

**WARNING**

"READ ALL INSTRUCTIONS" Failure to follow the SAFETY RULES identified by Bullet(*) symbol listed Below and other safety precautions, may result in serious personal injury.

General Safety Rules-for all Power Tools

Work Area

KEEP WORK AREAS CLEAN. Cluttered areas and benches invite accidents.

AVOID DANGEROUS ENVIRONMENTS. don't use power tools in damp or wet locations. do not expose power tools to rain. keep work area well lit.

AVOID GASEOUS AREAS. do not operate portable electric tools in explosive atmospheres in presence of flammable liquids or gases. motors in these tools normally spark, and the sparks might ignite fumes.

KEEP CHILDREN AWAY. do not let visitors contact tool or extension cord. all visitors should be kept away from work area.

Personal Safety

GUARD AGAINST ELECTRIC SHOCK. prevent body contact with grounded surfaces for example: pipes, radiators, ranges and refrigerator enclosures. rubber gloves and non-skid footwear are recommended when working outdoors, where damp or wet ground may be encountered. a ground fault circuit interrupter protected power line must be used for these conditions.

DRESS PROPERLY. do not wear loose clothing or jewelry they can be caught in moving parts. wear protective hair covering to contain long hair.

USE SAFETY EQUIPMENT. WEAR SAFETY GOGGLES or glasses with side shields. Wear hearing protection during extended use of power tools and dust mask for dusty operations.

STAY ALERT. USE COMMON SENSE. watch what you are doing. do not operate tool when you are tired or under influence of drugs.

REMOVE ADJUSTING KEYS AND WRENCHES. form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.

AVOID ACCIDENTAL STARTING. Don't carry plugged in tool with finger on switch. Be sure switch is OFF when plugged in.

DON'T OVERREACH. Keep proper footing and balance at all times.

BEFORE CONNECTING THE TOOL to a power source (receptacle, outlet, etc) Be sure voltage supplied is the same as that specified on the nameplate of the tool. A power source with voltage greater than that specified for the tool can result in serious injury to the user- as well as damage to the tool. If in doubt, DO NOT plug in tool. Using a power source with voltage less than the nameplate rating is harmful to the motor.

VOLTS AC designated tools are for Alternating Current 50-60Hz only. *VOLTS DC* designated tools are for Direct Current. Do not use AC designated tools with DC power source. Do not use electronic speed controlled tools with DC power source.

Tool use and Care

DON'T FORCE TOOL. It will do the job better and safer at the rate for which it was designed.

USE THE RIGHT TOOL. Don't force small tool or attachment to do the job of a heavy-duty tool. Don't use tool for purpose not intended- for example: don't use circular saw for cutting tree limbs or logs.

SECURE WORK. Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate the tool.

DON'T ABUSE CORD. Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil and sharp edges. Always keep cord from spinning place, bits or any other moving part while the tool is in use.

THE USE OF ANY OTHER ACCESSORIES not specified on this manual may create a hazard.

DISCONNECT TOOLS. When not in use before servicing, when changing blades, bits, cutters, etc.

STORE IDLE TOOLS. When not in use tools should be stored in dry, high or locked up place- out of the reach of children.

DO NOT ALTER OR MISUSE TOOL. These tools are precision built. Any alteration or modification not specified is misuse and may result in a dangerous condition.

MAINTAIN TOOLS WITH CARE. Keep tools sharp and clean for better and safer performance. Inspect tool cords periodically and if damaged, have repaired by an authorized service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean and free from oil and grease.

CHECK DAMAGED PARTS. Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, noding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced. Have defective switches replaced. Do not use tool if switch does not turn it on or off.



WARNING "READ ALL INSTRUCTIONS" Failure to follow the SAFETY RULES identified by Bullet symbol listed Below and other safety precautions, may result in serious personal injury.

Safety Rules for Biscuit Joiners

Make sure the spring operated guard returns to blade covering position instantly.

When blade binds or encounters sudden resistance, the tool may kickback. This may cause loss of control and injury.

Do not use cutting wheels that are larger than the maximum recommended size for your tool.

This tool is not recommended for continuous cutting of straight grooves. Moving (or sliding) the biscuit joiner to the left with respect to wood can cause the blade to climb the wood or kickback and a loss of control.

