

TECHNICAL BULLETIN T01-2024

Use of Tron 40VDR AIS as main EPIRB onboard

Tron 40VDR AIS has many additional model names issued by manufacturers of different brands of VDR systems. All these variants will have two sets of approval documents in accordance with each of IMO performance standards:



- Res. MSC.471(101) Performance standards for float-free satellite emergency position indicating radio beacons (EPIRBs) operating on 406 MHz.
- Res. MSC.333(90) Revised performance standards for shipborne Voyage Data Recorder (VDRs)

In Europe, according to wheelmark (MED- Maritime Equipment Directive) of the product, Tron 40VDR AIS is wheelmarked under two different MED numbers:

- As AIS EPIRB: MED/5.6: 406 MHz EPIRB (COSPAS-SARSAT)
- As part of VDR: MED/4.29: Voyage Data Recorder (VDR)

The approval certificate as EPIRB is downloadable from www.jotron.com. The approval document as part of the VDR system is downloadable from the VDR manufacturers web pages. The example below shows two approval documents covering the same product as EPIRB and as part of the VDR system:




Marine Equipment Directive EU Type Examination Module B Certificate

This is to certify that TÜV SÜD DANMARK ApS did undertake the relevant type approval procedures for the equipment identified below, which was found to be in compliance with the Marine Equipment Directive (2014/90/EU) requirements, under the following Implementing Regulation for the listed types of equipment

Implementing Regulation	(EU)2022/1157
Certificate Holder and Manufacturer	Jotron AS Ringdalakogen 8 3270 Larvik Norway
Product(s)	Tron 40VDR AIS
Product Sector	Radiocommunications Equipment
Product Type	MED/5.6 406MHz EPIRB (Cospas-Sarsat)

and on the basis of the Technical Data and information detailed in the Annex to this certificate.

Valid from: 04 May 2023 Expiry Date: 30 June 2027

T. J. Twynam
(Tom Twynam)


This certificate has been issued in accordance with the TÜV SÜD Testing and Certification Regulations and constitutes page 1 of the combined Certificate and Annex.
The Conditions for the validity of this certificate are listed in the Annex.
For further details, related to this certification please contact BAPT@tuvsud.com



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Issued by TÜV SÜD DANMARK ApS under document number: DK-MED000144 Issue 02
TÜV SÜD DANMARK ApS • Strandvejen 125 • 2900 Hellerup • Denmark



Certificate No:
MEDB0006J4

Revision No:
9

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV AS under the authority of the Government of Norway.

This is to certify:
That the Voyage data recorder (VDR) and Simplified voyage data recorder (S-VDR)

with type designation(s)
DM100 VDR, DM100 VDR G2 and DM100 S-VDR G2 with trade names Sperry Marine Voyage Master IV VDR, Sperry Marine Voyage Master IV VDR G2, and Sperry Marine Voyage Master IVS-VDR G2

Issued to
**Danelec Marine A/S
Farum, Hovedstaden, Denmark**

is found to comply with the requirements in the following Regulations/Standards:
Regulation (EU) 2022/1157,
Item No. MED/4.29, SOLAS 74 as amended, Regulations V/15, V/20 & X/3, IMO Res. A.694(17), IMO Res. MSC.36(63), IMO Res. MSC.97(73), IMO Res. MSC.191(79), IMO Res. MSC.302(87), IMO Res. MSC.333(90) Item No. MED/4.47, SOLAS 74 as amended, Regulation V/20, IMO Res. A.694(17), IMO Res. MSC.163(78), IMO Res. MSC.191(79), IMO Res. MSC.302(87)), MSC.214(81)


Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2025-07-01**.

Issued at **Havik** on **2022-11-16**

DNV local unit:
Sweden CMC

Approval Engineer:
Frederik Tore Elter



for DNV AS
Digitally Signed By: Alberto Pontes, Maria
Location: DNV Havnk
on behalf of

