



Item	Description (Normal Operation)
	Output Voltage "V": Pre-install display.
	Output Current "A": Press "Display Key" to display the output current.
	Battery Level "P": Press "Display Key" to show battery level. Press and hold "Display Key" for 3 seconds while displaying "P" to enable output current adjustment (for authorized technicians only, this is factory set).
	Total Charging Capacity "AH" (Ampere-Hour): Start AH calculation when charging current >1A, "H" flashes when "AH" function is operating. Press and hold "Display Key" for 3 seconds while displaying "H" to reset AH to zero. "H" stops flashing when "AH" function is not operating or charging current < 1A.
	Timer time: Start counter after "AH" function is set. Press and hold to reset to zero. Note: '<' less than - '>' greater than.

Item	Description (Advanced Users ONLY !)
	Charging Timer Setting (0.1H-0.2H-0.3H-): Start timer when charging 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 timer dot flashes when the timer is running and a solid dot when the timer stops. (This function is used for small batteries)
	Timer time: Starts counting after "E" (timer) function starts. When output current is under 30% the timer starting dot flashes. It will display the total time to charge after the timer started. According to the value, the user can set the charging time for his own battery. (If the total time is 3 hours, user can set the value at 3.0.E.)
	Float Charging: (Analysis) 1. Within timer time but charging current <10% of rating, the display will show "x.x h." (This means that the charger switches to float charging stage by current setting not timer setting) The charger will switch to float charging stage and green LED is on. 2. When over timer setting but current >10% of rating, the display will show "x.x.h." (The timer starting dot is solid meaning that the charger switches to float charging stage is by timer setting not current setting). The charger with float charge stage and green LED is on. Press "Display Key" to reset.
	High Voltage (Over Charging): If the battery voltage is >16V, it will show "H.V." & "xx.xV" alternately, the charger will switch to float charging stage & green LED is on. It will charge the battery again (reset) when the battery voltage is down to normal operational voltage.
	Pre-charging: If the battery voltage is < 10.5V, the pre-charge timer starts. This can be adjusted (for authorized technicians only, this is factory set). 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.

Operation:

1. Connect the charger to an approved 240V AC mains supply.
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 charger, the red LED lights up and the bi-color LED will confirm the charge stage.

Specifications:

MODEL	ABC-1206 (ABC-2404)	ABC-1210 (ABC-2407)	ABC-1220 (ABC-2412)	ABC-1225 (ABC-2414)	ABC-1230 (ABC-2417)	
Input	Voltage AC200V~240V					
	Frequency 47-63HZ					
Output	Equalizer Charge 14.7V +/- 0.2V (24V: 29.4V +/- 0.3V)					
	Floating Charge 13.7V +/- 0.2V(24V: 27.4V +/- 0.2V)					
	Current	6+/- 0.3A (4+/- 0.2A)	10+/- 0.5A (7+/- 0.4A)	20 +/-1A (12+/-0.6A)	25+/- 1A (14+/-0.7A)	30+/-1.5A (17+/-0.8A)
	Wattage	88W (117W)	147W (206W)	294W (353W)	367W (440W)	441W (500W)
	Efficiency	>87% (at Full Load)				
Protection	Battery Reverse	Yes	Yes	Yes	Yes, by fuse.	
	Short-circuit	Yes	Yes	Yes	Yes	Yes
	Overload	Yes	Yes	Yes	Yes	Yes
	Cooling Fan	Speed Controlled by Charging Stage				
Mechanical	Dimensions (mm)	155x70x48	167x103x50	190x118x58	152x70x225	152x70x275
	Weight	0.5Kgs	0.9Kgs	1.2Kgs	2.1Kgs	2.4Kgs

Notices:

1. ABC-Series is designed for charging Lead-Acid batteries only. (AGM, Gel, Wet)
2. Do not recharge non-rechargeable batteries.
3. The battery charger must only be plugged into an earthed socket outlet.
4. Always place the charger in well ventilated and dry environment.
5. The battery may be damaged if charging status LED does not change to green after an extended charge time.
6. The battery charger aluminum housing is a heat sink, avoid touching the case when operating the charger as the casing may be hot.
7. The battery charger is factory set for plug and play use, only used advanced functions if you have the experience to do so.



AUTOMATIC BATTERY CHARGER

www.sidewinder.com.au sales@sidewinder.com.au

Features:

1. Short-circuit Protection: No output when clips are short circuited.
2. Overload Protection: Output current-limited automatically when overloaded.
3. Reverse Polarity Protection: No output when battery is reverse connected.
4. Automatic multi-rate charging function: Bulk charge, absorption charge and float charge.
5. Unique LCD (or digital meter) Display: Indicating both charger status and battery level (and voltage, current and capacity).
6. LED Display: Red(power), green(float charge) & orange(absorption charge)

Charge Curve and LED Indications:

