

USB Charge Current Test

The USB charge current test is used on any model of iPod Fifth Generation (video) and iPod nano, to determine whether the USB charging circuit is working properly.

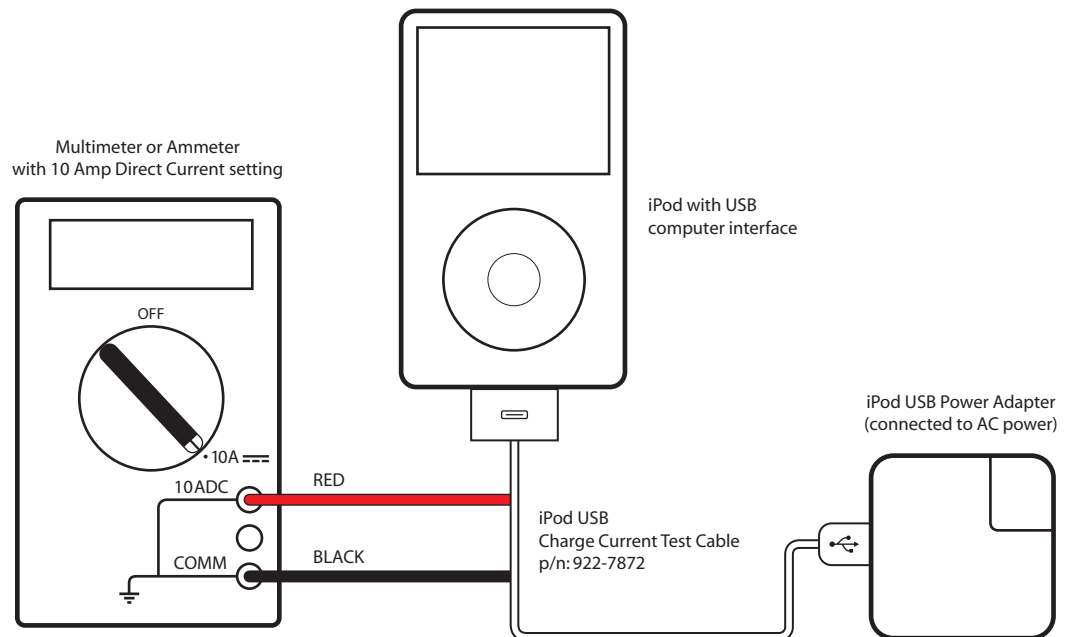
To perform the test, a multimeter is used in conjunction with the USB Charge Current Test Cable and USB power adapter to measure the current being received by the iPod from the adapter.

Tools Required

- iPod USB Charge Current Cable (922-7872)
- Multimeter with a 10 Amp Direct Current setting (such as Caltek Intrument CM2400A)
- iPod USB power adapter (922-7844 or 661-3522), with AC plug


Setup

Before performing the test, connect the Charge Current Test Cable to the meter as shown, below.



Testing

Carefully follow these instructions to avoid equipment damage.

1. Plug the power adapter to an AC power outlet.
2. Set the meter to measure 10 Amps Direct Current (DC)(10A )
Important: Even though, technically, we are measuring in the milliamp (mA) range, due to issues measuring milliamps do NOT use the milliamp (mA) setting on the meter, even if you are using a meter with a higher millamp selection.
Note: 1A = 1000mA, 1mA = 0.001A
3. Connect the cable's dock connector plug to an iPod for testing and note the existing battery charge level on the iPod (see chart below)—passing meter readings depend upon the existing level of battery charge.
4. Put the iPod to sleep.
5. Read the meter.
6. Use the chart below to determine Pass/Fail.

Meter Readouts (in Amps) to Pass (with iPod in Sleep Mode)		
<i>iPod model:</i> (all generations)	<i>If existing battery charge is ...</i>	
	<i>less than 75 percent</i> < 75%	<i>greater than 75 percent</i> > 75%
iPod Fifth Generation	0.10A or more = Pass	0.01A* or more = Pass
iPod nano	0.10A or more = Pass	0.02A* or more = Pass

Notes:

* As the battery is charging and approaches fully charged, the charging current reduces. If the readout is 0.00 (in Amps), the reading is less than 0.01A (10mA), and the iPod fails.

After the test, turn the meter's selection dial to off to conserve battery power.