



World leaders in diving equipment technology

DEFENCE  
COMMERCIAL



## HeliCom™ Saturation Control Helium Speech Unscrambler

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

### 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 will accommodate loudspeaker, Electret microphone input with PTT switch, headset and boom microphone communications and push-button call facility for the occupants to call the chamber attendant.
- Bunks channel will accommodate loud speakers and Electret microphone inputs with PTT switch for each bunk box, independent of the bunk entertainment headsets.

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 0 msw to 400 msw in 50 msw increments and a user-friendly keypad for PPO<sub>2</sub>, pitch reduction and temperature settings.

An unscrambler on/off switch allows the DSP helium speech unscrambler circuit to be bypassed when communications are in the air range or when unscrambling is not required.



HeliCom™ Unscrambler onboard vessel.

### HEAD OFFICE

Enterprise Drive  
Westhill  
Aberdeen  
AB32 6TQ

T: +44 (0)1224 740145  
F: +44 (0)1224 740172

### GLOBAL LOCATIONS

Aberdeen  
Chertsey  
Bremen  
Dubai  
Cape Town  
Perth  
Sydney

discover more  
[www.divexglobal.com](http://www.divexglobal.com)

World leaders in diving equipment technology



**Technical Data**

<b>General</b>	Power	110/220 VAC 50/60 Hz
	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 400 m (0 ft to 1,312 ft)
	Audio Recording	Recording level control with VU display
	Mic Inputs, All Channels	Electret type
<b>Connectors</b>	Main Lock & Entry Lock Channels	4 pin socket P/No EM3008 & 4 pin plug P/No EM3011, rear panel
	Bunk Channel	10 pin socket P/No EM3009 & 10 pin plug P/No EM30012, rear panel
	Remote PTT, All Channels	2 pin socket P/No EM3007 & 2 pin plug P/No EM3010, rear panel
	Attendant Headset Recording Output	¼" headset socket, front panel BNC bulkhead socket, rear panel
<b>Dimensions</b>	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
<b>Environmental</b>	Operating & Storage	-20°C to +40°C

**DEFENCE  
COMMERCIAL**

**HEAD OFFICE**  
Enterprise Drive  
Westhill  
Aberdeen  
AB32 6TQ  
T: +44 (0)1224 740145  
F: +44 (0)1224 740172

**GLOBAL  
LOCATIONS**  
Aberdeen  
Chertsey  
Bremen  
Dubai  
Cape Town  
Perth  
Sydney

discover more  
[www.divexglobal.com](http://www.divexglobal.com)

**Helicom™ Saturation Control Helium Speech Unscrambler**

Order Code CO363AC/1