



# FDNY®

## FIRE TRUCK TOWER LADDER 9



# Pack 10

## BUILD INSTRUCTIONS

**STAGE 63: RIGHT BOOM REEL**

**STAGE 64: LEFT BOOM REEL**

**STAGE 65: LEFT SIDE OF THE AERIAL LOWER  
MIDSECTION**

**STAGE 66: RIGHT SIDE OF THE AERIAL LOWER  
MIDSECTION**

**STAGE 67: RIGHT SIDE OF THE AERIAL UPPER  
MIDSECTION**

**STAGE 68: LEFT SIDE OF THE AERIAL UPPER  
MIDSECTION**

**STAGE 69: ADDING LADDER GUIDES  
AND CABLES**

## Advice from the experts

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 **Please keep ALL unused screws as they will be required in a later stage.**

Please make sure you don't mix up the screws. They look quite similar, but the threads do vary slightly. Using the wrong screws may damage the parts.

When securing parts together using multiple screws, fit each screw loosely to ensure all the parts are correctly aligned before gently tightening them firmly, but not overtight, in the order in which you placed them.

The screwdriver can be magnetized by stroking it with a magnet (fridge magnet, etc.) enabling it to hold the screws and make assembly easier.

If a screw is tight going into a metal part, do not force it as you may shear the head off. Remove it and put a tiny smear of Vaseline, soap or light oil on the thread. That will lubricate it and make it easier to drive home.

During the course of this build, you will receive many pieces that you will assemble immediately – following the instructions in the corresponding stage – and other pieces that you should store safely to one side, for use in future assembly stages.

Left and Right! When building your fire truck, the left or right hand side refers to each side as you are sitting in the cab.



**WARNING:** Some parts are assembled using magnets. These magnets can cause serious injury if they are swallowed. Keep away from children. If you suspect a magnet has been swallowed, seek medical help straight away.

## Stage 63: Right Boom Reel

In this first stage of pack 10, you'll assemble the boom reel and fix it to the right-hand side of the boom. Throughout this pack, don't forget to keep any unused screws that may be required in a later stage.

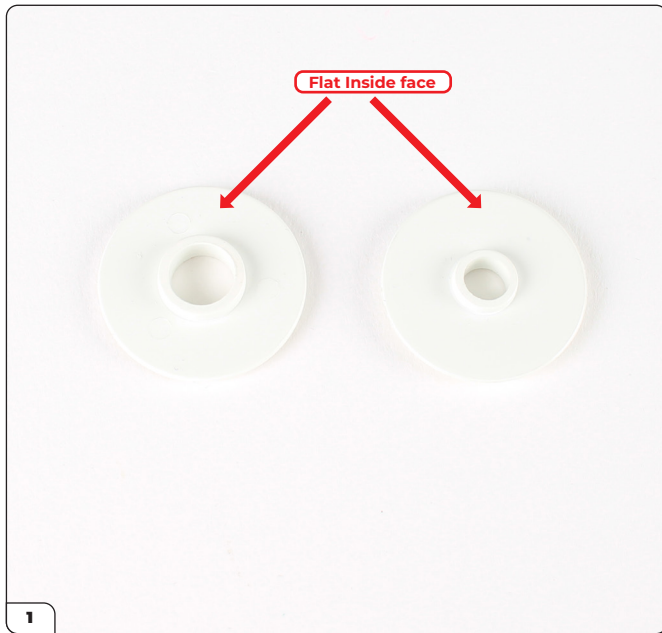


### STAGE 63 PARTS LIST

Name
Bearing cap
Bearing shaft
Boom reel part a
Boom reel part b
Ladder bracket
Reel support
Reel bracket
Screws type C x4
Screws type B x3



## Stage 63: Right Boom Reel



### ASSEMBLING THE BOOM REEL

Take the boom reel parts a and b and note they both look different on each side. Prepare the parts so that sides shown in picture 1 will face each other. The two faces are flat, apart from the centres.



Push the two parts together.



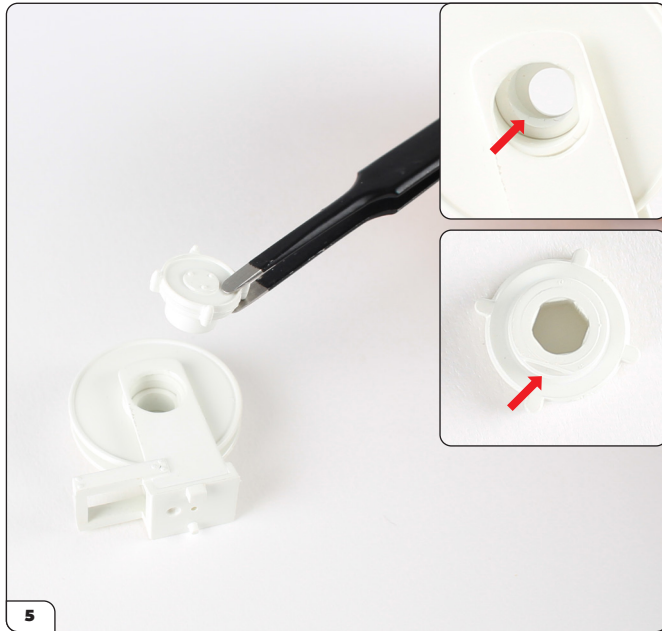
Next, take the reel bracket and note that there is a smaller hole (inset left) and a larger hole (inset right). Fit the boom reel into the bracket in the orientation shown above. There is a ridge inside the boom reel (arrow) that must align with the larger hole.



Here you can see the ridge inside the boom reel once it has been fitted into the bracket.



## Stage 63: Right Boom Reel



Fit the bearing cap into the larger hole. There is a notch on the cap (inset bottom) that aligns with the ridge in the reel (inset top).



This is how the assembly should now look.

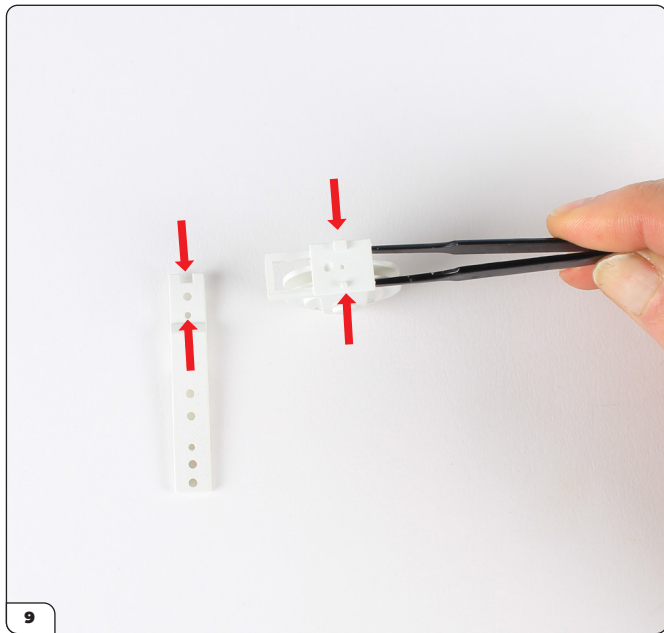


Fit the bearing shaft into the bearing cap from the opposite side of the reel bracket.



