

Original BMW Parts and Accessories. Installation Instructions.



M Performance Carbon Exterior Components Retrofit Kit.

BMW 4 Series (G22)

BMW 4 Series Convertible (G23)

Retrofit kit number

Part number	Component designation	Type	Installation time (h)	Installation as described in ISTA/AIR*
51 11 2 473 232	Aero Flick, right	G22, G23	0.25	-
51 11 2 473 233	Aero Flick, left	G22, G23	0.25	-
51 19 2 472 782	Carbon front attachment	G22, G23	1.00	-
51 19 2 473 036	Carbon right side skirt attachment	G22, G23	0.50	-
51 19 2 473 037	Carbon left side skirt attachment	G22, G23	0.50	-
51 71 9 623 409	Basic carbon front ornamental grille	G22, G23	-	x
51 71 9 623 411	Carbon front ornamental grille FRR (Full Range Radar)	G22, G23	-	x
51 71 9 623 410	Carbon front ornamental grille MRR (Mid Range Radar)	G22, G23	-	x
51 47 2 472 521	Sill trim, left/right	G22, G23	-	x

* This installation work is carried out as described in the relevant ISTA/AIR repair instructions and is not shown in these installation instructions.

Installation time

Installation time, see table. This may vary depending on the condition of the vehicle, the equipment in it and the type of retrofit.

The installation time shown does not include any time spent on programming/coding.

The calculation of the total costs for the programming time must be factored into the calculation of retrofitting costs (must not be invoiced under the warranty).

Important information

These installation instructions are primarily designed for use within the BMW dealership organisation and by authorised BMW service companies.

These installation instructions are intended for use by qualified specialist staff trained on BMW cars with the relevant expert knowledge.

All work must be completed using the latest BMW repair manuals, wiring diagrams, servicing manuals and work instructions, in a logical order, using the prescribed tools (special tools), and observing current health and safety regulations.

The following applies to G22 cars: The front attachment may only be installed in combination with a BMW rear spoiler, standard rear spoiler for MPA cars (M440 models), carbon rear spoiler from the carbon package option (SA 71C) or throughflow carbon rear spoiler option (Part No. 51 19 2 475 051), see ETK.

If you experience installation or functional problems, restrict troubleshooting to approx. 0.5 hours for mechanical work and 1.0 hours for electrical work.

To avoid unnecessary extra work and/or costs, send an inquiry to the technical parts support team.

Quote the following information:

- VIN,
- retrofit kit part number,
- a detailed description of the problem,
- any work already carried out.

Do not archive the printout of these installation instructions. The current version can be found in the EPC.

Pictograms



Denotes instructions that draw your attention to dangers.



Denotes instructions that draw your attention to special features.



Denotes the end of the instruction or other text.

Installation information

- All contact/bonding surfaces on the components being installed must be absolutely dry, clean, and free of wax, silicone and grease. These surfaces must be treated with a suitable BMW cleaner or BMW primer (see EPC for details), using the appropriate product application instructions. The surfaces to be treated with primer are described in detail in these installation instructions. No other surfaces may be treated with primer as this may result in optical defects.
- If you use adhesive tape, it must be applied using a contact pressure of between 10 N/cm² and 50 N/cm².
- Take care not to damage the parts when opening the packaging.
- Check that all the parts fit accurately on the car before installing them.
- All the components and their bonding surfaces must be at room temperature for installation. The ideal relative humidity is 50%. Different values will change the specified times.
- After completing the bonding and installation work, the car must remain stationary at room temperature for at least 12 hours.
- If adhesives are used, the car may be driven after 24 hours, and may be taken through a car wash after 48 hours. The car may only be driven at a speed of $v_{max} < 100$ km/h for a period of 24 to 48 hours.
- The installed parts may become loose and fly off the car if you fail to wait for the full reaction time of the primer/adhesive. Caution – danger of accidents!
- Some of the installation steps are shown only on one side of the car. Proceed in the same way on the other side of the car.
- All illustrations show LHD (left-hand drive) cars; proceed in the same way on RHD (right-hand drive) cars.



Print templates **S1tX**, **Y** and **Z** in the annex on DIN A4 paper **without** scaling. To do this, in printer settings go to **“Actual size”**. The printer setting must not be set to **“Fit”**.

