TFN

TFN A1500 Intelligent Underground Pipeline Locator

Accurately locates underground pipelines for clear visibility

With the increasing complexity of urban underground spaces, quickly and accurately locating underground pipelines to avoid construction accidents is a common challenge facing industries such as municipal administration, power, communications, and gas. The TFN A1500 underground pipeline locator was developed to meet this need. Combining advanced technology with user-friendly design, it is your reliable partner for pipeline exploration, maintenance, and pre-construction detection.

Core Features

The TFN A1500 consists of a high-performance transmitter and an intelligent receiver, providing a complete pipeline locating solution.

- Precise positioning and depth determination: Accurately detects the location, depth, and direction of underground pipelines.
- Multiple signal application methods: The transmitter supports induction, direct connection, and clamp coupling methods to adapt to various complex site conditions.

    Multi-Frequency Operating Mode: Provides a variety of active frequencies, including 577Hz, 8kHz, 33kHz, 82kHz, and 133kHz, as well as a 50Hz power frequency, enabling optimal detection for pipelines of varying materials and depths.

- Intelligent Reception and Display: The receiver features multiple positioning modes, including Peak, Wide, and Valley, along with left and right arrows for clear guidance. The large, high-contrast color LCD screen (transmitter color, receiver large) displays depth and signal strength in real time, providing intuitive readings.

Customer Pain Points & Solutions

Customer Pain Points	TFN A1500 Solution and Key Selling Points
Inaccurate positioning, large depth error	Using imported chips, it offers high positioning accuracy: ≤5% error at depths ≤3 meters; ≤10% error at depths >3 meters. Real-time depth display provides more reliable results.

Weak device performance, unstable signal	Transmitter output power has been increased to 10W, with a voltage of 60V, resulting in stronger signals and improved penetration, enabling detection depths exceeding 6 meters. This represents a significant performance improvement compared to the previous model (maximum 6W).
Battery life concerns during field operations	Powered by dual lithium batteries, it is energy-efficient and environmentally friendly. Ultra-long battery life: High power (10W) output provides ≥5 hours of continuous operation, medium power (5W) ≥8 hours, and low power (1W) for over 12 hours, meeting all-day operational needs.
Poor environmental adaptability, slow response	A wide operating temperature range (-20°C to 50°C) ensures adaptability to harsh environments. The system's fast response and high sensitivity enable rapid acquisition of pipeline signals.
Complex operation, high learning curve	Automatic gain control simplifies operation. The intuitive color interface and large screen with multiple positioning modes ensure quick operation for even novice operators, effectively reducing training costs and the risk of operational errors.

Technical Specifications

1. Transmitter

1.1 Output Power: 10W (maximum)

1.2 Output Voltage: 60V (maximum)

1.3 Output Current: 1A (maximum)

1.4 Operating Frequency: 577Hz, 815Hz, 8kHz, 33kHz, 65.5kHz, 82kHz, 133kHz (can output three frequencies simultaneously)

1.5 Power Supply: Lithium-ion Battery Pack

1.6 Operating Time: ≥5 hours (10W), ≥8 hours (5W), ≥12 hours (1W)

1.7 Display: Color LCD

2. Receiver

2.1 Positioning Accuracy: ±5% (0-3m depth), ±10% (>3m depth)

2.2 Detection Depth: 0-6m and above

2.3 Receiving Frequency: 50Hz, 577Hz, 815Hz, 8kHz, 33kHz, 65.5kHz, 82kHz, 133kHz

2.4 Gain Control: Auto/Manual, 0-100dB

2.5 Locating Modes: Peak, Wide Peak, Valley

2.6 Power Supply: Lithium-ion Battery Pack

2.7 Operating Time: ≥8 hours

2.8 Display: Large, high-contrast LCD

Applicable Scenarios and Industries

The TFN A1500 is widely used in the following fields:

- Municipal Construction: Water, Drain, and Gas Pipeline Construction and Maintenance
- Power Systems: Underground Cable Path Finding and Fault Location
- Telecommunications Engineering: Laying and Inspection of Optical and Telecommunication Cables

- Petrochemical Engineering: Underground Pipeline Network Survey and Management in Industrial Plants
- Railway and Rail Transit: Underground Facility Safety Survey
- Construction: Pre-construction Underground Pipeline Survey to Ensure Construction Safety

Why Choose the TFN A1500?

Choosing the TFN A1500 means choosing efficiency and peace of mind. We comprehensively upgrade your pipeline detection equipment with greater power, more accurate precision, longer battery life, and a smarter operating experience, helping you effectively avoid construction risks, improve work efficiency, and reduce operation and maintenance costs.