



MARITIME & ENERGY DIVISION

PRODUCT CATALOGUE
DECEMBER 2015



www.jotron.com

Introduction

Jotron AS develops and manufactures professional communication systems for energy offshore/onshore constructions, all types of vessels, and helideck and coastal communications.

Jotron's extensive and flexible product range has been carefully designed and is built for harsh maritime and offshore environments. Product portfolio includes PAGA and internal communication systems, automatic telephones (PABX), loudhailing, talkback and sound reception. Jotron manufactures GMDSS products, marking lights, personal strobe lights and SOLAS approved lifebuoy and lifeboat lights. Jotron also offers radios for helicopter communication and VHF radios for coast stations and offshore installations. Ricochet is Jotron's synchronised recording and replay system for aviation and marine safety recording.



SR 8300 - SOUND RECEPTION

The Phontech Sound Reception system SR 8300 is designed to receive and detect foghorn sounds from other vessels. SR 8300 is for use onboard one-man operated closed bridge class ships.

Features :

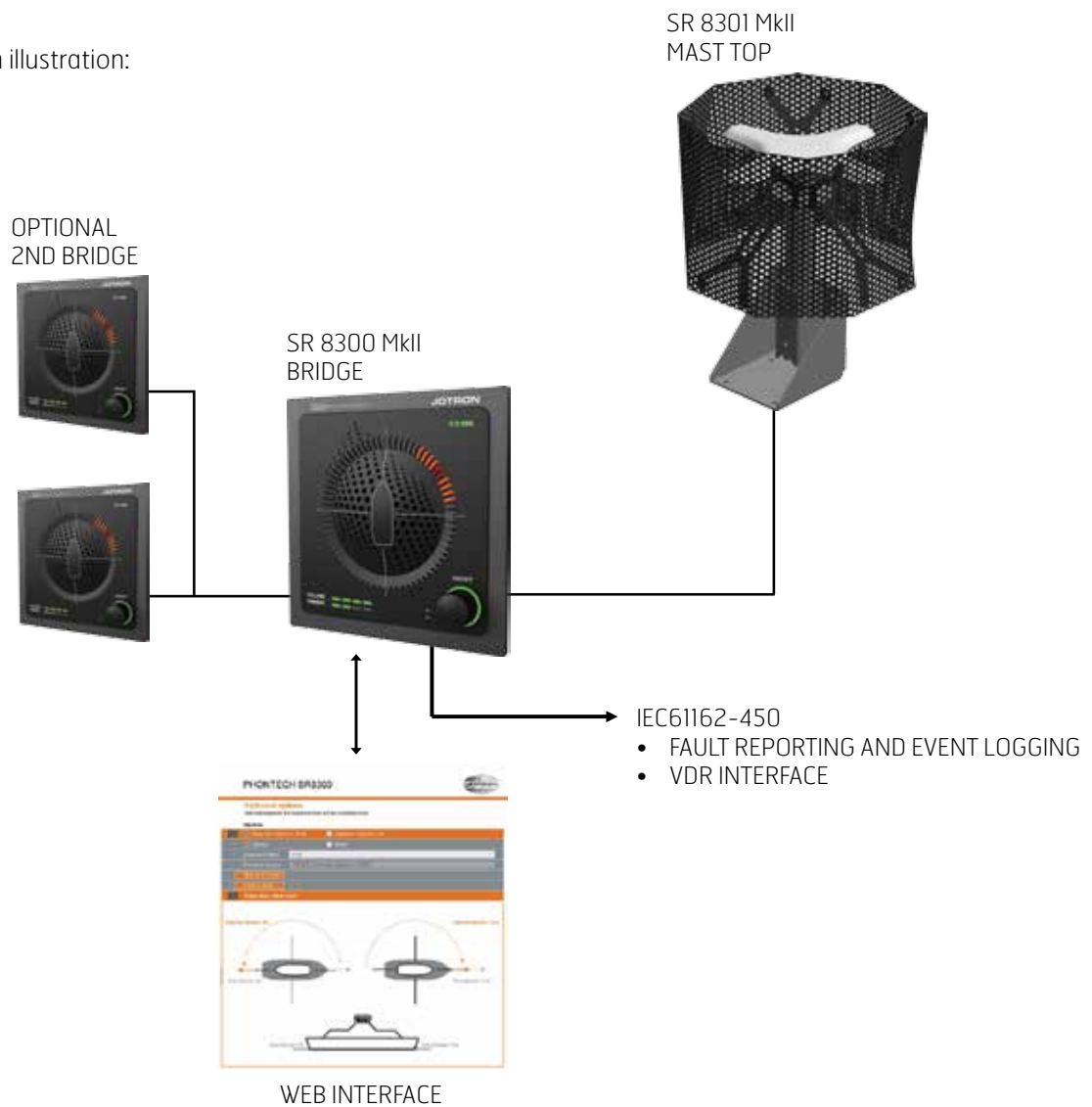
- Approved according to ISO 14859 and IEC60945
- Best performance digital sound processing
- Easy installation
- Web interface
- Amplifies meaningful sounds within 70-2100 Hz
- One omnidirectional microphone/antenna SR 8301MkII
- 6 pairs cabling via junction box
- Adjustable volume and dimmer
- Display unit: 144 x 144mm, 24VDC
- Option for additional slave display units SR 8300 MkII

Typical SR 8300 vessels:

- Ferries
- Supply vessels
- Cargo vessels
- Tankers

*Pending approvals

SR 8300 system illustration:



CIS 3100 - COMMAND INTERCOM SYSTEM

The CIS 3100 command intercom system is especially designed for important communication links onboard ships and boats. The design is very compact, and the performance is extended by use of microprocessor techniques. CIS 3100 is a line of three different master stations; type 3100 (5 ext.), type 3101 (10 ext.) and type 3102 (20 ext.), together with various quantities of substations of 9000 series. CIS 3130 consists of 1 master station type 3130, 1-4 remote stations type 3131/3132, and up to 15 substations selected from the standard range.

