Save This Manual For Future Reference



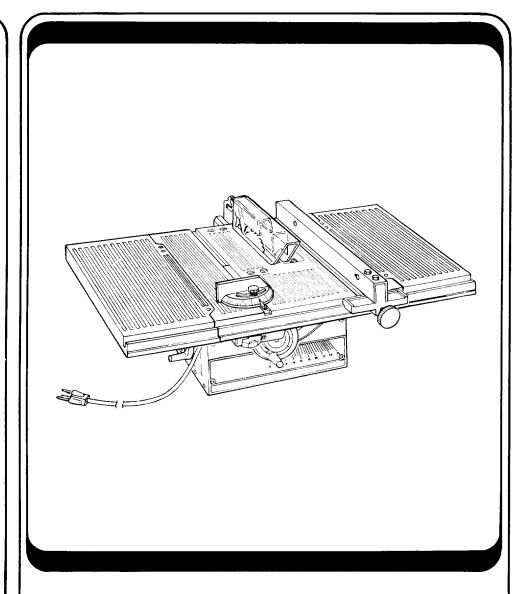
owners manual

MODEL NO. 113.221620

Serial
Number \_\_\_\_\_\_
Model and serial numbers
may be found at the
left-hand side of the base.
You should record both
model and serial number
in a safe place for future

# FOR YOUR SAFETY

READ ALL INSTRUCTIONS CAREFULLY



## SEARS / CRAFTSMAN®

### 8 INCH DIRECT DRIVE TABLE SAW

- assembly
- operating
- repair parts

#### **FULL ONE YEAR WARRANTY ON CRAFTSMAN TABLE SAW**

If within one year from the date of purchase, this Craftsman Table Saw fails due to a defect in material or workmanship, Sears will repair it, free of charge.

WARRANTY SERVICE IS AVAILABLE BY SIMPLY CONTACTING THE NEAREST SEARS SERVICE CENTER/DEPARTMENT THROUGHOUT THE UNITED STATES.

This warranty applies only while this product is in use in the United States.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Sears, Roebuck and Co., D/817 WA Hoffman Estates, IL. 60179

#### SAFETY INSTRUCTIONS FOR TABLE SAW

Safety is a combination of common sense, staying alert and knowing how your table saw works. Read this manual to understand this saw.

#### **BEFORE USING THE SAW:**

WARNING: TO AVOID MISTAKES THAT COULD CAUSE SERIOUS, PERMANENT INJURY, DO NOT PLUG THE SAW IN UNTIL THE FOLLOWING STEPS HAVE BEEN SATISFACTORILY COMPLETED.

- 1. Assembly and alignment (See pages 8-20).
- 2. Learn the use and function of the ON-OFF switch, guard, spreader, anti-kickback device, miter gauge, fence, table insert and blade elevation and bevel controls. (See page 21).
- 3. Review and understanding of all safety instructions and operating procedures in this manual.
- 4. Review of the maintenance methods for this saw. (See page 32).

Read the following DANGER label found on the front of the saw:

# READ AND UNDERSTAND OWNERS MANUAL BEFORE OPERATING MACHINE MEAR SAFETY GOGGES JUSE SAMEADE GUARD FOR THRU SAWING 3 KEEP HANGS 301 35 PATH OL SAWING OF THE SAWING OF TH

#### WHEN INSTALLING OR MOVING THE SAW:

- 1. AVOID DANGEROUS ENVIRONMENT. Use the saw in a dry place protected from rain. Keep work area well lighted.
- 2. To avoid injury from unexpected saw movement:
  - a. Put the saw on a firm level surface where there is plenty of room for handling and properly supporting the workpiece.
  - b. Support the saw so the table is level and the saw does not rock.
  - c Bolt the saw to the floor if it tends to slip, walk, or slide during normal use.
  - d. When using table extensions over 24" wide on any side of the saw, bolt the saw to the floor or prop up the outer end of the extension from the floor to keep the saw from tipping.
- 3. Put the saw where neither operators or bystanders must stand in line with the saw blade.
- 4. GROUND THE SAW This saw has an approved 3-conductor cord and a 3-prong grounding type plug. The plug fits grounding type outlets design-

- ed for 120 volt 15 amp circuits. The green conductor in the cord is the grounding wire. To avoid electrocution, NEVER connect the green wire to a live terminal.
- 5. To avoid injury from electrical shock, make sure your fingers do not touch the plug's metal prongs when plugging in or unplugging the saw.
- 6. To avoid back injury, get help or use recommended casters when you need to move the saw. Always get help if you need to lift the saw. Hold the saw close to your body. Bend your knees so you can lift with your legs, not your back.
- 7. NEVER STAND ON TOOL. Serious injury could occur if the tool tips or you accidentally hit the cutting tool. Do not store anything above or near the tool where anyone might stand on the tool to reach them.

#### **BEFORE EACH USE:**

- 1. Inspect your saw.
  - a. To avoid injury from accidental starting, unplug the saw, turn the switch off and remove the switch key before raising or removing the guard, changing the cutting tool, changing the setup or adjusting anything.
  - b. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect the way it works. If any part is missing, bent, or broken in any way, or any electrical parts don't work properly, turn the saw off and unplug the saw.
  - c. Replace damaged, missing, or failed parts before using the saw again.
  - d. Use the sawblade guard, spreader, and antikickback pawls for any thru-sawing (whenever the blade comes through the top of the workpiece). Make sure the pawls work properly. Make sure the spreader is in line with the sawblade.
  - e. REMOVE ADJUSTING KEYS AND WRENCHES. Form habit of checking for and removing keys and adjusting wrenches from tool before turning it on.
  - f. To avoid injury from jams, slips or thrown pieces (kickback and throwback):
    - 1. USE ONLY RECOMMENDED ACCESSO-RIES. Follow the instructions that come with the accessories. Consult the owner's manual

- for recommended accessories. The use of improper accessories may cause risk of injury to persons.
- Choose the right blade or cutting accessory for the material and the type of cutting you plan to do.
- Never use grinding wheels, abrasive cut-off wheels, friction wheels (metal slitting blades) wire wheels or buffing wheel. They can fly apart explosively.
- Choose and inspect your cutting tool carefully.
  - a. To avoid cutting tool failure and thrown shrapnel (broken pieces of blade), use only
     8" or smaller blades or other cutting tools marked for speeds of 3450 rpm or higher.
  - b. Always use unbroken, balanced blades designed to fit this saw's 5/8" arbor.
  - c. When thru-sawing, (making cuts where the blade comes through the workpiece top) always use a 8" diameter blade. This keeps the spreader in closest to the blade.
  - d. Do not overtighten arbor nut. Use arbor wrenches to "snug" it securely.
  - e. Use only sharp blades with properly set teeth. Consult a professional blade sharpener when in doubt.
  - f. Keep blades clean of gum and resin.
- 5. Adjust table inserts flush with the table top. NEVER use the saw without the proper insert.
- 6. Make sure all clamps and locks are tight and no parts have any excessive play.

#### 2. KEEP WORK AREA CLEAN

- a. Cluttered areas and benches invite accidents.
   Floor must not be slippery from wax or sawdust.
- b. To avoid burns or other fire damage, never use the saw near flammable liquids, vapors or gases.

Plan ahead to protect your eyes, hands, face, ears.

a. To avoid injury, don't do layout, assembly, or setup work on the table while the blade is spinning. It could cut or throw anything hitting the blade.

AVOID ACCIDENTAL STARTING - Make sure switch is "OFF" before plugging saw in.

#### Plan your work

- 1. USE THE RIGHT TOOL Don't force tool or attachment to do a job it was not designed for.
- 2. Dress for safety:
  - Do not wear loose clothing, gloves, neckties or jewelry (rings, wrist watches). They can get caught and draw you into moving parts.
  - Wear nonslip footwear.
  - Tie back long hair.
  - Roll long sleeves above the elbow

- Noise levels vary widely. To avoid possible hearing damage, wear ear plugs or muffs when using saw for long periods of time.
- Any power saw can throw foreign objects into the eyes. This can cause permanent eye damage. Wear safety **goggles** (not glasses) that comply with ANSI Z87.1 (shown on package). Everyday eyeglasses have only impact resistant lenses. They are not safety glasses. Safety goggles are available at Sears retail catalog stores. Glasses or goggles not in compliance with ANSI Z87.1 could seriously hurt you when they break.



- For dusty operations, wear a dust mask along with the safety goggles.
- Inspect your workpiece. Make sure there are no nails or foreign objects in the part of the workpiece to be cut.
- 4. Plan your cut to avoid KICKBACKS and THROW-BACKS when a part or all of the workpiece binds on the blade and is thrown violently back toward the front of the saw:
  - Never cut FREEHAND: Always use either a rip fence, miter gauge or fixture to position and guide the work, so it won't twist, bind on the blade and kickback.
  - Make sure there's no debris between the workpiece and its supports.
  - When cutting **irregularly shaped workpieces**, plan your work so it will not slip and pinch the blade:
    - A piece of molding, for example, must lie flat or be held by a fixture or jig that will not let it twist, rock or slip while being cut. Use jigs, fixtures where needed to prevent workpiece shifting.
    - Use a different, better suited type of tool for work that can't be made stable.
  - Use extra caution with large, very small or awkward workpieces:
    - Use extra supports (tables, saw horses, blocks, etc.) for any workpieces large enough to tip when not held down to the table top. **NEVER use another person** as a substitute for a table extension, or as additional support for a workpiece that is longer or wider then the basic saw table, or to help feed, support or pull the workpiece.
    - Never confine the piece being cut off. That is, the piece NOT against the fence, miter gauge or fixture. Never hold it, clamp it, touch it, or use length stops against it. It must be free to move. If confined, it could get wedged against the blade and cause a kickback or throwback.

- Never cut more than one workpiece at a time.
- Never turn your table saw "ON" before clearing everything except the workpiece and related support devices off the table.

#### Plan the way you will push the workpiece through.

- **NEVER pull the workpiece** through. Start and finish the cut from the front of the table saw.
- NEVER put your fingers or hands in the path of the sawblade or other cutting tool.
- NEVER reach in back of the cutting tool with either hand to hold down or support the workpiece, remove wood scraps, or for any other reason.
- Avoid hand positions where a sudden slip could cause fingers or hand to move into a sawblade or other cutting tool.
- DON'T OVERREACH. Always keep good footing and balance.
- Push the workpiece against the rotation of the blade. NEVER feed material into the cutting tool from the rear of the saw.
- Always push the workpiece all the way past the sawblade.
- As much as possible, keep your face and body to one side of the sawblade, out of line with a possible kickback or throwback.
- NEVER turn the saw "ON" before clearing the table of all tools, wood scraps, etc., except the workpiece and related feed or support devices for the cut planned.

#### WHENEVER SAW IS RUNNING

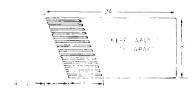
WARNING: DON'T LET FAMILIARITY (GAINED FROM FREQUENT USE OF YOUR TABLE SAW) CAUSE A CARELESS MISTAKE. ALWAYS REMEMBER THAT A CARELESS FRACTION OF A SECOND IS ENOUGH TO CAUSE A SEVERE INJURY.

- Before actually cutting with the saw, watch it while it runs for a short while. If it makes an unfamiliar noise or vibrates a lot, stop immediately. Turn the saw off. Unplug the saw. Do not restart until finding and fixing the problem.
- 2. Make sure the top of the arbor or cutting tool turns toward the front of the saw.
- 3. Set the cutting tool as low as possible for the cut you're planning.
- 4. KEEP CHILDREN AWAY. All visitors should be kept a safe distance from work. Make sure bystanders are clear of the saw and workpiece.
- 5. Let the blade reach full speed before cutting.
- 6. DON'T FORCE TOOL. It will do the job better and safer at its designed rate. Feed the workpiece into the blade only fast enough to let it cut without bogging down or binding.
- 7. Before freeing any jammed material:
  - a. Turn switch "OFF".
  - b. Unplug the saw.

- c. Wait for all moving parts to stop.
- d. Check blade, spreader and fence for proper alignment before starting, again.
- 8. To avoid throwback of small, cut off pieces:
  - a. Use the guard assembly.
  - b. Push loose pieces off the table with a long stick before starting another cut.
  - c. To remove pieces trapped inside the guard:
    - 1. Turn saw off.
    - 2. Remove switch key.
    - 3. Unplug saw.
    - 4. Wait for blade to stop before lifting the guard.

