DRAPER®

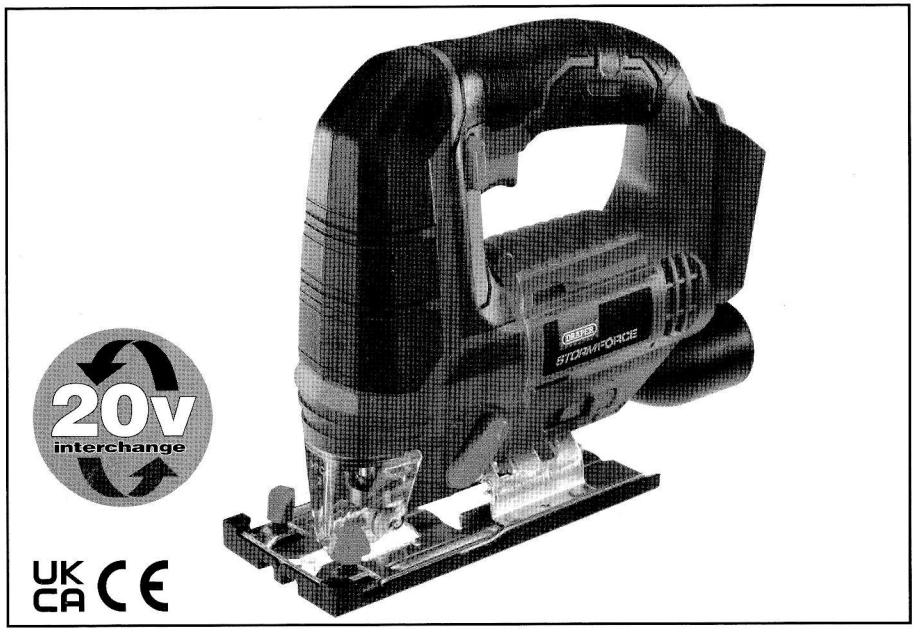
GB

STORMFORCE

20V

ORBITAL JIGSAW

89477



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.

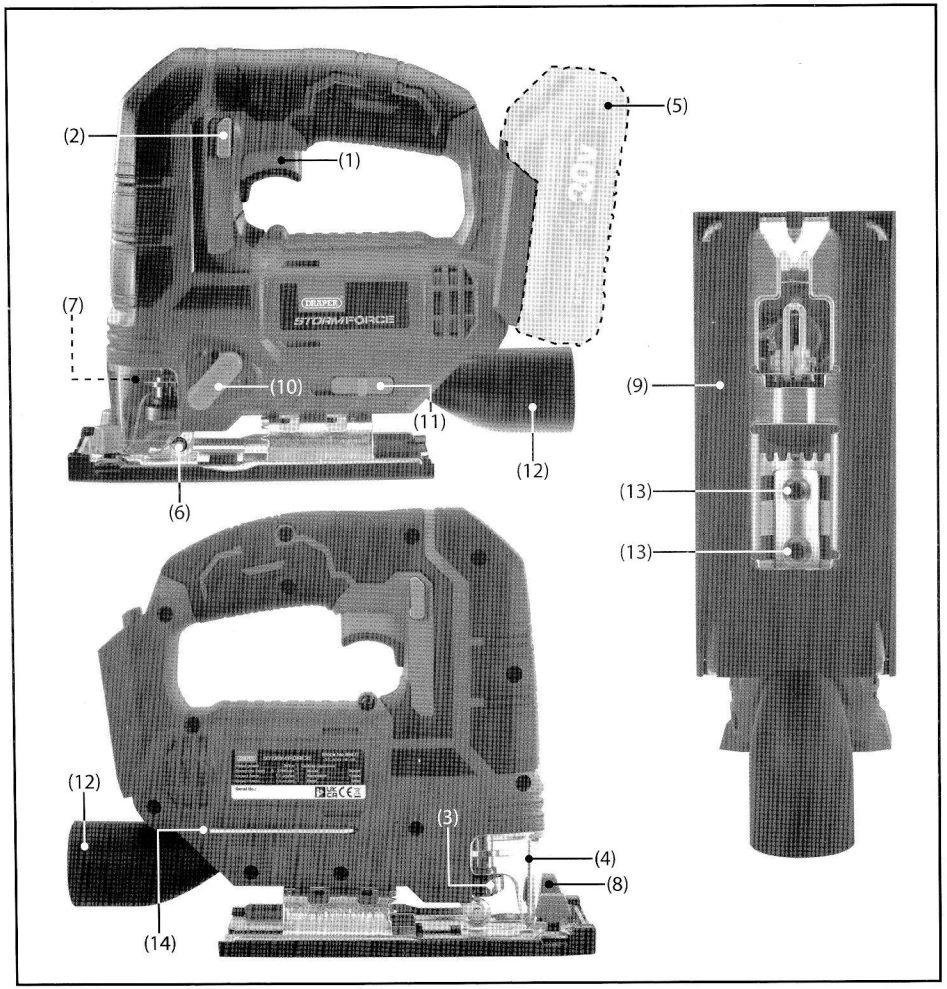
This manual has been compiled by Draper Tools describing the purpose for which the product has been designed, and contains all the necessary information to ensure its correct and safe use. By following all the general safety instructions contained in this manual, it will ensure both product and operator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

