

## Performance Series Battery Charger



Part No. 7595-0448

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Original Instructions: English

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We are making every effort to ensure that our manuals are updated on a regular basis to reflect changes to the product specifications and features. Should this manual not contain information on the core functionality of your product, please let us know. You may be able to access the latest revision of this manual from our website.

Vitec Videocom Inc. reserves the right to make changes to product design and functionality without notification.

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# Safety

Important information on the safe installation and operation of this product. Read this information before operating the product. For your personal safety, read these instructions. Do not operate the product if you do not understand how to use it safely. Save these instructions for future reference.

## Warning Symbols Used in these Instructions

Safety cautions are included in these instructions. These safety instructions must be followed to avoid possible personal injury and avoid possible damage to the product.



**WARNING!** Where there is a risk of personal injury or injury to others, comments appear supported by the warning triangle symbol. Where there is a risk of damage to the product, associated equipment, process or surroundings, comments appear supported by the word 'Caution'.



**ELECTRIC SHOCK** Where there is a risk of electric shock, comments appear supported by the hazardous voltage warning triangle.

## Intended Use

The Anton/Bauer® Performance Series Chargers deliver all of the proven reliability of previous Anton/Bauer chargers in a portable power system addressing both Gold Mount® and V-mount configurations. The technology advancements of this charger deliver the features and performance of several essential power products in one economic and portable package while reducing power consumption.

## Electrical Connection



**WARNING!** Risk of electric shock. Do not remove cover, no user servicable parts inside the product.



**WARNING!** Risk of electric shock. Always check cables for signs of damage. Damaged cables can cause personal injury and/or damage the equipment.



**WARNING!** It is the responsibility of the local organisation to ensure that the product is periodically checked for electrical safety in accordance with local regulations.



**CAUTION!** This product must be connected to a power supply of the same voltage (V) and current (A) as indicated on the product. Refer to the technical specifications for the product.



**CAUTION!** AC Mains plug or appliance coupler is to be used as a power disconnect device; make sure it is readily accessible.



**CAUTION!** All data connections to other devices must be made using shielded cables.



**CAUTION!** Using alternative power sources will invalidate the system EMC liability.



**CAUTION!** Do not exceed the current output limit of the product when powering auxiliary devices.



**CAUTION!** When powering the charger using a generator, the generator must produce a sine wave or modified sine wave output, otherwise, the charger may be damaged.



**WARNING! RISK OF ELECTRICAL SHOCK:** Refer servicing to qualified service personnel.

## Basic Electrical Insulation (Class 1 Equipment)



**WARNING!** This product is Class 1 equipment. For safe operation this equipment must be connected to a power supply that has a protective earth connection (US: ground).

## Operation



**WARNING!** Special precautions and handling instructions are contained in this user guide and should be strictly adhered to for safe and reliable operation.



**WARNING!** Never use flammable or combustible materials and solvents around batteries or chargers.



**CAUTION!** The product should not be used outside the operating temperature limits. Refer to the product technical specifications for the operating limits for the product.



**CAUTION!** Slots and openings are intended for ventilation purposes to ensure reliable operation of the product and protect it from overheating. Do not block or cover any slots and openings.



**WARNING!** Protect the product from water, moisture and dust. The presence of electricity near water can be dangerous.



**WARNING!** Charger must not to be exposed to dripping or splashing and not to be used near objects filled with liquids.



**WARNING!** When cleaning the product, use a soft damp cloth only. Do not wet the exposed metal parts of the charging unit. Do not use solvents, detergents or scouring agents.

## Maintenance



**WARNING!** The fitting of non-approved parts or accessories, or the carrying out of non-approved alterations or servicing can be dangerous and could affect the safety of the product. It may also invalidate the terms and conditions of the product warranty.



**RISK OF ELECTRICAL SHOCK:** Refer servicing to qualified service personnel.

# About this user guide

## Introduction

The Anton/Bauer® Performance Series Chargers deliver all of the proven reliability of previous Anton/Bauer chargers in a portable power system addressing both Gold Mount® and V-mount configurations. The technology advancements of this charger deliver the features and performance of several essential power products in one economic and portable package while reducing power consumption.

This user guide covers the safe and reliable operation of the Performance Series chargers.

## Important

Special precautions and handling instructions are contained in this user guide and should be strictly adhered to for safe and reliable operation. Contact Anton/Bauer Customer Support Group with any questions regarding this product.

