

6470 / 6470-B / 6471 / 6472

MULTI-FUNCTION GROUND TESTERS

Electrode Resistances and Their Indications on the Front Panel Display

There may be times when ground testing that the input terminal icons on the display will blink when attempting to execute a test. Sometimes the troublesome input blinks icons that are not associated with that input, causing the user to investigate and try to correct the error on the wrong electrode.

Even though some of these conditions will produce a resistance reading, the reading will be suspect due to the poor connection resistance(s) of the auxiliary electrodes.

Below are charts showing what conditions cause which icons to blink in error.

3-Pole Ground Testing Behavior

H, S, E, R _E - Display Indications vs. Electrode Resistances							
H Ω	≤ 32 kΩ	[32 kΩ : ~329 kΩ]	[~330 kΩ : ~550 kΩ]	>~550 kΩ	≤ 32 kΩ	≤ 32 kΩ	>32 kΩ
S Ω	≤ 30 kΩ	≤ 30 kΩ	≤ 30 kΩ	≤ 30 kΩ	> 30 kΩ	>580 kΩ	>30 kΩ
R_E Result	Value	Value	Value	No Value	Value	No Value	n/a
Meter's Display	No Blinks	H Blinks	H, E Blinks	S, E Blinks	S Blinks		H, S Blinks

4-Pole Ground Testing Behavior

H, S, ES, E, R _E - Display Indications vs. Electrode Resistances								
H Ω	≤ 32 kΩ	[32 kΩ : ~258 kΩ]	[~259 kΩ : ~560 kΩ]	[~560 kΩ : ~570 kΩ]	>~570 kΩ	≤ 32 kΩ	≤ 32 kΩ	>32 kΩ
S Ω	≤ 30 kΩ	≤ 30 kΩ	≤ 30 kΩ	≤ 30 kΩ	≤ 30 kΩ	[~31 kΩ : ~570 kΩ]	>580 kΩ	>30 kΩ
R_E Result	Value	Value	No Value	No Value	No Value	Value	No Value	n/a
Meter's Display	No Blinks	H Blinks	ES Blinks	ES, E Blinks	S, ES, E Blinks	S Blinks		H, S Blinks

ρ (Rho) Soil Resistivity Testing Behavior

H, S, ES, E, R _E - Display Indications vs. Electrode Resistances								
H Ω	≤ 32 kΩ	[32 kΩ : ~250 kΩ]	[~250 kΩ : ~530 kΩ]	[~540 kΩ : ~550 kΩ]	>~550 kΩ	≤ 32 kΩ	≤ 32 kΩ	>32 kΩ
S Ω	≤ 30 kΩ	≤ 30 kΩ	≤ 30 kΩ	≤ 30 kΩ	≤ 30 kΩ	[~31 kΩ : ~570 kΩ]	>580 kΩ	>30 kΩ
R_E Result	Value	Value	No Value	No Value	No Value	Value	No Value	n/a
Meter's Display	No Blinks	H Blinks	ES Blinks	ES, E Blinks	S, ES, E Blinks	S Blinks		H, S Blinks

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