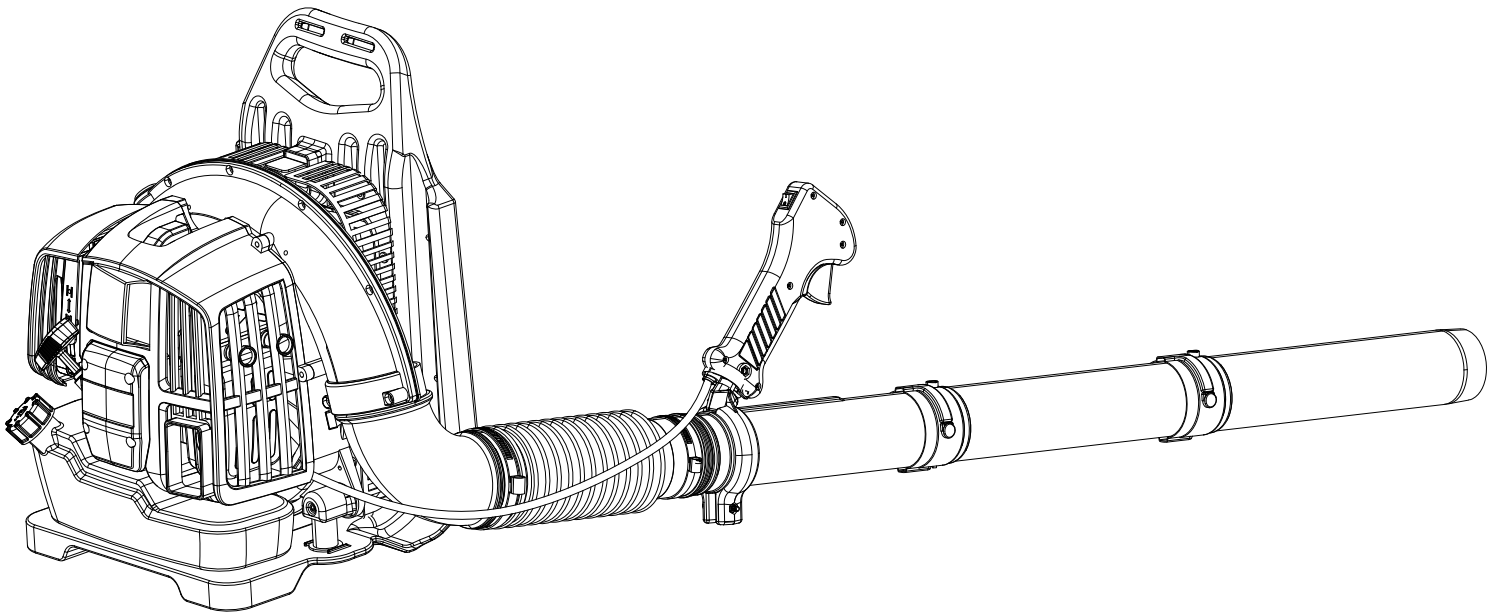


CARDINAL

BACKPACK LEAF BLOWER

MODEL NUMBER: CLB63

Operation Manual



To reduce the risk of injury, the user must read and understand the Operator's Manual before using this product. Save these instructions for future reference.

TOMAHAWK

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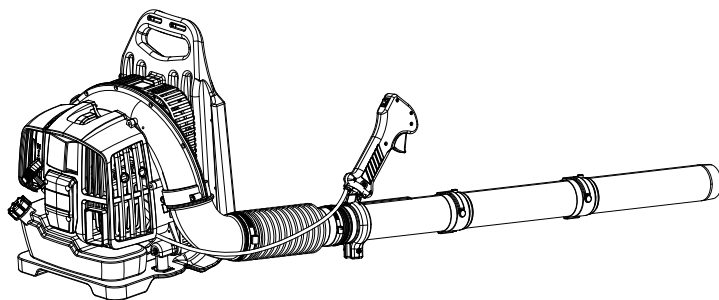
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Register Your Equipment

Thank you for purchasing CARDINAL equipment! Your product is covered by the CARDINAL Warranty Policy, but in order to activate your warranty, we need you to register your product. In addition to activating your equipment warranty, product registration will grant you access to important product updates, streamlined customer service, and more.

