

# SONY

## Power Supply Systems



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## Durable, Reliable and Convenient Operation with Sony Professional Power Supply Systems

As a leading manufacturer in the professional AV industry, Sony has offered a wide range of power supply products to best accommodate its professional product line. The BP-L Series lithium-ion battery, introduced in 1994, set a milestone in the history of professional battery products with its large capacity, lightweight and virtually maintenance-free characteristics. The use of the Sony V-mount mechanism in this battery series offered a new level of durability and reliability by providing direct-attachment capability to a range of Sony professional products, from camcorders and portable VTRs to video monitors.

Building on this legacy, Sony continuously strives to enhance its professional line of power supply products for even greater convenience and reliability. The all-new professional “INFO” feature equipped on Professional Info Batteries, intelligently communicates battery status data when connected to compatible Sony portable equipment. This allows camera crews, for example, to accurately identify the remaining battery capacity on their camcorder viewfinders. This “INFO” feature also allows the indication of other important battery information for better and more efficient power management.

Three models are offered in the Sony professional battery line-up to best accommodate different user needs depending on the battery capacity, price and equipment they are used with. Two types of portable chargers, two AC adaptors and convenient accessories are also available for effective support in field operations.

Combining high reliability, convenient features and a wide variety to choose from, Sony power supply systems support even the most demanding applications in professional AV field operations.

# Advantages of Sony Professional Power Supply Systems

## Large Capacity, Lightweight and Safe Lithium-Ion Batteries

The BP-GL/L Series lithium-ion batteries offer the benefits of large capacity and light weight packed into a small but highly durable body. These factors make them very suitable for camera crews that have a critical need for long operating times and mobility. Users can choose from a wide range of batteries to meet their required capacity and the type of camcorder they are operating. The BP-GL95 has the largest capacity of 95 Wh and weighs only 760 g (1 lb 10 oz), providing the best combination of operating time and mobility. Despite its very large capacity, the BP-GL95 follows IATA (International Air Transport Association) transport regulations for regular aircraft transportation. Moreover, all Sony batteries are equipped with a multiple protection circuit which maintains a high level of safety and is confirmed in accordance with the Manual of Tests and Criteria of the UN Recommendations on the Transport of Dangerous Goods, Part III, sub-section 38.3\*.

\*The BP-GL/L Series batteries are also in compliance with U.S. Department of Transportation and FAA safety guidelines. Ultimately the decision to carry or not to carry is at the discretion of the carrier.

## Intelligent "INFO" Function\*

An intelligent battery-management function allows operators to monitor the battery status easily and accurately. This is because Professional Info Batteries digitally communicate status parameters to "INFO"-compatible equipment. This function allows highly efficient battery exchange and recharging by relieving operators from the risk of a power failure during a critical shoot.

\*The "INFO" function is available with the BP-GL95/GL65 battery and compatible Sony camcorder combinations.



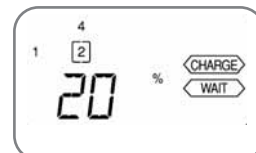
## Battery Remaining Display on Viewfinder

With Professional Info Batteries, the remaining capacity is automatically detected and transmitted to the compatible Sony camcorder. The remaining capacity is indicated on the camcorder viewfinder in 10% steps.

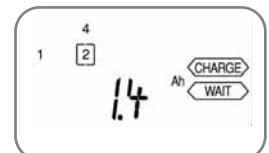
## Battery Status Display on Charger

When Professional Info Batteries are attached to a BC-M150 battery charger, a variety of information – including the remaining capacity, remaining charge time and number of charge/discharge cycles – is indicated on the LCD display for easy recognition of each battery's condition.

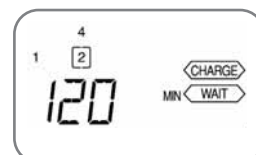
### BC-M150 LCD Indication



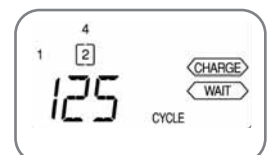
Battery Capacity (%)



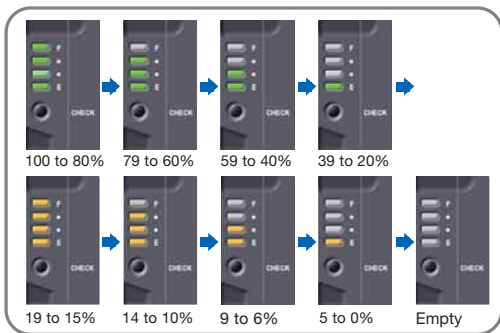
Battery Capacity (Ah)



Remaining Charging Time (min.)



