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6" JOINTER

MODEL CTJ-196



INSTRUCTION MANUAL

CARBA-TEC®

TOOLS FOR WOOD

SAFETY WARNING:

This list of do's and do not's is not exhaustive and is not a substitute for common sense and best practices.

Woodworking machines are potentially dangerous, it is important to observe all safety instructions while operating this machine.

- Always wear eye and ear protection.
- Always unplug the machine from the power source before making any adjustments.
- Always use a licensed electrician for any installation or electrical repair work.
- Do not wear loose clothing, jewellery or other loose ornamentation.
- Long hair should be protected by netting or other means to prevent ingress into the machines working parts.
- Keep all safety guards in place and well maintained.
- Ensure all adjusting keys, spanners and tools are removed before machine is switched on.
- Keep children and unauthorised persons away from machine even when not in use.
- Do not use machine for any other purpose than that for which it was designed.
- Do not use excessive force, or exceed capacity of machine by attempting to take too large a cut.
- At no time should machine be unattended whilst in operation.
- When machining timber of any size, use push blocks to avoid placing hands too close to turning cutterhead.
- Do not put hands inside machine whilst it is running.
- Wood dust is a health hazard, ensure correct dust extraction is fitted.
- Cutter blades should be kept sharp at all times. Blunt blades are a major cause of accidents and machine failure. Damage to the machine caused by blunt blades is not covered by warranty.
- This machine should be used in an area with good lighting and ventilation.
- Keep the floor and adjacent areas around the machine dry and clean.
- Do not lean or climb on the machine as it may tip.
- Always maintain a balanced stance when operating this machine.
- Do not operate this machine whilst on medication or under the influence of alcohol or drugs.

SAFETY RULES FOR JOINTERS

1. Keep cutterhead blades sharp and clean of resin buildup.
2. Check that guard swings free of cutterhead and is always in place when jointer is in use.
3. Check infeed and outfeed table are locked in place before using machine.
4. Always use the fence when planing, do not attempt to freehand workpiece without supporting it against the fence.
5. Use a push block to protect hands, especially when machining very thin boards where your hands are close to the cutterhead.
6. If your material is wider than 35mm do not take a cut larger than 3mm. Maximum cut for wide material should be 1.5.
7. Make sure jointer is turned off and unplugged before performing any maintenance work, such as blade changing.

UNPACKING

Your jointer comes in two packing cartons, the assembled jointer and fence components in one and the assembled base in the other. The packing grease is easily removed with mineral turpentine.

The jointer stand contains the motor and switch already wired and mounted. Do not connect the motor to power source until the jointer is completely assembled.

ASSEMBLING JOINTER TO STAND

1. Take off side panel by removing the three screws at the top of the panel and loosening the two screws at the base of the panel, it should now just lift up and off.
2. Line up the 3 holes on top of the stand with the 3 threaded holes that are located on the bottom of the jointer, using the 8mm allen key provided fix the 1" hex head screws and washers into place. Note the outfeed end of the jointer should be facing the dust chute outlet on the base.

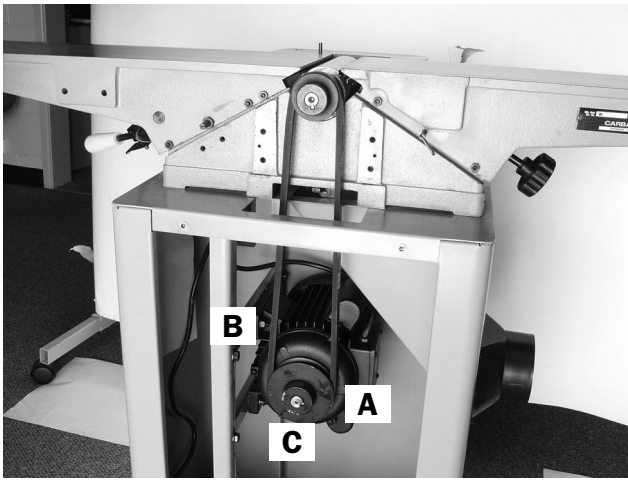


Fig. 1

MOTOR PULLEY ASSEMBLY

Fix the motor pulley Fig. 1 (A) onto the motor shaft making sure the hub of the pulley is facing out. Insert key into the keyway of the pulley and motor shaft. Make sure you tighten the set screw Fig. 1 (C) with the allen wrench supplied.

ALIGNING BELT PULLEYS

Place the belt around the pulleys on the motor and the cutterhead. Using a straight edge on the face of both pulleys make sure they are in line. If adjustment is needed, the motor pulley can be moved forward or back on the motor shaft. An alternative is to loosen the screws on the motor mounting plate Fig. 1 (B) and shift the motor forward or back, be sure to tighten them again afterwards.

CHECKING BELT TENSION

If the belt tension is correct, there should be 1" deflection at the centre span of the belt. If adjustment is needed, the motor may be raised or lowered by loosening the motor mounting screws and pushing the motor up or down to adjust tension. Don't forget to retighten the screws after positioning is complete. Recheck pulley alignment to ensure it has not been disturbed. Once you are satisfied with the belt pulley arrangement, replace the side panel.

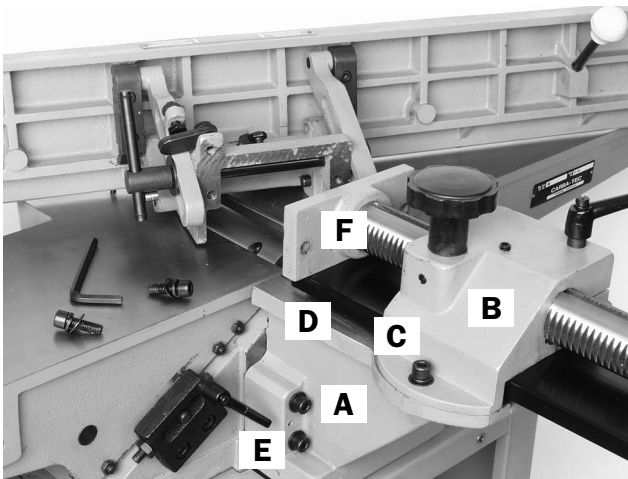


Fig. 2

PULLEY GUARD AND CARRIAGE MOUNTING BRACKET

It is essential for the safe use of the machine that the pulley guard Fig. 2 (A) is in place before operating the jointer. Position the two alignment pins in the pulley guard, with the two holes in the side of the jointer, attach guard using the 4 x 55mm long hex head screws Fig. 2 (E). Attach carriage assembly Fig. 2 (B) to carriage mounting bracket Fig. 2 (D) using the 2 of 8 x 20mm long hex socket screws supplied Fig. 2 (C).

