



# TETON

Natural Reliability™

## XT SERIES

### External/In-line pump

# INSTRUCTION MANUAL



DATE  
JUNE 2023

Teton Dynamics  
P.O. Box 3031  
San Leandro, CA 94578-0031

MODEL  
XT4000LH  
XT3500  
XT4900  
XT5800  
XT7000  
XT8000

# XT SERIES EXTERNAL/INLINE PUMP XT4000LH/XT3200/XT4400/XT5000/ XT6000/XT7000/XT8000

www.tetonus.com

800.752.0399

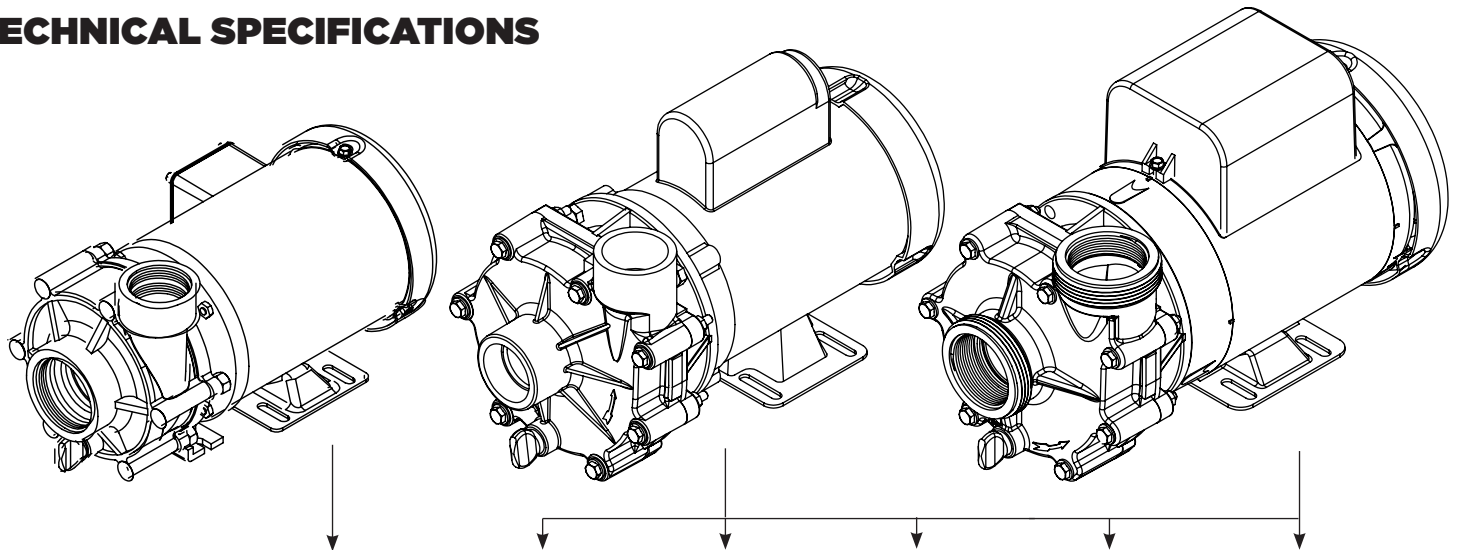
info@tetonus.com

**WELCOME TO THE WORLD OF TETON,  
NATURAL RELIABILITY™!**

You Made The Right Choice Investing In  
This Quality Product. Thank You And Enjoy.

