



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 Tel No (01494) 883300 Fax No (01494) 883237				Product Type Multi-Function Grinder Kit				RPM 3,500 Cycles Per Min			
				Model No/Nos UT8775-BK				Serial No			
Product Nett Weight 3.30 lbs 1.76 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			
Air Pressure										Noise Level Sound Pressure Level 83.0 dB(A)	
Recommended Working		6.3	bar	90	PSI	Test Method Tested in accordance with Pneurop test code PN8NTC1 and ISO Standard 3744					
Recommended Minimum		n/a	bar	n/a	PSI						
Maximum		7.0	bar	100	PSI						
Personal Safety Equipment						Vibration Level				2.5 Metres / Sec ²	
Use - Safety Glasses Yes						Test Method Tested in accordance with ISO standards 8662/1 & 8662/4					
Use - Safety Gloves Yes											
Use - Safety Boots											
Use - Breathing Masks Yes											
Use - Ear Protectors Yes											

Foreseen Use of Tool

This right angle grinder is designed to be used with reinforced resin bonded depressed centre grinding wheels that have a permitted rotational speed in excess of 3,500 RPM.

The tool is designed to be used for light grinding and dressing of welds, etc. but not for cutting off. The grinder must never be used if a wheel guard (plastic housing) item (47) is not fitted.

Work Stations

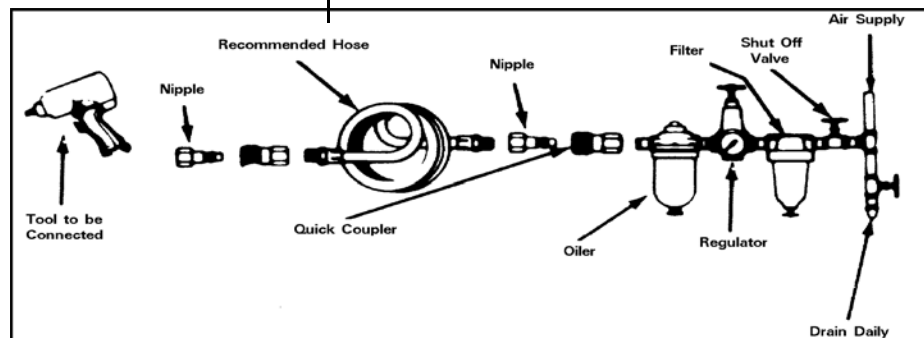
The tool should only be used as a hand held hand operated tool. It is always recommended that the tool is used when standing on a solid floor. It can be used in other positions but before any such use the operator must be in a secure position having a firm grip and footing and be aware of the safety rules to be obeyed when using the sander.

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/lever 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 bar.



Operating

With the grinder correctly connected to the air supply, check the speed of the grinder with an inlet pressure of 100 psi/7.0 bar measured at the tool inlet. Check with a calibrated tachometer. Check that the guard is in position and securely fixed. Check that the grinding wheel is of correct dimensions, is not cracked or chipped and has a permitted speed rating higher than the maximum permissible running speed of the grinder which is 3,500 RPM.

When first starting the grinder with a new or changed wheel fitted, the grinder should first be started in a protected area, i.e. such as under a heavy bench well away from other persons and run for, say, one minute. This will provide protection if the wheel should break because some fault was not detected.

Always use eye protection and wear protective gloves if there are sharp edges in the working area. The tool and the grinding process can create a noise level such that ear protectors should be worn.

If the grinding process creates a dust then use a suitable breathing mask.

Check that the material being worked will not cause harmful dust or fumes. If this is so then special breathing apparatus may be required. Seek advice before starting work.

If the grinder vibrates when first fitting the wheel or during use, remove from service immediately and arrange for the fault to be corrected before continuing to use.

Do not apply excessive pressure as this will reduce the cutting efficiency. Apply light loads and allow the wheel to cut.

Handle the grinder with care. If the grinder is dropped, carefully examine the wheel for damage and replace if necessary. Start the machine as if for the first time of fitting a wheel, i.e. under a bench.

