



SP-220-250 SERIES PORTABLE RADIO

- 1 OR 5 WATTS / 4 OR 16 CHANNELS
- CTCSS / DCS PRIVACY TONES
- SCAN & PRIORITY CHANNEL SCAN
- PROGRAMMABLE 12.5 / 25 KHZ BY CHANNEL
- MIL-STD 810F APPROVED



**ROCK
SOLID**

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MIDLAND®

SP-220 - SP-250 SERIES VHF / UHF PORTABLE RADIOS

Specifications	VHF Models	UHF Models
	SP-220V / SP-240V	SP-230U / SP-250U
Frequency Range	V2: 148 - 174 MHz	U2: 440 - 470 MHz
Channels	4 / 16	4 / 16
Channel Spacing	15 / 25 / 30 / 12.5 kHz	
PLL Step	5.0 / 6.25 / 7.5 kHz	
Channel Spread	26 MHz	30 MHz
Antenna Impedence	50 Ω	
Operating Voltage	7.2V DC Nominal	
Battery Life (with 1350 mAh NiMH battery)	> 8 hours @ 5 watts (90-5-5 DUTY CYCLE PER EIA RS-316B)	
Operating Temperature	-22°F to +140°F (-30°C to +60°C)	
Frequency Stability	± 5.0 ppm	± 2.5 ppm
Dimensions with batteries (H x W x D)	4-1/4" x 2-5/16" x 1-1/2" (108 x 59 x 38 mm)	
Weight with 1350 mAh battery pack & antenna	11.8 oz. (335 gm.)	
FCC Identifier	MMASP200V2	MMASP200U2
FCC Compliance	Parts 80, 90, 90.210	Part 90
IC Certification Number	3690A-SP200V2	3690A-SP200U2

Receiver Specifications

Sensitivity (12dB S I N A D)	.25 μV	
Selectivity	65 dB @ 12.5 kHz; >75 dB @ 25 kHz	
Intermodulation	60 dB	
Spurious Response	70 dB	
Audio Output (Method @ <10% THD Level)	1.0 W (Int.) @ 4 Ω	550 mW (Ext.) @ 8 Ω

Transmitter Specifications

RF Output (programmable by channel)	1 or 5 Watts	
Spurious and Harmonic Emissions	60 dB	
Modulation	11K0F3E, 16K0F3E, 6K00F3E,	
FM Hum and Noise	40 dB @ 12.5 kHz; 45 dB @ 25 kHz	
Audio Distortion	2%	

MIL-STD Methods / Procedures Standard 810F Method / Procedure

Rain (Watertightness)	506.4 / Proc. II	
Humidity	507.4 / Proc. I	
Blowing Dust	510.4 / Proc. I	
Vibration	514.5 / Proc. I	
Shock	516.5 / Proc. I, IV	



UHF Antenna 440-470 MHz &
VHF 148-174 MHz
(ACC-100 & 102)



Nylon Case w/ Belt Clip
(ACC-301)



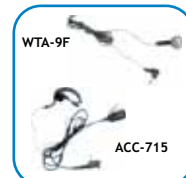
Coil-Cord Earphone, used
w/ ACC-727 (QPA-1424)



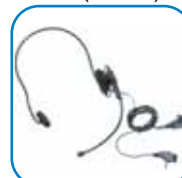
Leather Case w/ Swivel
(ACC-300)



Heavy Duty Speaker w/ Locking
Connector & Audio Earphone
Jack (ACC-714)



Ear Speaker for use w/ ACC-714
(WTA-9F) & Ear Hook Speaker Mic w/ PTT
& Locking Connector (ACC-715)



Ultra-lite headset w/ locking
connector (ACC-616)



Heavy Duty Speaker Mic w/
Audio Earphone Jack
(ACC-727)



1350 mAh NiMH Battery
Pack w/ Center Mount Belt Clip
(ACC-206)



6 Station Gang Charger
(ACC-460) Charger Cup
Required (ACC-462)



Dual Slot Desktop
'Smart' Charger
Power Supply NOT Included
(ACC-400)



Single Unit Standard Charger
Power Supply Included
(ACC-480)

FOR MORE INFORMATION, CONTACT:

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Other Options Not Shown

Alignment Box w/ Cables & DOS Alignment Software(ACC-2003)

PC Software, Win 95 or higher (ACC-908CD)

PC Programming Interface Cable (ACC-2004)

110V / 220V Power Supply, for use with ACC-400 (QPA-1411 / 1412)

Cigarette Lighter Adaptor, used w/ ACC-400 (ACC-408)

Single Unit 'Smart' Charger Base (ACC-470), requires cup (ACC-472)

Charger Cup for ACC-206/QPA1350 Batteries (ACC-472)

Single Unit Desktop Charger, Power Supply Included (ACC-421)

2 pin to 1 pin Accessory Adaptor (ACC-506)

SP-220-250 Service Manual (680-100-2019)