



DragonSaw

ACG Saws & Tools of Canada Inc.

www.ACGSaws.com

**Safety and Operator Manuel
For EMDS110V and EMDS220V**

Original Instructions

August 2022



Congratulations!

You have decided to purchase a tried and tested state-of-the-art concrete ring saw from ACG Saws & Tools of Canada Inc. Only original Electric Mini Dragon Saw replacement parts approved by the manufacture ACG Saws & Tools should be used, for guaranteed quality and interchangeability. If maintenance work is neglected or carried out inexpertly, we will be unable to honour our warranty. Any maintenance work, service and repair shall on be carried out by the manufacturer ACG Saws or authorised workshops.

In order to keep your ACG Saws & Tools in perfect condition, our after-sales services are always available and ready to help.

We hope your experience with the Mini Dragon Saw will be satisfying and a trouble-free experience.

From the people who designed and make it,

ACG Saws & Tools of Canada Inc.

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Safety and Operation

WARNING! In order to safely work with our products, you have to follow all the safety recommendations from the manufacturer and all the competent safety organisations governing your territory and area.

It is mandatory and imperative that you read and comprehend the following instructions to prevent any injury or even death to the operator or any one else in your surrounding work area and property.

Only trained personnel or experienced operators shall use the cutting tool or saw. Any repairs must be done by a trained or knowledgeable mechanic.

DO NOT DISCARD the safety instructions; give them to the operator

Safety regulations and obligations vary from local, regional and countries. It is your responsibility to be informed and to follow all your local, regional, territory or country safety authorities' instructions and conform with all their safety recommendations and obligations.

The saw is designed to safely cut only concrete, masonry and stone.

Only a trained person who has read and understands the operating instruction, has experience with the use and operation of saws, the related usage of the tool and completely understands the instruction manual in conjunction with his experience and knowledge in the safe operation of saws should operate the saw.

General Safety Rules

- For multiple reasons, read and understand the safety instruction before installing, operating, repairing and maintaining the saws.
- Only qualified and trained operators should use the saws.
- Do not modify the saws. This can reduce effectiveness and safety of saws.
- Wear appropriate safety equipment.
- Tools shall be inspected periodically for damaged parts or missing labels. Only parts recommended by the manufacturer shall be used.
- Do not discard safety instruction; give them to the operator.

Electrical Safety

- The electric plug of the Electric Dragon Saw must fit into the socket outlet.
- Do not use any adapter plugs or modify the plug in any way
- Protect your electrical equipment from moisture and rain
- Do not use the cable to carry or hang up the saw or pull the plug out of the outlet. Keep the cable away from heat, oil, sharp and moving objects

- Avoid body contact with earthed surfaces such as pipes, heaters, ovens or refrigerator
- When using the Electric Dragon Saw outdoors, use a suitable extension cord for outdoor conditions
- If possible, avoid operating the Electric Dragon Saw in damp or wet conditions

Workplace hazards

- Be careful in unfamiliar surroundings. There can be hidden hazards, such as electricity or other utility lines.
- Our saws are not intended for use in potentially explosive atmospheres and is not insulated against coming into contact with electric power.
- Practice looking for electrical cable, gas pipes, etc. before operating the saw.

Unfit to work

- Do not operate the tools if you have consumed prescription drugs that may affect your judgement or ability to safely operate the tool or illegal drugs and alcohol.
- Do not operate when overtired.
- Operator and maintenance personnel shall be physically able to handle the bulk, weight and power of the tool.

Repetitive Motion Hazards

- When operating, adopt a comfortable posture and maintain secure footing to avoid discomfort during extended task.
- Don't push yourself and take breaks.

Recoil

- Due to incorrectly fitting the cutting ring or cutting unspecified materials the ring saw can suddenly recoil seriously injuring the operator.
- Only cut concrete, masonry and stone.
- Hold the saw correctly with both hands and proper footing.
- Make sure Guide plates and rollers are in good condition. If not contact manufacture and replace them.

