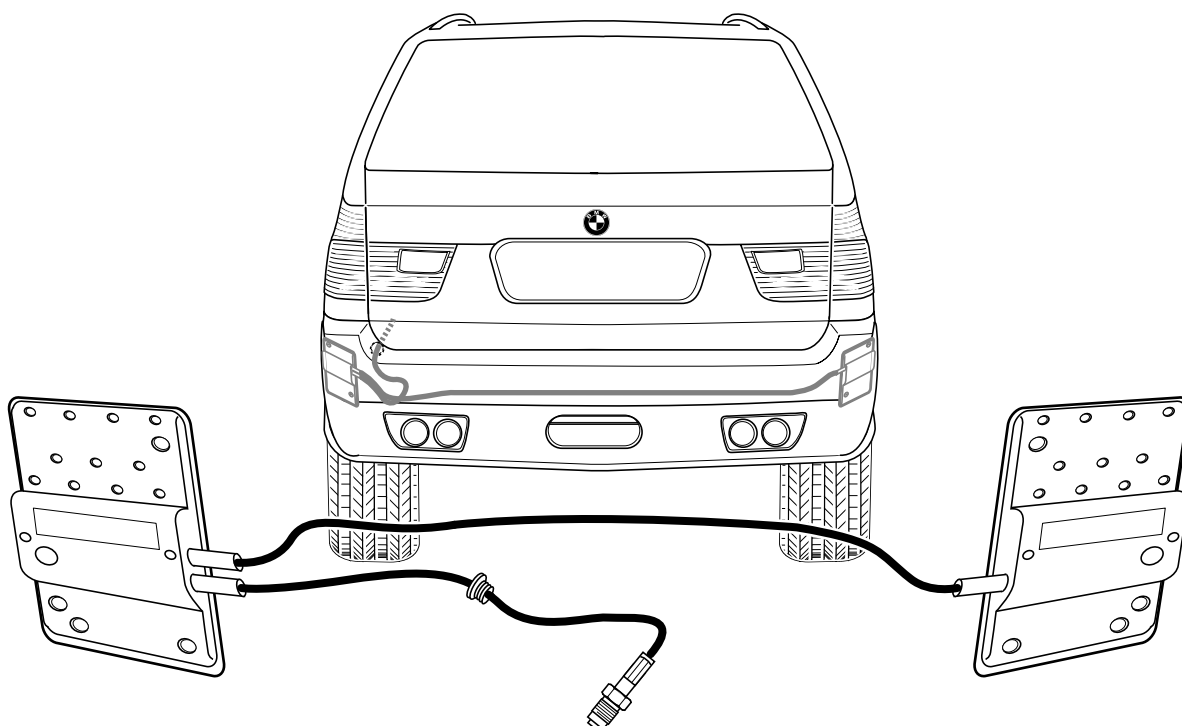




Parts and Accessories Installation Instructions



F 53 0124 B

Bumper aerial installation kit

for the BMW 3 Series Saloon (E 46/4)

- BMW 3 Series Coupé (E46/2)
- BMW 3 Series touring (E46/3)
- BMW 3 Series Convertible (E46/C)
- BMW 3 Series compact (E46/5)
- BMW 5 Series Saloon (E39)
- BMW 5 Series touring (E39/2)
- BMW 7 Series (E38)
- BMW X5 (E53)
- BMW Z3 roadster (E36/7)
- BMW Z3 coupé (E36/7C)
- BMW 3 Series Saloon (E36/4)
- BMW 3 Series Coupé (E36/2)
- BMW 3 Series touring (E36/3)
- BMW 3 Series Convertible (E36/C)
- BMW 3 Series compact (E36/5)

Specialist knowledge required.

The installation time is 2.0 hours but this may vary depending on the condition of the car and the equipment in it.

Retrofit/Installation kit No. 84 51 0 016 669
84 51 0 137 629

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1. Important information for the installation of the bumper aerial

The bumper aerial may only be installed by a specialist workshop that has the required special tools.

Safety instructions

Ensure that the cables/lines are not kinked or damaged as you install them in the car. Additional cables/lines that you install must be secured with cable ties.

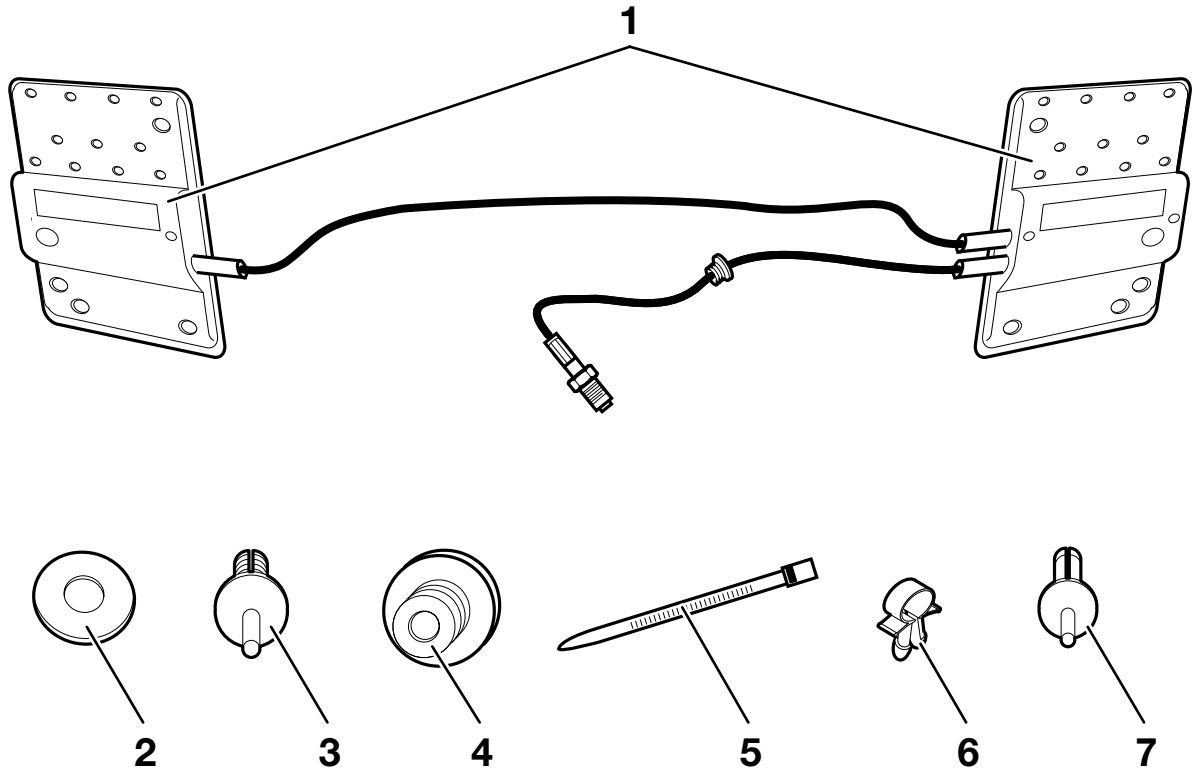
Required tools and equipment

- Set of Allen keys
- Set of Torx sockets
- 1/4 inch socket set
- 1/2 inch socket set
- Set of Philips screwdrivers
- Set of flat screwdrivers
- Cable lamp
- Set of drill bits
- Set of step drill bits
- Drill
- Blind rivet pliers
- Pneumatic saw
- Water-soluble pen
- Glass adhesive
- Plastic cleaner
- Adhesive tape

2. Preparations

	TIS instruction No.
Disconnect the battery	12 00 ...
Remove the side trim on the left of the boot	52 26 008
Remove the bumper	51 12 000
Remove the weight (E36/7)	----
Remove the boot wheel arch trim on the left (E36/2/3/4/5/C)	51 47 151
Remove the boot floor trim (E36/2/3/4/C)	51 41 101
Remove the support for the boot floor on the left (E36/2/3/4/C)	----
Remove the side trim on the right of the boot (R50/R53 only)	----
Remove the closing panel cover (R50/R53 only)	----

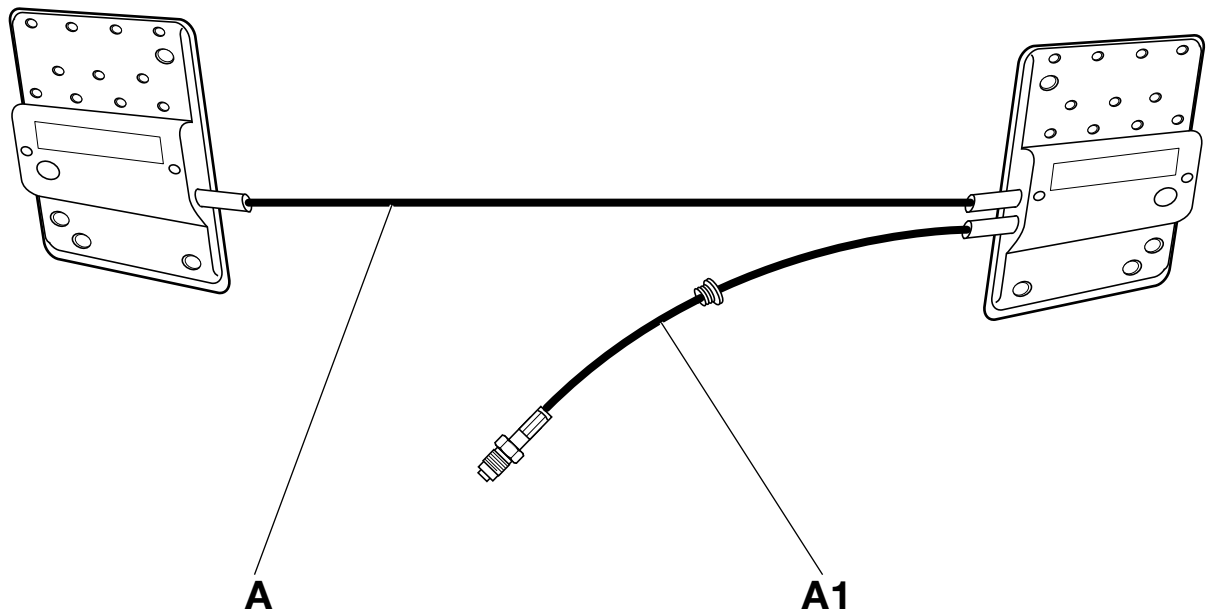
3. Parts list



053 0099 Z

- 1 Bumper aerial
- 2 Spacer washer (4x)
- 3 Expanding rivet (4x)
- 4 Spacer (4x)
- 5 Cable tie l = 100 mm (10x)
- 6 Cable holder (7x) (E46/5 only)
- 7 Expanding rivet (4x) (E46/5 only)

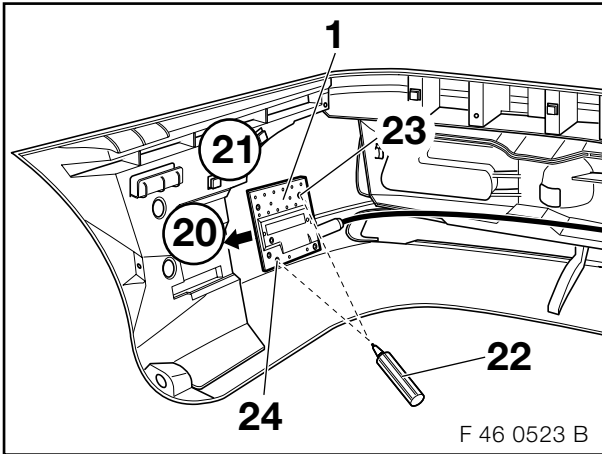
4. Connection diagram



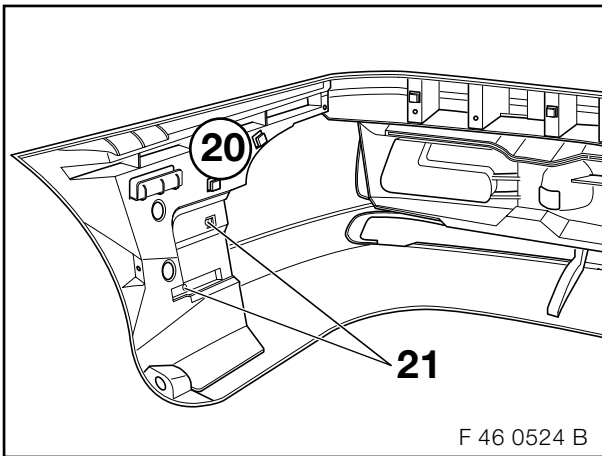
F 53 0126 B

Item	Description	Cable colour	Connection location in the car
A	Aerial cable	---	---
A1	Aerial cable with connection plug	---	To transceiver module or compensator or aerial cable to the mobile phone

5. Installation in a BMW 3 Series Saloon (E46/4) to 9/01, Coupé (E46/2) and Convertible (E46/C)

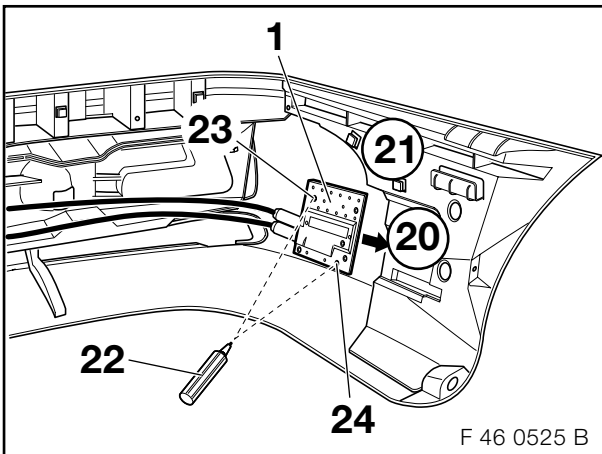


Insert the aerial (1) with one connection cable into the right-hand recess (20) provided for it in the bumper reinforcement (21) and mark the holes on the bumper reinforcement (21) through the fastening holes (23) and (24) in the aerial (1) using a water-soluble pen (22).

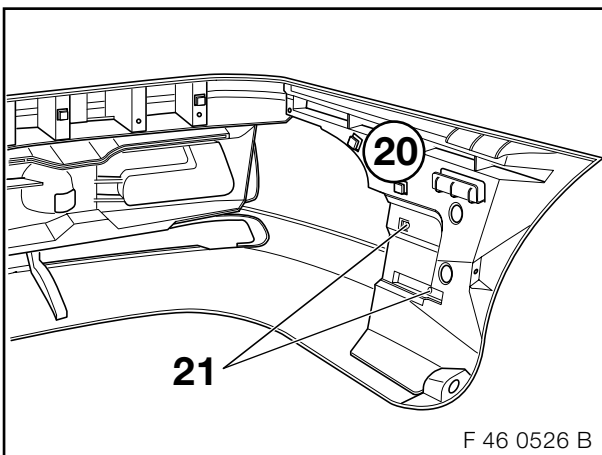


Drill the points (21) marked on the bumper reinforcement (20) with a 6.5 mm drill bit and deburr them.

▶ Ensure that the exterior skin of the bumper is not damaged. ◀



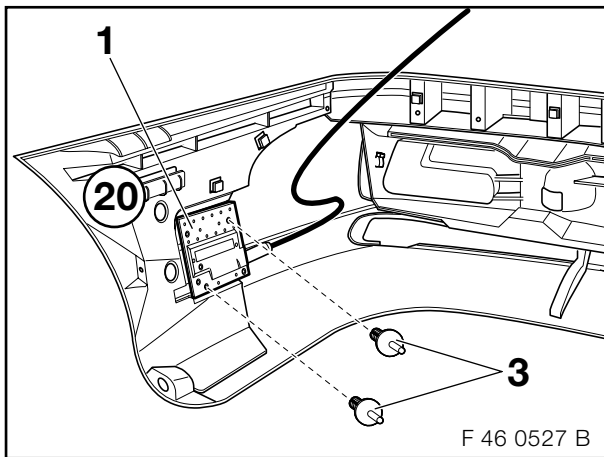
Insert the aerial (1) with two connection cables into the left-hand recess (20) provided for it in the bumper reinforcement (21) and mark the holes on the bumper reinforcement (21) through the fastening holes (23) and (24) in the aerial (1) using a water-soluble pen (22).



