



SRR-8 Country of origin: USA

DATA SUMMARY

Organisation: Central Intelligence Agency.

Design: Technical Services Division (later OTS) of CIA.

Year of Introduction: Around 1963.

Purpose: General purpose surveillance radio receiver.

Circuit features: Dual conversion superheterodyne;
FM/AM/Pulse modulation

Frequency coverage: 30-1000MHz in four continuously tunable bands covering 30-88, 88-250, 250-500 and 500-1000MHz.

Intermediate Frequencies: 25MHz and 6MHz.

IF bandpass @3dB: 1st IF: 12MHz; 2nd IF wide: 250kHz; narrow: 60kHz.

Sensitivity: FM <12uV; AM <10uV; Pulse<50uV.

Audio output: Variable up to 4mW at 600Ω.

Video output: 5MHz wide at 100mV.

Aerial: Optional telescopic aerial or any external aerial depending on the required application.

Power Supply: AC mains regulated power supply. 110/220V, ±10%, 60Hz or a Mallory mercury battery pack SR2552-3. (Operational life of 50 hours)

Size (cm): Height 11.5, length 33.5, width 31.

Weight: Approximately 9kg.

Accessories: Telescopic aerial, headphones, batteries, power cable, carrying case.

REMARKS

Radio Receiver SRR-8 (prototype XRR-8) was a self-contained miniature fully transistorised VHF/UHF surveillance receiver, developed by the Technical Services Division of the US Central Intelligence Agency (CIA). It covered 30-1000 MHz, continuously tunable in four bands, suitable for reception of narrow-band or wide-band FM, AM and pulse-modulated signals. The bandwidth was sufficient to enable reception of signals containing a video spectrum of 5MHz in the frequency range from 90 to 1000MHz.

The tuner assembly was comprised of four separately housed tuners mounted on a chassis. A single shaft drove the individual tuners and the tuning film. The SRR-8 was a follow-up of Radio Receiver SRR-5 (Described in chapter 177). It was similarly shaped and normally supplied with a black wrinkle finish front panel and two hinged hand grips. Plug-in units and sub-assemblies were used in its construction for ease of replacement and repair.

References:

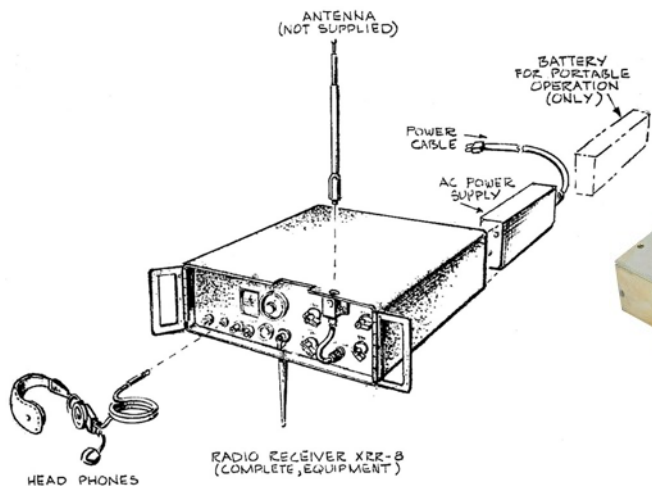
- This chapter is an abridged version based on a full account of the SRR-8 (including a downloadable user handbook with all the circuit diagrams) described in www.cryptomuseum.com
- Photos taken from a SRR-8 held in the museum collection and information from the website was published with kind permission of the Crypto Museum, Eindhoven, Holland.
- Operation and service instruction handbook Radio Receiver SRR-8, n.d.



Top/rear view of SRR-8 with cover removed. Mounted at the rear were a 25 MHz IF strip with video detector; a 6 MHz IF strip with AM and FM detector, and AF amplifier.



Bottom view of Radio Receiver SRR-8 showing the tuner assembly that housed four separate RF tuners.

