

Electric Pressure Washer with 2400 Cleaning Units

(Model D1600e)



PART NO. D27665 Rev. 0
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To learn more about DELTA MACHINERY
visit our website at: www.deltamachinery.com.

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**For Parts, Service, Warranty or other Assistance,
please call 1-866-422-4286**

GENERAL INFORMATION

- Congratulations! You have purchased a high quality product from America's leading manufacturer of pressure washers. This pressure washer, when properly used and maintained, will provide trouble free service. Please read and follow these instructions for proper use and maintenance.
- All sales of pressure washers are final. **Do not return this product to the retailer. Call 1-866-422-4286.**
- If you experience any problems and need assistance, please call us at our toll free number **1-866-422-4286, Monday through Saturday, 8:00 a.m. To 6:00 p.m. C.S.T.**
- If repair or service part purchase is required, our many Authorized Warranty Service Centers are conveniently located and equipped to handle all in-warranty and out-of-warranty service.
- For the location of the nearest Authorized Warranty Service Center call 1-866-422-4286, Ext. 2, 24 hours a day, 7 days a week.
- All pressure washers carry a manufacturer's one year warranty from date of purchase for consumer use and a 90 day warranty for commercial use.
- Retain sales receipt as proof of purchase for warranty service.
- Do not operate this unit until you have read and understood this Owners Manual for Safety, Operation, and Maintenance Instructions.

⚠ WARNING Read Operator's Manual. Do not operate equipment until you have read Operator's Manual for **Safety, Assembly, Operation, and Maintenance Instructions.**

SAFETY GUIDELINES / DEFINITIONS

This manual contains information that is important for you to know and understand. This information relates to protecting YOUR SAFETY and PREVENTING EQUIPMENT PROBLEMS. To help you recognize this information, we use the symbols to the right. Please read the manual and pay attention to these sections.

⚠ DANGER

indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING

indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION





indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.





CAUTION

used without the safety alert symbol indicates potentially hazardous situation which, if not avoided, may result in property damage.

IMPORTANT SAFETY INSTRUCTIONS

⚠ WARNING Improper operation or maintenance of this product could result in serious injury and property damage. **Read and understand all warnings and operating instructions before using. Follow maintenance instructions specified in this manual.**

HAZARD	WHAT CAN HAPPEN	HOW TO PREVENT IT
<p>⚠ WARNING</p> <p>RISK OF ELECTRICAL SHOCK</p> 	<ul style="list-style-type: none"> Water spray directed at electrical outlets or switches, or objects connected to an electrical circuit, could result in a fatal electrical shock. This product is powered by electricity. It contains and sprays water and other conductive liquids. Improper operation could result in electrocution. The Ground Fault Circuit Interrupter (GFCI) will not function properly unless connected to a fully grounded electrical circuit! Extension cords can lead to electrical shock. 	<ul style="list-style-type: none"> Unplug any electrically operated product before attempting to clean it. Direct spray away from electric outlets and switches. Always connect cordset to a properly grounded and polarized electrical circuit. Your cordset is equipped with a Ground Fault Circuit Interrupter (GFCI) for your personal protection. If damaged, the entire cordset assembly must be replaced by an authorized service center. Refer to Grounding Instructions. Do not use with extension cords.
<p>⚠ DANGER</p> <p>RISK OF EXPLOSION OR FIRE</p> 	<p>Use of acids, unapproved chemicals, or flammable solvents with this product could cause injury or death.</p> <p>Restricting any of the pressure washer ventilation openings will cause serious overheating and could cause fire.</p>	<p>Do not use acids, gasoline, kerosene, or any other flammable materials in this product. Use only household detergents, cleaners, and degreasers recommended for use in Pressure Washers. Work in a well ventilated area.</p> <p>Never place objects against or on top of pressure washer. Operate pressure washer in an open area at least 12 inches away from any wall or obstruction that would restrict the flow of fresh air to the ventilation openings.</p>
<p>⚠ DANGER</p> <p>RISK TO BREATHING</p> 	<ul style="list-style-type: none"> Some cleaning fluids contain substances which could cause injury to skin, eyes, or lungs. 	<ul style="list-style-type: none"> Use only cleaning fluids specifically recommended for high pressure washers. Follow manufacturer recommendations. Do not use chlorine bleach or any other corrosive compound.
<p>⚠ WARNING</p> <p>RISK TO FLUID INJECTION</p> 	<ul style="list-style-type: none"> Your washer operates at fluid pressures and velocities high enough to penetrate human and animal flesh, which could result in amputation or other serious injury. Leaks caused by loose fittings or worn or damaged hoses can result in injection injuries. DO NOT TREAT FLUID INJECTION AS A SIMPLE CUT! See a physician immediately! Injuries can result if system pressure is not reduced before attempting maintenance or disassembly. 	<ul style="list-style-type: none"> Never place hands in front of nozzle. Do not direct discharge stream at persons or animals. Make sure hose and fittings are tightened and in good condition. Never hold onto the hose or fittings during operation. Do not operate pressure washer with worn or abraded hose. Never attach or remove wand or hose fittings while system is pressurized. To relieve system pressure, place on/off switch in off position, turn off water supply, and pull gun trigger until water stops flowing. Use only hose and high pressure accessories rated for pressure higher than your pressure washer's p.s.i.

