



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
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Tel No(01494)

Fax No (01494) 883237

Product Type
Pistol Rev. Screwdriver
Adjustable Clutch

RPM
1,800
Cycles Per



Model No/Nos
UT5964A

Serial No

Product Nett Weight
2.2 lbs
1.00 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

Recommended Working **6.3** bar **90** PSI
Recommended Minimum **n/a** bar **n/a** PSI
Maximum **7.0** bar **100** PSI

Noise **Sound Pressure Level 84.3 dB(A)**
Sound Power Level 89.7 dB(A)

Test Method Tested in accordance with
Pneurop test code PN8NTC1 and ISO

Personal Safety Equipment

Use - Safety Glasses **Yes**
Use - Safety Gloves
Use - Safety Boots
Use - Breathing Masks
Use - Ear Protectors

Vibration **Less than 2.5 Metres / Sec²**

Test Method Tested in accordance with ISO
standards 8662 Parts 1 & 7

Foreseen Use

This screwdriver is designed for the tightening and loosening of threaded fasteners within the range as specified by the manufacturer. It should only be used in conjunction with 1/4" male hex shank screwdriver bits and fastener drivers. Do not use the tool for any other purpose than that specified without consulting the manufacturer or his authorised representative.

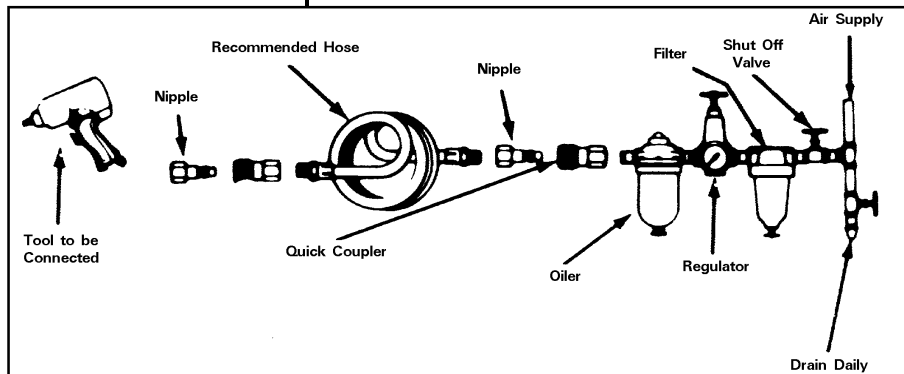
Putting Into Service

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

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. The operator must adopt a firm grip sufficient to resist the torque reaction of the tool, i.e. the tool will try to turn in the hand. The operator must also be aware that when loosening fasteners, the tool can move quite quickly away from the fastener being undone. An allowance must be made for this rearward movement to avoid hand entrapment. The operator must also make allowance that if the tool does turn in the hand, the hand is not trapped against any rigid object.



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 the correct screwdriver bit or fastener driver to suit the screw or fastener to be tightened or loosened. Slide back the sleeve (44) and insert appropriate drive bit. This model has an external adjustable clutch so that the torque applied to the fastener can be adjusted easily to give the required tightness within the torque range of the tool. To set the tool to give a particular torque output, turn the adjust ring (49) if the fastener is not sufficiently tightened or cannot be loosened then the tool in adjustable clutch mode has insufficient capacity. Select a more powerful tool. The person setting up the tool must be aware of this torque reaction at high setting levels of the clutch and that the tool will try to turn against the hand. All that is required is a firm grip. The tool, when the stall torque position has been reached, can still be used to set or loosen fasteners, provided the operator is aware of the need to resist the torque reaction of the tool. The only thing that will affect the output is a change in the air supply pressure. The output can be increased up to the use of the maximum allowed supply pressure and decreased with a reduction in supply pressure until the tool fails to operate. It must also be understood that even if the clutch is set to slip it may not do so if the supply air pressure falls below the pressure at which the clutch was set. It is therefore strongly recommended that a pressure control valve is used. Information as to suitable equipment can be obtained from your supplier. When using the tool keep the screwdriver bit pressed firmly into the screw head to avoid cam out and screw head damage.

