

**AN/GRC-193  
High Frequency Radio Set**

**NSN:** 5820-01-133-4195

**Reference:** 11-5820-924-12

**General Information**

The AN/GRC-193 is a medium/high-power vehicular configuration of the Improved High Frequency Radio (IHFR) system. It will satisfy those mission requirements which need an HF radio capability greater than the low power/IHFR system. The high-power vehicular/airborne adaptive configuration consists of a basic receiver-transmitter with required coupling device, amplifier, and other ancillary devices for CW voice or teletype operation; near vertical incidence sky wave (NVIS) antenna, whip antenna, data I/O device, and external power sources. The radio will have the capability of selectable power (100 W, 400 W). Normal operation will be below 400 W. The AN/GRC-193 uses the KY-99 for securing voice traffic and the TSEC/KG-84 for securing data traffic. The antenna may be remotod up to 61 m (200 ft) from the radio set, using the antenna siting bit which is part of the basic configuration.

**Technical Characteristics**

Frequency Range . . . . .	2 to 29.999 MHz, 100 Hz channel separation
Planning Range . . . . .	2,500 miles (4,023 .3 km)
Number of Channels . . . . .	280,000
Power Input . . . . .	115 V AC, 50 to 60 Hz, 24 V DC and 26.5 V DC, vehicular
Power Output . . . . .	Selectable power, 100 W, 400 W
Antenna . . . . .	AT-1011, 4.88 m (16 ft) whip, doublet, long-wire, AN/GRA-50, AS-2259 NVIS
Tuning . . . . .	Automatic digitally controlled remote
Remote Operation . . . . .	Up to 2 km (1.2 mi) using AN/GRA-39

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