VIVAX METROTECH

FLS-2

Fiber Optic Locate System Features and Benefits

V1.5 (March 2024)

FLS-2 Transmitter – Damage Prevention

Fiber optic cables are a critical part of modern life carrying vast amounts of data to businesses, individual internet users, schools and emergency services.

FLS-2 Transmitter – Damage Prevention

The FLS-2 is a high-performance transmitter for fiber-optic locating and monitoring.

- Used for long-haul fiber lines and metropolitan loop networks
- Central office or rack-mounted regen system
- Accessible remotely by telephone or Ethernet

FLS-2 Transmitter System

The FLS-2 system consists of the rack-mounted transmitter with switching relays, surge protectors* and hand-held receivers (locators), which pick up the signal from the FLS-2 transmitter.

vLoc3 RTK-Pro vLoc3-Pro vLoc3-5000 vLoc3-ML

FLS-2 Transmitter

Relays, Lightning & Surge Protectors

*Depending on the type of installation:

- *ACT Communication™ 442 & 444 Cable Location Protectors*
- *ACT Communication™ 445X Cable Location Protection*

FLS-2 Transmitter – What's in the Box

The transmitter is shipped for AC or DC operation and with brackets for mounting in 19”, 23” or 24-inch racks.

FLS-2 transmitter
(with 19-inch brackets installed)