Check the reference dimension with a ruler on the hard copy. ◀

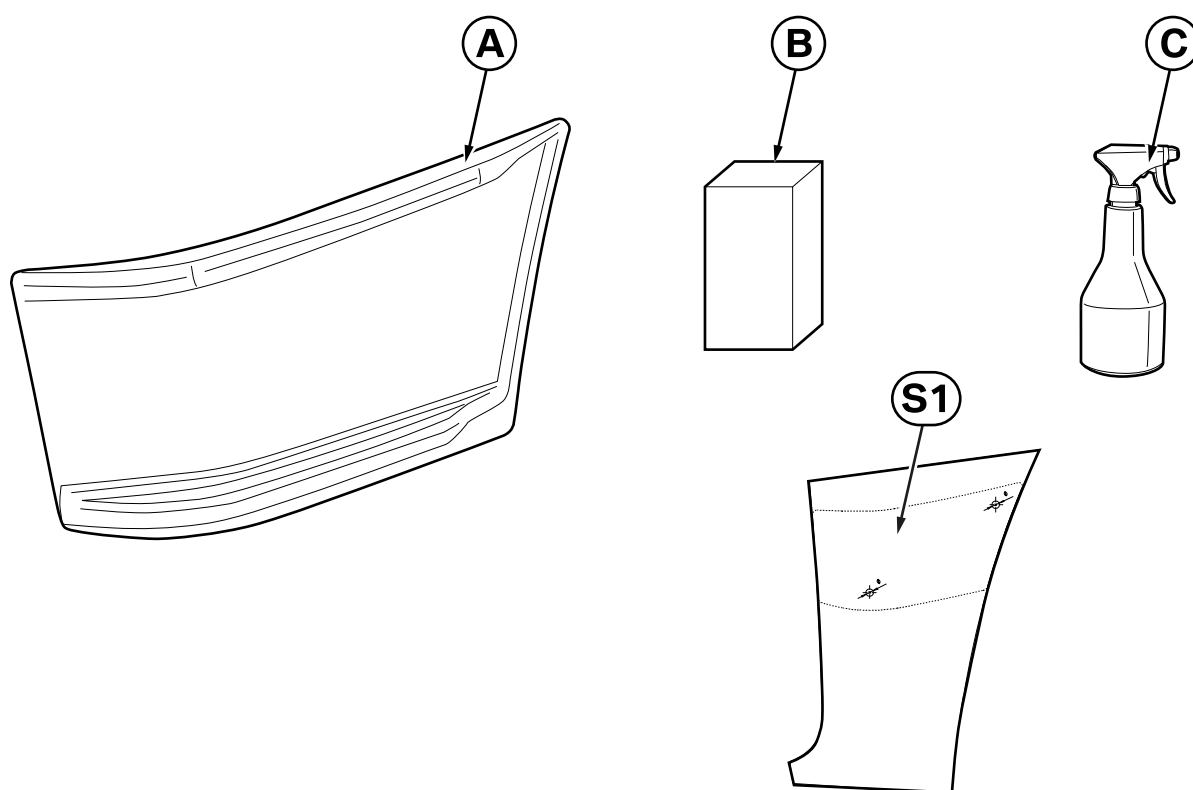
Special tools required

None

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1. Aero Flick parts list

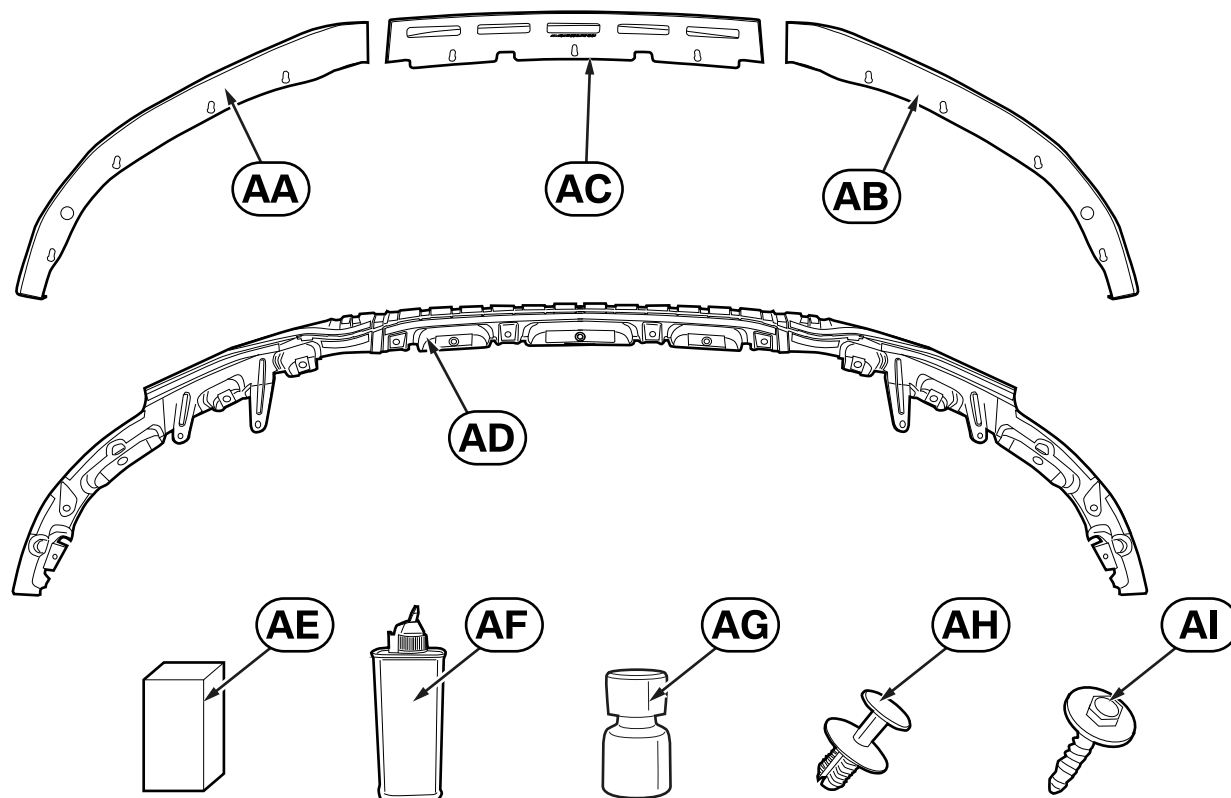


G22 0001 V

Legend

- A** Aero Flick, front left/right (left side shown)
- B** Liquid adhesive (not included in parts kit, see EPC for details and part number)
- C** Cleaner (not included in parts kit, see EPC for details and part number)
- S1** Template (in the annex of these installation instructions)
Print **without** scaling on DIN A4 paper. To do this, in printer settings go to **“Actual size”**. The printer setting must not be set to “Fit”. Check the reference dimension with a ruler on the hard copy.

2. Carbon front attachment parts list

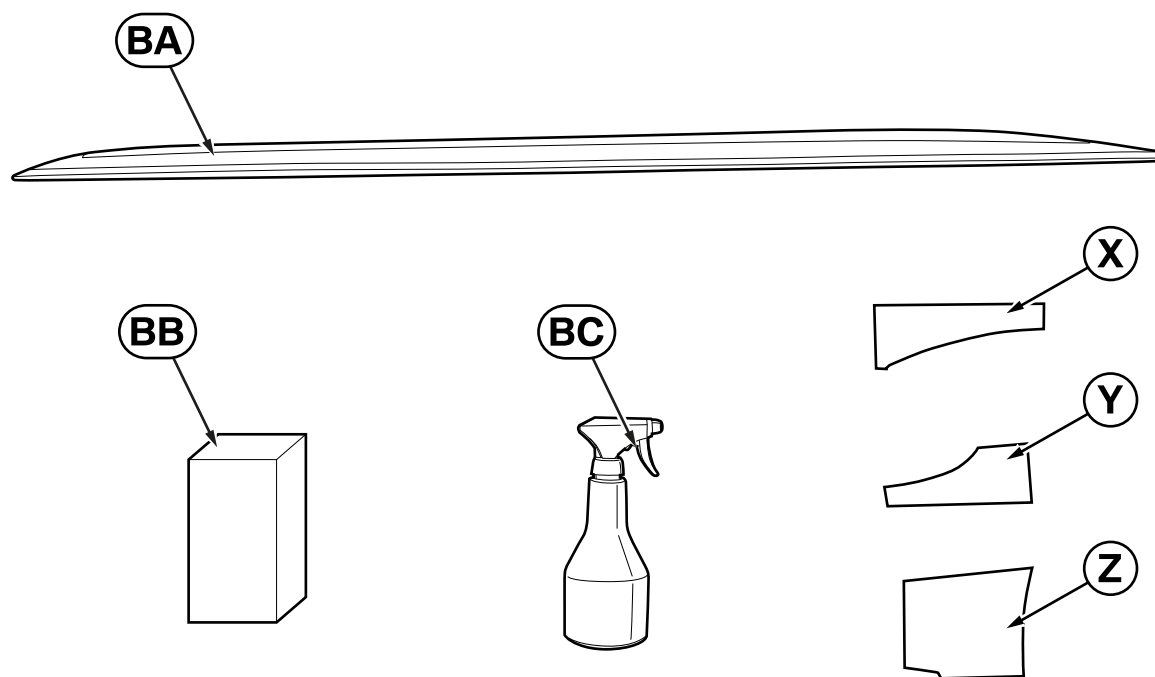


G22 0014 V

Legend

- AA** Right front attachment
- AB** Left front attachment
- AC** Centre front attachment
- AD** Underbody console
- AE** Liquid adhesive (included in parts kit No. 83 19 5 A32 6D0)
- AF** Cleaner (included in parts kit No. 83 19 5 A32 6D0)
- AG** Primer (Part No. 83 19 9 407 777)
- AH** Expanding rivet (11 x) Part No. 51 47 1 911 992
- AI** Screw (10 x) Part No. 07 14 9 110 671

3. Carbon side skirt attachment parts list



G22 0007 V

Legend

- BA** Carbon side skirt attachment, left/right (left side shown)
- BB** Liquid adhesive (not included in parts kit, see EPC for details and part number)
- BC** Cleaner (not included in parts kit, see EPC for details and part number)
- X** Template, front left/right (in the annex to these installation instructions)
- Y** Template, centre left/right (in the annex to these installation instructions)
- Z** Template, rear left/right (in the annex to these installation instructions)

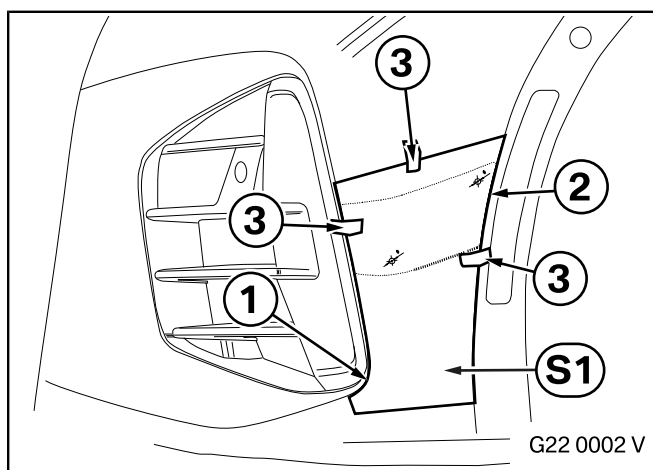
The following applies to all templates:

Print on DIN A4 paper **without** scaling. To do this, in printer settings go to **“Actual size”**. The printer setting must not be set to **“Fit”**. Check the reference dimension with a ruler on the hard copy.

4. Preparatory work

	ISTA/AIR No.
The following components must be removed first of all	
None	---

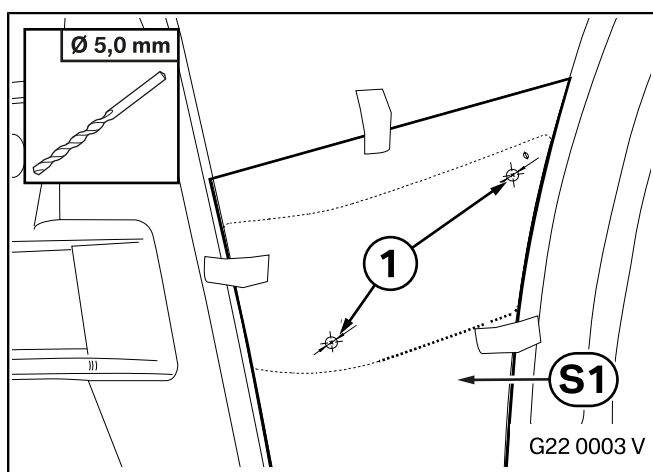
5. Installing the Aero Flick



Print the template **S1** in the annex **without** scaling on DIN A4 paper. To do this, in printer settings go to **“Actual size”**. The printer setting must not be set to **“Fit”**.

