

1955 BRITISH GRAND PRIX WINNER

# MERCEDES-BENZ W 196 R



## Pack 06

### BUILD INSTRUCTIONS

STAGE 27: BUILDING THE REAR SUSPENSION (1)

STAGE 28: BUILDING THE REAR SUSPENSION (2)

STAGE 29: ATTACHING THE REAR SUBFRAME

STAGE 30: FITTING THE WATER PUMP AND THE FUEL PUMP OIL RESERVOIR

STAGE 31: BUILDING THE FRONT LEFT SUSPENSION

STAGE 32: BUILDING THE FRONT RIGHT SUSPENSION

STAGE 33: FITTING THE STEERING BAR

STAGE 34: FIXING THE FRONT STABILIZER BAR

STAGE 35: BUILDING THE FRONT LEFT BRAKE DRUM

STAGE 36: BUILDING THE FRONT RIGHT BRAKE DRUM

STAGE 37: ASSEMBLING THE FRONT RIGHT WHEEL RIM (1) (REGULAR)

STAGE 37B: ASSEMBLING THE FRONT RIGHT WHEEL RIM (1) (EASY)

STAGE 38: ASSEMBLING THE FRONT RIGHT WHEEL RIM (2) (REGULAR)

STAGE 38B: ASSEMBLING THE FRONT RIGHT WHEEL RIM (2) (EASY)

STAGE 39: FITTING THE FRONT RIGHT TYRE (REGULAR)

STAGE 39B: FITTING THE FRONT RIGHT TYRE (EASY)

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# Advice from the experts

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This set of step-by-step instructions will enable you to complete the build of your 1:8-scale Mercedes-Benz W 196 R. The only tool you will need is a screwdriver. Most of the steps involve simply screwing or fitting parts together, and the correct screws needed for each step are clearly labelled on the instructional images.

## Please note the following:

- The number designated by a # refers to the number given on the parts supplied in each pack.
- Where left and right elements of the same part are supplied, these are listed as (L) and (R).
- Close-up details of steps are framed in yellow.
- You will not be using every part you receive in your shipment in that build section. Keep any parts that are not used aside for use in a later sequence.
- You will receive extra screws with each shipment in case any screws are lost or broken.
- Screws with codes ending in the letter M drive into metal; those ending in the letter P drive into plastic.
- With M screws, first drive the screw in half-way. Then unscrew it to release the shavings created as the screw cuts its thread. Finally, drive the screw fully into the socket. M screws should be tightened so the head makes firm contact with the fixing surface.
- With P screws, do not over-tighten them as they can damage the socket.
- When working with the pre-finished exterior surfaces of the model, work on a soft cloth. This will protect against scratching the paintwork.
- When plugging wires in, ensure the power is switched off.
- Tweezers can be used to fit the PVC cables. In this case, grip carefully around 5mm from the end of the cable. If the end of the cable is too narrow to fit on to the pin, cautiously insert a cocktail stick, being wary not to split the cable.
- Some smaller plastic parts are attached to sprues. You can remove these by hand, or by careful use of a cutting implement such as a scalpel.
- When assembling the wheels of your model, you can choose between regular and easy assemblies. Follow our instructions carefully.

The images in this manual may differ slightly from those supplied in your pack. These images differ in appearance only and will not affect the process of the build.

**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.

# Advice from the experts

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When you see this symbol on one of the images in these instructions, we have provided a Top Tip to help you with your build. Check back on this page for the corresponding tip!

You can find more expert tips and advice for building the Mercedes W196R on our forum. Go to <https://community.agoramodels.com/forum/198-mercedes-w196r/>

## Page 6 – G

You may need to ease the tab and/or slot in parts **27D** and **27E** to get the two halves of the shocks to slide together easily.

## Page 8 – E

You may need to ease the tab and/or slot in parts **28D** and **E** to get the two halves of the shocks to slide together easily.

## Page 9 – B

It's worth pre-threading the screw holes here.

## Page 10 – E

If the screws **CM** seem too long, try cutting or filing them.

## Page 12

See page 19 below. The parts **34D** are easier to fit if done so before stage 31.

## Page 13 – G

The flat on the end of the shaft and the dimple in the middle of the shaft must point down.

## Page 13 – H

There may be some flashing over the hole for the shock absorber top fixing (screw **QM**). If so, drill out the hole with a 1.6mm drill.

## Page 13 – I

For easier fitting, we recommend swapping steps I & J. Temporarily remove the screw **PM** holding the upper suspension arm **31D** to the spindle **31A**. Drive the screw **QM** fully into the suspension arm, then put the suspension arm in place with screw **QM** in its hole with the chassis upright. Then fit the front of the suspension arm with screw **QM**. Finally refit the suspension arm to the top of the spindle.

## Page 14

See page 19 below. The parts **34D** are easier to fit if done so before stage 31.

## Page 15 – H

There may be some flashing over the hole for the shock absorber top fixing (screw **QM**). If so, drill out the hole with a 1.6mm drill.

# Advice from the experts

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## Page 15 – I

For easier fitting, we recommend swapping steps I & J. Temporarily remove the screw **PM** holding the upper suspension arm **32D** to the spindle **32A**. Drive the screw **QM** fully into the suspension arm, then put the suspension arm in place with screw **QM** in its hole with the chassis upright. Then fit the front of the suspension arm with screw **QM**. Finally refit the suspension arm to the top of the spindle.

## Page 19 – C

Parts **34D** are easier to fit before stage 31. See note on page 12 above.

## Page 21 – D

If necessary, drill out the two holes near the centre of **35B** to 2.2mm so that they fit easily over the spindles.

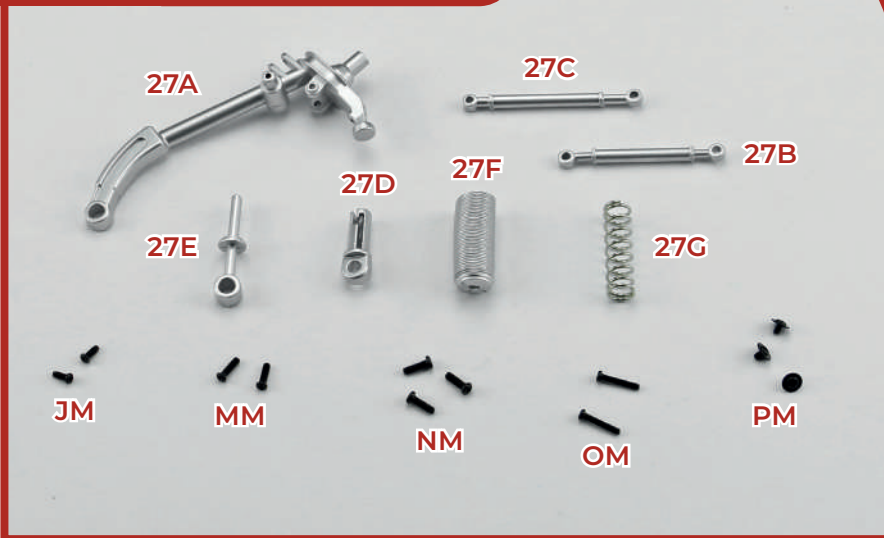
## Page 22 – D

If necessary, drill out the two holes near the centre of **36B** to 2.2mm so that they fit easily over the spindles.



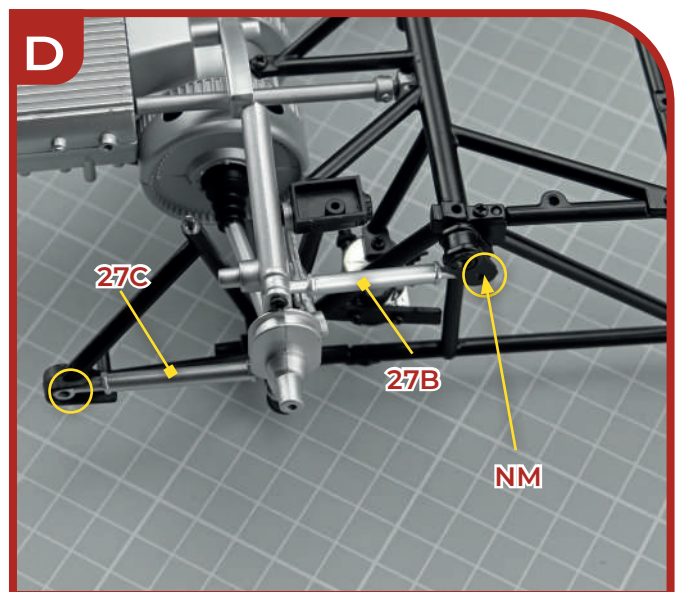
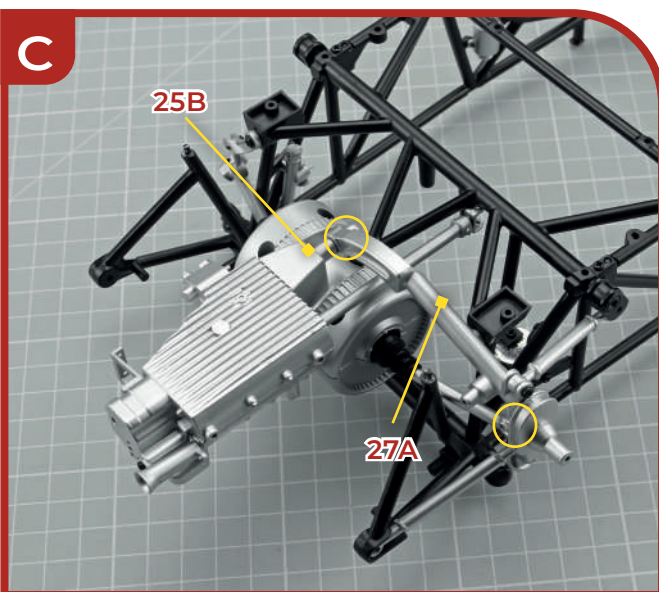
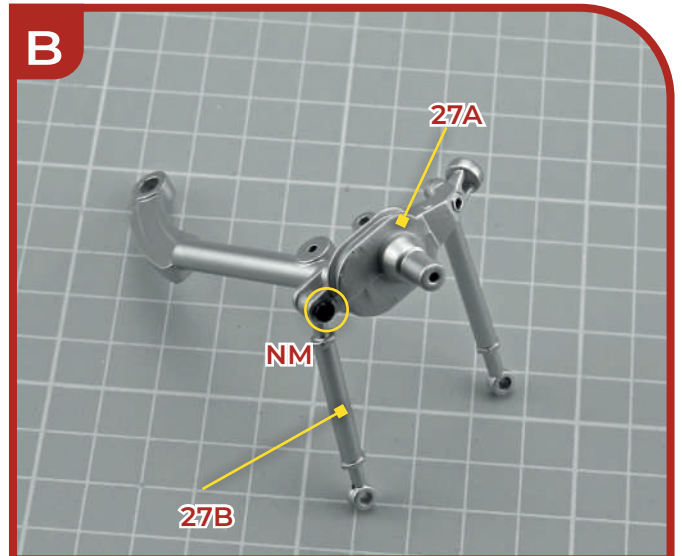
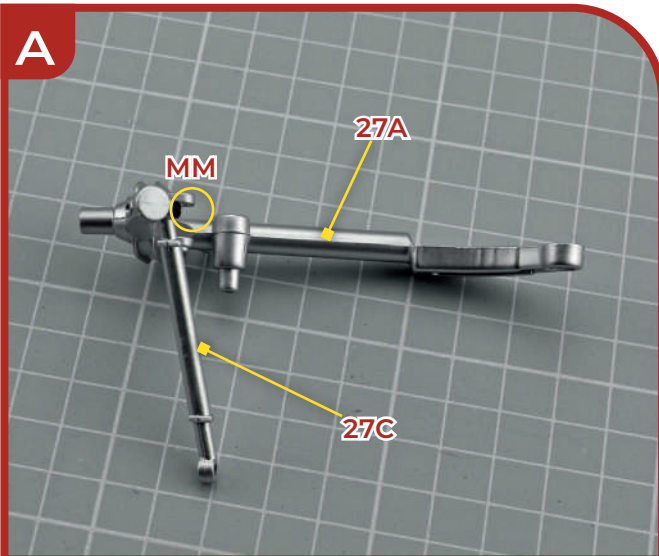
# Stage 27: Building the Rear Suspension (1)

## 3-27# PARTS LIST



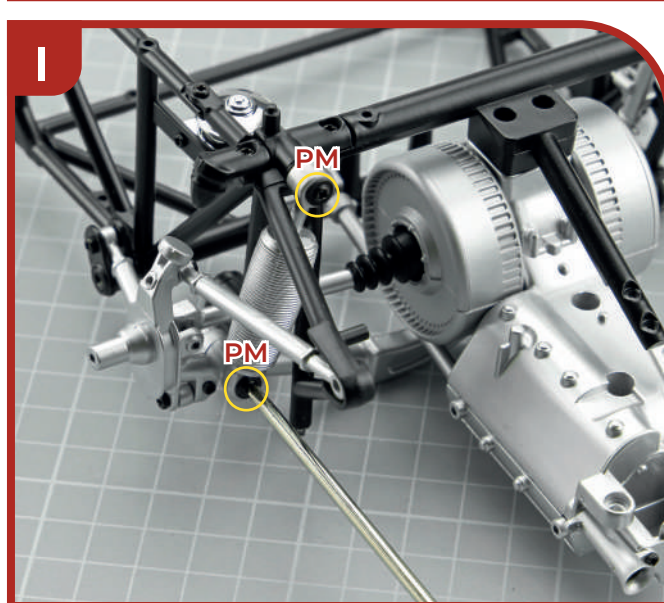
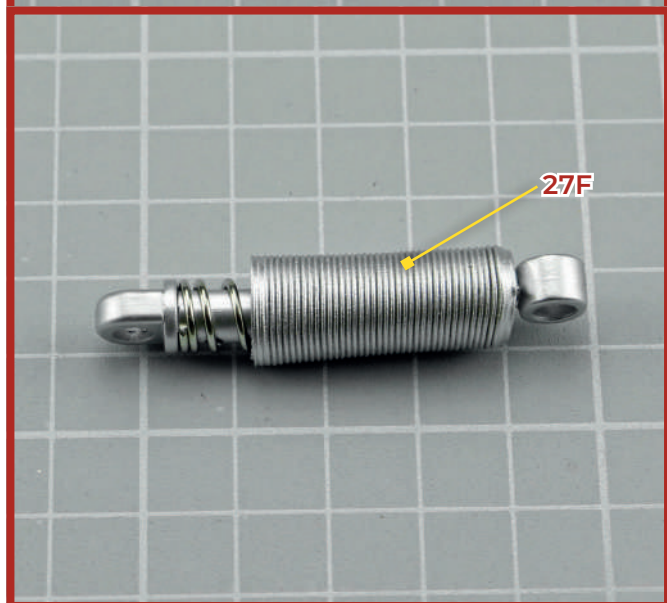
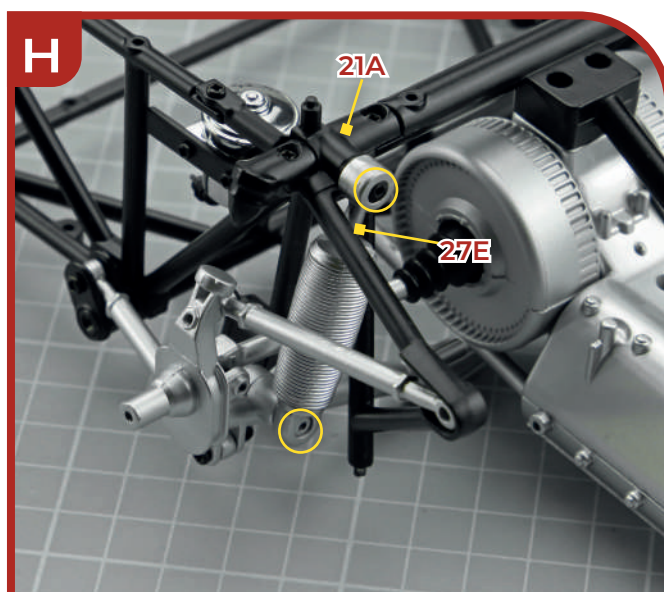
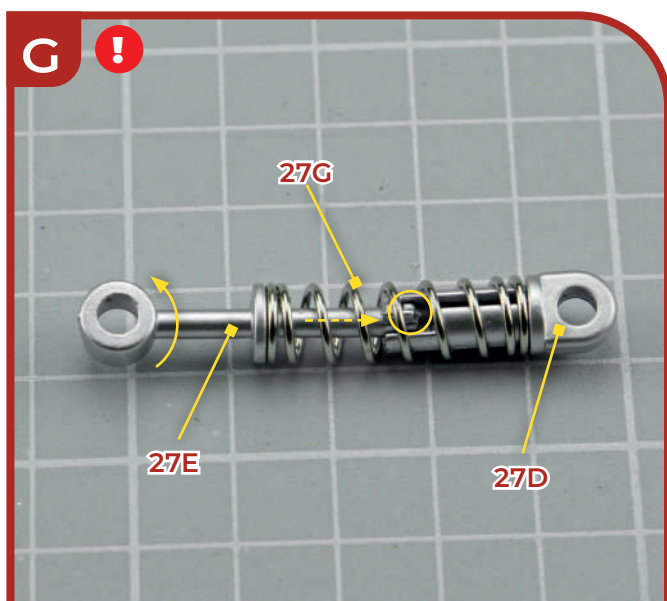
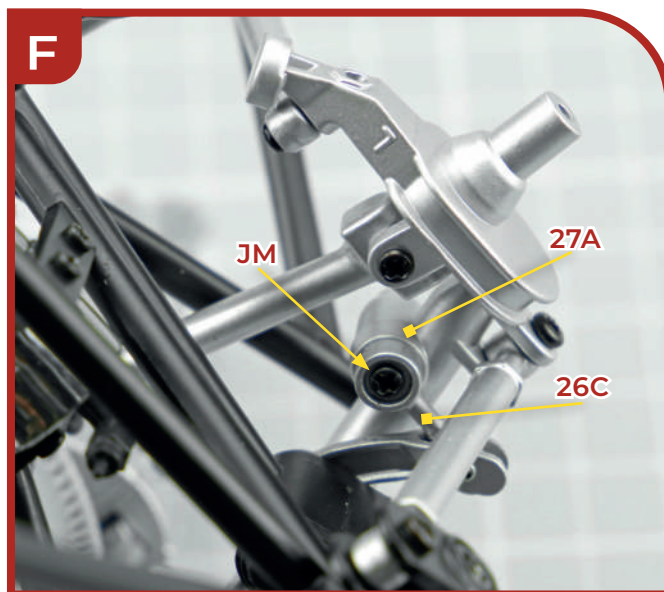
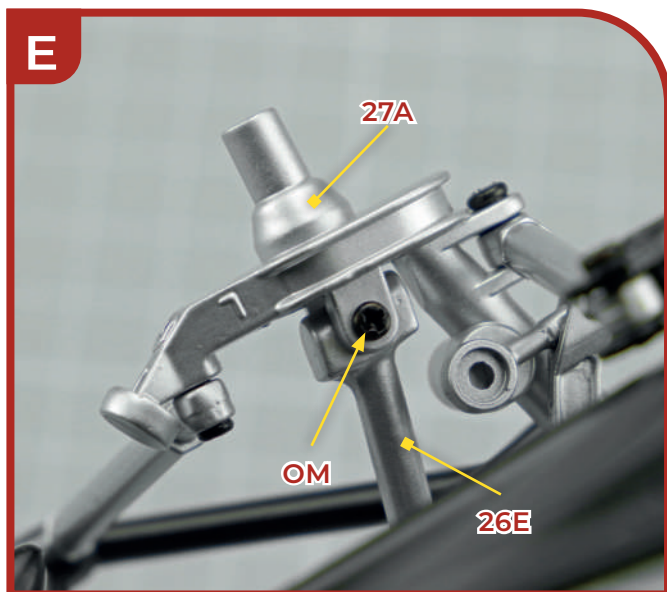
- 27A Rear suspension left wishbone
- 27B Rear suspension left lower arm
- 27C Rear suspension left upper arm
- 27D Shock absorber casing
- 27E Shock absorber stem
- 27F Shock absorber bellow
- 27G Spring

- JM 2 screws (2 x 5 mm)
- MM 2 screws (2 x 7 mm)
- NM 3 screws (2.3 x 7 mm)
- OM 2 screws (2 x 11 mm)
- PM 3 screws (2 x 3 x 6 mm)



