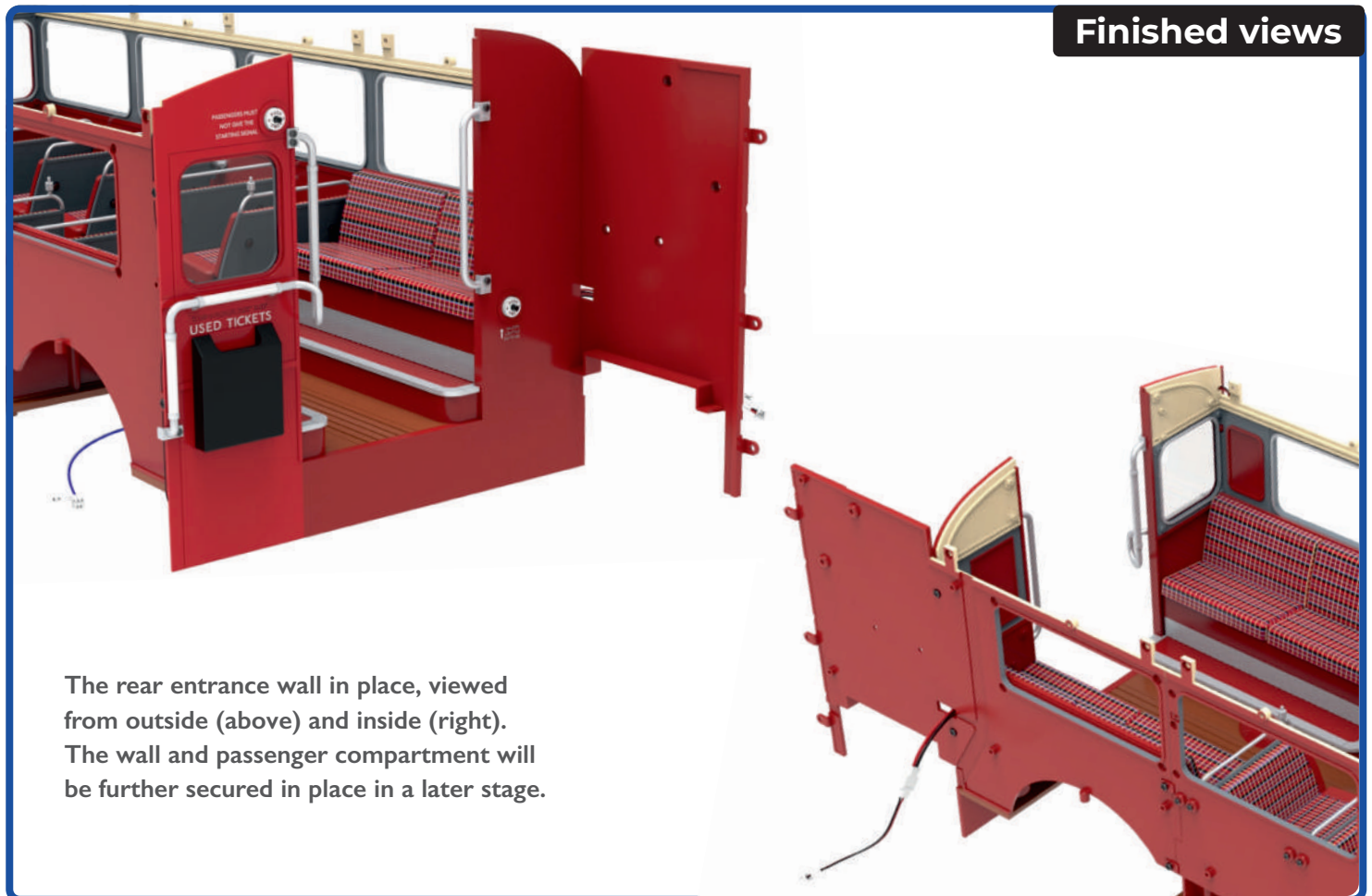


7 Working from the outside, fix the edge of the rear entrance wall **52A** in place using two **JP** screws. The inset (right) shows the wall in place with the **JP** screws circled in light blue.



8 On the left-hand side of the rear entrance wall, make sure that the cable is on the outside of part **49A** (the left rear side wall). Arrange the cable **53D** around the screw sockets

as shown – in front of the larger sockets circled in light blue and behind the smaller socket circled in dark blue. Use two **JP** screws to fix the rear entrance wall in place (inset, above).



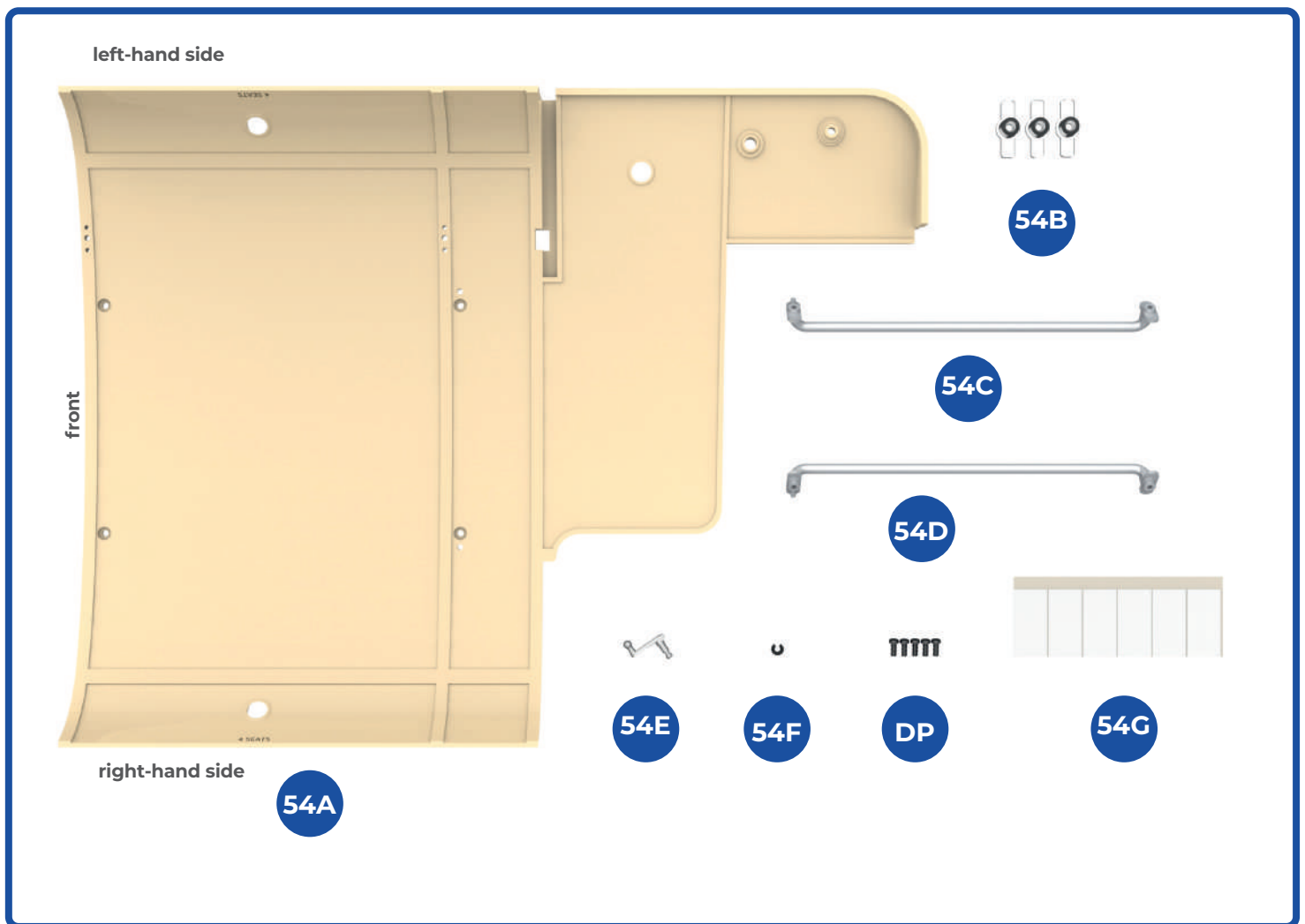
Finished views

The rear entrance wall in place, viewed from outside (above) and inside (right). The wall and passenger compartment will be further secured in place in a later stage.

STAGE 54

FIRST SECTION OF THE LOWER DECK CEILING

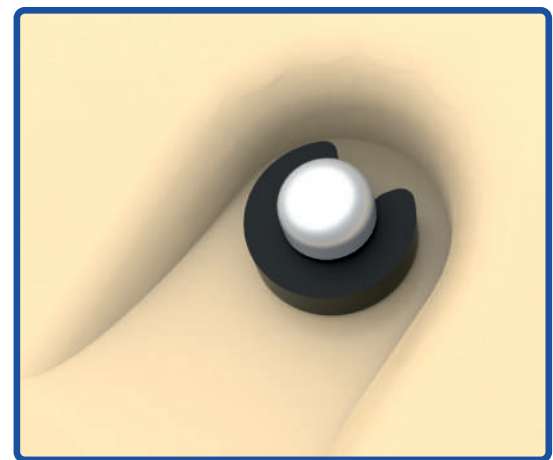
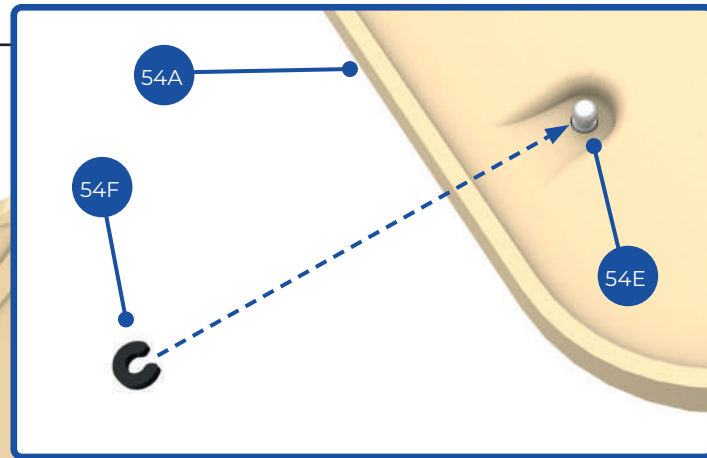
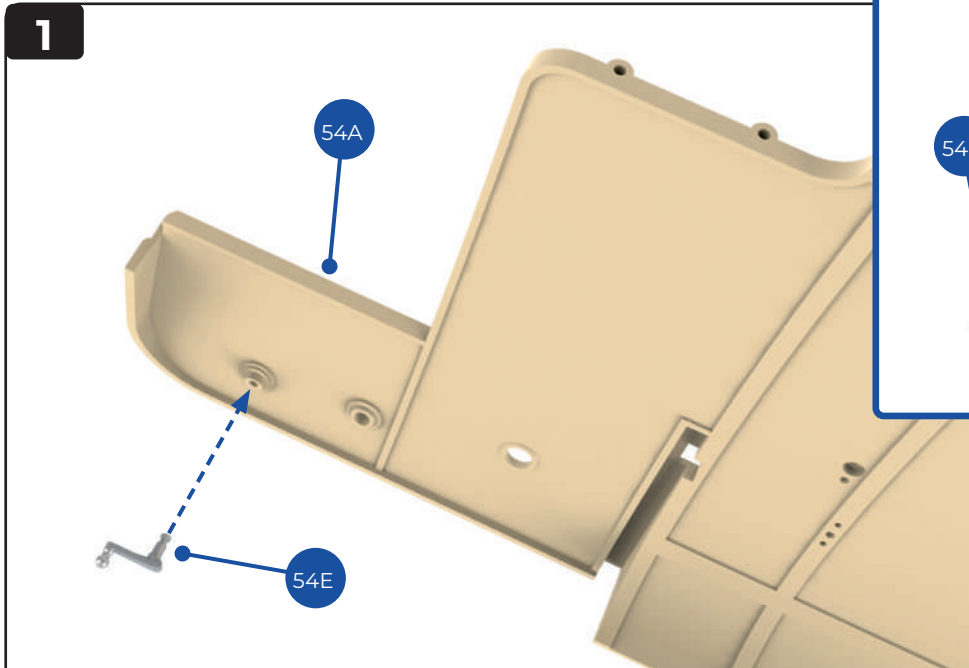
The first part of the lower deck ceiling (for the rear of the bus) is supplied, together with handrails and lights.
Follow the instructions to assemble the parts.



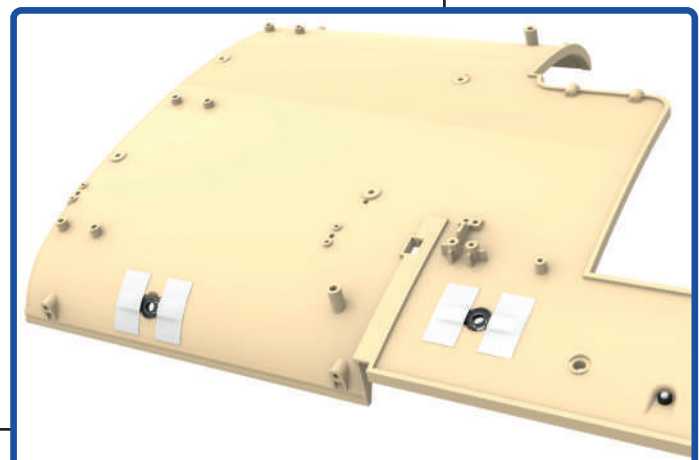
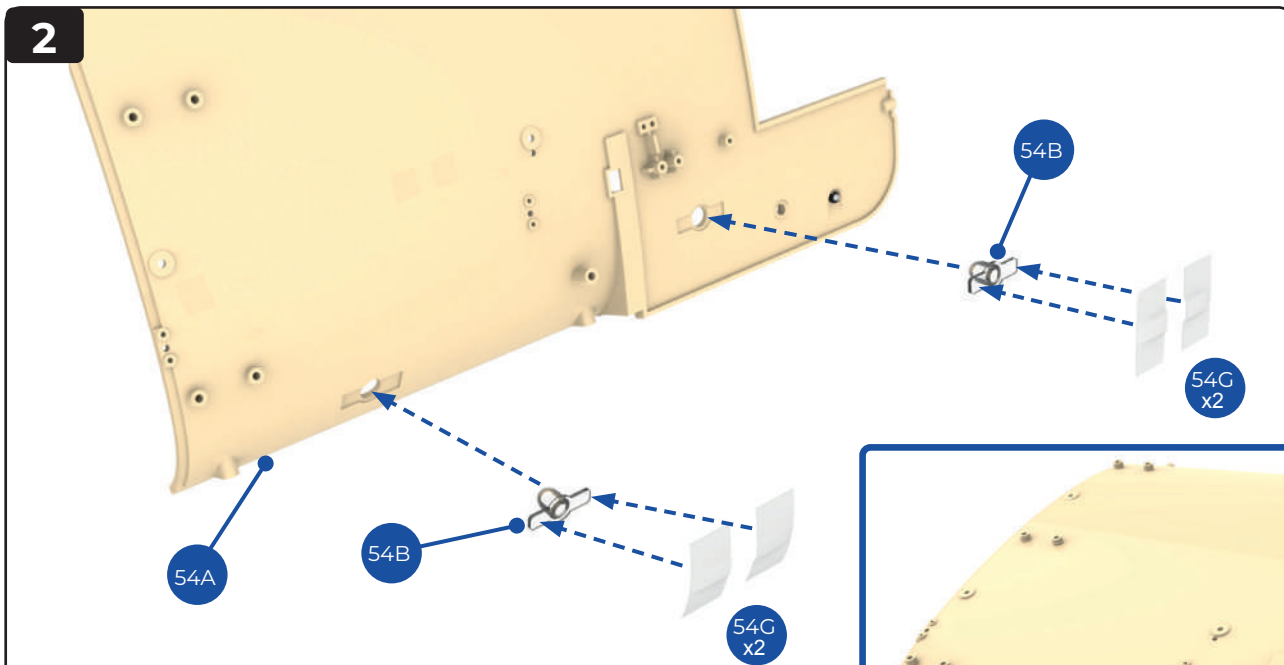
KEY TO PARTS SUPPLIED

- | | |
|--|-----------------------------|
| 54A Rear lower deck ceiling panel | 54F Clip |
| 54B Ceiling lamps (x3) | 54G Tape strips (x6) |
| 54C Left ceiling handrail | DP 1.7 x 4mm (x5) |
| 54D Right ceiling handrail | |
| 54E Handle | |

✓
 In the image above, the ceiling is viewed from below (as you would see it from inside the lower deck). We have labelled the edges for clarity.

