



STYLE 3414/3416 & 3421/3423  
Apollo™ Monitor with Foldaway Legs  
OPERATING & MAINTENANCE INSTRUCTIONS

The Akron Style 3414/3416 & 3421/3423 Apollo Monitor is designed to provide efficient trouble-free operation for many years. The following operating and maintenance instructions are provided to assist in obtaining the best possible performance for this unit.

PRODUCT RATINGS

Maximum Flow:

Style 3421/3423	800 GPM (3030 LPM) Portable Base 1250 GPM (4800 LPM) Direct Mount
Style 3414/3416	1000 GPM (3800 LPM) Portable Base 1250 GPM (4800 LPM) Direct Mount

Maximum Pressure:

Style 3421/3423	200 PSI (1380 Kpa, 13.8 BARS)
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PRODUCT WARNINGS

- WARNING: Read and follow the Warning Tag Instructions on the Lock Pin Lanyard.
- WARNING: If an Upper Deck or similar device is used to raise the Apollo 18" above the height of the standard direct mount flange, the increased loads must be taken into consideration when developing the structural support. Inadequate structural support can result in damage to the inlet piping, causing injury to the operator or others.
- WARNING: A 1/4 turn shut off valve should not be used with the Apollo. If any other type of shut off valve is used, it must be opened and closed slowly. Opening and closing a valve too quickly may result in damage to the Apollo and other equipment, which can result in an injury to the operator or others.
- WARNING: Read and follow the Safety Chain Warning Tag located on the Ground Mount Tag.
- WARNING: Read and follow the Plunger Pin Caution Tag.
- WARNING: Under freezing conditions the monitor must be drained to prevent damage.
- WARNING: Read and follow the Tip Pressure Tag located on the Ground Mount Tag.
- WARNING: Read and follow the Set Up Instruction Tag located on Inlet Body.
- WARNING: Incorrect hose layout may cause instability.

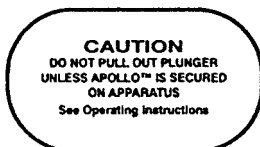
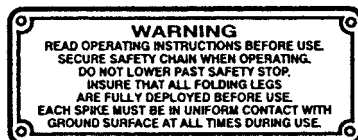
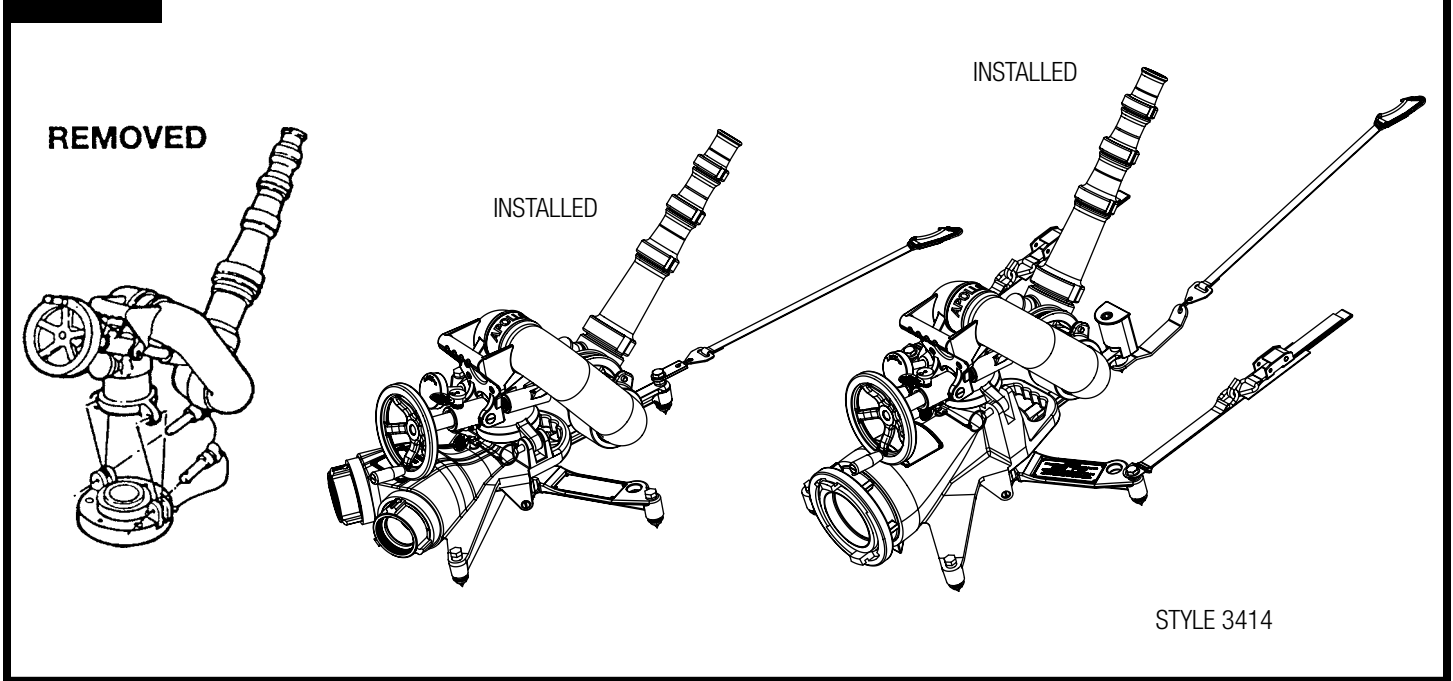