HAZARD	WHAT CAN HAPPEN	HOW TO PREVENT IT
<p>⚠ WARNING</p> <p>RISK OF CHEMICAL BURN</p> 	<ul style="list-style-type: none"> • Use of acids, toxic or corrosive chemicals, poisons, insecticides, or any kind of flammable solvent with this product could result in serious injury or death. 	<ul style="list-style-type: none"> • Do not use acids, gasoline, kerosene, or any other flammable materials in this product. Use only household detergents, cleaners and degreasers recommended for use in pressure washers. • Wear protective clothing to protect eyes and skin from contact with sprayed materials.
<p>⚠ WARNING</p> <p>RISK OF UNSAFE OPERATION</p> 	<ul style="list-style-type: none"> • Unsafe operation of your pressure washer could lead to serious injury or death to you or others. • Pressure washer pump contains moving parts. Contact with moving parts can cause serious injury. • The spray gun/wand is a powerful cleaning tool that could look like a toy to a child. • Reactive force of spray will cause gun/wand to move, and could cause the operator to slip or fall, or misdirect the spray. Improper control of gun/wand can result in injuries to self and others. 	<ul style="list-style-type: none"> • Do not use chlorine bleach or any other corrosive compound. • Become familiar with the operation and controls of the pressure washer. • Keep operating area clear of all persons, pets, and obstacles. • Do not operate the product when fatigued or under the influence of alcohol or drugs. Stay alert at all times. • Never defeat the safety features of this product. • Never leave wand unattended while unit is running. • Know how to stop product and bleed pressure quickly. • Never operate machine with pump guard removed. • Do not operate machine with missing, broken, or unauthorized parts. • Keep children away from the pressure washer at all times. • Do not overreach or stand on an unstable support. Grip gun/wand firmly with both hands. Expect the gun to kick when triggered.
<p>⚠ WARNING</p> <p>RISK OF HOT SURFACES</p> 	<ul style="list-style-type: none"> • Contact with hot surfaces could result in serious burn. 	<ul style="list-style-type: none"> • During operation, touch only the control surfaces of the pressure washer. Keep children away from the pressure washer at all times. They may not be able to recognize the hazards of this product.
<p>⚠ WARNING</p> <p>RISK OF INJURY FROM SPRAY</p> 	<ul style="list-style-type: none"> • High velocity fluid spray can cause objects to break, propelling particles at high speed. • Light or unsecured objects can become hazardous projectiles. 	<ul style="list-style-type: none"> • Always wear ANSI approved Z87 safety glasses. Wear protective clothing to protect against accidental spraying. • Never point wand at, or spray people or animals. • Always secure trigger lock when wand is not in service to prevent accidental operation. • Never permanently secure trigger in pull back (open) position.

⚠ CAUTION

The powerful spray from your pressure washer is capable of causing damage to surfaces such as wood, glass, automobile paint, auto striping and trim, and delicate objects such as flowers and shrubs. Before spraying, check the item to be cleaned to assure yourself that it is strong enough to resist damage from the force of the spray. Avoid the use of the concentrated spray stream except for very strong surfaces like concrete and steel.

SAVE THESE INSTRUCTIONS

GROUNDING INSTRUCTIONS

This product must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

⚠ DANGER **Improper connection of the equipment-grounding conductor can result in risk of electrocution. Check with a qualified electrician or service personnel if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the product-if it will not fit the outlet, have a proper outlet installed by a qualified electrician. Do not use any type of adapter with this product.**

EXTENSION CORDS

Use additional length of high pressure hose instead of extension cords to avoid voltage drop and power loss to the motor, and to prevent overheating. **DO NOT USE EXTENSION CORDS.**

NOTE: The use of additional length of high pressure hose will lower the pressure washer's PSI below 1600.

