

# LONDON TRANSPORT ROUTEMASTER BUS

RM 857



## Pack 07

### BUILD INSTRUCTIONS

STAGE 61: FITTING THE BONNET

STAGE 66: REAR SEATS FOR THE UPPER DECK

STAGE 62: FITTING THE LOWER DECK  
TO THE CHASSIS

STAGE 67: FITTING THE REAR SEATS TO  
THE UPPER DECK

STAGE 63: FITTING THE PLATFORM AND  
CONNECTING CABLES

STAGE 68: CENTRAL SEATING ON  
THE UPPER DECK

STAGE 64: SEATING FOR THE UPPER DECK (1)

STAGE 69: FRONT SEATING ON THE UPPER DECK

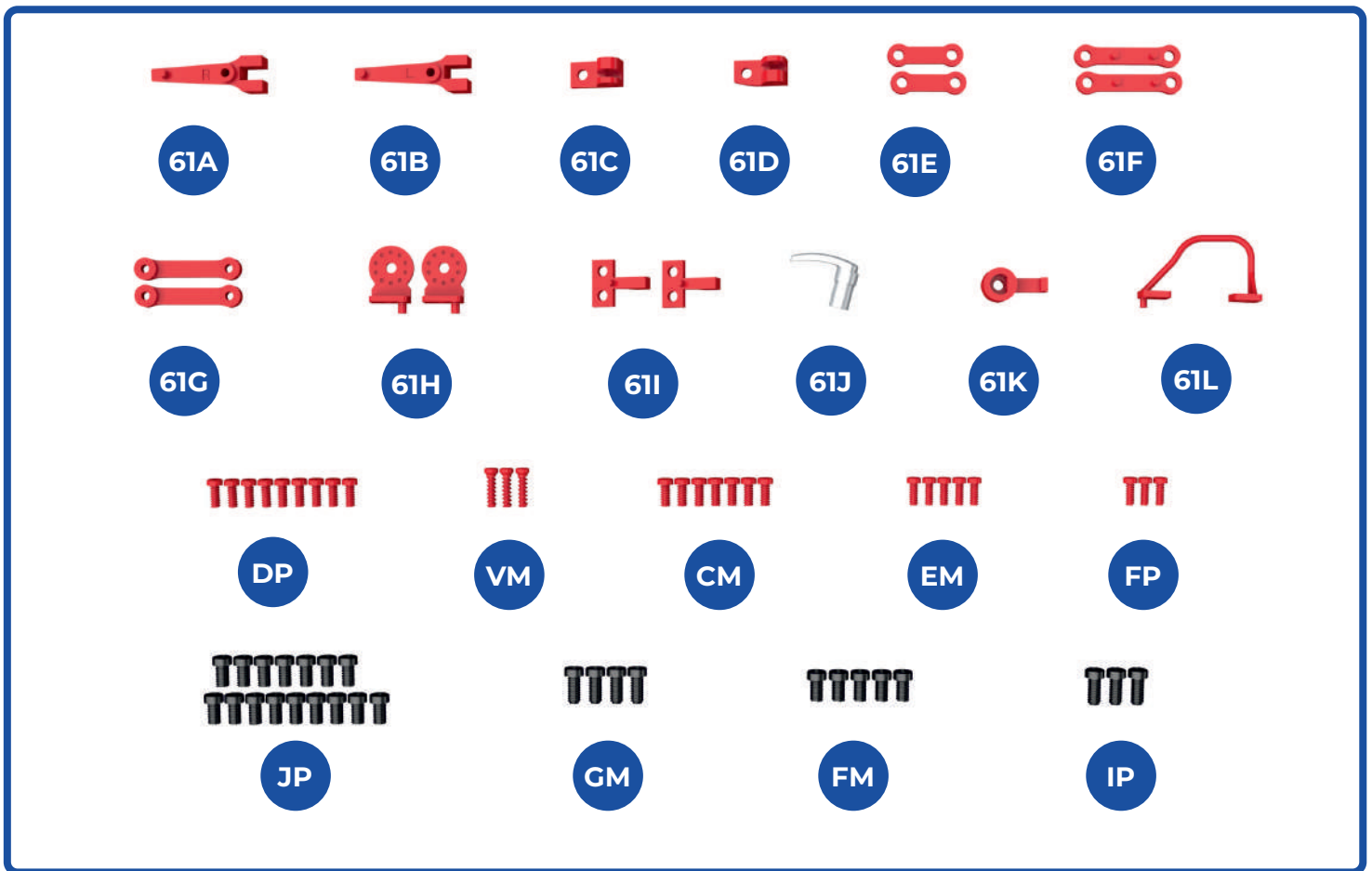
STAGE 65: SEATING FOR THE UPPER DECK (2)

STAGE 70: LOWER DECK CEILING FRAMEWORK

## STAGE 61

# FITTING THE BONNET

In this stage we supply parts and instructions for fitting the bonnet. There are a lot of extra screws supplied with this stage. They will be used in the next two stages, when we go on to fit the lower deck to the chassis and the platform and stairs to the rear of the lower deck.



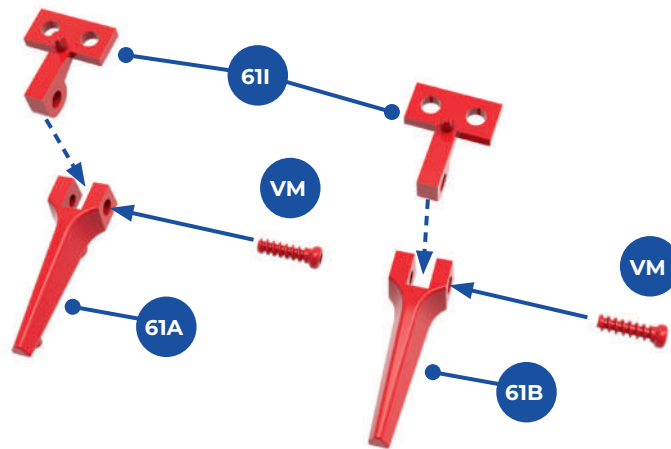
### KEY TO PARTS SUPPLIED

<b>61A</b>	Right hinge bar	<b>61J</b>	Bonnet lock	<b>DP</b>	1.7 x 4mm (x9 red)
<b>61B</b>	Left hinge bar	<b>61K</b>	Latch	<b>VM</b>	1.7 x 6mm (x3 red)
<b>61C</b>	Right friction hinge bracket	<b>61L</b>	Latch striker	<b>CM</b>	1.7 x 4mm (x7 red)
<b>61D</b>	Left friction hinge bracket			<b>EM</b>	1.5 x 4mm (x5 red)
<b>61E</b>	Friction hinge link (x2)			<b>FP</b>	1.5 x 4mm (x3 red)
<b>61F</b>	Friction hinge link (x2)			<b>JP</b>	2.3 x 4mm (x16)
<b>61G</b>	Friction hinge link (x2)			<b>GM</b>	2.3 x 5mm (x4)
<b>61H</b>	Friction hinge bracket (x2)			<b>FM</b>	2.3 x 4mm (x5)
<b>61I</b>	Hinge bracket (x2)			<b>IP</b>	2.3 x 5mm (x3)

**1**



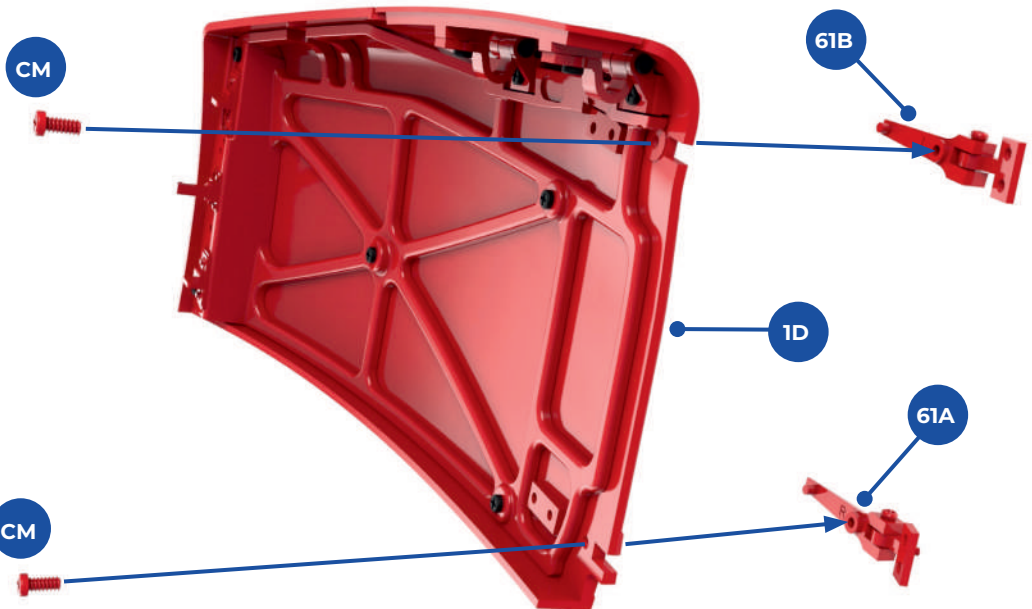
For this stage, you will need  
 5 x red DP screws  
 2 x red VM screws  
 5 x red CM screws  
 4 x red EM screws  
 2 x red FP screws  
 Put the screws that are not needed safely to one side, as they will be used in the following stages.



**1** Take the two hinge brackets **61I**. Fit the arms between the screw holes in the right and left hinge bars **61A** and **61B**, which are clearly labelled "R" and "L". Fix in place with two **VM** screws, ensuring they go right across the hinged assembly.

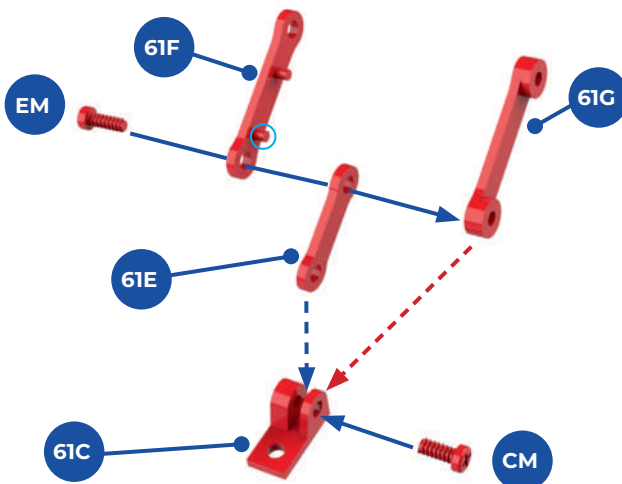
**2**

**2** Identify the fixing points for the hinge bars **61A** and **61B** on the bonnet, **1D**. Locate the peg at the end of each hinge bar in the socket on the top of the bonnet and fix in place from below with two **CM** screws.



If a screw is a tight fit, you may find it helpful to screw in a half turn forwards followed by a quarter turn back until the screw is fully in place.

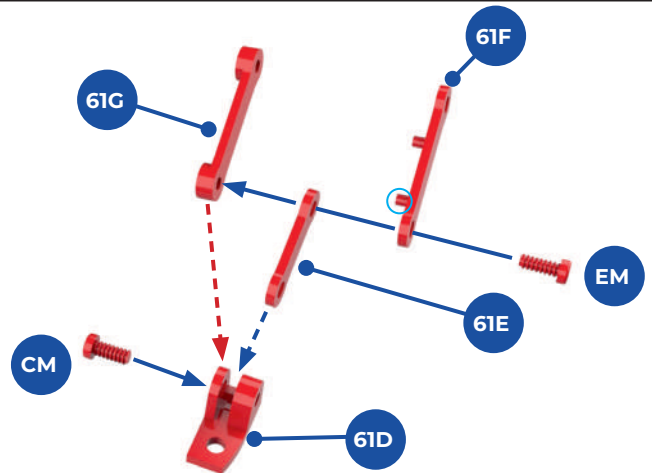
**3**



**3** Take one set of friction hinge links, parts **61E**, **61F** and **61G**. Arrange the three parts as shown, noting the position of the locating peg circled in light blue. (The circled locating peg is closer to the end of part **61F**, which is the end that is connected to part **61E**.) Fix the hinge links together with an **EM** screw. Fit the free end of part **61E** into the slot in part **61G**. Note that the raised sockets on part **61G** are on the same side as the slimmer arm of the slot on part **61C**, as indicated by the red dotted arrow. Fix with a **CM** screw.

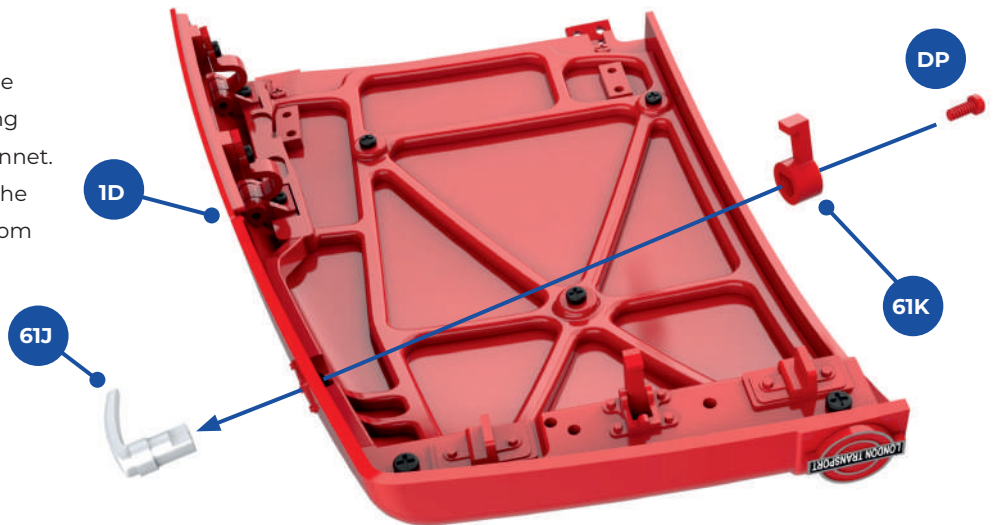
**4**

**4** Repeat to assemble the second set of friction hinge links, parts **61E**, **61F** and **61G**. Again, note the position of the locating peg circled in light blue. Fix the hinge links together with an **EM** screw. Fit the free end of part **61E** into the slot in part **61D**. Note, again, that the raised sockets on part **61G** are on the same side as the slimmer arm of the slot on part **61D**, as indicated by the red dotted arrow. Fix with a **CM** screw.



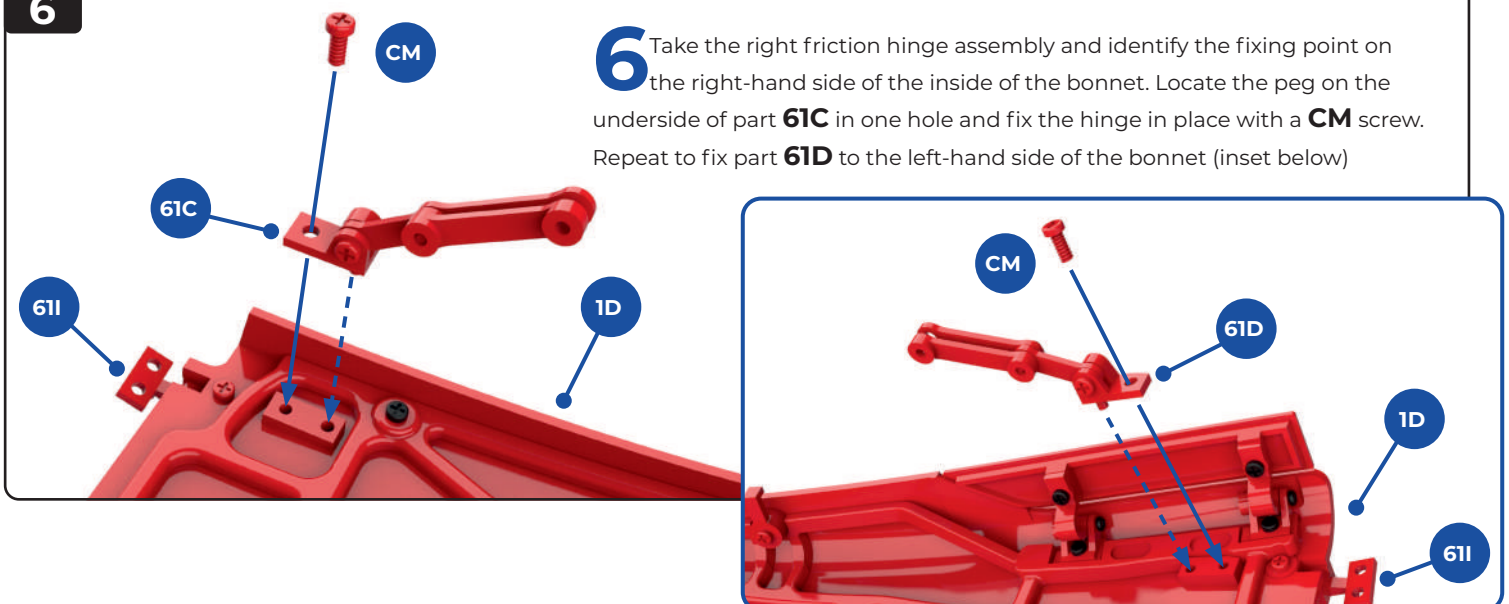
**5**

**5** Take the bonnet assembly and the bonnet lock **61J**. Identify the fixing point for the lock on the side of the bonnet. Align the latch **61K** with the latch on the inside of the bonnet and fix in place from the inside with one **DP** screw.



**6**


**6** Take the right friction hinge assembly and identify the fixing point on the right-hand side of the inside of the bonnet. Locate the peg on the underside of part **61C** in one hole and fix the hinge in place with a **CM** screw. Repeat to fix part **61D** to the left-hand side of the bonnet (inset below)

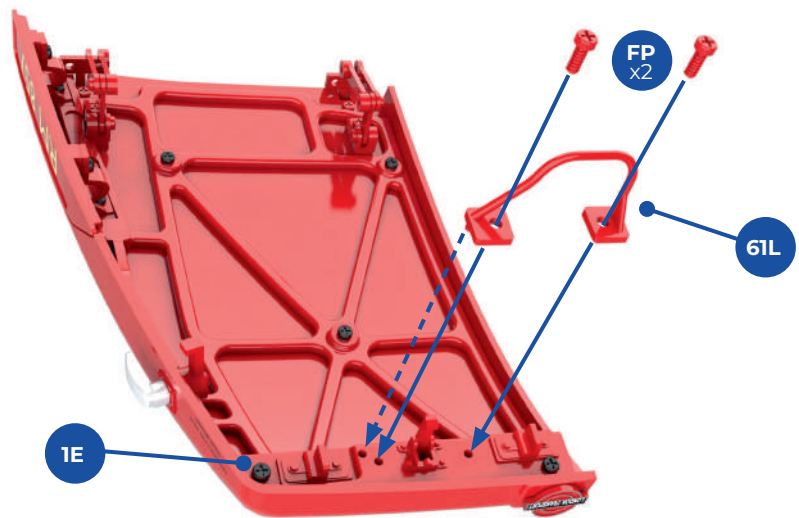




## 7

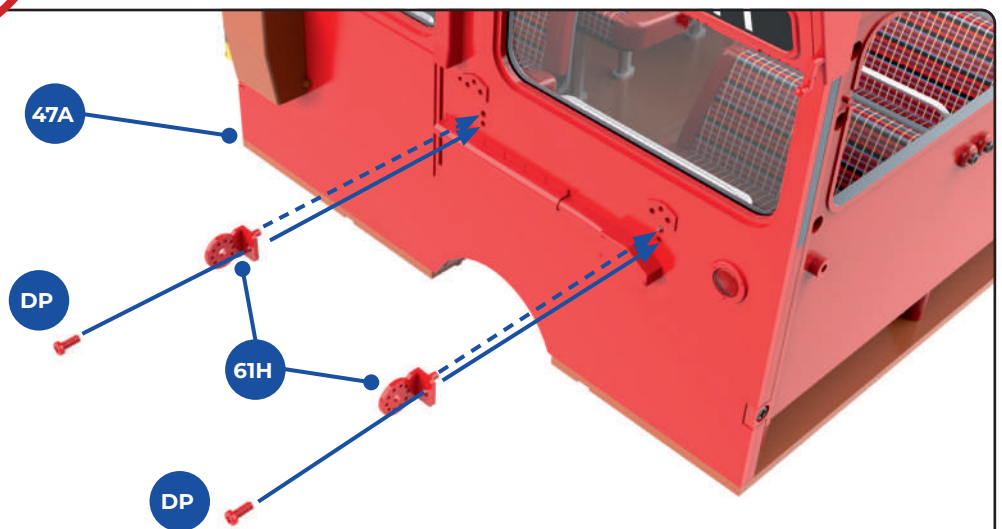
**7** Take the latch striker **61L** and locate the fixing points on the bonnet stiffener **1E**. Locate the peg on part **61L** into the end hole and fix in place with two **FP** screws.

 If you fitted the poles **55E** to the seats on the lower deck (see stage 55) we suggest you remove them temporarily to avoid damaging them while fitting the lower deck to the chassis.



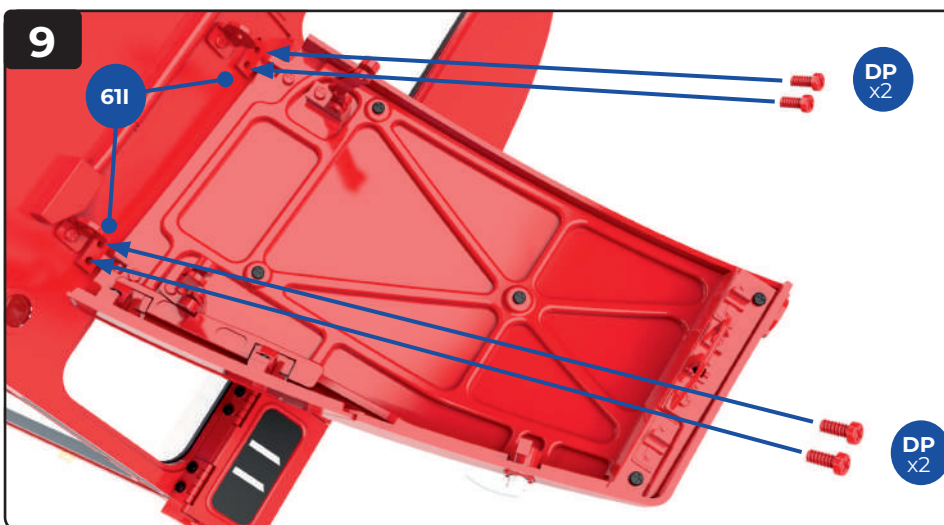
## 8

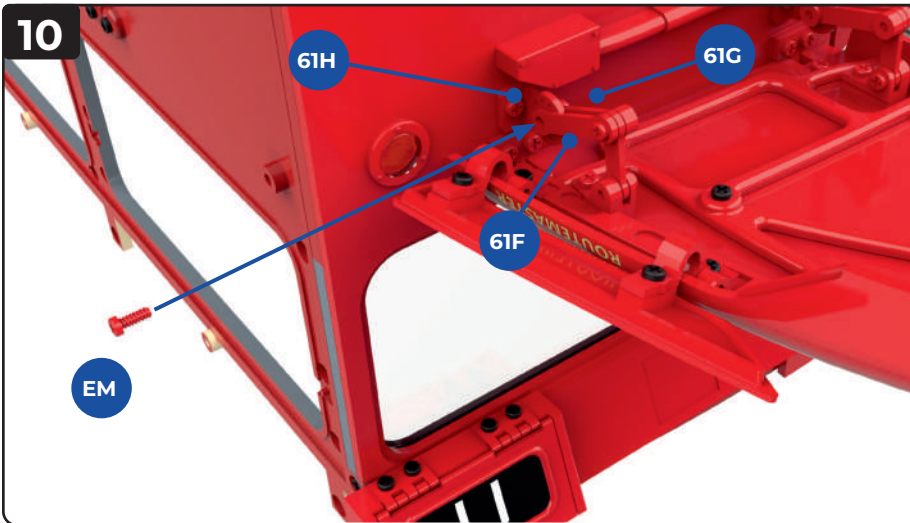
**8** Take the two friction hinge brackets **61H** and align the screw sockets with the sockets on the front wall **47A**, locating the peg on each bracket in the hole indicated by the dotted lines. Fix in place with two **DP** screws.



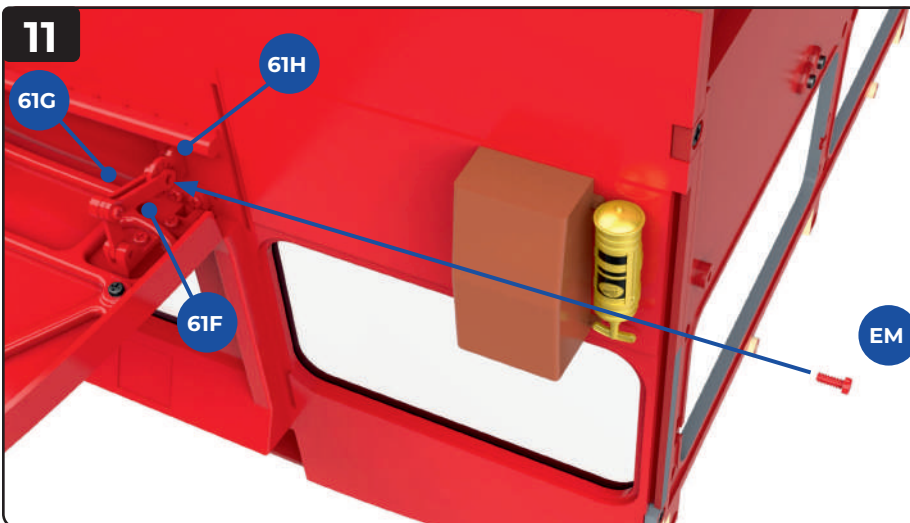
## 9

**9** Align the screw sockets on the hinge brackets **61I** with the holes in the raised panels beneath the front passenger window on the front wall **47A**. Fix in place with two red **DP** screws.





