Century

Batteries that last and last



Model: CC1206

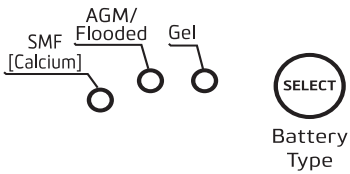
OWNER'S MANUAL

AUSTRALIAN & NEW ZEALAND STANDARD AS/NZS 60335.2.29 APPROVED

Congratulations on purchasing your Century 12 volt automatic battery charger, maintainer and rejuvenator. Please take the time to carefully read and understand this manual before using this product.

IMPORTANT SAFETY ADVICE AND WARNINGS

- The CC1206 is designed to charge and maintain **12V conventional lead-acid batteries only**, including:
  - Sealed Maintenance Free (SMF) flooded calcium batteries - **SMF [Calcium]** battery type option must be selected.
  - Absorbed Glass Mat (AGM) and maintainable flooded batteries - **AGM/Flooded** battery type option must be selected.
  - Gel electrolyte type batteries - **Gel** battery type option must be selected.

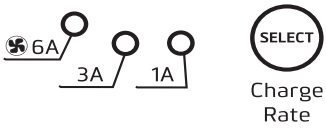
  

  Visit http://www.centurybatteries.com.au/battery-charging or http://www.centurybatteries.co.nz/battery-charging for further advice on which Battery Type setting to select.
- Always refer to the battery manufacturers specifications and recommendations if you're unsure of your battery charging requirements. Eg. Such as removing or not removing cell caps whilst charging, battery type, maximum charge rate etc..
- Explosive gases may escape from the battery during charging so please ensure the battery is charged in a well ventilated area - never in a closed room.
- This charger is designed for indoor use only and should never be exposed to water, rain, snow, liquids etc.
- Always wear eye protection when working near batteries.
- Always turn battery charger or ignition off* before disconnecting a battery.
- Do not attempt to use the charger if it has been dropped or damaged.
- Do not attempt to use the charger if the cables or plugs are damaged.
- Battery acid can cause burns. Suitable hand, eye and face protection and protective clothing must be worn. It is highly recommended to wear PPE (Personal Protection Equipment) including safety glasses, chemical resistant gloves and overalls.
- First Aid: For advice, contact the Poisons Information Centre in Australia (phone 13 11 26) or the National Poisons Centre in New Zealand (phone 0800 764 766), or contact a doctor immediately. If battery acid enters your eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing for at least 15 minutes or until advised to stop by poisons information centre, national poisons centre or doctor. If battery acid contacts your skin or clothing, wash immediately with soap and water. If hair contact occurs, remove contaminated clothing and flush hair with soap and running water. Someone should always be within range of your voice.
- If electrolyte is swallowed, do NOT induce vomiting – give a glass of water. Seek immediate medical assistance.
- Never attempt to charge a damaged battery, frozen battery or non rechargeable battery.
- Never place the charger on the battery or battery on the charger.
- When working with lead-acid batteries, remove personal metal items such as rings, bracelets, necklaces, watches and make sure you don't short circuit the battery terminals with any type of metal tool, piece of jewellery or other conductors as this will cause an explosion. You can wrap your spanner with insulation tape to minimise the risk of a short circuit.
- NEVER smoke, use an open flame or create sparks near a battery or charger during charging operation as explosive gases may cause an explosion. Flames, sparks, burning cigarettes or other ignition sources must be kept away at all times.
- Do not disassemble the charger. Take it to a qualified and authorised person for repair.
- Acid spill response: Bund and neutralise spills with soda ash or other suitable alkali. Dispose of residue as chemical waste or as per local requirements.
- If using a generator, you must ensure you use a surge protector to protect the charger from voltage spikes.
- The charger must not be used or played with by infirm persons or children. Also keep it away from any pets.

  * In some vehicles, ignition may be required to be placed in accessory mode where electronic memory minder is present.