6. TECHNICAL DESCRIPTION

6.1 IDENTIFICATION



(1) Trigger switch.
(2) Safety release button.
(3) Quick change blade clamp.
(4) Blade guard.
(5) 20V Li-ion battery pack (sold separately).
(6) Blade support roller.
(7) LED light.
(8) Parallel guide locking knobs.
(9) Base plate.
(10) Orbital/pendulum speed adjustment switch.
(11) Dust blow/extraction switch.
(12) Dust extraction outlet.
(13) Bevel cutting adjustment locking bolts.
(14) Hex. key/hex. key storage location.

7. UNPACKING AND CHECKING

7.1 PACKAGING

Carefully remove the product from the packaging and examine it for any sign of damage that may have happened during shipping. Lay the contents out and check them against the parts shown below. If any part is damaged or missing, please contact the Draper Help Line (the telephone number appears on the Title page) and do not attempt to use the product.

The packaging material should be retained at least during the guarantee period: in case the machine needs to be returned for repair.

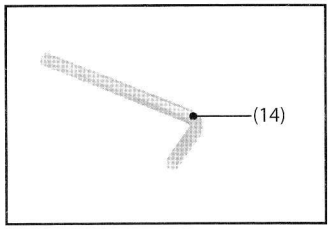
Warning!

- Some of the packaging materials used may be harmful to children. Do not leave any of these materials in the reach of children.
- If any of the packaging is to be thrown away, make sure they are disposed of correctly, according to local regulations.

7.2 WHAT'S IN THE BOX

As well as the main product, there is also a hex. key not fitted or attached:

(14) Hex. Key.



7.3 20V POWER INTERCHANGE BATTERY PACKS/CHARGERS (sold separately)

This power product is supplied "naked" without battery pack or charger.

The table below shows the Draper 20V Power Interchange compatible batteries and chargers available for this product.

20V Power Interchange tools all use universal 2.0 and 4.0Ah battery packs and chargers, enabling each battery pack to fit all tools within the range.

Item	Stock No.	Part No.	Voltage
Battery pack.	89437	B202LISF	20V/2.0Ah
Battery pack.	89433	B20LISF	20V/4.0Ah
Charger *(for Stock No.89437).*	89425	CB20	20V/2.4A
Charger *(for Stock No.89433).*	23793	CB203.5	20V/3.5A

8. PREPARING THE ORBITAL JIGSAW

8.1 BATTERY PACK CHARGING – FIGS. 1 – 2

This power product is supplied "naked" without battery pack or charger. Compatible batteries, chargers and accessories are available through Draper Tools stockists.

- Consult the table on page 11 of these instructions for a guide to the available battery packs and chargers compatible with this product.

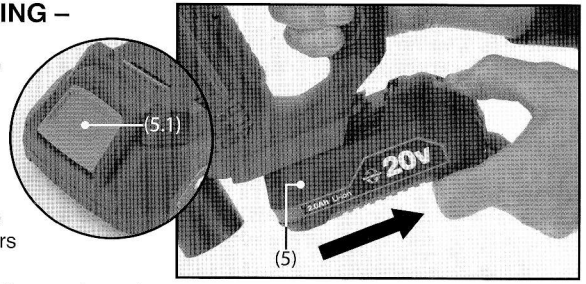


FIG.1

Important: Only Draper designated battery packs and chargers can be used in conjunction with this product. Use of any other third party battery packs/chargers with this product is considered misuse and will invalidate the product's warranty.

