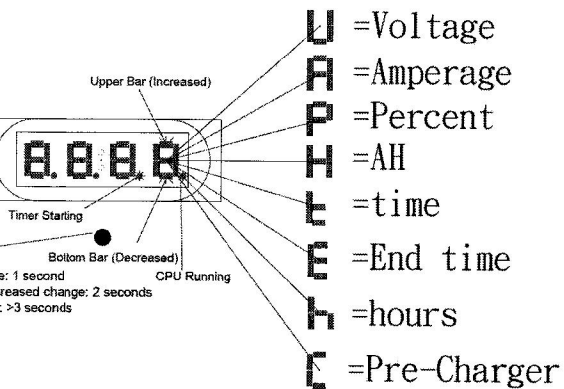


Digital Meter User Manual



Item	Descriptions (Ver: 3.31)
	O/P Voltage "V": Preinstall demonstration.
	O/P Current "A": (this will not change real O/P current): Press & hold "Display Key" for 3 seconds while displaying "A" to enable the O/P current "zero calibration" (the period approx. 10 seconds). Press "Display Key" for 2 seconds to disable "zero calibration." (For safety purpose, we don't recommend users to do "zero calibration")
	Battery Level "P": Press and hold "Display Key" for 3 seconds while displaying "P" to enable O/P current adjustment (for authorized technicians only).
	O/P Current Adjustment (this will not change real O/P current): Upper Bar twinkle: Press "Display Key" to increase the value. Bottom Bar twinkle: Press "Display Key" to decrease the value. Press and hold "Display Key" for 3 seconds to save the new value.
	Total Charging Capacity "AH" (Ampere-Hour): Start AH calculation when charging current >1A, "H" twinkle when "AH" function operating. Press and hold "Display Key" for 3 seconds while displaying "H" to enable AH to zero. "H" stop twinkle when "AH" function stop operating.
	Timer time: Start counting after "AH" function operating.
	Charging Timer Setting (0.1H-0.2H-0.3H-): Start timer when voltage > setting value or current < 30% of rating. Press & hold "Display Key" for 3 seconds while displaying "E" to enable timer setting. (Upper Bar: increase; Bottom Bar: decrease) Press and hold "Display Key" for 3 seconds to save the new setting value. The 3rd dot signal flashes light means the timer is starting and while the timer stop the 3rd dot signal solid lights.

Digital Meter User Manual

Item	Descriptions (Ver: 3.31)
	Timer time: Star counting after "E" (timer) function operating. When o/p current under setting value, the 3rd dot signal flashes. It will display the total time of charge after battery has been full charged. According to the value, the user can setting the perfect charging time for his own battery. Ex. If the total time is 1 hour, user can setting the value at 1.0.E.
	Stop Charging: 1. Current < 10% of rating, the display will show "End" & "x.x h." alternately. a. The charger without float charge stage model will stop charging and LED off. b. The charger with float charge stage will switch to float charging and green LED lights 2. When over timer setting but current > 10% of rating, the display will show "End" & "x.x E." alternately. a. The charger without float charge stage model will stop charging and LED off. b. The charger with float charge stage will switch to float charging and green LED lights 3. Press "Display Key" to reset.
	High Voltage (Over Charging): If the battery voltage over the setting value, the display will show "H.V." & "xx.xv", the small letter "v" (high voltage) to distinguish it from capital "V" (O/P voltage), meanwhile, the charger will stop charging & LED off. Press "Display Key" to reset.
	Pre-charging: When battery voltage < setting value, the pre-charge timer start counting. Press & hold "Display Key" for 3 seconds while displaying "C" to enable timer setting (Upper Bar: increase; Bottom Bar: decrease, each step will increase or decrease 0.1 hour). Press & hold "Display Key" for 3 seconds to save the new setting value. The bottom bar of small letter "c" twinkle means the charger is charging the battery by 25% of rating current. The upper bar of small letter "c" twinkle means the charger is charging the battery by 50% of rating current. When battery voltage > setting value, the charger will switch to equalizer charge stage, meanwhile, the display will show o/p voltage automatically
	Battery Error: If the battery voltage can't rise to the setting value while the setting time of 25% of rating current pre-charging is over. The display will show "Err_" & "xx.xv" alternately. "xx.xv" means the final battery voltage. The small letter "v" (final battery voltage) to distinguish it from capital "V" (O/P voltage)

KF-1220DL LiFePO4 Lithium Charger Specifications & User Manua

Features:

1. Short-circuit Protection: Charger O/P cut-off automatically when short circuit
2. Overload Protection: Charger O/P current-limited automatically when overload
3. Reverse Polarity Protection: Charger O/P cut-off automatically when battery reverse connection
4. Automatic charging function: Pre-charging, Equalizer Charge and Floating Charge
5. Unique Digital Meter Display: Indicating charging voltage, current and charger status.
6. 2 LED Display: Red(power), dual-color Green(floating charge) & Yellow(equalizer charge)
7. Advanced SMD Technology: Reliable and Elegant
8. Stylish Aluminum Housing: Strongest and Efficient

Specifications:

MODEL		KF-1220DL
Input	Voltage	AC110V-240V
	Frequency	47-63HZ
Output	Equalizer Charge	(12V) = DC14.6V +/- 0.2V
	Pre-charge1 current	5A +/-0.5A
	Pre-charge2 current	10A +/-0.5A
	Current	(20A +/-0.5A)
	Efficiency	> 87% (at Full Load)
Protection	Battery Reverse	Yes
	Short-circuit	Yes
	Overload	Yes
	Cooling Fan	Speed Controlled by Charging Stage
Mechanical	Dimensions (mm)	195X118X58

Operations:

1. Connect the charger system to a wall receptacle strongly.
2. Connect the alligator clips to battery terminals (red clip→positive terminal; black clip→negative terminal)
3. Turn on the power switch which is located on the front panel of Charger, and the LED light will confirm that charger stage (Refer to the specifications) and also the unique LCD display will show that charger stage and battery level (refer to the specifications)

LED Indication:

AC Power Status LED (Red Color)		Charging Status LED (Bi-Color)	
On	Off	Orange	off
AC Power OK	AC Power Fail	Equalizer Charge	Full charge

LED Meter :

1. Indication output voltage.
2. Push switch one times for indication output Current.
3. Push switch again for indication output Power rate.

Notices :

KF-DL Series was designed for charging LiFePO4 Lithium Batteries only. It cannot be used as a D supply.

1. Avoid to charge the wrong type of battery
2. The battery maybe damaged if orange LED cannot be changed to off lighting after long time
3. Always place the charger in well ventilated and dry environments
4. The charger was designed by aluminum housing as itself heat sink, avoid touching the case purpose because the temperature is about 50°C on the case when charging

CAUTION:

- Not to recharging non-rechargeable batteries.
- During charging, the battery must be placed in a well ventilated area.
- The battery charger must only be plugged into an earthed socket-outlet.