**BEFORE USING THIS PRODUCT, PLEASE READ  
THESE INSTRUCTIONS CAREFULLY AND  
FAMILIARIZE YOURSELF WITH THE UNIT.  
PLEASE KEEP THESE INSTRUCTIONS IN A SAFE  
PLACE FOR FUTURE REFERENCE.**

## TECHNICAL SPECIFICATIONS

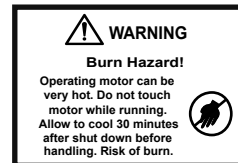
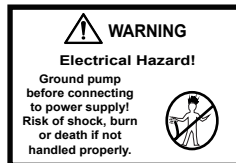
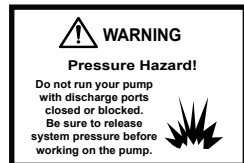


Model	XT4000LH	XT3500	XT4900	XT5800	XT7000	XT8000
<b>MAX FLOW (gph)</b>	4200	3500	5000	5800	7000	8000
<b>MAX HEAD (feet)</b>	12'	20.5'	20.2'	21'	22.5'	22'
<b>MAX POWER (watts)</b>	166	227	263	296	452	541
<b>MAX CURRENT (amps)</b>	1.4 @ 115V	1.9 @ 115V	2.3 @ 115V	2.6 @ 115V	3.9 @ 115V	4.7@ 115V
<b>VOLTS</b>	115V	115/230V	115/230V	115/230V	115/230V	115/230V
<b>MOTOR HP*</b>	1/8	1/3	1/3	1/3	1/2	1/2
<b>MOTOR</b>	Enclosed	Enclosed	Enclosed	Enclosed	Enclosed	Enclosed
<b>INLET</b>	2" FPT / 2" SOC	2" FPT 2" SOC	2" FPT 2" SOC	2" FPT 2" SOC	2" FPT 2" SOC	2" FPT 2" SOC
<b>DISCHARGE</b>	1 1/2" FPT 2" SOC	2" FPT 2" SOC	2" FPT 2" SOC	2" FPT 2" SOC	2" FPT 2" SOC	2" FPT 2" SOC

## IMPORTANT SAFEGUARDS



Please read the operating instructions and familiarize yourself with the equipment before placing it in service. Correct and safe use of the system requires strict compliance with these safety instructions. For safety reasons, persons less than 16 years of age or persons that are not familiar with these instructions, should not use this equipment.



- **WARNING: ALWAYS SHUT OFF ELECTRICAL POWER BEFORE INSTALLATION AND / OR SERVICING THIS PUMP!** All electrical wiring should meet state and local ordinances. Improper wiring may not only be a safety hazard but may permanently damage the motor and/or pump! 230V 50 HZ MOTORS AVAILABLE - CONTACT YOUR SUPPLIER FOR INFORMATION