INCLUDED WITH YOUR REGISTRATION

- ✓ Equipment Warranty Activation
- ✓ Product Updates
- ✓ Streamlined Customer Service
- ✓ Exclusive Discounts and Sales



STEPS TO REGISTER YOUR EQUIPMENT

1. Visit www.cardinal-sprayers.com
2. Choose “Product Registration” at the bottom of the page
3. Enter your equipment’s serial number to get started
4. Provide all required information
5. Submit Registration

Equipment Resources

CARDINAL Customer Service doesn’t stop at checkout. We understand to keep a job-site running smoothly - the proper equipment, spare parts, instruction manuals, and more are needed at the drop of a hat. Visit www.cardinal-sprayers.com to gain access to the incredible resources below.

How To Video Library

More of a visual person? Visit our Video Library for equipment assembly instructions, troubleshooting tips, and more!

Found on each product listing or the Service Videos Page

Manual and Assembly Guide Library

Visit our Manual Library if you are looking for a lost operations manual or a particular spare part?

Found on each product listing or the Cardinal Manuals Page

Service Requests

In need of a quick fix or a service center referral? Submit a Service Request and a Cardinal Technician will respond shortly to get you the help you need.

Choose “Service Request” at the bottom of www.cardinal-sprayers.com



This manual provides information and procedures to safely operate and maintain this equipment. For your own safety and protection from injury, carefully read, understand, and observe the safety instructions described in this manual.

Keep this manual or a copy of it with the equipment. If you lose this manual or need an additional copy, please contact Cardinal® or visit www.cardinal-sprayers.com This equipment is built with user safety in mind; however, it can present hazards if improperly operated or serviced. Follow operating instructions carefully. If you have questions about operating or servicing this equipment, contact Tomahawk Power.

The information contained in this manual is based on equipment's production at the time of publication. Cardinal® reserves the right to change any portion of this information without notice.

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Any type of reproduction or distribution not authorized by Cardinal® represents an infringement of valid copyrights and will be prosecuted. We expressly reserve the right to make technical modifications, even without due notice, which aim at improving our machines or their safety standards.

1. SAFETY INFORMATION

This manual contains DANGER, WARNING, CAUTION, and NOTE callouts which must be followed to reduce the possibility of personal injury, damage to the equipment, or improper service.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION: Used without the safety alert symbol, CAUTION indicates a

1.1 Operating Safety



Familiarity and proper training are required for the safe operation of equipment! Equipment operated improperly or by untrained personnel can be dangerous! Read the operating instructions contained in both this manual and the engine manual and familiarize yourself with the location and proper use of all controls. Inexperienced operators should receive instruction from someone familiar with the equipment before being allowed to operate the machine.

1.1 General Safety

1.1.1 Read this manual thoroughly before attempting to operate the unit to avoid serious personal injury.

1.1.2 Ensure all operators are mature, properly instructed individuals; never allow children or untrained persons to use the machine.

1.1.3 Keep all bystanders, children, and pets at least 50 feet (15 meters) away from the operating area.

1.1.4 ALWAYS wear protective gear, including long pants, safety shoes, heavy-duty gloves, a hard hat, and safety glasses or a face shield.

1.1.5 Wear high-grade ear protection, as this machine is extremely noisy (116 dB).

1.2 Operational Safety

1.2.1 Use the blower only at reasonable hours to avoid disturbing others; comply with all local noise ordinances.

1.2.2 NEVER point the blower nozzle toward people, animals, open windows, or vehicles.

1.2.3 DO NOT operate the unit in poorly ventilated or confined spaces due to the danger of exhaust fumes.

1.2.4 Stop the engine immediately if you notice unusual vibrations or noise, and inspect the unit for damage.



Poorly maintained equipment can become a safety hazard! In order for the equipment to operate safely and properly over a long period of time, periodic maintenance and occasional repairs are necessary.

1.2.1 DO NOT attempt to clean or service machine while it is running. Rotating parts can cause severe injury.

1.2.8 ALWAYS keep machine clean and labels legible. Replace all missing and hard-to-read labels. Labels provide important operating instructions and warn of dangers and hazards.

1.2.9 ALWAYS check for damaged parts before each use. Carefully check that the screed will operate properly and perform its intended function. Replace damaged or worn parts immediately. Never operate the screed with a damaged part.

1.2.10 ALWAYS inspect prior to placing in storage and before re-use. Store the screed in a dry, secure place out of the reach of children when not in use.

