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**DEWALT®**

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**D21710**

Figure 1

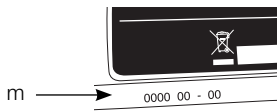
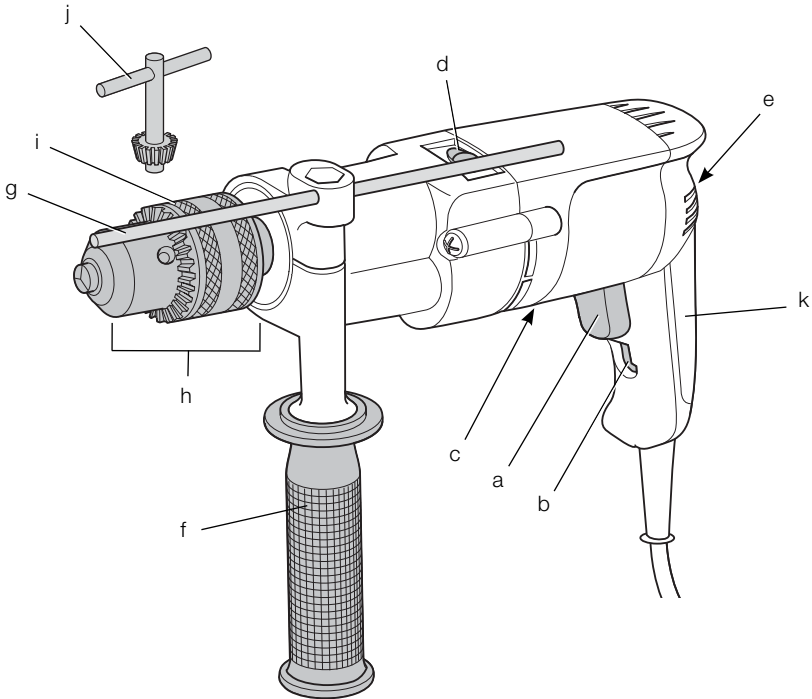


