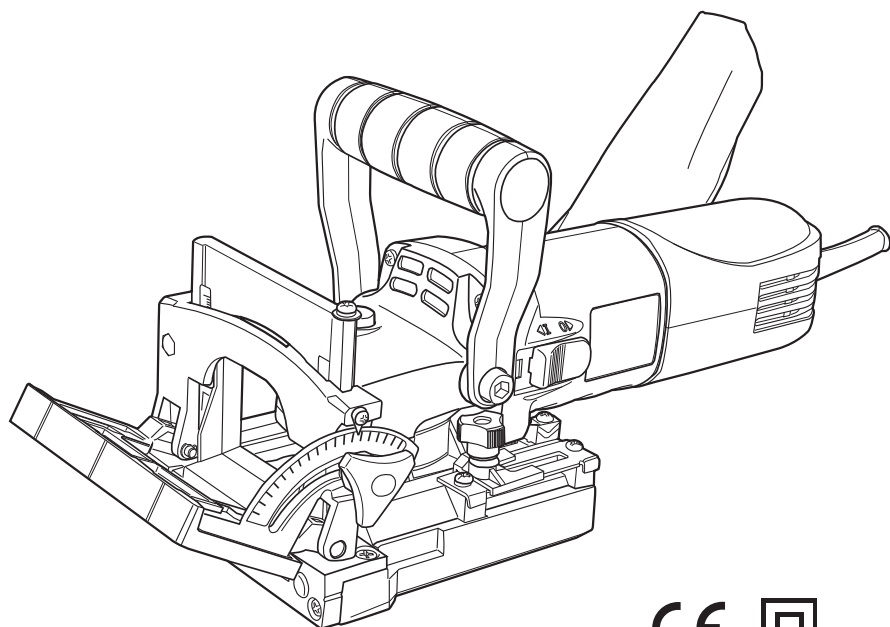
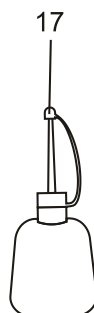
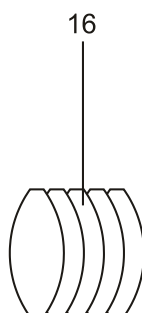
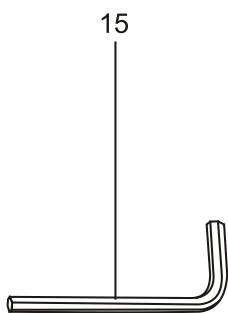
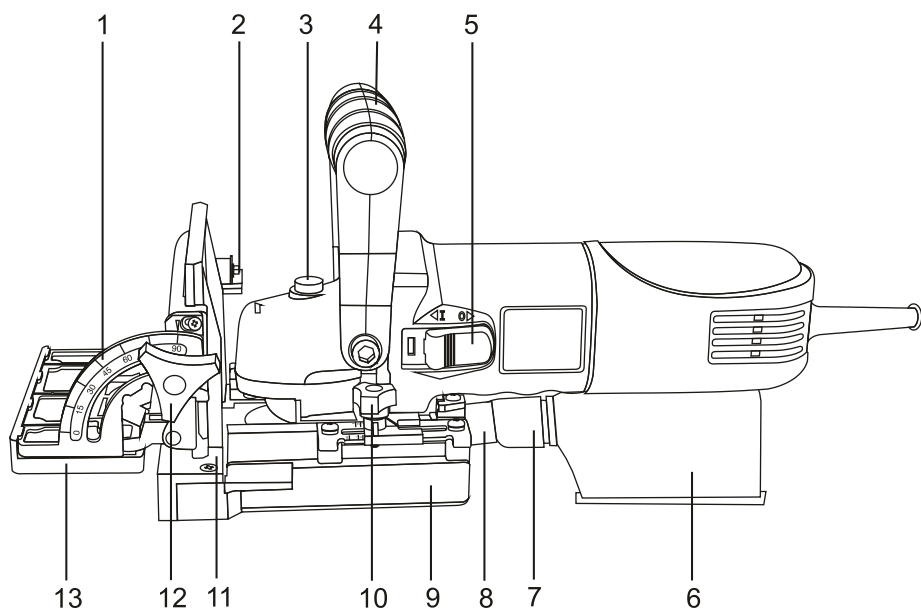


