RYOBI® OWNER'S OPERATING MANUAL

10" THICKNESS PLANER / AP-10

U.S.A.
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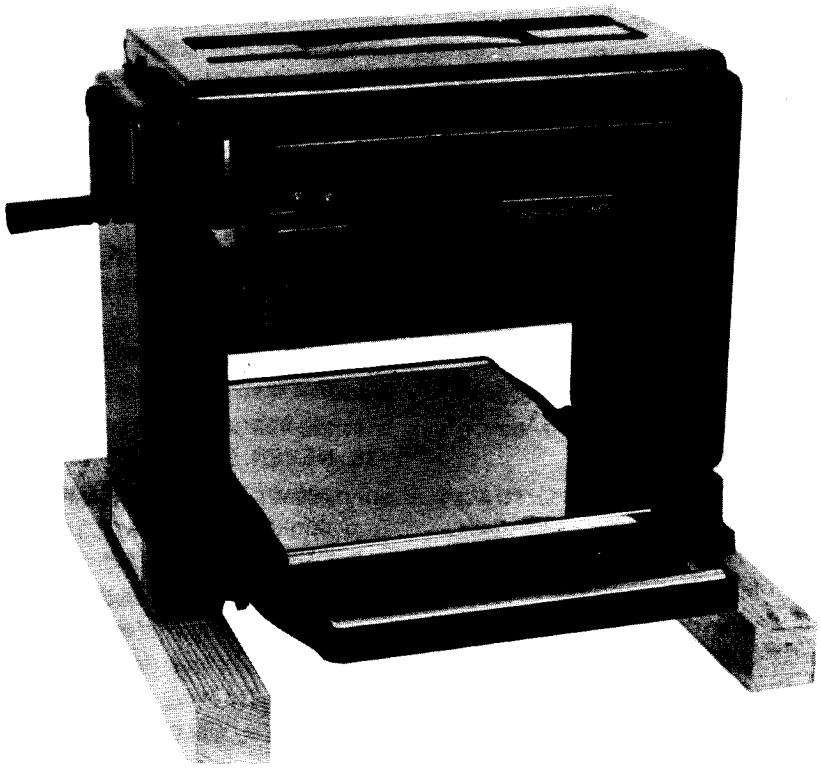
7-90



SPECIFICATIONS

Input	120V, 13 amp
Horsepower	2.0 HP
No-load speed	8,000 RPM
Feed speed	26.24'/min.
Planing capacities	
Planing width	10"
Planing height	5"
Planing depth	0-3/32"
Overall dimensions (L×W×H)	19-5/16" × 18-3/4" × 16-1/4"
Net weight	57.2 lbs.

THANK YOU FOR BUYING A RYOBI THICKNESS PLANER.

Your new 10" thickness planer has been engineered and manufactured to Ryobi's high standard for dependability, ease of operation, and operator safety. Properly cared for, your planer will give you years of rugged, trouble-free performance.

To ensure your safety and satisfaction, carefully read through this owner's manual before using your new thickness planer. Especially pay close attention to the safety instructions, warnings, and cautions. If you use the planer properly and only for what it is intended, you will enjoy years of safe, reliable service.

Please fill out and return the Warranty Service Registration Card so that we can be of future service to you.

Thank you again for buying Ryobi planer.

SAFETY INSTRUCTIONS

KNOW YOUR POWER TOOL

Safe operation of this power tool requires that you read and understand this owner's manual and all labels affixed to the tool. Learn its applications and limitations as well as the potential hazards peculiar to this tool. Keep this manual for future use.

GROUND ALL TOOLS

This tool is equipped with an approved 3-conductor cord and a 3-prong grounding-type plug to fit the proper grounding-type receptacle. The green conductor in the cord is the grounding wire. Never connect the green wire to a live terminal.

WARNING: When using electric tools, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury.

Safety Precautions

1. **WHEN SERVICING USE** only identical Ryobi replacement parts.
2. **KEEP GUARDS IN PLACE** and in working order.
3. **REMOVE ADJUSTING KEYS AND WRENCHES.** Get in the habit of checking to see that keys and adjusting wrenches are removed from the tool before turning it on.
4. **KEEP THE WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
5. **DO NOT USE IN DANGEROUS ENVIRONMENTS.** Do not use power tools in damp or wet locations or expose them to rain. Keep the work area well lighted.
6. **KEEP CHILDREN AWAY.** All visitors should be kept at a safe distance from the work area.
7. **MAKE THE WORKSHOP CHILD-PROOF** with padlocks, master switches, or by removing starter keys.
8. **DO NOT FORCE THE TOOL.** It will do the job better and safer at the rate for which it was designed.
9. **USE THE RIGHT TOOL.** Do not force the tool or attachment to do a job for which it was not designed.
10. **WEAR THE PROPER APPAREL.** Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry that could get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering over long hair.
11. **ALWAYS USE SAFETY GLASSES.** Also use a face or dust mask if the cutting operation is dusty. Everyday eyeglasses have only impact-resistant lenses; they are NOT safety glasses.
12. **SECURE THE WORK.** Use clamps or a vise to hold the work when practical. It's safer than using your hand, and it frees both hands to operate the tool.
13. **DO NOT OVERREACH.** Keep the proper footing and balance at all times.
14. **MAINTAIN THE TOOL WITH CARE.** Keep the tool sharp and clean for the best and safest performance. Follow instructions for lubricating and changing accessories.
15. **DISCONNECT THE TOOL BEFORE SERVICING;** also when changing accessories, such as blades, bits, and cutters.
16. **REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure the switch is in the OFF position before plugging in the tool.
17. **USE THE RECOMMENDED ACCESSORIES.** Consult this owner's manual for recommended accessories. Using improper accessories may increase the risk of injury.
18. **NEVER STAND ON THE TOOL.** Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.
19. **CHECK DAMAGED PARTS.** Before the tool is used again, 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, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect operation. A guard or other part that is damaged should be properly repaired or replaced.
20. **BE AWARE OF THE DIRECTION OF FEED.** Feed the work into a blade or cutter against the direction of rotation of the blade or cutter only.
21. **NEVER LEAVE THE TOOL RUNNING UNATTENDED.** Turn off the power. Do not leave the tool until it comes to a complete stop.
22. **MAKE SURE A TOOL IS CONNECTED** only to the voltage marked on the nameplate.
23. **NEVER USE A 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.
24. **NEVER START A TOOL** when its rotating component is in contact with the workpiece.

ADDITIONAL SAFETY RULES FOR THICKNESS PLANERS

1. **SECURE THE TOOL** to any supporting structure being used if, during normal operations, there is any tendency for the tool to tip over, slide, or walk on the supporting surface.

