

HeliCom™

Saturation Control Helium Speech Unscrambler



The Sat Control HSU is designed for helium speech communications with the occupants of a two compartment saturation deck chamber. It also provides a bunk entertainment channel.

A front panel loudspeaker allows the chamber occupants' speech to be audible to the chamber attendant independently of his headset in all modes of operation. An on/off switch allows the loudspeaker to be switched off as required.

DSP Helium Speech Unscrambler Circuit uplink signals from the chamber occupants are mixed in an audio mixer before decoding to the selected gas and environmental settings by a digital signal processing (DSP) circuit.

An LCD display is provided for monitoring helium speech decoding settings. Adjusting settings is easily accomplished by means of a front panel depth setting potentiometer calibrated from 0 msw to 500 msw and a user-friendly keypad for PPO2, pitch reduction and temperature settings.

An unscrambler on/off switch allows the DSP helium speech unscrambler circuit to be bypassed when unscrambling is not required.

Operating Modes

- The chamber attendant uses a master PTT for broadcast communications with main lock, entry lock and bunk channels.
- The chamber attendant uses an individual PTT switch for dedicated communication with each channel.
- All channels have four wire communications with uplink signal priority and each is equipped with a dedicated volume control with minimum listening level.
- All channels have independent uplink and downlink signal volume controls to optimize communications.
- Main lock and entry lock channels connect to a chamber comms box and speaker box which consists of a loud speaker, Electret microphone, volume control and push-button call facility for the occupants to call the chamber attendant. 3.5mm jack sockets also allow comms to be transmitted to a headset.
- Bunks channel is configured with headset connection only and can be used for communications and entertainments, volume control is available to the earphones. There is also a push-button call facility.



HeliCom™ Unscrambler onboard vessel.



Specification

General

Power	110/230 VAC 50/60 Hz
Fuse Rating	2 Amp
Power Amplifiers	1 per channel
Power Output	10 Watts per channel
Frequency Response	300 Hz to 12 kHz
Input Impedance	600 ohms, transformer isolated
DSP Unscrambler	Common to all 3 diver channels
Voice Correction Range	0 m to 500 m (0 ft to 1,640 ft)
Audio Recording	Recording level control with VU display
Mic Inputs, All Channels	Electret type

Connectors

Audio Connectors (ML, EL and Bunks)	5 pole panel mount XLR socket, P/No EM3617, rear panel
Remote PTT	5 Pole Panel Mount XLR Socket, P/No EM3617, rear panel
Supervisor Headset	¼" headset socket, front panel
Recording Output	BNC bulkhead socket, rear panel

Dimensions

Height - 19" Sub-rack	H 3U (133.4 mm)
Width - 19" Sub-rack	W 84 HP (426.7 mm)
Depth	355 mm
Weight	6.5 kg

Environmental

Operating Temperatures	-10°C to +40°C
Storage Temperatures	-20°C to +60°C

Order Code: CO363AC/1

