

4-Port Dual-Beam Antenna

Frequency Range

Dual Polarization

HPBW

Adjust. Electr. DT

Azimuth Beam Direction

Optimized Horizontal Sidelobes

Downtilt set by hand or by optional RCU (Remote Control Unit)

4-Port Dual-Beam Antenna 1710–2200/1710–2200 45°(–30°)/45°(+30°) 19.5/19.5dBi
0°–10°/0°–10°T

B1

B2

1710–2200

1710–2200

X

X

45°

45°

0°–10°

0°–10°

(–30°)

(+30°)

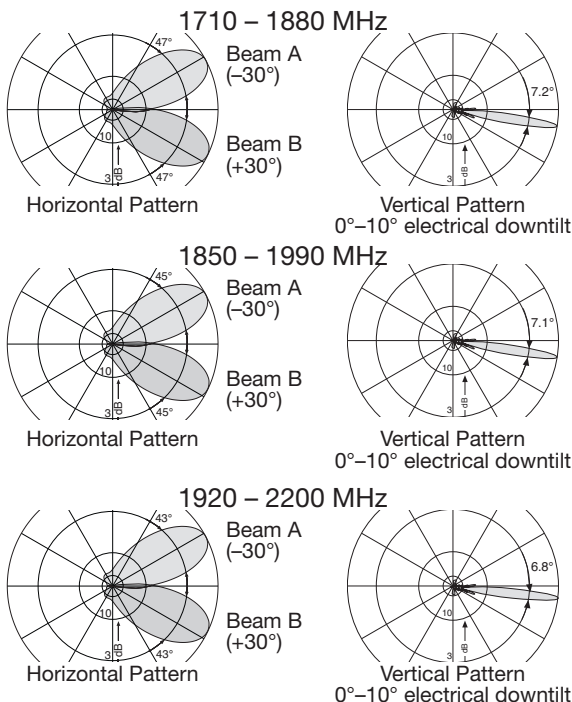
18dB

18dB

KATHREIN



Type No.		80010606v01		
		B1; B2		
		1710–2200		
Frequency range	MHz	1710 – 1880	1850 – 1990	1920 – 2200
Azimuth direction		Beam A (–30°), Beam B (+30°)		
Polarization	°	+45, –45°	+45, –45°	+45, –45°
Gain at mid tilt	dBi	19.0	19.2	19.4
Gain over all tilts	dBi	18.9 ± 0.4	19.1 ± 0.3	19.2 ± 0.6
Horizontal Pattern:				
Half-power beam width (offset beams ±30°)	°	47	45	43
Front-to-back ratio	dB	Copolar: > 30 Total power: > 25		
Cross polar ratio				
Maindirection –30°; +30°	dB	Typically: 18	Typically: 17	Typically: 16
Sector –60°; 0°; 0°; +60°		> 13	> 13	> 13
Sidelobe sppression for sidelobes beside main beam	dB	> 18		
Vertical Pattern:				
Half-power beam width	°	7.2	7.1	6.8
Electrical tilt	°	0–10, continuously adjustable		
Sidelobe suppression for first sidelobe above main beam	dB	> 18		
Impedance	Ω	50		
VSWR		< 1.5		
Isolation, between ports	dB	> 30		
Intermodulation IM3	dBc	< –150 (2 x 43 dBm carrier)		
Max. power per input	W	200 (at 50 °C ambient temperature)		
Max. power for the antenna	W	800 (at 50 °C ambient temperature)		



Mechanical specifications

Input		4 x 7-16 female		
Connector Position		bottom		
Adjustment Mechanism		2x, Position bottom continuously adjustable		
Wind load (at Rated Wind Speed: 150 km/h)	N lbf	Frontal	710	160
		Lateral	200	45
		Rearside	820	184
Max. Wind Velocity	km/h mph	200 124		
Height / Width / Depth	mm inches	1314 / 380 / 150 51.7 / 15.0 / 5.9		
Category of Mounting Hardware		M (Medium)		
Weight	kg lb	19.0 / 21.2 (clamps incl.) 41.9 / 46.7 (clamps incl.)		
Packing Size	mm inches	1696 / 402 / 172 66.8 / 15.8 / 6.8		
Scope of Supply		Panel and 2 units of clamps for 42–115 mm 1.7–4.5 inches diameter		

