

# 1" Belt / 5" Disc Sander (Model 31-080)



PART NO. 901607 (0112)  
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**ESPAÑOL: PÁGINA 13**

# GENERAL SAFETY RULES

Woodworking can be dangerous if safe and proper operating procedures are not followed. As with all machinery, there are certain hazards involved with the operation of the product. Using the machine with respect and caution will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator may result. Safety equipment such as guards, push sticks, hold-downs, featherboards, goggles, dust masks and hearing protection can reduce your potential for injury. But even the best guard won't make up for poor judgment, carelessness or inattention. Always use common sense and exercise caution in the workshop. If a procedure feels dangerous, don't try it. Figure out an alternative procedure that feels safer. **REMEMBER:** Your personal safety is your responsibility.

This machine was designed for certain applications only. Delta Machinery strongly recommends that this machine not be modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, **DO NOT** use the machine until you have first contacted Delta to determine if it can or should be performed on the product.

## Technical Service Manager

Delta Machinery  
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Jackson, TN 38305

(IN CANADA: 505 SOUTHGATE DRIVE, GUELPH, ONTARIO N1H 6M7)



## WARNING: FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS PERSONAL INJURY

1. **FOR YOUR OWN SAFETY, READ INSTRUCTION MANUAL BEFORE OPERATING THE TOOL.** Learn the tool's application and limitations as well as the specific hazards peculiar to it.

2. **KEEP GUARDS IN PLACE** and in working order.

3. **ALWAYS WEAR EYE PROTECTION.** Wear safety glasses. Everyday eyeglasses only have impact resistant lenses; they are not safety glasses. Also use face or dust mask if cutting operation is dusty. These safety glasses must conform to ANSI Z87.1 requirements. **NOTE:** Approved glasses have Z87 printed or stamped on them.

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

5. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.

6. **DON'T USE IN DANGEROUS ENVIRONMENT.** Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well-lighted.

7. **KEEP CHILDREN AND VISITORS AWAY.** All children and visitors should be kept a safe distance from work area.

8. **MAKE WORKSHOP CHILDPROOF** – with padlocks, master switches, or by removing starter keys.

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

10. **USE RIGHT TOOL.** Don't force tool or attachment to do a job for which it was not designed.

11. **WEAR PROPER APPAREL.** No loose clothing, gloves, neckties, rings, bracelets, or other jewelry to get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.

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

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

14. **MAINTAIN TOOLS IN TOP CONDITION.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

15. **DISCONNECT TOOLS** before servicing and when changing accessories such as blades, bits, cutters, etc.

16. **USE RECOMMENDED ACCESSORIES.** The use of accessories and attachments not recommended by Delta may cause hazards or risk of injury to persons.

17. **REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure switch is in "OFF" position before plugging in power cord. In the event of a power failure, move switch to the "OFF" position.

18. **NEVER STAND ON TOOL.** Serious injury could occur if the tool is tipped or if the cutting tool is accidentally contacted.

19. **CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to ensure that it will operate properly and perform its intended function – check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.


20. **DIRECTION OF FEED.** Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.

21. **NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF.** Don't leave tool until it comes to a complete stop.

22. **STAY ALERT, WATCH WHAT YOU ARE DOING, AND USE COMMON SENSE WHEN OPERATING A POWER TOOL. DO NOT USE TOOL WHILE TIRED OR UNDER THE INFLUENCE OF DRUGS, ALCOHOL, OR MEDICATION.** A moment of inattention while operating power tools may result in serious personal injury.

23. **MAKE SURE TOOL IS DISCONNECTED FROM POWER SUPPLY** while motor is being mounted, connected or reconnected.

24. **THE DUST GENERATED** by certain woods and wood products can be injurious to your health. Always operate machinery in well ventilated areas and provide for proper dust removal. Use wood dust collection systems whenever possible.

25.  **WARNING: SOME DUST CREATED BY POWER SANDING, SAWING, GRINDING, DRILLING, AND OTHER CONSTRUCTION ACTIVITIES** contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- lead from lead-based paints,
- crystalline silica from bricks and cement and other masonry products, and
- arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

## SAVE THESE INSTRUCTIONS.

Refer to them often and use them to instruct others.

