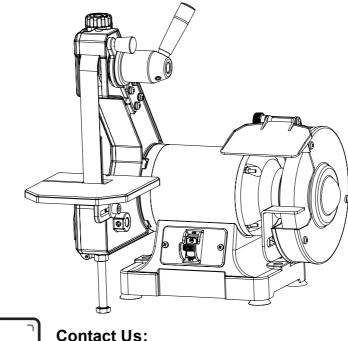
## Bucktool

### 6" BENCH GRINDER & 1" X 30" SANDER COMBO





email: service@bucktool.com

https://www.bucktool.com

**909-255-1088 (8AM-5PM PST)** 

#### **IMPORTANT:**

For your own safety, read and follow all of the Safety Guidelines and Operating Instructions before operating this product.

INSTRUCTION MANUAL

# 2 Bucktool

#### BG1600S

#### **TABLE OF CONTENTS**

Specifications	2
Safety guidelines	3
Package contents	8
Operating instructions	9
Maintenance	12
Troubleshooting	15
Exploded view	17
Parts list	18
Warranty	20

#### **SPECIFICATIONS**

Motor	120VAC, 60Hz , 2.1A
Speed (no load)	1790RPM
Belt size	1" x 30" , 120 Grit
Belt speed	1700 FPM
Wheel size	6x 3/4 x 1/2 inch
Wheel speed	1790RPM
Wheel grit	80#

Buck[ool

#### **GENERAL SAFETY GUIDELINES**

- Operate in a safe work environment. Keep your work area clean, well lit and free of distractions.
- Keep anyone not wearing the appropriate safety equipment away from the work area.
- Store tools properly in a safe and dry location. Keep tools out of the reach of children.
- Do not install or use in the presence of flammable gases, dust or liquids.
- Always wear impact safety goggles that provide front and side protection for the eyes. Wear a full-face shield if your work creates metal filings or wood chips. (Eye protection equipment should comply with ANSI Z87.1 standards.)
- Wear gloves that provide protection based on the work materials or to reduce the effects of tool vibration.
- Non-skid footwear is recommended to maintain footing and balance in the work environment.
- Wear the appropriate rated dust mask or respirator.
- Do not operate any tool when tired or under the influence of drugs, alcohol or medications.
- Avoid wearing clothes or jewelry that can become entangled with the moving parts of a tool. Keep long hair covered or bound.
- Do not overreach when operating the tool. Proper footing and balance enables better control in unexpected situations.
- Securely hold the material using both hands. Applying the material to the grinder with only one hand can result in a loss of control.
- Never use a tool with a cracked or worn grinding wheel. Change the grinding wheel before using.
- Replace cracked wheel immediately. Use only flanges supplied with the grinder.
- Clean dust and debris from beneath the grinding wheels frequently.
- Do not start the tool if the grinding wheel is in contact with the workpiece.
- Always ensure the safety guards are attached correctly and do not operate the bench grinder without the guards attached. Adjust the distance between the wheel and the tool rest to maintain a 1/16 in. or less separation as the diameter of the wheel decreases with use.
- Use an appropriate dust respirator when working for an extended period of time. This will help prevent breathing in the fine dust created while grinding.
- Do not grind on the sides of grinding wheels unless they are specifically designed for that purpose.
- Before using the tool on the workpiece, run the tool at the highest speed, without a load, for at least 30 seconds in a safe position. Stop immediately if there is any vibration or wobbling that could indicate poor installation or a poorly balanced grinding wheel. Check the tool to determine the cause.
- Do not allow the motor to overload or overheat. Take breaks to rest the tool.
- Do not subject the grinding wheel to any lateral pressure as it may damage the tool or cause it to kickback.



