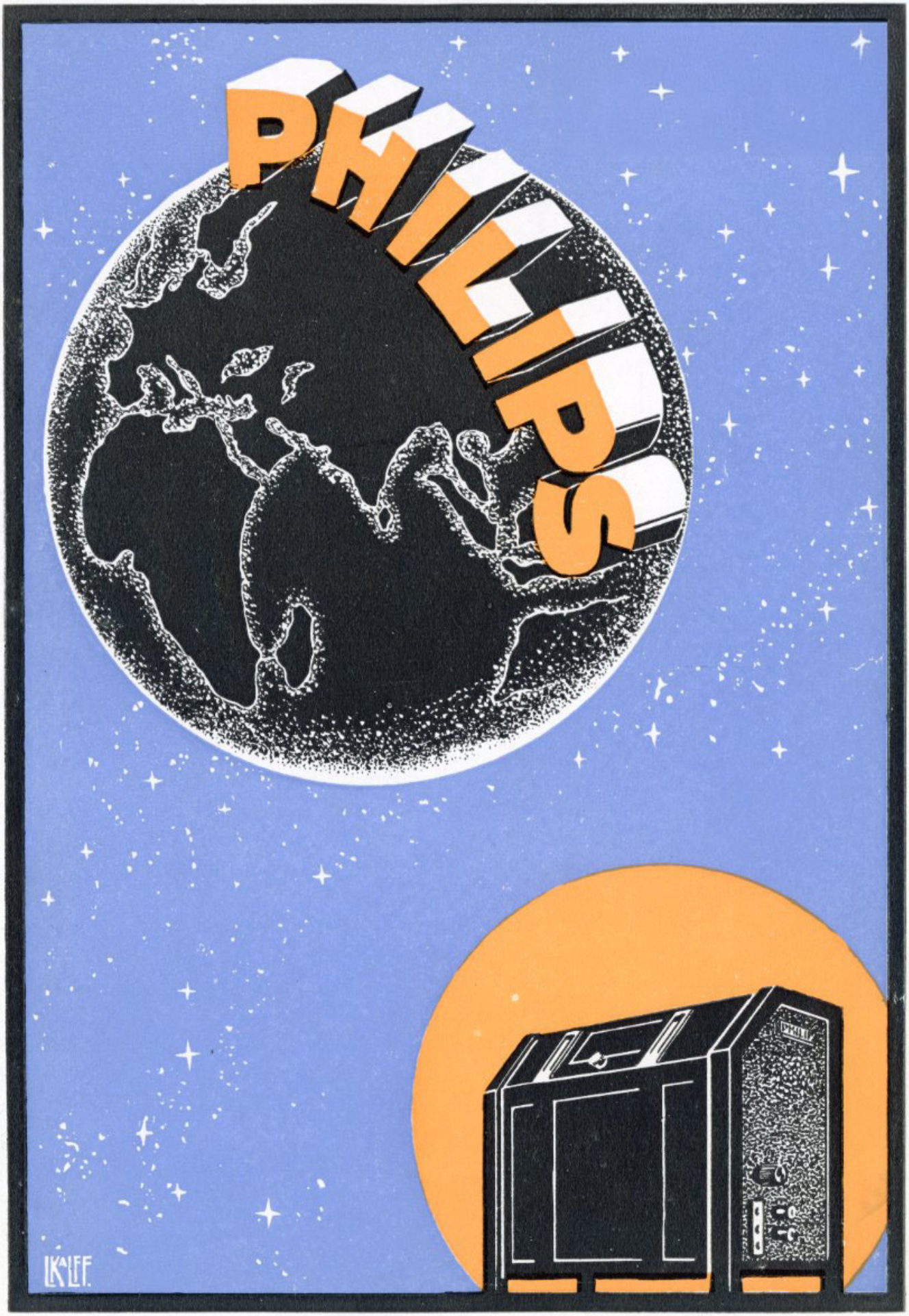
PHILIPS
KALEF

PHILIPS RECEIVER FOR SHORT AND LONG WAVES

MODEL 2802

(Range 10—2,400 metres)

The famous experiments conducted on the PHILIPS ultra-shortwave transmitter PCJ have convincingly proved the possibility of what nobody had ever dared to hope: radio-telephonic communication over the largest distances.

Whereas the ultra-short waves present the advantage of greater range with respect to the longer waves, it is on the other hand difficult to manufacture a receiving set suitable for ultra-short-wave work which can be used by the general public. After much experimenting PHILIPS' Works have succeeded in designing an apparatus which comes up to all requirements.

