

# DRAPER®

## INSTRUCTIONS FOR 18V 3 Speed Hammer Drill

Stock No.40475 Part No.CHD183V2

**IMPORTANT:** PLEASE READ THESE INSTRUCTIONS CAREFULLY TO ENSURE THE SAFE AND EFFECTIVE USE OF THIS TOOL.



CE

DRAPER®

### GENERAL INFORMATION

Read all these instructions before operating this product and save these instructions.

This manual has been compiled by Draper Tools and is an integrated part of the product with which it is enclosed and should be kept with it for future references.

This manual describes the purpose for which the product has been designed and contains all the necessary information to ensure its correct and safe use. We recommend that this manual is read before any operation or, before performing any kind of adjustment to the product and prior to any maintenance tasks. 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 accuracy of information contained in this manual, the Draper Tools policy of continuous improvement determines the right to make modifications without prior warning.



# CONTENTS

Contents .....	1
Specification/Guarantee .....	2
Charger Power Supply.....	3
General Safety Instructions .....	4
Additional Safety Instructions.....	5
Getting to Know Your Hammer Drill .....	6
Assembly .....	7
Operation and Use.....	7-9
Disposal.....	10
Explanation of Symbols/Pictograms .....	10



# SPECIFICATION

The Draper Tools policy of continuous improvement determines the right to change specification without notice.

Stock No. ....	40475
Part No. ....	CHD183V2
Battery:	
Type.....	NiCd
Voltage .....	18V
Rating .....	1.7Ah
Charger:	
Input.....	230V~50Hz 65W
Output.....	23.5V --- 1.8A
Construction .....	Class II
Drilling Capacities:	
Wood .....	38mm
Mild Steel .....	13mm
Masonry .....	13mm
Maximum Torque .....	420kgf-cm (41Nm)
Revolutions Per Minute (no load):	
Low .....	0-340min <sup>-1</sup>
Medium .....	0-600min <sup>-1</sup>
High .....	0-1300min <sup>-1</sup>
Blows Per Minute (maximum) .....	17,000
Chuck Capacity .....	13mm
Spindle Thread .....	1/2" x 20
Sound Pressure Level .....	83.8dB(A)
Sound Power Level .....	94.8dB(A)
Vibration Level:	
Auxiliary Handle.....	8.61m/s <sup>2</sup>
Main Handle .....	9.58m/s <sup>2</sup>
Weight (Machine & Battery).....	2.7kg

**ALWAYS WEAR APPROVED DUST MASK, SAFETY GOGGLES AND EAR DEFENDERS**



# GUARANTEE

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, Chandler's Ford, Eastleigh, Hampshire, SO53 1YF. England. Telephone: (023) 8026 6355.

A proof of purchase must be provided with the tool.

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 guarantee period covering parts/labour is 12 months from the date of purchase. The guarantee is extended to 24 months for parts only. This guarantee does not apply to 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 guarantee applies in lieu of any other guarantee expressed or implied and variations of its terms are not authorised.

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








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

Draper Tools Limited.



# CHARGER POWER SUPPLY

## CONNECTING YOUR MACHINE TO THE POWER SUPPLY: (230V ONLY)

- To eliminate the possibility of an electric shock your machine has been fitted with a BS approved, non rewirable moulded plug and cable which incorporates a fuse, the value of which is indicated on the pin face of the plug. If the plug is marked with the  symbol and the fuse needs replacing, an  approved BS1362 fuse must be used of the same amp rating. If the plug is not  marked, a fuse with the  symbol,  BS Kitemark, or both  and  BS Kitemark, of the same amp rating should be used.
- The fuse cover is detachable, never use the plug with the cover omitted. If a replacement fuse cover is required, ensure it is the same colour as that visible on the pin face of the plug (i.e. red). Fuse covers are available from your Draper Tools stockist.
- If the fitted plug is not suitable, it should be cut off and destroyed. \*The end of the cable should now be suitably prepared and the correct type of plug fitted. See below.

### \*WARNING:

- A plug with bare flexible wires exposed is hazardous if engaged in a live power socket outlet.

### WARNING: THIS APPLIANCE IS DOUBLE INSULATED. (230V ONLY)

- The mains lead is coloured Blue – Neutral & Brown – Live. As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:  
The wire which is coloured blue must be connected to the terminal which is marked with the letter 'N' or coloured black or blue. The wire which is coloured brown must be connected to the terminal which is marked with the letter 'L' or coloured red or brown.

### EXTENSION LEAD CHART:

Extension lead sizes shown assure a voltage drop of not more than 5% at rated load of tool.

