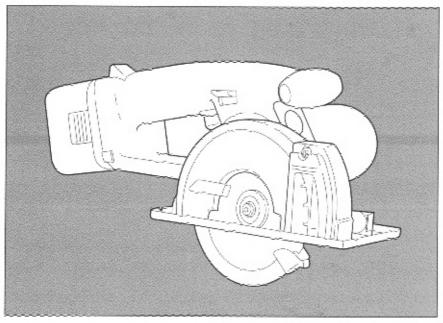
Instruction Manual

Cordless Metal Cutter Model: EY3502



Panasonic *

A IMPORTANT

This manual contains safety information. Read manual completely before first using this product.

SAVE THESE INSTRUCTIONS

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WARNING

Use of a blade on material that is thicker or thinner than that recommended for that blade, or on stainless steel, will result in a rough cut, and could increase the risk of "kick back" or other injury.

NOTE

Your metal cutter is equipped with a blade for cutting unhardened ferrous metal with a thickness of 0.5mm (1/32") - 6.0mm (1/4"). There will soon be a blade for cutting unhardened ferrous metal with a thickness of 0.2mm (1/128") - 2.0mm (1/16"). For information concerning availability of the blade for thin metal, or other Panasonic power tools, call 1-800-338-0552.

WARNING

To avoid injury, never insert your finger or any other object into the transparent window's opening in the base plate.

CAUTION

To avoid injury to yourself, or the metal cutter, never insert any object into any opening of the metal cutter.

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Introduction

Thank you for purchasing the Panasonic Metal Cutter. The powerful cutting action of this cutter, combined with the convenience of its rechargeable battery pack, provides you with great metal cutting performance.

This metal cutter is only for use in cutting unhardened ferrous material (such as electric cable pipe, water pipe, air pipe, angle steel, C channel, hanger rail, rain gutter, etc.) of which the thickness is 0.5 mm (1/32")-6.0 mm (1/4"). Use on thiner or thicker materials, or on stainless steel, will result in a rough cut and could increase the risk of kick back.

DANGER

This product is a cutting tool, designed to cut through metal. It has a rotating blade which is capable of a cutting you deeply, causing serious injury or death. As a result, please read this manual and cautionary markings on products carefully, and obey all of the safety instructions and additional safety instructions to avoid such injury.

How to Use This Manual

- Please read this manual completely before starting to cut with your metal cutter. If you let someone else use the metal cutter, make sure they either read this manual or are fully instructed in the proper use and all safety precautions concerning the metal cutter.
- Please keep this manual for future reference. It contains important safety information that you must follow to use the metal cutter safely.
- •This manual and product use the following signal words:

NOTE

Notes provide additional information that you should know about the metal cutter.

CAUTION

Caution indicates a potentially hazardous situation, which could result in minor or moderate injury if not avoided. Cautions also alert you to unsafe practices to be avoided.

WARNING

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

DANGER

Danger indicates an imminent hazard which will result in serious injury or death if not avoided.

IMPORTANT SAFETY INSTRUCTIONS

WARNING

To reduce the risk of fire, electric shock and personal injury, when using electric tools the basic safety precautions below should always be followed.

READ ALL INSTRUC-TIONS BEFORE USING

- 1) KEEP WORK AREA CLEAN. Cluttered areas and benches invite injuries.
- 2) CONSIDER WORK AREA ENVIRONMENT. Do not expose your metal cutter to rain. Do not use your metal cutter in damp or wet locations. Keep your work area well lit. Do not use metal cutter in presence of flammable liquid or gases.
- GUARD AGAINST ELECTRIC SHOCK. Your body should not contact grounded surfaces, such as pipes, radiators, ranges, or refrigerator enclosures, or other similar objects.
- 4) KEEP CHILDREN AWAY. Do not let anyone come in contact with the metal cutter. All visitors should be kept away from the work area, including the area beneath where you are working.