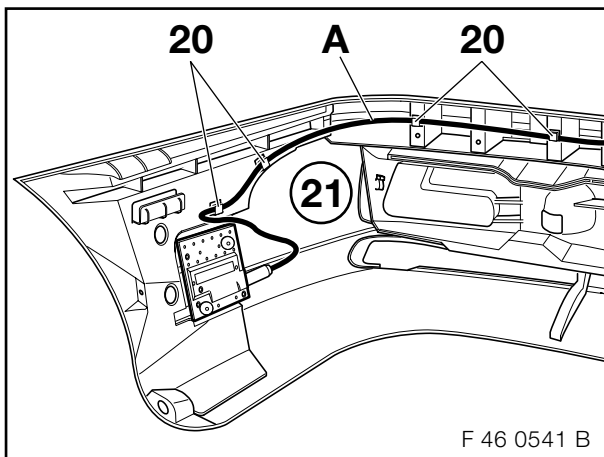
Drill the points (21) marked on the bumper reinforcement (20) with a 6.5 mm drill bit and deburr them.

▶ Ensure that the exterior skin of the bumper is not damaged. ◀

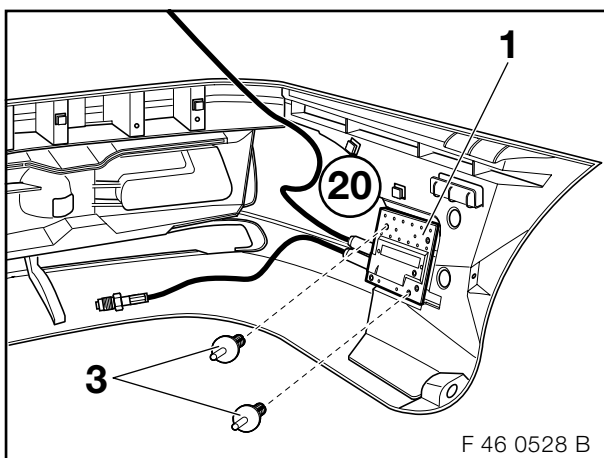
5. Installation in a BMW 3 Series Saloon (E46/4), Coupé (E46/2) and Convertible (E46/C)



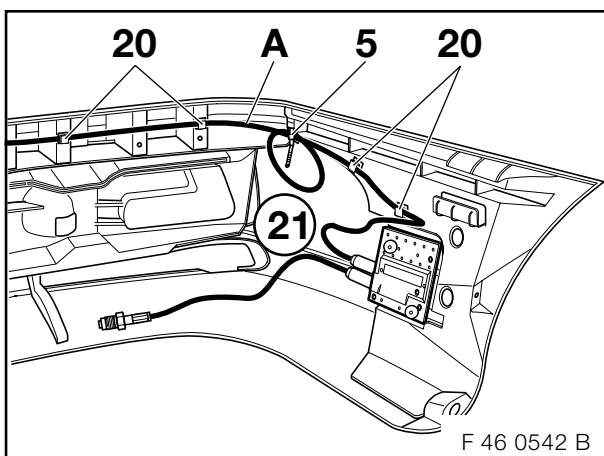
Insert the aerial (1) with one connection cable into the right-hand recess provided for it in the bumper reinforcement (20) and secure it with two expanding rivets (3).



Clip the aerial cable **A** into the holders (20) on the right-hand side of the bumper reinforcement (21) provided for it.

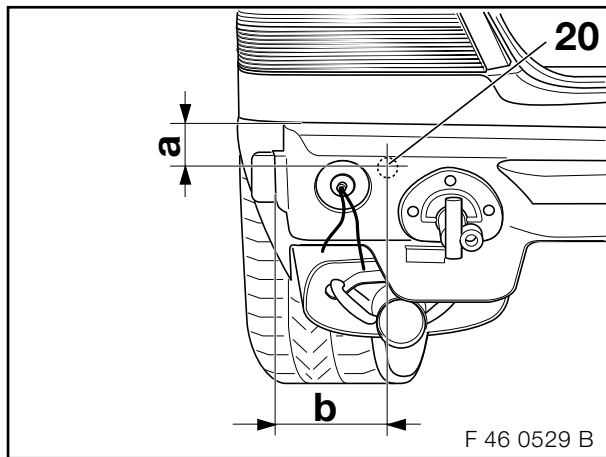


Insert the aerial (1) with two connection cables into the left-hand recess provided for it in the bumper reinforcement (20) and secure it with two expanding rivets (3).



Clip the aerial cable **A** into the holders (20) on the left-hand side of the bumper reinforcement (21) provided for it. Tie back the excess length of the aerial cable **A** with a cable tie (5).

5. Installation in a BMW 3 Series Saloon (E46/4), Coupé (E46/2) and Convertible (E46/C)



Mark the hole (20) on the closing panel.

Dimension a = 90 mm

Dimension b = 180 mm

Drill the marked point with an 18 mm step drill bit and deburr it.



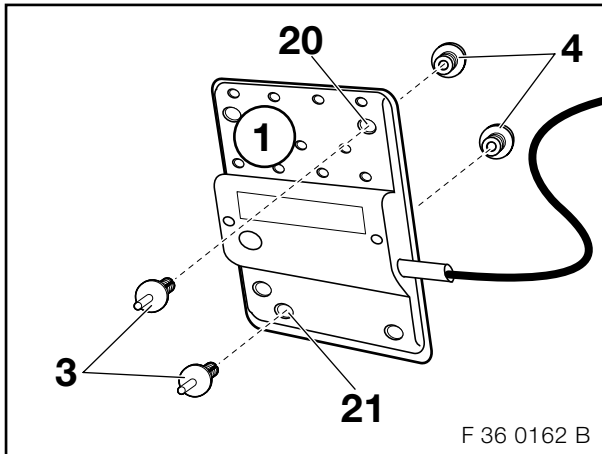
Before drilling the hole ensure that the cable and plug fastenings are unclipped and the cables are removed from the drilling area to prevent their being damaged. ◀



Treat the hole with anti-corrosive paint as set out in the BMW standard. ◀

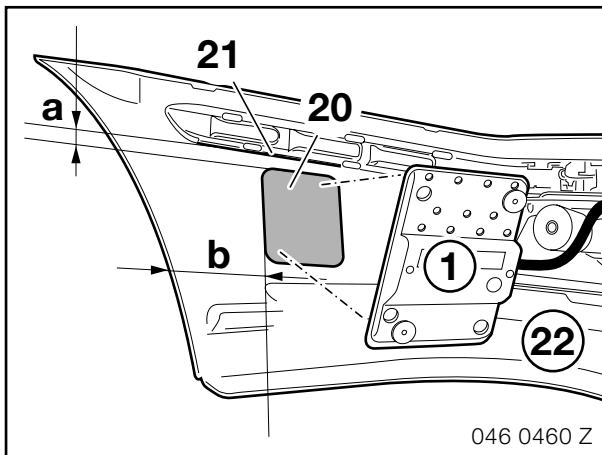
Thread the aerial cable **A1** through the hole and press in the cable grommet.
Lay the aerial cable **A1** to the installation site of the transceiver or compensator.


6. Installation in a BMW 3 Series touring (E46/4 after 9/01)



Insert one expanding rivet (3) into each of the fastening holes (20) and (21) of the aerial (1) with one connection cable, push one spacer (4) on to each one from the rear and secure the expanding rivets (3).

Then apply glass adhesive to the spacer (4) from the rear.

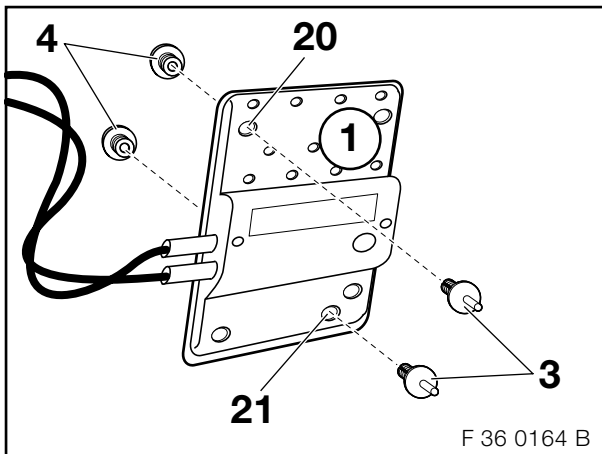


 Clean the area (20) on the bumper marked in grey. ◀

Position the aerial (1) with one connection cable and the fitted parts parallel to the horizontal edge (21) on the right-hand side of the bumper reinforcement (22) and press it into place.

Dimension a = 15 mm
Dimension b = 200 mm

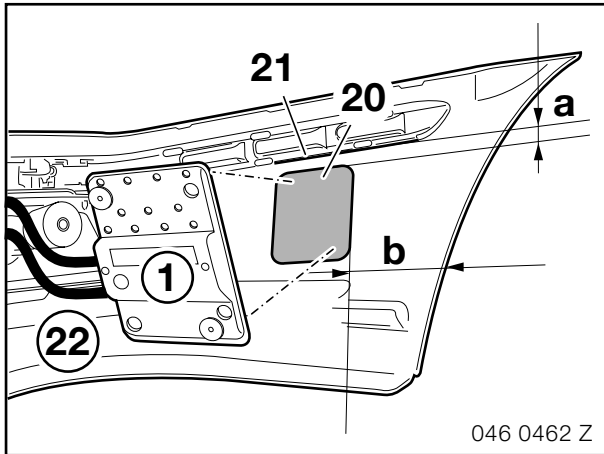
Secure the installed aerial (1) with adhesive tape and remove the adhesive tape after the glass adhesive has dried.



Insert one expanding rivet (3) into each of the fastening holes (20) and (21) of the aerial (1) with two connection cables, push one spacer (4) on to each one from the rear and secure the expanding rivets (3).

Then apply glass adhesive to the spacer (4) from the rear.

6. Installation in BMW 3 Series Saloon (E46/4) after 9/01)

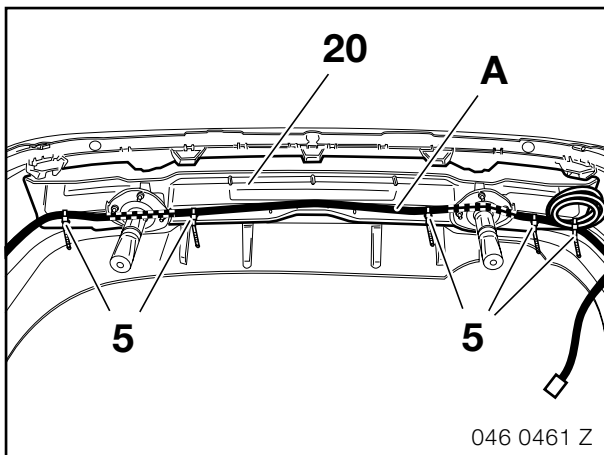


- ▶ Clean the area (20) on the bumper marked in grey. ◀

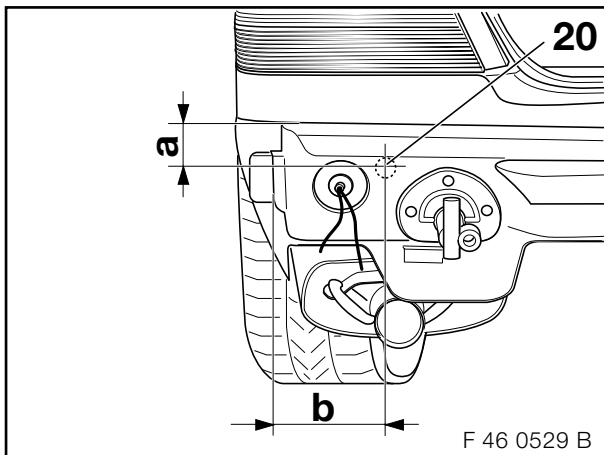
Position the aerial (1) with two connection cables and the fitted parts parallel to the horizontal edge (21) on the left-hand side of the bumper reinforcement (22) and press it into place.

Dimension a = 15 mm
Dimension b = 200 mm

Secure the installed aerial (1) with adhesive tape and remove the adhesive tape after the glass adhesive has dried.



Lay the aerial cable **A** along the bumper support (20) and secure it to the holes with four cable ties (5). Tie back the excess length of the aerial cable **A** with a cable tie (5).



- ▶ Before drilling the hole ensure that the cable and plug fastenings are unclipped and the cables are removed from the drilling area to prevent their being damaged. ◀

Mark the hole (20) on the closing panel.

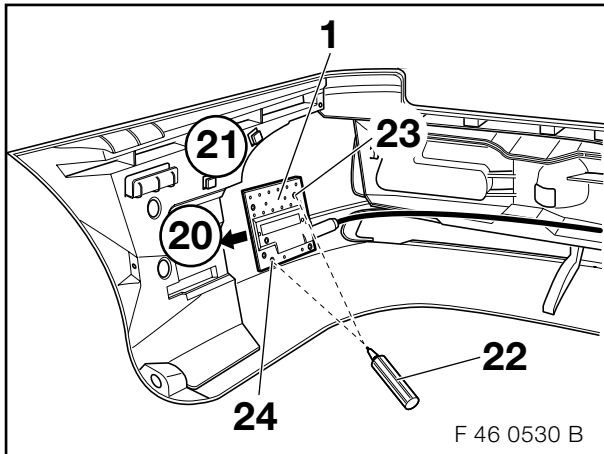
Dimension a = 90 mm
Dimension b = 180 mm

Drill the marked point with an 18 mm step drill bit and deburr it.

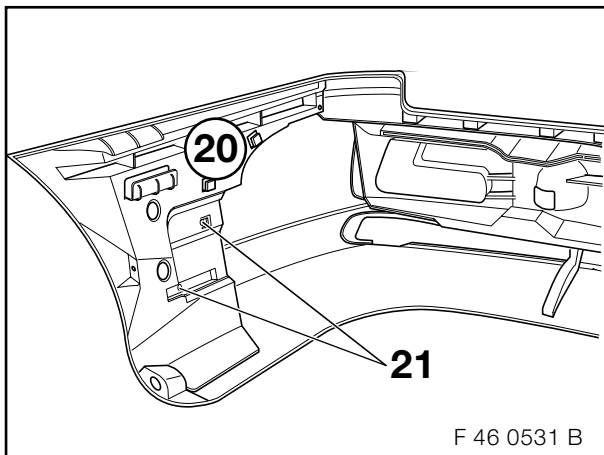
- ▶ Treat the hole with anti-corrosive paint as set out in the BMW standard. ◀

Thread the aerial cable **A1** through the hole and press in the cable grommet. Lay the aerial cable **A1** to the installation site of the transceiver or compensator.

7. Installation in a BMW 3 Series touring (E46/3)

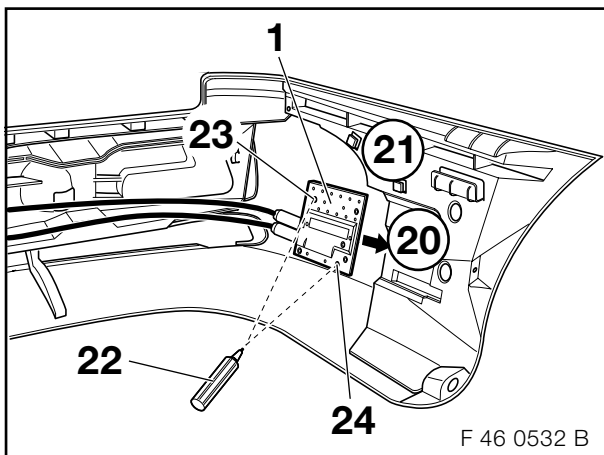


Insert the aerial (1) with one connection cable into the right-hand recess (20) provided for it in the bumper reinforcement (21) and mark the holes on the bumper reinforcement (21) through the fastening holes (23) and (24) in the aerial (1) using a water-soluble pen (22).

