

FIRE TRUCK

TOWER LADDER 9



Pack 04

BUILD INSTRUCTIONS

STAGE 24: LADDER TURNTABLE BASE & ELECTRICAL PANEL

STAGE 25: BODY MIDSECTION & WATER SUPPLY PANELS

STAGE 26: RIGHT OUTRIGGER

STAGE 27: BODY MIDSECTION ROOF & ELECTRICAL PANEL

STAGE 28: LEFT OUTRIGGER

STAGE 29: BODY MIDSECTION BASE

STAGE 30: BOX FRAME



Advice from the experts



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.

In Pack 4 of the Ladder 9 Fire Truck build, most of the work focuses on the electrical control panels just behind the cab, and the outriggers. In this first stage you will assemble the compartment that houses the electrical panel on the lefthand side of the truck. Use a little superglue to help fix all the parts in this Pack.



STAGE 24 PARTS LIST

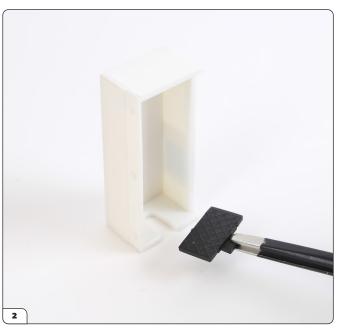
Name
Electrical compartment
Electrical panel
Compartment outer door
Compartment inner door panel
Ladder turntable base
Compartment door handle
Compartment floor







Take the electrical compartment and the compartment floor. Test fit the parts by slotting the 'U'-shaped projection on the compartment floor into the groove on the bottom of the electrical compartment (see picture 2). When you are happy with the fit, apply a little glue to the underside of the compartment floor.



Lower the compartment floor into the groove in the electrical compartment and press firmly.



Check that the compartment floor sits flush along the front edge.



Take the electrical panel and note there are two pins on the reverse side (circled) that correspond with two holes in the electrical compartment.



Press the electrical panel into place inside the electrical compartment until the pins on the reverse side are located firmly in the corresponding holes.



Take the compartment outer door and the compartment handle. Apply a little glue to the recess for the handle.



Fit the handle into the recess. Note: this is a D-shaped fixing to ensure the correct fit.



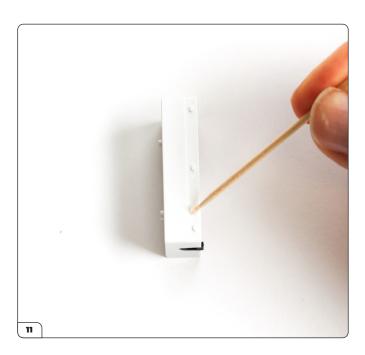
This is how the handle should look when correctly fitted.

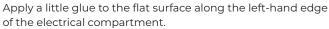




Turn the compartment door over so the reverse side is facing up, and align it with the compartment inner door. The two pins on the reverse of the door correspond to the two holes on the inner door panel. Test fit the parts. Note: you may need to shave excess flash from around the magnet using a blade (inset) to fit the magnet into the square recess on the door panel.

Once you are happy with the fit, apply a little glue to the two holes on the inner door panel before pressing the panel firmly into place on the reverse side of the door.







With the outer door facing up, align the underside of the hinge on the compartment door with the edge you have just glued on the electrical compartment. Press the three small holes in the hinge over the corresponding three lugs on the compartment. Press firmly into place. Note: it is easier to get an accurate fit by first aligning the opening edge (inset) before pressing the glued hinge in place.



The first electrical compartment is now fully assembled.



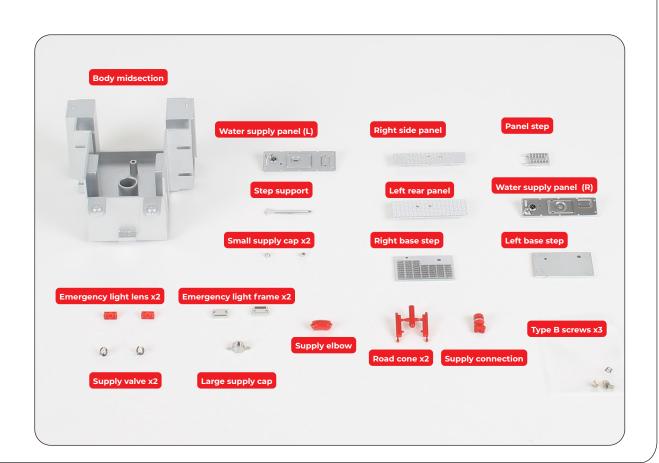
Now you'll attach the electrical compartment to the body midsection, and assemble and attach the water supply panels. Take care when assembling the supply elbow as the ends of this part look similar but have different shaped fixings which determine the correct fit.

