



Build the

Beetle

1303 Cabriolet

Pack 4



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Build the
 **Beetle**
1303 Cabriolet

STAGE

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Warning: Not suitable for children under the age of 14.

This product is not a toy and is not designed or intended for use in play.

Items may vary from those shown.

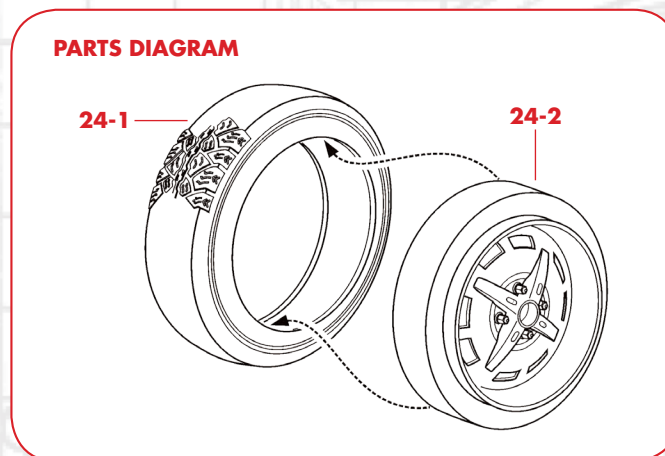
Stage 24: The right rear wheel

In this stage, you assemble the Beetle's fourth wheel – which only leaves the spare wheel to complete the full set.

PARTS

24-1 Tyre

24-2 Wheel



NOTE: The appearance of the parts you receive may be slightly different from the parts pictured in these pages.

TIP

As in the earlier stages, gently warm the tyre with a hair dryer to make it easier to fit it onto the rim. There is no need to get the rubber very hot, as it softens quite easily. It will be flexible enough when you can easily squeeze it into an oval as shown.





STEP 24-A

After warming the tyre to soften it, as shown in the Tip box, insert the solid portion around the rim of the wheel into one side of the tyre.

STEP 24-B

Go round the tyre, working it over the rim.



STEP 24-C

Check that the tyre beads are perfectly seated on the rim all the way round.



STEP 24-D

If necessary, rotate the wheel, pressing down on the tyre so that it is perfectly positioned on the rim.

That completes the second rear wheel.

STAGE COMPLETE



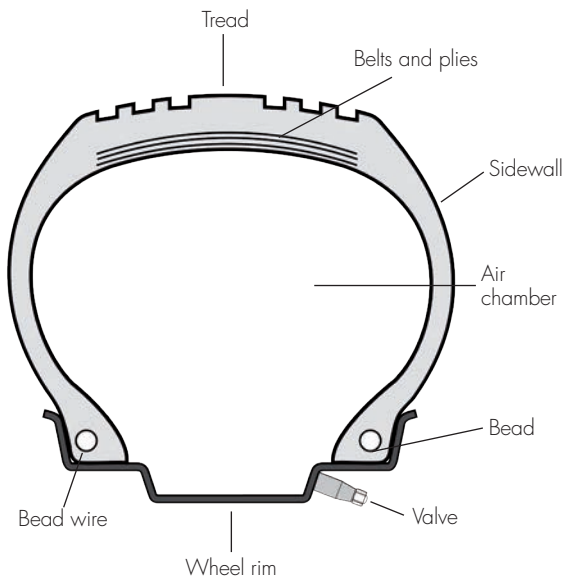


TYRE CONSTRUCTION

Tyres are the only point of contact between a vehicle and the ground, and its design evolution follows that of the car itself. Tyre construction is complex, and treads are designed to provide the best compromise between comfort, roadholding and adhesion in different driving conditions.

CROSS SECTION OF A TYRE

This view shows the construction of a conventional tubeless tyre, and the names of the different parts.



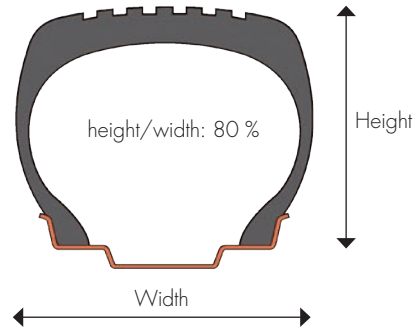
TYRE PROFILES

The profile of a tyre is the ratio between its height and its width. These drawings show the evolution of car tyre design, from the high-profile tyres of the early 20th century to the low-profile tyres of today, which first began to appear in the 1980s.

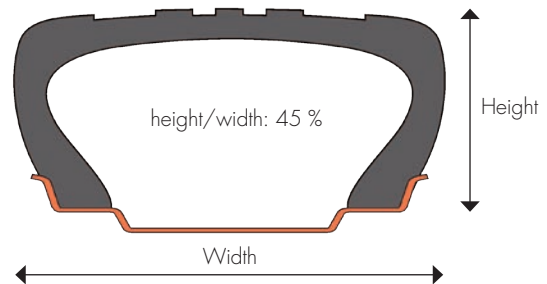
Early 20th century



Mid 20th century



1980s



TYRE SIZE CODES

The numbers and letters moulded on the sidewall give precise information about the tyre's application:

- 175** : width in millimetres
- 70** : aspect ratio (height of the sidewall expressed as a percentage of width – see right).
- H** : maximum speed rating (here, 210 km/h)
- R** : type of construction (here, radial)
- 17** : inner diameter in inches (rim size)



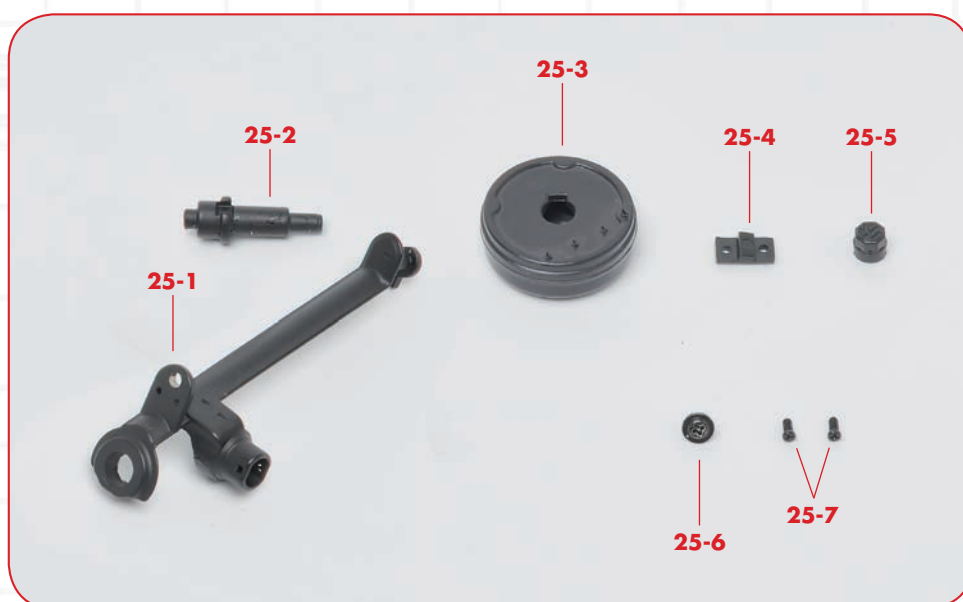


Stage 25: Right rear suspension

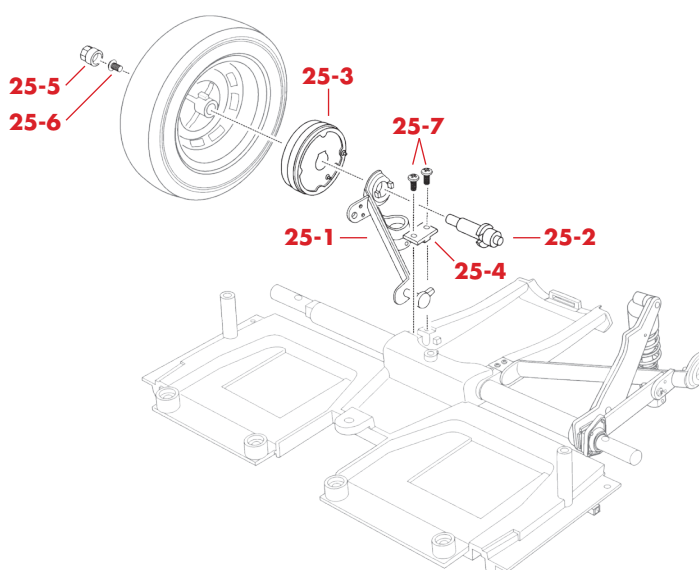
This stage in assembling the rear suspension involves fitting the right-hand arm to the subframe. You can also temporarily fit the corresponding wheel.

PARTS

- 25-1** Right rear suspension arm
- 25-2** Stub axle
- 25-3** Right rear brake drum
- 25-4** Suspension arm mounting plate
- 25-5** VW badge
- 25-6** SD02 screw
- 25-7** SD06 screws



PARTS DIAGRAM



NOTE: The appearance of the parts you receive may be slightly different from the parts pictured in these pages.



STEP 25-A

Fit the stub axle (25-2) into the hole at the end of the right rear suspension arm (25-1). Note the two small tabs beside the hole that engage with notches in the flange on the stub axle to prevent it from turning.



STEP 25-B

As you did when assembling the left rear suspension in Stage 19, align the other end of the suspension arm with the notch indicated.