## Ruck[ool

#### ADDITIONAL SPECIFIC SAFETY RULES

- 1. Only use a grinding wheel with the correct arbor size and shape that matches the grinder's spindle.
- 2. Ensure the grinding wheel has a clean edge. Check the grinding wheel for wear or chipping and replace if necessary.
- 3. Never install more than one grinding wheel at a time unless the tool and wheels are designed for that purpose.
- 4. A large amount of sparks will be created when working with a grinding wheel. Hold the tool so that sparks fly away from you and other persons or flammable materials. Have a fully charged fire extinguisher present.in the event of a fire.
- 5. Do not subject the grinding wheel to any lateral pressure as it may damage the tool or cause it to kickback.
- 6. Disconnect tool from power source before cleaning, servicing, changing parts/accessories or when not in use.
- Protect yourself against electric shocks when working on electrical equipment. Avoid body contact with grounded surfaces. There is an increased chance of electrical shock if your body is grounded.
- 8. Do not expose tool to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- Do not disconnect the power cord in place of using the ON/OFF switch on the tool. This will prevent an accidental startup when the power cord is plugged into the power supply.
- 10. Do not alter any parts of the tool or accessories. All parts and accessories are designed with built-in safety features that may be compromised if altered.
- 11. Make certain the power source conforms to requirements of your equipment.
- 12. Do not allow the tool to run without load for an extended period of time, as this will shorten its life.
- 13. Do not cover the air vents. Proper cooling of the motor is necessary to ensure normal life of the tool.
- 14. Avoid unintentional starting. Ensure the switch is off when connecting to the power source.
- 15. In the event of a power failure, turn off the machine as soon as the power is interrupted. The possibility of accidental injury could occur if the power returns and the unit is not switched off.
- 16. Disconnect the power source before installing or servicing the tool.
- 17. After making adjustments, make sure that any adjustment devices are securely tightened.
- Remove adjusting keys and wrenches before turning the tool on. A wrench or a key that is left attached to a rotating part of the tool increases the risk of personal injury.
- 19. Never force the tool. Excessive pressure could break the tool, resulting in damage to your workpiece or serious personal injury. If your tool runs smoothly under no load, but does not run smoothly under load, then excessive pressure is being used.



- 20. Do not touch an operating motor. Motors can operate at high temperatures.
- 21. Only use accessories that are specifically designed for use with the tool. Ensure the accessory is tightly installed.
- 22. Only use an accessory that exceeds the No Load Speed rating.
- 23. Do not touch an operating motor. Motors can operate at high temperatures and can cause a burn injury.
- 24. Insert the power cord plug directly to the power supply whenever possible. Use extension cords or surge protectors only when the tool's power cord cannot reach a power supply from the work area.
- 25. Do not operate this tool if the power cord is frayed or damaged as an electric shock may occur, resulting in personal injury or property damage.
- 26. Inspect the tool's power cord for cracks, fraying or other faults in the insulation or plug before each use.
- 27. Discontinue use if a power cord feels more than comfortably warm while operating the tool.
- 28. Keep all connections dry and off the ground to reduce the risk of electric shock. Do not touch plug with wet hands.
- 29. Do not allow people, mobile equipment or vehicles to pass over unprotected power cords.
- 30. This tool vibrates during use. Repeated or long-term exposure to vibration may cause temporary or permanent physical injury, particularly to the hands, arms and shoulders.

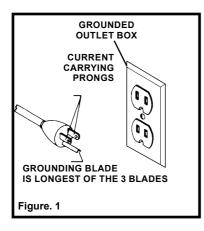
#### 

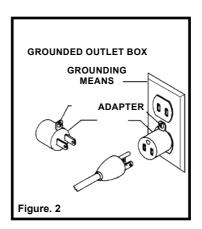
Read, understand and observe all instructions in this manual before using or operating the tool for which it is written and supplied. Ensure that anyone who is to use the tool has read and understood the instructions provided.



#### **IMPORTANT INFORMATION-Electrical**

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





#### **MOTOR SPECIFICATIONS**

Your machine is wired for 120 V, 60Hz alternating current. Before connecting the machine to the power source, make sure the switch is in the "OFF" position.

#### **GROUNDING INSTRUCTIONS**

All grounded, cord-connected machines: In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This machine is equipped with an electric cord having an equipment grounding conductor and a grounding plug.

#### DANGER!

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

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

Buck[aal

The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

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

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

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

Use only 3-wire extension cords that have 3-pronged grounding type plugs and matching 3-conductor receptacles that accept the machine's plug, as shown in Fig. A. Repair or replace damaged or worn cord immediately.

