LONDON TRANSPORT

ROUTEMASTER BUS

RM 857



Pack 11

BUILD INSTRUCTIONS

STAGE 101: FRONT GRILLE AND RAIN SHIELDS

STAGE 102: ARRANGING THE WIRING AND FITTING THE REAR FRAMEWORK

STAGE 103: FITTING OUTER PANELS AND TRIMS

STAGE 104: FITTING FRONT OFFSIDE CORNER PANEL AND TRIMS

STAGE 105: FITTING THE REAR UPPER DECK
PANEL AND DESTINATION BLIND

STAGE 106: FITTING THE EMERGENCY EXIT IN THE REAR UPPER DECK WINDOW

STAGE 107: REAR WALL PANEL AND DETAILS

STAGE 108: LAMPS AND TRIMS FOR THE REAR WALL PANEL

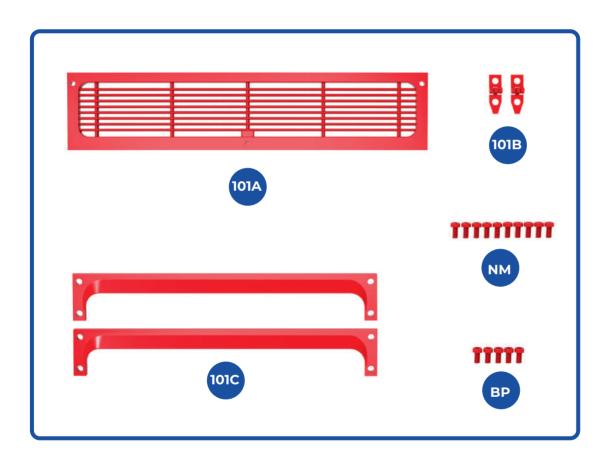
STAGE 109: SIDE PANEL AND TRIM STRIPS FOR THE NEARSIDE

STAGE 110: SIDE PANEL AND TRIM STRIPS FOR THE NEARSIDE



FRONT GRILLE AND RAIN SHIELDS

The grille for the ventilation system is fitted beneath the front destination blind and rain shields are added to the front upper deck windows.



KEY TO PARTS

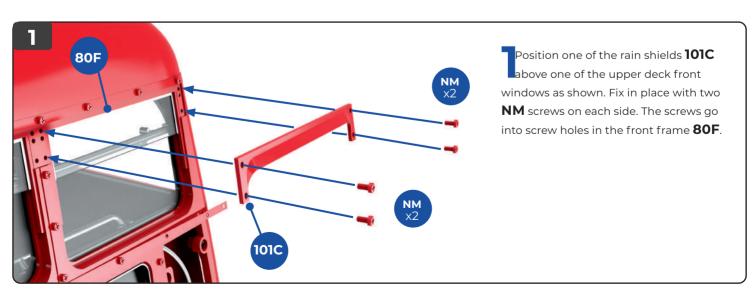
 101A
 Grille hatch

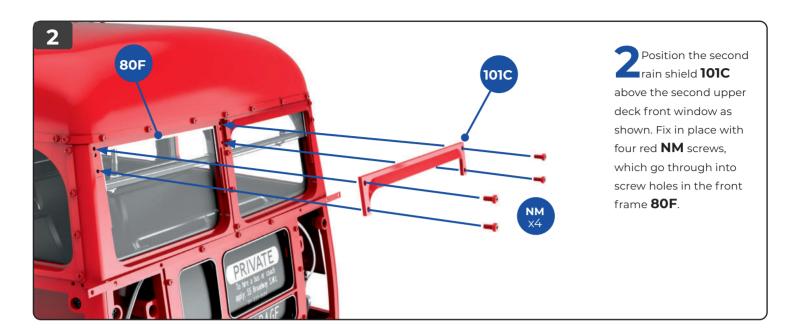
 101B
 Hinges (x2)

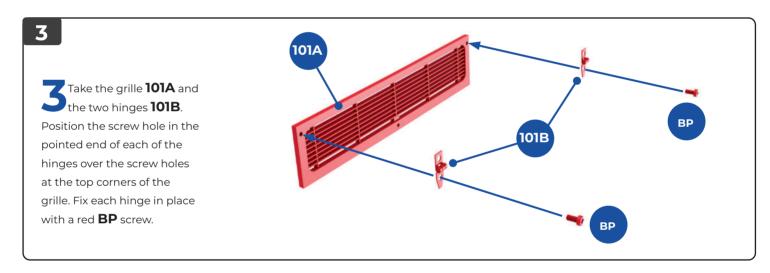
 101C
 Rain shield (x2)

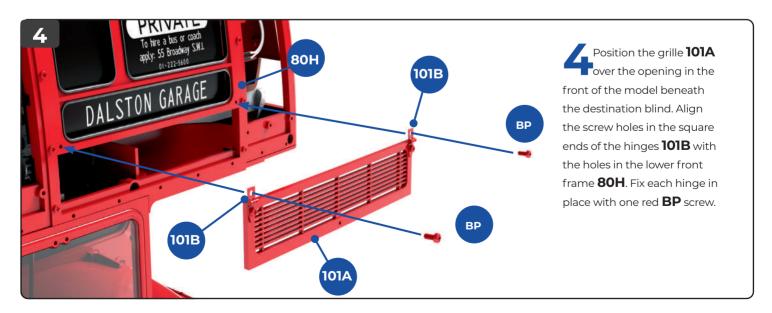
 NM
 1.5 x 3mm (x10, red)

 BP
 1.5 x 3mm (x5, red)













ARRANGING THE WIRING AND FITTING THE REAR FRAMEWORK

The wiring at the rear of the model is arranged so that it is carefully secured and will not foul any of the final trims and panels. We also fit the rear framework.



KEY TO PARTS SUPPLIED

102A Rear roof panel

102B Side strip (marked A191)

102C Side strip (marked A191M)

102D Rear strip (marked A198)

102E (Not shown) Extender cable N:

this replaces the extender cable ${\bf 89B}$,

which is no longer needed

NM 1.5 x 3mm (x46, red)

You will need **FM**, **WM** and **JP** screws, and tape **96I**, supplied with stage 96.

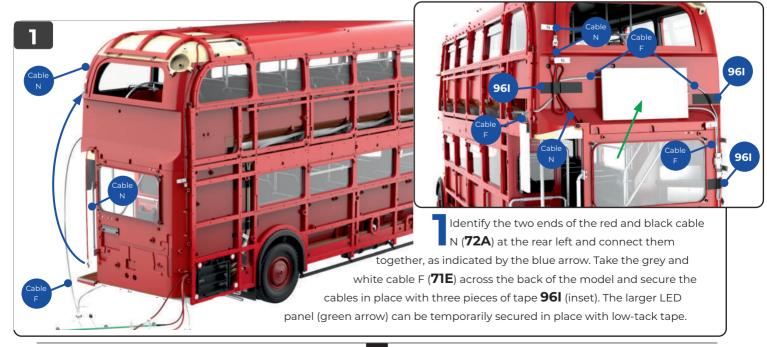
In the next
few steps, the
cables are taped in
place. You may find they
are in slightly different
positions, depending on
how they have been
fitted.

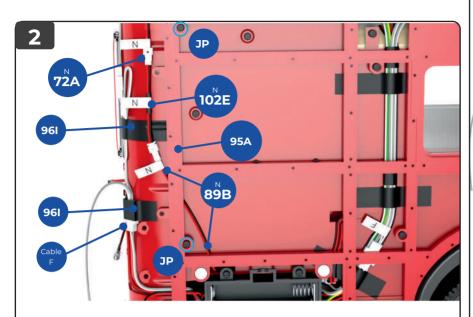
of the parts

supplied with this stage will be

used in stage

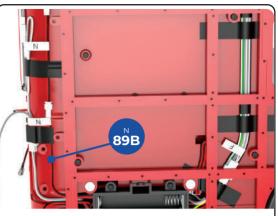
103.



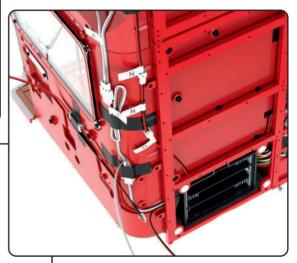


At the rear right of the model, temporarily undo two **JP** screws (circled in light blue). Ease red and black cable N (**56C**) behind the framework **95A** so that it runs straight from the battery box, as shown. The tape holding the cable behind the framework may need to be lifted. Connect red and black extender cable N **89B** between cable N **72A** and cable N **56C**. Replace the two **JP** screws. Use two more pieces of tape **96I** to hold the grey and white cable F (**71E**) in place. The inset (above right) shows an alternative view.

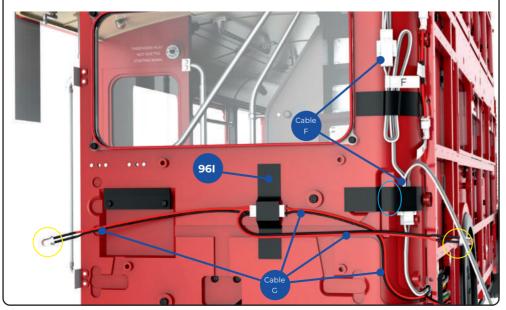
3



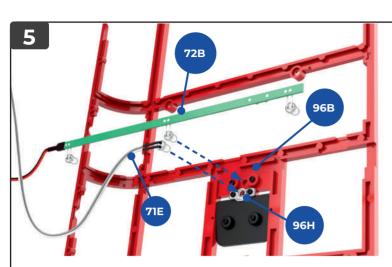
NOTE: We have included an updated cable with this stage to save undoing the **JP** screws and re-routing the cable N as described in step 2. The revised extender cable **102E** has been supplied to replace extender cable **89B**. This should be connected between cables N **56C** and N **72A** and taped in place vertically alongside the frame.