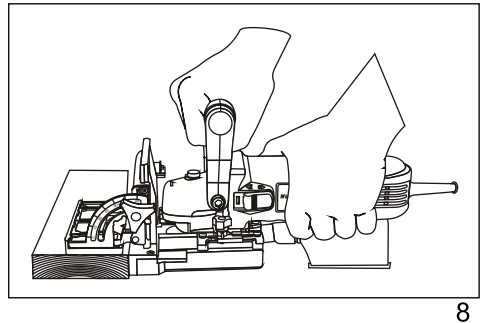
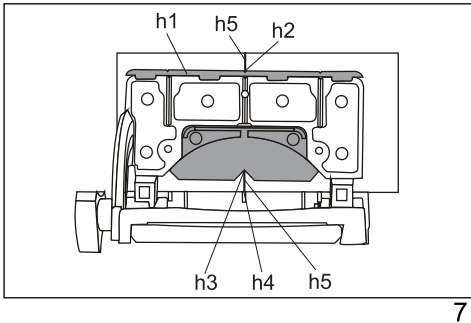
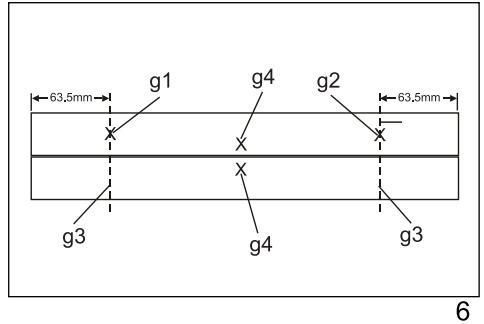
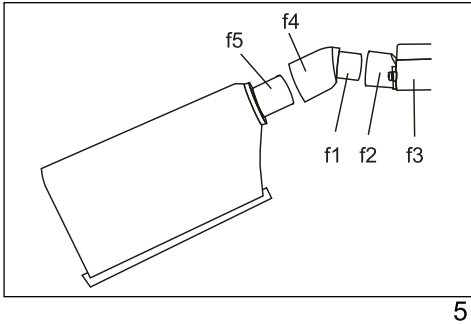
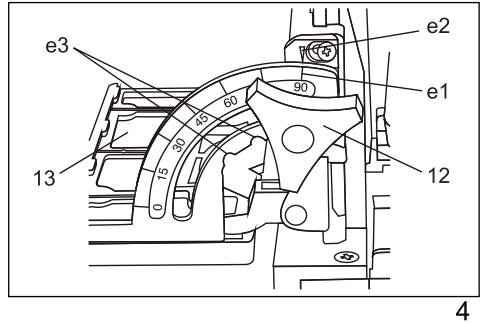
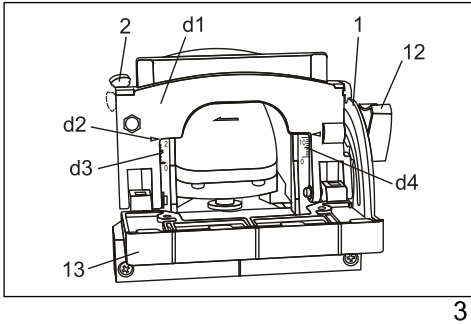
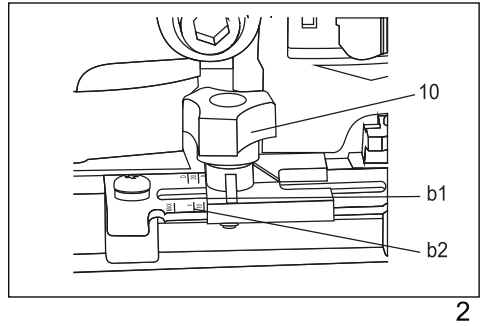
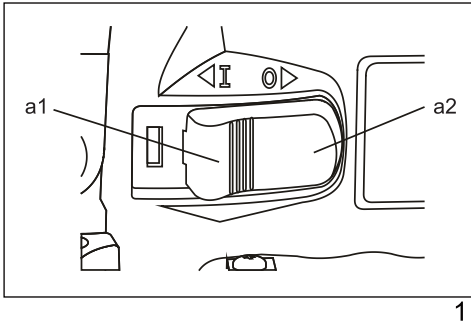
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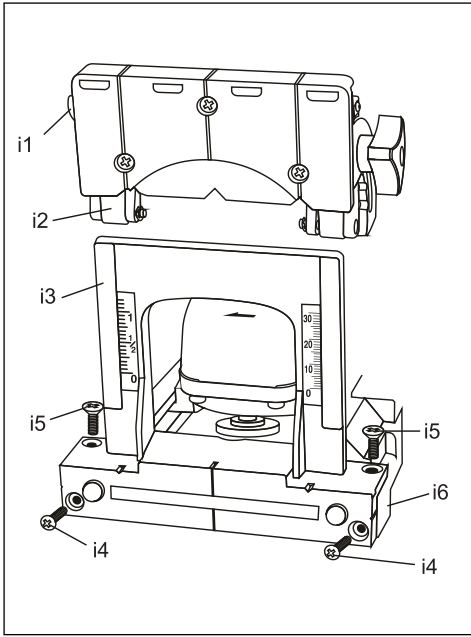
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GB OWNER'S OPERATING MANUAL

