



Record purchase information:

Model No.:	Stock No.:
Serial No.:	
Purchased from:	
Date purchased:	

Operating Instructions and Parts Manual Benchtop Belt and Disc Sanders

Models IBDG-248/248VS/436/436VS



IBDG-248 shown

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1.0 IMPORTANT SAFETY INSTRUCTIONS

1.1 General safety rules

WARNING – To reduce risk of injury:

1. Read and understand the entire owner's manual before attempting assembly or operation.
2. Read and understand the warnings posted on the machine and in this manual. Failure to comply with all of these warnings may cause serious injury.
3. Replace warning labels if they become obscured or removed.
4. Know the tool you are using; its application, limitations, and potential hazards.
5. Do not use this machine for other than its intended use. If used for other purposes, JET disclaims any real or implied warranty and holds itself harmless from any injury that may result from that use.
6. 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 breakage of eye protection. (Everyday eyeglasses only have impact resistant lenses; they are NOT safety glasses.)
7. Wear proper apparel. Do not wear loose clothing, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.
8. Wear hearing protection (plugs or muffs) if the particular work requires it.
9. Do not operate this machine while tired or under the influence of drugs, alcohol or any medication.
10. Make certain the switch is in the OFF position before connecting the machine to the power supply.
11. Make certain the machine is properly grounded.
12. Make all machine adjustments or maintenance with the machine unplugged from the power source.
13. Remove adjusting keys and wrenches. Form a habit of checking to see that keys and adjusting wrenches are removed from the machine before turning it on.
14. Keep safety guards in place at all times when the machine is in use. If removed for maintenance purposes, use extreme caution and replace the guards immediately after completion of maintenance.
15. Check damaged parts. Before further use of the machine, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
16. Provide for adequate space surrounding work area and non-glare, overhead lighting.
17. Keep the floor around the machine clean and free of scrap material, oil and grease.
18. Keep visitors a safe distance from the work area. Keep children away.
19. Make your workshop child proof with padlocks, master switches or by removing starter keys.
20. Give your work undivided attention. Looking around, carrying on a conversation and "horse-play" are careless acts that can result in serious injury.
21. Keep proper footing and balance at all times so that you do not fall into or lean against the sanding belt or other moving parts. Do not overreach or use excessive force to perform any machine operation.
22. Disconnect sander from power source before servicing and when changing abrasive wheel or sanding belt.
23. Use recommended accessories. The use of improper accessories may cause risk of injury to persons.
24. Turn off the machine before cleaning. Use a brush to remove chips or debris — do not use bare hands.
25. Never leave sander running unattended. Turn power off and do not leave machine until belt and disc have completely stopped
26. Remove loose items and unnecessary work pieces from the area before starting the sander.
27. Don't use in dangerous environment. Don't use power tools in damp or wet location, or expose them to rain. Don't use this machine in a flammable environment. Keep work area well lit.

28. Keep work area clean. Cluttered areas and benches invite accidents.
29. Use the right tool. Don't force tool or attachment to do a job for which it was not designed.
30. Use proper extension cord. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table 2 (see sect. 7.2) shows correct size to use depending on cord length and nameplate ampere rating.
31. Maintain tools with care. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
32. Direction of feed: Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.

1.2 Specific rules 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 by contact or inhalation. In addition to the general safety rules above, you must also comply with the following specific requirements:

1. If you are not thoroughly familiar with the operation of belt and disc sanders, obtain advice from your supervisor, instructor or other qualified person.
2. A dust collection system is recommended. Operator shall also wear a dust mask at all times.
3. Do not sand magnesium; it could catch fire. Additional precautions may be needed for other materials that are hazardous or flammable. Always consult the material manufacturer for instructions on sawing and handling.
4. Do not start the grinder while a workpiece is contacting the grinding wheel or the sanding belt.
5. If there is any risk of the machine tipping or moving during operation, such as when sanding long or heavy boards, the machine must be securely fastened to a supporting surface.
6. Make sure the sanding belt is running in the proper direction; it must travel downward when viewed from front of machine.
7. Make sure sanding belt tracks correctly so that it does not run off the wheels.
8. Make sure sanding belt or disc is not torn or loose.
9. Before sanding, allow motor to reach operating speed, then check the sanding disc for wobble, runout or any unbalanced condition. If the disc is not operating accurately and smoothly, immediately stop the motor and make repairs before attempting sanding operations.
10. Always hold the work firmly on the table when sanding on the belt or disc. The only exception is curved work performed on the bottom wheel.
11. Always sand on the downward side of the disc so that the work is held securely on the table. Sanding on the upward side of the disc can cause the workpiece to fly upward, which may be hazardous.
12. Always maintain a *minimum* clearance of 1/16-inch between table and sanding belt or disc.
13. This machine can be used for processing wood or metal products. However, combining wood dust and metal filings can create a fire hazard. Make sure that the dust collector is free of wood dust deposits before processing metal products.
14. Never wear gloves or hold the work with a rag when sanding.
15. Sand with the grain of the wood when possible.
16. Do not sand pieces of material that are too small to be safely supported.
17. When sanding a large workpiece, provide additional support at table height.
18. Avoid awkward hand positions where a sudden slip could cause a hand to move into the sanding belt or disc.
19. Never force the work. Slowing or stalling the motor will cause overheating.
20. Always remove scrap pieces and other objects from the belt and disc tables before turning on the machine.
21. When sanding metal, never use a steady stream of water on the work piece. Dip the workpiece in water to cool it.
22. Wear protective clothing such as apron, safety shoes, or arm guards, where the sanding or grinding activity presents a hazard to the operator.
23. Abrasive discs must be stored in a controlled environment area. Relative humidity should be 35% to 50% and the temperature should be between 60 and 80 degrees Fahrenheit. Failure to do so could cause premature disc failure.
24. Examine the face of the sanding disc carefully. Excessive sanding which wears down to the backing material can cause tearing of 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.

25. When installing a new disc, be certain the disc is accurately centered on the drive wheel. Failure to do so could cause an unbalanced condition.
26. 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.

⚠ WARNING: This product can expose you to chemicals including lead which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <http://www.p65warnings.ca.gov>.

⚠ WARNING: Some dust, fumes and gases created by power sanding, sawing, grinding, drilling, welding and other construction activities contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Some examples of these chemicals are:

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

Your risk of exposure 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 dust masks that are specifically designed to filter out microscopic particles. For more information go to <http://www.p65warnings.ca.gov/> and <http://www.p65warnings.ca.gov/wood>.

SAVE THESE INSTRUCTIONS

Familiarize yourself with the following safety notices used in this manual:

⚠ CAUTION This means that if precautions are not heeded, it may result in minor injury and/or possible machine damage.

⚠ WARNING This means that if precautions are not heeded, it may result in serious, or possibly even fatal, injury.

2.0 About this manual

This manual is provided by JET, covering the safe operation and maintenance procedures for a JET Model IBDG series Belt and Disc Sander. This manual contains instructions on installation, safety precautions, general operating procedures, maintenance instructions and parts breakdown. Your machine has been designed and constructed to provide consistent, long-term operation if used in accordance with the instructions set forth in this document.

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!

Register your product using the provided mail-in card, or register online:

<http://www.jettools.com/us/en/service-and-support/warranty/registration/>

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4.0 Specifications

Table 1

Stock number	578842	577842	578634	577634	
Model number	IBDG-248	IBDG-248VS	IBDG-436	IBDG-436VS	
Motor and Electricals					
Motor	Type	totally enclosed, induction, capacitor start	totally enclosed, induction, with inverter	totally enclosed, induction, capacitor start	totally enclosed, induction, with inverter
	Horsepower	1HP			
	Phase	1 PH	3 PH	1 PH	3 PH
	Voltage	115/230V, prewired 115V			
	Cycle	60 Hz			
	Listed FLA (full load amps)	11 / 5.5 A	7 / 3.5 A	11 / 5.5 A	7 / 3.5 A
	Speed	3,600 RPM	900-3600 RPM	3,600 RPM	900-3600 RPM
	Starting capacitor	200MFD, 125VAC	n/a	200MFD, 125VAC	n/a
	Running capacitor	35µF, 250V	n/a	35µF, 250V	n/a
Input power required	Single phase 115V (or 230V if rewired)				
On/off switch	toggle	TACT	toggle	TACT	
Power transfer	Direct drive				
Power cord	SJT 16AWG x 3C, 6 ft. (183cm)				
Power plug installed	5-15P, 125V/15A				
Recommended minimum circuit size ¹	15 A				
Sound emission without load ²	75 dB at 3 ft. (92cm)				
Disc sander					
Disc diameter	9 in. (228.6m)				
Sanding disc	80 Grit, Aluminum Oxide				
Disc table size	11-13/16 x 5-29/32 in. (300 x 150 mm)				
T-slot size (W x D)	3/4 x 3/8 in. (19 x 9.6 mm)				
Disc table tilt	45 deg. down				
Dust port diameter	2 in. (52mm)				
Base					
Foot print (W x D)	9-1/2 x 8-1/16 in. (240 x 205mm)				
Mounting holes diameter	7/16 in. (11mm)				
Distance between mounting hole centers	8-15/32 in. (215mm)				
Belt sander					
Sanding belt size (L x W)	48 x 2 in. (1219 x 52)		36 x 4 in. (914 x 102 mm)		
Sanding belt type	80 Grit, Aluminum Oxide				
Belt speed (SFPM)	4,712	1,178 – 4,712	3,769	942-3,769	
Belt table tilt	45 deg. down				
Belt table size (L x W)	4-11/32 x 2-15/16 in. (110 x 75 mm)		6-5/16 x 2-15/16 in. (160 x 75 mm)		
Tool rest tilt	45 deg. down				
Tool rest size (L x W)	3-1/8 x 2-5/8 in. (79 x 67 mm)		5-1/8 x 3-1/8 in. (130 x 80 mm)		
Drive wheel size (Dia. x W)	5 x 2-1/16 in. (127.5 x 53 mm)		4 x 4-1/16 (102.5 x 104 mm)		
Dust port diameter	2 in. (52 mm)				
Minimum dust extraction required					
Weights					
Net weight	74 lbs. (33.82 kg)		73 lbs. (33.32 kg)		
Shipping weight	97 lbs. (44.25 kg)		92 lbs. (41.96 kg)		

Dimensions			
Overall dimensions (L x W x H)	Sanding arm vertical	23-7/16 x 15-1/16 x 25-29/32 in. (595 x 383 x 658 mm)	25-13/32 x 15-1/16 x 20-3/4 in. (645 x 383 x 527 mm)
	Sanding arm horizontal	23-7/16 x 26-27/32 x 12-7/32 in. (595 x 682 x 310 mm)	25-13/32 x 21-11/16 x 11-3/4 in. (645 x 551 x 298 mm)
Shipping dimensions (L x W x H)		26-9/16 x 24-19/32 x 16-15/16 in. (675 x 625 x 430 mm)	21-15/32 x 24-19/32 x 16-15/16 (545 x 625 x 430 mm)
Main materials			
Disc sander	Disc		Aluminum
	Disc guard		Aluminum
	Disc lower cover		Aluminum
	Disc table		Cast iron
	Trunnions		Aluminum
Belt sander	Belt table		Cast iron
	Belt table bracket		Sheet metal
	Tool rest		Sheet metal
	Tool rest bracket		Sheet metal

¹ subject to local and national electrical codes.

² The specified values are emission levels and are not necessarily to be seen as safe operating levels. As workplace conditions vary, this information is intended to allow the user to make a better estimation of the hazards and risks involved only.

L = length, W = width, H = height, D = depth

n/a = not applicable

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.

4.1 Mounting hole dimensions

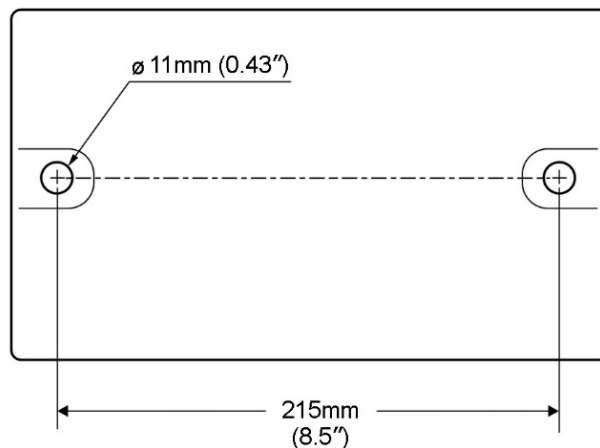


Figure 4-1 Base mounting holes, all models

4.2 Machine dimensions/work area

Primary dimensions in millimeters. (Parentheses show imperial dimensions.)

