

# IDX COMPANY LIMITED

...Xcellence in Power

## INSTRUCTION MANUAL

# KL-4 PLUS

FOUR (4) CHANNEL FPC SYSTEM  
FAST CHARGER FOR IDX NP-STYLE LITHIUM ION BATTERY PACKS  
WITH BUILT IN AC POWER SUPPLY

## FEATURES

- \*Built in 60W AC Power Supply
- \*Simultaneous fast charging using FPC system.
- \*Auto safety features for damaged or misused batteries.
- \*Lightweight, compact, easy to carry for ENG, DNG and Field operation.
- \*Robust metal case, recessed power switch, built-in spare fuse, convenient carrying handle.
- \*Universal A/C power input for worldwide use.
- \*You can also charge the IDX ENDURA E-80, E-80S, E-50 and E-50 S batteries on the KL-4 charger by using the ENDURA C-NP2E charge cable interface adaptor.

## FPC OPERATION

The ability of Lithium Ion to take a high initial fast charge as been utilized with a new maximum power balance charge program to ensure that the max. charge rate is always available to each battery. Any available power on one channel can be controlled for use on a second channel to reduce overall charge time. This is possible because the Full Power Charging method uses the on-board computer inside each Lithium Ion battery pack to communicate with the charger for the fastest charging available.

## OPERATING INSTRUCTIONS

- A. Connect AC power cord firmly.
- B. Set the power switch ON (Green LED will light).
- C. Basic Operation:-
  - 1) Insert a battery - Charge mode, KL-4 PLUS Charge channels LED is RED.
  - 2) Charge End - When the battery is fully charged the LED will turn to GREEN, indicating that the battery is ready to use.
  - 3)Low voltage battery: - This unit will not fast charge any IDX lithium Ion battery that is less than six (6) volts. Above six (6) volt batteries, the unit will attempt to bring the battery to 12 volts before starting to charge fully. If the battery can not come up to 12 volts within 90 minutes, or if a defective battery is inserted, the unit will show a battery fault by Flashing an ORANGE LED.

## AC Power Supply Operation

The KL-4 Plus can also supply power to various equipment, even while charging batteries. Insert the 4-pin XLR connector of your power cord into the XLR interface on the lower right side of the front panel. When the connector on the other side of the power cord is connected to your camera, light, etc., the KL-4 PLUS will supply up to 60 Watts of DC power (4.4A @ 13.5V).

## LED COLOUR STATUS LIST

- Solid Red** ..... Charge in progress
- Solid Green**..... Charge complete, battery ready
- Flashing Orange** ..... Defective battery
- Flashing Red** ..... Defective charger

## SAFETY FEATURES

The KL-4 PLUS has built in safety features to protect the charger as well as the batteries from serious damage in the event an attempt is made to charge a faulty battery. Low voltage batteries are detected prior to applying fast charge current. If a battery is showing low voltage it will not be fast charged until it reaches the acceptable fast charge level. This prevents any damage to the unit or to the battery. Batteries reaching an over voltage condition during charging will also be controlled.

## GENERAL NOTES

- a) While in use, do not place anything on the charger; do not block ventilation holes.
- b) During charging the temperature of the charger will rise. This is normal and not a malfunction.
- d) When connecting a battery, be sure to plug it into the socket firmly.
- e) Do not attempt to use faulty batteries or batteries with incorrect specifications.
- f) Do not expose the charger to direct sunlight. Use in a well-ventilated place.
- g) Do not operate near equipment that might be influenced by noise such as TV, etc.
- h) Do not open the unit or attempt to repair any malfunction by yourself. There are dangerous power supply circuits inside. There are no user serviceable parts
- i) The unit should be turned on prior to inserting batteries to be charged.

## SPECIFICATION

Applicable batteries .....	NP-L50, NP-L50S, NP-L46 IDX Lithium Ion Battery
Fast charge current .....	2A/16.4v
DC Output.....	60 W (4.4A @ 13.5V)
DC Output Connector.....	4-pin XLR
Input voltage .....	100 ~ 240V AC 50/60 Hz Automatic.
Weight .....	2.2Kgs
	4.85 pounds
Dimension .....	145(w) X 90(h)X240(d)
	5 3/4 (w) 3 3/4 (h) x 9 1/2 (d) inches

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