

HeliCom™

Dive Control Helium Speech Unscrambler



The Dive Control HSU is designed for helium speech communications with three divers and the bell environment.

A front panel loudspeaker allows the divers' speech to be audible to the dive supervisor 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 divers are mixed in an audio mixer before decoding to the selected gas and environmental settings by a digital signal processing (DSP) circuit.

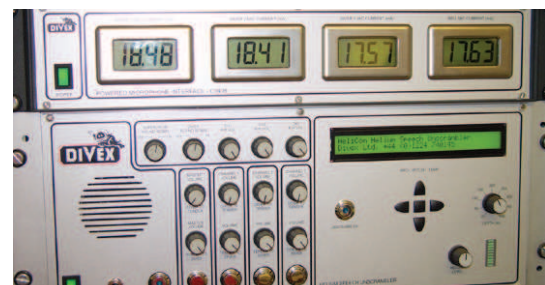
An LCD display is provided for monitoring helium speech decoding settings. Adjusting settings is easily accomplished by means of a front panel depth setting potentiometer calibrated from 0 msw to 500 msw and a user-friendly keypad for PPO2, pitch reduction and temperature settings.

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

Operating Modes

Three operating modes offer greater flexibility to meet all bell diving communication requirements:

- Supervisor Round Robin Mode allows duplex hands-free communication between the dive supervisor wearing a headset/boom microphone and all divers. A separate volume control for each diver circuit allows different volume settings for each diver to suit individual hearing and speech characteristics and to compensate for microphone performance.
- Diver Round Robin Mode provides duplex hands-free communication between all divers. Interjection by the dive supervisor to all divers is by means of the PTT All Divers switch, or to individual divers by means of the respective Diver PTT switch. A separate volume control for each diver circuit allows different volume settings for each diver to suit individual hearing and speech characteristics and to compensate for microphone performance.
- Simplex Mode provides simplex diver communication with uplink signal priority. The dive supervisor uses a PTT switch for each diver individually or a master PTT switch for all three divers simultaneously. Separate volume controls are provided for uplink and downlink signals to suit individual hearing and speech characteristics and to compensate for microphone performance.





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

Connectors

Audio Connectors (Diver 1, Diver 2, Diver 3 and Bellman)	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 4U (177.8 mm)
Width - 19" Sub-rack	W 84 HP (426.7 mm)
Depth	355 mm
Weight	7.5 kg

Environmental

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

Order Code: CO363AY