Features:

- Bridge wings extention
- All-call audio input (0dBm/5mV)
- Integrated loudspeaker
- Integrated separate microphone
- Volume control in front
- All-call facility
- "Signal" and "talk" keys
- Connection for gooseneck or handheld microphone
- Connection for extra loudspeaker
- Technical, power supply: 22-32 VDC

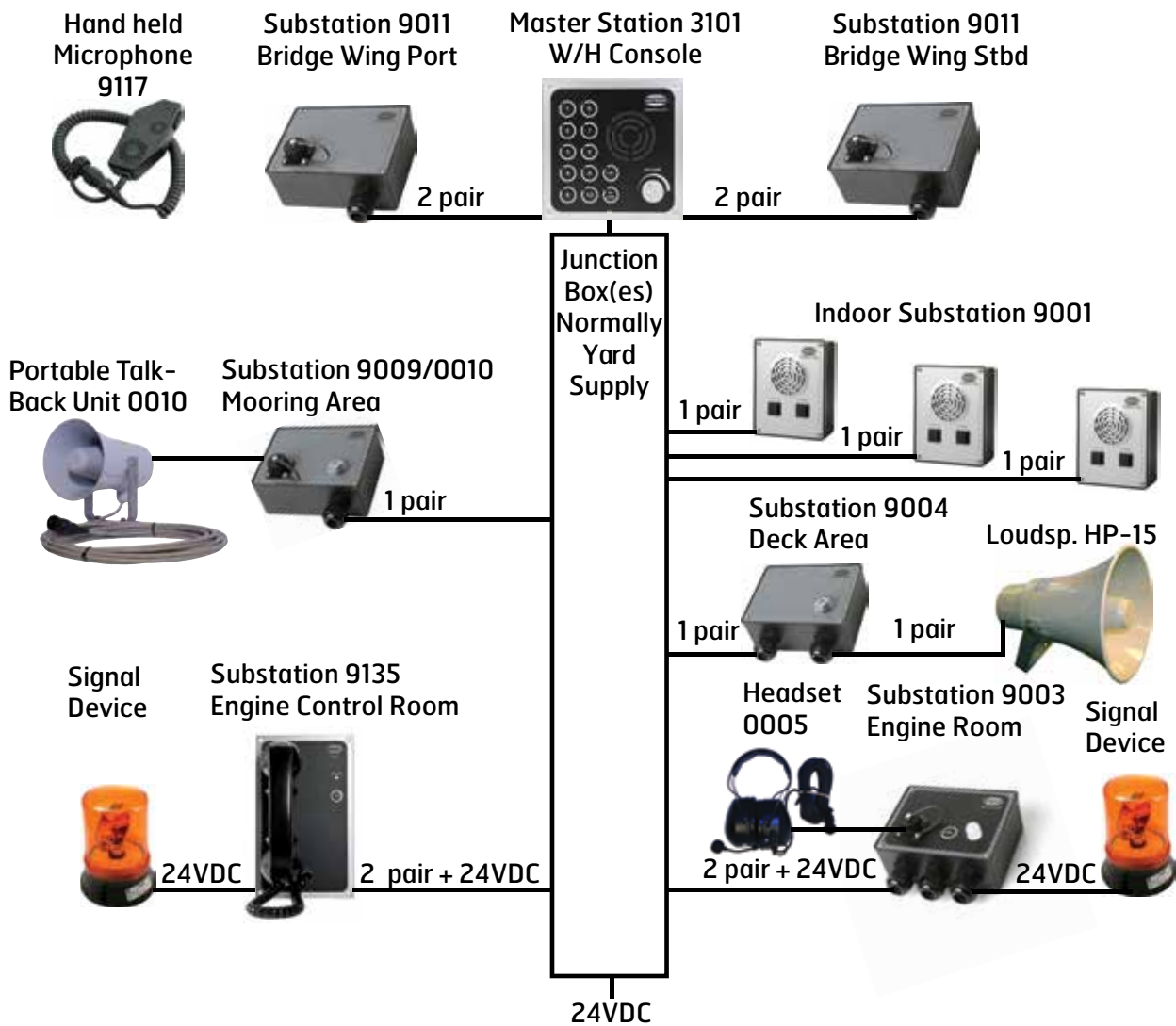
Typical CIS 3100 vessels:

- Tugs
- Pilot / rescue boats
- River vessels
- Fishing vessels

Approved according to:



CIS 3100 system design:



BTS 4000 - BATTERYLESS TELEPHONE SYSTEM

BTS 4000 is a stand-alone emergency telephone system without an external power supply. All energy required for 4-6 minutes of continuous operation is produced by the call generator. The system is equipped with a sophisticated, extremely low power amplifier with high power and low distortion output. The amplifier is integrated in one of the telephone units to reduce the installation cabling. The system may also be connected to 24 VDC power supply to ensure continuous operation under normal conditions. The system automatically switches to batteryless and emergency operation in case of mains failure.

