



STYLE 3464 AKRON BUMPER TURRET 12/24 VOLT DC INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS

INSTALLATION

The Akron Style 3464 Bumper Turret is intended to be installed on a support capable of withstanding a reaction force of at least 250 pounds at the nozzle. The use of $\frac{5}{16}$ " diameter stainless steel screws and locking nuts are recommended to attach the turret mounting plate. Five holes are provided in the $\frac{1}{4}$ " thick mounting plate for attachment to the support or a bumper plate.

The outline drawings (Exhibit A) identifies the hole locations and dimensions.

The turret water inlet mates with a standard 2" Victaulic coupling. A $\frac{1}{8}$ " NPT opening with plug is located at the base of the turret near the inlet. This opening is provided to attach a pressure gage to determine inlet pressure.

A single air inlet port is located on the side of the turret junction box. A $\frac{1}{8}$ " NPT male connector is required on the air supply line to the turret. An air supply between 85 and 150 psi is required for best performance.

On board pneumatic source (compressor or air bottle) must supply dry air and include a 40 micron filter.

Air bottles may also be used to supply air. A one half hour personnel bottle will supply enough air for 1000 cycles of pattern or vertical performance. The horizontal operation is gear driven with an electric motor and is the direct drive type without chains or belts. Air bottle to incorporate a pressure gauge in order that it can be changed out when pressure drops below 85 psi.

A 10 conductor electrical connector is located on the outside of the turret junction box next to the air inlet port. This connector mates with the wiring harness supplied with the turret. The opposite end of the wiring harness mates with a 9 pin AMP Mate-N-Lock connector located on the back of the joystick enclosure. A 3 pin AMP Mate-N-Lock connector and associated wiring harness is located on the joystick enclosure. The red wire from this harness is positive 12 or 24 VDC. The black wire is truck ground. The brown wire is electrically connected to the joystick trigger. This is intended for use with a solenoid air operated valve for quick open/close operation. The valve operator trigger utilizes a momentary switch which requires constant depression to keep valve open. If another type of switch is desired it must be installed separately and brown wire is not connected. Slow opening electric gear driven valves are not recommended in this application.

NOTE: Be sure to review the wiring diagram (Exhibit B) before connecting this circuit. The wiring connections required for this application are slightly different than what is normally found with these devices. Follow the diagram! (We recommend a 15 AMP fuse or circuit breaker be installed in the power source line.)

In installations where turret cannot be seen by the operator, it is recommended an elevated rod with a rigid pointer be attached to one of the twin pads on top of outlet tee (Exhibit A). The pointer attachment will aid in showing the horizontal and vertical position of the turret prior to discharge. Each pad has a $\frac{1}{4}$ -20 tapped hole, $\frac{1}{2}$ " deep for mounting assistance.

OPERATION

The turret is controlled inside the truck cab by the joystick. Power to the turret is activated when truck ignition or master switch is in the on position. Refer to Exhibit C for joystick functions.

The bumper turret is operated in the following sequence with pump engaged for discharge use.

1. Position turret in the horizontal and vertical direction desired by joystick position.
2. Select desired pattern with thumb buttons on top of joystick (flow is constant in each setting).
3. To discharge water or foam solution, squeeze forefinger trigger and hold. To stop discharge, release trigger.

Horizontal and vertical speeds are fixed and need no adjustment.

The nozzle pattern speed control is located at the nozzle tip where the air supply lines enter the nozzle pattern sleeve. The nozzle pattern speed control consists of two needle valves, which are adjusted with a small screwdriver when any adjustment to the nozzle pattern speed is made. Both needle valves must be turned the same amount in the same direction. If they are not turned relative to each other, it is possible the nozzle pattern sleeve will drift when the pattern control buttons (on the joystick) are released.

