




Universal Tool

Operator Instructions

Includes - Foreseen Use, Work Stations, Putting Into Service, Operating, Dismantling, Assembly and Safety Rules

Important

Read these instructions carefully before installing, operating, servicing or repairing this tool. Keep these instructions in a safe accessible place.

Manufacturer/Supplier Universal Air Tool Company Limited Unit 8 Lane End Industrial Park High Wycombe Bucks HP14 3BY	Product Type 3/8" Capacity Reversible Pistol Grip Drill	RPM 1,800 Cycles Per Min	
	Model No/Nos UT5825 UT5825-K (keyless chuck)	Serial No (if any)	

Tel No (01494) 883300 Fax No (01494) 883237

Product Nett Weight 3.0 lbs 1.36 Kg	Recommended Use Of Balancer Or Support No	Recommended Hose Bore Size - Minimum 3/8 Ins 10 M/M	Recommended Max. Hose Length 30 Ft 10 M
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Air Pressure Recommended Working 6.3 bar 90 PSI Recommended Minimum n/a bar n/a PSI Maximum 7.0 bar 100 PSI		Noise Level Sound Pressure Level 91.0 dB(A) Sound Power Level 102.0 dB(A) Test Method Tested in accordance with Pneurop test code PN8NTC1 and ISO Standard 3744
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Personal Safety Equipment Use - Safety Glasses Yes Use - Safety Gloves Use - Safety Boots Use - Breathing Masks Use - Ear Protectors	Vibration Level Less than 2.5 Metres / Sec² Test Method Tested in accordance with ISO standard 8662/1
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Foreseen Use Of Tool

This drill is designed for the purpose of drilling holes in all types of materials, i.e. metals, wood, stone, plastics etc. using drilling bits designed for this purpose. It may be used with other forms of cutting tools, polishing devices or for sanding using coated abrasive products. Before using any such products first check with the manufacturer their suitability for use with this type of drill. Do not use bonded abrasive products (i.e. grinding wheels) or saw blades or any device which has a permitted safe working speed less than the free speed of the drill.

Do not use this drill for any other purpose than that specified without consulting the manufacturer or the manufacturer's authorised supplier.

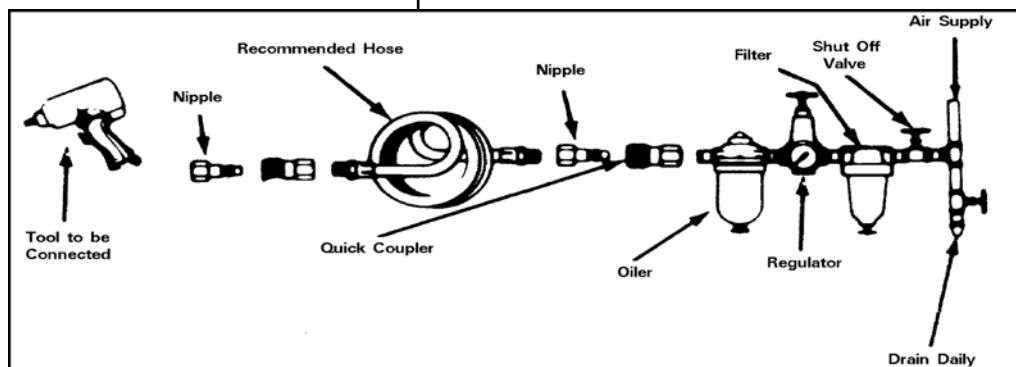
Work Stations

The tool should only be used as a handheld hand operated tool. It is always recommended that the tool is used when standing on the solid floor. It can be used in other positions but before any such use, the operator must be in a secure position having a firm grip and footing and be aware that the drill can develop a torque reaction see section "Operating".