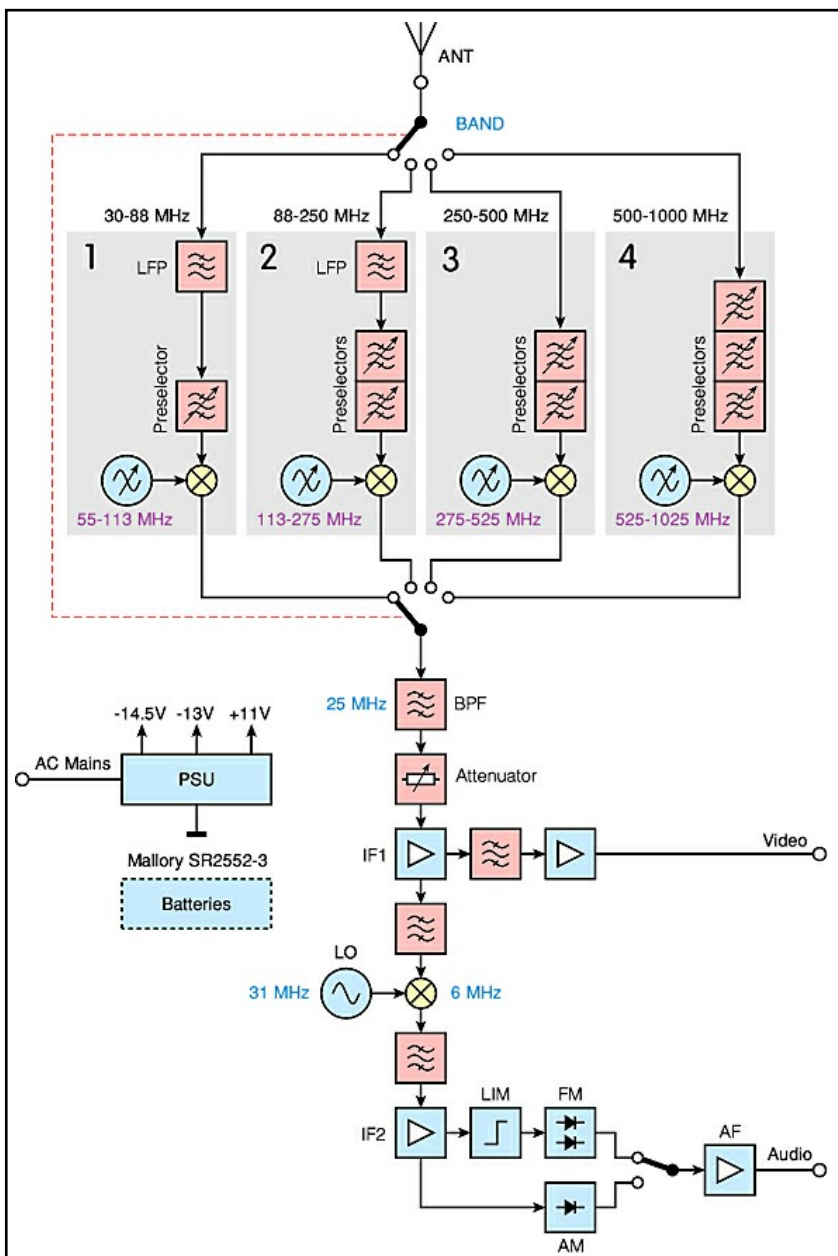


General view of Radio Receiver SRR-8, showing the position of the AC mains power unit. A Mallory battery, slid in position of the AC power unit when portable operation was required.

AC mains regulated power supply unit.



The AC power unit was housed in a compartment located at the rear of the receiver, accessible through a door of the case.



Block circuit diagram of Radio Receiver SRR-8. (Courtesy Crypto Museum). The fully transistorised receiver was a dual conversion superheterodyne with four independent RF tuners, a wide-band first IF of 25 MHz and a second IF of 6MHz.