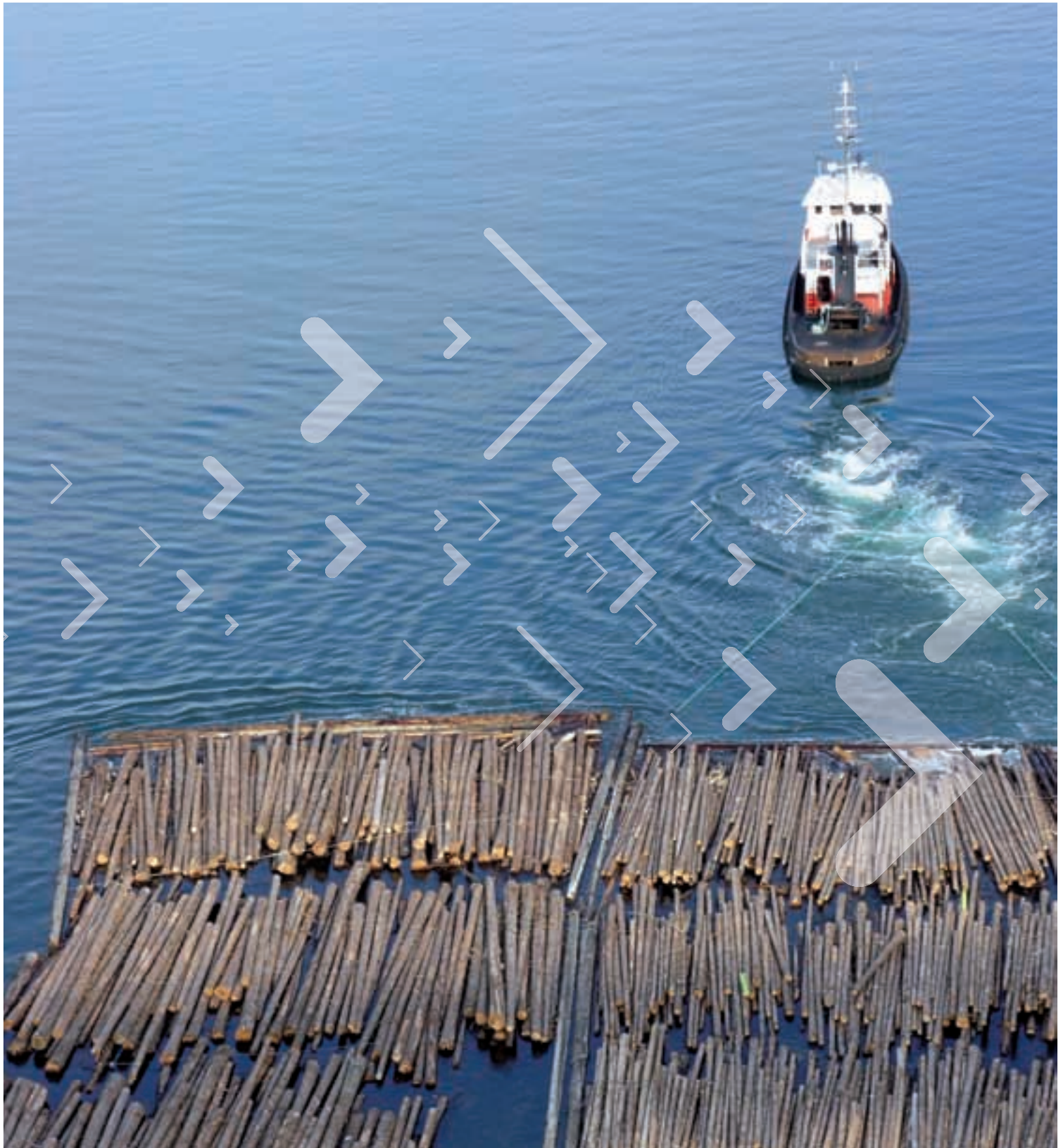




# *GP-R Series*

Professional Submersible Compact Two-Way Radios



## Trusted and proven product platform

For over 75 years, Motorola has been a leader in radio communications. From the earliest walkie-talkies, to the first words transmitted from the moon, and currently, to outfitting today's busy professionals with the most efficient means of radio communications – Motorola has always set the standard, which the industry follows. Our innovative thinking has resulted in many of the wireless communication tools available on the market today.

Motorola's Professional Submersible Series radios complement this philosophy. They are designed and manufactured to meet IP67 specifications for total protection against water and dust intrusion. A cost-effective, three-tier communications solution for professionals operating in hazardous and inhospitable environments, these discreet, compact, ruggedised, water and dust resistant radios are designed with different integral feature sets to suit various operating scenarios.

Most importantly, professionals operating in harsh environments want reliable high quality voice communications. Designed to operate in the harshest of outdoor environments Motorola's GP-R Series radios comprise three models that bring practicality to an organisation's two-way communications solution by keeping users in contact when working in tough environments and allowing them to concentrate on their jobs.



## GP-R Compact Professional Submersible Series Radios

### Submersible, Lightweight, Compact

Rain, wind, snow, dust and exposure to saltwater are every day challenges for professionals who operate in all weathers and environments or occupations where inhospitable conditions are a hazard to conventional communications devices. In such conditions, personal and group safety is a prime consideration when carrying out and managing work programmes. Reliable and efficient communications is therefore critical to completing tasks efficiently and safely.

With the Motorola GP-R Series you can select the most suitable and cost-effective solution for the job with the confidence that full communication compatibility across the range is guaranteed. Whether it is simple "talk and listen" functionality or a more sophisticated requirement allowing the user to manage teams and production the GP-R Series fulfils the need.



**GP344R &  
GP644R**

Compact, discrete non-keypad radio.



