

# STP9000

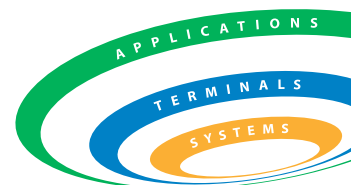
HAND-PORTABLE



The STP9000 is the flagship of a highly innovative series of TETRA hand-portable radios, designed for users who want the best. Waterproof, submersible, dust-proof and marine-hardened, the IP67-rated STP9000 provides the latest smart technology in a 'go anywhere' package.

**sepura**

Going further in critical communications



# STP9000 is a rugged TETRA HAND-PORTABLE

## NAVI-KNOB™ OPERATION

In combination with the mode key, provides simple and quick access to talkgroups, user profile selection and status messaging as well as simply adjusting the volume

## BLUETOOTH MODULE

Allows interaction with a wide range of wireless accessories. Conforms with ETSI PTT command as extension of headset profile, thus allowing use of newly emerging rugged, professional Bluetooth-enabled accessories

## RFID TAG

Facilitates access control solutions, tracking of pool-issued radios and potential for integration with back-end systems

## LARGE TACTILE PRESS-TO-TALK KEY

Large, easy to find and glove-friendly

## MAN-DOWN PERSONAL SAFETY

Multi-dimensional motion sensing technology automatically provides man-down detection and summons assistance

## PRODUCT DESIGN

The STP9000 leverages the tough technology developed for Sepura's STP8X Intrinsically-Safe series to deliver a market-leading IP67 package, proven to perform in the most demanding operational environments

## EMERGENCY OPERATION

Easy to locate, protected from accidental operation, but simple to activate in a real emergency. Now with a "wake-on-alarm" feature allowing users to summons assistance even if the STP is switched off

## SMA ANTENNA CONNECTOR

Delivers 1.8 watts of RF power in TMO, DMO and Repeater Modes. Increases range, thus extending network and direct mode coverage

## MISSED EVENT INDICATOR

A blue LED indicates that a call/message has been missed. The soft key next to the LED can be configured to display a list of missed calls/messages



**Robustness** – The STP9000 boasts an IP67 (submersible, waterproof and dustproof) environmental protection rating, which means that it will still function after having been submerged in up to 1m of water for up to 30 minutes. In addition, new Connector Protector technology provides **marine-hardened protection** against the corrosive damage that salt water and salt fog can cause to exposed connectors.



**Improved ease of use** – The STP9000 provides an enhanced user interface, which offers three different presentation styles, which users can select according to their personal preference:

- Compatibility mode allows existing Sepura users to be immediately familiar with the STP9000.
- Grid and list modes will appear familiar to new users who may be accustomed to user interfaces on smartphones or other GSM devices, rather than a radio.

These new presentation styles lower training costs for both new and existing Sepura users.



**Smart keypad and display technology** – Following detailed user feedback, Sepura has added 'haptic' technology to the STP9000. Haptics produce a physical movement of the radio, felt through the hand, which confirms to gloved users that the key press has been successful. In addition, the Twist and Zoom feature uses smartphone technology to allow a portrait image to be zoomed to full-screen size, enabling the user to see full detail of an image, such as a missing person, as they rotate the radio. The feature also enables access to details concerning the image.



**Resource and information management** – Tracking radios, particularly in a pooled system, can be difficult, so the STP9000's **built-in RFID tag** will be of considerable benefit to many users. In addition, the micro SD card slot makes it easy to store and manage data, such as photos, maps, missing person information and hazardous chemical data.



**Enhanced user safety** – The STP9000 features a wide range of features to enhance user safety. In addition to lone-worker, Man-Down, enhanced GPS and STProtect capability, the **Wake-On-Alarm** feature, which enables the STP9000 to be switched on and make an emergency call by simply pressing the emergency button, also helps to protect users.

