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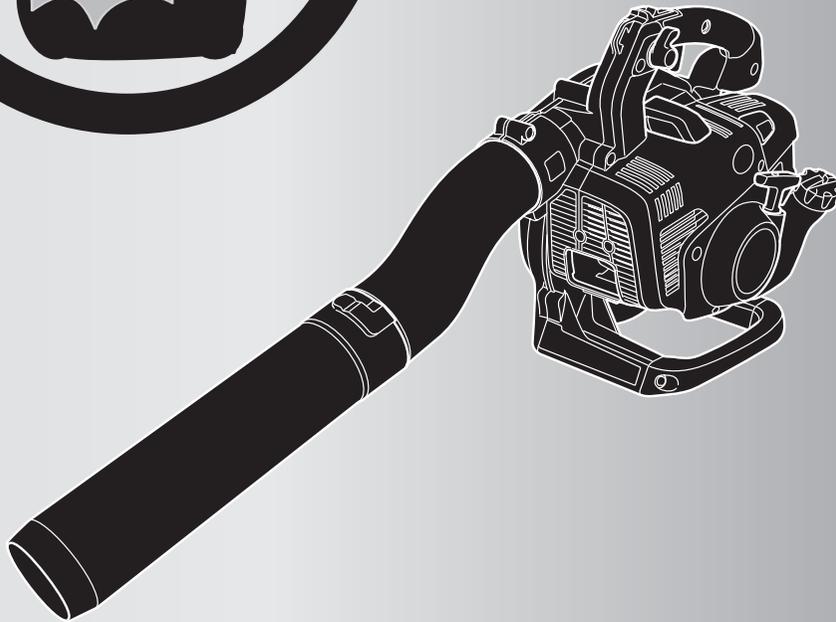
Original Instruction

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## OWNER'S MANUAL

## BLOWER



# HBZ260EZ

### WARNING



- This instruction manual contains information required when using the product, with important precautions for preventing accidents and product handling information. To ensure safe product use, read this manual carefully and understand its content before starting to use the product. Be sure to store this manual in a readily accessible location after reading.
- Electrical parts may cause fire or injury if precautions are not followed.

## Symbols on the machine

The below symbols are indicated on the blower for safe operation and maintenance of the blower. Be sure to comply with the precautions associated with these symbols to **prevent operation errors**.

Display location	Symbol	Meaning
Fuel tank cap		Indicates the fuel port and that the fuel type is blended gasoline.
Stop switch		Indicates that operating the stop switch in the direction of the arrow will stop the engine.
Choke lever		Indicates that lifting the choke knob closes the choke.
Top of air cleaner cover left side	<b>H</b>	Indicates that the screw below the symbol is the high-speed needle.
	<b>L</b>	Indicates that the screw below the symbol is the low-speed needle.
	<b>T</b>	Indicates that the screw below the symbol is the idle adjustment screw.
Bottom of air cleaner cover left side		Indicates that pressing the primer pump will fill the carburetor with fuel.

# Before Getting Started

Thank you for your purchase of a Zenoah product. This instruction manual describes the correct product handling procedures, along with simple inspection and maintenance procedures.

Be sure to read this manual carefully and fully understand its content before use. It is designed to help you make the most of the outstanding performance of your Zenoah product, and ensure the smoothest operation.

In addition, be sure to store this manual in a readily accessible location after reading, and refer to it if you have questions in future. Note that product specifications changes may result in the content of this manual becoming inapplicable to the product you have purchased.

## IMPORTANT SAFETY INFORMATION

Precautions listed in this manual and the warning labels (  symbol) placed on the product indicate critical information warning of a potential injury hazard. Always read and comply with these warnings.

If the product warning label becomes disfigured or peels off, be sure to order a replacement from your place of purchase and reapply it in the proper location.

### ■ Caution symbols

This manual uses the following symbols to indicate important handling precautions.

 <b>DANGER</b>	:	Indicates a precaution that will result in death or serious injury if disregarded.
 <b>WARNING</b>	:	Indicates a precaution that may result in death or serious injury if disregarded.
 <b>CAUTION</b>	:	Indicates a precaution that may result in injury if disregarded.
<b>IMPORTANT</b>	:	Indicates a precaution that may result in mechanical damage or failure if disregarded.
<b>NOTE</b>	:	Indicates helpful supplementary usage information.

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## Precautions for Ensuring Correct Use

Before using the product, read this manual carefully and understand its content to ensure correct product handling. Precautions designed to ensure smooth operation are provided below. Other precautions are provided as needed in the text next to the following warning symbol .

### ■ Before using the product

- Before use, read this manual to familiarize yourself with the product's functions and handling precautions.
- This blower is designed mainly for cleaning work consisting of blowing fallen leaves or scattered litter outdoors. To prevent unforeseen accidents, do not use it for purposes other than its intended application.
- This product operates by generating a high-speed air current, and is dangerous if operated incorrectly. Do not use the product when fatigued or suffering from another physical impairment, when taking cold medicine, while under the influence of alcohol, or when your judgment or ability to do precise operations may be impaired. Never permit the use of the product by those unable to understand the content of this manual, by pregnant women or by children.
- The engine's exhaust gas contains toxic carbon monoxide, which is harmful for human body. Do not use the product indoors, or in greenhouses, tunnels or other locations of poor ventilation. 
- Do not use the product in the following cases:
  1. When holding or operating the product normally may be difficult, such as due to the risk of falling.
  2. In fog, at night or in other situations when poor visibility makes checking safety around the work area difficult.
  3. In bad weather (such as rain, high winds or thunder).
- 4. When litter blown during the work could harm or damage nearby people or property.
- Before using the product for the first time, have an experienced user instruct you on its handling, or practice using it in a wide open area away from potential hazards to familiarize yourself with its operation before starting work.
- Concentration diminishes as fatigue rises, which can lead to accidents. Plan adequate work breaks. Work for no more than 30 to 40 minutes at a time, followed by a 10- to 20-minute break. In addition, limit your work time to no more than 2 hours per day.
- Store the product out of reach of small children.
- Carry the following equipment to be prepared for accidents or injuries:
  1. First-aid kit
  2. Towel or rag to stop bleeding
- The product emits an electromagnetic field during operation that may interfere with pacemakers or other medical devices. To reduce the risk of death or serious injury, wearers of pacemakers or other medical devices should check with their physician or device manufacturer before using the product.
- Be sure to retain this manual for future reference such as when questions arise.
- Be sure to always provide this manual when transferring or lending the product to another user.



## Precautions for Ensuring Correct Use

### ■ Clothing/equipment during use

- Before using the blower, make sure your clothing is appropriate for outdoor work. Wear a work cap, gloves and appropriate footwear. Wearing dustproof goggles, ear plugs (ear protection) and a dust mask is recommended for protection against dust and operation noise while working. To avoid danger, do not work in loose clothing, when barefoot, or in sandals or clogs.



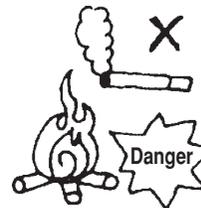
- Do not wear clothing or accessories that could be sucked into the air intake. Tie up long hair to prevent it being sucked into the air intake.

### ■ Transport precautions

- Do not transport the product for extended journeys over bad roads with fuel in the tank. The cap may become loose, causing fuel to leak out.
- When transporting the product by vehicle, fasten the product body securely to the vehicle's storage area with ropes or cables. To avoid danger, do not transport the product by bicycle or motorcycle.

### ■ Fuel precautions

- The product's engine runs on blended gasoline, which contains highly flammable gasoline. Do not fuel the product or store fuel containers for it in locations where the fuel could ignite, such as near incinerators, burners, open fires, cooking stoves, electric sparks or welding sparks.
- Using or fueling the product while smoking is dangerous and should never be done.



- Fueling the product or filling fuel storage containers should be done outdoors on flat ground. Fueling the product in a poorly ventilated indoor location may result in vaporized fuel catching fire.
- If a spill occurs when fueling the product, wipe off all the fuel on the product body before starting the engine.
- If you need to fuel the product during use, always stop the engine and check there are no nearby open flames before fueling it.
- After fueling the product, close the fuel container, then move at least 10 feet (3 meters) away before starting the engine.
- After fueling the product, close the fuel tank cap securely and make sure no fuel has leaked.



## Precautions for Ensuring Correct Use

### ■ Usage precautions

- Before starting the engine, inspect the product's parts. If you find any problems such as loose screws, cover damage, fuel leaks or controls not working properly, discontinue use and give the product a complete service.
- Before starting work, check the state of the work area and surrounding areas, and take appropriate steps to prohibit entry by people or vehicles if there is a risk of them entering the work area. Move or cover any easily damaged items in the area.
- Keep at least 15 m (50 ft) away from people in the area while working, and keep children and animals away from the work area.
- To prevent the risk of unforeseen accidents or fires, never point the blower outlet toward nearby people, open fires, incinerators, stoves or cookers while the engine is running.
- Always stop the engine when taking a work break, refueling or inspecting the product.

- To prevent the risk of electric shock, do not touch the spark plug or cords while the engine is running.



- To prevent the risk of burns, do not touch hot parts such as the muffler, muffler cover, cylinders or spark plugs while the engine is running or before it has cooled after being stopped.



