

How To Choose A Battery System

PAG  TM
Professional Broadcast Equipment



How to Choose a Battery System?

Your camera is totally reliant on the power behind it, and although batteries are not very glamorous, the system you choose is vital to your work and success.

By answering a few simple questions about your camera and the way you work, you will be able to choose a camera power system that is best suited to your particular requirement.

1. What battery mounting system are you using?

PAG has always embraced universality and is the only manufacturer that supplies batteries in the industry's three most popular formats: PAGlok, V-Mount and Snap-on (Anton/Bauer). This means that you will not have to change the battery mount that is already fitted to your camera in order to take advantage of PAG's superior battery and charging technology.

The **PAGlok System** is the most extensive system provided by PAG, as you might expect. It features:

- > Ni-Cd, Ni-MH and Li-Ion batteries of various voltages and capacities
- > Battery mounts that can be fitted to a vast range of equipment
- > Battery mount adaptors that convert V-Mount and Anton-Bauer mounts to PAGlok
- > Dual battery mounts that combine the capacities of PAGlok batteries
- > Simultaneous and sequential all-chemistry 2 or 4 channel chargers
- > Camera power supplies

The **PAG V-Mount System** is almost equally as comprehensive, it features:

- > Ni-Cd, Ni-MH and Li-Ion batteries (some designed to be compatible with other manufacturers viewfinder capacity displays)
- > Battery mounts that can be fitted to a variety of equipment
- > Battery mount adaptors that convert other systems to V-Mount

- > Dual battery mounts that combine the capacities of PAG V-Mount batteries
- > Simultaneous and sequential all-chemistry 2 or 4 channel chargers that are compatible with PAG, Sony and IDX V-Mount batteries
- > Camera power supplies

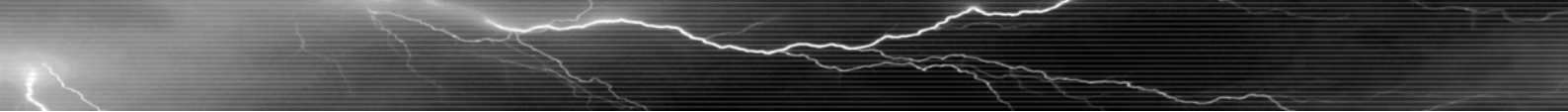
The **PAG Snap-on System** comprises:

- > Li-Ion batteries that can be charged on PAG or Anton-Bauer Li-Ion chargers
- > Dual battery mounts that combine the capacities of PAGlok or V-Mount batteries for use with Snap-on mounts
- > Battery mount adaptors that convert other systems to Snap-on
- > 2 and 4 channel PAG Snap-on chargers
- > Adaptors that enable PAG Snap-on batteries to be charged with certain PAGlok chargers

2. What is the power consumption of the camera, and are you using a camera light?

For low or medium powered ENG/broadcast applications the Li-Ion L95e or L95 Time Battery are the perfect choice. Both have a capacity of 95 watt-hours and will power the average Broadcast/ENG camera continuously for approximately 3.5 hours. It is apparent that you will only require two of these batteries for a whole days shooting, as the camera is unlikely to be in constant record mode. Even if you add a camera fill-light you are unlikely to require extra battery power, if you start the day with fully-charged packs. The V-Mount PAG L95e (Model 9310V) displays remaining capacity in the viewfinder of Sony cameras and can be charged on the Sony charger.

If you are powering a high-definition camera, or a camera in combination with a high-wattage halogen or HMI camera light, you will need a high-capacity battery, with a high current-draw capability. A Ni-Cd battery such as the 13.2V 5Ah 66Wh PAG SuperPack, or a Ni-MH battery such as the 14.4V 10Ah 144Wh PAG ZL-150 is well-suited



for this application. However, both Ni-Cd and Ni-MH technologies have a weight disadvantage compared to Li-Ion. The PAG L190e Li-Ion battery has a 13Ah capacity, which provides longer run-times, and a maximum of 10A can be drawn. Li-Ion is lighter in weight than other cell-technologies, but a battery of this capacity is restricted by air transportation regulations, and is also more expensive. You may want to combine the capacities of two L95e Li-Ion batteries to achieve the extra power, and avoid the air transportation issues. Additionally, you may also consider switching to low power consumption camera lighting such as the Paglight LED.

3. Do you wish to take batteries overseas on aircraft?

Li-Ion batteries are restricted by Air Transportation regulations. You must take them as hand luggage, and no more than two, if they have capacities greater than 100Wh. This must be considered when choosing a battery system. You may wish to avoid large, high-capacity Li-Ion batteries and combine the capacities of smaller Li-Ion batteries (such as the 95Wh L95e) or travel with a Ni-MH system such as the PAG ZL-Series.

4. How accurate is the battery capacity indication you require?

The PAG Power & Time Display, built into the L95 Time Battery, is the industry's most accurate. It is considered indispensable by certain broadcast organisations and camera operators. It provides run-time information that counts down in 1 second increments, and displays remaining capacity in 0.1Ah increments.

The less expensive PAG L95e battery incorporates a 5 LED display, and features a run-time prediction accurate to within 10 minutes, indicated by the LEDs. The key thing to remember here is that the more accurate the information you require the more the battery costs.

5. Choosing a charger.

PAG chargers are the most versatile and advanced microcomputer-controlled battery management systems in the industry. The proprietary software that controls the charging process will extend the working life of your batteries beyond anything that can be achieved using other systems.

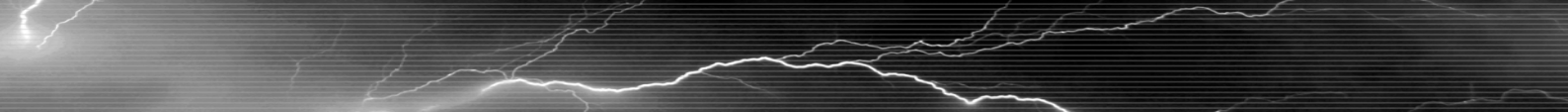
PAG has made battery charging as easy for you as it possibly can be, with its latest Intelligent Parallel chargers, available in PAGlok and V-Mount models. A four-channel charger is advised, with maybe a two-channel low-cost sequential charger as back-up.


Things get more complicated when you want to charge Ni-Cd, Ni-MH and Li-Ion batteries of varying capacities and formats from the same charger. However, PAG offers universal chargers that can handle this as well. They feature additional programs for balancing, recovery and service charging to provide the ultimate in battery management.

When selecting your charger also consider the advantage of having one that doubles as a camera power supply. The PAG Camera Power Adaptor is designed for use with the Cube charger (V-Mount or PAGlok), and enables you to power any modern broadcast camera from any AC supply.

Consult The Power Experts

PAG is happy to recommend a system of products for you as part of its consultation service. The company is often able to tailor the specifications of its existing product range to suit your particular working requirements. Please contact PAG Ltd. directly to arrange a consultation.





The world's most advanced batteries
chargers and camera lights



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