## additional instructions for RIP TYPE CUTS

- NEVER use the miter gauge when ripping.
- Use a push stick whenever the fence is 2 to 6 inches from the blade. Use an auxiliary fence and push block whenever the fence must be within 2 inches of the blade. (See "Basic Saw Operation Using The Rip Fence" section.)
- Never rip anything shorter than 10" long.
- When using a push stick or push block, the trailing end of the board must be square. A push stick or block against an uneven end could slip off or push the work away from the fence.
- A FEATHERBOARD can help guide the workpiece. See BASIC SAW OPERATION - USING THE RIP FENCE. Always use featherboards for any non-thru rip type cuts.



#### **Before Starting**

- To avoid kickbacks and slips into the blade, make sure the rip fence is parallel to the sawblade.
- Check the antikickback pawls. (See BASIC SAW OPERATION - USING THE RIP FENCE.) The pawls must stop a kickback once it has started. Replace or sharpen antikickback pawls when points become dull.
- Plastic and composition (like hardboard) materials may be cut on your saw. However, since these are usually quite hard and slippery, the antikickback pawls may not stop a kickback. Therefore, be especially careful in your set-up and cutting procedures.

#### While cutting

- To avoid kickbacks and slips into the blade, always push forward on the section of the workpiece between the saw blade and the rip fence. Never push forward on the piece being cut off.

## additional instructions for CROSS CUT TYPE CUTS

#### Before starting

- NEVER use the rip fence when crosscutting.
- An auxiliary wood facing attached to the miter gauge can help prevent workpiece twisting and throwbacks. Attach it to the holes provided. Make the facing long enough and big enough to support your work. Make sure, however, it will not interfere with the sawblade guard.
- Use jigs or fixtures to help hold any piece too small to extend across the full length of the miter gauge face during the cut. This lets you properly hold the miter gauge and workpiece and helps keep your hands away from the blade.

#### While cutting

 To avoid blade contact, always hold the miter gauge as shown in the BASIC SAW OPERA-TIONS - USING THE MITER GAUGE.

#### **BEFORE LEAVING THE SAW**

- 1. Turn the saw off.
- 2. Wait for blade to stop spinning.
- 3. Make workshop child-proof. Lock the shop. Disconnect master switches. Remove the yellow switch key. Store it away from children and others not qualified to use the tool.
- 4. Unplug the saw.

#### GLOSSARY OF TERMS FOR WOODWORKING

#### Anti-Kickback Pawls (AKB)

Device which, when properly maintained, is designed to stop the workpiece from being kicked back at the operator during ripping operations.

#### Arbor

The shaft on which a cutting tool is mounted.

#### Crosscut

A cutting or shaping operation made across the width of the workpiece.

#### Dado

A non-through cut which produces a square sided notch or trough in the workpiece.

#### Featherboard

A device which can help guide workpieces during rip type operations.

#### Freehand

Performing a cut without using a fence, miter gauge, fixture, hold down or other proper device to keep the workpiece from twisting during the cut.

#### Gum

A sticky, sap based residue from wood products.

#### Heel

Misalignment of the blade.

#### Kerf

The amount of material removed by the blade in a through cut or the slot produced by the blade in a non-through or partial cut.

#### **Kickback**

An uncontrolled grabbing and throwing of the workpiece back toward the front of the saw during a rip type operation.

#### Leading End

The end of the workpiece which, during a rip type operation, is pushed into the cutting tool first.

#### Molding

A non-through cut which produces a special shape in the workpiece used for joining or decoration.

#### **Push Stick**

A device used to feed the workpiece through the saw during narrow ripping type operations and help keep the operator's hands well away from the blade.

#### **Push Block**

A device used for ripping type operations too narrow to allow use of a push stick.

#### Rabbet

A notch in the edge of a workpiece.

#### Resin

A sticky, sap base substance that has hardened.

#### Ripping

A cutting operation along the length of the work-piece.

#### **Revolutions Per Minute (RPM)**

The number of turns completed by a spinning object in one minute.

#### Sawblade Path

The area of the workpiece or table top directly in line with the part of the workpiece which will be, or has been, cut by the blade.

#### Set

The distance that the tip of the sawblade tooth is bent (or set) outward from the face of the blade.

#### Throw-Back

Throwing of pieces in a manner similar to a kickback.

#### Thru-Sawing

Any cutting operation where the blade extends completely through the thickness of the workpiece.

#### Trailing End

The workpiece end last cut by the blade in a ripping operation.

#### Workpiece

The item on which the cutting operation is being done. The surfaces of a workpiece are commonly referred to as faces, ends, and edges.

#### MOTOR SPECIFICATIONS AND ELECTRICAL REQUIREMENTS

The AC motor used in this saw is a non-reversible type, with the following specifications:

Amperes	7.8
Hertz	60
Phase	
RPM	
Rotation (viewed from	
Sawblade end)	Counterclockwise

#### **CAUTION**

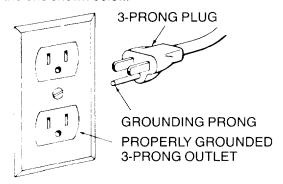
THE STARTING RELAY IN THIS SWITCH HOUSING IS A GRAVITY SENSITIVE TYPE. TO AVOID DAMAGING YOUR MOTOR, NEVER TURN THE POWER ON UNLESS THE SAW IS UPRIGHT IN SAWING POSITION.

#### CONNECTING TO POWER SOURCE OUTLET

This saw must be grounded while in use to protect the operator from electrical shock.

If power cord is worn or cut, or damaged in any way, have it replaced immediately.

Your saw is wired for 120 volts and it has a plug that looks like the one shown below.



Plug power cord of fully assembled saw into 120V properly grounded type outlet protected by a 15-amp. time delay or Circuit-Saver fuse or circuit breaker.

NOT ALL OUTLETS ARE PROPERLY GROUNDED. IF YOU ARE NOT SURE THAT YOUR OUTLET, AS PICTURED BELOW, IS PROPERLY GROUNDED, HAVE IT CHECKED BY A QUALIFIED ELECTRICIAN.

WARNING: TO AVOID ELECTRIC SHOCK, DO NOT TOUCH THE METAL PRONGS ON THE PLUG, WHEN INSTALLING OR REMOVING THE PLUG TO OR FROM THE OUTLET.

WARNING: FAILURE TO PROPERLY GROUND THIS POWER TOOL CAN CAUSE ELECTROCUTION OR SERIOUS SHOCK, PARTICULARLY WHEN USED IN DAMP LOCATIONS, OR NEAR METAL PLUMBING. IF SHOCKED, YOUR REACTION COULD CAUSE YOUR HANDS TO HIT THE CUTTING TOOL.

IF POWER CORD IS WORN OR CUT, OR DAMAGED IN ANY WAY, HAVE IT REPLACED IMMEDIATELY TO AVOID SHOCK OR FIRE HAZARD.

This saw is equipped with a 3-conductor cord and grounding type plug approved by Underwriters' Laboratories and the Canadian Standards Association. The ground conductor has a green lug and is attached to the

tool housing at one end and to the ground prong in the attachment plug at the other end.

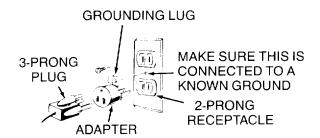
This plug requires a mating 3-conductor grounded type outlet as shown.

If the outlet you are planning to use for this saw is of the two prong type DO NOT REMOVE OR ALTER THE GROUNDING PRONG IN ANY MANNER. Use an adapter as shown and always connect the grounding lug to a known ground.

It is recommended that you have a qualified electrician replace the TWO prong outlet with a properly grounded THREE prong outlet.

A temporary adapter as shown below is available for connecting plugs to 2-prong receptacles. The green grounding lug extending from the adapter must be connected to a permanent ground such as to a properly grounded outlet box.

A temporary adapter as illustrated is available for connecting plugs to 2-prong receptacles. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician.



WARNING: THE GREEN GROUNDING LUG EXTENDING FROM THE ADAPTER MUST BE CONNECTED TO A PERMANENT GROUND SUCH AS TO A PROPERLY GROUNDED OUTLET BOX. NOT ALL OUTLET BOXES ARE PROPERLY GROUNDED.

If you are not sure that your outlet box is properly grounded, have it checked by a qualified electrician.

**NOTE:** The adapter illustrated is for use only if you already have a properly grounded 2-prong receptacle.

**NOTE:** Make sure the proper extension cord is used and is in good condition.

The use of any extension cord will cause some loss of power. To keep this to a minimum and to prevent overheating and motor burn-out, use the table below to determine the minimum wire size (A.W.G.) extension cord. Use only 3 wire extension cords which have 3 prong grounding type plugs and 3-pole receptacles which will accept the tool's plug.

Extension Cord Length	Wire Size (A.W.G.) 120V
0-25 Ft.	18
26-100 Ft.	16

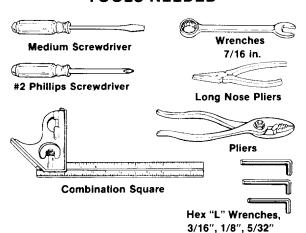
The motor must rotate Counterclockwise when viewed from the shaft end.

#### **CONTENTS**

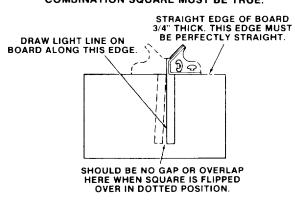
WARRANTY	2	GETTING TO KNOW YOUR SAW	
GENERAL SAFETY INSTRUCTIONS FOR POWER TOOLS	2	On-Off Switch Elevation Handwheel Tilt Handwheel	22
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MOTOR SPECIFICATIONS AND ELECTRICAL REQUIREMENTS	6	Rip Fence	22 22
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Adjusting 90 Degree Bevel Stop Adjusting Bevel Pointer Adjusting 45 Degree Bevel Stop Installing Table Extensions Aligning Table Extensions To Raise Extension To Lower Extension Leveling Extensions To Lower Outer Edge of Extension	11 12 13 13 14 14 15 15	BASIC SAW OPERATION USING THE RIP FENCE Ripping Bevel Ripping Ploughing and Molding Resawing Rabbeting Using Featherboards	28 30 30 31
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### **UNPACKING AND CHECKING CONTENTS**

#### **TOOLS NEEDED**



#### COMBINATION SQUARE MUST BE TRUE.



Model 113.221620 Table Saw with Table Extensions is shipped complete in one carton.

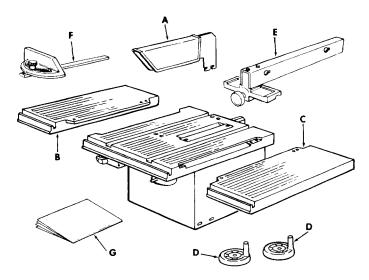
Separate all parts from packing materials and check each one with the illustration and the list of Loose Parts to make certain all items are accounted for, before discarding any packing material.

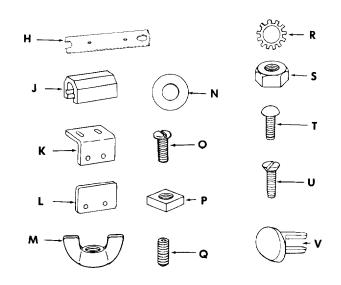
If any parts are missing, do not attempt to assemble the table saw, plug in the power cord or turn the switch on until the missing parts are obtained and are installed correctly.

Apply a coat of automobile wax to the table. Wipe all parts thoroughly with a clean, dry cloth.

WARNING: FOR YOUR OWN SAFETY, NEVER CONNECT PLUG TO POWER SOURCE OUTLET UNTIL ALL ASSEMBLY STEPS ARE COMPLETE, AND YOU HAVE READ AND UNDERSTAND THE SAFETY AND OPERATIONAL INSTRUCTIONS.