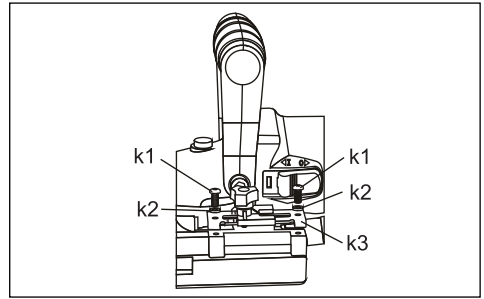




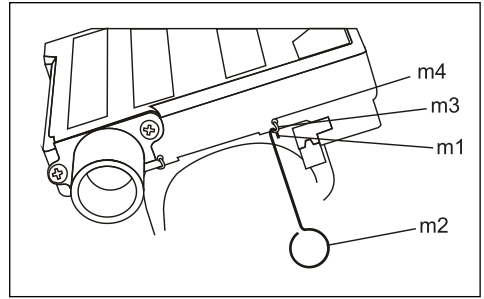




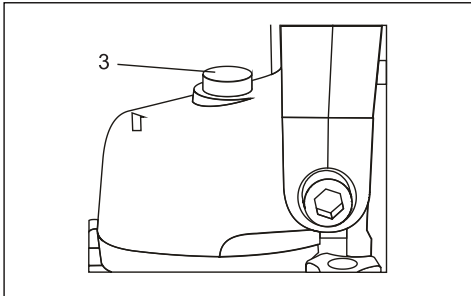
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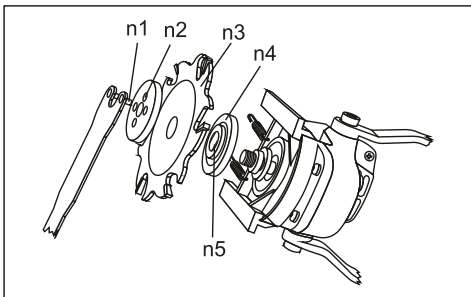
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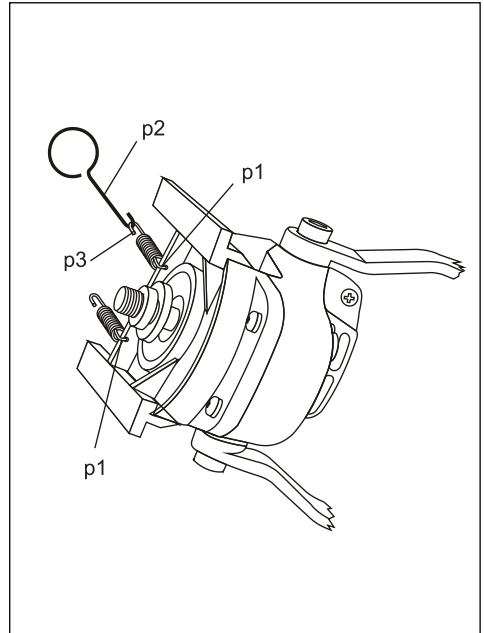
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THANK YOU FOR BUYING A RYOBI PRODUCT.