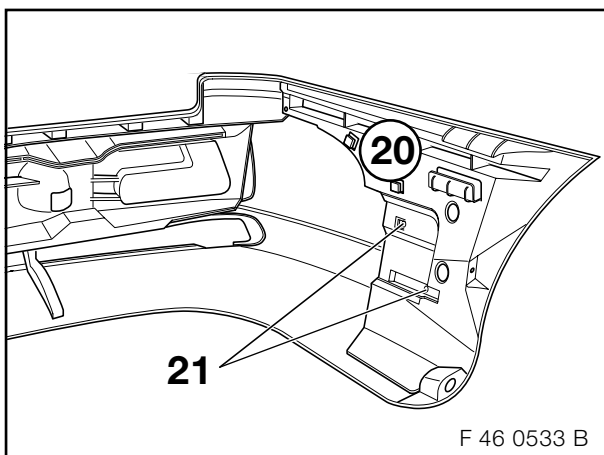


Drill the points (21) marked on the bumper reinforcement (20) with a 6.5 mm drill bit and deburr them.

▶ Ensure that the exterior skin of the bumper is not damaged. ◀



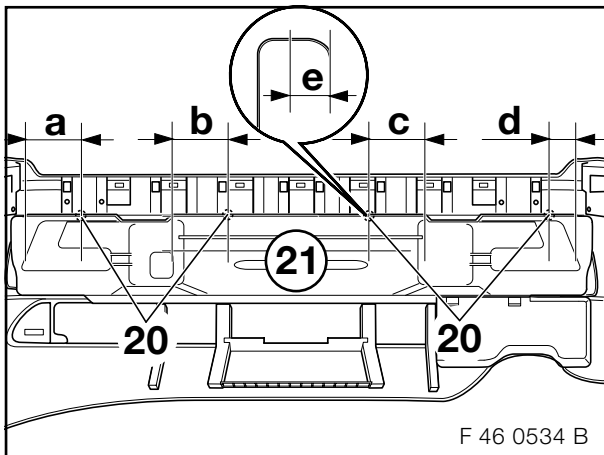
Insert the aerial (1) with two connection cables into the left-hand recess (20) provided for it in the bumper reinforcement (21) and mark the holes on the bumper reinforcement (21) through the fastening holes (23) and (24) in the aerial (1) using a water-soluble pen (22).



Drill the points (21) marked on the bumper reinforcement (20) with a 6.5 mm drill bit and deburr them.

▶ Ensure that the exterior skin of the bumper is not damaged. ◀

7. Installation in a BMW 3 Series touring (E46/3)



Mark the holes (20) to secure the cable ties on the bumper support (21).

Dimension a= 100 mm

Dimension b= 100 mm

Dimension c= 100 mm

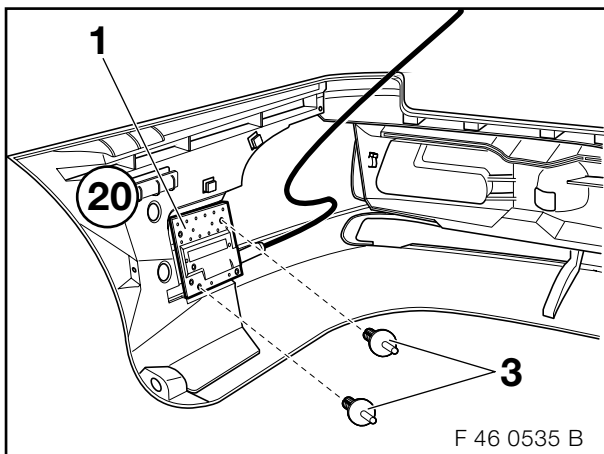
Dimension d= 50 mm

Dimension e= 20 mm

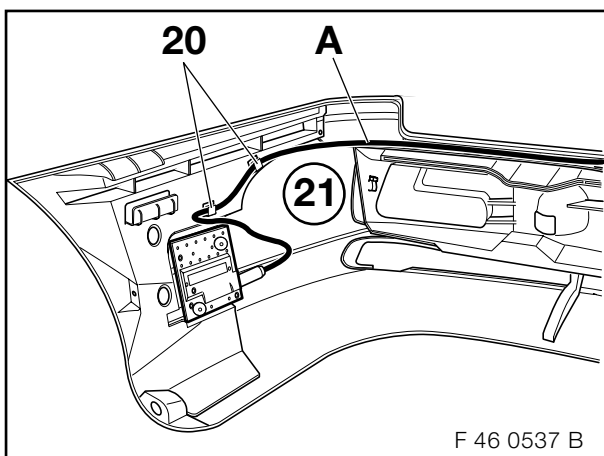
Drill the marked points with a 6.5 mm drill bit from the bottom and deburr them.



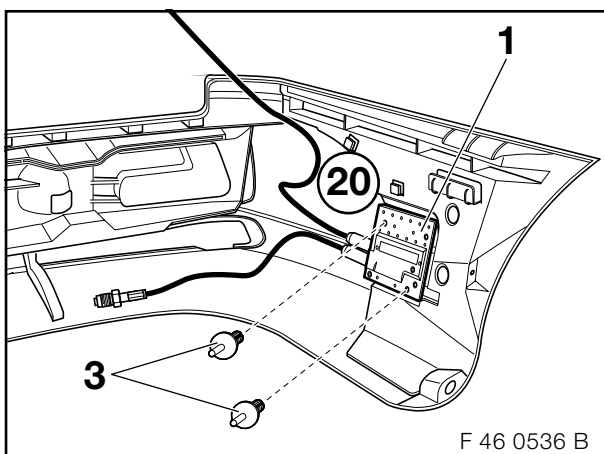
Ensure that the exterior skin of the bumper is not damaged. ◀



Insert the aerial (1) with one connection cable into the right-hand recess provided for it in the bumper reinforcement (20) and secure it with two expanding rivets (3).

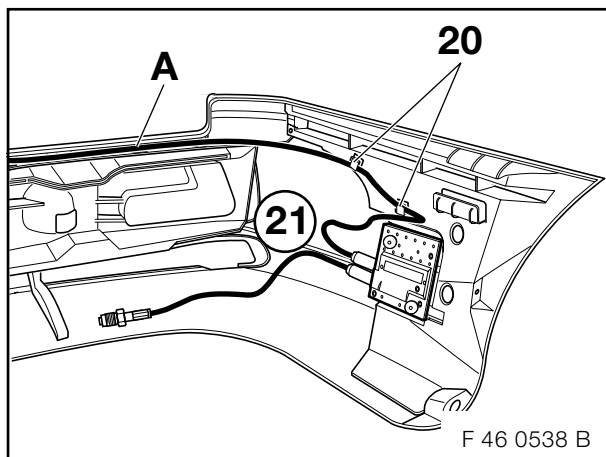


Clip the aerial cable **A** into the holders (20) on the right-hand side of the bumper reinforcement (21) provided for it.

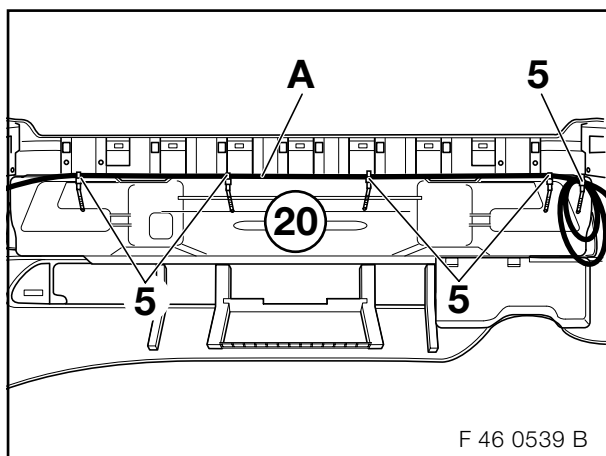


Insert the aerial (1) with two connection cables into the left-hand recess provided for it in the bumper reinforcement (20) and secure it with two expanding rivets (3).

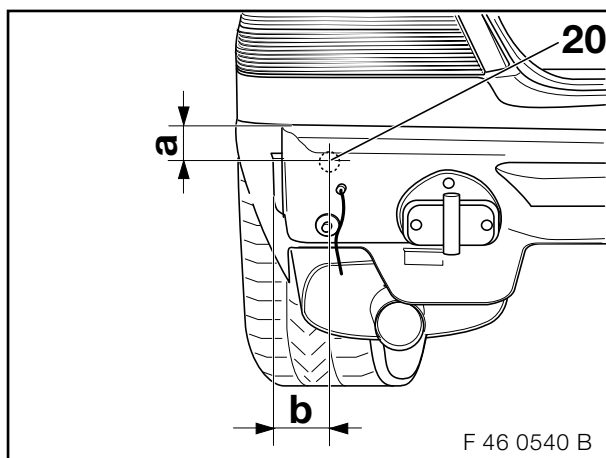
7. Installation in a BMW 3 Series touring (E46/3)



Clip the aerial cable **A** into the holders (20) on the right-hand side of the bumper reinforcement (21) provided for it.



Lay the aerial cable **A** along the bumper support (20) and secure it to the holes with four cable ties (5). Tie back the excess length of the aerial cable **A** with a cable tie (5).



Mark the hole (20) on the closing panel.

Dimension a= 40 mm
Dimension b= 70 mm

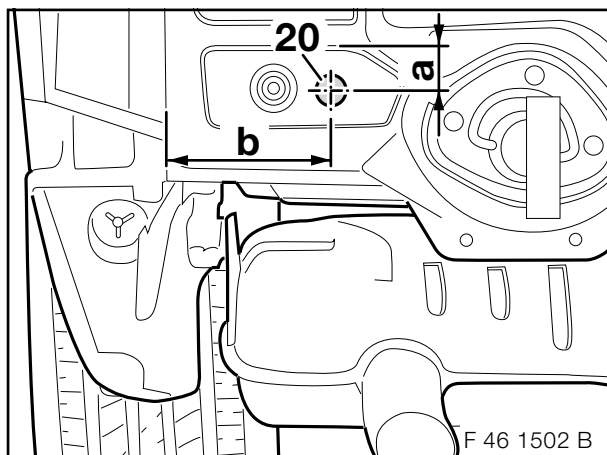
Drill the marked point with an 18 mm step drill bit and deburr it.

▶ Before drilling the hole ensure that the cable and plug fastenings are unclipped and the cables are removed from the drilling area to prevent their being damaged. ◀

▶ Treat the hole with anti-corrosive paint as set out in the BMW standard. ◀

Thread the aerial cable **A1** through the hole and press in the cable grommet.
Lay the aerial cable **A1** to the installation site of the transceiver or compensator.

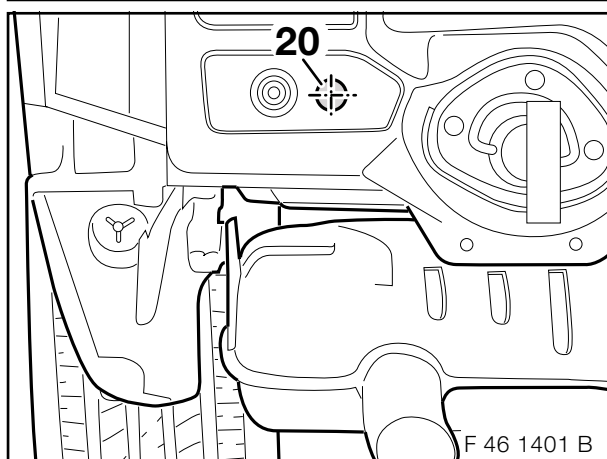
8. Installation in a BMW 3 Series compact (E46/5)



Mark the hole (20) on the closing panel.

Dimension a = 35 mm

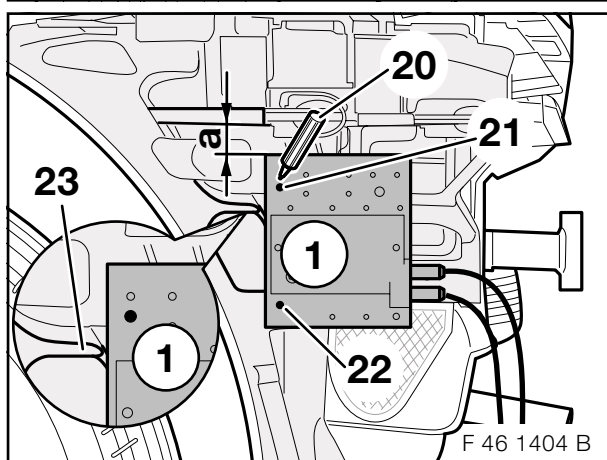
Dimension a = 135 mm



Drill the marked point (20) with an 18 mm step drill bit and deburr it.

▶ Before drilling the hole ensure that the cable and plug fastenings are unclipped and the cables are removed from the drilling area to prevent their being damaged. ◀

▶ Treat the holes with anti-corrosive paint as set out in the BMW standard. ◀

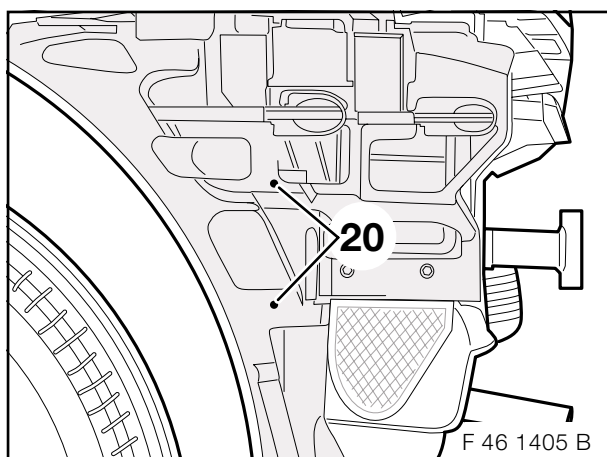


Fit the aerial (1) with two connection cables to the left-hand rear apron support.

Mark the holes through the fastening holes (21) and (22) on the aerial (1) using a pen (20).

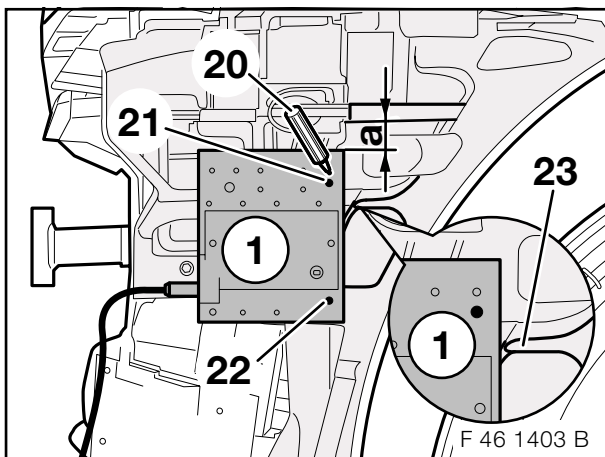
Dimension a = 15 mm

▶ Place the aerial (1), on the plastic catch (23), as shown in the magnified view. ◀




Drill the points (20) with a 5 mm drill bit and deburr them.

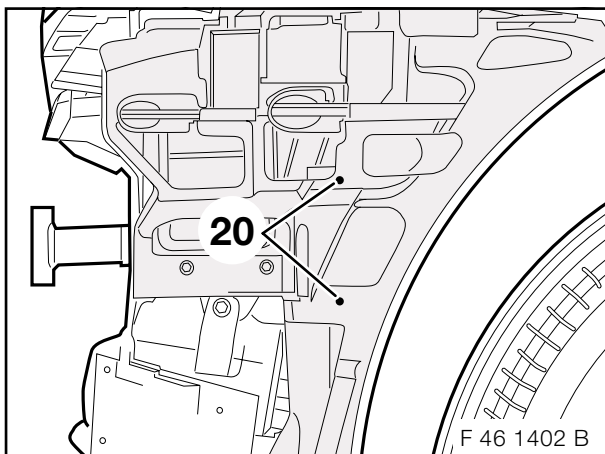
8. Installation in a BMW 3 Series compact (E46/5)



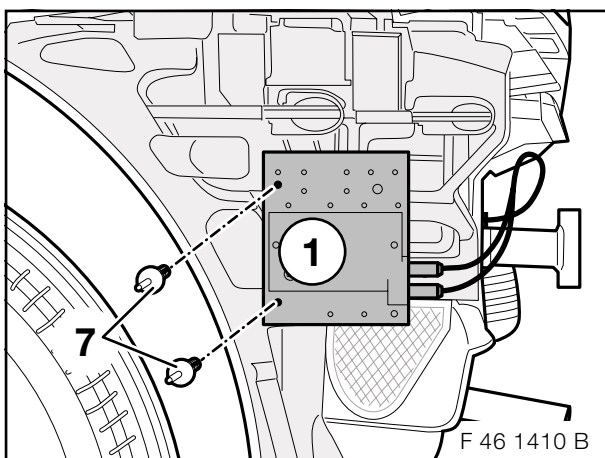
Fit the aerial (1) with one connection cable to the right-hand rear apron support. Mark the holes through the fastening holes (21) and (22) on the aerial (1) using a pen (20).