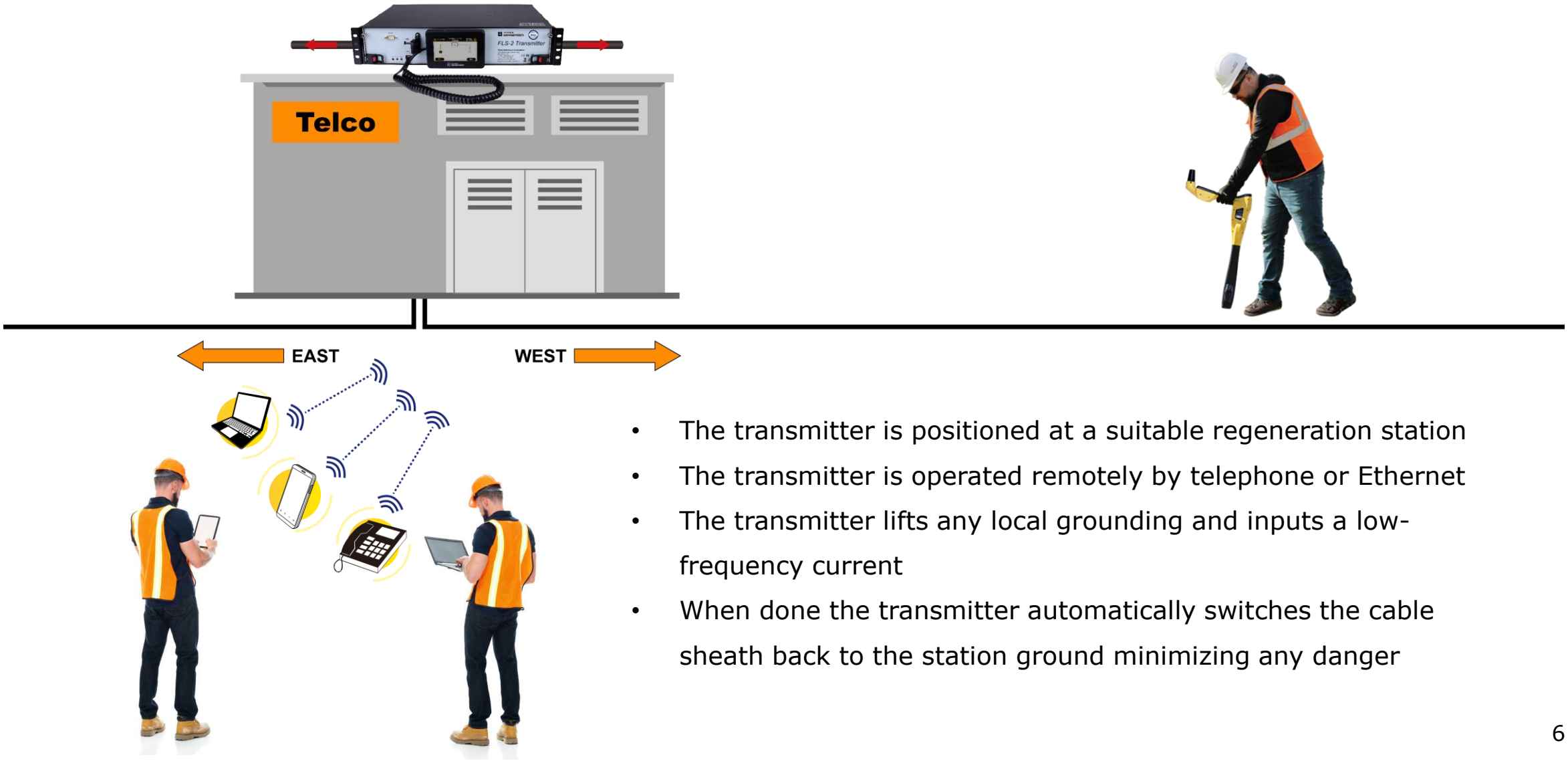
Hand-held Control Unit

AC or DC power cord

23 and 24-inch
mounting bracket sets

Manual

FLS-2 Transmitter – Concept



- The transmitter is positioned at a suitable regeneration station
- The transmitter is operated remotely by telephone or Ethernet
- The transmitter lifts any local grounding and inputs a low-frequency current
- When done the transmitter automatically switches the cable sheath back to the station ground minimizing any danger

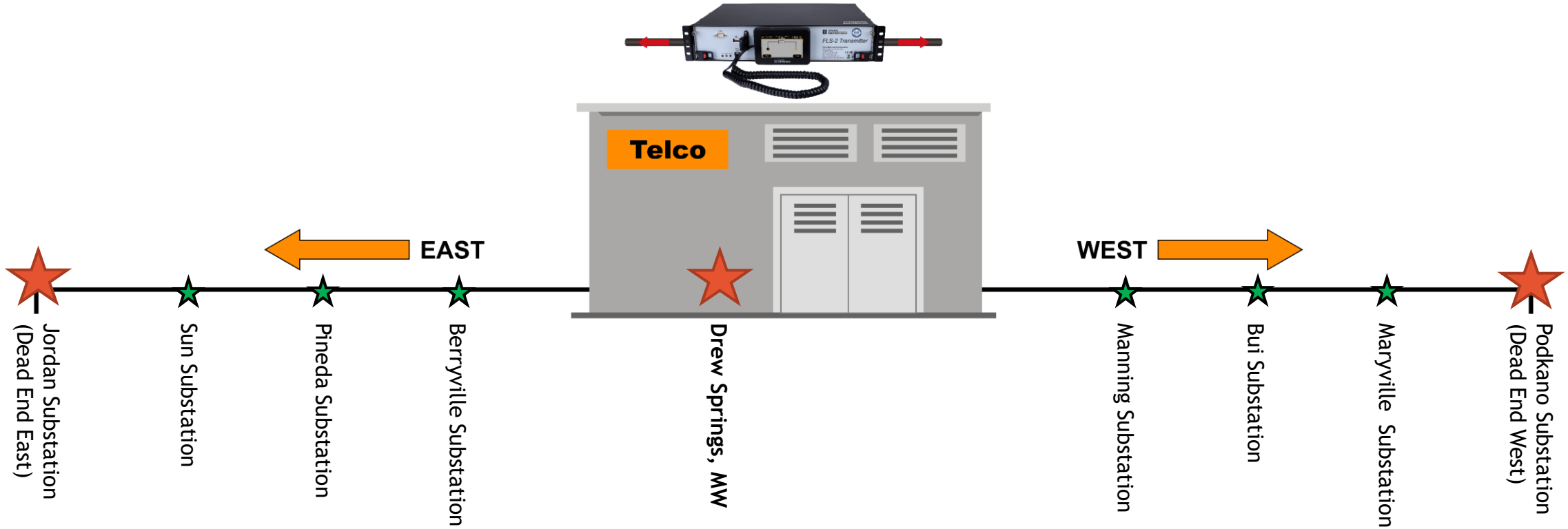
FLS-2 Transmitter – Benefits

- Saves travel time to the transmitter site
- Eliminate portable transmitter connections
- Dispatch field technicians directly to the locating area
- Programmable alarms to monitor the line conditions

FLS-2 Transmitter – Strategic Network Placement

The FLS-2 transmitter can transmit locate signals over many miles of cable

Installing FLS-2 transmitters at strategic locations throughout the network ensures good locate coverage



