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Operations & Maintenance Manual and Parts Bulletin



WARNING: FOR YOUR SAFETY READ AND UNDERSTAND THIS MANUAL PRIOR TO USING THE SAW. REVIEW ALL SAFETY RULES AND OPERATING INSTRUCTIONS FREQUENTLY.

This manual is provided for your convenience in the use and care of your saw. These instructions include operation, precautions, preventative maintenance and other pertinent data to assist you in assuring long life and dependable service from your saw.

14" RADIAL ARM SAWS TYPE 4

MODELS 3531-01, 3536-01, 3531-03, 3536-03

16" RADIAL ARM SAWS TYPE 4

3541 & 3546

**For s/n 20160603077 (07/2016) forward
Manufactured in the USA**

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General Rules for Safe Operation of Power Tools

1. KNOW YOUR POWER TOOL— Read the owner's manual carefully. Learn the applications and limitations as well as the specific potential hazards of the tool.
2. GROUND ALL TOOLS.
3. KEEP GUARDS IN PLACE. Keep guards in working order.
4. KEEP WORK AREA CLEAN. Cluttered areas and benches invite accidents.
5. AVOID DANGEROUS ENVIRONMENTS. Don't use power tools in damp or wet locations. Keep work area well lit.
6. KEEP CHILDREN AWAY. All visitors should keep a safe distance from the work area.
7. DON'T FORCE TOOL. The tool will do a better job if used at its designed rate.
8. WEAR PROPER APPAREL. Loose clothing, gloves or jewelry may get caught in moving parts. Rubber footwear is recommended when working outdoors.
9. USE PROTECTIVE GLASSES. If operation is dusty also wear a dust mask.
10. DON'T OVERREACH. Keep proper balance and footing at all times.
11. MAINTAIN TOOLS WITH CARE. Tools kept sharp and clean provide the best and safest performance. Follow instructions for lubricating and changing accessories.
12. DISCONNECT TOOLS FROM POWER SOURCE. When not in use, before servicing, when changing accessories, blades, or cutters the tool should be disconnected and locked out.
13. REMOVE ADJUSTING KEYS AND WRENCHES. Make it a habit to ensure keys and adjusting wrenches are removed prior to starting tool.
14. USE RECOMMENDED ACCESSORIES. Consult your distributor or the Original Saw Company for recommended accessories. Using improper accessories may cause hazards.
15. SECURE YOUR WORK. Use clamps or a vise to hold work when practical.
16. NEVER LEAVE TOOL RUNNING WHILE UNATTENDED.
17. ONE OPERATOR ONLY. The person who pulls the saw should position the work.
18. DO NOT REMOVE SMALL SCRAPS FROM THE TABLE WITH YOUR FINGERS.

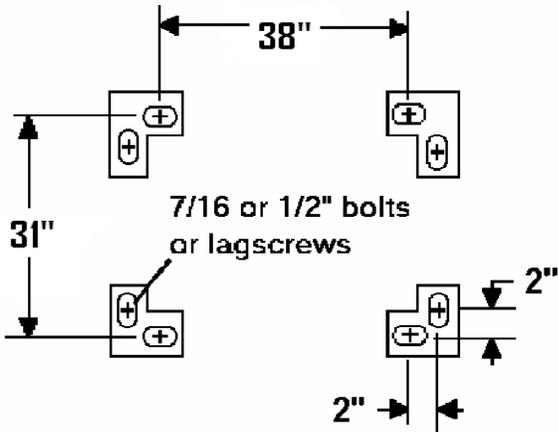
!!! CAUTION !!!

BOTH UPPER AND LOWER GUARDS MUST REMAIN IN PLACE FOR SAFE CUTTING OPERATION.

This manual is not totally comprehensive. It does not and cannot cover every possible safety and operational factor which may arise during the life of the machine.

| MODEL: | 3531-01 | 3531-03 | 3536-01 | 3536-03 | 3541 | 3546 |
|--|------------------|------------------|------------------|------------------|-------------------|-------------------|
| Arm | Standard | Standard | Medium | Medium | Standard | Medium |
| Blade Size | 14" / 350 mm | 16" / 400mm | 16" / 400mm |
| MOTOR: ALL MOTORS TOTALLY ENCLOSED FAN COOLED | | | | | | |
| HP | 3 | 5 | 3 | 5 | 5 | 5 |
| Phase | 1 | 3 | 1 | 3 | 3 | 3 |
| Hertz | 60 | 50/60 | 60 | 50/60 | 50/60 | 50/60 |
| Volts * | 230 | 208/230/460 | 230 | 208/230/460 | 208/230/460 | 208/230/460 |
| Brake | automatic | automatic | automatic | automatic | automatic | automatic |
| Arbor | 1" x 2 3/16" | 1" x 2 3/16" |
| CAPACITIES: inches / metric | | | | | | |
| Maximum Out-Rip | 29.875 / 758 mm | 29.875 / 758 mm | 37 7/8 / 962 mm | 37 7/8 / 962 mm | 29.875 / 758 mm | 37 7/8 / 962 mm |
| Max Cross Cut 1" Stock | 16" / 406 mm | 16" / 406 mm | 24" / 609 mm | 24" / 609 mm | 16" / 406 mm | 24" / 609 mm |
| Max Miter 45° 1" Stock | 10 7/8" / 276 mm | 10 7/8" / 276 mm | 15 1/2" / 393 mm | 15 1/2" / 393 mm | 10 7/8" / 276 mm | 15 1/2" / 393 mm |
| Max Depth of Cut | 4 1/8" / 104 mm | 4 15/16" / 125 mm | 4 15/16" / 125 mm |
| Max Depth of Cut 45° Bevel | 1 3/4" / 44 mm | 2" / 50 mm | 2" / 50 mm |

⊕ 1 1/4" x 5/8" slot



FLOOR MOUNTING DIMENSIONS

Your saw may be mounted to the floor. Use the diagram at right to assist you in placing the saw and fastening it to the floor.

Unpacking and Attaching the Table Legs

Your Original Radial Arm Saw has been completely assembled, tested and then partially disassembled. The box included in your shipment contains the following items necessary for assembly of your saw:

| | | | | | | | |
|------------------|----|--------------------|---|-------------------------|----|--------------|----|
| Legs | 4 | Magnetic Starter | 1 | 3/8" Flanged Cap Screws | 16 | 3/8" Hex Nut | 16 |
| 3/8" Lock washer | 16 | Allen Arbor Wrench | 1 | Flat Arbor Wrench | 1 | | |

The machine can be lifted with a forklift under the steel saw frame. A sling or chain hoist may be used under the arm ONLY if placed at the rear of the arm near the column. Attach the legs using the 3/8" hex head cap screws, lock washers and nuts provided in the hardware bag. Tighten cap screws securely after the machine has been lowered onto its legs.

Important

All cable lengths have been adjusted during manufacture to allow for proper movement of the arm and roller head. However, you should check the cables to ensure full range of movement. If adjustment is necessary, loosen the 2 cable clamps (1 inside of arm, 1 at right rear of arm) and adjust the cables so roller head is free to travel the total length of the arm with the motor pivoted in the roller head so the blade is on the right hand side. Also, check to ensure there is enough slack in the cables between the rear of the arm and the starter enclosure so the arm can be swung to the right a full 90° while the arm is elevated to its highest position.

Electrical Connection—



Recommend Copper Wire Sizes (A.W.G.)

To obtain maximum efficiency from your saw motor, the feeder wire from the power source to the machine should comply with the table below.



Note: Always check arbor shaft rotation before installed blade, arbor nuts, or collars.
 Note: wire too large to insert into the provided magnetic starter will need to be terminated in an enclosure and #10 wire ran into the magnetic starter using less than 10 feet of cable.



Recommended Copper

#(Wire Size) - Breaker size

Up to 60' from power supply

| | 1 Phase | 3 Phase | 3 Phase | 3 Phase |
|--------|-----------------|-----------------|------------------|------------------|
| | 200-240 V | 200-240 V | 440-480 V | 550-600 V |
| 3 hp | #8 AWG - 60 AMP | #8 AWG - 20 AMP | #10 AWG - 20 AMP | #10 AWG - 20 AMP |
| 5 hp | #4 AWG - 90 AMP | #8 AWG - 30 AMP | #10 AWG - 20 AMP | #12 AWG - 20 AMP |
| 7.5 hp | N/A | #6 AWG - | #8 AWG - | #10 AWG - |

60 - 100' From power supply

Breaker size stays the same as the top chart as wire size allows

| | 1 Phase | 3 Phase | 3 Phase | 3 Phase |
|--------|-----------|-----------|-----------|-----------|
| | 200-240 V | 200-240 V | 440-480 V | 550-600 V |
| 3 hp | #6 AWG | #6 AWG | #8 AWG | #10 AWG |
| 5 hp | #2 AWG | #6 AWG | #6 AWG | #8 AWG |
| 7.5 hp | N/A | #4 AWG | #6 AWG | #6 AWG |

100 - 160' From power supply

Breaker size stays the same as the top chart as wire size allows

| | 1 Phase | 3 Phase | 3 Phase | 3 Phase |
|--------|-----------|-----------|-----------|-----------|
| | 200-240 V | 200-240 V | 440-480 V | 550-600 V |
| 3 hp | #4 AWG | #4 AWG | #6 AWG | #8 AWG |
| 5 hp | #0 AWG | #2 AWG | #6 AWG | #6 AWG |
| 7.5 hp | N/A | #2 AWG | #6 AWG | #4 AWG |

Over 160' From power supply

Breaker size stays the same as the top chart as wire size allows

| | 1 Phase | 3 Phase | 3 Phase | 3 Phase |
|--------|-----------|-----------|-----------|-----------|
| | 200-240 V | 200-240 V | 440-480 V | 550-600 V |
| 3 hp | #2 AWG | #2 AWG | #4 AWG | #4 AWG |
| 5 hp | #00 AWG | #2 AWG | #2 AWG | #4 AWG |
| 7.5 hp | N/A | #0 AWG | #2 AWG | #2 AWG |

SAW ASSEMBLY AND INSTALLATION

Connecting Electrical Current

The motor is properly connected to the magnetic switch at the factory for operation on the electrical voltage specified on the tag attached to the guard stud. Make sure incoming voltage from your power supply conforms to the voltage specified on the tag. Remove the magnetic switch cover and insert power supply cable through the dust proof fitting. Connect wires to L1, L2 and L3 for 3 phase; L1 and L2 for single phase (See below left). The capped wires leading from the transformer should remain capped. Do not attach power to the transformer. Attach the ground wire to the ground lug inside the switch enclosure. Wiring must conform to the National Electrical Code and any applicable local codes.

Check Arbor Rotation (3 Phase Only)

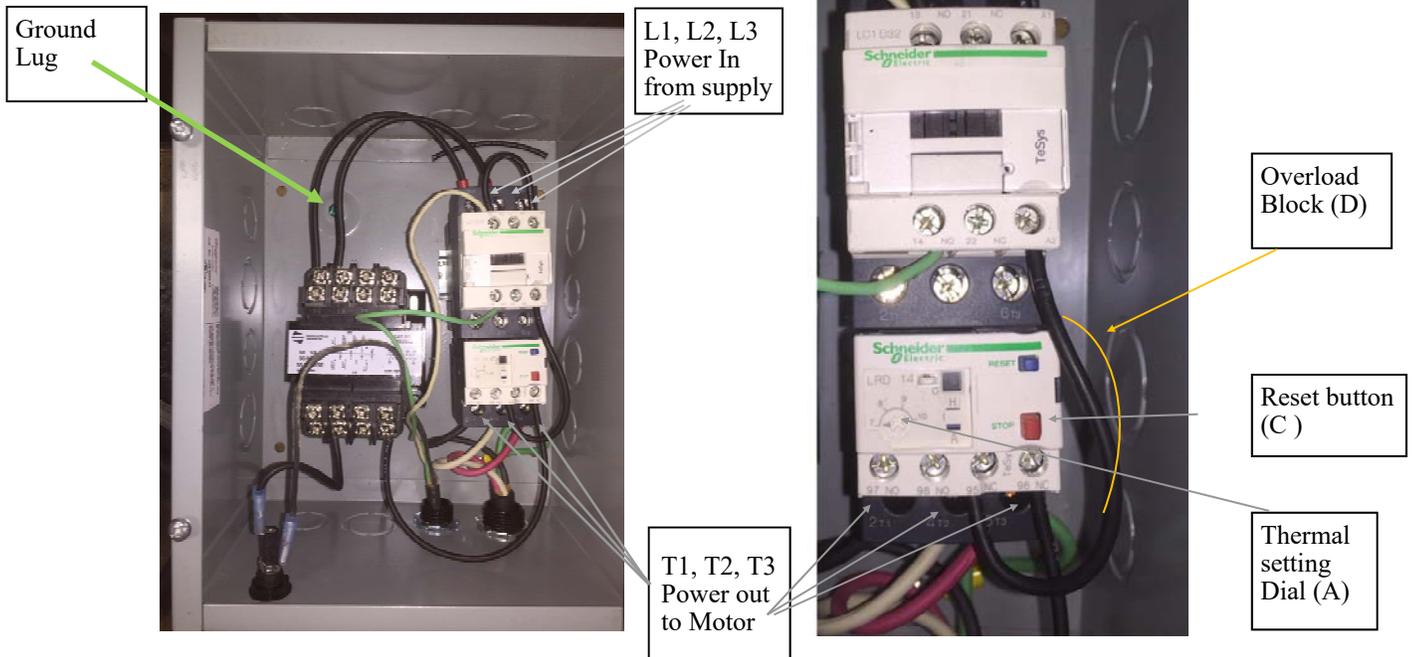
Check arbor rotation with arbor nut and arbor collars removed. Open line disconnect to the saw to remove arbor nut and collars, close the line disconnect and start saw. The rotation of the arbor must be clockwise as indicated on the arrow on the nameplate. If the rotation is counterclockwise, the incoming wires are not properly connected to the switch box. To change the direction reverse any two of the wires leading to the switch box from the power supply.

