QMAC TACTICAL PRODUCTS CATALOGUE

- VHF-90M Transceivers
- Frequency Hopping
- Encryption Option
- Manpack Packages
- Vehicle Packages
- Portable Packages
- Base Station Packages
- Disaster Response Packages

- NVIS Antenna Systems
- Antenna Tuning Units
- Whip, Broadband & Long Wire Antenna Systems
- Data Products
- Power Supplies & Charges
- Programming Software
- Testing Devices
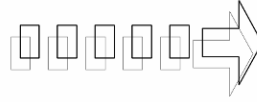- Service & Spare Parts

VERSION 7.0A
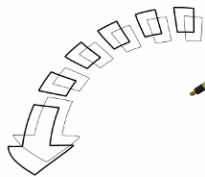MAY 2006

1 CONFIGURING Q-MAC PACKAGES

Q-MAC encourages the use of this checklist to ensure end-users consider all aspects of their application. This is especially relevant for field deployment where missing items will cause significant inconvenience.
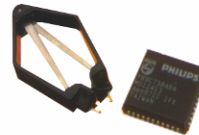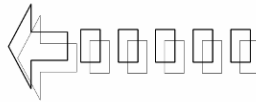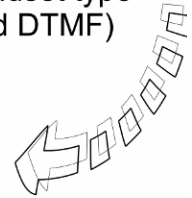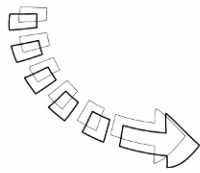
Transceiver
Package

Advanced
Option
(Handset type
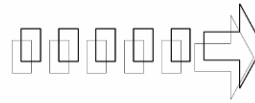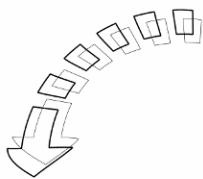and DTMF)

Spare Antenna /
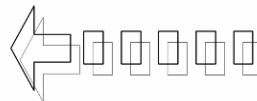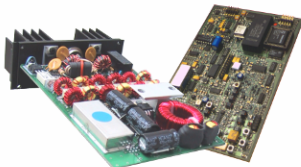Alternate Antenna

Hopping /
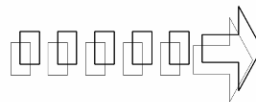No Hopping

Spare
Battery

AC Battery
Charger

Solar Panel /
Hand Crank

Programming
Software and
Cable

Morse Key and
Headphone

Spares / Backup
Boards

Training

2 VHF PRODUCTS

2.1 VHF-90M LOW BAND VHF TRANSCEIVER

Tactical VHF Radio

VHF-90M

30 – 88 MHz

Voice Encryption

Frequency Hopping

Secure, Simple to Use and Versatile

The VHF-90M Military transceiver is a state of the art communication device specifically designed for tactical military applications. It is an extremely compact and light weight unit, featuring only essential controls to ensure ease of operation. The VHF-90M can be work on the back in Manpack configuration or on the front in Squad radio configuration. The radio is available with five modes of communication.

- Analog Fixed Frequency (F3E Stanag 4204 ANPRC 77 Compatible)
- Secure Digital Fixed Frequency
- Secure Digital Frequency Hopping
- Secure Digital Free Channel Search (FCS)
- Digital Data Transmission

Designed For Tactical Use

The VHF-90M addresses two roles. When used with a short antenna it is ideal squad/platoon level communicator which is light and simple to operate.

When fitted with a full length tactical whip antenna it becomes capable of use at company/ battalion/brigade level where longer ranges are required.

In both roles, the ECCM capability ensures low probability of intercept. The dual role capability simplifies equipment logistics and renders the VHF-90M as capable replacement of the PRC-77 and equivalents.

The VHF-90M has a simple user interface which provides infantrymen sure and dependable communication in tactical conditions. Only essential controls are included on the front panel for simple operation in battlefield conditions. Advanced programming functionality is available in sub-menus. The VHF-90M can be either field or PC programmed.

The VHF-90M is solidly constructed and designed to withstand rigorous military use. Emphasis in the design of the VHF-90M has been placed on value engineering to ensure low cost of ownership over a long service life. This is achieved by utilising SMD components from generic multi-sourced families.

In short, this revolutionary new transceiver incorporates the very latest in RF and DSP design technology. The VHF-90M is the most cost effective, compact, versatile, high performance VHF transceiver available in the tactical military market today.

