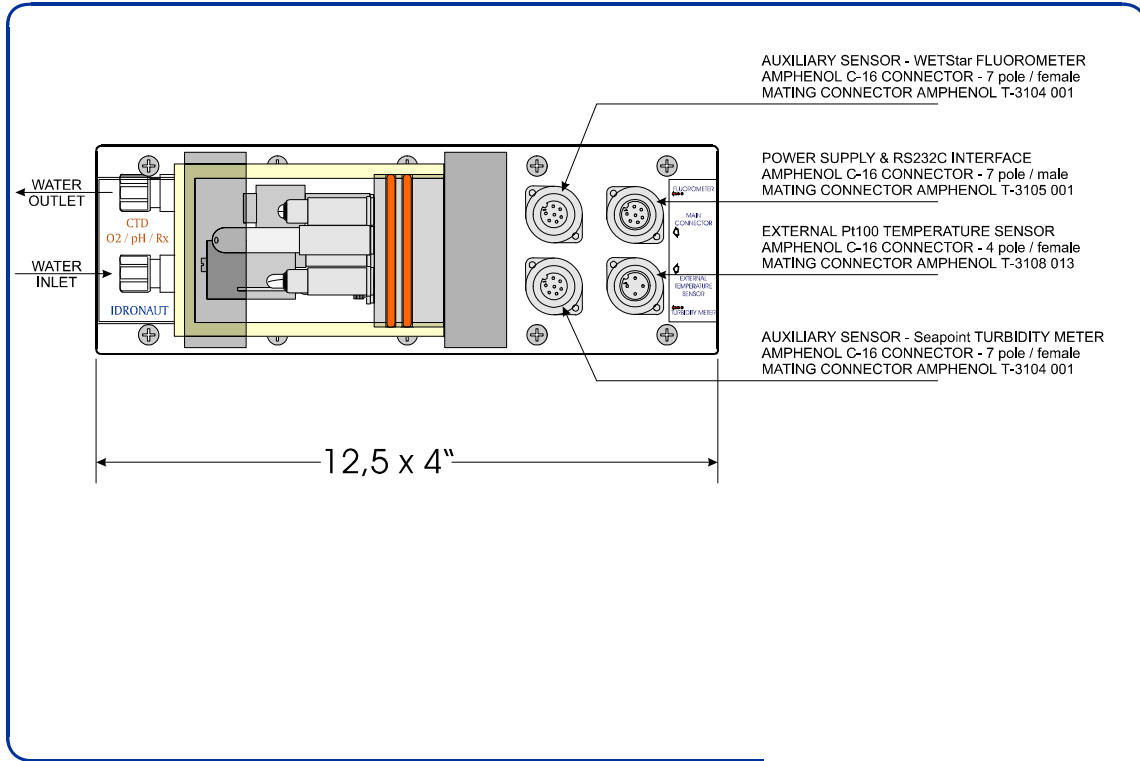
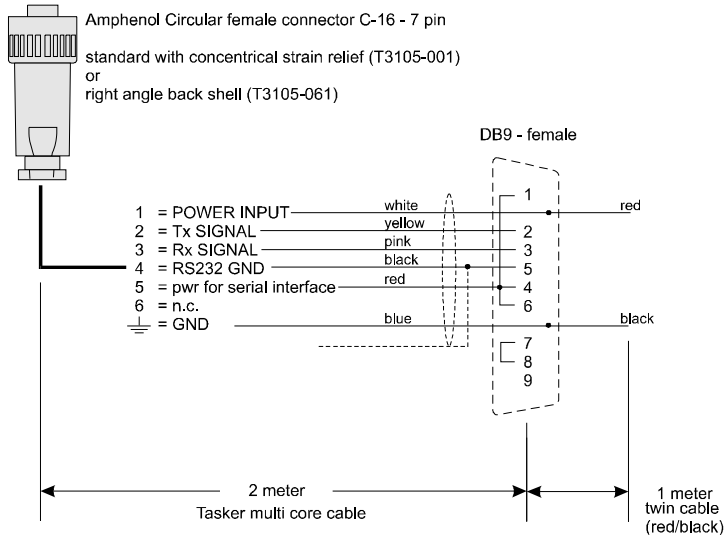
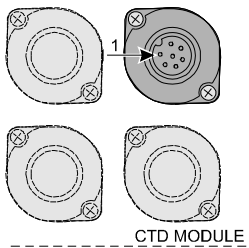


8.0 Schematics



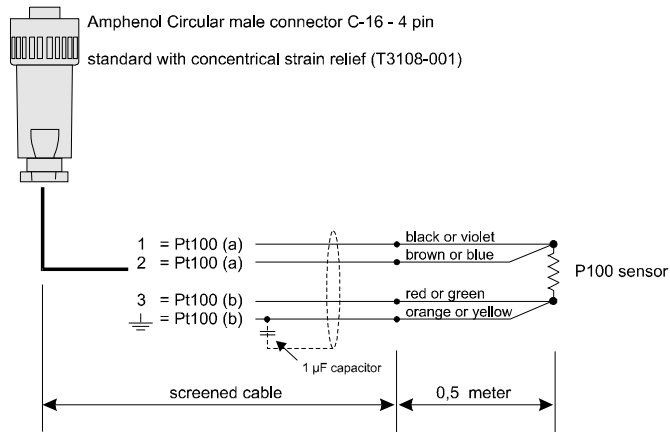
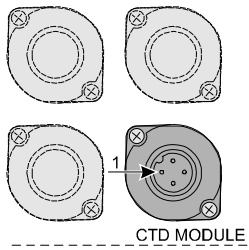
INTERFACE CABLE BETWEEN CTD MODULE & COMPUTER - POWER SUPPLY