# ADDITIONAL SAFETY RULES FOR BELT / DISC SANDERS

 **WARNING: FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS PERSONAL INJURY.**

1. **DO NOT OPERATE THIS TOOL UNTIL IT IS COMPLETELY ASSEMBLED AND INSTALLED ACCORDING TO THE INSTRUCTIONS.**
2. **DUST GENERATED BY CERTAIN WOODS AND WOOD PRODUCTS CAN BE UNJURIOUS TO YOUR HEALTH. ALWAYS OPERATE ALL TOOLS IN WELL-VENTILATED AREAS AND PROVIDE FOR PROPER DUST REMOVAL. USE WOOD/DUST COLLECTION SYSTEMS WHEN POSSIBLE.**
3. **THIS MACHINE CAN BE USED FOR PROCESSING WOOD AND METAL PRODUCTS. HOWEVER, COMBINING BOTH WOOD DUST AND METAL FILINGS CAN CREATE A FIRE HAZARD. MAKE CERTAIN THAT THE DUST COLLECTOR IS FREE OF WOOD DUST DEPOSITS BEFORE PROCESSING METAL PRODUCTS.**
4. **IF YOU ARE NOT** thoroughly familiar with the operation of this tool, obtain advice from your supervisor, instructor or other qualified person.
5. **ANY TENDENCY** for the machine to tip over or move during certain operations (especially when sanding long or heavy boards, etc.) requires that the machine must be securely fastened to a supporting surface.
6. **MAKE SURE** the sanding belt runs in the proper direction. Sanding belt must travel down at the front of the machine.
7. **BE CERTAIN** the sanding belt is tracking correctly to prevent the belt from running off of the pulleys.
8. **MAKE SURE** the sanding belt or disc is not torn or loose.
9. **HOLD** the work firmly when sanding.
10. **SUPPORT** workpiece firmly with the miter gage, backstop or work table when sanding with the belt. **NOTE:** The only exception to this is working with a curved workpiece on the top wheel of belt.
11. **AVOID** kickback by sanding in accordance with directional arrows. Sand on downward side of disc. Sanding on the upward side could cause the workpiece to fly up and cause an injury.
12. **ALWAYS** maintain a maximum clearance of 1/16" or less between the table and the sanding belt or disc.
13. **NEVER** wear gloves or hold the work with a rag when sanding.
14. **SAND** with the grain of the work.
15. **DO NOT** sand pieces of material that are too small to be safely supported.
16. **AVOID** awkward hand positions where a sudden slip could cause a hand to move into the sanding belt or disc.
17. **WHEN** sanding a large workpiece, provide an additional support at table height.
18. **NEVER** force the work. Slowing or stalling the motor will cause overheating.
19. **WHEN** sanding metal, friction will cause the metal to heat. Stop long enough to let the metal cool.
20. **WHEN** sanding metal never use a steady stream of water on the workpiece. Dip the workpiece in water to cool it.
21. **DO NOT** sand or polish magnesium. This action will cause a fire hazard.
22. **ALWAYS** remove scrap pieces and other objects from the belt and disc tables before turning the machine "ON."
23. **NEVER** perform layout, assembly, or set-up work on the tables while the sander is operating.
24. **ALWAYS** turn the machine "OFF" and disconnect the cord from the power source before installing or removing accessories.
25. **NEVER** leave the machine work area when the power is "ON" or before the machine has come to a complete stop.
26. **ALWAYS** wear eye protection when operating the sander.
27. **THE USE** of attachments and accessories not recommended by Delta may result in the risk of injuries.
28. **IF ANY PART** of your sander is missing, damaged, or fails in any way, or any electrical components fails to perform properly, turn off the switch and remove the plug from power supply outlet. Replace missing, damaged or failed parts before resuming operation.
29. **ADDITIONAL INFORMATION** regarding the safe and proper operation of this product is available from the National Safety Council, 1121 Spring Lake Drive, Itasca, IL 60143-3201, in the Accident Prevention Manual for Industrial Operations and also in the Safety Data Sheets provided by the NSC. Please also refer to the American National Standards Institute ANSI 01.1 Safety Requirements for Woodworking Machinery and the U.S. Department of Labor OSHA 1910.213 Regulations.30.

**SAVE THESE INSTRUCTIONS.  
Refer to them often  
and use them to instruct others.**

# POWER CONNECTIONS

A separate electrical circuit should be used for your machines. This circuit should not be less than #12 wire and should be protected with a 20 Amp time lag fuse. If an extension cord is used, use only 3-wire extension cords which have 3-prong grounding type plugs and matching receptacle which will accept the machine's plug. Before connecting the motor to the power line, make sure the switch is in the "OFF" position and be sure that the electric current is of the same characteristics as indicated on the machine. All line connections should make good contact. Running on low voltage will damage the motor.

 **WARNING: DO NOT EXPOSE THE MACHINE TO RAIN OR OPERATE THE MACHINE IN DAMP LOCATIONS.**

## MOTOR SPECIFICATIONS

Your machine is wired for 115 volt, 60 HZ alternating current. Before connecting the machine to the power source, make sure the switch is in the "OFF" position.

## GROUNDING INSTRUCTIONS

 **WARNING: THIS MACHINE MUST BE GROUNDED WHILE IN USE TO PROTECT THE OPERATOR FROM ELECTRIC SHOCK.**

1. All grounded, cord-connected machines:

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

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

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

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


Use only 3-wire extension cords that have 3-prong grounding type plugs and matching 3-conductor receptacles that accept the machine's plug, as shown in Fig. A.

Repair or replace damaged or worn cord immediately.

2. Grounded, cord-connected machines intended for use on a supply circuit having a nominal rating less than 150 volts:

If the machine is intended for use on a circuit that has an outlet that looks like the one illustrated in Fig. A, the machine will have a grounding plug that looks like the plug illustrated in Fig. A. A temporary adapter, which looks like the adapter illustrated in Fig. B, may be used to connect this plug to a matching 2-conductor receptacle as shown in Fig. B if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. The green-colored rigid ear, lug, and the like, extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box. Whenever the adapter is used, it must be held in place with a metal screw.

**NOTE: In Canada, the use of a temporary adapter is not permitted by the Canadian Electric Code.**

 **WARNING: IN ALL CASES, MAKE CERTAIN THE RECEPTACLE IN QUESTION IS PROPERLY GROUNDED. IF YOU ARE NOT SURE HAVE A QUALIFIED ELECTRICIAN CHECK THE RECEPTACLE.**

