



**TYPE APPROVAL CERTIFICATE
N. ELE158012CS01**

This is to certify that the product below is found to be in compliance with the applicable requirements of the RINA type approval system.

Description	Public Address System
Type	SPA-1500
Applicant	Marintech Srl Via Flaminia, 410 60015 Falconara Marittima (AN) Italy
Manufacturer	Jotron Phontech AS Innlaget 230 N-3185 Skoppum Norway
Testing Standards	Rules for Classification of Ships – Part C – Machinery, Systems and Fire protection – Ch.3 , Sect. 6 , Table 1.

Issued in **Genova** on **June 13, 2012**.

This certificate is valid until **June 12, 2017**

RINA

Valerio Bonanni



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SPA-1500 Public Address System

SPA 1500 Public Address System, mainly consists of:

SPA 1500 Central Unit – 19" 3 HE rack / console mounting unit

Main features:

- 3 user inputs, 1 external PA input, 1 external entertainment audio line input
- 1 internal entertainment audioline input, 1 Car radio cassette / CS player for internal entertainment source. (option)
- 24 Vdc backup supply connection with automatic switching, 24 Vdc primary supply input
- 3 alarm types (external trigger) option, 3 amplifier inputs, 3 amplifier output (100V line)
- 3 zones outputs (100V line), Mute local loudspeaker relays for the 3 users
- Override volume control outputs for the 3 zones, User priority ranking
- Attention tone for paging (optional), Power Supply: 24Vdc (typical).

SPA 1501 PA Control Unit – flush mounting

Main features:

- Gooseneck microphone as standard
- 3 zones select button with light indication
- 1 talk / all buttons with light indication
- zone /area indicator windows with backlight
- handheld microphone (optional)
- Power supply: 24Vdc (typical)

Technical description:

Handbook for public address system concept SPA 1500 (61 pages)

Test Reports:

DNV technical report n. 2003-3482 rev.1

DNV technical report n. 2005-3529 rev.1

Phontech performance test report n. 96106-000-PT

Installation remarks:

System failure shall produce an alarm in the manned station

Before of each installation on board, the block diagram / description of the actual system configuration is to be sent for examination and approval

Genova, June 13, 2012

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