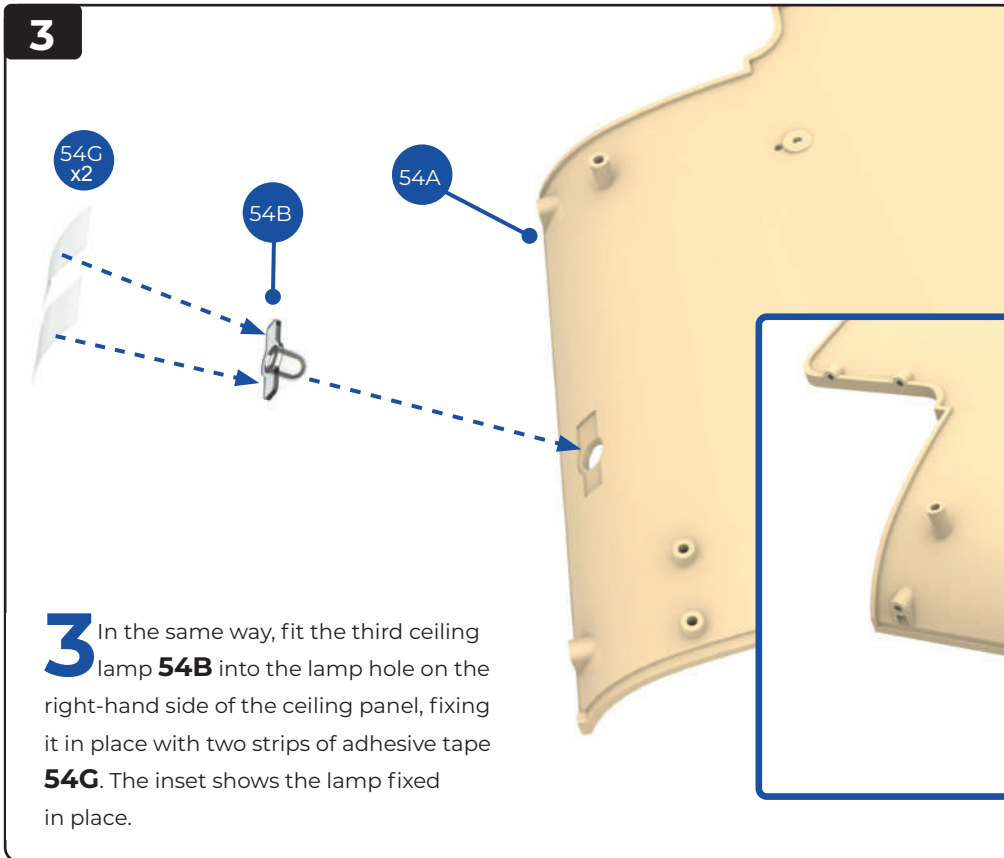


1 Take the rear lower deck ceiling panel **54A** and identify the hole near the back left-hand corner where the handle **54E** fits. Push the handle into the hole. From the other side (top) of the panel, fix the handle in place by attaching the clip **54F** around the 'neck' of the handle (above right). The inset right shows the clip in place.



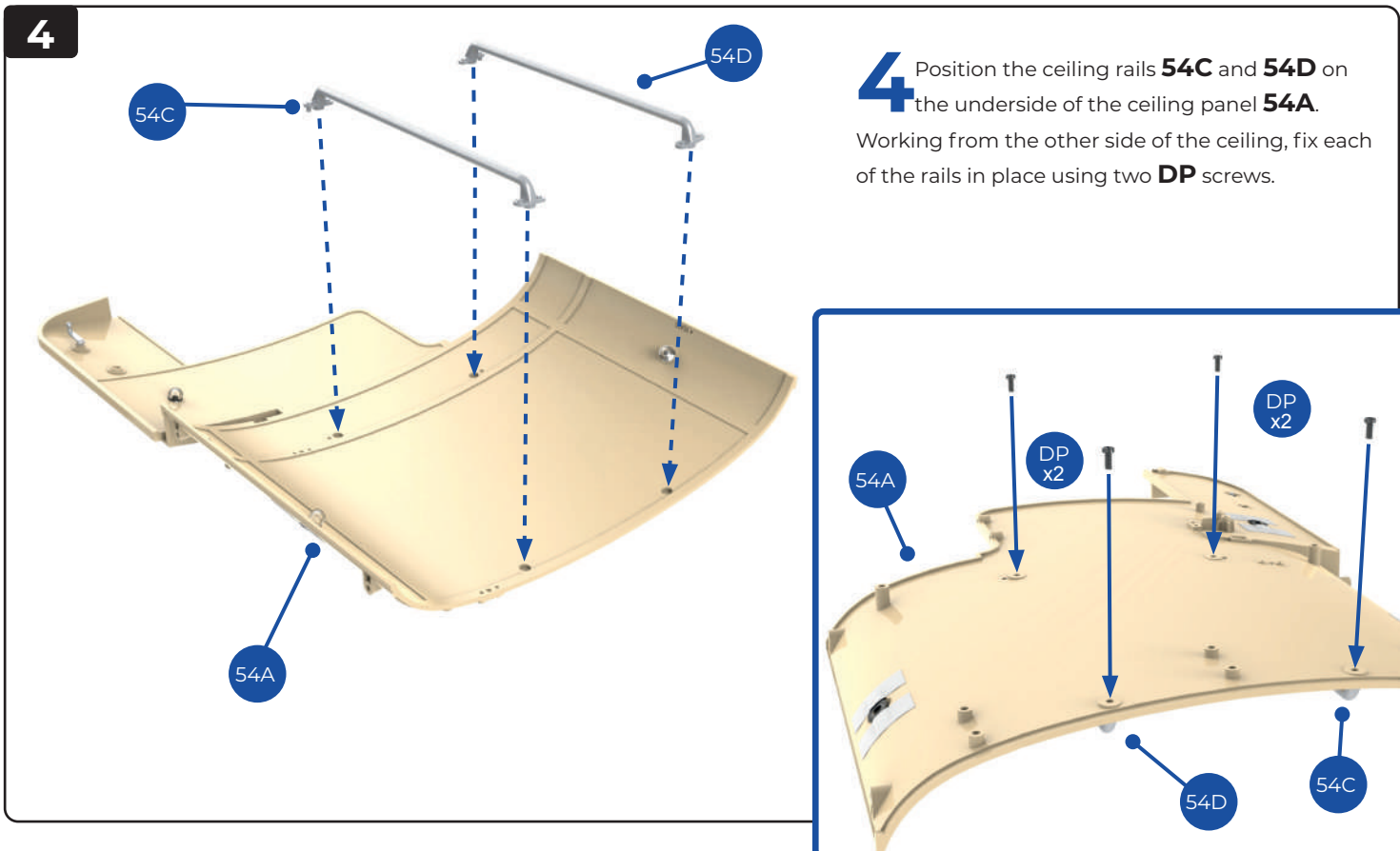
2 Take two of the ceiling lamps **54B**. Working from above, fit them into the lamp holes on the left-hand side of the ceiling **54A**. Fix each lamp in place with two adhesive strips **54G**. The inset shows the lamps fixed in place.

3



3 In the same way, fit the third ceiling lamp **54B** into the lamp hole on the right-hand side of the ceiling panel, fixing it in place with two strips of adhesive tape **54G**. The inset shows the lamp fixed in place.

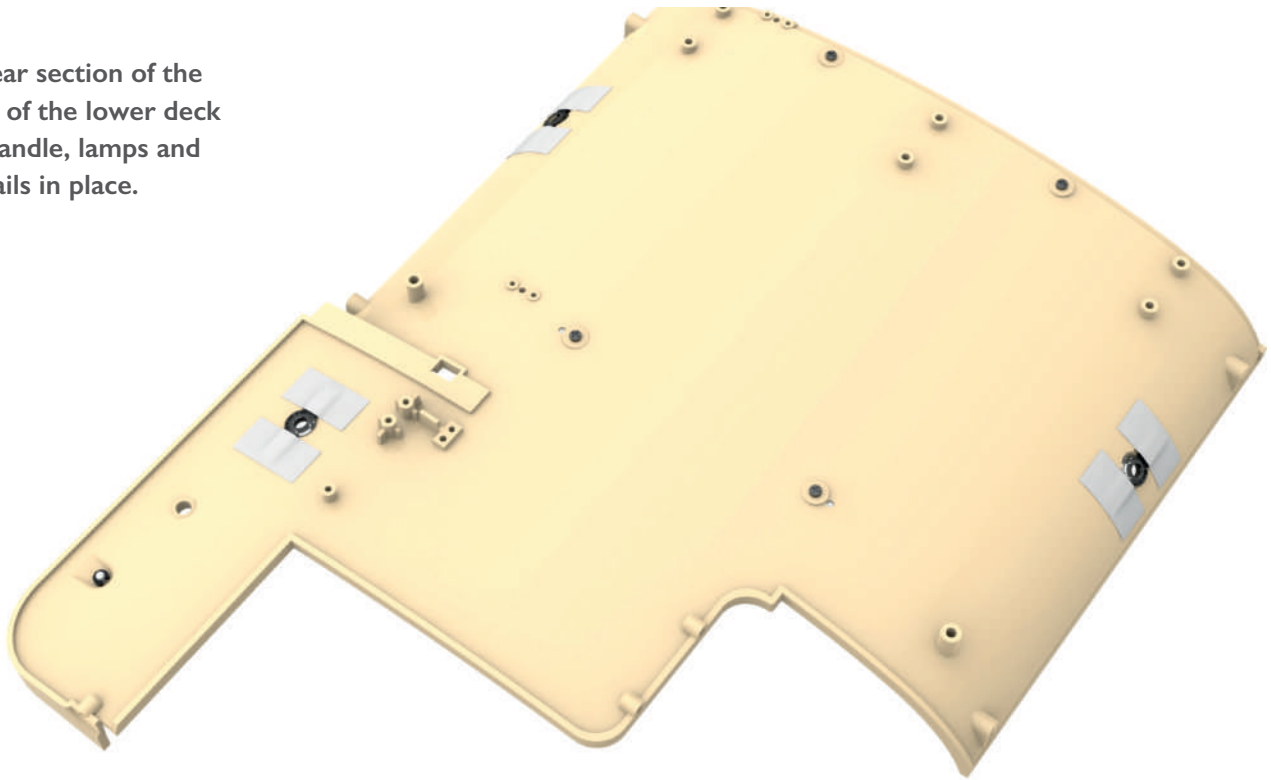
4



4 Position the ceiling rails **54C** and **54D** on the underside of the ceiling panel **54A**. Working from the other side of the ceiling, fix each of the rails in place using two **DP** screws.

Finished views

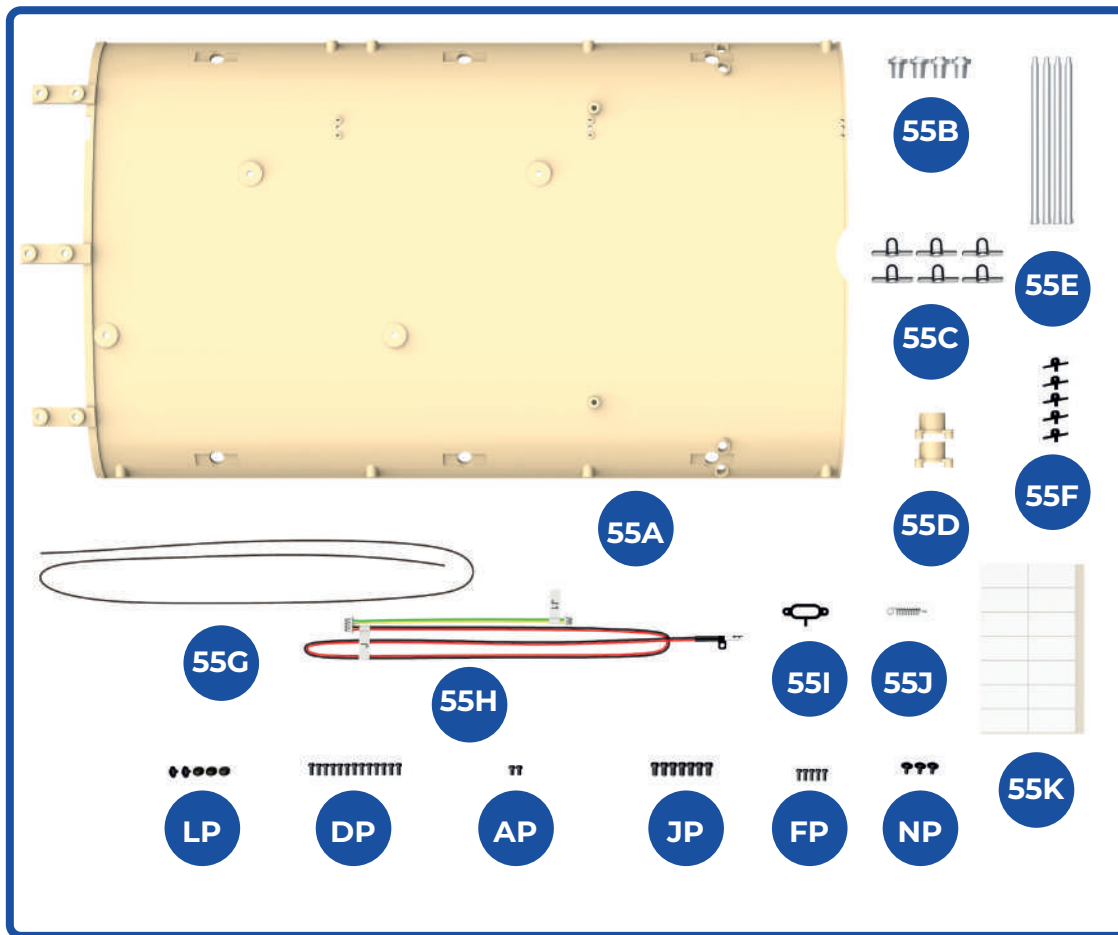
The rear section of the ceiling of the lower deck with handle, lamps and handrails in place.



STAGE 55

ROOF PANEL AND BELL CORD

Cord guides and ceiling lamps are fitted to the ceiling panels of the lower deck. The panels are connected and the bell cord is fitted.



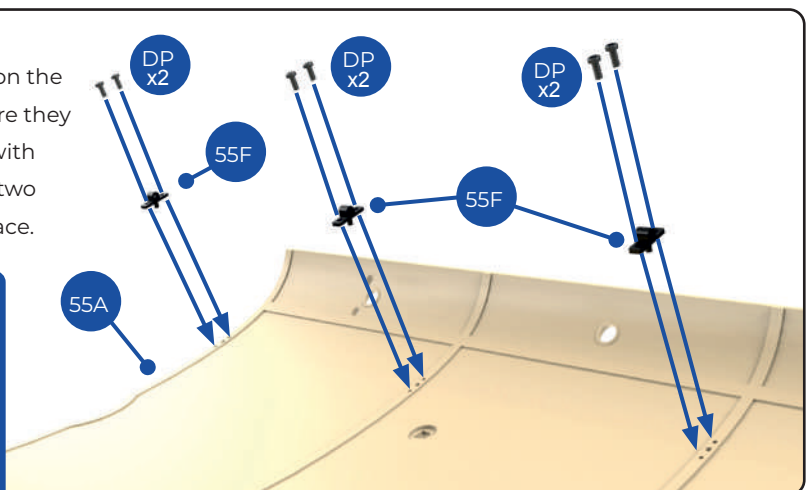
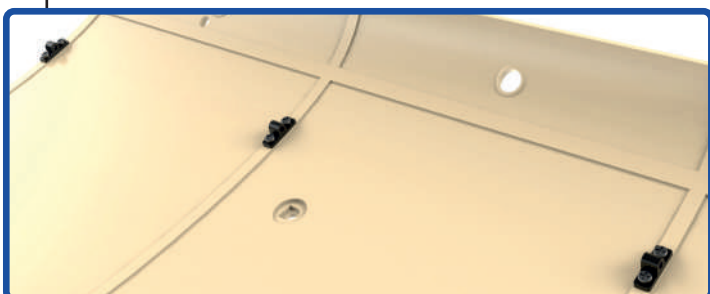
KEY TO PARTS

- 55A** Main roof section
- 55B** Sockets (x4)
- 55C** Ceiling lamps (x6)
- 55D** Light deflector (x2)
- 55E** Poles (x4)
- 55F** Cord guide (x5)
- 55G** Cord
- 55H** Cable J-J1
- 55I** Control slider
- 55J** Spring
- 55K** Tape strips (x13)

- LP** 1.7x25x5mm (x5)
- DP** 1.7 x 4mm (x13)
- AP** 1.7 x 3mm (x2)
- JP** 2.3 x 4mm (x7)
- FP** 1.5 x 4mm (x5)
- NP** 1.7 x 4 x 5mm (x3)

1

Take three cord guides **55F** and position them on the ribs in the ceiling **55A** as indicated (right). Ensure they are in the correct orientation, so that they sit flush with the ceiling panel. Fix each cord guide in place with two **DP** screws. The inset below shows the guides in place.



2

Take the two light deflectors **55D** and fit them to the lower side of the ceiling panel **55A** as indicated. Fix each one in place from the upper side of the ceiling panel with two **LP** screws, as shown in the insets, above and right.

3

Position four sockets **55B** in the recesses in the underside of the ceiling panel **55A**. Fix in place from the upper side of the panel with four **FP** screws (inset, above right).

4

Along each side of the ceiling panel **55A**, fit three lamps **55C**. Fit the lamps from the upper side of the roof panel and hold each one in place with two pieces of adhesive tape **55K**. The inset below right shows one of the lamps in place.

5 Take the rear roof panel **54A** supplied with the previous stage and fit two cord guides to it. Fix them in place with two **DP** screws. The inset below shows the cord guides in place.

6 Turn over the rear roof panel **54A** and identify the fixing point for the cable J-J1 (**55H**) on the upper side of the ceiling panel. Fix in place with an **AP** screw. Be careful to ensure that the contacts remain open when tightening the screw.

