Step 1. Mount Monitor onto base

**MOUNT MONITOR - NPT**

Thread monitor onto base using Loctite 592 thread sealant or equivalent.

**SUPPLY POWER - FUSE**

Install a 20A fuse (12VDC) into the positive power lead; 10A fuse for 24VDC.

*NOTE: We recommend using 16 AWG for monitor power and ground. See installation instructions section of the Sidewinder EXM UHP manual (98391000) for length to gauge recommendations.*

Step 2. Attach Nozzle to Monitor

**POSITION DISCHARGE**

Position monitor discharge elbow parallel to the ground. Ensure gasket is inside nozzle swivel before installing.

**INSTALL NOZZLE**

Hand tighten nozzle to monitor using swivel.

**REPOSITION & TIGHTEN**

Loosen swivel and reposition the actuator on the side or top of the nozzle. Tighten swivel using a spanner wrench to ensure a secure connection.

**CONNECT POWER**

Connect nozzle & monitor two-way connectors.

Step 3. Confirm Connections

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.
Step 4. RF Installation

INSTALL RF MODULE
INSTALL RF - OEM
INSTALL RF - HANDHELD
INSTALL BATTERY PACK

Step 5. Component Mounting

DRILL MOUNT HOLES
DRILL CAN HOLES
MOUNT COMPONENTS
SUPPLY POWER - FUSE

7/32" dia. unless noted

Use mounting templates found in the instruction manual for dimensions.

Drill holes for CAN network and power cables for each component.

Mount components using 10-24 x 1/2” screws. Use Loctite 242 or equivalent.

Install a 1A fuse (12VDC) into the positive power lead; 0.5A fuse for 24VDC.

Step 6. Wiring

CAN NETWORK WIRING DIAGRAM

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

Before continuing, use the EXM Configuration Tool manual P/N 98510000 to configure the EXM system.
**Step 7. Operational Settings**

**LEGAL DISCLAIMER:**

(R) This step is required. (O) This step is optional.

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**ENTER SETUP MODE**

1. **On the Handheld controller,** press and hold **FOG & STREAM** buttons for 5 seconds. Blue Status LED on monitor & yellow LED on controller will be lit.

On the Joystick controller, press and hold **AUX & PRESET** until LEDs turn on.

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**CALIBRATE HORIZONTAL**

Aim monitor at center forward “zero” position. Hold PRESET, then press and release **LEFT** or **RIGHT**. The Status LED on monitor should blink and return to solid. Release **PRESET** button.

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**HORIZONTAL TRAVEL LIMITS**

Move monitor to the left limit and press **CLOSE**. Move monitor to the right limit and press **OPEN**.

Maximum travel limits will allow +90° from the calibrated “zero” position in either direction.

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**VERTICAL TRAVEL LIMITS**

**Upper:**

Move monitor to highest point of travel. Hold **STREAM**, then press **UP**, and release both.

**Lower:**

Move monitor to lowest point of travel. Hold **STREAM**, then press **DOWN**, and release both.

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**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.

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**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.

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**MONITOR MOTOR SPEEDS**

Pressing the **OSC** button will cycle through the monitor speed options:

- **LEDs - Vert / Horz**
  - 0 - Fast / Fast
  - 1 - Slow / Fast
  - 2 - Fast / Slow
  - 3 - Slow / Slow

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**EXIT SETUP MODE**

Press and release **FOG & STREAM** simultaneously one time. LEDs will turn off.

Press and release **AUX & PRESET** simultaneously one time if using the Joystick controller.
Step 8. Verify

NOTE: Changes made during setup mode won’t take effect until you exit setup mode.

Rotational Limits – If Travel Limits haven’t been set, you can check the horizontal and vertical rotation limits by moving the monitor until it stops at the maximum allowed rotation. This will be +/-90° for horizontal movement, and 135° total for vertical movement.

Travel Limits – Move the monitor in all directions. The discharge should stop at the set Travel Limits. If it does not stop at the set Travel Limits, and travels all the way to the calibrated Rotational Limits, enter Setup Mode and repeat the Travel Limit steps.

Monitor Motor Speed - Motors come factory set both in fast mode (all yellow LEDs off). If a motor speed setting other than fast/fast is desired, follow step 7.7 Monitor Motor Speeds to change the motor speeds to the desired speed combination.

Keep-Out Zones – Raise discharge above the set Keep-Out point. Rotate discharge above the Keep-Out Zone. Lower discharge down until it stops at set Keep-Out point. Rotate the monitor toward the “Zero” forward position, and try to move discharge down every inch. Once discharge clears Keep-Out point, it should rotate all the way down to the Rotational or set Travel Limit.

Stow Position – While outside of Setup Mode, press and hold the FOG and OSC button to initiate the Stow function. The discharge should move to the set Stow Position. If monitor does not Stow, repeat step 7.8 to set a stow position. (Rotate thumb wheel down for FOG on joystick).

Button Press Logic

Left, Right, Up, Down / Fog & Stream
These buttons/commands function normally.

Stow
Hold FOG and OSC until monitor begins to stow.

Oscillate
Press the OSC button at each end, or corner, of the desired oscillation pattern. Monitor will begin to oscillate.

NOTE: You can manually control nozzle position while in a single axis oscillation (Ex: Up/Down in Horz., and Left/Right in Vert.). Any direction in a two axis oscillation will cancel the oscillation.