Always hold the tool firmly with both hands

Secure workpiece with a vise clamp onto table or support

Double Insulated Tools

Double insulation is a design concept used in electric power tools which eliminates the need for the three wire grounded power cord and grounded power supply system.

IMPORTANT: Servicing of a tool with double insulation requires care and knowledge of the system and should be performed only by a qualified service technician

WHEN SERVICING, USE ONLY IDENTICAL REPLACEMENT PARTS.

POLARIZED PLUGS. If your tool is equipped with a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If it still does not fit, contact a qualified electrician to install the proper outlet. To reduce the risk of electric shock, do not change the plug in any way.

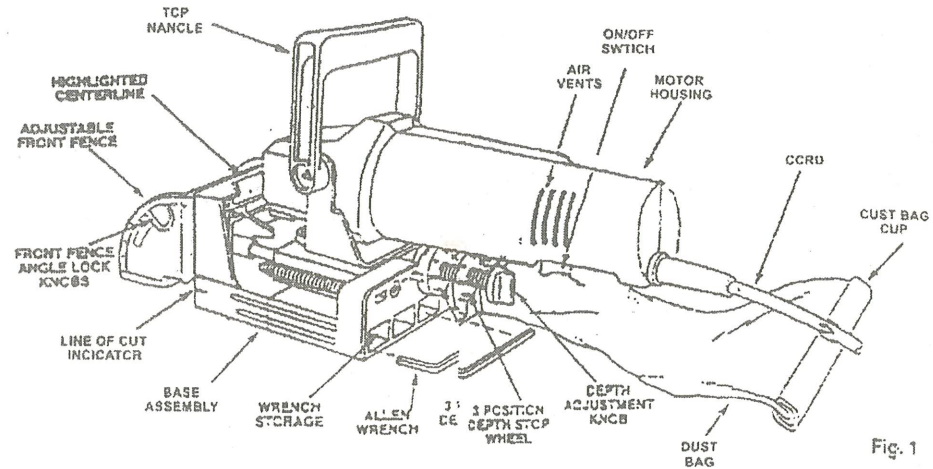


Fig. 1

Biscuit joiner is designed for creating joints in lumber and pressed woods, replacing dovetails and other mechanical joints. It can be used to cut #0, #10 and #20 slots at 45 and 90 degree angles. It can be used for a variety of purposes, including corners, miters and joints.

PLATES

Your tool is equipped with (5)#0,(5)#10 and (10)#20 plates

DUST COLLECTION BAG

The dust collection bag keeps work area clean(Fig. 1).

TOP HANDLE

The top handle provided should always be used to guide and balance. The tool. Use the top handle for safe control and ease of operation(Fig1).

ALLEN WRENCH & STORAGE AREA

Your tool is equipped with an allen wrench and a convenient wrench storage area on the left back side of base assembly

(Fig.1).The allen wrench is used for adjusting the front fence, or for removing the base assembly when removing or installing blades.

ADJUSTABLE FRONT FENCE

The adjustable front fence is used for 90 and 45 corners.

ON/OFF SWITCH

On/off switch with lock on feature for ease of operation (Fig.1)

3 POSITION DEPTH STOP

The 3 position depth stop wheel allows you to easily and quickly change biscuit depths.

DEPTH INDICATOR AND SCALE

Unique plunge depth indicator and scale for ease of setup(Fig.5).

HIGHLIGHTED CENTERLINE & GAUGE MARKS

Your tool features highlighted centerline and line of cut indicator marks to assure accuracy

Operating Instructions

ATTACHING & REMOVING DUST BAG

To install dust bag, slide bag connector onto dust porthole in direction of arrow until it snaps in place. To remove, pull release tab on right side of bag connector and remove bag(Fig.2). The dust bag can be emptied by removing clip from power cord and sliding plastic clip off large end of bag. For most efficient dust pick-up, empty frequently.