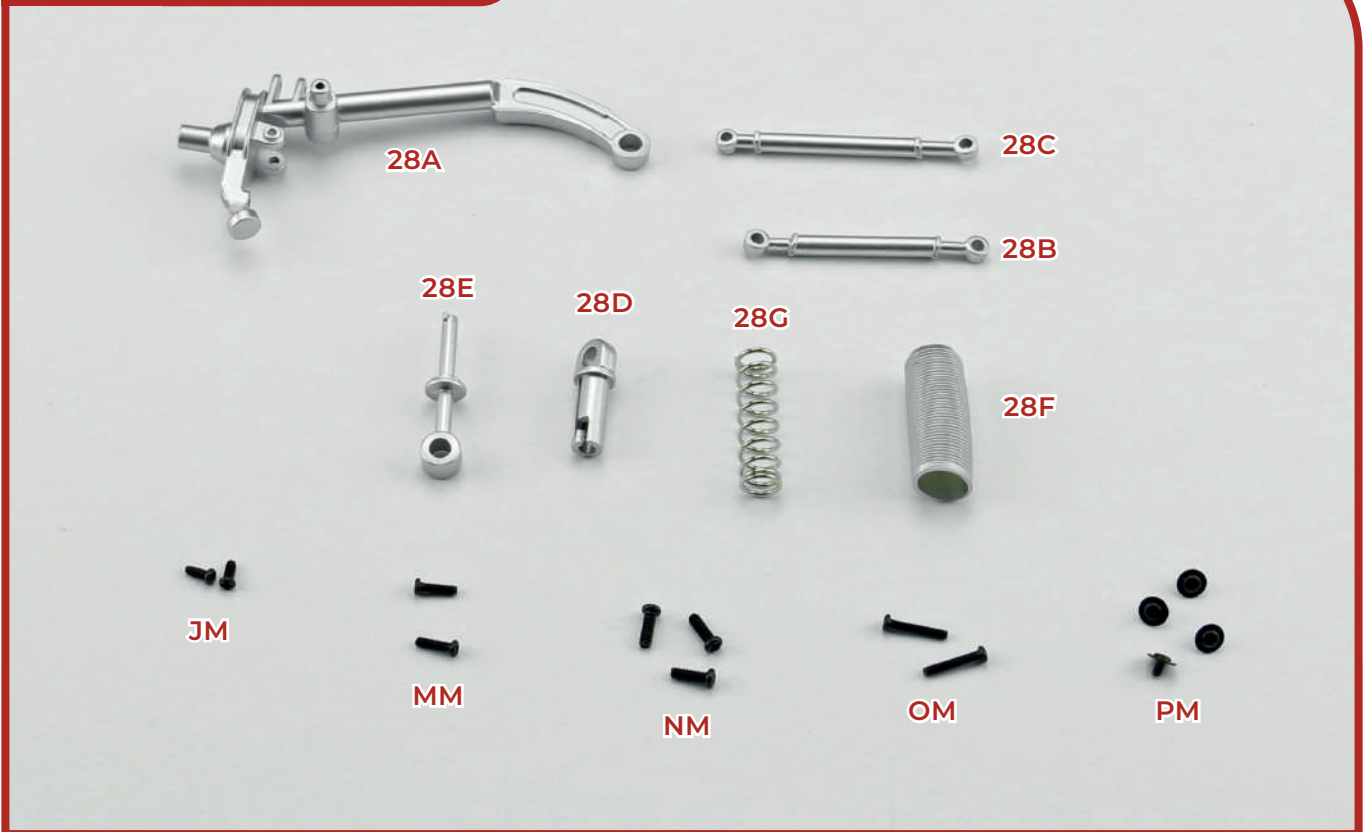


## Stage 27: Building the Rear Suspension (1)

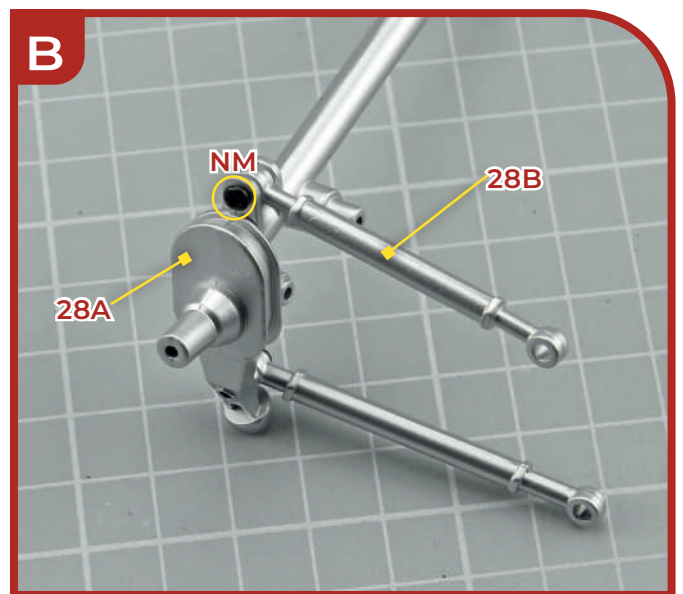
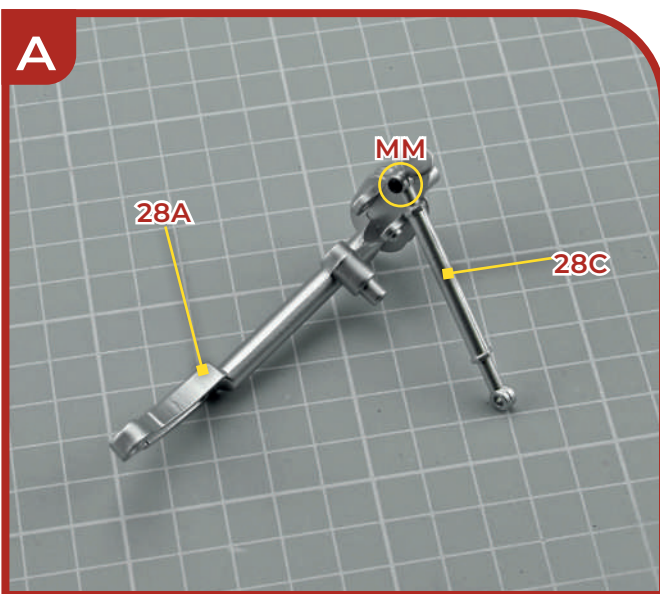


# Stage 28: Building the Rear Suspension (2)

## 3-28# PARTS LIST

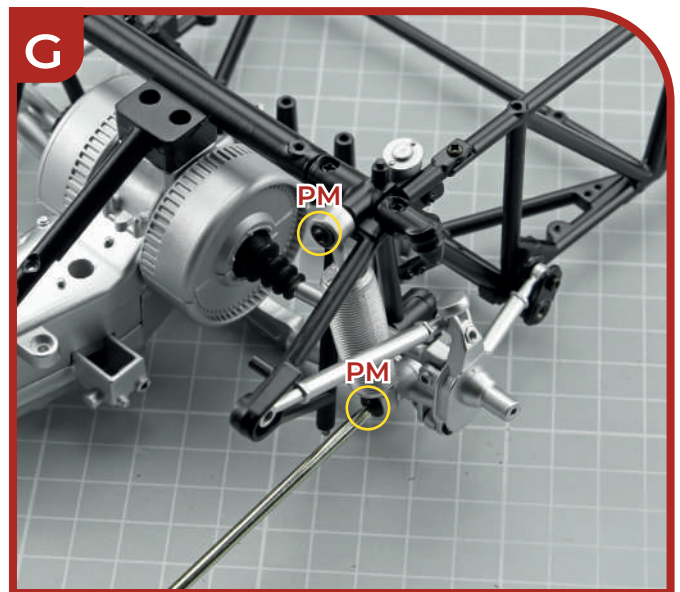
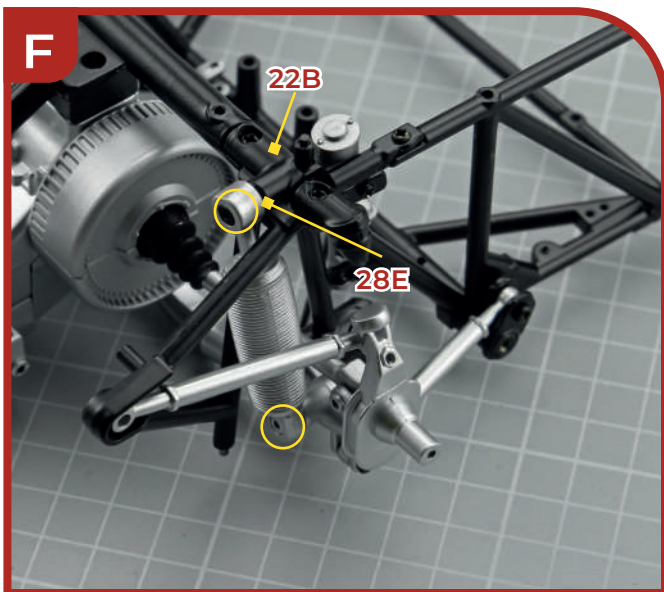
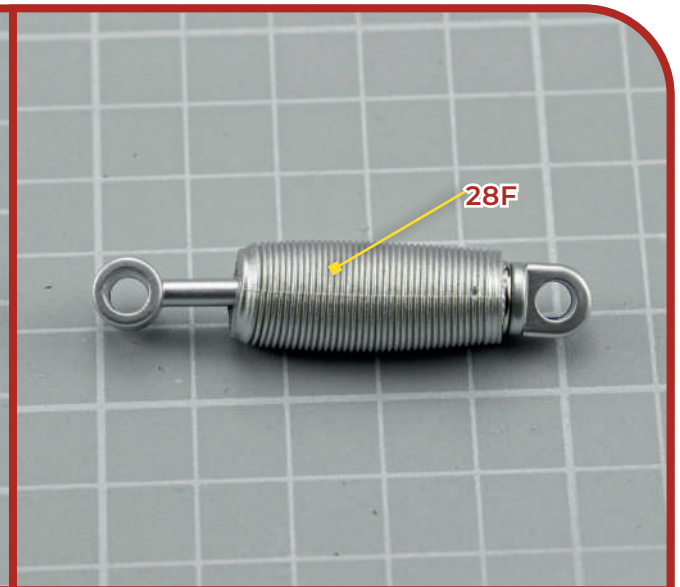
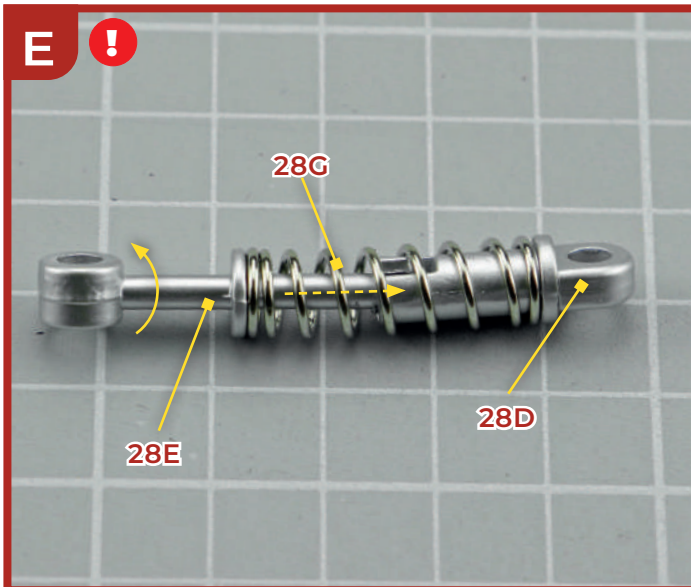
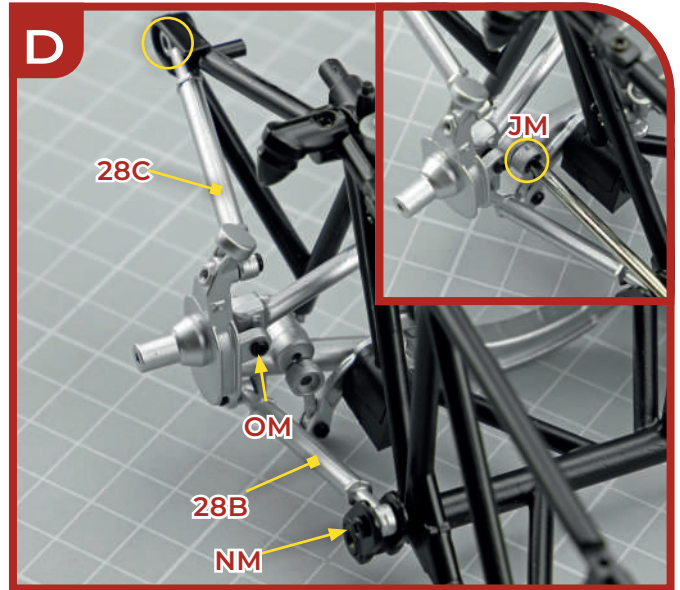
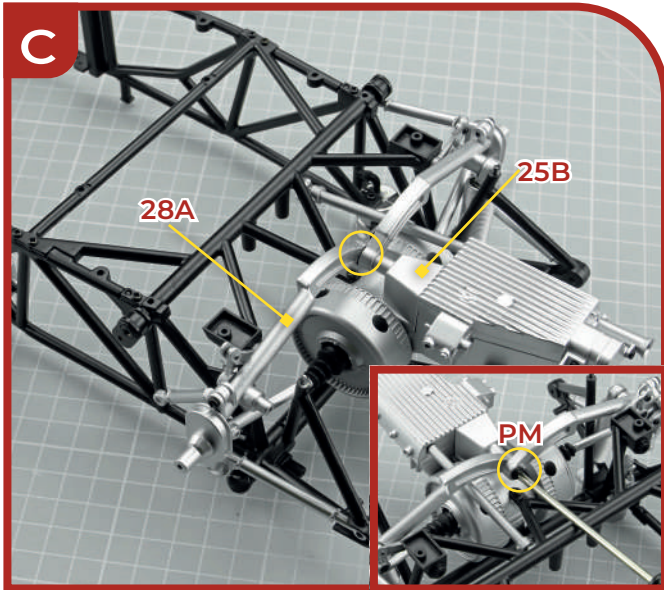


- |            |                                |            |                       |           |                       |
|------------|--------------------------------|------------|-----------------------|-----------|-----------------------|
| <b>28A</b> | Rear suspension right wishbone | <b>28F</b> | Shock absorber bellow | <b>JM</b> | 2 screws (2 x 5 mm)   |
| <b>28B</b> | Right lower arm                | <b>28G</b> | Spring                | <b>MM</b> | 2 screws (2 x 7 mm)   |
| <b>28C</b> | Right upper arm                |            |                       | <b>NM</b> | 3 screws (2.3 x 7 mm) |
| <b>28D</b> | Shock absorber casing          |            |                       | <b>OM</b> | 2 screws (2 x 11 mm)  |
| <b>28E</b> | Shock absorber stem            |            |                       | <b>PM</b> | 4 screws (2x3x6 mm)   |





## Stage 28: Building the Rear Suspension (2)





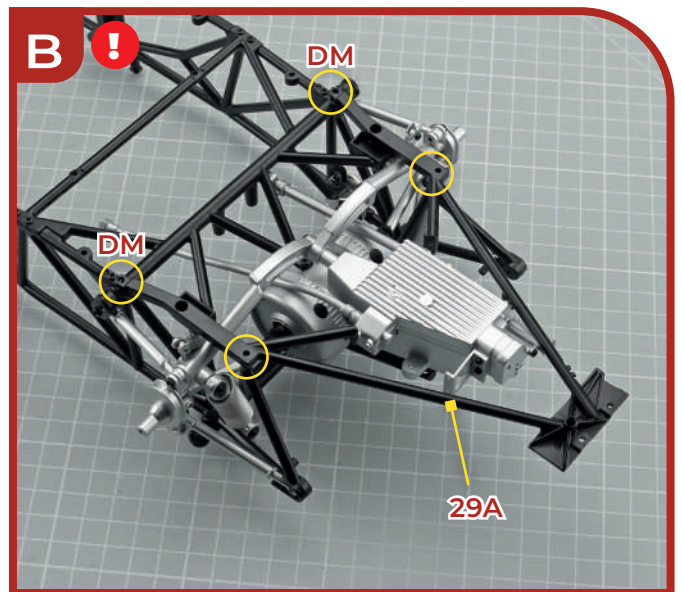
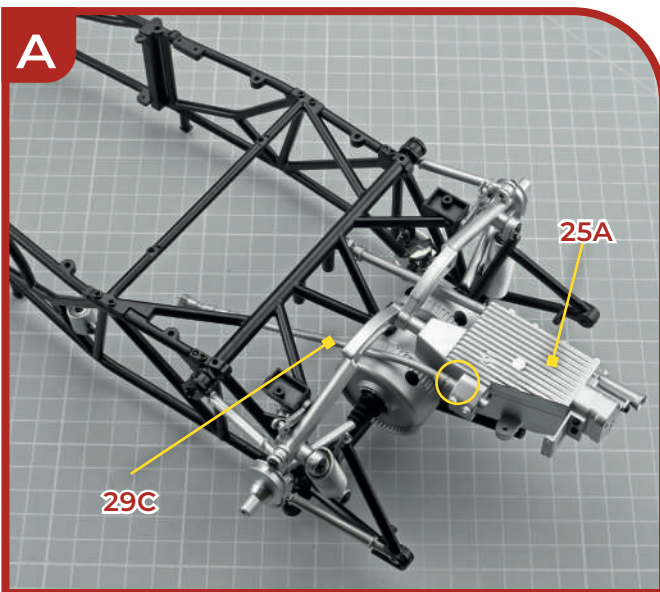
# Stage 29: Attaching the Rear Subframe

## 3-29# PARTS LIST



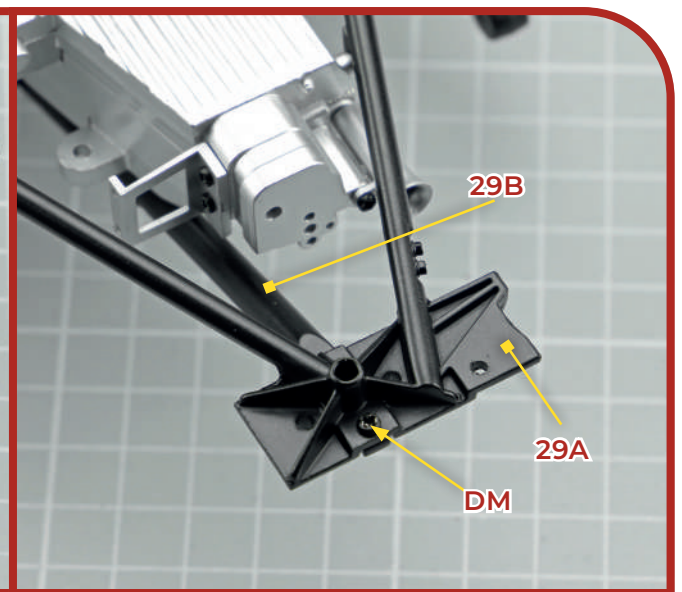
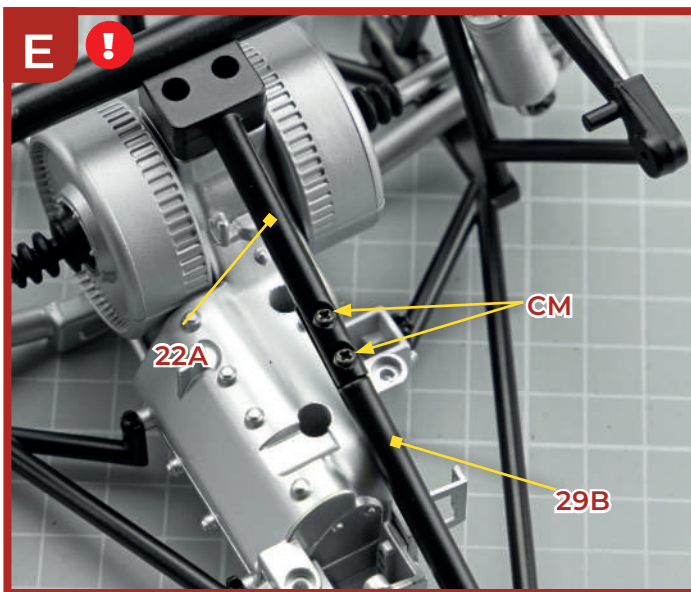
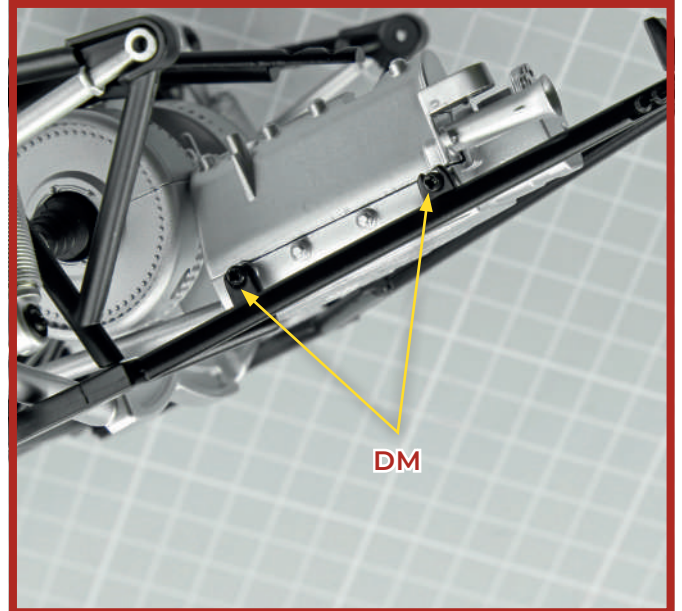
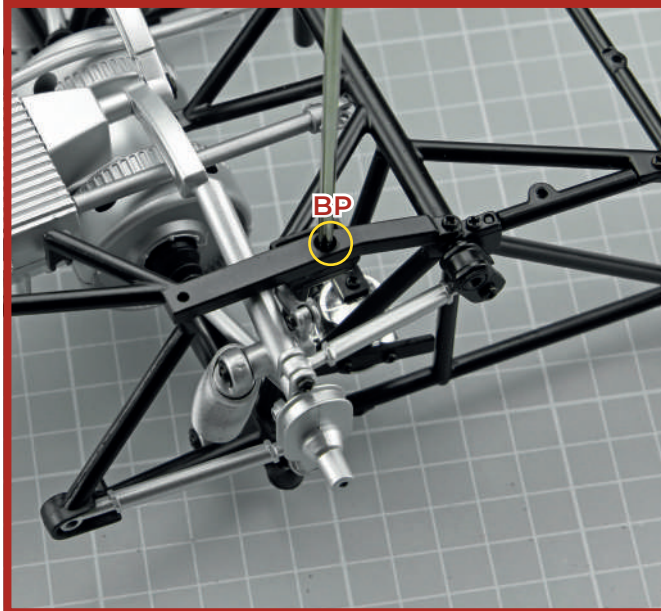
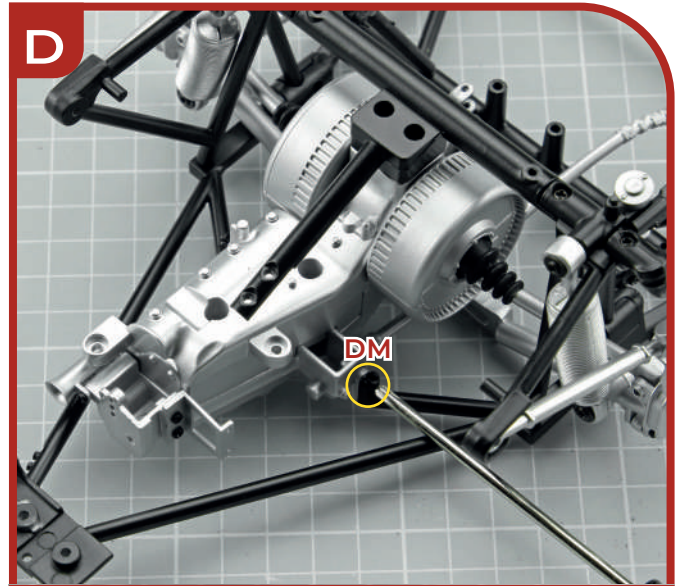
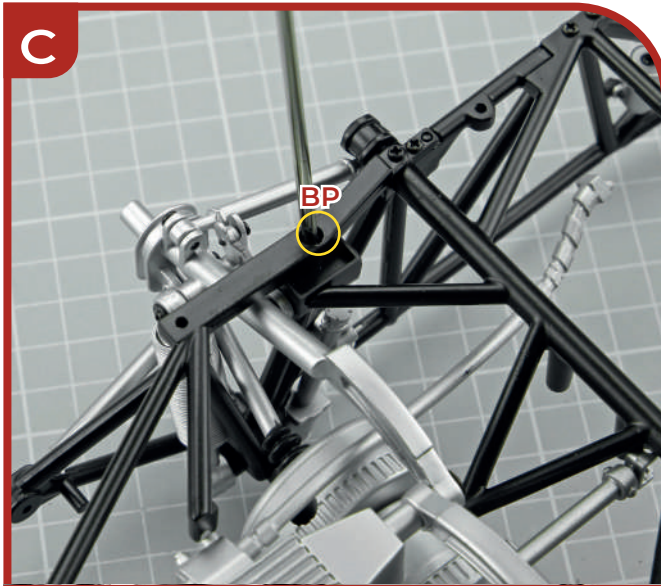
**29A** Rear subframe  
**29B** Rear subframe tube  
**29C** Gearbox lever