Changing Voltage on dual voltage motors and Resetting Thermal Protection

Dual voltage motors can be operated on either of the two voltages indicated on the motor nameplate. The voltage setting from the factory can be found on the tag attached to the guard stud. To change the voltage:

1. Change the motor lead connections as shown on the diagram on the inside cover of the motor conduit box. This is also found on pages 23-24 in this manual. Disconnect and lockout the power supply before attempting voltage change.
2. Reconnect the transformer in the magnetic starter as shown in the diagram on the inside of the starter box cover. This is also found on page 24 of this manual.
3. Replace or adjust the thermal overload protectors (D) using dial (A), see below right) with those rated at the desired amperage range. See page 23 of this manual. Dial (B) changes the thermal reset from automatic to manual. In automatic operation the thermals automatically reset after cooling; to proceed push the start button. If set to manual the reset button (C) will need to be pushed in to resume operation.
4. Contact your dealer for correct thermal overload protectors.

Control Panel layout and components



Overload Protection

Your saw is equipped with automatic reset thermal overload protection. To restart after thermals have tripped, wait until the motor cools, then press the saw start button. If overloads continue to trip, the machine is being overloaded. Do not continue to operate under these conditions. Find the trouble and correct it—see the electrical trouble shooting section of this manual. The power supply branch circuit should be fused as follows using time delay fuses:

| | 1 Phase | 3 Phase | 3 Phase | 3 Phase |
|------------------|-----------|-----------|-----------|-----------|
| Motor Horsepower | 200-240 V | 200-240 V | 440-480 V | 550-600 V |
| 5 | 50 | 30 | 15 | — |
| 5 | — | 40 | 15 | 15 |

Electrical Precautions

1. Be sure machine is properly grounded.
2. Do not attempt to operate saw on any voltage other than the one designated.
3. Use correct size time delay fuses to protect incoming current.
4. If it takes more than 3 seconds to reach maximum speed with a standard blade, turn the saw off. (See trouble shooting on page 27 of this manual).
5. Do not cause the motor to repeatedly approach a stall.
6. Do not attempt to start the saw for at least 15 minutes after thermal overload has tripped.
7. **Disconnect and lockout** the saw from the power source before opening a starter box, conduit box or whenever removing a guard.

Mounting the Blade (Caution! Disconnect power source before mounting blade)

1. Place the hex box wrench over the arbor nut and place the long allen wrench in the arbor shaft end hole. Place a wood striking block under the allen wrench to avoid marring the tabletop. Push down on the hex wrench to loosen nut (left hand threaded). (See figure 2)
2. Remove the nut and first arbor collar. Wipe the arbor collar faces and mounting area on the blade. Slide the blade on the shaft with the directional arrow away from the motor and pointing clockwise.
3. Place the arbor collar, recessed sides against the blade, arbor nut and tighten securely. (See figure 1)

FIGURE 1

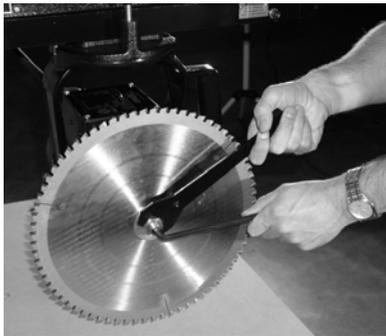


FIGURE 2



Guard Mounting (Caution! Disconnect/lockout power source before mounting guard)

See parts listing and diagram on page 15

1. Remove the 1/4" x 20" self tapping screw from the right front lower guard mounting hole and remove the parts secured.
2. Remove the right lower guard by sliding it backward and down.
3. Place the guard over the blade, tilting the guard to the right so the left guard clears the end of the arbor.
4. Seat the guard in the groove on the front of the motor arbor end bell with the guard stud through the hole in the guard. Secure with wing nut.
5. Reconnect the lower right guard and replace the parts removed.
6. Move the carriage forward to the limit of its travel and install the anti-kickback from the bottom of the hole in the guard. The flat on the anti-kickback goes against the locking screw. Raise the anti-kickback and tighten the locking screw. Install the dust spout on the guard.

Caution: Your saw is now ready to use. Before using it, study the control locations, cautions and operating instructions contained in the following pages.

Adjusting the Saw Guard

The guard can be pivoted about the motor by loosening the guard mounting wing nut. **CAUTION—DO NOT ADJUST THE GUARD, OR ANTI-KICKBACK WHILE BLADE IS MOVING. KEEP ALL ADJUSTING MECHANISMS TIGHT.**

General Safety Precautions

1. Be sure the blade rotates clockwise when facing the saw from the left side. Blade must rotate to the front of the saw.
2. Be sure all clamp handles are tight before turning on motor.
3. Keep the blade sharp and properly set.
4. Hold or clamp the material firmly against the guide strip when cutting.
5. Be sure the blade and arbor collars are clean and the recessed side of the collars are against blade.
6. Never oil or grease arm tracks or motor.
7. Do not start machine without proper tool guard.
8. Do not remove the anti-kickback device from the blade guard. Adjust it to just clear the work.
9. Keep motor air slots clean.
10. Return roller head to full rear after each operation.

General Cautions When Using the Lower Blade Guard:

1. Used properly the lower blade guard is designed to provide protection from contact with the side of the blade. It is not designed to prevent contact with the front or rear of the blade. When the lower guard contacts the fence or material being cut it will rise up and expose the blade. Be careful to keep your hands out of the line of the cut.
2. Lower blade guards may become caught in prior kerfs in the fence or table. Alleviate this by replacing the guide fence frequently. Always stop the saw before attempting to remove a guard that is stuck in a kerf.
3. Short cut-off pieces of wood may become caught between the lower guard and the blade. If this happens shut off the saw and wait until blade stops to remove the piece.
4. The lower blade guard's effectiveness is limited in bevel operations. It may have to be raised out of the way when setting the bevel angle. **Be sure the power is off/locked out and blade is completely stopped before making any adjustment.**
5. Catching the lower guard in saw kerfs when changing the saw setup can be avoided by elevating the saw until the bottom of the guard clears the fence.
6. When ripping narrow strips the lower guard may have to be raised to rest on top of the guide fence. Be sure to use a pusher stick to feed the work.
7. Do not use the lower guard with any accessory other than the correct size blade.

Using the Adjustable Arm Stop

The arm stop should be used whenever roller head travel needs to be limited, such as when repetitive cross cuts are being made. Use of the arm stop will also prevent the blade from throwing small cut off pieces on the return stroke. **Do not adjust the arm stop unless the power is off and locked out and the blade stopped. The arm stop must be used on the right side of the arm.** Proper adjustment of the arm stop is completed as follows:

1. Pull the roller head forward far enough for the blade to sever the material and travel 1/4" past the material.
2. Lock the roller head to the arm with the riplock and place the arm stop so it is touching the roller head.
3. Loosen the riplock and return the roller head behind the fence.

Alternate Guide Strip Positions

Your saw was assembled with the guide strip in the most frequently used position on the work table (see figure 3). The guide strip may be moved to alternate positions to accommodate varying uses. Moving the guide strip behind the spacer board will allow for maximum cross cutting capabilities. Moving the guide strip back to the rear board will provide for maximum ripping capability.

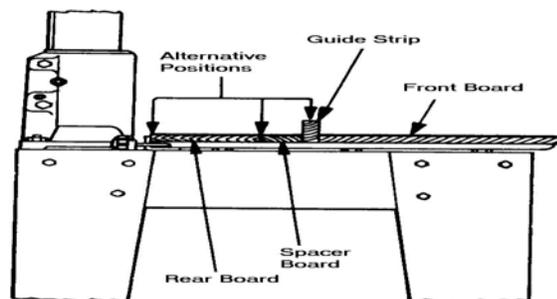
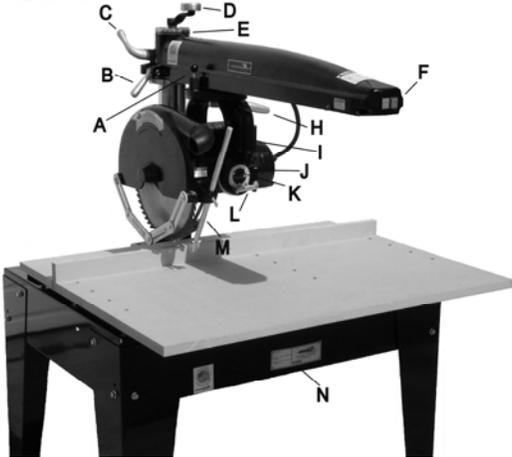


Figure 3

Operating Instructions

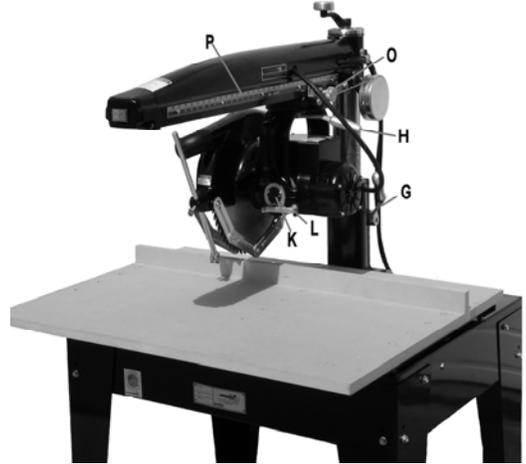
!!! CAUTION !!!

BOTH UPPER AND LOWER GUARDS MUST REMAIN IN PLACE FOR SAFE CUTTING OPERATION.



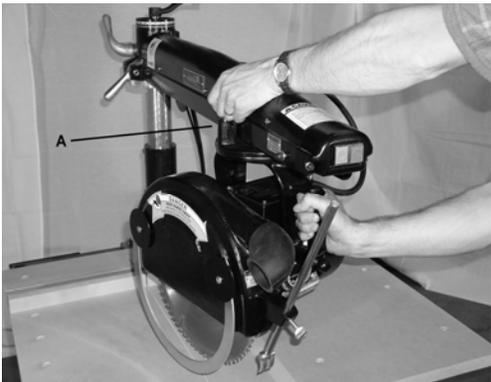
Control Locations

- A. Rip Index Pin
- B. Miter Latch Handle
- C. Arm Clamp Handle
- D. Elevating Control Handle
- E. Miter Scale
- F. On/Off Switch
- G. Column Clamp Handle (Med Arm Only)
- H. Yoke Clamp Handle
- I. Operating Handle
- J. Bevel Index Pin
- K. Bevel Scale
- L. Bevel Clamp Handle
- M. Anti Kickback Assembly
- N. Serial Number Plate
- O. Riplock
- P. Rip Scale



Moving the Arm Horizontally and Vertically

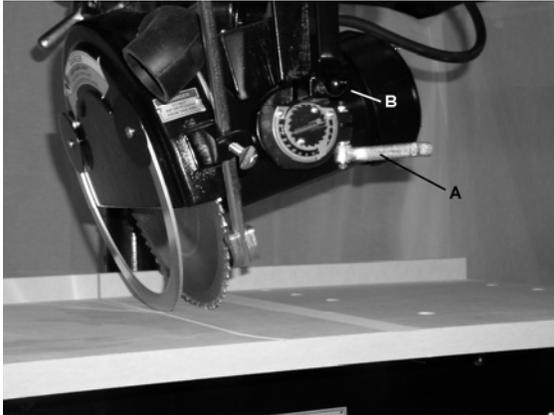
The elevating crank is used to raise or lower the arm to accommodate cutting operations (see below left). Do not adjust the height of the saw while the motor is running. Change the position of the arm for miter cutting is done by pulling the arm clamp handle (A) forward and lifting the miter latch handle (B). Observing the miter scale, swing the arm either right or left to the desired angle. The arm can quickly be located at the 0° and 45° marks by using the indexing slots machined into the column ring. When you have located the saw at the required position engage both the miter latch and the arm clamp.