FENCE ASSEMBLY

The fence is fitted to the carriage assembly via the two holes in the front plate Fig 2. (F). The short fence handle Fig. 3 (A) is fitted to the to the infeed side of the fence, and the longer handle to the outfeed side (not shown).

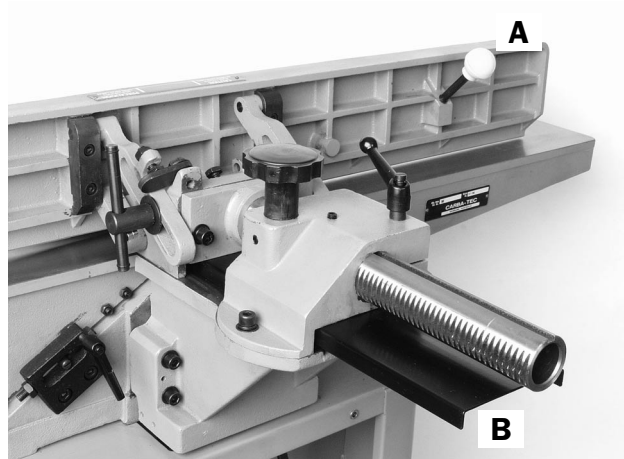


Fig. 3

COMPLETED FENCE ASSEMBLY FIG. 4

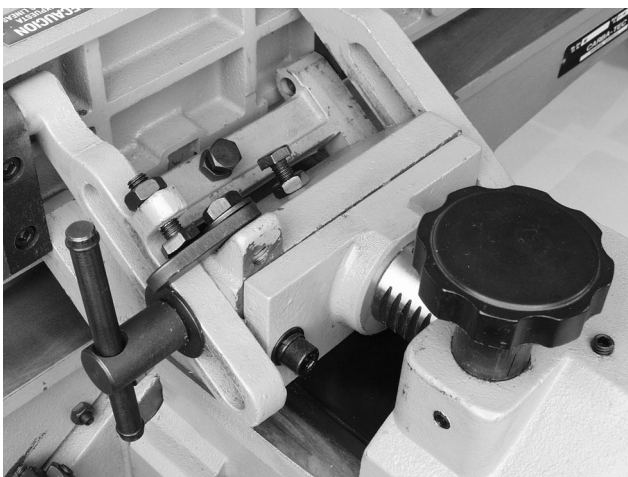


Fig. 4



Fig. 5



Fig. 6

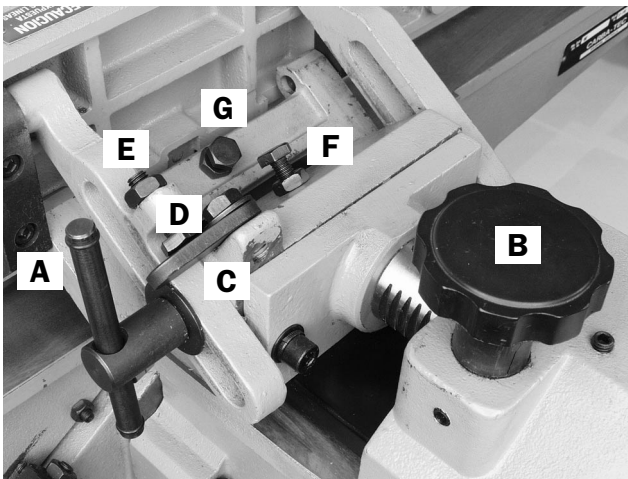


Fig. 7

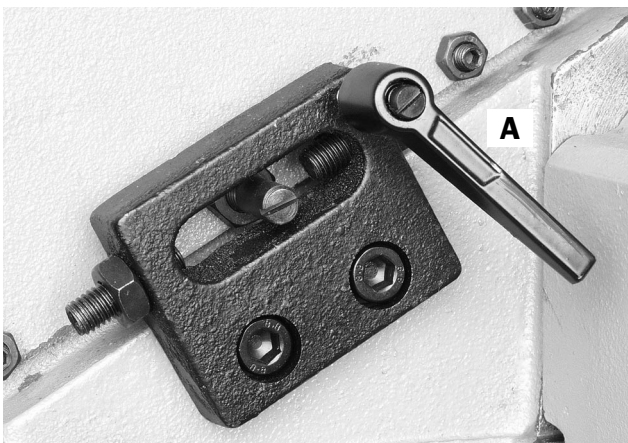


Fig. 8

FENCE

The fence is totally adjustable, and can move right across the table or tilt to 45 degrees.

To move fence loosen the locking handle Fig. 7 (A) and turn the knob Fig. 7 (B) until fence is at desired location, tighten locking handle.

For your safety, as the fence is moved across, the rear cutting guard moves over the blades at the back to cover them Fig 3 (B), previous page.

To tilt fence in or out, loosen locking handle, Fig. 7 (A) hold the fence tilting handle, rotate 90 degree flip stop, Fig. 7 (C) and tilt fence to the required angle. Tighten locking handle Fig. 7(A).

The fence is fitted with positive stops that will enable you to quickly change the angle of the fence from 90 to 45 degrees, both in the inward and outward positions.

To set fence to 90 degrees. Make sure that the adjustment screw is in contact with the flip stop Fig. 7 (C). Check with a square to make sure of accuracy. If you need to make an adjustment, loosen lock handle, Fig. 7 (A) and lock nut, Fig. 7 (D) turn adjustment screw Fig. 7 (E) until fence is in correct position. Tighten lock nut Fig. 7 (D) and handle Fig. 7 (A).

