



Operating Instructions and Parts Manual Disc/Belt Sander

Model: J-64812VS



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1.0 Warranty and Service

JET warrants every product it sells against manufacturers' defects. If one of our tools needs service or repair, please contact Technical Service by calling 1-800-274-6846, 8AM to 5PM CST, Monday through Friday.

Warranty Period

The general warranty lasts for the time period specified in the literature included with your product or on the official JET branded website.

- JET products carry a limited warranty which varies in duration based upon the product. (See chart below)
- Accessories carry a limited warranty of one year from the date of receipt.
- Consumable items are defined as expendable parts or accessories expected to become inoperable within a reasonable amount of use and are covered by a 90-day limited warranty against manufacturer's defects.

Who is Covered

This warranty covers only the initial purchaser of the product from the date of delivery.

What is Covered

This warranty covers any defects in workmanship or materials subject to the limitations stated below. This warranty does not cover failures due directly or indirectly to misuse, abuse, negligence or accidents, normal wear-and-tear, improper repair, alterations, or lack of maintenance. JET woodworking machinery is designed to be used with Wood. Use of these machines in the processing of metal, plastics, or other materials outside recommended guidelines may void the warranty. The exceptions are acrylics and other natural items that are made specifically for wood turning.

Warranty Limitations

Woodworking products with a Five-Year Warranty that are used for commercial or industrial purposes default to a Two-Year Warranty. Please contact Technical Service at 1-800-274-6846 for further clarification.

How to Get Technical Support

Please contact Technical Service by calling 1-800-274-6846. **Please note that you will be asked to provide proof of initial purchase when calling.** If a product requires further inspection, the Technical Service representative will explain and assist with any additional action needed. JET has Authorized Service Centers located throughout the United States. For the name of an Authorized Service Center in your area call 1-800-274-6846 or use the Service Center Locator on the JET website.

More Information

JET is constantly adding new products. For complete, up-to-date product information, check with your local distributor or visit the JET website.

How State Law Applies

This warranty gives you specific legal rights, subject to applicable state law.

Limitations on This Warranty

JET LIMITS ALL IMPLIED WARRANTIES TO THE PERIOD OF THE LIMITED WARRANTY FOR EACH PRODUCT. EXCEPT AS STATED HEREIN, ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXCLUDED. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

JET SHALL IN NO EVENT BE LIABLE FOR DEATH, INJURIES TO PERSONS OR PROPERTY, OR FOR INCIDENTAL, CONTINGENT, SPECIAL, OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OF OUR PRODUCTS. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

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Product Listing with Warranty Period

90 Days – Parts; Consumable items
1 Year – Motors; Machine Accessories
2 Year – Metalworking Machinery; Electric Hoists, Electric Hoist Accessories; Woodworking Machinery used for industrial or commercial purposes
5 Year – Woodworking Machinery
Limited Lifetime – JET Parallel clamps; VOLT Series Electric Hoists; Manual Hoists; Manual Hoist Accessories; Shop Tools; Warehouse & Dock products; Hand Tools; Air Tools

NOTE: JET is a division of JPW Industries, Inc. References in this document to JET also apply to JPW Industries, Inc., or any of its successors in interest to the JET brand.

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3.0 Safety Warnings

General Cautions

- Misuse of this machine can cause serious injury.
- For safety, the machine must be set up, used and serviced properly.
- Read, understand and follow the instructions in the operator's and parts manual which was shipped with your machine.

When setting up the machine:

- Always avoid using the machine in damp or poorly lighted work areas.
- Always be sure the machine is securely anchored to the floor.
- Always keep the machine guards in place.
- Always put the start switch in the "OFF" position before plugging in the machine.
- Remove adjusting keys and wrenches (if used) before using the machine.

When using the machine:

- Never operate the machine with safety guards missing.
- Always wear safety glasses with side shields (See ANSI Z87.1)
- Never wear loose clothing or jewelry.
- Never overreach; you may slip and fall into the machine.
- Never leave the machine running while unattended.
- Always shut the machine off when not in use.

When servicing the machine:

- Always unplug the machine from the electrical power before servicing.
- Always follow the instructions in the operators and parts manual when changing accessory tools or parts.
- Never modify the machine without consulting JPW Industries, Inc.

You — the stationary power tool user — hold the key to safety.

Read and follow these simple rules for best results and full benefits from your machine. Used properly, JET machinery is among the best in design and safety. However, any machine used improperly can be rendered inefficient and unsafe. It is mandatory that those who use our products be properly trained in how to use them correctly. They should read and understand the Operator's and Parts Manual as well as all labels affixed to the machine. Failure in

following all of these warnings can cause serious injuries.

General Machinery Warnings

1. Always wear protective eye wear when operating machinery. Eye wear shall be impact-resistant, protective safety glasses with side shields which comply with ANSI Z87.1 specifications. Use of eye wear which does not comply with ANSI Z87.1 specifications could result in severe injury from the breakage of the eye protection.
2. Wear proper apparel. No loose clothing or jewelry which can get caught in moving parts. Rubber soled, nonslip, footwear is recommended for best footing.
3. Do not overreach. Failure to maintain a proper working position can cause you to fall into the machine or cause your clothing to get caught — pulling you into the machine.
4. Keep the guards in place and in proper working order. Do not operate the machine with the guards removed.
5. Check damaged parts. A guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment or 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.
6. Support work piece with miter gage, backstop, or worktable.
7. Maintain 1/16-inch maximum clearance between the table and the sanding belt or disc.
8. Avoid kickback by sanding in accordance with the directional arrows.
9. Avoid dangerous working environments. Do not use stationary machine tools in wet or damp locations. Keep work areas clean and well lit.
10. Special electrical precautions should be taken when working on flammable materials.
11. Avoid accidental starts by being sure that the start switch is in the "OFF" position before plugging in the machine.
12. Never leave the machine running while unattended. The machine shall be shut off whenever it is not being used.
13. Disconnect the electrical power before servicing, whenever changing accessories or when general maintenance is done on the machine.
14. Maintain all machine tools with care. Follow all maintenance instructions for lubricating and the changing of accessories. No attempt shall be made to modify or have makeshift repairs done to the machine. This not only voids the warranty but also renders the machine unsafe.

15. If there is any risk of tipping or sliding, the machinery must be anchored to the floor.
16. Secure your work. Use clamps or a vise to hold your work, when practical. It is safer than using your hands and it frees both hands to operate the machine.
17. Never brush chips away while the machine is in operation.
18. Keep work area clean. Cluttered areas invite accidents.
19. Remove adjusting keys and wrenches (if used) before turning the machine on.
20. Use the right tool. Don't force a tool or attachment to do a job it was not designed for.
21. Use only recommended accessories and follow manufacturer's instructions pertaining to them.
22. Keep hands in sight and clear of all moving parts and cutting surfaces.
23. Keep children away. All visitors should be kept at a safe distance from the work area. Make your workshop completely safe by using padlocks, master switches, or by removing starter keys.
24. Never stand on this machine. Serious injury could occur if the tool is tipped or if the abrasive belt or disc is accidentally contacted.
25. Know the tool you are using, its application, limitations, and potential hazards.

General Electrical Cautions

This machine should be grounded in accordance with the National Electrical Code and local codes and ordinances. The work should be done by a qualified electrician. The machine should be grounded to protect the user from electrical shock.

Wire Sizes

Caution: For circuits that are a great distance from the electrical service box, the wire size must be increased in order to deliver ample voltage to the motor. To minimize power losses and to prevent motor overheating and burnout, the use of wire sizes for branch circuits or electrical extension cords according to the following table is recommended:

Conductor length	AWG (American Wire Gauge) number (240-volt lines)
0-50 feet	No. 14
50-100 feet	No. 14
Over 100 feet	No. 12

If using an extension cord, make sure it is in good condition.

Safety Requirements for Abrasive Sanding Machines

Abrasive sanding can be hazardous to operators and bystanders. Sanding sparks, chips and dust particles thrown off by the sanding disc can cause serious

injury if contacted or inhaled. To avoid such injuries, you must comply with the following safety requirements:

1. Always wear protective eyewear when operating machinery. Eye wear shall be impact resistant, safety glasses with side shields which comply with ANSI Z87.1. Use of eye wear which does not comply with ANSI Z87.1 specifications could result in severe injury from the breakage of the eye protection.
2. A dust collection system is recommended. The operator should also wear a dust mask at all times.
3. Additional precautions may be necessary for sanding materials which are flammable or have other hazardous properties. You should always consult the manufacturer of such materials for instructions on sanding and handling.
4. Do not force or jam the workpiece into the sanding disc. It will do the job better and safer at the rate for which it was designed.
5. Use the right tool. Don't force this tool or attachment to do a job for which it was not designed.
6. Before sanding, always allow the motor to come up to operating speed, then check the sanding disc for wobble, run-out, or any unbalanced condition. If the disc is not operating accurately and smoothly, immediately stop the motor and make repairs before attempting any sanding operations.
7. Abrasive discs must be stored in a controlled environment. Relative humidity should be 35% to 50% and the temperature should be between 60° and 80° Fahrenheit. Failure to do so could cause premature disc failure.
8. Examine the face of the sanding disc carefully. Excessive sanding that wears down to the backing material can tear the disc. Never use a disc which shows backing, nicks or cuts on the surface or edge, or damage due to creasing or poor handling.
9. When installing a new disc, be certain the disc is accurately centered on the drive wheel. Failure to do so could cause a serious unbalanced condition.
10. Always present the workpiece to the wheel while resting the workpiece firmly on the table. Failure to do so could result in damage to the workpiece or throwing of the workpiece off the wheel.
11. Safety shoes which comply with ANSI Z41.1 should be worn.
12. Personal hearing protection such as ear plugs or earmuffs should be used to protect against the effect of noise exposure.

4.0 Product Overview

The JET combination disc and belt sander is a rugged, heavy-duty machine designed for maximum high production work in an industrial environment.

The speed of stock removal and the quality of finish achieved is determined largely by the aggressiveness of the abrasive disc and belt mounted on the machine. With very aggressive grits, this machine is typically considered a grinding machine. With very fine grits, this machine is typically considered a sanding machine. The instructions in this manual will help you use this machine safely and productively.