Ampere rating (on Name plate)	3	6	10	13
Extension cable length	Wire Size mm <sup>2</sup>			
7.5M	0.75	0.75	1.0	1.25
15M	0.75	0.75	1.0	1.5
22.5M	0.75	0.75	1.0	1.5
30M	0.75	0.75	1.25	1.5
40M	0.75	0.75	1.5	2.5

### IMPORTANT:

On products exceeding 2000W it is recommended that the power cable and/or extension cable are fully unwound before a connection is made to the power supply. However, ensure the residual cable does not pose a trip hazard.

**WARNING:** Read all instructions. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury. The term "power tool" in all of the warnings listed below refers to your mains operated (corded) power tool or battery operated (cordless) power tool.

SAVE THESE INSTRUCTIONS

## 1. Work Area

- a. **Keep work area clean and well lit.** Cluttered and 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 electrical 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.

## 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 safety equipment. Always wear eye protection.** Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c. **Avoid accidental starting. Ensure the switch is in the off position before plugging in.** Carrying power tools with your finger on the switch or plugging in 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, clothing and gloves 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 these devices can reduce dust related hazards.

## 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 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. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools 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 and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from intended could result in a hazardous situation.

## 5. Battery Tool Use and Care

- a. **Ensure the switch is in the off position before inserting battery pack.** Inserting the battery pack into power tools that have the switch on invites accidents.
- b. **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
- c. **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
- d. **When battery pack is not in use, keep it away from other metal objects like paper clips, coins, keys, nails, screws, or other small metal objects that can make a connection from one terminal to another.** Shorting the battery terminals together may cause burns or a fire.
- e. **Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.** Liquid ejected from the battery may cause irritation or burns.

## 6. Service

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

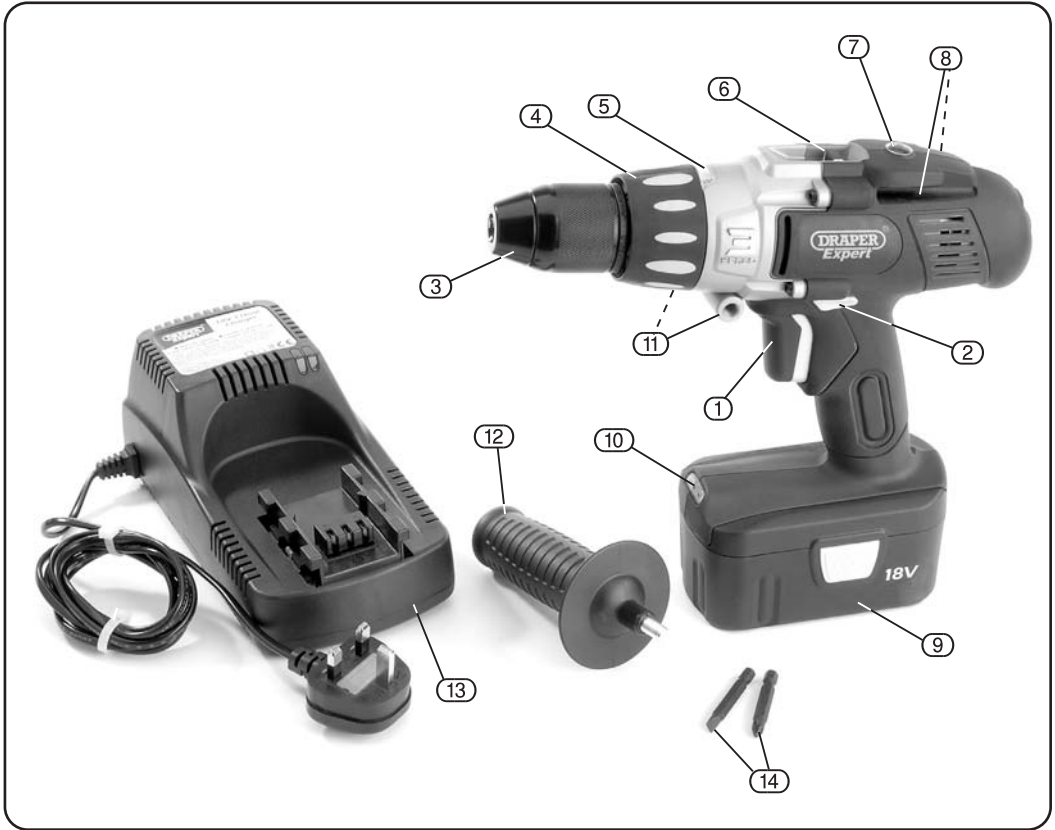
**1. Drills and Impact Drills**

- **Wear ear protectors with impact drills.**  
Exposure to noise can cause hearing loss.
- **Use auxiliary handles supplied with the tool.**  
Loss of control can cause personal injury.

