



Thank you for purchasing a Sealey product. Manufactured to a high standard this product will, if used according to these instructions and properly maintained, give you years of trouble free performance.

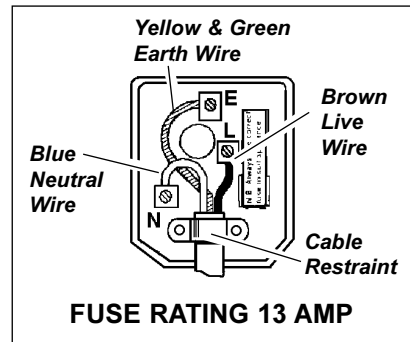
 **IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS, AND CAUTIONS. USE THIS PRODUCT CORRECTLY, AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY.**

## 1. SAFETY INSTRUCTIONS

### 1.1 ELECTRICAL SAFETY

- WARNING!** It is the responsibility of the owner and the operator to read, understand and comply with the following:
  - You must check all electrical products, before use, to ensure that they are safe. You must inspect power cables, plugs, sockets and any other connectors for wear or damage. You must ensure that the risk of electric shock is minimised by the installation of appropriate safety devices. A Residual Current Circuit Breaker (RCCB) should be incorporated in the main distribution board. We also recommend that a Residual Current Device (RCD) is used. It is particularly important to use an RCD with portable products that are plugged into a supply which is not protected by an RCCB. If in any doubt consult a qualified electrician. You may obtain a Residual Current Device by contacting your Sealey dealer.
  - You must also read and understand the following instructions concerning electrical safety.**
- 1.1.1 The **Electricity at Work Act 1989** requires all portable electrical appliances, if used on business premises, to be tested by a qualified electrician, using a Portable Appliance Tester (PAT), at least once a year.
- 1.1.2 The **Health & Safety at Work Act 1974** makes owners of electrical appliances responsible for the safe condition of those appliances and the safety of the appliance operators. **If in any doubt about electrical safety, contact a qualified electrician.**
- 1.1.3 Ensure that the insulation on all cables and on the appliance is safe before connecting it to the power supply. See 1.1.1 and 1.1.2 and use a Portable Appliance Tester.
- 1.1.4 Ensure that cables are always protected against short circuit and overload.
- 1.1.5 Regularly inspect power supply cables and plugs for wear or damage and check all connections to ensure that none is loose.
- 1.1.6 **Important:** Ensure that the voltage marked on the appliance matches the power supply to be used and that the plug is fitted with the correct fuse - see fuse rating at right.
- 1.1.7 **DO NOT** pull or carry the appliance by the power cable.
- 1.1.8 **DO NOT** pull the plug from the socket by the cable.
- 1.1.9 **DO NOT** use worn or damaged cables, plugs or connectors. Immediately have any faulty item repaired or replaced by a qualified electrician. When an ASTA/BS approved UK 3 pin plug is damaged, cut the cable just above the plug and **dispose of the plug safely.**
  - a) Connect the **GREEN/YELLOW** earth wire to the earth terminal 'E'.
  - b) Connect the **BROWN** live wire to the live terminal 'L'.
  - c) Connect the **BLUE** neutral wire to the neutral terminal 'N'.
  - d) **After wiring, check that there are no bare wires, that all wires have been correctly connected, that the cable outer insulation extends beyond the cable restraint and that the restraint is tight.**

Double insulated products, which are always marked with this symbol , are fitted with live (brown) and neutral (blue) wires only. To rewire, connect the wires as indicated above - **DO NOT** connect either wire to the earth terminal.
- 1.1.10 Products which require more than 13 amps are supplied without a plug. In this case you must contact a qualified electrician to ensure that a suitably rated supply is available. We recommend that you discuss the installation of an industrial round pin plug and socket with your electrician.
- 1.1.11 If an extension reel is used it should be fully unwound before connection. A reel with an RCD fitted is preferred since any appliance plugged into it will be protected. The cable core section is important and should be at least 1.5mm<sup>2</sup>, but to be absolutely sure that the capacity of the reel is suitable for this product and for others which may be used in the other output sockets, we recommend the use of 2.5mm<sup>2</sup> section cable. If extension reel is to be used outdoors, ensure it is marked for outdoor use.