Features

- Manpack Performance in Holster Size
- ECCM Capability
- Data Transmission
- Low Cost
- Light Weight – 1kg complete with battery
- Immersible, Vibration & Temperature rated to Military Standards
- 5 Watt Portable
- 50 Watt Vehicle/Base
- 2320 Channels
- 10 Programmable Channels
- Selective/Group & Broadcast Calling
- Low Current Consumption
- 8000 Hours MTBF

2.2 MANPORTABLE PACKAGES

2.2.1 MX9700 VHF-90M Manportable Package

5W LIGHT WEIGHT MANPORTABLE PACKAGE FOR TACTICAL USE

The MX9700 Manportable package is ideal for squad and brigade level communications. Simply changing antenna types can provide the necessary range between the different modes of operation. The secure modes option, which includes Frequency Hopping, Digital Encryption and Free Channel Search (FCS), provides secure, jam-resistant VHF communications.

Includes:

- VHF-90M transceiver complete with QM4716 standard Military telephone handset (no keypad)
- 1m Tape whip antenna
- Short rubber whip antenna
- Rechargeable 2.4Ah NiMH battery pack
- Canvas shoulder holster

MX9700 MANPORTABLE ORDERING INFORMATION

Stock Code	Description	Weight
MX9700	Standard VHF-90M Manportable	2.50 kg

Encryption & Frequency Hopping Options/Upgrades

QM9761	Secure Modes Option, includes Frequency Hopping, Encryption and Free Channel Search (FCS) (requires QM9756 Advanced Option 1).	0.05 kg

NOTE:

Recommended Options/Upgrades

QM9751	Advanced Option 1 Software and Tactical Telephone Handset with keypad, required for Selcall functionality.	0.20kg
QM9755	Data Option – Enables transmission of data between VHF-90M transceivers	0.05 kg
QM9765	VHF-90M Data Application provides SMS, Chat, File Transfer Software for Pocket PC/Windows PC Platform. It requires the QM9755 Data Transmission Option and either the QM5700M Serial Cable or QM4775M Bluetooth link to the VHF-90M.	0.05kg
QM7303	8 Section 3m Whip Antenna	0.30 kg
QM8700M	12v 2.4Ah NiMH Rechargeable Battery	0.50 kg
QM4775M	Bluetooth Upgrade Option for VHF-90M (added to a QM8700M battery)	0.50 kg
QM8007M	AC Mains Charger – Dual Battery Charger. Specify Plug Type (See Section 3.7.7.1)	1.30 kg
QM5007M	DC Cable for Battery Charge Controller. Charges Batteries from DC Source	1.00 kg

Miscellaneous Options/Accessories

QM8021M	Solar Panel Charger (also requires QM8735M Dual Battery Adaptor)	1.30 kg
QM8035M	Hand Crank Generator (also requires QM8735M Dual Battery Adaptor)	2.70 kg
QM8735M	Dual Battery Adaptor for Solar and Hand Crank Battery Chargers	0.50 kg
QM8700M	12v 2.4Ah NiMH Rechargeable Battery	0.50 kg
QM4743	VHF-90M Headset – Light weight under helmet tactical headset with PTT and clip. *	1.00 kg
QM4744	VHF-90M Headset – Military grade with single Ear operation with boom microphone *	1.00 kg
QM1007M	VHF-90M Programming Software and Cable	1.00 kg
QM5700M	VHF-90M Serial Cable - Used for Programming and Data Transmission (D9 and D25)	0.50 kg
* Other Headset options are available on request.		

2.3   VEHICLE PACKAGES

2.3.1   MX9715 VHF-90M 50W Vehicle Package

50W VEHICLE PACKAGE FOR TRACKED AND WHEELED TACTICAL VEHICLES

The MX9715 Vehicle package is ideal for brigade level communications. It includes the VDS-90M docking station for the VHF-90M transceiver. A 50W booster amplifier and tactical vehicle antenna system provides extended coverage. The secure modes option (i.e. Frequency Hopping, Digital Encryption and Free Channel Search) provides secure, jam-resistant VHF communications.