2. **NEVER PERFORM THE PLANING OPERATION** with the cutter head or drive guard removed.
3. **NEVER MAKE A PLANING CUT** deeper than 3/32".
4. **DO NOT PLANE MATERIAL** shorter than 14"; narrower than 3/4"; wider than 10"; or thinner than 1/2".
5. **MAINTAIN THE PROPER RELATIONSHIP** between the infeed and outfeed table surfaces and the cutter head knife path.
6. **SUPPORT THE WORKPIECE ADEQUATELY** at all times during operation; maintain control of the work at all times.
7. **DO NOT BACK THE WORK** toward the infeed table.
8. **DO NOT ATTEMPT TO PERFORM** an abnormal or little-used operation without the use of sturdy and adequate jigs, fixtures, stops, and the like.
9. **BEFORE STARTING UP,** recheck to make certain all holding screws are tight.
10. **ALWAYS STOP THE MOTOR** and disconnect the power source before making any adjustments.
11. **STOP THE MACHINE** and recheck the cutter head gib screws and knives for tightness after about 50 hours of operation.
12. **DO NOT FORCE-FEED THE WORKPIECE** through the machine. Let the planer apply the proper feed rate.
13. **CHECK THE FEED ROLLERS** occasionally to be sure there are no chips or sawdust between any components. If the rollers are not seated firmly, they will not hold the stock firmly against the bed and are likely to cause kickback.
14. **PLANE ONLY SOUND LUMBER;** there should be no loose knots and as few tight knots as possible. Make sure the workpiece is free from nails, screws, stones, or other foreign objects that could break or chip the knives.
15. **NEVER STAND DIRECTLY IN LINE** with either the infeed or outfeed sides. Stand off to one side.
16. **MAKE SURE THE KNIVES ARE ATTACHED** as described in the operation instructions. The knives are sharp and can easily cut your hand; use caution in handling the knives and cutter head assembly.
17. **NEVER PUT YOUR FINGERS** into the chip chute or under the knife guard.
18. **ALLOW THE CUTTER HEAD** to reach full speed before using the planer.

EXTENSION CORDS

When using a power tool at a considerable distance from a power source, use an extension cord that is heavy enough to carry the current the tool will draw. An undersized cord will cause a drop in line voltage, resulting in overheating and loss of power. Use the chart to determine the minimum wire size required in an extension cord. Only round jacketed cords listed by Underwriters Laboratories (UL) should be used.

When working with the tool outdoors, use an extension cord that is designed for outside use. This is indicated by the letters "WA" on the cord's jacket.

Before using an extension cord, inspect it for loose or exposed wires and cut or worn insulation.

CAUTION: Keep the extension cord away from the cutting area. Position the cord so that it will not get caught on lumber, tools, etc., during cutting.

ELECTRICAL CONNECTION

Your Ryobi 10" thickness planer is powered by a precision-built Ryobi electric motor. It should be connected only to a power source that satisfies the power input listed on the tool's nameplate. If the nameplate is marked 120 V, AC, or 60 Hz, the tool must be operated only with alternating current (normal household current). Never operate the tool on direct current or current that is lower or higher than the specified voltage. A voltage drop of more than 10 percent will cause a loss of power and overheating. If your Ryobi power tool does not operate when plugged into an outlet, double-check the power supply rating.

Ampere rating (on faceplate)	0-2.00	2.10-3.4	3.5-5.00	5.10-7.0	7.1-12.0	12.1-16.0
Cord Length	Wire Size (A.W.G.)					
50'	18	18	18	16	14	12
100'	18	16	14	12	10	—
150'	16	14	12	12	—	—
200'	16	14	12	10	—	—

GROUNDING INSTRUCTIONS

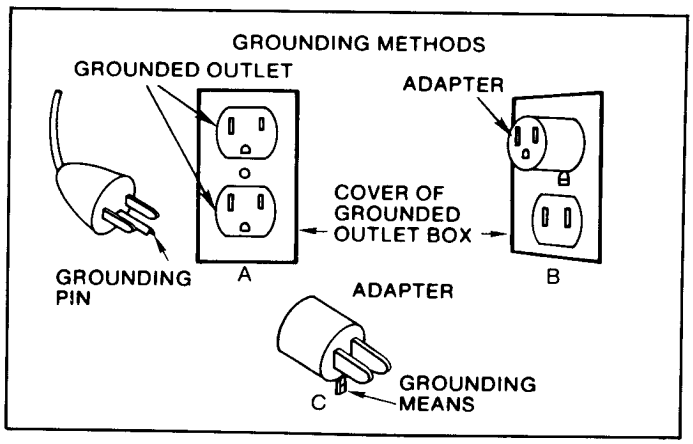
In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided. If it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood or if in doubt as to whether the tool is properly grounded.

Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug.

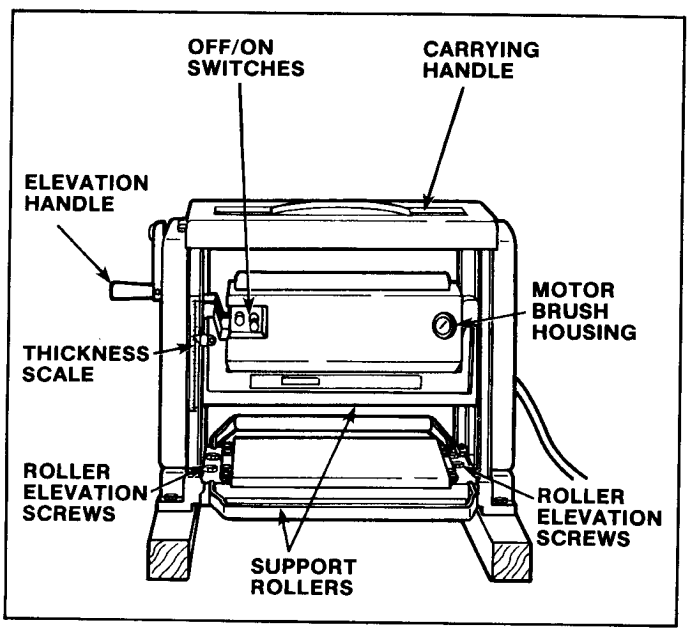


Repair or replace a damaged or worn cord immediately.

This tool is intended for use on a circuit that has an outlet like the one shown in part A of the figure and has a grounding plug like the one in part A. A temporary adapter, like the one shown in B and C, may be used to connect this plug to a 2-pole receptacle as shown in part B if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. The green-colored rigid ear, lug, and the like extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box.