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- 5) STORE IDLE TOOLS. When not in use, always remove battery pack. The metal cutter should be stored in a dry and secure place. It is advisable to keep it under lock and key. Keep it out of the reach of children.
- DON'T FORCE METAL CUTTER. Do not try to cut too fast. Let the metal cutter cut at the rate for which it was designed.
- 7) USE RIGHT TOOL. Don't force a small tool or attachment to do the job of a heavy-duty tool. Don't use the tool for a purpose not intended-for example-don't use metal cutter for cutting any kind of wood, board, tree limbs or logs.
- SECURE WORK. Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate tool. Always use two hands on the cutter. (See Fig. 6, Page 14)
- 9) SUPPORT LARGE MATERIALS. Large materials must be supported as shown in Figure 7 (See Page 14), to minimize the risk of blade pinching and kick back. When a cutting operation requires resting the saw on the work piece, the saw should rest on the larger portion and the smaller portion should be cut off.
- 10)WEAR PROPER APPAREL. Don't wear loose clothing or jewelry which could get caught in moving parts. Rubber gloves and nonskid footwear are recommended when working outdoors. Wear protective hair covering if you have long hair. Never wear knitted gloves.
- 11)WEAR SAFETY GLASSES OR GOG-GLES WHENEVER OPERATING TOOL. Also, use dust mask if cutting operation is dusty.
- 12)DON'T OVERREACH. Keep proper footing and balance at all times.

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- 13)MAINTAIN TOOLS PROPERLY. Keep tools clean for better and safer performance. Follow instructions in this manual for changing accessories. Keep the handle dry, clean, and free from oil and grease.
- 14)REMOVE THE BATTERY PACK FOR SAFETY. Always remove the battery pack when the metal cutter is not in use, before servicing, and when changing the blade.
- 15)AVOID ACCIDENTAL STARTING. Be careful when handling the Metal Cutter. Don't carry the Metal Cutter with your finger on the power switch, it can turn on.
- 16)REMOVE HEX WRENCH. Form habit of checking to see that hex wrench is removed from metal cutter before turning it on.
- 17)STAY ALERT. Watch what you are doing. Use common sense. Don't operate the Metal Cutter when you are tired, or taking medication that can affect your ability to operate machinery.
- 18)CHECK FOR DAMAGED PARTS. Never use the tool if a guard or other part is damaged. Tool should be carefully checked before each use to determine that it will operate properly. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center. Have defective switches replaced by authorized service center. Do not use tool if switch does not turn it on and off.

Carbide tipped blade cannot be sharpened. Replace the blade when the performance is reduced. A dull blade can be more dangerous to the user than a sharp blade. Only use Panasonic metal cutting blade EY9PM11C. 19)KEEP GUARDS IN PLACE AND IN WORKING ORDER. Never wedge or tie lower blade guard open. Do not use if lower guard does not close briskly and completely over saw blade. Check operation of lower guard before each use. Raise the lower blade guard only with the lower blade guard lift lever. (See page 9 to see the location of lower guard lift lever.)

CAUTION: If saw is dropped, lower guard may be bent or damaged, restricting full return.

Take saw to authorized service center.

20)KEEP BLADES CLEAN. Sharp blades minimize stalling and kickback.

DANGER

21)KEEP BODY PARTS AWAY FROM CUTTING AREA. Keep body parts away from blade. Do not reach underneath work while blade is rotating. Do not attempt to remove cut material when blade is moving.

CAUTION: Blade may continue rotating after turn off.

- 22)GUARD AGAINST KICKBACK. Kick back occurs when the metal cutter stalls rapidly and is driven back toward the operator. Release the power switch immediately if blade binds or stalls. Only use sharp blades. Support long or large materials as shown in Figure 7, Page 14. Don't force tool. Stay alert and exercise control. Don't remove saw from work during a cut while the blade is moving.
- 23)USE ONLY CORRECT BLADES IN MOUNTING. Do not use blades with incorrect size holes. Never use damaged or incorrect blade washers or bolts.

SAVE THESE INSTRUCTIONS

Additional Safety Instructions for Metal Cutter

WARNING

Failure to use the metal cutter safely can result in serious injury or death. To avoid such injury or death, follow these operating instructions.

- DO NOT TOUCH CUT METAL EDGES. They can be hot and burn you. They can be sharp and cut you.
- ALWAYS KEEP ANY BODY PARTS AWAY FROM THE METAL CUTTER. If kickback occurs, the cutter blade could jump backwards causing severe injury.
- SECURE WRENCH BEFORE USE. Make sure the wrench is securely stored.
- DO NOT ALTER THIS TOOL. This tool is precision built. Any alteration or modification is misuse and can result in a dangerous condition.
- 5) Be sure to inspect material. Avoid cutting bolts, nails or other different material.
- 6) Be careful not to drop Metal Cutter.
- 7) Never swing Metal Cutter.
- 8)-Never cover the ventilation slots, and keep them free from dust or other material.

DANGER

- 6 ---

9) DO NOT CLAMP THE METAL CUT-TER IN A VISE. Never cut with the metal cutter held upside down in a vise. THIS IS EXTREMELY DANGEROUS and can lead to serious accidents.