**10** On the left side of the bonnet, fit the free ends of the friction hinge links **61F** and **61G** on either side of the friction hinge bracket **61H**. Fix in place with an **EM** screw.



**11** On the right-hand side of the bonnet, repeat to fit the free arms of the friction hinge links **61F** and **61G** on either side of the friction hinge bracket **61H**. Fix in place with an **EM** screw.

## Finished View

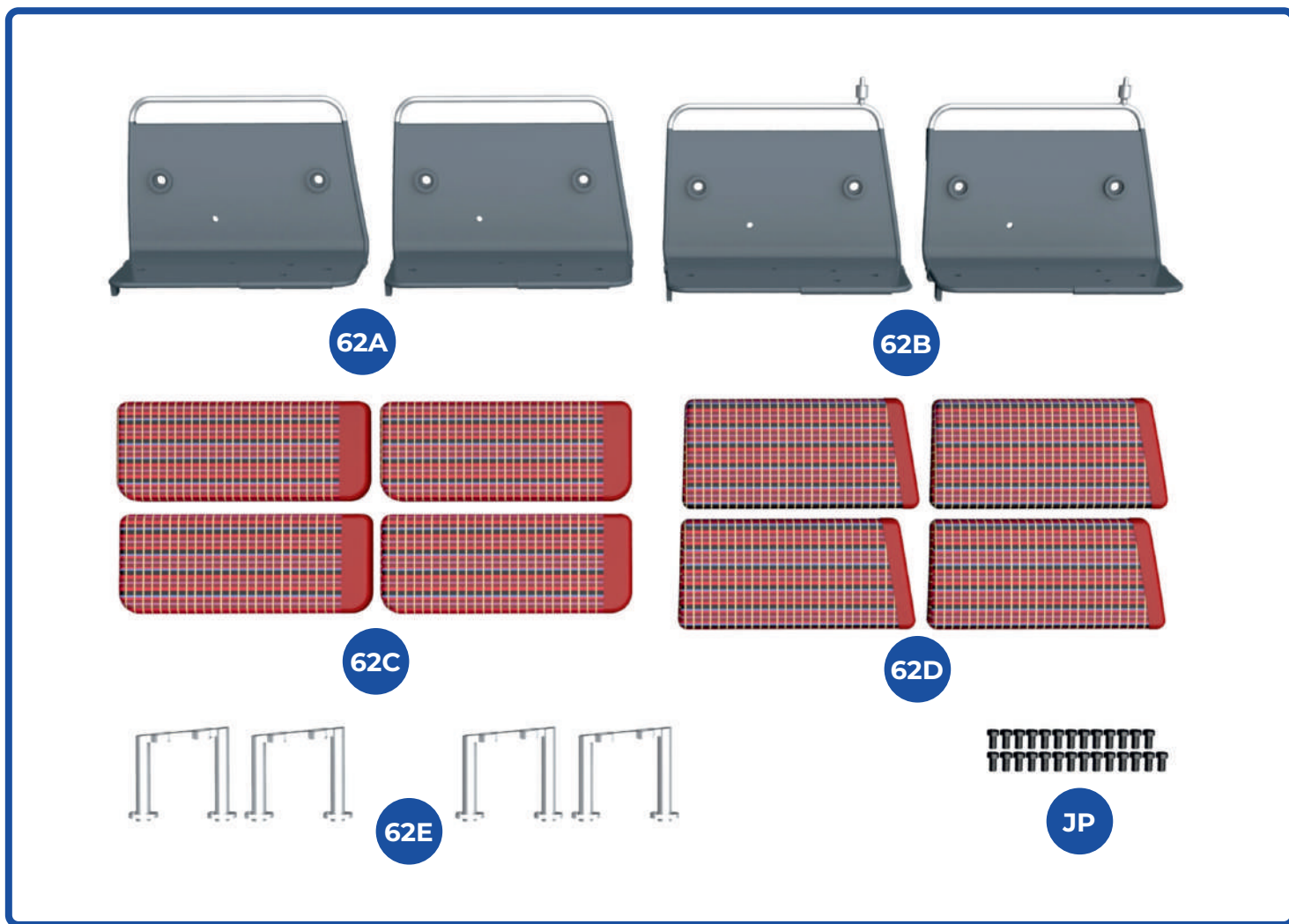
The bonnet is fixed in place, but it is only supported by the hinges, so handle the lower deck with care.



## STAGE 62

# FITTING THE LOWER DECK TO THE CHASSIS

In this stage, your model takes a major step as the chassis and lower deck are attached. The parts supplied are for seating in the upper deck. Assembly instructions will be given in stage 64.



### KEY TO PARTS SUPPLIED


- |            |                          |           |                 |
|------------|--------------------------|-----------|-----------------|
| <b>62A</b> | Right seat frame 1 (x2)  | <b>JP</b> | 2.3 x 4mm (x27) |
| <b>62B</b> | Right seat frame 2 (x2)  |           |                 |
| <b>62C</b> | Right seat cushion (x4)  |           |                 |
| <b>62D</b> | Right seat backrest (x4) |           |                 |
| <b>62E</b> | Seat support (x4)        |           |                 |

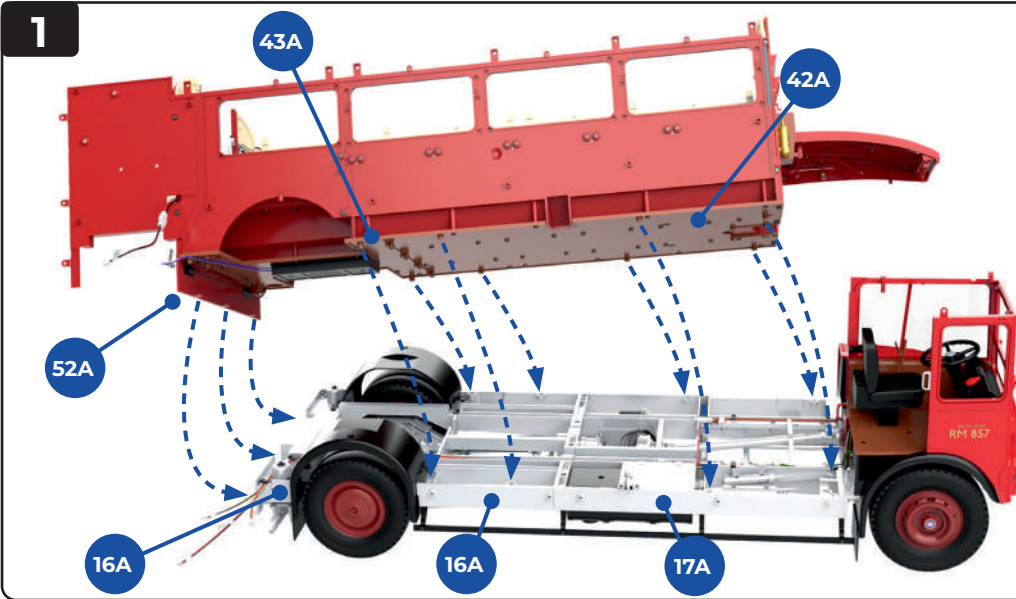


For the body/chassis assembly in this stage you will need the following screws, supplied with stage 61. Get them lined up, ready for use.

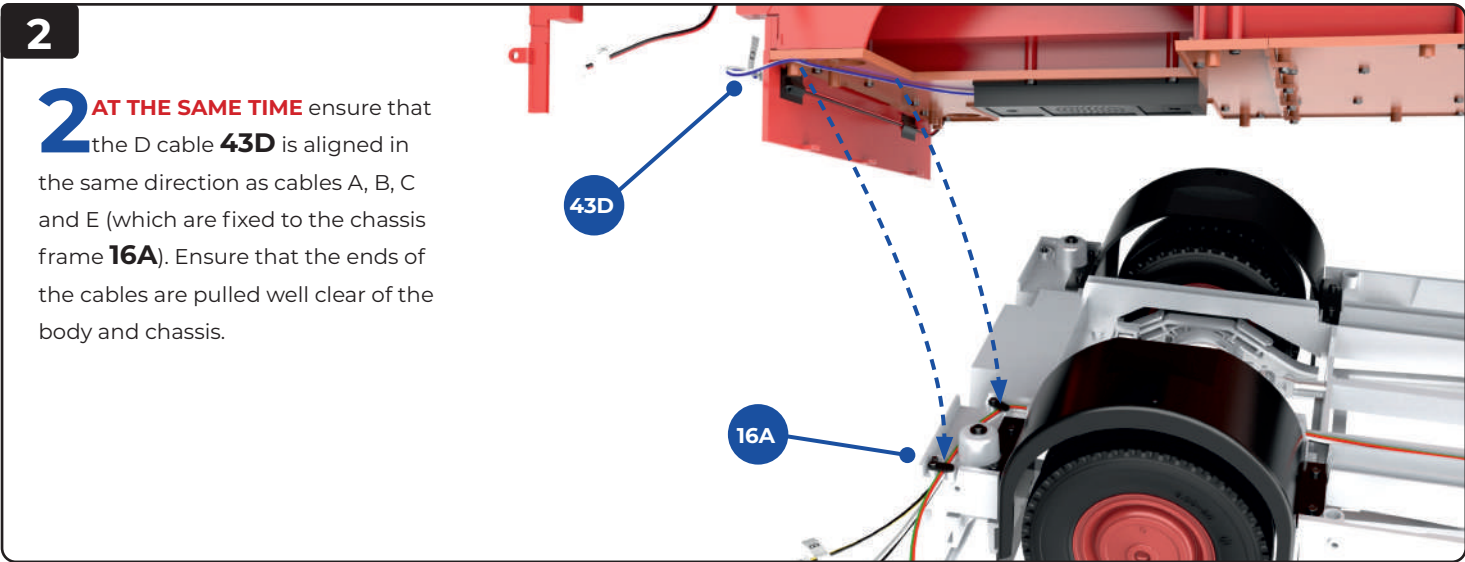
- 3 x GM screws
- 10 x JP screws
- 2 x IP screws



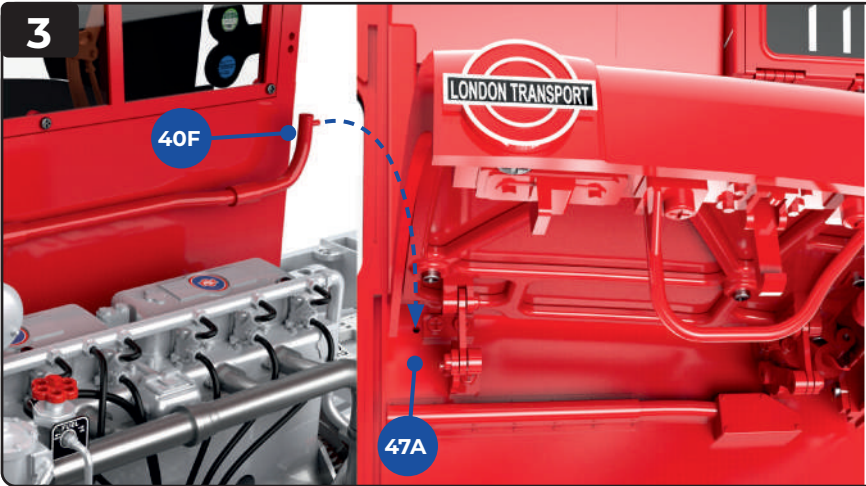

**It is important to read through all the instructions before starting the construction.**



**1** Position the bus body on the chassis, ensuring that the three tabs on the rear door wall **52A** fit over the sockets in the chassis **16A**. See also the diagram in step 5. At the same time, check the positions of the raised screw sockets on the underside of the floor panels **43A** and **42A**. There are four on each side, which fit into sockets down either side of the chassis frames **16A** and **17A**, as indicated by the dotted lines.



**2** **AT THE SAME TIME** ensure that the D cable **43D** is aligned in the same direction as cables A, B, C and E (which are fixed to the chassis frame **16A**). Ensure that the ends of the cables are pulled well clear of the body and chassis.

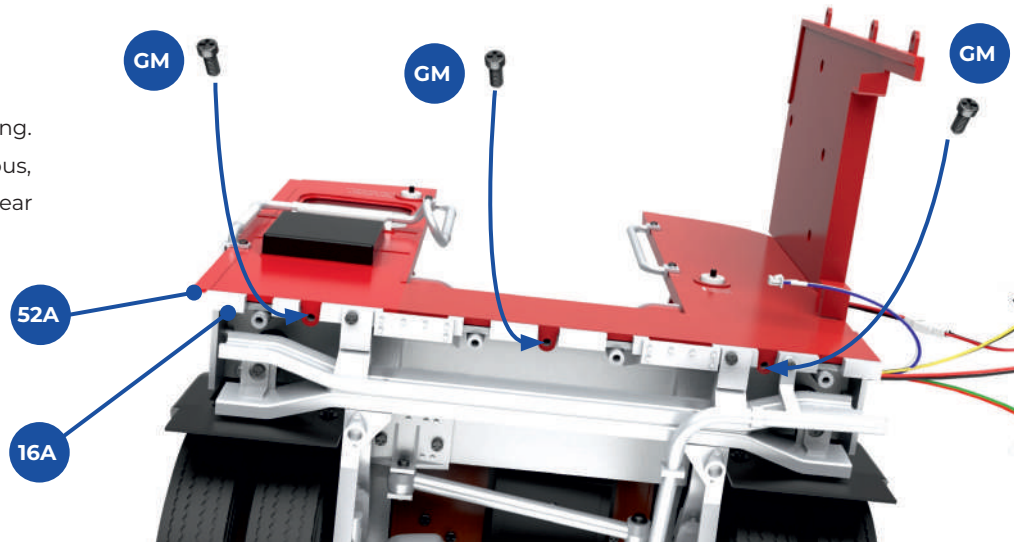


**3** **AT THE SAME TIME** align the peg on the heating line **40F** against the hole beneath the bonnet on the front wall **47A**. When all these elements are in place, you can start to fix the chassis and body together.



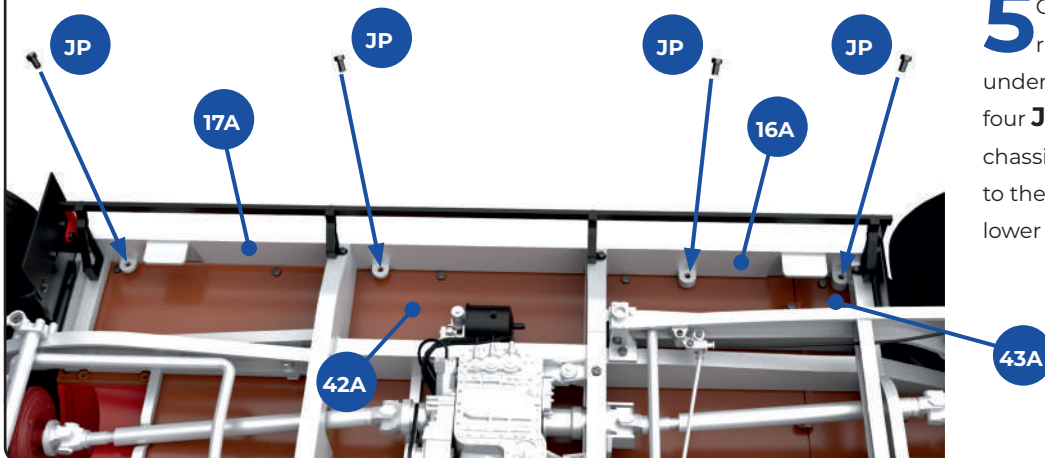
**4**

**4** Check that all the wires are correctly placed before continuing. Starting at the rear underside of the bus, attach the rear door wall **52A** to the rear chassis frame **16A** using three **GM** screws.



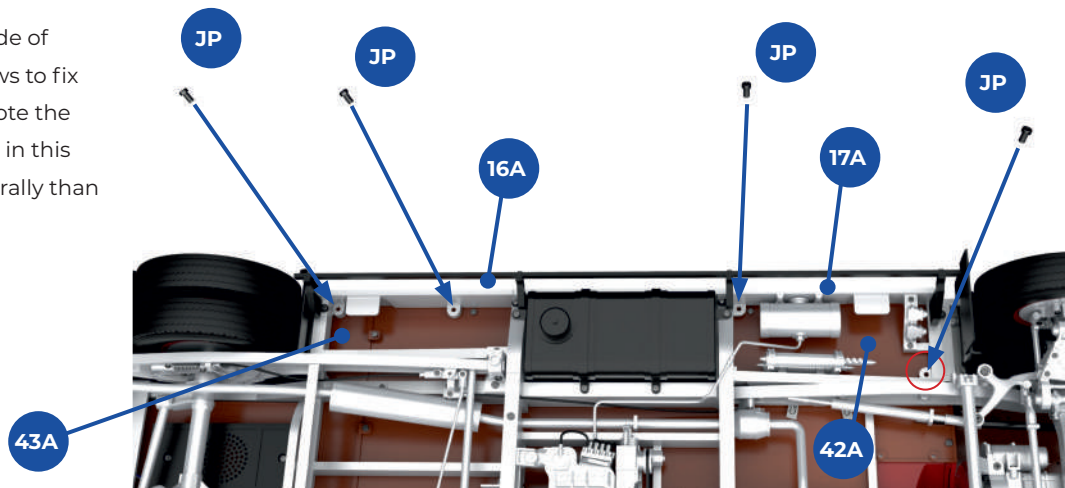
**5**

**5** Continue down the right-hand side of the underside of the bus, using four **JP** screws to fix the chassis frames **16A** and **17A** to the floor sections of the lower deck, **42A** and **43A**.



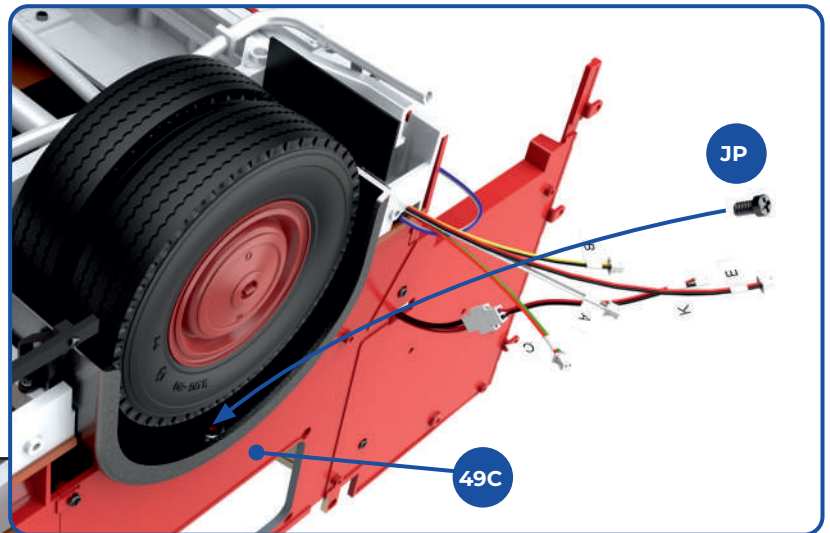
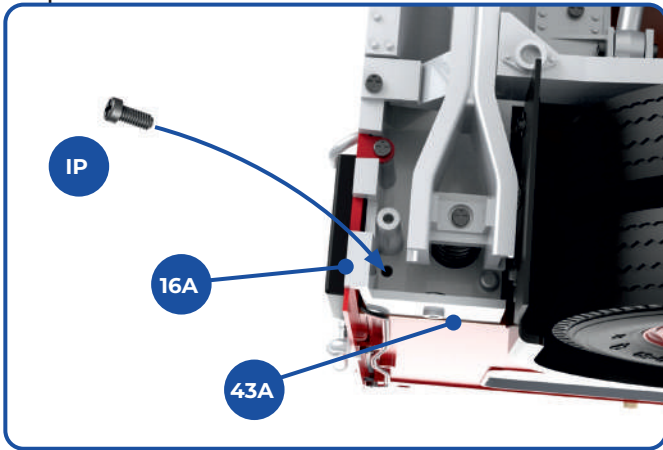
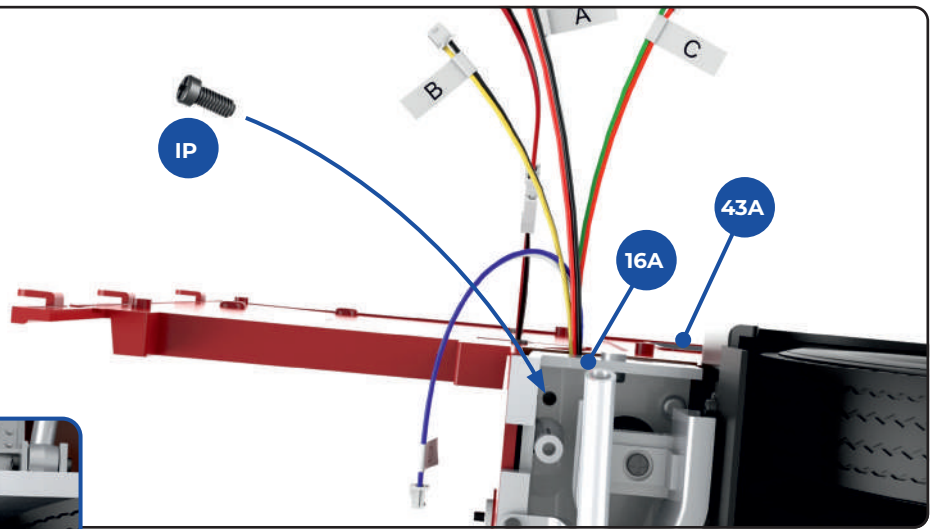
**6**

**6** Continue down the other side of the bus, using four **JP** screws to fix the chassis frames to the floor. Note the position of the screw on the right in this picture, which is fitted more centrally than the other ones (circled in red).



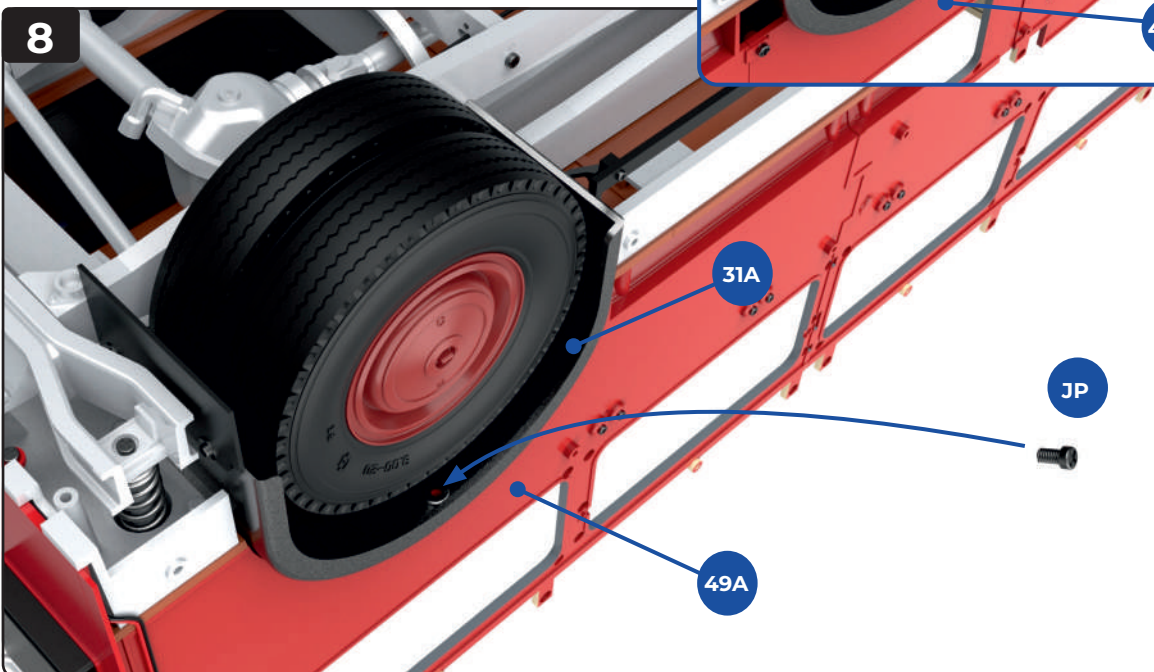
**7**

**7** At the rear right-hand corner, fix the deck **43A** to the chassis frame **16A** using an **IP** screw. Repeat at the rear left hand corner (inset below).



**8**

**8** Finally, fix the left rear wheel arch **31A** to the left side wall **49A** with a **JP** screw. Repeat to fix the right rear wheel arch **31B** to the right side wall **49C** with a **JP** screw (inset above).