The boom reel has now been fitted to the reel bracket.

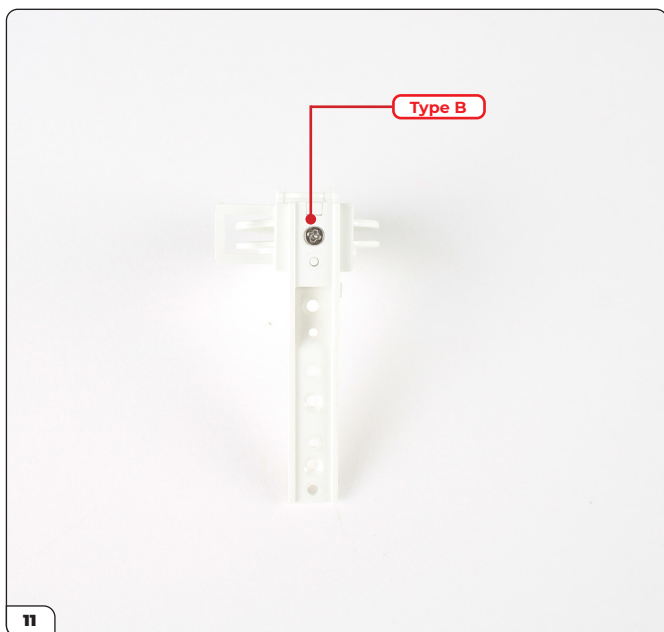
## Stage 63: Right Boom Reel



The reel bracket can now be fitted to the reel support. Align the pegs on the bottom of the reel bracket with the corresponding notches on the support.



Push the two parts together.



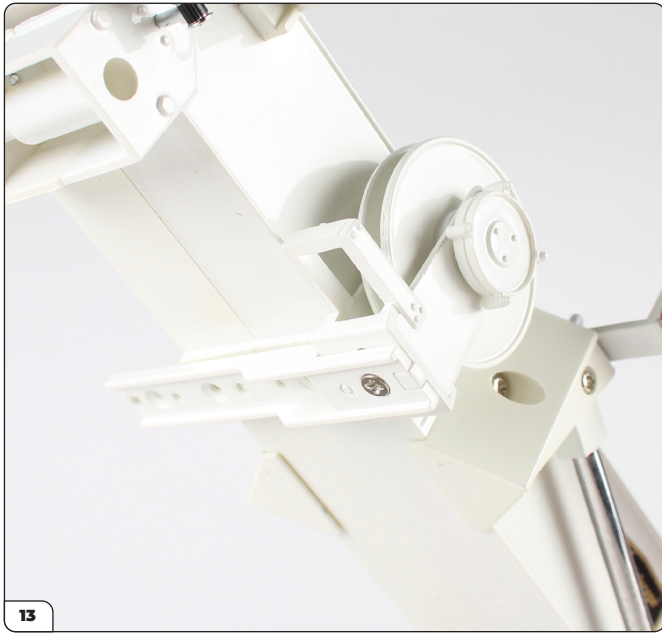
Secure them together using a Type B screw.



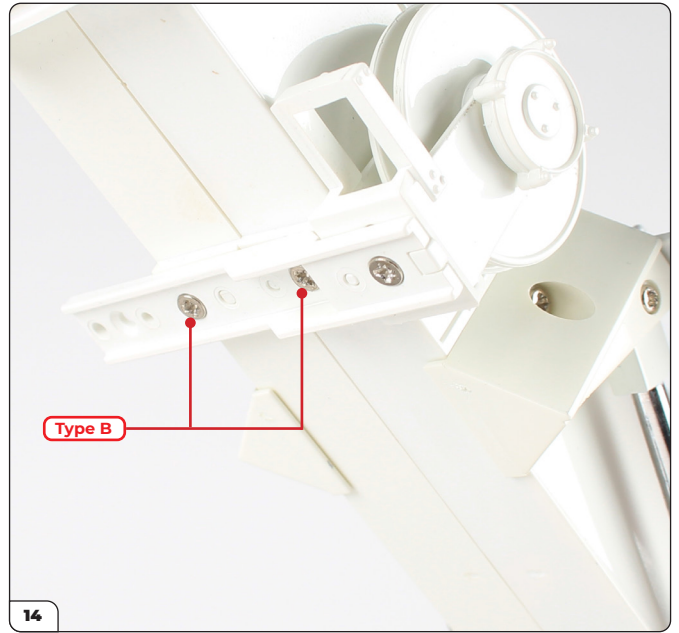
The assembly from step 11 will fit onto the underside of the boom at the fixing points shown.



## Stage 63: Right Boom Reel



Push the reel support onto the two pegs on the boom, checking that the reel is on the right hand side of the boom.



Fix the reel support in place using 2 x Type B screws.



## Stage 64: Left Boom Reel

The steps in this next stage are very similar to the previous steps. Another boom reel will be assembled and attached, this time to the left-hand side of the boom.



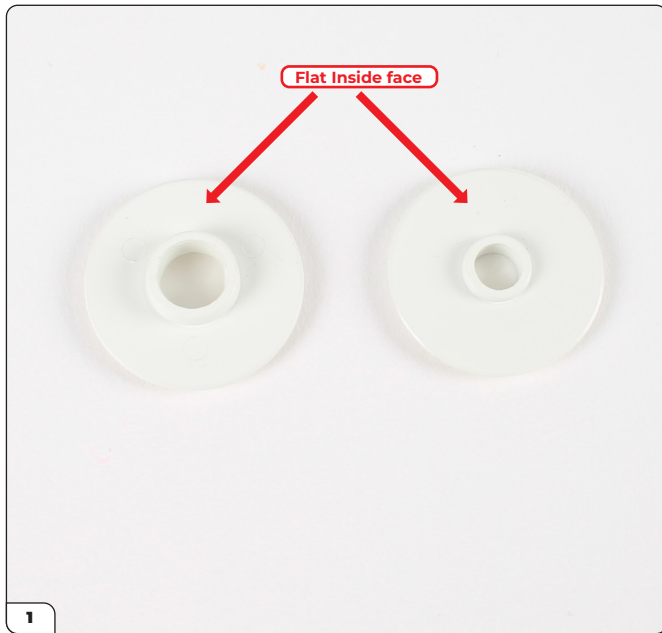
### STAGE 64 PARTS LIST

Name
Boom reel part a
Ladder guide
Boom reel part b
Reel motor
Reel bracket
Bearing shaft
Reel motor controller
Type B screws x3
Type C screws x2