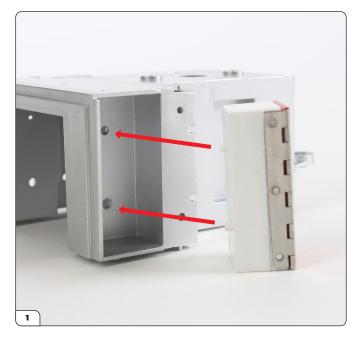


STAGE 25 PARTS LIST

Name
Body midsection
Left water supply panel
Right side panel
Panel step
Step support
Left side panel
Right water supply panel
Small supply cap x2
Right base step

Name
Left base step
Emergency light lens x2
Emergency light frame x2
Supply valve x2
Large supply cap
Supply elbow
Road cone x2
Supply connection
Type B screws x3







Take the electrical compartment from stage 24 and align the two lugs on the back of the compartment with the two holes in the body midsecton as shown.



Push the electrical compartment into the body midsection until the lugs sit firmly within the fixing holes.

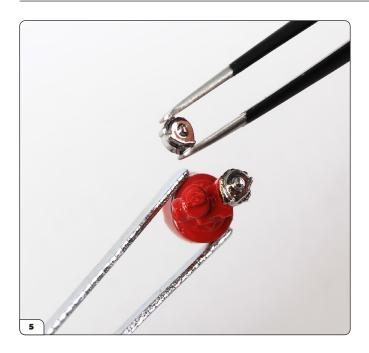


ASSEMBLE THE LEFT WATER SUPPLY PANEL You'll start to assemble the water supply panel by first assembling the supply connection. Take the red supply connection and the two small supply caps. The caps have a

D-shaped fixing point (inset).

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Push one of the supply caps onto one of the pins on the supply connection.



Repeat to attach the second small supply cap to the supply connection.



This is how the small caps should look when correctly attached to the supply connection

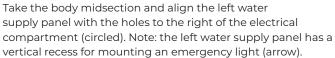


Now take one of the emergency light lenses and one of the emergency light frames.



Press the lugs on the lens into the holes in the frame.







Press the lugs on the reverse side of the water supply panel into the holes in the body midsection.



Take the emergency light assembled in picture 8, apply a little glue to the reverse side and press it into the recess on the water supply panel as shown.



This is how the water supply panel should now look.





Next, attach the supply connection to the water supply panel by pushing the lug at the base of the connection into the D-shaped fixing in the panel.

This is how the supply connection should now look.



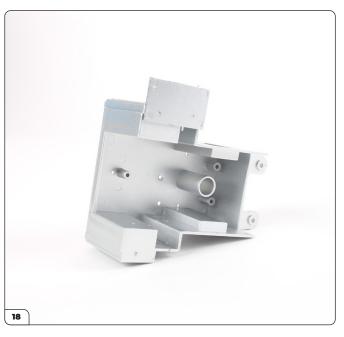
Take one of the supply valves and push it into the D-shaped hole on the water supply panel as shown. The fixing pin is placed centrally on the valve. Check you have it the correct way round.



The supply valve is now attached.



Rest the body midsection on its side so the lugs just below the door and the water supply panel are visible on the underside. Apply a little glue around the lugs. Take the left base step and align its two small holes with the lugs.



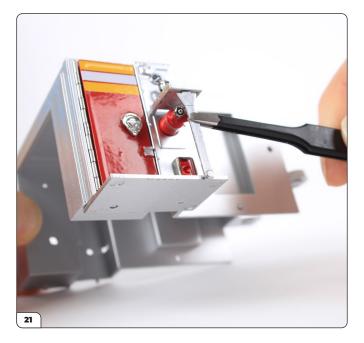
Press firmly to fit.