## Anton/Bauer Battery Compatibility

Anton/Bauer Performance Series Chargers are compatible with all Digital Series and most Logic Series® Anton/Bauer batteries. For questions on product compatibility please contact the Anton/Bauer Customer Support Group.

Performance Series Charger	Digital G90	Digital G150	Digital G190	Digital V90	Digital V150	Digital V190	DIONIC HC	DIONIC HCX	DIONIC HD	HyTRON 100	HyTRON 140
QUAD GM 84750119	✓	✓	✓	✗	✗	✗	✓	✓	✓	✓	✓
DUAL GM 84750120	✓	✓	✓	✗	✗	✗	✓	✓	✓	✓	✓
QUAD VM 84750121	✗	✗	✗	✓	✓	✓	✗	✗	✗	✗	✗
DUAL VM 84750122	✗	✗	✗	✓	✓	✓	✗	✗	✗	✗	✗

## Third Party V-Mount Compatibility

We have tested specific competitor V-Mount batteries and verified their compatibility (see table below).

However, there is no guarantee that the Performance Series Charger can charge any third party battery to 100% full capacity.

The list below does not constitute all of the potential compatible batteries, therefore it is the recommendation of Vitec Videocom to utilize Anton/Bauer batteries solely with compatible Anton/Bauer chargers to avoid any potential performance degradation.

Battery MFR.	Battery Model	Charges on Anton/Bauer Charger?	Communicates with Anton/Bauer Charger?
SONY	BP-L60S	✓	✗
SONY	BP-L80S	✓	✗
PRO-X	Intellicom 130S	✓	✓
RED	Brick	✓	✗
PAG	PL96e	✓	✓

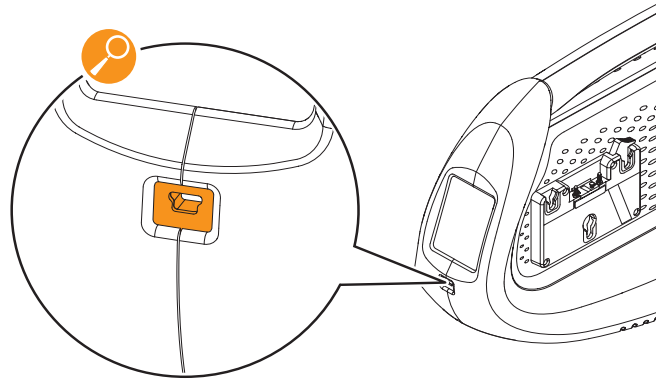
# Components and Connections

## Wi-Fi Capability

The Performance Series Chargers come standard with an integrated Wi-Fi module to be utilized with a variety of features and functions released in upcoming software revisions. The integrated Wi-Fi module will also be used for future battery compatibility, so new batteries may be used on the Performance Series Chargers as they are released.

## Mini USB Port

Located at the front, this port is used to upgrade the firmware of the Performance Series Chargers. For information, please contact the Anton/Bauer Customer Support Group.

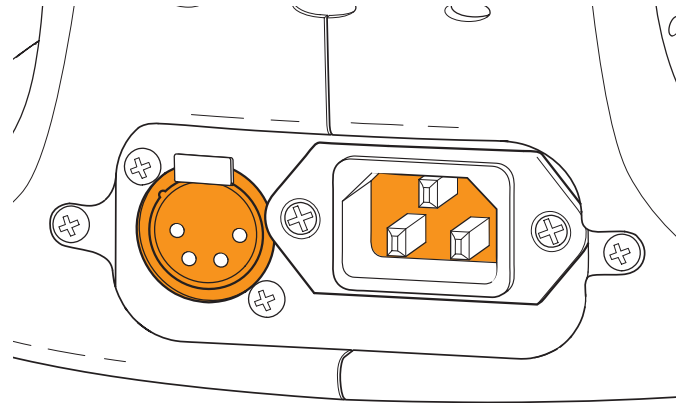


## DC XLR Output

The Performance Series Chargers come with a DC XLR output connector to power cameras and accessories.

## AC Mains Power

The AC Mains power connector is located on the rear of the charger.

