

Theory Of Operation

The 028B interface accepts one of the following NMEA-0183 depth sentence types:

\$xxDBS, xxx, f... (Depth from Surface)
 \$xxDBT, xxx, f... (Depth from Transducer)
 \$xxDBT, A, xxx, f, ... (Depth from Transducer, Robertson Proprietary)
 \$xxDBK, xxx, f... (Depth from Keel)

and/or the following NMEA-0183 temperature sentence:

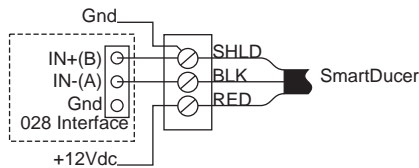
\$xxMTW, (Water temperature)

The interface also sends transducer and keel switch settings to allow Depth from Surface and Depth below Keel to be calculated.

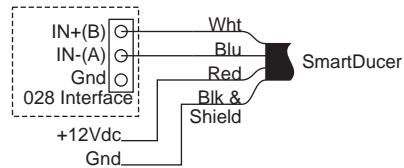
The Ockam system always displays depth in FEET or METERS regardless of the depth sounder units setting. Ockam converts the reading to the precision allowed by the resolution of the depthsounder output.

Installation

1. Set the adjustments on the interface to the appropriate values. The right pot should be set for the depth (in feet) of the transducer below the surface. This switch increases the Surface depth and reduces the Keel depth displays. It is normally shipped set to 0.0 feet, so that the Surface reading is the same as the depthsounder's "transducer depth" reading. The left pot should be set to the depth of the keel in feet from the waterline. This setting reduces the Keel display and has no effect on the Surface display. It is normally shipped set to 0 feet.
2. Connect the interface to the depth sounder. Connect the depthsounder OUT+ lead to the interface IN+ terminal, and the OUT- lead to the IN- terminal. If there is only one signal wire, connect it to the IN- terminal, and connect ground to the IN+ terminal.



Connecting SmartDucer to 028B Interface (prior to 2002)



Connecting SmartDucer to 028B Interface (after 2002)

3. Switch S1 controls the output of Depth and temperature information; ie whether or not to display temperature as well as depth, and the units for temperature. Set S1 as follows:

	Depth ON		Depth OFF	
	Fahrenheit	Centigrade	Fahrenheit	Centigrade
No temperature	0	4		
Sea temperature "G"	1	5	9	D
Air temperature "G"	2	6	A	E
Custom temp. "_"	3	7	B	F

If temperature is enabled, set S2 to an available slot (see Q interface list in section 4). The default value is 1.

4. Connect the interface to the system via the coaxial bus, and power the system up. Check the CONFIGURATION display. The number should reflect the existence of the DEPTH interface (See Section 3. INT(CONFIGURATION/16) should be odd). If temperature is enabled (see 3 above), add 512 to the CONFIGURATION.

MODEL 028B DEPTH REVISION HISTORY

REV	DATE	CHANGE
B1	4/2/97	Switch to gray box; OKA3904, S028B1
B2	9/14/00	Remove search input polarity, S028B2(NMEADP3X(cs F98B))
C1	8/24/01	T3 Use OKA3821 w/NMEADPC1.s19
D1	5/10/02	Allows NMEA temp to come thru (NMEADPD1.s19) Tag “_”,temp
D2	3/18/03	Fix S1 setting 0,4 to work as depth only (NEMADPD2.s19)