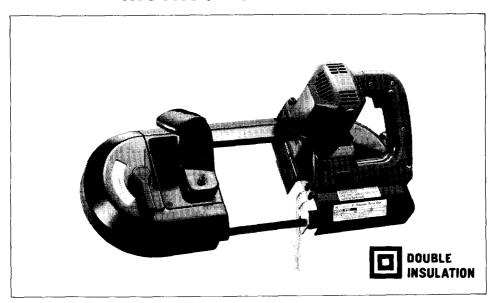




# **Portable Band Saw**

MODEL 2106
MODEL 2106K
With Steel Carrying Case

# INSTRUCTION MANUAL



#### **SPECIFICATIONS**

	Blade speed				
Round	Rectangular	No load surface (FPM)			
workpiece	Without optional stand	With optional stand	High	Low	
115 mm dia. (4-1/2")	115 mm x 115 mm (4-1/2" x 4-1/2")	75 mm x 110 mm (3" x 4-3/8")	260	200	

Blade size			Overall dimensions	Net	
Length	Width	Thickness	Height x Width x Length	weight	
1,140 mm (44-7/8")	13 mm (1/2")	0.5 mm (.020'')	235 mm x 230 mm x 500 mm (9-1/4" x 9" x 20")	5.5 kg (12.1 lbs)	

- \* Manufacturer reserves the right to change specifications without notice.
- Note: Specifications may differ from country to country.

# IMPORTANT SAFETY INSTRUCTIONS

(For All Tools)

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.

- 1. KEEP WORK AREA CLEAN. Cluttered areas and benches invite injuries.
- 2. CONSIDER WORK AREA ENVIRONMENT. Don't use power tools in damp or wet locations. Keep work area well lit. Don't expose power tools to rain. Don't use tool in presence of flammable liquids or gases.
- 3. KEEP CHILDREN AWAY. All visitors should be kept away from work area. Don't let visitors contact tool or extension cord.
- 4. STORE IDLE TOOLS. When not in use, tools should be stored in dry, and high or locked-up place out of reach of children.
- 5. DON'T FORCE TOOL. It will do the job better and safer at the rate for which it was intended.
- 6. USE RIGHT TOOL. Don't force small tool or attachment 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.
- 7. DRESS PROPERLY. Don't wear loose clothing or jewelry. They can be caught in moving parts. Rubber gloves and non-skid footwear are recommended when working outdoors. Wear protective hair covering to contain long hair.
- 8. USE SAFETY GLASSES. Also use face or dust mask if cutting operation is dusty.
- 9. DON'T ABUSE CORD. Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges.
- 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 and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and if damaged, have repaired by authorized service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean, and free from oil and grease.
- 13. DISCONNECT TOOLS. When not in use, before servicing, and when changing accessories, such as blades, bits, cutters.

- 14. REMOVE ADJUSTING KEYS AND WRENCHES. Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
- 15. AVOID UNINTENTIONAL STARTING. Don't carry tool with finger on switch. Be sure switch is OFF when plugging in.
- 16. EXTENSION CORDS. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table 1 shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.

		}		Total Length	of Cord in Feet	
			0 - 25	26 - 50	51 — 100	101 — 150
Amp More Than	ere R	ating lot More Than		A	w G	
0		6	18	16	16	14
6		10	18	16	14	12
10	_	12	16	16	14	12

12

Not Recommended

TABLE 1 MINIMUM GAGE FOR CORD SETS

17. OUTDOOR USE EXTENSION CORDS. When tool is used outdoors, use only extension cords intended for use outdoors and so marked.

14

12

16

- 18. STAY ALERT. Watch what you are doing, use common sense. Don't operate tool when you are tired.
- 19. CHECK DAMAGED PARTS. Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its 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 unless otherwise indicated elsewhere in this instruction manual. Have defective switches replaced by authorized service center. Don't use tool if switch does not turn it on and off.
- 20. GUARD AGAINST ELECTRIC SHOCK. Prevent body contact with grounded surfaces. For example; pipes, radiators, ranges, refrigerator enclosures.
- 21. REPLACEMENT PARTS. When servicing, use only identical replacement parts.
- 22. POLARIZED PLUGS. To reduce the risk of electric shock, this equipment 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.