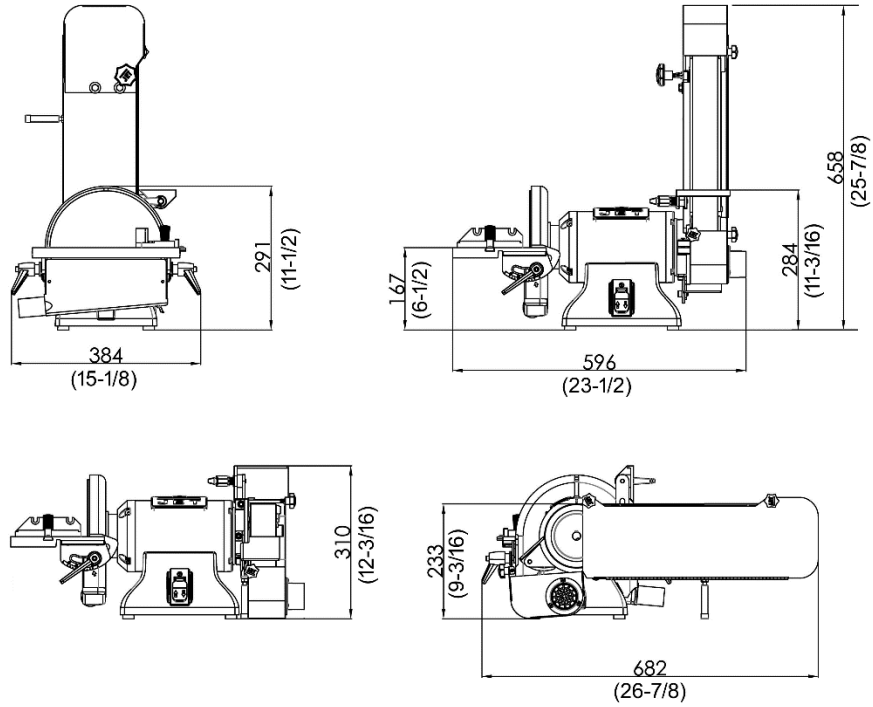


Figure 4-2: dimensions for **IBGB-248/248VS**

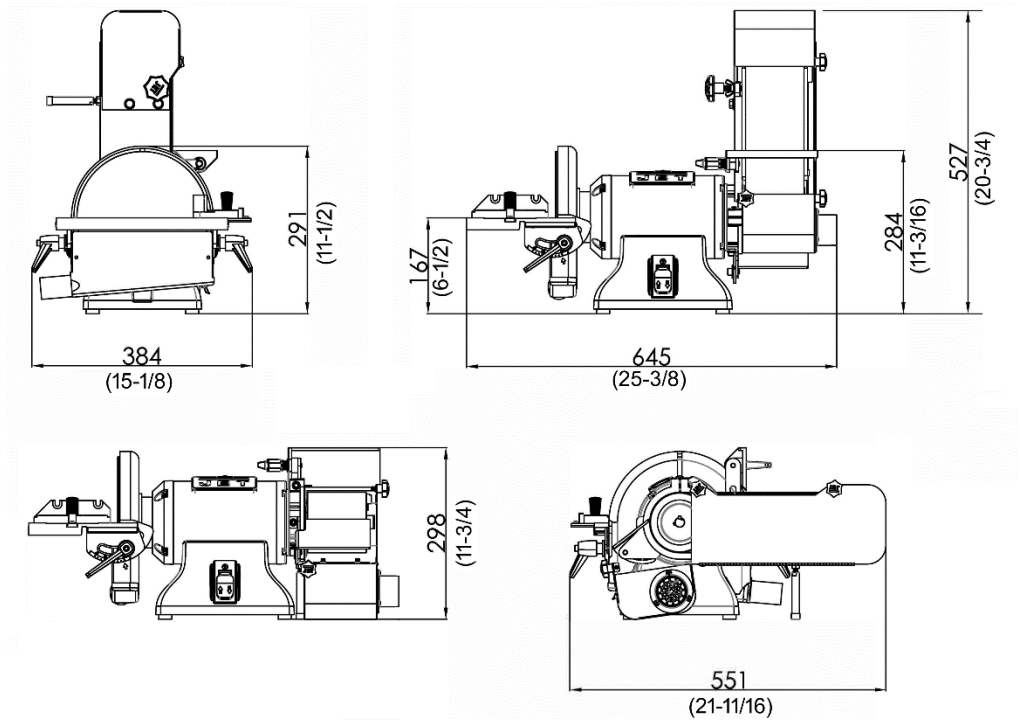
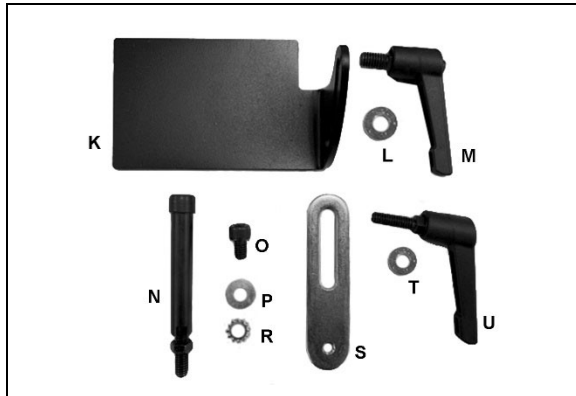


Figure 4-3: dimensions for **IBGB-436/436VS**

5.0 Carton contents

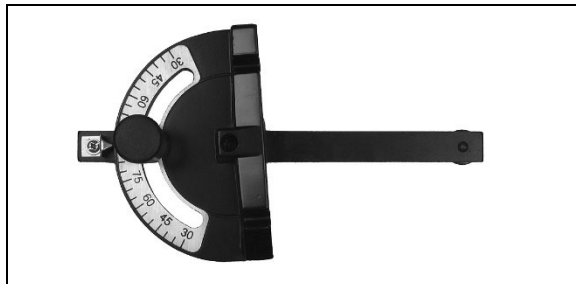
Included accessories are shown on this page. The identifying letters are used in the assembly instructions.



Hardware package		Qty.
Part no. IBGB248-HP or IBGB436-HP		
K	Tool rest (for sanding belt)	1
L	Flat washer 3/8	1
M	Adjustable handle 3/8 x 5/8L	1
N	Stand-off	1
O	Socket hd cap screw 5/16 x 1/2	1
P	Flat washer 5/16	1
R	Ext. tooth lock washer M8	1
S	Bracket plate	1
T	Flat washer 5/16	1
U	Adjustable handle 5/16 x 1L	1



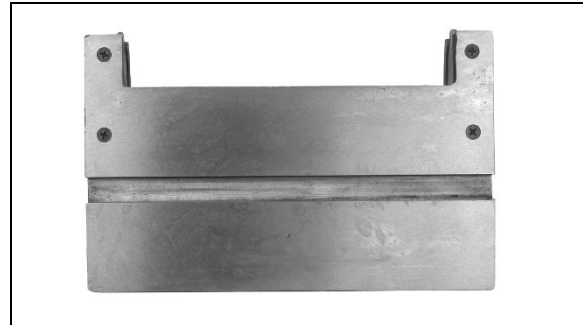
		Qty.
B	Dust port	1
	Truss head screw 3/16 x 3/8	3



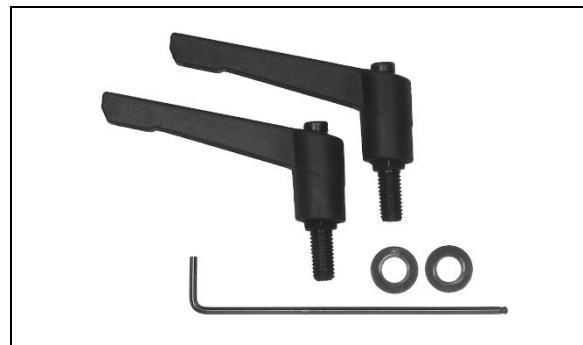
		Qty.
	Miter gauge	1



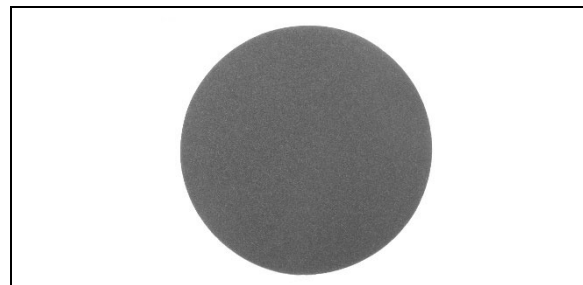
		Qty.
W	Belt Sanding Table	1
	Hex ("Allen") Wrench 6mm	1



		Qty.
	Disc Table	1



		Qty.
	Handles for disc table	1
	Flat Washers	2
	Hex ("Allen") wrench 3mm	1



		Qty.
	Sanding disc 80G, Ø9 in.	1

6.0 Setup and assembly

6.1 Tools required for assembly

Cross-point (Phillips) screwdriver
3mm hex wrench – *provided*
6mm hex wrench – *provided*

Additional tools may be needed for securing sander to a stand or workbench.

6.2 Unpacking

Separate all parts from the packing material. Check each part against *sect. 5.0, Carton contents*, and make certain that all items are accounted for. (Check whether any parts have been pre-mounted to the grinder.) Notify your dealer or JET if missing or damaged items are discovered. Do not discard packing material until grinder is assembled and operating properly.

The IBDG Belt and Disc Sander requires minimal assembly. For your safety, do not plug the sander into a power source until all assembly and adjustments are complete.

⚠WARNING Make sure that sander is unplugged and power switch is in OFF position. Do not plug in the sander to power until it is inspected for shipping damage and all necessary assembly and adjustments are performed. Failure to comply may cause serious injury.

⚠WARNING Do not operate this machine without all guards and shields in place and in working order. Failure to comply may cause serious injury.

6.3 Securing the sander

To prevent the machine from moving during operation, it should be securely mounted to a work bench or stand. Fasteners for mounting are not included with the sander.

1. Align mounting holes on sander with predrilled holes in bench or pedestal. Figure 4-1 shows hole centers for mounting.
2. Insert M10 (or 3/8") bolts through the holes and secure with washers and nuts.

An optional JET pedestal stand (not included) is available for your sander. See *sect. 11.0*.

IMPORTANT: The sander's base plate contains ventilation holes for heat dissipation. This is especially important on the variable speed models, as it helps keep the circuit board at an acceptable temperature. These holes should not be obstructed. If the rubber pads are removed for mounting to a table, allow an opening in the table below the grinder for air circulation. However, it is recommended the

rubber pads be left on, as they allow air circulation as well as vibration dampening.

6.4 Belt sanding table

Install bracket plate, table and handles, as shown in Figure 6-1. (You may prefer sanding arm in horizontal position for this – see Figure 6-3.)

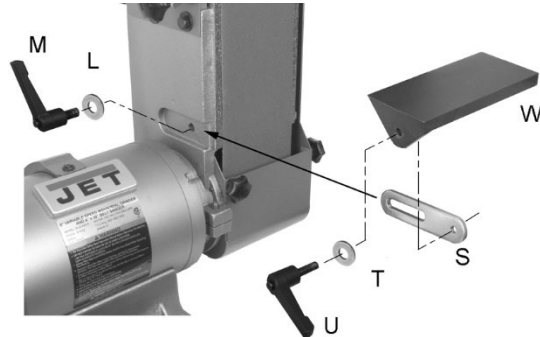


Figure 6-1: sanding belt table

TIP: The quickest method of installing a handle is to start the handle into the threads of the hole, then pull out on the handle while turning the screw with a 3mm hex wrench until tight. See Figure 6-2.

