

Mt 920

Country of origin:

Sweden

Incorporating Mt 930 and Mt 931 B
(Alert receivers #2)

REMARKS

Mottagare 920 (Mt 920 = Receiver 920) was a radio receiver designated for the Swedish LUFOR*) Air Defense Orientation. Principally a commercial car receiver, it was adapted for fitting in Army cars and trucks, including combat vehicles. Intended for listening to the LUFOR frequency band (300-400kHz) it was also used for the reception of messages transmitted by long- and medium-wave broadcasting stations.

A Mt 920 was comprised of a receiver unit, a separate power unit and loudspeaker, connected to an external rod aerial. In order to move a receiver quickly from one vehicle to another, the receiver unit and power unit were mounted on a frame, clamped to a fastening plate mounted in the vehicle. The speaker was for the same reason mounted to a plate, which was hooked to the mounting plate of the speaker. In addition, vehicles were equipped with an aerial base with cable, and sockets for connecting the receiver to the vehicle accumulator.

After 1968 the Mt 931B, a commercial full transistor Philips car radio adapted for LUFOR, was introduced by the Navy and Coastal Artillery.

In the early 1960s, slave transmitters and RF power amplifiers were introduced to some of the LUFORs transmitters to increase the range where it was insufficient. At that time broadcasting on the FM band (88-100 MHz) developed rapidly and demand for long-wave radio receivers decreased. As a result, the ability of the public to intercept the LUFOR broadcasts was reduced. This worried the armed forces, so they made an appeal to radio manufacturers to produce radio receivers with the long wave band (LUFOR band). These receivers would be marked with the label on the far right. This also applied to car radios. Many Swedish manufactured radios of that era had markings on the station scale as well, "L" or "LUFOR".

*) See Chapter 282.

DATA SUMMARY

Organisation: Swedish Armed Forces.

Design/Manufacturer: Sound Radio AB, Sweden.

Year of Introduction: 1956.

Purpose: LUFOR (Air Defence Orientation) receiver. Basically a commercial car radio produced by Sound Radio AB, type SR 144M, adapted for LUFOR.

Receiver:

Frequency coverage: 170-430kHz and 570-1600kHz.

Circuit features: Single conversion superheterodyne. RF, mixer/oscillator, IF, AF, AF output (push pull). IF: 470kHz.

Valves: 6BA6 2x, 6BE6, 12AT6, 6AQ5 2x.

Loudspeaker: Impedance 5-10 ohms.

Aerial: Fiberglass 1.87m; Connection cable 1.5-3m with 75Ω impedance.

Power Supply: 6, 12 and 24V models. Vibrator power supply unit. Later issued power supply units had a transistorised converter.

Consumption: 5.5A at 6V; 3A at 12V; 1,5A at 24V.

Weight: Mt 920 complete on mounting plate 12.5kg.

Variations of the Mt 920:

- Mt 920 A Tc 96920 A for cars with 6 V systems. Replaced by Mt 920F.
- Mt 920 B Tc 96920 B for vehicles with 12 V systems. Replaced by Mt 920F.
- Mt 920 C M3951-920031 (Tc 96920 C) for vehicles with 24 V system.
- Mt 920 D M3951-920041 (Tc 96920 D) for combat vehicles with 12V systems.
- Mt 920 E M3951-920051 (Tc 96920 E) for combat vehicles with 24 V systems.
- Mt 920 F M3951-920061 (Tc 96920 F) for vehicles with 6 V or 12V systems.
- Mt 920 G M3951-920071 for vehicles with 6 V or 12V systems.

