

# BlitzForce™

## Portable Monitor

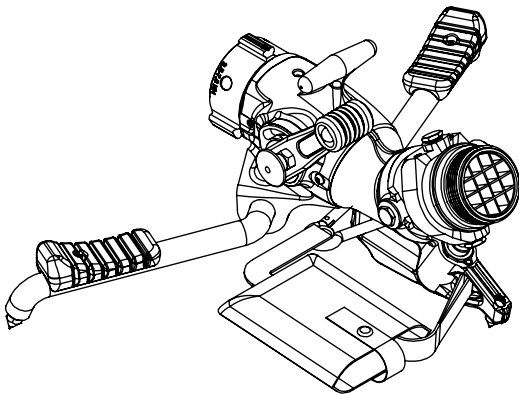
### INSTRUCTIONS FOR INSTALLATION, OPERATION, AND MAINTENANCE

**⚠ DANGER**

Understand manual before use. Operation of this device without understanding the manual and receiving proper training is a misuse of this equipment. Obtain safety information at [tft.com/](http://tft.com/) serial-number.

This equipment is intended for use by trained and qualified emergency services personnel for firefighting. All personnel using this equipment shall have completed a course of education approved by the Authority Having Jurisdiction (AHJ).

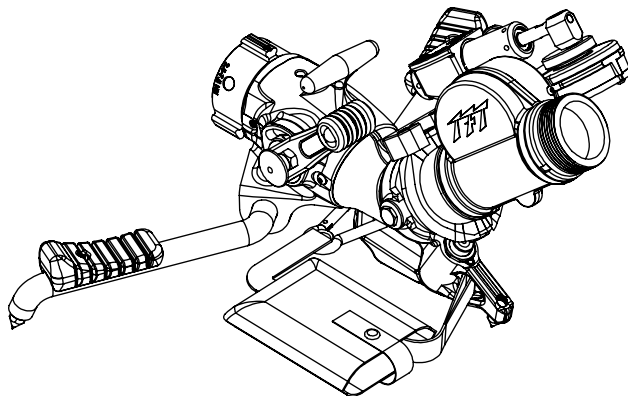
This instruction manual is intended to familiarize firefighters and maintenance personnel with the operation, servicing, and safety procedures associated with this product. This manual should be kept available to all operating and maintenance personnel.



**BlitzForce Portable Monitor**

**MAXIMUM FLOW**  
500 GPM @ 175 PSI  
(2000 L/min @ 12 BAR)

**HYDROSTATIC PROOF TEST**  
900 PSI (62 BAR) per NFPA 1964



**BlitzForce OSC Portable Monitor**

# **DANGER**

## PERSONAL RESPONSIBILITY CODE

The member companies of FEMSA that provide emergency response equipment and services want responders to know and understand the following:

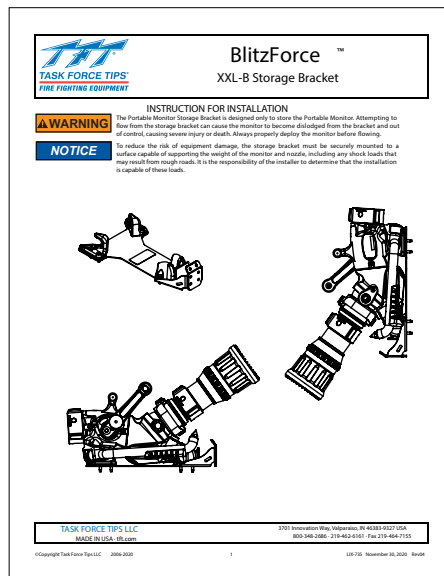
1. Firefighting and Emergency Response are inherently dangerous activities requiring proper training in their hazards and the use of extreme caution at all times.
2. It is your responsibility to read and understand any user's instructions, including purpose and limitations, provided with any piece of equipment you may be called upon to use.
3. It is your responsibility to know that you have been properly trained in Firefighting and /or Emergency Response and in the use, precautions, and care of any equipment you may be called upon to use.
4. It is your responsibility to be in proper physical condition and to maintain the personal skill level required to operate any equipment you may be called upon to use.
5. It is your responsibility to know that your equipment is in operable condition and has been maintained in accordance with the manufacturer's instructions.
6. Failure to follow these guidelines may result in death, burns or other severe injury.



Fire and Emergency Manufacturers and Service Association  
P.O. Box 147, Lynnfield, MA 01940 • www.FEMSA.org

## SUPPORTING MATERIALS

The following document contains supporting safety and operating information pertaining to the equipment described in this manual.



LIX-735 - BLITZFORCE XXL-B  
Storage Bracket

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## 1.0 MEANING OF SAFETY SIGNAL WORDS

A safety related message is identified by a safety alert symbol and a signal word to indicate the level of risk involved with a particular hazard. Per ANSI Z535.6, the definitions of the four signal words are as follows:



**DANGER** indicates a hazardous situation which, if not avoided, will result in death or serious injury.



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



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



**NOTICE** is used to address practices not related to physical injury.

## 2.0 SAFETY



An inadequate supply of pressure and/or flow will cause an ineffective stream and can result in injury or death. Choose operating conditions to deliver adequate fire suppression. See flow graphs.



Sudden change in position of an improperly secured monitor can result in an out of control monitor. An out of control monitor can spray water in unintended directions or become a projectile, causing serious injury or death. To reduce the risk of an out of control monitor:

- Do not attempt to move the monitor while flowing
- Keep elevation as high as practical
- Test Shut-off valve before each use
- Securely tie off monitor
- Ensure all legs are in the unfolded position
- Hook legs on stationary objects such as door frames, sign posts, etc.
- Choose surfaces that allow all spikes to contact the ground
- Do not place the monitor on top of debris, objects, or uneven terrain
- Assure that the hose is not lifting spikes off the ground
- If stability is questionable, reduce flow to limit reaction

In the event of an out of control monitor:

- Immediately retreat to a safe distance
- Shut down the water hose at its source before attempting to re-secure the monitor



Interrupting flow to the monitor could cause injury or death. Avoid situations that may interrupt flow to the monitor such as hose line kinks, traffic running over hose, and automatic doors or devices that can pinch the hose.



The stream exiting a nozzle is very powerful and capable of causing injury and property damage. Make sure the nozzle is securely attached and pointing in a safe direction before water is turned on. Do not direct water stream to cause injury or damage to persons or property.



Equipment may be damaged if frozen while containing significant amounts of water. Such damage may be difficult to detect visually. Subsequent pressurization can lead to injury or death. Any time the equipment is subject to possible damage due to freezing, it must be tested and approved for use by qualified personnel before being considered safe for use.



Mismatched or damaged waterway connections may cause equipment to leak or uncouple under pressure. Failure could result in injury. Equipment must be mated to matched connections.