FLS-2 Transmitter – Operator Safety

Humans accessing a maintenance hole:

- Physical dangers
- Toxic gas
- Poisonous insects
- Flash flooding

The FLS-2 rack-mounted transmitter eliminates these unnecessary risk

FLS-2 Transmitter – Asset Safety

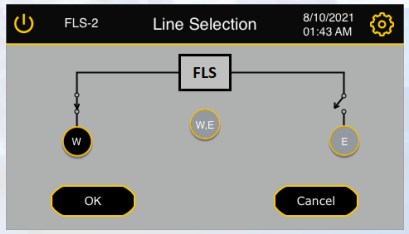
Each time a cable is disturbed, there is the possibility of causing damage

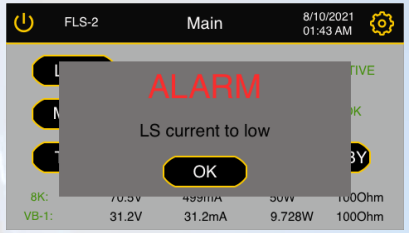
The FLS-2 system does not disturb installed cables.

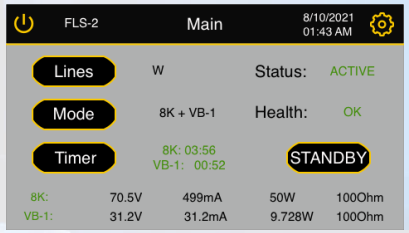
FLS-2 Transmitter – Simple Operation

The intuitive user interface allows for simple operation

- Touch screen interface
- Simplistic touch menu
- No stylus pen needed
- Programmable alarm threshold
- Programmable active signal duration