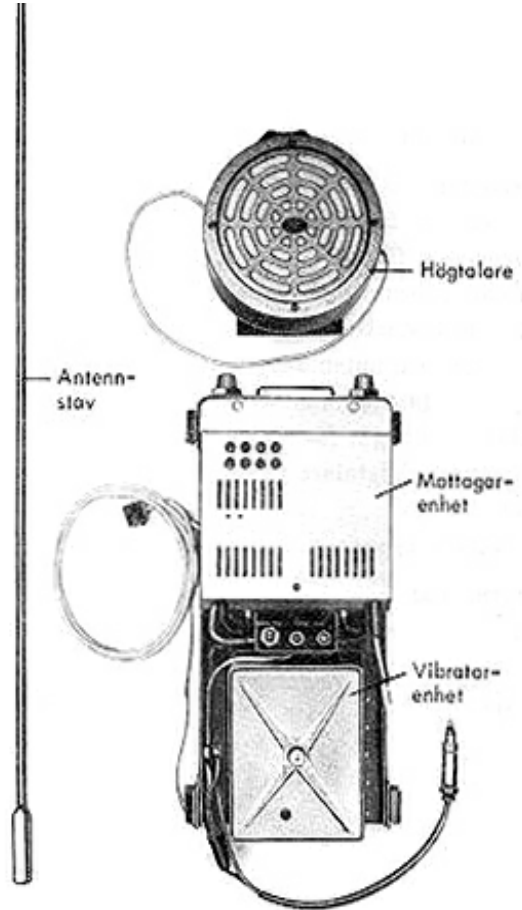
Mt 920 G had a transistorised converter, Converter 123 (M2520-123010), as opposed to previous models which used a vibrator power supply unit.

References:

- Photographs and information courtesy Thomas Hörstedt, SM7DLF, Sweden. For more information see Thomas's 'Grönradio' website: <http://gronradio.sm7dlf.se/lufor.htm>
- Mottagare Mt 920 User Manual. Publ.nr: S 444 (1962).
- Mottagare Mt 920 Description Part II, detail list. Publ.nr: S 446 (1962).
- LUFOR Air Defence Group Centre museum see: <http://www.luftbevakningsmuseet.com/>