1.2.11 ALWAYS use only accessories that are recommended by the manufacturer for use with the chaser. Accessories that may be suitable for one crack chaser may create a risk of injury when used with the crack chaser equipment.

1.2.12 ALWAYS keep boards clean when not in use and guards in place and in working order.

2. TECHNICAL DATA

2.1 Specifications

Specifications CLB63	
Idle Speed	3,000/min
Idle Speed	6,800/min
Displacement	63 cc (63.3cm ³)
Air volume	635.6 CFM (1080m ³ /h)
Air speed.	196 mph (310km/h)
Power	3.75 (2,8kW)
Spark plug	L7RTC Gap (0.6~0.7) mm
Fuel	Mixed (Gasoline and Two-stroke Oil)
Oil	40:1

2.2 Leaf Blower Product Features

- | | | |
|--------------------|--------------------|------------------------|
| 1. Frame Carrier | 7. Fuel Tank Cap | 13. Flexible Pipe |
| 2. Side Cover | 8. Fuel Tank | 14. Collar For Switch |
| 3. Wind Cover | 9. Easy Starter | 15. No.1 Wind Pipe |
| 4. Spark Plug Cap | 10. Muffler | 16. No.2 Wind Pipe |
| 5. Gasoline Engine | 11. Shock Absorber | 17. No.3 Wind Pipe |
| 6. Starter Handle | 12. Flexible Elbow | 18. Handle With Switch |