80010606v01 Page 1 of 3

Accessories General Information

KATHREIN

Accessories (order separately if required)

Type No.	Description	Remarks mm inches	Weight approx. kg lb	Units per antenna
731651	1 clamp	Mast diameter: 28 – 60 1.1 – 2.4	0.8 1.8	2
85010002	1 clamp	Mast diameter: 110 – 220 4.3 – 8.7	2.7 6.0	2
85010003	1 clamp	Mast diameter: 210 – 380 8.3 – 15.0	4.8 10.6	2

Accessories (included in the scope of supply)

738546	1 clamp	Mast diameter: 42 – 115 1.7 – 4.5	1.1 2.4	2
--------	---------	-------------------------------------	-----------	---

For wall mounting: Azimuth Adjustment Kit 85010016.

For 3 Panel Arrangement: 3 Sector Clamp Kit 742034.

Please note: The dual-beam antenna must not be used in combination with any downtilt kit.

Material:

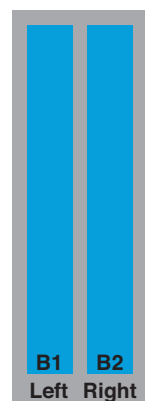
Reflector screen: Tin-plated copper. **Radiator:** Tin-plated zinc.

Fiberglass radome: The grey fiberglass radomes of these antennas are very stable and extraordinarily stiff. They are resistant to ultraviolet radiation and can also be painted to match their surroundings.

All screws and nuts: Stainless steel.

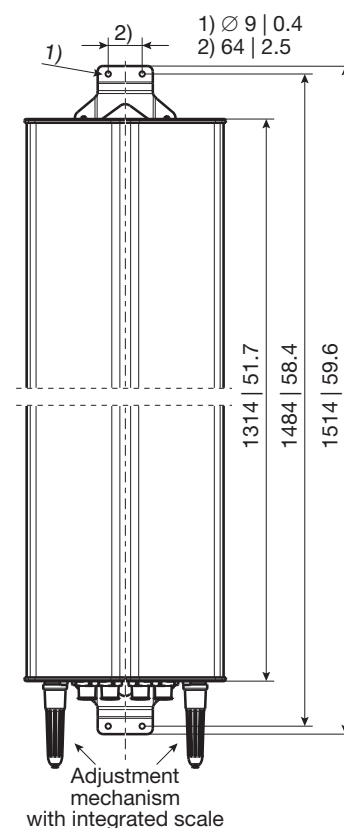
Grounding:

The metal parts of the antenna including the mounting kit and the inner conductors are DC grounded.



