

# iron ton™

## 107-PC. ROTARY TOOL KIT

### Owner's Manual



**WARNING:** Read carefully and understand all ASSEMBLY AND OPERATION INSTRUCTIONS before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury.

Item # 4975139

**READ & SAVE THESE INSTRUCTIONS**

Thank you very much for choosing an Ironton™ product!

For future reference, please complete the owner's record below:

Serial Number/Lot Date Code: \_\_\_\_\_

Purchase Date: \_\_\_\_\_

Save the receipt, warranty, and this manual. It is important that you read the entire manual to become familiar with this product before you begin using it.


This rotary tool is designed for certain applications only. Northern Tool and Equipment is not responsible for issues arising from modification or improper use of this product such as an application for which it was not designed. We strongly recommend that this product not be modified and/or used for any application other than that for which it was designed.

For technical questions, please call **1-866-915-8626**.

## SPECIFICATIONS

Voltage rating	120V~60Hz
Power	1.0A
No load speed	10000-35000/min
Speed Selection	6 Speeds selection
Machine Weight:	4.05 pounds
Attachments	Flex Shaft, 107Pcs Accessories

## SAFETY SYMBOLS

Safety Symbols	
The definitions below describe the level of severity for each signal word. Please read the manual and pay attention to these symbols.	
	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 indicates a hazardous situation which, if not avoided, will result in death or serious injury.
	WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.
	CAUTION, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, will result in minor or moderate injury.

## GENERAL POWER TOOL SAFETY WARNINGS

Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

### **SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE.**

The term “power tool” in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

### **Work area safety**

- 1.Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- 2.Do not operate power tools 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.
- 3.Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

### **Electrical safety**

- 1.Power tool plugs must match the outlet. Never modify the plug in any way.
- 2.Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.

## **GENERAL POWER TOOL SAFETY WARNINGS**

1. Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
2. Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
  - 1) 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.
  - 2) When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.
  - 3) If operating a power tool in a damp location is unavoidable, use a Ground Fault Circuit Interrupter (GFCI) protected supply. Use of an GFCI reduces the risk of electric shock.

### **Personal safety**

1. Stay alert, watch what you are doing and use common sense when operating a power tool. 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.
2. Use personal protective equipment. Always wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
3. Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and / or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.
4. 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.
5. Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.

## **GENERAL POWER TOOL SAFETY WARNINGS**

6. 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.
7. If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.

### **Power tool use and care**

1. Do not force the power tool. 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.
2. Do not use the power tool 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.
3. Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
4. Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
5. Maintain power tools. 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 power tool repaired before use. Many accidents are caused by poorly maintained power tools.
6. Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
7. Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.

### **Service**

Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

## SAFETY RULES FOR ROTARY TOOLS

1. Safety warnings common for grinding, sanding, wire brushing, polishing, carving or abrasive cutting-off operations:
2. This power tool is intended to function as a grinder, sander, wire brush, polisher, carving or cut-off tool. Read **all** safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to **follow all** instructions listed below may result in electric shock, fire and/or serious injury. Do not use accessories which are not specifically designed and recommended by the tool manufacturer. Just because the accessory can be attached to your power tool, it does not assure safe operation.
3. The RATED SPEED of the accessories must be at least equal to the operating speed setting marked on the power tool. Accessories running faster than their RATED SPEED can break and fly apart.
4. The outside diameter and the thickness of your accessory must be within the capacity rating of your power tool. Incorrectly sized Accessories cannot be adequately guarded or controlled
5. The arbor size of wheels, sanding drums or any other accessory must properly fit the spindle or collet of the power tool. Accessories that do not match the mounting hardware of the power tool will run out of balance, vibrate excessively and may cause loss of control.
6. Mandrel mounted wheels, sanding drums, cutters or other accessories must be fully inserted into the collet or chuck. If the mandrel is insufficiently held and/or the overhang of the wheel is too long, the mounted wheel may become loose and be ejected at high velocity.
7. Do not use a damaged accessory. Before each use inspect the accessory such as abrasive wheels for chips and cracks, sanding drum for cracks, tear or excess wear, wire brush for loose or cracked wires. If power tool or accessory is dropped, inspect for damage or install an undamaged accessory. After inspecting and installing an accessory, position yourself and bystanders away from the plane of the rotating accessory and run the power tool at maximum no-load speed for one minute. Damaged accessories will normally break apart during this test time.