Check the reference dimension with a ruler on the hard copy. ◀

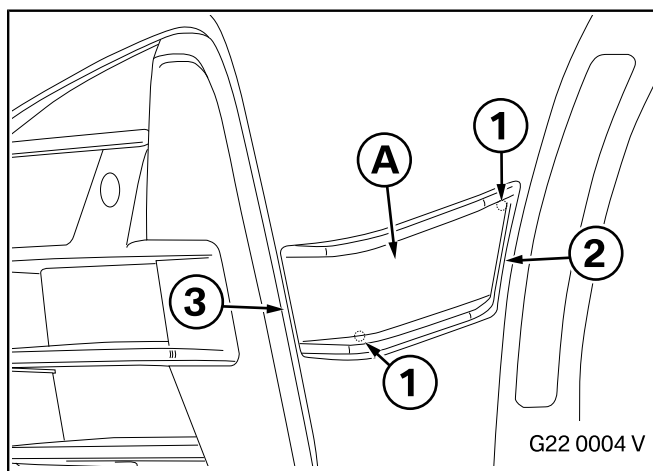
Position the template **S1** on contour (1) and contour (2) of the wheel arch, align it and secure it with suitable adhesive tape (3).



Drill through the marks (1) with a **5.0 mm** drill bit. ◀

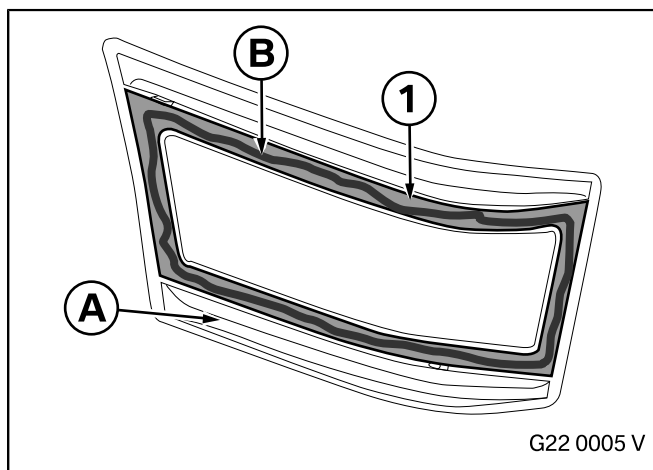
Drill holes at the marks (1) on template **S1** with a **5.0 mm** drill bit.

Then remove the template **S1**.



Place the Aero Flick **A** in the boreholes (1) and check that it is positioned correctly between contours (2) and (3).

Remove the Aero Flick **A** again.

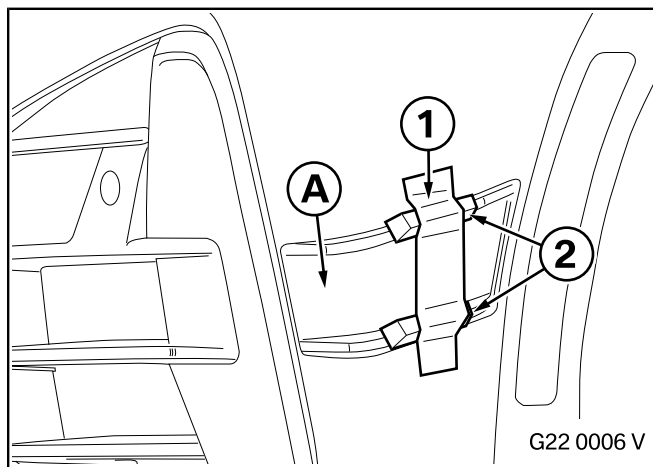


The bonding surfaces must be completely dry, clean, and free from wax or grease. ◀

Abrade the surface (1) on the rear of Aero Flick **A** using suitable material and clean it with cleaner **C**. Also clean the surface of the car with the cleaner **C**.

Then apply a bead of liquid adhesive **B** to the surface (1).

5. Installing the Aero Flick

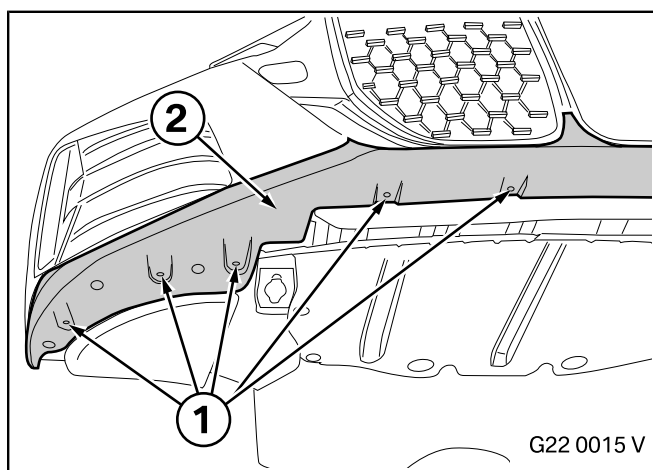


▶ Remove any excess liquid adhesive immediately using suitable equipment. ◀

Position the Aero Flick **A** and press it firmly into place.

Apply pressure to the Aero Flick **A** with adhesive tape (1), if necessary place suitable pieces of foam (2) underneath them and follow the instructions for use on page 2.

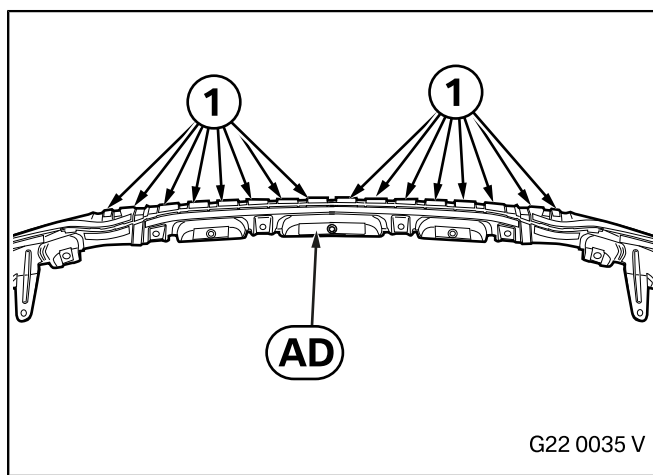
6. Install the carbon front attachment



▶ The bonding surfaces must be completely dry, clean, and free from wax or grease. ◀

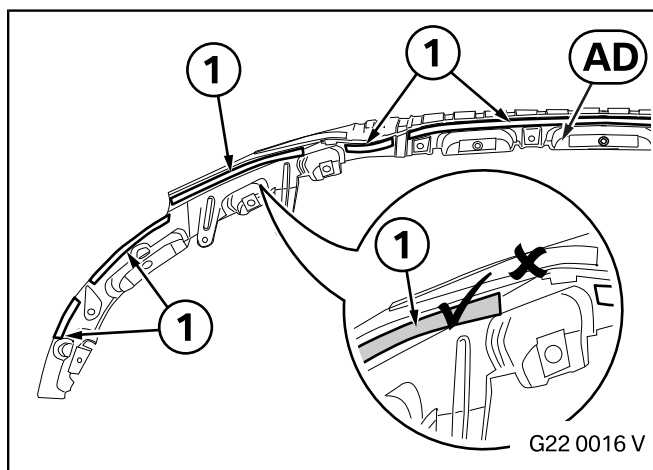
Remove the screws (1) on both sides of the car.

Clean the entire surface (2) over the full width of the car using cleaner **AF**.



Abrade the surfaces (1) on the top of the underbody console **AD** using suitable tools and clean it with cleaner **AF**.

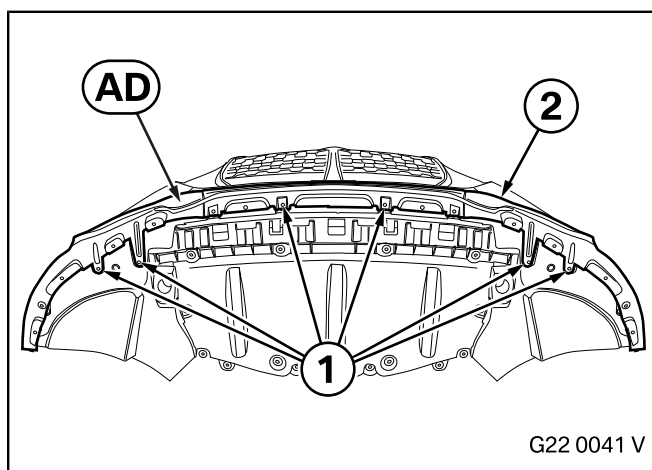
▶ The following steps are required to transfer the surfaces for the primer application to the front apron by means of transfer pressure. **Three people are required for this purpose.** ◀



▶ We recommend that you work quickly as the primer **AG** dries quickly. ◀

Apply the primer **AG** to the red backing files on the inner adhesive tapes (1).