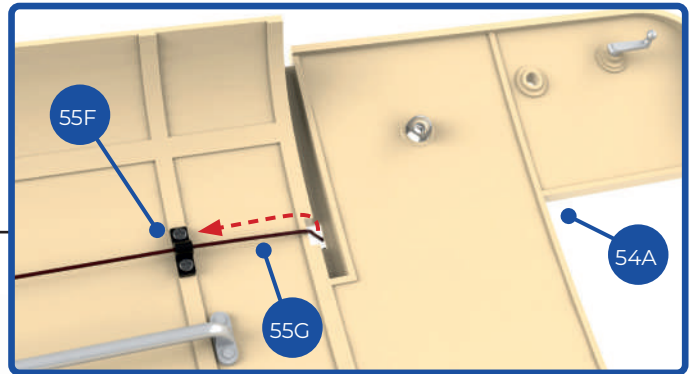
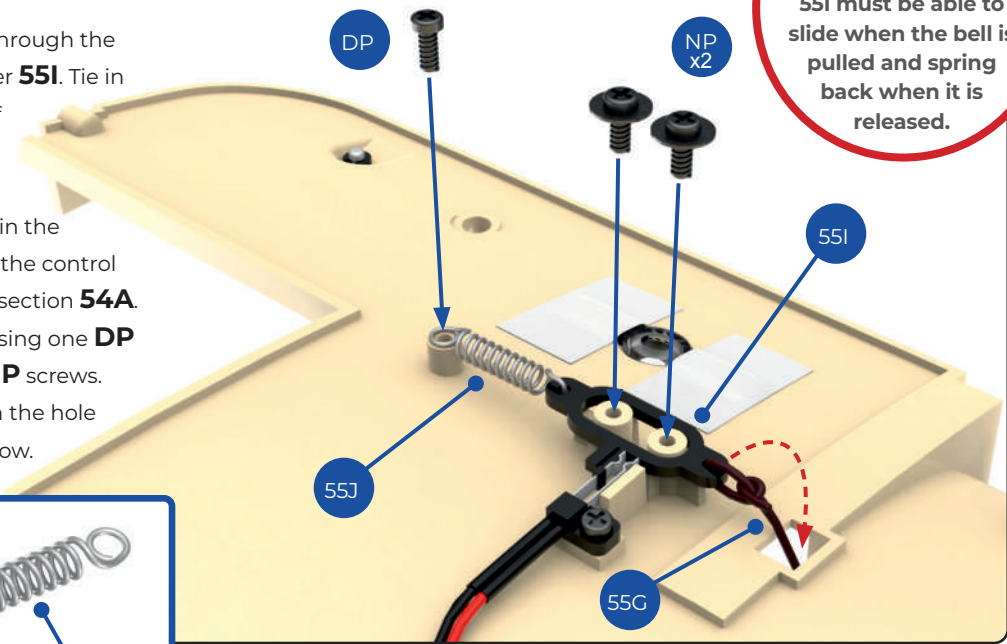
7 Arrange the cable J-J1 (**55H**) across the top of the rear ceiling panel **54A** as indicated. Fix in place with strip of adhesive tape **55K**.

8 Take the two ceiling panels **54A** and **55A**. Check how they fit together with the tabs on part **55A** overlapping the front edge of part **54A**. Fix together with six **JP** screws.

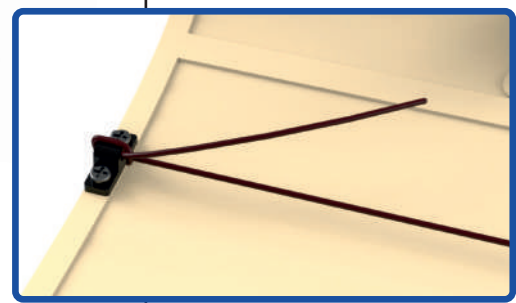
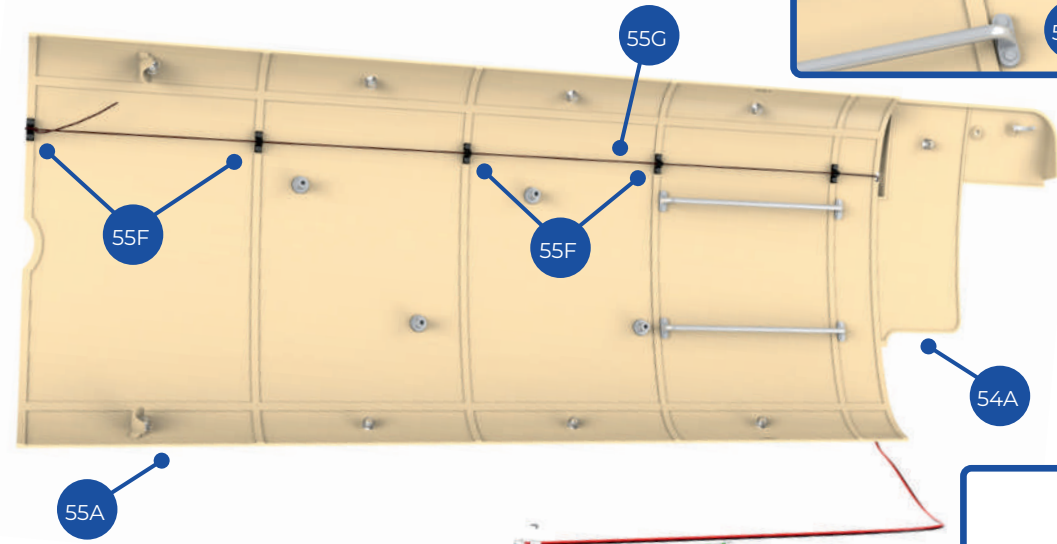
9

9 Thread one end of the cord **55G** through the hole at one end of the control slider **55I**. Tie in place with a double knot. Fix one end of the spring **55J** to the other end of the control slider, making sure you fit the more open end of the spring, as shown in the inset below. Identify the fixing point for the control slider on the upper side of the rear roof section **54A**. Fix the end of the spring **55J** in place using one **DP** screw. Fix part **55I** in place using two **NP** screws. Thread the free end of the cord through the hole in the ceiling as indicated by the red arrow.

Do not overtighten the NP screws – part **55I** must be able to slide when the bell is pulled and spring back when it is released.

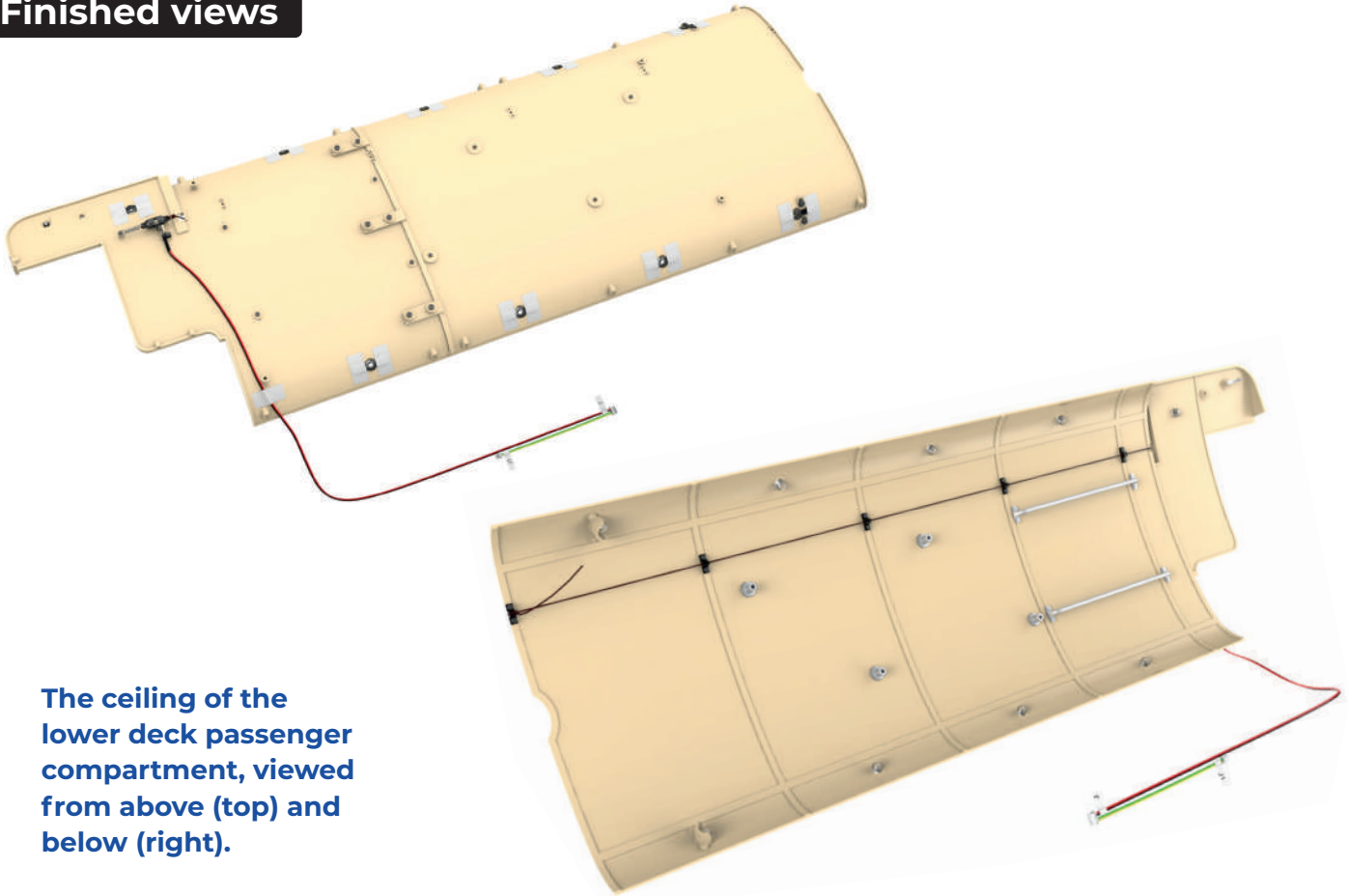


10



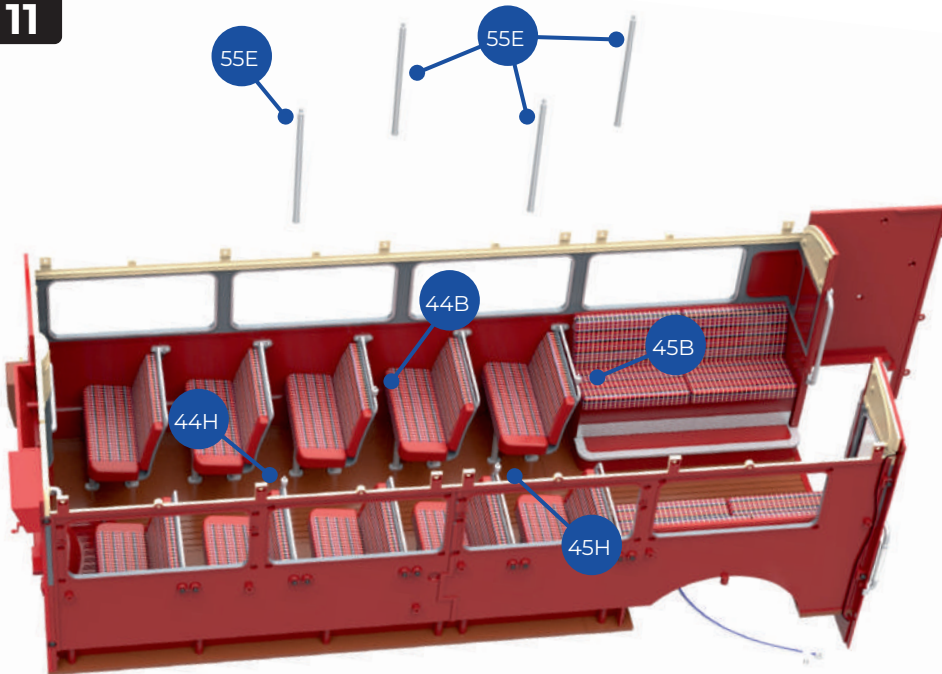
10 On the underside of the ceiling panels **55A** and **54A**, thread the cord **55G** through the first cord guide **55F**, as shown in the inset above right. Continue threading the cord through the four remaining cord guides along the length of the ceiling. Hold the cord in place temporarily with a single knot (right).

Finished views



The ceiling of the lower deck passenger compartment, viewed from above (top) and below (right).

11



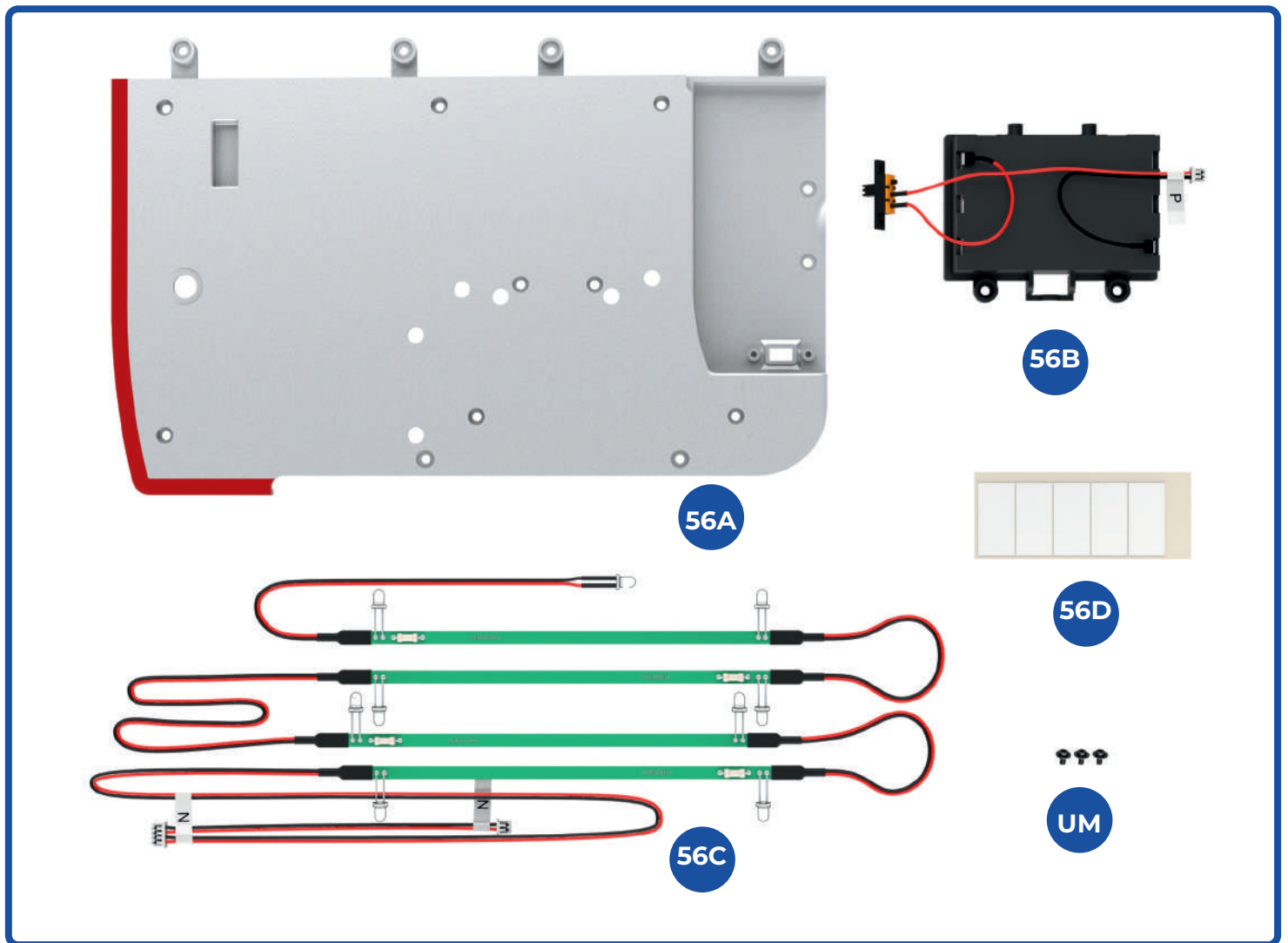
11 Fit the four upright poles **55E** to the sockets on the backs of the seats **44H**, **44B**, **45H** and **45B**. These are push fit connections, and will be secured when the ceiling is fitted to the lower deck at a later stage.



STAGE 56

WIRING THE LIGHTING ON THE LOWER DECK

In this stage, we supply the wiring, complete with LEDs, for the lower deck lighting, along with the battery box. Follow the assembly instructions carefully.



