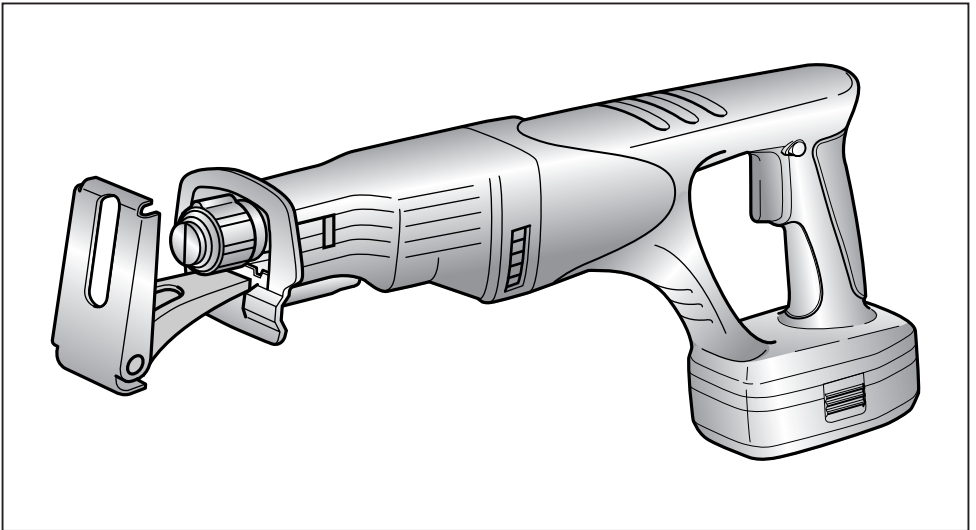


Panasonic

Cordless Reciprocating Saw

Operating Instructions

Model No: EY3544



IMPORTANT

This manual contains safety information. Read manual completely before first using this product and save this manual for future use.

I. GENERAL SAFETY RULES - FOR ALL BATTERY OPERATED TOOLS

WARNING!

READ AND UNDERSTAND ALL INSTRUCTIONS.

- Failure to follow all instructions listed below, may result in electric shock, fire and/or serious personal injury.

SAVE THESE INSTRUCTIONS

Work Area

- 1) **Keep your work area clean and well lit.**
Cluttered benches and dark areas invite accidents.
- 2) **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.**
Power tools create sparks which may ignite the dust or fumes.
- 3) **Keep bystanders, children, and visitors away while operating a power tool.**
Distractions can cause you to lose control. Make sure that no one is beneath, or on the other side of the area when you are working.

Electrical Safety

- 4) **A battery operated tool with integral batteries or a separate battery pack must be recharged only with the specified charger for the battery.**
A charger that may be suitable for one type of battery may create a risk of fire when used with another battery.
- 5) **Use battery operated tool only with specifically designated battery pack.**
Use of any other batteries may create a risk of fire.

Personal Safety

- 6) **Stay alert, watch what you are doing, and use common sense when operating a power tool. Do not use tool while tired or under**

the influence of drugs, alcohol, or medication.

A moment of inattention while operating power tools may result in serious personal injury.

- 7) **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.**
Loose clothes, jewelry, or long hair can be caught in moving parts.
- 8) **Avoid accidental starting. Be sure switch is in the locked or off position before inserting battery pack.**
Carrying tools with your finger on the switch or inserting the battery pack into a tool with the switch on invites accidents.
- 9) **Remove adjusting keys or wrenches before turning the tool on.**
A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.
- 10) **Do not overreach. Keep proper footing and balance at all times.**
Proper footing and balance enable better control of the tool in unexpected situations.
- 11) **Use safety equipment. Always wear eye protection.**
Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.

Tool use and care

- 12) **Use clamps or other practical way to secure and support the workpiece to a stable platform.**
Holding the work by hand or against your body is unstable and may lead to loss of control.
- 13) **Do not force tool. Use the correct tool for your application.**
The correct tool will do the job better and safer at the rate for which it is designed.
- 14) **Do not use tool if switch does not turn it on or off.**
A tool that cannot be controlled with the switch is dangerous and must be repaired.
- 15) **Disconnect battery pack from tool or place the switch in the locked or off position before making any adjustments, changing accessories, or stor-**

ing the tool.