VOLTAGE WARNING: Before connecting the tool to a power source (receptacle, outlet, etc.) be sure the voltage supplied is the same as that specified on the nameplate of the tool. A power source with voltage greater than that specified for the tool can result in SERIOUS INJURY to the user — as well as damage to the tool. If in doubt, DO NOT PLUG IN THE TOOL. Using a power source with voltage less than the nameplate rating is harmful to the motor.

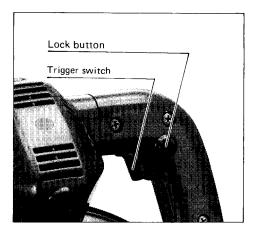
## **ADDITIONAL SAFETY RULES**

- 1. Use only blades which are 1,140 mm (44-7/8") long; 13 mm (1/2") wide; and 0.5 mm (.020") thick.
- 2. Check the blade carefully for cracks or damage before operation. Replace cracked or damaged blade immediately.
- 3. Secure the workpiece firmly. When cutting a bundle of workpieces, be sure that all workpieces are secured together firmly before cutting.
- 4. Cutting workpieces covered with oil can cause the blade to come off unexpectedly. Wipe off all excess oil from workpieces before cutting.
- 5. Never use cutting oil as a cutting lubricant. Use only Makita cutting wax.
- 6. Do not wear gloves during operation.
- 7. Hold the tool firmly with both hands.
- 8. When cutting metals, be cautious of hot flying chips.
- 9. Do not leave the tool running unattended.
- 10. Do not touch the blade or the workpiece immediately after operation; they may be extremely hot and could burn your skin.

## SAVE THESE INSTRUCTIONS.

#### Switch action

To start the tool, simply pull the trigger. Release the trigger to stop. For continuous operation, pull the trigger and then push in the lock button. To stop the tool from the locked position, pull the trigger fully, then release it.

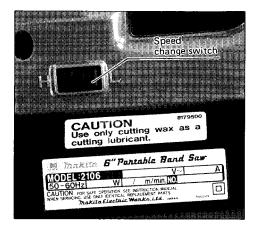


#### CAUTION:

Before plugging in the tool, always check to see that the trigger switch actuates properly and returns to the "OFF" position when released.

#### Speed change

To change the tool speed, press the "H" side of the speed change switch for high speed or the "L" side for low speed.



#### CAUTION:

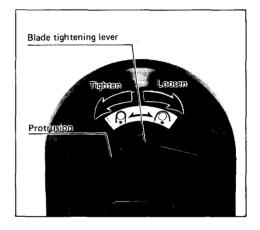
Do not change the tool speed while the motor is running.

#### Installing or removing blade

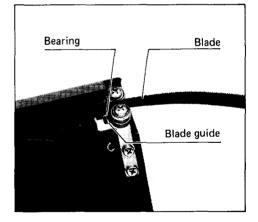
#### CAUTION:

- Always be sure that the tool is switched off and unplugged before installing or removing the blade.
- Oil on the blade can cause the blade to slip or come off unexpectedly. Wipe off all excess oil with a cloth before installing the blade.
- Use caution when handling the blades so that you are not cut by their sharp teeth.

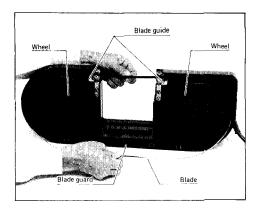
Turn the blade tightening lever clockwise until it hits against the protrusion on the frame. Match the direction of the arrow on the blade to that of the arrow on the wheels



Insert the blade between the bearings of one blade guide first and then into the other blade guide. The blade back should contact the bearings in the lower portion of the blade guides.



Position the blade around the wheels and insert the other side of the blade within the blade guard until the blade back contacts the bottom of the blade guard.



Hold the blade in place and turn the blade tightening lever counterclockwise until it hits against the protrusion on the frame. This places proper tension on the blade. Make sure that the blade is correctly positioned within the blade guard and around the wheels.

Start and stop the tool two or three times to make sure that the blade runs properly on the wheels.

#### CAUTION:

While making sure that the blade runs on the wheels properly, keep your body away from the blade area.

To remove the blade, follow the installation procedures in reverse.

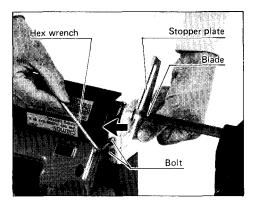
#### **CAUTION:**

When turning the blade tightening lever clockwise to release the tension on the blade, the blade may come off unexpectedly. Be careful.

