



## STYLE 3450 Ultra High Pressure Bumper Monitor OPERATING INSTRUCTIONS

### INSTALLATION, OPERATING and MAINTENANCE INSTRUCTIONS

The following is intended to provide the basic instructions for installation, operating and maintenance of the Ultra High Pressure Bumper Monitor

#### Tools Required

- Utility knife
- Medium Phillips screwdriver
- Small Phillips screwdriver
- Electrician's pliers (multipurpose, stripping and crimping)
- Medium flat screwdriver
- Small flat screwdriver
- 1/2 inch hex head wrench

#### PRODUCT RATINGS

Maximum motor current draw:

12 volt versions	15.0 amps each for elevation and rotation motors 3.0 amps for nozzle pattern motor
24 volt versions	7.5 amps each for elevation and rotation motors 1.5 amps for nozzle pattern motor

Normal operating current (depending on operating conditions - pressure, flow, etc.):

12 volt versions	3 - 10 amps each for elevation and rotation motors 0.7 amps for nozzle pattern motor
24 volt versions	2 - 5 amps each for elevation and rotation motors 0.4 amps for nozzle pattern motor

Minimum Voltage: **(Truck engine must be running for proper voltage requirement.):**

All 12 volt motors:	11.5 volts while operating
All 24 volt motors:	23 volts while operating
Mass: 61 lbs.	(28 kg)
Maximum Flow:	300 GPM (1130 lpm)
Maximum Pressure:	1500 PSI (100 bar)

#### PRODUCT WARNINGS

**⚠ WARNING:** The reaction force of the Bumper Turret at maximum flow ratings is 600 lbs (2,700 newtons). The center of the waterway outlet is 8 inches (200mm) from the bottom of the inlet. Ensure these values and an appropriate safety factor is used to determine a proper support structure.

**⚠ WARNING:** Aim the Bumper Turret in a safe direction before pumping water through it.

**⚠ WARNING:** The Bumper Turret uses current limiting for both the monitor and nozzle stops. Use only appropriate Akron Brass controls

- ⚠ **WARNING:** Make the connection of the vehicle and auxiliary battery the final step.
- ⚠ **WARNING:** If any tags or bands are worn or damaged and cannot be easily read, they should be replaced.
- ⚠ **WARNING:** Disconnect power and disable flow before maintenance.
- ⚠ **WARNING:** Keep all personnel out from the front of the outlet of the monitor when the water source is attached. Dangerous flow velocities can cause serious injury.
- ⚠ **WARNING:** The Bumper Turret contains moving parts. Keep hand, finger and objects away from pinch points.
- ⚠ **WARNING:** Not designed for explosive environments.
- ⚠ **WARNING:** Exceeding the maximum pressure and flow of the monitor or nozzle may cause damage.

## GENERAL INSTRUCTIONS

- This unit operates on 12 volt DC or 24 volt DC depending on the unit chosen. All electrical current flows through the wires. The monitor does not act as a ground.
- For use with water or standard fire fighting foams only. After use with foam, flush with fresh water.
- Drain the Bumper Turret and nozzle after use to prevent “freeze damage” in cold weather.
- Ensure that the thread in the nozzle swivel matches the thread on the Bumper Turret outlet.
- The Bumper Turret, nozzle, logic box, control boxes, and field adjustable rotation stops are made for optimal performance, Do not alter in any manner.
- Do not install shutoffs on the outlet of the Bumper Turret
- Mount the logic box and control boxes out of range from the monitor travel.

## MECHANICAL MONITOR ATTACHMENT

The Monitor is to be mounted on the waterway with a 2” NPT thread.

**THE ROTATIONAL AND ELEVATION STOPS SET THE BOUNDARIES FOR THE AREA IN WHICH THE MONITOR IS ALLOWED TO TRAVEL.** The monitor is shipped with rotation stops at 90° right, and at 90° left. All other positions are achieved by switching the factory set stop and the plug in the desired stop location. Both the stops and the plugs have a ½ inch hex head. The elevation stop sets the upper limit of the elevation. The monitor is shipped with elevation stops at 75° above horizontal and 30° below horizontal. The motor assembly must be removed before the elevation stop can be removed.

## MECHANICAL ATTACHMENT OF THE LOGIC BOX

Refer to Universal II Control Installation, Operation, Maintenance manual, document # 122552.

## MAINTENANCE INSTRUCTIONS

Your Bumper Turret and nozzle should be inspected prior to and after each use, to ensure it is in good operating condition. The monitor joints were greased and sealed at assembly, there is no greasing to be done while in use.

## SITUATIONS THAT MAY CAUSE IRREPARABLE DAMAGE

- Operating above maximum rated pressure and flow.
  - Not draining, and allowing water to freeze inside.
  - Prolonged exposure to temperatures above 130°F (54°C), or below -25°F (-32°C).
  - Having the nozzle hit a fixed object during operating or transportation.
- Also there are many “tell tale” signs that indicate repair is in order, such as:
- Controls that are either inoperable or difficult to operate.
  - Excessive wear.
  - Poor discharge performance.
  - Water leaks.

If any of the above situations are encountered, the monitor should be taken out of service, repaired, and tested by a qualified technician before placing it back in service.



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