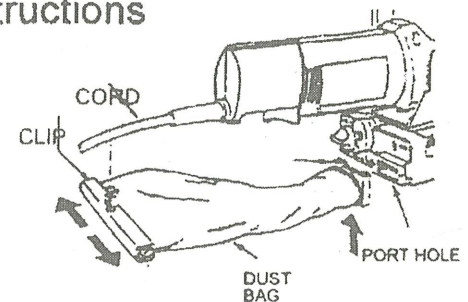


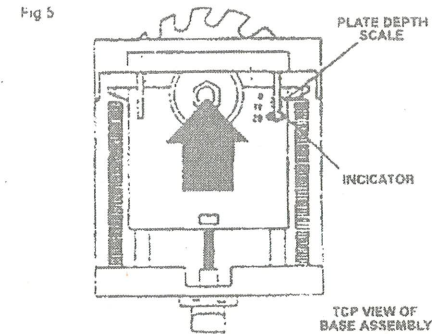
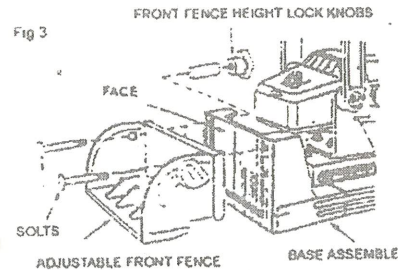
Fig2

ADJUSTABLE FRONT FENCE

REMOVING FENCE: Remove the two knobs, slide the retaining bolts out of the front fence assembly, and remove the front fence as shown (Fig. 3)

ATTACHING FENCE: Insert the two fence bolts through the front of the fence, and through the top pair of holes in the front of the baseplate. Lower holes in front of baseplate contain nuts which may be used to fasten a fixed auxiliary fence accessory, but are NOT used with the angle fence provided.

ADJUSTING FENCE: Loosen the two knobs, slide the fence up or down to the position desired, and tighten knobs firmly to hold the fence in place. The front of the baseplate has a height scale to help position the fence.



3 POSITION DEPTH STOP

Your tool features a 3 position depth stop wheel with three notches at different depths. This will allow you to easily change the biscuit depth by engaging desired notch on depth stop wheel into tabs on the back side of the base assembly. **EXAMPLE:** when using a #0 biscuit rotate the depth stop wheel to the notch marked 0, when using a #10 biscuit rotate the depth stop wheel to the notch marked 10, when using a #20 biscuit rotate the depth stop wheel to the notch marked 20.

HOW TO SET DEPTH FOR BISCUITS

1. Pull depth stop wheel in direction of arrow, rotate depth stop wheel to the notch marked 20 and release wheel as it engages into tabs (Fig. 4)

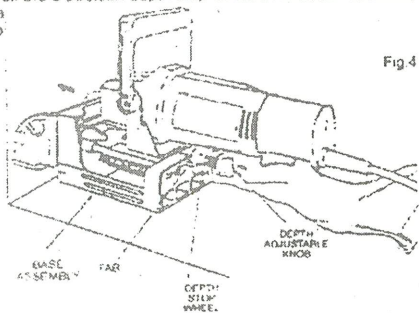
2. Place tool with adjustable front fence against a wall or piece of wood, push forward on tool until it stops and hold tool in this position (Fig. 4)

3. Check to see where the indicator lines up on the depth scale (Fig. 5) The indicator should be slightly past the #20 mark on scale

4. If the indicator does not line up slightly past the #20 mark, rotate the depth adjustment knob (Fig. 4) clockwise or counterclockwise until the indicator is slightly past the #20 mark on scale.

5. Determine the size biscuit you wish to use—#0, #10 or #20.

6. Pull the 3 position depth stop wheel in direction of arrow, rotate into



SLIDE ON-OFF SWITCH WITH LOCK
The tool is switched "ON" by the slide switch located at the side of the motor housing. The switch can be locked in the "ON" position, a convenience for long cutting operations

TO TURN THE TOOL "ON" without locking it, slide the switch button forward by applying pressure ONLY at the REAR portion of the button. When pressure is released the switch button will snap to "OFF" position

TO LOCK THE SWITCH "ON", slide the switch button forward and press "IN" the FRONT portion

TO UNLOCK THE SWITCH: Simply press and release the REAR portion of the button. Switch is spring loaded and will snap back automatically.

WARNING To prevent personal injury, always disconnect the tool from the power source before removing or installing blades.

CHANGING BLADES

1. Remove plug from power source and turn tool upside down as shown in (Fig. 7)

2. Loosen screws in adjustable front fence and lower fence to expose the two screws that hold the base assembly together.