Figure 2

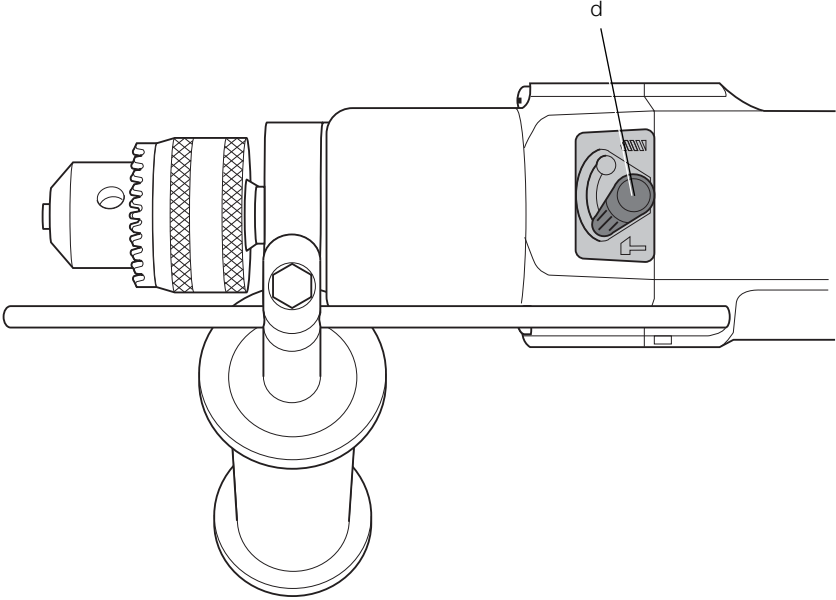


Figure 3

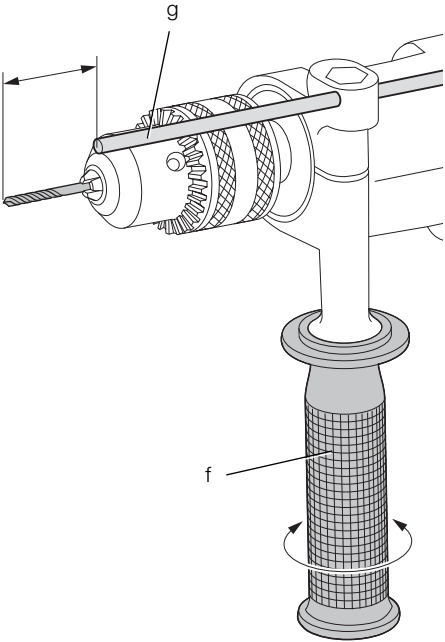


Figure 4

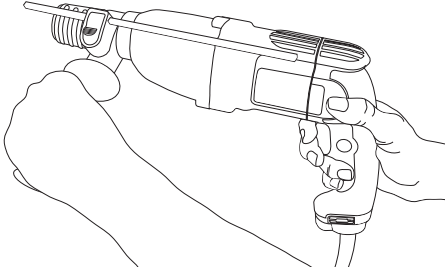
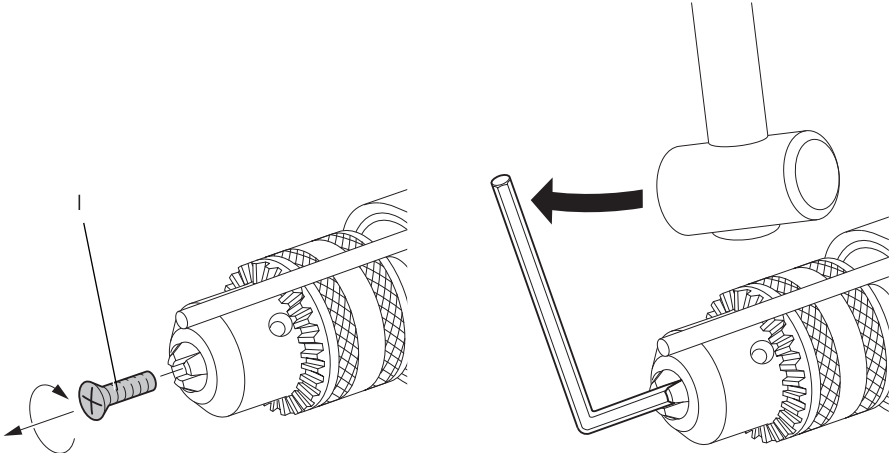


Figure 5



# PERCUSSION DRILL D21710M

## Congratulations!

You have chosen a DEWALT tool. Years of experience, thorough product development and innovation make DEWALT one of the most reliable partners for professional power tool users.

## Technical Data

		D21710 B5	D21710 B1
Voltage	$V_{DC}$	220–240	220–240
Type		6	6
Power input	W	600	600
No-load speed	$\text{min}^{-1}$	0–2,600	0–2,600
No load impact	$\text{min}^{-1}$	0–44,200	0–44,200
Maximum drilling range in steel/wood/concrete	mm	13/25/16	13/25/16
Chuck spindle thread size	UNF	1/2" x 20	1/2" x 20
Collar diameter	mm	43	43
Maximum chuck capacity	mm	13	13
Weight	kg	1.8	1.8

Fuses	
220–240 V tools	10 Amperes, mains

## Definitions: Safety Guidelines

The definitions below describe the level of severity for each signal word. Please read the manual and pay attention to these symbols.



**DANGER:** Indicates an imminently hazardous situation which, if not avoided, **will** result in **death or serious injury**.



**WARNING:** Indicates a potentially hazardous situation which, if not avoided, **could** result in **death or serious injury**.



**CAUTION:** Indicates a potentially hazardous situation which, if not avoided, **may** result in **minor or moderate injury**.

**NOTICE:** Indicates a practice **not related to personal injury** which, if not avoided, **may** result in **property damage**.



Denotes risk of electric shock.