#### MINIMUM GAUGE FOR CORD SETS

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

Ampere rating of the tool (120V circuit only)		Total length of cord			
		25' (7.62 m)	50' (15.24 m)	100' (30.48 m)	150' (45.72 m)
more than	not more than	Minimum Gauge for the extension cord (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	

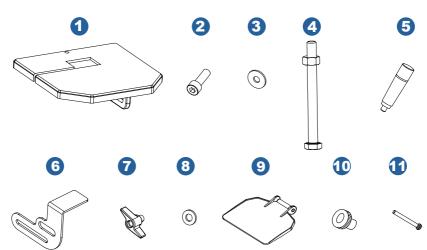
#### MARNING!

In all cases,make certain the receptacle in question is properly grounded. If you are not sure,have a electrician check the receptacle. **PACKAGE CONTENTS** 

## Ruck[mal

#### **Package contents**

No.	Description	Qty.
1	Belt work table	1
2	Inner hex bolt	1
3	Flat washer	1
4	Support rod	1
5	Belt tension handle	1
6	Right Tool Rest	1
7	Tool Rest Knob	1
8	Flat Washer	1
9	Eye Shield	1
10	Eye Shield Locking Konb	1
11	Philips screw	1
12	Spark Deflector	1
13	Philips Screw	2
14	Inner hex wrench	3





6) 6)



BG1600S

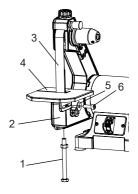


#### MARNING!

Do not plug in or turn on the tool until it is fully assembled according to the instructions. Failure to follow the safety instructions may result in serious personal injury.

#### **INSTALL SANDING BELT TABLE**

- 1. Install the supprot rod (1) to the belt frame (2).
- 2. Pass the sanding belt (3) through the slot on the belt table (4)and position the table on the machine.
- 3. Secure the belt table into position using the flat washer (5) and inner hex bolt (6).



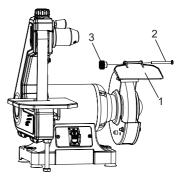
#### **INSTALLING SPARK DEFLECTOR**

Tighten the spark deflector (1) to grinder with composite screws (2) using a Philips screw driver.

#### INSTALLING EYESHIELD ASSEMBLY

Attach eye shied (1) to the spark deflector. Tighten the eye shield (1) by using a carriage bolt (2) and lock knob (3) as shown.

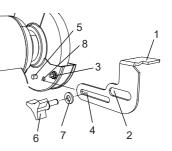
**NOTE:** Adjust eye shield to appropriate distance from tool rest avoiding interference when operation.



**DPERATING INSTRUCTIONS** 



- 1. Attach the left tool rest (1) to the grinder as the upper slot (2) to the nut (3) and lower slot (4) to the protrude cylinder (5).
- 2. Place the lock knob (6) through the washer (7) and lower slot (4) into the hole (8) to lock the tool rest (1) in place.

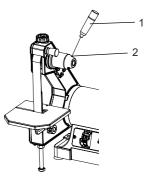


#### 

When in use, the tool rests should be adjusted to within 1/8 in. (3.2 mm) of the grinding wheel or other accessory being used.

#### **INSTALLING TENSION HANDLE**

Screw the tension handle (1) into the hole (2) of the hub and lock it.



#### TO PROPERLY TRACK THE SANDING BELT

- 1. Plug in the sander.
- 2. Turn power switch ON, then immediately OFF, noting whether the belt (1) tends to slide off its track, and to which side of the sander.
- 3. If the sanding belt does not slide to either side, it is tracking properly.
- 4. Viewed from the switch end, if the sanding belt runs toward the disc side, slightly turn the tracking knob (2) counterclockwise (down).
- 5. Viewed from the switch end, if the sanding belt runs away from the disc side, slightly turn the tracking knob (2) clockwise (up).
- Turn power switch ON, then immediately OFF again, again taking note of any belt movement.





Ħ

#### **ON/OFF SWITCH**

The ON/OFF power switch is located on the front of the sander, and incorporates a removable safety key.

In situations where the sander may be left unattended, the operator has the option of removing the safety key of the ON/OFF switch to render the sander inoperable.

When the operator is ready to use the machine again. simply insert the safety key

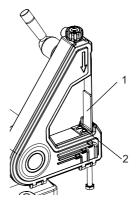
into the slot in the switch and pushing it in until it "seats."

