

6050X3K1B MINI TRASE

Auto-logging, Light, portable, world class “real” TDR, for field, lab or remote locations

The MiniTrase is based on Time Domain Reflectometry (TDR) to measure within seconds, the volumetric water content of soils and other porous media. True TDR is accepted as “The” method of measurement of water in porous media such as soil. Since the broadband step pulse (60kHz-4GHz) measures the delay time through the dielectric of the material it passes, it can be used for finding volumetric % of differing liquids in one another or water in, grains, mixtures, gels and slurries. The Mini is packed with features not found in other TDR instruments, like a 1200 pt. waveform capture for exceptional details, or a powerful 1.25 Volt (125ps rise time) pulse assuring you get a reflection in almost any condition. A complete system designed to allow special probes and lookup tables for automating your new and exciting ideas. There are a variety of optional connectors and waveguides for your consideration, ranging from depths of 10 cm (3.39 in.) to 1.83 m (6 ft.) all available, used in a portable manner or permanently installed for periodic moisture monitoring. You can add our multiplexer option and read up to 256 waveguides monitoring the most complex water /soil/ media relationships all at the lowest cost / measurement point. Volumetric data is provided via Bluetooth technology to a Palm Terminal or laptop computer if you have one. Waveforms can be downloaded to computers directly or remotely via dial-up modem or over the internet via CDMA or GSM network carriers. MiniTrase is configured to a small, environmentally sealed, all aluminum case for rugged field use, quick “push-pull” rechargeable battery pack, slip-turn BNC coaxial waveguide connector add to the numerous capacities. Comes complete in backpack with all the items needed to start your TDR field or lab work.

SPECIFICATIONS:

6050X3K1B Mini-TRASE, a kit, includes Mini-Trase, backpack, Bluetooth module, Palm PDA (with Bluetooth capacity), charger, waveguide holders, 15 cm. long probes, 12VDC operation, software and manual (not shown)
6050X3K2 Mini-TRASE, a kit includes Mini-Trase, backpack, Bluetooth module, charger, software and manual, no Palm PDA provided.

6050X1 TRASE SYSTEM I

TDR Waveform viewing, logging, portability, “the” TDR standard for lab or remote field use

The TRASE System I is the original auto-logging, self-contained, portable unit designed for field use for fast and accurate measurements of moisture in various materials (e.g. soil, cement, powders, grains etc) using Time Domain Reflectometry (TDR). This is a true, full featured TDR instrument with full touch panel access, automatic beginning and end point determinations and large view graphing abilities, allowing automatic or discrete determination of time and detailed observations of impedance differences along a waveguide (waveform). Of course, like all Trase systems, it measures 0-100% volumetric water content, +/- 2% FS, and 1200 pt. resolution. A powerful 1.25 Volt (125ps rise time) pulse, you get reflections in almost any condition. A complete system designed to allow special probes and lookup tables for automating your new and exciting ideas. There are a variety of optional connectors and waveguides for your consideration, ranging from depths of 10 cm (3.39 in.) to 1.83 m (6 ft.) all available, used in a portable manner or permanently installed for periodic moisture monitoring. You can add our multiplexer option and read up to 256 waveguides monitoring the most complex water /soil/ media relationships all at the lowest cost / measurement point. Large LCD matrix display screen for direct viewing of TDR waveforms or reviewing collected data, both can be downloaded to computers directly or remotely via dial-up modem or over the internet via CDMA or GSM network carriers. Trase X1 is configured for long term use in remote field conditions, or for unattended lab use. Environmentally sealed case, one for instrumentation another for 2 battery power service. It comes complete with 15 cm. long waveguides, charger and associated software.

SPECIFICATIONS:

6050X1 TRASE SYSTEM I, complete with Trase System I, battery case, charger, RS-232 interface cable, 15cm. long probes, 12VDC operation, software and operational manual





