

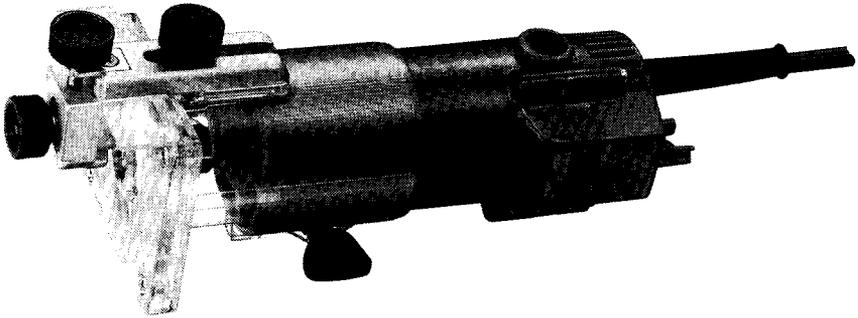
# Makita

アメリカ

## Trimmer

1/4" MODEL 3703

### INSTRUCTION MANUAL



#### SPECIFICATIONS

Collet chuck capacity	No load speed (RPM)	Overall length	Net weight
1/4"	30,000	247 mm (9-23/32")	1.5 kg (3.3 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.
- 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 plugged-in tool with finger on switch. Be sure switch is OFF when plugging in.
16. **OUTDOOR USE EXTENSION CORDS.** When tool is used outdoors, use only extension cords intended for use outdoors and so marked.
17. **STAY ALERT.** Watch what you are doing, use common sense. Don't operate tool when you are tired.
18. **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.
19. **GUARD AGAINST ELECTRIC SHOCK.** Prevent body contact with grounded surfaces. For example; pipes, radiators, ranges, refrigerator enclosures.
20. **REPLACEMENT PARTS.** When servicing, use only identical replacement parts.

**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. Wear hearing protection during extended periods of operation.**
- 2. Handle the bits very carefully.**
- 3. Check the bit carefully for cracks or damage before operation. Replace cracked or damaged bit immediately.**
- 4. Avoid cutting nails. Inspect for and remove all nails from the workpiece before operation.**
- 5. Hold the tool firmly.**
- 6. Keep hands away from rotating parts.**
- 7. Make sure the bit is not contacting the workpiece before the switch is turned on.**
- 8. Before using the tool on an actual workpiece, let it run for a while. Watch for vibration or wobbling that could indicate improperly installed bit.**
- 9. Be careful of the bit rotating direction and the feed direction.**
- 10. Do not leave the tool running. Operate the tool only when hand-held.**
- 11. Always switch off and wait for the bit to come to a complete stop before removing the tool from workpiece.**
- 12. Do not touch the bit immediately after operation; it may be extremely hot and could burn your skin.**
- 13. Don't smear the tool base carelessly with thinner, gasoline, oil or the like. They may cause cracks in the tool base.**

**SAVE THESE INSTRUCTIONS.**

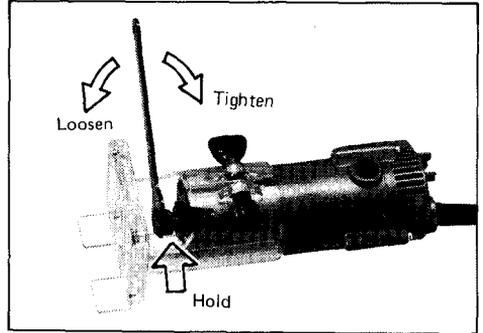
## Installing or removing trimmer bit

### CAUTION:

Always be sure that the tool is switched off and unplugged before installing or removing the bit.

Insert the bit all the way into the collet cone and tighten the collet nut securely with the two wrenches.

To remove the bit, follow the installation procedure in reverse.

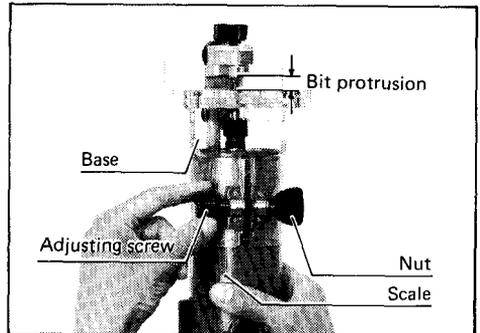


### CAUTION:

- Do not tighten the collet nut without inserting a bit, or the collet cone will break.
- Use only the wrenches provided with the tool.

