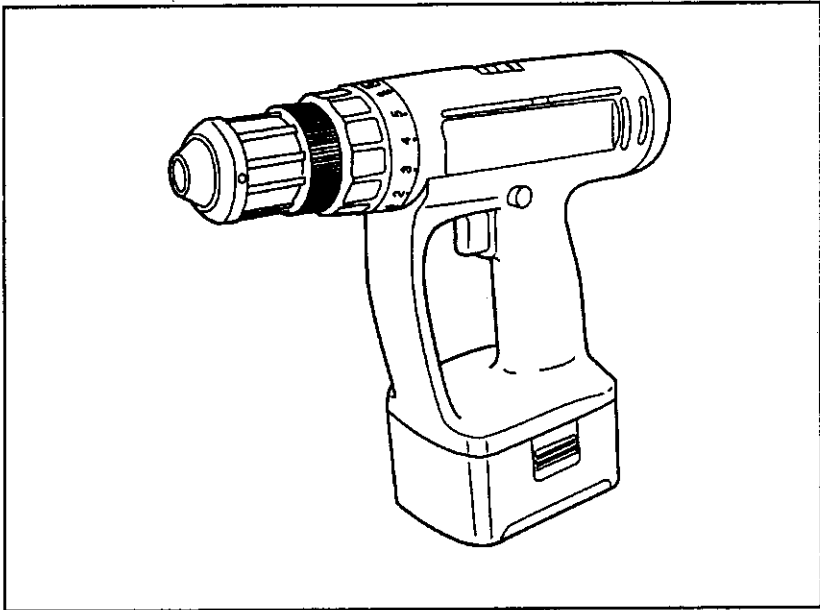


Instruction Manual

Cordless

Hammer Drill & Driver

EY6930



Panasonic XL

Before operating this unit, please read these instructions completely.

IMPORTANT SAFETY INSTRUCTIONS

WARNING: When using electric tools, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury, including the following:

READ ALL INSTRUCTIONS BEFORE USING

- 1) KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
- 2) CONSIDER WORK AREA ENVIRONMENT.** Do not expose power tools to rain. Do not use power tools in damp or wet locations. Keep work area well lit. Do not use tool in presence of flammable liquids or gases.
- 3) GUARD AGAINST ELECTRIC SHOCK.** Prevent body contact with grounded surfaces. For example; pipes, radiators, ranges, refrigerator enclosures.
- 4) KEEP CHILDREN AWAY.** Do not let visitors contact tool. All visitors should be kept away from work area.
- 5) STORE IDLE TOOLS.** When not in use, tools should be stored in a dry, high or locked-up place — out of reach of children.
- 6) DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was designed.
- 7) USE RIGHT TOOL.** Don't force small tools or attachments to do the job of a heavy duty tool. Don't use tool for purpose not intended—for example—don't use circular saw for cutting tree limbs or logs.
- 8) WEAR PROPER APPAREL.** No loose clothing or jewelry to get caught in moving parts. Rubber gloves and nonskid footwear are recommended when working outdoors. Wear protective hair covering to contain long hair.

- 9) USE SAFETY GLASSES** with most tools. Also use face or dust mask in dusty environment.
- 10) 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.
- 11) DON'T OVERREACH.** Keep proper footing and balance at all times.
- 12) MAINTAIN TOOLS WITH CARE.** Keep tools sharp at all times and clean for best and safest performance. Follow instructions for lubricating and changing accessories. Keep handles dry, clean and free from oil and grease.
- 13) DISCONNECT TOOLS/BATTERIES.** When not in use, before servicing, and when changing accessories, such as bits.
- 14) REMOVE ADJUSTING KEYS AND WRENCHES.** Form a habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
- 15) AVOID ACCIDENTAL STARTING.** Don't carry tool with finger on switch.
- 16) STAY ALERT.** Watch what you are doing. Use common sense. Do not operate tool when you are tired.
- 17) CHECK DAMAGED PARTS.** Before further use of the tools, check guard or other safety devices carefully to determine that they will operate properly and perform their intended function. 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 parts replaced by an authorized service center. Do not use a defective tool.

SAVE THESE INSTRUCTIONS

FOR BATTERY CHARGER & BATTERY PACK

1) SAVE THESE INSTRUCTIONS

-This manual contains important safety and operating instructions for battery charger EY0212 and EY0213.

