

**CENTRAL MACHINERY**®

# 4" X 6" BELT/DISC SANDER

## Model 97181

### SET UP, OPERATION & MAINTENANCE INSTRUCTIONS



Diagrams within this manual may not be drawn proportionally.

Due to continuing improvements, actual product may differ slightly from the product described herein.

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**Read this material before using this product.  
Failure to do so can result in serious injury.  
SAVE THIS MANUAL.**

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## SAVE THIS MANUAL

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Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference.

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## IMPORTANT SAFETY INFORMATION

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In this manual, on the labeling, and all other information provided with this product:



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

### **DANGER**

**DANGER** indicates a hazardous situation which, if not avoided, will result in death or serious injury.

### **WARNING**

**WARNING** indicates a hazardous situation which, if not avoided, could result in death or serious injury.

### **CAUTION**

**CAUTION**, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

### **NOTICE**

**NOTICE** is used to address practices not related to personal injury.

### **CAUTION**

**CAUTION**, without the safety alert symbol, is used to address practices not related to personal injury.

### General Safety Rules



**WARNING!** Read all instructions. Failure to follow all instructions listed below may result in electric shock, fire, and/or serious injury. The term "power tool" in all of the warnings listed below refers to this Belt/Disc Sander.

### SAVE THESE INSTRUCTIONS

1. **Work area safety**
  - a. Keep work area clean and well lit. *Cluttered or dark areas invite accidents.*
  - b. Do not operate this Belt/Disc Sander in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. *Power tools create sparks which may ignite the dust or fumes.*
  - c. Keep children and bystanders away while operating a this Belt/Disc Sander. *Distractions can cause you to lose control.*

## 2. Electrical safety

- a. The Plug on this Belt/Disc Sander must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with grounded power tools. *Unmodified plugs and matching outlets will reduce risk of electric shock.*
- b. Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators. *There is an increased risk of electric shock if your body is grounded.*
- c. **Do not expose this Belt/Disc Sander to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.**
- d. **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.**
- e. When operating this Belt/Disc Sander outdoors, use an extension cord suitable for outdoor use. *Use of a cord suitable for outdoor use reduces the risk of electric shock.*

## 3. Personal safety

- a. Stay alert, watch what you are doing and use common sense when operating this Belt/Disc Sander. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. *A moment of inattention while operating power tools may result in serious personal injury.*
- b. **Use safety equipment. Always wear ANSI-approved safety goggles with full face shield**

**protection. Safety equipment such as dust mask/respirator, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.**

- c. Avoid accidental starting. Ensure the switch is in the off-position before plugging in. *Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invites accidents.*
- d. Remove any adjusting key or wrench before turning the power tool on. *A wrench or a key left attached to a rotating part of the power tool may result in personal injury.*
- e. Do not overreach. Keep proper footing and balance at all times. *This enables better control of the power tool in unexpected situations.*
- f. Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts. *Loose clothes, jewelry or long hair can be caught in moving parts.*
- g. If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. *Use of these devices can reduce dust-related hazards.*

## 4. Power tool use and care

- a. Do not force this Belt/Disc Sander. Use the correct power tool for your application. *The correct power tool will do the job better and safer at the rate for which it was designed.*
- b. Do not use this Belt/Disc Sander if the switch does not turn it on and off. *Any power tool that cannot*

*be controlled with the switch is dangerous and must be repaired.*

- c. **Disconnect the plug from the power source before making any adjustments, changing accessories, or storing power tools. *Such preventive safety measures reduce the risk of starting the power tool accidentally.***
- d. **Store this Belt/Disc Sander out of the reach of children and do not allow persons unfamiliar with it, or these instructions to operate. *Power tools are dangerous in the hands of untrained users.***
- e. Maintain this Belt/Disc Sander. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the Belt/Disc Sander repaired before use. *Many accidents are caused by poorly maintained power tools.*
- f. Use the Belt/Disc Sander in accordance with these instructions and in the manner intended, taking into account the working conditions and the work to be performed. *Use of this Belt/Disc Sander for operations different from those intended could result in a hazardous situation.*

## 5. Service

- a. Have your Belt/Disc Sander serviced by a qualified repair person using only identical replacement parts. *This will ensure that the safety of this Belt/Disc Sander is maintained.*

## Vibration Hazard

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. To reduce the risk of vibration-related injury:

1. Anyone using vibrating tools regularly or for an extended period should first be examined by a doctor and then have regular medical check-ups to ensure medical problems are not being caused or worsened from use. Pregnant women or people who have impaired blood circulation to the hand, past hand injuries, nervous system disorders, diabetes, or Raynaud's Disease should not use this tool. If you feel any medical or physical symptoms related to vibration (such as tingling, numbness, and white or blue fingers), seek medical advice as soon as possible.
2. Do not smoke during use. Nicotine reduces the blood supply to the hands and fingers, increasing the risk of vibration-related injury.
3. Wear suitable gloves to reduce the vibration effects on the user.
4. Use tools with the lowest vibration when there is a choice between different processes.
5. Include vibration-free periods each day of work.
6. To reduce vibration, maintain the tool as explained in this manual. If any abnormal vibration occurs, stop use immediately.