## SAFETY RULES FOR ROTARY TOOLS-(CONT.)

8. Wear personal protective equipment. Depending on application, use face shield, safety goggles or safety glasses. As appropriate, wear dust mask, hearing protectors, gloves and workshop apron capable of stopping small abrasive or work piece fragments. The eye protection must be capable of stopping flying debris generated by various operations. The dust mask or respirator must be capable of filtering particles generated by your operation. Prolonged exposure to high intensity noise may cause hearing loss.
9. Keep bystanders a safe distance away from work area. Anyone entering the work area must wear personal protective equipment. Fragments of work piece or of a broken accessory may fly away and cause injury beyond immediate area of operation.
10. Hold the power tool by insulated gripping surfaces only, when performing an operation where the cutting accessory may contact hidden wiring or its own cord.
11. Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
12. Always hold the tool firmly in your hand(s) during the start-up. The reaction torque of the motor, as it accelerates to full speed, can cause the tool to twist.
13. Use clamps to support work piece whenever practical. Never hold a small work piece in one hand and the tool in the other hand while in use. Clamping a small work piece allows you to use your hand(s) to control the tool. Round material such as dowel rods, pipes or tubing have a tendency to roll while being cut, and may cause the bit to bind or jump toward you.
14. Position the cord clear of the spinning accessory. If you lose control, the cord may be cut or snagged and your hand or arm may be pulled into the spinning accessory.
15. Never lay the power tool down until the accessory has come to a complete stop. The spinning accessory may grab the surface and pull the power tool out of your control.
16. After changing the bits or making any adjustments, make sure the collet nut, chuck or any other adjustment devices are securely tightened. Loose adjustment devices can unexpectedly shift, causing loss of control, loose rotating components will be violently thrown.
17. Do not run the power tool while carrying it at your side. Accidental contact with the spinning accessory could snag your clothing, pulling the accessory into your body.

## SAFETY RULES FOR ROTARY TOOLS-(CONT.)

18. Regularly clean the power tool's air vents. The motor's fan will draw the dust inside the housing and excessive accumulation of powdered metal may cause electrical hazards.
19. Do not operate the power tool near flammable materials. Sparks could ignite these materials.
20. Do not use accessories that require liquid coolants. Using water or other liquid coolants may result in electrocution or shock.
21. Use only in well-ventilated area. Working in a safe environment reduces risk of injury.
22. Allow for sufficient space, at least 6", between your hand and the spinning bit. Do not reach in the area of the spinning bit. The proximity of the spinning bit to your hand may not always be obvious.
23. Do not touch the bit or collet after use. After use the bit and collet are too hot to be touched by bare hands.
24. Do not alter or misuse tool. Any alteration or modification is a misuse and may result in serious personal injury.
25. This product is not intended for use as a dental drill, in human or veterinary medical applications. Serious injury may result.

### **Kickback and Related Warnings.**

1. Kickback is a sudden reaction to a pinched or snagged rotating wheel, backing pad, brush or any other accessory. Pinching or snagging causes rapid stalling of the rotating accessory which in turn causes the uncontrolled power tool to be forced in the direction opposite of the accessory's rotation.
2. For example, if an abrasive wheel is snagged or pinched by the work piece, the edge of the wheel that is entering into the pinch point can dig into the surface of the material causing the wheel to climb out or kick out. The wheel may either jump toward or away from the operator, depending on direction of the wheel's movement at the point of pinching. Abrasive wheels may also break under these conditions.
3. Kickback is the result of power tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.

## SAFETY RULES FOR ROTARY TOOLS-(CONT.)

Maintain a firm grip on the power tool and position your body and arm to allow you to resist kickback forces. The operator can control kickback forces, if proper precautions are taken.

4. Use special care when working corners, sharp edges etc. Avoid bouncing and snagging the accessory. Corners, sharp edges or bouncing have a tendency to snag the rotating accessory and cause loss of control or kickback.

5. Do not attach a toothed saw blade. Such blades create frequent kickback and loss of control.

6. Always feed the bit into the material in the same direction as the cutting edge is exiting from the material (which is the same direction as the chips are thrown). Feeding the tool in the wrong direction causes the cutting edge of the bit to climb out of the work and pull the tool in the direction of this feed.

7. When using rotary files, cut-off wheels, high-speed cutters or tungsten carbide cutters, always have the work securely clamped. These wheels will grab if they become slightly canted in the groove, and can kickback. When a cut-off wheel grabs, the wheel itself usually breaks. When a rotary file, high-speed cutter or tungsten carbide cutter grabs, it may jump from the groove and you could lose control of the tool.

### **Safety warnings specific for grinding and abrasive cutting-off operations:**

1. Use only wheel types that are recommended for your power tool and only for recommended applications. For example: do not grind with the side of a cut-off wheel. Abrasive cut-off wheels are intended for peripheral grinding, side forces applied to these wheels may cause them to shatter.

