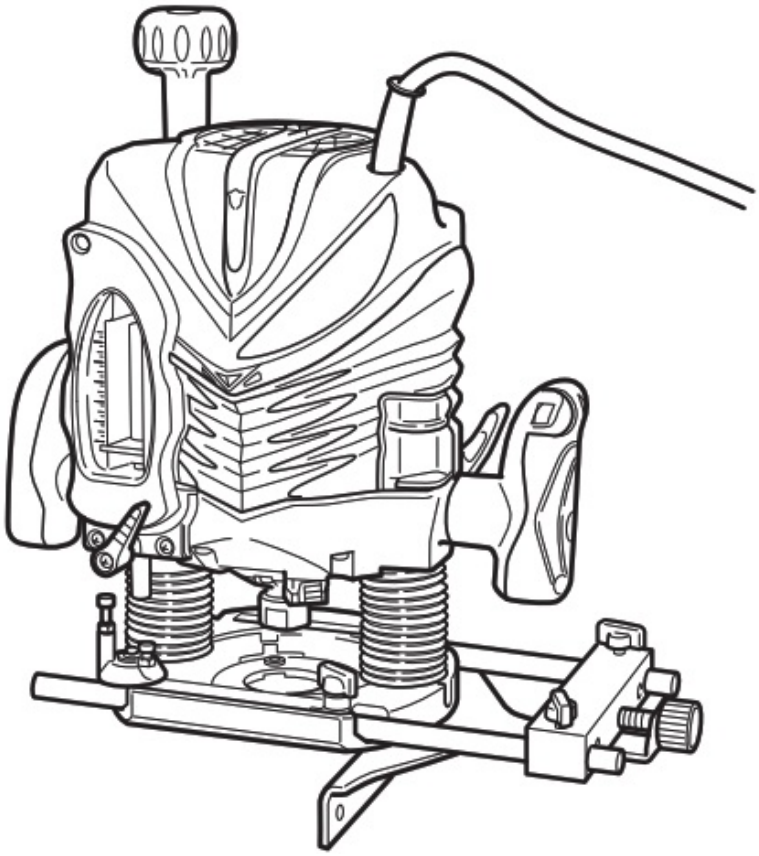
HiKOKI M12V2 Variable Speed Router Instruction Manual

HiKOKI

M 12V2

Handling instructions



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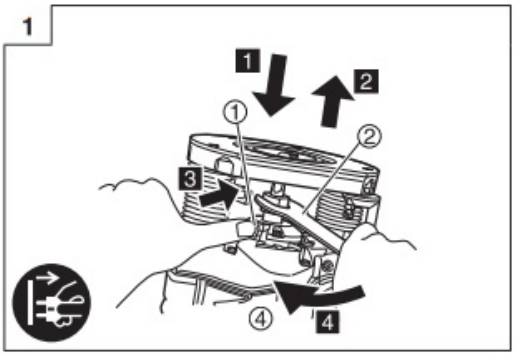

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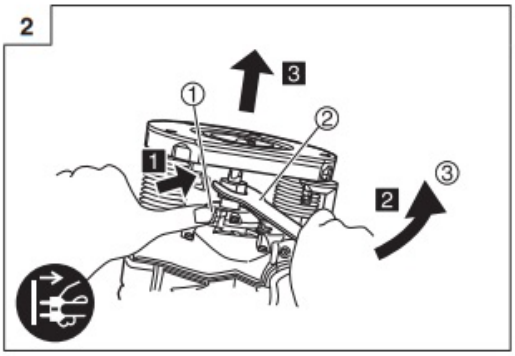

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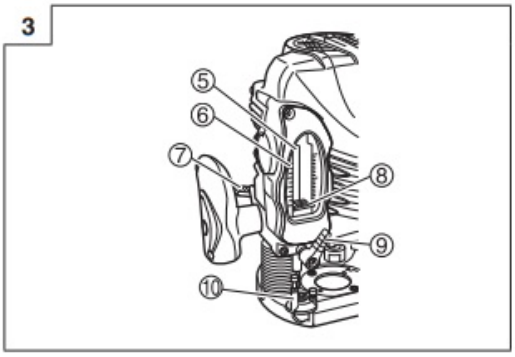

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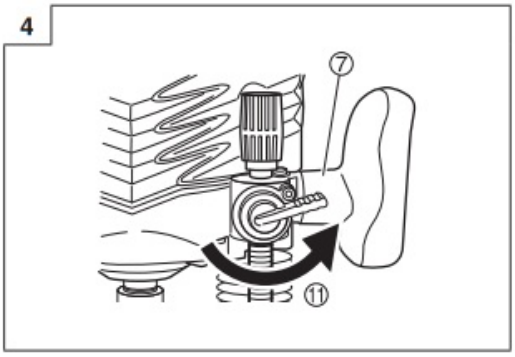