Denotes risk of fire.



**WARNING:** To reduce the risk of injury, read the instruction manual.

## General Power Tool Safety Warnings



**WARNING! Read all safety warnings and all instructions.** Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

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

### 1) WORK AREA SAFETY

- Keep work area clean and well lit.**  
Cluttered or dark areas invite accidents.
- 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.
- 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 dust mask, non-skid safety shoes, hard hat, or hearing protection used 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, 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 dust collection 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 and/or the battery pack 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. 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.

**5) 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.

**Additional Specific Safety Rules for Drills**

- **Wear ear protectors.** Exposure to noise can cause hearing loss.
- **Hold power tool by insulated gripping surfaces only, when performing an operation where the cutting accessory may contact hidden wiring or its own cord.** Cutting accessory contacting a “live” wire may make exposed metal parts of the power tool “live” and shock the operator.
- **Use clamps or other practical way to secure and support the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.
- **Wear safety goggles or other eye protection.** Drilling operations cause chips to fly. Flying particles can cause permanent eye damage.
- **Bits and tools get hot during operation.** Wear gloves when touching them.
- **Keep handles dry, clean, free from oil and grease. it is recommended to use rubber gloves.** This will enable better control of the tool.

**Residual Risks**

The following risks are inherent to the use of drills:

- Injuries caused by touching the rotating parts or hot parts of the tool.

In spite of the application of the relevant safety regulations and the implementation of safety devices, certain residual risks cannot be avoided.

These are:

- Impairment of hearing.

- Risk of squeezing fingers when changing accessories.
- Health hazards caused by breathing dust developed when working in wood.
- Risk of personal injury due to flying particles.
- Risk of personal injury due to prolonged use.

**Markings on Tool**

The following pictograms are shown on the tool:



Read instruction manual before use.

**DATE CODE POSITION (FIG. 1)**

The Date Code (m), which also includes the year of manufacture, is printed into the housing.

Example:

2009 XX XX

Year of Manufacture

**Package Contents**

The package contains:

- 1 Percussion drill
- 1 Side handle
- 1 Depth gauge
- 1 Chuck key
- 1 Kitbox (K-models only)
- 1 Instruction manual
- Check for damage to the tool, parts or accessories which may have occurred during transport.
- Take the time to thoroughly read and understand this manual prior to operation.

**Description (fig. 1, 5)**



**WARNING:** Never modify the power tool or any part of it. Damage or personal injury could result.

- a. Variable speed switch
- b. Lock-on button
- c. Forward/reverse slider
- d. Mode selector
- e. Ventilation slots
- f. Side handle
- g. Depth adjustment rod
- h. Keyed chuck

- i. Sleeve
- j. Chuck key

### INTENDED USE

Your percussion drill has been designed for professional drilling and screwdriving applications.

**DO NOT** use under humid conditions or in presence of flammable liquids or gases.

These percussion drills are professional power tools.

**DO NOT** let children come into contact with the tool. Supervision is required when inexperienced operators use this tool.

### Electrical Safety

The electric motor has been designed for one voltage only. Always check that the power supply corresponds to the voltage on the rating plate.



Your DEWALT tool is double insulated in accordance with EN 60745; therefore no earth wire is required.

If the supply cord is damaged, it must be replaced by a specially prepared cord available through the DEWALT service organisation.

### Using an Extension Cable

If an extension cable is required, use an approved extension cable suitable for the power input of this tool (see technical data). The minimum conductor size is 1 mm<sup>2</sup>; the maximum length is 30 m.

When using a cable reel, always unwind the cable completely.

### ASSEMBLY AND ADJUSTMENTS



**WARNING: To reduce the risk of injury, turn unit off and disconnect machine from power source before installing and removing accessories, before adjusting or changing set-ups or when making repairs. Be sure the trigger switch is in the OFF position. An accidental start-up can cause injury.**

### Selecting the Operating Mode (fig. 2)

The tool can be used in two operating modes:



Rotary drilling:  
steel, wood and plastics.