10)DO NOT PLUNGE CUT.

SAVE THESE INSTRUCTIONS

Using Battery Pack and Charger Safely IMPORTANT SAFETY INSTRUCTIONS SAVE THESE INSTRUCTIONS

This manual contains important safety and operating instructions for battery charger EY0202.

 Before using battery charger, read all instructions and cautionary markings on (1)battery charger and (2)battery pack.

CAUTION

 To reduce the risk of injury, charge only battery pack as shown below. Other types of batteries may burst, causing personal injury and damage.

EY0202	EY9001, EY9006	Approx. 15 min.
E 10202	EY9101, EY9103	Approx. 20 min.

- 3) Do not expose charger to rain or snow.
- To reduce risk of damaging the electric plug and cord, pull by plug rather than cord when disconnecting charger.
- Make sure cord is located so that it will not be stepped on, tripped over, or otherwise subjected to damage or stress.
- 6) An extension cord should not be used unless absolutely necessary. Use of improper extension cord could result in a risk of fire and electric shock. If extension cord must be used, make sure:
 - a. that pins on plug of extension cord are the same number, size and shape as those of plug on charger.
 - b. that extension cord is properly wired and in good electrical condition.
 - c. that wire size is large enough for ampere rating of charger as specified below.

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EXTE	DED MINIMI INSION CO ITERY CHA		DF	
AC Input Rating	AC Input Rating Amperes AWG Size of Cord			
Equal to or greater than	But less than	Length of Core 25 50 100	d. Feet 150	
0	2	18 18 18	16	

- Do not operate charger with damaged cord or plug. Take it to an authorized service center.
- Do not operate charger if it has received a sharp blow, been dropped, or otherwise damaged in any way; take it to an authorized service center.
- Do not disassemble charger; take it to an authorized service center when service or repair is required. Incorrect reassembly may result in a risk of electric shock or fire.
- 10)To reduce the risk of electric shock, unplug charger from outlet before attempting any maintenance or cleaning.
- 11)The charger and battery pack are specially designed to work together. Do not attempt to charge any other cordless tool or battery pack with this charger.
- 12)Do not attempt to charge the battery pack with any other charger.
- 13)Do not attempt to disassemble the battery pack housing.
- 14)Do not store the tool and battery pack in locations where the temperature may reach or exceed 122°F (50°C) (such as a metal tool shed, or a car in the summer). This can lead to deterioration of the battery pack.
- 15)Do not charge battery pack when the temperature is BELOW 32°F (0°C), or ABOVE 104°F (40°C).
- 16)Do not incinerate the battery pack. It can explode in a fire.
- 17) Avoid dangerous environment. Do not use charger in damp or wet locations.Do not hold the plug with a wet hand.

 The charger is designed to operate on standard household 120V AC electrical power only.

Do not attempt to use it on any other voltage! Before connecting the charger to a power source (receptacle, outlet, etc.), be sure the voltage supplied is standard 120 volt AC.

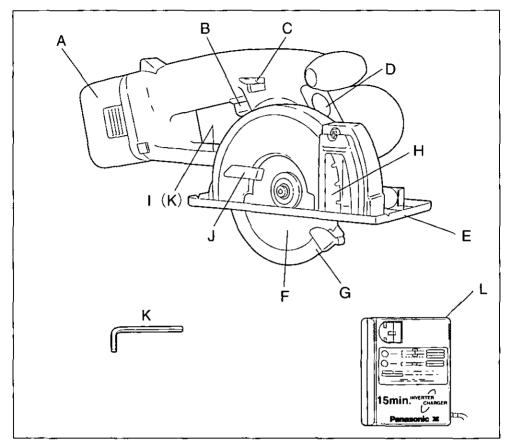
DO NOT PLUG THE CHARGER into a power source greater than that specified for the charger. This can result in damage to the charger and is a potential fire hazard.

Do not use a generator as a power source.

- 19)Do not abuse cord. Never carry the charger by the cord or yank the cord to disconnect it from an outlet. Keep cord away from heat, oil, and sharp edges.
- 20)Charge the battery pack in a well ventilated place, do not cover the charger and battery pack with a cloth, etc., while charging.
- 21)Use of an attachment not recommended may result in a risk of fire, electric shock, or injury to persons.
- 22)Do not short the battery pack. If you keep a battery pack in a tool box, for example, it could be shorted by touching any metal objects in the box. Store in a dry location. Do not allow the battery pack to become wet with any liquid. A battery short can cause a large current flow, overheating and burns.
- 23)During charging, the charger may become slightly warm. This is normal. Do not leave the battery in the charger for more than 24 hours after charging is completed.
- 24)Use only a dry, soft cloth for cleaning the charger. Do not use a damp cloth, thinner, benzine, or other volatile solvents for cleaning.

