

OPERATOR'S MANUAL

AX300 SERIES PROCESSORS

AX300 SE, AX390 SE, MAMMO 300

MANUFACTURED BY:



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**AX300 SERIES FILM PROCESSOR
ALPHATEK CORPORATION
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WARRANTY

The Alphatek AX300 Series Film Processor is warranted for a period of one year from the date of installation, for all parts, against defects in material and/or workmanship. Should any such defect appear during the warranty period, notify your Alphatek dealer.

This warranty does not cover damage caused by accident, misuse or neglect.

This warranty is in lieu of, and supercedes all other representations, expressed or implied, by the manufacturer or any representatives.

This warranty is provided for the original purchaser and is not transferable.

This warranty is void if any service or re-installation has been done by any person or persons who are not authorized Alphatek dealers.

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SECTION ONE

INTRODUCTION

The AX300 SE is a 2-1/2 minute x-ray film processor, the AX390 SE is a ninety second processor and the Mammo 300 is a three minute 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.

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.**

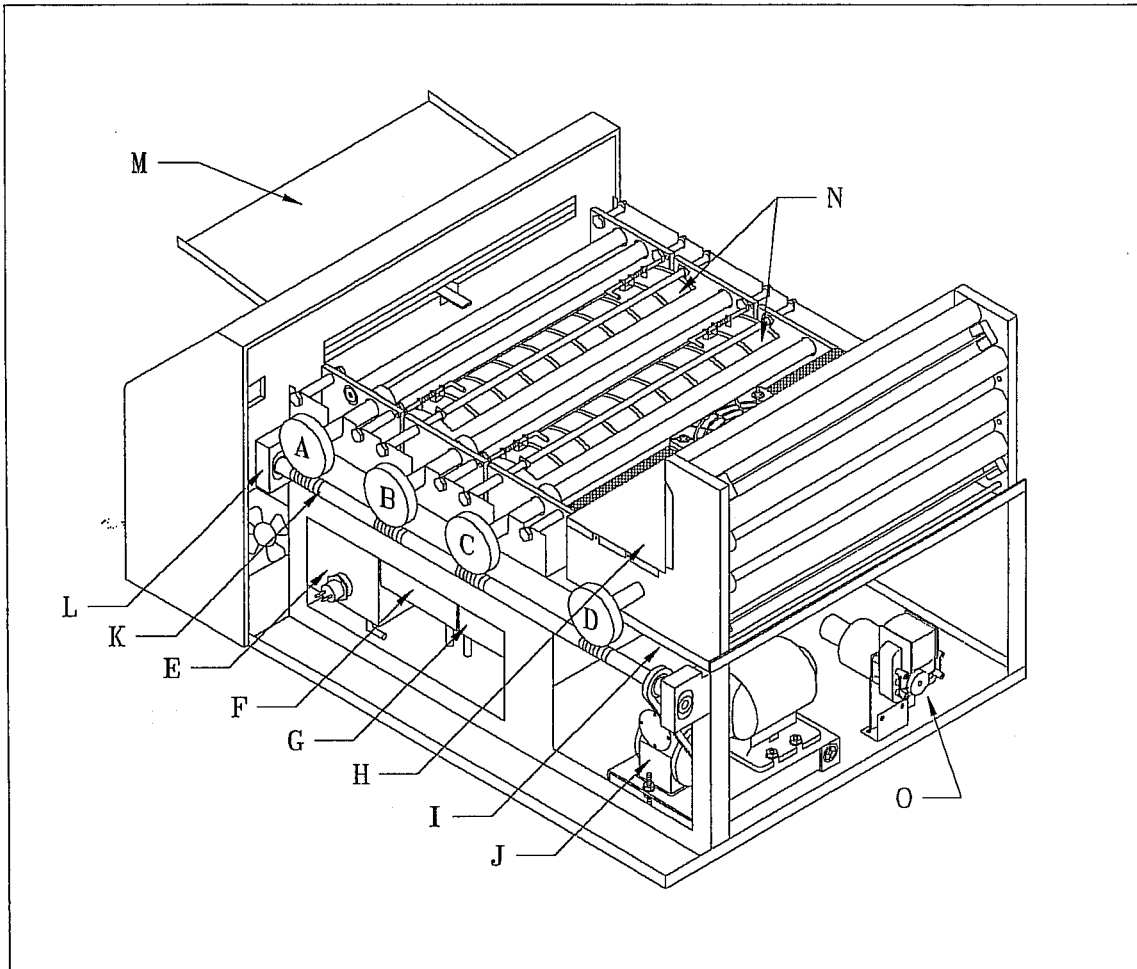
CAUTION

**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

		120V/240V			120 VOLT	240 VOLT