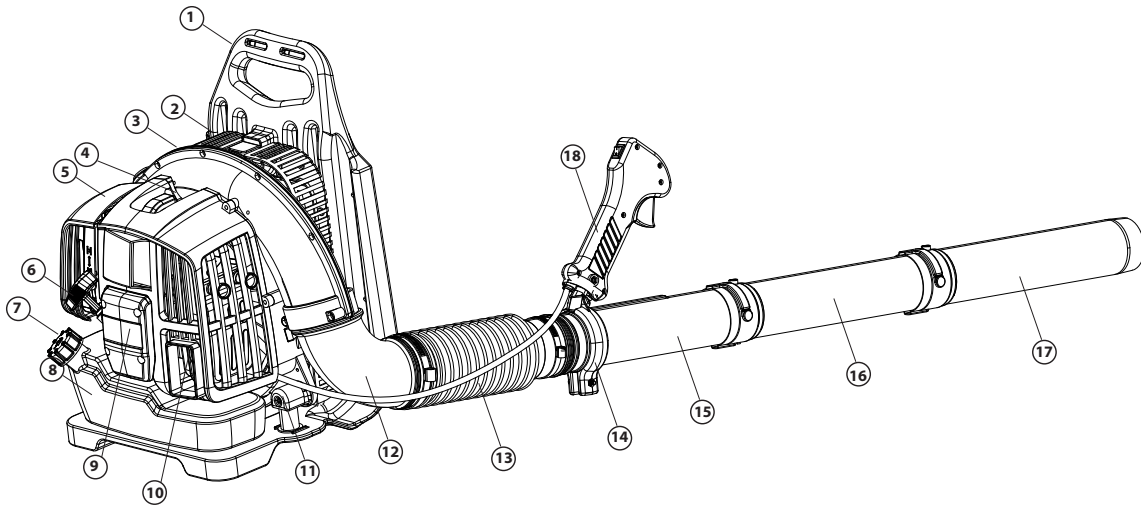


FIGURE 1

3. ASSEMBLY GUIDE

3.1 Assemble The Tube And Handle

3.1.1 Attach the flexible elbow (13) to the pipe angle(12) and the pipe (15) with the clamp (c)(d). **FIGURE 1.**

3.1.2 Attach the handle (18) to the control pipe and put the knob through the handle. **FIGURE 1.**

3.1.3 Attach the No.2 Wind Pipe to the control pipe. **FIGURE 2.**

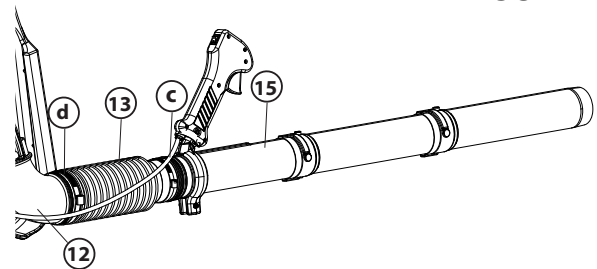
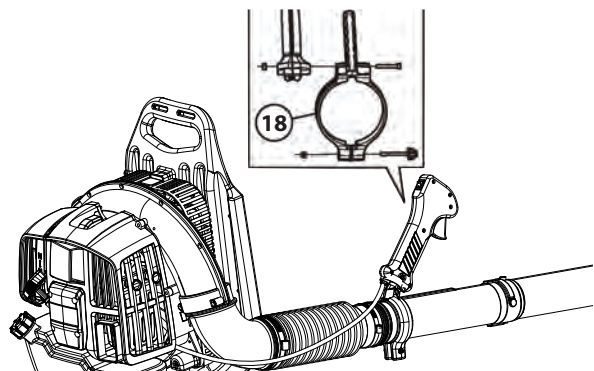


FIGURE 2



3.1.2 Attach the No.3 Wind Pipe to the No.2 Wind Pipe.

FIGURE 3.

3.2 To Adjust The Harness

3.2.1 Put on the leaf blower harness.

3.2.2 Tighten the side straps until the fit is tight against your body. **FIGURE 4.**

3.2.3 Connect the chest strap to the clip.

3.2.4 Tighten the strap.

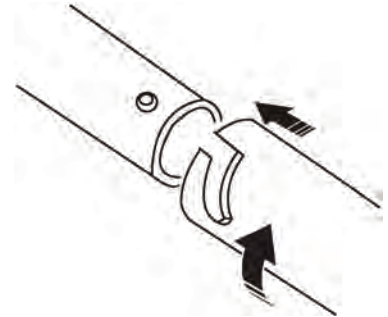


FIGURE 3

4. FUELING AND LUBRICATION

4.1 Mixing the Fuel

4.1.1 Use regular unleaded gasoline mixed with high-quality 2-cycle air-cooled engine oil.

- **Ratio: Mix at a 40:1 ratio**

(Approximately 3.2 fl oz of oil per 1 gallon of gas).

4.1.2 Pour the oil and gasoline into an approved container and shake thoroughly for at least one minute.

FIGURE 4



WARNING

WARNING: Never use straight gasoline; this will cause permanent engine damage and void the warranty.

4.2 Filling the Tank

4.2.1 Place the blower on level ground and clean the area around the fuel cap.

4.2.2 Slowly remove the fuel cap and pour the mixture into the tank, avoiding spills.

4.2.3 Replace the cap tightly and move at least 10 feet (3 meters) away from the fueling area before starting.

5. OPERATIONS

5.1 Cold Starting Procedure

5.1.1 Set the ignition switch on the control handle to the "I" (ON) position. **FIGURE 5.**

5.1.2 Move the choke lever to the "CLOSED" position. **FIGURE 6.**

FIGURE 5

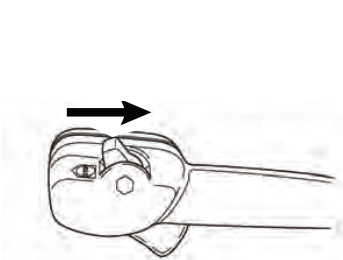


FIGURE 6

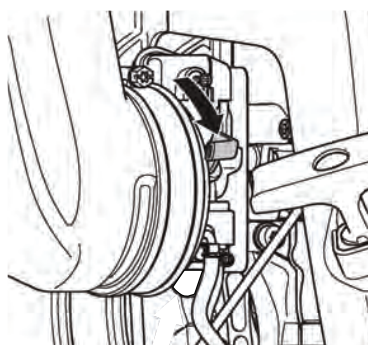
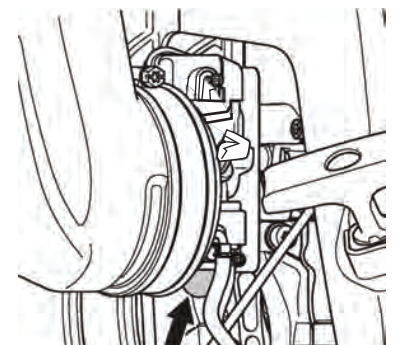