Once connected to the mains supply recharging of the battery pack can be left generally unsupervised requiring minimal attention. Complex circuit construction monitors the battery pack condition adjusting the recharge current to suit. When the recharge cycle is complete and to maintain the full capacity a low output current will continue as required.

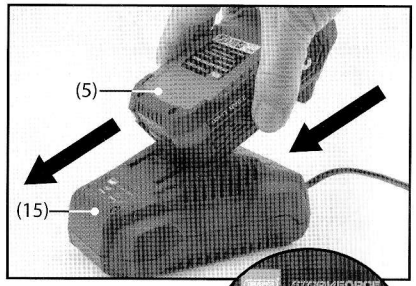
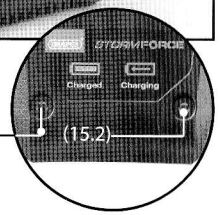


FIG.2

Warning!

- Check the condition of the charger and battery prior to each charge. If there is any sign of damage then do not commence charging, seek advice from Draper Tools.

To charge the battery pack (5), it must first be removed from the tool.



To release the battery pack:

- Press the battery pack release button (5.1) and gently slide the battery pack off (Fig.1).
- Plug the battery charger unit (15) into a 230V/AC 13amp, three pin socket.
- The green LED (15.1) will illuminate to show the charger has power.
- Slide the battery pack into place ensuring the battery terminals and the charger terminals make a good connection Fig.2.
- After a few seconds delay the red LED (15.2) will light to show the battery pack is being charged and the green LED will go out.

Warning!

- Ensure battery pack is connected correctly. (Fig.2). Sliding the battery pack on incorrectly may cause damage to the battery/charger.
- When the battery pack is fully charged, the green LED (15.1) will light.

Warning!

- If the indicator lights fail to illuminate during the charging cycle, unplug the charger from the power supply socket outlet and replace the battery pack.

Completing the charging cycle:

- Disconnect battery charger from the power supply.

  Caution: Do not pull the plug out of the power supply by pulling on the cord.
  - Make sure to grasp the plug when removing from power supply to avoid damaging the cord.

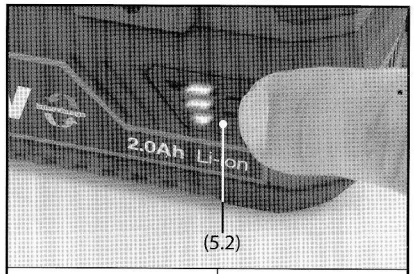
8. PREPARING THE ORBITAL JIGSAW

- Remove the battery pack from the battery charger.
  - Supporting the battery charger with hand, pull out the battery pack from the battery charger.
  - Make sure to grasp the plug when removing from power supply to avoid damaging the cord.

Caution: When the battery charger has been continuously used, the battery charger will be hot. Once the charging has been completed, give 15 minutes rest until the next charge.

If the battery pack is charged when it is warm due to battery use or exposure to sunlight, the battery pack will not be recharged. In such a case, let the battery pack cool before charge.

If the red indicator flickers rapidly at 0.2 - second intervals, check for and take out any foreign objects in the charger's battery slot. If there are no foreign objects, it is probable that the battery pack or charger is malfunctioning. Allow battery/charger to normalise and try again. If a fault remains after trying this then contact Draper Tools.



Charge level indicator	Charge remaining
GREEN ORANGE RED	75 – 100%
ORANGE RED	25 – 50%
RED	10 – 25%

FIG.3

8.2 BATTERY PACK CHARGE STATUS – FIG.3

To display the amount of charge left in the battery pack press the charge level indicator button (5.2).

