



RT-46/TRC-10. Note that the 6-pin power plug was not original and substituted later. The crystal cover was missing.

AN/TRC-10 Country of origin: USA

Remarks

The RT-46/TRC-10, part of Radio Set AN/TRC-10, was a self contained (man) transportable short wave transmitter-receiver. The set comprised principally a separate crystal controlled transmitter and tunable receiver unit, bolted together on a common front plate, with the transmit-receive switching on the transmitter unit. Mounted in a weatherproof metal box with a removable metal lid, it stood three feet off the ground on 4 removable legs. This construction was similar to the SCR-288. (See photo below)

The electrical design of the RT-46 was conventional, apart from the receiver AF output valve which was converted in to an AF oscillator during transmit, providing side tone. A complete station could be man-carry in 5 different loads of which the transmitter/receiver was packed in a waterproof rubber bag. The development of a rather simple CW only set, built in a relative small number of estimated less than 200, ordered in mid-1944 when the SCR-694 was soon to be available, was questionable. It may be speculated that it was produced for the USA Army Signal Corps' Signal Intelligence (SIS), later Signals Security Agency (SSA), for special operations (e.g. aid to guerillas). When the AN/TRC-10 eventually became available in 1945, it was abandoned as no longer needed due to the rapid progress of the war.

DATA SUMMARY

Organisation: US Army.

Design/Manufacturer: Pilot Radio.

Year of Introduction: 1945.

Purpose: Probably guerillas, coast watchers or special missions.

Receiver:

Circuit features: RF, mixer/LO, IF, det/BFO, AF/side tone oscillator.

Frequency Coverage: 2-12MHz in two ranges: 2-5MHz and 5-12MHz. CW and AM voice.

Intermediate frequency: 454kHz.

Valves: 6SK7 (2x), 6SA7, 6SL7/GT, 6J5/GT.

Transmitter:

Circuit features: Crystal oscillator, RF PA.

Frequency coverage: 2-12MHz in two ranges: 2-5MHz and 5-12 MHz. CW only.

RF output: 20-30W.

Valves: 6V6, 2E22.

Aerial: Wire aeriels: 50ft and 100ft on reels; counterpoise CP-12 and CP-13.

Power Supply:

- Hand generator G4-TRC-10 providing 6V and 550V DC.
- Rectifier Power Unit PP-74/TRC-10. 115-250V AC mains.
- Vibrator Power Unit PP-84/TRC-10. 6V DC.

Weight: 6.6 kg. (Set only)

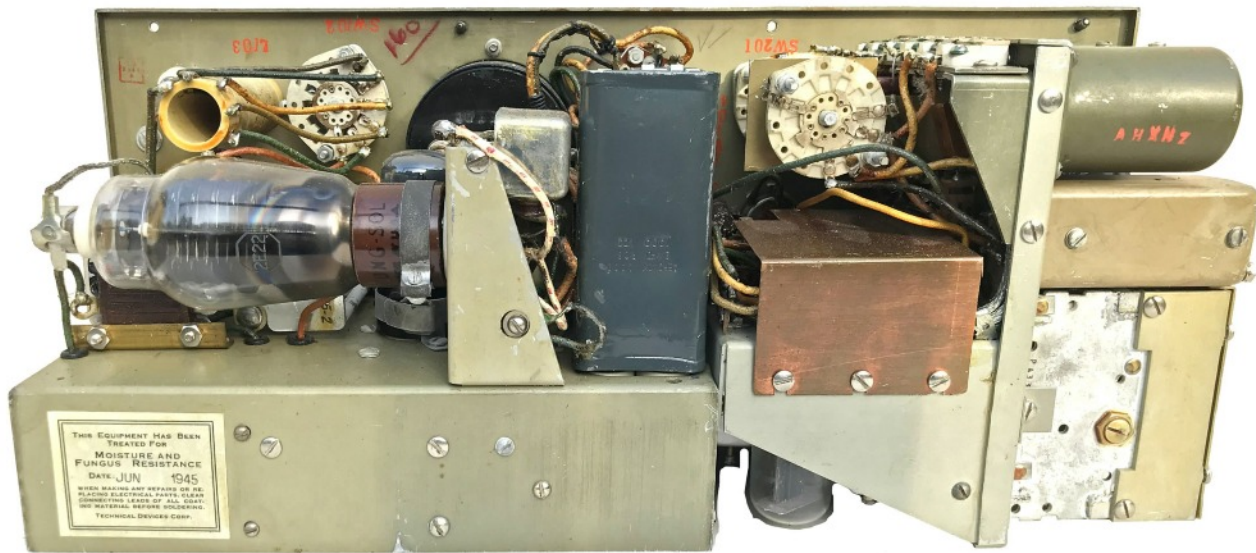
Sizes (cm): Height: 18, length 16, width 28. (RT-46 only)