**BP** 3 screws (2 x 5 mm)  
**CM** 3 screws (1.7 x 4 mm)  
**DM** 7 screws (2 x 4 mm)





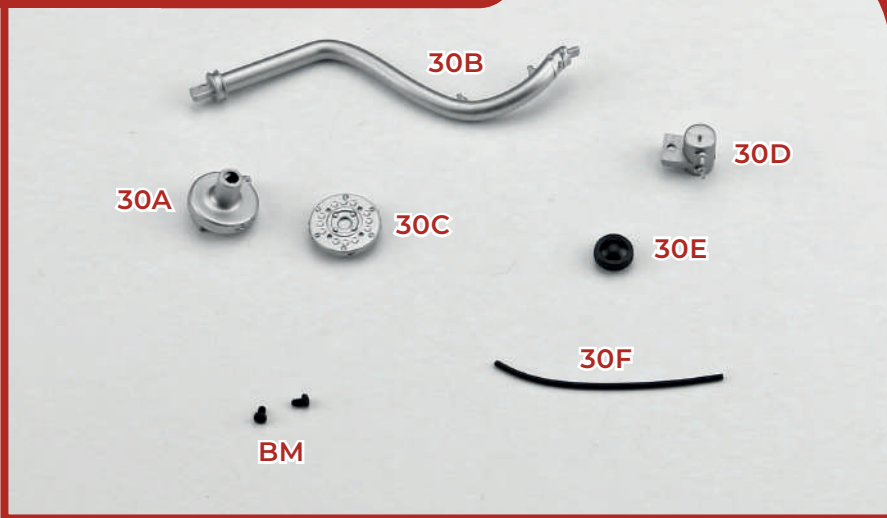
## Stage 29: Attaching the Rear Subframe



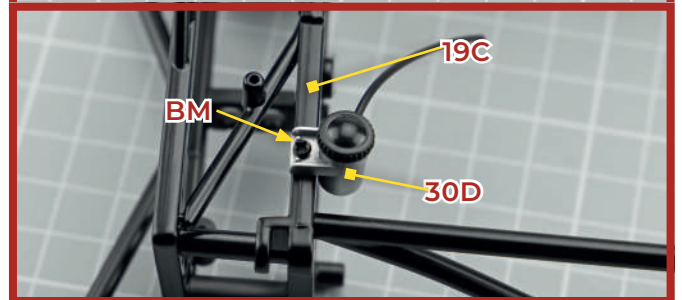
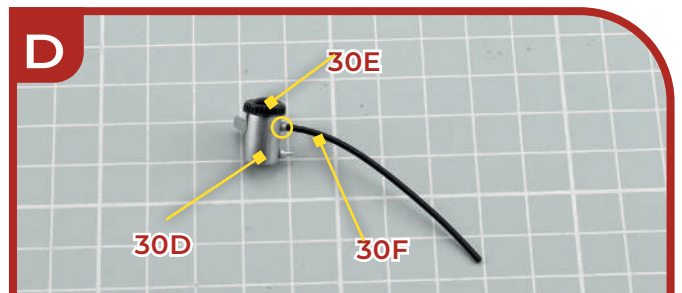
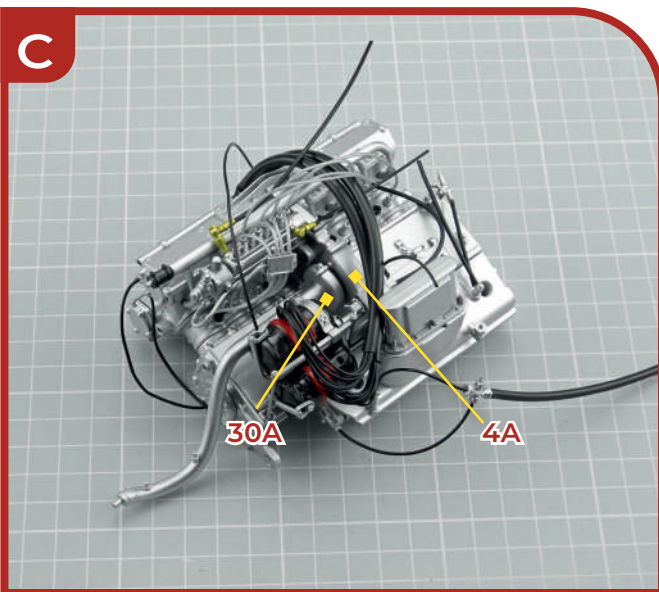
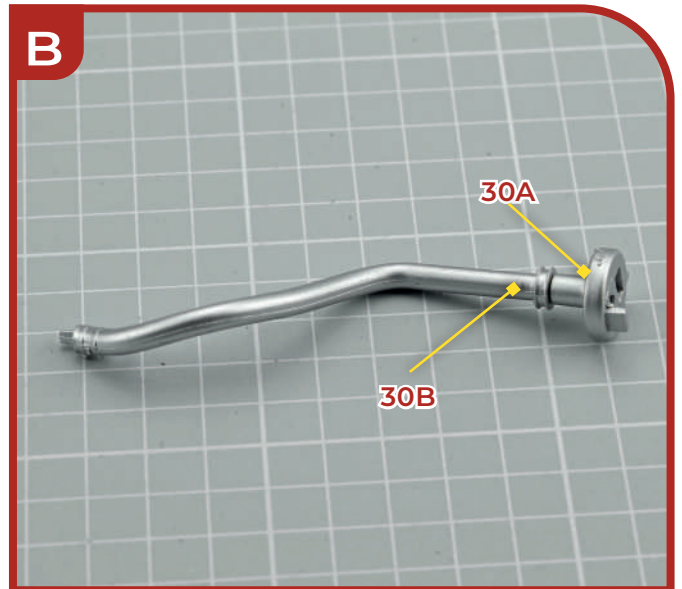
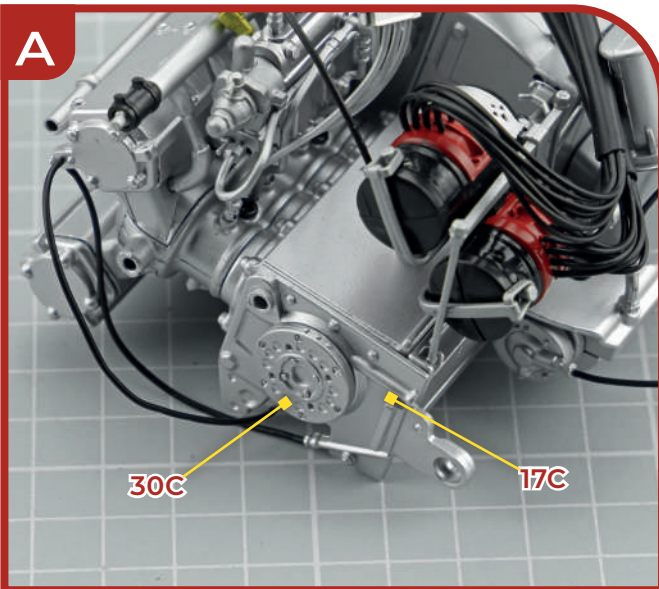


# Stage 30: Fitting the Water Pump and the Fuel Pump Oil Reservoir

## 3-30# PARTS LIST

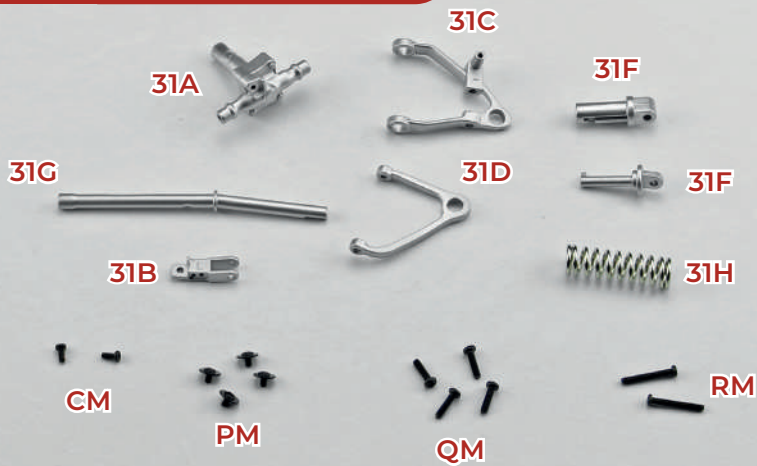


- 30A Water pump
- 30B Pipe
- 30C Crankshaft front coupling
- 30D Fuel pump oil reservoir
- 30E Reservoir cap
- 30F Oil hose
  
- BM 2 screws (1.7 x 3 mm)

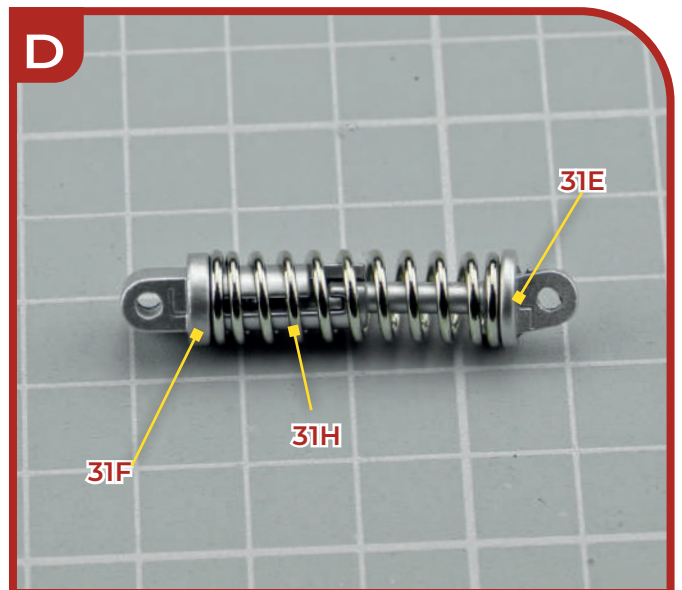
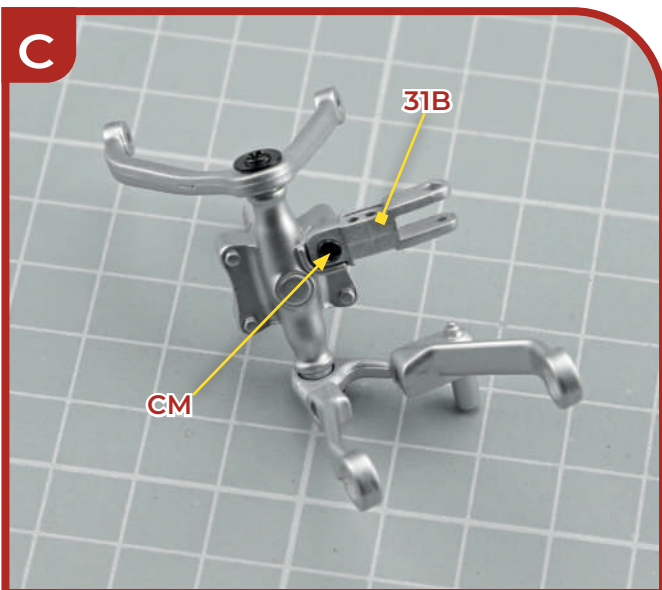
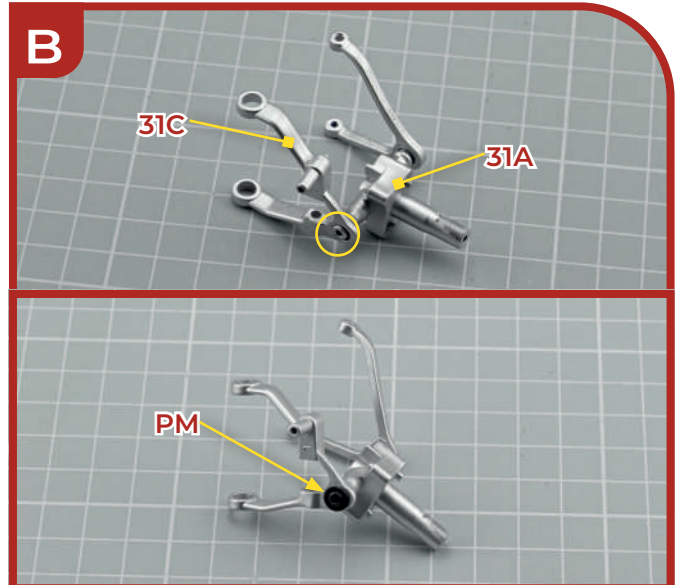
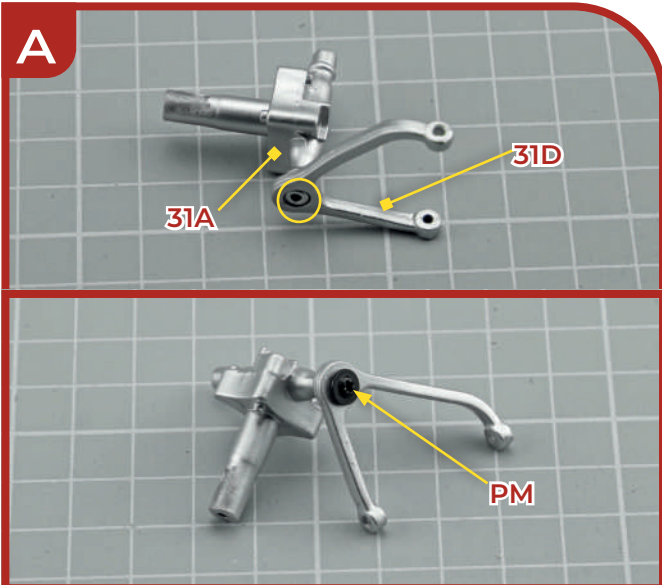


# Stage 31: Building the Front Left Suspension

## 3-31# PARTS LIST

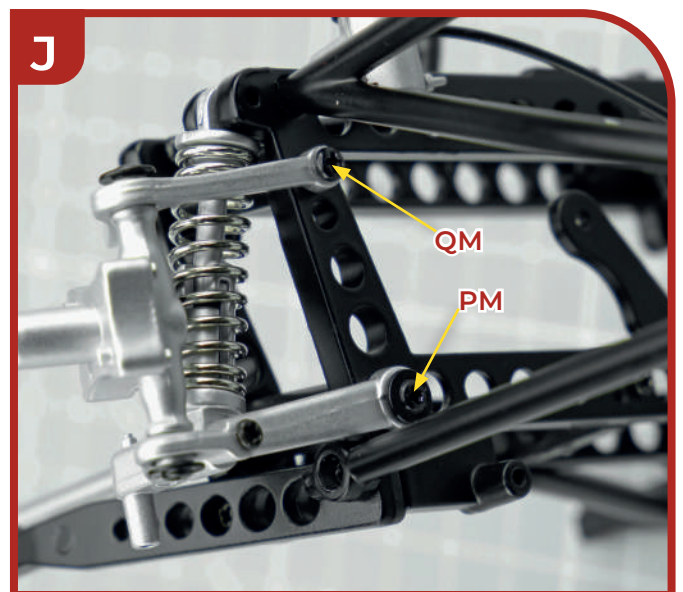
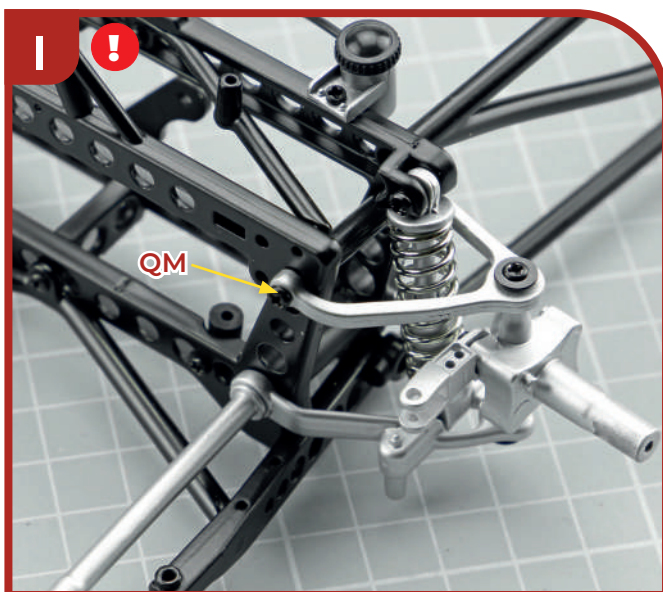
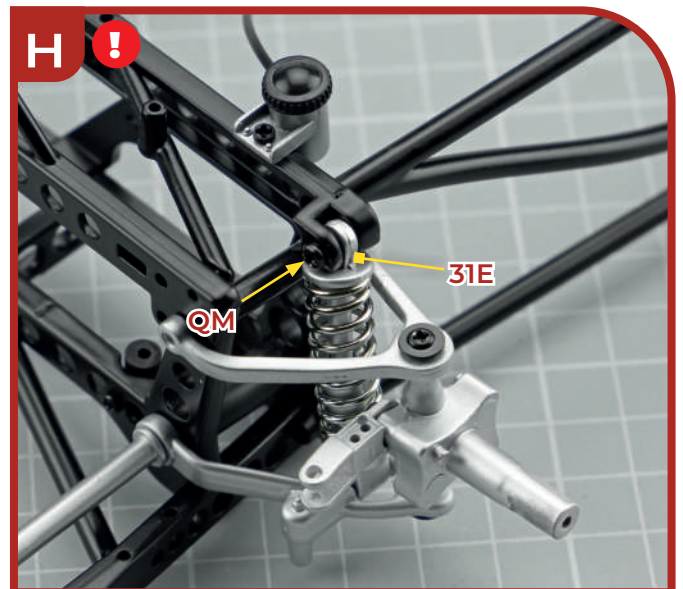
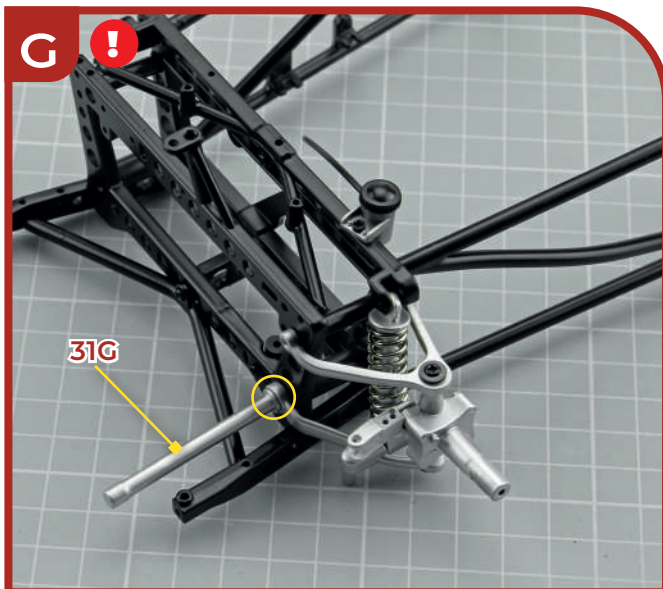
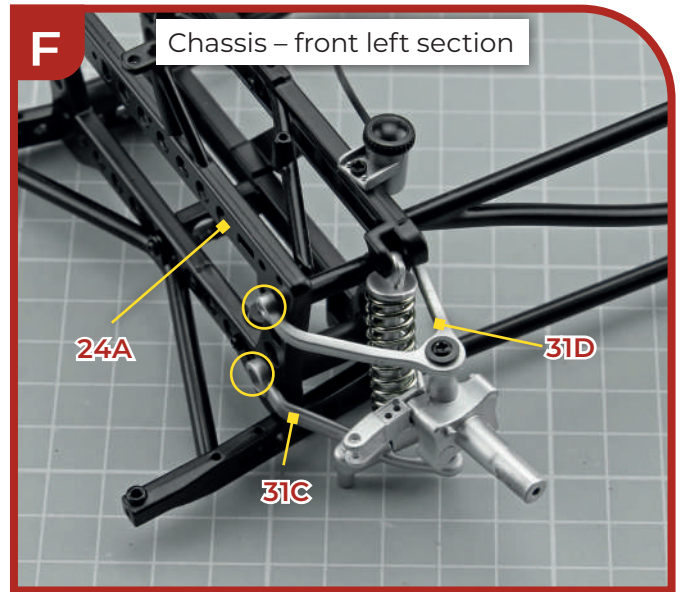
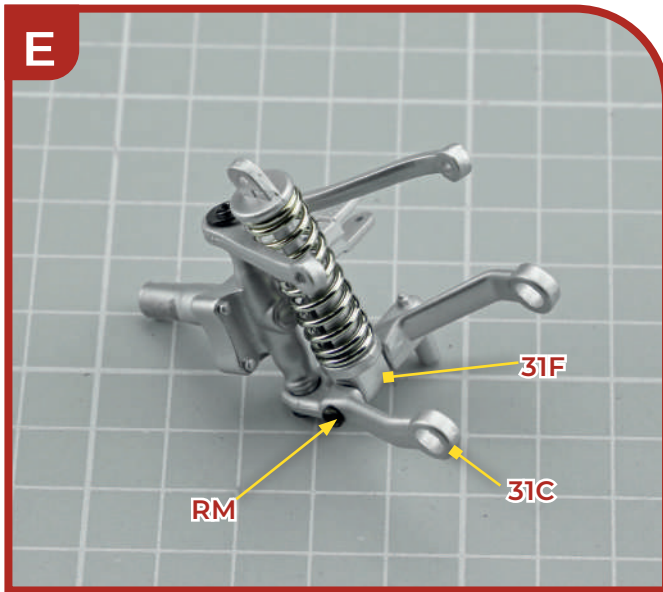


