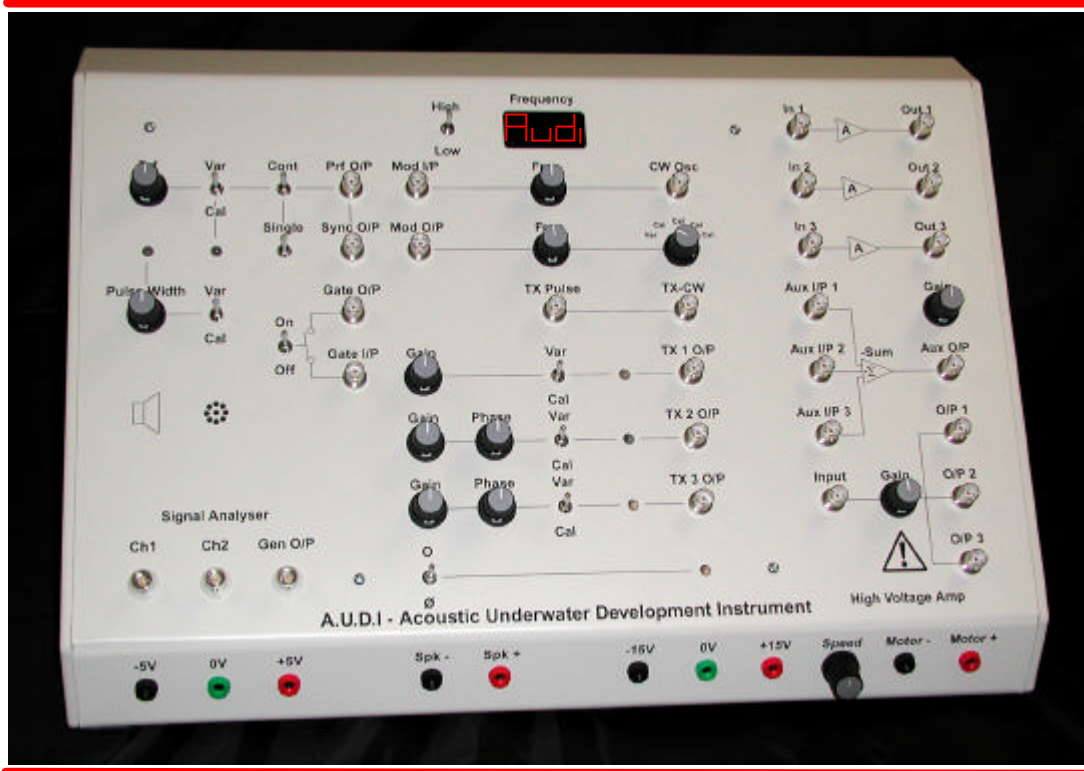




New Product!

A.U.D.I MkIII- Acoustic Underwater Development Instrument



Brief Description:

The **A.U.D.I - Acoustic Underwater Development Instrument** was designed for laboratory work at the request of University marine engineering departments, and Oceanographic underwater research establishments. The **A.U.D.I** provides access to a wide range of transducer drive signals which can be preset (**Cal**), or continuously variable (**Var**).

A built-in, dual channel, high resolution data acquisition **Signal Analyser***, with an arbitrary waveform generator, enables all signals to be monitored/analysed. The **A.U.D.I** software creates a full range of **virtual instruments** – Oscilloscope, Spectrum Analyzer, Multimeters, Transient Recorder (data logger) - on a Windows OS PC/laptop display.

The **A.U.D.I** can also be used for **SONAR/ASW** training, as a demonstrator, and to give students hands-on experience with real-time **Active/Passive SONAR** configurations.



New Product!

A.U.D.I Features:

- Integrated high resolution (12 bits) PC Data Acquisition *Signal Analyzer & AWG.
- Variable/Calibrated Pulse Repetition Frequency (PRF) – for ranges <.5 meter - >6 meters.
- Variable/Calibrated Pulse Width (PW) Continuous or Single shot <2 µsecs - >4 msecs
- Variable CW Oscillator - <12 kHz - >700 kHz.
- Four Calibrated (preset) CW Oscillator outputs – 200 kHz, 100 kHz, 40 kHz, 20kHz.
- Frequency display – four digits.
- FM Modulation output – 50 Hz to 110 Hz @ 2v pk-pk.
- Switched Gate & Sync Output @ TTL level.
- Three transducer drive amplifiers Tx1, 2, 3 with variable Gain.
- Variable Phase, plus cascade Phase on Tx 2 and Tx 3, referenced to Tx 1 Output.
- Three High Voltage parallel outputs - 40 volts pk-pk max.
- Auxiliary Amplifier with three inputs, and x4 Gain control.
- Three fixed gain (x 4) general purpose amplifiers 'A'.
- Motor Speed control voltage – 0 to 12 volts dc at >1 amp.
- Access to +5, -5, +15, -15 volts dc for external custom circuitry.

***Signal Analyzer in brief:**

- PC/laptop, dual channel Data Acquisition Signal Analyzer – USB 1.1 or USB 2.0
- Sample rate – 100 Ms/sec with 8 bit resolution (50 Ms/sec for 12 bit)
- Resolution selectable – 8 to 16 bit (6 µV)
- Windows 98/ME/2000/XP
- ASCII data files for exporting to other applications
- Oscilloscope, Spectrum Analyzer, True RMS Voltmeter
- Transient Recorder (Data Logger) – 21 minutes to 750 days
- Spectrum lin/log and volts/dB axis
- FFT Windows – Rectangle, Hanning, Hamming, Blackman, Bartlett
- FFT points – 16 to 32,768
- Distortion calculations – 1 to 100.
- Arbitrary Waveform Generator (AWG) – 14 bit resolution
 - Frequency range – dc to 2 MHz with .01 Hz frequency step
 - Output impedance - 50 Ohms
 - Output signal amplitude - >20 volts pk-pk
 - Sine, Square, Triangle, White Noise, DC, and User Defined waveforms
 - Variable Symmetry (Mark to Space ratio)– 1 to 99% in 1% steps
 - Frequency Sweep control
 - 8 Pre-set Memory storage with keypad entry.