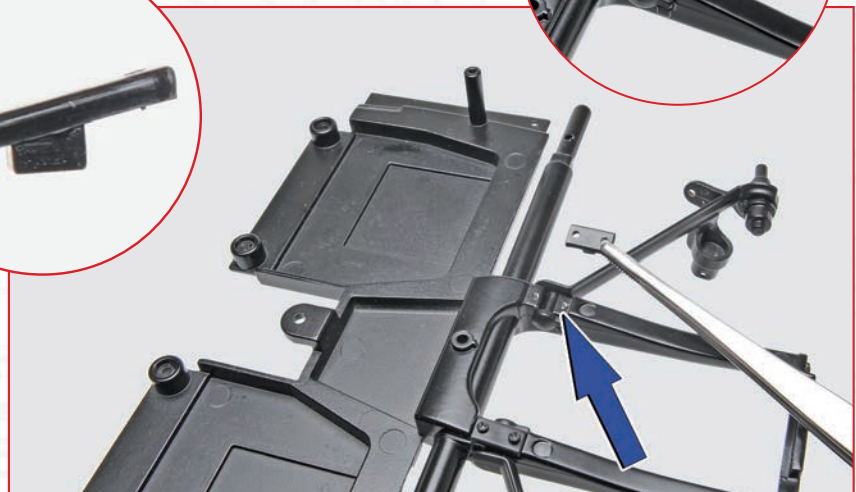


STEP 25-C

Press the end of the suspension arm into the notch in the rear subframe until it snaps into place.

STEP 25-D

The suspension arm mounting plate (25-4) is angled to match the slope of the rear subframe. Fit it over the end of the suspension arm so that the top of the plate sits flush with the subframe.





STEP 25-E

Fix the suspension arm mounting plate to the subframe with two SD06 screws.



STEP 25-F

Check that the suspension arm pivots freely up and down.



STEP 25-G

Take the wheel you assembled in Stage 24. Fit the brake drum (25-3) into the wheel as shown, making sure that the tab indicated slots into the corresponding notch in the brake drum.



STEP 25-H

Holding the brake drum in place, fit the assembly over the right stub axle.



STEP 25-I

Fix the wheel to the stub axle with an SD02 screw.



TIP

As in Stage 19, fitting the wheel temporarily will allow you to check that all the parts fit together perfectly. However, because the weight of the wheel is unsupported, it is advisable to remove the VW badge, screw, stub axle, wheel and brake drum so you can keep them carefully until you are ready to do the final assembly in Stage 30.



STEP 25-J

To finish off the wheel, press the Volkswagen badge (25-5) into the central hole.

If you remove the wheel as suggested in the Tip panel above, the subframe and suspension arms should now look like this.

STAGE COMPLETE

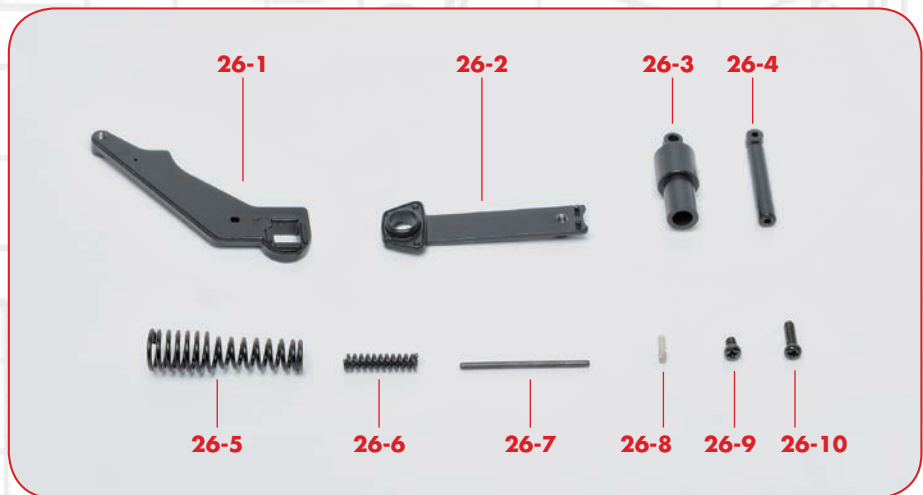


Stage 26: Rear suspension and shock absorber

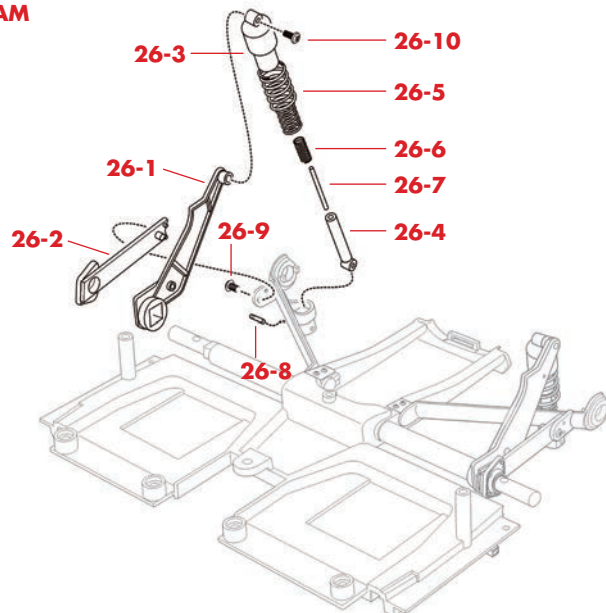
This stage continues the assembly which you started in Stage 25. Installing the other part of the suspension arm and the damper will complete the rear suspension.

PARTS

- 26-1** Right rear shock absorber support
- 26-2** Torsion bar spring plate
- 26-3** Shock absorber body
- 26-4** Damper tube
- 26-5** Rear suspension spring
- 26-6** Internal damper spring
- 26-7** Shock absorber rod
- 26-8** Pin
- 26-9** SD04 screw
- 26-10** SP12 screw



PARTS DIAGRAM



NOTE: The appearance of the parts you receive may be slightly different from the parts pictured in these pages.



STEP 26-A

Take the rear subframe with the parts you fitted in Stage 25 and fit the right rear shock absorber support (26-1) onto the torsion bar housing in the position shown. The support has a square hole that only fits the shoulder of the housing at a set angle.

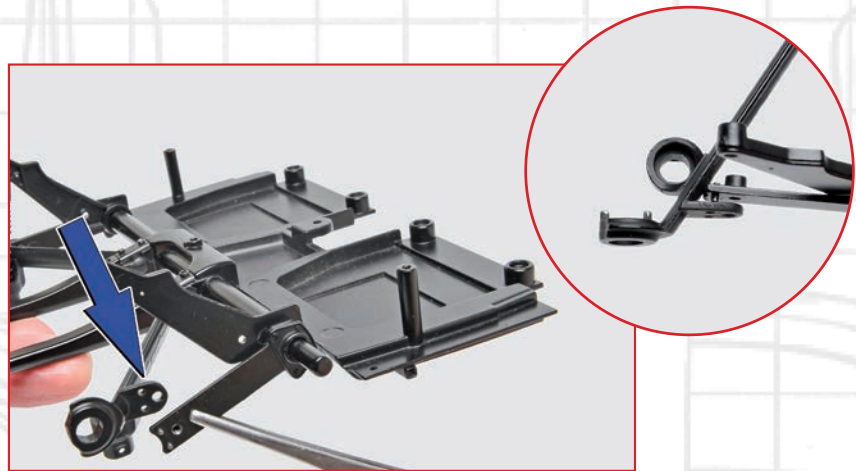


STEP 26-B

Fit the torsion bar spring plate (26-2) over the round end of the torsion bar.

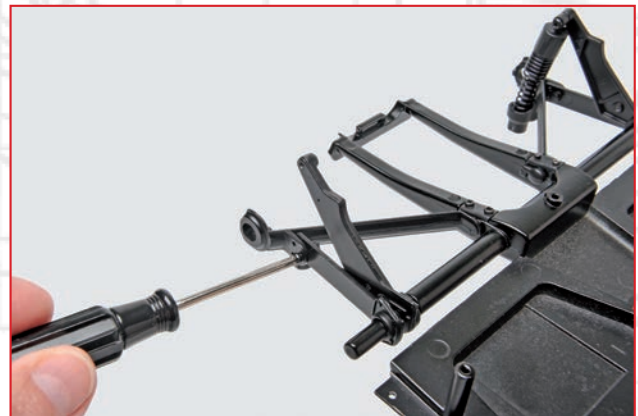
STEP 26-C

Fit the end of the torsion bar spring plate behind the D-shaped support on the end of the suspension arm, so that the two small pins fit into the holes in the support.



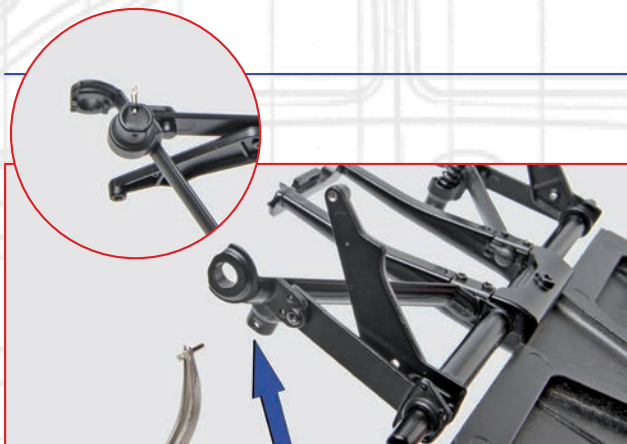
STEP 26-D

Press the two parts together so that they fit flush.



STEP 26-E

Fix the parts together with an SD04 screw.



STEP 26-F

The lower end of the suspension arm has a circular opening with two holes facing each other. Insert the smooth end of the pin (26-8) into one of the holes, but do not push it all the way in.



STEP 26-G

Fit the damper tube (26-4) down through the circular opening so that the eye at the end of the tube lines up with the pin. Push the pin through the suspension arm until its grooved portion locks it into place.



STEP 26-H

Slide the shock absorber rod (26-7) into the damper tube.



STEP 26-I

Fit the thinner end of the rear suspension spring (26-5) over the damper tube.