Includes:
- VHF-90M transceiver complete with QM4716 standard Military telephone handset (no keypad)
- 1.9m Military Vehicle Whip System (includes antenna elements and antenna base)
- VDS-90M VHF Docking Station for docking of VHF-90M transceiver
- VHF-50M 50W VHF Booster Amplifier
- 3m Interconnecting Control Cable between VHF-50M Amplifier and VDS-90M
- DC Power Cable to VHF-50M 4.5m with 20A Fuse
- Coax Cable 3m VDS-90M to VHF-50M
- Coax Cable 4.5m VHF-90M to Antenna

MX9715 50 WATT VEHICLE PACKAGE ORDERING INFORMATION

Stock Code	Description	Weight
MX9715	VHF-90M 50 Watt Vehicle Package	10.00 kg

Encryption & Frequency Hopping Options/Upgrades

QM9761	Secure Modes Option, includes Frequency Hopping, Encryption and Free Channel Search (FCS) (requires QM9756 Advanced Option 1).	0.05 kg
NOTE:	**The Secure Modes Option is subject to Australian Defence Export Controls and a signed End-User Declaration must be provided for supply of this option. For more information see www.defence.gov.au/strategy/dtcc.**	

Recommended Options/Upgrades

QM9751	Advanced Option 1 Software and Tactical Telephone Handset with keypad, required for Selcall functionality.	0.20 kg
QM9755	Data Option – Enables transmission of data between VHF-90M transceivers	0.05 kg
QM9765	VHF-90M Data Application provides SMS, Chat, File Transfer Software for Pocket PC/Windows PC Platform. It requires the QM9755 Data Transmission Option and either the QM5700M Serial Cable or QM4775M Bluetooth link to the VHF-90M.	0.05 kg
QM4775M	Bluetooth Upgrade Option for VHF-90M (added to the VDS Unit)	0.50 kg

These options are the most commonly ordered options and recommended by Q-MAC to provide a comprehensive solution for most Vehicle applications.

Miscellaneous Options/Accessories

QM4743	VHF-90M Headset – Light weight under helmet tactical headset with PTT and clip. *	1.00 kg
QM4744	VHF-90M Headset – Military grade with single Ear operation with boom microphone *	1.00 kg
QM4723M	Rugged External Mount Speaker	1.00 kg
QM1007M	VHF-90M Programming Software and Cable	1.00 kg
QM5700M	VHF-90M Serial Cable – Used for Programming and Data Transmission (D9 and D25)	0.50 kg
QM7174M	Replacement Spare Antenna Elements	2.00 kg

* Other Headset options are available on request.

2.3.2 MX9716 VHF-90M 5W Vehicle Package

5W VEHICLE PACKAGE FOR TRACKED AND WHEELED TACTICAL VEHICLES

The MX9716 Vehicle package is ideal for brigade level communications. It includes the VDS-90M docking station for the VHF-90M transceiver. The secure modes option (i.e. Frequency Hopping, Digital Encryption and Free Channel Search) provides secure, jam-resistant VHF communications.

Includes:
- VHF-90M transceiver complete with QM4716 standard Military telephone handset (no keypad)
- 1.9m Military Vehicle Whip System (includes antenna elements and antenna base)
- VDS-90M Vehicle Appliqué Unit for docking of VHF-90M transceiver
- DC Power Cable to VDS-90M 4.5m with 20A Fuse and Aux connector
- Coax Cable 4.5m VHF-90M to Antenna

QM9015 VEHICLE PACKAGE ORDERING INFORMATION

Stock Code	Description	Weight
MX9716	VHF-90M 5 Watt Vehicle Package	7.00 kg

Encryption & Frequency Hopping Options/Upgrades

QM9761	Secure Modes Option, includes Frequency Hopping, Encryption and Free Channel Search (FCS) (requires QM9756 Advanced Option 1).	0.05 kg
NOTE:	**The Secure Modes Option is subject to Australian Defence Export Controls and a signed End-User Declaration must be provided for supply of this option. For more information see www.defence.gov.au/strategy/dtcc.**	

Recommended Options/Upgrades

QM9751	Advanced Option 1 Software and Tactical Telephone Handset with keypad, required for Selcall functionality.	0.20 kg
QM9755	Data Option – Enables transmission of data between VHF-90M transceivers	0.05 kg
QM9765	VHF-90M Data Application provides SMS, Chat, File Transfer Software for Pocket PC/Windows PC Platform. It requires the QM9755 Data Transmission Option and either the QM5700M Serial Cable or QM4775M Bluetooth link to the VHF-90M.	0.05 kg
QM4775M	Bluetooth Upgrade Option for VHF-90M (added to the VDS Unit)	0.50 kg

These options are the most commonly ordered options and recommended by Q-MAC to provide a comprehensive solution for most Vehicle applications.