The nozzle pattern speed control needle valves are free flowing when the air flows into the nozzle pattern sleeve and restricts the air when it leaves the pattern sleeve. To decrease the speed of the nozzle pattern control, both needle valves must be turned clockwise in increments of $\frac{1}{8}$ of a turn. To increase the speed, both needle valves must be turned counterclockwise in increments of $\frac{1}{8}$ of a turn.

MAINTENANCE

The Akron Bumper Turret is designed and tested to provide years of durable and reliable operation. The only scheduled maintenance is to lubricate the rotation swivel joint. This maintenance should be completed annually.

To lubricate the rotation swivel joint, first rotate the turret all the way to the left, then add one pump of Lubriplate Low Temp™ into the grease fitting using a hand-held manual grease gun. The grease fitting is located on the front of the turret. Rotate the turret all the way to the right and add one more pump of grease.

⚠ WARNING

- Maximum flow 300 GPM
- Maximum pressure 250 psi
- Not for use on electrical fires.
- Not recommended for use with flowing salt water.
- After use with foam, flush with fresh water.
- For use by trained firefighting personnel ONLY.
- At pressures below rated operating pressure, the nozzle will have reduced flow and reach. Ensure that you have adequate flow and pressure for the firefighting situation. See IFSTA and NFPA manuals for guidelines.
- For use with water or standard firefighting foams ONLY.
- Ensure the turret is aimed in a direction that is safe, prior to operating.
- Replace any tags or bands that are worn or damaged and cannot be easily read.
- The turret is configured for optimum performance. Do not alter in any manner.
- Ensure that the supply voltage (12 or 24 VDC) matches the turrets rated voltage (12 or 24 VDC).
- Turrets contain plastic and rubber components. The components can be damaged if cleaned with industrial strength cleaners and solvents. Always use warm water and a mild detergent when cleaning the nozzle's rubber and plastic components.

Your turret should be inspected prior to and after each use, to ensure it is in good operating condition.

Periodically, an unanticipated incident occurs where the turret is misused in a manner that is inconsistent with standard operating practices and those listed in IFSTA.

A partial list of potential misuse follows:

- Operating above maximum rated pressure and flow.
- Not draining, and allowing water to freeze inside turret.
- Prolonged exposures to temperatures above +130° F, or below -25° F.
- Operating in a corrosive environment.
- Having the turret hit an obstacle (tree) during operation or transport.
- Other misuse that might be unique to your specific firefighting environment.

⚠ WARNING

Also, there are many “tell tale” signs that indicate turret 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 turret should be taken out of service and repaired, plus tested by qualified technicians, prior to placing it back into service.