Percussion drilling:  
simultaneous rotating and impacting for concrete and masonry drilling operations.

Select the required operating mode by rotating the mode selector (d) to the required position.

### Inserting and Removing a Bit (fig. 1)

#### KEYED CHUCK

1. Open the chuck by turning the sleeve (i) counterclockwise and insert the bit shank.
2. Put the chuck key (j) into each hole in the side of the chuck and turn clockwise until tight.

To remove the bit, proceed in reverse order.

### Fitting the Side Handle (fig. 1)

The side handle (f) can be fitted to suit both RH- and LH-users.



**WARNING: Always use the drill with the side handle properly assembled.**

1. Loosen the side handle.
2. For RH-users, slide the side handle clamp over the collar behind the chuck, handle at the left.
  - For LH-users, slide the side handle clamp over the collar behind the chuck, handle at the right.
3. Rotate the side handle to the desired position and tighten the handle.

### Setting the Drilling Depth (fig. 3)

1. Insert the required drill bit into the chuck.
2. Slacken the side handle (f).
3. Fit the depth adjustment rod (g) through the hole in the side handle clamp.
4. Adjust the drilling depth as shown.
5. Tighten the side handle.

### Forward/reverse Slider (fig. 1)

To select forward or reverse rotation, use the forward/reverse-switch (c) (see arrow on tool).



**WARNING: Always wait until the motor has come to a complete standstill before changing the direction of rotation.**



## Chuck Removal (fig. 5)

1. Open the chuck jaws as far as possible.
2. Insert a screwdriver into the chuck and remove the chuck retaining screw (l) by turning clockwise.
3. Tighten an hex key into the chuck and strike it with a hammer as shown.

## Prior to Operation

1. Insert the appropriate bit.
2. Mark the spot where the hole is to be drilled.

## OPERATION

### Instructions for Use



**WARNING:** Always observe the safety instructions and applicable regulations.



**WARNING:** To reduce the risk of serious personal injury, turn tool off and disconnect tool from power source before making any adjustments or removing/installing attachments or accessories.



**WARNING:**

- Be aware of the location of pipework and wiring.
- Apply only a gentle pressure to the tool. Excessive force does not speed up drilling but decreases tool performance and may shorten tool life.

### Proper Hand Position (fig. 1, 4)



**WARNING:** To reduce the risk of serious personal injury, **ALWAYS** use proper hand position as shown.



**WARNING:** To reduce the risk of serious personal injury, **ALWAYS** hold securely in anticipation of a sudden reaction.

Proper hand position requires one hand on the side handle (f), with the other hand on the main handle (k).

### Switching On and Off (fig. 1)

To run the tool, press the variable speed switch (a). The pressure exerted on the variable speed switch determines the tool speed.

If necessary, press the lock-on button (b) for continuous operation and release the switch. The lock-on button works only in full speed, forward rotation.

To stop the tool, release the switch.

To stop the tool in continuous operation, press the switch briefly and release it. Always switch off the tool when work is finished and before unplugging.

## Screwdriving

Select forward or reverse rotation.

## Percussion Drilling (fig. 1)

1. Select the percussion mode.
2. Press the switch (a).

## Rotary Drilling (fig. 1)

1. Select the rotary drilling mode.
2. Proceed as described for percussion drilling.

## Drilling



**WARNING:** To reduce the risk of serious personal injury, turn tool off and disconnect tool from power source before making any adjustments or removing/installing attachments or accessories.



**WARNING:** To reduce the risk of personal injury, **ALWAYS** ensure workpiece is anchored or clamped firmly. If drilling thin material, use a wood "back-up" block to prevent damage to the material.

1. Use sharp drill bits only. For WOOD, use the low speed setting and twist drill bits, spade bits, power auger bits, or hole saws. For METAL, use the low speed setting and steel twist drill bits or hole saws.
2. Always apply pressure in a straight line with the bit. Use enough pressure to keep drill biting, but do not push hard enough to stall the motor or deflect the bit.
3. Hold tool firmly with both hands to control the twisting action of the drill.



