

# Q-MAC ELECTRONICS

HF TRANSCIEVERS &  
ANTENNA SYSTEMS



**Q-MAC MANPACK  
ADVANTAGES**

# HF HELP FILES



# Q-MAC Electronics Pty Ltd

## HF HELP FILES

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#### Q-MAC Electronics Pty Ltd

**HEAD OFFICE**

142 Hasler Road, Osborne Park WA 6017. Australia  
Telephone: +618 9242 2900, Facsimile: +618 9242 3900

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Email: [info@qmac.com](mailto:info@qmac.com)  
Web: [www.qmac.com](http://www.qmac.com)



# 1 Competitive advantages of the Q-MAC Manpack

## 1.1 Extremely small size of HF-90 Transceiver.

The HF-90 is the world's smallest HF Manpack transceiver! Dimensions:- 112 (W) x 47 (H) x 220 (D)

## 1.2 Very low weight of HF-90 Transceiver.

The HF-90 is the world's lightest HF Manpack transceiver! Weight:- 1kg (HF-90 only)

## 1.3 High power output.

The HF-90 has a very high power output for a Manpack transceiver, especially considering its exceptionally small size. 50 Watt PEP

## 1.4 Low current consumption.

Transmit:- 2A to 10A (subject to pre-set power output)

Receive:- 350mA

## 1.5 High receiver sensitivity.

0.25 $\mu$ V for 10dB S+N/N

## 1.6 Excellent 3rd order intercept.

+18dBm

## 1.7 Selcall facility.

Based on CCIR 493-4. Also incorporating Selcall Beacon (a form of manual link establishment). Very few manufacturers offer this facility.

## 1.8 Compact flexible tuner.

Compact Antenna tuner, which accommodates whip antennas and wire antennas. Available in Manual and Auto Tuning Versions

## 1.9 Optional portable broadband antenna.

High efficiency end-fed broadband antenna, 2-30MHz, 100Watt rating c/w coax, throw cord and earth stake. Supplied on shuttle for easy deployment/storage.

## 1.10 Optional AC, DC & solar chargers.

Q-MAC can supply:- 2A AC mains charger (incorporating charging status LEDs), DC step-up charger which charges portable battery from vehicle battery via cig lighter socket and compact fold-up solar panel - 10.8Watt.

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### **1.11 Ability to fit all optional accessories, including chargers, in the backpack provided.**

All optional accessories listed above fit comfortably into the backpack supplied as standard with the HF-90 Manpack. Most competitive models cannot accommodate this and accessories must be carried in separate carry packs/pouches.

### **1.12 Ability to convert to vehicle configuration (without modification) with the addition of appropriate accessories.**

The HF-90 can be equally used in a vehicle configuration with the appropriate accessories. Most other transceivers are not suited to both configurations and would require some sort of modification at the very least.

### **1.13 Easy to Use**

The HF-90 only has 6 keys, a power on/off switch and a volume control on the front panel display. The Key are; Channel Up and Down, Clarifier Up and Down, Tune and Mode/Hop. The simple interface overcomes operator error and fast deployment with minimal training for field users.

### **1.14 Multi-role**

The same HF-90 transceiver is used in portable, mobile and fixed base installation. A versatile multi-role transceiver.

### **1.15 OPTIONAL FREQUENCY HOPPING.**

The HF-90 is the only ruggedised commercial-grade HF transceiver offering full frequency hopping ability.

### **1.16 Low cost of ownership**

The HF-90 with it's rugged design, frequency hopping option and small size makes it the perfect transceiver for military, police, border security, special forces and peacekeeping. In terms of value for money the HF-90 is unbeatable at less than ¼ of competing Military transceivers.

The HF-90 is perfect for military aid and infrastructure aid programs for developing countries.

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Web: [www.qmac.com](http://www.qmac.com)

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## 2 Other Information

### 2.1 Author

Mr Rod Macduff BSc, BA, MIEEE, MIEE, FIEAust

Rod Macduff is Managing Director of Q-MAC Electronics which is a specialist supplier of HF Communications to the Humanitarian, Aid & Relief and Military organisations. Rod Macduff worked with Racal BCC for 10 years on the Jaguar V tactical hopping radio and travelled extensively consulting with armies on their secure communication issues. The Q-MAC HF-90 hopping radio is in service in 75 nations and has been adopted by Humanitarian, Aid & Relief, Army, Police and Intelligence organisations.

### 2.2 About Q-MAC Electronics

Q-MAC Electronics is specialist designer and manufacturer of HF Transceivers. The flagship product the HF-90 is the world's smallest high performance HF SSB Transceiver. The HF-90 and Q-MAC Electronics have been awarded many accolades and is currently used by thousands of users in over 80 countries worldwide. The HF-90 is one of the most versatile HF transceivers available and is suited to military, paramilitary and humanitarian aid and relief applications.

Q-MAC offers the HF-90 in a variety of configurations suited to manpack, vehicle and base station applications. A full complement of accessories is also offered for use with the HF-90; including antennas, field battery charging accessories, carry packs/cases and more. All Q-MAC products are backed by the company's strong commitment to after sales service, support and certified ISO9001 quality standards.

### 2.3 Contact Details

For Further Information Contact;

Q-MAC Electronics Pty Ltd

142 Hasler Road

Osborne Park, WA

Australia 6017

Phone + 618 9242 2900

Fax + 618 9242 3900

Email: [info@qmac.com](mailto:info@qmac.com)

Web: [www.qmac.com](http://www.qmac.com)

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