MAIN FEATURES

- **Selectable automatic smart battery charger & maintainer with reconditioning.**
- **The battery charger is easy to use and requires no technical experience.**
- **Fully microprocessor controlled with safety timers at every stage.**
- **Multi Stage:**
  1 - Qualification - Battery condition check
  2 - Battery rejuvenation (reconditioning mode)
  3 - Soft start charging
  4 - Bulk charging
  5 - Absorption charging
  6 - Equalisation charging
  7 - Battery analysis
  8 - Float mode
  9 - Long term maintenance pulse charge
- **Battery condition analysis.**
- **Battery voltage retention analysis.**
- **Automatic diagnosis and charge:** On power up, the charger will automatically diagnose the battery condition and determine if the rejuvenation mode (reconditioning) or charge cycle is required.
- **Selectable battery type.**
- **Selectable charge rate / mode.**
  6A - Rapid Charge Mode: Uses maximum charging current (6 Amps) to ensure the fastest charge time. You may hear the fan turn on during this mode.
  3A - Silent Charge Mode: Charges at a reduced charge rate (3 Amps) and the cooling fan is not required.
  1A - Maintenance Mode: Ideal and recommended for long term maintenance charging or for charging smaller batteries. NOTE: When used in maintenance mode, please check that the application's current draw does not exceed the charging current.



- **Patented battery rejuvenation (reconditioning) technology:** The charger has a unique and patented rejuvenation feature which uses high voltage equalising and peak pulse re-conditioning to repair sulphated batteries. This feature is fully automatic and depends on the internal impedance of the battery. It also depends on whether the battery is still connected in the vehicle.
- **Ultra low power consumption (ECO Mode)**
- **Pulse charge for long term maintenance.**
- **Can be left on 24/7 to ensure your battery is always maintained and fully charged:** The battery charger can be left permanently connected all year round. The intelligent charger will monitor the battery voltage and will maintain it at peak performance with a special pulse charge during long term maintenance. Please note that even if the battery charger incorporates this feature, **Century Batteries does not recommend leaving the battery charger connected 24/7.**
- **Short circuit and reverse polarity protection.**
- **Heavy-duty and corrosion-resistant output connectors.**
- **Crocodile clips / Ring Terminals:** It comes with a quick connect fly lead and heavy duty, fully insulated crocodile clip harness and ring terminal harness.

TEMPERATURE & SAFETY PROTECTION:

- **INTERNAL OVERHEAT PROTECTION:** The charger has a built-in overheat and an overload electronic circuit. This protects the charger from being damaged if overheated or overloaded and will automatically decrease the charging current. Once the units internal temperature decreases to a safe level, the charger will resume normal charging.
- **SAFETY TIMER PROTECTION:** The charger has safety timers for every stage. If the battery voltage doesn't reach a certain voltage within a certain time, the unit will stop charging as it is highly likely that you are attempting to charge a severely discharged or heavily sulphated battery. If any of the stages times out, the charger will immediately stop charging in order to protect the battery. This will be indicated with the fault LED flashing slowly.
- **REVERSE POLARITY:** The charger has reverse polarity protection. If the charger output leads are connected reverse polarity, the fault LED will come on and the charger will be disabled. Simply unplug the charger from AC power and then connect the output leads to the correct polarity.
- **SHORT CIRCUIT PROTECTION:** The charger will automatically turn off if the output leads are short circuited and the fault LED will come on. This prevents the charger from being damaged if the positive and negative crocodile clips or the optional ring terminals accidently touch each other while the charger is turned on.
- **ECO MODE:** This Century battery charger has a built in ultra low power consumption circuit. If AC power is connected and the battery is disconnected, after 10 seconds the charger will automatically go into an ECO mode. During this mode the power drawn is less than 0.36W which totals 0.01kWh per day power consumption. If AC power is connected and the battery is connected, once the battery is fully charged and during the long term maintenance stage, the total power consumption is around 0.03kWh per day.

