

# CERTIFICATE

of  
EC Type-examination (Module B)

**Certificate No: 182120001/AA/01**

**Product Category: MED/5.17**

With respect to Marine Equipment Directive 2014/90/EU and the implementing Regulation (EU) 2018/773, Telefication Notified Body 0560 declares that the equipment:

Product description: **Portable Survival craft VHF radio telephone**  
Trademark: **Entel**  
Type designation: **HT649**  
Hardware / Software version: **V6.0 / V3.2.0.0**

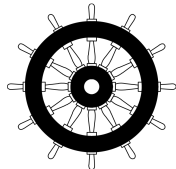
Manufacturer: **Entel UK Limited**  
Address: **320 Centennial Avenue, Centennial Park, Elstree**  
City: **WD6 3TJ Borehamwood**  
Country: **UNITED KINGDOM**

Complies with the international instruments and test standards as listed in the Annex.  
This certificate is granted to:

Name: **Entel UK Limited**  
Address: **320 Centennial Avenue, Centennial Park, Elstree**  
City: **WD6 3TJ Borehamwood**  
Country: **UNITED KINGDOM**

Validity of this certificate expires on date: **30 May 2023**  
This certificate has THREE Annexes.

Zevenaar, 21 November 2018



Marcus Jansen  
Senior Product Assessor



## General conditions

- Each product to which this certificate relates shall be provided with Marine markings. The Marine marking consist of symbol in the form of a wheel followed by the identification number of the responsible Notified Body for module D, E, F or G, and by the last two digits of the number of the year in which the mark is affixed.
- The holder of this Certificate has drawn up a Declaration of conformity to type with Directive 2014/90/EU and Implementing Regulations, declaring that the product(s) described in this EC Type- examination certificate, satisfy the requirements that apply to them.
- Each product shall be identified by means of type, batch and/or serial numbers and the name of the manufacturer and/or importer.
- If the equipment is to be modified, Telefication shall be notified immediately. Depending on the modifications, Telefication may have additional examinations carried out in consultation with the applicant.
- Enforcement of a new Implementing Regulation may void the validity of this certificate regarding (re)placement of the product onboard ships.

## Remarks and observations

The following conditions are applicable:

The HT649 may only be utilized for distress situation communication because only primary batterypacks are available.

Primary battery packs are CLB750G, CLB750M or CLB750L.

They bear a serial number suffix depending on the utilized celltype and capacity; earlier marketed packs bear no suffix; these packs are identical to packs with suffix C4.

suffix C4 = 2000 mAh (Li-MnO<sub>2</sub>).

suffix C5 = 2200 mAh (Li-MnO<sub>2</sub>).

suffix C6 = 3000 mAh (Li-FeS<sub>3</sub>).

## Documentation lodged for this EC type-examination

### Test Reports:

- Telefication B.V.: 20071457300-rev 5.0, 19 October 2009
- R.N. Electronics Ltd.: 05-383/3674/1/08, 06 June 2008
- R.N. Electronics Ltd.: 04-415A/4172/1/10, 19 May 2010
- R.N. Electronics Ltd.: 04-417A/4172/1/10, 19 May 2010
- R.N. Electronics Ltd.: 05-8813-1-16 Issue 01, 27 May 2016
- R.N. Electronics Ltd.: 05-8813-2-16 Issue 01, 20 May 2016
- R.N. Electronics Ltd.: 01-8968-1-17 Issue 01, 08 February 2017
- R.N. Electronics Ltd.: 01-8968-3-17 Issue 01, 17 January 2017
- R.N. Electronics Ltd.: 06-10700-1-18 Issue 01, 28 June 2018

### Product Documentation:

- Assembly drawings
- Bill of materials
- Block diagram
- Electrical diagrams
- Internal photos
- External photos
- Manual

## International Instruments and test standards

### The equipment complies with:

|                          |                |           |
|--------------------------|----------------|-----------|
| EN 300 225               | December, 2015 | V1.5.1    |
| EN 301 843-2             | November, 2017 | V2.2.1    |
| EN 60945                 | October, 2002  | Edition 4 |
| IEC 60945/Corrigendum 1  | April, 2008    | Edition 4 |
| IMO Resolution A.694(17) | 1991           |           |
| IMO Resolution A.809(19) | 1995           |           |
| ITU-R M.489-2            | October, 1995  |           |
| MSC Resolution 149(77)   | June, 2003     |           |

## Technical features and characteristics

The product includes the following features and characteristics:

### VHF equipment

- Operating frequency range: TX: 155.0 - 161.45 MHz; RX: 155.0 - 163.425 MHz
- Modulation method(s): 16K0G3E
- Maximum output power: 1W rated
- Primary battery: 2.0 Ah, 2.2 Ah, 3.0 Ah; type designations CLB750G, CLB750M, CLB750L; Temperature range: -20°C to +55°C; Channel separation: 25 kHz

**Trademarks and Type designations:**

The product as described in this EC type-examination includes the following type designations:

- Product description: Portable Survival craft VHF radio telephone
- Trademark: Entel
- Type designation: HT649
- Hardware version: V6.0
- Software version: V3.2.0.0