

# Owner's Manual & Safety Instructions

Save This Manual 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.

REV 15a

**CHICAGO**  **ELECTRIC**  
POWER TOOLS

**ITEM 95877**

## **3/8" CLOSE QUARTER DRILL WITH KEYLESS CHUCK**



Visit our website at: <http://www.harborfreight.com>  
Email our technical support at: [productsupport@harborfreight.com](mailto:productsupport@harborfreight.com)

When unpacking, make sure that the product is intact and undamaged. If any parts are missing or broken, please call 1-888-866-5797 as soon as possible.

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### **⚠WARNING**

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

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## SPECIFICATIONS

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Electrical Requirements	120VAC / 60Hz / 3.2A
Variable Speed	0 ~ 1500 RPM
Power Cord	18 AWG x 2C / 6' 1" Long
Drill Type	Close Quarter
Drill Chuck Type	3-Jaw / Keyless
Chuck Capacity	1/16" ~ 3/8"
Drilling Capacities	Ferrous = 1/4" / Non-Ferrous = 5/16" / Wood = 1/2"
Reversible	Yes. Clockwise and Counterclockwise Rotation.
Drill Head Angle	90 Degree Fixed
Overall Dimensions	6-1/8" Long x 2-3/4" Wide x 11" High
Net Weight	3.9 Pounds

### Save This Manual

You will need this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures, parts list and assembly diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Write the product's serial number in the back of the manual near the assembly diagram, or write month and year of purchase if product has no number. Keep this manual and invoice in a safe and dry place for future reference.

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## GENERAL SAFETY RULES

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**⚠WARNING!**

**READ AND UNDERSTAND ALL INSTRUCTIONS**  
**Failure to follow all instructions listed below may result in**  
**electric shock, fire, and/or serious injury.**  
**SAVE THESE INSTRUCTIONS**

### WORK AREA

1. **Keep your work area clean and well lit.** Cluttered benches and dark areas invite accidents.
2. **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** Electrically powered tools create sparks which may ignite the dust or fumes.

### ELECTRICAL SAFETY

1. **Grounded products must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in any way. Do not use any adapter plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded.** If the product should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.
2. **Double insulated products are equipped with 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 a polarized outlet. Do not change the plug in any way.** Double insulation  eliminates the need for the three wire grounded power cord and grounded power supply system.

3. **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.
4. **Do not expose this product to rain or wet conditions.** Water entering this tool will increase the risk of electric shock.
5. **Do not abuse the Power Cord. Never use the Power Cord to carry the tool or pull the Plug from an outlet. Keep the Power Cord away from heat, oil, sharp edges, or moving parts. Replace damaged Power Cords immediately.** Damaged Power Cords increase the risk of electric shock.

### **PERSONAL SAFETY**

1. **Stay alert. Watch what you are doing, and use common sense when operating power tools. Do not use electrically powered products while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating these products may result in serious personal injury.
2. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control in unexpected situations.
3. **Use safety equipment when using this product. Wear ANSI-approved safety goggles.** Always wear ANSI-approved safety goggles when performing maintenance on this tool.

### **TOOL USE AND CARE**

1. **Do not force this tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed. Do not force the tool and do not use this tool for a purpose for which it is not intended.
2. **Disconnect the tool's Power Plug from the power source before making any adjustments, changing accessories, or storing this tool.** Such preventive safety measures reduce the risk of starting the product accidentally. **Always unplug the Power Plug from its electrical outlet before performing any inspection, maintenance, or cleaning procedures.**
3. **Store idle tools out of reach of children and other untrained persons.** Electrically powered tools are dangerous in the hands of untrained users.
4. **Maintain this tool with care. Keep this tool clean.** Properly maintained tools are less likely to malfunction and are easier to control. Do not use a damaged tool. Tag damaged tools "Do not use" until repaired.
5. **Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect this tool's operation. If damaged, have the tool serviced before using.** Many accidents are caused by poorly maintained tools.
6. **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool may become hazardous when used on another tool.

### **SERVICE**


1. **Product service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
2. **When servicing a product, use only identical replacement parts. Follow instructions in the "Inspection, Maintenance, And Cleaning" section of this manual.** Use of unauthorized parts or failure to follow maintenance instructions may create a risk of electric shock or injury.