**CAUTION:** Drill may stall if overloaded causing a sudden twist. Always expect the stall. Grip the drill firmly to control the twisting action and avoid injury.

4. **IF DRILL STALLS**, it is usually because it is being overloaded or improperly used. **RELEASE TRIGGER IMMEDIATELY**, remove drill bit from work, and determine cause of stalling. **DO NOT CLICK TRIGGER ON AND OFF IN AN ATTEMPT TO START A STALLED DRILL — THIS CAN DAMAGE THE DRILL.**

5. To minimize stalling or breaking through the material, reduce pressure on drill and ease the bit back out of a drilled hole. This will help prevent jamming.
6. Keep the motor running when pulling the bit back out of a drilled hole. This will help prevent jamming.
7. With variable speed drills there is no need to center punch the point to be drilled. Use a slow speed to start the hole and accelerate by squeezing the trigger harder when the hole is deep enough to drill without the bit skipping out.

### DRILLING IN METAL

Start drilling with slow speed and increase to full power while applying firm pressure on the tool. A smooth even flow of metal chips indicates the proper drilling rate. Use a cutting lubricant when drilling metals. The exceptions are cast iron and brass which should be drilled dry.

**NOTE:** Large [5/16" (8 mm) to 1/2" (13 mm)] holes in steel can be made easier if a pilot hole [5/32" (4 mm) to 3/16" (5 mm)] is drilled first.

### DRILLING IN WOOD

Start drilling with slow speed and increase to full power while applying firm pressure on the tool. Holes in wood can be made with the same twist drills used for metal. These bits may overheat unless pulled out frequently to clear chips from the flutes. Work that is apt to splinter should be backed up with a block of wood.

## MAINTENANCE

Your DEWALT power tool has been designed to operate over a long period of time with a minimum of maintenance. Continuous satisfactory operation depends upon proper tool care and regular cleaning.



**WARNING: To reduce the risk of injury, turn unit off and disconnect machine from power source before installing and removing accessories, before adjusting or changing set-ups or when making repairs. Be sure the trigger switch is in the OFF position. An accidental start-up can cause injury.**



### Lubrication

Your power tool requires no additional lubrication.



### Cleaning



**WARNING:** Blow dirt and dust out of the main housing with dry air as often as dirt is seen collecting in and around the air vents. Wear approved eye protection and approved dust mask when performing this procedure.



**WARNING:** Never use solvents or other harsh chemicals for cleaning the non-metallic parts of the tool. These chemicals may weaken the materials used in these parts. Use a cloth dampened only with water and mild soap. Never let any liquid get inside the tool; never immerse any part of the tool into a liquid.

### Optional Accessories



**WARNING:** Since accessories, other than those offered by DEWALT, have not been tested with this product, use of such accessories with this tool could be hazardous. To reduce the risk of injury, only DEWALT, recommended accessories should be used with this product.

Consult your dealer for further information on the appropriate accessories.

### Protecting the Environment



Separate collection. This product must not be disposed of with normal household waste.



Should you find one day that your DEWALT product needs replacement, or if it is of no further use to you, do not dispose of it with household waste. Make this product available for separate collection.



Separate collection of used products and packaging allows materials to be recycled and used again. Re-use of recycled materials helps prevent environmental pollution and reduces the demand for raw materials.

Local regulations may provide for separate collection of electrical products from the household, at municipal waste sites or by the retailer when you purchase a new product.

DEWALT provides a facility for the collection and recycling of DEWALT products once they have reached the end of their working life. To take advantage of this service please return your product to any authorised repair agent who will collect them on our behalf.

You can check the location of your nearest authorised repair agent by contacting your local DEWALT office at the address indicated in this manual. Alternatively, a list of authorised DEWALT repair agents and full details of our after-sales service and contacts are available on the Internet at: **[www.2helpU.com](http://www.2helpU.com)**.

