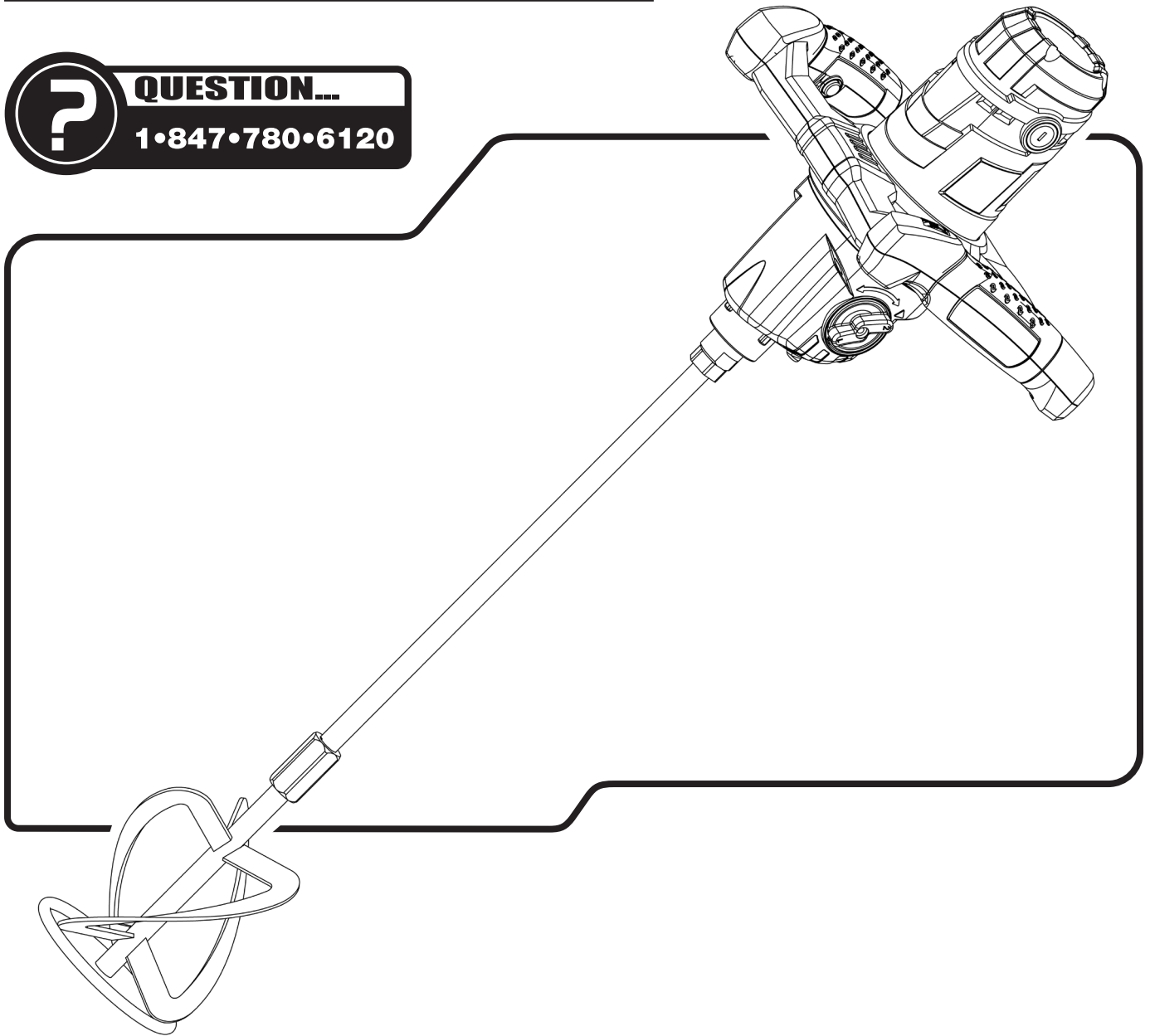


Owner's Manual

POWERTEC®

Mortar Mixer



Visit us on the web at www.powertecproducts.com



You will need this manual for safety instructions, operating procedures, and warranty.
Put it and the original sales invoice in a safe, dry place for future reference.

