

Tow-Behind Attachment Blower



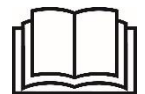
OPERATOR'S MANUAL

Debris Blowers for the professional
Blow the Competition Away...



WARNING

READ AND UNDERSTAND THIS **OPERATOR'S MANUAL** COMPLETELY BEFORE USING THIS ATTACHMENT. ASSEMBLE, TEST AND USE ONLY IN ACCORDANCE WITH THE OPERATOR'S MANUAL INSTRUCTIONS.






We would like to thank you for your purchase of our professional grade Brave Pro high output debris blower. All our products are fabricated and assembled using quality parts and heavy gauge steal materials in our Bellevue, Ohio facility. The machine you have is designed to provide many years of service.

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Applications and uses:

The versatility of the Brave Pro Blower makes it ideal for a wide range of uses. Blowing leaves, drying tennis courts, blowing grass clippings, cleaning parking lots, cleaning driveways and sidewalks, snow in some cases and blowing thatch from golf course greens and tees.

This manual provides information for safe and efficient operation and service. It is important that you read and understand this manual before operating your blower.



 **Warning:** The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. For more information refer to www.P65Warnings.ca.gov.


Service Information:


Engine: Refer to the enclosed Engine Manual provided by the engine manufacturer or an authorized repair facility for replacement parts and engine warranty.

Blower Components: Contact your local Brave Pro dealer.

Safety Information:

 **WARNING:** This symbol indicates important safety instructions. When you see this symbol,  pay special attention to its warning!! Stay Alert!!

 **WARNING:** TO REDUCE THE POTENTIAL FOR ACCIDENTS, ALWAYS COMPLY WITH THE SAFETY INSTRUCTIONS IN THIS MANUAL. FAILURE TO DO SO MAY RESULT IN PERSONAL INJURY AND / OR EQUIPMENT AND PROPERTY DAMAGE.

 **WARNING:** IMPROPER USE OR CARE OF THE BLOWER, FAILURE TO WEAR PROPER SAFETY PROTECTION CAN RESULT IN SERIOUS INJURY. READ AND UNDERSTAND THE RULES FOR SAFE OPERATION AND ALL INSTRUCTIONS IN THIS MANUAL. WEAR HEARING AND EYE PROTECTION AT ALL TIMES WHEN OPERATING THIS BLOWER.


Safety Decal



Ensure safety labels are in place, visible and in good condition.


General Safety Rules

Read and understand the operator's manual. Pay specific attention to all areas pertaining to safety. Keep your operator's manual in a secure place.


 **WARNING** --- KEEP CHILDREN, PETS, and BYSTANDERS AWAY ---Do not permit children to touch blower. Keep children a safe distance away from work area. Never allow a person under the influence of alcohol or drugs to operate the blower.


DO NOT OVERREACH OR STAND ON UNSTABLE SURFACES when operating the blower. Keep good footing at all times.


WHEN OPERATING MULTIPLE MACHINES ---Keep a safe distance between operators when working simultaneously.

 **DANGER** Misuse of blower or failure to follow all safety precautions may result in serious injury to the operator or others. Read and understand the following before attempting to operate this blower!!!


Warnings - - Do NOT Do!

 DANGER ROTATING FAN --- KEEP HANDS AWAY. DO NOT attempt to clear debris of any sort from the intake area or discharge area of the blower while the engine is running.


 DO NOT touch the exhaust muffler if the unit has been run recently as it will be very hot and cause burns.


 DO NOT place hands or feet around the unit during operation. There are several potential pinch points that could cause injury. When activated with the remote control, the rods that open and close the gates move and can cause injury.

 DO NOT RIDE ON THE UNIT – it is designed to carry itself and nothing more.

 DO NOT POINT THE BLOWER DISCHARGE OUTLET in the direction of people, cars, glass, or other items which could be injured or damaged by flying debris.

