

# **OPERATOR'S MANUAL**

**AX700LE SERIES**

**AX700LE & AX745LE**

**MANUFACTURED BY:**

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AX700LE SERIES FILM PROCESSOR  
ALPHATEK CORPORATION  
OPERATOR'S MANUAL

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## SECTION ONE

### INTRODUCTION

The AX-700LE is a ninety second x-ray film processor and the AX-745LE is a forty-five second processor. These processors have an automatic standby system which will conserve power and water usage. The standby system will also reduce wear on the mechanical components of the transport system. In order to operate the AX745LE at 45 seconds, you are required to use 45 second film.

The purpose of this manual is to familiarize the operator with the controls and also familiarize the operator with the proper maintenance schedule.

#### WARNING

**THIS PROCESSOR CONTAINS NO OPERATOR SERVICEABLE PARTS.  
REFER ALL SERVICING TO A QUALIFIED TECHNICIAN.**

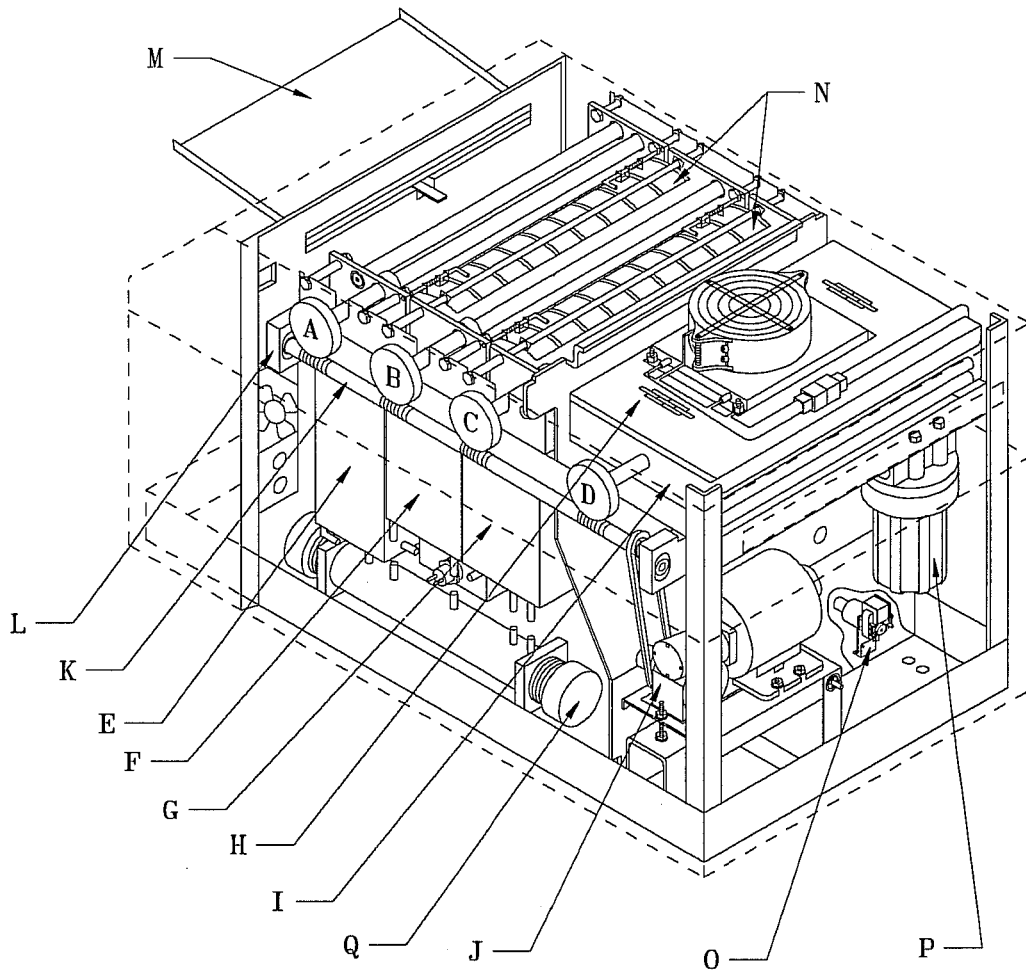
#### CAUTION

**THE FOLLOWING DARKROOM CONDITIONS MUST BE MAINTAINED  
IN ORDER TO INSURE PROPERLY PROCESSED FILMS.**

- 1.) Darkroom temperature: 60° - 80°F (15° - 27°C).
- 2.) Darkroom humidity: 40% - 75%.
- 3.) Exhaust: Room must have exhaust fan or air flow capable of 10 air changes per hour. (Minimum)
- 4.) Water temperature: 40° - 90°F (4° - 32°C)

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LEGEND	
A	= DEVELOPER RACK ASSEMBLY 5543.700.01
B	= FIXER RACK ASSEMBLY 5543.700.02
C	= WASH RACK ASSEMBLY 5543.700.03
D	= DRYER RACK ASSEMBLY 5543.700.04
E	= AX700LE DEVELOPER TANK 4548.700.02
F	= AX700LE FIXER TANK 4548.700.03
G	= AX700LE WASH TANK 4448.700.01
H	= AX700LE UPPER BLOWER ASSEMBLY 5536.700.06
I	= AX700LE LOWER BLOWER ASSEMBLY 5536.700.07
J	= MAIN DRIVE MOTOR 5485.700.01
K	= AX700LE DRIVE SHAFT ASSEMBLY 5236.700.03
L	= AX700LE ADJUSTMENT BLOCK ASSEMBLY (2) 5136.600.01
M	= AX700LE INFEED TRAY 4550.300.04
N	= CROSSOVER GUIDE ASSEMBLY 5236.700.07
O	= RECIRCULATION PUMP 4183.700.01
P	= DEVELOPER FILTER ASSEMBLY 5236.700.01
Q	= DRAIN MANIFOLD ASSEMBLY 5436.700.01

FIGURE 1-1  
 MAJOR COMPONENTS

