

### Important Safety Instructions



**Read all safety information before operating the equipment. Save these instructions.**



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

**To reduce the risks of fire or explosion, electrical shock and the injury to persons, read and understand all instructions included in this manual. Be familiar with the controls and proper usage of the equipment.**



#### WARNING: EXPLOSION OR FIRE

Solvent and paint fumes can explode or ignite. Property damage and/or severe injury can occur.

#### PREVENTION:

- Do not spray flammable or combustible materials near an open flame, pilot lights or sources of ignition such as hot objects, cigarettes, motors, electrical equipment and electrical appliances. Avoid creating sparks from connecting and disconnecting power cords.
- For units intended for use with only water-based or mineral spirit-type materials with a minimum flash point of 38°C (100°F) — Do not spray or clean with liquids having a flash point of less than 38°C (100°F). Flash point is the temperature at which a fluid can produce enough vapor to ignite.
- Use extreme caution when using materials with a flashpoint below 100°F (38°C). **Refer to your pump manual to determine if these materials can be sprayed.**
- Paint or solvent flowing through the equipment is able to result in static electricity. Static electricity creates a risk of fire or explosion in the presence of paint or solvent fumes. All parts of the spray system, including the pump, hose assembly, spray gun and objects in and around the spray area shall be properly grounded to protect against static discharge and sparks. Use only conductive or grounded high-pressure airless paint sprayer hoses specified by the manufacturer.
- Verify that all containers and collection systems are grounded to prevent static discharge.
- Connect to a grounded outlet and use grounded extension cords (electric models only). Do not use a 3 to 2 adapter.
- Do not use a paint or solvent containing halogenated hydrocarbons. Such as chlorine, bleach, mildewicide, methylene chloride and trichloroethane. They are not compatible with aluminum. Contact the coating supplier about compatibility of material with aluminum.
- Keep spray area well ventilated. Keep a good supply of fresh air moving through the area to keep the air within the spray area free from accumulation of flammable vapors. Keep pump assembly in well ventilated area. Do not spray pump assembly.
- Do not smoke in the spray area.
- Do not operate light switches, engines, or similar spark producing products in the spray area.
- Keep area clean and free of paint or solvent containers, rags, and other flammable materials.
- Know the contents of the paint and solvents being sprayed. Read all Material Safety Data Sheets (MSDS) and container labels provided with the paints and solvents. Follow the paint and solvent manufacturer's safety instructions.
- Place pump at least 25 feet (7.62 meters) from the spray object in a well ventilated area (add more hose if necessary). Flammable vapors are often heavier than air. Floor area must be extremely well ventilated. The pump contains arcing parts that emit sparks and can ignite vapors.
- Plastic can cause static sparks. Never hang plastic to enclose spray area. Do not use plastic drop cloths when spraying flammable material.
- Fire extinguisher equipment shall be present and working.



#### WARNING: INJECTION INJURY

A high pressure paint stream produced by this equipment can pierce the skin and underlying tissues, leading to serious injury and possible amputation. See a physician immediately.

#### PREVENTION:

- Do not aim the gun at, or spray any person or animal.
- Keep hands and other body parts away from the discharge. For example, do not try to stop leaks with any part of the body.

- NEVER put your hand in front of the gun. Gloves will not provide protection against an injection injury.
- ALWAYS keep the tip guard in place while spraying. The tip guard provides some protection but is mainly a warning device.
- Only use a nozzle tip specified by the manufacturer.
- Use caution when cleaning and changing nozzle tips. In the case where the nozzle tip clogs while spraying, ALWAYS lock gun trigger, shut pump off, and release all pressure before servicing, cleaning tip or guard, or changing tip. Pressure will not be released by turning off the motor. The PRIME/SPRAY valve or pressure bleed valve must be turned to their appropriate positions to relieve system pressure. Refer to PRESSURE RELIEF PROCEDURE described in the pump manual.
- Do not leave the unit energized or under pressure while unattended. When the unit is not in use, turn off the unit and relieve the pressure in accordance with the manufacturer's instructions.
- High-pressure spray is able to inject toxins into the body and cause serious bodily injury. In the event that injection occurs, seek medical attention immediately.
- Check hoses and parts for signs of damage, a leak can inject material into the skin. Inspect hose before each use. Replace any damaged hoses or parts. Only use TITAN original-high-pressure hoses in order to ensure functionality, safety and durability.
- This system is capable of producing 3600 PSI / 248 Bar. Only use replacement parts or accessories that are specified by the manufacturer and that are rated a minimum of 3600 PSI. This includes spray tips, nozzle guards, guns, extensions, fittings, and hose.
- Always engage the trigger lock when not spraying. Verify the trigger lock is functioning properly.
- Verify that all connections are secure before operating the unit.
- Know how to stop the unit and bleed pressure quickly. Be thoroughly familiar with the controls. Pressure will not be released by turning off the motor. The PRIME/SPRAY valve or pressure bleed valve must be turned to their appropriate positions to relieve system pressure. Refer to PRESSURE RELIEF PROCEDURE described in the pump manual.
- Always remove the spray tip before flushing or cleaning the system.

