



Radio Communications Supply &  
Installation Specialist

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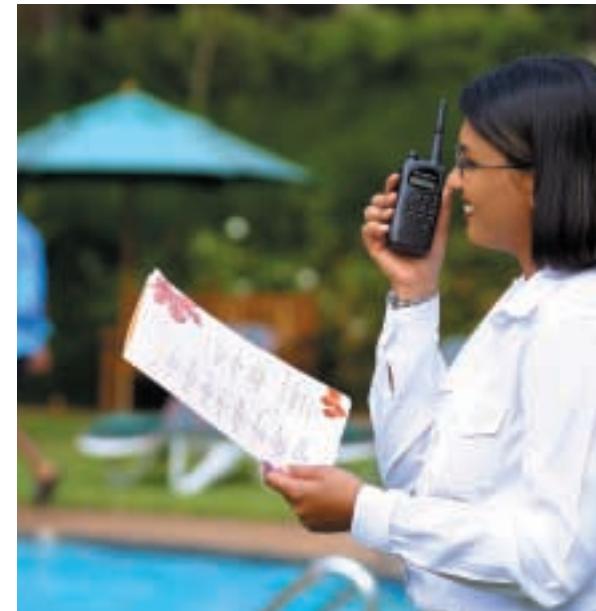
Data Sheet



**MOTOROLA**

*intelligence everywhere™*

*INTRODUCING  
THE ALPHA  
SERIES  
PORTABLE  
TWO-WAY  
RADIOS*



*MODERN, EFFICIENT AND  
EXCEPTIONAL VALUE*

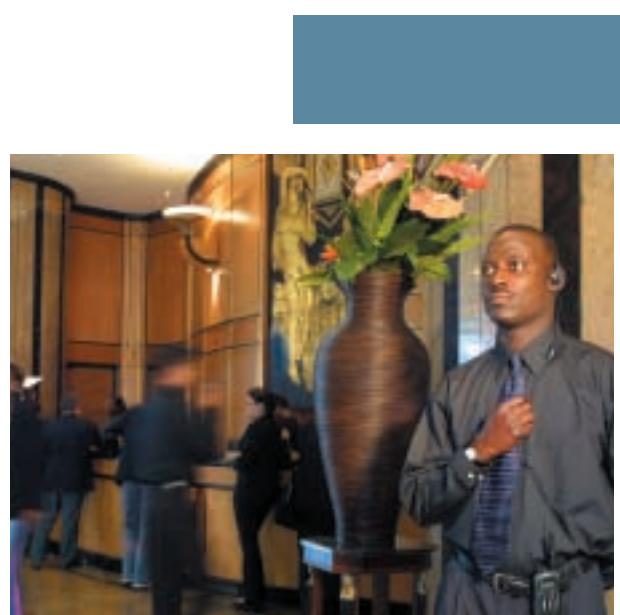
*The Motorola Alpha Series comprises the P020 (reduced keypad version) for general users and the P030 (full keypad version) for those with more sophisticated requirements. Both offer an affordable way to enhance operational efficiency.*

Feature-rich and excellent value for money, the compact and ergonomically-designed Motorola Alpha Series two-way radios offer excellent audio quality with reduced background noise. Easy to use, the Alpha Series is designed for businesses that want to stay in touch with a mobile workforce and be in control of their operations.

Radio is the tool of choice, particularly in areas that have unreliable or non-existent cellular phone network coverage. And unlike cellular telephones, two-way radio usage is not billed on an airtime basis thus providing an economical communications solution.

#### **PROVEN TECHNOLOGY**

A proven asset for a wide range of operations, the cost-effective Alpha Series radios come with Motorola's reliability and quality standards. Built to exacting industry standards, including Motorola's rigorous 5 year Accelerated Life Testing, the P020 and P030 have been designed to withstand harsh industrial usage.



#### **PRODUCTIVITY-BOOSTING FEATURES**

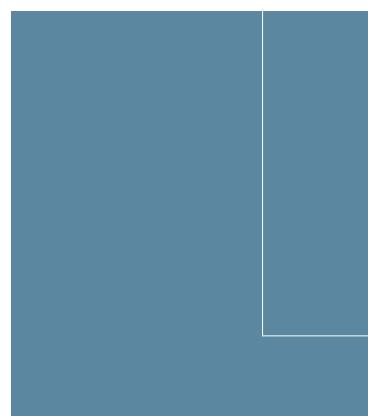
The Alpha Series offers a wide range of features that help to manage and control operations with ease.

