13 AMP ELECTRIC DETHATCHER



PRODUCT SPECIFICATIONS

13 AMP ELECTRIC DETHATCH	IER
Rating voltage	120 V~60 Hz
Rating current	13 A
No load speed	3500 RPM
Deck width	19" (47.5 cm)
Cutting width	15" (38 cm)
Dethatching depth	-12 / -9 / -6 / -3 / +6 mm, 5 positions
Dethatcher blade diameter	5.2" (13.2 cm)
Weight	32 lb (14.5 kg)
Grass bag	45 L
Protection degree	

NEED ASSISTANCE?

Call us on our toll free customer support line:

1-833-818-4111 (Monday through Friday, 9am - 5pm, Eastern Standard Time)

- Technical questions
- Replacement parts
- Parts missing from package

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SAFETY INSTRUCTIONS

IMPORTANT

Please read these instructions fully before assembling and operating.

DESCRIPTION OF SYMBOLS

Symbols are used in this manual to attract your attention to possible risks. The safety symbols and the explanations which accompany them must be perfectly understood. The warnings themselves do not prevent the risks and cannot be a substitute for proper methods of avoiding accidents.

SAFETY ALERT SYMBOLS

The following symbols are used on the product and in this manual to alert the operator of potential safety hazards. Read them carefully, and understand their meaning.

SYMBOL	MEANING
Δ	DANGER
	Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
Δ	WARNING!
	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
Δ	CAUTION
	Indicates a potentially hazardous situation which, if not avoided, may result in minor/moderate injury.
	NOTICE
	Indicates a practice not related to personal injury which, if not avoided, may result in property damage.

The following symbols may be found on your dethatcher. Carefully read and understand their meaning.

SYMBOLS

Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the product effectively and safely.

SYMBOL I	MEANING
ß	READ THE OPERATOR'S MANUAL(S) – Read, understand, and follow all instructions in the user manual(s) before attempting to assemble and operate.
\bigwedge	SAFETY ALERT – Indicates a precaution, a warning, or a danger.
	WARNING! Do not expose the unit to rain or wet conditions.
~	WEAR EYE AND HEARING PROTECTION – For protection against injury, wear ear defenders and safety goggles.
	Wear protective gloves and non-slip footwear when using the machine and handling debris
À	DANGER! Rotating blades – Keep hands and feet away from moving parts.
∎⊷∎	Keep bystanders a safe distance away from the work area.
	Thrown objects picked up by the rotating tines can cause severe injury.

Inspect the work area prior to use and remove all objects that could be thrown by the appliance. If a hidden object is discovered while working, stop the engine and remove the object.
Use extreme CAUTION when reversing or pulling the machine towards you.
SWITCH OFF! Remove plug from outlet before cleaning or conducting maintenance checks.
SWITCH OFF! Remove plug from outlet immediately if the cord is damaged or cut.
Do not push down stairs
DOUBLE INSULATION.

GENERAL SAFETY WARNINGS

WARNING: When using electric garden products, basic safety precautions A should always be followed to reduce the risk of fire, electric shock and personal injury, including the following:



WARNING: Read all instructions.

A

WARNING: This product can expose you to chemicals including lead, phthalate or bisphenol A which are known to cause cancer, birth defects or other reproductive harm. Wash your hands after use.

FOR ALL DETHATCHERS

- 1. Avoid Dangerous Environments Do not use appliances in damp or wet locations.
- 2. Do not Use In Rain.
- 3. Keep Children Away All visitors should be kept at a distance from work area.
- 4. Dress Properly Do not wear loose clothing or jewellery. They can be caught in moving parts. Use of rubber gloves and substantial footwear is recommended when working outdoors. Wear protective hair covering to contain long hair.
- 5. Use Safety Glasses Always use face or dust mask if operation is dusty.
- 6. Use the Right Dethatcher Do not use dethatcher for any job except that for which it is intended.
- 7. Ground Fault Circuit Interrupter (GFCI) protection should be provided on the circuit(s) or outlet(s) to be used for the gardening appliance. Receptacles are available having built-in GFCI protection and may be used for this measure of safety.