- 31A** Spindle part A
- 31B** Spindle part B
- 31C** Lower suspension arm
- 31D** Upper suspension arm
- 31E** Shock absorber stem
- 31F** Shock absorber casing
- 31G** Torsion bar
- 31H** Spring
  
- CM** 2 screws (1.7 x 4 mm)
- PM** 4 screws (2 x 3 x 6 mm)
- QM** 4 screws (2 x 8 mm)
- RM** 2 screws (2 x 14 mm)





# Stage 31: Building the Front Left Suspension



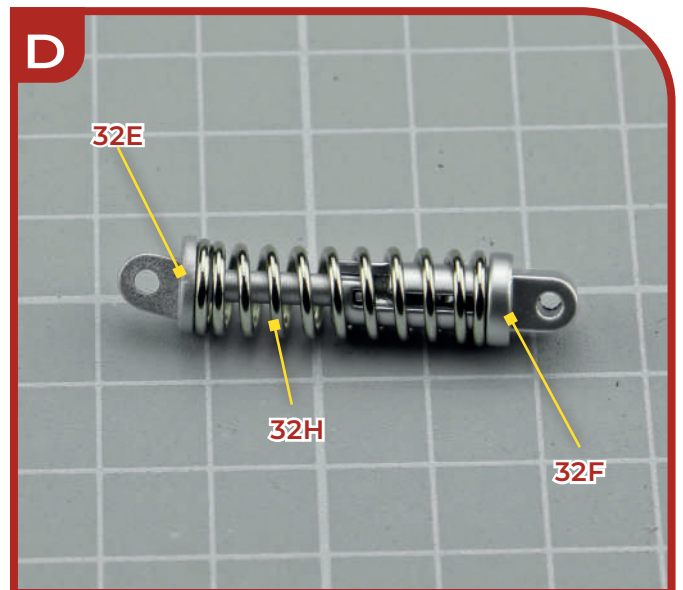
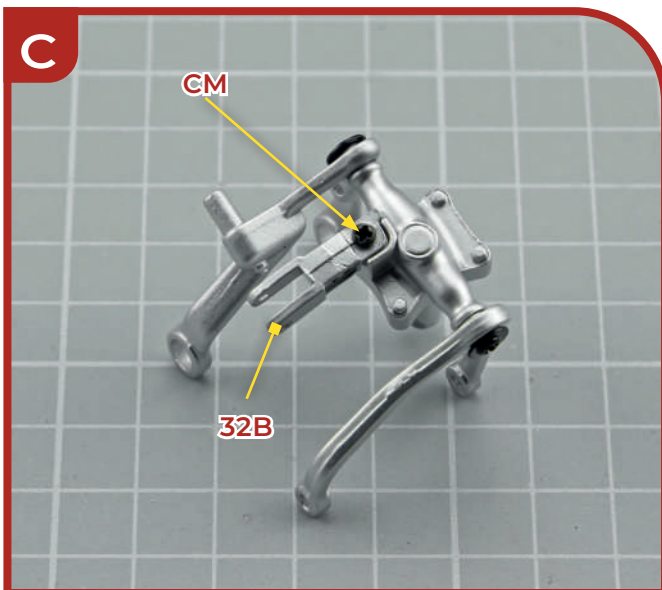
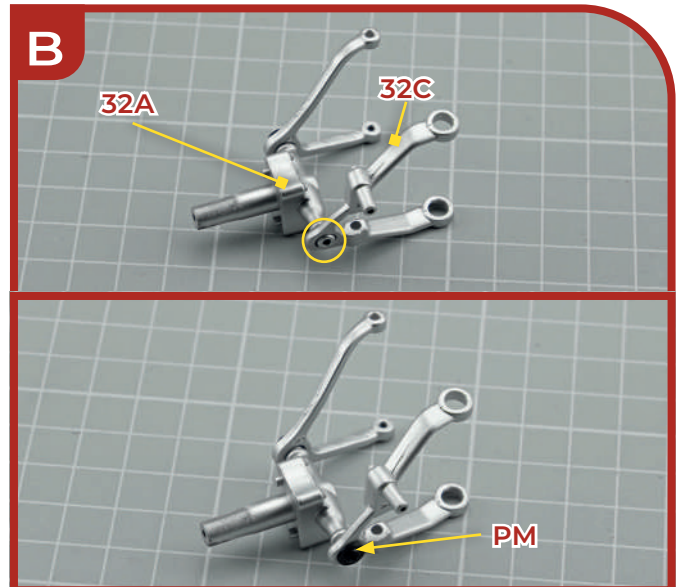
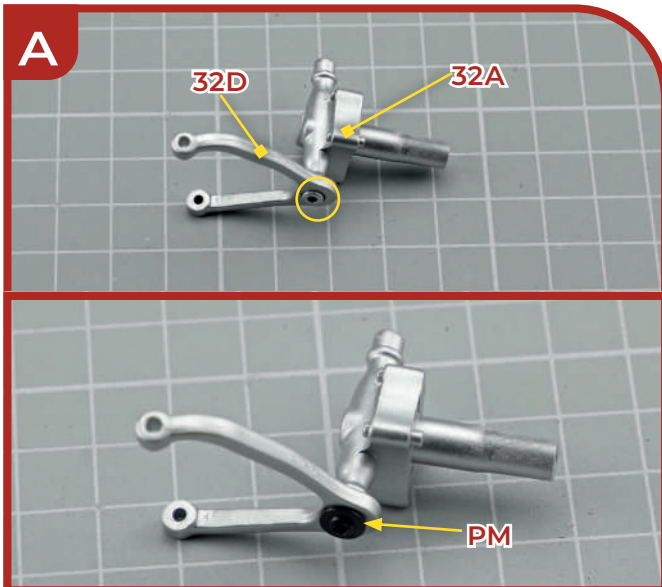


# Stage 32: Building the Front Right Suspension

## 3-32# PARTS LIST

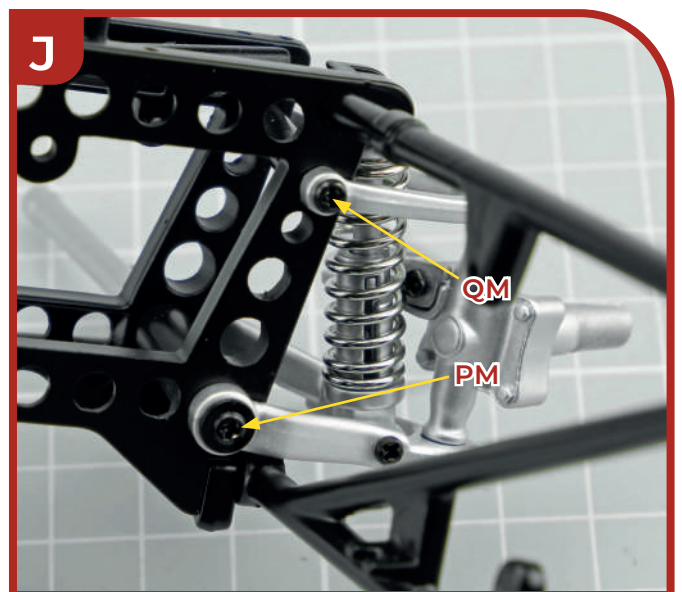
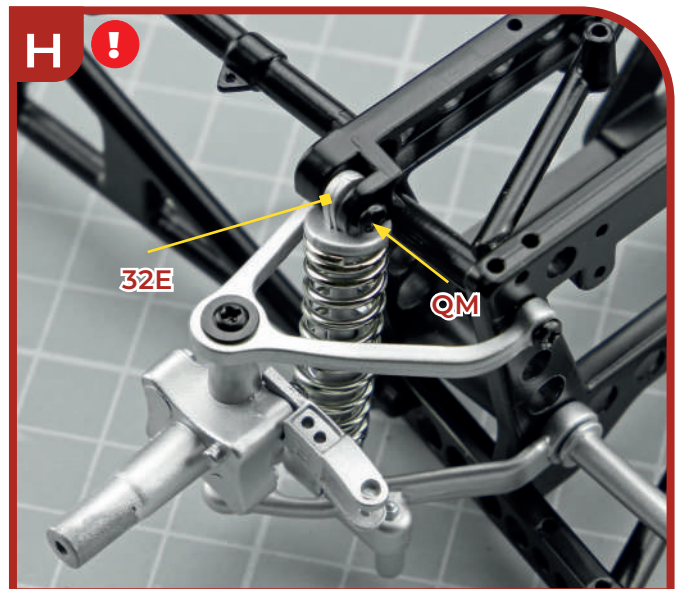
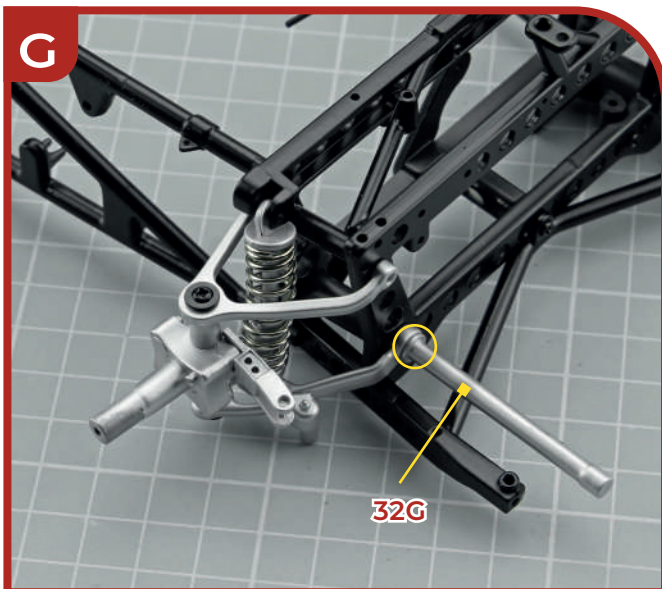
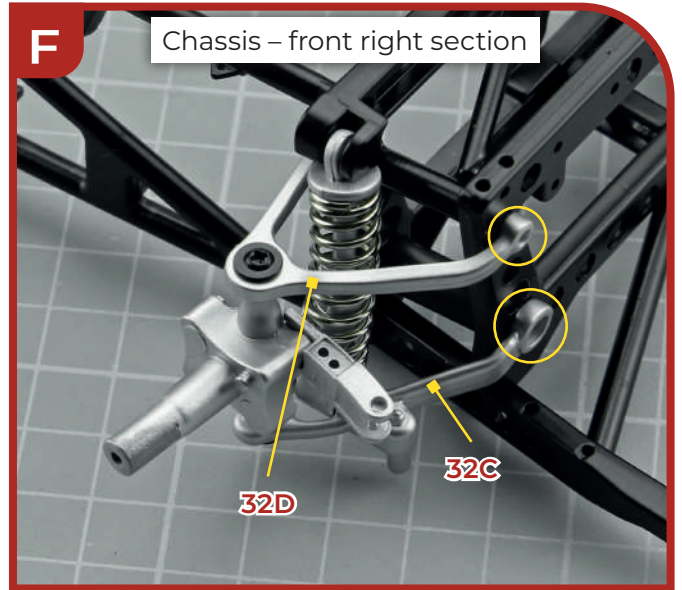
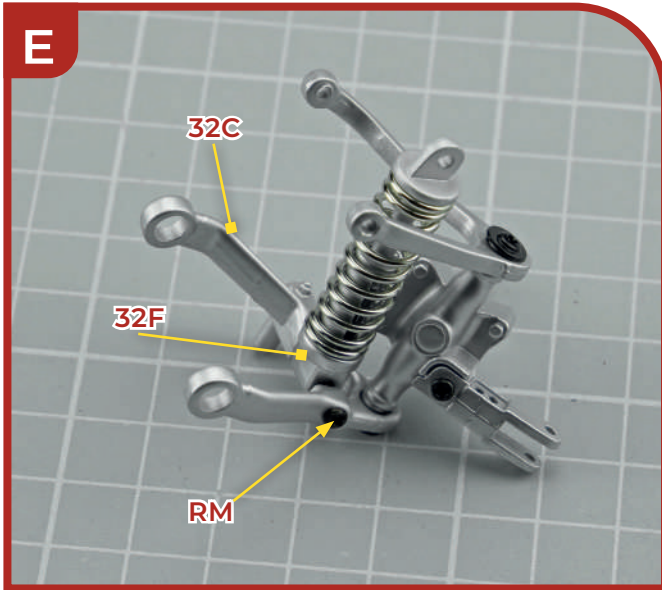


- 32A Spindle part A
- 32B Spindle part B
- 32C Lower suspension arm
- 32D Upper suspension arm
- 32E Shock absorber stem
- 32F Shock absorber casing
- 32G Torsion bar
- 32H Spring
  
- CM 2 screws (1.7 x 4 mm)
- PM 4 screws (2 x 3 x 6 mm)
- QM 4 screws (2 x 8 mm)
- RM 2 screws (2 x 14 mm)





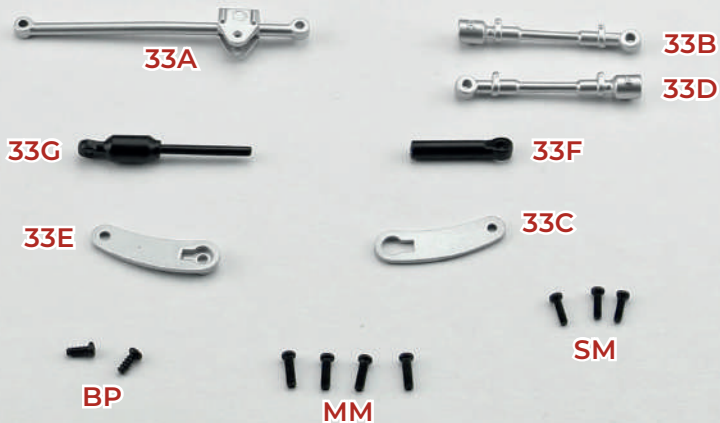
# Stage 32: Building the Front Right Suspension





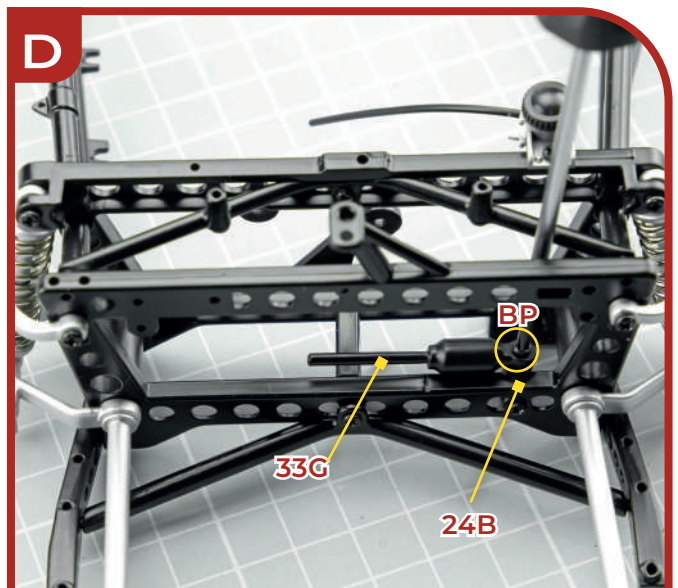
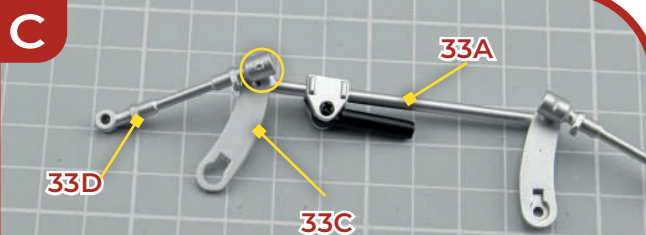
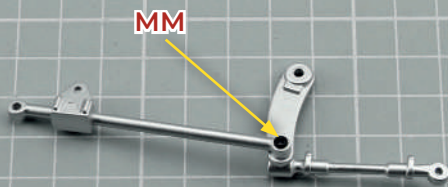
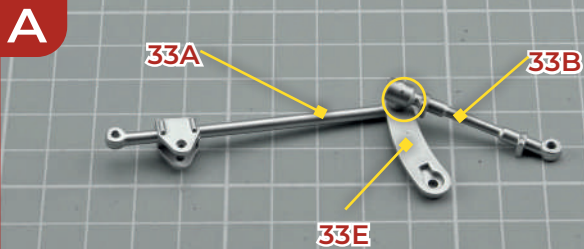
# Stage 33: Fitting the Steering Bar

## 3-33# PARTS LIST



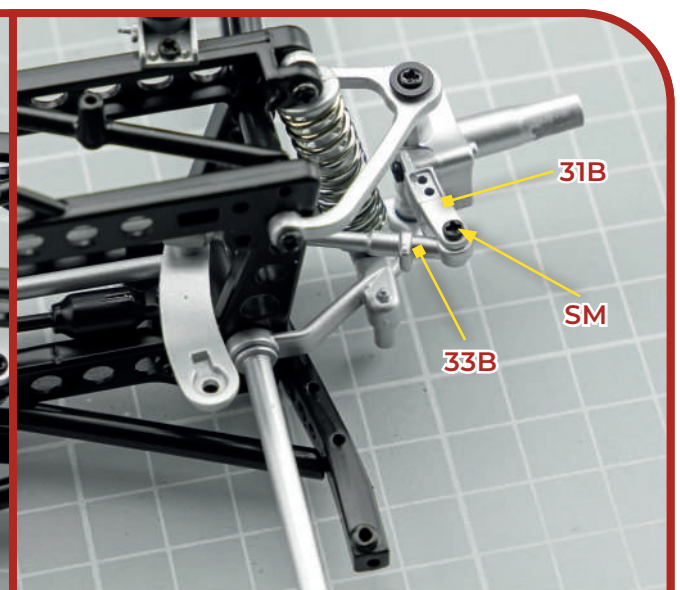
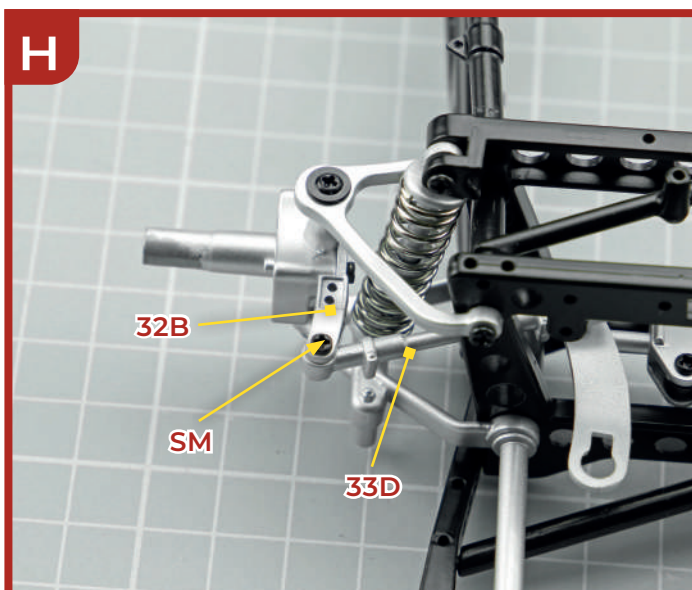
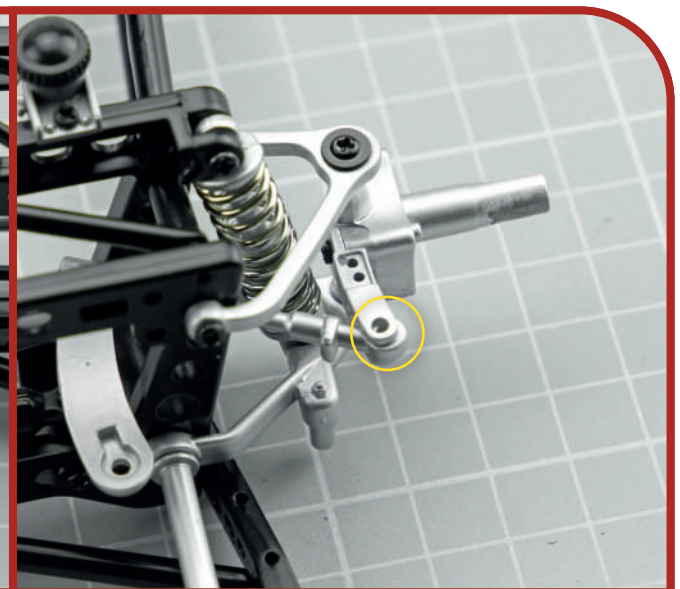
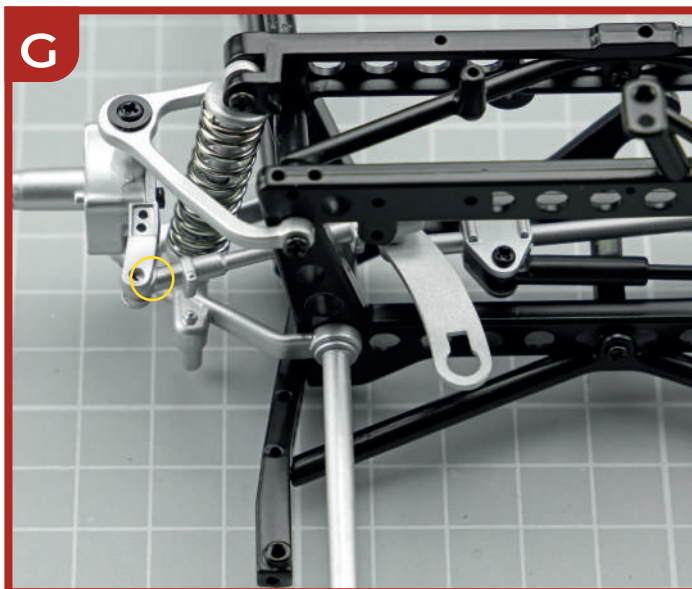
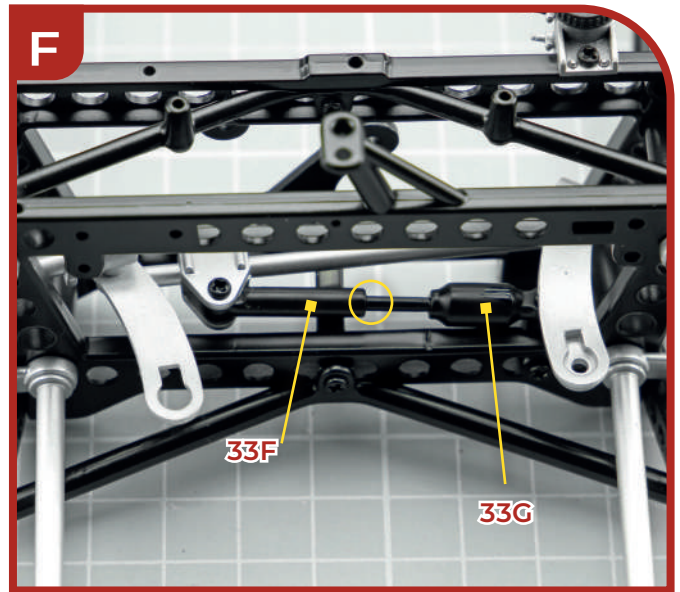
- 33A Central steering bar
- 33B Left tie rod
- 33C Right plate
- 33D Right tie rod
- 33E Left plate
- 33F Arm 1
- 33G Arm 2

