You should record the Serial Number of your Tile Saw on this Owner’s/Operator’s Manual and on the Warranty Card. The Warranty Card must be sent back with all the required pertinent information for the warranty to take effect.

Caution! Read Safety and General Instructions carefully before using saw for the first time.

Covered by one or more of the following US Patents: 6,080,041; 6,119,676; 6,272,990; 6,460,533; and D458,282

REV. 3
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i. GENERAL SAFETY RULES FOR ALL POWER TOOLS

WARNING! Read all instructions. As with all machinery there are certain hazards involved with operation and use of the machine. The following basic safety precautions should be followed at all times to reduce the risk of fire, electric shock and serious personal injury to you or others. Keep these important operating instructions with this product.

1. Know your power tool - read owner's/operator's manual carefully. Learn its applications and limitations as well as the specific potential hazards unique to this tool.
2. Keep guards in place - and in working order.
3. Ground all tools - if tools are equipped with three prong plug, it should be plugged into a three-hole electrical receptacle. If an adapter is used to accommodate a two-prong receptacle, the adapter lug must be attached to a known ground. Never remove the third prong.
4. Remove wrenches - Form a habit of checking to see that adjusting wrenches are removed from tool before turning it “on”.
5. Keep work area clean. Cluttered areas and benches invite accidents.
6. Do not use in dangerous environment. Do not use power tools in damp or wet locations, or expose them to rain. Keep work area well lighted. Do not use tool in the presence of flammable liquids or gasses.
7. Keep children and visitors away. All children and visitors should be kept at a safe distance from work area.
8. Make workshop childproof with padlocks, master switches or by removing starter keys.
9. Do not force tool. It will do the job better and be safer at the rate for which it was designed.
10. Use right tool. Do not force tool or attachment to do a job for which it was not designed.
11. Wear proper apparel. Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelry that may get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.
12. Always use safety glasses. Wear safety glasses (must comply with ANSI Z87.1) at all times. Everyday eyeglasses only have impact resistant lenses; they are not safety glasses. Use face or dust mask if cutting operation is dusty, and ear protectors (plugs or muffs) during extended periods of operation.
13. Do not overreach. Keep proper footing and balance at all times.
14. Maintain tools in top condition. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and if damaged, have repaired by authorized service facility.
15. Disconnect tools. When not in use, before servicing, and when changing accessories, such as blades, bits, cutters.
16. Avoid accidental starting. Make sure switch is in “off” position before plugging in power cord.
17. Use recommended accessories only. Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury to persons.
18. Never stand on tool. Serious injury could occur if the tool is tipped or if the cutting tool is accidentally contacted.
19. Check Damaged Parts. Before further use of the tool, a guard or other part that is damaged should be carefully checked to ensure that it will operate properly and perform it's intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect it's operation. A guard or part that is damaged should be properly repaired or replaced.
20. Never leave tool running unattended. Turn power “off”. Do not leave tool until it comes to a complete stop.
21. Extension cords. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Extension cord tables (refer to page 21) show the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage numbers the heavier the cord.

22. Do not abuse cord. Never carry tool by cord or pull it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges.

23. Guard against electric shock. Prevent body contact with grounded surfaces. For example, pipes, radiators, ranges and refrigerator enclosures.

24. Outdoor use extension cords. When tool is used outdoors, use only extension cords intended for use outdoors and so marked.

25. Stay alert. Watch what you are doing. Use common sense. Do not operate tool when you are tired.

26. Drugs, alcohol, medication. Do not operate tool while under the influence of drugs, alcohol or any medication.

27. Store idle tool. When not in use, tool should be stored in a dry and locked place, out of reach of children.

**WARNING!** CALIFORNIA PROPOSITION 65: Sawing and drilling generates dust. Excessive airborne particles may cause irritation to eyes, skin and respiratory tract. To avoid breathing impairment always employ dust controls and protection suitable to the material being saw or drilled in accordance with OSHA (29 CFR Part 1910.1). Diamond blades improperly used are dangerous. Comply with ANSI Safety Code B7.1 and OSHA covering speed, safety guards, flanges, mounting procedures, general operating rules, handling, storage and general machine condition.

### ii. SYMBOLS

- KEEP GUARD IN PLACE
- DIAMOND BLADE
- BLADE CUTTING DEPTH
- ELECTRIC SWITCH OFF
- ELECTRIC SWITCH ON
- ELECTRICAL HAZARD
- REMOVE TOOLS
- PAY EXTREME ATTENTION
- REPAIRS TO BE DONE
- MACHINE HAZARD
- FLAMMABLE
- READ INSTRUCTIONS CAREFULLY
- WARNING
- FRAGILE
- KEEP DRY
- DO NOT STEP ON
- WEAR HEARING PROTECTION
- WEAR EYE PROTECTION
- WEAR BREATHING PROTECTION
- WEAR HARD HAT
- WEAR PROTECTIVE CLOTHING
- WEAR SAFETY SHOES
- WELL VENTILATED
- NO NON-WORKING PERSONNEL
iii. FEATURES

**REUSABLE AIR FILTER**
Air intake to the motor is filtered by a fire resistant filter, which can be cleaned and reused.

**3/4 HP BRUSH MOTOR**
Generates more torque and is physically smaller and lighter than similarly rated induction motors.

