

STP8100 HAND-PORTABLE

Sepura's STP8100 Hand-Portable combines ruggedness and high performance with a streamlined user interface. This unique TETRA radio design will benefit users who typically need little more than to adjust volume, switch between DMO and TMO, select and send Status Messages and occasionally change their Talk Group.

TOUGH

The STP8100 has been designed to perform in the most physically challenging environments where users demand ruggedness and durability. In addition, the radio offers unparalleled water and dust resistance.

HIGH PERFORMANCE

The STP8100's RF power is fully customisable up to 1.8 Watts in TMO, DMO and when used as a DM Repeater, delivering reliable communications when most needed. Coverage is extended beyond the reach of typical hand-held radios.

STP8100 also has the largest front-facing loudspeaker available in a TETRA hand-portable; it provides powerful, clear audio and alerting, even in the noisiest environments.

FEATURE-RICH

The STP8100 boasts a comprehensive set of features including optional GPS and Man-Down functionality - both improving user safety. These can be exploited now and in the future, to improve efficiency and reduce operational costs.



8000 SERIES

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EMERGENCY OPERATION
THE EMERGENCY KEY IS LOCATED ON THE TOP OF THE RADIO IN A RECESS BETWEEN THE NAVI-KNOB™ AND THE ANTENNA - FACILITATING EASE OF ACTIVATION AND ENHANCING USER SAFETY

SMA ANTENNA CONNECTOR
DELIVERS 1.8 WATTS OF RF POWER IN TMO, DMO AND REPEATER MODES. INCREASES RANGE BY UP TO 20% WHEN COMPARED TO STANDARD TETRA HAND-HELDS, EXTENDING NETWORK AND DIRECT MODE COVERAGE.

NAVI-KNOB™ OPERATION
WHEN USED IN COMBINATION WITH THE MODE KEY, PROVIDES QUICK ACCESS TO TALKGROUPS, VOLUME ADJUSTMENTS AND STATUS MESSAGES.

MISSED EVENT INDICATOR
A BLUE LED INDICATES THAT A CALL OR MESSAGE HAS BEEN MISSED. A SOFT KEY CAN BE CONFIGURED TO DISPLAY A LIST OF MISSED CALLS OR MESSAGES.

LARGE TACTILE PRESS-TO-TALK KEY
LOCATED ON THE SIDE OF THE RADIO IMMEDIATELY BELOW A SOFT KEY, TYPICALLY USED AS A "CALL CLEAR" FUNCTION WHEN WEARING THE RADIO ON THE BELT.

LARGE COLOUR DISPLAY
THE LARGEST AND CLEAREST DISPLAY IN A TETRA HAND-PORTABLE

ERGONOMIC KEYS
LARGE, WELL-SPACED KEYS, TO ENSURE EASY, ACCURATE, OPERATION - EVERY TIME.

FEATURE ACTIVATION KEYS
PROVIDE INSTANT ACCESS TO FEATURES VIA A SINGLE KEY PRESS - USED FOR RAPID NAVIGATION THROUGH THE USER MENU.

POWERFUL AUDIO
THE LARGE LOUDSPEAKER DELIVERS LOUD, CLEAR AUDIO, EVEN IN THE NOISIEST ENVIRONMENTS.

DMO REPEATER OPTION
UNIQUE ON SEPURA HANDHELD, COVERT AND GATEWAY RADIOS. 'REPEATS' DIRECT MODE VOICE AND DATA TRAFFIC, EXTENDING GEOGRAPHICAL COMMUNICATION RANGE BETWEEN PARTICIPATING RADIOS.

MAN-DOWN PERSONAL SAFETY
MULTI-DIMENSIONAL MOTION SENSING TECHNOLOGY IS USED TO AUTOMATICALLY PROVIDE MAN DOWN DETECTION AND REPORTING.

PRODUCT DESIGN*
WITH IP55 CLASSIFICATION, AN INTERNAL METAL CHASSIS AND TOUGHENED PLASTIC CASING, THE STP8100 HAS BEEN DESIGNED TO PERFORM IN THE MOST DEMANDING OPERATIONAL ENVIRONMENTS.