## Finished Views

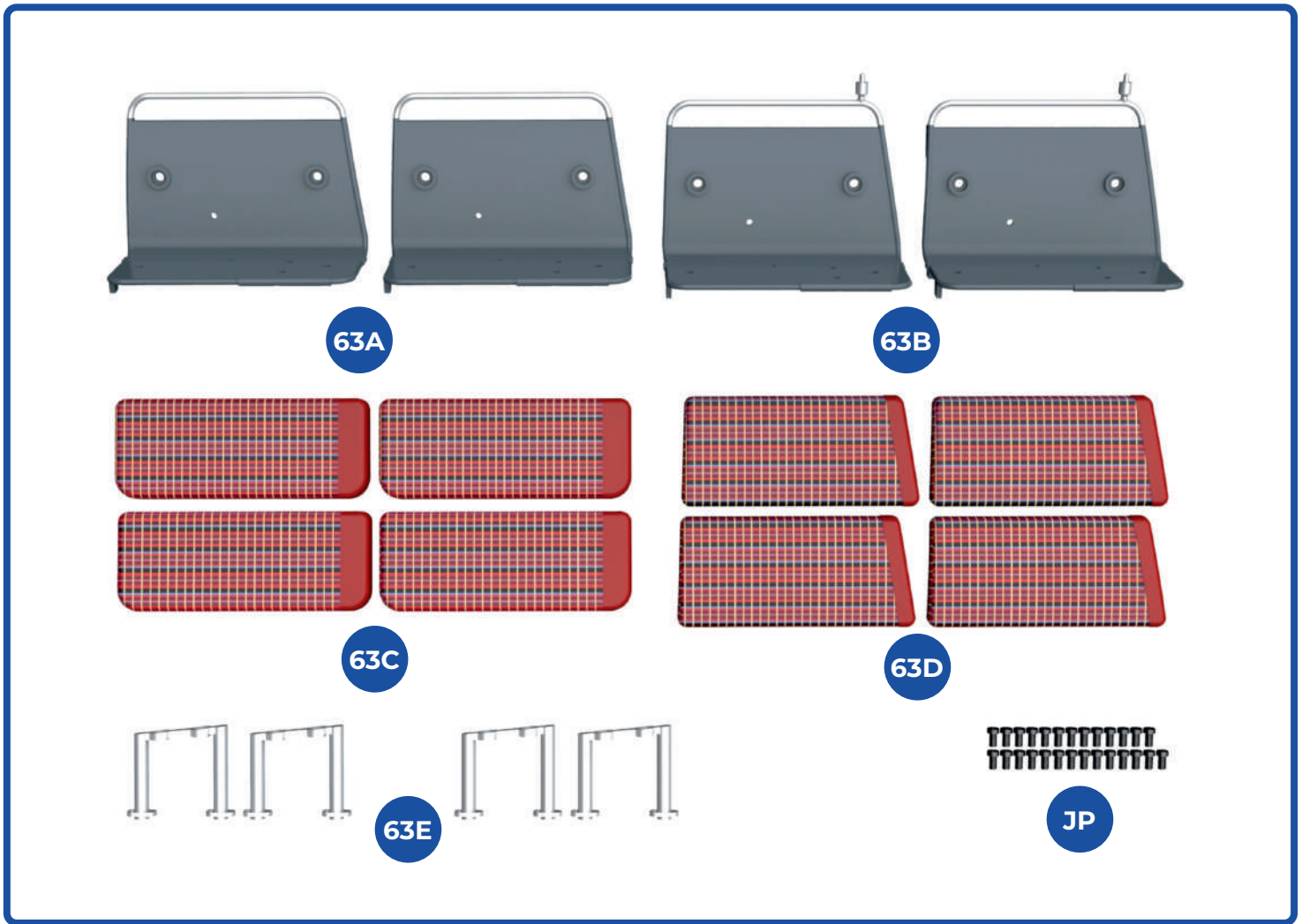




**STAGE 63**

# FITTING THE PLATFORM AND CONNECTING CABLES

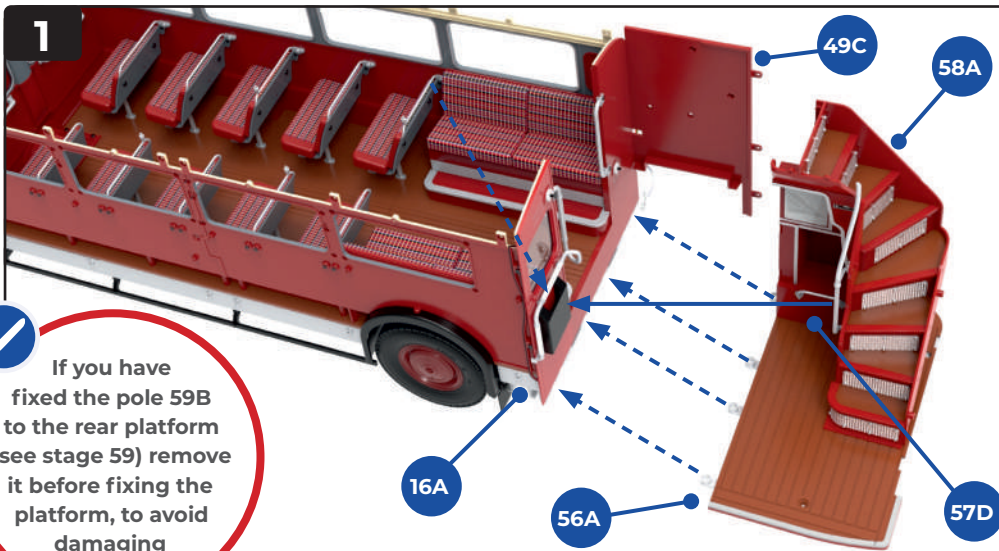
In this stage, the platform is fitted to the rear of the bus. Cables are connected to the circuit board that is under the stairs. The seat parts supplied with this stage will be assembled later.



KEY TO PARTS SUPPLIED	
<b>63A</b>	Right seat frame 1 (x2)
<b>63B</b>	Right seat frame 2 (x2)
<b>63C</b>	Right seat cushion (x4)
<b>63D</b>	Right seat backrest (x4)
<b>63E</b>	Seat support (x4)
<b>JP</b>	2.3 x 4mm (x27)

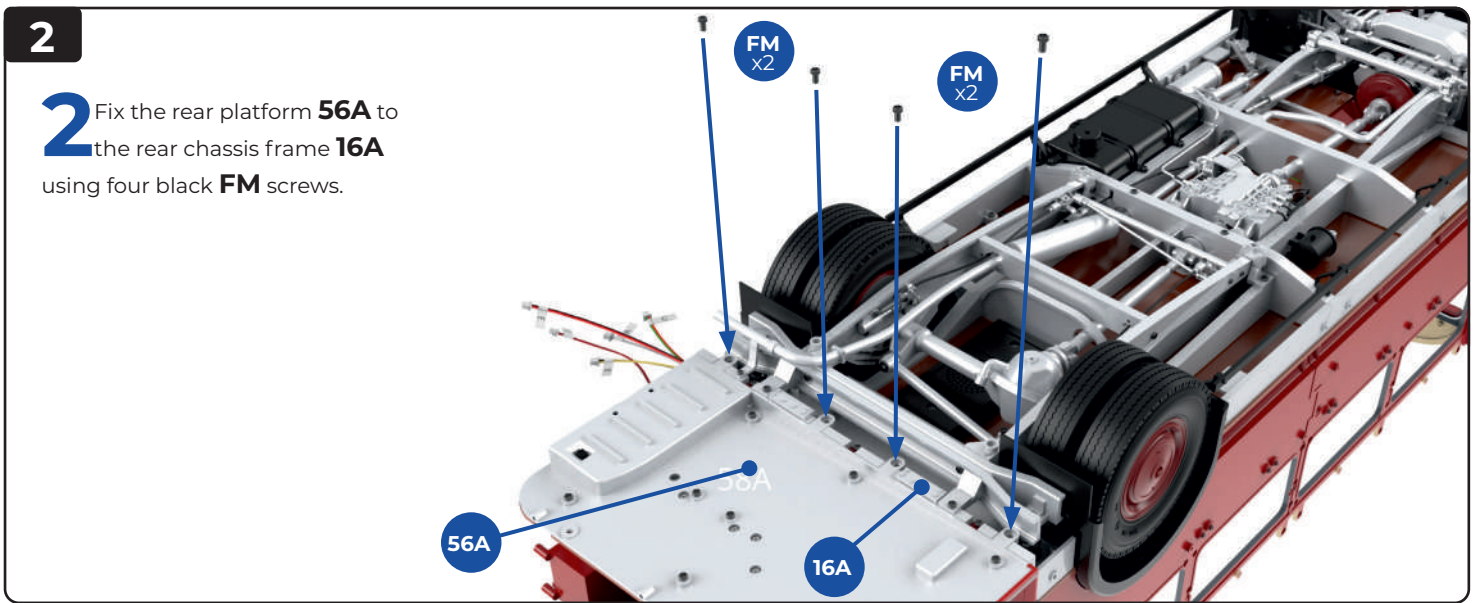
 Instructions for assembling the parts supplied in this stage will appear in stage 64. For this stage you will need:  
 4 x black FM screws  
 4 x black JP screws supplied with stage 61.



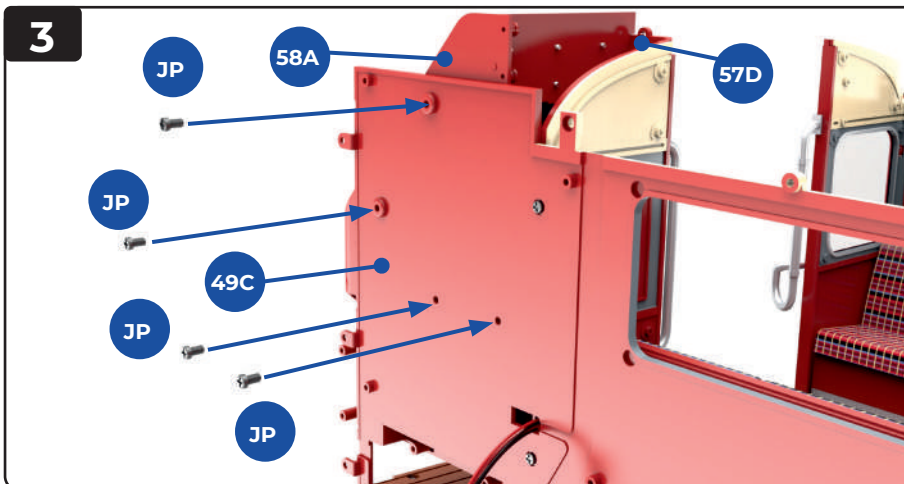


**1** Locate the rear platform and stairs assembly to the rear wall of the bus. There are four tabs on the underside of rear platform **56A** which fit into recesses on the rear chassis frame **16A**.

**✓** If you have fixed the pole 59B to the rear platform (see stage 59) remove it before fixing the platform, to avoid damaging the pole.



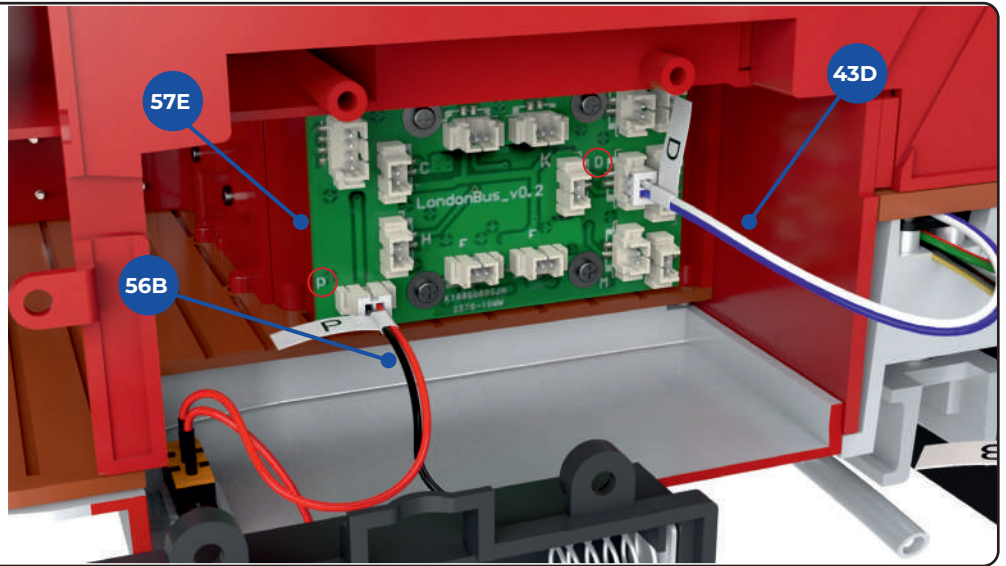
**2** Fix the rear platform **56A** to the rear chassis frame **16A** using four black **FM** screws.



**3** Fix the right side wall **49C** to the stair section **58A** and the staircase structure **57D** using four black **JP** screws.

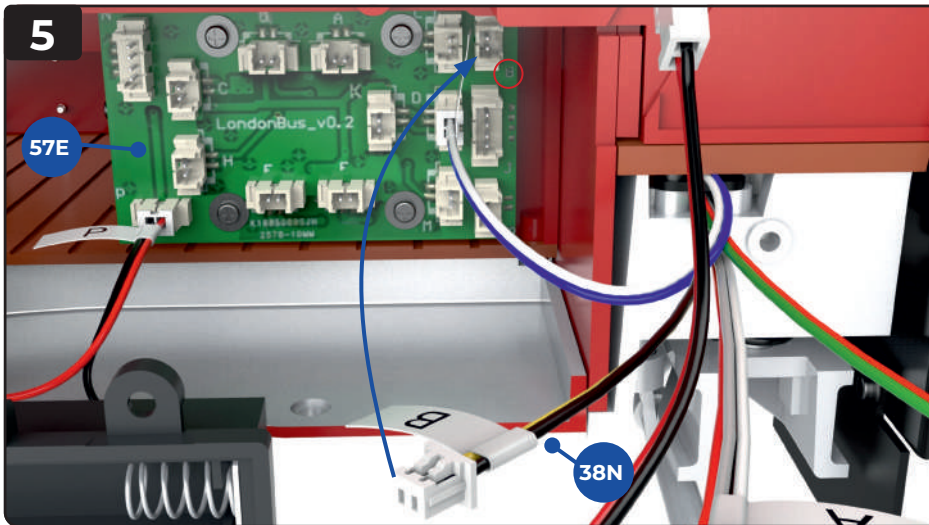
**4**


**4** The next step is to fit all the cables to the circuit board **57E** on the right-hand side of the bus, under the stairs. Fit the cable labelled D, part **43D**, into the socket labelled D on the circuit board (the D label on the circuit board is circled in red). Fit the cable labelled P (**56B**, attached to the battery box) to the socket labelled P.



**5**

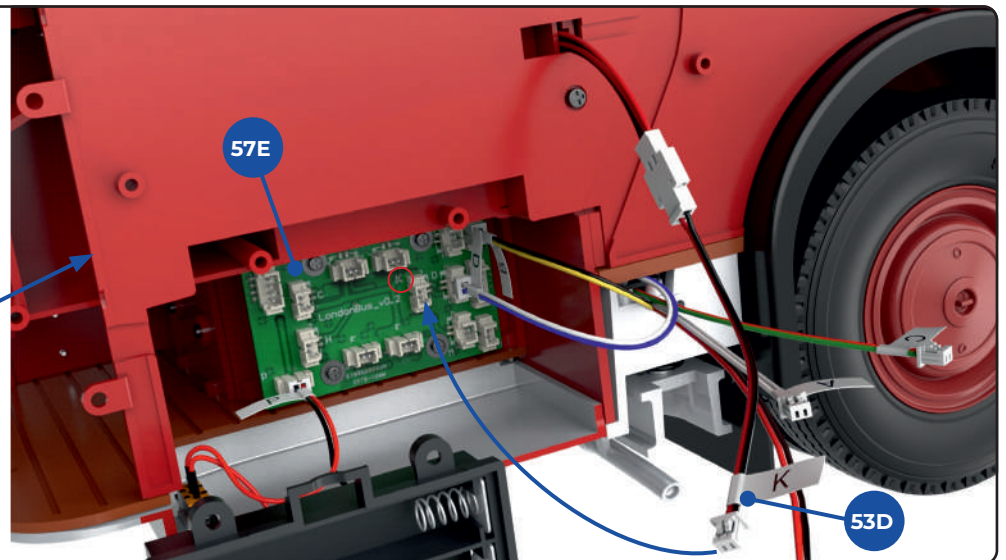
**5** Fit B cable **38N** into the socket labelled B on the circuit board.



 You may find it helpful to use tweezers when connecting the cables.

**6**

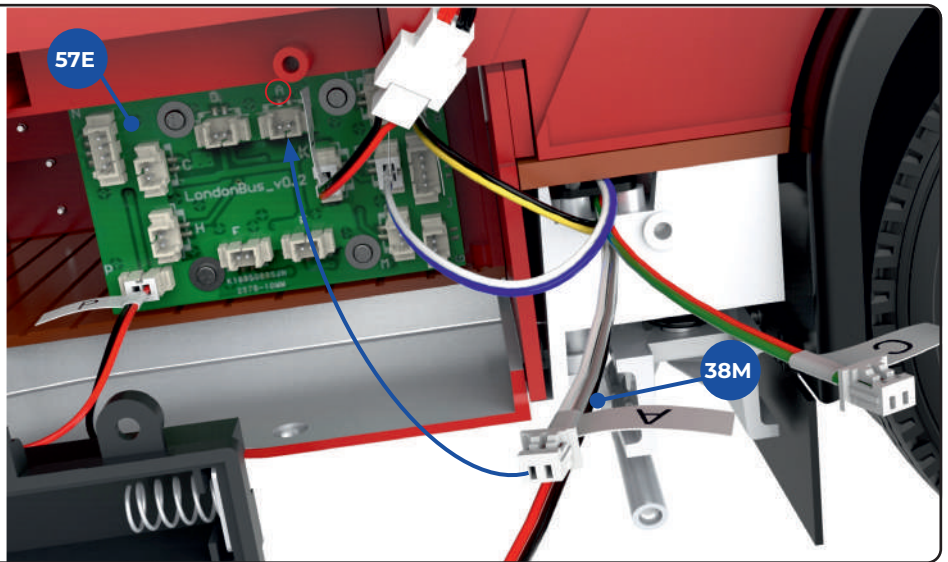
**6** Fit K cable **53D** into the socket labelled K on the circuit board.





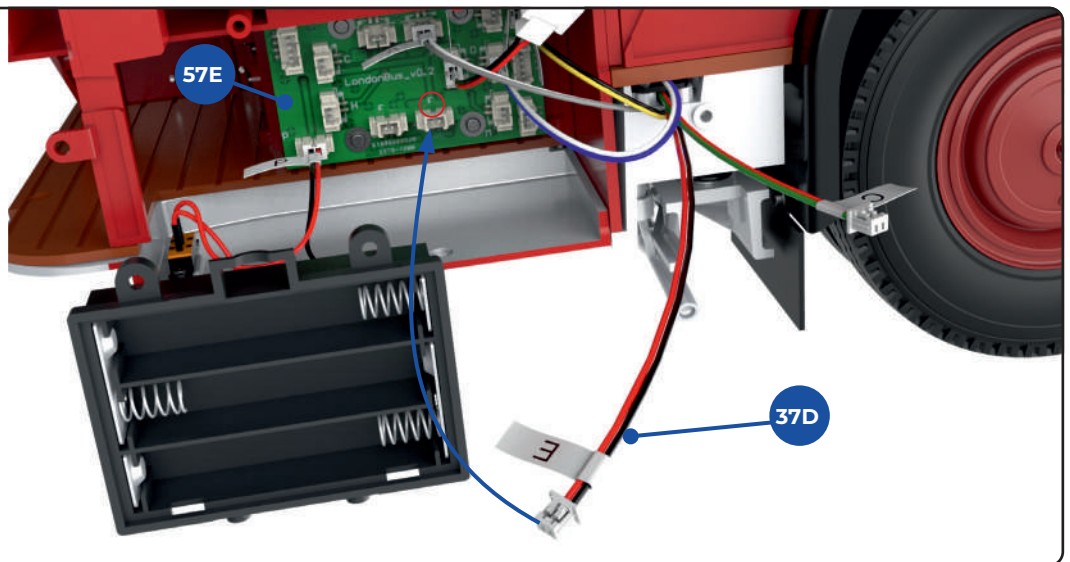
**7**

**7** Fit the A cable **38M** into the socket labelled A on the circuit board.



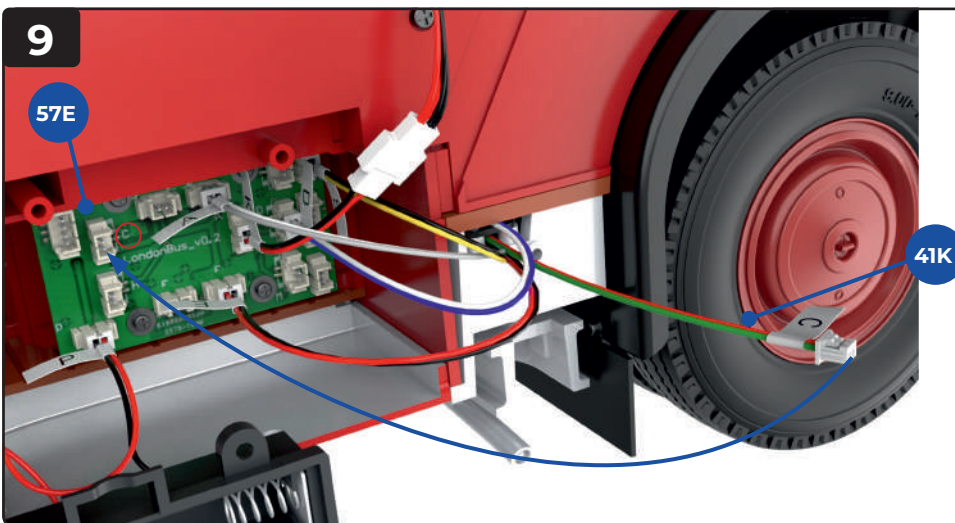
**8**

**8** Fit the E cable **37D** into the socket labelled E on the circuit board.



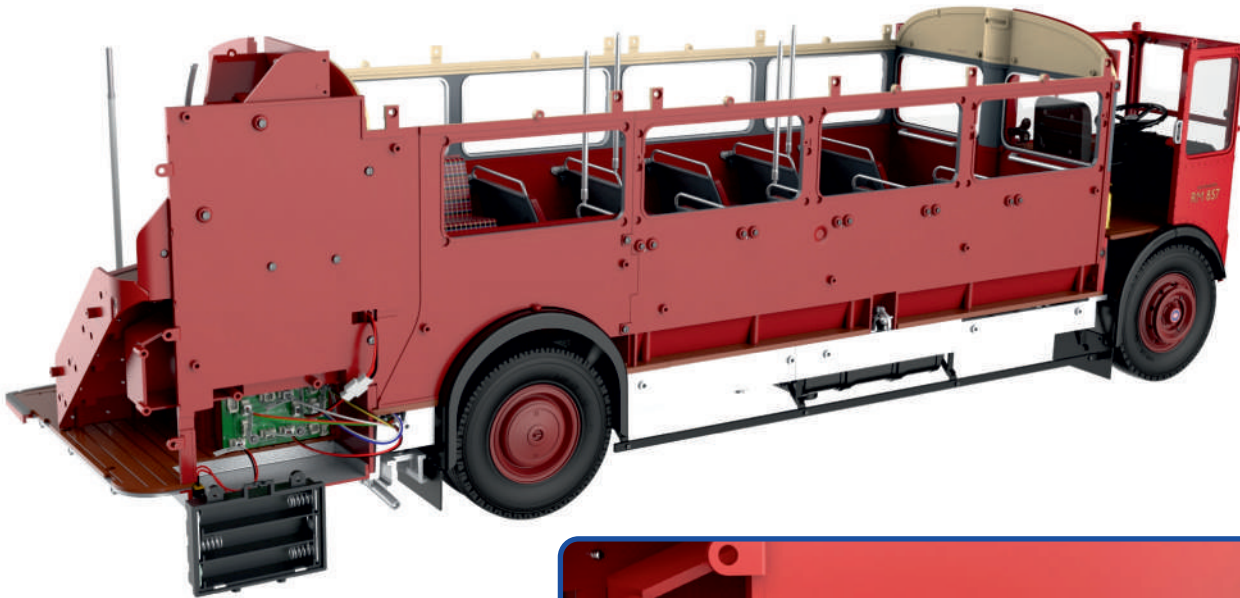
**9**

**9** Fit the C cable **41K** into the socket labelled C on the circuit board.

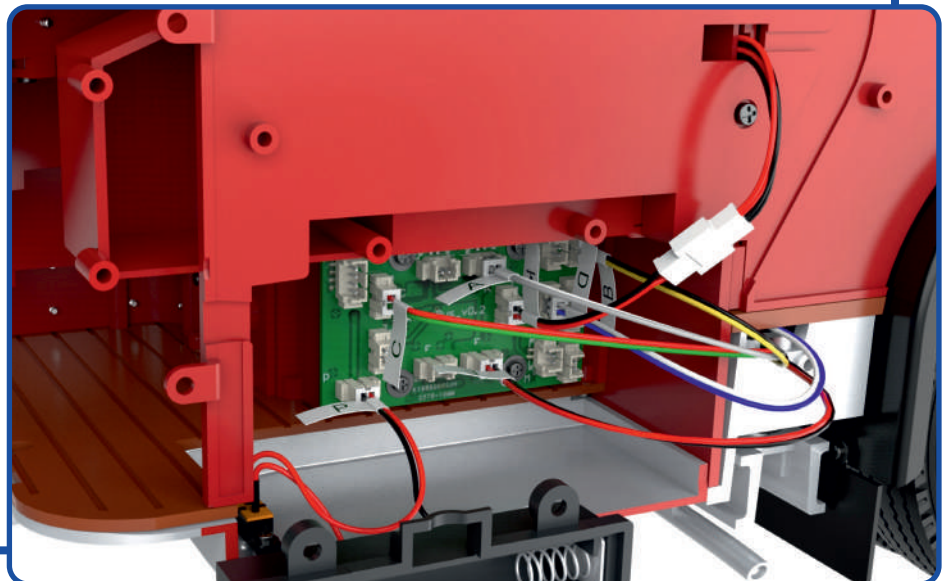


Cable 41K is too short to reach the C socket. We are aware of this problem and will be supplying you with an extension cable in stage 71. Please leave the cable unplugged until then.

## Finished Views



The body of the bus is now fitted to the chassis frame, and the stairs and platform are attached to the back of the bus. The cables have been connected to the circuit board under the stairs (right).