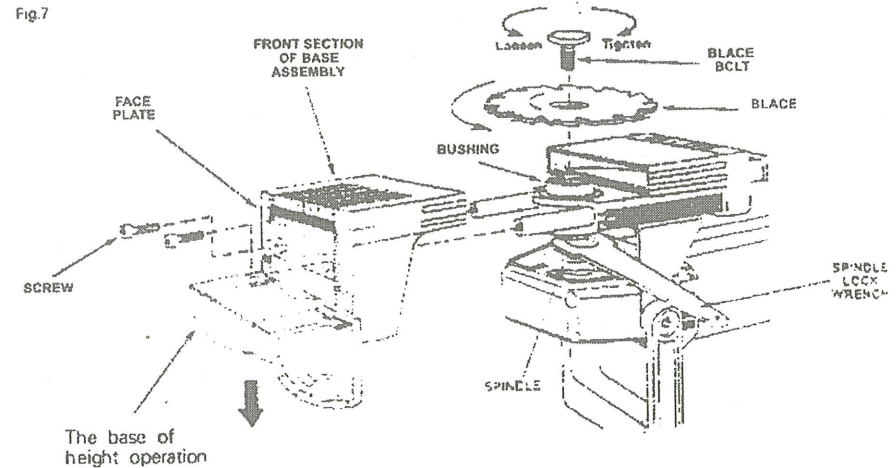
3. Remove both screws that hold the base assembly together and remove front section of base assembly as shown in (Fig. 7)

4. Place the spindle lock wrench that is provided onto the spindle as shown to prevent the spindle from rotating.

5. Hold wrench in place and remove blade bolt by rotating counterclockwise with an adjustable wrench, or a standard 24 mm wrench and carefully remove the blade.

6. Install new blade onto bushing check to be sure the teeth on blade are facing in the direction of arrow on face plate and blade as shown in (Fig. 7), and securely tighten the blade bolt clockwise.

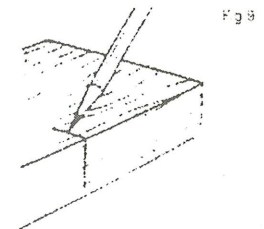
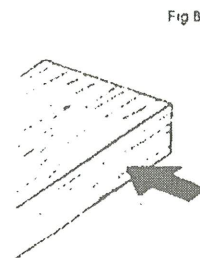
7. Reassemble the front section of base assembly and securely tighten two screws with the allen wrench provided.



MARKING SLOT LOCATIONS FOR STANDARD CUTS

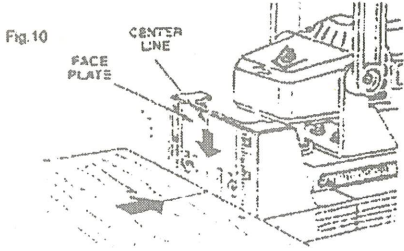
1. Always begin with the base assembly cutting into the end of the wood, rather than the face (Fig. 8).

2. Mark the center of slot at a point at least 2 1/2" from outer edge of the board (Fig. 9) Allow at least 1" between slots in multiple biscuit applications for best results. Mark all slots on both boards at the same time to assure proper alignment



3. Align center line on face plate with your pencil mark (Fig.10)

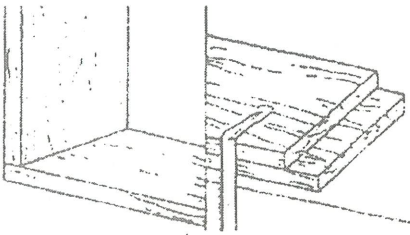
4. Grasp the tool with both hands, turn on the power and push the tool forward smoothly. When base assembly has butted completely against surface being cut, pull back and then turn off power.



HOW TO MAKE CORNER JOINTS

1. Fit the two pieces of wood together as they will appear in the final joint. Then lay the vertical piece on top of the horizontal piece (Fig.11) and clamp both board to workbench.