- 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 shown below.

EY0212 EY0213	EY9103, EY9101, EY9001, EY9006, EY9180, EY9080, EY9182, EY9086, EY9065, EY9106, EY9107, EY9136, EY9117
EY0213	EY9230

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:
 - 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.

RECOMMENDED MINIMUM AWG SIZE OF EXTENSION CORDS FOR BATTERY CHARGERS

AC Input Rating, Amperes		AWG Size of Cord			
Equal to or greater than	But less than	Length of Cord, Feet			
		25	50	100	150
0	2	18	18	18	16

- 8) Do not operate charger with damaged cord or plug—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 122°F (50°C) (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 32°F (0°C) or ABOVE 104°F (40°C). This is very important.
- 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 burns.
- 24) NOTE: If the supply cord of this appliance is damaged, it must only be replaced by a repair shop appointed by the manufacturer, because special purpose tools are required.
- 25) TO REDUCE THE RISK OF ELECTRICAL 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.

- 7) When storing or carrying the tool, set the reversing lever to the center (switch lock) position.
- 8) Do not strain the tool by holding the speed control trigger halfway (speed control mode) so that the motor stops.
- 9) Do not operate the speed selector switch (LOW-HIGH) while pulling on the speed control trigger. This can cause the rechargeable battery to wear quickly or damage the internal mechanism of the motor.

- Changes or modifications not expressly approved by MATSUSHITA ELECTRIC WORKS, LTD. could void the user's authority to operate the equipment.

ADDITIONAL SAFETY RULES

- 1) Be aware that this tool is always in an operating condition, since it does not have to be plugged into an electrical outlet.
- 2) When drilling or driving into walls, floors, etc., "live" electrical wires may be encountered. DO NOT TOUCH THE CHUCK OR ANY FRONT METAL PARTS OF THE TOOL! Hold the tool only by the plastic handle to prevent electric shock in case you drill or drive into a "live" wire.
- 3) If the bit becomes jammed, immediately turn the main switch off to prevent an overload which can damage the battery pack or motor. Use reverse motion to loosen jammed bits.
- 4) Do not operate the reversing lever when the main switch is on. The battery will discharge rapidly and damage to the unit may occur.
- 5) During charging, the charger may become slightly warm. This is normal. Do not charge the battery for a long period.
- 6) Use only a dry, soft cloth for wiping the unit. Do not use a damp cloth, thinner, benzene, or other volatile solvents for cleaning.

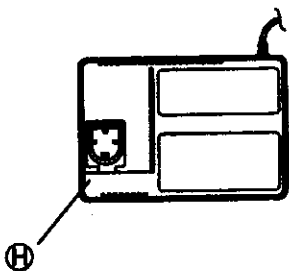
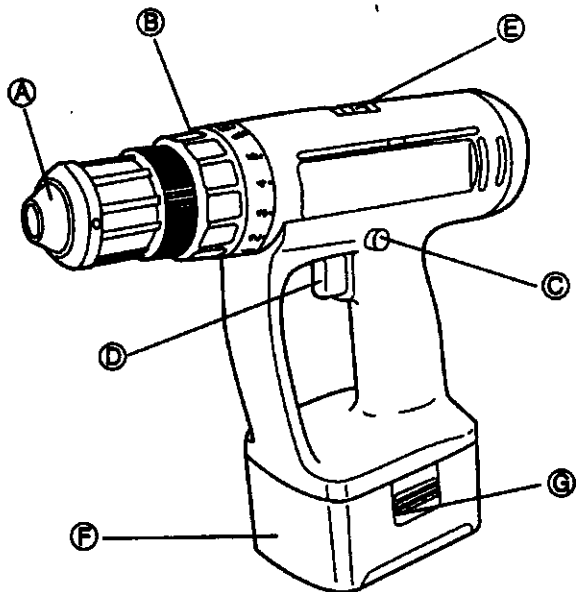
IMPORTANT NOTICE

PLEASE READ THIS ENTIRE NOTICE BEFORE OPERATING YOUR NEW PANASONIC CORDLESS POWER TOOL!

