



Motorola P160 & P180

Portable Two-Way Radios



P160

P180

Easy-to-handle, lightweight, compact design.

Tough construction and reliable performance thanks to Motorola's unique Accelerated Life Testing (ALT)

High power 5 watt (VHF) / 4 watt (UHF) adjustable power levels help extend battery life.

Multi-channel capability - 99 channels to support communication amongst all your employees.

Standard Lilon battery provides up to **11 hours of battery life** at high power (5/5/90 duty cycle) to meet the demands of your employee's work shift. A high-capacity Lilon battery option is available for those with longer shift requirements or increased communication needs.

Tighter specifications provide **enhanced rejection of interference** so you can get your message through clearly.

X-Pand technology provides **crisp, clear and strong audio quality**.

5 programmable buttons enabling easy, **one-touch access to up to 10 user selected features**.

VOX ready for **hands-free communication** using a suitable headset.

Built-in simple voice scrambling for **increased privacy**.

Built-in DTMF signaling provides **caller identification and private communication**.

User programmable feature allows customisation of radio profiles while on the go.

Talkaround capability enabling communication even when a repeater is not being used.

Rapid-rate drop-in charging - charge standard capacity batteries in less than 3 hours with the single unit charger.

Get the most from your radio using the wide range of **Motorola Original® accessories**: microphones, earpieces, carry cases, a high capacity battery and more allow the user to match the radio to their needs.

Remote Speaker Microphones can be clipped to a lapel or pocket, allowing messages to be sent and received more easily.

Earpieces and headsets let you keep your hands free without missing messages.

Carry cases let you put the radio on your belt and help prevent damage.

High capacity battery means longer run-times between recharging.

Enhanced functionality, reliable communication

Easy and prompt communication with your workforce is vital to improving response time, strengthening employee efficiency and increasing customer satisfaction. Motorola's two-way radios provide a durable, high-quality voice communication solution that helps your business increase productivity and provide excellent customer service. Ideal for light manufacturing, retail, hospitality services,

property and real estate management. The Motorola P160 and P180 portable radios bring you quality features you need at a competitive price. With an extensive feature set and ergonomic shape for comfortable use in a durable, lightweight, compact design, you can enhance communication while increasing efficiency and productivity.

General Specifications	P160 & P180	
	VHF	UHF
Frequency Range	136-174MHz	403-447MHz 435-480MHz
Channel Capacity	99 CH	
Channel Spacing	12.5/25 kHz switchable	
Operating Temperature Range	-20°C to +55°C	
Storage Temperature Range	-40°C to +85°C	
Dimensions (H X W X D) with Lilon battery NiMH battery High Capacity Lilon battery	120 x 55 x 35.5 mm 120 x 55 x 36.5 mm 120 x 55 x 40.7 mm	
Weight with Lilon battery NiMH battery High Capacity Lilon battery	335g 395g 340g	
Average Battery Life @5-5-90% Duty Cycle, with Lilon battery NiMH battery High Capacity Lilon battery	High Power up to 11 hrs up to 9 hrs up to 16 hrs	
Sealing	Rated IP54 - protected against harm from dust or water spray	
Shock & Vibration	Diecast body with impact resistant polycarbonate housing, Meets MIL-STD810C/D/E/F	
Dust & Humidity	Weather resistant housing Meets MIL-STD810C/D/E/F	

Transmitter	High Power 5W	Low Power 1W	High Power 4W	Low Power 1W
RF Output				
Spurs and Harmonics		9kHz - 1GHz <-36dBm >1GHz < -30dBm		
Frequency Stability (-20°C to +55°C)		1.5 kHz @ 12.5 kHz 2.0 kHz @ 25 kHz		
Modulation Limiting		≤ ± 5KHz @ 25KHz ≤ ± 2.5KHz @ 12.5KHz		
Audio Response (from 6dB/oct pre-emphasis, 300-3000Hz)		≤ +1/-3dB		
Audio Distortion @ 1kHz tone, 60% rated max dev.		<5%		

Receiver	
Sensitivity (20dB SINAD)	< -107 dBm (1µV/50 Ohm)
Adjacent Channel Selectivity	>70dB (25kHz), >65dB (12.5kHz)
Intermodulation	>65dB
Spurious Rejection	>70dB
Audio Distortion	<5%
Conducted Emission	< -57dBm for below 1GHz < -47dBm for above 1GHz
Audio Output @ <5% Distortion	500mW (at 24 ohm)

Military Standards	810C		810D		810E		810F	
	Method	Proc./Cat.	Method	Proc./Cat.	Method	Proc./Cat.	Method	Proc./Cat.
High Temperature	501.1	I, II	501.2	I/A1, II/A1	501.3	I/A1, II/A1	501.4	I/Hot, II/Hot
Low Temperature	502.1	I	502.2	I/C3, II/C1	502.3	I/C3, II/C1	502.4	I/C3, II/C1
Temperature Shock	503.1	-	503.2	I/A1C3	503.3	I/A1C3	503.4	I
Solar Radiation	505.1	II	505.2	I	505.3	I	505.4	I
Humidity	507.1	II	507.2	II	507.3	II	507.4	-
Salt Fog	509.1	-	509.2	-	509.3	-	509.4	-
Blowing Dust	510.1	I	510.2	I	510.3	I	510.4	I
Vibration	514.2	VIII/F, Curve-W	514.3	I/10, II/3	514.4	I/10, II/3	514.5	I/24

* Availability subject to individual country's law and regulations. Radios meet applicable regulatory requirements. All specifications listed are typical and are subject to change without notice. Specifications are issued for guidance only.

To ensure compliance with RF energy exposure standards and regulations, use only Motorola-approved batteries and accessories.

Contact your local Motorola Authorised Dealer to find out more about how communicating with Motorola radios will benefit your organisation.

Version 1 05/09



Stringent Motorola Accelerated Life Testing simulating five years of hard use in real life. EA RS-3168 in Shock, Vibration, Dust, Humidity, IP54 for Sealing



Compliance with ISO 9001 Standard on international quality system assurance on design, development, production, installation and servicing of a product.



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



To ensure compliance with RF energy exposure standards and regulations, use only Motorola-approved batteries and accessories. Use of non-Motorola-approved batteries and accessories may result in RF energy exposure standards being exceeded.

For more information please contact your local Motorola Authorised Dealer or Distributor



MOTOROLA and the Stylised M Logo are registered in the U.S. Patent and Trademark Office. All other product or service names are the property of their registered owners. © Motorola, Inc. 2009

P160-P180-SPECSHEET_UK (05/09)

www.motorola.com

Motorola, Ltd. Jays Close, Viabes Industrial Estate, Basingstoke, Hampshire, RG22 4PD, UK