**2. Battery Chargers**

- **Before charging, read the instructions.**
- **For indoor use.** Do not expose to rain.
- **Do not charge non-rechargeable batteries. The battery charger is only suitable for charging rechargeable Ni-Cd batteries having 15 cells† (18V).**  
Any other application is considered misuse.

† 1.2V Cells.



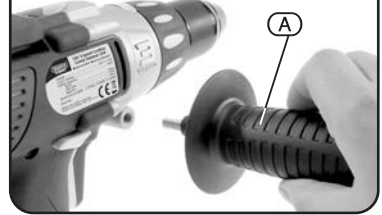
- |                                  |                                |
|----------------------------------|--------------------------------|
| ① Variable Speed Trigger Switch. | ⑧ Bit Storage Compartments.    |
| ② Forward/Reverse Selector.      | ⑨ 18V --- Battery (1.7Ah) x 2. |
| ③ 13mm Keyless Chuck.            | ⑩ LED Worklight.               |
| ④ Torque Collar.                 | ⑪ Auxiliary Handle Mount.      |
| ⑤ Torque Selection Window.       | ⑫ Auxiliary Handle.            |
| ⑥ Speed Selection Switch.        | ⑬ 18V 1 Hr Charger.            |
| ⑦ Speed Selection Window.        | ⑭ Screwdriver Bits x 2.        |

- **UNPACKING:** After removing the packing material, make sure the product is in perfect condition and that there are no visible damaged parts. If in doubt, do not use the product and contact the dealer from whom it was purchased.

The packaging materials (plastic bags, polystyrene, etc.), must be disposed of in an appropriate refuse collection container. These materials must not be left within the reach of children as they are potential sources of danger.

- **NOTE:**  
Remove the battery pack from the machine before carrying out adjustment, servicing or maintenance.
- **AUXILIARY HANDLE (FIG. 1):**
- **WARNING:**  
Use auxiliary handle supplied with the tool. Loss of control can cause personal injury.  
Depending on the preference, screw the auxiliary handle (A), into either the left or right mounting.

**FIG. 1**



- **BATTERY CHARGER (FIG.2):**  
This product is supplied with an **automatic battery charger** designed and intended for recharging 18V† Ni-Cd batteries only.  
† 1.5Ah to 2.0Ah rating.

**DEFINITION:**

Automatic Battery Charger:

Once connected to the mains supply recharging of the battery can be left generally unsupervised requiring minimal attention. Complex circuit construction monitors the battery 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.

- **WARNING:** Do not charge non-rechargeable batteries.  
To charge the battery pack, it must first be removed from the tool. To release the battery pack, squeeze the grips located on either side of the battery casing and gently slide the battery pack off. Plug the battery charger unit into a 230V/A.C. 13amp, three pin socket. The amber light (B) will illuminate.

Slide the battery on to the charger as shown (Fig.2). Do not force. Ensure the battery is inserted correctly. The red light (C) on the charger will now illuminate to show that the battery is fast charging.

When the battery is fully charged (approx. 1 hour) the red light will go out and the green light will illuminate to indicate it is now trickle charging. If the green light illuminates immediately remove the battery. This indicates the temperature of the battery is too high or low. When the battery is at room temperature, retry.

When fully charged the battery pack can be removed and used to power the tool. To refit the battery pack to the tool push firmly until the battery pack locates and snaps into place.

- **NOTE:** The battery was discharged after manufacturing and will therefore require five to ten charges/discharges before it reaches its full capacity.
- **INSTALLING AND REMOVING BITS:**

This drill is fitted with a keyless spindle lock chuck, which will allow single hand tightening of the bit in the chuck. Place the drill bit shoulder into the chuck as far as it will go, then hand tighten.

Short screwdriver bits need only be inserted to the depth of the hexagon shank before tightening chuck by hand.

**FIG. 2**





**- TRIGGER:**

When the trigger is depressed, the chuck will rotate (provided the direction switch is set in the forward or reverse position). This trigger switch is electronic which enables the user to vary the speed continuously in all gears. The speed varies according to how far the trigger switch is depressed. The further it is depressed, the faster the chuck will rotate, etc.

**- DIRECTION SWITCH (FIG.3):**

The switch determines the direction of rotation of the chuck, i.e. clockwise or anticlockwise.

To alter the direction of rotation, stop the drill and push switch (D) to the left or right. When the direction switch is pushed to the left, the chuck will rotate clockwise. When the switch is pushed to the right, the chuck will rotate anticlockwise. Before operation, check that the switch is set in the required position. Do not change the direction of rotation until the chuck comes to a complete stop.


When the drill is not in use move the direction switch to the neutral position (the middle setting) to lock the trigger out.