Figure 1



#### GENERAL INSTRUCTIONS

While operating in the direct mount flange or portable base, THE TWO CONNECTING PINS MUST BE FULLY ENGAGED AT ALL TIMES.

A. REMOVE THE MONITOR

To remove the monitor from either the direct connect flange base or portable base, hold the monitor securely by the carrying handle and pull each lock pin straight out. (See Figure 1)

B. INSTALL THE MONITOR

To install the monitor onto either the direct connect flange base or the portable base, place the monitor onto the appropriate base so that the holes in the ears are aligned. Then take one lock pin at a time and insert it through the holes in the ears. MAKE SURE BOTH PINS ARE FULLY ENGAGED BEFORE OPERATING. (See Figure 1)



When changing from the direct connect flange base to the portable flange base, BE SURE THE OUTLET ELBOW IS ABOVE THE 35° VERTICAL SAFETY STOP. ENSURE THAT ALL FOLDING LEGS ARE FULLY DEPLOYED BEFORE USE. This is essential for proper stability in the portable mode.

An adjustable safety strap is provided in the front of the portable base as an additional safety precaution. Connect the strap to a rigid stationary object such as a parking meter, spike, car wheel, etc., in front of the unit, and pull the strap tight. DO NOT OPERATE THE UNIT IN THE PORTABLE BASE WITHOUT SAFETY STRAP SECURED. To lengthen the strap, hold the latch and pull the strap.

#### OPERATING INSTRUCTIONS

When the Apollo monitor is used with the portable base, each spike must be in contact with the ground. As with any portable monitor, the Apollo should always be secured with the safety strap or ropes before using on any surface.

The portable base is designed to grip by imbedding the ground spikes into the surface on which it is operating. These spikes will not grip on metal, marble, or similar hard surfaces. Do not operate on these surfaces without securing the unit with rope or some other stable means, in addition to the safety strap.

The ground spikes in the portable base have carbide tips to remain sharp through extended use.

Each spike must be in uniform contact with ground surface at all times during use. Make sure that no large rocks or other debris are under the portable base during use, for this may cause the spikes to come out of contact with the ground surface. The maximum safe operating pressure for this unit is 200 PSI. (1400 kPa).

The Apollo monitor is designed with a safety stop at 35° above horizontal to maintain stability when used in the portable base. Do not release the elevation stop and operate below that point unless the unit is secured in the direct connect flange base.

