

PATRIOT 1808 - Madison Small Jetter - User Manual



WARNING

Read, understand and follow all safety warnings and instructions provided with this product.

Failure to follow the warnings and instructions may result in electric shock and/or serious injury. Save all warnings and instructions for future reference.

PATRIOT 1808 - Madison Mini-Jet - User Manual

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Safety Symbols

In this user manual and on the product, safety symbols and signal words are used to communicate important safety information. This section is provided to improve understanding of these signal words and symbols.



DANGER

DANGER indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.



WARNING

WARNING indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.



CAUTION

CAUTION indicates a hazard with a low level of risk which, if not avoided, will result in minor or moderate injury.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

SAVE THESE INSTRUCTIONS!

These instructions are intended to familiarize all personnel with the safe operation & maintenance procedures for the Patriot 1808 - Madison Mini-Jet. Replacement manuals are available upon request at no charge by calling customer service at 888-318-9888.



WARNING



Electric shock resulting in death can occur if you plug this machine into an improperly wired outlet. If the ground wire is electrified, you can be electrocuted by just touching the machine, even when the power switch is off. A ground fault circuit interrupter will not protect you in this situation. Use a UL approved tester to determine if the outlet is safe.



Do not operate equipment in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust. Equipment could create sparks which may ignite the dust or fumes.

Do not spray flammable liquids. Risk of explosion. Flammable liquids can create fumes which can ignite causing property damage or severe injury.



Do not direct discharge stream at people. This equipment can produce a stream of fluid that can pierce skin and its underlying tissues, leading to serious injury and possible amputation or death.



Always wear safety glasses and rubber soled, non slip shoes. High pressure spray can cause paint chips or other particles to become airborne and fly at high speeds. Use of this safety equipment may prevent serious injury.



WARNING

This product contains lead, a chemical known to the State of California to cause birth defects or other reproductive harm. Wash your hands after handling this product.



WARNING

This product contains one or more chemicals known to the State of California to cause cancer and birth defect or other reproductive harm.

General Safety Rules



WARNING

Read and understand all instructions. Failure to follow all instructions listed below may result in electric shock, fire, and/or serious injury.

SAVE THESE INSTRUCTIONS!

Work Area Safety

- **All installations must comply with local codes.** Contact your plumber, utility company or the selling distributor for specific details.
- **Risk of explosion. Do not spray flammable liquids or operate in an area where flammable or explosive materials are used or stored.** Power tools create sparks which may ignite dust and fumes.
- **Keep bystanders, children, and visitors away while operating machine.** Distractions can cause you to lose control.

Personal Safety

- **High pressure developed by jet machines will cause personal injury. Water spray should not be pointed at any person.** High pressure spray can result in serious injury. If fluid seems to have penetrated the skin, seek emergency medical attention at once.
- **Grip jetter hose or spray wand securely with both hands before starting machine.** Failure to do so could result in injury from a whipping hose or spray wand.
- **Always wear eye protection and rubber gloves.** Safety equipment, eye safety devices, non-skid safety shoes and protective clothing must be worn when using this equipment.
- **Do not touch engine during operation.** The muffler and other parts of the engine get hot and can cause severe burns.
- **Do not smoke while filling engine fuel tank.** Fumes can ignite causing property damage and severe injury.
- **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts.

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- **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the tool in unexpected situations.

