**APEXFORGE M12 Cordless Rotary Tool** 



# **APEXFORGE M12 Cordless Rotary Tool User Manual**

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**APEXFORGE M12 Cordless Rotary Tool** 



# **Product Information**

# **Specifications**

• Product: Rotary Tool

• Model: M12

### FAQ

- Q: How often should I clean the power tool's air vents?
  - **A:** It is recommended to regularly clean the power tool's air vents to prevent excessive accumulation of dust and potential electrical hazards.
    - Depending on usage, check and clean the vents after every few uses to ensure optimal performance and safety.

# **Safety Instructions**

**Warning:** read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injuries.

Save all warnings and instructions for future reference.

#### Work area safety

- Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- 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.
- Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

#### **Electrical safety**

- The Power tool plug must match the socket. Never modify the plug in any way. Do not use any adapter plugs
  with earthed (grounded) power tools. Unmodified plugs and matching sockets will reduce the risk of electric
  shock.
- 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.
- Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. keep the cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- 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.

# **Personal Safety**

- 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 ofdrugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- Use personal protective equipment. Always wear eye protection. Protective equipment such as dust mask, nonskid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- Prevent unintentional starting. Ensure the switch is in the off-position before connecting to the 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.
- 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.
- Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
- 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.

#### Power tool use and care

- 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.
- 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.
- 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.
- 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.

- Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other
  condition that may affect the power tools operation. If damaged, have the power tool repaired before use. Many
  accidents are caused by poorly maintained power tools.
- Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- Use the power tool, accessories and tool bits, etc. In accordance with these instructions and in the manner
  intended for the particular type of power tool, 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 Instructions For All Operations**

Safety warnings common for grinding, sanding, wire brushing, polishing, carving or abrasive cutting-off operations:

- 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.
  - NOTE: List only those operations that are applicable.
- 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.
- The rated speed of the grinding accessories must be at least equal to the maximum speed marked on the power tool. Grinding accessories running faster than their rated speed can break and fly apart.
- 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 controlled.
- 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.
- 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.
- Do not use a damaged accessory. Please inspect the accessory before each use 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.
- 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 workpiece fragments. The eye protection must be capable of stopping flying debris generated by various operations. The dust mask or respirator must be capable of filtrating particles generated by your operation. Prolonged exposure to high-intensity noise may cause hearing loss.

- Keep bystanders a safe distance away from work area. Anyone entering the workarea must wear personal
  protective equipment. Fragments of workpiece or of a broken accessory may fly away and cause injury beyond
  the immediate area of operation.
- Hold power tool by insulated gripping surfaces only, when performing an operation where the cutting accessory
  may contact hidden wiring or its own cord. Cutting accessory contacting a "live" wire may make exposed metal
  parts of the power tool "live" and could give the operator an electric shock.
- 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.
- Use clamps to support workpiece whenever practical. Never hold a small workpiece in one hand and the tool in
  the other hand while in use. Clamping a small workpiece allows you to use your hand(s) to control the tool.
  Round material such as dowel rods, pipes or tubing has a tendency to roll while being cut, and may cause the
  bit to bind or jump toward you.
- 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.
- 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.
- 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.
- 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.
- 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.
- Do not operate the power tool near flammable materials. Sparks could ignite these materials.
- Do not use accessories that require liquid coolants. Using water or other liquid coolants may result in electrocution or shock.

#### Further safety instructions for all operations

#### Kickback and related warnings

Kickback is a sudden reaction to a pinched or snagged rotating wheel, sanding band, 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.

For example, if an abrasive wheel is snagged or pinched by the workpiece, 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 the direction of the wheel's movement at the point of pinching. Abrasive wheels may also break under these conditions.

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.

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

#### Additional safety instructions for grinding and cutting-off operations

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

- 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.
- 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.
- Do not "jam" a cut-off wheel or apply excessive pressure. Do not attempt to make an excessive depth of cut.

  Overstressing 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.
- 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.
- When the 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 comesto 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.
- Do not restart the cutting operation in the workpiece. 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 workpiece.
- Support panels or any oversized workpiece to minimize the risk of wheel pinching and kickback. Large
  workpieces tend to sag under their own weight. Supports must be placed under the workpiece near the line of
  cut and near the edge of the workpiece on both sides of the wheel.
- 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.