BTS 4000 is based on three types of units; 4050-single line (direct call), 4060-12 line and 4040-24 line. Configuration requires one master telephone with a built-in amplifier, either 4051-single line or 4061-12 line. A 24 line unit requires a separate speech amplifier type 4000.

Features:

- Robust handset with PTT button and noise cancelling microphone
- Strong piezo-electric call buzzer
- Call L.E.D.
- Call delay timer and call stop switch
- Compact size according to DIN 144 standard
- Plug-in relay facility
- Backlight facility (only at 24VDC connected)

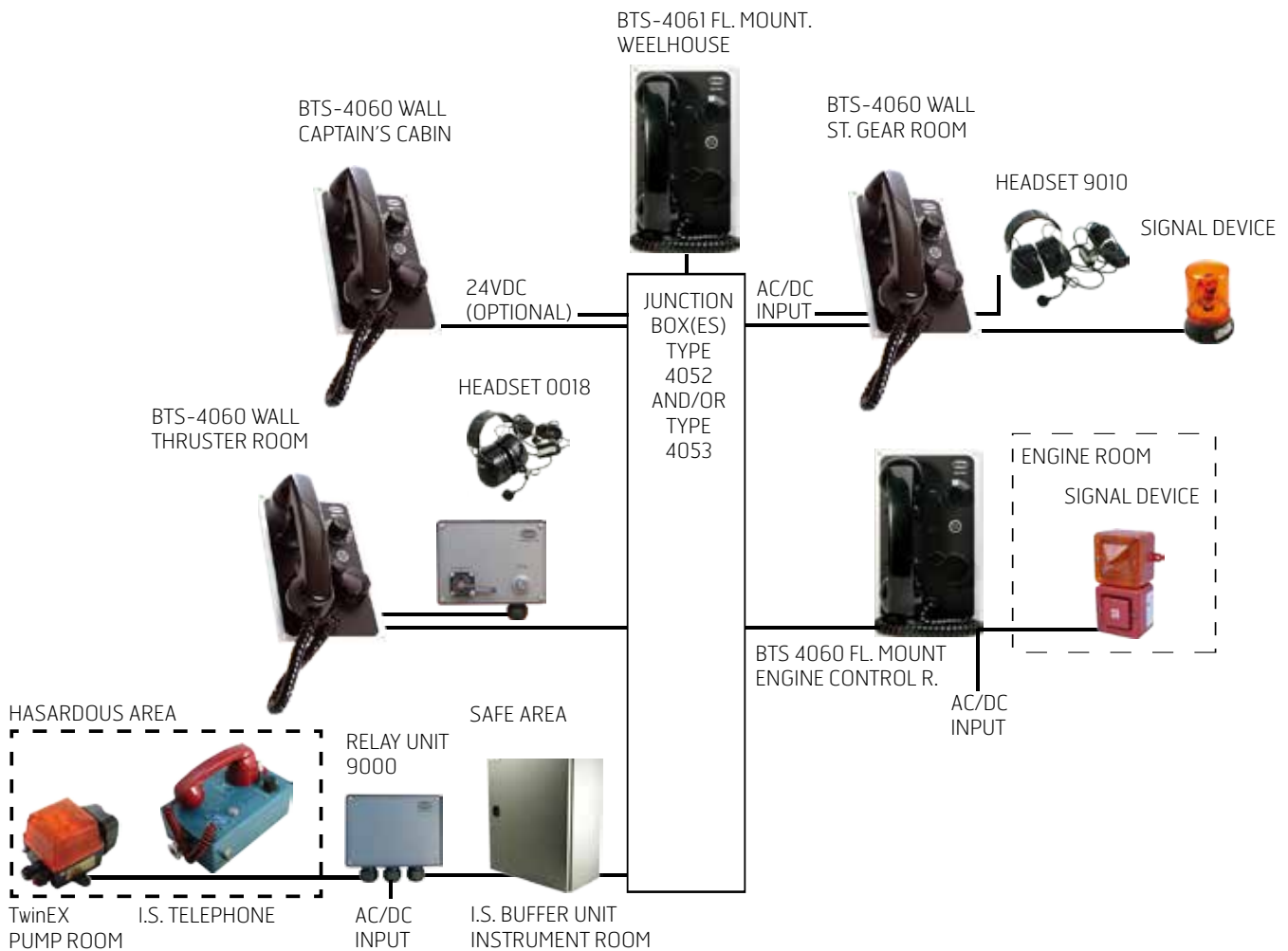
Typical BTS 4000 vessels:

- Supply / PSV
- Cargo vessels
- Tankers
- Barges

Approved according to:



BTS 4000 system design:



ICS 6200 - INTEGRATED COMMUNICATION SYSTEM

The ICS 6200 integrated communication system is a digital communication system meeting all aspects of internal and external communication, information exchange onboard vessels, offshore installations and to/from onshore operation centres. Based on the latest computer technology, the flexible configuration is a cost effective solution for intercom, telephone, public address, alarm, loudhailing and entertainment.

The modern architecture allows for network connection including cascading, remote service and interface to/from other IP based systems and components.

Features:

- Suitable for maritime and energy applications /approved according to IEC 60945
- Compact and robust design
- VoIP based
- Adaptable and cost efficient in all configurations
- Dual power supply according to IMO regulations
- Easy and intuitive configuration
- Designed and developed based on the latest available technology

Typical ICS 6200 vessels:

- Ferries
- Supply vessels
- Cargo vessels
- Tankers

Approved according to:



ICS 6200 system design:



SPA 1500 - PUBLIC ADDRESS SYSTEM

SPA 1500 is a marine public address system designed specifically for PA and entertainment distribution onboard small and medium vessels. The innovative design of this system provides the functionality of a large system in an exceptionally compact size. With several functions and facilities options to choose from, this system can easily be considered a customized public address system.