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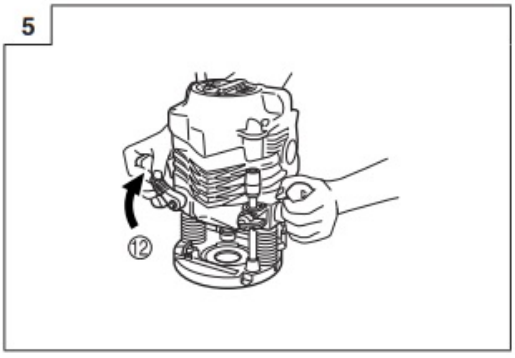

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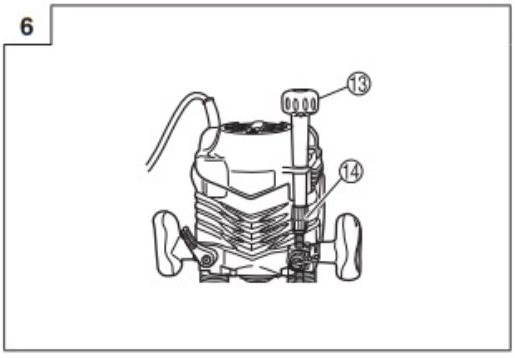

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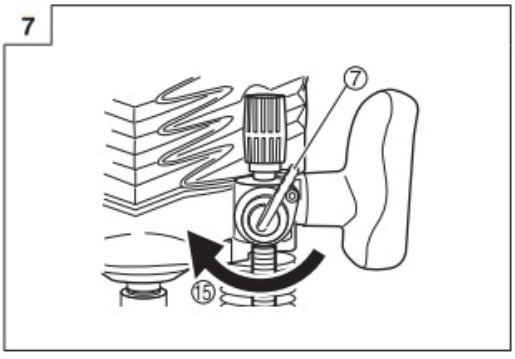

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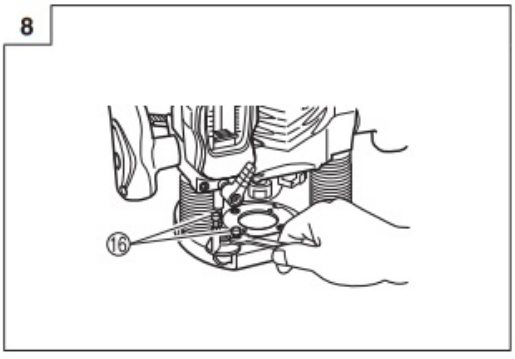

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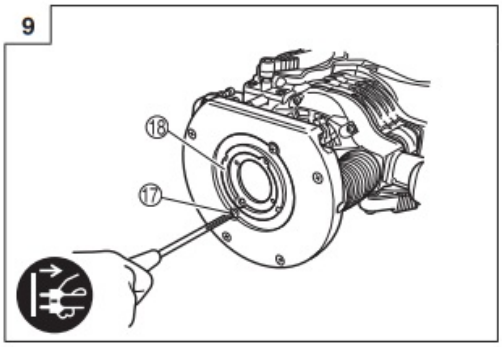

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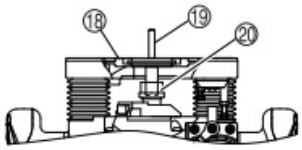

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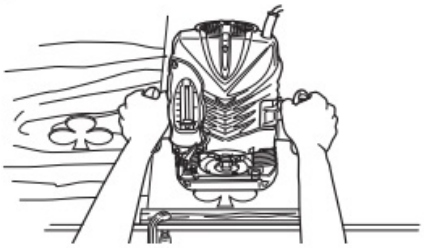

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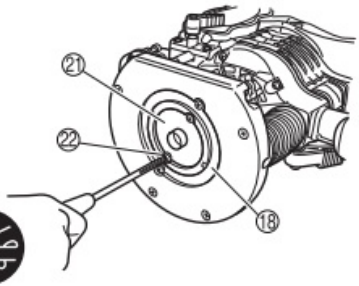

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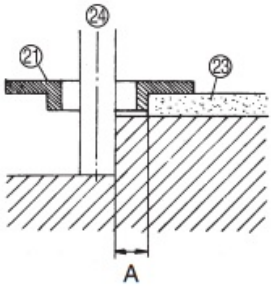