To set positive stop to 45 degrees with fence facing out, loosen lock handle Fig 7 (A), rotate flip stop Fig. 7 (C), tilt fence out to 45 degrees, and tighten lock handle. Check with a square. When you have the correct angle. Turn adjustment screw Fig. 7 (F) so as it touches the top edge of the fence. This becomes your stop for 45 degrees with the fence facing out.

To set positive stop with fence facing in at 45 degrees Loosen lock handle Fig. 7 (A), rotate flip stop and rotate fence in. Once it is in position turn adjustment screw Fig. 7 (G) so it touches fence. This becomes your positive stop. Tighten locking handle.

POSITIVE STOP FOR INFEEED TABLE

TABLE ADJUSTMENTS.

INFEED TABLE

The infeed table adjustment determines the depth of cut, by raising or lowering the table in relation to the cutterhead.

The lower the infeed table the larger the cut. Loosen the table lock handle Fig. 8 (A) at the back of the machine and raise the table by releasing the lever Fig. 9 (A) and pushing the handle up or down Fig. 9 (B), the gauge in the front Fig. 10 (A) will tell you exactly what your depth of cut is.

It is possible to preset the positive stops to maximum and minimum depth of cut so it is not necessary to consult the gauge each time you wish to change to these settings Fig 8.

OUTFEED TABLE

The outfeed table should be level with the jointer knives at the highest point of their rotation. Once set to this height it should not be altered, the depth of cut adjustment comes from the infeed table only. If it is necessary to adjust the outfeed table, loosen the locking screw at the back of the jointer, Fig. 13 (C) and turn the knob Fig. 11 (A) under the outfeed table, this will raise or lower the table. Don't forget to tighten the locking screw Fig. 13 (C).

ADJUSTING TABLE GIBS

The gibs Fig. 12 (A) are designed to take up any play that may exist in the sliding dovetail that joins the in and outfeed table casting to the base casting. If there is any adjustment needed;

1. There are three lock nuts Fig. 13 (A) for the infeed table and two for the outfeed table Fig. 13 (B). These must be loosened.
2. For the infeed table, loosen the table locking lever Fig. 8 (Previous Page), and turn the gib adjustment screws Fig 12 (B), start with the lower adjustment screw and work your way to the top. Slightly raise the back edge of the table as you make the adjustment to prevent any sagging.
3. Once the gib has been adjusted to a secure fit tighten the lock nuts and the table locking lever.
4. Repeat the process for the outfeed table, note that this table has a table locking screw, Fig. 13 (C). It is essential that these screws are tight if the tables move up and down too freely, it will be difficult to attain an accurate result.