Features:

- Compact design
- Up to 3 zones selectable in any configuration
- Up to 3 microphone units, full facility or predefined access
- External paging facility (from PABX etc.)
- 2 entertainment sources, each distributed to any zone(s)
 - Source 1: Internal cassette/CD/radio player
 - Source 2: Any external audio program
- Override of volume-controls during paging

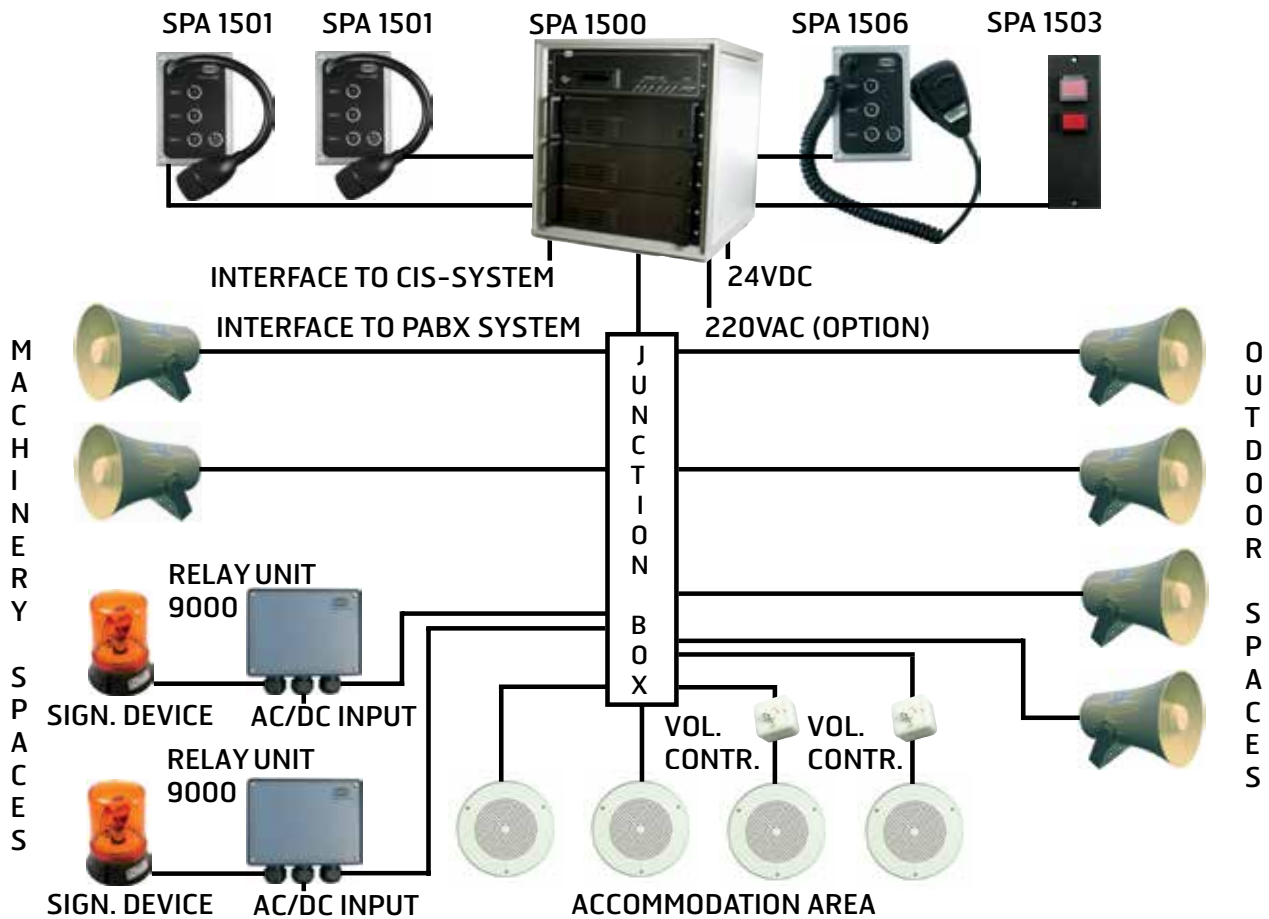
Typical SPA 1500 vessels:

- Smaller ferries
- Fishing vessels
- Tugs
- Patrol boats

Approved according to:



SPA 1500 system design:



MPA 1600 - PUBLIC ADDRESS SYSTEM

The MPA 1600 is a marine and offshore public address system, especially designed to meet the requirements for PA/GA and entertainment distribution onboard ships and mobile offshore units. The system conforms to SOLAS, IMO and IEC regulations. Based on modular design and flexible configuration, the system covers a wide range of installation complexities from small single loop to fully duplicated systems utilizing total redundancy.