STEP 26-J

Fit the internal damper spring (26-6) inside the rear suspension spring and over the damper tube.



STEP 26-K

Finally, fit the shock absorber body (26-3) over the internal damper spring and inside the rear suspension spring.



STEP 26-L

Compress the shock absorber a little so that you can secure it to the top of the shock absorber support with an SP12 screw.

The rear subframe should now look like this.

STAGE COMPLETE

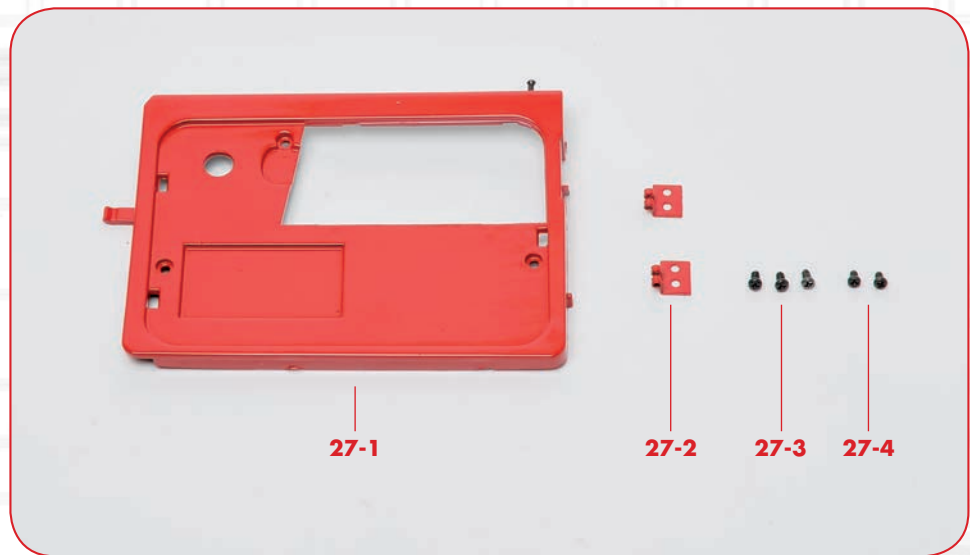


Stage 27: Passenger door panel and hinges

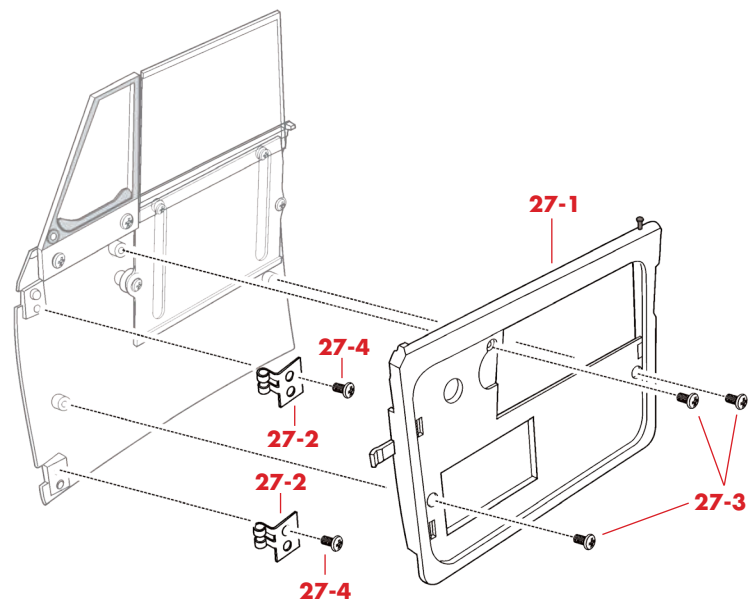
This stage continues the door that you began assembling in Stages 21 and 23, by fitting the hinges and internal panel.

PARTS

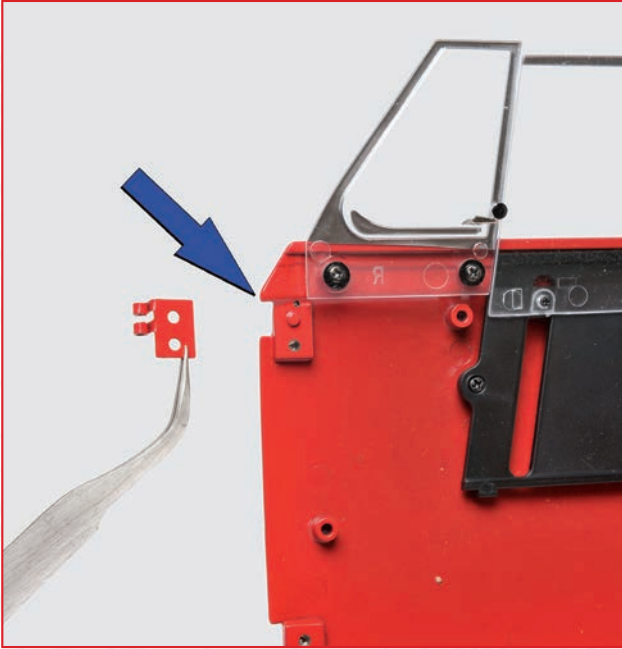
- 27-1** Inner door panel
- 27-2** Hinges
- 27-3** SD04 screws
- 27-4** SD07 screws



PARTS DIAGRAM



NOTE: The appearance of the parts you receive may be slightly different from the parts pictured in these pages.



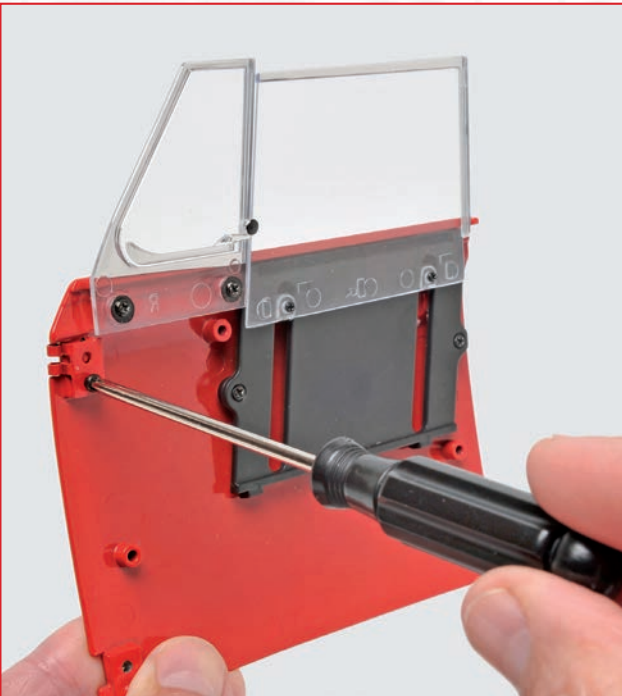
STEP 27-A

Note which way up the hinges go. The door panel has a locating pin and a hole that correspond to the two holes in the hinge.



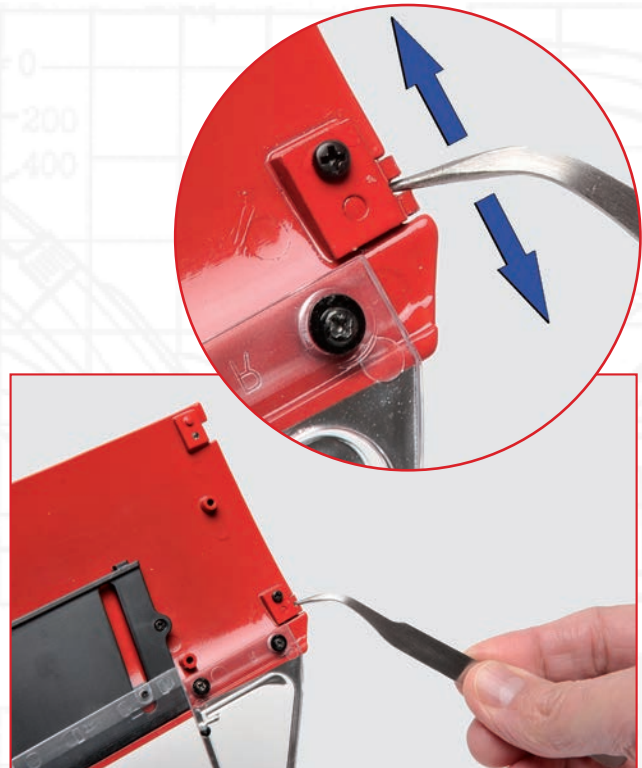
STEP 27-B

Fit the first hinge to the top of the door, with the locating pin in the top hole.



STEP 27-C

Fix the hinge in place with an SD07 screw in the lower hole.



STEP 27-D

Make sure that the hinge is securely fixed and does not move up and down in the direction shown.



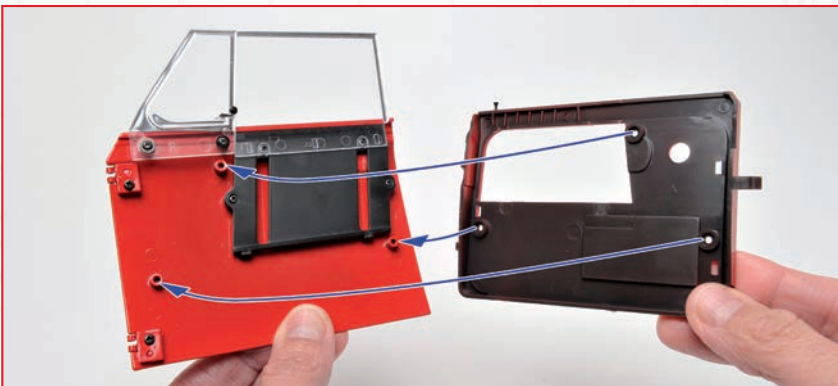
STEP 27-E

Fit the second hinge in the same way and secure it with another SD07 screw.