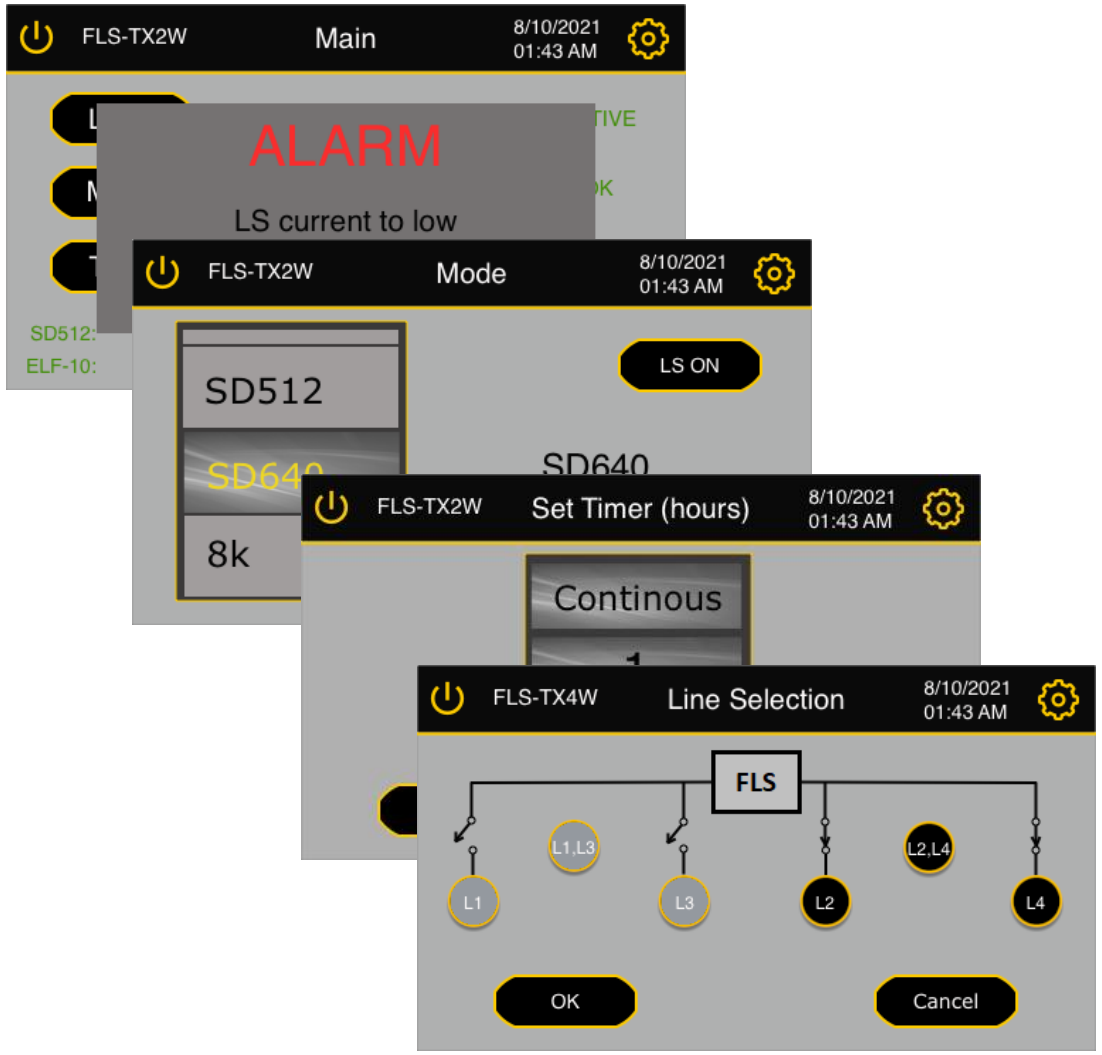


FLS-2 Transmitter – Frequencies and Modes

- Transmitting frequencies from 20Hz to 10kHz
- Extremely Low Frequencies (ELF)
- Custom frequencies available (including ELF)
- Signal Direction (SD) technology

- Programmable alarm threshold
- Programmable active signal duration

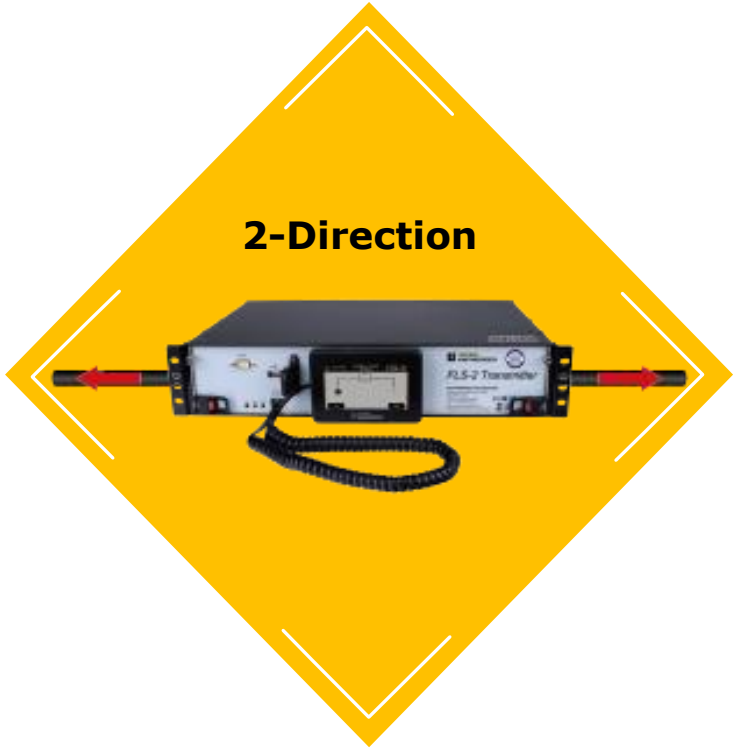
- Auto impedance matching for maximum efficiency