UNPACKING

1. Carefully remove all parts from the shipping carton.
2. Do not discard the packing material until you have identified all the parts using the parts list.
3. If all parts have been included, proceed to assembly.
4. If you are missing a part, contact your dealer to obtain it before attempting to assemble the tool.
5. Examine all the parts to make sure no breakage has occurred during shipping. Any damaged part should be replaced before attempting to use the tool.



LOOSE PARTS LIST

Assemble the following parts according to the instructions on the following pages.

Planer
Knife guard
Wood runners (2)
Auxiliary support rollers (2)
Outfeed table
Parts box:
- Elevation control handle
- Set gauge
- 9mm wrench

Parts bag:
- Lag bolts (4)
- Socket head bolt
- Lock washer
- Wing bolts (2)
- Lock pin
- 3mm hex key
- 5mm hex key
- 10/12mm open-end wrench

FEATURES

Familiarize yourself with the following components of the 10" thickness planer before connecting the power cord or using the planer.

2 HP MOTOR
The planer's universal motor has sealed ball bearings, develops 2 HP, and turns at 8,000 rpm.

AUTOMATIC FEED
Front and rear rollers feed the wood through the planer at 26 feet per minute.

ELEVATION HANDLE
The elevation handle on the side of the planer is used to raise and lower the cutter head. Each revolution of the handle moves the cutter head 5/64".

THICKNESS SCALE
The thickness scale accurately displays the height of the cutter blades. It measures from 0" to 5" high.

SUPPORT ROLLERS
The infeed and outfeed support rollers keep the workpiece flat and parallel with the cutter blades as it enters and exits the planer.

CARRYING HANDLE
The thickness planer weighs only 57 pounds, and the carrying handle on top of the planer allows you to easily carry it from work site to work site or from workbench to a storage shelf.

CARBON BRUSHES
The carbon brush is externally accessible through the brush cap in the motor housing. Replacement is a simple procedure you can do yourself.

ASSEMBLY

Your planer comes with everything needed to assemble the AP-10 except a Phillips screwdriver.

WARNING: For your own safety, never connect the plug to a power source outlet until all the assembly steps are completed and you have read and understand the safety and operating instructions.

STEPS FOR ASSEMBLY
1. Take out the main body from the carton by holding the carrying handle on top of the machine.
2. Two wood runners are provided to stabilize the machine during operation and to allow convenient storage. Take out the runners and put them under the machine, matching the holes in the runners with the holes on the bottom of the machine. Additional holes can be made at the ends of the runners to allow for storage or mounting to a stand or workbench.

   The planer can be mounted to a bench or stand without the runners. If the runners are not used, the planer must be securely fastened to an adequately stable stand or workbench.

CAUTION: The surface to which the planer is mounted must not be warped or uneven. Mounting the base to a warped surface will cause distortion and poor operation.

3. Secure the wood runners to the planer with the lag bolts (Figure 1). Tighten the lag bolts securely, but be careful not to overtighten.

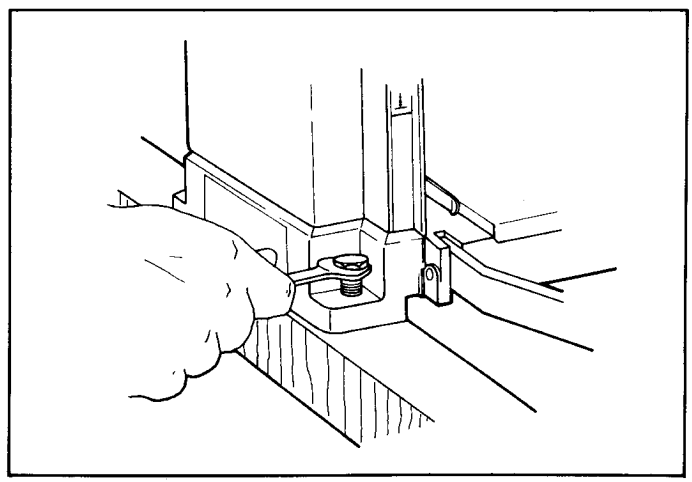


Figure 1

4. Attach the elevation control handle with the socket head bolt and lock washer (Figure 2). Tighten with the 5mm hex key.
5. Attach the knife guard to the roller case above the rear feed roller (Figure 3). Use the two wing bolts provided and tighten them securely by hand.
6. Place the outfeed table between the main body of the planer and the outfeed (back) roller (Figure 4) so that its surface is level with the main plate (planer table) and the roller. If the outfeed table is not in place grasping wood as it emerges from the paner may result in finger entrapment between the wood and rear outfeed roller. SEVERE FINGER INJURY MAY RESULT.
7. Check all fasteners for tightness.

WARNING: Make certain that the switch is in the OFF position before inserting the plug into a power source. Do not connect the power until you are ready to operate the machine. Be sure the cutter blade is mounted exactly as shown and check that all bolts are firmly tightened before plugging the machine in.