REVISED July 30, 1999



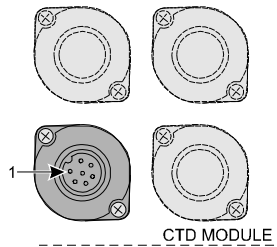
INTERFACE CABLE BETWEEN CTD MODULE & EXTERNAL Pt100 TEMPERATURE SENSOR



REVISED December 14, 1999



INTERFACE CABLE BETWEEN CTD MODULE & SEAPOINT TURBIDITY METER



CTD MODULE



Amphenol Circular male connector C-16 - 7 pin
standard with concentric strain relief (T3104-001)

1 = GND	white	1
2 = SIGNAL	black	2
3 = SIGNAL GND	blue	3
4 = POWER VDC	orange	5
5 = GAIN CONTROL 'a'	green	4
6 = GAIN CONTROL 'b'	red	6
⏏ = n.c.		

IMPULSE AG-206
to turbidity meter

0,5 meter

NOTE: GAIN CONTROL LINES

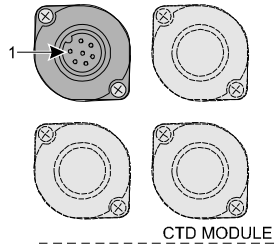
The two independent gain control lines 'a' and 'b' are used to select one of four possible gain settings. These wires are interfaced with the CTD microprocessor to allow gain to be controlled through software.

TRUTH TABLE FOR SWITCHING GAINS

A	B	Gain	Sensitivity	Range
+5V	+5V	100 x	200 mV/FTU	25 FTU
+5V	0V	20 x	40 mV/FTU	125 FTU
0V	+5V	5 x	10 mV/FTU	500 FTU
0V	0V	1 x	2 mV/FTU	n/a

Note: the 1X gain setting is provided for extremely turbid water. The sensor response above 750 FTU is non-linear.

INTERFACE CABLE BETWEEN CTD MODULE & SEAPOINT CHLOROPHYLL FLUOROMETER



Amphenol Circular male connector C-16 - 7 pin
standard with concentrical strain relief (T3104-001)

1 = GND	white	1
2 = SIGNAL	black	2
3 = SIGNAL GND	blue	3
4 = POWER VDC	orange	5
5 = GAIN CONTROL 'a'	green	4
6 = GAIN CONTROL 'b'	red	6
⏏ = n.c.		

IMPULSE AG-206
to fluorometer

0,5 meter

NOTE: GAIN CONTROL LINES

The two independent gain control lines 'a' and 'b' are used to select one of four possible gain settings. These wires are interfaced with the CTD microprocessor to allow gain to be controlled through software.

TRUTH TABLE FOR SWITCHING GAINS

A	B	Gain	Sensitivity	Range
+5V	+5V	30 x	1 V / (µg/l)	5 µg/l
+5V	0V	10 x	0,33 V / (µg/l)	15 µg/l
0V	+5V	3 x	0,1 V / (µg/l)	50 µg/l
0V	0V	1 x	0,033 V / (µg/l)	150 µg/l

Ethernet cables – 4 shielded twisted pairs

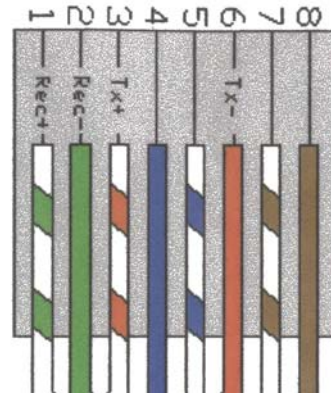
1. Computer to Hub or Switch (Straight-through)

There are two wiring standards, T568A and T568B. There is no difference in performance or connectivity; either may be used as long as the devices being connected are wired to the same standard

T568A

With the jack held hook down and the open end facing you, the wires are ordered from left to right:

1	Green/white	Rec+
2	Green	Rec-
3	Orange/white	Tx+
4	Blue	
5	Blue/white	
6	Orange	Tx-
7	Brown/white	
8	Brown	



T568B

The position of the orange and green wires is reversed:

1	Orange/white	Rec+
2	Orange	Rec-
3	Green/white	Tx+
4	Blue	
5	Blue/white	
6	Green	Tx-
7	Brown/white	
8	Brown	

2. Computer to Computer (Cross-over)

When two computers are directly wired together (peer-to-peer network) it is necessary to use a crossover cable so that the transmit wires from one computer connect to the receive positions on the other. This can be accomplished by wiring one end of the cable in the A standard and the other in the B.