**STAINLESS STEEL WATER TRAY**
High durability tray for heavy-duty jobs.

**WATER PUMP**
A high-output water pump provides sufficient water flow to cool the blade.

**CUTTING TABLE**
Provides a durable work surface while the ball bearing wheels and rollers ensure smooth effortless movement.

**RULER GUIDE**
The guide allows convenient measurements and promotes precision cuts.

**TABLE RETENTION DEVICE**
The device secures the cutting table when transporting the saw.

iv. **SPECIFICATIONS**

<table>
<thead>
<tr>
<th>PA-7 TILE SAW</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MOTOR</strong></td>
</tr>
<tr>
<td>3/4 HP</td>
</tr>
<tr>
<td>115 v, 60 Hz, 6,000 rpm</td>
</tr>
</tbody>
</table>
v. UNPACKING

Open the container and carefully lift the saw by the foam packaging and place it on a flat, level working area. Be sure that you have the following items before you discard the container:

- Saw
- Stainless steel water tray
- 7” saw blade
- 45°/90° rip guide
- Universal wrench
- Water pump
- Owner’s manual
- Drain plug

vi. INSTALLATION AND OPERATION

BLADE INSTALLATION

1. Loosen blade guard adjustment knob located at the rear of the blade guard. Raise the blade guard to the highest position and retighten the knob.

2. Remove the blade shaft nut and outer flange. (see figure 1) If a blade has been mounted, hold the blade with one hand and use the other hand to loosen the nut with the universal wrench. Remove existing blade.

3. Mount new blade, but make certain the arrow on the blade coincides with the rotation direction of the shaft.

4. Attach outer flange and blade shaft nut. Hold the blade with one hand and use the other hand to tighten the nut with the universal wrench. Make certain the flanges are pressed flush against the blade and that the nut is firmly tightened, but do not over tighten.

5. Loosen blade guard adjustment knob, lower the blade guard and retighten the knob.

WARNING: Only use 7” blades on this saw. Setting a smaller blade may cause the blade to grab the material being cut, possibly causing injury to the operator and the saw.

Figure 1
WATER PUMP INSTALLATION
1. Remove the water pump from the box and check that it is not damaged.
2. Place the pump within the water tray such that the water outlet is horizontal. (see figure 2)
3. Connect the water hose from the blade guard to the pump and plug the pump’s power cord into the female plug that is attached to the post.
4. Fill the water tray so that the water intake is fully immersed. Proper water level must be maintained at all times during saw operation.

WARNING: Disconnect the pump before attempting to handle the pump. Never operate pump without water in the tray.

USING THE RIP GUIDE
1. Set the rip guide at the desired location on the ruler guide and tighten the threaded knob. Make sure that the rip guide is firmly tightened to avoid slippage. The rip guide can be used for 45° and 90° cuts from both the left and right side.
2. After the rip guide is positioned for the desired cut, place material flat against the rip guide and the ruler guide.
3. Now you are ready to make your cut.

PERFORMING DIAGONAL CUTS
1. Remove threaded knob from the end of the rip guide with the horizontal groove and insert it into the other end with the diagonal grooves.
2. Position the rip guide along either of the diagonal premarked lines that intersect the ruler guide and the vertical channel of the cutting table. Tighten threaded knob once in place.
3. Place one corner of the material being cut in the vertical slot of the ruler guide and rest the adjoining edge flat against the rip guide.
4. Now you are ready to make your cut.

PERFORMING MITER CUTS
To make miter cuts, an optional miter block must be purchased.
1. Place the lip of the miter block on the ruler guide with the threaded knob facing you.
2. Position the miter block such that a tile laying flat against the block may rest its left-most edge within the vertical channel of the cutting table. Tighten the threaded knob to secure the miter block in place.
3. Place material onto miter block and you are ready to cut.

CLEANING THE WATER TRAY
1. Lift the saw up from inside the water tray.
2. Remove the drain plug and drain any water left inside the water tray.
3. Flush water into the tray while holding it upright to remove any sludge buildup.
4. Replace the saw back into the tray. (see figure 4)
5. Reinstall the drain plug into the drain hole before filling the tray with water.

**TRANSPORTING THE SAW**

1. Ensure that the water tray is empty and dry.
2. Unplug the power cord and store it in the water tray.
3. Secure the cutting table to the front of the saw using the table retention device.

**vii. PROPER BLADE USE**

**WET CUT BLADES**

**DO’S**
- Inspect blades daily for cracks or uneven wear.
- Always use appropriate blade for material being cut.
- Inspect arbor shaft for uneven wear before mounting blade.
- Always use blades with the correct arbor shaft size.
- Ensure that blade is mounted in the correct direction.
- Use proper safety equipment when operating the saw.
- Always have a continuous flow of water on both sides of blade.
- Secure the blade to the arbor with a wrench.