# **Additional Safety Instructions For Wire Brushing Operations**

Safety warnings specific for wire brushing operations:

- Be aware that wire bristles are thrown by the brush even during ordinary operation. Do not overstress the wires by applying excessive load to the brush. The wire bristles can easily penetrate light clothing and/or skin.
- 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.
- 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 be imbed in your skin.

# **Battery Tool Use And Care**

- Recharge only with the charger specified by the manufacturer. A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
- Use power tools only with specifically designated battery packs. Use of any other battery packs may create a risk of injury and fire.
- When the battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or a fire.
- Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.

#### 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.

# For The Charger

#### Intended use

Charge only rechargeable battery packs. Other types of batteries may burst to cause personal injury and damage.

- The appliance is not to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction
- Children being supervised not to play with the appliance
- Do not recharge non-rechargeable batteries!
- During charging, batteries must be placed in the well-ventilated area!
- Integrated batteries may only be removed for disposal by qualified personnel. Opening the housing shell can destroy the power tool. To remove the battery from the power tool, press the On/Off switch until the battery is fully discharged. Unscrew the screws on the housing and remove the housing shell in order to remove the battery. To prevent a short circuit, disconnect the connectors on the battery one at a time and then isolate the poles. Even when fully discharged, the battery still contains a residual capacity, which can be released in case of a short circuit.

#### **Electrical safety**

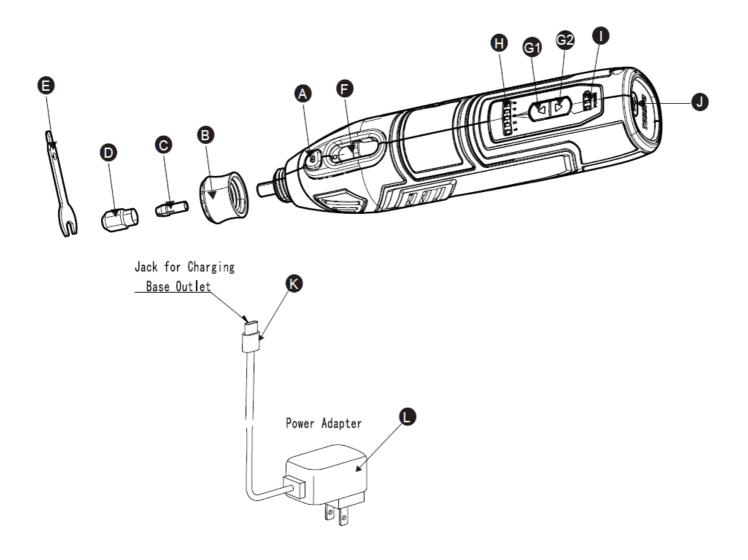
- When using electric machines always observe the safety regulations applicable in your country to reduce the risk of fire, electric shock and personal injury.
- Read the following safety instructions and also the enclosed safety instructions.

# **TECHNICAL SPECIFICATIONS**

Rechargeable battery	12V Max Li-ion 2000mAh
Input of charger	100-240V~ 50/60Hz 0.2A
Output of charger	13.5V DC 1.5A
Battery charging time	1 – 2 hours
Maximum disc diameter	Ø35 mm
No load speed	,000–35,000/min
Capacity of spring chuck	Ø3.2 mm Max.
Weight	0.6 kg

# **Know Your Rotary Tool**

Before attempting to use any tool, familiarize yourself with all operating features and safety requirements.(See Figure 1)



PART	DESCRIPTION
А	Spindle lock button
В	Housing cap
С	Collet
D	Collet nut
E	Wrench
F	On/Off switch
G	Speed control button
Н	Speed control indicator lights
1	Charge Indicator lights
J	Charger port
К	USB-C Charging cable
L	Power adaptor

#### **Charging Tool**

**NOTE:** The tool does not come completely charged from the factory. Be sure to charge tool prior to initial use.

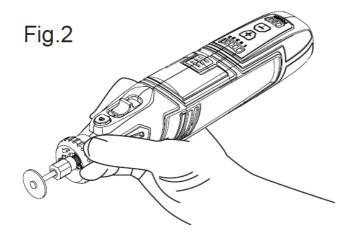
Turn the hook to ensure that the charger plug can be inserted into the machine charging socket. Insert the power adapter plug into your standard power outlet. The blue LED lights located on the top side of the tool housing will start scrolling rear/front to signal the battery is receiving a charge. Charging will automatically stop when the tool is fully charged. When all the blue LED lights are always on charging complete.