8 -

Parts and Controls



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Item Letter:	Description:
A	Battery Pack
В	Power switch
С	Switch Lock Lever
D	Shaft Lock Button
E	Base
F	Blade
G	Lower Blade Guard
Н	Transparnent Window
1	Storage Slot for Hex Wrench
J	Lower Guard Lift Lever
K	Hex Wrench
L	Battery Charger

9

Setting Up

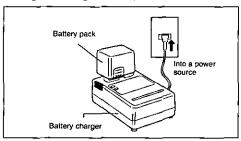
Charging Battery Pack

Charge the battery pack when the cutting speed becomes too slow for effective cutting. If you have two battery packs, you can use one to continue working while charging the other one.

Follow these steps:

When you charge the battery pack for the first time, or after prolonged storage, charge it for about 24 hours to bring the battery up to full capacity.

1. Remove the battery pack from the metal cutter.



2. Plug the charger into a power source.

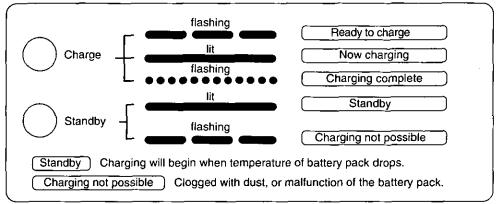


- 3. Insert the battery pack into the charger socket. The lamps on the charger tell you the status of the charging. See the Lamp indication chart.
- 4. Remove the battery pack when charging is completed. When charging more than two battery packs consecutively, let the charger cool down after charging each battery pack. If the charger becomes too hot, it could be damaged.

CAUTION

- To avoid a hazardous condition, do not put any foreign matter into the charger.
- Unplug the charger when not in use.
- Do not use a leaky or damaged battery pack.

Lamp indication



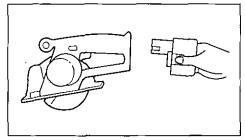
Inserting Battery Pack

CAUTION

Before inserting the battery pack, check that the power switch in the Metal Cutter actuates properly and returns to the "OFF" position when released.

1. To insert the battery pack:

Slide the battery pack in place at the rear of the metal cutter. The battery should snap into place. If the battery is loose, it has not been properly connected.





2. To remove the battery pack:

Press the two tabs on the sides of the battery pack. Slide the battery pack out of the metal cutter body.

Operation

Before Using Metal Cutter

Each time you use the metal cutter, you must make sure it is in good operating condition.

Use the following checklist:

1. Is the blade installed in the correct direction?

The arrow on the blade must point in the same direction as the arrow on the upper blade cover.

- 2. Is the blade installed properly? Make sure the hex bolt is tightened securely. (See Fig. 11 page 16)
- Does the blade look all right?
 Replace the blade immediately if there are any cracks in it or if any teeth are broken.
- 4. Does the lower blade guard close properly?

WARNING

To avoid injury, do not use the metal cutter if the lower blade guard does not close quickly over the blade.

- 5.1s the transparent window securely installed?
- 6. Is the battery pack charged and inserted [¬] firmly to the metal cutter?

Using Metal Cutter

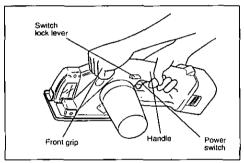
CAUTION

Read the "Important Safety Instruction" at the front of this manual before using the metal cutter.

Follow these steps:

Hold the metal cutter with both hands, as shown in Fig. 4. Do not attempt to remove cut material when blade is moving.

- 1. Line up the center of the notch with your cutting line.
- 2. Press the switch lock lever down, then squeeze the power switch to start the motor.





CAUTION

Check that the switch lock lever works. If power switch can be activated without depressing the switch lock lever, discontinue use immediately. Take the tool to an

authorized service center.

CAUTION

- Always hold the handle with one hand and the front grip with the other. (See Fig. 4, page 12) Maintain a firm grip and depress the switch fully.
- The blade should not touch the cutting material before you start the motor. Wait until the blade reaches full speed before starting a cut.

CAUTION

This tool has no provision to lock the switch in the "ON" position, and you must not attempt to secure it in the "ON" position.

