

LOGIC SERIES[®] **BATTERY SYSTEM**

ProPac[®] 13/14
Trimpac[®] 13/14

OWNER'S MANUAL

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FEATURES

1. **Premium Fast Charge Cells** - Unlike conventional cells that are stressed or damaged by fast charging, these cells are designed specifically for optimum life and performance.
2. **High Voltage Design** - The 13.2 or 14.4 volt design of the Logic Series battery complies precisely with equipment manufacturers' specifications, eliminating all the problems that cripple 12 volt batteries.
3. **Impac[®] Case design** - The computer designed high impact case eliminates conventional stress points. A proprietary internal rib system cradles each individual cell. These features protect the cells from impact that would damage or destroy conventional batteries.
4. **Gold Mount[®] Interface** - The solid metal "H" design mounting studs assure a smooth, precise mounting for the life of the battery. The Logic Series connector assembly features multiple gold plated, self aligning contacts and is compatible with all existing Anton/Bauer[®] camera mounts and accessories.
5. **Individual Computer Testing** - Like all professional Anton/Bauer batteries, the Logic Series battery has been individually computer tested. For assurance of optimum capacity, voltage and overall quality, a computer print-out is enclosed.

HIGH VOLTAGE DESIGN

Virtually all cameras/camcorders will indicate a low voltage warning or cease to operate at about 11 volts. Unfortunately, a 12 volt battery must be discharged to 10 volts for full discharge. Thus, a camera/camcorder operating on a 12 volt NiCad will always cease to operate before fully discharging the battery, leaving 50% of the total capacity unused under certain conditions. The amount of this wasted capacity can vary each day depending on temperature, etc., thus creating what appears to be totally inconsistent performance.

The Logic Series® battery, like all professional Anton/Bauer® camera batteries, is designed only in 13.2 volt and 14.4 volt configurations with full discharge ratings of 11 and 12 volts respectfully. Thus, the Logic Series battery will always deliver 100% capacity before the equipment ever reaches its cutoff point. Moreover, this dependability is not affected by temperature, memory, age or any of the other factors that can cripple a 12 volt battery.

APPLICATIONS

Virtually all cameras, camcorders, and other video field equipment specifies a maximum voltage of 17 volts. A 14.4 volt battery will provide superior performance and greater run time on that equipment.

CAUTION: Certain older equipment is not designed to accept 14.4 volt NiCad batteries. The 14.4 volt Logic Series battery could damage such equipment. Check with the equipment manufacturer or the Anton/Bauer Service Center prior to using a 14.4 volt battery. If a question of applicability exists, the 13.2 volt Logic Series battery is fully compatible with any equipment specifying a “12 volt DC source”.

PROPAC

The ProPac battery is the ideal source for all cameras and camcorders. With an accessory Gold Mount Bracket, it can be used to power color monitors, waveform monitors, vector scopes and virtually any other video equipment designed to be operated from 12 volt DC power.

The ProPac battery is also the preferred power source when using the Anton/Bauer Ultralight® or Ultralight 2 “on-camera” accessory light. The Gold Mount Bracket features an integral “PowerTap®” receptacle that can power the Ultralight directly from the battery powering the camera or camcorder.

TRIMPAC

The lightweight high energy Trimpac battery is the ideal match for the latest generation of smaller CCD cameras and camcorders. The Trimpac will provide excellent run times in applications previously using slide-in type batteries. Run time improvements to 100% are quite common with the Trimpac.

CHARGING WITH LOGIC SERIES CHARGERS

Charge this battery fully before using. Allow the battery to reach a steady green (Lifesaver[®]) mode before using. Charging is automatic on all Logic Series chargers. The flashing red and green lights indicate the charger and battery are establishing communications. The following are the standard indications on any Logic Series Lifesaver Charger (Please refer to the charger manual for complete charger instructions):

- Alternating red and green: Evaluating battery and/or rejuvenating low voltage battery.
- Steady red: Battery waiting to charge (may either be in line to charge or holding for temperature stabilization).
- Flashing red: Charging.
- Flashing green: Balancing mode. Battery is typically more the 80% charged.
- Steady green: Lifesaver mode. Batteries will remain 100% ready for use indefinitely.

The battery should remain on the charger until just prior to being used.