Revolving the Yoke Horizontally on the Arm

Pull the saw carriage to the front of the arm and lock into position with the riplock. Pull the yoke clamp handle forward and lift the rip index pin. The yoke and motor can now be turned either right or left for rip cuts. When you have located the yoke motor in the required position, engage the rip index and push the yoke clamp back.

!!! CAUTION !!!
BOTH UPPER AND LOWER GUARDS MUST REMAIN IN PLACE FOR SAFE CUTTING OPERATION.

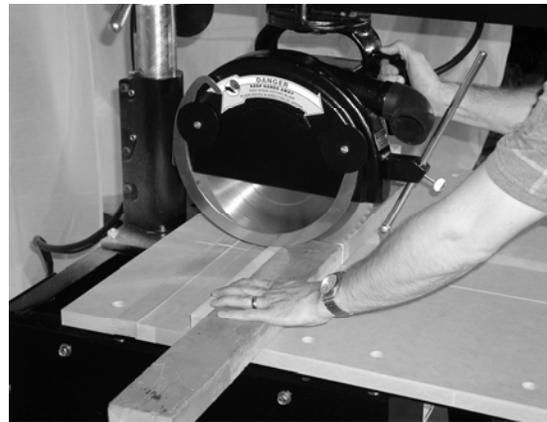


Rotating the Motor to Bevel Cutting Position

Raise the arm to allow the saw blade sufficient clearance above the table top. Release the bevel clamp handle (A) and pull the bevel index pin. The motor can now be moved to a bevel position as indicated on the bevel scale. Lock the motor by releasing the bevel index pin (possible only at 0°, 45° and 90°) and by locking the bevel clamp handle.

Cross Cutting

Lock the arm in the 0° position. Place the material securely against the guide strip— keep hands well away from the blade. Draw the saw blade across the material. After the cut has been completed return the blade behind the guide strip. Observe this order of operation for all cross cuts. Never push the saw blade into the material. Pull the blade slowly and firmly across the material from the rear of the arm using the operating handle. The saw blade should cut into the table about 1/16" when cutting through the material. Raise the anti-kickback to just clear the material being cut. Adjust for varying wood thickness or warped material.



In Rip—Out Rip

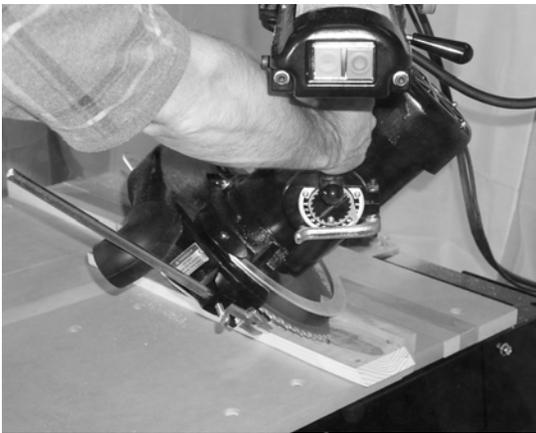
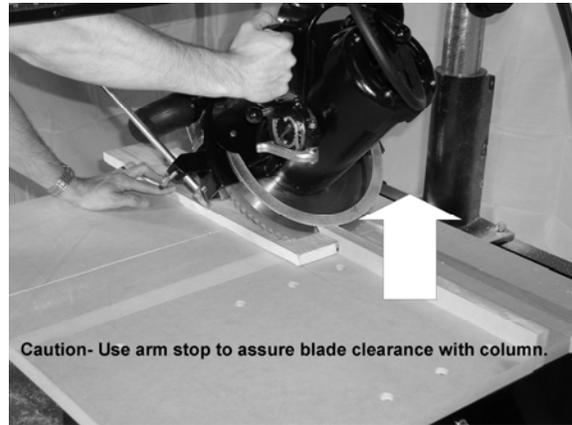
When ripping the arm should be locked in a cross cut position. Pull the motor to the end of the arm. Release the yoke clamp handle by pulling forward and lift the rip index pin. Revolve motor 90° right or left for out-rip or in-rip position. Engage rip index pin and lock yoke clamp handle. Locate saw for desired width of rip and lock saw carriage by tightening riplock against side of arm. Rotate guard so the in-feed side almost touches the material. Lower anti-kickback assembly so the fingers are approximately 1/8" lower than the material. Place material against the guide strip and feed evenly into the saw blade. Use push board on narrow work. Never place hands between blade and guide fence. Do not force material and **DO NOT** feed from the kickback side of the guard. Serious injury could result. Follow instructions on caution tag.



!!! DANGER !!!
NEVER FEED MATERIAL FROM THE KICKBACK SIDE OF THE GUARD. SERIOUS INJURY COULD RESULT.

Bevel Cutting

Lock the arm in the cross cutting position. Raise the motor by rotating the elevation crank. Release the bevel clamp and the bevel index pin and tilt the motor in the yoke. The bevel angle is shown on the bevel scale. Release the bevel index pin and lock the bevel clamp. Lower the arm into cutting position. Adjust the arm stop to assure clearance between blade and base. Pull the saw through as you would for cross cutting.

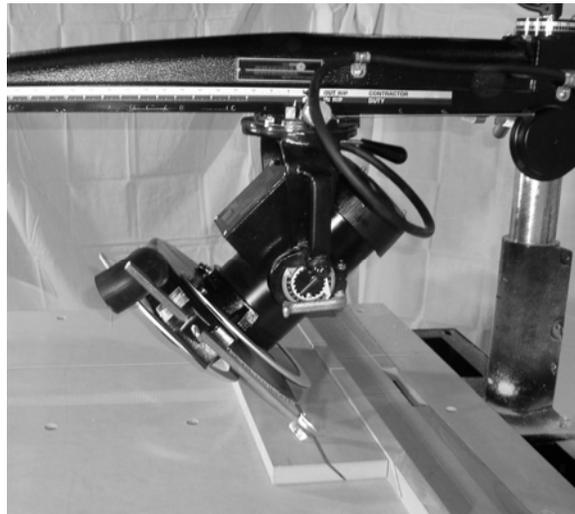


Compound Miter Cutting

The compound miter is merely a combination of the bevel cut and the miter cut. Set up the machine for bevel cutting. Release the arm clamp handle and the miter latch handle. Move the arm into the required position and lock the miter latch and arm clamp. Adjust arm stop to assure clearance between blade and base. Pull the blade through as you would for cross cutting.

Bevel Ripping

Lock the arm in the cross cut position. Elevate the motor. Rotate the yoke to the rip position and the motor to the desired bevel position. Lock all latches and clamps and tighten the rip lock. Adjust the guard and anti-kickback as you would for the ripping position. Always readjust as required. Use a push board to feed the material into the blade; DO NOT place hands between blade and guide fence. Do not feed the material rapidly.



!!! DANGER !!!
NEVER FEED MATERIAL FROM THE KICKBACK SIDE OF THE GUARD. SERIOUS INJURY COULD RESULT.

Maintenance Adjustments and Alignments

Caution! Disconnect and lockout power supply before making any adjustments or alignments.

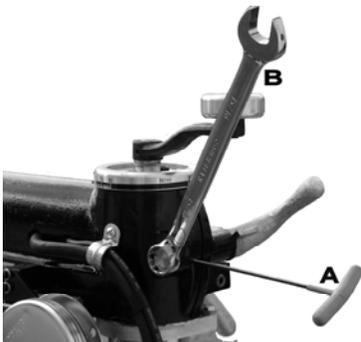
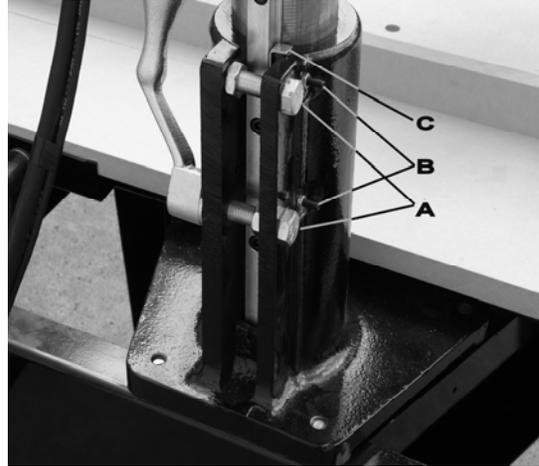
Your saw has been completely assembled, aligned and tested at the factory...then partially disassembled for shipment. Handling during shipment may cause some misalignment and the following information will enable you to correct any cutting inaccuracy you discover. These adjustments may also be necessary after a period of use. (See preventive maintenance on page 29 of this manual.)

Important ...Since one adjustment may affect another it is important to run through the adjustments in the sequence as follows.

Adjustment of Base to Column Fit

If excessive side motion exists at the end of the arm while the arm clamp is engaged, adjustment to the base or bronze gib (C) is generally necessary. To adjust:

1. Loosen all pinch bolts (A) and set screws (B). Pull the arm clamp handle forward.
2. With the motor and yoke in the rearmost position the elevation effort should be easy. Tighten the bottom pinch bolt until there is an increase in the elevation effort. Once elevation becomes snug back off the bolt 1/4-1/2 turn. Repeat this for all the pinch bolts.
3. Tighten the gib set screws (B) hard, then back them off. Run them back up against the gib lightly, then snug up the locknut.
4. If the saw is equipped with a column clamp handle the adjustment should be made so that the clamp firmly secures the post when pushed back and released when the handle is pulled forward.



Adjustment of the Arm Clamp

The arm clamp holds the arm tightly on the column in the desired position for cutting. The arm clamp handle should be upright when tightened. If it goes beyond center adjust as follows:

1. Place motor carriage in the rearmost position.
2. Loosen the arm clamp set screw (A).
3. Move arm clamp handle to upright position and tighten the arm clamp handle bolt (B). Note this is a left hand threaded bolt.
4. Tighten the screw.

Adjustment of the Roller head to Arm

Accurate work cannot be done if the roller bearings in the motor carriage are not in proper adjustment. When play develops between the roller head and the arm the following adjustment is required:

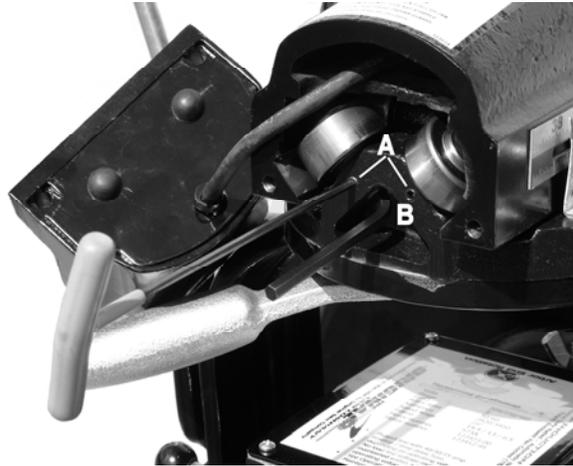
1. Bring the roller head to the front of the arm and lock in place using the adjustable stop. Move saw to in-rip position.
2. Loosen the sockethead screws holding the arm end cap and rotate the end cap upward to expose bearings.
3. Clean the tracks thoroughly. Wipe them clean with a solvent, **do not** use kerosene. Use extreme caution as most solvents are toxic and/or flammable. **Do not** grease or oil the tracks.
4. Loosen the locking set screws (A) two full turns to release the eccentric shafts. (Both are located on the right hand side.)

Continued on the next page

Adjustment of the Roller head to Arm (cont'd)

5. Insert socket wrench into bottom of bearing shaft (B) and turn until the bearing touches the arm track on both top and bottom radii. Repeat for both shafts. Bearings should be tightened only so that they roll and do not slide.
6. Replace the end cap and return saw to normal position.