KEY TO PARTS SUPPLIED

- | | | | |
|------------|------------------------|-----------|--------------------|
| 56A | Rear platform | UM | 1.5 x 3 x 6mm (x3) |
| 56B | Battery box and switch | | |
| 56C | LED cable | | |
| 56D | Tape strips (x5) | | |

1

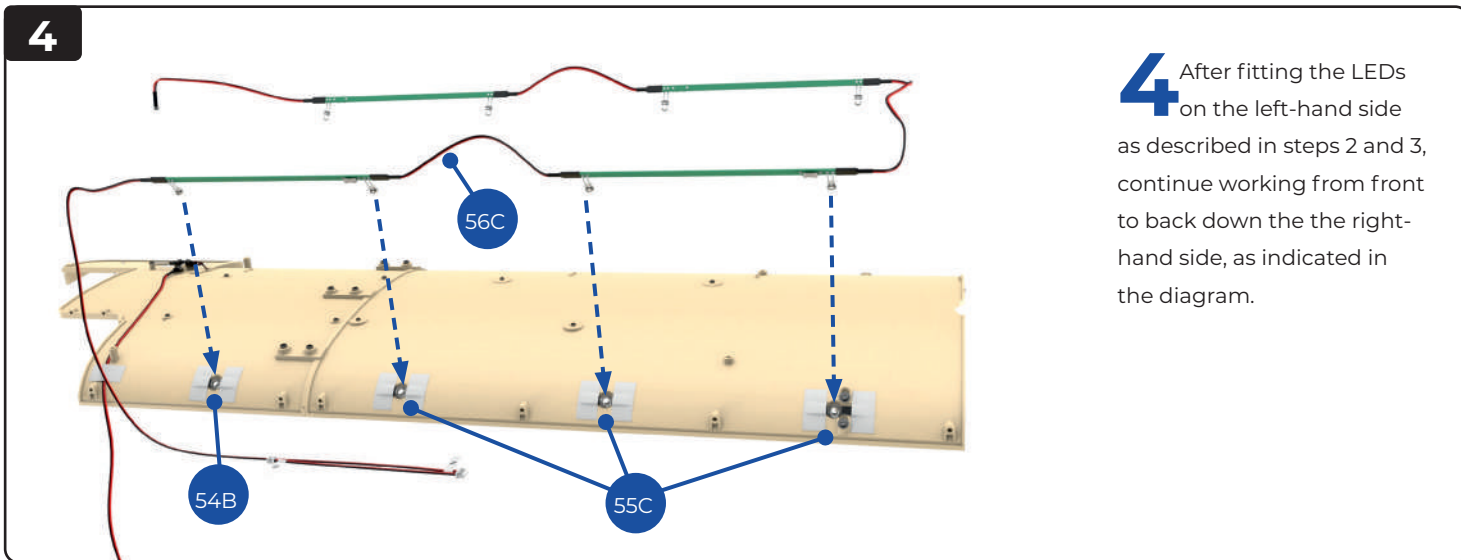
1 Fit the battery box switch **56B** to the recess in the rear platform **56A**. Fix the switch in place with two **UM** screws. The battery box itself will be fitted at a later stage, so store carefully to avoid strain on the cables.

2

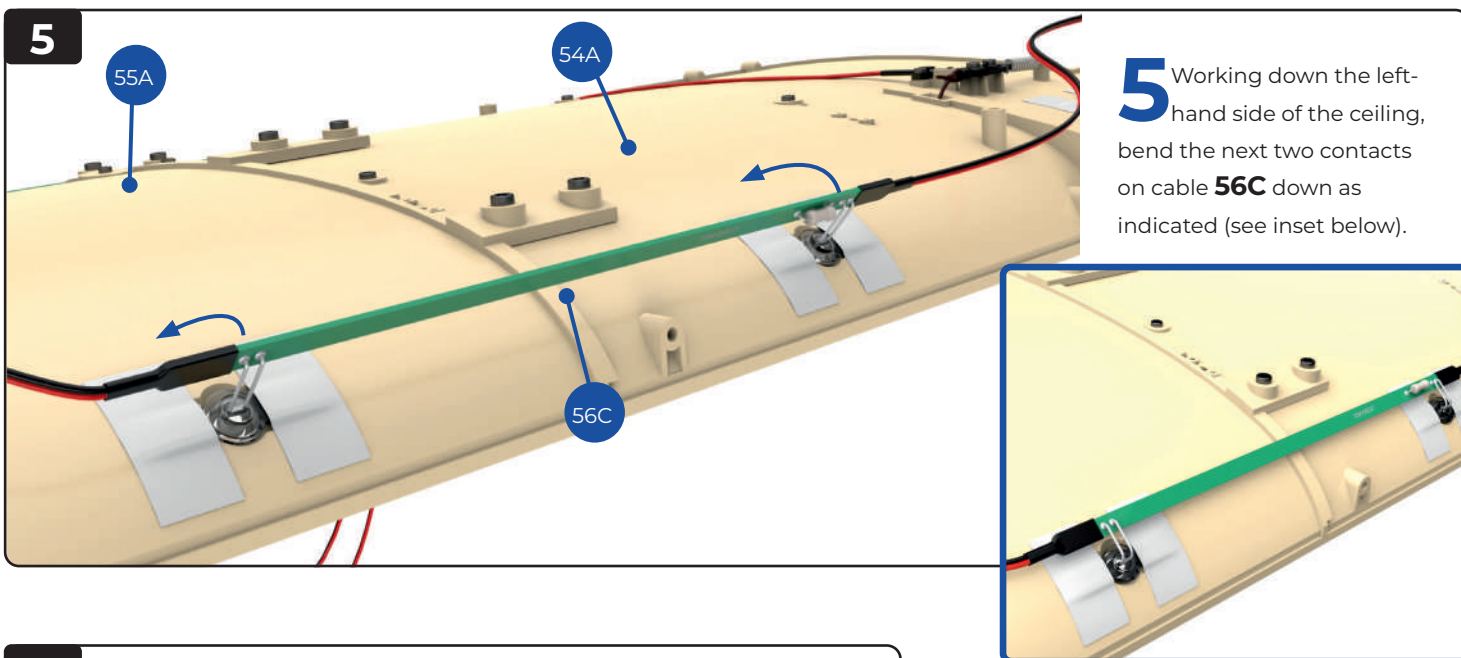
2 Arrange the cable **56C** around the upper side of the roof of the lower deck. Starting by fitting the LED at the end of the cable, circled in red. After completing step 3, continue to fit the LEDs into the lamps **54B** x 1 and **55C** x 3 down the left-hand side of the ceiling, as indicated here.

3

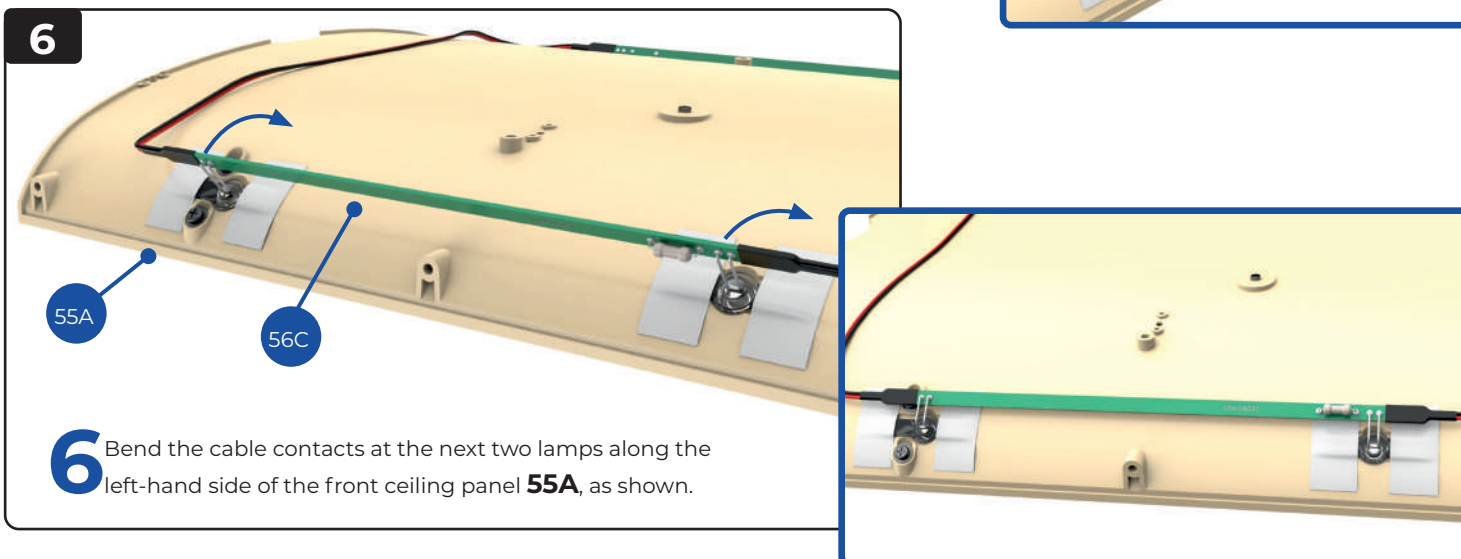
3 When the LED fitting at the back left of the ceiling is properly seated, bend the cable contacts down so that the cable is parallel to the surface of the ceiling (see inset, right). This ensures there is enough cable to fit the next LED.



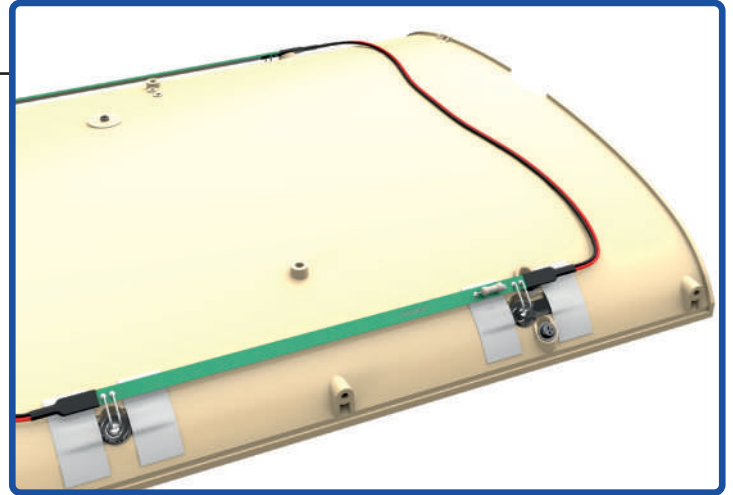
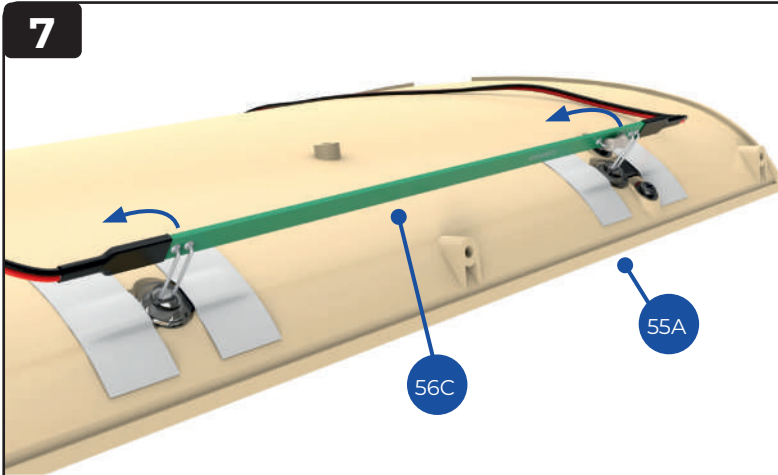
4 After fitting the LEDs on the left-hand side as described in steps 2 and 3, continue working from front to back down the the right-hand side, as indicated in the diagram.



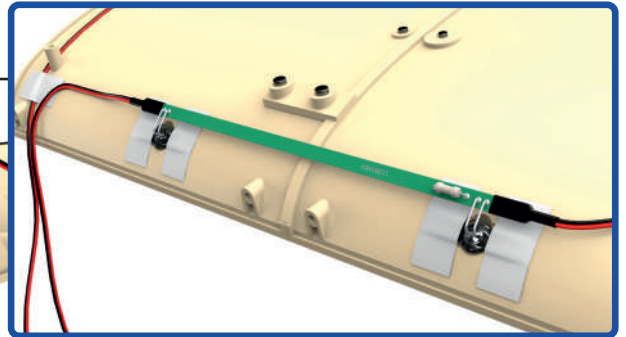
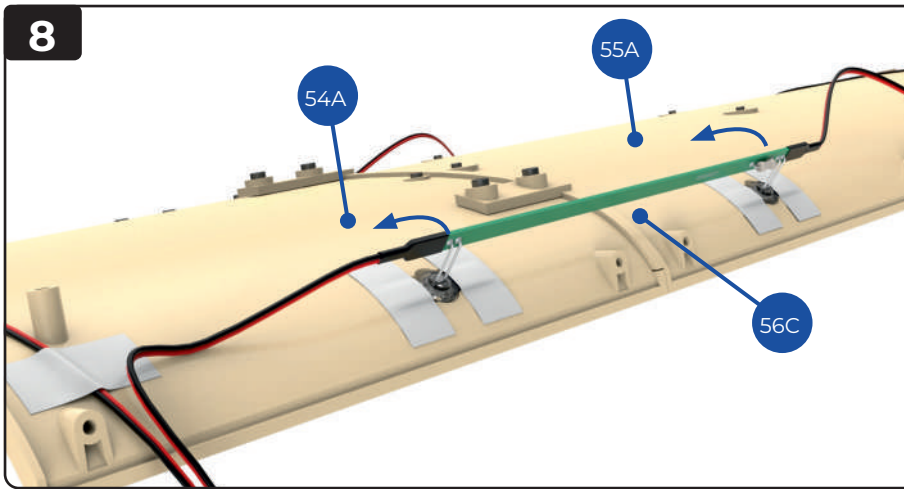
5 Working down the left-hand side of the ceiling, bend the next two contacts on cable **56C** down as indicated (see inset below).



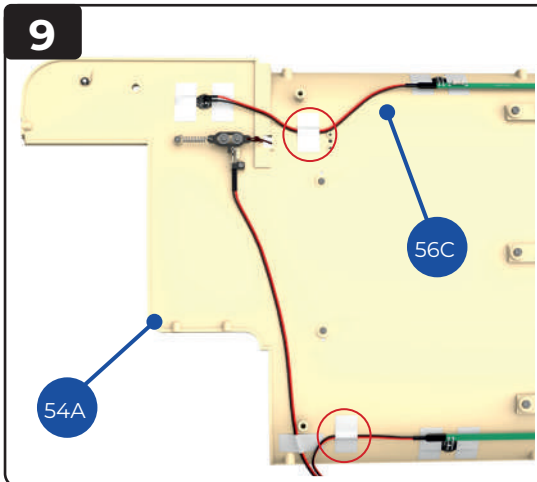
6 Bend the cable contacts at the next two lamps along the left-hand side of the front ceiling panel **55A**, as shown.



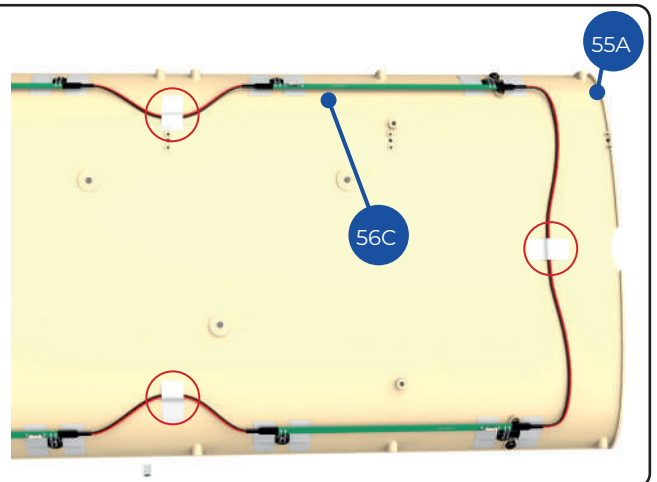
7 Working back down the right-hand side of the front ceiling panel, repeat the process, bending the contact wires as shown.



8 Finish the process by bending the contact wires at the last two lamps on the right-hand side.



9 Finally, fix the cable **56C** in place with adhesive tape **56D**, circled in red). Position two on the rear ceiling panel (left) and three on the front ceiling panel (right).