Dissimilar metals coupled together can cause galvanic corrosion that can result in the inability to uncouple the connection, or complete loss of engagement over time. Failure could cause injury. Per NFPA 1962, if dissimilar metals are left coupled together, an anti-corrosive lubricant should be applied to the connection and the coupling should be disconnected and inspected at least quarterly.



To prevent mechanical damage, do not drop or throw equipment.

### 3.0 GENERAL INFORMATION

The BlitzForce Portable Monitor is an efficient, compact and easy to maneuver portable monitor. The monitor is a lightweight aluminum unit, capable of delivering up to 500 gpm of water. This monitor can be mounted in a pre-connected state on the truck-mounted storage bracket to achieve a quick and effective initial attack.

### 3.1 VARIOUS MODELS AND TERMS

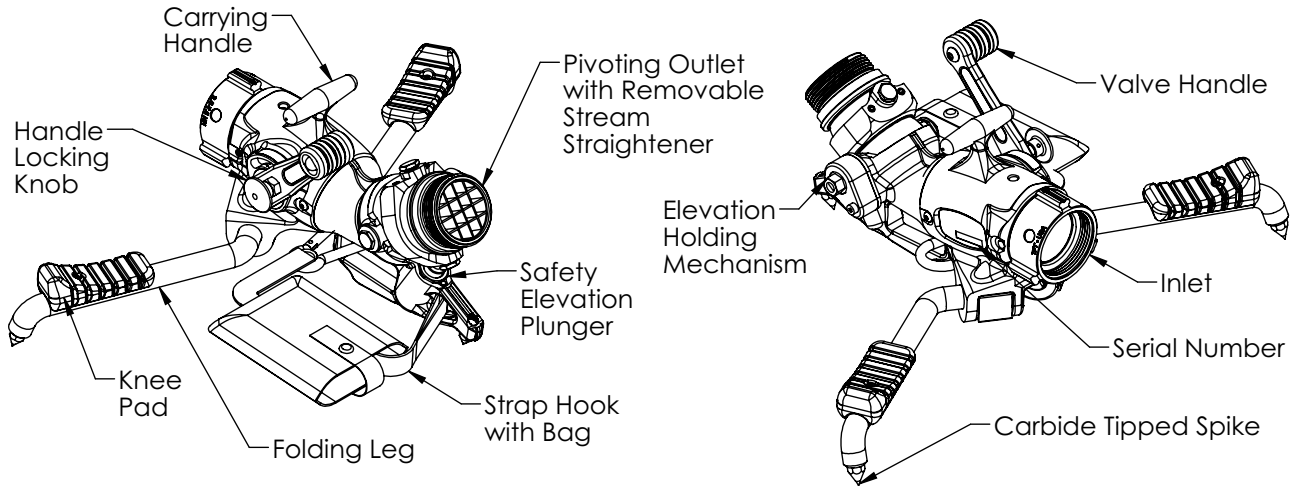


Figure 3.1

### 3.2 MECHANICAL SPECIFICATIONS

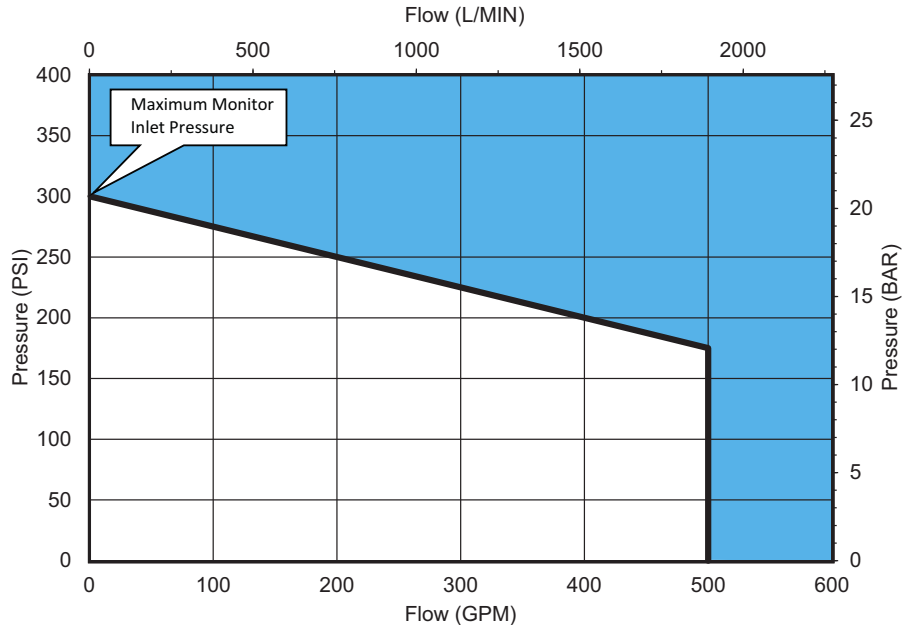
<b>Size (legs folded)</b>	14.8"L x 9.0"W x 9.4"H	(375mm x 230mm x 240mm)
<b>Size (legs unfolded)</b>	15"L x 25.8"W x 10"H	(380mm x 655mm x 254mm)
<b>Weight (without nozzle)</b>	15 lbs	(6.9 kg)
<b>Maximum inlet pressure with valve shut off</b>	300 psi	(20 bar)
<b>Maximum inlet pressure at maximum flow</b>	175 psi	(12 bar)
<b>Flow Range</b>	up to 500 gpm	(up to 200 l/min)
<b>Operating temperature of fluid</b>	33 to 120°F	(1 to 50°C)
<b>Storage temperature range</b>	-40 to 150°F	(-40 to 65°C)
<b>Standard Inlet Coupling</b>	2 ½" NH Female	
<b>Standard Outlet</b>	2 ½" NH Male	
<b>Vertical Stream Range (manned)</b>	20 to 60° above horizon	
<b>Vertical Stream Range (unmanned)</b>	30 to 60° above horizon	
<b>Horizontal Stream Range</b>	+/- 20° either side of centerline	
<b>Materials used</b>	Aluminum 6000 series hard anodized MIL8625 class 3 type 2, stainless steel 300 series, nylon 6-6	

Table 3.2

### 3.3 OPERATING ENVELOPE



Damage or injury could result from operating the monitor beyond the safe operating envelope. Do not operate the monitor outside the envelope in the following graph(s).



### 3.4 USE WITH SALT WATER

Use with salt water is permissible provided the equipment is thoroughly cleaned with fresh water after each use. The service life of the equipment may be shortened due to the effects of corrosion, and is not covered under warranty.

### 3.5 OPERATING INSTRUCTIONS

#### 3.6 VALVE OPERATION

The valve handle is locked in the closed position so that the Portable Monitor may be carried/moved without the valve inadvertently opening when water flow is not desired. To unlock the valve handle from the closed position:

1. Pull the knob on the right side of the valve handle.
2. While pulling the knob, use the other hand to move the valve handle slowly to an open position.