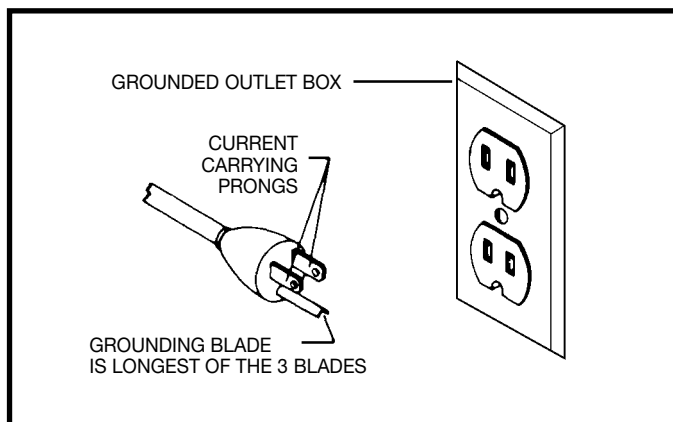


Fig. A

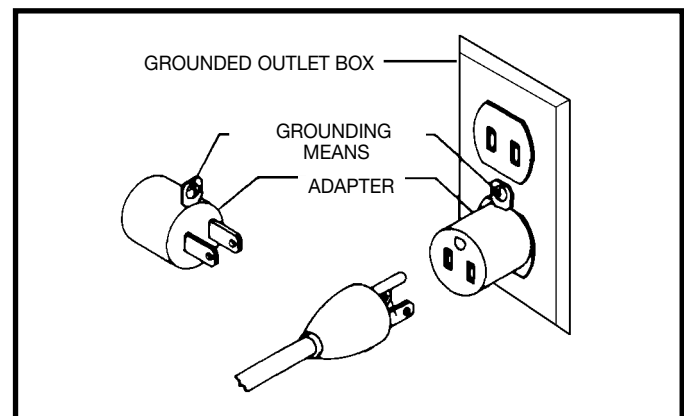


Fig. B

# EXTENSION CORDS

Use proper extension cords. Make sure your extension cord is in good condition and is a 3-wire extension cord which has a 3-prong grounding type plug and matching receptacle which will accept the machine's plug. When using an extension cord, be sure to use one heavy enough to carry the current of the machine. An undersized cord will cause a drop in line voltage, resulting in loss of power and overheating. Fig. D, shows the correct gauge to use depending on the cord length. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

<b>MINIMUM GAUGE EXTENSION CORD</b>			
RECOMMENDED SIZES FOR USE WITH STATIONARY ELECTRIC MACHINES			
Ampere Rating	Volts	Total Length of Cord in Feet	Gauge of Extension Cord
0-6	115	up to 25	18 AWG
0-6	115	25-50	16 AWG
0-6	115	50-100	16 AWG
0-6	115	100-150	14 AWG
6-10	115	up to 25	18 AWG
6-10	115	25-50	16 AWG
6-10	115	50-100	14 AWG
6-10	115	100-150	12 AWG
10-12	115	up to 25	16 AWG
10-12	115	25-50	16 AWG
10-12	115	50-100	14 AWG
10-12	115	100-150	12 AWG
12-16	115	up to 25	14 AWG
12-16	115	25-50	12 AWG
12-16	115	GREATER THAN 50 FEET NOT RECOMMENDED	

Fig. D

# OPERATING INSTRUCTIONS

## FOREWORD

The Delta Model 31-080 Belt/Disc Sander is a handy machine for sanding wood, metal, plastic, or ceramic workpieces. This machine incorporates a 1" belt sander and a 5" disc sander, and uses an induction-type ball bearing motor for long-lasting performance. Features include automatic belt tensioning, removable belt platen, built-in dust spout, and a power take-off for mounting an accessory flexible shaft to do specialized work.

## UNPACKING AND CLEANING

Carefully unpack the machine and all loose items from the shipping container(s). Remove the protective coating from all unpainted surfaces. This coating may be removed with a soft cloth moistened with kerosene (do not use acetone, gasoline or lacquer thinner for this purpose). After cleaning, cover the unpainted surfaces with a good quality household floor paste wax.

**NOTICE: THE MANUAL COVER PHOTO ILLUSTRATES THE CURRENT PRODUCTION MODEL. ALL OTHER ILLUSTRATIONS ARE REPRESENTATIVE ONLY AND MAY NOT DEPICT THE ACTUAL COLOR, LABELING OR ACCESSORIES.**

# ASSEMBLY

## ATTACHING BELT SANDER TABLE

### 1. DISCONNECT MACHINE FROM POWER SOURCE.

2. Locate the 1-3/16" long screw (A) Fig. 2, M8.4 flat washer (B), and table locking handle assembly (C), (D), (E) and (F). **NOTE:** The table locking assembly (C, D, E, and F) is shipped assembled. For ease in assembling table to sander, remove screw and spring (E) and (F), and handle (D) from locking stud (C).

3. Place table (G) Fig. 3, on sander by inserting belt (H) and platen (I) through opening (J) in table, as shown.

4. Insert 1-3/16" long screw (A) Fig. 4, into hole in sander frame and through slot (K) underneath table and fasten using M8.4 flat washer and stud (C), tighten the stud (C) by hand.

5. The M8.4 flat washer (B) and stud (C) are also shown in Fig. 5. Place handle (D) on end of stud and fasten in place using spring (E) and screw (F) Fig. 5.

