

Radio

The UK/PRC349 squad radio comprises the basic RT349 transceiver together with audio equipment, battery, antenna, carrying holster and handbook.

Designed to augment the Clansman range of radio equipment and to be fully compatible with existing manpack and vehicle installations, the RT349 is a VHF/FM transceiver intended for personal communications in combat conditions. The complete equipment can be slung from the shoulder or mounted on the back or chest by means of an adjustable, quick-release holster which is compatible with the soldier's web equipment. The transceiver is small enough to be carried in a special holster or in the pocket of a combat jacket.

Operating over any 10 MHz band in the 30 to 76 MHz frequency range, the RT349 has synthesiser control and provides 400 speech channels at 25 kHz spacing. The frequency deviation, channel spacing and squelch system are compatible with other VHF equipment in the Clansman range and with radios of similar performance. Additionally, the UK/PRC349 can trigger Clansman UK/PRC351/2 and UK/VRC353 rebroadcast stations.

The RT349 has built-in internal protection against open- and short-circuit antenna conditions and is protected against HF or VHF signals from collocated transmitters. An additional facility is available for transmitting a 1 kHz signal tone to alert a listening operator, providing simple signalling for use in silent ambush operations. This requires an extra push-button on the pressel box.

Battery power saving circuits provide continuous on/off switching during no-signal conditions. A battery adaptor lead can be provided for use with a Clansman battery pack or vehicle battery, and battery chargers are available which enable different combinations of batteries to be charged simultaneously. The battery can be changed rapidly with a quick-release retaining screw and the battery's small size allows spares to be carried where extended operating periods are required. Power reversal is normally impossible using the standard battery packs but protection is provided against inadvertent reversal of input power polarity.

The weight and size of the UK/PRC349 provide dismantled troops with a command communication facility at platoon or section level without reducing the soldier's fighting ability. The dimensions of the transceiver and the low profile antenna enable the set to remain inconspicuous for operations requiring seclusion by not significantly altering the user's silhouette. The equipment has been designed for a minimum MTBF of 1500 hours at a 90 per cent confidence level under battlefield conditions.

Status

In production for the British Army as part of the Clansman programme and in service elsewhere. In late 1978 Racal was awarded a contract worth about £6 million by the Spanish Ministry of Defence to establish a manufacturing line for the PRC349 in co-operation with Equipas Electronicas SA (EESA). Production began in 1979 and both companies subsequently investigated the possibility of exporting Spanish-built equipments, especially to South America. There have been no announcements of any significant orders to date.

Technical Specification

Mode: F3E narrowband FM simplex

Power output: 250 mW, 500 mW or 1 W

Audio equipment

(a) lightweight headset with boom microphone

(b) lightweight headset with throat microphone

(c) standard Clansman headset or handset

With (a) or (b), special pressel box available providing tone signalling

Antenna: whip, helical radiator, trailing wire

Power supply: 12 V DC nominal

Battery life: 20 h with manganese-alkaline battery at 1:1:9 TX:RX:standby cycle

Temperature range: -20 to +55°C (plus solar radiation)

NCL MANGANESE-ALKALINE BATTERY

Height: 244 mm

Width: 90 mm

Depth: 40.5 mm

Weight

incl antenna: 1.5 kg

Operational Specification

Complies with DEF-STAN 07-55 and MIL-STD-202E and 810

Manufacturer

Racal Radio Ltd, Reading.