

**MATSON**

# IR61224 BATTERY CHARGER

**Infinite**  
intelligent battery charging

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## IR61224 6/12/24 VOLT CHARGER

**This manual contains important safety and operating instructions for the IR61224 Battery Charger.  
Read this manual carefully before using.**

Consider ALL safety, warning and caution instructions carefully.

### Warning

1. The battery charger is intended for use by adults and should not be operated by children
2. It is designed for use in dry and protected environments. DO NOT expose to the elements i.e. rain, dust, etc.
3. This charger is for 6, 12 and 24 Volt use only. DO NOT exceed ratings nominated in the specifications for the charger described in this manual.
4. The IR61224 charger range requires an earthed 240Volt mains power supply
5. Disconnect from the 240Volt mains power supply before making connections and/or disconnecting clamps from the battery.
6. When disconnecting power, pull by the plug - DO NOT pull on the power lead.
7. DO NOT attempt to use charger if it is damaged or faulty
8. DO NOT charge non-rechargeable batteries
9. Always check the manufacturers recommended charge rates and voltage specifications for the battery prior to charging
10. DO NOT attempt to charge or jump start a frozen lead-acid battery
11. Only use attachments supplied with the charger - failure to do so may result in personal injury or equipment damage or void warranty
12. Dispose of faulty batteries in an environmentally responsible manner

	<p>Avoid contact with battery acid - it is highly corrosive, causing burn injuries and equipment damage</p>
	<p>Wear safety glasses to prevent eye injuries. If acid contacts eyes - flush immediately with cold water for 10 minutes, and seek medical attention</p>
	<p>Wear protective clothing to prevent acid contacting the skin If battery acid contacts skin - wash immediately with soap and fresh water Remove all jewellery and personal metal items when working with a lead-acid batteries</p>
	<ul style="list-style-type: none"> <li>● A lead-acid battery can generate explosive gases during normal battery operation.</li> <li>● To reduce risk of explosion, follow these instructions, those of the battery manufacturer and of any equipment being used in vicinity of battery</li> <li>● Use the jump start in a well ventilated area. DO NOT operate in the vicinity of flammables such as petrol etc. DO NOT allow sparks or flame near the battery</li> <li>● Short circuiting the contacts can generate a spark, creating a potentially explosive situation - take care with tools and components</li> <li>● Never smoke while working with a lead-acid battery</li> </ul>

## FEATURES



**The Matson INFINITE IR61224 is a fully automatic 7 stage battery charger.**

### The INFINITE IR61224 charger:

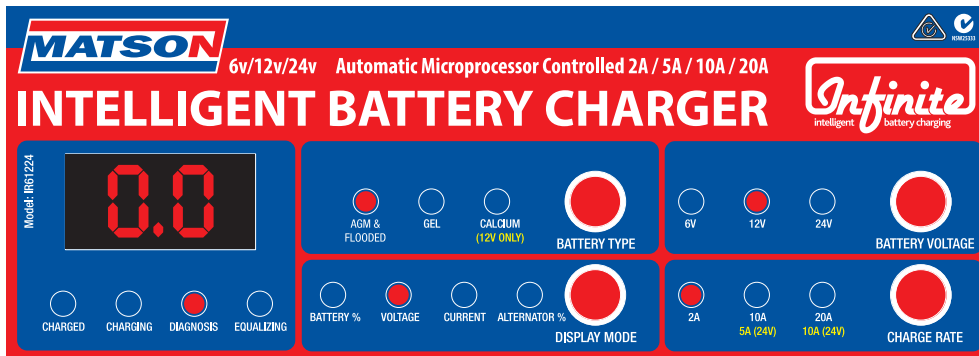
- Prevents the battery from overcharging and consequent damage
- Can be connected to the battery indefinitely
- Are programmable for different battery types including GEL, AGM, Deep Cycle, Sealed Lead Acid and Calcium batteries
- Has variable Voltage outputs
- Has a unique inbuilt diagnosis program. On connection to the battery, the charger automatically diagnoses the battery condition and changes its charge rate and charge stages accordingly. This optimises charging conditions and extends battery life
- Is housed in a robust aluminium case
- Has a LED display for: voltage, current, battery capacity & alternator %
- Has electronic touch-button controls
- Has a desulphation stage
- Uses high frequency charging for efficiency
- Incorporates polarity protection
- Prevents output leads from sparking due to reverse connection or short circuit
- Has over temperature protection - internally fan cooled with a set cut off point for additional safety
- Has over current protection - charger automatically reduces current for optimum battery condition.