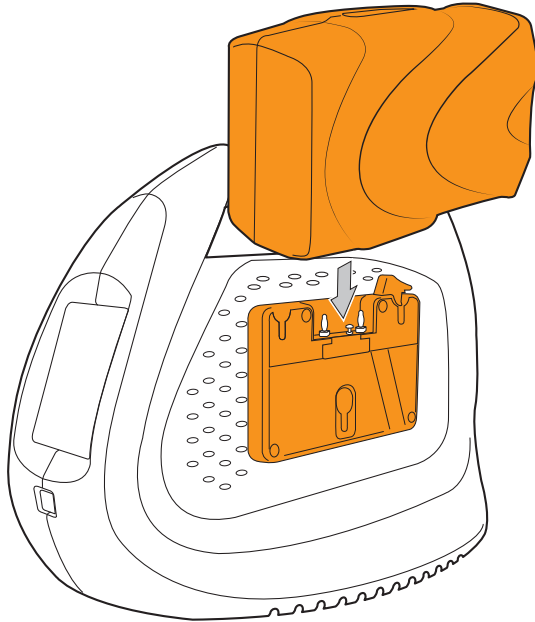




## Attaching a Battery to the Charger

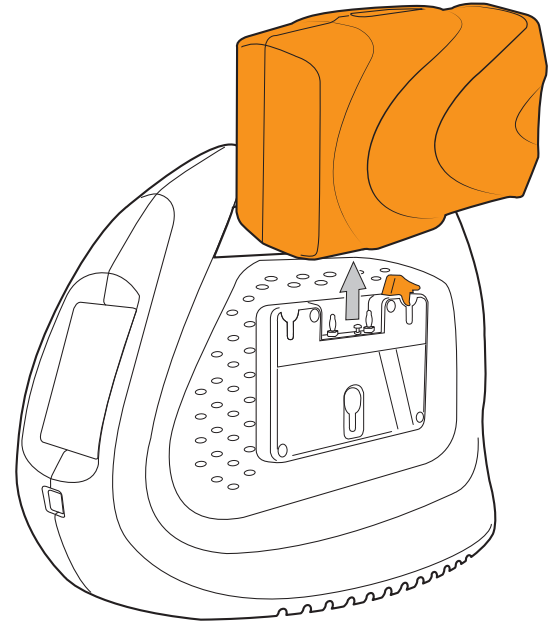
To attach a battery to either the Gold Mount or V-Mount adaptor on the charger:

1. Slide the battery onto the adaptor, ensuring the Gold Mount T-stud or V-Mount are aligned in the corresponding slots.
2. The battery is fully engaged when the latch makes an audible "click".



## To Release the Battery

1. Depress the latch and hold.
2. Slide the battery off the connector.



# Operation

## Self-Test

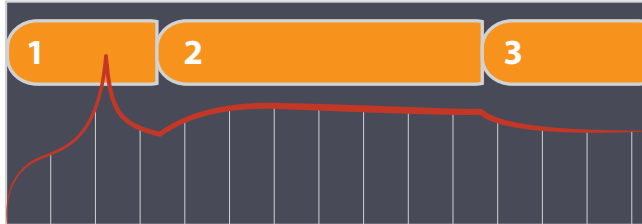
Upon applying AC mains power, the charger will initiate a brief self-test mode. Self-test mode is complete when the charger screen displays battery information on the position being used.

## Charging

As with all Anton/Bauer chargers, charging with a Performance Series Charger is fully automatic. Mount any applicable battery to any open position on the charger and the Performance Series Charger will automatically determine the appropriate charge routine and execute it.



In some cases a battery may be discharged to a very low voltage level causing the battery to be unrecognizable to the charger when first attached.



## Three Stage Charging Methodology

In general, the Performance Series Chargers (Gold Mount and V-Mount) will deliver a three stage charge routine to each battery.

### Stage One

will deliver a high rate charge matched to the capabilities of the battery (typically a one or two hour rate, depending on battery type). During this stage, six separate cutoff methods are in operation, simultaneously, ensuring the fastest, safest charge for that battery.

### Stage Two

charging is a BALANCING or “stabilizing” mode which calculates each battery pack type to offset any imbalance of the battery’s cells, created by unequal self-discharge or any capacity mismatch of the individual cells in the pack. This stage can vary in duration from zero to as much as 16 hours, depending on the condition of the battery. The Stage Two charge reduces current automatically as the battery charges maintaining the cells at a safe voltage level. A battery will typically leave Stage Two in 2-4 hours under average operating conditions.