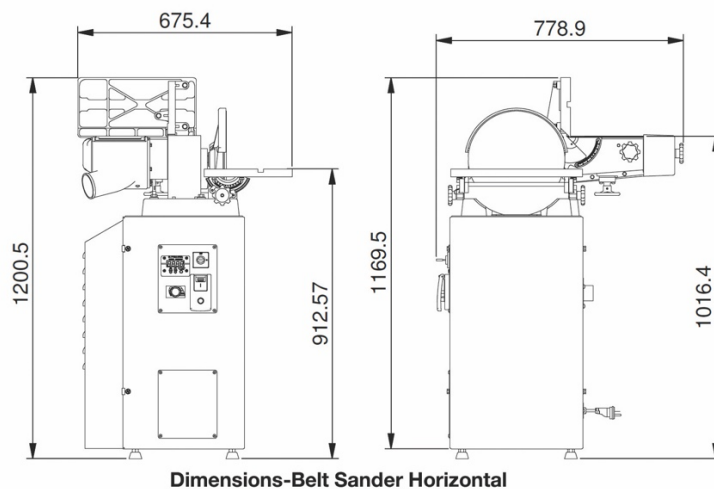
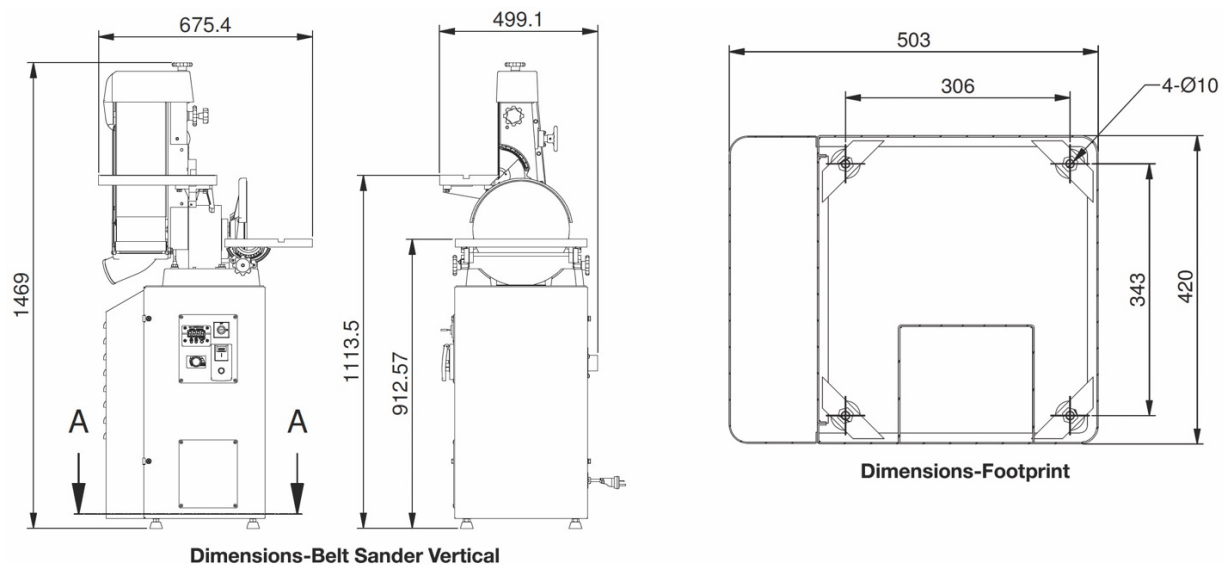
If there are questions or comments, please contact your local supplier or JET. JET can also be reached at our web site: www.jettools.com.

Retain this manual for future reference. If the machine transfers ownership, the manual should accompany it.

⚠ WARNING

Read and understand the entire contents of this manual before attempting assembly or operation! Failure to comply may cause serious injury!

4.1 Product Dimensions



5.0 Specifications

Table size	Disc: 16-1/2 x 9 in. (420 x 230mm) Belt: 7-5/16 x 14-11/16 in. (185 x 374mm)
Table material	(both) Cast Iron
Table tilt	(both) 45° out
Miter gauge groove	(both) 3/4 in. (19mm)
Disc size & grit	12 in. (305mm), 80 grit
Disc Speed (no load)	1547 - 2813 RPM (1547 – 2813 min ⁻¹)
Platen material	Cast Iron
Belt size & grit	6 x 48 in. (153 x 1219mm), 80 grit
Belt speed (no load)	2200 – 4000 SFPM (671 – 1220 m/min)
Dust port diameter	Belt sander: 3-1/2 in. (88mm) Disc sander: 2 in. (50.8mm)
Dimensions: sander & stand (L x W x H)	26-3/4 x 19-5/8 x 58-5/8 in. (680 x 500 x 1490mm)
Motor	2HP, 3-phase*, 60Hz, 1710 RPM, (1710 min ⁻¹)
Amps (full load amps)	13.0A
Voltage	Input 230V only, single-phase
Power cord	14AWG x 3C, 6ft, SJT
Power plug	6-15P, 250V/15A, installed
Sound emission (approx.)	79 dB at 3ft. without load
Weight	288 lbs. (131 kg.)

The specifications in this manual were current at time of publication, but because of our policy of continuous improvement, JET reserves the right to change specifications at any time and without prior notice, without incurring obligations.

**Drive portion of the motor is single-phase. One winding of the 3-phase motor is being used for regenerative braking on the system.*

6.0 Electrical Connections

Caution: Follow all electrical codes. This machine is tested at the factory for operation before shipment and the power cord is tagged with the power requirements for the machine, as shipped. HOWEVER, before attempting any electrical hookup, you should be certain:

1. The electrical characteristics of the service branch match the requirements of the motor.
2. The service branch is equipped with wires of the required gauge or size.
3. The branch circuit intended for the machine is protected with a time delay fuse or circuit breaker with rated amperage just slightly greater than the full load current of the motor.

MOTOR AMPERAGE full load current

Phase	Voltage	Amperage
1	230	6

CAUTION All electrical service work on your JET sander should be performed by a qualified, licensed electrician who is familiar with all safe standard electrical installation practices and all applicable electrical codes. This includes local electrical codes which may affect the connection and operation of the sander in your specific manufacturing operation.

6.1 Single-Phase Electrical Hookup

When connecting your machine to single phase power, you will be connecting to 230 volts. Local codes may, or may not, permit the use of a plug type of connection for your machine. Where a plug connection is permitted, the following installation practices must be followed:

1. The plug used must be a grounding type of plug. That is, on 230-volt single phase connections, the plug must be a three prong plug with two flat blades in tandem to carry the current, and a third round or U-shaped prong for the ground connection.
2. The service branch to which the plug is connected must be a branch with a separate ground wire so the grounding prong of the plug can be connected to ground effectively.

Note: Local electrical codes in many jurisdictions DO NOT ALLOW THE USE OF PLUG TYPE CONNECTIONS FOR SINGLE PHASE POWER WHEN THE MACHINE IS USED IN A COMMERCIAL OR INDUSTRIAL ESTABLISHMENT.

In these cases, you must connect your machine to the service branch using a hardwired junction box connection.

Motor Rotation

The motor's rotation should result in the belt sander moving downward and the disc sander rotating counterclockwise.

Circuit Protection

Where the service branch is protected with a fuse or circuit breaker that has too high a value to offer protection to the motor supplied, a fuse or circuit breaker box should be used at the point where the machine connection is made, and the time delay fuse or circuit breaker should be a value just slightly higher than the maximum load current draw.

7.0 Machine Setup

7.1 Basic Setup

1. Position the machine where it will be located on the shop floor. When positioning the machine, consider the type of work which will be done on it so you allow sufficient room not only for the workpieces, but also for service to the machine.
2. Level the machine by adjusting the 4-foot pad levelers in or out. Secure the setting by tightening each hex nut against the stand.
3. Establish an electrical service connection to the machine. This will vary according to the model purchased. ALL ELECTRICAL CONNECTIONS SHOULD BE MADE BY A QUALIFIED ELECTRICIAN WHO IS FAMILIAR WITH YOUR STATE AND LOCAL CODES. Many models of these machines make use of high voltages which pose a significant risk of *serious injury or DEATH* if proper knowledge and precautions are not used. Electrical instructions are included in section 6.0 *Electrical connections*.
4. Machines with belts are shipped with the belts in slack condition. During the electrical hookup phase of machine setup, the belt will have to be tightened and checked for tracking. See the *Belt Replacement* section for instructions on this procedure.

7.2 Disc Table Angle Adjustment

1. Disconnect power to the machine to prevent accidental start-ups.
2. Loosen the table locking knobs on either end of the table.
3. Using a machinist's square against the table and disc, set the table at exactly 90° to the disc (See Figure 1).
4. Tighten the table locking knobs.
5. Check the pointer. If it is not exactly on the zero mark, loosen the pointer attaching screw, adjust the pointer, and retighten the screw.
6. Reconnect the power to the machine.

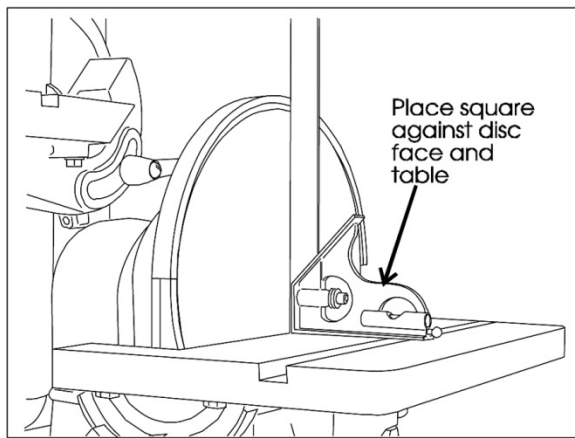


Figure 1: Using a square to check the disc table scale

7.3 Disc Table Miter Parallelism Adjustment

1. Disconnect power to the machine to prevent accidental start-ups.
2. Set the table angle to zero.
3. Place a scale or adjustable machinist's square against either the left or right edge of the disc face and measure the distance to the miter slot edge (See Figure 2).

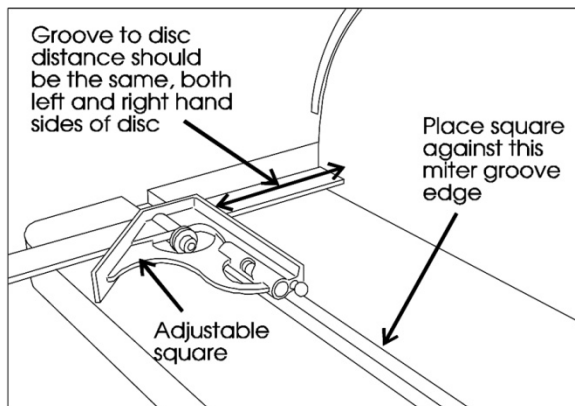


Figure 2: Using an adjustable square to set the table parallelism

4. Move the measuring device to the opposite edge of the disc and measure the distance to the miter slot.
5. Adjust the table by loosening the four attachment screws under the table, then move the table until the distance between the miter slot and the disc is equal on both sides (See Figure 3).
6. Tighten the four attachment screws.
7. Reconnect the electrical power to the machine.

