



The **MHP 200** is a low-noise, large-signal-proof mast preamplifier with transmit / receive switching. It is intended for use in transmitting and receiving stations of medium and high power.

Based on the LNA 200, the MHP 200 has two HF power relays with connections in N standard. The input of the preamplifier is protected with two amplitude limiters. The input and output circuitry is dimensioned so that both connections have an exact 50 ohm impedance with very low imaginary components. This does not change the parameters of the connected antenna system.

**Attention:** The amplifier must only be switched over **without** transmitting power! For this reason, the MHP 200 must only be operated with a sequence control (e.g. Sequencer DCW 2004 B). Transmission operation without such a sequence control causes damage to the device! With WSJT-X under Settings → Advanced set the TX delay to 0.5 sec!

### Technical Data

Frequency range:	144-146 MHz
Noise figure, typ.:	< 0.6 dB
Amplification, typ.:	20 dB
Admissible power:	2000 W PEP
add. decoupling:	1000 W
Insertion loss:	0.04 dB
Operation voltage:	13,8V-15,0V
Current consumption, typ.:	500 mA
Connection standard:	N – connector female
DC input:	UHF – connector female
Mast diameter	max. 58 mm

### Connection instructions

The amplifiers of the MHP series are attached directly to the antenna mast, near the antenna system, using the clips supplied. The connection sockets must point downwards, otherwise rainwater can penetrate the device.

The antenna input ("ANT" connector) of the amplifier should be connected to the antenna system via a short, low-attenuation

coaxial cable, e.g. Ecoflex 10 or Ecoflex 15: Please use single or multiple  $\lambda / 2$  lengths. The output of the amplifier (connector "TRX") is connected to the output of the transceiver or power amplifier.

### Important

Please take into account the velocity factor in the calculation of cable lengths and use identical cable types if possible. We recommend Ecoflex 10, Aircom Premium or Ecoflex 15. The supply of the operating voltage takes place in this model externally, via the UHF connector (SO-239) terminal, which is located in the middle between the N-connectors.

### Attention

Please use shielded cables due to reasons of the EMC, for example Aircell 7. The inner conductor is connected to the positive (+) pole, the shielding to the minus pole (-). To ensure safe switching operation at least 460mA at 12V are required.

### Notes on environmental protection



Electrical and electronic devices may not be disposed of with household waste. This must be handed in separately at collecting points, or returned to the point of sale. Packaging materials must be separated and disposed of through the municipal waste by material type.

### Maintenance

Do not open the unit. It does not contain any parts needing maintenance. If you need help regarding technical matters, please contact [support@ssb-electronic.com](mailto:support@ssb-electronic.com). For a lowest possible noise figure of the complete system, set preamp to maximum gain.

### Safety, Warranty

Not suitable for children! The packaging material and the device may contain small parts which may be swallowed. Repairs may only be performed by qualified personnel. Opening the device, or improper use will void any warranty claims. No guarantee will be given. The device applies to the Low Voltage Directive 2006/95/EG, as well as to 2004/108/EG, 2002/96/EG, 1999/44/EG.

### Declaration of Conformity



The CE mark is a free trade mark. It does not guarantee any product features. The product does apply all relevant regulations within the scope of 94/62/EG.

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