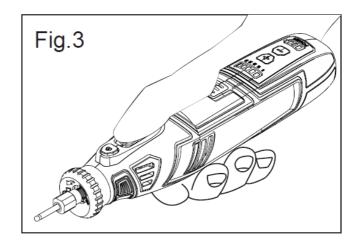
# **Battery Charge Indicator**

- This tool is equipped with a charge indicator that tells you how much charge your battery has.
- When three blue lights are always on, the battery is full. As the battery capacity decreases, the blue light goes out one by one. When the battery is depleted, the tool will turn off automatically. The blue light will all go out.

# **Operating Instructions**

**Using the Rotary Tool** 





The first step in learning to use the Rotary Tool is to get the "feel" of it. Hold it in your hand and feel its weight and balance. Feel the taper of the housing. Always hold the tool away from your face. Accessories can be damaged during handling, and can fly apart as they come up to speed. This is not common, but it does happen. Whenever you hold the tool, be careful not to cover the air vents with your hand. This blocks the airflow and causes the motor to overheat. For best control in close work, grip the Rotary Tool like a pencil between your thumb and forefinger. (See Figure 2) The "Golf Grip" method of holding the tool can be used for more aggressive operations such as grinding a flat surface or using cutoff wheels. (See Figure 3)

Practice on scrap materials first to see how the Rotary Tool's high-speed action performs. Keep in mind that the work is done by the speed of the tool and by the accessory in the collet. You should not lean on or push the tool during use. Instead, lower the spinning accessory lightly to the work and allow it to touch the point at which you want cutting (or sanding or etching, etc.) to begin.

Concentrate on guiding the tool over the work using very little pressure from your hand. Allow the accessory to do the work. Usually, it is best to make a series of passes with the tool rather than attempt to do all the work in one pass. To make a cut, for example, pass the tool back and forth over the work, much as you would a small paintbrush. Cut a little material on each pass until you reach the desired depth. For most work, the gentle touch is best. With it, you have the best control, are less likely to make errors, and will get the most efficient work out of the accessory.

## **Operating Speeds**

• To select the right speed for each job, use a practice piece of material.

#### 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. The tool will start working at a speed of 18,000 rpm
- TO TURN THE TOOL "OFF", slide the switch button backward. If for some reasons the on/off switch doesn't work there is always the option to alternatively turn off the tool by the following methods:
  - Press the minus (–) yellow speed control button to bring the speed of the tool to the lowest speed level (8,000 RPM).
  - Hold the minus (-) yellow speed control button for 5 seconds. Then the tool will be turned off.

## **SPEED CONTROL BUTTONS**

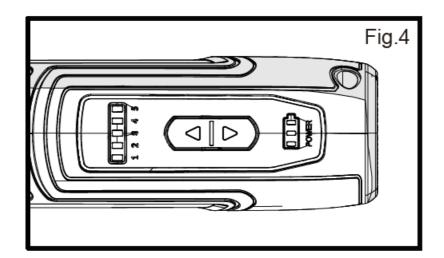
The tool is equipped with speed control buttons. The speed may be adjusted during operation by pressing on the plus (+) or (-) minus yellow buttons located on the top side of the battery housing. Speed will increment or

decrement from a minimum of 8,000 to a maximum of 35,000 rpm. The LED lights located alongside the yellow buttons will illuminate according to the chosen speed. Every time when the tool is turned off the speed setup goes back to the medium level (18,000 rpm) so it might be necessary to increase/decrease the speed to the level that it was being used. (See Figure 4)

The speed of Rotary Tool is controlled by setting the yellow speed control buttons.