To reposition a handle for convenience without affecting its tightness, pull out on it, rotate, then release it, allowing it to resettle upon the screw.

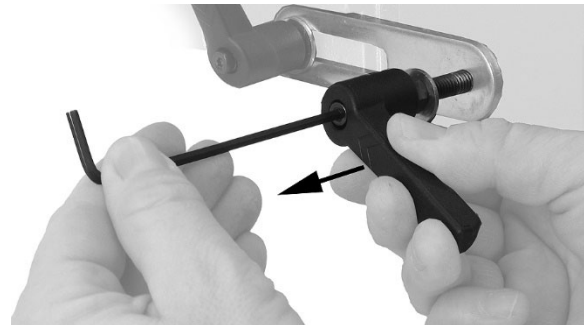


Figure 6-2: installing handles

⚠CAUTION To avoid trapping the work or fingers between table and sanding belt, the table edge must be positioned 1/16-inch or less from the sanding belt.

6.5 Stand-off

1. Install stand-off (shown installed in Figure 8-2) into threaded hole in back of sanding arm.
2. Loosen screw (A, Figure 6-3) with 6mm hex wrench and lower sanding arm to horizontal position.
3. Turn stand-off in or out as needed until sanding arm is level with workbench.
4. Tighten hex nut against sanding arm to secure setting of stand-off.

6.6 Sanding tool rest

Loosen screw (A, Figure 6-3) with 6mm hex wrench and lower sanding arm to horizontal position.

Install tool rest as shown in Figure 6-3, using a 6mm hex wrench.

Note: The tool rest can remain installed when not in use. Simply adjust it outward to allow opening and closing of drive wheel cover. Adjust it inward before raising arm to vertical position.

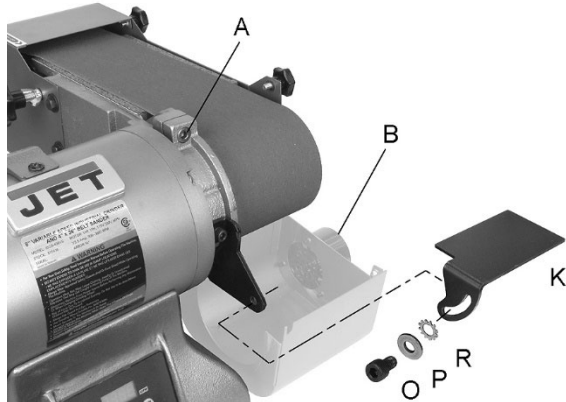


Figure 6-3: Sanding tool rest

6.7 Dust port

Install dust port (B, Figure 6-3) over exhaust hole in sanding arm, with three screws.

It is recommended that a dust collection system designed for metal dust and shavings be connected to the two ports on both ends of the machine, using 2-1/2" inside-diameter hose with hose clamp (not provided). An accessory hose kit is available from JET; see *sect. 11.0*.

6.8 Installing sanding disc

1. Remove guard covering lower portion of disc.
2. Peel back about 1/2 of the backing on sanding disc to expose the adhesive.
3. Carefully position upper part of sanding disc to the machine disc, matching its outer edge with that of the machine disc. Continue peeling away the remainder of the backing as you work downward to remove any entrapped air, pressing the sanding disc to the machine's disc.
4. Reinstall lower guard.

6.9 Installing disc table

Install disc table with two handles and flat washers (see Figure 6-4). Loosen handles to tilt table downward. Tighten handles before operating.

CAUTION To avoid trapping the work or fingers between table and sanding disc, the table edge must be positioned 1/16-inch or less from sanding disc.

Position table at 90° to disc, and check distance between table edge and sanding disc. If gap is greater than 1/16-inch, adjust as follows:

1. Look through top access hole and rotate disc until set screw appears.
2. Insert provided 3mm hex wrench through hole to loosen set screw. See Figure 6-4.
3. Bump disc toward the table to achieve 1/16-inch gap. (Remove lower guard if needed.)
4. Tighten set screw. (Reinstall lower guard if removed.)

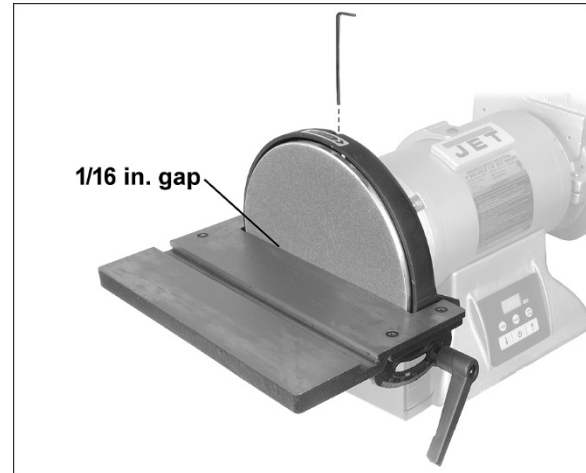


Figure 6-4: disc table

6.10 Miter gauge

Insert the miter gauge bar into the end of the disc table slot. Loosen handle to rotate gauge to desired angle shown on scale. Always tighten handle before operating.

If precise angles are needed, verify the miter gauge setting by placing an angle measuring device against miter gauge and sanding disc.

7.0 Electrical connections

WARNING Electrical connections should be made by a qualified electrician in compliance with all relevant codes. This tool must be properly grounded. Failure to comply may cause serious or fatal injury.

The IBDG Belt and Disc Sander is prewired for 115V single phase power, and is supplied with a plug designed for use on a circuit with a grounded outlet that looks like the one pictured in A, Figure 7-1. The sander may also be used with 230V single phase input power, see *sect. 7.3* for instructions.

Before connecting to power source, be sure switch is in *off* position.

It is recommended that the sander be connected to a minimum 15-amp circuit with circuit breaker or fuse. If using fuses, they should be time-delay fuses marked "D". **Local codes take precedence over recommendations.**

7.1 GROUNDING INSTRUCTIONS

1. All Grounded, Cord-connected Tools:

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

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

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

⚠WARNING Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded. Failure to comply may cause serious or fatal injury.

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

Repair or replace damaged or worn cord immediately.

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

This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in **A**, Figure 7-1. An adapter, shown in **B** and **C**, may be used to connect this plug to a 2-pole receptacle as shown in **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.

Note: In Canada, the use of a temporary adaptor is not permitted by the Canadian Electrical Code, C22.1.

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.

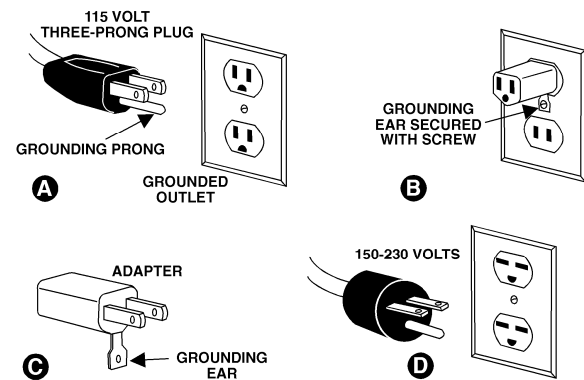


Figure 7-1: plug configurations

3. Grounded, cord-connected tools intended for use on a supply circuit having a nominal rating between 150 - 250 volts, inclusive:

This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in **D**, Figure 7-1. A grounding plug may be installed, that looks like the plug illustrated in **D**; or the grinder may be "hard-wired" to a panel, provided there is a disconnect for the operator.

Make sure the tool is connected to an outlet having the same configuration as the plug. No adapter is available or should be used with this tool. If the tool must be reconnected for use on a different type of electric circuit, the reconnection should be made by qualified service personnel; and after reconnection, the tool should comply with all local codes and ordinances.

4. Permanently connected tools:

This tool should be connected to a grounded metal permanent wiring system; or to a system having an equipment-grounding conductor.

5. Polarized plugs – To reduce the risk of electric shock, this equipment has a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not change the plug in any way.

7.2 Extension cords

The use of extension cords is discouraged. Try to position equipment near the power source. If an extension cord becomes necessary, use only three-wire extension cords that have three-prong grounding type plugs and three-prong receptacles that accept the tool's plug. Replace or repair damaged or worn cord immediately.

Make sure your extension cord is in good condition, and is heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating.

Table 2 shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number (AWG), the heavier the cord.

Amp Rating		Volts	Total length of cord in feet			
More Than	Not More Than	120	25	50	100	150
		240	50	100	200	300
			AWG			
0	6		18	16	16	14
6	10		18	16	14	12
10	12		16	16	14	12
12	16		14	12	Not Recommended	

*Extension Cord Recommendations
Table 2*

7.3 Voltage conversion

The belt/disc sander is prewired for 115 volt input power, but can be converted to 230 volt input, as follows.

7.3.1 Non-variable speed models (IBDG-248 and IBDG-436)

1. Turn sander over and remove base plate.
2. Reconnect the leads according to wiring diagram in sect. 14.0. Reinstall base plate.
3. Remove existing plug from power cable and attach a UL/CSA listed plug designed for 230V power; or “hardwire” the machine directly to a panel. If hardwiring make sure a disconnect is provided for the operator.

7.3.2 Variable speed models (IBDG-248VS and IBDG-436VS)

1. Remove existing plug from power cable and attach a UL/CSA listed plug designed for 230V power; or “hardwire” the machine directly to a panel. If hardwiring make sure a disconnect is provided for the operator.

Note: No internal rewiring is needed for the inverter to accept the new input voltage.

8.0 Adjustments

8.1 Sanding arm tilt

Loosen screw (A, Figure 6-3) and manually move arm to vertical or horizontal position. Retighten screw.

CAUTION Make sure screw (A, Figure 6-3) is tight when using sanding arm. Failure to comply may result in vertical sanding arm falling back to horizontal position during operation, resulting in possible injury.

8.2 Sanding belt tracking

1. Turn sander OFF.
 2. Move sanding belt by hand to check tracking. If belt migrates to one side or the other, adjust as follows.
 3. Loosen wing nut (E, Figure 8-1).
 4. Turn knob (F) while moving the belt until belt completely covers drive wheel and stays centered. Turn knob clockwise to shift belt to the right (away from grinder), counterclockwise to shift belt to the left (toward grinder).
- NOTE: This adjustment is sensitive, turn handle in small increments and allow belt to respond to changes.
5. Tighten wing nut (E) to secure setting.
 6. Turn on machine to confirm the adjustment at operating speed.

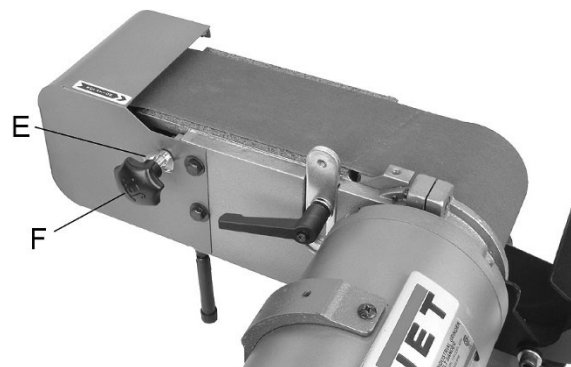


Figure 8-1: belt tracking

9.0 Operation

WARNING Always use approved safety glasses or face shield while operating tool. Failure to comply may cause serious injury.

The IBDG series Belt and Disc Sander can be used to grind, sand, finish and contour many types of parts, including metal, wood, plastic, and composite materials.

9.1 Basic procedures

Belt and platen (horizontal or vertical position) – Workpieces of any length can be worked on the belt and against the platen. The table or tool rest should be tightened in place and used to support the workpiece. The table can tilt down to 45-degrees, and may also be used as a fence for workpiece support when sanding arm is horizontal.

The general-purpose 80-grit sanding belt is useful for many applications, including radiusing, deburring and finishing/polishing of both ferrous and non-ferrous alloys.

Contour sanding (horizontal position) – Contoured workpieces can be sanded over the drive wheel. Open the end cover and secure it by attaching its hook to the strap, as shown in Figure 9-1. Adjust tool rest and tighten in place.