Electrical Safety

- **Grounded tools must be plugged into an outlet, properly installed and grounded in accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in any way. Do not use any adapter plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded.** If the tool should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.
- **Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is grounded.
- **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- **When operating a power tool outside use an outdoor extension cord marked “W-A” or “W”.** These cords are rated for outdoor use and reduce the risk of electric shock.
- **Test the Ground Fault Circuit Interrupter (GFCI) provided with the power cord to insure it is operating correctly before operating machine.** Machine must have a properly functioning ground fault circuit interrupter on the power cord. GFCI reduces the risk of electric shock.
- **Extension cords are not recommended unless they are plugged into a Ground Fault Circuit Interrupter (GFCI) found in circuit boxes or outlet receptacles.** The GFCI on the machine power cord will not prevent electric shock from the extension cords.
- **Only use proper three-wire extension cords in good condition of no more than 50 ft. in length which have three-prong grounding plugs and three-pole receptacles which accept the tools plug.** Use of damaged, inferior, or other extension cords will not ground the tool, increases the risk of damage to the machine, electric shock, bodily injury or death.
- **Keep all electric connections dry and off the ground.** Reduces the risk of electric shock.
- **DO NOT touch plugs or tools with wet hands.** Reduces the risk of electric shock.

Ground Fault Circuit Interrupter (GFCI)

Your machine is equipped with a ground fault circuit interrupter, which protects you against shock if a short circuit should occur. Check that receptacle is properly grounded. Test the GFCI before each use.

1. Plug into 120-volt receptacle.
2. Push test button. Indicator light will go out and power to machine should cut off.
3. If light does not go out when test button is pushed, **DO NOT USE THE MACHINE** until proper repairs can be made.

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4. To restore power after test, push reset button. With the reset button depressed, if the machine doesn't start, stops while running, or if the operator experiences a mild shock, **DO NOT USE THE MACHINE!**
5. Tag the machine out of service and take it to a motor repair center or return it to the factory for repairs.

Equipment Use and Care

- **Do not force the equipment. Use the correct equipment for your application.** The correct equipment will do a better job and safer at the rate for which it was designed.
- **Do not use the equipment if the manual key switch or remote start does not turn it ON and OFF.** Any equipment that cannot be controlled with the ON and OFF manual key or remote start switch is dangerous and must be repaired.
- **Store idle equipment out of the reach of children and other untrained persons.** Equipment is dangerous in the hands of untrained users.
- **Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the tool's operation. If damaged, have the equipment serviced before using.** Many accidents are caused by poorly maintained equipment.
- **Use only accessories that are recommended by manufacturer for your model.** Accessories that may be suitable for one piece of equipment, may become hazardous when used on other equipment.

Service

- **Equipment service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
- **When servicing equipment, use only identical replacement parts. Follow instructions in the maintenance section of this manual.** Use of unauthorized parts or failure to follow Maintenance Instructions may create a risk of electrical shock or injury.

Water Jetter Safety Warnings



WARNING

This section contains important safety information that is specific to this tool.

Read these precautions carefully before using this Drain Cleaning Machine to reduce the risk of electrical shock or other serious personal injury.

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE!

Keep this manual with the machine for use by the operator.

- **Never operate the jetter with the hose end outside of the drain.** Hose can whip, causing striking injuries and spray can penetrate skin and cause serious injury.
- **High pressure water can inject under skin resulting in serious injury including amputation.** Do not direct spray at people or animals.
- **Do not operate jetter above pressure rating or 140°F (inlet water temperature).** This increases the risk of injury, including burns, and damage to the jetter.
- **Your water supply must provide water to the equipment that exceeds the Gallon Per Minute (GPM) rate of your machine.** You can check your GPM by using a 5 gallon bucket and a timer. If your machine is 5 GPM or less and the bucket fills in less than a minute you have adequate supply. Some water supply systems are affected by things like washing machines, livestock watering systems and flushing of toilets. Be sure the supply is still adequate when these operations are taking place. Failure to secure adequate water supply to your jetter will result in pump damage.
- **Your water should not contain particles larger than 80 microns.** Although there is a small in-line filter installed on the jetter that filters the water, the filter could only filter poor quality water for a short period of time before it clogs. This would result in damage to the machine. Therefore you should insure no sand or scale particles are present in the water supply.
- **Never run pump without water in it.** Operating the machine without water will cause the pump to fail and void the warranty.