Such preventive safety measures reduce the risk of starting the tool accidentally.

- 16) **Store idle tools out of reach of children and other untrained persons.**
Tools are dangerous in the hands of untrained users.
- 17) **When battery pack is not in use, keep it away from other metal objects like: paper clips, coins, keys, nails, screws, or other small metal objects that can make a connection from one terminal to another.**
Shorting the battery terminals together may cause sparks, burns or a fire.
- 18) **Maintain tools with care. Keep cutting tools sharp and clean.**
Properly maintained tools with sharp cutting edge are less likely to bind and are easier to control.
- 19) **Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool's operations. If damaged, have the tool serviced before using.**
Many accidents are caused by poorly maintained tools.
- 20) **Use only accessories that are recommended by the manufacturer for your model.**
Accessories that may be suitable for one tool may create a risk of injury when used on another tool.

Service

- 21) **Tool service must be performed only by qualified repair personnel.**
Service or maintenance performed by unqualified personnel may result in a risk of injury.
- 22) **When servicing a tool, use only identical replacement parts. Follow instructions in the Maintenance section of this manual.**
Use of unauthorized parts or failure to follow Maintenance Instructions may create a risk of shock or injury.

II. SPECIFIC SAFETY RULES

DO NOT let comfort or familiarity with product (gained from repeated use) replace strict adherence to cordless reciprocating saw safety rules.

If you use this tool unsafely or incorrectly, you can suffer serious personal injury.

- 1) **Before each use, it is a good practice to always inspect this tool for physical damage. If the tool has been damaged or does not operate properly, do not use. Have it serviced immediately by a qualified serviceman.**
- 2) **When installing the battery pack, make sure that it snaps in place and is mounted to the tool firmly. Replace the battery pack if it cannot be held in place securely.**
- 3) **Hold tool by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring.**
Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.
- 4) **Be aware that this tool is always in an operating condition,** it does not have to be plugged into an electrical outlet.
- 5) **Always use safety goggles or glasses with side shields.**
Ordinary eye or sun glasses are **NOT** safety glasses.
- 6) **Avoid cutting nails. Inspect workpiece for any nails and remove them before operation.**
- 7) **Do not cut oversized workpiece.**
- 8) **Check for the proper clearance beyond the workpiece before cutting so that the blade will not strike the floor, workbench, etc.**
- 9) **Hold the tool firmly.**
- 10) **Make sure the blade is not contacting the workpiece before the switch is turned on.**
- 11) **Keep hands away from moving parts.**
- 12) **Always switch off and wait for the blade to come to a complete stop**

before removing the blade from the workpiece.

- 13) Do not touch the blade or work-piece immediately after operation; they may be extremely hot and could burn your skin.
- 14) Some material contains chemicals which may be toxic. Take caution to prevent working dust inhalation and skin contact. Follow material supplier safety data.
- 15) When working on a ladder or on scaffolding be sure to lay the tool down on its side when not in use. Some tools with large battery packs will stand upright but may be easily knocked over.

Symbol	meaning
V	Volts
---	Direct Current
n_0	no load speed
.../min	revolutions or reciprocations per minute

WARNING:

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

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

To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles.

III. FOR BATTERY CHARGER & BATTERY PACK

IMPORTANT SAFETY INSTRUCTIONS

1) SAVE THESE INSTRUCTIONS

-This manual contains important safety and operating instructions for battery charger EY0110.

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

3) CAUTION

-To reduce the risk of injury, charge only Battery Pack as shown below.