#### Installing stopper plate (For Model 2106 only)

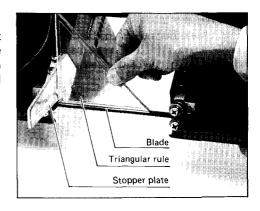
This tool is shipped from the factory without the stopper plate installed. Install the stopper plate as follows.

Install the stopper plate on the frame so that the blade can run through the slot in the stopper plate. While pressing the stopper plate against the frame, secure the stopper plate with the bolts using the hex wrench.



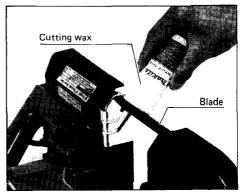
#### Squaring blade with stopper plate

Use the triangular rule to make sure that the side of the blade is square with the side of the stopper plate. If not square, loosen the bolts securing the stopper plate and adjust the stopper plate accordingly.



#### **Cutting lubricant**

When cutting metals, use Makita cutting wax as a cutting lubricant. To apply the cutting wax to the blade teeth, start the tool and cut in to the cutting wax as shown in the figure.

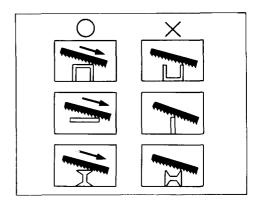


#### CAUTION:

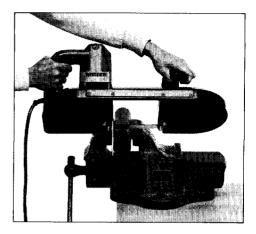
- Never use cutting oil or apply excessive amount of wax to the blade. It may cause the blade to slip or come off unexpectedly.
- When cutting cast iron, do not use any cutting lubricant.

#### **Cutting operation**

It is important to keep at least two teeth in the cut. Select the proper cutting position for your workpiece by refering to the figure at right.



Hold the tool as shown in the figure with the stopper plate contacting the workpiece and the blade clear of the workpiece.



Turn the tool on and wait until the blade attains full speed. Gently lower the blade into the cut. The weight of the tool or slightly pressing the tool down will supply adequate pressure for the cutting. Do not force the tool.

As you reach the end of a cut, release pressure and, without actually raising the tool, lift it slightly so that it will not fall against the workpiece.

#### CAUTION:

- Applying excessive pressure to the tool or twisting of the blade may cause bevel cutting or damage to the blade.
- When not using the tool for a long period of time, remove the blade from the tool.

#### MAINTENANCE

#### CAUTION:

Always be sure that the tool is switched off and unplugged before attempting to perform inspection or maintenance.

#### Cleaning

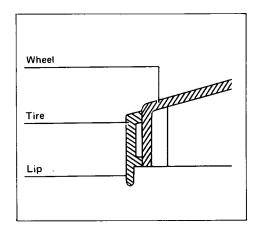
After use, remove wax, chips and dust from the tool, wheel tires and blade.

#### CAUTION:

- Never use solvents such as turpentine, gasoline, lacquer, etc. to clean plastic parts.
- Wax and chips on the tires may cause the blade to slip and come off unexpectedly. Use a dry cloth to remove wax and chips from the tires.

#### Replacing tires on wheels

When the blade slips or does not track properly because of badly worn tires, or the lip of the tire on motor side gets damaged, the tires should be replaced.



Ask Makita Authorized or Factory Service Centers to replace them.

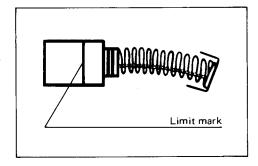
#### **MAINTENANCE**

#### CAUTION:

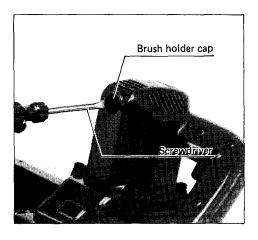
Always be sure that the tool is switched off and unplugged before attempting to perform inspection or maintenance.

#### Replacing carbon brushes

Remove and check the carbon brushes regularly. Replace when they wear down to the limit mark. Keep the carbon brushes clean and free to slip in the holders. Both carbon brushes should be replaced at the same time. Use only identical carbon brushes.



Use a screwdriver to remove the brush holder caps. Take out the worn carbon brushes, insert the new ones and secure the brush holder caps.



