

Front panel view of a Kyynel M8, serial number 393, located in Orivesi, Finland.

## Kyynel M8 Country of origin: Finland

### DATA SUMMARY

**Organisation:** Army.

**Design:** Unknown.

**Manufacturer:** Not known.

**Year of Introduction:** Before 1944.

**Purpose:** High powered base station.

**Transmitter:** Kyynel M8.

**Circuit features:** Crystal controlled power oscillator.  
CW only.

**Frequency Coverage:** Around 4MHz (75M).

**RF output:** Estimated 20W.

**Valves:** RL12P50, RGQz 1,5/04 rectifier.

**Power Supply:** AC Mains power unit, 110/220V.  
Providing 12.6V AC LT; 250 and 600V DC HT.

**Size (mm):** Height 100, Length 130, Width 235.

**Accessories:** Morse key, aerial, counterpoise wire,  
throwing weights and crystals.

### REMARKS

*How two 'missing' Kyynel M8 transmitters were found in Finland:*

For a long time the Finnish M4, M5, M7, M10, M11 and M12 Kyynel ('teardrop') Army patrol radios were the only models known, speculating that there might have been models M8 and M9. In the 1944 equipment list of from the 4<sup>th</sup> Battalion, a HQ long range patrol unit, was noted the issue of two M8 Kyynel radios, but since most papers of this Battalion were destroyed, further investigation was fruitless.

However, in 2019 Kari Syrjänen, Deputy Chairman of the Kouvola Home and Radio Museum Board, received a call from Orivesi that a strange looking device was found, apparently a transmitter with construction elements of Kyynel. Visiting the location, the set was inspected and photographs taken. At the side of the enclosure a calibration table was attached along with the serial number 393, which coincided with one of the two serial numbers of the 4<sup>th</sup> Battalion equipment list. With now more details of the Kyynel M8, Kari remembered having photographed a number of unknown radios at the Finnish Military Museum at Hämeenlinna. These received at the time not much attention, but after browsing through the photos, the set was identified and eventually found after a long search in the Military Museum stores. Identical to the Kyynel M8 found in Orivesi, it surprisingly had the other serial number of the equipment list. Based on the serial numbers of the two sets now discovered (368 and 393), it may be speculated that more M8 transmitters might have been produced.

*Text taken with kind permission from the author: 'Kyynel Radio, Osa 1', (The book of Kyynel, Part 1) by Kari Syrjänen.*

### Description

The Kyynel M8 was a relatively high powered transmitter for CW hand speed operation. Nothing is known of its actual use in the service. A German RL12P50 valve was used as crystal controlled power oscillator keyed in the cathode. The built-in meter indicated the filament voltage or cathode current. It was built on a thick Paxolin front panel as base, which slid into a metal case. Some of the control knobs and switches were identical to those used in the Kyynel M10 and M11. The aerial matching coil with taps was wound on a plug-in type base made by Hammarlund. Power was derived from a separate AC mains power unit which was built in a metal case, connected via a 4-pt plug and socket.

### Finnish Sotilasradiomuseo

The Kouvola Home and Radio Museum is located in the city of Kouvola owned museum block by the Kouvola Putkiradio (Tube Radio) Museum Foundation, comprising the Home Museum (Kotimuseo) and in a separate building the Radio Museum (Radiomuseo) together with the Military Radio Museum (Sotilasradiomuseo).

### References:

- Photographs and information courtesy Kari Syrjänen, Finland.
- Drawings of circuit diagrams courtesy Kouvola Sotilasradiomuseo (Kouvola Military Radio museum).
- Kyynel Radio Osa 1. (The book of Kyynel. Part 1), Kari Syrjänen.
- Wireless for the Warrior, Volume 4, Clandestine Radio, Chapter Finland, L. Meulstee, 2004, Wimborne Publishing, isbn 0952063 360.
- <https://www.putkiradiomuseo.fi> Military Radio Museum.
- <https://www.museomilitaria.fi/> Finnish Military Museum at Hämeenlinna, Finland .

Translation of some Finnish names and words used in this chapter.

Putkiradio = Tube radio

Kotimuseo = Home museum

Radiomuseo = Radiomuseum

Sotilasradiomuseo = Military radio museum

Kide = Crystal

Avain= Morse key

Internal views of Kyynel M8

Output loop  
Earth  
RL12P50  
Morse key  
Aerial taps  
Tank coil  
Aerial

Detail view of internal aerial plug and sockets located at the bottom of the tank coil (right).