Table 1 Minimum gauge for extension cords				
Volts	Т	otal leng	gth of co	ord
120 V	25' 7.2 m	50' 15.2 m	100' 30.4 m	150' 45.7 m
Ampere rating more than not more than	AWG			
0-6	N/A	16	16	14
6-10	N/A	16	14	12
10-12	16	16	14	12
12-16	14	12	Not recomi	mended

- 8. Warning To reduce the risk of electric shock, use only with an extension cord intended for outdoor use, such as an extension cord of cord type SW-A SOW-A, STW-A, STOW-A, SJW-A, SJOW-A, SJTW-A, or SJTOW-A.
- 9. Extension Cord Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized extension cord will cause a drop in line voltage resulting in loss of power and overheating. Table 1 shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord. To reduce the risk of disconnection of appliance cord from the extension cord during operating: i) Make a knot as shown in Figure 1.

SAVE THESE INSTRUCTIONS FOR REFERENCE

- ii) Use one of the plug-receptacle retaining straps or connectors described in this manual.
- 10. Avoid Unintentional Starting Do not carry plugged-in dethatcher with finger on switch. Be sure switch is off when plugging in.
- 11. Do not Abuse Cord Never carry dethatcher by cord or yank it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges.
- 12. Do not grasp the exposed cutting blades or cutting edges when picking up or holding the dethatcher.
- 13. It should work in constant speed It will do the job properly and safer at the rate for which it was designed.
- 14. Do not Overreach Keep proper footing and balance at all times.
- 15. Stay Alert Watch what you are doing. Use common sense. Do not operate dethatcher when you are tired.
- 16. Disconnect Dethatcher Disconnect the dethatcher from the power supply when not in use, before servicing, when changing accessories such as blades, and the like.
- 17. Store Idle Dethatcher Indoors When not in use, dethatcher should be stored indoors in dry, and high or locked-up place out of reach of children.
- 18. Maintain Dethatcher With Care Keep cutting edge sharp and clean for best performance and to reduce the risk of injury. Follow instructions for lubricating and changing accessories. Inspect appliance cord periodically, and if damaged, have it repaired by an authorized service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean, and free from oil and grease.
- 19. Check Damaged Parts Before further use of the dethatcher, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other condition that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless indicated elsewhere in this manual.



WARNING: Read all safety warnings and instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

FOR ALL DOUBLE-INSULATED DETHATCHERS

- 1) Replacement Parts When servicing use only identical replacement parts.
- 2) Polarized Connections To reduce the risk of electric shock, this dethatcher has a polarized plug (one blade is wider than the other) and will require the use of a polarized extension cord. The plug will fit into a polarized extension cord only one way. If the plug does not fit fully into the extension cord, reverse the plug. If the plug still does not fit, obtain a correct polarized extension cord. A polarized extension cord will require the use of a polarized wall outlet. This plug will fit into the polarized wall outlet only one way. If the plug does not fit fully into the wall outlet, reverse the plug. If the plug still does not fit, contact a qualified electrician to install the proper wall outlet. Do not change the equipment plug, extension cord receptacle, or extension cord plug in any way.



Figure 1. Method of Securing Extension Cord Cord set

(B) Connect plug and receptacle

KNOW YOUR ELECTRIC DETHATCHER

Read the owner's manual and safety instructions carefully before operating the electric dethatcher. Compare the illustration below to the electric dethatcher in order to familiarize yourself with the location of the various controls and adjustments. Save this manual for future reference.



- 1. Upper handle
- 2. Switch lever
- 3. Safety lock button
- 4. Middle handle
- 5. Knob x 4
- 6. Bolt
- 7. Extension cord restraint holder
- 8. Cable clip
- 9. Plug
- 10. Lower handle

- 11. Thatch bag rack
- 12. Thatch bag
- 13. Angle knob
- 14. Fixed knob
- 15. Thatch bag cover
- 16. Raking depth adjustment lever
- 17. Cover
- 18. Decorative plates
- 19. Base

Not all the accessories illustrated or described are included in standard delivery.