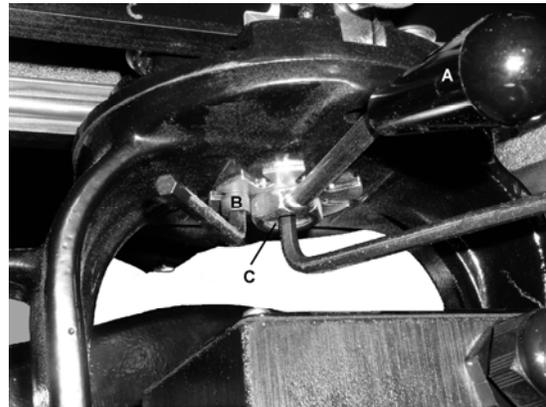
Note-Too much pressure on the roller bearings will cause excessive and unnecessary wear in the parts and make the carriage work harder. Seven to ten pounds average pull on the carriage is a desirable preload.



Adjustment of the Yoke Clamp Handle

The yoke clamp handle (A) provides a friction lock between the yoke and the roller head. When in operating position it should be approximately 90° to the handle of the yoke. If it is not, adjustment should be made as follows:

1. Pull yoke clamp handle (A) forward.
2. Remove socket head cap screw (B) locking the star washer on the underside of the yoke.
3. Using the same allen wrench, rotate the kingbolt (C) counterclockwise to tighten.
4. Replace the cap screw.
5. Check to ensure handle will lock the yoke to the roller head



Adjustment of Table Top Parallel to Arm

The arm tracks must be parallel to the tabletop at all points. This assures uniform depth of cut, especially when dado cutting. Remove the blade and insert an arbor wrench or allen wrench between the saw arbor collars. Lower the wrench until it touches the tabletop. If the top is not level:

1. Locate the highest point by swinging the arm from side to side and moving the carriage back and forth on the arm.
2. Loosen the lock nuts beneath the table frame.
3. Raise the jack screws so as to bring the low parts of the tabletop level with the high spots.
4. Tighten the lock nuts beneath the table frame.



How to check the Guide Strip For Accuracy

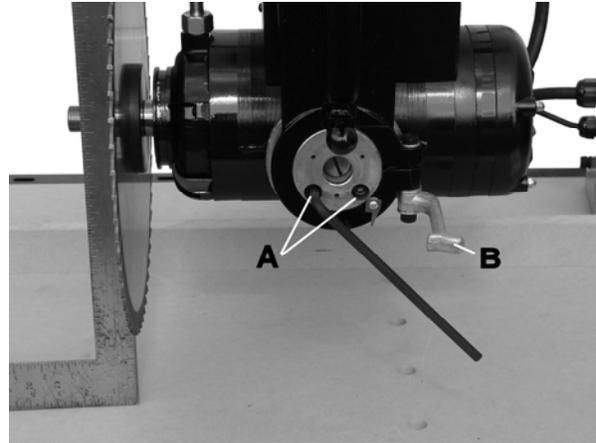
For accurate work the guide strip must be straight. If the machine has been exposed to the weather or used for a period of time the wood parts may become warped or worn so that the guide strip is no longer straight. It should be made straight by planing and sanding or replacing. Check it with a straight edge or square before proceeding and make any adjustments necessary.

Caution! Disconnect and lockout power supply before making any adjustments or alignments.

To Square Saw Blade with the Table Top

Pull the saw to middle of table and lock into place. Make sure the tabletop is level and square and place a steel square against the side of the blade; the square should be against the gullets and not the teeth of the blade. If the blade is not square to the tabletop:

1. Remove two screws holding the bevel pointer.
2. Loosen the two socket head cap screws (A) located on the outside of the dial plate.
3. Release the bevel clamp handle (B).
4. Rotate the motor so the saw blade is flat against the square. Tighten the two locking socket head cap screws.
5. Replace the bevel pointer.
6. Engage the bevel clamp and recheck for square.
7. Adjust the bevel pointer washer/logo plate to line up with zero on the bevel scale.



Adjustment of Bevel Clamp Handle

The bevel clamp holds the motor tightly at any angle by clamping the yoke around the dial plate. If adjustment becomes necessary do the following:

1. Release the bevel clamp handle by pulling it away from the dial plate as shown.
2. Use an allen wrench to hold the cap screw stationary and adjust the jam nut as necessary.
3. Engage the bevel clamp.

Adjusting Crosscut Travel Parallel to Arm Tracks

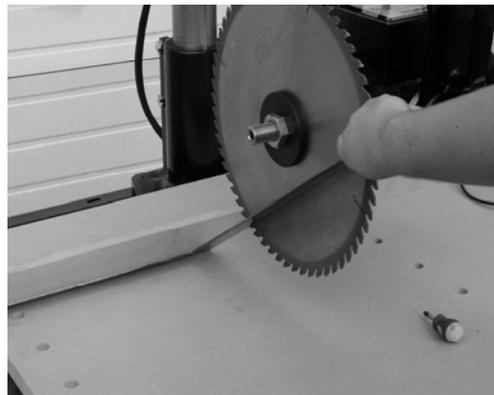
The leading and trailing teeth of the saw blade should travel in the same plane parallel to the arm tracks. When the saw blade is not parallel to the arm the result will be what is called "heel" - the back of the blade will not follow in the kerf of the front of the blade. Signs of a blade heeling are indicated when the rear teeth of the blade mark the material with an offset in the cut. This may be checked by cutting a piece of material at least 1" x 4". Place the material against the guide fence and crosscut a narrow strip; do not pull the saw blade entirely through the material but just allow the front teeth to clear the material. Stop the cut with the rear teeth remaining in the cut. Stop the saw and pull the material away from the blade prior to returning the blade behind the guide fence. Adjustment is necessary if rear teeth marks are prominent on either side of the cut (the rear teeth will arc toward the guide fence). This can also be checked by placing a square across the blade as shown; be sure to avoid placing any part of the square on the teeth. The square should be in contact with the blade in both the front and rear. To correct this situation:

A. If marks are made on the right hand side of material:

1. Release the bevel clamp handle.
2. Loosen the right and left lock nuts on the rear yoke trunion bushing.
3. Unscrew the left set screw about 1/6th turn and screw in the right screw the same amount.
4. Tighten the lock nuts, engage the bevel clamp handle and recheck.

B. If marks are made on the left hand side of material:

1. Release the bevel clamp handle.
2. Loosen the right and left lock nuts on the rear yoke trunion bushing.
3. Unscrew the right set screw about 1/6th turn and screw in the left screw the same amount.
4. Tighten the lock nuts, engage the bevel clamp handle and recheck.

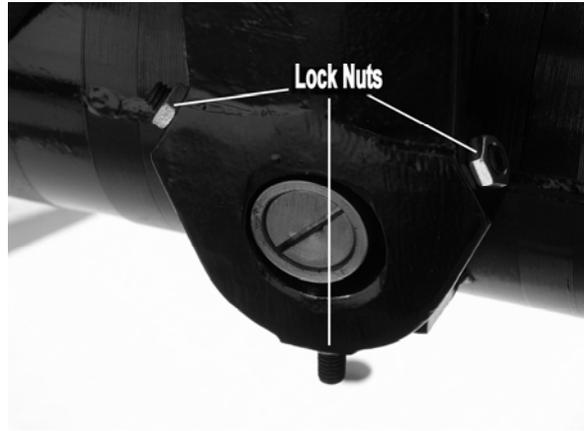


Continued next page...

Adjusting Crosscut Travel Parallel to Arm Tracks (continued)

After making the left and right adjustments, tilt the motor to a 45° bevel cutting position and make cuts in a 2" x 4" piece of material. If tooth marks appear the motor is too high or low in the rear yoke:

- A. **If marks are made on the bottom side of material:**
1. Release the bevel clamp handle.
 2. Loosen the right and bottom lock nuts on the rear yoke trunion bushing.
 3. Unscrew the left set screw about 1/6th turn and screw in the same amount the set screw located on the bottom of the yoke trunion.
 4. Tighten the lock nuts, engage the bevel clamp handle and recheck.
- B. **If marks are made on the upper side of material:**
1. Release the bevel clamp handle.
 2. Loosen the right and left lock nuts on the rear yoke trunion bushing.
 3. Unscrew the bottom set screw about 1/6th turn and screw in the left screw the same amount.
 4. Tighten the lock nuts, engage the bevel clamp handle and recheck.

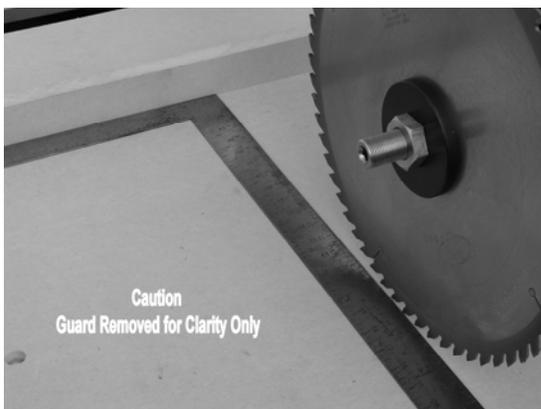


If after making these adjustments the blade continues to heel, particularly if the blade heels on both sides of the material, the blade may require tensioning. If the blade must be re-tensioned contact your local distributor.

Square the Saw Travel with the Guide Strip

Place a square against the guide strip and along the path of the blade. Pull the saw carriage as though making a crosscut and observe the position of the blade in relationship to the square. If the crosscut line is not square adjust as follows:

1. Loosen the arm clamp handle (A).
2. Loosen set screws (B).
3. Move saw carriage along square to determine necessary adjustment.
4. If the blade moves toward the square as it comes forward; disengage the miter latch (C), unscrew the rear adjusting screw (D) 1/8 of a turn and screw in the front adjusting screw (D) 1/8 turn. If blade moves away from square go to instruction #6.
5. Engage miter latch and recheck. If saw travel is now square, tighten set screws and engage arm clamp.
6. If the blade moves away from the square as it comes forward: disengage miter latch (C), loosen the front adjusting screw (D) and tighten the rear adjusting screw (D). Engage the miter latch, recheck and repeat as needed.
7. After saw travel has been properly aligned tighten the set screws (B) to lock adjusting screws in place.



Caution! Disconnect and lockout power supply before making any adjustments or alignments.

Parts List and Ordering Instructions

Order only genuine replacement parts from your Original Saw Company Dealer.

When ordering parts be sure to include:

- Name of manufacturer—Original Saw Company
- Complete machine identification data found on name plate on front of frame
- Complete motor identification from motor name plate
- Quantity, part number and description of parts required
- Complete shipping and billing instructions

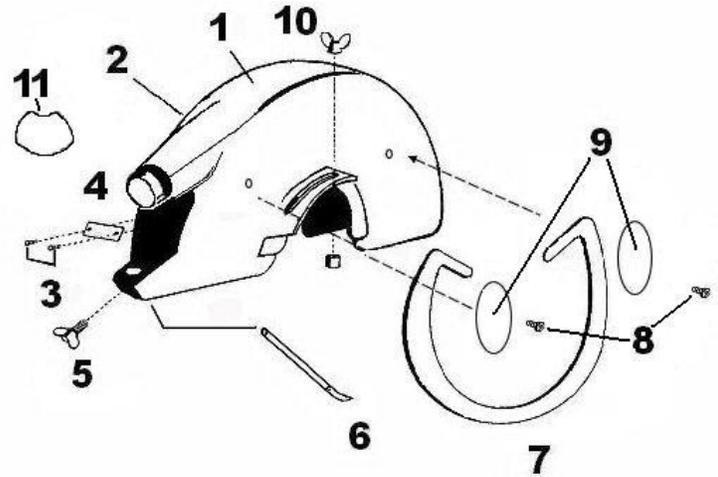
Because of the importance of tightening critical bolts and set screws to an established torque, each of the following parts lists pages contains torque tightening requirements for certain fasteners. These fasteners have their part numbers highlighted and torque requirements specified.

Information is supplied on these parts lists showing where lubrication is desired. Such areas are marked and a general purpose grease should be used.