Miscellaneous Options/Accessories/Spares

QM4743	VHF-90M Headset – Light weight under helmet tactical headset with PTT and clip. *	1.00 kg
QM4744	VHF-90M Headset – Military grade with single Ear operation with boom microphone *	1.00 kg
QM4723M	Rugged External Mount Speaker	1.00 kg
QM1007M	VHF-90M Programming Software and Cable	1.00 kg
QM5700M	VHF-90M Serial Cable – Used for Programming and Data Transmission (D9 and D25)	0.50 kg
QM7174M	Replacement Spare Antenna Elements	2.00 kg
QM9705M	VHF-50M 50 Watt Booster Amplifier (refer to the Cables Section 3.7.4 and 3.7.5 for additional cables require to complete the system)	5.00 kg

Other headset options are available on request.

2.4 BASE STATION PACKAGES

2.4.1 MX9720 VHF-90M 50W Base Station Package

50W BASE STATION PACKAGE FOR FIELD AND FIXED BASE USE

The MX9720 Base Station package is ideal for both fixed and field base station applications. It includes the VDS-90M docking station for the VHF-90M transceiver. A 50 Watt booster amplifier and Discone VHF antenna provide extended coverage. The secure modes option (i.e. Frequency Hopping, Digital Encryption and Free Channel Search) provides secure, jam-resistant VHF communications.

Includes:

- VHF-90M transceiver complete with QM4716 standard Military telephone handset (no keypad)
- Discone Antenna System
- VDS-90M Vehicle Docking Station for the VHF-90M transceiver
- VHF-50M 50 Watt VHF Booster Amplifier
- AC Main Power Supply with Power Cable (Specify AC Cable type)
- Coax Cable 30m to Antenna

MX9720 BASE STATION PACKAGE ORDERING INFORMATION

Stock Code	Description	Weight
MX9720	VHF-90M 50 Watt Base Station Package	20.00 kg
NOTE:	**Please also order an IEC mains cable to suit your region. Refer to Section 2.8.7.2 for details. One cable is included in the price of the MX9720**	0.05 kg

Encryption & Frequency Hopping Options/Upgrades

QM9761	Secure Modes Option, includes Frequency Hopping, Encryption and Free Channel Search (FCS) (requires QM9756 Advanced Option 1).	0.05 kg
NOTE:	**The Secure Modes Option is subject to Australian Defence Export Controls and a signed End-User Declaration must be provided for supply of this option. For more information see www.defence.gov.au/strategy/dtcc.**	

Recommended Options/Upgrades

QM9751	Advanced Option 1 Software and Tactical Telephone Handset with keypad, required for Selcall functionality.	0.20 kg
QM9755	Data Option – Enables transmission of data between VHF-90M transceivers	0.05 kg
QM9765	VHF-90M Data Application provides SMS, Chat, File Transfer Software for Pocket PC/Windows PC Platform. It requires the QM9755 Data Transmission Option and either the QM5700M Serial Cable or QM4775M Bluetooth link to the VHF-90M.	0.05 kg
QM4775M	Bluetooth Upgrade Option for VHF-90M (added to the VDS Unit)	0.50 kg

These options are the most commonly ordered options and recommended by Q-MAC to provide a comprehensive solution for most Vehicle applications.

Miscellaneous Options/Accessories

QM4743	VHF-90M Headset – Light weight under helmet tactical headset with PTT and clip. *	1.00 kg
QM4744	VHF-90M Headset – Military grade with single Ear operation with boom microphone *	1.00 kg
QM4723M	Rugged External Mount Speaker	1.00 kg
QM1007M	VHF-90M Programming Software and Cable	1.00 kg
QM5700M	VHF-90M Serial Cable – Used for Programming and Data Transmission (D9 and D25)	0.50 kg

Other headset options are available on request.

2.5 VHF-90M TRANSCEIVER STANDALONE & OPTIONS

2.5.1 QM9700 VHF-90M Transceiver (Military Grade)

SPARE TRANSCEIVER TO MAKE UP ADDITIONAL PACKAGES

Includes:

- 30-88Mhz MHz frequency coverage
- 5 Watt power output
- 150Hz Squelch System (Stanag 4204, PRC-77 Compatible)
- 2320 channels
- 10 Programmable Channels
- Rx signal strength indicator
- Erase facility
- Selective and Group Calling
- VHF-90M Operation & Installation Guide

ORDERING INFORMATION

Stock Code	Description	Weight
QM9700	Standard VHF-90M	1.00 kg

Encryption & Frequency Hopping Options/Upgrades

QM9761	Secure Modes Option, includes Frequency Hopping, Encryption and Free Channel Search (FCS) (requires QM9756 Advanced Option 1).	0.05 kg
NOTE:	**The Secure Modes Option is subject to Australian Defence Export Controls and a signed End-User Declaration must be provided for supply of this option. For more information see www.defence.gov.au/strategy/dtcc.**	