#### NOTE TO PHYSICIAN:

**Injection into the skin is a traumatic injury which can lead to possible amputation. It is important to treat the injury as soon as possible. DO NOT delay treatment to research toxicity. Toxicity is a concern with some coatings injected directly into the blood stream. Consultation with a plastic surgeon or reconstructive hand surgeon may be advisable.**



#### WARNING: GENERAL

Can cause severe injury or property damage.

#### PREVENTION:

- Always wear appropriate gloves, eye protection, clothing and a respirator or mask when painting.
- Do not operate or spray near children. Keep children away from equipment at all times.
- Do not overreach or stand on an unstable support. Keep effective footing and balance at all times.
- Stay alert and watch what you are doing.
- Do not operate the unit when fatigued or under the influence of drugs or alcohol.
- Do not kink or over-bend the hose. Airless hose can develop leaks from wear, kinking and abuse. A leak can inject material into the skin.
- Do not expose the hose to temperatures or pressures in excess of those specified by manufacturer.
- Do not use the hose as a strength member to pull or lift the equipment.
- Use lowest possible pressure to flush equipment.
- Follow all appropriate local, state and national codes governing ventilation, fire prevention and operation.
- The United States Government Safety Standards have been adopted under the Occupational Safety and Health Act (OSHA). These standards, particularly part 1910 of the General Standards and part 1926 of the Construction Standards should be consulted.
- Before each use, check all hoses for cuts, leaks, abrasion or bulging of cover. Check for damage or movement of couplings. Immediately replace hose if any of those conditions exist. Never repair a paint hose. Replace with a conductive high-pressure hose.
- Do not spray outdoors on windy days.
- Always unplug cord from outlet before working on equipment (electric models only).

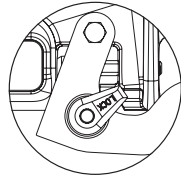
## Setup



**Never attempt to assemble, change, or clean the gun, tip, or tip guard without first relieving pressure from the spray system. Follow the "Pressure Relief Procedure" in the sprayer's Owner's Manual.**

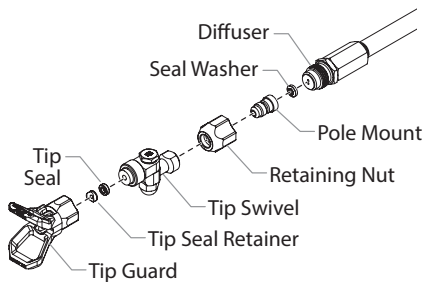


**Always use a tip safety guard for added protection against injection. Beware that the guard alone will not prevent injection. Never cut off tip guard! Always engage gun trigger lock when the gun is not in use. Before servicing equipment, consult Owner's Manuals and follow all warnings.**



Trigger lock in locked position.

1. Set up the sprayer. Refer to the instructions in the sprayer's Owner's Manual.
2. Attach a conductive or grounded, airless spray hose to the material inlet on the gun. Using two wrenches (one on the gun and one on the hose), tighten securely.
3. With the tip guard, tip swivel, and pole mount off the gun, start the sprayer. Flush and prepare the spray system according to the sprayer's Manual. Inspect the spray system to make sure that all fittings are secure and that there are no leaks.



4. Perform the "Pressure Relief Procedure" described in the sprayer's Owner's Manual.
5. Place the seal washer and pole mount over the diffuser, and secure in position using the retaining nut. Tighten securely using a wrench.
6. Thread the tip swivel onto the pole mount. Tighten securely using a wrench.
7. Thread the tip guard onto the tip swivel. Tighten securely using a wrench.