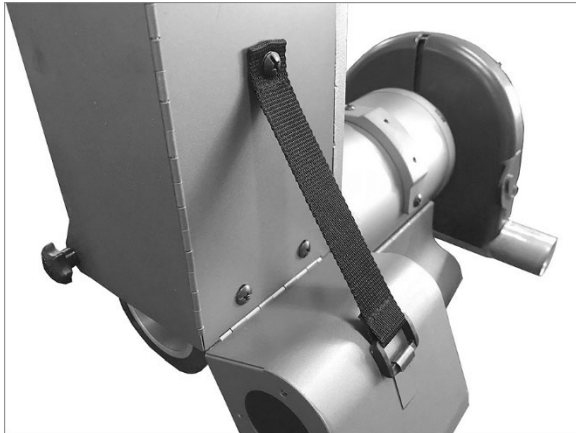


Figure 9-1

9.1.1 Disc sanding

Place workpiece firmly against table and ease it into the moving disc.

If greater precision of angle is needed, place an angle measuring device on table and against disc, and adjust the table accordingly. Always tighten table lock handles.

Do not sand on upward moving portion; disc must rotate downward into the workpiece.

Do not crowd the work so that the disc slows.

9.1.2 Belt sanding

1. Move belt by hand to ensure that wheels rotate freely without obstruction, table or tool rest does not contact belt, and belt tracks properly.
2. Use the entire width of the belt to reduce wear in one place.
3. At all times, keep hands and fingers away from pinch points.

9.2 Operating controls

Note: After extended operation, the grinder housing may be warm to the touch. This is not abnormal.

IBDG-248, IBDG-436: Pull paddle switch (A, Figure 9-2) to start tool, push to stop. The safety key (A₁) can be removed to prevent unauthorized use of the grinder. The safety key must be inserted to restart the grinder.

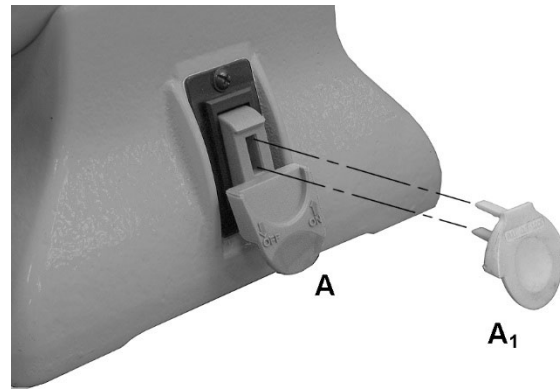


Figure 9-2: safety key (non-VS models only)

IBDG-248VS, IBDG-436VS: Press on/off button on keypad (Figure 9-3) to start or stop. Press either of the numbered buttons to start machine at the designated speed. Press arrow buttons to change rotation speed in 100 RPM increments.

The digital readout will flash briefly during start up and speed adjustments. Press button to toggle between RPM and SFPM display.

The variable speed sander will shut off after 90 seconds of inactivity. Press on/off button to re-energize.

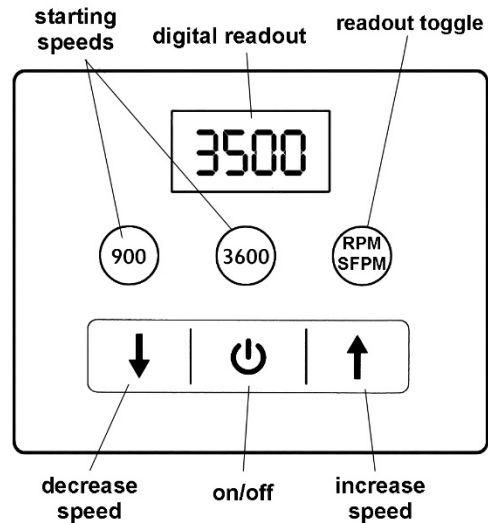


Figure 9-3: keypad (VS models only)

10.0 User-maintenance

For safety, turn switch to OFF and remove plug from power source outlet before performing maintenance on the grinder/sander.

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

10.1 Cleaning

CAUTION Metal shavings may still be hot from recent sanding operations. Make sure shavings and debris are cold before cleaning the machine. Use a brush or rag to clear shavings, not bare hands.

CAUTION Avoid use of the following cleaning chemicals or solvents: gasoline, carbon tetrachloride, chlorinated solvents, ammonia and household detergents containing ammonia.

Brush all shavings from the motor housing, tool rest, and sanding belt areas. Clean the area beneath the sander base.

Periodically use a cleaning stick (not provided) against the abrasive belt and disc to remove build-up.

If the abrasive belt becomes loaded, it can be cleaned by soaking within a solvent. Allow to dry completely before reinstalling.

10.2 Installing/replacing sanding belt

1. Disconnect sander from power source.
2. Unscrew knobs and open side guard.
3. Pull tension lever (D, Figure 10-1) outward to compress spring and de-tension belt.
4. Remove old belt by sliding it off wheels. Install new belt, centering it on the wheels. *Make sure arrow printed on back of sanding belt matches direction of belt movement.*
5. Push lever (D) inward to tension belt.
6. Verify proper belt tracking, sect. 8.2.
7. Close side cover and secure with knobs before operating.

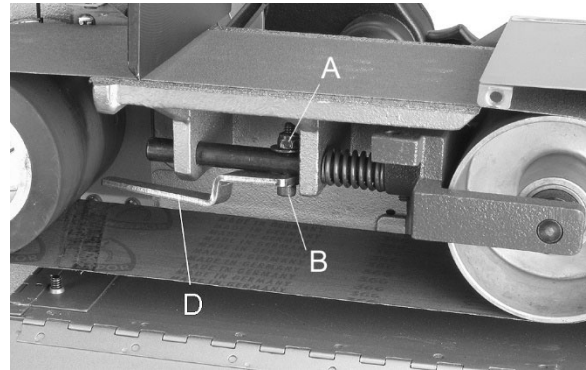


Figure 10-1: sanding belt tension

10.3 Tension lever tightness

If sanding belt tension lever becomes loose, hold the lock nut (A, Figure 10-1) with an 11mm wrench, and tighten screw (B) with 5mm hex wrench. Lever should be snug but still easily moved.

10.4 Replacing sanding disc

1. Disconnect sander from power.
2. Remove disc table and lower guard.

WARNING Use care when using a knife to separate sanding disc from machine disc. Injury from the knife may occur if the knife slips or if sanding disc should suddenly come free.

3. Using a putty knife, work tip of knife under sanding disc. Slowly work tip around circumference of disc. Continue to work around the circumference until sanding disc can be separated by hand from the machine disc.
4. Clean residual adhesive from machine disc with a rag and a cleaner/degreaser. Allow to dry.
5. See sect. 6.8 to install a new sanding disc.

10.5 Lubrication

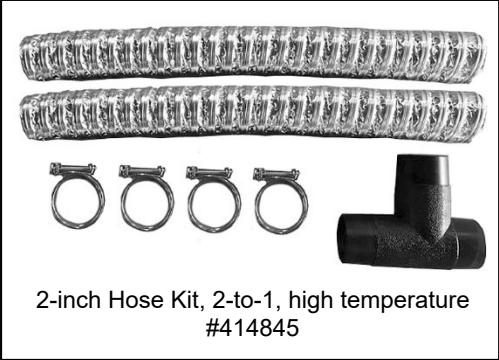
All motor and wheel bearings are permanently lubricated and sealed at the factory and require no additional lubrication.

10.6 Additional servicing

Any additional servicing should be performed by authorized service personnel.

11.0 Optional accessories

These accessory items, purchased separately, are available for your JET belt/disc sander. Contact your dealer to order, or call JET at the phone number on the cover.



* The JDACS-505 may require a hose adaptor for your belt/disc sander; see our website for information.

12.0 Troubleshooting IBDG series Belt/Disc Sander

12.1 General mechanical and electrical problems

⚠WARNING Some corrections may require a qualified electrician.

Symptom	Possible Cause	Correction
Motor will not start.	No incoming power.	Verify that plug is properly inserted into receptacle. If so, check main panel for tripped breaker or blown fuse.
	Non-variable speed models: Safety key is missing.	Make sure safety key is inserted.
	Wheel(s) cannot rotate because of obstruction.	Unplug and turn wheel by hand to ensure free movement. Restart.
	Fuse blown or circuit breaker open.	Re-set. May be too many machines on one circuit.
	Motor not wired for correct voltage.	Correct motor wiring.
	Motor cord cut or abraded.	Replace with new cord.
	Plug on cord is faulty.	Replace with new plug.
	Low line voltage.	Check power line for proper voltage.
	Faulty switch.	Replace switch.
	Faulty capacitor.	Replace capacitor.
	Open circuit in motor or loose connection.	Inspect all lead connections on motor for loose or open connections.
Motor failure	Have motor inspected and replaced.	
Motor will not start; fuses blow or circuit breakers trip.	Too many electrical machines running on same circuit.	Turn off other machines and try again. Use dedicated circuit if necessary.
	Incorrect fuse.	Try time delay fuse, or go to circuit with higher rated fuse or circuit breaker.
	Wheel(s) cannot rotate because of obstruction.	Unplug and turn wheel by hand to ensure free movement. Clear any obstructions and restart.
	Undersized extension cord.	Use correct size extension cord.
	Short circuit in line cord or plug.	Inspect cord or plug for damaged insulation and shorted wires.
Motor fails to develop full power.	Short circuit in motor or loose connections.	Inspect all connections on motor for loose or shorted terminals or worn insulation.
	Low line voltage.	Check power line for proper voltage.
Motor overheats.	Faulty motor or capacitor.	Contact JET technical service.
	Motor overloaded.	Reduce pressure against wheel or platen. Make sure grit size is appropriate for the job.
Motor stalls, resulting in blown fuses or tripped breaker.	Motor overloaded.	Reduce load on motor; do not press so hard.
	Capacitor failure.	Contact JET technical service.

Symptom	Possible Cause	Correction
Motor stalls (cont.)	Short circuit in motor or loose connections.	Inspect connections on motor for loose or shorted terminals or worn insulation.
	Low voltage.	Correct the low voltage conditions.
	Incorrect fuses or circuit breakers in power line.	Install correct fuses or circuit breakers.
Motor slows.	Motor overloaded.	Reduce load to motor; do not press so hard.
	Low line voltage.	Check power line for proper voltage.
	Loose connections.	Inspect connections.
Frequent fuse or circuit breaker failure.	Motor overload.	Reduce load to motor; do not press so hard.
	Electrical circuit overload; too many electrical machines running on same circuit.	Turn off other machines and try again.
	Incorrect fuse or circuit breaker.	Have electrician upgrade service to outlet.
Excessive vibration.	Wheel out of balance; wobbling or not rotating concentric to arbor.	Dress wheel or replace it. Adjust wobble by rotating flange as needed.
	Improper mounting.	Secure grinder/sander firmly to bench or stand.
Sanding belt refuses to track correctly.	Sanding belt stretched unevenly.	Replace sanding belt.
	V-belt worn.	Replace v-belt.
	Wheel worn.	Replace wheel.
Sanding belt will not tension or de-tension properly.	Tension rod is "sticking"; movement obstructed.	Clean any debris from tension rod and spring area. Lubricate spring if needed.
	Spring is worn or damaged.	Replace spring.
	Set screw which holds tension rod to wheel carrier is loose.	Tighten set screw.
Sanding belt slips or stalls when pressure is applied.	Abrasive belt tension inadequate.	Tighten sanding belt.
	Excessive pressure being applied to belt.	Reduce pressure.
Frequent replacement of sanding belt.	Too much pressure being applied to work piece.	Reduce pressure on work piece.
	Full width of belt not being used.	Stroke across sanding belt using full width of belt surface.
Abrasive separates from disc.	Improper bonding.	Remove sanding disc and clean residual adhesive from metal disc. Mount new adhesive-backed abrasive.

Table 3

12.2 Digital readout error codes (Variable speed models)

Message	Possible Cause	Correction *
OCL	Internal electronic overload has been tripped.	Do not overload motor; reduce pressure of workpiece against wheels.
OH	IGBT protection activated.	Inspect wire connections to U/V/W for possible short circuits. Verify that motor rating corresponds to AC motor drive output power.
OE	Excessive input voltage (exceeds AC driver limits).	Use correct voltage.
LE1	Low voltage; AC motor driver detects that DC bus voltage has fallen below minimum threshold	Make sure input voltage falls within range of AC motor input voltage range. Check for abnormal load in motor.
LP1	Low input voltage (below AC driver limits)	Use correct voltage.

