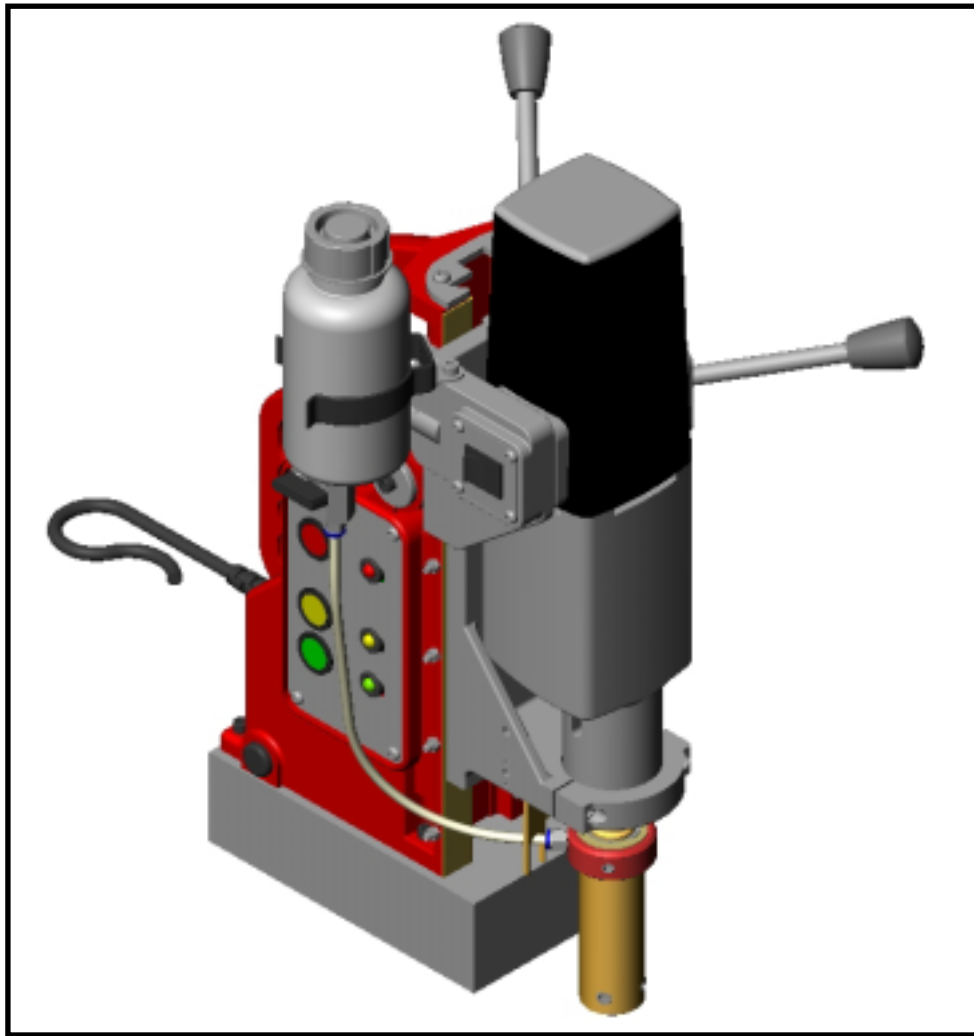


Magnetic Base Drilling Machine

A100/32



**Operators Instruction Manual
And Spare Parts Listings**

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- Chapter 2. Warnings and Safety Instructions.
- Chapter 3. Operating Instructions.
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Motor break down and parts list.
Panel wiring diagram.

Introduction

Congratulations on the purchase of your new, lightweight multi-purpose magnetic base drill. This is a high quality product with unique features that make it the perfect solution for your entire hole drilling requirements.

- Easy to use and rugged design makes the A100/32 a cost effective solution to drilling clean, accurately positioned holes in your work piece.
- Powered by an AEG B4-32 motor.

Chapter 1. Technical Overview.