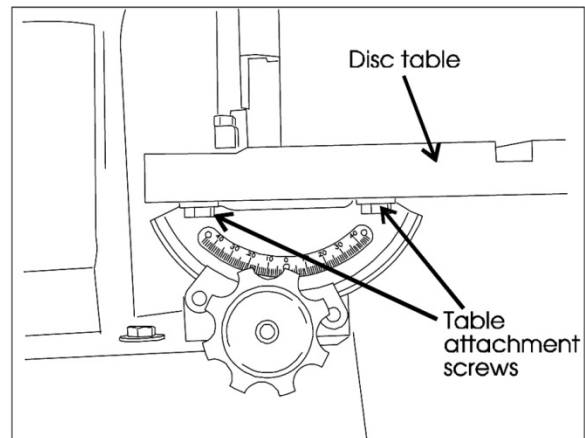


Figure 3: Table attachment screws – loosen to adjust miter groove parallelism

7.4 Disc Table Gap Adjustment

1. Using a scale, check the gap between the edge of the table and the face of the disc. It should be very close to $\frac{3}{32}$ inch. If it is much more or less than that distance, adjust it as follows:
2. Disconnect the electrical power to the machine.
3. Using the access hole on the top of the disc guard, locate and loosen the two set screws that secure the disc to the shaft.
4. Slide the disc in or out along its shaft until the table-to-disc gap is $\frac{3}{32}$ inch (See Figure 4).
5. Tighten both set screws.
6. Reconnect the electrical power to the machine.

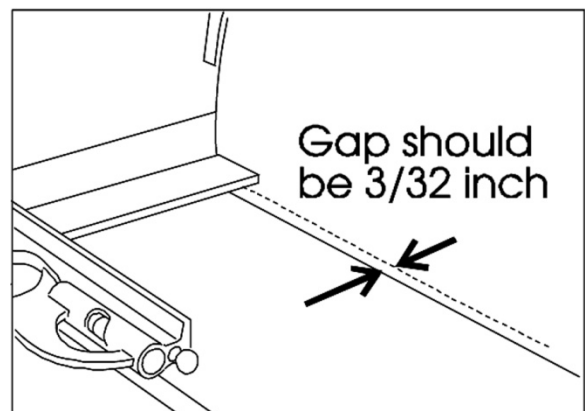


Figure 4: Table-to-disc gap measurement

7.5 Belt Table Miter Slot Parallelism Adjustment

1. Disconnect power to the machine to prevent accidental start-ups.
2. Set the table angle to zero.
3. Place a scale or adjustable machinist's square against either the left or right edge of the belt or platen and measure the distance to the miter slot edge (See Figure 5).

4. Move the measuring device to the opposite edge of the belt or platen and measure the distance to the miter slot.
5. Adjust the table by loosening the three attachment screws under the table, then move the table until the distance between the miter slot and belt or platen is equal on both sides.
6. Tighten the three attachment screws.
7. Reconnect the electrical power to the machine.

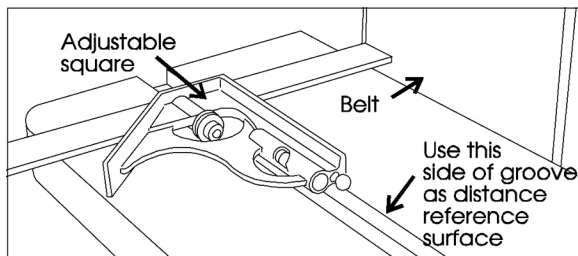


Figure 5: Using an adjustable square to check and set miter slot parallelism on the belt table

7.6 Belt Table Angle Adjustment

1. Loosen the table locking handle and tilt the table upward to about 15°.
2. Flip out the stop bracket (See Figure 7).
3. Lower the table until its adjusting screw touches the stop bracket.
4. Place a machinist's square against the table and belt or platen.
5. If adjustment is required, turn the adjusting screw (Figure 6) until the table is exactly square to the platen.
6. Check the pointer. If it is not on 0°, loosen the pointer screw and adjust the pointer until it is on 0°.
7. Tighten the pointer screw.
8. Loosen the table lock handle and tilt the table until its stop contacts the 45° stop position.
9. Using a machinist's protractor set on 135° (90° + 45°) adjust the screw until the table and platen are in correct adjustment. DO NOT reset the pointer after this operation.

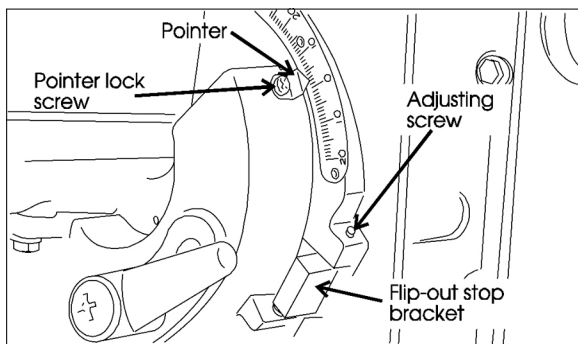


Figure 6: Location of adjustment (socket head) screws and pointer attachment screw for table angle adjustment.

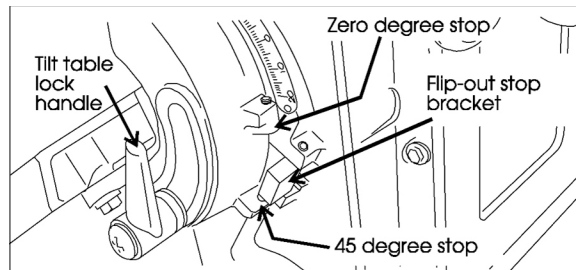


Figure 7: Locations of stop lugs and stop bracket for zero and 45° table positions

7.7 Adjusting or Replacing the Platen

1. Disconnect the electrical power to the machine to prevent accidental start-ups.
2. Remove the top cover, side guard and belt as outlined in section 9.1, *Belt replacement*.
3. Remove the table by unscrewing the locking handling and lifting the complete table assembly, from the machine.
4. If you are replacing the platen, remove the three screws that hold it to its mount -- then install the new platen and replace the mounting screws finger tight.
5. If you are only adjusting the platen, loosen the three mounting screws to allow adjustment.
6. Using a straight edge as shown in Figure 8, adjust the platen height until it is 1/32 inch higher than the crown of both the drive and idler drums.
7. Tighten the platen adjustment screws.
8. Reinstall the table and belt.
9. Check and adjust, if necessary, the tracking of the belt according to instructions in section 9.1, *Belt replacement*.
10. Reinstall the guards and covers.
11. Check and adjust the table angles and miter slot squareness according to table adjustment instructions in this manual.
12. Reconnect the electrical power to the machine.

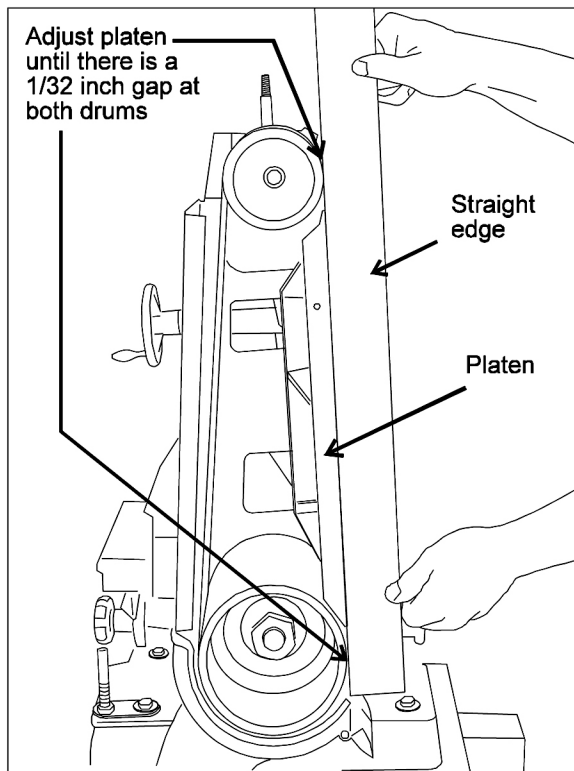


Figure 8: Method for adjusting height of platen above drive and idler drums

8.0 Operating Instructions

This sander can be used to remove stock from a wide variety of machinable materials. Different materials require different grit types and grades to achieve the desired stock removal rate and surface finish. Please consult with your abrasive materials supplier for specific recommendations on the correct grit material and grade required for your specific needs.

When removing stock from soft materials (wood, plastic, etc.) this machine is typically called a "sander." When removing stock from hard materials (cast iron, steel, etc.) this machine is referred to as a "grinder". The word "sander" is used more-or-less consistently, throughout this manual. It refers to the machine and not the type of abrasive finishing being performed.

Before operating your sander, please read the basic instructions on safe machine usage on the preceding pages.

8.1 Belt Sander

The sanding belt must be in good condition, at proper tension, and tracking correctly, before doing any sanding, grinding or other abrasive machining operations. Refer to the section on Track Mechanism Maintenance if you have any problems with belt tension or tracking.

8.2 Adjusting the Belt Sander Table

You can tilt the table in a range between 20° upward and 45° downward. A single locking handle on the side of the table is used to lock and unlock the table to permit adjustment.

There are two positive lock stop positions: at 90° (that is, at a right angle to the platen) and at 45° downward (essentially 90° + 45° or 135° total to the platen.)

CAUTION Never adjust the table angle while the sander is running. Always turn the motor off before adjusting the table angle.

To Tilt the Belt Sander Table:

1. Unlock the locking handle on the side of the table.
2. Using the pointer and scale, set the angle to any required angle between 20° upward and 45° downward.
3. Lock the lock handle.

To Tilt the Table to Exactly 45°:

1. Flip out the stop bracket (see Figure 6).
2. Unlock the locking handle.
3. Move the table until it contacts the stop bracket.
4. Lock the table lock handle.

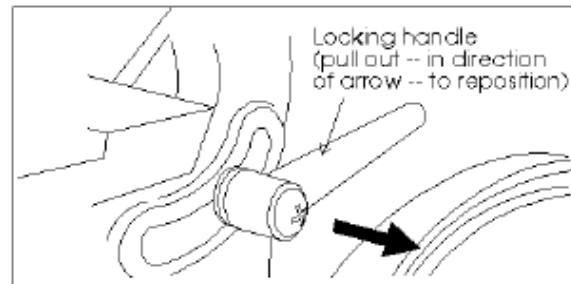


Figure 9: Locking handle for belt table

8.3 Using the Indexing Lock Handle

The lock handle (Figure 9) is spring loaded and can be repositioned on its shaft to permit easy locking and unlocking.

To Reposition the Handle:

1. Pull outward against its spring.
2. Rotate the handle to the position you require.
3. Release the handle and its spring will return it to the correct operating position.

8.4 Adjusting the Belt Sander Arm

The arm which holds the sanding belt can be positioned at a full vertical position, a full horizontal position, or at any angle in between which is convenient to the type of sanding you are doing.