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## SECTION TWO

# OPERATOR CONTROLS

As you will note in Fig. 2-1 there are various switches and lights on the control panel. These items perform different functions as listed below:

**A.) ON-OFF BREAKER (FIG. 2-1, ITEM A)**

This switch acts not only as your on-off switch but also as a circuit breaker. To turn the unit on simply depress the rocker arm portion marked "on", reversing the procedure to turn the processor "off". If the breaker has been tripped the rocker arm will float between the on/off position. To reset simply depress the on rocker all the way down. If the breaker trips again call for service.

**B.) DEVELOPER THERMOMETER (FIG. 2-1, ITEM B)**

This gauge will display the temperature of the developer chemistry with an accuracy of one degree fahrenheit. Also, the developer temperature display will turn off when a film is being fed. This display will turn back on after the film has cleared the feed tray. Once panel has relit another film may be processed or the operator may leave the darkroom. The developer temperature can be only set by an authorized technician. The "Feed" light will not come on until the developer temperature rises to the pre-set developer and dryer temperatures. The developer temperature should be set at the level recommended by the film manufacturer for 26 second immersion time (AX700LE) or 13 second immersion time (AX745LE).

**C.) THERMOMETER AND THERMOSTAT DISPLAY (FIG. 2-1, ITEM C)**

This L.E.D. will display current dryer temperature or the dryer thermostat setting. (See 2-1, Item D for further information.)

**D.) DRYER TEMPERATURE CONTROL PADS (FIG. 2-1, ITEM D)**

These buttons allow the operator to set optional dryer temperatures. The dryer temperature should always be set at the lowest setting possible while still achieving dry film. To change the dryer temperature setting, depress the appropriate button and hold down until the new temperature setting is displayed. To determine the temperature setting depress either up or down button momentarily and the current setting will be displayed.