Using and caring for the Electric Dragon Saw

- Do not overload the saw. Respect the motor overload protection light. Use the correct tool for a better and safer work experience
- Do not use the Electric Dragon Saw if the switch is faulty.
- Unplug your Dragon Saw after its use to prevent it from starting up unintentionally
- Care for your electrical tool. Make sure parts function flawlessly and replace damaged parts. Poorly maintained tools are the cause of many accidents

- Keep your Electric Dragon Saw clean and well maintained. Properly cared equipment works better, jam less often and are easier to use.

Choking, Scalping and/or Lacerations

- Do not operate when wearing loose/hanging accessories and cloths.
- Wear appropriate protective clothing.
- If hair is long, wear a hairnet.

Vibrations

- Exposure to vibration can cause nerve and circulatory damage.
- If you experience symptoms seek medical help.

Noise Hazards

- Always wear hearing protection during operation.
- Exposure to high noise levels can cause permanent damage.

Personal protective clothing

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1 Wear safety shoes	5 Wear protective clothing
2 Wear protective gloves	6 Read the instructions
3 Wear a breathing mask	7 Disconnect from the mains supply before working on the appliance
4 Wear hard hat, eye protection and hearing protection	

Projectile Hazards

- Always wear impact-resistant eye protection during operation.
- Guards shall be securely in place and in good functional condition.
- Do not tie the guards open and make sure that retractable guard return rapidly.
- Damaged, bent or severely worn guards shall be replaced with manufacturer's standard guards.
- Ensure sparks, metal shavings and slurry are directed so not to cause a hazard.
- Inspect blade and segment condition.

Sharp Edges

- Always wear protective gloves.
- Avoid contact with the saw blade to prevent cutting of hands.
- Cutting with these tools creates sharp edges.

Danger of Slipping

- Do not operate on uneven and slippery surfaces.
- Wear safety shoes with non-slip grip soles.
- Concrete slurry is slippery and should be removed.

Dust and Vapours

- Wet cutting.
- When dust and fumes are created, priority is to control the point of emission.
- Use respiratory protection.
- In enclosed spaces, ensure that there is adequate ventilation.
- Warnings shall be given against the risk of explosion or fire due to the material being processed.

Transport

- Shipping and transport of the Dragon Ring Saw is done in a brown shipping box. Labelled with the Model of what's inside and its Serial Number. The box generally weights 36 lbs and Diamond Ring Blades are transported separately weighting approximately 5 lbs.

Quality Control

- ACG Saws & Tools make almost every part needed to assembly its equipment. We ensure to double check and measure tolerance of every part we manufacture. Then once we assemble, we thoroughly inspect and test the hydraulic system, gearing system and the complete functionality of the tool.

Maintenance and troubleshooting

Maintenance and servicing								
*It is good practice to spray oil like WD-40 on the Guide Roller to prevent rust after use *Use Pure Synthetic Compressor Oil ISO 32 for oil changes. *Transmission only need 5cc of oil		Before every use	After every use	Installing new blade	Weekly	Annually	When faults occur	After damage
Electric motor	Check motor for damage and keep in clean	X	X				X	X
Water Supply	Check water supply (Leak, wear and tear)	X	X				X	X
	Blow out water (Frost)		X					
Drive rollers & Guide rollers	Check rollers for wear	X					X	
After every install of a new Dragon Saw blade	Change oil in gear box and transmission			X				
Blade Guards	Check blade guard for damage or wear	X						
Diamond Blade	Check Diamond ring blade for cracks and segment wear	X	X					
Major services are to be performed by the manufacturer ACG Saws & Tools or authorised workshops						X		