## Stage 64: Left Boom Reel

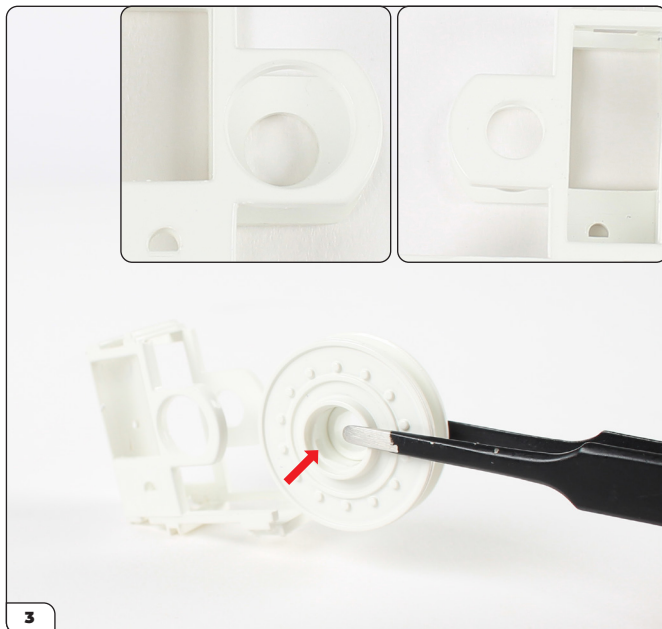


### ASSEMBLING THE BOOM REEL

Take the boom reel parts a and b and identify the flat face of each part.



Push the flat faces together.

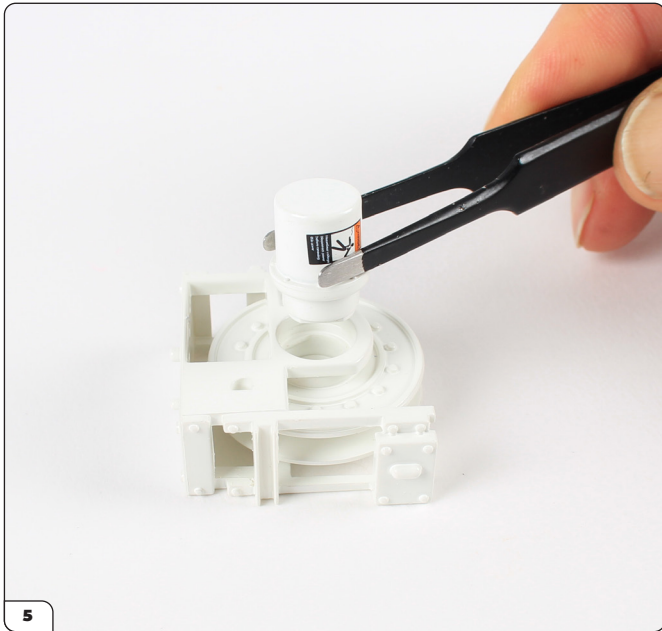


Identify the larger and smaller holes on the reel bracket (inset), then align the notched side of the reel with the larger hole as shown above.



Fit the parts together.

## Stage 64: Left Boom Reel



Align the flat notch on the reel motor with the notch in the reel. Push the cap through the bracket and into the reel.



From the opposite side, push the bearing shaft through the assembly, and into the reel motor to hold the reel in place.



Take the reel motor controller and push it into place on the reel bracket, next to the reel motor as shown.



Align the pins on the bottom of the reel bracket with the reel support that was attached in the previous stage.

## Stage 64: Left Boom Reel



Fix the reel bracket to the support using a Type B screw.





## Stage 65: Left Side of the Aerial Lower Midsection

In the next four stages, you'll assemble the Lower Midsection and Upper Midsection of the aerial before telescoping them together. First, assemble the left side of the Lower Midsection.



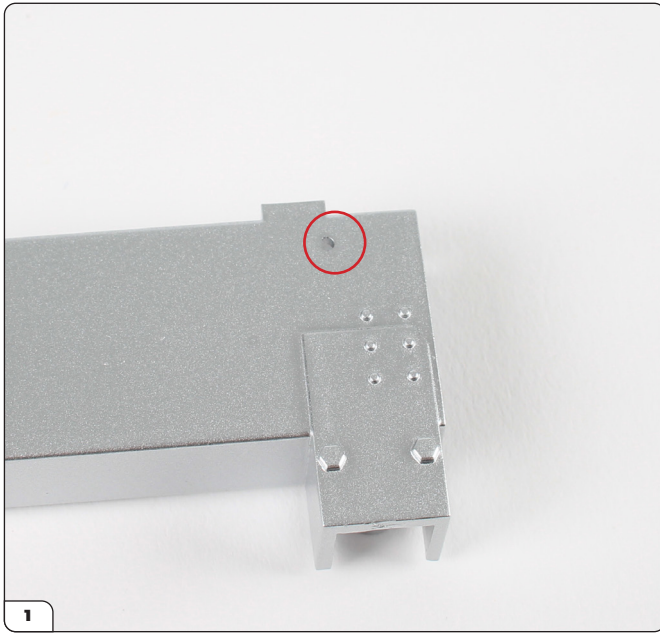
### STAGE 65 PARTS LIST

Name
Lower midsection
Stop plate
Screws type C x1
Screws type I x2



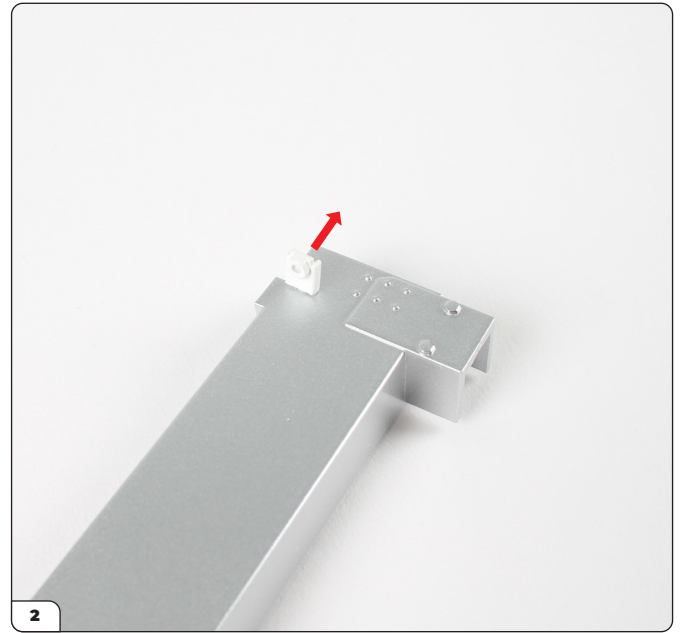


## Stage 65: Left Side of the Aerial Lower Midsection



### ATTACHING THE STOP PLATE

Take the lower midsection part and locate the fixing point for the stop plate - circled above.



Ensure the recessed side of the stop plate faces the shortest length of the lower midsection, indicated by the arrow above. Push firmly into place.

### STAGE COMPLETE



# Stage 66: Right Side of the Aerial Lower Midsection

Now you'll assemble the right side of the Lower Midsection.