To ensure your safety and satisfaction, carefully read through this OWNER'S MANUAL before using the product.

General Safety Rules

WARNING! Read all instructions. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury. The term "power tool" in all of the warnings listed below refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

SAVE THESE INSTRUCTIONS

1) Work area

- a) **Keep work area clean and well lit.** Cluttered and 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 which may ignite the 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.** Unmodified plugs and matching outlets will reduce 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 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.

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 influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- b) **Use safety equipment. Always wear eye protection.** Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.

- c) **Avoid accidental starting. Ensure the switch is in the off-position before plugging in.** Carrying power tools with your finger on the switch or plugging in 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 jewellery. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewellery 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.** Use of these devices can reduce dust-related hazards.

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 it 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 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. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools 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 and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from intended could result in a hazardous situation.

5) Service

- a) **Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.

INSTRUCTIONS FOR SAFE HANDLING

1. Make sure that the tool is only connected to the voltage marked on the name plate.
2. Never use the tool if its cover or any bolts are missing. If the cover or bolts have been removed, replace them prior to use. Maintain all parts in good working order.
3. Always secure tools when working in elevated positions.
4. Never touch the blade, drill bit, grinding wheel or other moving parts during use.
5. Never start a tool when its rotating component is in contact with the workpiece.
6. Never lay a tool down before its moving parts have come to a complete stop.
7. **ACCESSORIES:** The use of accessories or attachments other than those recommended in these instructions might present a hazard.
8. **REPLACEMENT PARTS:** When servicing use only identical replacement parts.

SPECIFIC SAFETY RULES FOR BISCUIT JOINER

1. Always use hearing protection when operating the biscuit joiner.
2. Always make sure the workpiece is securely clamped before using the tool. Workpieces that are too small to be secured should not be used.
3. Always inspect the blade prior to use. A loose, damaged or dull blade is dangerous and will not make smooth cuts.
4. Never use blades that are not designed for this joiner.
5. Never use a blade that has a larger hole than required to properly fit the flange. Never use reducing rings to make the blade fit the flange.
6. Never use circular saw blades or cutting discs.
7. Always check the speed rating of the new blade.
8. Replacement blades must be rated for speeds in excess of 11 000rpm, and must be for use on this biscuit joiner.
9. Always remove the plug from the power source before making any adjustments, changing the blade or removing cuttings from the tool.
10. Always hold the tool with both hands, one on the body of the tool and the other on the auxiliary handle.
11. Make sure your footing is secure so that you do not slip.
12. Keep the power cord out of the path of the blade.
13. Do not allow the blade to come into contact with the workpiece before it has reached full speed.
14. Never attempt to remove cuttings from the tool or to set it down before the blade has come to a complete stop.
15. Never allow young or inexperienced people to use this tool. The high speed of the blade and the strength required to operate the tool require an experienced operator.

DESCRIPTION

- | | |
|---------------------------|------------------------|
| 1. Angle cutting scale | 11. Guide plate |
| 2. Height adjusting lever | 12. Angle setting knob |
| 3. Spindle lock button | 13. Angle guide plate |
| 4. Auxiliary handle | 14. Spring hook |
| 5. ON/OFF switch | 15. 6 mm hex key |
| 6. Dust bag | 16. #0 Biscuits - 30 |
| 7. Dust bag adaptor | #10 Biscuits - 30 |
| 8. Dust chute | #20 Biscuits - 30 |
| 9. Base plate | 17. Oil can |
| 10. Depth control knob | |

SPECIFICATIONS

Voltage	230V, 50Hz
Power	710W
No-load speed	11,000min ⁻¹
Blade diameter	100mm
Blade bore diameter	20mm or 22mm
Blade cut thickness	4mm
Maximum cutting depth	18mm
Maximum cutting height	25mm
Angle	0° - 90°
Weight	3kg

ASSEMBLY

WARNING!