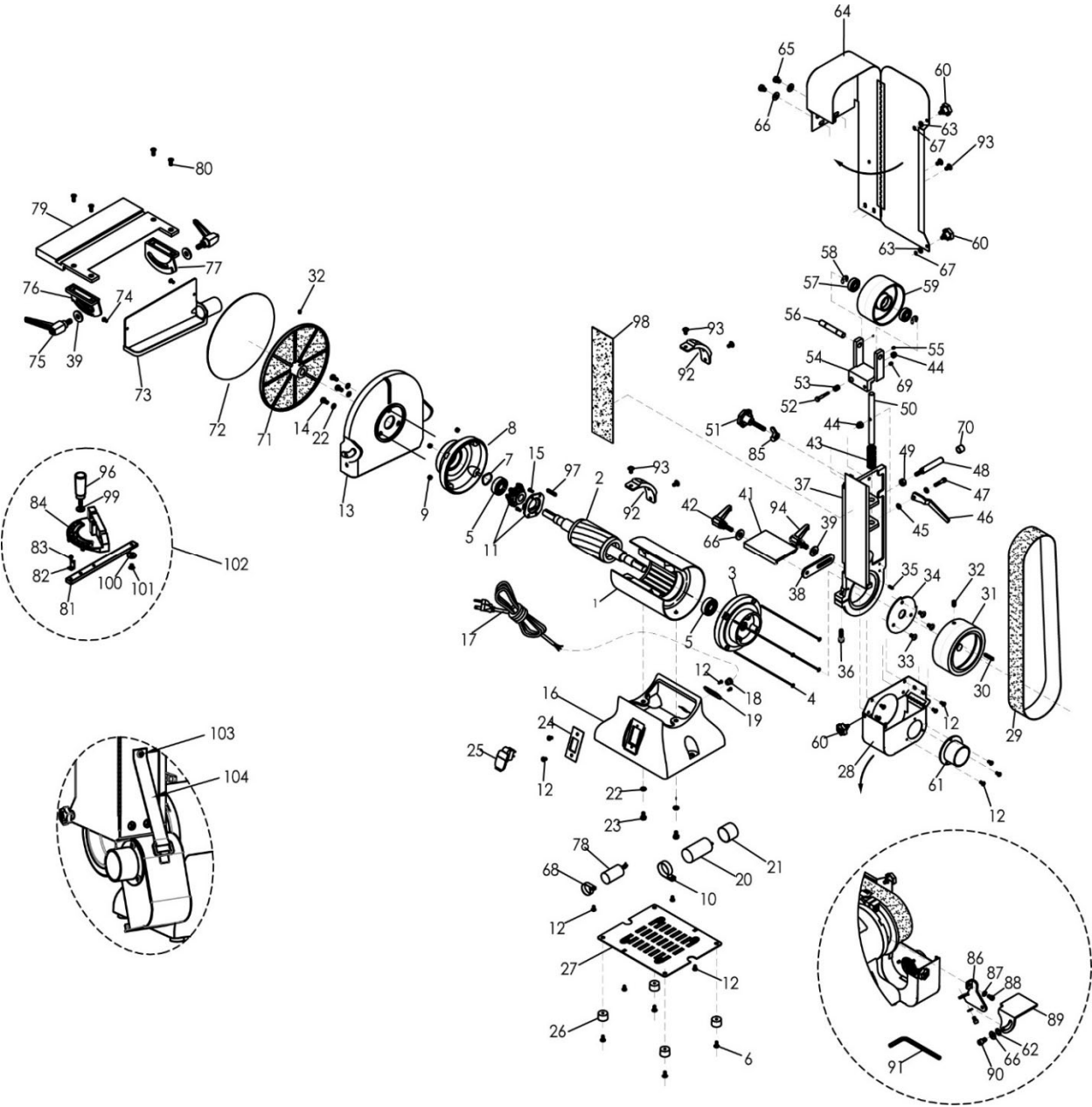
Table 4

13.0 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.

Non-proprietary parts, such as fasteners, can be found at local hardware stores, or may be ordered from JET. Some parts are shown for reference only, and may not be available individually.

13.1.1 IBDG-248 Belt/Disc Sander – Exploded View



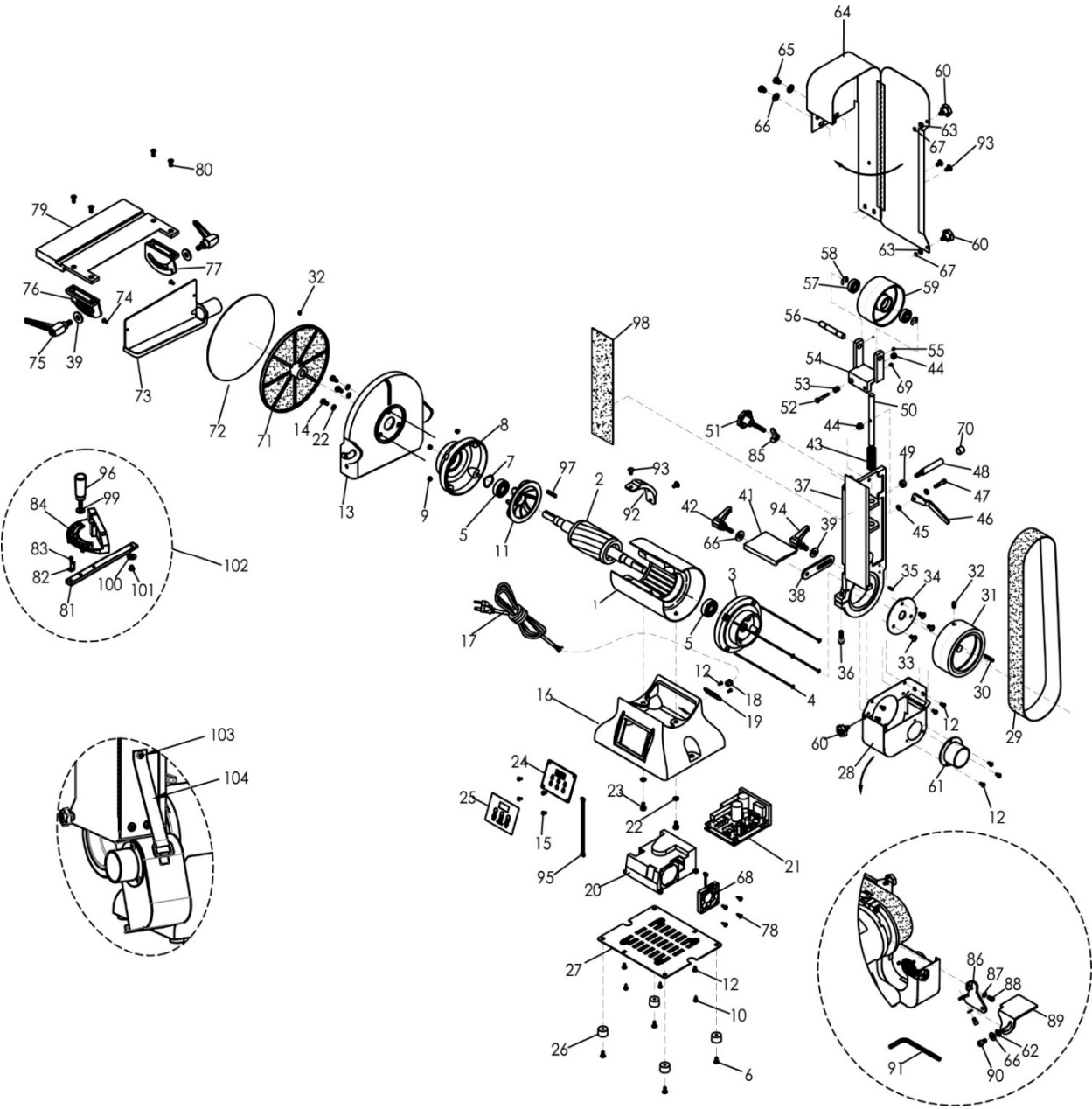
13.1.2 IBDG-248 Belt/Disc Sander – Parts List

Index No	Part No	Description	Size	Qty
1	IBGB248-01	Motor Housing w/ Stator		1
2	IBDG248-02	Rotor		1
3	IBGB248-03	End Cover		1
4	IBGB248-04	Cross Head Screw	M5 x 210 x 30S	4
5	BB-6204ZZ	Ball Bearing	6204ZZ	2
6	IBG8-36	Truss Head Screw	3/16"-24 x 1/2"	4
7	IBGB248-07	Wave Washer		1
8	IBDG248-08	End Bell		1
9	TS-1540031	Hex Nut	M5	4
10	IBG8-05	Capacitor Bracket		1
11	IBG8-41	Centrifugal Switch Assembly		1
12	IBG8-04	Truss Head Screw	3/16"-24 x 3/8"	16
13	IBDG248-13	Disc Guard		1
14	TS-0050021	Hex Cap Screw	1/4"-20 x 5/8"	3
15	IBG8-04	Truss Head Screw	3/16"-24 x 3/8"	2
16	IBG8-10	Base		1
17	IBG8-46	Power Cord		1
18	IBG8-47	Strain Relief		1
19	IBG8-11	Cord Plate		1
20	IBG8-06	Start Capacitor	200MFD, 125VAC	1
21	IBG8-07	Capacitor Cover		1
22	TS-0720071	Lock Washer	1/4"	5
23	TS-0050011	Hex Cap Screw	1/4"-20 x 1/2"	2
24	IBG8-12	Switch Plate		1
25	IBG8-13	Switch with Safety Key		1
	IBG8-13-1	Safety Key (not shown)		1
26	IBG8-02	Rubber Pad		4
27	IBG8-03	Base Plate		1
28	IBGB248-28	Drive Wheel Cover		1
29	IBGB248-29	Sanding Belt	W 2" x L 48", 80 Grit	1
30	IBGB248-30	Key, Dbl Rd Hd	3/16" x 3/16" x 1-1/4"	1
31	IBGB248-31	Drive Wheel	Dia. 5" x W 2"	1
32	TS-0267041	Set Screw	1/4"-20 x 3/8"	1
33	IBGB248-33	Truss Head Screw	1/4"-20 x 3/8"	3
34	IBGB248-34	Positioning Plate		1
35	IBGB248-35	Spring Pin	Dia. 5 x 14	1
36	TS-0208061	Socket Hd Cap Screw	5/16"-18 x 1"	1
37	IBGB248-37	Sanding Belt Bracket		1
38	IBGB248-38	Bracket Plate *		1
39	TS-0680042	Flat Washer *	3/8"	5
41	IBGB248-41	Sanding Table		1
42	IBGB248-42	Adjustable Handle *	5/16"-18 x 1"	1
43	IBGB248-43	Spring		1
44	TS-0640071	Nylon Lock Hex Nut	1/4"-20	2
45	TS-0680021	Flat Washer	1/4"	2
46	IBGB248-46	Tension Handle		1
47	TS-0207071	Socket Hd Cap Screw	1/4"-20 x 1-1/4"	1
48	IBGB248-48	Stand-Off	Dia. 13 x L 67	1
49	TS-0561021	Hex Nut	5/16"-18	1
50	IBGB248-50	Support Post		1
51	IBGB248-51	Tracking Adjustment Knob	M8 x 35	1
52	F000114	Round Head Screw	1/4"-20 x 1-1/4"	1
53	IBGB248-53	Spring		1
54	IBGB248-54	Wheel Carrier		1
55	IBGB248-55	Set Screw	3/16"-24UNF x 1/4"	2
56	IBGB248-56	Shaft		1
57	BB-6201VV	Ball Bearing	6201BR	2
58	6284728	E-Ring	12mm	2
59	IBGB248-59	Driven Wheel	Dia. 4-1/4" x W 2"	1
60	IBGB248-60	Knob	1/4"	4