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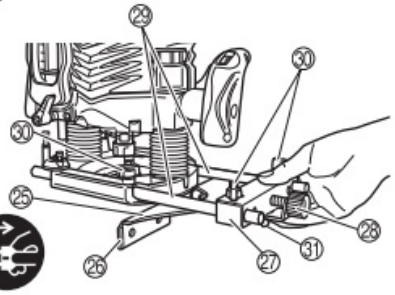

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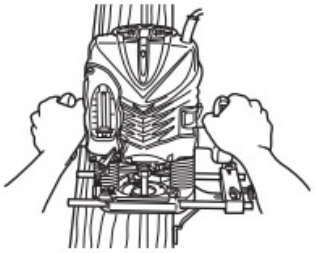

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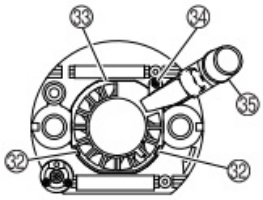

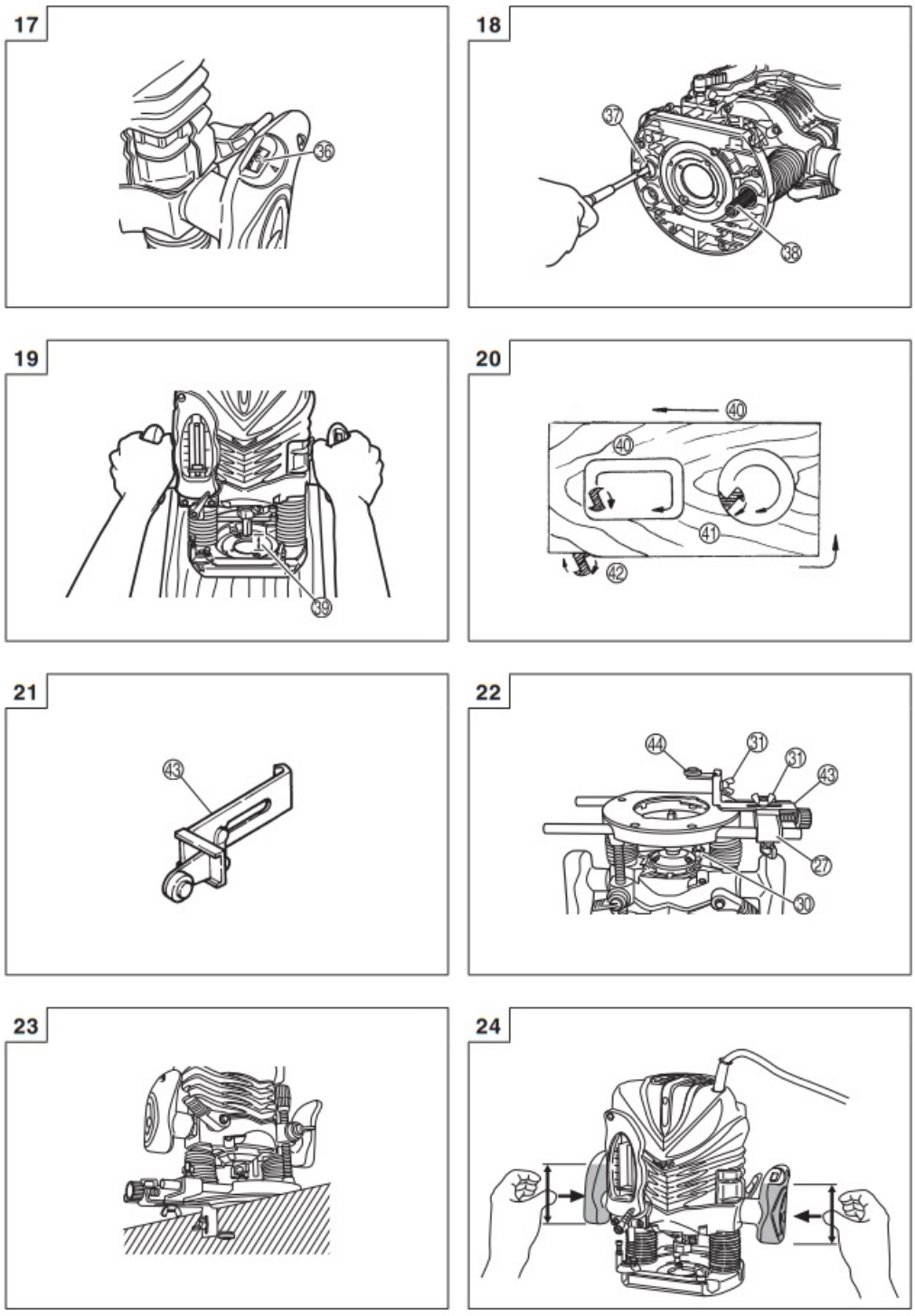

(Original instructions)

Contents

GENERAL POWER TOOL SAFETY WARNINGS

WARNING
Read all safety warnings, instructions, illustrations, and specifi cations provided with this power tool.
Failure to follow all instructions listed below may result in electric shock, fire, and/or serious injury.
Save all warnings and instructions for future reference.