Bring the red and black cable G (72C) across the rear of the model. Fix the cable joint in place with a piece of tape 96I as shown, so that the two LED indicators (circled in yellow) run to either side of the bus. Note from this angle that where cable F (71E) is taped in place there is a recess to accommodate the indicator housing (circled in light blue).

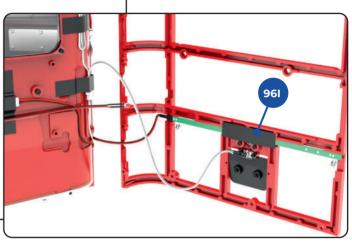


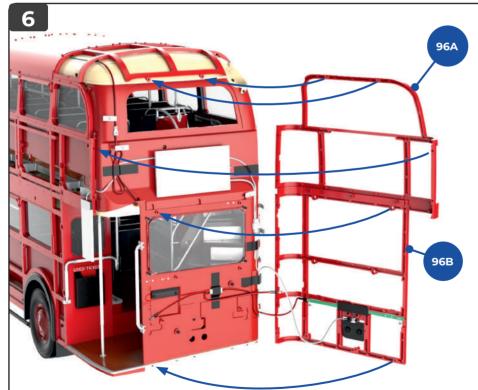
Take cable O 72B and turn the LEDs so that they are at right angles to the green strip, as indicated by the arrows.



Position the rear frame **96B** near the back of the model. Fit the LED at the centre of the green strip O **72B** into the socket in the rear frame **96B**. Bring the LED on the end of cable F **71E** to the frame and fit it into the socket in the bracket **96H**. The inset (top) shows the lamps in place. Fix the green strip **72B** in place with a piece of tape **96I** (inset, right).







After carefully checking the cables, the next step is to fit the rear frame **96A/96B** to the back of the model assembly. Ensure that the screw holes are aligned, as indicated by the arrows, and take care to avoid trapping any of the cables behind the struts of the frame. The inset (right) shows the rear frame in place. Note that the right indicater cable **72C** fits under the frame (circled in light blue).





The rear framework is fixed in place with **FM** and **WM** screws. Starting at the lower edge, fix the frame **96B** to the rear platform **56A** with three **FM** screws. Note that there is still a recess for the indicator housing (circled in light blue).



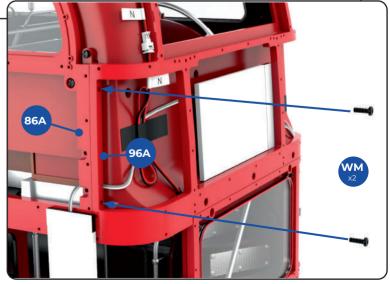
At the rear right corner, fix the side of the rear frame

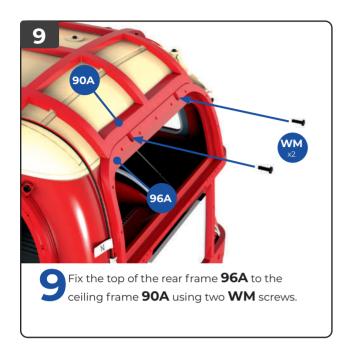
96B to the right wall frame 95A using five WM screws.

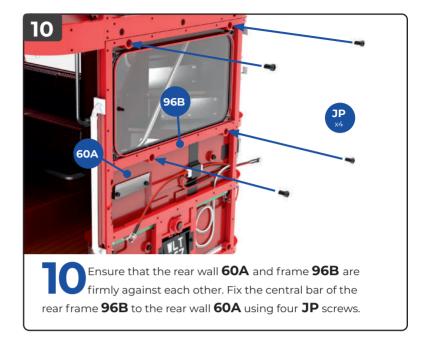
Continuing upwards, use two **WM** screws to fix the side of the rear frame **96A** to the right wall frame **88A** (inset below left).

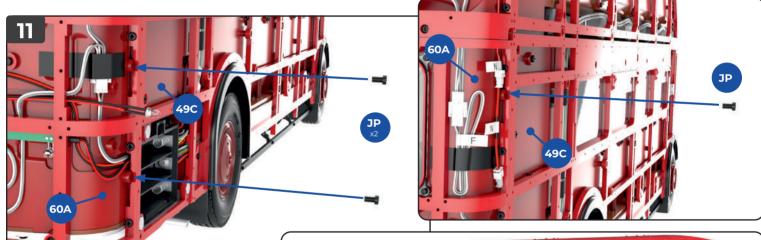
At the rear left, fix the left side of the rear frame **96A** to the left wall frame **86A** with two **WM** screws (inset below).











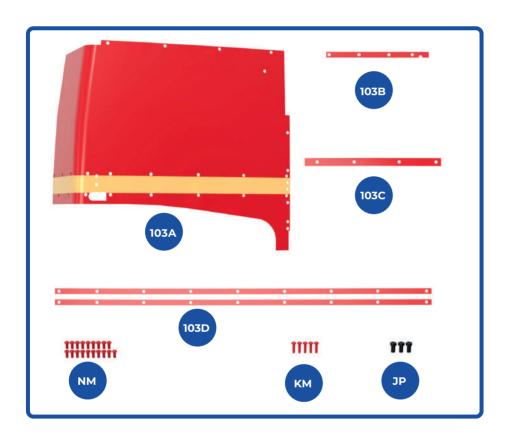
At the rear right lower corner, fix the right side wall **49C** to the rear wall **60A** using two **JP** screws. Use another **JP** screw to fix the right side wall **49C** to the rear wall **60A** near the extension cable **102E** (inset, above right). The **JP** screws used in this step do not pass through the metal frame.

The illustration to the right shows the work completed so far.



FITTING OUTER PANELS AND TRIMS

The roof panel supplied with the previous stage is fitted, together with trims at the joins. We also fit a corner panel and side trims.



KEY TO PARTS SUPPLIED

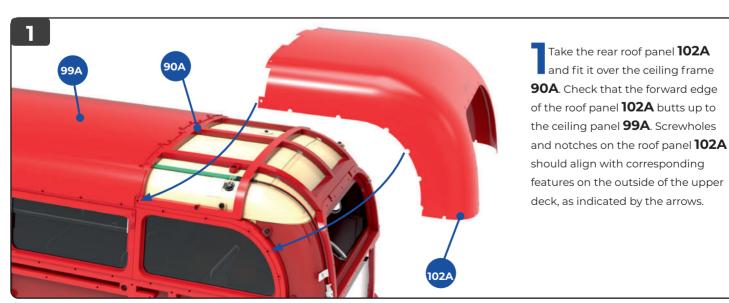
103A Front left corner panel

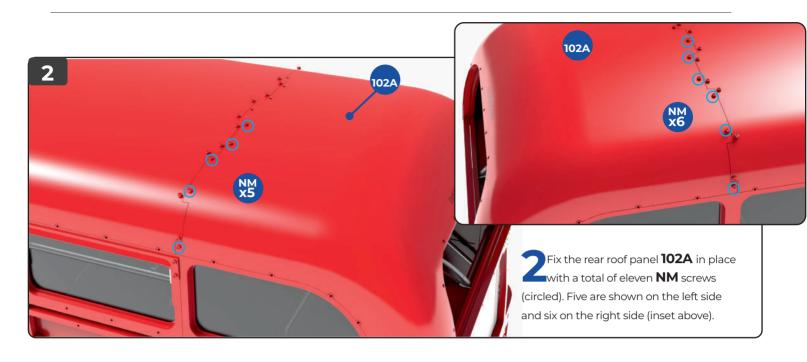
103B Front strip103C Front strip

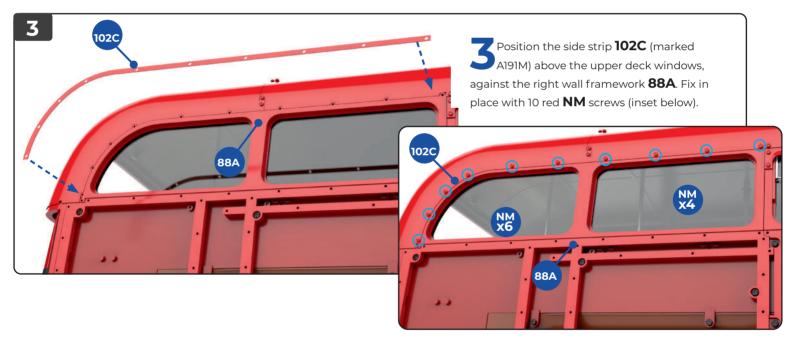
103D Side strips (x2)

NM 1.5 x 3mm (x19, red)KM 1.5 x 5mm (x5, red)JP 2.3 x 4mm (x3)

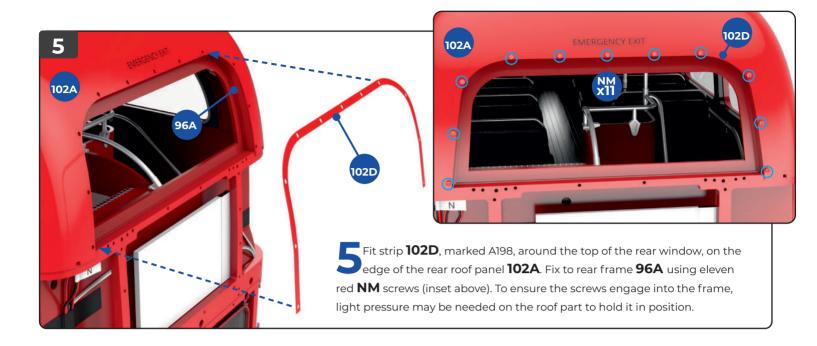
You will also need the parts and **NM** screws supplied with stage 102.





