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C-Star Calibration Sheet

Date:	**05/10/02**
Customer:	**Univ. of Maine/School of Marine Sciences**
Serial Number:	**CST-597PR**
Job Number:	**0204020**
Work Order:	**001**

V_d = V dark	**0.055**
V_{air} = V out in air	**4.842**
V_{ref} = V out in water	**4.907**
Calibration Temperature of water	**18.9**
Ambient Temperature	**24.3**

% Transmission = $\mathbf{(V_{sig}-V_d)/(V_{ref}-V_d)}$
$\mathbf{Tr = e^{-cx}}$
To solve for the attenuation coefficient **c** in units of $\mathbf{m^{-1}}$ use the following equation.
$\mathbf{c = -1/x\ (ln(V_{sig}-V_d)/(V_{ref}-V_d))}$
For further information on these calculations please see C-Star User's Guide, Section 2.

Temperature Error: 0.02% F.S./°C

NOTES

- ($\mathbf{V_d}$)—analog output of the instrument with the beam blocked. This is an instrumental offset.
- ($\mathbf{V_{air}}$)—analog output voltage of the instrument with a cleared beam path.
- ($\mathbf{V_{ref}}$)—analog output voltage of the instrument with clean H_2O in the path.
- (**Calibration Temperature of water**)—temperature of the clean water used to obtain $\mathbf{V_{ref}}$.
- (**Ambient Temperature**)—temperature of the instrument during the calibration procedures.
- ($\mathbf{V_{sig}}$)—measured signal voltage of the C-Star.