## Operation

1. Insert the desired tip assembly into the tip guard.
2. Start the sprayer. Refer to the instructions in the sprayer's Owner's Manual.
3. Adjust the fluid pressure on the sprayer until the spray is completely atomized. Always spray at the lowest pressure necessary to get the desired results.

**NOTE: The spray tip determines the size of spray pattern and coverage. When more coverage is needed, use a larger tip instead of increasing fluid pressure.**

4. Operate the trigger and use the same spraying techniques as with standard pistol-grip airless spray guns.



**Use extreme caution when spraying with an extension pole. Do not spray near power lines. Avoid all other over-head obstacles.**

## Changing a Tip

Tips can be removed and replaced easily without disassembling the gun.

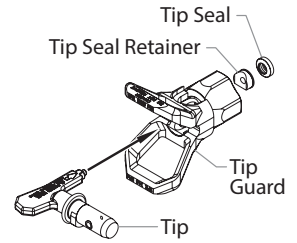


**Never attempt to change or clean the tip or tip guard without first performing the "Pressure Relief Procedure."**

1. Perform the "Pressure Relief Procedure" described in the sprayer's Owner's Manual.
2. Remove the tip from the slot on the tip guard.
3. Insert the new tip into the slot on the tip guard. The arrow on the tip handle should be pointing in the forward direction for spraying.

## Removing the Tip Seal and Tip Seal Retainer

1. Remove the tip from the tip guard.
2. Insert the tip handle through the front of the tip guard.
3. Push the tip seal and tip seal retainer out through the back of the tip guard.



## Identifying Tip Sizes

To identify tip sizes, use the following formula. A "517" tip size will be used in this example.

The first digit multiplied by two represents the size of the spray pattern when spraying 12" away from the work surface:

$$5 \times 2 = 10" \text{ spray pattern}$$

The second two digits represent the diameter of the orifice on the tip:

$$17 = .017" \text{ orifice}$$

## Cleanup

Maintaining a clean gun is important to ensure trouble-free operation. Remove the tip guard, tip swivel, and pole mount, and flush the gun after each use. Store in a dry location. Do not leave the gun or any of its parts in water or solvents.



**Special cleanup instructions for use with flammable solvents:**

- Always flush spray gun preferably outside and at least one hose length from spray pump.
- If collecting flushed solvents in a one gallon metal container, place it into an empty five gallon container, then flush solvents.
- Area must be free of flammable vapors.
- Follow all cleanup instructions.

**IMPORTANT: The sprayer, hose, and gun should be cleaned thoroughly after daily use. Failure to do so permits material to cake, seriously affecting the performance of the unit.**



**Always spray at minimum pressure with the tip guard, tip swivel, and pole mount removed when using mineral spirits or any other solvent to clean the sprayer, hose, or gun. Static electricity buildup may result in a fire or explosion in the presence of flammable vapors. Hold the gun firmly against a metal container while flushing.**

## Maintenance



**Follow all safety precautions as described in the Safety Precautions section of this manual before proceeding.**

## Replacing/Serviceing the Seal Assembly

If the spray gun leaks or spits at the tip when the trigger is released, the seal assembly is worn, damaged, or dirty and must be replaced or cleaned.



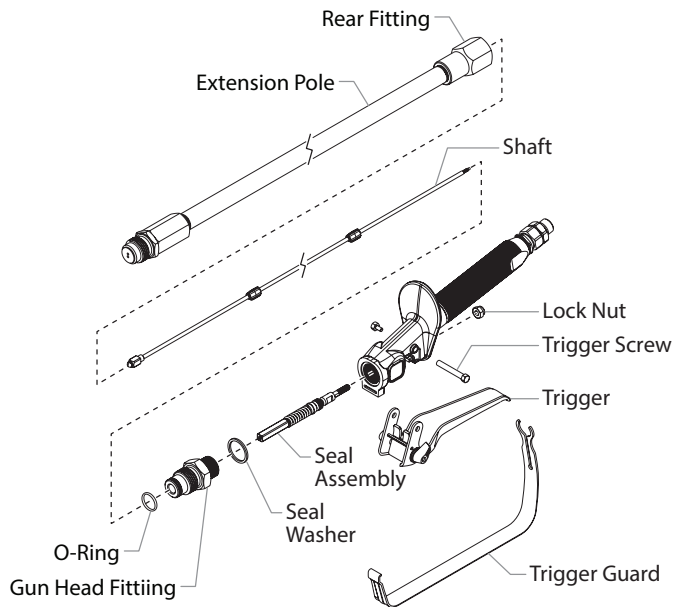
**Never attempt to perform maintenance on the spray gun without first performing the "Pressure Relief Procedure."**

1. Disconnect the airless spray hose from the gun.
2. Place one wrench on the gun head fitting and another wrench on the rear fitting of the extension pole. Turn the entire extension pole to unthread it from the gun head fitting. Make sure the fitting on the extension pole does not move during its removal.