8.3 BATTERY PACK EFFICIENCY AND CHARGING ADVICE

- Recharge the battery packs before they become completely exhausted.
- When you feel that the power of the tool becomes weaker, stop using the tool and recharge the battery packs. If you continue to use the tool and exhaust the electric current, the battery pack may become damaged.
- Avoid recharging at high temperatures. A rechargeable battery pack will be hot immediately after use. If such a battery pack is recharged immediately after use, its internal chemical substance will deteriorate, and the battery life will be shortened. Leave the battery pack and recharge it after it has cooled for a while.
- The battery pack should only be used and/or charged when battery pack temperature is between 5°C and 30°C.
- The battery pack needs to be warmed-up or cooled down in order to prevent damage to the batteries internal components.

Note: Failure to warm up or cool down a battery pack could result in serious damage to the battery, charger and user.

8. PREPARING THE ORBITAL JIGSAW

8.4 BLADE INSTALLATION AND REPLACEMENT (blades sold separately) – FIGS. 4 – 5

A jigsaw can be used for a variety of applications so the correct blade choice is important.

- If already in place, slide off the clear plastic dust guard (3.1).
- Twist and hold the quick change blade clamp (3).
- Slide the blade up into the blade clamp (3) with the teeth facing forward.
- Release the quick change blade clamp to hold and lock the blade in place.

Note: This jigsaw will only fit Bayonet blades.

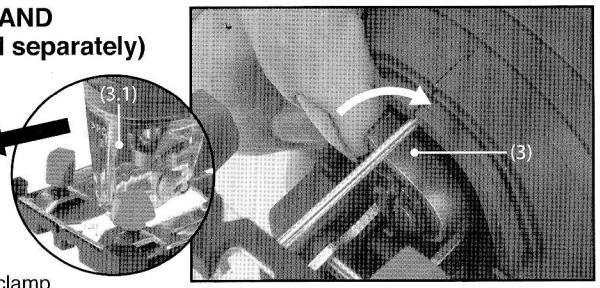


FIG.4

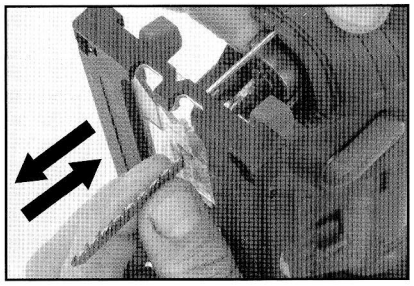


FIG.5

9. BASIC ORBITAL JIGSAW OPERATIONS

9.1 TRIGGER SWITCH OPERATION – FIGS.6 – 7

The trigger switch (1) is operated in conjunction with a safety release button (2) so that it is not possible to start the orbital jigsaw by accident.

- To start the saw press the safety button (2) and depress the trigger switch (1) at the same time.
  - Always wear ear defenders during use.

Caution: The saw blade may continue moving for a couple of seconds after the switch is released.

Important: Due to the shape of the body, these machines can be operated with only one hand, but for reasons of safety it is strongly advised to keep both hands on the machine during use.

Note: Applying pressure on the blade can overload the motor and result in damage.

- During cutting operations, make sure that the base is always resting on the workpiece.
- When cutting metal it is advised to spread a few drops of oil on the cutting line.
- Sheets should always be rested on sufficient stable supports (chipboard or plywood tables). In this manner dragging is avoided and the elasticity of the material is compensated for.
- Small workpieces should be securely clamped in order that they remain in position during working operations (for example: fix in position with a clamp).

9.2 LED LIGHT – FIG.8

The LED light (7) illuminates when the switch trigger is depressed to aid cutting of the workpiece.

9.3 ORBITAL/PENDULUM ADJUSTMENT – FIG.9

The pendulum action acts on the rear of the blade to aid cutting performance and speed.

The 3 adjustable settings provide faster and more efficient cutting actions across a range of timber and plastic/PVC materials. The orbital motion of the cutting blade cuts through the workpiece in the upstroke, but doesn't drag across the workpiece on the down-stroke.

- Rotate the orbital/pendulum adjustment switch (10) to activate the required setting.
  - **Position 1** applies a small amount of pendulum action, resulting in a smoother finish cut – this will be at a slower cutting speed.
  - **Position 2** applies a medium amount of pendulum action.
  - **Position 3** has the most aggressive action, with a faster cut, but with the roughest finish.