### Stage Three

charging is the Anton/Bauer exclusive Lifesaver® maintenance mode. This patented pulse routine keeps batteries fully charged, free from self-discharge - indefinitely - without damaging heat associated with a so-called “trickle charge”. The Stage Three programming monitors the self-discharge of the battery, providing charge only when the battery self-discharges to about 95% of its capacity.



Anton/Bauer recommends that batteries remain on the charger and plugged into AC mains power for best results. The Lifesaver mode will keep them 100% charged.

## Removal of AC Mains Power

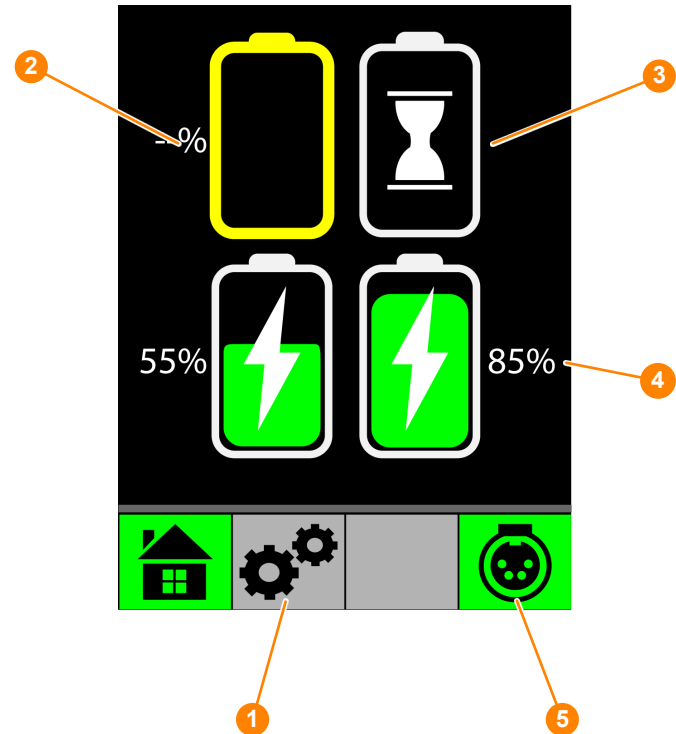
If AC mains power is removed, it is highly recommended that the batteries are removed from the charger, thus avoiding any additional self-discharge of the battery.

## Video Battery Touchscreen

All Performance Series Chargers come standard with a touch screen interface. The intuitive interface displays all critical battery data and access to all charger functions.

When a battery has been attached to the charger the display will show the current status of the battery.

No.	Description
1	System Settings: Used to engage Wi-Fi mode and for software version information
2	Evaluation: Enters this mode when battery is attached
3	Communication
4	Charging: Battery is currently charging
5	DC XLR Output: Turns the XLR camera output on/off

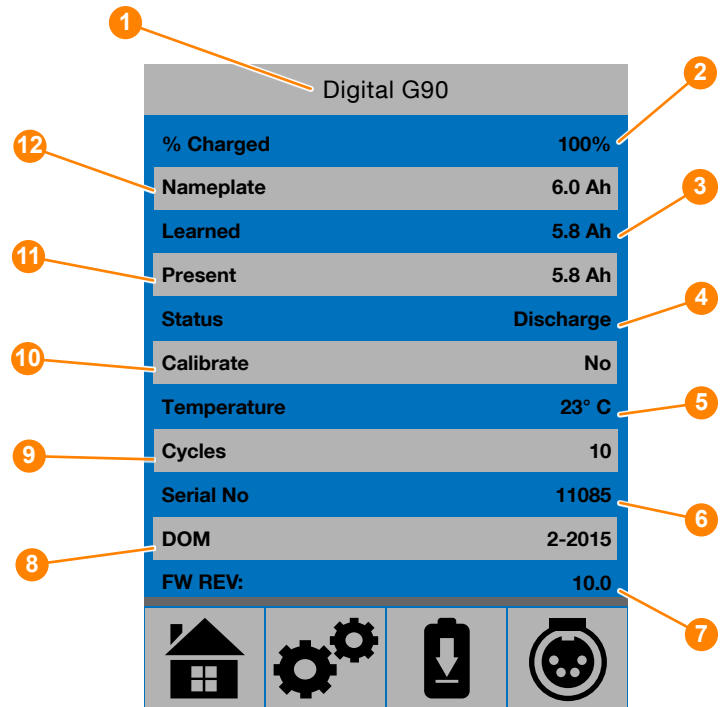


# Operation

## Video Battery Touchscreen

When a battery has been selected the following details are available.