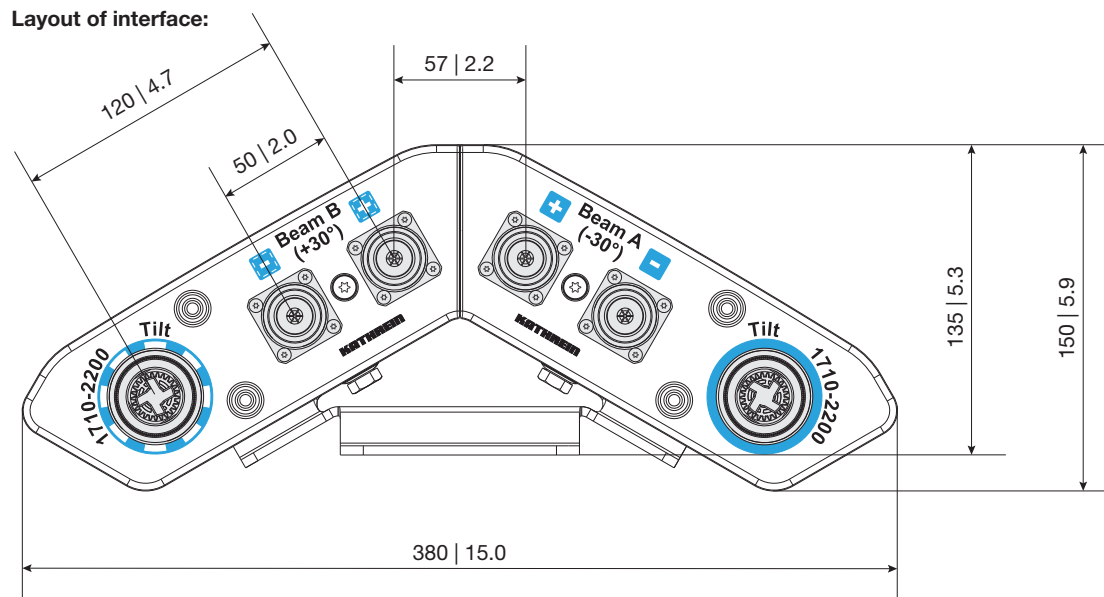
Correlation Table

Frequency range	Array	
1710–2200 MHz	B1	Beam B
1710–2200 MHz	B2	Beam A



All dimensions
in mm | inches

Layout of interface:



Bottom view

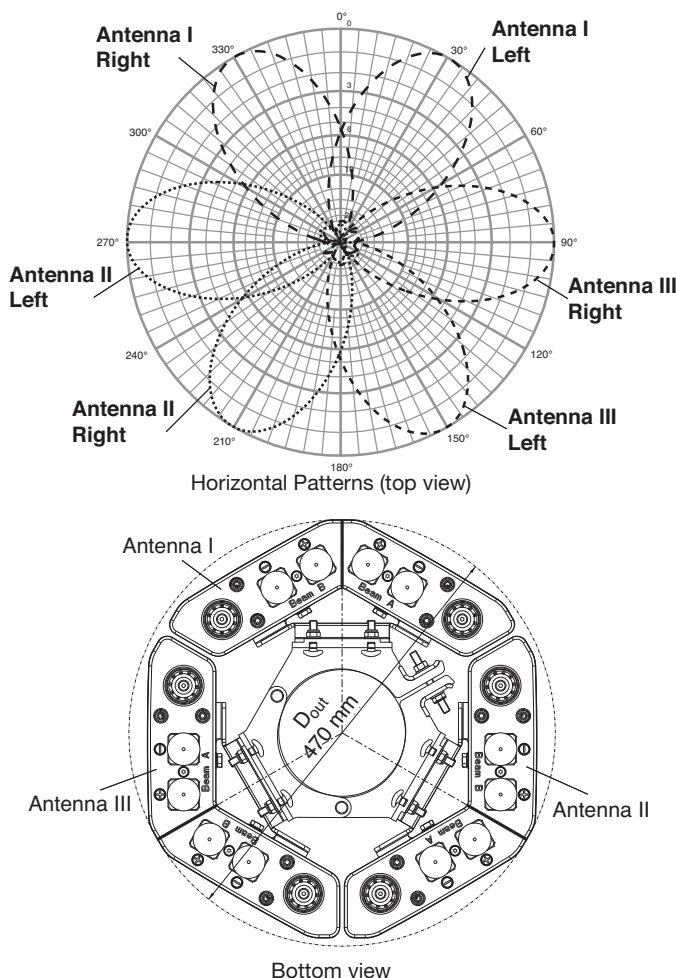
All dimensions in mm | inches

936.4885/a Subject to alteration.

Proposal for 6 Sector Deployment

KATHREIN

Example of 6 Sectors by using 3x 80010656 and 3 Sector Clamp Kit 742034



For the above 3 Panel Arrangement please use the 3 Sector Clamp Kit 742034 (order separately).

3 Panel Arrangement

Mechanical specifications				
Weight	kg	60		
	lb	132.3		
Wind load (at Rated Wind Speed: 150 km/h)	N lbf	Frontal	950	214
		Lateral	950	214
		Rearside	950	214
Max. Wind Velocity	km/h	200		
	mph	124		

936.4885/a Subject to alteration.

Any previous data sheet issues have now become invalid.