**DON’TS**
- Do not operate the saw without safety guards in position.
- Do not operate the saw with blades larger or smaller than 7”.
- Do not cut dry with blades marked “Use Wet”.
- Do not exceed manufacturer’s recommended maximum RPM.
- Do not force blade into material. Let blade cut at its own speed.

**DRY CUT BLADES**

**DO’S**
- In addition to the following, always follow wet recommendations.
- Use appropriate blade for material being cut.
- Inspect segment blades for segment cracking or loss.
- Do not use damaged blades.
- Use proper safety equipment when operating the saw.

**DON’TS**
- In addition to the following, always follow wet recommendations.
- Do not make long cuts with dry blades. Allow them to air cool.
- Do not use the edge or side of blade to cut or grind.
- Do not attempt to cut a radius or curve.
- Do not cut too deep or too fast into the material.
- Do not cut any material not recommended by blade manufacturer.

[Figure 4]
viii. SAFE OPERATING PRACTICES FOR TILE SAW

1. Use safety equipment - wear safety approved hearing, eye, head and respirator protection.

2. Read and understand the symbol definitions contained in this manual.

3. Read and understand all warnings and instructions on the machine.

4. Read all safety materials and instructions that accompany any blade or accessory used with this machine.

5. Establish a training program for all operations of this machine.

6. Always provide a copy of this manual to the equipment user. If you need extra copies call our Customer Service Department at 1-800-969-5561.

7. Always select a diamond blade according to the manufacturers recommendation suitable for the material to be cut. Never use a blade having a maximum operating speed lower than the “No load R.P.M.” marked on the tool nameplate. Do not operate any saw without safety guards in place or with a blade diameter larger than the maximum saw blade capacity.

8. Before mounting a blade on the saw clean and inspect the arbor shaft, blade flanges and the diamond blade for uneven wear or damage. If it appears to be damaged, Do not operate the tool. Have it serviced by a qualified service technician.

9. Before each use of the saw, inspect the diamond blade for hairline fatigue cracks. If such a crack or flaw is evident, discard the blade. Using a damaged blade may cause injury to the operator or others.

10. Be sure that the blade arbor hole matches the blade adapter flange supplied with the saw. Use only blade adapter flanges that came on your saw. Never use damaged or worn blade adapter flanges.

11. Installing the blade, install the blade with the arrow pointing the same direction as the rotation of the arbor shaft or the arrow on the blade guard. Be sure to tighten the blade shaft arbor nut with the wrench provided. Be careful not to over tighten.

12. Check that the blade tracks near the center of the channel in the main table, and that the table moves freely from front to back.

13. Sometimes the material being cut is not abrasive enough to expose new diamonds on the blade. If the blade is not sharpened, it will rub against the surface resulting in heat build up in the core. To prevent this, it is necessary to dress the blade. To dress the blade simply cut something that is very abrasive such as a piece of cement block. Indications that the blade needs dressing includes:

- The diamond in the matrix appear shiny because they are worn flat.

- The blade stops cutting or noticeably slows down.

Blade dressing stones are available from your local Pearl Warehouse.

14. Before using the saw fill the water tub enough to submerge the water pump with clean water only. Replenish as necessary and clean the water tub frequently. Do not operate a wet cutting blade without adequate water flow to both sides of the blade. Never run the pump dry.

15. When cutting, always hold the material firmly lying flat, supported by the main table with one edge resting against the main table backstop.
• Do not attempt to cut pieces too small to safely hold down on the main table.
• Never use the side of the blade to cut or grind with, only cut in a straight line.
• Keep all parts of your body away from the blade and all other moving parts.
• Never touch or try to stop a moving blade with your hand.

16. When cutting dry - always unplug the water pump first. **Never run the pump dry.**
• Do not use a wet cutting blade for dry cutting. Select the proper dry cutting blade for your application.
• Never make long continuous cuts with dry cutting blades. To avoid heat build up, allow the blade to cool, remove the tile and allow the blade to run freely for a few minutes.

**IMPORTANT - If there is any tendency for the saw to tip or move during certain operations, such as when cutting large heavy tile; the saw must be securely fastened to a supporting table.**

17. Make certain all adjusting knobs or locks are tight and engaged in their detents and that movable parts not intended to move during operation are securely locked before making a cut. **Be careful not to over tighten.**

18. Before connecting the machine to a power source check to see that the “On/Off” switch is in the “off” position.
• Make sure the blade is not contacting anything before connecting to a power source and starting the motor.
• Know how to stop the machine quickly in case of an emergency.

19. Grounding Instructions
• In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.
• Do not modify the plug provided - if it will not fit the outlet, have the proper outlet installed by a qualified electrician.
• Improper connection of the equipment-grounding conductor can result in a risk of electric shock.
• Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.
• Use only 3 wire extension cords that have 3 prong grounding plugs and 3 pole receptacles that accept the tool’s plug.

**Repair or replace damaged or worn cord immediately.**
This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in **Figure 5.** The tool has a grounding plug that looks like the plug illustrated in **Figure 5(A).** A temporary adapter, which looks like the adapter illustrated in **Figure 5(B) and 5(C),** may be used to connect this plug to a 2 pole receptacle as shown in **Figure 5(B) if a properly grounded outlet is not available.** The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. The green-colored rigid ear, lug, and the like, extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box.