#### ***Compact, Lightweight and Ergonomically Designed***

Designed with a modern, ergonomic style to facilitate better handling.

#### **99 Channels**

Ideal for operations with a large group of users, this allows for 99 different talk groups which can be organised to reflect the way that the teams need to work.



#### ***Front Panel Programming***

Alpha Series radios are easily programmable through their front panel buttons. This feature offers the flexibility of customising and resetting radios in the field without the need for software or a computer interface.



*PMLN4467 Soft Leather Carry Case*



*MDPMTN4052 Standard Charger UK plug*



*MDPMTN4053 Standard Charger US plug*



## **Extended Battery Life &**

### **Battery Saver Mode**

Motorola Original batteries allow up to eight hours of talktime.\* When on standby the radio runs in battery-save mode and the low battery alert warns users to charge the battery. Activate the "talkaround" function and save power by avoiding unnecessary use of repeater. Extend battery life for up to four hours more by activating "Economy Low" battery saver mode when users are in close proximity. (\*Assuming 5% of time transmit, 5% receive and 90% standby.)

## **More Private Lines**

Set up talkgroups with unique Private Lines to prevent unwanted conversations on the same frequency. Alpha Series radios have 128 different private lines for increased communications flexibility.

## **Selective Call**

This allows a single user to be called directly and communicate one-to-one without disturbing the team. User-customised speed dials can be programmed into the radio.

## **Telephone Interconnect**

The P030 also supports DTMF signaling for telephone interconnect

when supported by an appropriate interface.

## **User-friendly Navigation**

Two navigation buttons allow the user easy menu access. Four programmable buttons can be customised for quick access to eight commonly-used features.

## **Alpha-numeric & Iconic Display**

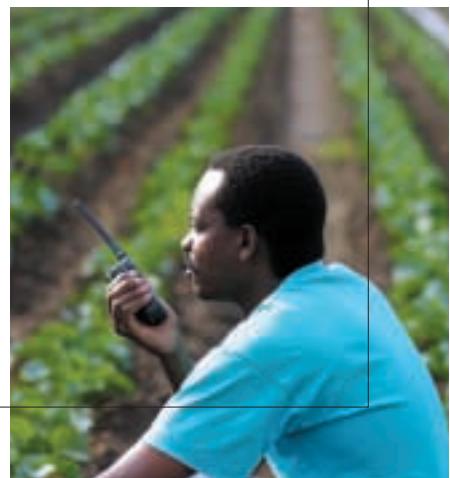
Including battery and signal strength indicators. Text and number displays such as channel number and alias for enhanced user experience.

## **Prime Channel and Priority Scan**

Set the most frequently-used channel as the default channel to avoid missing important messages. The Prime Channel is checked most often for activity when Priority Scan is activated.

## **ADDITIONAL FEATURES**

- Busy Channel Lockout
- Nuisance Channel Delete
- Backlight
- Receive-only Channel
- Variable Time-out Timer



*A proven asset for a wide range of operations, the cost-effective Alpha Series radios come with Motorola's reliability and quality standards.*



*DPMTN4049 Rapid Single Unit charger (Euro Plug)*



*4285820Z01 Shoulder Strap*



*PMNN4046 Standard NiMH battery*



*JMZN4020 Radio Handstrap*



*MDPMN Speaker*

**DESIGNED FOR BUSINESS,  
THE ALPHA SERIES IS  
PARTICULARLY USEFUL IN THE  
FOLLOWING SECTORS:**



**RETAIL, HOSPITALITY  
AND TOURISM**

Discreet, lightweight and highly portable to enhance customer service, site and guest security and co-ordinate inter-departmental operations. Keep the message in the team with a Motorola Original audio accessory.

**MANUFACTURING**

Keep the production line moving with clear communication, even under noisy plant conditions. Motorola radios help to reduce downtime through equipment breakdown alerts, facilitate better staff co-ordination and enhance plant safety and security with fast response to emergencies.