6. Install the carbon front attachment

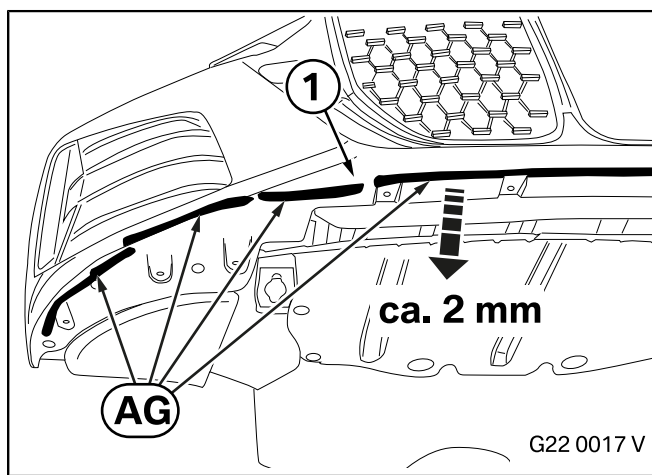


► We recommend that you work quickly as the primer **AG** dries quickly.

We also recommend that this work is carried out by three people. One person in the centre and another at each side, supporting the underbody console **AD** and checking the position of the holes (1). ◀

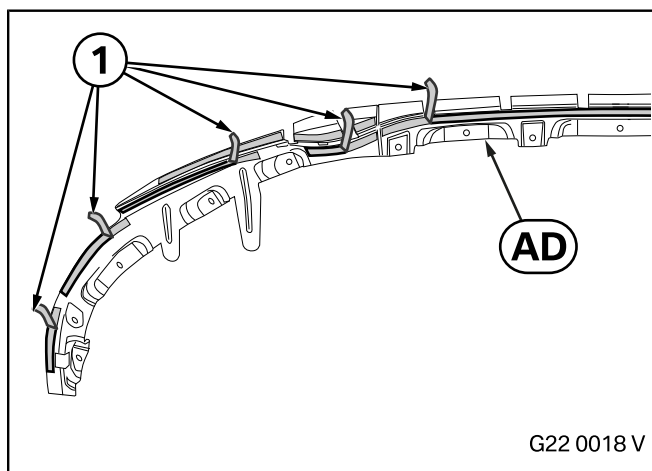
Position the underbody console **AD** on the front apron (2) using the holes (1) and press the places with adhesive tape firmly into place.

Remove the underbody console **AD** from the front apron (2).

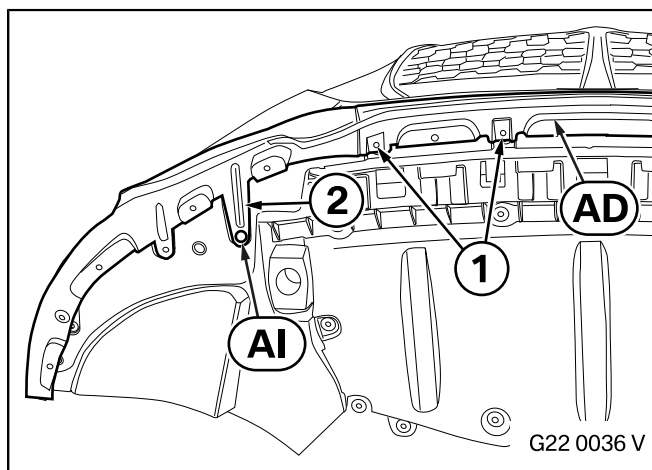


► Apply the primer **AG** accurately as otherwise it will cause black discolouration on the front apron (1). Wait for the full drying time to elapse. ◀

Mark the impressions with primer **AG** as shown at an offset of **approx. 2 mm** in the direction indicated by the arrow on the front apron (1).



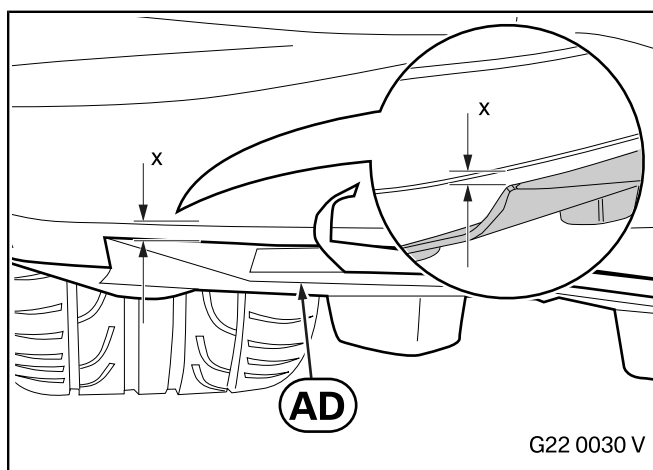
Remove the backing foils (1) on the adhesive tape before positioning the underbody console **AD**.



Position the underbody console **AD** in the centre on the front apron, tighten the four centre screws (1) (only two are visible in the graphic) and press the central adhesive tape into place.

Loosely tighten two screws on the left and right **AI** on the internal lugs (2) of the underbody console **AD**.

6. Install the carbon front attachment



- ▶ First complete this process on one side of the car and then repeat it on the other side of the car.

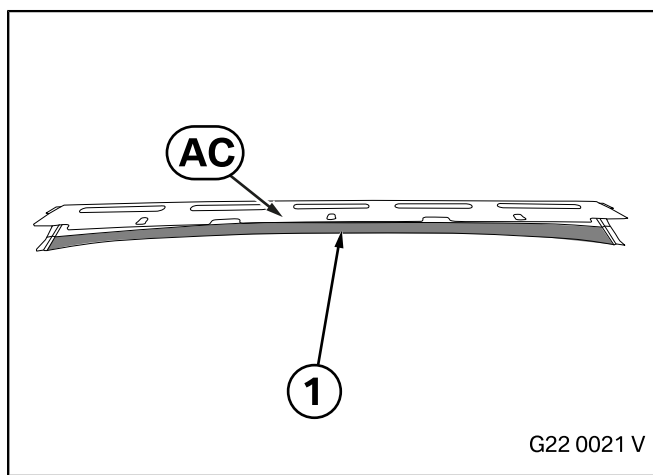
Before finally tightening the screws, check that the dimension **x = approx. 6 mm** is identical at both sides. ◀

First measure the dimension **x = approx. 6 mm** on one side.

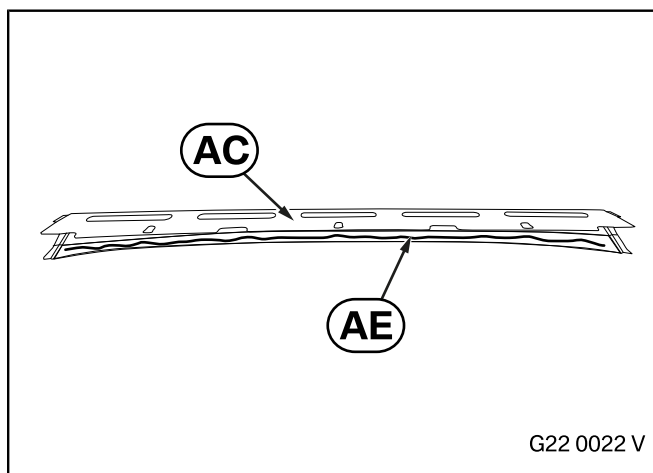
Tighten the screws **AI** shown in graphic **G22 0036 V**. Repeatedly press the underbody console **AD** firmly and into position to bond it to the front apron. Repeat the process on the opposite side.

Clean the inner rough surface (1) opposite the holes in the centre front attachment **AC** with cleaner **AF**.

