



**600W**

# BISCUIT JOINER

BJ600

INSTRUCTION MANUAL

# **GMC**®

**GLOBAL MACHINERY COMPANY**

Black

Magenta

Code: BJ600 IM

Cyan

Yellow

Date: 080620

Edition: 04

Op: PS

# Contents

Warranty	2
Introduction	3
Environmental protection	3
Description of symbols	3
Specifications	3
Safety instructions	4
Additional safety rules for biscuit joiners	5
Contents of carton	6
Unpacking	6
Know your product	7
Overview	8
Adjusting the cutting depth	8
Adjusting the secondary handle	9
Fitting the height and bevel adjustment fence	9
Adjusting the bevel angle	9
Adjusting the cutting height	9
Anti-slip rubber grips	9
Changing the blade	10
Turning on and off	10
Dust extraction	11
Operation overview	11
Operation – Making a cut	11
Making an edge to edge joint	12
Making a mitre joint	12
Making a corner joint	13
Making a T-joint	13
Maintenance	13
Cleaning	13
Trouble shooting	14

## Warranty Power Tools

Whilst every effort is made to ensure your complete satisfaction with this tool, occasionally, due to the mass manufacturing techniques, a tool may not live up to our required level of performance and you may need the assistance of our service department.

The product is warranted for a 2-year repair warranty for home domestic use from the date of original purchase. If found to be defective in materials or workmanship, the tool will be repaired free of charge.

A small freight charge may apply. Proof of purchase is essential. We reserve the right to reject any claim where the purchase cannot be verified.

This warranty does not include damage or defects to the tool caused by or resulting from abuse, accidents, alterations or commercial or business use. It also does not cover any bonus items or included accessories. Only the power tool is covered under this warranty.

With continuing product development, changes may have occurred which render the product received slightly different to that shown in this instruction manual.

Please ensure that you store your receipt in a safe place.

Conditions apply to the above warranty. For full details of the warranty terms and conditions please refer to our website – [www.gmcompany.com](http://www.gmcompany.com)

For prompt service we suggest you log your service request online - [www.gmcservice.com.au](http://www.gmcservice.com.au), should you not have access to the internet, please contact our service department on 1300 880 001 (Australia) or 0800 445 721 (New Zealand).

## Introduction

Your new GMC power tool will more than satisfy your expectations. It has been manufactured under stringent GMC Quality Standards to meet superior performance criteria.

You will find your new tool easy and safe to operate, and, with proper care, it will give you many years of dependable service.

**CAUTION.** Carefully read through this entire Instruction Manual before using your new GMC Power Tool. Take special care to heed the Cautions and Warnings.

Your GMC power tool has many features that will make your job faster and easier. Safety, performance, and dependability have been given top priority in the development of this tool, making it easy to maintain and operate.

## Environmental protection



Recycle unwanted materials instead of disposing of them as waste. All tools, hoses and packaging should be sorted, taken to the local recycling centre and disposed of in an environmentally safe way.

## Description of symbols

The rating plate on your tool may show symbols. These represent important information about the product or instructions on its use.



Wear hearing protection.

Wear eye protection.

Wear breathing protection.



Double insulated for additional protection.



Conforms to relevant standards for electromagnetic compatibility.

N380

## Specifications

Nominal voltage:	230-240V ~ 50Hz
Input power:	600W
No load speed:	11000 min <sup>-1</sup>
Depth of cut:	8mm, 10mm, 12mm, 14mm
Thickness of cut:	4mm
Biscuit size:	#0, #10, #20
Blade size:	Ø100mm 6TCT
Bore size:	Ø22mm
Bevel fence:	0–90°
Height of cut adjustment:	7mm to 30mm
Insulation class:	Double insulated
Weight:	2.8kg