* not actual size

The STP8100 is a rugged TETRA Hand-Portable

STP8100 Hand-Portable:

- Rugged
- High Power RF and Audio
- Fully integrated, ultra-sensitive, GPS option
- Automatic Man-Down reporting option
- Fully integrated Bluetooth™ wireless interface option
- Memory card slot, up to 32GB. e.g. for image/document storage and applications
- Supported by Sepura's market-leading software tools, including Radio Manager.
- A wide range of market leading accessories
- End-to-End encryption requires only a software upgrade for activation²
- DMO Repeater ready (frequency efficient Type 1A option) with Call Participation.

The STP8100 Hand-Portable is a rugged TETRA hand-portable radio designed and built to meet industry standard IEC529 IP55. It withstands day to day use in some of the harshest environments in the public safety, military, transport, and utilities markets.

The side audio connector provides a rugged screw-down feature offering the best functionality available. A comprehensive range of audio accessories is available offering unique solutions to common operational requirements, most notably a Remote Speaker Microphone with integral antenna.

Feature-rich TETRA radios with a large, high resolution colour displays

The STP8100 Hand-Portable offers a display area of 6 lines of 24 characters, the largest colour display on any TETRA hand-portable product. The high resolution, wide viewing angle and 262k colours represents the best performing display in TETRA hand-portables.

Sepura was the first in TETRA to introduce Large Character Mode on hand-portable radios. Now the STP8100 has evolved this unique feature such that text can be displayed in large format (double normal size) or very large format (approximately four times normal size) to give better legibility, whether belt-worn or when the STP8100 is inserted in a car kit cradle.

STP8100 Hand-Portable Applications

The STP8100 Hand-Portable optionally incorporates a highly-sensitive 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, and the GPS receiver is able to provide accurate positioning in many buildings and urban canyons. In addition to the standard position reporting, the STP8100 can send current GPS location information when the Emergency Call, Lone Worker or Man Down alert is initiated. The STP8100 can be configured, by Radio Manager, to signal Location report information in either the ETSI Location Information Protocol (LIP), Sepura Compact or NMEA protocol.

Onboard and external data applications can send and receive information, using multi-slot packet data, circuit data, Status or SDS services.

At the forefront of User Safety

STP8100 includes optional Man-Down functionality. The Man Down reporting option uses multi-dimensional, motion sensing technology to monitor both the orientation and motion of the radio user. If certain parameters are exceeded, Man-Down functionality will automatically place the radio into the emergency mode generating an alert, complete with location report directed to a predefined address.

This technology enables control rooms to track the whereabouts of staff and to be automatically alerted that one of their field workers may have become incapacitated.

Smart Thinking

To support these applications and offer users greater flexibility, a standard Micro SD Card can be inserted to increase memory, up to 32GB.

For example, photos, maps and records of the location of hazardous chemical data can all be stored on the memory card. As this is a removable industry standard formatted card, it is easy to manage this data and update it using standard PCs and PDAs.

The flexible STP8100 platform is an ideal radio platform for running and storing applications in the future, for example: audio recording and playback, network logging and other data logging functionality (e.g. calls, messages, location updates, etc).

STP8100 Hand-Portable Connectivity

Bluetooth is available as an option on the STP8100 offering wireless connectivity. The vast majority of commercially available Bluetooth devices can be used with the STP8100 including: rugged headsets, personal computers, PDAs and Bluetooth-based beacon location systems.

The STP8100 also supports a full range of conventional wired accessories for data and voice as well as a large number of battery charging options to meet different operational needs.



The User Interface (UI) of the STP8100 Hand-Portable range is common to Sepura's STP8000, SRH3000 and SRM/G3500 series radios. By employing the same easy to use, quick access menu system, training costs can be substantially reduced.

The STP8100 has been specifically designed to provide easy access to the features of the radio with the minimum of key presses.

