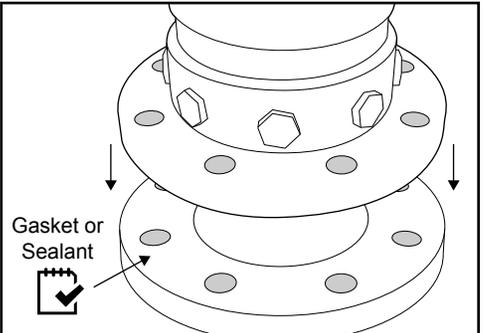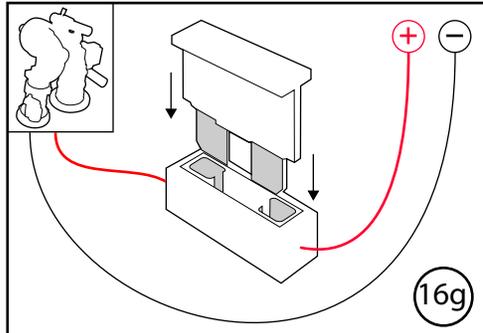1. A. Install monitor to flange using 5/8"-11 UNC Grade 5 bolts and nuts. Tighten uniformly to 70ft/lb using Loctite 242 or equivalent.

Gasket or Sealant

B. Add a 20A(12VDC)* fuse between RED controller lead and positive power lead. Use 40A fuse if nozzle with foam expansion tube is utilized. *10A(24VDC)

16g

NOTE: We recommend using 14 AWG for monitor power and ground (12 AWG if using nozzle with foam expansion tube). See installation instructions section of the Scorpion EXM manual (98342000) for length to gauge recommendations.
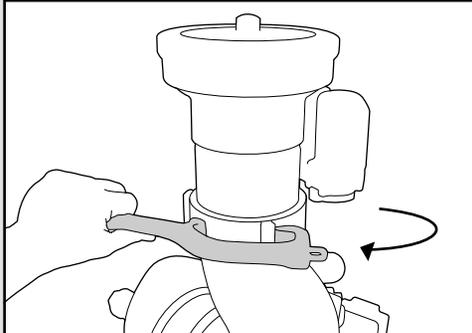
MONITOR

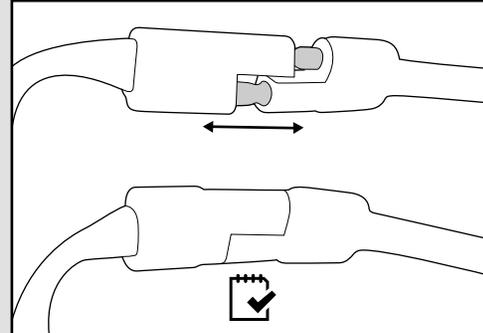**2.** A. Position monitor discharge elbow vertical. Ensure gasket is inside nozzle swivel before installing.

180°
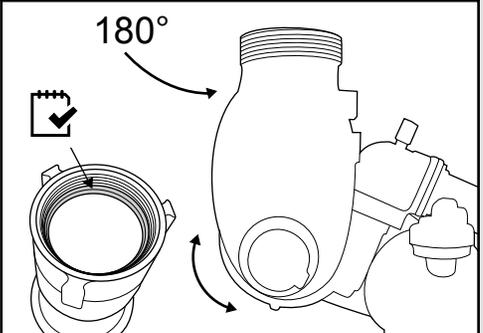
B. Hand tighten nozzle to monitor using swivel end piece. Position actuator assembly about 45° around the swivel.

0° 45°
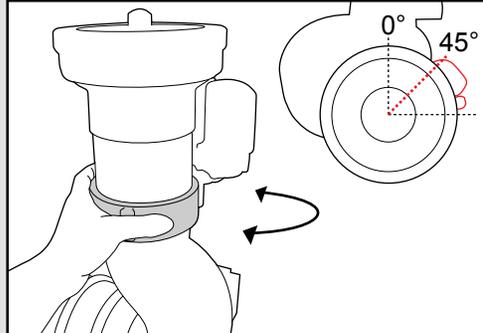
C. Tighten swivel using a spanner wrench to ensure a secure connection.