## 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 those 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.

### **Additional safety rules for biscuit joiners**

- Hold tool by insulated gripping surfaces when performing an operation where the cutting tools may contact hidden wiring or its own cord. Contact with a “live” wire will make exposed metal parts of the tool “live” and shock the operator.
- Fully unwind cable drum extensions to avoid potential overheating.
- When an extension cable is required, you must ensure that it has the right ampere rating for your power tool and is in safe electrical condition.
- Ensure your mains supply voltage is the same as your tool rating plate voltage.
- If possible, always use clamps or a vice to hold your work.
- Always switch off before you put the biscuit joiner down.
- Ensure that the lighting is adequate.
- Keep the area free of tripping hazards.
- Do not let anyone under 18 years operate this tool.
- Only use accessory blades that are in good condition.
- Do not touch the blade after operation. It will be hot.
- Keep yours hands away from under the workpiece.
- Never use your hands to remove chips or waste close by the blade.
- Rags, cloths, cord, string and the like should never be left around the work area.
- Support the work properly.
- Periodically check that all nuts, bolts and other fixings are properly tightened.
- When using the tool, use safety equipment including safety glasses or shield, ear protection, and protective clothing including safety gloves. Wear a dust mask if the operation creates dust.
- If in doubt, do not plug in the tool.
- Using a power source with a voltage less than the nameplate rating is harmful to the motor.

#### **Wear goggles**

#### **Wear earmuffs**

#### **Wear a breathing mask**

The tool must be used only for its prescribed purpose. Any use other than those mentioned in this Manual will be considered a case of misuse. The user and not the manufacturer shall be liable for any damage or injury resulting from such cases of misuse.

To use this tool properly, you must observe the safety regulations, the assembly instructions and the operating instruction to be found in this Manual. All persons who use and service the machine have to be acquainted with this manual and must be informed about its potential hazards. Children should be supervised at all times if they are in the area in which the tool is being used. It is also imperative that you observe the accident prevention regulations in force in your area. The same applies for general rules of occupational health and safety.

The manufacturer shall not be liable for any changes made to the tool nor for any damage resulting from such changes. Even when the tool is used as prescribed it is not possible to eliminate all residual risk factors. The following hazards may arise in connection with the tools construction and design:

Damage to the lungs if an effective dust mask is not worn.

Damage to the hearing if effective ear protection is not worn.

## **Contents of carton**

The GMC BJ600 biscuit joiner is supplied with the following accessories as standard

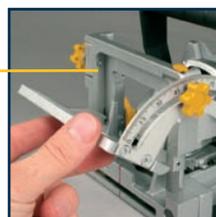
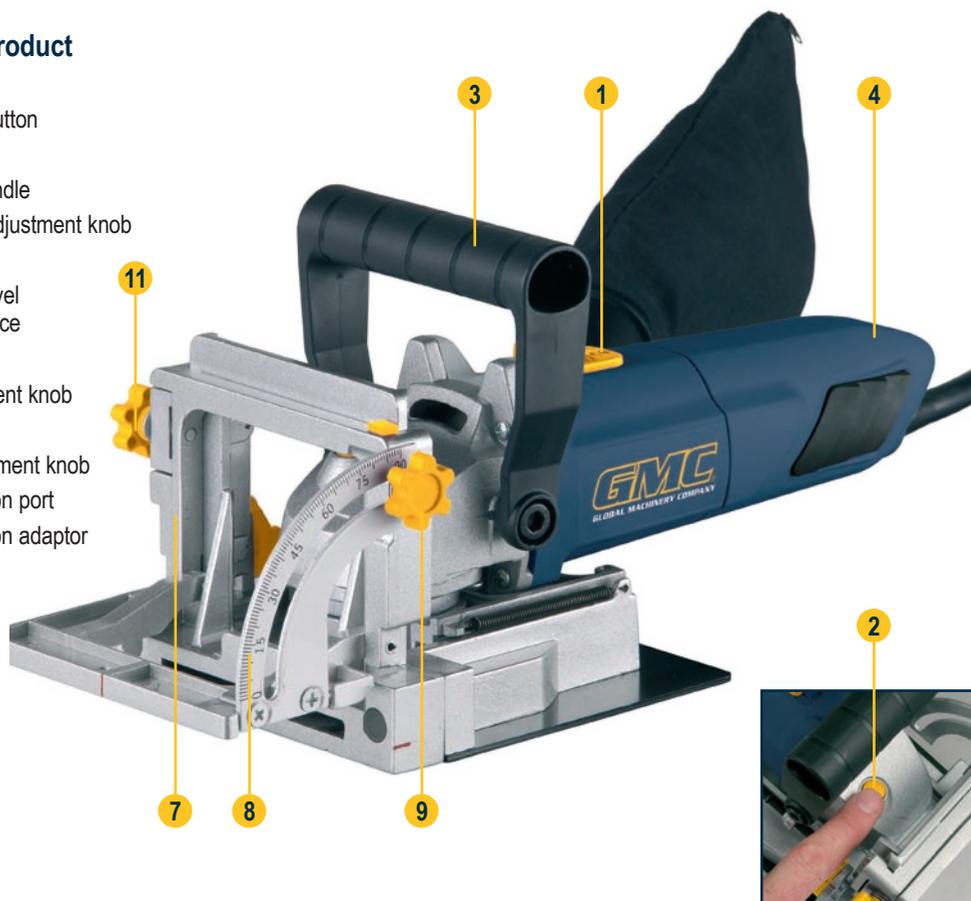
- Pin wrench
- Allen key
- Dust extraction adaptor
- Dust bag