6. The table (A) is shown completely assembled to the sander in Fig. 6. **NOTE:** The locking handle (B) is spring loaded and can be repositioned by pulling out the handle and repositioning it on the serrations located underneath the handle. **WARNING: To avoid trapping the workpiece or your fingers between the table (A) and the sanding belt (D), adjust the table so that it is a maximum 1/16" from belt, between the work table and the belt (see the section "BELT TABLE ADJUSTMENTS").**

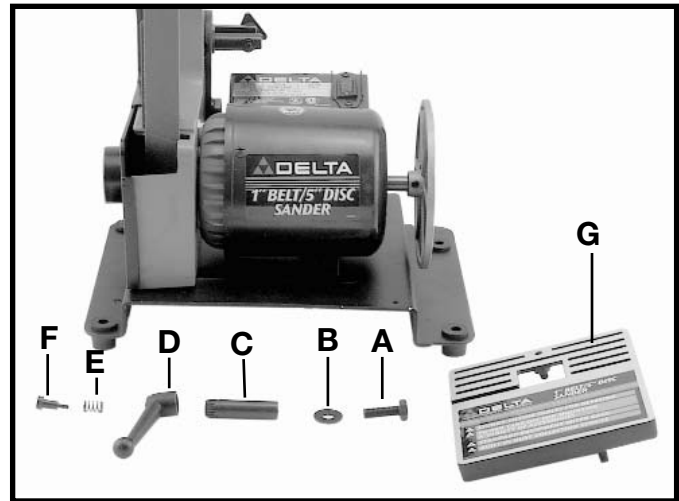


Fig. 2

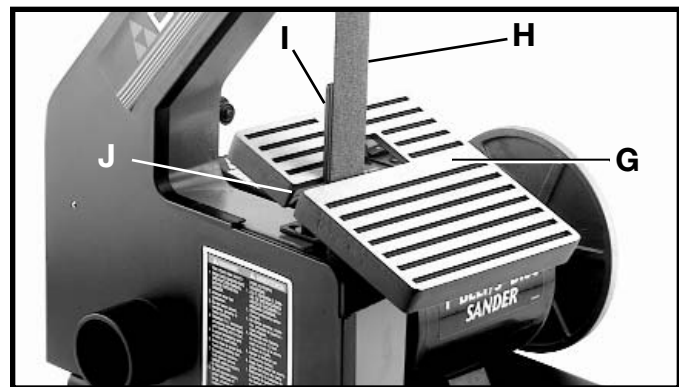


Fig. 3



Fig. 4

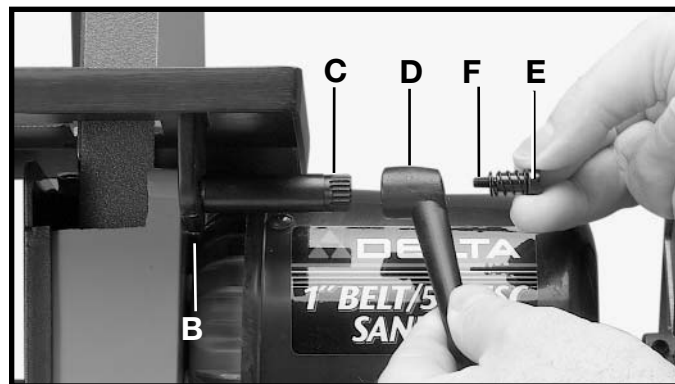


Fig. 5

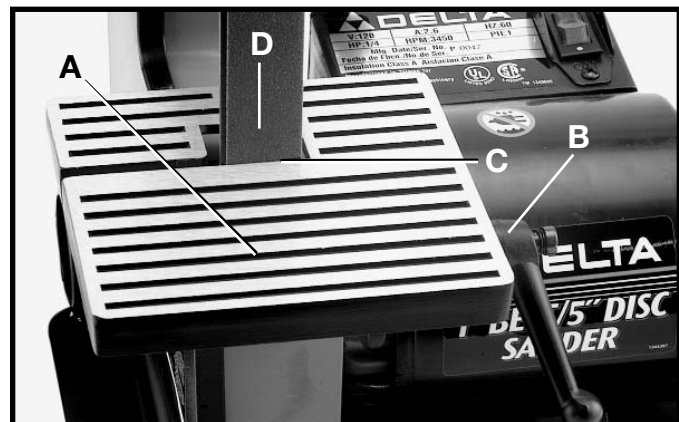


Fig. 6

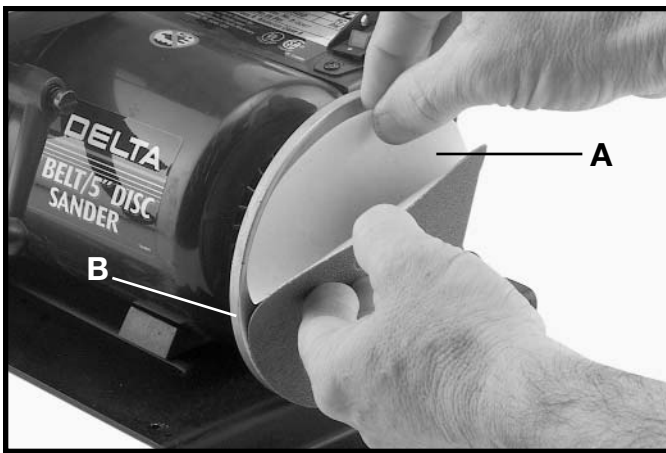


Fig. 7

## ATTACHING ABRASIVE TO SANDING DISC

1. **DISCONNECT MACHINE FROM POWER SOURCE.**
2. Remove one-half of the abrasive backing (A) Fig. 7, to expose the adhesive.
3. Attach the lower section of the abrasive to the sanding disc (B), making sure that the abrasive edges fit the sanding disc edges exactly.
4. Remove the other half of the abrasive backing.
5. Attach the upper edge of the abrasive backing to the sanding disc. Press the entire abrasive to be certain that it is attached solidly to the sanding disc.

## ATTACHING SANDING DISC GUARD AND TABLE

1. **DISCONNECT MACHINE FROM POWER SOURCE.**
2. Position the sanding disc guard with table (A) Fig. 8, over sanding disc (B).
3. Fasten the sanding disc guard with table (A) Fig. 9, to base using the two 3/8" long screws, one of which is shown at (B).
4. **WARNING:** To avoid trapping the workpiece or your fingers between the table (A) and the sanding disc (B), adjust the table so that it is a maximum 1/16" from disc, between the work table and the disc (see the section "DISC TABLE ADJUSTMENTS").