6050X2 TRASE BE

The lab version of Trase for unattended TDR measurements – for up to 256 points

The Trase BE was designed for use in a stationary location where electrical power is available and you need lots of measuring capability. It's designed with the same quality, precision and durability in mind like all other Trase systems. It measures 0-100% volumetric water content, +/- 2% FS, and 1200 pt. resolution. A powerful 1.25 Volt (125ps rise time) pulse assuring you get a reflection in almost any condition. A complete system designed to allow special probes and lookup tables for automating your new and exciting ideas. There are a variety of optional connectors and waveguides for your consideration, ranging from depths of 10 cm (3.39 in.) to 1.83 m (6 ft.) all available for use in study plots, columns or other research applications needing the TDR difference. Generally this model Trase is combined with our multiplexer option allowing you to read up to 256 waveguides monitoring the most complex water /soil/ media relationships all at the lowest cost / measurement point. A computer linked by a RS232 serial port or Bluetooth option establishes the link to the on-site or remote BE and uses our WinTrase commands to control the instrument as if it were a 6050XI sitting on your screen. Download TDR waveforms as their captured or review and download collected data, both can be downloaded to your computer directly using WinTrase or remotely via dial-up modem or over the internet via CDMA or GSM network carriers. The BE 110-230VAC, 50-60Hz unit comes complete, software and operating manuals.

SPECIFICATIONS:

6050X2 TRASE BE, comes complete with software, and operating manual.



6090TW TRASE SYSTEM IN A BOX

Complete mini-Trase system for field or remote locations in a rugged NEMA case

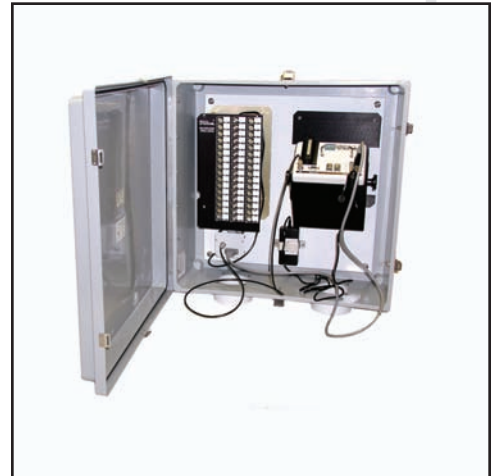
The 6090 Series provides a complete mini-Trase system for field or remote location. It's the way to get all the things you need in one comprehensive package of items. All the multiplexer hardware and circuit boards together with the mini, it's a perfect match. The whole system is based on 12VDC power supplies from optional solar panels and locally purchased heavy duty batteries. The system and its enclosures provide for all the convince needed, like the tilt down full access mini-Trase holder, the overhead night light for dark days or after hours maintenance. If you're fortunate enough to have line power we'll convert it for 12VDC Trase Systems operation (remember we battery back everything) so even if you lost power you don't lose readings or consistency. The rugged, locking, NEMA case with 4" PVC outlets provides rugged weatherproof enclosure for your Trase TDR instrumentation. You'll need to select the probes you'll be needing and purchase those separately, but everything else has been taken care of.

SPECIFICATIONS: Call or e-mail for more information to suit your special needs

6090T45W25 TRASE SYSTEM IN A BOX, a 3 mux card system in NEMA enclosure, complete with mini-Trase, multiplexing for 45 TDR Probes, interior light, mini-tilt holder, converters and 25Watt, Solar Panel

60690T76W50 TRASE SYSTEM IN A BOX, a 5 mux card system in NEMA enclosure, complete with mini-Trase, multiplexing for 76 TDR Probes, interior light, mini-tilt holder, converters and 50Watt, Solar Panel

60690T256W50 TRASE SYSTEM IN A BOX, a 17 mux card system in NEMA enclosure, complete with mini-Trase, multiplexing for 256 TDR Probes, interior light, mini-tilt holder, converters and 75 Watt, Solar Panel



6020B TRASE MULTIPLEXER & ENCLOSURE, ONLY

For those that only need multiplexing capabilities and already have a Trase

If you've been contemplating expanding your abilities to monitor and read multiple sights perhaps it's time to consider purchasing a multiplexer station to put along side your mini X3 or standard X1 Trase TDR unit. It will increase your ability to monitor anywhere from 76 points to 256 points. Comes in a rugged PVC housing, with 4" PVC pipe fitting for easy routing of subsurface probes. You'll need to purchase the waveguide separately.

SPECIFICATIONS:

6020B05 TRASE MULTIPLEXER & ENCLOSURE, 5 mux card system, multiplexing for 76 probes, interconnect and cables for connection to all Trase models.

6020B17 TRASE MULTIPLEXER & ENCLOSURE, 17 mux card system, multiplexing for 256 probes, interconnect and cables for connection to all Trase models.



