

Installation Manual

# Caravan roof gland

# HDZ 100



Protective casing for cable interfaces  
on the caravan roof for Kathrein  
rotary antenna systems type CAP series

# CONTENTS

<b>CONTENTS</b> .....	<b>2</b>
<b>FOREIGN LANGUAGE INSTALLATION MANUALS/SERVICE</b> .....	<b>3</b>
ADDRESS OF THE SERVICE CENTRE .....	3
<b>HDZ 100 COMPONENTS/SCOPE OF SUPPLY</b> .....	<b>4</b>
HDZ 100 SCOPE OF SUPPLY .....	4
<b>PROPER USE</b> .....	<b>5</b>
PROPER USE (USE FOR THE INTENDED PURPOSE).....	5
<b>SAFETY INSTRUCTIONS - IMPORTANT NOTES</b> .....	<b>6</b>
<b>INSTALLATION EXAMPLES</b> .....	<b>8</b>
BASIC VARIANTS .....	8
<b>INSTALLATION AND CONNECTION</b> .....	<b>9</b>
REQUIRED TOOLS AND EQUIPMENT .....	9
NECESSARY SPACINGS WHEN USING CABLE DUCTS.....	9
INSTALLATION STEPS .....	10
ROOF GLAND VARIANT.....	10
CABLE CONTINUATION VARIANT .....	12
<b>TECHNICAL DATA (in mm)</b> .....	<b>15</b>
<b>FOR YOUR NOTES</b> .....	<b>16</b>

# FOREIGN LANGUAGE INSTALLATION MANUALS/SERVICE

Dear Customer, Chère Cliente, Cher Client, Gentile cliente, Estimado cliente,

## GB

You can obtain an English version of our installation instructions from our representatives in your country or download one from our homepage (<http://www.kathrein-ds.com>).

## ADDRESS OF THE SERVICE CENTRE

### Technical Support for Retailers

Eiselauer Weg 13  
89081 Ulm

Telefon: +49 731 270 909 70  
E-mail: [support@kathrein-ds.com](mailto:support@kathrein-ds.com)

Opening hours:  
Mo.-Do. 08:00-17:00 Uhr | Fr. 08:00-16:00 Uhr (MEZ)

### Service centre

CSS Caravan-Sat-Service GmbH  
Bahnhofstr. 110  
83224 Grassau

Telefon: +49 8641 699 84 27  
E-Mail: [service@css-grassau.de](mailto:service@css-grassau.de)

### Service partner

You can find more service partner under:  
<https://www.kathrein-ds.com/support/servicestellen/>

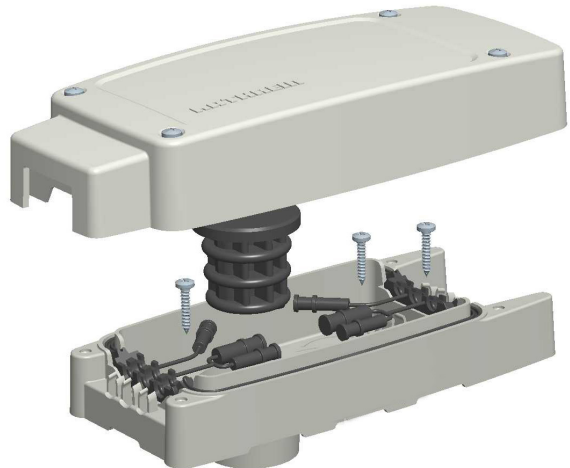
## HDZ 100 COMPONENTS/SCOPE OF SUPPLY

- Protective casing for cable interfaces on the caravan roof for Kathrein rotary antenna systems type CAP series
- Capable of accepting up to two RF cables (Ø 5 mm) and one DC cable (Ø 6.5-7 mm)
- The cables can optionally be fed downwards from the HDZ 100 casing into the vehicle interior or out from the casing to other points on the vehicle roof
- Functionally appropriate sealing of the roof opening after disconnecting the cable connections when removing the CAP turntable
- Easy access to the cable interfaces combined with correct arrangement on the vehicle roof



## HDZ 100 SCOPE OF SUPPLY

- Cover with two gaskets and four captive screws
- Sealing plug
- Bottom half of the casing with gasket and six plugs
- Three fastening screws



## PROPER USE

### PROPER USE (USE FOR THE INTENDED PURPOSE)

The HDZ 100 roof gland protects the cable connection point and the roof gland point when laying cables from CAP systems on the caravan or mobile home roof.