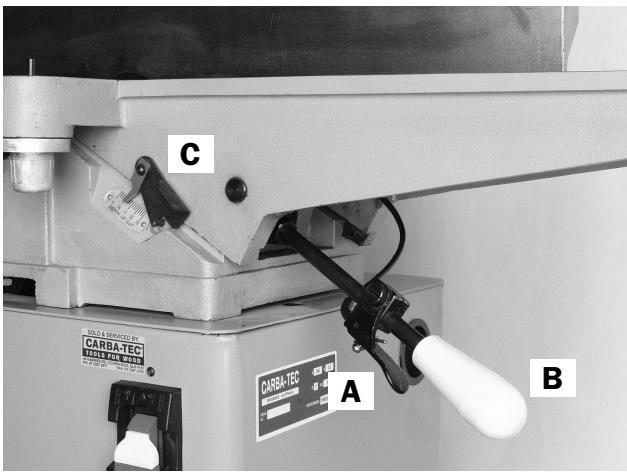


Fig. 9

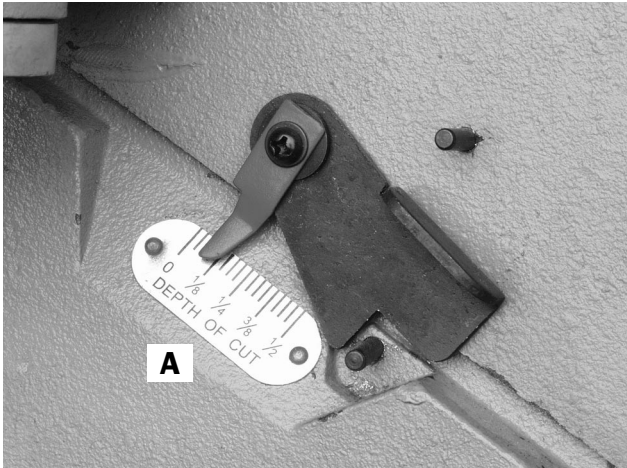


Fig. 10

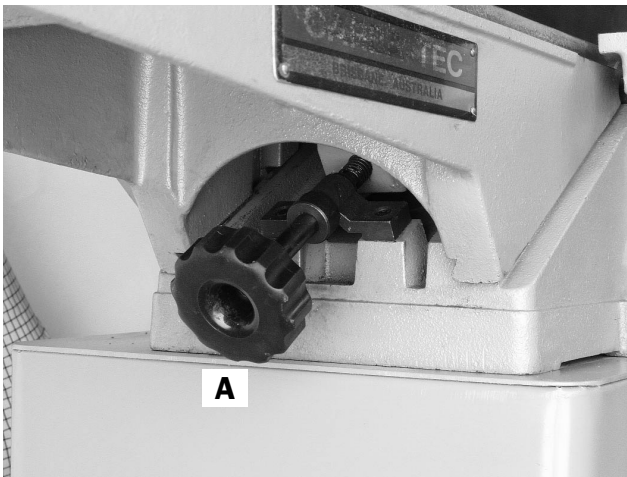


Fig. 11

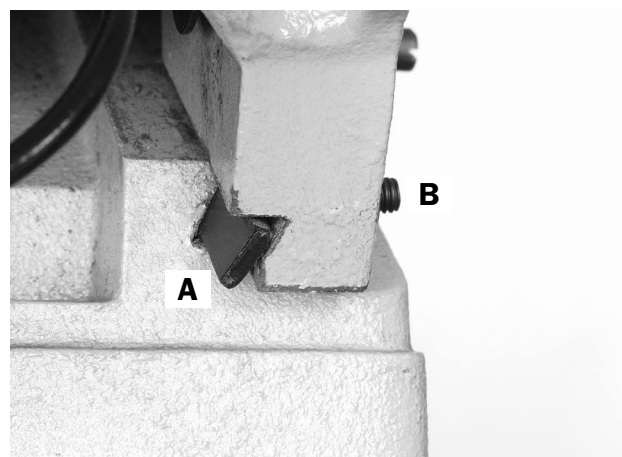


Fig. 12

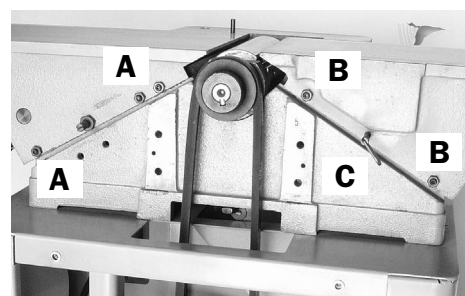


Fig. 13

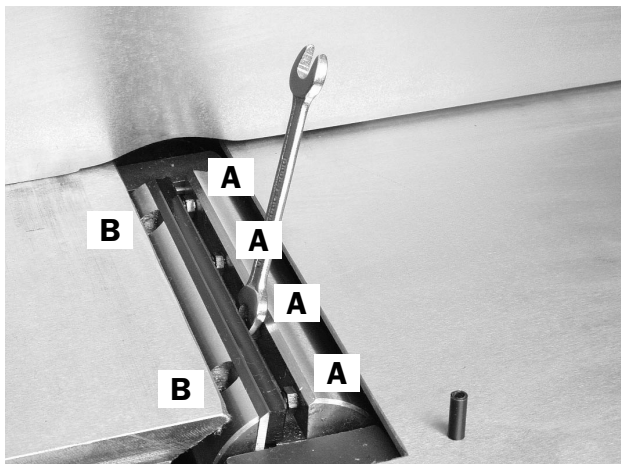


Fig. 14

KNIFE SETTING

The 3 blades in your jointer are factory set, and therefore should already be set to the right height and parallel to the cutterhead. If for some reason you need to adjust the blades

These are the steps to follow.

1. Disconnect machine from power source.
2. Lower infeed table.
3. Remove cutterhead guard.
4. Lay a steel straight edge along the outfeed table so it extends across the cutterhead Fig. 15. When the cutterhead is turned by hand, the blades should just touch the bottom of the straight edge.
5. If the knives are high or low at the ends, loosen the four (4) screws that hold the knife locking bars in place Fig. 14 (A), and turn the knife raising screws Fig. 15 (A), clockwise to raise the knives, and anti clockwise to lower them. When lowering the knives you may need to push them down gently onto the raising screws with a piece of wood after screws are turned.
6. Tighten locking bar screws. Fig. 14 (A)
7. Repeat for all three knives. It is important that they are the same height.
8. Replace cutterhead guard.

REPLACING KNIVES

When it is time to fit new knives to your jointer, follow these steps.

1. Disconnect machine from power source and unplug.
2. Slide the fence to the back so it is clear of the knives.
3. Beware of exposed knives.
4. Remove cutterhead guard.
5. Loosen the 4 knife locking bar screws Fig. 14 (A), remove knife and locking bars. Fig. 16.
6. Repeat for other knives.
7. Remove any resin that may have built up, either on locking bars or in slots.
8. Lower the knife adjustment screws, by turning them anti-clockwise. Fig. 17 (A).
9. Replace knife locking bars and knives. Make certain the knives are sitting down as far as possible on the adjustment blocks. Tighten the knife locking bar screws enough to stop them from moving freely, but not so tight as to stop them from being adjusted by the movement of the knife adjustment blocks.
10. You now need to set each knife according to the procedures described in numbers 4 to 8 in the knife setting section.

WARNING. MAKE SURE ALL LOCKING SCREW ARE TIGHTENED SECURELY BEFORE TURNING MACHINE ON!!