Guard Assembly

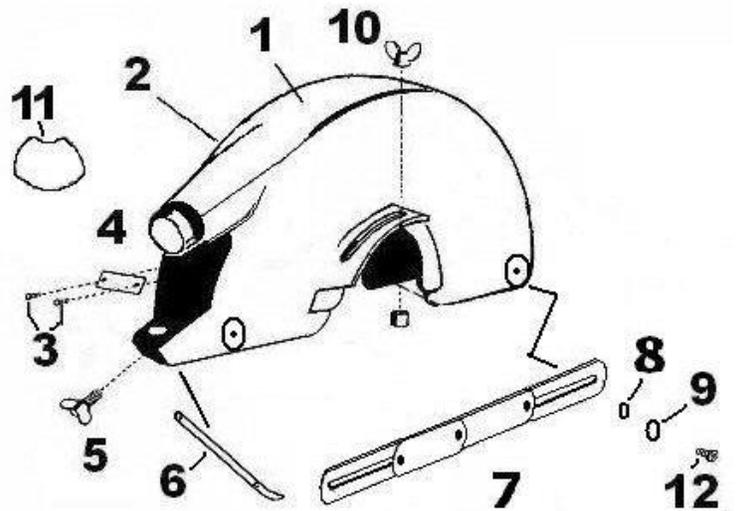
Assembly Part # 035014

| Item | Part No | Description | Qty |
|------|------------|-------------------------------|-----|
| 1 | 096614 | 14" Upper Guard | 1 |
| 2 | 1123451-01 | Warning Label | 1 |
| 3 | 003041 | 5/16 x 4 Drive Screw | 2 |
| 4 | 103805 | Warning Plate | 1 |
| 5 | 080666 | 5/16 x 8 x 1" Thumb Screw | 1 |
| 6 | 083328-00 | Anti-Kickback | 1 |
| 7 | 096798 | Lower Guard Ring | 2 |
| 8 | 084943 | 1/4- 20 x 3/8 Tri Round Screw | 4 |
| 9 | 096799 | Guard Retainer | 4 |
| 10 | 096790 | 3/8"—16 Wing Nut | 1 |
| 11 | 201026 | Dust Spout | 1 |

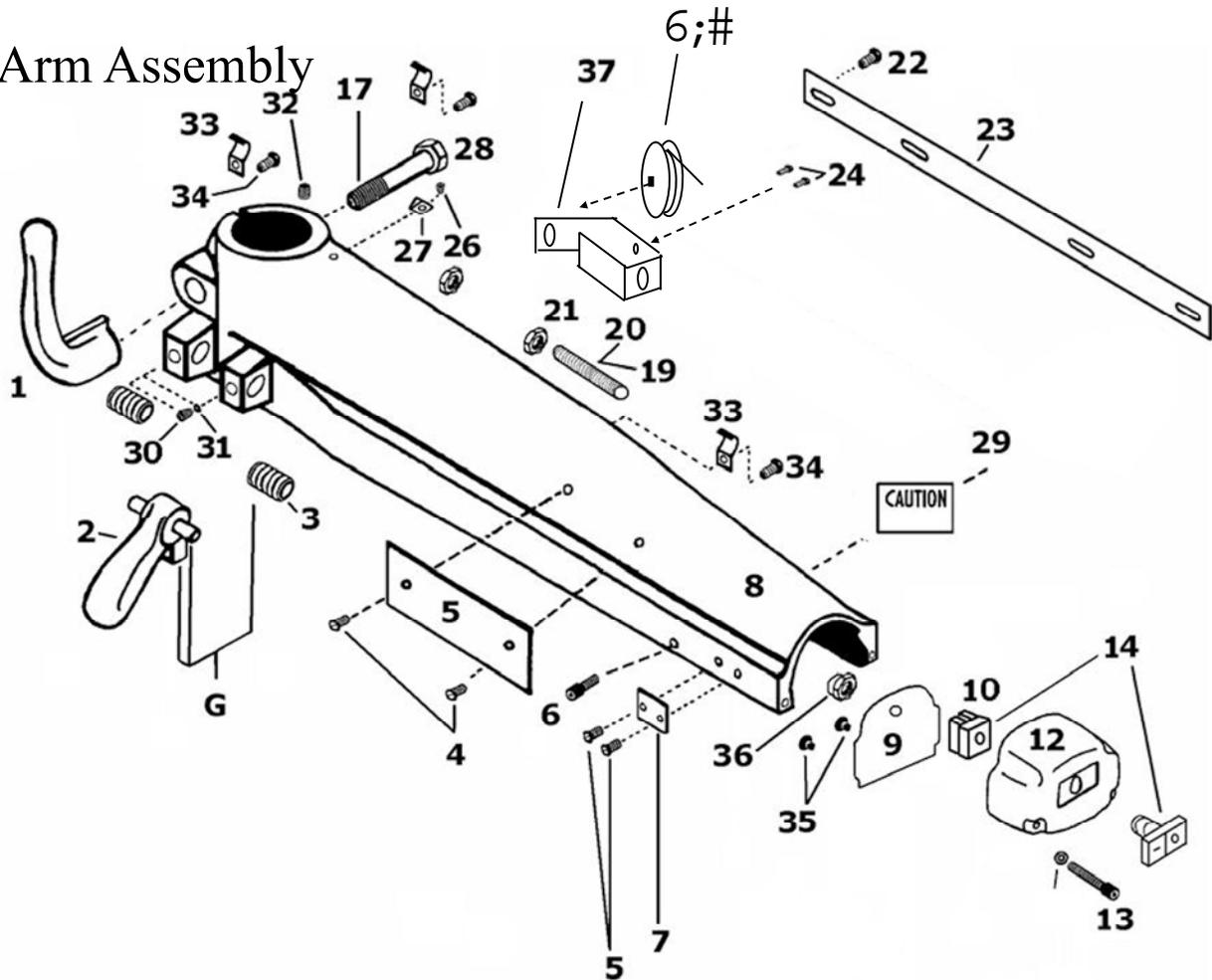


Assembly Part # 035016

| Item | Part No | Description | Qty |
|------|-----------|---------------------------|-----|
| 1 | 123499-02 | 16" Upper Guard | 1 |
| 2 | 123451-01 | Warning Label | 1 |
| 3 | 003041 | 5/16 x 4 Drive Screw | 2 |
| 4 | 103805 | Warning Plate | 1 |
| 5 | 080666 | 5/16 x 8 x 1" Thumb Screw | 1 |
| 6 | 083328-00 | 16" Anti-Kickback | 1 |
| 7 | 096805 | 16" Link Set (1 Side) | 2 |
| 8 | 096803 | Busing | 4 |
| 9 | 080457 | Flat Washer | 4 |
| 10 | 067717 | 1/4-13 Wing Nut ZP | 1 |
| 11 | 201026 | Dust Spout | 1 |
| 12 | 052511 | 1/4-20 x 5/8 Screw | 4 |

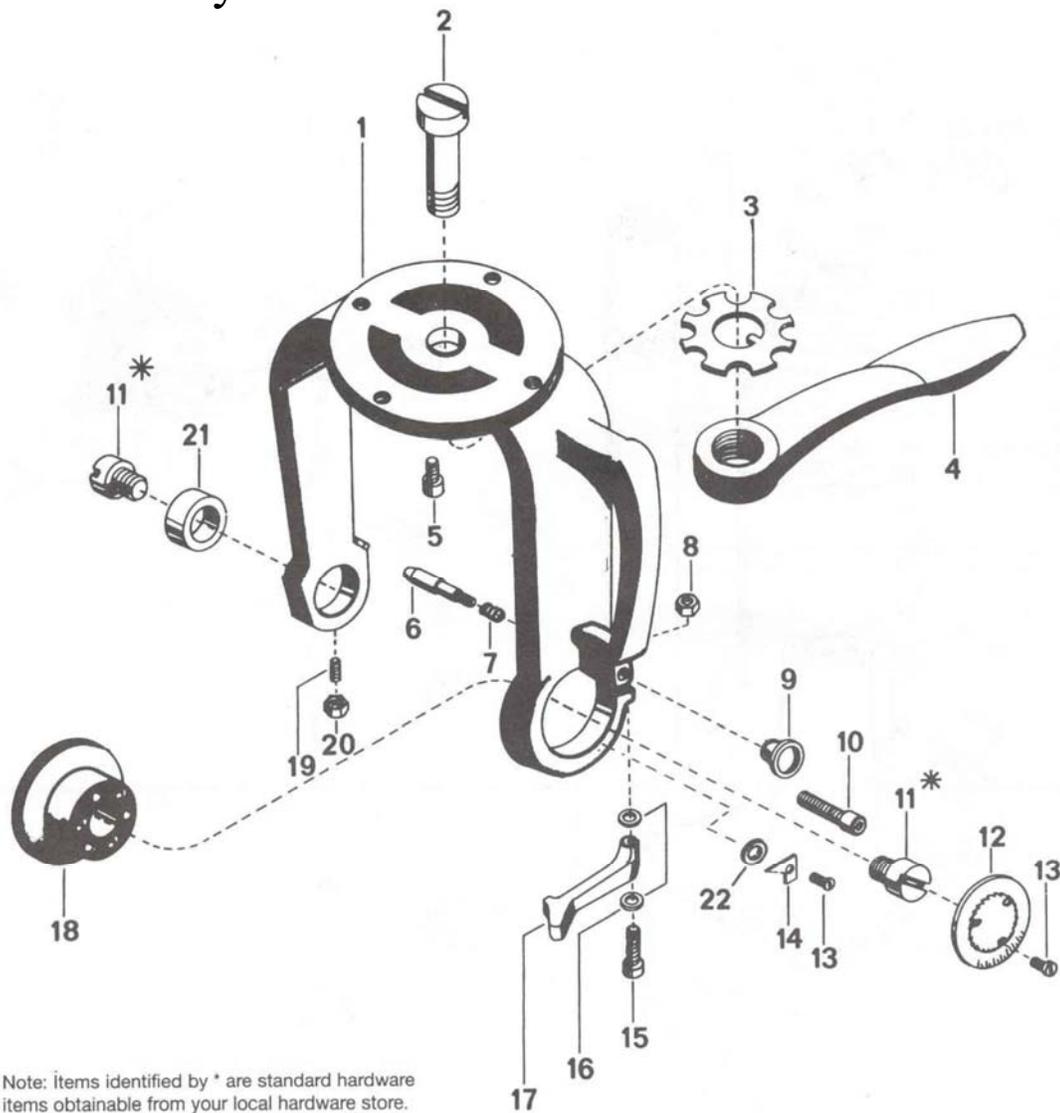


Arm Assembly



| Index No. | Part No. | Description | Qty | Index No. | Part No. | Description | Qty |
|-----------|-----------|--------------------------------|-----|-----------|-----------|-------------------------------------|-----|
| 1 | 083294 | Arm Clamp Handle | 1 | 22 | 099270-07 | 10-32 x 7/16 Pan Hd Scr (std arm) | 4 |
| 2 | 096767 | Miter Latch | 1 | 23 | 099270-07 | 10-32 x 7/16 Pan Hd Scr (std arm) | 5 |
| 3 | 083122 | Miter Latch Adjusting Screw | 2 | 24 | 096777-00 | Rip Scale (std arm) | 1 |
| 4 | 003041 | #4x 5/16 Drive Screw | 2 | | 096777-01 | Rip Scale (med arm) | 1 |
| 5 | 123513 | Trademark Tag | 2 | 24 | 099154-28 | 1/4-20 x 1 5/8 Soc Hd Cap Scr | 2 |
| 6 | 082200 | 5/16-18 x 3/8 Soc Hd Cap Scr | 4 | 26 | 080489 | 8-32 x 3/8 Pan Hd Mach Scr | 1 |
| 7 | 103117 | Caution Plate | 1 | 27 | 203597-01 | Miter Pointer | 1 |
| 8 | 123518-00 | Arm (Std) 32" (inc 4,5,6,7,29) | 1 | 28 | 096771-01 | Arm Clamp bolt | 1 |
| | 123518-01 | Arm (Med) 40" (inc 4,5,6,7,29) | 1 | 29 | 123514 | Caution Label | 1 |
| 9 | 088183 | Dust Cover (inc 35) | 1 | 30 | 082387 | 1/4-20 x 1/4 Cup Pt Set Scr | 2 |
| 10 | | Contact Block set (see # 14) | 1 | 31 | 103522 | 1/4" Set Screw Slug | 2 |
| 12 | 096728-02 | End Cap | 1 | 32 | 080648 | 1/4-20 x 1/2 Cup Pt Set Scr | 1 |
| 13 | 099155-24 | 5/16-18 x 1 1/2 Soc Hd Cap Scr | 2 | 33 | 081977 | 3/8 Pipe Strap | 1 |
| 14 | 900101-02 | Switch Kit (inc 10) | 1 | 34 | 080634 | 1/4-20 x 1/2 Round Hd Scr | 2 |
| 19 | 068653-01 | Cap Bumper | 1 | 35 | 070869 | Mushroom Bumper | 2 |
| 20 | 088185 | Bumper Stud | 1 | 36 | 048822 | Strain Relief | 1 |
| 21 | 099266-10 | 1/2-13 Hex Jam Nut | 2 | 37 | 084962-01 | Bevel stop mount / Spirator Bracket | 1 |
| | | | | 38 | 066212-00 | Sprint return | 1 |

