

BOXER TOYS COMPANY LIMITED

Operation Description of 9140A (Main Unit)

Condition of receiving: the contact of functional switch Sw_1 is located at "R", and the condition indication D_1 glows.

The high-frequency signal in the space is received by the antenna, and then added, through L_1 and T_4 , to the superregenerative detecting circuit consisting of B_2 and Q_6 for the purpose of frequency selection and detection to detect the audio-frequency signal. The audio-frequency signal is added to the volume potentiometer VR_1A through C_9 , to realize the control over volume, then sent, through R_2 and C_8 , to audio-frequency amplification circuit consisting of Q_3 , Q_2 , Q_1 and B_1 for amplification, and finally they will be sent to the speaker (SP) for restoration of sound.

Condition of transmitting: the contact of functional switch Sw_1 is located at "T", and the condition indication D_2 glows.

The sound is converted to audio-frequency electrical signal by the adapter (MIC), then sent, through C_{10} , R_8 and C_8 , to audio-frequency amplification circuit consisting of Q_3 , Q_2 , Q_1 and B_1 for amplification, and finally sent to the high-frequency oscillating circuit consisting of B_3 , Q_4 , XT_1 and Q_5 to modulate the high-frequency constant-amplitude signal generated by the circuit. The modulated high-frequency signal is added through L_1 to the antenna and transmitted into the space.