### ■ Servicing precautions

- To maintain product functions, carry out the inspection and servicing procedures in this manual before and after use and at periodic intervals.  
If a service or part replacement procedure not described in this manual is needed, contact your place of purchase or nearest Zenoah authorized dealer.
- Always stop the engine during inspection or servicing.
- Do not operate the blower with the air intake guard removed. Operation in this state creates a risk of contact with the high-speed rotating blower fan, and is extremely dangerous.
- Do not disassemble or modify the blower or engine.  
The product may become damaged during operation, creating the risk of serious accidents.
- When replacing parts or refilling oil, use genuine Zenoah parts or designated products.

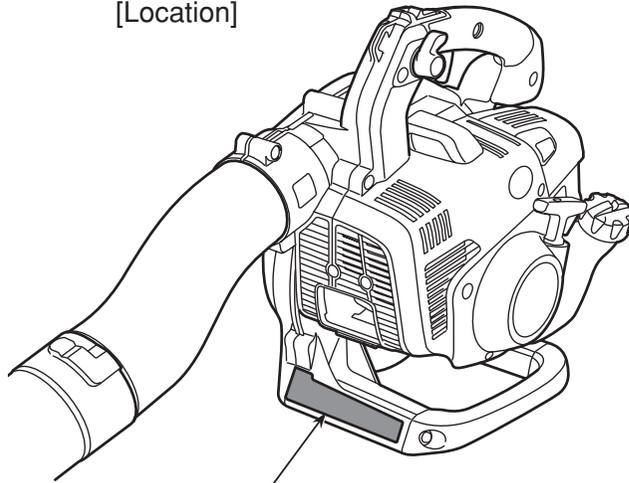




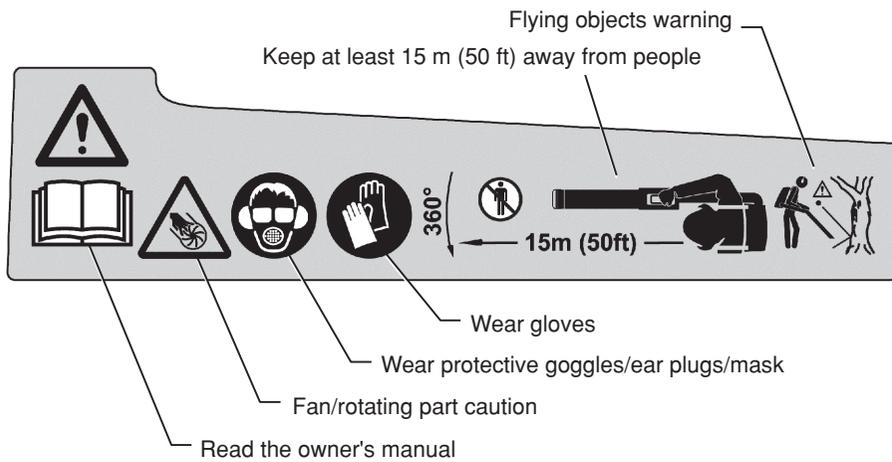
## Precautions for Ensuring Correct Use

### ■ Product warning label location and maintenance

[Location]



No. 588841601



[Label maintenance]

- (1) Always keep the warning label clean and undamaged.
- (2) If the warning label becomes disfigured or peels off, order a new one from your place of purchase and replace the old label with it.
- (3) Before applying a new warning label to the product, wipe off all the dirt in the area and dry the surface. Apply the new label in the same location as the old one.

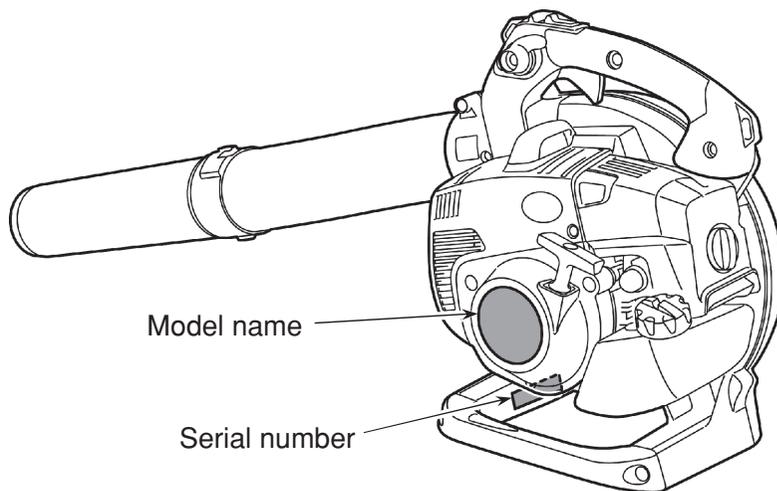
# Service and Warranty

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## Inquiries

Product inquiries and requests for consumable parts or service can be made at your place of purchase.

Have your model name and serial number (see diagram below) ready when making inquiries. If you have any concerns or feedback about the product, technical issues or other points, feel free to contact Zenoah's authorized dealer. The contact information is given on the back cover of this manual.



## Availability of product supplies

Service parts for the product will continue to be available for a period of eight years after the end of production. However, delivery dates and other particulars for special parts may be subject to special arrangements even during this period. In general, service parts will no longer be supplied after the end of this period, but requests for supply of parts after this period may be arranged subject to delivery date and price conditions.

 <b>WARNING</b>	<p>Modifying the product is dangerous. Never modify the product in any way. Note that modifying the product or using it for applications other than the proper usage objective described in the instruction manual will void the manufacturer's warranty.</p>
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## Main Product Specifications

Name/model		Zenoah Handheld Engine Blower HBZ260EZ
Body dry weight (*1) [kg]		3.9 (3.7)
External dimensions (*2)	Total length (mm)	330
	Total width (mm)	220
	Total height (mm)	345
Fuel tank capacity [L]		0.45
Blower (*3)	Operating engine speed [rpm]	3000 to 7300
	Maximum air flow rate [m <sup>3</sup> /min]	13
	Maximum air speed [m/sec]	73
Engine	Engine type	Single-cylinder air-cooled two-cycle gasoline engine
	Displacement [cm <sup>3</sup> ]	25.4
	Fuel used	Lubricating blended gasoline
	Lubricant used	Two-cycle engine oil
	Carburetor	Butterfly type
	Ignition system	Digital control (CDI)
	Spark plug	NGK BPMR8Y
	Starter system	Recoil starter
	Shut-off system	Short-circuiting system (slide switch) on the ignition circuit primary side

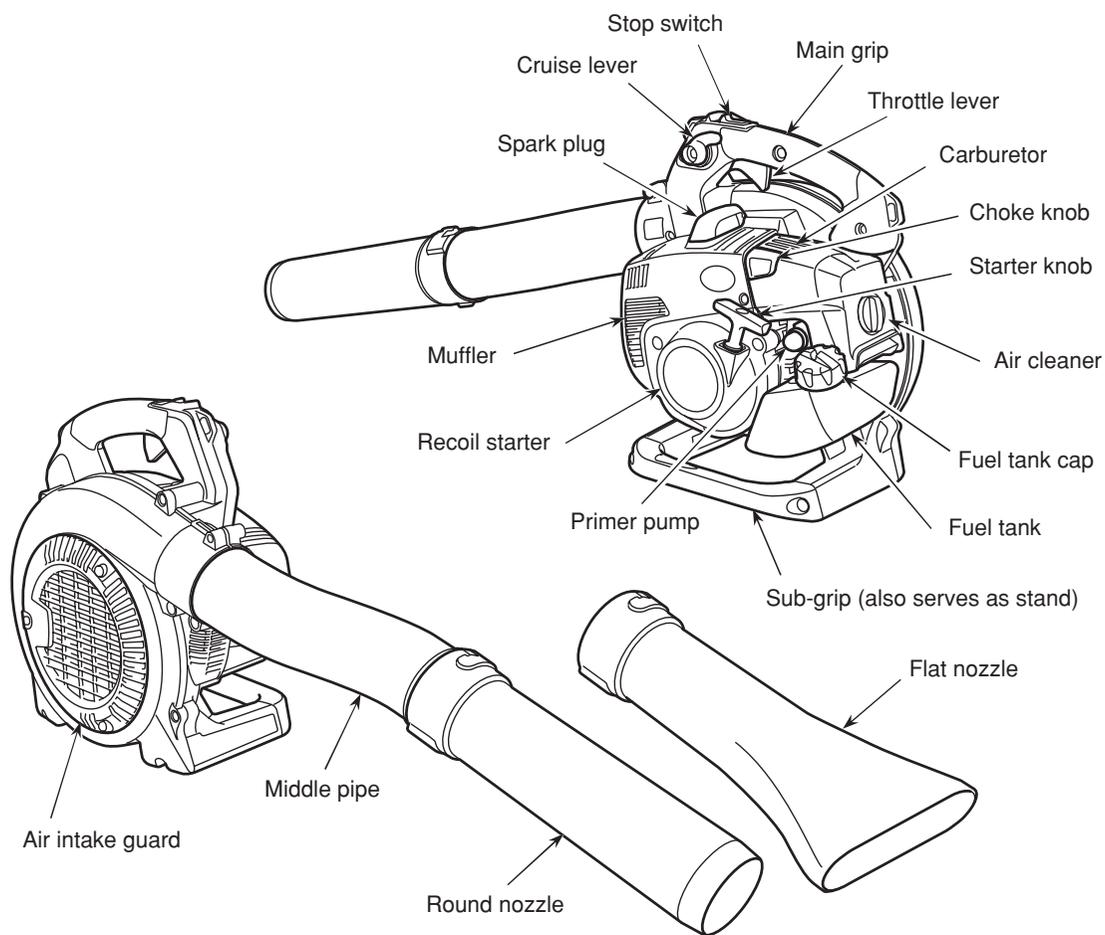
(\*1) Not including fuel; number in parentheses ( ) indicates weight without blower pipes.