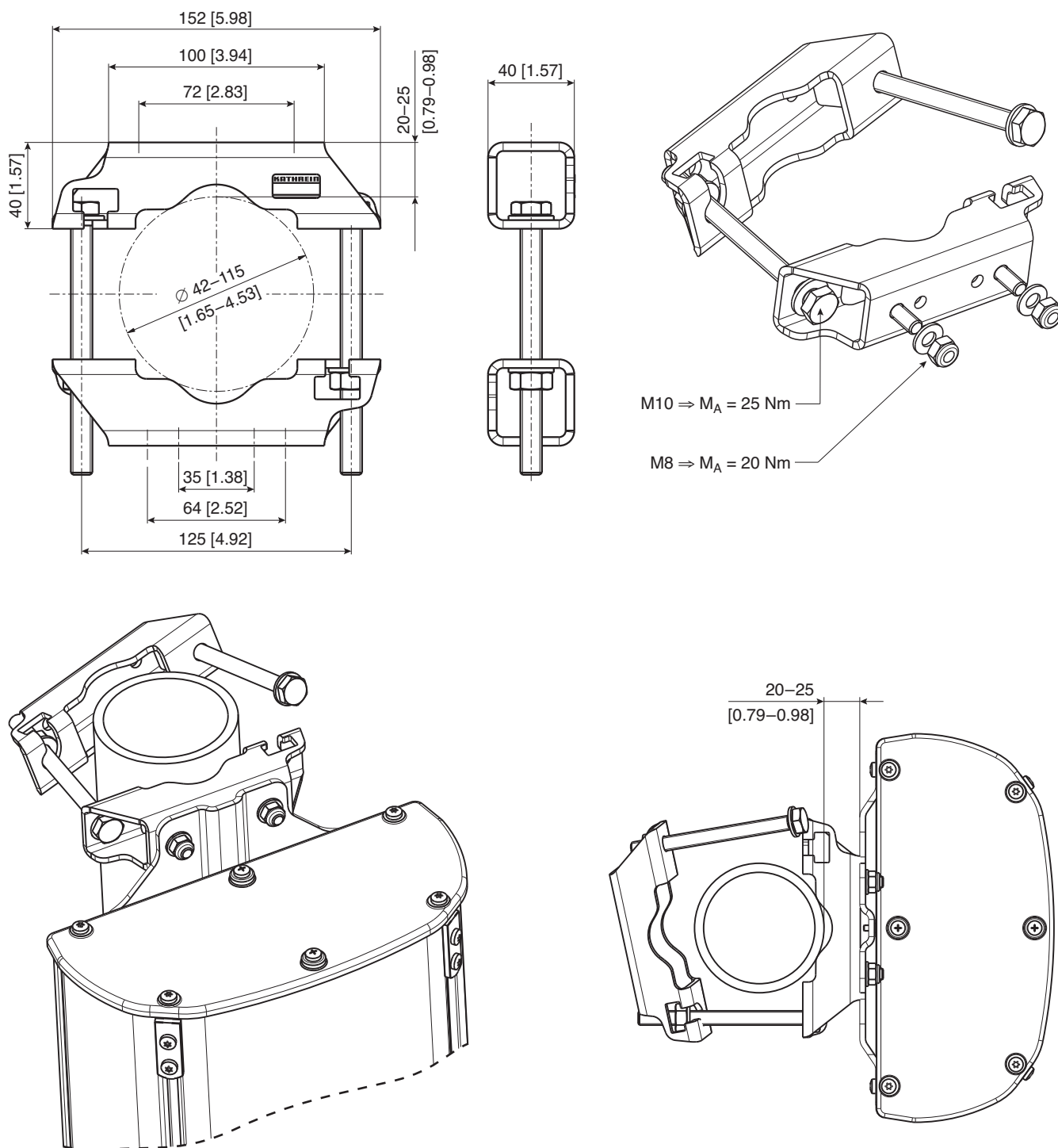
All specifications are subject to change without notice.
The latest specifications are available at www.kathreinusa.com

80010606v01 Page 3 of 3

Mounting Hardware Clamp Included in the Scope of Supply

KATHREIN

Suitable for mast diameter	(mm) [inches]	42 – 115 [1.65 – 4.53]
Antenna – mast distance	(mm) [inches]	20 – 25 [0.79 – 0.98]
Material of clamp and screws		Hot-dip galvanized steel / stainless steel
Weight	(kg) [lb]	1.1 [2.43]



936.3920/c Subject to alteration.

