

# Users Manual



## MHP 200 / Item.No.: 1062-NF



The **MHP 200** is an extremely low-noise mast preamplifier, suited for transmission powers up into the kilowatt range.

Based on the LNA 200, the MHP 200 offers two additional coaxial power relays with N-connections. The LNA and the coaxial relays are supplied via a separate DC input. By using an electronic protection circuit was an additional decoupling of the output of the Preamplifier to transmit branch improved by 60 dB. The Input of the preamplifier is protected with two Amplitude limiters.

### Attention!:

Please note that the device is not designed for the switching of RF loads. Before switching ensure that here is no RF power! **The MHP 200 must be used with a sequence-controller. Transmissionmode without a sequence-controller will damage the unit!**

### Connection instructions

The amplifiers of the MHP series can be mounted with the included clamps directly on the antenna mast near the antenna system. The connection sockets must be directed downwards, otherwise rain-water can penetrate.

### Technical Data

Frequency range:	144-146 MHz
Noise figure, typ.:	0.3 dB
Amplification, typ.:	24 dB
Admissible power:	2000 W PEP
add. decoupling:	60 dB
Insertion loss:	0.04 dB
Operation voltage:	13,8V – 15,0V
Current consumption, typ.:	500 mA
Connection standard:	N – connector
DC input:	female UHF - connector
Mast diameter	max. 58 mm

The antenna input (connector „ANT“) of the preamplifier should be connected with the antenna system via a short, low attenuation e coaxial cable like 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 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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