* Change Gear Oil every time you replace you Diamond Ring Blade

Faults & troubleshooting		
Fault	Possible cause	Solution
Ring saw does not start	Faulty main cable	Contact ACG Saws for replacement
	Faulty power supply	Check your power supply
	Electric motor or motor components faulty	Contact ACG Saws for replacement parts or repair service
Ring saw starts then stops	Fuse on power supply trips	Fuse is weak or needs replacement, change power supply
Ring blade not rotating	Ring blade not located correctly on the profiled drive roller	Reinstall ring blade correctly on the drive roller
	Drive roller dirty	Clean drive rollers
	Roller pre-tension device not engaged	Check roller pre-tension device and spring
Ring blade revolved too slowly	Drive rollers worn	Change drive rollers
	Roller bearing defective	Change roller bearings
	Insufficient motor power	Check motor
	Roller pre-tension device not engaged	Check roller pre-tension device and spring
Ring blade disengages	Roller distance too large	Check roller pre-tension device and spring
	Drive rollers worn out	Change drive rollers
	Ring blade damaged	Change ring blade
	Roller pre-tension device not engaged	Check roller pre-tension device and spring
Ring blade twisted	Not enough water cooling your blade	Check water cooling and change ring blade
Diamond segments broken off	Twisted ring blade	Change ring blade
	Hard resistance in work piece	Change ring blade
	Brazing or welding of segments not professional standard	Change ring blade
No water supply to ring saw	Water line blocked	Clean or change the water lines
	Water faucet on feed line is closed	Open the water faucet
	Insufficient water pressure	Check and increase water supply
Blade is loose	Re-set front cover	Loosen mud guard and blade guard. Then push front cover in tight. Tighten guards

Technical Data

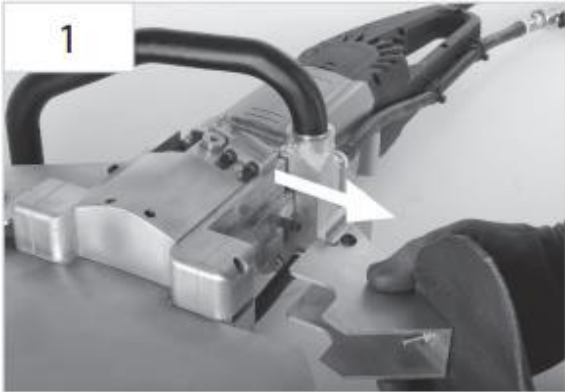
Dimension and weight	
Parameter	Value
Weight (without blade)	29.7 lbs
Width	190 mm or 7.5 inches
Height	280 mm or 11 inches
Length	560 mm or 22 inches

Electric motor	EMDS110V	EMDS220V
Voltage	110 V	220 V
Frequency	50 Hz – 60Hz	50 Hz – 60 Hz
Nominal power	1700 W	2800 W
Ring blade speed	Max. 2600 rpm	
Motor cooling	Air	
Application	Wet	

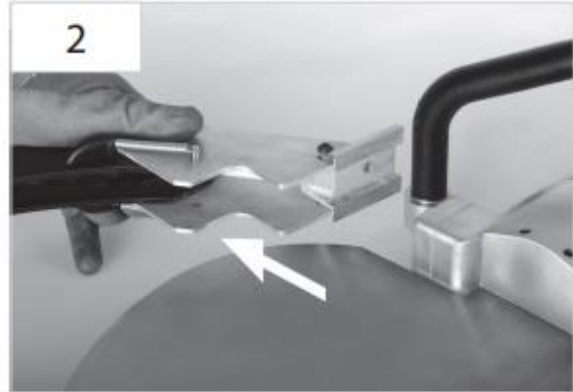
Diamond Ring Blades	
Diameter ring blade	Cutting depths
406 mm (16")	305 mm (12 inches)
305 mm (12")	205 mm (8 inches)
Cooling	Water cooling (No dry cutting)

Water supply	
Parameter	Value
Working pressure	min. 3 bar max. 6 bar
Flow rate	min. 5 l/min
Temperature	max. 25 C