Machine	A100/32
Clamping force (Kg)	1800
Speed (RPM)	220/260/350/420
Size (LxWxH) (mm)	320x135x500
Cutter Capacity (mm)	12 - 100
Twist Drill Capacity (mm)	32
Power Consumption (Watts)	1200
Weight (Kg)	25

Chapter 2. Warnings and Safety Instructions.

Read these instructions carefully before operating, maintaining or servicing this tool.
Please keep these instructions in a safe accessible place.



Read to fully understand and observe the following safety precautions and warnings. Careless or improper use of this equipment may result in serious or fatal injury.



Always wear eye, head and ear protection equipment, when using this tool



WARNING!
Indicates instant possibility of severe personal injury or loss of life, if instructions are not followed.



CAUTION!
Indications a possibility of personal injury or equipment damage, if instructions are not followed.

Operator Safety

- Always read the instructions carefully so as to avoid any injury or damage when unfamiliar with this equipment.
- Always wear a safety face shield or goggles.
- Wear ear defenders when using this equipment.
- Always wear heavy clothing, boots and gloves. Do not wear loose clothing, short pants, sandals etc. and ensure that long hair is tied up above shoulder length.
- Do not operate this equipment when tired, ill or under the influence of alcohol, drugs or medication.
- Never allow an inexperienced person operate this equipment.
- Never operate the equipment in damp, or water logged area.
- Keep all carrying handles and levers free from oil.

Tool Safety

- Inspect the entire piece of equipment before use.
- Replace damaged components, lubricate where necessary and ensure that all fasteners are secure.
- Always use a safety chain to secure the equipment when it is being used above the ground.
- Use only accessories that have been recommended by the manufacturer. Failure to do so could result in damage to the tool and may invalidate the warranty.



WARNING!

Never modify the tooling any way. Do not use your equipment for any job other than for which it is intended.

- Keep hands away from the cutter when it is rotating. Ensure that it has stopped rotating and is disconnected from the power source before touching the cutter.
- Do not attempt to gain access into the electrical panel. There is risk of electrical shock.
- Never use a larger diameter cutter than specified for use with this equipment.
- Do not attempt to connect the equipment to a power source other than that specified by the manufacturer.
- Ensure that the cutter being used is sharp and free from damage.

Maintenance safety

- Maintain according to the manufacturers recommended procedures.
- Disconnect the equipment from the power source before attempting any maintenance.
- Use only genuine replacement components as recommended by the manufacturer.

Transport and Storage

- Before moving the tool, ensure that the cutter has stopped rotating.
- Carry the tool with the cutter pointing away from the body to avoid laceration.
- After use, clean the equipment and its accessories and store in a dry place.
- Store the equipment along with the maintenance tools in its correct carrying case when not in use.

Chapter 3. Operating Instructions.



Ensure that the unit is disconnected from the power before working on the machine.

- **Insert Pilot Pin.**

The pilot pin is used to align the cutter and eject the slug on completion of the cut.

Slide the pilot through the hole in the centre of the cutter shank.



- **Fit the Cutter.**

Two grub screws are used to secure the cutter to the arbor. The cutter shank has two flats that must be aligned with the grub screws in the arbor.

Insert the cutter shank into the arbor. The screws must be tightened evenly so that the cutter is prevented from moving. The screws are tightened using the **5mm** Allen key supplied.

(A cutter with a shank diameter of 19.05mm/ $\frac{3}{4}$ " and cutting diameter of no larger than 100mm must be used).



- **Mark the centre of the required hole.**

- **Position the Machine.**

Ensure that the workpiece is clean and flat. Position the machine by aligning the pilot with the holes centre mark.

- **Fit the safety strap/chain.**

- **Connect the machine to the power source.**

Switch on the power by depressing the RED power switch on the side panel.



- **Energize the magnet.**

Switch on the magnetic base by depressing the YELLOW magnet switch.

CHECK that the pilot is still aligned with the hole centre mark, as energizing the magnetic base can cause the machine to move.



- **Apply Coolant**

Using cutting oil can increase the tool life and ensures that the slug is ejected cleanly.

Fill or part fill the side mounted oil reservoir and turn on the tap at the bottom of the bottle. Fluid should now flow through the arbor and on to the cutter.