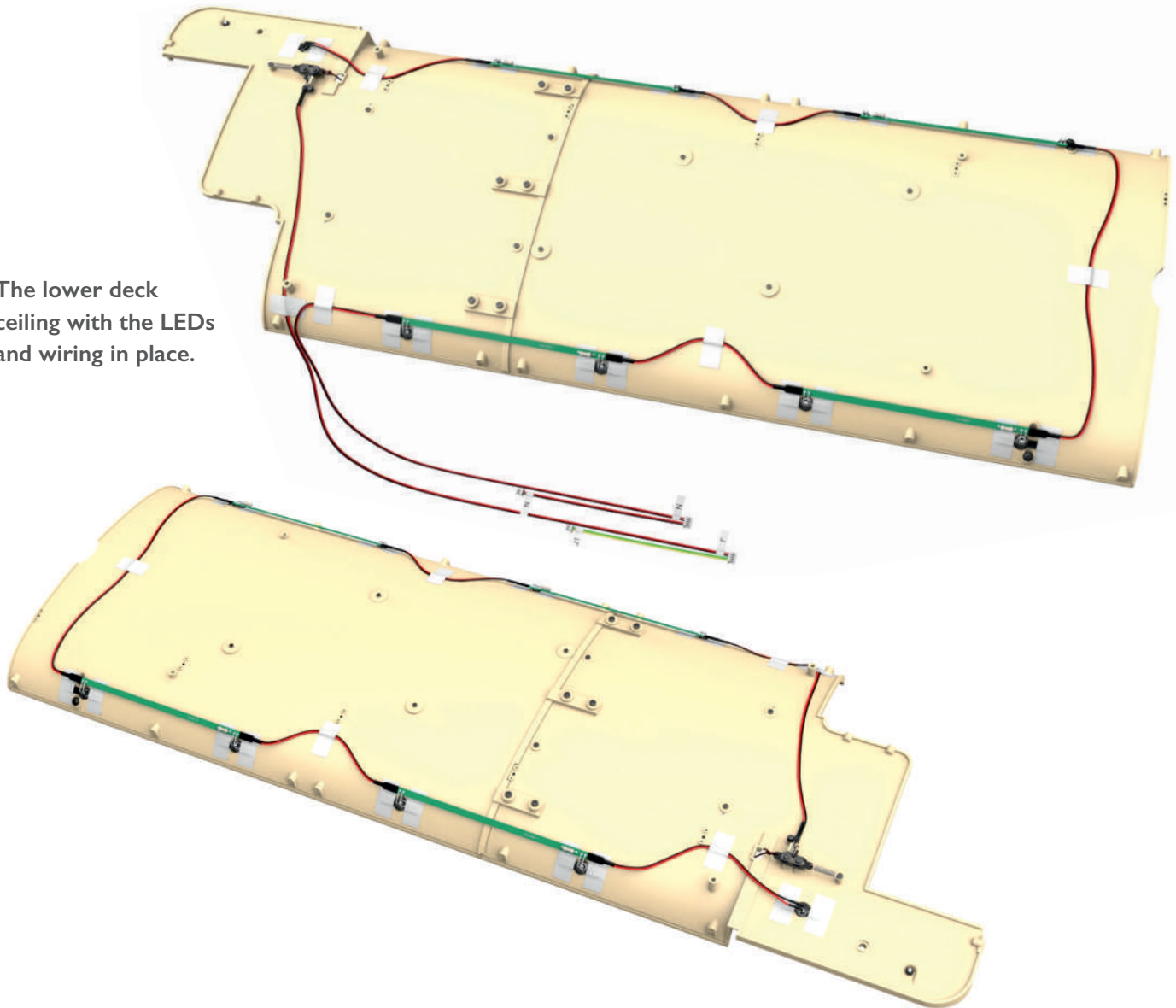


Finished views



The rear platform, with the battery box and switch in place. The battery box will be fixed in place at a later stage.

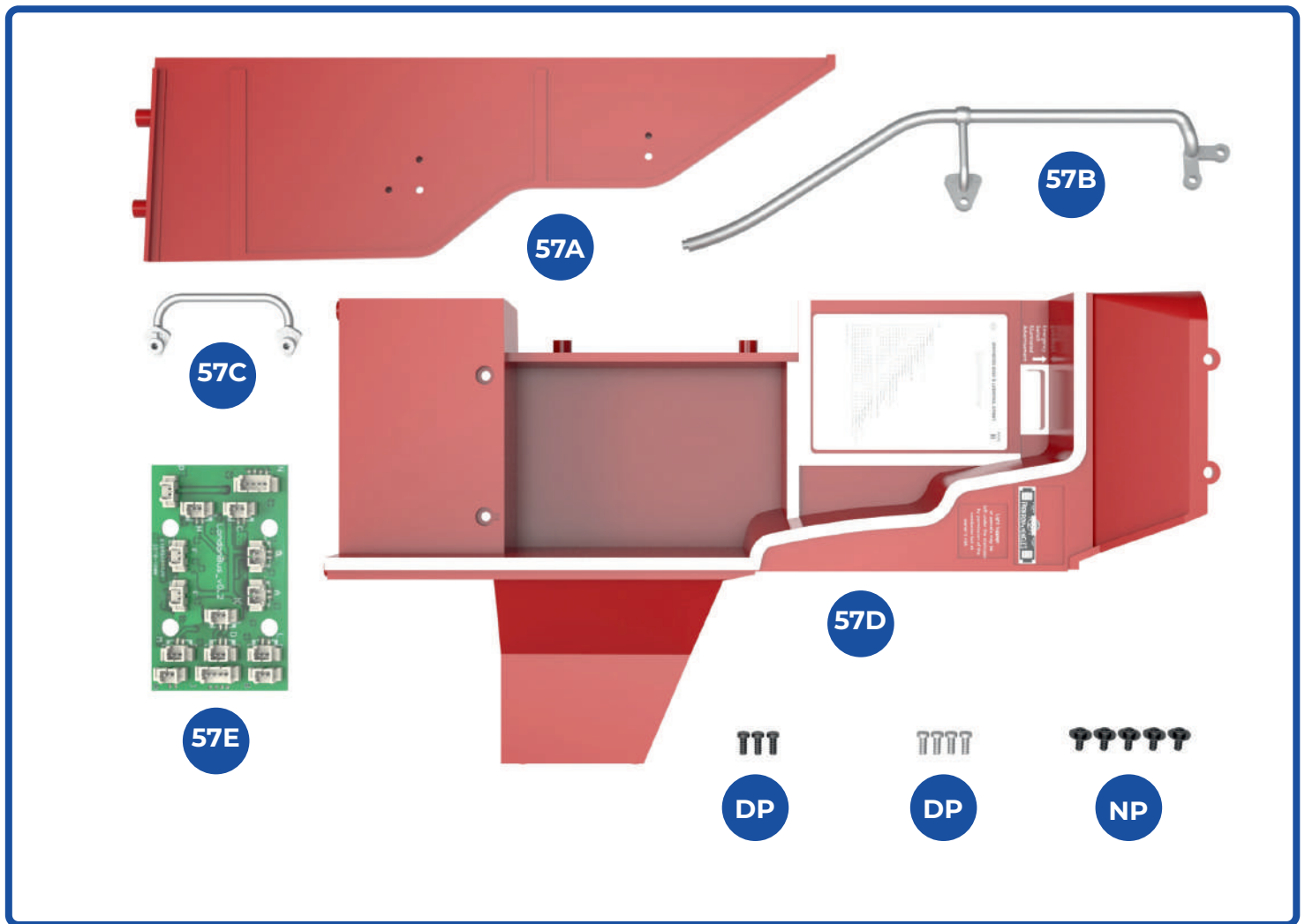
The lower deck ceiling with the LEDs and wiring in place.



STAGE 57

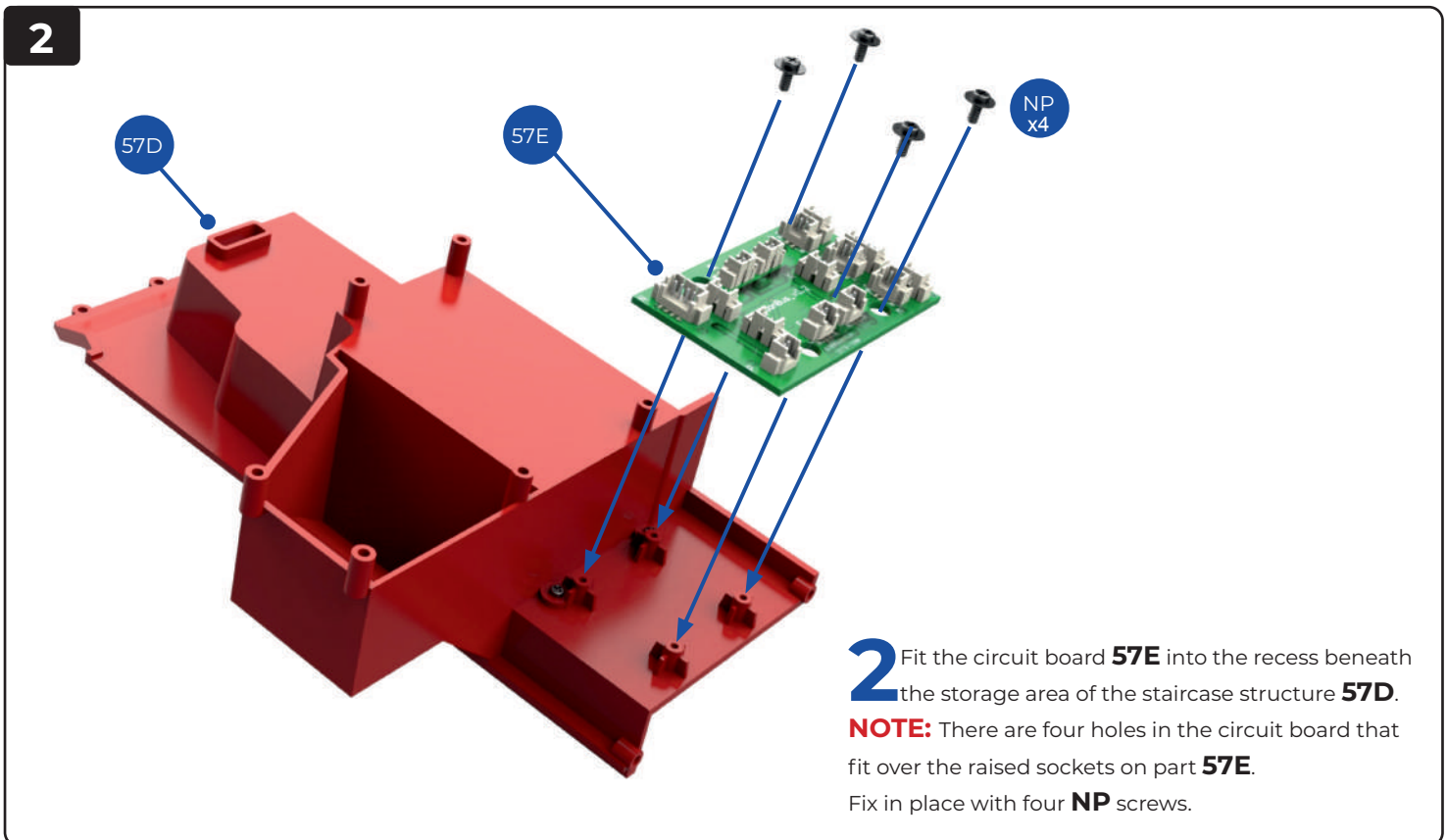
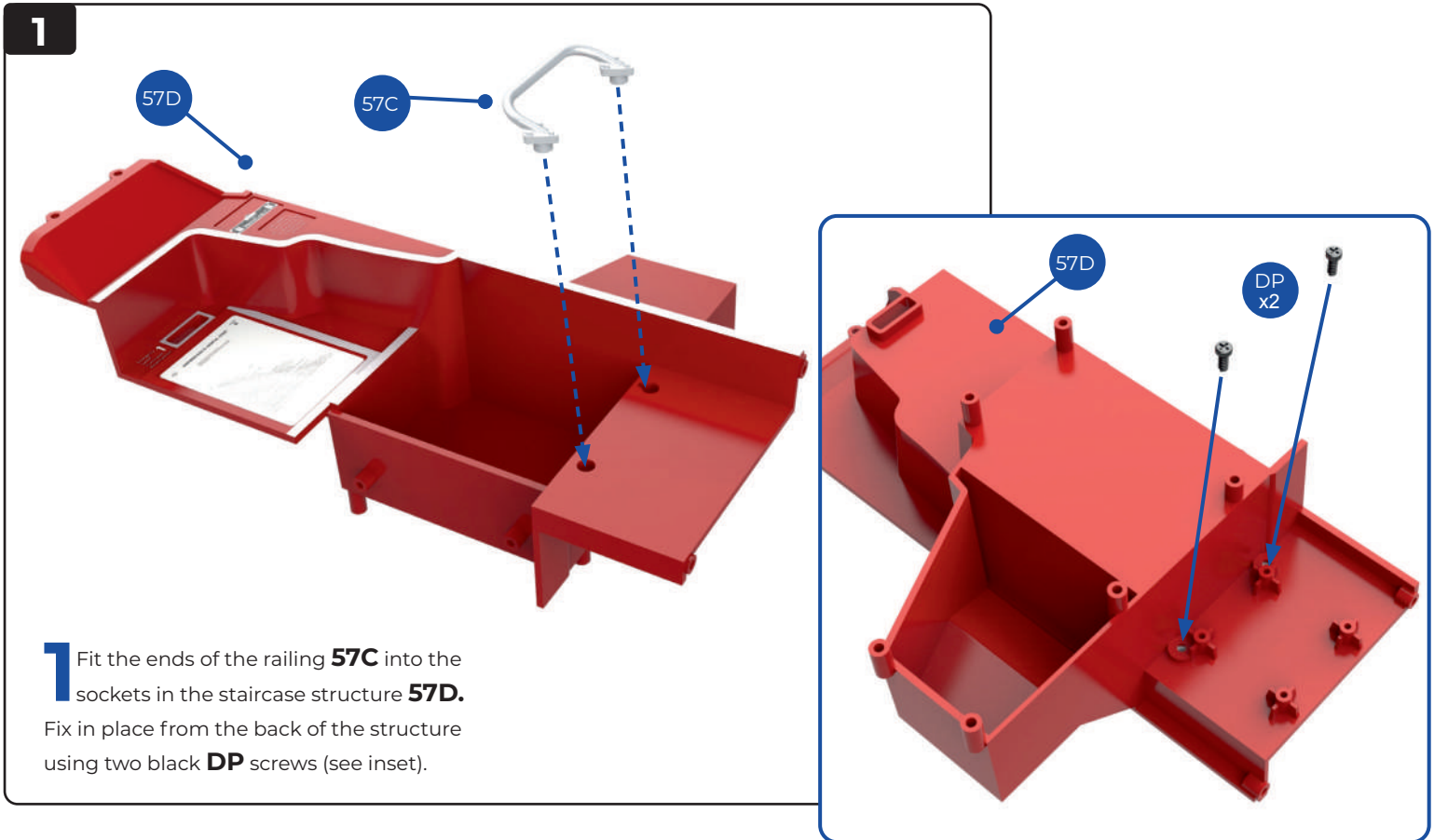
STAIRCASE STRUCTURE AND CIRCUIT BOARD

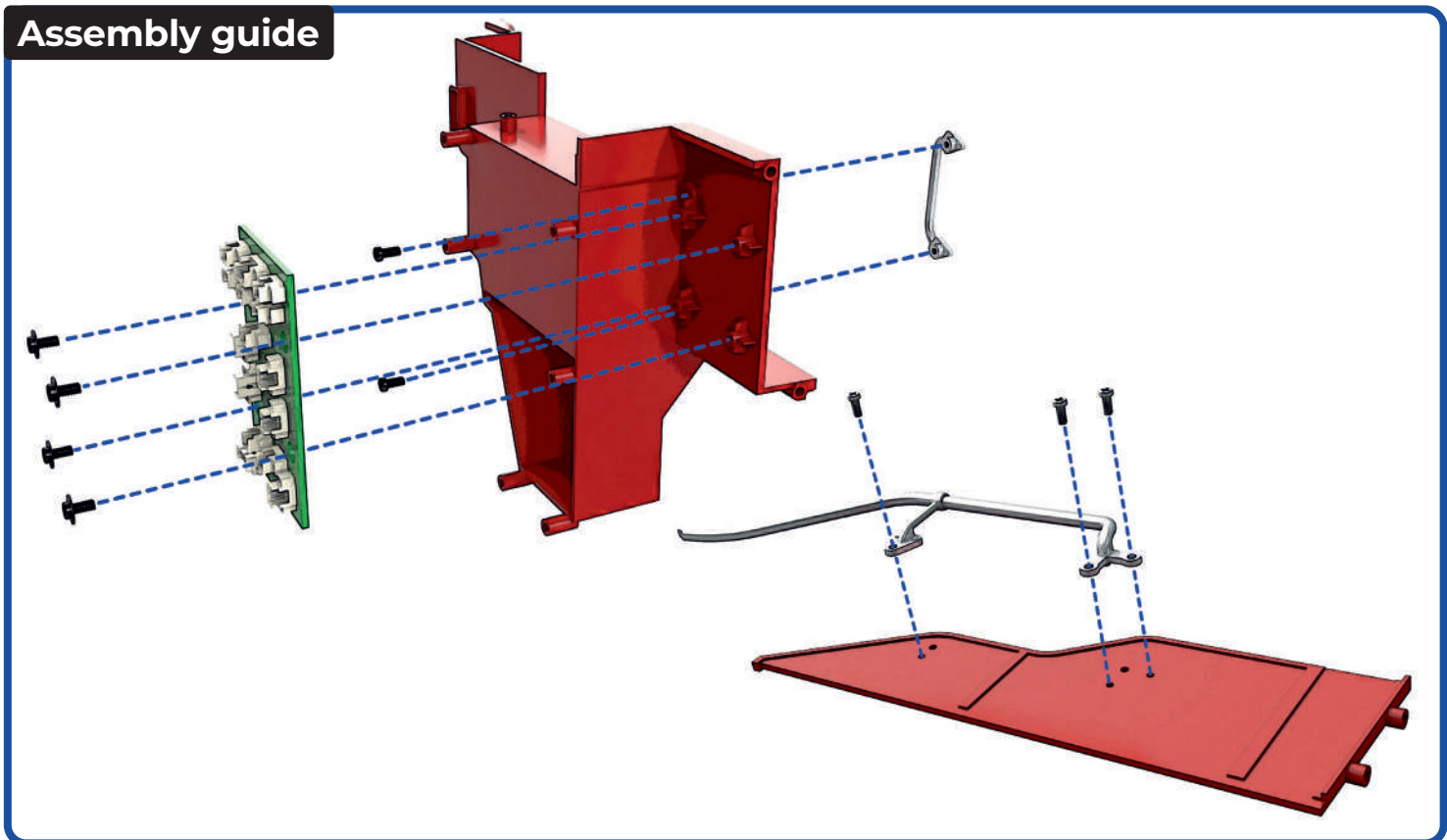
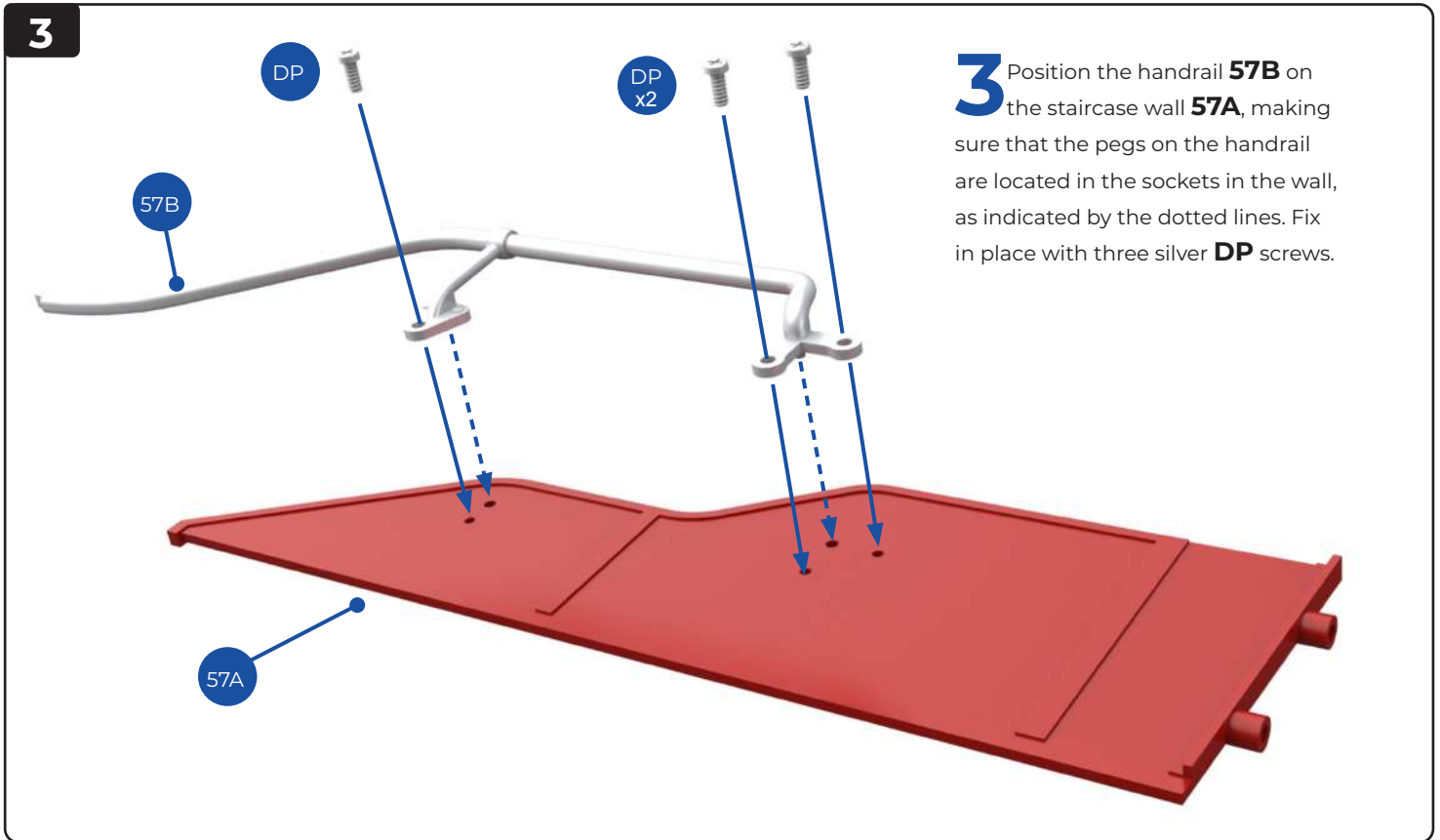
A railing, handrail and circuit board are fitted to the staircase structure, which comes complete with Route information for the No.11 bus.



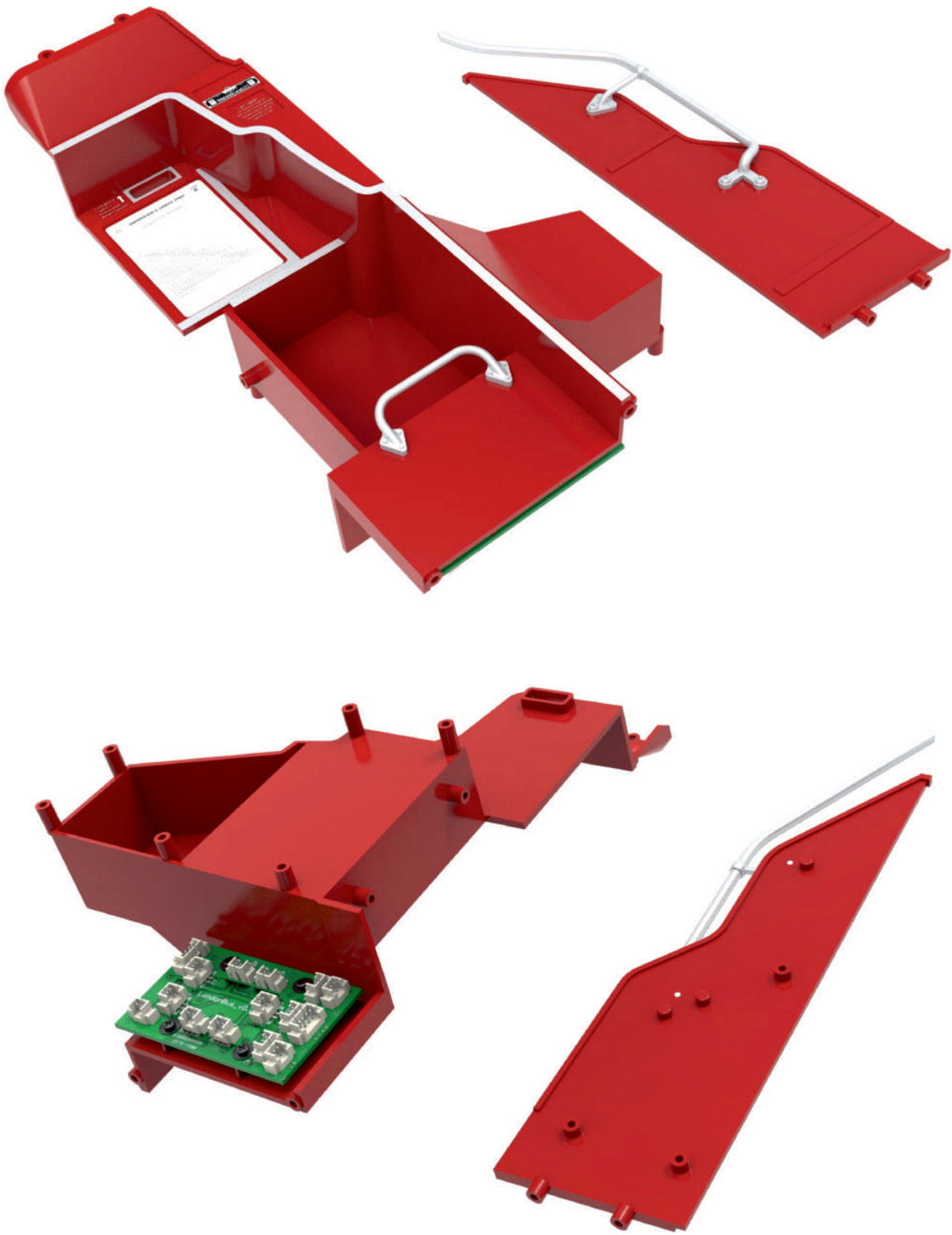
KEY TO PARTS SUPPLIED

57A	Staircase wall	DP	1.7 x 4mm (x3 black)
57B	Handrail	DP	1.7 x 4mm (x4 silver)
57C	Railing	NP	1.7 x 4 x 5mm (x5)
57D	Staircase structure		
57E	Circuit board		





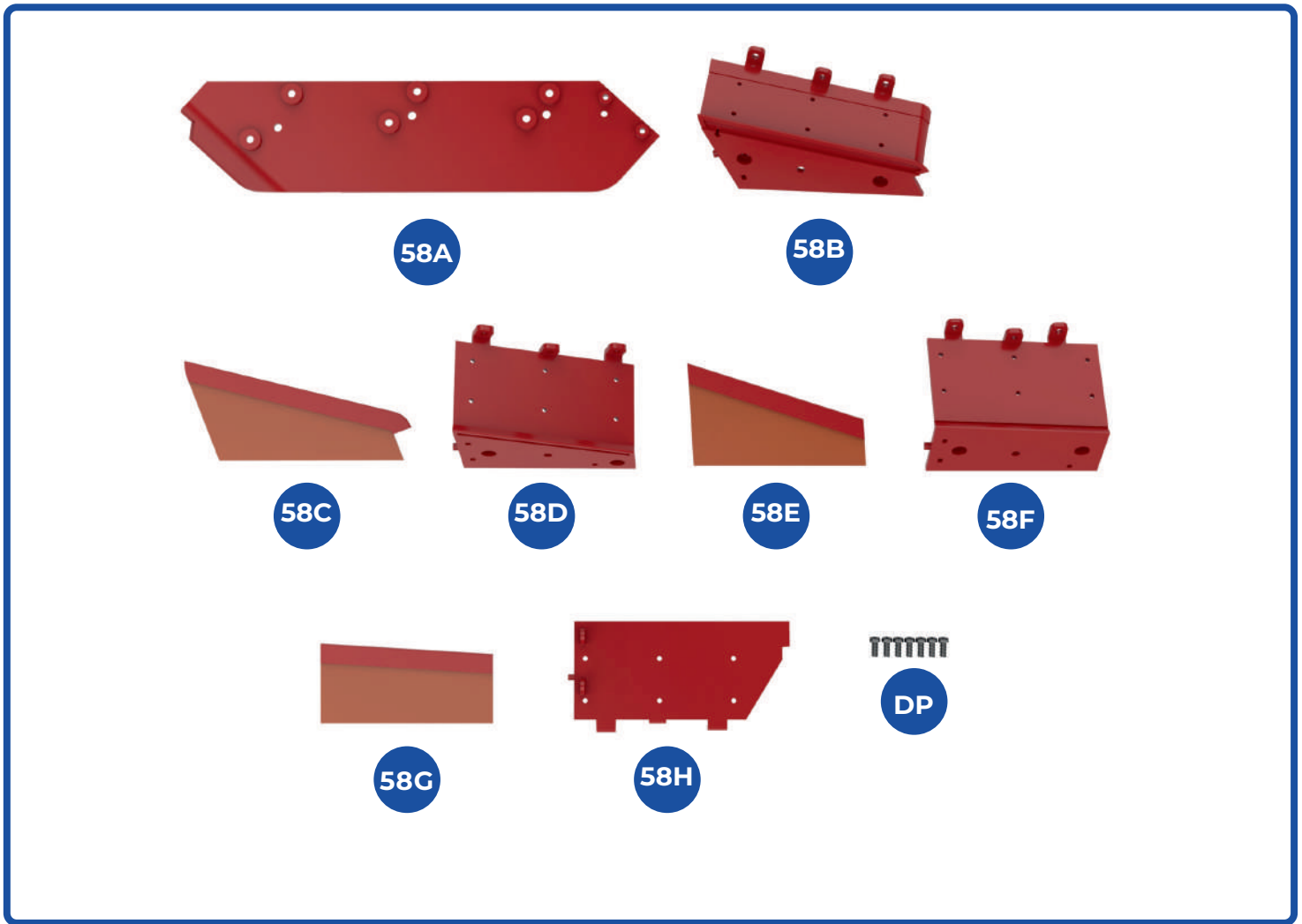
Finished views



STAGE 58

ASSEMBLING THE TOP THREE STEPS

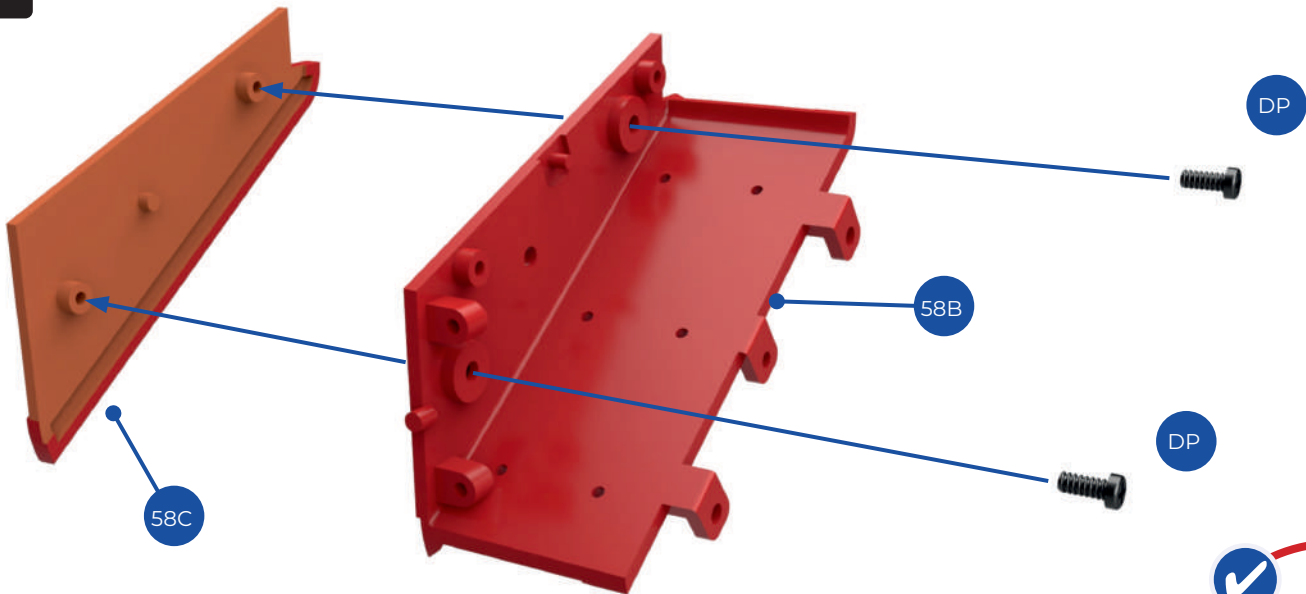
Parts are supplied for the remaining three steps, together with side panels, which will be fitted later.




KEY TO PARTS SUPPLIED

- | | | | |
|------------|------------------|------------|------------------|
| 58A | Stair side panel | 58F | Stair section |
| 58B | Stair section | 58G | Tread |
| 58C | Tread | 58H | Stair side panel |
| 58D | Stair section | DP | 1.7 x 4mm (x7) |
| 58E | Tread | | |

1

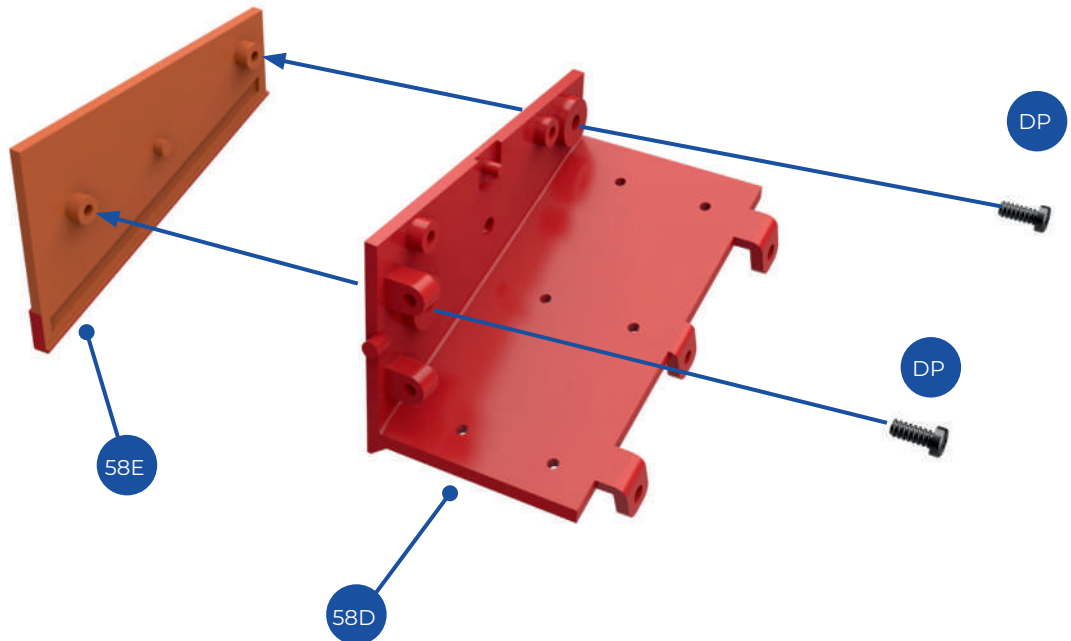


1 Fit the tread **58C** on the top of the stair section **58B**. Fix in place with two **DP** screws.

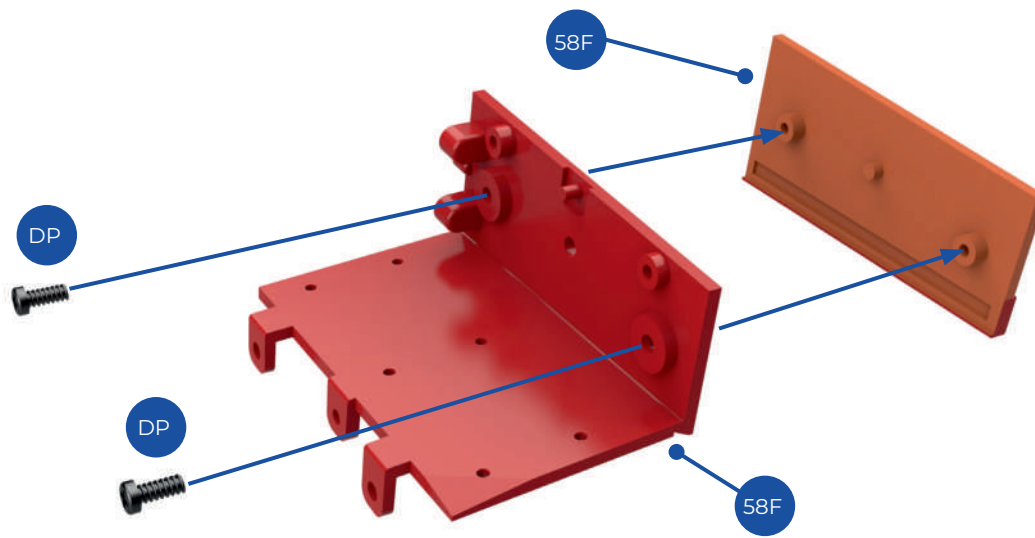
 Check the stair parts and treads before you start. Identify the parts and arrange them in pairs so you are ready to fit them together.