Recommended Options/Upgrades

QM4716	VHF-90M Telephone Handset	0.45 kg
QM4717	VHF-90M Telephone Handset with Numeric Keypad	0.45 kg
QM9755	Data Option – Enables transmission of data between VHF-90M transceivers	0.05 kg
QM9765	VHF-90M Data Application provides SMS, Chat, File Transfer Software for Pocket PC/Windows PC Platform. It requires the QM9755 Data Transmission Option and either the QM5700M Serial Cable or QM4775M Bluetooth link to the VHF-90M.	0.05 kg
QM7303	8 Section 3m Whip Antenna	0.30 kg
QM8700M	12v 2.4Ah NiMH Rechargeable Battery	0.50 kg
QM4775M	Bluetooth Upgrade Option for VHF-90M (added to a QM8700M battery)	0.50 kg
QM8007M	AC Mains Charger – Dual Battery Charger. Specify Plug Type (See Section 3.7.7.1)	1.30 kg
QM5007M	DC Cable for Battery Charge Controller. Charges Batteries from DC Source	1.00 kg

Miscellaneous Options/Accessories

QM8021M	Solar Panel Charger (also requires QM8735M Dual Battery Adaptor)	1.30 kg
QM8035M	Hand Crank Generator (also requires QM8735M Dual Battery Adaptor)	2.70 kg
QM8735M	Dual Battery Adaptor for Solar and Hand Crank Battery Chargers	0.50 kg
QM4743	VHF-90M Headset – Light weight under helmet tactical headset with PTT and clip. *	1.00 kg
QM4744	VHF-90M Headset – Military grade with single Ear operation with boom microphone *	1.00 kg
QM1007M	VHF-90M Programming Software and Cable	1.00 kg
QM5700M	VHF-90M Serial Cable - Used for Programming and Data Transmission (D9 and D25)	0.50 kg
	* Other Headset options are available on request.	

2.6   ANTENNA SYSTEMS

2.6.1   QM7307 Short Rubber Whip Antenna

Description:
Short Rubberised Whip Antenna for use in close range Squad level communications. (600mm)

ORDERING INFORMATION

Stock Code	Description	Weight
QM7307M	Short Rubber Whip Antenna	0.50 kg

2.6.2   QM7303 Collapsible Whip Antenna (8-section)

Description:
High efficiency collapsible eight-section whip antenna (3m), as supplied with the MX9700 VHF-90M Manportable package. The collapsed length is 390mm.

ORDERING INFORMATION

Stock Code	Description	Weight
QM7303	Tape Whip Antenna	0.30 kg

2.6.3   QM7305 Tape Whip Antenna

Description:
Tape Whip Antenna: 1.1m flexible whip antenna suited to use in jungle/ forestry areas supplied with gooseneck. As supplied with MX9700 Manportable package.

ORDERING INFORMATION

Stock Code	Description	Weight
QM7305	Tape Whip Antenna	0.20 kg

2.6.4   QM7304 Collapsible Whip Antenna (4-section)

Description:
Collapsible four section whip antenna (1m), complete with flexible goose neck. Collapsed length: 335mm. Suited for MX9700 Manportable Package

ORDERING INFORMATION

Stock Code	Description	Weight
QM7304	Collapsible Whip Antenna (4-section)	0.20 kg

2.6.5   QM7171M Vehicle Whip Antenna System

Description:
VHF 30-88MHz Broadband Military Whip Antenna Systems. Comprises 2 Section Whip antenna (total length = 2.4m) and Standard Antenna Base with BNC Connector.

ORDERING INFORMATION

Stock Code	Description	Weight
QM7171M	VHF-90M Vehicle Whip Antenna System – Antenna and Base	6.00 kg
QM7172M	VHF-90M Vehicle Antenna Base Only – (No Antenna)	3.00 kg
QM7174M	VHF-90M Vehicle Whip Antenna – Replacement Elements Only	2.00 kg

2.6.6 QM7702M 30-88MHz Base Station Discone Antenna

Description:
The Discone antenna is designed for based station or tactical field base station use. Its flexible design and omni-directional characteristic make it suitable for short to medium range voice and data communications. Its broadband design makes it compatible with Frequency Hopping. The unit is supplied with 30 metres RG-58 coaxial cable with connectors and mounting pole. It does not include masts or mounting brackets.