**GP366R &  
GP666R**



Compact, limited keypad with alpha-numeric display.

**GP388R & GP688R**

Compact, full keypad with alpha-numeric display.



| General Specifications  |   |                          |                         |
|---|---|--------------------------|-------------------------|
|   | GP344R, GP644R  | GP366R, GP666R           | GP388R, GP688R          |
| Channel Capacity<br>Private Line & 5-tone<br>MPT  | 16<br>System Dependent  | 255<br>System Dependent  | 255<br>System Dependent |
| Dimensions: H x W x D (mm)<br>Height excluding knobs  | 101.5 x 56.5 x 37.0   | 101.5 x 56.5 x 39.0      | 101.5 x 56.5 x 39.0     |
| Weight: (gm)<br>With high capacity Lilon battery<br>(both standard and FM battery)                          | 305   | 320                      | 320                     |
| Power Supply  | Rechargeable battery 7.5v   |                          |                         |
| Average Battery Life @5/5/90 Cycle:<br>With high capacity Lilon battery<br>(both standard and FM battery)   | Low Power<br>>13 hours  | High Power<br>>10 hours  |                         |
| Average Battery Life @10/10/80 Cycle:<br>With high capacity Lilon battery<br>(both standard and FM battery) | Low Power<br>>8 hours   | High Power<br>>6.5 hours |                         |
| Sealing:  | Withstands rain testing per MIL STD 810 C/D/E/F and IP67  |                          |                         |
| Shock and Vibration:  | Protection provided via impact resistant housing exceeding MIL STD 810-C/D/E/F and TIA/EIA 603      |                          |                         |
| Dust and Humidity:  | Protection provided via environment resistant housing exceeding MIL STD 810 C/D/E/F and TIA/EIA 603 |                          |                         |

| Transmitter  |  |
|--|--|
| *Frequencies - Full Bandsplit<br>Private Line & 5-tone | VHF: 136-174 MHz<br>UHF2: 450-527 MHz<br>UHF1: 403-470 MHz |
| Private Line & 5-tone and MPT                          |  |
| Channel Spacing  | 12.5 kHz / 20 kHz / 25 kHz                                 |
| Frequency Stability<br>(-25°C to +55°C, +25° Ref.)     | ±2.5 ppm   |
| Power  | 136-174: 1-5W<br>403-470: 1-4W<br>450-527: 1-4W            |
| Modulation Limiting                                    | ±2.5 @ 12.5 kHz<br>±4.0 @ 20 kHz<br>±5.0 @ 25 kHz          |
| Conducted/Radiated Emission                            | -36 dBm <1 GHz<br>-30 dBm >1 GHz - 4 GHz                   |
| Audio Response (300-3000Hz)                            | +1 to -3 dB  |

| Receiver   |  |
|--|--|
| *Frequencies - Full Bandsplit<br>Private Line & 5-tone | VHF: 136-174 MHz<br>UHF2: 450-527 MHz<br>UHF1: 403-470 MHz |
| Private Line & 5-tone and MPT                          |  |
| Channel Spacing  | 12.5 kHz / 20 kHz / 25 kHz                                 |
| Sensitivity (12 dB SINAD) EIA                          | .35 µV typical   |
| Intermodulation ETS                                    | -65 dB   |
| Adjacent Channel Selectivity                           | 60 dB @ 12.5 kHz<br>70 dB @ 20/25 kHz                      |
| Spurious Rejection                                     | 70 dB  |
| Rated Audio  | 0.5W   |
| Audio Response (300-3000Hz)                            | +1 to -3 dB  |

Data is specified for +25°C unless otherwise stated.  
\*Availability subject to the laws and regulations of individual countries.

| Portable Military Standards 810 C, D, E & F |         |            |         |            |         |            |         |            |
|---|---------|------------|---------|------------|---------|------------|---------|------------|
| Applicable MIL-STD                          | 810C    |            | 810D    |            | 810E    |            | 810F    |            |
|   | Methods | Procedures | Methods | Procedures | Methods | Procedures | Methods | Procedures |
| Low Pressure                                | 500.1   | 1          | 500.2   | 2          | 500.3   | 2          | 500.4   | 2          |
| High Temperature                            | 501.1   | 1,2        | 501.2   | 1,2        | 501.3   | 1,2        | 501.4   | 1,2        |
| Low Temperature                             | 502.1   | 1          | 502.2   | 1,2        | 502.3   | 1,2        | 502.4   | 1,2        |
| Temp. Shock                                 | 503.1   | 1          | 503.2   | 1          | 503.3   | 1          | 503.4   | 1          |
| Solar Radiation                             | 505.1   | 1          | 505.2   | 1          | 505.3   | 1          | 505.4   | 1          |
| Rain  | 506.1   | 1,2        | 506.2   | 1,2        | 506.3   | 1,2        | 506.4   | 1,3        |
| Humidity                                    | 507.1   | 2          | 507.2   | 2,3        | 507.3   | 2,3        | 507.4   | -          |
| Salt Fog                                    | 509.1   | 1          | 509.2   | 1          | 509.3   | 1          | 509.4   | -          |
| Dust  | 510.1   | 1          | 510.2   | 1          | 510.3   | 1          | 510.4   | 1          |
| Vibration                                   | 514.2   | 8,10       | 514.3   | 1          | 514.4   | 1          | 514.5   | 1          |
| Shock                                       | 516.2   | 1,2,5      | 516.3   | 1,4        | 516.4   | 1,4        | 516.5   | 1,4        |



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Conforms to R&TTE directive 1999/05/EC. Radio meets applicable regulatory requirements.  
Specifications are subject to change without notice and are issued for guidance purposes only.  
All specifications listed are typical. Radios meet applicable regulatory requirements.

GP-R\_SERIES/BRO-ENG(07/08)

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



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