OPERATING INSTRUCTIONS

NOTE: Read operator's manual

INTENDED USE

This product is intended for domestic, dethatching of lawn. This appliance is not intended for dethatching on hard materials such steel rod, stones and other hard materials which exceeds its cutting capacity and will damage the tines.

To avoid injury from unexpected starting or electrical shock, during assembly or adjustment, do not plug the power cord into a source of power.

ASSEMBLY

Assemble the lower handle

1. Install the lower handle positioning seat on the base, Note: There are 3 gears at the base installation position, which represent 3 different installation heights.



 Tighten the angle knob clockwise to fix it on the base. Note: The rotation direction of loosening and locking is marked on the angle knob.



Assemble the middle handle

1. Install the middle handle onto the lower handle by tightening the knob and the bolt.



2. Knob installation: Disassemble the knob assembly, pass the bolt through the inside of the middle, and then turn the knob clockwise to the screw to fix the second handle. Same installation on the other side.



Assemble upper handle and cable clip

1. Install the upper handle on the outside of the middle handle. Install the extension cord restraint holder on the same side as the switch.



2. Pass the power cord through the cable clip, then clamp the cable clip on the left side of the middle handle.



Installing the thatch collection bag

The product must be switched off and the cutting device must have stopped rotating before you attach or empty the thatch collection bag.

NOTE: A full thatch collection bag will reduce the perfomance of this product.

NOTE: You have the option of operating the thatcher with or without the collection bag.



NOTE: Install the extension cord retainer to upper handle with wire side before assembling the upper handle with lower handle.

Attach the thatch collection bag to the dethatcher before operation.Lift the thatch collection bag cover, and hang the thatch collection bag on themounting hooks. Empty the thatch collection bag frequently during use. Do not waituntil it is completely full. We recommend emptying it when it is half full.

Lift the thatch collection bag cover and pull the thatch collection bag off the mounting hooks to remove it.

Empty the bag's contents into a suitable waste receptacle. Mount the bag back into position before resuming work.

Adjusting the gears

The unit must be switched off and disconnected from the power supply before adjusting the tine settings.

Adjust the depth according to the needs of your lawn. The most suitable depth depends on the kind of lawn and the actual height of the grass.



Scale/	Application		
Position	Position Setting	Depth	Raking
1	high	6 mm	transport, removing thin layers of thatch
2	minimal	-3 mm	raking healthy lawn
3	middle	-6 mm	storage and raking
4	deep	-9 mm	storage and raking
5	deep	-12 mm	storage and raking deep layers of thatch

Starting + Stopping



Before switching on the lawn dethatcher, make sure that it is not in contact with any foreign objects. Keep your feet and hands a safe distance away from the rotating tines and the ejector opening. Failure to comply with these warnings can result in severe personal injury.

To start

- 1. Keep pressing safety lock button.
- 2. With the safety lock button pressed, simultaneously pull the switch lever back with the other hand on the upper handle. Hold the switch lever and upper handle together to operate.

To stop

1. Release the switch lever to stop and make sure the tines come to a complete stop.

The tine cylinder continues to run for a brief period after the unit has been switched off. Do not tilt or carry the unit while the motor is still running and do not touch the cylinder while it is still rotating. Failure to comply could result in severe personal injury.

Overload Protection

The overload protection will be activated in the following circumstances:

- 1. A buildup of scarified material around the cutting device.
- 2. If the material scarified is larger than the motor capacity.
- 3. Where there is too much resistance against the cutting device.

When the circuit breaker has been activated switch off the product and disconnect from the power supply.

Let the product cool down and eliminate the cause before using the product again.

General Operation

If the product strikes a foreign object stop the motor. Switch the product off, disconnect it from the power supply and let it cool down. Inspect the product thoroughly for damage. Have any damage repaired before restarting.