Yoke Assembly



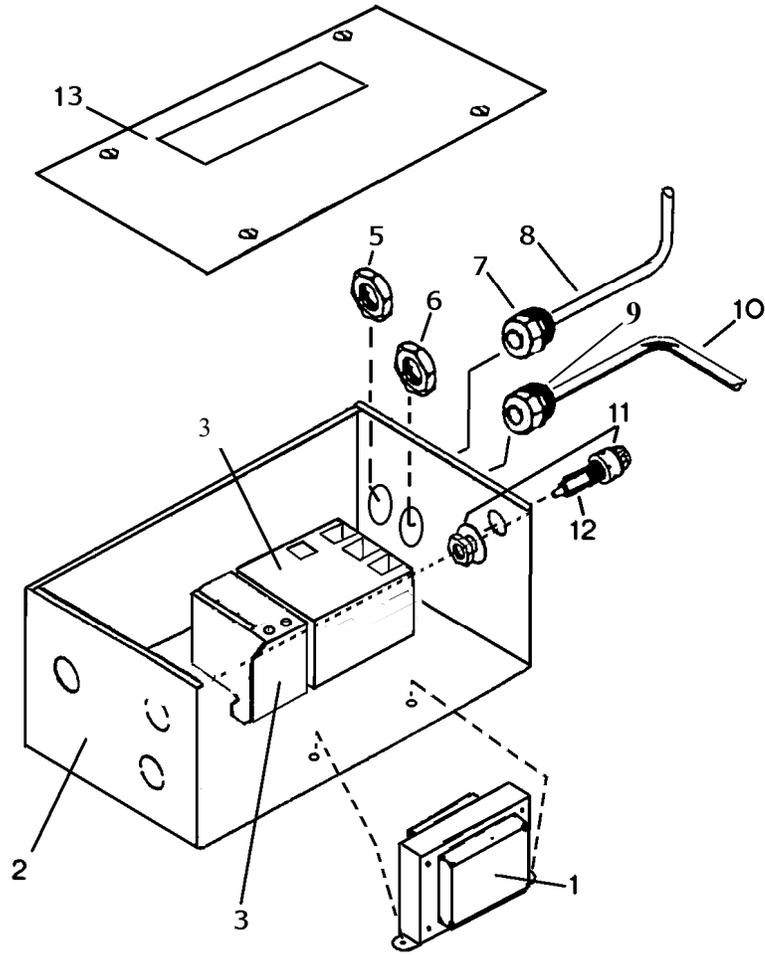
| Index No. | Part No. | Description | Qty | Index No. | Part No. | Description | Qty |
|-----------|-----------|---------------------------------|-----|-----------|-------------|-------------------------------|-----|
| 1 | 096737 | Yoke | 1 | 13 | 099262-04 * | 8-32 x 1/4 Pan Hd. Screw | 4 |
| 2 | 067927 | King Bolt | 1 | 14 | 203588-01 | Pointer | 1 |
| 3 | 068655 | Adjuster, Washer | 1 | 15 | 082182 * | 3/8-16 x 2 3/4 Soc Hd Screw | 1 |
| 4 | 096775 | Yoke Clamp Handle | 1 | 16 | 080674 * | 3/8 Flat Washer | 2 |
| 5 | 082200 | 5/16-18 x 3/8 Soc Hd Cap Screw | 1 | 17 | 201361 | Bevel Clamp Handle | 1 |
| 6 | 119510 * | Locating Pin | 1 | 18 | 083356 | Dial Plate | 1 |
| 7 | 088165 | Spring | 1 | 19 | 082403 * | 5/16-18 1/2 Flat Pt Set Screw | 3 |
| 8 | 099368-07 | 3/8-16 Hex Nut | 1 | 20 | 080467 * | 5/16-18 Hex Jam Nut | 3 |
| 9 | 069532 | Knob, Plastic | 1 | 21 | 101122 | Trunion Stud | 1 |
| 10 | 082173 * | 3/8-16 x 1 1/4 Soc Hd Cap Screw | 3 | 22 | 030251 * | # 10 Flat Washer | 1 |
| 11 | 101121 | Trunion Stud | 2 | | | | |
| 12 | 101118 | Dial | 1 | | | | |

+ Apply 2 drops of Loctite Grade 242 to threads prior to assembly

Note: Items identified by * are standard hardware items obtainable from your local hardware store

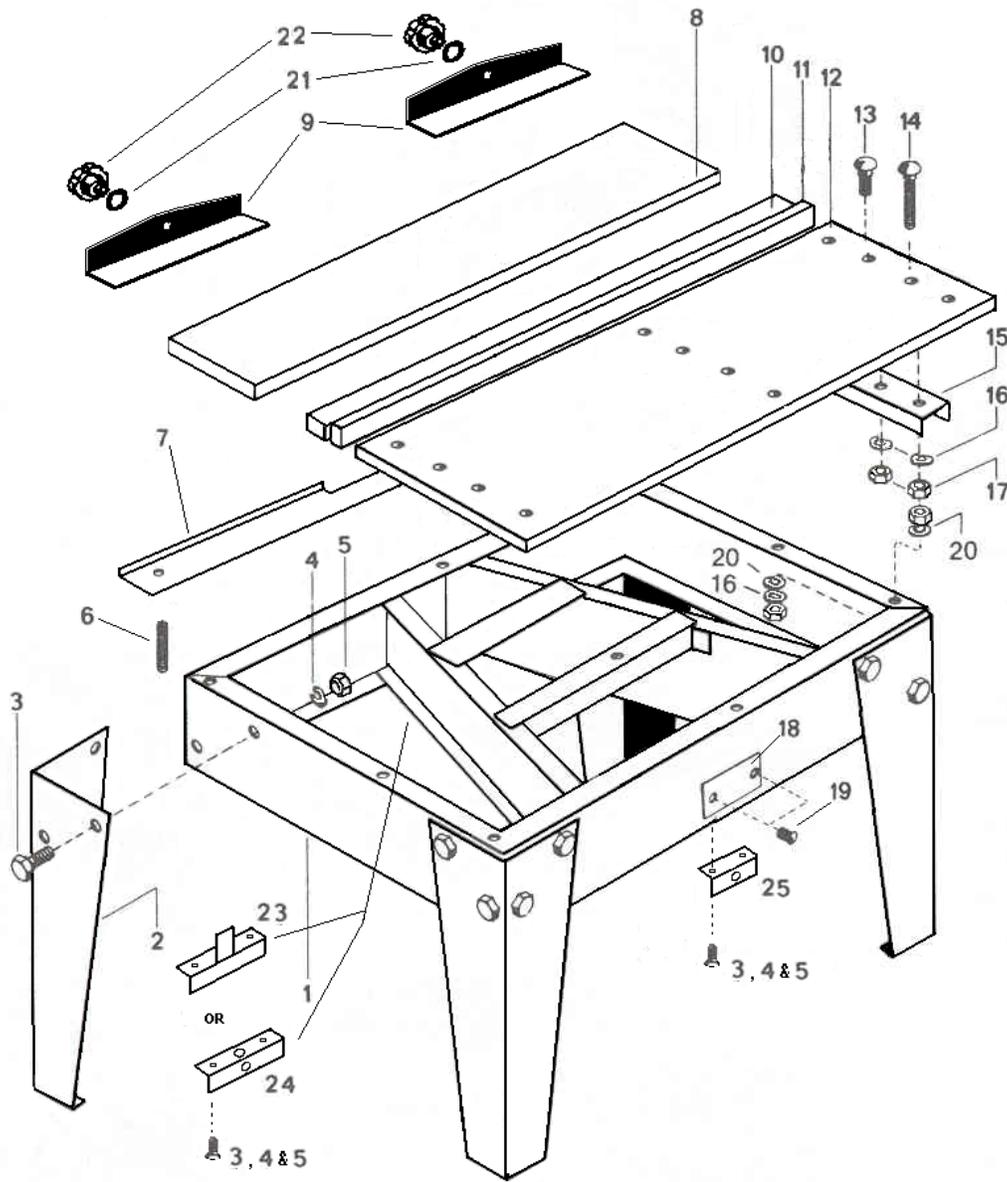
Magnetic Starter Assembly

(Telemecanique Starter)



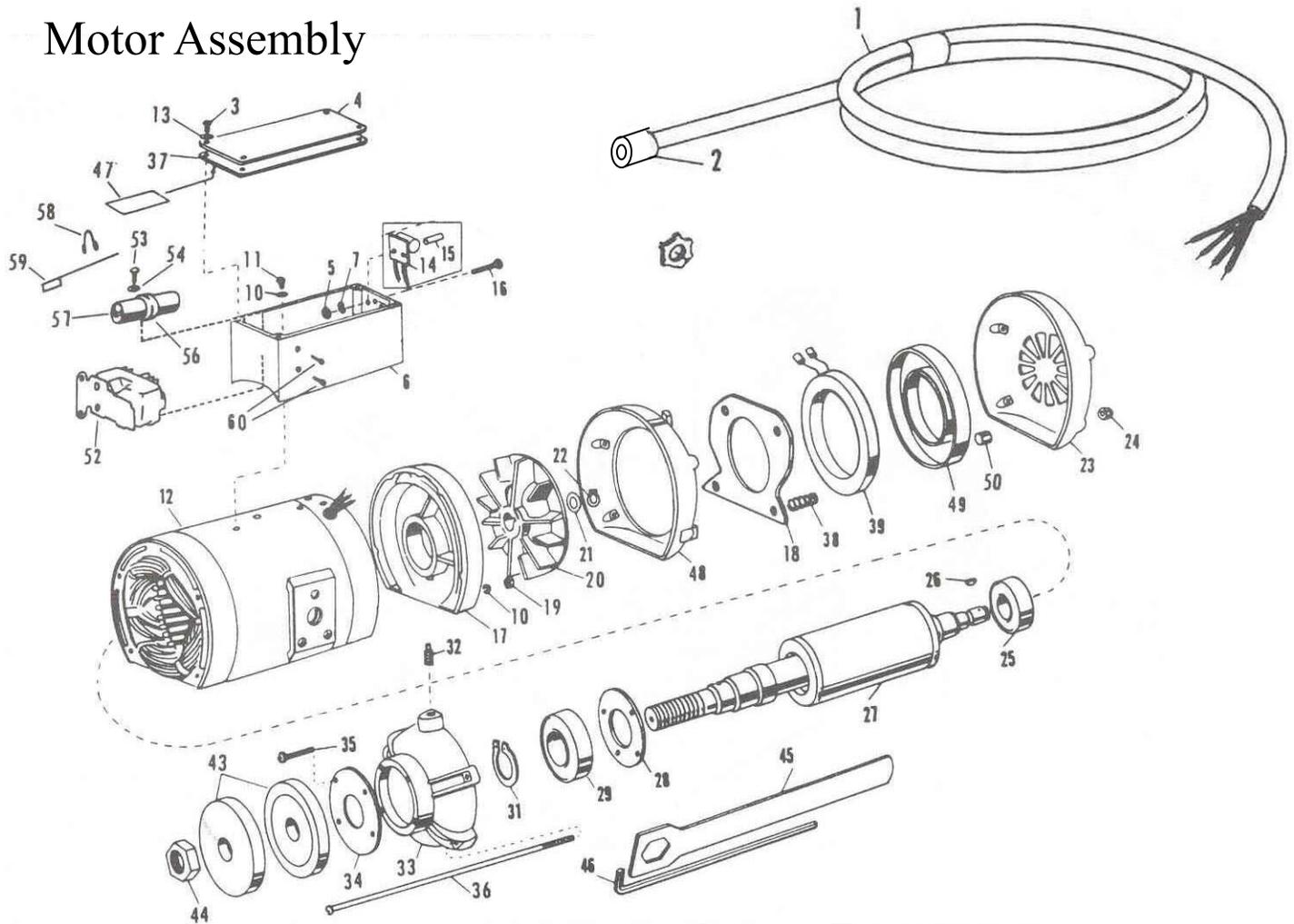
| Index No. | Description | Qty | 5 HP 3 Phase | 3 HP 1 Phase |
|-----------|---|-----|--------------------------|--|
| 1 | Transformer 208/230/460 volt 380/575 volt | 1 | 122105-60 122105-51 | 122105-60 n/a |
| 2 | Enclosure | 1 | 096759-04 | 096759-04 |
| 3 | Magnetic Starter | 1 | 122108-83 | 122108-83 |
| 4 | Heater Pack | 1 | | 122110-86 (18.7 setting) 122110-86 (17 setting) |
| | 208v 1 phase | | — | — |
| | 230v 1 phase | | — | — |
| | 208v 3 phase | | 122110-85 (16.7 setting) | — |
| | 230v 3 phase | | 122110-85 (15.2 setting) | — |
| | 460v 3 phase | | 122110-83 (7.6 setting) | — |
| 5 | Nylon nut 3/4 | 1 | 068820-02 | 068820-02 |
| 6 | Nylon nut 1/2 | 1 | 068820-03 | 068820-03 |
| 7 | Liquid tight fitting 3/4 | 1 | 081724-01 | 081724-01 |
| 8 | Motor cable | 9ft | 21703164 | 21703114 |
| 9 | Liquid tight fitting 1/2 | 1 | 066425-01 | 066425-01 |
| 10 | Control cable | 9ft | 21703338 | 21703338 |
| 11 | Fuse holder | 1 | 068723 | 068723 |
| 12 | Fuse | 1 | 081554 | 081554 |
| 13 | Warning Label | 1 | 123540 | 123540 |