2. For threaded abrasive cones and plugs use only undamaged wheel mandrels with an unrelieved shoulder flange that are of correct size and length. Proper mandrels will reduce the possibility of breakage.

3. Do not "jam" a cut-off wheel or apply excessive pressure. Do not attempt to make an excessive depth of cut. Over stressing the wheel increases the loading and susceptibility to twisting or snagging of the wheel in the cut and the possibility of kickback or wheel breakage.

## **SAFETY RULES FOR ROTARY TOOLS-(CONT.)**

4. Do not position your hand in line with and behind the rotating wheel. When the wheel, at the point of operation, is moving away from your hand, the possible kickback may propel the spinning wheel and the power tool directly at you.

5. When wheel is pinched, snagged or when interrupting a cut for any reason, switch off the power tool and hold the power tool motionless until the wheel comes to a complete stop. Never attempt to remove the cut-off wheel from the cut while the wheel is in motion otherwise kickback may occur. Investigate and take corrective action to eliminate the cause of wheel pinching or snagging.

6. Do not restart the cutting operation in the work piece. Let the wheel reach full speed and carefully re-enter the cut. The wheel may bind, walk up or kickback if the power tool is restarted in the work piece.

7. Support panels or any oversized work piece to minimize the risk of wheel pinching and kickback. Large work pieces tend to sag under their own weight. Supports must be placed under the work piece near the line of cut and near the edge of the work piece on both sides of the wheel.

8. Use extra caution when making a "pocket cut" into existing walls or other blind areas. The protruding wheel may cut gas or water pipes, electrical wiring or objects that can cause kickback.

### **Safety warnings specific for wire brushing operations:**

1. Be aware that wire bristles are thrown by the brush even during ordinary operation

2. Do not over stress the wires by applying excessive load to the brush. The wire bristles can easily penetrate light clothing and/or skin.

3. Allow brushes to run at operating speed for at least one minute before using them. During this time no one is to stand in front or in line with the brush. Loose bristles or wires will be discharged during the run-in time.

4. Direct the discharge of the spinning wire brush away from you. Small particles and tiny wire fragments may be discharged at high velocity during the use of these brushes and may become imbedded in your skin.

## SAFETY RULES FOR ROTARY TOOLS-(CONT.)

GFCI and personal protection devices like electricians rubber gloves and footwear will further enhance your personal safety.

### Safety warnings specific for operations:

1. Do not use AC only rated tools with a DC power supply. While the tool may appear to work, the electrical components of the AC rated tool are likely to fail and create a hazard to the operator.
2. Keep handles dry, clean and free from oil and grease. Slippery hands cannot safely control the power tools
3. Use clamps or other practical way to secure and support the work piece to a stable platform.
4. Holding the work by hand or against your body is unstable and may lead to loss of control.
5. Develop a periodic maintenance schedule for your tool. When cleaning a tool be careful not to disassemble any portion of the tool since internal wires may be misplaced or pinched or safety guard return springs may be improperly mounted. Certain cleaning agents such as gasoline, carbon tetrachloride, ammonia, etc. may damage plastic parts.
6. Risk of injury to user. The power cord must only be serviced by a Dremel Service Facility .

## ADDITIONAL SAFETY WARNING



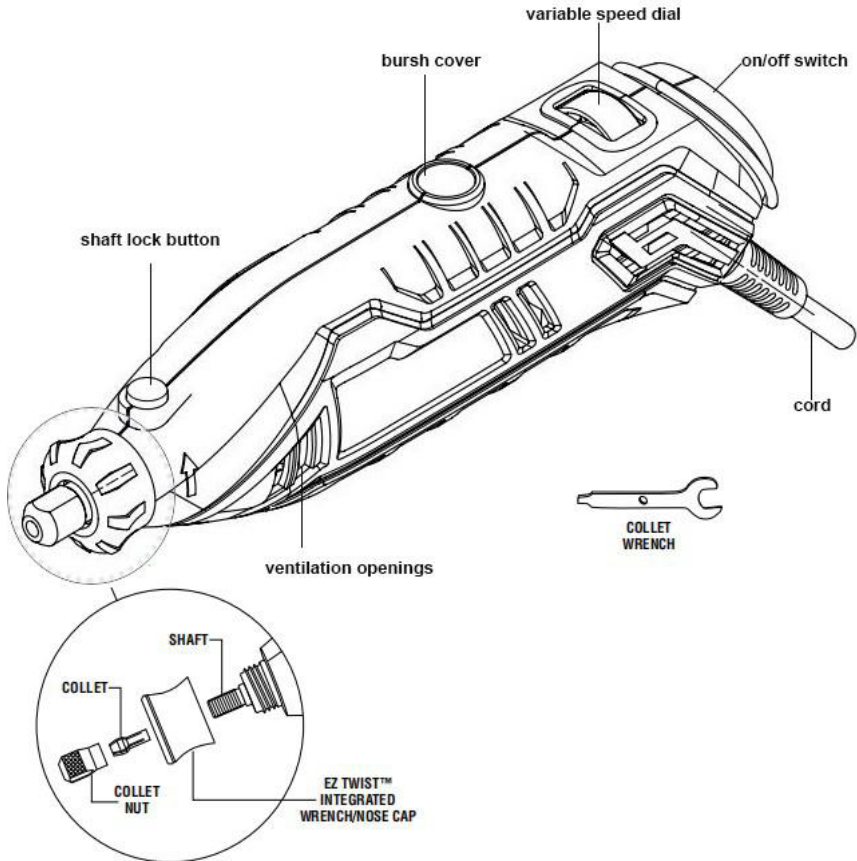
Some dust created by power sanding, Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