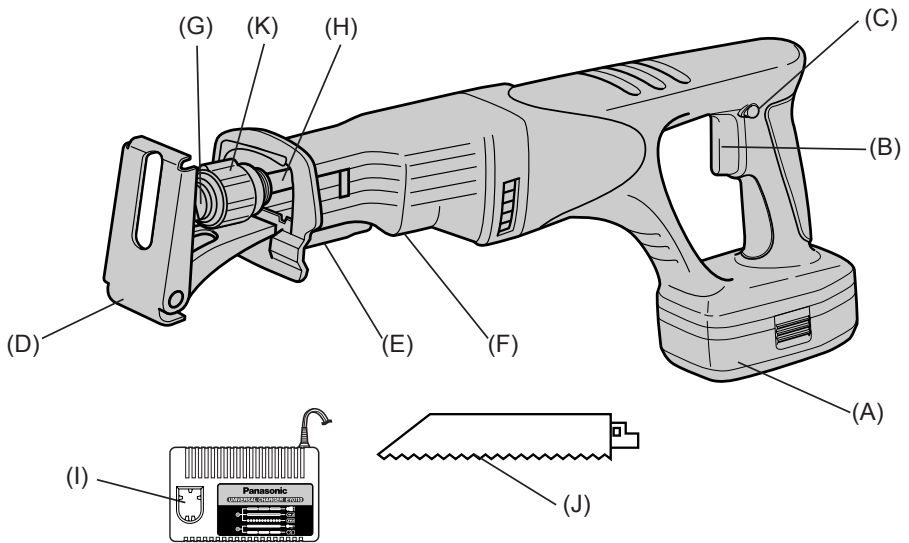
EY9065, EY9066, EY9168, EY9080, EY9086, EY9180, EY9182, EY9001, EY9006, EY9101, EY9106, EY9200, EY9201, EY9136, EY9230, EY9231 EY9251, EY9117, EY9210

Other types of batteries may burst causing personal injury and damage.

- 4) Do not expose charger to rain or snow.
- 5) To reduce risk of damaging the electric plug and cord, pull by plug rather than cord when disconnecting charger.
- 6) Make sure cord is located so that it will not be stepped on, tripped over, or otherwise subjected to damage or stress.
- 7) 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 that:
 - a. pins on plug of extension cord are the same number, size and shape as those of plug on charger.
 - b. extension cord is properly wired and in good electrical condition.
 - c. extension cord has a minimum wire size of 16 AWG.

- 8) Do not operate charger with damaged cord or plug — have qualified serviceman replace them immediately.
- 9) Do not operate charger if it has received a sharp blow, been dropped, or otherwise damaged in any way; take it to a qualified serviceman.
- 10) Do not disassemble charger; take it to a qualified serviceman when service or repair is required. Incorrect reassembly may result in a risk of electric shock or fire.
- 11) To reduce the risk of electric shock, unplug charger from outlet before attempting any maintenance or cleaning.
- 12) The charger and battery pack are specifically designed to work together. Do not attempt to charge any other cordless tool or battery pack with this charger.
- 13) Do not attempt to charge the battery pack with any other charger.
- 14) Do not attempt to disassemble the battery pack housing.
- 15) Do not store the tool and battery pack in locations where the temperature may reach or exceed 50°C (122°F) (such a metal tool shed, or a car in the summer), which can lead to deterioration of the storage battery.
- 16) Do not charge battery pack when the temperature is BELOW 0°C (32°F) or ABOVE 40°C (104°F). This is very important in order to maintain optimal condition of the battery pack.
- 17) Do not incinerate the battery pack. It can explode in a fire.
- 18) Avoid dangerous environment. Do not use charger in damp or wet locations.
- 19) The charger is designed to operate on standard household electrical power only. Do not attempt to use it on any other voltage!
- 20) Do not abuse cord. Never carry charger by cord or yank it to disconnect from outlet. Keep cord away from heat, oil and sharp edges.
- 21) Charge the battery pack in a well ventilated place, do not cover the charger and battery pack with a cloth, etc., while charging.
- 22) Use of an attachment not recommended may result in a risk of fire, electric shock, or injury to persons.
- 23) Do not short the battery pack. A battery short can cause a large current flow, over heating and create the risk of fire or personal injury.
- 24) NOTE: If the supply cord of this appliance is damaged, it must only be replaced by a repair shop authorized by the manufacturer, because special purpose tools are required.
- 25) TO REDUCE THE RISK OF ELECTRIC SHOCK, THIS APPLIANCE HAS A POLARIZED PLUG (ONE BLADE IS WIDER THAN THE OTHER).
This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not change the plug in any way.

IV. FUNCTIONAL DESCRIPTION



(A) Battery pack (EY9251)	(G) Blade clamp
(B) Trigger switch	(H) Slider
(C) Switch lock lever	(I) Battery charger (EY0110)
(D) Shoe	(J) Saw blade
(E) Shoe lock lever	(K) Blade clamp sleeve
(F) Insulated rubber boot	

V. ASSEMBLY



WARNING:

To reduce the risk of injury, always remove battery pack before changing the blade.