**- CHANGING SPEEDS (FIG.4):**

To change the speed of the chuck, slide the three-speed gearbox selection switch (E) forwards for medium speed, backwards for low speed, or midway for high speed. The selected speed is visible through the window (F).

**- NOTE:** When the trigger is activated this display is lit to aid selection where natural light is inadequate.

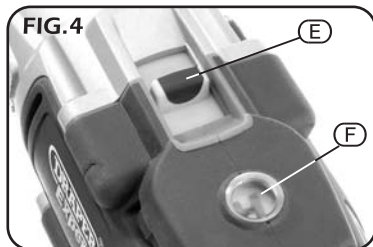
**- TORQUE CONTROL (FIG.5):**

By turning the collar (G) it is possible to adjust the amount of torque. In the "twist drill" setting , the drill/screwdriver has full torque.

In the "Hammer Drill" setting , the hammer feature will come into action. This is mostly used for drilling into masonry etc.

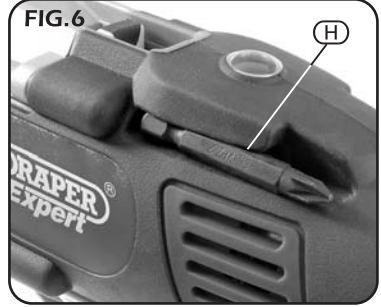
Settings 1-20 can be used in any gear and provide a facility for setting the torque to the required level. For example, this means that repetitive driving of screws of the same size will be driven into the material to the same torque, thus giving the same fixing strength, or in the case of countersunk screws, these will all be driven to the same depth in the material.

The torque control prevents the heads of small diameter screws being twisted off when correctly set.



- **SCREWDRIVER BIT HOLDER (FIG.6):**

The drill comes equipped with a bit holder (H) on either side of the housing to hold the two screwdriver bits supplied.



- **LED WORKLIGHT (FIG.7):**

To aid drilling and screwdriving in confined, inadequacy lit spaces the LED worklight automatically illuminates when the trigger is activated.



- **HOLDING THE DRILL (FIGS.8&9):**

The drill casing is designed to be held comfortably in two ways;

1. By the handle.
2. Or by the in-line support grip.

- **DRILLING WOOD AND PLASTIC:**

To prevent splitting around the drill holes on the reverse side, place a piece of scrap timber under the material to be drilled.

- **DRILLING METAL:**

Metals such as sheet steel, aluminium and brass may be drilled. Mark the point to be drilled with a centre punch to help the drill bit tip to locate.

- **SCREWDRIVING:**

To prevent slip or damage to the screwhead, match the screwdriver bit to the screwhead size. To remove screws, move the direction switch to the reversing position and apply pressure to the screwhead and depress the trigger slowly.



## DISPOSAL OF TOOL

- 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 abandon in the environment.
- Do not dispose of WEEE\* as unsorted municipal waste.



### - HEALTH AND SAFETY FOR BATTERIES

General: Do not put in fire or mutilate - cells may burst or release toxic materials.  
Do not short circuit cells, may cause burns.  
The battery must be removed from the appliance before it is scrapped.  
The battery is to be disposed of safely.

### - DISPOSAL

Do not mutilate batteries, corrosive electrolyte will be released.  
Do not incinerate - danger of explosion and release of toxic fumes.  
Do not dispose of batteries or cells in a charged condition.  
Expired nickel-cadmium batteries must be recycled/disposed of in accordance with the appropriate regulation or legislation. They should be returned to your local warranty agent/stockist.

\* Waste Electrical & Electronic Equipment.

## EXPLANATION OF SYMBOLS/PICTOGRAMS



Do not dispose of WEEE\*  
as unsorted municipal waste.



Class II construction  
(Double insulated).



For indoor use.  
Do not expose to rain.

\* Waste Electrical & Electronic Equipment.

- **DRAPER TOOLS LIMITED,**  
Hursley Road, Chandler's Ford,  
Eastleigh, Hampshire. SO53 1YF. U.K.
  
- **Helpline:** (023) 8049 4344
- **Sales Desk:** (023) 8049 4333
- **General Enquiries:** (023) 8026 6355
- **Fax:** (023) 8026 0784
- **Internet:** [www.draper.co.uk](http://www.draper.co.uk)
- **E-mail:** [sales@drapertools.com](mailto:sales@drapertools.com)
  
- **Service/Warranty Repair Agent**  
For aftersales servicing or warranty repairs, please  
contact the Draper Tools Helpline for details of an  
agent in your local area.

YOUR DRAPER STOCKIST

OAJH231006

©Published by Draper Tools Limited.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical photocopying, recording or otherwise without prior permission in writing from Draper Tools Ltd.