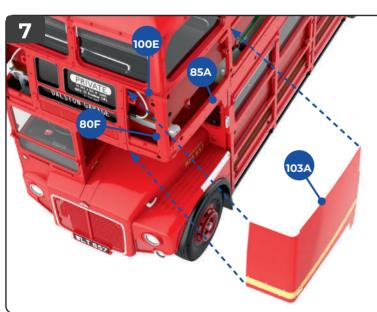








At the front of the bus, remove four red **KM** screws holding the front blind frame **80H** in place (down one side of the destination blind, as shown).



Fit the front left corner panel **103A** against the left wall framework **85A** and the front frame **80F**. Take the front strip **103B** and position it above the cream band. Note that there is a notch at the outer end (circled in green, above). Fix in place with three **NM** screws (above). Do not bend the strip at this point. The upper edge of the panel **103A** goes under the free end of strip **100E**. Study the lower inset and use three **NM** screws to fix strip **100E** to the front left corner panel **103A**, wrapping the end of the strip around the corner of the model (below).





Position strip **103C** down the side of the destination blind, just overlapping the edge of the front corner panel **103A**. The strip is not symmetical, so ensure that you have it the right way round. Fix the strip to the front blind frame **80H** with four red **KM** screws (circled).



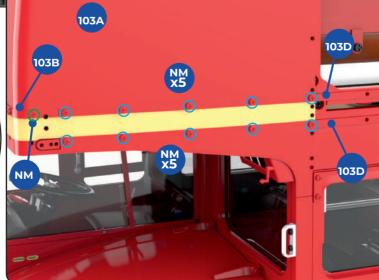
The two side strips **103D** are fitted next. Fix them one at a time. Note that there is a wider gap between the screwholes towards the rear of the model (green arrow).

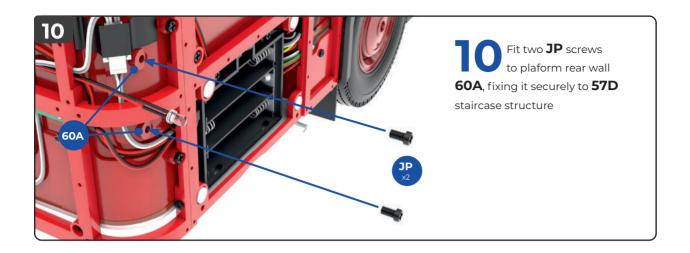
Position the first strip **103D** along the upper edge of the cream band. Use five red **NM** screws to fix the strip in place (circled in blue, below). As indicated by the arrow (left), bend the front strip **103B** over the corner panel **103A** so that it butts up against strip **103D**. Fix in place with one **NM** screw (circled in green, inset).

103D along the lower edge of the cream band and fix in place with five red **NM** screws.

The two side
strips 103D should only
be fixed at the front at this
stage. Further panels need to
be fitted along the side of the
model before the strips can be
fixed completely.

To prevent damage, you may find it helpful to use some low tack tape to hold the strips in place.

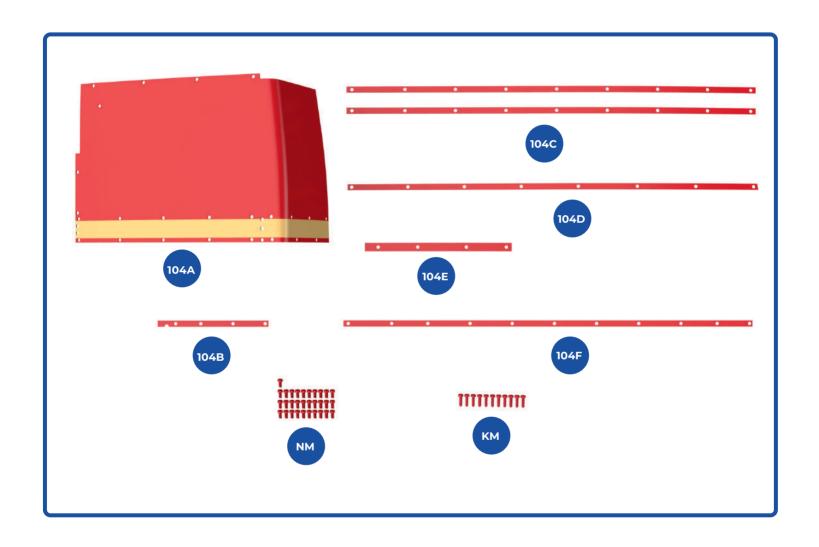






FITTING FRONT OFFSIDE CORNER PANEL AND TRIMS

The offside front corner panel is supplied and fitted. Trim strips are fitted around the front and offside of the model.



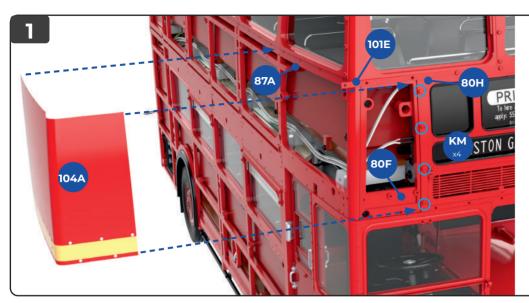
KEY TO PARTS SUPPLIED

 104A
 Front right corner panel
 104E
 Front strip B114M

 104B
 Front strip A187M
 104F
 Front strip A183

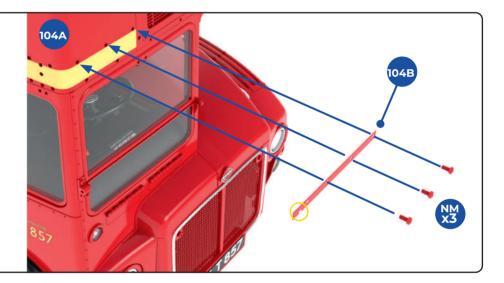
 104C
 Side strip A182M (x2)
 NM
 1.5 x 3mm (x31, red)

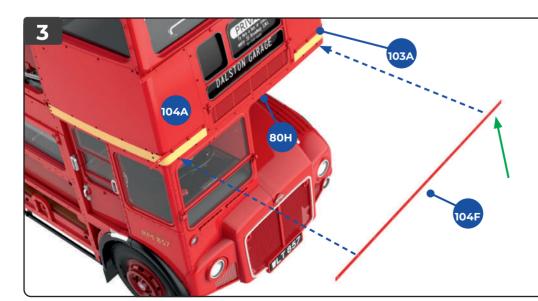
 104D
 Side strip A188M
 KM
 1.5 x 5mm (x11, red)



Remove four red KM screws from the front lower frame 80H down the side of the destination blind (circled in light blue). Put the screws on one side to re-use in step 6.
Fit the front right corner panel 104A to the right wall framework 87A and the front frame 80F (below strip 101E).

2 Fit the front strip **104B** (marked A187M) along the top of the cream strip on part **104A**. Note that there is a notch on the outer end of part **104B** (circled in yellow). Fix in place with 3 red **NM** screws.

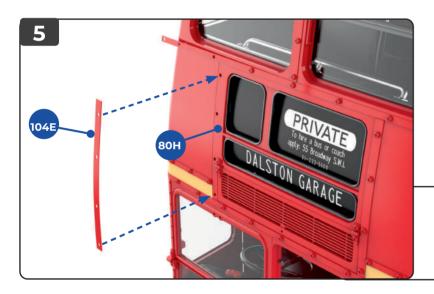




Fit the front strip 104F (marked A183) across the front of the model so that screw holes are aligned with holes in the front corner panels 103A and 104A and with holes in the lower front frame 80H. Note that the part is not symmetrical: there is a smaller gap between the holes on the nearside end of the strip (green arrow).



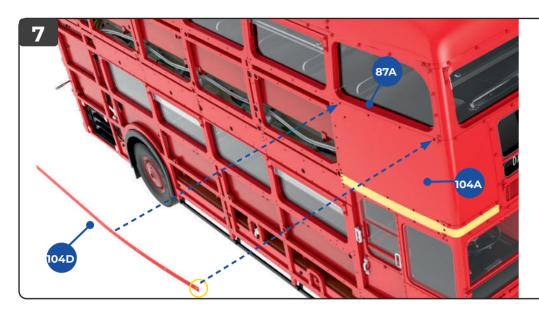
Fix the strip **104F** in place using red screws as follows. Start at the front nearside corner. Fix in place below the cream band with three **NM** screws (circled in green), wrapping the end of the strip around towards the end of side strip **103D**. Continue across the front of the model, using a total of five **KM** screws (circled in blue, left and below). Use a further three **NM** screws below the cream band on part **104A**, wrapping the end of the strip around the corner. Finally, wrap the top of strip **104B** around the front corner and fix with another **NM** screw (circled in green, below).



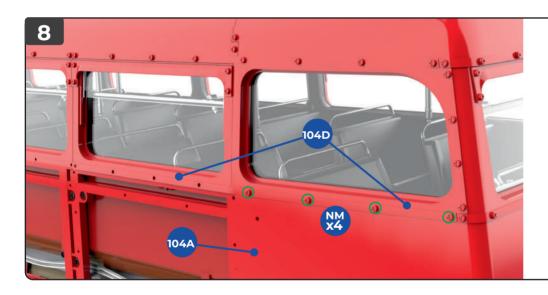
Fit strip **104E** (marked B114M) down the side of the destination blind so that screw holes in the strip align with holes in the lower front frame **80H**.