Putting Into Service

Air Supply

Use a clean lubricated air supply that will give a measured air pressure at the tool of 90 p.s.i./6.3 bar when the tool is running with the trigger fully depressed. Use recommended hose size and length. It is recommended that the tool is connected to the air supply as shown in figure 1. Do not connect the tool to the air line system without incorporating an easy to reach and operate air shut off valve. The air supply should be lubricated. It is strongly recommended that an air filter, regulator, lubricator (FRL) is used as shown in Figure 1 as this will supply clean, lubricated air at the correct pressure to the tool. Details of such equipment can be obtained from your supplier. If such equipment is not used then the tool should be lubricated by shutting off the air supply to the tool, depressurising the line by pressing the trigger on the tool. Disconnect the air line and pour into the intake bushing a teaspoonful (5ml) of a suitable pneumatic motor lubricating



oil preferably incorporating a rust inhibitor. Reconnect tool to air supply and run tool slowly for a few seconds to allow air to circulate the oil. If tool is used frequently lubricate on daily basis and if tool starts to slow or lose power.

It is recommended that the air pressure at the tool whilst the tool is running is 90 p.s.i./6.3 bar. The tool can run at lower and higher pressures with the maximum permitted working air pressure of 100 p.s.i./7.0 bar.

Operating

Select suitable drill bit, insert the shank into the drill chuck as far as possible and tighten chuck with key supplied making sure that the shank of the device is securely clamped centrally between the three chuck jaws. Remove chuck key.

When drilling holes of all sizes it is advised to use a pointed punch to mark the centre at which the hole is to be drilled as this will provide a starting point for the drill tip. This procedure will prevent the drill bit from skidding, ensure that the hole is drilled where intended and help to prevent drill breakage when using small drills. When drilling, particularly with small diameter drills, always try to ensure that load applied to the drill is such that the drill bit is always at right angles to the hole being drilled. Do not force the drill but allow it to cut.

When drilling always adopt a firm posture to be able to counteract any sudden movement of the drill due to torque reaction. Such torque reaction can occur when the drill stalls due to a too heavy load being applied or the material being too hard or tough. The torque reaction can occur when the drill breaks through the material being drilled, particularly on sheet metal. Always use eye protection and hand protection is advised, particularly when drilling holes in metals where the material being removed from the hole is in the form of long sharp strips. Do not tie the drill chuck key to the drill as the attaching device i.e. string or chain could become entangled with the rotating chuck and bit etc.

If using an abrasive device, drilling stone or performing any operation where dust is created, it is recommended to use a breathing mask. Always ensure that the material to be drilled is firmly fixed to prevent its movement.

It is also recommended that when drilling holes of large diameter to first pre drill a hole of smaller diameter as this will reduce effort required to drill the hole and minimise torque reaction.

Dismantling & Assembly Instructions

Disconnect tool from the air supply.

Open the jaws of drill chuck (2) and remove screw (1). Hold motor housing (17) in a vice fitted with soft jaws and fix the chuck key firmly in the drill chuck (2) and give the chuck key a sharp tap with a hammer in the direction to loosen a right hand threaded joint. If this fails to remove the chuck as it is too tightly fitted see later:-

Unscrew gear housing (3) and remove the gearbox assembly complete. Take out internal gear (8) and 3 off planet gears (7). If the drill chuck has not previously been removed then wedge a rectangular bar between the three pins in planet carrier (6) and then by use of the chuck key unscrew drill chuck (2). Support the end of gear housing (3) and carefully, so as not to damage the thread, tap planet carrier (6) together with 2 off bearings (5) out of the gear housing. Support the motor side of the outer rings of bearings (5) and press planet carrier (6) through them. Grip the end of rotor (12) and pull out the complete motor assembly from the motor housing (17). Note at this time, for reassembly, how motor pin (14) locates the motor assembly by locating in the rectangular slot in the bottom of the main bore of the motor housing (17). Remove motor pin (14). Hold bearing case (10) tightly by hand and tap the splined end of rotor (12) with a non metallic [lead or aluminium] hammer so as not to damage the splines and drive the rotor through the bearing case (10) assembly. Tap out bearing (9) from bearing case (10).