- 3. Start cutting when the blade reaches full speed.
- 4. During cutting, keep your cutting line straight. Move the metal cutter forward at a steady speed, while looking at the tip of the blade through the transparent window.

WARNING

- To prevent dangerous kickback, keep the base of the metal cutter flat on the surface of the material being cut.
- Never force the cutter. Use light and continuous pressure.
- 5. If the motor starts to feel too warm, stop cutting. Let the metal cutter cool down before continuing work.
- Remove the battery pack from the metal cutter after use.

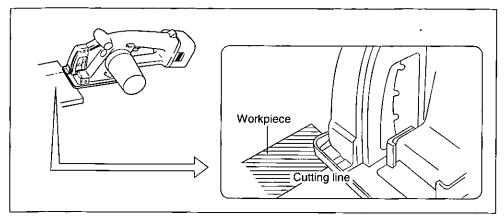
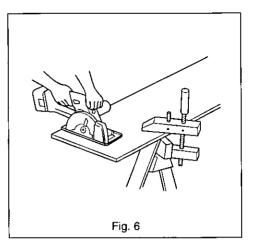


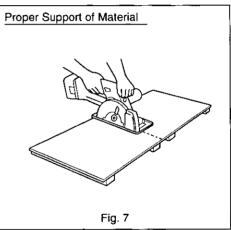
Fig. 5

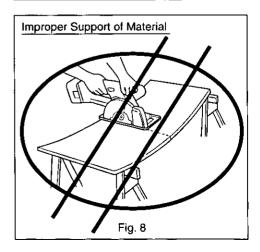
For Proper Use (Further Detail)

WARNING

- 1. It is important to use an appropriate device to hold the material being cut properly, and to hold the cutter firmly with both hands to prevent loss of control which could cause personal injury.
- Figure 6 shows proper cutting position.
- Note that hands are kept away from cutting area.
- When cutting, do not try to hold the material with your hand.







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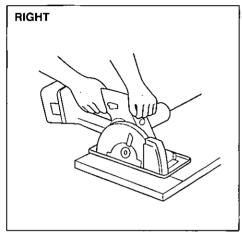
WARNING

- Support large pieces of material, near the cut. Be sure to support large pieces of material properly to minimize the risk of blade pinching and kickback.
- Use sharp blades only. Clean and sharp blades minimize stalling and kickback.

3. Don't support the material away from the cut.

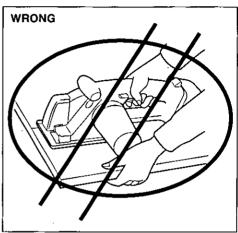
WARNING

- When making an incomplete cut or cutting is interrupted, or blade is binding or cutter is stalling; release the trigger immediately and hold the cutter motionless in the material until the blade comes to a complete stop. To avoid kickback, never attempt to remove the cutter from the work or pull the cutter backward while the blade is in motion. Make sure the blade has come to a complete stop, then remove cutter from cut. To resume cutting, start metal cutter, allow the blade to reach full speed, reenter the cut slowly and resume cutting.
- 4. Place the wider part of the cutter base on the part of the work piece which is solidly supported, never on the section that will fall off when the cut is made.





Wider part of cutter base





- Make sure cutter base is set on the larger portion of the material being cut.
- Hold the cutter firmly to prevent loss of control. Working carelessly can cause severe personal injury.
- 5. Make sure the blade stops.

Even though your metal cutter has an automatic brake, before setting the metal cutter down, make sure the blade has come to a complete stop and the lower blade guard has closed.

- 6. Do not use if anything seems unusual. Remove battery pack immediately.
- If the metal cutter body becomes very hot, or does not work properly, remove the battery pack and do not use. Have it checked by an authorized service center.

WARNING

Do not try to repair the metal cutter yourself. Never disassemble or modify the metal cutter body. There are no user-repairable parts inside.

- 7. NEVER ALLOW THE CUTTER TO COME IN CONTACT WITH YOUR BODY.
 - After completing a cut, do not allow the cutter to brush against your leg or side.
 Since the lower guard is retractable, it could catch on your clothing and expose the blade.
 Keep clothing away from metal cutter. Be aware of the exposed blade sections that exist in both the upper and lower guard areas.

WARNING

Because cutting metal creates sparks;

- Always use safety goggles.
- Do not use metal cutter near any flammable substance or in an area where flammable substances are used. Fire and burn injury could result.
- 8. Never engage the shaft lock while blade is running, or engage in an effort to stop the tool. Never turn the switch on when the shaft lock is engaged. Serious damage to your metal cutter will result.