To maintain product SAFETY and RELIABILITY, repairs, any other maintenance or adjustment should be performed by Makita Authorized or Factory Service Centers, always using Makita replacement parts.

#### **ACCESSORIES**

#### CAUTION:

These accessories or attachments are recommended for use with your Makita tool specified in this manual. The use of any other accessories or attachments might present a risk of injury to persons. The accessories or attachments should be used only in the proper and intended manner.

#### • Band saw blade

44-7/8" x 1/2" x .020"



Blade Type	Teeth per inch	Thickness of workpiece to be cut	Part No.	Blades per pkg.	Tool speed	Workpiece to be cut			
						Plastics and non- ferrous metal	Mild steel, cast steel and cast iron	Hard steel and stainless steel	Wood
	10	1/2" + 0405	702567 A	3	Н	0			0
	L 10 _	1/2" + over	792567-A	[ 3 ]	L		0		
	14	1/4" - 1/2"	792560-A	3	Н	0			
	14	1/4 - 1/2	792500-A		L.	ļ	0		
Carbon	18	1/8'' – 1/4'' 792559-A	702E50.A	559-A 3	н	0		L	
Steel Blade				. L		0			
	24	Less than 1/8" 7925	792558- A	792558-A 3	Н	0	<u> </u>		
	24		792556-A		L		0		
	10	10 1/2" + over	792557-B	1	н	0		L	
		1/2 + Over			L		0	0	
	14	14 1/4" – 1/2" 792557-A		Н	0				
Bi-Metal	14 1/4" – 1/2" 792557-A	1	L		0	0			
		18 1/8" – 1/4" 792556- A		Н	0				
	18		1	L		0	0		
	24	24 4 4 4 700555 4		н	0				
	24	Less than 1/8"	792555-A	1 1	L		0	0	

#### NOTE:

- Select a blade which will allow at least two teeth to be engaged in the workpiece thickness.
- The above table is provided as a guide only. Select a proper blade according to the workpiece to be cut.

• Triangular rule Part No. 762001-3



Hex wrench 4
 Part No. 783209-6

# • Cutting wax Part No. 191897-9



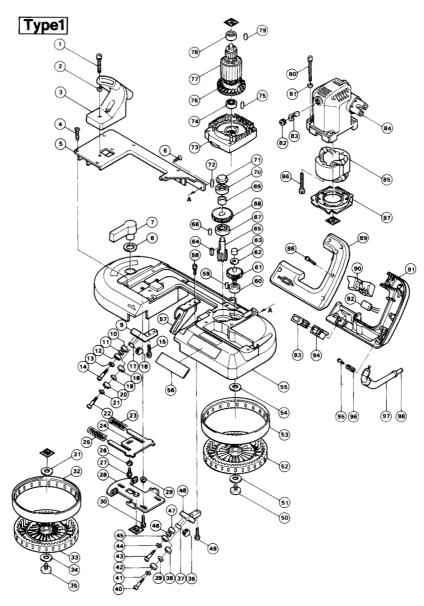
• Steel carrying case Part No. 823204-5

#### • Portable band saw stand Part No. 122370-8



(For accurate square cutting operations)

# PORTABLE BAND SAW Model 2106



Note: The switch, noise suppressor and other part configurations may differ from country to country.