D. Connect nozzle and monitor two-way connectors.

NOZZLE

**3.** Confirm that all connections are tight and all electrical connections have been reconnected. If installing additional components, such as controllers, you may choose to double check the connections after everything has been installed.

ELKHART BRASS
Fire Fighting Equipment

- Panel Mount Controller   - Handheld Controller / Docking Station

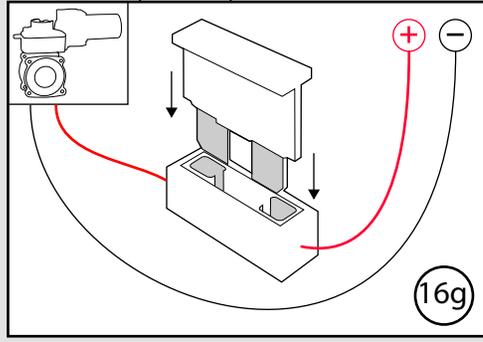**4.** A. Install valve into plumbing. Torque adapter bolts to spec using torque specs to the right.
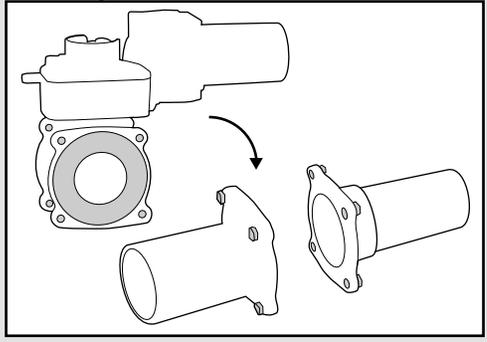
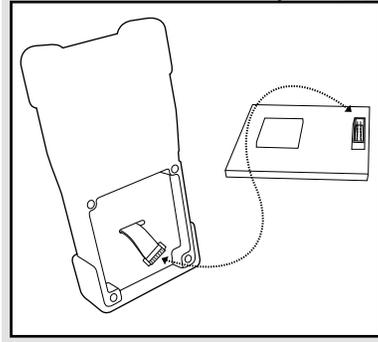Tighten Adapter Bolts using a cross pattern
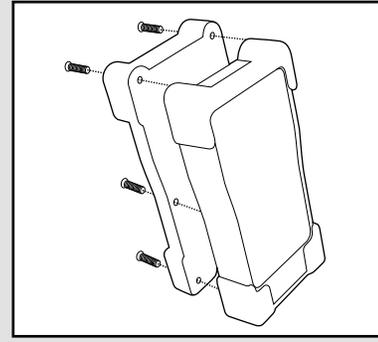
① ③
④ ②
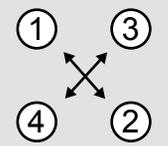
EB40:
60-70 ft-lbs

B. Add a 30A(12VDC)* fuse between RED controller lead and positive power lead. *15A(24VDC)
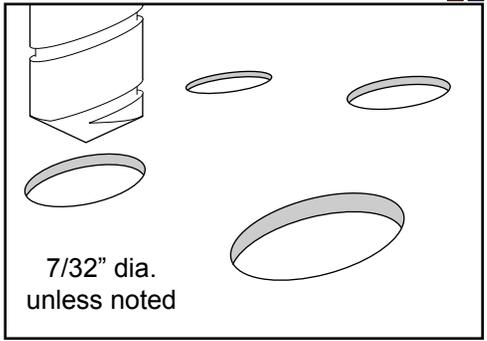
16g

RF Installation - The RF Module will be upside down when installed correctly.
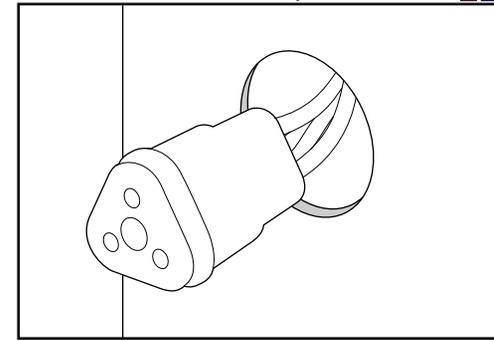
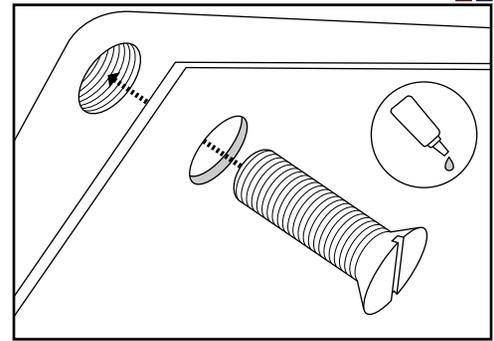Connect power and attach battery pack to Handheld controller.