GROUND FAULT CIRCUIT INTERRUPTER PROTECTION

This pressure washer is provided with a ground fault circuit interrupter (GFCI) built into the plug of the power supply cord. This device provides additional protection from the risk of electric shock. Should replacement of the plug or cord become necessary, use only identical replacement parts that include GFCI protection.

ASSEMBLY INSTRUCTIONS

Handle Assembly

1. For shipping purposes the plastic wing nut was assembled to the unit. Remove the plastic wing nut (a) from the unit.
2. Assemble handle as shown in figure 1.

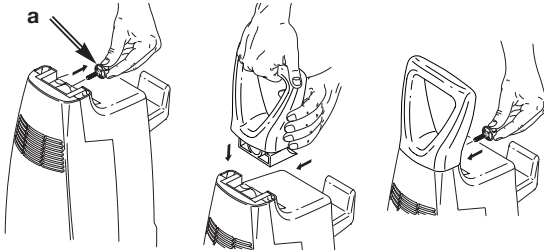
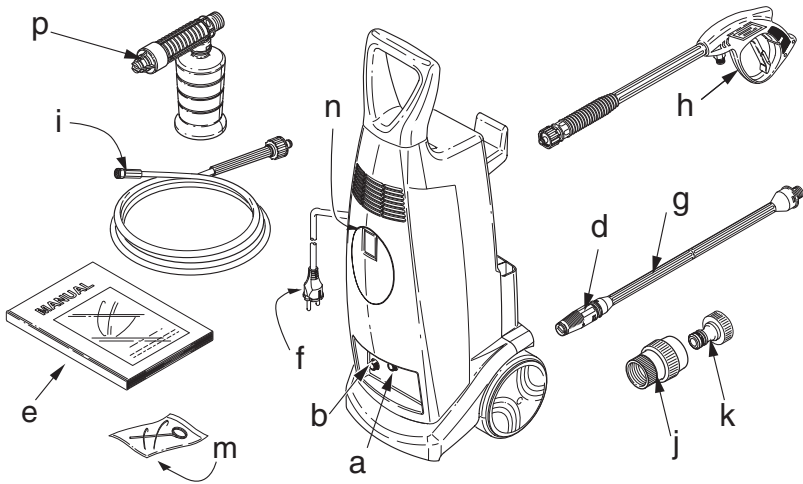


Figure 1

OPERATION INSTRUCTIONS

NOTE: Become familiar with the controls and features described on these pages before operating your unit.



BASIC ELEMENTS OF A PRESSURE WASHER

- | | |
|----------------------------|------------------------------|
| a. Water outlet | i. High pressure hose |
| b. Water inlet with filter | j. Quick-connect |
| d. Adjustable spray nozzle | k. Quick-connect adapter |
| e. Owner's manual | m. Nozzle cleaning tool |
| f. Power Cord | n. Motor ON-OFF switch |
| g. Spray Wand | p. Chemical application unit |
| h. Gun with safety latch | |

Glossary

Ground Fault Circuit Interrupter Protection (GFCI):

This washer is provided with a ground fault circuit interrupter (GFCI) built into the plug of the power supply cord. This device provides additional protection from the risk of electric shock. Should replacement of the plug or cord become necessary, use only identical replacement parts that include GFCI protection.

Total Stop System:

This unit is equipped with a total stop system. When the trigger is released the motor is shut off automatically. When the trigger is pressed again the motor will automatically start. The time between release and engagement must not be less than 4-5 seconds. DO NOT leave the unit in automatic stop mode for more than 15 minutes.

HOW TO USE THE HIGH PRESSURE SPRAY WAND

The nozzle at the end of the wand can be rotated to change from narrow jet stream to fan jet, as shown.

For low pressure operation, pull the nozzle at the end of the wand out as shown.

For high pressure operation, push the nozzle at the end of the wand in as shown.

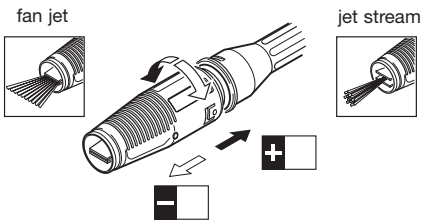


Figure 2

HOW TO USE THE CHEMICAL APPLICATION UNIT

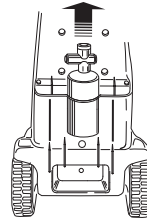
NOTE: Use only soaps and chemicals designed for pressure washer use. Do not use bleach.

