SECTION I GENERAL INFORMATION

1.1 INTRODUCTION

This manual contains information about the physical, mechanical, and electrical characteristics of the BK Radio GMH Flex•Mode Series mobile VHF radios.

1.2 DESCRIPTION

The GMH Flex•Mode Series radio is a mobile VHF FM transceiver covering the frequency range of 136MHz to 174MHz. The GMH features an alphanumeric eight-character vacuum fluorescent display, allowing the channels to be named for easy user recognition.

An arrow on the vacuum fluorescent display points to each front mounted push button that is active. The five push buttons can be programmed with the following functions:

| Standard Functions | | Optional Functions | | | |
|--------------------|-----------------------|--------------------|----------------------|-----|----------------|
| MON | Monitor Squelch Noise | TA | Repeater Talk Around | GSC | Group Scan |
| SCN | Channel Scan | CG | Code Guard Disable | SQL | Squelch Adjust |
| PRI | Priority Scan | GRP | Channel Group | ACC | Accessory 1 |
| PA | Public Address | SPK | External Speaker | ACC | Accessory 2 |
| HOM | Home Channel | NXT | Next Scan Channel | ACC | Accessory 3 |
| | | LPW | Low Power Select | | |

The microphone connector provides an RS-232 interface for control by a keypad microphone, and for dealer programming of alphanumeric labels, push button functions, channel frequencies, Code Guard™ values, and Dual Tone Multiple Frequency/Automatic Numeric Identifier (DTMF/ANI) encode information.

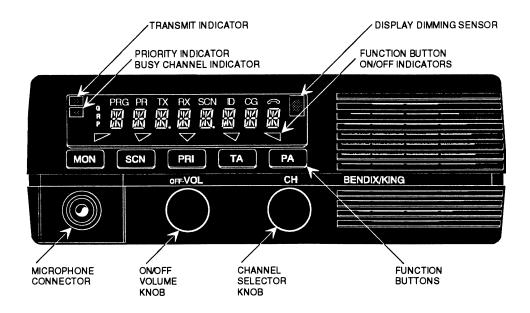


Figure 1-1 CONTROLS

General Information GMH Series VHF Radio

1.3 TECHNICAL CHARACTERISTICS

FREQUENCY RANGE 136–174MHz

CHANNELS 320 (20 groups of 16 channels)

OPERATING VOLTAGE 13.6 Vdc Negative ground

OPERATIONAL FEATURES

Fluorescent Alphanumeric DIsplay Included

Enhanced User CG Programmable Code Guard Squelch (CTCSS & CDCSS) Programmable Time Out Timer Programmable Frequency Display Programmable User Select Scan Programmable **Dual Priority Scan** Programmable **Busy Channel Lockout** Programmable **Busy Channel Indicator** Programmable DTMF ANI Programmable Talk-back Scan Programmable Interstitial Frequency Capability Programmable

PRIMARY POWER INPUT

 Receive @13.8V
 1.0 Amperes

 Transmit @ 13.6V
 16.0 Amperes

 Standby @ 13.8V
 5 Amperes

OPERATING TEMPERATURE -30° to +60° C

PHYSICAL DIMENSIONS

 Width
 6 in.

 Depth
 9.38 in.

 Height
 2.12 in.

 Weight
 5 lbs.

FREQUENCY STABILITY ± 2.5 PPM

CHANNEL SPACING 25/30 kHz and 12.5/15 kHz

CHANNEL INCREMENTS 6.25/2.5 kHz
ANTENNA CONNECTOR MINI UHF
FCC IDENTIFICATION NUMBER Pending

GMH Series VHF Radio General Information

40 = 44 =

TRANSMITTER'

| | <u>25/30</u> | <u>12.5/15</u> |
|----------------------------|----------------|----------------|
| RF OUTPUT POWER | 15 to 50 Watts | 15 to 50 Watts |
| OPERATING FREQUENCY SPREAD | 38 MHz | 38 MHz |
| MODULATION DEVIATION | ± 5 kHz | \pm 2.5 kHz |
| SPURIOUS AND HARMONICS | 80dB | 80dB |
| HUM AND NOISE | 50dB | 45dB |
| AUDIO DISTORTION | 3% | 3% |
| ANTENNA OUTPUT IMPEDENCE | 50 Ohms | 50 Ohms |
| AUDIO RESPONSE | +1 to -3dB | +1 to -3dB |

RECEIVER

| | <u>25/30</u> | <u>12.5/15</u> |
|----------------------------------|--------------|----------------|
| SENSITIVITY: 12dB SINAD | 0.28μV | 0.28μV |
| FREQUENCY SPREAD | 38 MHz | 38 MHz |
| SELECTIVITY | 75dB | 63dB |
| SPURIOUS INCLUDING IMAGE | 80dB | 80dB |
| INTERMODULATION | 75dB | 63dB |
| MAX AUDIO OUTPUT (5% DISTORTION) | 4 Watts | 4 Watts |
| AUDIO FREQUENCY LOAD | 3.2 Ohms | 3.2 Ohms |
| INPUT IMPEDENCE | 50 Ohms | 50 Ohms |
| AUDIO RESPONSE | +1 to -3dB | +1 to -3dB |
| HUM AND NOISE | -45 dB | -45 dB |

1.4 ACCESSORIES

A wide variety of optional accessories are available for the GMH mobile radios. Contact your BK Radio dealer for complete information.

1.5 LICENSE REQUIREMENTS

This equipment must be licensed by the Federal Communications Commission (FCC) before it may be used. Your BK Radio dealer can assist you in filing the appropriate application for the FCC, and will program each radio with your authorized frequencies and signaling codes.

1.6 SERVICE INFORMATION

If you need service, contact your local BK Radio dealer equipped to service your radio. If you find it impractical to have service performed by your local dealer, contact BK Radio at the address below:

BK Radio, Inc. ATTN: Customer Service 7505 Technology Drive West Melbourne, FL 32904 Voice (800) 422-6281 FAX (407) 953-7986

Specifications are subject to change without notice.

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