The term “power tool” in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

1. **Work area safety**

   a) Keep the work area clean and well-lit.

   Cluttered or dark areas invite accidents.

   b) Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.

   Power tools create sparks that may ignite dust or fumes.

   c) Keep children and bystanders away while operating a power tool.

   Distractions can cause you to lose control.

2. **Electrical safety**

   a) Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.

   Unmodifi end plugs and matching outlets will reduce the risk of electric shock.

   b) Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges, and refrigerators.

   There is an increased risk of electric shock if your body is earthed or grounded.

   c) Do not expose power tools to rain or wet conditions.

   Water entering a power tool will increase the risk of electric shock.

   d) Do not abuse the cord. Never use the cord for carrying, pulling, or unplugging the power tool.

   Keep the cord away from heat, oil, sharp edges, or moving parts.

   Damaged or entangled cords increase the risk of electric shock.

   e) When operating a power tool outdoors, use an extension cord suitable for outdoor use.

   Use of a cord suitable for outdoor use reduces the risk of electric shock.

f) If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.

Use of an RCD reduces the risk of electric shock.

3. **Personal safety**

a) Stay alert, watch what you are doing, and use common sense when operating a power tool.

Do not use a power tool while you are tired or under the infl uence of drugs, alcohol, or medication.

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

b) Use personal protective equipment. Always wear eye protection.

Protective equipment such as a dust mask, non-skid safety shoes, hard hats, or hearing protection used for appropriate conditions will reduce personal injuries.

c) Prevent unintentional starting. Ensure the switch is in the off -position before connecting to a power source and/or battery pack, picking up or carrying the tool.

Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.

d) Remove any adjusting key or wrench before turning the power tool on.

A wrench or a key left attached to a rotating part of the power tool may result in personal injury.

e) Do not overreach. Keep proper footing and balance at all times.

This enables better control of the power tool in unexpected situations.

f) Dress properly. Do not wear loose clothing or jewelry. Keep your hair and clothing away from moving parts.

Loose clothes, jewelry, or long hair can be caught in moving parts.

g) If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.

The use of dust collection can reduce dust-related hazards.

h) Do not let familiarity gained from the frequent use of tools allow you to become complacent and ignore tool safety principles.

A careless action can cause severe injury within a fraction of a second.

4. **Power tool use and care**

a) Do not force the power tool. Use the correct power tool for your application.

The correct power tool will do the job better and safer at the rate for which it was designed.

b) Do not use the power tool if the switch does not turn on and off.

Any power tool that cannot be controlled with the switch is dangerous and must be repaired.

c) Disconnect the plug from the power source and/or remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing power tools.

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

d) Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.

Power tools are dangerous in the hands of untrained users.

e) Maintain power tools and accessories. Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may aff ect the power tool operation. If damaged, have the power tool repaired before use.

Many accidents are caused by poorly maintained power tools.

f) Keep cutting tools sharp and clean.

Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

g) Use the power tool, accessories and tool bits, etc. in accordance with these instructions, taking into account

the working conditions and the work to be performed.

Use of the power tool for operations diff erent from those intended could result in a hazardous situation.

h) Keep handles and grasping surfaces dry, clean, and free from oil and grease.

Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

5. **Service**

   a) Have your power tool serviced by a quality repair person using only identical replacement parts.

   This will ensure that the safety of the power tool is maintained.

PRECAUTION

Keep children and infi rm persons away.

When not in use, tools should be stored out of reach of children and infi rm persons.

ROUTER SAFETY WARNINGS

1. Hold the power tool by insulated gripping surfaces only, because the cutter may contact its own cord.
   Cutting a “live” wire may make exposed metal parts of the power tool “live” and could give the operator an electric shock.
2. Use clamps or another practical way to secure and support the workpiece to a stable platform.
   Holding the work by your hand or against the body leaves it unstable and may lead to loss of control.
3. Single-hand operation is unstable and dangerous.
   Ensure that both handles are gripped firmly during operation. (Fig. 24)
4. The bit is very hot immediately after the operation. Avoid bare hand contact with the bit for any reason.
5. Use bits of the correct shank diameter suitable for the speed of the tool.