Check for fluid flow before you begin cutting and adjust the flow using the tap.

- **Start Cutting**

ALWAYS ENSURE THAT CUTTING GUARDS ARE IN PLACE.

Start the drill by depressing the GREEN drill switch.

Lower the cutter to the surface by turning the handle; and with light pressure cut an initial groove. Increase pressure until motor is loaded and maintain steady pressure until the cut is complete.



VISO12 drill guard



- **Finish Cutting**

When the cut is complete the slug will be ejected from the cutter. Raise the cutter again; stop the motor and switch of the magnet.

- **Changing the Arbor**

To remove the arbor, insert drift into slot on drill head casing and tap lightly with a mallet.

NOTE: –

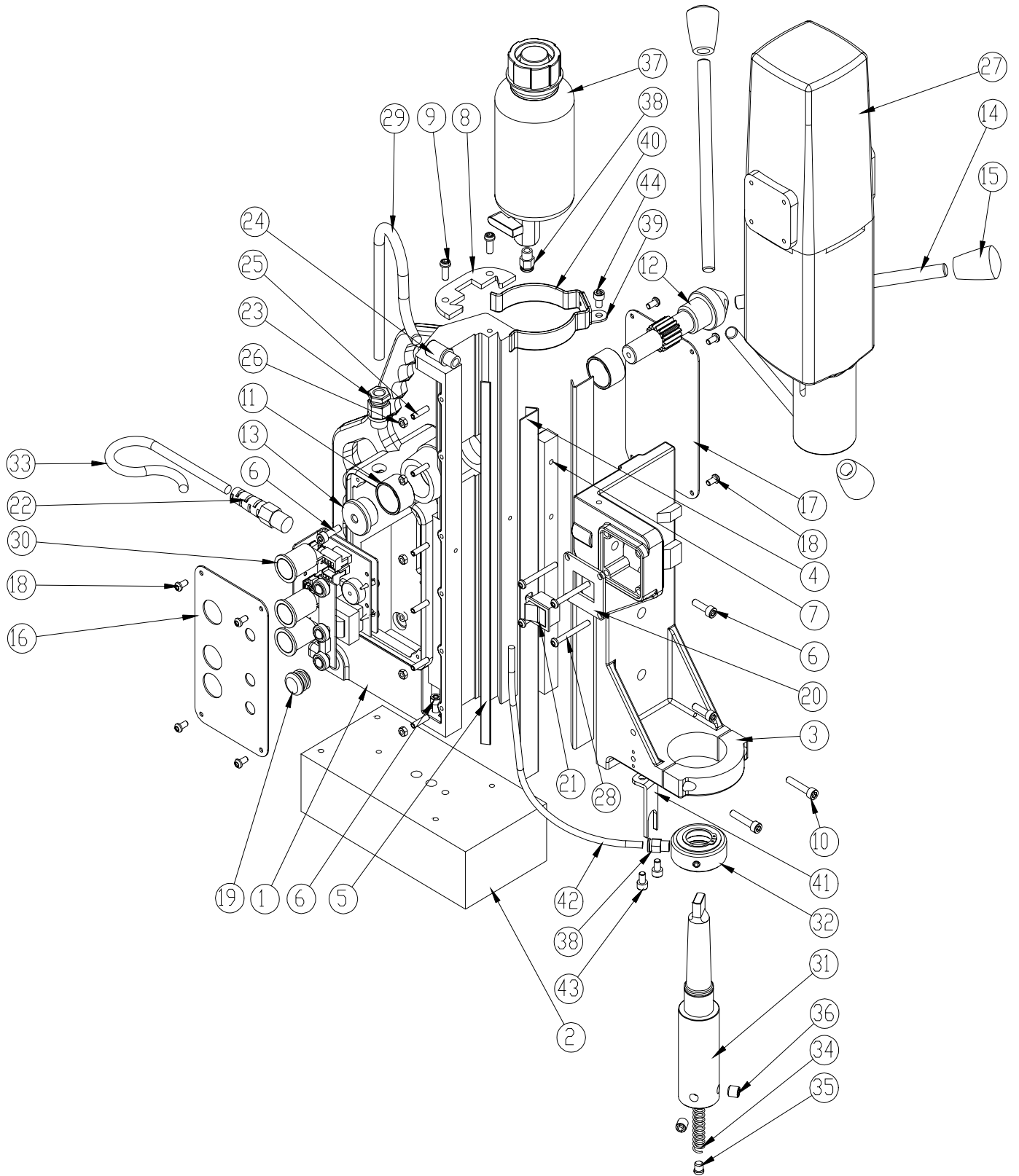
- Applying too much pressure will not speed the cut, it will reduce the life of the tool and may cause damage to the motor.
- If swarf becomes blue in colour then more cutting oil is required.
- If the power is interrupted during the cut, the magnet must be reset before the motor will restart.