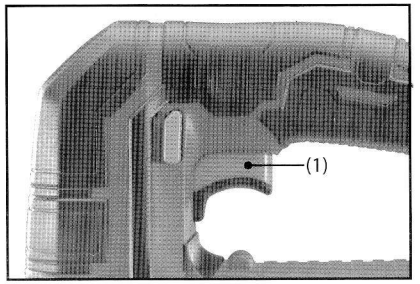


FIG.6

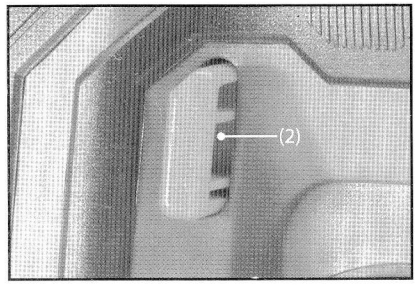


FIG.7

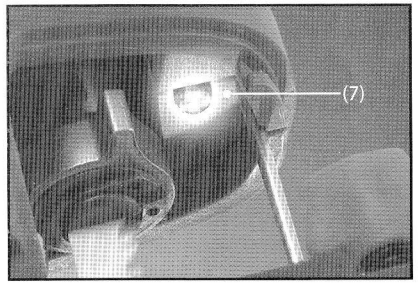


FIG.8

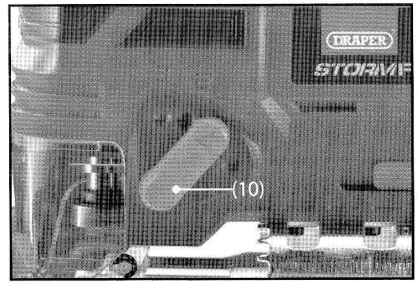


FIG.9

9. BASIC ORBITAL JIGSAW OPERATIONS

9.4 CUTTING BLADE GUIDE

Orbital setting	Material	Blade type	TPI (teeth per inch)
0	Worktop, laminated board	Wood cutting blade	10 – 12 (Down-stroke cutting blade)
	Thin sheet metal	Metal cutting blade	14 – 24
1	Plastics/PVC	Wood cutting blade	10 – 12
	Scrolling/curved wood cutting	Scrolling wood blade	10 – 12
2	Plywood, decking, hardwoods	Wood cutting blade	6 – 12
3	General timber/ softwoods	Wood cutting blade	6 – 10

9.5 ANGLED/BEVEL CUTTING – FIGS. 10 – 11

For making bevel cuts the base can be adjusted up to 45° in either direction.

- Using the supplied hex. key (14), loosen the 2 x 3mm hex. socket bolts (13).
- Slide the base plate (10) backwards to disengage the current setting.

Note: If using the jigsaw in conjunction with a parallel guide (8), it must be removed to carry out the above step.

- Tilt the base to the required angle (± 15°, 30° or 45°).
- Slide the base plate (9) forward to engage the setting.
- Tighten the 2 x 3mm hex. socket bolts (13).

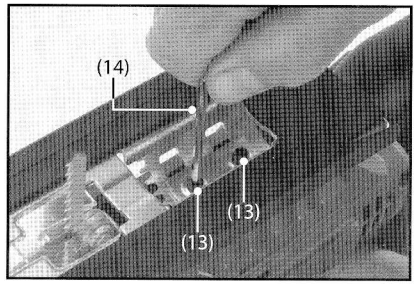


FIG.10

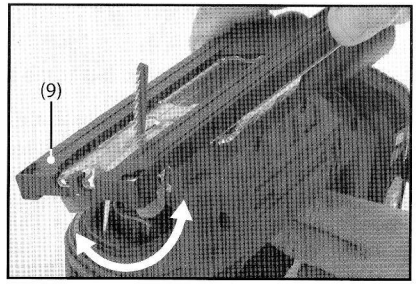


FIG.11

9.6 PARALLEL GUIDE (not supplied)

If the material to be cut has a straight edge, a parallel guide can be used as an aid to track the straight edge.

- Pass the parallel guide through the points in the base.
- Tighten the two parallel guide locking knobs (8) to secure the guide firmly.

Make a test cut on a scrap piece of timber prior to making any cuts on the work piece and adjust accordingly.