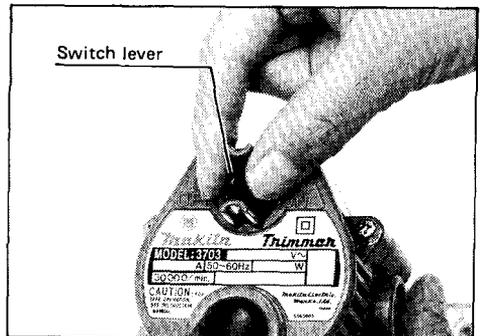
## Adjusting bit protrusion

To adjust the bit protrusion, loosen the nut and move the tool base up or down as desired by turning the adjusting screw. After adjusting, tighten the nut firmly to secure the tool base.



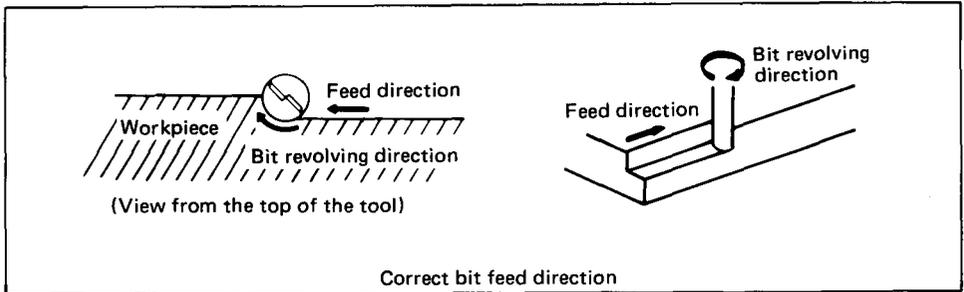
## Switch action

To start the tool, move the switch lever to the "ON" position. To stop, move the switch lever to the "OFF" position.



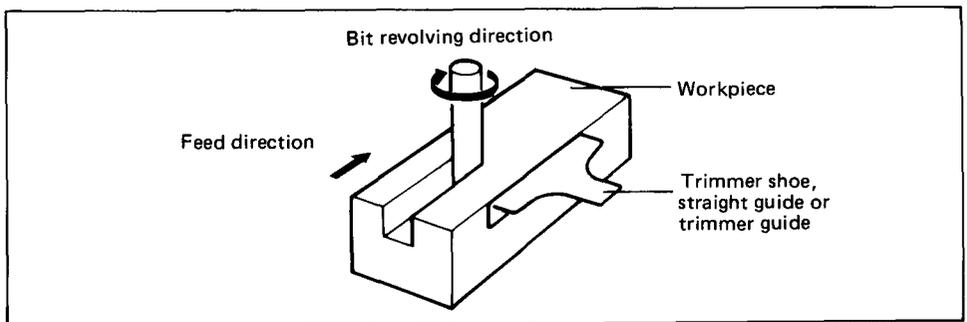
## Operation

- Set the tool base on the workpiece to be cut without the bit making any contact. Then turn the tool on and wait until the bit attains full speed. Move the tool forward over the workpiece surface, keeping the tool base flush and advancing smoothly until the cutting is complete.
- When doing edge cutting, the workpiece surface should be on the left side of the bit in the feed direction. (See the figure below)



## NOTE:

- Moving the tool forward too fast may cause a poor quality of cut, or damage to the bit or motor. Moving the tool forward too slowly may burn and mar the cut. The proper feed rate will depend on the bit size, the kind of workpiece and depth of cut. Before beginning the cut on the actual workpiece, it is advisable to make a sample cut on a piece of scrap lumber. This will show exactly how the cut will look as well as enable you to check dimensions.
- When using the trimmer shoe, the straight guide or the trimmer guide, be sure to keep it on the right side in the feed direction. This will help to keep it flush with the side of the workpiece.

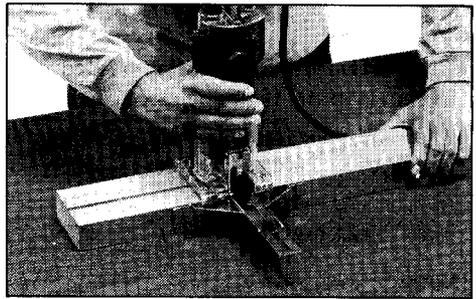


## CAUTION:

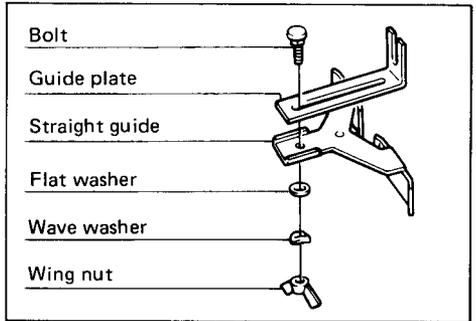
Since excessive cutting may cause overload of the motor or difficulty in controlling the tool, the depth of cut should not be more than 3 mm (1/8") at a pass when cutting grooves. When you wish to cut grooves more than 3 mm (1/8") deep, make several passes with progressively deeper bit settings.

