



Q-MAC HF-90 BASE STATION PACKAGE

PACKAGE DESCRIPTION

The Q-MAC HF-90 Base Station Package is an HF SSB radio communication system designed for fixed base station use. This package incorporates the Q-MAC HF-90 Transceiver - now available with optional frequency hopping. A detailed description of the Q-MAC HF-90 Transceiver, together with technical specifications, is provided on a separate brochure.

This package as a whole is characterized by its extremely compact size, ease of use and its adaptability. It incorporates a mains power supply unit with battery backup, for use with different AC mains systems (regardless of voltage level or consistency of supply), or optional custom designed solar power supply system. The antenna included accommodates all frequencies between 2 to 30MHz and offers different mounting configurations. The Q-MAC HF-90 Base Station Package can be easily converted to a Manpack, Portable or Vehicle Package with the addition of appropriate accessories.

The Q-MAC HF-90 Base Station Package is being used worldwide in a variety of applications including international aid projects, military/paramilitary applications, search & rescue, mineral exploration, forestry management, conservation and wildlife projects, construction, transportation and tourism services.

PACKAGE INCLUDES

- Q-MAC HF-90 Transceiver - Supplied complete with fist microphone and DC power cable.
- Q-MAC Mounting Cradle - Offers a variety of mounting options and adjustable tilt.
- Q-MAC External Mount Speaker - A large efficient speaker incorporating audio mute facility for fixed channel operation.
- Q-MAC AC Mains Power Supply Unit (PSU) - Desk-top unit operating from 115/230 Volt AC at 15 Amp continuous. Offers voltage/current protection and short circuit protection. Supplied with customer's choice of AC mains plug.
- Q-MAC Battery Changeover Switch - Monitors the 13.8 Volt DC output from the PSU. Automatically switches to battery in the event of mains power failure and back again once the power is restored. Incorporates battery charging facility.
- Q-MAC Rechargeable Battery - Maintenance-free sealed lead acid gel battery 7Ah.
- Q-MAC Fixed Broadband Dipole Antenna - High efficiency 3-wire centre-fed broadband dipole offering 2 to 30 MHz frequency coverage and 130 Watt (voice and data) power rating. Constructed from multi-strand stainless steel wire with fibreglass spreaders. Supplied complete with 30m RG-58 coaxial cable and connectors. *Please refer to information on the reverse of this brochure concerning "Antenna Installation".*
- Q-MAC Instruction Literature

Pictured here are all items typically supplied with the HF-90 Base Station package. The antenna is indicated on the left side of the photograph.



ADDITIONAL OPTIONS

The following options may be purchased separately, for use with the HF-90 Base Station Package:

- Q-MAC Advanced Option - Provides Selcall facilities (Codan compatible) and field programming ability. Supplied with appropriate DTMF mic/handset.
- Q-MAC Frequency Hopping Option - Provides complete protection against intercept and jamming (military grade). *A detailed description of the Q-MAC HF-90 Frequency Hopping Option, together with technical specifications, is provided on a separate brochure.*

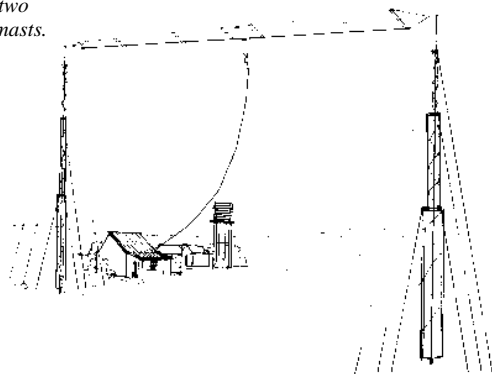
ALTERNATIVE SOLAR POWER SUPPLY SYSTEM

As an alternative to the AC mains power system specified, Q-MAC Electronics offers custom designed solar power systems. Such systems are suitable for use in areas where there is non-existent or unreliable AC mains power. The design of a solar power supply system must be based upon the particular application and the location in which it will be used. The following factors have to be taken into consideration:

- Radio duty cycle
- Hours of operation
- Number of sunlight hours (based on location coordinates)
- Site characteristics

Q-MAC Electronics can custom design suitable solar power supply systems, in accordance with the above factors.

This illustration shows the Q-MAC Fixed Broadband Dipole Antenna mounted horizontally between two support masts.



Specifications are subject to change without notice.

Represented by:



ANTENNA INSTALLATION

The Q-MAC Fixed Broadband Dipole Antenna supplied with this package can be mounted in the following configurations:

- Horizontally between two supports - This is the preferred installation. Note that elevation of the antenna results in longer range communication.
- As an inverted V with one high central support and two lower end supports - This configuration is ideal where there is limited space available for installation. Note that this configuration results in a more omnidirectional radiation pattern and is ideal for short range communication.

Mechanical Characteristics:

- Shipping weight: 4.5kg
- Mast height: 10m minimum
- Mast spacing: 30m (horizontal configuration)
18m (inverted V configuration)
- Antenna length: 27m
- Radiating elements: Stainless steel (multi-strand)
- Wind rating: 210km/hr*

** In accordance with AS1170.2 - 1989 loading code - wind loads.*

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