Align the two lugs on the panel step with the two remaining holes on the water supply panel.



Press firmly to fit



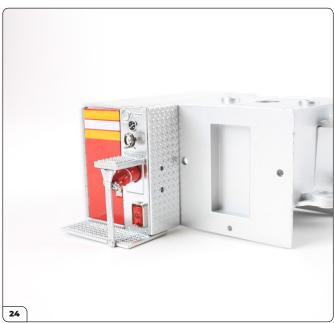
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Now you can add the step support by pushing the tab on the wider end into the recess on the underside of the step, and push the hole at the narrow end over the lug on the step. Use a little glue to hold the support in place at both ends.

This is how the step support should now look.



Take the left side panel and align the two tabs on the reverse side with the slots in the body midsection as shown. Note: the left side panel is wider than the right side panel - check you have the correct part.



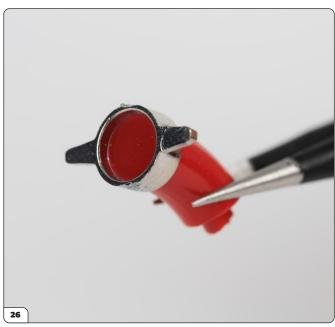
Push firmly to fit.



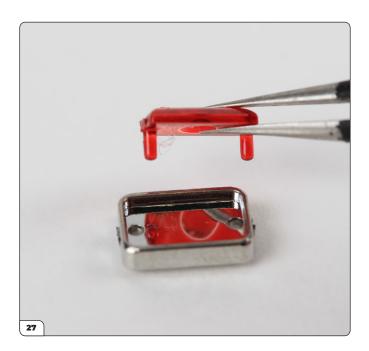


supply panel. Begin by taking the supply elbow and the large supply cap. Note: this is a D-shaped fixing (inset). The 'D' must be in the orientation shown so that the supply elbow can be attached at the correct end to face downwards when attached to the water supply panel (see step 33). The two ends look similar, but are different.

Now you'll start to assemble components for the right water



Push the cap firmly onto the supply elbow.



Assemble the emergency light by taking the remaining lens and frame. Align the lugs on the lens with the holes in the frame.



Push the lens firmly into the frame.



The right emergency light attaches horizontally in the recess on the right water supply panel.



Apply a little glue before pushing the lugs firmly into the holes to fit.



Attach the remaining supply valve just below the water pressure dial. Note: this is a D-shaped fixing.



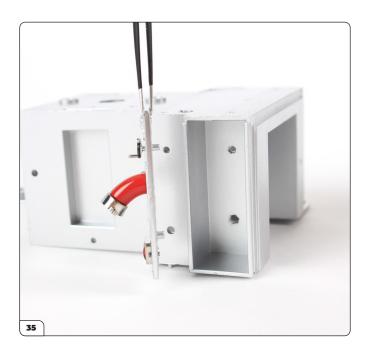
Push firmly to fit.



34

Attach the supply elbow with cap assembled in steps 25 & 26. This is another D-shaped fixing. Check that the supply elbow faces the emergency light as shown and push firmly to fit.

This is how the supply elbow should look.



The right water supply panel can now be attached to the body midsection. Align the lugs on the back of the panel with the corresponding holes in the midsection as shown.



Push firmly to fit.



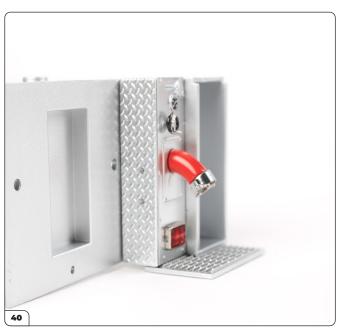
Apply a little glue around the holes on the right base step before aligning with the lugs on the underside of the midsection (arrows).



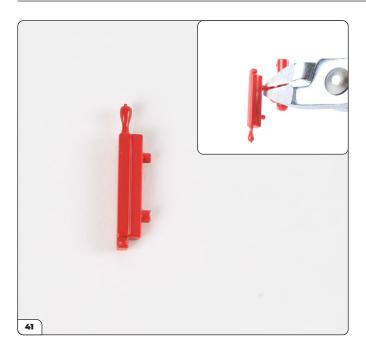
Push firmly to fit.