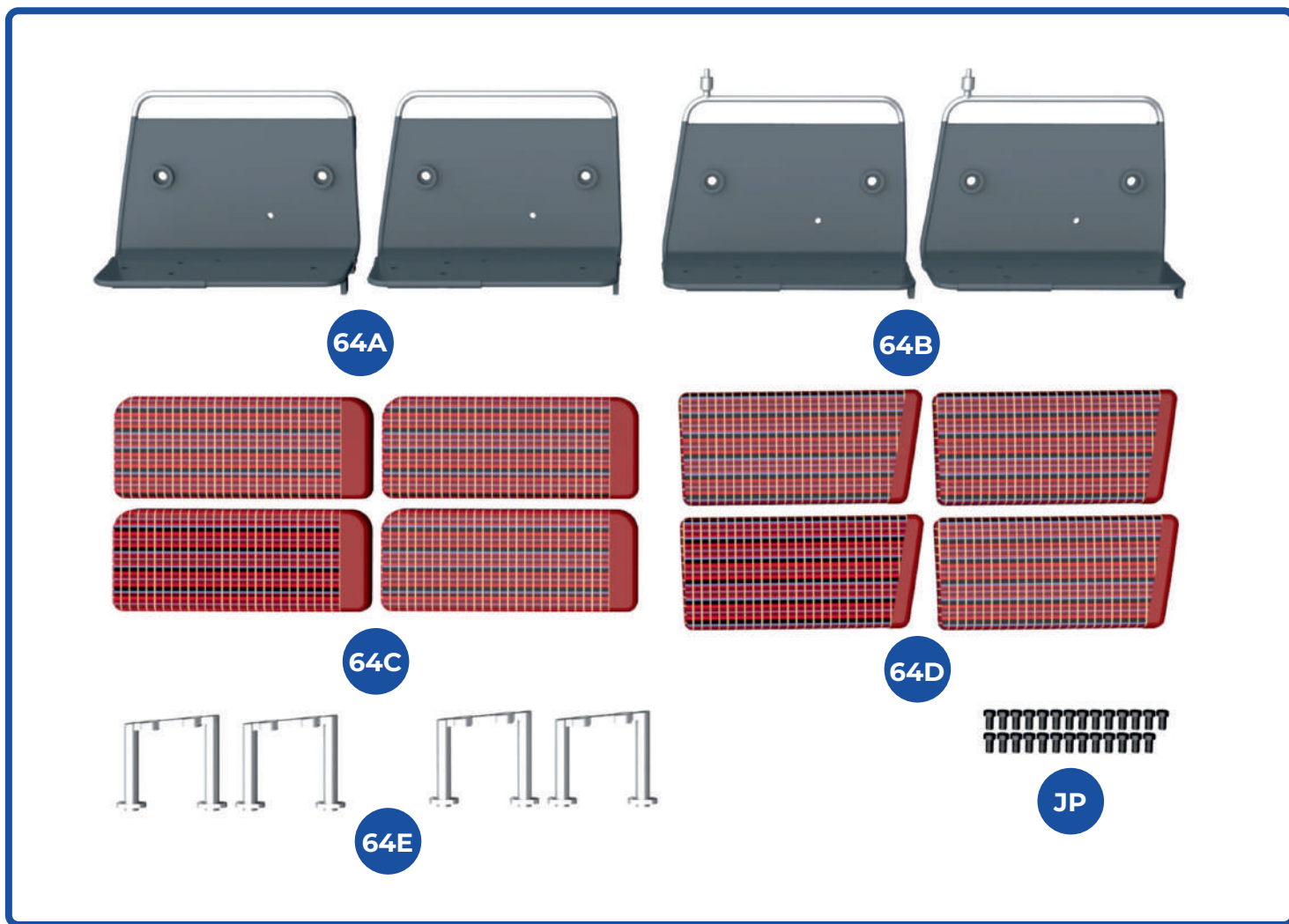




**STAGE 64**


# SEATING FOR THE UPPER DECK (1)

In this stage, we assemble the parts supplied with stages 62 and 63 – seating for the right-hand side of the upper deck. Instructions for assembling the parts supplied with this stage will appear in stage 65.



**KEY TO PARTS SUPPLIED**

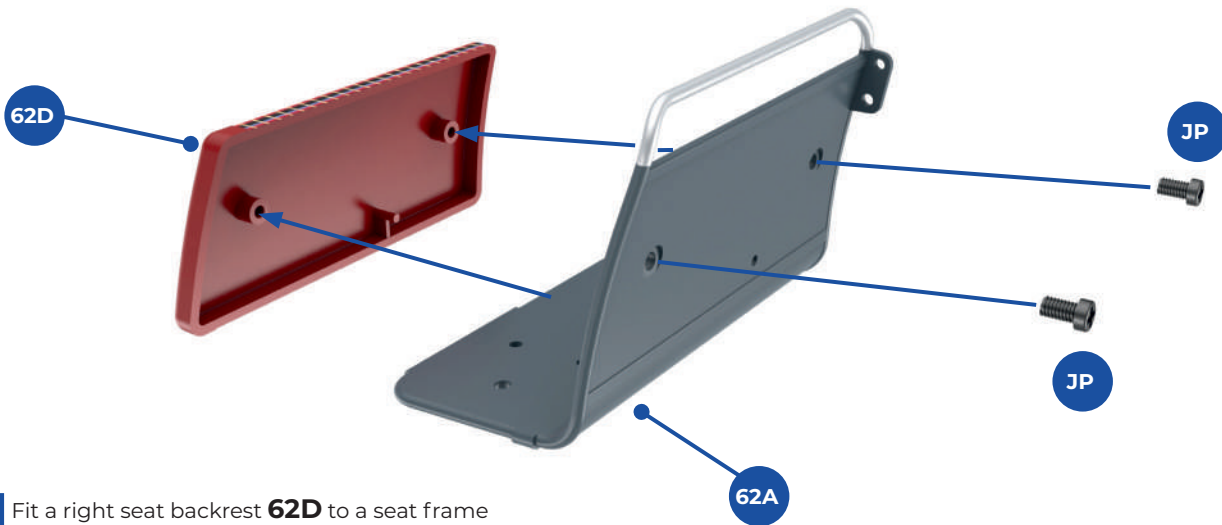
<b>64A</b>	Left seat frame 1 (x2)	<b>JP</b>	2.3 x 4mm (x27)
<b>64B</b>	Left seat frame 2 (x2)		
<b>64C</b>	Left seat cushion (x4)		
<b>64D</b>	Left seat backrest (x4)		
<b>64E</b>	Seat support (x4)		

 Note the difference between parts 64A and 64B: 64B has fixing points for the upright poles at the ends of alternate seats.

## YOU WILL NEED THE FOLLOWING PARTS:

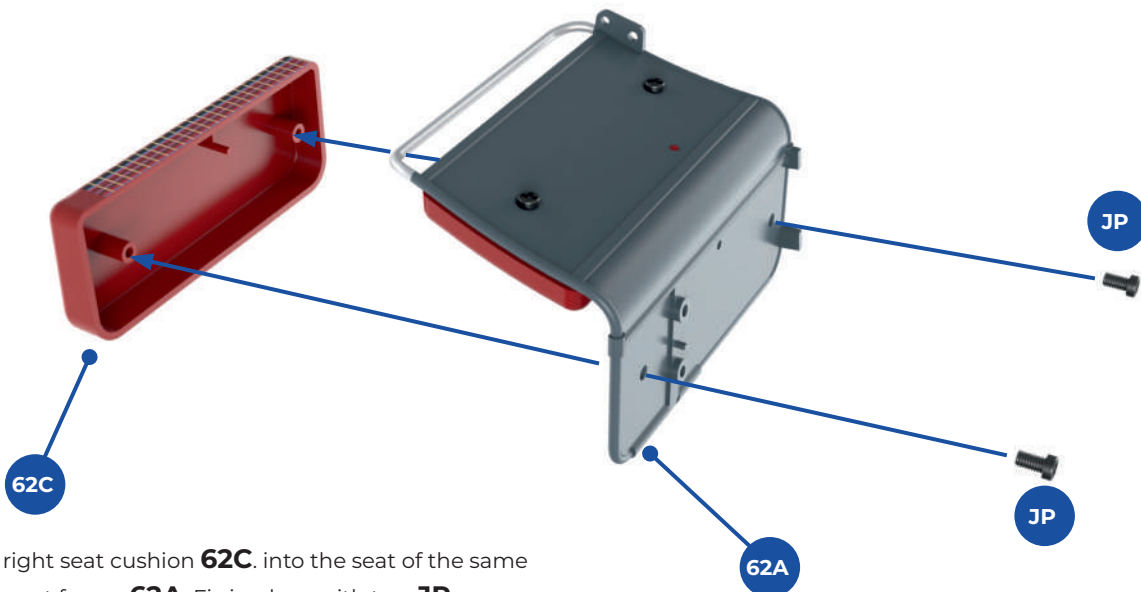
<b>62A and 63A</b>	Right seat frames	<b>JP</b>	2.3 x 4mm
<b>62B and 63B</b>	Right seat frames 2		
<b>62C and 63C</b>	Right seat cushion		
<b>62D and 63D</b>	Right seat backrest		
<b>62E and 63E</b>	Seat support		

1



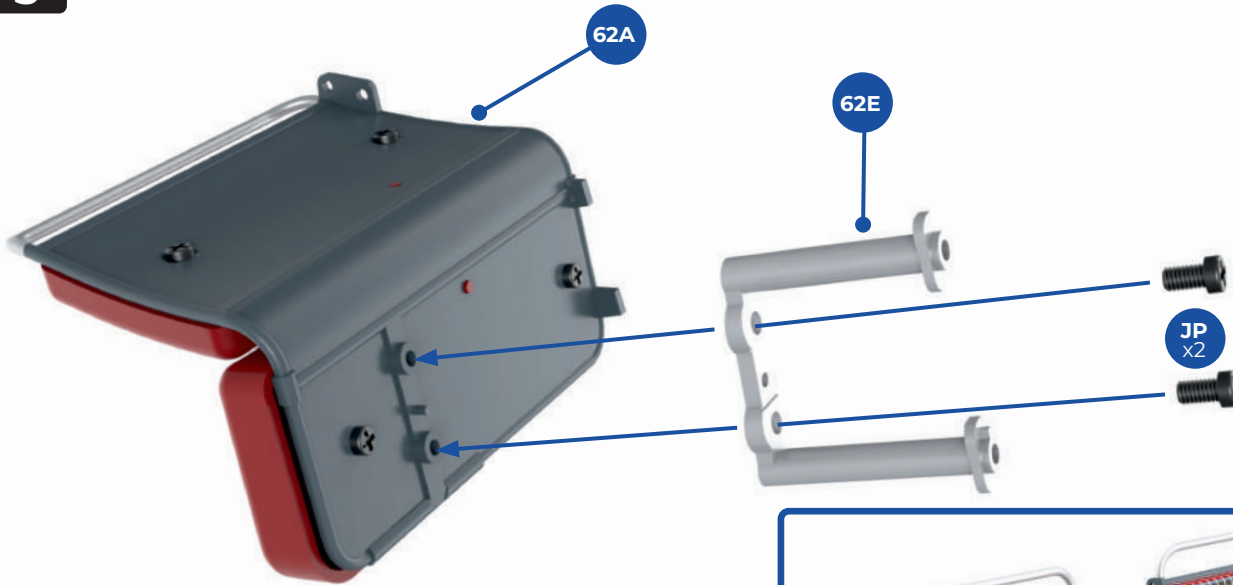
**1** Fit a right seat backrest **62D** to a seat frame **62A**. Fix in place with two **JP** screws.

2



**2** Fit a right seat cushion **62C**. into the seat of the same right seat frame **62A**. Fix in place with two **JP** screws.

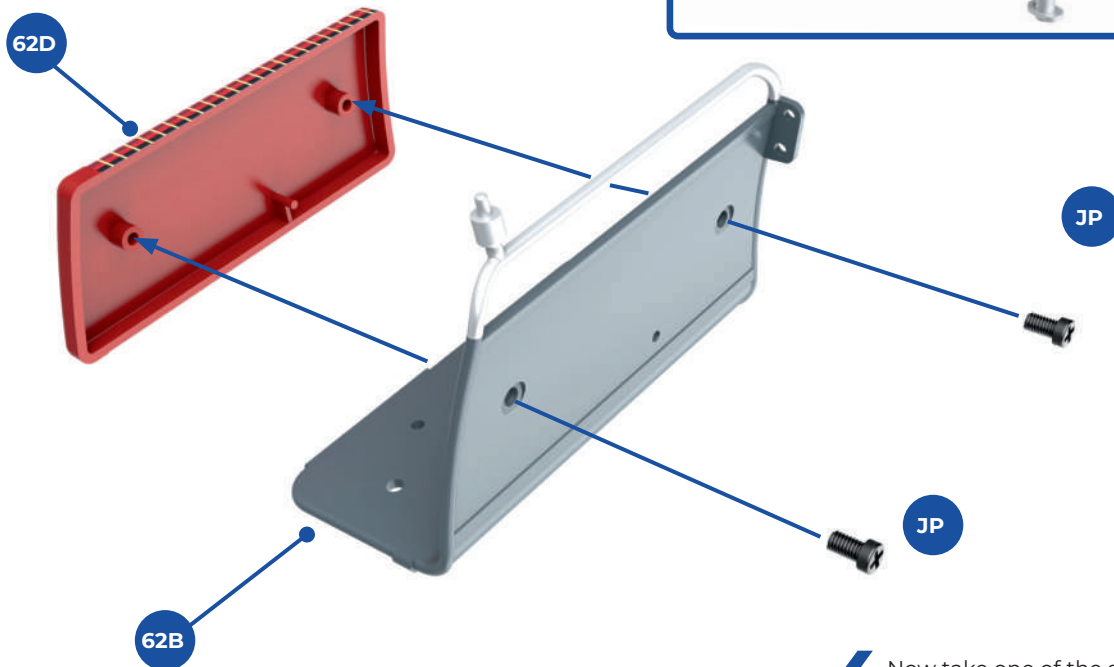
**3**



**3** Fit a seat support **62E** on the underside of the seat frame **62A**. **NOTE:** The rear leg of the seat support is shorter than the front leg, to ensure that the seat slopes back slightly. Fix in place with two **JP** screws. Repeat steps 1-3 to make a second seat (see inset, right).

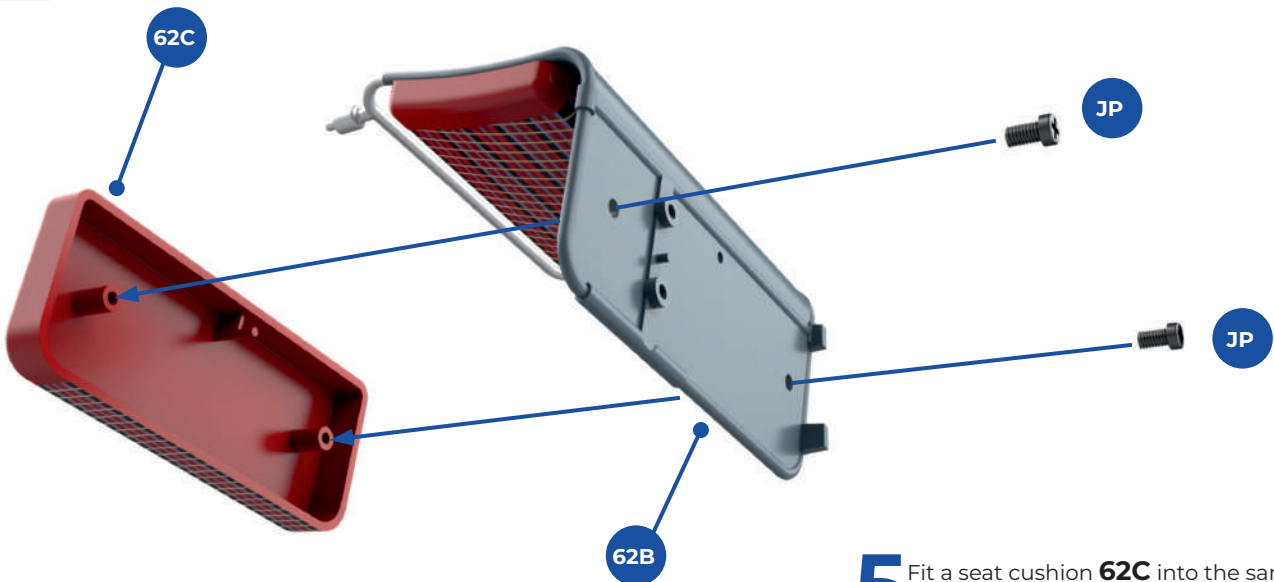


**4**



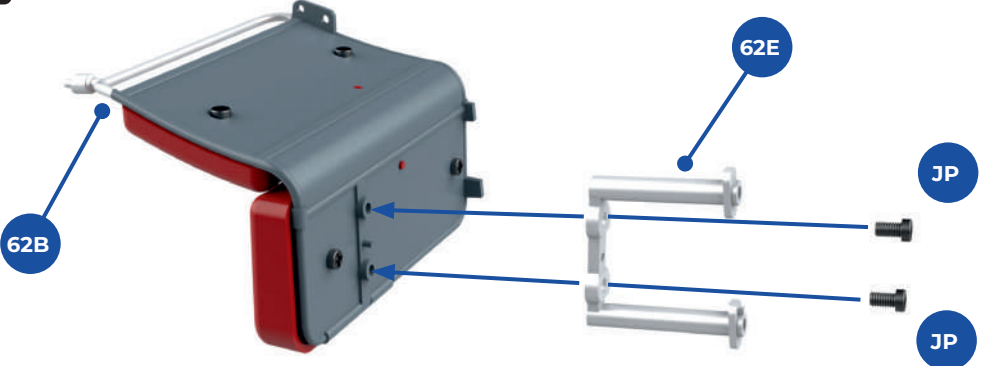
**4** Now take one of the seat frames **62B**. Fit a seat backrest **62D** into the frame and fix in place with two **JP** screws.

**5**



5 Fit a seat cushion **62C** into the same seat frame **62B**. Fix in place with two **JP** screws.

**6**



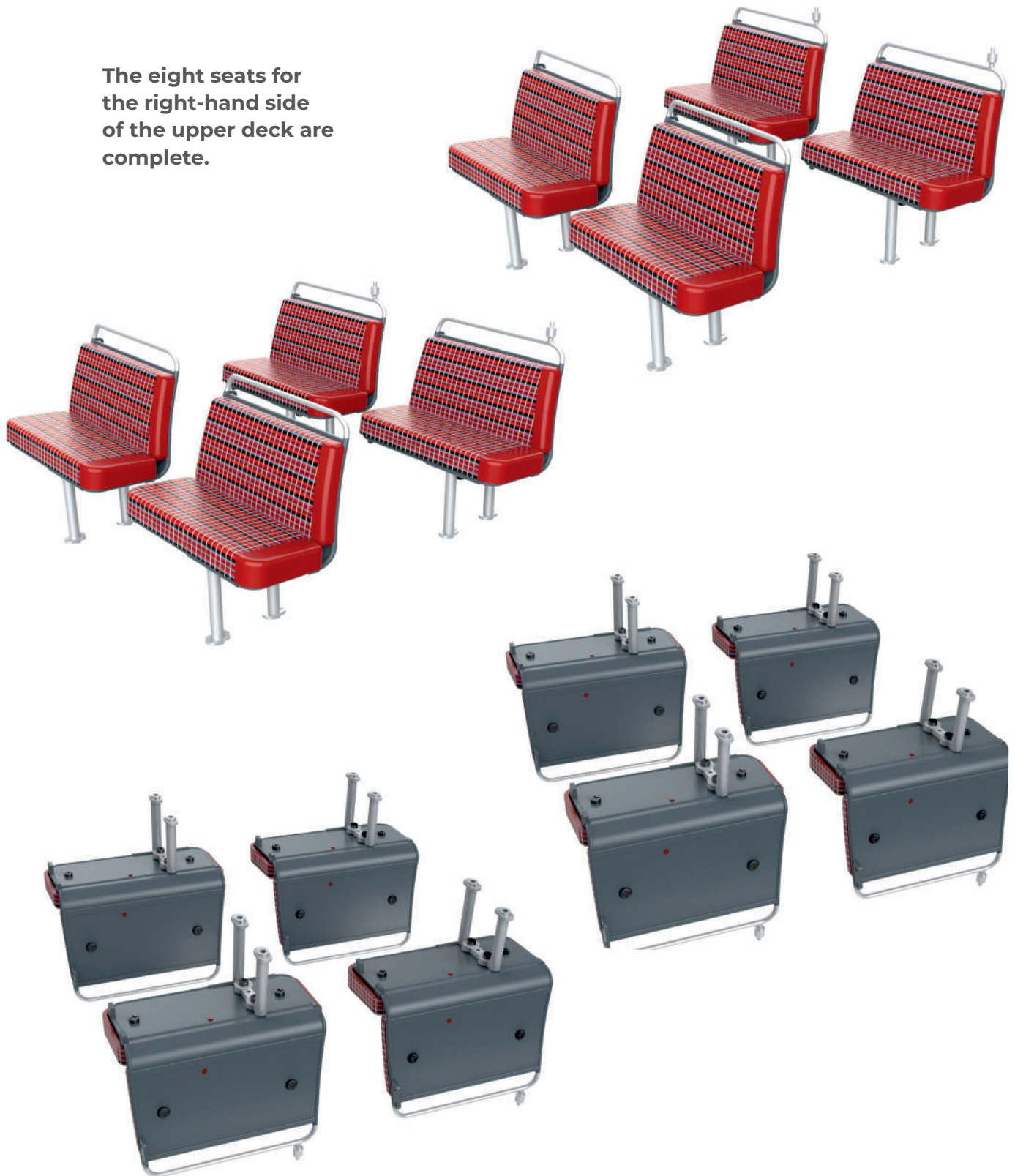
6 Fit a seat support **62E** to the underside of seat frame **62B**, ensuring that the seat slopes down at the back. Fix in place using two **JP** screws. Repeat to fit the cushions and support to the second seat frame **62B**.

**Repeat steps 1 to 6 to assemble the parts supplied with stage 63.**



## Finished views

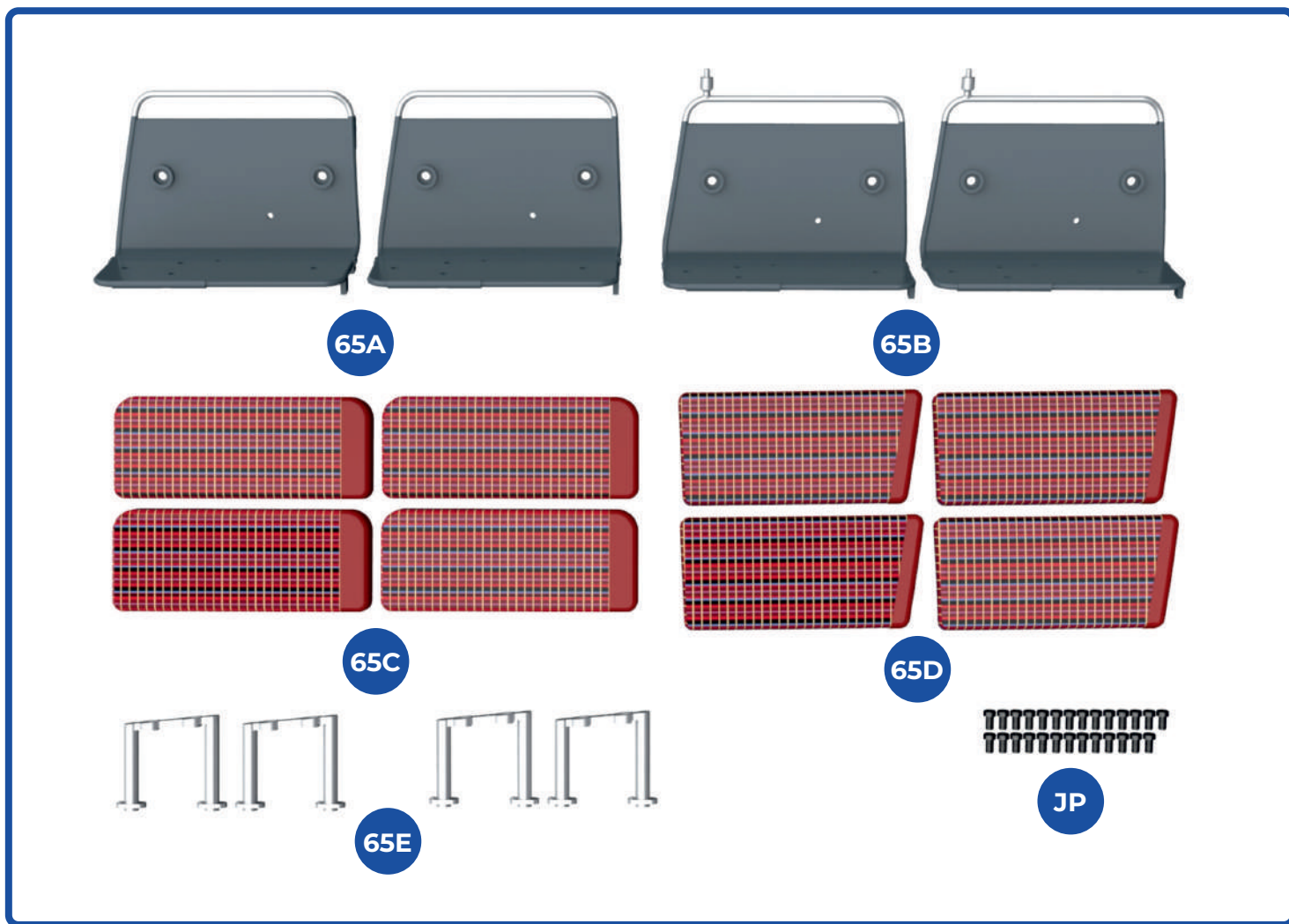
The eight seats for the right-hand side of the upper deck are complete.



## STAGE 65

# SEATING FOR THE UPPER DECK (2)

In this stage, we assemble the parts supplied with stage 64 and with this stage, to build the seats for the left-hand side of the upper deck.



