# SRH3900 HAND-HELD RANGE

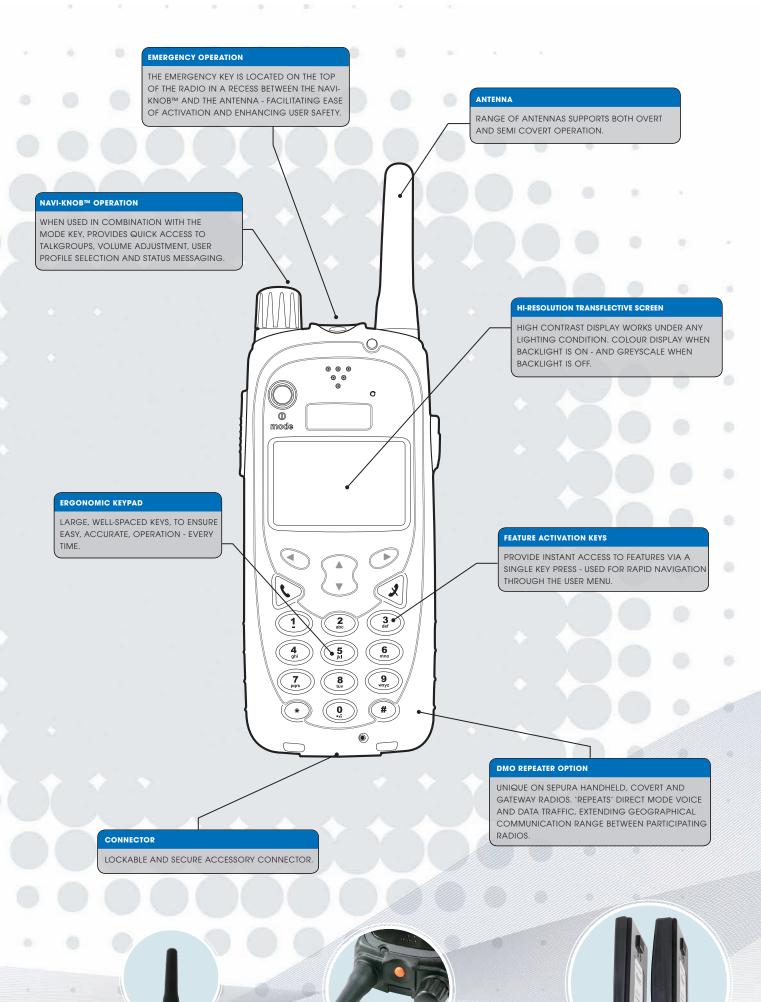
Available as the SRH3900 or SRH3900 sGPS™, this radio is the latest addition to the proven SRH3000 range of compact, rugged hand-held radios. Designed and built to exceed IEC529 IP54 standards, the SRH3900 withstands day to day use in some of the harshest environments found in the public safety, military, transport, and utilities markets.

- Large, high resolution colour display, viewable in all light conditions
- Loud, clear audio
- Extensive data capability
- A user interface supporting Latin, Arabic, Cyrillic, Chinese and Korean character sets.
- Integrated End to End (E2E) encryption hardware, activated via a software upgrade.
- Optional, ultra-sensitive GPS option, the SRH3900 sGPS™
- DMO repeater capability (enabled via software licence) allows full call participation when the repeater is in use.
- Supported by a full set of programming and configuration software tools: SKMS, Radio Manager, plus Crypto key management tools.





### DATASHEET



# Fully featured TETRA radios with a large, high resolution colour screen

#### Key Features:

- High resolution screen with 65K colours
- Privacy screen option
- Fully integrated GPS module and antenna (SRH3900 sGPS™)
- Lockable, robust accessory connector.
- Emergency call function, with programmable open microphone, status destination and, if available, GPS location report
- Lone Worker alert
- Audio Boost, Noise cancelling audio enhancements
- Full menu navigation whilst active in call
- Rapid change intelligent battery packs
- Single key activation for up to 12 pre-configurable functions
- Real time clock display
- E2E encryption hardware ready
- DMO Repeater ready (frequency efficient Type 1A option) with Call Participation

### SRH3900 Hand-held:

The SRH3900's transflective <sup>1</sup>TFT, high-resolution display is clearly visible under all lighting conditions, from complete darkness to the brightest, direct sunlight. A colour display is presented when the backlight is switched on - reverting to a very clear (power-saving) greyscale display when the backlight is off.

The SRH3900 hand-held offers a large viewable display area of 6 lines of 24 characters each, and uniquely, all text can be displayed in large format (double normal size) to give better legibility when, for example, being used in a car kit.

The User Interface (UI) of the SRH3900 range is common to the Sepura product portfolio, reducing the training requirements and allowing users to operate fixed and handheld equipment with equal ease and confidence.

> The Sepura UI is specifically designed for the user to quickly access the features of the radio. Programmable Soft Keys and configurable User Profiles allow more complex functionality to be activated with a single key press.

Like all Sepura radios, the SRH3900 has loud, clear audio. Features such as Group Focus and Privacy Mode allow a user to further control the audio presentation to meet their operational situation.

Battery fitting is both secure and robust, yet so fast and simple that a user can facilitate a change with one hand. Once the changeover is complete, the radio automatically reverts to its previous settings, without the inconvenience and delay of a start-up routine.

A lockable facility connector, located at the base of the radio, provides a secure, sturdy connection to voice accessories and external data devices.

Comprehensive support for TETRA data services means both onboard and externally hosted data applications can send and receive information, using SDS or higher bandwidth multi-slot packet data services – further enhanced by Sepura's built-in Short Data Applications software and WAP capability.