1. Place the ON-OFF switch in the OFF position.



Figure 3

2. Turn off the water supply.
3. Remove chemical application unit from holder.



4. Fill the tank of the chemical application unit with detergent.
5. With wand removed attach chemical application unit to gun as shown.

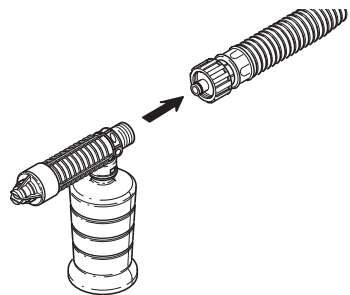


Figure 4

6. See **Before Starting** and **Starting Your Pressure Washer** paragraphs in this section to continue.

READ AND UNDERSTAND ALL WARNINGS BEFORE STARTING UNIT

▲ DANGER

When using the high pressure setting, DO NOT allow the high pressure spray to come in contact with unprotected skin, eyes, or with any pets or animals. Serious injury can occur.

Your washer operates at fluid pressures and velocities high enough to penetrate human and animal flesh, which could result in amputation or other serious injury. Leaks caused by loose fittings or worn or damaged hoses can result in injection injuries. **DO NOT TREAT FLUID INJECTION AS A SIMPLE CUT! See a physician immediately!**

▲ CAUTION

Never pull water supply hose to move pressure washer. This could damage hose and/or pump inlet.

Always keep unit in a vertical position



DO NOT use hot water, use cold water only.

Never turn water supply off while pressure washer motor is running or damage to pump will result.

This unit is equipped with an automatic stop mode. When the trigger is released the motor is shut off automatically. When the trigger is pressed again the motor will automatically start. The time between release and engagement must not be less than 4-5 seconds. **DO NOT** leave the unit in automatic stop mode for more than 15 minutes.

Stand on a stable surface and grip gun/wand firmly with both hands. Expect the gun to kick when triggered.

This product is intended for intermittent use only. Operate pressure washer one hour or less in a 2 hour period.

If you do not understand these precautions please call 1-866-422-4286 to speak to a service representative for further instructions.

BEFORE STARTING

1. Move pressure washer to level ground.



2. Make sure the ON/OFF switch is in the OFF position

3. Connect wand to gun. Tighten securely. See figure 5.

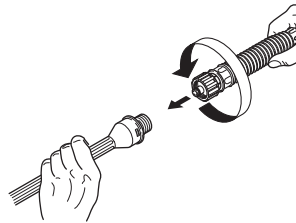


Figure 5

4. Connect gun to high pressure hose. Tighten securely. See figure 6.

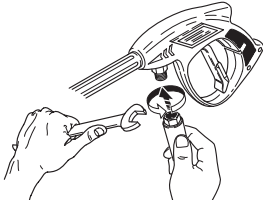


Figure 6

⚠ DANGER To reduce the risk of electrocution, keep all connections dry and off the ground. Do not touch plug with wet hands. Do not use if cord is damaged.

5. Plug the unit into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances. See the **GROUNDING** paragraph.
6. Connect the high pressure hose to the water outlet on the unit. The water outlet is marked OUT. See Figure 7.

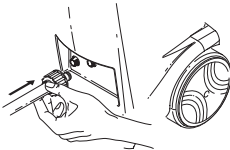


Figure 7

7. Assemble quick-connect adapter to water inlet. See Figure 8.
8. Connect the quick-connect to the water supply hose. See Figure 8.
9. Connect quick-connect to quick connect adapter at the water inlet. See Figure 8.

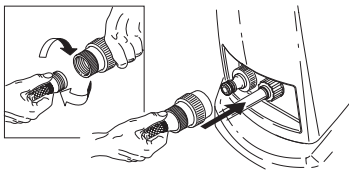


Figure 8

NOTE: The water supply must provide a minimum of 2 gallons per minute.

10. Make sure high pressure hose and water supply hose are securely connected.
11. If you are applying a chemical or cleaning solution see **How To Use Chemical Application Unit** in this section.
12. Turn water supply on.

STARTING YOUR PRESSURE WASHER

NOTE: Make sure water supply is turned on.

