

## 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 multi-rate charging function: Equalizer Charge and Floating Charge
5. Unique LCD (or Current meter) Display: Indicating both charger status and battery level (or Charging current)
6. 3 LED Display: Red(power), Green(floating charge) & Yellow(equalizer charge)
7. Advanced SMD Technology: Reliable and Elegant
8. Stylish Aluminum Housing: Strongest and Efficient

## Specifications:

MODEL		ABC-3604 (ABC-4803)	ABC-3608 (ABC-4806)	ABC-3609 (ABC-4807)	ABC-3611 (ABC-4809)	ABC-3616 (ABC-4811)	ABC-3630 (ABC-4822)
Input	Voltage	AC100V~240V OR AC100V~120V OR AC200V~240V					
	Frequency	47-63HZ					
Output	Equalizer Charge	44.1V +/-0.6V (48V: 58.8V +/- 1V)					
	Floating Charge	41.1 +/- 0.6V(48V: 54.8V +/- 1V)					
	Current	4+/- 0.3A (3+/- 0.2A)	8+/- 0.6A (6+/- 0.4A)	9+/- 0.5A (7+/-0.5A)	11 +/-0.6A (9+/-0.6A)	16+/- 0.8A (11+/-0.7A)	30+/-1.5A (22+/-1A)
	Wattage	176W (176W)	352W (352W)	397W (411W)	485W (529W)	706W (647W)	1323W (1293W)
	Efficiency	>87% (at Full Load)					
Protection	Battery Reverse	Yes	Yes	Yes	Yes	Yes	Yes
	Short-circuit	Yes	Yes	Yes	Yes	Yes	Yes
	Overload	Yes	Yes	Yes	Yes	Yes	Yes
	Cooling Fan	Speed Controlled by Charging Stage					
Mechanical	Dimensions (mm)	167x103x50	190x118x58	152x70x225	152x70x275	323*231*106	480*355*87
	Weight	0.9Kgs	1.2Kgs	2.1Kgs	2.4Kgs	4Kg	8Kg

\*\*\*"M" means with current meter (ABC-1206M/ABC-2404M) or LCD (other models mark "M")

\*\*\*"D" means with Digital Display Meter (other models mark "D")

## 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 confirm 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	Green
AC Power OK	AC Power Fail	Equalizer Charge	Floating Charge

## LCD Indication (Option):

Charging Status Display		Battery Level Display (24V)			
FLOAT+CHARG'G	EQUALIZE+CHARG'G	100	75	50	25
Floating Charge	Equalizer Charge	13.9V(27.8V)	13.3V(26.6V)	12.6V(25.2V)	11.9V(23.8V)

## Digital Meter Indication (Option):

Push the display switch which is located on the front panel and under the display window. The meter will display the charging voltage (ex. 13.8V means 13.8V), current (ex. 10.0A means 10A), and wattage (ex. 130.0P means 130W).

## Notices :

1. ABC-Series was designed for charging Lead-Acid batteries and NiMH batteries only. Avoid to charge the wrong type of battery
2. The battery maybe damaged if LED cannot be changed to green after long time charge.
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 for safety 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.**