**IMPORTANT: Do not try to remove either of the fittings on the extension pole. Movement of these fittings will break the factory seal and cause the gun to leak.**

3. Carefully remove the entire extension pole to expose the shaft and ball holder. Make sure the fitting on the extension pole does not move during removal of the extension pole.
4. Place a locking pliers on the shaft as close as possible to the seal assembly. While holding the seal assembly in place with a wrench, unthread the shaft from the seal assembly using the locking pliers.
5. Remove the trigger guard.
  - a. Pull the back of the trigger guard down so that it comes loose from the swivel assembly on the handle.
  - b. Twist the front of the trigger guard out of the slot in the gun head.

- Remove the two trigger screws that secure the trigger to the gun head. Remove the trigger.



- Place the gun head in a vise and remove the gun head fitting.
- Using a 3/8" socket, remove the lock nut from the threaded end of the seal assembly inside the back of the gun head.
- Using a pliers, pull the seal assembly from the front of the gun head. Be careful not to damage the threads inside the gun head.
- Remove the seal washer from the gun head.
- Soak the removed parts in the appropriate solvent and wipe clean.
- Inspect the parts for wear or damage and use new parts during reassembly of the gun, when necessary.

**NOTE: Lubricate all packings and moving parts with a lithium-based grease before reassembly.**

- Install the new seal assembly into the front of the gun head. Make sure the threaded portion of the seal assembly is aligned with the rectangular hole in the back of the gun head.
- Thread the lock nut onto the threaded shaft of the seal assembly in the back of the gun head. Tighten the nut until approximately 1/16" of the seal assembly shaft sticks out past the nut.
- Apply a lithium-based grease to both sides of the new seal washer and insert the washer into the groove inside the gun head.
- Install the gun head fitting into the gun head and tighten until the hex on the fitting meets the gun head. Make sure the seal washer remains in the groove inside the gun head during installation. Torque to 45-50 ft./lbs.
- Reassemble the trigger.
- Inspect the o-ring on the gun head fitting and replace if necessary.
- Apply Loctite to the threads on the shaft. Hold the seal assembly in place with a wrench and thread the shaft into the seal assembly until it stops on the chamfered shoulder. Do not apply excessive force on the shaft.
- Lubricate the o-ring on the gun head fitting and reassemble the extension pole to the gun head fitting. Trigger the gun before final tightening of the extension pole to prevent damage to the ball holder.
- Test the operation of the trigger. There should be a small amount of play in the trigger after the trigger is released. This will ensure that the ball holder is fully seated in the diffuser and the gun is shut off when the trigger is released. Adjust the position of the lock nut on the seal assembly if trigger adjustment is necessary.
- Reassemble the trigger guard.
- Start the sprayer and pressurize the gun (refer to the instructions in the sprayer's Owner's Manual). Check the gun for leaks.
- Move the trigger lock to the locked position. Pull the trigger and check for leaks.

## Replacing the Ball Holder and Diffuser

Use the following procedure to replace the ball holder and diffuser on the spray gun.

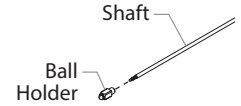


**Never attempt to perform maintenance on the spray gun without first performing the "Pressure Relief Procedure."**

- Disconnect the airless spray hose from the gun.
- Remove the tip guard, tip swivel, and pole mount from the gun.
- Place one wrench on the gun head fitting and another wrench on the rear fitting of the extension pole. Turn the entire extension pole to unthread it from the gun head fitting.

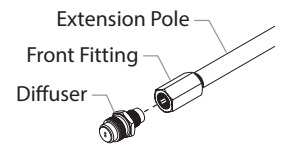
**IMPORTANT: Do not try to remove either of the fittings on the extension pole. Movement of these fittings will break the factory seal and cause the gun to leak.**

- Carefully remove the entire extension pole to expose the shaft and ball holder. Make sure to support the shaft during removal of the extension pole.
- Place a locking pliers on the shaft as close as possible to the ball holder. While holding the shaft in place with the locking pliers, unthread the ball holder from the shaft using a wrench.