## Specific Safety Rules

1. Always wear ANSI-approved safety goggles with full face shield when operating this Belt/Disc Sander.
2. Support workpiece with Miter Gage, Backstop or work table.
3. Maintain 1/16" maximum clearance between table and sanding belt, or disc.
4. Avoid kickback by sanding in accordance with the directional arrows.
5. Maintain labels and nameplates on the tool. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
6. Avoid unintentional starting. Prepare to begin work before turning on the tool.
7. Do not leave the Belt/Disc Sander unattended when it is plugged into an electrical outlet. Turn off the tool, and unplug it from its electrical outlet before leaving.
8. This product is not a toy. Keep it out of reach of children.
9. People with pacemakers should consult their physician(s) before use. Electromagnetic fields in close proximity to heart pacemaker could cause pacemaker interference or pacemaker failure. In addition, people with pacemakers should:
  - Avoid operating alone.
  - Do not use with power switch locked on.
  - Properly maintain and inspect to avoid electrical shock.
10. Some dust created by power sanding, sawing, grinding, drilling, and other construction activities, contains chemicals known [to the State of California] to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:
  - Lead from lead-based paints
  - Crystalline silica from bricks and cement or other masonry products
  - Arsenic and chromium from chemically treated lumberYour risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles. (California Health & Safety Code § 25249.5, *et seq.*)
11. The warnings, precautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.



**SAVE THESE INSTRUCTIONS.**

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## GROUNDING

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### **⚠️ WARNING**

### **TO PREVENT ELECTRIC SHOCK**

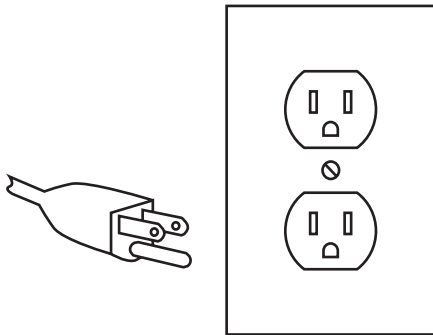


### **AND DEATH FROM INCORRECT GROUNDING WIRE CONNECTION:**

Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. Do not modify the power cord plug provided with the tool. Never remove the grounding prong from the plug. Do not use the tool if the power cord or plug is damaged. If damaged, have it repaired by a service facility before use. If the plug will not fit the outlet, have a proper outlet installed by a qualified electrician.

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### **Grounded Tools: Tools with Three Prong Plugs**



3-Prong Plug and Outlet

1. Tools marked with “Grounding Required” have a three wire cord and three prong grounding plug. The plug must be connected to a properly grounded outlet. If the tool should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user, reducing the risk

of electric shock. (See **3-Prong Plug and Outlet.**)

2. The grounding prong in the plug is connected through the green wire inside the cord to the grounding system in the tool. The green wire in the cord must be the only wire connected to the tool’s grounding system and must never be attached to an electrically “live” terminal. (See **3-Prong Plug and Outlet.**)
3. The tool must be plugged into an appropriate outlet, properly installed and grounded in accordance with all codes and ordinances. The plug and outlet should look like those in the preceding illustration. (See **3-Prong Plug and Outlet.**)
4. **NOTE: THIS BELT/Disc SANDER HAS A THREE-PRONG GROUNDED PLUG.**






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### **Extension Cords**

1. **Grounded** tools require a three wire extension cord. **Double Insulated** tools can use either a two or three wire extension cord.
2. As the distance from the supply outlet increases, you must use a heavier gauge extension cord. Using extension cords with inadequately sized wire causes a serious drop in voltage, resulting in loss of power and possible tool damage. (See **Table A.**) The smaller the gauge number of the wire, the greater the capacity of the cord. For example, a 14 gauge cord can carry a higher current than a 16 gauge cord. (See **Table A.**)

3. When using more than one extension cord to make up the total length, make sure each cord contains at least the minimum wire size required. **(See Table A.)**
4. If you are using one extension cord for more than one tool, add the nameplate amperes and use the sum to determine the required minimum cord size. **(See Table A.)**
5. If you are using an extension cord outdoors, make sure it is marked with the suffix "W-A" ("W" in Canada) to indicate it is acceptable for outdoor use.
6. Make sure the extension cord is properly wired and in good electrical condition. Always replace a damaged extension cord or have it repaired by a qualified electrician before using it.
7. Protect the extension cords from sharp objects, excessive heat, and damp or wet areas.

### Symbology

	Double Insulated
	Canadian Standards Association
	Underwriters Laboratories, Inc.
	Volts Alternating Current
	Amperes
n <sub>0</sub> xxxx/min.	No Load Revolutions per Minute (RPM)

<b>RECOMMENDED MINIMUM WIRE GAUGE FOR EXTENSION CORDS*</b> (120/240 VOLT)					
<b>NAMEPLATE AMPERES</b> (at full load)	<b>EXTENSION CORD LENGTH</b>				
	<b>25'</b>	<b>50'</b>	<b>75'</b>	<b>100'</b>	<b>150'</b>
0 – 2.0	18	18	18	18	16
2.1 – 3.4	18	18	18	16	14
3.5 – 5.0	18	18	16	14	12
5.1 – 7.0	18	16	14	12	12
7.1 – 12.0	18	14	12	10	-
12.1 – 16.0	14	12	10	-	-
16.1 – 20.0	12	10	-	-	-
<b>TABLE A</b> * Based on limiting the line voltage drop to five volts at 150% of the rated amperes.					