1. Crystalline silica from bricks and cement and other masonry products, and arsenic and chromium from chemically treated lumber.
2. Lead from lead-based paints, 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 particle.

## FUNCTIONAL DESCRIPTION AND SPECIFICATIONS



Disconnect the plug from the power source before making any assembly, adjustments or changing accessories. Such preventive safety measures reduce the risk of starting the tool accidentally.



### AEDG128 ROTARY TOOL

## ASSEMBLY

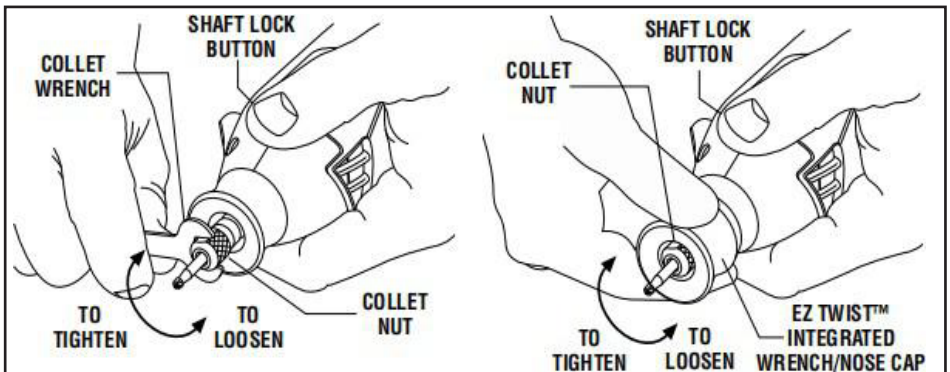


Always unplug rotary tool before changing accessories, changing collets or servicing your rotary tool.

To loosen, first press shaft lock button and rotate the shaft by hand until the lock engages the shaft preventing further rotation. The Rotary tool is equipped with a quick collet lock mechanism. This mechanism engages the output shaft in 8 separate locations on the shaft for easier operation.

**CAUTION: Do not engage lock while the Rotary Tool is running.**

With the shaft lock engaged use the collet wrench to loosen the collet nut if necessary. The collet nut must be loosely threaded on when inserting an accessory. Change accessories by inserting the new one into the collet as far as possible to minimize run out and unbalance. With the shaft lock engaged, finger tighten the collet nut until the accessory shank is gripped by the collet. Avoid excessive tightening of the collet nut when there is no bit inserted.

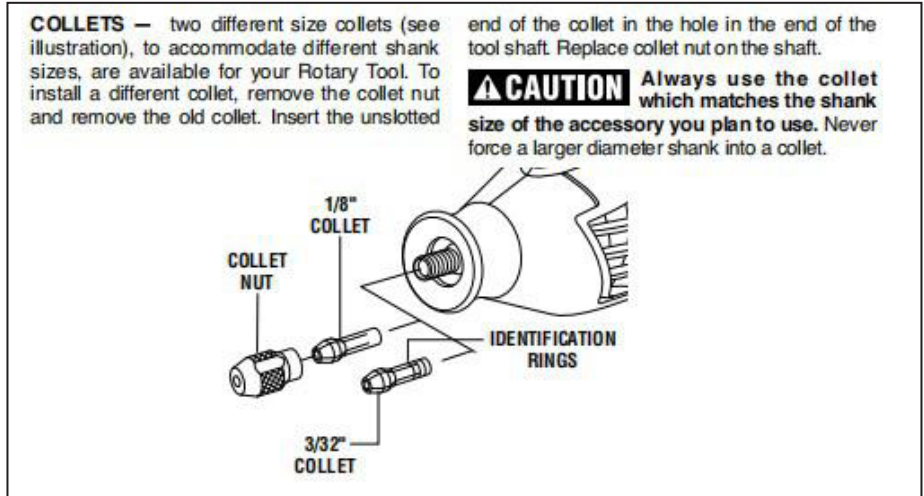


**TIGHTEN LOOSEN WRENCH/NOSE CAP**

## ASSEMBLY

### INTEGRATED WRENCH/NOSE CAP

The nose cap of your tool has an integrated wrench allowing you to loosen and tighten the collet nut without the use of the standard collet wrench. Unscrew the nose cap from the tool, line-up steel insert on inside of cap with collet nut. With the shaft lock engaged twist nose cap clockwise to tighten, and counter-clockwise to loosen