The gland seatings are designed for two cables ( $\varnothing$  5 mm) and one cable ( $\varnothing$  6.5-7 mm).

**Any use other than that specified above will void the warranty or guarantee.**

**The following circumstances result in the loss of all warranty and liability claims towards the manufacturer:**

- Improper installation
- Missing or insufficient sealant under the protective casing
- Use of cables with diameters other than 2 x 5 mm and 1 x 6.5-7 mm
- Failure to observe installation and safety instructions in this manual

**The system may only be installed by qualified specialist personnel!**

To prevent hazards during installation, operation or when driving on public highways, the instructions and information in this manual must be strictly adhered to.

# SAFETY INSTRUCTIONS - IMPORTANT NOTES

## Safety during installation work



When carrying out installation work in locations where there is a risk of falling, take appropriate safety precautions, e.g. use of a working platform. Make sure that the vehicle roof is sufficiently strong and stable to carry out the installation work (risk of damage or collapsing of roof).

In case of doubt, contact a qualified specialist dealer or the manufacturer of your vehicle to find an appropriate installation location.

Make sure that:

- The turntable and connected units are disconnected from the power supply
- The person carrying out the installation or repair does not suffer from vertigo and can move around safely on the roof of the caravan or motor home
- The person carrying out the installation or repair is wearing sturdy and non-slip shoes
- The person carrying out the installation or repair has a secure position to stand and hold on while working
- The roof and the climbing equipment used (e.g. ladder) are dry, clean and non-slip
- The roof can withstand the weight of the person carrying out the repairs

**Attention! Risk of death or injury due to falling or the roof collapsing!**

- Nobody should be inside the caravan/motor home underneath the installation position during dismantling/installation

**Attention! Risk of death or injury due to possible roof collapsing and falling parts!**

## Proper installation and safety

### Essential information

The HDZ 100 should be fitted only in a horizontal position. The correct execution of the installation and the electrical connections are important for safety.

### Adhesive sealant

The HDZ 100 is attached to the roof of the vehicle by adhesive and is secured by additional screws.

Note that the curing of the adhesive sealant is temperature-dependent. It reaches its full strength only after approximately five days.



**During installation work, comply strictly with the processing and safety instructions for the adhesive sealant.**

### Plugs

Unused cable channels in the protective casing should in all cases be closed off using the attached plugs, since otherwise water will penetrate through these free openings.

### Cables

Lay all cables such that nobody can tread on them or trip over them.

When connecting the power cables (receiver and turntable) to the vehicle electrical supply, make sure that the cable polarity is not reversed.

## SAFETY INSTRUCTIONS - IMPORTANT NOTES

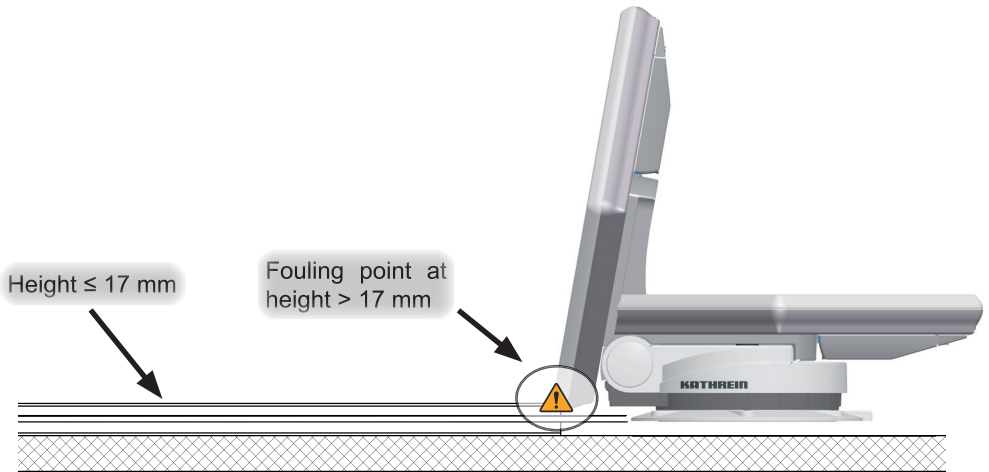


If the cable polarity is reversed there is a risk of thermal overload and damage to components when the equipment is powered up!