Dimension a=15 mm

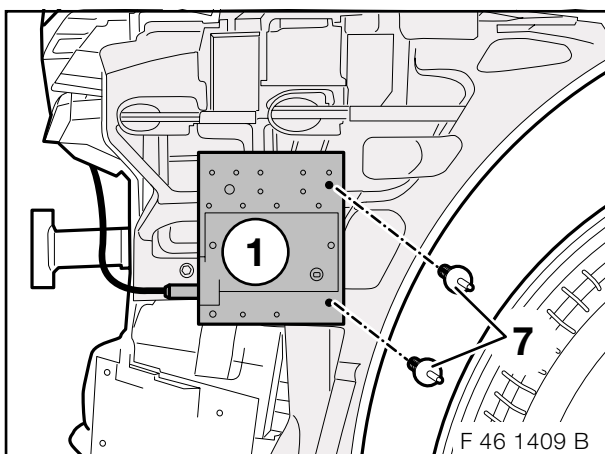
 Place the aerial (1), on the plastic catch (23), as shown in the magnified view. ◀



Drill the points (20) with a 5 mm drill bit and deburr them.

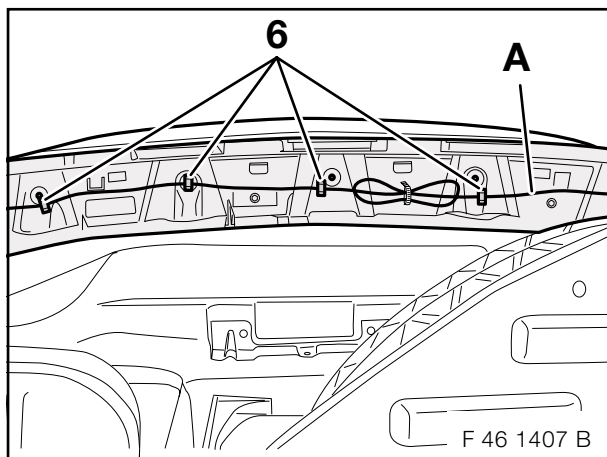


Secure the aerial (1) on the left-hand side with expanding rivets (7).

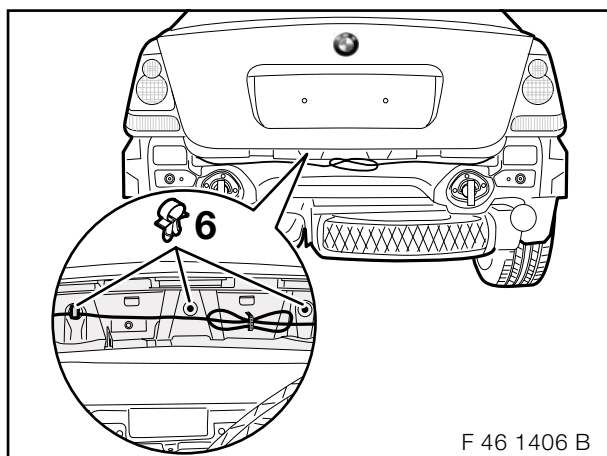


Secure the aerial (1) on the right-hand side with expanding rivets (7).


8. Installation in a BMW 3 Series compact (E46/5)

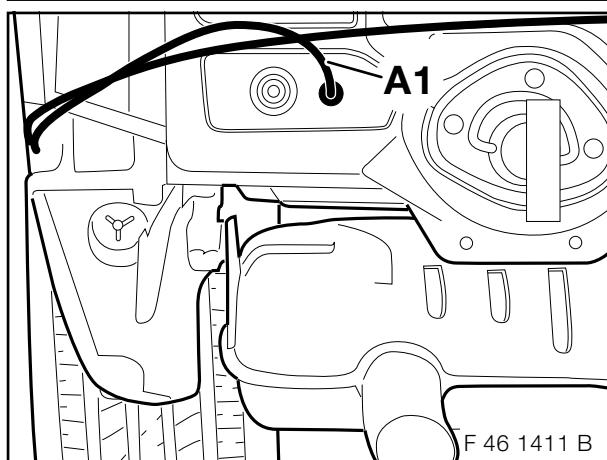


Lay the aerial cable **A** under the boot edge using seven cable holders (6).




Clip the cable holders (6) into the existing holes under the boot edge.

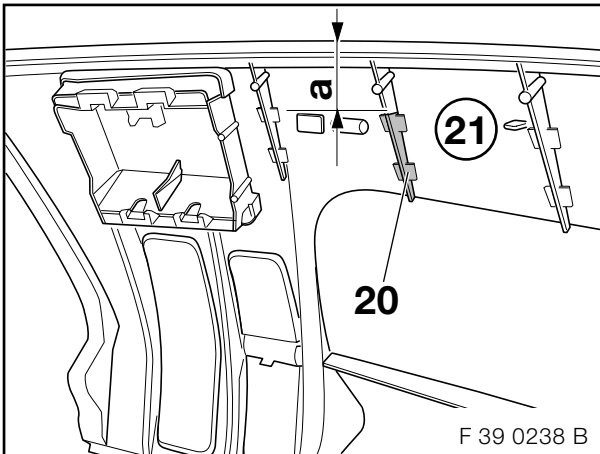
 Tie back excess cable lengths. ◀



Thread the aerial cable **A1** through the hole and press in the cable grommet. Lay the aerial cable **A1** to the installation site of the transceiver or compensator.

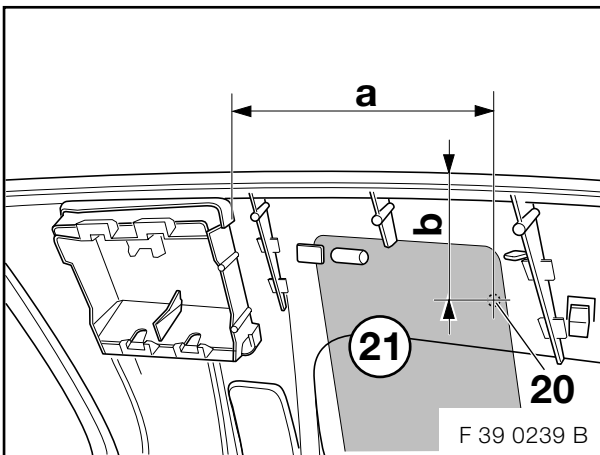
 As you position the rear apron ensure that the aerial is not damaged. ◀

9. Installation in a BMW 5 Series Saloon (E39/2)



Remove the division bar (20) on the right-hand side of the bumper reinforcement (21), with a pneumatic saw.

Dimension a = 25 mm



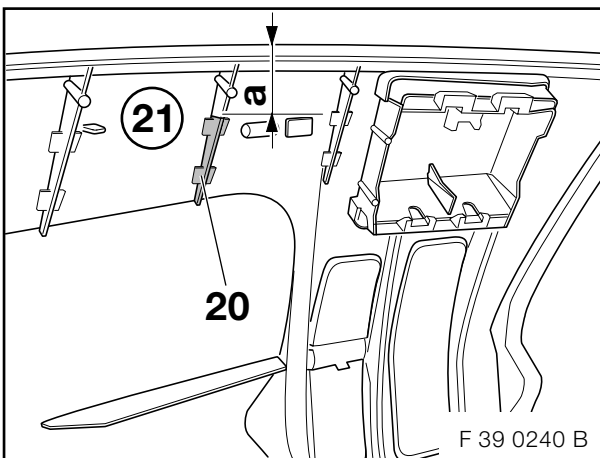
Mark the hole (1), drill it with a 6.5 mm drill bit and deburr it.

Dimension a = 153 mm

Dimension b = 60 mm

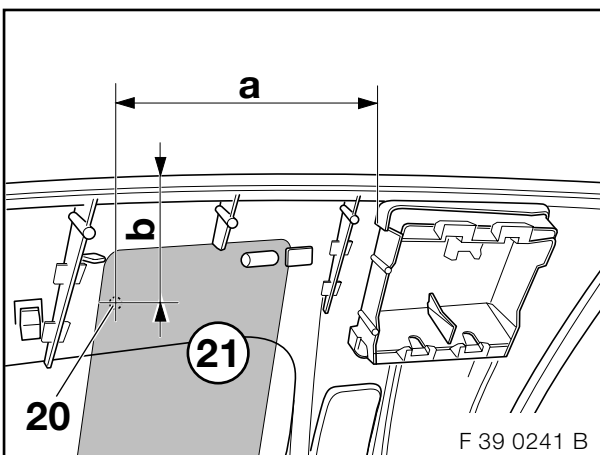
▶ Ensure that the exterior skin of the bumper is not damaged. ◀

▶ Clean the area (21) on the bumper marked in grey. ◀



Remove the division bar (20) on the left-hand side of the bumper reinforcement (21), with a pneumatic saw.

Dimension a = 25 mm



Mark the hole (1), drill it with a 6.5 mm drill bit and deburr it.

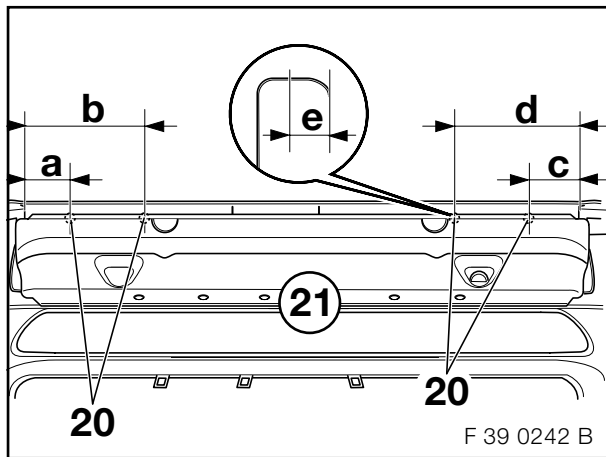
Dimension a = 153 mm

Dimension b = 60 mm

▶ Ensure that the exterior skin of the bumper is not damaged. ◀

▶ Clean the area (21) on the bumper marked in grey. ◀

9. Installation in a BMW 5 Series Saloon (E39/2)



Mark the holes (20) to secure the cable ties on the bumper support (21).

Dimension a = 100 mm

Dimension b = 400 mm

Dimension c = 100 mm

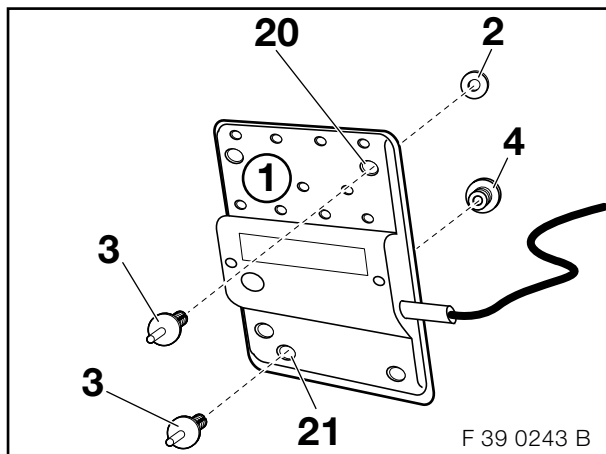
Dimension d = 400 mm

Dimension e = 20 mm

Drill the marked points with a 6.5 mm drill bit from the bottom and deburr them.



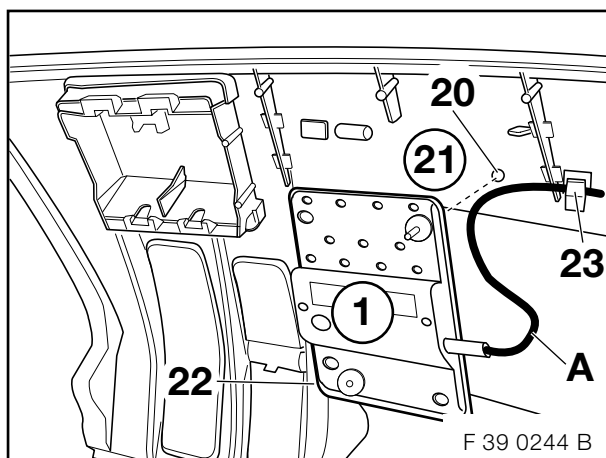
Ensure that the exterior skin of the bumper is not damaged. ◀



Insert the expanding rivet (3) into the fastening hole (20) of the aerial (1) with one connection cable and push on the spacer washer (2) from the rear. Insert the expanding rivet (3) into the fastening hole (21) of the aerial (1).

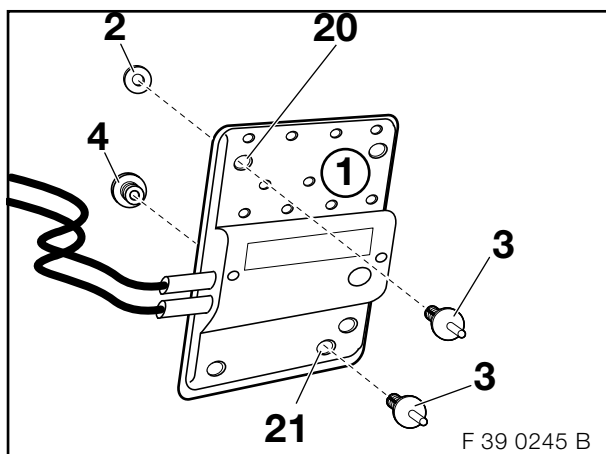
Push on the spacer (4) from the rear and secure the expanding rivet (3).

Then apply glass adhesive to the spacer (4) from the rear.



Place the aerial (1) with one connection cable with the parts you fitted to it previously into the 6.5 mm hole (20) you have already drilled on the right-hand side of the bumper reinforcement (21) and secure it. Align the aerial (1) and push on the spacer bush (22).

Attach the connection cable **A** to the retaining hooks (23).



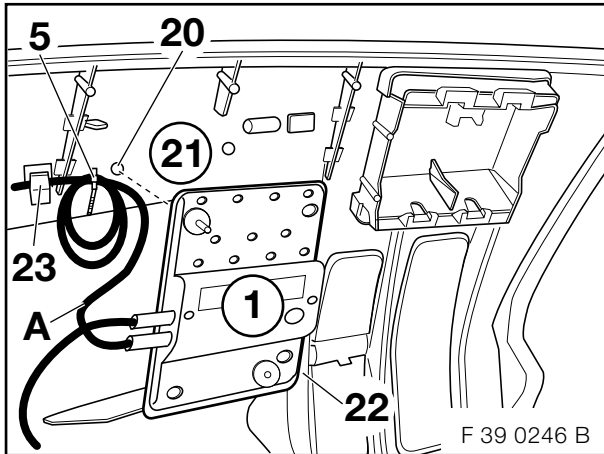
Insert the expanding rivet (3) into the fastening hole (20) of the aerial (1) with two connection cables and push on the spacer washer (2) from the rear.

Insert the expanding rivet (3) into the fastening hole (21) of the aerial (1).

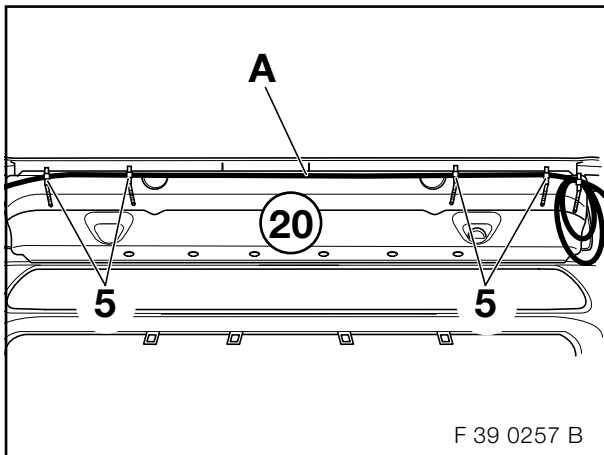
Push on the spacer (4) from the rear and secure the expanding rivet (3).