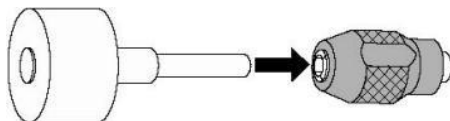
### BALANCING ACCESSORIES

For precision work, it is important that all accessories be in good balance (much the same as the tires on your automobile). To true up or balance an accessory, slightly loosen collet nut and give the accessory or collet a 1/4 turn. Retighten collet nut and run the Rotary Tool. You should be able to tell by the sound and feel if your accessory is running in balance. Continue adjusting in this fashion until best balance is achieved. To maintain balance on abrasive wheel points, before each use, with the wheel point secured in the collet, turn on the Rotary Tool and run the Dressing Stone lightly against the revolving wheel point. This removes high spots and trues up the wheel point for good balance.

## ASSEMBLY

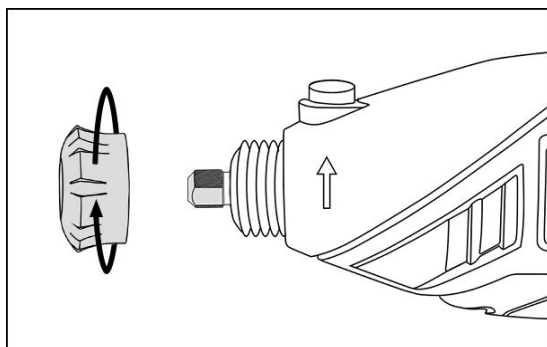
### FIXING STUCK COLLETS

It is possible for a collet to get stuck within the collet nut especially if a collet nut is tightened onto the tool without a bit in place. If this happens, the collet can be removed from the collet nut by pushing the shank of an accessory into the hole in the collet nut. This should cause the collet to pop out of the collet nut.

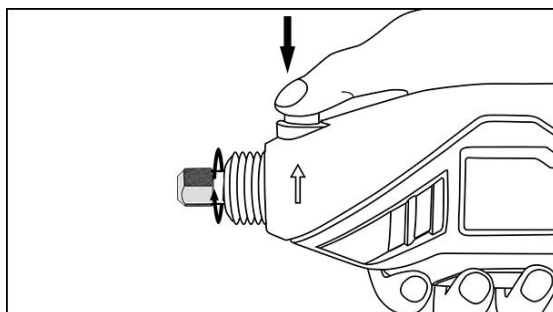


## INSTALLATION DIAGRAM OF FLEXIBLE DRIVER

1. Remove the cap from the rotary tool.

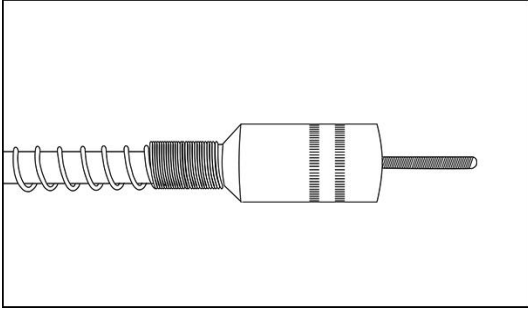


2. Depress the lock button while rotate and loosen the collet nut.

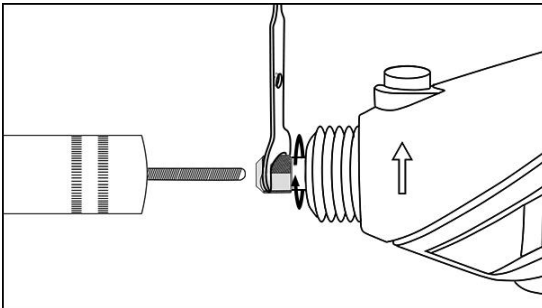


## INSTALLATION DIAGRAM OF FLEXIBLE DRIVER

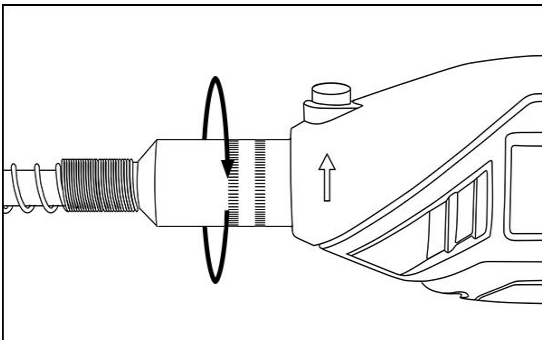
3. Raise the end of the flexible shaft & shake gently until the inner flexible shaft protrudes.