Selecting a blade

The blade clamp sleeve can be used with all 1/2" shank universal reciprocating saw blade. When selecting a blade, choose the right type and length.

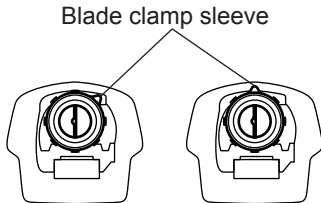
Choose a length long enough to extend beyond the shoe and your work throughout the stroke. Do not use blades less than **3-9/16" (90 mm)** long since they will not extend beyond the shoe throughout the stroke.

Installing or removing the saw blade

CAUTION:

Always clean out all chips or foreign material adhering to the blade, blade clamp and/or slider before use. Failure to do so may cause insufficient tightening of the blade, resulting in a serious injury.

Depending on the job, the blade may be inserted with the teeth facing up or down. To install the saw blade, always make sure that the blade clamp sleeve is in open position before inserting the saw blade. If the blade clamp sleeve is in the close position, rotate the sleeve to the open position until it clicks.



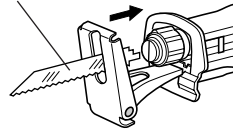
Open position Close position

Insert the saw blade into the blade clamp until the saw blade snaps in place and clamp sleeve rotates.

When the blade clamp sleeve rotates,

the saw blade is fixed. Make sure that the saw blade is firmly fixed and locked. If the blade clamp does not lock properly, have the tool serviced by a qualified repair personnel.

Blade

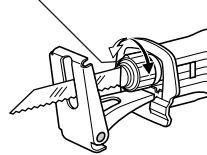


WARNING:

If you do not insert the saw blade deep enough, the saw blade may be ejected unexpectedly during operation. This can be extremely dangerous.

To remove the saw blade, rotate the blade clamp sleeve in the direction of the arrow (clockwise from the front view) fully. The saw blade is removed and the blade clamp sleeve is fixed at the open position. Be careful when handling hot blades after use.

Blade clamp sleeve



NOTE:

If you remove the saw blade without rotating the blade clamp sleeve fully, the sleeve may not be fixed. In this case, rotate the blade clamp sleeve fully, then make the sleeve fixed at the open position.

Blade Clamp Maintenance

Always keep blade clamp sleeve clean and dry after use.

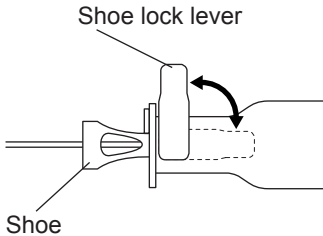
Periodically lubricate blade clamp sleeve with a dry lubricant. Using wet lubricant may keep the dust and debris, and causes malfunction of the blade clamp.

VI. OPERATION

Hold tool by the insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring. Always wear safety goggles or glasses with side shields.

Adjusting shoe

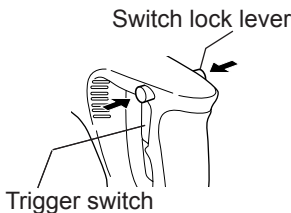
When the blade loses its cutting efficiency in one place along its cutting edge, reposition the shoe to utilize a sharp, unused portion of its cutting edge. This will help to lengthen the life of the blade. To reposition the shoe, loosen the shoe lock lever counter-clockwise and slide the shoe forward or back to the desired position. Then tighten the lever clockwise to firmly secure the shoe.



Switch action

⚠ CAUTION:

Before inserting the battery pack into the tool, always check to see that the trigger switch actuates properly and returns to the "OFF" position when released.



To prevent the trigger switch from being accidentally pulled, a lock-off button switch lock lever is provided. Always make sure the switch is locked when carrying or storing the tool to eliminate unintentional starting.

To start the motor, press the switch lock lever, then squeeze the trigger switch.

⚠ WARNING:

To reduce the risk of injury, keep hands away from the blade and other moving parts.