**Straight guide (Optional accessory)**

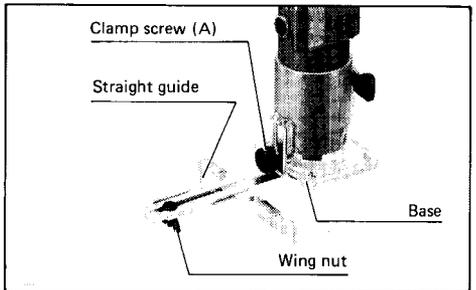
The straight guide is effectively used for straight cuts when chamfering or grooving.



Attach the guide plate to the straight guide with the bolt, the wave washer, the flat washer and the wing nut.

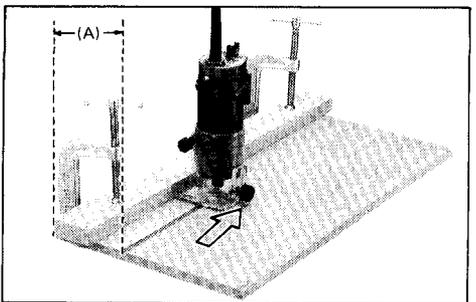


Remove the chip deflector. Attach the straight guide with the clamp screw (A). Loosen the wing nut on the straight guide and adjust the distance between the bit and the straight guide. At the desired distance, tighten the wing nut securely.



When cutting, move the tool with the straight guide flush with the side of the workpiece.

If the distance (A) between the side of the workpiece and the cutting position is too wide for the straight guide, or if the side of the workpiece is not straight, the straight guide cannot be used. In this case, firmly clamp a straight board to the workpiece and use it as a guide against the trimmer base. Feed the tool in the direction of the arrow.

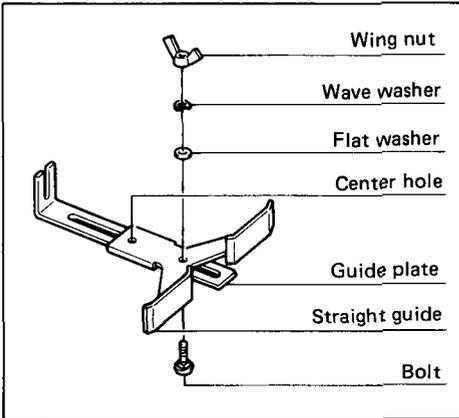


### Circular work

- Circular work may be accomplished if you assemble the straight guide and guide plate as shown in the figure below.
- Min. and max. radius of circles to be cut (distance between the center of circle and the center of bit) are as follows:  
Min. : 70 mm (2-3/4")  
Max. : 221 mm (8-11/16")

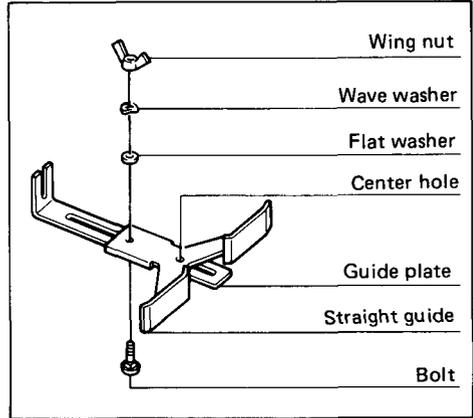
(Note)

Circles between 172 mm (6-3/4") and 186 mm (7-5/16") in radius cannot be cut using this guide.

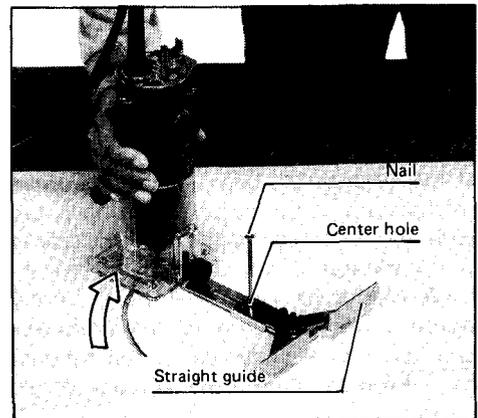


For cutting circles between 70 mm (2-3/4") and 121 mm (4-3/4") in radius.

Align the center hole in the straight guide with the center of the circle to be cut. Drive a nail less than 6 mm (1/4") in diameter into the center hole to secure the straight guide. Pivot the tool around the nail in clockwise direction.