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- **Check for worn hose and components before each use. Check that all fittings are secure before using jetter.** Worn or loose fittings can cause damage to the machine and injure the operator.
- **Protect jetter and pump from freezing.** Storing or operating the jetter in temperatures below freezing can damage pump, hose, and other jetter components. Store unit indoors or protect with anti freeze when not in use.
- **Always use appropriate personal protective equipment while handling and using drain cleaning equipment.** Drain may contain chemicals, bacteria and other substances that may be toxic, infectious, cause burns or other issues. Appropriate personal protective equipment always includes safety glasses and gloves, and rubber gloves, face shields, goggles, protective clothing, respirators, and steel toed footwear.
- **Practice good hygiene. Use hot soapy water to wash hands and other body parts exposed to drain contents after handling or using drain cleaning equipment.** Do not eat or smoke while operating or handling drain cleaning equipment. This will help prevent contamination with toxic or infectious material.
- **Do not spray toxic or flammable liquids.** This will reduce the risk of burns, fire, explosion or other injury.
- **Read and understand this manual, the warnings, and instructions for all equipment being used with this tool before operating.** Failure to follow all warnings and instructions may result in property damage and/or serious injury.

Initial Setup & Operation

Setup

1. Locate the jet near the drain line on a level surface with drainage.
2. Check the inlet screen to make sure it's clean before each use.
3. Check that the incoming water supply is clean and free of debris. Turn the water source on for at least 15 seconds to remove any possible debris in the water before connecting hose to water inlet.
4. Connect one end of a water supply hose to the water supply and the other end to the water inlet of the jet machine. Water supply must be a minimum of 20 psi and not to exceed 100 psi. **or damage to the pump can occur.** Use only heavy duty 5/8" hose of no more than 50 ft. in length. If operated without an adequate water supply, the pump will cavitate. Cavitation causes the pump to vibrate, causing damage to the pump. **Note: Lack of water supply can lead to seal damage, causing a loss of pressure and will void the warranty to the pump.**
5. Maximum temperature from the water source should not exceed 90°F (32°C). **Using water hotter than 90°F (32°C) can cause damage to the pump and void the warranty.** If jet is being used to clear ice blockages, see instructions on Ice Blockages.

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6. Select the proper hose diameter for the line to be cleaned. When using a new hose, run water through it to clean it out before attaching the nozzle.

Operation



NEVER POINT THE END OF THE JET HOSE AT A PERSON WHILE OPERATING.

1. Select the correct jet hose size to match the line size you are clearing. (See Hose Guide) Check all hoses for wear and damage. Tighten all connections securely. Note: If you are using a new jet hose, run water through it to flush out debris before connecting a nozzle.
2. Select the correct nozzle and attach to the end of the hose. (See Nozzle Selection Guide) Clean nozzles before and after each use.
3. Insert the jet hose 2 to 3 feet into the drain line before turning on Machine.
4. Turn on the water supply valve fully to allow for maximum flow.
5. Turn ON shut-off valve at the end of the supply hose.
6. Allow water to run through the supply hose, through the jet, and out of the jet hose to purge air from system before turning on the Machine.
7. Plug in GFCI power cord to proper receptacle and voltage.
8. While holding onto hose firmly to prevent hose from whipping around, turn the jet power switch on.
9. Guide the jet hose into the drain line. Do not feed the hose continuously, but rather, move the hose forward and back to allow the pressure to break up the stoppage and the water flow to flush it away. If you are clearing the line from the upstream side, this may take more time. Clearing the line from the downstream side allows debris to flow away easily.
10. The Patriot 1808 Mini-Jet includes full time Pulse. The vibration generated helps to hose overcome the friction in the line and glide farther down the line. See Pulse section.
11. When the jet hose encounters a bend, it's advance will usually slow or stop. The hose has a slight bend in it from the hose reel. It may be necessary to manually feed or rotate the jet hose to work it around the bends. If the hose won't advance, put the hose in a loop and rotate it a quarter to half turn so the curve of the hose matches the pipe. It may also be necessary to pull the hose back six inches and snap it forward to hop across a gap in the pipe fitting.
12. Once you reach the stoppage, pass the hose back and forth through the section several times to ensure the line is thoroughly cleared. You may also switch nozzles to a wide spray or rotary (optional) nozzle for wall to wall cleaning action.