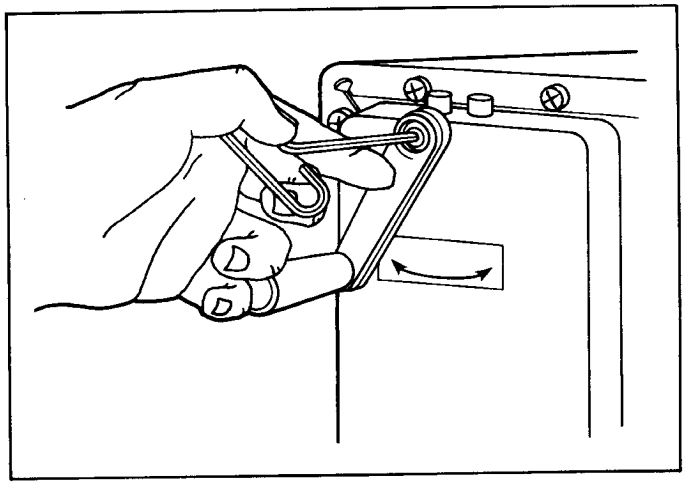


Figure 2

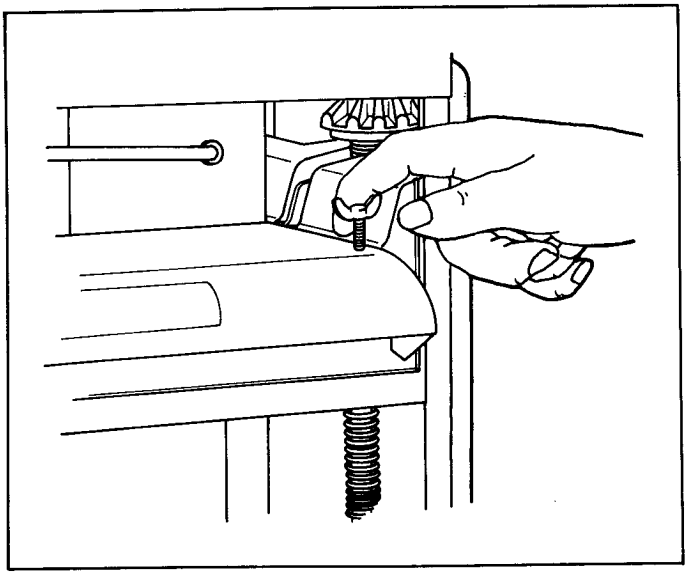


Figure 3

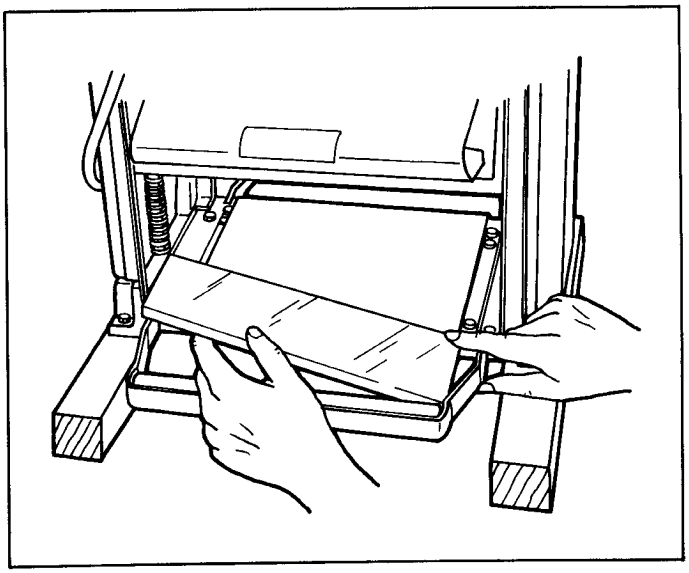


Figure 4

ADJUSTMENTS

It is very important that the following adjustments be done as described.

WARNING: Never make any adjustments with the unit plugged in.

ROLLER HEIGHT ADJUSTMENT

The roller height is set at the factory before shipping. However, it can change in the course of use or shipping. It should be checked before initial use and periodically after that. The correct height should be between 1/125" and 1/64" above the planer table surface.

1. Loosen the securing nut on each side of the planer base with the open-end wrench supplied (Figure 5).
2. Insert the 3mm hex key into the head of the adjustment screws. Turn clockwise to raise the roller, counterclockwise to lower.
3. Retighten the securing nuts after the correct roller height is achieved.

The correct height can be achieved by placing a standard size sheet of paper on the planer table and placing a straightedge (such as an accurate level) on top of the paper. The tops of the rollers should just touch the base of the straightedge when it is extended out to them (Figure 6).

The right and left sides of each roller must be checked.

Because the straightedge is the reference point for these measurements, it must be kept flat on the planer table while the roller heights are checked or adjusted.

BLADE HEIGHT ADJUSTMENT

Blade height is adjusted by turning the elevation control handle. To raise the cutter head, turn the control handle counterclockwise. To lower, turn the control handle clockwise. Blade height is gauged by the depth-of-cut scale on the left side of the machine. Each complete revolution of the control handle moves the blade 5/64".

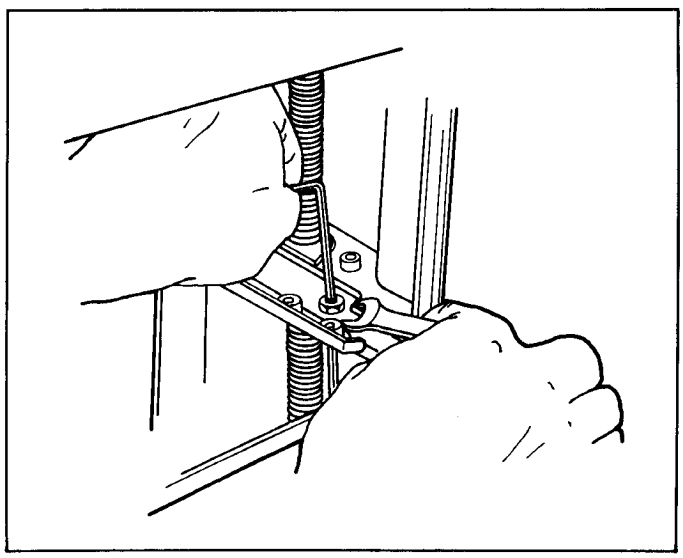


Figure 5

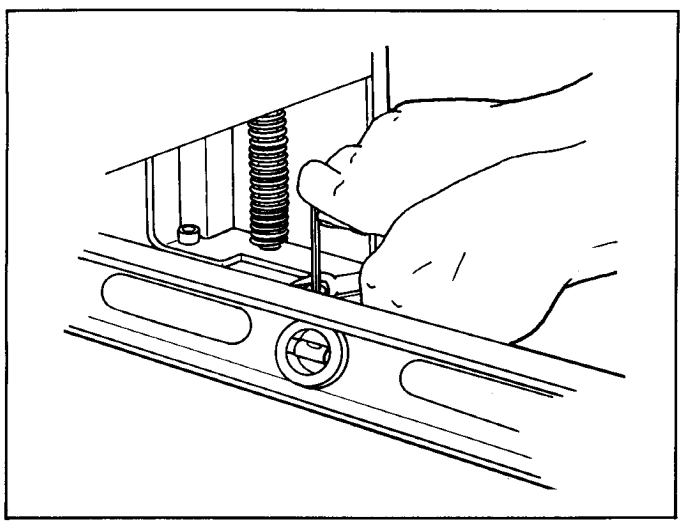


Figure 6

BLADE ALIGNMENT

1. Remove the blade assembly from the planer as indicated in **Cutter Blade Replacement.**

WARNING: Handle the blade assembly carefully and away from the cutting edge of the blade in order to avoid injury.

