

# STP8X

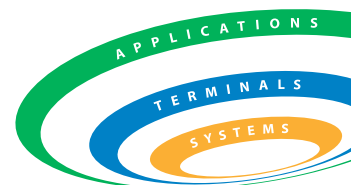
INTRINSICALLY-SAFE  
HAND-PORTABLES



The STP8X series meets the highly demanding V6 of the IECEx/ATEX standard. Comprising full-keypad and reduced-keypad variants, the series offers an impressive array of features and a full range of accessories.

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Going further in critical communications



# STP8X ACCESSORIES

A selection of the wide-ranging portfolio of accessories for the STP8X series:

STP8X ADVANCED REMOTE SPEAKER MIC (RSM)\*



STP8X LARGE BUTTON PTT\*



HOT SWAP ACCESSORIES

## RUGGED DESIGN

The STP8X offers unrivalled levels of ruggedness and robustness. Its IP67 rating means that it is able to withstand submersion in up to 1m of water for 30 minutes and is completely dustproof. Suitable for the harshest and most challenging environments, the STP8X meets V6 of the IECEx/ATEX standards.

Version 6 is a highly **rigorous testing regime** for Intrinsically-Safe radios, demanding that the product withstand being heated to 80°C at 90% relative humidity for 28 days, followed by being rapidly chilled to between -25°C and -30°C for 24 hours to attempt to induce brittleness. Upon emerging from the cold chamber, it is immediately impacted and drop tested and submitted to a formal IP test for both liquid and vacuum-assisted dust ingress, in order to check that its integrity has not been breached.

## LOUD AND CLEAR

Clear communication is fundamental to user safety. The STP8X is the **loudest TETRA Intrinsically-Safe radio** on the market. Together with its unrivalled clarity of audio, achieved through its award-winning innovative hardware and software, the STP8X enables users to communicate quickly and efficiently in noisy environments where heavy machinery or protective headgear and clothing is used.

## EASE OF USE

The STP8X series features an enhanced user interface, with a choice of **three presentation styles**, which users can select according to their personal preference or operational requirements:

- Compatibility mode, allowing existing Sepura users to be immediately familiar with the STP8X
- Smartphone-style grid and list modes

This choice of user interface helps to minimise training costs.

## MINIMISE TRAINING COSTS

Both variants in the series also feature a highly-tactile keypad, designed for use with gloved hands. The reduced-keypad version is specifically intended for users who require swift access to specific functions. The inclusion of **Bluetooth connectivity** in the STP8X enables users to connect easily and wirelessly to suitable peripheral devices and accessories. This minimises the use of wires and cables and makes it ideal for users, such as those on oil rigs or in manufacturing environments, who are frequently close to moving machinery.

In addition, the 'Twist and Zoom' feature uses **smartphone technology** to allow a portrait image (stored on a Micro SD card) to be zoomed to full-screen size, allowing the user to see full detail of an image as they rotate the radio.



STP8X THROAT MIC HEADSET  
(ATTACHES TO RSM OR PTT)



STP8X LIGHTWEIGHT  
BOOM HEADSET  
(ATTACHES TO RSM OR PTT)



STP8X SKULL MIC HEADSET  
(ATTACHES TO RSM OR PTT)

- › Robust, user-friendly and designed with user safety in mind, the STP8X series offers an IP67 environmental protection rating (dustproof, waterproof, submersible); loud, clear audio; a choice of intuitive user interfaces; and an highly tactile keypad.
- › The **full-keypad** version is designed to give swift and easy access to a full set of functionality. The **reduced keypad** version offers the same functionality, yet gives easy, safe and direct access to specific functions – ideal for use with gloved hands.
- › A proven technology, the STP8X is in use throughout the world in areas such as fire and rescue, open-cast mining, petrochemicals, airports, policing and the military.

#### INFORMATION SECURITY

Air Interface and End-to-End (E2E) encryption options on the STP8X offer protection against eavesdropping and ensure the confidentiality of sensitive operational information.

#### RANGE OF ACCESSORIES

The STP8X is supported by a **comprehensive range of approved IS accessories** designed to ensure safe, reliable operation and loud, clear audio – vital in hazardous environments. The range allows for customisation and a product that is perfectly tailored to user needs.

#### DATA CAPABILITIES

Users of IS radios often need to interact or communicate automatically with a variety of other systems, particularly those at the back-end of an operation. The growing range of Sepura radio applications, including use of WAP and SDS technologies, enables tasks such as automated job allocation or database look-ups. Users can also rapidly review data stored on the radio via its removable Micro SD card.

#### FLEET INTEGRATION

The STP8X is fully compatible with Radio Manager 2, Sepura's market-leading fleet management tool, thus reducing the total cost of ownership and allowing users to manage their fleets efficiently.

#### SCREEN LEGIBILITY

**Screen clarity** is fundamental when operating in demanding environments. The large, hi-resolution display utilises dual illumination technology to ensure crystal-clear viewing in all light conditions, including harsh sunlight.

#### LONG BATTERY LIFE

The STP8X offers **exceptional battery life**, to cope with long shifts and a large number of calls.

#### USER SAFETY

The STP8X offers **the most advanced Man-Down solution in the TETRA IS market**, with motion- and tilt-monitoring as well as a local alarm and over-the-air alerting. This is backed by an integrated GPS receiver, allowing swift location of personnel, ensuring their safety.

#### HOT-SWAP ACCESSORIES

The STP8X RSM and PTT support a hot-swap Nexus interface. Sepura-approved and certified Nexus-based headsets can be attached to, or removed (hot-swapped) from the RSM\*<sup>†</sup> or PTT\*<sup>†</sup> whilst in a dust or gas hazardous environment.

\*Peltor interface variant also available. Please check latest IECEx/ATEX certificates for approved Peltor headsets.

<sup>†</sup>Accessories connected directly to the STP8X RuSC connector, such as the RSM and PTT, cannot be attached or removed in a hazardous environment.

Rugged design, quality audio, easy to use.

# STP8X

## INTRINSICALLY-SAFE HAND-PORTABLES

### INTERNATIONAL IECEx SPECIFICATIONS V6

Gas Environment = Ex ib IIC T4 Gb  
(-20°C ≤ Ta ≤ +55°C)

- Protection by Intrinsic Safety: Ex ib (1 countable fault)
- Gas group: IIC (& all lower groups IIB & IIA)
- Temperature class: T4 (135°C (max. internal surface temp) & all lower groups T3, T2 & T1)
- Equipment protection level: Gb (Gas Zone 1 & 2)
- (-20°C ≤ Ta ≤ +55°C) identifies that the product achieved all certification conditions whilst the ambient temperature varied between these temperature extremes
- Dust environment = Ex ib IIC T90°C Db  
(-20°C ≤ Ta ≤ +55°C)
- Protection by Intrinsic Safety: Ex ib (one countable fault)
- Dust group: IIIC (conductive dust & all lower groups IIB & IIIA)
- Temperature: 90°C (max. temperature case could reach)
- Equipment protection level: Db (dust zone 21 & 22)
- Enclosure rated to IP6x (dust-tight enclosure)
- (-20°C ≤ Ta ≤ +55°C) identifies that the product achieved all certification conditions whilst the ambient temperature varied between these temperature extremes

### ATEX SPECIFICATIONS V6

Gas environment = Ex II 2G Ex ib IIC T4 Gb  
(-20°C ≤ Ta ≤ +55°C)

- Equipment group: II
- Equipment category: 2 (Suitable for use in gas zones 1 & 2)
- Protection by Intrinsic Safety: Ex ib (1 countable fault)
- Gas group: IIC (hydrogen & the lower classes including IIB – Ethylene & IIA – Propane)
- Temperature class: T4 (135°C (max. internal surface temp) & all lower groups T3, T2 & T1)
- Equipment protection level: Gb (gas zones 1 & 2)
- (-20°C ≤ Ta ≤ +55°C) Identifies that the product achieved all certification conditions whilst the ambient temperature varied between these temperature extremes
- Dust environment = Ex II 2D Ex ib IIC T90°C  
(-20°C ≤ Ta ≤ +55°C) Db IP6x
- Equipment group: II
- Equipment category: 2 (suitable for use in zones 21 & 22)
- Protection by Intrinsic Safety: Ex ib (1 countable fault)
- Dust group: IIIC (conductive dust & all lower groups IIB & IIIA)
- Temperature: 90°C (max. temperature case could reach)
- Equipment protection level: Db
- Enclosure rated to IP6x (dust-tight enclosure)
- (-20°C ≤ Ta ≤ +55°C) Identifies that the product achieved all certification conditions whilst the ambient temperature varied between these temperature extremes

### VOICE SERVICES

Full duplex calls (to MS & 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<sup>5</sup>  
MSISDN dialling<sup>5</sup>