### 1.2 GENERAL SAFETY

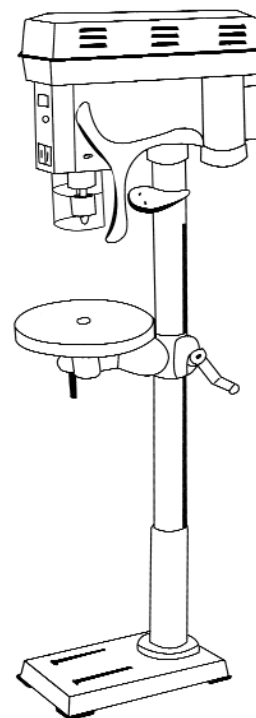
- WARNING! Disconnect drill from mains power before changing accessories, servicing or performing any maintenance.**
- ✓ Maintain the drill in good condition (use an authorised service agent).
- WARNING! Keep all guards and holding screws in place, tight and in good working order. Check regularly for damaged parts. A guard or any other part that is damaged must be repaired or replaced, before the tool is used, to ensure that it will operate properly and perform its intended function. The safety guard is a mandatory fitting where drill is used in premises covered by the Health & Safety at Work Act.**
- ✓ Check alignment of moving parts and check for possible broken parts.
- ✓ Replace or repair damaged parts. *Use recommended parts only. Unauthorised parts may be dangerous and will invalidate the warranty.*
- ✓ Ensure the set screws of the head frame are screwed tight before using the drill.
- ✓ Secure the drill to the bench/floor to avoid it tipping, sliding or walking.
- ✓ Drill is designed for use with drill bits only.
- ✓ Ensure the chuck is securely fastened to the spindle.
- ✓ Remove adjusting keys, chuck key and wrenches from the machine and working area before switching on.
- ✓ Use clamps or a vice (not included, but available from your Sealey dealer) to secure the workpiece. **DO NOT** attempt to hold the workpiece by hand.
- ✓ Refer to speed chart for recommended drilling speeds.
- WARNING! Always wear approved eye or face protection when operating this drill. Use a face or dust mask if dust is generated.**
- WARNING! DO NOT wear gloves when drilling.**
- ✓ Others in the workplace should keep a safe distance from the drill, especially when it is in operation.
- ✓ Keep the work area as childproof as possible by using padlocks and master switches.
- ✓ Keep drill bits clean and sharp for best and safest performance. Follow the instructions for lubrication and changing accessories.

- ✓ Remove ill fitting clothing. Remove ties, watches, rings and other loose jewellery and contain long hair.
- ✓ Locate the drill in a suitable work area. Keep area clean and tidy and free from unrelated materials. Ensure there is adequate lighting.
- ✓ Maintain correct balance and footing. Ensure the floor is not slippery and wear non-slip shoes.
- ✓ Secure non-stable workpiece with a clamp, vice or other adequate holding device.
- ✓ Avoid unintentional starting.
- ✗ **DO NOT** use the drill for a task it is not designed to perform.
- ✗ **DO NOT** allow untrained persons to operate the drill.
- ✗ **DO NOT** get the drill wet or use in damp or wet locations or areas where there is condensation.
- ✗ **DO NOT** operate the drill if damaged.
- ✗ **DO NOT** use drill in an area where paint fumes, solvents or flammable liquids pose a potential hazard. Keep flammable material away from the drill when operating. Flammable waste, such as wiping or cleaning rags, must be placed in a closed metal container and disposed of correctly.
- ✗ **DO NOT** exceed the rated capacity of the drill.
- ✗ **DO NOT** operate the drill if any parts are missing as this may cause failure and/or personal injury.
- ✗ **DO NOT** leave the drill operating unattended.
- ✗ **DO NOT** operate the drill when you are tired or under the influence of alcohol, drugs or intoxicating medication.
- ✗ **DO NOT** pull the cable from the power supply.
- ✓ When not in use, switch off the drill, remove plug from the power supply and do not leave until the drill chuck has come to a complete stop.

## 2. INTRODUCTION AND SPECIFICATION

Variable speed models allow stepless control of drilling speed between minimum and maximum enabling finer control of finish and tolerance. Side knob control allows speed to be adjusted whilst machine is running and RPM is displayed on the front digital LCD panel. Meets CE Machinery Directive 98/37/EC, Low Voltage Safety Directive 79/23/EEC and EMC Directive 89/336/EEC. Safety devices fitted include a no-volt release switch, allowing insurance company approval for use in educational establishments. Supplied with chuck guard.