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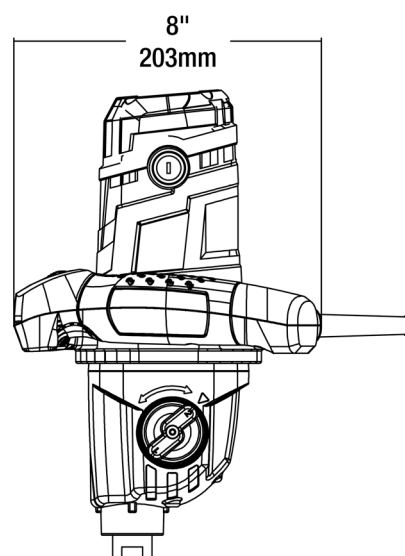
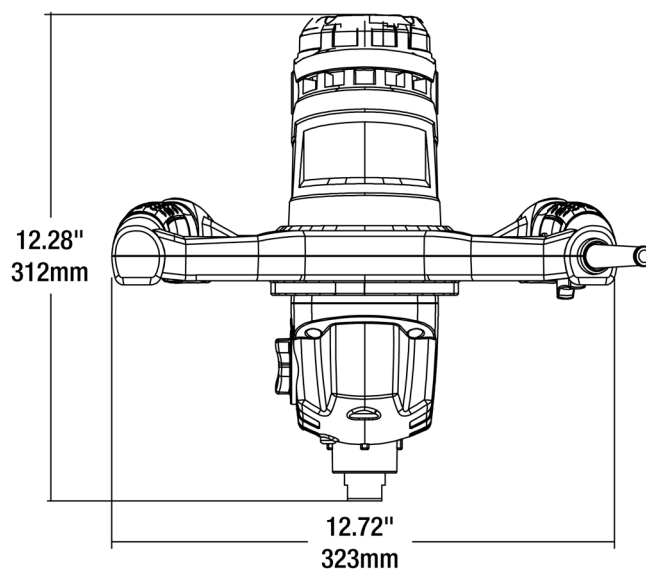
WARRANTY 8

PRODUCT SPECIFICATIONS

Model No.	MR1680
Motor	120V / 60Hz / 13A
No Load Speed	N1=250-500 rpm N2=400-800 rpm
Overall Size	L 35.04" x W 13" x H 8.66" (L 89 cm x W 33 cm x H 22 cm)
Mixer Paddle Diameter	5.51" (140 mm)
Power Cord: Length	8.2 ft (2.5M)
Power Cord: AWG	16 gauge
Machine Height	35.04" (890 mm)
Machine Weight (Excluding Paddle)	9.5 lbs (4.3 kg)
Total Machine Weight	12.3 lbs (5.6 kg)

IMPORTANT: Store Chuck Key in a convenient place.
It will be needed when installing and removing Paddles.

DIMENSIONS



⚠ WARNING

For your own safety, read all of the rules and precautions before operating tool.

⚠ WARNING

Always follow proper operating procedures as defined in this manual even if you are familiar with use of a Mortar Mixer or any accessory used with the Mortar Mixer. Remember that being careless for even a fraction of a second can result in severe personal injury.

You must be familiar with the use of any tool or accessory used with the Mortar Mixer. The supplier cannot be held responsible for any accident, injury or damage incurred while using the Mortar Mixer with any tool.

It is the responsibility of the purchaser of this product to ensure that any person using this product reads and complies with all instructions and safety precautions outlined in this manual and the operating manual of the tool being used prior to use.

⚠ WARNING

Some dust created by operation of power tool contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. To reduce your exposure to these chemicals, work in a well ventilated area and work with approved safety equipment. Always wear OSHA/NIOSH approved, properly fitting face mask or respirator when using such tools.

⚠ CAUTION

Do not modify or use Mortar Mixer for any application other than that for which it was designed.

FOLLOW ALL STANDARD SHOP SAFETY PRECAUTIONS, INCLUDING:

- Keep children and visitors at a safe distance from work area.
- Childproof the workshop. Padlock the workshop. Use master switches and remove startup keys.
- Keep work area clean. Cluttered work areas invite accidents. Work area should be properly lit.
- Do not use power tools in dangerous environments. Do not use power tools in damp or wet locations. Do not expose power tools to rain.
- Wear proper apparel. Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelry which may get caught in moving parts of the Mortar Mixer.
- Wear protective hair covering to contain long hair.
- Wear safety shoes with non-slip soles.
- Wear safety glasses complying with United States ANSI Z87.1. Everyday glasses have only impact resistant lenses. They are NOT safety glasses.
- Wear proper face mask or dust mask if operation is dusty.
- Be alert and think clearly. Never operate power tools when tired, intoxicated or when taking medications that cause drowsiness.
- A damaged part should be properly repaired or replaced. Do not perform makeshift repairs.
- Use the right tool for your job. Do not force your tool to do a job for which it was not designed.
- Never Leave the Mortar Mixer unsupervised while in operation. Turn off and unplug when not in use.