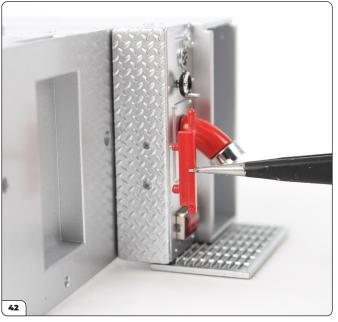
Line up the tabs on the reverse side of the right side panel with the slots in the midsection.



Push firmly to fit.



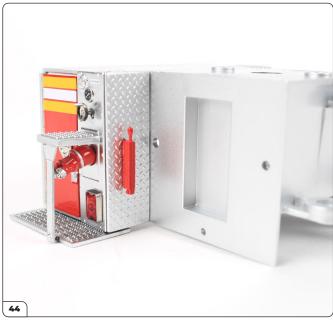
Carefully snip one of the road cones from the sprue.



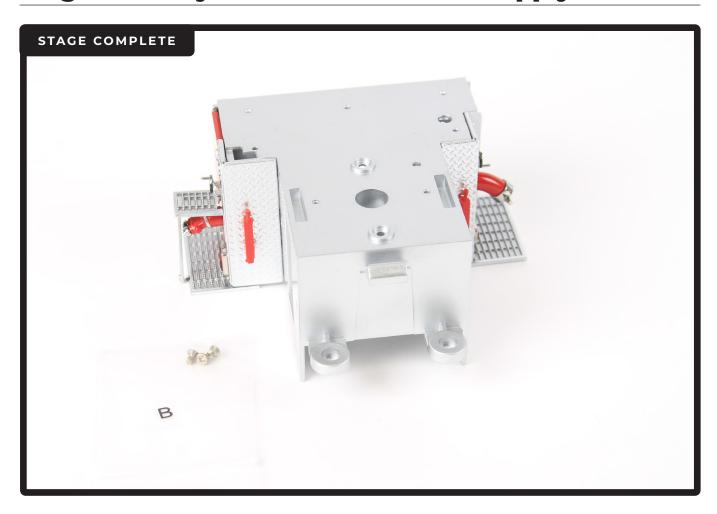
Push the lugs on the road cone into the holes on the right side panel. Apply a little glue if the fit is loose as it will be fiddly to reattach later.



This is how the assembly should look.



Snip the remaining road cone from its sprue and push its lugs into the left side panel.

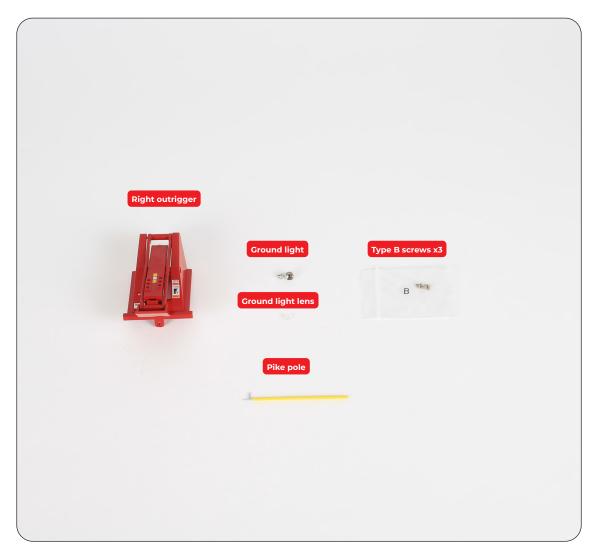


In this next stage, you'll assemble and attach the right outrigger.



STAGE 26 PARTS LIST

Name
Right outrigger
Ground light
Ground light lens
Pike pole
Type B screws x3





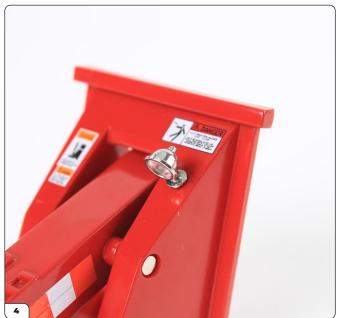
ASSEMBLE AND ATTACH THE RIGHT OUTRIGGER Align the ground light lens with the ground light.



