

UHF TV antenna, suitable for DVB-T2

About this guide

This document is part of the product. These guide describe how to install and connect the AON 48 UHF TV antenna.

- ▶ Do not install or use the device until you have read and understood this document.
- ▶ Keep this document for reference throughout the service life of the device. Pass this document on to any new owner or user.

The current version of this document can be found at:

www.kathrein-ds.com

Features

- Outdoor antenna
- Suitable for DVB-T2
- Suitable for vertical and horizontal polarisation
- Easy assembly

Scope of supply

- UHF TV antenna AON 48
- F-type screw on connector for cables LCD 90/111 A+/115 A+/120 A+/130 A+, KEC 120 A+
- Weather protection sleeve
- Application note

Transport and storage

- ▶ If possible, transport and store the temperature control in its original packaging.
- ▶ Protect the antenna against moisture and mechanical damage.

Intended use

The AON 48 is a UHF TV Antenna. It is used for the reception of horizontally or vertically polarised terrestrial TV signals and is intended as a domestic or private antenna. Under the terms of DIN 4131, an antenna is reckoned a domestic or private antenna if the mast length does not exceed 6 metres and if the torque needed for screwing the antenna is at 1,650 Nm at maximum. Any other use, or failure to comply with these instructions or documentation and instructions enclosed with the devices, will result in voiding of warranty or guarantee. The following circumstances result in the loss of all warranty and liability claims towards the manufacturer:

- ▶ Improper installation
- ▶ Use of non-specified mounting materials, which cannot guarantee the mechanical reliability of the antenna system
- ▶ Structural changes or interference with the components and mounting accessories in the kit, which could endanger both the mechanical and functional reliability
- ▶ Failure to observe installation and safety instructions in these instructions

Safety instructions



ATTENTION! DANGER TO LIFE!

Do never mount an antenna under power supply lines! Touching power supply lines with parts of your body, with antenna parts or tools may cause an electrical shock or serious burns.
Ground the antenna installation according to DIN EN 60728-11!



(horizontal installation)



Please read the following safety instructions carefully and thoroughly before you start installing the antenna, and keep observing them during the installation.

The installation of the antenna demands a high degree of responsibility for yourself and other people. For this reason, the installation must be executed by an electrician (expert on his/her trade). In order to assist you, some important safety instructions have been compiled in the following. However, these instructions are not exhaustive, as we are not aware of the local conditions.

- ▶ Do not use the antenna for purposes other than intended by the manufacturer.
- ▶ Only use the components as prescribed by the manufacturer and do not modify them.
- ▶ When selecting the antenna site, you must consider the structural characteristics of the building. Installation on the edge of rooftops or buildings and on cylindrical structures could lead to increased wind loads and vibration stress according to DIN 1055, part 4, or DIN 4131.
Non-observance of these instructions may cause exceeding of the load limit or the vibration resistance.
- ▶ Do not install the antenna on buildings with easily inflammable materials as rooftop, such as straw, reed or similar materials.
- ▶ Ladders, scaffoldings, safety belts etc. must be in good ord.
- ▶ Passers-by must not be endangered by falling objects. Secure the work/danger area!
- ▶ Mind that the technical values (e.g. wind load) of the antenna mast are not exceeded. Refer to the manufacturer if you do not know these values. Find an overview of the our masts at „Suitable Kathrein masts“ on page 4.
- ▶ Mount the antenna mast on solid ground only (walls, concrete, rafters) using the clamps, dowels and screws recommended by the manufacturer.
- ▶ Immediately leave the roof in case of a thunderstorm!

Mast installation and mast calculation

- Make sure that the mast is in vertical position when mounting it
- Only use masts or standpipes specially designed for antenna installation. Other tubes mostly do not have the necessary stability to withstand heavy wind or other climatical situations. Kathrein-masts and clamps fulfil these requirements. Find an overview of the our masts at „Suitable Kathrein masts“ on page 4.
- The clamping range of the mast clamp of the AON 48 is from 22 to 65 mm
- If the mast is to be mounted on a roof, you have to clamp at least 1/6 of its length
- Mind that the mast holders (e.g. clamps) are mounted on solid ground (wood, concrete, walls)

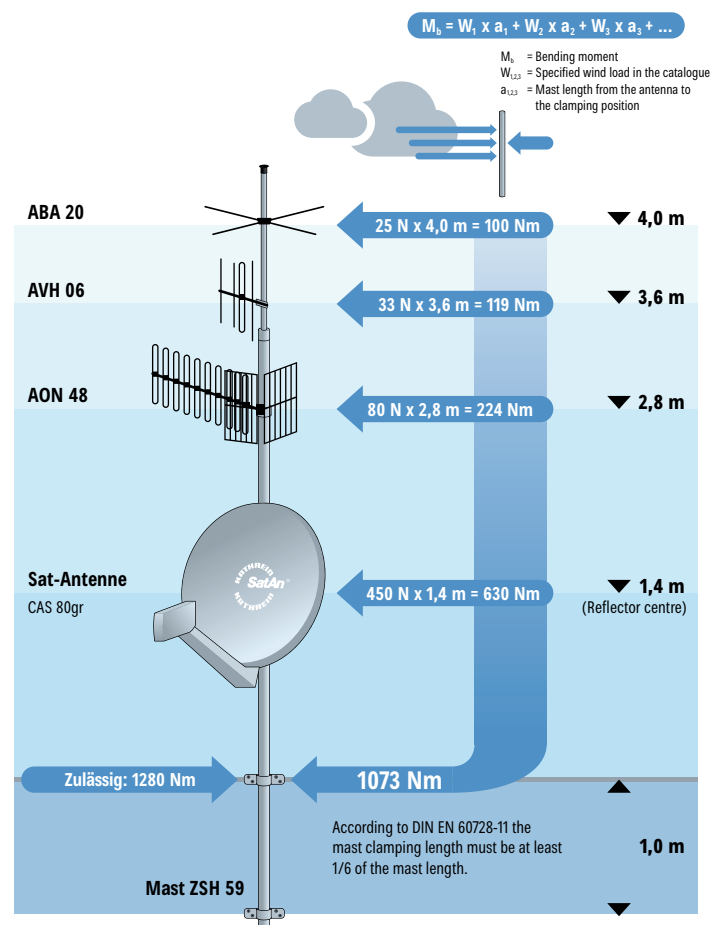


Never exceed the maximum load capacity of the mast or clamps when mounting several antennas on one mast.