Starting and Stopping

To start the tool, grasp the handle firmly. Press the switch lock lever, which can be pressed in from either left or right side of the tool. Then pull the trigger switch.

To stop the tool, release the trigger. Allow the tool to come to a complete stop before removing the blade from a partial cut or before laying the tool down.

Controlling speed by Trigger Switch

The reciprocating saw is equipped with a trigger speed control switch. It may be operated at any speed from zero stroke per minute to full speed. Always start tool before blade contacts the workpiece. To vary the speed, simply increase or decrease the pressure on the trigger. The further the trigger is pulled, the greater the speed.

Cutting materials

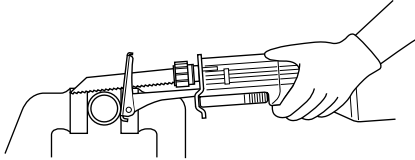
Before the blade contacts the workpiece, grasp the handle firmly and pull the trigger. Begin cutting at slow speed, gradually increasing speed as you cut. When cutting into materials or hard materials that can not be cut from an edge, drill a starting hole larger than the widest part of the blade.

⚠ CAUTION:

- Always press the shoe firmly against the workpiece during operation. If the shoe is held away from the workpiece during operation, strong vibration and/or twisting will be produced, causing the blade to snap dangerously.
- Always wear gloves to protect your hands from flying hot chips when

cutting metal.

- Always use a suitable coolant (cutting oil) when cutting metal. Failure to do so will cause premature blade wear.
- If the tool is operated continuously until the battery pack has discharged, allow the tool to rest for 15 minutes before proceeding with a fresh battery pack.



Press the shoe firmly against the workpiece. Do not allow the tool to bounce. Bring the blade into light contact with the workpiece. First, make a pilot groove, using a slower speed. Then use a faster speed to continue cutting.

For Appropriate use of Battery pack

Ni-MH Battery pack (EY9251)

- Charge the Ni-MH battery fully before storage in order to ensure a longer service life.
- The ambient temperature range is between 0°C (32°F) and 40°C (104°F). If the battery pack is used when the battery temperature is below 0°C (32°F), the tool may fail to function properly. In that case, charge the battery until charging is completed for appropriate functioning of the battery.
- When battery pack is not in use, keep it away from other metal objects like: paper clips, coins, keys, nails, screws, or other small metal objects that can make a connection from one terminal to another. Shorting the battery terminals together may cause sparks, burns or a fire.
- When operating with a Ni-MH battery pack, make sure the place is well-ventilated.

Battery Pack Life

The rechargeable batteries have a limited life. If operation time becomes extremely short after recharging, replace the battery pack with a new one.

NOTE:

Use under extremely hot or cold conditions will reduce operating capacity per charge.

Charging

NOTE:

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

Battery charger (EY0110)

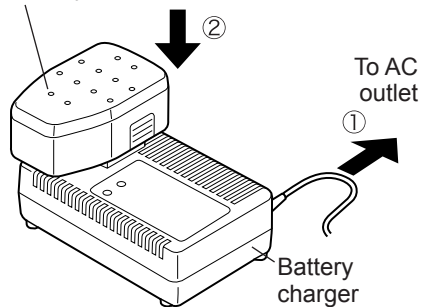
1. Plug the charger into the AC outlet.

NOTE:

Sparks may be produced when the plug is inserted into the AC power supply, but this is not a problem in terms of safety.

2. Insert the battery pack firmly into the charger.

Battery pack



3. During charging, the charging lamp will be lit. When charging is completed, an internal electronic switch will automatically be triggered to prevent overcharging.
 - Charging will not start if the battery pack is warm (for example, immediately after heavy-duty operation). The orange standby lamp will be lit until the battery cools down. Charging will then begin automatically.
4. When charging is completed, the charging lamp will start flashing

quickly in green color.

5. When in any of the conditions that battery pack is too cool, or the battery pack has not been used for a long time, the charging lamp is lit.

In this case, charging takes longer to fully charge the battery pack, than the standard charging time.

- If a fully charged battery pack is inserted into the charger again, the charging lamp light up. After several minutes, the charging lamp may flash quickly to indicate the charging is completed.

6. If the charging lamp does not light immediately after the charger is plugged in, or if after the standard charging time the lamp does not go off, consult an authorized dealer.