PANASONIC'S CHARGING SYSTEM UTILIZES A QUALITY HIGH TEMPERATURE NICKEL CADMIUM BATTERY PACK IN CONJUNCTION WITH OUR SELF-DIAGNOSTIC UNIVERSAL INVERTER CHARGER.

THIS HIGH TEMPERATURE NICKEL CADMIUM BATTERY PACK REQUIRES A "BREAK-IN PERIOD" TO REACH *MAXIMUM OPERATING CAPACITY*. THE "BREAK-IN PERIOD" IS ACCOMPLISHED DURING NORMAL USAGE DURING THE FIRST 6-8 CHARGE AND DISCHARGE CYCLES OF THE BATTERY PACK.

AFTER THE "BREAK-IN PERIOD" IS COMPLETED, THE BATTERY PACK WILL MAINTAIN *MAXIMUM OPERATING CAPACITY* THROUGHOUT THE NORMAL LIFE OF THE BATTERY PACK.



Ⓐ	Keyless drill chuck
Ⓑ	Clutch handle
Ⓒ	Reversing lever
Ⓓ	Variable speed control trigger
Ⓔ	Speed selector switch
Ⓕ	Battery pack (EY9136/EY9230)
Ⓖ	Battery pack release button
Ⓗ	Battery charger (EY0212/EY0213)
Ⓘ	Lock release rod

PART IDENTIFICATION

A Keyless drill chuck

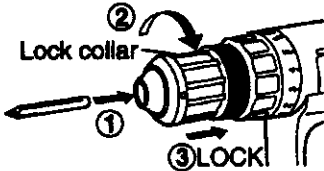
Note: When attaching or removing a bit, be sure to set the reversing lever to its center position (switch lock).

This tool is equipped with a keyless drill chuck.

1. Attachment

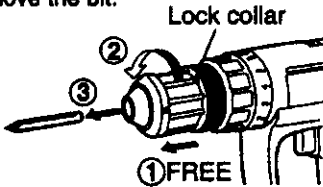
Insert the bit and turn the lock collar clockwise (looking from the front) to tighten firmly.

Slide the Lock collar to LOCK side.

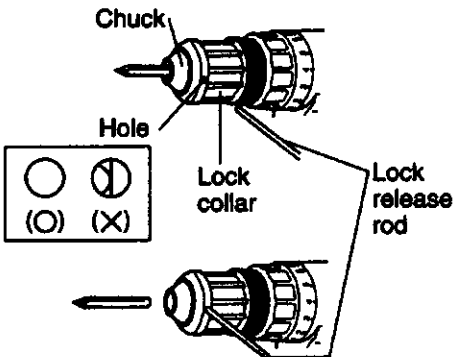


2. Removal

Slide the Lock collar to FREE side. Turn the lock collar counterclockwise (looking from the front), then remove the bit.

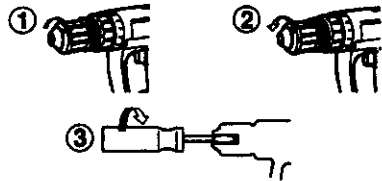


Note: If the bit cannot be removed by hand, insert the lock release rod or a similar tool into the hole located on the chuck to release the lock, and then turn the lock collar counterclockwise (viewed from the front).



(To prevent accidental operation, remove the battery pack before trying to remove the bit.)

Note: If excessive play occurs in the chuck, ① secure the drill in place and tighten the chuck by turning clockwise, ② open the chuck claws by unscrewing the lock collar and ③ tighten the screw (left-handed screw) with a screwdriver by turning it counterclockwise (viewed from the front).



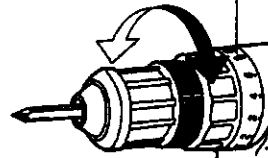
B Clutch Handle

(Clutch Torque Setting)

Adjust the torque to one of the 5 possible settings to the job.

CAUTION: Test the setting before actual operation.

Set the scale at this line




Reference for Adjusting Torque

Scale	Torque	Use
1	Approx. 1.0 Nm (10 kgf-cm or 8.7 in-lbs.)	For driving terminal screws
2	Approx. 1.5 Nm (15 kgf-cm or 13.0 in-lbs.)	For driving machine screws
3	Approx. 2.5 Nm (25 kgf-cm or 21.7 in-lbs.)	For driving screws into soft materials
4	Approx. 3.4 Nm (35 kgf-cm or 30.4 in-lbs.)	For driving screws into hardwood
5	Approx. 4.4 Nm (45 kgf-cm or 39.0 in-lbs.)	
	19.6 Nm 200kgf-cm, 173.4 in-lbs. (Low speed)	For powerful driving and drilling
	Percussion	For drilling to mortar, brick etc.

