

# **80V LITHIUM-ION CULTIVATOR**

MODEL #KC 1080B-06

Español p. 17

# ATTACH YOUR RECEIPT HERE

Serial Number

Purchase Date \_\_\_\_

Questions, problems, missing parts? Before returning to your retailer, call our customer service department at 1-888-3KOBALT (1-888-356-2258), 8 a.m. - 8 p.m., EST, Monday - Friday.

AB17162

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# PRODUCT SPECIFICATIONS

SPECIFICATIONS			
Motor	Cordless, Battery-powered		
Motor Voltage	80 V DC		
No-Load Speed	170 RPM ± 5%		
Cultivating Path	10 in. (25 cm)		
Tine Speed	up to 1,700 strikes per minute		
Approximate Weight (without battery)	28.9 lbs. (13.1 kg)		
Charge Time	30 minutes		

# PACKAGE CONTENTS



PART	DESCRIPTION	QUANTITY
Α	Outer Tine A	1
В	Inner Tine B	1
С	Inner Tine C	1
D	Outer Tine D	1
E	Upper Handle Assembly	1
F	Cultivator	1
G	Wheel Assembly	1

# HARDWARE CONTENTS (not shown actual size)











Felt Washer Qty. 2

Ring Pin Qty. 2

Bolt Qty. 1

Large Hitch Pin Qty. 2

Fastening Knob Qty. 5



Bolt Qty. 4

# 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 better and safer.

SYMBOLS	NAME	DESIGNATION/EXPLANATION
V	Volts	Voltage
А	Amperes	Current
Hz	Hertz	Frequency (cycles per second)
W	Watts	Power
min	Minutes	Time
$\sim$	Alternating Current	Type of current
	Direct Current	Type or a characteristic of current
/min	Per Minute	Revolutions, strokes, surface speed, orbits, etc., per minute.
	Wet Conditions Alert	Do not expose to rain or use in damp locations.
	Read The Operator's Manual	To reduce the risk of injury, user must read and understand operator's manual before using this product.
	Eye Protection	Always wear eye protection with side shields marked to comply with ANSI Z87.1 when operating this equipment.
	Safety Alert	Precautions that involve your safety.
	Keep Bystanders Away	Keep all bystanders at least 50 ft. away.
	Ricochet	Thrown objects can ricochet and result in personal injury or property damage.
	Cutting Hazard	Keep feet and hands away from rotating tines.
	Keep hands and feet away	Failure to keep your hands away from the blade will result in serious personal injury.
	Class II Construction	Double-insulated construction.

# SYMBOLS

The following signal words and meanings are intended to explain the levels of risk associated with this product.

SYMBOL	SIGNAL	MEANING
	DANGER	Indicates an imminently hazardous situation, which, if not
	DANGER	avoided, will result in death or serious injury.
	WARNING	Indicates a potentially hazardous situation, which, if not
	WARNING	avoided, could result in death or serious injury.
	CAUTION	Indicates a potentially hazardous situation, which, if not
	CAUTION	avoided, may result in minor or moderate injury.
	CAUTION	(Without Safety Alert Symbol) Indicates a situation that may
	CAUTION	result in property damage.

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• To avoid serious personal injury, do not attempt to use this product until you have read this Owner's Manual thoroughly and understand it completely. If you do not understand the warnings and instructions in this Owner's Manual, do not use this product.

Call **1-888-3KOBALT** (1-888-356-2258) for assistance.



The operation of any power tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before operating a power tool, always wear safety goggles, safety glasses with side shields, or a full face shield when needed. A Wide Vision Safety Mask is recommended for use over eyeglasses or standard safety glasses with side shields. Always use eye protection that is marked to comply with ANSI Z87.1.

# SAFETY INFORMATION

Read All Instructions: WARNING: When using electric gardening appliances, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury, including the following:

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Read and understand all instructions before using this product. Failure to follow all instructions listed below may result in electric shock, fire, and/or serious personal injury.