Chapter 4. Maintenance Instructions

- Occasionally apply a few drops of oil to the rack gear teeth.
- The bearings of the feed shaft are self-lubricating and must not be greased.
- Grease the sliding surface of the carriage with MOLYCOTE grease.
- When not in use or being transported the unit should be kept in the case supplied.
- After use, ensure unit is clean of swarf and dirt.
- Parts that are worn or damaged should be replaced immediately with original UNIBOR replacements.
- Ensure all cutting edges are sharp when in operation. Using blunt cutting tools may lead to an overload of the motor.
- After repeated use, the cradle may become loose. This is remedied by adjusting the tension screws on the side of the body. Put 2.5mm Allen Key into head of cradle retaining nuts, using 8mm Spanner undo the locking nuts anti-clockwise holding the Allen key without moving grub screws. Using the Allen Key gently tighten screws in series until the cradle moves freely in the slide but does not allow the motor to wobble. When adjustment is complete re-tighten locking nuts clockwise.



Chapter 5. Exploded Views



Chapter 5. Component listing.

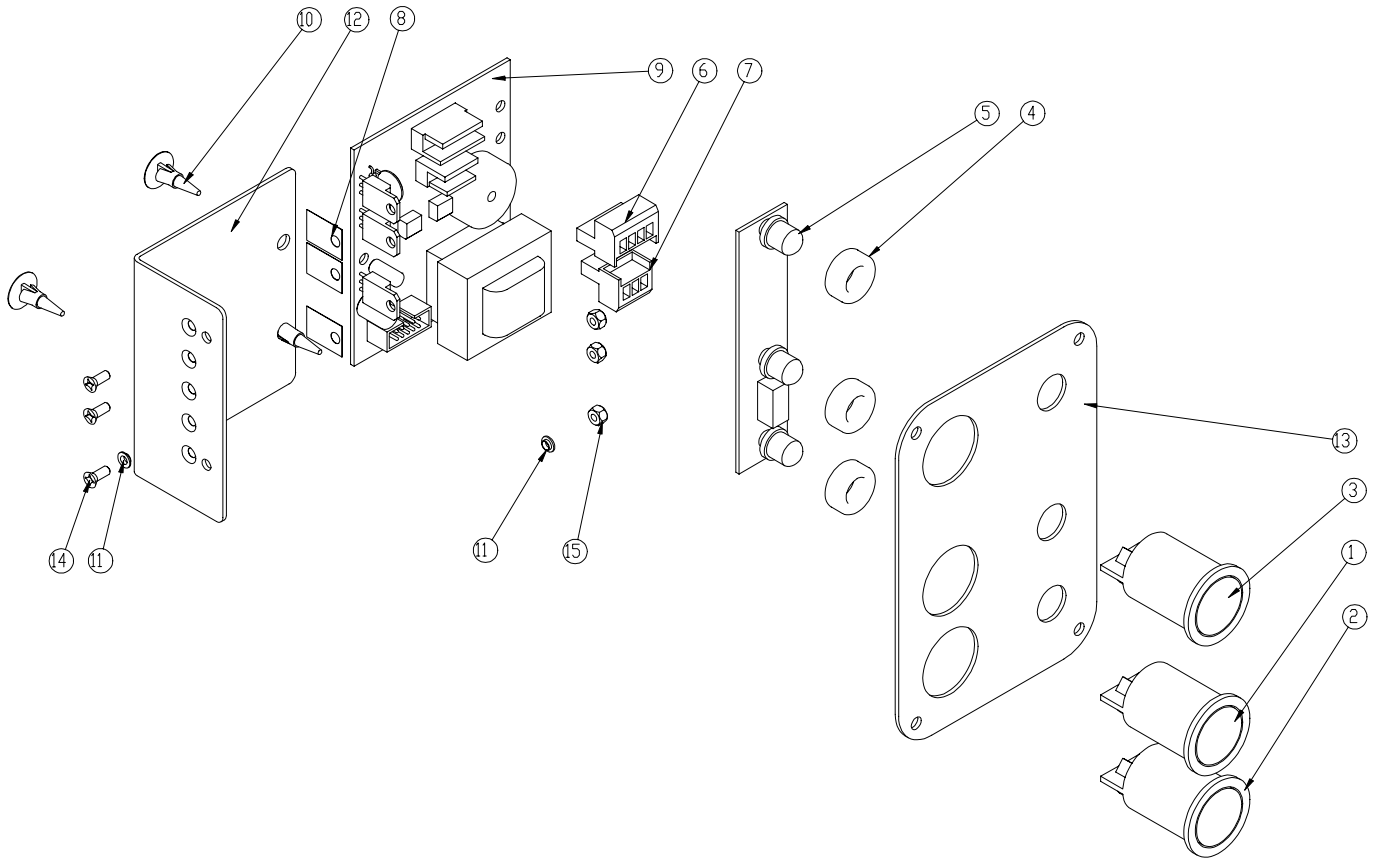