(\*2) Dimensions without blower pipes.

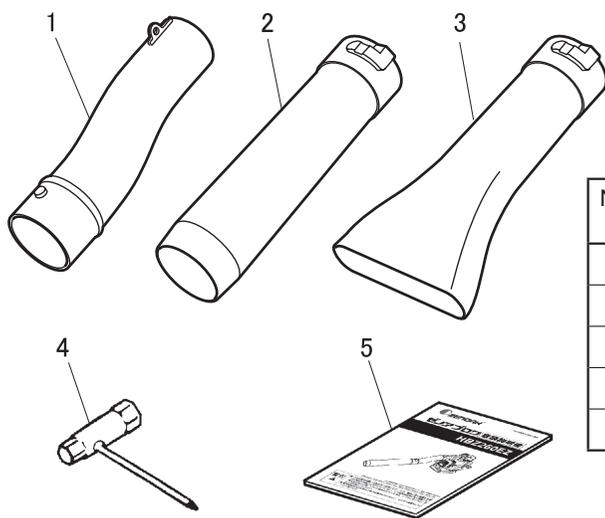
(\*3) With round nozzle mounted.

Note that product specification details may differ from those shown here due to upgrades or alterations.

## Names of Parts



## Standard Accessories



Number in diagram	Part number	Name	Quantity
1	586018201	Pipe	1
2	586018501	Round nozzle	1
3	586232001	Flat nozzle	1
4	588841401	Socket wrench	1
5	115762894	Owner's manual	1

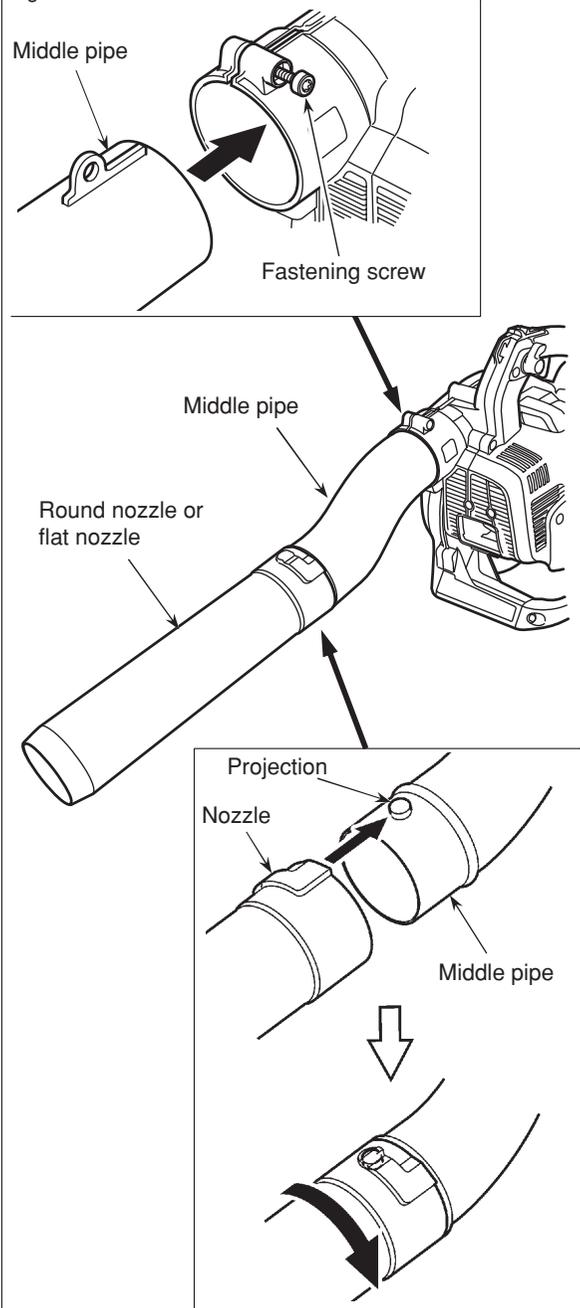
# Assembly

## Blower pipe connection

### NOTE

The connection procedure is the same for both the round nozzle and flat nozzle. Select the nozzle type according to the application.

Figure 1



1. Loosen the fastening screw on the body's pipe mount.

**NOTE** The fastening screw cannot be removed from the body.

2. Insert the middle pipe, aligning the screw hole projection on its top with the slit in the pipe mount. Fix the middle pipe in place by tightening the fastening screw.
3. Insert the nozzle, aligning the groove on its end with the projection on the middle pipe. Turn the nozzle clockwise to lock it in place.

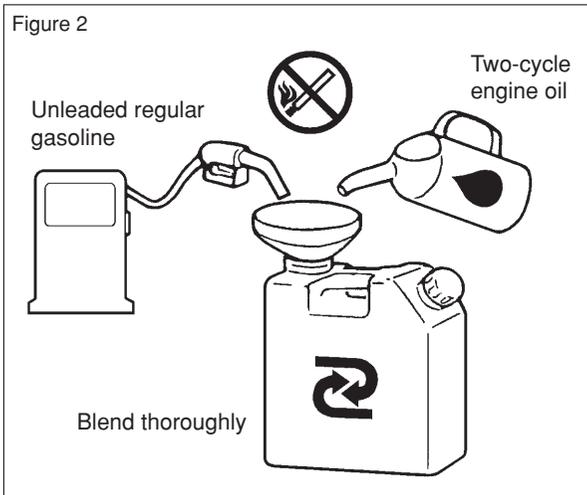
# Fuel

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 <b>DANGER</b>	<ul style="list-style-type: none"> <li>● The fuel is highly flammable and can result in fires if handled incorrectly. Vaporized fuel can explode and cause fatalities.</li> <li>● Never smoke or allow open flames in vicinity when blending fuel.</li> <li>● Blend fuel outdoors.</li> <li>● Do not place the blower or fuel containers near open fires, burners or other sources of open flames.</li> </ul>
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 <b>WARNING</b>	<ul style="list-style-type: none"> <li>● Before opening the fuel tank cap, remove any static charge that may have accumulated on the product or refueling container by placing them on the ground or a similar method.</li> <li>● Do not use a metal funnel when fueling the blower. Static electricity may be discharged to the fuel and result in fire.</li> <li>● When opening the fuel tank, open it slowly to let the pressure in the tank escape.</li> <li>● If you find fuel leakage or seepage around the fuel pipe, fuel grommet or fuel tank, discontinue use immediately and request repair from your place of purchase.</li> <li>● Place fuel for refueling in a shaded location away from open flames.</li> <li>● Store extra fuel in a portable metal gasoline can.</li> <li>● Use a portable metal gasoline can when transporting fuel.</li> </ul>
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<b>IMPORTANT</b>	<ul style="list-style-type: none"> <li>● Using gasoline not blended with oil (raw gasoline) will cause the engine to seize. Make sure the fuel is the correct type when fueling the blower.</li> <li>● Prolonged exposure to UV or high temperatures will cause the fuel to degrade and deteriorate, resulting in starting failure and insufficient power. The blended fuel used by the blower should be completely used within 30 days.</li> <li>● Using fuel with water in it will cause corrosion to the carburetor and engine. Prevent water from coming into contact with the blower or fuel containers.</li> <li>● Do not use four-cycle engine oil, as it can promote spark plug damage, piston ring sticking or muffler clogs.</li> <li>● To prevent engine malfunctioning, do not use a non-designated oil or mixing ratio.</li> </ul>
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Use fuel made by blending unleaded automotive gasoline and air-cooled two-cycle engine oil. Blend the fuel in a mixing container in the ratio below, shaking the container to blend thoroughly.

**Mixing ratio**

- When using genuine ZENOAH two-cycle oil (FD class)
  - ..... **50:1**
  - (20 milliliters of oil per liter of gasoline)
- When using genuine ZENOAH two-cycle oil (FC)
  - ..... **40:1**
  - (25 milliliters of oil per liter of gasoline)

Alternatively, you can use oil of the 'FD' JASO performance class mixed in a ratio of 50:1 and blended well.

## Fueling the Blower

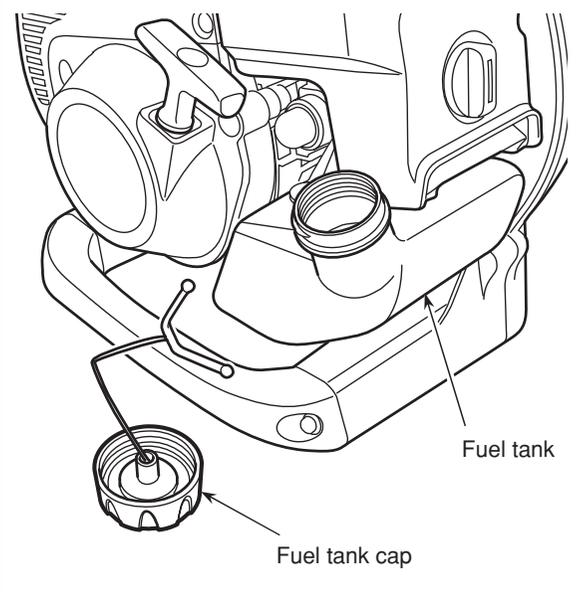


- Supply fuel to the fuel tank outdoors on flat ground. Keep open flames away and extinguish smoking materials before fueling the blower.
- Always stop engine and wait for it to cool before fueling the blower while working.
- Fasten the fuel tank cap securely.
- If a spill occurs when fueling the blower, wipe off any spilled fuel with a cloth before starting the engine.