### KEY TO PARTS SUPPLIED

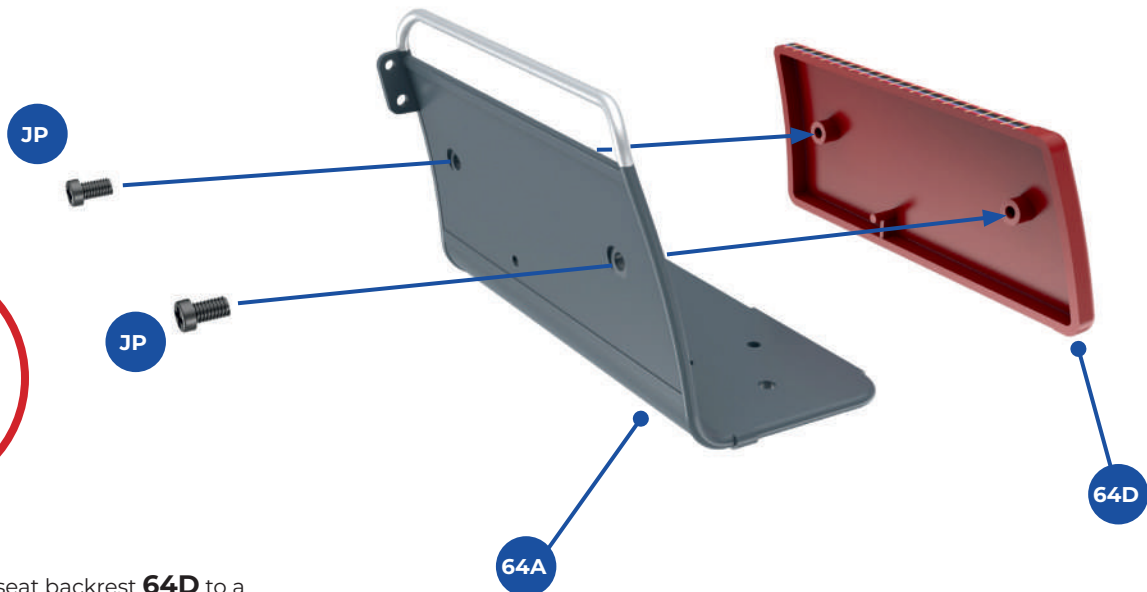
- 65A** Left seat frame 1 (x2)
- 65B** Left seat frame 2 (x2)
- 65C** Left seat cushion (x4)
- 65D** Left seat backrest (x4)
- 65E** Seat support (x4)
- JP** 2.3 x 4mm (x27)

**You will also need the identical parts supplied with stage 64.**

✓

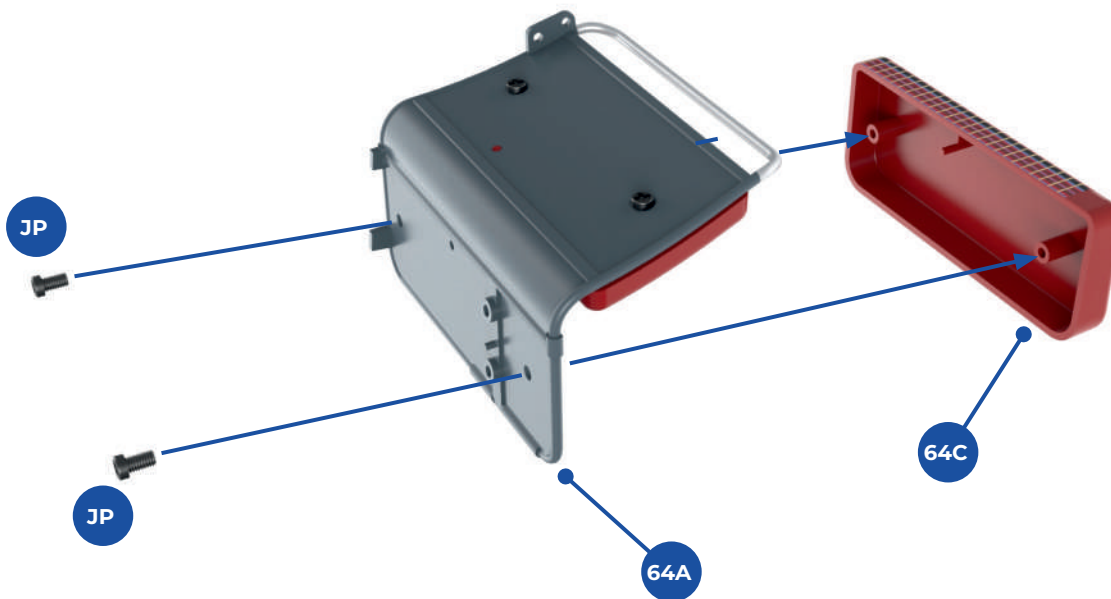
Note the difference between parts 65A and 65B: 65B has fixing points for the upright poles at the ends of alternate seats.

1



**1** Fit a left seat backrest **64D** to a seat frame **64A**. Fix in place with two **JP** screws.

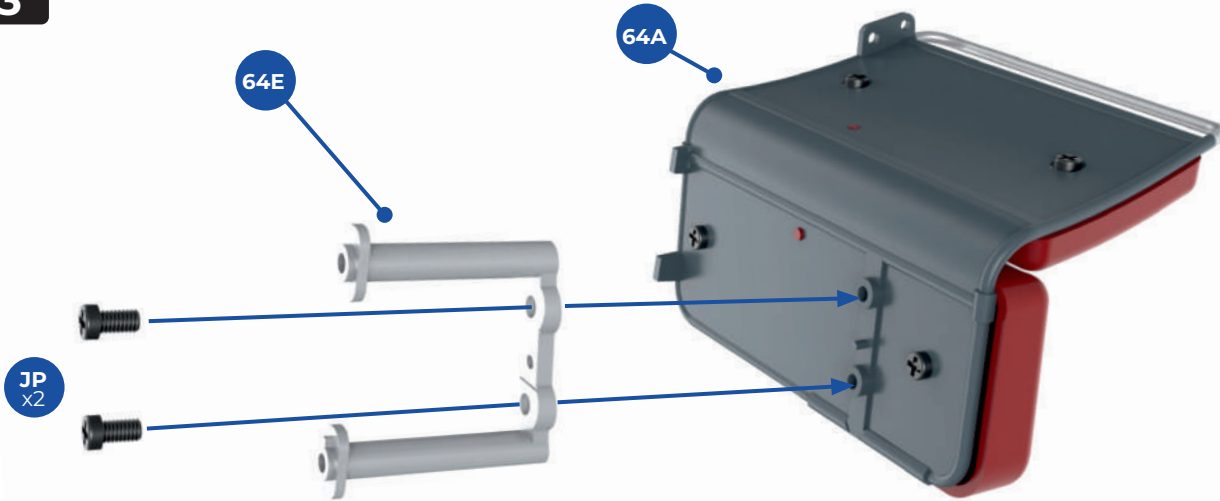
2



**2** Fit a left seat cushion **64C**. into the seat of the same left seat frame **64A**. Fix in place with two **JP** screws.



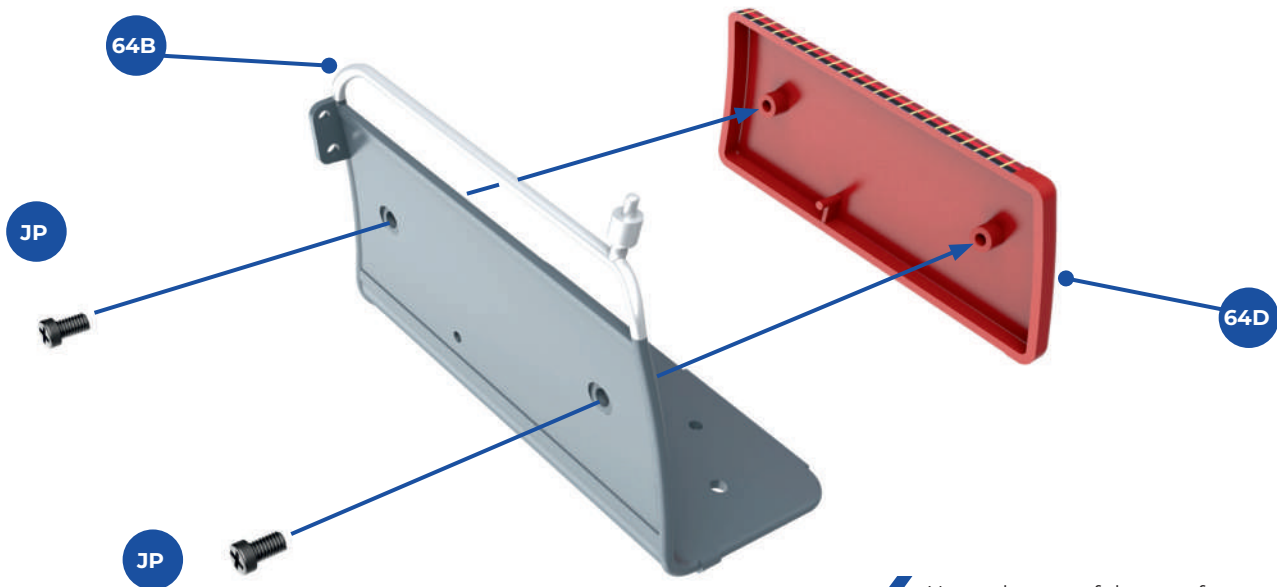
**3**



**3** Fit a seat support **64E** on the underside of the seat frame **64A**. **NOTE:** The rear leg of the seat support is shorter than the front leg, to ensure that the seat slopes back slightly. Fix in place with two **JP** screws. Repeat steps 1-3 to make a second seat (see inset, right).

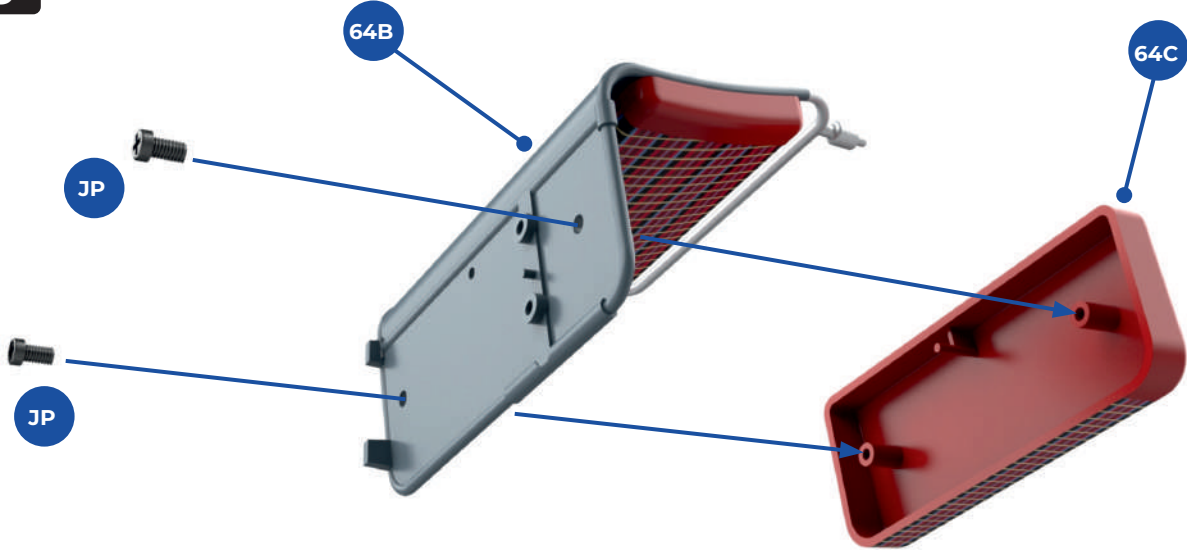


**4**



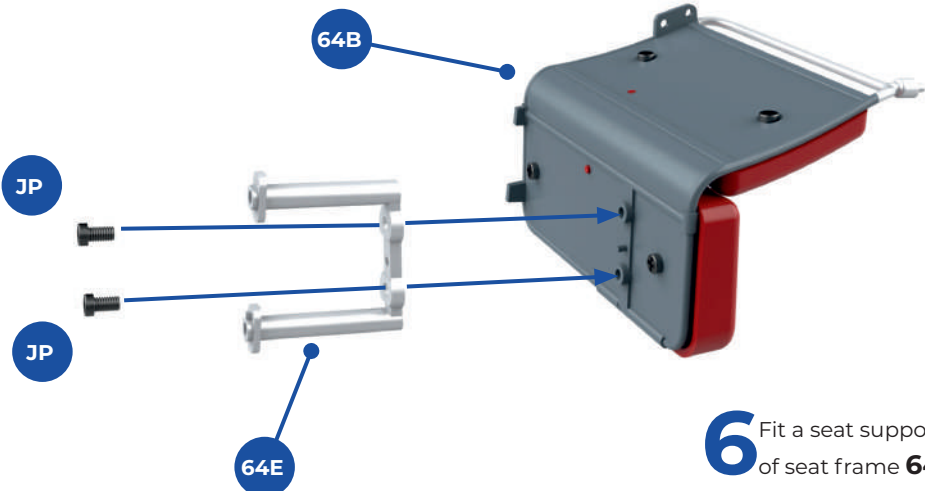
**4** Now take one of the seat frames **64B**. Fit a seat backrest **64D** into the frame and fix in place with two **JP** screws.

**5**



**5** Fit a seat cushion **64C** into the same seat frame **64B**. Fix in place with two **JP** screws.

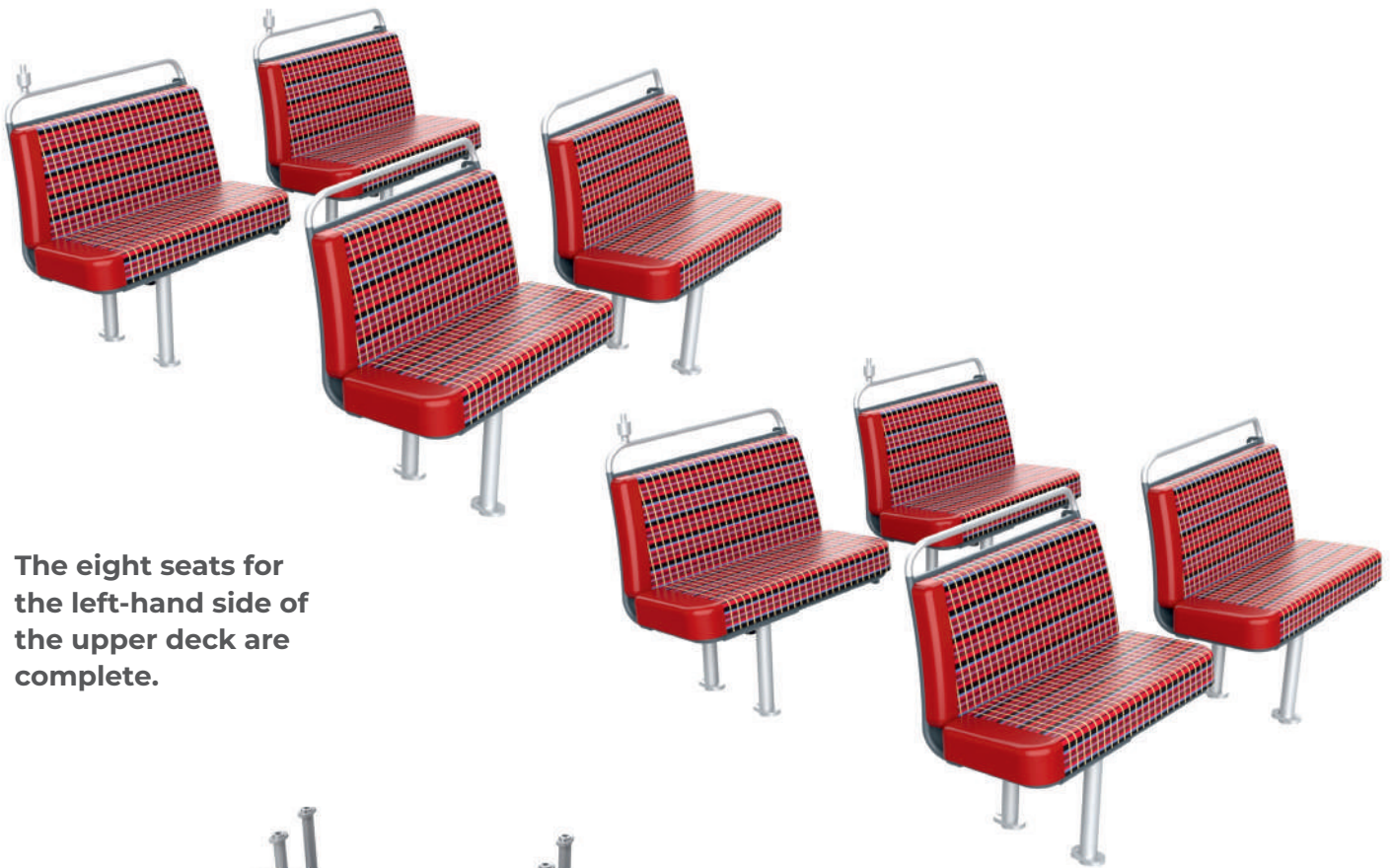
**6**



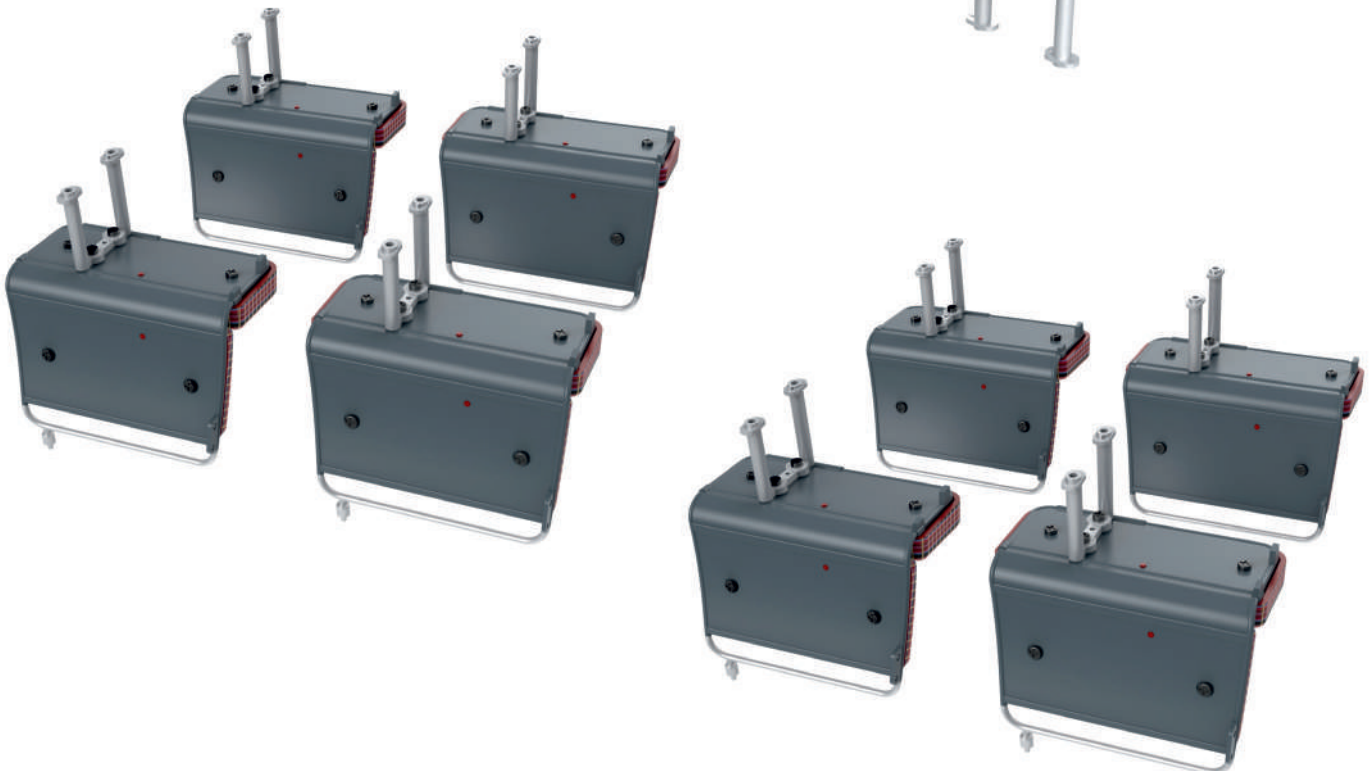
**6** Fit a seat support **64E** to the underside of seat frame **64B**, ensuring that the seat slopes down at the back. Fix in place using two **JP** screws. Repeat to fit the cushions as support to the second seat frame **64B**.

**Repeat steps 1 to 6 to assemble the parts supplied with this stage.**

## Finished views



The eight seats for the left-hand side of the upper deck are complete.

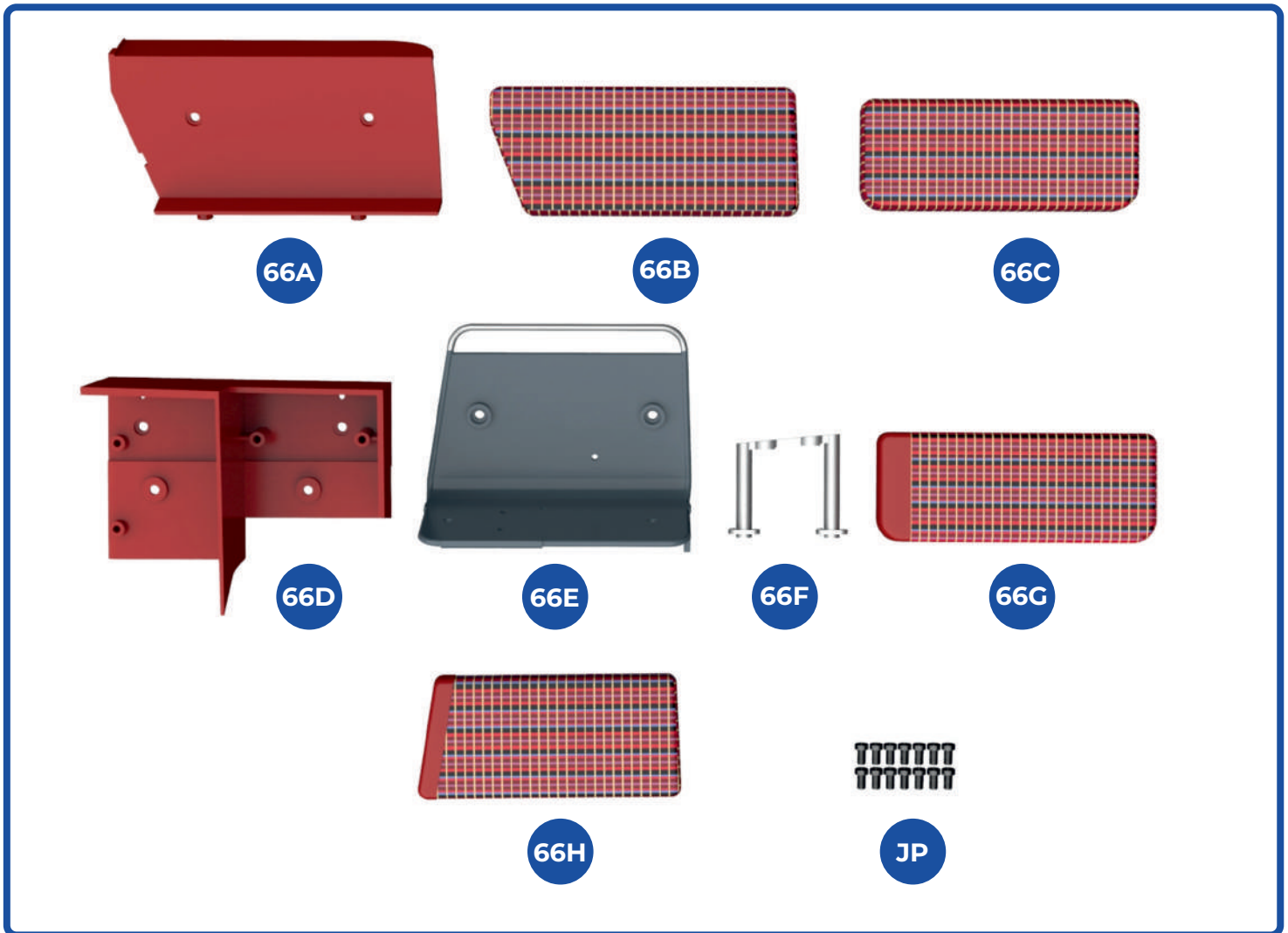




**STAGE 66**

# REAR SEATS FOR THE UPPER DECK

Continuing with the seating for the upper deck, the rear two left-hand seats are supplied with this stage. The back seat is fitted to panels that will be positioned above the stairs.



**KEY TO PARTS SUPPLIED**

- |            |                      |            |                    |
|------------|----------------------|------------|--------------------|
| <b>66A</b> | Rear seat back panel | <b>66F</b> | Seat support       |
| <b>66B</b> | Rear seat backrest   | <b>66G</b> | Left seat cushion  |
| <b>66C</b> | Rear seat cushion    | <b>66H</b> | Left seat backrest |
| <b>66D</b> | Rear seat base       | <b>JP</b>  | 2.3 x 4mm (x14)    |
| <b>66E</b> | Left seat frame      |            |                    |

**1**

**1** Fit the left seat backrest **66H** into the left seat frame **66E**. Fix in place with two **JP** screws.

**2**

**2** Fit the left seat cushion **66C** into the left seat frame **66E** and fix in place with two **JP** screws.

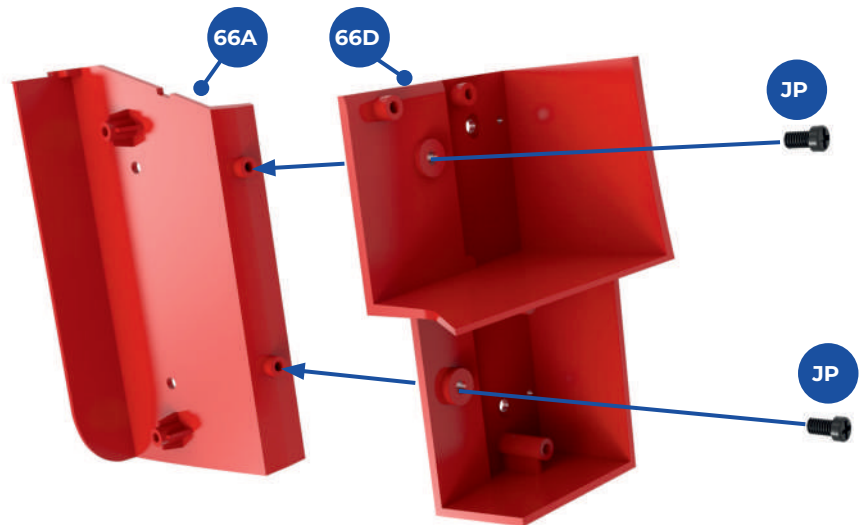
**3**

**3** Fit the seat support **66F** to the underside of the seat frame **66E**, ensuring the locating peg on the underside of the seat (circled in light blue) fits into the hole in the seat support. Fix in place with two **JP** screws.