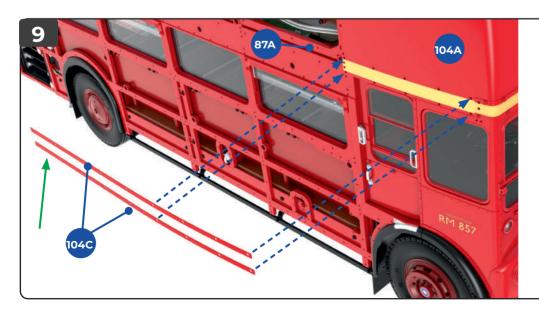
Fit the strip **104E** in place using the four **KM** screws removed in step 1 (circled in light blue). At the top of the corner panel **104A** fix the front strip **100E** in place, with three **NM** screws (circled in green), wrapping the end around the corner.



Position strip **104D**(marked A188M) along the side of the upper deck, beneath the windows, so that the screw holes in the strip are aligned with screw holes in the corner panel **104A** and the frame **87A**. Note that the front end of the strip is slightly angled (circled in yellow).

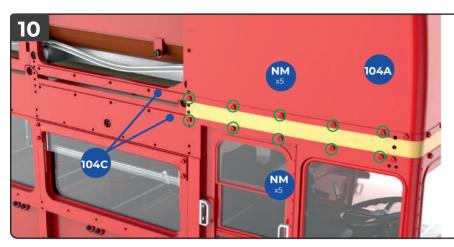


Fix strip **104D** in place with four **NM** screws (circled in green). The rest of the strip is not fixed at this stage, so you may want to hold it in place temporarily with low-tack tape.



The two side strips **104C** are fitted next. Fix them one at a time. Note that there is a wider gap between the screwholes towards the rear of the model (green arrow).

The first strip **104C** is positioned along the upper edge of the cream band on part **104A**, and the second strip runs along the lower edge of the cream band.

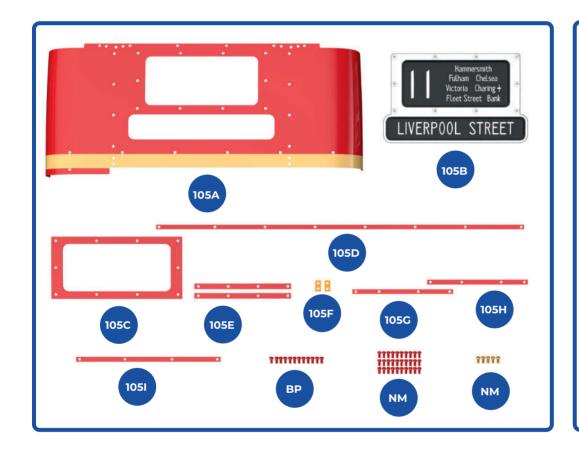


Use five red **NM** screws (circled in green) to fix each of the strips in place. The full length of the strip is not fixed at this stage, so you may want to hold it in place temporarily with low-tack tape.



FITTING THE REAR UPPER DECK PANEL AND DESTINATION BLIND

Working on the back of the model, we fit the destination blind and the rear upper deck panel.



KEY TO PARTS SUPPLIED 105A Rear panel 105B Rear destination blind 105C Frame 105D Rear strip (marked A194)

105E Rear strip x 2 (marked A197)

105F Cream strip x 2 (marked Al67B)

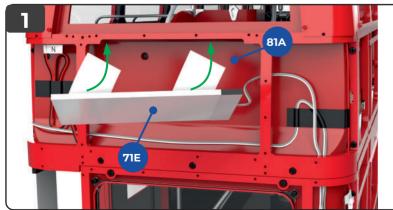
105G Left corner strip (marked A195)

105H Right corner strip (marked Al95M)

1051 Rear strip (marked A196)

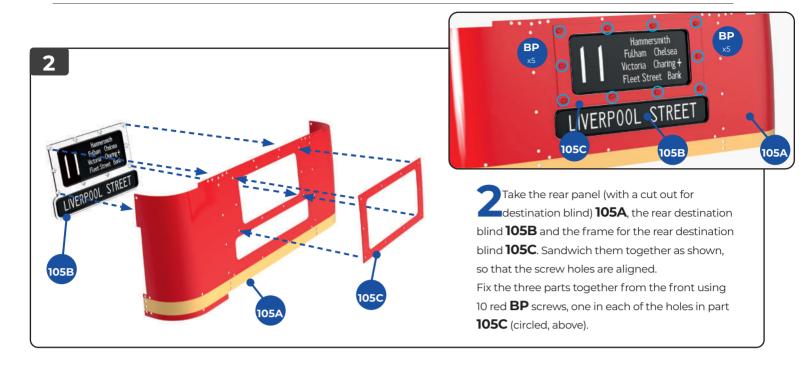
BP 1.5 x 3mm (x12, red) **NM** 1,5 x 3mm (x30, red)

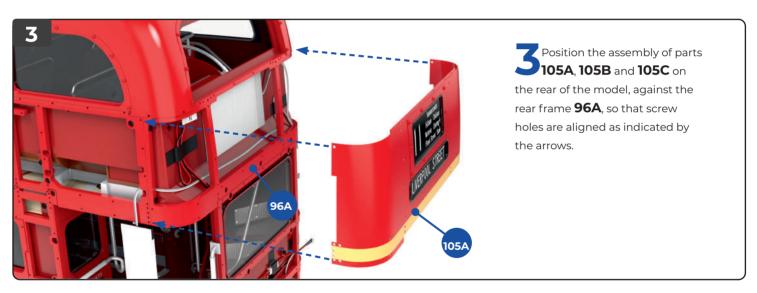
NM 1.5 x 3mm (x5, cream)

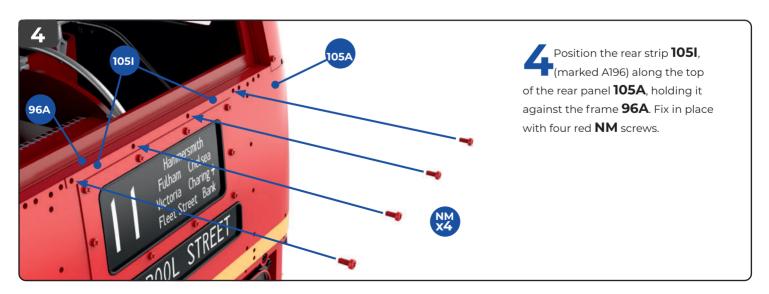


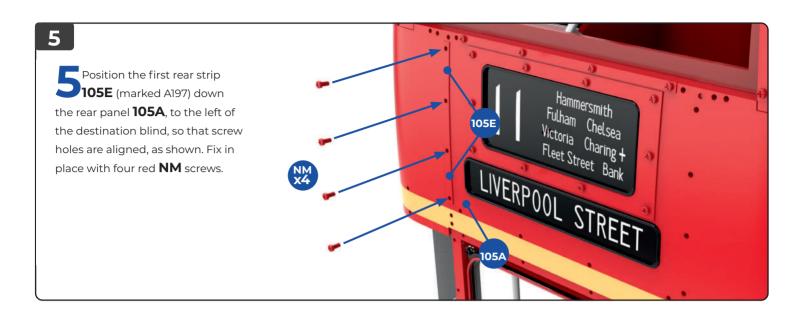
Remove the protective paper from the tape on the back of the the LED panel **71E** (green arrows) so that you can fix it in place on the back wall **81A. NOTE:** you may need to adjust the position of the cables and the tape holding the cables.

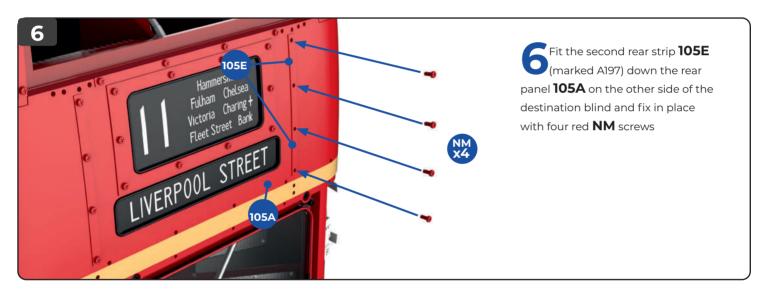




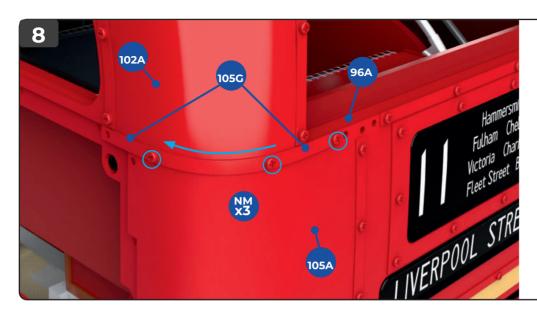




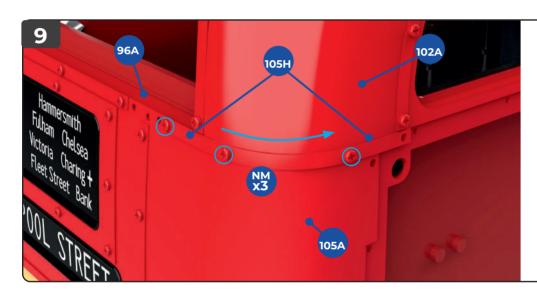








Position the left corner strip 105G (marked A195) around the left-hand corner of the upper deck, below the rear roof panel 102A, along the edge of the rear panel 105A. Note that the holes are more closely spaced at the end of the strip towards the left-hand side, where the strip is wrapped around the corner. Fix in place to the rear frame 96A with three red NM screws.