ITEM	LIST OF LOOSE PARTS DESCRIPTION	OTY.
A	Guard Assembly	
В	Extension Table L.H.	1
Č	Extension Table R.H.	
Ď	Handwheel	_
Ε	Rip Fence Assembly	1
F	Miter Gauge Assembly	
G	Owners Manual	1
	Loose Parts Bag No. 507545	
	(Containing the following items):	
Н	Wrench	2
K	Bracket Spreader	
L	Clamp, Spreader	
	Loose Parts Bag No. 507546	
	(Containing the following items):	
Ν	Washer, 17/64x9/16x3/64	4
Ο	Screw, Pan Hd. 8-32x3/8	2
Р	Nut, Sq. 1/4-20	
Q	Screw, Soc. Set 1/4-20x7/8	
R	Lockwasher, Ext. 1/4	4
R	Lockwasher, Ext. #8	
S	Nut, Hex 1/4-20	
T	Screw, Truss Hd. 1/4-20x5/8	
U	Screw, Flat Hd. 1/4-20x5/8	
V J	Key Switch	
J M	Support Spreader Nut, Wing 1/4-20	
IVI	1901, 99119 1/4-20	∠





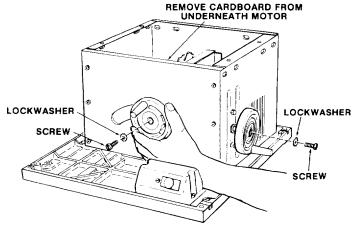
### **ASSEMBLY**

#### **INSTALLING HANDWHEELS**

- 1. From among the loose parts find two #8 external lockwashers and two 8-32 x 3/8 inch long Phillips screws.
- Install elevation handwheel onto elevation shaft by lining up FLAT SPOT on shaft with flat inside handwheel. Install screw and lockwasher.
- Install bevel handwheel onto bevel shaft by lining up FLAT SPOT on shaft with flat inside handwheel. Install screw and lockwasher.

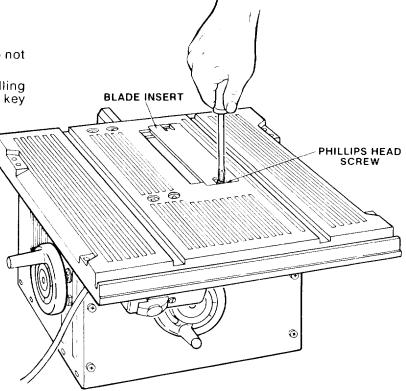
### WARNING: Failure to complete the following two steps could result in damage to your saw.

- Turn elevation handwheel counter-clockwise to pull motor away from inner packing cardboard.
- 5. Remove cardboard.

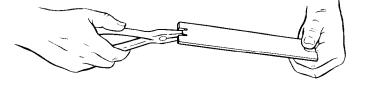


#### **ADJUSTING BLADE INSERT**

- 1. Turn saw over.
- 2. Loosen Phillips screw in blade insert . . . do not remove.
- Remove blade insert by lifting slightly and pulling insert toward front of saw to disengage from key hole slot.



4. Tab at rear of insert should engage in saw table firmly. It may be necessary to bend tab slightly using pliers.



5. Install blade insert by placing keyhole slot in insert over screw head in saw table and pushing insert to rear of saw table sliding tab in insert under saw table ledge.

Tighten screw.

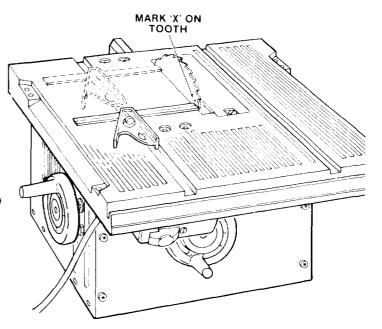
#### CHECKING HEELING OR PARALLELISM OF SAW BLADE TO MITER GAUGE GROOVE

While cutting, the material must move in a straight line PARALLEL to the SAW BLADE . . . therefore both the miter gauge GROOVE and the RIP FENCE must be PARALLEL to the SAW BLADE.

If the saw blade is not parallel to the miter gauge groove, it is said to have "HEEL". This condition can cause the workpiece to bind or move workpiece away from the rip fence at the end of a cut, possibly causing a kickback.

# WARNING: TO AVOID INJURY FROM ACCIDENTAL START MAKE SURE SWITCH IS "OFF" AND PLUG IS NOT CONNECTED TO POWER SOURCE OUTLET.

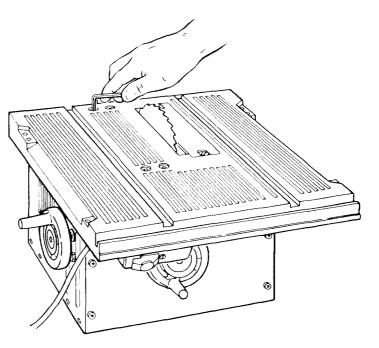
- 1. Elevate blade to maximum height by turning elevation handwheel.
- Mark an "X" on one of the teeth which is SET (bent) to the LEFT.
- 3. Place the head of a combination square in the MITER GROOVE. Adjust blade of square so that it just touches the tip of the MARKED tooth.
- 4. Move square to REAR, rotate blade to see if MARKED tooth again touches blade of square.
- 5. If tooth touches square the same amount at FRONT and REAR, sawblade is PARALLEL to MITER GAUGE GROOVE.



### ADJUSTING PARALLELISM OF SAW BLADE TO MITER GAUGE GROOVE

If tooth does not touch front and rear the mechanism underneath must be adjusted to make the blade PARALLEL to miter gauge groove.

1. Loosen the four hex socket screws in the top of the table next to the saw blade using a 3/16 inch hex L wrench. This will allow the mechanism below the table to be shifted sideways.



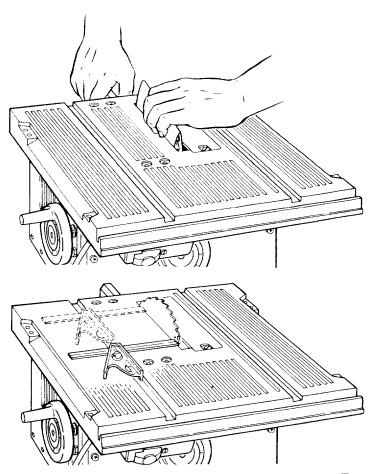
- 2. Fold a piece of cardboard or heavy paper over the blade to protect your hands.
- Grasp the blade and the cradle rod and move the mechanism right or left a small amount as needed to make the square touch the same amount front and rear. Tighten one screw.
- Check with square to determine if MARKED tooth touches square the same amount at front and rear

If it does — alternately tighten other three screws slowly.

If it does not — loosen screw and move blade the required amount.

5. Recheck blade clearance to table and table insert to make sure blade does not hit.

**NOTE:** Use the hex L wrench as shown. Do not use a pair of pliers or any other tool to gain more leverage on the setscrew wrench.

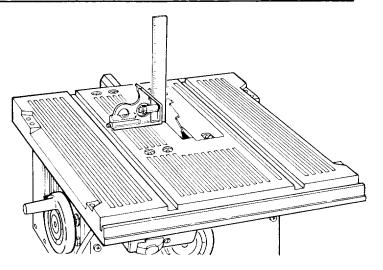


#### **ADJUSTING 90 DEGREE BEVEL STOP**

(IMPORTANT: Blade must be square (90°) to table in order to accurately align the saw. Using care in the following adjustments will help assure accurate woodworking cuts.)

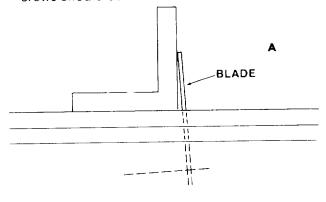
WARNING: TO AVOID INJURY FROM ACCIDENTAL START, TURN SWITCH "OFF" AND REMOVE PLUG FROM POWER SOURCE OUTLET BEFORE ADJUSTING BEVEL STOP.

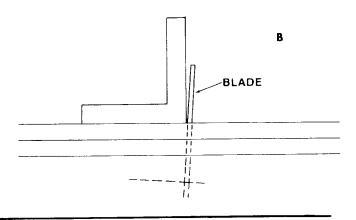
- 1. Raise blade to highest elevation.
- 2. Turn bevel handwheel just until it stops under moderate pressure. Blade should be 90° to the table top.
- Place a square flush on the table top to the left of the sawblade and slide the square up against the body of the sawblade, NOT against the teeth of the blade.
- 4. The square should be nearly flush with the body of the sawblade. When this is so, the sawblade is said to be 90° with respect to the table top. Notice the bevel pointer on the front of the saw. The pointer should be at 0°.
- 5. If you feel the blade is not close enough to 90° with respect to the table top, further adjustment can be made by performing the following operations.



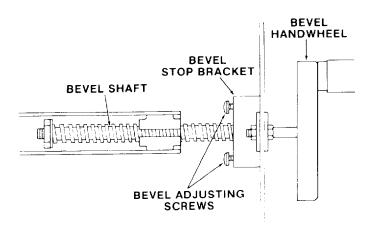
#### **ADJUSTING 90 DEGREE BEVEL STOP**

1. On the stop bracket are two 10-32 pan head screws which set 90° stop position. If condition A exists the two screws need to be turned clockwise to obtain 90° setting. If condition B exists the srews should be turned counterclockwise.





- 2. Turn saw over.
- Rotate bevel crank blade is in approximately 40° position and using phillips screwdriver rotate screws slightly in direction necessary to correct gap, (rotate screws equally). Recheck blade position and readjust if necessary.
- 4. When 90° stop position is adjusted to your satisfaction re-adjust pointer to 0° position.



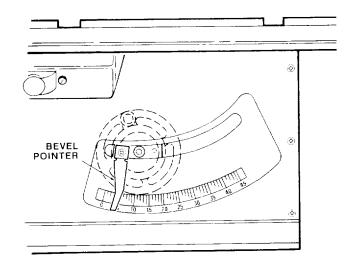
#### ADJUSTING BEVEL POINTER

If blade IS SQUARE to table:

1. Check pointer.

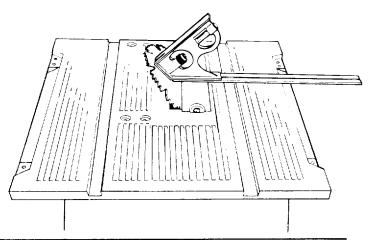
If POINTER DOES NOT point to the "0" mark on the bevel scale:

- 2. Remove Elevation Handwheel.
- 3. Loosen screw and adjust pointer . . . using medium screwdriver.
- 4. Install Elevation Handwheel.



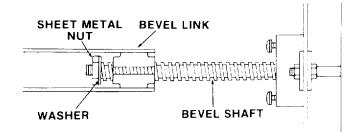
#### **CHECKING 45 DEGREE BEVEL STOP**

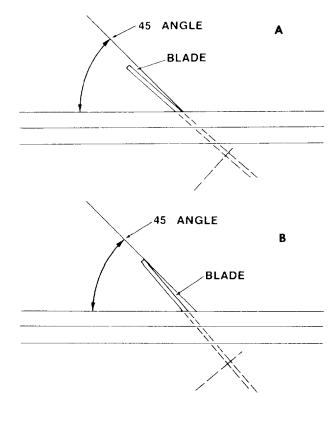
- 1. Turn elevation handwheel clockwise to raise blade as high as it will go.
- Turn bevel handwheel clockwise to tilt blade to 45°.
- 3. Lay head of combination square on the blade of square as illustrated and place head against the blade. Make sure square is not touching TIP of one of the saw TEETH.
- 4. The 45° blade stop is set during manufacturing. If adjustment is needed proceed to next step. If bevel adjustment is satisfactory go on to installing table extensions.



#### ADJUSTING 45 DEGREE BEVEL STOP

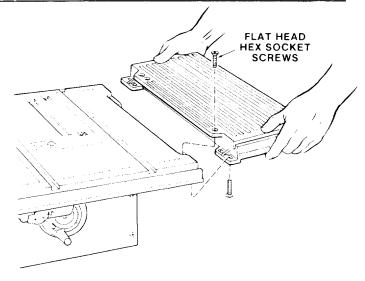
- 1. The 45° blade position is controlled by the location of the sheet metal nut on end of bevel shaft.
- 2. If condition A exists the sheet metal nut needs to be turned clockwise (CW) to obtain 45° setting. If condition B exists the nut should be turned counterclockwise (CCW).
- 3. To correct condition A Rotate bevel handle CCW approximately 2 turns, place 11/16 inch wrench on sheet metal nut and hold in place while rotating handle counterclockwise in small increments. Recheck blade position after each rotation.
- To correct condition B Same procedure as No. 3, except, rotate handle clockwise while holding nut.
- 5. Check blade clearance by rotating blade by hand making sure blade does not strike insert or table.



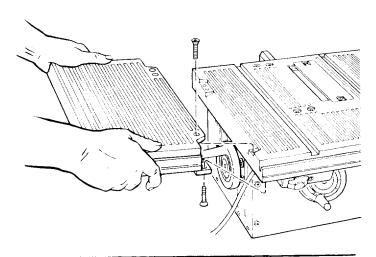


#### INSTALLING TABLE EXTENSIONS

- 1. Among loose parts locate fourteen 1/4-20 x 5/8 inch long flat head hex socket screws.
- 2. Install right table extension and install seven screws using a 5/32 inch hex L wrench. Just start screws.
- 3. Install left table extension and install seven screws using a 5/32 inch hex L wrench. Just start screws.



