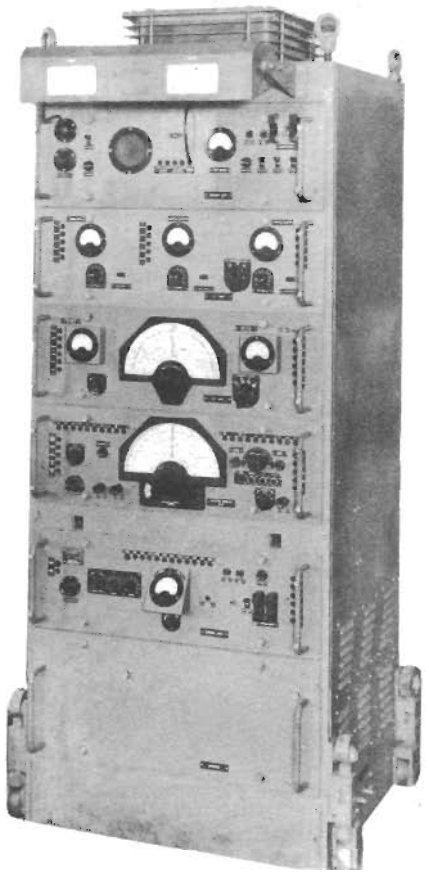
RECEIVER OUTFIT CGG

SUMMARY OF DATA

PURPOSE

H.F. triple diversity receiver designed for use on long distance radio communication circuits. It is fitted in some Royal Naval Shore Wireless Stations.



RECEIVER OUTFIT CGG

TYPE OF RECEPTION

C.W. or Voice.

FREQUENCY RANGE

1.5 Mc/s - 22 Mc/s in four ranges.

The Intermediate Frequency is 465 kc/s.

PHYSICAL DATA

Height	6' 10"
Width	2' 11"
Depth	2' 6¾"
Weight	10 cwt 56 lb.

BRIEF TECHNICAL DESCRIPTION

The receiver consists basically of three separate superhetrodyne receivers with a common first oscillator and three 465 kc/s I.F. amplifier stages. The three R.F. gang capacitors are mechanically coupled to a single tuning control. The three I.F. amplifiers feed three signal detectors operating into a common load resistance. The A.F. voltage developed across this load resistance is applied to two separate A.F. amplifiers. One of the A.F. amplifiers is used for speech reception, the other A.F. amplifier feeds the A.F.C. system and is also used for monitoring purposes. The A.F. telegraph signals from the three signal detectors are amplified in three separate I.F. amplifiers, and fed to three detectors which are additional to the three referred to above. These detectors also operate into a common load resistance, and the combined D.C. telegraph signal appearing across the load resistance is used for telegraph recording or relaying. The three receivers operate with a common A.C.C. System; this enables the receiver which contributes the strongest signal to control the gains of the others, thus ensuring that the noise outputs from the receivers with the weaker signals do not degrade the combined output.

ELECTRICAL CHARACTERISTICS

C.W. Sensitivity:- 0.55 ± 0.25 μV for a 20 db signal to noise ratio at 0.7 kc/s I.F. band-width.

Selectivity:- I.F. band-widths at 6 db down

without crystal	6.0 kc/s
with crystal	2.2 kc/s
with crystal	0.7 kc/s

POWER REQUIREMENTS AND CONSUMPTION

220/240V 40/60 c/s A.C. 600 watts.
Power factor is 0.9 approx.

HEAT DISSIPATION

An extractor fan is fitted at the top of receiver.

AERIAL SYSTEM

The receiver is designed to work from three 75 ohm (unbalanced) impedance aerials.

REMARKS

The receiver was designed by War Office Signals Research Development Establishment (S.R.D.E.) and is known as Reception Set R201.

HANDBOOK	**S.R.D.E. Handbook No. 444A**
ESTABLISHMENT LIST	**E.987**
INSTALLATION SPECIFICATION	**Contained in S.R.D.E. Handbook No. 444A.**