2. Set the assembly against the set gauge as illustrated in Figure 7. Loosen the two Phillips screws at the back of the assembly enough to permit free blade movement.
3. Slide the back forward until it rests against the lip of the set gauge as shown in Figure 8. Resecure the blade to the blade holder by fully tightening the screws.
4. Remount the blade assembly to the planer as indicated in **Cutter Blade Replacement.**

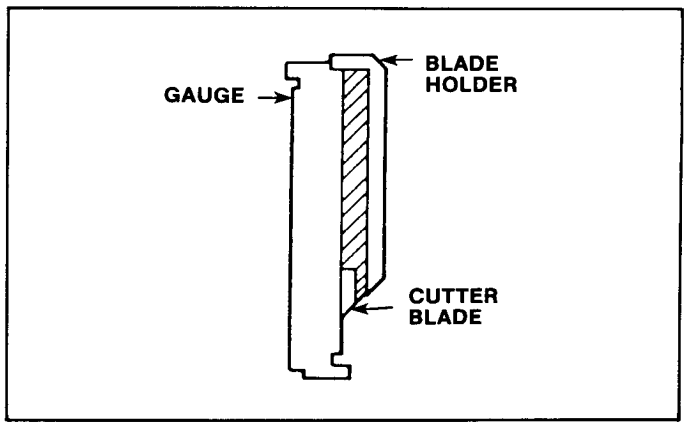


Figure 7

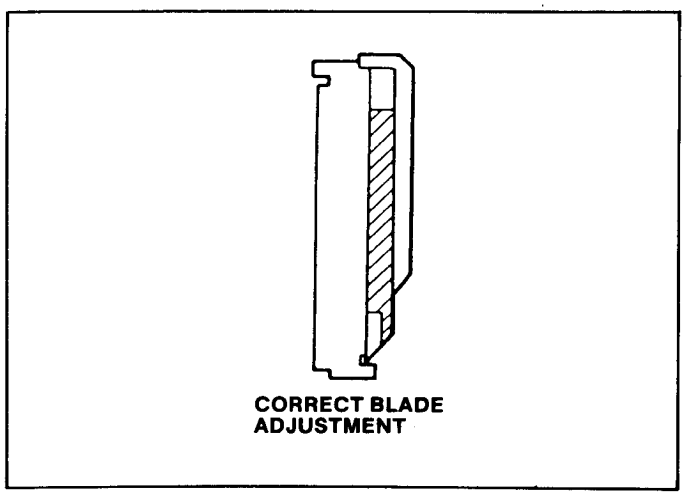


Figure 8

CUTTER BLADE REPLACEMENT

1. Lower the cutting head midway on the machine.
2. Loosen the wing bolts attaching the dust cover to the back of the planer and remove the cover.
3. Insert the lock pin into the angled hole located on the left side wall. Slowly turn the cutter by hand until the lock pin can be pushed into the cutter and secure it.
4. Loosen the six hex head bolts attaching the blade assembly to the cutter (Figure 9). Use the wrench supplied or a 9mm socket wrench. Remove the bolts and lift out the blade assembly.

WARNING: Handle the blade assembly carefully and away from the cutting edge of the blade in order to avoid injury.

5. To remove the other blade assembly, remove the lock pin and rotate the cutter 180°. Reinsert the locking pin and secure the cutter to remove the blade as described above.
6. Remove the blade from the blade holder by detaching the two Phillips screws fastening them.

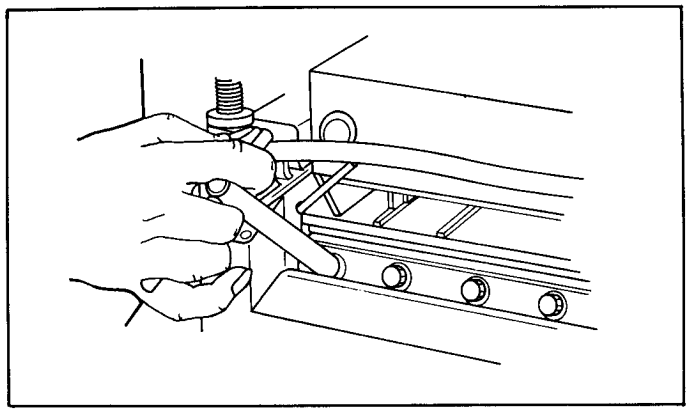


Figure 9

7. Attach the new blade and align it as described in **Adjustment of Blade Alignment.**
8. Installation is the reverse of removal.

WARNING: Never make any adjustments with the unit plugged in.

THICKNESS PLANER OPERATIONS

WARNING: Always use safety glasses when operating the planer. Use a dust mask if necessary.

THICKNESS PLANING

Thickness planing sizes material to a desired thickness while creating a smooth, level surface. It requires good judgment in determining the appropriate depth of a cut. Among the factors to be taken into account are the stock width and the hardness, dryness, straightness, and grain composition of the board. Their effects on the quality of the work can best be learned by experience. As a result, whenever you work with a new type of wood or a board with unusual problems, make test cuts on a piece of similar scrap material first.

PREOPERATION

The AP-10 thickness planer is shipped factory adjusted and ready to operate. Before turning on the planer, check for loosenfasteners, fittings, or hardware, Also make sure the knife guard is securely mounted and that the cutter rotates freely.

With the ON/OFF switch in the OFF position, lower the cutter head to about 1" above the table surface. Plug in the planer and test the motor and switch operation. Turn it on and allow it to reach full speed without putting any load on it. Watch for excessive vibration or noise. Turn it off and unplug it; then check for any loose hardware. Retighten any that you find.

Do not operate the planer if it is not working smoothly.

OPERATING SPECIFICATIONS

Lowest height adjustment	13/32"
One crank revolution	5/64"
Minimum stock thickness	1/2"
Minimum stock width	3/4"
Minimum stock length	14"
Maximum depth of cut	3/32"
Maximum width of cut	10"
Softwoods	10"
Hardwoods	6"
Maximum stock thickness	5"
Maximum stock length	unlimited

PLANING

WARNING: Plane only wood that is clear of all foreign objects with no loose knots and as few tight knots as possible. Do not surface lumber that is severely bowed, twisted, or

knotted. Cutter blades can dull, chip, or break and pose a risk of injury.

WARNING: Blade height should not be set lower than 13/32"

- Do not plane boards less than 1/2" thick.
- Do not plane widths less than 3/4".
- Do not plane stock shorter than 14" long; this can cause kickback.

Thickness planers work best on lumber with at least one flat surface. If both sides are rough, a surface planer or jointer should be used to define the initial flat surface. If the thickness planer is used, be sure to flip the wood as soon as one side is smooth.

The sides of the board should be alternately planed to reach the desired thickness. For example, if you need to remove 1/16" take 1/32" from each side. This leaves the board with a uniform moisture content so that it will not warp in the drying process.