ORDERING INFORMATION

Stock Code	Description	Weight
QM7702M	30-88MHz Base Station Discone Antenna	5.00 kg

Note: Other antenna types are available on application.

2.7 POWER SUPPLIES, CHARGERS & BATTERIES

2.7.1 QM8725M VHF-90M Dual Battery Charge Controller

Description:
Intelligent Dual Battery Charge Controller. Can be used with AC or DC inputs from 10-30V. Charges 2 x 2.4Ah Nickel Metal Hydride Rechargeable Batteries individually or simultaneously.

ORDERING INFORMATION

Stock Code	Description	Weight
QM8725M	VHF-90M Dual Battery Charge Controller	1.00 kg

2.7.2 QM8007M VHF-90M Dual Battery Charge Controller and AC Mains Adaptor

Description:
Intelligent Dual Battery Charge Controller supplied with 110-250AC In and 24DC Out Mains Adaptor. Charges 2 x 2.4Ah Nickel Metal Hydride Rechargeable Batteries individually or simultaneously.

ORDERING INFORMATION

Stock Code	Description	Weight
QM8007M	VHF-90M Dual Battery Charge Controller and AC Mains Adaptor	1.30 kg

2.7.3   QM8723M AC Mains Adaptor to suit QM8725M Charge Controller

Description:
110-250AC In and 24DC Out Mains Adaptor to suit VHF-90M Charge Controller (QM8725M).

ORDERING INFORMATION

Stock Code	Description	Weight
QM8723M	Mains Adaptor to suit QM8725M Charge Controller	1.00 kg

2.7.4   QM8700M VHF-90M 2.4Ah NiMH Battery Pack

Description:
2.4Ah Nickel Metal Hydride Rechargeable Battery. Suits VHF-90M Transceiver.

ORDERING INFORMATION

Stock Code	Description	Weight
QM8700M	VHF-90M 2.4Ah NiMH Battery Pack	0.50 kg

2.7.5   QM5007M Vehicle DC Cable to suit QM8725M Charge Controller

Description:
DC power cable for VHF-90M Charge Controller. 3m cable with Mating Connector for Charge Controller and Cigarette Lighter Adaptor at other end.

ORDERING INFORMATION

Stock Code	Description	Weight
QM5007M	Vehicle DC Cable to suit QM8725M Charge Controller	1.00 kg

2.7.6   QM8021M Fold-up Solar Panel Charger

Description:
Solar Panel Charger - 10.8 Watt rated power, complete with extension cable and mating connector to suit military grade packages. Comprises five panels, which fold into a compact canvas pouch. Standard colour is black.

Note: The QM8021M Fold-up Solar Panel Charger requires a QM8735M Dual Battery Adaptor (refer section 3.6.8) to allow charging of VHF-90M batteries.

ORDERING INFORMATION

Stock Code	Description	Weight
QM8021M	Fold-up Solar Panel Charger	1.30 kg

2.7.7 QM8035M Hand Crank Generator (with Mounts)

Description:
Hand Crank Generator – Output voltage between 13.8 – 16.2V, output current between 1.15 – 1.35A (assumes 60RPM and 12 Ohm resistive load). Light weight, yet built from high impact material (meets Mil Std 810). Supplied together with tripod, canvas bag and tree-mount with strap.

Note: The QM8035M Hand Crank Generator Charger requires a QM8735M Dual Battery Adaptor (refer section 3.6.8) to allow charging of VHF-90M batteries.

ORDERING INFORMATION

Stock Code	Description	Weight
QM8035M	Hand Crank Generator (with Mounts)	2.70 kg

2.7.8 QM8735M VHF-90M Dual Battery Adapter for Solar and HCG Chargers

Description:
The Dual Battery Adapter is for use with QM8021M Solar Panel Charger and QM8035M Hand Crank Chargers. It allows the charging of 2 x 2.4Ah Nickel Metal Hydride Rechargeable Batteries individually or simultaneously.

ORDERING INFORMATION

Stock Code	Description	Weight
QM8735M	VHF-90M Dual Battery Adapter for Solar and HCG Chargers	0.50 kg

2.8 CARRY PACKS & CASES

2.8.1 QM6700 VHF-90M Canvas Holster

Description:
Canvas Holster to suit the VHF-90M transceiver with battery. Its light weight design is suited to front mounting and the transceiver (not included) is angled so that antenna is direct away from head. It is suited to mounting of short and long antenna.