STEP 27-F

The door should now look like this, with both hinges visible from the outside, as shown in the picture.



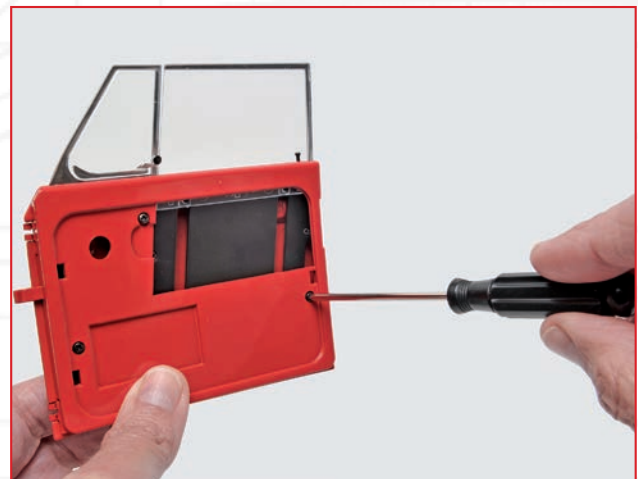
STEP 27-G

Now fit the inner door panel (27-1), ensuring that the three mounting holes line up as shown.



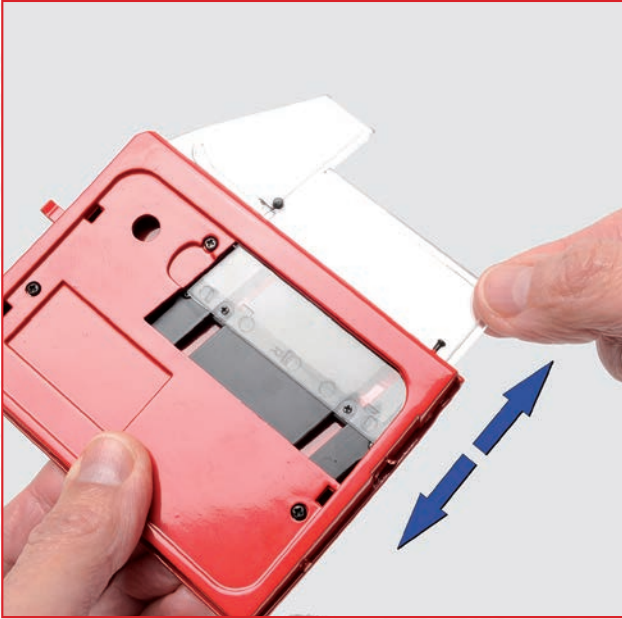
STEP 27-H

Press the panel into place so that it fits flush.



STEP 27-I

Fix the panel to the door with three SD04 screws.



STEP 27-J

After fitting the door panel, check that the window still slides up and down freely. Slacken the screws slightly if it feels stiff.

The completed door should look like this.

STAGE COMPLETE

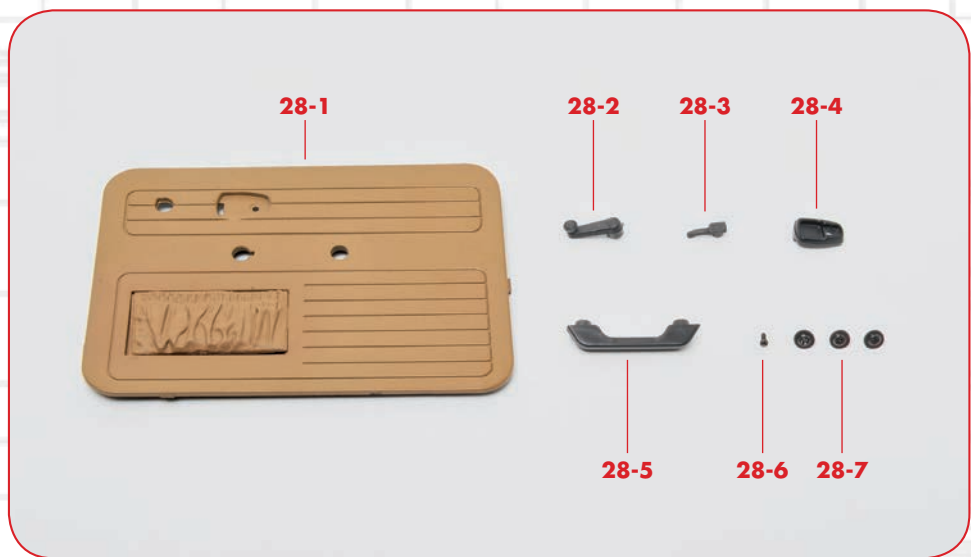


Stage 28: Passenger door card & internal fittings

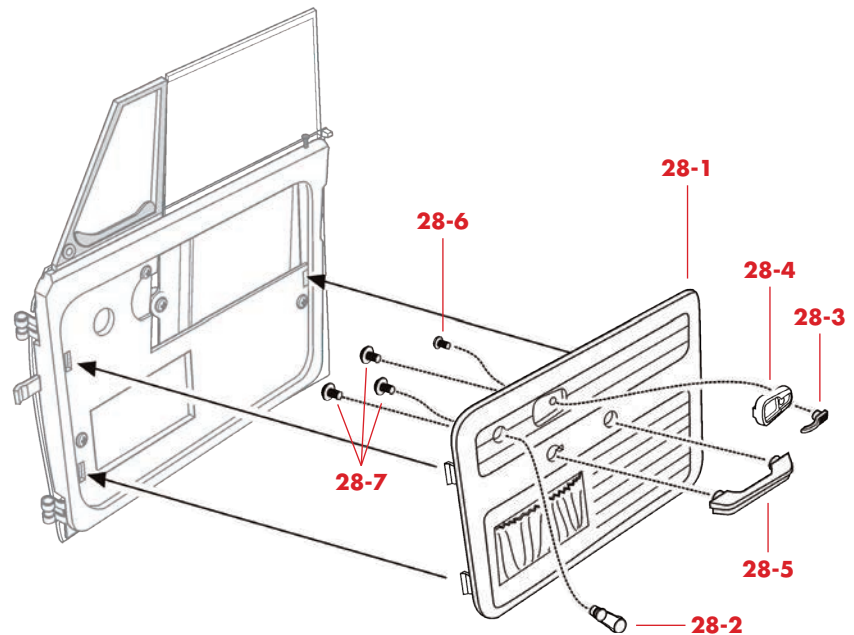
In this stage, you fit the inner door panel and the door card, followed by the window winder, handle, and door pull.

PARTS

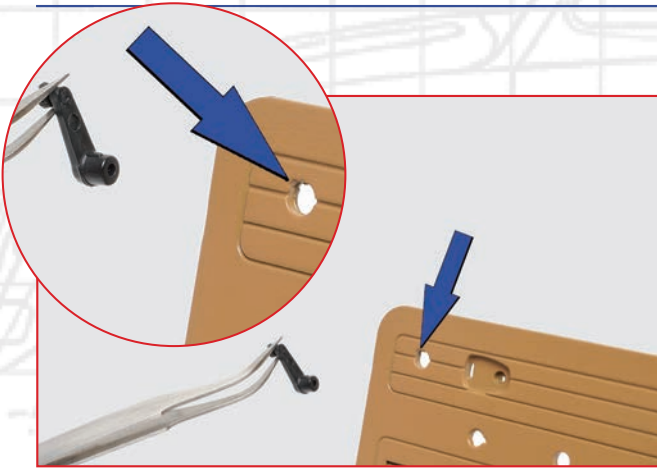
- 28-1** Passenger door card
- 28-2** Window winder handle
- 28-3** Door handle
- 28-4** Door handle support
- 28-5** Door pull
- 28-6** SP08 screw
- 28-7** SP09 screws



PARTS DIAGRAM



NOTE: The appearance of the parts you receive may be slightly different from the parts pictured in these pages.



STEP 28-A

Begin by mounting the window winder handle (28-2) on the door card (28-1). The handle has a small lug that fits into a notch in the upper right corner of the mounting hole. This ensures it is fitted at the correct angle.



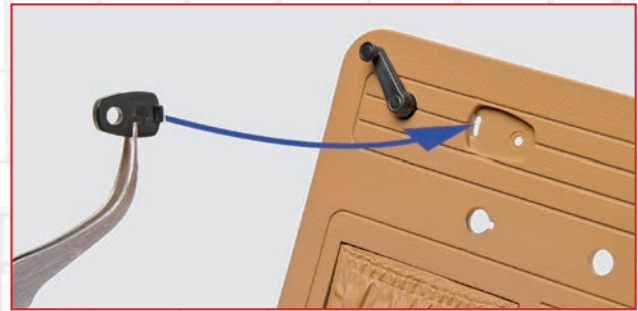
STEP 28-B

Press the handle into place.



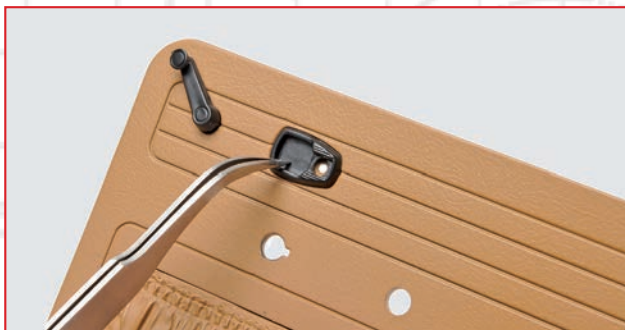
STEP 28-C

Turn the door card over and secure the handle with an SPO9 screw.



STEP 28-D

The door handle support (28-4) fits into a matching recess in the door card (28-1). The handle support has round and rectangular lugs on the back that fit into the matching holes in the door card.