- ▶ Wait for the full drying time to elapse. ◀

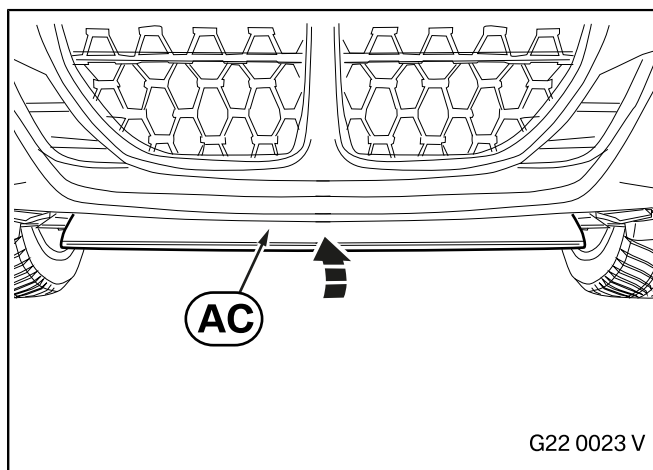


Apply a bead of liquid adhesive **AE** to the cleaned surface of the centre front attachment **AC**.

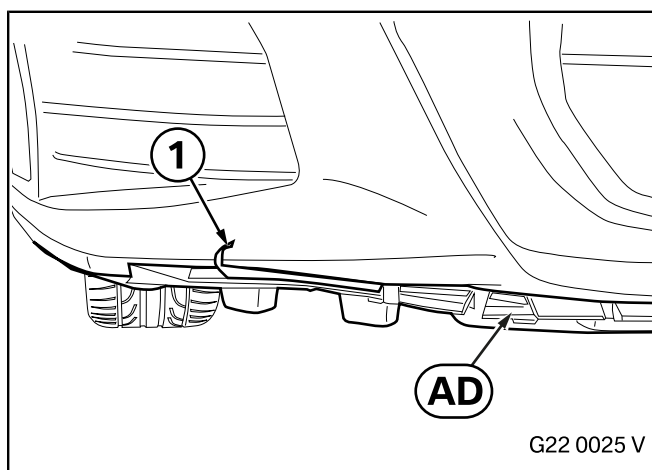


Slide the centre front attachment **AC** from the front onto the underbody console **AD**.

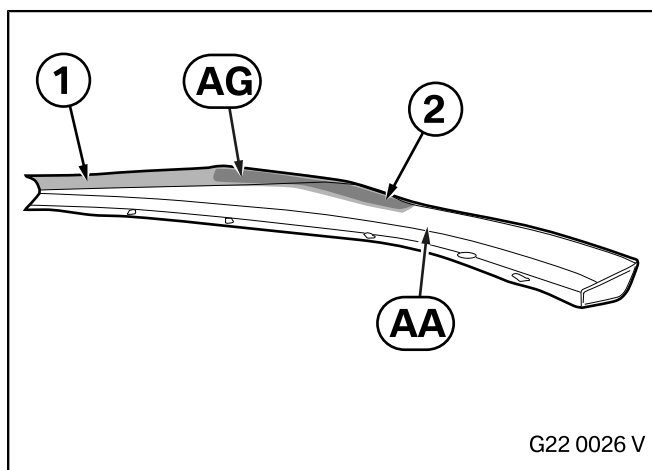
- ▶ Remove any excess liquid adhesive immediately. ◀



6. Install the carbon front attachment

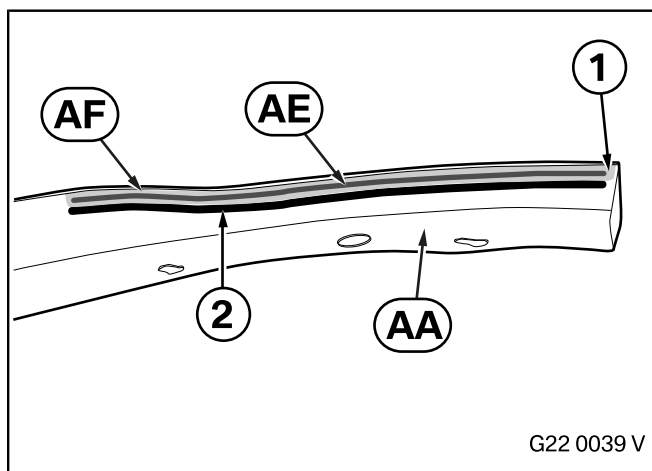


Remove the backing foils (1) on the left and right completely from the underbody console **AD**.



Clean the inner surface (1) of the right front attachment **AA**. Prime the part of the area (2) which comes into contact with the remaining adhesive tape, as shown, with primer **AG**.

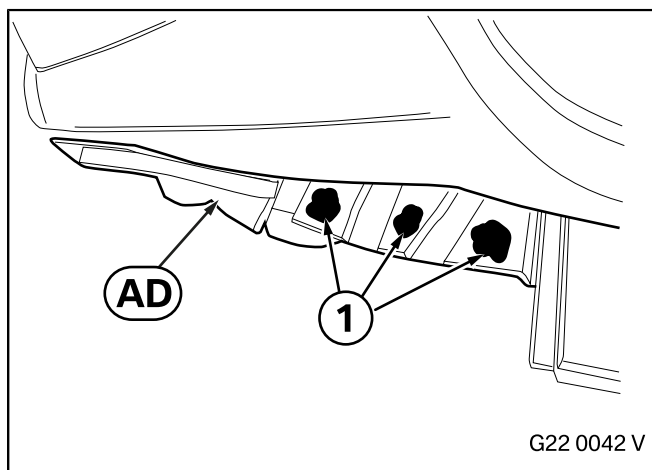
 Wait for the full drying time to elapse. ◀



Clean the inner surface (1) of the right front attachment **AA** above the foam strip (2), as shown, with cleaner **AF**.

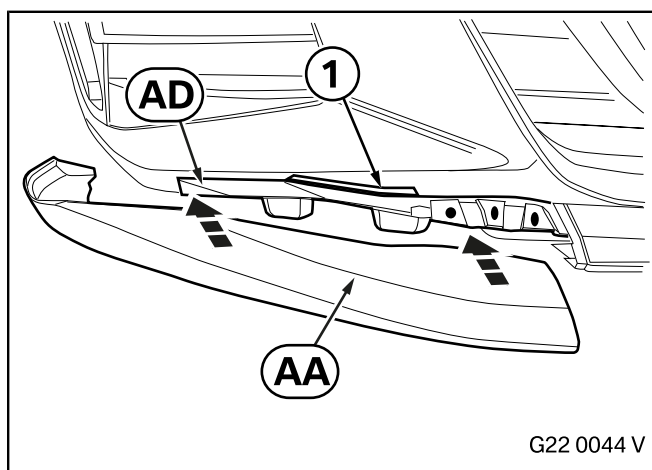
Then apply a bead of liquid adhesive **AE** to the surface (1) above the foam strip (2).

 Wait for the full drying time to elapse. ◀



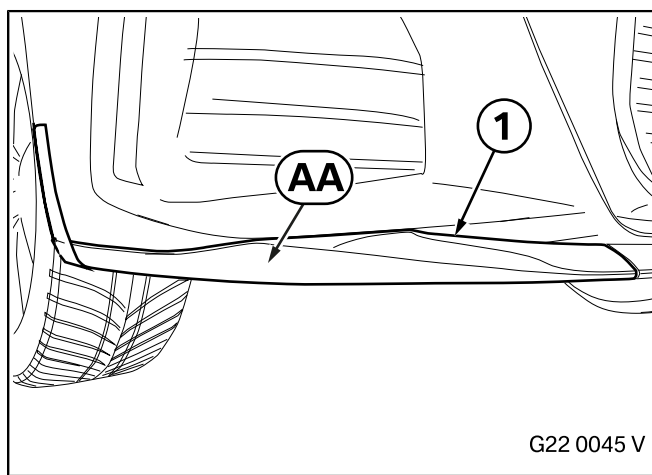
Apply dots of liquid adhesive **AE** to the abraded surfaces (1) of the underbody console **AD**.

6. Install the carbon front attachment

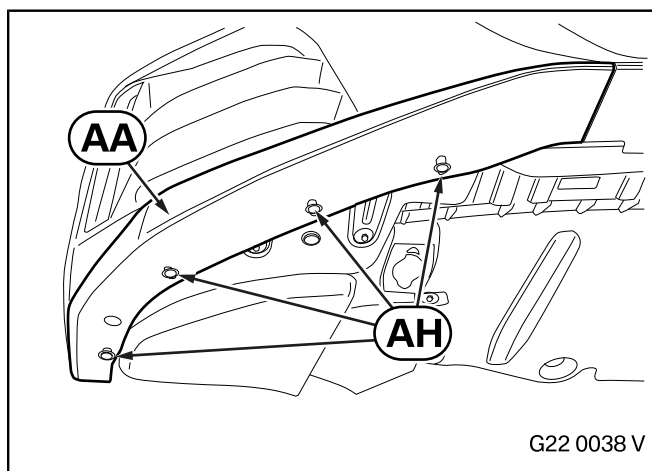


- Ensure that the right front attachment **AA** touch the adhesive tape (1) until it reaches its final position. ◀

Slide the right front attachment **AA** from the front in the x direction onto the underbody console **AD**.