Table & Frame Assembly



| Index No. | Part No. | Description | Qty | Index No. | Part No. | Description | Qty |
|-----------|-----------|-----------------------|-----|-----------|-----------|-------------------------------|-----|
| 1 | 088180 | Table Frame | 1 | 13 | 096779-01 | 5/16-18 x 1 1/4 Carriage Bolt | 6 |
| 2 | 088181 | Table Leg | 4 | 14 | 096778-01 | 5/16-18 x 2 1/2 Carriage Bolt | 6 |
| 3 | 082102 | 3/8-16 x 1 Hex Screw | 16 | 15 | 096735-02 | Table Cleat | 3 |
| 4 | 000415 | 3/8 Lock washer | 16 | 16 | 099384-07 | 5/16 Lock washer | 27 |
| 5 | 084180 | 3/8-16 Hex nut | 16 | 17 | 099370-04 | 5/16-18 Nut | 30 |
| 6 | 100155-44 | 5/16-18 x 3 Set Screw | 3 | 18 | 123459 | Machine nameplate | 1 |
| 7 | 096729-02 | Rear Table Cleat | 1 | 19 | 012122 | Drive Screw | 4 |
| 8 | 096734-01 | Rear Board | 1 | 20 | 099358-08 | 5/16 Flat Washer | 18 |
| 9 | 068666-01 | Table Clamps | 2 | 21 | 082492 | 1/2 Flat Washer | 2 |
| 10 | 096732 | Spacer Board | 1 | 22 | 068706 | Clamping Knob | 2 |
| 11 | 096731 | Guide Strip | 1 | 23 | 088182-00 | Upper Elevating Bracket | 1 |
| 12 | 096730 | Front Board | 1 | 24 | 088182-02 | Lower Elevating Bracket | 1 |
| | | | | 25 | 088182-03 | Front Lower Elevating Bracket | 1 |

Motor Assembly



| Index No. | Part No. | Description | Qty |
|-----------|-------------------------------------|--|----------------|
| 1 | 064540 | #14-4 motor cable | 1 |
| 2 | 081724-01 068820-02 | Strain Relief—Liquid tight fitting Nut—for strain relief | 1 |
| 3 | 099248-12 123466-02 123466-08 | 8-32 x 3/4 pan hd mach screw motor data label 3 phase motor data label 1 phase | 1 1 1 |
| 5 | 000407 | #8-32 hex nut | 2 |
| 6 | 088175-05 | Motor conduit Box | 1 |
| 7 | 000418 | #8 lock washer | 2 |
| 10 | 000417 | #10 lock washer | 6 |
| 11 | 096994 | 10-24 x 3/4 pan hd mach screw | 2 |
| 12 | 123412-95 123412-96 123411-56 | Stator 230/460 Volts 3 ph Stator 575 Volts 3ph Stator 230 Volts 1 ph | 1 1 1 |
| 13 | 000418 | #8 lock washer | 4 |
| 14 | 072222 | Brake module | 1 |
| 15 | 123420 | spacer (brake module) | 2 |
| 16 | 099248-28 | #8-32 x 1 3/4 pan hd mach screw | 2 |
| 17 | 541003 | Fan End Bell | 1 |
| 18 | 123402 | Brake Disk | 1 |
| 19 | 081953 | #10-24 hex nut | 4 |
| 20 | 123417 | fan assembly | 1 |
| 21 | 539160 539161 539162 | shim washer (.002) shim washer (.005) shim washer (.010) | AR AR AR |
| 22 | 037846 | retaining ring | 1 |
| 23 | 541007 | Fan housing | 1 |
| 24 | 081932 | #10-24 hex cap nut | 4 |
| 25 | 123414 | Ball Bearing | 1 |
| 26 | 026587 | Woodruff Key | 1 |
| 27 | 123408 | Rotor and Shaft | 1 |
| 28 | 083419 | Bearing Cap | 1 |
| 29 | 123413 | Ball Bering | 1 |

| Index No. | Part No. | Description | Qty |
|-----------|-------------------------------------|--|-------------|
| 31 | 541351 | Retaining Ring | 1 |
| 32 | 123497 | Guard Stud | 1 |
| | 096713 | Guard Stud 14" series 3/8-16 x 2 1/2 ss | 1 |
| 33 | 088146 | Arbor End Bell | 1 |
| 34 | 070786-01 | Cover Plate | 1 |
| 35 | 099263-20 | #10-24 x 1 1/4 pan hd mach screw | 4 |
| 36 | 123419 | Tie Rod | 4 |
| 37 | 096626 | Motor Box Cover | 1 |
| 38 | 123418 | Spring (brake) | 4 |
| 39 | 123406 | Brake Coil Assembly | 1 |
| 43 | 101820-01 | Arbor Collar (ground) | 2 |
| 44 | 081433 | Arbor Nut | 1 |
| 45 | 301020-02 | Arbor Wrench Flat | 1 |
| 46 | 203511 | Arbor Wrench Allen | 1 |
| 47 | 121319-71 121318-71 123460-71 | Connection Diagram 208/230/460 v Connection Diagram 575 v Connection Diagram 220 v 1 phase | 1 1 1 |
| 48 | 123403 | Fan Baffle | 1 |
| 49 | 123404 | Coil Housing | 1 |
| 50 | 121341 | Bumper (peel & stick) | 3 |
| 52 | 068595-03 | Relay | 1 |
| 53 | 099249-05 | #10-24 x 3/8 pan hd mach screw | 1 |
| 54 | 099361-10 | #10 flat washer | 1 |

Single phase only below line (motor # 123424-00)

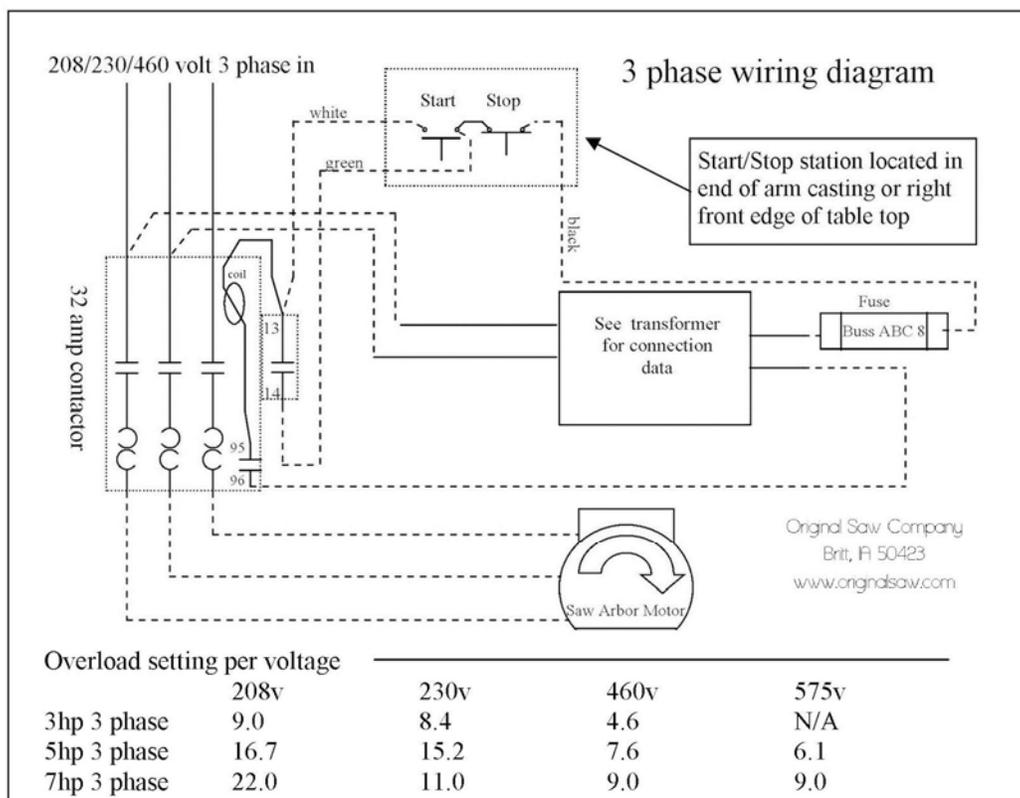
| | | | |
|----|-----------|-------------------------------|---|
| 55 | 000417 | #10 lock washer | 1 |
| 57 | 083382-05 | Capacitor | 1 |
| 60 | 099248-06 | #8-32 x 3/8 pan hd mach screw | 2 |

Parts not shown ss wire connector for motor leads
(081733 & 081730)

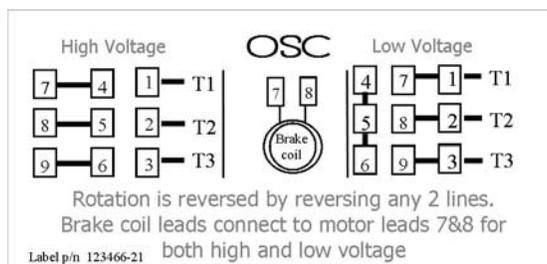
Changing the Motor Voltage

WARNING—DISCONNECT AND LOCKOUT POWER BEFORE SERVICING

If your machine requires a different voltage, follow the instructions below. The motor will need to be rewired according to the diagrams below. The thermal overloads must be reset or replaced with the proper pieces to maintain thermal motor protection.



Motor lead wiring diagram



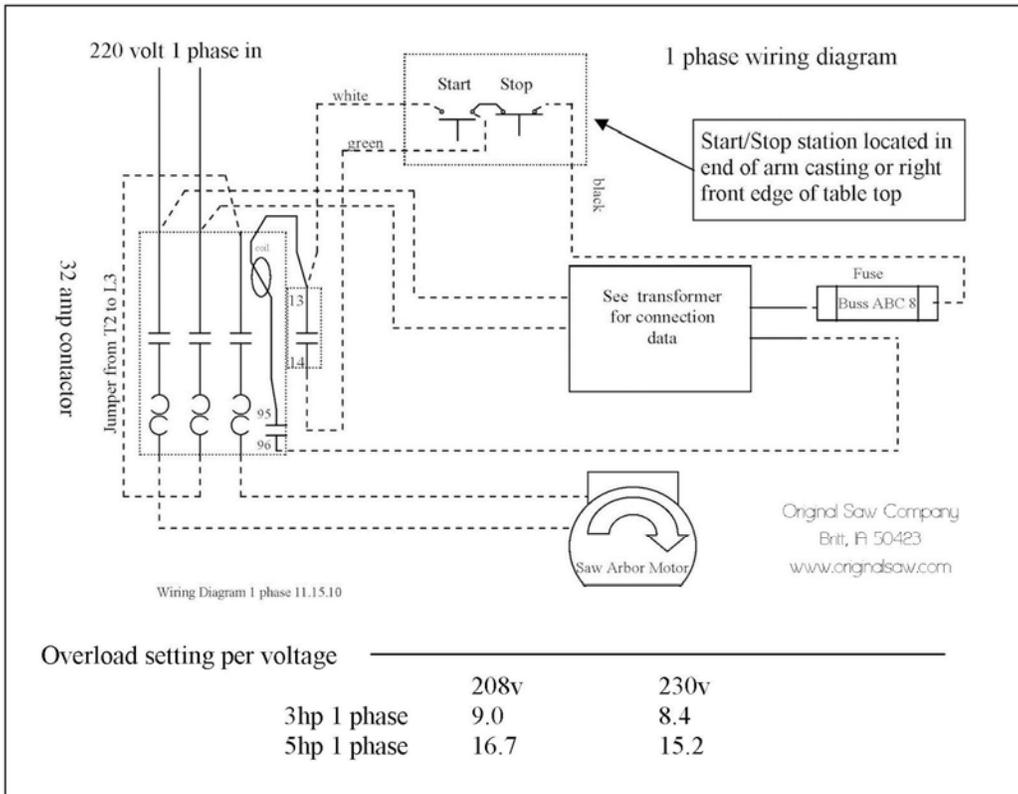
instructions for Changing the Motor Voltage

- 1) **Disconnect and lockout power**– Electrical shock could occur if this is not done.
- 2) Reconnect motor and transformer leads as shown in the chart above to match your required voltage. Paying careful attention to make sure the brake coil lines are still attached to motor leads #7 and #8.
- 3) Reset the dial for the proper amperage setting shown in the chart above. If your overload block does not have the proper settings, the block will have to be replaced with one appropriate for your voltage.
- 4) Recheck all connections and replace lids on the motor box and magnetic starter enclosure before restoring power.