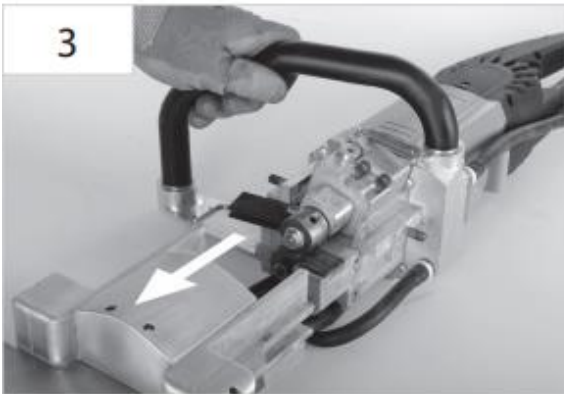
Installing and/or replacing you Ring Blade



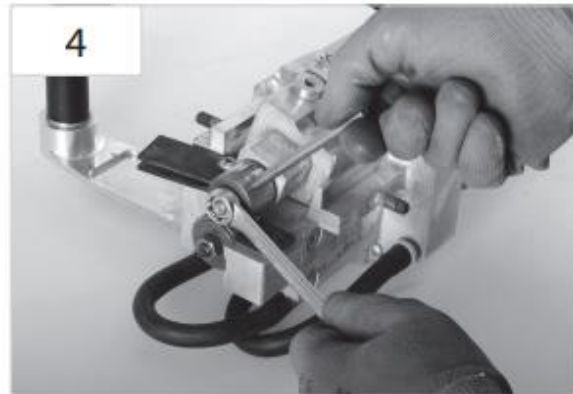
Remove the guard with spray protector.
Tool: 1/2" spanner



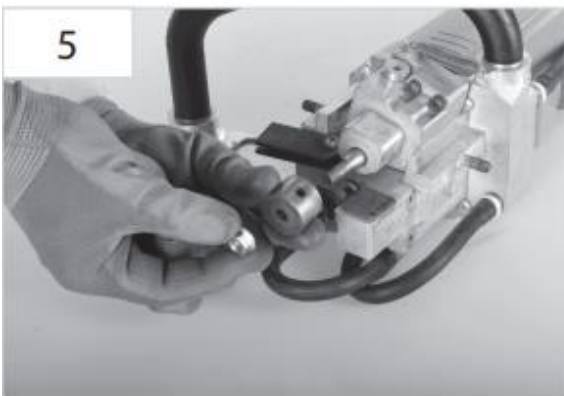
Remove disk guard.
Tool: 1/2" spanner



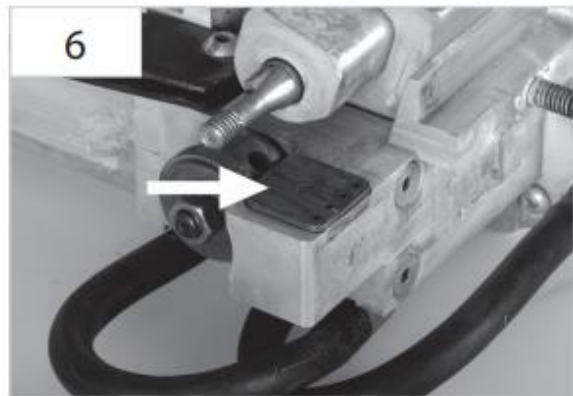
Remove housing.



Undo nut of drive / swivel roller.
Tools: 1/2" spanner and a punch



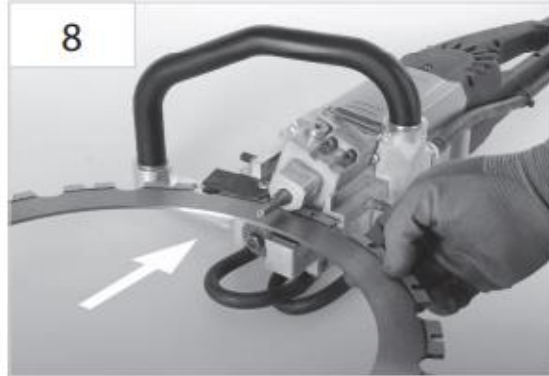
Remove swivel roller.