As soon as valve is opened the knob may be released. Valve handle may be moved to any position by pushing or pulling on the valve handle. When the valve is closed the valve handle automatically locks and must be unlocked again to reopen. The monitor has a label that indicates the direction to open and close the valve.

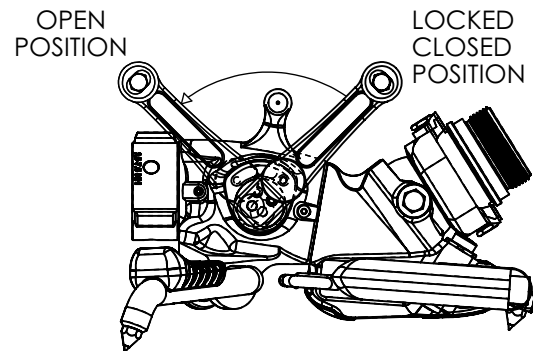


Figure 3.6



Sudden changes in valve position can cause pressure spikes (water hammer) and could lead to hose or pipe failure or an out of control monitor. Open and close the valve slowly to avoid water hammer.

### 3.7 FOLDING LEGS

The Portable Monitor has two legs that fold for storage and unfold for operation. The legs are held in the folded and unfolded position by spring detents. To fold or unfold the legs:

1. Grasp the spike end of one leg and pivot it to the folded or unfolded position.
2. Repeat for the other leg.



In the unfolded position, the legs provide a stable base for operation of the monitor. Lack of stability can cause an out of control monitor resulting in injury or death. Do not operate as a portable monitor with one or both legs in the folded position.

### 3.7.1 CARBIDE SPIKES

The BlitzForce Portable Monitor has 3 tungsten carbide tipped spikes on the legs and the base to resist sliding by digging into the surface the monitor is sitting on. The amount of sliding force these spikes can withstand depends upon the amount of downward and sideways force that is on the base and the hardness and texture of the surface the spikes are in contact with. At low elevation angles, it is difficult for these spikes to resist sliding. These spikes are essential to safe operation of the monitor and must be in contact with the ground at all times. Set the monitor on an even surface so that all three spikes contact the ground. Replace any spike if the tip diameter exceeds 1/16 inch (1.6mm).

**WARNING** For stable operation all spikes must maintain contact with the ground. Lack of stability can cause an out of control monitor resulting in injury or death. Do not place the monitor on top of debris, objects, or uneven terrain that could keep any of the spikes from contacting the ground.

**WARNING** On hard slippery surfaces the spikes may provide little resistance to sliding. A sliding monitor may become out of control and may cause injury or death.

To help increase resistance to sliding:

- Tie off the monitor
- Hook the legs on a stationary object
- Apply a person's weight to the monitor
- Replace any spike if the tip diameter exceeds 1/16 inch (1.6 mm)

**CAUTION** Spikes are sharp and exposed. Use care around spikes to avoid injury and damage to clothing or other property.

### 3.8 FULL TIME SWIVEL INLET HOSE COUPLING

The BlitzForce Portable Monitor has a full-time swiveling inlet coupling so that when the hose is charged, any twist in the hose will minimize the lifting of the spikes off the ground. The monitor is equipped with three spikes to provide traction when flowing from the ground. For the spikes to provide traction they must remain in contact with the ground. Assure that the hose is not on top of anything that would cause the spikes to be lifted off the ground.

### 3.9 OUTLET PIVOTS AND SAFETY ELEVATION PLUNGER

The monitor's outlet pivots to allow for 20 degrees of horizontal rotation either side of center. The elevation range is from 20 to 60 degrees manned and 30 to 60 degrees unmanned (30 to 50 degrees with the oscillator version). While manned, to lower the outlet below the 30 degrees elevation, push down the outlet to the desired elevation. Below the outlet pivot is a spring-loaded plunger that returns the outlet to 30 degrees if the operator releases on the outlet or the monitor is unmanned. The pivots are easy to reposition under pressure and are good for rapid redirecting of the stream.

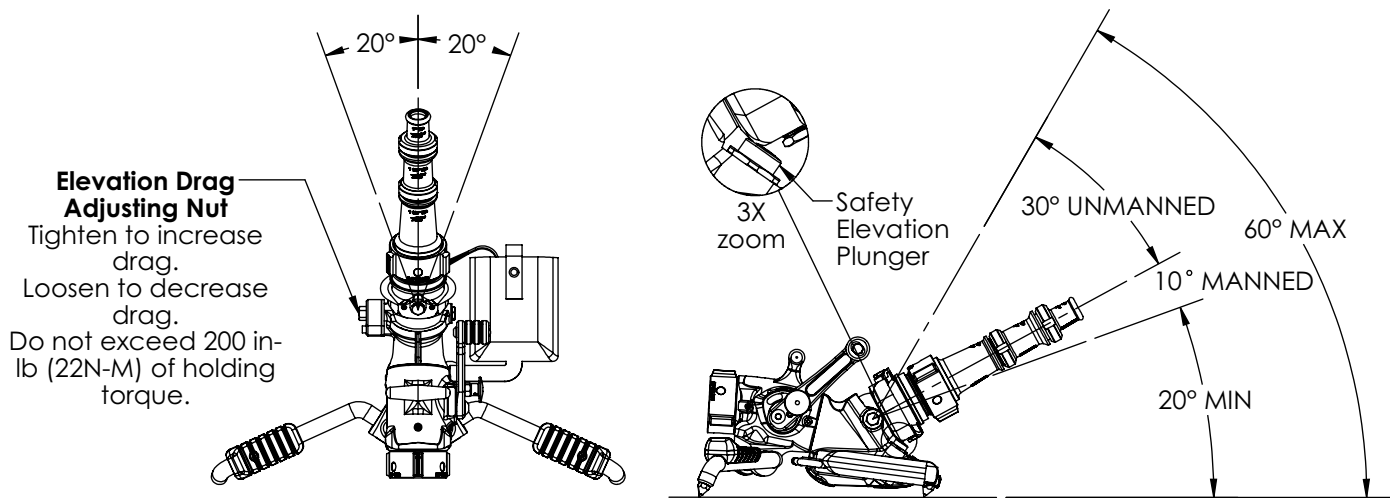


Figure 3.9

### 3.10 ELEVATION HOLDING MECHANISM

The elevation pivot has a mechanism to support the weight of a nozzle. It is factory set to support the weight of nozzles likely to be used. It may be adjusted. The mechanism releases when raising the nozzle so upwards drag from the mechanism is not felt. Avoid the use of long stream straighteners or heavy nozzles which may overcome the holding torque of the elevation mechanism.

## 4.0 FLOW CHARACTERISTICS

The BlitzForce Portable Monitor is designed for maximum flows of 500 GPM (2000 LPM) and a maximum pressure of 175 PSI (12 BAR). Do not exceed these limits.