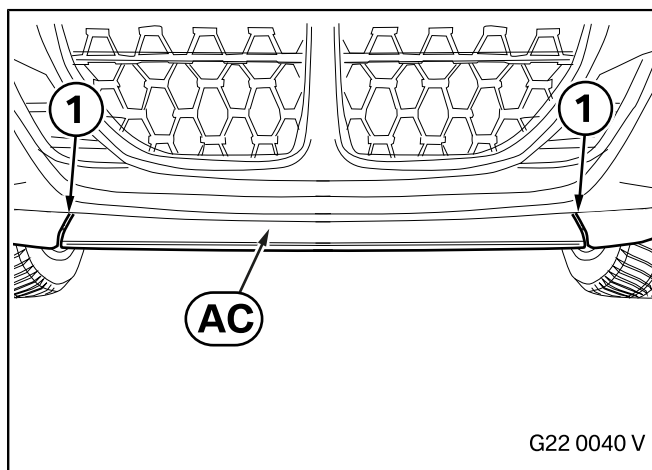


- Now check the position to make sure that the top edge (1) of the right front attachment **AA** runs flush with the design edge of the front apron. ◀



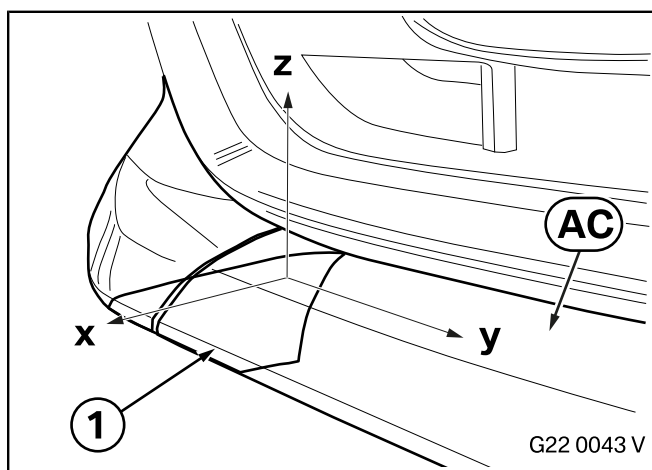
- Check that oval holes on the right front attachment **AA** are directly above the holes in the underbody console **AD**. ◀

Insert the four expanding rivets **AH** into the oval holes on the right-hand side. Repeatedly press the right front attachment **AA** firmly into place around the adhesive tape to bond it to the underbody console **AD**. Proceed in the same way on the left hand side.



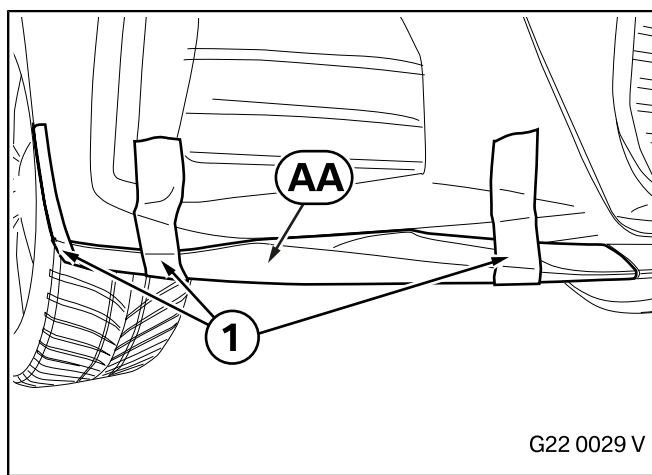
Position the centre front attachment **AC** in the middle between the two side sections so that there is an even gap (1) on both sides.

6. Install the carbon front attachment



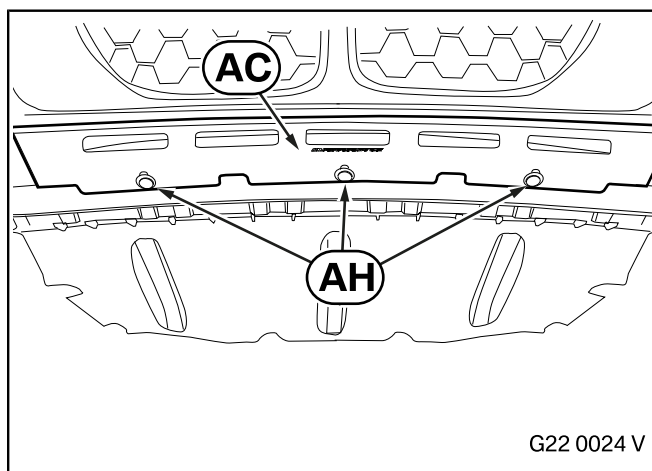
In addition to checking gap, align the centre front attachment **AC** in the x and z directions so that the surfaces of the front attachments align with each other evenly. They must be secured in this position using adhesive tape (1) as shown in the illustration. Use additional to secure the centre front attachment **AC** if necessary.

▶ Ensure that centre front attachment **AC** remains in the position in which it was previously aligned. ◀



Press the right front attachment **AA** into place with adhesive tape (1) placing foam sections under it if necessary, to ensure that the right front attachment **AA** is not moved out of its aligned position.

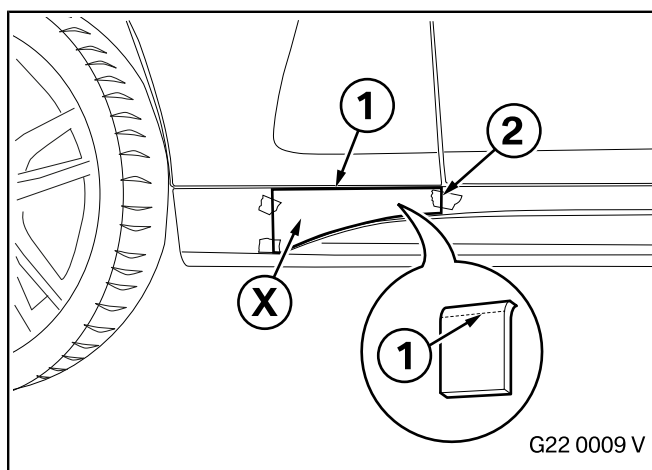
Repeat this process on the left hand side.



▶ Do not carry out this process until the car has been left for **24 hours** for the adhesive to cure. ◀

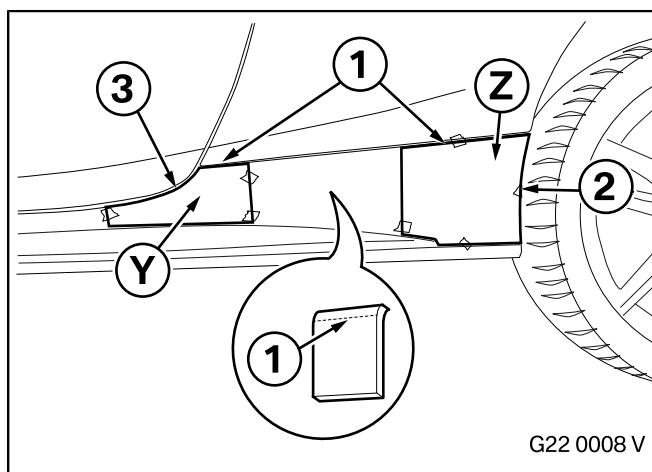
Insert the expanding rivets **AH** into the oval holes in the centre front attachment **AC**, if possible at the rear of the oval holes, and press them firmly into place.

7. Installing the carbon side skirt attachment



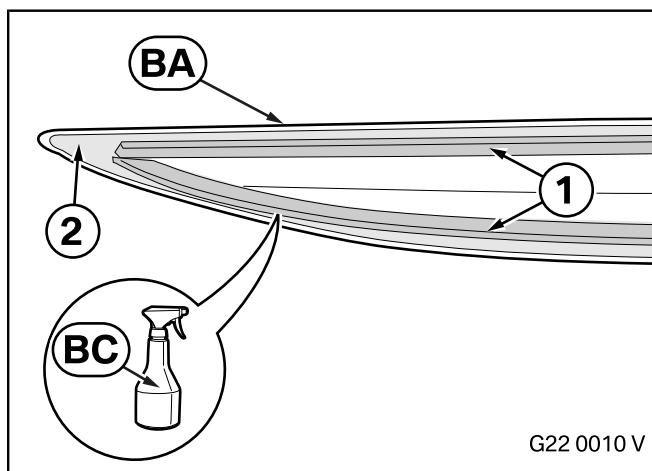
Print templates **X**, **Y** and **Z** in the annex without scaling on DIN A4 paper. Set your printer to "Actual size" before printing it. The printer setting must not be set to "Fit". Check the reference dimension with a ruler on the hard copy. ◀

Align the front template **X** on the start of the radius (1) and the rear end of the front side panel (2) and secure it using suitable adhesive tape.