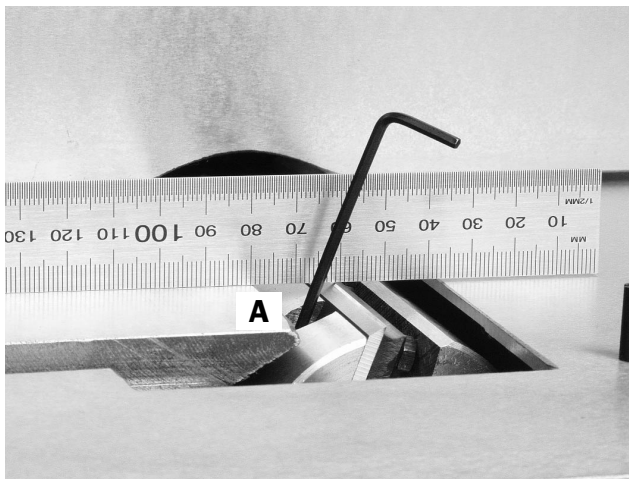


Fig. 15



Fig. 16

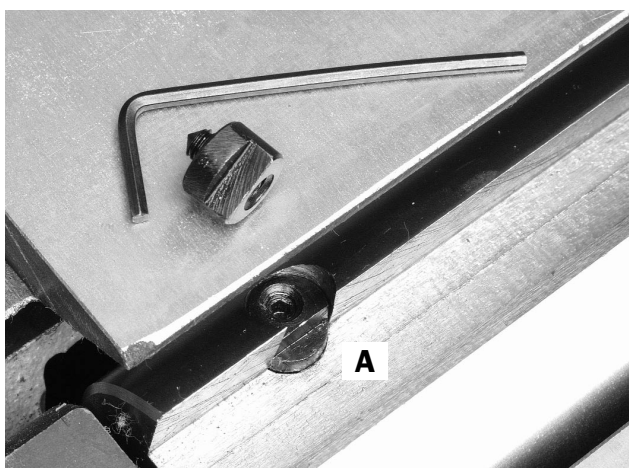


Fig. 17

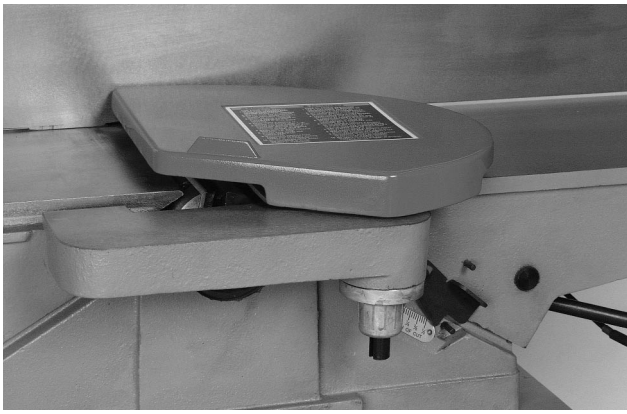


Fig. 18

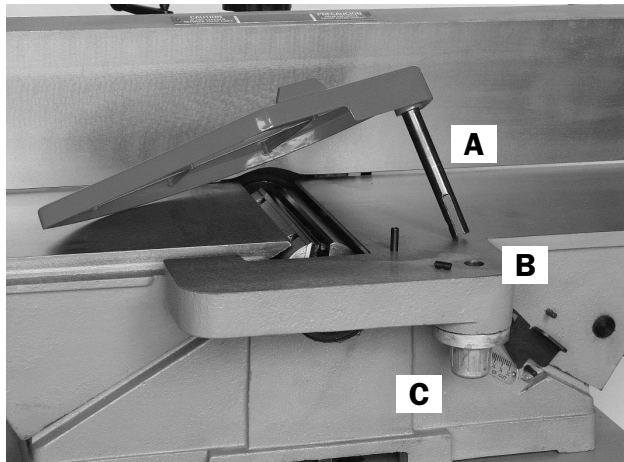


Fig. 19

CUTTERHEAD GUARD

It is essential that the jointer is not operated without the cutterhead guard.

1. Insert post Fig. 19 (A) through the hole in the infeed table making sure that the spring assembly in the knob Fig. 19 (C) engages into the slot at the bottom of the post Fig. 19 (A). You will need to turn the knob to provide tension in the spring before inserting post. It is this tension that makes the guard spring back over the cutterhead.
2. If the tension is too great or too small, adjust by removing the guard and rotating knob Fig. 19 (C).



Fig. 20

TURNING THE MACHINE ON & OFF

This machine is fitted with a switch that needs to be pulled out to switch the machine on and pushed in to switch the machine off. You can also lock the switch in the off position Fig. 22, by removing the yellow key Fig. 21 (A).

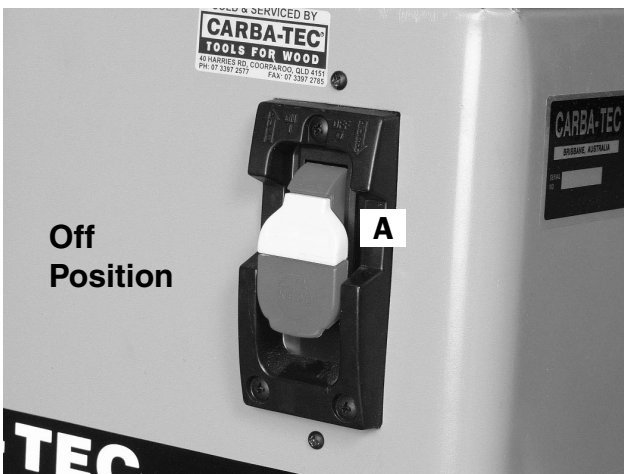


Fig. 21



Fig. 22



Fig. 23

PLANING OR SURFACING FACE

Surface the widest face first to establish one, totally straight face. This then becomes the reference which goes against the fence allowing squaring of the edge of the board.

Always use a push block when planing or surfacing.

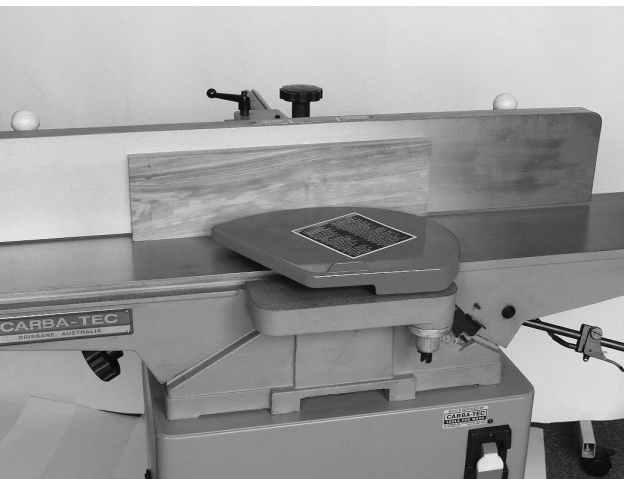


Fig. 24

JOINTING EDGES

The most common operation on a jointer. Makes edge square to planed face and creates a straight surface for edge joining of boards.