## SPECIFICATIONS

Construction Materials	Housing: Sheeted Steel Roller and Block Stop: Polyethylene Hardware: Carbon Steel Feet: Rubber
Sanding Disc	6"
Sanding Belt	4" W X 36" L , 80 Grit
Motor and Electrical Information	3/4 HP PEAK 120V 60Hz, Amps - With Load: 3.5 AMP'S
Plug	3-Prong Grounded
Belt Speed	1150 FPB
Disc Speed	1780 RPM

## UNPACKING

When unpacking, check to make sure that the item is intact and undamaged. If any parts are missing or broken, please call Harbor Freight Tools at the number shown on the cover of this manual as soon as possible.

## INITIAL SET UP INSTRUCTIONS



Read the **ENTIRE IMPORTANT SAFETY INFORMATION** section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

## ⚠ WARNING

**TO PREVENT  
SERIOUS INJURY  
FROM**

**ACCIDENTAL OPERATION:  
Turn the Power Switch of the  
Belt/Disc Sander to its "OFF"  
position and unplug the tool  
from its electrical outlet  
before assembling or making  
any adjustments to the tool.**

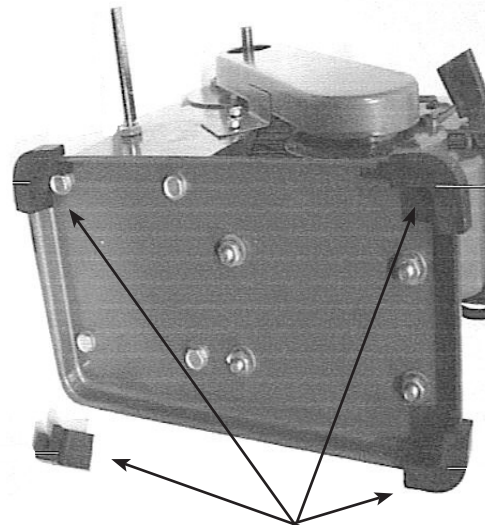
**Note:** For additional information regarding the parts listed in the following pages, refer to the Assembly Diagram near the end of this manual.

## ASSEMBLY

### Feet Placement

- Carefully set the Belt/Disc Sander on its side.

**Figure 1**



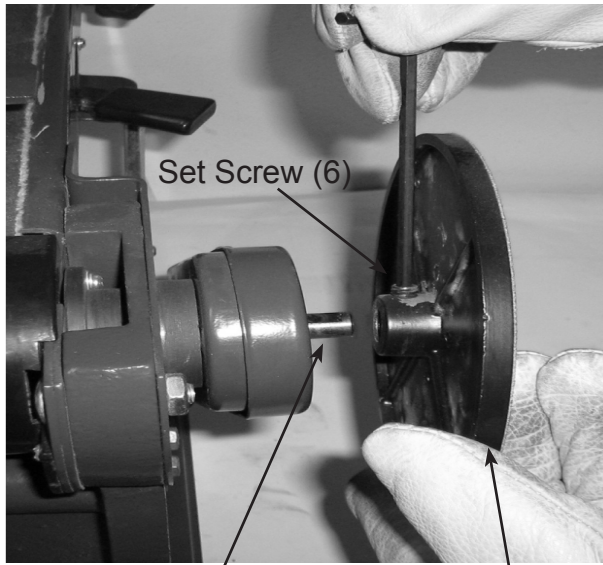
Rubber Pads (28)

- Press each Rubber Pad (28) over the lip of the Base at each corner. (See **Figure 1**)

## Mounting Aluminum Disc

1. Use 10 & 14mm wrenches (not included) to tighten, if necessary. (See **Figure 1**)
2. Set the Belt/Disc Sander on its feet.

**Figure 2**



Long Shaft (54) Aluminum Disc (5)

3. Slide the Aluminum Disc (5) onto the Drive Axle (54) so that the Set Screw (6) faces the flat surface of the Drive Axle (54). (See **Figure 2**)
4. Tighten the Set Screw (6) securely. (See **Figure 2**)

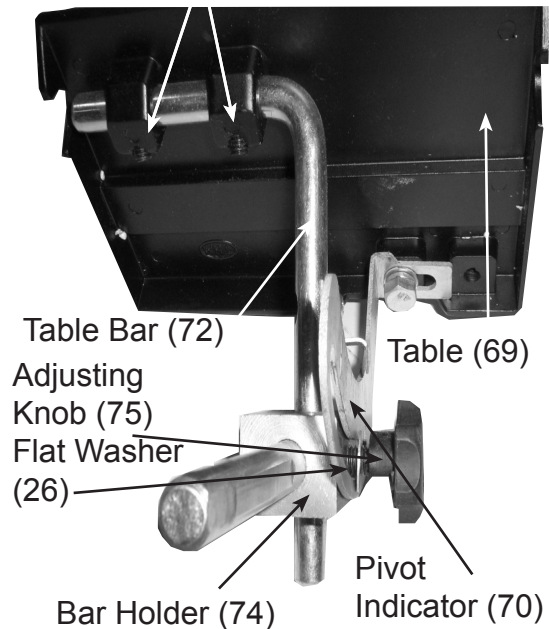
## Mounting Table for use as Disc Sander