### IMPORTANT

Fill the fuel tank to no more than the 80 percent of the full capacity. Overfilling the fuel tank may cause fuel leaks from the fuel tank cap during operation.

Figure 3



1. Before fueling the blower, place it on flat ground outdoors, and stabilize it.
2. Loosen the fuel tank cap slightly to equalize the pressure difference inside and outside the tank.
3. Remove the fuel tank cap, and fill the fuel tank gradually up to the 80 percent of the full capacity.
4. When you have finished fueling the blower, fasten the fuel tank cap securely and check there is no fuel leakage.

## Starting the Engine



- After fueling the blower, move it at least 3 m (10 ft) away from where it was fueled before starting the engine. Starting the engine where the blower was fueled creates the risk of fire from fuel igniting.
- To prevent the risk of carbon monoxide poisoning, do not start the engine indoors or in poorly ventilated environment.

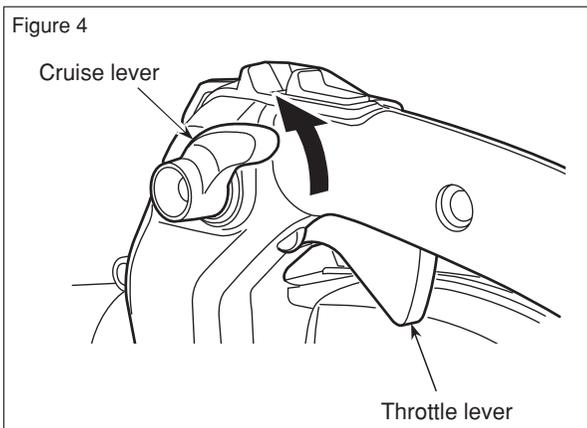


- When starting, stopping or moving the engine, always set the throttle lever to the idling position.
- When stopping or moving the engine, always set the stop switch to the stop position.



- If a spill occurs when fueling the blower, wipe off any spilled fuel thoroughly with a cloth before starting the engine.
- Before starting the engine, inspect the blower parts to ensure there are no problems such as loose screws, throttle lever malfunctions or fuel spills.
- When starting the engine, place the blower on the ground and support it securely.
- To prevent the risk of burns, do not touch hot parts such as the muffler, muffler cover, cylinder or spark plug while the engine is running or before it has cooled after being stopped.
- To prevent the risk of electric shock, do not touch the spark plug or plug cord during operation.
- Starting the engine generates a high-pressure air current, so make sure no one is in front of the nozzle before starting the engine.

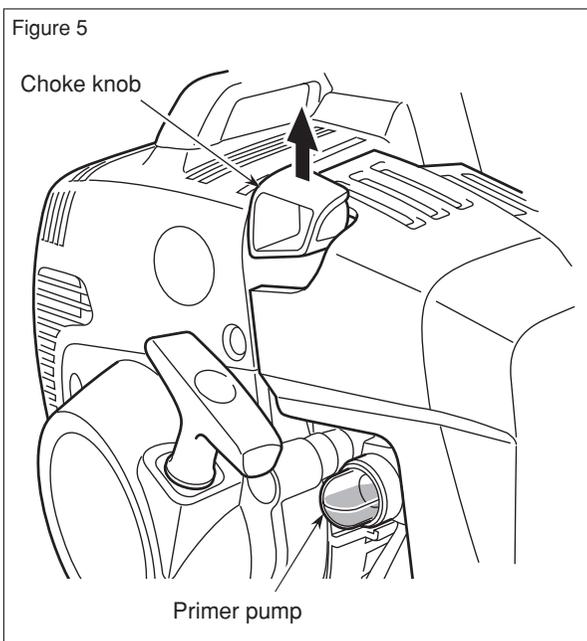
Figure 4



1. Set the cruise lever to the 'Start' position.

**NOTE** The throttle lever also moves to the 'Start' position together with the cruise lever.

Figure 5



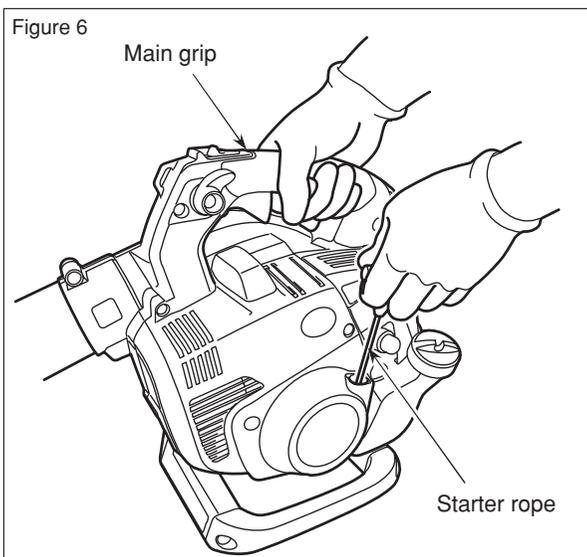
2. Press and release the pump with a finger repeatedly until fuel appears in the primer pump.

**NOTE** You do not need to operate the primer pump when restarting the engine immediately after stopping it when there is still fuel in the tank.

3. Pull out the choke knob to close the choke.

**NOTE** when restarting the warm engine, it makes engine Idle speed higher and starting / acceleration smooth that to pull out and press in the choke knob before hand.

Figure 6

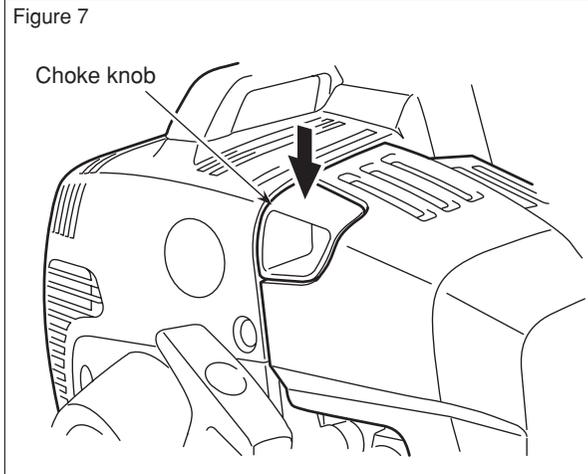


4. Grasp the main grip with your right hand, and secure the blower on a stable ground surface.

5. Pull the starter knob with your left hand. Pull out the starter knob lightly at first, then quickly and forcibly when it becomes heavy. Pull the starter knob repeatedly until the engine starts (up to 5 times).

**IMPORTANT** To prevent starter failure, do not pull the rope all the way out, or return the starter knob after letting go of it. Do not wind the starter rope around your hand.

Figure 7



6. Press in the choke knob to open the choke.

7. Pull the throttle trigger gradually to make engine speed higher.

**NOTE** This blower has a linkage structure that pulling out choke knob makes Idle speed higher. When pulling out the choke knob once, Idle speed is kept higher even after pressing in the knob. Pulling throttle lever release the higher speed setting.

**IMPORTANT** Repeatedly trying to start the engine with the choke closed may cause the spark plug's electrode to get wet and prevent the engine starting. In this case, open the choke and set the throttle lever to nearly the fully open position. Pull the starter rope repeatedly, or remove the spark plug and dry the electrode before trying to start the engine again.

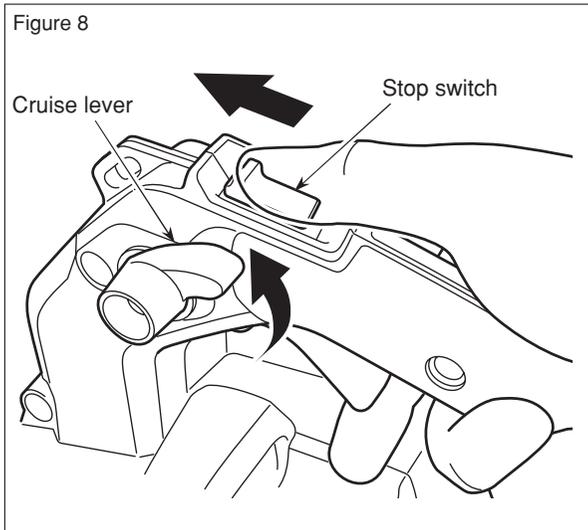
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## Stopping the Engine

  
**CAUTION**

- Stop the engine immediately in an emergency.
- To prevent the risk of burns, do not touch hot parts such as the muffler, muffler cover, cylinder or spark plug before the engine has cooled after being stopped.

Figure 8



1. Return the cruise lever to the idling position.

2. Press the stop switch to the STOP position until the engine stops.

**NOTE** Continue pressing the stop switch until the engine stops completely.

## Operating the Blower



The engine becomes hot during operation. Even when the engine has cooled to a touchable temperature, extended contact may result in burns. Work should be done in the correct posture to prevent elbows or other body parts contacting the engine even through clothing.