Bit-locking function

1. With the trigger switch not engaged and a screwdriver bit locked in place, and the tool can be used as a manual screwdriver (up to 22.5Nm, 230kg-cm, 199in-lbs.). There will be a little play in the chuck, but this is not a malfunction.



2. This feature is handy for tightening screws that require more torque than the maximum torque of the driver (position  on the clutch), for confirming the tightness of a screw or to loosen an extremely tight screw.

© Reversing lever

(Forward (U), Switch lock, Reverse (J))

CAUTION: Release the trigger switch to OFF and wait until the bit has come to a complete stop before operating this lever.

1. For reverse rotation, set the lever to reverse. Check the direction of rotation before use.
2. After use, set the lever at the center (switch lock) position.



© Variable speed control trigger

1. The speed increases with the amount of depression of the trigger. When beginning work, depress the trigger slightly to start the motion slowly.
2. A feedback electronic controller is used to give a strong torque even in low speed.
3. The brake operates when the trigger is released and the motor stops immediately.

Note: When the brake operates, a braking sound may be heard. This is normal.


© Speed selector switch

Choose a low or high speed to suit the use.

The more the speed control trigger is pulled, the higher the speed.

CAUTION: Check the speed selection before operating this tool.

© Battery pack (EY9136/EY9230)

1. Press the battery pack release buttons  on both sides and pull the pack away from the tool.
2. Charge the battery pack using the battery charger.
3. After the charging has been completed, remove the battery pack from the charger and connect it to the tool. Disconnect the charger from the A.C. outlet when not in use.

CAUTION: When operating with a Ni-MH battery pack (EY9230) make sure the place is well-ventilated.

Battery Pack Life

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

ATTENTION (EY9136 ONLY):

The nickel cadmium battery you have purchased is recyclable. At the end of its useful life, under various state and local laws, it is illegal to dispose of this battery into your municipal waste stream. Please call 1-800-8-BATTERY for information on how to recycle this battery.

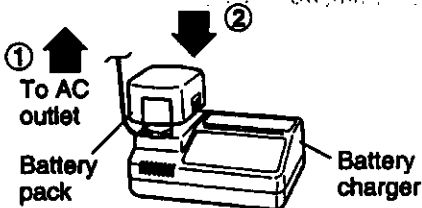


© Battery pack release button

H Battery charger (EY0212/EY0213)

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.

1. Plug the charger into an AC outlet.
2. Open the cap and insert the battery pack firmly into the charger.



- When charging, cooling fan in the charger functions to cool down the battery pack, and the sound of fan can be heard. This is normal. If this sound cannot be heard, it is a malfunction. Stop charging immediately and consult an authorized dealer.

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 rapidly.

5. When in any of the conditions that the charger is too warm, battery pack is too cool, or the battery pack has not been used for a long time, the charging lamp starts flashing slowly to indicate protective charging. Protective charging takes longer to fully charge the battery pack, than the standard charging time.

(Max. charging time is approx. 90 minutes.)

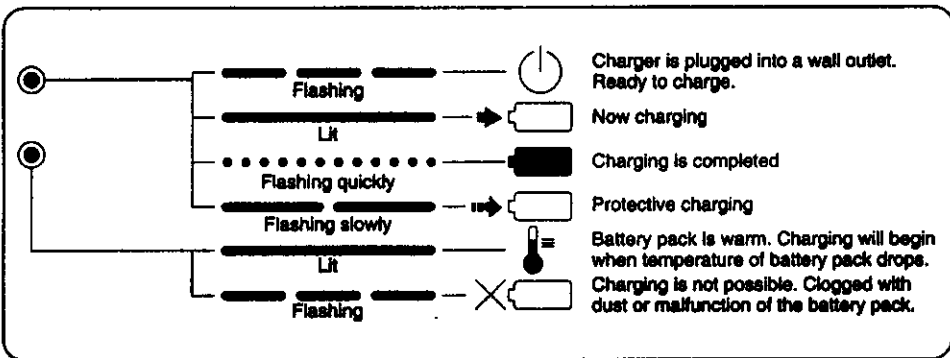
- If a fully charged battery pack is inserted into the charger again, the charging lamp may light up and then flash slowly. After several minutes, the charging lamp may flash quickly to indicate the charging is completed.