### 4.1 AUTOMATIC, FIXED, AND SELECTABLE FLOW NOZZLES

A variety of water or foam nozzles may be used with the BlitzForce Portable Monitor.

Automatic nozzles maintain a constant pressure by adjusting their opening to match the available flow. Consult the nozzle manufacturer for maximum flow and pressure ratings. In all cases do not exceed 500 GPM (2000 LPM) and/or 175 PSI (12 BAR).

### 4.2 STACKED TIPS OR SMOOTHBORE NOZZLES

NOZZLE DIAMETER	NOZZLE INLET PRESSURE									
	50 PSI		80 PSI		100 PSI		150 PSI		175 PSI	
	FLOW (GPM)	REACTION (LBS)	FLOW (GPM)	REACTION (LBS)	FLOW (GPM)	REACTION (LBS)	FLOW (GPM)	REACTION (LBS)	FLOW (GPM)	REACTION (LBS)
1.0"	210	80	266	126	297	157	364	236	390	275
1-1/4"	328	120	415	196	464	245	---	---	---	---
1-1/2"	473	177	---	---	---	---	---	---	---	---

NOZZLE DIAMETER	NOZZLE INLET PRESSURE									
	4 BAR		6 BAR		8 BAR		10 BAR		12 BAR	
	FLOW (L/min)	REACTION (KG)	FLOW (L/min)	REACTION (KG)	FLOW (L/min)	REACTION (KG)	FLOW (L/min)	REACTION (KG)	FLOW (L/min)	REACTION (KG)
25mm	830	40	1000	60	1200	80	1300	100	140	120
32mm	1300	70	17000	100	1900	130	---	---	---	---
38mm	1900	90	---	---	---	---	---	---	---	---

--- FLOW EXCEEDS RATING OF BLITZFORCE PORTABLE MONITOR

Table 4.2

### 4.3 STREAM STRAIGHTENERS

Stream quality, especially with smooth bore nozzles, is generally improved with the use of a stream straightener. A stream straightener is integrated into the exit of the monitor.

### 4.4 USE WITH FOAM

The monitor may be used with various foam nozzles and foam solutions. Refer to fire service training for the proper use of foam.



**WARNING** For Class B fires, lack of foam or interruption in the foam stream can cause a break in the foam blanket and greatly increase the risk of injury or death. Follow procedures established by the AHJ for the specific fuel and conditions.



**WARNING** Improper use of foam or using the wrong type of foam can result in illness, injury, or damage to the environment. Follow foam manufacturer's instructions and fire service training as directed by the AHJ.

### 4.5 PRESSURE LOSS

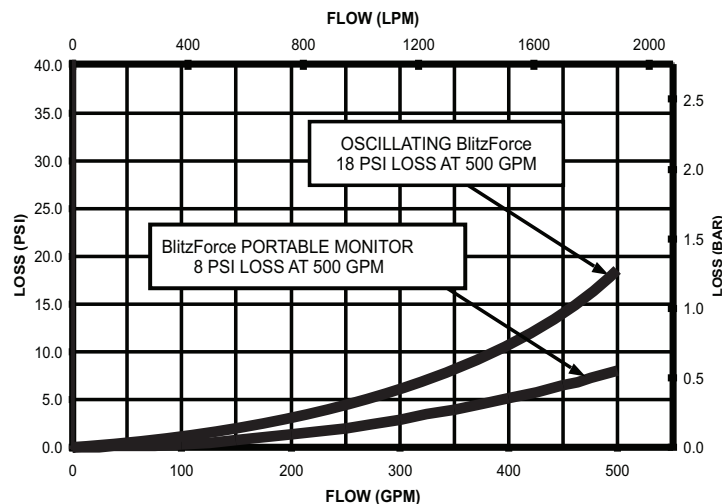




Figure 4.5

## 5.0 DEPLOYMENT OF BLITZFORCE PORTABLE MONITOR

It is the responsibility of the individual fire department or agency to determine physical capabilities and suitability for an individual's use of this equipment. Operators of this equipment shall have completed a course of training approved by the Authority Having Jurisdiction (AHJ).

### 5.1 CARRYING WITH AN UNCHARGED HOSE

On a preconnected hose line the monitor may be carried by the T-shaped handle or over the shoulder with the legs folded as illustrated.

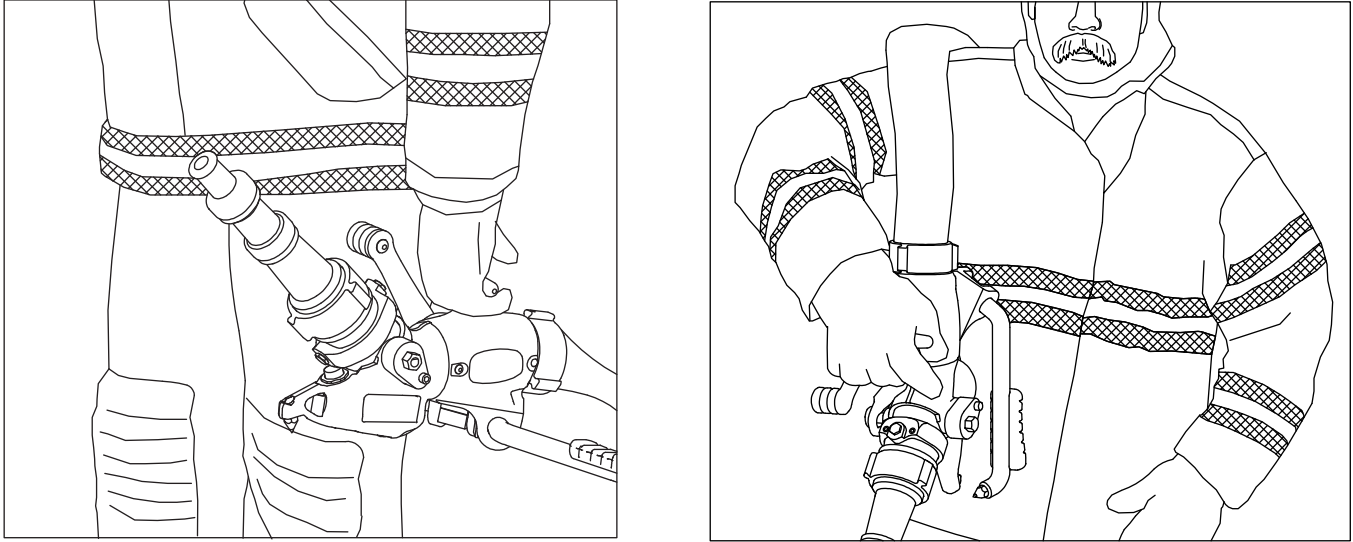


Figure 5.1

### 5.2 CARRYING WITH A CHARGED HOSE

On a charged hose the BlitzForce Portable Monitor may be carried by holding the T-shaped handle located on top of valve body as shown. Shut-off valve handle should be locked in the closed position to keep the valve from inadvertently opening.