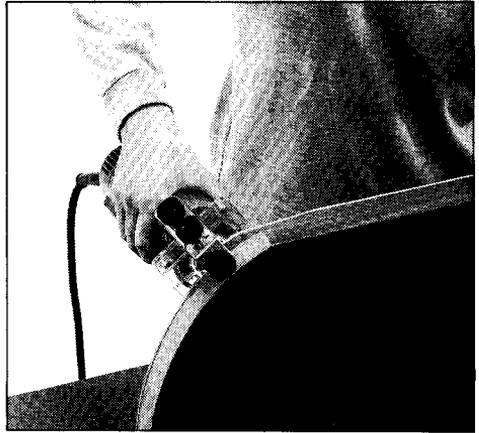


For cutting circles between 121mm (4-3/4") and 221 mm (8-11/16") in radius.

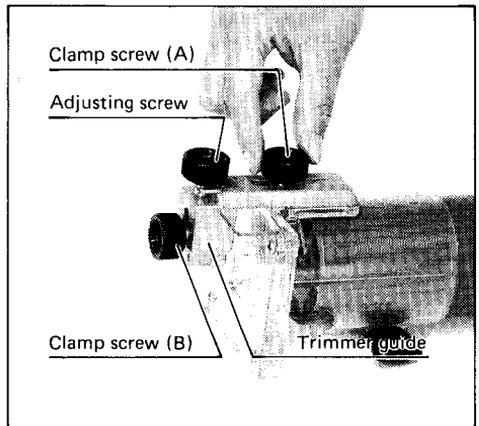


## Trimmer guide

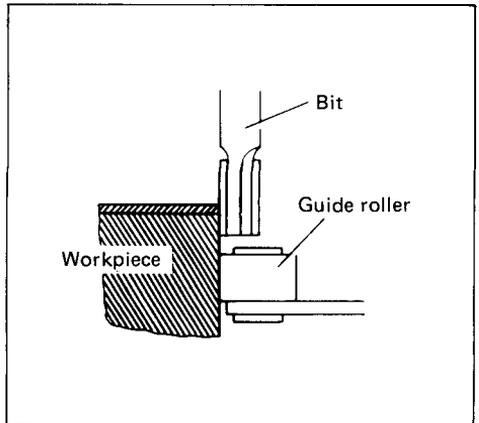
Trimming, curved cuts in veneers for furniture and the like can be done easily with the trimmer guide. The guide roller rides the curve and assures a fine cut.



Install the trimmer guide on the tool base with the clamp screw (A). Loosen the clamp screw (B) and adjust the distance between the bit and the trimmer guide by turning the adjusting screw (1 mm or about 3/64" per turn). At the desired distance, tighten the clamp screw (B) to secure the trimmer guide in place.

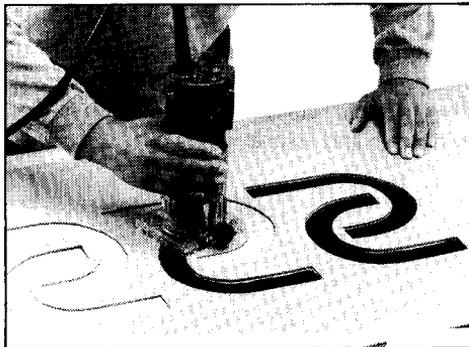


When cutting, move the tool with the guide roller riding the side of the workpiece.

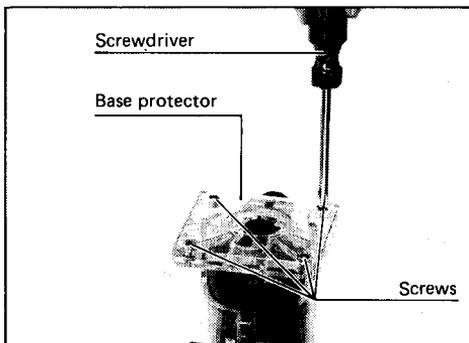


## Templet guide

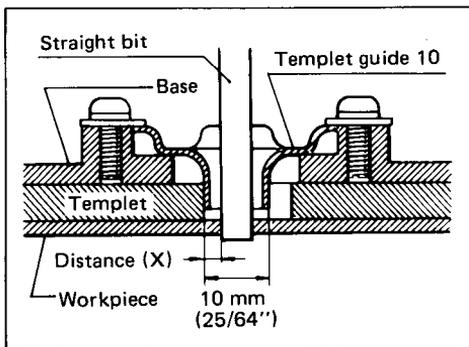
The templet guide provides a sleeve through which the bit passes, allowing use of the trimmer with templet patterns.



Remove the chip deflector. Loosen the screws and remove the base protector. Place the templet guide on the base and replace the base protector. Then secure the base protector by tightening the screws.



Secure the templet to the workpiece. Place the tool on the templet and move the tool with the templet guide sliding along the side of the templet.