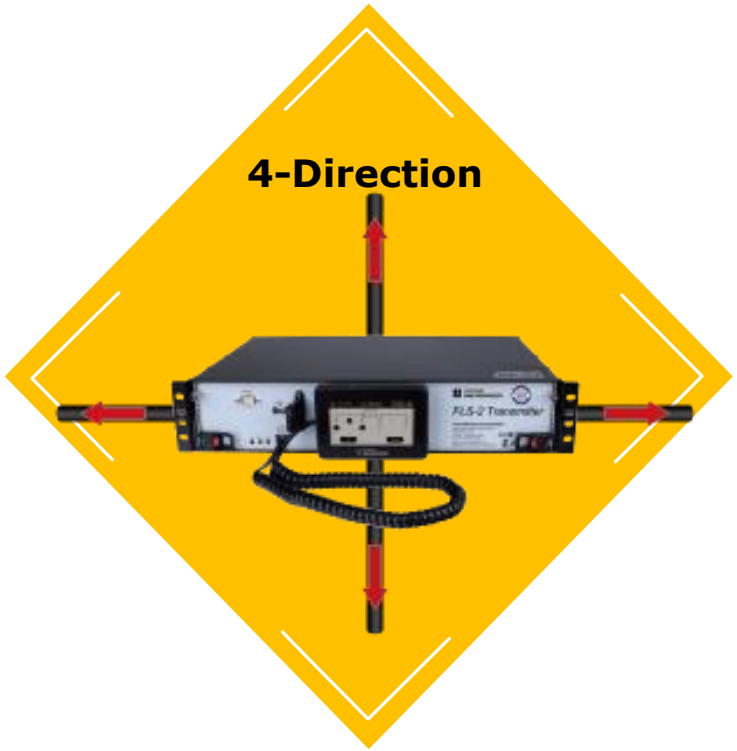


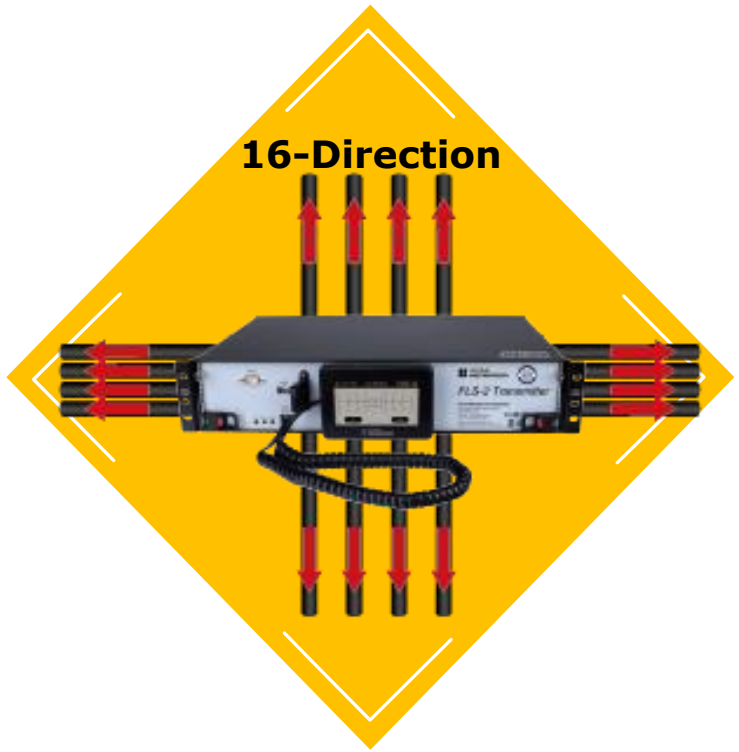
FLS-2 Transmitter – Alarm State

When the current exceeds or falls below the preset limits, the display will show an Alarm Screen

Types of FLS-2 Connections







- 2-Way sends the locate signal in two different directions (FLS-TX2W)
- 4-Way sends the locate signal in four different directions (FLS-TX4W)
- 16-Way sends the locate signal in 16 different directions (FLS-TX16W)