5. A. Follow mounting templates on page 30 of the instruction manual for hole diameters and dimensions.
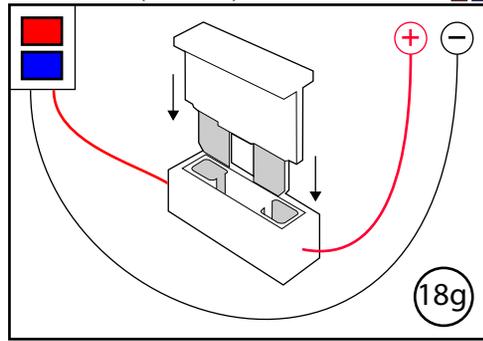
7/32" dia. unless noted

B. Drill holes for CAN network and power cables for each components' leads behind each component.

C. Mount components to panel using 10-24 x 1/2" screws. Use Loctite 242 or equivalent.

D. Add a 1A (12VDC)* fuse between red component lead and positive power lead. *.5A (24VDC)

18g

6. A. Connect entire CAN network together using 18-22 AWG. Ensure every component connected to the CAN network is connected in between 2 end components that have CAN termination. Please refer to the BLUE, GREEN, and BLACK lines as the CAN wires below.

CAN Network Wires
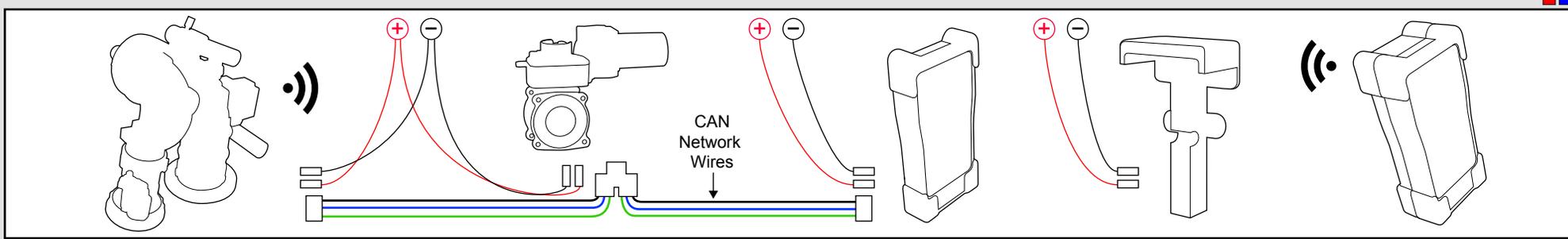
Before continuing, please refer to the EXM Configuration Tool Manual (98510000) to configure the EXM system.

ELKHART BRASS Fire Fighting Equipment

CALIBRATE VALVE

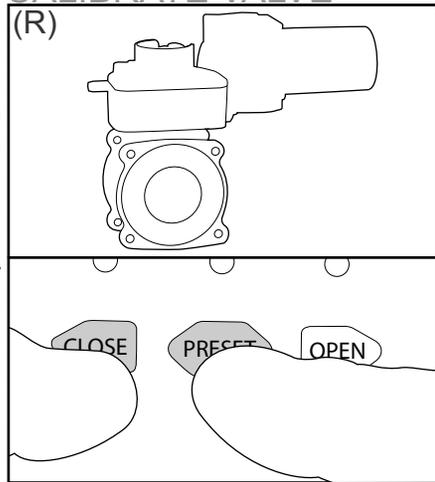**NOTE: You will need to calibrate the valve before use. While you are NOT in setup mode, press and hold <Preset> and <Close> for approximately 5 seconds. The valve will automatically start to calibrate itself.**

(R)

ENTER SETUP MODE

Press and hold <Stream> and <Fog> until yellow status LED on controller and blue status LED on monitor box turn on.