### NOTE:

The workpiece will be cut a slightly different size from the templet. Allow for the distance (X) between the router bit and the outside of the templet guide. The distance (X) can be calculated by using the following equation:

Distance (X) =

$$\frac{\text{outside diameter of the templet guide} - \text{router bit diameter}}{2}$$

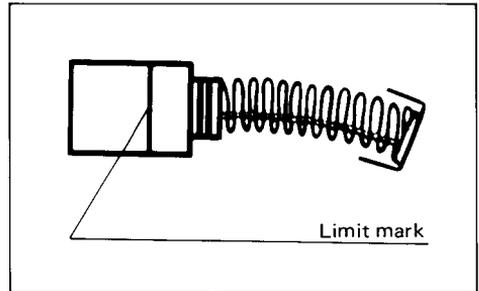
## MAINTENANCE

### CAUTION:

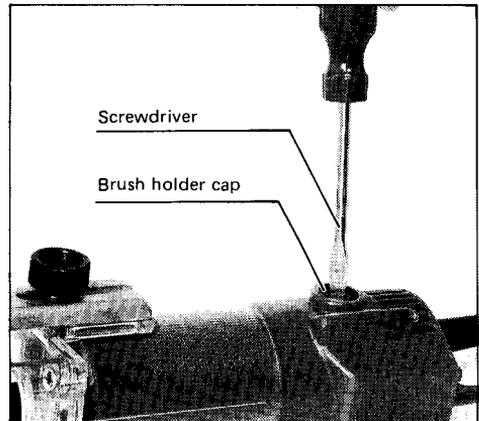
Always be sure that the tool is switched off and unplugged before attempting to perform inspection or maintenance.

### 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.

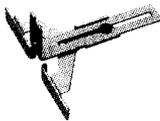
## ACCESSORIES

### 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.

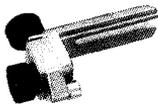
- **Straight guide assembly**

Part No. 123008-8



- **Trimmer guide assembly**

Part No. 122389-7



- **Templet guide**

Part No. 343577-5



- **Wrench 10**

Part No. 781003-0



- **Wrench 17**

Part No. 781008-0



- **Trimmer base assembly**

Part No. 122390-2

This angle-adjustable trimmer base assembly enables you to perform any angle of chamfering with a straight bit.

Cutting depth can be adjusted smoothly and precisely with a rack and pinion type of fine depth adjustment.