**NOTE:** The Table (69) may be used as support for both horizontal and vertical applications.

1. Insert end of Table Bar (72) (with Pivot Indicator) (70) into Bar Holder (74). (See **Figure 3**)

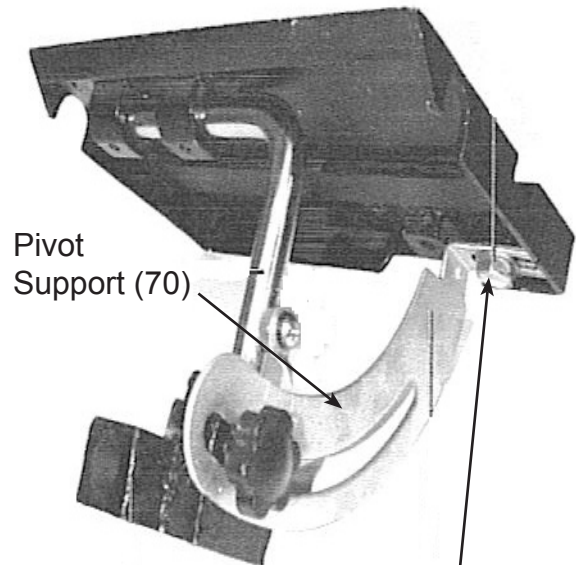
**Figure 3**

Tighten two Set Screws



2. Insert other end of Table Bar (72) into the Two Mounting supports on bottom of Table (69). (See **Figure 3**)

**Figure 4**



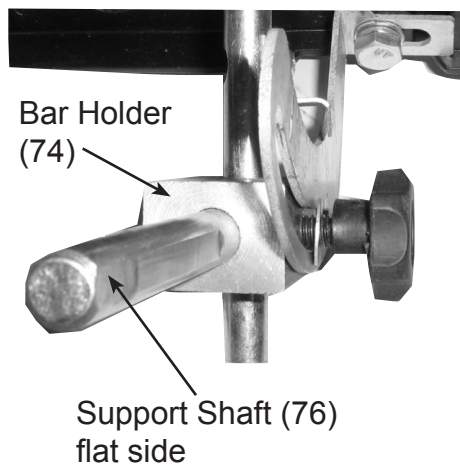
Hex Bolt (71), Flat Washer (26) and Lock Washer (27)

3. Mount the Pivot Indicator (70) tab to the Table (69) using Hex Bolt (71),

Flat Washer (26) and Lock Washer (27). (See **Figure 3 & 4**)

4. Mount Pivot Indicator (70) to the Bar Holder (74) using the Adjusting Knob (75) and Flat Washer (26) and finger tighten. (See **Figure 3**)
5. Tighten all fasteners. Make sure Pivot Indicator operates smoothly when Angle Adjustment Knob (75) is loosened.

**Figure 5**



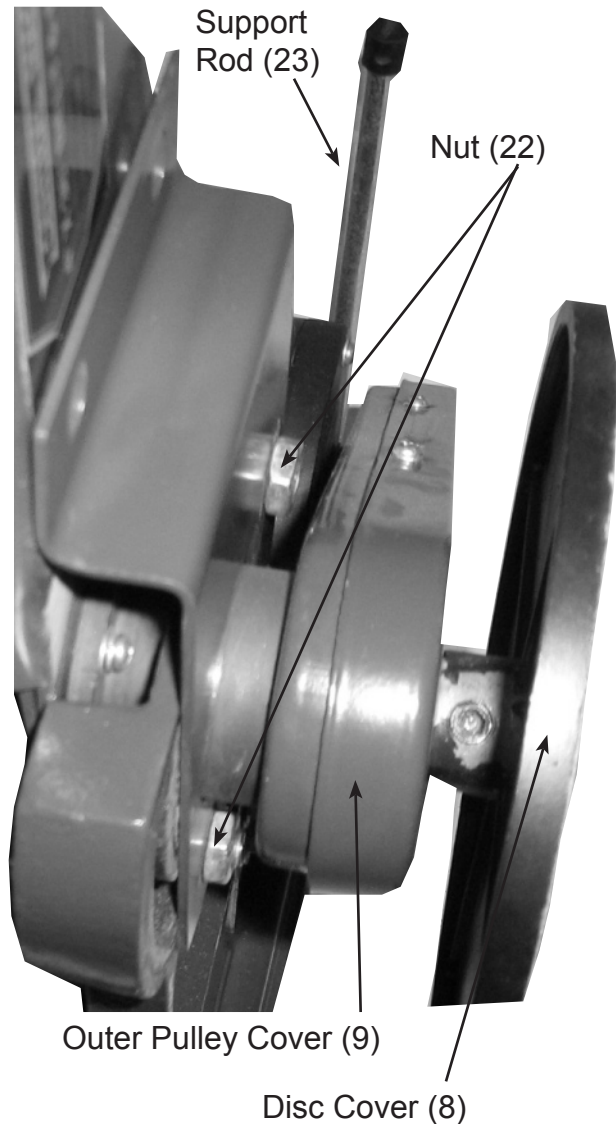
6. Slide Support Shaft (76) into Bar Holder (74) aligning flat face of the shaft with set screws and tighten securely. Slide Support Shaft (76) into existing hole on side of Machine Body (33) and with wrench (not supplied), tighten Bolt (32). (See **Figure 5**)