The patented Lifesaver maintenance routine keeps the battery 100% charged and balanced by eliminating the typical self-discharge that can cripple a battery that is stored for any length of time on the shelf. Do not remove the Logic Series batteries from the charger more than 8 hours prior to actual use. For best results, this battery should be returned to the Logic Series charger within 48 hours of being used. Please read the individual charger Owner's Manual to become acquainted with the many unique features of the Logic Series chargers.

“OVER-DISCHARGED” BATTERIES

An “over-discharged” voltage state is caused by leaving a battery operated device unattended and allowing the battery to drain beyond the low voltage warning point of the equipment.

Low voltage “over-discharged” batteries can also be caused by allowing batteries to remain off the charger for extended periods. Returning batteries to the Logic Series Lifesaver® Charger as soon as possible after use, and leaving batteries in the Lifesaver mode until just prior to using will avoid this type of “over-discharge” condition.

A battery that has been inadvertently allowed to become “over-discharged” will automatically trigger a special rejuvenation routine contained in all Anton/Bauer Logic Series Chargers. In such cases the red/green alternating LED's, on the charger, indicate that the automatic rejuvenation cycle is bringing the battery back up to a safe charging voltage. When the Logic Series Charger verifies there are no thermal violations, it will begin a complete charge cycle (Red flashing LED).

In the extreme case that a battery is over-discharged, the rejuvenation charge routine will not be initiated by the charger until all other batteries have completed their fast charge routines. Therefore, an extremely over-discharged battery can be installed on a Logic Series Charger without the charger indicating recognition.

PREVENTATIVE MAINTENANCE

The Logic Series battery incorporates unique battery management features. Together with Anton/Bauer diagnostic accessories, an effective preventative maintenance program can easily be created to optimize the return on battery investment and greatly simplify battery management operations.

The PowerCharger[®], coupled with a DDM (Diagnostic Discharge Module), will provide a complete battery management system. The PowerCharger will allow you to run diagnostic evaluations. (Please reference the PowerCharger Owner's Manual for additional information.)

The older style MP4-D, coupled with a DM-4, as well as an MP-4 or MP-8 complete with a PROBE[®], will allow you to run similar diagnostic programs as a PowerCharger.

It is strongly recommended that all users of the Logic Series Battery System have at least one PowerCharger complete with a DDM, MP4-D/DM-4 or MP-4, MP-8/PROBE combination. Such a combination can also interface via the RS-232 port provided to a printer producing hard copy battery reports automatically, calibrated capacity, and a complete voltage/time discharge graph.

Logic Series batteries and chargers together form a battery management system that will maximize battery performance, eliminate battery problems in the field and reduce costs by prolonging battery life and precluding equipment down time.

GUIDELINES FOR OPTIMUM PERFORMANCE **AND MAXIMUM LIFE**

1. Keep batteries cool or at room temperatures whenever possible. Sustained elevated temperatures are the primary reason for premature failure of NiCad batteries:
 - a. Charging - Charge batteries at room temperature. In warm climates keep chargers in air conditioned rooms that are maintained between 65°F to 85°F for best performance.
 - b. On assignment - Do not leave batteries in a hot vehicle trunk or exposed to direct sunlight unnecessarily.
 - c. Storage - If batteries are not going to be used for several months, they should be fully discharged, sealed in a plastic bag and stored in a refrigerator or freezer.
2. Use only Anton/Bauer Logic Series Lifesaver Chargers and keep batteries on the charger until just prior to being used.
3. Return batteries to the Logic Series Charger as soon as possible after use, preferably within 24 hours.
4. Do not over-discharge batteries - It is quite proper to discharge a battery until a low voltage warning in the camera or VTR is observed. However, a switch to a fresh battery should occur as soon as possible following such indication.
5. Discharging the battery for diagnostic purposes should only be performed on an occasional basis (once every 6-8 weeks at most). Unnecessary discharging only detracts from overall life.
6. Periodic cleaning of both the charger terminals and battery terminals will ensure continued reliable operation. Dirty terminals may cause the battery to indicate a steady red ("Hold") mode on the charger.

Cleaning the terminals with a pencil eraser or lightly scraping the surface with a blunt instrument will help prevent this situation.

Anton/Bauer publishes a comprehensive “Video Battery Handbook” to help you further maximize the life and performance of your new battery. This guide is available, at no charge, by contacting Anton/Bauer at 1-800-422-3473 or 203-925-4991 or fax 203-929-9935.