**NOTE - Use of a Temporary Adapter is not permitted in Canada.**
Additionally, water pump requires the use of a Ground Fault Circuit Interrupter. Therefore, when using the water pump receptacle, this tool must be plugged into a properly installed Ground Fault Circuit Interrupter outlet. **See Figure 5(D).** If a Ground Fault Circuit Interrupter outlet is not available, Pearl Abrasive Co. has it available as an accessory item. A plug-in Ground Fault Circuit Interrupter may be plugged into a properly installed and grounded 3-pole outlet. Refer to **Figure 5(E).**

20. Position of the Tile Saw
• To avoid the possibility of the appliance plug or receptacle getting wet, position tile saw to one side of a wall mounted
receptacle to prevent water from dripping onto the receptacle or plug. The user should arrange a "drip loop" in the cord connecting the saw to a receptacle. The "drip loop" is that part of the cord below the level of the receptacle, or the connector if an extension cord is used, to prevent water traveling along the cord and coming in contact with the receptacle. See Figure 6.

- If the plug or receptacle does get wet, Do not unplug the cord. Disconnect the fuse or circuit breaker that supplies power to the tool. Then unplug and examine for presence of water in the receptacle.

**To reduce the risk of electrocution, keep all connections dry and off the ground. Do not touch plug with wet hands.**

21. Extension Cords

- Use only extension cords that are intended for outdoor use. These extension cords are identified by a marking "Acceptable for use with outdoor appliances; store indoors while not in use." Use only extension cords having an electrical rating not less than the rating of the product. Refer to chart on page 14. Do not use damaged extension cords. Examine extension cord before using and replace if damaged. Do not abuse extension cords and do not pull on any cord to disconnect. Keep cord away from heat and sharp edges. **Always disconnect the extension cord from the receptacle before disconnecting the saw from the extension cord.**

* Ground Fault Circuit Interrupter (GFCI) protection should be provided on the circuit(s) or outlet(s) to be used for the tile saw. Receptacles are available having built-in GFCI protection and may be used for this measure of safety.
ix. CARE AND MAINTENANCE

**GENERAL RULES**
- Always clean the machine before performing any maintenance/repair.
- Before performing any cleaning/maintenance/repair, the machine must be switched off with the main power switch.

*Steps to Follow When Cleaning:*
- Please do not use aggressive cleaners (i.e. containing solvents). Do not use high-pressure water jets, aggressive detergents or solutions and liquids with a temperature exceeding 86ºF! Use a fluff-free cloth only.
- Use a cloth which may be lightly moistened only for removing dust and dirt. Hard packed dirt can be removed with a soft brush.
- For the sake of safety, no water/cleaning liquid/vapor may penetrate into the electric motor, connectors/plugs, switches, etc. Therefore cover all apertures, holes in the housing, connectors or plugs, etc. or seal them with adhesive tape!
- Use a soft, low-pressure water jet and a brush to rinse dirt and incrustations away. Be particularly careful when near hazardous parts of the machine (e.g. switch, motor). Clean the motor and switches only by wiping with a moist cloth.
- Do not “rinse” the bearings of the drive elements to prevent them from running dry. The ball bearings of the machine are permanently lubricated.
- After cleaning, remove all covers and adhesive tape! All screws/nuts which you may have loosened must be tightened again!
- After wet cleaning, try the machine on a power outlet which is equipped with a power breaker (i.e. fault current circuit breaker). If the fault current circuit breaker cuts the power supply, the machine must be inspected by an authorized dealer prior to use!

**CLEANING**
After every use of the machine:
- Remove dirty water from container.
- Remove dirt and mud from the bottom of the container.
- Rinse the immersion pump with fresh water to prevent the water pump from clogging with residual dirt.

*After wet cleaning and before using the machine again:*
- Connect the machine to an electric power outlet equipped with a “GFCI” safety power breaker. If the safety power breaker cuts off the electrical power supply, do not try to operate the machine but have it checked by an authorized dealer first.

**PROLONGED PERIOD OF NON-USE**
Before not using the machine for a prolonged period of time:
- Clean and lubricate all movable parts. However, do not grease the guide rails.

*After not using the machine for a prolonged period of time:*
- Check that the stand is safely fixed.
- Check that all screw joints and nuts are fixed.
- Check that the cutting table is seated properly on the guide rails and that it moves easily along the entire length of the rails.
- With the saw blade removed, switch on the motor for an instant and switch it off again. If the motor does not run, have the machine inspected by a qualified electrician.
- Check that the immersion pump works properly. Turn on the cooling water tap and switch the machine on. If the pump does not give any water or only a little, switch the machine off at once. Clean the pump, or replace if necessary.