### **Mounting Table for use as Belt Sander**

**NOTE:** The Table (69) may be used for both horizontal and vertical operations.

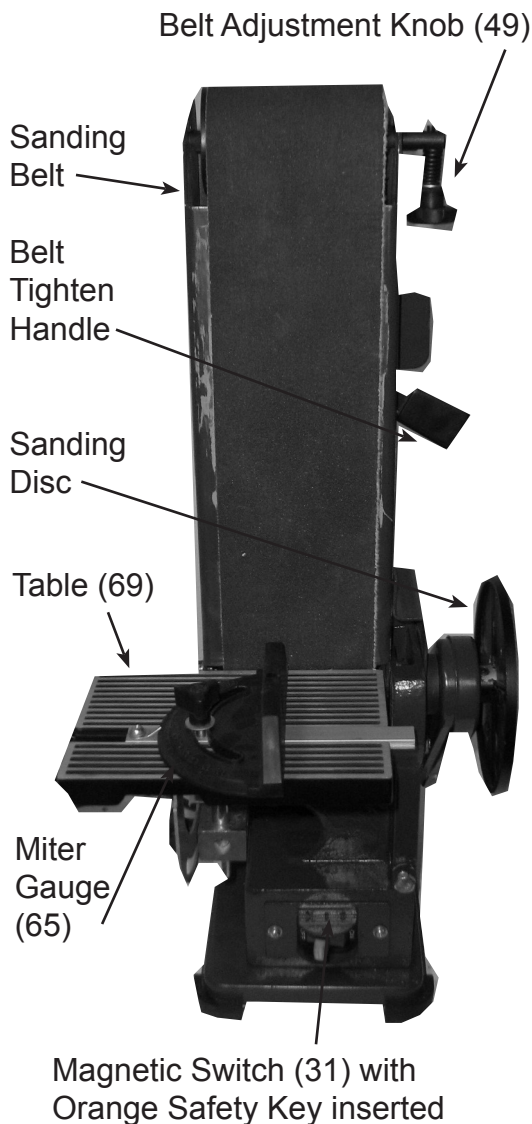
1. Remove Table from Machine Body using reverse procedures in number 6 of "Disc Sander" section above.

**Figure 6**



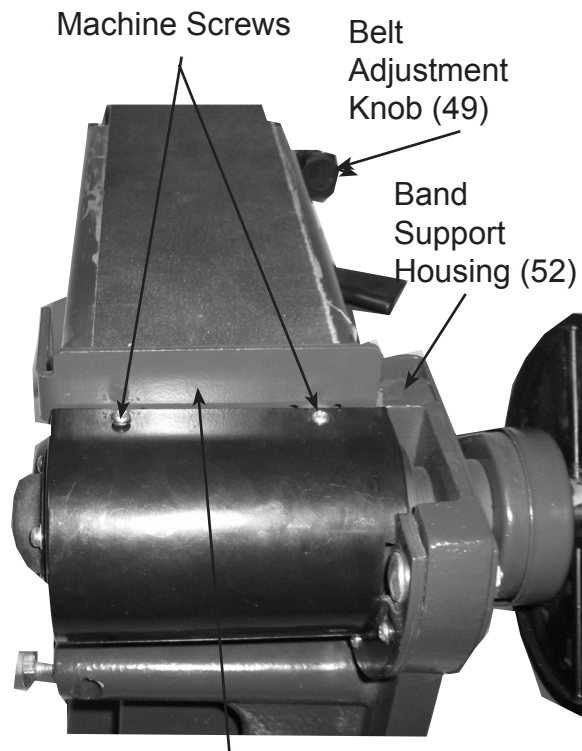
2. Set Belt/Disc Sander in vertical position by loosening both Nuts (22). Raise the Belt Support Housing (52). When it is vertical, tighten both Nuts (22) very tight to prevent the Belt Support Housing (52) from slipping. (See **Figures 6 & 7**)

**Figure 7**



2. Align the two Tabs on the Stop Plate (63) with the two Holes on the top of the Band Support Housing (52). The Tabs will be underneath the Flange on the Band Support Housing (52). Insert two Machine Screws into the two Holes and thread them into the Tabs on the Stop Plate (63). Note: Flat Washers required between screw head and upper Guard Plate (58). (See **Figure 6**)

**Figure 8**



3. Insert Support Shaft (76) into the hole facing the belts and tighten Bolt (32) against flat side of Support Shaft (76). (See **Figures 6 & 7**)

### Mounting Stop Plate

1. This Stop Plate (63) fits across the top of the sanding belt and is for preventing workpiece from moving to the rear when sanding.

Stop Plate (63) (Tabs (not shown) are underneath Flange on Band Support Housing (52) where Machine Screws are shown).

3. Mount the Stop Plate (63) to the Band Support Housing (52) using Bolt (32), Flat Washer (26) and Lock Washer (27). (See **Figure 8**)

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## **FUNCTIONS**

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This Belt/Disc Sander can be used for rough or smooth sanding. It has an adjustable belt platform for sanding both inside or outside curves. It can be used to sand both curved and/or flat projects. The included Table (69) tilts from 0° to 60° and can be repositioned to use with sanding belts or discs. There is a Miter Gauge (65) for precise angle sanding.

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## **OPERATING INSTRUCTIONS**

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Read the **ENTIRE IMPORTANT SAFETY INFORMATION** section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

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### **Work Piece and Work Area Set Up**

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1. Designate a work area that is clean and well-lit. The work area must not allow access by children or pets to prevent injury and distraction.
2. Route the power cord along a safe route to reach the work area without creating a tripping hazard or exposing the power cord to possible damage. The power cord must reach the work area with enough extra length to allow free movement while working.

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### **Leveling the Table**

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**NOTE:** For these instructions and “General Operating Instructions” on following pages, refer to **Figure 8 on page 17** of this manual.

1. Loosen the Angle Adjusting Knob (75) on the Pivot Indicator (70). Place a combination square (not supplied) on

the Table (69) so that the combination square touches the sanding disc. If the Table (69) is 90° to the sanding disc, the table is level. Tighten the Angle Adjusting Knob (75).

2. If the Table (69) is not 90° to the sanding disc pad, loosen the Angle Adjusting Knob (75) and tilt the Table (69) until it is square with the sanding disc. Tighten the Angle Adjusting Knob (75).
3. Loosen Screw (29) holding the Angle Pointer (73) and adjust it so that it points to 90°. Tighten the Screw (29).

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### **General Operating Instructions**

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1. Insert **Orange Plastic Key** into Magnetic Switch (31). **This “Key” is a safety precaution and should remain in the Magnetic Switch during use and be removed after Magnetic Switch (31) is turned off and/or any time the Belt/Disc Sander is left unattended or it is in storage.**

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### **Adjusting the Sanding Belt Tracking**

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1. With the Belt/Disc Sander turned off, manually move the sanding belt.
2. If the belt looks like it is going to slide off either roller, it needs to be adjusted.
3. Turn the Belt Adjustment Knob (49) until the belt rides the center of the Rear Roller (56) and the Front Roller (44).
4. Move the sanding belt manually after adjustment to assure proper alignment.

## Mounting Sanding Discs

1. Remove the Table (69), if it is mounted in front of the sanding disc.
2. Peel off old sanding disc.
3. Align perimeter of new sanding disc over the Aluminum Disc (5) and press firmly onto the Aluminum Disc (5)
4. **NOTE: If you are using the sanding disc for the first time. Before attaching the disc, wipe down the Aluminum Disc (5) with denatured alcohol (shellac thinner). This will clean the surface, leave no residue and assure a secure bond.**
5. Pressing Magnetic Switch ON will start the Sander. OFF will stop the Sander.
6. When using the Disc Sander, always use the LEFT side of the sanding disc (as you face it) to sand. The sanding disc turns counterclockwise and using the right side could cause kickback.
7. Use two hands and hold workpiece securely at all times.
8. Always maintain a maximum of 1/16" clearance between the Table (69) and sanding disc.
9. When finished with Belt/Disc Sander, to prevent accidents, turn off and disconnect its power supply after use. **Remove the Orange Plastic Key from the Magnetic Switch (31).** Wipe down and store the Sander indoors out of children's reach.

## MAINTENANCE AND SERVICING



Procedures not specifically explained in this manual must be performed only by a qualified technician.

### **WARNING**

#### **TO PREVENT SERIOUS INJURY**

#### **FROM ACCIDENTAL OPERATION:**

Turn the Power Switch of the tool to its "OFF" position and unplug the tool from its electrical outlet before performing any inspection, maintenance, or cleaning procedures.

#### **TO PREVENT SERIOUS INJURY FROM TOOL FAILURE:**

Do not use damaged equipment. If abnormal noise or vibration occurs, have the problem corrected before further use.

## Cleaning, Maintenance, and Lubrication

1. **BEFORE EACH USE**, inspect the general condition of the Belt/Disc Sander. Check for loose screws, misalignment or binding of moving parts, cracks and any other condition that may affect its safe operation.
2. **A Dust Port (59) is located on the bottom of the Lower Guard Plate (60). It held in place with Screw (61) and can be removed for vacuuming collected dust and sanding residue. Replace the Dust**

**Port (59) after cleaning and tighten Screw (61).**

3. **AFTER USE**, clean external surfaces of the tool with clean cloth.
4. Periodically recheck all nuts, bolts and screws for tightness.
5. Apply a light coat of paste wax to the Table (69) to make feeding material easier.
6. Use compressed air to blow dust and debris from the Sander and Motor.
7. The Bearings on this Sander are sealed and do not require lubrication.

### **Sanding Belt Replacement**

1. Push the Belt Tensioner Handle (50) forward to loosen the belt.
2. Remove Upper Guard Plate (58) by unscrewing four Screws (7).
3. Remove the Lower Guard Plate (60) by unscrewing the four Screws (7) that hold it to the Belt Support Housing (52).
4. Slide the old sanding belt off the Rear Roller (56) and Front Roller (44).
5. Replace with a 4" X 36" sanding belt with the correct grit for the project you are working on. **NOTE: The larger the grit number, the smaller the grain. Use small numbered grits for cutting and larger for smoothing and finishing.**
6. Slide new sanding belt onto Front and Rear Rollers.
7. Replace the Lower Guard Plate (60) and tighten the four Screws (7) securely.