**E.) FEED INDICATOR DISPLAY (FIG. 2-1, ITEM E)**

This display will remain off until both the developer and dryer temperatures have reached their set levels after initial turn-on. Also, this display will visually tell you when the unit is ready to receive a film. When a film is fed into the processor, a sensor will extinguish all control panel lights (including L.E.D.'s and "Feed" light). This is to prevent fogging of the film and also, will advise the operator when film is being fed. After the film has safely entered the processor, all lights will come back on and an audible signal will sound. At this time another film may be fed.

**F.) STANDBY/FULL-ON SWITCH (FIG. 2-1, ITEM F)**

This allows the operator to by-pass the "Standby" mode and to activate the processor to the "Full-On" condition. Only one mode will be lit at any time. If the unit is in "Standby" and a film is being processed, the "Full-On" light will come on until the film exits and returns to the "Standby" condition. During standby the main drive will turn off, the incoming water flow will be reduced and the dryer thermostat setting will be lowered. These features will save on energy and water consumption. Also, wear and tear on the drive chain will be minimized. The processor has an optional "Jog Cycle" which can be activated by a service technician. The jog cycle will turn the processor to the "full-on" condition for 90 seconds if no films have been processed for 30 minutes.

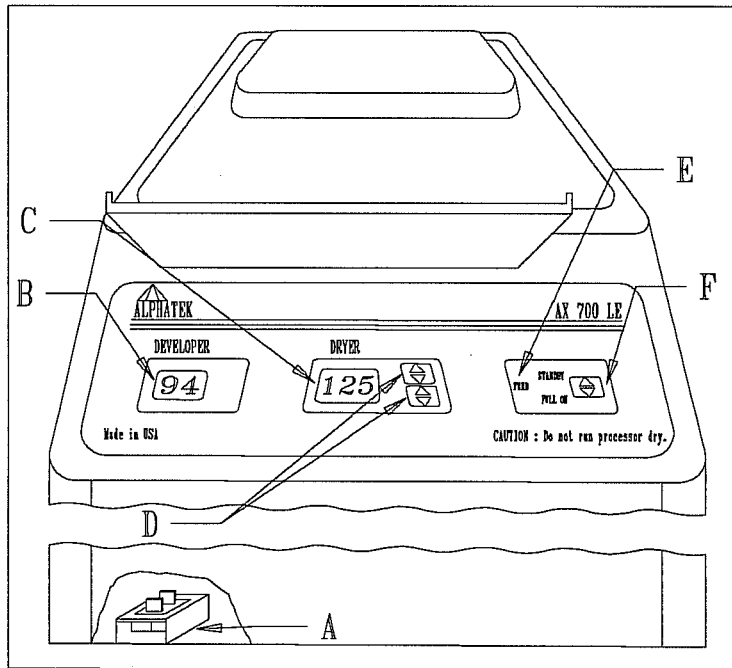


FIGURE 2-1 OPERATOR CONTROL LAYOUT

LEGEND	
A.	ON-OFF BREAKER.(UNDER SIDE FRONT SECTION)
B.	DEVELOPER THERMOMETER (LED).
C.	DRYER THERMOMETER AND THERMOSTAT DISPLAY.
D.	DRYER TEMPERATURE CONTROL PADES.
E.	FEED INDICATOR DISPLAY.
F.	STANDBY/FULL ON SWITCH.

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## SECTION THREE

### START-UP PROCEDURE

- 3.1 Check developer chemistry level. Make sure tank is at least 1/2 full before turning processor on.

**CAUTION: DO NOT RUN PROCESSOR DRY OR DAMAGE TO THE DEVELOPER HEATER WILL OCCUR.**

- 3.2 Make sure water supply valve from incoming water source is open.
- 3.3 Turn on processor.
- 3.4 Check for water flow.
- 3.5 Check the chemistry levels. Make sure chemicals are to top of the overflow tubes. (See Fig. 7-1) Also check the chemistry level of the storage tanks.
- 3.6 Wait for processor to warm up to the desired developer and dryer temperatures by checking the respective thermometers on the control panel. Allow approximately thirty minutes for the processor to reach proper temperatures.
- 3.7 Run clean-up films.