- BP 2 screws (2 x 5 mm)
- MM 4 screws (2 x 7 mm)
- SM 3 screws (1.7 x 6 mm)





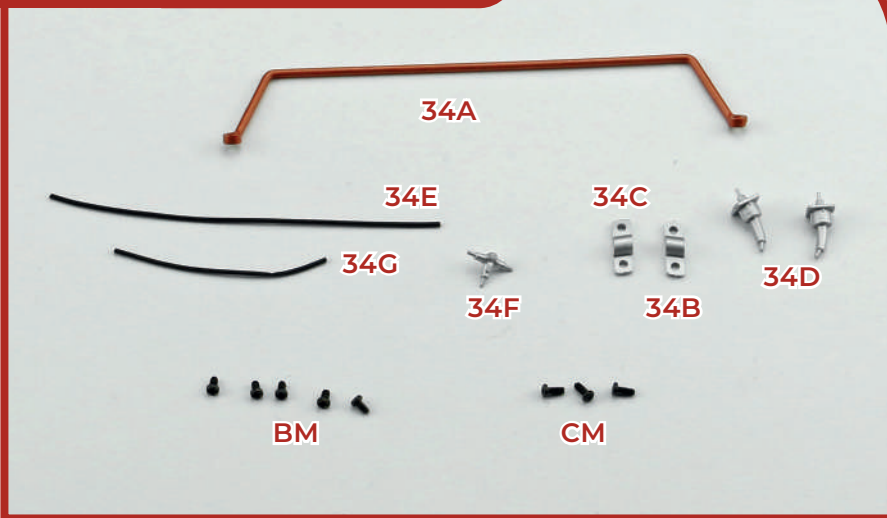
## Stage 33: Fitting the Steering Bar



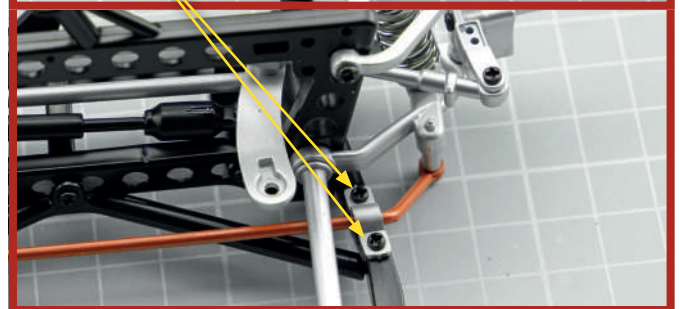
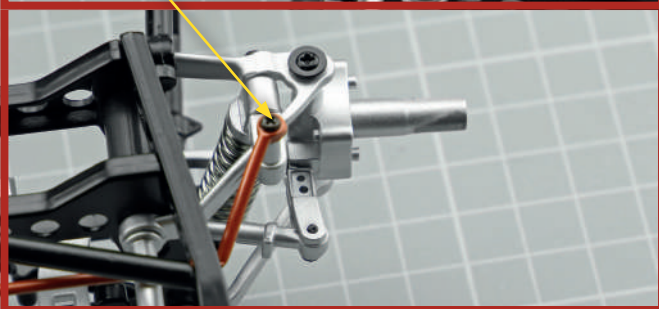
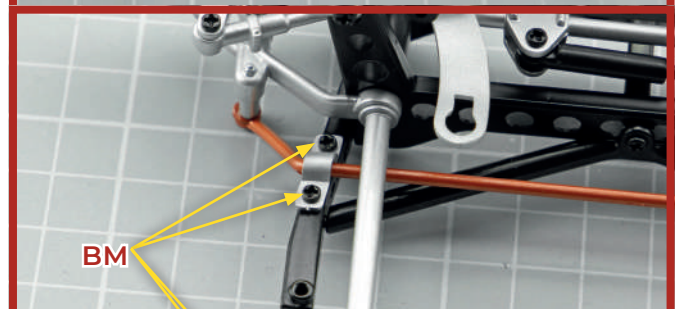
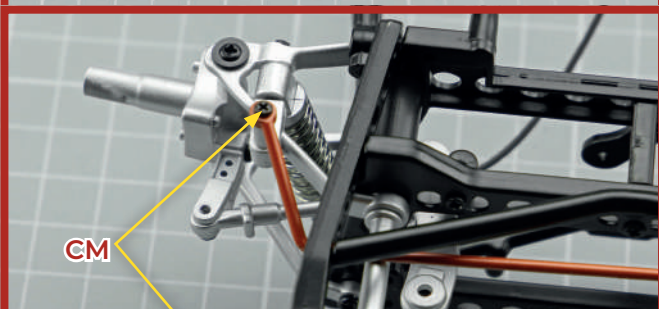
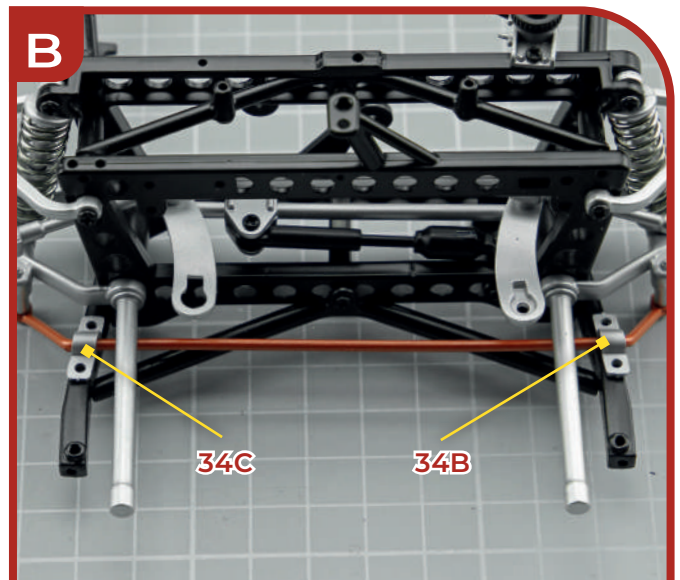
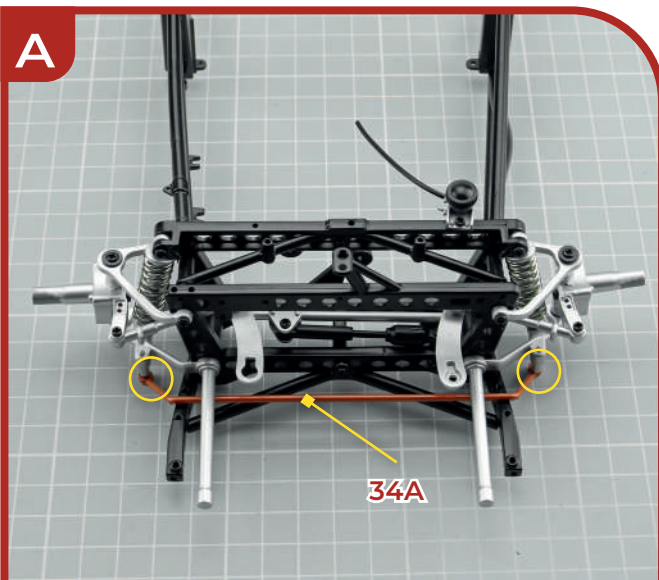


# Stage 34: Fixing the Front Stabilizer Bar

## 3-34# PARTS LIST

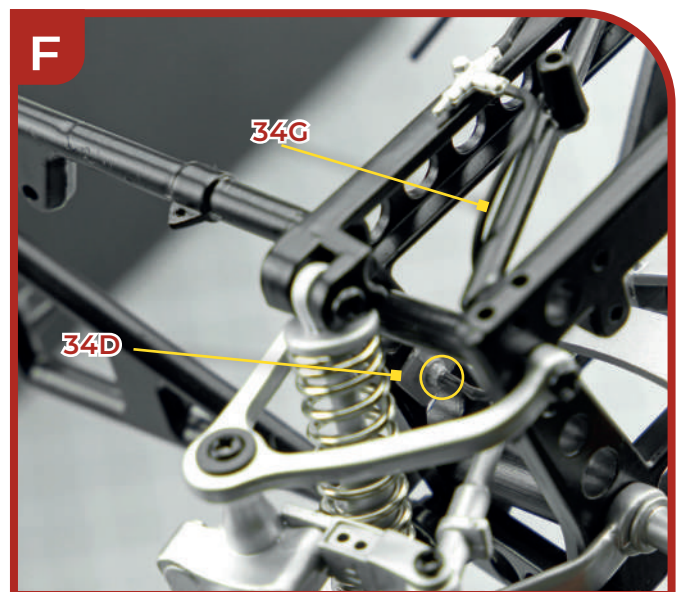
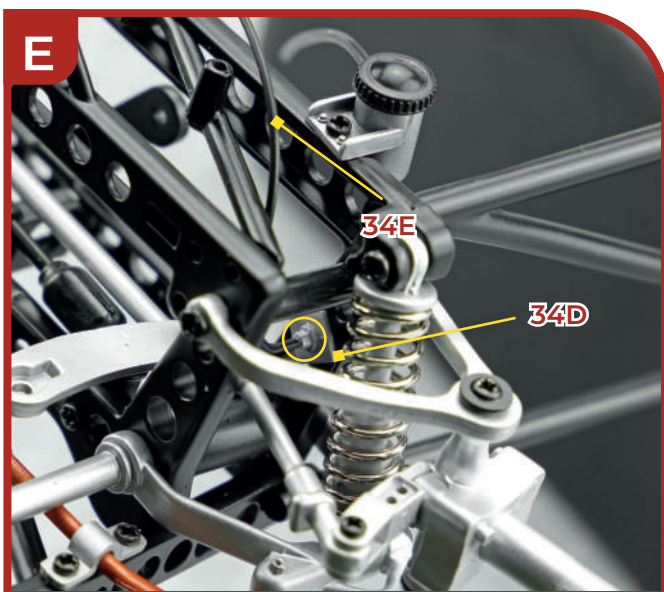
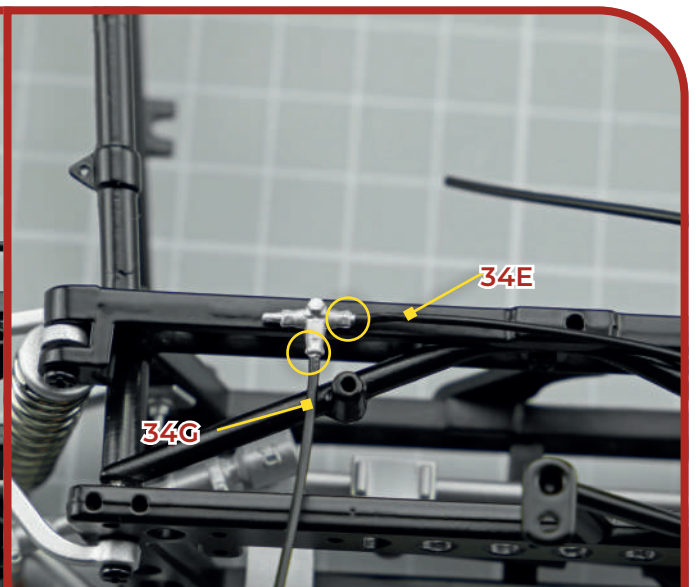
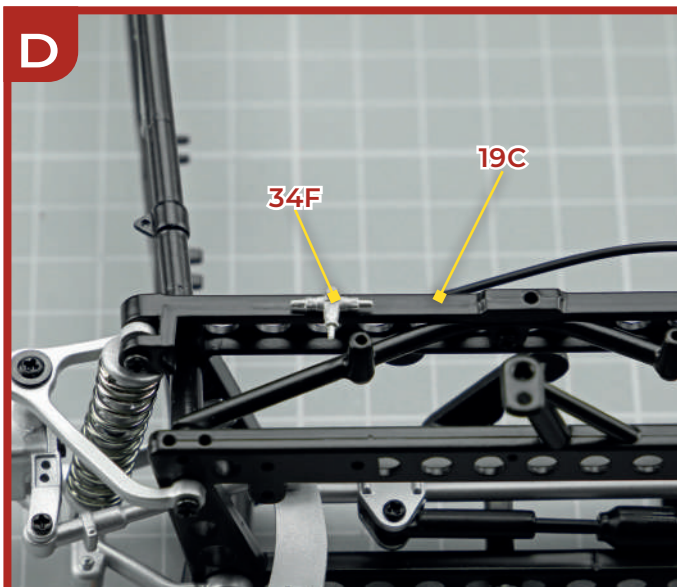
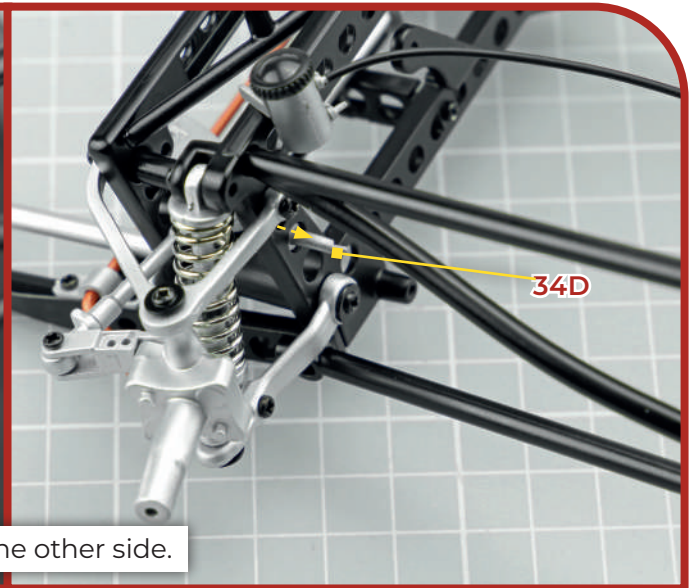
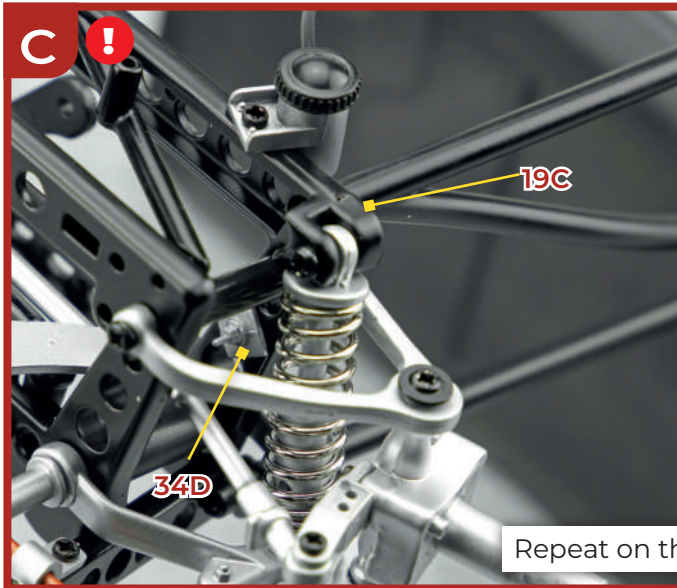


- 34A Front axle stabilizer bar
- 34B Left bracket
- 34C Right bracket
- 34D Brake cables links (x2)
- 34E Left brake cable
- 34F Brake distributor
- 34G Right brake cable
- BM 5 screws (1.7 x 3 mm)
- CM 3 screws (1.7 x 4 mm)



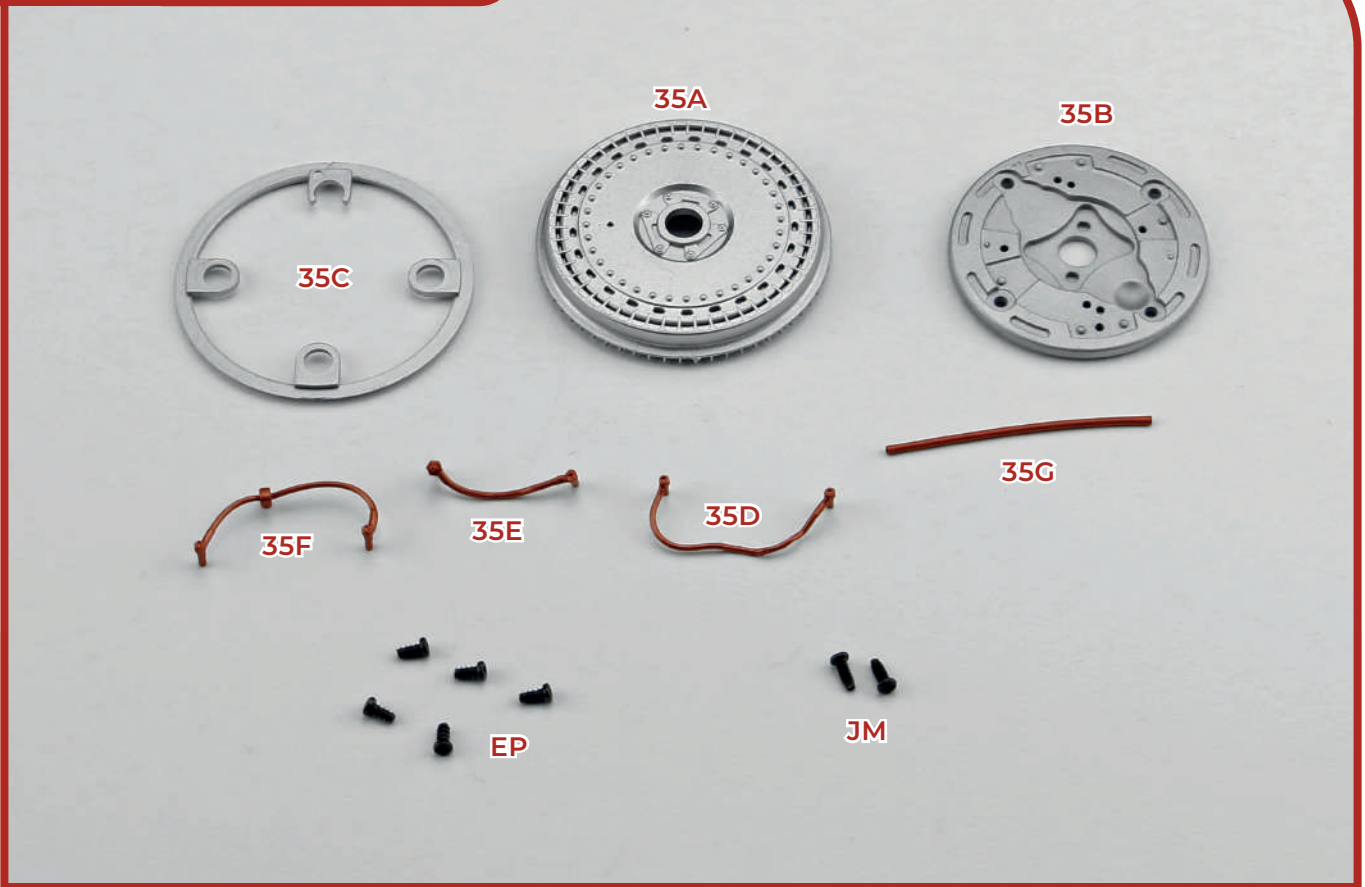


## Stage 34: Fixing the Front Stabilizer Bar

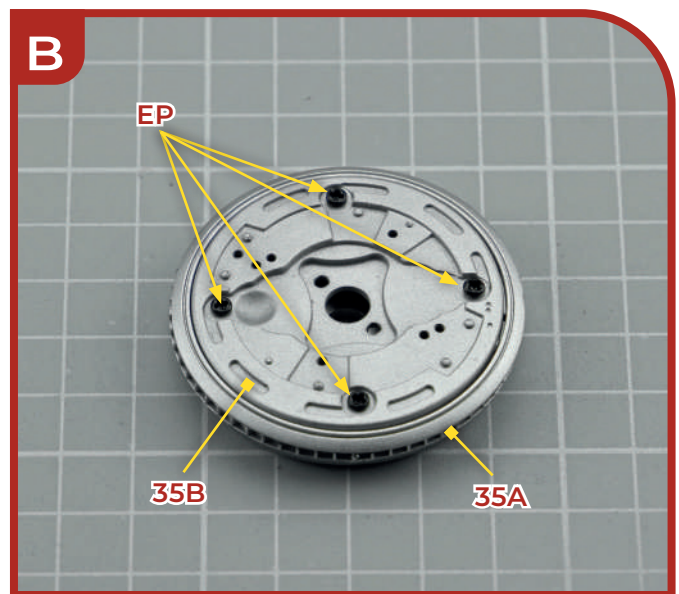
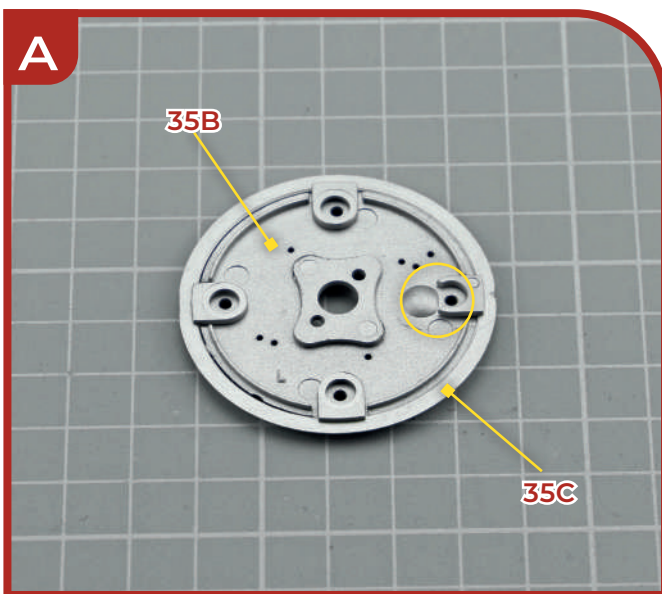