Pulse

Pulsation makes the hose vibrate, helping the jet go longer distances and around tight bends easier. Pulse causes the water to burst from the nozzle hundreds of times per second. Pulse is most effective in the 1/8" hose.

Shut Down Instructions

1. After drain cleaning or spray washing is completed, turn off the jetter by pressing the red toggle button on mini jetter labeled "off".
2. If drain cleaning was performed leave jetter hose in drain and allow a few minutes for clean water to filter through the system.
3. Turn off water supply and drain as much water from the pump as possible. Remove water supply hose from inlet. If you are in a cold climate, see Freeze Protection section

Special Applications

Ice Blockages

High pressure water can be used to clear an ice blockage. A 3000 psi gas jet can clear a 4" line at an approximate rate of one foot per minute. The smaller, electric jet will take twice as long. Ambient air temperature will effect these times. Use a 15° nozzle with a forward jet. DO NOT allow the incoming water supply to exceed 90°F (32°C) or it could cause damage to the pump. Remember to follow the cold weather precautions found in the Freeze Protection section.

Freeze Protection

To protect your machine from severe damage caused by water freezing inside the components, it is important to winterize it whenever it is subjected to freezing temperatures.

The best way to protect the system is to keep it out of the cold. Barring that, the next best way is to flush the system with anti-freeze. To do so, simply attach a short garden hose (not to exceed four feet) to inlet on the jet and put other end into the anti-freeze container. Be sure to remove the nozzle from the hose. Turn the machine on to draw anti-freeze into the system. When anti-freeze flows out of the end of the hose, turn the machine off. If you are using the Spray Wand, connect high pressure hose and trigger, and follow the above procedure. Cycle trigger on and off so that the anti-freeze will flow through the pump.

When preparing to operate equipment for the next job, remove the anti-freeze. To do so, reconnect water source, turn jet on and direct flow of anti-freeze back into container. Be careful not to dilute antifreeze with incoming water supply. Anti-freeze, if kept relatively undiluted, can be used again and again.

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Hoses can also be protected from freezing by using compressed air to clear them of residual water. Remember to remove the nozzle from the jet hose and hold the trigger of spray wand in the open position.

Prevent Damages & Excessive Wear

1. Avoid extending hoses across high traffic areas while using hydro jetter, and never leave the hose where it may be run over by vehicles of any type.
2. Never pull on the hose to move the hydro jetter.
3. Never pull your high pressure hose around a tight corner or force it into a small loop. The wire braid hose has a minimum bend radius of 5", and should not be forced into any small bend.
4. Wrap up the pressure hose neatly when finished jetting.
6. Inspect inlet water filter for cleanliness and damage. If soiled or dirty, rinse with fresh water. If damaged, replace with new filter.
7. When lifting or transporting hydro jetter, secure and lift only with appropriate lifting handle.

Maintenance



DISCONNECT JETTER FROM POWER SOURCE BEFORE PERFORMING MAINTENANCE OR MAKING ANY ADJUSTMENTS.

Regular inspection is the key to preventing breakdowns and prolonging the life of the equipment. Follow this simple procedure religiously.