DO NOT ATTEMPT TO REPAIR BLOWER --- repairs should be made by an authorized Brave Pro Dealer. Make sure that only Brave Pro and recommended engine manufacturer's parts are used.

 DO NOT bend the connecting rods as they are calibrated to actuate the control gates properly. Any adjustments made will decrease efficiency and may burn out the actuator motor.

 Do not open the electronics module as it will void the warranty. Contact the Brave Pro manufacturer for options if you lose the remotes supplied. Returning a working module to the manufacturer will reduce repair/replacement costs.

1) Warnings - - Do

BE SURE BLOWER IS PROPERLY ASSEMBLED --- Never operate the blower without all guards and deflectors in place. Make sure all hardware is properly tightened and secure.


KEEP HANDS AWAY FROM AIR INTAKE AND AIR OUTLET CHUTES.

ALWAYS KEEP THE THROTTLE (if equipped) IN THE "IDLE" POSITION AND ENGINE SHUT OFF WHEN NOT IN USE.

DRESS PROPERLY --- Do not wear loose clothing or jewelry. These items can be pulled into moving parts. Safety glasses and ear protection are required.

MAINTENANCE IS IMPORTANT --- Follow the routine maintenance instructions provided in this manual and your engine manual to extend the useful life of your blower.

2) Engine / Fuel Warnings

 DANGER, HANDLE FUEL WITH CARE, IT IS HIGHLY FLAMMABLE. FUELING A HOT ENGINE OR NEAR AN IGNITION SOURCE CAN CAUSE FIRE AND RESULT IN SERIOUS PERSONAL INJURY AND / OR PROPERTY DAMAGE.

Do not smoke when handling fuel.


B) Do not refuel an engine that is hot or running.

C) Do not refuel indoors or in a poorly ventilated area.

D) Do not start or run indoors as poisonous carbon monoxide and other noxious gasses are emitted.

E) Do not operate in a poorly ventilated area.

F) Avoid spilling fuel or oil.

 WARNING - All debris blowers are shipped without oil. When filling with oil, refer to the engine manufacturers operating instructions for proper type and amount.

Blower Assembly Instructions

The Brave Pro Tow-Behind Blower is shipped mostly assembled for your convenience.

2} The tow-arm requires 4 bolts to attach to the blower housing assembly. There are two options for this assembly, a pin clevis or 2" ball hitch. All units are shipped with the pin clevis version. Reach out to your Brave Pro dealer if you are interested in the ball hitch version.



Position the tow-arm so the blower housing is as level as possible with the ground when attached to the tow machine. This will provide the best performance. The tow arm and wheels have some adjustment if more or less ground clearance is desired. Note: lowering the unit could cause difficulties when towing over uneven ground and may bottom out the unit on an obstruction.

Impeller Removal

This procedure should only be performed at a qualified dealer

If removal is required, refer to the manufacturer for instructions.

Operating Instructions

Refer to engine manual for engine operation. **Remember to add oil to the engine as it is shipped without oil!**

Follow the directions in the engine manual for proper oil and quantity.

Maneuverability of the blower and direction control using the remote (buttons C and D) increases productivity significantly. Using the throttle control (buttons A and B) on the remote at Idle can move smaller amounts of debris without blowing into unwanted areas.

Leaves, thatch, debris and other materials can be directed into a wind-row or piles making clean up easier and faster.

Use caution when moving backward so as not to jack-knife the unit.

The horizontal discharge deflectors direct the air downward to “chisel” under wet heavy leaves and litter. Slight changes in deflector angle will have a big effect on air direction and flow. Experiment until you find the best performance for your circumstances.

Keeping the engine recoil and blower intake free from debris will help the performance. It is recommended to shut the engine off to clear debris. Caution: Exhaust muffler will be hot if the unit has been run for any length of time. Do not touch it! Keep flammable materials off.

3) Maintenance Instructions

Keep all nuts, bolts and screws tight.