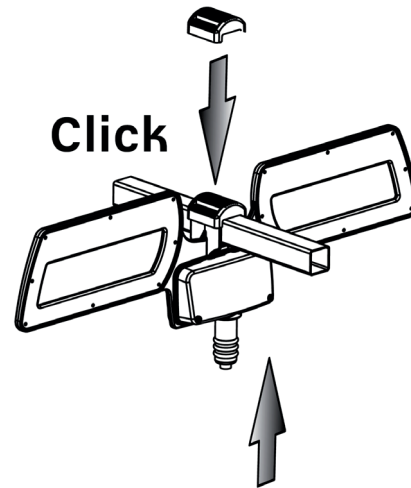
The bending moment acts over all antennas on the mast at the upper clamping point. The wind load of the mast must be included.

The total bending moment must not exceed the maximum permissible bending moment of the mast and must not be greater than 1650 Nm. If the bending moment is higher, a structural engineer must provide static proof of the force transmission into the structure.

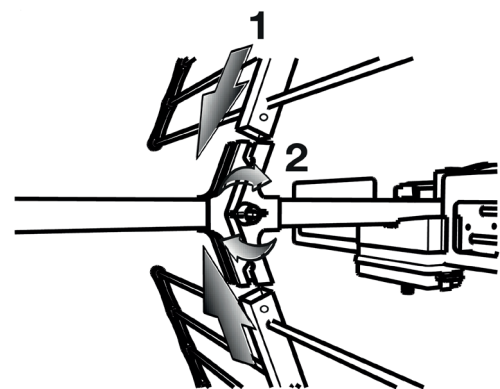


Antenna installation

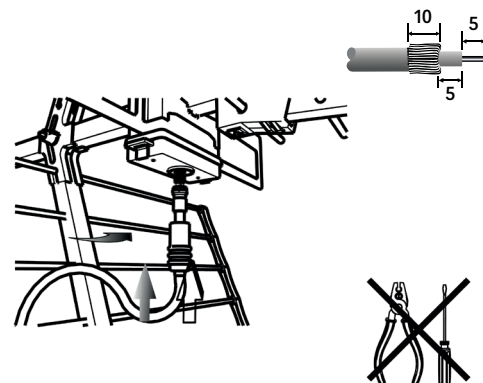
1. Mounting the dipole:
 - Remove the clip
 - Fit the lower part onto the centre tube so that the locking pin snaps into the hole in the tube
 - Reattach the clip from above
2. Mounting the mast bracket:
 - Take off the cap from the square tube
 - Slide on the mast bracket. The diagram and the picture on the 1st page show the antenna receiving horizontally polarised signals. To receive vertically polarised signals, rotate the mast bracket by 90°.
 - Put the cap back on



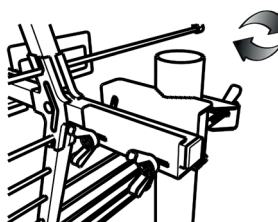
3. Inserting the reflectors:
 - Slightly loosen the wing nut
 - Insert the reflectors into the openings until they click into place
 - Tighten the wing nut



4. Connection of the cable:
 - Slide the weatherproof sleeve onto the cable
 - Strip the cable and twist the F-connector onto the cable
 - Screw the F-connector to the antenna
 - Slide the weatherproof sleeve over the F-connector



5. Attaching the antenna to the mast:
 - Mount the bracket on the mast and align the antenna
 - Tighten the wing nuts



ATTENTION:
Check that all nuts are firmly tightened.



The antenna can be used to receive horizontally or vertically polarised TV signals. Observe the correct mounting of the mast clamp in each case.

Suitable Kathrein masts

The following masts can be used in conjunction with the AON 48:

Flat roof antenna mount:

- ZAS 140

Mast tubes:

- ZAS 05
- ZAS 06

Plug-in masts:

- ZSA 21
- ZSA 46

Booms:

- ZTA 11
- ZTA 12

Extending masts:

- ZSD 48
- ZSF 47
- ZSF 48
- ZSH 47
- ZSH 48
- ZSH 59
- ZSH 61

Rafter brackets:

- ZAS 40
- ZAS 41

Please find further informations and the technical data from the masts on <https://www.kathrein-ds.com>.

Repair and Replacement

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Technical Data

Type Order No.		AON 48 207500003
Channels		21–48
Gain	dB	9,5–13,5
Elements		6
Reception range	MHz	470–694
Half power beam width	Horiz.°	50–30
Front-to-back ratio	dB	26
Mast clamp range	mm Ø	22–65
Length	mm	595
Wind load horizontal/vertical	N	60/80 (at 130 km/h wind speed)
Packaging unit/weight	pc./kg	1/1,37
Single pack dimensions	mm	625 x 420 x 105

Disposal



Electronic Equipment

Electronic equipment is not domestic waste – in accordance with directive 2012/19/EC OF THE EUROPEAN PARLIAMENT AND THE COUNCIL dated 04th July 2012 concerning used electrical and electronic appliances, it must be disposed of properly. At the end of its service life, take this unit to a designated public collection point for disposal.