# Trackpoint II Plus

# Acoustic Tracking & Navigation System

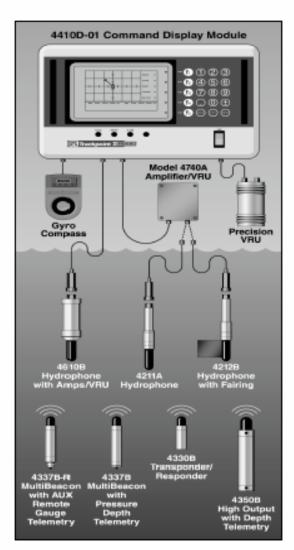
## High Accuracy Data For Less Than You Would Imagine...



For over 15 years, ORE's family of Trackpoint Systems have been providing customers with highly reliable, ultashort baseline, acoustic tracking data. ORE's high accuracy Trackpoint II Plus continues this legacy, offering the industry a tremendous value at a reasonable price.

The Trackpoint II Plus is the ideal tool for a wide array of subsea navigation and relocation tasks. Target types consist of transponders, responders or free running pingers.

Trackpoint II Plus presents users with a video display of the underwater position of the target or targets relative to a chosen reference point on the surface vessel. In addition to the graphic display of target position, Trackpoint II displays digital values for bearing and range to each target. A standard RS-232 connector outputs position data for each target and allows input of most keypad control functions.



#### The basic Trackpoint II Plus System consists of:

Model 4410D-01 Command/Display Module Model 4610B Transducer Assembly Model 4110B Interconnect Cable Model 4330B Acoustic Transponder Model 4324C Battery Charger

### **Features**

- High accuracy; 0.5% slant range
- Compatible with other industry transponders
- Data interfaces available for third party navigation software packages
- Accepts external analog data from compasses and pressure sensors
- ORE's legondary service to support you every step of the way

### **Applications:**

- UUV/AUV Tracking
- ROV Tracking & Navigation
- Survey / Towfish Navigation
- Subsea Structure Relocation
- Subsea Salvage Operations
- Diver Navigation
- Mooring Marking & Relocation
- Subsea Positioning
- Depth, Tilt, Heading Telemetry



# Trackpoint II Plus Specifications

Relative Accuracies Horizontal Position Accuracy 0.5% RMS of slant range (+40 dB signal to noise ratio)

(not including effects of heading, pitch & roll)

Slant Range Accuracy 0.5 meter (with known sound velocity)
Target Position Repeatability Better than 0.25% RMS of Slant Range

Calibrated Accuracy Better than 0.3% RMS of Slant Range

System Resolution Range Resolution 0.3 meters

Bearing Resolution 0.1° (Better than 0.2% of Slant Range)

Receive Available Frequency Bands: 8-14 kHz, 22-30 kHz, 31-37 kHz, 35-45 kHz in 500 Hz increments

Transmit Frequency: 4.5-30 kHz in 500 Hz increments

Pulse Width 1-15 ms in 0.1 ms increments

Repetition Interval 1-20 second intervals in 0.1 second increments

Output Power 500 or 100 watts into 300 ohms

Display Modes Individual Target or Ship Centered Modes; Rectangular or Polar Display; North or Ship Referenced

and Choices Grid Scales – selectable units (meters, feet, yards); Grid Center Offset or Fish Track Mode

External Systems Analog signal for pressure sensor of automatic target depth input

Inputs / Outputs Analog compass input to allow North referenced display mode

Remote key pulse to synchronize system to other equipment, +TTL
Com 1, RS232C serial data port for system integration and output
Com 2, RS232C serial data port for input of NMEA compass heading
Remote VRU (pitch/roll) input. Offsets automatically calculated.
Isolate transmit trigger output for responder key pulse, (+) TTL or (-) TTL

Normal transmit trigger output (-) TTL level pulses for responder key or synchronization to other

equipment VGA output to remote monitor

Model 4410D-01 Size: 10.5 in. high x 17.0 in. wide x 20.0 in. deep (26.7 x 43.0 x 51.0 cm)

Command/Display Module Weight: 55 bs. (25 kg)

Model 4610B Size: 25.0 in. long x 6.0 in. diameter (63.0 x 15.0 cm)

Hydrophone/VRU Assembly Weight: 26 bs. (12 kg)

Model 4211A Size: 24.0 in. long x 2.75 in. diameter (61.0 x 7.0 cm)

Slim Hydrophone Weight: 8 lbs. (3.6 kg)

Model 4740A Size: 15.5 in. long x 13.0 in. wide x 6.0 in. deep (39.4 x 33.0 x 15.2 cm)

Amplifier/VRU Weight: 24 bs. (10.8 kg)

Model 4110B Cable Length: 100 ft. (30m) standard, other lengths available

Weight: 35 lbs. (16 kg)

Power Requirements Input Voltages: 97 to 132 / 170-264 VAC, 47-63 Hz, 200 watts

Temperature Ranges Command/Display Module: -10 to 55° C operating / -40 to 70° C storage

0-95% relative humidity, non-condensing

Hydrophones: -4 to 40° C operating / -40 to 70° C storage

Specifications subject to change without notice.



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