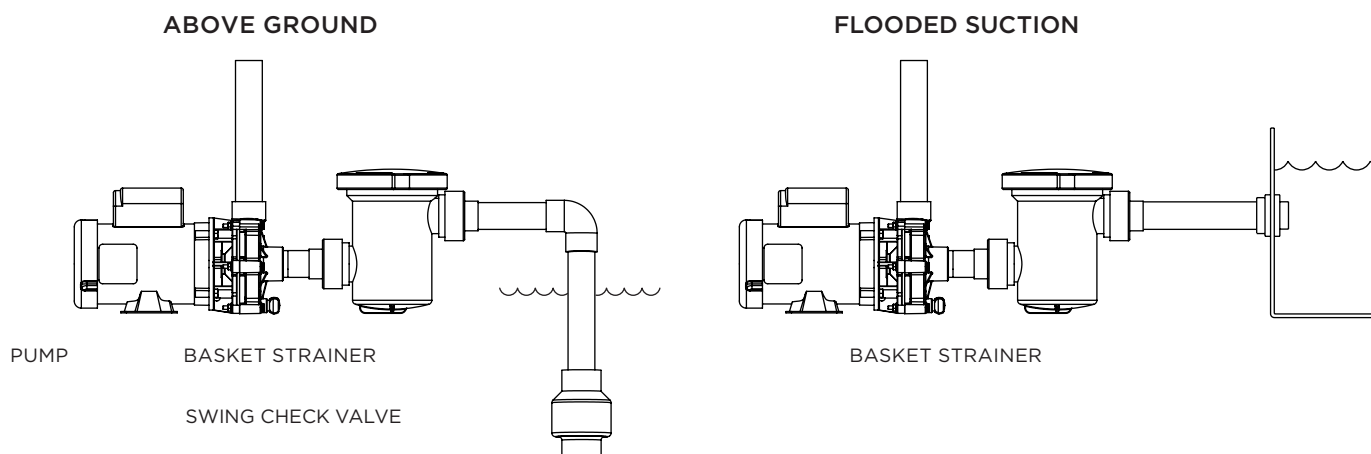
## ELECTRICAL HOOK-UP

1. Check that supply voltages match the motor's requirements.
2. Check motor wiring and connect, according to instructions on motor, to match supply voltage.
3. Power cord should be protected by conduit or by cable and be of proper gauge. It should be no longer than necessary.
4. Power should be drawn directly from a box with circuit breaker protection or with a fused disconnect switch.

## INSTALLATION

Please read carefully! When properly installed the Teton ecostream™ will provide dependable trouble-free service.

1. Locate the pump as near the water source as possible. A flooded suction situation is preferred. The pump is not self-priming, therefore, if the fluid level is below the pump, a swing check valve must be installed and the pump primed prior to start-up. (Figure 2)
2. Mount motor base to a secure, immobile foundation.
3. Use only plastic fittings on both the intake and discharge ports. Seal pipe connections with Teflon™ paste. These fittings should be self-supported and in neutral alignment with each port. (i.e. Fittings must not be forced into alignment which may cause premature line failure or damage to the pump volute.) For non-flooded installations, a strainer basket and check valve are recommended.
4. Never restrict the intake. Keep both input and discharge lines as free of elbows and valves as possible. Always use pipe of adequate diameter. This will reduce friction losses and maximize output.
5. The Teton ecostream™ is not self-priming! It must not be run dry! We recommend a flooded suction installation. Please read carefully! When properly installed, the Teton ecostream™ will provide dependable, trouble-free service.