Charge/Discharge Cycle



### Four-Step Remaining Capacity LED Display

The four-step LED display on the side of the battery provides an accurate indication of remaining capacity at the touch of a button (more than 80%, 60%, 40%, or 20%). In addition, the BP-GL95/GL65 can indicate the remaining capacity in more detail when it falls below 20%.

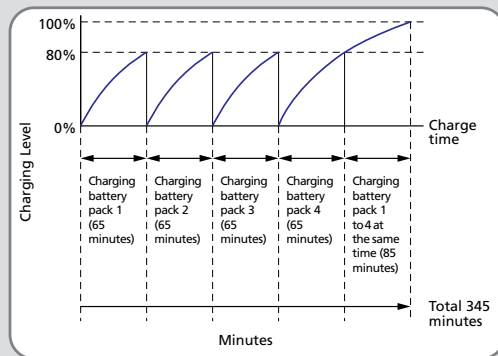
### Reliable and Durable V-mount Attaching Mechanism

All batteries offered in the BP-GL/L Series use the Sony V-mount mechanism, allowing quick and convenient attachment/ detachment to Sony-compatible equipment. This innovative mechanism offers extremely high durability and reliability, suitable for the harshest environments encountered in ENG operations. Since no external cable connections are required in this system, batteries can be attached and detached through one quick action. Sony V-mount batteries can be directly attached to most Sony professional camcorders including XDCAM™, MPEG IMX™, DVCAM™, Digital Betacam™, Betacam SX™ and HDCAM™ series, plus some portable VTRs and video monitors.



### Efficient Charging System

The BC-M150 charger uses an efficient charging method when charging lithium-ion batteries. When the batteries are attached, it charges each battery one by one to 80% capacity. After all batteries have reached 80% capacity, the BC-M150 simultaneously supplies charge power to all batteries. This efficient charging system enables the BC-M150 to charge four BP-GL95 lithium-ion batteries within 345 minutes.



BC-M150 Efficient Charging Method (Charging four BP-GL95 batteries)





**BP-GL95**  
Lithium-ion Battery



- Large capacity of 95 Wh
- “INFO” function
  - Remaining capacity indication on viewfinder (in 10% steps)
  - Remaining capacity/remaining charge time/battery life indication on LCD display of the BC-M150
- V-mount attaching mechanism
- Four-step LED display
  - Remaining capacity indication in 20% steps with green LED (more than 80%, 60%, 40%, 20%)
  - Remaining capacity indication in 5% steps with orange LED after capacity falls below 20%

**BP-GL65**  
Lithium-ion Battery



- 65 Wh capacity
- “INFO” function
  - Remaining capacity indication on viewfinder (in 10% steps)
  - Remaining capacity/remaining charge time/battery life indication on LCD display of the BC-M150
- V-mount attaching mechanism
- Four-step LED display
  - Remaining capacity indication in 20% steps with green LED (more than 80%, 60%, 40%, 20%)
  - Remaining capacity indication in 5% steps with orange LED after capacity falls below 20%

**BP-L60S**  
Lithium-ion Battery



- 64.8 Wh capacity
- V-mount attaching mechanism
- Four-step LED display
  - Remaining capacity indication in 20% steps with green LED (more than 80%, 60%, 40%, 20%)

## Chargers

**BC-M150**  
Four-channel  
Sequential Charger



- Compact and lightweight four-channel portable charger
- Can charge any Sony V-mount type battery
  - Lithium-ion battery: BP GL95/GL65/L60S/IL75/L40A/L90A/L60A
  - Nickel metal-hydrate battery: BP-M100/M50
- Quick and efficient charging
- One BP-GL95 battery can be fully charged within 145 minutes
- Four BP-GL95 batteries can be fully charged within 345 minutes
- Battery information display on LCD\*
  - Displays remaining capacity, remaining charge time, charge/discharge cycles
- Max. 100 W DC power supply (XLR-4-pin)
- \* Battery information display is only available for BP-GL95/GL65 batteries

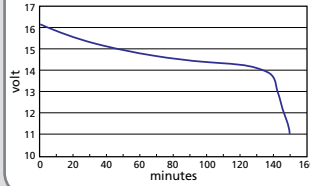
**BC-L70**  
Two-channel  
Simultaneous Charger



- Compact and lightweight two-channel portable charger
- Can charge Sony V-mount type lithium-ion battery: BP-GL95/GL65/L60S/IL75/L40A/L90A/L60A
- Quick and efficient simultaneous charging
  - One BP-GL95 battery can be fully charged within 145 minutes
  - Two BP-GL95 batteries can be fully charged within 220 minutes
- Max. 100 W DC power supply (XLR-4-pin)

