SL-F50PD/SL-F70PD

7.2V Lithium Ion Battery for SONY L type mount

Instruction Manual

PD Lithium Ion

Thank you for purchasing the SL-F50PD / SL-F70PD Li-ion Battery. Prior to using the SL-F50PD / SL-F70PD, we strongly recommend reading this Instruction Manual on how to best use the SL-F50PD / SL-F70PD. Please keep this manual for your reference. If you have any additional questions, please contact your local IDX office listed at the end of this manual.

⚠ Important

- **Recharge immediately after purchase.**
- **Do not charge while discharging or discharge during charging. It may cause the connected equipment to stop working, malfunction, or cause significant deterioration.**
- **when charging is completed, remove the battery from the charger immediately to avoid discharge.**
- **Please remove the cable after using the USB.**
- **Do not use this battery in series or in parallel connection. It may cause significant damage to the battery and any equipment connected to.**
- **When using USB PD, the surface of the main unit may become hot depending on the temperature and the rating of the devices. *Please refer the Protection circuitry section for more detail.**

Caution for safety use

Improper handling of this Li-ion battery may result in smoke, heat, fire, explosion or leakage as well as cause performance degradation or failure. Please be sure to observe the following precautions.

⚠DANGER

May cause sudden serious injury and death.

- Charge with IDX battery charger only.
- Use with professional equipment. Please contact IDX for more information.
- Do not short the contact pins with any metal object. Do not carry or store with metal equipment.
- Do not expose to heat and never throw the battery in a fire.
- Do not immerse in water. Keep the battery dry and away from excessively dry or humid environments.
- Do not leave the battery exposed to excessive heat such as in a car or directly under the sun light. Do not use outside of specified temperature ranges.
- Do not solder on the contact pins directly.
- Do not attempt to open the outer casing or break apart the battery.
- Do not subject the unit to extreme physical impact or pressure, or place any object across the terminals that could cause it to short.
- Do not pierce or drill into the outer casing of the unit.
- Do not attempt to use the battery if damaged.
- Do not use the battery in a corrosive environment. Damages occur from salt water, seawater, acid, alkali, corrosive gas, etc.
- Risk of explosion if battery cells are replaced by an incorrect type.

⚠WARNING

May cause serious injury and death.

- Please note that the outside casing becomes hot when the battery is discharged in high temperatures or with high loads.
- Stop charging immediately if the battery fails to charge within the designated time. Refer to charger manuals for charge times.
- Do not use if the battery displays unusual characteristics (odd odor, discoloration, etc.) when in use, during charge or in storage.
- Keep away from fire if the battery leaks fluid or has an unusual smell.
- In case of leakage immediately wash your hands and face thoroughly with clean water and contact your IDX representative for further instructions.
- Immediately seek medical attention if battery fluid gets into contact with your eyes.

⚠CAUTION

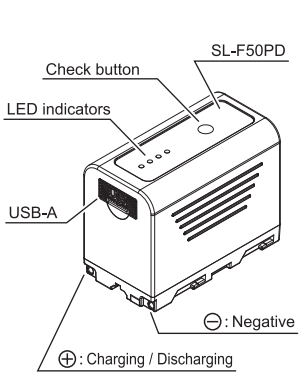
May cause injury or damage other equipment.

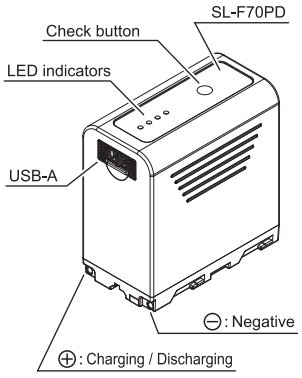
- Follow instructions on charging and discharging.
- Store in cool and dry conditions.
- During long periods of inactivity, please remove the battery from the equipment.
- Do not use, store or place the battery in an electrostatic area.
- Always keep the connectors clean.

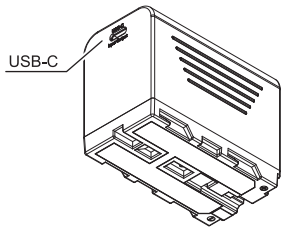
Features

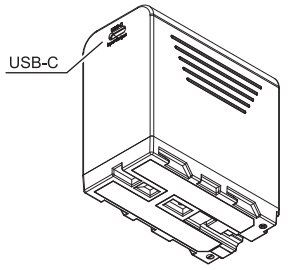
- Light weight, compact, high performance Li-ion battery with a durable design.
- Four power status LED indicators accurately displays remaining power capacity. [Refer to Capacity display LEDs]
- USB-A power output for charging portable devices. USB-C power output for charging portable devices as well as power input by USB PD charger. [USB-A]* [USB-C]* * : Please refer to each item.