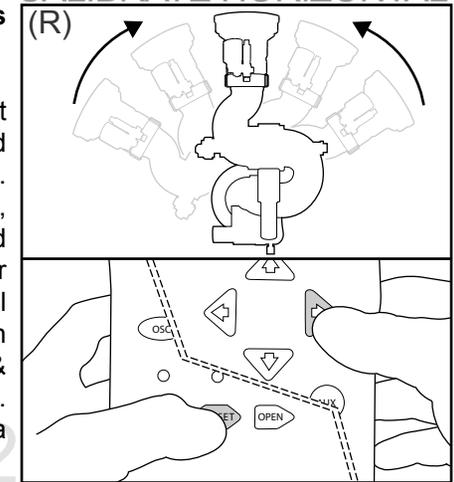From a Joystick Controller, press and hold <Aux> and <Preset> until LEDs turn on.

STATUS   POWER

1

CALIBRATE HORIZONTAL
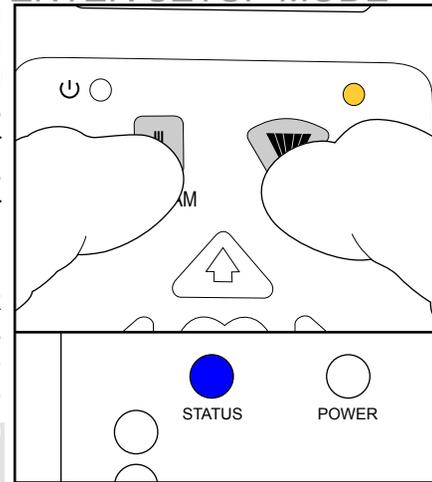
This step is required (R).

Aim monitor at center forward "zero" position. Hold <Preset>, then press and hold <Left> or <Right> until status LED on monitor blinks & returns to solid. Takes about a second.
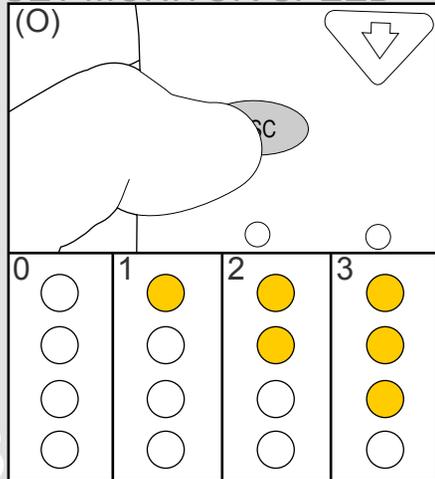
(R)

2

SET MONITOR SPEED

The following steps are optional (O).

Pressing the <Osc> button will cycle through the monitor speed options:

LEDs - Ver / Hor
0 - Fast / Fast
1 - Slow / Fast
2 - Fast / Slow
3 - Slow / Slow

(O)

| 0 | 1 | 2 | 3 |

3

SET TRAVEL LIMITS

Move monitor to the left limit and press <Close>. Move monitor to the right limit and press <Open>.

Maximum Travel limits will give approx 175° of travel from the calibrated horizontal forward position in either direction.

(O)

L

R

CLOSE   OPEN

4
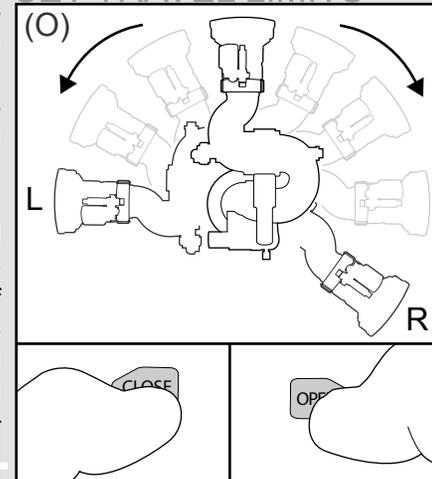
SET KEEP-OUT ZONES
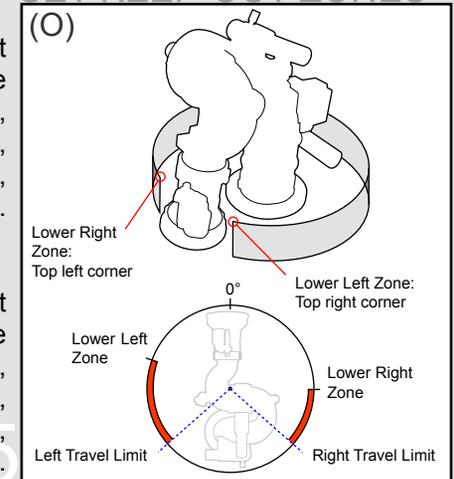
Lower Left:
Move to top/right corner of the lower left zone, hold <Preset>, press <Close>, and release both.