A positive stop mechanism is used to permit quick adjustment to the vertical or horizontal positions.

CAUTION

Never adjust the arm angle while the sander is running. Always turn off the motor before adjusting the arm angle.

To Adjust to Vertical:

1. Unlock both lock bolts. These are located under the arbor cover.
2. Move the arm to vertical until it contacts its stop.
3. Tighten both lock bolts and replace arbor cover.

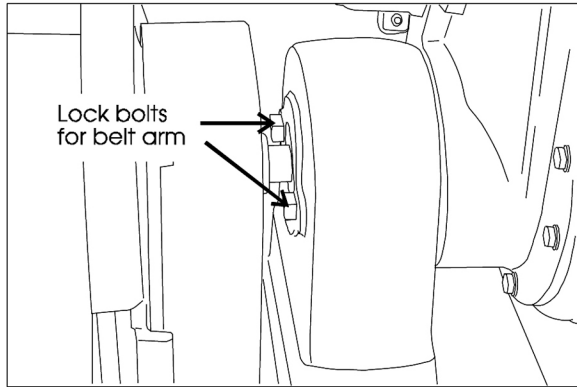


Figure 10: Lock bolts for belt arm

To Adjust to Horizontal:

1. Unlock both lock bolts.
2. Move arm to horizontal until it contacts its stop (See Figure 11).
3. Tighten both lock bolts and replace arbor cover.

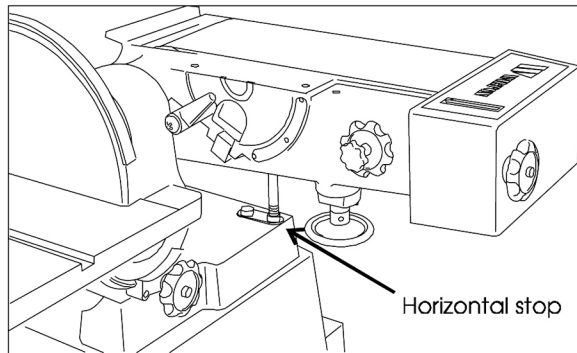


Figure 11: Arm at horizontal – note that the table is removed. The table may be removed or left in position and may also be set to any angle to allow horizontal sanding of various angles.

To Adjust Arm to Any Angle Between Vertical and Horizontal:

1. Unlock both lock bolts.
2. Use a machinist's protractor and level to set the arm to the required angle.
3. Tighten both lock bolts and replace arbor cover.

8.5 Adjusting Disc Sander Table**CAUTION**

Never adjust the table angle while the sander is running. Always turn off the motor before adjusting table angle.

1. Unlock the two locking knobs underneath the table at each end (See Figure 12).
2. Using the pointer and scale, set the angle to any required angle between 20° upward and 45° downward.
3. Lock the two locking knobs underneath the table.

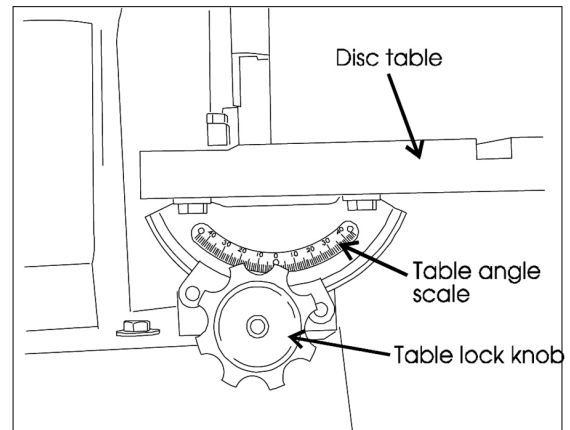


Figure 12: Disc sander table adjustment

8.6 Use of the Miter Gauge

The miter gauge can be used on either the disc or belt surfaces to sand accurate angles on workpieces. When using the gauge alone, you sand a single angle. However, by tilting the table and using the miter gauge in combination with the table tilt, it is possible to sand compound angles as well.

When grinding a compound angle, you should always check the accuracy of your setup by sanding a piece of scrap material before doing any finish sanding on the actual workpiece. When using the disc, always keep work piece left of center, as shown in Figure 13.

1. Set the angle you wish to sand using the scale on the miter gauge.
2. Tighten the miter gauge securely so the miter reference surface will not move while you are sanding.
3. Place the workpiece against the miter reference surface and slide it along the reference surface and into the sanding disc or belt. The basic method is shown in Figure 13, below.

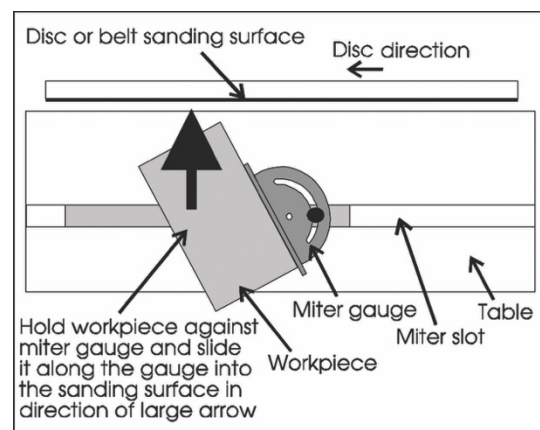


Figure 13: Use of the miter system

9.0 Maintenance

9.1 Belt Replacement

1. Disconnect the power to the machine to prevent accidental start-ups. If the machine is plugged into an outlet, unplug it. If the machine is hardwired to a branch circuit with a junction box, remove the fuse or trip the circuit breaker to the branch.
2. Remove the lock knob and top cover (See Figure 14).

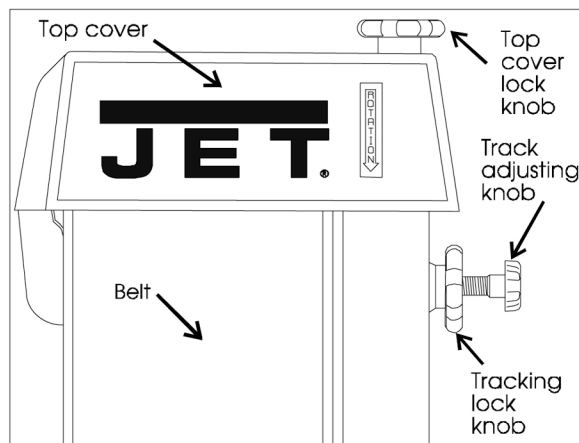


Figure 14: Top cover components

3. Remove the side guard and table.
4. Release the belt tension by turning the tension handle in a counterclockwise direction (See Figure 15). If the handle is difficult to turn, perform *Track Mechanism Maintenance* according to the instructions in section 9.2.

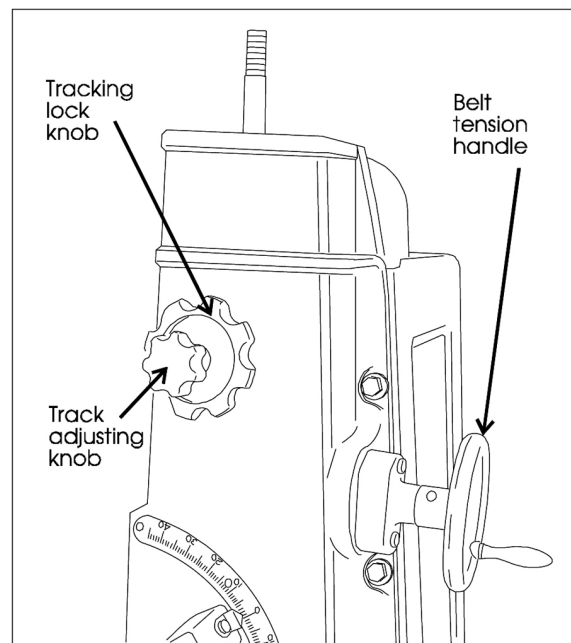


Figure 15: Belt adjustment components (Note top cover removed for removal and replacement of belt.)

5. Remove the belt.

6. Check the drums and platen for scoring or signs of wear which might require service or replacement.
7. Check the height of the platen with a straight edge. If it is not 1/32 inch above the drums, adjust it according to the instructions in *Platen Replacement or Adjustment* in the *Machine Setup* section of this manual.
8. Check the drums for looseness which might cause tracking problems. Correct any loose condition by tightening or replacing any parts as required.
9. Slip the new belt onto the drums and platen.
10. Adjust the tension handle clockwise until the belt is flat against the platen and there is no curling or buckling of the belt in the middle.
11. Turn the drums by hand to see if the belt tracks more-or-less true. **JUST BECAUSE THE OLD BELT TRACKED CORRECTLY DOES NOT MEAN THE NEW BELT WILL.** Always check the tracking when replacing a belt.
12. To adjust the tracking:
 - 12.1. Plug the machine back into the outlet or reestablish power in the branch.
 - 12.2. Loosen the tracking lock knob.
 - 12.3. Jog the motor on and off as necessary to observe the tracking and turn the tracking knob as necessary to make the belt track in the center of the platen and drums. Turn the tracking knob clockwise to move the belt toward the right and counterclockwise to move the belt toward the left.
 - 12.4. When the belt seems to be tracking correctly, turn the motor on and leave it running while fine tuning the tracking.
 - 12.5. Lock the tracking lock knob.
 - 12.6. When the lock knob is secure, turn the power off and disconnect the machine from the outlet or branch as in Step 1, above.
13. Replace the table, side guard, top cover, and lock knob by reversing steps 3 and 2, above.
14. If you have not already done so, reconnect the power to the machine and return it to service.

9.2 Track Mechanism Maintenance

While the use of a dust collection system can extend service intervals, an accumulation of dust will almost certainly require periodic cleaning of the tracking mechanism. The more continuous the use of the machine, the more frequently this maintenance should be performed.

As mentioned in the preceding section, the need for required maintenance is often indicated by difficulty in adjusting the tension/tracking mechanism.

1. With the belt removed according to the instructions in section 9.1 *Belt Replacement*, pull out the upper tracking system and clean away all built up material in the upper part of the bracket casting.

2. Take the two keys off the idler pin bracket, wipe off, and re-grease.
3. Reverse the above steps to make the machine ready for reinstallation of the belt according to the *Belt replacement* instructions.

9.3 Installing Abrasive Discs

1. Disconnect power to the machine to prevent accidental start-ups.
2. Peel off the old abrasive disc.
3. Clean the drive disc surface using naphtha or a similar nonflammable solvent that will dry film-free.
4. Pull the protective backing half off the new abrasive disc.
5. Position the new disc carefully so it is centered accurately on the drive disc (See Figure 16).
6. When accurately centered, remove the rest of the protective backing and press the abrasive disc firmly against the drive disc so complete adhesive contact is made.
7. Reconnect the power to the machine.

