

Powering the Way

To A Better Tomorrow



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T20

Portable Cable Fault
Location System

T20 Portable Cable Fault Location System



- ♦ Applied to 1-35kV power cables
- ♦ Surging (thumping) 32kV, delivers 1024J
- ♦ Maximum safety during application
- ♦ Support LV TDR, ICE and ARM prelocation methods (ARM is optional)
- ♦ Magnetic-acoustic pinpointing
- ♦ Each part can be used independently

Introduction

With a split and rugged design, we made T20 to be one of the world's most portable and powerful cable fault locators. We built in kinds of time-domain reflectometer (TDR) methods to pre-locate faults, like LV (low-voltage) TDR, Arc Reflection Method (ARM), Impulse Current Decoupling method (ICE). For multiple types of cable faults.

All parts can be used independently. You can only use our TDR part to test the length of a cable, or can only use Pinpointer to locate a fault while you already have a surge generator.



Lightweight



Powerful Energy



Independent Use



Sound-magnetic

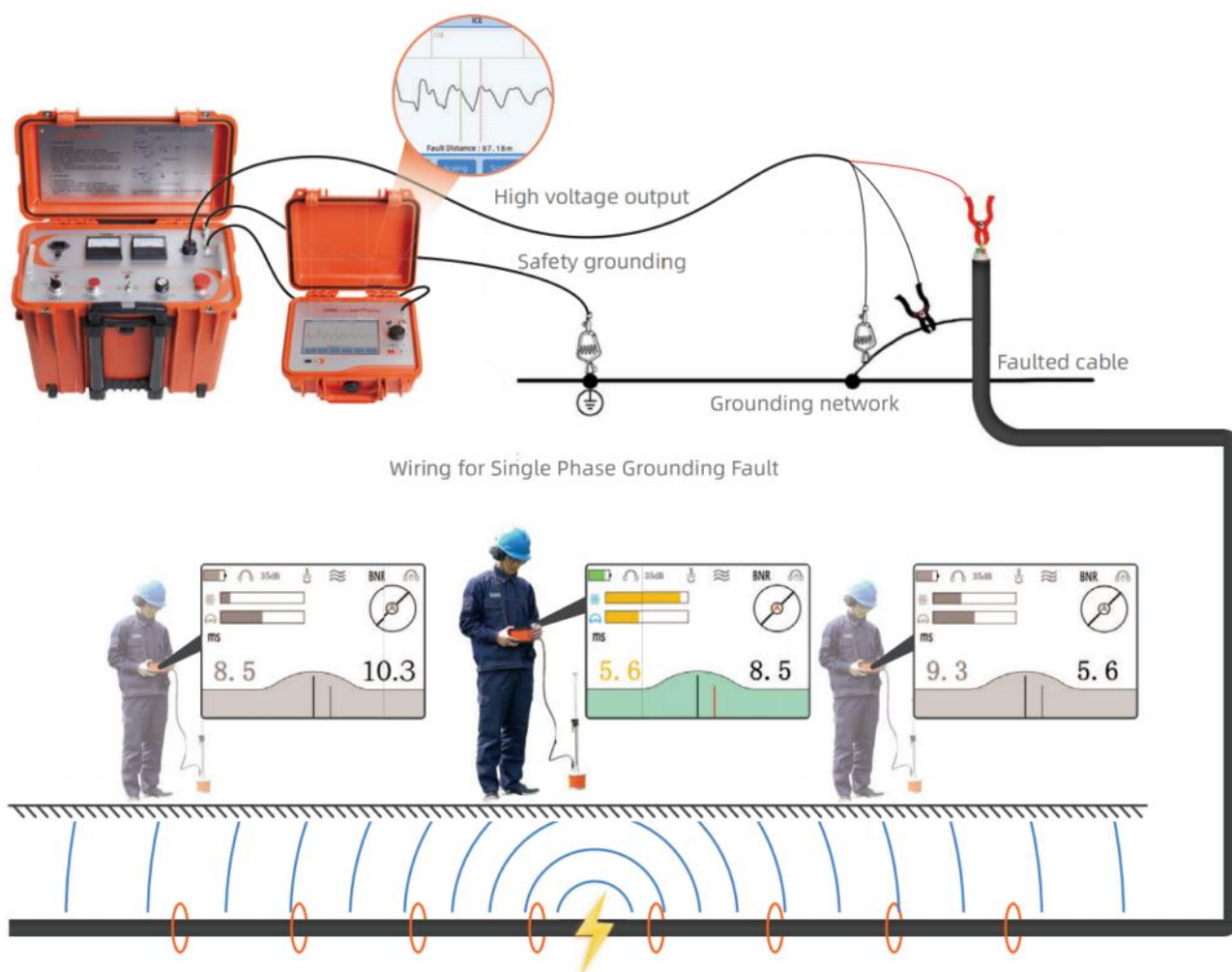
