

## 445-083 JULY 2012-REVISED MAY 2017

## IMAGENEX MODEL 837A "Delta T" 6000 m OBSTACLE AVOIDANCE MULTIBEAM SONAR

## **APPLICATIONS:**

- ROV, AUV, & UUV
- Offshore Oil & Gas
- Sunken Timber Recovery
- Diving Support
- Surveying
- Search & Recovery
- Inspection
- Underwater Archaeology
- Scientific Research
- Harbour Surveillance

## **FEATURES:**

- Programmable
- High speed
- High performance
- Lower cost
- Low power
- Simple set-up and installation
- Ethernet
- 5 m to 100 m range scales
- Integrated Video Capture and Display
- Built in GPS Track Plotter

The Imagenex Model 837A "Delta T" is a multiple receiver sonar system designed to provide high-speed imaging with all the advantages of underwater sonar. Innovative digital signal processing is used to optimize data usage from all channels to achieve the best possible resolution at every point in the field of view. Recent advances in computing power have made it possible to transfer and process this data at resolutions equal to computer monitor resolution, and with image frame rates of better than 20 frames per second!

The Delta T system has been designed from the ground up with the most advanced, high accuracy, low power electronic components available to provide breakthroughs in system power consumption, package size, and price. This advanced electronics package has built in flexibility and programmability to accommodate a wide range of transducer arrays. Thus, the Delta T is the first in a family of new technology products which will have imaging and profiling capabilities to suit your underwater application. Imagenex sonars: advancing underwater imaging capability for the everyday user.



Patent Pending

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HARDWARE		
SPECIFICATIONS:		
FREQUENCY	260 kHz	
TRANSDUCER BEAM WIDTH	Receive: 120° x 20°	
(nominal)	Transmit: 120° x 20°	
EFFECTIVE HORIZONTAL	3°, 1.5°, 0.75°	
BEAM WIDTH		
BEAMS*	120, 240, 480	
RANGE RESOLUTION:		
SCREEN	0.2% of range	
OUTPUT	0.02% of range	
MIN. DETECTABLE RANGE	0.5 m	
MAX. OPERATING DEPTH	6000 m	
FRAME RATE	Up to 20 fps	
INTERFACE TO PC	Standard: 10 Mbps Ethernet (10 BASE-T) using TCP/IP	
	Bit rate may vary if an Ethernet extender is in use.	
MAX. CABLE LENGTH	Standard: 100 m on CAT5e	
	Cable length may be increased up to ~9000 m using an	
	Ethernet extender. Please enquire for more information.	
CONNECTOR	Side mounted right angle, 8 conductor,	
	wet mateable (Subconn MCBH-8M-SS)	
POWER SUPPLY	22 – 32 VDC at less than 5 Watts	
DIMENSIONS	See drawing	
WEIGHT: In Air	~7.3 lbs (3.3 kg)	
In Water	~4.2 lbs (1.9 kg)	
MATERIALS	6AL4V Titanium, Epoxy, PVC, Titanium connector	

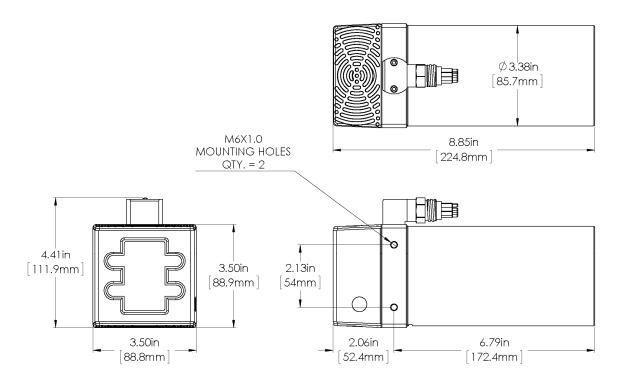
<sup>\*</sup>Data is acquired at full resolution every shot: processing the data for screen display on a PC can slow the system at highest number of beams. 120 beam mode is recommended for real time data acquisition. The data can then be played back at highest resolution (480 beam).

SOFTWARE	DeltaT.exe	
SPECIFICATIONS:		
WINDOWS™ OPERATING SYSTEM	Windows™ XP, Vista, 7	
DISPLAY MODES	Sector, Linear, Perspective, Profile, Beam Test	
PERSISTENCE (TRAIL)	1 – 300 seconds	
RANGE SCALES	5 m, 10 m, 20 m, 30 m, 40 m, 50 m, 60 m, 80 m, 100 m	
SECTOR SIZES	30°, 60°, 90°, 120°	
FILE FORMAT:	(filename).837	
RECOMMENDED	2 GHz Pentium 4	
MINIMUM COMPUTER	256 MB RAM	
REQUIREMENTS:	20 GB Hard Disk	
	1024 x 768 screen resolution	

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ORDERING INFORMATION:		
6000 m UNIT	Standard	837A-000-402
Straight Connector	Option	-009
IP Address*	Option	-020
675 kHz	Option	-022
External Trigger	Option	-023

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\*Note: Standard IP Address is 192.168.0.2

A different IP Address may be specified upon ordering.