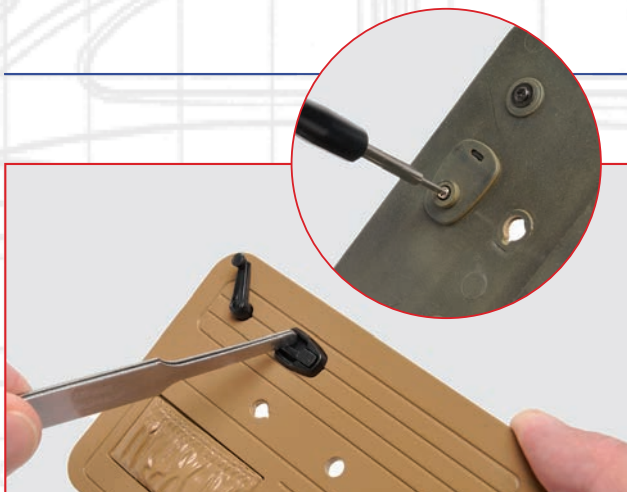
STEP 28-E

Press the handle support into place so it fits flush.



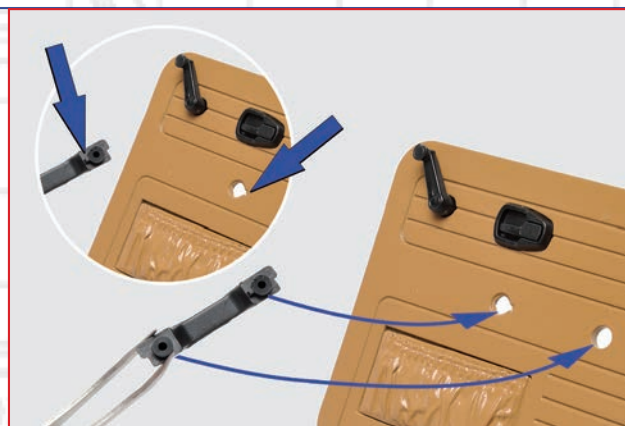
STEP 28-F

Now fit the door handle (28-3) into the matching hole in the support.



STEP 28-G

Press the handle into place then turn the assembly over and fix it with an SPO8 screw.



STEP 28-H

Finish fitting the accessories by positioning the door pull (28-5) in the two remaining holes in the door card. Note that the hole on the right has a notch which matches the indicated lug on the back of the door pull. This ensures that the door pull will only fit the correct way round.



STEP 28-I

Holding the pull in place, fix it from behind, using two SPO9 screws.



STEP 28-J

Now take the door card and match up the three tabs on the back with the indicated slots on the inner panel of the door you completed in Stage 27.



STEP 28-K

First, fit the two tabs on the left into the matching slots, making sure that the tab on the right is still in line with its slot.



STEP 28-L

Finally, press the remaining tab into the remaining slot in the panel, checking that the card is properly aligned with the door.



The finished door should now look like this.

STAGE COMPLETE



Stage 29: Central floorpan

In this stage, start putting together the main chassis of your VW Beetle by fitting the central floorpan to the subframe that carries the front suspension and steering.

PARTS

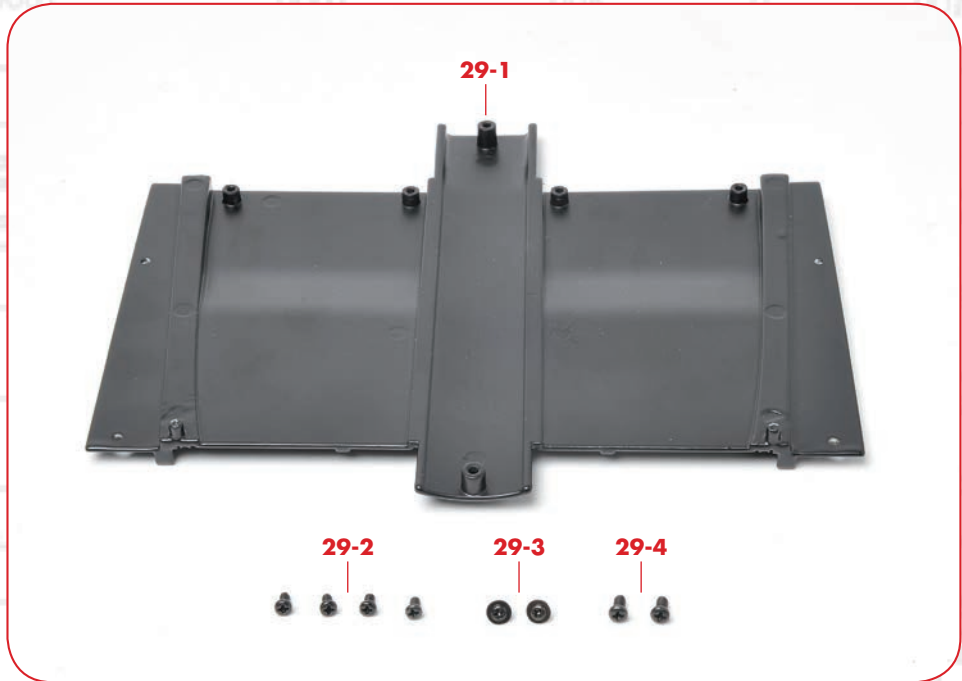
29-1 Central floorpan

29-2 SD04 screws

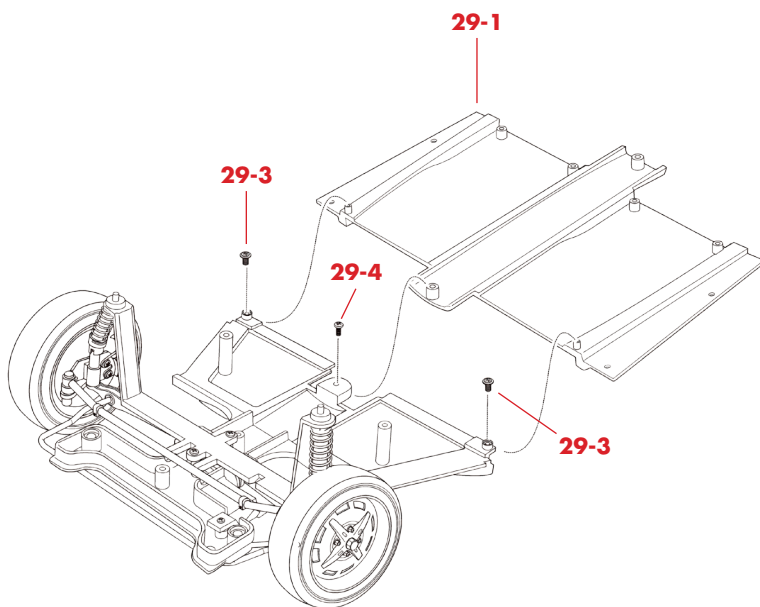
29-3 SD05 screws

29-4 SD10 screws

NOTE: The appearance of the parts you receive may be slightly different from the parts pictured in these pages.



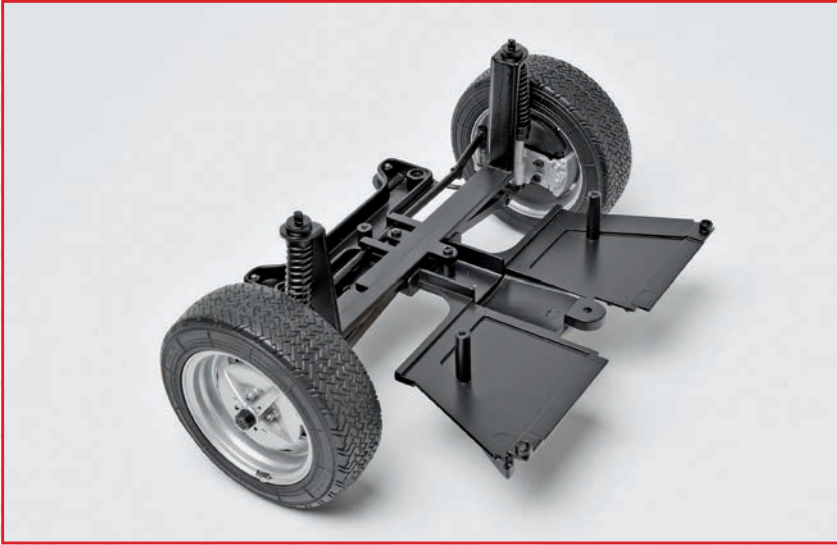
PARTS DIAGRAM



SCREWS TO RETAIN

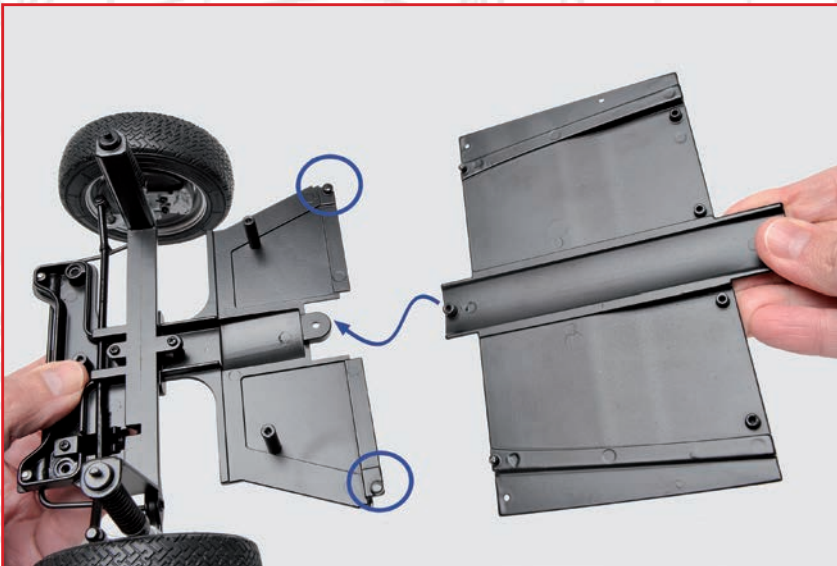
The four SD04 screws and one of the SD10 screws will not be used during this stage, so keep them carefully until they are needed later on in the assembly.