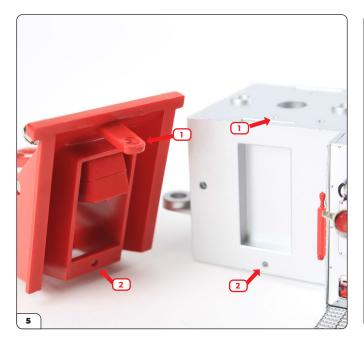
Push the lens firmly into the light to fit. You may need a tiny drop of PVA glue (which dries clear) to hold the lens in place.

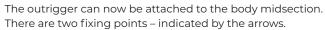


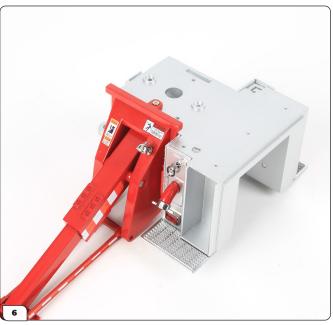
Line up the ground light with the D-shaped hole on the outrigger. The light should, of course, point down towards the ground. Apply a drop of glue to the peg of the ground light.



Push the light fimly into place.



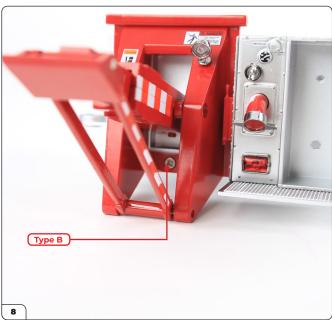




Line up the tab at fixing point 1 with the hole on the upper surface of the midsection. The two lower holes should also now be aligned. Check the outrigger is on the correct side of the midsection: the ground light should face forwards, next to the water supply panel.



Holding everything together, attach the tab on the outrigger to the midsection using a Type B screw.



With the outrigger in the upright position, drive another Type B screw through the lower pair of screwholes.



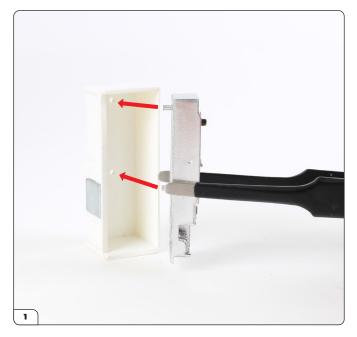
Now you'll assemble and attach the electrical compartment for the right-hand side of Ladder 9, and attach the body midsection roof.



STAGE 27 PARTS LIST

Name
Body midsection roof
Electrical compartment
Electrical panel
Pike pole bracket x2
Compartment handle
Compartment inner door
Compartment outer door
Single pike pole clamp x2
Double pike pole clamp





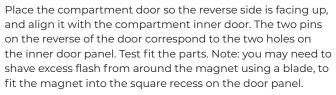


ASSEMBLE THE RIGHT ELECTRICAL COMPARTMENT

Take the electrical panel and note there are two pins on the reverse side that correspond with two holes in the electrical compartment.

Press the electrical panel into place inside the electrical compartment until the pins on the reverse side are located firmly in the corresponding holes.

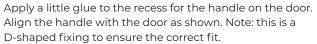






Once you are happy with the fit, apply a little glue to the two holes on the inner door panel before pressing the panel firmly into place on the reverse side of the door.







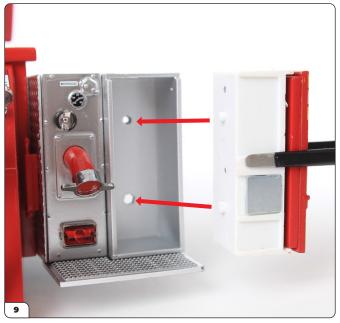
This is how the handle should look when correctly fitted.



Apply a little glue to the flat surface along the righthand edge of the electrical compartment. With the outer door facing up, align the underside of the hinge on the compartment door with the edge you have just glued on the electrical compartment.



Press the three small holes in the hinge over the corresponding three lugs on the compartment. Press firmly into place. Note: it is easier to get an accurate fit by first aligning the opening edge before pressing the glued hinge in place.