DESCRIPTION OF NUMBERED ITEMS (Fig. 1–Fig. 24)

1	Lock pin	23	Template
2	Wrench	24	Bit
3	Loosen	25	Straight guide
4	Tighten	26	Guide plane
5	Stopper pole	27	Bar holder
6	Scale	28	Feed screw
7	Quick adjustment lever	29	Guide bar
8	Depth indicator	30	Wing bolt (A)
9	Pole lock knob	31	Wing bolt (B)
10	Stopper block	32	Tab
11	Counter-clockwise direction	33	Dust guide
12	Loosen the lock lever	34	Screw
13	Knob	35	Dust guide adapter
14	Fine adjustment knob	36	Dial
15	Clockwise direction	37	Stopper bolt
16	Cut depth setting screw	38	Spring
17	Screw	39	Separate
18	Template guide adapter	40	Router feed
19	Centering gauge	41	Workpiece
20	Collet chuck	42	Rotation of bit
21	Template guide	43	Trimmer guide
22	Screw	45	Roller

SYMBOLS

WARNING
The following show symbols used for the machine.
Be sure that you understand their meaning before use.

	M12V2: Router
	To reduce the risk of injury, the user must read the instruction manual.
	Always wear eye protection.
	Always wear hearing protection.
	Only EU countries Do not dispose of electric tools together with household waste material! In observance of European Directive 2012/19/EU on waste electrical and electronic equipment and its implementation in accordance with national law, electric tools that have reached the end of their life must be colle cted separately and returned to an environmentally compatible recycling facility.
	Disconnect the mains plug from the electrical outlet
	Class II tool

STANDARD ACCESSORIES

1. Straight Guide ……..1
2. Bar Holder ……..1
   Guide Bar ……2
   Feed Screw ……1
   Wing Bolt ……1
3. Dust Guide ……1
4. Dust Guide Adapter ……..1
5. Template Guide ……..1
6. Template Guide Adapter ……1
7. Centering Gauge ……1
8. Knob ……1
9. Wrench ……1
10. 8 mm or 1/4” Collet Chuck ……..1
11. Wing Bolt (A) ……4
12. Lock Spring ……..2

Standard accessories are subject to change without notice.

APPLICATIONS

- Woodworking jobs centered on grooving and chamfering.

SPECIFICATIONS

Model	M12V2
Voltage (by areas)*	(110 V, 230 V)~
Power Input*	2000 W
Collet Chuck Capacity	12 mm or 1/2″
No-load speed	8000–22000 min-1
Main Body Stroke	65 mm
Weight (without cord and standard accessories)	6.9 kg

* Be sure to check the nameplate on the product as it is subject to change by area.

NOTE

Due to HiKOKI's continuing program of research and development, the specifi cations herein are subject to change without prior notice.

PRIOR TO OPERATION

1. **Power source**
   Ensure that the power source to be utilized conforms to the power requirements specifi ed on the product nameplate.
2. **Power switch**
   Ensure that the power switch is in the OFF position. If the plug is connected to a receptacle while the power switch is in the ON position, the power tool will start operating immediately, which could cause a serious accident.
3. **Extension cord**
   When the work area is removed from the power source, use an extension cord of suffi client thickness and rated capacity. The extension cord should be kept as short as practicable.
4. **RCD**
   The use of a residual current device with a rated residual current of 30 mA or less at all times is recommended.

INSTALLING AND REMOVING BITS

WARNING

Be sure to switch the power OFF and disconnect the plug from the receptacle to avoid serious trouble.

Installing bits

1. Clean and insert the shank of bit into the collet chuck until the shank bottoms, then back it out approximately 2

mm.

2. With the bit inserted and pressing the lock pin holding the armature shaft, use the 23 mm wrench to firmly tighten the collet chunk in a clockwise direction (viewed from under the router). (Fig. 1)

   CAUTION

   ○ Ensure that the collet chuck is firmly tightened after inserting a bit. Failure to do so will result in damage to the collet chuck.

   ○ Ensure that the lock pin is not inserted into the armature shaft after tightening the collet chuck. Failure to do so will result in damage to the collet chuck, lock pin, and armature shaft.

3. When using the 8 mm diameter shank bit, replace the equipped collet chuck with the one for the 8 mm diameter shank bit which is provided as the standard accessory.