# **BEFORE USING**

- Read the operator's manual carefully. Be thoroughly familiar with the controls and the proper use of the equipment. Know how to stop the unit and disengage the controls quickly.
- Do not operate cultivator in the presence of flammable liquids, gases, or dust. Cultivators create sparks which may ignite the dust or fumes.
- Avoid body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerators. There is an increased risk of electric shock if your body is grounded.
- Avoid Dangerous Environment Don't expose to rain or use cultivator in damp or wet locations. Water entering a cultivator will increase the risk of electric shock.
- Never allow children to operate the equipment. Never allow adults to operate the equipment without proper instruction.

# SAFETY INFORMATION

- Always wear safety glasses with side shields that comply with ANSI Z87.1. Everyday glasses have only impact resistant lenses. They are NOT safety glasses. Following this rule will reduce the risk of eye injury. Use face mask if operation is dusty.
- Dress Properly Do not wear loose clothing or jewelry. 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. Wear heavy long pants, long sleeves, boots, and gloves. Avoid loose garments or jewelry that could get caught in moving parts of the machine or its motor. Secure long hair so it is above shoulder level to prevent entanglement in any moving parts.
- Do not force cultivator Use the correct tool for your application. The correct tool will do the job better and safer at the rate for which it is designed.
- Do not operate the equipment while barefoot or when wearing sandals or similar lightweight footwear. Wear protective footwear that will protect your feet and improve your footing on slippery surfaces.
- Do not operate the cultivator while under the influence of alcohol or drugs.
- Keep hands and feet away from tines.
- Do not overreach or extend past stable footing when using the cultivator.
- Avoid Unintentional Starting Don't carry appliance with finger on switch. Be sure switch is off when the battery is installed in the unit.
- Never pick up or carry the cultivator while the tines are turning or the motor is running.
- Keep cultivator in good working condition. Check all nuts, bolts, and screws at frequent intervals for proper tightness to be sure the equipment is in safe working condition.
- Keep the unit free of grass, leaves, or grease to reduce the chance of a fire hazard.
- Do not use cultivator if switch does not turn it on or off. Any tool that cannot be controlled with the switch is dangerous and must be repaired.
- Remove the battery from machine when not in use, before servicing, when changing accessories such as blades, and the like. Such preventive safety measures reduce the risk of starting the cultivator accidentally.
- Before cleaning, repairing, or inspecting, remove the battery and make certain all moving parts have stopped.
- Never spray water directly into the motor compartment of the cultivator.
- Service on the cultivator must be performed by qualified repair personnel only. Service or maintenance performed by unqualified personnel could result in injury to the user or damage to the product.
- Use only identical replacement parts when servicing the cultivator. Use of unauthorized parts may create a risk of serious injury to the user, or damage to the product.

# **CHILD SAFETY**

Tragic accidents can occur if the operator is not aware of the presence of children.

- Keep children out of the working area and under the watchful care of a responsible adult.
- Do not allow children under the age of 14 to operate this blower. Children who are 14 years of age and older must read and understand the operating instructions and safety rules in this manual and must be trained and supervised by a parent.
- Stay alert and turn the blower off if a child or any other person enters the working area.
- Use extreme care when approaching blind corners, doorways, shrubs, trees, or other objects that may obscure your view of a child who may run into the path of the cultivator.

# SAFETY INFORMATION

# WARNING (PROPOSITION 65)

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints
- · Crystalline silica from bricks and cement and other masonry products, and
- Arsenic and chromium from chemically treated lumber.

Your risk of exposure to these chemicals varies depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area, and work with approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles.