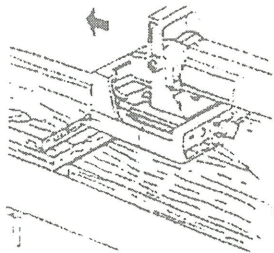
Fig 11



2. Mark center of slots on top board as shown in (Fig 5). Then set the biscuit depth.

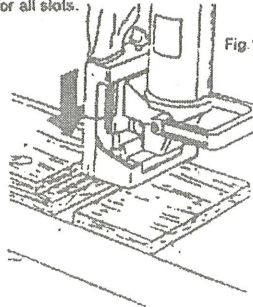
3. Place a board equal to the thickness of the bottom board under the base assembly for support. Align the center mark on the face plate with your pencil mark and make your cut in the top board. Repeat for all slots (Fig 12)

Fig.12



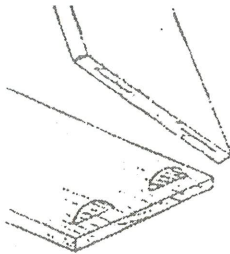
4. Turn tool so blade is facing down and bottom of base assembly is butted against top board (Fig.13). Align center line on bottom of base assembly with your pencil marks and cut slot. Repeat for all slots.

Fig.13



5. Insert plates dry to check alignment and fit. If satisfactory, apply good quality carpenter's glue to all slots. Insert plates into one side and press together (Fig 14)

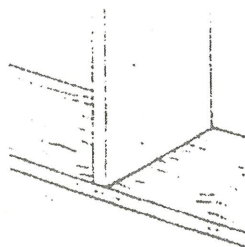
Fig.14



HOW TO MAKE T-BUTT JOINTS

1. Fit the two pieces of wood together as they will appear in the final joint (Fig.15). Then lay the vertical piece on top of the horizontal piece and clamp both boards to workbench (Fig.16)

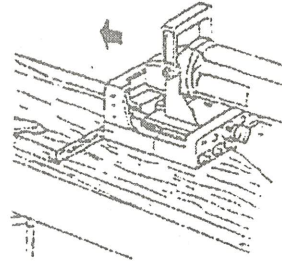
Fig 15



2. Mark center of slots on top board as shown in (Fig 9).Then set the biscuit depth.

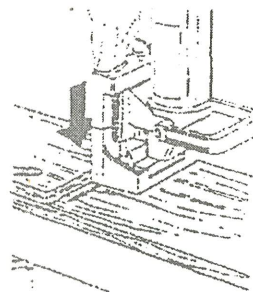
3. Align the center mark on face plate with your pencil mark and make your cut in the top board. Repeat for all slots (Fig.16).

Fig 16



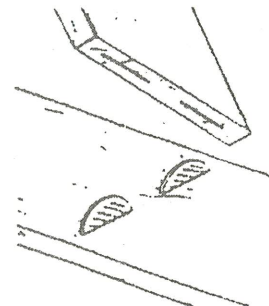
4. Turn tool so blade is facing down and bottom of base assembly is butted against top board (Fig.17). Align center line on bottom of base assembly with your pencil marks and cut slot. Repeat for all slots.

Fig 17



5. Insert plates dry to check alignment and fit. If satisfactory, apply good quality carpenter's glue to all slots. Insert plates into one side and press together (Fig 18).

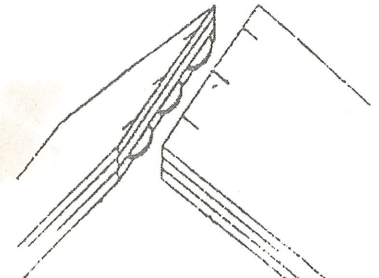
Fig 18



HOW TO MAKE MITER JOINTS

1. Position the workpieces as they are to be assembled and lay out the biscuit locations on the outside of the joint (Fig.19)

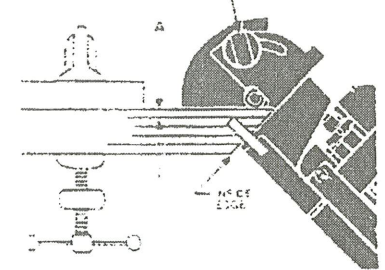
Fig 19



2. Clamp the workpiece firmly in vise, or flat on a workbench and align the tool as shown. The adjustable fence has a centerline which may be used to align the biscuit slots with the location marks on your workpiece (Fig.20)

FRONT FENCE
ANGLE LOCK
KNOBS

Fig.20



3. Set up tool by loosening angle lock knobs and adjusting fence to desired angle. Then adjust the position of the biscuit in the joint by raising or lowering the adjustable fence as described earlier. The adjustment should place the biscuits towards the inside of the joint where the material is thicker, and the biscuit size should be selected so that it does not protrude through the outside of the workpiece when the cut is made.

