

# Operating & Maintenance Instructions for 8393-TW

## PRODUCT SAFETY



### **Important:**

Before operating this equipment, read & study this manual thoroughly. Familiarity with the proper use of this product is essential to safe operation. In addition, the following points should be adhered to in order to ensure the safety of equipment and personnel:

- All personnel who may be expected to use this equipment must be thoroughly trained in its safe and proper use.
- Before flowing water from this device, check that all personnel (fire service and civilian) are out of the stream path. Also, check to make sure stream direction will not cause avoidable property damage.
- Become thoroughly familiar with the hydraulic characteristics of this equipment, and the pumping system used to supply it. To produce effective fire streams operating personnel must be properly trained.
- After each use, and on a scheduled basis, inspect equipment per instructions.
- Cart is not intended for use on public roads.
- Always open water valve(s) supplying this equipment slowly, so that hose lines fill slowly, thus preventing possible water hammer occurrence.
- Never exceed 1000 GPM flow.
- Always engage left/right & up/down locks when un-manned or not in use.
- Never attempt to move the cart while it is flowing or under pressure.
- Always engage wheel locks before flowing water.
- Always leave cart connected to tow vehicle when flowing water.

**Master streams are extremely powerful. Therefore, great care must be taken in directing such streams to avoid injury to personnel and unwanted damage to property.**

## SETUP

- Install nozzle on monitor discharge. Orient nozzle controls so that nozzle can be operated throughout its full range of travel and then secure nozzle connection with a spanner wrench.

## **OPERATING INSTRUCTIONS**

- Be sure hitch ball size matches carts coupling size, 1-78" or 2". (Hitch ball should be mounted at a height that puts the cart tongue parallel to the ground when the coupling is attached to the ball.) Attach the carts coupling to hitch ball on tow vehicle. After latching coupling to ball, lift up on cart tongue to make sure coupling is attached securely and it cannot come off. Secure coupling in its latched position with a clevis pin or padlock (not supplied). Securely tighten the monitors horizontal lock to keep monitor from moving while towing.
- Position the 8393-TW in suitable location to obtain the maximum effectiveness of the nozzles capabilities. The monitor section should be pointed at the target when positioned in the center of its 90 degree horizontal range of motion (45 degrees left or right of center). Leave the cart coupled to tow vehicle and tighten the wheel locks to assure stability (clockwise to lock, counter clockwise to unlock).
- Place the monitor in the desired horizontal position by turning the horizontal twist lock mechanism counterclockwise just enough to allow movement of the monitor, turn the monitor to the desired horizontal position & securely re-tighten the horizontal lock by turning it clockwise. Use the hand wheel to place the monitor in the desired vertical position (Counterclockwise to raise and clockwise to lower). Vertical travel range is approximately +20 to +70 degrees above horizontal with the cart tongue parallel the ground.
- Attach and tighten the inlet hose connections. Charge the inlet(s) at reduced pressure and begin gradually increasing to desired pressure. Monitor inlet pressure can be obtained by reading pressure gauge on monitor manifold. Remember that all nozzle flow data is based on pressure at nozzle inlet.
- Maximum flow on the 8393-TW is 1000 GPM @ 100 PSI nozzle pressure. The loss through the monitor section at 1000 GPM is 32 PSI. A reading of 132 PSI (149 PSI if using a stream shaper) on the manifold pressure gauge will result in a nozzle inlet pressure of 100 PSI when flowing 1000 GPM.
- Once system is flowing at the desired pressure/volume, slightly loosen horizontal lock in order to make final adjustments on flow direction. Then securely re-tighten the lock.

**Caution; the horizontal lock & wheel locks must be engaged whenever the monitor is left unattended (flowing or not).**

- After use, relieve pressure and drain all water from system.

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## **MAINTENANCE & INSPECTION**

The monitor and all related equipment should be inspected regularly and after each use. Careful inspection for damage to the monitor, nozzle, and related equipment is very important.

- Visually inspect cart, monitor, nozzle and related equipment for damaged or missing parts. Repair or replace if needed.
- Check twist lock mechanism to assure proper operation. Repair or replace if needed.
- Inspect coupler and latch mechanism for proper operation. Repair or replace if needed.
- Inspect the tires. Maintain 30-35 psi tire pressure. Repair or replace if needed.
- Flow water to check nozzle pattern. If pattern is disrupted, remove nozzle and check for debris lodged between the nozzle stem and body, or in the stream shaper inlet if one is used. Repair or replace if needed.
- During nozzle flow test, inspect monitor swivel joints for leaks. Repair or replace if needed.

**Note:** Grease fittings are provided for the up-down and left-right rotation joints, routine greasing should be performed to expel water & other contaminants that can get into the rotation joints. If the monitor is exposed to a high level of radiant heat for a prolonged period, it may be possible for the factory grease to thin and run out of the rotation joints. In such an event, fresh grease should be applied. Use Mobilux EP2 or equivalent. Start at one end of travel range and apply grease through the fitting of each joint until fresh grease comes out the joint. Repeat every 30 degrees throughout the full range of travel on each rotation joint. Wipe off any expelled grease when done.