Position the right corner strip 105H (marked A195M) around the right-hand corner of the upper deck, below the rear roof panel 102A, along the edge of the rear panel 105A. Note that the holes are more closely spaced at the end of the strip towards the right-hand side, where the strip is wrapped around the corner. Fix in place with three red NM screws.

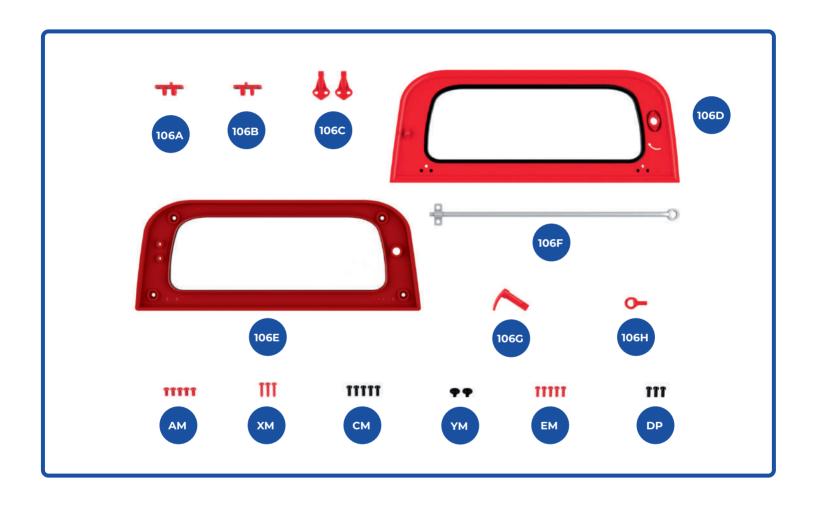


The two cream strips 105F (marked A167B) are positioned vertically across the cream band at the rear of the bus, on either side of the destination blind area, so that they continue the line of the vertical strips fitted in steps 5 and 6 (green arrows). Fix each of them in place with



FITTING THE EMERGENCY EXIT IN THE REAR UPPER DECK WINDOW

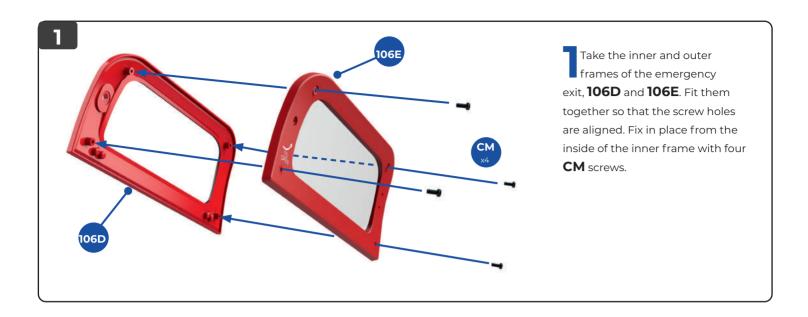
The inner and outer panels of the upper deck emergency exit are assembled. The hinges and handles are attached and then the emergency exit is fitted to the model

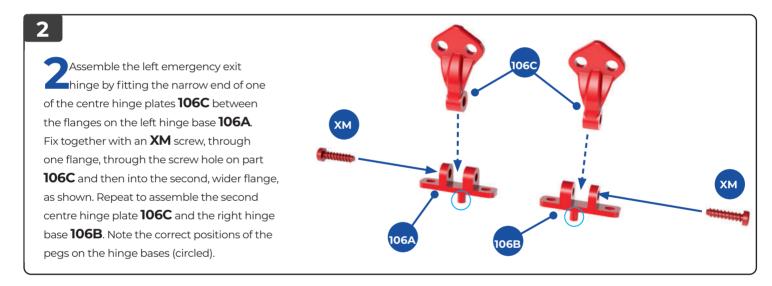


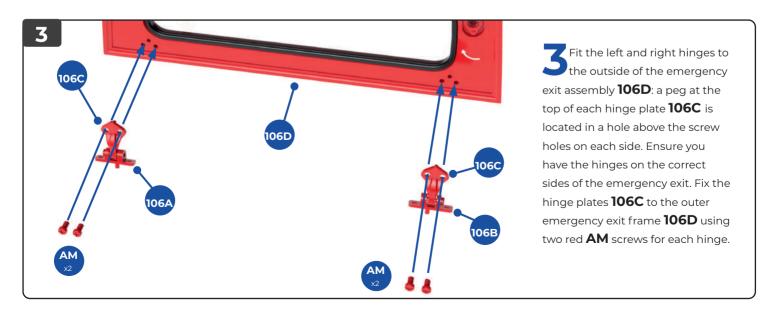
KEY TO PARTS SUPPLIED

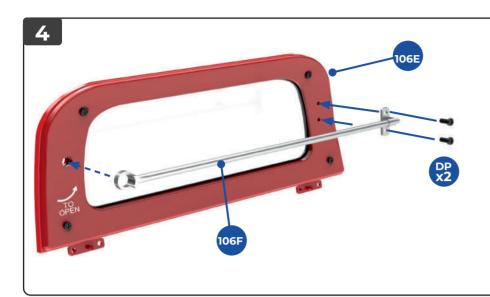
106A Left hinge base AM 1.7 x 3mm (x5, red) 106B Right hinge base XM 1.5 x 6mm (x3, red) CM **106C** Centre hinge plate (x2) 1.7 x 4mm (x5) **106D** Emergency exit outer frame YM 1.5 x 3 x 5mm (x2) **106E** Emergency exit inner frame EM 1.5 x 4mm (x5, red) DP 106F Window bar 1.7 x 4mm (x3)

106G Outer handle106H Inner handle









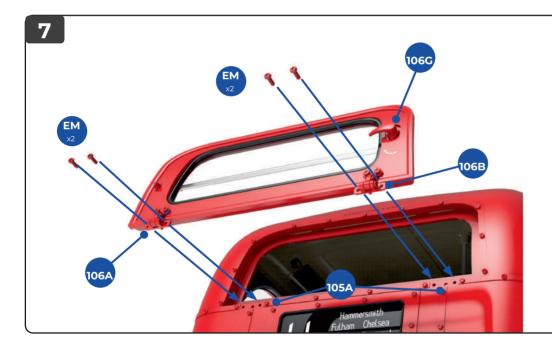
Position the window bar **106F** across the emergency exit window, on the inside, as shown. Fix in place at one end, using two **DP** screws to hold it in place on the inner emergency exit frame **106E**. The ring at the other end of the bar is not fixed at this stage, but should align with the hole in the side of the emergency exit frame assembly.



6
6 On the inside of the emergency exit
frame, fit the inner handle 106H over the
end of the outer handle 106G, in the middle
of the ring at the end of the window bar 106F.
The peg on the inner handle should point
outwards. Fix in place with a YM screw.



This image shows the emergency exit assembled.

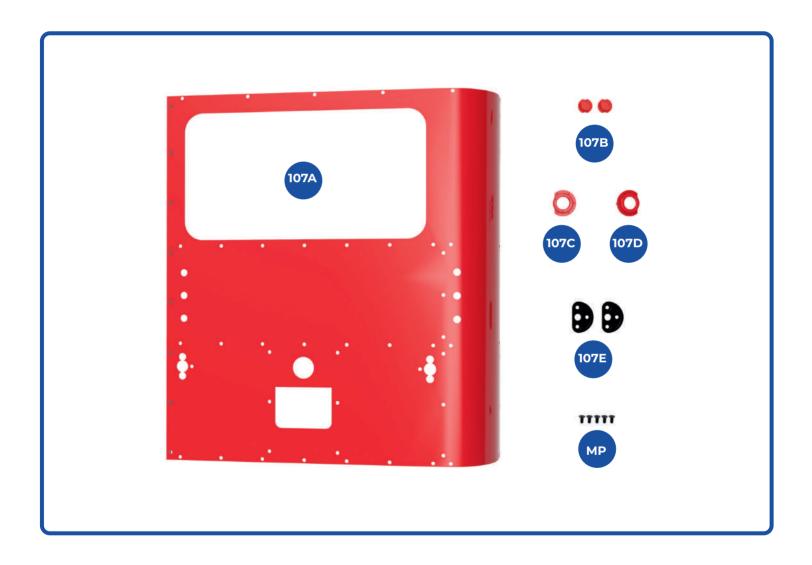


Turn the outer handle 106G, inwards to open the emergency exit, as shown. Position the emergency exit assembly in the window opening at the rear of the upper deck. Check that the pegs on the hinge bases 106A and 106B fit into the holes in part 105A. Fix each of the hinge bases in place with two EM screws. Turn the handle 106G downwards to hold the emergency exit closed.



REAR WALL PANEL AND DETAILS

Details for the brake lights are fitted to the rear wall panel of the model.