FIGURE 7



5.1.3 Press the primer bulb 10 times until fuel is visible in the clear return line. **FIGURE 7.**

5.1.4 Pull the starter grip firmly 3 to 5 times until the engine starts. **FIGURE 8.**

5.1.5 Once the engine runs, move the choke lever to the "OPEN" position and allow it to warm up. **FIGURE 9.**

5.2 Hot Starting Procedure

5.2.1 Ensure the ignition switch is in the "I" (ON) position.

FIGURE 5

5.2.2 Keep the choke lever in the "OPEN" position. **FIGURE 9.**

5.2.3 Pull the starter rope until the engine fires. **FIGURE 8.**

5.3 Stopping the Engine

5.3.1 Release the throttle trigger and let the engine idle for 30 seconds.

5.3.2 Move the ignition switch to the "O" (STOP) position.

FIGURE 10.

6. STORAGE

6.1 Long-Term Storage (3+ Months)

6.1.1 Drain all fuel from the tank into an approved container.

6.1.2 Run the engine at idle until it stops to clear the carburetor of fuel.

6.1.3 Clean the unit thoroughly, particularly the cylinder fins and air filter.

6.1.4 Store in a dry, locked location out of reach of children.

7. MAINTENANCE

7.1 Air Filter Maintenance (FIGURE 11)

7.1.1 Clean the air filter every 10-15 hours of operation to maintain engine power.

7.1.2 Loosen the two screws on the filter cover and remove the element.

7.1.3 Wash the filter in warm, soapy water, rinse, and let it dry completely before reinstalling.

FIGURE 8

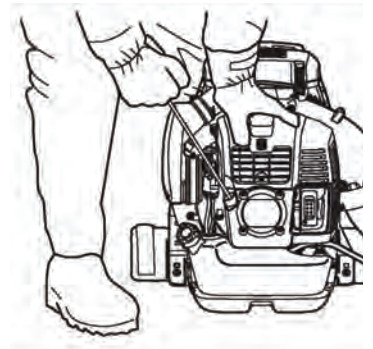


FIGURE 9

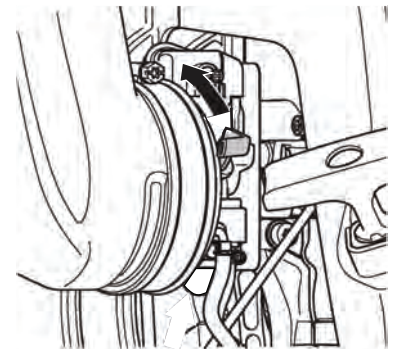


FIGURE 10

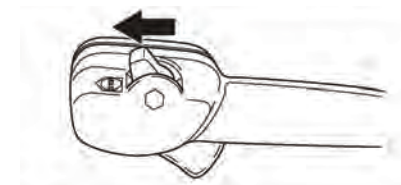
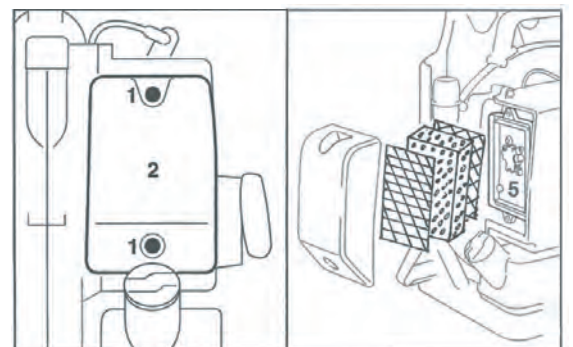


FIGURE 11



7.2 Checking the Spark Plug

If engine is bogging down, difficult to start or runs poorly at idle speed first check the spark plug.

- Remove the spark plug - see "Starting / Stopping the Engine"
- Check electrode gap(0.6-0.7 mm) and readjust if necessary .

7.3 Maintenance Record

Cardinal[®] tools are assembled with care and will provide years of service when properly maintained. Preventative maintenance and routine service are essential to the long life of your equipment. Adhere to reading through this manual thoroughly. You will find that you can do some of the regular maintenance yourself. However, when in need of parts or major service, be sure to contact a Cardinal[®] Technician. For your convenience we have provided this space to record relevant data about your Cardinal[®] equipment.