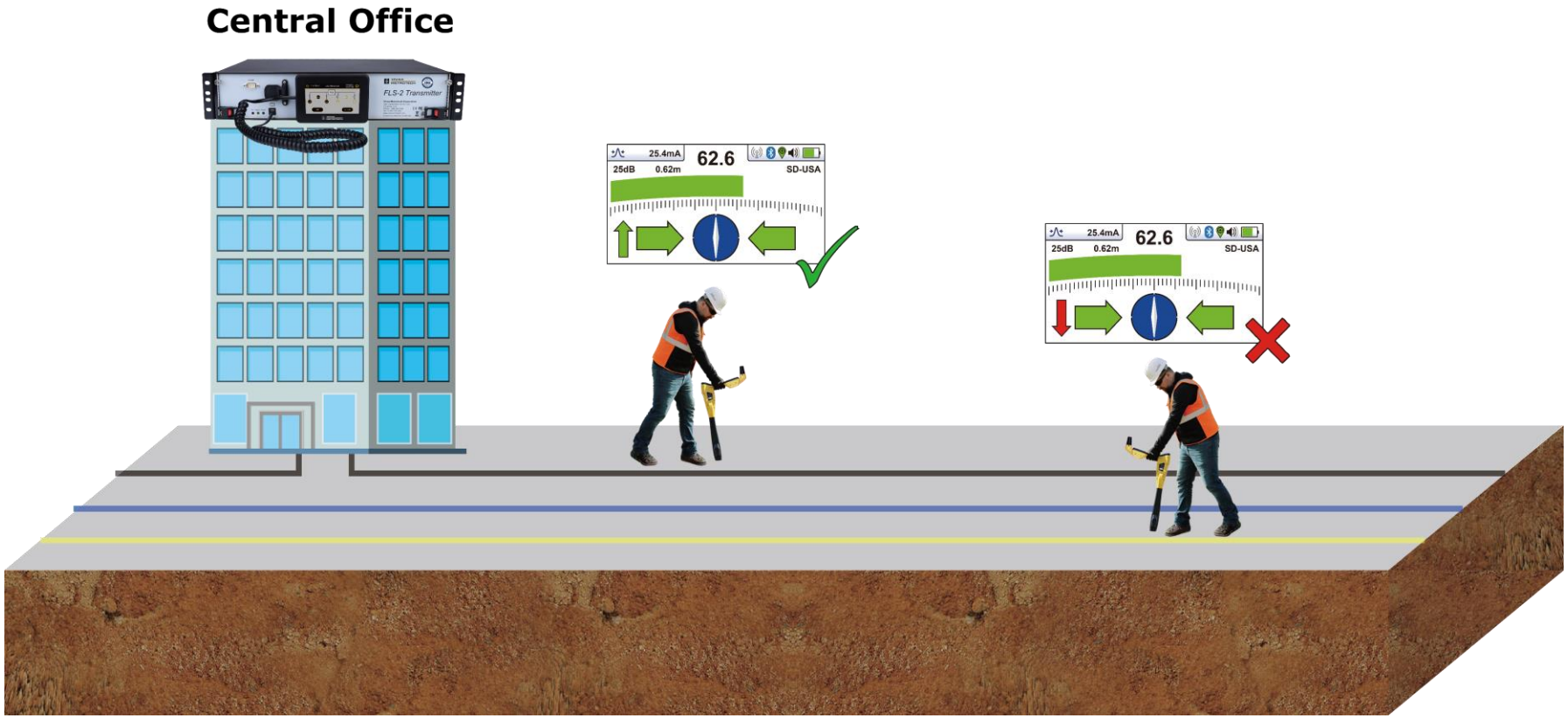
FLS-2 Transmitter – Signal Direction Mode

A return signal may travel back along adjacent utilities which offer an easier route back to the ground.

The result may be multiple signals radiating from utilities in the area making it difficult to identify the target line.

These return signals are typically traveling in the opposite direction than the applied signal.

The Signal Direction feature identifies which direction the signal is flowing and hence the target line.



Data Collection

The **vLoc3** utility locators assure damage prevention while gathering information for analysis.
Plug-in-play options for the receiver include an optional Bluetooth module useable with external GPS devices.

- Data in .csv, .klm, .shp, .txt, .xls and .xlsx formats
- Free VMMap mobile mapping app
- Web-based VMMap interface to access cloud-based data
- Download date via free MyLocator3 desktop app
- 50 Million record internal storage