- Apply Loctite to the threads of the shaft and thread the new ball holder onto the shaft until it stops at the angled shoulder of the shaft. Do not apply excessive force on the shaft or ball holder.

- Place one wrench on the wrench flats of the diffuser and another wrench on the front fitting of the extension pole. Unthread the diffuser from the extension pole. Make sure the fitting on the extension pole does not move during removal of the diffuser.



- Thread the new diffuser into the front fitting of the extension pole. Make sure to hold the fitting on the extension pole with a wrench. Torque the diffuser to 40-50 ft./lbs.
- Inspect the o-ring on the gun head fitting and replace if necessary.
- Lubricate the o-ring on the gun head fitting and reassemble the extension pole to the gun head fitting. Trigger the gun before final tightening of the extension pole to prevent damage to the ball holder.
- Test the operation of the trigger. There should be a small amount of play in the trigger after the trigger is released. This will ensure that the ball holder is fully seated in the diffuser and the gun is shut off when the trigger is released. Adjust the position of the lock nut on the seal assembly if trigger adjustment is necessary.
- Start the sprayer and pressurize the gun (refer to the instructions in the sprayer's Owner's Manual). Check the gun for leaks.
- Move the trigger lock to the locked position. Pull the trigger and check for leaks.

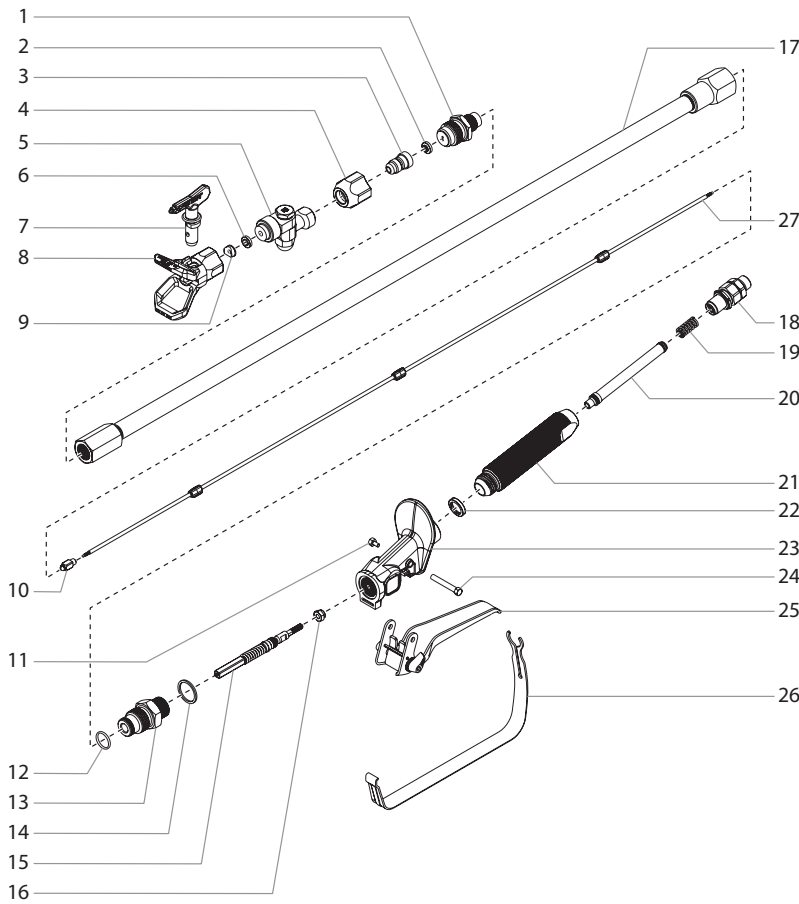
## Replacing/Removing the Filter

- Pull the back of the trigger guard down so that it comes loose from the swivel assembly on the handle.
- Remove the handle assembly from the gun head.
- Pull the old filter out of the gun head.
- Push the new or cleaned filter into the gun head.
- Make sure the handle seal is in position and thread the handle assembly into the gun head until secure.
- Snap the trigger guard back onto the handle assembly.