- The IR61224 does NOT have a memory function.
- After a power loss, the BATTERY VOLTAGE reverts to the default setting - 12VDC
- BATTERY TYPE reverts to the default setting - Flooded

<b>MODEL</b>	<b>IR61224</b>		
<b>Charging Stages</b>	7		
<b>Input</b>	240vac, 50Hz		
<b>Output Voltage</b>	6/12/24 Volt DC Selectable		
<b>Output Current</b>	6/12 Volt, 2/10/20 Amp. Selectable 24 Volt, 2/5/10 Amp. Selectable		
<b>Min. Start Voltage</b>	1.5 Volt		
<b>CHARGE CONTROL</b>			
<b>Desulphation</b>	High Frequency Pulse Charge (DEPENDENT ON DIAGNOSIS)		
<b>Soft Start</b>	Yes		
<b>Charge Rates</b>	6 Volt Flooded - 7.2v Gel - 7.05v	12 Volt Flooded - 14.7v Gel - 14.1 Calcium - 15.1v	24 Volt Flooded - 28.6v Gel - 28.2v
<b>Absorption</b>	Constant voltage with automatic Amperage control		
<b>Equalization</b>	Automatic		
<b>Analysis / Fault Find</b>	Automatically detects faulty batteries. Error codes indicate fault		
<b>Alternator Function</b>	When selected - indicates alternator is functioning correctly		
<b>Float</b>	6V @ 6.8V	12V @ 13.7V	24V @ 27.4V
<b>Reboot</b>			
<b>FEATURES</b>			
<b>Case Construction</b>	Aluminium		
<b>Fan Cooled</b>	Yes		
<b>Permanent Mount</b>	No		
<b>Weight</b>	2.4kg		
<b>Dimensions</b>	246 x 146 x 50mm (LxWxH)		
<b>Warranty</b>	12 Months		
<b>BATTERY SIZE / TYPE</b>			
<b>Size</b>	10 - 240 Ah Charge 2 - 400 Ah Maintain 150 - 800 CCA Charge / Maintain		
<b>Type</b>	Storage, Deep Cycle and Automotive and Industrial		

## FRONT PANEL INDICATORS



### BATTERY TYPE

Press to select. Selection cycles through FLOODED / GEL / CALCIUM

Red LED indicates type selected

### BATTERY VOLTAGE

Press to select. Selection cycles through 6V / 12V / 24V

Red LED indicates voltage selected


### CHARGE RATE

Press to select. Selection cycles through 2A / 10A / 20A. NOTE: If 24V is selected - the selections are 2A / 5A / 10A

Red LED indicates charge rate selected

- 2A - Slow charge - recommended for optimal battery condition. e.g. A 100Ah charges in approx 20 hours
- 10A - Intermediate charge - e.g. A 100Ah charges in approx 10 hours
- 20A - Boost charge - e.g. A 100Ah charges in approx 5 hours

These times are a guide only - charge rates will vary depending on a number of conditions.

	<p>You can switch between charge rates during the charge process. The charge rate automatically adjusts to the present charge level</p>
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### DISPLAY MODE

Press to select. Selection cycles through BATTERY % / VOLTAGE / CURRENT / ALTERNATOR %

Red LED indicates mode selected

- BATTERY % - % of charge in the battery
- VOLTAGE - Voltage of the battery being charged
- CURRENT - Current (amperage) going into the battery being charged
- ALTERNATOR % - You can only select ALTERNATOR % Mode when the clamps are NOT connected to a battery

### CHARGED LED

Green LED - lit when battery is fully charged

### CHARGING LED LED

Amber LED - lit when battery is being charged

### DIAGNOSIS LED

Red LED - lights when charger is turned on and stays on until clamps are connected

### EQUALIZING LED

Green LED - lights when the charger detects less than 8 volts in the battery being charged. The charger equalizes each cell until the battery reaches a minimum charge level - approximately 2.1 volts per cell.