**CONSTRUCTION**

For the highest levels of efficiency and safety, the rugged and compact P020 and P030 are built with the harsh worksite environment in mind. Co-ordinate on-site manpower and resource deployment, access work partners immediately and enhance work site security to minimise theft and accidents. Talk to the whole team at once to communicate an urgent message.

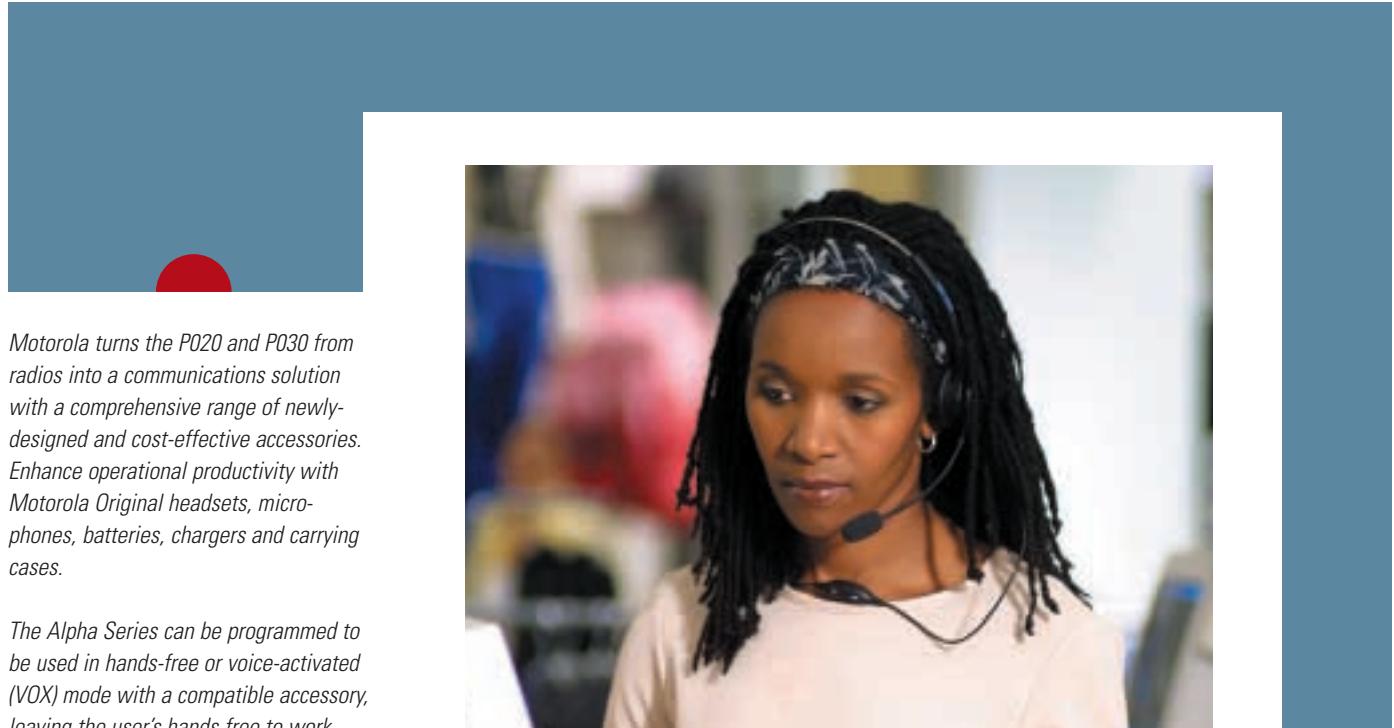


*MN4008 Remote  
Microphone*

*MDPMLN4444 Earphone  
Boom Microphone and  
in-line PTT*

*MDPMLN4442 Earbud  
with in-line Microphone  
and PTT*





*Motorola turns the P020 and P030 from radios into a communications solution with a comprehensive range of newly-designed and cost-effective accessories. Enhance operational productivity with Motorola Original headsets, microphones, batteries, chargers and carrying cases.*

*The Alpha Series can be programmed to be used in hands-free or voice-activated (VOX) mode with a compatible accessory, leaving the user's hands free to work.*