Measure the thickest part of the board to be planed. If the difference between that and the desired finished thickness exceeds 3/32", make several passes, starting with a light planing cut, until the desired thickness has been reached (Figure 10). The depth of cut can be increased up to 3/32" on subsequent passes. Light cuts create a finer finish than heavier cuts do.

AVOIDING SNIPE

Snipes, or depressions made at either end of a board by cutter blades, can occur if boards are not properly supported. The board's weight will not allow the feed rollers to hold the board flat against the table.

Although a snipe is barely noticeable, care should be taken to feed boards parallel and flat with planer base. Keeping the board level throughout the entire travel will minimize snipe.

In addition to making sure that the infeed and outfeed planer rollers are adjusted to the correct height (see **Roller Height Adjustment** in the **Adjustments** section), butting pieces of stock end to end as they are fed into the planer will help minimize the problem, especially for shorter pieces, because it provides a more stable feed (Figure 11).

For stock longer than 48", greater care must be taken to reduce the problem because the additional length means more of the total weight is unsupported by the planer table and rollers, and the shifting weight will work against keeping the stock flat.

Use the accessory rollers provided with the planer to form an extended level support surface in such circumstances. Mount the rollers securely to adjustable height stands, or similarly stable pedestals, on both infeed and outfeed sides of the planer, about half the piece's length from the center of the planer. For example, if 10' stock is being used, the accessory rollers should be about 5' on either side of the planer.

The accessory roller heights should be between 1/125" and 1/64" above the planer table surface. This height is achieved as described and shown under **Roller Height Adjustment.** An accurate straightedge is laid flat on a piece of paper set on the planer table surface. The roller height will be correctly adjusted when it just touches the bottom of the straightedge. At farther distances from the planer, a flat piece of wood might have to be substituted for the straightedge. Although the most crucial height adjustment is needed for the planer rollers, the closer the accessory rollers come within the height tolerance, the better the finished piece will be.

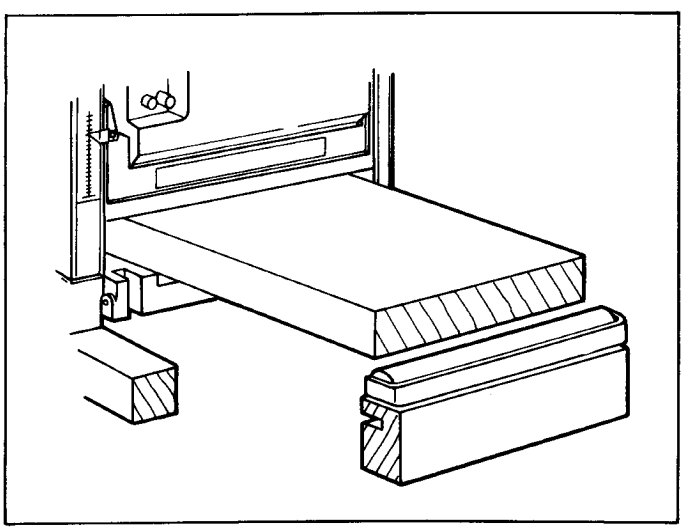


Figure 10

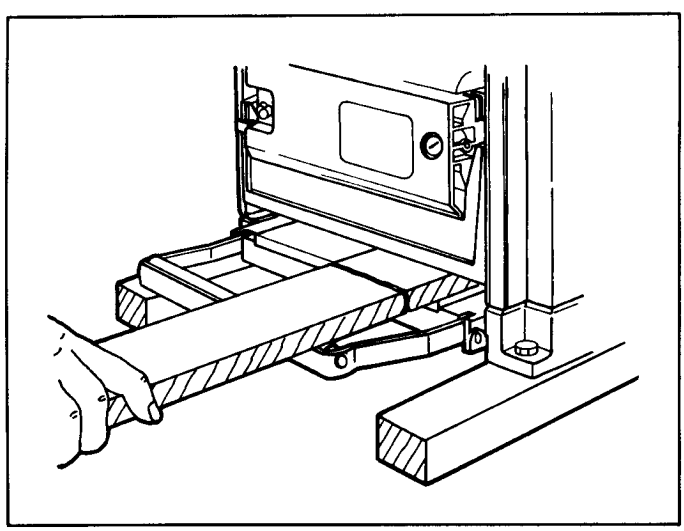


Figure 11

WARP

Severely warped wood can jam the planer. If it must be used, rip it in half before planing to help minimize the possibility of jamming. If jamming does occur, turn the switch off and disconnect the power immediately.

Little or no warpage is the ideal condition. Just run the board through and plane it to the desired thickness. Otherwise, plane the top flat first (Figure 12), then turn the board over and plane the bottom. For a board that is cupped or bowed across its width, the best method is to rip the board lengthwise down the middle and plane the pieces separately. This eliminates much of the waste in thickness planing cupped wood.

Bowed boards or boards warped lengthwise against the planer bed and thicknessed are flattened the same as if there was little or no warpage. The board will be planed to thickness but will keep its bow. The only way to remove the bow itself is to use a jointer.

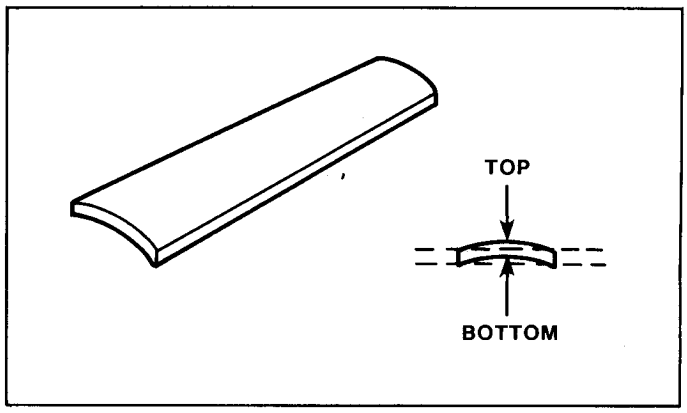


Figure 12

Always feed the board in the direction of the grain. This allows the blades to sever the wood fibers instead of tearing them. Feeding against the grain can also cause the blades to chip the board.

MAINTENANCE

WARNING: To assure safety and reliability, all repairs—with the exception of externally accessible brushes—should be performed by Ryobi Authorized Service Centers.

LUBRICATION

Your new AP-10 Thickness Planer requires no initial lubrication. However, to keep the tool in top working order, it will be necessary to check all moving parts (elevation screws, roller surfaces, handles, etc.) periodically to make sure they are clean and well lubricated. In addition, a light film of oil wiped on the face of the cutter blades will keep them rust-free. Other parts are sealed and lubricated at the factory and require no added lubrication.