Insert plates dry to check alignment and fit. If satisfactory, apply good quality carpenter's glue to all slots, insert plates into one side and press together (Fig.21).

3 Insert plates dry to check alignment and fit. If satisfactory, apply good quality carpenter's glue to all slots, insert plates into one side and press together (Fig.24).

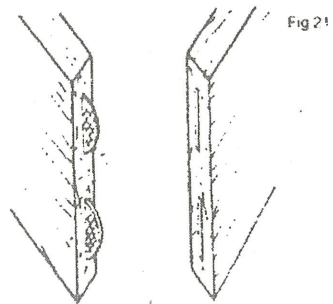


Fig 21

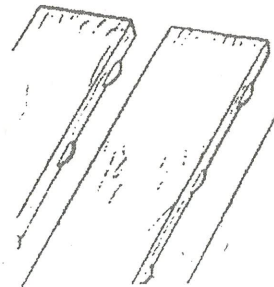


Fig.24

HOW TO MAKE EDGE-TO-EDGE JOINTS

1. Align all boards as you want them to appear when finished (Fig.22) Mark center of slots on all boards as shown in (Fig.9). Then set biscuit depth.

HOW TO MAKE LEG AND RAIL JOINTS

NOTE. A square slot pattern is preferred for best results. However, a side-by-side pattern can also be used in low stress situations.

SQUARE PATTERN REMOVE ADJUSTABLE FRONT FENCE

1 Fit boards together as you would like them to appear when finished. Make a small mark where the horizontal and vertical

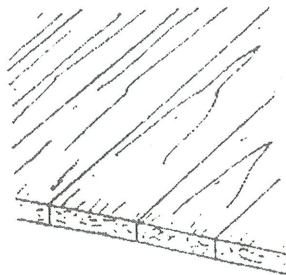


Fig 22

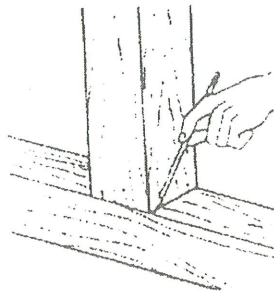


Fig 25

2 Clamp boards to workbench one at a time. Align center mark on the face plate with your pencil mark and cut slot (Fig 23). Repeat for all slots on both sides of board

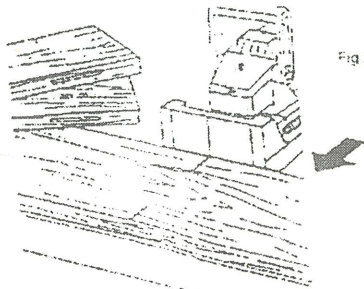


Fig 23

2. Mark the center of slots using a cross pattern (Fig.26). Be sure the marks on both boards match. (Hint: Snap a chalk line on one set of marks, press the other board on top of it to get an impression, then remark with pencil) Then set the biscuit depth.

5 Turn tool so blade is facing down, align center line on bottom of base assembly with mark on board, and make cut (Fig.29). Repeat for all four sides.

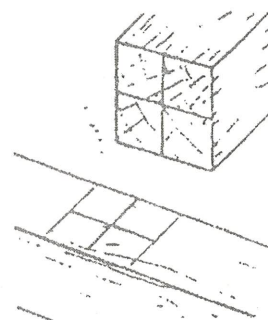


Fig 26

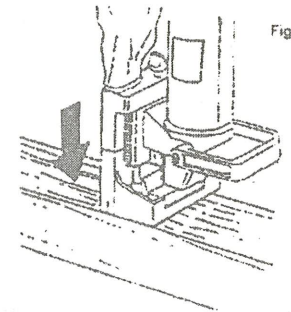


Fig 29

3. Clamp the vertical (Butting) board still, place base assembly on workbench and align center line on face plate with center mark on board (Fig.27).

6 Insert plates dry to check alignment and fit. If satisfactory apply good quality carpenter's glue to all slots, insert plates into one side and press together (Fig.30).