Removing Bits

When removing the bits, do so by following the steps for installing bits in reverse order. (Fig. 2)

CAUTION

Ensure that the lock pin is not inserted into the armature shaft after tightening the collet chuck. Failure to do so will result in damage to the collet chuck, lock pin and armature shaft.

HOW TO USE THE ROUTER

1. Adjusting the depth of cut (Fig. 3)

   (1) Place the tool on a flat wood surface.

   (2) Turn the quick adjustment lever in a counterclockwise direction until the quick adjustment lever stops. (Fig. 4)

   (3) Turn the stopper block so that section to which the cutting depth setting screw on a stopper block is not attached comes to the bottom of the stopper pole. Loosen pole lock knob allowing the stopper pole to contact the stopper block.

   (4) Loosen the lock lever and press the tool body until the bit just touches the flat surface. Tighten the lock lever at this point. (Fig. 5)

   (5) Tighten the pole lock knob. Align the depth indicator with the “0” graduation of scale.

   (6) Loosen pole lock knob, and raise until indicator aligns with the graduation representing the desired cutting depth. Tighten the pole lock knob.

   (7) Loosen the lock lever and press the tool body down until the stopper block obtains the desired cutting depth.

   Your router allows you to finely adjust the depth of cut.

   (1) Attach the knob to fine adjustment knob. (Fig. 6)

   (2) Turn the quick adjustment lever in a clockwise direction until the quick adjustment lever stops with the stopper screw. (Fig. 7)

   If the quick adjustment lever does not stop with the stopper screw, the bolt screw is not properly fitted.

   If this occurs, slightly loosen the lock lever and press down on the unit (router) hard from the top and turn the quick adjustment lever again after properly fitting the bolt screw.

   (3) The depth of cut can be adjusted when the lock lever is loosened, by turning the fine adjustment knob. Turning the fine adjustment knob counterclockwise results in a shallower cut, whereas turning it clockwise results in a deeper cut.

CAUTION

Ensure that the lock lever is tightened after finely adjusting the depth of cut. Failure to do so will result in damage to the quick adjustment lever.

2. Stopper block (Fig. 8)

   The 2 cut-depth setting screws attached to the stopper block can be adjusted to simultaneously set 3 different cutting depths. Use a wrench to tighten the nuts so that the cut-depth setting screws do not come loose at this time.

3. Guiding the router

WARNING

Be sure to switch the power OFF and disconnect the plug from the receptacle to avoid serious trouble.

1. **Template guide adapter**

   Loosen the 2 template guide adapter screws, so that the template guide adapter can be moved. (Fig. 9)

   Insert the centering gauge through the hole in the template guide adapter and into the collet chuck.

   (Fig. 10)

   Tighten the collet chuck by hand.

   Tighten the template guide adapter screws, and pull out the centering gauge.

2. Template guide

   Use the template guide when employing a template for producing a large quantity of identically shaped products. (Fig. 11)

   As shown in Fig. 12, install and insert the template guide in the center hole in the template guide adapter with 2 accessory screws.

   A template is a profi ling mold made of plywood or thin lumber. When making a template, pay particular attention to the matters described below and illustrated in Fig. 13.

   When using the router along the interior plane of the template, the dimensions of the finished product will be less than the dimensions of the template by an amount equal to dimension “A”, the difference between the radius of the template guide and the radius of the bit. The reverse is true when using the router along the exterior of the template.

3. **Straight guide (Fig. 14)**

   Use the straight guide for chamfering and groove cutting along the materials side.

   Insert the guide bar into the hole in the bar holder, then lightly tighten the 2 wing bolts (A) on top of the bar holder.

   Insert the guide bar into the hole in the base, then firmly tighten the wing bolt (A).

   Make minute adjustments to the dimensions between the bit and the guide surface with the feed screw, then firmly tighten the 2 wing bolts (A) on top of the bar holder and the wing bolt (B) that secures the straight guide.

   As shown in Fig. 15, securely attach the bottom of the base to the processed surface of the materials. Feed the router while keeping the guide plane on the surface of the materials.

   (4) Dust guide and Dust guide adapter (Fig. 16)

   Your router is equipped with a dust guide and a dust guide adapter.

   Match the 2 grooves on the base and insert the 2 dust guide tabs in holes located on the base side from the top.

   Tighten the dust guide with a screw.

   The dust guide diverts cutting debris away from the operator and directs the discharge in a consistent direction.

By fitting the dust guide adapter into the dust guide cutting debris discharge vent, the dust extractor can be attached.

4. Adjusting the rotation speed

   The M12V2 has an electronic control system that allows stepless rpm changes.

   As shown in Fig. 17, dial position “1” is for minimum speed, and position “6” is for maximum speed.