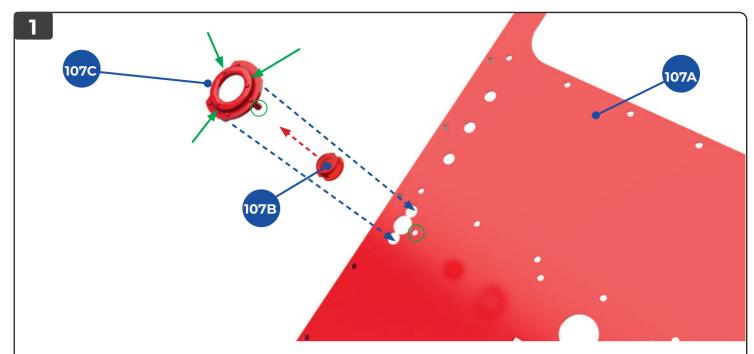


KEY TO PARTS

107A Rear panel

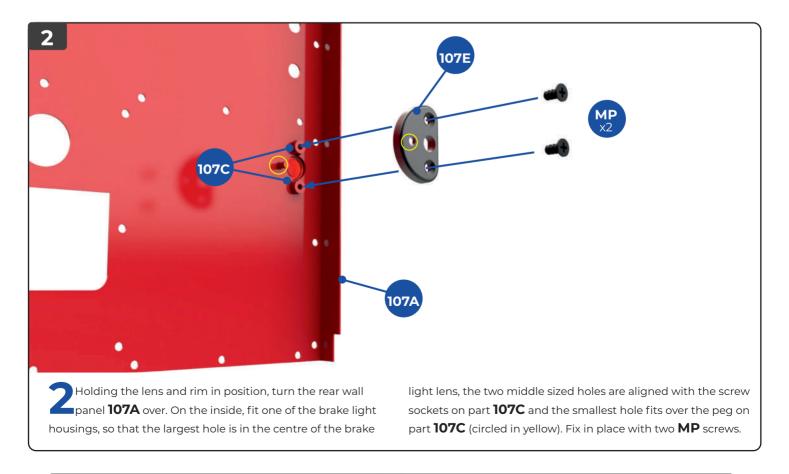
107B Brake light lens (x2)
107C Left brake light rim
107D Right brake light rim
107E Brake light housing (x2)

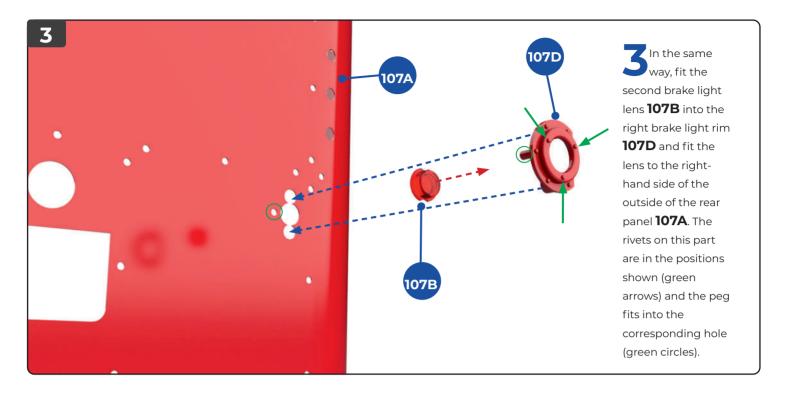
MP 1.7 x 3mm (x5)

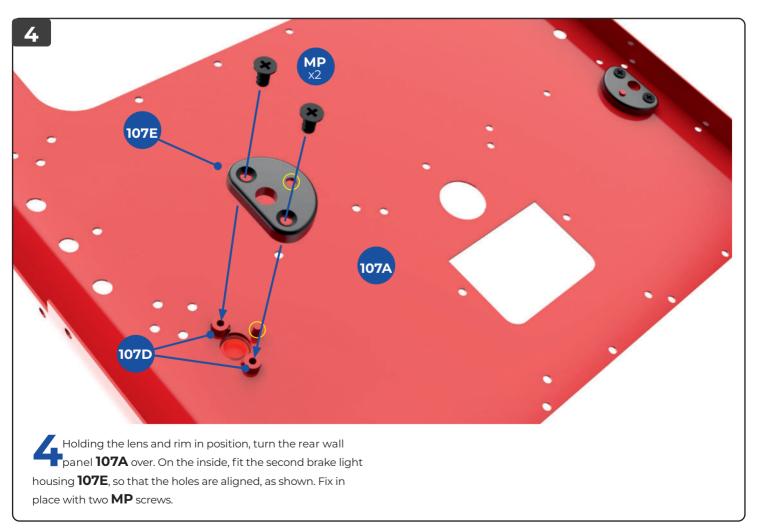


Fit one of the brake light lenses **107B** into left brake light rim **107C** (red arrow). Note that the two indentations on part **107B** fit next to the screw sockets on part **107C**. The position of the 'rivets' on the inner brake light rim (indicated

by the green arrows) help identify the left part **107C**. Fit the assembly into the holes on the left-hand side of the outside of the rear panel **107A**, as shown. A peg on the side of the rim **107C** fits into a hole in the rear panel **107A** (circled in green).



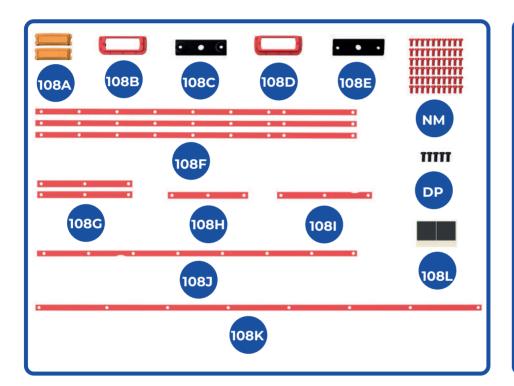






LAMPS AND TRIMS FOR THE REAR WALL PANEL

We fit the indicator lights and position the rear wall panel, which is held in place by a number of finishing strips.



KEY TO PARTS

108A 2 x indicator lamp lenses

108B Left indicator lamp housing (flat)

108C Left indicator lamp backing (flat)

108D Right indicator lamp housing

(curved shape)

108E Right indicator lamp backing

(curved shape)

108F Rear strip A177 (x 3)

108G Rear strip A178 (x 2)

108H Rear strip A164

108I Rear strip A179

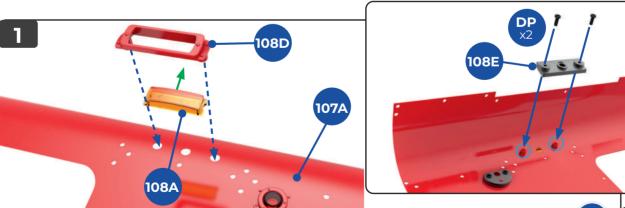
108J Rear strip A176

108K Rear strip A194

108L Tape strip (x 2)

NM 1.5 x 3mm screws (60, red)

DP 1.7 x 4mm screws (5, black)

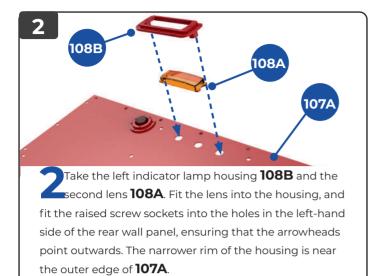


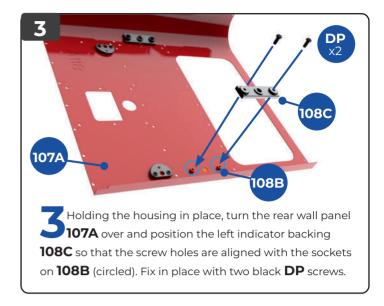
Take one of the indicator lenses, **108A** and the right indicator lamp housing **108D**. Fit the lens into the housing so that the arrowheads on the lens point outwards (green arrow). Position the housing on the right-hand side of the rear panel **107A** so that the two raised screw

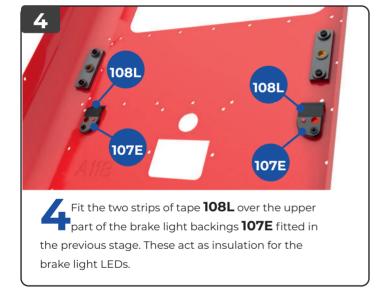
sockets fit into the holes, as indicated. Holding the indicator housing in place, turn the rear wall **107A** over. Position the right indicator backing **108E** so that the screw holes on **108E** are aligned with the sockets on **108D** (circled, inset above). Fix in place with two black **DP** screws.

The indicator housing and backing (108D and 108E) for the right-hand side are slightly curved, to fit the curve on the off-side of the rear wall panel.

107A







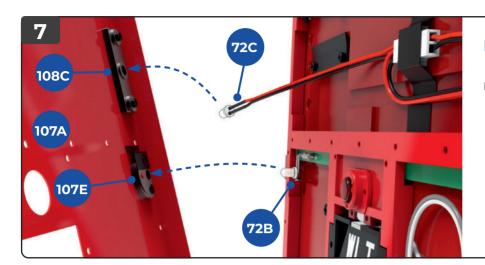




Position the rear wall panel **107A** against the back of the model. As you do so, fit the lamps into the sockets on the rear panel (circled below) as follows:

Fit two LEDs on cables
72C (cable G) into the
indicator backings (orange
arrows and circles); Fit two
LEDs on cables 72B (cable
O) into the brake lights
(light blue arrows and
circles). For details, see the
following steps.





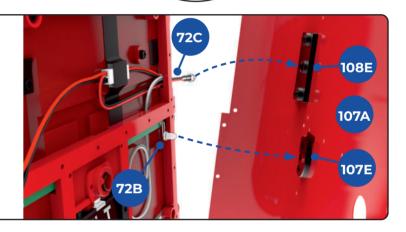
This close-up shows the LED **72C** and **72B** being fitted into the lamp housings on the left-hand side of the model.

Take time
when fitting the
LEDs, as they are a
tight fit. You may need
to gently bend the
LEDs 72C to fit them
into place.

8

This close-up shows the other side of the model. The second LEDs **72C** and **72B** are fitted into the lamp housings attached to the right-hand side of the rear panel **107A** at the same time as those on the left-hand side.

With the LEDs fitted and the number plate still in place, push the rear wall panel **107A** against the rear frame. You may want to hold it in place temporarily with a screw or tape.