#### **BELT SANDER PLATEN**

The belt platen (1) is used to properly support the workpiece while sanding. The platen (1) is constructed of heavy steel to provide adequate support.

The platen (1) should be adjusted so it is almost touching the back of the abrasive belt. Loosen the socket head cap screw (2) and adjust the platen (1) to the desired position. Tighten the screw (2) to secure the platen (1).

The platen can be removed for operations such as stripping, contour sanding, polishing or other special operations. To remove the platen, remove the socket head cap screw and washer.



**NOTE:** Be sure to re-install the platen to perform operations where support of the belt . is required

Ħ



#### **CHANGING GRINDING WHEELS**

#### 

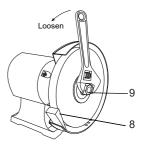
Turn off and unplug the bench grinder. Use only grinding wheels that measure 6 in. (150 mm) in diameter. This tool has 1/2 in. (12.7 mm) arbors on both sides.

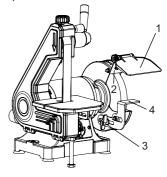
- 1. Raise the eye shield (1) out of the way and adjust the spark guard (2) in its highest setting.
- 2. Loosen the knob (3) and remove the tool rest (4) assembly.
- 3. Remove three screws (5) and lock nuts (6) from the wheel cover and then remove the outer cover (7).
- To prevent wheel rotating, place a wood wedge (8) (not supplied) between the wheel and the wheel.

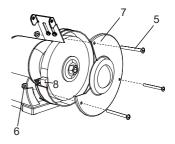
**NOTE:** Using a metal object, like a screwdriver, is not recommended as it may damage the grinding wheel.

5. Loosen the hex nut (9) by an adjustable wrench.

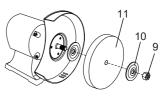
**NOTE:** The nut on the left side of the grinder has a standard left-hand thread (turn clockwise to loosen). The one on the right side has a right-hand thread (turn counterclockwise to loosen). Both wheel nuts tighten when turning toward the rear of the grinder and loosen when turningtoward the front of the grinder.







- 6. Remove the hex nut (9), the outside wheel flange (10) and the wheel (11).
- 7. Inspect the wheel (11) for cracks, chips or any other visible damage (other than normal wear) and discard if such damage is found. Inspect the blotter/cardboard disc for damage. If the blotter is missing or severely damaged, replace it with a piece of thin cardboard or blotter paper cut in the same shape.



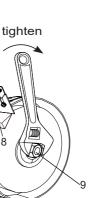
Bucktool 13

#### NEVER USE A GRINDING WHEEL WITHOUT A BLOTTER.

- 8. Install the new wheel and make sure both wheel flanges (10) are in place with the concave sides toward wheels.
- To prevent wheel rotating, place a wood wedge (8) (not supplied) between the wheel and the wheel cover.
- 10. Tighten the hex nut (9) by an adjustable wrench.

**NOTE:** Do not overtighten the nut as this can crack the grinding wheel.

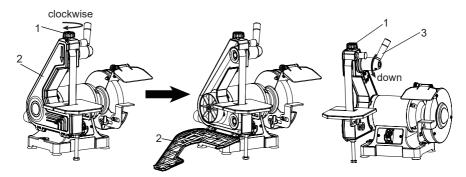
- 11. Replace the wheel cover (7) and screws (5).
- 12. Reinstall and adjust the tool rest to 1/16 in. (1.6 mm) away from the wheel and tighten securely.
- 13. Adjust the eye shield (1) to a point between your eyes and the wheel.





#### **REPLACING SANDING BELT**

- 1. Turn the knob (1) clockwise to open the belt cover (2).
- 2. Release belt tension by pulling down on tension handle (3). Slide old belt off the drive and tracking wheels.
  - **NOTE:** The sanding belt can be removed directly without removing the belt work table.
- 3. Install the new belt around the wheels.
- 4. Lift the belt cover and trun the knob (1) counterclockwise to fix it.
- 5. Start the sander and check the belt tracking before sanding operations
- (See "TO PROPERLY TRACK THE SANDING BELT").