GPS unit attached to a vLoc3 series receiver

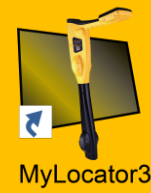
vLoc3 Bluetooth Module

Garmin Glo™ GPS Unit

GPS Holder

VMMap Mobile App

VMMap Cloud Web App



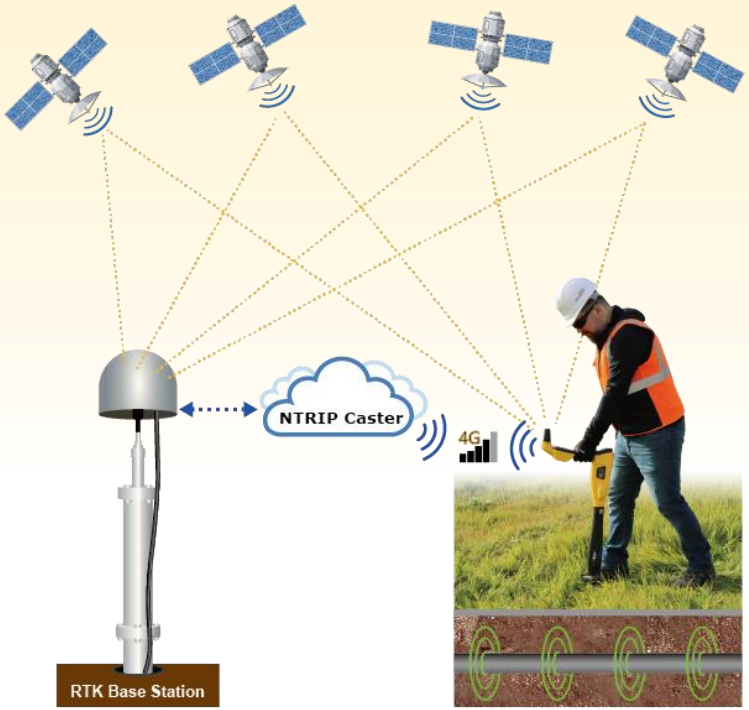
MyLocator3 Desktop App

Utility locator and high accuracy GNSS in one

GNSS Satellite Tracking
- GPS, GLONASS, Galileo, BeiDou

Cellular Connection
- Nano SIM tray
- 4G LTE connection
- Direct data storage to the cloud

Log data with press and tilt
- 2DRMS horizontal accuracy displayed in real-time



- **Fully integrated RTK GNSS**
- **One-hand locating and mapping**
- **Cloud-based data management**
- **Survey-grade GNSS accuracy**
- **Simplistic locating modes**
- **Reduces excess field equipment**

Receivers and Portable Transmitters

Visit our website to see the full range of vLoc3 series receivers and accessories

vLoc3-MLA
(Marker Locator Adapter)

Loc3 Series Portable Transmitters
5, 10 and 25-Watt models

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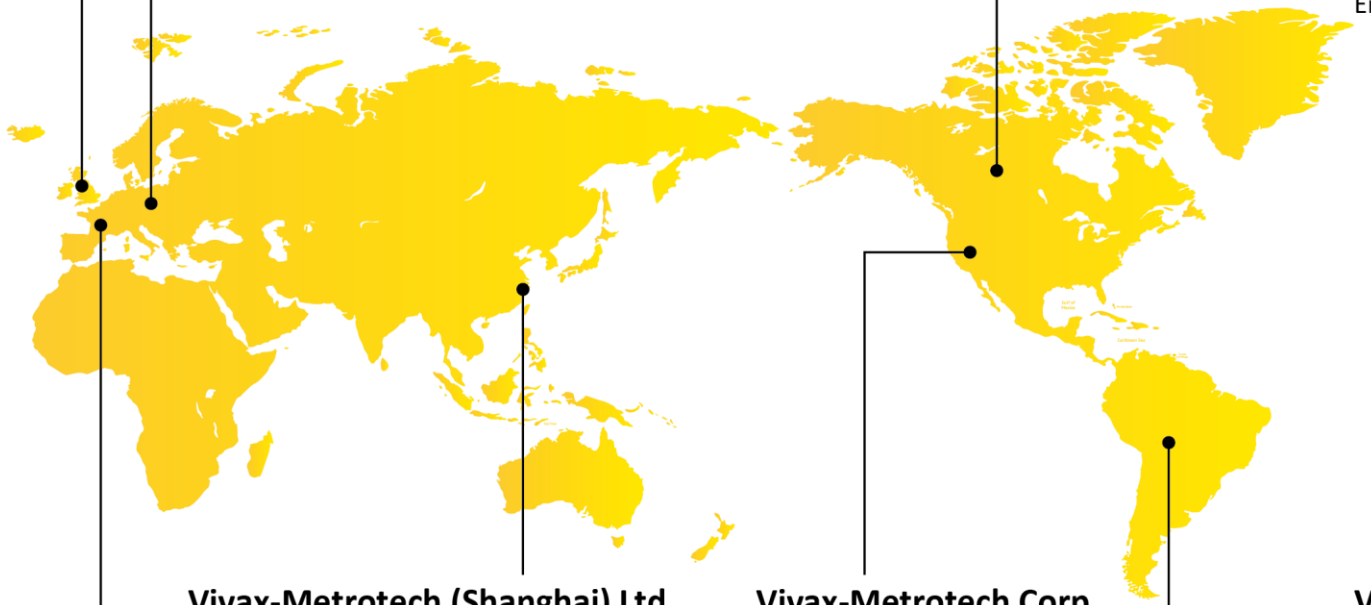

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The End

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