## FASTENING SANDER TO SUPPORTING SURFACE

**IMPORTANT:** If the machine has a tendency to tip over or to walk on the supporting surface, the machine must be secured. Use the four holes, three of which are shown at (A) fig. 11 to attach the machine to the supporting surface.

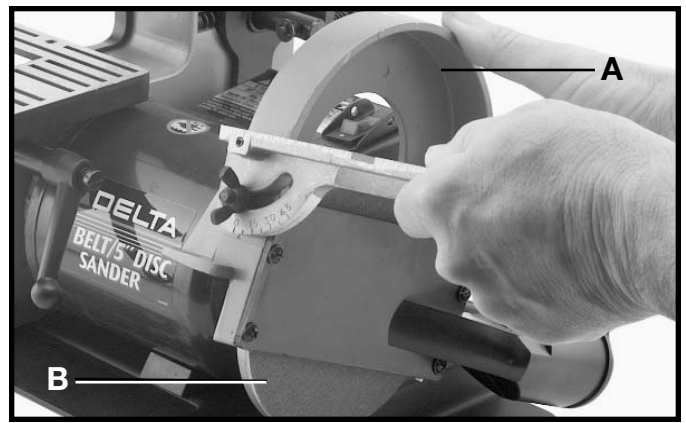


Fig. 8

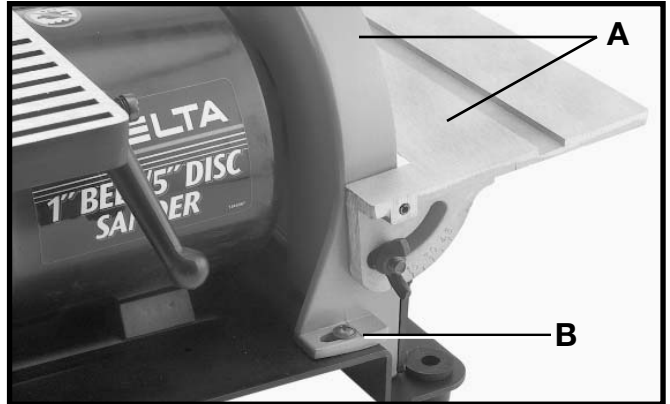


Fig. 9

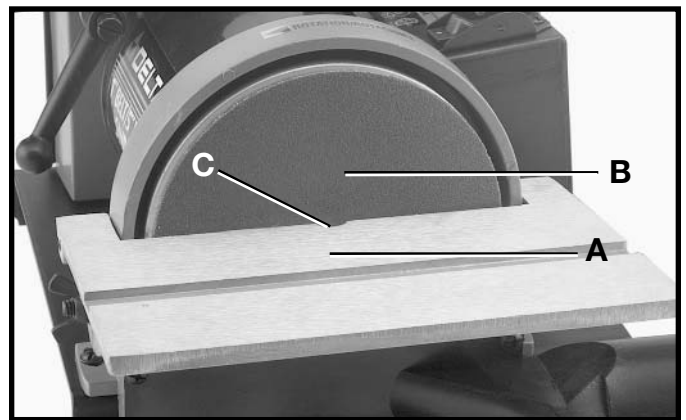


Fig. 10

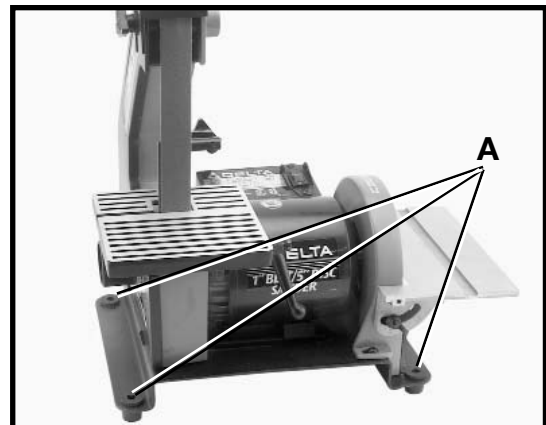


Fig. 11

# OPERATING CONTROLS AND ADJUSTMENTS

## STARTING AND STOPPING SANDER

The switch (A) Fig. 15 is located on the top of the switch box. To start the sander, move the switch to the “ON” position. To stop the sander, move the switch to the “OFF” position.



Fig. 15

## LOCKING SWITCH IN THE “OFF” POSITION

**IMPORTANT:** When the tool is not in use, the switch should be locked in the OFF position using a padlock (B) Fig. 16, with a 3/16" diameter shackle to prevent unauthorized use.



Fig. 16

## TRACKING THE BELT

The belt tracking adjustment is set at the factory so that the abrasive belt will run true on the pulleys. If, however, the belt should lead to either side of the pulleys, make the adjustment by turning the tracking knob (A) Fig. 17. Turning the knob (A) clockwise (when facing the sander) will move the belt to the right. Turning the knob (A) counterclockwise will move the belt to the left.