Then apply glass adhesive to the spacer (4) from the rear.

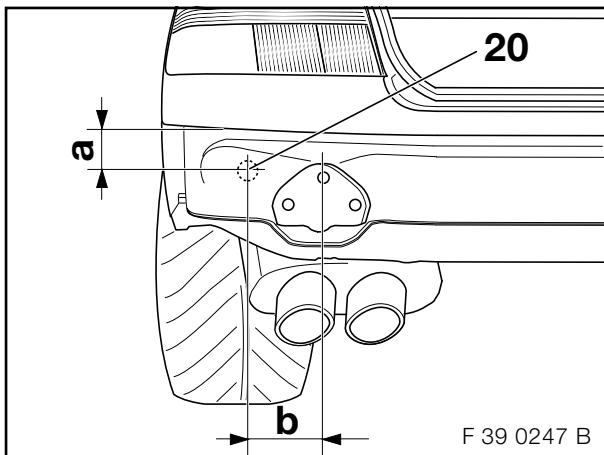
9. Installation in a BMW 5 Series Saloon (E39/2)



Place the aerial (1) with two connection cables with the parts you fitted to it previously into the 6.5 mm hole (20) on the left-hand side of the bumper reinforcement (21) and secure it. Align the aerial (1) and push on the spacer bush (22). Attach the connection cable **A** to the retaining hooks (23). Tie back the excess length of the aerial cable **A** with a cable tie (5).



Lay the aerial cable **A** along the bumper support (20) and secure it to the holes with four cable ties (5).



Mark the hole (20) on the closing panel.

Dimension a = 60 mm
Dimension b = 70 mm

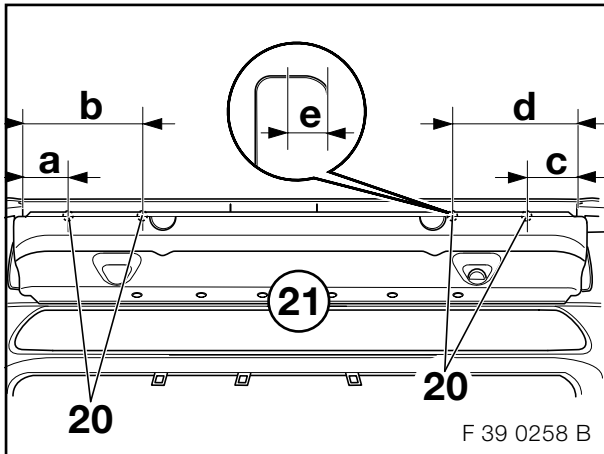
Drill the marked point with an 18 mm step drill bit and deburr it.

⏏ Before drilling the hole ensure that the cable and plug fastenings are unclipped and the cables are removed from the drilling area to prevent their being damaged. ◀

⏏ Treat the hole with anti-corrosive paint as set out in the BMW standard. ◀

Thread the aerial cable **A1** through the hole and press in the cable grommet. Lay the aerial cable **A1** to the installation site of the transceiver or compensator.

10. Installation in a BMW 5 Series touring (E39/2)

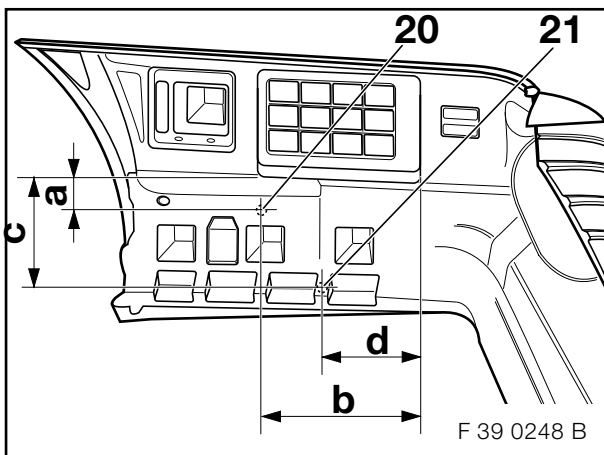


Mark the holes (20) to secure the cable ties on the bumper support (21).

Dimension a = 100 mm
 Dimension b = 400 mm
 Dimension c = 100 mm
 Dimension d = 400 mm
 Dimension e = 20 mm

Drill the marked points with a 6.5 mm drill bit from the bottom and deburr them.

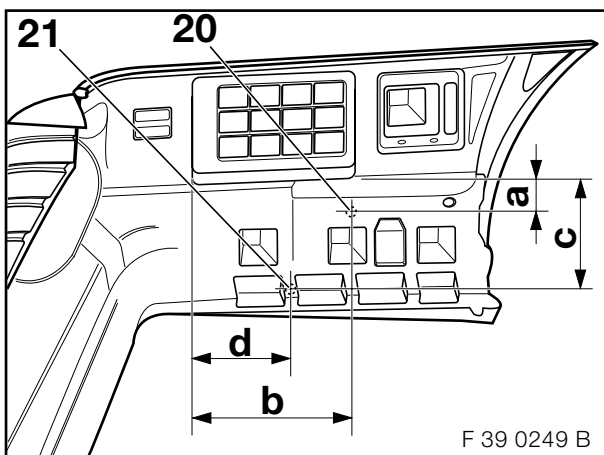
▶ Ensure that the exterior skin of the bumper is not damaged. ◀



Mark the holes (20) and (21), drill them with 6.5 mm drill bit and deburr them.

Dimension a = 90 mm
 Dimension b = 90 mm
 Dimension c = 19 mm
 Dimension d = 183 mm

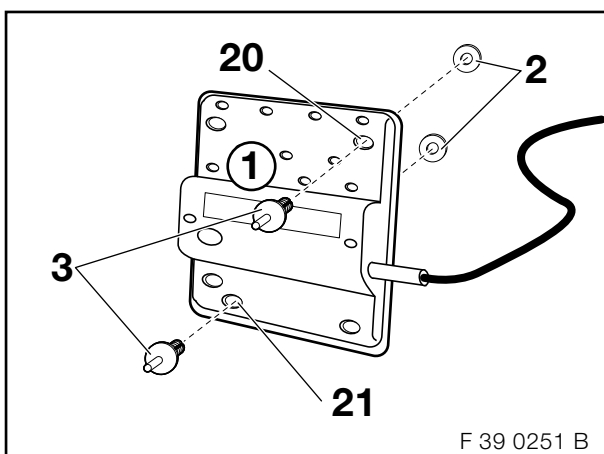
▶ Ensure that the exterior skin of the bumper is not damaged. ◀



Mark the holes (20) and (21), drill them with 6.5 mm drill bit and deburr them.

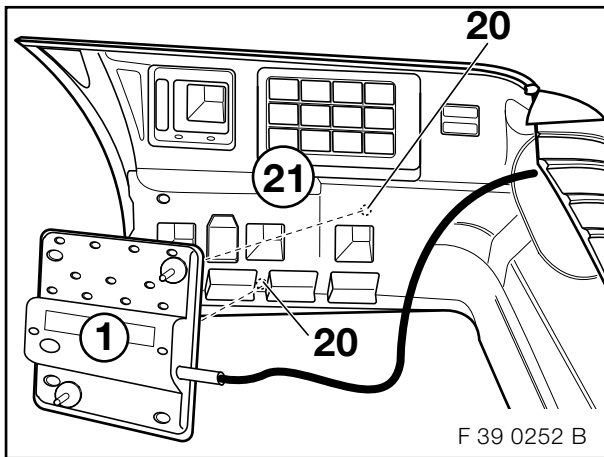
Dimension a = 30 mm
 Dimension b = 50 mm
 Dimension c = 41 mm
 Dimension d = 149 mm

▶ Ensure that the exterior skin of the bumper is not damaged. ◀

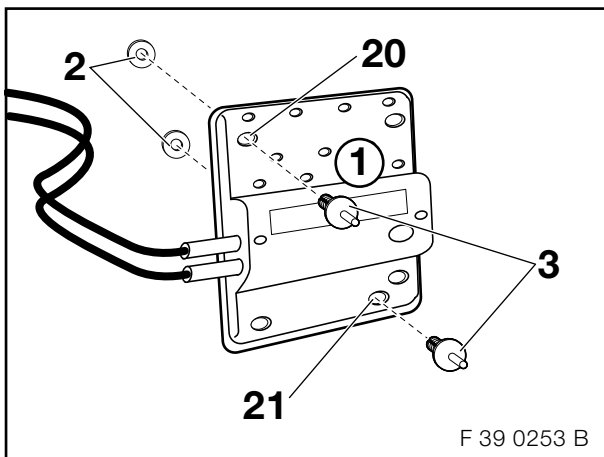


Insert one expanding rivet (3) into each of the fastening holes (20) and (21) of the aerial (1) with one connection cable and push one spacer washer (2) on to each one from the rear.

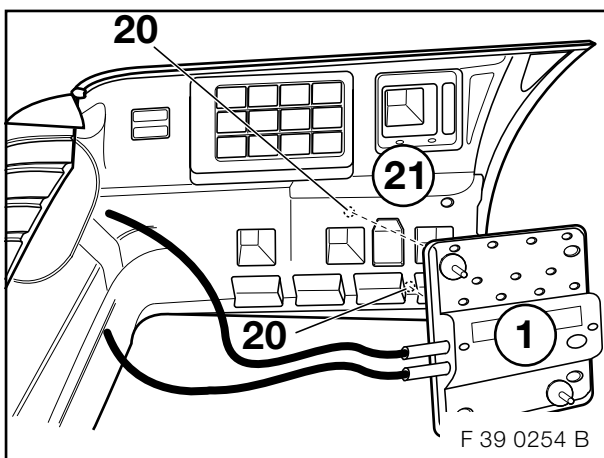
10. Installation in a BMW 5 Series touring (E39/2)



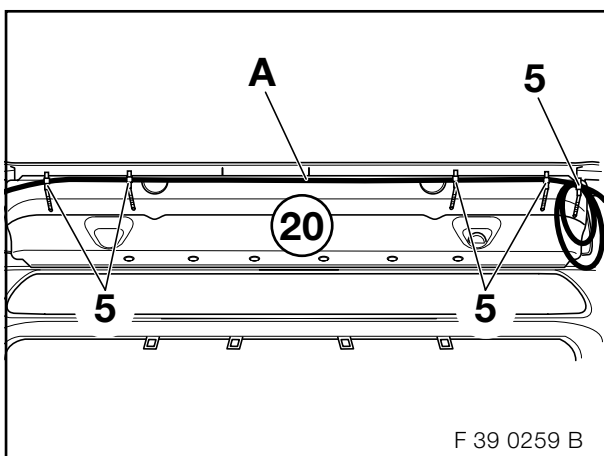
Place the aerial (1) with one connection cable with the parts you fitted to it previously into the 6.5 mm hole (20) you have already drilled on the right-hand side of the bumper reinforcement (21) and secure it.



Insert one expanding rivet (3) into each of the fastening holes (20) and (21) of the aerial (1) with two connection cables and push one spacer washer (2) on to each one from the rear.

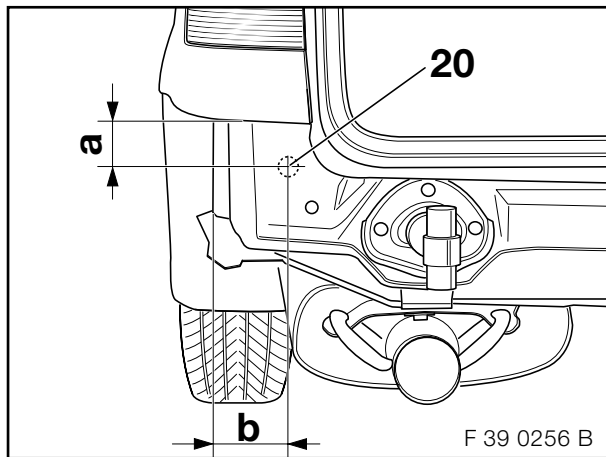


Place the aerial (1) with two connection cables with the parts you fitted to it previously into the 6.5 mm hole (20) you have already drilled on the left-hand side of the bumper reinforcement (21) and secure it.



Lay the aerial cable **A** along the bumper support (20) and secure it to the holes with four cable ties (5). Tie back the excess length of the aerial cable **A** with a cable tie (5).

10. Installation in a BMW 5 Series touring (E39/2)



Mark the hole (20) on the closing panel.

Dimension a = 90 mm

Dimension b = 180 mm

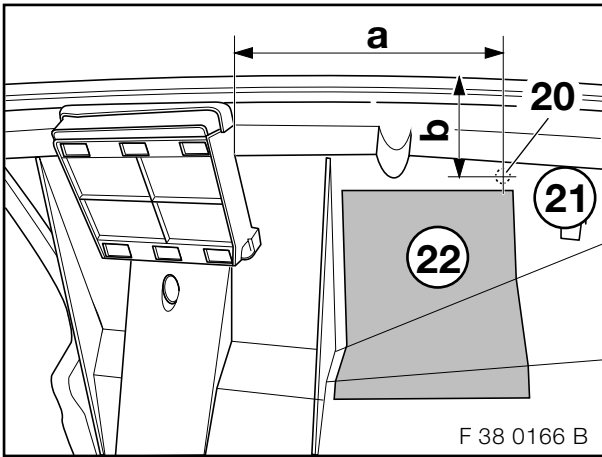
Drill the marked point with an 18 mm step drill bit and deburr it.

▶ Before drilling the hole ensure that the cable and plug fastenings are unclipped and the cables are removed from the drilling area to prevent their being damaged. ◀

▶ Treat the hole with anti-corrosive paint as set out in the BMW standard. ◀

Thread the aerial cable **A1** through the hole and press in the cable grommet.
Lay the aerial cable **A1** to the installation site of the transceiver or compensator.

11. Installation in a BMW 7 Series (E38)

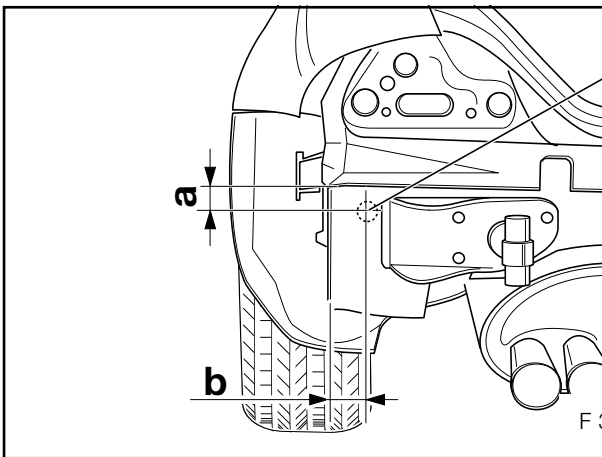


Drill the hole (20) on the right-hand side of the bumper reinforcement (21), with a 6.5 mm drill bit and deburr it.

Dimension a = 193 mm
Dimension b = 100 mm

☐ Ensure that the exterior skin of the bumper is not damaged. ◀

☐ Clean the area (22) on the bumper marked in grey. ◀

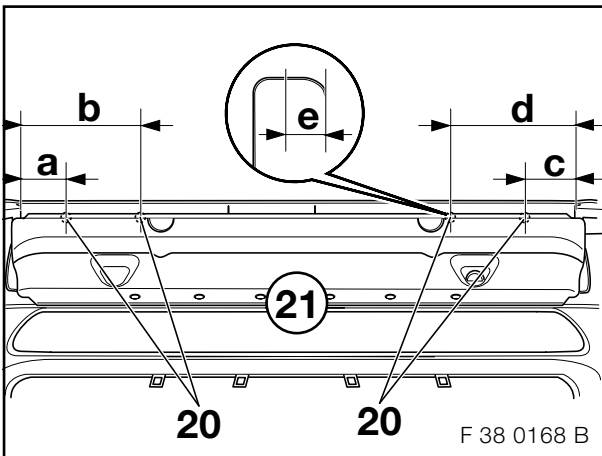


Mark the hole (20) on the left-hand side of the bumper reinforcement (21), drill it with a 6.5 mm drill bit and deburr it.