Note: When not in use, tighten bolts (8) to prevent them vibrating loose and getting lost.

9. BASIC ORBITAL JIGSAW OPERATIONS

9.7 DUST BLOW/EXTRACTION – FIGS.12 – 13

Inhalation of dust particles can be detrimental to health. The dust extraction outlet (12) must be connected with a dust extraction machine.

Note: Due to the outlet diameter, a size adaptation may be necessary.

When using the saw with connected extraction the switch (11) must be in the forward most position, this opens a channel, so the extracted air can extract from the blade area keeping any marked cut lines visible. If you must use the machine without extraction, put the slider in the rear most position, this causes the air from the motor to exit near the cut line to perform the same function of clearing sawdust away from any marked cutting lines.

Warning! All wood dust (including dust from composites like chipboards and fibre boards etc.) is hazardous to health. It can affect the nose, the respiratory system and the skin. For example MDF (medium density fibreboard) which contains formaldehyde is a known carcinogen. In addition to the above measures a correctly fitted dust mask, suitable for the activity and in accordance to the relevant standard, must be worn. For work activities involving exposure to fine wood dust a mask rated to at least FFP2 should be used.

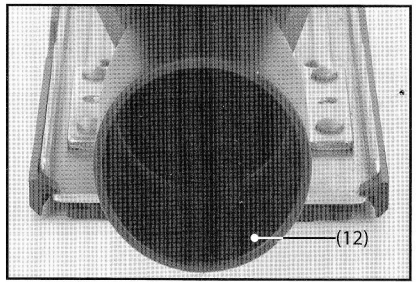


FIG.12

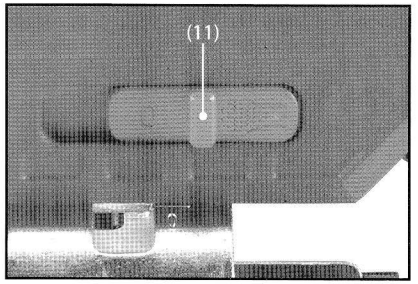


FIG.13

9.8 GENERAL

- Always wear safety goggles.
- During cutting operations, make sure that the base is always resting on the workpiece.
- When cutting metals, it is advisable to spread a few drops of oil on the cutting line to aid penetration and help prolong the blade life.
- Sheets should always be rested on sufficiently stable supports (chipboard or plywood tables). In this manner dragging is avoided and the elasticity of the material is compensated for.
- Small workpieces should be securely clamped in order that they remain in position during working operations.

Note: When using longer blades and cutting thicker material, sideways pressure can cause the blade to bend and start to bevel the cut edge. Keep the blade straight to ensure a perpendicular cut.

Caution: Make certain the end of the blade does not contact obstructions below the workpiece as this will cause the saw to recoil and possibly result in the blade breaking and injury.

10. MAINTENANCE AND TROUBLESHOOTING

10.1 MAINTENANCE

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

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

10.2 TROUBLESHOOTING

Problem	Possible Cause	Remedy
Motor does not start.	1. Battery no charge.	1. Re-charge battery.
	2. Battery faulty or damaged.	2. Replace battery.
	3. Blown fuse in charger plug.	3. Replace fuse.
Motor runs, but slowly/ losing power.	1. Battery no charge.	1. Re-charge battery.
	2. Battery faulty or damaged.	2. Replace battery.
Poor cutting performance.	1. Saw blade blunt.	1. Replace saw blade.
	2. Saw blade incorrectly mounted.	2. Remove & refit saw blade as per instructions.
	3. Incorrect saw blade selection.	3. Seek advice on suitable saw blades.

12. EXPLANATION OF SYMBOLS

12.1 EXPLANATION OF SYMBOLS


Read the instruction manual.


Wear face mask and safety glasses.


Wear ear defenders.


Wear protective gloves.


Do not abandon into the environment.


Keep out of the reach of children.


Warning!

Single value noise marking.
(Maximum declared A-Weighted sound power level in decibels).


Class II construction
(Double insulated).


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

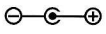
Lithium-ion product.


Do not incinerate or throw onto fire.


For indoor use only.
Do not expose to rain.

Short-circuit-proof safety isolating transformer

Fuse.


Polarity indication.


Rated voltage.