

Voice HUB_4

Digital Multi-Diver Audio Communication System

Greatly Advancing the Current Limited Capability of Underwater Analogue Audio Communications by Employing Digital Technology to Provide the Highest Quality and Fidelity of Speech Communications.

Voice HUB-4 is a state-of-the-art digital audio system, comprising a digital surface operator console and up to 4-Digital Diver Nodes, that greatly advance the current limited capability of underwater analogue audio communications by employing digital technology to provide the highest quality and fidelity of speech communications between the divers and surface supervisor. Voice HUB-4 has advanced capabilities such as AI based Digital Noise Removal, Background Noise Control, complete control of Helium Speech Descrambling all controlled from the operator Voice HUB-4. Additionally, an easy-to-access web browser-based Graphical User Interface allows remote-user control to audio settings and a diagnostics application.

Voice HUB-4 is a flexible system and supports up to 4 divers using the small diver-worn Voice Nodes (rated to 330ft/100m) and supports all conventional features such as push-to-talk, operator-to-all-diver or selectable diver(s) and diver-to-diver communications.

The VoiceHUB-4 features a built in user interface that allows an operator to control each feature of the product via a web browser, including diagnostic utilities to speed up troubleshooting processes, remote system upgrades and safeguard audio communication. This web interface can be controlled through both a PC/topside laptop, or a smartphone or tablet.



Some of the innovative Voice HUB-4 features available are:



Multi Diver Audio Communication

Allowing instant audio communication between topside operator and up to 4 divers, and also includes diver to diver communication



Digital Noise Removal

Digital AI Based Noise Removal which eliminates all non-speech audio from diver communication, including unwanted background noise such as construction, tasks, jetting and dredging for operator and all divers



Helium Speech Descrambling

Offering complete control on the level and impact of Helium Speech Descrambling, and restores the divers voice to correct helium effects



Push to Talk Microphone, Headset and Speakers

Supports the use of push to talk microphone, and supports Operator Headphone and headset as an operator audio device, with built in speakers



Web Interface

Offers a web-based UI to access all system features, allowing for system monitoring and diagnostics process, and support for remote system upgrades

Main Components



Voice HUB-4 Operator Console

The Voice HUB-4 enables audio communication for 1 operator and up to 4 divers, providing smart software-based Noise Removal and Helium Speech Descrambling to provide crystal clear communications between the diver(s) and topside operator, while simultaneously providing power to the Voice NODEs through the supplied lightweight umbilical, and an optional battery backup to ensure safe operations during any power outages.



Voice NODE

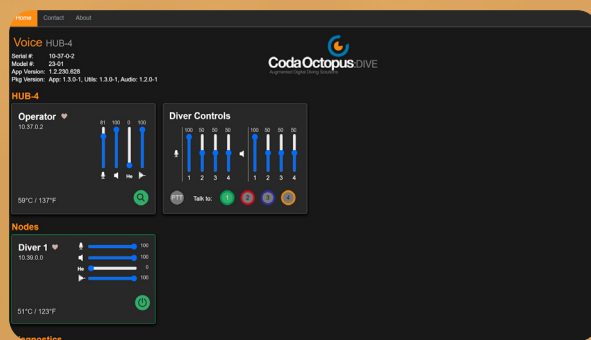
The Voice NODE is the diver-worn digital communication system which connects to the operator console. Audio is digitized at the source, ensuring high-quality speech and transfer of audio from diver to topside operator, with fully Automatic Gain Control (AGC) supporting a variety of dive helmet microphones, speakers and voice levels.



Digital Audio Tether

The Digital Audio Tether acts as the connection between each Voice NODE and the Voice HUB-4, it is a rugged cable suitable for diver operations, featuring power and high-speed digital data transfer.

Voice HUB-4 provides a User Interface allowing operators to control each feature of the system via a web browser, including diagnostic utilities to speed up troubleshooting process and safeguard audio communication.



Voice HUB-4 is compatible with a series of different accessories, such as Push-to-Talk Microphones, 3.5mm 4-Pole Jack Headsets with Microphone, Kirby Morgan® Mic and Speaker set, and smartphones or tablets (to access the Web Interface)



Voice HUB-4 (Operators Console)

Dimensions	406 mm x 330 mm x 174 mm (15.96" x 19.99" x 6.85")
Weight	6.3 kg (13.89 lbs)
Connectors	1x IEC Female (AC Input) Souriau-Sunbank by Eaton UTS7103W3S
Power Consumption	100 - 240 VAC

Voice NODE

Dimensions*	181.8 mm x 73 mm x 40 mm (7.16" x 2.87" x 1.57")
Weight	0.47 kg (1.26 lbs)
Depth Rating	100 m (328 ft)
Potting Material	Fast-cure polyurethane material (green) to provide watertight, flexible sealant with a further encapsulate of F21 material for toughness and minimization of acoustic absorption.
Connector	SubConn® MCIL6M (to Digital Audio Tether)
Power Consumption	12 - 24 V DC 5 W

*Note: The length is measured from the end of SubConn® to the end of the mold. a 300 mm inline rubber molded connector (SEACON/MARSH RMG-4-FS) is attached from the end of the mold (for the ease of connecting Kirby Morgan Mic and Speaker Set)

Digital Audio Tether

Length	100 m (328 ft)
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