Extensive vibration of the product during operation is an indication of damage. The product should be promptly inspected and repaired.

- Check the machine, its power cord and plug as well as accessories for damage before each use. Do not use the machine if it is damaged or shows wear.
- Double check that accessories are properly fixed.

• Push the machine forward by its handle. Keep the handle dry to ensure safe support.

Ensure that the air vents are always unobstructed and clear. Clean them if necessary with a soft brush. Blocked air vents may lead to overheating and damage the product.

- Switch the machine off immediately if you are disturbed while working by other people entering the working area. Always let the machine come to complete stop before putting it down.
- Do not overwork yourself. Take regular breaks to ensure you can concentrate on the work and have full control over the machine.
- Mow the lawn before working and fertilize afterwards.
- Make sure that the lawn is clear of stones, sticks, wire, or other objects that could damage the machine or its motor.
- Select the suitable cutting depth for the actual grass height.
- Do not work with this machine on a wet lawn because it tends to stick to the underbody of the machine, preventing the proper discharge of collected material, and it could also cause you to slip and fall.
- Slowly push the machine forward. Move the machine at appropriate speed. Do not move it too fast to prevent the discharge from getting blocked and engine from useless overloading.
- Work in slight overlapping rows. The most effective pattern for raking lawns is straight lines along one of the sides. This will keep the rows even and ensures that all the lawn is raked without missing any spots.



- Circle around flower beds. When reaching a flower bed in the middle of the lawn, make a row or two around the circumference of the bed.
- Pay special attention when changing direction.

MAINTENANCE

WARNING

Before carrying out any repairs or servicing work, you must ensure that the machine has been disconnected from the power supply. Repairs and maintenance work other than described within this instruction manual may be performed only by qualified specialist!

Service + Storage

To ensure long and reliable service, carry out the following maintenance regularly. Servicing and cleaning work on the machine and the removal of the guards may only be carried out after the motor has been switched off and the plug disconnected from the power supply.

- Keep all nuts, bolts and screws tight to be sure the product is in a safe working condition.
- Allow the product to cool before storing in any enclosure.
- Check the thatch collection bag frequently for wear or deterioration.
- Examine the product regularly and replace worn or damaged parts for safety.
- Check that covers and guards are undamaged and correctly fitted. Carry out necessary maintenance or repairs before using the machine.
- If the cutting device should happen to fail despite the care taken in manufacturing and testing, repair should be carried out by an authorized repair facility.
- Do not clean the machine while it is running.
- Ensure that all the fastening elements (screws, nuts, etc.) are tight at all times so that you can safely work with the machine.
- Check the machine frequently for signs of wear. Replace worn or damaged parts.
- Store your machine in a dry place. To ensure a long service life all screws and bolts should be cleaned and then oiled.
- Clean the machine with a brush or cloth. Do not use any solvents or water to remove dirt.
- The component that is subject to most wear is the cutting device. You should therefore check the condition of the cutting device and its mounting at regular intervals.
- If the cutting device is worn or blunt it must be replaced immediately.
- If the machine starts to suffer from excessive vibrations, this means that the cutting device has not been balanced correctly or has suffered deformation due to impacts. In this case it must be repaired or replaced.

Replacing/Changing Cutting Device

WARNING

Always switch the machine off, disconnect it from power supply and let it cool down before changing / replacing the cutting device.

Cutting devices are very sharp and become hot during use. Handle them carefully.

Wear safety gloves when handling cutting devices in order to avoid injuries like burns and cuts.

Make sure all bolts are completely tightened before operating the machine. Don't operate the machine if any bolts are missing, loose, or damaged.

The product is designed for raking and the raking cylinder is preassembled on the machine. The cylinder can be changed according to the application.

Replace the raking cylinder



- 1. Loosen the inner hexagon on the bearing seat and unscrew it counterclockwise.
- 2. Then take out the raking cylinder.
- 3. Align the rectangular hole at one end of the comb blade with the square output shaft on the base.
- 4. Press the bearing on the grooming blade into the bearing seat, and then tighten the hexagon socket screw clockwise.

