

DRAPER[®]

AUTO

MEMORY SAVER

09191



These instructions accompanying the product are the original instructions. This document is part of the product, keep it for the life of the product passing it on to any subsequent holder of the product. Read all these instructions before assembling, operating or maintaining this product.

This manual has been compiled by Draper Tools describing the purpose for which the product has been designed, and contains all the necessary information to ensure its correct and safe use. By following all the general safety instructions contained in this manual, it will ensure both product and operator safety, together with longer life of the product itself.

All photographs and drawings in this manual are supplied by Draper Tools to help illustrate the operation of the product.

Whilst every effort has been made to ensure the accuracy of information contained in this manual, the Draper Tools policy of continuous improvement determines the right to make modifications without prior warning.

1. INTRODUCTION

1.1 SCOPE


Use the memory saver to save the vehicle's on-board diagnostic computer settings (radio programs, diagnostic codes, etc.) while the battery is disconnected from the vehicle during repair or maintenance.

Part of our core range, this product is suitable for enthusiasts and tradespersons alike. Any application other than that it was intended for, is considered misuse.

This product is not a toy and must not be used by children or any person with reduced physical, sensory or mental capabilities or lack of experience and knowledge, or people unfamiliar with these instructions.

Local regulations may restrict the age of the operator.

1.2 UNDERSTANDING THIS MANUALS SAFETY CONTENT:

 **Warning!** – Information that draws attention to the risk of injury or death.

Caution! – Information that draws attention to the risk of damage to the product or surroundings.

1.3 EXPLANATION OF SYMBOLS



Warning!
Read the instruction manual.



Keep out of the reach of children.



Warning!



Danger of electric shock.



Danger of fire.



Danger of explosion.



Input voltage.



DC output voltage.



Rechargeable 4Ah battery.



Maintenance-Free AGM Lead-Acid.



2100mA USB outlet.



Machine weight.



WEEE –
Waste Electrical & Electronic Equipment.
Do not dispose of Waste Electrical & Electronic Equipment in with domestic rubbish.



Do not incinerate or throw onto fire.



For indoor use only.
Do not expose to rain.



Class II construction
(Double insulated).



UK Conformity Assessed.



European conformity.

2. SPECIFICATION

2.1 SPECIFICATION

Stock No.	09191
Part No.	AMS-100
Rated voltage	230~50Hz
DC Power Outlet	12V
USB outlet	2100mA
Connector	OBDII
Battery capacity	4 Ah
Dimensions (HxWxD)	151 x 98,3 x 94mm
Weight (without package, AC/DC adapter)	1.98kg

3. HEALTH AND SAFETY INFORMATION

3.1 GENERAL SAFETY INSTRUCTIONS FOR POWER TOOL USE

 **Warning!** Read all safety warnings, instructions,

illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term “power tools” in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

1) Work area safety

- a) **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- b) **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
- c) **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

2) Electrical safety

- a) **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
- b) **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- c) **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- d) **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
- e) **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
- f) **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.

3) Personal safety

- a) **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- b) **Use personal protective equipment Always wear eye protection.** Protective equipment such as a dust mask, non-skid safety shoes, hard hat

or hearing protection use for appropriate conditions will reduce personal injuries.

- c) **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
- d) **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- e) **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- f) **Dress properly. Do not wear loose clothing or jewellery. Keep your hair and clothing away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
- g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.
- h) **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.

4) Power tool use and care

- a) **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.
- b) **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c) **Disconnect the plug from the power source and/or remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
- d) **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
- e) **Maintain power tools and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.

- f) **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- g) **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.
- h) **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.


5) Service

- a) **Have your power tool serviced by a qualified repair person using only identical replacements parts.** This will ensure that the safety of the power tool is maintained.

3.2 ADDITIONAL SAFETY INSTRUCTIONS FOR MAINS POWERED CHARGERS & BATTERY PACKS

Chargers

- The charger is for indoor use only.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
- Prior to plugging the charger in to the supply, check that the plug, cable and charger casing are in good condition. If any are damaged, have the defective part(s) replaced immediately by a suitably qualified person.
- Only use a correctly rated mains outlet to provide power, do not plug into site generators, attach to engine generators or D.C. sources. Do not use a mains socket outlet that is not switched.

 **Warning!** Explosive gases. Prevent flames and sparks. During charging, provide adequate ventilation during charging. The battery must be placed in a well ventilated area (for chargers for lead-acid batteries).

