



MARATRAC™



*Up to 99 channel
operation and wide-
spaced separation*

- Two piece radio with small control head
- Easy to read 2-digit LED display
- Program from 1-99 channels
- Priority scan

MARATRAC

Mobile Accessories



HMN1015A



HMN1022B

MICROPHONES/HANDSETS

- HMN1015A* Standard Palm Microphone for A2 and A3 models
- HMN1061A* Standard Palm Microphone for A7 model
- HMN4013A* Noise Cancelling Microphone for A7 models
- HMN1032B* DTMF Microphone for A7 model
- HLN1220B* Telephone Style Handset w/Hang-Up Cup

A variety of microphones are available to add flexibility and ease of operation.

SPEAKERS

- HSN4020B* External Speaker for use on A2 and A3 models
- HSN4021B* External Speaker for use on A5 and A7 models

Useful in high noise environments.

SPEAKERS FOR SIREN

- TDN6251A* Siren Speaker, round with chrome finish
- TDN6252A* Siren Speaker, rectangular with chrome finish
- TDN6253A* Siren Speaker, round with grey finish
- TDN6254A* Siren Speaker, rectangular with grey finish

FRONT/REAR CONTROLS

- HLN1398A* Front and Rear Control, includes auxiliary handset, hang-up cup, control box and power voice speaker (requires one of the following control cables).
- YKN4228A* 17' Front and 40' Rear Control Cable
- YKN4230A* 17' Front and 80' Rear Control Cable
- YKN4229A* 25' Front and 40' Rear Control Cable



HSN4020B

MARATRAC

Mobile Accessories



HCN1089A

BASIC CONTROL HEADS

- HCN1089A* VHF, UHF A7 Advanced Control Head
- HCN1090A* Lowband A7, 99-channel Advanced Control Head with Adjustable Squelch Control, for use with radios shipped since 10/94
- HCN1051A* Hand Held A5 Control Head



HLN1400A

SIGNALING RETROFIT KITS

- HLN1400A* DTMF Decode Signaling Kit (for POST 1990 radios)

ALARM

- HKN1015A* External Alarm Cable and Relay, VHF and UHF (for Horn and Lights)
- HLN3091A* External Alarm Cable and Relay, Low Band (for Horn and Lights)

Note: Horn and Lights are not independently selectable on low band models.

MARATRAC

Antennas

MOBILE ANTENNAS

LOW BAND

- RAB4002ARA* Low Band 1/4 Wave Base Loaded Antenna, 29.7-36 MHz
RAB4003ARA Low Band 1/4 Wave Base Loaded Antenna, 36-42 MHz
RAB4004ARA Low Band 1/4 Wave Base Loaded Antenna, 42-50 MHz

VHF

- TAD6112A* VHF 1/4 Wave Roof Mount Antenna, 144-152 MHz
TAD6113A VHF 1/4 Wave Roof Mount Antenna, 150-162 MHz
TAD6114A VHF 1/4 Wave Roof Mount Antenna, 162-172 MHz
TAD6290B VHF Unity Gain, Roof Mount Antenna, 150-174 MHz
RAD4010ARA VHF 3dB Gain, Roof Mount Antenna, 136-174 MHz

LOW PROFILE ANTENNAS

VHF

- RAD4207A* White 150-168 MHz
RAD4208A Black 150-168 MHz
RAD4209A Black 142-160 MHz
RAD4210A White 142-160 MHz

800 MHZ

- RAF4217A* White 821-896 MHz
RAF4218A Black 821-896 MHz
RAF4219A Black 806-866 MHz
RAF4220A White 806-866 MHz



RAF4220ARB



3080384M48



RAD4010ARA

ANTENNA KITS

VHF

- RAD4207ARB* White 150-168 MHz
RAD4208ARB Black 150-168 MHz
RAD4209ARB Black 142-160 MHz
RAD4210ARB White 142-160 MHz

800 MHZ

- RAF4217ARB* White 821-896 MHz
RAF4218ARB Black 821-896 MHz
RAF4219ARB Black 806-866 MHz
RAF4220ARB White 806-866 MHz

MOUNTS

- 3080384M44* Black Magnetic w/12 ft. of RG58A/U Cable
3080384M45 Chrome Magnetic w/12 ft. of RG58A/U Cable
3080384M48 3/4 Hole Mini UHF Crimp w/17 ft. of RG58A/U Cable
3080384M46 Chrome Trunk Mount w/17 ft. of RG58A/U Cable
3080384M47 Black Trunk Mount w/17 ft. of RG58A/U Cable

MARATRAC™ Mobile Radio

The Rugged High Power Radio for Reliable Talk and Listen Communication.