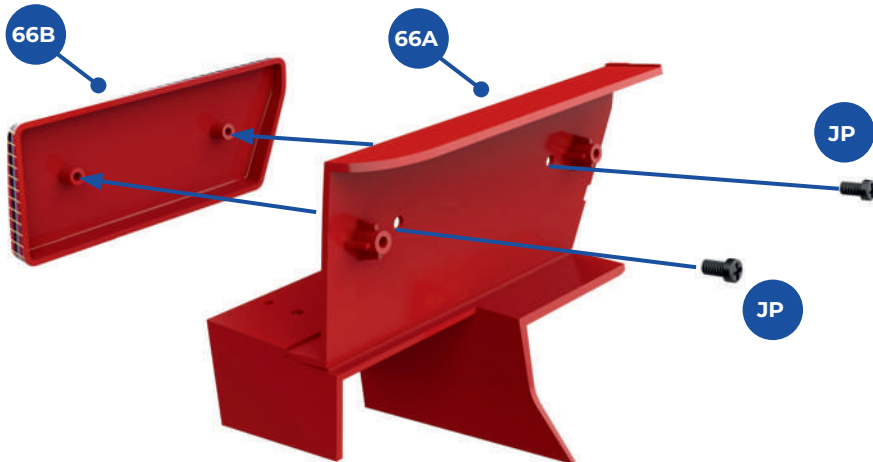
**4**

**4** Take the rear seat base **66D** and the rear seat back panel **66A**.

Check how they fit together (the view shown here is from below/behind). Fix together with two **JP** screws.



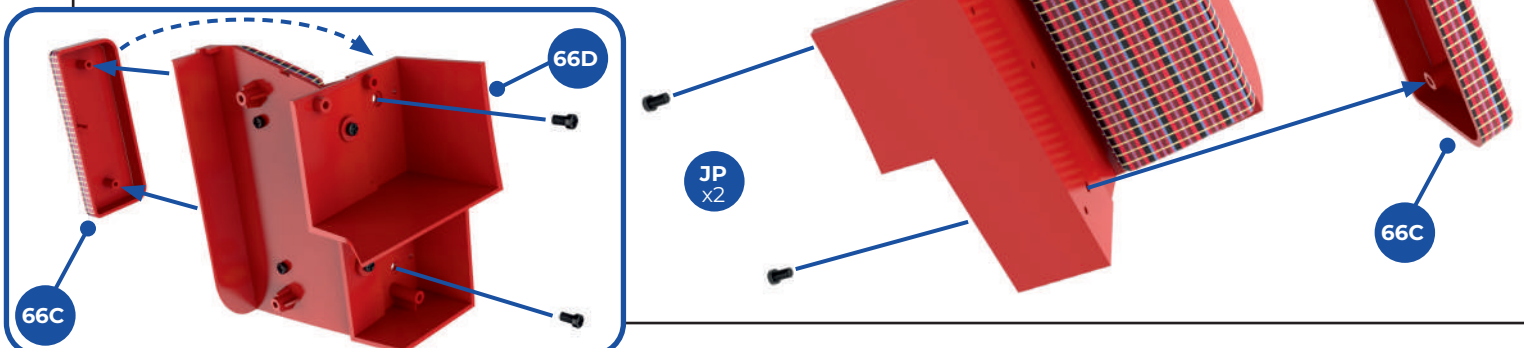
**5**



**5** Align the holes in the rear seat backrest **66B** with those in the rear seat backpanel **66A** and fix in place with two **JP** screws.

**6**

**6** Fit the rear seat cushion **66C** onto the rear seat base **66D**. Fix in place with two **JP** screws. The inset below shows the view from below.





## Finished Views



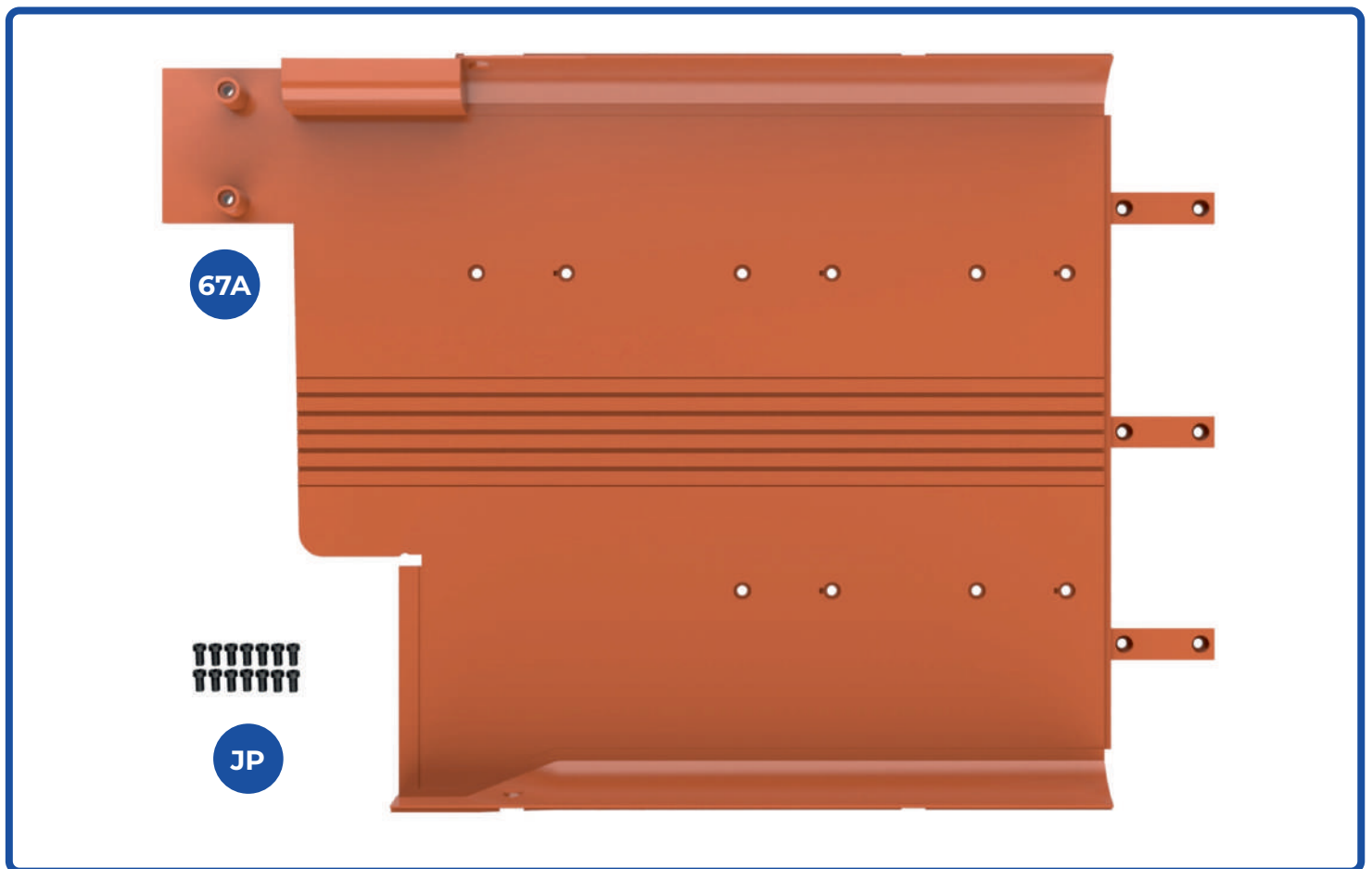
The last two seats at the rear of the upper deck have been assembled.



## STAGE 67

# FITTING THE REAR SEATS TO THE UPPER DECK

In this stage we supply the rear section of the upper deck. Seats assembled in previous stages are fitted to the deck.

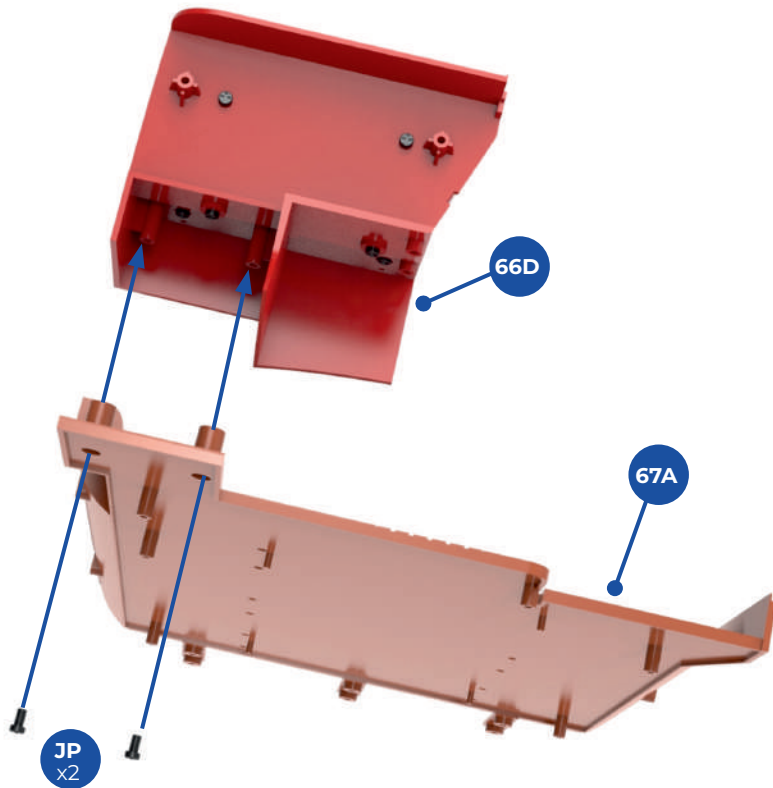


### KEY TO PARTS SUPPLIED

**67A** Upper deck (rear)

**JP** 2.3 x 4mm (x14)

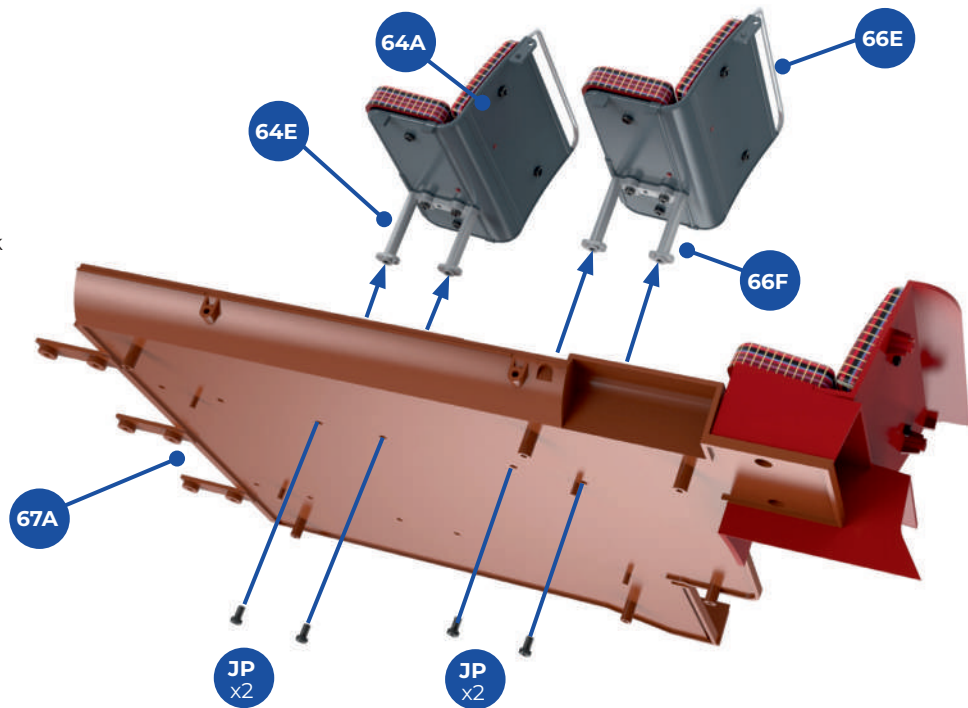
**1**



**1** Take the rear seat assembly from the previous stage and the rear section of the upper deck **67A** supplied with this stage. Check the orientation of the floor and fit the rear seat base **66D** to the upper deck **67A**. Fix in place with two **JP** screws.

**2**

**2** Take the rear left seat assembled in the previous stage, and the assembled left seat frame **64A**. Identify the fixing points on the upper deck **67A**. Fix each seat support in place with two **JP** screws, so that the screws fit into the socket in the base of the seat supports **66F** and **64E**.





**3**

**3** Take the next assembled left seat, seat frame **64B**. Position it at the front of the rear upper deck section **67A** and identify the fixing points. Fix in place with two **JP** screws, locating them in the sockets in the base of the seat support **64E**.

✓  
Note that seat frame **64B** has a bracket for an upright pole.

**4**

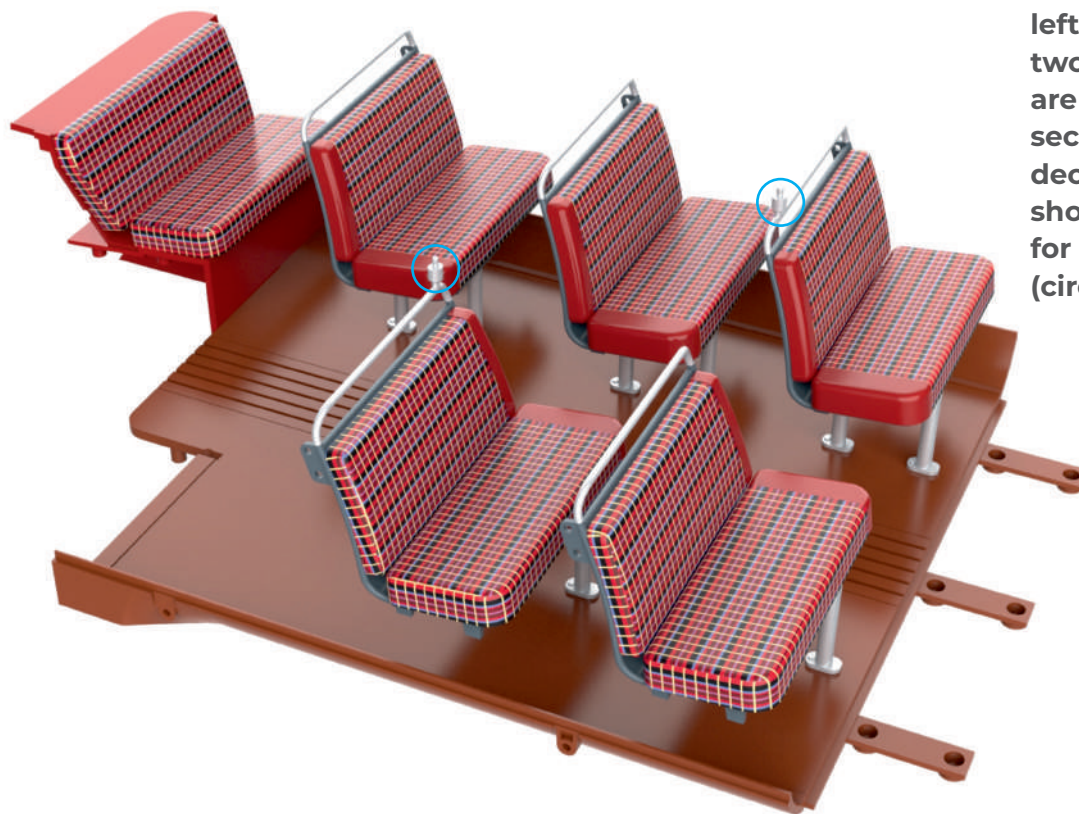
**4** Take the rear right-hand seat, seat frame **62B**. Identify the fixing points on the rear section of the upper deck **67A**. Fix in place with two **JP** screws, locating them in the base of the seat support **62E**.

✓  
Note that seat frame **62B** has a bracket for an upright pole.

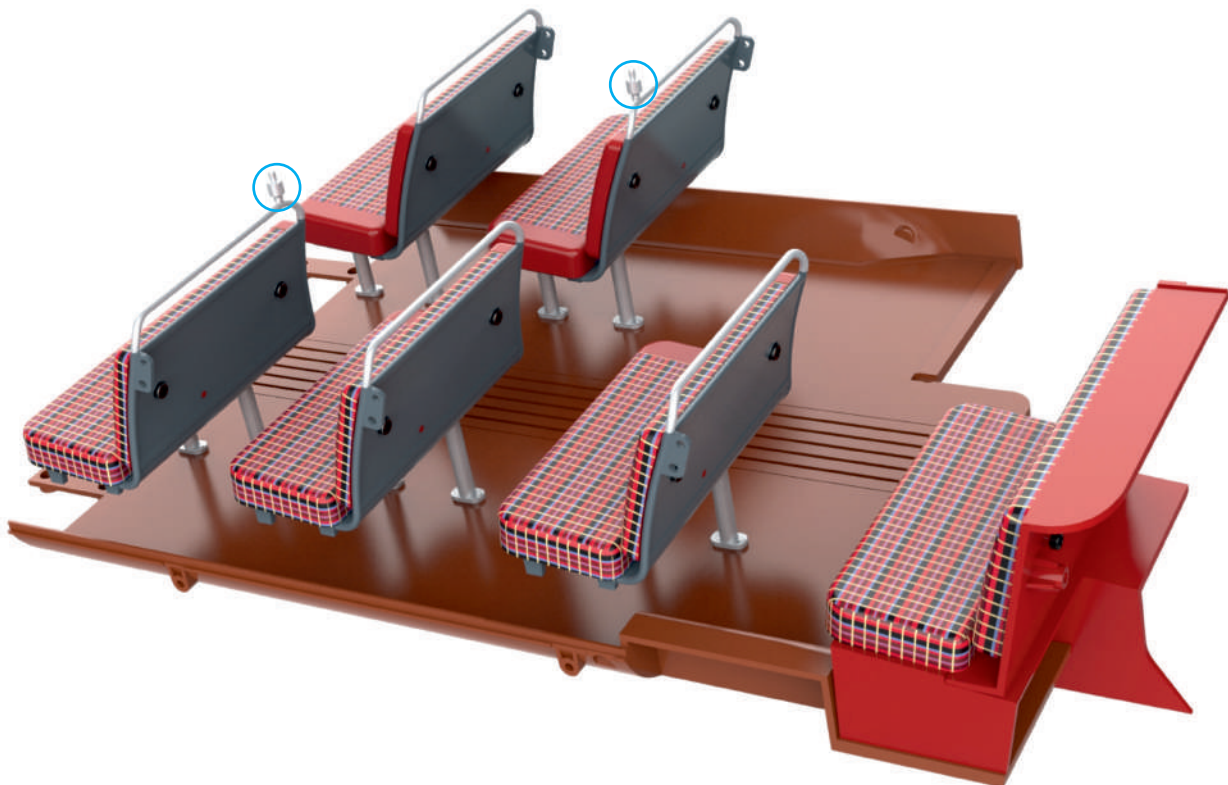
**5**

**5** Take the next right-hand seat, seat frame **62A**. Check the position where it fits at the front of the rear upper deck section **67A**. Fix in place with two **JP** screws, into the base of the seat support **62E**.

## Finished View



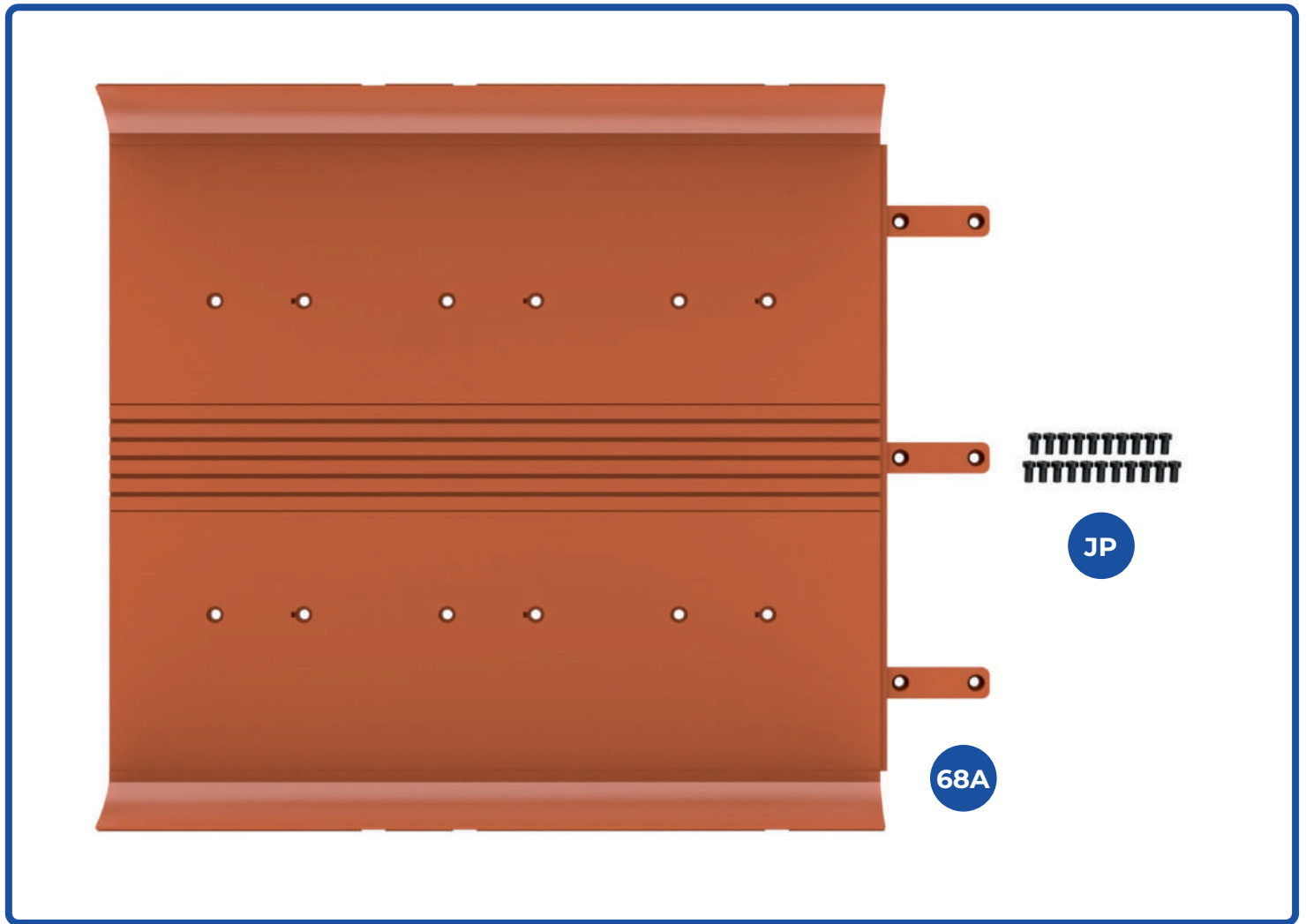
The rear seat, three left-hand seats and two right-hand seats are fitted to the rear section of the upper deck. Note which seats should have brackets for upright poles (circled in light blue).



## STAGE 68

# CENTRAL SEATING ON THE UPPER DECK

The central section of the upper deck is supplied. Six of the seats that were assembled earlier are fitted to the upper deck and the central and rear deck sections are joined together.