## Filter Chart

Part Number	Application	Filter Type	Color of Filter Body
550-486	Synthetic resin, enamels, clean varnishes, stains, azures	Extrafine	red
550-485	Base coat enamels, primer enamels, fillers, marking paints, textured enamels	Fine	yellow
550-483	Emulsions, latex paints, acrylic paints	Medium	white
550-484	Filler paints, large area surfaces	Coarse	green

# Parts List



Item	Part #	Description	Quantity
1	520-099	Diffuser, "G" thread.....	1
2	651-020	Seal washer .....	1
3	711-010	Pole mount.....	1
4	611-652	Retaining nut, "G" thread .....	1
5	611-418	Tip swivel assembly, "G" thread....	1
6	651-020	Tip seal .....	1
7	661-517	Tip assembly, SC6 .....	1
8	661-012	Tip guard, "G" thread .....	1
9	651-040	Tip seal retainer .....	1
10	550-514	Ball holder assembly .....	1
11	580-513	Trigger screw, short.....	1
12	550-466	O-ring .....	1
13	550-456	Gun head fitting .....	1
14	550-437	Seal washer .....	1
15	550-458	Packing seal assembly.....	1
16	226-001	Lock nut.....	1
17	550-464	Extension pole assembly, 4' .....	1
	550-501	Extension pole assembly, 8'	
18	580-530	Swivel assembly .....	1
19	550-488	Filter spring .....	1
20	550-483	Filter, medium .....	1
21	580-531	Gun handle.....	1
22	560-038	Handle seal.....	2
23	550-448	Gun head.....	1
24	550-454	Trigger screw, long.....	1
25	550-455	Trigger.....	1
26	550-452	Trigger guard.....	1
27	0286932	4' needle assembly .....	1
	0286933	8' needle assembly .....	1
	550-521	Gun repair kit (includes items 12 and 14-16)	
	550-518	Diffuser/ball holder repair kit, "G" thread (includes items 1, 10, and 12)	
	651-139	Tip guard and swivel assembly, "G" thread (includes items 2-5 and 8)	
	0286938	Major repair kit, 4' (includes items 10, 12, 14-16 and 27)	
	0286937	Major repair kit, 8' (includes items 10, 12, 14-16 and 27)	

## Warranty

Titan Tool, Inc., ("Titan") warrants that at the time of delivery to the original purchaser for use ("End User"), the equipment covered by this warranty is free from defects in material and workmanship. With the exception of any special, limited, or extended warranty published by Titan, Titan's obligation under this warranty is limited to replacing or repairing without charge those parts which, to Titan's reasonable satisfaction, are shown to be defective within twelve (12) months after sale to the End User. This warranty applies only when the unit is installed and operated in accordance with the recommendations and instructions of Titan.

This warranty does not apply in the case of damage or wear caused by abrasion, corrosion or misuse, negligence, accident, faulty installation, substitution of non-Titan component parts, or tampering with the unit in a manner to impair normal operation.

Defective parts are to be returned to an authorized Titan sales/service outlet. All transportation charges, including return to the factory, if necessary, are to be borne and prepaid by the End User. Repaired or replaced equipment will be returned to the End User transportation prepaid.

THERE IS NO OTHER EXPRESS WARRANTY. TITAN HEREBY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES INCLUDING, BUT NOT LIMITED TO, THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, TO THE EXTENT PERMITTED BY LAW. THE DURATION OF ANY IMPLIED WARRANTIES WHICH CANNOT BE DISCLAIMED IS LIMITED TO THE TIME PERIOD SPECIFIED IN THE EXPRESS WARRANTY. IN NO CASE SHALL TITAN LIABILITY EXCEED THE AMOUNT OF THE PURCHASE PRICE. LIABILITY FOR CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGES UNDER ANY AND ALL WARRANTIES IS EXCLUDED TO THE EXTENT PERMITTED BY LAW.

TITAN MAKES NO WARRANTY AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT MANUFACTURED BY TITAN. THOSE ITEMS SOLD, BUT NOT MANUFACTURED BY TITAN (SUCH AS GAS ENGINES, SWITCHES, HOSES, ETC.) ARE SUBJECT TO THE WARRANTY, IF ANY, OF THEIR MANUFACTURER. TITAN WILL PROVIDE THE PURCHASER WITH REASONABLE ASSISTANCE IN MAKING ANY CLAIM FOR BREACH OF THESE WARRANTIES.

# TITAN™

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