Remove cylinder (15) and 4 off rotor blades (13). Support rotor (12) in a piece of tube with a bore diameter as close as possible to the maximum diameter of the rotor and tap the non splined end of the

rotor to drive it through end plate (11) assembly. Tap out bearing (9) from rear plate (11).

Unscrew air inlet with air filter screen (31), remove 2 off screws (30) and take off exhaust deflector (29). Prise off trigger (20) and remove spring (21). Centralise the forward and reverse lever (24) so that it aligns with the slot and pull out the valve assembly complete. Separate the parts, i.e. reverse valve (24), O-ring (25), reverse valve bush (26), throttle valve (22) and O-rings (23),(23a) and (27).

Reassembly

Clean all parts and examine for wear and replace any parts with parts obtained from the manufacturer or an authorised distributor. Coat all parts with a suitable pneumatic tool lubricating oil and reassemble in the reverse direction. See Note.

Note:- Before reassembling the motor assembly make sure that the faces of bearing case (10) and rear plate (11) that abut cylinder (15) are flat and free from burrs. If necessary lap on a flat very fine grade of abrasive paper.

Safety Rules When Using A Drill

- 1) Read all the instructions before using this tool. All operators must be fully trained in its use and aware of these safety rules. All service and repair must be carried out by trained personnel.
- 2) Always select a suitable cutting, abrasive device suitable for use with this drill.
- 3) Always shut off the air supply to the drill and depress the trigger to exhaust air from the feed hose before fitting, adjusting or removing the device. Remove drill chuck.
- 4) Always adopt a firm footing and/or position and be aware of torque reaction developed by the drill.
- 5) Use only correct spare parts.
- 6) Check hose and fittings regularly for wear. Do not carry the tool by its hose and ensure that the hand is remote from the on/off valve (trigger) when carrying the tool with air supply connected.
- 7) Do not exceed maximum recommended air pressure. Avoid low air pressures as this will allow the drill to stall more easily and develop torque reaction.
- 8) Use safety equipment as recommended.
- 9) The tool is not electrically insulated. Do not use where there is a possibility of coming into contact with live electricity, gas pipes, water pipes, etc. Check the area of operation before performing the operation.
- 10) Take care against entanglement of moving parts of the tool with clothing, ties, hair, cleaning rags, etc. This will cause the body to be moved towards the work process and can be very dangerous.
- 11) Do not attempt to hold or guide the drill chuck when the tool is running. Keep hands clear of the drilling process.
- 12) Use only compressed air at recommended conditions.
- 13) Do not attempt to fit attachments, i.e. for sawing, hedge cutting, grinding, chain sawing, etc.
- 14) If the tool appears to malfunction remove from use immediately and arrange for service and repair.
- 15) If an additional side handle is fitted to the tool ensure that it is correctly positioned and fixed securely.
- 16) If the drill is used with a balancer or other suspension device ensure that it is fixed securely.