- **CHECK FOR DAMAGED PARTS.** Before using the tool, carefully check to determine if a damaged part will operate correctly and carry out its intended function. Check the alignment of the moving parts, connections of the moving parts, as well as for any broken parts, the assembly or any other condition that could affect its operation. A part that is damaged must be properly repaired or replaced by an authorized service center in order to prevent the risk of personal injury.

⚠ WARNING

To avoid serious injury, turn off and unplug the Mortar Mixer before changing accessories.

⚠ CAUTION

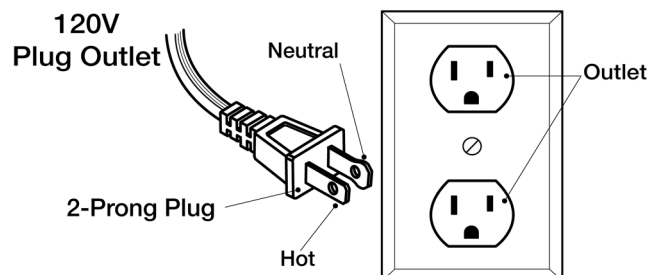
Think safety! Safety is a combination of operator common sense and alertness at all times when tool is being used.

⚠ WARNING

Do not use the Mortar Mixer until it is completely assembled and you have read and understood this entire operating manual and the operating manual of the tool being used with this Mortar Mixer.

ELECTRICAL SAFETY

- Power tool plugs must match the outlet. Never modify the plug in any way. Unmodified plugs and matching outlet will reduce risk of electrical shock.
- Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electrical shock.
- 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 electrical shock.
- Periodically check cord. Replace or repair by a qualified electrician.
- When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces risk of electrical shock.
- Make sure the power tool is OFF when plugging in.
- Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electrical shock if user's body is earthed or grounded.
- If operating a power tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply. Use of a GFCI reduces the risk of electrical shock.
- The plug must be plugged into a corresponding power outlet that is correctly installed.
- Do not modify the plug. If it does not fit the power outlet, get a qualified electrician to install a suitable power outlet.
- Immediately repair or replace a damaged or worn cord.



SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

SPECIFIC SAFETY WARNINGS

WARNING

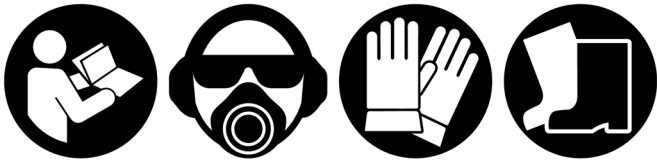
For your own safety, read all of the rules and precautions before operating tool.

- Never allow any body part to come in contact with Mortar Mixer's moving parts while it is running.

WARNING

Risk of personal injury. Turn OFF and unplug before attempting to clean any part of Mortar Mixer.

- Clean **Mixing Paddle** with water immediately after each use to remove all mortar material.
- Use a damp cloth to clean the motor casing.
- Wear appropriate personal protective equipment (PPE), such as safety glasses, hearing protection, and protective clothing.



- Keep work area clean and organized.
- Use caution when working near the mixing paddle.
- Keep hands and feet clear of moving parts.
- Use only approved attachments and accessories.
- Inspect the Mortar Mixer regularly for wear and tear.



