



SRR-4 Country of origin: USA

DATA SUMMARY

Organisation: Central Intelligence Agency.
Design/Manufacturer: Arvin Industries USA, or PR Mallory & Co Inc, USA.
Year of Introduction: Believed about 1961.
Purpose: General purpose surveillance.
Receiver: Single conversion superheterodyne.
Circuit features: RF stage 3x, mixer, LO, IF stage 5x, detector, BFO, discriminator, AF output, 5 MHz calibrator osc. AM/FM R/T, and CW.
Frequency coverage: 50-200MHz.
Intermediate Frequency: 4300kHz.
IF bandpass: 80kHz
Sensitivity: FM/CW <1uV; AM <1.5uV (50-100MHz); <2uV (100-200MHz)
Valves: Sub-miniature types 6611 and 6612.
Power Supply: Dry batteries 1.5V LT and 45V HT; PP-1A/ASR: 11-20VDC; 80-130V or 160-240V AC.
Size (cm): Height 14, Length 37, Width 17; Weight 9.5kg.
Accessories: See drawing on next page.

REMARKS

The SRR-4 was a VHF surveillance receiver, developed by the Technical Services Division (TSD) 1 of the US Central Intelligence Agency (CIA), based on the R-744A/PRR Army receiver. It covered 50 - 200 MHz, continuous tunable in a single range and was suitable for reception of AM, FM, CW and MCW signals. The receiver was primarily used for intercept, surveillance, band monitoring and for reception of covert listening devices (bugs). The SRR-4 was self contained and had a built-in PP-1/ASR power supply unit for 12V DC and 110/22V AC mains. In an emergency or for portable use the receiver could be powered by internally carried dry batteries. All controls and connections were located on the front panel of the set. A helix-type tuning scale covered the full 50-200MHz band in one range. A bulged glass cover over the scale provided a certain level of magnification.

References:

- This chapter is an abridged version based on a full account of the SRR-4 (including a downloadable user handbook and circuit diagrams) described in www.cryptomuseum.com
- Photos taken from a SRR-4 held in the collection of the museum, and information from the website was published with kind permission of the Crypto Museum, Eindhoven, Holland.
- Further additional technical and historical information of the SRR-4, and a general view photo was published with kind permission of Pete McCollum, N0TDM, USA.

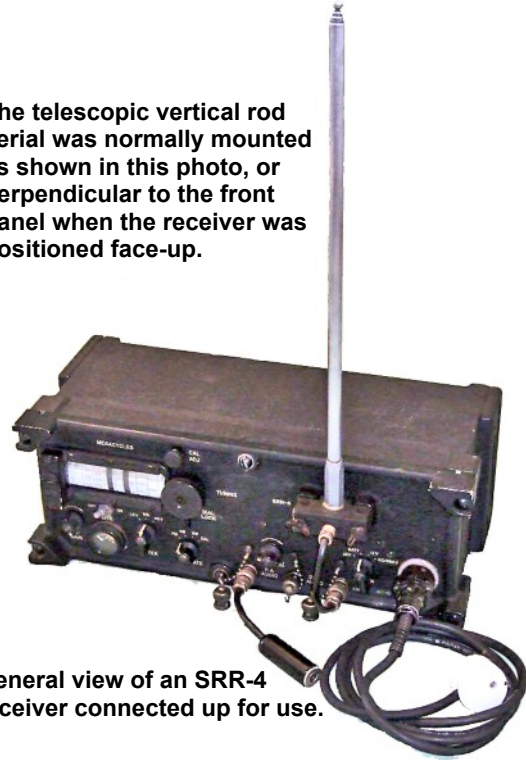
The actual receiver was completely mounted to the backside of the front panel, the die cast aluminium enclosure contained the power supply unit and dry batteries. At both sides of the enclosure were the battery compartments, accessible through a removable panel.

The CIA SRR-4 was based on the design of the R-744A/PRR, part of OA-1451/ PRR. This was an US Army VHF intercept set, developed about 1957-58. It had a different frequency coverage, 25-100MHz, powered from dry batteries or 24V DC, and other minor differences, including DF features. Four variations of the R-744 were known: R-774A/PRR; R-774A, R774 (XE-3)/PRR and R-774B. The latter had an extra signal output for DF purposes.