Model	PDME160B	PDME200F
Chuck size	16mm	16mm
Spindle Nose Taper	MT2	MT2
Swing	430mm	430mm
Chuck to Upright Face	180mm	180mm
Spindle Travel	85mm	85mm
Number of Speeds	Variable	Variable
Speed Range	300-2600rpm	300-2600rpm
Spindle to Table - max.	360mm	600mm
Spindle to Base - max.	640mm	1080mm
Working Table	Ø300mm	Ø300mm
Working Base	200mm x 180mm	200mm x 180mm
Overall Base	415mm x 245mm	415mm x 245mm
Column Diameter	76mm	76mm
Collar Diameter	62mm	62mm
Overall Height	1000mm	1600mm
Nominal Motor Power	350W-230V	350W-230V
Maximum Motor Power	500W-230V	500W-230V
Weight	60kg	70kg
Optional Keyless Chuck 16mm	GDMX/KC	GDMX/KC



## 3. ASSEMBLY

### 3.1 ASSEMBLY (REFER TO DIAGRAMS OVERLEAF)

- 3.1.1 Place the column assembly on the base, align the holes and secure with the bolts and washers provided (fig 1).
- 3.1.2 Insert the worm gear into the pinion assembly and slot into the adjusting handle, tighten hex screw with 3mm allen key (fig 2).
- 3.1.3 Insert the rack into the pinion assembly and slide the construction onto the column, seat the base of the rack into the lower collar of the column (fig 3).
- 3.1.4 Slot the table into the pinion assembly and secure with the tightening handle (fig 4).
- 3.1.5 Slide the rack collar onto the column so it sits on the rack, tighten the hex screw with the 4mm allen key (fig 5).
- 3.1.6 Place head drill head onto the column (aligning with the base) and secure the two hex screws using the 4mm allen key (fig 6).
- 3.1.7 Slot the depth scale onto the handle base, then proceed to screw the feed handle into place in and **counter-clockwise** direction, then secure the supplied bolt and washer with a 6mm allen key, screwing in a **clockwise** direction (fig 7).

### 3.2 DRILL MOUNTING

- 3.2.1 **For stability and safety it is important** that the drill base is securely bolted to the workbench/floor .
- 3.2.2 Ensure that the mounting surface is capable of supporting the drill together with the weight of the heaviest likely workpiece.