Invoice Number:		Type of Machine:	
Date Purchased:		Dealer Name:	
Serial Number:		Dealer Phone:	

REPLACEMENT PARTS USED					MAINTENANCE LOG	
PART NO.	DESCRIPTION	QTY	COST	DATE	DATE	OPERATION

8. REPLACEMENT PARTS

8.1 For replacement parts and technical questions visit www.cardinal-sprayers.com

8.2 Not all equipment components are available for replacement. The illustrations within this manual are a convenient reference to the location and position of parts in the assembly sequence.

8.3 When ordering parts, the following will be required: equipment model number, serial number/lot, date code, and description.

9. EQUIPMENT WARRANTY

Your new Cardinal® equipment is warranted to the original purchaser for a period of one-year (12 months) from the original date of purchase. The Cardinal® warranty is against defects in design, materials and workmanship.

The following are not covered under the warranty:

9.1 Damage caused by abuse, misuse, dropping or other similar damage caused by or as a result of failure to follow assembly, operation or user maintenance instructions.

9.2 Alterations, additions or repairs carried out by persons other than Cardinal® or their recognized agents.

9.3 Transportation or shipment costs to and from Cardinal® or their recognized agents, for repair or assessment against a warranty claim, on any machine.

9.4 Materials and/or labor costs to renew, repair or replace components due to fair wear and tear.

9.5 Cardinal® and/or their recognized agents, directors, employees or insurers will not be held liable for consequential or other damages, losses or expenses in connection with or by reason of or the inability to use the machine for any purpose.

9.1 Warranty Claims

Before submitting any warranty claim, you will need to register your new Cardinal® equipment through www.cardinal-sprayers.com or email support@cardinal-sprayers.com.

Follow the steps on page 3 or scan this QR codes to complete the equipment registration. After registration is complete, all warranty claims should firstly be directed to Cardinal® through the online Service Request form found at www.cardinal-sprayers.com/pages/service-request.



10. SERVICES CENTERS

Our service centers are equipped to handle your equipment maintenance and repair needs efficiently. With a network of authorized local service locations , you can find expert support and genuine parts needed to keep your equipment running smoothly. All locations are listed on the webpage <https://www.cardinal-sprayers.com/pages/find-a-service-center>.