A	AX300 DEVELOPER RACK ASSEMBLY	5543.300.01	H	AX300 BLOWER BOX LID ASSEMBLY	5536.300.01	5536.300.09
	AX390 DEVELOPER RACK ASSEMBLY	5543.350.01		AX390 AXIAL BLOWER ASSEMBLY	5536.300.05	5536.390.02
	MAMMO 300 DEVELOPER RACK ASSEMBLY	5543.300.05		MAMMO 300 BLOWER BOX LID ASSEMBLY	5536.300.06	5536.300.06
B	AX300 FIX RACK ASSEMBLY	5543.300.02	I	AX300/AX390 BLOWER BOX ASSEMBLY	5536.300.02	5536.300.08
C	AX300 WASH RACK ASSEMBLY	5543.300.03		MAMMO 300 BLOWER BOX ASSEMBLY	5536.300.07	5536.300.12
D	AX300/390 DRYER RACK ASSEMBLY	5543.300.04	J	AX300/MAMMO MOTOR	4183.350.01	4183.300.01
	MAMMO 300 DRYER RACK ASSEMBLY	5543.300.06		AX390 MOTOR	4183.600.06	4183.700.13
E	AX300 DEVELOPER TANK	4448.300.01	K	MAIN DRIVE SHAFT ASSEMBLY	5236.300.01	5236.300.01
	AX390/MAMMO 300 DEVELOPER TANK	4448.300.04	L	ADJUSTMENT BLOCK ASSEMBLY	5136.300.01	5136.300.01
F	AX300 FIX TANK	4448.300.02	M	INFEEED TRAY	4450.300.04	4450.300.04
	AX390/MAMMO 300 FIX TANK	4448.300.05	N	CROSSOVER GUIDE (PRE 1993)	5236.700.02	5236.700.02
G	WASH TANK	4448.300.03		CROSSOVER GUIDE (POST 1993)	5236.700.07	5236.700.07
			O	RECIRCULATION PUMP	4183.700.01	4183.700.11

NOTE: MOST PARTS ARE UNIVERSAL TO AX300, AX390 + MAMMO 300 UNLESS OTHERWISE NOTED.

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 plus or minus 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. At this time lights may be turned on in the darkroom.