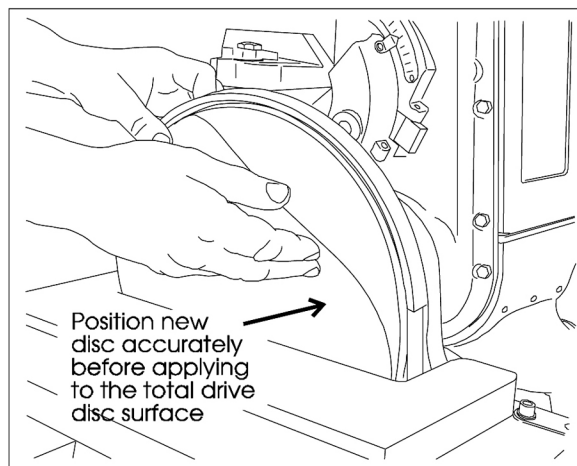


Figure 16: Installing new abrasive disc

9.4 Replacing the V-Belt

1. Disconnect power to the machine to prevent accidental start-ups.
2. Remove the belt guard (Figure 17) and disc table.
3. Remove the table tilt lock knob (Figure 18).
4. Loosen the four motor bolts so the motor can slide on its plate.

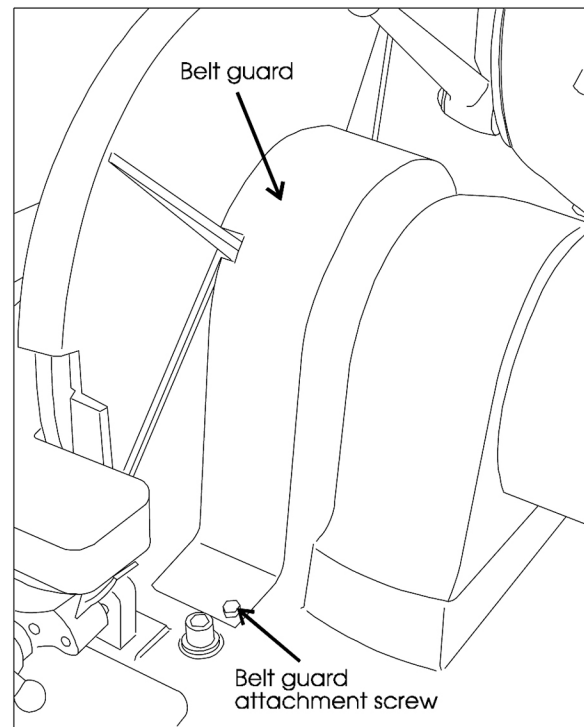


Figure 17: Removing belt guard

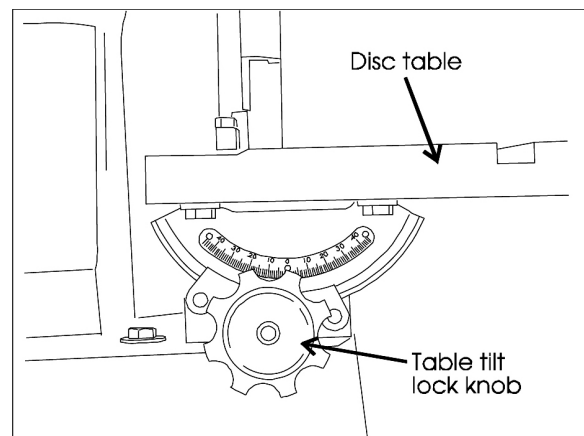


Figure 18: Disc table lock knob

5. Remove the belt from the motor pulley.
6. Remove three of the base mounting bolts, then loosen the fourth bolt slightly. This allows you to rotate the machine on the machine base (See Figure 19).
7. Remove the two bolts, underneath the machine casting, that secure the disc guard to the casting (See Figure 19).

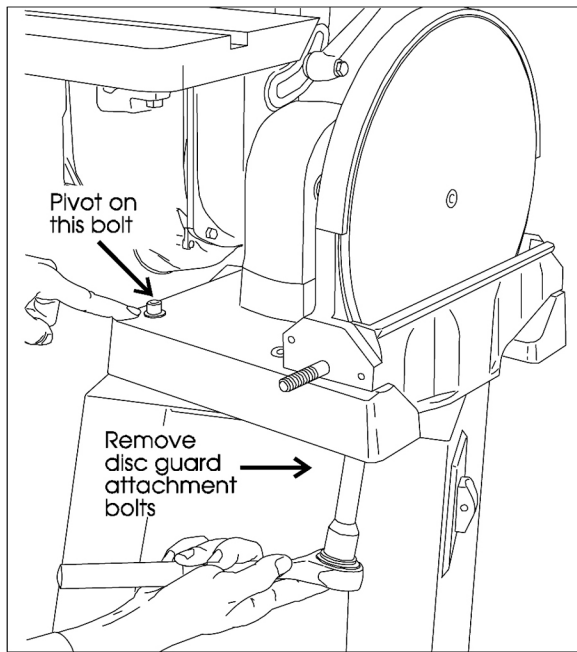


Figure 19: Rotating the machine casting to remove the disc guard bolts

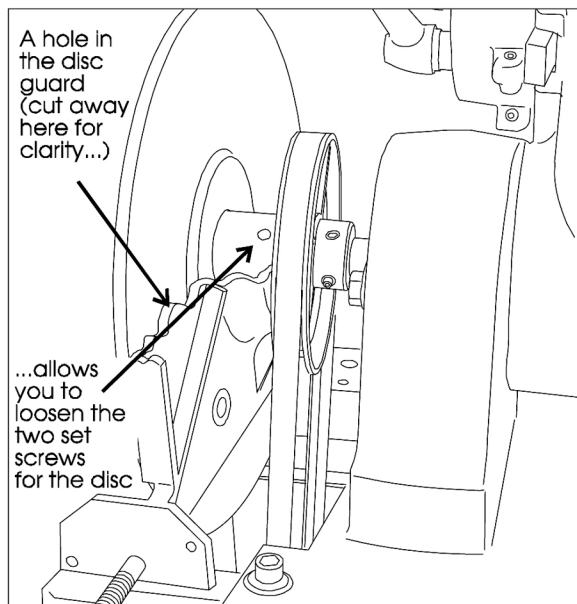


Figure 20: Locating the set screws that secure the disc to the arbor

8. Through the hole in the disc guard casting, locate and remove the TWO set screws that secure the drive disc to the arbor (Figure 20). One set screw clamps on the arbor key and the other clamps on the arbor shaft, itself. Be sure you loosen both of them.
9. Slide the disc and its guard off of the machine, together (See Figure 21).
10. The V-belt can now be removed from the drive arbor.
11. Install the new belt on the top pulley.

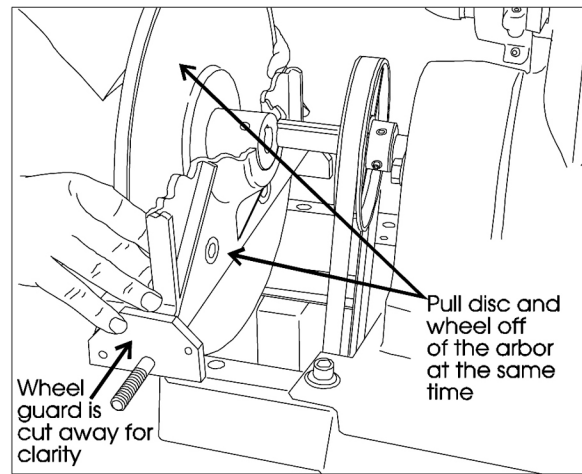


Figure 21: Removing the guard and drive disc, together

12. Slide the disc and guard back into position.
13. Reinstall the disc guard bolts underneath the table.
14. Position the drive disc so that it is no more than 1/16 inch away from the table, then tighten BOTH set screws by inserting the hex wrench through the hole in the disc guard casting.
15. Rotate the machine back onto its base and secure it with all four mounting bolts.
16. Install the belt over the bottom pulley.
17. Tension the belt so that when pressed, in the middle of its travel, it has no more than one belt's width of movement – then tighten the four motor bolts.
18. Observe the alignment of the motor pulley and arbor pulley. If necessary, correct their alignment by shifting the motor slightly on its mount (which involves loosening and retightening the mounting bolts and checking tension) or by shifting the pulley slightly on the motor shaft (which involves loosening the motor pulley set screw and sliding the pulley into alignment) or by moving the arbor pulley slightly on its shaft (See Figure 22).
19. When the pulleys are accurately aligned, reinstall the belt guard.
20. Reestablish electrical power to the machine.

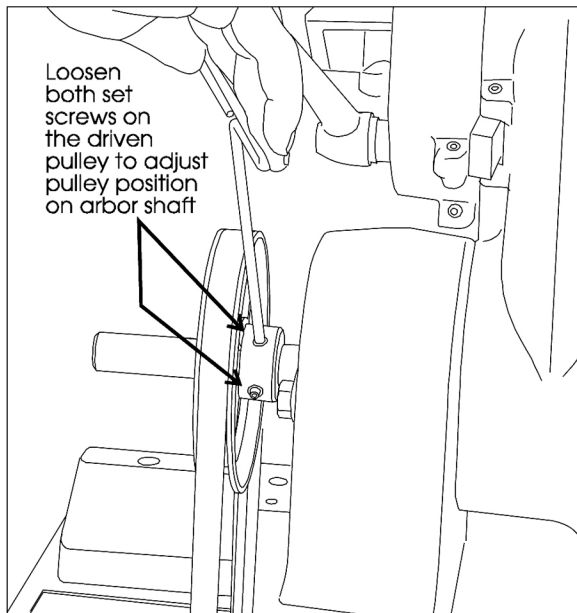


Figure 22: Loosening pulley set screws to allow the adjustment of pulley on arbor shaft