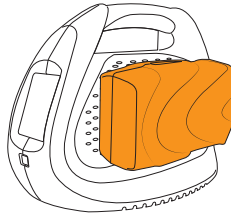
No.	Description
1	Selected battery name
2	Percentage of battery charge
3	Learned: Learned capacity of the battery
4	Status: Current battery charge status
5	Temperature: Current temperature of the battery
6	Serial No: Serial number of the battery
7	FW REV: Firmware revision of the battery
8	DOM: Date of battery manufacture
9	Cycles: Number of times the battery has been cycled
10	Calibrate: Does the battery require calibration?
11	Present: Current capacity of the battery
12	Nameplate: Nominal capacity



## Battery Testing or Calibration

To manually run a standard test:

1. Attach a battery to any open charge position and touch the related battery icon on the charger LCD.







2. Touch the battery test icon to begin the standard test.



3. When testing is complete, discharge and test data will be revealed in the screen.

Digital G90	
<b>% Charged</b>	100%
<b>Nameplate</b>	6.0 Ah
<b>Learned</b>	5.8 Ah
<b>Present</b>	5.8 Ah
<b>Status</b>	Discharge
<b>Calibrate</b>	No
<b>Temperature</b>	23° C
<b>Cycles</b>	10
<b>Serial No</b>	11085
<b>DOM</b>	2-2015
<b>FW REV:</b>	10.0

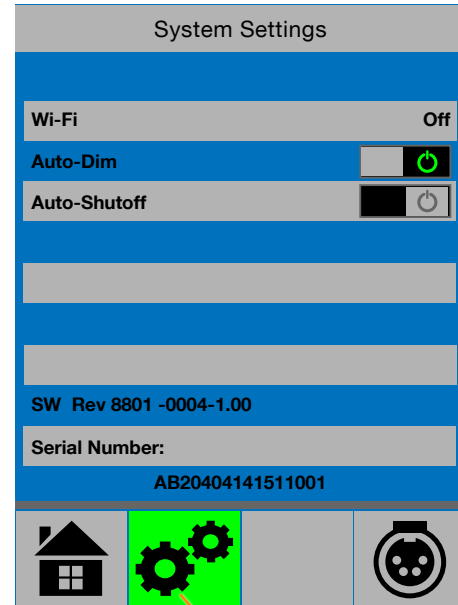





# Operation

## System Settings

System Settings access information such as the charger software revision, Wi-Fi settings, Auto-Dim and Auto-Shutoff functions.

No.	Description
1	System Settings: Used to engage Wi-Fi mode, Auto-Dim, Auto-Shutoff and for software version information



### Auto-Dim and Auto-Shutoff

The user can choose to engage either the Auto-Dim or Auto-Shutoff function of the charger LCD in the Settings menu. The user may also opt to have both options turned on.

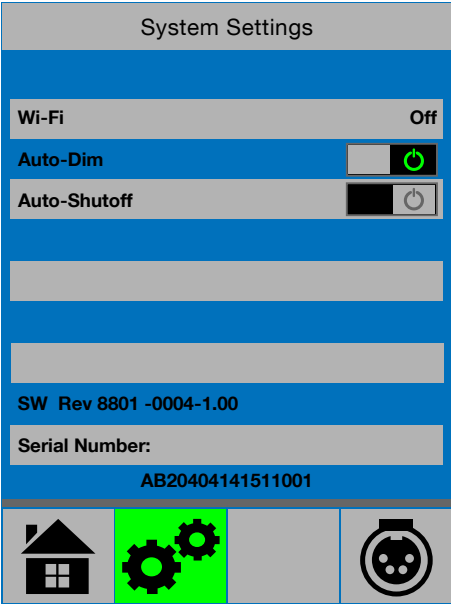
To select, go to the Settings screen and select on or off for each option.

**Auto-Dim:** This feature turns off the back lit LCD screen after one minute of non-use if the AC mains power is removed, a battery is present and XLR camera output is not in use. The back light will turn back on if the LCD is touched or AC mains power is restored.

To select, go to the Settings screen and select on or off for Auto-Dim.

