

# Central Control Unit (CCU) For Remote Electrical Tilt (RET) and Tower Mounted Amplifier (TMA) Control

For indoor use



## Central Control Unit

Type No.	860 10006	860 10026
Connectors <sup>1)</sup> to RCU	3 x 8 pin connector acc. to IEC 60130-9, female, acc. to AISG	
Power supply from BTS	DC: -48 V / max. 1.7 A AC: 100 ... 240 V / 50 ... 60 Hz / max. 1.6 A	DC: -48 V / max. 1.7 A
Power supply to RCU	3 x +29 V DC / max. 1.7 A (in total) 3 x +13 V DC / max. 3.8 A (in total)	
Total output power	Max. 50 W	
Interface to RCU and TMA	RS 485 / power supply	
Protocol to RCU and TMA	HDLC hex-coded command set, acc. to AISG	
Interface to BTS	Ethernet (10 Base-T) and RS 232	
Protocols to BTS	TCP/IP, PPP, HTTP/HTML, UDP, DHCP, FTP, SNMP, ICMP/PING	
Alarm interface to BTS	8 x open collector output, user programmable	
Max. number of RCU's and/or TMA's	Up to 27 RCU's in daisy chain and up to 6 DTMA's; depending on cable configuration and max. power	
Max. length of control cable	200 m (9 RCU's in daisy chain configuration)	
Temperature range	-25 °C ... +55 °C ambient temperature	
Packing size	597 mm x 367 mm x 148 mm	
Dimensions (h / w / d)	19" 1 HU* (43.6 mm / 483 mm / 250 mm)	

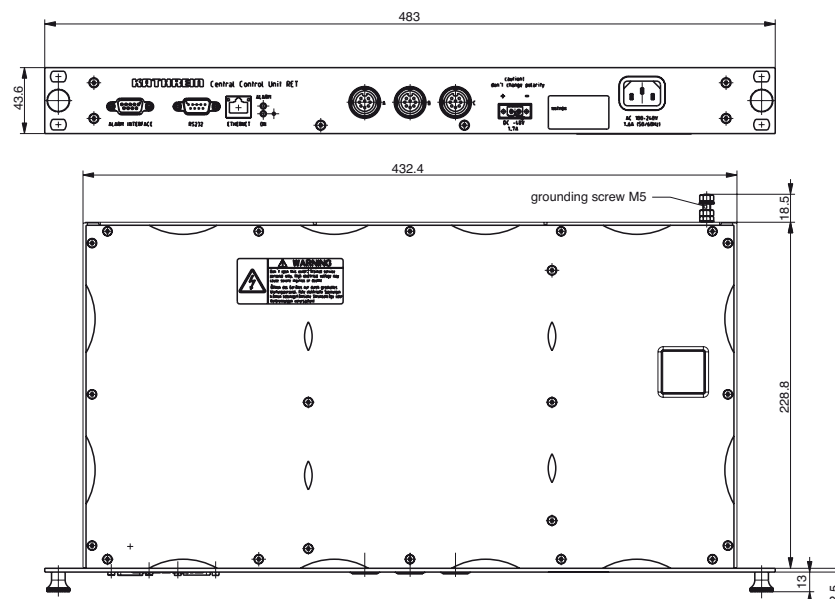
\* HU = Height Unit

<sup>1)</sup> The tightening torque for fixing the connector must be 0.5 – 1.0 Nm ('hand tightened').  
The connector should be tightened by hand only.

Standards: EN 60950-1  
EN 55022  
EN 55024  
UL 60950-1, 1<sup>st</sup> edition

Certifications: CE, FCC part 15 class B; UL

Scope of supply: CCU  
RET Manual  
DC Cable  
AC Power Cords for USA, UK and Germany  
Ethernet cable, crossed



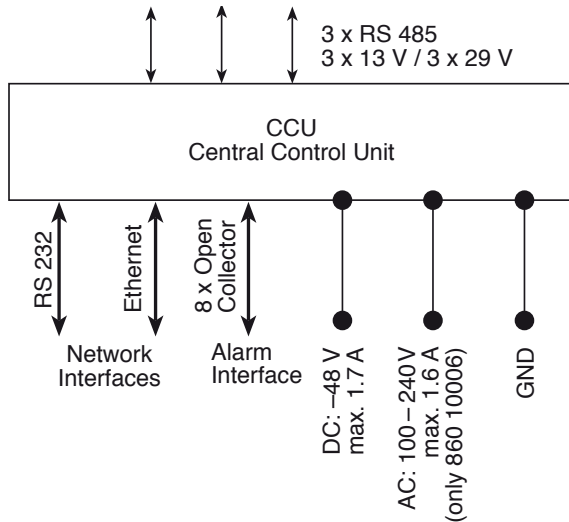
936.2310/f Subject to alteration.

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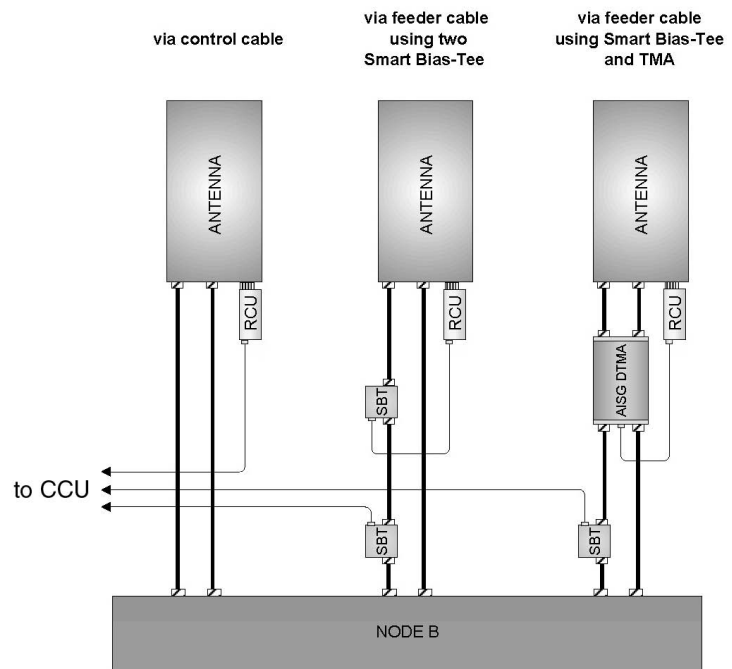
**Please note:**

In order to achieve lightning protection acc. to IEC 61643-1/-3 (10/350 $\mu$ s), please install the Kathrein Lightning Protection Device (type-no. 860 10030). For additional information about lightning protection of the CCU, we kindly refer to RET Installation Manual.

**CCU Interfaces**



**Examples of CCU – RCU connections**



**Kathrein’s comprehensive RET-system consists of the following components:**

- CCU (Central Control Unit)
- RCU (Remote Control Unit)
- PCA (Portable Control Adapter)
- AISG-DTMA (Tower Mounted Amplifier)
- Smart Bias Tee
- Control Cable
- DC Power and Signal Splitter
- Lightning Protection Device
- Earthing Clamp
- ASM (Antenna System Manager)

For detailed information about all RET system components and RET accessories, please kindly refer to the Kathrein catalogue:

**790 – 6000 MHz Base Station Antennas for Mobile Communications**

or visit the Kathrein web site:

**[www.kathrein.de/en/mca/index\\_ret-system.htm](http://www.kathrein.de/en/mca/index_ret-system.htm)**