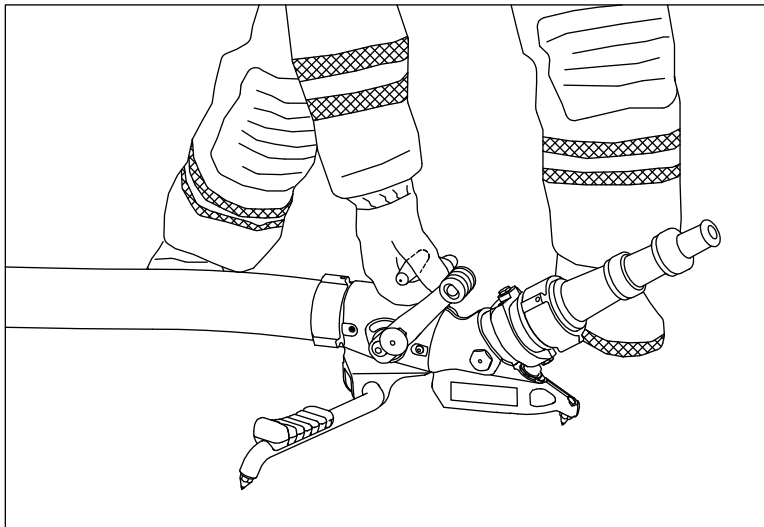


Figure 5.2

### 5.3 PRESSURE GAUGE PORT

There is a 1/8" NPT female threaded hole on the back of the inlet casting. The holes are plugged from the factory. If a pressure gauge is desired, unscrew the plug and install the gage using pipe sealant. Make sure the gauge does not interfere with operation.

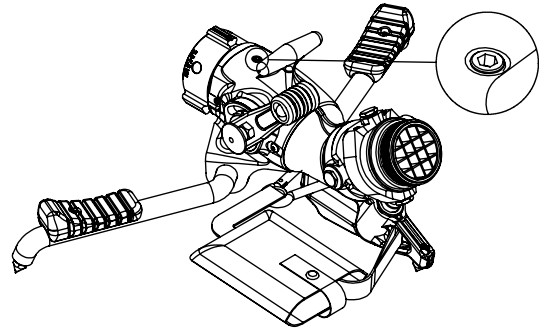


Figure 5.3

### 6.0 ANCHORING

The nozzle reaction force on the BlitzForce Portable Monitor may be as high as 330 lbs - 500 GPM at 175 PSI (150 kg- 2000 LPM at 12 BAR). This nozzle reaction must be restrained to keep the monitor from moving.

The monitor should be anchored from moving by one or more of these methods:

METHOD	RISK of MOVEMENT
Anchoring by Weight	HIGH
Anchoring by Spike Holds	MEDIUM
Hooking Legs on Vertical Surfaces	MEDIUM
Using the Tie Down Strap	LOW

#### 6.1 ANCHORING BY USING THE TIE DOWN STRAP

The safest method of restraining the monitor is to use a tie down strap. It is inherently more reliable than other methods since it does not rely on traction or digging in of the spikes. It is also the safest method because even if the monitor slides, its travel is limited by the strap length. Permanently anchored from the factory is a safety strap system that comes with a storage bag and a safety hook attached to the end of the strap. The strap may be wrapped around an object, snapped back onto the strap itself, and pulled tight. Keep the entire length of the strap as close to the ground as possible.

If the strap is too short to reach a suitable anchor, it may be extended with strong rope or chain. Keep the distance between the monitor and anchor as short as possible. Remove all slack between the monitor and anchor before flowing water.

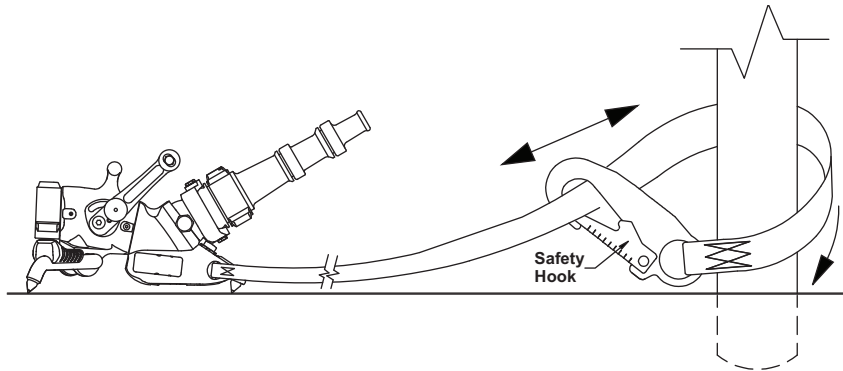


Figure 6.1

**WARNING** Personnel in the path of an out of control monitor have an increased risk of injury or death. Tying the monitor off to a secure object can limit the monitor's travel in the event of an out of control monitor. Always tie off the monitor when it is in use.

#### 6.2 ANCHORING BY WEIGHT

On surfaces with good traction a person's weight on the monitor and/or hose may be sufficient to keep the monitor from sliding. This is highly dependent on the friction of the surface. The ability to keep one or more people's weight on the monitor is subject to operator fatigue and may not be as reliable as other methods. Operating at limited flows will also reduce the risk of sliding.

### 6.3 ANCHORING BY SPIKE HOLDS

The holding ability of the spikes is generally excellent on surfaces like asphalt, wooden and carpeted floors because they allow the spike to penetrate well. On hard smooth surfaces such as ceramic tile, smooth concrete, marble, terrazzo, or steel decking the BlitzForce Portable Monitor's spikes may not hold well. Placing the spikes into cracks, expansion joints, gratings or the like will help hold the monitor from sliding. Even with the spikes anchored, sliding may be caused by the surface cracking under the load, or from the hose or nozzle moving the monitor thereby dislodging the spikes from their hold.

The holding ability of the spikes on soft surfaces such as sand, gravel and mud is generally poor. Other anchoring methods should be considered.

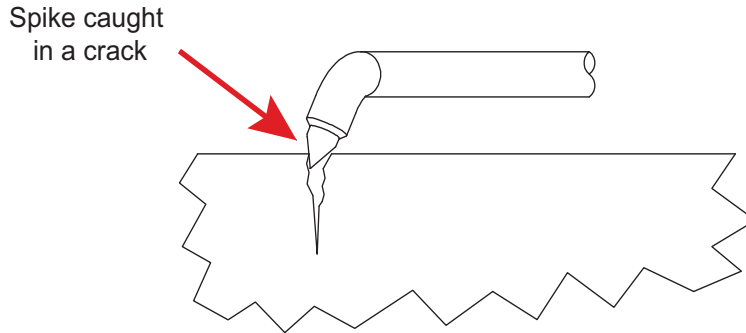


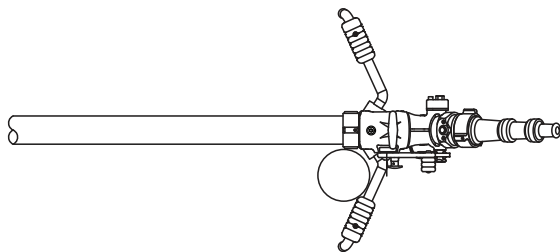
Figure 6.3

### 6.4 ANCHORING BY HOOKING LEGS

The legs on the BlitzForce Portable Monitor point back slightly so they can act as a hook for anchoring on posts, walls, door frames or other fixed objects. Sliding can occur if the legs are unhooked due to the influence of the hose, nozzle, or operator.

