Altimeter Build and Calibration Record

Instrument type	Altimeter
Serial number	76740
Baud rate set ex factory	9600

Calibration History:	Certificate	Date
	66415	06/04/2021

System Components	Original Manufacture				Modification				Modification				Modification			
	Part (Blank=Not Fitted)	Iss	Serial Number	Range / Firmware	Part (Blank=Not Fitted)	Iss	Serial Number	Range / Firmware	Part (Blank=Not Fitted)	Iss	Serial Number	Range / Firmware	Part (Blank=Not Fitted)	Iss	Serial Number	Range / Firmware
PSU board	0430502	D1	1016011													
Micro board	0430501	D1	1016902	ACTEL 0430707												
				ATMEL 0430704A16												
Transducer Assembly	500kHz		43385	100m												
Pressure sensor	PAA - 10LX		N/A	N/A												

	Original Manufacture	Modification	Modification	Modification
Name	K. Bovey			
Date	06/04/2021			
Signed	K.A Bovey.			

Calibrated to Valeport's procedures using test equipment with calibrations traceable to UKAS or national standards

Instrument Serial Number	76740
Sensor Type	500kHz
Altimeter Range (m)	100m
Certificate Number	66415

Stage 1

Test the assembled altimeter in a body of water to ensure a signal is recieved at the minimum range. Taking direct readings from the unit immerse the head till it is roughly 0.1m from the bottom, readings should come through - if not then the signal is being saturated and there is a problem

To inhibit spurious readings set using: #226;40

	Pass/Fail
Bench Test Min Range <0.1m	Pass

Stage 2
Using a mini SVS or similar, measure the average sound velocity for the water in the tow tank and input the value in the cell below.

Enter the SOS	1481.984

Input SOS value to the altimeter using: #830;1481.9840

Stage 3
Fit the altimeter into the calibration fixture and lower the assembly into the tank till it is about 0.5m down facing the far end of the tow tank and clamp in place. Using the distance markers on the wall align the front edge of the trolley with the datum line to set the front of the altimeter at stated distance from the wall.

To determine the Range Offset		
Distance m	Measured Range m	Measured Offset m
1	1.018	-0.018

Stage 4: Enter the Offset Correction
#828;-0.0180

Stage 5 - Range Check after Offset Correction			
Distance m	Measured Range m	Measured Offset m	Pass/Fail
1	1	0	Pass
5	5	0	Pass

Stage 6: Reset the SOS
#830;1500

Stage 7: Reset maximum range to 105m		Stage 8: Reset spurious range
#823;105	(500kHz units)	#226;0

Calibrated by:	R Musgrove	Date:	06/04/2021