4 Figure 1

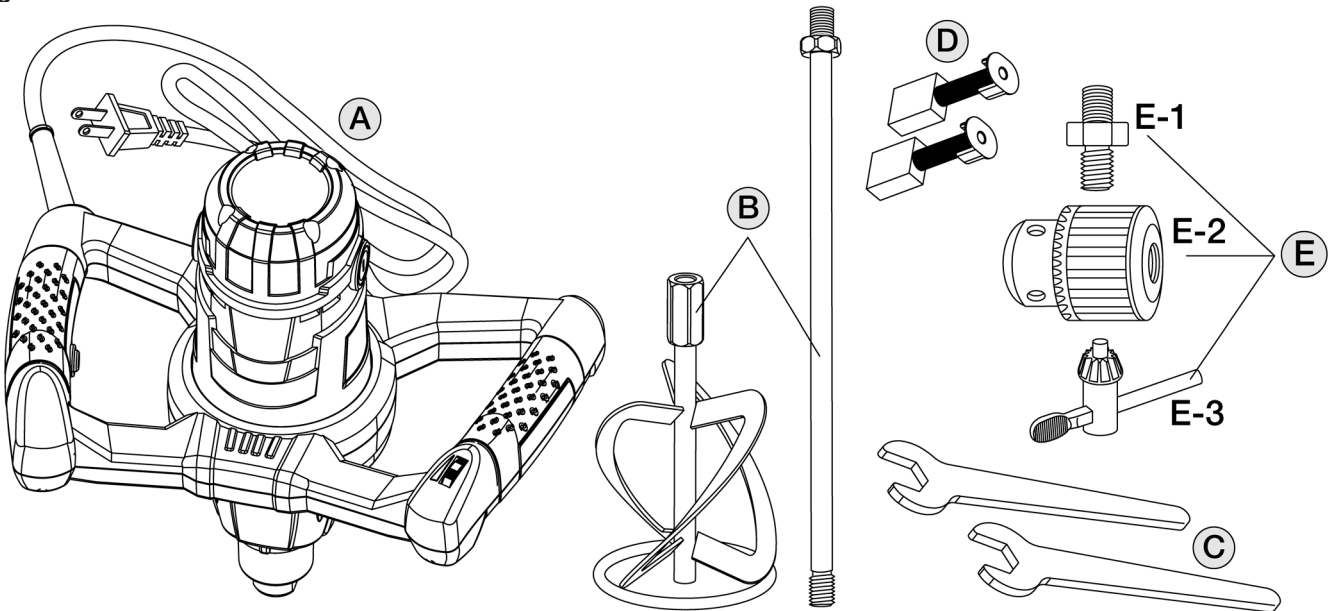


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UNPACKING

- Examine shipping carton for freight damage before opening. If shipping carton is damaged file a claim with the carrier immediately.
- Check immediately to ensure all parts are included.
- If anything is missing or broken, contact **POWERTEC** at **847-780-6120** if replacement parts are **needed**.

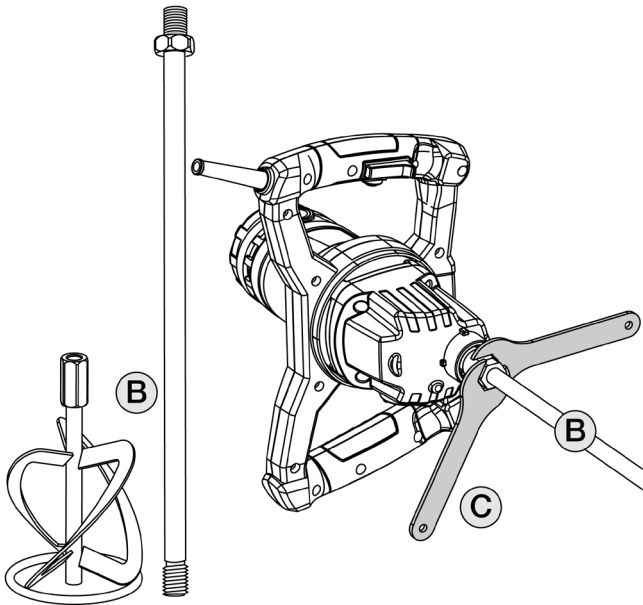
ITEM	DESCRIPTION	QTY
A	Electric Mortar Mixer	1
B	Mixing Paddle (shaft and paddle)	1
C	Wrench 22mm	2
D	Carbon Brushes (replacements)	2
(E) Chuck Set		
E-1	1/2-20 UNF to M14 Adaptor	1
E-2	Chuck	1
E-3	Chuck Key	1



ASSEMBLY

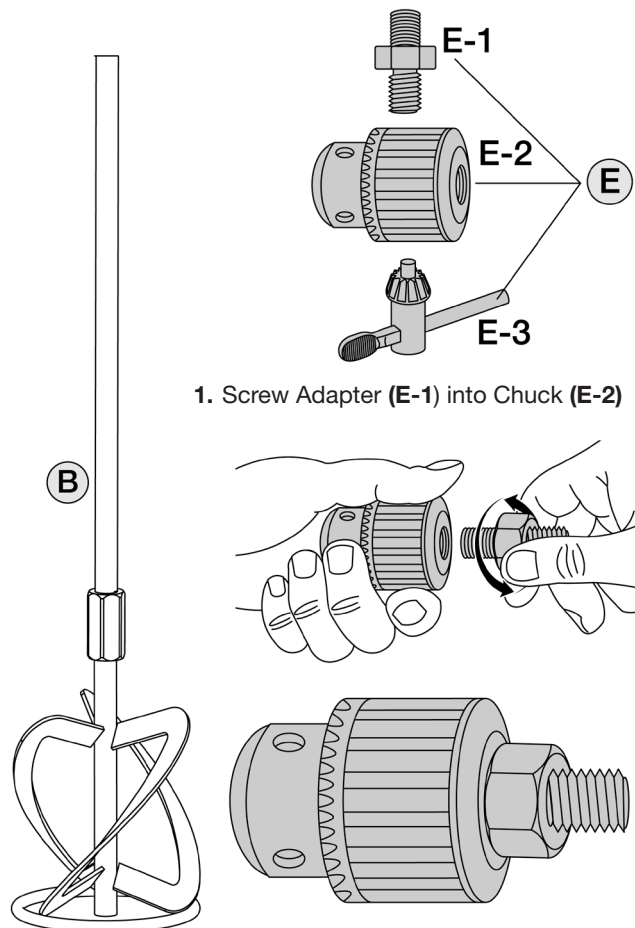
1. Take sections of Paddle (B) shaft and paddle.
2. Screw the two parts together.
3. Use 22mm Wrench (C) to secure the parts correctly.
4. Thread Mixer Paddle onto Mixer's threaded hub and tighten with 22mm Wrench (C) provided.