* There is no guaranty that this battery works normally with SONY camera.









Charging

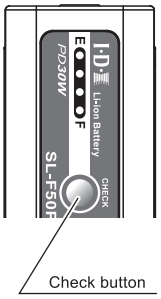
- Only charge with an IDX lithium ion charger and refrain from charging with third party chargers. Please refer to the charger manual for charging method information.
- Estimated charging times may vary depending on the charger and condition of the battery. Refer to our website for more details.
- The ambient temperature range for charging is 32～104°F (0～40℃); however, 50～86°F(10～30℃) is recommended for optimizing the charging performance. When the battery is charged in temperatures 32°F(0℃) or below, it may not fully charge, even if the designated charge time has elapsed.
- Charging outside of the recommended temperature range can accelerate cell deterioration.
- Lithium ion batteries have a slight self discharge; therefore, IDX recommends to charge prior to use.
  ※Refer to [USB-C]

Discharging

- The maximum discharge power is specified below for the main connector, USB-A and USB-C, checking prior to connecting to equipment the requirements. If it exceeds the maximum discharge power, the safety protection function may be activated and it will stop discharging and may cause the damage on the battery. If the fuse is blown due to an over load, the battery won't recover.
- The battery life may diminish if high loads are applied frequently.
- Battery run-time may reduce when used in extreme high and low temperatures. IDX highly recommends to use the battery in ambient temperatures of 50～104°F (10℃～40℃)
- The battery will automatically stop discharging when the voltage reaches 5V. To extend battery life, IDX recommends to stop using before the battery reaches 6V.
- Microwave transmitters with 5W outputs or more should be kept as far away from the battery as possible. High power transmitters may disrupt or stop supplying power.
- Please be sure to remove the battery from the device after use. If a battery left mounted on the device that has large standby power, the battery's residual capacity will become lower and the over-discharge protection may be activated.
- Do not use this battery in series or in parallel connection.It may cause significant damage to the battery and any equipment connected to.

Capacity display LEDs

- When the Check button is pressed, the LEDs will light for approximately 30 seconds.
  <●●●● Light up：Almost fully charged>
  <✸ Blink：Needs to be charged>
- When you push the “Check button”, if the battery voltage is 6V or less, the first LED will blink.
- The current capacity LED shows the capacity while charging with USB-C charger by lighting up/blinking. When charging is complete, 4 LEDs light up.
  <✸ Blink： Low capacity>
  <●✸ Light up： Charging>
  <●●✸ Light up： Charging>
  <●●●✸ Light up： Charging>
  <●●●● Light up：Charging complete>



※ Please be aware that LED indicates approximate amount of capacity when not providing power, and this varies by age and condition of battery.

Protection circuitry

- There are four types of protection circuits to ensure the battery is protected from Over-charge, Over-discharge, Over-current and Thermal protection. If the fuse is blown, the battery is no longer operable.
- Please charge the battery immediately when the over-discharge protection is activated. The battery may become unusable if the battery is not charged at that moment.

⚠CAUTION

・This product is equipped with a temperature protection function, which may be activated depending on the temperature.

USB-A

- USB-A connector for power supply. (DC5V / 2.1A)
- USB connector is A type. (USB Cable should be A type as well).
- If the voltage of the battery is below 5.8V, the USB-A output will not be activaed.
- USB-A power is automatically provided when the USB-A cable is connected.
- USB-A power providing is shut off when the battery voltage comes to 5.8V or less.
- Do not draw power from USB-A while charging as it may interrupt charging, cause a charger error, or damage the charger.
- This terminal does not provide data, only power.

USB-C

- USB supports PD (Power Delivery), which is capable of maximum 30W . Be sure to pay attention to the maximum discharging power when power is supplied in combination with battery main connector and USB-A output.
- Please use the Type-C cable that supports PD(Power Delivery)with Max.3A
- USB PD output mode automatically initiates when a USB PD cable is connected.
- When drawing power from USB PD of the battery, connected device can select voltage and current as below.
  5V/3A, 9V/3A, 12V/2.5A, 15V/2A, 20V/1.5A
  USB power output works automatically when connecting a device that supports USB PD.
- When charging from USB PD charger, following current and voltage are applicable.
  5V/3A, 9V/3A, 12V/2.5A, 15V/2A, 20V/1.5A
- The current capacity is displayed while charging with USB PD. At 100%, 4LEDs light up.
- When charging another battery from the SL-F50PD/SL-F70PD via USB PD, it does charge but is unable to determine which battery to be charged. This also appears when using a power bank.
  IDX highly recommend using PD charger when charging the battery.
- USB power turns off automatically after the USB cable is removed.
- Please note that USB PD only provides 5V/3A output, when using both USB-A and USB PD.
- Do not draw power from USB-C while charging via main connector.
  Also, please do not discharge from the main connector or USB-A while charging with USB-C. Charging may not be completed, charging errors may occur, or the connected device may be damaged.