# Stage 35: Building the Front Left Brake Drum

## 3-35# PARTS LIST

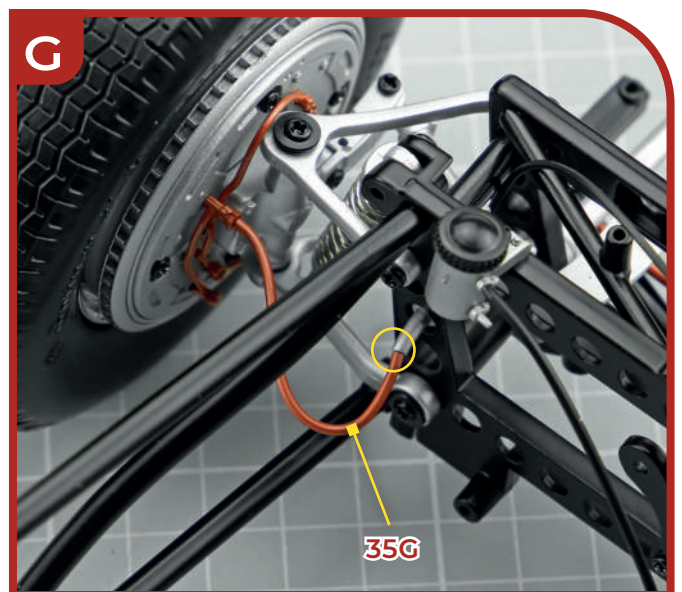
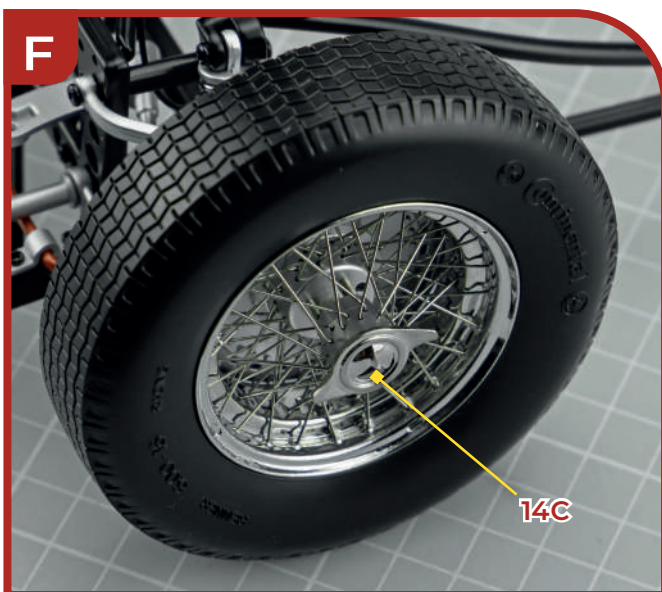
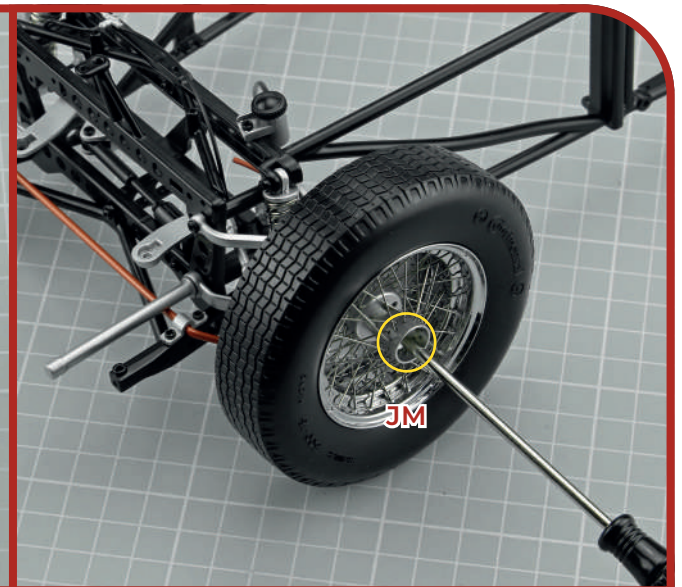
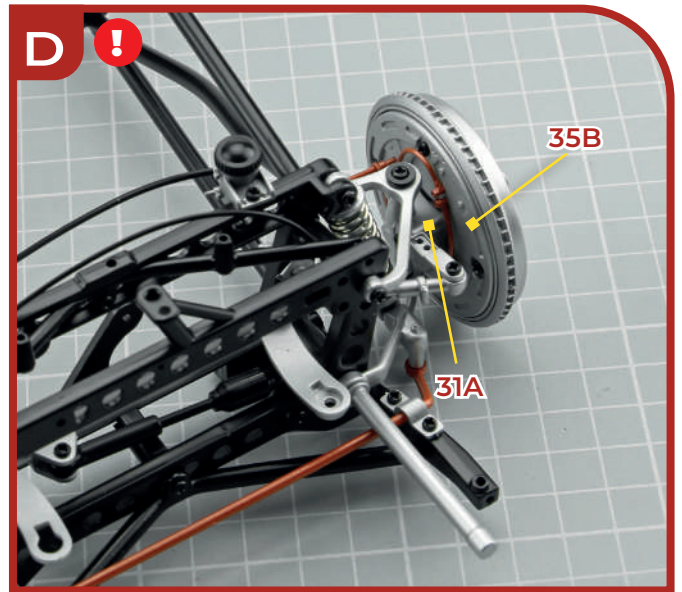
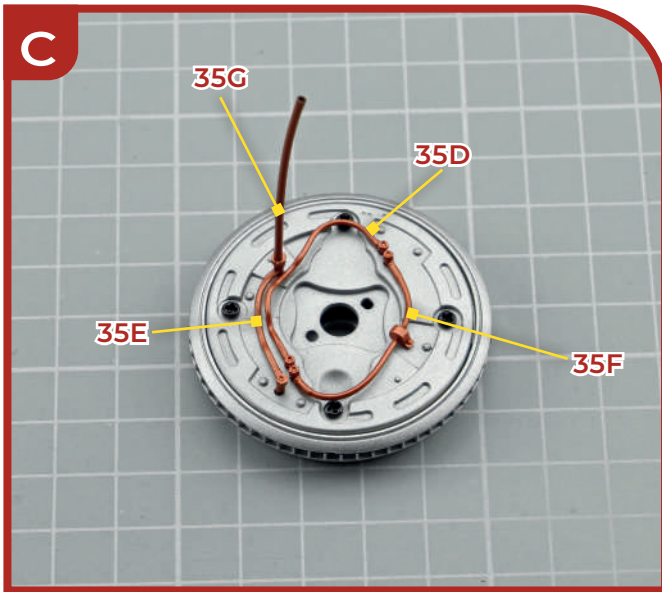


- |            |                    |            |                    |           |                     |
|------------|--------------------|------------|--------------------|-----------|---------------------|
| <b>35A</b> | Brake drum         | <b>35E</b> | Brake drum cable 2 | <b>EP</b> | 5 screws (2 x 4 mm) |
| <b>35B</b> | Brake plate part A | <b>35F</b> | Brake drum cable 3 | <b>JM</b> | 2 screws (2 x 5 mm) |
| <b>35C</b> | Brake plate part B | <b>35G</b> | Brake drum cable 4 |           |                     |
| <b>35D</b> | Brake drum cable 1 |            |                    |           |                     |





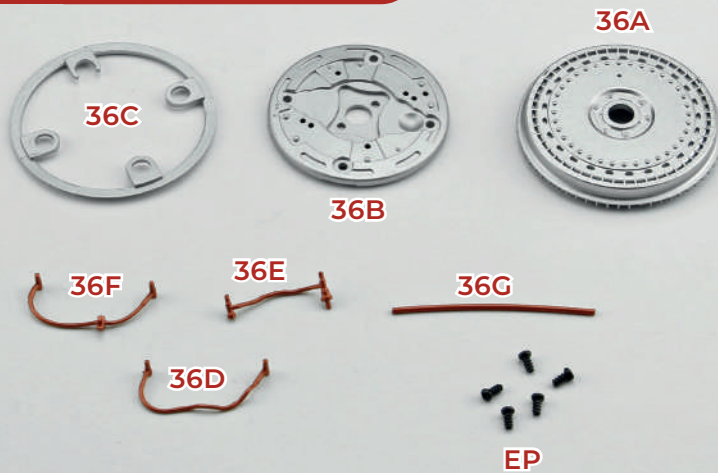
# Stage 35: Building the Front Left Brake Drum



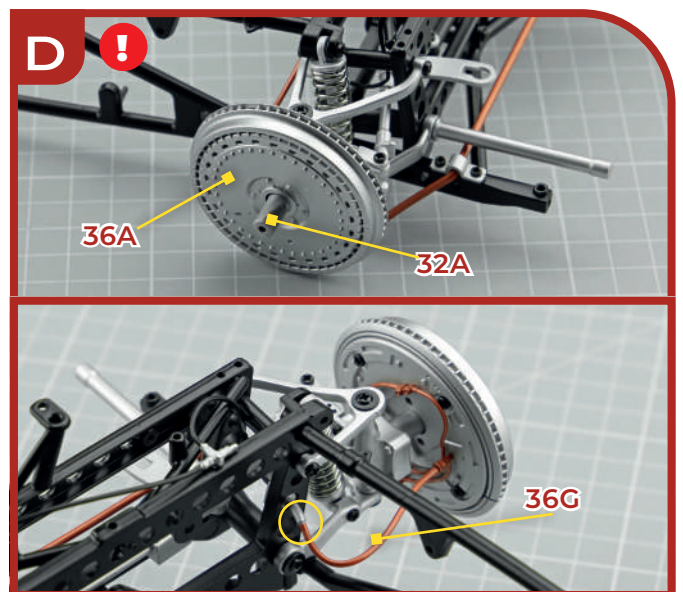
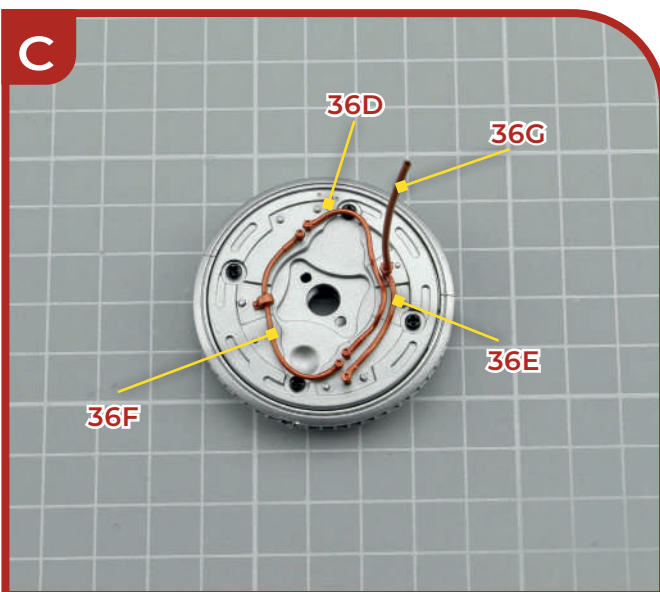
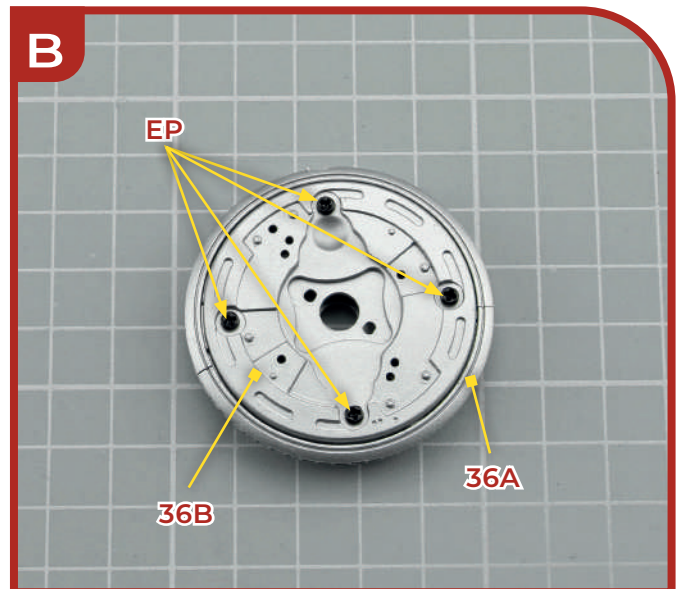
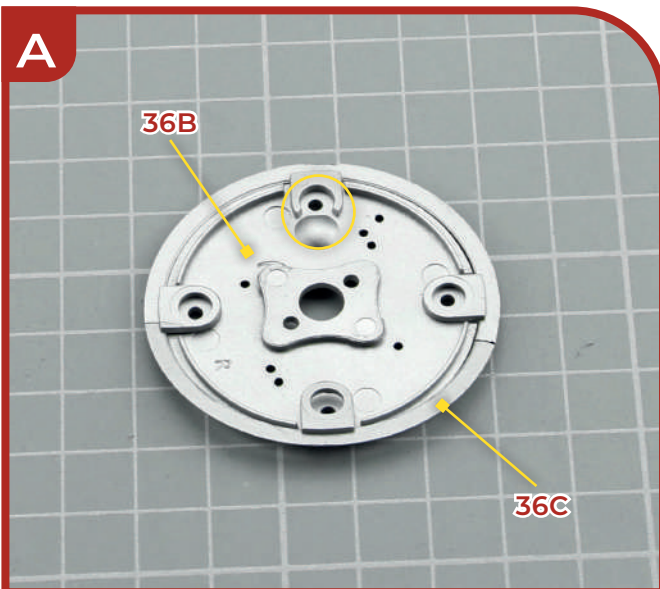


# Stage 36: Building the Front Right Brake Drum

## 3-36# PARTS LIST

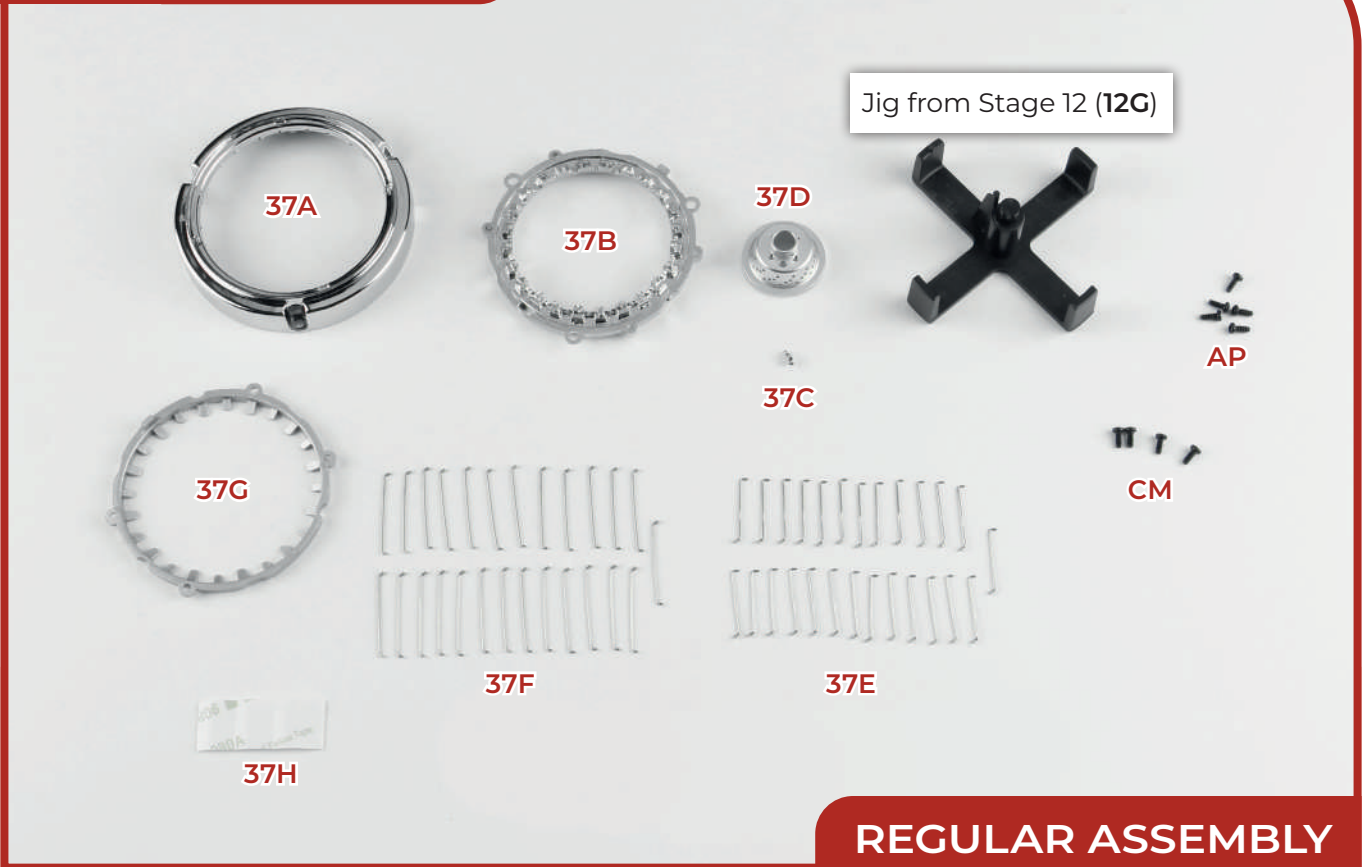


- 36A Brake drum
- 36B Brake plate part A
- 36C Brake plate part B
- 36D Brake drum cable 1
- 36E Brake drum cable 2
- 36F Brake drum cable 3
- 36G Brake drum cable 4
- EP 5 screws (2 x 4 mm)



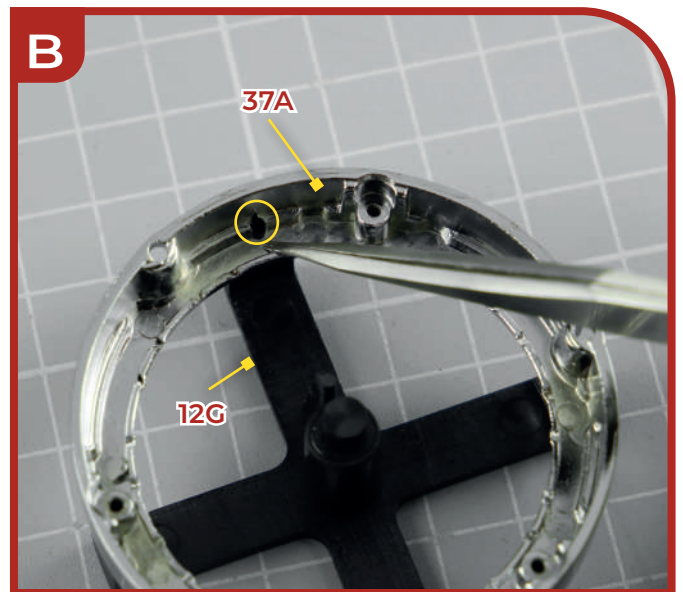
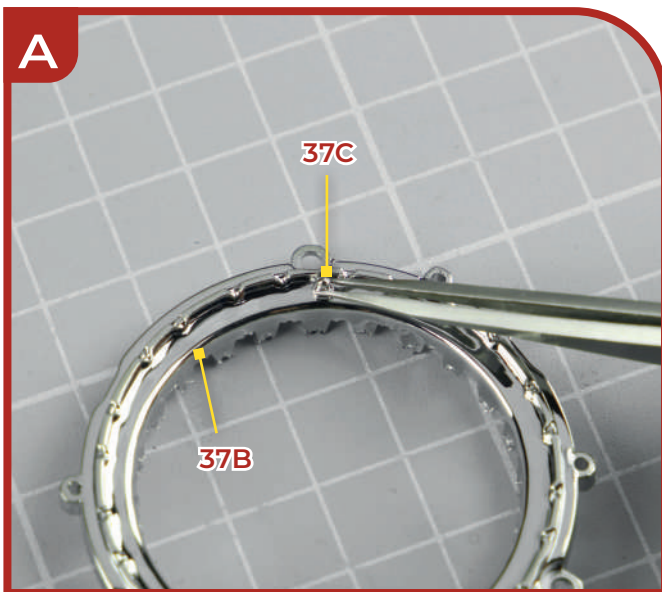
# Stage 37: Assembling the Front Right Wheel Rim (1) (Regular)