Figure 2 Option 1



Option 2: Users will be able to attach other types of Mixer paddles, not included with this machine by using additional adapter and chuck provided.

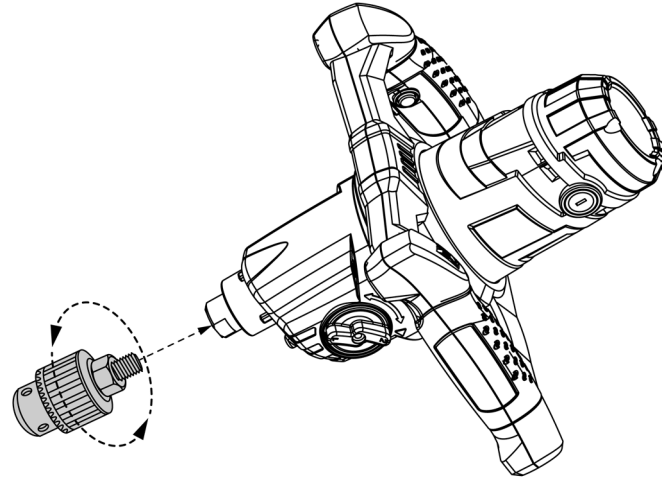
Figure 3 Option 2 (Shafts up to 5/8")



1. Screw Adapter (E-1) into Chuck (E-2)

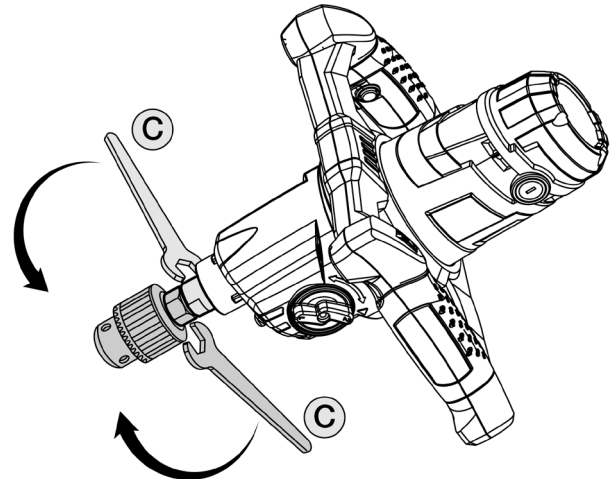
2. Screw chuck with adaptor onto Mixer's threaded hub.

Figure 4



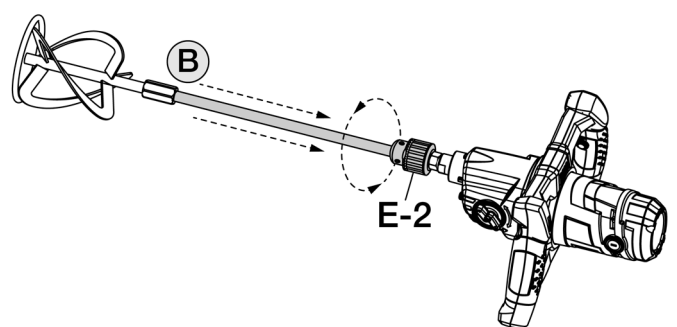
3. Tighten with 22mm Wrenches (C) provided.