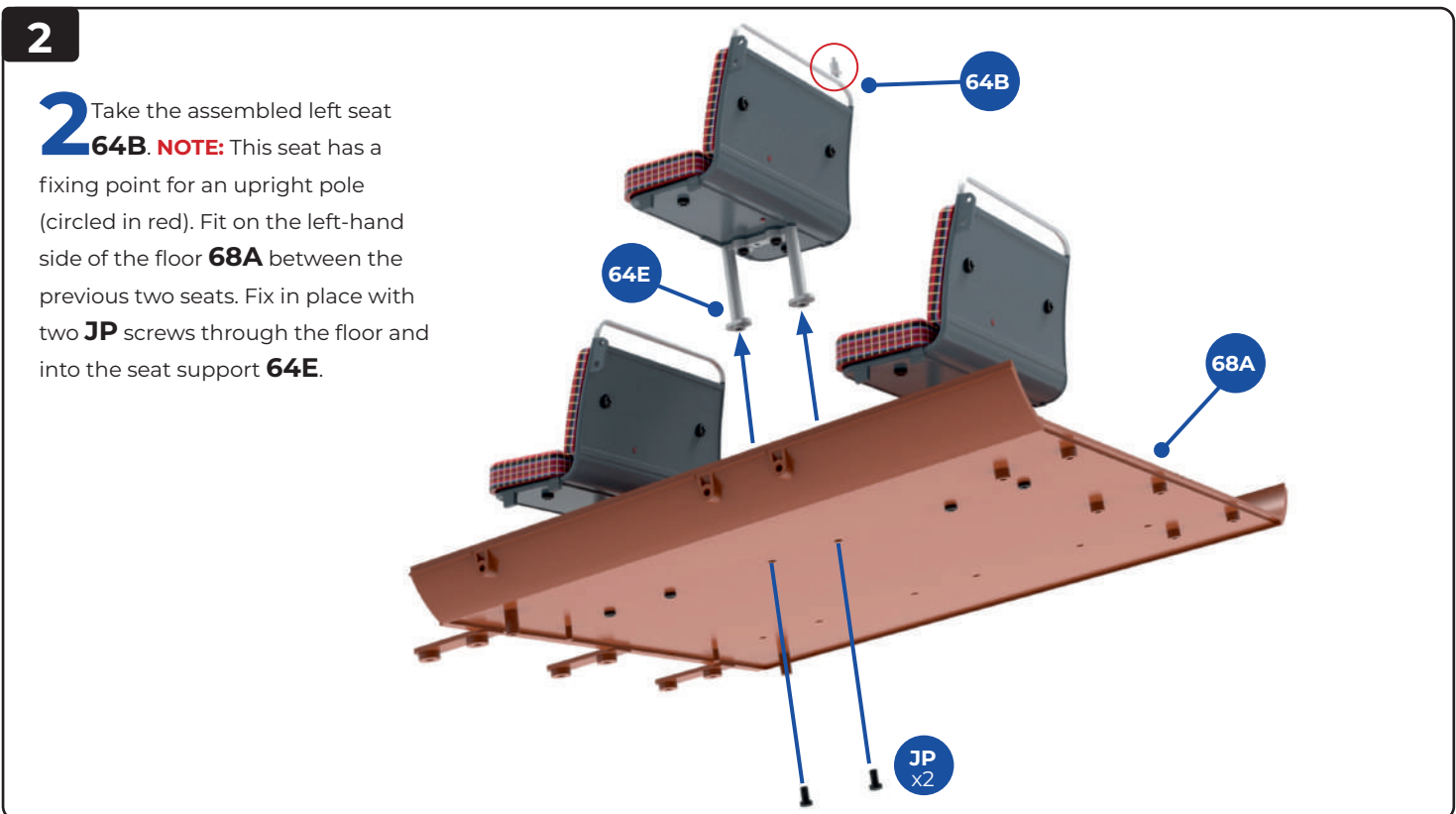
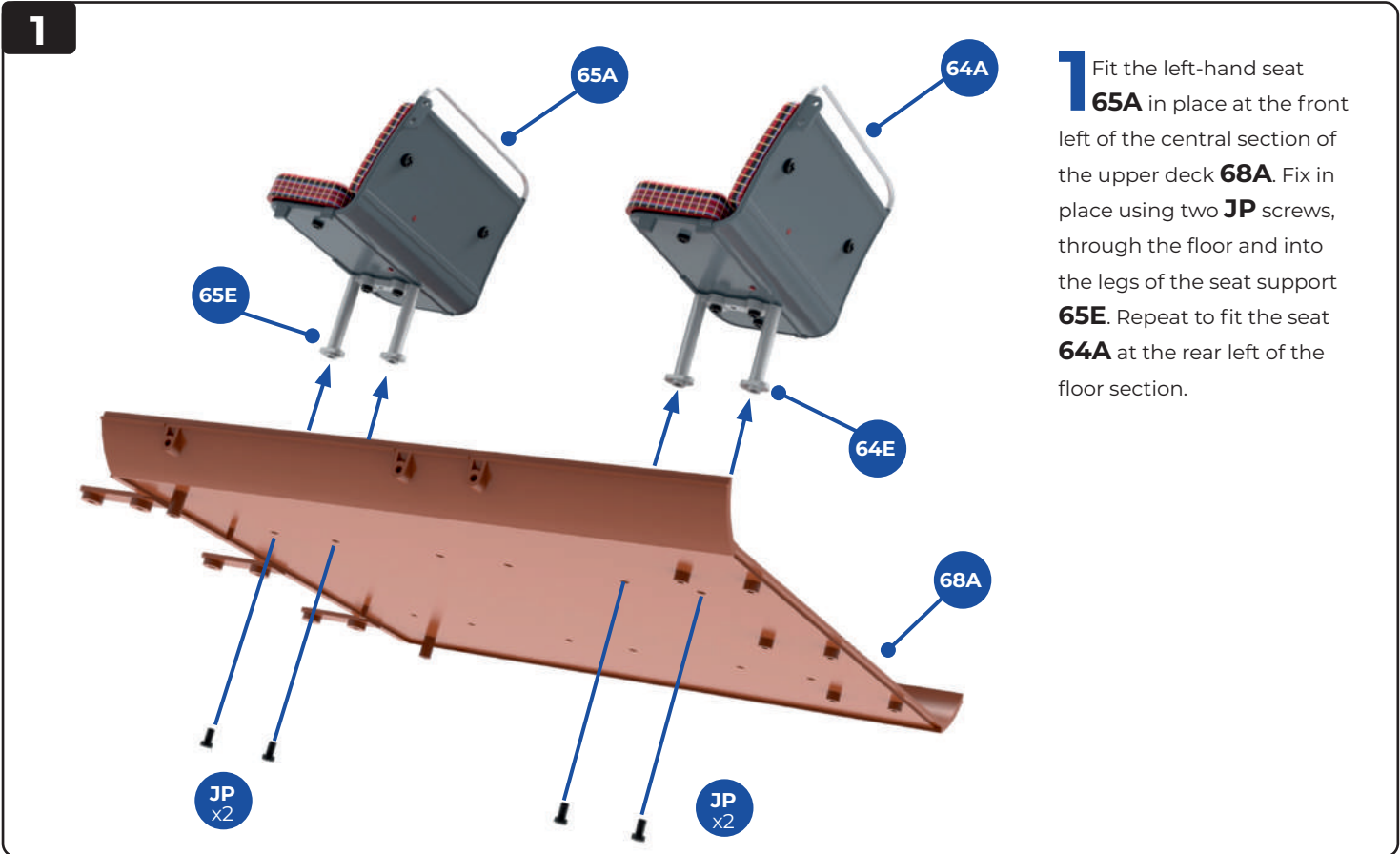


### KEY TO PARTS SUPPLIED

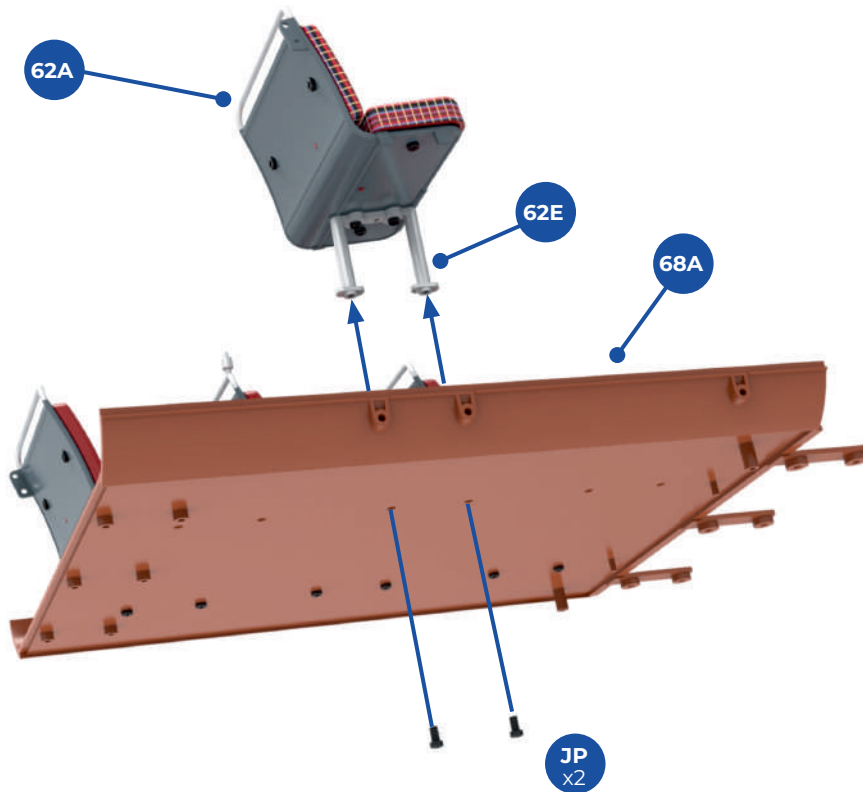
**68A** Central section of upper deck

**JP** 2.3 x 4mm (x21)



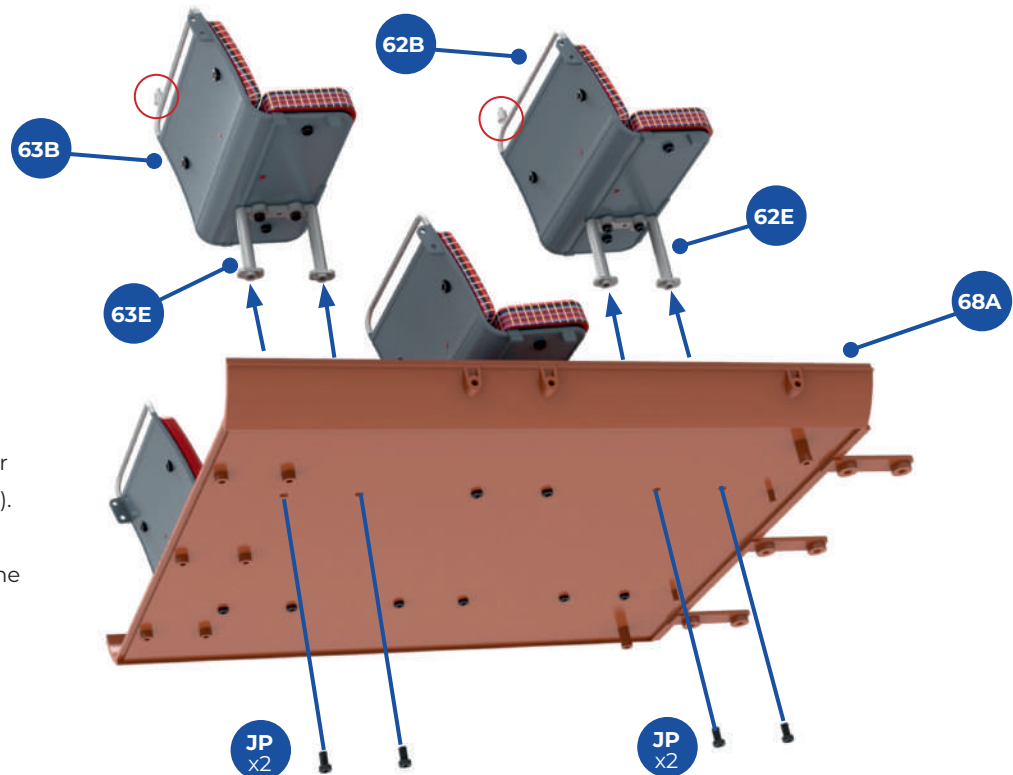


**3**



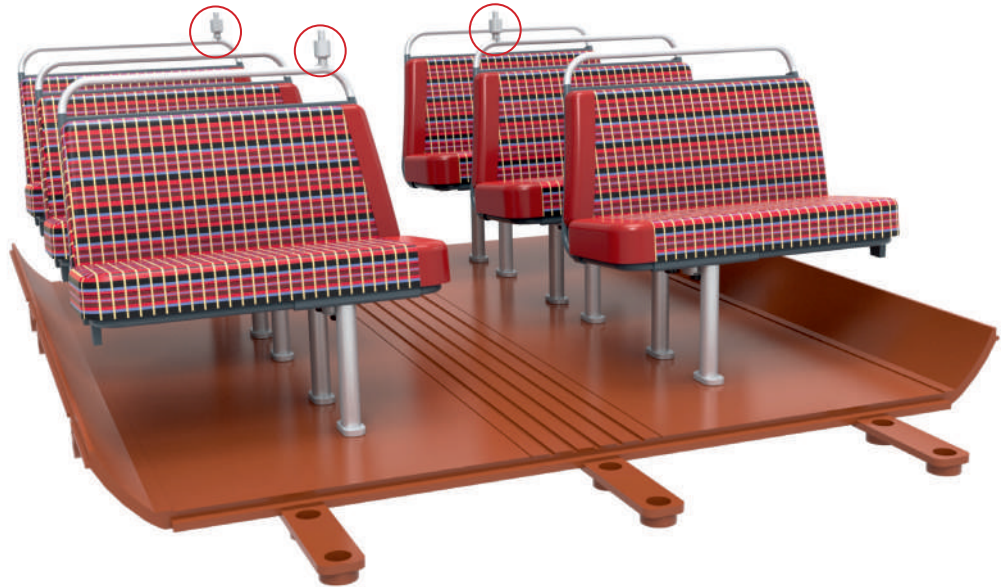
**3** Take the right-hand seat **62A**. This seat should be fitted to the two central holes on the right-hand side of the floor section **68A**. Fix in place with two **JP** screw through the floor and into the legs of the seat support **62E**.

**4**

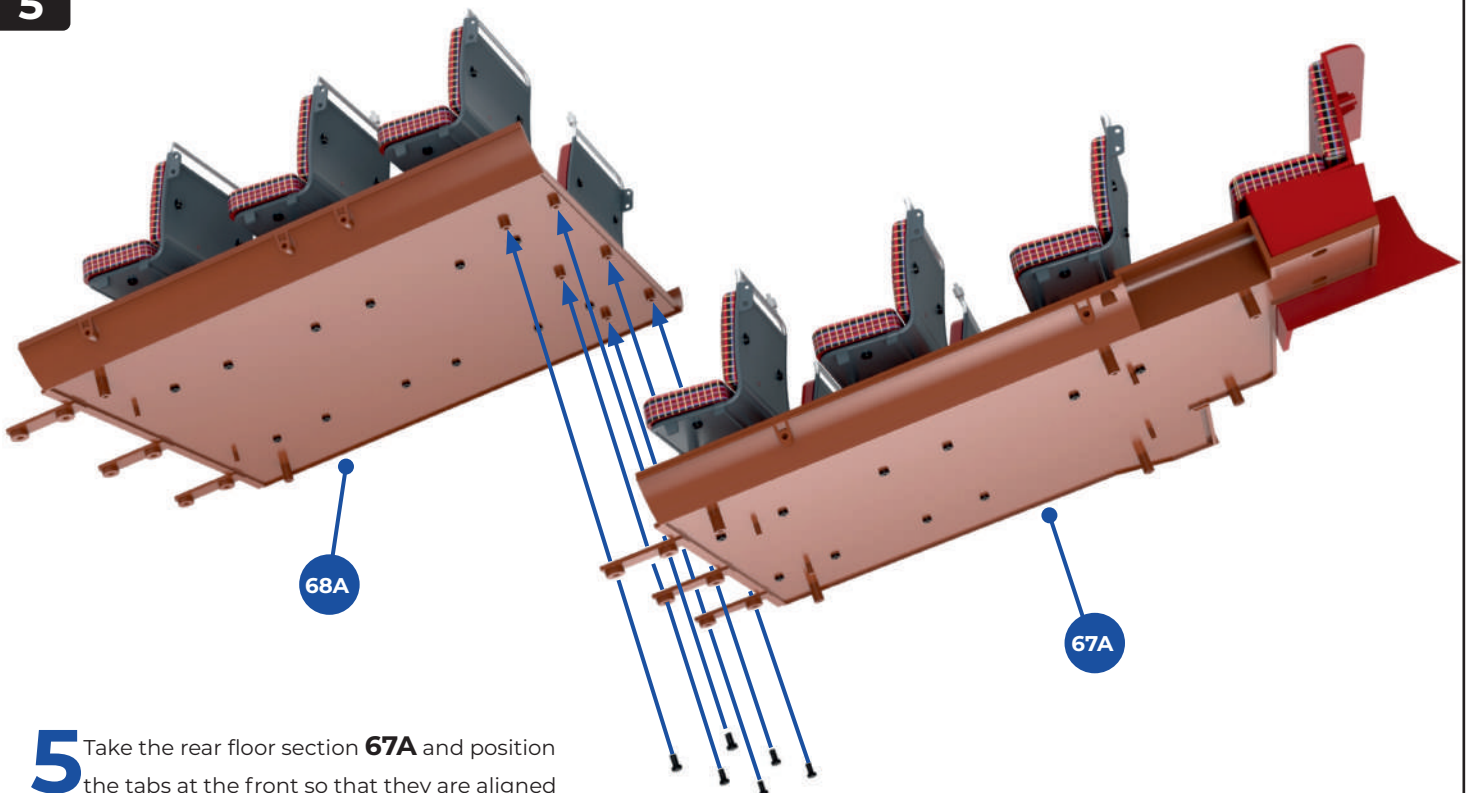


**4** The last two seats to be fitted in place are right-hand seats with fixing points for the upright poles (circled in red). Fit seat **63B** at the rear of the floor section and seat **62B** at the front, using two **JP** screws for each seat.

The six seats have been fitted to the central section of the upper deck. Before proceeding, double check that you have the seats with fixing points for the upright poles in the correct position. The fixing points have been circled in red.



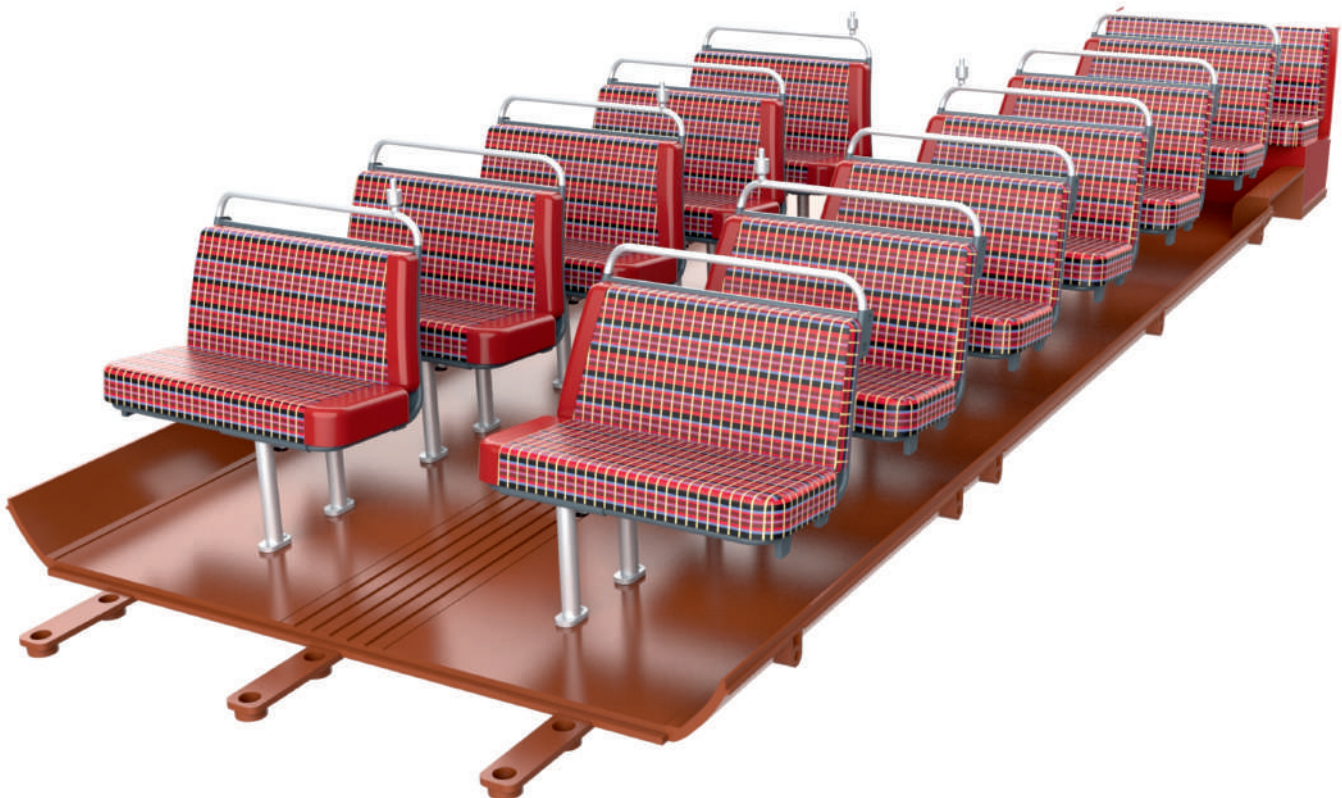
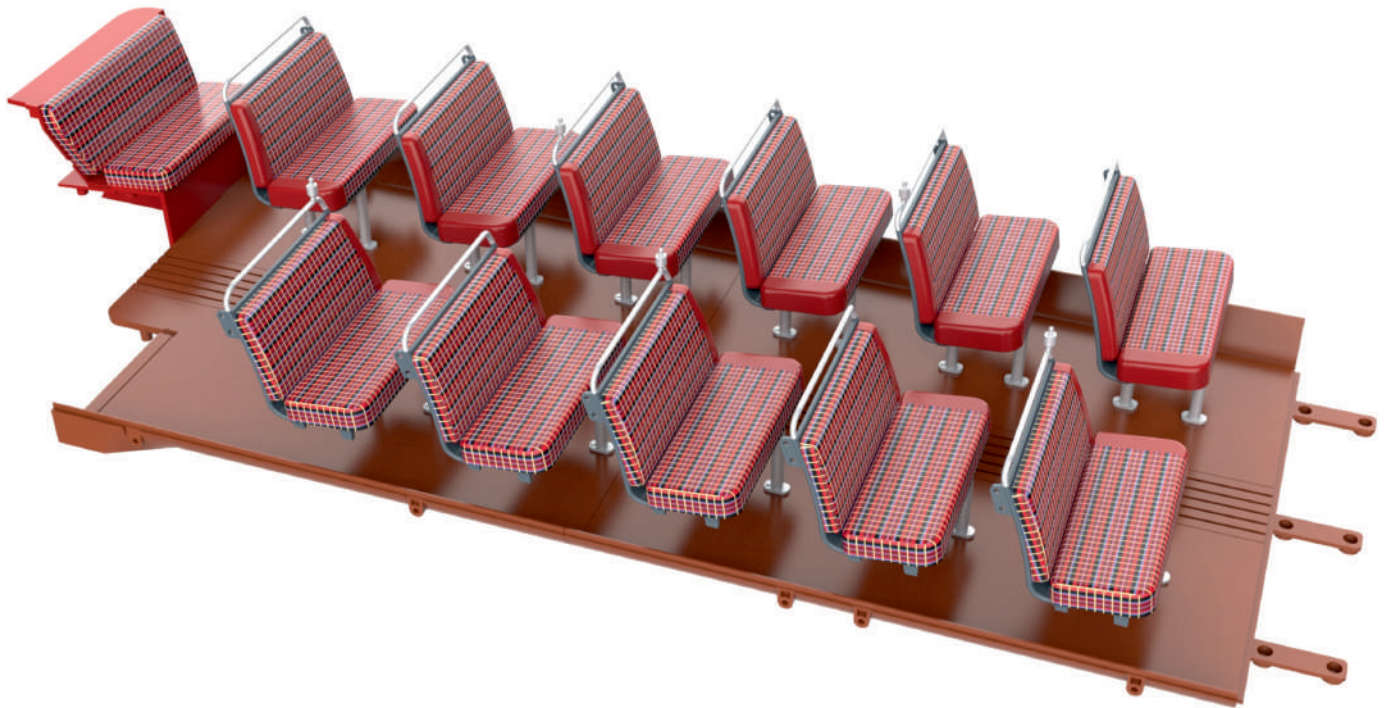
**5**



**5** Take the rear floor section **67A** and position the tabs at the front so that they are aligned with the raised screw holes at the rear of floor section **68A**. The raised screw holes on part **68A** fit into the recesses on the tabs on part **67A**. Fix each tab in place with two **JP** screws.



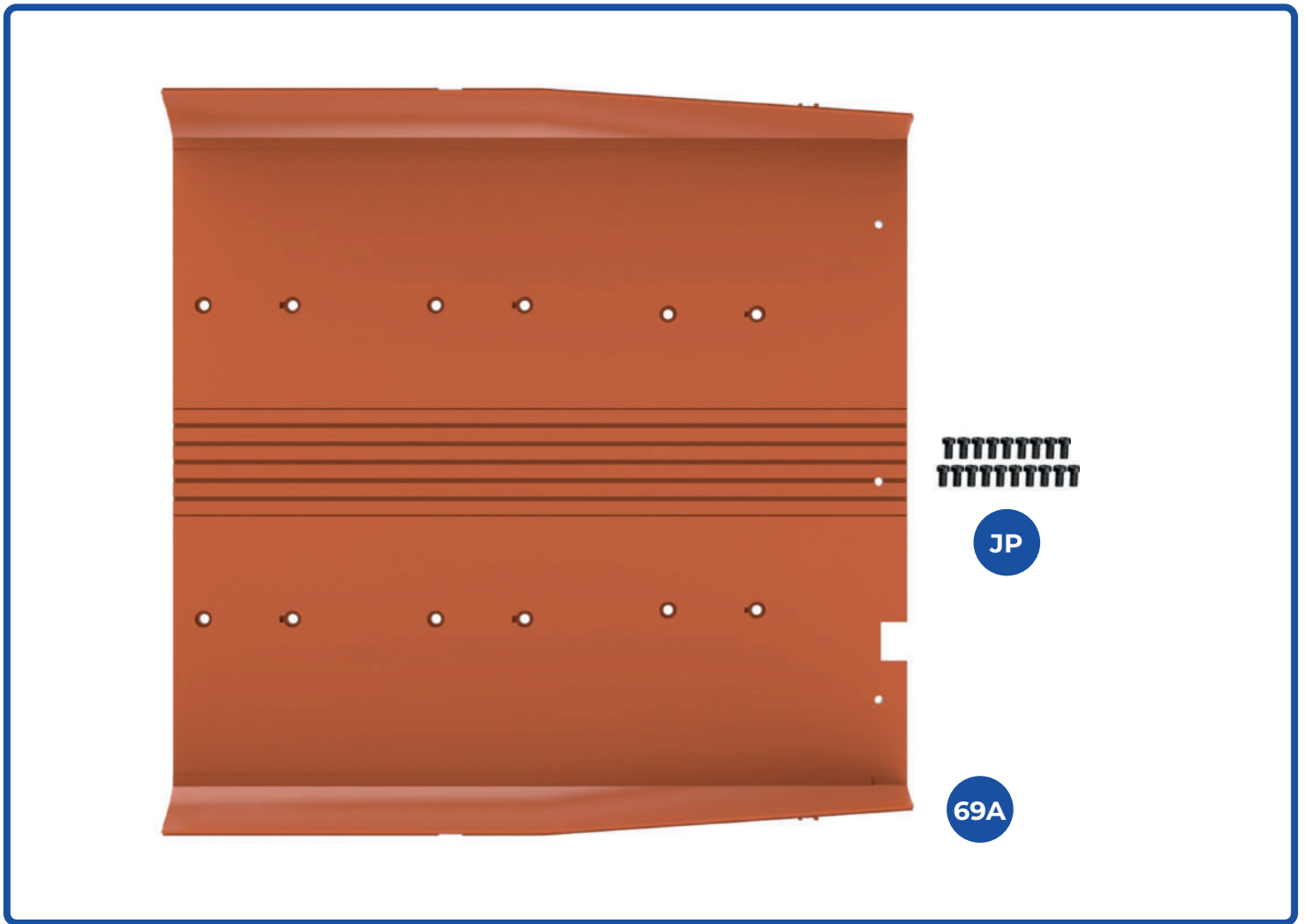
## Finished Views



## STAGE 69

# FRONT SEATING ON THE UPPER DECK

The front section of the upper deck is supplied. Six of the seats that were assembled earlier are fitted to the front section of the upper deck, which is then connected to the rest of the upper deck.