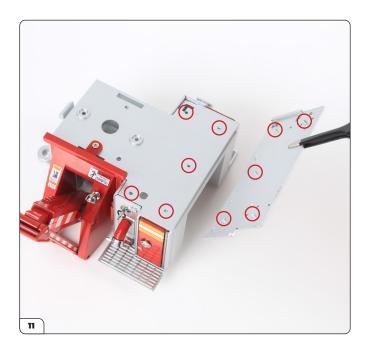


Take the electrical compartment you have just assembled and align the two lugs on the back of the compartment with the two holes in the body midsecton as shown.

THE BODY MIDSECTION

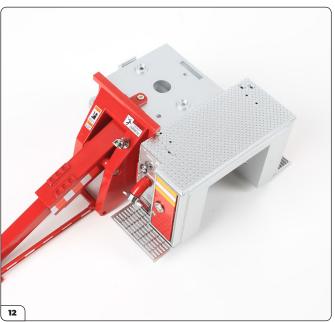


Push the electrical compartment into the body midsection until the lugs sit firmly within the fixing holes.

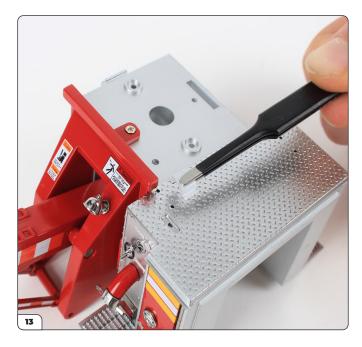


ASSEMBLE AND ATTACH THE BODY MIDSECTION ROOF

Take the body midsection roof and note the five lugs on the underside (circled) corresponding to five holes on the upper surface of the midsection.



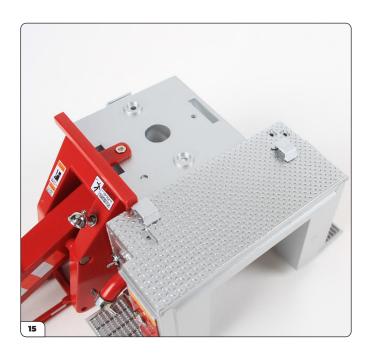
With the ridged side facing up, press the five lugs into the holes to fit the roof to the midsection.



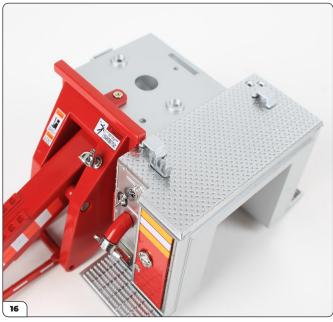
Take one of the pike pole brackets and push its lugs into the pair of holes closest to the top of the outrigger on the right-hand side as shown. You may wish to add a little glue to all the components attached to the roof in steps 13–18.



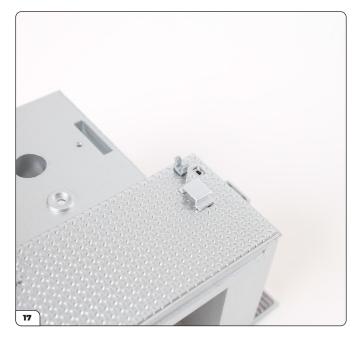
The first pike pole bracket is now in place.



Repeat on the left-hand side to attach the remaining pike pole bracket to the roof.



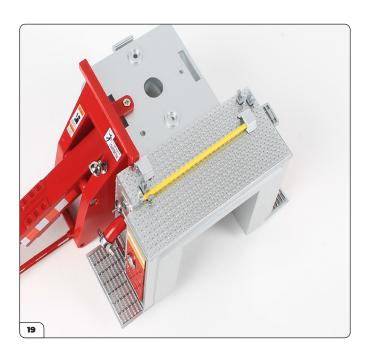
Take the double pike pole clamp and push its lug into the hole next to the right-hand pike pole bracket.







Here, both single pike pole clamps have been attached.



Slide the pike pole from stage 26 into the pike pole brackets as shown.



The left outrigger can now be attached in the same way as the right outrigger, and the ladder turntable base from stage 24 will be fitted.



STAGE 28 PARTS LIST

Name
Left outrigger
Ground light
Ground light lens
Pike pole
Type B Screws x3





ASSEMBLE AND ATTACH THE LEFT OUTRIGGER Align the ground light lens with the ground light.