T20 consists of three parts

- ♦ Fault location surge generator, model LP30/2
- ♦ Cable fault pre-locator (TDR), model WL20
- ♦ Cable fault pin-pointer, model PP20



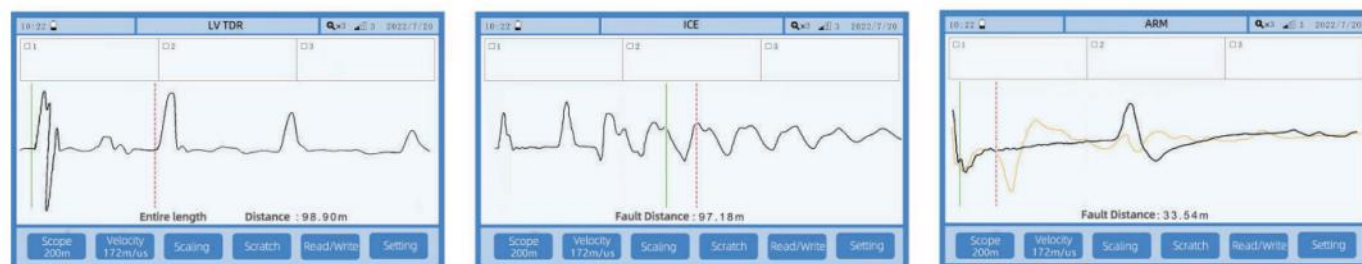
Work together, easy to use T20 to locate cable faults

By using the surge generator to breakdown the faulty cable, observe the TDR waveform to get the predetermined fault position, and then use the pin-pointer to accurate locate the fault.



Support LV TDR, ICE and ARM prelocation methods

Automatic determination of cable end and fault location (in LV TDR and ARM)



LV TDR

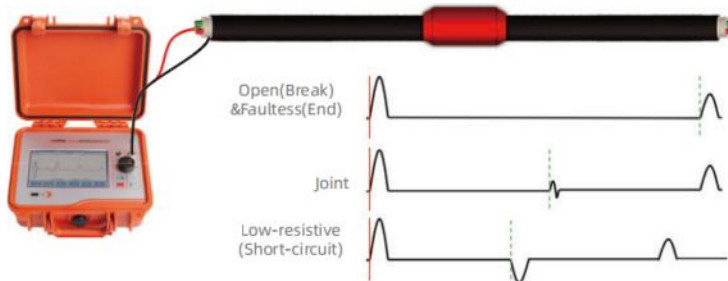
ICE

ARM (optional)

Work smarter: all parts can work independently

Cable fault pre-locator (TDR), model WL20

When using WL20 alone, it can be used to test cable length or pre-locate joint position. Low resistance ground fault can also be directly pre-located.



Fault location surge generator, model LP30/2

LP30/2 can generate 32kV DC/Surge voltage for breakdown of fault points, also can be used independently or adapted to all pin-pointer.