Always remove the plug from the power supply before changing blades or making any adjustments to the tool. Failure to remove the plug could result in serious personal injury.

ON/OFF SWITCH

1. To turn the switch to the ON position, press the front of the ON/OFF switch (a1) inward toward the body of the tool (Fig. 1). While pressing inward, slide the switch forward until the tool starts.

NOTE: The tool will remain running until the ON/OFF switch is moved to the OFF position.

2. To turn the switch to the OFF position, press the rear of the switch (a2) inward toward the body of the tool. The switch will automatically slide backward and turn the tool OFF.

BISCUIT SIZE & USE

The size of biscuit required is determined by the thickness of the wooden workpieces that are being fastened together. The depth of cut required is determined by the size of the biscuit being used. The chart on the following page will assist you in selecting the size of biscuit and the depth of cut required for varying thickness of materials.

BISCUIT SIZE & USE

Depth gauge marking	Material thickness (mm)	Biscuit #	Cut depth (mm)
0	8–12	0	8.0
10	12–15	10	10.0
20	>15	20	12.7
S		Simplex	13.0
D		Duplex	14.7
Max			18.0

SETTING THE CUTTING DEPTH

The depth of cut depends on the size of biscuit being used. Refer to the "BISCUIT SIZE & USE" chart above for biscuit details.

1. Loosen the depth control knob (10) (Fig. 2).
2. Slide the depth control knob backward until the front edge of the depth adjustment bracket (b1) is on the appropriate mark on the scale (b2).
NOTE: The scale is marked for the following common biscuit sizes: D, S, 20, 10 & 0.
3. Tighten the depth control knob.
NOTE: Do not over tighten the depth control knob. If you do, you may strip the threads.

ADJUSTING THE BLADE HEIGHT

The height of cut depends on the thickness of the wooden workpieces that are being joined.

The blade height must be adjusted so that the centre of the cut will be in the exact centre of the thickness of the workpiece. Therefore, the blade height must be set at 1/2 the thickness of the workpiece.

1. Loosen the angle setting knob (12) (Fig. 3).
2. Tilt the angle guide plate (13) forward until it is horizontal and the angle cutting scale (1) reads 90°.
3. Tighten the angle setting knob.
4. Loosen the height adjusting lever (2) by lifting it upward (counter clockwise).
5. Lift the height adjustment plate (c1) upward until the mark (c2) on the plate indicates the appropriate height measurement on the scale (c3).
NOTE: The Imperial scale is on the left side (c3) and the metric scale is on the right (c4).
6. Tighten the height adjusting lever in order to hold the height adjusting plate firmly in place.

ADJUSTING THE CUTTING ANGLE

Most biscuit joining applications require the blade to cut into the workpiece at a 90° angle. In special cases, it is necessary to insert the biscuit at a different angle. Adjust the cutting angle as follows:

1. Loosen the angle setting knob (12) (Fig. 4).
2. Tilt the angle guide plate (13) up or down until the appropriate angle on the scale (e1) is opposite the pointer (e2).

3. Tighten the angle setting knob.

NOTE: Aside from 90°, the most common angle settings are 22½°, 45° & 67½°. For your convenience, there are ball & groove detents (e3) to help in setting these angles.

INSTALLING THE DUST BAG

This biscuit joiner is equipped with a dust collection bag which will collect most of the sawdust that is created during the cutting operation.

1. Push the small end of the dust bag adaptor (f1) into the dust chute (f2) at the rear of the base plate (f3) (Fig. 5).
NOTE: Make sure the large end of the adaptor (f4) is pointing away from the tool.
2. Press the dust chute connector (f5) onto the large end of the dust bag adaptor.
NOTE: To ensure effective dust collection, it is important to empty the dust bag regularly before it gets too full. Simply remove the dust bag from the adaptor and shake it in order to remove the dust.

MARKING THE WORKPIECES

Properly marking the workpieces will avoid the risk of placing the biscuit cuts incorrectly. The following procedure will generally apply for marking all biscuit cut positions. For the purposes of this illustration, two 25.4 x 152.4mm boards are being marked.