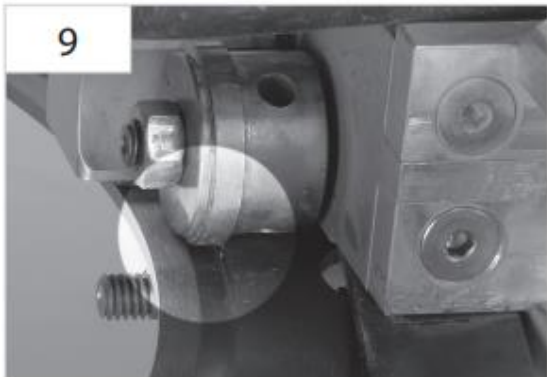
Replace skid plate.



7
Clean both sides of disk grinding ring thoroughly.



8
Place disk grinding ring on profiled driver roller.



9
Ensure the groove of the disk grinding ring is on the shoulder of the drive roller.



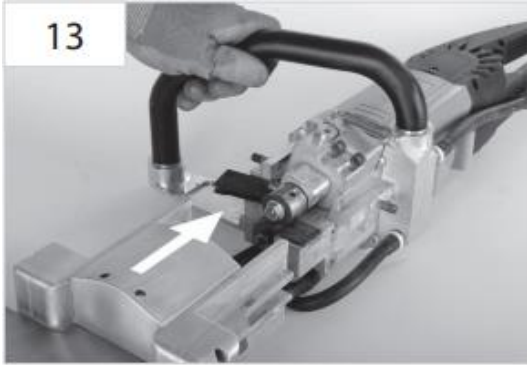
10
Mount the smooth driver roller; when doing so, observe the key and keyway.



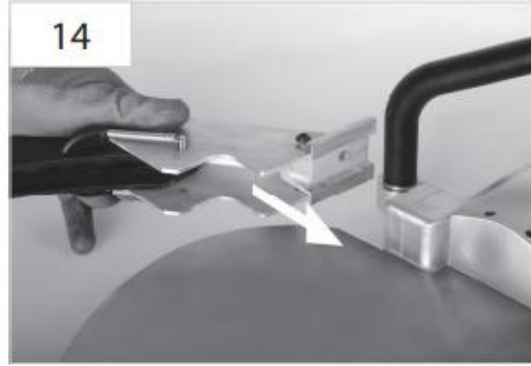
11
Screw on the smooth driver roller by hand.



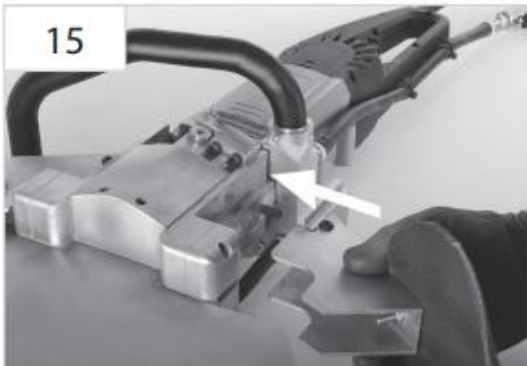
12
Tighten the smooth drive roller.
Tool: 1/2" spanner and a punch



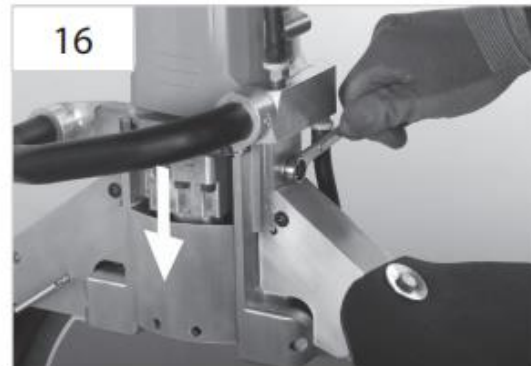
Mount housing.