8. Replace the Upper Guard Plate (58) and tighten the four Screws (7).
9. Push the Belt Tensioner Handle (50) to the rear to tighten the belt.
10. Before using, manually check the new belt for alignment. See instructions in the "General Operating" section of this manual.

### **V-Belt Replacement**

1. Remove Set Screws (6) and pull off Aluminum Disc (5).
2. Remove four Screws (11) and Washers (10) from Outer Pulley Cover (9).
3. Once the Outer Pulley Cover (9) is removed, the V-Belt is accessible.
4. Remove the V-Belt (12) using a small straight slot screwdriver (not supplied). Place the tip of the screwdriver between the Motor Pulley (13) and the V-Belt (12) while you manually turn the V-Belt by hand. As it turns, the V-Belt will ride up and out of the Pulley groove. Once off the Motor Pulley (13), lift it off of the Spindle Pulley (14).
5. Place the new V-Belt (12) onto the Spindle Pulley (14), by using a straight slot screwdriver (not supplied) as a wedge, manually turn the Spindle Pulley (14) and ride the new V-Belt onto the Motor Pulley (13).
6. Replace Outer Pulley Cover (9). Tighten Screws and Washers (10 & 11).
7. **⚠WARNING! If the supply cord of this power tool is damaged, it must be replaced only by a qualified service technician.**


## V-Belt Replacement

### V-Belt Tensioning

Should the V-belt need tensioning, repeat steps 1 and 2, in V-belt Replacement section mentioned previously.

1. Loosen four Motor Mount Nuts (22) and slide the Motor (40) further forward towards Front Roller (44), making sure to pull evenly on the motor. While holding the motor in its current position, tighten the Nuts (22).
2. Place a straight edge on the faces of the two pulleys to ascertain alignment. Contact surfaces of the pulleys and the straight edge shall fully touch. Fully tighten the Nuts (22).
3. Repeat steps 2 and 1 in the V-Belt Replacement section.

## Troubleshooting

<b>Problem</b>	<b>Possible Causes</b>	<b>Likely Solutions</b>
Belt/Disc Sander does not turn on	<ol style="list-style-type: none"><li>1. Not plugged in.</li><li>2. No power at outlet.</li><li>3. Orange Plastic Key not inserted into Magnetic Switch (31).</li><li>4. Switch is not turned "ON".</li></ol>	<ol style="list-style-type: none"><li>1. Plug in Sander.</li><li>2. Check power at outlet and/or circuit breaker.</li><li>3. Insert Orange Plastic Key into Magnetic Switch (31).</li><li>4. Turn on the Switch.</li></ol>
Motor slows when sanding	<ol style="list-style-type: none"><li>1. V-Belt too tight.</li><li>2. Applying too much pressure while sanding</li></ol>	<ol style="list-style-type: none"><li>1. Have the V-Belt adjusted by a qualified technician.</li><li>2. Use less pressure.</li></ol>
Wood burns while sanding	<ol style="list-style-type: none"><li>1. Sanding disc or belt may be loaded with dirt or debris.</li><li>2. Too much pressure.</li></ol>	<ol style="list-style-type: none"><li>1. Clean or replace disc or belt using instructions in this manual.</li><li>2. Use less pressure.</li></ol>
	<b>Follow all safety precautions whenever diagnosing or servicing the tool. Disconnect power supply before service.</b>	