### KEY TO PARTS SUPPLIED

**69A** Front section of upper deck

**JP** 2.3 x 4mm (x19)

**1**

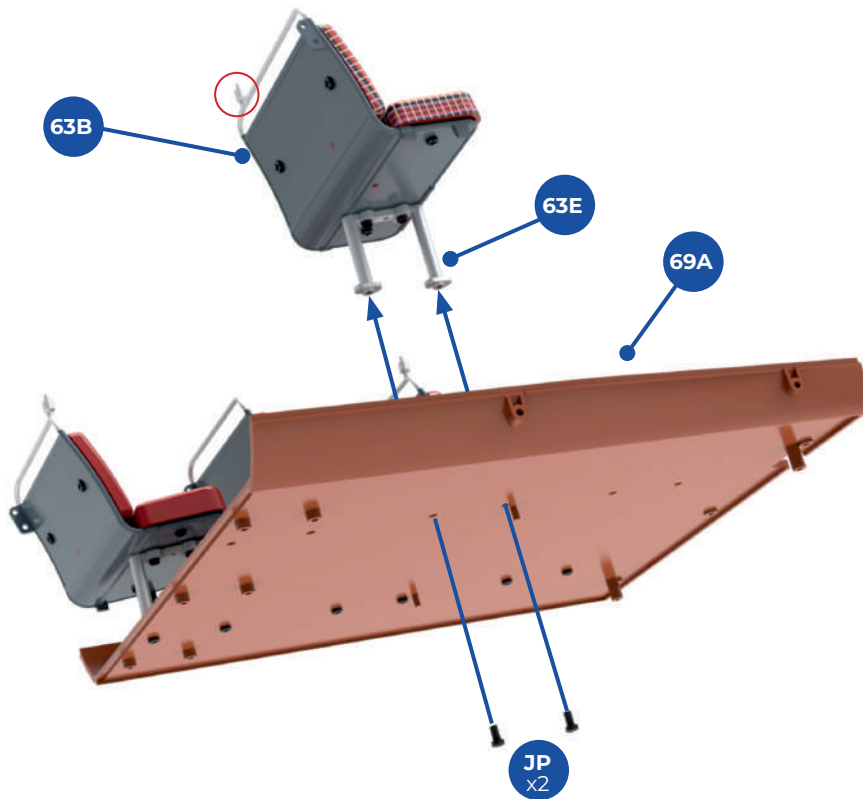
Fit a left-hand seat **65A** in place in the middle of the front section of the upper deck **69A**. Fix in place using two **JP** screws, through the floor and into the legs of the seat support **65E**.

**2**

Take two assembled left seats **65B**. **NOTE:** These seat have fixing points for upright poles (circled in red). Fit on the left-hand side of the floor **69A**: position one at the front of the floor section and the other at the back. Fix each seat in place with two **JP** screws through the floor and in to the seat support **65E**.

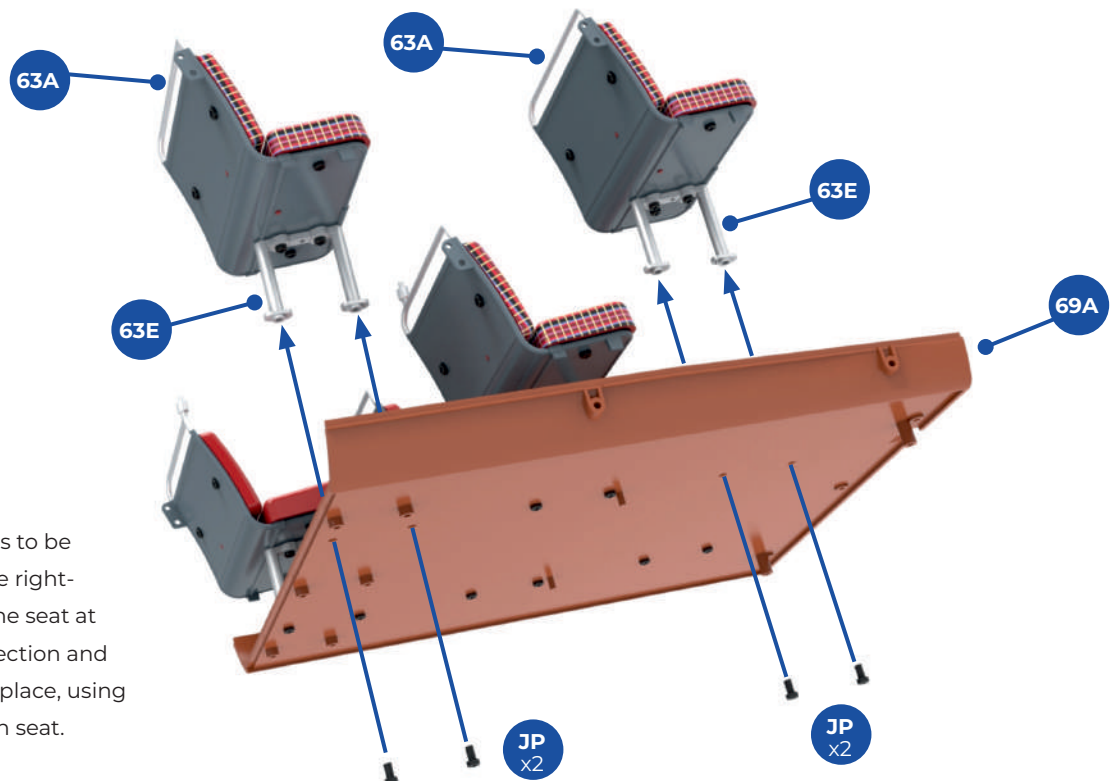


**3**



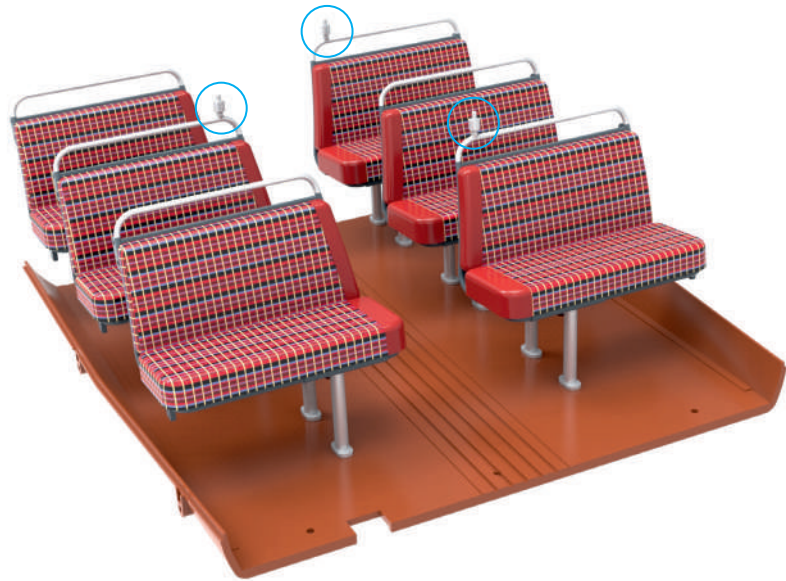
**3** Take a right-hand seat **63B**, which has a fixing point for an upright pole (circled in red). This seat should be fitted to the two central holes on the right-hand side of the floor section **69A**. Fix in place with two **JP** screws through the floor and into the legs of the seat support **63E**.

**4**

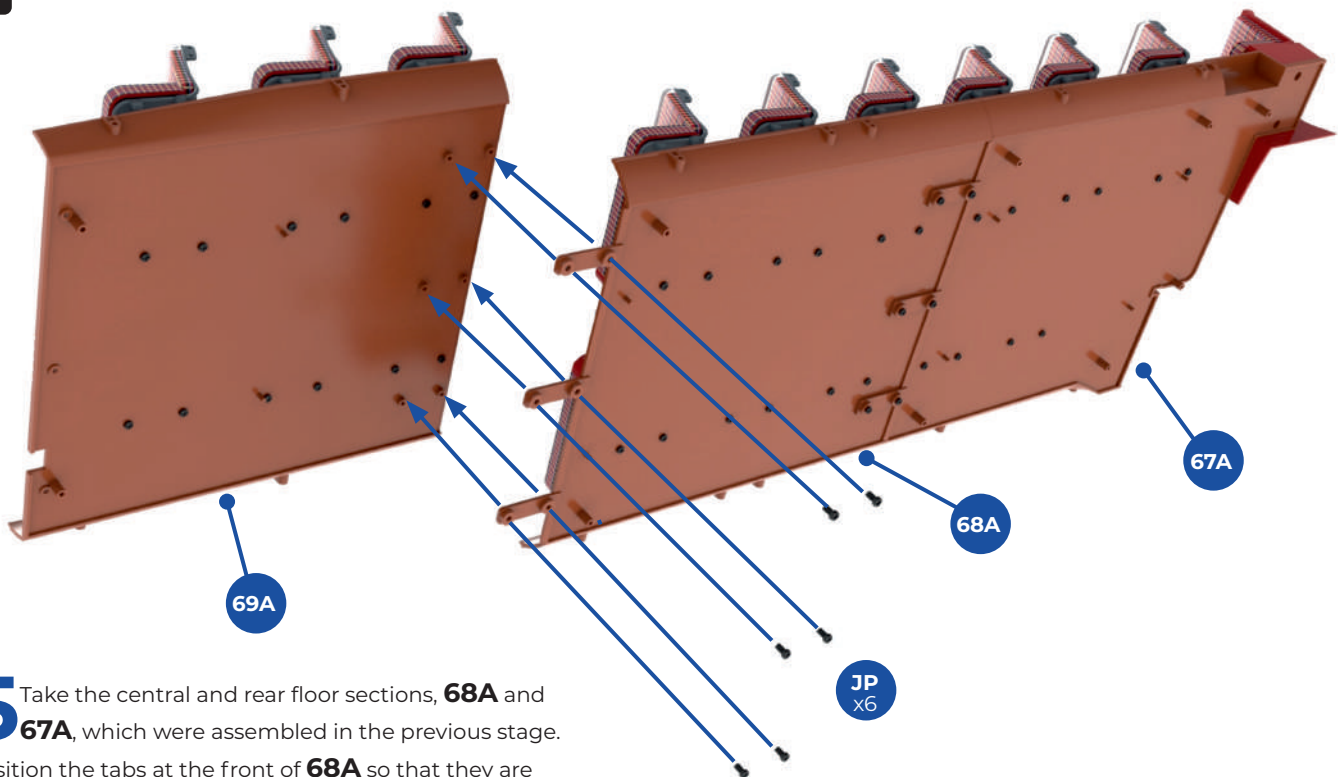


**4** The last two seats to be fitted in place are right-hand seats **63A**. Fit one seat at the front of the floor section and one at the back. Fix in place, using two **JP** screws for each seat.

Six seats have been fitted to the front section of the upper deck. Before proceeding, double check that you have the seats with fixing points for the upright poles in the correct position. The fixing points have been circled in light blue.

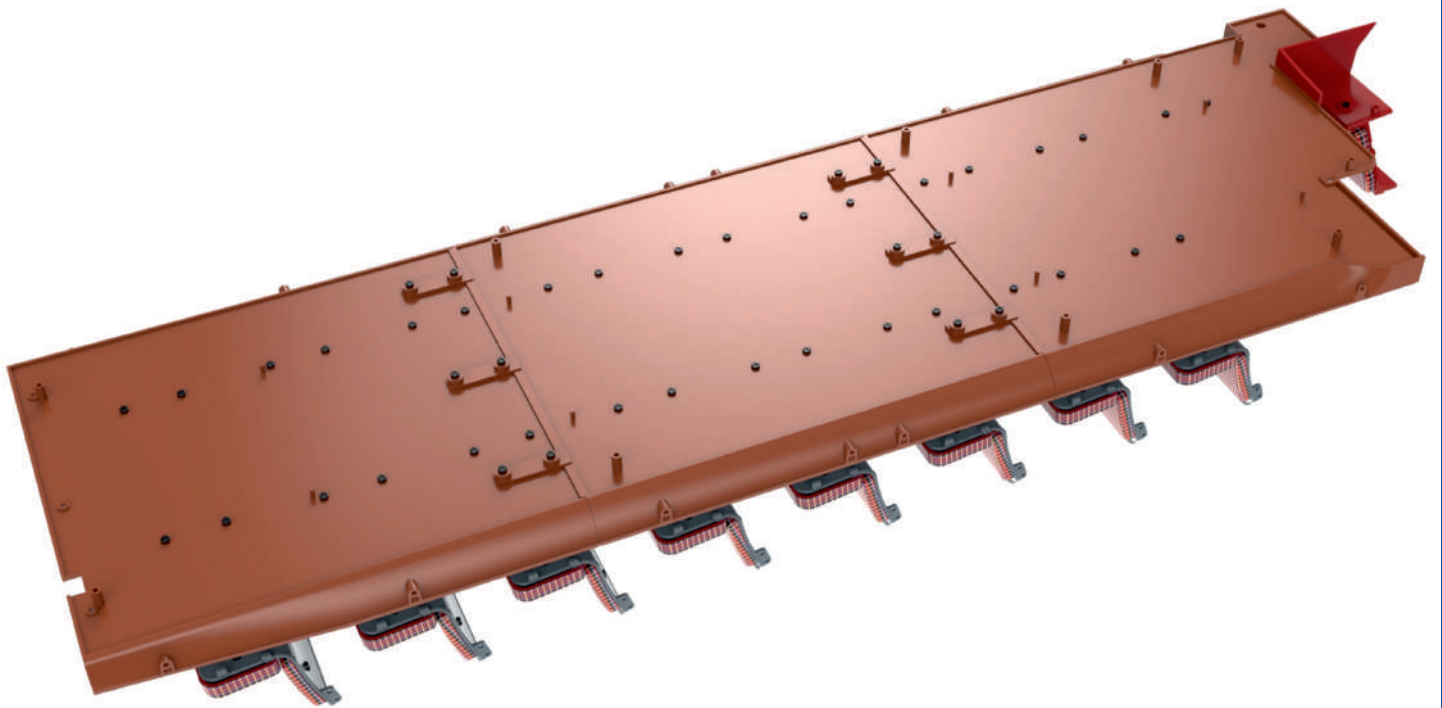
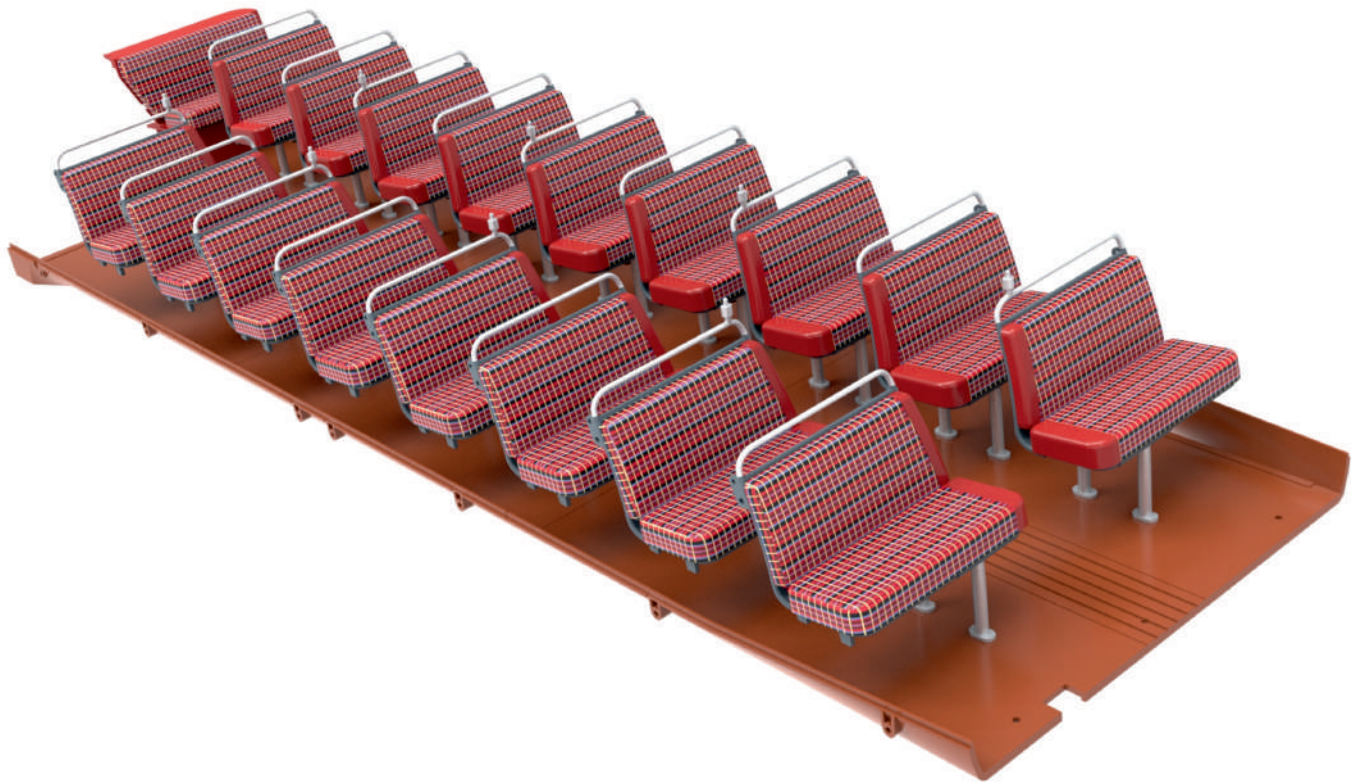


**5**



**5** Take the central and rear floor sections, **68A** and **67A**, which were assembled in the previous stage. Position the tabs at the front of **68A** so that they are aligned with the raised screw holes at the rear of floor section **69A**. The raised screw holes on part **69A** fit into the recesses on the tabs on part **68A**. Fix each tab in place with two **JP** screws.

## Finished Views

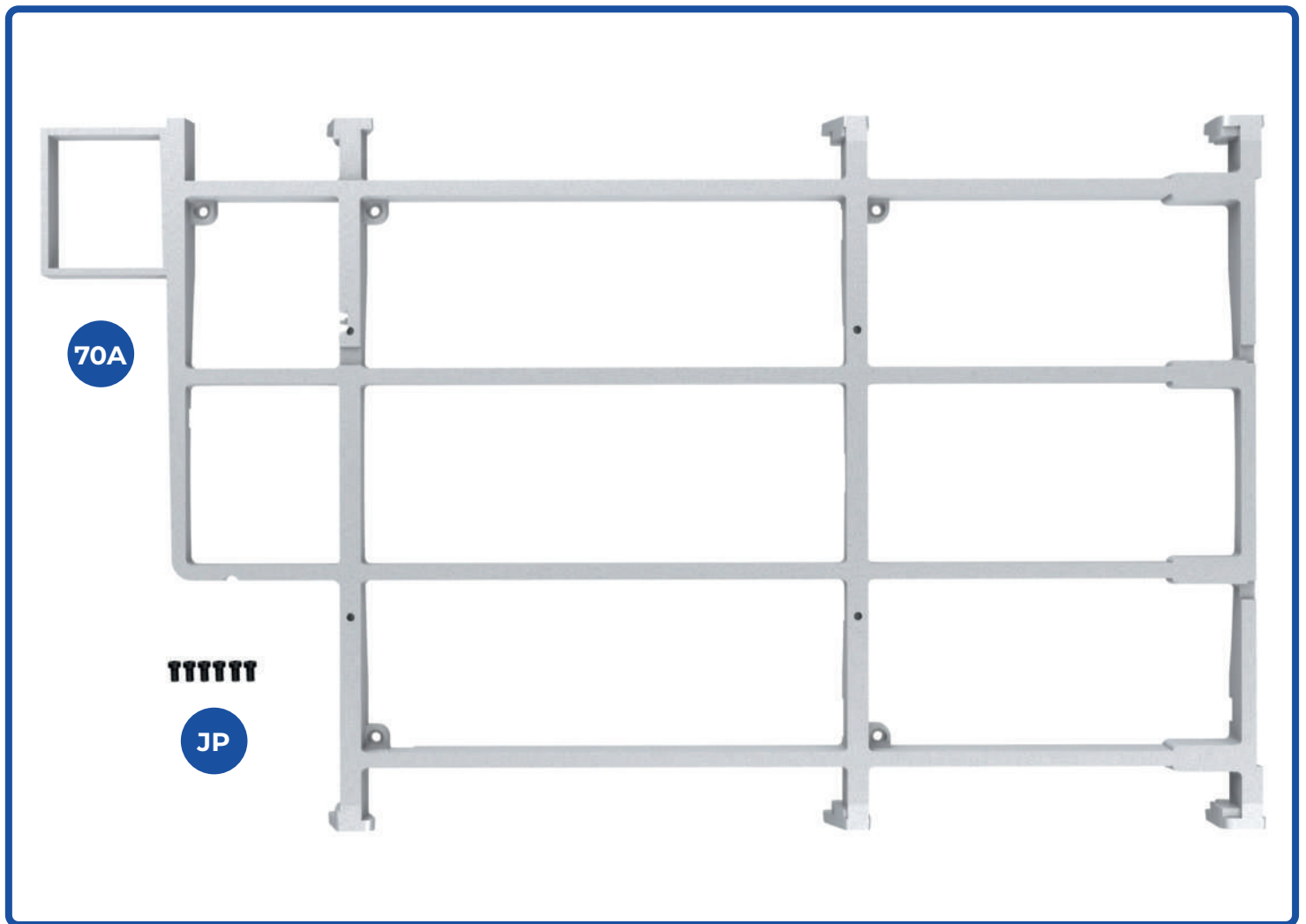




## STAGE 70

# LOWER DECK CEILING FRAMEWORK

In this stage, we fit a framework to the underside of the upper deck, so that the ceiling of the lower deck can be fixed to it.



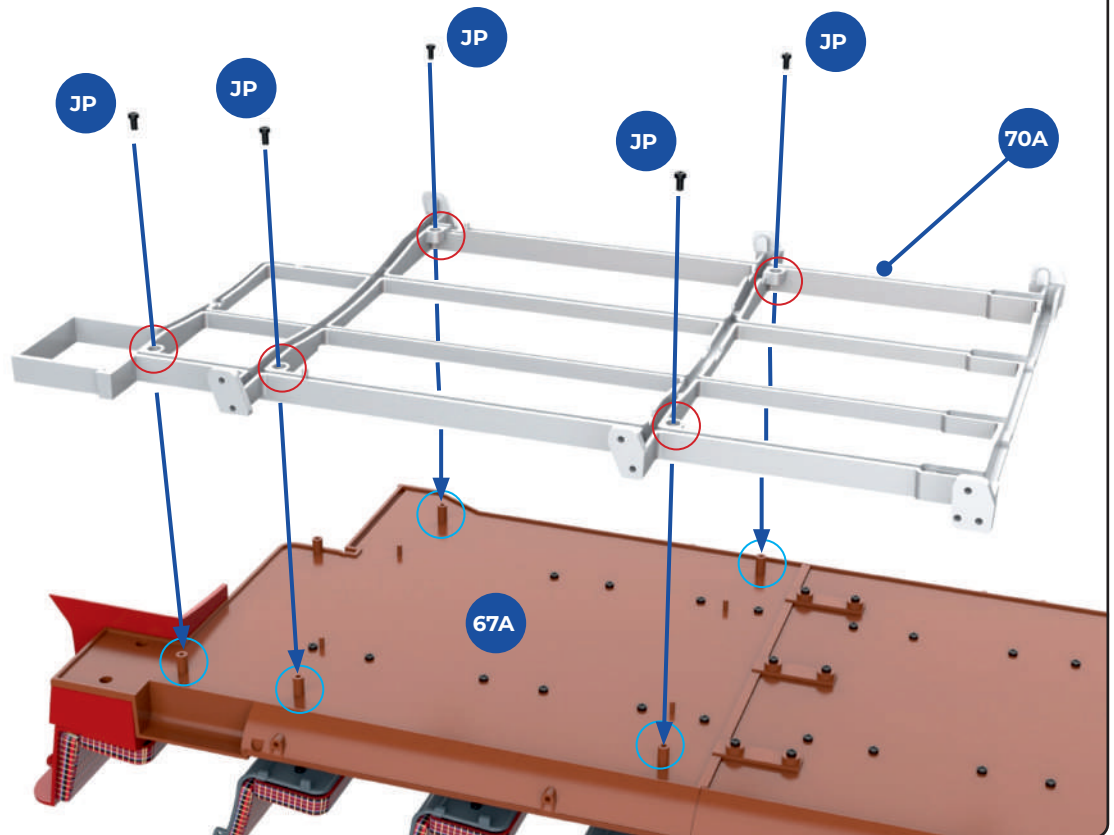
### KEY TO PARTS SUPPLIED

**70A** Ceiling framework

**JP** 2.3 x 4mm (x6)

**1**

Carefully turn the assembled upper deck floor upside down and make sure it is well supported so that the seats do not get damaged. Position the lower deck ceiling framework **70A** on the underside of the rear section of the floor **67A**. The five corner sockets on the framework (circled in red) should align with five raised screw sockets on the underside of the floor (circled in blue). Fix in place with five **JP** screws.



## Finished View