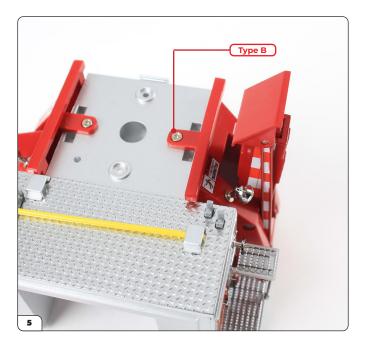
Push the lens firmly into the light to fit, adding a drop of PVA glue on the lug to hold the lens in place.

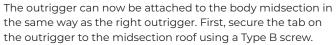


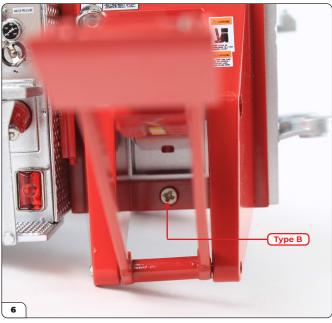
Line up the ground light with the D-shaped hole on the outrigger. The light should, of course, point down towards the ground. Add a little glue to the peg of the ground light.



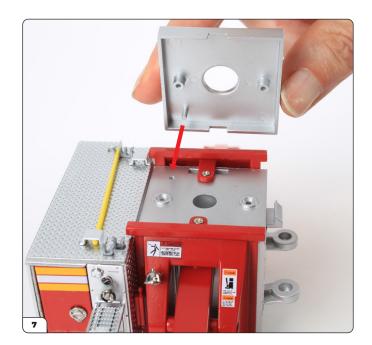
Push the light fimly into place.





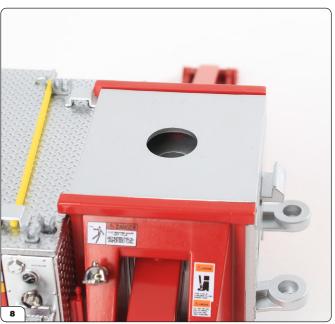


Secure the outrigger to the bottom part of the midsection using another Type B screw.

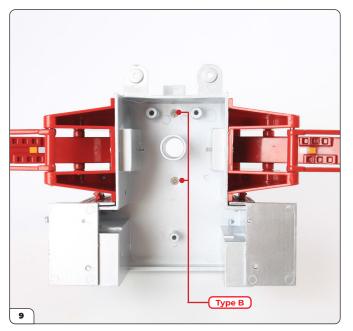


ATTACH THE LADDER TURNTABLE BASE

Take the ladder turntable base from stage 24 and note the two raised screwholes and single lug (arrow). Check the parts are aligned so that the lug fits into the corresponding hole in the midsection roof.



Fit the turntable base onto the roof.





Holding the roof in place, turn the assembly over and secure the turntable base in place from the underside using 2×10^{-2} X Type B screws.

Secure the remaining pike pole in the pike pole brackets.



Stage 29: Body Midsection Base

Next, the heavy body midsection base is installed.



STAGE 29 PARTS LIST

Name	
Body midsection base	
Cab button-push tool	
Type I screws x4	

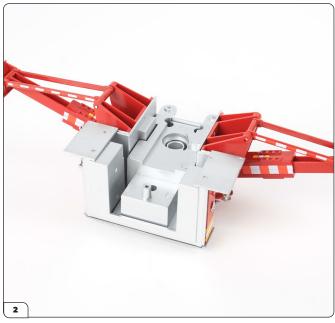


Stage 29: Body Midsection Base

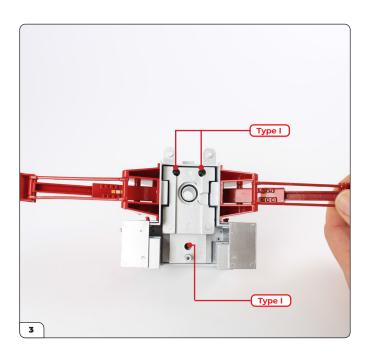


ATTACH THE BODY MIDSECTION BASE

Position the assembly from stage 28 upside down on your worksurface. Lower the body midsection base into the assembly as shown.



The assembly should like like this.



