

## Main Broadcast System

Naval platform requirements demand the best performance in the field, both technically and functionally. Vitavox have utilised their experience and the latest technical developments to offer a single source for all essential elements of the Main Broadcast System. Where applicable the system uses 19 inch computer racking.



### What does it include?

1. Microphone Station
2. 5-watt to 30-watt Loudspeakers
3. Main Broadcast Amplifier and Interface Unit
4. Microphones
5. Emergency Handset
6. UHF and Magnetic Loop Receive-Only Ear Defenders
7. UHF Transmitter
8. Magnetic Loop Transmitter
9. Twin Racking Loudspeaker 4W



## Main Broadcast System

### Product Descriptions

To provide our customers with complete Main Broadcast Systems, stand alone or integrated with existing facilities on board their ships, we have developed a range of additional equipment. This has been consolidated into our proven comprehensive range of loudspeakers, microphones and headsets. The following is a brief specification of the individual products and devices in our system.



#### Microphone Station

- Simple switched Main Broadcast or Intercom (defined) area broadcast.
- Headset or microphone input.
- Priority hierarchy can be set across multiple units, accommodated within the Microphone Station and / or the Main Broadcast Interface Unit.
- Microphone Stations also linked by self-powered emergency handset for alternate communication and general power outage emergency communication.



#### 5-Watt to 30-Watt Loudspeakers

- Highly rugged, full IP67 rated.
- Current RN loudspeakers.
- 5-Watt available as ATEX zone 2 variant.
- Volume may be reduced by transformer tapings to ½ or ¼ of full rating.
- Volume knob options available.
- Where the microphone being used is near the loudspeaker, DC signal muting can eliminate sound feedback.



#### Main Broadcast Amplifier

- 70V RMS (100V peak to peak) 300 Watt amplifier, will drive a chain or loop 5-Watt to 30-Watt mixed loudspeakers and other transmission devices. Other wattage amplifiers available.
- Separate amplifier to drive each zone. Main Broadcast consolidates all zones.
- Supply voltage 115/230V AC or 24V DC.
- Automatic interchange to alternate power following failure of any one power source.
- The audio signal to the Main Broadcast Interface Unit can be driven over a cable length of up to 500m with minimal loss of quality and 1000m with slight loss of high frequency response.



#### Main Broadcast Interface Unit

- Consolidates audio sources into Main Broadcast Amplifier.
- Determines protocols for priority.
- Allows inputs for alarm requirements and provides relevant signals to Main Broadcast.
- Supply voltage 115/230V AC or 24V DC.



### Microphone

- Vitavox supplies a range of hand-held microphones used in naval applications from internal noise cancelling through to external rugged IP67.
- ATEX microphones available.
- Cable lengths and terminations to customer specification.



### Emergency Handset

- Our battery-operated Emergency Handsets are chained together to form an emergency communication system for when all other communications fail. They are far superior to sound powered headsets and handsets as the volume level is similar to a normal telephone. Multiple (up to 50) chained handsets will all receive highly intelligible speech.



### Magnetic Loop Interface and Magnetic Loop Headset for Noisy Areas

- The Magnetic Loop Interface transmits main broadcast communication into noisy areas where wearing Magnetic Loop Receive-Only Headsets gives hearing protection. This ensures transmission of main broadcast or intercom announcement to the wearer.
- The interface is driven from the main broadcast 70V RMS Line.



### UHF Radio Interface and UHF Headset for Noisy Areas

- The UHF Interface transmits main broadcast communication into noisy areas where wearing UHF Receive-Only Headsets gives hearing protection. This ensures very clear transmission of main broadcast or intercom announcement to the wearer.
- Clearer, improved transmission compared to Magnetic Loop with fewer 'dead spots'.



### Twin 4-Watt Rack Mounted, Loudspeaker or Headset, Monitoring System

- Allows playback of recorded Main Broadcast and other communications traffic, through two rack mounted loudspeakers or headsets. This is for incident review and forensic analysis of events.
- This may be used with equipment such as DRS Technologies Canada Ltd Recorder Storage Unit Single Interface Node (RSU SIN).

# VITAVOX

## Tactical Communication Systems

Providing solutions by manufacturing products to fit specific operational and functional requirements

### Main Broadcast System

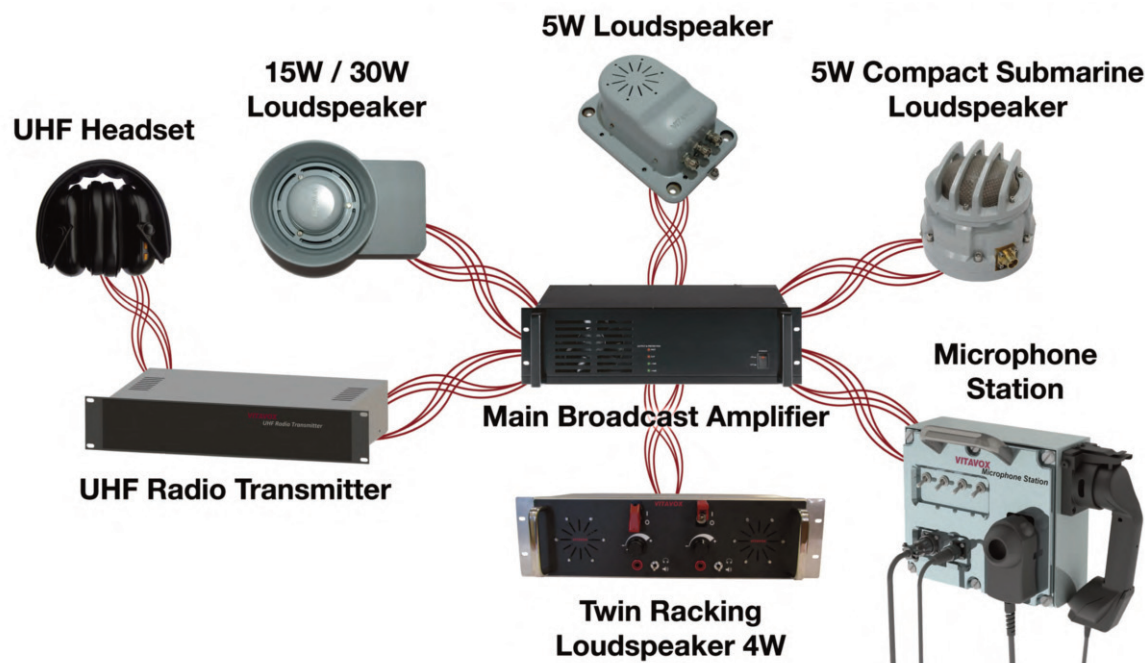
The Vitavox Main Broadcast System is designed to be a fully integrated system capable of providing all requirements of a naval ship main broadcast system. It is based on known naval protocols and includes Vitavox products that are in service with the Royal Navy (RN).

Vitavox has been supplying components for Main Broadcast Systems for RN ships and other Navies worldwide since 1930. New components are constantly being developed to keep up with the technology available and the changing operational requirements.

Our R&D team has been involved either directly or indirectly with the design and development of all aspects of the internal communications systems on RN ships including RICE 1, 2, 2E and 10. We therefore have a detailed knowledge regarding the system specification, design, standards and most importantly practical operational requirements.

Our products are also designed to comply with the stringent Defence Standards regarding Electromagnetic Compatibility (EMC), Environmental Compliance, Shock and Vibration Compliance. Many of our products have already been fully tested for use on RN ships and submarines.

The Vitavox Main Broadcast System utilizes the standard 19-inch rack system for the central components such as the amplifier.



## VITAVOX

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