

# HIOKI

## ANALOG EARTH TESTER FT3151

### Rewind with Ease

Three-electrode measurement

Two-electrode measurement (simple measurement)



### Dramatically faster set-up and break-down

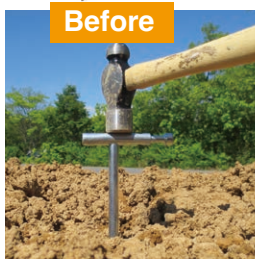
#### Prep

#### Thin for a reason



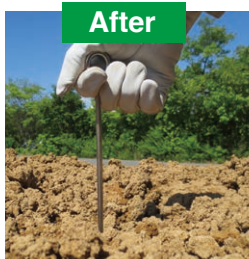
Since variations in the thickness of auxiliary earthing rods cause almost no change in their grounding resistance, the FT3151 uses thinner rods that are easier to drive into the ground.

#### Before



Thick rods had to be hammered into the ground and were difficult to remove.

#### After



The FT3151 uses hard, rust-resistant rods made of stainless steel.

#### Cleanup

Tangle- and twist-free measurement cord winders



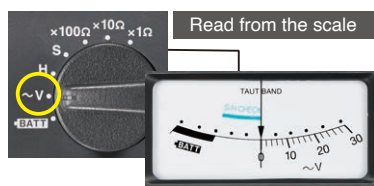
Easily rewind measurement cords, even if they're 20 m long

3 year  
Guarantee



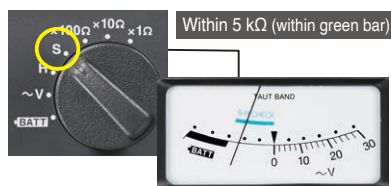
# Ensuring safe, reliable measurement

## ~V Disturbance voltage check



Easily check for Disturbance voltage. Distorted Disturbance voltage can result in measurement errors, so it's important to eliminate any impact, for example by turning off electrical devices.

## H(C) S(P) Auxiliary grounding resistance check



When measuring an installation with low grounding resistance, inadequate measurement sensitivity can interfere with measurement. The FT3151 lets you check the auxiliary grounding electrode S (P), too.

## Measurement Turn the knob to align the ammeter with the [▼] mark.



If the ammeter's needle wavers...

Switch measurement frequencies.



This will make the instrument less susceptible to the effects of harmonic Disturbance voltage and other conditions.

## Specifications

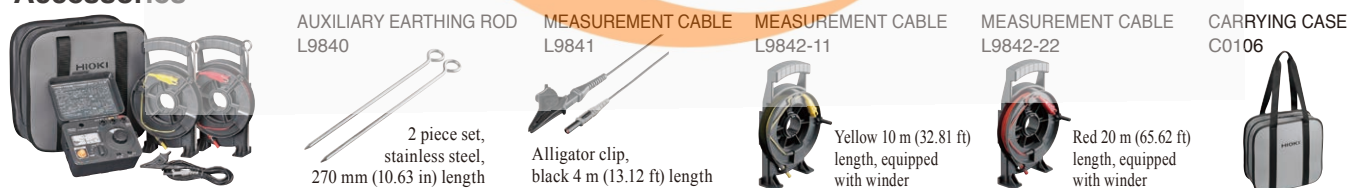
(Accuracy guaranteed for 1 year)

Measurement system	Two-electrode method/three-electrode method (switchable), AC potentiometer method			
Grounding resistance measurement (Measurement range)	Range	Display range	Nominal deviation	Measuring frequency: 575 Hz/600 Hz, nominal deviation: $\pm 10\%$
	10 $\Omega$	0 to 11.5 $\Omega$	$\pm 0.25\%$	Measurement current: Three-electrode method: 15 mA rms or less
	100 $\Omega$	0 to 115 $\Omega$	$\pm 2.5\%$	Two-electrode method: 3 mA rms or less
	1000 $\Omega$	0 to 1150 $\Omega$	$\pm 25\%$	Open circuit voltage: AC 50 V rms or less
Disturbance voltage measurement	0 to 30 V, nominal deviation: $\pm 3.0\%$ f.s.			
Operating temperature and humidity	0°C to 40°C (32°F to 104°F), 80 % rh or less (non-condensing)			
Storage temperature and humidity	-10°C to 50°C (14°F to 122°F), 80 % rh or less (non-condensing)			
Operating environment	Indoor, outdoor (excluding farmland*1) pollution degree 2, altitude up to 2000 m (6,562-ft.)			
Power supply	LR6 Alkaline battery $\times 6$			
Number of uses	Approx 1100 operations (using LR6 battery), measurement conditions: 30 sec. measurement/30 sec. rest, 3-electrode method, 575 Hz, auxiliary grounding electrode resistance of 100 $\Omega$ , measuring 10 $\Omega$ in the instrument's $\times 1\ \Omega$ range			
Maximum rated voltage to earth	300 V AC (measurement category II) anticipated transient overvoltage 2500 V			
Overload protection	250 V AC, 1 minute (between E - S (P), E - H (C) terminals)			
Applicable standards	Safety (instrument/measurement circuitry): EN 61010, EMC: EN 61326, Grounding resistance meter: EN 61557			
Dimensions and mass	164 (W) $\times$ 119 (H) $\times$ 88 (D) mm (6.46" W $\times$ 4.69" H $\times$ 3.46" D)(not including protrusions), 760 g (26.8 oz.)(main unit only)			
Accessories	Auxiliary Earthing Rod L9840 (2 piece set) $\times 1$ , Measurement Cable (alligator clip, black 4 m) L9841 $\times 1$ , Measurement Cable (yellow 10 m, equipped with winder) L9842-11 $\times 1$ , Measurement Cable (red 20 m, equipped with winder) L9842-22 $\times 1$ , Carrying Case $\times 1$ , Protector $\times 1$ , LR6 Alkaline battery $\times 6$ , Instruction manual $\times 1$			

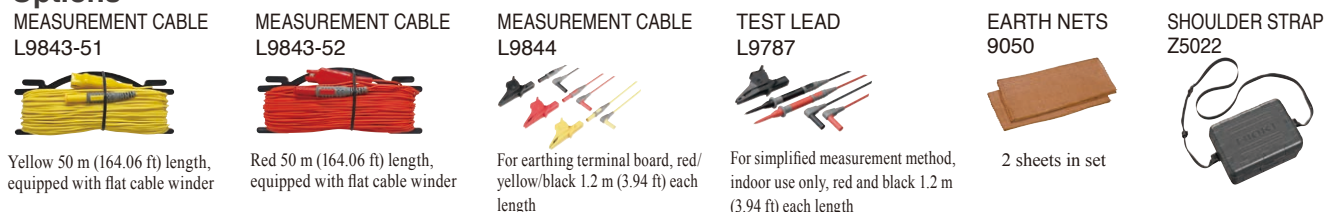
\*1 According to the requirements regarding the limits for open-circuit voltage in EN 61557-5

Model ANALOG EARTH TESTER Order Code: FT3151

## Accessories



## Options



Note: Company names and product names appearing in this brochure are trademarks or registered trademarks of various companies.

**HIOKI**  
HIOKI E. E. CORPORATION