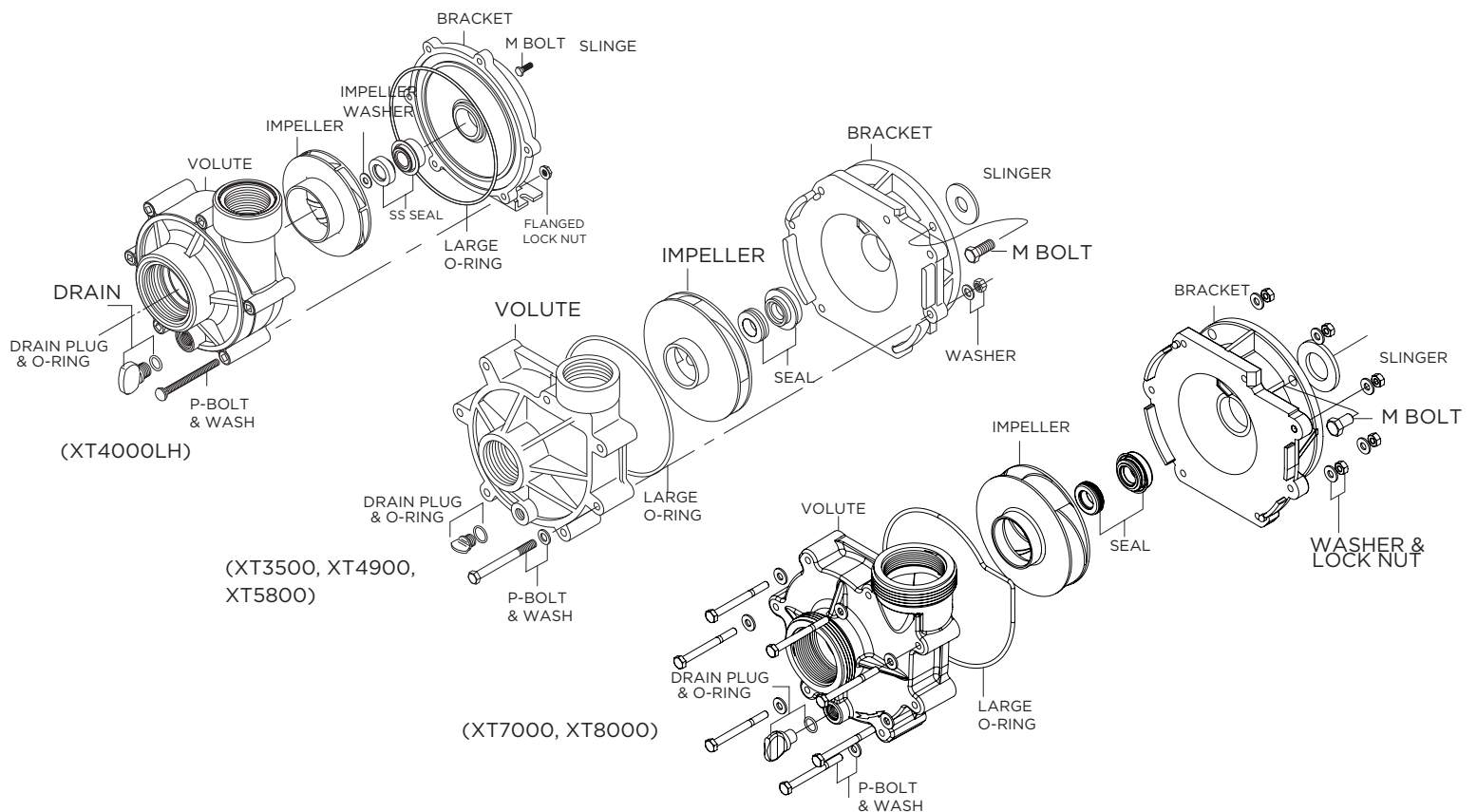


## PUMP END ASSEMBLY

1. Clean and inspect all pump parts (O-ring, seal seats, motor shaft, etc.).
2. Apply sealant to the bracket bore ID wall and around the seal case - follow sealant mfg. instructions. We recommend using Gasgacinch®. Silicone sealant can also be used.
3. Press carbon graphite seal into bracket while taking care not to damage carbon graphite face.
4. Place slinger (rubber washer) over motor shaft and mount bracket to motor.
5. Carefully, lubricate the seal seat elastomer OD and impeller hub ID with water. Press the seal seat into the impeller hub making certain that the ceramic is in evenly - the sealing surface should be parallel with the impeller hub.
6. Carefully lubricate carbon-graphite and ceramic sealing surfaces with CLEAN water. Do not use silicon lubricants or grease!
7. Assemble Bracket to motor with four M-bolts.
8. Thread impeller onto shaft and tighten! If required, remove motor end-cap and use a screwdriver on the back of motor shaft to prevent shaft rotation while tightening. Replace motor end cap.
9. Seat large O-ring in volute slot and assemble volute to bracket with screws, washers and nuts. Tighten in accross pattern (30 in-lbf).
10. Install drain plug with its O-ring in volute drain hole.
11. Before operating pump, allow a proper cure time for the sealant used in step 2.

## Disassembly

1. Shut off power to motor before disconnecting any electrical wiring from the back of the motor.
2. Disassemble volute from bracket by removing the screws.
3. Remove cap covering shaft at back of motor and with a large screwdriver, prevent shaft rotation while unscrewing impeller.
4. Remove ceramic piece from impeller. (If you are replacing the seal)
5. Detach bracket from motor.
6. Remove carbon-graphite seal from bracket by pressing out from the back. Do not dig out from the front! (If you are replacing the seal)



## **ASSEMBLY (SEE PAGE 4, FIGURE 2)**

1. Place the strain relief clip (A) about 10-12cm from the eye of the earth cable (B).
2. Slide the eye of the earth cable (B) over the earth pin (C) that is fastened to the housing (D).
3. Slide the first spring washer (E1) over the earth pin (C).
4. Place the hexagonal nut (F) on the earth pin and tighten it.
5. Slide the second spring washer (E2) over the earth pin (C).
6. Slide the strain relief clip (A) over the earth pin (C).
7. Place the last lock nut (G) on the earth pin (C) and tighten it carefully with a spanner in Step 8.
8. Ensure that the sequence follows precisely that shown on Page 4, Figure 3.