STP8100 SPECIFICATIONS

DIMENSIONS	DISPLAY AND USER INTERFACE	LOCATION BASED SERVICES
Height: 133mm Width: 61mm (54mm) Depth: 32mm (Standard Battery) Depth: 37.5mm (High Capacity Battery)	Large 30x38mm Active LCD Area Hi-resolution display (176 x 220) pixels Transflective TFT Display, 262K colours Normal, Large & Very Large Mode Text 5 Configurable Soft Keys Vibrate Call/message Call History Telephone/Radio Phone Book (2000 entries) Phone Book (2000 entries) 3000 Talkgroups in TMO/DMO 255 Talkgroup Folders Quick Groups Transmit Inhibit with on/off Status messaging Fixed & definable Scan Lists Remaining Charge Time Indication Missed Call Indicator	GPS Integrated Option -182dBw (-152dBm) Acquisition Sensitivity -185dBw (-155dBm) Tracking Sensitivity Bluetooth Location System GPS Based Compass Over the Air GPS reporting using the following protocols: <ul style="list-style-type: none"> ETSI Location Standard Reporting (LIP) NMEA & Sepura Compact Message
WEIGHT	VOICE SERVICES	DMO REPEATER SERVICES (LICENCE REQUIRED)
With Standard Battery <250g With High Capacity Battery <275g	Full Duplex Calls (to MS and PABX/PSTN) ³ Half Duplex Calls (Individual and Group) ³ Priority Call Emergency Call (Pre-emptive Priority) Talking Party Identity Calling Line Identity Presentation DTMF dialling (from address book) ³ Dynamic Group Number Assignment Background (hidden) Groups DMO Individual Call ³ DMO Group Call DMO Emergency Call DMO Intelligent Emergency Call	DMO Voice Repeated DMO Tone Signalling Repeated Group Status & SDS Repeated Type 1A Efficient Operation over one Frequency Channel Presence Signal Support Emergency Call Monitoring & Participation in Calls
FREQUENCY BANDS	DATA SERVICES AND APPLICATIONS	CONNECTIVITY
300-344MHz – STP8130' 344-400MHz – STP8135' 380-430MHz – STP8138 407-473MHz – STP8140 806-870MHz – STP8180	Status Messaging (in TMO & DMO) SDS Messaging (in TMO & DMO) ⁵ Multi-slot Packet Data Circuit Mode Data TETRA Pager and Call Out Short Data Applications ⁵ Image & Map Storage on Memory Card Lone Worker Feature Missed Event Application	TETRA V+D Bluetooth Support for Voice and Data (PEI) PEI Data via RS232 and USB Data Cables Audio Connections via Rugged Accessory Connector High Speed Interface for Feature-rich Audio Accessories Audio and Data Connection via Facility Connector
POWER SUPPLY	SECURITY SERVICES	ACCESSORIES (ALL ARE COMMON TO THE 8000 SERIES)
7.4V (nominal) Lithium Polymer Battery Packs Intelligent Reporting Batteries 1260mAh Standard Battery 1400mAh Mid Capacity Battery 1880mAh High Capacity Battery	Authentication Class 1, 2 and 3 TETRA Security Air Interface Encryption TEA1/2/3/4 Supported ² SMART Card E2E Encryption Support ² Embedded E2E Encryption Support ² Indigenous E2E Encryption Algorithm Support ²	Personal Charger Vehicle DC Charger 1+1 Desktop Charger 6+6 Desktop Charger 12 and 24 Way Battery only Chargers Wide Range of Antennas Stud and Belt Attachments Rugged Belt Clip Rugged and Soft Leather Cases Basic IP55 Remote Speaker Microphone Advanced Remote Speaker Microphone with Integral Antenna Hands-Free Kit Personal Ear Pieces Feature-rich Car Kit Serial and USB Data Leads
RF PERFORMANCE		
RF Power – MS Power Class 3L (1.8 Watts) RF Power – customisable for TMO/DMO/REP Adaptive Power Control Supported Receiver Class – A and B Receiver Static Sensitivity -112dBm Receiver Dynamic Sensitivity -103dBm		
PRODUCT PERFORMANCE		
Audio Power - >1 Watt Operational Temperature -20°C to +55°C Storage Temperature -40° to +85°C Dust & Water Protection IP55 Shock, Drop & Vibration ETS 300 019		
PRODUCT OPTIONS		
GPS Bluetooth Micro SD Card Man-Down Alarm ⁴ DMO Repeater Type 1A Air Interface Encryption Options End to End Encryption Options (including Smart Card support) Wide Range of Languages		

1 – this is planned to be a future development, please consult your Sepura representative for availability.

2 – availability is subject to export licence.

3 – selectable from phonebook and incoming call list.

4 – the Man-Down Alarm should in no way be regarded as a substitute for compliance with appropriate risk assessment and other safety procedures and practices. To enable Man-Down a Software License is also required.

5 – entering text is not possible on Korean or Chinese language variants.

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.

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