STEP 29-A

Take the front subframe to which you fitted the suspension and wheels in Stage 15.



STEP 29-B

Align the central floorpan with the assembly this way round, noting the three fixing points shown.

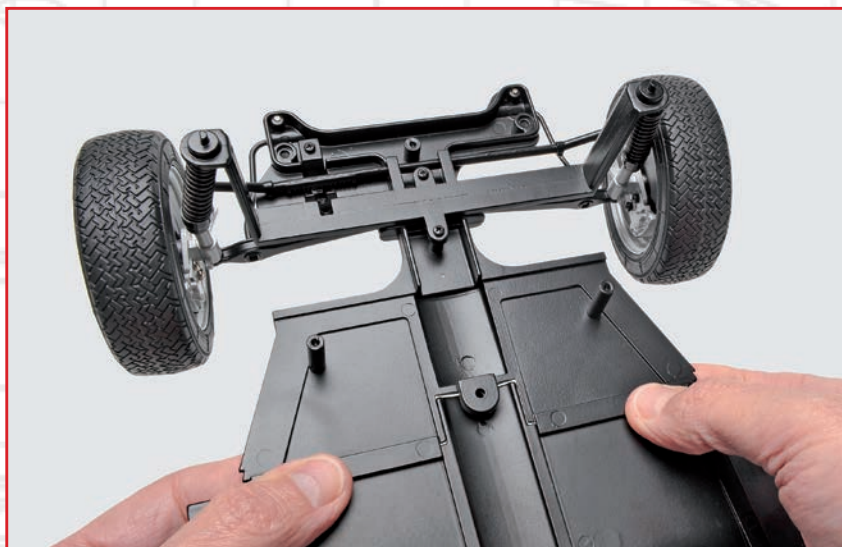


STEP 29-C

Fit the parts together making sure that the posts and holes indicated in Step 29-B mate up.

STEP 29-D

Press the outer edges of the parts together to make sure that the locating pins lock into the corresponding holes.



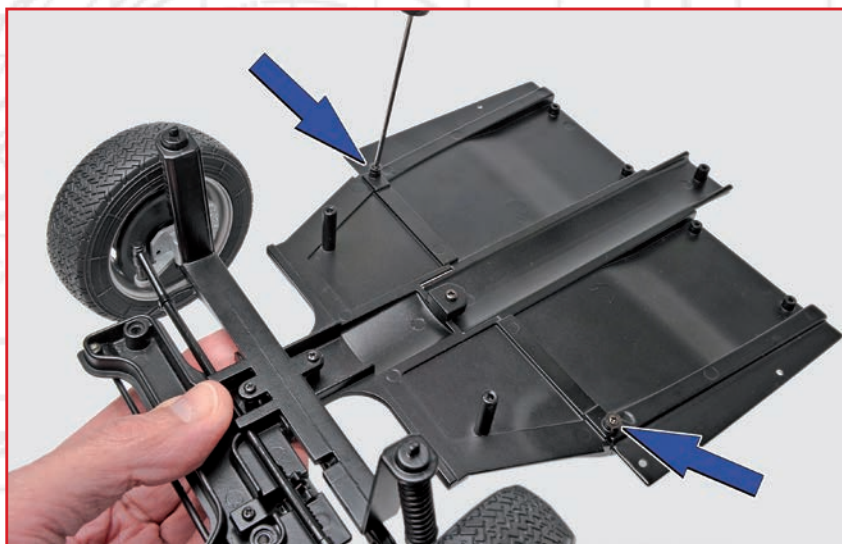
STEP 29-E

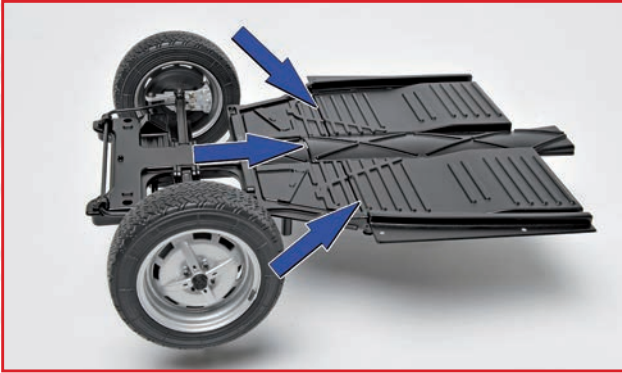
Start by fixing the parts together with an SD10 screw in the central hole.



STEP 29-F

Now drive two SD05 screws into the outer holes as indicated.





STEP 29-G

Turn the assembly over to check that there is no gap between the parts at the points shown.

The finished floorpan and suspension assembly should look like this.

CHASSIS DESIGN

Together with the front and rear subframes, the central floorpan (29-1) will form the main chassis of the Beetle, which supports the other mechanical components, the bodywork and the passenger compartment.



STAGE COMPLETE





Stage 30:

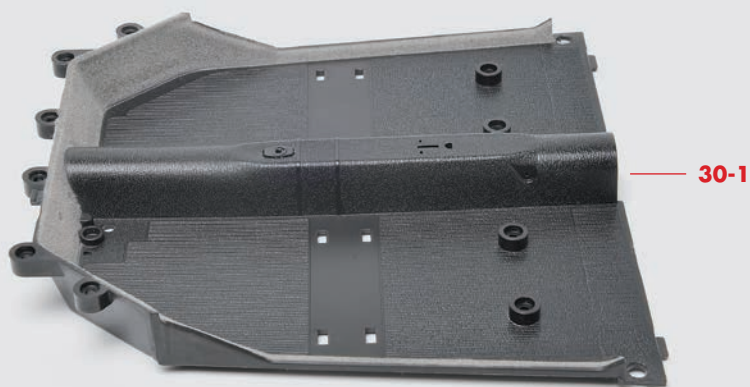
Passenger compartment floor

This pack provides the internal skin of the floorpan, which forms the base of the passenger compartment. However, before fitting it, continue assembling the underside of the chassis by adding the rear subframe and suspension.

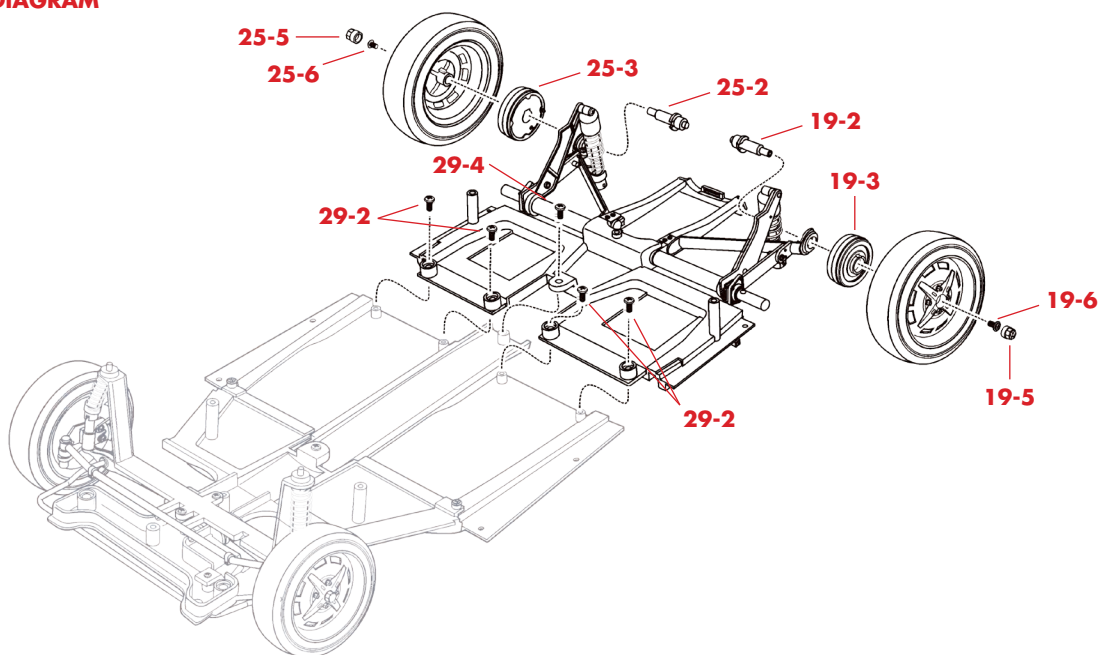
PARTS

30-1 Passenger compartment floor

NOTE: The appearance of the parts you receive may be slightly different from the parts pictured in these pages.



PARTS DIAGRAM





STEP 30-A

Take the rear subframe from Stage 18, the two rear wheels and the parts that you held over from Packs 19 and 25.



STEP 30-B

Fit the stub axle (19-2) through the hole in the left rear suspension arm, making sure that the tabs in the suspension arm lock into the notches in the flange on the stub axle as shown inset.



STEP 30-C

Fit the brake drum into one of the wheel hubs, then fit the assembly onto the stub axle, making sure the axle stays in place in the suspension arm.



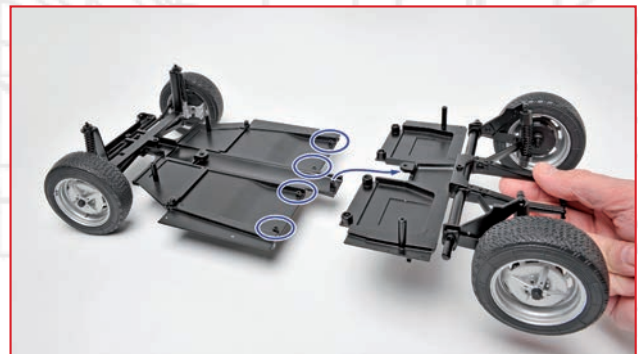
STEP 30-D

Fix the wheel to the stub axle with an SD02 screw, then press a VW into the hole to cover it.