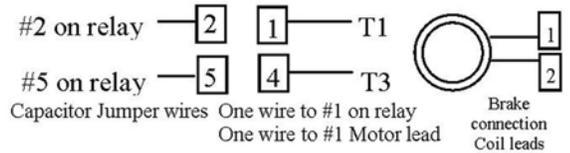
1 phase wiring diagram

WARNING—DISCONNECT AND LOCKOUT POWER BEFORE SERVICING

If your machine requires a different voltage, follow the instructions below. The motor will need to be rewired according to the diagrams below. The thermal overloads must be reset or replaced with the proper pieces to maintain thermal motor protection.



Motor lead wiring diagram



Alignment Guide for Accurate Cutting

The following guide is provided for your convenience. A saw that is not properly adjusted will not yield the desired accuracy and quality of cut. It should be noted any adjustment made will effect another, therefore it is best to perform all of the adjustments when correcting any one problem.

| PROBLEM | POSSIBLE CAUSE | SOLUTION |
|---|---|---|
| Saw will not make a square cross cut or a good 45° miter cut | <ul style="list-style-type: none"> - Arm is not perpendicular to guide fence - Arm has excessive play at end - Column is loose in base - Too much play between arm and column - Roller head loose in arm (left to right play) - Yoke loose when clamped to roller head - Sawdust between lumber and guide fence - Table not parallel with arm - Guide fence not straight/rear edge of fixed board not straight | <ul style="list-style-type: none"> - Adjust cross cut travel with guide fence (p. 14) - Tighten adjusting screws - Make proper adjustment (p. 11) - Make proper adjustment (p. 11) - Adjust roller head (p. 11) - Adjust yoke clamp handle (p. 12) - Clean tabletop - Make proper adjustment (p. 12) - Replace fence/sand or replace (p. 12) |
| Lumber has a tendency to walk away from fence when ripping or ploughing | <ul style="list-style-type: none"> - Saw blade is not parallel with fence - Arm not perpendicular to guide fence - Dull blade or cutters | <ul style="list-style-type: none"> - Make heel adjustment (p. 13) - Adjust crosscut travel with guide fence (p. 14) - Sharpen or replace blade |
| Saw stalls when ripping or ploughing | <ul style="list-style-type: none"> - Fence not straight - Feed rate too fast - Wrong blade - Column too loose in base - Too much play between arm and column - Roller head loose in arm - Yoke loose when clamped to roller head - Sawdust between lumber and fence | <ul style="list-style-type: none"> - Replace fence - Slow feed rate - Use correct blade - Make proper adjustment (p. 11) - Make proper adjustment (p. 11) - Make proper adjustment (p. 11) - Make proper adjustment (p. 12) - Clean tabletop |
| Saw blade scores lumber, finish cut is not smooth | <ul style="list-style-type: none"> - Saw blade is heeling - Column too loose in base - Too much play between arm and column - Roller head loose in arm - Yoke too loose when clamped to roller head - Bent or dull blade - Not feeding saw properly - Using improper blade | <ul style="list-style-type: none"> - Make heel adjustment (p. 13) - Make proper adjustment (p. 11) - Make proper adjustment (p. 11) - Make proper adjustment (p. 11) - Make proper adjustment p. 12) - Replace blade - Draw blade across lumber with slow steady pull - Change blade. |

| PROBLEM | POSSIBLE CAUSE | SOLUTION |
|---|---|--|
| Saw blade or dado blades tend to push lumber to one side when cross cutting | <ul style="list-style-type: none"> - Saw blade is heeling - Column too loose in base - Too much play between arm and column - Roller head too loose in arm - Yoke too loose when clamped to roller head - Fence not straight - Dull blade or cutters | <ul style="list-style-type: none"> - Make heel adjustment (p. 13) - Make proper adjustment (p. 11) - Make proper adjustment (p.11) - Make proper adjustment (p. 11) - Make proper adjustment (p. 12) - Replace fence - Replace or sharpen |
| Cut depth varies from one end of stock to the other | <ul style="list-style-type: none"> - Tabletop not parallel with arm - Column too loose in base - Too much play between arm and column | <ul style="list-style-type: none"> - Adjust tabletop to arm (p. 12) - Make proper adjustment (p. 11) - Make proper adjustment (p. 11) |
| 45° bevel cut not accurate | <ul style="list-style-type: none"> - Saw blade not perpendicular to tabletop - Column too loose in base - Too much play between arm and column - Roller head too loose in arm - Yoke too loose when clamped to roller head - Bevel clamp handle loose - Tabletop not parallel to arm | <ul style="list-style-type: none"> - Make proper adjustment (p. 13) - Make proper adjustment (p. 11) - Make proper adjustment (p. 11) - Make proper adjustment (p. 11) - Make proper adjustment (p. 12) - Make proper adjustment (p. 13) - Make proper adjustment (p. 12) |
| Saw tends to advance over lumber too fast | <ul style="list-style-type: none"> - Roller head bearings out of adjustment - Dull blade - Not feeding saw properly | <ul style="list-style-type: none"> - Adjust bearings (p. 11) - Replace or sharpen blade - Draw blade across lumber with a slow steady pull |
| Saw does not move smoothly in arm tracks | <ul style="list-style-type: none"> - Dirty tracks - Bad bearing | <ul style="list-style-type: none"> - Clean tracks - Replace bearing |
| Miter scale not accurate at various miter angles | <ul style="list-style-type: none"> - Scale pointer not properly adjusted | <ul style="list-style-type: none"> - Adjust scale pointer |
| Elevating handle slips when elevating or lowering the saw | <ul style="list-style-type: none"> - Base not adjusted properly | <ul style="list-style-type: none"> - Adjust base to column (p. 11) |
| Clamping force not sufficient at miter angles other than 45° | <ul style="list-style-type: none"> - Arm clamp out of adjustment | <ul style="list-style-type: none"> - Adjust arm clamp (p. 11) |
| Clamping force not sufficient at bevel angles other than 45° | <ul style="list-style-type: none"> - Bevel clamp handle too loose | <ul style="list-style-type: none"> - Adjust bevel clamp (p. 13) |

ELECTRICAL TROUBLE-SHOOTING GUIDE

CAUTION—HIGH VOLTAGES ARE DANGEROUS—BE SURE POWER IS OFF AND LOCKED OUT WHEN INSPECTING OR REPAIRING MOTOR OR CONTROLS

| TROUBLE | POSSIBLE CAUSE | SUGGESTED REMEDY |
|---|--|--|
| Saw motor will neither start nor hum | Power line not connected to cable. | Correct power wiring. See wiring diagram inside magnetic starter box. |
| | Thermal overload relays may have tripped. | Allow time for overload relays to cool. |
| | Faulty (blown) line fuse, line circuit breaker tripped. | Check for presence of proper voltage at motor. |
| | Defective control transformer. | Check circuit with continuity meter. Ensure power is off. |
| | Start and stop switches at end of arm may be defective. | |
| | Faulty starter. | |
| Saw motor hums but will not start (Shut off power immediately) | Open circuit in a thermal relay heater. | Remove heaters. If defective, heater may be completely burned up. Install new heater if required. |
| | Open circuit in motor cable or cable lugs. | Use a continuity meter and check each wire between control unit and motor. Check lug connections. |
| | Wiring error. | Check connections in starter box and conduit box, refer to motor and starter connection diagrams. |
| | Mechanical binding—shaft should turn freely by hand. | Tap end of shaft with mallet to seat bearings in end bells. Check bearings and bell etc. Replace as needed. |
| | Low voltage—voltage should be measured at the motor while it is starting and blade attached. Voltage should not drop lower than 185 volts for 208, 220 and 230 volt systems. | Check for loose or high resistance connections— make sure lines are of ample capacity and other equipment is not pulling down the voltage. |
| | Burned out stator | If motor smells or has been smoking each phase winding should be checked with a test lamp or continuity meter. |
| | Bad capacitor (single phase only). | Turn off power, remove motor nameplate. Discharge capacitor by short circuiting terminals; remove motor from circuit. Test with ohm meter. Needle should jump when leads are touched to capacitor terminals and fall back to a high resistance as capacitor charges. |
| | Bad starting relay (single phase only). | If contacts are excessively burned, pitted or welded together the relay must be replaced. Check for open relay coil using continuity meter. |
| Motor trips overload relay or blows line fuse. | Wrong heater or fuse. | Replace with proper heater, fuse or circuit breaker. |
| | Excessive currents. | Check for grounds or shorts. |
| | Low voltage. | Check voltage while starting as outlined above. |
| | Loose or faulty connection. | Locate and repair. |

ACCESSORIES

Auto Return Device—Returns carriage to start position or rear of arm (required by OSHA). Standard equipment on 1994 and newer saws.

035018-01 For all Black & Decker DeWalt Contractor models and all Original HD Series

Roller Table Extension— 20" wide and 8' long. Mounting brackets and support legs included.

040030-01 Roller table extension 12" centers (8 Rollers)

040030-02 Roller table extension 6" centers (15 Rollers)

Blades — Wood

T2009 14" x 40 tooth x 1" arbor (Carbide) *

T2009-01 14" x 80 tooth x 1" arbor (Carbide) *

T2009-02 14" x 60 tooth x 1" arbor (Carbide) *

T2010 16" x 40 tooth x 1" arbor (Carbide)

T2010-01 16" x 60 tooth x 1" arbor (Carbide)

T2010-02 16" x 8 tooth x 1" arbor (Carbide)

T2010-03 16" x 100 tooth x 1" arbor (Carbide)

PREVENTIVE MAINTENANCE

Original Radial Arm Saws are designed to provide you with precision cutting with a minimal amount of maintenance. The frequency of the maintenance depends on the amount of use and the desired cutting quality.

Always disconnect and lockout power supply before performing maintenance.

After every 10–20 hours of use the column should be wiped down with a clean dry rag. Wipe the tracks of the arm with a clean rag and either denatured alcohol or paint thinner. Move the carriage back and forth several times and clean it again. DO NOT lubricate the arm tracks; doing so may cause excessive arm wear due to dust attracting to the arm tracks. Keep the tracks clean and dry; periodically wipe or vacuum sawdust from all exposed surfaces. Check for loose or broken parts and replace if necessary with genuine Original Saw Parts. Check the blade to see if it is sharp and free of wobble.

Adjustment and alignment of saw is necessary only when cutting results in unacceptable accuracy.

After many years of use your saw may need replacement parts. If any of the following wears out all others listed should be checked also.

Roller head bearings: Check for free, smooth rotation. Do not attempt to lubricate.

Arm Tracks: If the saw is used primarily for short cut-offs, the tracks may wear making it difficult to adjust the roller head bearing for full length arm travel. Arms can generally be remachined—contact Original Saw for pricing and shipping instructions.

Motor bearings: Check for free, smooth rotation. Do not attempt to lubricate.

Elevating mechanism: Remove, clean and lubricate with type EP grease. Check for wear between nut and jack screw. Replace assembly if loose.

Industrial Use Warranty Information

Your new Original Radial Arm Saw is precision manufactured under strict quality standards. In the unlikely event there is trouble with your machine, the Original Saw Company warrants the machine for the period of one year from the date of purchase. The warranty covers defects in materials and workmanship. We will cover the cost of the defective part and ground shipping. If a replacement part is sent under warranty the defective part must be returned to Original Saw Company or you will be charged for the replacement. The part must also be accompanied by a return goods authorization number. This number can be obtained by calling customer service at 1-800-733-4063. When the part is returned it may be repaired or replaced at our discretion. The part must be shipped prepaid to: The Original Saw Company, Attn. Warranty Replacement Counter, 465 Third Avenue SE, Britt, Iowa 50423.

IMPORTANT

IMPORTANT

IMPORTANT

To assure product reliability, repairs, maintenance and adjustments should be performed by Authorized Service Centers, always using genuine replacement parts.



465 Third Ave SE
P.O. Box 331
Britt, IA 50423

PH 800/733-4063 641-843-3868
FX 641 / 843-3869

E-mail customerservice@originalsaw.com
www.originalsaw.com

For parts or service please contact the manufacturer for the dealer nearest you.

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revised mag starter pg 20 with new transformer and revised wiring diagrams pg 23, 24) (updated motor wiring diagram 3 phase pg 23
01.18.2012, updated capacitor and relay part # pg22 11.03.2016 , updated power supply wiring pg 5, and updated pg6 09.13.18)