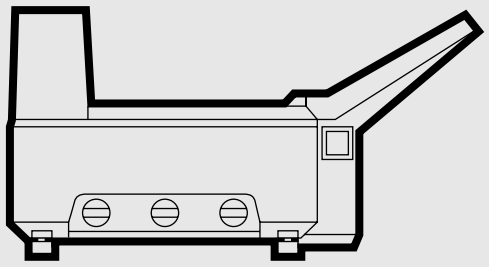
Konica

MEDICAL FILM PROCESSOR

Model SRX-101A

OPERATION MANUAL

CODE NO. 1052



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Konica MEDICAL FILM PROCESSOR Model SRX-101A

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IMPORTANT

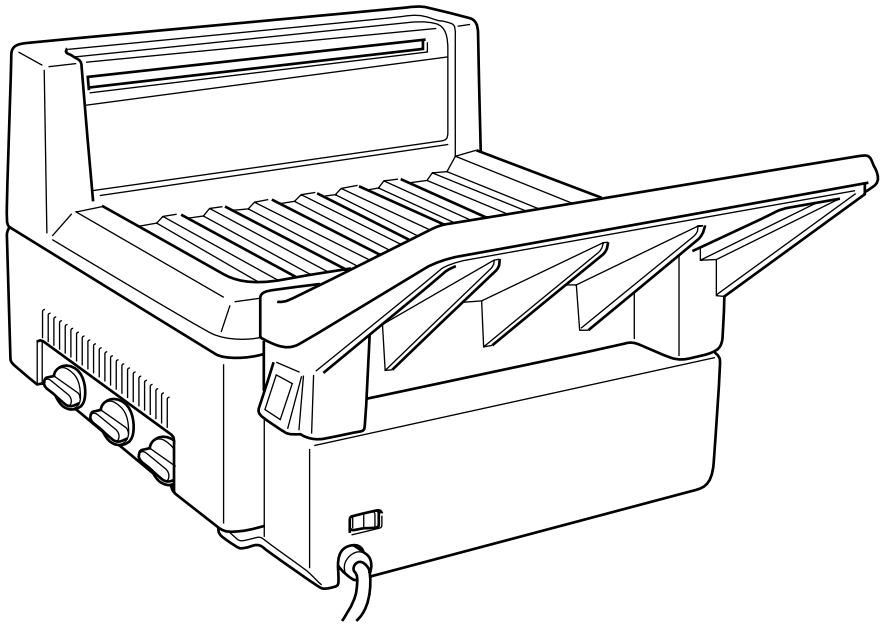
SHUT OFF WATER VALVE,

WHEN TURNING OFF THE PROCESSOR.

Don't operate the SRX-101A before recognizing the significance of the PRECAUTIONS and the CAUTION LABELS.

PREFACE

WELCOME to the world of the SRX-101A, a medical film processing device that features higher processing capabilities and better image quality than conventional tabletop models in a smaller, more compact body.
This manual contains mechanical operating procedures and precautions to follow so that you will be able to operate the SRX-101A under optimum conditions and handle it with maximum safety.
Please keep it handy whenever operating the SRX-101A and refer to it if you have any questions about the system's capabilities or operational features.



PRECAUTIONS

NORMAL HANDLING PRECAUTIONS

1. There are dangerous high voltage areas inside the processor. Do not try to remove the cover with a screwdriver or any other tool while the processor is ON.
2. Keep foreign objects from falling into the processing tanks.
3. If you detect any unusual noise, odor or smoke coming from the processor, discontinue use immediately, switch the film processor's power switch OFF, and disconnect the power cord from the wall socket. Then call your nearest authorized KONICA dealer.
4. Do not try to take apart, modify, or adjust the processor in any way not specified in this manual. Use only KONICA recommended parts and do not try to use the processor for any purpose other than specified in this manual.
5. Periodically do the following check procedures
   1) Is the power cord to the processor overheating?
   2) Are there any cuts or fraying in the plug socket or power cord?
   3) Make sure that the ground wire is properly connected.
6. If you do find any problems during these checks, discontinue operation and contact your nearest authorized KONICA dealer.
7. The SRX-101A, chemical solutions are classified in industrial waste category. Entrust their disposal to an authorized disposal expert.
8. The processing solutions and starter are dangerous to eyes, skin and clothing. In case of eye injury, wash your eyes thoroughly with cold, running water, then consult a doctor immediately. In the case of contact with skin or clothing, wash the affected areas immediately with water.
9. Use chemicals correctly by strictly following the manufacturer's instructions.
10. Turn the power breaker OFF whenever you clean or check the racks in the processing tanks.
11. Don't peel off the CAUTION LABELS.