TROUBLESHOOTING

Fault/Malfunction	Cause(s)	Solution(s)
Motor does not start	 a) Not connected to power supply b) Power cord or plug is defective c) Other electrical defect to the product d) Safety lock button not pressed 	 a) Connect to power supply b) Contact an authorized service agent c) Press safety lock button first, then the start/stop lever
Product does not reach full power	 a) Extension cord not suitable for operation with this product b) Power source (e.g. generator) has too low voltage c) Air vents are blocked 	 a) Use a proper extension cord b) Connect to another power source c) Clean the air vents
Unsatisfying result	 a) Raking tines worn b) Raking material exceeds capacity c) Lawn has grown too tall 	 a) Replace the tine cylinder b) Only raking materials according to capacity of the product c) Adjust the depth or mower the lawn before using the dethatcher

EXPLODED VIEW



PARTS LIST

When servicing, use only original equipment replacement parts.

The use of any other parts may create a safety hazard or cause damage to the 13 Amp Electric Dethatcher. Any attempt to repair or replace parts on this 13 Amp Electric Dethatcher may create a safety hazard unless repairs are performed by a qualified technician. For more information, call the Toll-free Helpline, at 1-833-818-4111 – Monday-Friday from 9am - 5pm Eastern Standard Time.

Always order by key number.

Number	Part sku	Part name	Quantity
1	BVA0021001	Wheel cover	2
2	BVA0021002	Ø10*Ø20*1.5 gasket	4
3	BVA0021003	Pressplate	2
4	BVA0021004	Front wheel spindle assembly	1
5	BVA0021005	200 Wheel	2
6	BVA0021006	Front decorative panel	1
7	BVA0021007	Filter sponge NO. 2	1
8	BVA0021008	Filter sponge NO. 1	1
9	BVA0021009	Filter sponge NO. 3	1
10	BVA0021010	NUT 12*12*6 M8	2
11	BVA0021011	Pressplate	1
12	BVA0021012	Breakwind	1
13	BVA0021013	Housing cover	1
14	BVA0021014	Housing handle	1
15	BVA0021015	Grass bag fixing pin	1
16	BVA0021016	Spring	1
17	BVA0021017	Grass bag cover	1
18	BVA0021018	Torsion spring fixing pin	1
19	BVA0021019	Protector 17AMD 110Z+PTC	1
20	BVA0021020	Sandbag	1
21	BVA0021021	Base	1
22	BVA0021022	Back wheel spindle	2
23	BVA0021023	Screw ST5*25	2
24	BVA0021024	150 wheel	2
25	BVA0021025	Ø10*Ø20*1.5 gasket	2
26	BVA0021026	Wheel cover	2
27	BVA0021027	NUT M6*5	1
28	BVA0021028	NUT M5	1
29	BVA0021029	Bearing block	1

30	BVA0021030	NUT M5*25	1
31	BVA0021031	Inner hexagon spanner	1
33	BVA0021033	Press plate	1
34	BVA0021034	Nut M6*30	1
35	BVA0021035	Depth adjust handle (right)	1
36	BVA0021036	Depth adjust handle (left)	1
37	BVA0021037	Screw ST4*16	8
38	BVA0021038	R pin Ø2*20mm	4
39	BVA0021039	Grass collect frame	1
40	BVA0021040	Grass collect bag	1
41	BVA0021041	Screw ST4*20	21
42	BVA0021042	Screw ST5*25	3
43	BVA0021043	Knob	4
46	BVA0021046	Middle handle	1
47	BVA0021047	Spring washer	4
48	BVA0021048	Cable strain relief	1
49	BVA0021049	Cable clamp	1
50	BVA0021050	Lower handle seat	2
51	BVA0021051	Lower handle	2
52	BVA0021052	Screw ST5*14	4
53	BVA0021053	Knob	2
54	BVA0021054	Screw M8*50	2
100	BVA0021100	Motor assembly	1
101	BVA0021101	Ring Ø8	1
102	BVA0021102	Motor fan	1
103	BVA0021103	Screw ST3*12	2
104	BVA0021104	Carbon brush	2
105	BVA0021105	Carbon brush holder	2
106	BVA0021106	Housing	1
107	BVA0021107	Stator assembly	1
108	BVA0021108	Screw ST4*65	2
110	BVA0021110	Bearing 608-2RS	2
111	BVA0021111	Rotor assembly	1
112	BVA0021112	Bearing 6900-2RS	2
113	BVA0021113	Gasket Ø10.1*22*0.5	2
114	BVA0021114	Wool felt Ø8*Ø16*1.5	1
115	BVA0021115	Gear box	1
116	BVA0021116	Bearing HK0608	1
117	BVA0021117	Ring Ø10	1

