

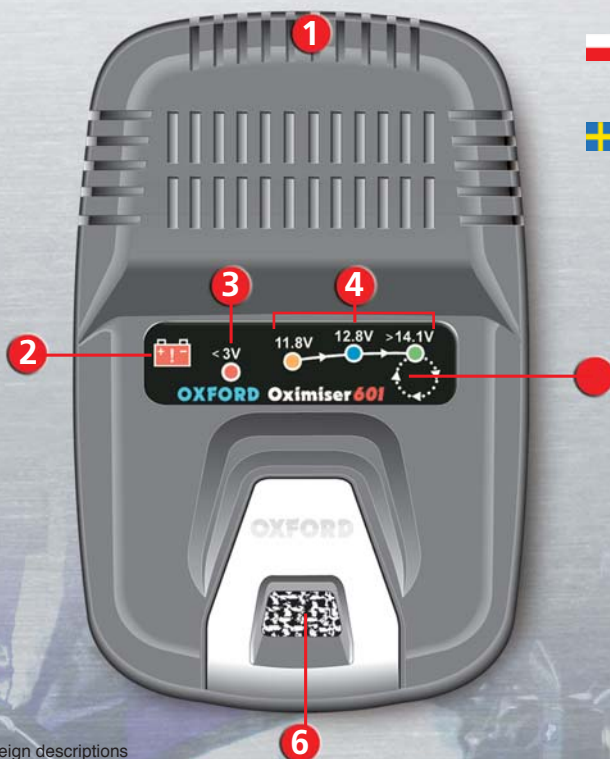
OXFORD Oximisier 601

Essential 12V Battery Optimiser

🇬🇧 P. 2 - 7

For charging most 12 Volt batteries 4 - 30Ah

USER MANUAL



see page 51 for foreign descriptions

- 1** Ventilation
- 2** Battery connection/
polarity error
- 3** Dead battery indicator
- 4** LED charge voltage indicator
- 5** Continuous float charge
- 6** Induction cooling vent

IMPORTANT SAFETY INSTRUCTIONS:

SAVE THESE INSTRUCTIONS

(A) INTRODUCTION

The OXIMISER 601 is a modern charger designed to charge, optimise and prolong the life of a 12-volt automotive battery.

This OXIMISER 601 uses a continuous yet reducing charge current to ensure that the battery is charged correctly. As the voltage of the battery increases the charge rate reduces. If a load is applied to the battery, this charger will compensate by automatically increasing the charge current and thereby maintain the battery condition.

It can be used with most batteries including Maintenance Free and Gel types.

Due to the construction of the smaller automotive battery, they do require more careful charging and the OXIMISER 601 is ideally suited for this job.

It is ideally suited for charging batteries ranging in size from 4Ah up-to 30Ah. This covers batteries normally fitted to scooters, motorcycles, golf trolleys, light aircraft, ride-on lawn mowers and small cars such as classic and racing cars. Batteries smaller than 4Ah can be charged but only for short periods and the battery temperature should be monitored during charging and this charger turned off once the battery is fully charged.

The centre display provides the following information:

- A guide to the battery voltage and charge status
- Notification of a battery that cannot be charged
- Battery connection errors due to reverse polarity connection

This essential piece of garage equipment is designed to be connected to a battery for long periods of time. However, there are different types of battery construction. If the battery has removable inspection caps, then regularly ensure that the fluid levels are above the minimum level. If the battery is a maintenance free type or is labelled as an AGM or GEL battery then will not have inspection caps and inspection of the fluid levels will not be possible or necessary.

Maintaining Your Battery

Winter storage can be hard on batteries. In fact, non-use can leave them unable to hold a charge. Store your bike in a place that is always warmer than 0°C. If your bike is outside remove the battery from your bike/vehicle and store it in a location that is always warmer than 0°C. This will ensure that your battery does not freeze and crack. A battery that is fully charged will have a longer life and is less likely to freeze during cold winter weather.

If you remove the battery from your bike/vehicle DO NOT store it on a concrete or metal surface, place the battery on a wood or other non-conductive surface. Batteries stored on concrete or metal will discharge over time.

Keep your battery maintained with the Oximiser 601 charger. Leave your Oximiser 601 connected for long periods or if you wish to save mains electricity, charge your battery at least once a month and then disconnect all leads from the battery.

Before using this battery charger, please ensure that you read the following manual carefully and follow the guidance given.