INSTALLATION PRECAUTIONS

1. Prepare a power supply outlet of AC 115/120V, more than 15A exclusively for SRX-101A. An insufficient power supply outlet may cause overheating and/or smoke emission in the field.
2. Lay the power cord out so that it will not be tripped over and will not hit other pieces of equipment. Plugs and cords bent or frayed from constant abrasion and/or trampling may cause damage due to overheating and/or smoke emission in the machinery.
3. Use only direct wall/floor socket connections to power the SRX-101A. Hooking the processor into desk-top sockets, double connectors, or multi-socketed connectors may cause damage due to overheating and/or smoke emission in the machinery.
4. If an extension cord is required, use only cords that have been approved according to local public utility standards. Improper extension cords may cause damage due to overheating and/or smoke emission in the machinery.
5. Ground the SRX-101A to prevent electrocution accidents. Avoid the possibility of electrocution or even explosions by not grounding the processor to any of the following places:
   1) Gas pipes
   2) Lightning rods
   3) Ground lines specially designed for telephones
   4) Any water line or attachment
6. Keep all flammable and combustible materials away from the SRX-101A.
7. Keep direct forced air from heating and cooling equipment away from the SRX-101A.
8. Install the SRX-101A in a space that is well ventilated.
9. Use the SRX-101A on a perfectly flat, sturdy surface with a minimum of vibration.
10. Install the SRX-101A in a position accessible for easy operation, checking and maintenance.
11. Carry the main body of the SRX-101A on a conventional hand carrier by **two persons**.

CAUTION LABELS

1 EXPLANATION OF CAUTION LABELS

- Caution labels imply the degree of the risk which may arise from incorrect use of this product.
- There are 3 degrees of caution labels, and each is used depending on the level of risk and damage caused by incorrect use and mishandling.

DANGER : If failed to avoid the risk, this implies the imminent danger level which may lead to serious injury including a loss of life.

WARNING : If failed to avoid the risk, this implies the danger level which may lead to serious injury including a loss of life.

CAUTION : If failed to avoid the risk, this implies the danger level which may lead to moderate damage or light injury. Also it is used when a physical damage alone is expected.

<table>
<tr><td colspan="2" rowspan="2"></td><td colspan="2">Risk of the damage</td></tr>
<tr><td>High</td><td>Low</td></tr>
<tr><td rowspan="2">Bodily injury
(and damage to property)</td><td>Loss of life or
serious injury
(Damage is serious)</td><td>DANGER</td><td>WARNING</td></tr>
<tr><td>Moderate damage or
light injury
(Damage is light)</td><td>WARNING
or
CAUTION</td><td>CAUTION</td></tr>
<tr><td colspan="2">Damage to property only</td><td colspan="2">CAUTION</td></tr>
</table>

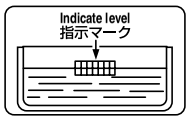
Should this manual become not readable due to any reason, replace it with a new one which is available at charged basis.