Daily

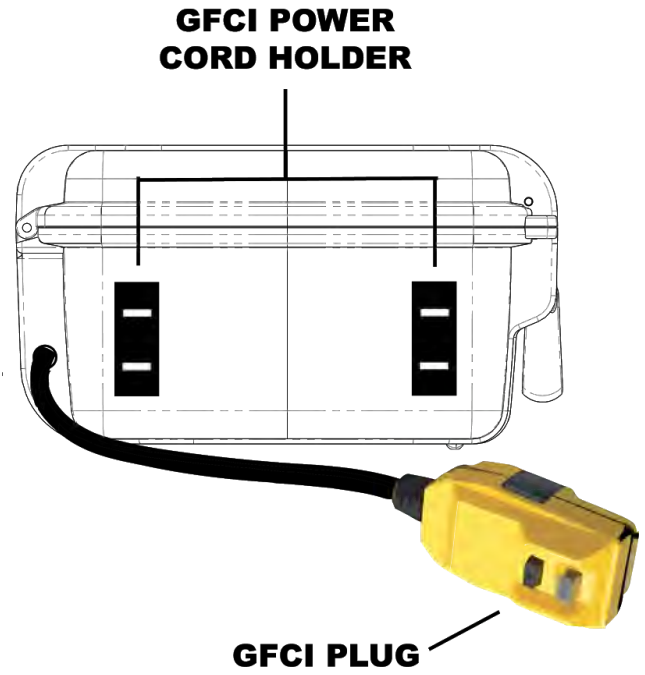
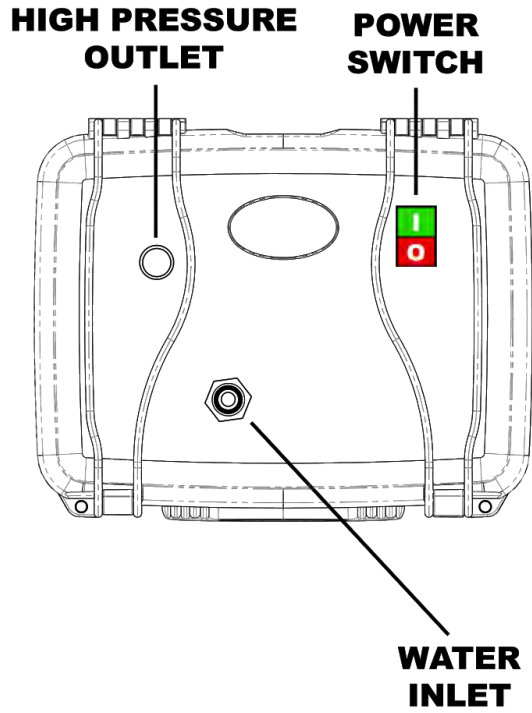
- Check INLET STRAINER for debris before each use.
- Check that the jet nozzles are not clogged or worn out.
- Clean nozzles between each use.

Weekly

- Check the pressure hose for wear and damage. Damaged hose can be repaired at a local service dealer, or by your equipment dealer.

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Specifications



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Troubleshooting Guide

Problem	Probable Cause	Solution
Low Pressure	Worn, clogged, or oversized nozzle.	Clean or replace worn nozzle. Check nozzle size.
	Clogged water inlet strainer.	Clean or replace strainers.
	Inadequate water supply.	Make certain water supply valve is on fully. Make certain water supply hose is at least 3/4" in diameter, in good condition, with no kinks or damage, and is not longer than 50 ft.
	Worn or damaged pump.	Replace pump.
	Dirt or foreign particles in valve assembly.	Remove any dirt particles.
	Air leak in inlet plumbing.	Locate air leak. Re-seal connection or replace damaged port.
Rough operation with loss of pressure.	Restricted inlet plumbing or air leak in inlet plumbing.	Repair clogged inlet fittings. Check supply hose and ensure adequate water supply.
	Damaged pump.	Replace any damaged pump parts and clean out any foreign particles.
	Clogged nozzle.	Clean or replace nozzle.
Water leakage at intake.	Worn pump.	Repair or replace pump.
	Inadequate water supply to pump, creating a vacuum lock.	Ensure adequate tap water supply. Clear inlet filter.
Short pump life.	Pump damaged by chemicals.	Repair or replace pump. Do not pump chemicals.
	Running pump without water supply.	Do not allow jet to be run without proper water supply.
	Hot water in pump.	Do not run in bypass for more than 5 minutes. Do not let water supply exceed 90°F (32°C).
Irregular spray pattern.	Worn or partially clogged nozzle.	Clean or replace nozzle.
Pump cycles.	Fitting leaking downstream.	Tighten/replace fitting.
	Clogged nozzle.	Clean or replace nozzle.