fig 1

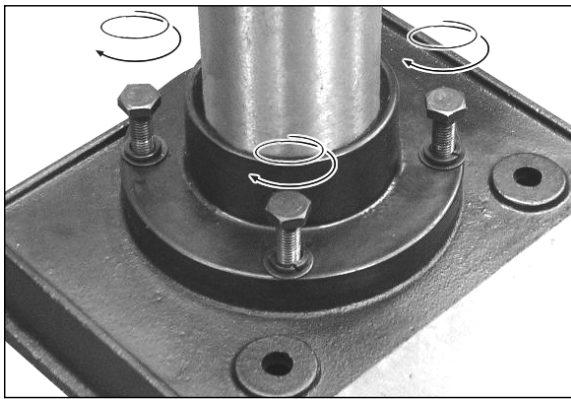


fig 2

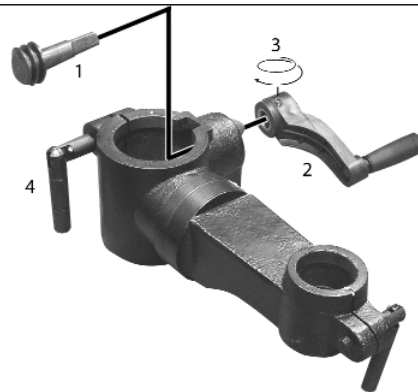


fig 3

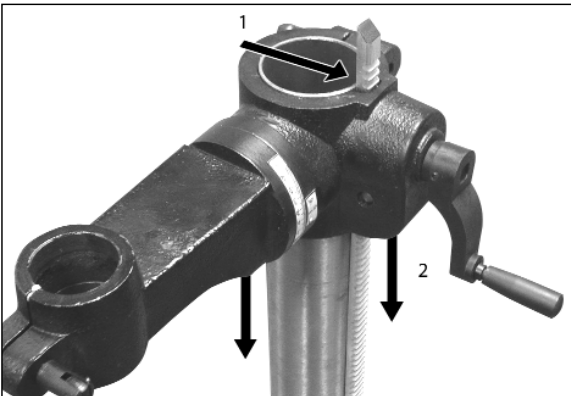


fig 4

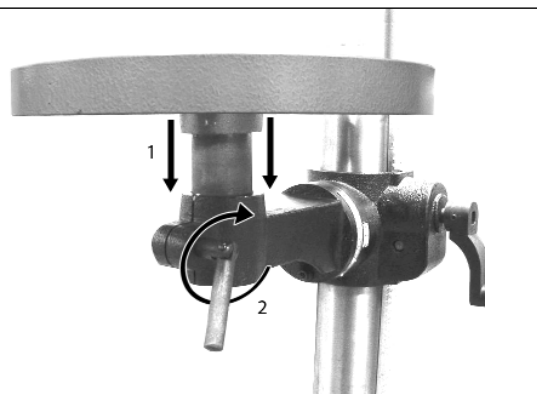


fig 5

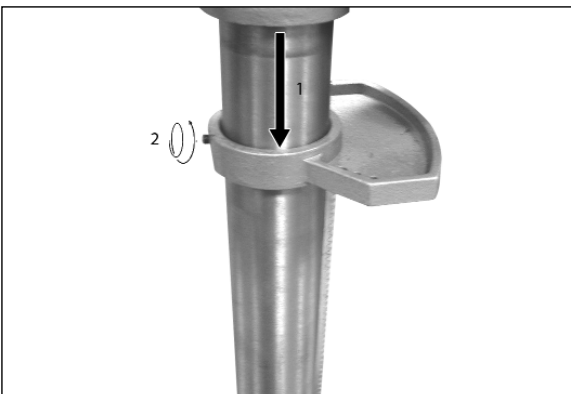


fig 6



fig 7



fig 8



## 4. OPERATING INSTRUCTIONS

❑ **WARNING!** Ensure the drill is unplugged from the mains power supply before commencing.

### 4.1 INSTALL DRILL BIT

4.1.1 Insert drill bit into chuck jaws to 1" (25mm) deep (avoid inserting small bits too far) and centre bit in chuck before tightening with the supplied chuck key.

### 4.2 ADJUSTING THE TABLE

4.2.1 To adjust table up or down, loosen the column clamp bolt (fig 2.4) then turn the adjusting handle (fig 2.2).

4.2.2 To turn the table around the column, loosen the rack collar slightly, then loosen the column clamp bolt, turn the table to the desired position then secure the bolt and the rack collar.

### 4.3 ADJUSTING THE SPEED

4.3.1 To adjust the speed of the drill, simply turn the speed control dial (fig 8) located on the opposite side of the drill to the feed handle until the desired speed is shown on the digital display.

❑ **WARNING!** Do not adjust the drilling speed while the drill is not running or when it is slowing down.

4.3.2 Choose the speed for drilling operation carefully before you begin to drill the workpiece (see drill speed chart - Section 5).

4.3.3 To reset the digital display during operation, press the reset button located below the LCD panel (fig 7.5).

### 4.4 POSITIONING THE WORKPIECE

4.4.1 To prevent table damage, rest the workpiece on a piece of wood.

The wood should rest on the table so that one end of it is against the left side of the column, to prevent it spinning when the drill bit breaks through the workpiece.

4.4.2 For small workpieces that cannot be clamped to the table, use a drill vice (not included). Vice must be clamped or bolted to table.