Fit and tighten disk guard finger tight.



Fit and tighten guard with spray protector finger tight.



Place housing onto edge of workbench, then push and hold down. Tighten the guard with spray protector.
Tool: 1/2" spanner



Place housing onto edge of workbench, then push and hold down. Tighten disk guard.
Tool: 1/2" spanner

Warranty

Limited Tool and parts Warranty

ACG Saws & Tools of Canada Inc. the manufacturer certifies that the tool is free from any material or workmanship defects and warrants the tool with a limited warranty for a period of one year from the date of the original purchase. Workmanship charges may apply. Subject to certain exceptions, our responsibility under the warranty is limited to the inspection and replacement of any parts that may be defective after being shipped to our plant or any other point designated by the manufacturer

Cost of transport, labour or other expenses are not covered by the warranty and are the responsibility of the buyer.

The warranty does not cover normal wear and tear, abuse, lack of maintenance, unauthorised repairs or attempt to repair by others than the manufacturer, misuse or the tool being used other than its intended application.

The add-on components or integral units such as electric-hydraulic motors, gas engines, transmissions, batteries, etc. are the responsibility of the prime manufacturer warranty and are excluded from this warranty.

This warranty replaces all other implied or expressed warranty and all other such warranties are therefore disclaimed.

Proof of purchase is mandatory. An authorization return number must be issued by the manufacturer before any tool may be shipped to us for repair or warranty. The manufacturer will repair the tool to its original designation at his discretion.



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2022-02-25			
ACG Saws & Tools of Canada Inc.			
Dragon Saw Electric Mini			
Item #	Part #	DESCRIPTION	QTY
2	EMGHDS002	SPRING	2
20-1	EMGHDS020-1	PLUG HEX	1
24	EMGHDS024	SEAL	1
30	EMGHDS030	FITTING-WATER	2
36	EMGHDS036	GUARD RUBBER FLOP	1
38	EMDS038	SCREW	4
39	EMGHDS039	SCREW	4
55	EMGHDS055	SCREW FLAT HEAD	10
56	EMGHDS056	SCREW FLAT HEAD	4
57	EMGHDS057	SCREW SOCKET CAP	6
59	EMGHDS059	NUT	3
61	EMGHDS061	BOLT	1
66	EMGHDS066	BOLT SKID PLATE	1
118	EMGHDS118	KEY WAY	4
121	EMGHDS121	DOWEL PIN	1
152	EMGHDS152	GUIDE ROLLER	2
153	EMGHDS153	ROLLER 2 G	1
154	EMGHDS154	BLOCK-SUPPORT	2
155-1	EMGHDS155-1	BEARING	2
156	EMGHDS156	O-RING	2
400	EMDS400	CENTER SUPPORT 12"	1
400-1	EMDS400-1	CENTER SUPPORT 16"	1
401	EMDS401	BLADE GUARD	1
401-1	EMDS401-1	BLADE GUARD COMPLETE	1
403	EMDS403	UPPER GUARD	1
405	EMDS405	ROLLER ARM	2
406	EMDS406	ROLLER ARM COVER	2
408	EMDS408	SHEILD LEFT	1
409	EMDS409	SHIELD RIGHT	1
410	EMDS410	SHIELD FRONT	1
412	EMDS412	DRIVE ROLLER SMOOTH	1
413	EMDS413	DRIVE ROLLER LIP	1
414	EMDS414	SEAL	4
414-1	EMDS414-1	SEAL 2G	2
415	EMDS415	BEARING	2
415-1	EMDS415-1	BEARING 2G	1
416	EMDS416	C-CLIP	6