If cable ducts are used to protect the cables, up to a size of 31 x 17 mm they can be concealed in the recess in the casing hood.



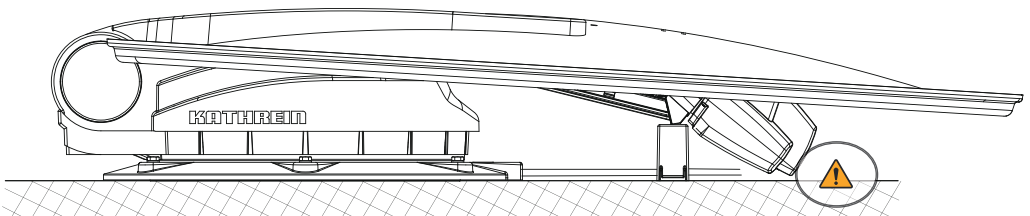
The height of 17 mm should not be exceeded for turntables carrying a planar antenna (CAP 650 GPS), since at the steepest elevation of 10° the planar antenna can foul the cable duct during rotation.



If the CAP 750 GPS cable trunking is laid as a direct continuation of the cable exit, the height of the cable trunking must not exceed 20 mm, otherwise the turntable will collide with the cable trunking during operation. The cable trunking may exceed 20 mm in height 50 mm after the cable exit.



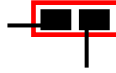
The cable channel of the CAP 850 GPS must not be laid in direct extension of the cable exit, because there is not enough space (< 7 mm) for a cable channel under the LNB of the CAP 850 GPS when it is closed.



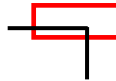
# INSTALLATION EXAMPLES

## BASIC VARIANTS

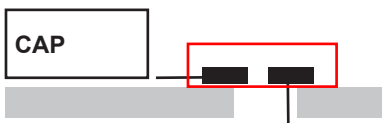
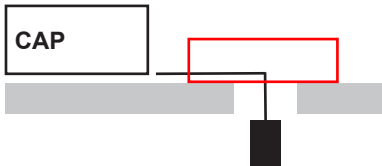
Roof gland with cable interface



Roof gland without cable interface



Cable continuation with cable interface



**Note:**

*For the CAP 650/750/850 GPS unit there are always three cables emerging from the turntable.*



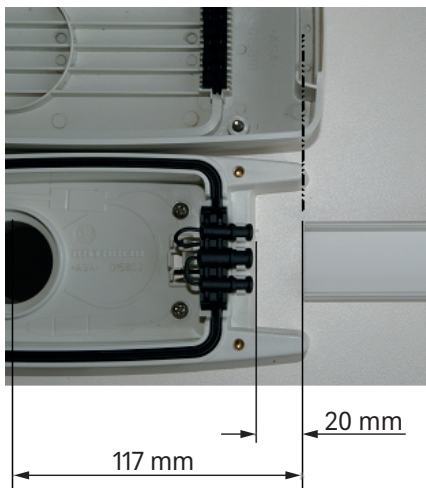
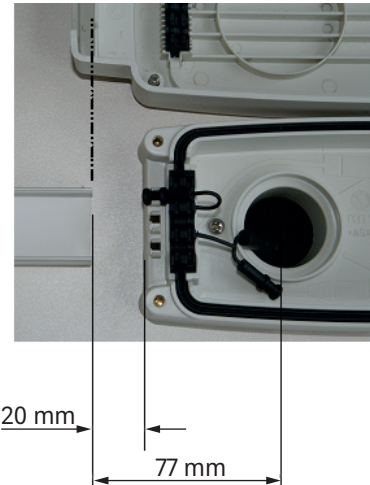
# INSTALLATION AND CONNECTION