10.0 Troubleshooting

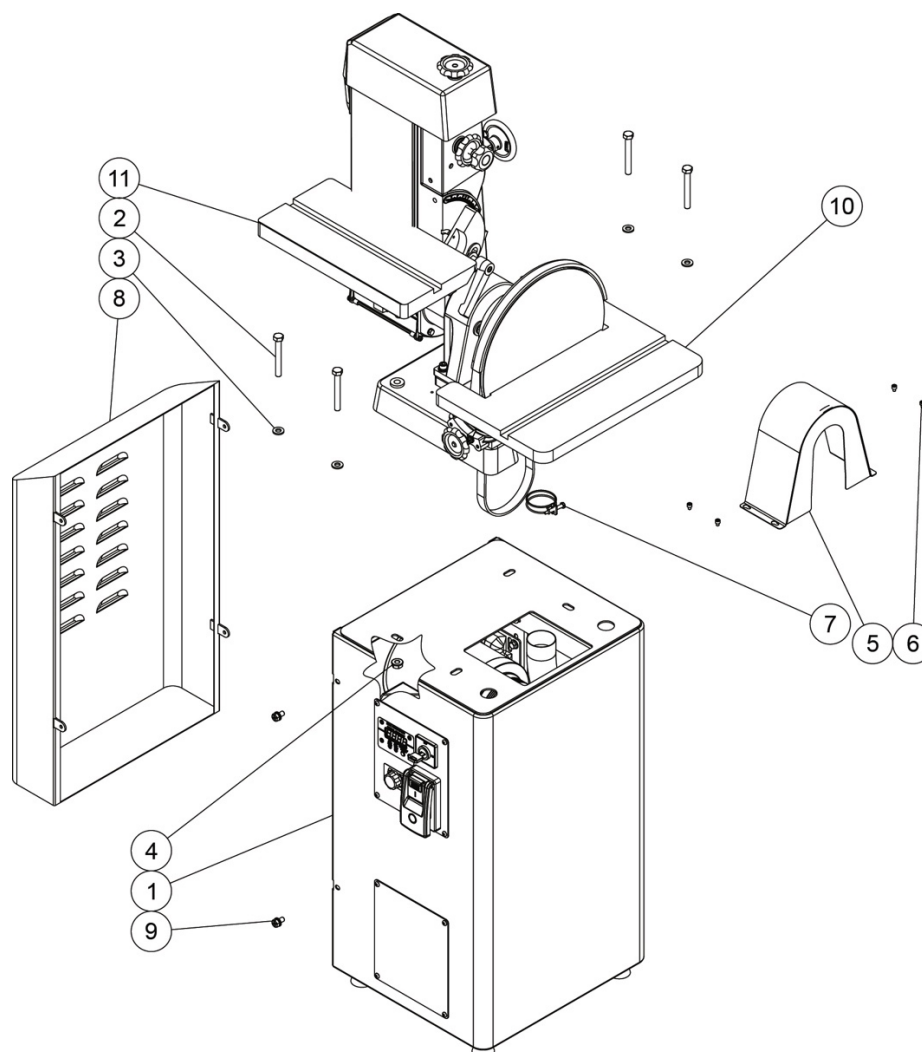
Symptom	Possible Cause	Correction
Motor will not run	Voltage is too low.	Check power supply for proper voltage.
	Branch circuit fuse is blown, or circuit breaker is tripped.	Determine the reason for the blown fuse or tripped circuit breaker; then replace the fuse or reset the breaker.
	Branch is shut down for service.	Check all personnel and machines on the branch to be certain someone has not shut down the branch for service. DO NOT replace the fuse or reset the breaker unless you are certain no personnel are working on the machines, wires, or controls in the circuit.
	Open circuit in the wiring.	Inspect all wire connections for loose or open connections.
	Motor is defective.	Replace the motor.
	Switch is defective.	Replace the switch.
Motor stalls easily	Low voltage.	Check for proper voltage at the motor; correct as necessary.
	Fuse blown.	Replace the blown fuse.
	Improper wiring.	Check for proper connections.
Abrasive belt or disc slows down although motor keeps running at working speed	Belt is slipping.	Replace the belt.
Poor tracking	Tracking is out of adjustment.	Adjust the belt tracking.
	Too much belt tension.	Loosen the tension until the belt is just taut.
	Not enough belt tension.	Tighten the tension until the belt is more taut.
	Belt is jointed improperly.	Check belt for an irregular seam or shape.
	Lack of crown on the drive roller.	Remove the belt and put a straight edge along the drive roller. There should be a slight crown (high spot toward the middle of the roller.) If the crown has worn away, replace the roller.
	Worn bearings.	Check all the bearings for excessive heat or loose shafts. Replace if necessary.
Unsteady belt	Slack in the abrasive belt	Adjust the belt tension.
Short belt life	Excessive pressure applied while grinding.	Allow the belt to do the cutting. Excessive pressure only dulls the grit and removes it from the cloth.
	Working on only one side of the belt or only in one area of the disc.	Use all surface areas of the abrasive cloth.
	Incorrect abrasive material or grit size.	Check with your abrasives supplier for recommendations on the type and coarseness of the abrasive required for the workpieces you are sanding or grinding.

CAUTION: For all the electrical faults and corrections in the above table JET recommends the use of a qualified and licensed electrician for all circuit tracing, diagnosis, and repair.

11.0 Replacement Parts

Replacement parts are listed on the following pages. To order parts or reach our service department, call 1-800-274-6848 Monday through Friday, 8:00 a.m. to 5:00 p.m. CST. Having the Model Number and Serial Number of your machine available when you call will allow us to serve you quickly and accurately.

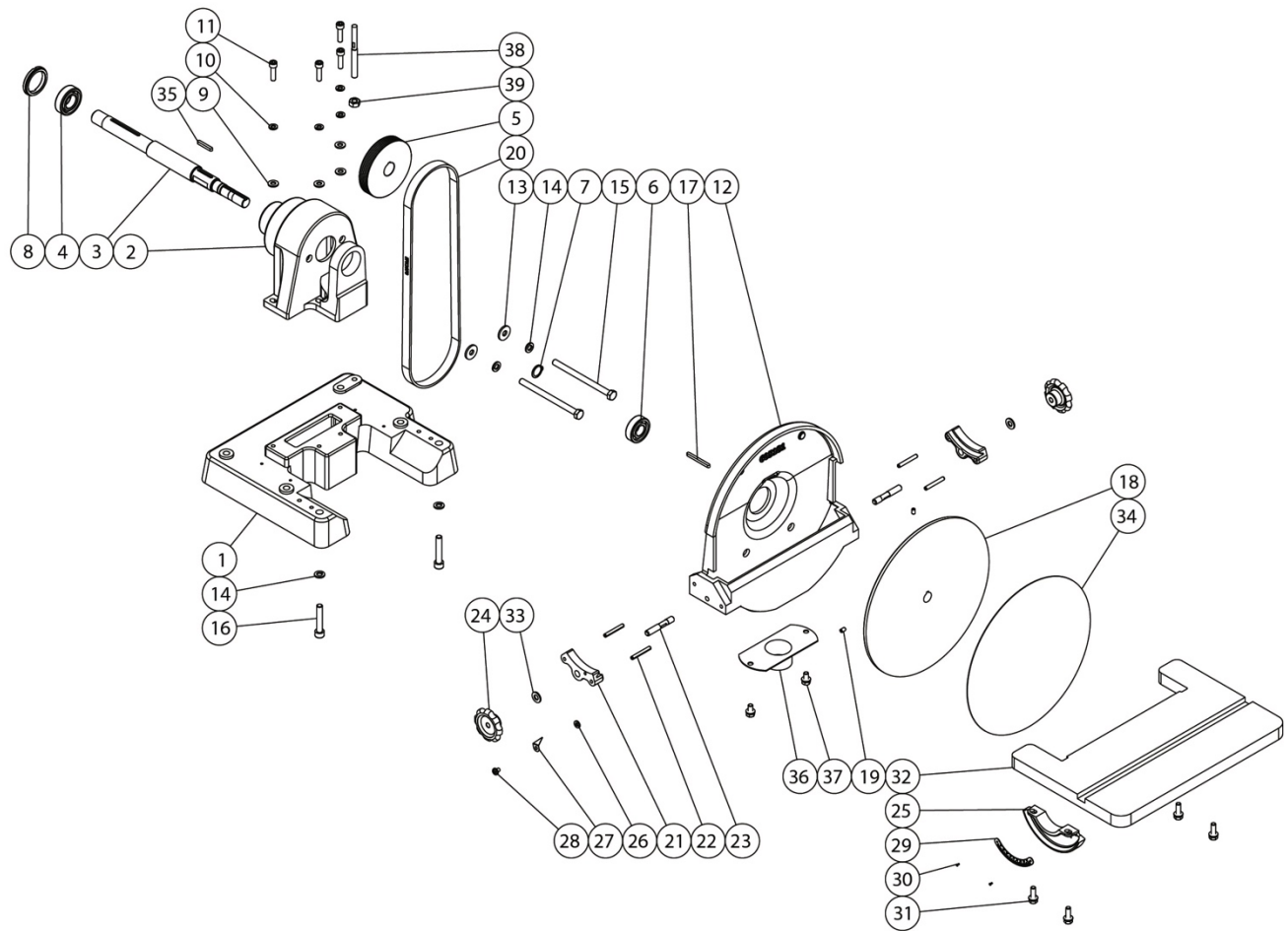
11.1.1 Belt and Disc Sander Assembly – Exploded View



11.1.2 Belt and Disc Sander Assembly – Parts List

Index No	Part No	Description	Size	Qty
1	J64812VS-001	Stand		1
2	TS-2210801	Hex Cap Screw	M10x80	4
3	TS-1550071	Flat Washer	M10	4
4	TS-1540071	Hex Nut	M10	4
5	J-5508444G	Belt Guard Assembly		1
6	TS-2235061	Socket HD Cap Screw	M5x6	4
7	605417	Wire Hose Clamp	2"	1
8	J64812VS-008	Side Cover		1
9	TS-1490021	Hex Cap Screw	M8x16	4
10	J-5508449G	Table		1
11	J-5508432G	Tilting Table		1