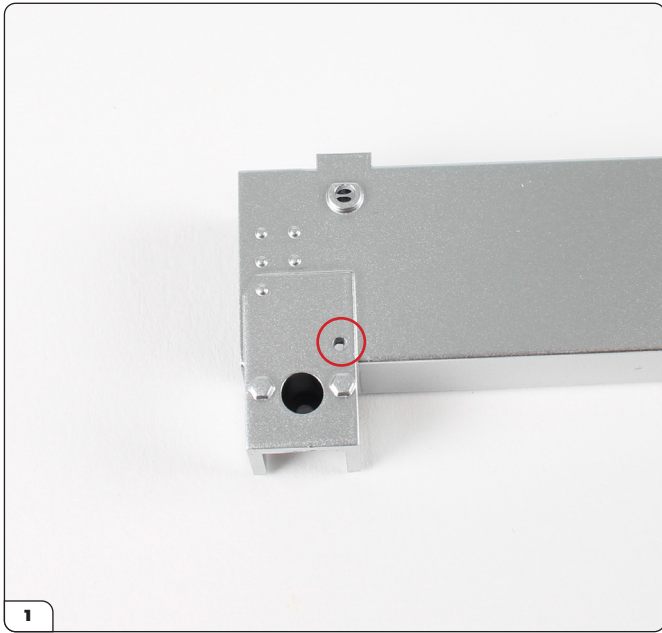


## STAGE 66 PARTS LIST

Name
Lower midsection
Water pipe bracket
Stop plate

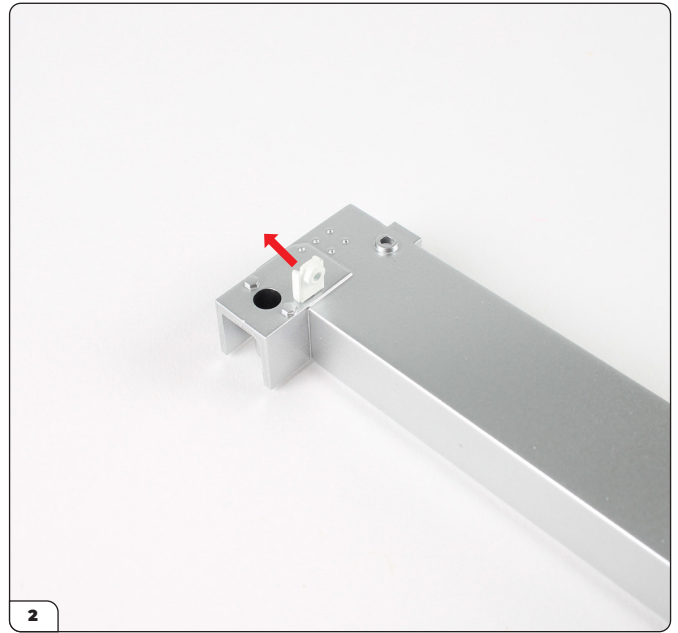


## Stage 66: Right Side of the Aerial Lower Midsection

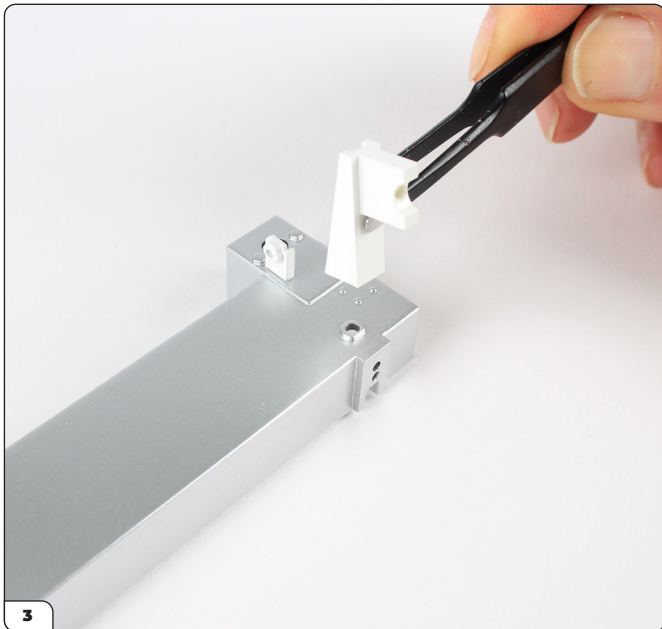


### ATTACHING THE STOP PLATE

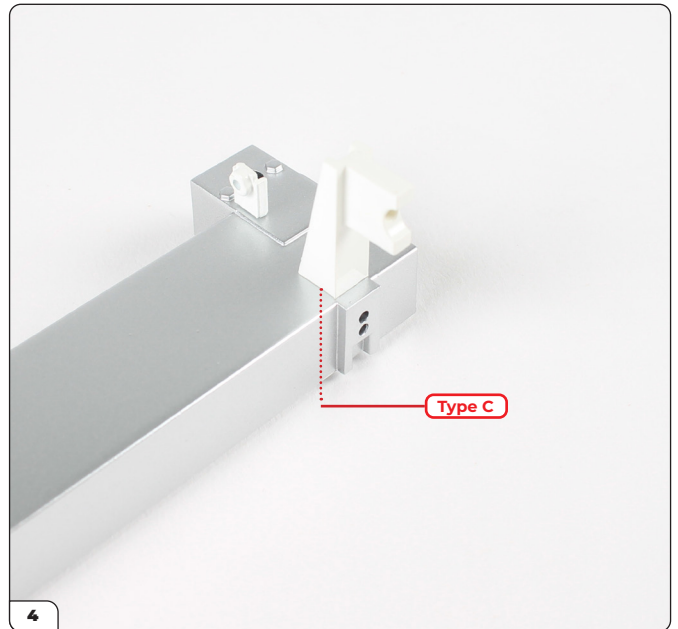
Locate the fixing point for the stop plate - circled above.



Push the stop plate into place in the orientation shown. Again, the recessed side of the stop plate faces the shortest length.



Align the water pipe bracket over the screw hole on the lower midsection in the orientation shown.



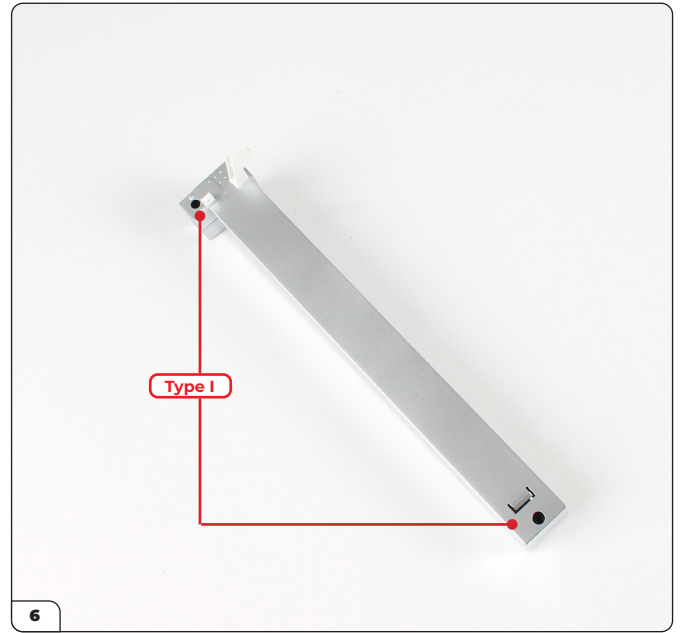
Lower into position. Fix in place from the reverse side using a type C screw.