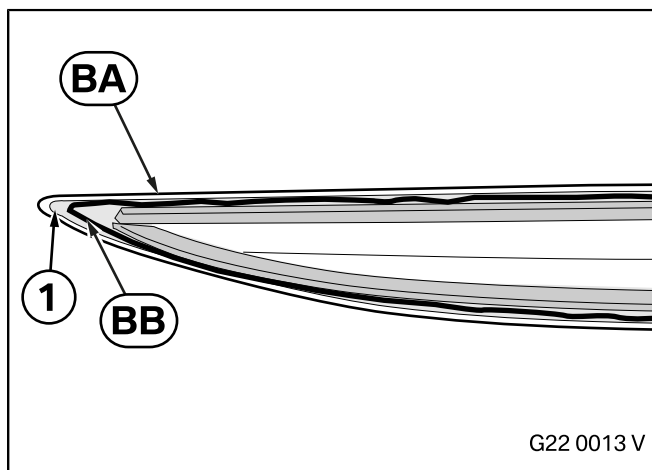
Place the rear template **Z** on the start of the radius (1) and (2) and secure it using suitable adhesive tape.

Place the centre template **Y** on the start of the radius (1) and (3) and secure it using suitable adhesive tape.



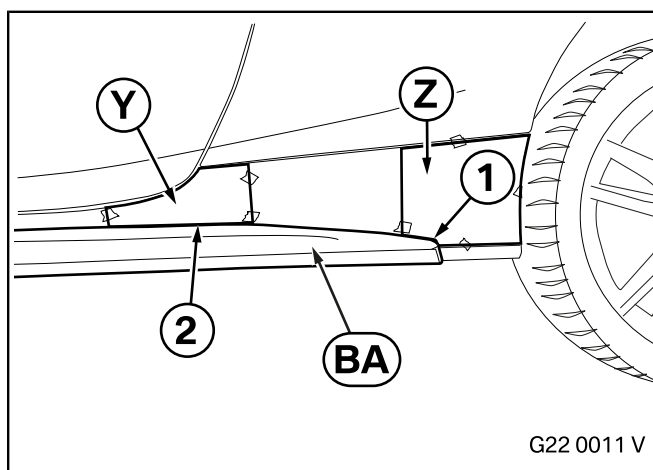
Abrade the surface (2) on the inside of the carbon side skirt attachment **BA** outside the foam tape (1) using suitable tools and then clean it with cleaner **BC**.

Wait for the full drying time to elapse. ◀



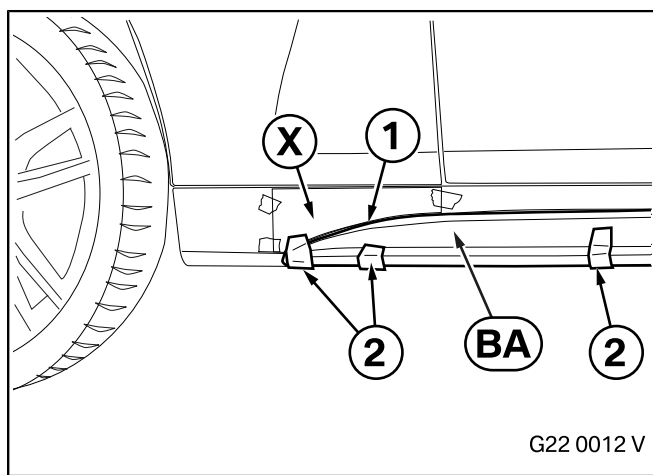
Apply a bead of the liquid adhesive **BB** to the surface (1) all round the carbon side skirt attachment **BA**.

7. Installing the carbon side skirt attachment



- ▶ To make it easier to position, the carbon side skirt attachment **BA** should be installed with a second person. ◀

Position the carbon side skirt attachment **BA** on the contour (1) of the rear template **Z** and check the course of the contour (2) of the centre template **Y**.



At the same time the carbon side skirt attachment **BA** should be positioned on the front of the car in the contour (1) of the front template **X**.

Press the carbon side skirt attachment **BA** onto the car using around 5 pieces of adhesive tape (2). Pay particular attention to pressing the two tips of the carbon side skirt attachment **BA** at the front and rear.

- ▶ Remove any excess liquid adhesive immediately.

Refer to the installation instructions on page 2.

Do not remove the templates and adhesive tape from the car until at least the specified rest period of 12 hours has passed. ◀

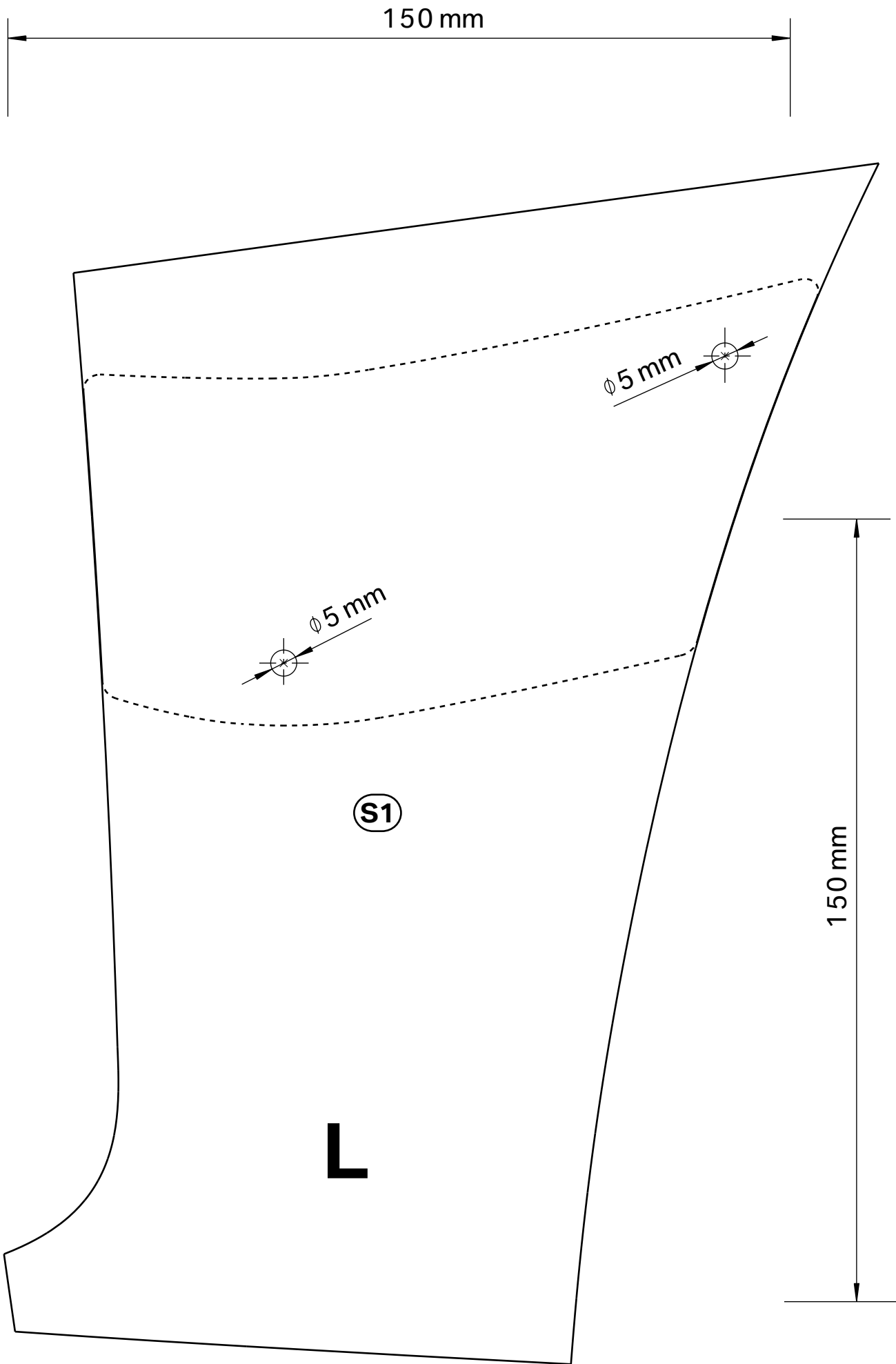
- ▶ If the Frozen Black foil application (**Part No. 51 14 5 A11 FA3**) is not being fitted, the M Performance logo sticker set (**Part No. 51 14 2 461 811**, to be ordered separately) should be fitted as described in **installation instructions 01 29 2 297 912**. ◀