- Do not attempt to charge battery packs that are too hot (over 30°C) or too cold (under 5°C), if these conditions apply set the battery pack aside to “normalise” before proceeding with the charging operation.
- Set up the charger and cable in a safe place where it won't be knocked, tripped over, stepped on, etc. and

where it is well ventilated. Make sure the ventilation slots in the charger case are not obstructed.

- Inspect the battery pack for damage, if it is undamaged, plug it into the charger, ensuring the correct orientation.
- Switch the charger on and check that the correct indicators illuminate, allow the battery pack to charge (see the specific instructions for your charger). Once charging is complete, switch the charger off, disconnect from power supply, remove the battery pack and store.
- The battery terminal not connected to the chassis has to be connected first. The other connection is to be made to the chassis, remote from the battery and fuel line. The battery charger is then to be connected to the supply mains;
- After charging, disconnect the battery charger from the supply mains. Then remove the chassis connection and then the battery connection.

Battery packs

- Before charging, read the instructions.
- Do not expose to rain.
- The charger must be disconnected from the power supply before removing the battery.
- The battery must be removed from the appliance before it is recycled.
- The battery is to be disposed of in-line with local authority procedures.
- Do not crush, open or burn the battery. Exposure to potentially harmful materials may occur.
- In case of fire use CO₂ or dry chemical extinguisher.
- Do not expose to high temperatures >50°C. The battery may degrade at high temperatures.
- Charge battery in conditions between 5°C to 30°C with the designated charger for the battery.
- Do not use battery if it has been stored at 5°C or less. Allow it to “normalise” at room temperature before usage/charging.

Warning! – Leaking battery packs

- The electrolyte in battery packs is corrosive. Avoid contact with the skin.
- If contact is made, flush the area with clean water, pat dry and seek medical attention at the earliest opportunity.
- Inform medical personnel that the contaminant is a “high alkaline, corrosive liquid”.
- If electrolyte comes into contact with the eyes, flush with copious amounts of water only. Seek immediate medical attention, relaying the information above.

3.3 RESIDUAL RISK

Important: Although the safety instructions and operating manuals for our tools contain extensive

instructions of safe working with power tools, every power tool involves a certain residual risk which can not be completely excluded by safety mechanisms. Power tools must therefore always be operated with caution!

3.4 CONNECTION TO THE POWER SUPPLY

Caution: Risk of electric shock. Do not open.


This appliance is supplied with an approved plug and cable for your safety.

Never use a damaged or incomplete plug.

This appliance is Class II[†] and is designed for connection to a power supply matching that detailed on the rating label and compatible with the plug fitted.

Carefully select an extension lead. Some machines are not suitable for use with extension leads. If the tool is designed for use outdoors, only use an extension lead suitable for that environment in conjunction with an RCD adaptor. When using an extension lead, select one capable of handling the current (amps) drawn by the machine in use. Ensure the cable is fully unwound regardless of the distance between the power supply and the tool. Excess current (amps) and a coiled extension lead will cause the cable to heat up and can result in fire.

Keep extension leads away from moving hazardous parts to avoid damages to the cable which can lead to contact with live parts. Position cable safely to avoid tripping over.

[†]Double insulated : This product requires no earth connection as supplementary insulation is applied to the basic insulation to protect against electric shock in the event of failure of the basic insulation.

Important! If using an extension lead, follow the instructions that came with your lead regarding maximum load while cable is wound. If in doubt, ensure that the entire cable is unwound. Using a coiled extension lead will generate heat which could melt the lead and cause a fire.

4. UNPACKING AND CHECKING

4.1 PACKAGING

Carefully remove the product from the packaging and examine it for any sign of damage. Check contents against the parts shown in Fig A. If any part is damaged or missing, please contact the Draper Help Line (see back page). Do not attempt to use the product!