## Stage 66: Right Side of the Aerial Lower Midsection



Line up the assembled lower midsection from this stage and the previous stage. The long hollow sides face each other. The 'L' shapes should fit together at the same end.



Fix the two sides together using 2 x type I screws.

**STAGE COMPLETE**





# Stage 67: Right Side of the Aerial Upper Midsection

Now for the Aerial Upper Midsection... starting with the right-hand side.

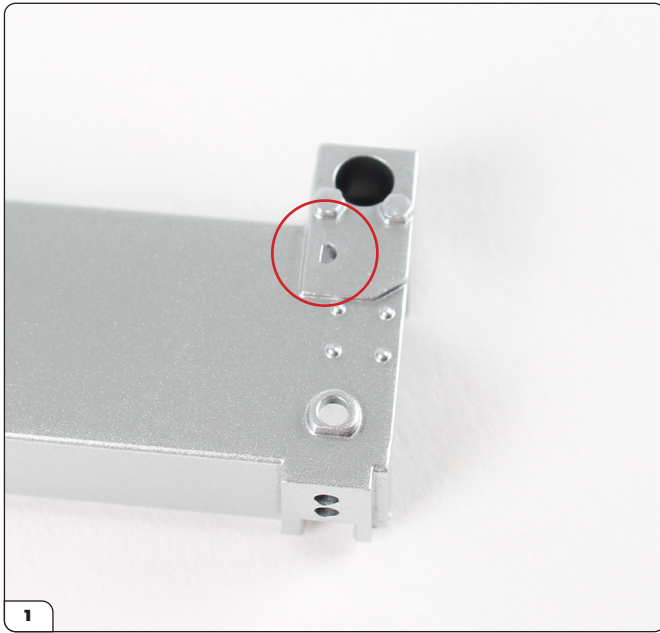


## STAGE 67 PARTS LIST

Name
Upper midsection
Waterway bracket
Stop plate
Type I screws x2
Type C screw x1



## Stage 67: Right Side of the Aerial Upper Midsection



### ATTACHING THE STOP PLATE

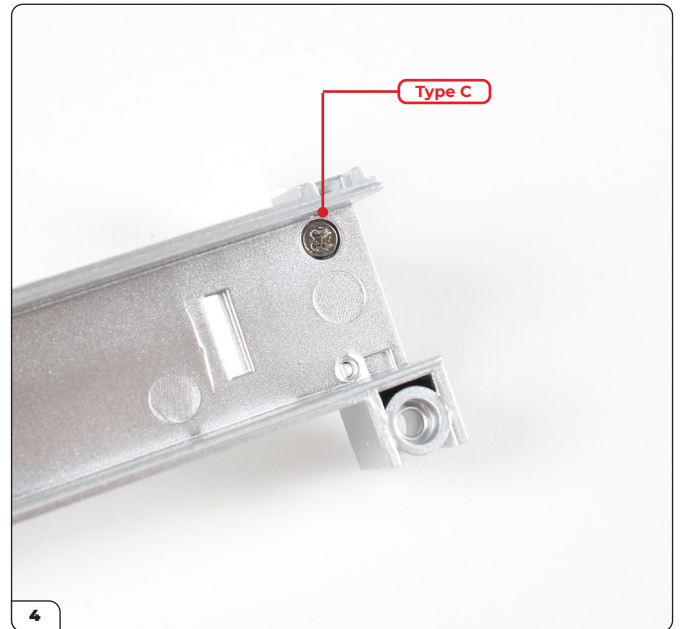
Locate the fixing point for the stop plate.



Push the stop plate into place. Again, the recessed side faces the shortest length.



Attach the waterway bracket over the screw hole in the orientation shown.



Fix the waterway bracket from the underside using a type C screw.

# Stage 67: Right Side of the Aerial Upper Midsection



## Stage 68: Left Side of the Aerial Upper Midsection

Assemble the left-hand side of the Upper Midsection, then join it to the right-hand side, finishing this stage by linking the Midsections together.



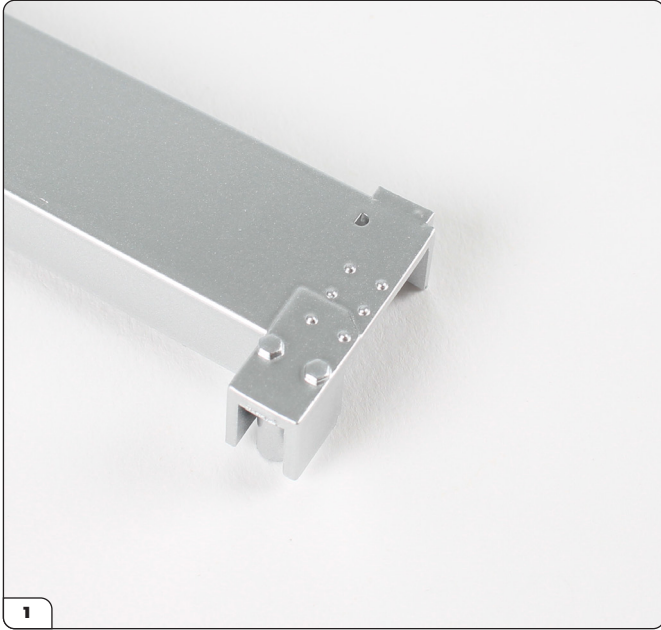
### STAGE 68 PARTS LIST

Name
Upper Midsection
Stop plate





## Stage 68: Left Side of the Aerial Upper Midsection



### ATTACHING THE STOP PLATE

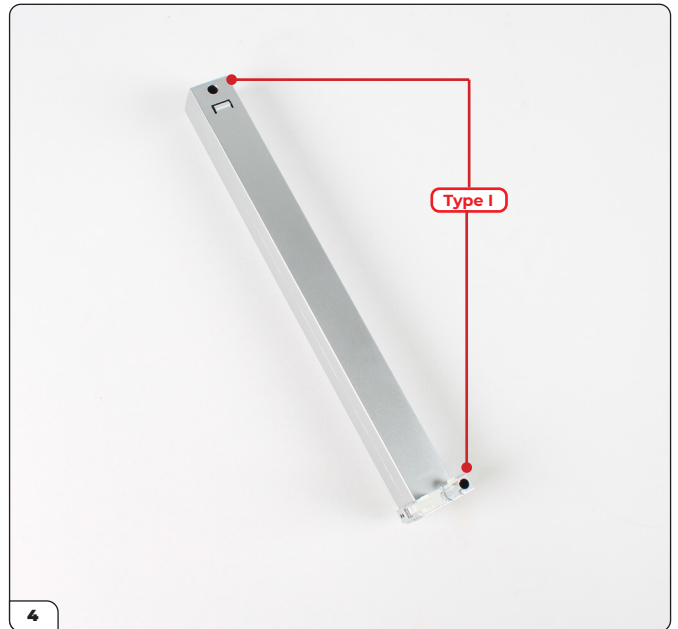
Locate the fixing point for the stop plate.