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6101L SLAMMER PROBE

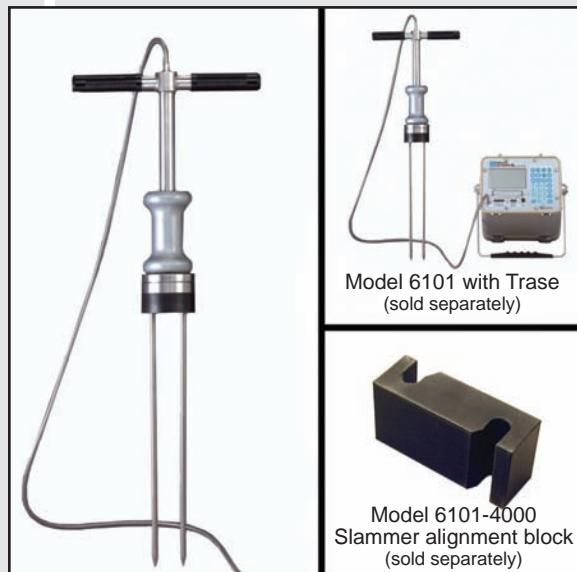
The answer for measurements up to 60 cm, in hard, dry, or compacted soils

Only Soilmoisture can offer this unique tool for TDR measurements. Strong and rugged for years of use you can use it as a "push-in" probe for moist and easily penetrated soils. On the other hand if the soils dry to hardened and difficult to penetrate soils you can apply the hammer to "pound" the .375 in. (.953 cm) diameter waveguides into soils or materials that other TDR equipment can't get. You can purchase your slammer with waveguide 10 cm (3.39in) , 20 cm (7.87in), 30 cm (11.81in), 40 cm (15.74in), 50 cm (19.68in) or 60 cm (23.6in) long. The removable 2.5 lb sliding hammer can be used to insert waveguides under the most difficult of conditions. All electronics are solid state "G" force rugged to withstand the harshest of punishment.

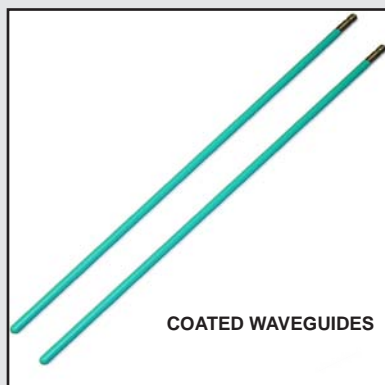
SPECIFICATIONS: Specify length of probes at the time of purchase use "L" length designations below. "6101L SLAMMER PROBE, with connecting cable and hammer "L" = Waveguide length for 6009L Waveguide select 10, 20,30,40,50 or 60cm long. ORDER EXAMPLE to purchase a 6101 with 40cm long wave guides order : 6101L40 SLAMMER PROBE, 40 cm long waveguide

ACCESSORIES

6009L SLAMMER WAVEGUIDES L= Waveguide Length, L10=10cm, L20=20cm, L30=30cm, L40=40cm, L50=50cm, L60=60cm specify your "L" Length



TRASE TDR ACCESSORIES



6005TLC BURIABLE WAVEGUIDES

When you want to know what's going on underground

The 6005, is perhaps our best selling probe type is the one that it can be buried at great depths or distances while making your volumetric moisture readings. It's the model to use if you have a multiplexer. The waveguide come in several sizes and conditions so that you have the widest selection possible. Waveguides fabricated from stainless steel come in sizes of 10cm., 20cm., 30cm.,40cm.,50cm.,for 60cm. either "U" uncoated or "C" coated. The 5cm(1.97in.) width spacing assures a wide area of influence in making your measurements. The coated "C" waveguides have a polymer coating that allows for measurements in very saline conditions that prohibit other types of measurement with standard waveguides. 6005 standard connector lengths are 2 meters (6.56 ft), but can be fabricated to your special needs.

SPECIFICATIONS: Cable length for all waveguide is 2 m (6.56ft) of a "C" =02 example a 6005TUL20C02 uncoated 20cm long.

6005TLC BURIABLE WAVEGUIDES, You must specify the type, U=Uncoated or C=Coated, and length of waveguide, 10,20,30,40,50 or 60cm L10=10cm, L20=20cm L30=30cm, L40=40cm, L50=50cm, L60=60cm

ORDER EXAMPLE if you'd like to purchase a 30cm long, coated buriable waveguide you'd order 6005TCL30C02

The 6111 Mini-Buriable Waveguide is special small version of the 6005 series designed for use in making near-surface shallow measurements, and in laboratory column studies. The rods are 8 cm (3.14 in) long, with a 2.5 cm (.984 in.) spacing between the outer rods, 3 m (9.84ft) cable length.