CAUTION: Do not overlubricate the tool. Excessive oil at any location will attract dust and other airborne particles.

CAUSES OF MOTOR FAILURE

The following are major causes of motor failure:

1. Using a dull or sticking blade.
2. Feeding the material through the blade too fast.
3. Starting the cut before the blade has achieved its full RPM.
4. Inadequate or inconsistent flow of current to the tool.
5. Buildup of dust in the motor housing, which prevents proper cooling.
6. Worn motor brushes.

MOTOR

The universal motor is easy to maintain. However, it must be kept clean. Do not allow water or oil to enter it, or allow sawdust to accumulate on or in it.

The sealed bearings are permanently lubricated and need no further attention.

Every 10 to 15 operating hours, the motor brushes should be examined for wear. When they are worn down to the indicator line they must be replaced (Figure 13). To inspect or replace them, unscrew the brush cap located at the right front and left rear of the planer. Be sure to replace the brush cap securely after inspection or repairs.

CLEANING

Sawdust buildup and other debris can cause your machine to plane inaccurately. Periodic cleaning and waxing is needed for accurate precision planing.

Do not allow sawdust to accumulate on the planer; clean the discharge chute after use. Moving parts and elevation screws

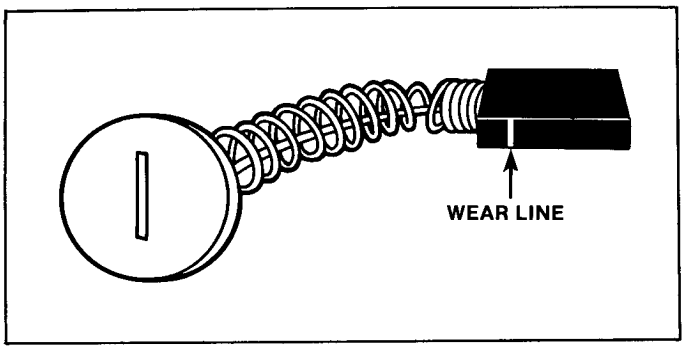


Figure 13

should be cleaned regularly with penetrating oil and lubricated with a light coating of medium-weight machine oil.

Paste wax should be applied to the table surface to ease the movement of workpieces across it. Paste wax can also be used on infeed and outfeed support surfaces, but be careful not to use so much that it will be absorbed into the wood and interfere with staining. Clean painted parts with a dry rag or mild soap and water. Check feed rollers after each use for resin buildup because they must be clean to be effective. If buildup occurs, use a mild, nonflammable tar and pitch removal solvent.

WARNING: Disconnect the unit from the power source before attempting to service or remove components.

BLADE SHARPENING

The cutter blades work more efficiently and sever the wood more cleanly when they are sharp. Additionally, dull blades place a greater strain on the motor, reducing the planer's efficiency and life.

WARNING: Always replace or resharpen knives as a matched set.

Blades should be sharpened as soon as the edge is lost. Do not allow them to become so dull that they chip or tear the stock. They should be good for 15 to 20 hours of operation between sharpening. However, conditions vary and each unit should be inspected more frequently.

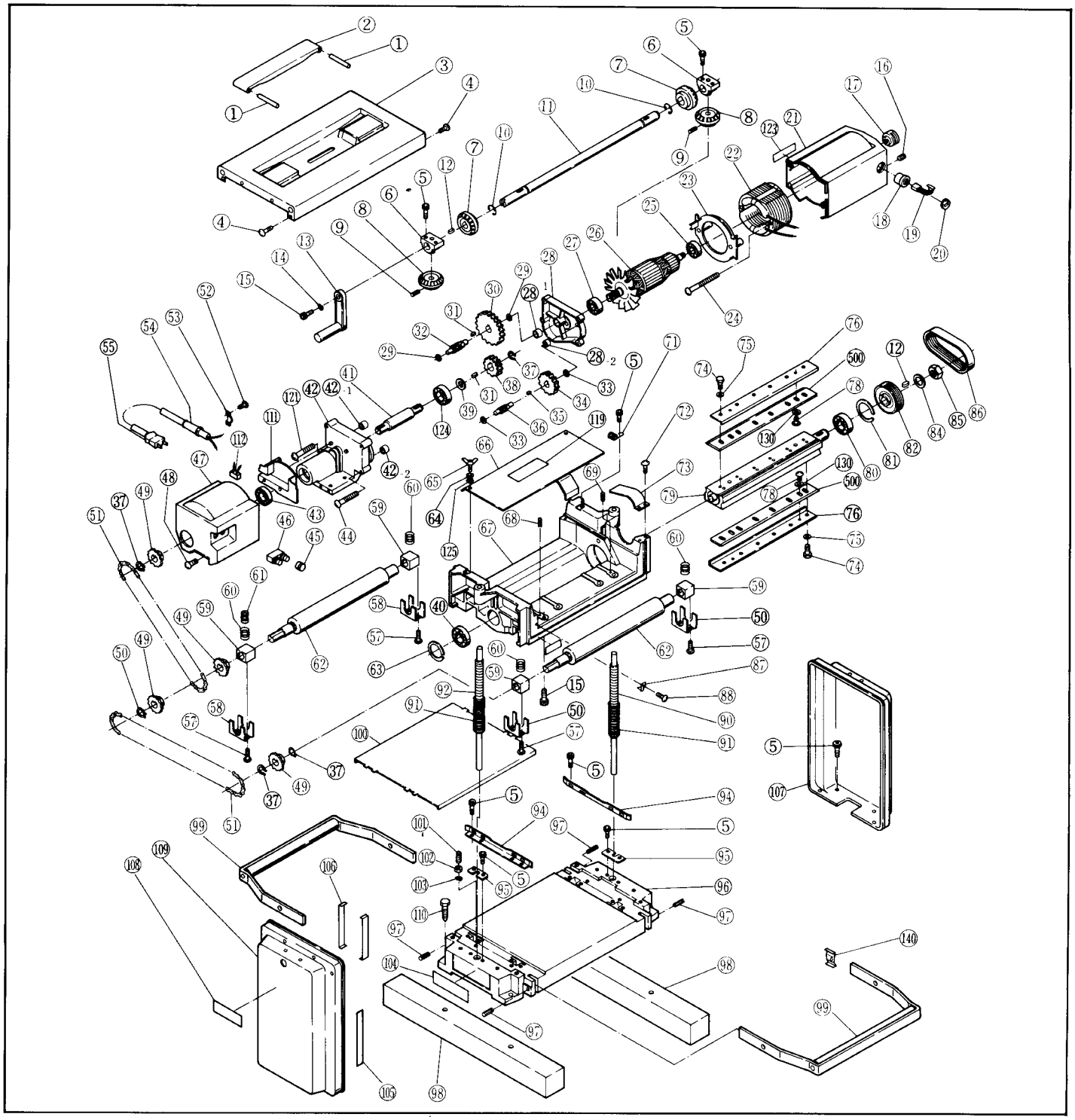
WARNING: If the power cord is worn, cut, or damaged in any way, replace it immediately.