Make sure the object to be ground is in a firm fixed position.

Disassembling & assembly instructions

Disconnect the tool from the air supply.

Use a 17mm open wrench to unscrew air inlet (3) and hook out retaining ring (29) to complete the entire disassembly job of exhaust deflector (6).

Fix housing (1) and use 3mm and 2mm round pin to squeeze out spring pins (2)(42) respectively to complete the disassembly of (4) throttle lever.

Use a slotted screwdriver to unscrew throttle valve plug (10). Components (9)(11)(21)(8)(5)(7) can then be taken out in sequence.

Use a cross screwdriver to unscrew respectively tapping screws (27)(28) to disassemble all the internal components (65)(52)(12)(51)(20)(34)(49)(45)(56)(64)(46) (if (56), (45) and (49) are to be further disassembled, you can just use hexagonal wrench to unscrew set screw (48)).

Use a cross screwdriver to unscrew screw (39) and take out (38)(30)(57) in sequence. Then fix the housing (1) and use a 34mm open wrench to unscrew housing cap (32) in a counter-clockwise direction so as to disassemble components such as (26)(25)(61)(23)(36) in sequence.

Fix the metal part of housing (1), use internal tooth type special tool which matches internal gear (22) to unscrew internal gear (22) in a counter-clockwise direction; then draw the motor out and use motor disassembly tool to disassemble components (20)(19)(16)(15)(18)(14)(13) in sequence.

Reassembly

Make sure all components are clean and assemble them in reverse order. Notice the followings

During the assemble-back process:

- 1) Check if all bearings are assembled in correct positions.
- 2) During the assembly of motor, make sure the end surfaces of (14)(18)(19) are closely attached to each other, no loose contacts are allowed. However, the rotor of the assembled motor must be able to run smoothly and should not interfere with (14)(18)(19).
- 3) Before motor set is placed into the hole of housing (1), watch if the spring pin (60) of the motor set is aligned with the pin slot of housing (1).
- 4) During the assembly of the tool, put some lubricants on components (22)(23)(30)(52) for lubrication.

Safety Rules For A Grinder

1) Read all the instructions before using this tool. All operators must be fully trained in its use and aware of these safety rules.

2) Do not exceed the maximum working air pressure.

3) Use personal safety equipment.

4) Use only compressed air at the recommended conditions.

5) If the tool appears to malfunction remove from use immediately and arrange for service and repair.

6) If the tool is used with a balancer or other support device ensure that it is fixed securely.

7) Always keep hands away from the working attachment fitted to the tool.

8) The tool is not electrically insulated. Never use the tool if there is any chance of it coming into contact with live electricity.

9) Always when using the tool adopt a firm footing and/or position and grip the tool firmly to be able to counteract any forces or reaction forces that may be generated whilst using the tool.

10) Use only correct spare parts. Do not improvise or make temporary repairs.

11) Do not lock, tape, wire, etc. the on/off valve in the run position. The trigger/lever etc. must always be free to return to the 'off' position when it is released.

12) Always shut off the air supply to the tool, and depress the trigger/lever etc. to exhaust air from the feed hose before fitting, adjusting or removing the working attachment.

13) Check hose and fittings regularly for wear. Replace if necessary. Do not carry the tool by its hose and ensure the hand is remote from the on/off control when carrying the tool with the air supply connected.

14) Take care against entanglement of moving parts of the tool with clothing, ties, hair, cleaning rags, etc. This will cause the body to be drawn towards the tool and can be very dangerous.

15) It is expected that users will adopt safe working practices and observe all relevant legal requirements when installing, using or maintaining the tool.

16) Do not install the tool unless an easily accessible and easily operable on/off valve is incorporated in the air supply.

17) Take care that the tool exhaust air does not cause a problem or blows on another person.

18) Never lay a tool down unless the working attachment has stopped moving.

