

SP 70 / Item no.: 1037-NF



Product description SP 70

The SP 70 is a selective receive preamplifier for the 70 cm amateur radio band with transmit / receive switching. It offers adjustable gain, low noise and good large-signal response. Adding cable and plug losses to the noise figure of the transceiver will surprise you with how fast 8 dB or more of the total system noise can be achieved. The use of this preamplifier makes this calculation unnecessary. The overall noise level of the receiving system is abruptly reduced to about 1 dB when using this preamplifier. An improvement that can be clearly perceived. It is important that it can be turned off even when receiving, if it comes to overdriving the receiver with very strong input signals. At low transmission powers of up to 50 W, the transmission / reception switching can take place with permanent power supply to the amplifier by means of a built-in, fast-reacting HF VOX circuit. The operating voltage (13.8 V) can be supplied directly via the DC socket or via remote power supply via the coaxial cable and the TRX socket. For larger transmission powers, the use of a sequencer for the correct control of the transmission / reception switching of the entire system is necessary. This amplifier is built with a GaAs MMIC of the latest technology on high quality microwave substrate in SMD technology. The band pass at the output of the amplifier ensures good band selection, so that all signals that lie outside the useful band are effectively suppressed. The amplifier has a UV-resistant plastic housing that protects against splashing water and galvanized mast clamps with stainless steel screws for attachment to the antenna mast.

Connection notes

The amplifier is installed in the vicinity of the antenna system with the sockets pointing downwards by means of the supplied mast clamps on the antenna mast. The ANT jack is connected to the antenna by a short low attenuation coaxial cable. The TRX socket is connected via a coaxial cable to the antenna socket of the transceiver, which outputs a LNA remote power supply. For transceivers that do not have an LNA power supply, a remote DC feed for the remote supply of the amplifier can be used. In this case, the amplifier is connected via the DC switch, e.g. DCC 5000pro permanently supplied with 13.8 V voltage and the transmit / receive switching takes place with the aid of the HF VOX circuit of the preamplifier when the transmission signal is output from the transceiver. In the case of a direct supply via the UHF socket, a shielded supply line must be used to prevent the transmission of the transmission signal into the

station power supply and further into the transceiver. At high transmission powers in installations with a power amplifier, the transceiver must be switched with a sequencer e.g. DCW 2004 B be realized. It is not to degrade the bulk signal strength of the receiver

It is advisable to switch off the internal preamplifier of the transceiver when using the mast preamplifier. If it can not be switched off, then the SP 70 gain can be continuously reduced by up to 10 dB if necessary. The adjusting screw for this is located under the plastic hood in a hole in the tinplate housing of the preamplifier.

Technical data:

Frequency range:	430-440 MHz
Noise figure, typ.:	0,7 dB
Gain, variable:	12-22 dB
Switching power:	HF-VOX 50 W
Transferable power when using sequencers:	500 W PEP 250 W / FM
Insertion loss:	0,15 dB
Connection standard:	N-Female
DC input local:	UHF-Female
Remote feed:	N-Female
Operating voltage:	12V-14V
Current consumption typ.:	320 mA
Mast diameter:	max. 58 mm
Switching time (TX->RX):	0,50 sec.
Switching time (RX->TX):	0,02 sec.

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. 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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