Notified Body
No.: 0575

Sverre Olav Bergli
Head of Notified Body

Rev.	Docu. No.	Rev.	Title
01	0575/101-131	Rev. 1	Regular Jotron Tron 40VDR AIS Installation Manual
02	0575/101-131	Rev. 2	Regular Jotron Tron 40VDR AIS Installation Manual for 24000 COB-DX100 VDR G2 as a DM100 S-VDR G2
03	0575/101-131	Rev. 3	Regular Jotron Tron 40VDR AIS Installation Manual for 24000 VDR G2 and DM100 S-VDR G2
04	Certificate Number: 1304	4 February 2022	Certificate: COSPAS SRSAT TYPE APPROVAL CERTIFICATE For +05 Uplinked Distress Beacon for use with the Cospas-Sarsat Satellite System, Model: 60888 from Free Tron 40VDR AIS
05	Certificate Number: 354	4 February 2022	Certificate: COSPAS SRSAT TYPE APPROVAL CERTIFICATE For +05 Uplinked Distress Beacon for use with the Cospas-Sarsat Satellite System, Model: 60888 from Free Tron 40VDR AIS
06	Manual: Jotron Tron 40VDR AIS Float Free EPIRB with VDR	Rev. 6	Report: TÜV: EC-ET-103-1 (Annex D: 12.1 MRZ Homing)
07	5500073-09	Issue 01	Report: TÜV: EC-ET-103-1 (Annex D: 12.1 MRZ Homing)
08	5500073-08	Issue 03	Report: TÜV: EC-ET-103-1 (Annex D: 12.1 MRZ Homing)
09	5500073-07	Issue 03	Report: TÜV: EC-ET-103-1 (Annex D: 12.1 MRZ Homing)
10	5500073-02	Issue 01	Report: TÜV: EC-ET-103-1 (Annex D: 12.1 MRZ Homing)
11	5500073-02	Issue 01	Report: TÜV: EC-ET-103-1 (Annex D: 12.1 MRZ Homing)
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LEGAL DISCLAIMER: Unless otherwise stated in the applicable parent contract and their subsidiaries as well as their officers, partners or the issuance of this document or reliance thereon, no circumstance be limited to 300,000 USD.

Form code: MED 201 NOR

Both documents are necessary to show compliance with IMO SOLAS requirements, IMO performance standards, and IEC approval standards. And since Tron 40VDR AIS is approved as an EPIRB, it can be used as the main EPIRB onboard if mounted according to [COMSAR.1/Circ.32/Rev.2](#), chapter 4.10. This is explained in Jotron's "Tron 40VDR AIS Installation manual" and our Online Learning/eLearning course(s). Mounting shall be done according to the above-mentioned circular.

Mounting Location of GMDSS EPIRB:

The Jotron Tron 40VDR AIS is a combined GMDSS EPIRB and float-free VDR storage module compliant with EPIRB and VDR performance standards IMO MSC.471(101) and MSC.333(90). To be compliant as a GMDSS EPIRB, it is essential to follow [COMSAR.1/Circ.32/Rev.2](#).

Tron 40VDR AIS, which protocol and Beacon number to choose:

The main EPIRB onboard would normally be 0, and there is another EPIRB onboard, it will be number 1 if RLS is selected. But there are some cases where it might be difficult to choose what to do; see below examples:

Norwegian newbuilt vessel:

Norway requires both float-free and manual to be installed on most larger vessels. Since these two EPIRBs are often ordered/delivered before any VDR installation, they are expected to be numbered 0 and 1 if RLS protocol is used. When later VDR is installed, there are no vacant numbers in the RLS protocol to be used, so another protocol must be chosen for the VDR EPIRB, for example, "Standard location MMSI", beacon number 15.

It is important that two EPIRBs onboard do not have the same HEX code. The COSPAS-SARSAT system will be unable to process the received data if both EPIRBs are activated at the same time in a distress situation. Also, a Radio surveyor will demand one of them to be reprogrammed. So, a good rule of thumb, especially in these transition times when it comes to EPIRBs, is to check the currently installed EPIRBs before choosing what protocol/beacon number to use.

But please be aware that the final decision on whether **Jotron Tron 40VDR AIS Float-Free Capsule can be used as the main EPIRB** onboard vessels depends on the vessel's flag administration. Tron 40VDR AIS is approved as stand-alone/main EPIRB by:

- EU/EEA (Wheelmarked/MED certification)
- UK (MER certification)
- USA (USCG and FCC approval)
- Canada (IC Canada approval)

Apart from these areas, other flag states may approve the usage of Tron 40VDR as a standalone/main EPIRB, but these must be checked with individual flag administrations.

Larvik, February 2024