## **INSTALLATION**

The UV unit must be placed in a dry, well-ventilated area, out of direct sunlight. The best position, if possible, is after the filter. The installation must always be carried out vertically. Take into account accessibility for maintenance (see also Maintenance).

1. Undo the lock nut (H) from the housing (D) and keep this for the connecting link (I) used in Step 7.
2. Carefully unpack the UV-C lamp (J) and slide this into the quartz sleeve (K).
3. Put the UV-C lamp (J) into the lamp holder (L) and slide this further into the quartz sleeve (K). Make sure that the O-rings (M1&M2) sitting properly.
4. Tighten the nut (N) hand-tight in the housing (D).
5. Mount the pipe clamps (O) in the required place. The UV unit will hang from these. Take into account the length of the cables (see Step 6).
6. Mount the electronics box (R) in the required place. Take into account the length of the cables.
7. With the lock nut (H), fasten the connecting link (I) to the housing (D), making sure that the O-rings (M1&M2) are seated properly.
8. Place the apparatus in the pipe clamps (O) and glue the connecting link (I) between the pipes.
9. Ensure that enough water flows through the UV unit and plug the UV unit into the appropriate socket. You can see if the UV-C lamp is on by looking through the transparent connecting link (I). Check the whole assembly for possible leaks.
10. The UV unit can be turned off by simply pulling the plug out of the socket.

## **MAINTENANCE**

The UV unit needs maintenance at least once per half year. During maintenance, the UV unit must be disconnected from the electrical outlet. Chalk deposits and possibly algae must be removed from the quartz sleeve (K) and the housing (D). The UV-C lamp (J) only has to be changed after 9,000 hours of use. The actual lifetime is dependent on the number of times it is turned on and off.

1. Unplug the UV unit from the electrical outlet and close the pipes.
2. Ensure that the water is drained out of the UV unit.
3. Loosen the bolt (N) and disconnect the UV-C lamp (J) from the lamp holder (L). If necessary, you can also replace the lamp.
4. Carefully raise the quartz sleeve (K).
5. The quartz sleeve (K) can be cleaned with an appropriate cleaner. After cleaning, rinse the quartz sleeve (K) thoroughly. Use a soft cloth to avoid scratches!
6. The housing (D) can now also be cleaned. This can be done with a brush; do not use any chemicals.
7. After cleaning, place the quartz sleeve (K) back in the housing (D). Ensure that the O-ring (M1&M2) is seated properly and that the quartz sleeve (K) slides into the holder.
8. Put the UV-C lamp (J) into the lamp fitting (L) and slide both into the quartz sleeve (K).
9. Tighten the nut (N) on the housing (D) hand-tight. (See Installation Step 9).

Note: To change the housing and/or the electronics box, the earth must be completely disconnected. The component parts must be saved because they do not come with a new housing or electronics as standard.

