IRH COMPONENTS

Advanced

Specification and Operating Instruction

of

IRH Automatic Battery Charger

12V 3Amp

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Specification

IRH Part No:	47C 1203ATB
Model:	1203ABT
Input:	240V AC 50Hz 50VA
Output:	12V DC 3Amp
Boost Voltage:	14.6V
Float Voltage:	13.6V

Boost and Float output Voltage Temperature Compensated.

Physical Size:	L = 120mm W = 200mm D = 175mm
Battery Compartment:	To suit Cyclon Battery Pack 12V 2.5Ah IRH Part No. 42H08100008F

LED Indication

ON Red Led =	Charger On
CL Orange Led =	Charger is in Current Limit (CL) i.e. 3Amp max.
VR Green Led =	Voltage Regulation
BST Red Led =	Boost Phase Flashing = Boost Mode Steady = Equalise Mode

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Alarm Condition

LED's Roll Down =	Low Battery Voltage Or No Battery Connected
LED's Roll Up =	High Battery Voltage
High Temp. Alarm =	The "BST" (Red Led) and the "ON" (Red Led) are flashing
Charger Failure =	No LED lit
Alarm Output =	Any of the above Alarm condition will activate the Alarm Relay

Blue Wire =	Common	
Violet =	NO	5Amp
Green =	NC	Relay Contact

External Wire Connection

Battery Connection:

Red Lead with Crimp lug -	Connect to + Battery Terminal
Black Lead with Crimp lug -	Connect to – Battery Terminal

Load Connection

Red Pigtail Lead	+12V
Black Pigtail Lead	-12V

Alarm Output Voltage Free Relay Contact 5 Amp

Blue wire	Common
Violet wire	Normal open
Green wire	Normal closed

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Operating Instruction

WARNING: CONNECT BATTERY PACK TO THE CHARGER BEFORE APPLYING 240AC POWER TO THE CHARGER.

1/ Connection

1.1 Connect Battery to charger lead.

+ Battery Lug = Red Battery Charger Lead
- Battery Lug = Black Battery Charger Lead

1.2 Apply 240AC Power to Charger

2/ Startup Period

2.1 During the 5 second warm up period all LED's will be lit.

3/ Soft Start or No Battery Connection

If there is no Battery Connection or the Battery Voltage is below the Low Battery Alarm (Set at 10V) the charger will be on for 30 seconds then off for 10 seconds to test Battery Capacity.

This cycle will continue until the Battery Terminal Voltage is greater than 10V. During this cycle the "ON" (Red LED) will flash.

4/ Boost Mode

During the boost Phase the red "BST" Led is flashing. Output Voltage and current are monitored and regulated. Should the battery current exceeds the preset limit of 3 Amps the "CL" Mode will be activated to limit the current to 3 Amps.

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Once the Battery Voltage is lifted to meet the normal voltage setting the Equalize Phase is activated.

5/ Equalize Mode

Equalization Phase Routine will stay in this phase for the same period plus 5 minutes, this is called the mirror time. The Battery Voltage will be lifted to the max. Boost Voltage of 14.6V. During the equalizing Mode the charge current is limited to 3 Amps. During the Equalization Phase the BST Red LED is steady on.

6/ Float Mode

In the final Charging Phase the Battery Voltage will be maintained at float charge Voltage of 13.6V DC at 25°C. The BST Led will be off and VR Green Led will be on.

7/ Reset Charging Cycle

7.0 The Charging Cycle can be reset by switching the 240V AC Power "OFF-ON" or by depressing the Reset Button at the front of the charger.

7.1 During the short Reset Cycle all LED will be on, for approx. 2-3 sec. Should the battery be fully charged the unit will go to the VR Stage immediately otherwise the Boost/Equalization charge will be activated.