



1 **EC TYPE-EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: **Sira 10ATEX2066X** Issue: **4**

4 Equipment: **Handheld Radio Transceiver HT Series HT8XX and HT9XX**

5 Applicant: **Entel UK Ltd**

6 Address: 320 Centennial Avenue
Centennial Park
Elstree
Borehamwood
Herts. WD6 3TJ
UK

7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 60079-0:2006 EN 60079-11:2007
EN 60079-0:2009 (used for guidance in respect of marking)

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

11 This EC type-examination certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:

HT8XX



II 2G
Ex ib IIA T4 Gb
Ta = -20°C to +40°C

HT9XX



II 2G
Ex ib IIC T4 Gb
Ta = -20°C to +40°C

Project Number 70004821

C Ellaby
Deputy Certification Manager

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13 DESCRIPTION OF EQUIPMENT

The Handheld Radio Transceiver HT Series is comprised of a range of hand held, battery powered, portable, two way radios. Each model has a plastic enclosure containing printed circuit boards and a keypad. Radios not fitted with a liquid crystal display are indicated below in the list of the models below. A transmit/receive antenna is mounted externally by a screw connection. The battery supply is contained in a separate pack which is attached to the main enclosure by plastic clips and secured by a locking screw. The battery supply comprises two, rechargeable, lithium ion cells connected in series. The battery pack maintains intrinsic safety when separated, permitting removal in a hazardous area. The battery pack shall not be recharged in a hazardous area.

The complete range is comprised of the following models:

| | | | | |
|---|---|-----|--|---|
| Gas Group IIC UHF(400-520MHz) 7-key, LCD | HT981, HT981S | and | Gas Group IIA UHF(400-520MHz) 3-key, no LCD | HT882IIA, HT882SIIA, HT882TIIA, HT882RIIA, HT882UIIA, HT882SUIIA, HT882TUIIA, HT882RUIIA |
| 3-key, no LCD | HT952, HT982, HT982S, HT982T, HT982R, HT982U, HT982SU, HT982TU, HT982RU, HT982HUR | | 3-key, LCD | HT883IIA, HT883UIIA, HT883SIIA, HT883SUIIA |
| 3-key, LCD | HT953, HT983, HT983U, HT983S, HT983SU | | 8-key, LCD | HT885IIA, HT885TIIA, HT885RIIA, HT885UIIA, HT885TUIIA, HT885RUIIA |
| 8-key, LCD | HT985, HT985T, HT985R, HT985U, HT985TU HT985RU | | 8-key + 0-9, LCD | HT886IIA, HT886TIIA, HT886RIIA, HT886UIIA, HT886TUIIA, HT886RUIIA |
| 8-key + 0-9, LCD | HT986, HT986T, HT986R, HT986U, HT986TU, HT986RU | | | |
| VHF (mid band 66-88MHz) 3-key, no LCD | HT912, HT912S, HT912T, HT912R | | VHF (66-88MHz) 3-key, no LCD | HT812IIA, HT812SIIA, HT812TIIA, HT812RIIA |
| 3-key, LCD | HT913, HT913S | | 3-key, LCD | HT813IIA, HT813SIIA |
| 8-key, LCD | HT915, HT915T, HT915R | | 8-key, LCD | HT815IIA, HT815TIIA, HT815RIIA |
| 8-key + 0-9, LCD | HT916, HT916T, HT916R | | 8-key + 0-9, LCD | HT816IIA, HT816TIIA, HT816RIIA |
| VHF band (136-174MHz) 3-key, no LCD | HT922, HT922S, HT922T HT922R, HT942, HT942 ATIS | | VHF band (136-174MHz) 3-key, no LCD | HT822IIA, HT822SIIA, HT822TIIA, HT822RIIA, HT842IIA, HT842IIA ATIS |
| 3-key, LCD | HT923 HT923S | | 3-key, LCD | HT823IIA HT823SIIA |
| 7-key, LCD | HT944, HT944 ATIS | | 7-key, LCD | HT844IIA, HT844IIA ATIS |
| 8-key, LCD | HT925, HT925T HT925R | | 8-key, LCD | HT825IIA, HT825TIIA HT825RIIA |
| 8-key + 0-9, LCD | HT926, HT926T HT926R | | 8-key + 0-9, LCD | HT826IIA, HT826TIIA HT826RIIA |

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Sira Certification Service

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An external multi-pin screw threaded connector is provided for earphone and microphone accessories. Only the specified types of accessories are permitted for use in hazardous areas.

The following accessories are permitted for use with all models:

CMP950 microphone EA/19/950 earpiece microphone EA15/950 ear/microphone
CHP950HD ear defender CHP950HS ear defender
SAVOX C-C500 microphone/speaker unit (Certificate VTT 06 ATEX 043X)

The following accessories are permitted for use **only** with the ATEX certified models, HT981, HT981S:

SAVOX 100+ Radio microphone/speaker unit (Certificate VTT 06 ATEX 036X)
SAVOX 400 microphone/speaker unit (Certificate VTT 05 ATEX 009X)

Variation 1 - This variation introduced the following change:

- i. The introduction of a new VHF RF printed circuit board which is a variation of the original VHF Board.

Variation 2 - This variation introduced the following change:

- i. The use of the following accessories was recognised; these may **only** be used with the models HT981, HT981S, HT983, HT983U, HT983S and HT983SU:
 - Savox, FPS-COM. (Certificate number ITS08ATEX25772X).
 - Scott Health and Safety Ltd, SABRE-COM. (Certificate number ITS03ATEX21290X).