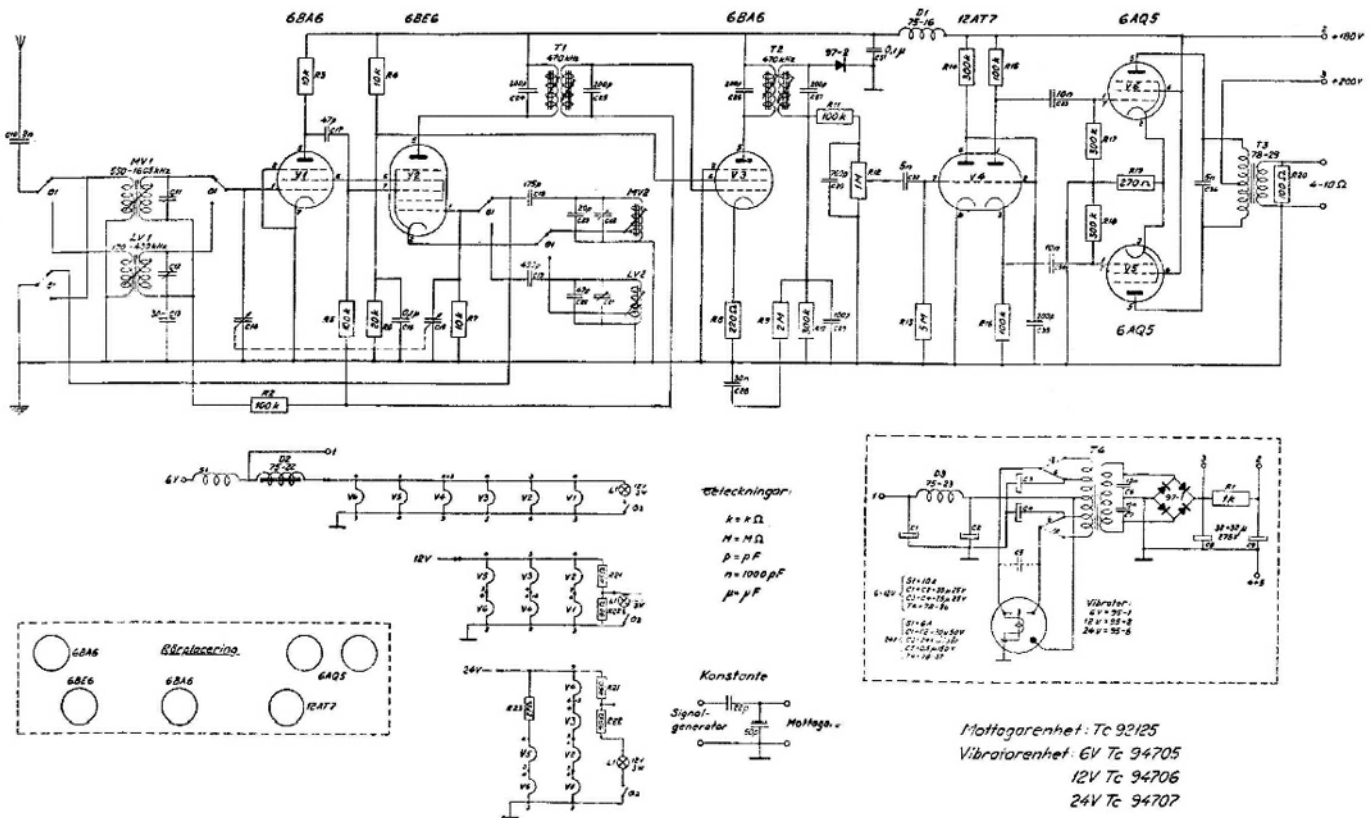


Standard frame for Mt 920 with separate loudspeaker and aerial brackets (Above and right).



Front panel view of MT 920 E fitted on a different frame with on/off switch and fuse placed on top of the receiver (Above). This was a variation for installation in combat vehicles.

Sound Radio Bilradio Typ SR 144M



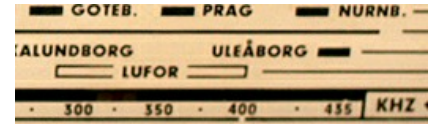
Circuit diagram of the Mt 920 (Sound Radio type SR 144M).



Mottagare Mt 930.

DATA SUMMARY

Organisation: Swedish Air Force.
Year of introduction: Approximately 1963.
Design/Manufacturer: Luxor Radio AB, Motala, Sweden.
Purpose: LUFOR reception. Commercial portable receiver manufactured by Luxor Radio AB, Type BT495, adopted for LUFOR reception in fixed facilities (bunkers) of the Swedish Air Force.
Frequency Coverage: 160-435kHz, 540-1600kHz, FM 88-101MHz. Single conversion superhet. Fully transistorised.
Power: Dry batteries or BE 83 AC mains via an adapter.



Enlarged view of part of the Mt 930 tuning scale showing the LUFOR band.

BE 83 AC mains adapter.



Type and serial number plate Mt 930.



Mottagare Mt 931B.

DATA SUMMARY

Organisation: Swedish Coastal Artillery and Navy.
Year of introduction: 1967/68.
Design/Manufacturer: Philips.
Purpose: LUFOR reception. Principally a commercial car radio made by Philips, type 22RN564/19, adapted for LUFOR reception as a follow up of the Mt 920.
Frequency Coverage: 150-400kHz, 512-1610kHz, 5.9-6.25MHz. Single conversion superhet. IF 460kHz. Fully transistorised.
Power: 6 or 12V DC.
Consumption: 2A at 6V; 1A at 12V.
Weight: Receiver with fixing plate 2kg.
Loudspeaker unit: 2kg.



Enlarged view of part of the Mt 931B tuning scale showing the LUFOR band.



Type and serial number plate Mt 931 B.