 Install left table extension and install seven screws using 5/32 inch hex L wrench. Just start screws.

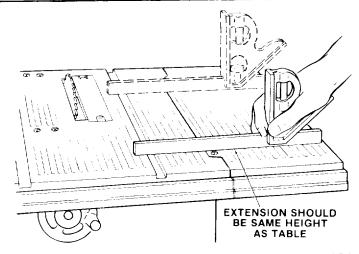


#### **ALIGNING TABLE EXTENSIONS**

**NOTE:** The table extensions must be the same height as the table and level.

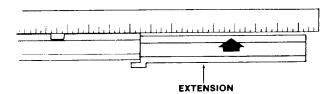
**NOTE:** When aligning the table extensions, the  $1/4-20 \times 5/8$  inch flat head hex socket screws may "bottomout". If this occurs simply loosen the screws and restart the process for proper alignment.

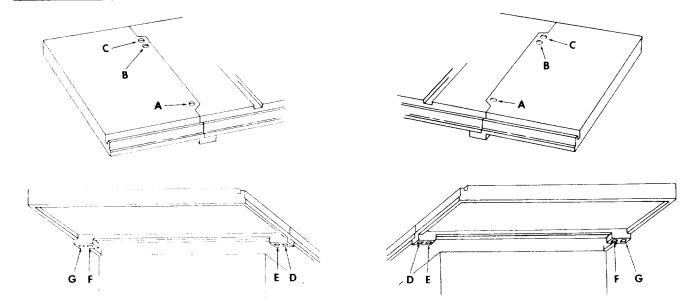
Place combination square on table and extension.



#### TO RAISE EXTENSION

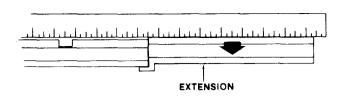
- 1. If extension is low loosen three screws on top of the table extension A, B, and C. See illustration.
- 2. Tighten screws D, E, F, and G underneath table extension to raise extension even with table top front and rear.
- 3. Check height with square and tighten A, B and C.
- 4. Repeat for left extension.





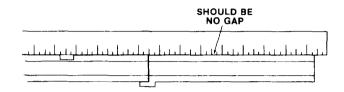
#### TO LOWER EXTENSION

- If extension is too high loosen four screws on underside of the extension D, E, F, and G. See illustration.
- Tighten screws A, B and C on top of table extension to lower extension even with table top front and rear.
- Check height with square and tighten screws D, E, F and G.
- 4. Repeat for left extension.



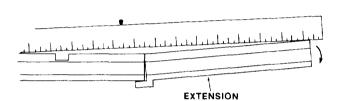
#### LEVELING EXTENSIONS

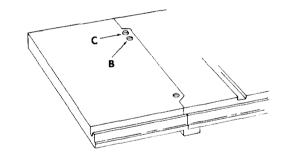
Place combination square on table and extension so that end of blade extends over edge of extension. Hold square firmly on saw table and check for gap between extension and blade of square.

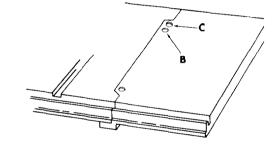


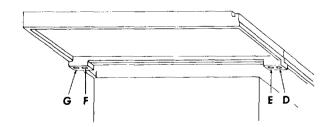
#### TO LOWER OUTER EDGE OF EXTENSION

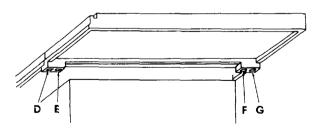
- 1. Loosen screws B, E, and F on right extension. See illustration.
- Tighten screws C, D, and G until table extension is level.
- 3. Snug down screws B, E, and F.
- 4. Repeat for left extension.





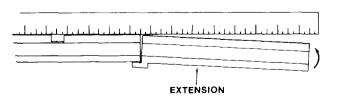






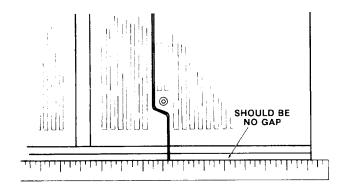
#### TO RAISE OUTER EDGE OF EXTENSION

- 1. Loosen screws C, D, and G on right extension.
- 2. Tighten screws B, E, and F until table extension is level.
- 3. Snug down screws C, D, and G.
- 4. Repeat for left table extension.



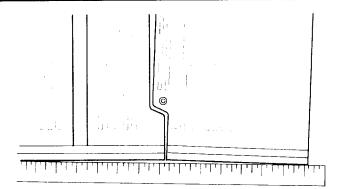
## ALIGNING TABLE EXTENSIONS WITH FRONT OF TABLE

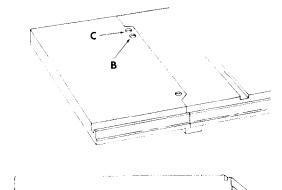
- 1. Place blade of combination square on front of table and table extension.
- 2. Extension should line up with table.



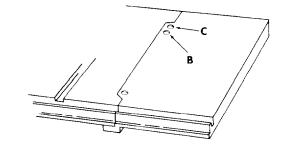
## TO MOVE OUTER EDGE OF EXTENSION BACK

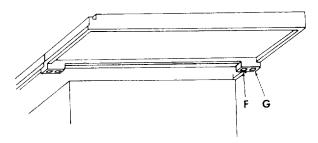
- 1. Loosen screws C and F in right extension. See illustration.
- 2. Tighten screws B and G until extension is lined up.
- 3. Snug down screws C and F.
- 4. Recheck level and flatness to table.
- 5. Check left extension.
- 6. Adjust left extension in same manner.





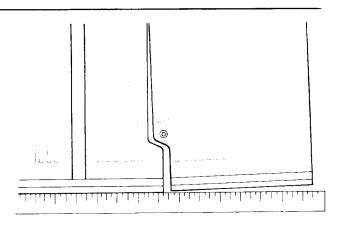






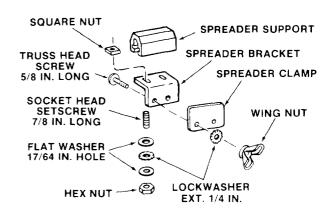
## TO MOVE OUTER EDGE OF EXTENSION FORWARD

- 1. Loosen screws B and G in right extension.
- 2. Tighten screws C and F until extension is lined
- 3. Snug down screws B and G.
- Recheck level and flatness to table. Check left extension.
- 4. Recheck level and flatness to table.
- 5. Check left extension.
- 6. Adjust left extension in same manner.

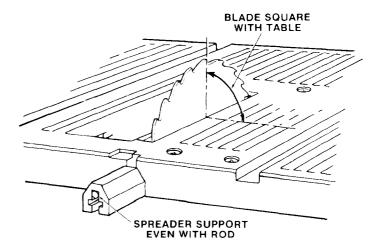


#### **INSTALLING BLADE GUARD**

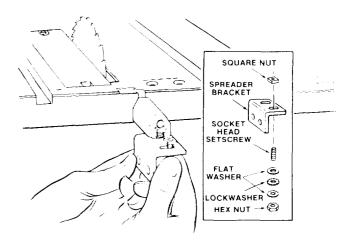
1. From among the loose parts, find the hardware as shown.



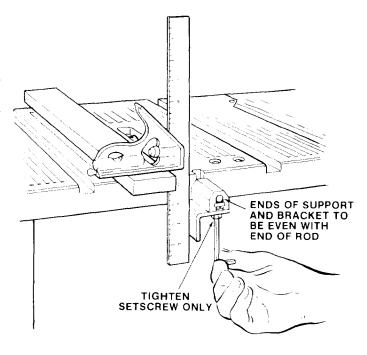
- MAKE SURE THE BLADE IS ALL THE WAY UP AND SQUARE WITH THE TABLE.
- 3. Position SPREADER SUPPORT on rod until it is even with the end of the rod.



- 4. Assemble the 7/8 in. long setscrews, nuts, lockwashers and washers to the SPREADER SUPPORT BRACKET and slip the nuts into the slot in the spreader support.
- 5. Finger tighten ONLY THE HEX NUTS.



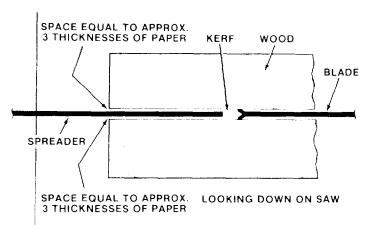
- 6. Lay a piece of flat straight wood and a square on saw table and rotate the SPREADER SUPPORT until the bracket is aligned with square.
- 7. MAKE SURE END OF SUPPORT, BRACKET AND ROD ARE EVEN . . . using an 1/8 in. Hex L wrench, TIGHTEN THE SET SCREWS ONLY.



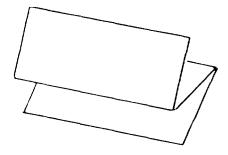
#### **ALIGNING SPREADER**

IMPORTANT: The SPREADER must always be PARALLEL to the sawblade and in the MIDDLE of the cut (KERF) made by the sawblade.

**NOTE:** The spreader is thinner than the width of the KERF by approximately six thicknesses of paper.

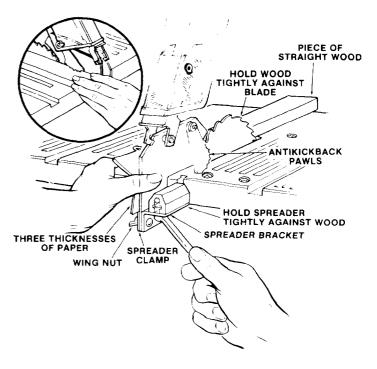


1. Make two folds in a small piece (6 x 6 in.) of ordinary NEWSPAPER making three thicknesses. The folded paper will be used as a "spacing gauge".



- Install the SPREADER CLAMP. Place spreader between spreader clamp and bracket. Move forward until all three are in line. TIGHTEN WING NUTS.
- Lay a piece of straight flat wood against the sawblade. Insert folded paper between spreader and strip of wood.
- 4. MAKE SURE THE HEX NUTS UNDERNEATH ARE LOOSE.
- 5. Lift the antikickback pawl to clear the wood and hold the spreader tightly against the wood. Make sure the wood is against the saw blade. TIGHTEN THE HEX NUTS.

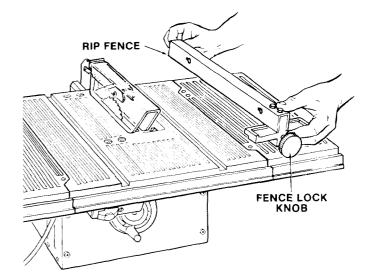
This will align the spreader in the middle of the cut (KERF) made by sawblade.



#### ATTACHING RIP FENCE

Apply a coat of paste wax to the top surface and front ledge of the saw table. This will allow the fence to slide more easily.

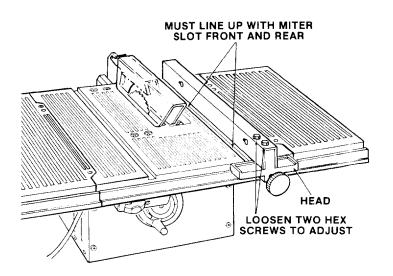
- Loosen fence lock knob by turning counterclockwise.
- 2. Attach fence head by placing head of fence over front ledge in saw table.



#### **ALIGNING RIP FENCE**

IMPORTANT: The rip fence MUST be parallel with saw blade and miter grooves in order to help prevent KICKBACK of the workpiece when ripping. Careful adjustment is required.

- Hold head of rip fence and slide on table until the edge of the fence lines up with the right miter slot.
- 2. Turn fence lock knob clockwise to lock fence.
- If, fence does not line up with miter slot front and rear:
  - A. Loosen the two hex screws in top of fence.
  - B. While holding head of rip fence, move rear of rip fence right or left until edge lines up with miter slot.
  - C. Tighten hex screws alternately being careful not to move fence.



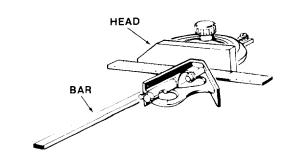
#### **ADJUSTING MITER GAUGE**

**NOTE:** The graduations are manufactured to very close tolerances which provide suitable accuracy for average woodworking. In some cases where extreme accuracy is required, when making angle cuts, for example, make a trial cut and then recheck it.

If necessary, the miter gauge head can then be swiveled slightly to compensate and then locked. The HEAD should be SQUARE (90°) with the bar when the pointer points to "0".