4. Insert the inner flexible shaft into the collet and tighten the collet nut with the wrench.

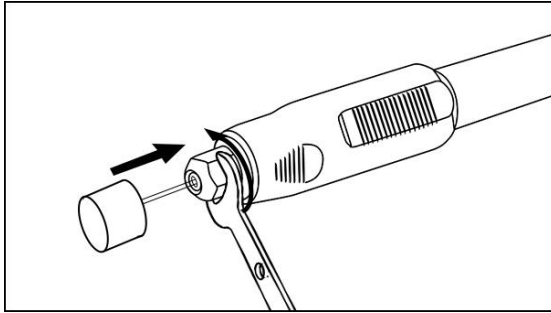


5. Screw the flexible shaft fitting collar onto the rotary tool.

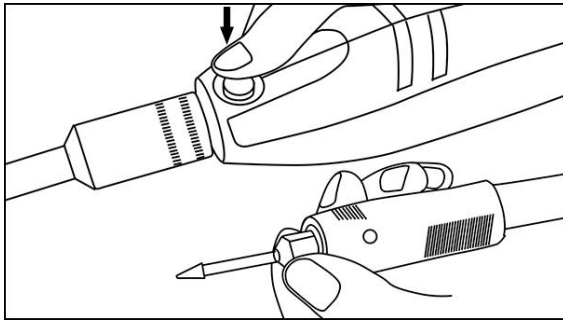


## INSTALLATION DIAGRAM OF FLEXIBLE DRIVER

6. Loosen the collet nut of the flex shaft and insert accessory.



7. Depress the lock button while rotating collet nut clockwise to tighten bits



Tighten collet nut and check all fittings to ensure they are securely fastened.

## OPERATING INSTRUCTIONS

### Rotary Tool Introduction

1. The Rotary Tool has a small, powerful electric universal motor, is comfortable in the hand, and is made to accept a large variety of accessories including abrasive wheels, drill bits, wire brushes, polishers, engraving cutters, router bits, cutting wheels and attachments. Accessories come in a variety of shapes and permit you to do a number of different jobs. As you become familiar with the range of accessories and their uses, you will learn just how versatile the Rotary Tool is. You'll see dozens of uses you hadn't thought of before.

## OPERATING INSTRUCTIONS

2. The real secret of the Rotary Tool is its speed. To understand the advantages of its high speed, you have to know that the standard portable electric drill runs at speeds up to 2,800 revolutions per minute. The Rotary Tool operates at speeds up to 32,000 revolutions per minute. The typical electric drill is a low-speed, high torque tool; the Rotary Tool is just the opposite – a high-speed, low torque tool. The major difference to the user is that in the high speed tools, the speed combined with the accessory mounted in the collet does the work. You don't apply pressure to the tool, but simply hold and guide it. In the low speed tools, you not only guide the tool, but also apply pressure to it, as you do, for example, when drilling a hole.

3. It is this high speed, along with its compact size and wide variety of special accessories and attachments, that makes the Rotary Tool different from other tools.

The speed enables it to do jobs low speed tools cannot do, such as cutting hardened steel, engraving glass, etc.

### Using the Rotary Tool

The first step in learning to use the rotary tool list to get the "feel" of it. Hold it in your hand and feel its weight and balance. Feel the taper of the housing. This taper permits the Rotary Tool to be grasped much like a pen or pencil. To select the right speed for each job, use a practice piece of material.

## OPERATING SPEEDS

**NOTE: Speed is affected by voltage changes. A reduced incoming voltage will slow the RPM of the tool.**

### SLIDE "ON/OFF" SWITCH

The tool is switched "ON" by the slide switch located on the top side of the motor housing.

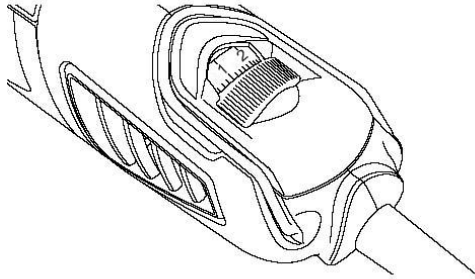
TO TURN THE TOOL "ON", slide the switch button forward.