SHORT / FUSE REPLACEMENT

The Logic Series ProPac battery has an integral externally replaceable fuse located in the back (mounting side) of the battery:

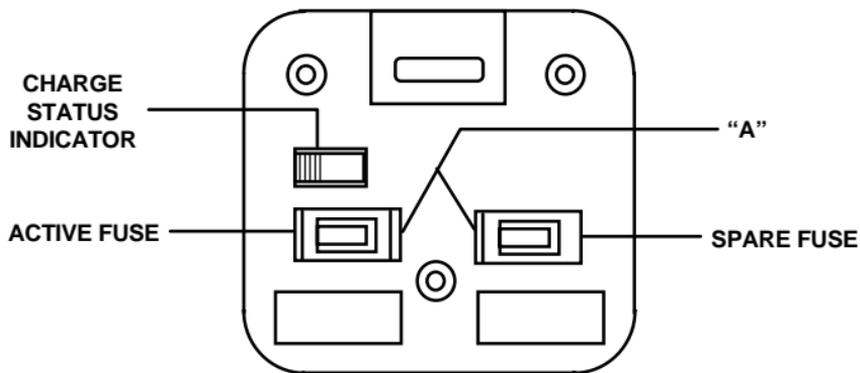


DIAGRAM A

The fuse and spare fuse are easily replaced by edging a key into the depressions marked “A” and prying the holders up. **USE ONLY A 12.5A/125 volt FUSE FOR REPLACEMENT (Anton/Bauer P/N 3713-1271).** This will insure continued protection of your battery. Replacement with other type fuses could cause battery failure in the event of circuit overload. It is advised to replace the spare fuse as soon as possible. Place the blown fuse into the spare fuse holder so as to retain it in the battery.

The Trimpac batteries have an internal resettable fuse. If a short is placed on the battery, the fuse will automatically “open”. When the short is removed, the battery will resume to normal operation.

If the battery continues to blow fuses, test the equipment being powered for any short circuit at the D.C. power input.

If no short is found, contact the Anton/Bauer Customer Support Department for assistance at 1-800-541-1667 or 203-925-4991 or fax 203-929-9935.

CHARGE STATUS INDICATOR

This Logic Series battery has a manually selectable charge status indicator located on the back of the battery (see Diagram A).

To Use:

Manually slide the selector to the right (towards the center of the battery back) to indicate a green or charged battery status.

Or

Manually slide the selector to the left (towards the outside edge of the battery back) to indicate a red or discharged battery status.

SERVICE

In the unlikely event a Logic Series battery fails to deliver acceptable performance it must be returned to the Anton/Bauer Service Center that is the only facility qualified and equipped to service the Logic Series batteries and calibrate the electronic components and sensors. Any attempt by the user or any other unauthorized persons to service this battery will surely result in improper calibration of the electronic components resulting in severe battery damage and/or safety hazards to the operator, in addition to voiding any/all remaining unconditional or pro-rated warranty conditions. Therefore:

1. **DO NOT** attempt to service this battery under any circumstances.
2. **DO NOT** send this battery for service to anyone other than the Anton/Bauer Service Center.
3. **DO NOT** rebuild this battery - At the end of its useful life contact the Anton/Bauer Service Center.
4. **DO NOT DISPOSE OF THIS BATTERY.** This battery contains sealed Nickel-Cadmium cells and must be disposed of properly. Anton/Bauer participates in a recycle program that handles Nickel-Cadmium battery products (see the back page of this manual).

SPECIFICATIONS

| | PROPAC 13 | PROPAC 14 | TRIMPAC 13 | TRIMPAC 14 |
|---------------------------------|--|--|---|--|
| OUTPUT VOLTAGE | 13.2v Nominal 11 ~ 15.4v Operating | 14.4v Nominal 12 ~ 16.8v Operating | 13.2v Nominal 11 ~ 15.4v Operating | 14.4v Nominal 12 ~ 16.8v Operating |
| CAPACITY (CELL CAPACITY) | 60 WH Nominal (4 AH Rated) | 65 WH Nominal (4 AH Rated) | 40 WH Nominal (2.5 AH Rated) | 45 WH Nominal (2.5 AH Rated) |
| TYPICAL RUN-TIME | @ 14w - 4 Hrs. @ 18w - 3 Hrs. @ 27w - 2 Hrs. | @ 15w - 4 Hrs. @ 20w - 3 Hrs. @ 30w - 2 Hrs. | @ 9w - 4 Hrs. @ 12w - 3 Hrs. @ 18w - 2 Hrs. | @ 10w - 4 Hrs. @ 13w - 3 Hrs. @ 20w - 2 Hrs. |
| WEIGHT | 4.90 lbs. | 5.25 lbs. | 2.50 lbs. | 2.75 lbs. |