To check for squareness, place an accurate square on the miter gauge. If the head is NOT SQUARE with the bar

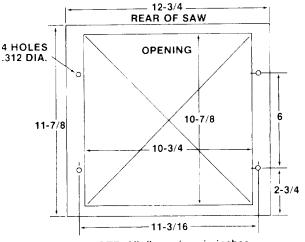
- 1. Loosen the lock handle.
- 2. Position the head square with the bar . . . tighten the handle.
- 3. Loosen the screw and adjust the pointer, so it points to zero.



#### MOUNTING SAW TO LEGS OR BENCH

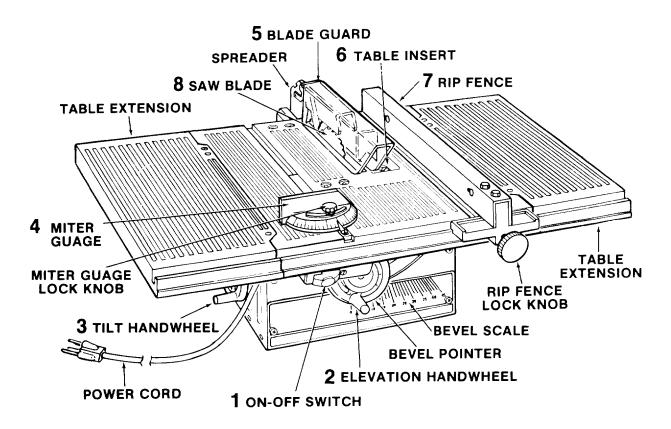
If you purchase Craftsman Steel Legs for your saw, assemble them according to the directions furnished with them.

If you mount the saw on any other bench, make sure that there is an opening in the top of the bench the same size as the opening in the bottom of the saw so that the sawdust can drop through. Recommended working height is 33 to 37 in. from the top of the saw table to the floor.



NOTE: All dimensions in inches.

### **GETTING TO KNOW YOUR SAW**



#### 1. ON-OFF SWITCH

CAUTION: Before turning switch on, make sure the blade guard is correctly installed and operating properly.

The On-Off Switch has a locking feature. THIS FEATURE IS INTENDED TO HELP PREVENT UNAUTHORIZED AND POSSIBLE HAZARDOUS USE BY CHILDREN AND OTHERS.

A. Insert Key into switch.

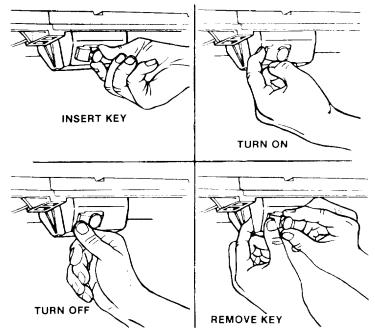
B. TO turn saw ON . . . stand to either side of the blade never in line with it . . . insert finger under switch lever and pull END of lever out.

After turning switch ON, always allow the blade to come up to full speed before cutting.

Do not cycle the motor switch on and off rapidly, as this may cause the sawblade to loosen. In the event this should ever occur, allow the sawblade to come to a complete stop and retighten the arbor nut normally, not excessively. Never leave the saw while the power is "ON".

- C. TO turn saw OFF . . . PUSH lever in. Never leave the saw until the cutting tool has come to a complete stop.
- D. To lock switch in OFF position . . . hold switch IN with one hand . . . REMOVE key with other hand.

WARNING: FOR YOUR OWN SAFETY, LOWER BLADE OR OTHER CUTTING TOOL BELOW TABLE SURFACE. (IF BLADE IS TILTED, RETURN IT TO VERTICAL (90°) POSITION). ALWAYS LOCK THE SWITCH



"OFF". WHEN SAW IS NOT IN USE . . . REMOVE KEY AND KEEP IT IN A SAFE PLACE . . . ALSO . . . IN THE EVENT OF A POWER FAILURE (ALL OF YOUR LIGHTS GO OUT) TURN SWITCH OFF . . . LOCK IT AND REMOVE THE KEY. THIS WILL PREVENT THE SAW FROM STARTING UP AGAIN WHEN THE POWER COMES BACK ON.

- 2. ELEVATION HANDWHEEL . . . elevates or lowers the blade. Turn counterclockwise to elevate . . . clockwise to lower.
- 3. TILT HANDWHEEL . . . tilts the blade for bevel cutting. Turn counterclockwise to tilt toward left . . . clockwise to tilt toward right.

When the blade is tilted to the LEFT as far as it will go, it should be at 45° to the table and the bevel pointer should point 45°.

**NOTE:** There are LIMIT STOPS inside the saw which prevent the blade from tilting beyond 45° to the LEFT and 90° to the RIGHT. (See "Adjustments" section "Blade Tilt, or Squareness of Blade to Table").

- 4. MITER GAUGE . . . head is locked in position for crosscutting or mitering by tightening the lock knob. ALWAYS LOCK IT SECURELY WHEN IN USE
- 5. BLADEGUARD must always be in place and working properly for all thru-sawing cuts. That is, all cuts whereby the blade cuts completely through the workpiece.

To remove the guard for special operation, loosen both wing nuts, slide spreader back and up. DO NOT DISTURB THE SETTING OF THE SPREADER SUPPORT BRACKET.

When replacing the guard, insert spreader between bracket and clamp and slide forward. TIGHTEN BOTH WINGNUTS SECURELY.

**6. TABLE INSERT** is removable for removing or installing blades or other cutting tools . . .

WARNING: FOR YOUR OWN SAFETY, TURN SWITCH "OFF" AND REMOVE PLUG FROM POWER SOURCE OUTLET BEFORE REMOVING INSERT.

- A. Lower the blade below the table surface.
- B. Raise blade guard
- C. Loosen Screw. (Do Not Remove)

D. Lift insert from front end, and pull toward front of saw.

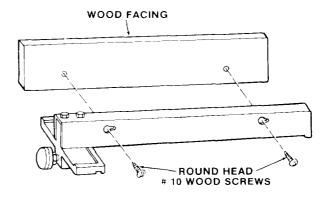
NEVER OPERATE THE SAW WITHOUT THE PROPER INSERT IN PLACE. USE THE SAW BLADE INSERT WHEN SAWING . . . USE THE MOLDING INSERT WHEN MOLDING.

7. RIP FENCE ... is locked in place by tightening the lock knob. To move the fence, loosen the knob and grasp the fence with one hand at the front.

Holes are provided in the rip fence for attaching a wood facing when using the dado head, or molding head.

Select a piece of smooth straight wood approx. 3/4" thick, at least as long as the rip fence, and at least 7-1/2" wide (high) to permit clamping of featherboards.

Attach it to the fence with two Round Head #10 Wood Screws 2 in. long. To remove the facing, loosen the screws, slide the facing forward and pull the screws through the round holes.



CAUTION: When positioning fence for maximum rip, make sure end of fence HEAD is even with edge of table extension. Fence cannot be locked securely beyond the edge of the table extension.

### REMOVING AND INSTALLING SAWBLADE

WARNING: TO AVOID INJURY FROM ACCIDENTAL START, TURN SWITCH "OFF" AND REMOVE PLUG FROM POWER SOURCE OUTLET BEFORE REMOVING OR INSTALLING SAWBLADE.

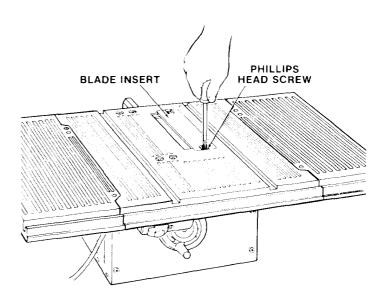
**NOTE:** When installing the blade . . . make sure the upper saw teeth are pointing toward the front of the saw . . . and that the blade and collars are clean, and free from any burrs.

The HOLLOW side of the collars must be against the blade

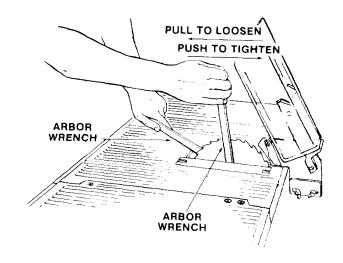
**NOTE:** Always place the LARGE collar on the shaft before the blade.

**NOTE:** Do not overtighten arbor nut. Use the arbor wrench to just "snug" it.

- Loosen Phillips head screw in blade insert... Do not remove.
- 2. Remove blade insert by lifting slightly and pulling insert to disengage from key hole slot.



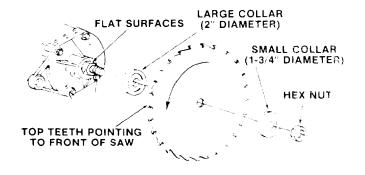
- 3. Turn elevation handwheel clockwise to raise motor shaft as high as it will go.
- 4. Insert shaft wrench over flat portions of motor spacer and arbor wrench over arbor nut.
- 5. Hold shaft wrench and loosen arbor nut with arbor wrench.



#### TO INSTALL SAWBLADE

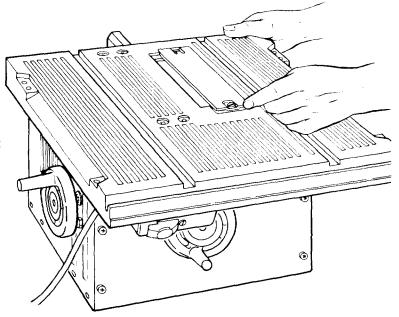
- Install large inner blade collar onto motor shaft with rounded surface toward motor.
- Install saw blade onto shaft with top teeth pointing toward front of saw.
- Install small outer blade collar with flat surface toward blade.
- 4. Install arbor nut. Note: Arbor nut should just be snug. Do not overtighten.

IMPORTANT: Do not attempt to run saw without both blade collars properly installed.



 Install blade insert by placing keyhole slot in insert over screw head in saw table and pushing insert to rear of saw table engaging tab in insert onto saw table ledge.

Tighten screw.



### BASIC SAW OPERATION **USING THE MITER GAUGE**

CROSSCUTTING. MITER CUTTING, CUTTING, COMPOUND MITER CUTTING and when RABBETING across the end of a narrow workpiece, the MITER GAUGE is used.

WARNING: FOR YOUR OWN SAFETY, ALWAYS OBSERVE THE FOLLOWING SAFETY PRECAUTIONS IN ADDITION TO THE SAFETY INSTRUCTIONS ON PAGES 2, 3, and 4.

- Never make these cuts freehand (without using the miter gauge or other auxiliary devices) because the blade could bind in the cut and cause a KICKBACK or cause your fingers or hand to slip into the blade.
- 2. Always lock the miter gauge securely when in use.
- 3. Remove rip fence from table.
- 4. Make sure blade guard is installed for all "thrusawing" operations (when sawblade cuts entirely thru the thickness of the workpiece.) Replace guard IMMEDIATELY after completion of dadoing, molding or rabbeting cuts.
- 5. Have blade extend approximately 1/8 in. above top of workpiece. Additional blade exposure would increase the hazard potential.
- 6. Do not stand directly in front of the blade in case of a THROWBACK (Small cut-off piece caught

- by the back of the blade and thrown toward the operator). Stand to either side of the blade.
- 7. Keep your hands clear of the blade and out of the path of the blade.
- 8. If blade stalls or stops while cutting, TURN SWITCH OFF before attempting to free the blade.
- 9. Do not reach over or behind the blade to pull the workpiece through the cut . . . to support long or heavy workpieces ... to remove cut-off pieces of material or FOR ANY OTHER REASON.
- 10. Do not pick up small pieces of cut-off material from the table. REMOVE them by pushing them OFF the table with a long stick. Otherwise they could be thrown back at you by the rear of the blade.
- 11. Do not remove small pieces of cut-off material that may become TRAPPED inside the blade guard while the saw in RUNNING. THIS COULD **ĚNDANGER YOUR HANDS or cause a** KICKBACK.

Turn the saw OFF. After the blade has stopped turning, lift the guard and remove the piece.

12. If workpiece is warped, place the CONCAVE side DOWN. This will prevent it from rocking while it is being cut.

#### **WORK HELPERS**

Before cutting any wood on your saw, study all of the "Basic Saw Operations".

Notice that in order to make some of the cuts, it is necessary to use certain devices "Work Helpers" like the Push Stick, the Push Block and the Auxiliary Fence, which you can make yourself.

After you have made a few practice cuts, make up these "helpers" before starting any projects. Make the "Push Stick" first. To rip the piece for the push stick, start out with a wide board, say 11-1/2 in. wide and set the rip fence 9-3/4 in. from the blade.