Features:

- Prepared for seamless amplifier or full duplication (redundancy)
- Up to 6 zones selectable in any configuration
- Up to 24 control units, full facility (MPA 1601/1603)
- Up to 2 emergency microphone inputs
- External paging facility (from DICS/PABX etc.)
- Interface to manual and/or automatic alarm generation
- 2 entertainment sources, free zone selection
- Signal processing

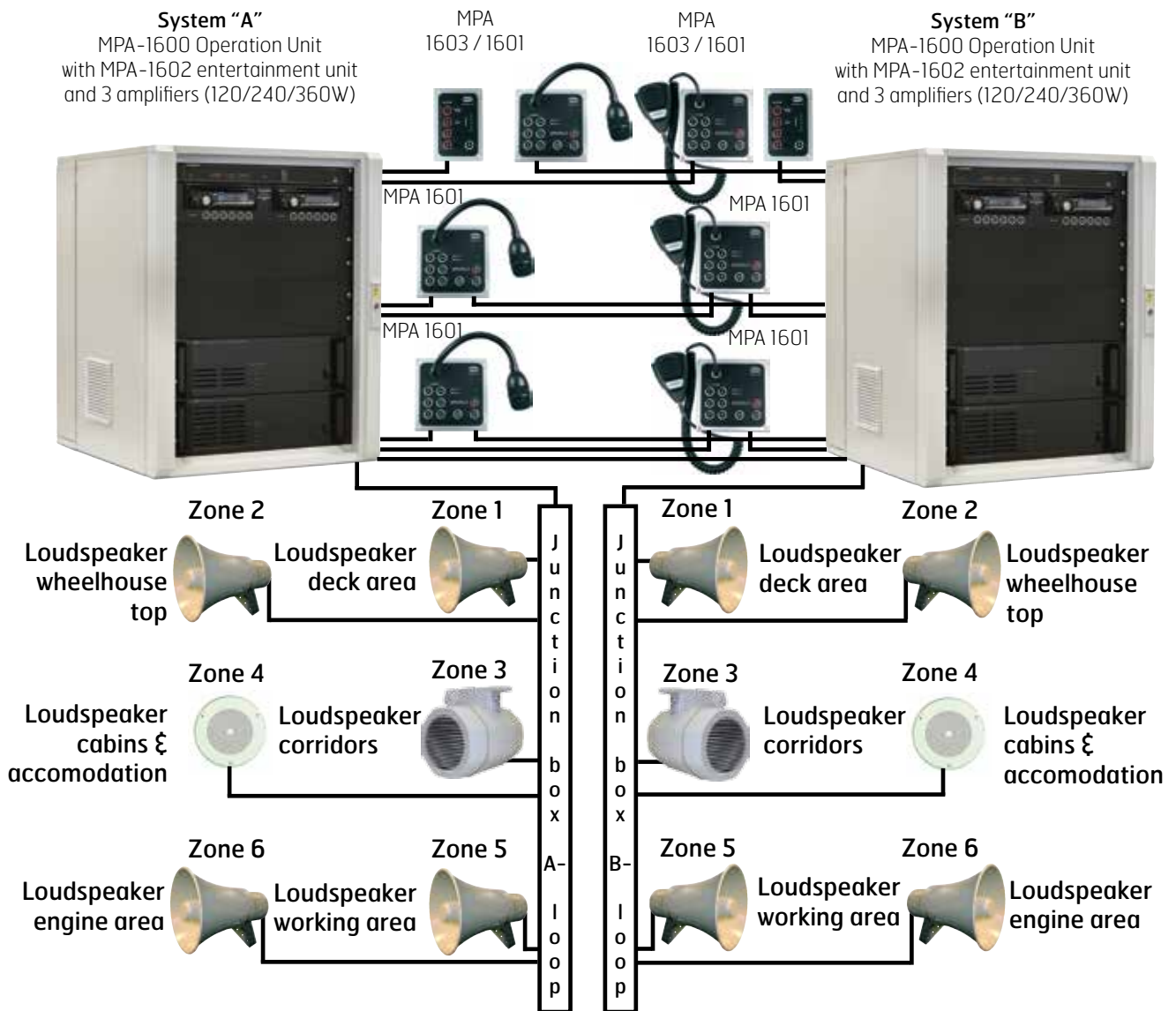
Typical MPA 1600 vessels:

- Ferries
- Supply vessels
- Cargo vessels
- Tankers

Approved according to:



MPA 1600 system design:



MPA 1600 PAGA - SYSTEM FOR OIL & GAS

MPA 1600 Offshore System is a Public Address and General Alarm (PAGA) system designed to meet the requirements of alarm and message distribution onboard mobile offshore units. The system conforms to SOLAS, IMO and IEC regulations as well as NORSOK standards T001, T003 and T100.

The MPA 1600 Offshore consists of two central units using A/B configuration for redundancy. Each system is bespoke, being built and tested to meet the clients exacting demands with power output, access points, functionality and interfacing limited only by required usage. No single fault will inhibit reliable distribution of alarms and voice broadcast.