#### **Settings for Approximate Revolutions**

Speed Setting	Speed Range
1	8,000 RPM
2	13,000 RPM
3	18,000 RPM
4	24,000 RPM
5	35,000 RPM



# **Needs for Slower Speeds**

Certain materials, however, (some plastics and precious metals, for example) require a relatively slow speed because at high speed the friction of the accessory generates heat and may cause damage to the material.

Slow speeds (13,000 RPM or less) usually are best for polishing operations employing the felt polishing accessories. They may also be best for working on delicate projects as delicate wood carving and fragile model parts. All brushing applications require lower speeds to avoid wire discharge from the holder. Higher speeds are better for carving, cutting, shaping, cutting dadoes or rabbets in wood. Hardwoods, metals and glass require a high-speed operation, and drilling should also be done at high speeds.

Many applications and accessories in our line will provide the best performance at full speed, but for certain materials applications, and accessories, you need slower speeds, which is the reason our variable speed models are available. To aid you in determining the optimum operating speed for different materials and different accessories, we have constructed a series of tables. By referring to these tables, you can discover the recommended speeds for each type of accessory. Look these tables over and become familiar with them.

Ultimately, the best way to determine the correct speed for work on any material is to practice for a few minutes on a piece of scrap, even after referring to the chart. You can quickly learn that a slower or faster speed is more effective just by observing what happens as you make a pass or two at different speeds. When working with plastic, for example, start at a slow rate of speed and increase the speed until you observe that the plastic is melting at the point of contact. Then reduce the speed slightly to get the optimum working speed.

# Some rules of thumb in regard to speed:

- 1. Plastic and other materials that melt at low temperatures should be cut at low speeds.
- 2. Polishing, buffing and cleaning with any type of bristle brush must be done at speeds not greater than 18,000 RPM to prevent damage to the brush.
- 3. Wood should be cut at high speed.
- 4. Iron or steel should be cut at high-speed. If a high speed steel cutter starts to chatter this normally means it is running too slow.
- 5. Aluminum, copper alloys, lead alloys, zinc alloys and tin may be cut at various speeds, depending on the type of cutting being done. Use paraffin or other suitable lubricants on the cutter to prevent the cut material from adhering to the cutter teeth.

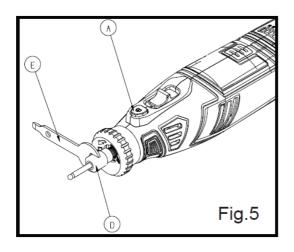
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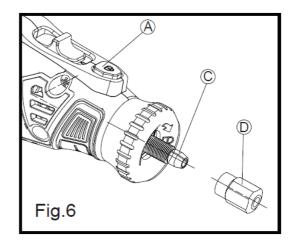
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#### STALL PROTECTION

This tool has a stall protection feature built into it to protect the motor and battery in the event of a stall. If you stall the tool for too long, or bind the bit in a workpiece, especially at high speeds, it will automatically turn itself off. Simply take the tool out of the material you were stalled in, turn it off for 3 seconds, then turn it back on again to continue using it. When the battery becomes close to empty, the tool may shut down automatically more frequent than normal. If this happens, it is time to recharge the battery.

#### **Changing Collets**





Using collets is the most precise way to hold an accessory in a high-speed rotary tool. Even at high speeds and maximum pressure, collets stay tight. (See Figure 5, Figure 6)

- Press and hold the spindle lock (A), and rotate the shaft with the provided collet wrench (E) until the shaft lock (A) engages the shaft, preventing further rotation.
- With the shaft lock (A) engaged, use the collet wrench (E) to loosen the collet nut (D), if necessary.
- Remove the collet nut (D) and old collet (C) using collet Wrench (E), if necessary.
- Insert the un-slotted end of the collet (C) in the hole at the end of the tool shaft.
- Tighten the collet nut with the collet wrench(E).

# **Installing Accessories**

- Press and hold the spindle lock (A), and rotate the shaft by hand until the spindle lock engages the shaft, preventing further rotation.
- With the spindle lock engaged, use the collet wrench (E) to loosen the collet nut (D), if necessary.
- Insert the shank of the accessory into the collet.
- With the spindle lock (A) engaged, tighten the collet nut (D) with the provided wrench (E) until the accessory shank is gripped by the collet. Avoid excess tightening of the collet nut (D).