Lower Right:
Move to top/left corner of the lower right zone, hold <Preset>, press, <Open>, and release both.

(O)

Lower Right Zone: Top left corner
Lower Left Zone: Top right corner

0°

Lower Left Zone
Lower Right Zone

Left Travel Limit   Right Travel Limit

5

SET STOW POSITION
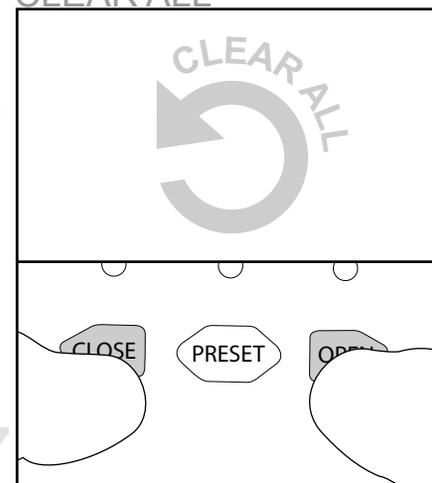
Move monitor to desired position, then press <Fog> and <Osc> at the same time to store a stow position.

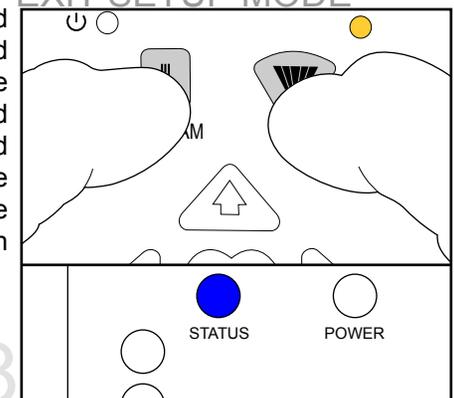Stow position must be within allowed limits of travel.

(O)

6
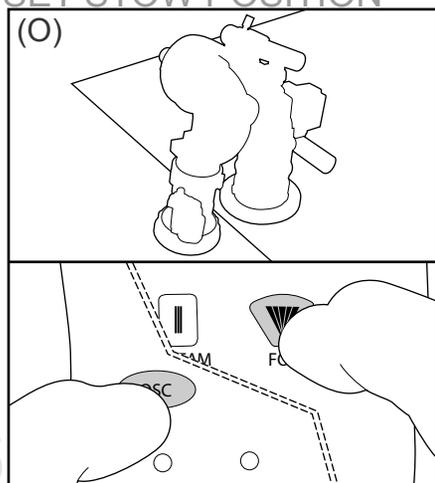
CLEAR ALL

Pressing <Open> and <Close> at the same time will clear travel limits, keep out areas, and the stow position.

CLEAR ALL

CLOSE   PRESET   OPEN

7

EXIT SETUP MODE

Press and hold <Stream> and <Fog> on the panel mount and <Aux> and <Preset> on the joystick until the status LEDs turn off.

STATUS   POWER

8

ELKHART BRASS
Fire Fighting Equipment

BUTTON LOGIC

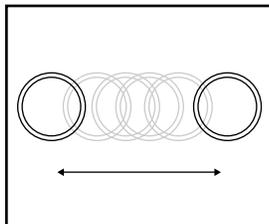**PANEL MOUNT**

Button Press Logic: Panel Mount & Handheld

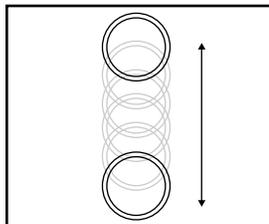To Stow

Hold <Fog> and <Osc> until monitor begins to stow.