Dismantling & Assembly Instruction

Disconnect tool from air supply.

Grip the tool by hand then unscrew and remove clutch housing (7) from clamp nut (41) - left hand thread. Remove adjust cover (47) from clutch housing (7). Pull out the clutch assembly grip the clutch assembly and with a sharp pointed needle tool prise out retaining ring (31) and remove washer (46), spring (45), and ball retainer (44) being careful not lose screwdriver bit retaining ball (35). Again with the sharp pointed tool, remove second retaining ring (31) and pull off spacer (43). Unscrew adjust nut (47) and pull off washer (46), clutch spring (39) and washer (38). Tap front end to remove 4 off balls (37). Remove retaining ring (33) and separate clutch (36). Remove a third retaining ring (31) and pull off drive clutch (30). Unscrew clamp nut (41) and push out the internal assembly and ball bearing(29), internal gear (32), 3 off planet gears (25) and work spindle (28). Do not remove the 3 off pins from work spindle (27). Drive out pin (6), unscrew set screw (23) and pull off trigger (24) and remove spring (22). Grip valve stem (21) and pull out the complete valve assembly. Separate reverse lever (20), reverse retainer (19), o-ring (18), reverse bushing (17) and o-ring (16). Unscrew air inlet (2) and screw (3) and remove exhaust diffuser (4) and damping material (5). Grip end of rotor (13) and pull out the complete motor assembly. Remove 2 pins (11), motor gasket (9) Grip spacer (15) and with a non metallic or soft

metal (lead of aluminium) hammer tap the splined end of the rotor (13) to drive it through bearing (8). Remove cylinder (12) and take out 5 off rotor blades (14) from the rotor (12). Support end plate (10) and tap the rotor (13) through the end plate (10) and bearing (8).