Push the stop plate into place. Again, the recessed side faces the shortest length.

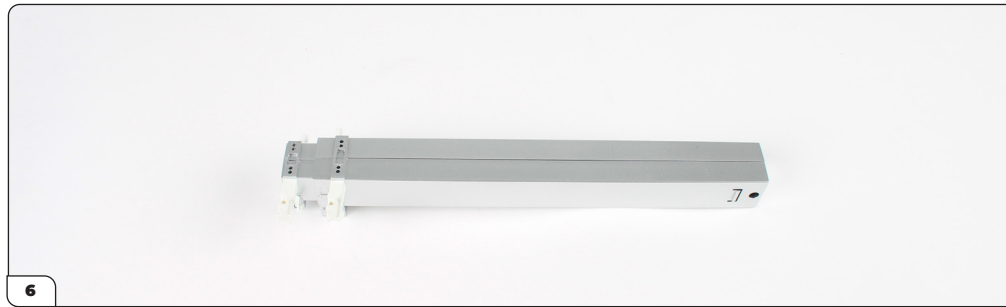
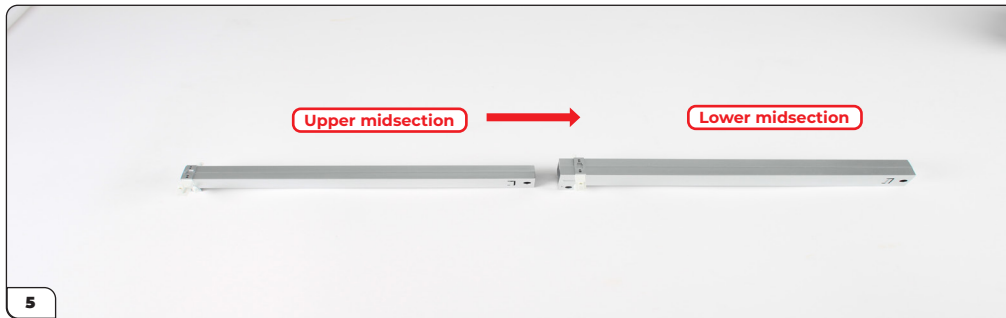


Line up the assembled upper midsections from this stage and the previous stage. The long hollow sides face each other. The 'L' shapes should fit together at the same end.

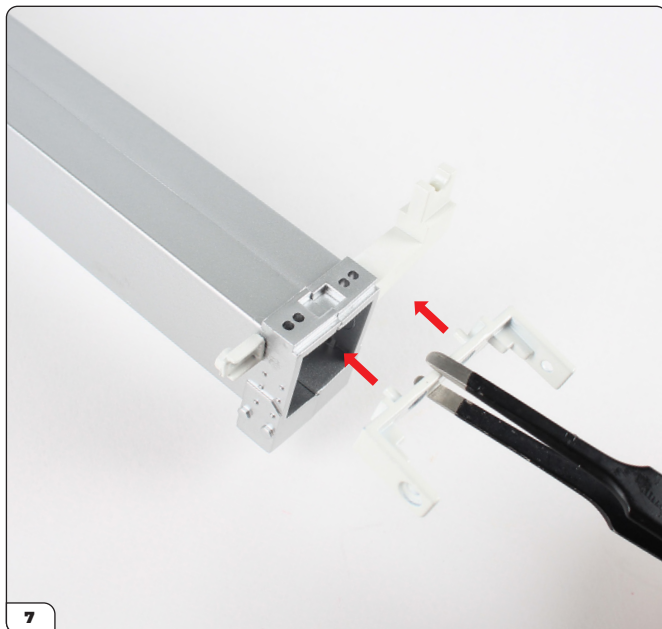


Fix the two sides together using 2 x type I screws.

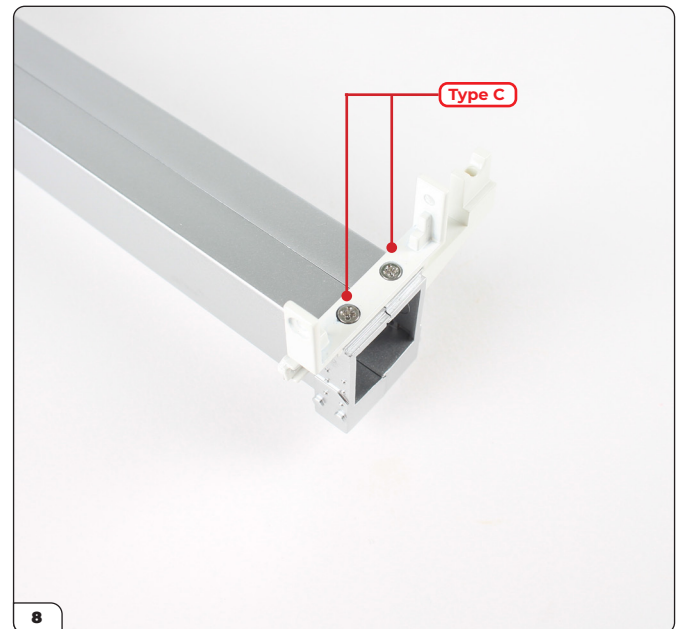
## Stage 68: Left Side of the Aerial Upper Midsection



Take the upper and lower midsections and line them up as shown in step 5. Gently push the upper midsection into the lower midsection like a telescope, as shown in step 6.



Take the ladder guide from stage 64 and align its fixing pins with the holes on the end of the upper midsection.



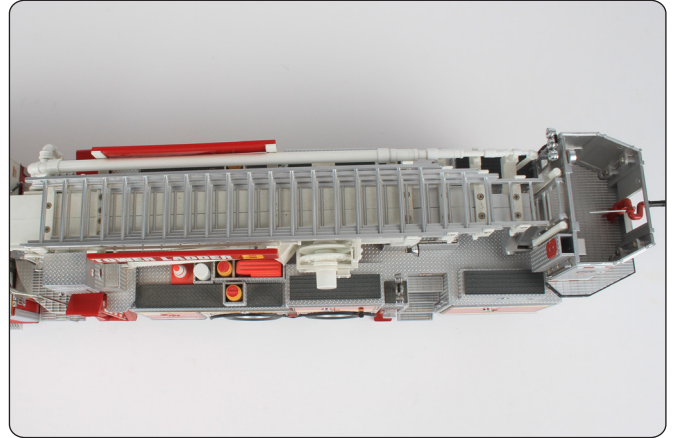
Fix in place using 2 x Type C screws supplied in stage 64.