The SRH3900 has been designed to address the problem of eavesdropping, offering tamper proof security hardware, including a smart card connector. E2E encryption is conveniently enabled via a simple software upgrade.

The SRH3900 sGPS™ incorporates a highly sensitive award winning GPS receiver capable of processing extremely low strength GPS signals. This means that 'clear sight of sky' signals from GPS satellites are no longer essential. The GPS receiver is able to provide accurate positioning even in some buildings. In addition to the standard position reporting, the radio can send its current GPS location when the Emergency Call or Lone Worker function is initiated. The hand-held can be configured, via Radio manager, to signal Location report information in either the ETSI Location Information Protocol (LIP), Sepura Compact or NMEA protocol.

Further performance enhancements such as Position Assist, over the air management of the reporting parameters and location reporting to multiple addresses ensure that users are safely served by Sepura's leading suite of locationbased capabilities.

The radio's DMO repeater (Type 1A) capability can be swiftly enabled via a simple software update. While in DMO mode, 'Call Participation' allows the radio user to join in speech calls, in the normal way – thereby remaining fully operational in addition to extending the radio coverage of the group.

Finally, the SRH3900 is fully compatible with the extensive range of 3000 series accessories and battery chargers.

<sup>1</sup> This is an LCD technology in which the pixels are illuminated from both the front and back of the screen combining the transmissive and reflective illumination technologies.



## SRH3900 SPECIFICATIONS

#### GPS RECEIVER (SRH3900 sGPS™)

Fully Integrated GPS receiver

- 182dBW (-152dBm) acquisition sensitivity

- 185dBW (-155dBm) tracking sensitivity

ETSI Location Information Protocol (LIP) Sepura Compact and NMEA protocol support Position Assist

Over the Air GPS management

Location reporting to two identities

Position & Direction Display<sup>1</sup>

#### SECURITY

Authentication – Infrastructure initiated and made Mutual by the radio

TMO and DMO Air Interface Encryption TEA1, TEA2 , TEA3 and TEA4  $\mbox{options}^{\rm 3}$ 

Security Class 1, 2 and 3 support PIN and PUK Entry

Software Authenticity and protection employing Digital Signature

Fully Integrated End 2 End hardware with tamper protection

Public & private Algorithm E2E support enabled via software upgrade<sup>2</sup>

Integral SIM connector

Temporary Disable/Enable

Permanent Disable

#### WEIGHT

Radio Without Battery: 143g With Standard Battery: 214g With High Capacity Battery: 247g

#### DIMENSIONS

Height: 130mm Width: 58mm Depth: 30mm

#### DISPLAY

128 X 128 pixels, Trasflective TFT screen with 65,536 colours

Wide viewing angle and readable in complete darkness to bright sunlight

Active area of 37 mm X 23 mm Larae Text option (double the standard size)

Invert screen Text

Configurable backlight intensity

Screensaver Privacy screen

#### FREQUENCY BANDS

380 - 430MHz

#### POWER

1W RF Power (customisable) Adaptive Power Control supported RF power control in 3 steps of 5dB

#### **RECEIVER (CLASS A)**

–112dBm static sensitivity –103dBm dynamic sensitivity

#### **ENVIRONMENTAL**

Dust & Water protection to IEC529 IP54 (Cat. 2) ETS 300 019 Drop & Vibration Storage Temp -40°C to +85°C Operating Temp -20°C to +60°C

#### **POWER SUPPLY**

7.4V (nominal) Lithium Ion Intelligent Battery packs -1230mAh Standard Pack 1900mAh High Capacity Pack Hot battery swap<sup>1</sup>

#### **VOICE SERVICES SUPPORTED**

Full Duplex Calls (to MS and PABX/PSTN) Half Duplex Calls (Individual and Group) Late Entry Priority Call Emergency Call (Pre-emptive Priority Call) Talking Party Identity Calling Line Identity Presentation DTMF Dialling Ambience Listening Privacy Mode Whisper Mode Group Focus

#### DATA SERVICES

Status Messaging Short Data Service Messaging SDS via DMO Gateway Circuit Switched Data Calls Multi Slot Packet Data Text Message Data Store Wireless Application Protocol (WAP)

#### **OTHER FUNCTIONS AND FEATURES**

Support for up to 3000 pre-programmed Talkgroups, and in any combination of TMO or DMO talk groups

Up to 50 Dynamic Group Number Assignment (DGNA) and supporting Lifetime Timers

Efficient management of talk-groups using, up to 255 Folders with up to 75 talk-groups per Folder<sup>1</sup>

Talk-group Folder Management via PEI and SDS Fixed and User Defined Talk-group Scan Lists

Priority Group Scanning with support for Background groups

Fast Talk-group Access supports up to 5 TMO and 5 DMO groups

Telephone and Radio user Address Book (2000 entries) across 64 Folders

Call History with Missed Call alerts

Transmit Inhibit (TXI) with On/Off Status messaging

DMO Group and Emergency Calls.

DMO Gateway Interoperability supported.

ETSI compliant PEI port. AT-command interface for external applications

Short Data Application support

User Profiles including Pager capability Remote control via Status triggered functions

#### ACCESSORIES & SUPPORT TOOLS

Comprehensive range of accessories, which includes a Car Kit, and both mains and in-vehicle battery chargers

1 - Further information available on request

2 - Functionality is subject to an export licence

3 - Please contact Sepura Sales re option availability

Sepura's policy is to continually improve its products and services. The features and facilities described in this document were correct at publication, but are subject to change without notice.