19) A grinding wheel should only be fitted by a competent person trained to do so. The wheel must be of the correct size and speed rating.

20) Check the speed of the grinder at least once per week, if it is in regular use, with an accurate tachometer.

21) The tool must only be used with the grinding wheels as set out in section "Foreseen Use of the Tool" and shown on parts list. Never fit any other device.

22) Carry out the instructions as set out in "Putting into Service".

23) Many countries have local or national rules re the use and fitting of grinding wheels. Make sure such rules are observed.

24) Use a barrier to prevent sparks causing a hazard to the operator, any other person or anything within the vicinity of the sparks.

25) If a wheel guard becomes damaged or has withstood a wheel breakage, the guard must be changed.

26) Do not use chipped or cracked grinding wheels.

27) Always wear impact resistant eye protection.

28) Use only the disc plates provided with the grinder for locating and clamping the wheel. Never use substitutes.

29) Tighten the wheel plates sufficiently to prevent wheel spin off when the grinder is turned off. Do not tighten excessively as this may crack the wheel.

30) The noise from the tool or the process noise of the grinding operation may be such that hearing protection should be worn.

31) Avoid inhaling dust from the grinding process. Wearing of a breathing mask is recommended. Grinder certain materials may mean that special breathing precautions are necessary. Seek advice before using the tool.

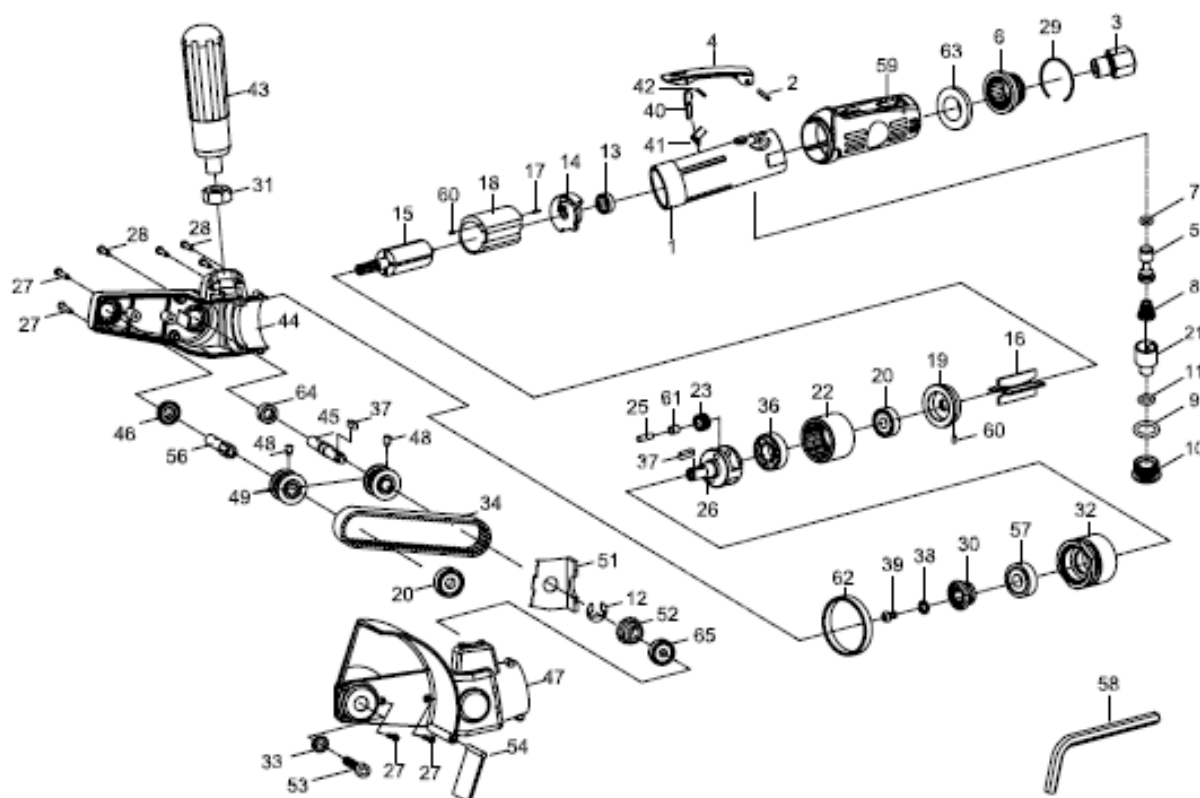
32) Always ensure that the workpiece is firmly supported so that it cannot move during the grinding process.