## REQUIRED TOOLS AND EQUIPMENT

- Circular cutter, Ø 38 mm
- Cross-head screwdriver for M4 screws
- Power drill
- Twist drill Ø 2.5 mm
- Knife
- Round file or emery paper
- Adhesive sealant (e.g. DEKAsyl MSKraftkleber, not included in the CAP turntable scope of supply. Comply with the respective safety instructions for the sealant)
- If required for the type of installation selected: cable ducts (not included in the scope of supply)

## NECESSARY SPACINGS WHEN USING CABLE DUCTS

Distance of the cable duct from the casing bottom half for the “roof gland” variant



Distance of the second cable duct from the casing lower half for the “cable continuation” variant

# INSTALLATION AND CONNECTION

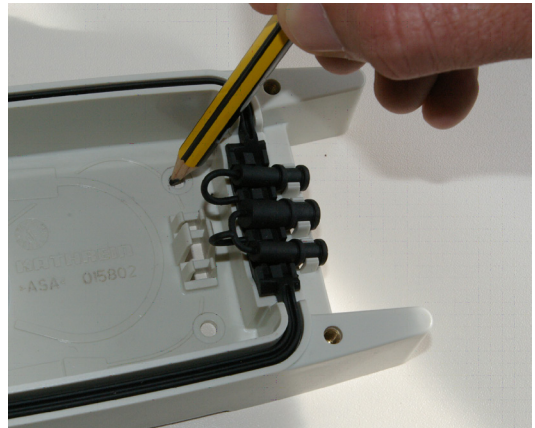
## INSTALLATION STEPS

### ROOF GLAND VARIANT

1. In the centre of the intended position of the cable outlet spigot, drill the opening for the cable gland with a circular cutter ( $\varnothing$  38 mm). Deburr the hole with a round file or emery paper (see illustration on the right).
2. Provisionally insert the casing lower half into the drilled hole.

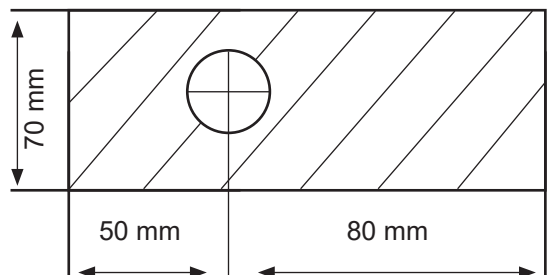


3. Mark out the positions of the three fastening holes on the vehicle roof (see illustration on the right).
4. At the marked positions, drill the three holes with a twist drill ( $\varnothing$  2.5 mm, 20 mm deep).



**Before starting to use adhesive sealant, be sure to read the products safety data sheet!**

The prerequisite for good adhesive characteristics is a clean, dry and grease-free substrate. You should therefore use a suitable cleaning agent to clean the area of roof surface covered by the casing lower half around the drilled hole, and then allow the surface to dry thoroughly.

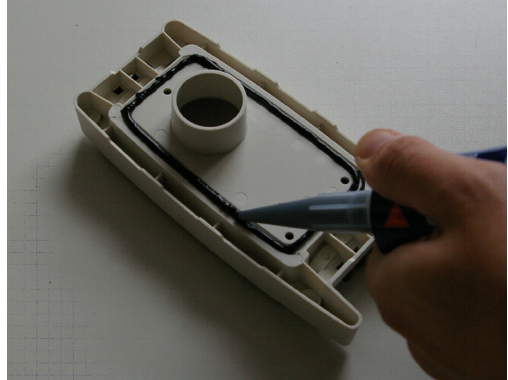


## INSTALLATION AND CONNECTION

If the surface is painted, ensure that the paint finish is sufficiently well bonded to the substrate. If the coat of paint is already loose or peeling, it must be removed down to a stable layer in the area to which the adhesive will bond. If you have any doubts concerning the adhesive characteristics, consult a paint and lacquer specialist, or the manufacturer of your vehicle.

