

Just How Do You Read SOCIs?

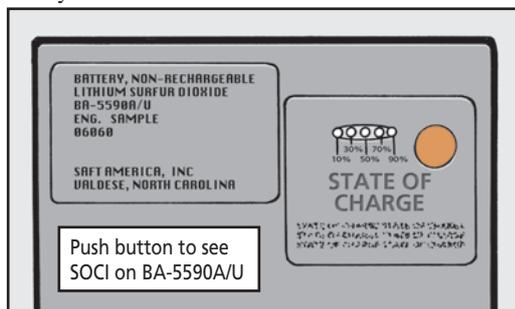


For several years now, the non-rechargeable, lithium battery, BA-5390A/U, NSN 6135-01-517-6060, and the non-rechargeable, BA-5590A/U, NSN 6135-01-523-3037, with state of charge indicators (SOCIs), have been powering a whole lot of commo equipment.

An SOCi will let you know how much charge is left in a battery. But there's a critical component to this process. That component is you! You must know how to read the SOCi to know what power you have available.

The SOCi for both these batteries has a five-light indicator located on the label face of the battery.

To find battery strength, push the button next to the lights and hold it down. The lights work from a "lamp-ramp" circuit, which means they will slowly surface to full green illumination.



Release the button and the lights will dim and go out. They will also dim and go out if you hold the button down longer than seven seconds.

If all five lights come on and stay on when you push the button, you have at least a 90% charge in the battery. If four lights come on, you're looking at a 70% charge; three lights is around 50%; two lights, 30%; and one light about 10%.

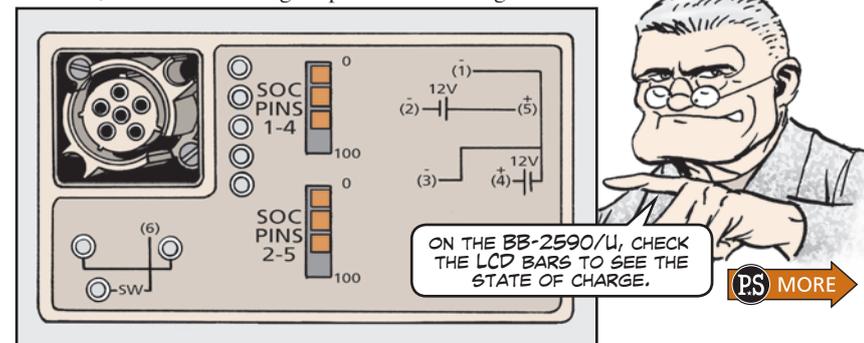
Here's a little known fact, but one worth knowing. When all five lights are out, you may have a little power left to get you over a critical hump when the equipment is needed. However, the time of this extra power varies and is short and should not be depended on for anything but an emergency situation.

It is also important to note that the SOCi on non-rechargeable batteries does not measure battery life lost from sitting on a shelf and not being used. So, a battery that has not been used may show you five green lights, but you might not have anything close to 90% power.

The rechargeable lithium ion battery, BB-2590/U, NSN 6140-01-490-4316, also has a SOCi, but it's very different than the ones on non-rechargeables. This battery's SOCi has two sections, each with five black liquid crystal display (LCD) bars located on the connector face—the top—of the battery.

These displays are on all the time. There is no button to push.

The LCD bars are graduated to show 100%, 80%, 60%, 40% and 20% increments of remaining energy. Both displays are independent, and each measures the energy remaining in one section of the battery. If one malfunctions and goes blank, don't worry. Chances are both sections of the battery are charged and drained at the same rate. Just color over the bad one with magic marker and rely on the remaining display. What's more is that the displays are actually smart! They show the true capacity. This means that as your BB-2590 ages, and no longer holds the same energy as when it was new, not all bars will light up after a full charge.



A Few Extras

Before the BA-5390A/U and BA-5590A/U with SOCI, you could test battery strength with battery tester, TS-4403A/U. But don't use it on **these** batteries with the SOCI! Because the battery has changed, this tester will not produce accurate results.

Also, if you're choosing between the BA-5390A/U and the BA-5590A/U, consider that the 5590 is a bit cheaper, slightly lighter and is more effective in cold temperatures. However, the 5390 lasts longer (as much as 50% longer) and is more effective in hot temperatures.

Any decision on battery use should start with the Power Optimizer for the Warfighter's Energy Requirements. This automated tool will help you determine which battery and how many you will need to complete your mission.

To find this tool, go to:

<http://www.monmouth.army.mil/cecom/lrc/lrc.html>

At that site, click on Battery Support under the Logistics Support heading.

At the next site, click on Rechargeable Battery Program.

Who We Are

- [Analyst Code Search](#)
- [Send us your comments](#)

Logistics Support

- [Battery Support](#)
- [Safety Messages](#)
- [MSF Repair and Return](#)

Handy Tools

PDFX

Power Sources Center of Excellence

C-E BATTERIES



RECHARGEABLE
BATTERY
PROGRAM

Home

At this site, click on Battery Calculator. You will get instructions on how to use the spreadsheet from a step-by-step guide listed in the Table of Contents. This is the only place on the web the guide is shown

Integrated Power Management

Sign In

Contents

Integrated Power
Management

Questions & Answers

Battery Calculator

Created By: donald Brockel 07/13/2006 - 01:58 PM

Updated By: donald Brockel 08/15/2006 - 01:01 PM

IF YOU HAVE ANY
QUESTIONS ON BATTERIES
OR THE POWER OPTIMIZER,
CONTACT THE POWER
SOURCE TEAM AT
DSN 992-6763 OR
(732) 532-6763.

OR EMAIL THEM:
ari.herman@us.army.mil
luis.torres2@us.army.mil

PS
END