Battery type	Lithium-ion rechargeable battery
Maximum voltage	DC 16.8 V
Nominal voltage	DC 14.4 V
Capacity	95 Wh
Operating temperature	-20 to +45 °C / (-4 to +113 °F)
Dimensions (W x H x D)	101 x 168.7 x 37 mm / (4 x 6 3/4 x 1 1/2 inches)
Mass	Approx. 760 g (1 lb 10 oz)
Supplied accessory	Operation manual

Typical Discharge Curve  
(at 30 W load)



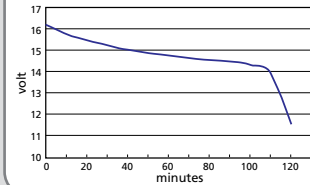
**Best Suited Camcorders\***

- HDW-750P/730S
- DVW-970P
- MSW-900P/970P
- PDW-530P/510P
- DSR-400P/450WSP

\*When the BP-GL95 is used with camcorders other than those listed above, the battery alarm may not function properly. Please contact your local Sony office or authorized dealer for changing the battery alarm setting.

Battery type	Lithium-ion rechargeable battery
Maximum voltage	DC 16.8 V
Nominal voltage	DC 14.4 V
Capacity	65 Wh
Operating temperature	-20 to +45 °C / (-4 to +113 °F)
Dimensions (W x H x D)	92 x 138 x 41 mm / (3 5/8 x 5 1/2 x 1 5/8 inches)
Mass	Approx. 550 g (1 lb 3 oz)
Supplied accessory	Operation manual

Typical Discharge Curve  
(at 30 W load)



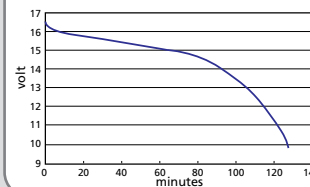
**Best Suited Camcorders\***

- HDW-750P/730S
- DVW-970P
- MSW-900P/970P
- PDW-530P/510P
- DSR-400P/450WSP

\*When the BP-GL65 is used with camcorders other than those listed above, the battery alarm may not function properly. Please contact your local Sony office or authorized dealer for changing the battery alarm setting.

Battery type	Lithium-ion rechargeable battery
Maximum voltage	DC 16.8 V
Nominal voltage	DC 14.4 V
Capacity	64.8 Wh
Operating temperature	-20 to +45 °C / (-4 to +113 °F)
Dimensions (W x H x D)	101 x 168.7 x 37 mm / (4 x 6 3/4 x 1 1/2 inches)
Mass	Approx. 800 g (1 lb 12 oz)
Supplied accessory	Operation manual

Typical Discharge Curve  
(at 30 W load)



**Best Suited Camcorders**

- HDW-F900/750P/730S
- DVW-970P
- DVW-790WSP/709WSP/707P
- MSW-900P/970P
- PDW-530P/510P
- DNW-90WSP/9WSP/7P
- DSR-400P/450WSP
- DSR-390P/570WSP/250P

Power requirements	AC 100 to 240 V, 50/60 Hz
Power consumption	Approx. 160 W
DC output	Max. 16.8 V, 6 A (for charging the lithium-ion battery or supplying power to external equipment) Max. 19.5 V, 5 A (for charging the nickel metal-hydrate battery)
Operating temperature	0 to +40 °C (32 to 104 °F)
Dimensions (W x H x D)	120 x 155 x 330 mm / (4 3/4 x 6 1/8 x 13 inches)
Mass	Approx. 3.5 kg (7 lb 11 oz)
Supplied accessories	Operation manual, AC power cord, plug holder

**Charge Time**

Model name	Capacity	Approximate charging time (minutes)	
		1 battery, 100%	4 batteries, 100%
BP-GL95	95 Wh	145 (65)	345 (260)
BP-GL65	65 Wh	155 (70)	365 (280)
BP-L60S	64.8 Wh	155 (70)	365 (280)

Power requirements	AC 100 to 240 V, 50/60 Hz
Power consumption	Less than 168 VA
DC output	Max. 16.8 V, 6 A
Operating temperature	0 to 45 °C (32 to 113 °F)
Dimensions (W x H x D)	60 x 237 x 134 mm / (2 3/8 x 9 3/8 x 5 3/8 inches)
Mass	Approx. 1.2 kg (2 lb 10 oz)
Supplied accessories	Operation manual, AC power cord, plug holder

**Charge Time**

Model name	Capacity	Approximate charging time (minutes)	
		1 battery, 100%	2 batteries, 100%
BP-GL95	95 Wh	145	220
BP-GL65	65 Wh	155	170
BP-L60S	64.8 Wh	150	170