(B) CHARGING STAGES

The stages of this charging cycle are as follows:

1. POLARITY TEST:

Upon connection to the battery, a polarity check is made to ensure that the connections are correct. The red coloured LED will light up under the warning symbol if the connection polarity is wrong.

2. ANALYSIS:

- a. If the battery is permanently damaged or will not accept a charge current, or if the voltage is below 3 volts, the Oximiser 601 will not attempt to re-charge. The red LED (<3V) light will light up to prompt you to disconnect the Oximiser 601 from the battery.

3. RECOVER:

- a. If the battery is deeply discharged to approximately 3.1 Volts, the Oximiser 601 will charge at up to 601mA/hr.

Note: It is possible that a battery under 3V to 4V may not be recoverable. Also it is possible that any battery that has dropped below 8 volts may never fully recover to full capacity. If a battery has been left discharged over a long period of time then recovery is also less likely to be possible.

4. BULK CHARGE:

- a. From 11.8 Volts, a maximum charging current will apply until the battery has recharged and has reached an "on-charge" voltage of 12.8V.
- b. The battery can be used to start the vehicle at this stage although full charge will not be reached until the 14.1V light is starting to glow.

5. MAINTAIN (FLOAT CHARGE):

- a. From 12.8V the charge rate will continue to reduce as the voltage rises.
- b. The Oximiser 601 will maintain and optimise the battery indefinitely so long as it remains connected to the battery and at over 14.0V the final light will glow and the charger will apply a gentle trickle charge to ensure the battery remains in perfect condition.
- c. If a small drain is applied to the battery (when accidentally leaving an electronic item switched on), this charger will compensate by automatically increasing the charge current and thereby maintaining the battery condition.

How to Start the Charging Process

1. Correctly connect the Oximiser 601 to the battery terminals. If the red warning light is lit up, it means that the positive and negative leads need to be swapped over. If the red LED (<3V) light is lit, then it means that the battery voltage is too low and the charger should be disconnected from the battery.
2. The Oximiser 601 will automatically charge and maintain the battery so long as it is connected to the battery.
3. The charging process can be interrupted by switching off the mains power and then disconnecting the leads. Please note that if the mains power is switched off but the battery is still connected to this charger then the battery will not be charged and will slowly become discharged.

(C) IMPORTANT SAFETY INSTRUCTIONS:

1. SAVE THESE INSTRUCTIONS

- a. This manual contains important safety and operating instructions for battery charger Model: Oximiser 601.
 - b. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning the use of this appliance by a person responsible for their safety.
 - c. Children should be supervised to ensure that they do not play with this appliance
2. Do not expose charger to rain or snow. For indoor operating use only. (Note: This charger is not water resistant)
 3. Use of an attachment not recommended or sold by the battery charger manufacturer may result in a risk of fire, electric shock, or injury to persons.
 4. To reduce risk of damage to electric plug and cord, pull by plug rather than cord when disconnecting charger.
 5. An extension cord should not be used unless absolutely necessary. Use of improper extension cord could result in a risk of fire and electric shock. If an extension cord must be used, make sure:
 - a) That pins on plug of extension cord are the same number, size, and shape as those of plug on charger;
 - b) That extension cord is properly wired and in good electrical condition; and
 - c) That wire size is large enough for the AC ampere rating of charger.
 6. Do not operate charger with damaged cord or plug – replace the cord or plug immediately. If the power supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified person in order to avoid a hazard. Oxford Products are unable to offer a repair facility.
 7. Do not operate charger if it has received a sharp blow, been dropped, or otherwise damaged in any way. Please note that Oxford Products are unable to offer a repair facility. If the charger case is opened it will invalidate the Oxford Products guarantee.
 8. Do not disassemble charger.
 9. To reduce risk of electric shock, unplug charger from outlet before attempting any maintenance or cleaning.

This product is designed for use Lead Acid, AGM, Maintenance Free and Gel batteries which have a capacity of between 4 and 30 Ah
This charger shall not be used for charging NON-RECHARGEABLE batteries and not for Ni-CAD, NiMH or Lithium batteries

10. WARNING – RISK OF EXPLOSIVE GASES.

- a) WORKING IN VICINITY OF A LEAD-ACID BATTERY IS DANGEROUS. BATTERIES GENERATE EXPLOSIVE GASES DURING NORMAL BATTERY OPERATION. FOR THIS REASON, IT IS OF UTMOST IMPORTANCE THAT YOU FOLLOW THE INSTRUCTIONS EACH TIME BEFORE YOU USE THE CHARGER.
- b) To reduce risk of battery explosion, follow these instructions, those marked on the battery and those published by battery manufacturer and manufacturer of any equipment you intend to use in vicinity of battery. Review cautionary marking on these products and on engine.