## TROUBLESHOOTING

SYMPTOM	PROBLEM	RESOLUTION
Symptom No Flow	Insufficient Prime	Prime system with water and purge all air from suction piping Install check valve.
	Insufficient Power	Verify power supply and connection from panel to pump. Verify proper voltage. Some models are dual voltage (115/230).
	Flow Restriction	Ensure valves are open. Ensure plumbing is clear, including suction strainers, check valves, etc. Verify check valve orientation and direction of permitted flow. Clean out leaves or other debris from basket strainer (if applicable).
	Air leak	Fix air leaks at fittings, connections, strainer basket etc. This typically occurs on the intake side.
	System Incompatibility	Verify hydraulic compatibility: i.e. pump & pipe are sized for the system.
Low Flow	Air leak System Incompatibility Insufficient Power	Fix air leaks at fittings, connections, strainer basket etc. This typically occurs on the intake side. Verify hydraulic compatibility: i.e. pump & pipe are sized for the system. Verify power supply and connection from panel to pump. Verify proper voltage. Some models are dual voltage (115/230).
	Flow Restriction	Ensure valves are open. Ensure plumbing is clear, including suction strainers, check valves, etc. Clean out leaves or other debris from basket strainer (if applicable).
	Insufficient Prime	Prime system with water and purge all air from suction piping.
	Cavitation	Verify airtight plumbing on the suction plumbing especially fittings! Clean out leaves or other debris from basket strainer (if applicable). Increase pipe size where possible. Decrease suction pipe length, reduce the number of elbows, etc. Verify hydraulic compatibility: i.e. pump and pipe are sized for the system.
Sporadic Operation	Insufficient Power	Verify power supply and connection from panel to pump. Verify proper voltage. Some models are dual voltage (115/230).
	Poor Ventilation	Ensure adequate airflow over motor to prevent overheating.
Excessive Noise	Cavitation	Verify airtight plumbing on the suction plumbing especially fittings! Clean out leaves or other debris from basket strainer (if applicable). Increase pipe size where possible. Decrease suction pipe length, reduce the number of elbows, etc. Verify hydraulic compatibility: i.e. pump and pipe are sized for the system.
	Insufficient Power	Verify power supply and connection from panel to pump. Verify proper voltage. Some models are dual voltage (115/230).
	Flow Restriction	Ensure valves are open. Ensure plumbing is clear, including suction strainers, check valves, etc. Verify check valve orientation and direction of permitted flow.

## MAINTENANCE

Lubrication

Motor - Permanently Lubricated ball bearings - no service required.

Rotary Seal - Requires no lubrication after assembly.

\*The pump must be drained before servicing or if stored below freezing temperatures. Periodic replacement of seals may be required due to normal carbon wear.