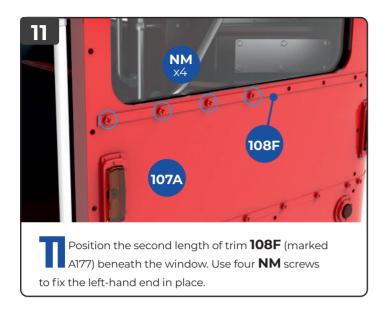


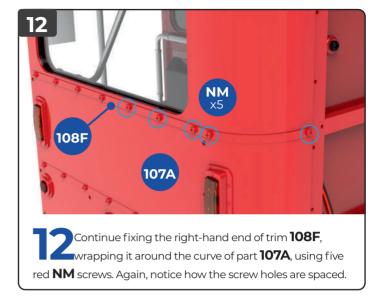


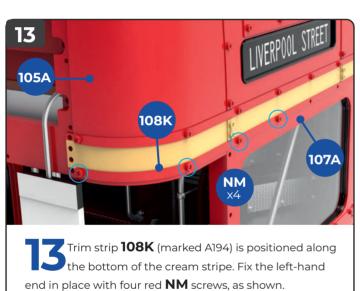
Position the first strip **108F** (marked A177) across the rear of the model above the brake lights, with screw holes aligned. Note the more even spacing of the screw holes at the left-hand end of part **108F** (see also next step). Use four red **NM** screws to fix the left-hand end of the trim in place.



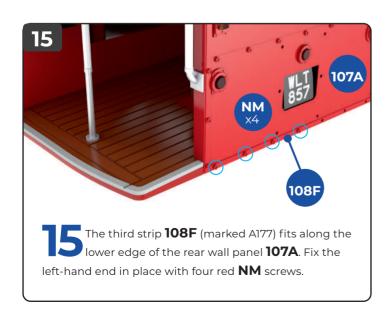
Continue fixing the trim **108F** in place on the right-hand side of the rear wall panel **107A**, wrapping it round the curve of part **107A**. You will need to use five more red **NM** screws. Note that there are two screw holes quite close together between the indicator and brake lights.



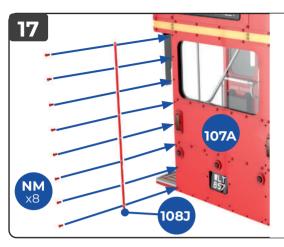




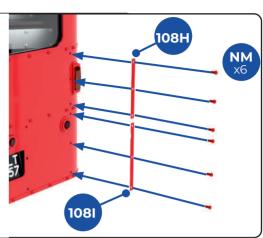


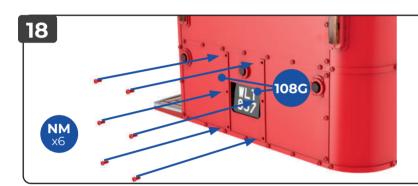






The rear strip **108J** (marked A176) is positioned down the left-hand side of the rear panel, next to the platform opening. Fix in place with eight red **NM** screws. The two strips **108H** (marked A164) and **108I** (A179, slightly longer) fit above and below the right-hand brake light (right). Fix each strip in place with three red **NM** screws.





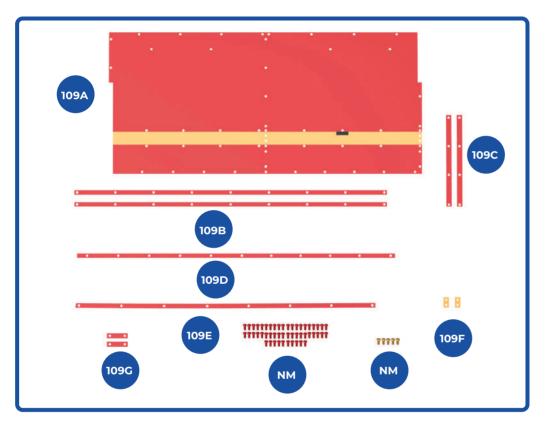
The two strips **108G** (marked A178) are fitted vertically, one on each side of the number plate. Fix each one in place with three red **NM** screws.



STAGE 109

SIDE PANEL AND TRIM STRIPS FOR THE NEARSIDE

Working on the nearside of the model, we continue to fit outer panels and trim strips.



KEY TO PARTS SUPPLIED

109A Side panel

109B Side strip marked A184

(x2)

109C Side strip marked

A197B (x2)

109D Side strip marked A163

109E Side strip marked A188

109F Cream side strip

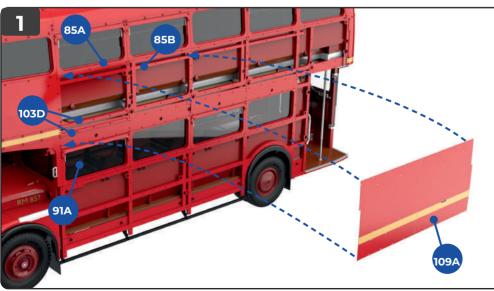
marked A167B (x2)

109G Side strip marked

A167C

NM 1.5 x 3mm (x50, red)

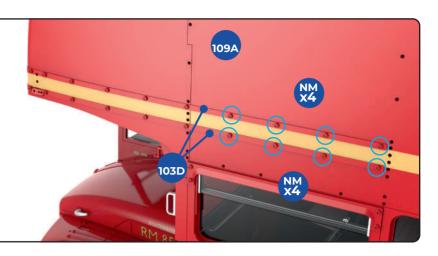
NM 1.5 x 3mm (x5, cream)



Take the side panel 109A, and fit it in place below the windows of the upper deck, against frames 85A, 85B and 91A. You will need to slip the panel behind the two unsecured trim strips 103D.

2

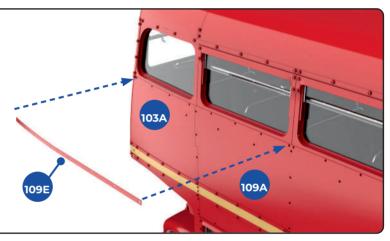
Fix the lower part of panel 109A in place above and below the cream strip by fitting four red NM screws through the screw holes in each of the trim strips 103D, and through the screw holes in the panel 109A.

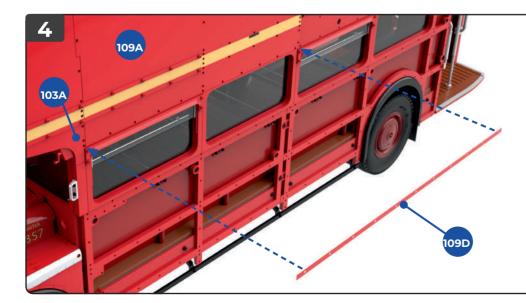


Position strip **109E** (marked A188) along the nearside of the bus, below the first two upper deck windows. The screw holes in strip **109E** should

align with screw holes along the top edge of side panels **103A** and **109A** (they are not evenly spaced). Fix in place with eight red **NM** screws (inset, below).

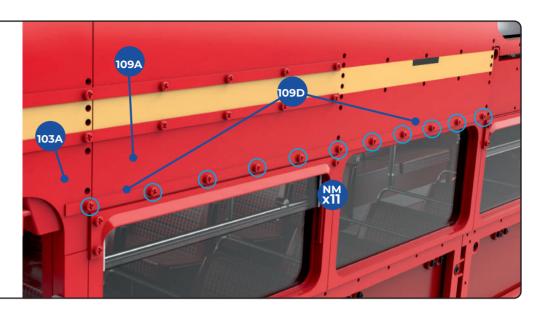
NM x8 x8

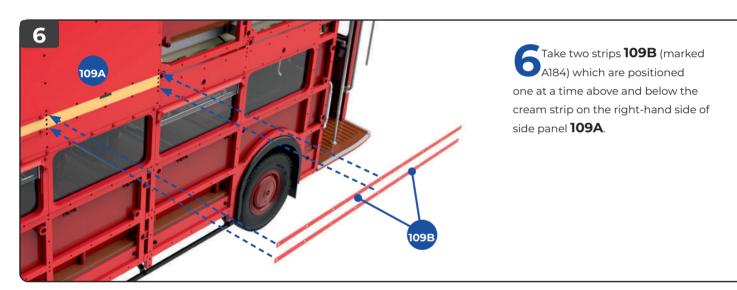




Position the side strip **109D** (marked 163A) along the lower edge of part **109A**. Note that the screw holes are not evenly spaced – the right-hand end of the strip has a screw hole very close to the end of the strip. The screw hole at the left-hand end should be aligned with a screw hole in part **103A**.

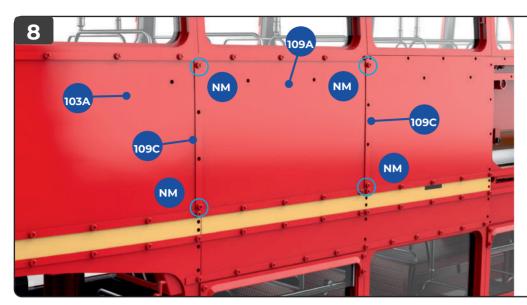
Fix the side strip 109D in place to the lower edge of panel 109A, above the lower deck windows, with eleven red NM screws. Notice that the screw on the left-hand end is fixed into panel 103A.



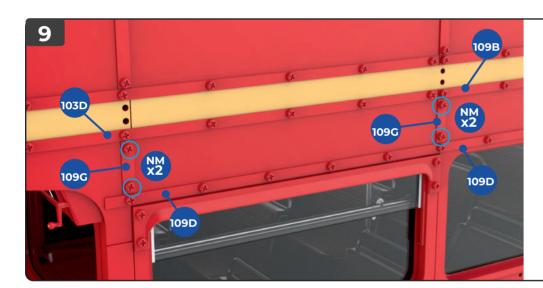




Fix the left-hand ends of the two side strips **109B** in place, ensuring that they continue the line from strips **103D**. You will need five red **NM** screws for each strip.