1. Place the two boards on a smooth uncluttered surface with the good side up (Fig. 6).
NOTE: Place the boards tightly together. Use a carpenter's square to align the ends of the boards.
2. Place a mark 63.5mm from the end of one board (g1). This will be the centreline for the first biscuit cut.
3. Place a second mark 63.5mm from the end of the opposite end of the board (g2).
4. If the distance between the two marks is greater than 152.4mm, place additional marks on the board at 101.6mm to 152.4mm intervals between the two end marks.
NOTE: These additional marks should be spaced equally between the end marks.
5. Making sure the boards are still tightly together, with the ends aligned, use a carpenter's square and draw cutting lines across both boards (g3) at each mark.
6. Mark the edge of each board where they face each other (g4). This will ensure that you cut the correct edge of the board.

WARNING!

Verify the following every time the biscuit joiner is used:

1. Safety glasses and hearing protection are being worn.
2. The blade is sharp and in good condition.
3. All settings are correct and the adjustment knobs are tightened.

Failure to observe these safety rules will significantly increase the risk of injury.

OPERATION

MAKE TEST CUTS

It is important to make a test cut on a scrap piece of material that is EXACTLY the same material as the main workpiece each time the biscuit joiner is set up or any adjustment is changed. This will allow you to verify all of the settings and to make the appropriate adjustments. Continue to use the scrap material for test cuts until you are satisfied that the settings are all correct before you cut into the main workpiece.

CUTTING BISCUIT GROOVES

1. Place workpiece on the workbench with cutting lines "up" and the edge to be cut hanging slightly over the edge of the workbench.
2. Clamp the workpiece in position with clamps placed at least 76.2mm from any mark in order to prevent interference with the joiner.
3. Place the angle guide (h1) on the workpiece and align the angle guide front groove (h2), angle guide rear notch (h3) and guide plate groove (h4) with the cutting line (h5) (Fig. 7).

NOTE: Slide the joiner forward so that the guide plate contacts the edge of the workpiece. DO NOT put any pressure on the guide plate before turning the switch to the ON position.

4. Turn the joiner switch to the ON position.

WARNING!

Always hold the joiner with two hands in order to ensure complete control of the tool (Fig. 8).

5. When the joiner reaches full speed, slowly push the joiner into the workpiece, making sure that all three alignment marks on the tool remain aligned with the cutting line at all times, as outlined in step #3 above.
6. When the cutter has reached its full depth, carefully slide the joiner backward until the blade comes out of the groove and the base plate covers the blade.
7. Turn the switch to the OFF position.

NOTE: Wait for the blade to come to a complete stop, and then place the joiner in a safe location.

FASTENING THE WORKPIECES TOGETHER

Once all of the grooves have been cut in both workpieces, they are ready to be joined together.

Test assemble the two workpieces by inserting the appropriate sized biscuit into each groove in one workpiece, and then placing the matching grooves of the second workpiece over the protruding biscuits that have been inserted into the first workpiece.

Check to make sure that two workpieces will align properly with each other when they are glued into position.

NOTE: The biscuits will be loose when inserted into the grooves. They are designed to expand and to form a tight fit when the glue is applied and dried. If the biscuits absorb humidity when they are stored in a damp environment, they may expand and be too thick to insert into the biscuit groove. Five seconds in the microwave will reduce the moisture.

If the alignment is not correct, establish which groove must be adjusted and carefully re-cut that groove.

Once the test assembly has been completed, remove all biscuits and prepare for final assembly.

NOTE: Use a good quality carpenter's glue in order to ensure a strong joint.

1. Stand both boards on their edge with the grooves UP.
2. Apply glue to all grooves and grooved edges of the boards.
3. Apply glue to each biscuit and insert them in the grooves of one board.
4. Place grooves in remaining board over the exposed biscuits.
5. Place clamps on the boards in order to hold them in position while the glue dries.
NOTE: Make sure boards are properly aligned while they are being held with the clamps.
6. When the glue has fully dried in accordance with the glue instructions, remove the clamps from the boards and sand the joined workpieces as required.

