

Santa Barbara City Fire Department - Standard Operating Procedures <b>Training Operations</b>	Code: <b>T-II-17</b>
<b>Monitors and Deck Guns</b>	
Chpt: II Hose Lays	Revised: 2/1/2018 Pages: 5

## I. GENERAL SAFETY

- A. DO NOT OPERATE THE UNIT IN THE PORTABLE BASE WITHOUT THE SAFETY CHAIN SECURED.
- B. MAKE SURE BOTH PINS ARE FULLY ENGAGED BEFORE OPERATING.
- C. BE SURE THE OUTLET ELBOW IS ABOVE THE 35 DEGREE VERTICAL SAFETY STOP.
- D. INSURE THAT ALL FOLDING LEGS ARE FULLY DEPLOYED BEFORE USE.
- E. EACH SPIKE MUST BE IN UNIFORM CONTACT WITH GROUND SURFACE AT ALL TIMES DURING USE.
- F. NEVER TRY AND REMOVE THE MONITOR FROM THE RIG BY YOURSELF, ALWAYS SEEK HELP. USE EXTREME CAUTION WHEN LOWERING MONITOR EQUIPMENT TO GROUND LEVEL.

## II. MONITOR INVENTORY

- A. Engines E1 (2400), E3 (1963), E5 (2244), E6 (2642) with 4" intake and E7 (2280) are equipped with the Akron model 3431/3433. For more information on operation and maintenance, see [3431/3433 instruction manual](#).
- B. Engine E2 (2323) and E4 (2574) is equipped with an Akron 3421 base [3421/3423 instruction manual](#) and 3433 Riser [3431/3433 instruction manual](#)
- C. Some reserve engines are equipped with the TFT Crossfire 1250. For more information on operation and maintenance, see [Crossfire 1250 instruction manual](#).

## III. PROCEDURE

- A. Akron 3421/3423 and Akron 3431/3433
  - 1. GROUND BASE SETUP INSTRUCTIONS:
    - a) Rotate legs to the full open position.
    - b) Aim center leg toward target.
    - c) Ensure the unit is in the lowered position.

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- d) Set spikes with hammer.
  - e) Ensure Lock pins are fully engaged.
  - f) Aim discharge upward.
  - g) Secure safety chain.
  - h) Charge hose slowly.
  - i) If unit moves while charging, reset spikes.
2. Maximum flow
- a) 800 gpm on the portable base with 2 hoses
  - b) 500 gpm on the portable base with 1 hose
  - c) 1250 gpm on the direct mount
3. Hose arrangement 2.5"
- a) Remove monitor and 2 - 2.5" double males and spanners from engine.
  - b) Place monitor at desired location with proper tip selected.
  - c) Firefighter and Capt. each grab a 2.5" supply line, disconnect nozzle and put in rear compartment.
  - d) Firefighter and Capt. each take a 2.5" coupling and 50' of working line, walk to monitor and place on the ground next to monitor.
  - e) Firefighter and Capt. walk back to engine each grab a 2.5" hose and tell engineer to go ahead.
  - f) When the engine is 100' away and or anchor locks engaged, walk back to monitor and create 50' loop with each line. First line going around the front of the monitor on the left side to the right inlet. The second line going around the front of the monitor on the right side connecting to the left inlet.
  - g) Connect both 2.5" hoses to monitor with double males and tighten with spanners.
  - h) Anchor monitor to 2.5" hoses at the front of monitor with webbing and carabineer or chain and carabineer. Then set spikes with axe.
  - i) Make sure monitor is aimed in correct location and that safety pins are engaged, call for water and adjust accordingly.

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### 4. Hose arrangement 4"

- a) Remove Monitor, 4" double male and spanners from engine.
- b) Place Monitor at desired location with proper tip selected.
- c) Firefighter grabs 4" coupling with 50' of working line and walks to the monitor. Place the coupling and working line on the ground next to the monitor.
- d) Firefighter walks back to the engine grabs 4" hose and tells engineer to go ahead.
- e) When the engine is 100' away or anchor locks are set walk back to the monitor and create a loop to the front of the monitor. Make sure the loop is about 10' wide on both sides and to the rear of the monitor.
- f) Connect 4" double male and 4" hose to the monitor, tighten with spanners.
- g) Anchor monitor to 4" hose to the front of the monitor with anchor straps. Then set spikes with axe.
- h) Make sure the monitor is aimed in correct location and that the safety pins are engaged. Call for water adjust monitor and anchor straps accordingly.

### 5. Pump pressures

Tip size	2 hoses (in psi)	1 hose (in psi)
1 3/8"	100	75
1 1/2"	100	55
1 3/4"	70	NR (not recommended)
2"	50	NR

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### B. TFT Crossfire 1250

#### 1. INSTALLING MONITOR ON BASE

- a) Turn elevation hand wheel to make sure the elevation of the nozzle is above the 35° safety stop. Verify that the elevation stop pin is down and engaged.
- b) Make sure the slide bar is in the up position.
- c) Hold the monitor by the top carrying handle, position monitor over base and slide straight down.
- d) Push the slide bar down and watch the pawls engage the groove in the base and the safety plunger engage in the hole in the slide bar.

#### 2. PORTABLE BASE ANCHORING

- a) Whenever the monitor is operated on the portable base, the base must be anchored to a substantial immovable object.
- b) A loop on the end of the strap may be placed over the anchor point or the strap may be wrapped around an object, such as a tree or the hose itself, and the snap end of the strap passed through the loop and pulled tight.
- c) Keep the entire length of the strap as close to the ground as possible.
- d) Snap the hook into the hole in the front of the portable base below the carrying handle.
- e) The length of the strap may be adjusted by the sliding the buckle on the strap. If the strap is too short to reach a suitable anchor, it may be extended with strong rope or chain.
- f) Keep the distance between the base and anchor point as short as possible.

#### 3. SAFETY VALVE OPERATION

- a) The portable base safety valve reduces the flow area through the monitor by 90%, should the base lose contact with the ground for any reason.

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b) The safety valve is spring loaded in the closed position



(left) and must be manually set (right) each time the monitor base is deployed or re-located.

c) To set (open) the safety valve, rotate the valve handle counter-clockwise until it locks into position, with the handle pointing straight back. If the safety valve trips, shut off the flow of water, and determine and correct the cause of trip before resetting safety valve.

d) The safety valve responds only to vertical movement of the monitor. To prevent sliding, the monitor must be properly anchored, even with the safety valve option.

#### 4. Pump pressure

	50 psi	80 psi	100 psi	150 psi	175 psi
Tip Size	gpm	gpm	gpm	gpm	gpm
1 3/8"	397	500	560	680	730
1 1/2"	473	600	660	810	870
1 3/4"	643	810	910	1100	1190
2"	840	1060	1190	---	---