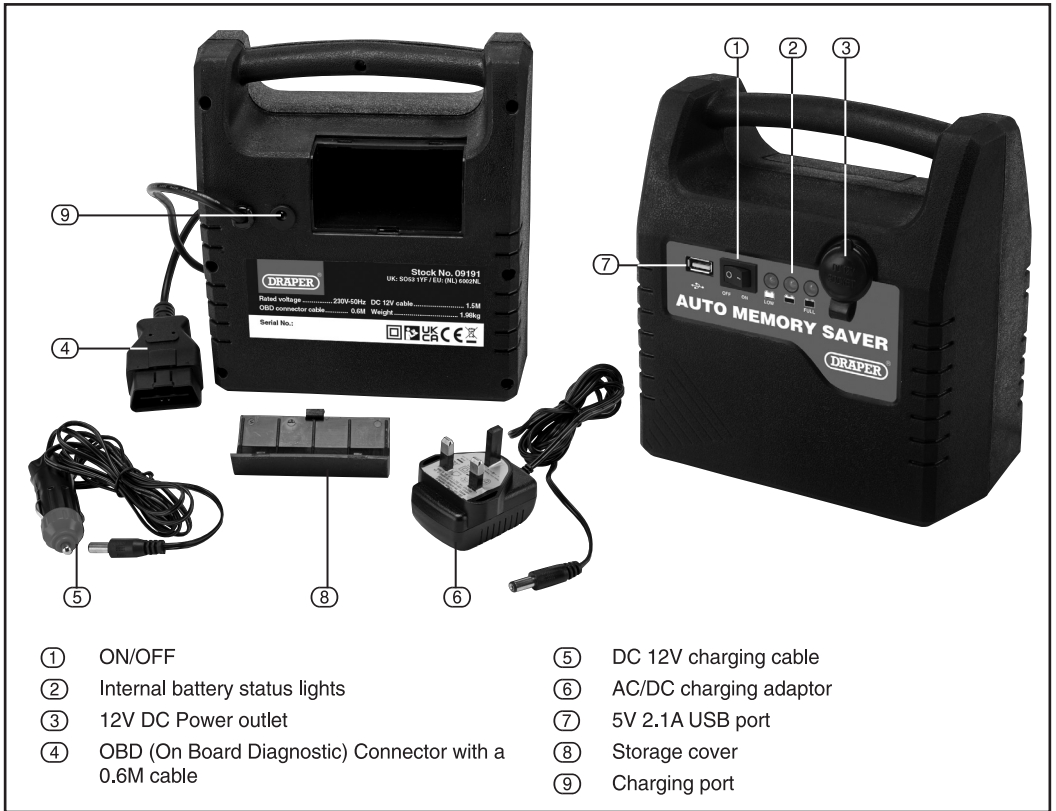
The packaging material should be retained during the warranty period, in case the product needs to be returned for repair.

 **Warning!**

- Some of the packaging materials may be harmful to children. Do not leave any of these materials in reach of children.

- If any of the packaging is to be thrown away, make sure it is disposed of correctly, according to local regulations.

5. IDENTIFICATION – FIG.A



- ① ON/OFF
- ② Internal battery status lights
- ③ 12V DC Power outlet
- ④ OBD (On Board Diagnostic) Connector with a 0.6M cable

- ⑤ DC 12V charging cable
- ⑥ AC/DC charging adaptor
- ⑦ 5V 2.1A USB port
- ⑧ Storage cover
- ⑨ Charging port

FIG.A

Note: For details of our full range of accessories and consumables, please visit drapertools.com

6. CHARGING THE INTERNAL BATTERY

Make sure the power supply information on the machine's rating plate is compatible with the power supply you intend to connect it to.

Important: Charge immediately after purchase, after each use. And every 30 days to keep the memory saver's internal battery fully charged.

Note: Remove the plug from the socket before carrying out adjustment, servicing or maintenance.

When charging the internal battery, work in a well ventilated area and do not restrict the ventilation in any way.

6.1 LED INDICATORS

To check the internal battery's charge status, of the memory saver.



FIG. 1

The LED lights ② will indicate the charge level as follows:

- A red LED indicates a 50% or less charge and you should recharge the Memory Saver.
- A yellow LED indicates a 50 to 75% charge. The

Memory Saver may be used but should be recharged as soon as possible.

- A green LED indicates the internal battery is fully charged.

WHEN CONNECTED TO AN AC POWER SOURCE.

- The CHARGING (red) LED indicates the Memory Saver is charging.
- At full charge, the CHARGED (green) LED will light.

7. USING THE MEMORY SAVER

7.1 BEFORE USING MEMORY SAVER

Use the Memory Saver to save the vehicle's on-board diagnostic computer settings (radio programs, diagnostic codes, etc.) while the battery is disconnected from the vehicle during repair or maintenance.


Important! Some vehicle manufacturers do not allow the use of a Memory Saver through the OBDII.

Consult the vehicle manufacturer before use, to determine if a Memory Saver is acceptable for use on the vehicle.

- Make sure that the Memory Saver's internal battery is fully charged. See LED INDICATORS section.
- Turn off the vehicle and make sure all accessories are off.
- Wait at least 30 minutes before using the Memory Saver. This ensures that the accessories are no longer drawing current from the car battery.