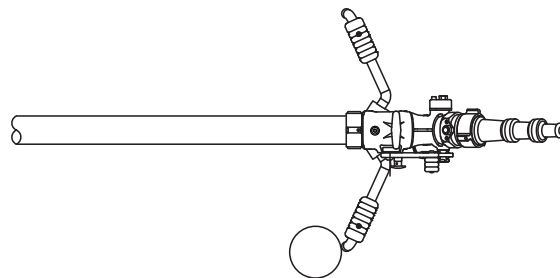
#### Anchoring by Hooking to a Post

**GOOD**



Nozzle reaction keeps leg hooked.  
Object is close to hose.

**POOR**

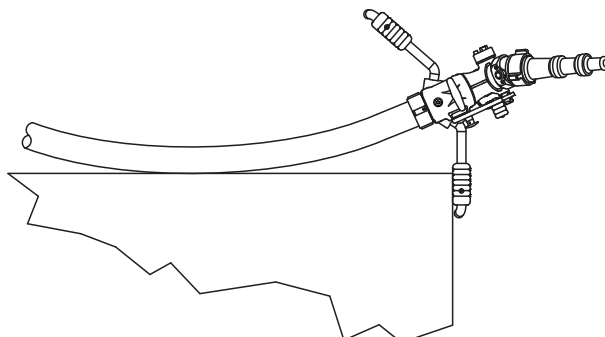


Nozzle reaction tends to unhook the leg.

Figure 6.4A

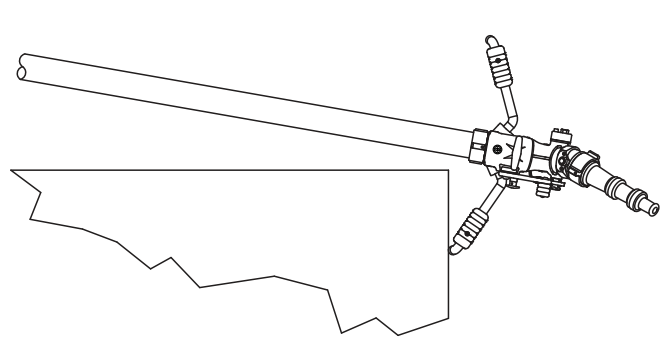
#### Anchoring by Hooking to a Wall or Door Frame

**GOOD**



Nozzle reaction keeps leg hooked.  
Hose hits wall and helps hold position.

**POOR**



Nozzle reaction tends to unhook the leg.

Figure 6.4B

## 7.0 OSCILLATING UNIT (OSC)

An automatic oscillating mechanism is available for the BlitzForce Portable Monitor. The BlitzForce Portable Monitor can be purchased with the oscillating mechanism factory installed or installed at the factory by a qualified technician if purchased at a later date.

### 7.1 SAFETY - OSCILLATOR

#### **⚠ DANGER**

Modifying this oscillating mechanism to fit any other monitor will cause the reaction force of the nozzle to be unaligned with the center of rotation. An unaligned monitor may spin very fast with a very high force, which can result in serious injury or death. Do not modify the oscillator to fit any other monitor.

#### **⚠ WARNING**

When the oscillator is in operation, the reaction force is acting in different directions on the leg spikes. These sudden changes in direction may cause the monitor to become off-balance resulting in sliding or loss of control. Make sure the monitor is on a firm surface with adequate holding power and properly anchored by the tie down strap before operating the oscillator.

#### **⚠ CAUTION**

The oscillator unit contains moving parts that can pinch fingers and hands when the unit is in operation. Keep hands and fingers away from the moving parts of the oscillating unit when water is flowing.

#### **⚠ CAUTION**

Because the nozzle attached to the oscillator must slow down, stop and reverse direction at the end of each sweep, the ends of the covered area will receive more water than the center. If the center area of coverage needs the most cooling, occasionally narrow the area of coverage or use the oscillator manually.

### 7.2 GENERAL - OSCILLATOR

The BlitzForce oscillating mechanism can be used for exposure protection, cooling, or any other situation where it is desirable to have a monitor sweep back and forth.

The horizontal sweep can be set for 20, 30, and 40 degree coverage. The oscillating mechanism can be uncoupled and the water stream can be aimed manually.

The speed of oscillation is a function of flow rate, see the BlitzForce Oscillation Speed graph. A minimum flow rate of 175 gpm is required for proper oscillator operation.

### 7.3 OSCILLATOR

The BlitzForce oscillator is protected by a shock absorber system. If the nozzle encounters an obstruction the shock absorber will compress or extend as needed to protect the gears from overload.

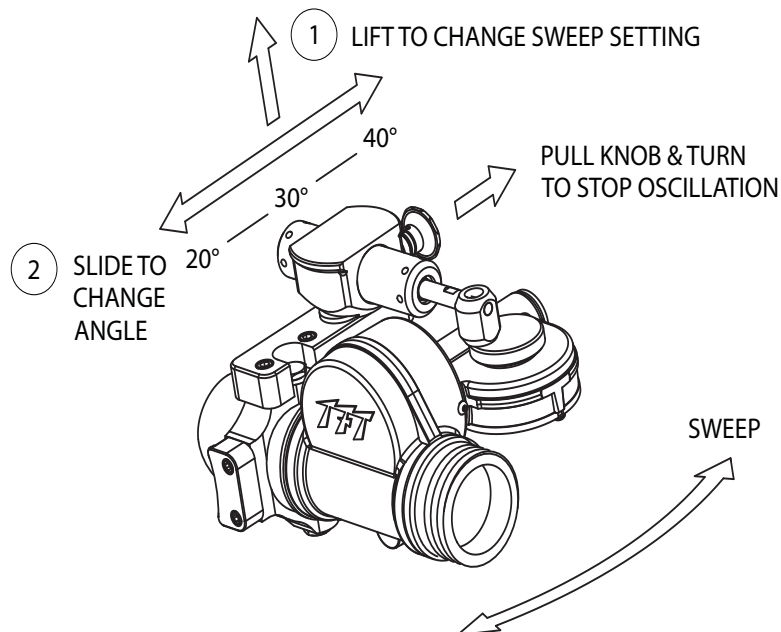


Figure 7.3

## 7.4 OSCILLATION SPEED AND COVERAGE

Oscillation Speed: The chart shows how many times per minute the oscillator makes one complete cycle as a function of flow. The higher the flow, the faster it oscillates.