# **Removing Accessories**

- With the spindle lock (A) engaged, loosen the collet nut (D) with the provided wrench (E).
- · Remove the accessory.

#### **Using Mandrels**

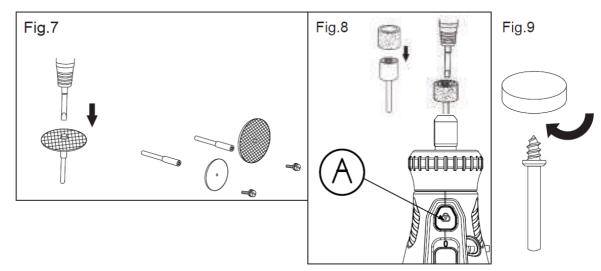
The most common types of the mandrel to use with this tool are the standard mandrel which is used with cutoff discs, grinding wheels, emery wheels, and cut-off wheels. Screw mandrels are used with polishing wheels and polishing drums. The drum mandrel is used with sanding drums.

#### To install:

· Install the mandrel.

#### If using the standard mandrel:

- Press and hold the spindle lock (A).
- Insert the slot end of the provided wrench into the slot on top of the mandrel and unscrew.
- · Remove mandrel screw and washer.
- Place desired accessory over mandrel shaft and align the accessory hole with mandrel hole.
- Insert mandrel screw with washer through the accessory and mandrel shaft holes.
  - **NOTE:** The mandrel washer should be placed between the mandrel screw and the accessory.



• Tighten using the provided wrench. (See Figure 7)

# If using the drum mandrel:

- Align appropriate sized sanding drum over mandrel and push down to completely cover drum end of mandrel.
- Insert the small end of the provided wrench into the slot on top of the mandrel and tighten the screw on the drum mandrel head to expand the drum and securely hold the sanding drum in place. (See Figure 8)

#### If using the screw mandrel:

- Align desired accessory hole with mandrel screw head.
- Screw accessory into mandrel by twisting clockwise until secure. (See Figure 9)

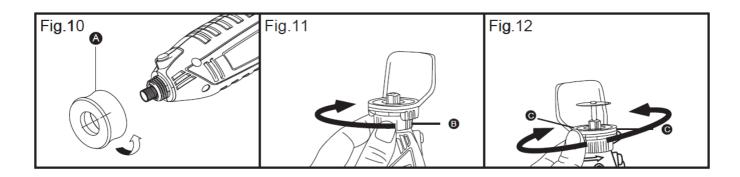
# **Balancing Accessories**

For precision work, it is important that all accessories be properly balanced. To balance an accessory, slightly loosen the collet nut and give the accessory or collet a 1/4 in. turn. Retighten collet nut and run the rotary tool. You should be able to tell by the sound and feel if the accessory is running in balance. Continue adjusting in this fashion until the best balance is achieved. Replace accessories if they become damaged or unbalanced.

#### **Shield Rotary Tool Attachment**

The rotary shield attachment provides a clear and simple solution for redirecting debris and sparks away from the user without interfering with the task at hand. The tool shield can be used with right- or left-hand grip positions and works to deflect debris on a variety of applications, including cutting, sanding, grinding and polishing. The shield can be quickly adjusted into position, provides easy access to the accessory without interfering with the workpiece.

#### **Installation Instructions**



- Step 1. Remove the housing cap A from the end of the tool and set housing cap aside. The original housing cap must be reinstalled when this attachment is not used. (See Figure 10)
- Step 2. Screw the Shield onto the tool using the lock nut B . (See Figure 11)
- Step 3. Position the Shield such that it will redirect debris, sparks, and dust away from the user using the positioning tabs C . (See Figure 12)

# **Using the Shield Rotary Tool Attachment:**

- Always turn tool power off before adjusting position, changing accessory, and removing attachment.
- Rotary Tools cut, sand, grind, and polish in many directions.
- To accommodate the Rotary Tool's Maneuverability, the Shield can be quickly positioned and repositioned with a turn to the right or left.
- To extend the life of the Shield periodically clean with a soft bristle brush or compressed air.