- **Trimmer shoe**

Part No. 155263-4



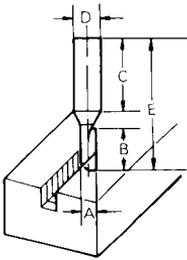
- **Collet cone 1/4"**

Part No. 763608-8



## Bits

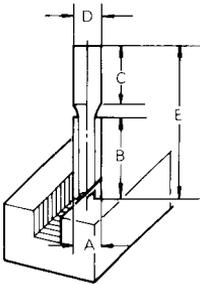
### STRAIGHT – Single Flute



#### HIGH SPEED STEEL

PART NO.	A	B	C	D	E
733232-6A	1/8	5/16	1-1/8	1/4	1-5/8

### STRAIGHT – 2 Flute



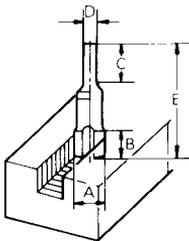
#### CARBIDE TIPPED

PART NO.	A	B	C	D	E
733003-2A	3/16	7/16	1-3/8	1/4	2
733003-4A	1/4	3/4	1-3/16	1/4	2-1/8
733003-8A	5/16	1	1-1/8	1/4	2-3/16

#### HIGH SPEED STEEL (STRAIGHT – 2 Flute)

PART NO.	A	B	C	D	E
733233-4A	5/16	7/8	1-3/16	1/4	2-1/8

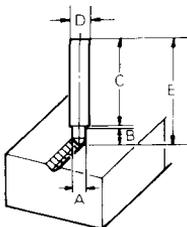
### HINGE MORTISING



#### CARBIDE TIPPED

PART NO.	A	B	C	D	E
733006-9A	1/2	1/2	1-1/16	1/4	1-13/16

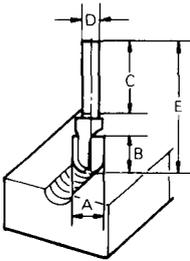
### VEINING – Single Flute



#### SOLID CARBIDE

PART NO.	A	B	C	D	E
733007-8A	3/16	7/32	1-1/4	1/4	1-1/2

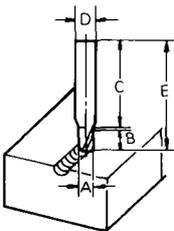
**ROUND NOSE**



**CARBIDE TIPPED**

PART NO.	A	B	C	D	E
733008-2A	1/4	15/32	1-1/4	1/4	1-7/8
733008-4A	3/8	9/16	1-1/4	1/4	2

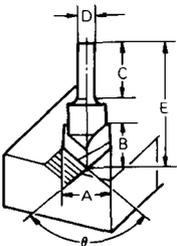
**CORE BOX**



**HIGH SPEED STEEL**

PART NO.	A	B	C	D	E
733238-2A	1/4	1/4	1-3/16	1/4	1-1/2

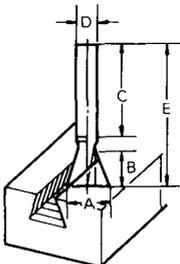
**VEE GROOVING**



**CARBIDE TIPPED**

PART NO.	A	B	C	D	E	$\theta$
733009-2A	3/8	1/2	1-3/16	1/4	2	90°

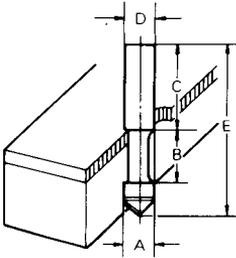
**14° DOVE TAIL**



**CARBIDE TIPPED**

PART NO.	A	B	C	D	E
733009-6A	1/2	1/2	1-1/4	1/4	1-7/8

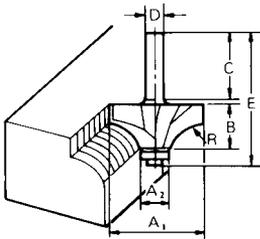
## PANEL PILOT



HIGH SPEED STEEL

PART NO.	A	B	C	D	E
733236-0A	1/4	3/4	1	1/4	2-7/16

## CORNER ROUNDING



CARBIDE TIPPED – Ball Bearing Pilot

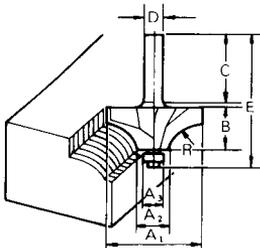
PART NO.	A <sub>1</sub>	A <sub>2</sub>	B	C	D	E	R
733120-0A	7/8	1/2	3/8	1-1/4	1/4	1-15/16	3/16
733120-2A	1	1/2	1/2	1-1/4	1/4	2	1/4

REPLACEMENT BEARING – NO. 733132-4A

HIGH SPEED STEEL – Solid Pilot

PART NO.	A <sub>1</sub>	A <sub>2</sub>	B	C	D	E	R
733240-2A	11/16	3/16	1/2	1	1/4	1-3/4	1/4
733240-6A	15/16	3/16	5/8	1	1/4	1-7/8	3/8

## BEADING

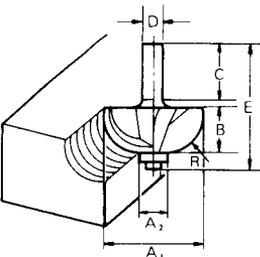


CARBIDE TIPPED – Ball Bearing Pilot

PART NO.	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>	B	C	D	E	R
733121-4A	7/8	1/2	3/8	3/8	1-1/4	1/4	1-15/16	3/16
733121-6A	1	1/2	3/8	1/2	1-1/4	1/4	2	1/4

REPLACEMENT BEARING – NO. 733132-2A

## COVE



CARBIDE TIPPED – Ball Bearing Pilot

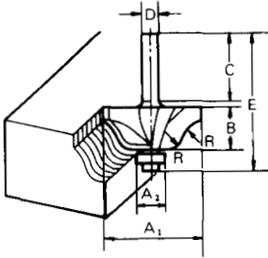
PART NO.	A <sub>1</sub>	A <sub>2</sub>	B	C	D	E	R
733122-6A	7/8	3/8	3/8	1	1/4	1-5/8	1/4

REPLACEMENT BEARING – NO. 733132-2A

HIGH SPEED STEEL – Solid Pilot

PART NO.	A <sub>1</sub>	A <sub>2</sub>	B	C	D	E	R
733242-6A	11/16	3/16	1/2	1	1/4	1-3/4	1/4
733242-8A	15/16	3/16	3/4	1	1/4	2-1/32	3/8

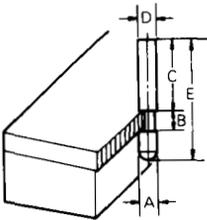
## ROMAN OGEE



CARBIDE TIPPED – Ball Bearing Pilot

PART NO.	A <sub>1</sub>	A <sub>2</sub>	B	C	D	E	R
733123-2A	1	3/8	15/32	1-1/4	1/4	2	5/32
REPLACEMENT BEARING – NO. 733132-2A							