2 WARNING LABELS AND THEIR LOCATIONS

①

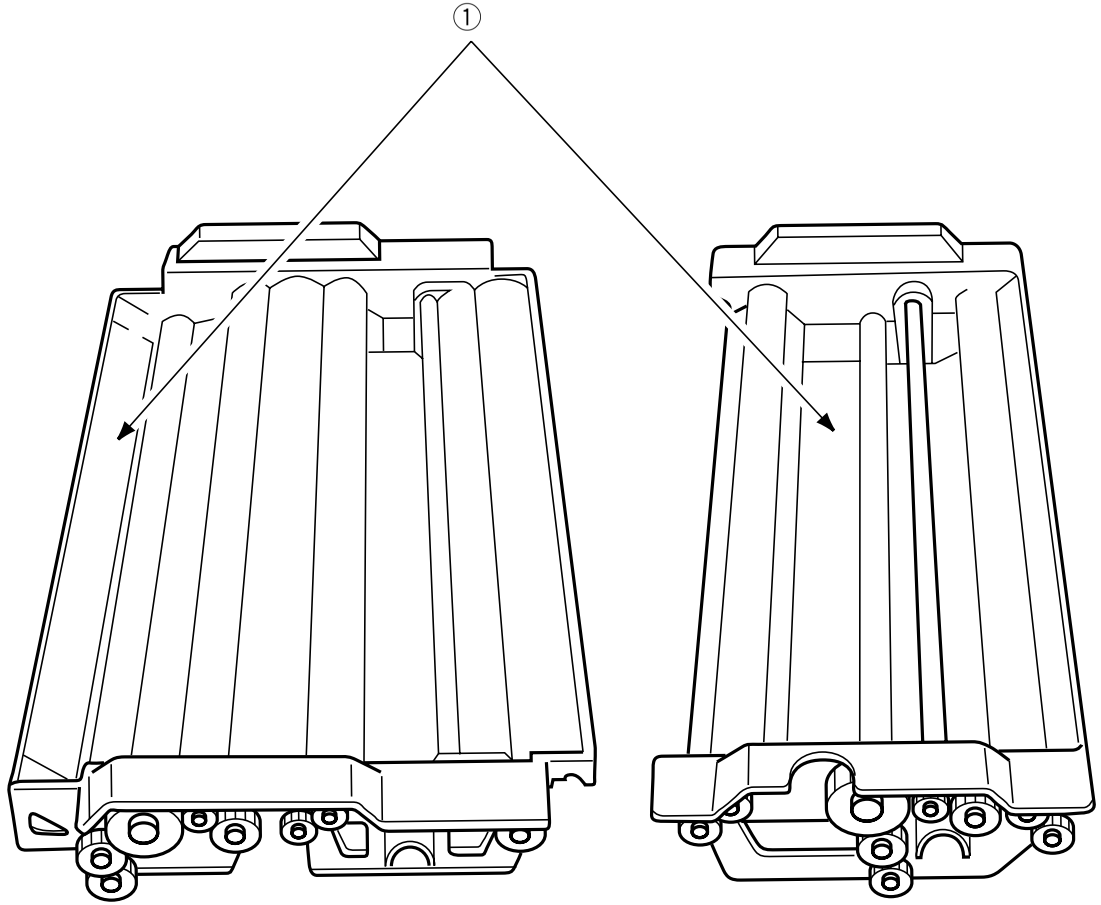
注 意 正しくラックをセットした後に母液供給を行なってください。
万一、液が入っている場合には、液面が「指示マーク」の間にあることを確認してください。
セット時には、ラックをゆっくりと降ろしてください。