Fig 27

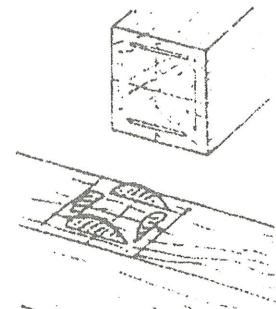
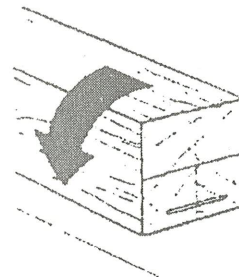


Fig 30

4 Cut slot until base assembly butts against board. Turn board 90° and repeat until all four slots are cut (Fig 28)

Fig 28



PARALLEL PATTERN

1. Fit boards together as you would like them to appear when finished. Make a small mark where the horizontal and vertical boards meet (Fig.31)

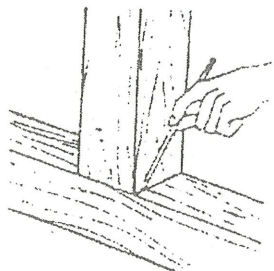


Fig.31

4. Rest fence height until line of cut indicator matches the next slot mark and follow step four. Repeat for all marks (Fig.34).

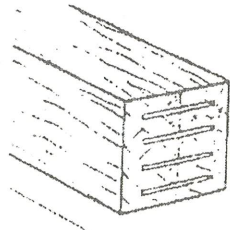


Fig.34

2. Make center of slot and slot locations on both boards. Be sure the marks on both boards match (Fig.32)(Hint: Snap a chalk line on one set of marks, press the other board on top of it to impression, then remark with pencil) Then set the biscuit depth

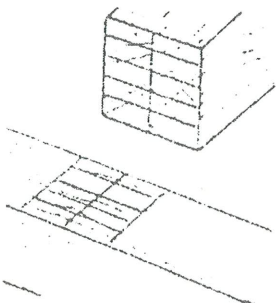


Fig.32

5. Turn tool so blade is facing down, align center line on bottom of base assembly with mark on board. Set fence so line of cut indicator matches the first slot mark, tighten screws and make first cut (Fig.35). Reset fence so line of cut indicator matches the next side mark, tighten screws and make cut. Repeat for all slots.

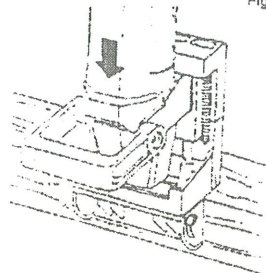


Fig.35

3. Align center mark on butt edge of vertical board with center line on adjustable front fence. Set fence so line of cut indicator matches the first slot mark and the fence rests on the top edge of the board (Fig.33). Tighten screws and make first cut.

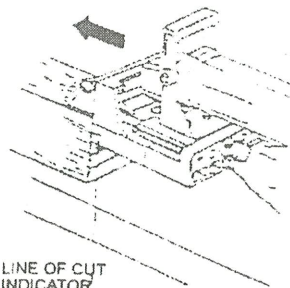


Fig.33

6. Insert plates dry to check for alignment and fit. If satisfactory apply good quality carpenter's glue to all slots. Insert plates into one side and press together (Fig.36)

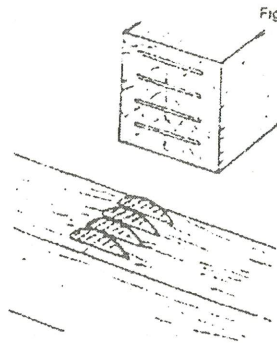


Fig.36

Maintenance

WARNING To avoid accidents always disconnect the tool from the power supply before cleaning or performing any maintenance. The tool may be cleaned most effectively with compressed dry air. Always wear safety goggles when cleaning tools with compressed air.

Ventilation openings and switch levers must be kept clean and free of foreign matter. Do not attempt to clean by inserting pointed objects through openings.

CAUTION Certain cleaning agents and solvents damage plastic parts. Some of these are gasoline, carbon tetrachloride, chlorinated cleaning solvents, ammonia and household detergents that contain ammonia.