  Both the selected Charge rate and Battery type LEDs will flash GREEN to indicate ECO mode.

BATTERY TYPES & CAPACITY:

- Suits 12V conventional lead acid batteries: All SMF [Calcium], AGM/Flooded & Gel.
  The Ah (Ampere Hours) capacities shown below are to be used as a general guide only. Some batteries may be able to handle a higher charge current. Refer to the battery manufacturers specifications and recommendations for your charging requirements.

	Model No. CC1206		
Charge Rate:	1A	3A	6A
Charging	3 - 20Ah	9 - 60Ah	18 - 120Ah
Maintaining	< 100Ah	< 110Ah	< 180Ah

These figures are based on 5 to 30% of battery Ah rating. For optimum charging, 10% of battery Ah rating is recommended for flooded batteries and 20% of battery Ah rating is recommended for AGM & Gel batteries.

Charge rate advice per vehicle type

	1A	3A	6A
	✓		
	✓	✓	
	✓	✓	
	✓	✓	
	✓	✓	
		✓	✓
		✓	✓
			✓
			✓

Visit http://www.centurybatteries.com.au/battery-charging or http://www.centurybatteries.co.nz/battery-charging for further advice on which Battery Type and Charge Rate settings to select.

ELECTRICAL PARTS & ACCESSORIES:

AC Power Cord:	1.8m with SAA 2 Pin AU Plug
DC Output Lead:	1.2m with quick connect
Charging Leads:	Quick connect 60cm Crocodile Clip harness and 60cm Ring Terminal harness

TECHNICAL SPECIFICATIONS:

Model Number	**CC1206**
Output	6A @ 12V DC
Input Voltage	100-240Vac / 1.4A - 0.75A (95W)
Input Frequency	50/60Hz
Charge Voltage	Gel - 14.1V AGM/Flooded - 14.4V SMF [Calcium] - 14.7V
Equalising Voltage	Gel - 14.3V AGM/Flooded - 14.6V SMF [Calcium] - 16.2V
Float Voltage	13.6V
Start Voltage	3V
Operating Temperature	-15 to 50° C
Storage Temperature	-25 to 85°C
Operating Humidity	90% RH Max.
Size (L*W*H)	189mm x 98mm x 51mm
Weight	800g (approx.)
Approvals	CE, UL/cUL, AS/NZS, EMC

CHARGING INSTRUCTIONS:

STEP 1 - Pre charge check & electrolyte level check

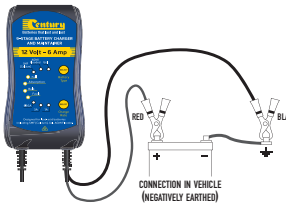
- Check the Battery Electrolyte levels (On Sealed Maintenance Free batteries, check the State of Charge indicator). If necessary, remove the vent caps and add distilled water so the levels are halfway between the upper and lower fill lines.
- Check the battery voltage, type and Ah capacity to ensure the charger is compatible and to determine which Battery Type and Charge Rate settings you will use.
  Visit http://www.centurybatteries.com.au/battery-charging or
  http://www.centurybatteries.co.nz/battery-charging for advice on which Battery Type and Charge Rate settings to select.
- Ensure the battery is in a well ventilated area and the charger should be as far away from the battery as the cables permit.

STEP 2 - Connecting the battery charger to your battery

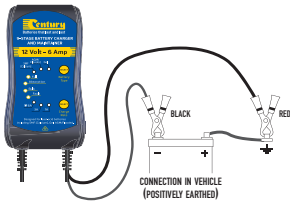
- If the Battery is **out of the vehicle:**
  - Connect the Red (+) Crocodile clip or optional ring terminal to the (+) battery terminal.
  - Connect the Black (-) Crocodile clip or optional ring terminal to the (-) battery terminal.