**Auto-Shutoff:** This feature will turn off the charger circuitry entirely after five minutes of non-use if the AC mains power is removed, a battery is present and XLR camera output is not in use. Circuitry will turn back on when AC mains power is restored.

To select, go to the Settings screen and select on or off for Auto-Shutoff.



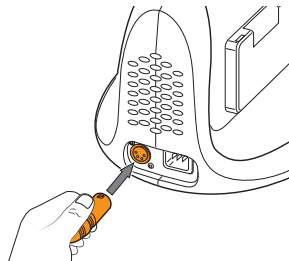
# Operation

## Powering DC Auxiliary Equipment

Performance Series Chargers can operate cameras and camcorders using the four pin DC XLR camera output connector located at the back of the charger in two ways.

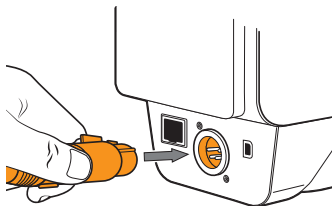
### To power the camera from battery power:

1. Attach one end of the XLR4 accessory cable (available separately) to the charger.
2. Attach the other end to the "DC in" four pin XLR on the camera/camcorder. A battery can be attached when AC mains power is not present to provide DC power output after five seconds.

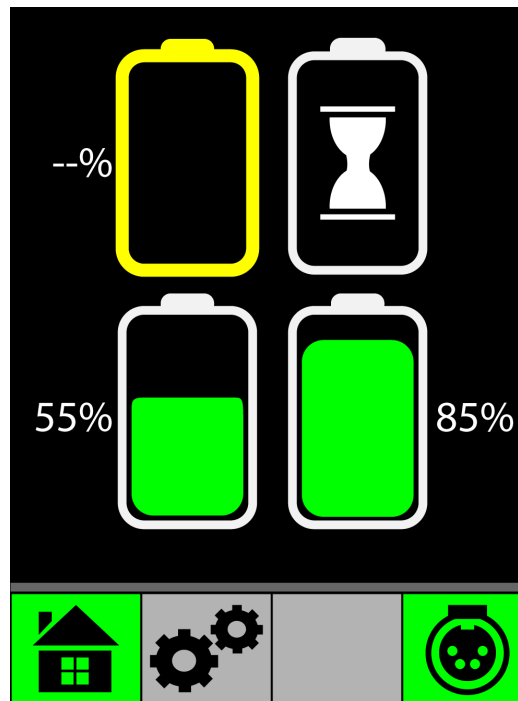


### To power the camera from AC mains:

1. Plug the charger into the wall using the supplied 3-pin power cable.
2. Attach one end of the XLR4 accessory cable (available separately) to the Charger.
3. Attach the other end to the "DC in" four pin XLR on the camera/camcorder (XLR Pin 1 is negative and Pin 4 is positive).



Press the DC XLR Output icon, located on the lower right hand of the Performance Charger LCD.





## Physical Data

### Performance QUAD



**Height**  
8.70 inches (22.10 cm)



**Length**  
16.50 inches (41.91 cm)



**Width**  
9.90 inches (25.15 cm)



**Weight**  
8.0 lbs (3.6 kg)

### Performance DUAL



**Height**  
8.70 (22.10 cm)



**Length**  
11.30 (28.70 cm)



**Width**  
8.50 (21.59 cm)



**Weight**  
7.0 lbs (3.2 kg)

## Environmental Data



**Operating temperature range**  
-0°C to +40°C (-32°F to +104°F)

## Electrical Data



**Supply Voltage**  
AC Input: 100-240 VAC, 50/60 Hz. Wide Range Input



**Power Output**  
70 Watt, 16 VDC Power Supply Output

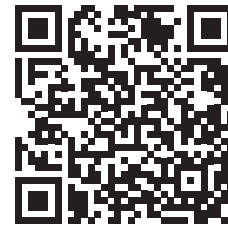
Nominal Battery Charge Times	
Battery	Charge Time
Digital G90/V90	2.5 Hrs.
Digital G150/V150	3.5 Hrs.
Digital G190/V190	4.5 Hrs.
DIONIC HC	2.5 Hrs.
DIONIC HCX	3.0 Hrs.
DIONIC HD	4.5 Hrs.
HyTRON 100	3.5 Hrs.
HyTRON 140	4.0 Hrs.



In some cases a battery may be discharged to a very low voltage level causing the battery to be unrecognizable to the charger when first attached.