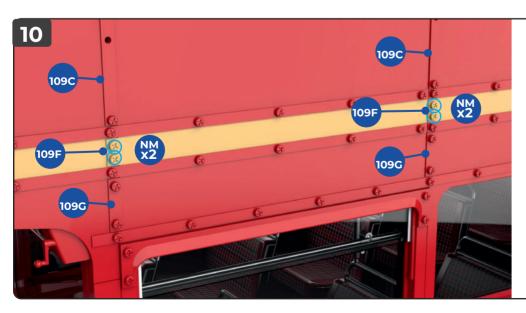


Take the two side strips
109C (marked A197B) and
position them vertically, one over
the 'seam' between parts 103A
and 109A, and the other aligned
with the row of screw holes down
the middle of panel 109A. Fix the
top and bottom of each strip in
place with a red NM screw. Note
that the screw holes in the middle
of the strip are not used at this
stage.



Take the two short strips 109G (marked A167C).

Position the first one vertically between the lower strip 103D and strip 109D. Fix in place with two red NM screws. The second strip also runs vertically, from the join between the lower strips 96A and 109B, and strip 109D. Fix in place with two red NM screws.



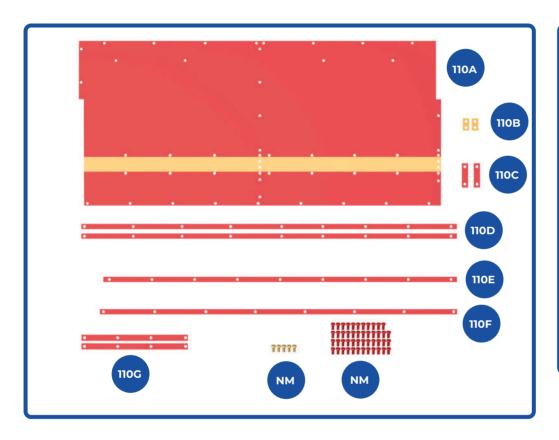
The two cream strips 109F (marked Al67B) are positioned vertically across the cream band continuing the line of strips 109C and 109G fitted in the previous two steps. Fix each cream strip in place with two cream NM screws.



STAGE 110

SIDE PANEL AND TRIM STRIPS FOR THE NEARSIDE

In the final stage for this Pack, we will fit the outer panels and strips towards the rear of the model.



KEY TO PARTS SUPPLIED 110A Side panel

110B Cream side strip

(marked A167B, x2)

110C Side strip (marked

A167C x2)

110D Side strip (marked A186, x2)

110E Side strip (marked

A175)

110F Side strip (marked

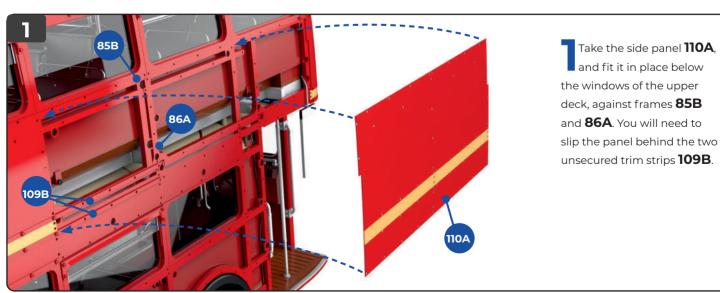
A189)

110G Side strip (marked

A197B, x2)

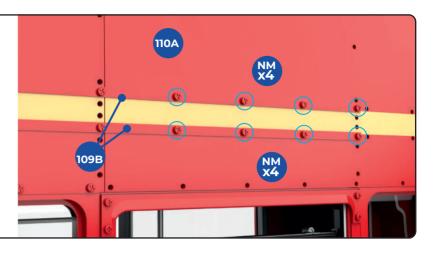
NM 1.5 x 3mm (x47, red)

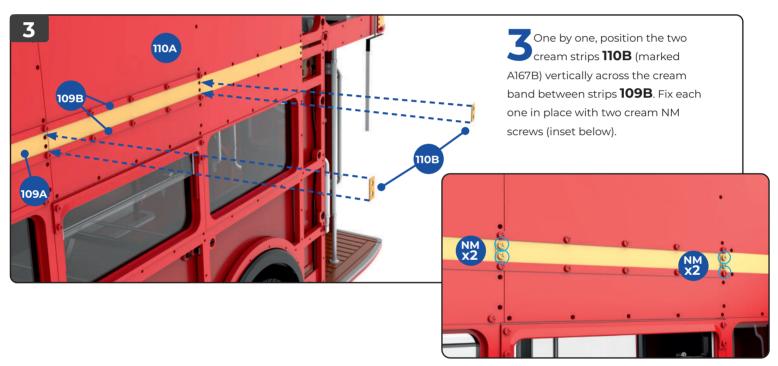
NM 1.5 x 3mm (x5, cream)

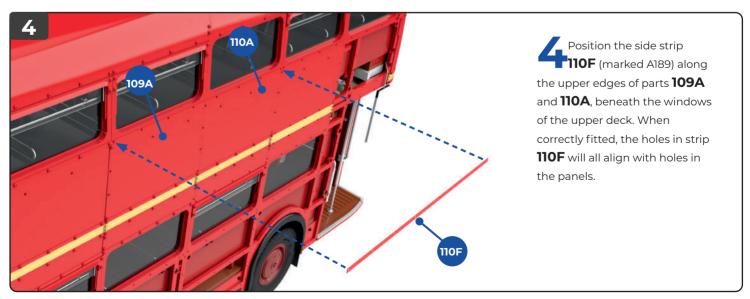


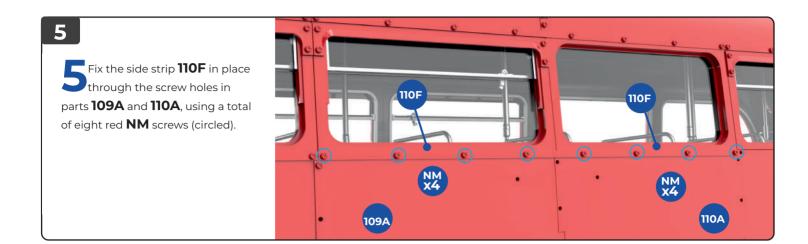
2 Fix the lower part of panel 110A in place above and below the cream strip by fitting four red NM screws through the screw holes in each of the trim strips 109B, and through the screw

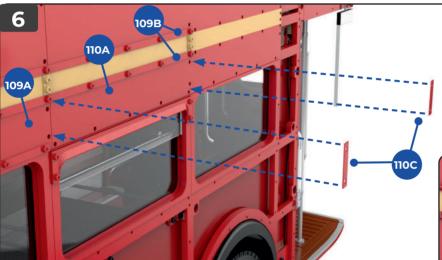
holes in the panel 110A.









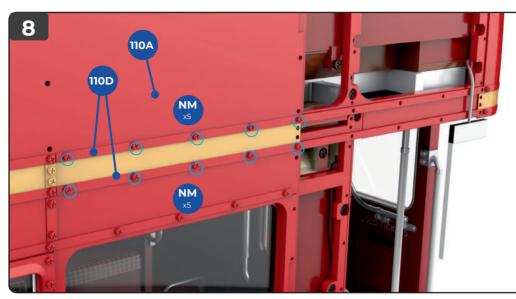


One at a time, take the two strips **110C** (marked A167C). Position the first one vertically in line with the cream strip, on the edge of panel **109A**. The second one is positioned vertically at the end of the two strips **109B**. Fix each of the strips **110C** in place with two red **NM** screws (inset).

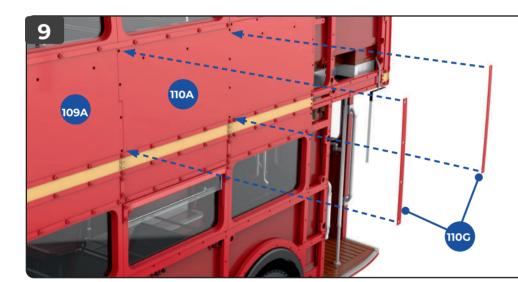




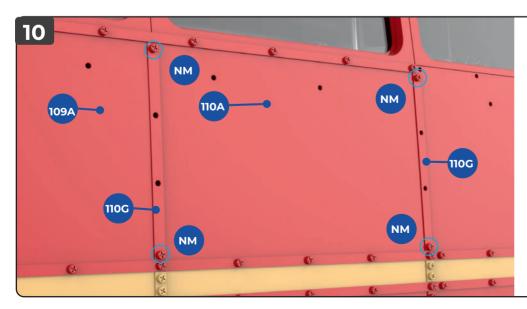
Position side strip **110E**(marked A175) in place above
the rear two windows on the lower
deck. Fix in place with a total of nine
red **NM** screws (inset).



The two side strips 110D (marked A186) are positioned above and below the cream stripe on part 110A, over the rear window of the lower deck and the platform. Note that the holes are not all evenly spaced; when correctly fitted, the holes will align with holes in part 110A. Fit the strips one at a time and fix each one in place with five red NM screws. At this stage, only the front ends of the strips are fixed in place.



Take the two red strips **110G** (marked A197B). Position the first one vertically over the 'seam' between panels **109A** and **110A**. The second one is positioned down the centre of part **110A**.



Fix the upper and lower ends of parts 110G in place using a total of four NM screws.

Note that the two central screw holes in the strips are not used at this stage.