Figure 1

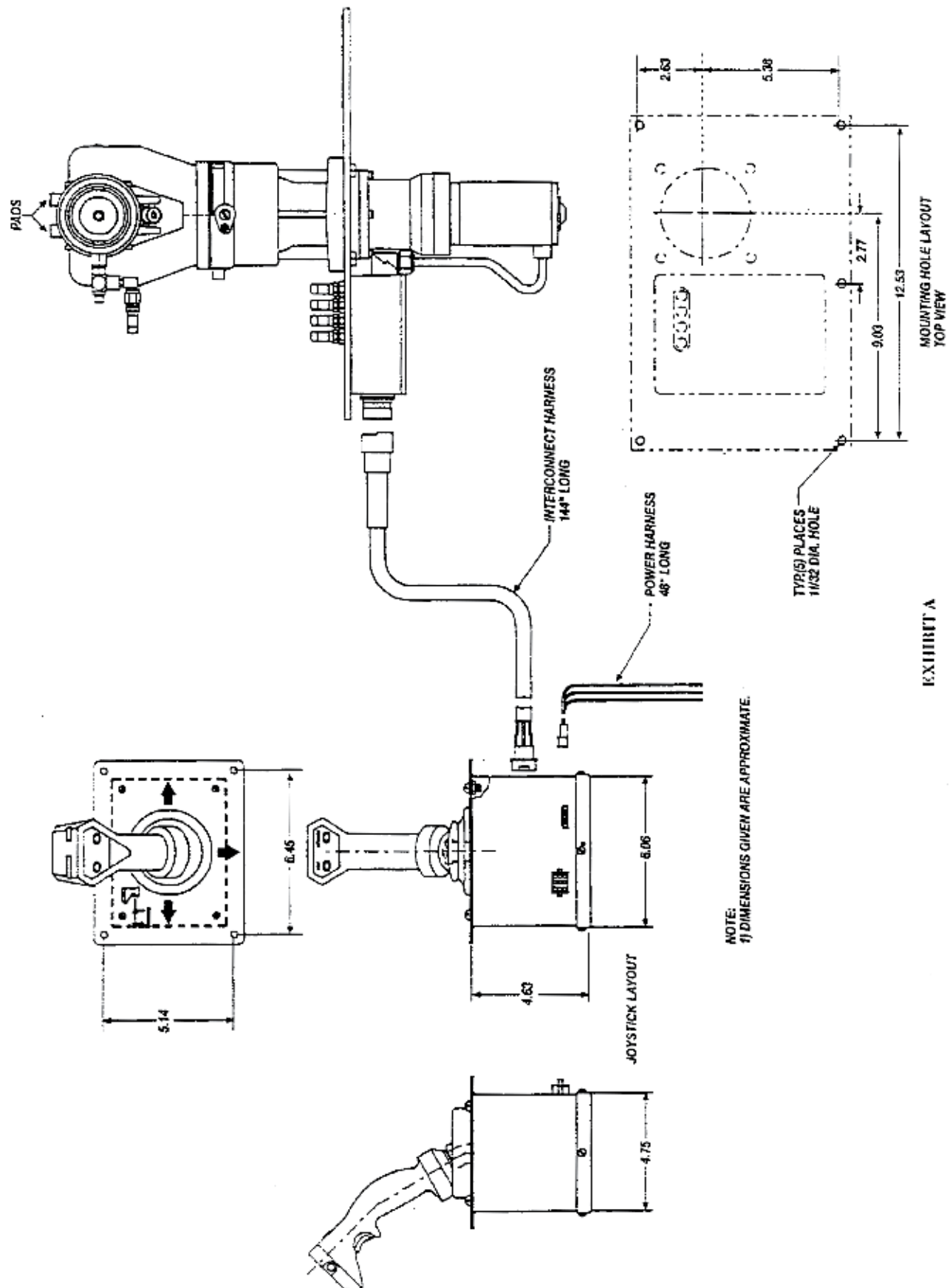


Figure 2

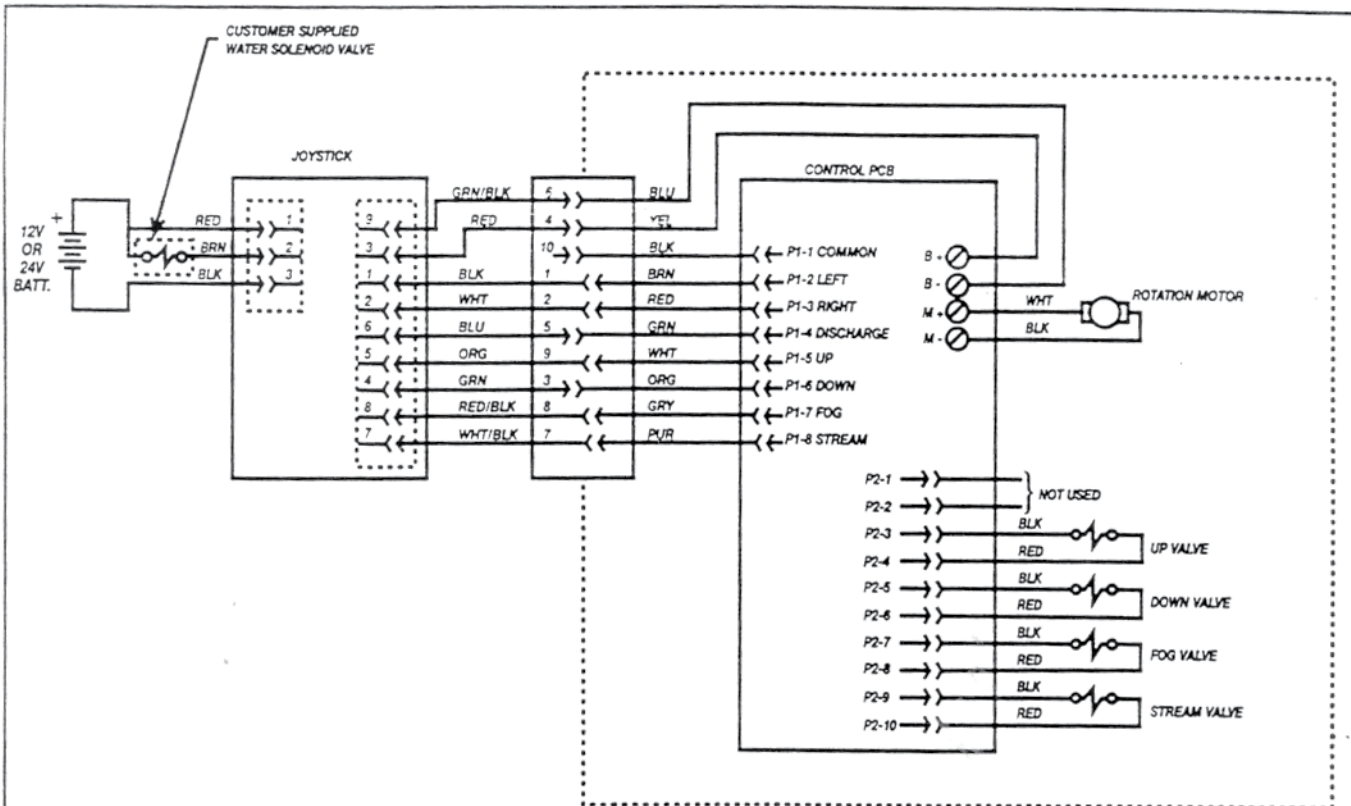