**EXTREME TEMPERATURE**
Ambient temperature below 32° F (Winter):
- To prevent the water in the pump and cooling system from freezing, remove the water after using the machine or when there will be a long break. Make sure that the cooling system is entirely drained so that there is no water left inside the pump and water hose!
WATER PUMP MAINTENANCE

When the machine has not been used for a long period of time, hard packed dirt may begin to build up inside the pump and block the pump wheel. If the machine is activated with the immersion pump blocked, the electric motor of the pump will be damaged within a few minutes! Please follow the steps listed below to clean the pump before operating the saw:

1. Remove the immersion pump from the water container.
2. Clean the immersion pump.
3. Loosen the fixing screws of the pump lid.
4. Take the lid off the pump. Be careful not to damage or lose the gasket underneath.
5. Clean the pump lid.
6. Remove all dirt and incrustations from the pump wheel.
7. Check whether the pump wheel can be easily turned.
8. Then reassemble the immersion pump correctly and check whether it works properly.

REALIGNMENT

Method 1:

This procedure deals with the most common source of misalignment that occurs when the guide rails are not parallel with the blade.

1. Place a straight edge on the cutting table as shown in figure 7.
2. Loosen the left guide rail by untightening the fasteners found at the ends of the rail. (see figure 7) Do not loosen the rail too much to avoid excessive play during adjustments.
3. Make sure the straight edge is placed flush against the ruler guide. Adjust the left guide rail so the front and rear edges of the blade touch the straight edge, although a tolerance of 0.1mm between the front and rear edges is allowed. Perform this adjustment along the entire length of the straight edge.
4. Position the table as close to the user as possible. Place the straight edge flush against the ruler guide and blade. While gently holding down the straight edge, move the table towards the rear of the saw and then back. Apply just enough force to prevent the straight edge from moving due to table vibrations, but not enough to prevent the blade from displacing the straight edge. Observe any gaps that may appear between the straight edge and blade or between the straight edge and ruler guide. A gap exceeding the allowed tolerance means that the table is not moving parallel to the blade; hence, further adjustments as outlined in step 3 will be required. However if scenario A or B described below occurs, other adjustments may be required instead.

A. If the straight edge only touches the blade when the table is positioned midway along the rail or at the ends of the rail, then the left rail may be deformed (i.e. bowed). (see figure 8) Typically a bowing displacement of up to 0.2mm will not affect cutting accuracy. Perform test cuts to determine if the rail should be replaced. If a replacement is required try swapping the left rail with the right rail and perform the alignment procedure again. If this does not solve the problem, then replacement rails will have to be acquired.

B. If the straight edge touches both edges of the blade initially, but shifts apart as the table travels along the rail, proceed to method 2 below.

5. Tighten the fasteners at both ends of the left rail. If alignment has been achieved do not proceed to method 2.

Method 2:

This procedure corrects another source of misalignment that occurs when the table’s orientation is not parallel with the guide rails.

1. Lower the table bracket by loosening the two affixed bolts. (see figure 9) Remove the table from the rails.
2. If the table shifts to the right as it travels away from the user, a shim needs to be added to the guide roller furthest
from the ruler guide. On the other hand, if the table shifts to the left, a shim needs to be added to the guide roller closest to the ruler guide. Remove the appropriate guide roller to insert a shim between the roller and table, then reattach. (see figure 9) Depending on the severity of the shift, more than one shim may be required.

3. After adding shim(s), mount the table onto the guide rails and realign the table to the blade using method 1. Check to see if any shifting persists. A shift tolerance of 0.2mm is allowed. A shift in excess of that will require further adjustment—repeat step 2.

4. Once alignment is successful, restore the table bracket to its original position and secure it in place by tightening the affixed bolts.

LEVELING ADJUSTMENT

This procedure levels the table so that it is perpendicular to the blade and flush against the rails.

1. Loosen the bolt on the flat roller plate so that the roller can swing freely about the bolt. (see figure 10) Do this for both flat roller plates.

2. Hold the table against the rails. The flat rollers should reposition themselves to maintain contact with the rails. If the table is not perpendicular to the blade, lift the right side of the table instead to obtain the proper angle. A square tool will be required to confirm the angle. Tighten the bolts. Check the table for play. Repeat step 1 if some play is still present.

x. ELECTRICAL MOTOR SPECIFICATIONS

Recommendations:
- It is recommended that a 7.5 amp circuit be used while operating this saw. This will prevent possible power interruption or loss.
- Always plug saw as close as possible to the power source while operating. This will allow you to receive optimum electricity.

WARNING: To avoid permanent motor damage you must use the correct extension cord. Never use more than one extension cord at a time. Follow the chart for proper size.

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<th>WIRE GAUGE</th>
<th>LENGTH OF CORD</th>
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<td>50'</td>
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PA-7 TILE SAW

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<tr>
<td>Motor RPM</td>
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<tr>
<td>Cycle</td>
<td>60</td>
</tr>
<tr>
<td>Phase</td>
<td>1</td>
</tr>
</tbody>
</table>