Nozzle Reach: Refer to the operation manual for the specific nozzle. For reach with oscillation, subtract 20% from the distance.

APPROXIMATE CYCLES/MIN	GPM	L/MIN
8	175	650
13	250	1000
21	375	1500
28	500	2000

**BlitzForce OSCILLATION SPEED**

Table 7.4

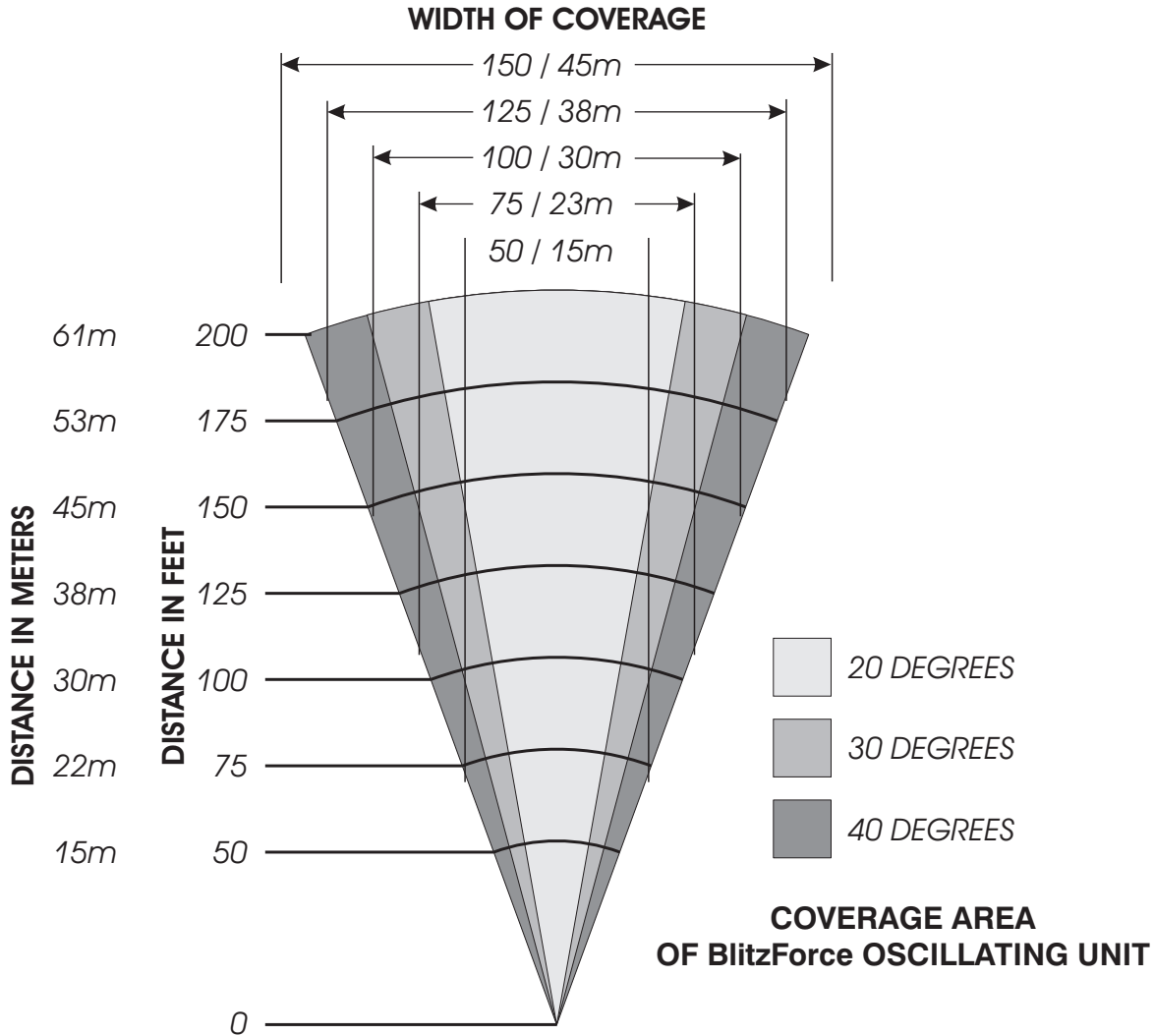


Figure 7.4

### NOTICE

The type of nozzle and flow pressure are critical to the coverage area. The graph shows coverage area based on the movement capability of the oscillating mechanism. Actual coverage will depend on flow, pressure, type of nozzle, angle of fog pattern, and wind conditions.

## 8.0 STORAGE

The monitor may be stored pre-connected to its hose on the optional storage bracket, TFT part number XXL-B. The storage bracket may be mounted on a horizontal surface, or a vertical surface with the nozzle end pointing down or sideways.

To mount the bracket, follow the instructions (LIX-735) provided with the bracket kit.

### WARNING

The Portable Monitor Storage Bracket is designed only to store the Portable Monitor. Attempting to flow from the storage bracket can cause the monitor to become dislodged from the bracket and out of control, causing severe injury or death. Always properly deploy the monitor before flowing.

## 9.0 WARRANTY

Task Force Tips LLC, 3701 Innovation Way, Valparaiso, Indiana 46383-9327 USA ("TFT") warrants to the original purchaser of its products ("equipment"), and to anyone to whom it is transferred, that the equipment shall be free from defects in material and workmanship during the five (5) year period from the date of purchase. TFT's obligation under this warranty is specifically limited to replacing or repairing the equipment (or its parts) which are shown by TFT's examination to be in a defective condition attributable to TFT. To qualify for this limited warranty, the claimant must return the equipment to TFT, at 3701 Innovation Way, Valparaiso, Indiana 46383-9327 USA, within a reasonable time after discovery of the defect. TFT will examine the equipment. If TFT determines that there is a defect attributable to it, TFT will correct the problem within a reasonable time. If the equipment is covered by this limited warranty, TFT will assume the expenses of repair.

If any defect attributable to TFT under this limited warranty cannot be reasonably cured by repair or replacement, TFT may elect to refund the purchase price of the equipment, less reasonable depreciation, in complete discharge of its obligations under this limited warranty. If TFT makes this election, claimant shall return the equipment to TFT free and clear of any liens and encumbrances.

This is a limited warranty. The original purchaser of the equipment, any person to whom it is transferred, and any person who is an intended or unintended beneficiary of the equipment, shall not be entitled to recover from TFT any consequential or incidental damages for injury to person and/or property resulting from any defective equipment manufactured or assembled by TFT.

It is agreed and understood that the price stated for the equipment is in part consideration for limiting TFT's liability. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above may not apply to you.