Maintenance

WARNING

To avoid severe personal injury, always remove the battery pack from the metal cutter before starting any maintenance procedure.

CAUTION

To assure product SAFETY and RELIA-BILITY, servicing should be performed by an authorized service center. Always insist on genuine Panasonic replacement parts.

Removing Blade

CAUTION

The blade will be hot right after cutting. Be sure to let the blade cool down before removing it. Follow these steps:

- 1. Remove the battery pack from the metal cutter.
- 2. Hold the shaft lock button down. This prevents the blade from rotating.
- 3. Use the provided hex wrench to loosen the hex bolt.

NOTE

Keep the hex wrench in the storage slot on the metal cutter's body when not using it.

- 4. Remove the hex bolt and outer washer.
- 5. Use the lower guard lift lever to retract (open) the lower guard.
- 6. Carefully remove the blade.

CAUTION

- Be careful to avoid cutting your hands on the blade.
- When disposing of a blade, secure it inside heavy or corrugated paper. This will help prevent anyone from being cut by the discarded blade.

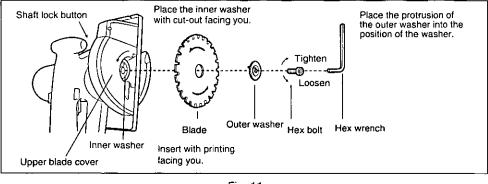


Fig. 11 — 16 —

Installing Blade

Follow these steps:

- 1. Remove the battery pack from the metal cutter.
- 2. Remove any cutting debris from blade area.
- 3. Use the lower guard lift lever to retract (open) the lower guard.
- 4. Install the blade as illustrated in Fig. 11 (page 16). Make sure that both the direction arrow on the blade and the direction arrow on the upper blade cover point in the same direction.
- 5. Set the outer washer in place.
- 6. Insert the hex bolt.
- 7. Hold the shaft lock button down. This prevents the blade from rotating.
- 8. Tighten the hex bolt securely with the provided hex wrench. Store the hex wrench.

CAUTION

Keep the hex wrench in the storage slot on the metal cutter's body when not using it.

WARNING

Failure to follow these instructions can result in severe personal injury.

Battery Pack Life

• When a fully charged battery pack only lets you cut half as long as it used to, it should be replaced with a new battery pack.

NOTE

Even if you don't use the Metal Cutter, charge the battery pack at least once every six months.

A IMPORTANT NOTICE

The battery pack contains Nickel Cadmium cells, and must be recycled or disposed of properly.

Cleaning Metal Cutter

Keep your metal cutter clean for good cutting performance and to help keep it safe to use.

Follow these steps:

1. Remove the battery pack from the metal

- Wipe the metal cutter with a dry, soft cloth.
 Do not use a wet cloth or cleaning liquids.
 They could damage the metal cutter's finish.
- 3. Be sure to rub off any oil or grease which could make the metal cutter slippery or hard to handle.
- 4. Remove the blade and brush off any dust.

CAUTION

To avoid injury or damage to the unit, never immerse any part of the tool in a liquid.

Transparent Window

WARNING

If the window is cracked, or is broken, take the metal cutter to an authorized service center for replacement. Do not attempt to operate cutter. It could result in serious personal injury.

Never use your metal cutter with a damaged transparent window or without the transparent window installed. Flying chips could result in serious injury.

Accessories

WARNING

The use of any accessories not specified in this manual may result in fire, electric shock, or personal injury. Use recommended accessories only.

Cutter blade for Metal Material EY9PM11C

Specifications

Metal Cutter

Motor voltage	12 volts DC
Blade Speed	3400 min ⁻¹ (PRM)
Blade Size Outside diameter Arbor size	110 mm, 4-3/8 inches 20 mm
Maximum cutting depth	36 mm, 1-13/32 inches
Dimension Length Width Height	325 mm, 12-51/64 inches 178 mm, 7 inches 172 mm, 6-49/64 inches
Weight	2.4 kg, 5.3 pounds including battery pack

Battery Pack

Storage battery	Ni-Cd battery
Battery voltage	12 V DC (1.2 V × 10 cells)

Battery Charger

Power source	120 vol	120 volts AC			
Charging time	Applic	Applicable battery pack			
	7.2V	9.6V	12V	Standard charging time	
	EY9065	EY9080 EY9086		Approx. 15 min.	
		EY9180 EY9182		Approx. 20 min.	
Weight	0.56 kg	0.56 kg, 1.2 pounds			

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