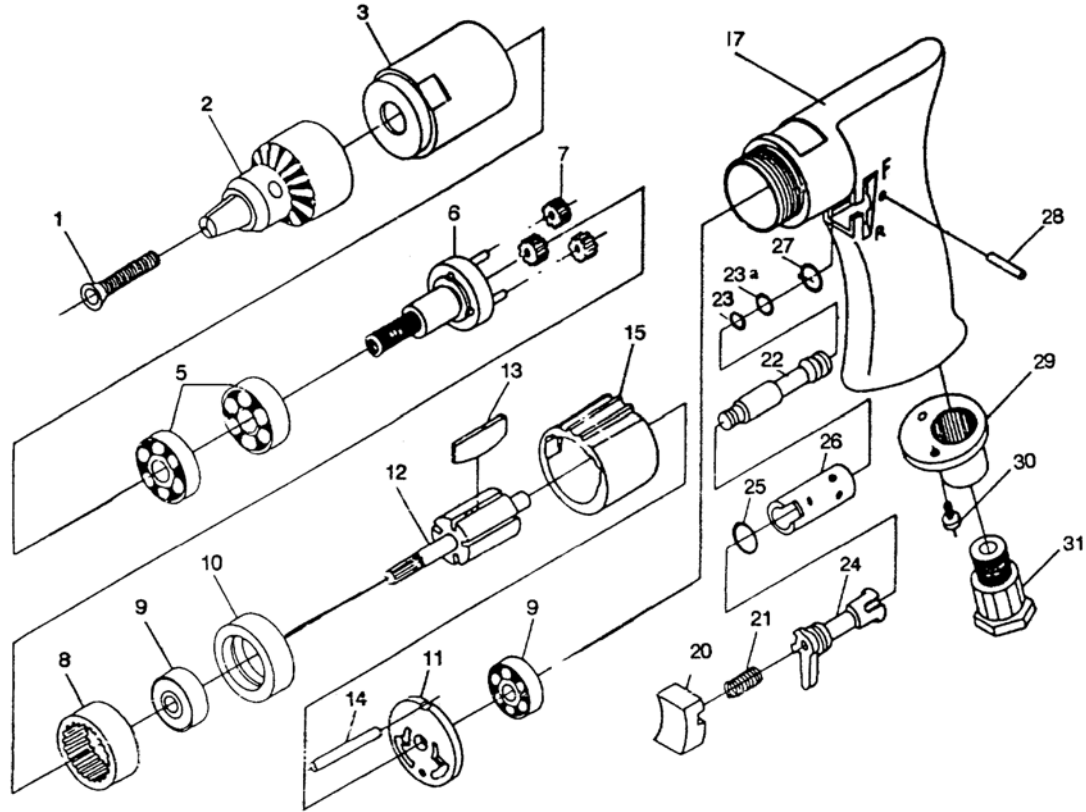
Universal Tool

UT5825

3/8" Capacity Reversible Pistol Grip Drill

UT5825-K

3/8" Capacity Reversible Pistol Grip Drill (keyless)



Ref No	Part No	Description
1	6120001	Screw
2	H0019	Drill Chuck
	H0019K	Keyless Drill Chuck
3	6120003	Gear Housing
5	6120005	Ball Bearing (2)
6	6120006	Planet Carrier
7	6120007	Planet Gear (3)
8	6120008	Internal Gear
9	6120009	Ball Bearing (2)
10	6120010	Bearing Case
11	6120011	End Plate (2)
12	6120012	Rotor
13	6120013	Rotor Blade (4)
14	6120014	Motor pin
15	6120015	Cylinder

Ref No	Part No	Description
17	6120017	Motor Housing
20	6120020	Trigger
21	6120021	Valve Spring
22	6120022	Throttle Valve
23	6120023	O-Ring
23A	6120023A	O-Ring
24	6120024	Reverse Valve
25	6120025	O-Ring
26	6120026	Reverse Valve Bush
27	6120027	O-Ring
28	6120028	Pin
29	6120029	Exhaust Deflector
30	6120030	Screw (2)
31	6120031	Air Inlet

Declaration of Conformity

Universal Air Tool Company Limited

Unit 8, Lane End Industrial Park, High Wycombe, Bucks, HP14 3BY, England

declare under our sole responsibility that the product

Model UT5825/UT5825-K 3/8" Capacity Reversible Pistol Grip Drill, Serial No

to which this declaration relates is in conformity with the following standard(s) or other normative document(s)

EN792 (Draft), EN292 Parts 1 & 2, ISO 8662 Part 1, Pneurop PN8NTC1

following the provisions of

89/392/EEC as amended by 91/368/EEC & 93/44/EEC

Lane End

ARTHUR PATERSON



Place and date of issue

Name and signature or equivalent marking of authorised person

Accessories

Notes

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