

OPERATIONAL DESCRIPTION**I. Transmitter Technical Characteristics -- Pursuant 2.983 (d)****A. Specific Operating Power Levels:**

RATED: 20 to 35 Watts, variable

MEASURED: Refer to Exhibit 7A

Maximum Power Rating: 35 Watts

Means provided for variation of operating power:

Output power is continuously variable over the range of 20 to 35 Watts. The output power is field programmable to any power level within this range.

**B. Frequency Range: 896 to 902 MHz (Conventional operation)
935 to 941 MHz (Talk-around mode operation)****C. Frequency Stability:**

RATED: $\pm 0.00015\%$

MEASURED: Refer to Exhibits 7H and 7J

D. Types of Emissions:

11K0F1D, highspeed trunking data

11K0F3E, analog voice and inband signalling

E. Spurious Emissions:

RATED: 50 μ W (-13dBm) maximum that corresponds to -58.4 dBC at the 35 Watt setting, and -56 dBC at the 20 Watt setting.

MEASURED: Refer to Exhibits 7F and 7K, respectively

F. DC Operating Voltages and Currents of the Final Stage:

10.8 Vdc to 16.32 Vdc and 12 A maximum

II. Transmitter Application

The following features, options, accessories, and installations characterize the transmitter.

A. Power Supply: Vehicular battery**B. Antenna:** External 50 Ω antenna

1. Roof mounted 3-dB gain

C. Squelch Types:

1. Carrier Squelch (CSQ)
2. Continuous Tone Coded Squelch System (Tone Private Line [TPL])
3. Continuous Digital Coded Squelch System (Digital Private Line [DPL])
4. Trunking Data

Description (continued)**D. Microphones Available:**

1. HMN1056 Compact Microphone
2. HMN1035 Heavy Duty Microphone
3. HMN3013 DTMF Microphone
4. HMN3000 Desk Microphone

E. Maximum Transmit Channel Capability:

10 channels in conventional systems and 20 channels in trunking systems

F. Housing Style:

The transceiver circuitry is contained on a single, multi-layer printed circuit board (PCB). The PCB is enclosed in a cast metal chassis as shown in the accompanying photographs. The chassis serves as a heatsink for transmitter power amplifier devices and the regulators and audio power amplifier of the transceiver. A plastic cover with an integral shield (shield/cover) encloses the top of the chassis. The shield/cover is a removable to allow servicing.

The transmitter circuitry is on the PCB of the transceiver. The transmitter frequency generation circuitry is within metal shields that are soldered to the PCB. The low level power amplification of the transmitter circuitry is also contained under metal shields that are soldered to the PCB. The power amplifier stages are shielded from the other transceiver circuits by metal shields that are soldered to the PCB.

G. Available Accessories

1. GKN6271 Ignition Switch Cable
2. GLN7317 Non-Locking Bracket
3. FSN5510 7.5 Watt External Speaker
4. GKN6272 External Alarm Relay and Cable
5. HLN3067 Control Station Package

H. Programmability:

Programming is accomplished by the use of an IBM PC computer or equivalent, a Radio Interface Box, and Radio Service Software. Adjustment of the transmitter, including programming of the channel frequencies, output power adjustment, frequency adjustment, and deviation adjustment are performed in this manner.

NOTE: The transmitter is NOT programmable by the operator.