# AC Adaptors

## AC-DN10 AC Adaptor/Charger



- Max. 100 W DC power supply
  - V-mount mechanism for direct attachment to compatible camcorders
  - XLR-4-pin output for attachment to other equipment
- Compact and lightweight
- Charging capability of Sony V-mount lithium-ion batteries (full charge)
  - BP-GL95/GL65/L60S/IL75/L40A/L90A/L60A
- Quick charging
  - The BP-GL95 can be fully charged within 145 minutes
- Can charge batteries while supplying AC power to other equipment

## AC-DN2B AC Adaptor/Charger



- Max. 150 W DC power supply
  - V-mount mechanism for direct attachment to camcorders
  - XLR-4-pin output for attachment to other equipment
- Charging capability of Sony V-mount lithium-ion batteries (by 85% capacity)
  - BP-GL95/GL65/L60S/IL75/L40A/L90A/L60A

# Accessories

## BKW-L601 V-mount Battery Adaptor



- Enables non V-mount camcorders to mount Sony V-mount batteries
- V-shoe attachment for quick and easy battery change

Dimensions	89 x 141.4 x 14.2 mm / (3 5/8 x 5 5/8 x 9/16 inches)
Mass	Approx. 110 g (4 oz)
Supplied accessory	Operation guide

## BKW-L404 Battery Adaptor



- Belt-type power supply adaptor
- Supplies power from Sony V-mount batteries to portable video equipment through an XLR-4-pin connector
- Max. 100 W DC power supply

Dimensions	173 x 89.9 x 35 mm / (6 7/8 x 3 5/8 x 1 7/16 inches)
Mass	Approx. 465 g (16.5 oz) with carrying belt
Supplied accessory	Carrying belt



BP-GL95, BP-GL65, BP-L60S, BC-M150, BC-L70, AC-DN10  
Lead-free solder is used for soldering.  
Halogenated flame retardants are not used in the cabinets and the printed wiring boards.

AC-DN2B  
Lead-free solder is used for soldering.



Power requirements	AC 100 to 240 V, 50/60 Hz
DC output	16.8 V, 6 A
Operating temperature	0 to +45 °C (32 to 113 °F)
Dimensions (W x H x D)	101 x 169 x 48 mm / (4 x 6 3/4 x 1 15/16 inches)
Mass	Approx. 850 g (1 lb 13 oz)
Supplied accessories	Operation manual, AC power cord

### Charge Time

Model name	Capacity	Approximate charging time (minutes)
BP-GL95	95 Wh	145
BP-GL65	65 Wh	155
BP-L60S	64.8 Wh	155

\* when using the charging function only

Power requirements	AC 100 to 240 V, 50/60 Hz
DC output	16.7 V, 9 A
Operating temperature	0 to +40 °C (32 to 104 °F)
Dimensions (W x H x D)	101 x 169 x 70 mm / (4 x 6 3/4 x 2 7/8 inches)
Mass	Approx. 950 g (2 lb 2 oz)
Supplied accessories	Operation manual, AC power cord, DC cable

### Charge Time

Model name	Capacity	Approximate charging time (minutes)
		1 battery, 85%
BP-GL95	95 Wh	155
BP-GL65	65 Wh	100
BP-L60S	64.8 Wh	100

## BKP-L551 Battery Adaptor



- Enables Sony portable cameras to mount Sony V-mount batteries

Dimensions	98 x 143 x 23.5 mm / (3 7/8 x 5 3/4 x 15/16 inches)
Mass	Approx. 200 g (7 oz)

# Reference Chart

## Approximate Operating Time\*1

Camcorders			Batteries		
Model name	INFO	Power consumption	BP-GL95	BP-GL65	BP-L60S
HDW-F900/900H	–	42 W	120*2	80*2	80
HDW-750P	•	38 W	135	85	85
HDW-730S	•	33 W	155	105	105
DVW-970P	•	29 W	185	125	125
DVW-790WSP	–	32 W	160*2	110*2	110
MSW-970P/900P	•	27 W	190	130	130
PDW-530P/510P	•	37 W	135	85	85
DNW-9WSP	–	31.5 W	165*2	110*2	110
DSR-570WSP	–	26.1 W	205*2	135*2	135
DSR-400P/450WSP	•	17 W	300	205	205
DSR-390P	–	22.1 W	245*2	160*2	160

\*1 The above operating time may change according to operating conditions.

\*2 The battery remaining indicator on the camcorder LCD may not be accurate. The battery alarm may not function properly. Please contact your local Sony office or authorized dealer for changing the battery alarm setting.

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