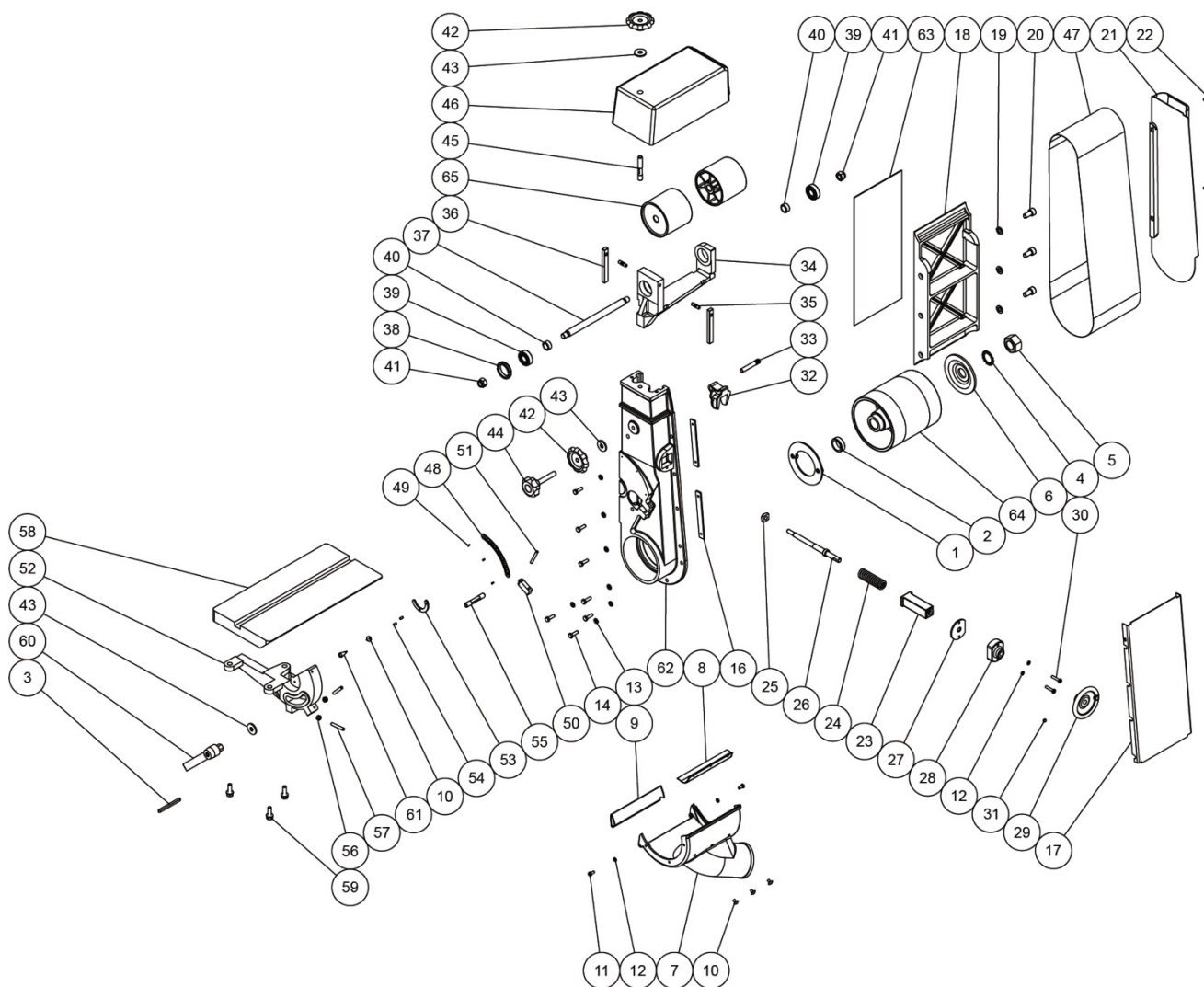
11.2.1 Disc Sander Assembly – Exploded View



11.2.2 Disc Sander Assembly – Parts List

Index No	Part No	Description	Size	Qty
1	J-5508447G	Base		1
2	J-5508438G	Bearing Housing		1
3	5508441	Drive Shaft		1
4	BB-6205ZZ	Ball Bearing	6205ZZ	1
5	J64812VS-105	Drive Pulley		1
6	BB-6204ZZ	Ball Bearing	6204ZZ	1
7	5051471	Retaining Ring	S20	1
8	5508439	Preload Bushing		1
9	TS-1550061	Flat Washer	M8	4
10	TS-2361081	Lock Washer	M8	4
11	TS-1504061	Socked HD Cap Screw	M8x30	4
12	J-5508453G	Disc Guard		1
13	TS-1550071	Flat Washer	M10	2
14	TS-2361101	Lock Washer	M10	4
15	TS-2210951	Hex Cap Screw	M10x140	2
16	TS-2239551	Socked HD Cap Screw	M10x55	2
17	4200A-042	Key	5x5x55 mm	1
18	5051641	Disc		1
19	TS-1523031	Socket Set Screw	M6x10	4
20	J64812VS-120	Poly V-Belt	5PK1070	1
21	5508451	Clamp with Pins		2
22	4200A-090	Roll Pin	Ø6x45	4
23	5508462	Stud		2
24	5508450	Hand Knob	M10	2
25	5051681	Trunnion		2
26	TS-1550041	Flat Washer	M6	1
27	5051741	Pointer		1
28	J64812VS-128	Pan Head Screw	M6x8	1
29	5051701	Tilting Table Scale		1
30	5511824	Drive Screw	Ø2x5	2
31	TS-1490041	Hex Cap Screw	M8x25	4
32	J-5508449G	Table		1
33	TS-1550071	Flat Washer	M10	2
34	5051631	Garnet Disc		1
35	5051451	Key	5x5x35 mm	1
36	605415G	Inlet Adaptor	2"	1
37	TS-1490021	Hex Cap Screw	M8x16	2
38	5508446	Stop Pin		1
39	TS-1540071	Hex Nut		1

11.3.1 Belt Sander Assembly – Exploded View

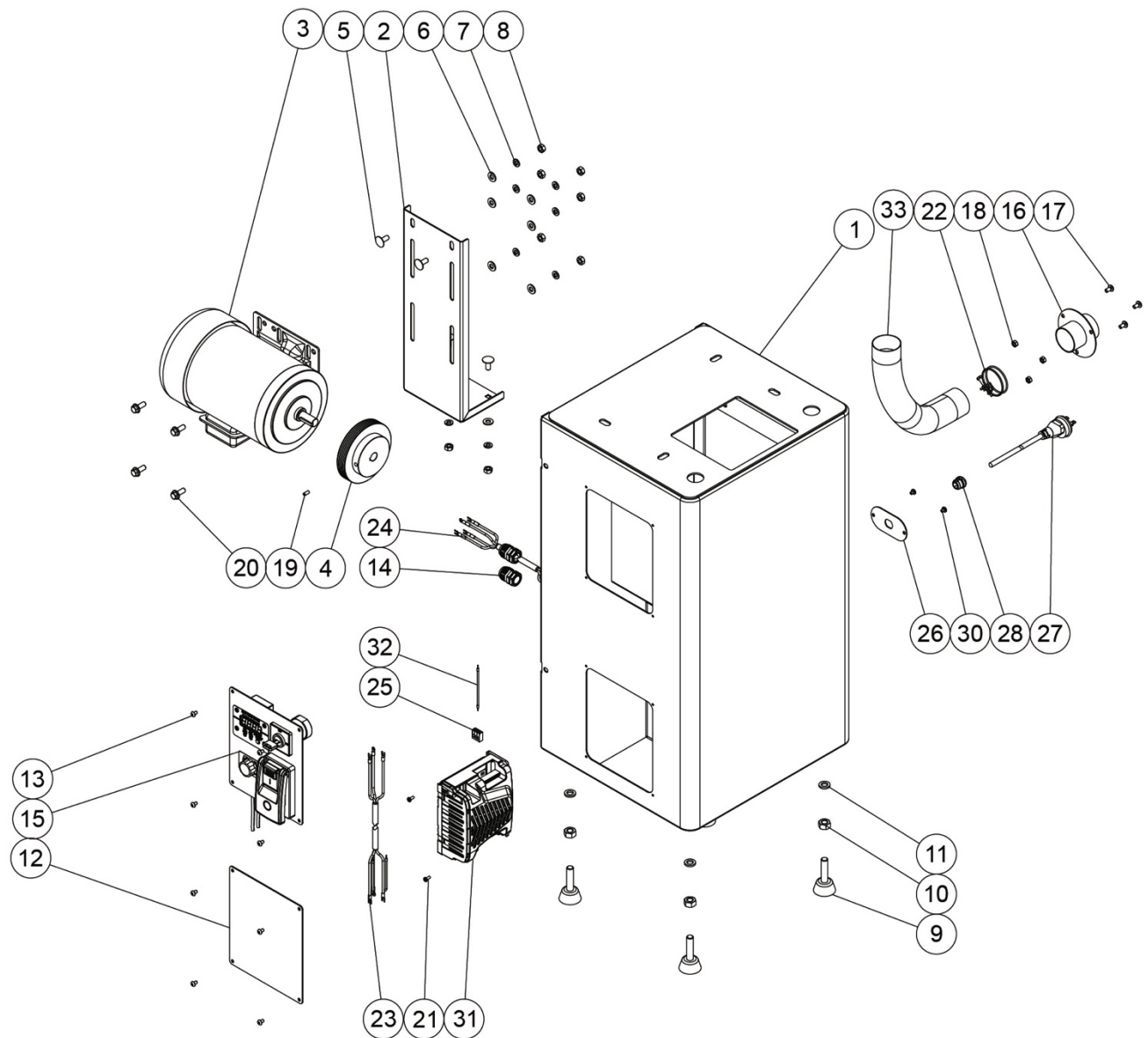


11.3.2 Belt Sander Assembly – Parts List

Index No	Part No	Description	Size	Qty
1	5508458	Clamp Ring		1
2	5544728	Drum Spacer	11 mm	1
3	5051421	Key	5x5x70 mm	1
4	9058121	Lock Washer, External Tooth	M24	1
5	J64812VS-205	Hex Nut – Left Thread	M24x18-3	1
6	5051981	Spacer		1
7	J-5508454G	Drive Drum Guard		1
8	5508456	Dust Deflector		1
9	J-5508455G	Deflector Plate		1
10	J64812VS-210	Pan Head Screw	M5x8	4
11	TS-2285121	Pan Head Screw	M5x12	2
12	TS-2361051	Lock Washer	M5	4
13	TS-2361061	Lock Washer	M6	7
14	TS-1482041	Hex Cap Screw	M6x20	7
16	5508463	Clamp Bar		2

17	J-5052121G	Bottom Guard		1
18	J-5508457G	Platen		1
19	TS-2361101	Lock Washer	M10	3
20	TS-1505021	Socket HD Cap Screw	M10x20	3
21	J-5051601AG	Side Guard		1
22	TS-1534042	Pan Head Screw	M6x12	2
23	5051091	Sleeve		1
24	5051081	Spring		1
25	5511833	Square Nut	M10	1
26	5508431	Shaft with Collar		1
27	5051131	Collar		1
28	J-5051151G	Cap		1
29	5051721	Hand Wheel		1
30	J64812VS-230	Pan Head Screw	M5x25	2
31	TS-1523011	Socket Set Screw	M6x6	1
32	5051021	Belt Tension Lever		1
33	5051031	Tension Lever Pin		1
34	J-5508459G	Idler Pin Bracket		1
35	TS-0367061	Roll Pin	1/4 x 1-1/4	2
36	5052001	Block		2
37	5508461	Idler Drum Shaft		1
38	5508460	Bearing Lock Nut		1
39	BB-6202ZZ	Ball Bearing	6202ZZ	2
40	5052061B	Idler Drum Spacer		2
41	TS-2342121	Nylon Lock Hex Nut	M12	2
42	5508450	Hand Knob	M10	2
43	TS-1550071	Flat Washer	M10	3
44	5508429	Belt Adjustment Knob		1
45	5508462	Stud		1
46	J-5051591AG	Idler Drum Guard		1
47	5051841	Garnet Belt	6" x 48"	1
48	5051351	Tilting Scale		1
49	5511824	Drive Screw	Ø2x5	3
50	5508437	Stop Lock		1
51	5511828	Groove Pin	Ø5x45	1
52	J-5508433G	Trunnion		1
53	5051331	Segment		1
54	5511827	Groove Pin	Ø4x8	2
55	5508435	Stud	M10	1
56	TS-1540041	Hex Nut	M6	2
57	J64812VS-257	Socket Set Screw	M6x40	2
58	J-5508432G	Tilting Table		1
59	TS-1490041	Hex Cap Screw	M8x25	3
60	5508436	Acorn Nut and Handle		1
61	5508434	Pointer		1
62	J-5508427G	Bracket		1
63	J64812VS-263	Graphite Gasket		1
64	5051971A	Drive Drum		1
65	J64812VS-265	Idler Drum		2