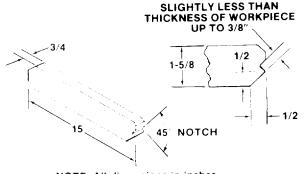
#### **PUSH STICK AND PUSH BLOCK**

Make the Push Stick using a piece of 1 x 2.

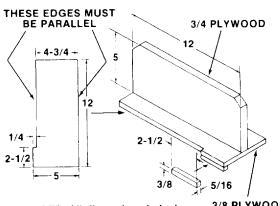
Make the Push Block using a piece of 3/8 in. and 3/4 in. plywood.

The small piece of wood 3/8 in. x 3/8 in. x 2-1/2 in. should be GLUED to the plywood ... DO NOT USE NAILS. This is to prevent dulling the sawblade in the event you mistakingly cut into the push block.

Position the handle in the center of the plywood and fasten together with glue and woodscrews.



NOTE: All dimensions in inches PUSH STICK



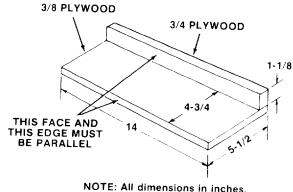
NOTE: All dimensions in inches

3/8 PLYWOOD

#### **AUXILIARY FENCE**

Make one using a piece of 3/8 in. and 3/4 in. plywood. Fasten together with glue and woodscrews.

NOTE: Since the Push Block is used with the Auxiliary Fence, the 4-3/4 in. dimensions must be held identical on both the pieces.



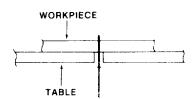
**AUXILIARY FENCE** 

#### CROSSCUTTING

CROSSCUTTING is cutting wood across the grain, at 90°, or square with both the edge and the flat side of the wood. This is done with the miter gauge and blade angle set at "0". The graduations on the miter gauge provide accuracy for average woodworking. In some cases where extreme accuracy is required, when making angle cuts, for example, make a trial cut and then recheck it with an accurate square, or protractor.

If necessary, the miter gauge head can be swiveled slightly to compensate for any inaccuracy.

NOTE: The space between the miter gauge bar and the groove in the table is held to a minimum during manufacturing.



For maximum accuracy when using the miter gauge, always "favor" one side of the groove in the table. In other words, don't move the miter gauge from side to side while cutting, but keep one side of the bar riding against one side of the groove.

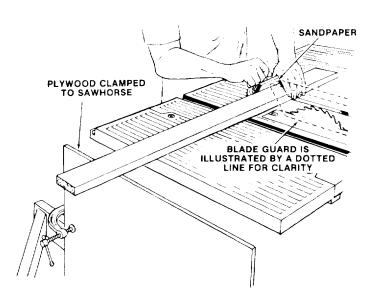
NOTE: Glue a piece of sandpaper to the face of the miter gauge head. This will help prevent the workpiece from "creeping" while it is being cut.

The miter gauge may be used in either of the grooves in the table. Make sure locking knob is tight.

When using the miter gauge in the LEFT hand groove, hold the workpiece firmly against the miter gauge head with your left hand, and grip the lock knob with your right.

When using the RIGHT hand groove, hold the workpiece with your right hand and the lock knob with your left hand.

When cutting long workpieces, make sure the end is supported from the floor.



#### REPETITIVE CUTTING

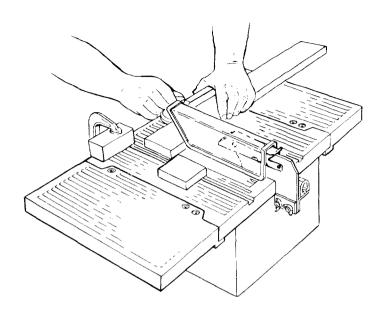
REPETITIVE CUTTING is cutting a quantity of pieces the same length without having to mark each piece.

**NOTE:** When making repetitive cuts from a long workpiece make sure it is supported.

- 1. NEVER USE THE RIP FENCE AS A LENGTH STOP BECAUSE THE CUTOFF PIECE COULD BIND BETWEEN THE FENCE AND THE BLADE CAUSING A KICKBACK.
- 2. When making repetitive cuts shorter than 6 in., clamp a block of wood 3 in. long to the table to act as a length stop.

CAUTION: When clamping the block, make sure that the end of the block is well in front of the sawblade. Be sure it is clamped securely.

- 3. Slide the workpiece along the miter gauge until it touches the block . . . hold it securely.
- 4. Make the cut ... pull the workpiece back ... push the cut off piece off the table with a long push stick ... DO NOT ATTEMPT TO PICK IT UP AS THIS COULD ENDANGER YOUR HANDS.



#### MITER CUTTING

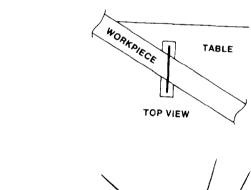
MITER CUTTING is cutting wood at an angle other than 90° with the edge of the wood. Follow the same procedure as you would for crosscutting.

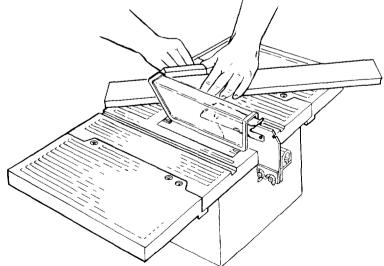
Adjust the miter gauge to the desired angle, and lock it.

The miter gauge may be used in either of the grooves in the table.

When using the miter gauge in the LEFT hand groove, hold the workpiece firmly against the miter gauge head with your left hand, and grip the lock knob with your right.

When using the RIGHT hand groove, hold the workpiece with your right hand and the lock knob with your left hand.





#### **BEVEL CROSSCUTTING**

BEVEL CROSSCUTTING is the same as crosscutting except that the wood is cut at an angle . . . other than 90° with the flat side of the wood.

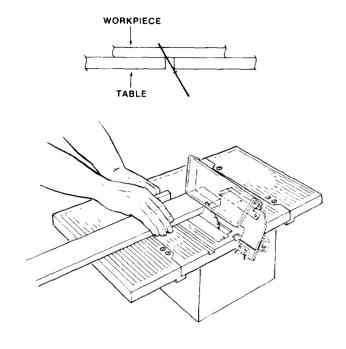
Adjust the blade to the desired angle.

Use the Miter Gauge in the groove to the RIGHT of the blade. It cannot be used in the groove to the LEFT because the blade guard will interfere. Hold the workpiece with your right hand and the lock knob with your left hand.

#### COMPOUND MITER CUTTING

COMPOUND MITER CUTTING is a combination of miter cutting and bevel crosscutting. The cut is made at an angle other than 90° to both the edge and the flat side of the wood.

Adjust the miter gauge and the blade to the desired angle . . . Make sure miter gauge is locked.



#### **USING THE RIP FENCE**

RIPPING, BEVEL RIPPING, RESAWING AND RABBETING are performed using the RIP FENCE together with the AUXILIARY FENCE/WORK SUPPORT, PUSH STICK OR PUSH BLOCK.

WARNING: FOR YOUR OWN SAFETY, ALWAYS OBSERVE THE FOLLOWING SAFETY PRECAUTIONS IN ADDITION TO THE SAFETY INSTRUCTIONS ON PAGES 2, 3 and 4.

- Never make these cuts FREEHAND (without using the rip fence or auxiliary devices when required) because the blade could bind in the cut and cause a KICKBACK.
- 2. Always lock the rip fence securely when in use.
- 3. Remove miter gauge from table.
- Make sure blade guard is installed for all thrusawing type cuts. Replace the guard IMMEDIATELY following completion of resawing, rabbeting, dadoing, or molding operations.

Frequently check the action of the ANTIKICKBACK PAWLS by passing the workpiece alongside of the spreader while saw is OFF.

Pull the workpiece TOWARD you. If the PAWLS do not DIG into the workpiece and HOLD it . . . the pawls must be REPLACED OR SHARPENED. See "Maintenance" section.

- Have blade extend approximately 1/8 in. above top of workpiece. Additional blade exposure would increase the hazard potential.
- Do not stand directly in front of the blade in case of a KICKBACK. Stand to either side of the blade.
- Keep your hands clear of the blade and out of the path of the blade.
- If the blade stalls or stops while cutting, TURN SWITCH OFF before attempting to free the blade.
- Do not reach over or behind the blade to pull the workpiece through the cut... to support long or heavy workpieces... to remove small cut-off pieces of material or FOR ANY OTHER REASONS.
- 10. Do not pick up small pieces of cut-off material from the table. REMOVE them by pushing them OFF the table with a long stick. Otherwise they could be thrown back at you by the rear of the blade.
- 11. Do not remove small pieces of cut-off material that may become TRAPPED inside the blade guard while the saw is RUNNING. THIS COULD ENDANGER YOUR HANDS or cause a KICKBACK.

Turn the saw OFF. After the blade has stopped turning, lift the guard and remove the piece.

12. If workpiece is warped, place the CONCAVE side DOWN. This will help prevent it from rocking while it is being ripped.

#### **RIPPING**

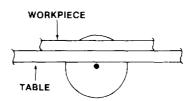
RIPPING is cutting a piece of wood with the grain, or lengthwise. This is done using the rip fence. Position the fence to the desired WIDTH OF RIP and lock in place.

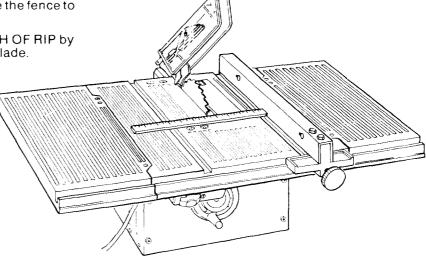
Before starting to rip, be sure

- A. Rip Fence is parallel to sawblade.
- B. Spreader is properly aligned with sawblade.
- C. Anti-Kickback pawls are functioning properly.

D. Rip fence knob is tightened to secure the fence to the table.

Position the fence to the desired WIDTH OF RIP by measuring the distance from the sawblade.



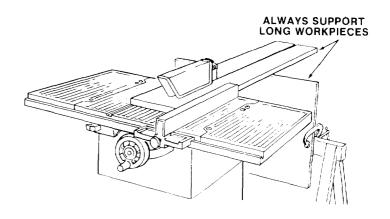


When ripping LONG BOARDS or LARGE PANELS, always use a work support.

A simple one can be made by clamping a piece of plywood to a sawhorse.

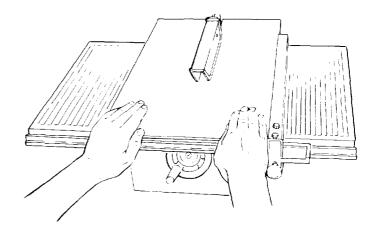
#### **BEVEL RIPPING**

When bevel ripping material 6 in. or narrower, use fence on the right side of the blade ONLY. This will provide more space between the fence and the sawblade for use of a push stick. If the fence is mounted to the left, the sawblade guard may interfere with proper use of a push stick.

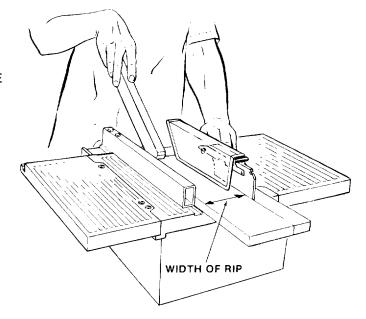


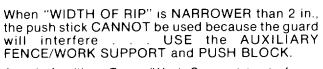
When "WIDTH OF RIP" is 6 in. and WIDER use your RIGHT hand to feed the workpiece until it is clear of the table.

Use LEFT hand ONLY to guide the workpiece ...do not PUSH the workpiece with the left hand.

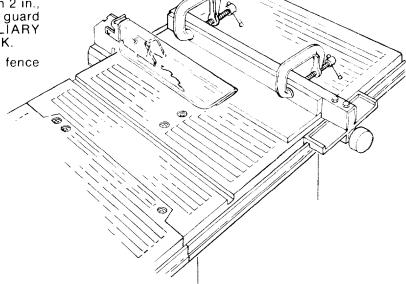


When "WIDTH OF RIP" is 2 in. to 6 in. wide USE THE PUSH STICK to feed the work.



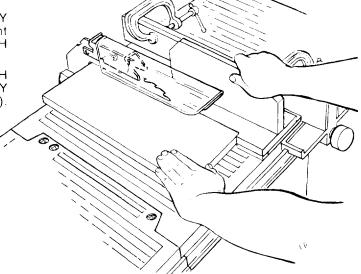


Attach Auxiliary Fence/Work Support to rip fence with two "C" clamps.