2

2 Fit the stair tread **58E** on top of stair section **58D**. Fix in place with two **DP** screws.



3

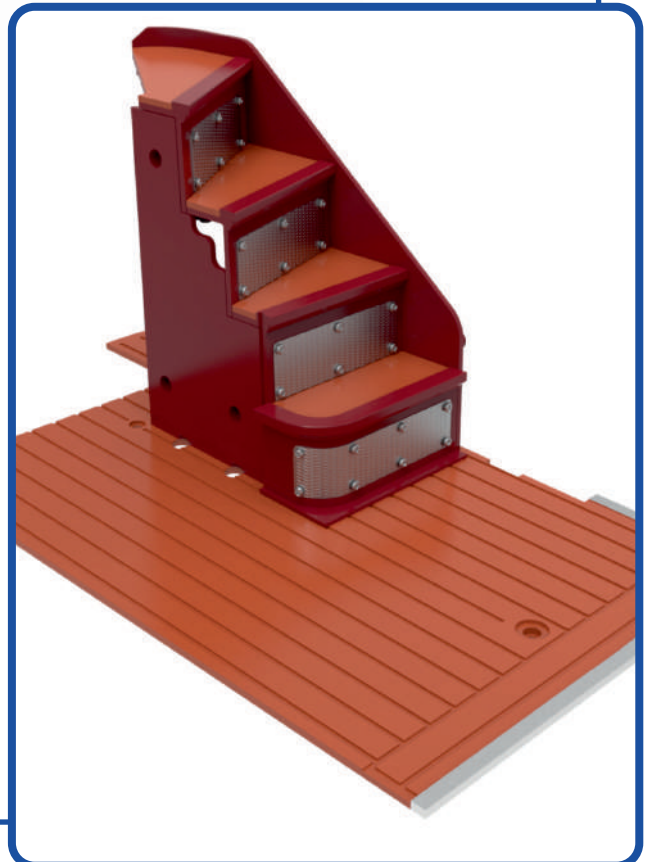


3 Fit tread **58G** to the top of stair section **58F**. Fix in place with two **DP** screws.

Finished views



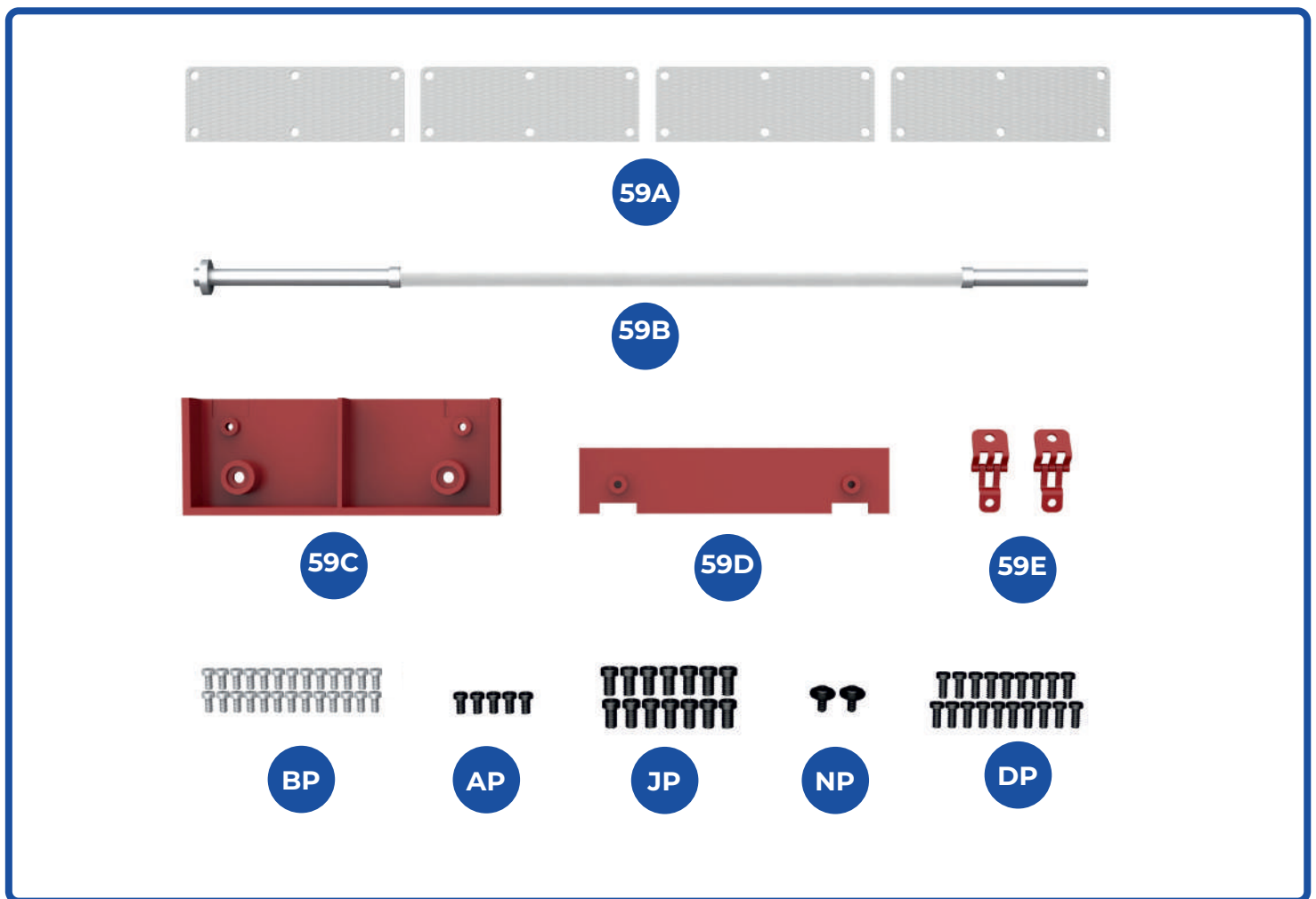
The top three steps, viewed from the exposed side (left) and from the inside (below left). In a future stage, these steps will be fitted above the steps that you already have – the inset below shows the assembly from stage 4. The stair side panels will be needed when the staircase is assembled.



STAGE 59

KICK PLATES AND STAIRWAY ASSEMBLY

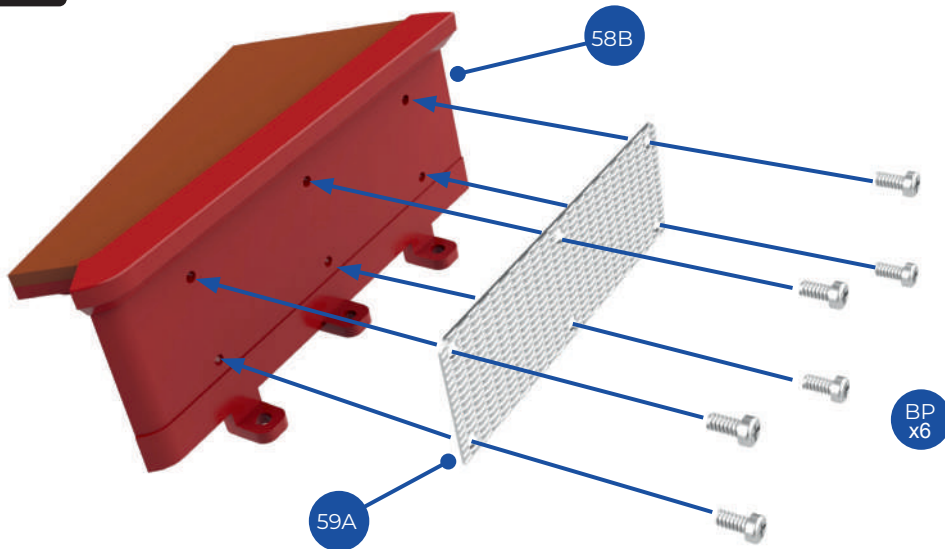
Kick plates are fitted to the front of the steps assembled in the previous stage. We then go on to assemble all of the steps, connecting those from stage 58 to the steps from stage 4.



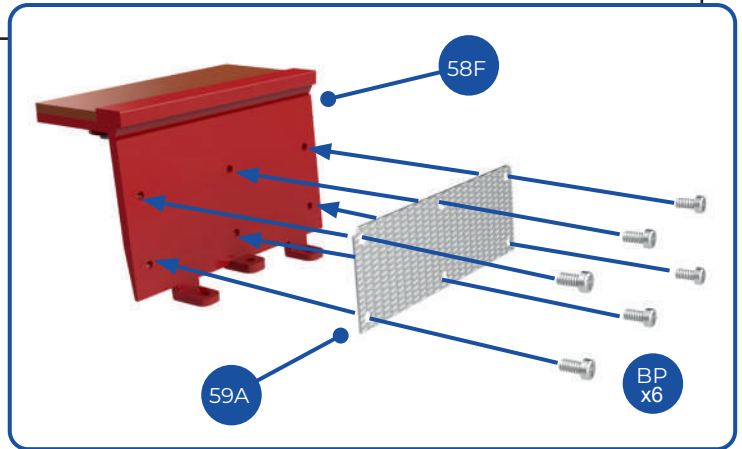
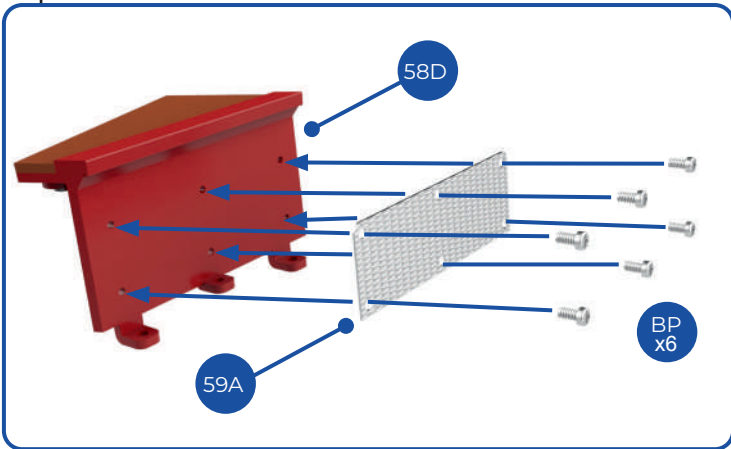
KEY TO PARTS SUPPLIED

59A	Kick plate (x4)	BP	1.5 x 3mm (x26 silver)
59B	Pole	AP	1.7 x 3mm (x5)
59C	Box	JP	2.3 x 4mm (x14)
59D	Box lid	NP	1.7 x 4 x 5mm (x2)
59E	Hinge (x2)	DP	1.7 x 4mm (x19)

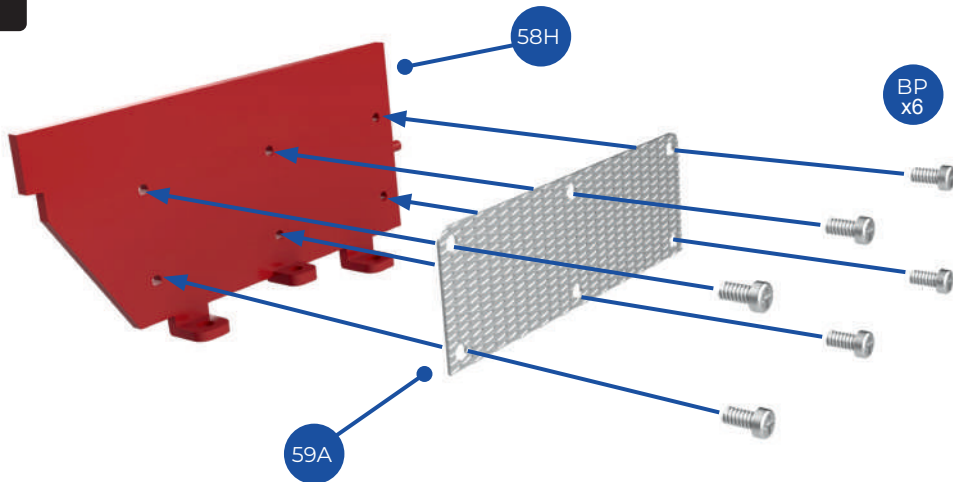
1



1 Position a kick plate **59A** against the riser of the first stair section **58B**, so that the screwholes are aligned. Fix in place with six silver **BP** screws. Repeat to fix a kick plate to the riser of each of the next two steps **58D** and **58F** (see insets below). Note that the rounded corners of the kick plates are at the top.

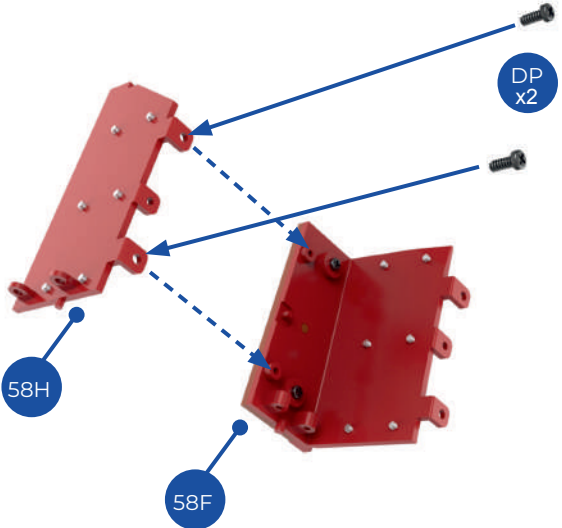


2



2 Fit a kick plate **59A** to the stair section **58H** supplied with the previous stage, fixing it in place with six silver **BP** screws.

3



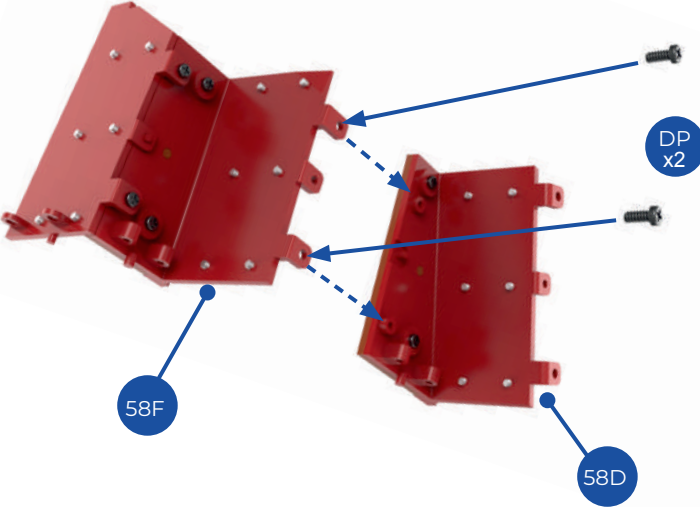
58H

58F

DP x2

3 Align the tabs on part **58H** with the sockets on the inside of part **58F** as indicated by the dotted lines. Fix in place with two **DP** screws.