Dimension a = 193 mm
Dimension b = 100 mm

☐ Ensure that the exterior skin of the bumper is not damaged. ◀

☐ Clean the area (22) on the bumper marked in grey. ◀

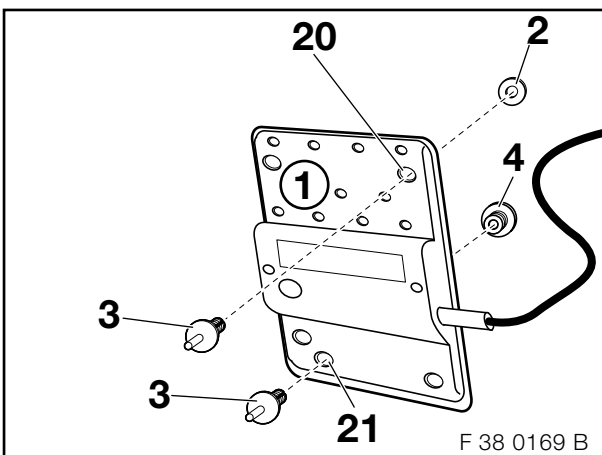


Mark the holes (20) to secure the cable ties on the bumper support (21).

Dimension a = 100 mm
Dimension b = 400 mm
Dimension c = 100 mm
Dimension d = 400 mm
Dimension e = 20 mm

Drill the marked points with a 6.5 mm drill bit from the bottom and deburr them.

☐ Ensure that the exterior skin of the bumper is not damaged. ◀

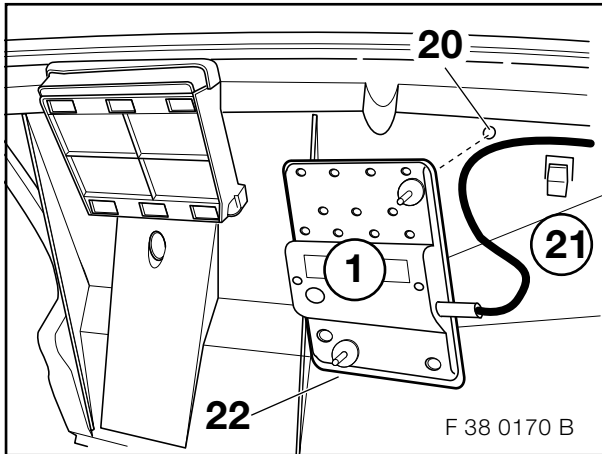


Insert the expanding rivet (3) into the fastening hole (20) of the aerial (1) with one connection cable and push on the spacer washer (2) from the rear. Insert the expanding rivet (3) into the fastening hole (21) of the aerial (1).

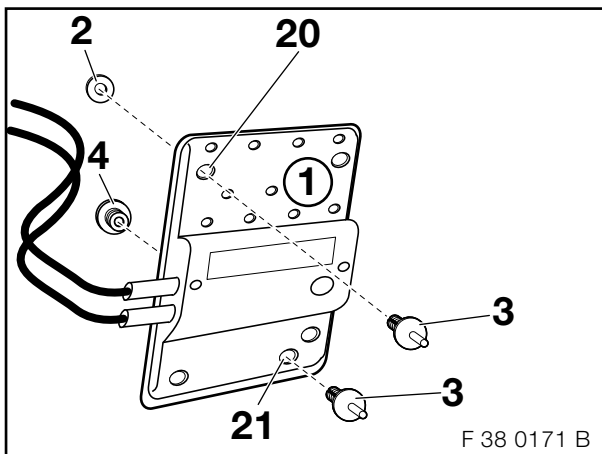
Push on the spacer (4) from the rear and secure the expanding rivet (3).

Then apply glass adhesive to the spacer (4) from the rear.

11. Installation in a BMW 7 Series (E38)



Place the aerial (1) with one connection cable with the parts you fitted to it previously into the 6.5 mm hole (20) you have already drilled on the right-hand side of the bumper reinforcement (21) and secure it. Align the aerial (1) and push on the spacer (22).

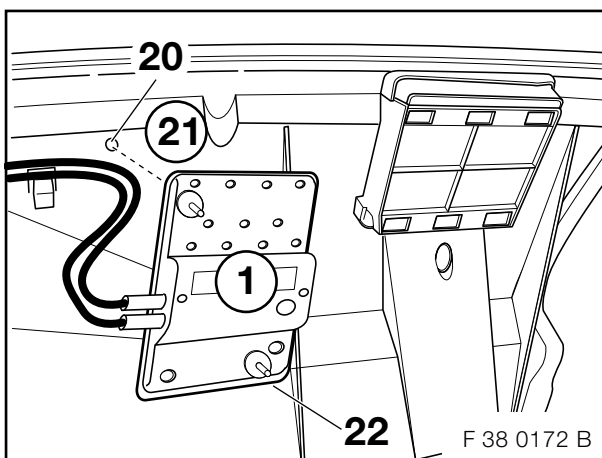


Insert the expanding rivet (3) into the fastening hole (20) of the aerial (1) with two connection cables and push on the spacer washer (2) from the rear.

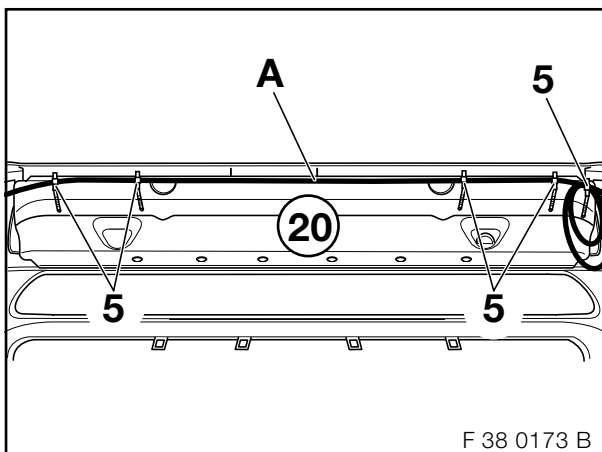
Insert the expanding rivet (3) into the fastening hole (21) of the aerial (1).

Push on the spacer (4) from the rear and secure the expanding rivet (3).

Then apply glass adhesive to the spacer (4) from the rear.

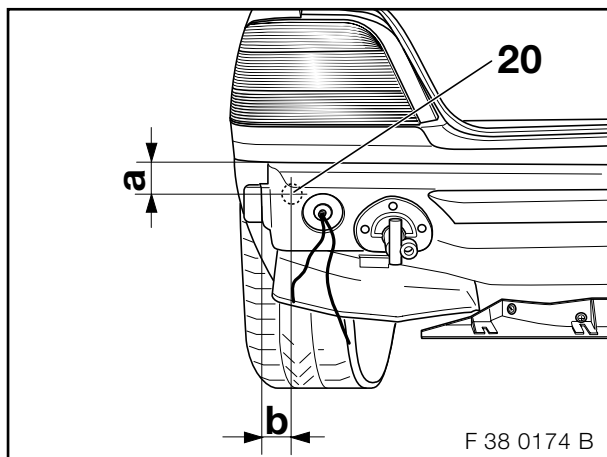


Place the aerial (1) with two connection cables with the parts you fitted to it previously into the 6.5 mm hole (20) you have already drilled on the left-hand side of the bumper reinforcement (21) and secure it. Align the aerial (1) and push on the spacer (22).



Lay the aerial cable **A** along the bumper support (20) and secure it to the holes with four cable ties (5). Tie back the excess length of the aerial cable **A** with a cable tie (5).

11. Installation in a BMW 7 Series (E38)



Mark the hole (20).

Dimension a = 60 mm

Dimension b = 180 mm

Drill the marked point with an 18 mm step drill bit and deburr it.



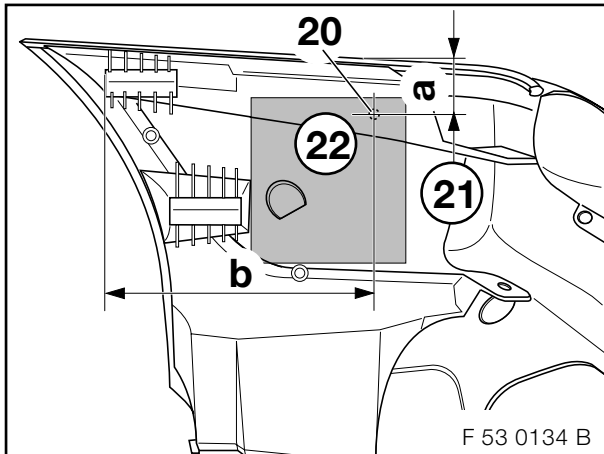
Before drilling the hole ensure that the cable and plug fastenings are unclipped and the cables are removed from the drilling area to prevent their being damaged. ◀



Treat the hole with anti-corrosive paint as set out in the BMW standard. ◀



Thread the aerial cable **A1** through the hole and press in the cable grommet.
Lay the aerial cable **A1** to the installation site of the transceiver or compensator.

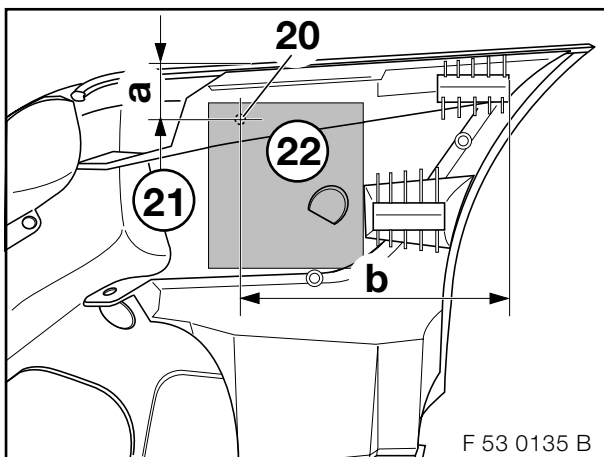
12. Installation in a BMW X5 (E53)



Drill the hole (20) on the right-hand side of the bumper reinforcement (21), with a 6.5 mm drill bit and deburr it.



Dimension a = 73 mm
Dimension b = 328 mm

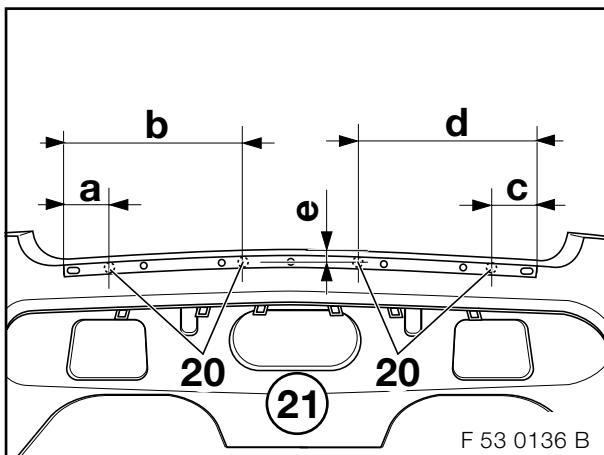
-  Ensure that the exterior skin of the bumper is not damaged. ◀
-  Clean the area (22) on the bumper marked in grey. ◀



Mark the hole (20) on the left-hand side of the bumper reinforcement (21), drill it with a 6.5 mm drill bit and deburr it.

Dimension a = 73 mm
Dimension b = 328 mm

-  Ensure that the exterior skin of the bumper is not damaged. ◀
-  Clean the area (22) on the bumper marked in grey. ◀

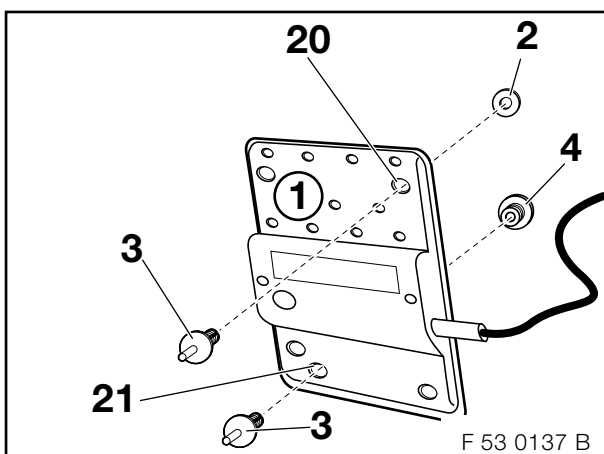


Mark the holes (20) to secure the cable ties on the bumper support (21).

Dimension a = 100 mm
Dimension b = 450 mm
Dimension c = 100 mm
Dimension d = 450 mm
Dimension e = 10 mm

Drill the marked points with a 6.5 mm drill bit from the bottom and deburr them.

-  Ensure that the exterior skin of the bumper is not damaged. ◀

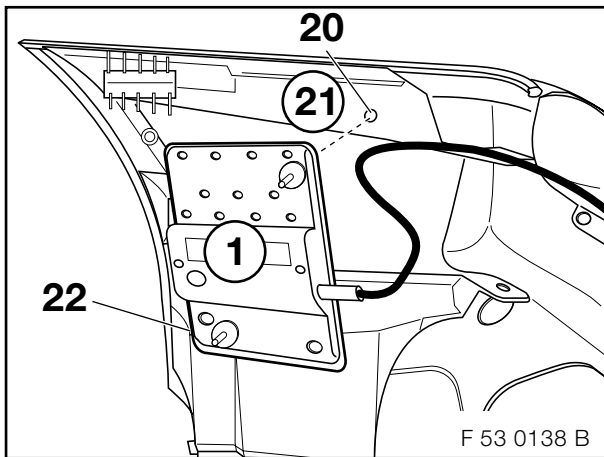


Insert the expanding rivet (3) into the fastening hole (20) of the aerial (1) with one connection cable and push on the spacer washer (2) from the rear. Insert the expanding rivet (3) into the fastening hole (21) of the aerial (1).

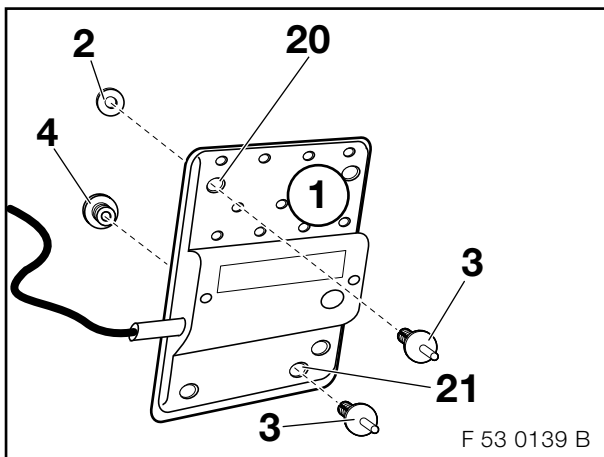
Push on the spacer (4) from the rear and secure the expanding rivet (3).

Then apply glass adhesive to the spacer (4) from the rear.

12. Installation in a BMW X5 (E53)



Place the aerial (1) with one connection cable with the parts you fitted to it previously into the 6.5 mm hole (20) you have already drilled on the right-hand side of the bumper reinforcement (21) and secure it. Align the aerial (1) and push on the spacer (22).

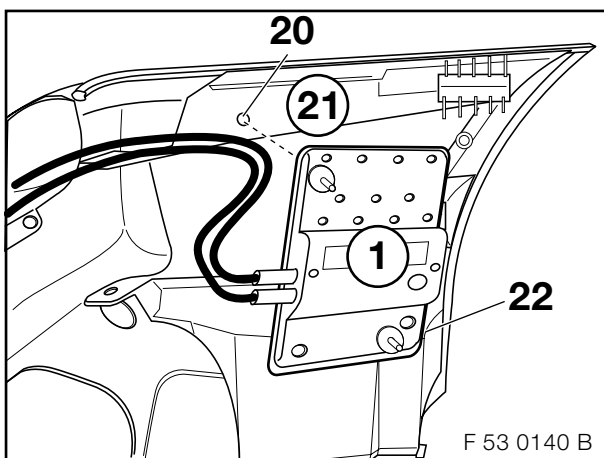


Insert the expanding rivet (3) into the fastening hole (20) of the aerial (1) with two connection cables and push on the spacer washer (2) from the rear.