Never store the blower with fuel in the tank inside a building or confined space where fumes can accumulate and potentially ignite.


Engine - Refer to the manufacturers operating instructions regarding fuel recommendations, starting and storage.

All safety labels should be inspected and clearly visible to the operator.

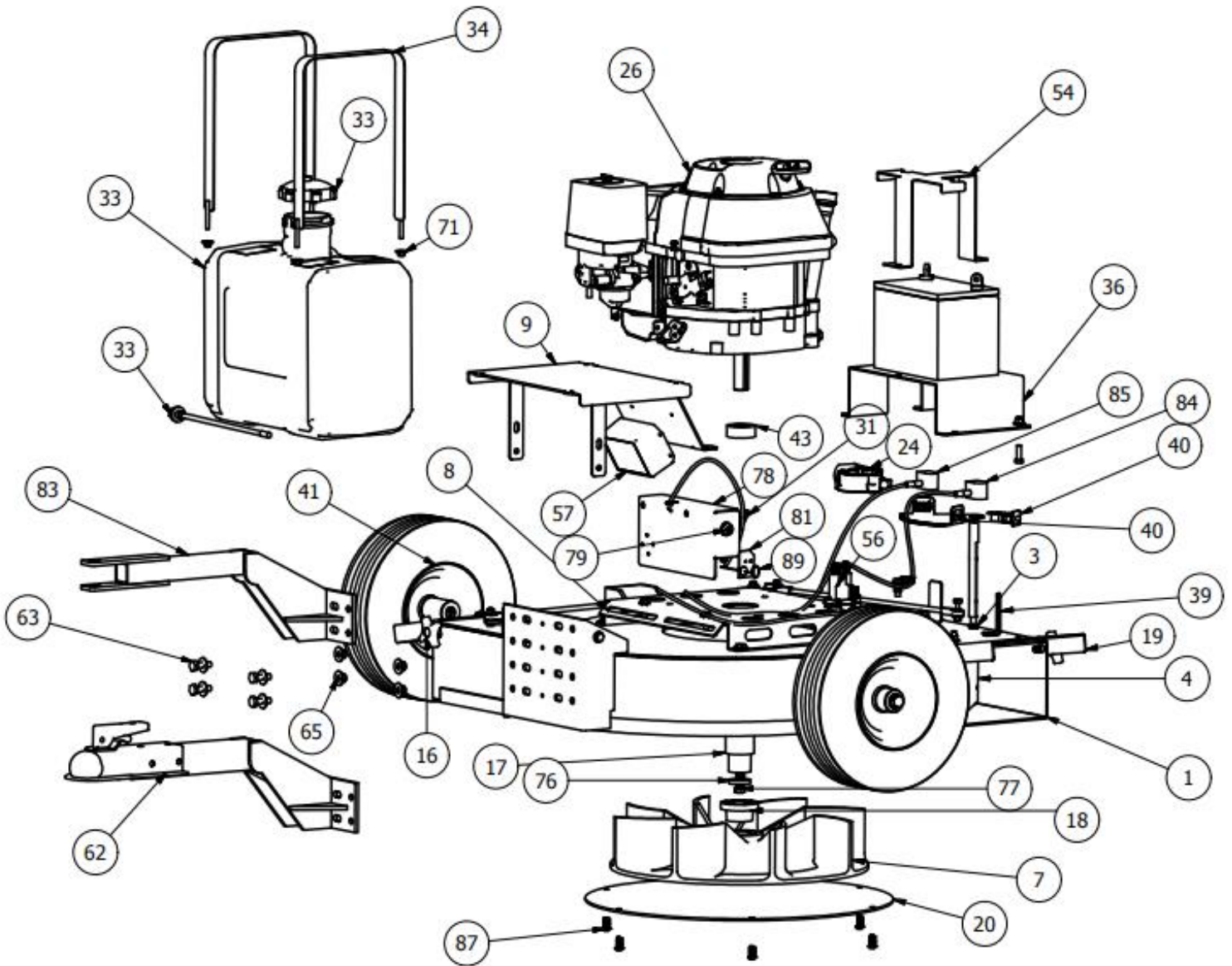
To prevent accidental starting, disconnect the spark plug wire when servicing engine or blower.