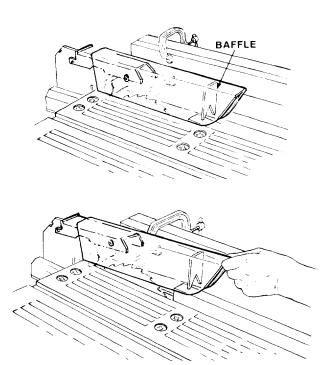


Feed the workpiece by hand along the AUXILIARY FENCE until the end is approx. 1 in. past the front edge of the table. Continue to feed using the PUSH BLOCK until the cut is complete.

Hold the workpiece in position and install the PUSH BLOCK by sliding it on top of the AUXILIARY FENCE/WORK SUPPORT (This May Raise Guard).



Narrow strips thicker than the Auxiliary Fence/Work Support may enter the guard and strike the baffle. CAREFULLY raise guard only enough to clear the workpiece. Use PUSH BLOCK to complete cut.



#### RESAWING

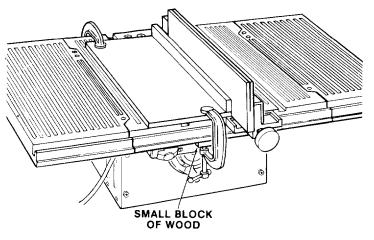
RESAWING is a "thru-sawing" cut made by ripping a piece of wood through its thickness. Do not attempt to resaw BOWED or WARPED material. NOTE: To RESAW a piece of wood it will be necessary to remove the blade guard ... and use the AUXILIARY FENCE/WORK SUPPORT. (See "Work Helpers").

Clamp it to the table so that the workpiece will SLIDE EASILY but not TILT or MOVE SIDEWAYS without BINDING between the two fences.

Do not clamp directly to the bottom edge of the table because the "swivel" of the clamp will not grip properly. Place a small block of wood between the bottom edge of the table and the "C" clamp.

#### WARNING: FOR YOUR OWN SAFETY . . .

- 1. DO NOT "BACK UP" (REVERSE FEEDING) WHILE RESAWING BECAUSE THIS COULD CAUSE A KICKBACK.
- 2. MAKE FIRST PASS TO A DEPTH SLIGHTLY LESS THAN ONE-HALF THE WIDTH OF THE BOARD; KEEP SAME FACE OF BOARD AGAINST FENCE FOR SECOND PASS AS THE FIRST PASS.
- 3. INSTALL BLADE GUARD IMMEDIATELY UPON COMPLETION OF THE RESAWING OPERATION.

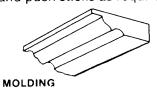


#### PLOUGHING AND MOLDING

**PLOUGHING** is grooving with the grain the long way of the workpiece, using the fence. USE featherboards and push sticks as required.

PLOUGHING

**MOLDING** is shaping the workpiece with the grain the long way of the workpiece, using the fence. Use featherboards and push sticks as required.

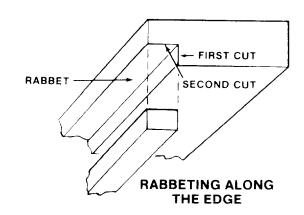


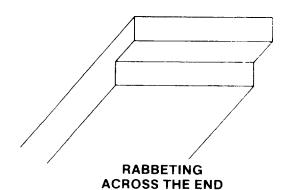
#### RABBETING

**RABBETING** is known as cutting out a section of the corner of a piece of material, across an end or along an edge.

To make a RABBET requires cuts which do not go all the way through the material. Therefore the blade guard must be removed.

- 1. Remove blade guard.
- 2. For rabbeting along an edge (long way of workpiece) as shown, add facing to rip fence approximately as high as the workpiece is wide. Adjust rip fence and blade to required dimensions; then make first cut with board flat on table as any rip (type) cut; make second cut with workpiece on edge. Follow all precautions, safety instructions, and operational instructions as for ripping, or rip type operations, including feather boards and push stick, etc.
- 3. For rabbeting across an end, for workpiece 10-1/2" and narrower make the rabbet cut with the board flat on the table. Using the miter gauge fitted with a facing, follow the same procedures and instructions for cross cutting making successive cuts across the width of the workpiece to obtain the desired width of cut. DO NOT use the rip fence for rabbeting across the end.
- 4. INSTALL BLADE GUARD IMMEDIATELY UPON COMPLETION OF RABBETING OPERATION.





Rabbet cuts can also be made in one pass of the workpiece over the cutter using the dado head or molding head.

#### **USING FEATHERBOARDS**

Featherboards are not employed during non thrusawing operations when using the miter gauge.

Use featherboards for all other non "thru-sawing" operations (when sawblade guard must be removed). Featherboards are used to keep the work in contact with the fence and table as shown, and to stop kickbacks.

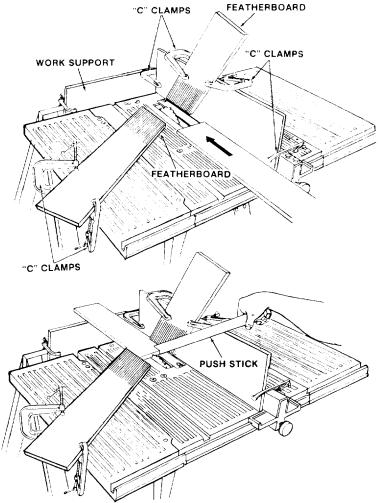
Add 8 inch high flat facing board to the fence, the full length of the fence.

Mount featherboards to fence and table as shown, so that leading edges of featherboards will support workpiece until cut is complete, and the workpiece has been pushed completely past the cutter (sawblade, dado head, molding head, etc.) with a pushstick, as in ripping.

Before starting the operation (switch "OFF" and cutter below table surface):

- (a) Install featherboards so they exert pressure on the workpiece; be positive they are secure, and
- (b) Make sure by trial that the featherboards will stop a kickback if one should occur.

Replace the sawblade guard as soon as the non thru-sawing operation is complete.



### **MAINTENANCE**

WARNING: TO AVOID INJURY FROM ACCIDENTAL START, TURN SWITCH "OFF" AND REMOVE PLUG FROM POWER SOURCE OUTLET BEFORE MAINTAINING OR LUBRICATING YOUR SAW.

Do not allow sawdust to accumulate inside the saw. Frequently blow out any dust that may accumulate inside the saw cabinet and the motor.

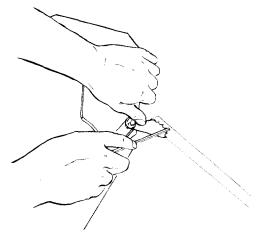
Frequently clean your cutting tools with Craftsman Gum and Pitch Remover.

A coat of automobile-type wax applied to the table will help to keep the surface clean and allow workpieces to slide more freely. Treat unplated and unpainted steel parts and surfaces with Sears "Stop Rust."

If the power cord is worn or cut, or damaged in any way, have it replaced immediately.

Make sure the teeth of the ANTIKICKBACK pawls are always sharp. To sharpen:

- 1. Identify the dull tooth or teeth. Remove blade guard. Assembly from saw.
- 2. Remove 10-32  $\times$  1¼ pan head screw from guard link to seperate guard link and guard from blade spreader.



- 3. Rotate pawl toward rear of spreader so that teeth are above top of spreader.
- 4. Hold spreader with left hand and place pawl over corner or workbench.
- 5. Sharpen the dull tooth using a few light strokes of a fine-cut file.
- Reassemble guard when finished sharpening pawls.

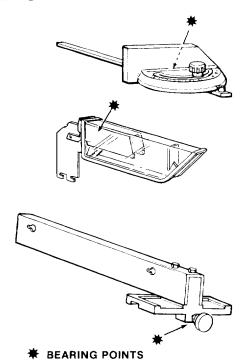
### LUBRICATION

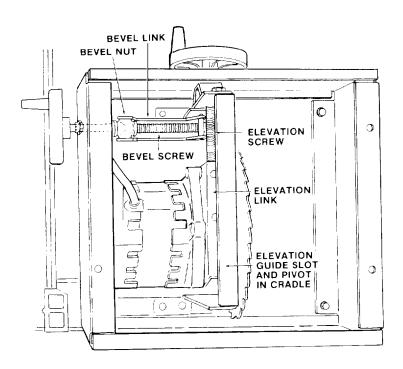
The saw motor bearings have been packed at the factory with proper lubricant and require no additional lubrication.

The following parts should be oiled occasionally with SAE No. 20 or No. 30 engine oil.

- 1. Elevation guide slot and pivot.
- 2. Elevation screw threads.
- 3. Bevel screw threads (First clean with Craftsman Gum & Pitch Remover.)
- 4. Bevel and elevation link pivot points.
- 5. Cradle pivot pin bearing points.
- 6. Bearing points in miter gauge and rip fence.

The saw table and other major parts are made of aluminum and require no special care. A coat of automobile-type wax applied to the table will help to keep the surface clean and allow workpieces to slide more freely. Treat unplated and unpainted steel parts and surfaces with Sears "Stop Rust."





### **Sears Recommends the Following Accessories**

ITEM	CAT. NO.
Saw Blades	See Catalog
Molding Head Set	See Catalog
Dado Insert	9-22281
Molding Insert	9-22282
Taper Jig	See Catalog
Dado Set	See Catalog
Steel Legs	9-22244

Sears may recommend other accessories not listed in the manual.

See your nearest Sears store for other accessories.

Do not use any accessory unless you have received and read complete instructions for use.

WARNING: Use only accessories recommended for this saw. Using other accessories may be dangerous.

### TROUBLE SHOOTING

WARNING: TO AVOID INJURY FROM ACCIDENTAL START, TURN SWITCH "OFF" AND ALWAYS REMOVE PLUG FROM POWER SOURCE OUTLET BEFORE TROUBLE SHOOTING.

#### TROUBLE SHOOTING -- GENERAL

TROUBLE	PROBABLE CAUSE	REMEDY
Excessive vibration.	1. Blade out of balance.	Discard Blade and use a different blade.
Cannot make square cut when crosscutting.	Miter gauge not adjusted properly.	1. See section "Miter Gauge."
Cuts binds, burns or stalls motor when ripping.	<ol> <li>Dull blade with improper tooth set.</li> <li>Warped board.</li> <li>Rip fence not parallel to blade.</li> <li>Spreader out of alignment.</li> </ol>	<ol> <li>Sharpen or replace blade.</li> <li>Make sure concave or hollow side is facing "down" feed slowly.</li> <li>See "Assembly" section, "Aligning Rip Fence".</li> <li>See "Assembly" section, "Installing Blade Guard."</li> </ol>
Cut not true at 90° or 45° positions.	Stop nuts not properly adjusted.	See "Assembly" section, "Blade Tilt, or "Squareness of Blade to Table."
Tilt crank and elevating crank turn hard.	Sawdust on threads of tilt screw or elevating screw.	See "Maintenance and Lubrication" section.
Excessive blade wobble. (Causes oversize kerf and unsmooth cut)	Blade has excessive wobble.     Blade collars not installed properly.	1. Replace blade.  2. Make sure the large collar (2" Dia.) is between motor and blade. (Installed before blade).

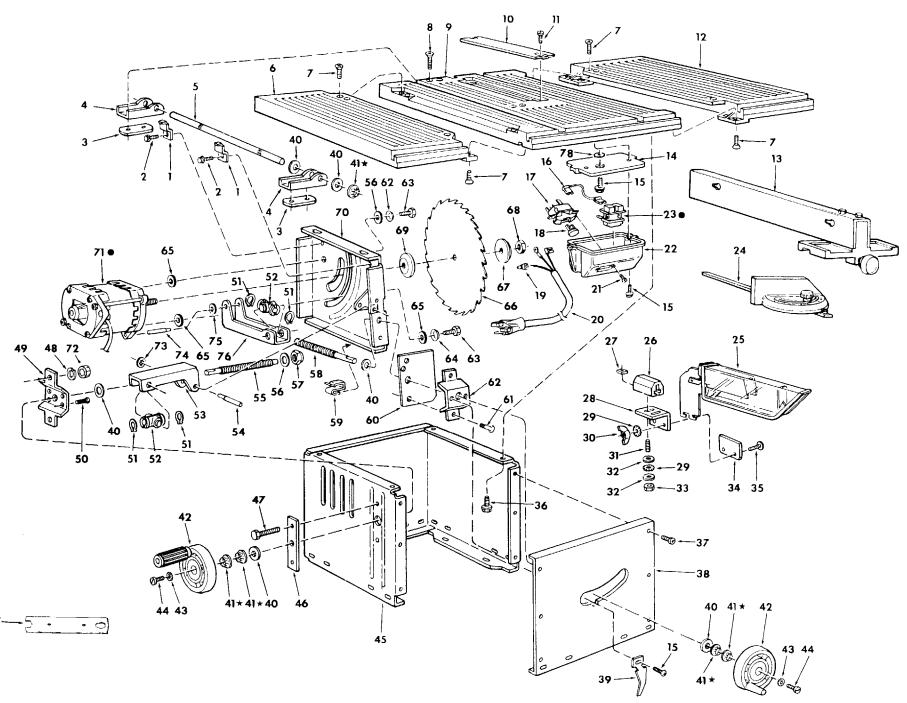
### TROUBLE SHOOTING — MOTOR

**NOTE:** Motors used on wood-working tools are particulary susceptible to the accumulation of sawdust and wood chips and should be blown out or "vaccummed" frequently to prevent interferences with normal motor ventilation.