Cable fault pin-pointer, model PP20

Used to receive the acoustic magnetic time difference signal at the fault point, it can be adapted to any surge generator.



TECHNICAL DATA

LP30/2	
DC voltage output	0-32 kV continuously adjustable
Max output current	30mA
Max discharge energy	1024J
HV mode	Impulse and DC
Impulse period	Fixed 5s
Polarity of output voltage	Negative polarity
Power supply	AC 220~240V 50/60Hz, 1kVA
LED lighting	Providing illumination for dark environments
Max output Power	300W
Safety	Temperature detection, automatic protection loop, double grounding system
Operation temperature	-25°C~ 50°C
Storage temperature	-30°C~ 60°C
Weight	32kg
Size	500×300×400mm
PP20	
Display	3.5 ", TFT color display, 480 x 320
Backlight	LED
Dynamic range	Magnetic channel > 99dB; Sound channel > 99dB
Acoustic amplification	99dB, free adjustment
Acoustic magnetic time	0.1ms–60ms, synchronous display of historical records
difference display	
Auditory protection	Touch mute sound, sound intensity limit
Positioning accuracy	0.1m
Space sensing function	Compass guidance, direction indication, cable position identification
Filtering range	Full pass: 100Hz–1500Hz ;Low-pass: 100Hz–400Hz
	Band-pass: 400Hz–800Hz ;High-pass: 800Hz–1500Hz
Noise processing	Intelligent background noise reduction technology
Interface	Acoustic and magnetic pinpoint and audio pinpoint interface; 3.5mm jack
Power Supply	DC 7.4V/5200mAh lithium battery
Continuous working time	≥8h
IP	Handset IP43, Radar IP64
Packing weight	5.5kg (including plastic case)
Packing size (L x W x H)	420×320×150mm

TECHNICAL DATA

WL20

Impulse voltage	30V
Test range	20m-100km @ $v/2=80\text{m}/\mu\text{s}$
Wave speed adjustment	150-300m/us
Impulse width	70ns-15us automatic adjustment
Resolution	0.1m
Time domain accuracy	< 50 ppm
Sampling frequency	200MHz
Output impedance	50Ω
Working mode	LV TDR method; ICE method; ARM method (secondary impulse method)-optional
Waveform transient comparison	Up to 4 waveforms can be compared
Impulse polarity	Negative polarity
User interface language	English
Data import/export	Allowed
Cursor	With independent dual cursor control
Screen display	7", 800 x 480 LED backlight color display
Screen brightness	800 cd/m ² anti-glare capacitor touch screen
Storage	> 10000 test data
Interface	Aviation plug, USB2.0
Power consumption	3.5W
Power supply	Lithium battery 7.4V, 5200mAh, rechargeable
Continuous working time	≥5h
Weight	3.0kg
Size (L x W x H)	270×250×125mm

Standard accessories of fault location surge generator model LP30/2

Discharge rod

Direct charge into the earth



HV output line

Output HV signal



Fuse

Protect the instrument from burnout



Power cable

Power the equipment



Discharge rod ground wire

Connect the discharge rod to the earth



Discharge ground wire

Protect the device enclosure from being charged



Standard accessories of cable fault pre-locator (TDR) model WL20

U disk

Store data



Charger

Charge the device



LV impulse line

Used with LV impulse method



Coupler

To couple current when using impulse current method



Impulse current line

Used with impulse current



Ground wire

Protect the device enclosure from being charged



Stable arc line

Connection line for arc stability test



Canvas carrying bag

To pack, carry and protect the tester



Standard accessories of cable fault pin-pointer model PP20

Charger

Charge the device



Connecting line

Connect the sensor and the main unit to transmit the signal



Earphone

Connect to the main unit and transmit sound signals



Strong plastic carrying case

To pack, carry and protect the pinpointer



Allen wrench

Used to repair equipment



Sensor lever

Used to connect sensors



Probe

To locate direct buried cables