ORDERING INFORMATION

Stock Code	Description	Weight
QM6700	VHF-90M Canvas Holster	1.00 kg

2.8.2 Telephone Handsets

2.8.2.1 QM4717 VHF-90M Military Handset (with Keypad)

Description:
Industry standard, military grade telephone handset with military-specification connector, speaker, microphone and Press-To-Talk (PTT) button, and numeric keys for use with advanced software features such as Selcall, Groupcall, Key entry and front panel Programming. For use with the VHF-90M transceiver.

ORDERING INFORMATION

Stock Code	Description	Weight
QM4717	VHF-90M Military Handset (with Keypad)	0.45 kg

2.8.2.2 QM4716 VHF-90M Military Handset (without Keypad)

Description:
Industry standard, military grade telephone handset with military-specification connector, speaker, microphone and Press-To-Talk (PTT) button. For use with the VHF-90M transceiver.

ORDERING INFORMATION

Stock Code	Description	Weight
QM4716	VHF-90M Military Handset (without Keypad)	0.45 kg

2.8.3 Audio Accessories

2.8.3.1 QM4744 Headset with PTT

Description:
Headset with military-specification connector, speaker, microphone on a gooseneck and Press-To-Talk (PTT) button. For use with the VHF-90M transceiver.

ORDERING INFORMATION

Stock Code	Description	Weight
QM4744	Headset with PTT	1.00 kg

2.8.3.2 QM4743 Lightweight Tactical Headset (Under Helmet)

Description:
Lightweight Tactical Headset, suited to under helmet mounting, with military-specification connector, speaker, microphone on a gooseneck and clip on Press-To-Talk (PTT) button. For use with the VHF-90M transceiver.

ORDERING INFORMATION

Stock Code	Description	Weight
QM4743	Lightweight Tactical Headset (Under Helmet)	1.00 kg

2.8.3.3 QM4723M Rugged External Mount Speaker

Description:
External Speaker for connection to VDS-90M Docking Station or VHF-50M Amplifier.

ORDERING INFORMATION

Stock Code	Description	Weight
QM4723M	Rugged External Mount Speaker	1.00 kg

2.8.4 DC Power Cables

2.8.4.1 QM5130 VDS-90M → Misc Power Source (4.5m)

Description:
VDS-90M DC Input Power connector at one end, bare ended at the other end. As supplied with the MX9716 5 Watt VHF-90M Vehicle Package. Includes 10Amp HRC fuse.

ORDERING INFORMATION

Stock Code	Description	Weight
QM5130	VDS-90M → Misc Power Source (4.5m)	2.00 kg

2.8.4.2 QM5122 VHF-50M → Misc Power Source (4.5m)

Description:
VHF-50M DC Input Power connector at one end, bare ended at the other end. As supplied with the MX9715 50 Watt VHF-90M Vehicle Package. Includes 20Amp HRC fuse.

ORDERING INFORMATION

Stock Code	Description	Weight
QM5122	VHF-50M → Misc Power Source (4.5m)	2.00 kg

2.8.4.3 QM5125-2.0M VHF-50M → VDS-90M Control Cable (2m)

Description:
Control Cable to connect VHF-50M to VDS-90M. As supplied with the MX9715 50 Watt VHF-90M Vehicle Package.

ORDERING INFORMATION

Stock Code	Description	Weight
QM5125-2.0M	VHF-50M → VDS-90M Control Cable (3m)	2.00 kg

2.8.5 Coaxial Cables

2.8.5.1 QM5107 VDS-90M → Vehicle Antenna (4.5m)

Description:
BNC connectors fitted both ends. As supplied with MX9716 Vehicle Packages.

ORDERING INFORMATION

Stock Code	Description	Weight
QM5107	Coax Cable VDS-50M → Vehicle Antenna (4.5m)	0.25 kg

2.8.5.2 QM5126-30M VHF-50M → Base Station Antenna (30m)

Description:
Coax Cable with N Type at one end and BNC connector fitted at other end. As supplied with MX9720 base station package.

ORDERING INFORMATION

Stock Code	Description	Weight
QM5126-30M	Coax Cable VHF-50M → Base Station Antenna (30m)	2.00 kg

2.8.5.3   QM5126-4.5M VHF-50M → Vehicle Antenna (4.5m)

Description:
BNC connectors fitted at both ends. As supplied with MX9715 Vehicle package.