Fig. 25

RABBETING FACILITY

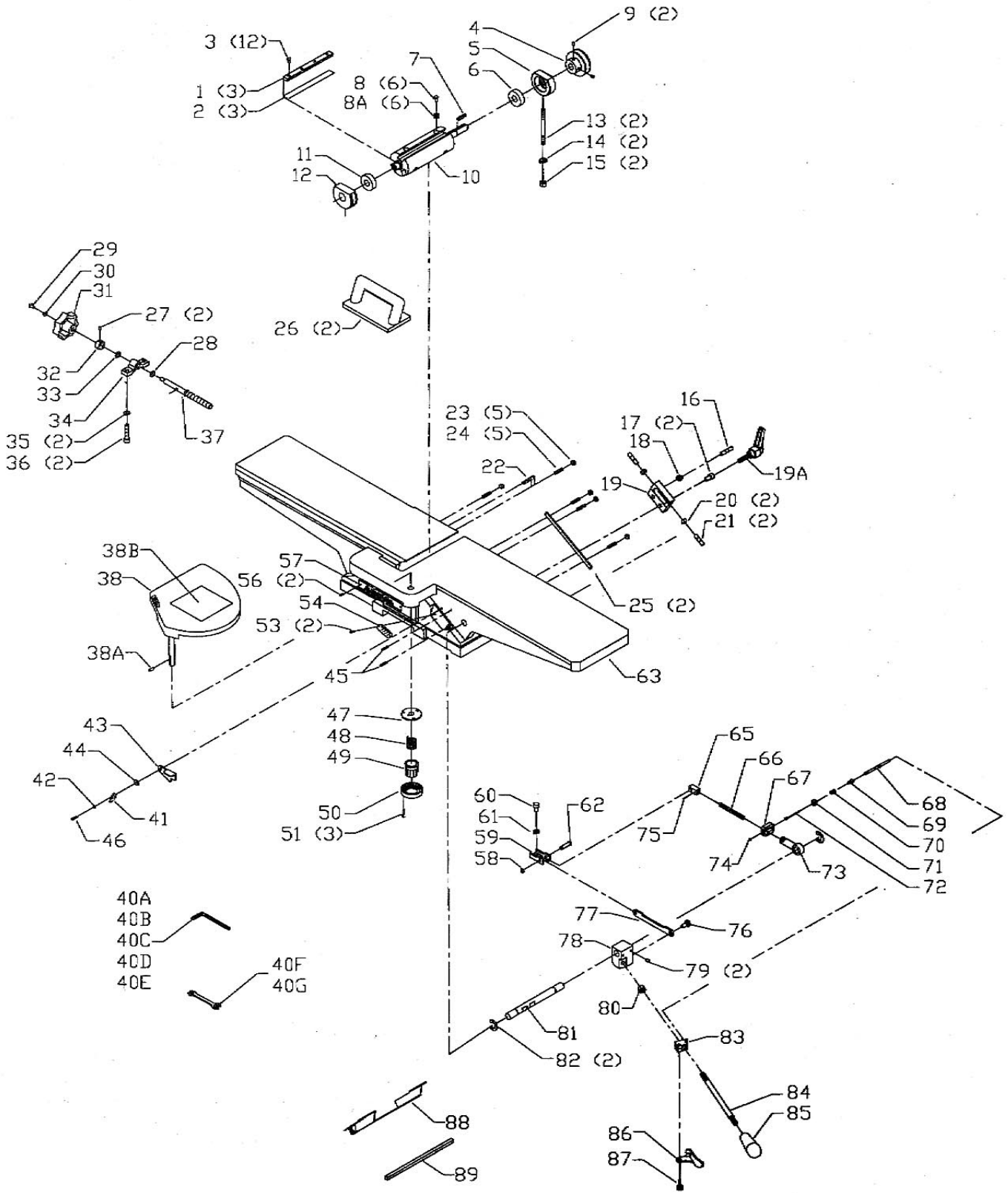
This jointer is able to perform a rabbetting operation, to do this the cutterhead guard must be removed. Remember to replace the cutterhead guard before performing any other operation.

1. Adjust fence to width of rabbet.
2. Lower the infeed table to the depth of rabbet. If rabbet is quite deep it may be necessary to make 2 or more passes at increasing depths to attain full depth of cut.

NOTE: BE SURE TO USE PUSH BLOCKS WHEN RABBETTING.