When operating the blower, be sure to operate it correctly in conformance with the precautions given in 'Precautions for Ensuring Correct Use' in this manual (on pages 1 to 4).

### ■ General precautions



Pay attention to the surrounding environment.

- If another worker approaches your work area, keep the blower's throttle at the idling position until you can move a safe distance away.
- Do not point the blower at people, animals, playgrounds, open windows or vehicles.
- Stop the engine immediately if someone other than a worker gets too close to the work area (near than 15 m (50 ft)).



Do not use the blower if it will not be possible to get help in case of an emergency.

- Do not permit unauthorized entry by people or animals into the work area (the area extending 49 feet (15 meters) around you).
- Wait until the engine has cooled sufficiently before refueling the blower.
- Do not touch hot parts such as the muffler, muffler cover, cylinder or spark plug while working.
- To prevent the risk of electric shock, do not touch the spark plug or ignition cable while the engine is running.
- Do not use the blower's air current to blow rocks or other hard objects. They may rebound and cause injury.
- Do not point the blower at people or animals.
- Always stop the engine when mounting the middle pipe or nozzle.
- Do not use the blower in poor weather conditions (such as heavy fog, heavy rain, high winds or extreme cold).
- Check the state of the work location (check for obstacles such as tree roots, rocks, branches, ditches, etc.). Take great care when working on sloping ground.
- When leaving the blower with the engine on, always place it where it can be easily seen.
- The engine's exhaust gas contains carbon monoxide, which is toxic. Do not use the blower indoors or in other poorly ventilated environment.
- Do not use the blower from ladders or other locations of poor footing.

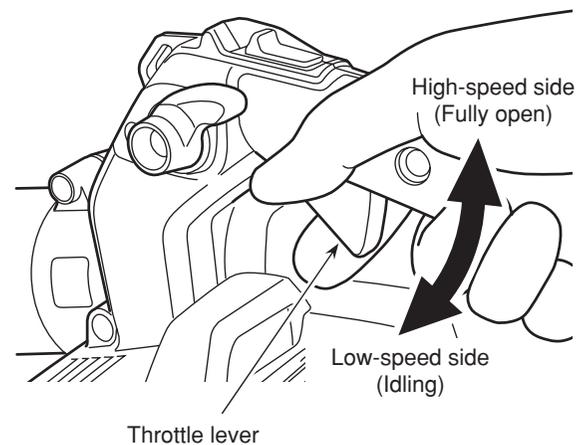
## ■ Operating the throttle lever (air speed adjustment)

### IMPORTANT

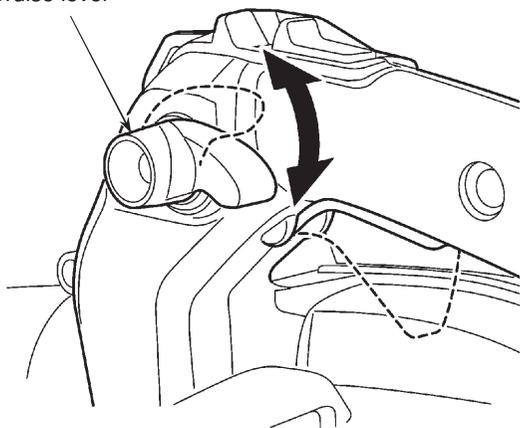
Do not perform operations that seem beyond your skill level. Request help from your place of purchase.

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Figure 9



Cruise lever



Gradually depressing the throttle lever with your index finger increases the air speed (engine speed). The blower is at full throttle when the lever is fully depressed. Adjust the air speed to the appropriate level for the work as need.

- The blower has a cruise lever. The throttle lever is connected to the cruise lever, which can be moved to adjust the air speed. When the cruise lever is set, the air speed is kept after you release the throttle lever.

## ■ Blower work



- Rocks, litter or other flying objects may strike eyes and cause blindness. Always wear protective goggles.
- If another worker approaches your work area, keep the blower's throttle at the idling position until you can move a safe distance away.
- Do not permit children, animals or other non-workers to enter the work area (near than 15 m (50 ft)). Stop the engine immediately if someone gets too close.

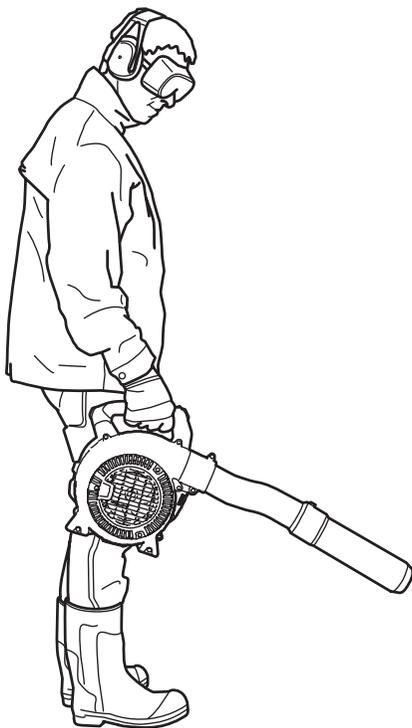


- Check that the air intake is not blocked by leaves or litter before starting work. A clogged air intake will lower the blower's output performance, increasing the engine temperature and causing engine trouble.
- Keep the blower's nozzle and middle pipe away from open flames.

### IMPORTANT

Minimize the disturbance to area residents by avoiding use of the blower late at night or early in the morning. Restrict the number of blowers in use at the same time to lower the noise level.

Figure 10



- Work requiring full-throttle operation is rare. Use the blower at the minimum air speed needed. Low-speed operation creates low noise and dust, and makes it easy to handle gathered litter.
- Keep the blower's nozzle as low to the ground as possible.
- Lightly dampening dusty areas will reduce the amount of blower work time needed.
- Using the blower instead of a water hose to clean lawn or garden terraces, screens, grilles and porches helps reduce water consumption.
- When gathering litter into a pile, consider the topography and wind direction. Generally work from uphill to downhill and from upwind to downwind.

# Inspection and Servicing

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 <b>CAUTION</b>	<ul style="list-style-type: none"> <li>● Always stop the engine before inspecting or servicing the blower.</li> <li>● To prevent the risk of accidents or serious injury, never modify the blower or disassemble the engine. The Zenoah warranty is void in the event of failure caused by product modification.</li> <li>● Contact your place of purchase if the muffler requires servicing. If serviced improperly, hot exhaust gas may be emitted during operation.</li> <li>● When replacing parts, use genuine Zenoah parts or Zenoah-designated parts.</li> <li>● Contact your place of purchase if you are unable to carry out an inspection or service procedure yourself.</li> </ul>
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## ■ Inspections before/after work

Inspect the items below before and after work.

Inspection item		Corrective measure
1	Air duct <ul style="list-style-type: none"> <li>• Loose fastening bolts</li> <li>• Damage</li> </ul>	<ul style="list-style-type: none"> <li>• Tightening</li> <li>• Replacement</li> </ul>
2	Air intake guard <ul style="list-style-type: none"> <li>• Loose mounts</li> <li>• Damage</li> </ul>	<ul style="list-style-type: none"> <li>• Tightening</li> <li>• Replacement</li> </ul>
3	Main grip <ul style="list-style-type: none"> <li>• Oil contamination</li> </ul>	<ul style="list-style-type: none"> <li>• Wiping off oil</li> </ul>
4	Throttle lever <ul style="list-style-type: none"> <li>• Excessive/insufficient free play</li> <li>• Poor movement</li> </ul>	<ul style="list-style-type: none"> <li>• Repair</li> <li>• Repair or replacement</li> </ul>
5	Fuel tank <ul style="list-style-type: none"> <li>• Loose mounts</li> <li>• Fuel pipe damage</li> <li>• Cap gasket damage</li> </ul>	<ul style="list-style-type: none"> <li>• Tightening</li> <li>• Replacement</li> <li>• Replacement</li> </ul>
6	Muffler <ul style="list-style-type: none"> <li>• Loose mounts</li> <li>• Clogged exhaust gas outlet</li> </ul>	<ul style="list-style-type: none"> <li>• Tightening</li> <li>• Remove clog with flat-blade screwdriver or similar tool</li> </ul>

## ■ Periodic inspections

Inspect the items below in the indicated time interval.