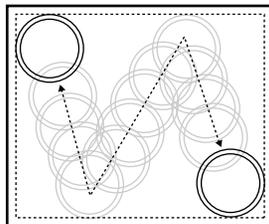To Oscillate

Press the <Osc> button at both extremities of the desired oscillation pattern.

Horizontally   Vertically   Two Axis Oscillation

NOTE: You can manually control nozzle position while in a single axis oscillation. Example: Up and Down will allow you to manually control the vertical axis while in a horizontal oscillation. Any direction in a two axis oscillation will stop the oscillation.

Left, Right, Up, Down

These function normally

Fog & Straight Stream

These function normally

Valve Open & Close

These function normally

Valve Preset

Opens or closes valve to a predetermined position
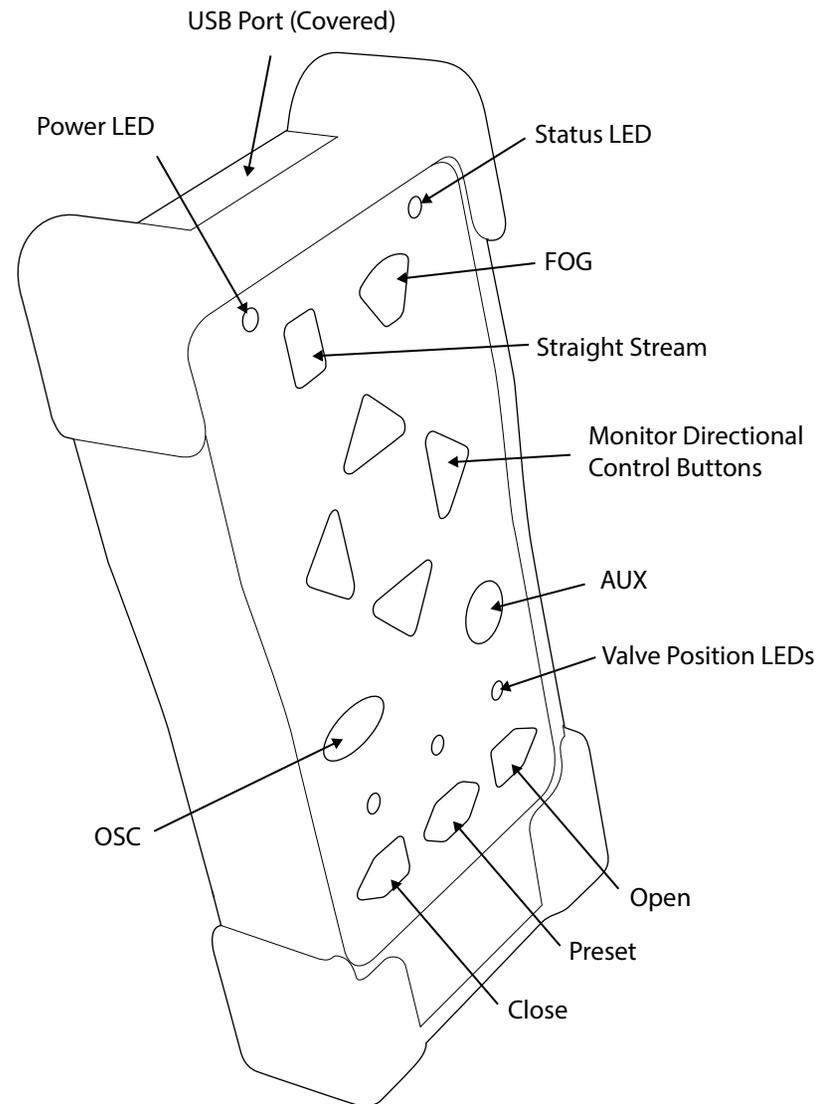
To Change Valve Preset

Open or close the valve to the desired position. Press and hold the <Preset> button until the preset light blinks (approx 10 seconds).

Valve Auto Travel

To auto travel OPEN, hold the <Open> button, then press <Close>, and release both. The valve should fully open automatically. To CLOSE, hold the <Close> button, then press <Open>, and release both.

Panel Mount Layout:

USB Port (Covered)

Power LED

Status LED

FOG

Straight Stream

Monitor Directional Control Buttons

AUX

Valve Position LEDs

OSC

Open

Preset

Close