# Stage 68: Left Side of the Aerial Upper Midsection



# Stage 69: Adding Ladder Guides and Cables

You will now attach more ladder guides to the aerial midsections before fixing them to your Aerialscope fire truck.



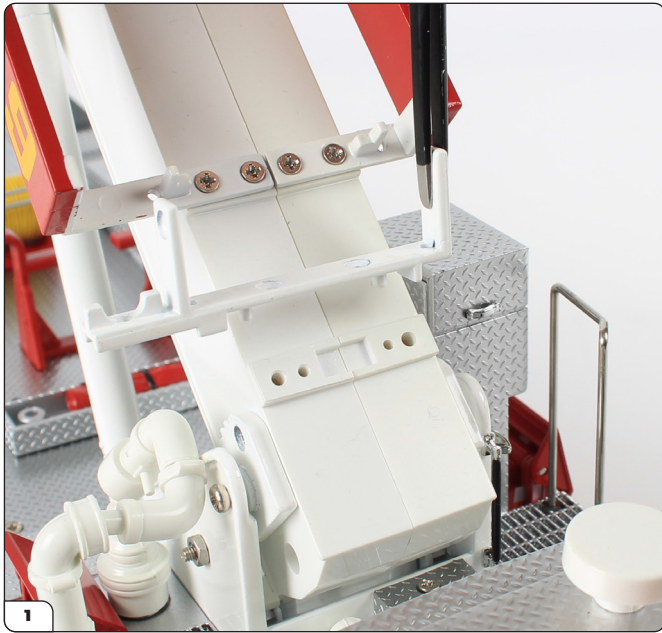
## STAGE 69 PARTS LIST

Name
Ladder guide a
Ladder guide b
Ladder guide c
Cable runs x2
Screws type C x6
Screws type B x5



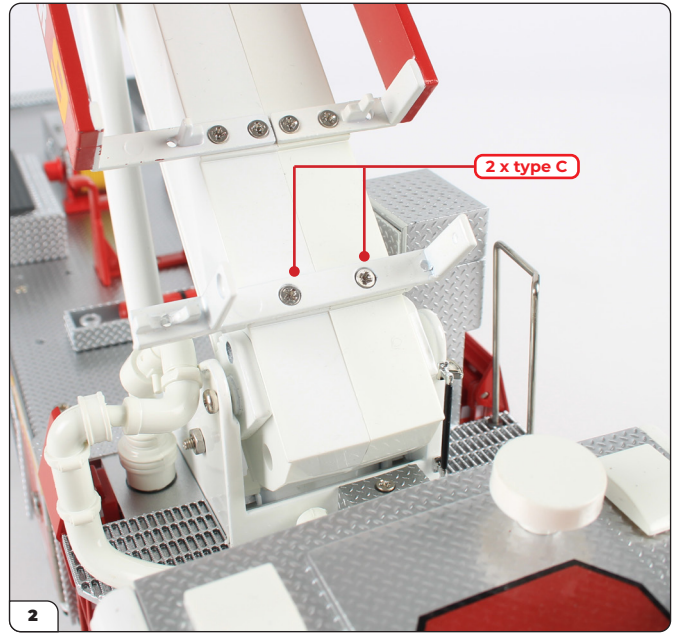


## Stage 69: Adding Ladder Guides and Cables

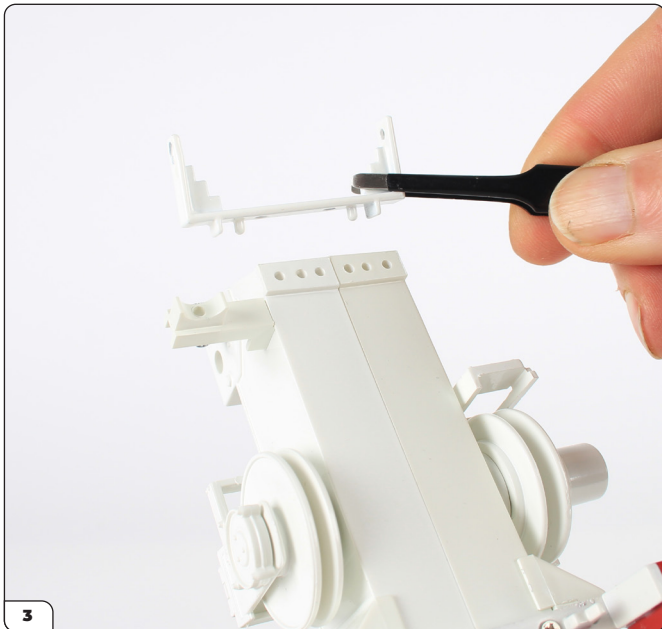


### ATTACHING THE LADDER GUIDES

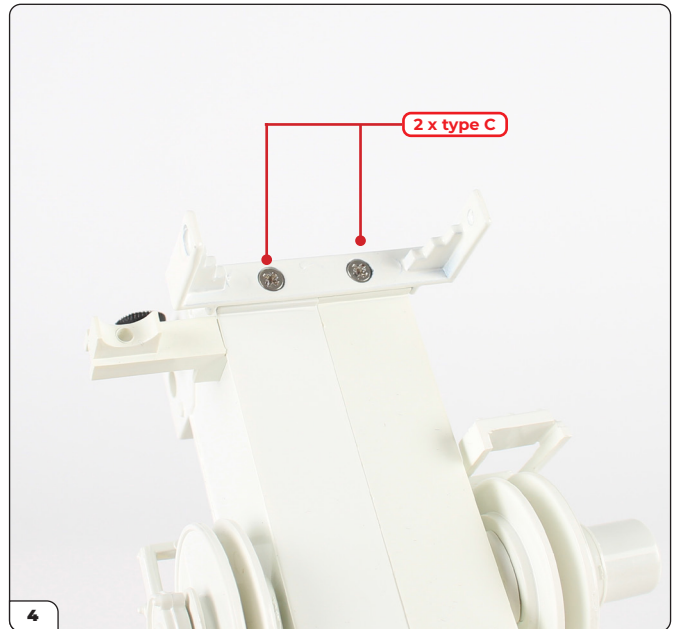
The ladder guides are different sizes. The wider ones are positioned nearest the cab, and then they are placed in decreasing size along the length of the aerial sections. Start with the widest bracket (a) and place it on the fixing points at the bottom of the bed section (boom), as shown.



Secure the bracket in place using 2 x type C screws.