**LARGE, SUNLIGHT-VISIBLE, COLOUR DISPLAY**

Featuring an enhanced user interface, which offers three presentation styles to suit user preferences. Dual illumination technology ensures screen clarity under all light conditions

**SEPURA PICTURE MESSAGE**

Allows the radio to securely receive images and any associated text, permitting simultaneous distribution to multiple user groups via SDS

**RUGGED ACCESSORY CONNECTOR**

Ensures a reliable connection with a wide range of audio accessories

**SMART MENU**

Customer-defined smart menus give intuitive access to hundreds of soft key features

**ERGONOMIC KEYPAD**

Large, well-spaced keys, enhanced by haptic technology, which allows the user to feel a key press, even through thick gloves

**POWERFUL AUDIO**

Large loudspeaker delivers outstanding audio, even in the noisiest environments

**STPROTECT MODULE**

An option which enables use of Sepura's STProtect indoor location and Lone Worker solution. Facilitates indoor tracking where GPS-based tracking is not possible

**BOTTOM CONNECTOR**

Featuring Connector Protector technology to provide protection from corrosive salt water and salt fog

- › **Robust, 'tough technology'** inherited from state-of-the-art development for the STP8X ATEX/IECEX radio
- › **Market-leading IP67** (submersible, waterproof and dustproof) rating
- › High power RF and audio, with **improved full-duplex audio** experience
- › Intuitive, enhanced UI, with **3 presentation styles** (grid, list and compatibility modes)
- › **Integral RFID tag** allows rapid asset tracking of pool-issued radios
- › **Fully integrated Bluetooth™** option
- › Enhanced key tactility through **haptic-based technology**
- › **Man-Down** automatically summons assistance
- › **Wake-On-Alarm** activation
- › **Micro-SD** memory card slot
- › **End-to-End encryption** option
- › **DMO Repeater ready** (frequency efficient Type 1A option) with call participation
- › **Smart building blocks** - adding advanced WAP and MicroSD card functionality allows users to 'build' smart solutions to meet operational challenges
- › A wide range of **market-leading accessories**, designed for a wide range of public safety, industrial and other users
- › Supported by Sepura's market-leading software tools, including **Radio Manager 2** which helps organisations to lower cost of ownership by making fleet re-programming easier



Highly innovative, designed for critical communication users who demand the very best TETRA radios



**Reduced cost of ownership** – The STP9000 is compatible **not only with all audio accessories**, batteries and chargers from Sepura's STP8000 hand-portable range, but also with its market-leading Radio Manager 2 fleet management tool and CMC encryption management suite - all factors which help organisations to maximise the value of existing investments.

**Indoor location capability** – An **STProtect module** can be optionally fitted within the radio. This is a key element of the STProtect complete indoor location and lone worker protection solution. In areas where GPS signals cannot penetrate, it allows organisations such as prisons, airports and industrial sites to track and protect lone workers, locate employees, control access to restricted areas and ensure pre-defined security patrol routes are being adhered to.

**Smart technology** – Sepura has provided a host of "smart" features which allow organisations to maximise their efficiency and enhance their operations. These include:

**Bluetooth functionality** - by adding trusted device and master pairing features, the potential uses of Bluetooth have been widened considerably. Implementation of the ETSI PTT Bluetooth command as an extension of

the headset profile enables use of the newly-emerging range of rugged, professional, wireless accessories.

**Short data applications** - Short data applications (SDAs) allow the user to simply and intelligently interact with a back-end IT system. Built and deployed on Radio Manager 2, SDAs allow the automation of work flows, job allocation and remote control capabilities. They also allow the user to rapidly access a remote database. SDAs have been demonstrated to improve the effectiveness of users, thus saving organisations valuable time and money.

**MicroSD card** - Complete WAP sites can now be encrypted and stored on the MicroSD card conveniently and quickly via Radio Manager 2. For the first time users can access up to 4GB of data, images and text, organised into a convenient and intuitive WAP site.