Figure 5



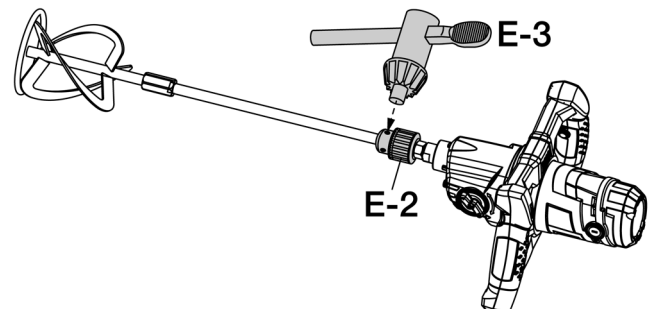
4. Attach the Mixer paddle assembly to the chuck.

Figure 6



5. Use Chuck Key (E-3) to secure Mixer paddle and chuck together.

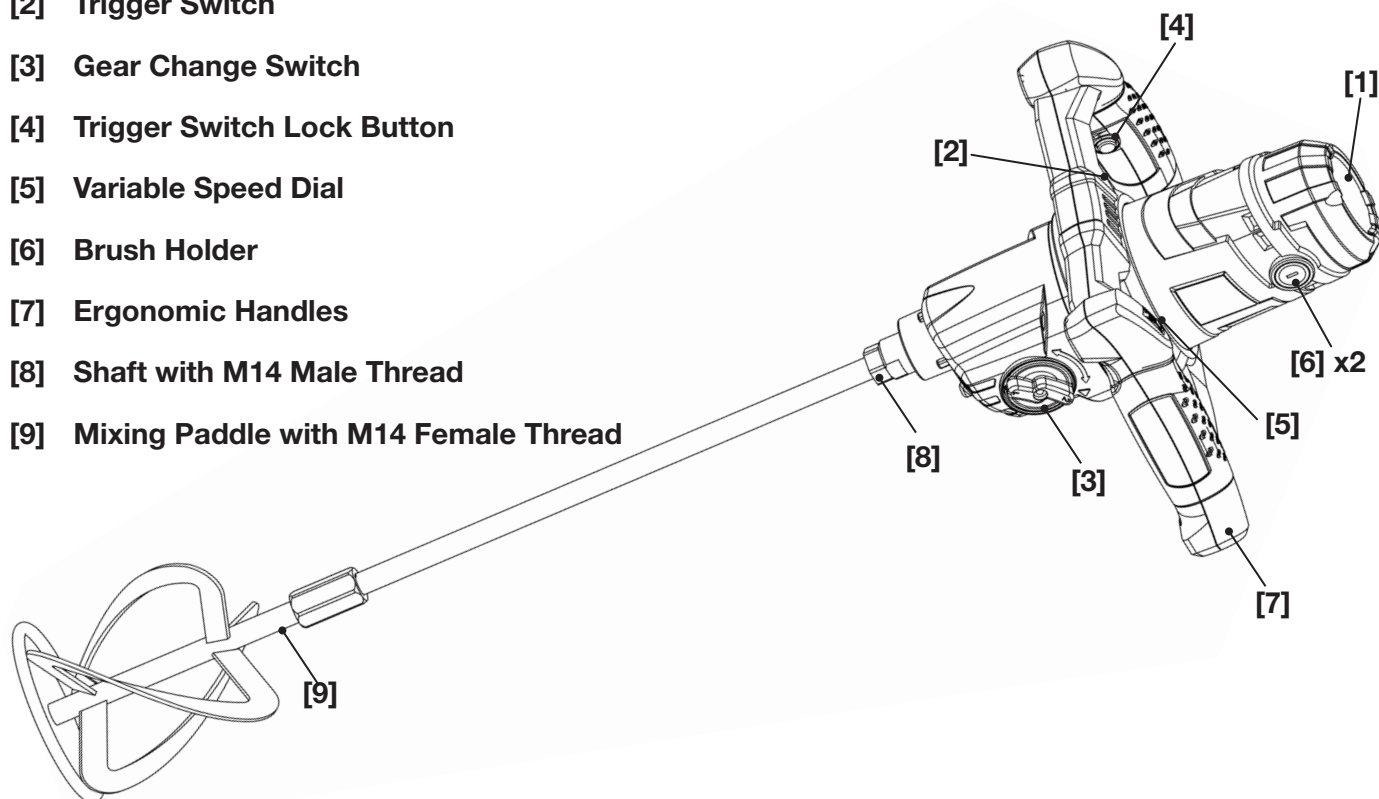
Figure 7





FEATURES

- [1] Motor
- [2] Trigger Switch
- [3] Gear Change Switch
- [4] Trigger Switch Lock Button
- [5] Variable Speed Dial
- [6] Brush Holder
- [7] Ergonomic Handles
- [8] Shaft with M14 Male Thread
- [9] Mixing Paddle with M14 Female Thread