## 3-37# PARTS LIST



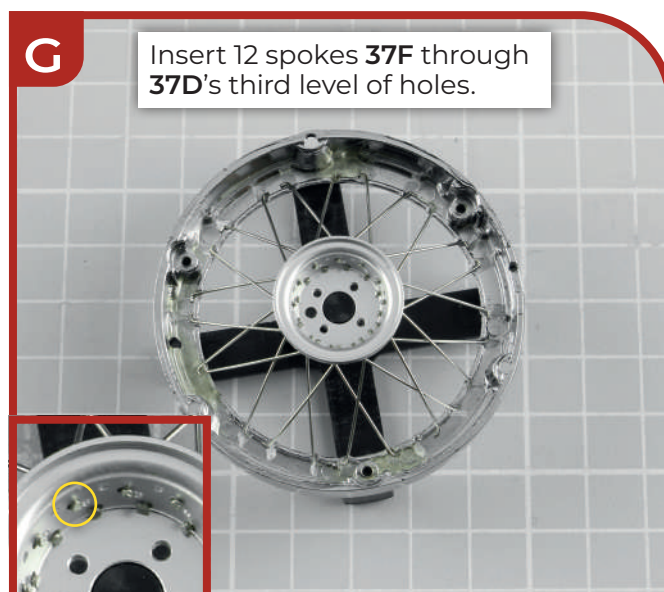
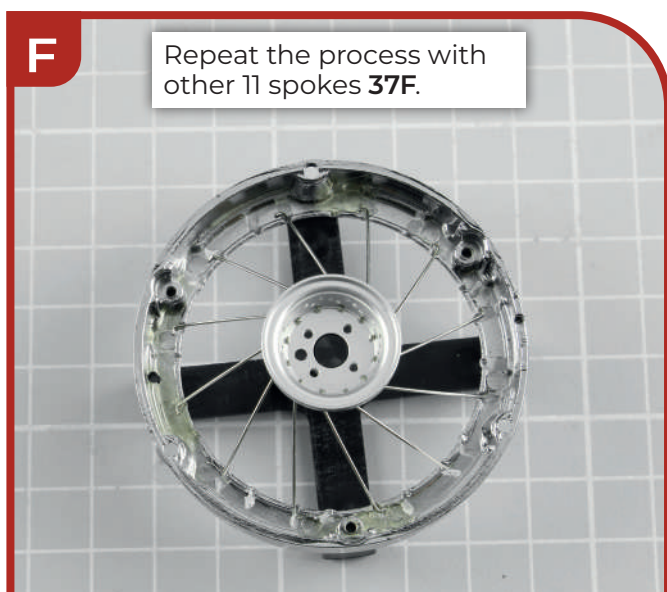
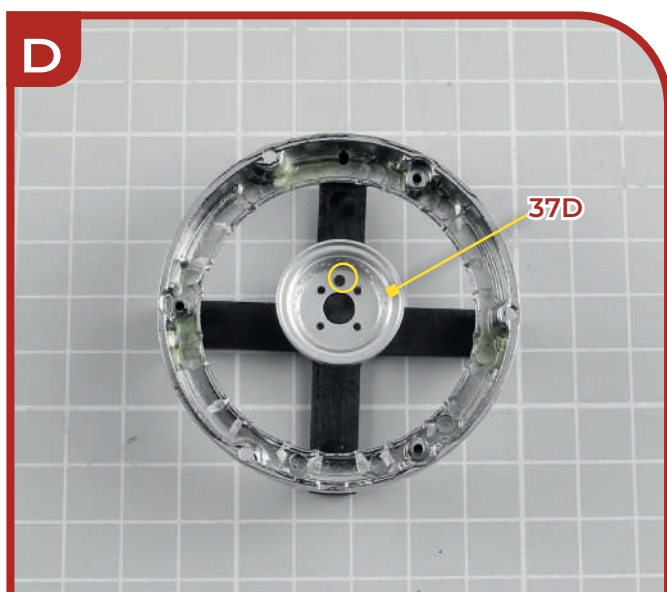
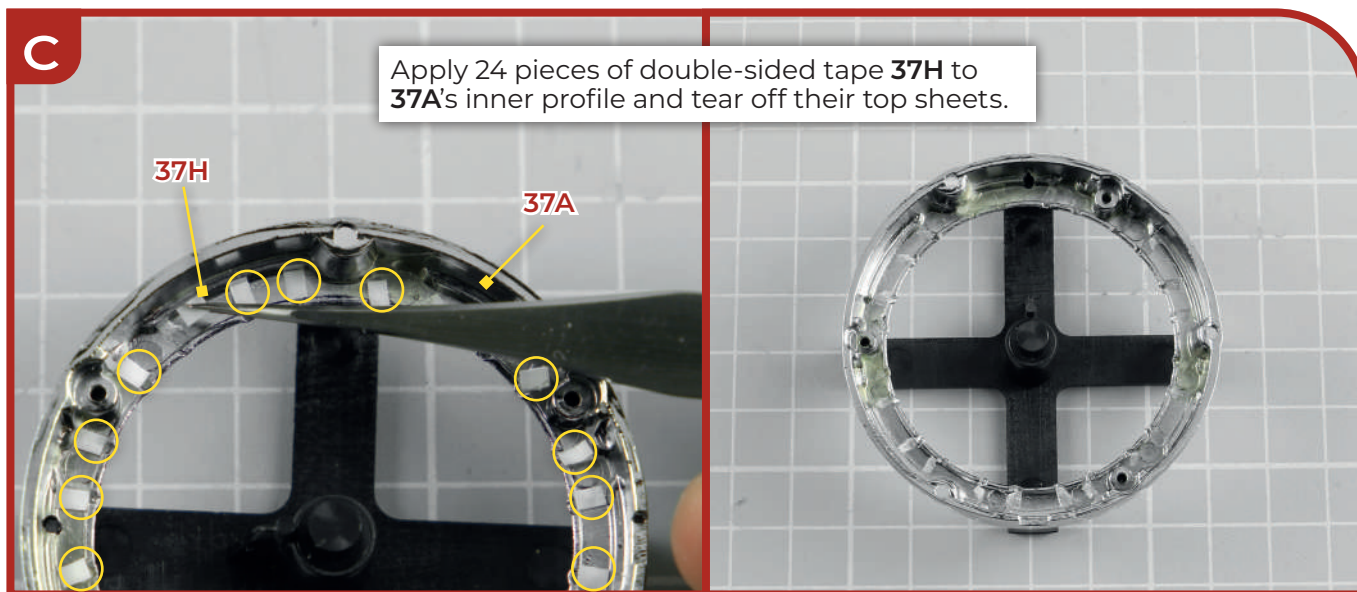
## REGULAR ASSEMBLY

- |            |                 |            |                   |           |                       |
|------------|-----------------|------------|-------------------|-----------|-----------------------|
| <b>37A</b> | Outer rim       | <b>37E</b> | Spokes 1          | <b>AP</b> | 5 screws (1.7 x 4 mm) |
| <b>37B</b> | Central ring 1  | <b>37F</b> | Spokes 2          | <b>CM</b> | 4 screws (1.7 x 4 mm) |
| <b>37C</b> | Inflation valve | <b>37G</b> | Central ring 2    |           |                       |
| <b>37D</b> | Hub 1           | <b>37H</b> | Double-sided tape |           |                       |

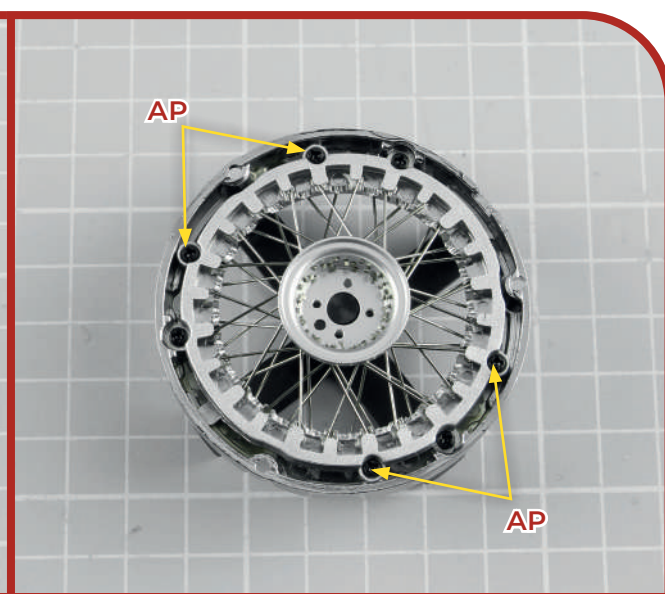
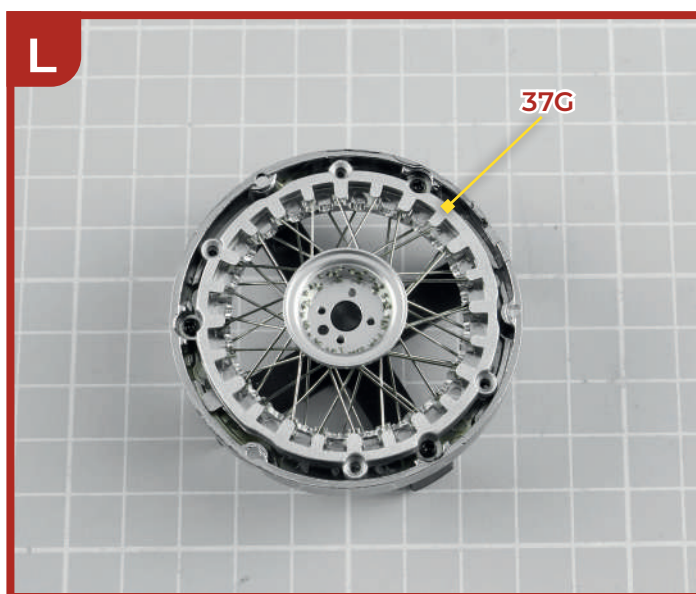
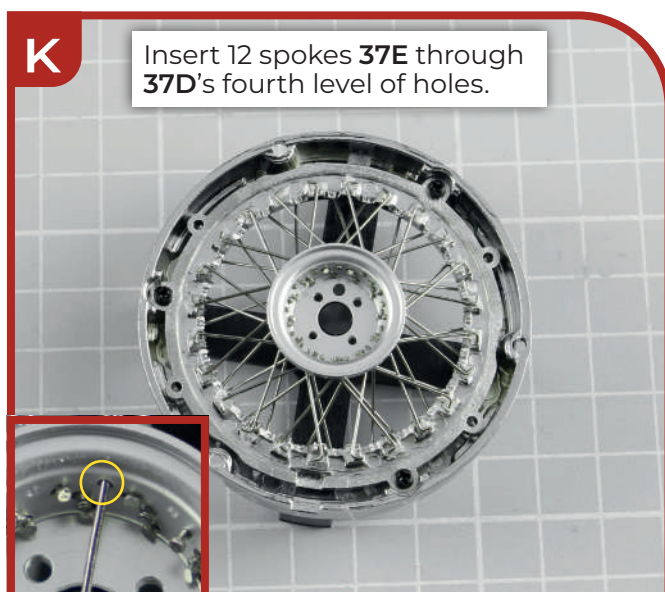
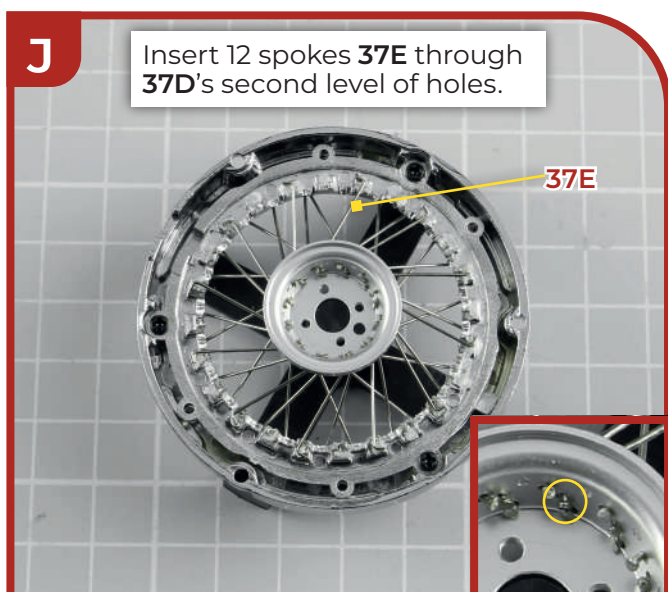
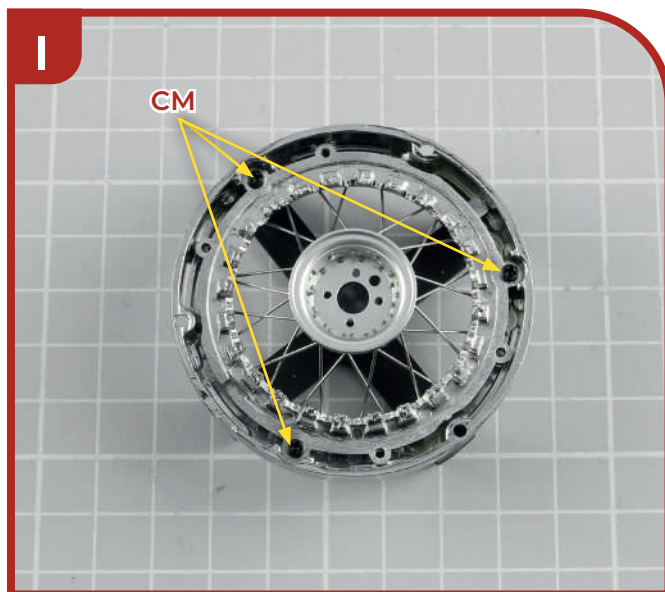
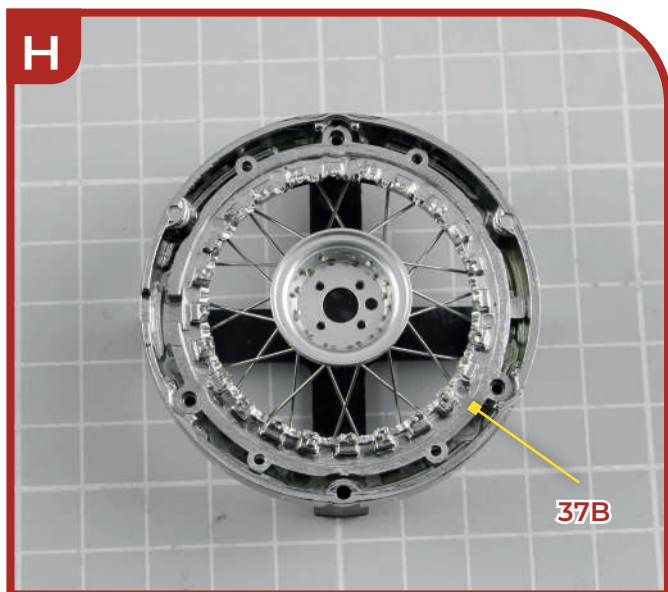




# Stage 37: Assembling the Front Right Wheel Rim (1) (Regular)



# Stage 37: Assembling the Front Right Wheel Rim (1) (Regular)





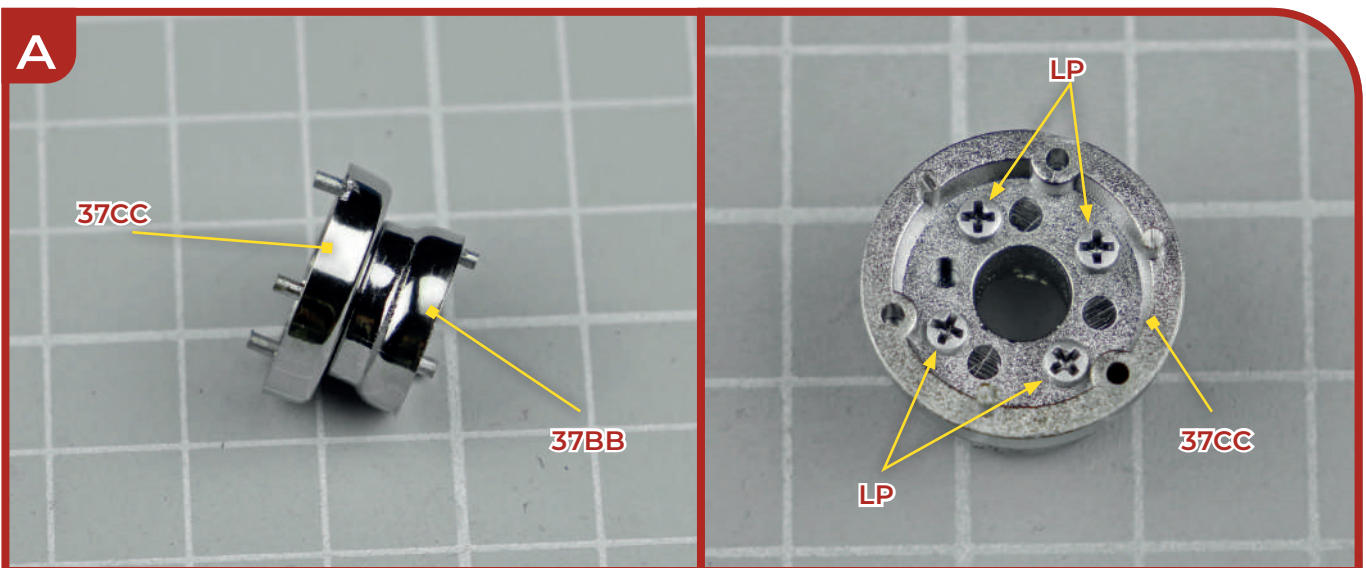
# Stage 37B: Assembling the Front Right Wheel Rim (1) (Easy)

## 3-37B# PARTS LIST

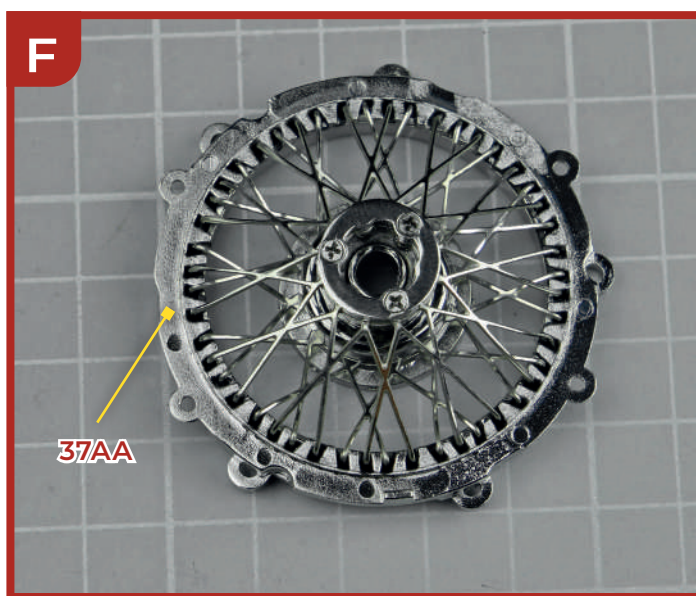
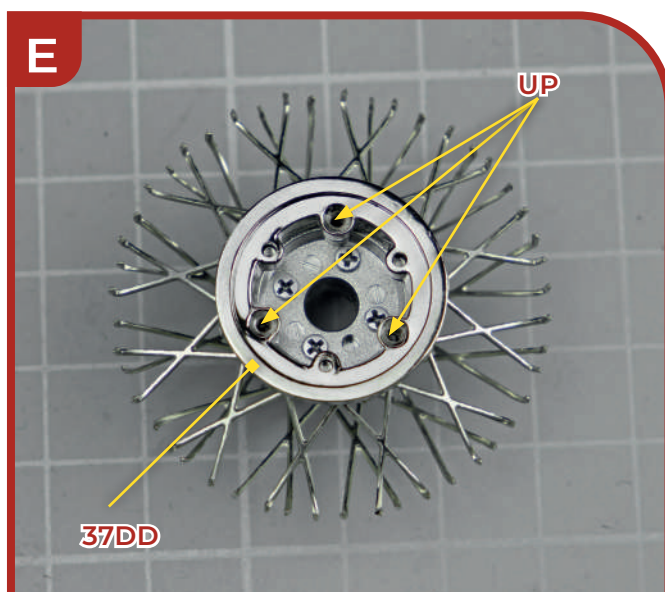
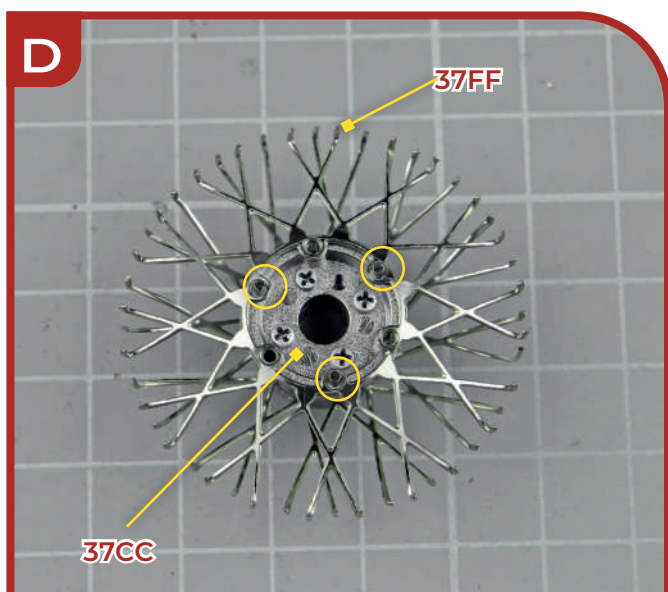
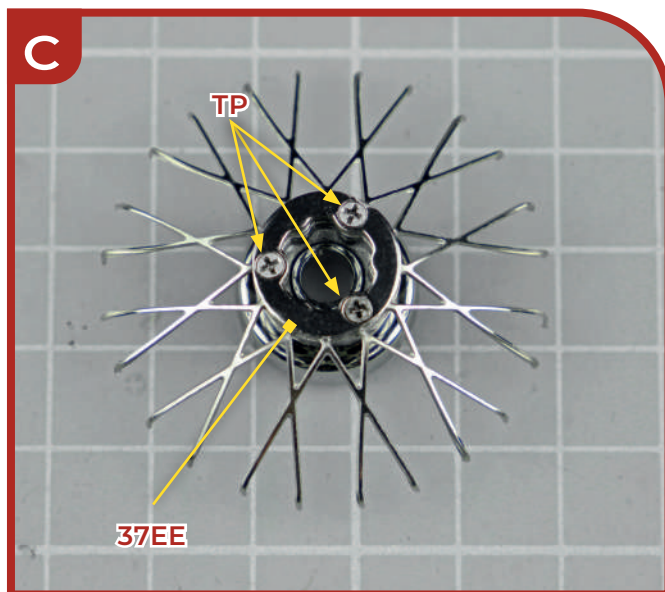
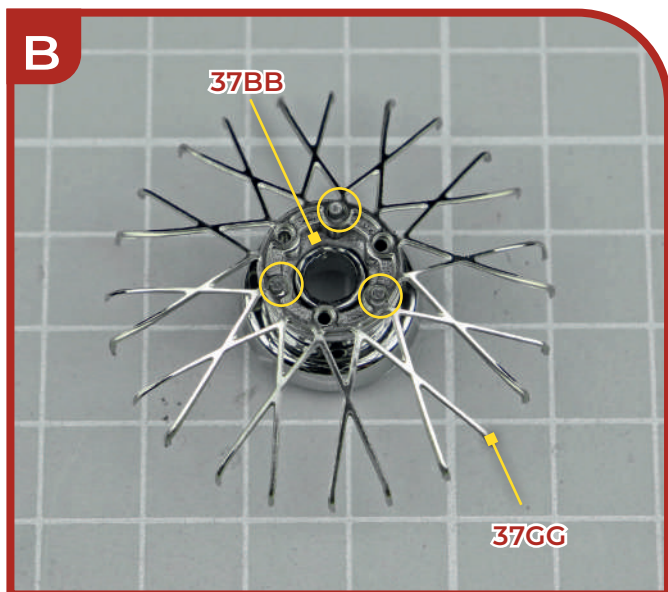


