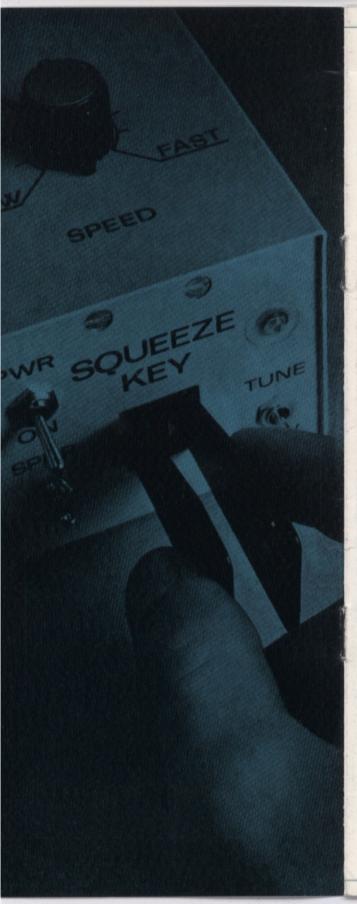
squeeze key type msk 5



electronic design

Printed in Denmark by Bohm Offset / 59211 / Layout: Ole Herlow



Specifications

Electronic morse key using integrated circuits and silicon transistors throughout.

Self completing dots and dashes.

Single dot memory and injection system.

Double lever key with silver contacts.

Speed range: approx. 50-250 letters per minute.

Perfect character formation regardless of speed.

No adjustments.

Built-in monitor and loudspeaker.

Variable audio sidetone.

Connection for headphones.

High speed relay isolating transmitter from keyer.

SPDT relay contact for receiver disabling (break-in).

Mains- or battery operation: 110/220 V AC or 9 V DC.

Power consumption at battery operation: less than 1 Watt.

Electronically regulated power supply.

Dimensions: 70×70×152 mm.

Weight: approx. 850 g.

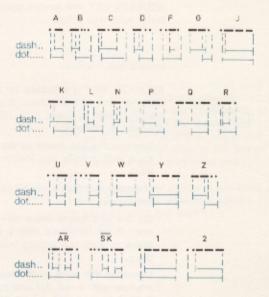
What is Squeeze Keying?

An important feature of the SQUEEZE KEY is its single dot memory and injection system which makes the keyer capable of forming any letter except X with only one closure of a double lever key. This method of characterformation – called squeeze keying – is most effective, since the entire character is created electronically thereby attaining almost machine perfection. The operator is responsible only for the spacing between letters and words.

The manipulator has two independent levers: one for dots, the other for dashes. Using thumb and forefinger, a squeezing movement is applied to the two levers to form each character. It takes only one squeeze per character — except for the letter X. The operator must only direct the keyer in the formation of the individual characters. This is done with a time difference in the closing and opening of the levers. (See table).

Getting used to squeeze keying.

Before trying to form characters you must be familiar with the basic action of the keyer. First turn the speed control to slow speed and hold the dot lever closed to produce a string of dots. Then, with the dot lever still closed, close the dash lever. You will find that the dash lever overrides the dot lever, causing the keyer to shift to dashes. This means that in sending any character starting with a dot, the dot lever need not be released until the end of the character.



Now try to squeeze the two levers together briefly at approximately the same time, but with the dot lever just leading. The result should be an A. A slightly longer squeeze of the same kind will give you a W. A still longer squeeze will produce a J, etc.

After having practised these characters for a while, proceed to other characters starting with a dot. Letter R is made with an A squeeze, but with the dot lever released a little late. Letter L is made in the same manner with the dot lever a little later still. Letter P is made with a W squeeze, but with the dot release a little late. Letter F is, formed like a U, but delaying the release of the dot lever a little.

Instruction Manual

SQUEEZE KEY represents the latest design in electronic morse-keyers. By means of a unique dot memory and injection system, integrated circuit technique and a special manipulator revolutionary features have been achieved: perfect formation of characters regardless of speed and easy effortless operation. If you are familiar with the ordinary vibroplex or electronic key, you will be surprised by its smooth performance.

SQUEEZE KEY will enable you to send faster with less effort.

Installation.

SQUEEZE KEY is adjusted for 220 V AC operation at the factory. If your mains voltage is lower (100–130 V AC) proceed as follows:

Remove the top cover of the speed knob with a knife and loosen the knob.

Unscrew the four screws holding the cover.

On the printboard there will be seen three terminals with a short piece of wire connecting two of them.

Unsolder this wire at the terminal marked with a red dot and solder it to that marked with a blue dot.

Replace the cabinet cover and the speed knob, making sure that the latter is in correct position.

Now apply mains voltage and turn the power switch on the front panel ON. With the speaker switch ON, adjust the speed control for a comfortable speed. The monitor signal from the loudspeaker may be adjusted by means of the tone knob on the rear side. Transmitter and headphones are connected to the keyer by means of the 5-pin plug and socket on the rear panel. All connections are clearly indicated.

With the switch TUNE/CW, the keying relay may be activated continuously for tuning-up of the transmitter. The loudspeaker may be disconnected by means of the SPKR-switch. Monitor signal for headphones is unaffected by this switch.

Battery Operation.

For battery operation a 9 V source should be connected through the 5-pin plug as indicated. Inversion of the battery polarity should be avoided. Voltage limits are 8-11 V. Current consumption will vary between 50 and 80 mA. The ON/OFF switch will also be operative when an external battery is used.

IMPORTANT.

RF radiation from the transmitter may in some cases affect the proper performance of the keyer. Grounding of the cabinet (through the 5-pin plug) will usually be sufficient to avoid this trouble. A simple RF-filter in the keying leads may be necessary in severe cases.

Although heavyduty contacts are used in the relay, make sure that sparks in the keyed circuit are kept to a minimum.

Keying Relay.

Two different models of the SQUEEZE KEY are available. Type MSK 5S has a standard high speed relay with heavy duty SPDT contacts. In order to obtain troublefree operation make sure that contact sparking is kept at a minimum. An RC- or LC-filter may be used and is adviseable with inductive loads.

The MSK 5R uses an almost noiseless reed-relay which also has a SPDT contact. Reed relays are – by nature – more sensitive to contact sparks as the contacts may weld together. With modern transmitters (or tranceivers), using some form of grid-keying, trouble is not likely to occur. In order to protect the contacts small resistors have been inserted in series (39Ω) .