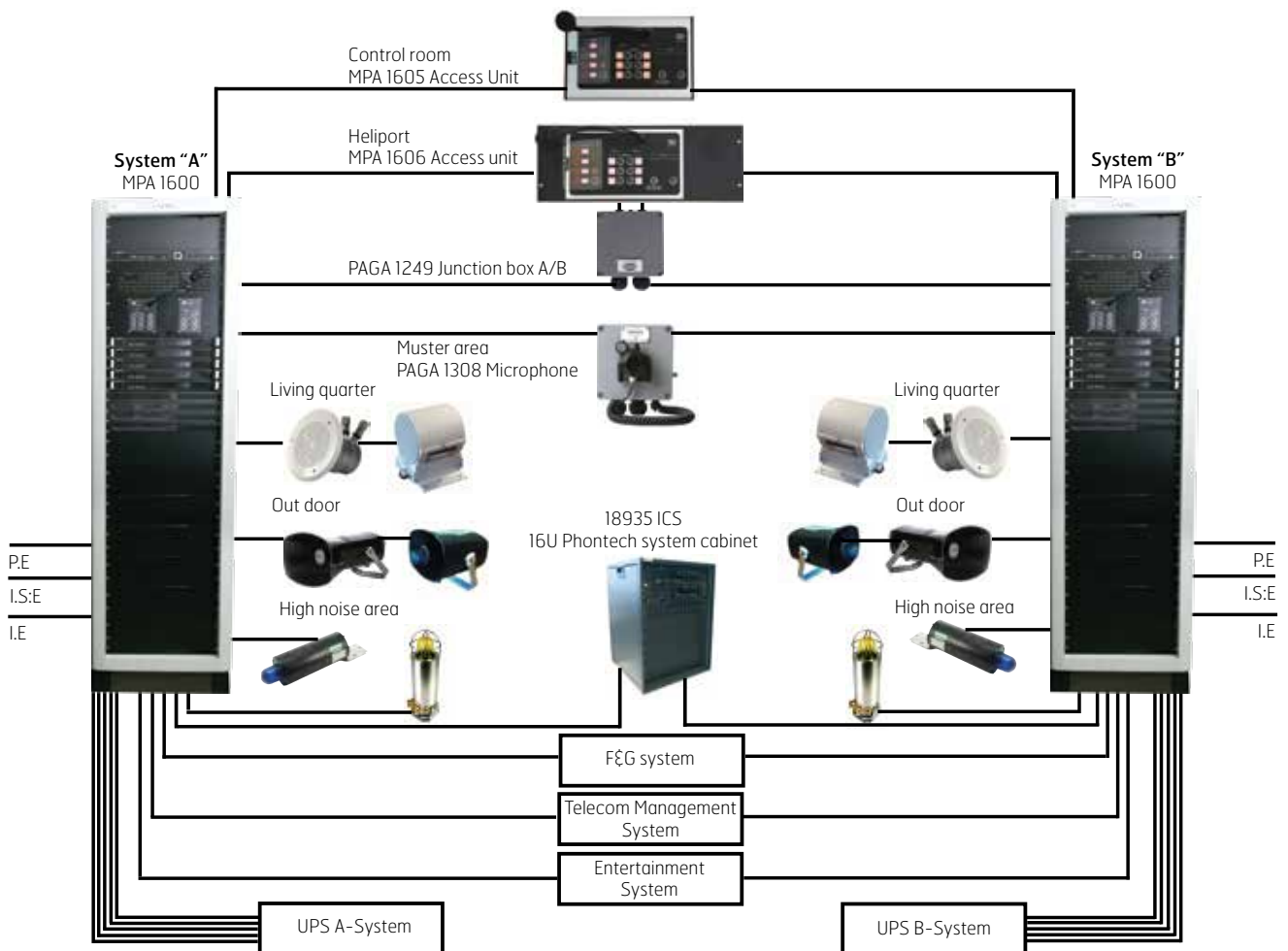
Features:

- Maximum six zones
- Priority defined access
- Selected or predefined zones (substation dependent)
- Local mute or speech delayed announcements
- External inputs e.g. PABX, UHF radio, automatic alarms and audio recorders
- External outputs e.g. extra signal devices, audio recorders and status signals (SNMP)
- Loudspeaker Monitoring System (LMS)
- Compact 1U class D amplifiers – Hot pluggable

Approved according to:



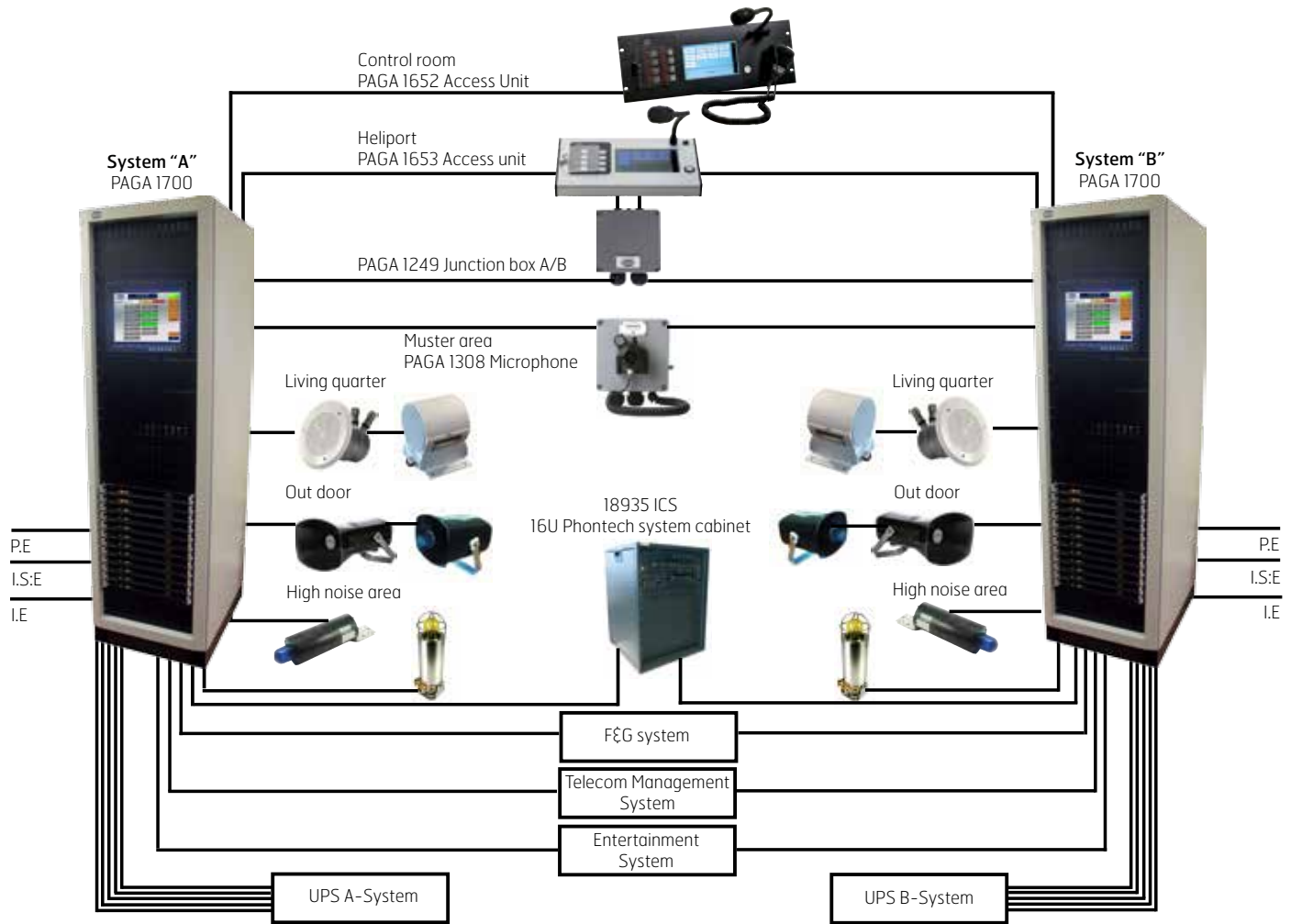
MPA 1600 PAGA system design:



PAGA 1700 - PUBLIC ADDRESS & GENERAL ALARM

The Jotron 1700 PAGA is designed to meet the tough requirements for PAGA systems to the oil and gas and other industrial applications, both offshore and onshore. The system distributes messages and alarms with special focus on ease of operation and safety, speech intelligibility, reliability and fault tolerance. In addition, the system has built in self test and monitoring functions for easy and cost efficient maintenance.

PAGA 1700 system design:



HELICOPTER COMMUNICATION

The 7000 series VHF radios are reliable, easy to operate and supply the following features:

- Constructed for rackmounting
- Excellent RF performance in congested areas
- Advanced digital signaling technique
- No internal tunable parts
- Multi/single channel VHF/AM Transceiver in 19" sub-rack 3U high
- 99 channel fast recall storage
- IP interface for VoIP, monitoring and control
- 25 (8.33) kHz channel spacing in the band 117.975-137 MHz
- RS-485 serial interface
- Full digital control and diagnostics
- Operates from AC mains with auto fail from 22 to 31V DC



TR-7750 VHF

HELICOPTER COMMUNICATION

The TR-810 is a lightweight, rugged and flexible radio with:

- Detachable Operator Control Panel (OCP)
- Communication between the two units via standard CAT-5 cable
- Ability to detach OCP and base allows for three main user applications



TR-810 OF

MARITIME AND COASTAL RADIO STATION AND REMOTE CONTROLLER

The VHF Coastal radio is used primarily as a coast station, providing communication between a station and ships and can also be used for offshore installations. It supplies the following features:

- High quality FM voice and digital selective calling (DSC)
- Jotron's worldwide reputation for outstanding performance in harsh environmental conditions
- Well proven mechanical design of the transceiver (based on Jotron 7000 series)
- IP interface for VoIP, monitoring and control
- 4W E&M interface
- Available as separate receiver and transmitter



TR-7750C

RRC 7700

RRC 7700 is a touchscreen VoIP based remote system that operates multiple transceivers from a single remote position.

- Multiple RRC 7700 operator control positions may use a multiple combination of radios
- Uses IP technology to transfer voice and control data. Requires no voice switch and is a stand-alone system
- Cost-effective alternative to conventional voice switches for small and medium installations
- Also operates ATC

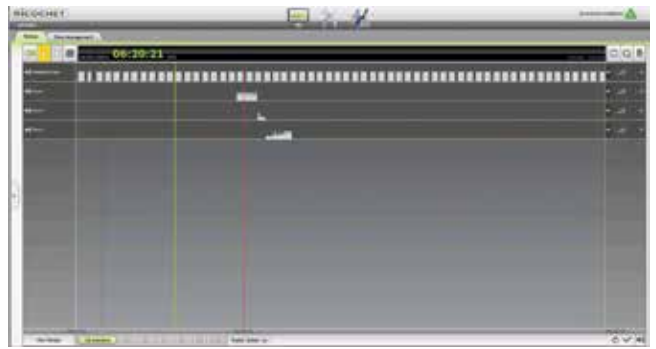


RECORDING FOR SMALL ONSHORE AND OFFSHORE ATC OPERATIONS

Ricochet Safe Maritime ATC Recorder Technology - Offshore Industrial Level (SMART-OIL)

SMART-OIL is specially designed for small onshore and offshore ATC operations, recording up to 3 audio channels and 3 CCTV cameras. The recorder allows an operator to install, operate, maintain and replay all recorded data. The system offers instant synchronous replay access and integrated replay and data management. The process is managed with few operations. Replay of one or more channels is done by a simple click. 6-12 months of recorded data can be accessed online.