## EASY ASSEMBLY

<b>37AA</b>	Central ring 1	<b>37EE</b>	Hub 4	<b>LP</b>	5 screws (1.5 x 3 mm)
<b>37BB</b>	Hub 1	<b>37FF</b>	Spokes 1	<b>TP</b>	4 screws (1.5 x 5 mm)
<b>37CC</b>	Hub 2	<b>37GG</b>	Spokes 2	<b>UP</b>	4 screws (1.7 x 4 mm)
<b>37DD</b>	Hub 3				



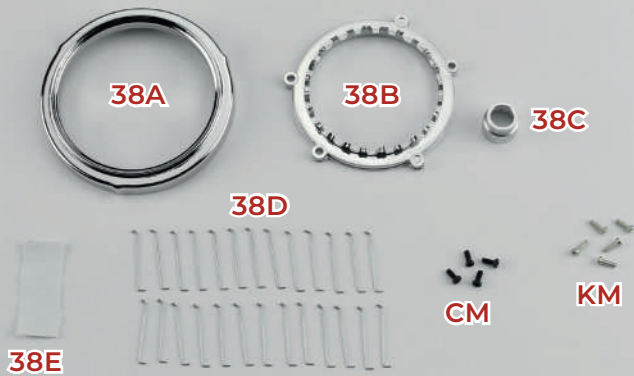
# Stage 37B: Assembling the Front Right Wheel Rim (1) (Easy)





# Stage 38: Assembling the Front Right Wheel Rim (2) (Regular)

## 3-38# PARTS LIST



- 38A Inner rim
- 38B Central ring 3
- 38C Hub 2
- 38D Spokes 3
- 38E Double-sided tape

- CM 4 screws (1.7 x 4 mm)
- KM 5 screws (1.5 x 5 mm)

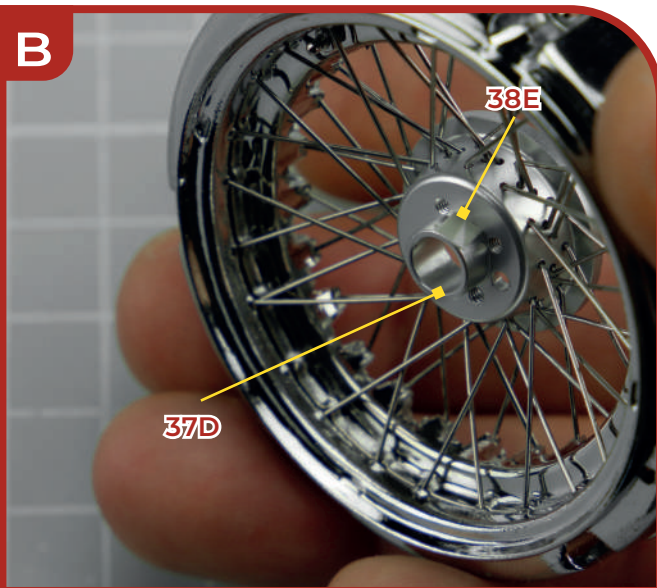
## REGULAR ASSEMBLY

A

Apply 24 pieces of double-sided tape **38E** to **37B**'s inner profile and tear off their top sheets.



B

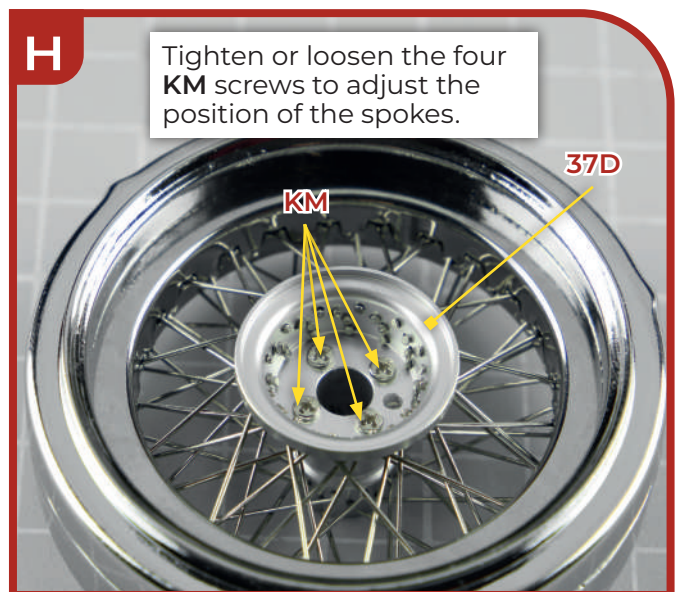
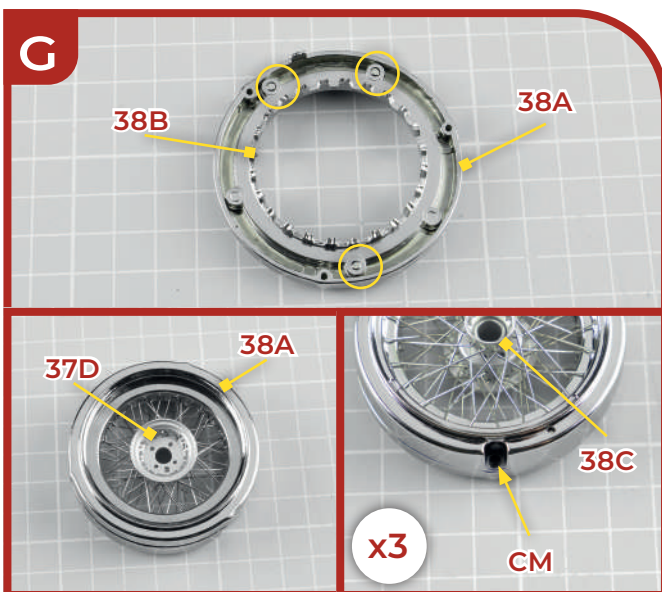
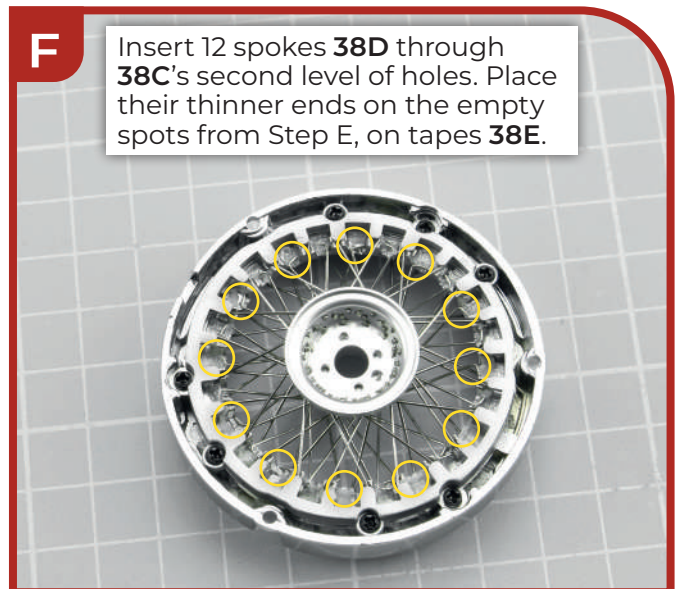
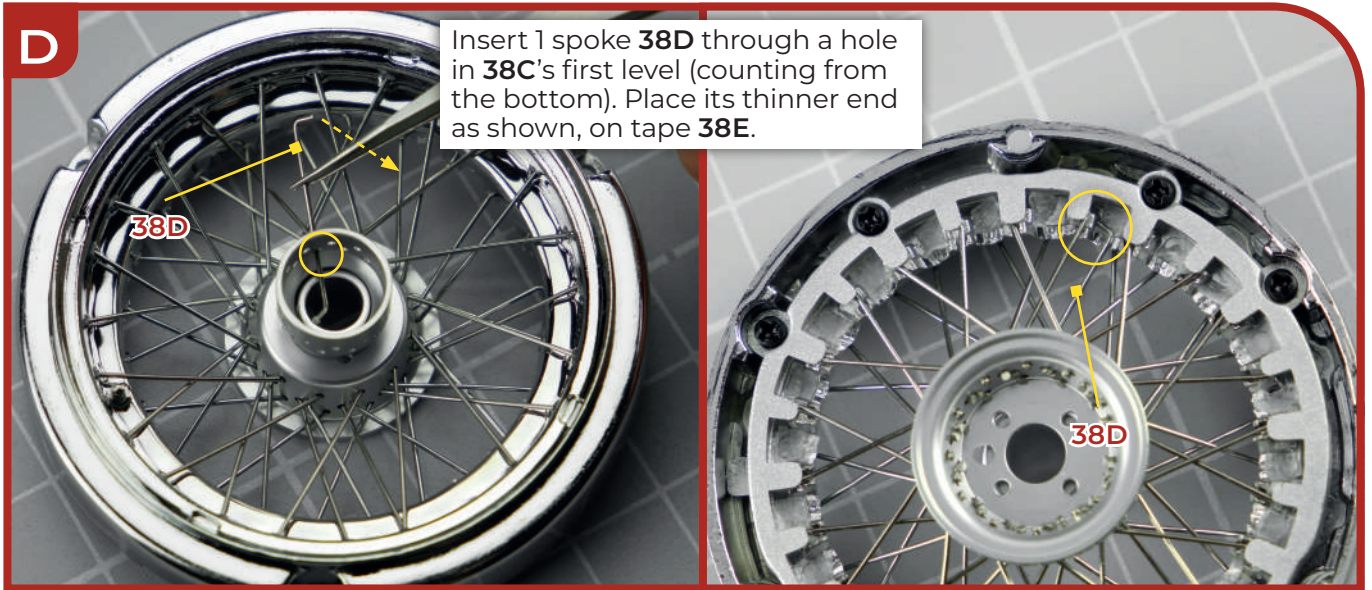


C





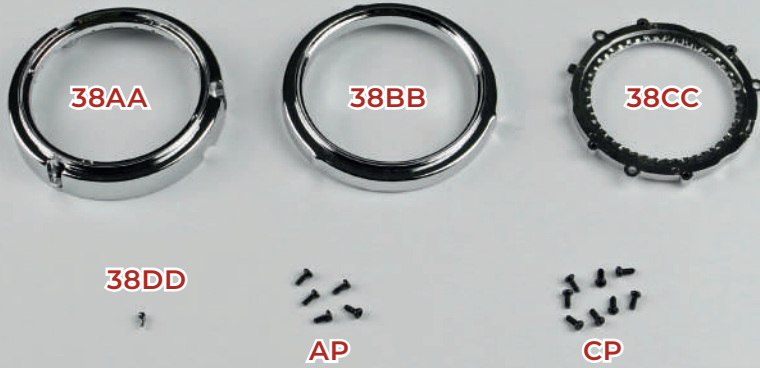
# Stage 38: Assembling the Front Right Wheel Rim (2) (Regular)





# Stage 38B: Assembling the Front Right Wheel Rim (2) (Easy)

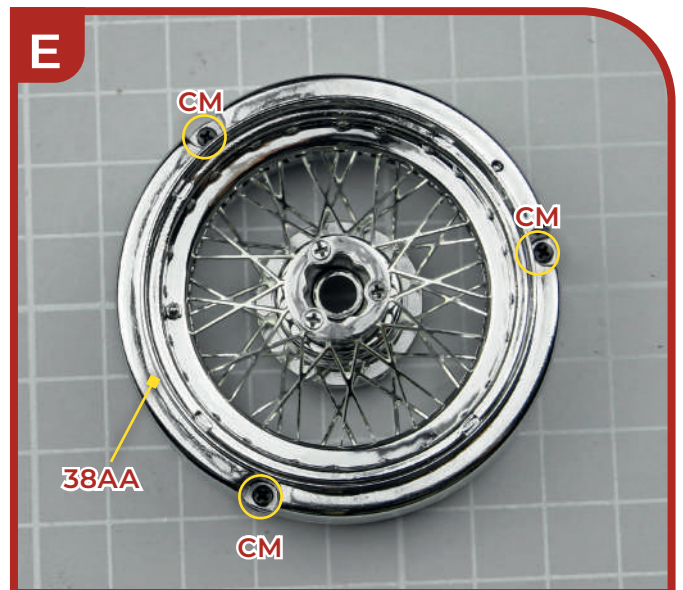
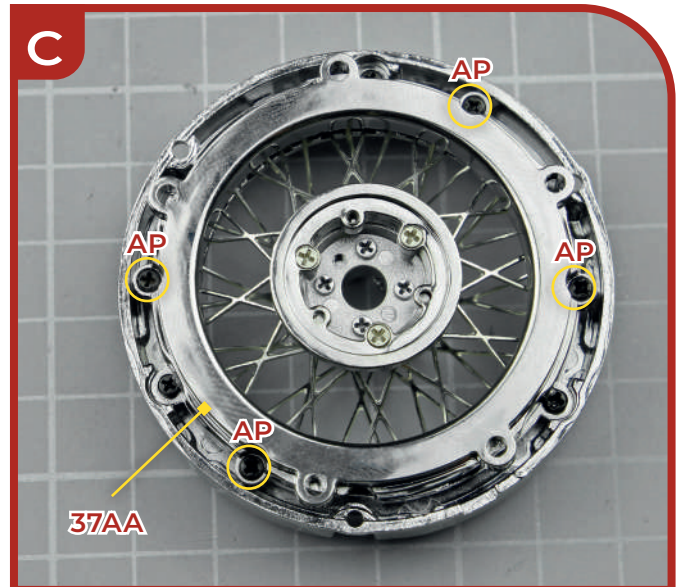
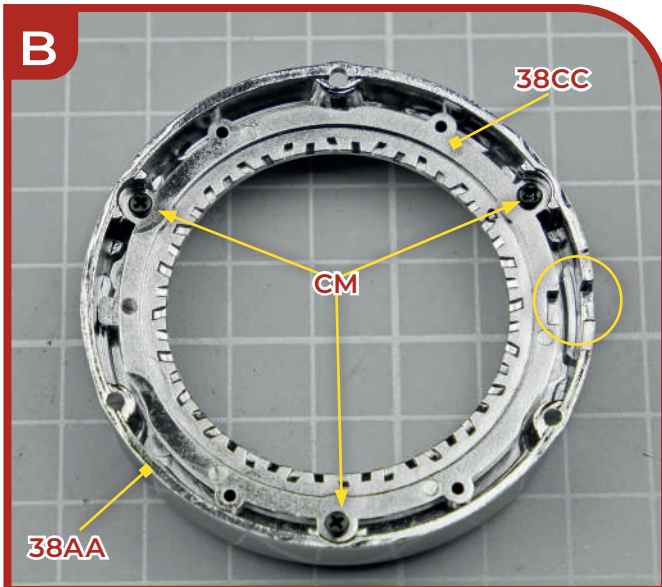
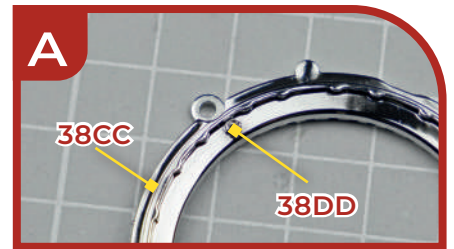
## 3-38B# PARTS LIST



38AA Outer rim  
 38BB Inner rim  
 38CC Central ring 2  
 38DD Inflation valve

AP 5 screws (1.7 x 4 mm)  
 CM 8 screws (1.7 x 4 mm)

## EASY ASSEMBLY





# Stage 39: Fitting the Front Right Tyre (Regular)

## 3-39# PARTS LIST



- 39A Tyre
- 39B Hub 3
- 39C Hubcap
- 39D Washer ring
- JM 2 screws (2 x 5 mm)

## REGULAR ASSEMBLY

A

Soften the tyre **39A** by placing it in a bowl of hot water.

39A



37A

39A



B

39B

37D

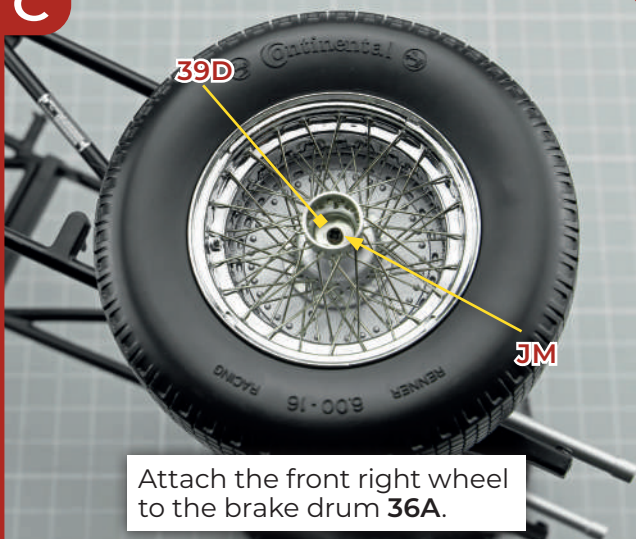


C

39D

JM

Attach the front right wheel to the brake drum **36A**.



D

39C



# Stage 39B: Fitting the Front Right Tyre (Easy)

## 3-39B# PARTS LIST

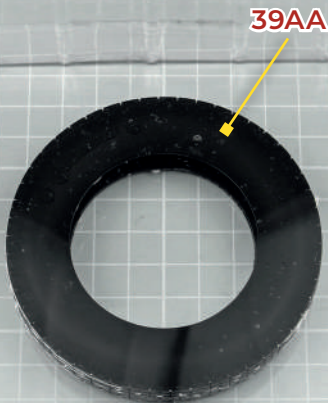


- 39AA** Tyre
- 39BB** Hubcap
- 39CC** Hub 5
- 39DD** Washer ring

**JM** 2 screws (2 x 5 mm)

## EASY ASSEMBLY

**A**

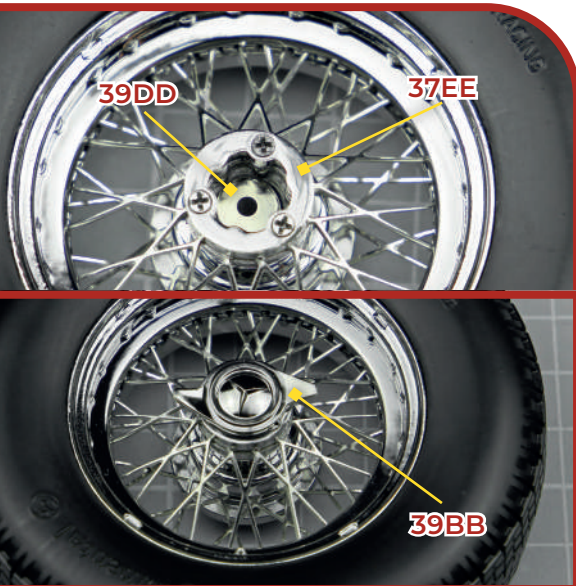


Soften the tyre **39AA** by placing it in a bowl of hot water.

**B**



**C**



**D**