Electrical Wiring Diagram
## REPLACEMENT PARTS LIST

### PA-7 CUTTING TABLE ASSEMBLY

<table>
<thead>
<tr>
<th>PART NAME</th>
<th>PART NUMBER</th>
<th>PART NAME</th>
<th>PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 TC02 cutting table</td>
<td>PA00001</td>
<td>12 M8 x 1.25 x 30L Socket head bolt</td>
<td>PA00012</td>
</tr>
<tr>
<td>2 Ruler guide</td>
<td>PA00002</td>
<td>13 608 LLU radial bearing</td>
<td>PA00013</td>
</tr>
<tr>
<td>3 D12.7 68.5 x 6L spacer</td>
<td>PA00003</td>
<td>14 M8 x 1.25 x 35L Hex bolt</td>
<td>PA00014</td>
</tr>
<tr>
<td>4 Type 6 guide ruler</td>
<td>PA00004</td>
<td>15 M8 x 1.25 nut</td>
<td>PA00015</td>
</tr>
<tr>
<td>5 Teflon flat ruler</td>
<td>PA00005</td>
<td>16 M8 narrow washer</td>
<td>PA00016</td>
</tr>
<tr>
<td>6 Roller mounting plate</td>
<td>PA00006</td>
<td>17 M4 x 0.7 x 8L Cross screw</td>
<td>PA00017</td>
</tr>
<tr>
<td>7 Table lock bracket</td>
<td>PA00007</td>
<td>18 M4 x 0.7 Nylon nut</td>
<td>PA00018</td>
</tr>
<tr>
<td>8 Leaf spring</td>
<td>PA00008</td>
<td>19 M8 x 1.25 x 20L socket head hex bolt</td>
<td>PA00019</td>
</tr>
<tr>
<td>9 Ball handle</td>
<td>PA00009</td>
<td>20 M8 Spring washer</td>
<td>PA00020</td>
</tr>
<tr>
<td>10 Pin head</td>
<td>PA00010</td>
<td>21 M8 x 1.25 x 20L Hex bolt</td>
<td>PA00021</td>
</tr>
<tr>
<td>11 M22 Internal C-clip</td>
<td>PA00011</td>
<td>22 M8 x 1.25 x 25L Socket head hex bolt</td>
<td>PA00022</td>
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</table>
### PA-7 MOTOR ASSEMBLY

<table>
<thead>
<tr>
<th>PART NAME</th>
<th>PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Blade shaft gear</td>
<td>PA000023</td>
</tr>
<tr>
<td>2 Cutting head housing</td>
<td>PA000024</td>
</tr>
<tr>
<td>3 Cutting head mounting tube</td>
<td>PA000025</td>
</tr>
<tr>
<td>4 Blade shaft</td>
<td>PA000026</td>
</tr>
<tr>
<td>5 Gear cover</td>
<td>PA000027</td>
</tr>
<tr>
<td>6 Blade guard mounting shaft</td>
<td>PA000028</td>
</tr>
<tr>
<td>7 Wire anchor plate</td>
<td>PA000029</td>
</tr>
<tr>
<td>8 Wire separation plate</td>
<td>PA000030</td>
</tr>
<tr>
<td>9 Wire access plate</td>
<td>PA000031</td>
</tr>
<tr>
<td>10 Particle filter</td>
<td>PA000032</td>
</tr>
<tr>
<td>11 D28 d20mm Oil seed</td>
<td>PA000033</td>
</tr>
<tr>
<td>12 Complete Motor</td>
<td>PA170101Z</td>
</tr>
<tr>
<td>13 14mm x 6mm Carbon brush</td>
<td>PA000035</td>
</tr>
<tr>
<td>14 Anchor plate</td>
<td>PA000036</td>
</tr>
<tr>
<td>15 Rubber Stop 22mm x 8mm x 2.5mm</td>
<td>PA000037</td>
</tr>
<tr>
<td>16 M10 x 1.5 Nut</td>
<td>PA000038</td>
</tr>
<tr>
<td>17 M4 Spring washer</td>
<td>PA000039</td>
</tr>
<tr>
<td>18 M3 Narrow washer</td>
<td>PA000040</td>
</tr>
<tr>
<td>19 M3 Spring washer</td>
<td>PA000041</td>
</tr>
<tr>
<td>20 M3 x 8L Cross tapping screw</td>
<td>PA000042</td>
</tr>
<tr>
<td>21 M4 Narrow washer</td>
<td>PA000043</td>
</tr>
<tr>
<td>22 M15 External C-clip</td>
<td>PA000044</td>
</tr>
<tr>
<td>23 5 x 16-Rad. Woodruff key</td>
<td>PA000045</td>
</tr>
<tr>
<td>24 Dia 5/8” (15.9mm) Universal flange</td>
<td>PA000046</td>
</tr>
<tr>
<td>25 D19 d6 Radial bearing 6262ZZ</td>
<td>PA000047</td>
</tr>
<tr>
<td>26 KEU KJD17B Electromagnetic switch</td>
<td>PA000048</td>
</tr>
<tr>
<td>27 2 Cable D9 cable boot</td>
<td>PA000049</td>
</tr>
<tr>
<td>28 Power switch mounting plate</td>
<td>PA000050</td>
</tr>
<tr>
<td>29 M8 Narrow washer</td>
<td>PA000051</td>
</tr>
<tr>
<td>30 M8 Spring washer</td>
<td>PA000052</td>
</tr>
<tr>
<td>31 M8 x 1.25 x 15L socket head hex bolt</td>
<td>PA000053</td>
</tr>
<tr>
<td>32 M8 Rectangular shim</td>
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</tr>
<tr>
<td>33 M8 x 1.25 x 15L flat point set screw</td>
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<tr>
<td>34 D35 d15 Radial bearing 6202 LLB</td>
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</tr>
<tr>
<td>35 M4 x 8L Cross tapping screw</td>
<td>PA000057</td>
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<tr>
<td>36 M4 x 8L Countersunk tapping cross screw</td>
<td>PA000058</td>
</tr>
<tr>
<td>37 M4 x 20L Cross tapping screw</td>
<td>PA000059</td>
</tr>
<tr>
<td>38 Gasket</td>
<td>PA000060</td>
</tr>
<tr>
<td>39 M4 x 1.25 Acorn nut.</td>
<td>PA000061</td>
</tr>
<tr>
<td>40 20A 125V/12A 250V Toggle switch CX38085</td>
<td></td>
</tr>
<tr>
<td>41 7/8” blade</td>
<td></td>
</tr>
<tr>
<td>42 M8 x 1.25 Nut</td>
<td>PA000062</td>
</tr>
<tr>
<td>43 5/8” –11 UNC Nut</td>
<td>PA000063</td>
</tr>
<tr>
<td>44 Motor fan cover assembly</td>
<td>PA000064</td>
</tr>
<tr>
<td>45 Water pump receptacle</td>
<td>PSV10033R</td>
</tr>
<tr>
<td>46 Power cable</td>
<td>S710-01</td>
</tr>
</tbody>
</table>