TO TURN THE TOOL "OFF", slide the switch button backward.

### VARIABLE SPEED DIAL

Your tool is equipped with a variable speed dial. The speed may be adjusted during operation by presetting the dial on or between any one of the settings.

The speed of Rotary Tool is controlled by setting this dial on the housing.



Settings for Approximate Revolutions.

Note: Each number settings listed in the speed charts = x1,000RPMs

Speed setting for rotary accessories

Function	Accessories Description	Soft wood	Hard wood	plastic	Steel	Aluminum, Brass, etc.	Shell, stone	Ceramic	Glass
Drilling	Drill Bits	25-30	25-30	15-30	/	/	/	/	/
Polished Deburr	Grinding wheel	/	15-22	15-22	25-32	15-22	15-22	20-32	/
	Diamond Grinding Needle	/	/	/	/	/	/	25-32	25-32
	Sanding Band	10-30	10-30	10-30	10-30	10-30	25-32	10-30	/
Polishing	Wool felt wheel	/	/	/	12-17	12-17	12-20	12-17	12-17
Engraving	Engraving cutters	25-35	25-35	12-20	/	/	/	/	/
Cleaning	Stainless brush	10-15	10-15	/	10-15	10-15	/	/	/
Cutting	Cut off wheel	/	/	15-22	25-32	25-32	25-32	/	/
	Cut off Wheels fiberglass	/	/	15-22	25-32	25-32	25-32	/	/
	Diamond cutting disc	/	/	/	/	/	25-32	25-32	/
	Spiral Cutting bit	Cut through original pines, for best result, use at 30,000 rpm							

## **MAINTENANCE INFORMATION**

To avoid injury from unexpected starting or electrical shock, always remove plug from wall outlet before performing service or cleaning. To maintain peak efficiency of the motor, we recommend every 40- 50 hours the brushes be examined.

### **MAINTENANCE OF REPLACEABLE BRUSHES**

The brushes should be inspected frequently when tools are used continuously. If your tool runs sporadically, loses power, makes unusual noises or runs at a reduced speed, check the brushes. unexpected starting or electrical shock, always remove plug from wall outlet before performing service or cleaning.

### **CARBON BRUSHES**





















The brushes and commutator in your tool have been engineered for many hours of dependable service.

In order to prepare your brushes for use, run your tool at full speed for 5 minutes under no load. This will properly “seat” your brushes, which extends the life of both your brushes and your tool.

**CAUTION: To continue using the tool in this condition will permanently damage your tool.**

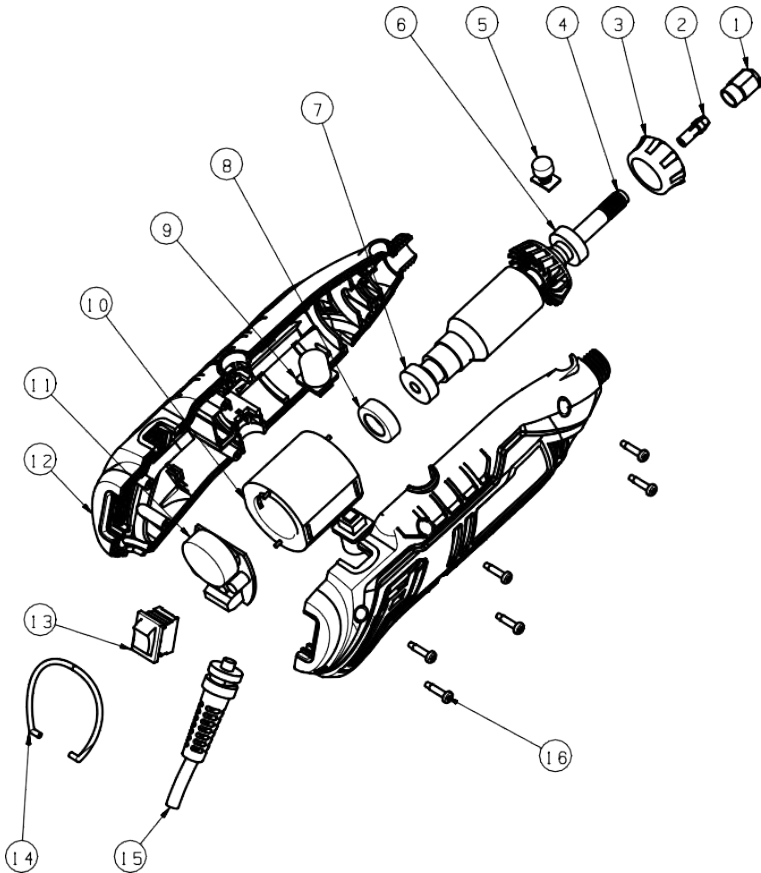
With the power cord unplugged, place the tool on a clean surface. Use the tool wrench as a screwdriver to remove the brush caps in a counter-clockwise direction.