Index No	Part No	Description	Size	Qty
61	IBGB248-61	Dust Port	Dia. 2"	1
62	F002176	External Tooth Lock Washer *	M8	1
63	TS-1550041	Flat Washer	M6	2
64	IBGB248-64	Belt Cover		1
65	6293385	Hex Cap Screw	5/16"-18 x 3/8"	2
66	TS-0680031	Flat Washer *	5/16"	4
67	IBGB248-67	S-Ring	6mm	2
68	IBG8-48	Capacitor Bracket		1
69	TS-0267021	Set Screw	1/4"-20 x 1/4"	1
70	IBGB248-70	Rubber Sleeve		1
71	IBDG248-71	Disc	Dia. 9"	1
72	IBDG248-72	Sanding Disc	80 Grit	1
73	IBDG248-73	Disc Lower Guard		1
74	TS-1533032	Pan Head Screw	M5 x 10	2
75	IBDG248-75	Adjustable Handle	M10 x 20	2
76	IBDG248-76	Table Bracket - Right		1
77	IBDG248-77	Table Bracket - Left		1
78	IBG8-49	Running Capacitor	35µF, 250V	1
79	IBDG248-79	Disc Table		1
80	F001234	Flat Hd Phillips Machine Screw BO	M6 x 10	4
81	IBDG248-81	Steel Bar		1
82	IBDG248-82	Pointer		1
83	5711571	Pan Head Machine Screw	3/16" x 1/4"	1
84	IBDG248-84	Miter Body		1
85	TS-154306	Wing Nut	M8	1
86	IBGB248-86	Bracket Plate		1
87	TS-0720071	Lock Washer	1/4"	2
88	TS-0207021	Socket Hd Cap Screw	1/4"-20 x 1/2"	2
89	IBGB248-89	Tool Rest *		1
90	TS-0208021	Socket Hd Cap Screw *	5/16"-18 x 1/2"	1
91	IBGB248-91	Allen Wrench	6 x L140mm	1
92	IBG8-50	Lamp Fixed Bracket		1
93	IBGB248-33	Truss Head Screw	1/4"-20 x 3/8"	2
94	IBGB248-94	Adjustable Handle *	3/8"-16 x 3/4"	1
96	IBDG248-96	Grip	M8 x 25	1
97	IBDG248-97	Key, Dbl Rd Hd	3/16" x 3/16" x 1"	1
98	IBGB248-98	Graphite Sheet		1
99	TS-1550061	Flat Washer	M8	1
100	IBDG248-100	Guide Ring		1
101	JVM836-31B	Flat HD Phillips Machine Screw	M6 x 6	1
102	IBDG248-102	Miter Gauge Assembly		1
103	IBGB248-33	Truss Head Screw	1/4"-20 x 3/8"	1
104	IBDG248-104	Nylon Strap		1
105	IBDG248-105	Allen Wrench (not shown)	3 x L140mm	1
	JET-92-73R	JET Logo (not shown)	92 x 38 mm	1
	LM000400	ID/Warning Label, IBDG-248 (not shown)		1
	IBGB248-HP	Hardware Package *		1

Hardware package includes items marked with asterisk (*).

13.2.1 IBDG-248VS Belt/Disc Sander – Exploded View



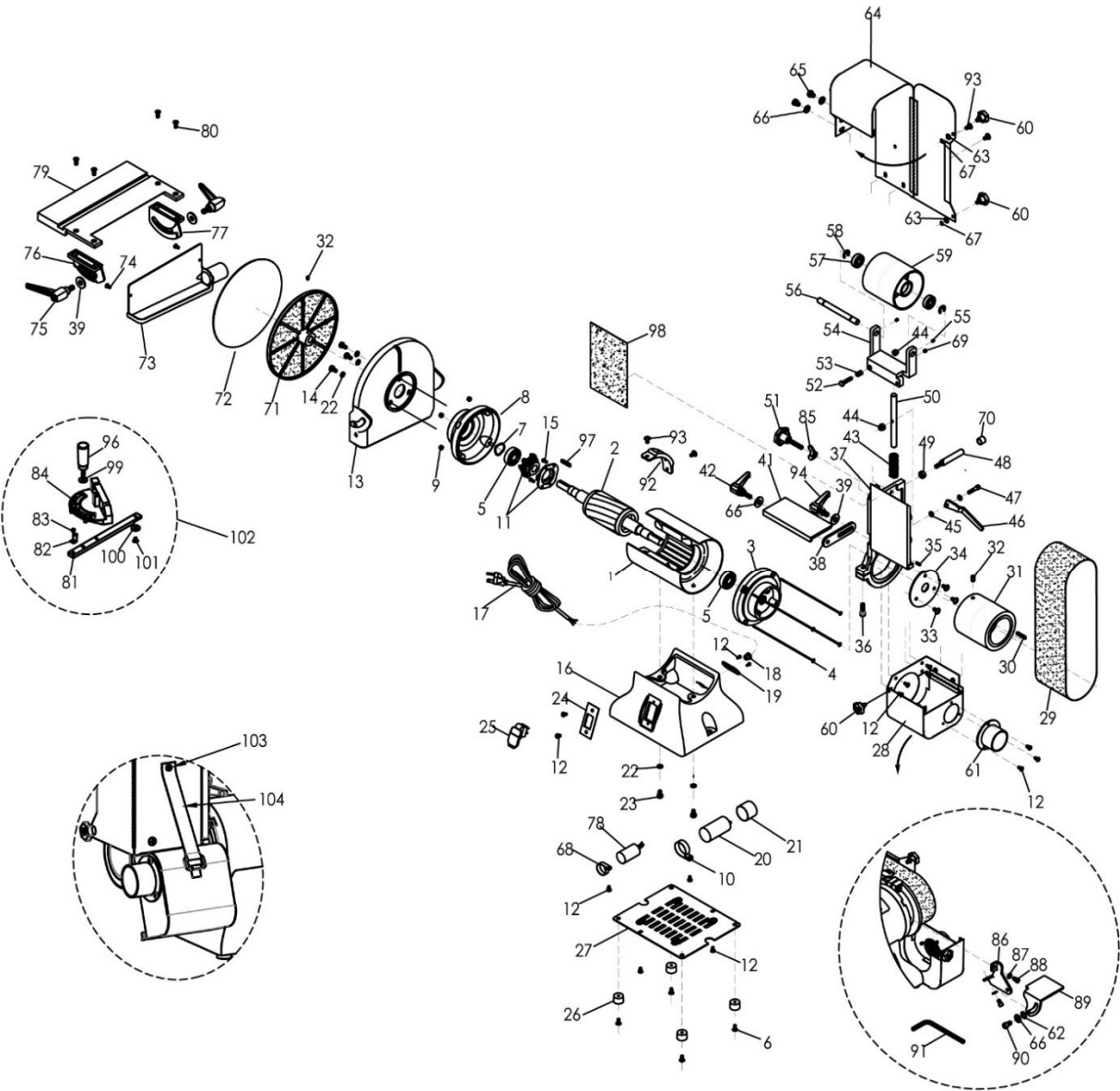
13.2.2 IBDG-248VS Belt/Disc Sander – Parts List

Index No	Part No	Description	Size	Qty
1	IBGB248VS-01	Motor Housing w/ Stator		1
2	IBDG248VS-02	Rotor		1
3	IBGB248-03	End Cover		1
4	IBGB248-04	Cross Head Screw	M5 x 210 x 30S	4
5	BB-6204ZZ	Ball Bearing	6204ZZ	2
6	IBG8-36	Truss Head Screw	3/16"-24 x 1/2"	4
7	IBGB248-07	Wave Washer		1
8	IBDG248-08	End Bell		1
9	TS-1540031	Hex Nut	M5	4
10	990811	Pan Head Tapping Screw	M3.5 x 12	4
11	IBG8-17	Motor Fan		1
12	IBG8-04	Truss Head Screw	3/16"-24 x 3/8"	16
13	IBDG248-13	Disc Guard		1
14	TS-0050021	Hex Cap Screw	1/4"-20 x 5/8"	3
15	6286927	Flat Head Screw	M4 x 10	4
16	IBG8VS-10	Base		1
17	IBG8-46	Power Cord		1
18	IBG8-47	Strain Relief		1
19	IBG8-11	Cord Plate		1
20	IBG8VS-06	Electrical Box		1
21	IBGB248VS-21	Inverter PCB		1
22	TS-0720071	Lock Washer	1/4"	5
23	TS-0050011	Hex Cap Screw	1/4"-20 x 1/2"	2
24	IBGB248VS-24	Control Panel w/ Digital Readout (includes #25)		1
25	IBGB248VS-25	Panel Decal		1
26	IBG8-02	Rubber Pad		4
27	IBG8-03	Base Plate		1
28	IBGB248-28	Drive Wheel Cover		1
29	IBGB248-29	Sanding Belt	W 2" x L 48", 80 Grit	1
30	IBGB248-30	Key	3/16" x 3/16" x 1-1/4"	1
31	IBGB248-31	Drive Wheel	Dia. 5" x W 2"	1
32	TS-0267041	Set Screw	1/4"-20 x 3/8"	1
33	IBGB248-33	Truss Head Screw	1/4"-20 x 3/8"	3
34	IBGB248-34	Positioning Plate		1
35	IBGB248-35	Spring Pin	Dia. 5 x 14	1
36	TS-0208061	Socket Hd Cap Screw	5/16"-18 x 1"	1
37	IBGB248-37	Sanding Belt Bracket		1
38	IBGB248-38	Bracket Plate *		1
39	TS-0680042	Flat Washer *	3/8"	5
41	IBGB248-41	Sanding Table		1
42	IBGB248-42	Adjustable Handle *	5/16"-18 x 1"	1
43	IBGB248-43	Spring		1
44	TS-0640071	Nylon Lock Hex Nut	1/4"-20	2
45	TS-0680021	Flat Washer	1/4"	2
46	IBGB248-46	Tension Handle		1
47	TS-0207071	Socket Hd Cap Screw	1/4"-20 x 1-1/4"	1
48	IBGB248-48	Stand-Off	Dia. 13 x L 67	1
49	TS-0561021	Hex Nut	5/16"-18	1
50	IBGB248-50	Support Post		1
51	IBGB248-51	Tracking Adjustment Knob	M8 x 35	1
52	F000114	Round Head Screw	1/4"-20 x 1-1/4"	1
53	IBGB248-53	Spring		1
54	IBGB248-54	Wheel Carrier		1
55	IBGB248-55	Set Screw	3/16"-24 x 1/4"	2
56	IBGB248-56	Shaft		1
57	BB-6201VV	Ball Bearing	6201BR	2
58	6284728	E-Ring	12mm	2
59	IBGB248-59	Driven Wheel	Dia. 4-1/4" x W 2"	1
60	IBGB248-60	Knob	1/4"	4

Index No	Part No	Description	Size	Qty
61	IBGB248-61	Dust Port	Dia. 2"	1
62	F002176	External Tooth Lock Washer *	M8	1
63	TS-1550041	Flat Washer	M6	2
64	IBGB248-64	Belt Cover		1
65	6293385	Hex Cap Screw	5/16"-18 x 3/8"	2
66	TS-0680031	Flat Washer *	5/16"	4
67	IBGB248-67	S-Ring	6mm	2
68	IBGB248VS-68	Cooling Fan		1
69	TS-0267021	Set Screw	1/4"-20 x 1/4"	1
70	IBGB248-70	Rubber Sleeve		1
71	IBDG248-71	Disc	Dia. 9"	1
72	IBDG248-72	Sanding Disc	80 Grit	1
73	IBDG248-73	Disc Lower Guard		1
74	TS-1533032	Pan Head Screw	M5 x 10	2
75	IBDG248-75	Adjustable Handle	M10 x 20	2
76	IBDG248-76	Table Bracket - Right		1
77	IBDG248-77	Table Bracket - Left		1
78	990811	Pan Head Tapping Screw	M3.5 x 12	4
79	IBDG248-79	Disc Table		1
80	F001234	Flat Hd Phillips Mach Screw BO	M6 x 10	4
81	IBDG248-81	Steel Bar		1
82	IBDG248-82	Pointer		1
83	5711571	Pan Head Machine Screw	3/16" x 1/4"	1
84	IBDG248-84	Miter Body		1
85	TS-154306	Wing Nut	M8	1
86	IBGB248-86	Bracket Plate		1
87	TS-0720071	Lock Washer	1/4"	2
88	TS-0207021	Socket Hd Cap Screw	1/4"-20 x 1/2"	2
89	IBGB248-89	Tool Rest *		1
90	TS-0208021	Socket Hd Cap Screw *	5/16"-18 x 1/2"	1
91	IBGB248-91	Allen Wrench	6 x L140mm	1
92	IBG8-50	Lamp Fixed Bracket		1
93	IBGB248-33	Truss Head Screw	1/4"-20 x 3/8"	2
94	IBGB248-94	Adjustable Handle *	3/8"-16 x 3/4"	1
95	IBGB248VS-95	Signal Line		1
96	IBDG248-96	Grip	M8 x 25	1
97	IBDG248-97	Key, Dbl Rd Hd	3/16" x 3/16" x 1"	1
98	IBGB248-98	Graphite Sheet		1
99	TS-1550061	Flat Washer	M8	1
100	IBDG248-100	Guide Ring		1
101	JVM836-31B	Flat HD Phillips Machine Screw	M6 x 6	1
102	IBDG248-102	Miter Gauge Assembly		1
103	IBGB248-33	Truss Head Screw	1/4"-20 x 3/8"	1
104	IBDG248-104	Nylon Strap		1
105	IBDG248-105	Allen Wrench (not shown)	3 x L140mm	1
	JET-92-73R	JET Logo (not shown)	92 x 38 mm	1
	LM000401	ID/Warning Label, IBDG-248VS (not shown)		1
	IBGB248-HP	Hardware Package *		1

Hardware package includes items marked with asterisk (*).