# A SAFETY RULES

- Do not use near underground electric cables, telephone, lines, pipes, or hoses. If in doubt, contact your utility or telephone company to locate underground services.
- If the unit strikes a foreign object, stop the motor, disconnect the battery, thoroughly inspect the machine for any damage, and repair the damage before restarting and operating the machine.
- Do not overload the machine capacity by cultivating too deep in a single pass or at too fast a rate.
- Stay alert. Watch what you are doing. Use common sense. Do not operate cultivator when you are tired, ill, or upset.
- Be aware that the equipment may unexpectedly bounce upward or jump forward if the tines should strike buried obstacles such as large stones, roots, or stumps.
- Wear hearing protection.
- Ensure that people and pets are at least 50 ft. (15 m) away from cultivator while in use.
- Replace worn or damaged parts only with identical replacement parts.
- Ensure that work area is free of slippery spots or excessive quantities of stone.
- Start the cultivator carefully according to instructions from a normal operating position and with feet well away from the tines. Do not force cultivator. It will do the job better and with less likelihood of a risk of injury at the rate for which it was designed.
- Remove the battery before unclogging the tines and when making any repairs, adjustments, or inspections.
- Never operate the equipment on a slope.
- Use extreme caution when pulling the machine toward you.
- Store Idle Appliances Indoors When not in use, appliances should be stored indoors in a dry and high or locked-up place, out of the reach of children.
- Store indoors, and do not expose to rain or water. Avoid direct sunlight.
- Maintain Appliance with Care Keep tines clean for best performance and to reduce the risk of injury. Follow instructions for lubrication and changing accessories. Inspect cultivator cord periodically and, if damaged, have it replaced. Keep handles dry, clean, and free from grease and oil.
- Keep Children Away All visitors and bystanders should be kept at a distance of at least 50 ft. from work area.
- Use Right Appliance Do not use appliance for any job except that for which it is intended.
- Don't grasp the exposed cutting blades or cutting edges when picking up or holding the appliance.
- Check damaged parts. Before further use of this cultivator, 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 otherwise indicated elsewhere in this manual.
- Use only KOBALT 80 V batteries.
- Use only KOBALT 80 V chargers.

# SAFETY RULES

- Do not charge appliance in rain or in wet locations.
- Do not use battery-operated appliance in rain.
- Remove or disconnect battery before servicing, cleaning, or removing material from the gardening appliance.
- Do not dispose of the battery in a fire. The cell may explode. Check with local codes for possible special disposal instructions.
- Do not open or break the battery(ies). The released electrolyte is corrosive and may cause damage to the eyes or skin. It may be toxic if swallowed.
- Exercise care in handling batteries in order not to short the battery with conducting materials such as rings, bracelets, and keys. The battery or conductor may overheat and cause burns.
- Save these instructions. Refer to them frequently and use them to instruct others who may use this cultivator. If you loan someone this unit, loan them these instructions also.

# SAVE THESE INSTRUCTIONS

# PREPARATION

Before beginning assembly of product, make sure all parts are present. Compare parts with package contents list and hardware contents list. If any part is missing or damaged, do not attempt to assemble the product.

Estimated Assembly Time: 5-10 min.

# ASSEMBLY INSTRUCTIONS

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To prevent accidental starting that could cause serious personal injury, always remove the battery when assembling parts.

# ASSEMBLING THE HANDLE

 Align the holes on the upper handle assembly (E) with holes on the lower handle found on the cultivator (F). Insert the bolts (GG) through the handles and secure using the fastening knobs (EE).



#### ASSEMBLY INSTRUCTIONS

#### **ASSEMBLING THE WHEELS**

- 1. Remove the battery from the unit.
- 2. Place cultivator (F) in a stable position.
- 3. Insert the wheel assembly (G) into the support rod (Q).
- Align wheel assembly hole to desired position. Slide bolt (CC) through hole and attach fasten ing knob (EE) to bolt (CC).
- 5. Tighten the fastening knob (EE).

**Note**: The wheels are used to control the depth of operation. To adjust the height of the cultivator, move the bolt to a higher or lower hole position. The wheels can be removed for greater tilling depth.



# ASSEMBLY INSTRUCTIONS

# **INSTALLING THE TINES**

# WARNING

The unit will not operate properly if the tines are installed incorrectly. If you notice a problem with the cultivating operation of the unit, check for proper tine positioning.

• Remove the battery from the unit.