OPERATION

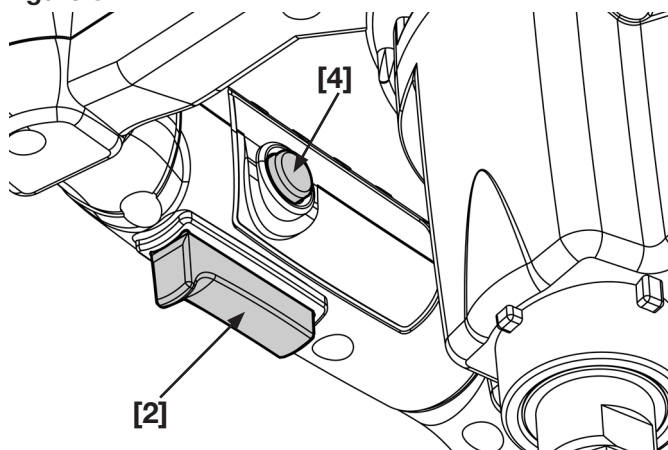
TURN MORTAR MIXER ON/OFF

- Hold both handles. Press Trigger Lock Button [4] from the inner side of Right Handle.
- While pressing Trigger Lock Button, press Trigger Switch [2] to turn on the Mixer. When Mixer starts running, release Trigger Lock Button [4]. Continue to hold Trigger Switch [2] during mixing process.

NOTE: Always operate the mortar mixer with both hands on handles for stability.

- To stop mixing, release Trigger Switch [2]. Move the paddle out of the mixing container.

Figure 8



SPEED CONTROL

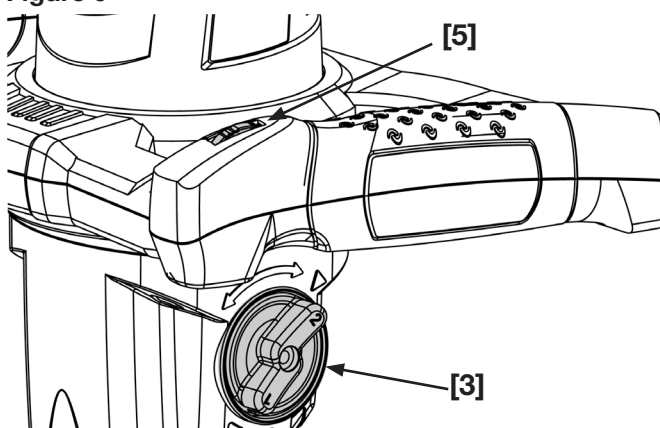
The Mortar Mixer is equipped with 2-speed gearboxes.

First Gear -1- is slow speed.

Second Gear -2- increase to fast speed.

- **Gear Change Switch [3]:**
 - **To change from one gear to the other:** Release trigger switch to power down the Mortar Mixer. When the Mixer stops running, turn Gear Change Switch 180°.
- **Variable Speed Dial [5]:**
 - This dial allows user to vary the speed of the machine while using either of the 2 gears.

Figure 9



⚠ WARNING

Before any maintenance is carried out on the machine, ensure it is unplugged.

Note: Please ensure a qualified electrician carries out all maintenance procedures.

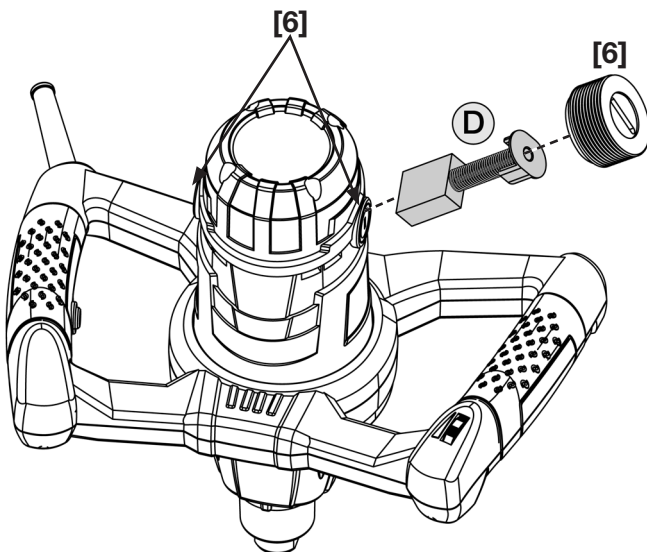
REPLACING THE CARBON MOTOR BRUSHES

The machine is fitted with self-deactivating carbon motor brushes. This means the machine will automatically switch off once the brushes are worn down to a certain level. See instructions below on how to replace them.