Ricochet SMART-OIL is tested, verified and can be integrated with TR-7750 and TR-810 Jotron radios. Jotron also offers recording systems for larger operations.



Tron 60S/GPS

The Tron 60S/GPS is a GMDSS EPIRB (emergency position indicating radio beacon). It is small, compact and sealed. Optimal visibility is achieved with high intensity LED, located at the top of the antenna.

- Operates on the COSPAS SARSAT frequency (406 MHz). Identification and positioning via satellite. Also transmits on the air traffic emergency frequency (121,5 MHz) for homing
- The EPIRB is supplied with either a manual or float free bracket
- 5 year warranty
- Complies with IMO and SOLAS regulations and is Anatel, CCS, FCC, MED and RMRS approved
- Service stations worldwide



Tron 40S MkII

The Tron 40S MkII is a GMDSS float free satellite, EPIRB. It is compact and designed with flexible mounting for fast and easy service and maintenance.

- Operates on the COSPAS SARSAT frequency (406 MHz). Identification and positioning via satellite. Also transmits on the air traffic emergency frequency (121,5 MHz) for homing
- Optional brackets, either a float free bracket with protective cover or a float free bracket with heating
- 5 year warranty
- Complies with IMO/SOLAS/GMDSS regulations and is Anatel, CCS, FCC, IC, MED, RMRS and RRR approved
- Service stations worldwide



Tron AIS-SART

Tron AIS-SART is a GMDSS search and rescue transmitter. It is designed for use during search and rescue operations, providing exact location specifics with GPS precision.

- Position updating (per minute)
- VHF signals are transmitted on AIS Channel A and B
- 5 year warranty
- Complies with IMO/SOLAS/GMDSS regulations and is Anatel, CCS, FCC and MED approved
- Service stations worldwide



Tron SART20

Tron SART20 is a GMDSS radar transponder (9 GHz). It is designed for use during search and rescue operations, supplying the exact location based on a distress level appearing on the radar X-band display of nearby ships, SAR vessels and aircrafts.

- 5 year warranty
- Complies with IMO/SOLAS/GMDSS regulations and is Anatel, CCS, FCC, IC, MED, RMRS and RRR approved
- Service stations worldwide



Tron 40VDR - FLOAT FREE CAPSULE

Tron 40VDR Float Free Capsule is a combined Cospas-Sarsat and MED approved float free emergency position indicating radio beacon (EPIRB) and a float free storage medium.

The Tron 40VDR Float Free Capsule complies to the latest VDR performance standards IMO MSC.333 (90), IEC61996-1 Ed.2 and IEC61097-2. USCG and FCC approved.

The separate VDR storage module contains a standardized memory capacity at 64GB.



Tron TR30 - GMDSS HANDHELD VHF RADIO

Tron 30 GMDSS VHF handheld radio is a multi-functional, "two-in-one" floating radio for use in both emergency situations and regular onboard communications.

- Access to simplex and duplex channels
- 2W / 5W RF output
- EN300-225, EN300-178, waterproof to IP67
- Weighs only 300 grams including primary lithium battery
- Interfaces with various external headsets and hand microphones

* Pending approvals

Tron TR20 approved GMDSS handheld VHF radio is available.



Tron AIS TR-8000 (Class A)

The Tron AIS TR-8000 has a separate display and transceiver unit, with a compact design for easy installation. It includes a combined junction box, a transceiver unit and display rated to IP54.

- 7" touchscreen
- ECDIS interface
- Console or desktop mounting
- Optional pilot plug available
- Software upgradable
- Compliant to in-land waterways requirements
- Approved according to ITU 1371-5, IEC 61993-2 ED. 2.0, 2012. MED, FCC, CCS and Anatel approved



Tron ML-series

HIGH INTENSITY LEDs

- The Tron ML-series has high intensity LEDs with several enhanced features implemented. They can be activated through programming of:
 - Light-intensity
 - Flash-rate
 - Synchronization (and master/slave)
 - Daylight switch (with adjustable ambient light level for ON/OFF)
- Tron ML-100 is powered by 3 Alkaline D battery cells, total of 4.5 VDC
- Tron ML-200 is powered by a special high capacity battery pack at 4.5 VDC
- Tron ML-300 uses external 10-27 VDC

The series is a user-friendly module-based construction, making all products easy to service and repair.

Tron ML-300



Tron ML-200



Tron ML-100

Tron SL-300 and Tron SL-400

Tron SL-300 LIFE BUOY LIGHTS

Sealed, small and compact. 2 candela light intensity, unbreakable high intensity LED and 50-70 flash/min.

- 5 year sealed battery (non dangerous goods)
- Complies with SOLAS CH III Life-Saving Appliances



Tron SL-400 LIFE BOAT LIGHTS

Sealed, small and compact with 10-30 VDC external power and flange mount. >4,3 candela light intensity, unbreakable high intensity LED and 50-70 flash/min.

- Complies with SOLAS CH III Life-Saving Appliances



AQ-4 MkII

STROBELIGHT

AQ-4 MkII, is a high quality multi-purpose marking and distress personal strobelight. It is designed for use in both extreme maritime and onshore environments. AQ-4 MkII is developed with high intensity LED. Using the two-way switch you can activate either flash or fixed light.

- Waterproof to 500 meters



All information contained within this brochure is based on tests and standards believed to be correct and reliable. Jotron AS accepts no liability for variations from stated performance and reserves the right to change designs and/or specifications at any time without prior notice.





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