ORDERING INFORMATION

Stock Code	Description	Weight
QM5126-4.5M	Coaxial VHF-50M → Vehicle Antenna (4.5m)	0.25 kg

2.8.6   Other Cables

2.8.6.1   QM5700M VHF-90M Programming Cable
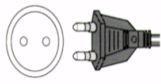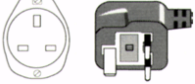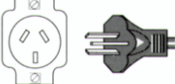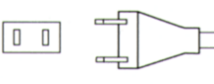
Description:
For use with the QM1007M VHF-90M Programming Package, generic terminal software or data applications. The 2m cable connects between the VHF-90M and an RS232 computer serial port (DB9 connector).
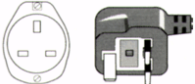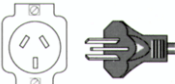
ORDERING INFORMATION
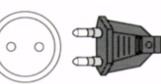
Stock Code	Description	Weight
QM5700M	VHF-90M Programming Cable	0.50 kg

2.8.7   Mains Cables

2.8.7.1   Figure 8 Socket Cables

Mains End / Equipment End	Type A: Continental Europe	Type B: United Kingdom	Type C: Australia, New Zealand, Argentina	Type D: North America	Type E: India, South Africa
Figure 8 socket	Order Code: **QM5087** (0.05kg)	Order Code: **QM5082** (0.05kg)	Order Code: **QM5081** (0.05kg)	Order Code: **QM5083** (0.05kg)	Order Code: **QM5118** (0.05kg)

2.8.7.2   Socket Cables

Mains End / Equipment End	Type A: Continental Europe	Type B: United Kingdom	Type C: Australia, New Zealand, Argentina	Type D: North America	Type E: India, South Africa
Figure 8 socket	Order Code: **QM5085** (0.05kg)	Order Code: **QM5086** (0.05kg)	Order Code: **QM5084** (0.05kg)	Order Code: **QM5119** (0.05kg)	Order Code: **QM5120** (0.05kg)

2.9 DEALER SUPPORT PRODUCTS
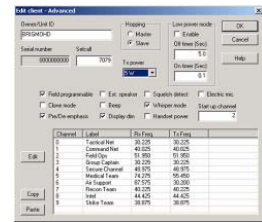
2.9.1 Software & Manuals

2.9.1.1 QM1007M VHF-90M Programming Package

A Microsoft Windows compatible (Windows 2000 or XP required) software package allows the programming of the following functions:

- Channel/frequency programming
- Power output setting
- Field programming enable
- Selcall ID number
- Selcall and Scanning on specific channels/frequencies

Package Includes:

- QM5700M Programming cable
- Quick Reference Guide: Programming Package
- Software installation CD

ORDERING INFORMATION

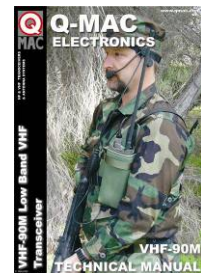| Stock Code	Description	Weight
QM1007M	VHF-90M Programming Package	1.00 kg

2.9.1.2 QM1027 VHF-90M Technical Manual

Description:
A detailed manual outlining product specifications, functions, software, maintenance, fault finding and testing.

Note:
Authorised Dealers receive one VHF-90M Technical Manual at no charge, with their first purchase of the VHF-90M Transceiver. Should they be required, additional copies must be purchased.

ORDERING INFORMATION

Stock Code	Description	Weight
QM1027	VHF-90M Technical Manual	0.35 kg

2.9.2 Replacement Modules

2.9.2.1 97750 VHF-90M RF Module

Description:
VHF-90M Radio Frequency Module.

ORDERING INFORMATION

Stock Code	Description	Weight
97750	VHF 90M RF Module	0.30 kg

2.9.2.2   97751 VHF-90M Power Amplifier Module

Description:
VHF-90M Power Amplifier Module.

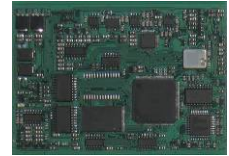**ORDERING INFORMATION**

Stock Code	Description	Weight
97751	VHF 90M Power Amplifier Module	0.30 kg

2.9.2.3   97752 VHF-90M DSP Module

Description:
VHF-90M Digital Signal Processor Module.

ORDERING INFORMATION

Stock Code	Description	Weight
97752	VHF 90M DSP Module	0.30 kg

2.9.2.4   97753 VHF-90M Front Panel Module

Description:
VHF-90M Front Panel, including front panel PCB and connectors.

ORDERING INFORMATION

Stock Code	Description	Weight
97753	VHF 90M Front Panel Module	0.30 kg