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	M0005	MT50 BODY RED
2	1	M0033	MAGNET BASE
3	1	RM315	CRADLE
4	2	M0103	BRASS STRIP
5	1	M0442	G.F.S.
6	7	SC620CAP	M6 X 20 CAP SCREW
7	1	M0833	RACK
8	1	M0813	TOP PLATE
9	2	SC616BUT	M6 X 16 BUTTON HEAD SCREW
10	2	SC630CAP	M6 X 30 CAP SCREW
11	2	M0081	BUSHING - PINION
12	1	M0042	PINION
13	1	M0072	PINION END CAP
14	3	20346	HANDLE
15	3	10082	HANDLE KNOB
16	1	M0242B	A100 SWITCH PLATE
17	1	M0224B	WARNING PLATE
18	8	SC510BUT	M5 X 10 BUTTON HEAD SCREW
19	2	M0062	RUBBER BLANKING PLUG
20	1	M0049	7 SRM CRADLE SWITCH MOUNT PLATE
21	1	710059	2 SPEED SWITCH
22	1	10231	STRAIN RELIEF
23	1	20354	CABLE GLAND (M16)
24	1	40021	CABLE GLAND (PG7)
25	6	SC5GRUB	M5 X 20 GRUB SCREW
26	6	NUT-M5	M5 NYLOC NUT
27	1	AEG03	AEG B4-32 MOTOR - 110V
28	4	SC545BUT	M5 X 45 BUTTON HEAD SCREW
29	1	10096	CONDUIT -(GREY 10MM)
30	1	PANELP	PANEL ASSEMBLY - NO FACIA
31	1	A33075 A34075	OILFEED ARBOR - NO. 3 MT - 2" DEPTH OILFEED ARBOR - NO. 3 MT - 3" DEPTH
32	1	OIL03	OILFEED RING COMPLETE
33	1	CABL03	POWER CABLE - 14 GAUGE
34	1	SPR101	ARBOR SPRING
35	1	10205A	ARBOR EJECTION PLUG
36	2	SC1010GRUB	M10 X 10 GRUB SCREW
37	1	OIL05	OIL RESERVOIR (WITH TAP)
38	2	50015B	PUSH FITTING