• Lean the unit back on its wheels so that it is resting securely with the handlebar on the ground.

Note: This view of the gearbox for tine installation is from the front of the cultivator.

- Place tine C on the tine shaft to the left of the gear box. The stamped side of the tine should face away from the gear box.
- Place tine B on the tine shaft to the right of the gear box. The stamped side of the tine should face away from the gear box.
- Place a felt washer (AA) on each side of the tine shaft. Slide the washers to slide to rest against the inner tines.
- Place the outer tine stamped D on the left side of the tine shaft. The stamped side should face in toward tine C.
- Place the outer tine stamped A on the right side of the tine shaft. The stamped side should face in toward tine B.
- To secure the tines to the tine shaft, insert the ring pin (BB) into the holes located on either side of the tine shaft.

**Note:** When installed correctly, the angled edge of the tine blades should face the ground. **Note:** The directional arrow that is displayed on each tine should point toward the front of the cultivator.



# INSTALLING TWO TINES FOR TILLING A NARROW AREA

 Place tine A onto one end of the shaft and place tine D onto the other side. Insert the large hitch pin (DD) into the holes to secure the tines to the tine shaft. See Fig. 4.



# **OPERATING INSTRUCTIONS**

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Do not allow hands, feet, or any other part of the body or clothing near the rotating tines or any other moving part. The tines begin to rotate forward once the switch trigger is depressed. The tines continue to rotate until the switch trigger is released. Failure to avoid contact could cause serious personal injury.

### To install the battery:

- Align the battery (L) with the cavity on the cultivator (F).
- Hold the unit.
- Insert the battery in the opening until the battery release button (S) locks into place. You should hear a "click" once it is installed.

### To remove the battery:

- Press the battery release button (S). This will cause the battery to raise out of the tool.
- Hold the unit. Pull the battery pack out of the cultivator.

**Note**: The battery fits into the unit snugly in order to prevent accidental dislodging. It may require a strong pull to remove it.



# STARTING THE CULTIVATOR

 Press the safety-lock out button (T) and pull the bale switch (U) upwards to the handle bar to begin the rotation (see Fig. 5). Release safety lock-out button while continuing to hold upward on bale switch to continue use.

# STOPPING THE TILLER/CULTIVATOR

1. Release bale switch to stop the cultivator.



# OPERATING INSTRUCTIONS

### PREPARING THE SEED BED

The cultivator can be used to break up garden soil and prepare a seed bed for planting. Plan ahead to leave enough room between the seed rows to allow for machine cultivating after the plants have grown.

### **TILLING SOD**

Tilling sod into the soil is not recommended. If sod must be removed to perform application, then it is suggested to do as follows:

- 1. Map out the area of sod required to be removed.
- 2. Cut into 16 in. x 36 in. sections using a spade shovel or edger at a depth of 3 in.
- 3. Lift the sod from the edges using a shovel sliding below at the roots.
- 4. Remove the sod. Carry sod to compost or other pile turned grass down to allow grass to decompose.
- 5. Once sod layer is removed, begin to till the soil to desired depth.

#### **GENERAL TILLING/CULTIVATING**

Shallow cultivating (less than 2 in [5 cm] deep) can be used to disrupt weeds and aerate soil without injuring nearby plant roots. It should be done often so that weeds do not grow large and get tangled in the tines of the tiller.

The two inner blades can be removed from the unit to allow a narrower cultivating width. See pages 10 and 11 for correct tine installation process.

- 1. With the wheel assembly installed to the desired depth position as described on page 10, roll the tiller to the work area.
- 2. Insert the battery into the unit.
- 3. Stand behind tiller, with tines on ground and the work area clean and free of obstructions.
- 4. Start the tiller using directions from page 12.