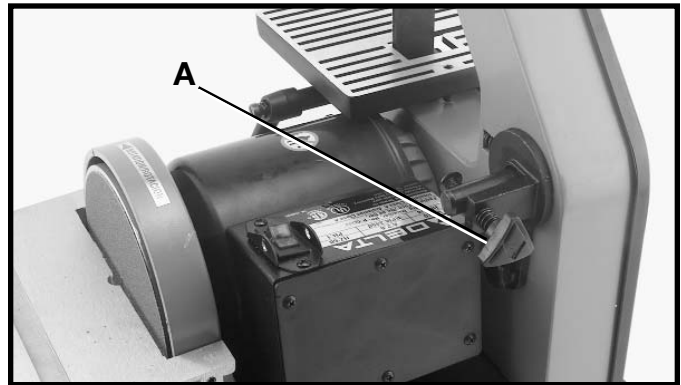


Fig. 17

## BELT TABLE ADJUSTMENTS

For most sanding operations, set the table at a 90 degree angle to the sanding belt. A 90-degree positive stop is provided with your sander to ensure fast positioning of the table. Adjust the positive stop as follows:

1. Loosen the table locking lever and tilt the table to the rear as far as possible.
2. Place a combination square on the table with the 90 degree end against the sanding belt, (Fig. 18), to visually confirm that the table is 90 degrees to the belt.
3. If this is not the case, turn adjusting screw (A) with wrench (B) Fig. 18, until the angle is correct.



Fig. 18



4. The table can be tilted to the front (Fig. 19), by loosening table locking handle (C), tilting the table to the desired angle and tightening the table locking handle (C).

5. The table can be adjusted in or out by loosening the table locking handle and moving the table in or out. Retighten lock handle when the adjustment has been made.

**⚠️ WARNING:** To avoid trapping the workpiece or your fingers between the table (D) and the sanding belt (E), adjust the table so that it is a maximum 1/16" from belt, between the work table and the belt (see the section "BELT TABLE ADJUSTMENTS").



Fig. 19

## DISC TABLE ADJUSTMENTS

Check the table surface angle by placing a square (A) Fig. 20 on the table with one end of the square against the sanding disc. If angle is not 90 degrees, loosen the two wing nuts (one of which is shown at (B) Fig. 20), and move the table until the angle between the table and the disc is 90 degrees. Tighten the two wing nuts.

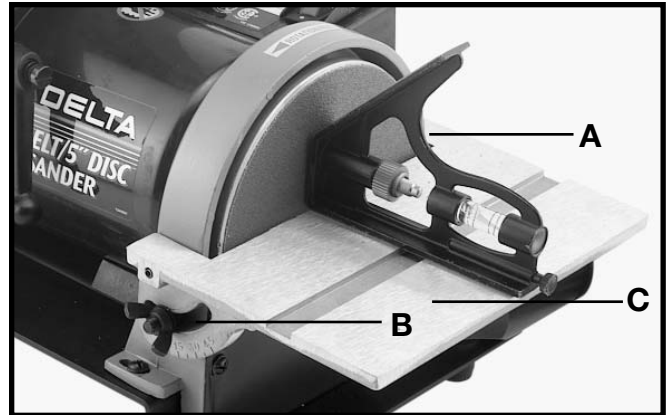


Fig. 20

The disc table (C) can be tilted down 45 degrees (Fig. 21), by loosening the two wing nuts (one of which is shown at (B) Fig. 21). Tilt the table to the desired angle and tighten the two wing nuts.

**NOTE:** The power take-off location is shown at (D) Fig. 21, and can be used with the table in the tilted down position. The accessory flexible shaft can be attached at this location (leaving the abrasive on the sanding disc) by cutting a small hole in the center of the abrasive to provide an entrance for the flexible shaft.

The disc table can be adjusted in or out to the disc by loosening the two set screws (F) Fig. 21 (one of which is shown), and adjusting table and retightening the two set screws (F).

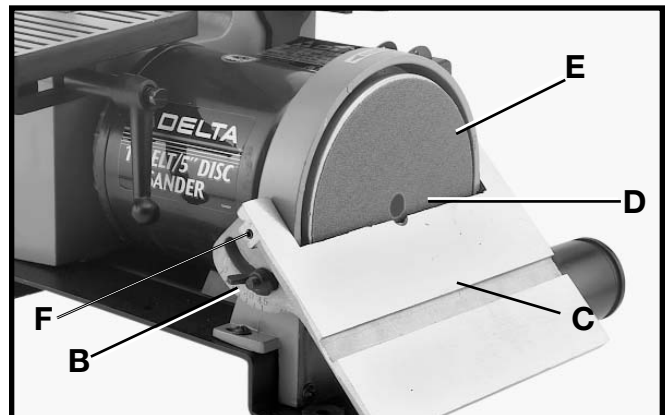


Fig. 21

**⚠️ WARNING:** To avoid trapping the workpiece or your fingers between the table (C) and the sanding disc (D), adjust the table so that it is a maximum 1/16" from disc, between the work table and the disc (Fig. 21).

## PLATEN

The platen (A) Fig. 22, is constructed of heavy steel to properly support the work. To adjust, loosen the two screws that fasten the bottom of the platen to the frame, adjust the platen, so that it is almost touching the back of the sanding belt, and tighten the two screws.

To remove the platen (A) Fig. 22, for strapping, polishing or other special operations, remove the two screws that fasten the bottom of the platen to the frame.

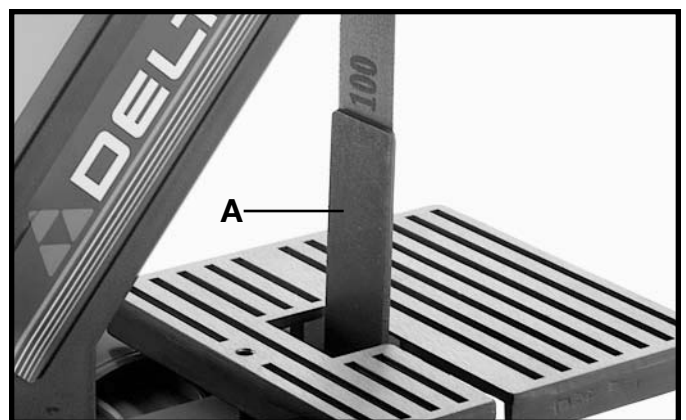


Fig. 22

## CHANGING ABRASIVE BELT

1. **DISCONNECT MACHINE FROM POWER SOURCE.**
2. Remove lock knob (A) Fig. 23, and remove side cover (B).
3. Depress tracking knob (C) Fig. 24, to release belt tension and remove belt (D) from the three wheels (E), as shown.
4. Install new belt and replace side cover. Check belt tracking by referring to the section “TRACKING THE BELT”.