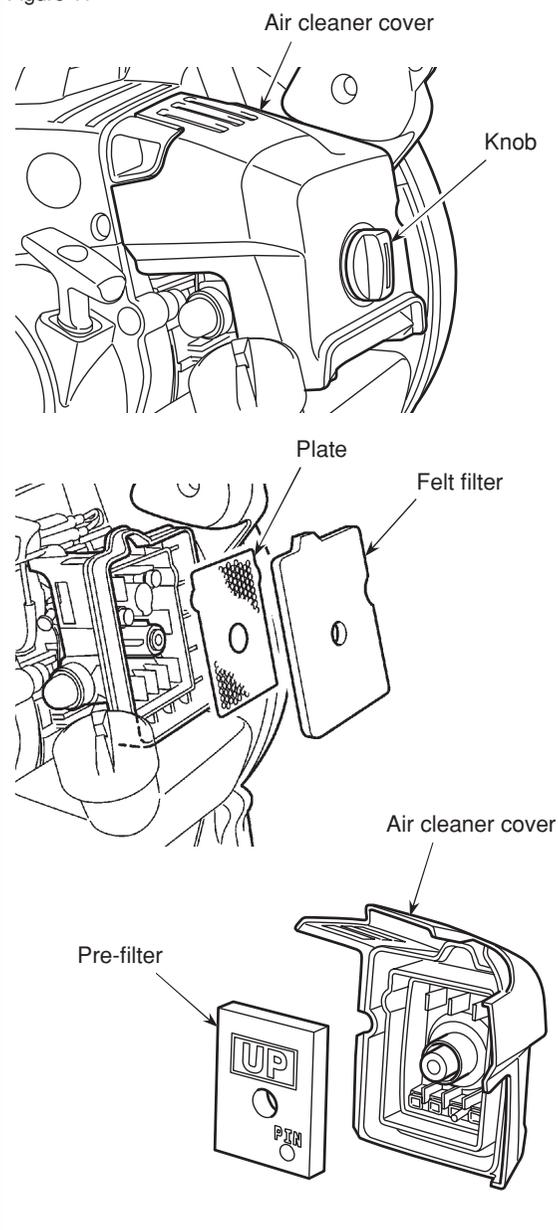
Inspection/service item	Hours of blower use			Comments
	Daily inspection	25 hours	100 hours	
Air cleaner cleaning	○			
Fuel leak check	○			
Fuel filter inspection		○		
Spark plug inspection/cleaning, adjustment		○		0.6 to 0.7 mm (0.025 in.) gap
Muffler inspection and carbon buildup removal			○	
Muffler bolt tightening	○			
Engine part tightening			○	
Cylinder fin inspection/cleaning		○		

## ■ Air cleaner

### IMPORTANT

- Engine performance drops if the pre-filter or felt filter becomes clogged. Operating the engine with the pre-filter, felt filter, deformed, damaged pre-filter or felt filter will cause abnormal wear inside the engine.
- After mounting the air cleaner cover, move it lightly by hand to check it will not come off. If the air cleaner is mounted insecurely, it may come off during operation and result in the pre-filter or felt filter dropping off and getting lost.

Figure 11



At the end of the work day, remove the air cleaner cover and check how dirty the pre-filter is. Remove adhering dirt in the air cleaner cover with a brush or similar tool.

- If the pre-filter is extremely dirty, wash it carefully with hot water containing neutral detergent. Dry it thoroughly before putting it back and install it in its original position.
- If the felt filter is extremely dirty, replace it with a new one.
- Replace the pre-filter and felt filter if they become deformed or damaged.

### NOTE

- The pre-filter is a dry type.
- Do not wash the pre-filter with organic solvents.

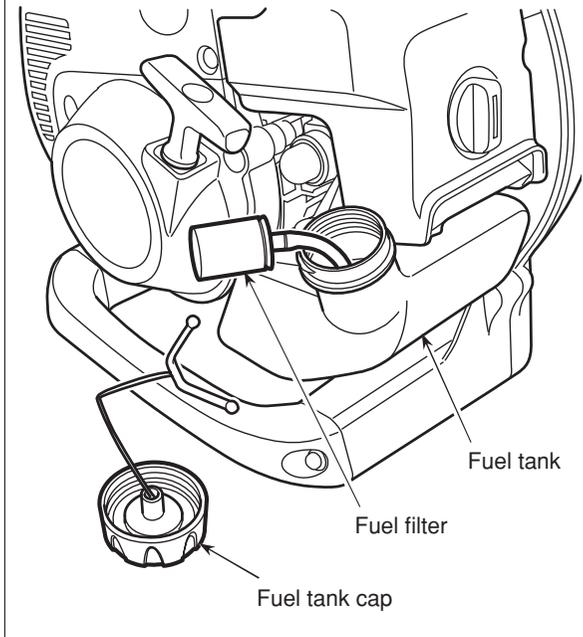
## ■ Fuel filter

### IMPORTANT

A clogged fuel filter may cause poor acceleration, or speed fluctuations.

GB

Figure 12



After roughly every 25 hours of operation, remove the fuel filter from the fuel tank and remove the dirt from it.

If the fuel filter is extremely dirty or clogged, replace it with a new one.

Fuel filter part number

503443201

### IMPORTANT

Take care the fuel pipe doesn't bend when replacing the fuel filter in the tank.

Make sure the fuel pipe not to be bent / folded after returning the fuel filter in to the tank.

## ■ Spark plug

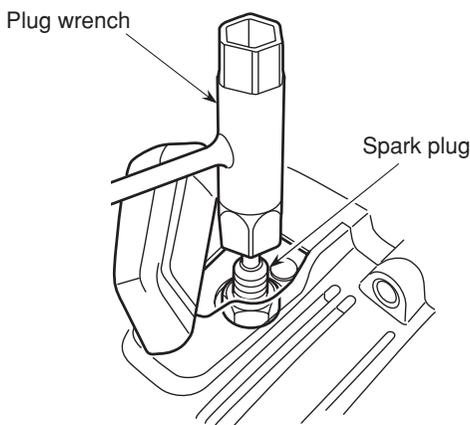
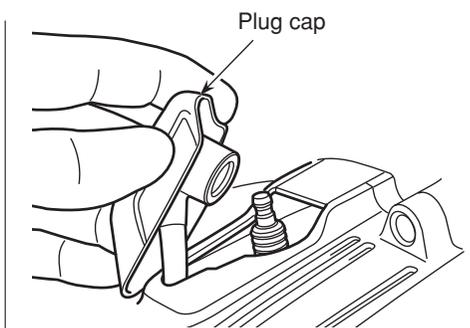


To prevent the risk of burns from hot parts, do not touch the spark plug with bare hands immediately after the engine is stopped.

### IMPORTANT

- Over-tightening the spark plug may damage the cylinder's screw thread. Always use the plug wrench (socket wrench) provided to tighten the spark plug.
- Excessive fuel intake or poor oil quality may cause the spark plug's electrode to become dirty, making it harder to start the engine.
- When replacing the spark plug, replace it with the designated model. Replacing the spark plug with the not designated model may result in damage to the cylinder or piston.

Figure 13

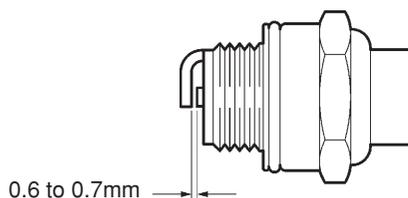


After roughly every 25 hours of operation, remove the spark plug and inspect its electrode. If dirty, remove the dirt with a wire brush or similar tool.

- When inserting the spark plug, screw it in by hand at first, then use the plug wrench (socket wrench) provided to tighten it.  
[Fastening torque]  
14.7 to 21.6 N·m (150 to 22 kgf·cm)

**IMPORTANT** Screwing the spark plug in entirely with the plug wrench without first screwing it in by hand may damage its screw thread.

Figure 14



- When replacing the spark plug, replace it with the designated model.

Designated spark plug model	NGK BPMP8Y
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- The proper electrode gap is 0.6 to 0.7 mm (0.024-0.026 in.).

## ■ Cooling air passage



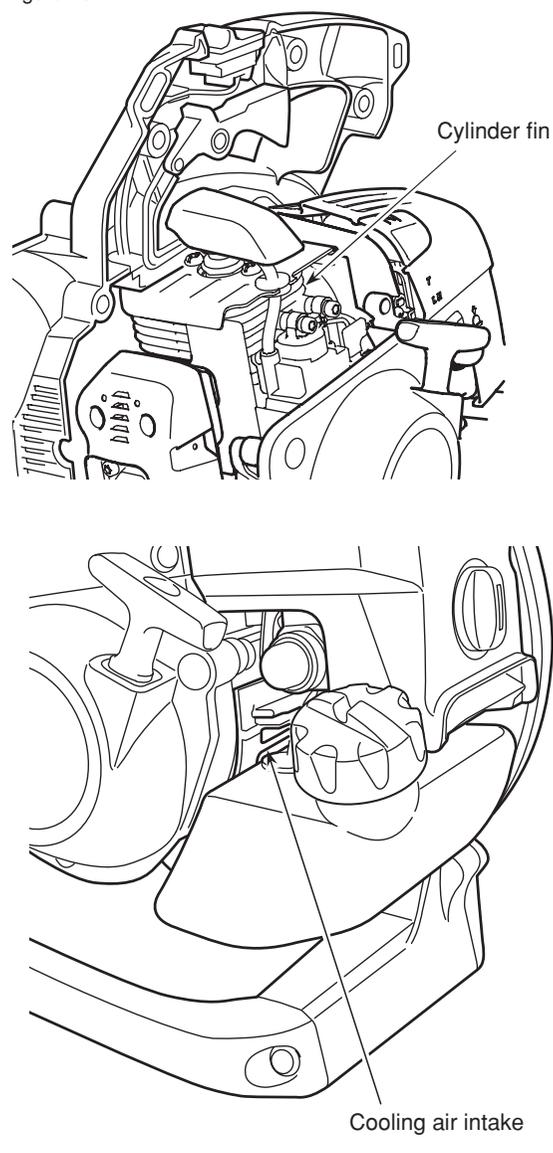
Do not insert objects in the cooling air intake during operation. Inserted objects may contact rotating parts, creating a hazard.

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### IMPORTANT

Clogged debris between components such as the cooling air intake and cylinder fin can cause engine overheating and equipment failure.