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) 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. (Battery pack may not be fully charged.)
 - Cool down the charger when charging more than two battery packs consecutively.

- CAUTION:**
- Do not use power source from an engine generator.
 - Do not cover vent holes on the charger and the battery pack.

LAMP INDICATION



SPECIFICATIONS

		EY6930FQKW	EY6930NQKW																																																									
Body		EY6930																																																										
Capability	Screw driving	Machine screw	M3.5~M6																																																									
		Wood screw	φ 2.1~φ 6.8mm(5/64"~17/64")																																																									
	Drilling	Mortal Brick	φ 3~φ 13mm(1/8"~1/2")																																																									
		Wood	φ 3~φ 27mm(1/8"~1-1/32")																																																									
		Steel	φ 1.5~φ 13mm(1/16"~1/2")																																																									
Motor		DC Motor 15.6V																																																										
No-load Speed	Low	70~570/min(rpm)																																																										
	High	270~2000/min(rpm)																																																										
Blows rate per minute	Low	1050~8550/min(rpm)																																																										
	High	4050~30000/min(rpm)																																																										
Chuck capacity		1.5mm~13mm(1/16"~1/2")																																																										
Max. Torque	Low	22.5Nm(230kgf-cm or 199in-lbs)																																																										
	High	5.9Nm(60kgf-cm or 52in-lbs)																																																										
Blow strength		6.9Nm(70kgf-cm or 61in-lbs)																																																										
Overall length		263mm(10-1/64")																																																										
Weight (with Battery Pack)		2.35kg,(5.2 lbs)	2.45kg,(5.4 lbs)																																																									
Battery Pack		EY9136	EY9230																																																									
Storage Battery		NI-Cd battery	NI-MH battery																																																									
Battery voltage		15.6V DC (1.2V × 13cells)																																																										
Battery Charger		EY0212	EY0213																																																									
Weight		1.4kg,(3.1 lbs)	1.3kg,(2.9 lbs)																																																									
Charging time		<table border="1"> <thead> <tr> <th></th> <th>2.4V</th> <th>15.6V</th> <th>12V</th> <th>9.6V</th> <th>7.2V</th> <th>Standard Charging Time</th> </tr> </thead> <tbody> <tr> <td>EY0212</td> <td>—</td> <td>—</td> <td>EY9001</td> <td>EY9080</td> <td rowspan="2">EY9065</td> <td rowspan="2">Approx. 20 min.</td> </tr> <tr> <td>EY0213</td> <td>—</td> <td>—</td> <td>EY9006</td> <td>EY9066</td> </tr> <tr> <td rowspan="2"></td> <td>—</td> <td>—</td> <td>EY9101</td> <td>EY9180</td> <td>—</td> <td>Approx. 25 min.</td> </tr> <tr> <td></td> <td></td> <td>EY9103</td> <td>EY9182</td> <td></td> <td></td> </tr> <tr> <td></td> <td>EY9117</td> <td>EY9136</td> <td>EY9106</td> <td>—</td> <td>—</td> <td>Approx. 30 min.</td> </tr> <tr> <td></td> <td></td> <td></td> <td>EY9107</td> <td>—</td> <td>—</td> <td></td> </tr> <tr> <td>EY0213</td> <td>—</td> <td>EY9230</td> <td>—</td> <td>—</td> <td>—</td> <td>Approx. 45 min.</td> </tr> </tbody> </table>							2.4V	15.6V	12V	9.6V	7.2V	Standard Charging Time	EY0212	—	—	EY9001	EY9080	EY9065	Approx. 20 min.	EY0213	—	—	EY9006	EY9066		—	—	EY9101	EY9180	—	Approx. 25 min.			EY9103	EY9182				EY9117	EY9136	EY9106	—	—	Approx. 30 min.				EY9107	—	—		EY0213	—	EY9230	—	—	—	Approx. 45 min.
	2.4V	15.6V	12V	9.6V	7.2V	Standard Charging Time																																																						
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