### PA-7 MAIN ASSEMBLY

1. Frame weldment  
   - PART NUMBER: PA000067
2. Left 755L - L-rail  
   - PART NUMBER: PA000068
3. Right 755L - L-rail  
   - PART NUMBER: PA000069
4. Steel water tray assembly  
   - PART NUMBER: PA000070
5. 1/2 HP Cutting head  
   - PART NUMBER: PA000071
6. TC02 Cutting table  
   - PART NUMBER: PA000072
7. Water pump  
   - PART NUMBER: CX38011
8. Water flow 1 adapter  
   - PART NUMBER: PSV00005
9. M10 Spring washer  
   - PART NUMBER: PA000073
10. M4 Spring washer  
    - PART NUMBER: PA000074
11. M8 Spring washer  
    - PART NUMBER: PA000075
12. M4 x 0.735L Cross screw  
    - PART NUMBER: PA000076
13. Male M6 x 1.25 x 20L knob  
    - PART NUMBER: PA000077
14. M8 Narrow washer  
    - PART NUMBER: PA000078
15. M6 x 1.25 x 20L Hex bolt  
    - PART NUMBER: PA000079
16. M4 x 0.7 Nut  
    - PART NUMBER: PA000080
17. Rubber stop  
    - PART NUMBER: PA000081
18. Rubber splash guard  
    - PART NUMBER: PSV100023
19. M6 Narrow washer  
    - PART NUMBER: PA000082
20. M6 x 1.0 x 10L Hex bolt  
    - PART NUMBER: PA000083
21. Blade guard  
    - PART NUMBER: PA000084
22. Water flow L adapter  
    - PART NUMBER: PSV00008
23. Air filter  
    - PART NUMBER: PA000085
24. 20A 125V 12/250V Toggle switch  
    - PART NUMBER: CX38085
25. Drain plug  
    - PART NUMBER: S1000-48
xii. TROUBLESHOOTING

EXCESSIVE NOISE. Possible blade shaft bearing wear, motor belt loose or motor fan rubbing on housing. Have tool serviced.

BLADE WILL NOT CUT. Check for worn out diamond edge. Be sure that the arrow on the blade is rotating the same direction as the motor arbor and/or arrow on the blade guard. Make sure the blade is suitable for the material to be cut. If blade has been used to cut a material that is hard, it may have become dull, dress the blade by cutting a light weight abrasive building block to expose fresh diamonds. Blade dressing stones are available from your local Pearl Warehouse.

MOTOR WILL NOT START. Check power supply. If the water pump turns on when the power switch is in the “on” position, but the motor does not, have the motor serviced.

MOTOR WILL NOT STOP. The contacts in the switch may have become arched together in the on position, have it serviced.

MOTOR SHUTS OFF DURING OPERATION. Check to see that the circuit you are using is not overloaded with lights or other equipment. The fuse or circuit breaker may not have sufficient capacity, use 20-amp power. If you are using an extension cord check the extension cord table to be sure it is heavy enough to carry the current this product will draw. See Page 14 for electric cord reference.

EXCESSIVE VIBRATION. Check to see that the blade is mounted properly according to safe operating practices section. Blade may be out of balance, try a different blade. Arbor shaft bearings possibly worn, have tool serviced.

NOT CUTTING SQUARE. Check the main table and carriage adjustment as well as the blade alignment procedure located in the care and maintenance section.

MAIN TABLE DOES NOT MOVE FREELY. Inspect the guide rails and rollers for build up of tile chips or dry slurry deposits. Clean and check guide roll or adjustments, according to the procedure in the care and maintenance section.