NOTE:

- When charging a cool battery pack (below 5°C (41°F)) in a warm place,

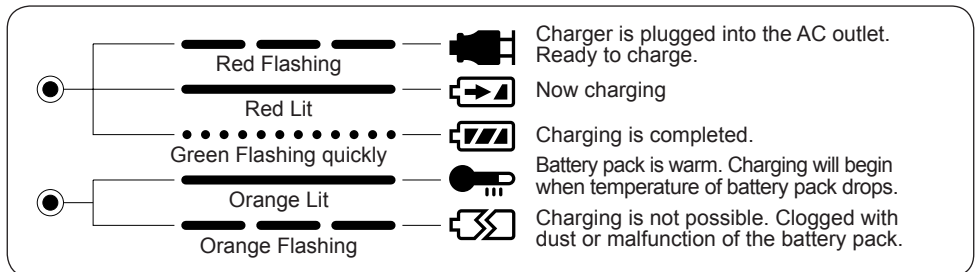
leave the battery pack at the place and wait for more than one hour to warm up the battery to the level of the ambient temperature. Otherwise battery pack may not be fully charged.

- Cool down the charger when charging more than two battery packs consecutively.
- Do not insert your fingers into contact hole, when holding charger or any other occasions.

⚠CAUTION:

- Do not use power source from an engine generator. This can damage the charger and present the risk of fire or personal injury.
- Do not cover vent holes on the charger and the battery pack..

VII. LAMP INDICATIONS



VIII. MAINTENANCE

⚠CAUTION: Always be sure that the tool is switched off and the battery pack is removed before attempting to perform inspection or maintenance.

Keep your Reciprocating saw clean for good cutting performance and to help keep it safe to use.

Wipe the reciprocating saw with a dry, soft cloth. Do not use a wet cloth or cleaning liquids. They could damage the reciprocating saw's finish.

Be sure to rub off any oil or grease which could make the tool slippery or hard to handle.

BATTERY RECYCLING

ATTENTION:

FOR Ni-MH Battery Pack, EY9251

A nickel metal hydride battery that is recyclable powers the product you have purchased.

Please call **1-800-8-BATTERY** for information on how to recycle this battery.



IX. ACCESSORIES

⚠ CAUTION:

To prevent the risk of injury, only use accessory or attachment for its stated purpose.

If you need any assistance for more details regarding these accessories, ask your local service center.

X. SPECIFICATIONS

MAIN UNIT

Model	EY3544
Motor	DC Motor 18 V
Length of Strokes	23mm (7/8")
Strokes per Minute	0 ~ 2700 spm
Type of Blade shank	13 mm (1/2") universal reciprocating saw blade
Overall length	491 mm (19 - 5/16")
Weight (with battery pack)	3.9 kg, (8.7 lbs)

BATTERY PACK

Model	EY9251
Storage battery	Ni-MH Battery
Battery voltage	18 V DC (1.2 V × 15 cells)

BATTERY CHARGER

Model	EY0110						
Electrical rating	See the rating plate on the bottom of the charger.						
Weight	0.78 kg, (1.72 lbs.)						
Charging time		7.2V	9.6 V	12V	15.6V	18V	24V
	1.2Ah	EY9065 EY9066	EY9080 EY9086	EY9001 EY9006			
		20min.					
	1.7Ah		EY9180 EY9182	EY9101			
		25min.					
	2.0Ah	EY9168		EY9106	EY9136		EY9117
	30min.		30min.			60min.	
3.0Ah			EY9200	EY9230		EY9210	
			45min.			90min.	
3.5Ah			EY9201	EY9231	EY9251		
			55min.		65min.		

NOTE:

This chart may include models that are not available in your area.
Please refer to the catalogue.

30-DAY QUALITY SATISFACTION GUARANTEE:

If you are dissatisfied with any Panasonic Cordless Power Tool for any reason, simply return it to the place of purchase with a dated proof of purchase, in the original packaging, with all accessories, parts and instructions, within 30 days of the date of purchase, for a full refund, or call Panasonic at 201-392-6655. Abuse or misapplication of any power tool voids the guarantee.

PANASONIC CONSUMER ELECTRONICS COMPANY

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