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## SPECIFIC SAFETY RULES

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1. **Maintain labels and nameplates on the the Close Quarter Drill.** These carry important information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
2. **Maintain a safe working environment.** Keep the work area well lit. Make sure there is adequate surrounding workspace. Always keep the work area free of obstructions, grease, oil, trash, and other debris. Do not use a power tool in areas near flammable chemicals, dusts, and vapors. Do not use this product in a damp or wet location.
3. **Always hold the tool by its insulated gripping surfaces when performing an operation where the drill bit may contact hidden wiring or its own cord.** Contact with a “live wire” will make exposed metal parts of the tool “live” and shock the operator.
4.  **Always wear ANSI-approved safety impact eye goggles and a full face shield when operating this product.**
5. **Do not reach under or behind the material being drilled**
6. **Make sure the workpiece is free of nails and any other foreign objects which can damage a drill bit.**
7. **Maintain a firm grip with both hands on the Close Quarter Drill, and position your body and arm to allow you to resist torque forces.**
8. **Do not use dull or damaged drill bits.** Unsharpened or damaged drill bits cause excessive friction and binding.
9. **Use caution when drilling into existing walls or other blind areas.** Check for unexposed electrical wires and cable in the drilling path before drilling.
10. **Industrial applications must follow OSHA requirements.**
11. **Use the right tool or attachment for the job.** Do not attempt to force a small tool or attachment to do the work of a larger industrial tool or attachment. There are certain applications for which this product was designed. It will do the job better and more safely at the rate for which it was intended. Do not modify this product, and do not use this product for a purpose for which it was not intended.
12. **Always turn off the Close Quarter Drill and unplug the Power Plug from its electrical outlet before changing accessories or performing inspection, maintenance, or cleaning procedures.**
13. **▲WARNING!** People with pacemakers should consult their physician(s) before use. Electromagnetic fields in close proximity to a heart pacemaker could cause pacemaker interference or pacemaker failure. In addition, people with pace makers should:
  - Avoid operating alone.
  - Do not use with Power Switch locked on.
  - Properly maintain and inspect to avoid electrical shock.
  - Any power cord must be properly grounded. A Ground Fault Circuit Interrupter (GFCI) should also be implemented as it prevents sustained electric shock.
14. **▲WARNING!** Some dust created by power sanding, sawing, grinding, drilling, and other construction activities, contains 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 paints
  - Crystalline silica from bricks and cement or other masonry products
  - Arsenic and chromium from chemically treated lumber

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles. (California Health & Safety Code § 25249.5, *et seq.*)

15. **⚠WARNING!** The cord of this product contains lead and/or di (2-ethylhexyl) phthalate (DEHP), chemicals known to the State of California to cause cancer, and birth defects or other reproductive harm. Wash hands after handling. (California Health & Safety Code § 25249.5, *et seq.*)
16. **⚠WARNING!** The warnings, precautions, and instructions discussed in this manual cannot cover all possible conditions and situations that may occur. The operator must understand that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

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## **GROUNDING**

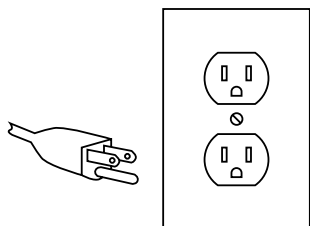
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### **⚠WARNING!**

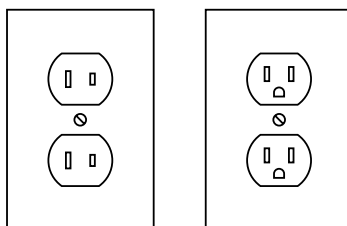
**Improperly connecting the grounding wire can result in the risk of electric shock. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. Do not modify the Power Plug provided with this product. Never remove the grounding prong from the Plug. Do not use this product 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.**

### **GROUNDED TOOLS: TOOLS WITH THREE PRONG PLUGS**

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 product. 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. Your product 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 following illustration. **(See 3-Prong Plug and Outlet, next page.)**



**3-Prong Plug and Outlet**



**Outlets for 2-Prong Plug**

## DOUBLE INSULATED TOOLS: TOOLS WITH TWO PRONG PLUGS

1. Tools marked "Double Insulated" do not require grounding. They have a special double insulation system which satisfies OSHA requirements and complies with the applicable standards of Underwriters Laboratories, Inc., the Canadian Standard Association, and the National Electrical Code. **(See Outlets for 2-Prong Plug.)**
2. Double insulated tools may be used in either of the 120 volt outlets shown in the preceding illustration. **(See Outlets for 2-Prong Plug.)**




## EXTENSION CORDS

1. Grounded products 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 product damage. **(See Table A.)**
3. 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.)**
4. 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.)**
5. If you are using one extension cord for more than one product, add the nameplate amperes and use the sum to determine the required minimum cord size. **(See Table A.)**
6. Make sure your 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 your extension cords from sharp objects, excessive heat, and damp or wet areas.