**Please note: Kathrein does not recommend to use counter nuts.
The additional nuts supplied are only meant as spares.**

All dimensions in mm and [inches]

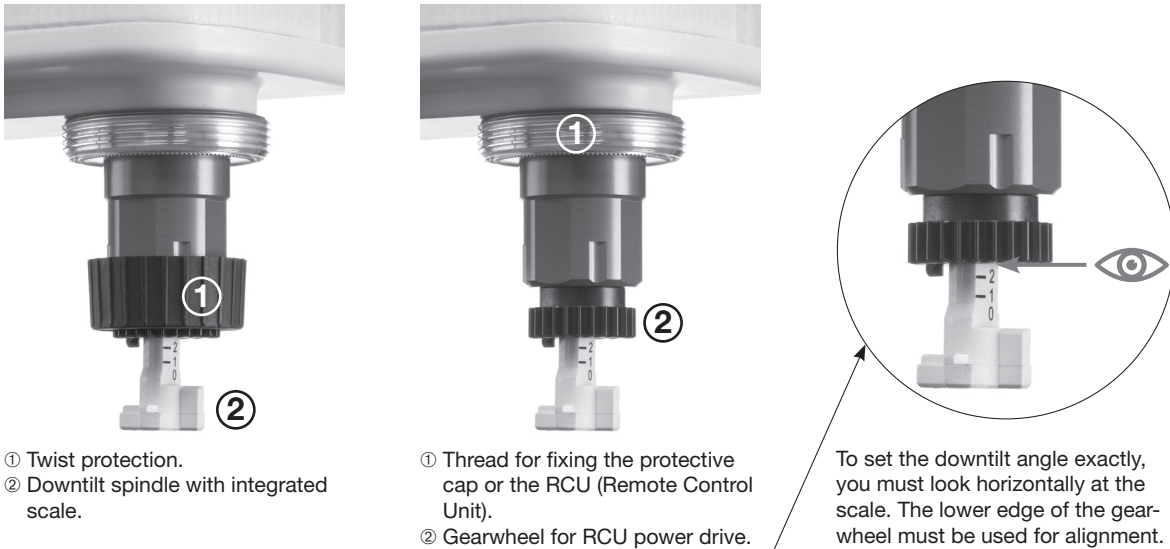
All specifications are subject to change without notice.
The latest specifications are available at www.kathreinusa.com

738546 Page 1 of 1

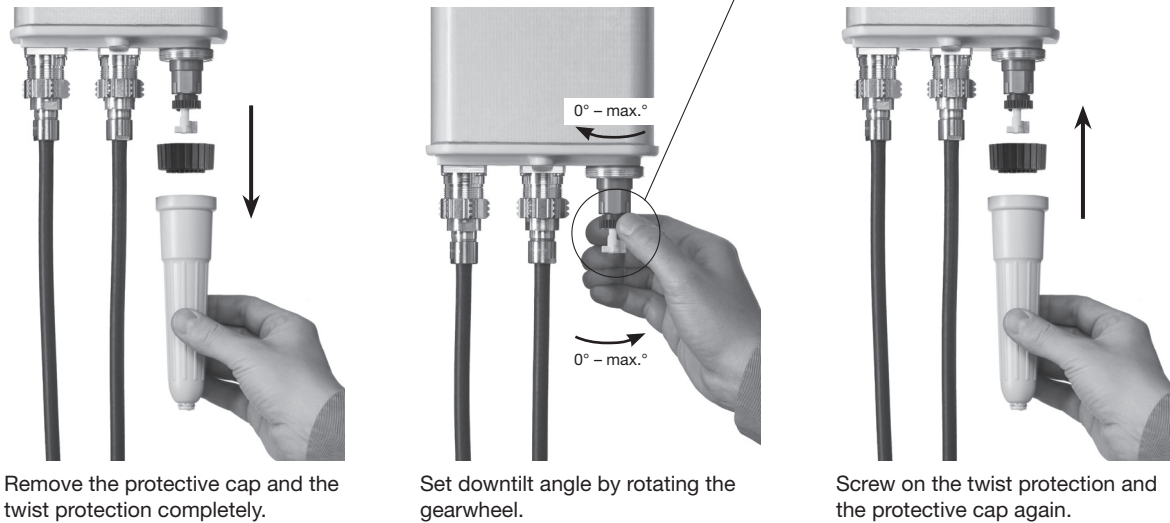
General Instructions for Adjustment Mechanism

KATHREIN

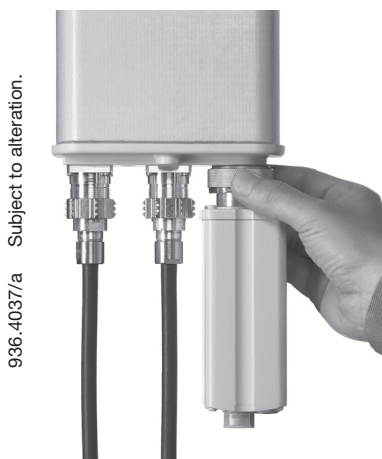
Description of the adjustment mechanism (protective cap removed):