ADDITIONAL ACCESSORIES

No. 68: Wrench: (2 Pieces)



No.69: Hex wrench:(1 Piece)



No. 56: Carbon brush:(1 Set)

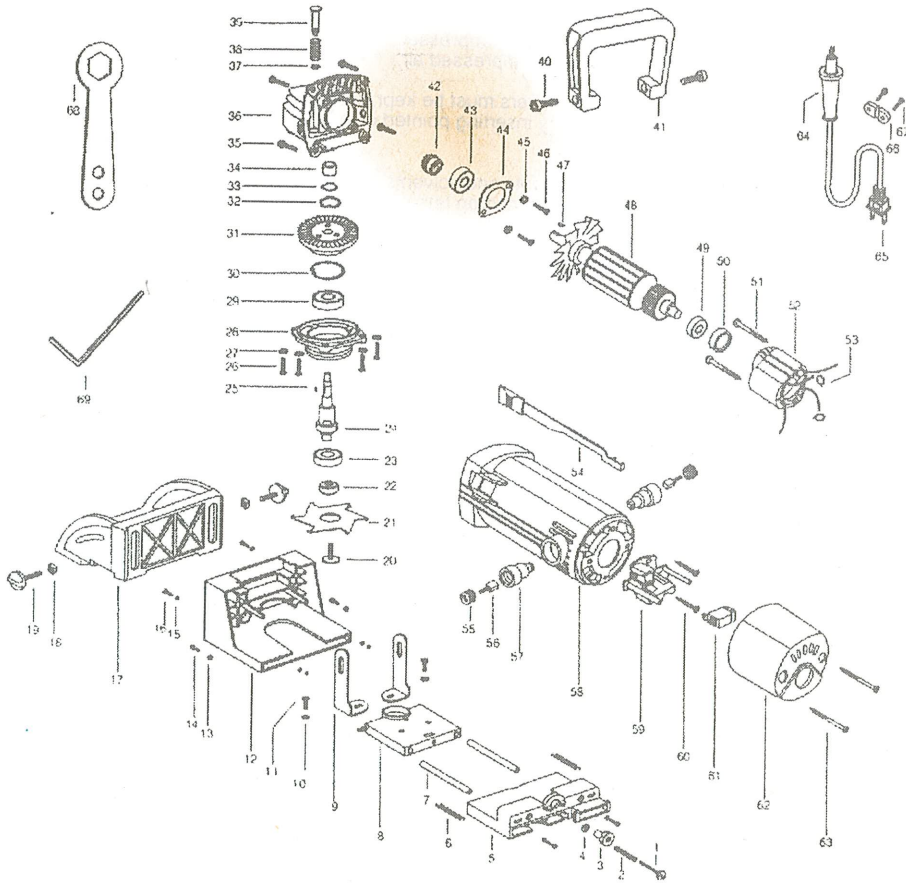


Glue Bottle: (1 Piece)



Dust bag: (1 piece)

PARTS LIST FOR BISCUIT JOINER



REF.NO	DESCRIPTION	AUANTITY	REF.NO	DESCRIPTION	AUANTITY
1	Long Screw	1	36	Gear Housing	1
2	Spring	1	37	Washer	1
3	Depth Adjusting Dial	1	38	Spring	1
4	Nut	1	39	Lock Knob	1
5	Blade Cover	1	40	Hex Socket Head Bolt	2
6	Spring	2	41	Grip	1
7	Rod	2	42	Worm Gear	1
8	Plate	1	43	Ball Bearing	1
9	Supporter	2	44	Plate	1
10	Washer	2	45	Washer	2
11	Bolt	2	46	Screw	2
12	Base	1	47	Half Moon Key	1
13	Washer	2	48	Arwature	1
14	Screw	2	49	Ball Bearing	1
15	Washer	8	50	Insulationg Washer	1
16	Hex Head Screw	4	51	Base	2
17	Feace	1	52	Stator	1
18	Nut	2	53	Wiring	2
19	Screw	2	54	Switch Rod	1
20	Screw	1	55	Brush Hold Cap	2
21	Blade	1	56	Carbon Brush	2
22	Pressing plate	1	57	Brush Hold	2
23	Ball Bearing	1	58	Moto Housing	1
24	Spridle	1	59	Switch Holder	1
25	Half Moon Key	1	60	Screw	2
26	Screw	4	61	Switch	1
27	Washer	4	62	Rear Cover	1
28	Bearing Box	1	63	Screw	2
29	Ball Bearing	1	64	Cord Guard	1
30	Retaining Ring	1	65	Plag	1
31	Spiral Bevel Gear	1	66	Set Plate	1
32	Washer	1	67	Screw	2
33	Washer	1	68	Wrench	1
34	Bushing	1	69	Hex Wrench	1
35	Screw	4			