CARBA-TEC

6" Professional Jointer

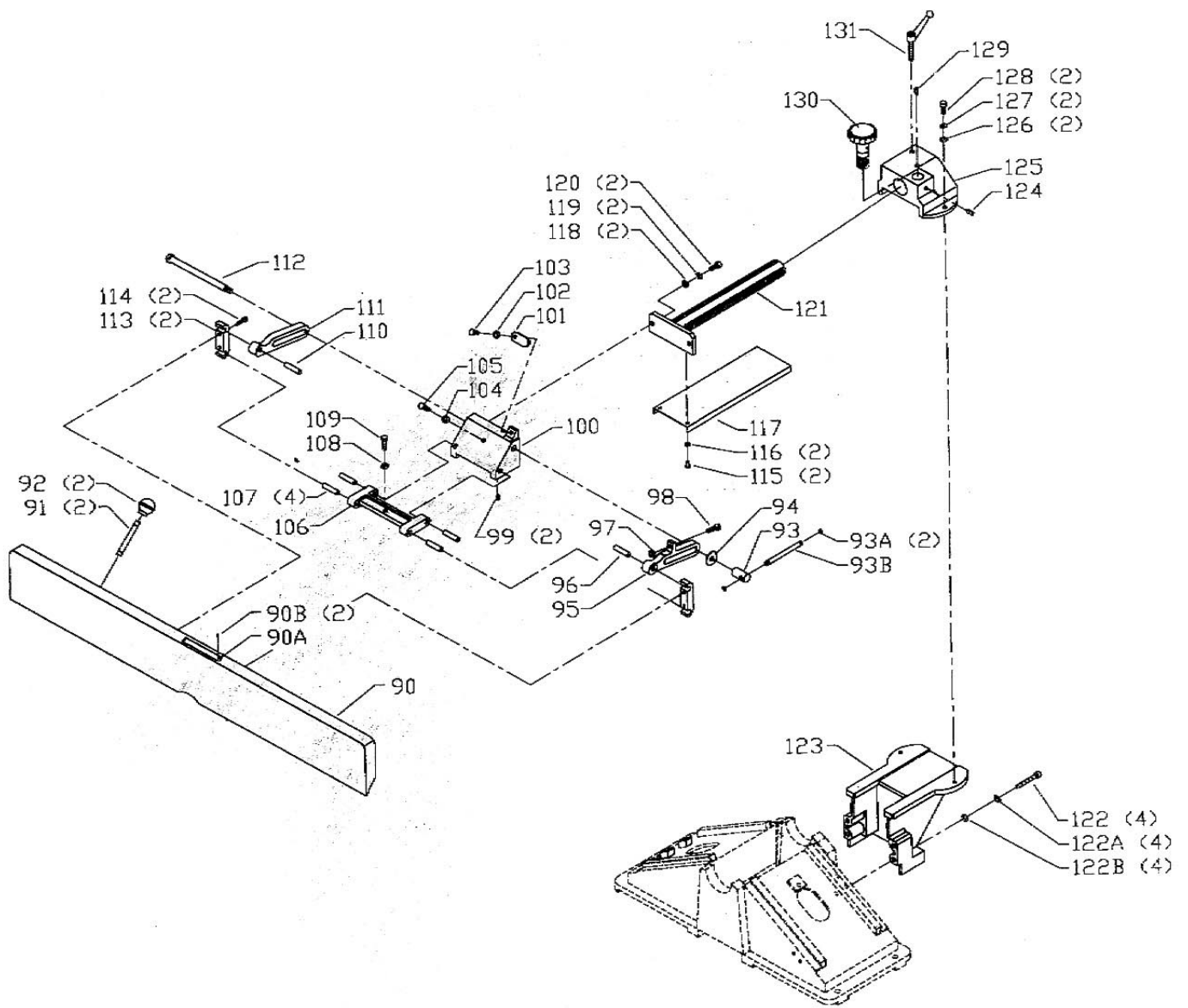


REPLACEMENT PARTS

<u>REF.</u> <u>NO.</u>	<u>DESCRIPTION</u>	<u>REF.</u> <u>NO.</u>	<u>DESCRIPTION</u>
*	CUTTERHEAD ASSY, INCL:	41	PONTER
1	BAR	42	(DIN 125)M4.1 FLAT WASHER
2	KNIVES(SET OF 3)	43	STOP
3	KNIFE SCR	44	SPACER
4	PULLEY	45	(DIN 1481)M4 x 22MM SPRING PIN
5	SUPPORT RH	46	(DIN 84)M4 x 16MM CHEESE HD SCR
6	BALL BEARING	47	PLATE
7	KEY	48	SPRING
8	(DIN 916)M5 x 12MM HEX SOC SET SCR	49	CUP
8A	NUT	50	RETAINER
9	(DIN 916)M6 x 10MM HEX SOC SET SCR	51	(DIN 85)M4 x 18MM PAN HD SCR
10	CUTTERHEAD	53	5MM DRIVE SCR
11	BALL BEARING	54	SCALE
12	SUPPORT LH	56	5MM DRIVE SCR
13	STUD	57	NAMEPLATE
14	(DIN 7980)M10.2 LOCK WASHER	58	EXT RET RING
15	(DIN 934)M10 HEX NUT	59	BRACKET
16	STOP SCR	60	(DIN 912)8M x 16MM HEX SOC HD SCR
17	(DIN 912)M8 x 16MM HEX SOC HD SCR	61	(DIN 7980)M8.1 LOCK WASHER
18	(DIN 934)M8 HEX NUT	62	PIN
19	BLOCK	63	BASE ASSY (SEE NOTE A)
19A	LOCK LEVER ASSY	65	LINK BLOCK
20	(DIN 934)M8 HEX NUT	66	STUD
21	(DIN 913)M8 x 25MM HEX SOC SET SCR	67	BRACKET
22	LOCKSCR	68	TUBE
23	(DIN 934)M6 HEX NUT	69	GROMMET
24	(DIN 914)M6 x 25MM HEX SOC SET SCR	70	SPRING
25	GIB	71	STOP NUT
26	JOINTER PUSH BLOCK	72	CABLE ASSY
27	(DIN 913)M6 x 6MM HEX SOC SET SCR	73	COLLAR
28	M11.5 FLAT WASHER	74	(DIN 916)M6 x 8MM HEX SOC SET SC
29	(DIN 7380)M6 x 12MM BUTTON HD SCR	75	M2 x 12MM SPRING PIN
30	M6.4 FLAT WASHER	76	SPECIAL BOLT
31	KNOB	77	LINK
32	COLLAR	78	BLOCK
33	M11.5 FLAT WASHER	79	(DIN 916)M6 x 8MM HEX SOC SET SCR
34	BLOCK	80	(DIN 934)M10 HEX NUT
35	(DIN 7980)M8.1 LOCK WASHER	81	SHAFT
36	(DIN 912)M8 x 50MM HEX SOC HD SCR	82	EXT RET RING
37	SCR SHAFT	83	BRACKET
38	GUARD, INCL:	84	LEVER ROD
38A	(DIN 916)M5 x 12MM HEX SOC SET SCR	85	KNOB
38B	WARNING LABEL	86	LEVER
40A	2.5MM HEX WRENCH	87	SPECIAL SCR
40B	3MM HEX WRENCH	88	DUST CHUTE
40C	4MM HEX WRENCH	89	SEAL
40D	6MM HEX WRENCH		
40E	8MM HEX WRENCH		
40F	8 x 10MM OPEN END WRENCH		
40G	12 x 14MM OPEN END WRENCH		

* NOT SHOWN ASSEMBLED

NOTE A: BASE, FRONT AND REAR TABLES CANNOT BE SUPPLIED SEPARATELY, AS THE RE-ASSEMBLED MACHINE WOULD NOT BE ACCURATE, FOR TRUE ALIGNMENT, WE FINISH-GROUND OUR JOINTER TABLES AFTER ASSEMBLY ON THE BASE.