Figure 15



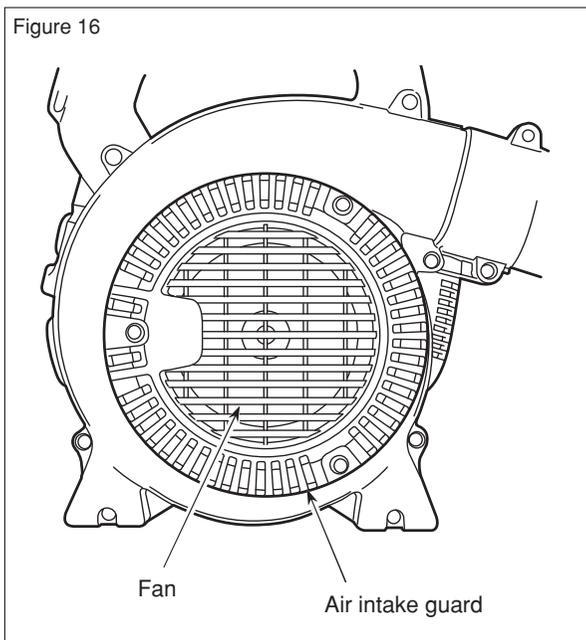
After roughly every 25 hours of operation, inspect the components around the cooling air intake and cylinder cooling fin, and remove the dirt from them.

## ■ Air intake



- Do not operate the blower with the air intake guard removed. Contact with the blower fan could result, causing injury.
- Before starting the blower, check that the air intake guard is properly mounted and undamaged.
- Do not insert a rod in the air intake while the engine is running.
- Always stop the engine before inspecting the air intake.

Figure 16



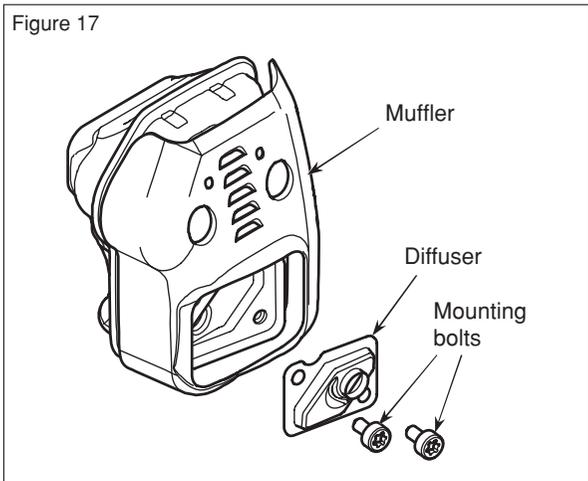
If the air current pressure drops during operation, stop the engine and inspect the air intake to check whether it is blocked by leaves or litter. If the air intake is blocked, remove the blockage.

## Muffler

 <b>CAUTION</b>	<ul style="list-style-type: none"> <li>● When inspecting the blower before starting work, check for loose bolts and muffler damage or rust. If the muffler is incorrectly mounted, it may become loose during operation and result in hot exhaust gas being emitted. If exhaust gas leaks out, stop the engine immediately and request inspection and repair from your place of purchase.</li> <li>● To prevent the risk of burns from hot parts, do not touch the muffler with bare hands immediately the engine is stopped.</li> </ul>
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<b>IMPORTANT</b>	<ul style="list-style-type: none"> <li>● Carbon deposits accumulating in the muffler will lead to poor engine power and startability.</li> <li>● Muffler or diffuser mounting bolts that have not been fully tightened may become loose during operation and cause engine fires.</li> </ul>
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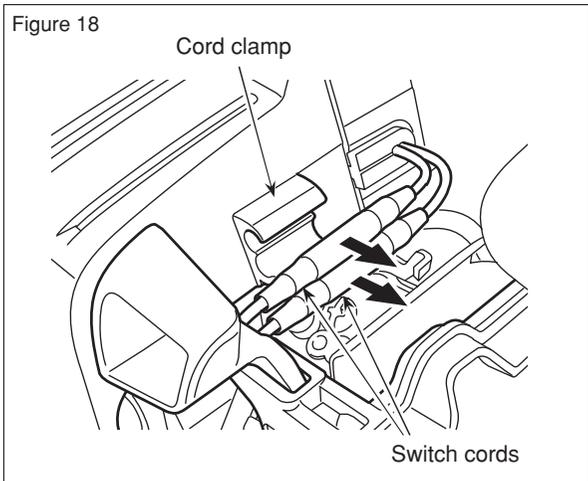
Figure 17



After roughly every 100 hours of operation, remove and inspect the muffler.

- Remove any carbon deposits that have accumulated inside the muffler.
- Check that the diffuser's two mounting bolts are fastened securely.  
[Fastening torque]  
2.0 to 3.0 N·m (20 to 30 kgf-cm)

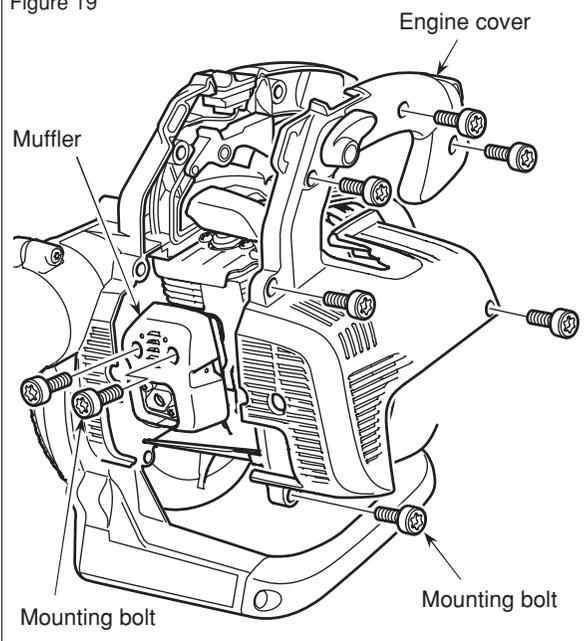
Figure 18



### [Mounting/removing the muffler]

1. Remove the air cleaner cover, and disengage the switch cord connections from the cord clamp.

Figure 19

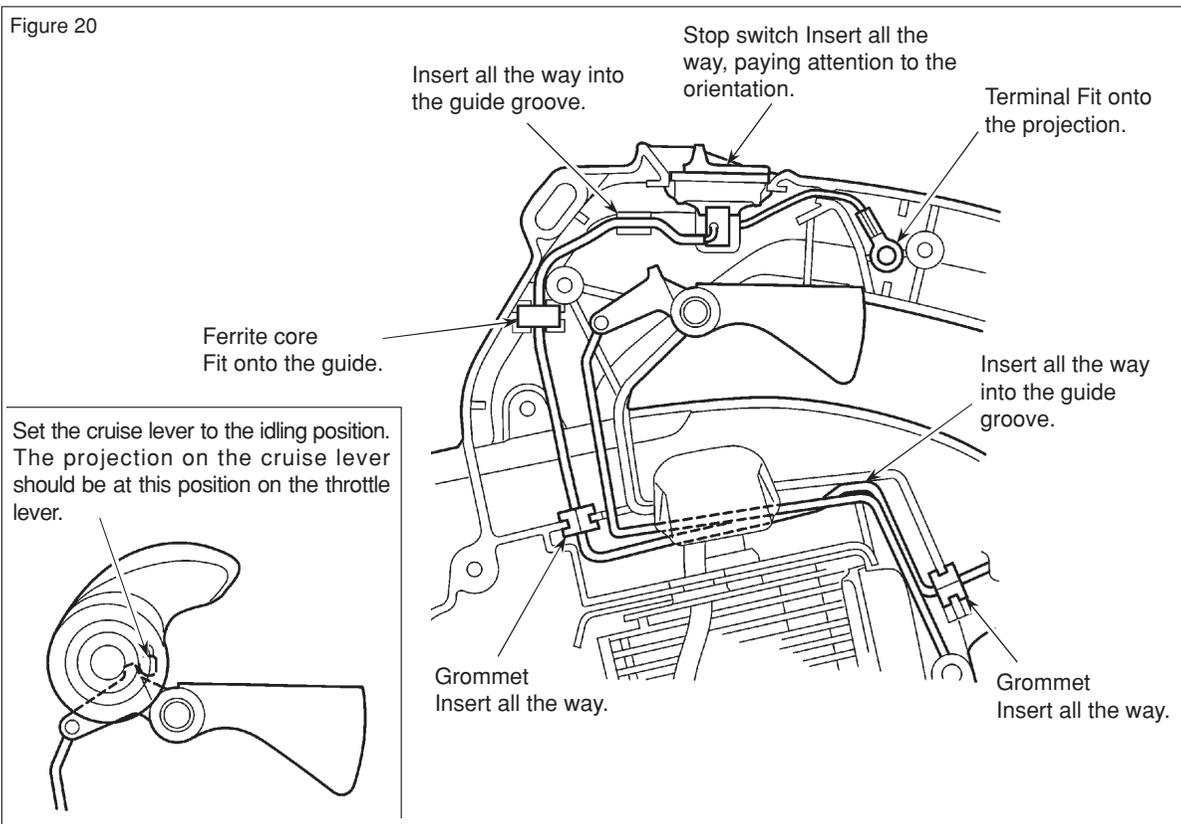


2. Remove the six mounting bolts and remove the engine cover.  
[Fastening torque]  
2.0 to 2.5 N·m (20 to 25 kgf·cm)
3. Remove the two mounting bolts and remove the muffler.  
[Fastening torque]  
7.0 to 9.0 N·m (70 to 90 kgf·cm)

## NOTE

If the switch cord wiring or throttle lever become disengaged when the engine cover is removed, restore them as shown in the diagram below. In addition, set the cruise lever to the idling position when mounting the engine cover.