5. Removing the spring

   The springs within the column of the router can be removed. Doing so will eliminate spring resistance and allows easy adjustment of cutting depth when attaching the router stand.

   (1) Loosen the 4 sub base screws, and remove the sub base.

   (2) Loosen the stopper bolt and remove it, so the spring can be removed. (Fig. 18)

   CAUTION

   Remove the stopper bolt with the main unit (router) fixed at its maximum height.

   Removing the stopper bolt with the unit in a shortened condition may cause the stopper bolt and spring to be discharged and cause injury.

6. **Cutting**

   CAUTION

   ○ Wear eye protection when operating this tool.

   ○ Keep your hands, face, and other body parts away from the bits and any other rotating parts, while operating the tool.

   (1) As shown in Fig. 19, remove the bit from the workpieces and press the switch lever up to the ON position. Do not start cutting operation until the bit has reached full rotating speed.

   (2) The bit rotates clockwise (arrow direction indicated on the base). To obtain maximum cutting effectiveness, feed the router in conformance with the feed directions shown in Fig. 20.

   NOTE

   If a worn bit is used to make deep grooves, a high-pitched cutting noise may be produced.

   Replacing the worn bit with a new one will eliminate the high-pitched noise.

7. Trimmer Guide (Optional accessory) (Fig. 21)

   Use the trimmer guide for trimming or chamfering. Attach the trimmer guide to the bar holder as shown in Fig. 22.

   After aligning the roller to the appropriate position, tighten the two wing bolts (A) and the other two wing bolts (B). Use as shown in Fig. 23.

MAINTENANCE AND INSPECTION

1. Oiling

   To ensure smooth vertical movement of the router, occasionally apply a few drops of machine oil to the sliding portions of the columns and end bracket.

2. Inspecting the mounting screws

   Regularly inspect all mounting screws and ensure that they are properly tightened. Should any of the screws be loose, retighten them immediately. Failure to do so could result in serious hazards.

3. Maintenance of the motor

   The motor unit winding is the very “heart” of the power tool.

   Exercise due care to ensure the winding does not become damaged and/or wet with oil or water.

4. Inspecting the carbon brushes

For your continued safety and electrical shock protection, carbon brush inspection and replacement on this tool should ONLY be performed by a HiKOKI AUTHORIZED SERVICE CENTER.

5. Replacing supply cord

   If the supply cord of the Tool is damaged, the Tool must be returned to HiKOKI Authorized Service Center for the cord to be replaced.

CAUTION
In the operation and maintenance of power tools, the safety regulations and standards prescribed in each country must be observed.

SELECTING ACCESSORIES

The accessories of this machine are listed on page 121.
For details regarding each bit type, please contact the HiKOKI Authorized Service Center.

GUARANTEE
We guarantee HiKOKI Power Tools in accordance with statutory/country specifi c regulation. This guarantee does not cover defects or damage due to misuse, abuse, or normal wear and tear. In case of a complaint, please send the Power Tool, undismantled, with the GUARANTEE CERTIFICATE found at the end of this Handling instruction, to a HiKOKI Authorized Service Center.

IMPORTANT
Correct connection of the plug
The wires of the main lead are colored in accordance with the following code:
Blue: — Neutral
Brown: — Live
As the colors of the wires in the main lead of this tool may not correspond with the colored markings identifying the terminals in your plug proceed as follows:
The wire colored blue must be connected to the terminal marked with the letter N or colored black. The wire colored brown must be connected to the terminal marked with the letter L or colored red. Neither core must be connected to the earth terminal.
NOTE:
This requirement is provided according to BRITISH STANDARD 2769: 1984.
Therefore, the letter code and color code may not be applicable to other markets except The United Kingdom.

Information concerning airborne noise and vibration
The measured values were determined according to EN62841 and declared in accordance with ISO 4871.
Measured A-weighted sound power level: 97 dB (A) Measured A-weighted sound pressure level: 86 dB (A) Uncertainty K: 3 dB (A).
Wear hearing protection.
Vibration total values (triax vector sum) are determined according to EN62841.
Cutting MDF:
Vibration emission value ah = 6.4 m/s2
Uncertainty K = 1.5 m/s2

The declared vibration total value and the declared noise emission value have been measured in accordance with a standard test method and may be used for comparing one a tool with another.
They may also be used in a preliminary assessment of exposure.

WARNING

- The vibration and noise emission during actual use of the power tool can diff er from the declared total value depending on the ways in which the tool is used especially what kind of workpiece is processed; and

- Identify safety measures to protect the operator that is based on an estimation of exposure in the actual conditions of use (taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time).