SDS text messages can now contain URL shortcuts that takes the user directly to data on the local WAP site stored on the SD card, or to a back-end WAP site accessed via TETRA. These powerful features allow the rapid dissemination of data to targeted users, such as missing person information.



# STP9000

## HAND-PORTABLE

### DIMENSIONS

Height: 133mm  
Width: 61mm (54mm)  
Depth: 32mm (standard battery)  
Depth: 37.5mm (high-capacity battery)

### WEIGHT

With standard battery: 250g  
With high-capacity battery: 275g

### FREQUENCY BANDS

344-400MHz – STP9035  
380-430MHz – STP9038  
407-473MHz – STP9040  
806-870MHz – STP9080

### POWER SUPPLY

7.4V (nominal) lithium polymer battery packs  
Intelligent reporting batteries  
1160mAh standard battery  
1400mAh mid-capacity battery  
1880mAh high-capacity battery

### RF PERFORMANCE

RF power: MS power class 3L (1.8 Watts)  
RF power customisable for:  
TMO/DMO/repeater  
Adaptive power control  
Receiver class A & B  
Receiver static sensitivity -112dBm  
(-115dBm typical)  
Receiver dynamic sensitivity -103dBm  
(106dBm typical)

### PRODUCT PERFORMANCE

Audio power: >1 Watt  
Operational temperature (conformance tested)  
-20°C to +60°C  
Operational temperature (min./max.)  
-30°C to +70°C<sup>4</sup>  
Storage temperature -40°C to +85°C<sup>1</sup>  
Dust & water protection to both IP67 & IP65  
(waterproof, submersible, sprayproof & dustproof)  
plus tested for complete 8hr shifts "in the pouring rain"  
Shock, drop & vibration: ETS 300 019  
Salt fog: MIL810E 509.4(I); duration 24hr salt<sup>5</sup>  
Salt water: submersion, rated at 1m depth for  
30 minutes<sup>5</sup>

### RFID PERFORMANCE

Internal tag: HITAG S2048, short range, 125KHz,  
ISO11784 & ISO11785 compliant  
Range: 1 cm from back of individual  
radio box pack  
User accessible storage: 512 bits, passive  
technology pre-programmed (user can overwrite):  
32 bit unique identifier  
Serial number  
Hardware code  
TEI

### PRODUCT OPTIONS

GPS  
Bluetooth<sup>6</sup>  
Man-Down alarm<sup>3</sup>

DMO repeater type 1A  
Air Interface encryption options  
End-to-end encryption options  
Wide range of languages supported  
Micro SD card  
Coloured bezels  
STProtect in-building tracking solution<sup>6</sup>  
Smart card support

### DISPLAY AND USER INTERFACE

Large 30x38mm active LCD area  
Hi-resolution display (176 x 220 pixels)  
Transflective TFT display, 262K colours  
Normal, large & very large mode text  
16 configurable feature activation keys  
Vibrate call/message  
Call history  
Phone book (2000 entries)  
9900 talkgroups in TMO/DMO  
5000 multi-level talkgroup folders  
Intelligent search facility  
Quick groups  
Transmit inhibit with on/off status messaging  
Fixed & definable scan lists  
Remaining charge-time indication  
Missed call indicator  
Intuitively-enhanced user interface  
Choice of three user interface presentation styles  
(compatibility, grid and list modes)  
Haptic technology to enhance key tactility when  
used with heavy gloves  
Twist and Zoom portrait image viewer  
Auto-capitalisation in SDS text entry  
Two context keys  
Wake on Alarm  
Sepura Picture Message  
Smart menu