# **Speed Setting for Accessories**

	The Speed Setting for TPRT04D Accessories									
Note:Each number settings listed in the speed charts=000RPM'S										
Functions	Images	Accessory Description	Cork	Hardwood	Plastic	Steel	Aluminum, Brass, etc.	Shell, Stone	Ceramic	Glass
Sanding	88	Sanding paper	8-35	8-35	8-35	8-35	8-35	8-35	8-35	-
	10 10 10 10 10	Sanding bands	8-35	8-35	8-35	8-35	8-35	8-35	8-35	
Grinding/Sharp ening	HIIIII	Aluminum oxide grinding wheels with shank	-	-	24-35	24-35	24-35	24-35	24-35	-
Drilling	11	HSS drill	24-35	24-35	24-35	-	-	-	-	-
Carving/Engrav		Diamond grinding needle	13-35	13-35	13-35	13-35	13-35	13-35	13-35	13-35
ing		HSS cutter	13-35	13-35	13-35	-	-	-	-	-
Cleaning/Polish ing	Ţ	Stainless steel brushes	8-18	8-18	8-18	8-18	8-18	8-18	8-18	8-18
	0.0	Felt wheels/ Mandrel	13-24	13-24	13-24	13-24	13-24	13-24	13-24	13-24
Cutting	69	Diamond wheel	-	-	-	-	24-35	24-35	24-35	24-35
	00	Cut off wheels	-	-	-	24-35	24-35	-	-	-
		Spiral Cutting Bit	Cuts through original pines. For best results, use at 35,000 rpm.							
	Keyless chuck Accepts bits anywhere from 1/32 of an inch to 1/8 of an inch									
	Î	Collets	Suitable for size 1/8 accessories							
Accessories	ĭ	Wrench	Fixing the attachments							
		Mandrel for cut off wheels	To link Rubber emery wheel/Sanding paper/Diamond wheel/Cut off wheels/Grinding wheels							
	•	Sanding shank	Mandrel for sanding shank can hitch sanding bands							
Switch Setting	g 1			2 3		4		5		
Speed Range	nge 8000+/-10%RPM		13000+/-	13000+/-10%RPM 18000+/-10%RPM 24000+/-10%RPM 35000+/-10%RPM					10%RPM	

# **Cleaning And Maintenance**

• Always pull out the mains power plug before starting any cleaning work.

# Cleaning

- Keep all safety devices, air vents and the motor housing free of dirt and dust as far as possible.
- Wipe the equipment with a clean cloth or blow it with compressed air at low pressure.
- We recommend that you clean the device immediately each time you have finished using it.
- Clean the equipment regularly with a moist cloth and some soft soap. Do not use cleaning agents or solvents; these could attack the plastic parts of the equipment. Ensure that no water can seep into the device.

#### **Maintenance**

• There are no parts inside the equipment which require additional maintenance.

#### **Environmental Protection**

Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice.

#### **FCC STATEMENT**

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- 1. This device may not cause harmful interference.
- 2. This device must accept any interference received, including interference that may cause undesired operation.

# Warranty

#### Your Warranty Includes

30 Days Refund Guaranty

With in first 30days of your purchase, you are allowed to return your product for a full refund.

# 30 Days to 3 Months(6 Months)

- We will replace the defective unit due to manufacture fault with a new one.
- (You will receive extra 3 months if you register on our website.)

#### 3 Months to 24 Months

Within 24 months, we will provide timely and effective online after-sales service after your purchase.

#### **How to Return Your APEXFORGEO Products**

- Contact <a href="mailto:support@apex-forge.com">support@apex-forge.com</a> with your order number.
- We will issue you RMA# and return address for your return.
- Please fill out RMA info, tear off this page and leave it inside your return package. We will issue replace/return after receiving your return.

#### **Return Products Details**

To get your returns processed as quickly as possible, please fill this form and include it in your return package.

Purchase Name	
Order Number	
Date of Purchase	
Your Email Address	
Where did you buy it	

If your product is purchased from Amazon Fulfilled channel, please contact Amazon for return within 30 days of purchase.

# **Documents / Resources**



APEXFORGE M12 Cordless Rotary Tool [pdf] User Manual M12, M12 Cordless Rotary Tool, Cordless Rotary Tool, Rotary Tool, Tool

# References

User Manual

#### Manuals+, Privacy Policy

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