Variation 3 - This variation introduced the following change:

- i. The inclusion of the following previously certified accessory, this accessory can be used with any, ATEX certified model.
 - FPS-COM-Plus VA R-C (Certificate number ITS11ATEX27318X).

Variation 4 - This variation introduced the following change:

- i. The following accessories were recognised for use with all models:

| | |
|----------------------------------|--------------------------------|
| PTT951 push to talk switch | EA12/950 earphone/microphone |
| PTT951C push to talk switch | EHP9 earphone |
| PTT951E push to talk switch | EHP950 earphone |
| CHP950D ear defender headset | EPT40 earphone/microphone |
| CXR16 throat earphone/microphone | CXR5 skull earphone/microphone |
- ii. The following currently listed accessories were updated and their description changed:

| From | To |
|-------------------------------|-------------------------------|
| CMP950 microphone | CMP950 speaker/microphone |
| CHP950HD ear defender | CHP950HD ear defender headset |
| CHP950HS ear defender | CHP950HS ear defender headset |
| EA15/950 ear/microphone | EA15/950 earphone/microphone |
| EA/19/950 earpiece microphone | EA19/950 earphone/microphone |
- iii. The SAVOX C-C500 microphone/speaker unit (Certificate VTT 06 ATEX 043X) previously restricted to use with radio models HT981, HT981S may now be used with all radio models. The Description of Equipment and Special Conditions for Safe Use, 15.1, were amended accordingly.
- iv. The introduction of an additional Special Condition For Safe Use.

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Variation 5 - This variation introduced the following changes:

- ii. A revision of the battery pack circuits to form a new battery pack to replace the existing battery pack, marketed as types CNB950E V2, CNB850E V2, were approved. The marking was amended and the Special Condition For Safe Use was removed as a result of this change.
- iii. The current limit from the battery has been increased from 2.0 A to 2.14 A by the active current limiting circuit.
- iv. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, EN 60079-0:2009 and EN 60079-11:2007 were replaced by EN 60079-0:2012 and EN 60079-11:2012.

14 **DESCRIPTIVE DOCUMENTS**

14.1 **Drawings**

Refer to Certificate Annexe.

14.2 **Associated Sira Reports and Certificate History**

| Issue | Date | Report no. | Comment |
|-------|-------------------|--------------------------|---|
| 0 | 11 May 2010 | R21484A/00 R21484B/00 | The release of the prime certificate (Associated with R21484A/00) including Variation 1 (Associated with R21484B/00). |
| 1 | 22 December 2010 | R23211A/00 | The introduction of Variation 2. |
| 2 | 20 December 2011 | R25998A/00 | The introduction of Variation 3. |
| 3 | 10 September 2012 | R25998B/00 | The introduction of Variation 4. |
| 4 | 28 May 2015 | R70004821A | The introduction of Variation 5 |

15 **SPECIAL CONDITIONS FOR SAFE USE** (denoted by X after the certificate number)

15.1 These Handheld Radio Transceivers shall only be used with the specific, permitted accessories that are detailed in the table below:

| Accessory | Permitted models |
|---|--|
| CMP950 speaker/microphone | All |
| CHP950HD ear defender headset | All |
| CHP950HS ear defender headset | All |
| EA15/950 earphone/microphone | All |
| EA19/950 earphone/microphone | All |
| SAVOX C-C500 microphone/speaker unit (Cert. no.VTT 06 ATEX 043X) | All |
| SAVOX 100+ Radio microphone/speaker unit (Cert. no. VTT 06 ATEX 036X) | HT981, HT981S |
| SAVOX 400 microphone/speaker unit (Cert. no. VTT 05 ATEX 009X) | HT981, HT981S |
| Savox, FPS-COM (Cert. no.ITS08ATEX25772X) | HT981, HT981S, HT983, HT983U, HT983S & HT983SU |
| Scott Health and Safety Ltd, SABRE-COM (Cert. no. ITS03ATEX21290X) | HT981, HT981S, HT983, HT983U, HT983S & HT983SU |
| FPS-COM-Plus VA R-C (Cert. no. ITS11ATEX27318X) | All |

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| Accessory | Permitted models |
|----------------------------------|------------------|
| PTT951 push to talk switch | All |
| PTT951C push to talk switch | All |
| PTT951E push to talk switch | All |
| EHP950 earphone | All |
| CHP950D ear defender headset | All |
| CXR16 throat earphone/microphone | All |
| CXR5 skull earphone/microphone | All |
| EA12/950 earphone/microphone | All |
| EHP9 earphone | All |
| EPT40 earphone/microphone | All |

15.2 The equipment battery pack shall only be recharged with the dedicated, Entel, battery re-charging equipment supplied.

15.3 The equipment battery pack shall not be recharged in a hazardous atmosphere.

15.4 This equipment may incorporate previously certified accessories, therefore, when in operation, the user shall take into account any restrictions or special conditions for safe use that are applicable to these accessories.

15.5 No precautions against electrostatic discharge are necessary for portable equipment that has an enclosure made of plastic, metal or a combination of the two, except where a significant static-generating mechanism has been identified. Activities such as placing the item in a pocket or on a belt, operating a keypad or cleaning with a damp cloth, do not present a significant electrostatic risk. However, where a static-generating mechanism is identified, such as repeated brushing against clothing, then suitable precautions shall be taken, e.g. the use of anti-static footwear.

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

17 CONDITIONS OF CERTIFICATION

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.

17.2 Holders of EC type-examination certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.

17.3 The manufacturer shall take all reasonable steps to ensure that the user complies with any restrictions and special conditions for certification associated with the previously certified accessories that are employed in the particular piece of equipment they have supplied, in addition, the manufacturer shall provide the user with an appropriate copy of the certificate for each certified accessory that is involved.

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