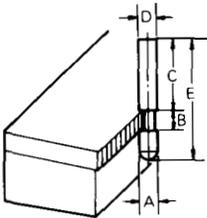
## FLUSH TRIMMER – Self Piloting



SOLID CARBIDE

PART NO.	A	B	C	D	E
733128-0A	1/4	1/4	1-1/16	1/4	1-9/16

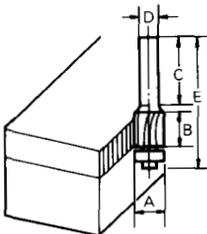
## 7° BEVEL TRIMMER – Self-Piloting



SOLID CARBIDE

PART NO.	A	B	C	D	E
733128-2A	3/16	1/4	1-1/16	1/4	1-9/16

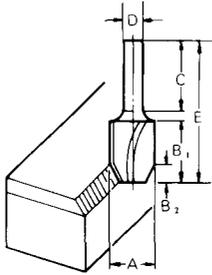
## 2 FLUTE FLUSH TRIMMER



CARBIDE TIPPED

PART NO.	A	B	C	D	E
733128-8A	3/8	1	1-1/4	1/4	2-1/16
733128-9A	1/2	1/2	1-1/4	1/4	2-1/16
733129-0A	1/2	1	1-1/4	1/4	2-5/8
3/8" REPLACEMENT BEARING – NO. 733132-2A					
1/2" REPLACEMENT BEARING – NO. 733132-4A					

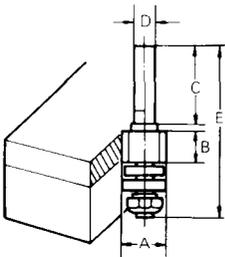
**COMBINATION FLUSH/22° BEVEL TRIMMER**



CARBIDE TIPPED

PART NO.	A	B <sub>1</sub>	B <sub>2</sub>	C	D	E
733128-6A	7/16	1/2	3/16	1-1/4	1/4	1-3/4

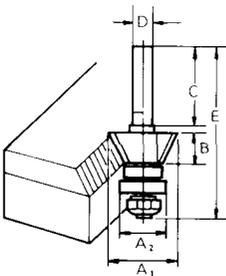
**3 FLUTE FLUSH TRIMMER ASSEMBLY – Self Piloting**



SOLID CARBIDE CUTTER

PART NO.	A	B	C	D	E
733129-2A	5/8	3/8	1-1/4	1/4	2-3/8
REPLACEMENT BEARING – NO. 733132-6A					

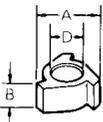
**3 FLUTE 22° BEVEL TRIMMER ASSEMBLY – Self Piloting**



SOLID CARBIDE CUTTER

PART NO.	A <sub>1</sub>	A <sub>2</sub>	B	C	D	E
733129-4A	7/8	5/8	3/8	1-1/4	1/4	2-3/8
REPLACEMENT BEARING – NO. 733132-6A						

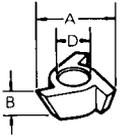
**3 FLUTE FLUSH REPLACEMENT CUTTER**



SOLID CARBIDE

PART NO.	A	B	D
733129-6A	5/8	3/8	1/4
FOR FLUSH TRIMMER ASSEMBLY NO. 733129-2A			

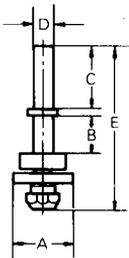
### 3 FLUTE 22° BEVEL REPLACEMENT CUTTER



SOLID CARBIDE

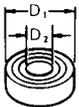
PART NO.	A	B	D
733129-8A	7/8	3/8	1/4
FOR BEVEL TRIMMER ASSEMBLY NO. 733129-4A			