Manual adjustment procedure:



Optional: RCU (Remote Control Unit) for remote-controlled downtilt adjustment:



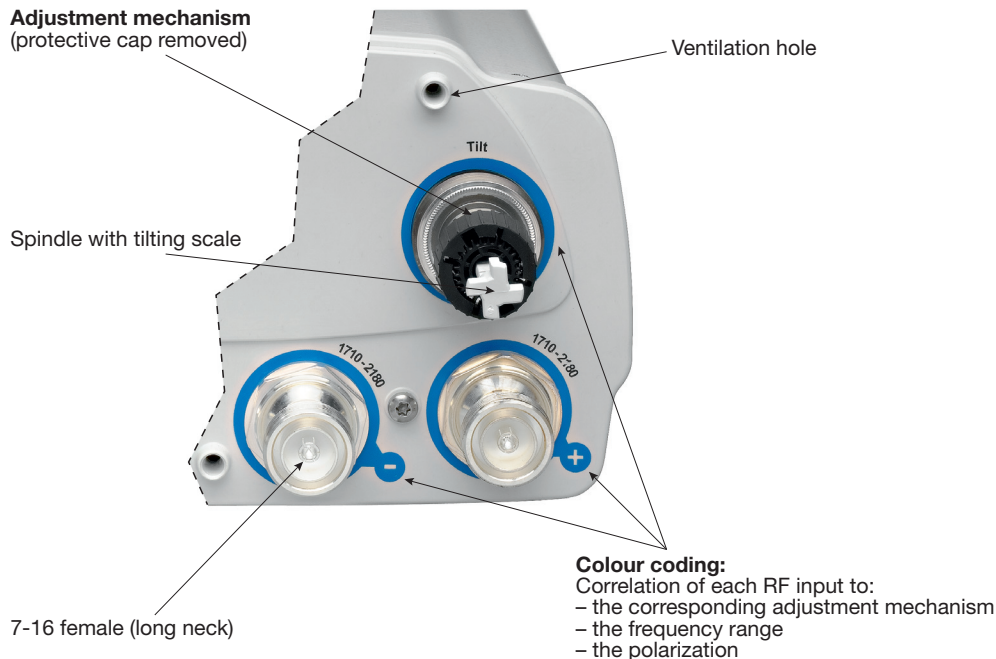
For a description of RCU installation please refer to the respective data sheet.

General Instructions for Feederline and RCU Installation for Antennas

KATHREIN

Please note: In order not to damage the interfaces, please make sure that only the right tools are used. Tighten the feederline connector interfaces solely by using a common torque-wrench with a suitable wrench width.

Description of bottom end cap (exemplary picture):



Installation of the feederline connector and RCU (optional):

In order to protect the adjustment mechanism, the protective caps have to be attached during feederline installation!



Carefully place the connector and fix the nut using a torque-wrench (according to the manufacturers guidelines).

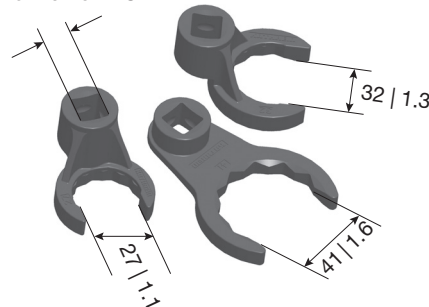


After feederline installation, the optional remote control units (RCUs) can be mounted.

Kathrein installation set: Type No. 85010077 Set has to be ordered separately!

Set consists of three spanners of divers width 27, 32 and 41 mm | 1.1, 1.3 and 1.6 inches

1/2" square actuation
according to
DIN 3120 Form C



All dimensions in mm | inches

These tools are suitable for 7-16 connectors with a wrench size of 27 or 32 mm | 1.1 or 1.3 inches, and the RCU attachment nut with a wrench size of 41 mm | 1.6 inches.

Tighten nuts within a torque range of 25 – 33 Nm depending on connector manufacturers' specifications, respectively the RCU nut with a torque range of 15 – 18 Nm.

936.4037/a Subject to alteration.