DTMF post-dial tone entry (full-keypad version only)  
Dynamic group number assignment  
Background (hidden) groups  
DMO individual call  
DMO group call  
DMO emergency call  
DMO intelligent emergency call  
TMO/DMO independent volume control  
Ambiance listening  
Privacy mode  
Whisper mode  
Group focus

### DATA SERVICES & APPLICATIONS

Status messaging (in TMO & DMO)<sup>5</sup>  
SDS messaging (in TMO & DMO)<sup>5</sup>  
Concatenated SDS messaging<sup>5</sup>  
Multi-slot packet data  
TETRA pager & call out  
WAP browsing  
Radio applications  
Image & map storage on memory card  
Lone Worker feature  
Missed event application, indicator & soft key  
Auto-capitalisation on SDS text entry (full-keypad version only)  
Circuit mode data

### LOCATION BASED SERVICES

GPS integrated option  
GPS-based compass  
Bluetooth location system compliant  
Over-The-Air GPS reporting using the following protocols:  
➤ ETSI location standard reporting (LIP)  
➤ NMEA  
➤ Sepura compact messaging

### SECURITY SERVICES

Authentication  
Class 1, 2 & 3 TETRA security  
Air Interface encryption  
TEA1/2/3/4 supported<sup>2</sup>  
SMART card E2E encryption support<sup>2</sup>  
BOS & Sectra smart card support<sup>2</sup>  
E2E encryption 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

### ACCESSORIES

Klickfast stud & beltclip attachments  
Heavy-duty leather case & leather holster  
STP8X heavy duty headset  
STP8X heavy duty helmet clip-on headset  
STP8X lightweight boom headset  
STP8X skull mic  
STP8X advanced remote speaker mic<sup>6</sup>  
STP8X large-button PTT<sup>6</sup>  
STP8X throat mic headset  
STP8X lightweight boom headset with small in-line PTT  
STP8X SCORPION clip-on boom headset  
USB data lead  
One-way or multi-way desk-top charger  
12v/24v DC in-vehicle charger, with remote option

### DIMENSIONS

Height: 139mm  
Width: 61mm/54mm  
Depth: 44mm  
Weight: ≤338g  
Frequency bands:  
380-430MHz: STP8X038 (full keypad)  
STP8X138 (reduced keypad)  
407-473MHz: STP8X040 (full keypad)  
STP8X140 (reduced keypad)

### POWER SUPPLY

7.4V (nominal) lithium polymer battery pack  
Intelligent reporting battery  
1400mAh battery

### PRODUCT OPTIONS

Bluetooth  
GPS  
Micro SD card (up to 4Gb supported)  
Man-Down alarm<sup>3</sup>  
DMO repeater type 1A  
Air Interface encryption options  
E2E encryption options  
Wide range of languages & keymats supported<sup>7</sup>

### DISPLAY & USER INTERFACE

Large 30x38mm active LCD area  
Hi-resolution display (176 x 220 pixels)  
Transflective TFT display, 262K colours  
Normal, large & very large text options  
16 configurable soft keys (full-keypad)/seven configurable soft keys (reduced-keypad) (+ emergency key)  
Two context keys  
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  
Large, tactile keypad  
Intuitively-enhanced user interface  
Choice of three user interface styles: compatibility, list & grid modes

### RF PERFORMANCE

RF power: MS power class 4 (1W)  
RF power: customisable for TMO/DMO/REP  
Adaptive power control supported  
Receiver class: A & B  
Receiver static sensitivity -112dBm (-115dBm typical)  
Receiver dynamic sensitivity -103dBm (-106dBm typical)

### PRODUCT PERFORMANCE

Voice audio 1W<sup>4</sup>  
Operational temperature -20°C to 55°C  
Storage temperature -40° to 85°C<sup>1</sup>  
Dust & water protection IP67 (dustproof, waterproof & submersible)  
Shock, drop & vibration ETS 300 019

1 – As defined in ETSI EN300 019-2-1 and 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 and other safety procedures or practices.

To enable Man-Down, a software licence is required

4 – Using internal STP8X speaker

5 – Reduced-keypad variant uses Sepura pseudo-keyboard text entry

6 – Peltor interface variant also available

7 – Reduced-keypad version supports multiple languages on one keymat. Full-keypad version supports multiple languages and localised keymats

Sepura's policy is to continually improve its products and services.

The specifications, features and facilities described in this document were correct at publication, but are subject to change without notice.

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