「ラック」を取り出す時は、他の槽への「液たれ」がないように、注意してください。



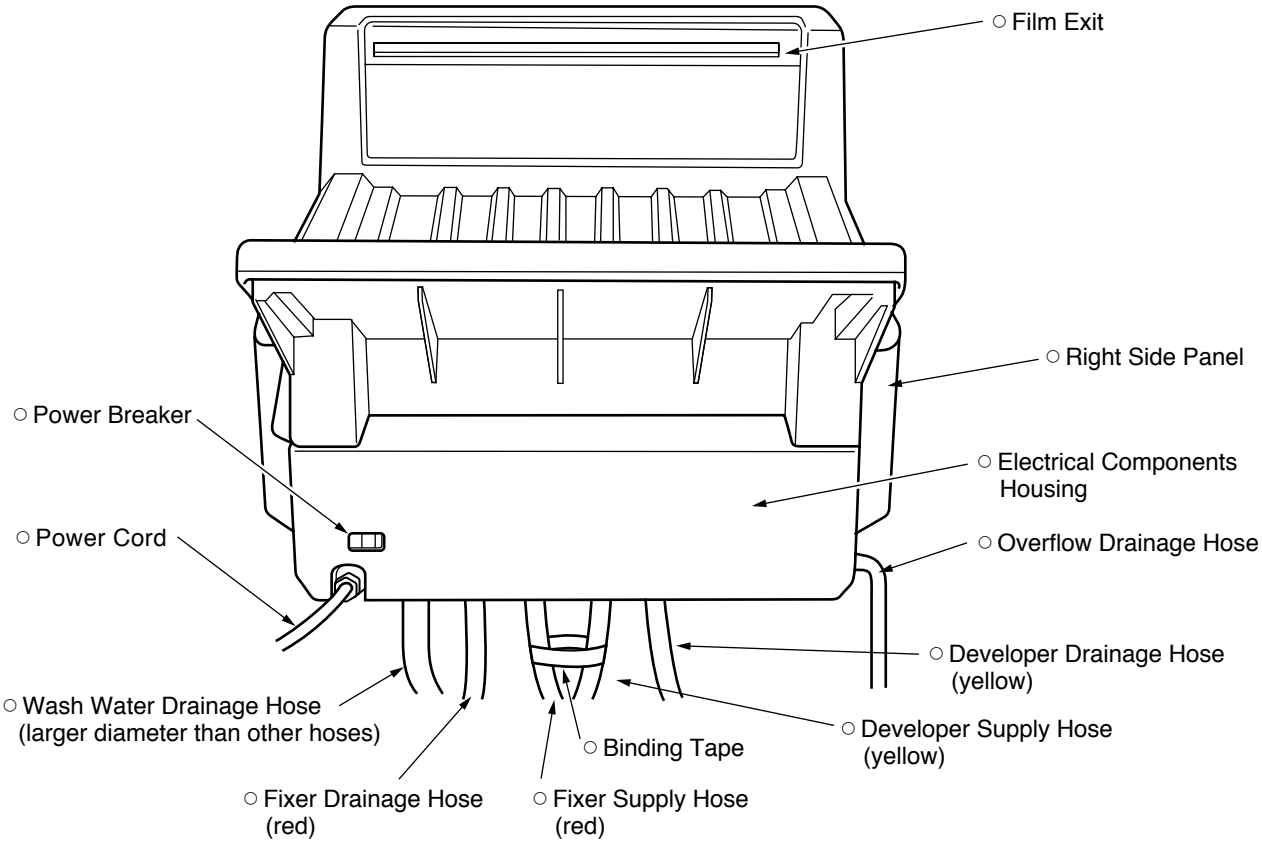
CAUTION Make sure that the initial chemicals are filled after the completion of rack setting.
If chemicals have been filled.
① Make sure that chemicals are not exceeding the indicate level.
② Rack setting should be done with care so it does not cause a spill.

To prevent cross-contamination tilt rack to rear of processor when removing.