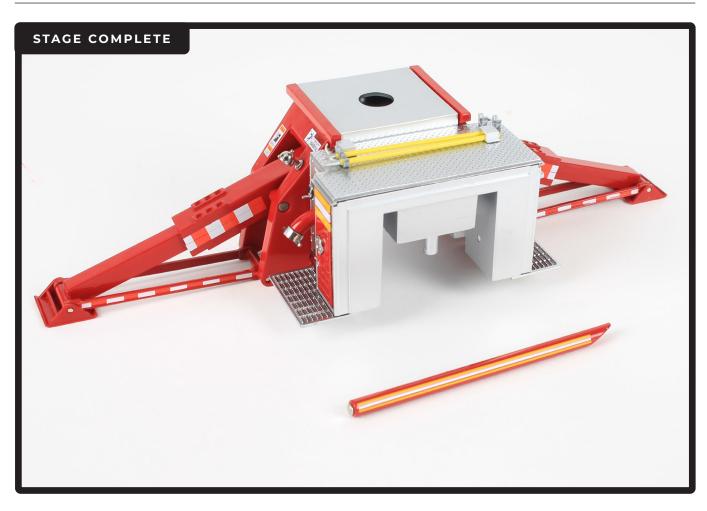
Fix the base in place using 3 x Type I screws.



The base has now been attached to the body midsection.

Note: the cab button-push tool will be used for operating the electrical switches in the cab when your model is complete, so keep it safe for now!

Stage 29: Body Midsection Base



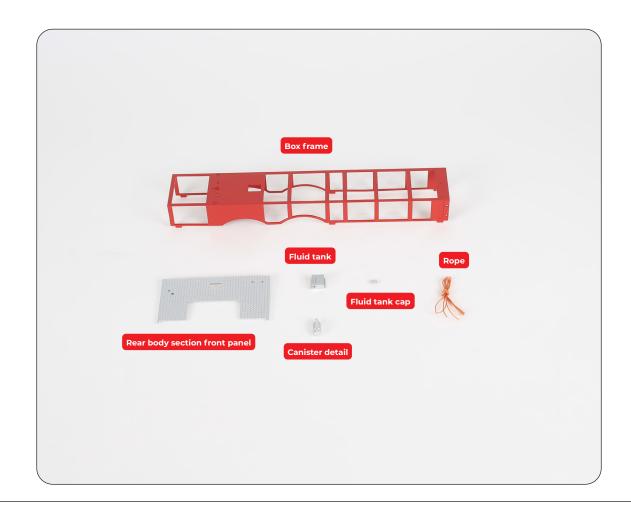
Stage 30: Box Frame

In this final stage of Pack 4, assembly starts on the front panel for the rear body, ready to complete and attach at a later stage. The box frame can be rested on the chassis but will also be fitted at a later stage. Keep the rope safe – this will be used to tie ladders together, again, at a later stage.



STAGE 30 PARTS LIST

Name
Box frame
Rear body section front panel
Fluid tank
Fluid tank cap
Rope
Canister detail



Stage 30: Box Frame



ASSEMBLE AND ATTACH COMPONENTS TO THE REAR BODY SECTION FRONT PANEL

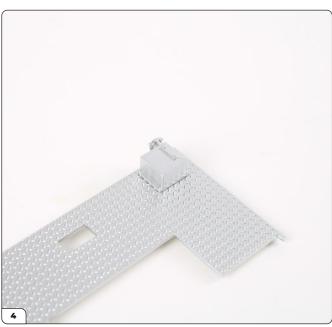
Take the fluid tank and fluid tank cap, noting the D-shaped fixings on the parts.



Push the cap into the fluid tank.

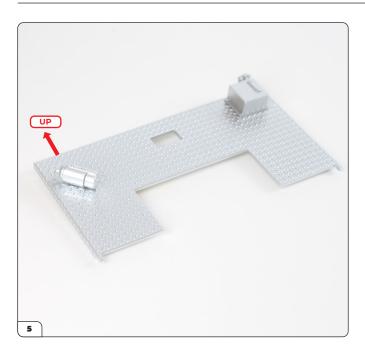


Position the assembled fluid tank on the front panel, checking you have the correct orientation. The cap should face upwards.



Push the lugs on the tank firmly into the holes in the panel to fit.

Stage 30: Box Frame



Attach the canister detail in the same way on the opposite side of the panel. Again, check that the canister faces diagonally up as shown.