#### A. STYLES 3421/3423 APOLLO

When used in the portable base, the unit should not be operated at more than 500 GPM (1900 LPM) with one hose and 800 GPM (3030 LPM) with two hoses. Therefore, do not exceed the following discharge pressures with straight tips unless the unit is secured in the direct connect flange base:

TIP SIZE	TWO HOSES		ONE HOSE	
	PSI	kPa	PSI	kPa
1-3/8"	100	690	75	515
1-1/2"	100	690	55	380
1-3/4"	70	480	NR	NR
2"	50	345	NR	NR

NR-No Recommended

Also, do not exceed 500 GPM (1900 LPM) with one hose or 800 GPM (3030 LPM) with two hoses, when using a fog nozzle, unless the unit is secured in the direct connect flange base.

The following hose arrangement is recommended for this appliance: Use two hoses and bring both hoses straight back from the siamese parallel to each other. Loosely tie the hoses together 10 feet (3m) from the monitor with a hose and ladder strap, rope, etc. (See Figure 2)

When the unit is operating in the portable base, do not attempt to move or pick up any part of the base itself or the 10 feet (3m) of supply hose closest to the unit.

When the unit is stored in direct connect base or truck mount, it is recommended that the nozzle or tips be lowered against a rigid support or removed during transportation.

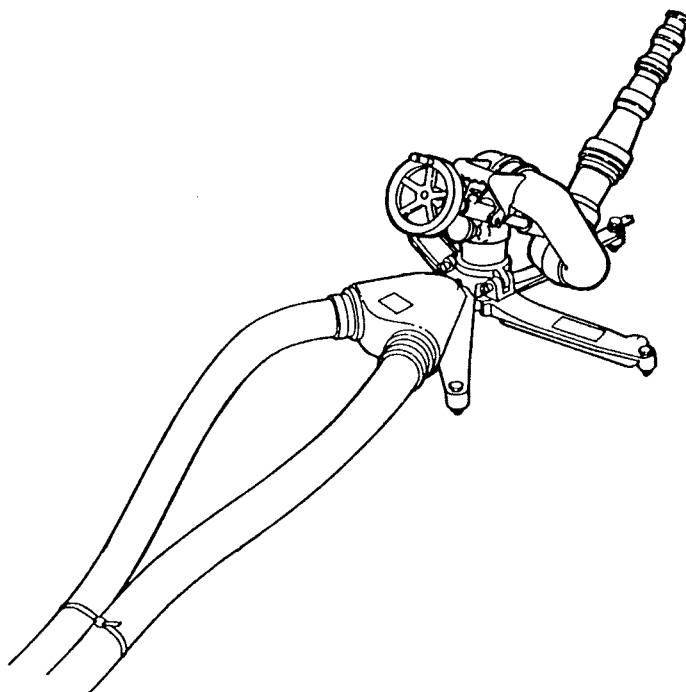
**WARNING:** Do not use larger than 3" hose for Styles 3421/3423.

#### Setup Instructions:

Rotate legs to the full open position. Aim center leg toward target. Ensure lock pins are fully engaged. Aim discharge upward. Secure safety strap.

Charge hose slowly.

Figure 2



## B. STYLES 3414/3416 APOLLO S.I.

When used in the portable base, the unit should not be operated at more than 1000 GPM (3800 LPM). Therefore, do not exceed the following discharge pressures with straight tips unless the unit is secured in the direct connect flange base:

TIP SIZE	PSI	kPa
1 3/8"	100	690
1 1/2"	100	690
1 3/4"	100	690
2"	75	515

Also, do not exceed 1000 GPM (3800 LPM) when using a fog nozzle, unless the unit is secured in the direct connect flange base.

Be sure the storz or swivel is attached securely.

For use with 4", 4-1/2" or 5" hose only.

### Setup Instructions:

The following hose set-up must be used to provide necessary stability when operating the Style 3414/3416.

(See Figure 3)

Aim center leg toward target.

Slide buckles to end of tie-down straps.

Connect straps loosely around hose.

DO NOT tighten.

Set spikes.

Ensure lock pins are fully engaged.

Aim discharge upward.

Secure safety strap.

Charge hose slowly.