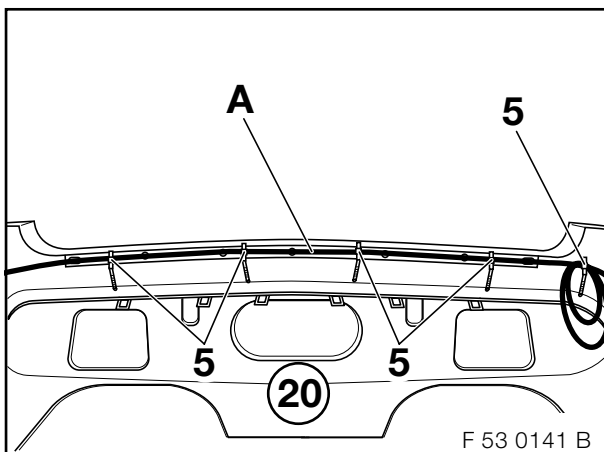
Insert the expanding rivet (3) into the fastening hole (21) of the aerial (1).

Push on the spacer (4) from the rear and secure the expanding rivet (3).

Then apply glass adhesive to the spacer (4) from the rear.



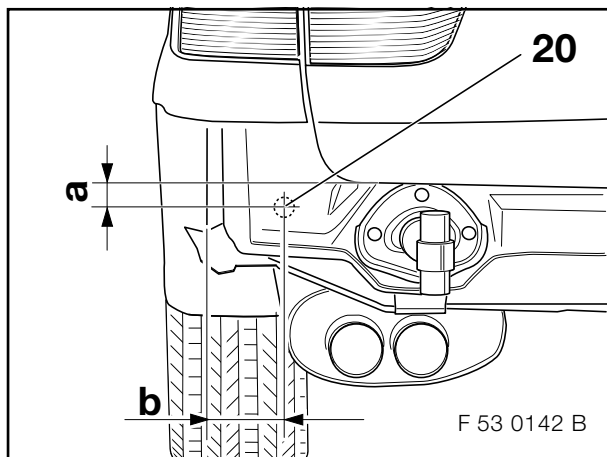
Place the aerial (1) with two connection cables with the parts you fitted to it previously into the 6.5 mm hole (20) you have already drilled on the left-hand side of the bumper reinforcement (21) and secure it. Align the aerial (1) and push on the spacer (22).



Lay the aerial cable **A** along the bumper support (20) and secure it to the holes with four cable ties (5).

Tie back the excess length of the aerial cable **A** with a cable tie (5).

12. Installation in a BMW X5 (E53)



Mark the hole (20).

Dimension a = 50 mm

Dimension b = 100 mm

Drill the marked point with an 18 mm step drill bit and deburr it.



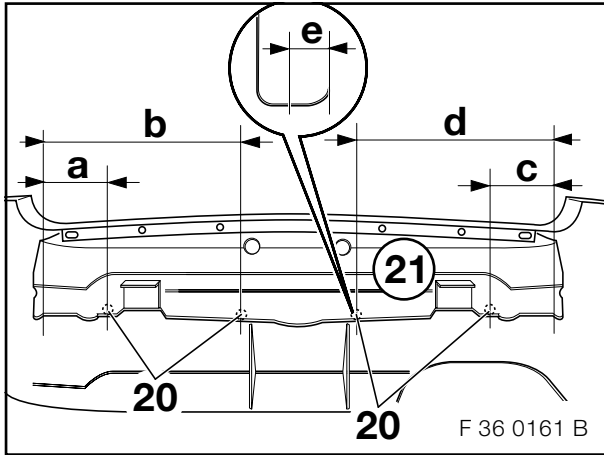
Before drilling the hole ensure that the cable and plug fastenings are unclipped and the cables are removed from the drilling area to prevent their being damaged. ◀



Treat the hole with anti-corrosive paint as set out in the BMW standard. ◀

Thread the aerial cable **A1** through the hole and press in the cable grommet.
Lay the aerial cable **A1** to the installation site of the transceiver or compensator.

13. Installation in a BMW Z3 roadster (E36/7) and coupé (E36/7C)

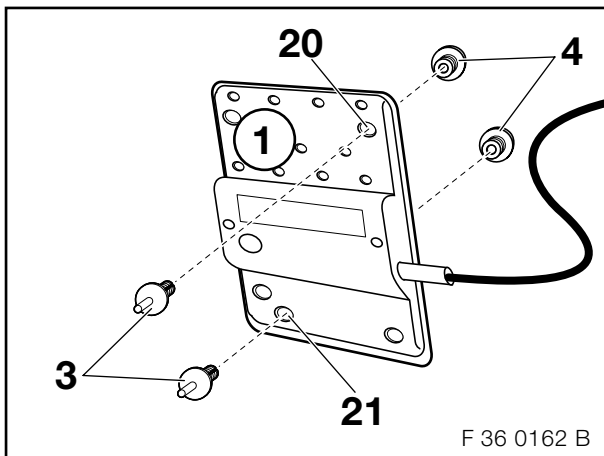


Mark the holes (20) to secure the cable ties on the bumper support (21).

Dimension a = 50 mm
 Dimension b = 400 mm
 Dimension c = 50 mm
 Dimension d = 400 mm
 Dimension e = 15 mm

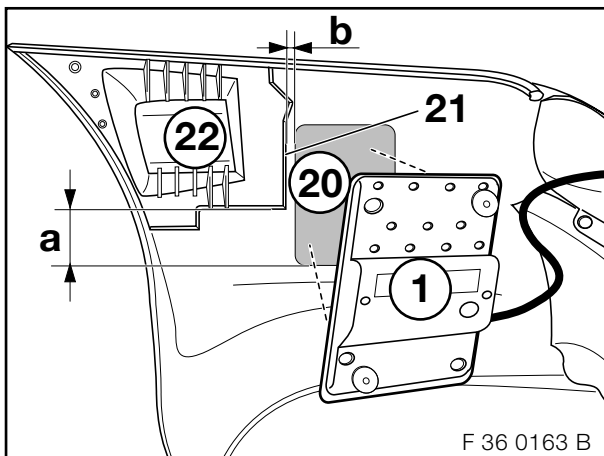
Drill the marked points with a 6.5 mm drill bit from the bottom and deburr them.


 Ensure that the exterior skin of the bumper is not damaged. ◀



Insert one expanding rivet (3) into each of the fastening holes (20) and (21) of the aerial (1) with one connection cable, push one spacer (4) on to each one from the rear and secure the expanding rivets (3).

Then apply glass adhesive to the spacer (4) from the rear.

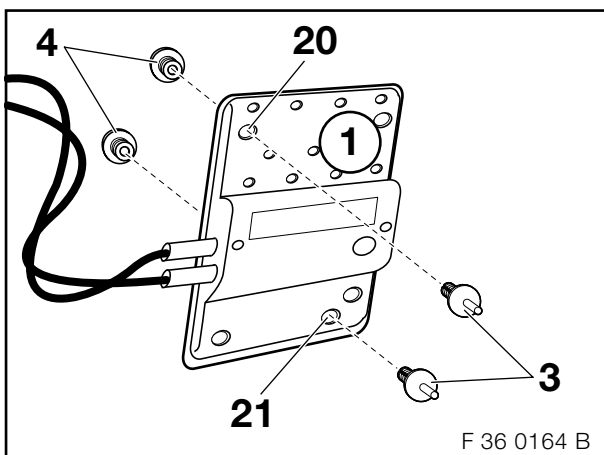


 Clean the area (20) on the bumper marked in grey. ◀

Place the aerial (1) with one connection cable with the parts you fitted to it previously parallel to the vertical edge (21) on the right-hand side of the bumper reinforcement (22), and press it into position.

Dimension a = 50 mm
 Dimension b = 5 mm

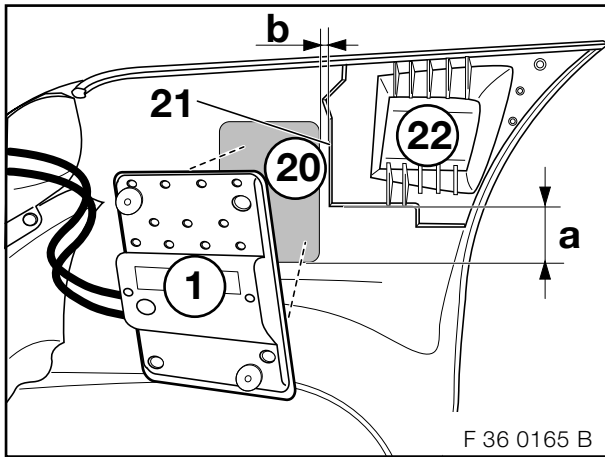
Secure the installed aerial (1) with adhesive tape and remove the adhesive tape after the glass adhesive has dried.



Insert one expanding rivet (3) into each of the fastening holes (20) and (21) of the aerial (1) with two connection cables, push one spacer (4) on to each one from the rear and secure the expanding rivets (3).

Then apply glass adhesive to the spacer (4) from the rear.

13. Installation in a BMW Z3 roadster (E36/7) and coupé (E36/7C)



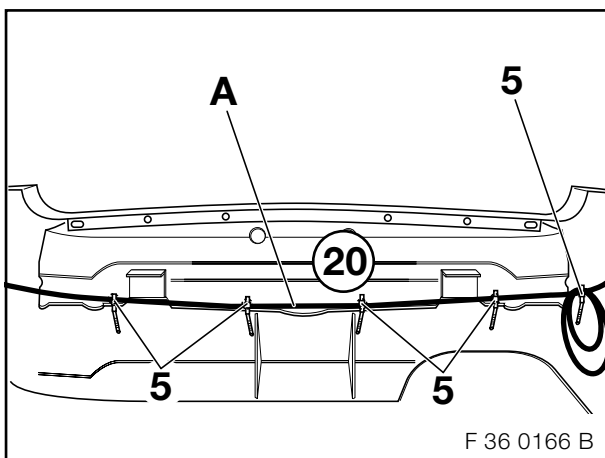
▶ Clean the area (20) on the bumper marked in grey. ◀

Place the aerial (1) with one connection cable with the parts you fitted to it previously parallel to the vertical edge (21) on the right-hand side of the bumper reinforcement (22), and press it into position.

Dimension a = 50 mm
Dimension b = 5 mm

Secure the installed aerial (1) with adhesive tape and remove the adhesive tape after the glass adhesive has dried.

Lay the aerial cable **A** along the bumper support (20) and secure it to the holes with four cable ties (5). Tie back the excess length of the aerial cable **A** with a cable tie (5).



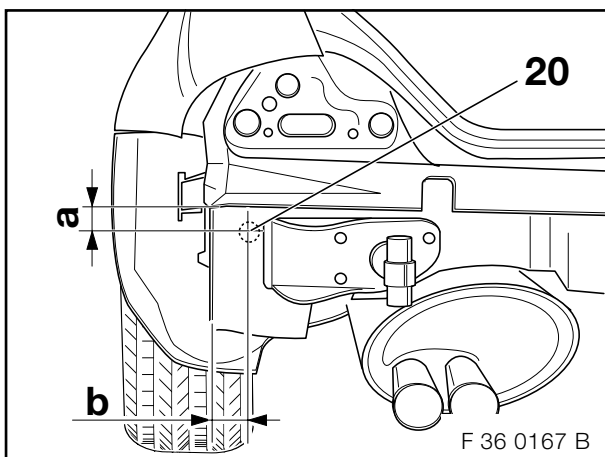
Mark the hole (20).

Dimension a = 50 mm
Dimension b = 70 mm

Drill the marked point with an 18 mm step drill bit and deburr it.

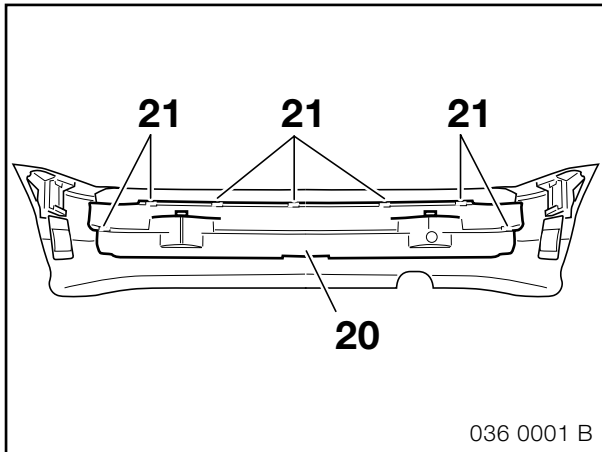
▶ Before drilling the hole ensure that the cable and plug fastenings are unclipped and the cables are removed from the drilling area to prevent their being damaged. ◀

▶ Treat the hole with anti-corrosive paint as set out in the BMW standard. ◀



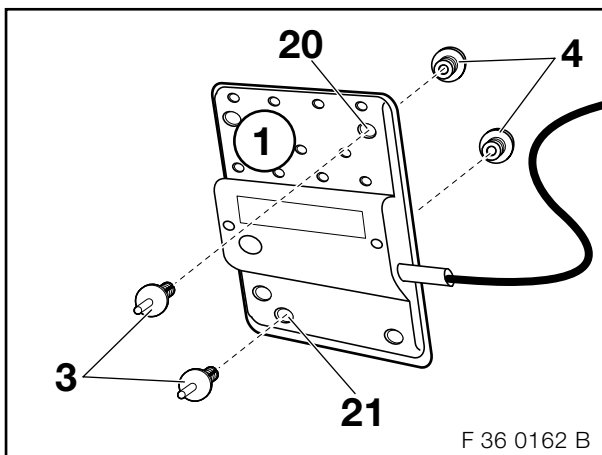
Thread the aerial cable **A1** through the hole and press in the cable grommet. Lay the aerial cable **A1** to the installation site of the transceiver or compensator.

14. Installation in a BMW 3 Series compact (E36/5)



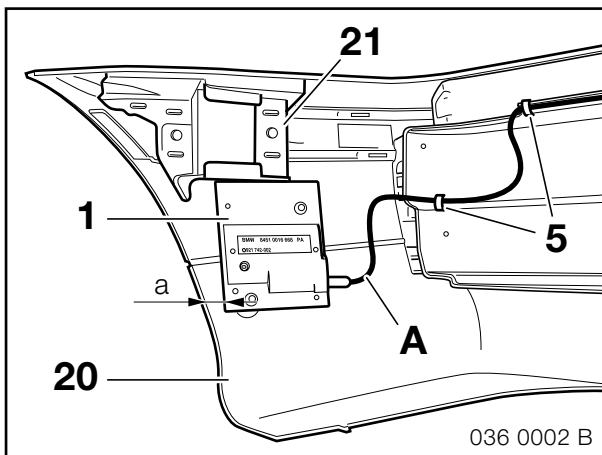
▶ The bumper support (20) may differ depending on the date of production and equipment version. If the bumper support (20) is different to that illustrated, the holes (21) to secure the cable ties are to be drilled accordingly. ◀

Mark the holes (21) to secure the cable ties on the bumper support (20), drill them with a 6 mm drill bit and deburr them.



Insert one expanding rivet (3) into each of the fastening holes (20) and (21) of the aerial (1) with one connection cable, push one spacer (4) on to each one from the rear and secure the expanding rivets (3).

Then apply glass adhesive to the spacer (4) from the rear.

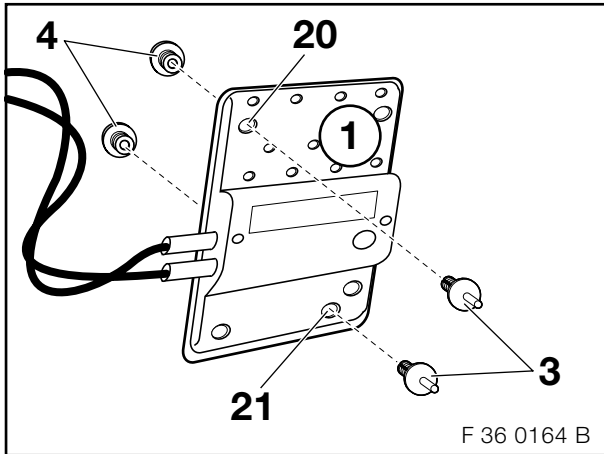


▶ The adhesive surface on the bumper (20) must be clean and free of grease. Clean the adhesive surface on the bumper (20) and roughen it slightly with sandpaper. ◀

Place the aerial (1) with one connection cable with the fitted parts flush with the horizontal edge on the right-hand side of the bumper mounting (21) at a distance **a** = 3 cm and press it into position. Lay the aerial cable **A** as shown and secure it loosely with cable ties (4).