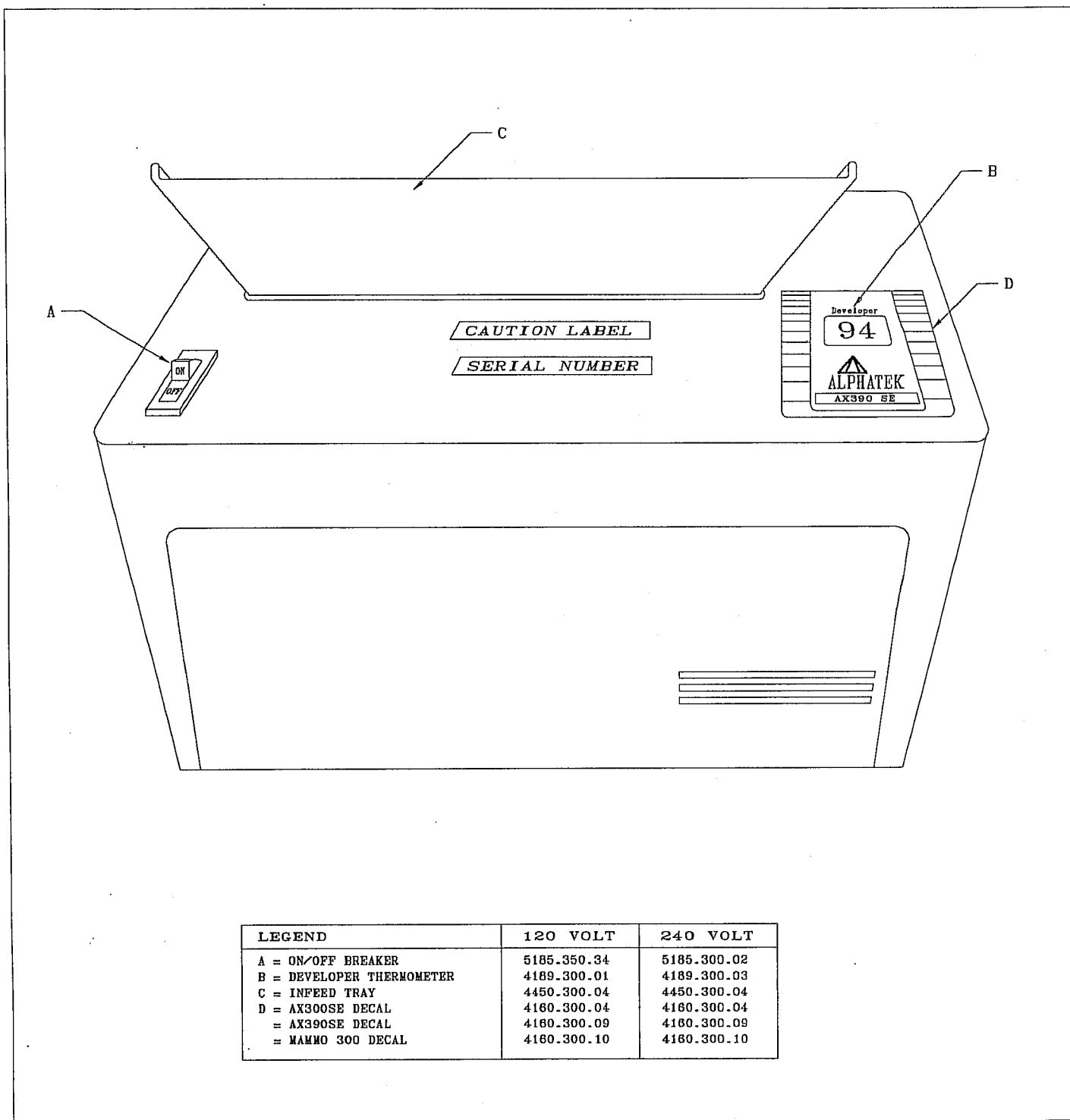


FIGURE 2-1.
 OPERATOR CONTROLS

SECTION THREE

START-UP PROCEDURE

- 3.1 Check chemistry levels. Make sure processor tanks are 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 chemistry levels. Make sure chemicals are to top of overflow tubes. (See Fig. 7-1) Also check the chemistry level of the storage tanks.
- 3.6 Wait for processor to warm up to desired developer temperatures by checking developer thermometer on control panel. Allow thirty minutes for dryers to reach proper temperature.
- 3.7 Run clean-up films.

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SECTION FOUR

PROCESSING FILM

- 4.1 Re-check your developer temperature.
- 4.2 If processor has been in "Standby" for an extended period of time, run a clean-up film(s).
- 4.2 Feed film on left edge of feed tray. If smaller than 18cm in width, the film must be fed down the center of tray 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: 1. ALL SINGLE SIDED EMULSION FILM SHOULD BE FED EMULSION SIDE DOWN.

NOTE: 2. WHEN PERFORMING QC ON YOUR PROCESSOR, FOLLOW INDUSTRY GUIDELINES FOR PROPER RESULTS.

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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 Release Crossover Guides from Side Plates and rotate up to clean. Cleaning of the guides should be achieved by using a soft cloth and warm water only. Any cleaning material more abrasive than a soft cloth will possibly damage the surface of the guides.

6.1.4 After cleaning, insert guides back into the Side Plates. 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 Remove transport racks taking care not to spill chemistry from one tank into another.

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

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6.2.6 Replace racks.

6.2.7 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.

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.

CAUTION

NEVER USE CHLORINE OR BROMIDE IN THE CLEANING OR FOR THE PREVENTION OF ALGAE. THESE CHEMICALS WILL ADVERSELY AFFECT THE INTEGRITY OF THE STAINLESS STEEL.