References:

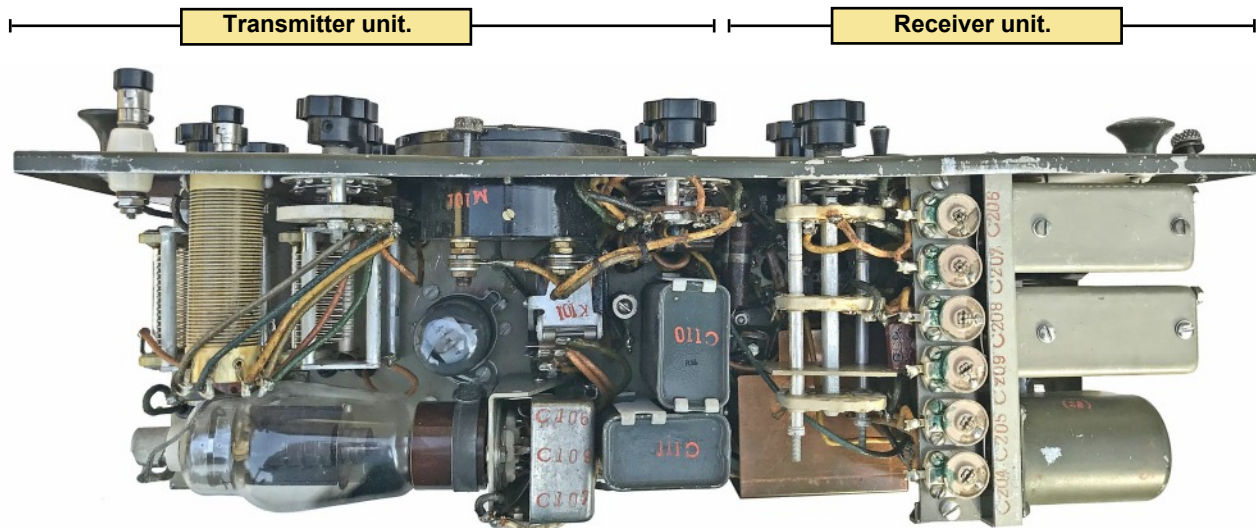
- Photographs, correspondence and information courtesy Göran Carlsson, SM7DLK, Sweden.
- Manual TM 11-636, Radio Set AN/TRC-10, March 1945.
- The Signal Corps: The outcome (Mid-1943 through 1945), Library of Congress Catalog Card Number 64-60001, 1966.