#### **Battery**

PMNN4046	– NiMH battery (high capacity)
Dimensions (H x W x D)	– 115.5mm x 56mm x 18mm (22mm top)
Weight	– 159g

#### **Chargers**

<b>Single Unit Chargers/Transformers</b>	– Slow rate (16 hours)	– Plug directly into radio
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MDPMTN4053	– Standard Charger, US plug, 110V
MDPMTN4047	– Standard Charger, Euro plug, 230V
MDPMTN4052	– Standard Charger, UK plug, 230V

<b>Single Unit Chargers</b>	– Rapid rate (90 minutes)
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MDPMTN4048	– Rapid Charger, US plug, 110V
MDPMTN4049	– Rapid Charger, Euro plug, 230V
MDPMTN4050	– Rapid Charger, UK plug, 230V

#### **MAG ONE Audio Accessories**

MDPMLN4442	– Earbud with in-line Microphone/PTT/VOX switch
MDPMLN4443	– Ear Receiver with in-line Microphone/PTT/VOX switch
MDPMLN4444	– Earphone Boom Microphone and in-line PTT/VOX switch
MDPMLN4445	– Ultra Lightweight Headset with in-line PTT/VOX switch
MDPMMN4008	– Remote Speaker Microphone

#### **Carrying Accessories**

PMLN4467	– Carrying Case, Soft Leather (black)
PMLN4468	– Holster Case, Neoprene (grey)
4285820Z01	– Shoulder Strap
HLN9844	– Spring Belt Clip, for 3.8 cm belts
JMZN4020	– Radio Handstrap

**MDPMLN4445**  
*Ultra Lightweight Headset with in-line PTT*



**MDPMLN4443**  
*Ear Receiver with in-line PTT*



*Motorola Original accessories are built to the highest standards and engineered to ensure maximum radio performance.*



*The essential communications  
tools for today's business*

## **Technical Specifications**



### **Portable Military Standards 810 C, D and E**

<b>Applicable MIL-STD</b>	<b>Methods</b>	<b>Procedures</b>
High Temperature	501.3	1
Low Temperature	502.3	1 & 2
Temperature Shock	503.3	1
Solar Radiation	505.3	1
Humidity	507.3	3
Salt Fog	509.3	1
Dust	510.3	1
Vibration	514.4	1

### **Accelerated Life Testing**

Stringent Motorola Accelerated Life Testing simulating five years of hard use in real life, EIA RS-316B in shock, vibration, dust & humidity. IPX4 for Sealing. Tested for resistance to spray water from all directions.

### **MIL-STD 810 C, D and E**

Stamp of approval from the U.S. Military for use in rough environments.

<b>General</b>	<b>VHF</b>	<b>UHF</b>
Frequency Range	136 - 174 MHz	403-440 MHz 435-480 MHz
Channels	99	
Operating Temperature Range	-30°C... to +60°C (Radio) -20°C... to +60°C (With NiMH battery)	
Dimensions (H x W x D)	115.5mm x 56mm x 35mm (38mm top) with NiMH battery	
Weight	191 g (without battery), 350g (with battery)	

<b>Transmitter</b>	<b>VHF</b>	<b>UHF</b>
RF Power	~ 0.1/1/5 W	~ 0.1/1/4 W
Channel Spacing	12.5 / 25 kHz switchable	
Spurs and Harmonics	63dB	
Frequency Stability	± 2.5ppm	
FM Hum and Noise	40dB	
Modulation Limiting	+/- 5kHz (25kHz) / +/ - 2.5kHz (12.5kHz)	
Audio Response (from 6dB/oct. Pre-Emphasis, 300 to 3000Hz)	+1, -3dB	
Audio Distortion @ 1kHz tone, 60% rated max dev.	<5%	

<b>Receiver</b>	
Channel Spacing	25 kHz / 12.5 kHz
Sensitivity (12dB SINAD)	0.25µV
Selectivity (EIA)	65dB / 60dB
Intermodulation (EIA)	65dB / 60dB
Spurious Rejection	65dB / 60dB
Audio Distortion	<5%
Hum and Noise	40dB
Conducted Emission	-57dBm
Audio Output @ <5% Distortion (7.5V / room temperature)	500mW into 24 Ohm

All specifications shown are typical and subject to change without notice.

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