

WHC- 4:1 SERIES

4 in 1 Battery Charger: 12V, 24V, 36V, 48V: 900 Watts



Features

- Four in one battery charger
- One unit to charge 12V, 24V, 36V or 48V batteries.
- 3-step charge characteristic
- 3 LED indicators for charge condition
- Simple / Fail Safe voltage selector for battery voltage
- 900 watts output power
- Safe soft-start up input current
- Short Circuit protection & Thermal protection
- Reverse battery connection protection
- Compact / Light weight 4.5kg
- EMC Compliant
- AS/NZS60335.2.29 approval: No. 24189



General Specifications

Input Voltage	115VAC (90 ~ 130) 230VAC (200 ~ 260) (Switch selectable)
Frequency	50 / 60Hz
Efficiency	80%
Input Current	15A @ 115VAC 7A @ 240VAC
No Load Input Current	< 0.2A
Output Power	450 ~ 1000 watts
Voltage Adjust.	N/A
Protection	<ul style="list-style-type: none">• Incorrect Battery Connection• Reverse Battery Connection• NO Battery connection• Short Circuit protection• Over-voltage protection• Thermal protection
EMC Emission	EN 5514-1, -2
Immunity	IEC 61000-4, -2 – 4 – 5- 6- 11
Safety	EN60335-1 AS/NZS 60335
Isolation	Input – Output: 3000VAC
Operating Temp	-20°C to +60°C at 100% load.
Insulation	Class I insulation
Cooling	Fan cooled. Variable speed, temperature dependant.
Connector	Input: IEC socket Output: Cable & Battery Clips
Led Indicator	Yellow: Absorption / Soft Start Red: Error Green: Full Charge / Float mode
Dimensions	300 x 223 x 101mm 4.5kg
(L x W x H)	

Description

The **WHC Series** Battery Charger is a **4 in 1** unit, allowing you to charge 12V, 24V, 36V or 48V batteries using one charger.

The safety features built-in to this charger, allows for simple and safe operation of charging any battery.

The selection of battery voltage by push-buttons on front panel, allows for quick and easy selection of system voltage. Three LED'S also provide an instant indication as to the charge cycle that the charger is in. At the end of the charge cycle, the charger can be left connected to the battery indefinitely.

Suitable for a wide range of batteries: Lead-acid, and NiMH

It also instantly recognises if an incorrect battery voltage is connected to the unit, (RED LED indicator) and does not power-up.

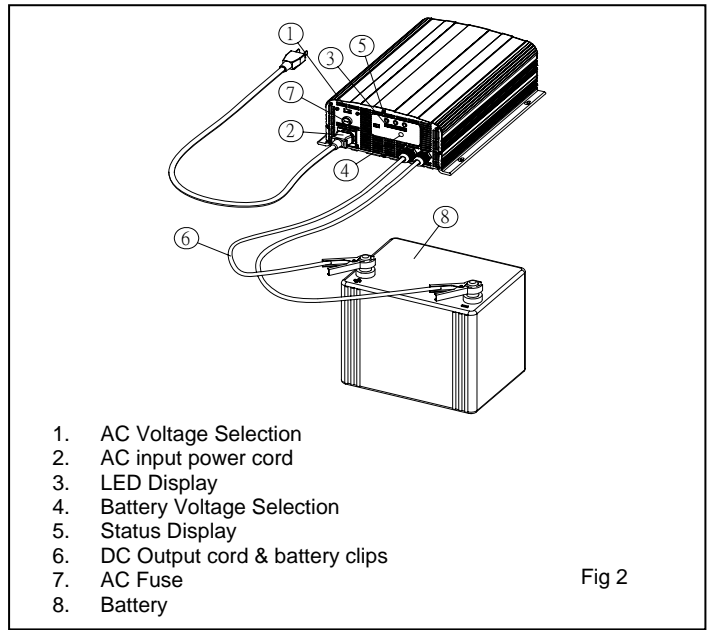
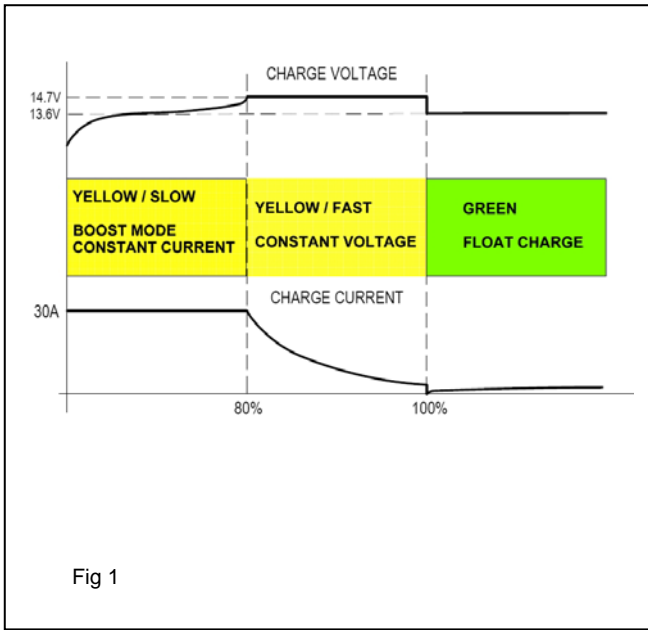
NOTES / warning:

- The 4:1 Battery charger is **ONLY** designed to operate **WITH** a battery connected. If battery is not connected or battery is damaged, RED LED will indicate error.
- Charger voltage sensor:** The charger will NOT start or connect, if the battery voltage is too low or deeply discharged / damaged battery.
 - 12V batteries >8V
 - 24V batteries >16V
 - 36V batteries > 27V
 - 48V batteries > 40V

	Charger Output			
Nominal Output Voltage	12V	24V	36V	48V
Max Output A	30A	30A	25A	15A
Max Output Power	450W	900W	1000W	900W
Charge Voltage	14.7V	29.4V	44.1V	58.8V
Float Voltage	13.6V	26.6V	39.9V	53.2V

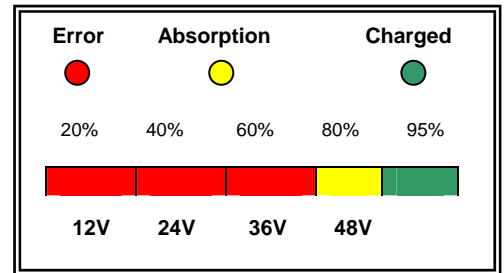
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Operating Instructions:

1. Make sure input AC Voltage selector is set to 240VAC (1)
2. Plug-in and switch on AC power to charger, before connecting to battery.
3. Select system battery voltage:12V, 24V, 36V 48V by pressing Battery Selection (4)
 - 12V one LED is on, 24V battery two LED'S are on, 36V battery three LED'S are on and for 48V battery four LED'S are on.
4. Switch off mains power, connect output lead to Battery with correct polarity, Red +VE, Black -VE and switch mains power back on.
 - Allow for 10 sec's for charger to read battery and If incorrect voltage selection is made, RED LED indicator will Flash ON
5. The charger will go into charge (Absorption) and the Yellow indicator will stay on, until such time as the battery is fully charged, which at that time, the GREEN LED comes on and the battery can be disconnected on left on Float Charge.
6. The five bar LEDS during the charging process will indicated the percentage (%) of charge reached.
 - This bar serves two purposes, one to initially select battery voltage and also show charge level as a % during the charge period.
7. **NOTE:** Once the charger is switched off and switched on again...it will recall & show the **last** voltage selection / setting.



Battery Selection Push Button →

Fig 3: Front panel display

LED		Status / Description	
YELLOW	LED ON	Unit is connected correctly and is in Soft Start status / slow charge	
	Slow Flash	In Absorption / Boost Status (Constant Current Charging)	
	Fast Flash	In Abortion / Boost Status (Constant Voltage Charging)	
	Super Fast Flash	In constant voltage, ending charge	
GREEN	Slow Flash	Battery fully charged	
	Fast Flash / ON	Battery is fully charged and can be left connected if required	
RED	Flash 2 times	Charger is not connected or DC Fuse blown	Output Fuse needs to be checked
	Flash 3 times	Incorrect battery selection voltage	Check voltage selection push-button
	Flash 4 times	Input thermal sensor may be open circuit	Please return unit for service / inspection
	Flash 5 times	Over-temperature	Switch off and allow for charger to cool down