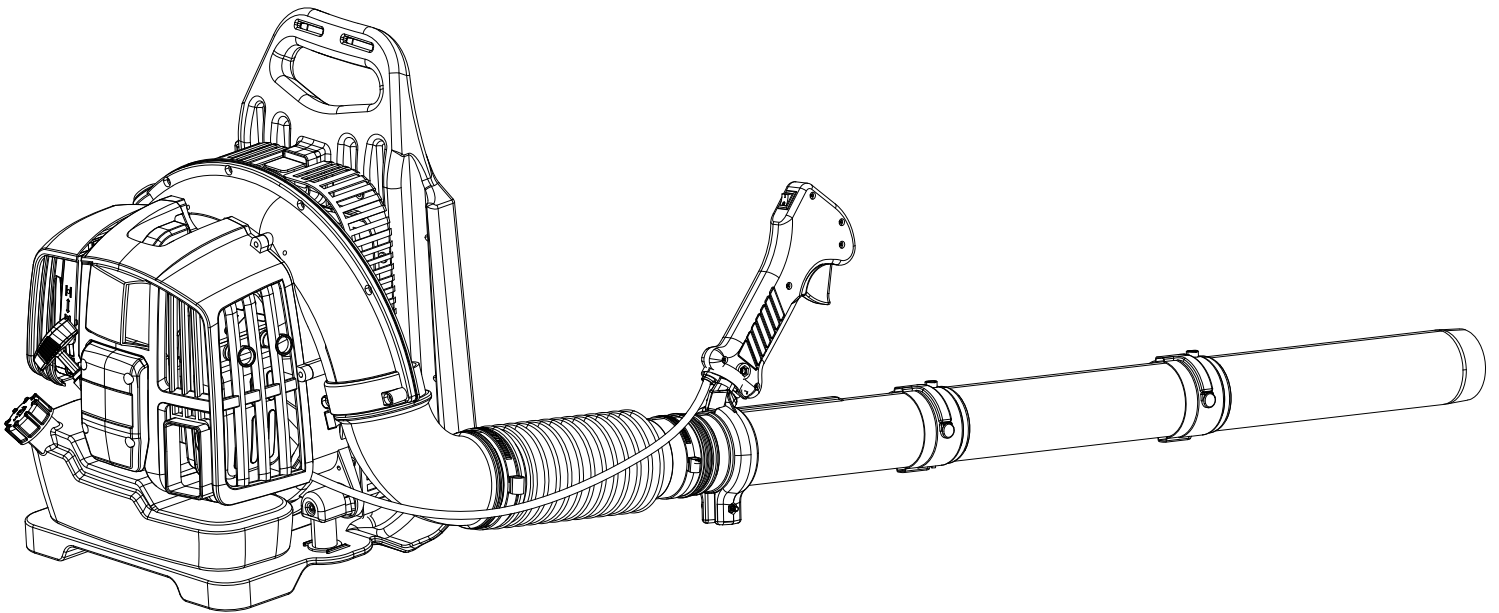
For Service Call (866) 577- 4476

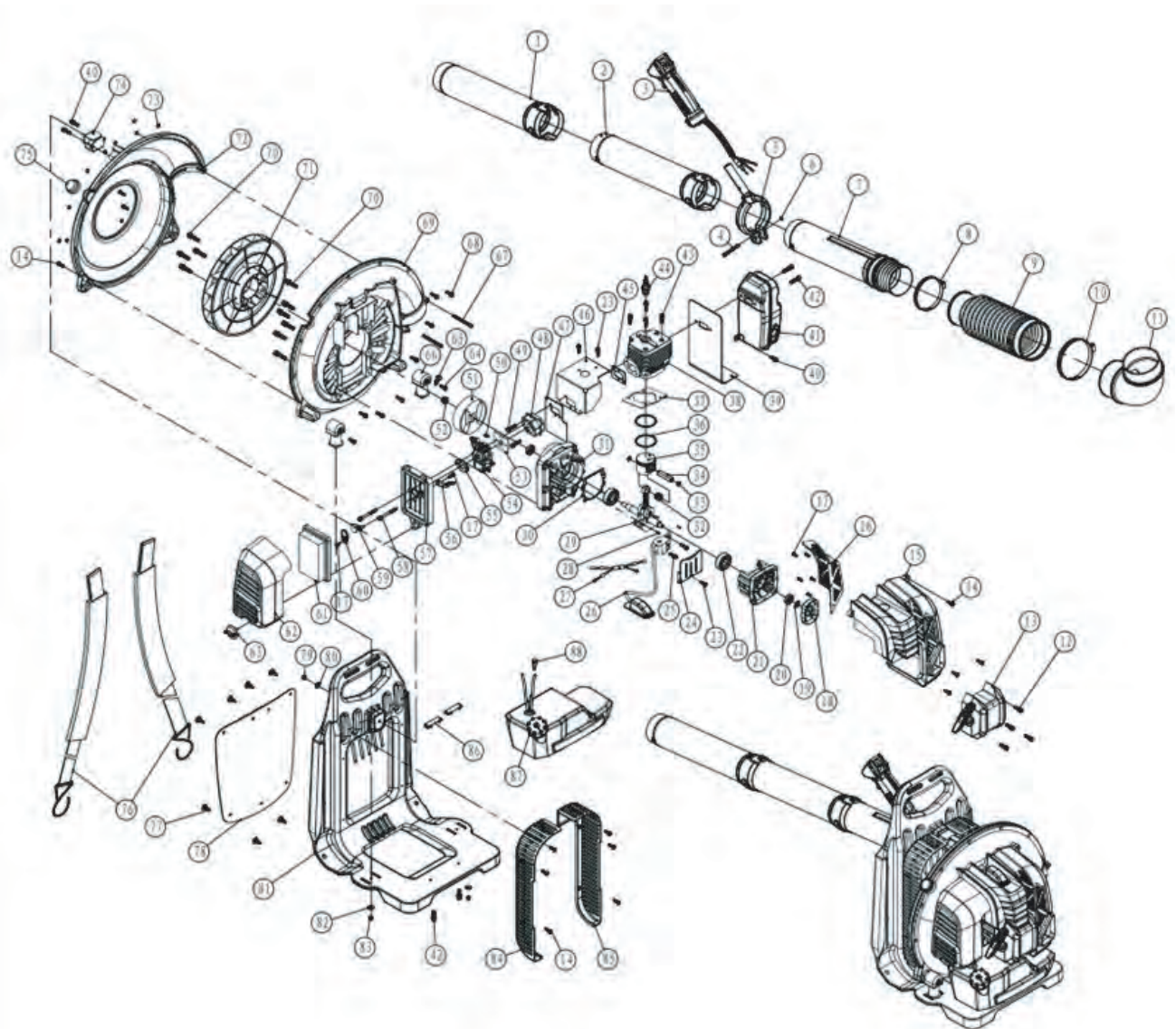
CARDINAL

BACKPACK LEAF BLOWER

MODEL NUMBER: CLB63

Parts Manual





ITEM NO.	DESCRIPTION	UNIT	ITEM NO.	DESCRIPTION	UNIT	ITEM NO.	DESCRIPTION	UNIT	ITEM NO.	DESCRIPTION	UNIT
1	Long Tube	1	23	Screw M5*12	3	45	Paper Pad	1	67	Screw M5*70	1
2	Long Tube	1	24	Ignition Coil Cover	1	46	Air Deflector	1	68	Screw M5*16	1
3	Switch Handle	1	25	Screw M4*20	2	47	Big Paper Pad	1	69	Black Wind Cover	1
4	Screw M6*45	1	26	Ignition coil	1	48	Intel Pipe	1	70	Screw M6*30	1
5	Handle Holder	1	27	Off Line	1	49	Screw M6*45	2	71	Wind Wheel	1
6	Buttery Nut M6	1	28	Round 5*10	2	50	Half Round Key 3*13	1	72	Front Wind Cover	1
7	Swivel Pipe	1	29	Crankshaft	1	51	Fly Wheel	1	73	Nut M5	1
8	House Band	1	30	Crankshaft Paper Pad	1	52	Nut M10*1.25	1	74	Knapsack Damping	1
9	Flexible Pipe	1	31	Left Case	1	53	Carburetor Paper Pad	1	75	End Cap	1
10	House Band	1	32	Niddle Bearing	1	54	Carburetor	1	76	Straps	1
11	Elbow	1	33	Piston Pin Spring	2	55	Paper Pad of Filter Holder	1	77	Plastic Clip	4
12	Screw M6*20	4	34	Piston Pin	1	56	Choke Lever	1	78	Knapsack cushion	1
13	Starter	1	35	Piston	1	57	Ar Filter Holder	1	79	Nut M5	13
14	Screw 5*16	13	36	Piston Ring	2	58	Screw M5*50	2	80	Flat Washer 5	1
15	Housing	1	37	Cylinder Paper Pad	1	59	Choke Cover	1	81	Knapsack	1
16	Mesh	1	38	Cylinder	7	60	Choke Valve	1	82	Flat Washer M6	7
17	Screw M4*8	7	39	Muffler Paper Pad	1	61	Air Filter	7	83	Nut M6	1
18	Driving Plate	1	40	Screw M5*16	1	62	Air Filter Cover	1	84	Left Protect Net	1
19	Flat Washer 8	1	41	Muffler	2	63	Rotary Knob	1	85	Right Protect Net	2
20	Oil Seal	2	42	Screw M6*20	1	64	Screw M5*70	2	76	Straps Buckle	1