7.1.6 Close drain valves.

7.2 FILLING WITH FRESH CHEMISTRY

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

7.2.2 Pour chemistry to fill tanks about 1/2 full.

7.2.3 Turn power on.

7.2.4 The developer level will decrease due to the filling of the thermowell in the AX390 SE and the MAMMO 300 models.

7.2.5 Re-install transport racks carefully and slowly so as to prevent any overflows.

7.2.6 Pour more developer chemistry into tank to bring the level back up to fill line.

7.2.7 Follow monthly maintenance procedure.

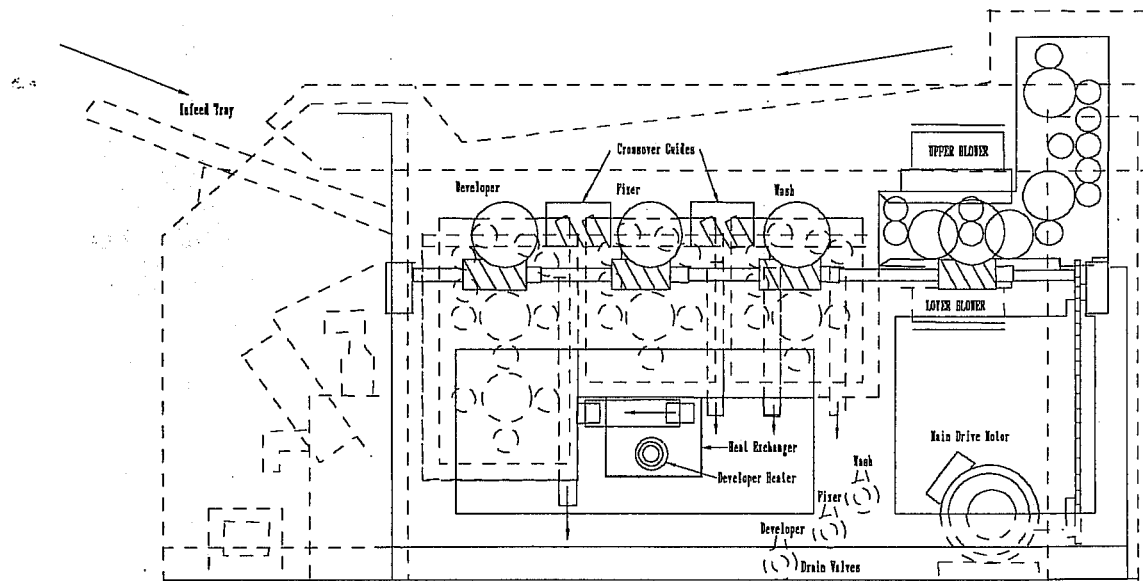


FIGURE 7-1
INTERIOR SIDE VIEW

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SECTION EIGHT

CLOSED-LOOP SYSTEM (OPTIONAL)

The "closed-loop system" allows for the capture of all liquids used with the film processor. This option would be useful for mobile van applications or for environmental considerations.

8.1 START-UP PROCEDURE

8.1.1 Make sure all three drain valves are only slightly opened (Dev, Fix and Wash).

8.1.2 Open covers for each 5 gallon (19 L.) container and insert vinyl tubing.

**NOTE: END OF TUBING SHOULD BE POSITIONED AT BOTTOM OF
5 GALLON (19 L.) CONTAINER**

8.1.3 Turn on processor.

8.1.4 Check for liquid flow into processor.

WARNING

**DEVELOPER TANK MUST FILL RAPIDLY TO PREVENT
DAMAGE TO THE DEVELOPER HEATER AND OTHER COMPONENTS**

8.1.5 Follow balance of start-up procedures beginning with Section 3.5.

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8.2 SHUT-DOWN PROCEDURE

8.2.1 Turn off processor.

8.2.2 Slightly open all drain valves. Chemistry should automatically drain into 5 gallon containers.

8.2.3 Remove vinyl tubing from 5 gallon containers after all tanks within processor have completely drained.

8.2.4 Reseal 5 gallon (19 L.) containers.

8.2.5 Follow daily maintenance schedule as stated in Section 6.