Volume 3 AMENDMENT No. 6

After the publication of 'Wireless for the Warrior' Volume 3 'Reception Sets', minor errors were noticed. Corrections, additional illustrations and newly found items are published in 'Volume 3 Amendments'.



Communication Receiver type PCR (Modified in Norway)

Country of origin: England/Norway

DATA SUMMARY

Design: Philips UK

Manufacturer: Philips UK and Pye Ltd.
Modified: Telegrafverket's Main Workshop.
Year of Introduction: 1944 / Modified 1948.
Purpose: Modified for coastal stations in Norway.

Frequency Coverage: 150-350kHz, 1.6-4MHz, 6-18MHz **Circuit features:** Superheterodyne with an IF of 465kHz; RF stage, mixer/local oscillator, IF stage, detector/AVC/1st

AF stage, AF output. AM voice only.

Valves: EF39,ECH35, EF39, EBC33, EL32.

Power Supply: Originally, a separate 12V DC or AC power unit. In the modified version, this was probably an external AC power unit, considering the weight of the receiver.

Size of cabinet (in): Height 9, length 121/2, width 19.

Weight (lbs): Approximately 26 (12kg).

References:

- Correspondence with Tore Moe Namsos, editor of Hallo-Hallo, the magazine of the Norsk Radiohistorsk Forening.
- Wireless for the Warrior, Volume 3, Reception Sets, Army Welfare Reception Sets, Chapter PCR. Louis Meulstee, 2001, Wimborne Publishing, isbn 1898805 08 3.
- Institution Norwegian Museum of Science and Technology, Identifier NTM TELE. SG-164.

Remarks

Communication Receiver Type PCR was designed and produced for troop entertainment and receiving broadcast messages. It was also known as being issued to resistance groups in Norway, Holland, and France. There were five different versions which were similar except for a different frequency coverage, and a loudspeaker fitted in the PCR1 only. An external power unit was required for all versions, which could be AC mains or 12V DC.

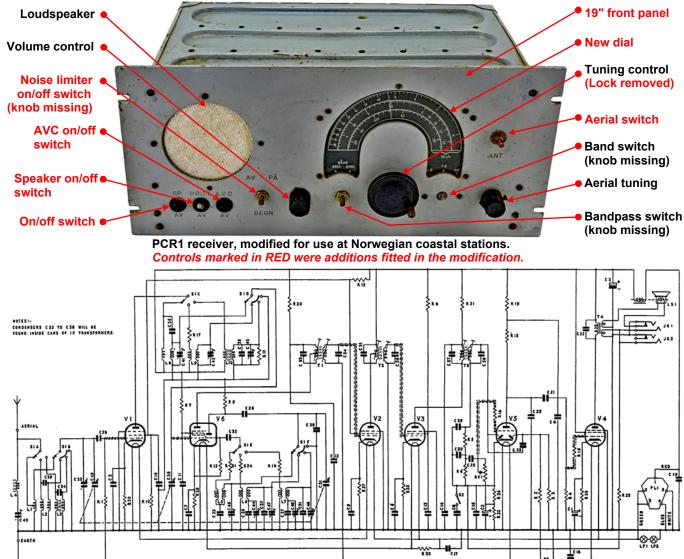
A number of PCR (also known as PCR1) receivers, made by Philips Lamps Ltd, England in 1944/45, were purchased from wartime stocks in the early post-war years and modified for use at Norwegian coastal radio stations. This was performed at the state 'Telegrafverket's' main workshop, involving replacing the original front panel with a standard 19-inch panel. Additionally, among other features, the medium wave range was replaced to cover the trawler band (1.6-4MHz), which required a new calibrated tuning dial.



Finding an unmodified and mint PCR receiver is not easy, as it formed in the 1950s and 1960s a cheap and ideal receiver for a short wave listener. This resulted invariably in homemade improvements, as shown above.

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R14, 15, 16 R17-19 22kΩ 10kΩ C1, 2 C3 50pF C4 C5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 C16, 20, 21, 22 C33, 37, 46, C34, 35 30pF R20, 21 R22 $2.2k\Omega$ $3.3k\Omega$ R24, 25, 26 R27 C38 C39 1kΩ 2.5kΩ 0.1µF 0.005µF C17, 18, 19 C23 0.01μF 4000pF C49, 50, 51 **R28** 470Ω 270Ω R29 C53-58 C24 C25 540pF 10pF R30 220Ω 68Ω 500kΩ 200pF 190pF R5, 6 R7, 8 270kΩ C28, 29, 30, 40, 42, 43, 44, 45 47kΩ 100pF

Circuit diagram and components list of the original PCR1.



The Wired Wireless Service receiver station building at Kralingerhout, Rotterdam. It is believed to be demolished after the service was abandoned in 1975.

The PCR1 was connected to the Central Control

terdam via a line connected to the 600 Ohm line output. This service was discontinued in early 1975. today known as Kralingse bos.

Original PCR1, produced by Philips UK in 1944 (left). This particular receiver had an interesting background. It was purchased from war stocks by the Dutch PTT, for the department 'DM 2' (Draadomroep/ Mobilofoon 2). In an unmodified condition, it was installed as an emergency receiver among mains receivers for reception of medium and long wave broadcast ('Centrale Regiecentrum voor Draadomroep') in Rot- stations in the nationwide Wired Wireless Service (Dutch: Draadomroep) in Rotterdam Kralingerhout,