## **Unpacking**

Due to modern mass production techniques, it is unlikely that your GMC Power Tool is faulty or that a part is missing. If you find anything wrong, do not operate the tool until the parts have been replaced or the fault has been rectified. Failure to do so could result in serious personal injury.

## Know your product

1. On/off switch
2. Spindle lock button
3. Main handle
4. Secondary handle
5. Depth of cut adjustment knob
6. Main fence
7. Height and bevel adjustment fence
8. Bevel scale
9. Bevel adjustment knob
10. Height scale
11. Height adjustment knob
12. Dust extraction port
13. Dust extraction adaptor
14. Dust bag



## Overview

The biscuit joiner is designed for the cutting and joining of dressed timber. It provides an accurate, effective and convenient alternative to other means of jointing such as dowelling and can be particularly useful for edge jointing long boards of natural wood or manufactured sheeting.

The 100mm TCT blade is plunged into the wood to the required depth, which is pre-set depending on the biscuit to be used.

Biscuit No.	Width	Length
#0	16mm	48mm
#10	20mm	52mm
#20	24mm	60mm

PVA wood glue is applied and the biscuit is inserted into the elliptical slot that is left by the blade. As the glue sets, the water content in the glue is absorbed into and expands the biscuit, resulting in an extremely strong joint.

**Note.** You must use PVA glue designed for woodworking applications



The adjustable fence allows the height and angle of the blade to be positioned to suit different joint requirements. The depth of cut can be set on the depth of cut control dial, depending on the biscuit to be used. The joiner can also be used to create a continuous groove, the width of which can

be increased simply by adjusting the fence up or down and carrying out several passes.

## Adjusting the cutting depth

The depth of cut can be set to match the dimensions of the particular size biscuit being used.

The numbers on the depth adjustment dial (0, 10 & 20) coincide with the three most common biscuit sizes. The letter 'M' stands for maximum depth capacity of the tool.

The table below indicates the cutting depth for each setting.

Depth Setting	Depth of Cut
0	8mm
10	10mm
20	12mm
Max	14mm

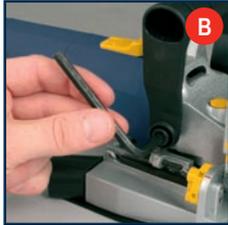
The width of a biscuit may vary slightly due to variances in manufacture. The blade has been designed to allow fitment of up to the largest biscuits in the slot cut.

1. To select a depth, align the appropriate number with the mark on the tool's housing that matches with the size of biscuit you will be using. Rotate the depth adjustment dial (5) to the desired position until it "clicks" into place (fig A).



## Adjusting the secondary handle

1. Using an Allen key loosen the set screw on each side of the handle (fig B).



2. Position the handle to the desired position (fig C).
3. Tighten the 2 hex screws to secure the handle in position.

## Fitting the height and bevel adjustment fence

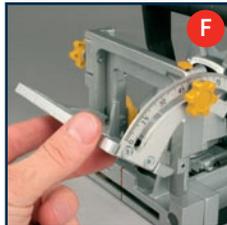
1. Attach the height and bevel adjustment fence to the main fence by sliding it over the top of the main fence (fig D).



## Adjusting the bevel angle

The adjustable tilt feature allows slots to be cut on a bevelled edge.

1. Loosen the bevel adjustment knob (9) by rotating it in an anti-clockwise direction (fig E).



2. Move the fence to the desired angle between 0° and 90° using the bevel scale (8) and pointer as a guide (fig F).

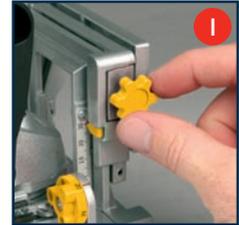
3. Tighten the bevel adjustment knob (9) to secure the fence in position (fig G).