<b>RECOMMENDED MINIMUM WIRE GAUGE FOR EXTENSION CORDS*</b> (120 OR 240 VOLT)					
<b>NAMEPLATE AMPERES (at full load)</b>	<b>EXTENSION CORD LENGTH</b>				
	<b>25 Feet</b>	<b>50 Feet</b>	<b>75 Feet</b>	<b>100 Feet</b>	<b>150 Feet</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	-	-	-

**TABLE A**      \* Based on limiting the line voltage drop to five volts at 150% of the rated amperes.

## SYMBOLOLOGY

	Double Insulated	<b>VAC</b>	Volts Alternating Current
	Canadian Standards Association	<b>A</b>	Amperes
	Underwriters Laboratories, Inc.	$n_0$ xxxx/min.	No Load Revolutions per Minute (RPM)

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## UNPACKING

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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.

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## PRODUCT FEATURES

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

**⚠WARNING!** Make sure the Close Quarter Drill is unplugged from its electrical outlet before making any adjustments to the tool.



**FIGURE A**

1. **Drill Chuck (3):** The Close Quarter Drill is equipped with a 3/8" keyless Drill Chuck that will accept drill bits (not included) with a 1/16" to 3/8" diameter shank. To install a drill bit, press down on the Self-Locking Pin (11). Turn the Drill Chuck (3) counterclockwise until the opening is large enough to accept the shank of a drill bit. Insert the drill bit and turn the Drill Chuck clockwise until it is locked on the drill bit. Reverse this procedure to remove the drill bit. **(See Figure A.)**
2. **Forward/Reverse Switch (33):** The Forward/Reverse Switch is used to select the desired rotation of the Drill Chuck (3). For a clockwise rotation, move the Switch to the left. For a counterclockwise rotation, move the Switch to the right. Use the Forward/Reverse Switch only after the Close Quarter Drill has come to a complete stop. **(See Figure A.)**
3. **Power Switch (32):** To start the Close Quarter Drill, plug the Power Cord (44) into the nearest 120 volt, grounded electrical outlet. Then squeeze the Power Switch. The Power Switch features variable speeds, meaning the harder you squeeze the Switch the faster the Drill Chuck will rotate (from 0 to 1500 RPM). To stop the tool, release pressure on the Power Switch. The Power Switch also features a Power Switch Lock. For continuous running of the tool, squeeze the Power Switch and then depress the Power Switch Lock. To release the Power Switch Lock, briefly squeeze and let up on the Power Switch. **(See Figure A.)**

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## OPERATING INSTRUCTIONS

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1. Use caution when drilling into existing walls or other blind areas. Check for unexposed electrical wires and cables in the drilling path before drilling.
2. Use the Forward/Reverse Switch (33) to select the desired rotation of the Drill Chuck (3). **(See Figure A.)**
3. Secure a drill bit in the Drill Chuck (3). **(See Figure A.)**
4. Make sure the Power Switch (32) is in its “OFF” position. Then plug the Power Cord (44) into the nearest 120 volt, grounded electrical outlet. **(See Figure A.)**
5. Before drilling, clamp the object down securely. A poorly secured piece of material may result in personal injury and/or inaccurate drilling.
6. Mark the center of the hole to be drilled with a center punch to prevent the drill bit from “walking” when first beginning to drill.
7. **Hold the Close Quarter Drill firmly with both hands.**
8. Position the drill bit on the material that is to be drilled.
9. To begin drilling, squeeze the Power Switch (32). **(See Figure A.)**
10. If desired, activate the Power Switch Lock to set the Close Quarter Drill in a continuous run mode. **(See Figure A.)**
11. Avoid overloading the Close Quarter Drill. Do not apply excessive pressure on the Drill while drilling. If the speed drops abnormally, decrease the pressure immediately. If the drill bit stops abruptly, or the drill bit becomes stuck, release pressure on the Power Switch (32) at once. **(See Figure A.)**
12. Drill only as deep as is necessary. Do not drill deeper than necessary into walls or other areas where you cannot identify any possible hazards behind the drilling surface.
13. To reduce jamming as the drill bit breaks through the workpiece, decrease the drilling pressure when the point of the drill bit breaks through the workpiece.
14. When you have drilled the hole, remove the drill bit from the hole while the Drill Chuck (3) is still rotating. This prevents the drill bit from getting caught in the hole and causing damage. **(See Figure A.)**
15. Release pressure on the Power Switch (32) to stop the Close Quarter Drill. **(See Figure A.)**
16. Unplug the Power Cord (44) from its electrical outlet.
17. Remove the drill bit from the Drill Chuck (3). **(See Figure A.)**
18. Make sure to store the Close Quarter Drill in a clean, dry, safe location out of reach of children and other unauthorized people.