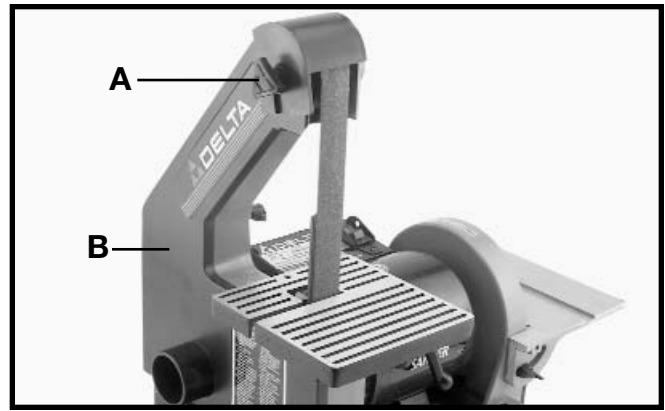


Fig. 23

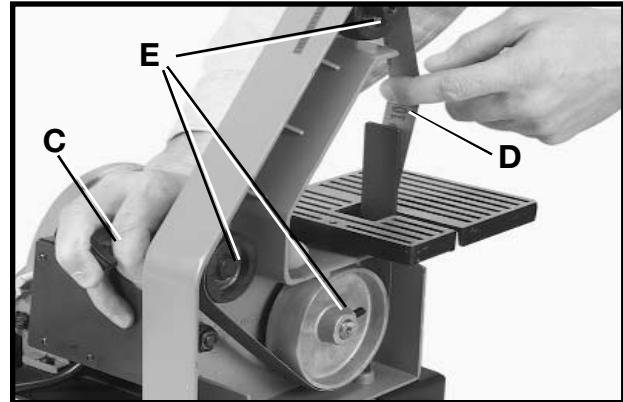


Fig. 24

## CHANGING SANDING DISC

1. **DISCONNECT MACHINE FROM POWER SOURCE.**
2. Remove the two screws, one of which is shown (A) Fig. 25, and remove the sanding disc guard and table (B).
3. Remove the used sanding disc (C) Fig. 26, from disc plate (D).
4. Make sure disc plate (D) Fig. 26, is clean.
5. Peel half of the backing from the new sanding disc. Press this half firmly in place. Remove the other half of the backing and press in place.
6. Replace sanding disc guard and table, that was removed in **step 2**.

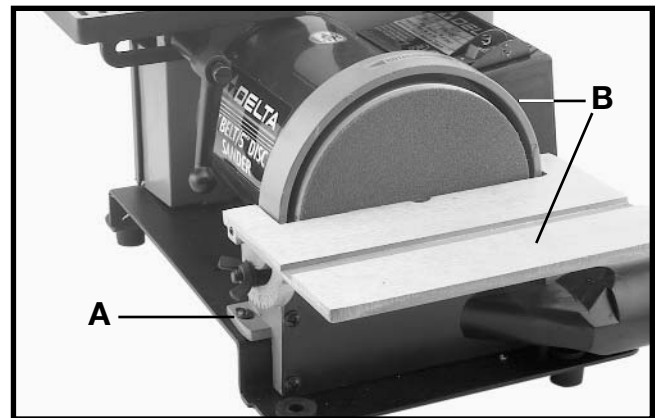


Fig. 25

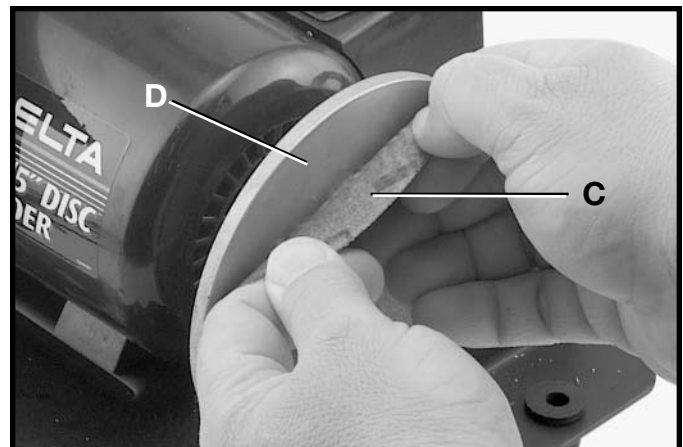


Fig. 26

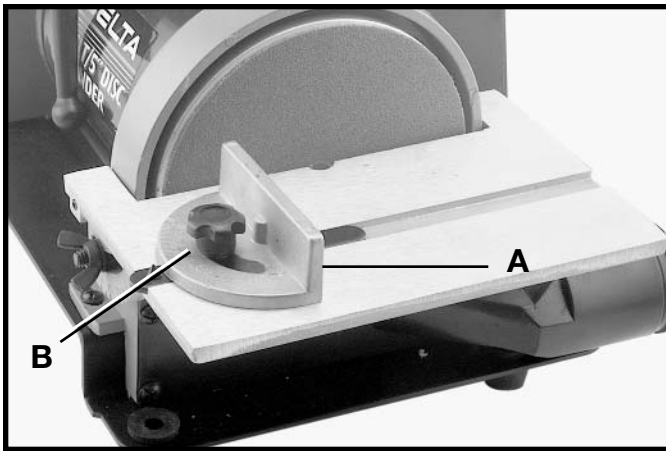


Fig. 27

## MITER GAGE

A miter gage (A) Fig. 27, is supplied with your sander and can be used on the disc table. The miter gage head (A) can be set up to 45 degrees right or left by loosening lock knob (B), moving miter gage head to the desired angle and tightening lock knob (B).