- If the battery is still **in the vehicle**, determine if the vehicle is positively or negatively earthed.
  If **Negatively Earthed (Most Common)** – FIRST Connect the Red (+) Crocodile clip or optional ring terminal lead to the (+) battery terminal and then connect the Black (-) Crocodile clip or optional ring terminal lead to the vehicle's chassis. DO NOT connect the Black (-) lead to the carburettor or fuel lines.



If Positively Earthed – FIRST Connect the Black (-) Crocodile clip or optional ring terminal lead to the (-) battery terminal and then connect the Red (+) Crocodile clip or optional ring terminal lead to the vehicle's chassis. DO NOT connect the Red (+) lead to the carburettor or fuel lines.



STEP 3 - Connect the battery charger to Mains Power (240Vac)

- The charger will automatically start when AC power is connected and switched on.
- **IMPORTANT**: Please make sure the correct Battery Type and your desired Charge Rate is selected to suit your battery by pressing the Select Buttons within the first 5 minutes of charging. For Example do not charge a Gel or AGM type Battery on the SMF [Calcium] Battery Type setting as this will damage your battery and / or reduce your battery life.
  Note: If the Fault Indicator LED illuminates Red, please check your connections as it is likely that the Positive and Negative Leads are reversed.

THE CHARGING PROCESS:

1) **Qualification - Battery Condition Check**
   When the charger is first switched on it checks the battery condition to determine whether the battery needs reconditioning. During this qualification process it checks the internal impedance and initial voltage of the battery and it will determine how much charge current, if any that the battery will accept.
2) **Enhanced Battery Rejuvenation - Blue Bulk LED Flashing Fast**
   If the initial qualification detected that the battery was in poor condition, the patented rejuvenation process will begin automatically. During the rejuvenation process a high voltage equalising and peak pulse reconditioning charge is used to repair the sulphated battery. This unique patented feature will break down and dissolve the lead-sulphate crystal build up on the battery plates which will extend the life of your battery. It can also balance out high concentrations of acid. The equalisation voltage will be 16V maximum. If the battery voltage doesn't reach 9V within 24 hours, the Rejuvenation process will time out.
3) **Soft Start Charging - Blue Bulk LED Flashing Slow**
   Gently charges the battery using a reduced charge output until the battery voltages reaches 11V. If the battery voltage doesn't reach 11V within 6 hours, the safety timer protection will stop the unit from charging and the Red Fault LED and Blue Bulk LED will start flashing.
4) **Bulk Charging - Blue Bulk LED ON (Charge Voltage depends on battery type selection)**
   Uses the maximum selected charge output until the battery voltage reaches 14.1/14.4/14.7V. If the battery voltage doesn't reach this within 24 hours, the safety timer protection will stop the unit from charging and the Red Fault LED will start flashing and the Blue Bulk LED will be ON.
5) **Absorption Charging - Green Absorption LED ON**
   Uses a constant voltage while reducing the charging output current to ensure the battery receives a full charge without overcharging the battery.
6) **Equalisation Charging - Green Absorption LED flashing**
   A well proven process that carefully overcharges the battery to restore it's full capacity. The Equalisation stage for SMF [CALCIUM] Battery type selection is automatic. The Equalisation stage for AGM/Flooded and GEL battery types only occurs if the initial start voltage is below 11 Volts.
7) **Battery Analysis - Green Full LED ON**
   The battery analysis stage checks the condition of the battery after the charge cycle is completed. If the battery voltage drops too quickly during the analysis mode, this means the battery is probably faulty. If the battery analysis failed, this is indicated by the Green Full LED flashing.
8) **Float Mode - Full Green LED ON**
   This stage allows you to keep the charger connected 24/7 to ensure your battery is well maintained and kept 100% fully charged. Float mode will maintain the battery at a constant 13.6V.

9) Long Term Maintenance - Full Green LED ON

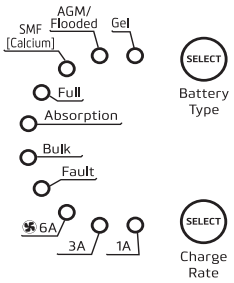
During long term maintenance / float mode, the unit will apply a special pulse charge to ensure the battery is kept in optimal condition.