TFT shall have no obligation under this limited warranty if the equipment is, or has been, misused or neglected (including failure to provide reasonable maintenance) or if there have been accidents to the equipment or if it has been repaired or altered by someone else.

**THIS IS A LIMITED EXPRESS WARRANTY ONLY. TFT EXPRESSLY DISCLAIMS WITH RESPECT TO THE EQUIPMENT ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND ALL IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE. THERE IS NO WARRANTY OF ANY NATURE MADE BY TFT BEYOND THAT STATED IN THIS DOCUMENT.**

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

## 10.0 MAINTENANCE

TFT products are designed and manufactured to be damage resistant and require minimal maintenance. However, as the primary firefighting tool upon which your life depends, it should be treated accordingly. The unit should be kept clean and free of dirt by rinsing with water after each use. Any inoperable or damaged parts should be repaired or replaced before placing the unit in service. To help prevent mechanical damage, do not drop or throw equipment.

In applications where appliances are left continuously connected to the apparatus or other devices or are used where water is trapped inside the appliance, the appliance must be flushed with fresh water following each use and inspected for damage.

This appliance should be disconnected, cleaned and visually inspected inside and out at least quarterly, or as water quality and use may require. Moving parts such as handles, valve ball and couplings should be checked for smooth and free operation. Seals shall be greased as needed with Silicone based grease such as Molykote 112. Any scrapes that expose bare aluminum should be cleaned and touched up with enamel paint such as Rust-Oleum. Replace any missing or damaged parts before returning to service.

Any equipment taken out of service due to failure should be returned to the factory for repair or replacement. If you have any questions regarding the testing or maintenance of your valve, please call Task Force Tips at 800-348-2686.

### 10.1 SERVICE TESTING

In accordance with NFPA 1962, equipment must be tested a minimum of annually. Units failing any part of this test must be removed from service, repaired and retested upon completion of the repair.

### 10.2 REPAIR

Factory service is available with repair time seldom exceeding one day in our facility. Factory serviced equipment is repaired by experienced technicians, wet tested to original specifications, and promptly returned. Any returns should include a note as to the nature of the problem and whom to reach in case of questions.

Repair parts and service procedures are available for those wishing to perform their own repairs. Task Force Tips assumes no liability for damage to equipment or injury to personnel that is a result of user service. Contact the factory or visit the web site at [tft.com](http://tft.com) for parts lists, exploded views, test procedures and troubleshooting guides.

Performance tests shall be conducted on the equipment after a repair, or anytime a problem is reported to verify operation in accordance with TFT test procedures. Consult factory for the procedure that corresponds to the model and serial number of the equipment. Any equipment which fails the related test criteria should be removed from service immediately. Troubleshooting guides are available with each test procedure or equipment can be returned to the factory for service and testing.



**Any alterations to the product or its markings could diminish safety and constitutes a misuse of this product.**



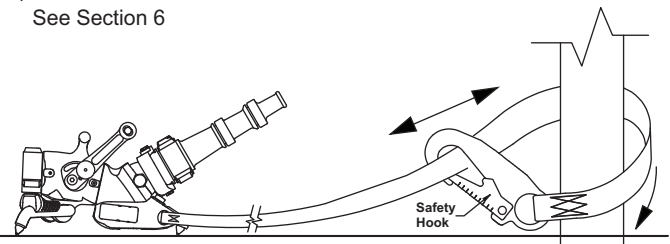
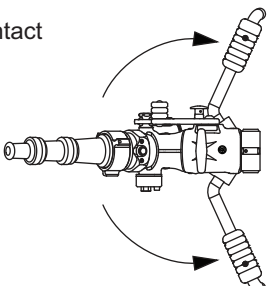
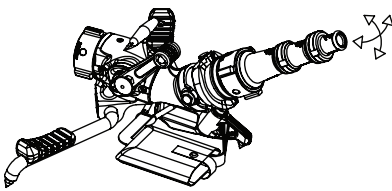
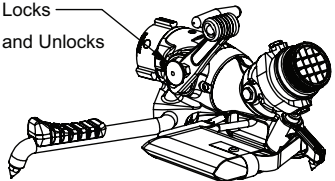
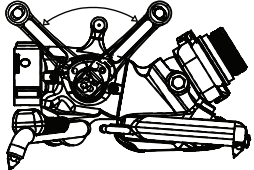
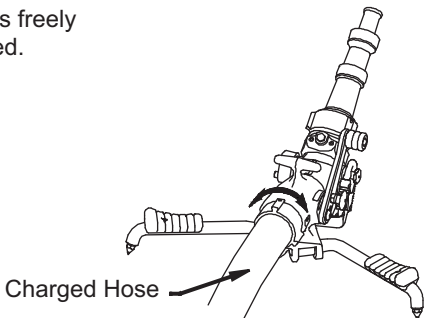
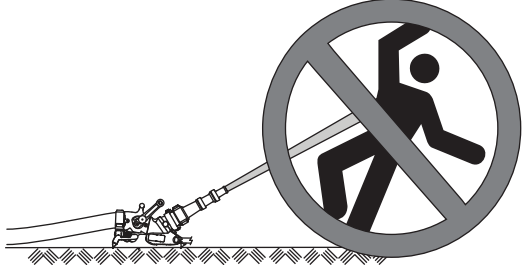
**All replacement parts must be obtained from the manufacturer to assure proper operation of the device.**

## 11.0 EXPLODED VIEW AND PARTS LISTS

Exploded views and parts lists are available at [tft.com/serial-number](http://tft.com/serial-number).

## 12.0 OPERATION AND INSPECTION CHECKLIST

Monitor must be inspected for proper operation and function according to this checklist before each use. Before flowing water check:

<p>1) There is no damage to the appliance that could impair safe operation (e.g. dents, cracks, corrosion, missing, broken or loose parts, damaged markings, or other defects)</p> <ul style="list-style-type: none"> <li>• Waterway is clear of obstructions</li> <li>• Gaskets are in good condition</li> <li>• Hose and nozzle are securely attached.</li> <li>• The pressure setting on the relief valve (if so equipped) is set correctly</li> </ul> <p>2) Hose and nozzle are securely attached.</p>	<p>7) Monitor is anchored: See Section 6</p>  <p>• Tied Off (required) • Hooked Leg • Spike Hold • Weight</p>
<p>3) Both legs are fully open. 4) All three spikes are in contact with the ground.</p> 	<p>8) Outlet pivots smoothly in both directions and elevation safety plunger is operational.</p> 
<p>5) Valve handle locks when closed and releases.</p> 	<p>9) Shut-Off valve is operational. (see section 2.2)</p> 
<p>6) Inlet coupling swivels freely when hose is charged.</p> 	<p>10) Monitor is pointed in a safe direction.</p> 



**WARNING** Equipment failing any part of the checklist is unsafe for use and must have the problem corrected before use or being placed back into service. Operating equipment that has failed the checklist is a misuse of this equipment.