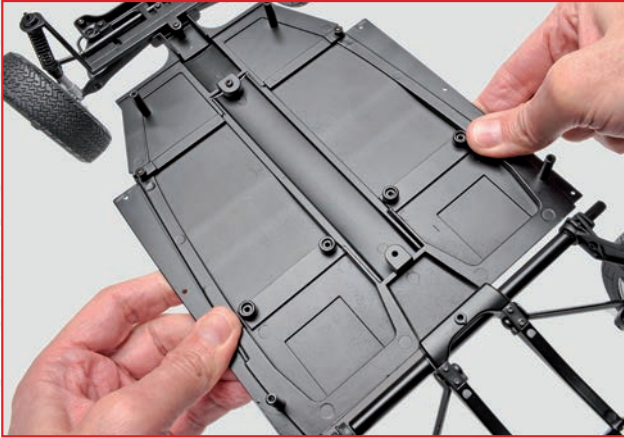
STEP 30-E

Fit the other rear wheel in the same way as shown in Steps 30-A to 30-D



STEP 30-F

Now take the floorpan and suspension assembly from Stage 29 and fit the rear subframe over the mounting points at the back of the subframe.



STEP 30-G

Press the parts together with all the holes matching up, so that they fit together flush.



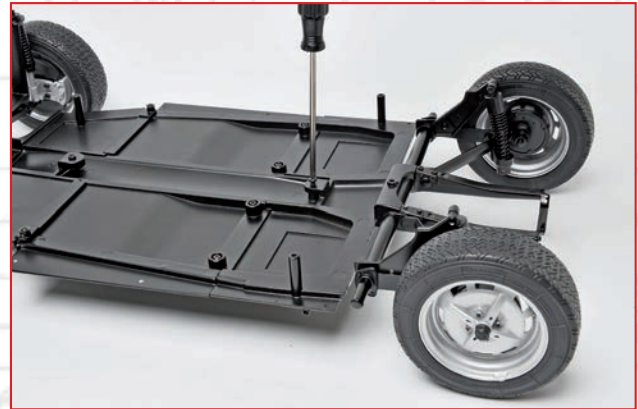
STEP 30-H

Check that the four mounting posts indicated have fitted all the way into their holes



STEP 30-I

Screw the parts together with four SD04 screws from Pack 29.

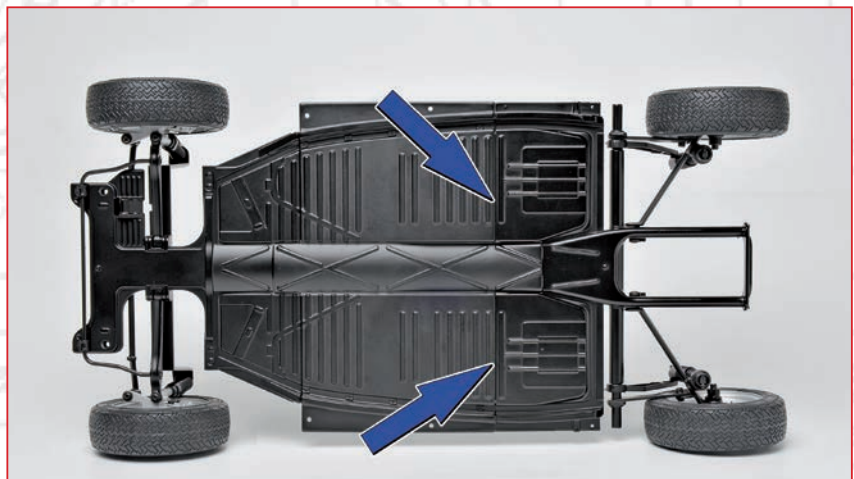


STEP 30-J

Finish off by securing the central support with the SD10 screw from Pack 29.

STEP 30-K

Turn the assembly over to check that there are no gaps between the parts.





VW BEETLE 1303 CABRIOLET

The chassis, suspension and wheels are now complete, giving you a good impression of the overall dimensions of your model.



STAGE COMPLETE

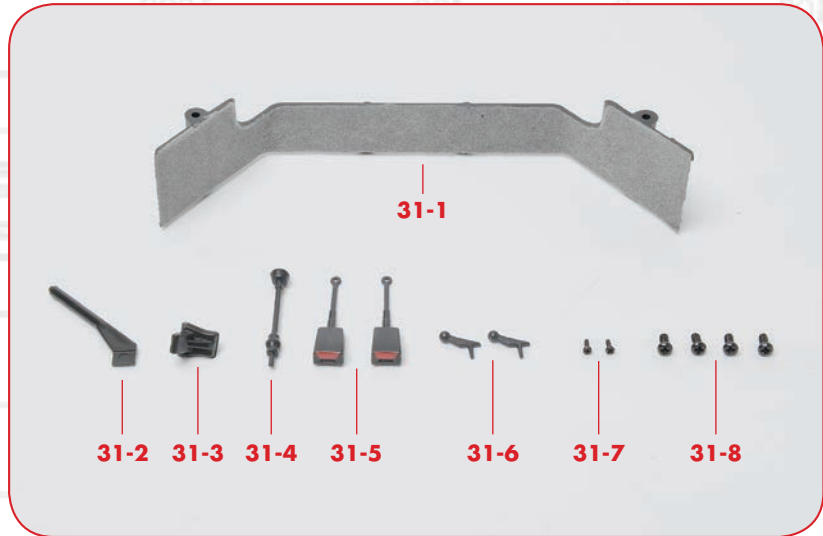


Stage 31: Passenger compartment fittings

In this stage, you fit the bulkhead that forms the front of the passenger footwells, and add some of the fittings to the centre of the passenger compartment.

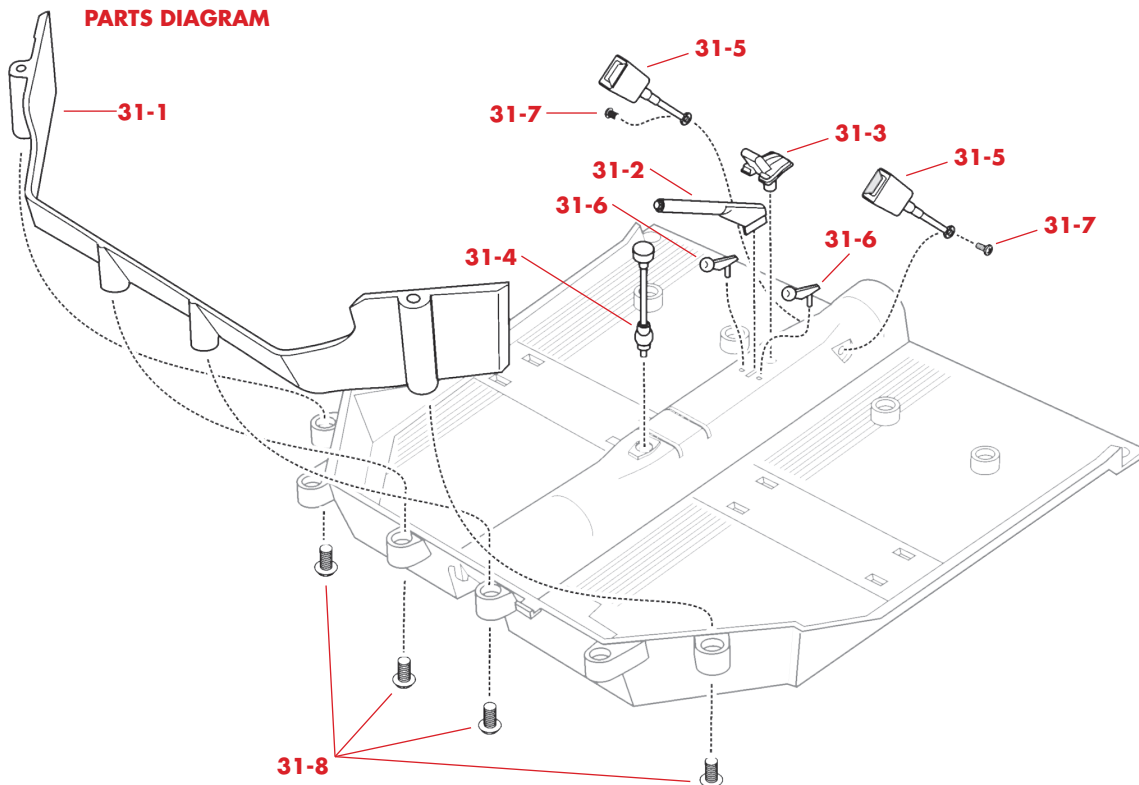
PARTS

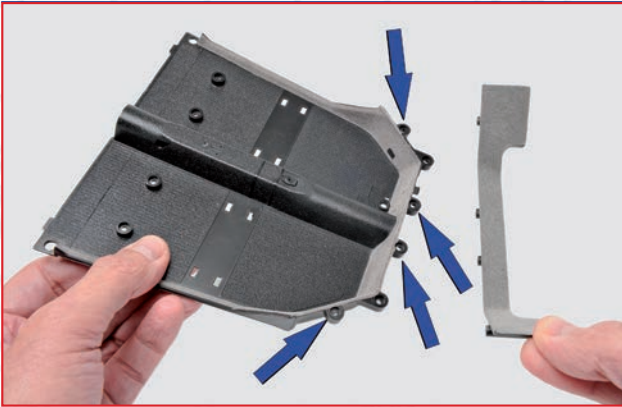
- 31-1** Footwell bulkhead
- 31-2** Handbrake lever
- 31-3** Handbrake lever mounting
- 31-4** Gear lever
- 31-5** Seatbelt buckles
- 31-6** Heater levers
- 31-7** SP11 screws
- 31-8** SP12 screws



NOTE: The appearance of the parts you receive may be slightly different from the parts pictured in these pages.