#### WARNING!

#### To avoid injury from an accidental start, turn the switch OFF and always remove the plug from the power source before making any adjustments.

PROBLEM	PROBLEM CAUSE	SUGGESTED CORRECTIVE ACTION
Motor will not start—fuses or circuit breakers tripping / blowing	<ol> <li>Short circuit in line, cord or plug.</li> <li>Short circuit in motor or loose connections</li> <li>Incorrect fuses or circuit breakers in power line.</li> <li>Material wedged between wheel and guard</li> </ol>	<ol> <li>Inspect cord or plug for damaged insulation and shorted wires.</li> <li>Inspect all connections on motor for loose or shorted terminals and/or worn insulation.</li> <li>Install correct fuses or circuit breakers or switch tool to an appropriately sized circuit.</li> <li>Turn grinder off and remove material.</li> </ol>
Motor overheats	<ol> <li>Motor overloaded</li> <li>Extension cord too long with an insufficient gauge.</li> </ol>	<ol> <li>Reduce load on motor (pressure on object being sanded)</li> <li>Utilize an extension cord of appropriate gauge and length or plug tool directly into outlet.</li> </ol>
Sander does not turn on	<ol> <li>Not plugged in to an electrical outlet</li> <li>Defective power switch</li> <li>Motor, capacitor, or wiring problem</li> </ol>	<ol> <li>Connect the unit to an outlet.</li> <li>Replace the switch.</li> <li>Contact customer service.</li> </ol>
Sanding surface clogs quickly	<ol> <li>Too much pressure against belt</li> <li>Sanding softwood.</li> </ol>	<ol> <li>Reduce pressure on workpiece while sanding.</li> <li>Use different stock/sanding accessories, or accept that this will happen and plan on cleaning or replacing belts frequently.</li> </ol>
Deep sanding grooves or scars in workpiece	<ol> <li>Sanding belt grit is too coarse for the desired finish.</li> <li>Workpiece sanded across the grain.</li> <li>Too much sanding force on workpiece.</li> <li>Workpiece held still against belt for too long.</li> </ol>	<ol> <li>Use a finer-grit sanding accessory.</li> <li>Sand with the grain of the wood.</li> <li>Reduce pressure on workpiece while sanding.</li> <li>Keep workpiece moving while sanding on the sanding accessory.</li> </ol>
Wheel dulls quickly, grit falls off.	<ol> <li>Depth of cut too great.</li> <li>Wheel is soft.</li> <li>Wheel diameter too small.</li> <li>Bad wheel dress.</li> <li>Defective wheel bonding.</li> </ol>	<ol> <li>Slow down the rate of movement of the workpiece into wheel.</li> <li>Wheel too soft for the material being ground, select harder bond.</li> <li>Replace the wheel.</li> <li>Dress the wheel.</li> <li>Consult manufacturer of grinding wheel.</li> </ol>

# 16 Rucktool

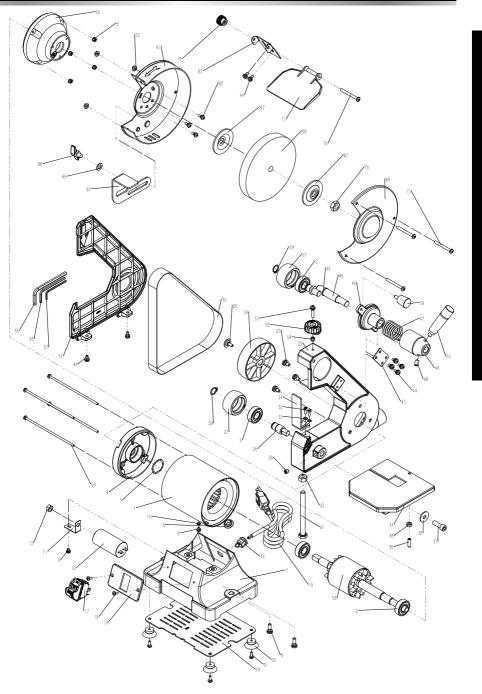
#### WARNING!

To avoid injury from an accidental start, turn the switch OFF and always remove the plug from the power source before making any adjustments.