## LIMITED PRODUCT WARRANTY

- CMT Group LLC, a California limited liability company d/b/a Teton™ (the “Company”) expressly warrants to the original purchaser that, for a period of two (2) years from the date of sale, the covered product (the “Product”) will be reasonably free of defects in materials and workmanship and that when properly handled, will conform, within accepted tolerance to applicable manufacturing specifications. This Limited Product Warranty (“Limited Warranty”) only applies to Company’s Products that are used, stored, handled, and installed in the manner recommended by the Company in the Product instruction manual.
- Notwithstanding this Limited Warranty, customer acknowledges that some parts of the Product are consumable and may need to be replaced as part of ongoing Product maintenance, as recommended in the Product instruction manual, and are therefore not covered by this Limited Warranty.
- Company will, at its option, repair or replace Product without charge, if the Product fails or does not perform as warranted solely due to a manufacturing defect within the warranty period, subject to the exclusions set forth in this Limited Warranty.
- Repair or replacement during this two (2) year warranty shall not include: reasonable labor charges necessary to repair or replace the defective Product, shipping costs, and packing and insurance costs. During the entire two (2) year warranty, Company’s obligation as to repair or replacement shall further be limited to repair or replacement with the models of the Product that are available at the time of the repair or replacement, and shall be limited to the repair or replacement of only the specific Product that fails due to a manufacturing defect. Any repaired or replaced Product shall also remain subject to the original two (2) year warranty from the date of the original sale, and any repair or replacement shall not extend the original warranty period in any manner or start a new warranty period.
- You may obtain coverage under this Limited Warranty by providing Company with proof of original purchase. For service under this Limited Warranty, you must first contact the seller, distributor, retailer, or dealer from whom you purchased the Product and provide the following: copy of original receipt, your name and address, a description of the Product (including the serial number/date code set forth on the Product), and the nature of the defect. To expedite any warranty claims and processing, please submit to us the product registration card included with your purchased Product promptly after your purchase.
- All warranty repairs must be performed by the Company, or a Company authorized third-party. Any repairs performed by you or an unauthorized third-party will not be compensated by Company and are not the responsibility of the Company and will void this warranty.
- **DISCLAIMER OF WARRANTIES:** Company’s Products must be stored, handled, installed, used, and maintained in accordance with instructions provided by Company, and this Limited Warranty is conditioned upon compliance with all such instructions. Copies of the Company’s use guide/care guide are included with the Product and available from the Company at the address listed below. You may also obtain these materials by contacting Company at (800) 752-0399 or on the Company’s website [www.tetonus.com](http://www.tetonus.com).
- This Limited Warranty does not cover defects caused by:
  - non-compliance with Company’s use guides, care guides, and/or instruction manual. Such failures include, but are not limited to, exposure to physical abuse, including, but not limited to chemical abuse (e.g. harsh cleansers and solvents), thermal abuse or shock (e.g. excessive heat or cold), incompatibility of fluid used near the Product, or misuse;
  - improper storage, installation, handling, and/or use of the Product;
  - damage not resulting from manufacturing defects that occur while the Product is in the customer’s possession;
  - unreasonable or unintended use of Product;
  - products installed with known or visible manufacturing defects at the time of installation;
  - minor conditions such as stains, scratches, etc.
- Any information or suggestion by Company with respect to the Products concerning applications, specifications, or compliance with codes and standards is provided solely for your convenient reference and are made without any representation as to accuracy or suitability. You must verify and test the suitability of any information with respect to the Products for your specific application.
- **THE WARRANTIES SET FORTH IN THIS LIMITED WARRANTY ARE THE ONLY WARRANTIES MADE BY COMPANY IN CONNECTION WITH THE PRODUCT. COMPANY CAN NOT AND DOES NOT MAKE ANY IMPLIED OR EXPRESS WARRANTIES WITH RESPECT TO THE PRODUCT, AND DISCLAIMS ALL OTHER WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. PRODUCTS SOLD BY COMPANY ARE SOLD ONLY TO THE SPECIFICATIONS SPECIFICALLY SET FORTH BY COMPANY IN WRITING. OTHER THAN THE LIMITED WARRANTY SET FORTH HEREIN, COMPANY MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED. COMPANY’S SOLE OBLIGATION UNDER THIS WARRANTY SHALL BE REPAIR OR REPLACEMENT OF NON-CONFORMING PRODUCTS. BUYER ASSUMES ALL RISK WHATSOEVER AS TO THE RESULT OF THE USE OF THE PRODUCTS PURCHASED, WHETHER USED SINGULARLY OR IN COMBINATION WITH ANY OTHER PRODUCTS OR SUBSTANCES.**
- **LIMITATION OF LIABILITY:** No claim by the buyer/owner of any kind, including claims for indemnification, shall be greater in amount than the purchase price of the Product in respect to which damages are claimed. IN NO EVENT SHALL COMPANY BE LIABLE TO BUYER/OWNER IN TORT, CONTRACT OR OTHERWISE, FOR ANY SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL, RELIANCE, STATUTORY, SPECIAL, PUNITIVE OR EXEMPLARY DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, LOSS OF USE, LOSS OF TIME, LOSS OF REVENUES, INCONVENIENCE, LOSS BUSINESS OPPORTUNITIES, DAMAGE TO GOOD WILL OR REPUTATION, OR LOSS OF DATA, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR SUCH DAMAGES COULD HAVE BEEN REASONABLY FORESEEN, IN CONNECTION WITH, ARISING OUT OF, OR AS A RESULT OF, THE SALE, DELIVERY, SERVICING, USE OR LOSS OF USE OF THE PRODUCT SOLD HEREUNDER, OR FOR ANY LIABILITY OF BUYER TO ANY THIRD PARTY WITH RESPECT THERETO.
- All provisions of this Limited Warranty are severable and if any provision shall be deemed invalid, the remaining provisions shall remain in full force and effect.
- Please consult your retailer for quality original Company replacement parts.
- Visit [www.tetonus.com](http://www.tetonus.com) for your nearest dealer.
- Contact Information:
  - Any question concerning this warranty should be addressed to:  
Teton  
P.O. Box, 1044  
San Leandro, CA 94577  
Phone: 800-752-0399  
Email: [info@tetonus.com](mailto:info@tetonus.com)  
Website address: [www.tetonus.com](http://www.tetonus.com)