WinFrog Device Group:	**TIDE**
Device Name/Model:	**HTG500**
Device Manufacturer:	
Device Data String(s) Output to WinFrog:	
WinFrog Data String(s) Output to Device:	
WinFrog Data Item(s) and their RAW record:	TIDE DATA 380

DEVICE DESCRIPTION:
This device is designed to read tide data from the HTG500 tide gauge. The tide data can be used in realtime for such things as correcting sounder depths or LBL acoustic measurements for tidal variations. The tide data can also be displayed in realtime in a Calculations window. Adding the TIDE DATA data item to a vehicle in WinFrog allows for the recording of tide data in the raw files for post processing.

DEVICE CONFIGURATION INSTRUCTIONS

WINFROG I/O DEVICES > EDIT I/O:
Serial
Configurable Parameters

WINFROG I/O DEVICES > CONFIGURE DEVICE:
No configuration is required at the I/O Device window level.

WINFROG VEHICLE > CONFIGURE VEHICLE DEVICES > DEVICE DATA ITEM > EDIT:

Adding the HTG500 device creates the TIDE data item. There are no edit or configuration options for this data item. However, the operator must add the **Tide, HTG500, TIDE** data item to the vehicle's device list in order to utilize tide data from this device in real time, as well as to record tide data to the raw files.

Data item: TIDE, HTG500, TIDE

There are no Edit or configuration options available for this data item. However, the TIDE data item must be added to the vehicle's device list in order for the tide data to be applied to the realtime depth data.

TELGRAM SPECIFICATION:

Description:	A pressure sensor, interface, cable and software for real-time applications.
Sensor Type:	Silicon strain gauge pressure sensor, solid-state, with no moving parts, temperature and barometric pressure compensated.
Sensing Area:	The housing is entirely constructed of PVC and the sensor is isolated from water by an oil-filled chamber. The gauge is insensitive to clogging, biofouling, or silting, and is vented for automatic and continuous atmospheric pressure correction
Depth Range:	35 meters (Recommended installation depth for wave measurements is 20m or less)
Sampling Rate:	2 Hz
Resolution:	0.05% FS
Precision:	0.15% FS
Housing Material:	PVC
Weight:	2.8 Kg (in air)
Dimensions:	114 mm diameter 305 mm length
Cable:	200 feet included
Output Parameters	
Unprocessed:	Pressure vs. Time
Processed:	Software compatible with Windows environment reads, displays and stores instantaneous Depth. Calculates, displays and stores Tide, Significant Wave Height (Hs), Significant Wave Period (Ts), and Spectral Energy coefficients versus Frequency. The software also displays a graph of detrended wave height versus time.
Processing Software:	Wave analysis is based on FFT of 2,048 samples. Spectral coefficient used in calculation of wave height

	and period are corrected for frequency versus depth attenuation. Tide values are calculated based on one minute averages.
Signal Output	
From Sensor to Interface:	4-20 mA for sensor cable length up to 5000 feet
From Interface to PC:	RS232 for computer-interface cable length up to 50 feet. RS485 cable option for computer-interface cable length up to 10,000 feet
Power:	External 10 to 30 VDC at less than 50 mA
User Entry:	User enters estimated Height Above Bottom (HAB) for automatic frequency versus depth attenuation corrections when calculating surface wave height