Customer Agreement

Sales Tax

Patriot Sewer Equipment & Repair, LLC. is required to charge applicable State Sales Tax on every item sold unless a California State Sales Tax Exemption Certificate has been provided.

Freight Policy

All merchandise shipped per parcel service are prepaid and added to the invoice. All shipping fees per trucking lines are the responsibility of the customer. If any freight damages or losses are experienced, Patriot Sewer Equipment & Repair, LLC requests that the freight company carrying the merchandise be contacted by the customer for freight claims.

Merchandise Claims & Return Policy

All discrepancies in goods received must be claimed within five days after receipt of goods. Any item to be returned must be referenced by invoice number, date of sale and written consent of seller.

Patriot Sewer Equipment & Repair Limited Warranty

All products manufactured at Patriot Sewer Equipment & Repair, LLC. are warranted to be free from defects in material and workmanship under normal use and maintenance for a period of one (1) year from date of purchase to original buyer. If any parts break or fail, we ask you to notify your nearest dealer or Patriot Sewer Equipment & Repair, LLC and supply us with proof of purchase and nature of failure. Patriot will repair or replace (at our option) any parts found to be defective.

The replacement part assumes the unused portion of the warranty. Transportation of the product to manufacturer is the responsibility of the user unless stated otherwise in this warranty.

This warranty does not apply to expendable items (Cables, Nozzles, Hoses, Fittings, etc.) and damage due to negligence, unauthorized repair or alteration, chemicals, misuse or accidents. Adjustments of any kind can not be made on shaved, and kinked or broken hoses because it shows evidence of abuse or too much pressure.

This warranty is exclusive and in lieu of all other expressed warranties and Patriot Sewer Equipment & Repair, LLC. does not authorize any part to assume for it any other obligation or liability. In no event shall Patriot Sewer Equipment & Repair, LLC. be liable for special or

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consequential damages arising from the use of this product or for any delay in the performance of this warranty due to causes beyond our control.

In placing this order Buyer expressly understands, acknowledges and agrees that: (1) Buyer has received and read the Operating and Maintenance Instructions that accompanied this equipment order, including Patriot's Limited Warranty and all of the other Terms and Conditions of doing business with Patriot Sewer Equipment & Repair, LLC, Inc. ("Patriot") as stated therein; (2) Buyer will operate and maintain the equipment in accordance with the specifications stated in the Instructions; (3) Buyer indemnifies and holds Patriot harmless for Buyer's failure to use the equipment in accordance with the specifications stated in the Instructions; (4) the equipment is being sold to Buyer on an "as is" and "whereis" basis and that except as specifically set forth in this agreement, Patriot makes no other representations or warranties, whether express or implied; and (5) all disputes arising under this agreement shall be submitted to courts of competent jurisdiction in the State of California and the prevailing party in any action or proceeding to enforce any provision of this agreement will be awarded reasonable attorney fees and costs incurred in that action or proceeding or in efforts to negotiate the matter.

Manufacturers Warranties & Literature

Most products used on our equipment are warranted to the final consumer by their manufacturers. Copies of such warranties are supplied with our products or are available from the manufacturers. As a service, Patriot Sewer Equipment & Repair, LLC. will obtain copies of consumer warranties from the warrantor and will furnish them free of charge to consumers upon request. Patriot Sewer Equipment & Repair, LLC assumes no responsibility for the content of such warranties or sales literature by performing this service.

Due to a continuing program of product improvement, Patriot Sewer Equipment & Repair, LLC. reserves the right without obligation to revise prices, specifications and equipment.

Patriot Sewer Equipment & Repair

Address: 6390 Columbus St. Riverside CA 92504

Phone: 888-318-9888 **Online:** www.patriot.us

Customer Full Name (Printed): _____

Customer Full Name (Signature): _____

Date: _____