

## Getting the most out of the batteries in your Super Buddy™

### TIPS

1. **Charging:** Make sure the meter is off when starting the battery charge. The LED labeled CHG should illuminate yellow indicating the meter is charging at its highest rate possible. After the LED turns green, the battery is charging at a trickle rate. Use either the AC line cord or the 12VDC vehicle charger. To fully charge a dead battery, it should require approximately 3 hours. During cold weather keep the Super Buddy indoors at night while charging.
2. **Discharge / Charge:** Before initial use of the meter and periodically (monthly) you should fully discharge the battery and then recharge overnight. To quickly discharge the battery, disable the automatic shut-off, connect to and power an LNB until the meter shuts off. To fully discharge the battery, disconnect from the LNB, power up the meter and let it die from powering itself.
3. **Battery Charge Symbol:** The battery symbol indicating remaining battery life in the lower right corner of the LCD display can be misleading. If not powering an LNB it may display full, even if it is not. It is more accurate when connected to an LNB load. It is normal for the battery symbol of a fully charged battery to quickly drop by ¼ when powering an LNB. The symbol should remain in the middle two segments for the longest time period, and will again drop faster when the last battery symbol segment is displayed. In summary the symbol drops by 25% quickly, remains in the middle 50% the longest, and then the last 25% drops quickly. The symbol is not linear.
4. **Automatic Shutoff:** If desired you can activate the automatic shutoff feature. To activate it, press MENU → OPTIONS → then scroll to the Shutdown field with your Up/Down arrows and use the Left/Right arrow keys to choose the desired auto shut-down time (5 min, 10 min, 15 min, NONE). The auto shutdown feature is turned off (set to NONE) in its default state.
5. **LNB Power Awareness:** Only power the LNB while taking measurements. Avoid powering an LNB while not actually taking measurements.
6. **Low Battery Situation:** A powered IRD can be connected to the bottom port of the Super Buddy and will power the LNB through the meter. However, the IRD is not strong enough to power the meter. If your meter is low on battery, you can take the load off of the meter by powering the LNBF through the meter. If your meter's battery is completely dead, you cannot power it up using the IRD. You will need to charge the meter with the AC Line Cord or DC vehicle charger long enough to give it adequate charge to complete the job.

The Super Buddy meter can power the LNB while being charged with the AC line cord, with limitations: a.) Super Buddy meters with Hardware version 1.3 or older are able to power a LNBF with a maximum current draw of 250 mA. b.) Super Buddy meters with Hardware version 2.0 or newer are able to power a LNBF with a maximum current draw of 500 mA while being charged with the AC line cord.

### EXPECTATIONS

1. A fully charged battery 12 months old or newer should power a Dish 1000.2 LNBF or similar LNBF with current draw of 500mA for at least 30 minutes continuously. If it does not, it will be replaced under warranty.
2. All battery packs will need to be replaced sometime. When non-warranted batteries are replaced, there is a charge for replacement, labor, and return shipping.
3. The batteries degrade with age and should be usable for 350-700 charge cycles.
4. The expected "run-time-per-charge" of greater than 30 minutes is intended to provide an installer a day's worth of work. Obviously it will vary, but generally the meter is used throughout the day for short bursts of a few minutes.

## SERVICE

If your Super Buddy is unable to power a Dish 1000.2 LNBF (or similar LNBF with 500 mA current draw) for at least 30 minutes continuously on a full charge, return it to the Applied Instruments factory for service. All effort will be made to assure a quick turnaround. You must call and request an RMA# before returning defective units for repair.

## FAQs

Q: At what voltage is the battery fully charged (not under an LNB load)?

A: When the meter is fully charged and connected to the charger, you may see a displayed battery voltage as high as 8.4 up to 9.6V. If the meter is fully charged and has been disconnected from the charger for a while, you should see a displayed battery voltage of 8.0 volts.

Q: What displayed battery voltage will you see with a fully charged battery when initially powering an LNB load?

A: The displayed battery voltage will quickly drop to 7.8V with a healthy strong battery; 7.2V with a mediocre battery, and 7.0V with an older tired battery.

Q: At what voltage does the meter shut off?

A: Approximately 6.5V.

Q: What voltage is indicative of a completely dead battery?

A: 6.0V

Q: Where can the battery voltage info be found in the meter?

A: MENU soft key, Volt/Amp field or V/I soft key; Refer to field titled "Battery"

Q: Where can the LNB current draw info be found in the meter?

A: MENU soft key, Volt/Amp field or V/I soft key; Refer to field with mAmps label

Q: When I press the LNB soft key, I receive an error message stating "Error: LNB already powered". What does this mean?

A: It means the meter is detecting power from an IRD that is connected to the bottom port of the Super Buddy meter. The IRD is powering the LNBF through the meter in this configuration. If the user's reason for pressing the LNB soft key was simply to toggle through the satellites related to the multi-LNB head, then he will have to use the left-right arrow keys instead to navigate in this configuration. If you receive this error message when there isn't an IRD or modem connected to the bottom port of the Super Buddy meter, there may be a problem in the LNB power circuit of the meter which would require service at our factory.