Note: Check the Carbon Motor Brushes after 60 hours of operation. Change the brushes if they are worn out.

1. Using a large flat-blade screwdriver, unscrew the two **Brush Holders [6]** which are located on either side of the motor casing.
2. Remove worn out brushes—replace with new Brushes (D).
3. **Always replace brushes as a pair.**
4. Re-tighten both **Brush Holders [6]** ensuring that the brushes are securely fitted.

Figure 10



CLEANING AND MAINTENANCE

Proper maintenance of the Mortar Mixer will prolong the life of the machine.

- Turn OFF and gear down all control switches when not in use.
- Mixing Paddle and Shaft must be cleaned after every use or when left idle for extended time.
- Clean **Mixing Paddle** with water spray.
- Do not subject the Mortar Mixer to abuse, such as hard blows or dropping which could damage the machine.
- NEVER obstruct Air-intake on the motor casing when Mortar Mixer is in use.
- Air-intake must be cleaned on a regular basis.
- NEVER let debris make its way into the mortar being mixed.
- Check brushes frequently. When replacing brushes always replace in pairs.

STORAGE

- Remove the mixing paddle and shaft from the motor. Store all parts in a safe & dry place.
- Protect Mortar Mixer from freezing.

GENERAL MAINTENANCE

⚠ WARNING

When servicing, use only identical replacement parts. Use of any other parts may create a hazard or cause product damage.

⚠ WARNING

Keep the Mortar Mixer dry, clean, and free from oil and grease. Always use a clean cloth when cleaning. Never use brake fluids, gasoline, petroleum-based products or any strong solvent to clean the Mortar Mixer. Chemicals can damage, weaken or destroy plastic which may result in serious personal injury.

WARRANTY

Thank you for investing in a **POWERTEC®** power tool. This product has been designed and manufactured to meet high quality standards and is guaranteed for domestic use against defects in workmanship or material for a period of 12 months from the date of purchase. This guarantee does not affect your statutory rights.

SOUTHERN TECHNOLOGIES LLC. BENCH TOP AND STATIONARY POWER TOOL LIMITED 1 YEAR WARRANTY AND 30-DAY SATISFACTION GUARANTEE POLICY

POWERTEC products are designed and manufactured by **Southern Technologies LLC**. All warranty communications should be directed to **Southern Technologies LLC** by calling 847-780-6120 (toll free), 9 AM to 5 PM, Monday through Friday, US Pacific Time.

30- DAY SATISFACTION GUARANTEE POLICY

During the first 30 days after the date of purchase, if you are dissatisfied with the performance of this **POWERTEC** tool for any reason, you may return the tool to the retailer from which it was purchased for a full refund or exchange. You must present proof of purchase and return all original equipment packaged with the original product. The replacement tool will be covered by the limited warranty for the balance of the one year warranty period.

LIMITED ONE YEAR WARRANTY

This warranty covers all defects in workmanship or materials in this **POWERTEC** tool for a one year period from the date of purchase. This warranty is specific to this tool. **Southern Technologies, LLC** reserves the right to repair or replace the defective tool, at its discretion.

HOW TO OBTAIN SERVICE

To obtain service for this **POWERTEC** tool you must return it, freight prepaid, to **POWERTEC**. You may call (toll free) 847-780-6120 for more information. When requesting warranty service, you must present the proof of purchase documentation, which includes a date of purchase. **POWERTEC** will either repair or replace any defective part, at our option at no charge to you. The repaired or replacement unit will be covered by the same limited warranty for the balance of one year warranty period.

WHAT IS NOT COVERED

This warranty applies to the original purchaser at retailer and may not be transferred.

This warranty does not cover consumable items such as saw blades, knives, belts, discs, cooling blocks, and sleeves. This warranty does not cover required service and part replacement resulting from normal wear and tear, including accessory wear.

This warranty does not cover any malfunction, failure or defect resulting from:

- 1) Misuse, abuse, neglect and mishandling not in accordance with the owner's manual.
- 2) Damage due to accidents, natural disasters, power outage, or power overload.
- 3) Commercial or rental use.
- 4) Alteration, modification or repair performed by persons not recommended by **POWERTEC**.

DISCLAIMER

To the extent permitted by applicable law, all implied warranties, including warranties of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE, are disclaimed. Any implied warranties, that cannot be disclaimed under state law are limited to one year from the date of purchase. **Southern Technologies LLC** is not responsible for direct, indirect, incidental or consequential damages. Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Southern Technologies LLC., makes no warranties, representations, or promises as to the quality or performance of its power tools other than those specifically stated in this warranty.

POWERTEC®

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