REPLACING THE BLADE

After considerable use, the biscuit joiner blade will become dull and will require replacement. The following procedure describes the method for removing and replacing the blade.

WARNING!

Before attempting to remove the blade, remove the plug from the power source. Be extremely careful when handling the blade. It is sharp and can cause serious cuts to your hands.

Remove the height adjustment assembly

1. Loosen the height adjusting knob (i1) (Fig. 9).
2. Lift the height adjustment assembly (i2) off of the guide plate (i3).

Remove the guide plate assembly

1. Remove the two round head screws (i4) from the front of the guide plate (i3).
NOTE: Use a #2 cross-tip screwdriver.
2. Remove the two flat head screws (i5) from the top of the guide plate.
NOTE: Use a #2 cross-tip screwdriver.
3. Lift the guide plate off of the base plate (i6).

Remove the depth adjustment assembly

1. Remove the two round head screws (k1) and the two lock washers (k2) (Fig. 10).
NOTE: Use a #2 cross-tip screwdriver.
2. Remove the depth adjustment assembly (k3).
NOTE: Be careful not to loose the screws and the lock washers.

Remove the base plate & springs

There are two springs between the base plate and the body of the joiner. Their function is to return the base plate forward to cover the blade after the groove is cut. These two springs must be carefully released from the rear of the joiner as follows:

1. Place the hook end (m1) of the spring hook (m2) under the hook in the end of one spring (m3) (Fig. 11).
2. Pull back on the spring hook in order to extend the spring and remove the wire spring end from the hole in the rear of the base plate (m4).
3. Once the spring is released, let it contract under the base plate and remove the spring hook from the spring.
4. Repeat steps 1, 2 & 3 above to release the second spring.

- When both springs are released, carefully slide the base plate toward the rear of the joiner until it can be removed.

NOTE: When removing the base plate, make sure the springs do not get caught on the base plate.

Remove the blade

- Press the spindle lock button (3) and rotate the blade until the spindle lock engages the spindle (Fig. 12).
- Insert the pins of the spindle wrench (n1) into the matching holes in the flange nut (n2) (Fig. 13). will become dull and will require replacement.
- While continuing to press on the spindle lock button, loosen and remove the flange nut by turning it counter-clockwise.
- Lift the blade (n3) and flange (n4) from the spindle.

Install a new blade

- Carefully clean all sawdust and debris from the spindle, flange and flange nut.
- Place the flange on the spindle, making sure the flat sides of the flange hole (n5) slide completely onto the matching flats on the spindle (Fig. 13).
NOTE: The flange is manufactured to accommodate two different blade hole sizes (20 mm & 22 mm). Make sure the flange is installed so that it fits properly into the blade hole.
- Place new blade onto the flange with the teeth pointing in direction indicated in Fig. 13.

DANGER!

Make sure the hole in the blade is either 20mm or 22mm and that it fits properly onto the flange. Make sure the blade diameter is 101.6mm or 100mm. Never use a reducing ring or adaptor to make the blade fit properly. Failure to use the correct blade may result in serious injury.

- Place the flange nut on the spindle with the flat side away from the blade.

NOTE: Hand tighten the flange nut before using the wrench in order to make sure the blade is properly nested on the flange and the flange nut is holding the blade true.

- Rotate the flange nut until the spindle lock engages the spindle.
- Use the flange wrench to firmly tighten the flange nut.
- Carefully rotate and wiggle the blade by hand in order to verify that it does not wobble and that the flange nut is completely tightened.

Install the base plate

Installing the base plate is similar to the removal process.

- Hook the two base plate springs (p1) into the holes in the bottom of the joiner (Fig. 14).

NOTE: The blade and flanges have been removed for the purpose of this illustration.

- Slowly slide the base plate toward the front of the joiner as far as it will go.

NOTE: When installing the base plate, make sure the springs do not get caught on the base plate.

- When the base plate is fully forward, carefully insert the spring hook (p2) into the rear hook of one spring (p3).
- Pull back on the spring hook in order to extend the spring and place the wire spring end into the hole in the rear of the base plate.

NOTE: Getting the wire spring end into the hole in the base plate can be difficult. Once it is at the hole, a pair of long needle nose pliers may be required to guide the spring end into the hole. Be careful not to bend the wire hook on the end of the spring.