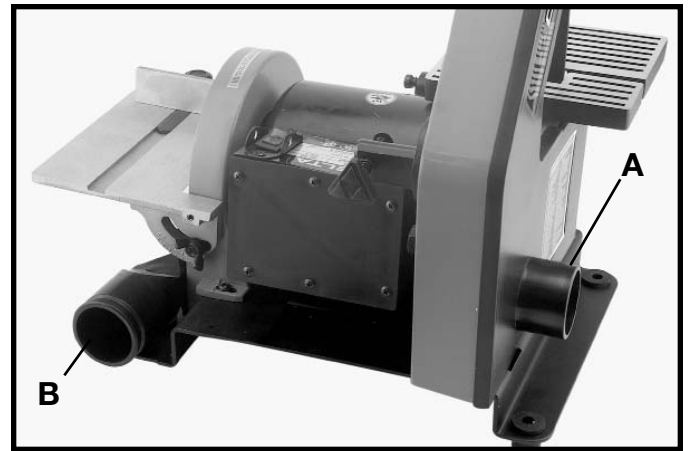


Fig. 28

## DUST CHUTES

Two dust chutes are supplied with your belt and disc sander. Equipped with 1-1/2" I.D. openings, these can easily be connected to a dust bag. Dust chute (A) Fig. 28, is for the belt unit while (B) is for the disc unit.

## ACCESSORIES

A complete line of accessories is available from your Delta Supplier, Porter-Cable • Delta Factory Service Centers, and Delta Authorized Service Stations. Please visit our Web Site [www.deltamachinery.com](http://www.deltamachinery.com) for a catalog or for the name of your nearest supplier.

**⚠ WARNING:** Since accessories other than those offered by Delta have not been tested with this product, use of such accessories could be hazardous. For safest operation, only Delta recommended accessories should be used with this product.

## Model 31-055 Accessory Flexible Shaft with 3/16" Capacity Keyless Chuck

The Delta Model 31-055 accessory flexible shaft can be attached to the Delta Model 31-080 1" Belt / 5" Disc sander for the purpose of performing various grinding, polishing, and sanding operations.

1. **DISCONNECT MACHINE FROM POWER SOURCE.**
2. Tilt the disc table to the down position, (see the section "DISC TABLE ADJUSTMENTS").
3. Cutt a small hole in the center of the abrasive disc to provide an entrance for the flexible shaft.
4. Insert the threaded end (A) of the flexible shaft into the power take off shaft (B) as shown in Fig. 29, and tighten securley with pin (C). Remove pin (C) once flexabel shaft is attached securley to the power take off shaft.
5. Insert an approved attachment into the keyless chuck (D) on the flexible shaft and tighten securley.

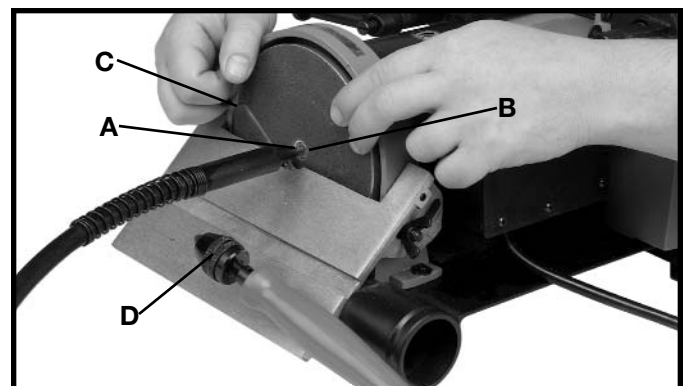


Fig. 29

6. The flexible shaft will rotate in unison with the belt / disc sander, when power is applied to the belt / disc sander.



## **PARTS, SERVICE OR WARRANTY ASSISTANCE**

All Delta Machines and accessories are manufactured to high quality standards and are serviced by a network of Porter-Cable • Delta Factory Service Centers and Delta Authorized Service Stations. To obtain additional information regarding your Delta quality product or to obtain parts, service, warranty assistance, or the location of the nearest service outlet, please call 1-800-223-7278 (In Canada call 1-800-463-3582).



### **Two Year Limited Warranty**

Delta will repair or replace, at its expense and at its option, any Delta machine, machine part, or machine accessory which in normal use has proven to be defective in workmanship or material, provided that the customer returns the product prepaid to a Delta factory service center or authorized service station with proof of purchase of the product within two years and provides Delta with reasonable opportunity to verify the alleged defect by inspection. Delta may require that electric motors be returned prepaid to a motor manufacturer's authorized station for inspection and repair or replacement. Delta will not be responsible for any asserted defect which has resulted from normal wear, misuse, abuse or repair or alteration made or specifically authorized by anyone other than an authorized Delta service facility or representative. Under no circumstances will Delta be liable for incidental or consequential damages resulting from defective products. This warranty is Delta's sole warranty and sets forth the customer's exclusive remedy, with respect to defective products; all other warranties, express or implied, whether of merchantability, fitness for purpose, or otherwise, are expressly disclaimed by Delta.