PROBLEM	PROBLEM CAUSE	SUGGESTED CORRECTIVE ACTION
Wavy condition on surface of	1. Machine vibrating.	1. Make sure machines is securely mounted on a solid surface.
workpiece.	2. Wo rkpiece not being held firmly.	<ol> <li>Use a holding device to firmly retain the workpiece.</li> </ol>
	<ol><li>Wheel face uneven.</li></ol>	<ol><li>Dress the grinding wheel.</li></ol>
	4. Wheel is too hard.	4. Use softer wheel, or reduce the feed rate.
Lines on surface of workpiece.	<ol> <li>Impurity on wheel surface.</li> <li>Workpiece not being held tightly.</li> </ol>	<ol> <li>Dress the grinding wheel.</li> <li>Use a holding device to firmly retain the workpiece.</li> </ol>
Wheel clogs and workpiece shows	1. Wheel is too hard.	1. Wheel too hard for the material being ground, select softer bond.
burn marks.	2. Feed rate too slow.	2. Increase the rate of movement of the workpiece into wheel.
	3. Bad wheel dress.	3. Dress the wheel.
	4. Coolant required.	<ol> <li>Add optional coolant system or introduce coolant by hand.</li> </ol>

Rockford 17

EXPLODED VIEW



# 18 Bucktool

#### BG1600S

**PARTS LIST** 

Item	Description	Qty.
1	Stator	1
2	Bearing	4
3	Wave spring washer D35	1
4	End cap	1
5	Hex flange nut M4	4
6	Cord bushing	1
7	Base	1
8	Philips screw+spring washer assy M6x18	2
9	Philips screw+spring washer+flat washer assy M4x7	2
10	Tooth lock washer D4	1
11	Capacitor support	1
12	Capacitor	1
13	Hex nut M8	1
14	Cord clip	1
15	Power cord	1
16	Switch plate	1
17	Power switch	1
18	Philips screw M4x10	2
19	Base plate	1
20	Rubber foot	4
21	Philips screw+flat washer assy M4X12	4
22	Belt support	1
23	Philips screw+spring washer+flat washer assy M6x12	3
24	Main wheel	1
25	Philips screw assy M5x16	1
26	ldler shaft	1
27	ldler wheel	2
28	Inner hex bolt M8x8	1
29	Circlip for shaft D15	2
30	Sanding belt	1
31	Belt limit plate	1
32	Inner hex bolt M4x10	2
33	Flat washer D4	2
34	Sanding belt work table	1
35	Inner hex bolt M6x20	1
36	Hex nut M6	1
37	Inner hex bolt M8x25	1
38	Big flat washer D8	1

ltem	Description	Qty.
39	Miter gauge knob	1
40	Support base	1
41	Hex bolt M10x90	1
42	Hex nut M10	1
43	Belt adjustbale plate	1
44	Philips screw+spring washer+flat washer assy M5x10	8
45	Eccentric shaft assy	1
46	Circlip for shaft D16	1
47	Tension spring	1
48	Tension handle base	1
49	Inner hex bolt M8x12	1
50	Belt tension handle	1
51	Belt plate assy	1
52	Lokcing knob	1
53	Inner hex bolt+spring washer+flat washer assy M5x25	1
54	Hex locking nut M5	1
55	Inner hex wrench s=6	1
56	Inner hex wrench s=4	1
57	Inner hex wrench s=3	1
58	Rotor	1
59	Philips screw+flat washer assy M4X145	4
60	End cap	1
61	Right wheel guard	1
62	Philips screw+spring washer assy M5x10	3
63	Eyeshield support	1
64	Right work rest	1
65	Flat washer D8	1
66	Locking knob	1
67	Wheel flange	2
68	Grinding wheel	1
69	Right wheel cover	1
70	Hex nut M12 (right)	1
71	Eyeshield	1
72	Hex flange nut M5	3
73	Philips screw M5x45	3
74	Philips screw M5x50	1
75	Locking nut	1

# **PARTS LIST**

Bucktool 19





TWO-YEAR LIMITED WARRANTY

Having Problems ? Give us a chance to help you before returning this product

Email : service@bucktool.com

https://www.bucktool.com

**909-255-1088 (8AM-5PM PST)** 





https://www.bucktool.com