NO.	NO. USED	DESCRIPTION	ITEM NO.	NO. USED	DESCRIPTION
MAC	HINE		MAC	HINE	
1	2	Hex. Socket Head Bolt M6x40 (With Washer)	50	1	Hex. Socket Head Bolt M6x12
2	2	Flat Washer 6	51	1	Flat Washer 16
3	1	Grip 80	52	1	Wheel
4	6	Hex. Socket Head Bolt M5x22	53	1	Rubber Tire
5	1	Frame Cover	54	1	Flat Washer 16
6	4	Hex. Socket Head Bolt M5x10	55	1	Frame
7	1	Lever 60	56	1	Name Plate
8	1	Flat Washer 20	57	1	Stopper Plate
9	1	Upper Holder	58	2	Hex. Socket Head Bolt M5x25
10	1	Ball Bearing 696ZZ	59	1	Rubber Pin 4
11	1	Flat Washer 6	60	1	Ball Bearing 608
12	1	Ball Bearing 696ZZ	61	1	Gear 1145
13	1	Spring Washer 6	62	1	Flat Washer 8
14	1	Pan Head Screw M5	63	1	Needle Bearing 810
15	2	Pan Head Screw M5x28 (With Washer)	64	1	Key 4
16	1	Ball Bearing 696ZZ	65	1	Spur Gear 9
17	1	Pin 6	66	1	Rubber Pin 6
18	1	Ball Bearing 696ZZ	67	1	Ball Bearing 6201LB
19	1 1	Flat Washer 6	68	1	Helical Gear 42
20	1	Ball Bearing 696ZZ	69	1	Sleeve 12
21	1	Spring Washer 6	70	1	Ball Bearing 6000
22	1	Pan Head Screw M5	71	1	Cap 26
23	1	Compression Spring 11	72	1	Rubber Pin 4
24	1	Tension Plate	73	1	Gear Housing
25	1	Compression Spring 11	74	1	Ball Bearing 629LB
26	1	Sleeve 5	75	[ 1	Rubber Pin 4
27	1	Pan Head Screw M5x16 (With Washer)	76	1	Fan 62
28	1	Slide Plate	77	1	ARMATURE ASSEMBLY
29	3	Sleeve 5	1	1	(With Item 74 & 76 - 78)
30	3	Pan Head Screw M5x25 (With Washer)	78	1	Ball Bearing 608LB
31	1	Flat Washer 16	79	1	Rubber Pin 4
32	1	Rubber Tire	80	4	Hex. Socket Head Bolt M6x60 (With Washer)
33	1	Wheel	81	4	Flat Washer 6
34	1	Flat Washer 16	82	2	Brush Holder Cap
35	1	Hex. Socket Head Bolt M6x12	83	2	Carbon Brush
36	1	Ball Bearing 696ZZ	84	1	Motor Housing
37	1	Pin 6	85	1	FIELD ASSEMBLY
38	1	Ball Bearing 696ZZ	86	2	Hex. Bolt M5x50 (With Washer)
39	1	Flat Washer 6	87	1	Baffle Plate
40	1 1	Pan Head Screw M5	88	5	Pan Head Screw M5x28 (With Washer)
41	1	Spring Washer 6	89	1	Handle Set (With Item 91)
42	1	Ball Bearing 696ZZ	90	1	Switch
43	1 1	Pan Head Screw M5	91	1	Handle Set (With Item 89)
44	1	Spring Washer 6	93	1	Switch
45	!	Ball Bearing 696ZZ	94	1	Switch Protector
46	1 1	Flat Washer 6	95	2	Pan Head Screw M4x18 (With Washer)
47	!!	Ball Bearing 696ZZ	96	1	Strain Relief
48	1 !	Lower Holder	97	1	Cord Guard
49	1 1	Pan Head Screw M5x28 (With Washer)	98	1	Cord

Note: The switch and other part specifications may differ from country to country.



### MAKITA LIMITED ONE YEAR WARRANTY

#### Warranty Policy

Every Makita tool is thoroughly inspected and tested before leaving the factory. It is warranted to be free of defects from workmanship and materials for the period of ONE YEAR from the date of original purchase. Should any trouble develop during this one-year period, return the COMPLETE tool, freight prepaid, to one of Makita's Factory or Authorized Service Centers. If inspection shows the trouble is caused by defective workmanship or material, Makita will repair (or at our option, replace) without charge.

This Warranty does not apply where:

- · repairs have been made or attempted by others:
- repairs are required because of normal wear and tear:
- The tool has been abused, misused or improperly maintained;
   alterations have been made to the tool.

IN NO EVENT SHALL MAKITA BE LIABLE FOR ANY INDIRECT, INCIDENTAL OR CON-SEQUENTIAL DAMAGES FROM THE SALE OR USE OF THE PRODUCT. THIS DISCLAIMER APPLIES BOTH DURING AND AFTER THE TERM OF THIS WARRANTY.

MAKITA DISCLAIMS LIABILITY FOR ANY IMPLIED WARRANTIES, INCLUDING IMPLIED WARRANTIES OF "MERCHANTABILITY" AND "FITNESS FOR A SPECIFIC PURPOSE," AFTER THE ONE-YEAR TERM OF THIS WARRANTY.

This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you.

Makita Corporation

3-11-8. Sumiyoshi-cho, Anio, Aichi 446 Japan