## 107 PCS ACCESSORIES:

	1/2" Sanding Bands	5 PCS		Cut-off Wheels	24 PCS
	1/4" Sanding Bands	5 PCS		Grinding Wheels	2 PCS
	Sanding Drums	2 PCS		Cut-off Wheel Mandrel	1 PC
	1" Felt Polishing Wheels	2 PCS		Collets, 1/8In. Built-in, 3/32In. x 2	3 PCS
	1/2" Felt Polishing Wheels	2 PCS		Steel wire Brush	1PC
	Felt Wheel Mandrel	1 PC		Nylon Brush	1PC
	Diamond-Point Bits	2 PCS		Wrench	1PC
	ALuminum Oxide Grinding Stones	10 PCS		Whetstone	1PC
	Steel Bits	2 PCS		L Wrench	1PC
	Flexible Shaft	1 PCS		Grinding wheels	40 PCS

## PARTS LIST AND SCHEMATIC DRAWING

No.	Description	No.	Description
1	Collet nut	9	Carbon
2	Collet	10	Stator
3	Cap body	11	Circuit board
4	Rotar	12	Housing
5	Spindle lock button	13	Switch
6	Bearing 698Z	14	Hanger
7	Bearing 626Z	15	Cord and plug
8	Bearing sleeve	16	Screw



## REPLACEMENT PARTS

- For replacement parts and technical questions, please call Customer Service at **1-866-915-8626**.
- Not all product components are available for replacement. The illustrations provided are a convenient reference to the location and position of parts in the assembly sequence.
- When ordering parts, the following information will be required: item description, item model number, item serial number/item lot date code, and the replacement part reference number.
- The distributor reserves the rights to make design changes and improvements to product lines and manuals without notice.

## LIMITED WARRANTY

Northern Tool and Equipment Company, Inc. ("We" or "Us") warrants to the original purchaser only ("You" or "Your") that the Ironton product purchased will be free from material defects in both materials and workmanship, normal wear and tear excepted, for a period of **one year** from date of purchase. The foregoing warranty is valid only if the installation and use of the product is strictly in accordance with product instructions. There are no other warranties, express or implied, including the warranty of merchantability or fitness for a particular purpose. If the product does not comply with this limited warranty, Your sole and exclusive remedy is that We will, at our sole option and within a commercially reasonable time, either replace the product or product component without charge to You or refund the purchase price (less shipping). This limited warranty is not transferable.

### Limitations on the Warranty

This limited warranty does not cover: (a) normal wear and tear; (b) damage through abuse, neglect, misuse, or as a result of any accident or in any other manner; (c) damage from misapplication, overloading, or improper installation; (d) improper maintenance and repair; and (e) product alteration in any manner by anyone other than Us, with the sole exception of alterations made pursuant to product instructions and in a workmanlike manner.

### Obligations of Purchaser

You must retain Your product purchase receipt to verify date of purchase and that You are the original purchaser. To make a warranty claim, contact Us at 1-866-915-8626, identify the product by make and model number, and follow the claim instructions that will be provided. The product and the purchase receipt must be provided to Us in order to process Your warranty claim. Any returned product that is replaced or refunded by Us becomes our property. You will be responsible for return shipping costs or costs related to Your return visit to a retail store.

### Remedy Limits

Product replacement or a refund of the purchase price is Your sole remedy under this limited warranty or any other warranty related to the product. We shall not be liable for: service or labor charges or damage to Your property incurred in removing or replacing the product; any damages, including, without limitation, damages to tangible personal property or personal injury, related to Your improper use, installation, or maintenance of the product or product component; or any indirect, incidental or consequential damages of any kind for any reason.

### Assumption of Risk

You acknowledge and agree that any use of the product for any purpose other than the specified use(s) stated in the product instructions is at Your own risk.

### Governing Law

This limited warranty gives You specific legal rights, and You also may have other rights which vary from state to state. Some states do not allow limitations or exclusions on implied warranties or incidental or consequential damages, so the above limitations may not apply to You. This limited warranty is governed by the laws of the State of Minnesota, without regard to rules pertaining to conflicts of law. The state courts located in Dakota County, Minnesota shall have exclusive jurisdiction for any disputes relating to this warranty.

# **iron**ton™

Distributed by:

Northern Tool & Equipment Company, Inc.

Burnsville, Minnesota 55306

[www.northerntool.com](http://www.northerntool.com)

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