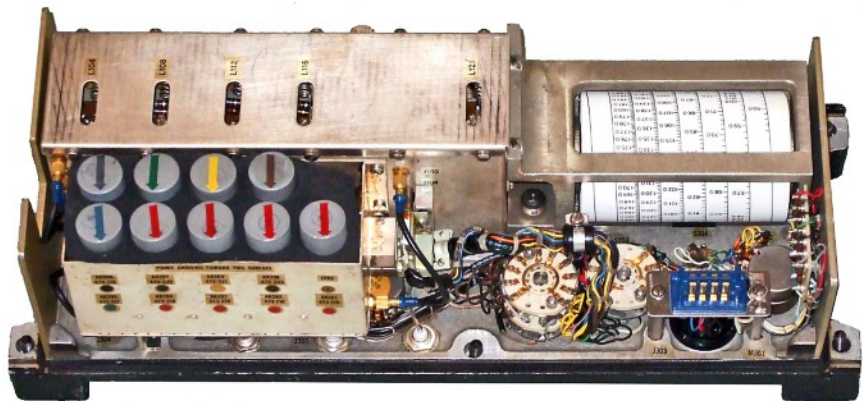
The telescopic vertical rod aerial was normally mounted as shown in this photo, or perpendicular to the front panel when the receiver was positioned face-up.



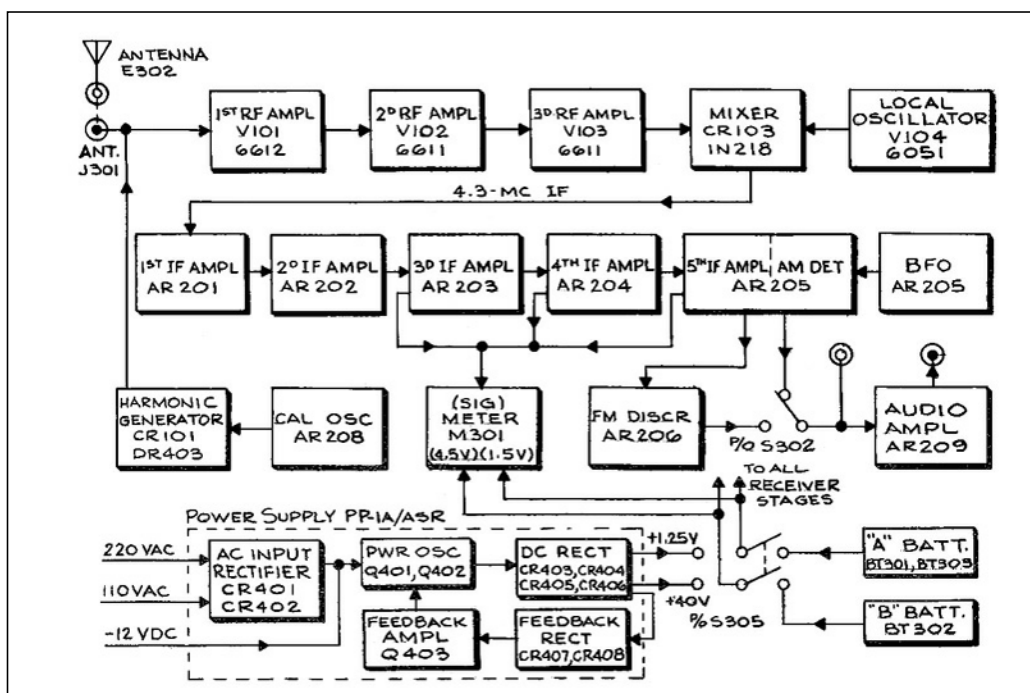
General view of an SRR-4 receiver connected up for use.

Drawing showing SRR-4 receiver and ancillary components.

Internal view of the SRR-4 receiver chassis. The IF stages, FM discriminator, BFO, AF stage and crystal calibrator were plug-in modules for easy replacement. (9 round objects with coloured arrows) These sealed modules had the size and socket of a 7-pin miniature valve, each containing a sub-miniature valve with associated components.



Block diagram of the SRR-4 with associated power supply type PP-1A/ASR.



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