STEP 4 - Disconnecting the Battery charger from Battery

- **If the Battery is out of the vehicle:**
  - (1) Switch OFF and Remove the AC Power Socket from the outlet.
  - (2) Remove the Black lead and then the Red lead.
- **If the battery is still in the vehicle:**
  - (1) Switch OFF and Remove the AC Power Socket from the outlet.
  - (2) Remove the lead from the vehicle chassis.
  - (3) Remove the lead from the battery.

Note: Check electrolyte levels if possible after charging as they may need topping up with distilled water. (This does not apply to sealed maintenance free batteries)

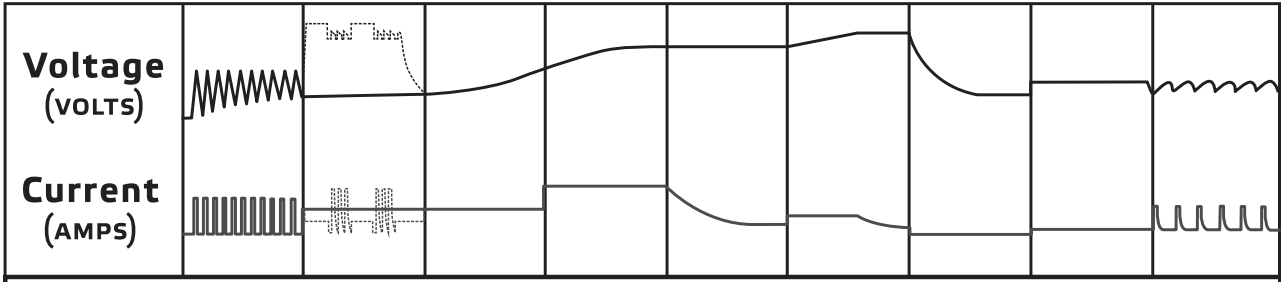
LED STATUS INDICATOR TABLE:



LED	Status	Description
Battery Type LED's		
Green	ON	Indicates which Battery Type is selected
Charge Rate LED's		
Green	ON	Indicates which Charge Rate / Charge Mode is selected
Charging Status LED's		
Full Green	Flash/ON	Flashing if Analysis failed or ON if fully charged - Float / Maintenance mode
Absor. Green	Flash/ON	Flashing during equalisation charging or ON during Absorption charging
Bulk Blue	Flash/ON	Fast Flash - Rejuvenation / Slow Flash - Soft Start charging / ON - Bulk charging
Fault LED		
Red	ON	Short circuit/reverse polarity or Rejuvenation failed if Bulk LED also flashing slow
Red	Flashing	Over temperature protection mode / Soft start charging timed out if Blue Bulk LED also flashing fast / Bulk charging timed out if Blue Bulk LED also ON

Note: When the unit is in ultra low power consumption mode (ECO Mode), this will be indicated by both the Charge Rate and Battery Type LEDs flashing.

CHARGING CURVE



CHARGING / MAINTAINING PROCESS									
	QUALIFICATION	REJUVENATION	SOFT START	BULK CHARGE	ABSORPTION	EQUALISATION	ANALYSIS	FLOAT	MAINTENANCE
	Checks battery condition to determine whether the rejuvenation stage or charge cycle is required.	Automatic stage for batteries in poor condition. Breaks down sulphation using new patented technology.	Increases your battery life by gently starting to charge the battery until the battery reaches a set voltage.	Reduces charging time by delivering maximum charge until the battery reaches a set voltage.	Uses constant voltage and ensures the battery receives a full charge without overcharging the battery.	Restores full capacity to batteries by removing acid stratification.	Checks the battery condition to ensure it is fully charged.	Maintains the battery at 100% charge.	Special pulse charge for long-term maintenance to ensure the battery is in optimal condition.