## INSPECTION, MAINTENANCE, AND CLEANING

1. **⚠WARNING!** Make sure the Power Cord (44) of the Close Quarter Drill is unplugged from its electrical outlet before performing any inspection, maintenance, or cleaning procedures.
  
2. **BEFORE EACH USE:** Inspect the general condition of the Close Quarter Drill. Check for loose screws, misalignment or binding of moving parts, cracked or broken parts, damaged electrical wiring, and any other condition that may affect its safe operation. If a problem occurs, have the problem corrected before further use. **Do not use damaged equipment.**
  
3. **TO CLEAN OR REPLACE THE CARBON BRUSHES:** Clean or replace the Carbon Brushes (37) when the motor performance of the tool decreases or stops working completely. The Carbon Brushes are located on each lower side of the Motor Housing (34). Remove the Brush Cap (36) on each side of the tool. Then, remove the Carbon Brushes from their Brush Holders (38), keep track of which orientation the old carbon brushes were in. If the Carbon Brushes are just dirty, they may be cleaned by rubbing them with a pencil eraser. If the Carbon Brushes are worn down by more than 1/2, replace both Carbon Brushes. When installing the Carbon Brushes, make sure the carbon portions of the Carbon Brushes contact the motor armature, and that the springs face away from the motor. Also, make sure the springs operate freely. After cleaning or replacement, replace the Brush Caps (36).  
**NOTE:** New Carbon Brushes tend to “arc” or spark when first used until they wear and conform to the motor’s armature.
  
4. **⚠CAUTION:** All maintenance, service, or repairs not mentioned in this manual must only be performed by a qualified service technician.

## TROUBLESHOOTING

Problem	Possible Causes	Probable Solutions
Motor of Drill does not operate, or runs in one direction only.	<ol style="list-style-type: none"> <li>1. No power at outlet.</li> <li>2. Defective Power Switch.</li>   <li>3. Forward/Reverse Switch not properly set.</li>   <li>4. Forward/Reverse Switch defective.</li>   <li>5. Carbon Brushes dirty or defective.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check power at outlet.</li> <li>2. Have a qualified service technician repair/replace Power Switch.</li> <li>3. For forward rotation, move Switch to left. For reverse rotation, move Switch to right.</li> <li>4. Have a qualified service technician repair/replace Forward/Reverse Switch.</li> <li>5. Clean or replace Carbon Brushes.</li> </ol>
Poor quality cut.	<ol style="list-style-type: none"> <li>1. Dull Drill Bit.</li> <li>2. Applying too much pressure on Drill.</li> </ol>	<ol style="list-style-type: none"> <li>1. Use sharp Drill Bit.</li> <li>2. Apply less pressure on Drill.</li> </ol>