Under certain circumstances, it may be necessary for you to improve the adhesive properties of the roof surface by pre-treatment with a cleaning agent available from specialist dealers or a primer

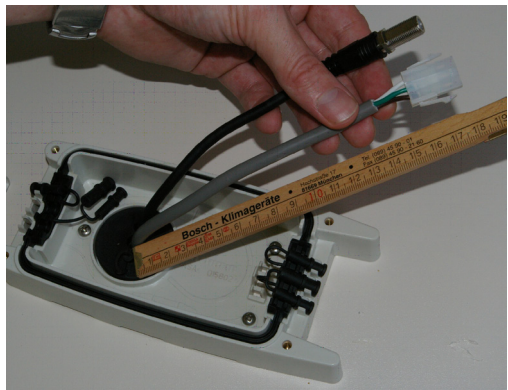
5. Ensure before starting adhesive work that the temperature of materials to be glued and the adhesive sealant is between +5 °C and +40 °C. Prepare all necessary fastening elements and tools.
6. Prepare the tube of adhesive sealant in accordance with the instructions enclosed with the tube.
7. Apply the sealant all round and evenly in the channel provided on the underside of the casing (see illustration on the right).



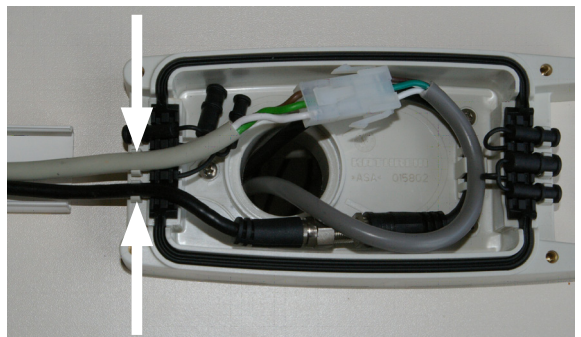
**Avoid skin contact under all circumstances!**

Note also that the sealing contour must be continuous and complete!

8. Now screw the casing lower half into place, using the three self-tapping screws provided.
9. Allow the cable ends to project approx. 180 mm from the interior of the vehicle and secure them with plugs (see illustration on the right).



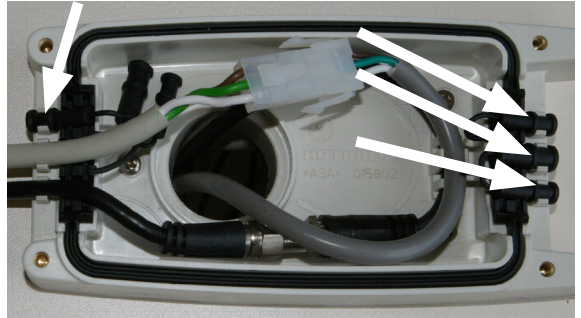
10. Now connect the cables and clip them on the cable attachment points provided (see illustration on the right).



## INSTALLATION AND CONNECTION

11. Use the plugs supplied to seal the cable attachment points that are now not required (see illustration on the right).

**Do not cut away any plugs that are not required, you will need them if you ever wish to remove the turntable system.**



12. Now place the cover on the casing lower half and screw the two halves together using the four screws pre-inserted in the cover (tightening torque:  $M_A = 1-1.5 \text{ Nm}$ ).

### CABLE CONTINUATION VARIANT

1. First cut the cylindrical spigot off the underside of the casing. There are two ways of doing this:

- use a sharp knife to cut through the wall between the base of the casing and the spigot (see illustration on the right) or



- use a hammer to knock out the spigot



## INSTALLATION AND CONNECTION

2. Continue as described in points 3. to 8. of the description for the “roof gland” variant.
9. Now open up the break-out in the end face of the cover for the cable outlet (see illustrations on the right).



10. Now connect the cables from the turntable on the cables from the interior of the vehicle, within the casing (see illustration on the right).



## INSTALLATION AND CONNECTION

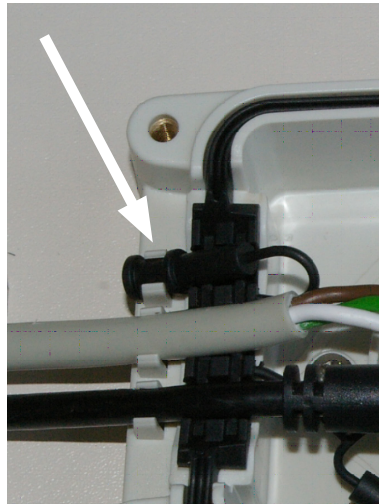
11. Insert the cable in the seal and push it into the cable clips in the casing (see illustration on the right).