TROUBLESHOOTING

Troubleshooting Guide for AP-10 Planer

Problem	Cause	Solution
Snipe (depressions at ends of board).	Dull cutter blades.	Replace or sharpen.
	Inadequate board support.	Adjust height of auxiliary rollers.
	Uneven feed roll pressure.	Check feed roll operation.
	Cutter head misaligned.	Adjust elevation screws.
	Misaligned support rollers.	Adjust roller elevation screws.
	Incorrectly butted stock.	Butt pieces end to end as they are fed into planer.
	Unit not securely fastened down.	Tighten lag bolts.
Torn grain	Too deep a blade setting.	Reduce depth of cut.
	Board being fed against grain.	Feed other end of board first.
	Dull cutter blades.	Replace or sharpen.
Fuzzy/Rough grain	High wood moisture content.	Dry wood before planing it.
	Dull cutter blades.	Replace or sharpen.
	Too deep a blade setting.	Reduce depth of cut.
	Incorrect feeding speed.	Check for adequate power supply.
		Check cord and plug for damage.
		Check condition of motor brushes.
Uneven depth of cut	Cutter head not level with planer surface.	Adjust elevation screws.
	Uneven blade projection.	Adjust blade alignment.
	Unstable roller spring pressure.	Have service performed by Ryobi Authorized Service Center..
	Feed roller worn unevenly.	Have service performed by Ryobi Authorized Service Center.
Board thickness does not match depth-of-cut scale.	Scale incorrectly set.	Adjust scale indicator and securely tighten.
	Incorrect blade alignment.	Adjust.
	Dirty table surface.	Clean.
Cutter head height difficult to adjust.	Dirty elevation gears.	Clean and lubricate.
	Dirty elevation screws.	Clean and lubricate.
	Worn gears or screws.	Replace.
Will not start/restart.	Not plugged in.	Check power source.
	Blown circuit.	Check power source. Replace fuse; reset breaker.
	Motor failure.	Have service performed by Ryobi Authorized Service Center.
	Loose wire.	Have service performed by Ryobi Authorized Service Center.
	ON/OFF switch malfunction.	Have service performed by Ryobi Authorized Service Center.
Interrupted operation.	Unit overloaded.	Reduce load.
	Circuit overloaded.	Operate on circuit separate from other appliances or motors.
		Connect to circuit with adequate amp rating.
		Install proper size fuses/breakers for circuit.

■EXPLODED VIEW & PARTS LIST



Ref.No.	Description	Ref.No.	Description	Ref.No.	Description
1	Parallel Pin	38	Final Gear (3)	78	Phillips Pan Screw M5×8
2	Aux. Handle	39	Thrust Washer 15.2×23×0.5	79	Cutter Block
3	Cover	40	Ball Bearing #6202LLB	80	Ball Bearing #6203LLB
4	Tapping Screw (S) M5×10	41	Gear Shaft	81	Retaining Ring R-40
5	Hex. Socket Head Bolt M6×12	42	Gear Case Ass'y.	82	Pulley (L)
6	Holder	42-1	Oilless Metal 8×11×10	84	Conical Spring Washer
7	Bevel Gear (A)	42-2	Oilless Metal 6×9×8	85	Hex. Nut
8	Bevel Gear (B)	43	Ball Bearing #6002ZZ	86	Poly V-Belt 135-J6
9	Spring Pin 4×25	44	Tapping Screw (B) M5×50	87	Scale Arrow
10	Retaining Ring E-12	45	Switch Guard	90	Screw (L)
11	Handle Shaft	46	Push Button Switch ABK-161	91	Compression Spring
12	Parallel Key 4×4×14	47	Switch Case	92	Screw (R)
13	Handle Ass'y.	48	Tapping Screw (S) M4×12	94	Guide Plate
14	Spring Washer M6	49	Chain Sprocket	95	Set Plate
15	Hex. Socket Head Bolt M6×20	50	Metal Cover	96	Base
16	Clamp Screw M5×8	51	Chain	97	Spring Pin 6×20
17	Pulley	52	Tapping Screw (B) M4×16	98	Stock
18	Brush Holder	53	Cord Clamp 11.1mm	99	Roller Ass'y.
19	Carbon Brush (1 pair)	54	Cord Holder 10mm	100	Slide Plate
20	Brush Cap	55	Cord Ass'y. AWG #14×3×2	101	Clamp Screw M6×20
21	Motor Housing	57	Tapping Screw (S) M5×12	102	Hex. Nut M6
22	Field Coil Ass'y.	58	Metal Cover	104	Name Plate
23	Fan Casing	59	Straight Metal	105	Scale
24	Tapping Screw (B) M5×70	60	Compression Spring	106	Spacer T=0.3
25	Ball Bearing #6201LLB	61	Compression Spring	107	Cover (R)
26	Armature Ass'y.	62	Feed Roller	108	Plate
27	Ball Bearing #6200LLB	63	Retaining Ring R-35	109	Cover (L)
28	Inner Cover Ass'y.	64	Washer	110	Wood Screw
28-1	Oilless Metal 8×11×10	65	Wing Bolt M5×12	111	Switch Cover
28-2	Oilless Metal 6×9×8	66	Dust Filter	113	Mark Plate
29	Thrust Washer 8.1×12×0.5	67	Roller Case	119	Indication Label
30	Final Gear (2)	68	Parallel Pin (A)	121	Tapping Screw (B) M5×60
31	Parallel Key 4×4×10	69	Parallel Pin (B)	123	Seal
32	Pinion Shaft (2)	71	Cord Stand	124	Ball Bearing #6202ZZ
33	Thrust Washer 6.2×11×0.5	72	Tapping Screw (S) M4×10	125	Toothed Lock Washer
34	Final Gear (1)	73	Belt Cover	130	Washer
35	Parallel Key 3×3×5.8	74	Hex. Head Bolt M6×17	140	Spring Plate
36	Pinion Shaft (1)	75	Washer	500	Planer Blade
37	Retaining Ring S-15	76	Blade Binder		