1. Disengage the safety catch as shown in Figure 9. Depress trigger to allow air to escape and to discharge residual pressure in the pipes.

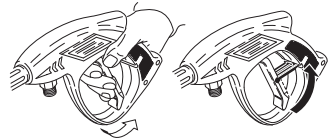


Figure 9

2. With the trigger depressed, place the ON-OFF switch in the On position. When starting motor, always keep the trigger depressed.



RECOMMENDED CLEANING

- On vertical surfaces, work from the bottom upwards.
- Let the detergent sit for 1-2 minutes, DO NOT allow detergent to dry.
- To rinse detergent, apply the high pressure jet, keeping the nozzle at least 10 in. from the surface, work from the bottom up.

SHUTTING DOWN YOUR PRESSURE WASHER

1. Place the ON-OFF switch in the OFF position.
2. Turn off water supply.



3. Pull trigger on spray gun to relieve any water pressure in hose or spray gun.
4. Disconnect water supply hose from water inlet.
5. Disconnect high pressure hose from outlet.

MAINTENANCE

⚠ WARNING

When performing maintenance, you may be exposed to hot surfaces, water pressure, or moving parts that can cause serious injury or death!

Before performing any maintenance or repair, unplug unit from power source, let motor cool and release all water pressure.

To ensure efficient operation and longer life of your pressure washer, a routine maintenance schedule should be prepared and followed. If the pressure washer is used in unusual conditions, such as high-temperatures or dusty conditions, more frequent maintenance checks will be required.

1. Check and clean the suction filter after every 50 hours of use.
3. Clean the nozzle at end of wand with the tool provided. Detach the wand from the gun and remove any dirt from the nozzle and rinse.

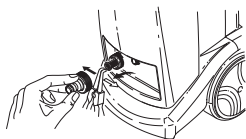


Figure 9

2. Check and clean the detergent filter after every 50 hours of use. Turn nozzle and pull to remove from chemical application unit. Clean filter inside nozzle by flushing it with water on both sides.

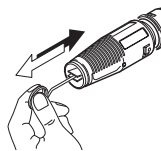


Figure 11

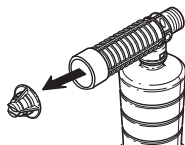


Figure 10

STORAGE

This pressure washer should be stored in such a way to protect it from freezing. Do not store this unit outdoors or in an area where temperatures will fall below 32° F. This can cause extensive damage to this unit. Drain as much water as possible as follows:

1. Stop the pressure washer, detach the water hose, and pull the trigger on the spray handle to release the pressure in the inlet hose.
2. Restart the unit, pull the trigger, and run until water no longer sprays out of the nozzle. (Approximately 30 seconds)
3. Stop unit. Detach high pressure hose from unit. Leave hose attached to wand to protect it against accidental dropping. Pull trigger to drain water from wand and hose, and place assembly in storage.

* If unit has to be stored under freezing conditions a nontoxic R.V. antifreeze can be used to protect from freezing.

Add antifreeze as follows:

1. Make sure the unit is turned off, the water supply hose is disconnected, quick-connect adapter is removed, and pressure has been relieved from the gun.

Do not disconnect the high pressure hose or gun.

2. Tip the unit on end with the water inlet fitting pointing upward.
3. With the trigger depressed, place the ON-OFF switch in the On position to start motor.
4. With the motor running pour approximately 1/4 cup of nontoxic R.V. antifreeze into the water inlet (See Figure 12). Let unit run for a few seconds.

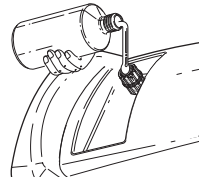


Figure 12

5. Turn the unit off and pull the trigger on the gun to relieve any pressure from the hose and gun.
6. After removing the high pressure hose, restart the unit to displace any water remaining in the pump.