Check oil regularly.

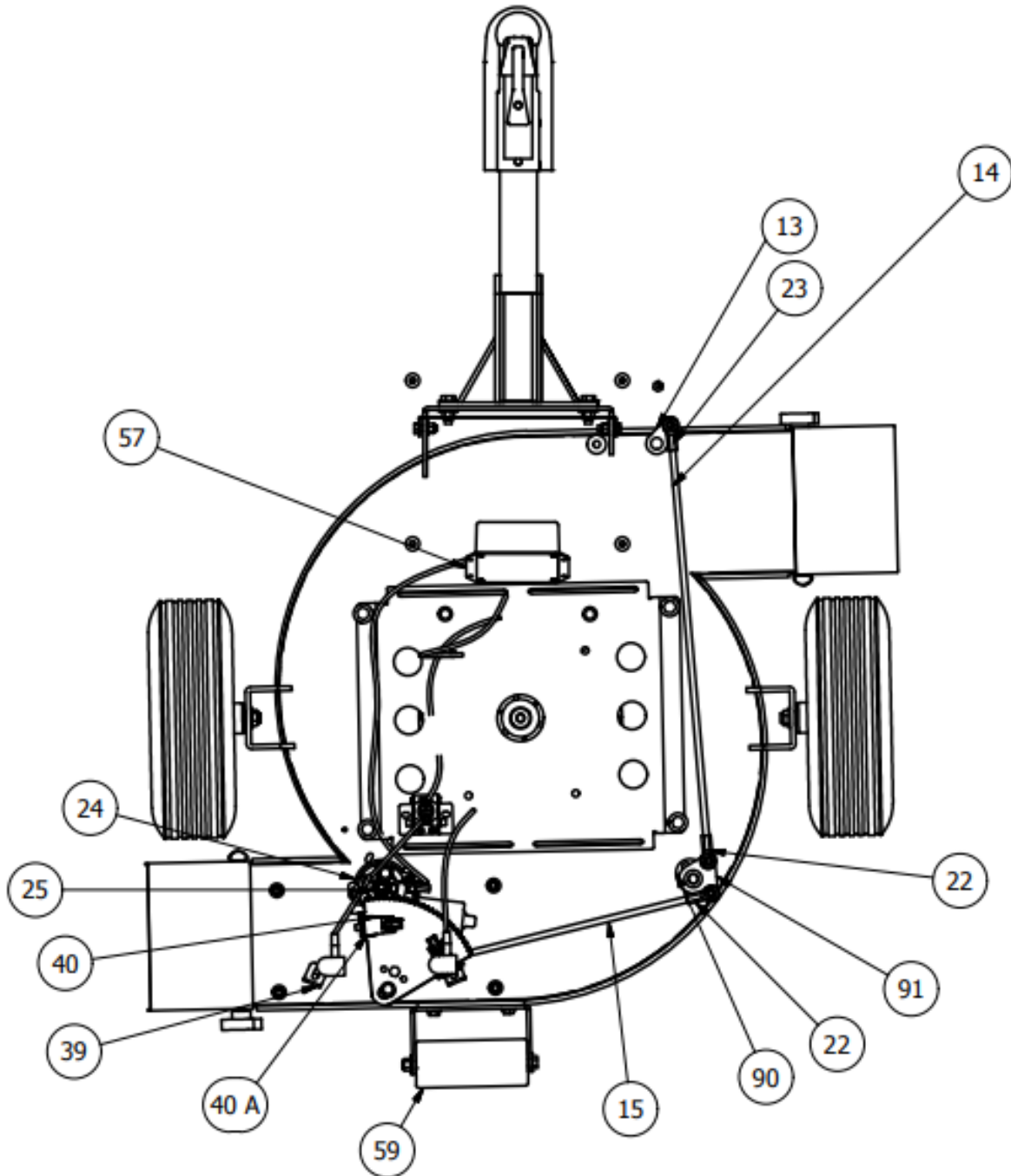
Grease the wheel bearings annually or more often if the unit is run through standing water (not recommended) or in wet conditions.