Figure 20



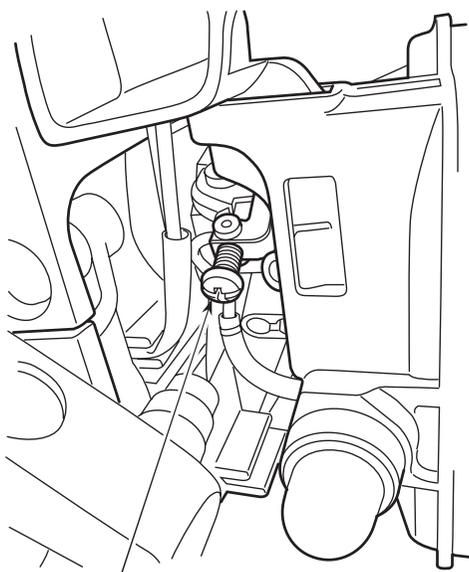
## ■ Engine adjustment

### IMPORTANT

The carburetor is a precision component that requires specialized knowledge and skill to disassemble and service. If the engine's condition remains unsatisfactory after performing the adjustment procedure in this manual, contact your place of purchase.

GB

Figure 21



Idle adjustment screw

 Increases the speed

 Decreases the speed

### [Idle adjustment screw]

This screw adjusts the Idle engine speed when the throttle lever is at the minimum speed setting. Turning it right (clockwise) increases the speed; turning it left (counterclockwise) decreases the speed.

## ■ Preparing the blower for long-term storage

 <b>DANGER</b>	<p>It may cause a fire from igniting fuel.</p> <ul style="list-style-type: none"><li>● Keep open flames away when draining the fuel tank.</li><li>● Take care not to spill fuel, and wipe up all fuel that spills.</li></ul>
 <b>CAUTION</b>	<p>Note the following precautions when storing the blower.</p> <ul style="list-style-type: none"><li>● Avoid leaving the blower outdoors.</li><li>● Avoid leaving the blower inside a hot vehicle in summer.</li><li>● Select a storage location inaccessible to children.</li></ul>
<b>IMPORTANT</b>	<ul style="list-style-type: none"><li>● When not using the blower for a long period (2 months or more), drain the fuel from the fuel tank and carburetor. Unless drained beforehand, the fuel in a stored blower will degenerate and cause carburetor clogging or engine failure (failure to start or less of power).</li><li>● When storing the blower, loosen the fuel tank cap. Tightening it excessively will cause the gasket to become deformed due to aging.</li></ul>

1. Inspect the blower components for damage or looseness, while cleaning off any blower dirt. Service all problem parts in preparation for the blower's next use.
2. Transfer the fuel in the fuel tank to a container, then pull out the fuel filter.
3. Press the carburetor's primer pump until fuel stops coming out, then transfer the fuel that was returned to the fuel tank to the container.
4. Return the fuel filter to the tank, then attach the fuel tank cap.
5. Start the engine and run it until it stops on its own.
6. Remove the spark plug and pour 1 to 2 ml (0.034 to 0.068 fl oz) of two-cycle oil into the engine. Pull the starter rope two or three times, then mount the spark plug back in position, stopping at the compression position.
7. Cover the blower with a sheet or tarp and store it in a dry location free of open flames.

# Troubleshooting

GB

Problem	Likely causes	Corrective measures
The engine doesn't start	• Bad fuel (fuel has degenerated or deteriorated)	• Replace the fuel with the designated type (p. 9, 10).
	• Excessive fuel intake	• Pull the rope repeatedly with the choke open and throttle fully depressed (p. 12, 13)
	• Clogged muffler exhaust outlet	• Unclog the muffler (p. 23)
	• Spark plug electrode dirt, short-circuit, wire break	• Clean the electrode or replace the spark plug (p. 20*)
The engine doesn't stop when the stop switch is pressed	• Switch cord connection failure, wire break	• Connect the switch cord securely or replace it
Cannot increase the engine speed	• Bad fuel (fuel has degenerated or deteriorated)	• Replace the fuel with the designated type (p. 9, 10).
	• Clogged muffler exhaust outlet	• Clean the muffler (p. 23)
Releasing the throttle causes the engine to stall	• The idling speed is too low	• Readjust the idling speed (p. 25)
The engine speed fluctuates	• Clogged fuel filter	• Clean or replace the fuel filter (p. 20*)
Decreased fuel efficiency	• Clogged air cleaner	• Clean the air cleaner (p. 20)

- Contact your place of purchase if the problem persists after taking the corrective measure shown or if the problem is not listed here.
- The corrective measures marked by an asterisk (\*) require genuine Zenoah parts available from your place of purchase.

 <b>DANGER</b>	<ul style="list-style-type: none"> <li>● Never modify or disassemble the blower in any case. The blower may become damaged during operation, leading to unforeseen accidents from fuel leaks or malfunctions.</li> <li>● To prevent the risk of fuel igniting, keep smoking materials and other open flames away from the blower when inspecting or servicing it.</li> <li>● Fasteners (bolts, nuts and screws) used in blower components must always be genuine Zenoah parts or Zenoah-designated parts. Use of unauthorized parts could lead to unforeseen accidents due to blower damage or parts falling off during operation.</li> </ul>
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## Limited warranty

Should any failure occur on the product under normal operating conditions within the applicable warranty period, the failed part will be replaced or repaired free of charge by a ZENOAH authorized dealer.

**WARRANTY PERIOD:** Six (6) months after purchased by end-user subject to 12 months from produced month. (30 days if used for rental purpose)

THE PURCHASER SHALL BEAR COSTS OF TRANSPORTING THE UNIT TO AND FROM THE ZENOAH DEALER.

THE PURCHASER SHALL NOT BE CHARGED FOR DIAGNOSTIC LABOR WHICH LEADS TO THE DETERMINATION THAT A WARRANTED PART IS DEFECTIVE, IF THE DIAGNOSTIC WORK IS PERFORMED AT THE ZENOAH DEALER.

THE PURCHASER OR OWNER IS RESPONSIBLE FOR THE PERFORMANCE OF THE REQUIRED MAINTENANCE AS DEFINED BY THE MANUFACTURER IN THE OWNER/OPERATOR MANUAL.

ANY WARRANTED PART WHICH IS NOT SCHEDULED FOR REPLACEMENT AS REQUIRED MAINTENANCE, OR WHICH IS SCHEDULED ONLY FOR REGULAR INSPECTION TO THE EFFECT OF REPAIR OR "REPLACE AS NECESSARY" SHALL BE WARRANTED FOR THE WARRANTY PERIOD. ANY WARRANTED PART WHICH IS SCHEDULED FOR REPLACEMENT AS REQUIRED MAINTENANCE SHALL BE WARRANTED FOR THE PERIOD OF TIME UP TO THE FIRST SCHEDULED REPLACEMENT POINT FOR THE PART.

ANY REPLACEMENT PART THAT IS EQUIVALENT IN PERFORMANCE AND DURABILITY MAY BE USED IN NON-WARRANTY MAINTENANCE OR REPAIRS, AND SHALL NOT REDUCE THE WARRANTY OBLIGATION OF THE

COMPANY.

THE COMPANY IS LIABLE FOR DAMAGES TO OTHER ENGINE COMPONENTS CAUSED BY THE FAILURE OF A WARRANTED PART STILL UNDER WARRANTY.

**THE WARRANTY DOES NOT APPLY TO** THOSE UNITS WHICH HAVE BEEN DAMAGED BY NEGLIGENCE OF INSTRUCTION LISTED IN THE OWNER/OPERATOR MANUAL FOR PROPER USE AND MAINTENANCE OF THE UNITS ACCIDENT MISHANDLING, ALTERATION, ABUSE, IMPROPER LUBRICATION, USE OF ANY PARTS OR ACCESSORIES OTHER THAN THOSE SPECIFIED BY THE COMPANY, OR OTHER CAUSES BEYOND THE COMPANY'S CONTROL.

**THIS WARRANTY DOES NOT COVER** THOSE PARTS REPLACED BY NORMAL WEAR OR HARMLESS CHANGES IN THEIR APPEARANCE.

**THERE ARE NO OTHER EXPRESS WARRANTIES.**

**ANY IMPLIED WARRANTY** is limited to the duration of the limited warranty. Otherwise, this limited warranty is in lieu of all other expressed or implied warranties, including any warranty of **FITNESS FOR A PARTICULAR PURPOSE OR USE** and any implied warranty **MERCHANTABILITY** otherwise applicable to this product.

**LIABILITIES FOR INCIDENTAL OR CONSEQUENTIAL DAMAGE UNDER ANY AND ALL WARRANTIES ARE EXCLUDED.**

IF YOU NEED TO OBTAIN MORE INFORMATION, PLEASE CALL YOUR NEAREST SERVICE CENTER, OR CHECK PLEASE ZENOAH WEB SITE  
<http://www.zenoah.net>