## **PLEASE READ THE FOLLOWING CAREFULLY**

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

**Record Product's Serial Number Here:** \_\_\_\_\_

**Note:** If product has no serial number, record month and year of purchase instead.

**Note:** Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

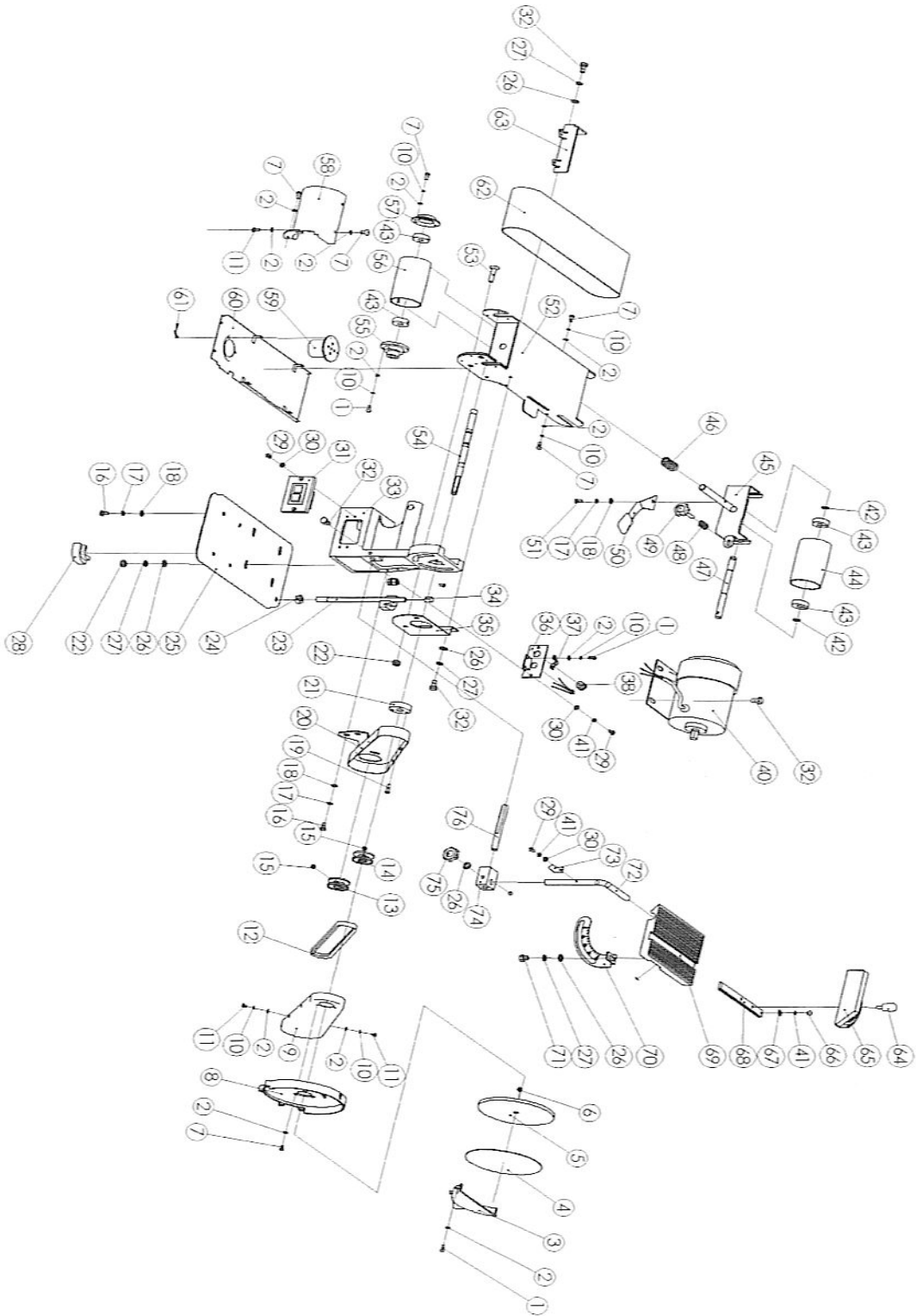
**PARTS LIST**

Part	Description	Q'ty
1	Screw M4 X 12	9
2	Flat Washer 4	27
3	Front Cover	1
4	Sander Disc	1
5	Aluminum Disc	1
6	Screw M8 X 8	6
7	Screw M4 X 8	14
8	Disc Cover	1
9	Outer Pulley Cover	1
10	Washer	16
11	Screw M4 X 8	6
12	V-Belt	1
13	Motor Pulley	1
14	Spindle Pulley	1
15	Screw M8 X 6	2
16	Bolt M6 X 12	6
17	Lock Washer	7
18	Flat Washer	7
19	Screw M5 X 20	3
20	Inner Pulley Cover	1
21	Spacer	1
22	Nut 8	6
23	Supporting Rod	1
24	Nut 10	1
25	Base	1
26	Flat Washer 8	9
27	Lock Washer 8	8
28	Rubber Feet	4
29	Screw M5 X 12	5
30	Flat Washer 5	5
31	Magnetic Switch	1
32	Bolt M8 X 16	8
33	Machine Body	1
34	Rubber Pad1	1
35	Steel Plate	1
36	Holding Plate	1
37	Cable Fixing Plate	1
38	Hold Plate Bolt	1
39	Rubber Tube	1

**PARTS LIST**

Part	Description	Q'ty
40	Motor	1
41	Washer 5	4
42	Retaining Ring 12	2
43	Ball Bearing	4
44	Front Roller	1
45	Adjusting Bracket	1
46	Spring	1
47	Shaft	1
48	Spring	1
49	Belt Adjustment Knob	1
50	Belt Tensioner Handle	1
51	Screw M6 X 12	1
52	Belt Support Housing	1
53	Coach Bolt M8 X 35	2
54	Drive Axle	1
55	Bearing Housing	1
56	Rear Roller	1
57	Left Bearing Housing	1
58	Upper Guard Plate	1
59	Dust Port	1
60	Lower Guard Plate	1
61	Screw	3
62	Belt Sander	1
63	Stop Plate	1
64	Knob M5 X 16	1
65	Miter Gauge	1
66	Screw M5 X 6	1
67	Pointer	1
68	Sliding Bar	1
69	Table	1
70	Pivot Indicator	1
71	Bolt M8 X 10	1
72	Table Bar	1
73	Angle Pointer	1
74	Bar Holder	1
75	Angle Adjusting Knob	1
76	Supporting Shaft	1

# ASSEMBLY DIAGRAM



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## LIMITED 1 YEAR / 90 DAY WARRANTY

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Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that for a period of ninety days from date of purchase that the engine/motor, the belts (if so equipped), and the blades (if so equipped) are free of defects in materials and workmanship. Harbor Freight Tools also warrants to the original purchaser, for a period of one year from date of purchase, that all other parts and components of the product are free from defects in materials and workmanship (90 days if used by a professional contractor or if used as rental equipment). This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, normal wear and tear, or to lack of maintenance. We 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 product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

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