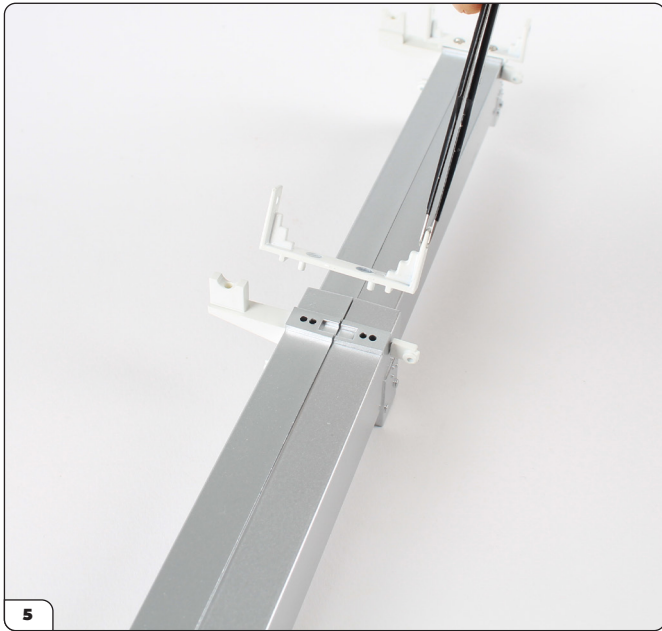


Bracket b is positioned at the end of the bed section.

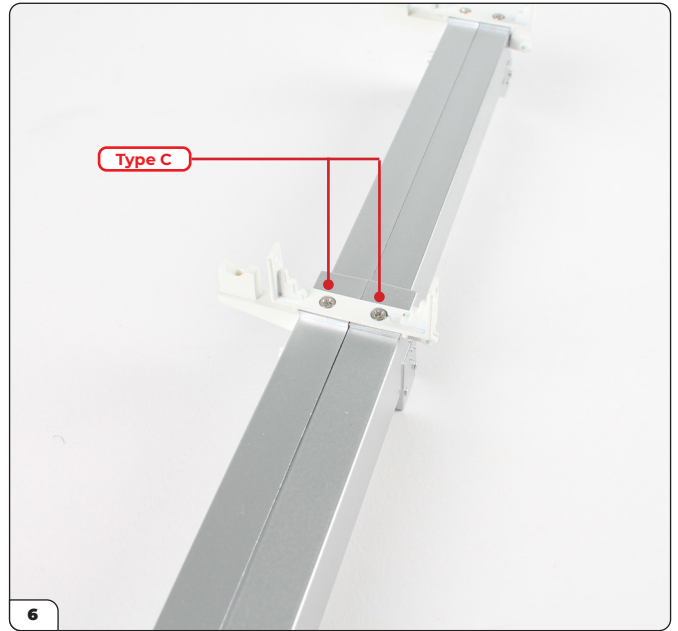


Fix in place with another 2 x type C screws.

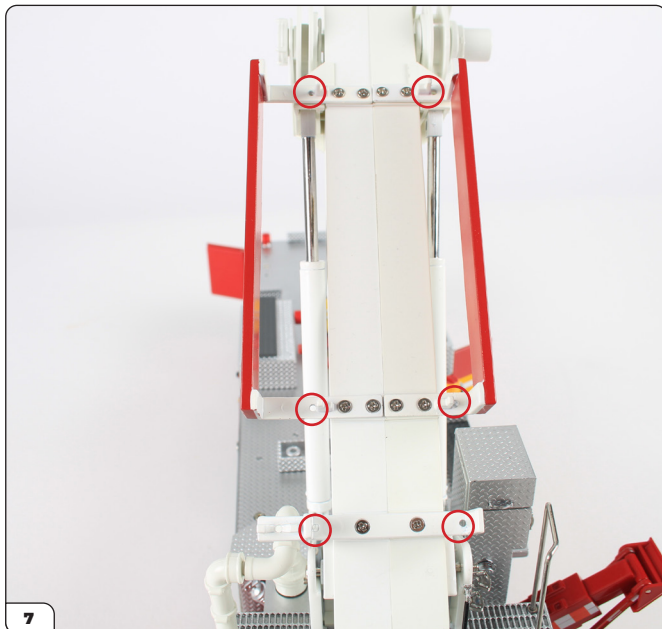
## Stage 69: Adding Ladder Guides and Cables



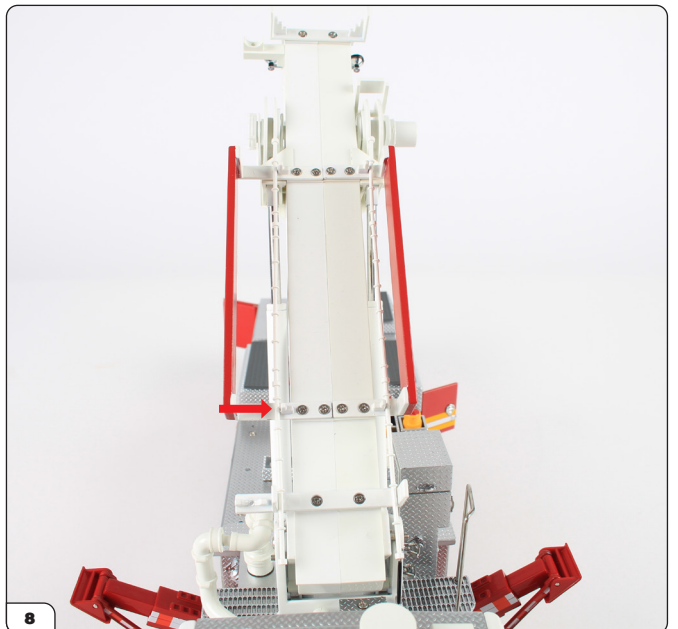
Bracket c is placed at the end of the lower midsection.



Fix bracket c in place with 2 x Type C screws.



Identify the six fixing points for the cable runs on either side of the bed section – circled above.

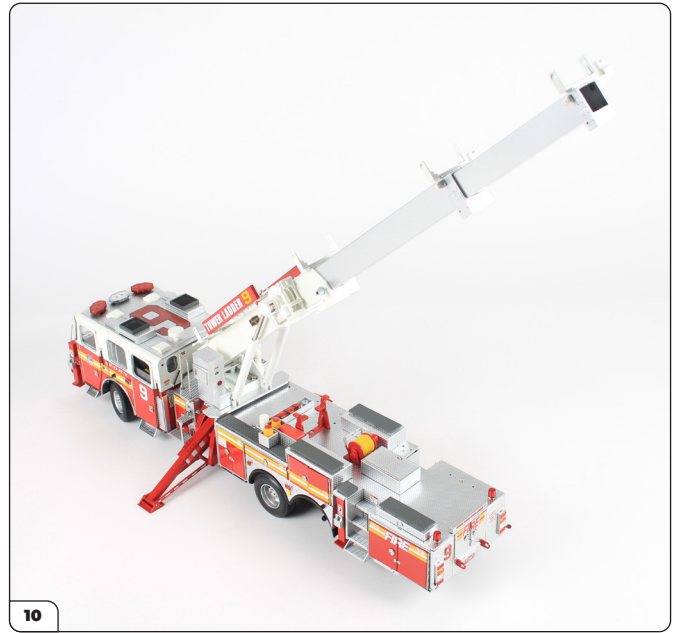


Push the three lugs on each cable run into the three fixing points on each side.

## Stage 69: Adding Ladder Guides and Cables



With the ladder guides facing up, slide the free end of the lower midsection into the bed section.



The lower and upper midsections have been fixed to the bed section. Push gently but firmly to telescope the midsections into the bed section.