13.3.1 IBDG-436 Belt/Disc Sander – Exploded View



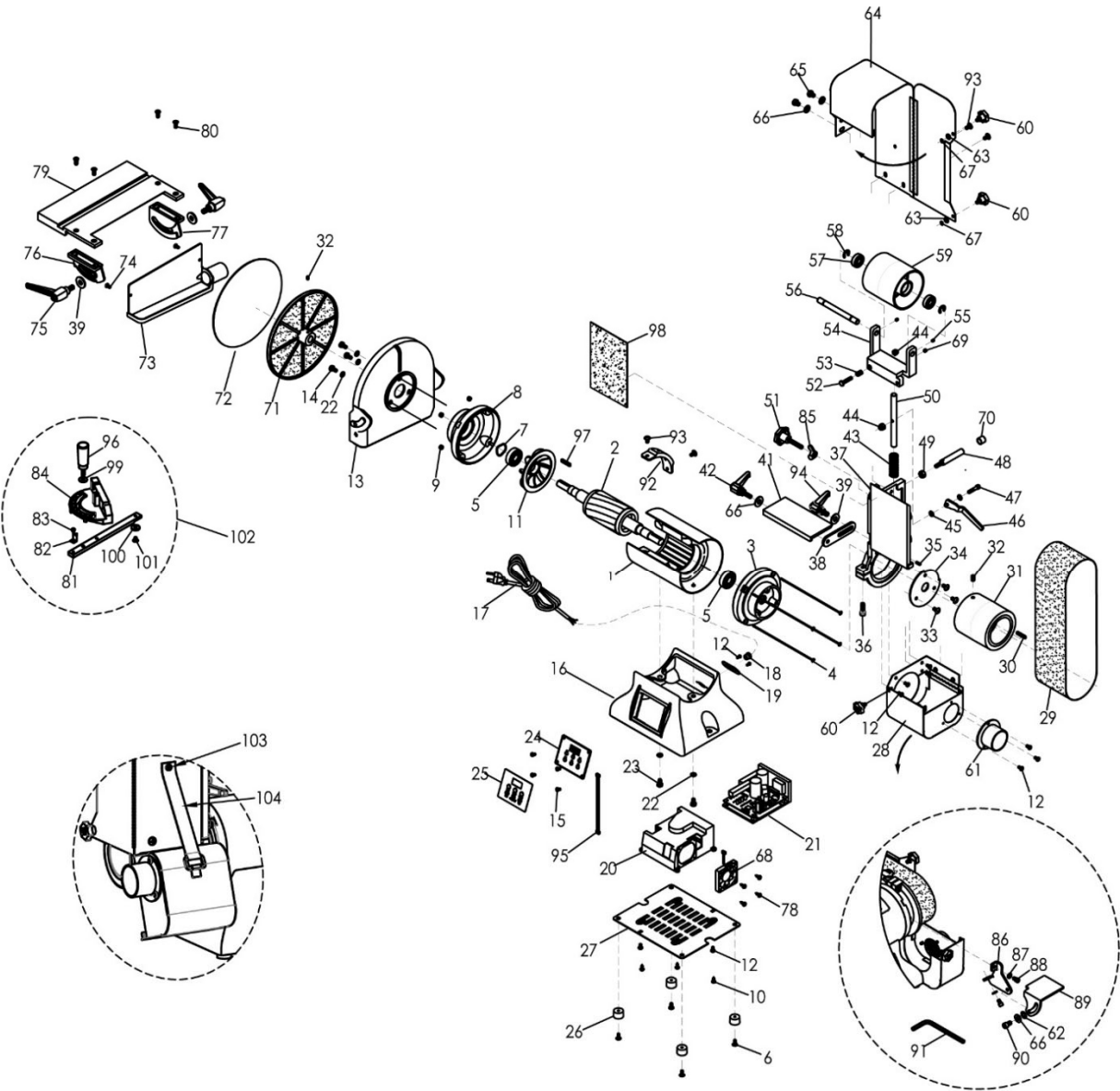
13.3.2 IBDG-436 Belt/Disc Sander – Parts List

Index No	Part No	Description	Size	Qty
1	IBGB248-01	Motor Housing w/ Stator		1
2	IBDG436-02	Rotor		1
3	IBGB248-03	End Cover		1
4	IBGB248-04	Cross Head Screw	M5 x 210 x 30S	4
5	BB-6204ZZ	Ball Bearing	6204ZZ	2
6	IBG8-36	Truss Head Screw	3/16"-24 x 1/2"	4
7	IBGB248-07	Wave Washer		1
8	IBDG248-08	End Bell		1
9	TS-1540031	Hex Nut	M5	4
10	IBG8-05	Capacitor Bracket		1
11	IBG8-41	Centrifugal Switch Assembly		1
12	IBG8-04	Truss Head Screw	3/16"-24 x 3/8"	16
13	IBDG248-13	Disc Guard		1
14	TS-0050021	Hex Cap Screw	1/4"-20 x 5/8"	3
15	IBG8-04	Truss Head Screw	3/16"-24 x 3/8"	2
16	IBG8-10	Base		1
17	IBG8-46	Power Cord		1
18	IBG8-47	Strain Relief		1
19	IBG8-11	Cord Plate		1
20	IBG8-06	Start Capacitor	200MFD, 125VAC	1
21	IBG8-07	Capacitor Cover		1
22	TS-0720071	Lock Washer	1/4"	5
23	TS-0050011	Hex Cap Screw	1/4"-20 x 1/2"	2
24	IBG8-12	Switch Plate		1
25	IBG8-13	Switch with Safety Key		1
	IBG8-13-1	Safety Key (not shown)		1
26	IBG8-02	Rubber Pad		4
27	IBG8-03	Base Plate		1
28	IBGB436-28	Drive Wheel Cover		1
29	IBGB436-29	Sanding Belt	W 4" x L 36", 80 Grit	1
30	IBGB436-30	Key	3/16" x 3/16" x 2-9/32"	1
31	IBGB436-31	Drive Wheel	Dia. 4" x W 4"	1
32	TS-0267041	Set Screw	1/4"-20 x 3/8"	1
33	IBGB248-33	Truss Head Screw	1/4"-20 x 3/8"	3
34	IBGB248-34	Positioning Plate		1
35	IBGB248-35	Spring Pin	Dia. 5 x 14	1
36	TS-0208061	Socket Hd Cap Screw	5/16"-18 x 1"	1
37	IBGB436-37	Sanding Belt Bracket		1
38	IBGB248-38	Bracket Plate *		1
39	TS-0680042	Flat Washer *	3/8"	5
41	IBGB436-41	Sanding Table		1
42	IBGB248-42	Adjustable Handle *	5/16"-18 x 1"	1
43	IBGB436-43	Spring		1
44	TS-0640071	Nylon Lock Hex Nut	1/4"-20	2
45	TS-0680021	Flat Washer	1/4"	3
46	IBGB248-46	Tension Handle		1
47	TS-0207071	Socket Hd Cap Screw	1/4"-20 x 1-1/4"	1
48	IBGB436-48	Stand-Off	Dia. 13 x L 80	1
49	TS-0561021	Hex Nut	5/16"-18	1
50	IBGB248-50	Support Post		1
51	IBGB248-51	Tracking Adjustment Knob	M8 x 35	1
52	F000114	Round Head Screw	1/4"-20 x 1-1/4"	1
53	IBGB248-53	Spring		1
54	IBGB436-54	Wheel Carrier		1
55	IBGB248-55	Set Screw	3/16"-24 x 1/4"	2
56	IBGB436-56	Shaft		1
57	BB-6201VV	Ball Bearing	6201BR	2
58	6284728	E-Ring	12mm	2
59	IBGB436-59	Driven Wheel	Dia. 4" x W 4"	1
60	IBGB248-60	Knob	1/4"	4

Index No	Part No	Description	Size	Qty
61	IBGB248-61	Dust Port	Dia. 2"	1
62	F002176	External Tooth Lock Washer *	M8	1
63	TS-1550041	Flat Washer	M6	2
64	IBGB436-64	Belt Cover		1
65	6293385	Hex Cap Screw	5/16"-18 x 3/8"	2
66	TS-0680031	Flat Washer *	5/16"	4
67	IBGB248-67	S-Ring	6mm	2
68	IBG8-48	Capacitor Bracket		1
69	TS-0267021	Set Screw	1/4"-20 x 1/4"	1
70	IBGB248-70	Rubber Sleeve		1
71	IBDG248-71	Disc	Dia. 9"	1
72	IBDG248-72	Sanding Disc	80 Grit	1
73	IBDG248-73	Disc Lower Guard		1
74	TS-1533032	Pan Head Screw	M5 x 10	2
75	IBDG248-75	Adjustable Handle	M10 x 20	2
76	IBDG248-76	Table Bracket - Right		1
77	IBDG248-77	Table Bracket - Left		1
78	IBG8-49	Running Capacitor	35µF, 250V	1
79	IBDG248-79	Disc Table		1
80	F001234	Flat Hd Phillips Mach Screw BO	M6 x 10	4
81	IBDG248-81	Steel Bar		1
82	IBDG248-82	Pointer		1
83	5711571	Pan Head Machine Screw	3/16" x 1/4"	1
84	IBDG248-84	Miter Body		1
85	TS-154306	Wing Nut	M8	1
86	IBGB248-86	Bracket Plate		1
87	TS-0720071	Lock Washer	1/4"	2
88	TS-0207021	Socket Hd Cap Screw	1/4"-20 x 1/2"	2
89	IBGB436-89	Tool Rest *		1
90	TS-0208021	Socket Hd Cap Screw *	5/16"-18 x 1/2"	1
91	IBGB248-91	Allen Wrench	6 x L140mm	1
92	IBG8-50	Lamp Fixed Bracket		1
93	IBGB248-33	Truss Head Screw	1/4"-20 x 3/8"	2
94	IBGB248-94	Adjustable Handle *	3/8"-16 x 3/4"	1
96	IBDG248-96	Grip	M8 x 25	1
97	IBDG248-97	Key, Dbl Rd Hd	3/16" x 3/16" x 1"	1
98	IBGB436-98	Graphite Sheet		1
99	TS-1550061	Flat Washer	M8	1
100	IBDG248-100	Guide Ring		1
101	JVM836-31B	Flat HD Phillips Machine Screw	M6 x 6	1
102	IBDG248-102	Miter Gauge Assembly		1
103	IBGB248-33	Truss Head Screw	1/4"-20 x 3/8"	1
104	IBDG248-104	Nylon Strap		1
105	IBDG248-105	Allen Wrench (not shown)	3 x L140mm	1
	JET-92-73R	JET Logo (not shown)	92 x 38 mm	1
	LM000402	ID/Warning Label, IBDG-436 (not shown)		1
	IBGB436-HP	Hardware Package *		1

Hardware package includes items marked with asterisk (*).