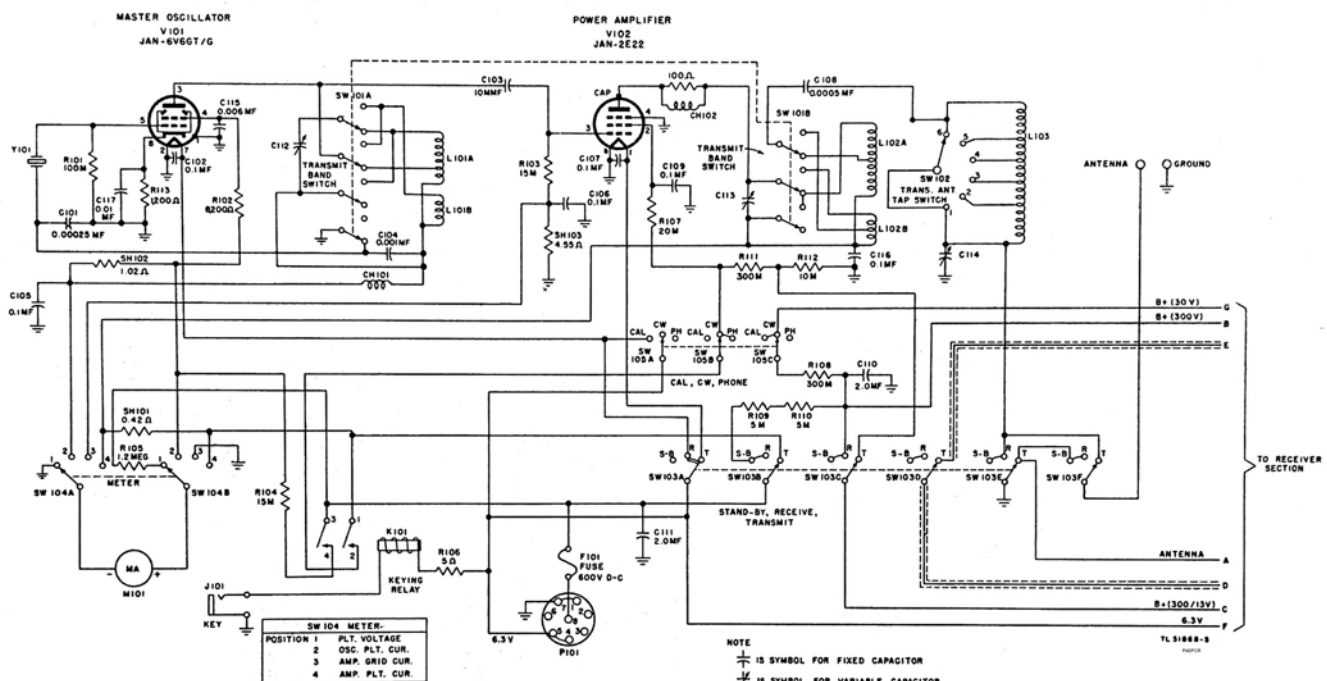
Transmitter-receiver BC-474-A, part of SCR-288-A, resembling the RT-46/TRC-10.



Rear view of RT-46/TRC-10.



Top view of RT-46/TRC-10.

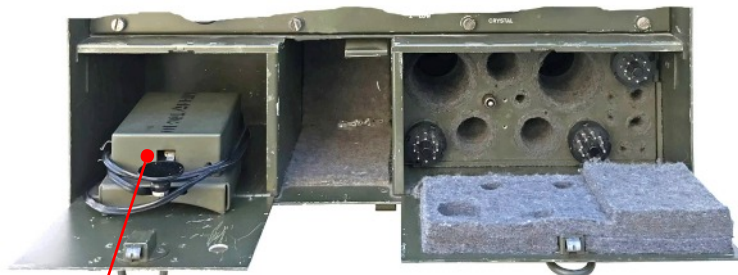


RT-46/TRC-10 transmitter circuit diagram.

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Bottom view of RT-46/TRC-10.



Inside view of the bottom compartments showing Morse key assembly (left), empty crystal container (centre) and spare valves. (right)



MT-147, mount for a J-37 Morse key.

Complete AN/TRC-10 with RT-46 on four legs, hand generator G4-TRC-10, AC mains Rectifier Power Unit PP-74/TRC-10 (right) and Vibrator Power Unit PP-84/TRC-10. (left)