Tighten straps around hose until it contacts hose stop.

If unit moves while charging, reset spikes.

When the unit is operating in the portable base, do not attempt to move or the hose loop, or the 10 feet (3m) of straight hose ahead of the hose loop.

When the unit is stored in the direct base or truck mount, it is recommended that the nozzle or tips be lowered against a rigid support or removed during transportation.

### ROUTINE MAINTENANCE INSTRUCTIONS

Style 3414/3416 & 3421/3423 Apollo™ Portable Monitor

The following maintenance procedures will extend the service life of this appliance.

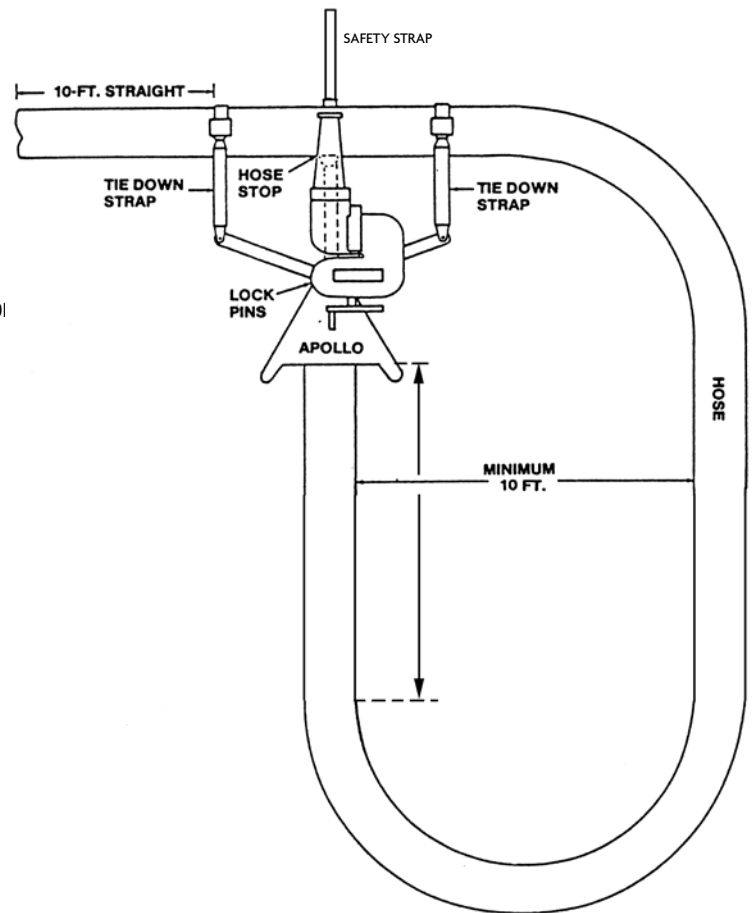
A. Four grease fittings are provided for lubrication. Use Low-Temp Lubriplate® or equivalent.

1. The horizontal and vertical swivel joints should be lubricated until a small amount of grease appears through the holes in the swivel plugs on either side of the grease fitting.

CAUTION: Avoid excessive pressure when using the grease gun. This may damage the O-Ring Seals in the joints.

2. The elevating mechanism must be lubricated in two places—the bushing. NOTE: The upper grease fitting is designed to lubricate 1 adjust the elevation while greasing the unit to ensure lubrication of the full rod length

- B. Examine the points of the ground spikes in the portable base. If the flat of any spike exceeds 1/16" (1.5mm) diameter, it must be replaced.
- C. Check the spring loaded spike holders in the portable base to ensure that they move freely. Use a dry spray lubricant if lubrication is required.
- D. Check that the elevation stop operates properly and must be released to lower the unit below 35° elevation.
- E. Check both the inlet clappers function properly. Lubrication is not normally required in this area.



- F. Check that the horizontal brake operates freely and apply a small amount of oil to the brake shaft.
- G. Check that the safety strap engages properly.
- H. If any of the parts do not function properly, contact Akron Brass for repair instructions.



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