 **Warning:** The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Parts Illustration



Mechanical Linkage View





Parts List

Item	Part Number	Description	Qty
1	BR12663	LST Tow Housing Assembly	1
3	12693	Washer, Nylon, Thrust	4
4	BR12664	Internal Baffle	2
7	11431	Impeller, 18"	1
8	BR12665	Motor Riser Plate	1
9	BR12675	Fuel Tank Mount	1
13	BR12689	Baffle Rod Assembly	1
14	BR12691	Rod, 5/16 x 21.75, Left/Right Thread	1
15	BR12692	Rod, 5/16 x 13.5, Left / Right Thread	1
16	12694	Knob, Phenolic	2
17	12696	Shaft Extension, Machined	1
18	12659	Bushing, Taper, 9/16	1
19	BR12679	Discharge Flap	2
20	BR12680	Cover, Bottom Plate	1
22	12684	Rod End, Left Thread	2
23	12685	Rod End, Right Thread	2
24	12657	Motor, Gate Actuator	1
25A	12658	Gear, Pinion, Part of 12657	1
25B	12681	Clip, E, used with 1265	1
26	12697	Engine, Honda GXV-390	1
28	12697	Spacer, Throttle Plate, Honda Engine	2
31	12676	Actuator	1
33	12357	Tank, Fuel, 6 Gal	1
34	12702	Strap, Tank	2
36	BR12668	Cover, Gear / Battery Base	1
39	BR12698	Switch Stop	2
40	12690-1	Gear Assembly	1
40A	12370	Switch, Gear Assembly	2
41	BR12678	Assembly, Wheel 13-500x6, PNU,	2
43	12677	Spacer, Shaft Extension, 2 x 1 x 3/4	1
52	12704	Spacer, Gear Motor	2
53	Battery	Customer Supplied	
54	12460	Battery Holddown Bracket	1
56	12710	Starter Solenoid	1
57	12708	ECM Module, W/2 Remote Controls	1
59	BR12666	Bracket, Anti-Scalp	1
59A	12667	Roller, Anti-Scalp	1
62	BRLST-BH1	Tow Arm, Ball, Option	Option
63	11535	Bolt, 3/8-16 x 1.25	4
64	11155	Washer, 3/8	18
65	11150	Nut, 3/8-16, Nylon	8
66	11080	Bolt, 3/8-16 x 1	4
67	11815	5/16-18 x 1	14



68	11156	Washer, Flat, 1/4	28
69	11905	Nut, Nylon, 5/16-18	14
70	11151	Nut, Nylon, 1/4-20	10
71	11845	Washer, 1/4-20 USS	10
72	11994	Screw, Thumb	2
73	11830	Bolt, 1/4-20 x 1	4
74	12754	Cap, End, 1/2	2
75	11148	Bolt, 1/4-20 x 3/4	2
76	12703	Washer, 1/4 Plate, Impeller	1
77	12423	Bolt, GR8, Impeller	1
78	BR12674	Plate, Throttle Control, Honda	1
79	12660	Switch, Ignition	1
81	BR12673	Fab, Choke Plate, Honda	1
82	12672	Grommet, Choke	1
83	BRLST-PH1	Assembly, Tow Arm, Pin Hitch, Standard	1
84	12465	Terminal Protector, Red	1
85	12464	Terminal Protector. Black	1
86	12746	Harness, Main, LST	1
87	12700	Bolt, Hex, Button Head, 5/16- x 3/4	6
89	12705	Rod, Choke Control	1
90	BR12686	Bell Crank Base	1
91	BR12687	Bell Crank	1