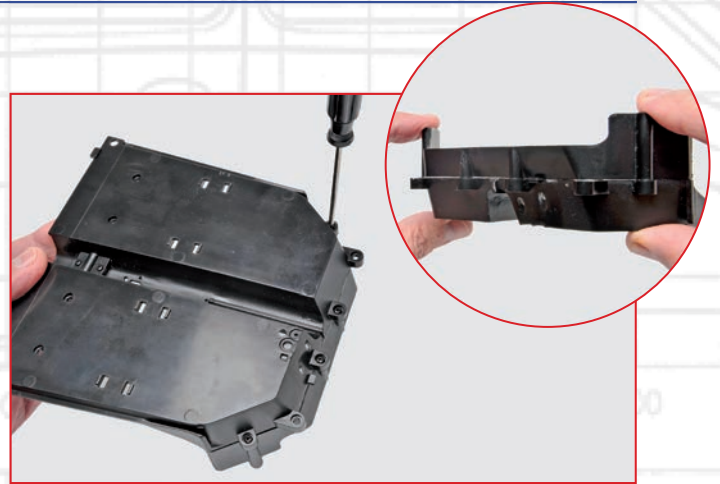
PARTS DIAGRAM





STEP 31-A

Take the passenger compartment floor (30-1) from the previous pack and fit the footwell bulkhead (31-1) by lining up its mounting points with the four holes indicated.

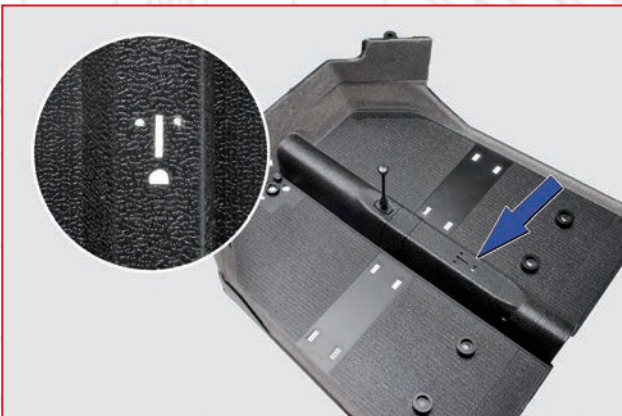
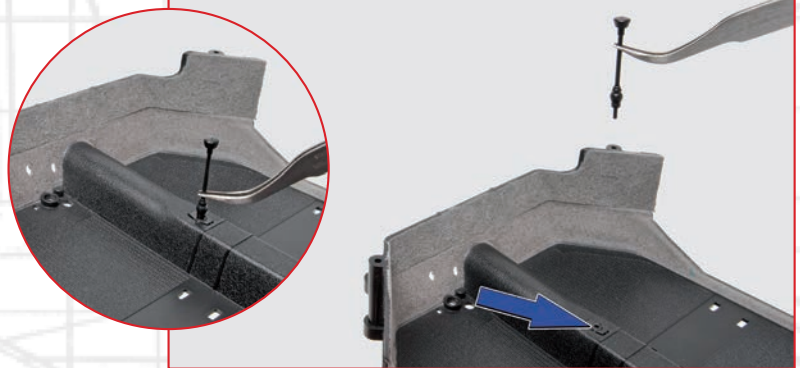


STEP 31-B

Press the parts together and secure them with four SP12 screws.

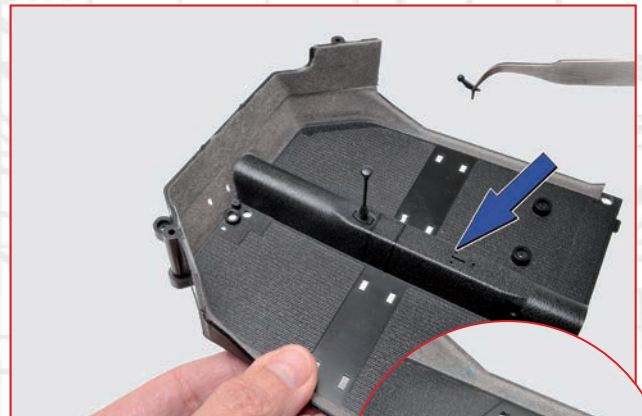
STEP 31-C

Fit the gear lever (31-4) into the indicated hole in the central tunnel running along the floor. The lever is thin and fragile, so handle it with care.



STEP 31-D

There are four holes in the central tunnel behind the gear lever. These are used for fitting the handbrake lever and its mounting (31-2 and 31-3) and the heater levers (31-6). As shown inset, the smaller holes are all 'D'-shaped so the parts can only be mounted in one position.



STEP 31-E

Fit either of the heater levers into one of the small holes beside the long slot in the middle. The pin will only go into the hole when the lever is facing forwards.



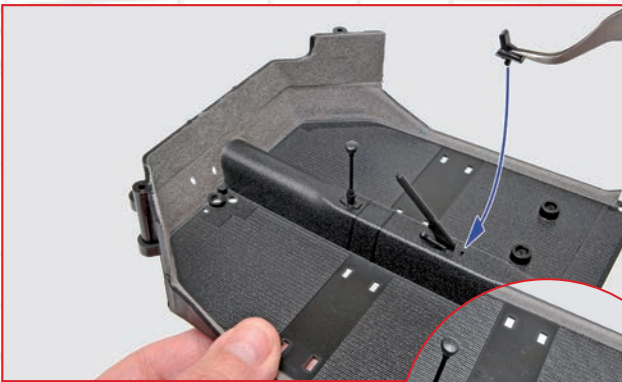
STEP 31-F

Fit the second heater lever into the other hole in the same way.



STEP 31-G

Fit the tab on the handbrake lever (31-2) into the long slot, making sure it goes all the way in.



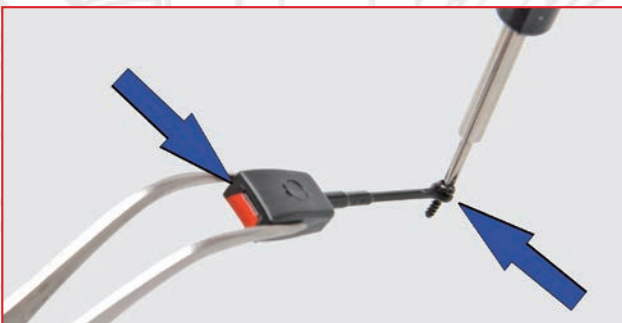
STEP 31-H

Finally, fit the handbrake lever mounting into the hole immediately behind the handbrake, making sure it fits all the way in.



STEP 31-I

The two seatbelt buckles (31-5) are identical, but make sure you fit them with the red release buttons facing the centre of the car.



STEP 31-J

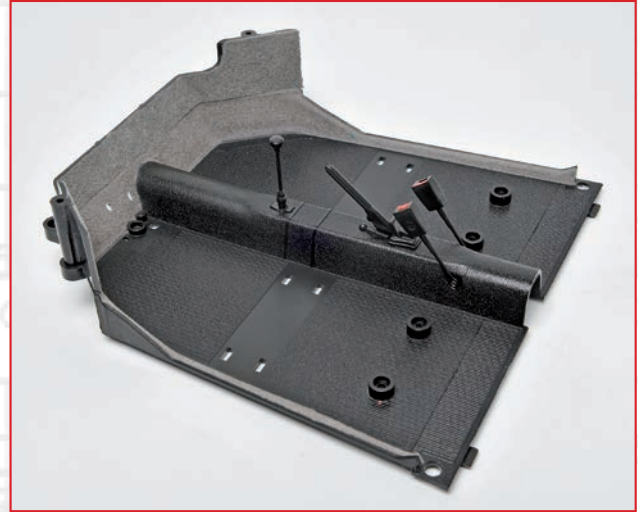
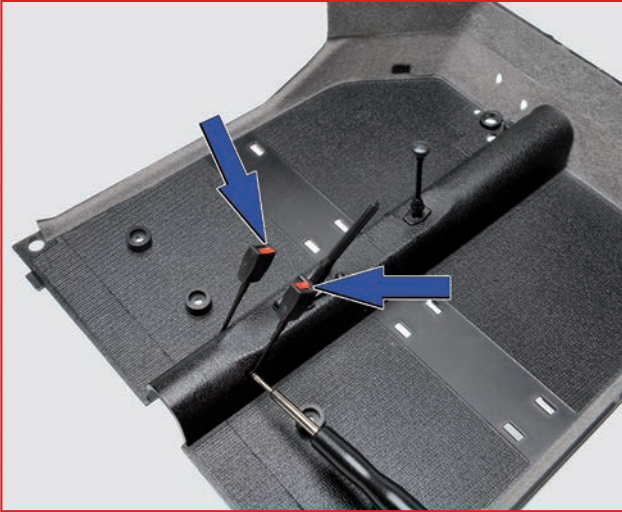
Before fitting the first buckle, fit an SP11 screw through the mounting hole from the side opposite the red release button.



STEP 31-K

Fit the screw into the hole on the left-hand side of the central tunnel, with the seatbelt buckle facing slightly forward.

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STEP 31-L

Fit the second seatbelt buckle on the right of the centre tunnel and secure it with an SP11 screw. Make sure that both buckles are at the same angle towards the front of the car, as in the picture.

The finished cabin floor should look like this, with both levers and seatbelt buckles in place. All these fittings are thin and fragile, so be careful not to catch them on anything.

STAGE COMPLETE