417	EMDS417	COOLING BLOCK	1
417-1	EMDS417-1	COOLING BLOCK 2G	1
417-2	EMDS417-2	C-CLIP	1
417-3	EMDS417-3	BEARING	
417-4	EMDS417-4	OIL SEAL	
417-5	EMDS417-5	PLASTIC WASHER	
418	EMDS418	SEAL & BEARING KIT	1
418-1	EMDS418-1	SEAL & BEARING KIT 2G	1
420	EMDS420	BRASS ELBOW	3
420-1	EMDS420-1	CLAMPS	3
422	EMDS422	SPRING	1
423	EMDS423	TRANSMISSION	1
427	EMDS427	WATER CHANNEL	1
428	EMDS428	GEAR	2
431	EMDS431	HOSE	2
432	EMDS432	CLAMP BLOCK	2
433	EMDS433	NUT LEFT HAND	1
435	EMDS435	LOWER GUARD	1
437	EMD437	HANDLE	1
438	EMDS438	SCREW	4
439	EMDS439	BEARING	4
448	EMDS448	TRANSMISSION COVER	1
448-1	EMDS448-1	C-CLIP Inside cover 448	1
449	EMDS449	SHAFT	1
454	EMDS454	BRACKET	1
457	EMDS457	SET SCREW	1
458	EMDS458	1/2" WRENCH	1
458-1	EMDS458-1	TOOL KIT	1
459	EMDS459	NUT	3
460	EMDS460	1/4" MALE FITTING	1
461	EMDS461	HOSE	1
462	EMDS462	1/4" FEMALE FITTING	1
463	EMDS463	1/4" VALVE	1
468	EMDS468	O-RING	1
472	EMDS472	COUPLER	1
472-1	EMDS472-1	BEARING CAGE INSERT	1
472-2	EMDS472-2	O-RING	1
473	EMDS473	STORAGE BOX	1
474	EMDS474	SET SCREW	1
475	EMDS475	SCREW	1
476	EMDS476	STRAIGHT PIN	1

477	EMDS477	HEX KEY WRENCH	1
478	EMDS478	HEX KEY WRENCH	1
479	EMDS479	STUD	2
480	EMDS480	5cc OIL	1
501	EMDS501	US PLUG 110V AND CORD	1
501-1	EMDS501-1	VDE PLUG 220V AND CORD	1
502	EMDS502	CORD ARMOUR 110V	1
502-1	EMDS502-1	CORD ARMOUR 220V	1
503	EMDS503	CORD CLIP	
504	EMDS504	SCREW	
505	EMDS505	LED INDICATOR LIGHT	
506	EMDS506	SWITCH	
507	EMDS507	SWITCH BUTTON	
508	EMDS508	SCREW	
509	EMDS509	ELECTRONIC UNIT 110V	1
509-1	EMDS509-1	ELECTRONIC UNIT 220V	1
510	EMDS510	SCREW	
511	EMDS511	BRUSH SPRING	
512	EMDS512	BRUSH HOLDER	
513	EMDS513	INSULATE PLATE	
514	EMDS514	CARBON BRUSH	2
515	EMDS515	SCREW	
516	EMDS516	MOTOR HOUSING	1
517	EMDS517	HANDLE-RIGHT	
518	EMDS518	HANDLE-LEFT	
519	EMDS519	PLUG	
520	EMDS520	BRUSH CAP	
521	EMDS521	SCREW	
522	EMDS522	SCREW	
523	EMDS523	SCREW	
524	EMDS524	STATOR-110V	1
524-1	EMDS524-1	STATOR-220V	1
525	EMDS525	SCREW	
526	EMDS526	BEARING	
527	EMDS527	FAN BAFFLE	
528	EMDS528	ARMATURE-110V	1
528-1	EMDS528-1	ARMATURE-220V	1
529	EMDS529	BEARING	
53	EMDS530	COMPLETE MOTOR	1
531	EMDS531	COMPLETE MOTOR	1
532	EMDS532	PRCD INTERRUPTER PROTECTOR	1

