TDR 1150

Time Domain Reflectometer

■ **HAEFELY HIPOTRONICS Model TDR1150** is the most advanced and powerful cable fault-locating tool on the market. Used together with a suitable high voltage coupling device, the TDR1150 accurately pre-locates high voltage cable faults in underground transmission and distribution cable systems.

Basic Mode Operation
Basic mode provides the simplest means of operation for pre-locating most cable faults. The TDR provides step-by-step operation instructions, automatically sets the cable end points, displays the cable length in feet or meters and displays the distance to the cable fault from the hook-up point. The auto range feature fits the cable trace on the screen, regardless of the cable length.

The operator is then prompted to send a single, high voltage pulse down the cable. The TDR displays the high voltage trace, places a fault cursor at the point of the fault, and displays the distance to the fault. There is no need to interpret traces or move cursors. The entire process can be completed within minutes.

Advanced Mode Operation
Advanced Mode operation provides the operator with complete control and setup access of the TDR functions and settings. Typically this is used in cases where the cable type may be unknown, the cable system has a complex system configuration (loop and network systems) or where the fault may be intermittent. It is password protected to prevent unauthorized use. This mode provides more experienced operators with the diagnostic tools they need to find more difficult faults.

TDR functions that can be adjusted include: propagation velocity, pulse width, gain, 3-phase or single-phase display, and trigger delay. Zoom and cursor features are also fully available to the user in Advanced Mode. In addition alternate languages, memory functions, selectable measurement systems and much more are accessible.

FEATURES

- ☑ **Automatic Identification** of Key Cable Parameters (cable length and distance to fault)
- ☑ **Quick Location of Faults**
- ☑ **32 Accessible Memory Locations** for Internal Trace Storage
- ☑ **Large 10.4" VGA** Color Display
- ☑ **Automatic Setup** of sampling rate, gain and pulse width
- ☑ **Step-by-Step Instructions** of System Operation Guides User Through Test
- ☑ **Large, Easy-to-Use** Buttons

BENEFITS

Multi-Purpose Device - has ability to pre-locate, locate and diagnose cable faults

Easy to Use - device walks user through test procedure; in 5 easy steps you've located the fault

Compatibility - TDR1150 can be used with most other High Voltage Couplers

PC Software and Serial Port - included with standard unit provides long-term storage, evaluation of test results, defining of test protocols and simple software upgrading

Reduce Outage Time - by quickly locating cable faults you reduce outage time and get power back to your customers sooner

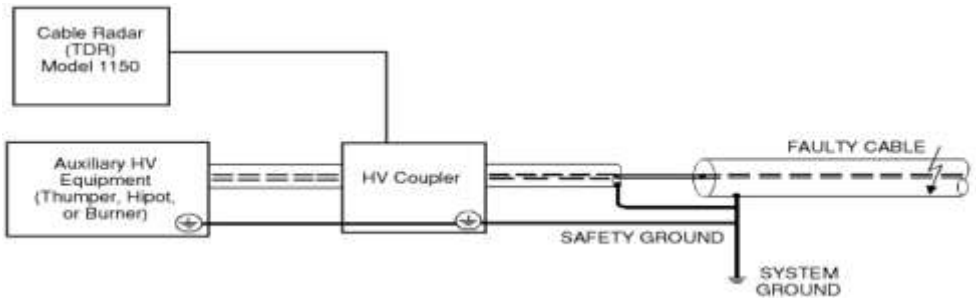
Reduce Cable Damage - using a TDR reduces thumping and therefore damage to the cable

APPLICATIONS

These devices are generally used by:

- **Electrical Utilities**
- **Test Companies**
- **Petrochemical Facilities**
- **Facility Maintenance**

MEASURING SETUP DIAGRAM



TECHNICAL SPECIFICATIONS

General				
Input Voltage	90 to 250 V AC, 50/60 Hz			
Pulse Characteristics	Pulse Amplitude	25V into 50 Ω	Pulse Width	100ns to 20µSec
Input Protection	480 V AC			
Range	Time 1.28 µSec to 0.66 mSec		Distance	1 foot to 196,000 feet
Measurement Accuracy	Sample Rate 100MHz		Resolution 2.5 feet (10nSec)	
Operational Modes	Arc Reflection, TDR Direct, current Pulse			
Storage	Stores 16 sets of 3 traces	or	6 pre-recorded setups with information and 10 sets of 3 trace signatures	
Monitor	LCD Display 10.4" Diagonal			
Environment	Operating Temperature		10°F to 122°F (-12°C to 50°C)	
	Storage Temperature		-40°F to 140°F (-40°C to 60°C)	

Weights and Dimensions (W x H x D, net weight, ship weight)		
TDR1150	14" x 9.5" x 6" (360 x 240 x 150 mm)	15 lbs (7 kg)

SCOPE OF SUPPLY

Qty. 1 TDR1150 in portable, water resistant case

Qty. 1 100/240 V, 12 Vdc power supply (PN211212), with 6 ft (1.8 m) cord

Qty. 1 RG58/U BNC-BNC cable (PN20097), 15 ft (4.6 m)

Qty. 1 BNC/clip cable (PN210946), 2.5 ft (0.76 m)

Qty. 1 Serial interface cable (PN210947), 6.5 ft (2 m)

Qty. 1 Operations Manual and TDR-PC interface software

Qty. 1 Calibration Certificate

ORDERING INFORMATION

System	
Time Domain Reflectometer	**TDR1150**
TDR Retrofit Kit to upgrade existing with TDR1150.	**TDR-1150-RTRFT**
Accessories	
Power supply for TDR-1150	**1150-PS**
HV Coupler to protect TDR from HV of cable fault locator.	**HVC4100 Series**
Cable Fault Locaters (Thumper) 30 (8µf) and 70 kV (12 or 24 µf).	**CF Series**
Controlled Energy Thumpers 2000 J and 8/16/32 kV output.	**CET Series**
HV Cable Rack with 125 ft of 70 kV cable and 125 ft of safety ground.	**8100**

OFFICES:

Europe
Haefely Test AG
Birsstrasse 300
4052 Basel
Switzerland

☎ + 41 61 373 4111
🖷 + 41 61 373 4912
sales@haefely.com

China
Haefely Test AG Representative Beijing Office
8-1-602, Fortune Street
No. 67, Chaoyang Road, Chaoyang District
Beijing, China 100025

☎ +86 10 8578 8099
🖷 +86 10 8578 9908
sales@haefely.com.cn

North America
Hipotronics, Inc.
1650 Route 22 N
Brewster, NY 10509
United States

☎ +1 845 279 3644
🖷 +1 845 279 2467
sales@hipotronics.com

HAEFELY HIPOTRONICS has a policy of continuous product improvement. We therefore reserve the right to change design and specification without notice.