Simple

The two piece radio has a small control head that can be mounted anywhere in your vehicle. An easy to read 2 digit LED display on the control head indicates channels and scan conditions. Dedicated buttons provide easy control of features like scan, multiple Private Line codes, signaling calls, external alarms, and repeater Talkaround. Low band users will find the external squelch control knob ideal for controlling squelch sensitivity in cities or rural environments.

Flexible

MaraTrac ships with features to meet the needs of many users. With the Radio Service Software (RSS), features can be enabled or changed in the field.

You can program from 1 to 99 channels with any number of Private Line or Digital Private Line codes. For multiple repeater applications, you can select different PL or DPL codes without changing channels. With a touch of the talkaround button, you can bypass repeater channels and talk radio to radio.

When you need to monitor more than one channel, the Priority Scan feature can be enabled. Operator Selectable Single Priority

Scan lets you program the channels to be monitored and to designate a priority channel. If you need more than one scan list, the RSS can be used to preprogram multiple lists.

For efficient non-voice use of radio frequencies, MaraTrac ships with Stat-Alert and Quik Call II signaling formats. Through the RSS, you can select a signaling format and enable various features. Both Stat-Alert and Quik Call II allow a radio dispatcher to page or selectively call an individual vehicle. In addition, Stat-Alert signaling provides ID with each press of the microphone PTT, and the press of a footswitch can indicate an emergency condition. All signaling decoders allow for connection to external alarms like horn honking or flashing lights.

Rugged

MaraTrac radios are backed by Motorola's one-year Parts and Labor Warranty for protection against defects in material and workmanship under normal use and service.

MaraTrac – the high power mobile that takes you back to the basics with simple controls, flexible field programmable features, and reliable communications for rugged environments.

General Specifications

Channel Capacity:	99 Channels						
Operation:	13.8 VDC Negative Ground Only						
Dimensions:	Radio: 10.0"H x 14.5"W x 2.5"L			Control Head*: 6.5"H x 3.4"W x 1.7"L		Speaker*: 5.5" x 2.5"	
Weight:	Radio: 16 lbs. (7.26 kg)			Control Head: 12.0 oz. (0.3 kg)		Speaker: 1.5 lbs. (0.7 kg)	
Metering:	Totally electronic using an IBM Personal Computer, a Radio Interface Box (RIB) and field service software.						
Model	Pkg.	Minimum RF Power Output		Maximum Current Drain			
				Off @ 13.8V	Standby @ 13.8V	Receive at Rated Audio @ 13.8V	Transmit @ 13.4V
T81XTA7TA7-K	A7	29.7-50 MHz	110 Watts	60mA	700mA	3.0A	27A
T73XTA7TA7-K	A7	150-174 MHz	100 Watts**	60mA	700mA	3.0A	27A

* Excluding mounting bracket **VHF MaraTrac Mobile Radios are adjustable to 75 watts

Transmitter Specifications

Output Impedance:	50 ohms			
Spurious and Harmonics:	More than 80 dB below carrier (for EIA spec., RS152B)* *Spur @ Fc ± 14.4 MHz within FCC (VHF Band)			
Frequency Stability:	± 0.0005% of assigned center frequency -30°C to +60°C to 25°C Ref.			
Modulation:	15K0F2D, 16K0F1D, 16K0F3E			
Audio Sensitivity	0.080V ± 4dB for 60% max. deviation @1000 Hz			
FM Hum and Noise:	-45db Low Band, VHF			
Audio Response	EIA			
Audio Distortion:	Less than 3% @ 1000 Hz. 60% max. deviation			
Maximum Frequency Separation:	29.7-36 MHz 6.3 MHz	36-42 MHz 6 MHz	42-50 MHz 8 MHz	150-174 MHz 24.0 MHz

Receiver Specifications

Channel Spacing:	Low Band 20 kHz, VHF 30 kHz (25 kHz Int.)			
Sensitivity	(per EIA Spec RS204C)			
12 dB EIA SINAD:	Low Band: 0.35 µV, VHF			
Selectivity:	Low Band, VHF: -80dB			
Intermodulation:	Low Band, VHF: -80dB			
Spurious & Image Rejection:	Low Band, VHF: -80dB			
Input Impedance:	50 ohms			
Audio Output:	10 Watts at less than 5% distortion (into 3.2 ohm load at 1000 Hz)			
Maximum Frequency Separation:	29.7-36 MHz 6.3 MHz	36-42 MHz 6 MHz	42-50 MHz 8 MHz	150-174 MHz 24.0 MHz
Frequency Stability:	-30°C to +60°C, 25°C Ref. ± 0.0005% of assigned center frequency			

MIL-STD 810E Testing Environmental Performance

MaraTrac meets or exceeds applicable MIL 810 D and E standards for shock, vibration, rain, salt, fog, and dust.

FCC Designation

Low band – ABZ89FT1619 VHF – ABZ89FT3731



For more information, please contact:



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