**NOTE:** It may take several passes over the same path in order to reach the desired depth. Do not try to dig too deep on the first pass. If the tiller jumps or bucks, allow it to move forward at a slightly faster pace. In order to dig more deeply, lift up on the handlebar pushing the front harder into the ground. Apply downward pressure on the handlebar, pulling unit down toward you for more shallow cultivating. If the tiller stays and digs in at one spot, try rocking it from side to side in order to start it moving forward again. If the soil is very hard, water it a few days before cultivating. Avoid working soil that is soggy or wet. Wait a day or two after heavy rain for the ground to dry.

**IMPORTANT:** If weeds, roots, vines or other growth gets collected around the bottom of the tiller, it is important to stop tiller. Disconnect from power source and clean tines using a screwdriver or other object (not included) which can help remove debris. If necessary, removes tines to untangle debris from shaft and tines.

#### **QUICK TIPS:**

Remove rocks and roots before tilling in order to prevent damage to the tiller. Work the soil when it is neither too wet nor too dry. To test the moisture level of the soil, take a handful of soil and squeeze it. If it remains in a tight ball when you release your grip, it is too wet. If it crumbles, it is ready to till. Dry soil is difficult to cultivate, and valuable topsoil can be blown away when tilling on a windy day. Fall tilling presents many advantages over spring tilling. It eliminates the need to till in the spring, and it allows for earlier planting. Soil moisture and temperature conditions are favorable for decomposition of the organic matter that is turned under in the fall. Furthermore, disease organisms, insects, and perennial weeds can be reduced by tilling in the fall.

# CARE AND MAINTENANCE

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When servicing, use only identical replacement parts. Use of any other parts may create a hazard or cause product damage.

# STORING THE CULTIVATOR

The following steps should be taken before storing the cultivator for the season.

- Clean dirt, grass, and other materials from the entire unit.
- Wipe the tines with oil or spray them with silicone lubricant to prevent rusting.
- Oil the switch trigger cable and all visible moving parts. Do not remove the motor cover.
- Order new parts to replace any that are badly worn or broken.
- Store in an upright position in a clean, dry place. Store with the handles in the extended position, or loosen handle knobs and fold handles down. Do not allow switch trigger cable to become pinched when lowering the handlebar.

### PREPARING FOR USE AFTER STORAGE

The following steps should be taken before using the cultivator after it has been stored.

- Unfold the handles into the upright position and secure by tightening handlebar knobs. Do not allow the switch trigger cable to become pinched when raising the handlebar.
- Follow the steps in the Operating Instructions section to restart the cultivator.

# TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Motor fails to start when switch trigger is pressed.	The battery is not inserted or connection is loose.	Insert the battery into unit.
Motor runs but tines do not move.	Gear train failure.	Take unit to authorized service center.

#### WARRANTY

#### 5-YEAR LIMITED WARRANTY

This 80 V Lithiuim-Ion cultivator is warranted to the original purchaser from the original purchase date for five (5) years subject to the warranty coverage described herein.

This 80 V Lithiuim-Ion cultivator is warranted for the original user to be free from defects in material and workmanship.

If you believe that the 80 V Lithiuim-Ion cultivator is defective at any time during the specified warranty period, simply return the 80 V Lithiuim-Ion cultivator along with proof of purchase to the place of purchase for a free replacement or refund, or call **1-888-3KOBALT** (1-888-356-2258) for warranty service.

This warranty is void if: defects in materials or workmanship or damages result from repairs or alterations which have been made or attempted by others or the unauthorized use of nonconforming parts; the damage is due to normal wear, damage is due to abuse (including overloading of the tool beyond capacity), improper maintenance, neglect or accident; or the damage is due to the use of the tool after partial failure or use with improper accessories or unauthorized repair or alteration. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

# **REPLACEMENT PARTS LIST**

For replacement parts, call our customer service department at **1-888-3KOBALT** (1-888-356-2258), 8 a.m. - 8 p.m., EST, Monday - Friday.



PART	DESCRIPTION	PART #
A	Outer Tine A	31102281
В	Inner Tine B	31103281
С	Inner Tine C	31114281
D	Outer Tine D	31115281
AA	Felt Washer	34901282-1
BB	Ring Pin	33210289
DD	Large Hinch Pin	3320543

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