## CHARGING A BATTERY



1. Turn the charger ON by connecting it to 240VAC mains power
2. Press BATTERY TYPE to select the required battery chemistry
3. Select BATTERY VOLTAGE - 6 / 12 / 24 volts
4. Select CHARGE RATE required



- If charging a battery in a vehicle, ensure cables are removed from any rotating or crush hazards.
- Confirm the vehicle is negative earth - vehicle chassis.

5. Attach the black / negative - clamp to the negative terminal of the battery
6. Attach the red / positive + clamp to the positive terminal of the battery
7. There is a 30 second delay between connecting the clamps and switching to charge and CHARGING LED illuminating
8. Once charging has started, press the DISPLAY MODE button to cycle between the BATTERY % / VOLTAGE / CURRENT status of the battery being charged
9. Green CHARGED LED lights when the battery is fully charged and displays FULL on the display
10. When fully charged, you can either
  - Leave the charger connected and it operates in a maintenance mode, or
  - Disconnect as follows
11. Turn the charger OFF at mains power
12. Disconnect the red / positive + clamp from the battery positive terminal
13. Disconnect the black / negative - clamp from the battery negative terminal

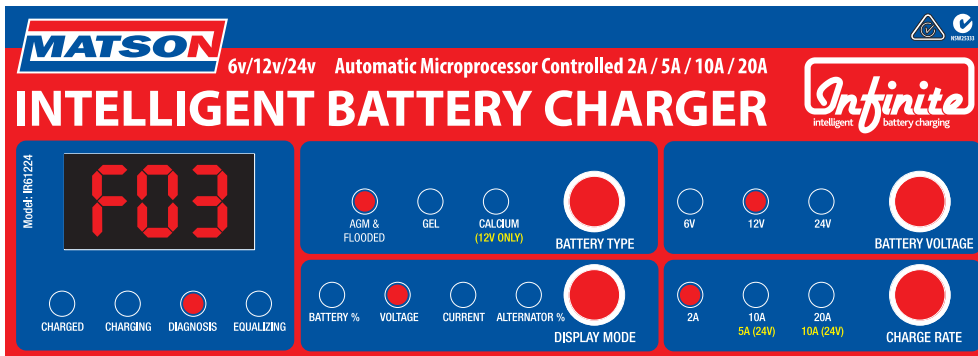
## ALTERNATOR FUNCTION



Alternator function can only be selected when the clamps are NOT connected to a battery.

1. Turn the charger ON
2. Press DISPLAY MODE to select ALTERNATOR %
3. Connect the RED DC clamp from the charger to the Positive (+) battery post and the BLACK DC clamp from the charger to the Negative (-) battery post.
4. Start the engine and rev the motor -
  - If alternator is working correctly, display indicates a value higher than 50
  - If the display indicates less than 50 - the alternator is not performing as designed and requires checking by a qualified technician.

## TROUBLESHOOTING



LED/ERROR CODE	Fault / Condition	Comment
DIAGNOSIS LED lit	Charger is diagnosing battery condition	LED stays ON until clamps are connected
CHARGE LED lit	Battery is charging	
CHARGED LED lit	Battery is fully charged and operating in float mode	
EQUALIZING LED lit	Charger is equalizing the charge across ALL battery cells	
F01	Bad cells in battery	Replace battery
F02	Charge time exceeds 48 hours	Bad cells in battery - replace battery
F03	Reverse connection	Check clamps for correct polarity
F04	Overheating	Charger starts again when temperature drops. Ensure charger vent is not covered
F05	Aging battery	Battery cannot be efficiently charged - replace battery
F06	Incorrect voltage setting	Set correct charge rate voltage
00	Standby - awaiting input / settings	



## Warranty Policy

Products developed and sold by Tridon Australia Pty Ltd come with a guarantee for the reasonable life of the product, for the purpose it is commonly used. This is in addition to the rights of the consumer under the Australian Consumer Law. To be considered for warranty please take the product with proof of purchase to the store where you purchased the product or contact Tridon Australia

### The warranty is given by:

**Tridon Australia, 21-25 Derby St, Silverwater, NSW 2128.**

**Tel: 1300 362 263.**

**Email: [mail@tridon.com.au](mailto:mail@tridon.com.au)**

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage incurred if the product fails when used for the purpose for which it was intended. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.



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