

### 1. Generally

Telephone sets 4 FP 121 44 are duplex communication equipment designed for using in system with local battery (LB).

Ringling the other party is realized by means of crank movement when the handset is replaced. When the ringing signal is heard, the called party lift the handset and the call can be realized.

### 2. Description of the construction.

LB telephone set with magneto generator is composed of plastic cup-shape base plate where following parts are fixed: magneto generator, an assembled PCB and electro-acoustic transducer. Volume of AC ringer can be adjusted using volume control wheel. It is also possible to adjust the tone of ringing signal (slewing a potentiometer TON.REG underneath the base plate) – it is useful when more telephones of the same type are on a table. Individual functional parts are connected by means of wires. Soft rubber feet underneath the base plate insure its stability.

Housing of telephone set interlocks dimensions of base plate. On the left side of the housing, there is a cradle for handset with a draw rod, which controls the lever of the hook switch.

Handset consists of two parts interlocked by screws and it is connected with PCB by means of plastic coated twisted cord.

### 3. Accessories

Telephone sets 4 FP 121 44 are supplied along with the socket outlets.

### 4. Basic characteristics and technical requirements

4.1 Lifetime of magneto generator shall be 200.000 revolutions at nominal speed 240 rpm and load 1.000  $\Omega$

4.2 Weight of telephone set: 1,42 kg.

### 5 Transmission characteristics and requirements.

5.1 Send Reference Equivalent (SRE):  $0 \div +6$  dB.

5.2 Receive Reference Equivalent (RRE):  $< 0$  dB.

5.3 Side Tone Reference Equivalent:  $> +2$  dB.

5.4 Speech impedance:  $1600 \Omega + 30\%$ .

## 6. Electrical characteristics and requirements.

- 6.1 Ringer sensitivity.** Sensitivity of an electro-acoustic signalisation is max. 60 mVA.
- 6.2 Ringer loudness.** It is measured at 50V/ 25Hz – min. 70 dB, volume control wheel in position MAX, distance of telephone set from measuring microphone – 0,5 m.
- 6.3 Ringer circuit impedance.** Min. 90 000  $\Omega$  at f=1 kHz.
- 6.4 Electric strength.** Electric strength of isolation between magneto generator outlets and basic plate shall be 500 V<sub>RMS</sub> for a period 1 min.
- 6.5 Insulation resistance.** Insulation resistance of live parts against basic plate shall be min. 20 M $\Omega$ .
- 6.6 Apparent power.** RMS value of ringing current measured at 240 rpm, load R=1000  $\Omega$ . Apparent power to be calculated by means of formula  $N=R \cdot I^2$ . /N  $\geq$  3,2 VA/ measured at the output of magneto generator.
- 6.7 Supply voltage.** 1,4 VDC (or 1,5 VDC). Recommended power supply: air depolarised dry cell, e.g. AS4 (producer: Bateria Slany, Czech Republic)

## 7. Climatic resistance of telephone set

Telephone sets are designed for continuous operation at temperatures in range +5°C ÷ +45°C, relative humidity 45% ÷ 80%.

## 8. Operational characteristics and requirements

- 8.1 Telephone sets are designed for using in system with local battery (LB).
- 8.2 Permanent operational temperature +5°C ÷ +45°C, relative humidity 45% ÷ 80% without acid or alkali vapours, dust and vibrations.
- 8.3 Limit operational temperature: -10°C ÷ +45°C.
- 8.4 If the magneto generator is used frequently, it is necessary to refill grease felting through appropriate hole at least once a year.
- 8.5 In limit operational temperatures, only functionality of telephone set (blowing through, magneto generator functionality) shall be tested.
- 8.6 If operational requirements are observed and handling is favour, operating life of telephone set is 15 years (excepting electro-acoustic transducers and cords).
- 8.7 Protection class of telephone set: IP 20.