6008TL STANDARD WAVEGUIDE SETS

Waveguide Handle probes (waveguides), inexpensive, long lasting for permanent or portable use

These are the waveguides used with the standard Waveguide Connector Handle found with the 6050XI and 6050X3. Fabricated from .250 in(.635cm) diameter stainless steel stock to make sure that over time corrosion for permanent installations won't become a factor in your readings. Special undercuts at the top of each probe assure the proper fit and holding capacity when used in Soilmoisture's Waveguide Handle. They come 2 to a set.

SPECIFICATIONS

6008TL STANDARD WAVEGUIDE SET – a set of 2ea

You must specify the type, U=Uncoated or C=Coated, and length of waveguide, 10,20,30,40,50 or 60cm L10=10cm, L20=20cm L30=30cm, L40=40cm, L50=50cm, L60=60cm ORDER EXAMPLE if you'd like to purchase a 30cm long, coated standard waveguide you'd order 6008TCL30



7005L02 BLUETOOTH ADAPTER

Wireless connectivity from Trase to desktop, laptop or Palm PDA via Bluetooth

Our new Bluetooth module for Trase systems allows you to wirelessly connect between a Trase and any other Bluetooth enabled desktop, laptop or Palm PDA. This Class 1 Bluetooth device connects your Trase unit wirelessly to your host device either in the field or lab. 4 AA batteries provide power for days of unattended use even where there is no power available on site. You can easily see if your Trase is connected to, and communicating with, the Bluetooth module, and that power is on, simply look in the window. This new module supports all Bluetooth wireless enabled Palm devices running Trase Term applications or with any Bluetooth enabled Laptop or Desktop PC's running WinTrase Software. Enjoy the freedom and ease of working in a cable free environment. Stop being forced to buy yet another adapter so that your Trase system will communicate with the newest computer manufacturer's latest I/O port arrangement. Solve the problem permanently by making life easy and eliminating it all together.

SPECIFICATIONS:

7005L02 BLUETOOTH ADAPTER, comes complete with battery powered (4AA) Bluetooth class 1 link to the Trase RS-232 serial port.
3.75" (9.53cm) high x 2.65" (6.73cm) wide x 1.75" (4.45cm) thick
7005L02K1 Includes Palm Tungsten, equivalent or better.



7005L02K1

7010GSM - GPRS/GSM WIRELESS MODEM 7110CDMA - CDMA WIRELESS MODEM

Connect to anywhere in the world via the Internet, use your GSM or CDMA carrier

The 7010 Wireless Modems configured and supplied in two varieties. The "D" version for domestic (US and Canada) users and the "F" model for those customers outside the United States or Canada. The modem is perfect for remote locations where there may not be dedicated land line access to phones but where an authorized carrier such as T-Mobile, AT&T, Verizon, Orange or other local carrier supplies wireless connectivity for mobile or cellular phones. If you're in a zone serviced by either CDMA or GPRS/GSM wireless coverage and want inexpensive coverage over time you might want to consider our 7110 series of wireless modems. In either case you'll need to sign up for wireless data coverage and in the case of GSM secure an activated SIM card as well. We caution that all carriers MUST support a consistent and reliable CSD protocol -- "Circuit Switched Data" a signal sequence for interconnecting digital non-voice devices. If you're unsure call us. This is the perfect remote access accessory for Trase Systems in the field. A practical, inexpensive solution to running a high cost dedicated phone line to a remote location. AT command set is automatically configured to provide consistent and reliable connections. No difficult key switches or byte tweaking we've done it all for you. Add this accessory to an existing Trase unit to provide remote access or have us build a full Trase system with this included.

SPECIFICATIONS:

7110GSMD WIRELESS MODEM, GSM, Domestic Version, complete with software modem hardware 2.30" wide (5.842cm) x 3.75" long (9.53cm) x 1.00" thick (2.54cm)
7110GSMF WIRELESS MODEM, GSM, Foreign Version, complete with software modem hardware 2.30" wide (5.842cm) x 3.75" long (9.53cm) x 1.00" thick (2.54cm)
7110CDMAD WIRELESS MODEM, CDMA, Domestic Version, complete with software modem hardware 2.30" wide (5.842cm) x 3.75" long (9.53cm) x 1.00" thick (2.54cm)
7110CDMAF WIRELESS MODEM, CDMA, Foreign Version, complete with software modem hardware 2.30" wide (5.842cm) x 3.75" long (9.53cm) x



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