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Dear Valued Customer:

The Brave product you just purchased is built with the finest material and craftsmanship. Use this product properly and enjoy the benefits from its high performance. By purchasing a Brave product, you show a desire for quality and durability. Like all mechanical equipment this unit requires a due amount of care. Treat this unit like the high-quality piece of machinery it is. Neglect and improper handling may impair its performance.

Thoroughly read the instructions and understand the operation before using your product. Always contact Brave Product Support at 1-800-350-8739 prior to having any service or warranty work performed, as some services performed by parties other than Brave approved service centers may void this warranty. This limited warranty is in lieu of any other warranty expressed or implied, written, or oral and Brave assumes no other responsibility or liability outside that expressed within this limited warranty.

Limited Warranty for Brave Blowers:

Model BRPB180HE

	Consumer Warranty Period	Commercial Warranty Period
Weldments	2 years from date of purchase by user	2 years from date of purchase by user
Wear Parts	In addition to the normal warranty, Brave shall warrant some normal wear items from defects in material or workmanship for a period of 30 days from the date of purchase by user. Normal wear items covered under this warranty are limited to: High impact wear related components such as standard retention hardware for wear items, chains, bits, sprockets, bearings, belts and bushings, centrifugal clutch components such as shoes, springs, drum and rotor assembly, rotors, rubber drapes or flaps, drive, and driven pulleys. Routine maintenance items such as lubricants, clutch adjustments, tune ups are not covered under warranty.	
Engines	The engine warranty is covered under the terms and conditions as outlined by the engine manufacturer's warranty contained herein and is the sole responsibility of the engine manufacturer. Normal engine maintenance such as spark plugs, oil changes, air filters, adjustments, fuel system cleaning and obstruction due to build up is not covered by this Brave limited warranty.	

“Consumer use” means personal residential household use by a consumer. **“Commercial use”** means all other uses, including, but not limited to, use for commercial, income producing or rental purposes or when purchased by a business.

This limited warranty applies to the original purchaser of the equipment (verification of purchase, in the form of a receipt, is the responsibility of the buyer), is non-transferable, and covers parts and labor. Parts will be replaced or repaired at no charge, except when the equipment has failed due to lack of proper maintenance. If a part is no longer available, the part may be replaced with a similar part of equal function. Any misuse, abuse, alteration or improper installation or operations will void the warranty. Determining whether a part is to be replaced or repaired is the sole decision of Brave. Brave will not provide replacement of complete products due to defective parts. Any costs incurred due to replacement or repair of items outside of a Brave approved facility are the responsibility of the buyer and not covered under warranty. Transportation costs to and from the service center and/or service calls are the responsibility of the customer.

This limited warranty specifically excludes the following: failure of parts due to damage caused by accident, fire, flood, windstorm, acts of God, applications not approved by Brave in writing, corrosion caused by chemicals, use of replacement parts which do not conform to manufacturer's specifications, damage related to rodent and/or insect infestation and damage caused by vandalism. Additional exclusions: loss of running time, inconvenience, loss of income, or loss of use, including any implied warranty of merchantability of fitness for a specific use. Also, outdoor power equipment needs periodic parts and service to perform well, and this limited warranty does not cover instances when normal use has exhausted the life of a component or the engine.

This limited warranty does not cover any personal injury or damage to surrounding property caused by failure of any part, misuse, or inability to use the product. Alteration of the product, including safety features, shall void this limited warranty.

Repair or replacement of parts does not extend the warranty period. This limited warranty gives you specific legal rights. You may also have other rights that vary by state. Please have model number, item number and serial number on hand prior to making a warranty claim or inquiry.



BRAVE

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