## Adjusting the cutting height

The height of the fence can be adjusted to let you make biscuit slots at different depths down from the surface of the workpiece.

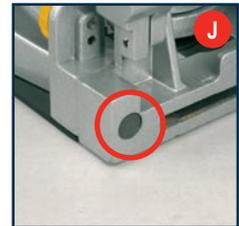
1. Ensure that the fence is set at 0°.
2. Position fence (7) to the desired height using the scale (10) on the main fence as a guide (fig H).



3. Tighten the height adjustment knob (10) by rotating it in a clockwise direction to secure the fence in position (fig I).

## Anti-slip rubber grips

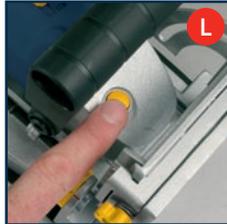
Biscuit jointers tend to pull to the right when making a cut. The anti-slip rubber grips have been provided to reduce this effect and help keep the biscuit jointer steady on the workpiece (fig J).



## Changing the blade

**CAUTION.** Always ensure that the biscuit joiner is switched off and unplugged from the power supply before making any adjustments.

1. Loosen and remove the 4 screws on the base of the biscuit joiner.
2. Remove the base plate to reveal the blade (fig K).



3. Whilst holding the spindle lock button (2) rotate the blade by hand until the blade locks in place (fig L).
4. Whilst depressing the spindle lock button, turn the blade flange anti-clockwise using the pin wrench provided (fig M).



5. Remove the outer blade flange (fig N).
6. Remove the blade from the inner flange.
7. Clean the blade flanges thoroughly before mounting the new blade. Wipe a drop of oil onto the inner and outer flange where they will touch the blade.
8. Mount the new blade onto the spindle and against the inner flange.
9. Replace the outer flange and tighten.

10. Ensure that the spindle lock button is released.

**WARNING.** The direction in which the blade rotates has to be the same as the direction of the arrow marked on the housing.

**IMPORTANT.** After replacing the cutting blade, check that it runs freely by first testing if it spins by hand.

11. Replace the base plate and secure with the 4 screws.
12. Plug the machine into a power socket and run the biscuit joiner under no load to check that it runs smoothly before using it to cut any material.

## Turning on and off

1. Connect the plug to the power point.
2. Push the on/off switch (1) forward and up over the latching ramp to lock the switch on (fig O).



3. Once cutting is finished, pull in and release the on/off switch (1) to stop the motor (fig P).

**WARNING.** The blade continues to turn for a few seconds even though the switch is turned off. Keep your hands well away from the moving blade.

## Dust extraction

**CAUTION.** Always ensure that the biscuit joiner is switched off and unplugged from the power supply before making any adjustments or connecting accessories.

1. Fit the dust extraction adaptor (13) to the port (12) when connecting the tool to a dust extraction system (fig Q).

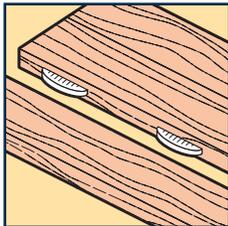


2. The dust bag (14) can be connected to the adaptor (fig R).

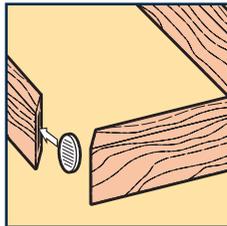
## Operation overview

A biscuit joiner is ideal for making a variety of strong and accurate joints, the most common are:

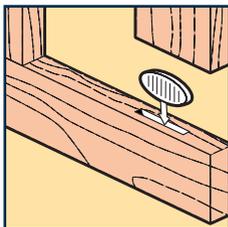
### Edge to Edge



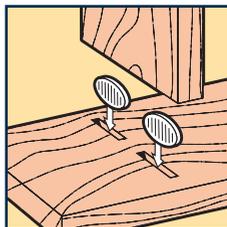
### Mitre Joints



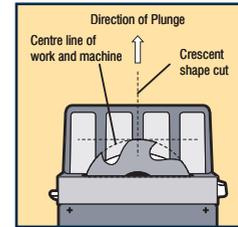
### Butt Joints



### T Joints



To cut the biscuit slot, the body of the joiner is moved toward the material. By utilising the various features of the tool you can create a wide range of different types of joints.