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## PARTS LIST

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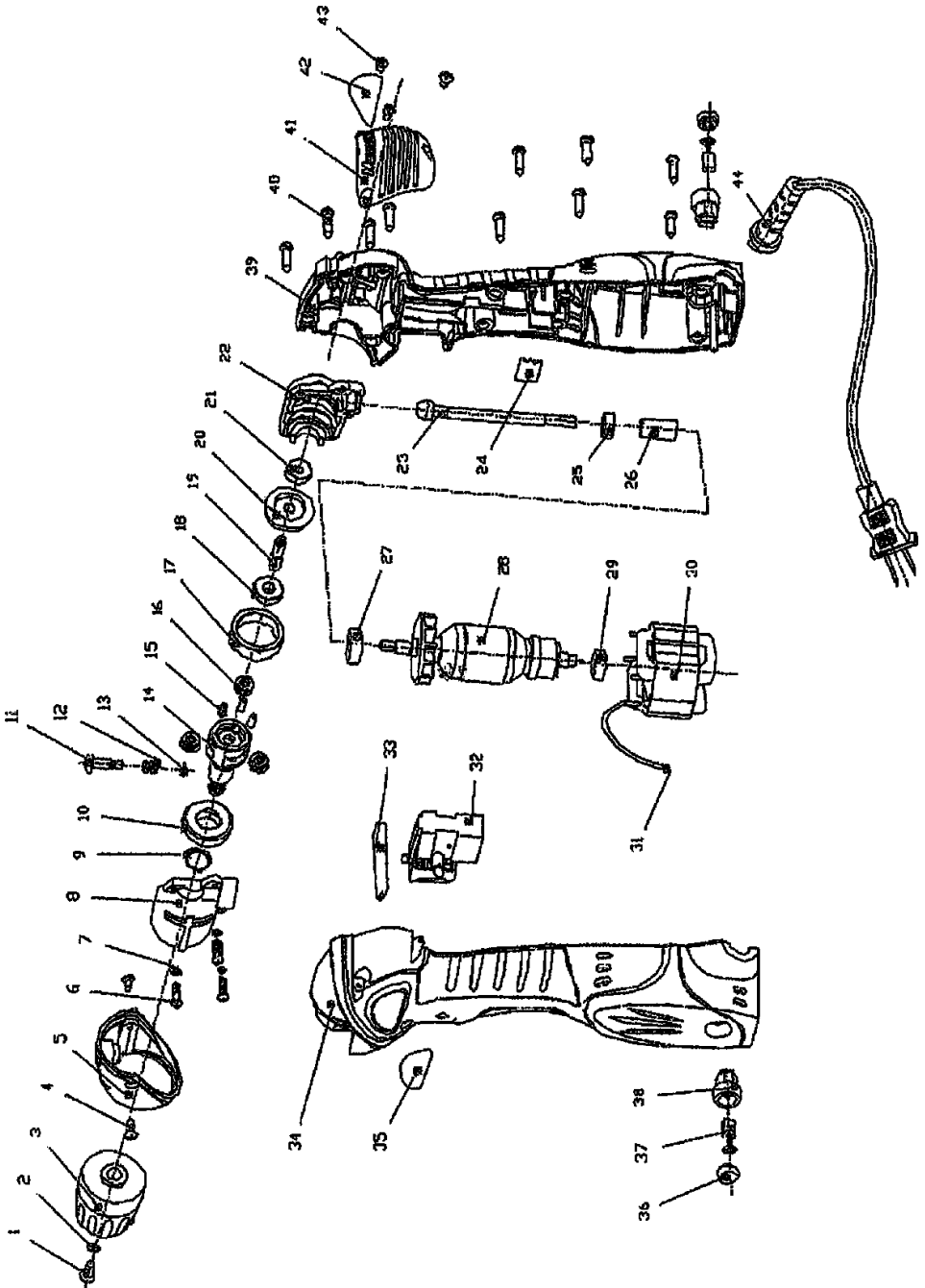
Part #	Description	Part #	Description
1	Screw (M5 x 20)	23	Gear Shaft (Z1)
2	Spring Washer (5)	24	Block Plate
3	Drill Chuck	25	Bearing (607)
4	Screw (ST4.2 x 8)	26	Link Bushing
5	Front Cover Housing	27	Bearing (608)
6	Screw (M4 x 14)	28	Rotor
7	Spring Washer (4)	29	Bearing (607)
8	Gear Box Cover	30	Stator
9	Circlip	31	Insert
10	Bearing (6002)	32	Power Switch
11	Self-Locking Pin	33	Forward/Reverse Switch
12	Self-Locking Pin Spring	34	Motor Housing (Left)
13	Split Washer (6)	35	Nameplate (Left)
14	Spindle	36	Brush Cap
15	Pin	37	Carbon Brush
16	Gear (Z4)	38	Brush Holder
17	Gear (Z5)	39	Motor Housing (Right)
18	Bearing (607)	40	Screw (ST4.2 x 18)
19	Gear Shaft (Z3)	41	Enclosure Rear Cover
20	Gear (Z2)	42	Nameplate (Right)
21	Bearing (625)	43	Screw (ST3.5 x 10)
22	Gearbox	44	Power Cord

**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.

# ASSEMBLY DIAGRAM



## 90 Day Warranty

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 this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, 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.

**CHICAGO  ELECTRIC®  
POWER TOOLS**

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