NOTE
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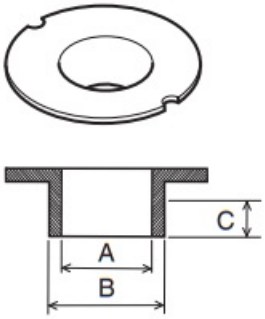

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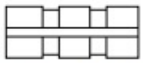

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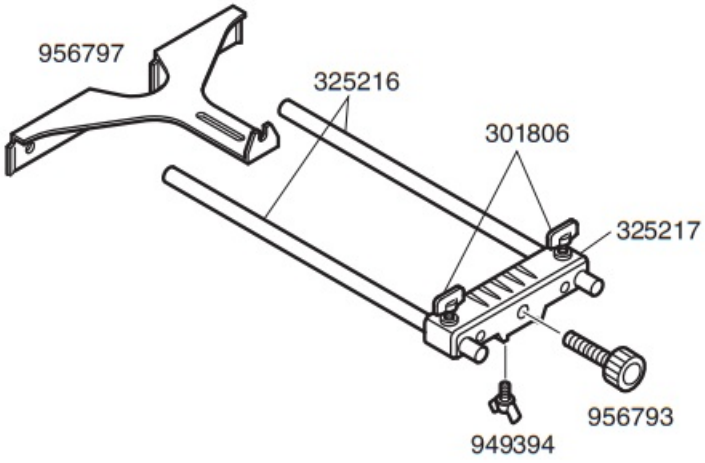
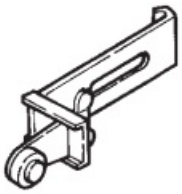


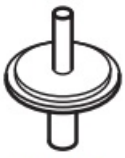
12 mm: 325199
1/2": 323421
8 mm: 325212
1/4": 323293

325214

323295



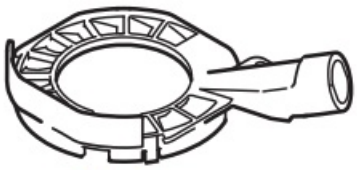
956794



325213
325223

325211

325222



325210

339381

A	B	C	
7,5 mm	9,5 mm	4,5 mm	303347
8,0 mm	10,0 mm		303348
9,0 mm	11,1 mm		303349
10,1 mm	12,0 mm		303350
10,7 mm	12,7 mm		303351
12,0 mm	14,0 mm		303352
14,0 mm	16,0 mm		303353
16,5 mm	18,0 mm		956790
18,5 mm	20,0 mm		956932
22,5 mm	24,0 mm		303354
25,5 mm	27,0 mm		956933
28,5 mm	30,0 mm		956934
38,5 mm	40,0 mm		303355

GUARANTEE CERTIFICATE

1. Model No.
2. Serial No.
3. Date of Purchase
4. Customer Name and Address
5. Dealer Name and Address

   (Please stamp dealer name and address)

Hikoki Power Tools (U.K.) Ltd.
Precedent Drive, Rooksley, Milton Keynes, MK 13, 8PJ,
United Kingdom
Tel: +44 1908 660663
Fax: +44 1908 606642
URL: http://www.hikoki-powertools.uk

EC DECLARATION OF CONFORMITY

We declare under our sole responsibility that Router, identifi ed by type and specifi c identifi cation code *1), is in conformity with all relevant requirements of the directives *2) and standards *3). Technical fi le at *4) – See below. The European Standard Manager at the representative office in Europe is authorized to compile the technical file. The declaration is applicable to the product affixed CE marking.

1. M12V2 C350297S C313630M C313645R
2. 2006/42/EC, 2014/30/EU, 2011/65/EU
3. EN62841-1:2015

   EN62841-2-17:2017

   EN55014-1:2006+A1:2009+A2:2011

   EN55014-2:1997+A1:2001+A2:2008

   EN61000-3-2:2014

   EN61000-3-3:2013
4. Representative office in Europe

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   Head offi ce in Japan

   Koki Holdings Co., Ltd.

   Shinagawa Intercity Tower A, 15-1, Konan 2-chome, Minato-ku, Tokyo, Japan

30. 8. 2021
Akihisa Yahagi
European Standard Manager

CE 30. 8. 2021 A Nakagawa

A. Nakagawa
Corporate Officer
108
Code No. C99740071 M
Printed in China

Documents / Resources

	HiKOKI M12V2 Variable Speed Router [pdf] Instruction Manual M12V2 Variable Speed Router, M12V2, Variable Speed Router, Speed Router, Router