39	1	10060	OIL RESERVOIR CLIP MOUNTING PLATE
40	1	10076	OIL RESERVOIR CLIP
41	1	10060-1Z	OIL RING STOP
42	1	Oil Pipe	OIL TUBE
43	3	SC610CAP	M6 X 10 CAP SCREW

Additional Parts (Not Shown)

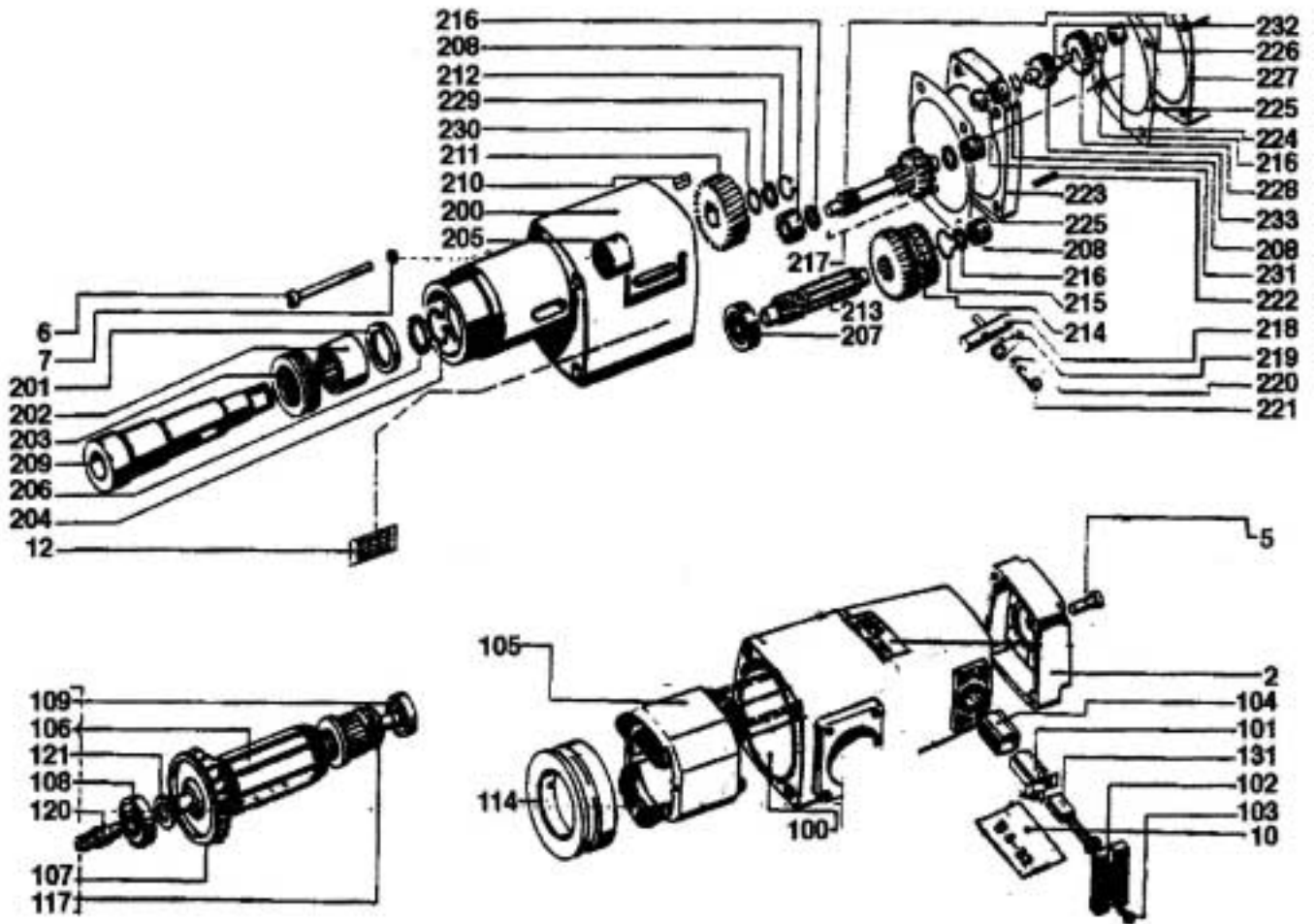
ITEM NO.	QTY.	PART NO.	DESCRIPTION
-	1	511204	DRIFT (No. 3 MORSE TAPER)
-	1	STRAP01	POLYESTER WEBBING SAFETY STRAP
-	1	KEY01	ALLEN KEY 2.5MM
-	1	KEY03	ALLEN KEY 4MM
-	1	KEY04	ALLEN KEY 5MM
-	1	CASE14	CARRYING CASE - UNIBOR - PLASTIC
-	1	BOX01	BOX (UNIBOR SLEEVE)
-	1	VISO12	LARGE ATLAS COPCO GUARD
-	2	10093	M6 X 35 GUARD THUMB SCREW
-	2	10094	M6 GUARD SPACER
-	2	10089	LARGE 2 LEG GUARD GUIDE