21	Right Case	1	43	Screw M5*22	2	65	Wire Clip	1	88	Oil Bottle	2
22	Bearing 6302	1	44	Spark Plug	3	66	Base Damping	2	89	Balancer	3

CARDINAL



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Cardinal Utility Carts are your perfect solution for heavy-duty transportation tasks. This cart is engineered for superior performance, featuring a powerful 350W motor and a high-capacity 40V 6Ah battery.



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**40V 6AH BATTERY
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The Cardinal 1.25 Amp Electric Plate Compactor is built to soil compaction projects with precision and ease. Powered by a 120V electric motor, it eliminates the need for gas, making it an environmentally friendly alternative to traditional compactors. Perfect for patios, driveways, walkways, and landscaping, this compact machine features a lightweight design and ergonomic controls to ensure smooth operation and reliable results.



Item #: eJXPC20

**15 X 12 ELECTRIC
PLATE COMPACTOR**

www.cardinalsprayers.com



Power Your World

Cardinal understands to keep a job-site running smoothly the proper equipment and spare parts are needed at the drop of a hat. With same day shipping and faster delivery times, count on Cardinal to keep you powered throughout the day! With long lasting parts and engines, Cardinal equipment will be the star of your fleet for years to come. Visit www.cardinal-sprayers.com to get started today!

CARDINAL

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San Diego, CA

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support@tomahawk-power.com

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