33) If the grinder is dropped do not use unless the wheel is first checked for damage by a competent person.

34) When not in use the grinder should be stored in a safe place where it will not be damaged. If a tool has not been used for a period of time check the tool as for the first time of using.

35) Be aware that if the grinding process causes high vibration, special precautions should be taken.

36) The operator should be aware that the grinding wheel will continue to rotate after the power supply has been shut off. This could cause a



Ref No	Part No	Description
1	301101	Motor Housing
2	30102	Spring Pin
3	51203	Air Inlet
4	6K-301104	Throttle Lever Assy
5	6K-301105	Valve Stem W/#7 O-Ring
6	51206	Exhaust Deflector
7	70107	O-Ring
8	51208	Spring
9	70123	O-Ring
10	51210	Throttle Valve Plug
11	40305	O-Ring
12	690112	E-Ring
13	52213	Ball Earing
14	301114	End Plate
15	95-301115	Rotor
16	512216	Rotor Blades (4)
17	30117	Spring Pin
18	512218	Cylinder
19	95-301119	Front End Plate
20	30120	Ball Earring (2)
21	51221	Air Regulator
22	70922	Internal Gear
23	690146	Planet Gear (2)
25	746425	Pin (2)
26	690126	Planet Cage
27	690127	Tapping Screw (4)
28	690128	Tapping Screw (8)
29	51229	Retaining Ring
30	690130	Bevel Gear
31	690131	Nut
32	690132	Housing Cap
33	690133	Toothed Washer

Ref No	Part No	Description
34	690134	Toothed Belt
36	40313	Ball Bearing
37	690121	Key (2)
38	690111	Toothed Washer
39	690110	Screw
40	522239	Safety Bar
41	6K-301151-0002	Spring
42	51542	Spring Pin
43	690137	Handle
44	690107	Plastic Housing (R)
45	690120	Belt Drive Shaft
46	690108	Ball Bearing
47	690108	Plastic Housing (L)
48	690117	Set Screw (2)
49	690109	Toothed Pulley (2)
51	690113	Inner Bulkhead
52	690122	Bevel Gear
53	206077	Hexagonal Hole Screw
54	690136	Dust Cover
56	690123	Spindle
57	51220	Ball Bearing
58	10018	Hex. Key Wrench
59	512252	Grip
60	30117-22	Spring Pin (2)
61	690145	Bushing (2)
62	95-301120	Decoration Ring
63	51250	Muffler
64	0688ZZ	Ball Bearing
65	30113	Ball Bearing

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

Models UT8775-BK Multi-Function Grinder Kit, Serial Number

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

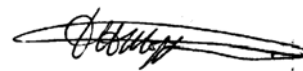
EN792 (Draft), EN292 Parts 1 & 2, ISO 8662 Parts 1 & 4, Pneurop PN8NTC1

following the provisions of

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

Lane End

D.H.Moppett (Man. Director)



Place and date of issue

Name and signature or equivalent marking of authorised person

hazard.

37) Always store grinding wheels in accordance with the manufacturer's instructions.

38) Check frequently that the spindle thread has not become damaged or worn.

39) Always ensure that the grinding wheel has a higher permissible running speed to the speed of the grinder.

Accessories

Notes

Distributor

©Copyright of Universal Air Tool Company Limited, established in the United Kingdom, 1994

This document may not be copied wholly or in part by anyone without the consent of the Directors of Universal Air Tool Company Limited