This PHILIPS receiving set, model 2802, contains

4 PHILIPS "MINIWATT" VALVES:

H.F. screen grid valve "Miniwatt" A 442,
Anti-microphonic detector valve "Miniwatt" A 414,
L.F. amplifying valve "Miniwatt" A 415,
Paragon power valve (pentode) "Miniwatt" B 443.

For the first time direct H.F. amplification is used in a short-wave set so that greater sensitivity can be obtained. This has been made possible by the particular qualities of the PHILIPS H.F. screen grid valve "Miniwatt" A 442.
Especially by the use of the PHILIPS anti-microphonic valve "Miniwatt" A 414, microphonic effect is avoided.
Further, the receiver contains an L.F. amplifying and a paragon power valve (pentode), for which are used respectively the PHILIPS "Miniwatt" valves A 415 and B 443.
If desired, the power valve can be switched off for headphone reception.

This set has been designed by the same engineers who built PCJ. It has been constructed to give utmost satisfaction to the user.

Where there is an A.C. supply available, the whole installation except the forementioned accumulator may consist of:

PHILIPS Receiver No. 2802,
PHILIPS H.T. Supply Unit No. 3009,
and 2 PHILIPS Loudspeakers.

By using also PHILIPS trickle charger type No. 1017 you have at your disposal a completely mains-fed radio receiving installation.

Fully illustrated operating instructions are supplied with each set.

WITH THIS RECEIVER EMPLOY A PHILIPS PICK-UP AND A PHILIPS LOUDSPEAKER !

SPECIAL ADVANTAGES.

NO INTERFERENCE. As a result of the use of PHILIPS "Miniwatt" A 442 in the H.F. stage the aerial does not radiate when the set is oscillating.

LARGE TUNING RANGE. All wavelengths between 10 and 2,400 metres, thus including those employed by aeroplane transmitters, can be worked with this set. A box containing six interchangeable coils is supplied with the receiver. Each coil is intended for a certain wave-band and can be inserted in the set by a movement of the hand.

EXCELLENT TONE QUALITY. Owing to the use of the PHILIPS L.F. transformer and the "Miniwatt" valves A 414, A 415 and B 443 splendid reproduction is obtained.

SMOOTH TUNING. Special attention has been paid to smooth tuning. There is no body capacity effect nor so-called "blind spots" in the reaction. Threshold-growl and similar phenomena do not occur. The tuning condenser and reaction condenser are provided with a drum scale with friction drive. In addition a vernier adjustment has been provided which facilitates exact tuning.

USE OF AN H.T. SUPPLY UNIT. Where an A.C. supply is available it is recommended to take the anode and grid bias voltages from a PHILIPS H.T. Supply Unit No. 3009. Where there is D.C. supply available with a voltage of 180—250 volts, this can be used *provided the negative pole of the mains is earthed.* For this application PHILIPS H.T. Supply Unit No. 3005 with auxiliary apparatus No. 4019 is recommended. For filament supply a 4-volt accumulator must be used.

NO SPECIAL AERIAL NOR EARTH CONNECTION. Neither aerial nor earth connection need special attention. By virtue of the special construction reception is not influenced by swinging of the aerial or slight insulation faults.

AMPLIFIER OF RECORD MUSIC. The low-frequency part of the receiver can be used in combination with a pick-up for reproduction of record music by means of a loudspeaker. This method ensures a quality of reproduction hitherto unknown.

Enjoy the world's radio programmes with PHILIPS receiver model 2802 for short and long waves.

A few of the strongest ultra-shortwave telephonic transmitters are:

Transmitter	Country	Call Signal	Wavelength m	Frequency kHz
Huizen	Holland	PHI	16.88	17.769
Bandoeng (R. Malabar)	Java	PLF	17	17.647
Schenectady	U. S.	W2 X AD	19.56	15.340
Oakland	U. S.	W6 XN	23.35	12.850
Chelmsford	England	5 SW	25.53	11.751
Hilversum	Holland	P C J	31.4	9.554
Schenectady	U. S.	W2 X AF	31.48	9.530
Döberitz	Germany	AFK	40	7.500
Perth	Australia	6 AG	42	7.142
New York	U. S.	W2 XE	49.02	6.120
Döberitz	Germany	AFK	67.65	4.434

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