Herrin Design’s Model HD3011 Tide Gauge is an ocean tide monitoring system designed for use on dredges, ships, survey vessels or other environments where accurate tide data is required. The system has two components, a transmitter and a receiver, which communicate using a radio link. The transmitter uses a sensitive pressure transducer to measure precise changes in tide levels. The tide level is displayed at the transmitter panel and is also stored, along with the time and date, in transmitter memory. The information is simultaneously sent, by the radio link, to the remote receiver. The receiver displays the tide reading, makes a hard copy of the tide, time, date and the identification code of the transmitting unit. A port is available for sending the data to a PC or other peripheral device.

The HD3011 is compatible with the popular Hazen Model HTG5000 Tide Gauge. There are specific sections in the operating manual that deal with using the HD3011 transmitter with the HTG5000 receiver and for using the HD3011 receiver with the HTG5000 transmitter.

The HD3011 transmitter is a self-contained data logger. It is powered by a rechargeable lead-acid battery pack capable of up to 6 months operation between charges. The HD3011 transmitter measures tide changes using a precise pressure sensor, housed in a titanium/delrin case. This sensor can detect tide changes as small as +/-0.01 feet. This tide information is shown on a Liquid Crystal Display on the front panel of the HD3011 transmitter. The transmitter can also store up to 4600 records for direct downloading to a terminal or computer. Using a rugged synthesized radio link it can transmit real-time tide data to a receiver on a dredge, survey boat or other remote location several miles distant. The HD3011 transmitter is designed to withstand a harsh environment.

The HD3011 receiver receives and records data from the HD3011 transmitter. It displays tide data at the receiver terminal. The large, backlit display is easy to read but unobtrusive in night time operations. The receiver provides a hard copy of the tide data including date, time, tide level and the identification code of the transmitter sending the data. It also monitors and will report a low battery condition at the transmitter. It can also send data to a terminal or computer using standard RS232C protocols.

Small size and versatile over or under mounting bracket simplifies receiver installation.
Transmitter Specifications

- **Output Power**: 2 to 5 Watts Output, VHF or UHF type accepted under FCC Parts 21, 81, 91, 93 and 95a.
- **Transmit Time**: Approximately 2 Sec.
- **Transmit Intervals**: 1 to 99 Minutes
- **Power**: 12 volt, 12 Amp-hr, sealed lead acid, rechargeable battery
- **Power Consumption**: 12V, 110uA Stdby. 400mA Op.
- **Battery Life**: Up to 7 months/charge
- **Tide Resolution**: +/- 0.01 Ft.
- **Tide Range**: -5 to 30 feet or -1.52 to 9.14 meters
- **Data Storage**: 4600 events (RS232C)
- **Data Display**: Back lighted, 2 line 16 Character LCD
- **Weight**: 24lbs
- **Dimensions**: 8.5w x 10.5l x 8.3h
- **Sensor**: Quartz Strain Gauge Bridge, housed in Titanium Body with Polyurethane Sheathed Cable

Receiver Specifications

- **Operating Range**: VHF
- **Freq. Stability**: +/-0.001% (-30 to +60 Deg C)
- **Sensitivity**: Less than 0.35 uV 12db SINAD
- **Demodulator**: Biquad Filter and PLL Decoder
- **Circuitry**: 8 bit Embedded Microprocessor
- **Units**: Feet or Meters
- **Data Storage**: 34 Event Backup (non-volatile)
- **Data Display**: Large, 4 Character, 0.7” LCD Backlight
- **Printer**: 24 Character/line Thermal
- **Weight**: 4 Lbs
- **Dimensions**: 7.5w x 3.5h x 5d
- **Mounting**: Versatile over or under bracket
- **Power**: 117VAC, 60Hz Optional 12VDC, 0.5A

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**Herrin Design & Manufacturing Co.**

**Tide Gauge Services Since 1982**

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