13.4.1 IBDG-436VS Belt/Disc Sander – Exploded View



13.4.2 IBDG-436VS Belt/Disc Sander – Parts List

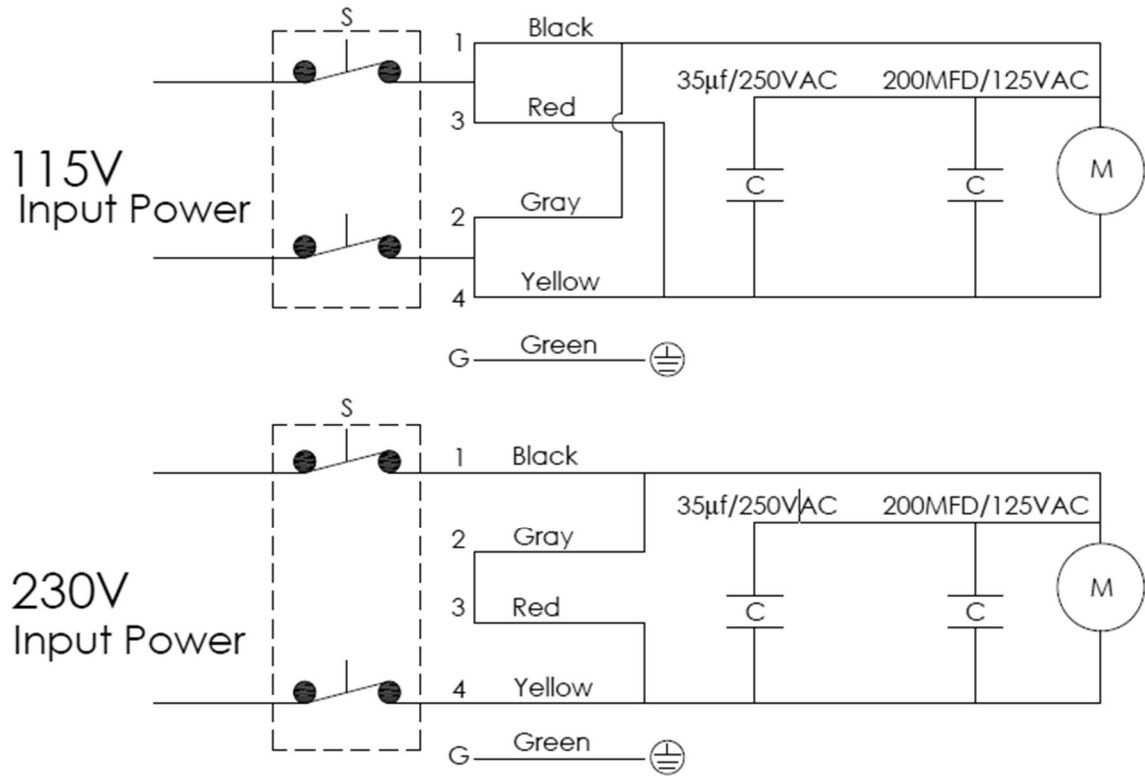
Index No	Part No	Description	Size	Qty
1	IBGB248VS-01	Motor Housing w/ Stator		1
2	IBDG436VS-02	Rotor		1
3	IBGB248-03	End Cover		1
4	IBGB248-04	Cross Head Screw	M5 x 210 x 30S	4
5	BB-6204ZZ	Ball Bearing	6204ZZ	2
6	IBG8-36	Truss Head Screw	3/16"-24 x 1/2"	4
7	IBGB248-07	Wave Washer		1
8	IBDG248-08	End Bell		1
9	TS-1540031	Hex Nut	M5	4
10	990811	Pan Head Tapping Screw	M3.5 x 12	4
11	IBG8-17	Motor Fan		1
12	IBG8-04	Truss Head Screw	3/16"-24 x 3/8"	16
13	IBDG248-13	Disc Guard		1
14	TS-0050021	Hex Cap Screw	1/4"-20 x 5/8"	3
15	6286927	Flat Head Screw	M4 x 10	4
16	IBG8VS-10	Base		1
17	IBG8-46	Power Cord		1
18	IBG8-47	Strain Relief		1
19	IBG8-11	Cord Plate		1
20	IBG8VS-06	Electrical Box		1
21	IBGB248VS-21	Inverter PCB		1
22	TS-0720071	Lock Washer	1/4"	5
23	TS-0050011	Hex Cap Screw	1/4"-20 x 1/2"	2
24	IBGB436VS-24	Control Panel w/ Digital Readout (includes #25)		1
25	IBGB248VS-25	Panel Decal		1
26	IBG8-02	Rubber Pad		4
27	IBG8-03	Base Plate		1
28	IBGB436-28	Drive Wheel Cover		1
29	IBGB436-29	Sanding Belt	W 4" x L 36", 80 Grit	1
30	IBGB436-30	Key	3/16" x 3/16" x 2-9/32"	1
31	IBGB436-31	Drive Wheel	Dia. 4" x W 4"	1
32	TS-0267041	Set Screw	1/4"-20 x 3/8"	1
33	IBGB248-33	Truss Head Screw	1/4"-20 x 3/8"	3
34	IBGB248-34	Positioning Plate		1
35	IBGB248-35	Spring Pin	Dia. 5 x 14	1
36	TS-0208061	Socket Hd Cap Screw	5/16"-18 x 1"	1
37	IBGB436-37	Sanding Belt Bracket		1
38	IBGB248-38	Bracket Plate *		1
39	TS-0680042	Flat Washer *	3/8"	5
41	IBGB436-41	Sanding Table		1
42	IBGB248-42	Adjustable Handle *	5/16"-18 x 1"	1
43	IBGB436-43	Spring		1
44	TS-0640071	Nylon Lock Hex Nut	1/4"-20	2
45	TS-0680021	Flat Washer	1/4"	3
46	IBGB248-46	Tension Handle		1
47	TS-0207071	Socket Hd Cap Screw	1/4"-20 x 1-1/4"	1
48	IBGB436-48	Stand-Off	Dia. 13 x L 80	1
49	TS-0561021	Hex Nut	5/16"-18	1
50	IBGB248-50	Support Post		1
51	IBGB248-51	Tracking Adjustment Knob	M8 x 35	1
52	F000114	Round Head Screw	1/4"-20 x 1-1/4"	1
53	IBGB248-53	Spring		1
54	IBGB436-54	Wheel Carrier		1
55	IBGB248-55	Set Screw	3/16"-24 x 1/4"	2
56	IBGB436-56	Shaft		1
57	BB-6201VV	Ball Bearing	6201BR	2
58	6284728	E-Ring	12mm	2
59	IBGB436-59	Driven Wheel	Dia. 4" x W 4"	1
60	IBGB248-60	Knob	1/4"	4

Index No	Part No	Description	Size	Qty
61	IBGB248-61	Dust Port	Dia. 2"	1
62	F002176	External Tooth Lock Washer *	M8	1
63	TS-1550041	Flat Washer	M6	2
64	IBGB436-64	Belt Cover		1
65	6293385	Hex Cap Screw	5/16"-18 x 3/8"	2
66	TS-0680031	Flat Washer *	5/16"	4
67	IBGB248-67	S-Ring	6mm	2
68	IBGB248VS-68	Cooling Fan		1
69	TS-0267021	Set Screw	1/4"-20 x 1/4"	1
70	IBGB248-70	Rubber Sleeve		1
71	IBDG248-71	Disc	Dia. 9"	1
72	IBDG248-72	Sanding Disc	80 Grit	1
73	IBDG248-73	Disc Lower Guard		1
74	TS-1533032	Pan Head Screw	M5 x 10	2
75	IBDG248-75	Adjustable Handle	M10 x 20	2
76	IBDG248-76	Table Bracket - Right		1
77	IBDG248-77	Table Bracket - Left		1
78	990811	Pan Head Tapping Screw	M3.5 x 12	4
79	IBDG248-79	Disc Table		1
80	F001234	Flat Hd Phillips Mach Screw BO	M6 x 10	4
81	IBDG248-81	Steel Bar		1
82	IBDG248-82	Pointer		1
83	5711571	Pan Head Machine Screw	3/16" x 1/4"	1
84	IBDG248-84	Miter Body		1
85	TS-154306	Wing Nut	M8	1
86	IBGB248-86	Bracket Plate		1
87	TS-0720071	Lock Washer	1/4"	2
88	TS-0207021	Socket Hd Cap Screw	1/4"-20 x 1/2"	2
89	IBGB436-89	Tool Rest *		1
90	TS-0208021	Socket Hd Cap Screw *	5/16"-18 x 1/2"	1
91	IBGB248-91	Allen Wrench	6 x L140mm	1
92	IBG8-50	Lamp Fixed Bracket		1
93	IBGB248-33	Truss Head Screw	1/4"-20 x 3/8"	2
94	IBGB248-94	Adjustable Handle *	3/8"-16 x 3/4"	1
95	IBGB248VS-95	Signal Line		1
96	IBDG248-96	Grip	M8 x 25	1
97	IBDG248-97	Key, Dbl Rd Hd	3/16" x 3/16" x 1"	1
98	IBGB436-98	Graphite Sheet		1
99	TS-1550061	Flat Washer	M8	1
100	IBDG248-100	Guide Ring		1
101	JVM836-31B	Flat HD Phillips Machine Screw	M6 x 6	1
102	IBDG248-102	Miter Gauge Assembly		1
103	IBGB248-33	Truss Head Screw	1/4"-20 x 3/8"	1
104	IBDG248-104	Nylon Strap		1
105	IBDG248-105	Allen Wrench (not shown)	3 x L140mm	1
	JET-92-73R	JET Logo (not shown)	92 x 38 mm	1
	LM000403	ID/Warning Label, IBDG-436VS (not shown)		1
	IBGB436-HP	Hardware Package *		1

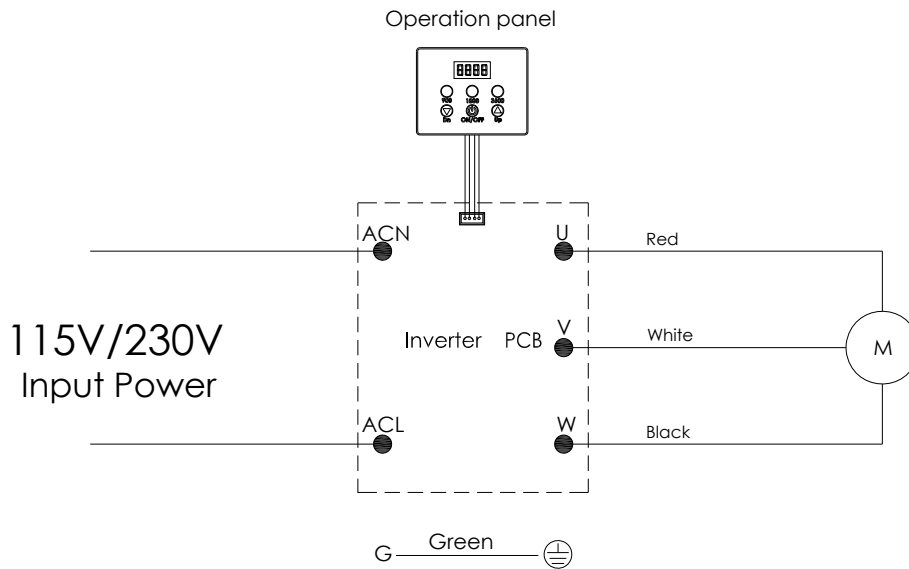
Hardware package includes items marked with asterisk (*).

14.0 Electrical Connections

14.1 Wiring diagram for IBDG-248 and IBDG-436



14.2 Wiring diagram for IBDG-248VS and IBDG-436VS



15.0 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; Air Tools
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

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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