### VOICE SERVICES

Full duplex calls (to MS and PABX/PSTN)  
Half-duplex calls (individual & group)  
Priority call  
Emergency call (pre-emptive priority)  
Intelligent alarm reporting  
Talking party identity  
Calling line Identity presentation  
DTMF dialling  
MSISDN dialling  
Abbreviated dialling  
Dynamic group number assignment  
Background (hidden) groups  
Ambience listening  
Privacy mode  
Whisper mode  
Group focus  
DMO individual call  
DMO group call  
DMO emergency call  
DMO intelligent emergency call  
Independent volume control  
Gateway pairing

### DATA SERVICES AND APPLICATIONS

Status messaging (in TMO & DMO)  
SDS messaging (in TMO & DMO)  
Auto-capitalisation in SDS text entry  
Concatenated SDS messaging  
Multi-slot packet data  
Circuit mode data  
TETRA paging and call out  
WAP browsing  
WAP shortcuts in SDS  
WAP sites stored on MicroSD card  
Battery status advised on start-up  
Short data applications (SDAs)

WAP sites, images, maps & text stored on MicroSD  
card via Radio Manager2  
Lone-Worker feature  
Missed event application  
User-expandable up to 4GB via MicroSD card  
Up to 30 quick status messages

### LOCATION BASED SERVICES

GPS integrated option -192dBw (-162dBm) tracking  
sensitivity  
Over-The-Air GPS reporting using the following protocols  
• ETSI location standard reporting (LIP)  
• NMEA & Sepura compact messaging  
GPS-based compass  
Enhanced indoor start-up and acquire through  
'predictive ephemeris'  
Bluetooth location system compliant  
STProtect  
RFID tag equipped

### SECURITY SERVICES

Authentication  
Class 1, 2 and 3 & 3G TETRA Security  
Air Interface encryption  
TEA1/2/3/4 supported<sup>2</sup>  
Smart card E2E encryption support<sup>2</sup>  
Embedded E2E encryption support<sup>2</sup>  
In-country E2E encryption algorithm support<sup>2</sup>  
Multiple E2E algorithm support<sup>2</sup>

### DMO REPEATER SERVICES (LICENCE REQUIRED)

DMO voice repeated  
DMO tone signalling repeated  
Group status & SDS repeated  
Type 1A efficient operation over one RF Channel  
Presence signal support  
Emergency call  
Monitoring & participation in calls

### CONNECTIVITY

TETRA voice & data  
Bluetooth support for voice & data (PEI)  
ETSI Bluetooth PTT extension command compliant  
Bluetooth trusted device, auto re-connect & master pairing  
PEI Data via RS232, USB data cables or Bluetooth  
Accessory connections via rugged accessory connector  
(RAC)  
High-speed interface for feature-rich audio accessories  
Audio & data connection via facility connector  
MicroSD card slot (4GB max)  
Passive 125KHz RFID tag  
STProtect

### ACCESSORIES

Personal charger  
Vehicle DC charger  
1+1 desktop charger  
6+6 desktop charger  
12- & 24-way battery-only chargers  
Wide range of antennas  
Stud & belt attachments  
Rugged belt clip  
Rugged & soft leather cases  
Basic IP55 remote speaker microphone  
Advanced IP55 remote speaker microphone  
(with & without RF Antenna)  
Hands-free kit  
Personal ear pieces  
Public order accessories  
Semi-covert accessories  
Feature-rich & basic car kits  
Serial & USB data leads  
Four- & eight-way programming pods  
Two-way, battery-only, charger for vehicles

1 – As defined in ETSI EN300 019-2-1 & EN300 019-2-2

2 – Availability is subject to export licence

3 – The Man-Down alarm should in no way be regarded as a substitute for compliance with appropriate risk assessment & other safety procedures & practices.  
To enable Man-Down a software licence is also required

4 – Operating at temperature extremes may limit some aspects of operational performance

5 – Connector Protector must be enabled in customisation. An antenna, a battery & either an accessory or the STP9000 series RAC cover must be fitted. Lightly rinse in fresh water after salt exposure to prevent salt crystal build-up

6 – Bluetooth & STProtect hardware options cannot be fitted at the same time

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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