NO WATER FLOW TO BLADE. Check the water feed tube for kinks or obstructions. Check the inlet screen to ensure it is not clogged. Remove the pump inlet and turn the impeller to ensure it is not damaged or jammed. Clean the impeller if necessary and apply a drop of light oil to the shaft - be sure the impeller spins freely.

POOR MACHINE PERFORMANCE WITH LITTLE POWER. Check cord/extension cable for appropriate length and gage. Check power network for sufficient power and circuit breaker capacity.

CENTER HOLE IN BLADE OVERSIZED OR WORN. Saw blade has slipped on shaft while running. Check shaft for damage and replace blade.

xiii. ACCESSORIES & PARTS

<table>
<thead>
<tr>
<th>Name (Qty.)</th>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stainless Steel Water Tray (1)</td>
<td>Drain plug not included</td>
<td>PA00072</td>
</tr>
<tr>
<td>Optional Universal Saw Stand (1)</td>
<td></td>
<td>V35010-UV</td>
</tr>
<tr>
<td>Complete 45°/90° Rip Guide with Knob (1)</td>
<td></td>
<td>V35000</td>
</tr>
<tr>
<td>Optional Complete Miter Block with Knob (1)</td>
<td></td>
<td>S1000-34</td>
</tr>
<tr>
<td>Knob Only (1)</td>
<td></td>
<td>V35016</td>
</tr>
<tr>
<td>Knob Only (1)</td>
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xiv. THE RIGHT BLADE DOES THE RIGHT JOB

For the most effective cutting and blade life always use the recommended Pearl Abrasive Co. blade.

<table>
<thead>
<tr>
<th>PEARL BLADE SERIES</th>
<th>APPLICATION</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>CERAMIC TILE</td>
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<tr>
<td>HPXL Series</td>
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<tr>
<td>DTLB19 Series</td>
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<tr>
<td>HP Series</td>
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<tr>
<td>Glass Blade</td>
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</tr>
<tr>
<td>SH Series</td>
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</tr>
<tr>
<td>Pro-V Series</td>
<td>⬤</td>
</tr>
</tbody>
</table>

xv. HOW TO ORDER PARTS

Please have the following information ready before calling:

- Serial Number of your Tile Saw
- Model Number of the Tile Saw
- When purchased and where
- Part Description

All parts listed may be ordered from your Local warehouses. If the part is not stocked locally, call our Corporate office and ask for our Customer Service Department. For Technical Support call 1-800-969-5561. In Canada call 1-800-387-0008. There is a $25.00 minimum order.

Return Policy: Return goods for credit or exchange on the basis of the following terms: (1) They must be current products; (2) Items returned for replacement or refund should be in original cartons and must be accompanied by a packing slip with the following information: Returned Goods Authorization (RGA) number obtainable from Customer Service Department • List of items returned • Reason(s) for return(s) • Copy of original invoice(s); (3) Freight charges must be assumed by sender; (4) Returning goods are subject to a 15% handling charge to cover our cost of repacking and restocking. All Prices are subject to change without notice.

Disclaimer: Pearl Abrasive Co. reserves the right to make changes or improvements on its products without incurring an additional obligation including any obligation to make corresponding changes or improvements to products previously manufactured or sold. Pearl reserves the right to discontinue products at any time without notice.

All illustrations displayed in this manual are the property of Pearl Abrasive Co. and shall not be duplicated or reproduced without the express written consent of Pearl Abrasive Co.
PEARL LIMITED WARRANTY

Every PEARL ABRASIVE CO. tool is thoroughly inspected and tested before leaving the factory. It is warranted to be free of defects in materials and workmanship for a period of ONE YEAR from the date of original purchase. Pearl will repair or (at our option) replace a product, or part thereof, found by PEARL ABRASIVE CO. to be defective, provided the defective product is returned to PEARL ABRASIVE CO., freight pre-paid, with proof of purchase.

RGA NUMBER IS REQUIRED. Prior to the return of any product or part, a Return Goods Authorization number must be obtained from PEARL ABRASIVE CO. by fax (562) 927-5561 or calling (800) 969-5561. The owner's name, address, phone number, as well as the serial number of the product, proof of purchase, and a brief statement detailing the nature of the claimed defect, are required for authorization.

This Warranty does not apply where:
- repairs have been made or attempted by others
- repairs are required because of normal wear and tear
- the tool has been abused, mistreated or improperly maintained
- alterations have been made to the tool
- the product is used in a manner or with a blade not recommended by the manufacturer

In no event shall Pearl Abrasive Co. be liable for any indirect, incidental or consequential damages from the sale or use of the equipment. This disclaimer applies both during and after the term of warranty.

Pearl Abrasive Co. disclaims liability for any implied warranties, including implied warranties of "merchantability" and "fitness for a specific purpose", after the one year term of this warranty.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you.

All parts replaced under warranty will be considered as part of the original product and any warranty on these parts will expire coincidently with the original product warranty.

This warranty supersedes all previous PEARL ABRASIVE product warranties. EXCLUSION: Water pump and motor warranty is through the original equipment manufacturer.