CTP-800
Underwater Cable Tracker

An easy to use Diver or ROV tool for detection and location of underwater communications cables

Applications
Telecommunications
Survey/Mapping
Maintenance and Inspection
Cable Fault Location

Features
Locates and tracks surface-laid and buried cables
45 Degree Tilt Sensor enables estimation of Cable Burial Depth
Four standard preset frequencies (25, 50, 60, 1024 Hz)
Frequency and Gain set by Optical Touch Switch
Warning lights: Leak detection and Low Battery
Waterproof and detachable sensor assembly for future upgrades

Specifications
Maximum Operating Depth for Diver Tool: 250 feet (76.2 meters)
Weight in Air: 4.0 pounds (1.8 kg)
Weight in Seawater: 0.4 pounds (0.18 kg) negative
Outputs: 16 Led light bar display in 6 db steps, Audio to diver earphone, RS-485 data to surface
Adjustable Gain: x1 (0 db), x10 (20db), x100 (40db), x1000 (60db)
Battery Type: 6 each, AAA Alkaline
Battery Mission Life: 8 hours minimum

Options
Special Frequency Settings
Computer Display Configurations for Surface Monitoring
ROV Configuration with Right/Left Direction and Center Null Indication

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General Description

The CTP-800 Underwater Cable Tracker is a replacement for the earlier model CTP-250 which was developed for the U.S. Navy Underwater Construction Team in the early 1980’s. The CTP-800 has improved upon this successful design by adding Digital Signal Processing (DSP) capabilities. All probes are tested to 125 psi and are shipped in a rugged, waterproof carrying case with waterproof operation and maintenance manual. The CTP-800 locates and tracks most cables on which an AC signal can be impressed. Four tracking frequencies allow differentiation between nearby live cables.

The CTP-800 is equipped with a high intensity LED display for dark water conditions and a diver earphone. Additionally, data can be transmitted to the surface via an RS-485 interface umbilical. Power can also be supplied through the umbilical.

Diver Operation

Prior to deployment with the diver, the CTP-800 is preset to the specific frequency that is impressed on the cable to be tracked. Upon determination of the general location, the diver slowly waives the probe across the ocean floor while watching the display or listening for an increase in the earphone signal. While underwater, the diver has the option to change either the frequency or gain. This is done using the optical touch switch located at the bottom of the display bezel.

The tracking operation uses the “null” signal method. To either side of the cable, the indicator lights are at maximum level (peak). However, as the probe nears the cable, the number of display lights that are lit decrease. When the probe is directly above and pointed straight down the cable, the display lights decrease to a minimum reading and the cable position is very accurately determined. Once the cable location is determined, the 45 degree tilt indicator can be used to estimate the cable's depth of burial.

The electronics are sensitive enough that in many cases, the cable can be located from the surface, saving valuable time and resources. After cable location, the diver can be deployed for precise tracking.

The engineering staff of Subsea Systems, Inc. is available to discuss special applications for your project or to provide information about other products.