**NOTE**: The starting relay is a GRAVITY SENSITIVE TYPE. NEVER TURN THE POWER ON WHILE THE SAW IS UPSIDE DOWN AS THIS WILL DAMAGE THE MOTOR.

TROUBLE	PROBABLE CAUSE	REMEDY
Excessive noise.	1. Motor	Have motor checked by qualified service technician. Repair service is available at your nearest Sears store.
Motor fails to develop full power. (Power output of motor decreases rapidly with decrease in voltage at motor terminals For example, a reduction of 10% in voltage causes	Circuit overloaded with lights, appliances and other motors.     Undersize wires or circuit too long.	<ol> <li>Do not use other appliances or motors on same circuit when using the saw.</li> <li>Increase wire sizes, or reduce length of wiring. See "Motor Specification and Electrical Requirements" section.</li> </ol>
a reduction of 19% in maximum power output of which the motor is capable, while a reduction of 20% in voltage causes reduction of 36% in maximum power output.)	3. General overloading of power company facilities. (In some sections of the country, demand for electrical power may exceed the capacity of existing generating and distribution systems.)  4. Incorrect fuses or circuit breakers in power line.	Request a voltage check from the power company.  4. Install correct fuses or circuit breakers.
Motor starts slowly or fails to come up to full speed.	Low voltage-will not trip relay.     Starting relay not operating.	Request a voltage check from the power company.     Have relay replaced.
Motor overheats.	Motor overloaded.     Improper cooling. (Air circulation restricted through motor due to sawdust, accumulating inside of saw.	Do not cut so fast-Feed work slower into blade.     Clean out sawdust to provide normal air circulation through motor.     See "Maintenance and Lubrication" section.
Starting relay in motor will not operate (Motor does not come up to full speed.)  1. Burned relay contacts (due to extended hold-in periods caused by low line voltage. etc.). 2. Saw not in upright position. 3. Loose or broken connections.		1. Have relay replaced and request a voltage check from the power company.  2. Place saw in upright position.  3. Have wiring checked and repaired.
Motor stalls (resulting in blown fuses or tripped circuit breakers).	1. Starting relay not operating. 2. Voltage too low to permit motor to reach operating speed. 3. Fuses or circuit breakers do not have sufficient capacity.	1. Have relay replaced. 2. Request a voltage check from the power company. 3. Install proper size fuses or circuit breakers.
Frequent opening of fuses or circuit breakers.  1. Motor overloaded. 2. Fuses or circuit breakers do not have sufficient capacity.		<ol> <li>Don't cut so fast-Feed work slower into blade.</li> <li>Install proper size fuses or circuit breakers.</li> <li>Have relay replaced.</li> </ol>

## PARTS LIST FOR CRAFTSMAN 8 INCH DIRECT DRIVE TABLE SAW MODEL NO. 113.221620



## PARTS LIST FOR CRAFTSMAN 8 INCH DIRECT DRIVE TABLE SAW MODEL NO. 113.221620

#### FIGURE 2

Key	Part	
No.	No.	Description
1 2	62905 STD601103	Bracket, Cradle *Screw, Hex Washer Hd. Type "T" 10-32 x 3/8
3 4 5 6 7	62436 62625 816075 62908 805297-9	Nut Hanger Rod, Cradle Extension, Table L.H. Screw, Socket Flat Hd. 1/4-20 x 5/8
8	805297-1	Screw, Flat Hd.
9 10 11 12 13 14 15	62931 62915 STD600805 62909 62937 62924 STD601105	5/16-18 x 1-1/4 Table Insert, Table *Screw, Pan Hd. 8-32 x 1/2 Extension, Table R.H. Fence Assy., Rip (See Fig. 3) Plate, Switch *Screw, Pan Hd. Cross Recess Type "T" 10-32 x 1/2
16 17 18 19 20 21	62936 62442 60256 803709 67085 STD510603	Lead Assembly Switch, Locking Key, Locking Connector, Wire Cord with Plug *Screw, Pan Rec.
22 23 24	62913 62925 62938	Type "T" 6-32 x 3/8 Housing, Switch  Relay Gauge Assembly, Miter
25 26 27 28 29 30 31	508179 62642 STD541025 62809 STD551225 STD541625 60074	(See Fig. 4) Guard Assembly (See Fig. 2) ) Support, Spreader *Nut, Square 1/4-20 Bracket, Spreader *Lockwasher, External 1/4-20 *Nut, Wing 1/4-20 Screw, Socket Set
32 33 34 35 36	STD551012 STD541025 62643 60314 9420417	1/4-20 x 7/8 *Washer, 17/64 x 9/16 x 3/64 *Nut, Hex 1/4-20 Clamp, Spreader Screw, Truss Hd. 1/4-20 x 5/8 Screw, Washer Type "T"
37	STD611005	1/4-20 x 5/8 *Screw, Pan Rec. Type "AB"
38 39 40	816072 816073 STD551037	No. 10 x 1/2 Panel, Front Indicator, Bevel *Washer, .380 x 47/64 x 1/16

<sup>\*</sup>Standard Hardware Item - May be purchased locally.

Key No.	Part No.	Description
41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 55 57 58 59 60 61 62 63 64 66 67 67 77 77 77 77 77 77 77 77 77 77	60240 62912 STD551208 STD551208 STD510803 62901 814638 STD522506 STD551125 816071 806752-7 60540 62919 62917 62923 816076 9414920 60388 814663 65093 62900 60548 62989 60541 60545 9-32666 60547 6362 62498 62992 62856 STD541025 60539 62922 STD551025 814770 3540 STD551210 507545 SP5311	★Nut, Push 3/8 Handwheel, 3-5/8 *Lockwasher, No. 8 *Screw, Pan 8-32 x 3/8 Base Plate, Thrust *Screw, Hex 1/4-20 x 5/8 *Lockwasher, 1/4 Bracket Lead Screw Screw, Pan Hd. Type "T" 10-32 x 1-1/8 Ring, Retaining 11/16 Nut, Elevation Link Pin, Guide Shaft, Tilt Washer, 17/64 x 5/8 x 1/16 Nut, Self-Threading Shaft, Elevation Clip, Wire Baffle Screw, Hex Washer Type "T" 1/4-20 x 3/8 Bracket, Lead Screw Screw, Hex Locking 1/4-20 x 3/4 Washer, Spring Washer, Nylon †Blade, 8" Collar, Outer Nut, Saw Arbor Collar, Inner Cradle ●Motor *Nut, Hex 1/4-20 Ring, Retaining 1/4 Pin, Guide *Washer, 17/64 x 1/2 x 1/32 Link Wrench *Lockwasher Ext. #10 Bag of Loose Parts (Not Illustrated) Bag of Loose Parts (Not Illustrated) Owners Manual (Not Illustrated)

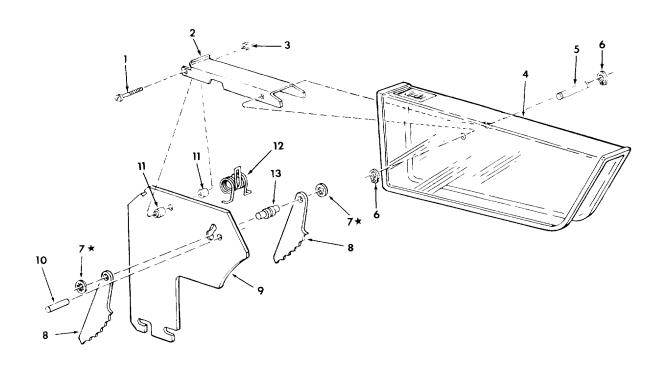
•Relay must accompany motor when motor is returned for service. Any attempt to repair this motor may create a hazard unless repair is done by a qualified service technician. Repair service is available at your nearest Sears Store.

<sup>†</sup>Stock Item - May be secured through the Hardware Department of most Sears Retail Stores and Catalog Order House.

<sup>★</sup>If this part is removed, discard and replace with a new Push Nut.

### **REPAIR PARTS**

## PARTS LIST FOR CRAFTSMAN 8 INCH DIRECT DRIVE TABLE SAW MODEL NO. 113.221620



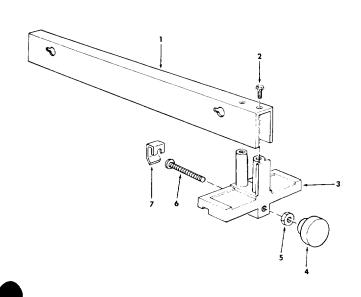
## GUARD ASSEMBLY 508179 ALWAYS ORDER BY PART NUMBER—NOT BY KEY NUMBER

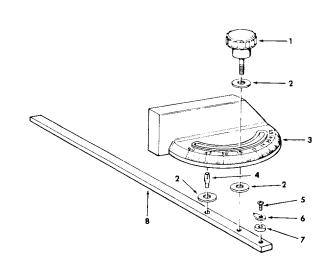
Key No.	Part No.	Description
1	436593	Screw, Pan Hd. 10-32 × 11/4
2	818822	Link, Guard
3	STD541411	Nut, Lock 10-32
4	818833	Guard
5	818820	Pin
6	STD582025	*Ring, Retaining 1/4
7	802955-7	★Ring, Retaining 1/4
8	62561	Pawl
9	818831	Blade, Spreader
10	455734	Pin, Roll 1/8 × 3/4
11	62559	Spacer, Link
12	62519	Spring, Pawl
13	62921	Pin

<sup>\*</sup>Standard Hardware Item—May Be Purchased Locally

<sup>★</sup> If this part is removed, discard and replace with a new ring, retaining.

## PARTS LIST FOR CRAFTSMAN 8 INCH DIRECT DRIVE TABLE SAW MODEL NO. 113.221620





## FIGURE 3 RIP FENCE ASSEMBLY 62937

Key No.	Part No.	Description
1	62906	Channel, Fence
2	STD522505	*Screw, Hex Hd. Sems
		1/4-20 x·1/2
3	62985	Head, Fence
4	62482	Knob, 1-1/4 Dia.
5	STD541231	*Nut, Hex Jam 5/16-18
6	60543	Screw, Truss Hd. 5/16-18 x 2
7	62939	Clip, Shoe

<sup>\*</sup>Standard Hardware Item - May be Purchased Locally.

## FIGURE 4 MITER GAUGE ASSEMBLY 62938

Key No.	Part No.	Description
1	62176	Knob, Miter Gauge
2	ST-D551010	*Washer, 13/64 x 5/8 x 1/32
3	62173	Gauge, Miter
4	62175	Pin, Miter Pivot
5	STD510803	*Screw, Pan Hd. 8-32 x 3/8
6	38724	Pointer
7	60544	Spacer
8	62927	Rod, Miter Gauge

<sup>\*</sup>Standard Hardware Item - May be Purchased Locally.

## SEARS owner's manual

MODEL NO. **113.221620** 

The model number of your 10 inch Table Saw will be found on a plate attached to your saw, at the rear of the base.

When requesting service or ordering parts, always provide the following information:

- Product Type
- Model Number
- Part Number
- Part Description

# 8 INCH DIRECT DRIVE TABLE SAW

For the repair or replacement parts you need

Call 7 am - 7 pm, 7 days a week

1-800-366-PART (1-800-366-7278)



For in-home major brand repair service Call 24 hours a day, 7 days a week

1-800-4-REPAIR (1-800-473-7247)



For the location of a Sears Repair Service Center in your area

Call 24 hours a day, 7 days a week

1-800-488-1222



For information on purchasing a Sears Maintenance Agreement or to inquire about an existing Agreement

Call 9 am - 5 pm, Monday-Saturday

1-800-827-6655





Sears, Roebuck and Co., Hoffman Estates, IL. 60179 U.S.A.

Part No. SP5311 Form No. SP5311-4 Printed in U.S.A. 12/95