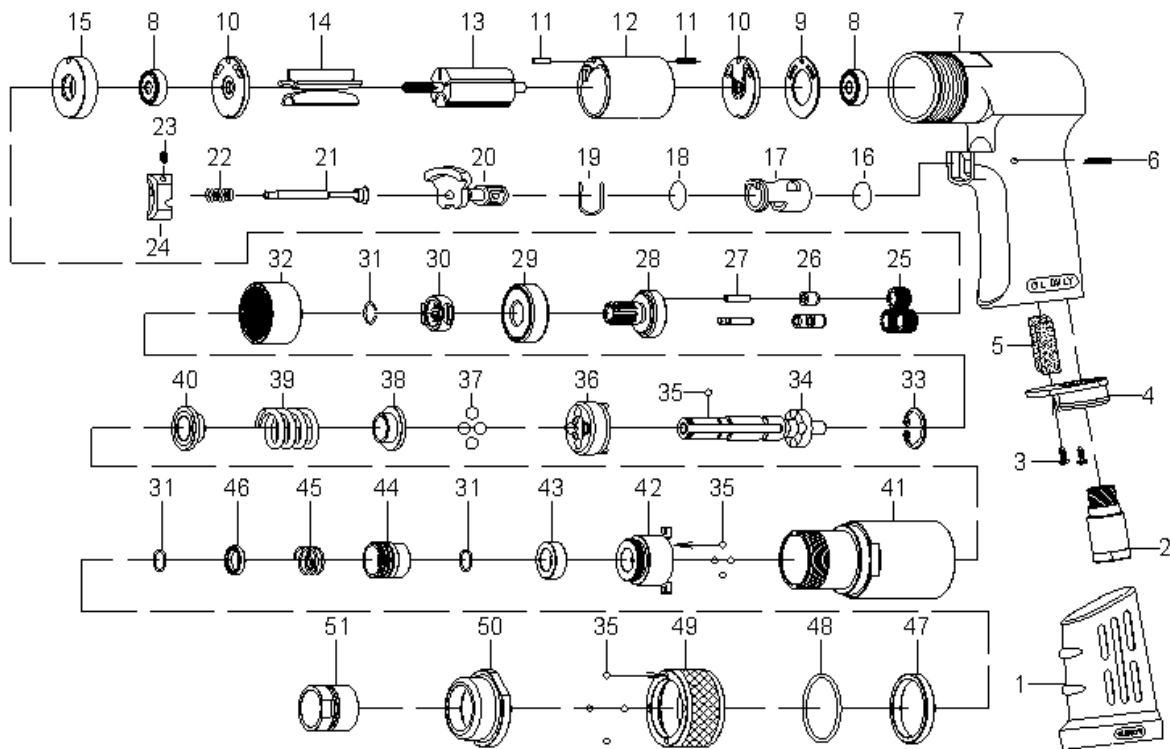
Reassembly

Clean all component parts and examine to wear before reassembling. Look in particular for wear and cuts on o-rings, wear on rotor blades, gear, and clutch components. Coat all parts with pneumatic tool lubricating oil and grease all bearings, gears, and clutch parts with a molybdenum or lithium based general purpose grease. Before reassembling the motor make sure that the faces of end plates (10) that abut cylinder (12) are flat and free from burrs. If necessary, lap on a flat very fine grade of abrasive paper. Reassemble in the reverse order. When refitting the complete motor assembly to housing (7) first make sure that the assembly is clamped tightly together and the rotor spins freely, slide the assembly with gasket into the housing (7) ensuring that motor pin (11) locates in the motor assembly and in the hole in the bottom of the main bore of housing (7) suited between the two main ports. Reset the clutch as required and/ or set the correct air pressure - see Operating.

Safety Rules For A Screwdriver

- 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.

UT5964A 1,800RPM Pistol Grip Reversible Screwdriver - Adj. Clutch



Ref No	Part No	Description
1	82253-12	Rubber Grip
2	70103	Air Inlet
3	40309	Screw (2)
4	70110	Exhaust Diffuser
5	82250	Damping Material
6	82202	Pin
7	822101	Motor Housing
8	030113	Ball Bearing (2)
9	80211	Motor Gasket
10	80214	End Plate (2)
11	80217	Spring Pin (2)
12	80218	Cylinder
13	80215	Rotor
14	80216	Rotor Blades (5)
15	80219	Spacer
16	82247	O-Ring
17	82206	Reverse Retainer
18	82209	O-Ring
19	82212	Reverse Retainer
20	82210	Reverse Lever
21	82205A	Valve Stem Set
22	82208	Valve Spring
23	82246	Set Screw
24	82204	Trigger
25	80223	Planet Gear (3)
26	80225	Bushing (3)

Ref No	Part No	Description
27	30124	Pin (3)
28	80226	Work Spindle
29	080227	Ball Bearing
30	80229	Drive Clutch
31	80230	Retaining Ring (3)
32	80222	Internal Gear
33	80231	Snap Ring
34	80232	Cam Spindle
35	40145	Steel Ball (9)
36	80234	Clutch
37	80235	Steel Ball (4)
38	80236	Thrust Washer
39	812E37	Spring
40	812E36	Thrust Washer
41	812E28	Clamp Nut
42	812E38	Guide
43	80240	Spacer
44	80242	Ball Retainer
45	80243	Spring
46	80244	Washer
47	812E21	Adjust Nut
48	812E12	O-Ring
49	812E20	Adjust Ring
50	812E41	Head Cap
51	812E39	Indicator

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 UT5964A Pistol Reversible Screwdriver, Serial Number

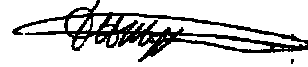
to which this declaration relates is in conformity with the following standard(s) or other normative document(s)

EN792 (Draft), EN292 Parts 1 & 2, ISO 8662 Parts 1 & 7, 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

- 19) Always ensure that the reverse button is in the selected position before starting the tool.
- 20) Do not use bits or sockets with excessive wear to the input and output drives. Make sure the bit, socket, extension is firmly fixed to the tool.
- 21) When loosening fasteners first ensure that there is sufficient clearance behind the tool to avoid hand entrapment. The tool will move away from the threaded joint as the nut/bolt is loosened and rides up the thread moving the tool with it.

Notes

Accessories

Distributor

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