8. Concluding work and coding

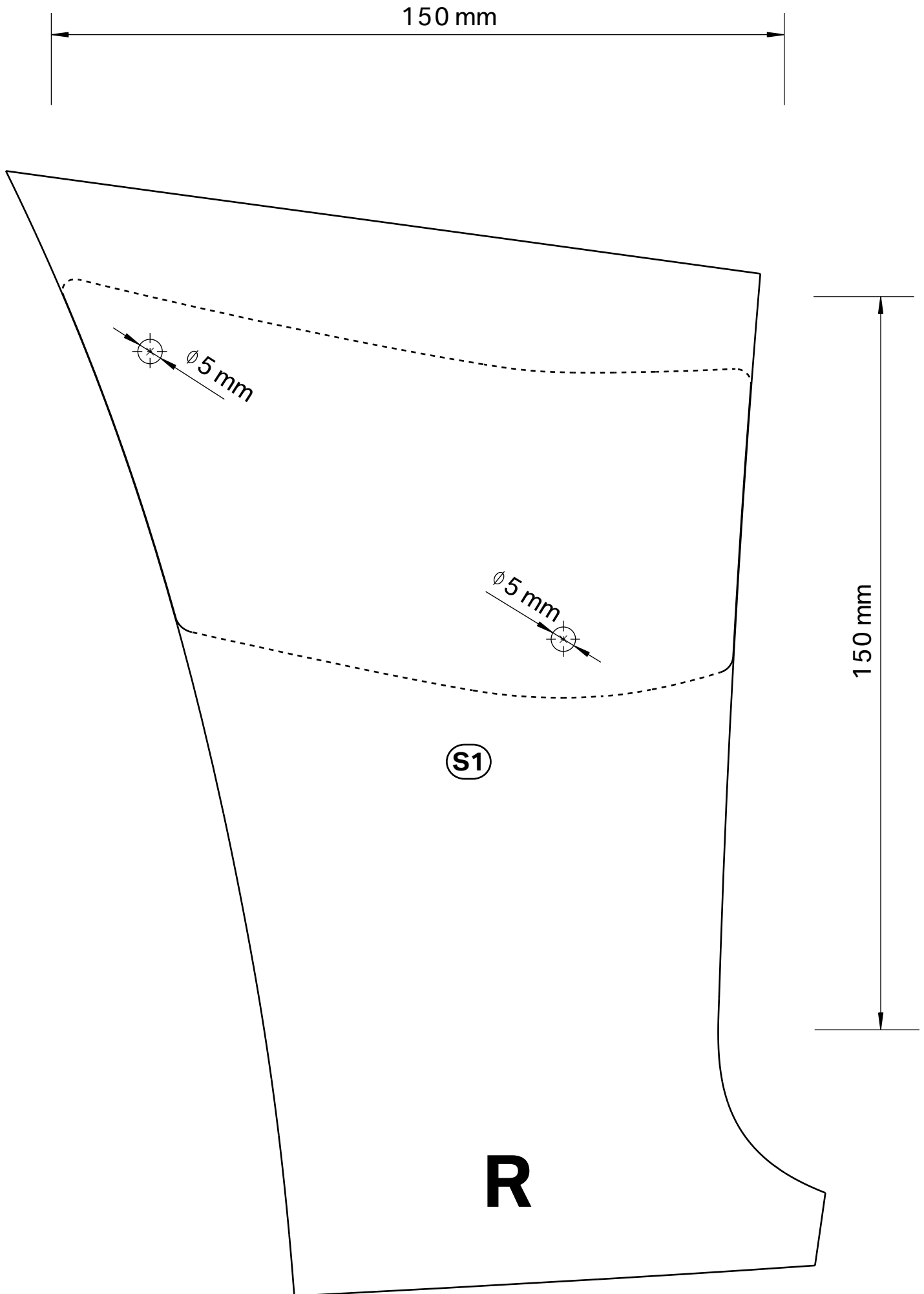
The retrofit system does **not** require programming/coding.

- None

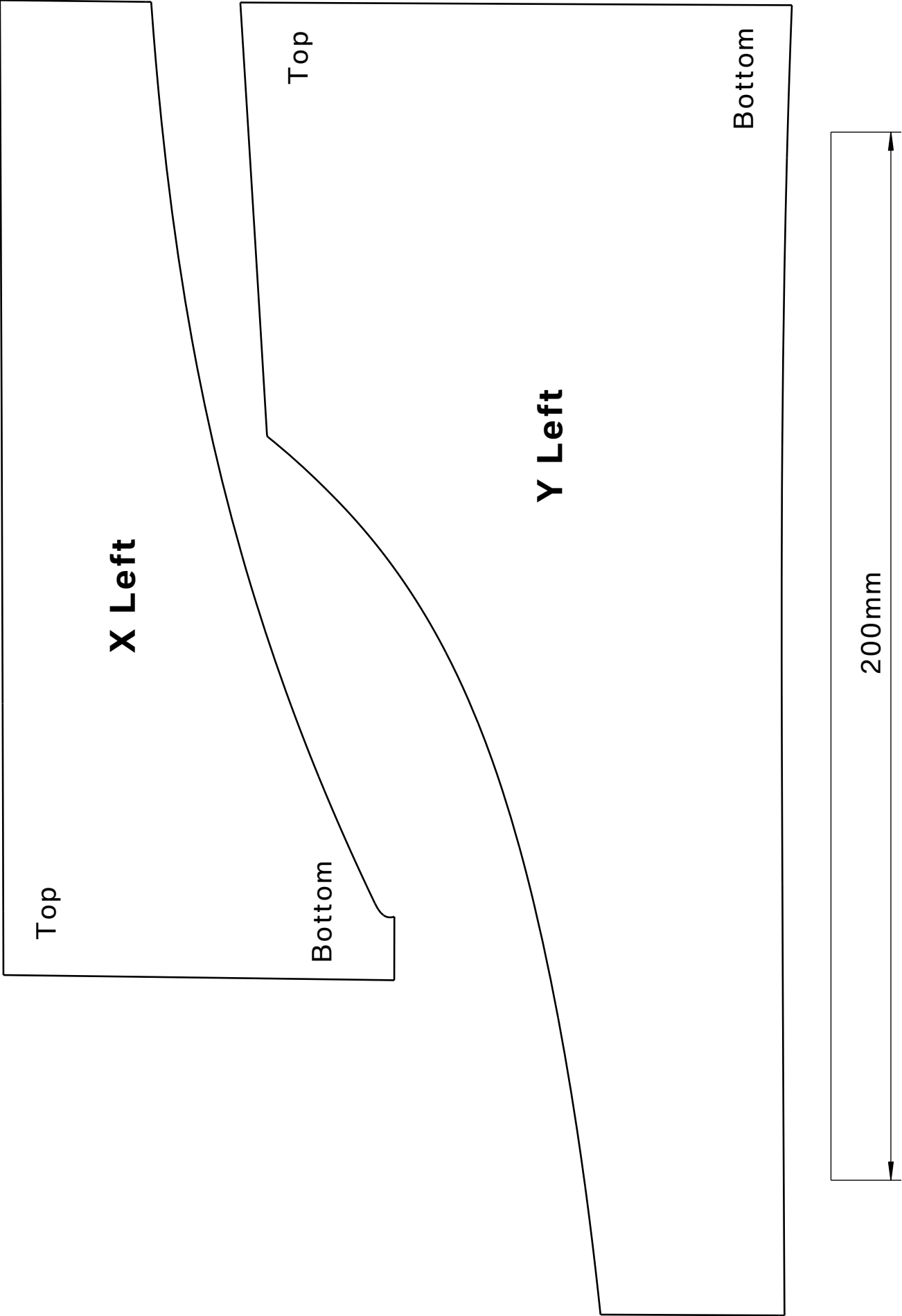
9. G22, G23 Aero Flick drilling template, left



10. G22, G23 Aero Flick drilling template, right



11. G22, G23 Carbon side skirt attachment template X, Y



12. G22, G23 Carbon side skirt attachment template Z