Aerial matching coil with 3 taps  
Tuning condenser  
Tank coil

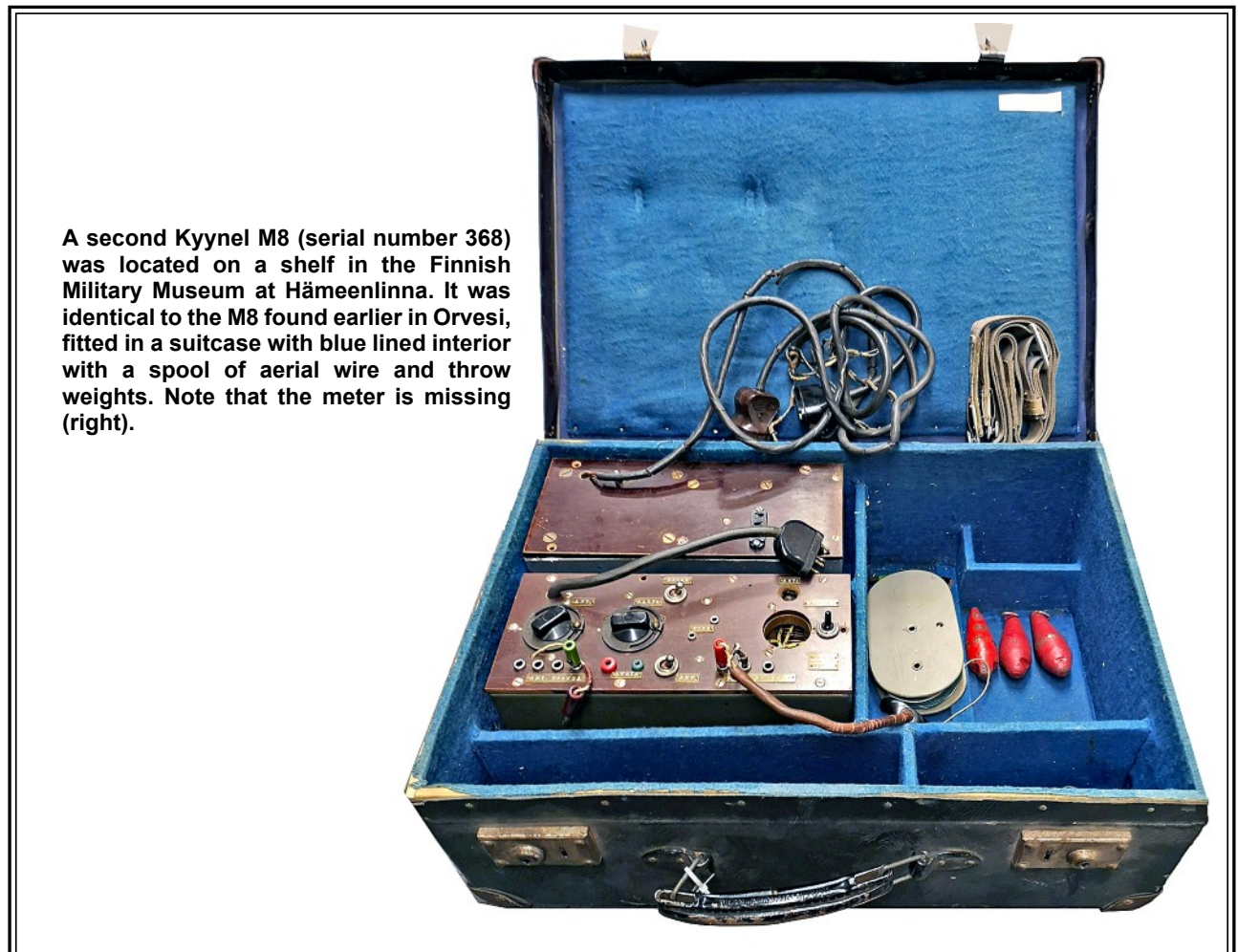
Wire coupling to control grid  
Valve holder

Circuit diagram of the Kyynel M8 drawn by the Finnish Kouvola Sotilasradiomuseo (Kouvola Military Radio Museum).

Circuit diagram and photograph of the Kyynel M8 AC mains power unit. It was also built on a thick Paxolin plate as base.



Kyynel M8 (serial number 393), discovered in Orivesi, Finland.



A second Kyynel M8 (serial number 368) was located on a shelf in the Finnish Military Museum at Hämeenlinna. It was identical to the M8 found earlier in Orvesi, fitted in a suitcase with blue lined interior with a spool of aerial wire and throw weights. Note that the meter is missing (right).