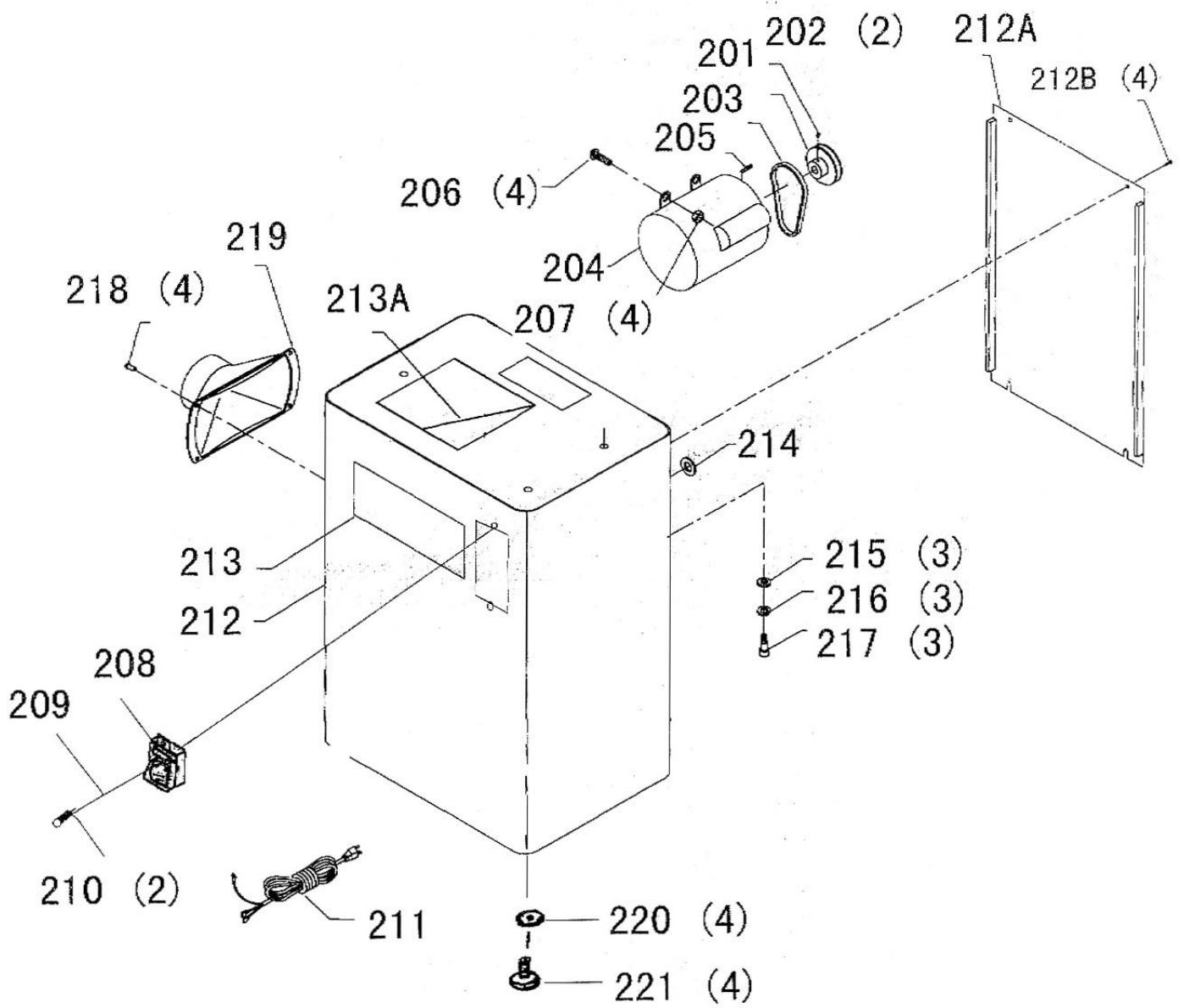


REPLACEMENT PARTS

<u>REF.</u> <u>NO.</u>	<u>DESCRIPTION</u>
*	FENEC ASSY, CONST OF :
90	FENCE, INCL :
90A	WARNING LABEL
90B	5MM DRIVE SCR
91	STUD
92	KNOB
93	LOCKNUT
93A	O-RING
93B	LOCK BAR
94	(DIN 9021) M10.5 FLAT WASHER
95	RIGHT BRACKET
96	PIN
97	(DIN 934) M8 HEX NUT
98	(DIN 933) M8 × 25MM HEX HD SCR
99	(DIN 912) M6 × 10MM HEX SOC HD SCR
100	FENCE BRACKET
101	STOP
102	M8 FLAT WASHER
103	(DIN 933) M8 × 16MM HEX HD SCR (SEE NOTE B)
104	(DIN 934) M8 HEX NUT
105	(DIN 933) M8 × 25MM HEX HD SCR
106	SUPPORT
107	PIN
108	(DIN 934) M8 HEX NUT
109	(DIN 933) M8 × 25MM HEX HD SCR
110	PIN
111	LEFT BRACKET
112	SPECIAL SCR
113	REAR CLAMP
114	(DIN 912) M6 × 20MM HEX SOC HD SCR
115	(DIN 7380) M6 × 12MM BUTTON HD SCR
116	(DIN 7980) M6.1 LOCK WASHER
117	GUARD
118	M8 FLAT WASHER
119	(DIN 7980) M8.1 LOCK WASHER
120	(DIN 912) M8 × 25MM HEX SOC HD SCR
121	RAM
122	(DIN 912) M8 × 55MM HEX SOC HD SCR
122A	(DIN 7980) M8.1 LOCK WASHER
122B	M8 FLAT WASHER
123	BRACKET
124	SPECIAL SCR
125	BRACKET
126	M8 FLAT WASHER
127	(DIN 7980) M8.1 LOCK WASHER
128	(DIN 912) M8 × 20MM HEX SOC HD SCR
129	SPECIAL SCR
130	HANDWHEEL
131	LEVER ASSY

* NOT SHOWN ASSEMBLED

NOTE B: WHEN SERVICING, USE THREAD RETAINING COMPOUND PRIOR TO INSTALLATION.



REPLACEMENT PARTS

<u>REF. NO.</u>	<u>DESCRIPTION</u>
*	6" JOINTER ENCLOSED STAND, CONST OF:
*	SWITCH ASSY, CONST OF:
201	PULLEY, INCL:
202	M6 x 10 HEX SOC SET SCR
203	V - BELT
204	MOTOR ASSY, 1HP, 1PH, INCL:
205	KEY
206	5/6 - 18 x 1 * 3/16" CARRIAGE HD SCR
207	5/6 - 18 FLANGE NUT
208	SWITCH BOS COVER, INCL:
209	FLAT WASHER
210	M4 x 12 BUTTON HD SCR
211	CORD SET
212	CABINET ASSEMBLY, INCL:
212A	SIDE PANEL
212B	M5 x 10 BUTTOU HD SCR
213	NAMEPLATE
213A	DUST CHUTE
214	BUSHING INSULATOR
215	M10 FLAT WASHER
216	M10 .2 LOCK WASHER
217	M10 x 20MM HEX SOC HD SCR
218	M5 x 10 BUTTOU HD SCR
219	DUST CHUTE
220	3/8 - 16 HEX NUT
221	PIASTIC COVERED PAD

* NOT SHOWN ASSEMBLED

**ALL ELECTRICAL WORK SHOULD BE UNDERTAKEN BY A
LICENSED ELECTRICAL CONTRACTOR.**

NOTES