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## SECTION FOUR

### PROCESSING FILM

- 4.1 Re-check your developer temperature.
- 4.2 Feed film on left edge of feed tray. If a film is smaller than 18cm in width, feed the film down center of tray in order to activate feed sensor switch.
- 4.3 If sensitometer strips are being run they should be processed after the clean up films but before regular radiographs. These films should be processed approximately one hour after unit has been turned on.

**NOTE: ALL SINGLE SIDED EMULSION FILM SHOULD BE FED EMULSION SIDE DOWN.**

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## SECTION FIVE

### SHUT DOWN PROCEDURE

- 5.1 Turn power off.
- 5.2 Remove top panel. Top panel should be left ajar to prevent condensation within the processor.
- 5.3 Turn off water supply.

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## SECTION SIX

### MAINTENANCE

#### 6.1 DAILY

6.1.1 Turn off power.

6.1.2 Remove top panel.

6.1.3 Flip-up and clean the dev/fix and fix/wash crossover guides. Cleaning of the guides should be achieved by using a moist soft cloth only. Any cleaning material more abrasive than a soft cloth will possibly damage the surface of the guides.

6.1.4 After cleaning, replace guides. After shutdown be sure to leave the top panel ajar to reduce condensation within the processor.

#### 6.2 WEEKLY

6.2.1 Repeat daily maintenance procedure

6.2.2 Turn off power.

6.2.3 Remove top panel.

6.2.4 Flip-up crossover guides.

6.2.5 Remove transport racks taking care not to spill chemistry from one tank into another.

6.2.6 Wipe down racks and guides under warm/hot running water using a soft, lint free cloth or a non-abrasive synthetic sponge.

**6.2.7** Replace racks.

**6.2.8** Replace crossover guides to their proper slot location.

**6.2.9** Clean any area where chemistry has spilled or where chemistry has condensed within the processor.

### **6.3 MONTHLY**

**6.3.1** Repeat weekly procedure.

**6.3.2** Drain solutions from inside of processor and clean stainless steel tanks.

**6.3.3** Refer to Section 7 for proper method of changing chemistry and cleaning tanks.

### **6.4 ANNUALLY**

**6.4.1** Repeat monthly procedure.

**6.4.2** Lubricate the metal gears and chain of the drive motor and main drive shaft using a silicone lubricant.

**6.4.3** Lubricate rack drive gears and worm gears on main drive shaft using a silicone lubricant.

## SECTION SEVEN

# CHANGING CHEMISTRY

### 7.1 DRAINING CHEMISTRY

7.1.1 Open drain valves (See Fig. 7-1)

7.1.2 Remove transport racks. Remove developer filter from housing. Replace housing.

7.1.3 With drain valves open, flush system with warm water. Turn processor on to flush recirculation system.

7.1.4 After a couple of minutes turn processor off and turn water off. Recirculation system should be flushed from old chemistry. If not repeat above procedure.