EXHIBIT B

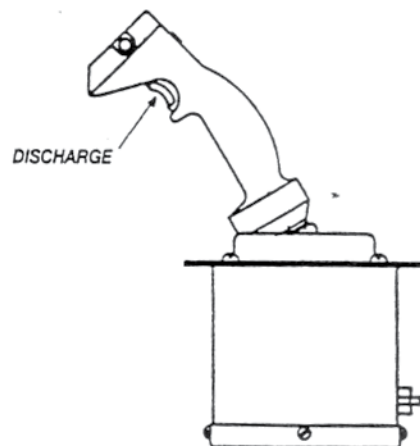
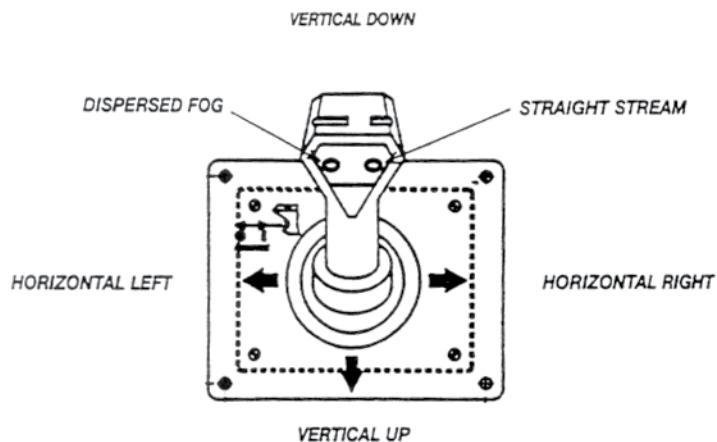


EXHIBIT C