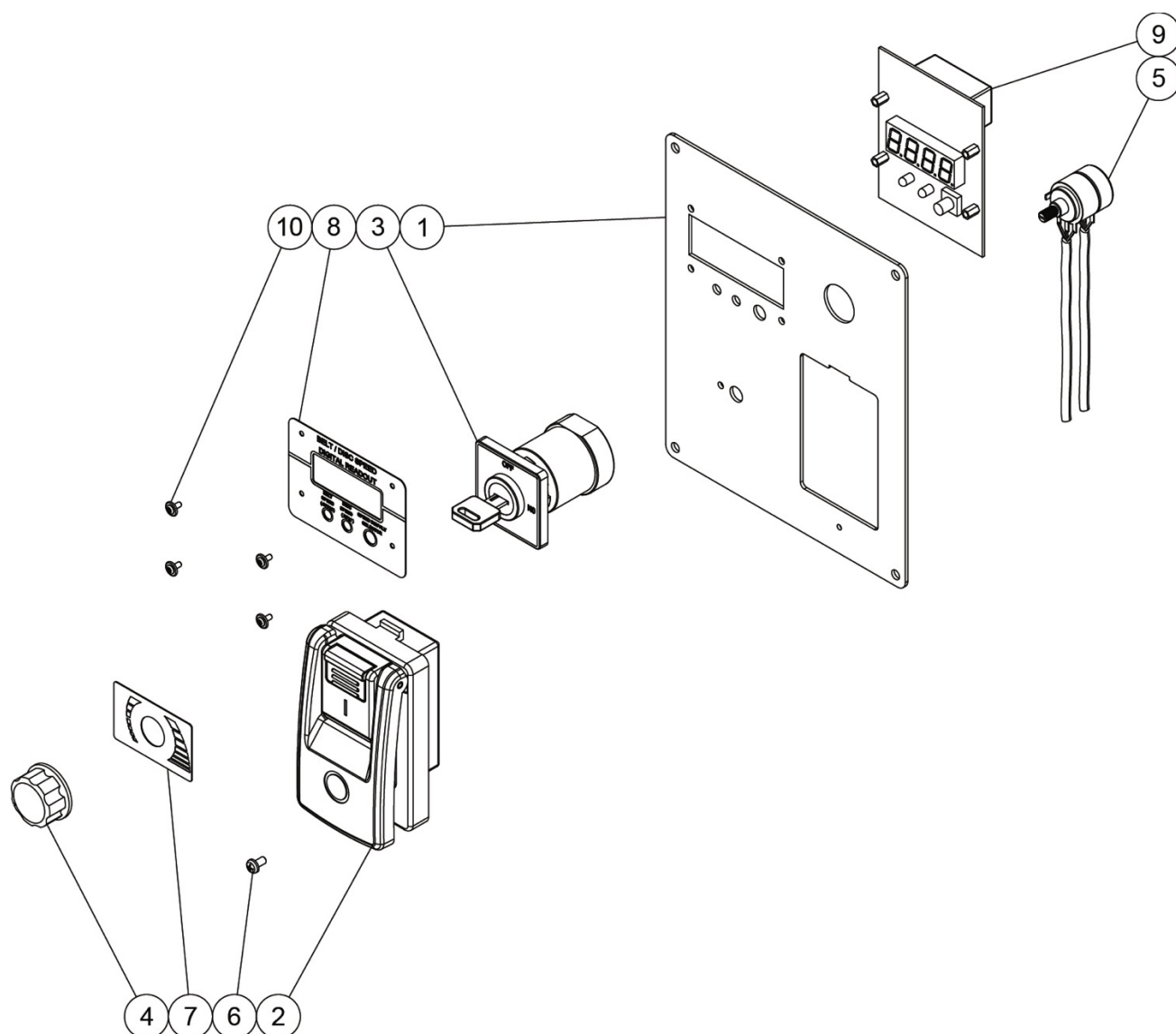
11.4.1 Stand Assembly – Exploded View



11.4.2 Stand Assembly – Parts List

Index No	Part No	Description	Size	Qty
1	J64812VS-001	Stand		1
2	J64812VS-302	Motor Bracket		1
3	J64812VS-303	Motor	230V, 3Ph	1
4	J64812VS-304	Motor Pulley		1
5	J64812VS-305	Carriage Bolt	M8x20	4
6	TS-1550061	Flat Washer	M8	8
7	TS-2361081	Lock Washer	M8	8
8	TS-1540061	Hex Nut		8
9	5511745	Adjustable Mount		4
10	TS-1540081	Hex Nut	M12	4
11	TS-2360121	Flat Washer	M12	4
12	J64812VS-312	Cover Plate		1
13	TS-2245102	Socket HD Button Screw	M5x8	8
14	J64812VS-314	Strain Relief	PG-13.5	2
15	J64812VS-315	Control Panel Assembly		1
16	605416G	Dust Port	2"	1
17	TS-1534042	Pan Head Screw	M6x12	3
18	TS-1540041	Hex Nut	M6	3
19	TS-1522041	Socket Set Screw	M5x12	1
20	TS-1490031	Hex Cap Screw	M8x20	4
21	TS-1532032	Pan Head Screw	M4x10	2
22	605417	Wire Hose Clamp	2"	1
23	J64812VS-323	Interconnection Cord	14AWG x 3C	1
24	J64812VS-324	Motor Cord	14AWG x 4C	1
25	J64812VS-325	Wire Connector	221-413	1
26	J64812VS-326	Strain Relief Fixed Plate		1
27	J64812VS-327	Power Cord 6-15P Plug installed	14AWG x 3C	1
28	J64812VS-328	Strain Relief	7N-2	1
30	J64812VS-330	Pan Head Screw	M5x6	2
31	J64812VS-331	Inverter	RM6S2-2002E1	1
32	J64812VS-332	Ground Wire	20AWG	1
33	J64812VS-333	Hose	Dia. 2" x L 440 mm	1

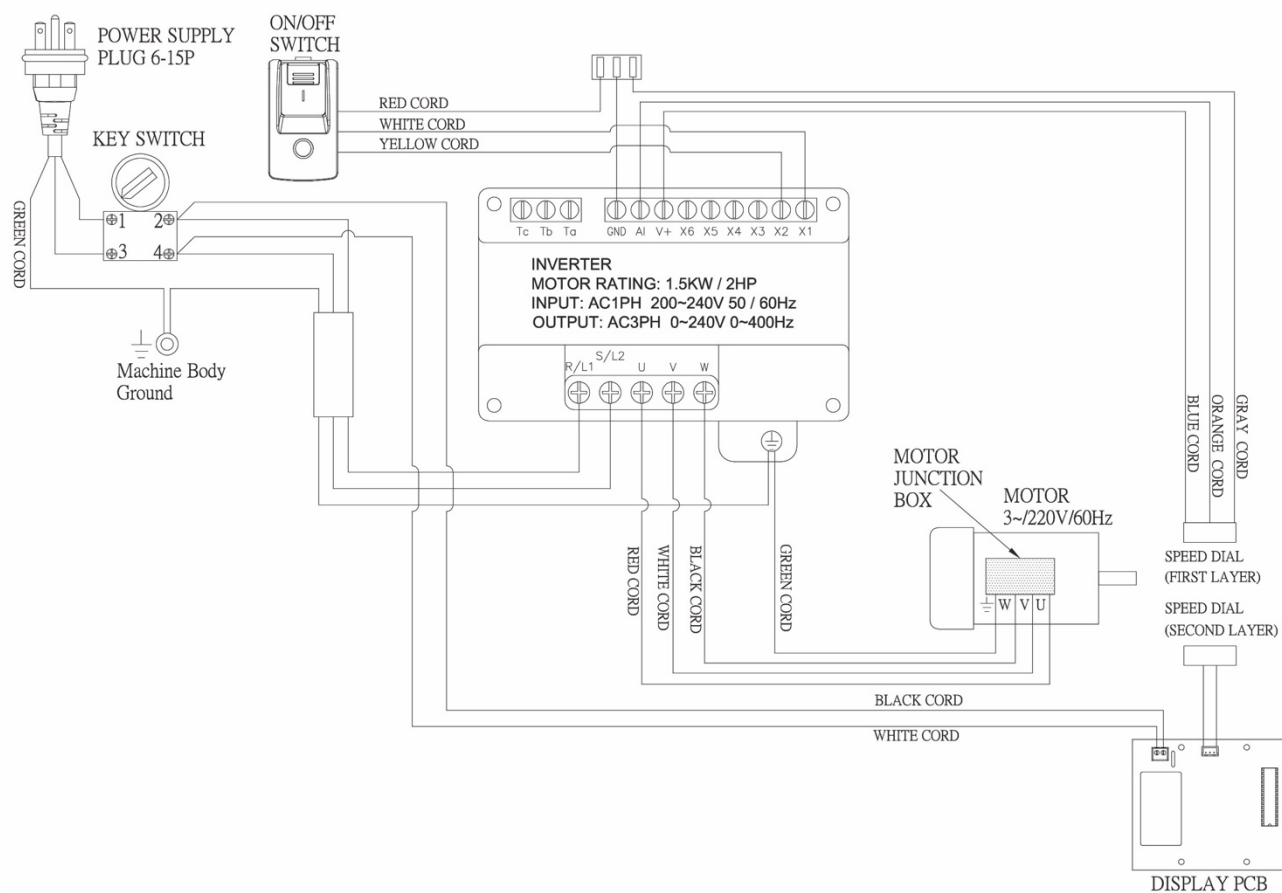
11.5.1 Control Panel Assembly – Exploded View



11.5.2 Control Panel Assembly – Parts List

Index No	Part No	Description	Size	Qty
1	J64812VS-401	Control Panel		1
2	J64812VS-402	ON/OFF Switch		1
3	18MWEVS-045-06	Key Switch	A201A	1
4	18MWEVS-041-05	VR Knob		1
5	18MWEVS-041-06	VR Variable Resistor		1
6	TS-2284082	Pan Head Screw	M4X8	1
7	J64812VS-407	Speed Range Label		1
8	J64812VS-408	Speed Display Label		1
9	J64812VS-409	Digital Readout		1
10	TS-1531012	Pan Head Screw	M3x6	4

12.1 Electrical Schematic – 230V





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