Warranty - Logic Series Battery

IMPORTANT: WARRANTY REGISTRATION CARD MUST BE MAILED WITHIN 10 DAYS OF PURCHASE TO QUALIFY FOR THIS WARRANTY. Proper registration will also enable us to send you important update information.

This new Anton/Bauer Logic Series battery has been 100% tested prior to shipment and is warranted against defects in materials and workmanship for a period of three years from date of purchase when this battery is used in conjunction with Anton/Bauer Logic Series Lifesaver Chargers. If the battery is found to be defective or fails to meet minimum* capacity specifications, the following will apply:

0-36 MONTHS - Anton/Bauer will repair or replace the product at Anton/Bauer's option - FREE OF CHARGE

WARRANTY REGISTRATION, INCLUDING SERIAL NUMBERS OF LOGIC SERIES LIFESAVER CHARGERS, MUST BE ON FILE AT ANTON/BAUER TO QUALIFY FOR THIS 36 MONTH WARRANTY.

This warranty does not cover damage resulting from accident, misuse or abuse, neglect, improper service or maintenance. Use of unauthorized service, replacement parts or attachments will void this warranty. Misuse includes any use of this product in other than its intended applications.

No responsibility is assumed for any special, incidental or consequential damages. No other Warranty, written, oral or implied is assumed or authorized by Anton/Bauer. The liability of Anton/Bauer hereunder is expressly limited to a claim for a repair or replacement for the goods sold or as otherwise stated herein.

This Warranty is to be construed and enforced in accordance with the law of the State of Connecticut, including the provisions of the Uniform Commercial Code as adopted and from time to time amended in the State of Connecticut, and not the Convention for the International Sale of Goods. This choice of Connecticut law is exclusive of any Connecticut law that would require reliance on any law foreign to Connecticut. Should any action of law or in equity be brought by any person under this Warranty, such action shall be brought only in the United States District Court for the District of Connecticut, or in any Superior Court in Fairfield County, Connecticut, U.S.A.

*Performance is warranted at a minimum of 70% of rated capacity.

If you have any questions regarding applications or specifications, or to obtain warranty service on this or any Anton/Bauer product, contact the Anton/Bauer Customer Support Department. See back page for contact information.

antonbauer**The worldwide standard™****Anton/Bauer, Inc.****World Headquarters**

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www.antonbauer.com**Ni-Cd**

The EPA certified RBRC® Battery Recycling Seal on the nickel-cadmium (Ni-Cd) battery indicates Anton/Bauer is voluntarily participating in an industry program to collect and recycle these batteries at the end of their useful life, when taken out of service in the United States or Canada. The RBRC® program provides a convenient alternative to placing used Ni-Cd batteries into the trash or the municipal waste stream, which may be illegal in your area. Please call 1-800-8-BATTERY™ for information on Ni-Cd battery recycling and disposal bans/restrictions in your area. Anton/Bauer's involvement in this program is part of our commitment to preserving our environment and conserving our natural resources.

For recycling information outside the United States and Canada, contact Anton/Bauer.

One or more of the following patents may apply:

4,218,107
4,810,204
4,822,296
4,965,738
5,057,383

Other patents, U.S. and International pending.

The following are trademarks of Anton/Bauer, Inc.:

ACS, ADM, Anton/Bauer, Anton/Bauer logo and parallelogram design, Aspekt, Automatique, ComPac, DataLink, DataTap, Dionic, Gold Mount, HyTRON, Impac, InterActive, InterActive 2000 logo, LifeSaver, Logic Series, Logic Series Logo, Maxx man logo design, MircoCode, Nexus, PowerCharger, PowerStrap, Powertap, Probe, Proformer, ProPac, RealTime, SSP, Satellites, Snap-On, Snap-On 2, Stasis, Titan, Triconn, TrimPac, Ultrakit, Ultralight, "The quality standard of the video industry" and "The worldwide standard".