**At Vitec Videocom we take great pride in the quality of our products and we also recognize that your experience with our products will be even more positive and productive with strong, effective support to back them up.**

Vitec Videocom's Service Centers are there to provide technical support for customers and partners, via telephone or email. For more information, including complete contact details, please go to: **[vitecvideocom.com/aftersales](http://vitecvideocom.com/aftersales)**



## FCC Notice

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

This equipment has been approved by one or more agencies. All changes and/or modifications not expressly approved by Anton/Bauer. could void the users' warranty and authority to operate this equipment. There are no serviceable parts in this equipment.



# Warranty

This warranty for the product specified in this document ("Product") is given by Vitec Videocom, Inc. ("Anton/Bauer"), 14 Progress Drive, Shelton, Connecticut 06484. If you (the purchaser of the Product from Anton/Bauer, or the person for whom the Product was purchased, if it was a gift) have any questions regarding Product applications, Product specification, or to obtain warranty service on this or any Anton/Bauer product, contact the company at the address above.

THIS PRODUCT MUST BE REGISTERED WITH ANTON/BAUER WITHIN 30 DAYS OF PURCHASE TO ASSURE WARRANTY COVERAGE. REGISTER ONLINE AT:

[www.antonbauer.com](http://www.antonbauer.com)

Warranty registration, including the serial numbers of Anton/Bauer chargers used with this battery, must be supplied to Anton/Bauer. Anton/Bauer will warranty the Product only against defects in material and workmanship for the period as follows from the date of purchase, in accordance with the terms set forth below, and then, only if the Product is used exclusively in conjunction with compatible Anton/Bauer chargers. If this charger is returned to Anton/Bauer for warranty service it will be required that you provide model names and serial numbers of compatible Anton/Bauer chargers with which this product was used.

MAXX II Warranty 24 months: Anton/Bauer will repair or replace the Product at Anton/Bauer's option and cost.

This warranty shall be effective only if Anton/Bauer receives notice of such defects in materials or workmanship during the period of the warranty. The liability of Anton/Bauer hereunder is expressly limited to a claim for repair or replacement of the Product or as otherwise stated herein at Anton/Bauer's sole discretion. Notice of any claim under this warranty shall be delivered to Anton/Bauer during the period of the warranty and the Product shall be returned with its

packaging promptly, at your expense, to an Anton/Bauer Customer Support Center or to the address above. Upon receipt of the Product and a record of your compliance with the conditions of this warranty, Anton/Bauer will repair or replace the Product and return it to you, or issue a credit, as applicable. You are responsible for all shipping and handling charges to and from authorized facility.

THIS WARRANTY DOES NOT APPLY TO AND IS VOID IN THE CASE OF DEFECTS OR DAMAGE RESULTING FROM ACCIDENTS, DISASTER, NEGLIGENCE, MISUSE, IMPROPER INSTALLATION, IMPROPER OR UNAUTHORIZED SERVICE OR MAINTENANCE, UNAUTHORIZED REPLACEMENT PARTS OR ATTACHMENTS; OR DYSFUNCTION OR MALFUNCTION OF, OR CAUSED BY, ANY OTHER PRODUCT OR DEVICE.

Misuse includes any use of the Product in other than its intended application, including the use of this Product with any charging device or accessory not manufactured by and/or specified by Anton/Bauer. This warranty does not cover, and Anton/Bauer assumes no responsibility for, any equipment or devices used in conjunction with the Product.

ANTON/BAUER DISCLAIMS ANY LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY WRITTEN OR IMPLIED WARRANTY OF THE PRODUCT. UNDER NO CIRCUMSTANCES WILL ANTON/BAUER BE RESPONSIBLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

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, USA. Some states do not allow limitations on how long a warranty lasts, so the time period limitation herein may not apply to you. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights and you may have other legal rights which may vary from state to state. Use of unauthorized equipment in conjunction with Anton/Bauer products constitutes misuse under our warranties and may limit or void those warranties. Anton/Bauer does not authorize, condone, recommend, or otherwise assume any liability or responsibility resulting from the use of any battery, charger, or accessory made by Anton/Bauer with any battery, charger or accessory not manufactured, produced or sold by Anton/Bauer. Anton/Bauer only authorizes the use of original Anton/Bauer products with this Product. Use only original Anton/Bauer equipment with this Product.