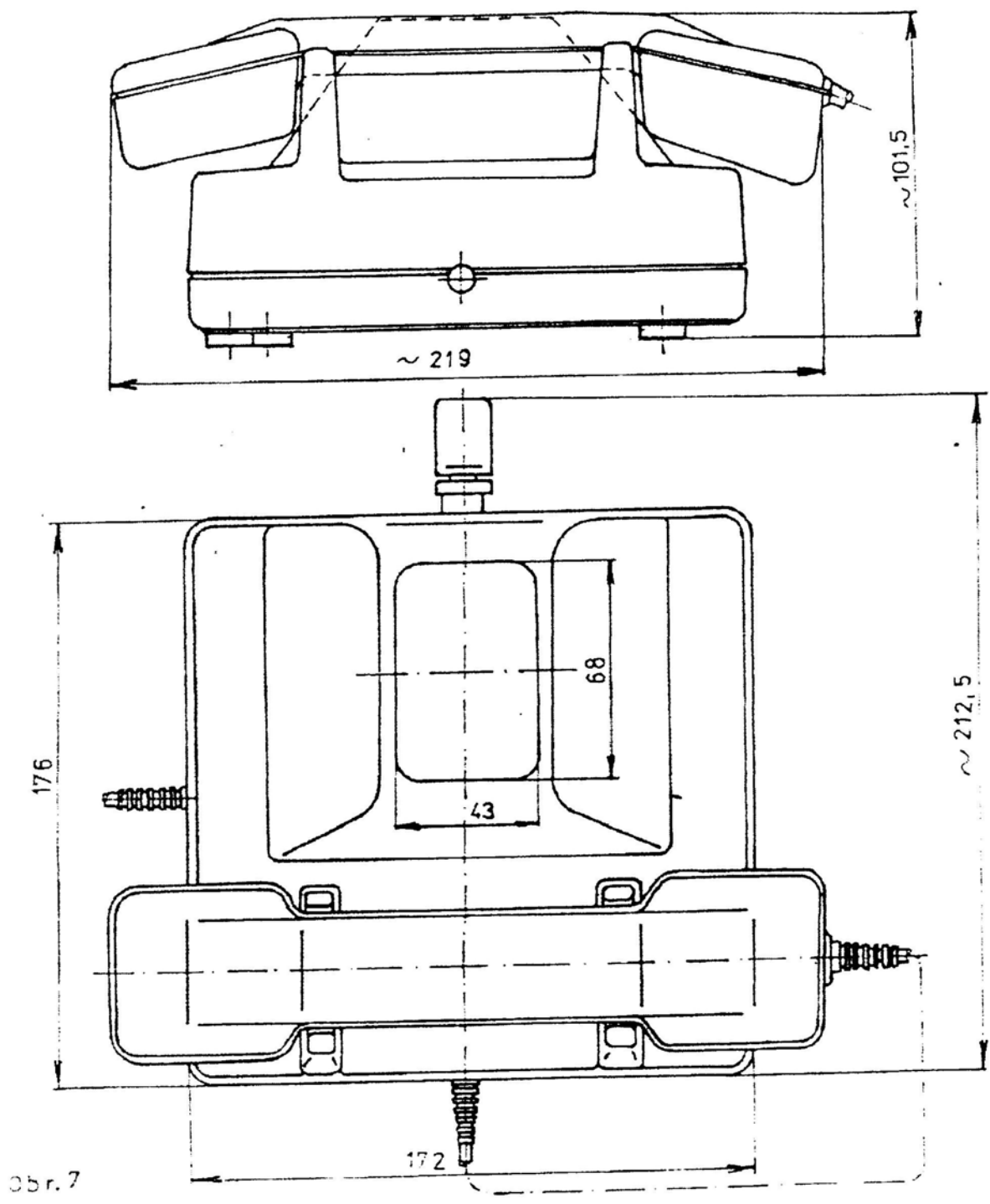


Fig. 1 Dimensions of LB telephone set

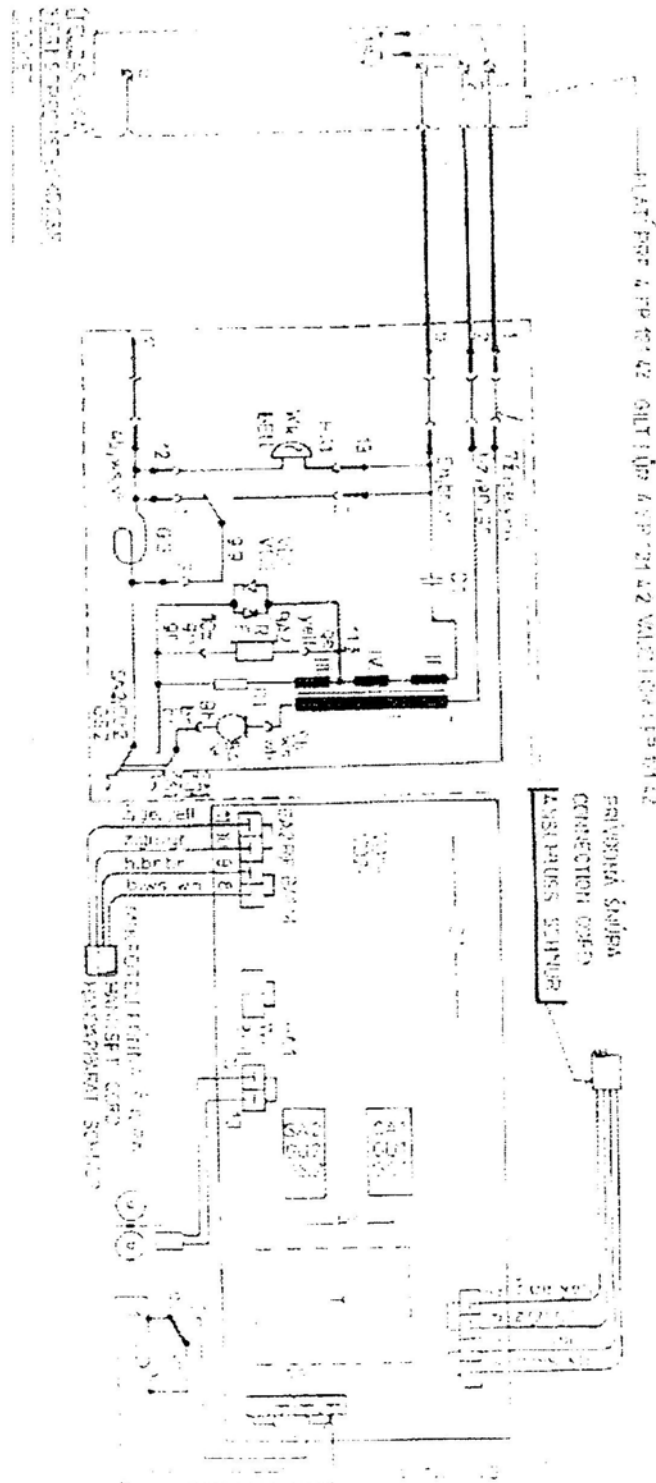


Fig. 2 Wiring diagram of LB telephone set