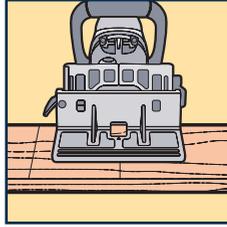
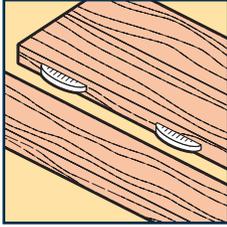


Always make a reference line to line up the machine with the centre of the material to be plunged to ensure accurate biscuit placement.

## Operation – Making a cut

1. Mark all the opposing boards at the point at which you intend on making a cut. Clamp the material to a suitable work surface prior to making any cuts.
2. Adjust the height of the fence as required for the application.
3. Adjust the bevel angle of the fence as required for the application.
4. Line up the cutting guide located centre to the front of the fence with the cutting line on the workpiece and place the biscuit joiner against the workpiece.
5. Turn on the biscuit joiner using the on/off switch.
6. Whilst holding the rear handle push the biscuit joiner forward so that the blade plunges into the workpiece.
7. Allow the return spring to retract the blade from the slot and then switch off. Repeat this process for each marked point along the workpiece.

## Making an edge to edge joint

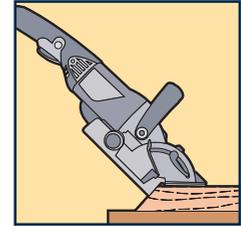
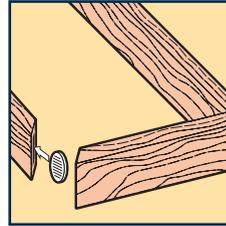


1. Position the 2 pieces together and draw a reference mark at 90° to the centre point of each proposed joint location. Space the joints about 4 inches apart.
2. Set the cutting depth to suit the biscuits you are using. Generally, #20 biscuits suit most applications. If you are using stock that is 482.6mm thick or less, you will need smaller biscuits.
3. Adjust the height of the fence as required. Typically this is centre to the material thickness. There is a red marker on the side of the machine to indicate where the blades extend out from.
4. Place the cutting guide at the centre point of each slot in turn and press the fence against the edge of the workpiece.
5. Switch on the biscuit joiner and plunge the blade forward to make the cut.
6. Allow the return spring to retract the blade from the slot and then switch off.
7. To cut a slot in the edge of the matching workpiece, place this piece on a flat surface and place the biscuit joiner against the edge.
8. Again line up the centre point of each slot and make the cuts.
9. Once all the slots are cut insert a biscuit into each joint and dry assemble the workpieces to ensure everything lines up and fits.
10. Insert a water-based glue along the adjoining edges and in to the slots.

11. When all slots have been cut, clean the edge and slots of any remaining sawdust.
12. Place the biscuits into position and fit the matching timber pieces together.
13. Clamp the boards and wipe clean any excess glue and leave to set as per the glues specifications.

**NOTE:** It is possible that thick pieces of timber may require two biscuits at each location, one at a height of about 1/3rd the thickness of the wood, and the other at about 2/3rd the thickness.

## Making a mitre joint

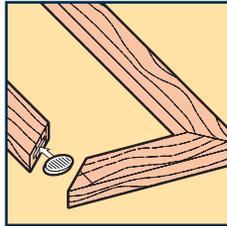


1. Slots for a mitre joint can be cut with the workpiece secured flat on the bench and the fence tilted to the required angle.
2. Position the 2 pieces together and draw a reference mark at the centre point of each proposed joint location.
3. Place the cutting guide at the centre point of each slot in turn and press the fence against the edge of the workpiece.
4. Switch on the biscuit joiner and plunge the blade forward to make the cut.
5. Allow the return spring to retract the blade from the slot and then switch off.
6. Once all the slots are cut insert a biscuit into each joint and dry assemble the workpieces to ensure everything lines up and fits.
7. Insert a water-based glue into the slots.

- When all slots have been cut, clean the edge and slots of any remaining sawdust.
- Place the biscuits into position and fit the matching timber pieces together.
- Clamp the boards and wipe clean any excess glue and leave to set as per the glues specifications.