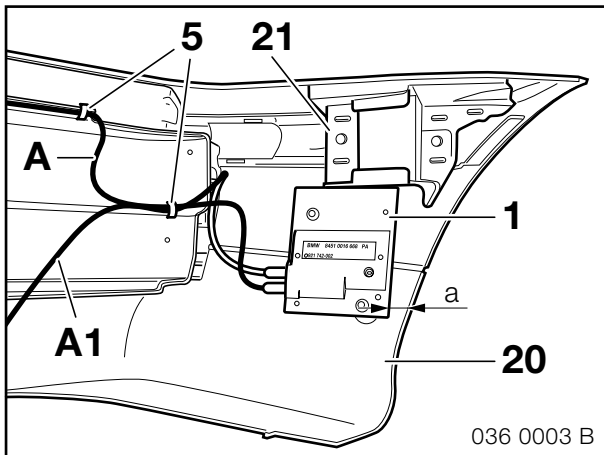
Secure the installed aerial (1) with adhesive tape and remove the adhesive tape after the glass adhesive has dried.

14. Installation in a BMW 3 Series compact (E36/5)



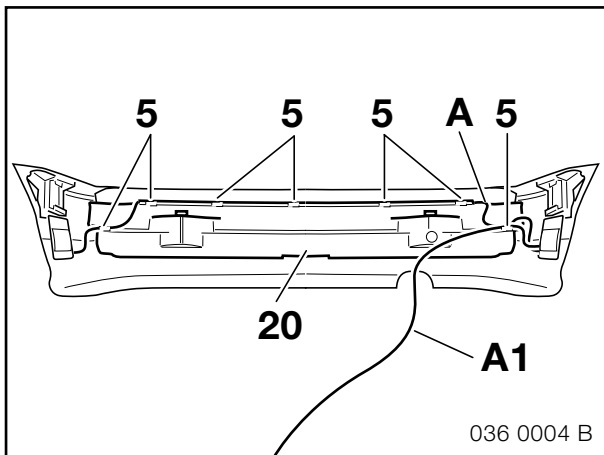
Insert one expanding rivet (3) into each of the fastening holes (20) and (21) of the aerial (1) with two connection cables, push one spacer (4) on to each one from the rear and secure the expanding rivets (3).

Then apply glass adhesive to the spacer (6) from the rear.



▶ The adhesive surface on the bumper (20) must be clean and free of grease. Clean the adhesive surface on the bumper (20) and roughen it slightly with sandpaper. ◀

Place the aerial (1) with two connection cables with the fitted parts flush with the horizontal edge on the left-hand side of the bumper mounting (21) at a distance **a** = 3 cm and press it into position. Lay the aerial cables **A** and **A1** as shown and secure them loosely with cable ties (5). Secure the installed aerial (1) with adhesive tape and remove the adhesive tape after the glass adhesive has dried.



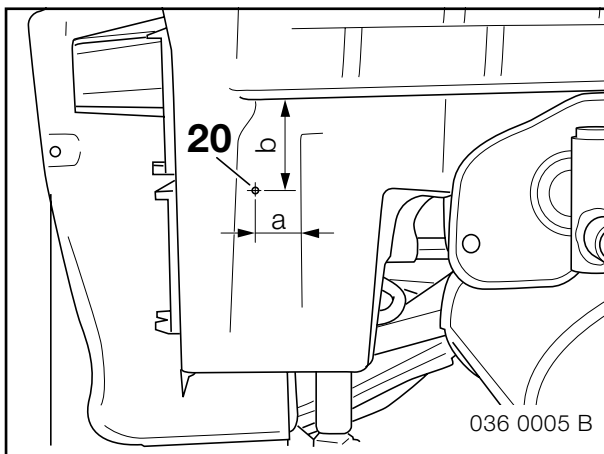
▶ The bumper support (20) may differ depending on the date of production and equipment version. If the bumper support (20) is different to that illustrated, the aerial cable **A** is to be secured accordingly. The aerial cable **A1** is only secured with the first cable tie (5) on the left-hand side. ◀

Lay the aerial cable **A** along the bumper support (20) as shown and secure it loosely with cable ties (5). Split the excess lengths of the aerial cable **A** into equal parts on the right and left and tighten the cable ties (1).

Mark the position of the hole (20).

Dimension a = 12 mm
Dimension b = 50 mm

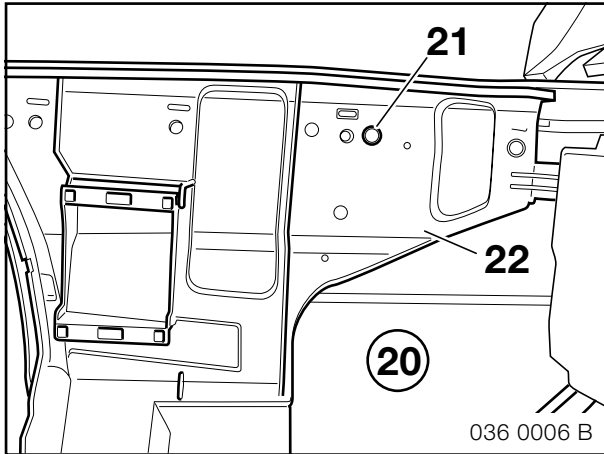
Drill it with an 18 mm step drill bit and deburr it.



▶ Treat the hole with anti-corrosive paint as set out in the BMW standard. ◀

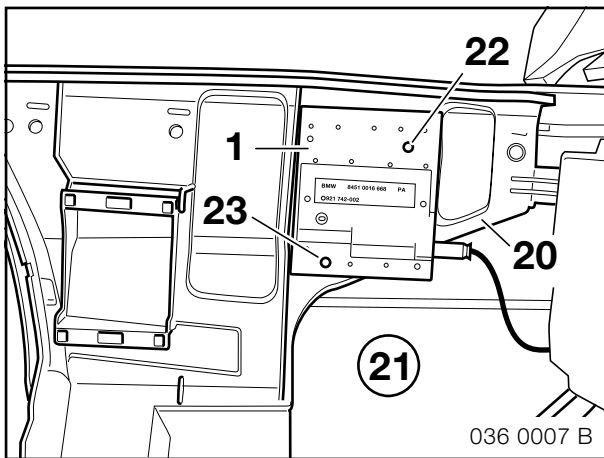
Thread the aerial cable **A1** through the hole and press in the cable grommet. Lay the aerial cable **A1** to the installation site of the transceiver or compensator.

15. Installation in a BMW 3 Series Saloon (E36/4), Coupé (E36/2), touring (E36/3) and Convertible (E36/C)



▶ The figure shows the right-hand side of the bumper (1), proceed accordingly on the left-hand side. ◀

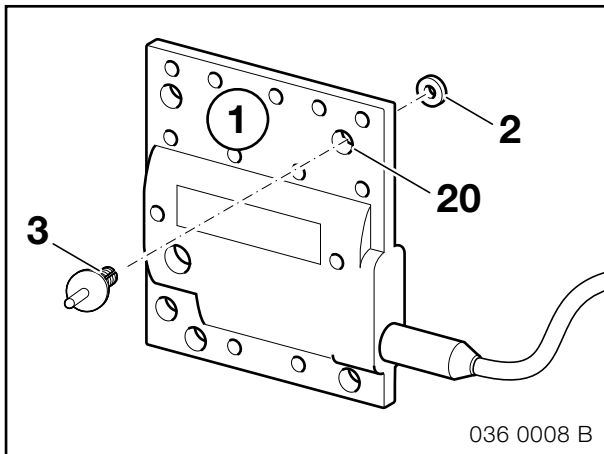
Cut off the circular areas (21) on the reinforcement (21) for the bumper (20) on both sides.



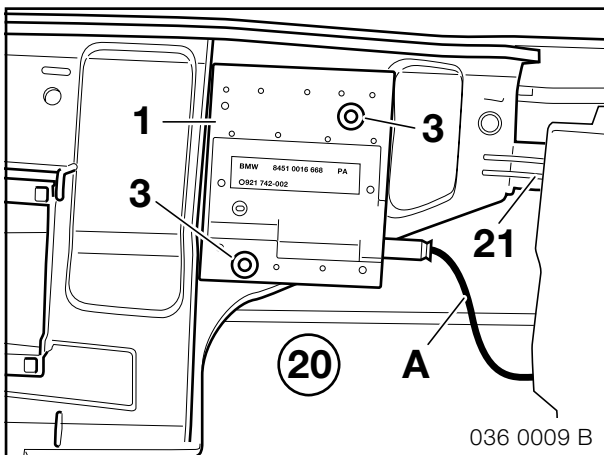
Lay the aerial (1) with one connection cable, as shown, on the reinforcement (20) for the bumper (20) on the right-hand side and mark the positions of the holes (22) and (23) on the reinforcement (20).

▶ The maximum drilling depth at the positions of the holes (22) and (23) is 10 mm since otherwise the exterior skin of the bumper may be damaged. ◀

Remove the aerial (5) again and drill the marked holes (20) and (23) with a 6 mm drill bit.

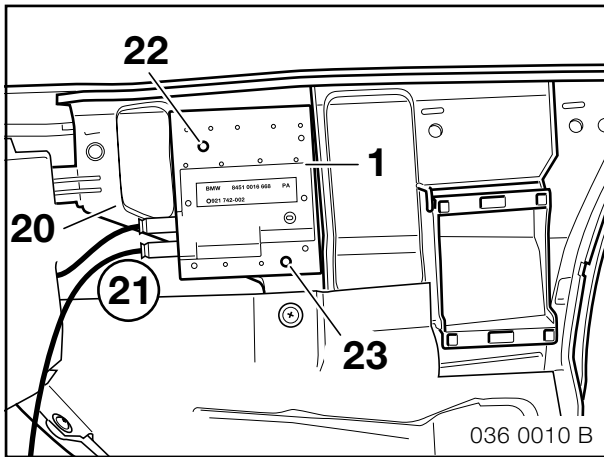


Insert an expanding rivet (3) into the hole (20) for the aerial (1) with one connection cable and push a spacer washer (4) on to the expanding rivet (3).



Insert the assembled aerial (2) into the right-hand reinforcement for the bumper (20) and secure it with two expanding rivets (3). Push the aerial cable **A** behind the retaining lugs (21) in the reinforcement.

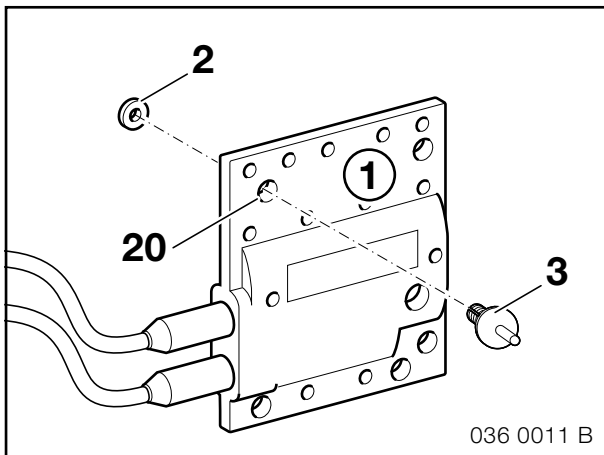
15. Installation in a BMW 3 Series Saloon (E36/4), Coupé (E36/2), touring (E36/3) and Convertible (E36/C)



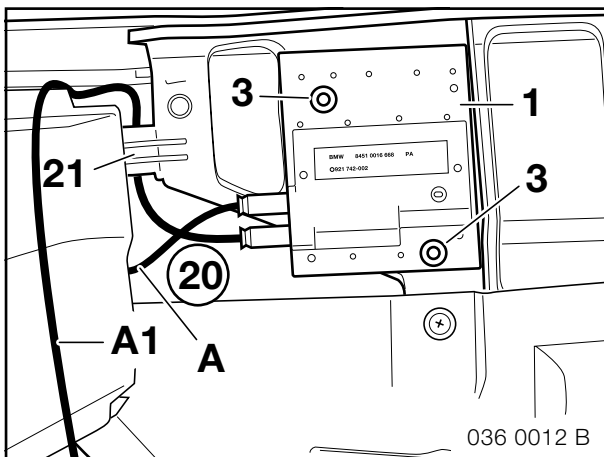
Lay the aerial (5) with two connection cables, as shown, on the reinforcement (20) for the bumper (1) on the left-hand side and mark the positions of the holes (22) and (23) on the reinforcement (20).

▶ The maximum drilling depth at the positions of the holes (20) and (23) is 10 mm since otherwise the exterior skin of the bumper may be damaged. ◀

Remove the aerial (5) again and drill the marked holes (22) and (23) with a 6 mm drill bit.

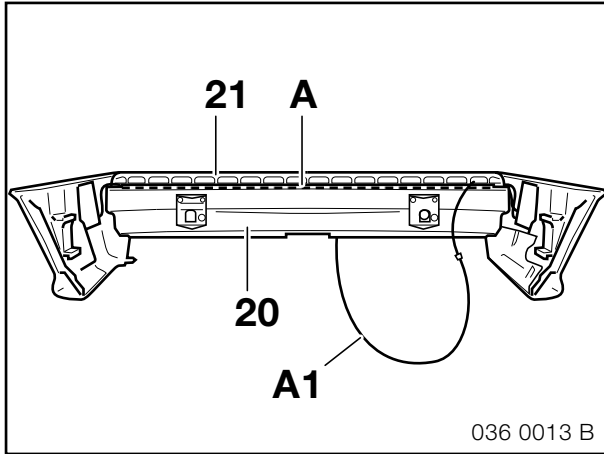


Insert an expanding rivet (3) into the hole (20) for the aerial (1) with one connection cable and push a spacer washer (2) on to the expanding rivet (3).



Insert the assembled aerial (1) into the left-hand reinforcement for the bumper (20) and secure it with two expanding rivets (3). Push the aerial cables **A** and **A1** behind the retaining lugs (21) in the reinforcement.

15. Installation in a BMW 3 Series Saloon (E36/4), Coupé (E36/2), touring (E36/3) and Convertible (E36/C)



▶ The bumper support (20) may differ depending on the date of production and equipment version. If the bumper support (20) is different to that illustrated, the aerial cable **A** is to be secured accordingly. Split the excess lengths of the aerial cable **A** into equal parts on the right and left. ◀

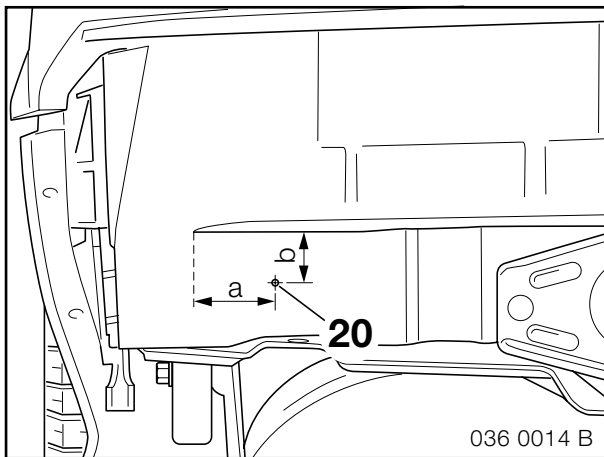
Push the aerial cable **A** into the cable duct in the bumper support (20) behind the polystyrene insert (21).

The aerial cable **A1** is to be secure at the first possible point, as shown.

Mark the position of the hole (20).

Dimension a = 40 mm
Dimension b = 20 mm

Drill it with an 18 mm step drill bit and deburr it.



▶ Treat the hole with anti-corrosive paint as set out in the BMW standard. ◀

Thread the aerial cable **A1** through the hole and press in the cable grommet.

Lay the aerial cable **A1** to the installation site of the transceiver or compensator.