4



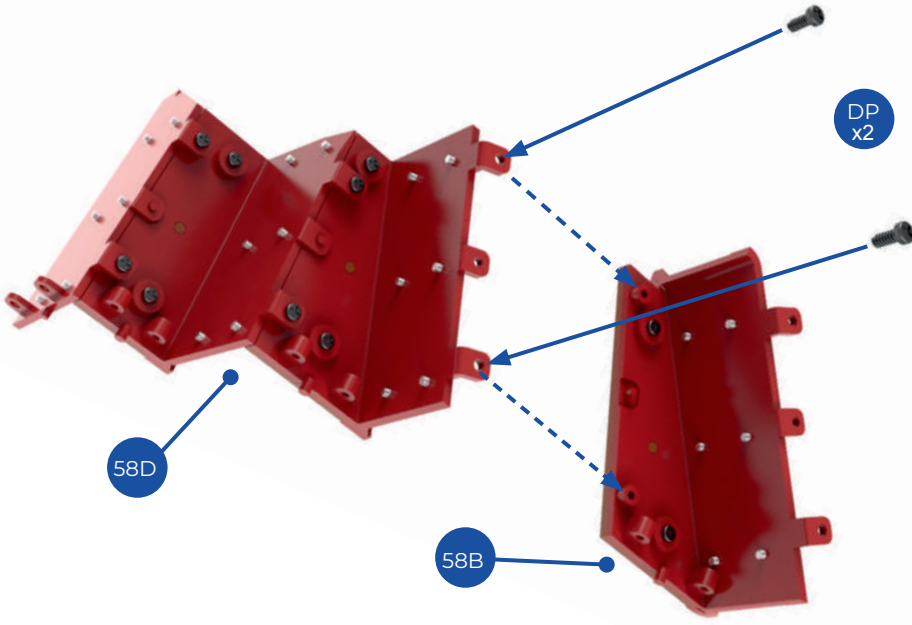
58F

58D

DP x2

4 In a similar way, align the tabs on stair section **58F** with the sockets on stair section **58D**, as indicated by the dotted lines. Fix in place with two **DP** screws.

5



58D

58B

DP x2

5 Align the tabs on stair section **58D** with the sockets on stair section **58B** and fix in place with two **DP** screws.

6

Take the stair side section **58A** supplied with the previous stage. Position it against the sides of the three steps that were assembled in steps 3, 4 and 5. Fix the side section **58A** in place with two **DP** screws going into the screw sockets on the ends of each of the stair sections **58F**, **58D** and **58B**.

7

Take the stair section and platform assembly from stage 4. Align the tabs on the lower edge of part **58B** with the sockets on the top step (**3G**) of the earlier assembly, as indicated by the dotted lines. Fix in place with two **DP** screws.

8

Take the staircase wall **57A** and align it with the inner edge of the stair assembly, so that **57A** is positioned vertically against the inside of the stair assembly **4A**. Fix in place with two **DP** screws.

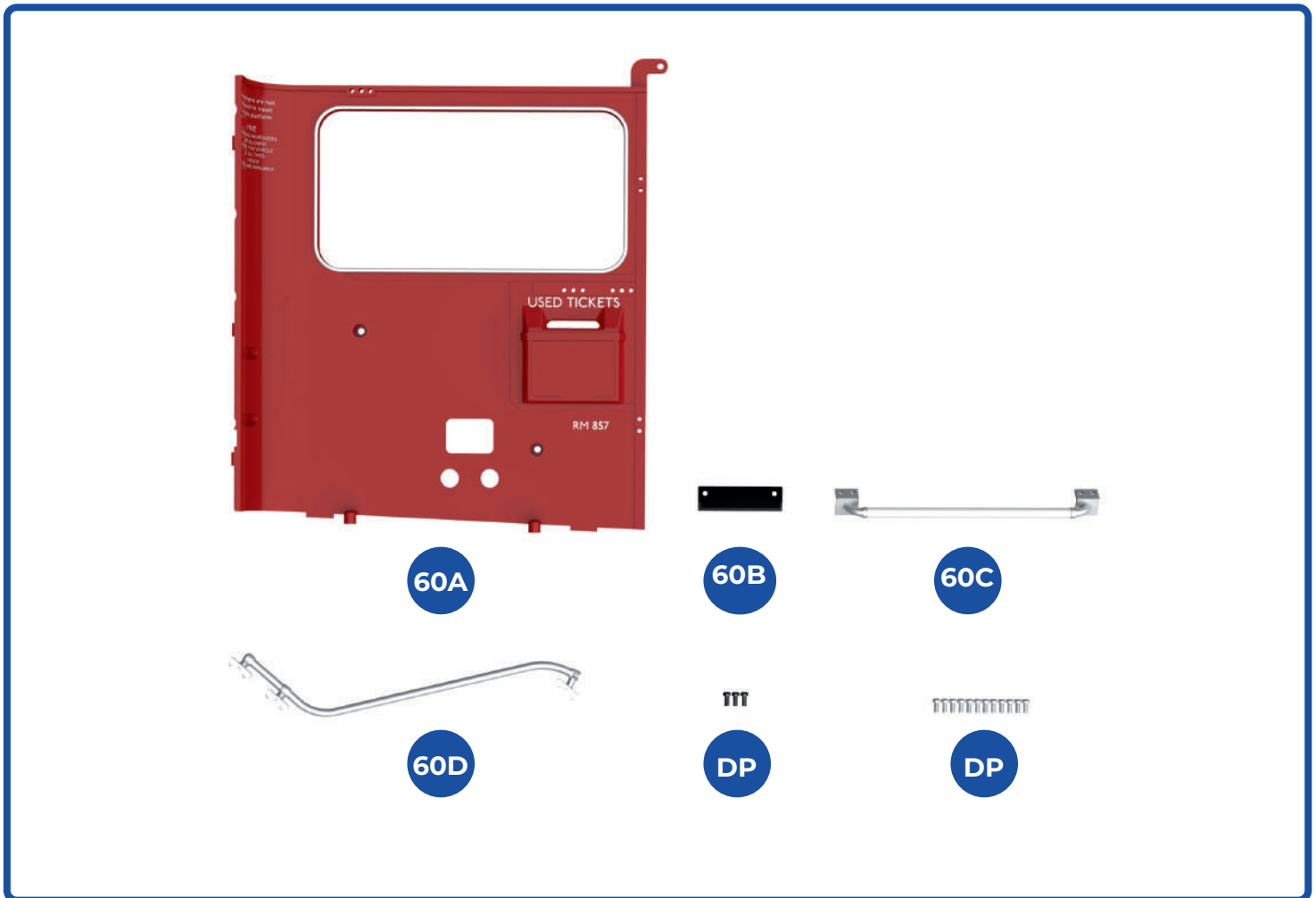
Assembly Guide



STAGE 60

PLATFORM AREA AND REAR WALL

We continue work on the stairs and platform area, and assemble the rear wall of the bus.



KEY TO PARTS SUPPLIED

- | | | | |
|------------|--------------------------|-----------|------------------------|
| 60A | Platform rear wall | DP | 1.7 x 4mm (x3 black) |
| 60B | Back of used tickets box | DP | 1.7 x 4mm (x12 silver) |
| 60C | Hand rail | | |
| 60D | Hand rail | | |

✓
 In this stage, we continue work on the stairs, started in the previous stage. The parts and screws for steps 1- 6 were supplied with stage 59.

1

Take the staircase structure **57D** and align the screw sockets on the lower edge with the screw holes in the platform **4A**, as indicated by the dotted lines. Fix in place with two **JP** screws.

2

Take the stair/platform assembly from the previous step and the platform assembly from stage 56. Position the platform **56A** on the underside of the rear platform **4A** so that the screw holes and sockets are aligned.

NOTE: The two sockets circled in light blue on the underside of part **4A** are part of the staircase wall **57A**. Fix the platforms together with eight **JP** screws.

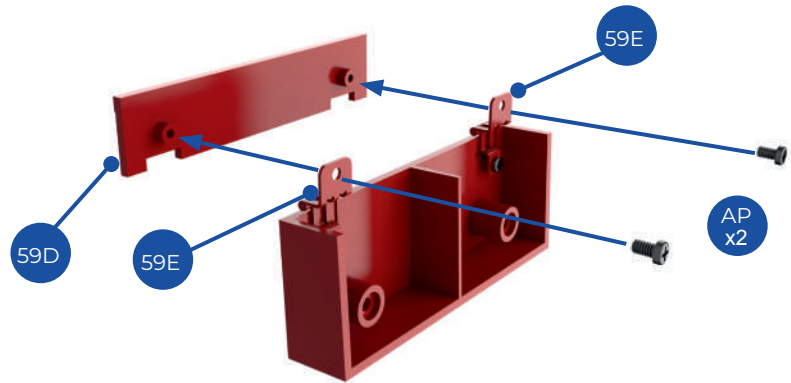
The battery box **56B** is not firmly fixed at this stage. Take care that the wires and switch do not come adrift. It may help to hold it in place temporarily with a little masking tape.

3

Take the box **59C** and the two hinges **59E**. Align the holes in the smaller flanges on the hinges with the small raised sockets in the box. Fix each hinge in place with an **AP** screw.

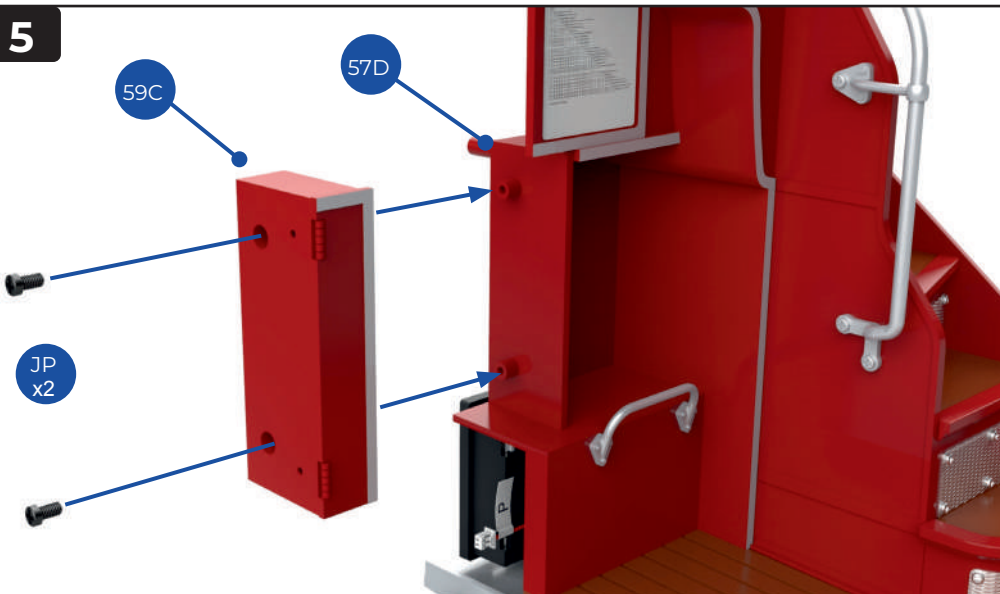
4

4 Take the box lid **59D** and align the raised sockets on the underside of the lid with the screw holes in the flanges on the hinges **59E**. Fix in place with two **AP** screws.



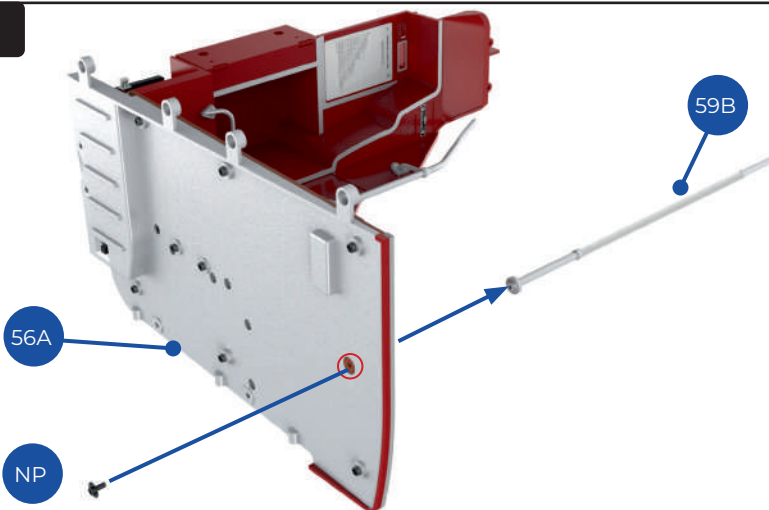
5

5 Fit the box **59C** against the side of the staircase structure **57D**. Fix in place with two **JP** screws.



6

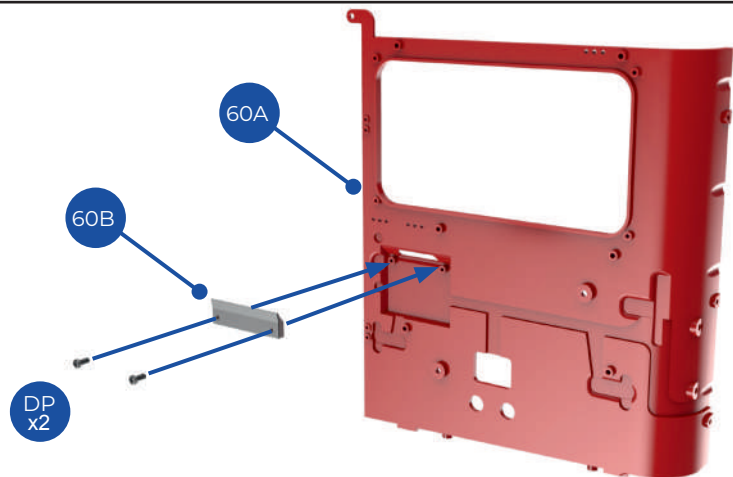
6 Take the pole **59B**, supplied with the previous stage, and fit the end into the recess in part **4A**. Fix in place from the underside, circled in red, with an **NP** screw.



It may help to use pliers to hold the pole in place as you tighten the screw. If you do this, be sure to protect the pole with paper or cloth so that the jaws of the pliers don't damage the surface.

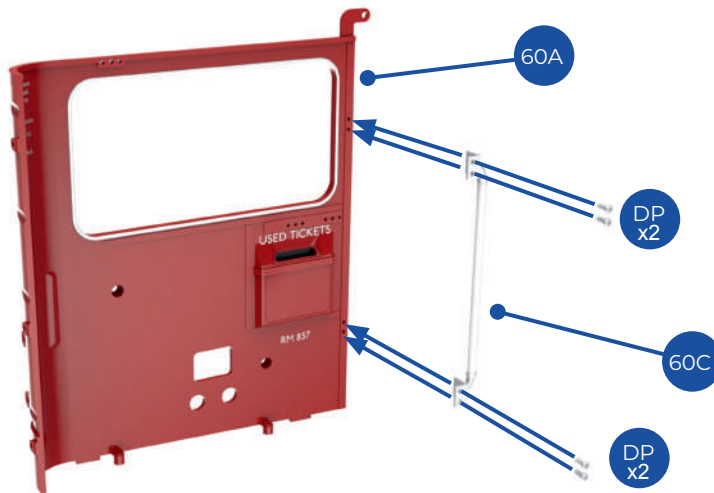
7

7 Fit the back of the used ticket box **60B** into the ticket box recess on the back of the rear wall **60A**. Fix in place with two black **DP** screws.



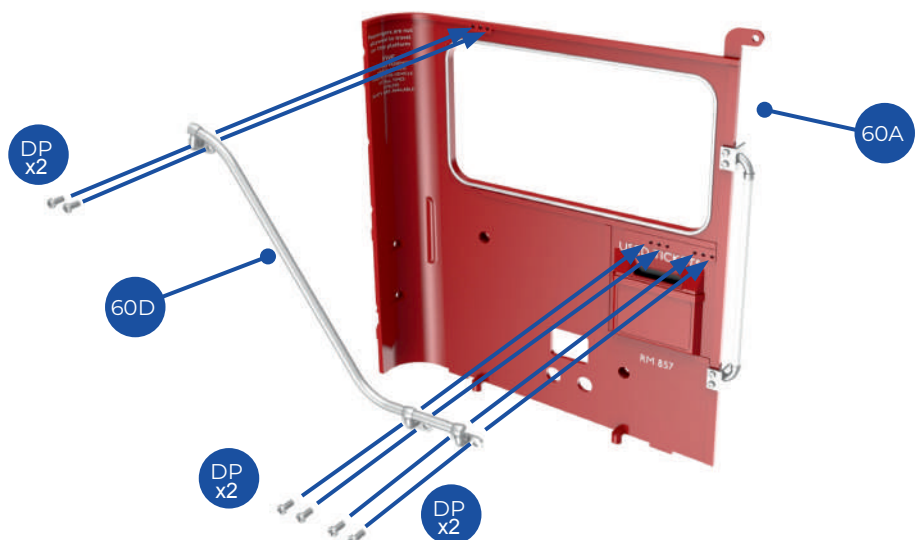
8

8 Take the handrail **60C** and fit it vertically down the edge of the rear wall **60A**. Fix each end in place with two silver **DP** screws.



9

9 Take the hand rail **60D** and align the screw sockets on the brackets with the holes in the back wall **60A**. Fix each of the three brackets in place with two silver **DP** screws.



Finished Views

The pole on the platform is only fixed at the bottom (see step 6). The top end will be fixed when the ceiling of the platform area is in place. To prevent accidental damage, you may prefer to store the pole and the NP screw until you are ready to fix it to the ceiling.