Specifications

			SL-F50PD	SL-F70PD
Cell chemistry			Li-ion	
Nominal voltage			DC7.27V	
Capacity			6.62Ah/49Wh *1	9.93Ah/73Wh *1
Charge voltage			DC8.4V	
Standard Charge current (Main connector)			3.31A	4.965A
USB PD			Input/Output：MAX30W (5V/3A, 9V/3A, 12V/2.5A, 15V/2A, 20V/1.5A) *Please note that USB PD only provides 5V/3A output, when using both USB-A and USB PD.	
			PPS compatible for power supply only.(3.3～11V/3A, 3.3～16V/2A)	
			Connector type : USB Type-C (Receptacles)	
			USB OFF : After the USB cable is removed	
USB-A			10.5W(5.0V/2.1A)	
			Connector type : USB Type-A (Receptacles)	
			USB OFF : After the USB cable is removed	
Maximum discharge rate	Main connector		30W/3.5A(8.4V)～6.0A(5.0V)	40W/4.7A(8.4V)～8.0A(5.0V)
	USB PD	≦25℃	MAX30W (5V/3A, 9V/3A, 12V/2.5A, 15V/2A, 20V/1.5A)	MAX30W(5V/3A, 9V/3A, 12V/2.5A, 15V/2A, 20V/1.5A)
		≦40℃	MAX15W(5V/3A)	
	USB-A		10.5W(5.0V/2.1A)	
Maximum discharge rate	USB PD + Main connector	≦25℃	PD30W(20V/1.5A) + 10W PD30W(15V/2A) + 10W PD30W(12V/2.5A) + 10W PD27W(9V/3A) + 10W PD15W(5V/3A) + 30W	PD30W(20V/1.5A) + 15W PD30W(15V/2A) + 15W PD30W(12V/2.5A) + 20W PD27W(9V/3A) + 15W PD15W(5V/3A) + 30W
		≦35℃	PD15W(5V/3A) + 10W	PD15W(5V/3A) + 15W
		≦40℃	-	PD15W(5V/3A) + 10W
	USB-A + Main connector	≦25℃	USB-A 10.5W + 30W	USB-A 10.5W + 40W
		≦35℃	USB-A 10.5W + 15W	USB-A 10.5W + 25W
		≦40℃	-	USB-A 10.5W + 15W
End voltage			5.0V	
Battery protection circuit			Over-charge, Over-discharge, Over-current, Thermal protection	
Ambient temperature			Charge 32～104°F (0～40℃) (50～86°F (10～30℃) recommended)	
			Discharge -4～113°F (-20～45℃) (50～104°F (10～40℃) recommended)	
			Storage -4～122°F (-20～50℃) (less than 1 month)	
Dimensions		mm	38.5(W)×54.9(H)×70.6(D)	38.5(W)×73.4(H)×70.6(D)
		Inches	1.52(W)×2.16(H)×2.78(D)	1.52(W)×2.89(H)×2.78(D)
Weight		g	approx, 240g	approx, 345g
		lbs	approx, 0.53 lbs	approx, 0.76 lbs

* Measured capacity of battery is a minimum rating at 20℃.

Life cycle

- Life may vary depending on frequency of use, storage and operational temperature environment.
- Life will be reduced if frequently used with high load applications.
- Life is also reduced if stored in fully charged and/or empty conditions for extended periods.

Storing

- Store in cool and dry conditions.
- Do not store or leave in temperatures of 122°F(50℃) or above.
- For long-term storage, please store with about 30～40% of capacity (with 2 LEDs) and recommend for re-charging every five months.
- Deterioration of battery performance will be accelerated when the battery stored in a high ambient temperature and/or stored for long period without used.

Compensation for recorded content

Recorded content cannot be compensated for if recording or playback is disabled due to a malfunction of the battery pack or other devices.

Battery recycle

This Li-ion battery can be recycled. Please follow the regulations in your country or contact your local IDX office for further details.

Li-ion Battery Air transport Compliance

The Air transport regulations for the lithium-ion batteries will be revised regularly, so please check our website before transporting the battery.
(https://idxtek.com/li-ion-transportation/)

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Online Manual

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