11. PERSONAL PRECAUTIONS

- a) Consider having someone close enough by to come to your aid when you work near a lead-acid battery.
- b) Have plenty of fresh water and soap nearby in case battery acid contacts skin, clothing, or eyes.
- c) Wear complete eye protection and clothing protection. Avoid touching eyes while working near battery.
- d) If battery acid contacts skin or clothing, wash immediately with soap and water. If acid enters eye, immediately flood eye with running cold water for at least 10 minutes and get medical attention immediately.
- e) NEVER smoke or allow a spark or flame in vicinity of battery or engine.
- f) Be extra cautious to reduce risk of dropping a metal tool onto battery. It might spark or short-circuit battery or other electrical part that may cause explosion.
- g) Remove personal metal items such as rings, bracelets, necklaces, and watches when working with a lead-acid battery. A lead-acid battery can produce a short-circuit current high enough to weld a ring or the like to metal, causing a severe burn.
- h) Use charger for charging a LEAD-ACID battery only. It is not intended to supply power to a low or extra low voltage electrical system other than in a starter-motor application. Do not use battery charger for charging dry-cell batteries (NiCad, NiMh or Li-Ion batteries) that are commonly used with home appliances. Charging dry-cell batteries may cause them to burst and cause injury to persons and damage to property.
- i) NEVER charge a frozen battery.

12. HOW TO CONNECT THE OXIMISER 601 TO A BATTERY

PREPARING TO CHARGE:

- a) If necessary to remove battery from vehicle to charge, always remove grounded terminal from battery first. Make sure all accessories in the vehicle are off, so as not to cause an arc.
- b) STUDY ALL BATTERY MANUFACTURER'S SPECIFIC PRECAUTIONS SUCH AS REMOVING OR NOT REMOVING CELL CAPS WHILE CHARGING AND RECOMMENDED RATES OF CHARGE. If necessary, add distilled water in each cell until battery acid reaches level specified by battery manufacturer. Do not overfill. For a battery without removable cell caps, such as valve regulated lead acid batteries, carefully follow manufacturer's recharging instructions.
- c) Be sure area around battery is well ventilated while battery is being charged.
- d) Clean battery terminals. Be careful to keep corrosion from coming in contact with eyes.
- e) Study all battery manufacturer's specific precautions while charging and recommended rates of charge.
- f) Determine voltage of battery by referring to car owner's manual and make sure it matches output rating of battery charger.

13. CHARGER LOCATION

- a) Locate charger as far away from battery as DC cables permit.
- b) NEVER PLACE THE CHARGER DIRECTLY ABOVE OR BELOW THE BATTERY BEING CHARGED; GASES OR FLUIDS FROM THE BATTERY WILL CORRODE AND DAMAGE THE CHARGER. LOCATE THE CHARGER AS FAR AWAY FROM THE BATTERY AS DC CABLES PERMIT
- c) Never allow battery acid to drip on charger when reading electrolyte specific gravity or filling battery.
- d) Do not operate charger in a closed-in area or restrict ventilation in any way. A suitable location should be selected for the Oximiser 601. This should be away from any moisture and with sufficient ventilation to allow for cooling and battery gas discharge. Do not cover the Oximiser 601 during use. The wall bracket supplied ensures optimum airflow when placed in a well-ventilated position.

14. DC CONNECTION - STANDARD PRECAUTIONS

- a) Connect and disconnect DC output clips only after setting any charger switches to “off” position and removing AC cord from electric outlet. Never allow clips to touch each other.
- b) Attach clips to battery and chassis as indicated in 15(e), 15(f), and 16(b) through 16(d).

15. FOLLOW THESE STEPS WHEN BATTERY IS INSTALLED IN VEHICLE. A SPARK NEAR BATTERY MAY CAUSE BATTERY EXPLOSION. TO REDUCE RISK OF A SPARK NEAR BATTERY:

- a) Position AC and DC cords away from vehicle to reduce risk of damage by hood, door, or moving engine part.
- b) Stay clear of fan blades, belts, pulleys, and other parts that can cause injury to persons.
- c) Check polarity of battery posts. POSITIVE (POS, P, +) battery post usually has larger diameter than NEGATIVE (NEG, N, -) post.
- d) Determine which post of battery is grounded (connected) to the chassis. If negative post is grounded to chassis (as in most vehicles), see (e). If positive post is grounded to the chassis, see (f).
- e) For negative-grounded vehicle, connect POSITIVE (RED) clip from battery charger to POSITIVE (POS, P, +) ungrounded post of battery. Connect NEGATIVE (BLACK) clip to vehicle chassis or engine block away from battery. Do not connect clip to carburettor, fuel lines, or sheet-metal body parts. Connect to a heavy gage metal part of the frame or engine block.
- f) For positive-grounded vehicle, connect NEGATIVE (BLACK) clip from battery charger to NEGATIVE (NEG, N, -) ungrounded post of battery. Connect POSITIVE (RED) clip to vehicle chassis or engine block away from battery. Do not connect clip to carburettor, fuel lines, or sheet-metal body parts. Connect to a heavy gage metal part of the frame or engine block.
- g) When disconnecting charger, turn switches to off, disconnect AC cord, remove clip from vehicle chassis, and then remove clip from battery terminal.
- h) See operating instructions for length of charge information.

16. FOLLOW THESE STEPS WHEN BATTERY IS OUTSIDE VEHICLE. A SPARK NEAR THE BATTERY MAY CAUSE BATTERY EXPLOSION. TO REDUCE RISK OF A SPARK NEAR BATTERY:

- a) Check polarity of battery posts. POSITIVE (POS, P, +) battery post usually has a larger diameter than NEGATIVE (NEG, N, -) post.
- b) Connect POSITIVE (RED) charger clip to POSITIVE (POS, P, +) post of battery.
- c) Position yourself and free end of cable as far away from battery as possible – then connect NEGATIVE (BLACK) charger clip to free end of cable.
- d) Do not face battery when making final connection.
- e) Connect charger AC supply cord to electrical outlet and when disconnecting charger, always do so in reverse sequence of connecting procedure and break first connection while standing as far away from battery as practical.

17. FOR CHARGING BATTERIES WITHIN A VEHICLE USING THE PERMANENT RING LEAD CONNECTOR LEADS

- a. Check to make sure that the permanent ring lead connectors are a suitable size to connect to the battery screw clamp connections.
- b. Connect the red ring lead to the positive (+) and the black ring lead to the negative (-) battery connection. Ensure that the connection is not loose.
- c. This battery lead can be permanently left in position on the battery and the end connector can be positioned somewhere suitable that will allow for a quick and convenient connection to the Oximiser 601 when required. The leads provided are supplied with a weatherproof cap to help to ensure that the connections do not become corroded.

Note:

The advanced electronic programming of the Oximiser 601 makes it almost impossible to create any sparks which could otherwise ignite the gases that potentially might surround of a battery when first connecting the connection leads to the battery.

- If the mains power to the Oximiser 601 is turned on but the battery is not connected to the charger, no power will be produced by this charger.

- If the battery connection leads are removed whilst is charging then power will still be produced by this charger and therefore it is vital to follow the connection/disconnection instructions in this manual to ensure that the two connectors do not touch together and cause a short circuit to occur.

(D) STANDARD EQUIPMENT AND OPTIONAL ACCESSORIES

The OXFORD Oximiser 601 is provided as standard with:

- An integral non-replaceable mains power cord
- Connection leads with fused ring lead connection for permanent battery connection complete with a weather proof rubber cap
- Connection leads with crocodile battery clamps for easy short term connection
- Wall bracket and fixing screws

Optional accessories are also available as follows:

- Part OF702 – Connection lead with crocodile battery clamps
- Part OF703 – Connection lead with fused ring leads, battery connectors and weather proof rubber cap
- Part OF704 – Connector lead with cigarette accessory plug lead
- Part OF705 – 3 meter output extension lead

(E) SPECIFICATION

Voltage AC	220-240V AC, 50-60 Hz.
Charging Current	0.6 Amps rms
Charging Voltage	Nominal: 14.4V
Cooling:	Vented outer case
Charger type:	Class II battery charger
Maximum dimensions:	135mm x 88mm x 56mm
Weight:	514g

(F) DECLARATION OF COMPLIANCE

The Oximiser 601 conforms to the following:

Safety standards:

EN60335-1:2002+A11:2004+A1:2004+A12:2006+A2:2006+A13:2008+A14:2010,

EN60335-2-29:2004+A2:2010, EN62233:2008, PPP76001:2008 inc. ZEK 01.2-08

CE-EMC standards: EN55014-1:2006, EN55014-2/A1:2001, EN61000-3-2:2006; EN61000-3-3/A2:2005

TUV/GS

Designed and manufactured by OXFORD PRODUCTS Ltd to the highest specifications.

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