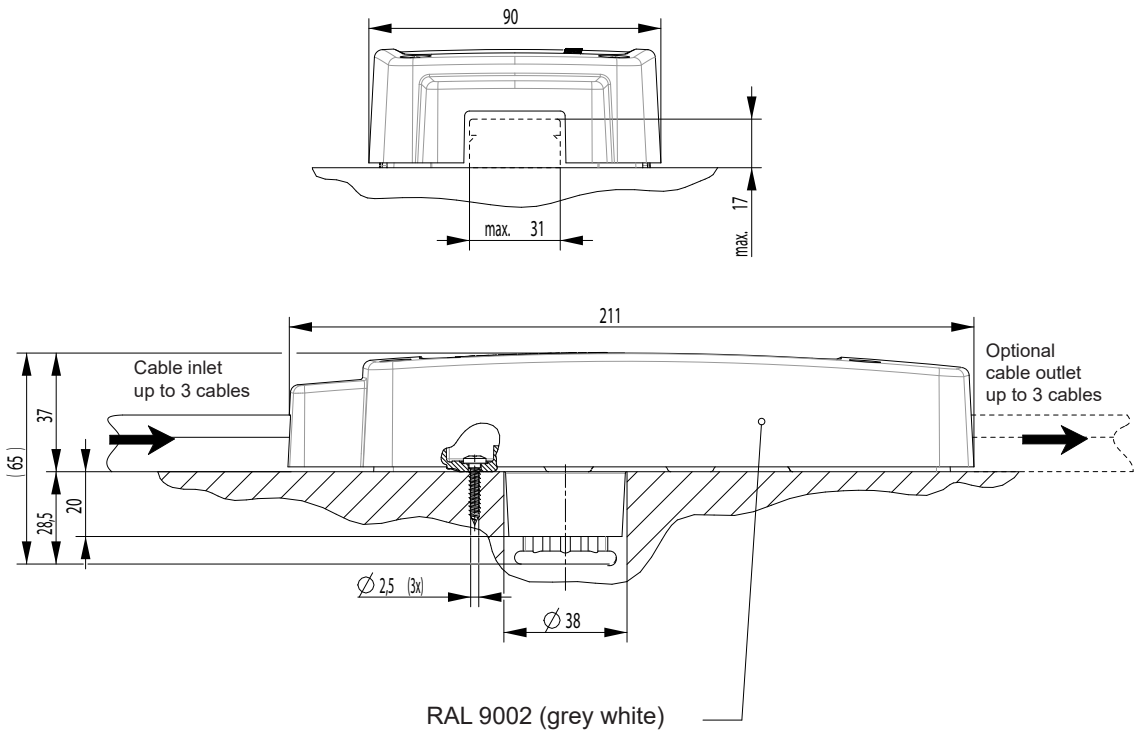
12. Use the plugs attached to seal the cable attachment points that are now not required (see illustration on the right).

**Do not cut away any plugs that are not required, you will need them if you ever wish to remove the turntable system.**

13. Now place the cover on the casing lower half and screw the two halves together using the four screws pre-inserted in the cover (tightening torque:  $M_A = 1-1.5 \text{ Nm}$ ).



## TECHNICAL DATA (in mm)



### Interfaces:

- Roof hole:  $\text{Ø } 38$
- Cable duct:  $W=31, H=17$
- Cables: 2x RF  $\text{Ø } 5$ ; 1xDC  $\text{max } \text{Ø } 6.5 - 7 \text{ max}$
- Core-drilled hole in the substrate: 3x  $\text{Ø } 2.5$  for self-tapping screws ST 3.5x19

Protection class according to EN 60529: IP55

### Packaging:

- Single pack dimensions:  $L=225; W=165; H=67$
- Outer package dimensions:  $L=358; W=233; H=181$  (contains 5 items)

Gross weight: 0.35 kg  
 Net weight: 0.25 kg } (single pack dimensions)