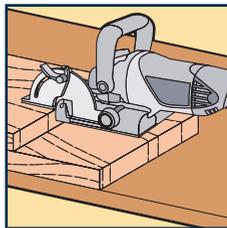
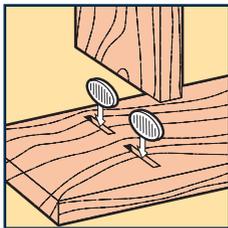
### Making a corner joint

- Set the 2 pieces together and draw the joint centres on the outside face and end.
- Cut the slots into the end piece.
- Cut the slots in the face piece.
- Once all the slots are cut insert a biscuit into each joint and dry assemble the workpieces to ensure everything lines up and fits.
- Insert a water-based glue into the slots.
- When all slots have been cut, clean the edge and slots of any remaining sawdust.
- Place the biscuits into position and fit the matching timber pieces together.
- Clamp the boards and wipe clean any excess glue and leave to set as per the glues specifications.



### Making a T-joint

- Place the 2 pieces to be joined on a level bench.
- Mark the centreline for each biscuit.



- Cut the slots into the workpiece that will become the vertical board.
- Cut the slots into the workpiece that will become the horizontal board.
- Once all the slots are cut insert a biscuit into each joint and dry assemble the workpieces to ensure everything lines up and fits.
- Insert a water-based glue into the slots.
- When all slots have been cut, clean the edge and slots of any remaining sawdust.
- Place the biscuits into position and fit the matching timber pieces together.
- Clamp the boards and wipe clean any excess glue and leave to set as per the glues specifications.

### Maintenance

All the bearings are sealed ball bearings, lubricated for life, and require no maintenance.

Regularly check that all the fixing screws are tight. They may vibrate loose over time.

#### Power cord maintenance

If the supply cord needs replacing, the task must be carried out by the manufacturer, the manufacturer's agent, or an authorised service centre in order to avoid a safety hazard.

### Cleaning

- Keep the tool's air vents unclogged and clean at all times.
- Remove dust and dirt regularly. Cleaning is best done with a rag. Wear safety goggles or an eye shield and gloves whilst cleaning.
- Keep all moving parts free of built up sawdust and other foreign matter.
- Never use caustic agents to clean plastic parts.

**CAUTION.** Do not use cleaning agents to clean the plastic parts of the tool. A mild detergent on a damp cloth is recommended. Water must never come into contact with the tool.

## Trouble shooting

### WARNING!

Turn the on/off switch to the off position and unplug the tool from the power supply before performing trouble shooting procedures.

<b>Trouble</b>	<b>Problem</b>	<b>Suggested remedy</b>
Biscuit joiner will not start	Power cord not plugged in	Ensure that the cord is connected to the power supply
	Power fault, fuse or circuit breaker tripped	Check the power supply
	Cord damaged	Use qualified electrical repairer to repair or replace
	Burned out switch	Use qualified electrical repairer to repair or replace
	Faulty motor	Use qualified electrical repairer to repair or replace the motor
Blade does not reach full speed	Extension cord too long or undersized	Use extension cord heavy enough to carry the current
	Tool is overheating	Turn off the tool and let it cool down to room temperature. Inspect and clean the ventilation slots
Biscuit does not fit into slot	Incorrect biscuit being used	Check to see that the biscuit is the same size as the slot cut. ie. use a #10 biscuit for a #10 slot.
Poor cutting	Accessory blunted	Replace with new biscuit joiner blade
Vibration or abnormal noise	Loose parts	Check to see that all levers are secure including bevel adjustment knob and height adjustment knob
	Blade vibrating	Ensure that the blade flange is securely tightened
	Moving parts excessively worn	Use qualified electrical repairer to repair or replace



# GMC customer assist

If your product needs repairing or you simply need help or advice, please contact us on our Customer Assist Line 1300 880 001 (Australia) or 0800 445 721 (New Zealand).

For prompt service we suggest you log your service request online at [www.gmcservice.com.au](http://www.gmcservice.com.au). Should you not have access to the Internet, please contact our service department on 1300 880 001 (Australia) or 0800 445 721 (New Zealand). 7am – 7pm, 7 days a week (AEST).

**Please note that if repair is required, you must provide a valid original purchase receipt.**

You will need the following details at hand to log your service request;

**Personal details:** First & Last name, address, pick up address, contact phone numbers, email address

**Product details:** Product number, date of purchase, retailer bought from, State & postcode, receipt number, reason for the request, copy of official purchase receipt

Attach your purchase receipt and save with this Manual for future reference.

Please refer to our website [www.gmcompany.com](http://www.gmcompany.com) for full GMC warranty Terms and Conditions.

Attach Your  
Receipt Here

**GMC**<sup>®</sup>  
**GLOBAL MACHINERY COMPANY**