ONLINE RESOURCES

Visit http://www.centurybatteries.com.au/battery-charging or http://www.centurybatteries.co.nz/battery-charging for more information on battery charging and for advice on which Battery Type and Charge Rate settings to select when using Century's CC1206 battery charger and maintainer.

TROUBLE SHOOTING

Problem	Indication	Possible Causes	Suggested Solution
Charger does not work?	No Indicator lights on	- No AC power	- Check AC connections and make sure the AC Power Point is switched ON. - Try a different AC Power Point which you know is working.
Charger has no DC output?	Fault Red LED is ON	- Output is short circuited - Reverse polarity protection - Loose / bad connection to the battery	- Check DC connection between charger and battery and make sure they are not short circuited. (Touching each other) - Check that the crocodile clips have not fallen off or come loose. - Check that the crocodile clips/ ring terminals are connected to the correct polarity. **Note:** The charger output is only present when connected to a battery.
No charging current?	Fault Red LED is Flashing	- Battery is severely sulphated - Battery has a damaged cell - Overheat protection mode	- Check the battery condition, age etc. - Battery may need replacement. - Move battery & charger to a cooler environment.
The full / float light won't come on.	Fault Red LED is Flashing or Full Green LED is Flashing	- Battery Ah capacity too large for the battery charger and it has time out - Battery is defective - Battery is severely sulphated	- Check the charger specifications match the battery capacity. Eg. make sure battery capacity is not too big for the charger. - Battery may need replacement. - Charge rate selected might be too low for the battery. Switch charger off and on and try again or try a higher charge rate setting providing it doesn't exceed the maximum charge limit for your battery.

5 YEAR PRODUCT WARRANTY

Century Yuasa Batteries Pty Ltd (ABN 66 009 685 232) of 37-65 Cobalt Street, Carole Park, 4300, QLD, Australia and Century Yuasa Batteries (NZ) Ltd (NZBN 9429039377319) of 259 Church Street, Onehunga, Auckland, 1643, New Zealand warrant to the Customer that this product is substantially free from defects in materials and workmanship under normal use for a period of Five Years from the Date of Purchase. Please ensure you keep a copy of your purchase receipt on file as this will be required to validate your warranty.

Obtaining Warranty Service:
Within the warranty period, the Customer must contact the authorised supplier / retailer where the product was purchased or alternatively you can contact Century Yuasa Batteries through one of the following methods:

Phone - Australia: 1300 362 287
Phone - New Zealand: 0800 93 93 93
Website: www.centurybatteries.com.au / www.centurybatteries.co.nz

If Century Yuasa Batteries concludes that while under normal use, a product failure or malfunction occurred during the warranty period and was caused by a defect in material or workmanship (see Exclusions), the Customer will be asked to ship to the original point of purchase. The product must be packaged appropriately for safe shipment. To prove that the product is under warranty, the customer should enclose a copy of their receipt for proof of purchase. It is recommended that returned products be sent by registered mail as Century Yuasa Batteries accepts no responsibility / liability for goods lost or damaged in transit.

Exclusions:
If upon receiving a product for repair and if testing and examining the product has disclosed that the alleged defect or malfunction in the product does not exist or was caused by the Customer or any third persons misuse, neglect, physical abuse, water damage, unauthorised attempts to open, exposure to extremely high temperatures, tampered with or repaired by an unauthorised persons, this will not be covered under this warranty. Also charges may apply to any product returned which has no fault found or if the warranty has expired or been void.

This Warranty is also void if:
1. The warranty seal is broken or altered.
2. The warranty period has expired.
3. The product has been tampered with or repaired by an unauthorised person.
4. If used on a generator without using a surge protector.

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 compensation for any other reasonably foreseeable loss or damage. 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. For New Zealand customers, this warranty is in addition to statutory rights observed under New Zealand legislation.

Century Yuasa Batteries Pty Ltd
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SAA Approval No. GMA-500883-EA

CB113-2062

CC1206 Owner's Manual: Rev 1.2 - 09/17 - Specifications subject to change without notice.