PANEL COMPONENT LIST



Item No.	Stock Code	Description	Quantity
1	MM1-1	MM1 MAGNET BUTTON - YELLOW	1
2	MM1-2	MM1 MOTOR BUTTON - GREEN	1
3	MM1-10	MM POWER BUTTON - RED	1
4	MM1-3	MM1 L.E.D. GROMMET	3
5	MM1-4	MM1 LED BOARD – C/W LEDs	1
6		NO LONGER REQUIRED	
7		NO LONGER REQUIRED	
8		NO LONGER REQUIRED	
9	IMI-MM1-5	REPLACEMENT PCB BOARD	1
10	MM1-16	STAND OFF CLIP FOR NEW PANEL	2
11		NO LONGER REQUIRED	
12	MM1-17	PCB SUPPORT PLATE	1
13	M0241B	SWITCH PLATE	1
14	SC316CSK-X	M3 x 16 PHILIPS HEAD SCREW	3
15	NUT-M3	M3 LOCK NUT	3

Chapter 5. Electric Motor Break Down



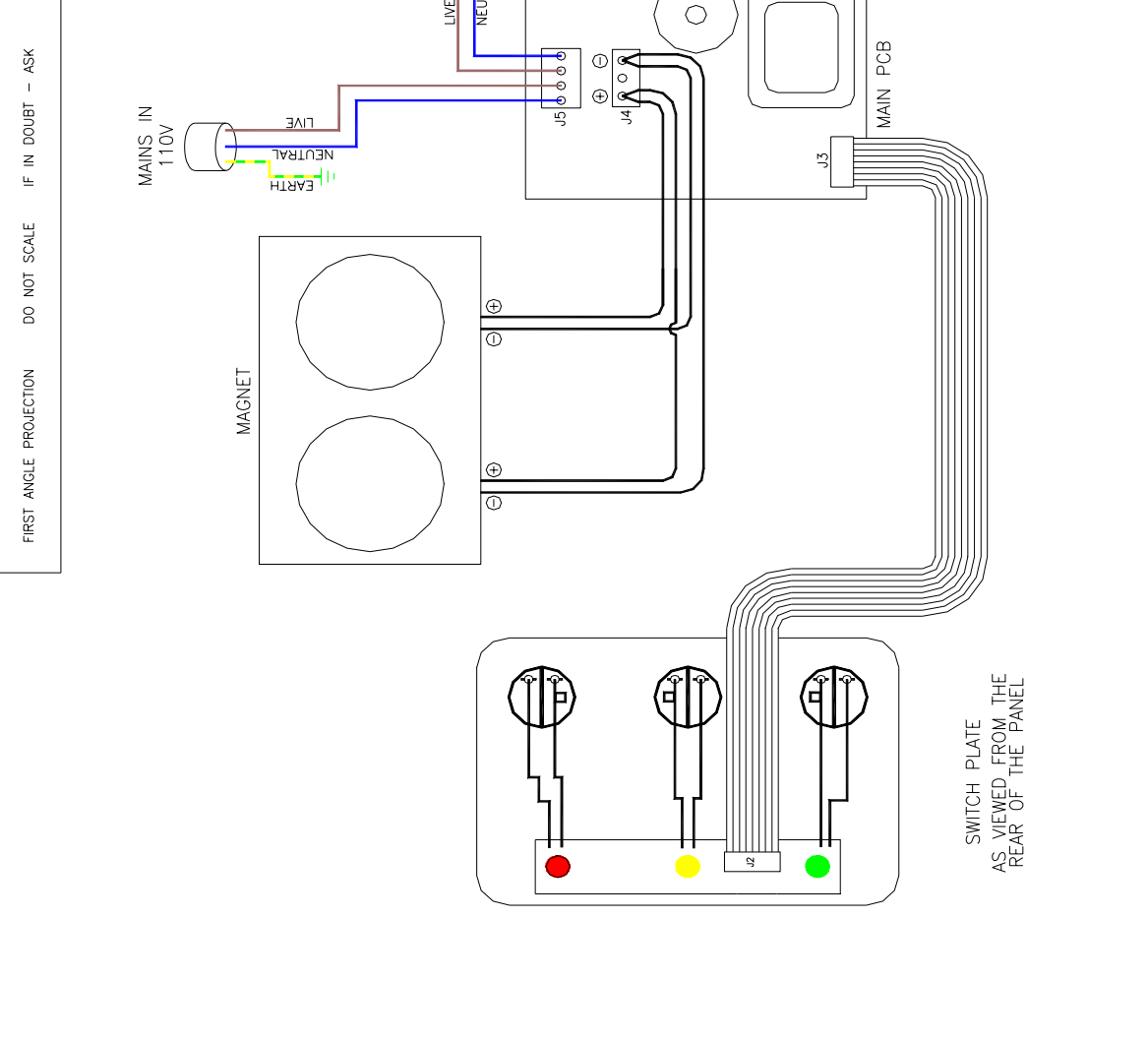
Item No.	Part No.	Description	Quantity
2	710002	Housing cap	1
5	710005	Screw	4
6	710006	Screw	4
7	710007	Ring	4
9	710009	Rating plate	1
10	710010	Data plate	1
12	710012	Speed indicator plate	1
100	710100	Housing	1
101	710101	Brush holder	2
102	710102	Brush holder cap	2
103	710103	Screw	4
104	710104	Brush holder insulator	2
105	710105	Electric field	1
106	710106	Armature	1
107	710107	Fan blade	1
108	710108	Ball bearing	1
109	710109	Ball bearing	1
114	710114	Air deflector ring	1
117	710117	Insulating disk	1
120	710120	Pinion	1
121	710121	Disc	1
