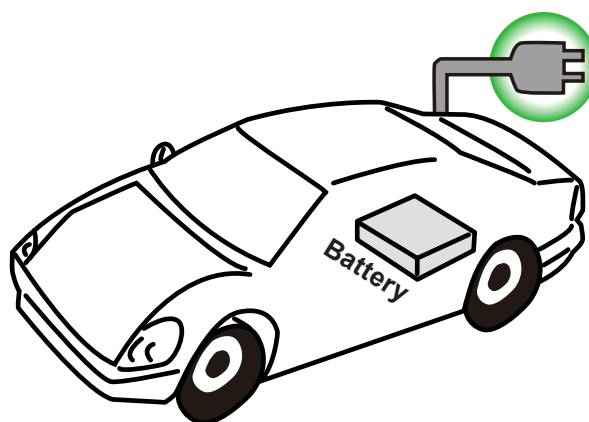
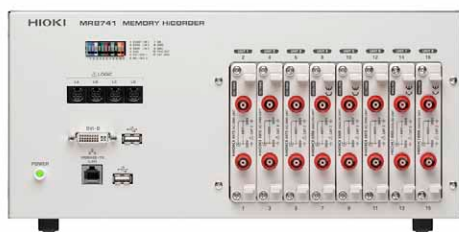


Leakage current considerations in automobile battery voltage measurements

The Memory HiCorder MR8741 (DMM Logging Station) can be used for automobile battery voltage measurements needed to determine leakage current.

The MR8741 exhibits unusually high input impedance for a voltmeter, making it significantly more sensitive to abrupt minute current variations than common logger voltmeters having input impedance around 1 M Ω .

When a voltmeter with relatively low input impedance is connected to an automobile battery, enough current flows through the voltmeter to overwhelm the capability to measure leakage current. For adequate sensitivity to the weak currents to be measured in such cases, only a voltmeter with higher input impedance can make measurements in a state close to actual specifications.



Measurement range	Effective input range	Input resistance
100 mV (5 mV/div)	-120.0000 mV to 120.0000 mV	More than 100 M Ω
1000 mV (50 mV/div)	-1200.000 mV to 1200.000 mV	
10 V (500 mV/div)	-12.00000 V to 12.00000 V	10 M Ω \pm 5 %
100 V (5 V/div)	-120.0000 V to 120.0000 V	
1000 V (50 V/div)	-500.000 V to 500.000 V	

MEMORY HiCORDER (DMM LOGGING STATION) : MR8741

DIGITAL VOLTMETER UNIT : MR8990 x 8 (16 channels)

TEST LEAD : L2200

(Although not depicted in the photos, test leads are required for each measurement channel.)

The MR8741 can simultaneously measure 16 voltage channels, all independently isolated. Measured data can also be recorded and displayed as waveforms. Sister model MR8740 measures up to 54 voltage channels.

Products used

MEMORY HiCORDER MR8741

DIGITAL VOLTMETER UNIT MR8990

TEST LEAD L2200