- Repeat steps #3 & 4 to connect the second spring.
- Check both the front and rear spring connections in order to verify that they are correctly positioned, and that the base plate slides and returns freely.

At this point, the rest of the components that were removed from the joiner can be re-installed:

- Depth knob assembly
- Guide plate assembly
- Height adjustment assembly

These components should be re-installed in the order listed above, beginning with the depth knob. Simply follow the procedure for removing these components, but in reverse order.

MAINTENANCE

GENERAL

WARNING!

When servicing, use only identical replacement parts. Use of any other part may create a hazard or cause product damage.

DO NOT use solvents when cleaning plastic parts. Plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use. Use a clean cloth to remove dirt, dust, oil, grease etc.

WARNING!

Do not at any time allow brake fluids, gasoline, petroleum-based products, penetrating oils, etc. to come into contact with plastic parts. They contain chemicals that can damage, weaken or destroy plastic.

DO NOT abuse power tools. Abusive practices can damage the tool as well as the workpiece.

WARNING!

DO NOT attempt to modify tools or create accessories. Any such alteration or modification is misuse and could result in a hazardous condition leading to possible serious injury. It will also void the warranty.

LUBRICATION

All of the bearings in this tool are lubricated with a sufficient amount of high-grade lubricant for the life of the unit under normal conditions. Therefore, no further lubrication is required.

The base plate should be oiled periodically but very sparingly. A small oil bottle is supplied for this purpose. Use a good grade of general lubricating oil on the slides. Place only one drop of oil on the slides from the rear of the joiner. Slide the base plate back and forth to work the oil into the slides.

Use a clean rag or paper towel to remove any excess oil that may stain wooden workpieces. Any excess oil will also collect sawdust.

RYOBI POWER EQUIPMENT WARRANTY

Subject to the warranty conditions below, this RYOBI tool (hereinafter called "the Product"), is warranted by Ryobi (herein called "the Company") to be free from defects in material or workmanship for a period of 24 months from the date of original purchase covering both parts and labour. Under the terms of this warranty, the repair or replacement of any part shall be the opinion of the Company or its authorised agent. Should service become necessary during the warranty period, the owner should contact the authorised Ryobi retailer from whom the product was purchased, or the nearest Company branch office. In order to obtain warranty service, the owner must include the Sales Docket and Warranty Certificate to confirm date of purchase. This Product is sold by the dealer or agent as principal and the dealer has no authority from the Company to give any additional warranty or guarantee on the Company's behalf except as herein contained or herein referred to.

Warranty Conditions

This warranty only applies provided that the Product has been used in accordance with the manufacturer's recommendations under normal use and reasonable care (in the opinion of the Company) and such warranty does not cover consumable components, damage, malfunction or failure resulting from

misuse, neglect, abuse, or used for a purpose for which it was not designed, or is not suited and no repairs, alterations or modifications have been attempted by other than an Authorised Service Agent. This guarantee will not apply if the tool is damaged by accident or if repairs arise from normal wear and tear.

Accessories such as bits, blades, sanding discs, cutting lines, etc., are excluded from this guarantee. Normal consumable parts, such as carbon brushes, bearings, chucks, cord assembly's, spark plugs, recoil pulleys and bump head assembly's are specifically excluded from this guarantee.

The Company accepts no additional liability pursuant to this warranty for the costs of traveling or transportation of the Product or parts to and from the service dealer or agent - which costs are not included in the warranty.

Nothing herein shall have the effect of excluding, restricting or modifying any conditions, warranty, right or liability imposed, to the extent only that such exclusion, restriction or modification would render any term herein void.

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THIS WARRANTY FORM SHOULD BE RETAINED BY THE CUSTOMER AT ALL TIMES.

For your record and to assist in establishing date of purchase (necessary for in-warranty service), please keep your purchase docket and this form, completed with the following particulars.

PURCHASED FROM:.....

ADDRESS OF DEALER:.....

DATE:..... MODEL NO..... SERIAL NO.....

Present this form with your Purchase Docket when Warranty Service is required.