TROUBLE SHOOTING GUIDE

PROBLEM	CAUSE	CORRECTION
Motor will not start and there is no humming sound	Pressure washer not plugged in.	Plug in pressure washer.
	“RESET” button on GFCI not pushed.	Push “RESET” button.
	Circuit breaker has tripped or fuse is blown.	Reset breaker or replace fuse.
Power source circuit continues to trip or blow fuses	Too much load already on circuit.	Reduce load on circuit. Try another 15 amp circuit.
Motor hums but will not start	Using an extension cord.	DO NOT use extension cords.
	Supply voltage below required minimum.	Check the voltage of the main supply line.
No or low pressure	Low water supply.	Water supply must be at least 5 GPM @ 20 PSI.
	High pressure hose is too long.	Use high pressure hose under 100 feet.
	Worn nozzle.	Replace nozzle.
Excess noise	Restricted, insufficient water supply, or air in the water line.	Check supply hose, faucet, and inlet screen.
	Water temperature is too high.	Do not use water from a hot water source, use water only from a cold water faucet.
	Pump has operated more than 5 minutes, without pulling trigger.	Pull trigger at least 30 seconds every 5 minutes.
	Pump sucking air	Check suction manifold.
Pressure fluctuates with opening gun	Water leak in high pressure fittings, hose, or gun.	Use Teflon tape or pipe sealant to tighten hose fitting, replace hose or gun. If problem continues take to authorized service center.

NOTES

LIMITED WARRANTY

DELTA MACHINERY warrants to the original purchaser that all products covered under this warranty are free from defects in material and workmanship. Products covered under this warranty include air compressors, air tools, service parts, pressure washers, and generators, which have the following warranty periods:

3 YEARS - Limited warranty on 2-stage oil-free air compressor pumps that operate at 1725 RPM.

2 YEARS - Limited warranty on oil-lubricated air compressor pumps.

1 YEAR - Limited warranty on all other air compressor components.

2 YEARS - Limited warranty on electric generator alternators.

1 YEAR - Limited warranty on other generator components.

2 YEARS - Limited warranty on pneumatic air tools as described in **Delta** general catalog.

1 YEAR - Limited warranty on pressure washers used in consumer applications (i.e. personal residential household usage only).

90 DAY - Pressure washers used for commercial applications (income producing) and service parts.

Delta will repair or replace, at **Delta's** option, products or components which have failed within the warranty period. Service will be scheduled according to the normal work flow and business hours at the service center location, and the availability of replacement parts. All decisions of **Delta Machinery** with regard to this limited warranty shall be final.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

RESPONSIBILITY OF ORIGINAL PURCHASER (initial User):

- To process a warranty claim on this product, DO NOT return it to the retailer. The product must be evaluated by a **Delta** Authorized Warranty Service Center. For the location of the nearest **Delta** Authorized Warranty Service Center call 1-866-422-4286, 24 hours a day, 7 days a week.
- Retain original cash register sales receipt as proof of purchase for warranty work.
- Use reasonable care in the operation and maintenance of the product as described in the Owners Manual(s).
- Deliver or ship the product to the nearest **Delta** Authorized Warranty Service Center. Freight costs, if any, must be paid by the purchaser.
- Air compressors with 60 and 80 gallon tanks will be inspected at the site of installation. Contact the nearest **Delta** Authorized Warranty Service Center that provides on-site service calls, for service call arrangements.
- If the purchaser does not receive satisfactory results from the **Delta** Authorized Warranty Service Center, the purchaser should contact **Delta**.

THIS WARRANTY DOES NOT COVER:

- Merchandise sold as reconditioned, used as rental equipment, and floor or display models.
- Merchandise that has become damaged or inoperative because of ordinary wear, misuse*, cold, heat, rain, excessive humidity, freeze damage, use of improper chemicals, negligence, accident, failure to operate the product in accordance with the instructions provided in the Owners Manual(s) supplied with the product, improper maintenance, the use of accessories or attachments not recommended by **Delta**, or unauthorized repair or alterations.
 - * An air compressor that pumps air more than 50% during a one hour period is considered misuse because the air compressor is undersized for the required air demand.
- Repair and transportation costs of merchandise determined not to be defective.
- Costs associated with assembly, required oil, adjustments or other installation and start-up costs.
- Expendable parts or accessories supplied with the product which are expected to become inoperative or unusable after a reasonable period of use, including but not limited to sanding disks or pads, saw and shear blades, grinding stones, springs, chisels, nozzles, o-rings, air jets, washers and similar accessories.
- Merchandise sold by **Delta** which has been manufactured by and identified as the product of another company, such as gasoline engines. The product manufacturer's warranty, if any, will apply.
- **ANY INCIDENTAL, INDIRECT OR CONSEQUENTIAL LOSS, DAMAGE, OR EXPENSE THAT MAY RESULT FROM ANY DEFECT, FAILURE OR MALFUNCTION OF THE PRODUCT IS NOT COVERED BY THIS WARRANTY.** 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.
- **IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO ONE YEAR FROM THE DATE OF ORIGINAL PURCHASE.** Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.



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