### 1/4" REPLACEMENT ARBOR



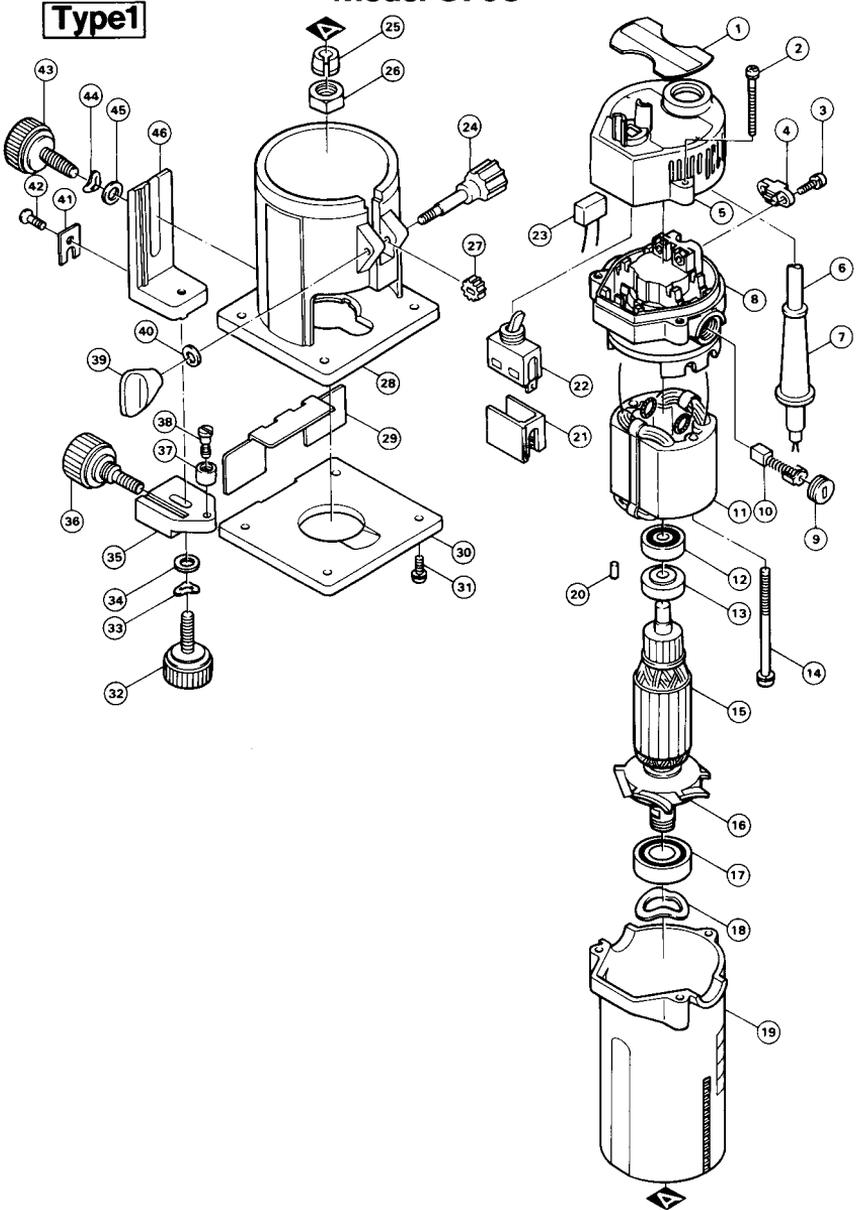
PART NO.	A	B	C	D	E
733131-2A	5/8	3/8	1-1/4	1/4	2-3/8
FOR FLUSH TRIMMER ASSEMBLY NO. 733129-2A AND NO. 733129-4A					

### BALL BEARING PILOT



PART NO.	D <sub>1</sub>	D <sub>2</sub>
733132-2A	3/8 O.D.	1/8 I.D.
733132-4A	1/2 O.D.	3/16 I.D.
733132-6A	5/8 O.D.	1/4 I.D.

# 1/4" TRIMMER Model 3703



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



ITEM NO.	NO. USED	DESCRIPTION	ITEM NO.	NO. USED	DESCRIPTION
<b>MACHINE</b>			<b>MACHINE</b>		
1	1	Name Plate	24	1	Screw M5x33
2	3	Pan Head Screw M4x40 (With Washer)	25	1	Collet Cone
3	2	Pan Head Screw M4x14 (With Washer)	26	1	Collet Nut
4	1	Strain Relief	27	1	Spur Gear 16
5	1	Rear Cover	28	1	Base
6	1	Cord	29	1	Chip Deflector
7	1	Cord Guard	30	1	Base Protector
8	1	Motor Rear Housing	31	4	Pan Head Screw M4x10
9	2	Brush Holder Cap	32	1	Screw M6x25
10	2	Carbon Brush	33	1	Wave Washer 6
11	1	FIELD ASSEMBLY	34	1	Flat Washer 6
12	1	Ball Bearing 627LB	35	1	Trimmer Guide
13	1	Insulation Washer	36	1	Screw M6
14	2	Pan Head Screw M4x70 (With Washer & Bond)	37	1	Roller 11
15	1	ARMATURE ASSEMBLY (With Item 12, 13 & 15 - 17)	38	1	Flat Head Screw M5
16	1	Fan 52	39	1	Wing Nut M5
17	1	Ball Bearing 6002LLUX	40	1	Flat Washer 5
18	1	Wave Washer 23	41	1	Hook
19	1	Motor Housing	42	1	Countersunk Head Screw M4x12
20	1	Rubber Pin 4	43	1	Screw M6x25
21	1	Switch Holder	44	1	Wave Washer 6
22	1	Switch	45	1	Flat Washer 6
			46	1	Guide Holder

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 CONSEQUENTIAL 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,  
Anjo, Aichi 446 Japan