7.2 CONNECT MEMORY SAVER

- Connect the Memory Saver OBD connector to the vehicle's OBD plug. Make sure the connector is fully engaged.
- Disconnect the vehicle's battery cables and cover the positive and negative cables with an insulator, such as electrical tape. This prevents the connectors from touching metal, each other, or the chassis and causing a short circuit, due to the vehicle's electrical system receiving power from the Memory Saver through the OBD connection.

 **Warning!** When working with the vehicle's battery, review all of the battery manufacturer's safety instructions, warnings and directives regarding battery disconnection, removal and replacement.

- Remove the old battery and put the new battery into position.
- Remove the insulator from the positive cable and connect it to the positive terminal of the new battery.
- Remove the insulator from the negative cable and connect it to the negative terminal of the new battery.
- Once the new battery is connected, unplug the Memory Saver's OBD connector from the vehicle's OBD plug.
- **Important!** Charge the Memory Saver as soon as possible after use.

8. USING THE MEMORY SAVER

8.1 POWERING OR CHARGING A 12V DC DEVICE

The Memory Saver is a power source for all 12V DC accessories that are equipped with a 12V accessory plug. Use it for power outages and fishing or camping trips.

The Memory Saver has a 2100mA USB outlet for charging kinds of tablet PCs, like iPad.

Important! DO NOT power a 12V device with the Memory Saver while using the OBD connector to power the on-board diagnostic computer. Doing so will drain the Memory Saver's internal battery and reduce available run time.

- Make sure the device to be powered is OFF before inserting the 12V DC accessory plug into the 12V DC accessory outlet.
- Plug the 12V DC device into the DC power outlet, and turn on the 12V DC device.

Note: If the 12V DC device draws more than 9A, the internal circuit breaker of the Memory Saver will trip and disconnect the power to the device. Disconnect the 12V DC device. The breaker will automatically reset after an overload occurs.

- When finished, turn off the DC device (if required) and unplug from the DC power outlet.

Important! Extended operation of a 12V DC device may result in excessive battery drain. Recharge the Memory Saver immediately after unplugging the 12V DC device.

9. MAINTENANCE

9.1 MAINTENANCE

Regular inspection and cleaning reduces the necessity for maintenance operations and will keep your tool in good working condition.

The tool must be correctly ventilated during tool operation. Avoid blocking the air inlets and vacuum the ventilation slots regularly.

Do not use solvents or fuels to clean the product. When not in use, store the product in a safe, dry place.

10. WARRANTY

10.1 WARRANTY

Draper tools have been carefully tested and inspected before shipment and are guaranteed to be free from defective materials and workmanship.

Should the tool develop a fault, please return the complete tool to your nearest distributor or contact:

Draper Tools Limited

UK: Chandler's Ford, Eastleigh, Hampshire,
SO53 1YF, England.

EU: Oude Graff 8, 6002 NL Weert (NL).

Telephone Sales Desk: +44 (0)23 8049 4333 or:

Product Helpline +44 (0)23 8049 4344.

A proof of purchase must be provided.

If upon inspection it is found that the fault occurring is due to defective materials or workmanship, repairs will be carried out free of charge. This warranty period covering parts/labour is 12 months from the date of purchase except where tools are hired out when the warranty period is 90 days from the date of purchase. This warranty does not apply to any consumable parts, any type of battery or normal wear and tear, nor does it cover any damage caused by misuse, careless or unsafe handling, alterations, accidents, or repairs attempted or made by any personnel other than the authorised Draper warranty repair agent.

Note: If the tool is found not to be within the terms of warranty, repairs and carriage charges will be quoted and made accordingly.

This warranty applies in lieu of any other warranty expressed or implied and variations of its terms are not authorised.

Your Draper warranty is not effective unless you can produce upon request a dated receipt or invoice to verify your proof of purchase within the warranty period.

Please note that this warranty is an additional benefit and does not affect your statutory rights.

Draper Tools Limited.

11. DISPOSAL

11.1 DISPOSAL

- At the end of the machine's working life, or when it can no longer be repaired, ensure that it is disposed of according to national regulations.
- Contact your local authority for details of collection schemes in your area.

In all circumstances:

- Do not dispose of power tools with domestic waste.
- Do not incinerate.
- Do not dispose of WEEE* as unsorted municipal waste.



* *Waste Electrical & Electronic Equipment.*