131	710131	Carbon brush	1
200	710200	Gear box	1
201	710201	Seal ring	1
202	710202	Needle bearing	1
203	710203	Ball bearing	1
204	710204	Spring ring	1
205	710205	Needle bearing	1
206	710206	Seal bearing	1
207	710207	Ball bearing	1
208	710208	Needle bearing	3
209	710209	Drill spindle	1
210	710210	Key	1
211	710211	Drill spindle wheel	1
212	710212	Ring	1
213	710213	Reduction gear shaft	1
214	710214	Intermediate wheel	1
215	710215	Locking ring	1
216	710216	Disc	5
217	710217	Reduction gear	1
218	710218	Switch rod	1
219	710219	Switch lever	1
220	710220	Disc	1
221	710221	Screw	1
222	710222	Pin	1
223	710223	Bearing end plate	1
224	710224	Needle bearing	2
225	710225	Gasket	2
226	710226	Reduction gear	1
227	710227	Bearing end plate	1
228	710228	Reduction gear	1
229	710229	Disc	1
230	710230	Disc	1
231	710231	Ball bearing	1
232	710232	Reduction gear shaft	1
233	710233	reduction gear shaft	1

Wiring Diagrams

FIRST ANGLE PROJECTION DO NOT SCALE IF IN DOUBT - ASK

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PANELS	DRAWN BY	JLEES	DATE
110V 2 SPEED	APPROVED BY		DATE
	DWG NUMBER	PANELP110V2S	

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