7.1.5 Clean interior of tanks with warm/hot running water. Drain valves should still be open.

7.1.6 Close drain valves.

7.1.7 Insert new developer filter.

### 7.2 FILLING WITH FRESH CHEMISTRY

7.2.1 Pour fresh chemistry into respective tanks. **ALWAYS FILL FIXER TANK FIRST.**

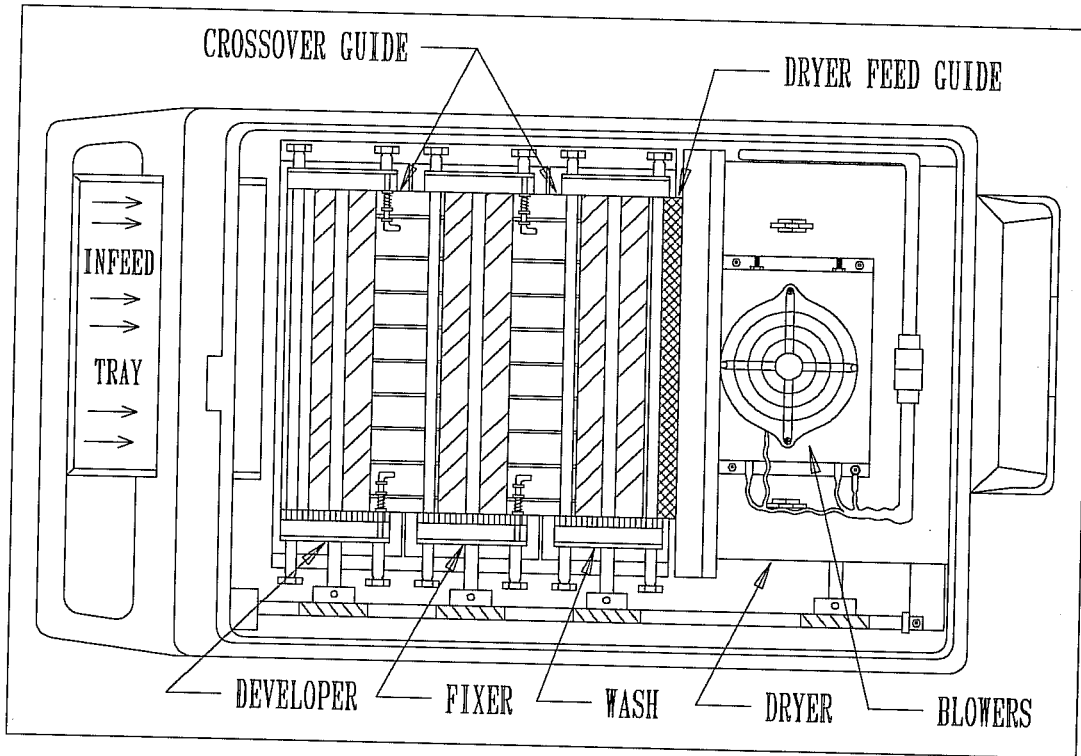


FIGURE 7-1 AX700LE SERIES INTERIOR TOP VIEW

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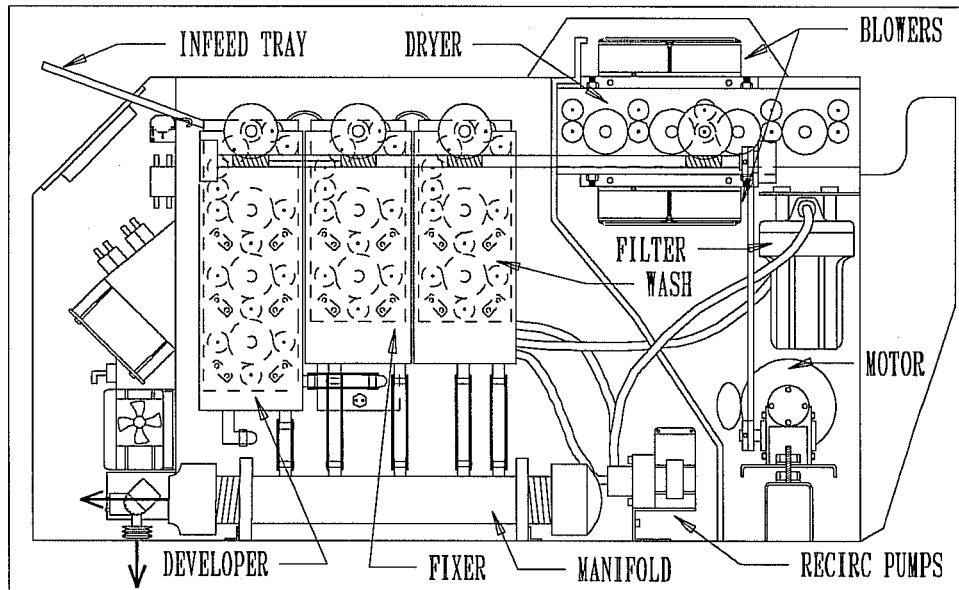


FIGURE 7-2 AX700LE SERIES INTERIOR SIDE VIEW