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118	BVA0021118	Wheel	1
119	BVA0021119	Bering ZZ-608	1
120	BVA0021120	Centre frame	1
121	BVA0021121	Screw ST4*20	2
122	BVA0021122	Screw M4*20	3
123	BVA0021123	Output axis	1
124	BVA0021124	Belt	1
125	BVA0021125	Centre frame cover	1
126	BVA0021126	Nut	1
127	BVA0021127	Bearing 6000-2RS	1
128	BVA0021128	Wheel	1
129	BVA0021129	Bearing 6002-2RS	1
130	BVA0021130	Gasket	2
131	BVA0021131	Axis	1
132	BVA0021132	Axis	1
41	BVA0021041	Screw ST4*20	3
133	BVA0021133	Screw ST4*18	5
42	BVA0021042	Screw ST5*25	2
200	BVA0021200	Switch assembly	1
201	BVA0021201	Trigger seat left	1
202	BVA0021202	Spring	1
203	BVA0021203	Wire connected rod	1
204	BVA0021204	Trigger seat right	1
205	BVA0021205	Screw ST4*30	2
206	BVA0021206	Switch box pressplate	1
207	BVA0021207	Switch box left	1
208	BVA0021208	Wire	1
209	BVA0021209	Pulg	1
210	BVA0021210	Cable sleeve	1
211	BVA0021211	Switch reset shrapnel	2
212	BVA0021212	Rocker switch	1
213	BVA0021213	Spring	1
214	BVA0021214	Trigger	1
216	BVA0021216	Switch button	1
217	BVA0021217	Switch box	1
218	BVA0021218	Upper handle	1
219	BVA0021219	Sponge tube	1
220	BVA0021220	Wire trigger	1

-	1		1
11	BVA0021011	Cable pressplate	2
133	BVA0021133	Screw ST4*18	10
400	BVA0021400	Dethatcher Assembly	1
401	BVA0021401	Claw spring fixed frame cover plate	13
402	BVA0021402	Claw spring fixing frame	11
403	BVA0021403	Pawl spring	24
404	BVA0021404	Comb blade square tube shaft	1
405	BVA0021405	Claw spring fixing frame	1
406	BVA0021406	Gasket	1
407	BVA0021407	Dustproof cover for new rake blade	1
117	BVA0021117	Ring Ø10	1
127	BVA0021127	Bearing 6000-2RS	1
408	BVA0021408	Dust cover left	1
409	BVA0021409	Gasket	1
410	BVA0021410	Connecting shaft head	1

WARRANTY

BENCHMARK 13 AMP ELECTRIC DETHATCHER WARRANTY

If this Benchmark tool fails due to a defect in material or workmanship within five years from the date of purchase, return it to any Home Hardware store with the original bill of sale for exchange. This warranty does not include expendable parts including but not limited to blades. This warranty covers defects in material or workmanship only. It does not cover normal wear and tear, failure due to abuse/misuse, or defects caused by careless or accidental mishandling. If this Benchmark product is used for commercial or rental purposes, this warranty does not apply.

13 AMP ELECTRIC DETHATCHER



5 Year Limited Warranty