### 4.5 SETTING THE DRILL DEPTH

4.5.1 Use the scale located on the collar of the feed handle.

4.5.2 Loosen the depth scale locking screw (fig 7.4) and set the scale to the depth desired. Tighten locking screw.

4.5.3 When ready to drill, simply pull the feed handle. The drill will stop at the set depth.

## 5. DRILL SPEEDS

SPEED RANGE	WOOD	ZINC DIECAST	ALUMINIUM & BRASS	PLASTIC	CAST IRON & BRONZE	STEEL MILD & MALLEABLE	STEEL CAST & MED CARBON	STAINLESS STEEL
2600rpm	6.4mm	4.8mm	4mm	3.2mm	2.4mm	1.6mm	1.2mm	0.8mm
1350-2100rpm	9.5mm	6.4mm	5.5mm	4.8mm	3.2mm	2.4mm	1.6mm	1.2mm
1190-1350rpm	16mm	9.5mm	8.75mm	7.9mm	6.4mm	4mm	3.2mm	1.6mm
720-1190rpm	22mm	12.5mm	12mm	11mm	8.75mm	6.4mm	4.8mm	3.2mm
480-720rpm	31.75mm	19mm	17.5mm	16mm	12.5mm	9.5mm	7.9mm	6.4mm
350-480rpm	41.4mm	22mm	19mm	20.5mm	16mm	12.5mm	11mm	9.5mm
300-350rpm	50.8mm	25.4mm	-	-	-	-	14.5mm	12.5mm

## 6. MAINTENANCE

- 6.1 Clean the tool after each use. A coat of automobile-type wax applied to the table and column will help to keep the surfaces clean.
- 6.2 Blow out any dust that may have accumulated in the motor.
- 6.3 Periodically lubricate the table elevation rack/gear/worm mechanism and the spindle sleeve exterior.

## 7. TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Excessive noise:	<ol style="list-style-type: none"> <li>1. Incorrect belt tension.</li> <li>2. Spindle is dry.</li> <li>3. Pulley is loose.</li> <li>4. Bearing damaged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust tension.</li> <li>2. Disassemble spindle/quill and lubricate.</li> <li>3. Tighten pulley.</li> <li>4. Replace the bearing.</li> </ol>
Excessive drill wobble:	<ol style="list-style-type: none"> <li>1. Chuck is loose.</li> <li>2. Bearing or spindle shaft is worn.</li> <li>3. Chuck is worn.</li> </ol>	<ol style="list-style-type: none"> <li>1. Tighten the chuck by pressing it against the table.</li> <li>2. Replace worn part.</li> <li>3. Replace the chuck.</li> </ol>
Drill binds in the workpiece:	<ol style="list-style-type: none"> <li>1. Feed pressure is too great.</li> <li>2. Belt is loose.</li> <li>3. Drill bit is loose.</li> <li>4. Speed is too fast.</li> </ol>	<ol style="list-style-type: none"> <li>1. Apply less pressure.</li> <li>2. Adjust tension.</li> <li>3. Tighten the chuck jaws with the key.</li> <li>4. Change the speed.</li> </ol>
Drill burns or smokes:	<ol style="list-style-type: none"> <li>1. Speed is too fast.</li> <li>2. Chips are not discharging.</li> <li>3. Drill bit is dull.</li> <li>4. Lubrication needed.</li> <li>5. Feed pressure is too great.</li> </ol>	<ol style="list-style-type: none"> <li>1. Change the speed.</li> <li>2. Clean the drill bit.</li> <li>3. Use a new bit.</li> <li>4. Lubricate while drilling.</li> <li>5. Apply less pressure.</li> </ol>
Table is difficult to raise:	<ol style="list-style-type: none"> <li>1. Lubrication is needed.</li> <li>2. Rack is bent.</li> </ol>	<ol style="list-style-type: none"> <li>1. Lubricate with light oil.</li> <li>2. Straighten the rack.</li> </ol>

**NOTE:** It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice. **IMPORTANT:** No liability is accepted for incorrect use of this equipment. **WARRANTY:** Guarantee is 12 months from purchase date, proof of which will be required for any claim. **INFORMATION:** For a copy of our latest catalogue and promotions call us on 01284 757525 and leave your full name and address, including postcode.

**Declaration of Conformity** We, the sole importer into the UK, declare that the product listed here is in conformity with the following standards and directives.

**PILLAR DRILLS WITH DIGITAL VARIABLE SPEED MODELS: PDME160B & PDME200F**  
 73/23/EEC LOW VOLTAGE DIRECTIVE  
 89/336/EEC EMC DIRECTIVE  
 98/37/EC MACHINERY DIRECTIVE  
 93/68/EEC CE MARKING DIRECTIVE



The construction file for this product is held by the Manufacturer and may be inspected, by a national authority, upon request to Jack Sealey Ltd.

Signed by Mark Sweetman

15th December 2004

For Jack Sealey Ltd.  
 Sole importer into the UK  
 of Sealey Quality Machinery.



Sole UK Distributor, Sealey Group, Bury St. Edmunds, Suffolk.



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