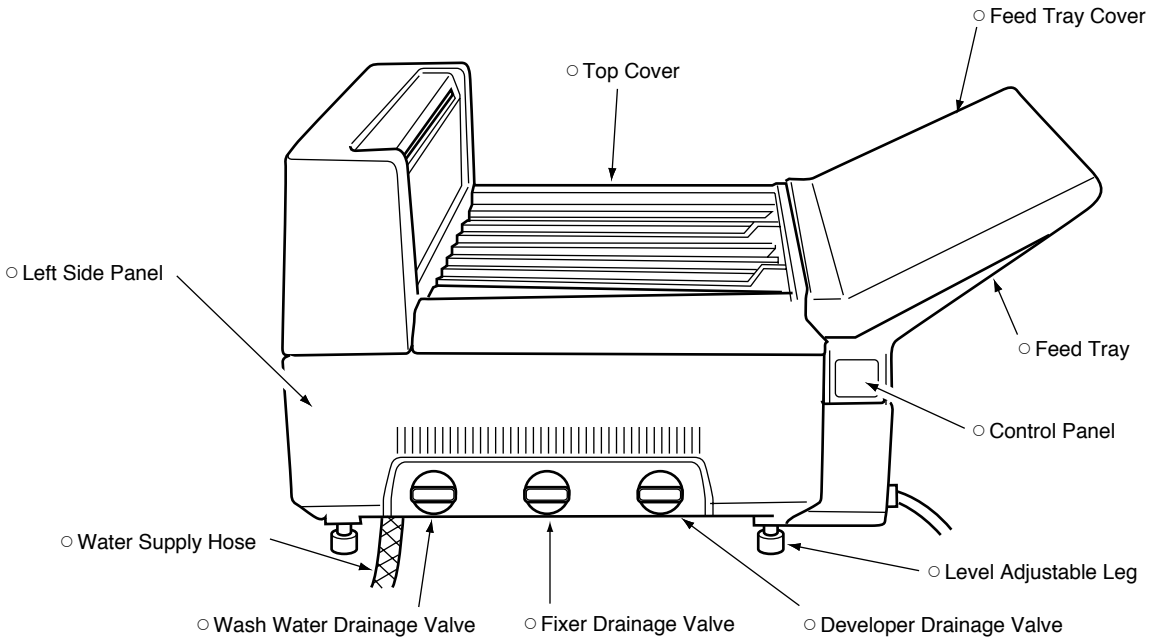


NAME OF PARTS

1 Main Unit (Front View)

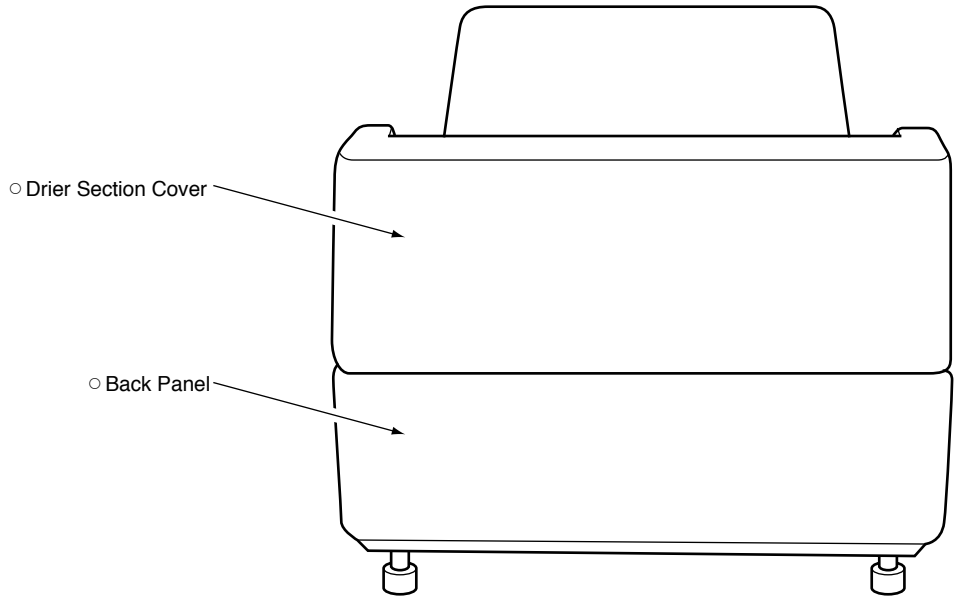


2 Main Unit (Left Side View)



NAME OF PARTS

3 Main Unit (Rear View)



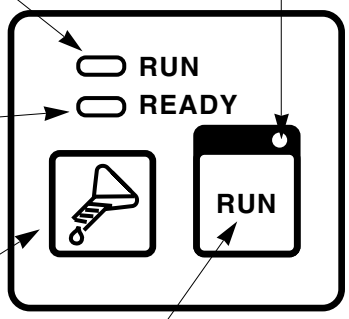
4 Control Panel

○ **RUN Lamp**
Lights up when the RUN button is pressed. Will automatically go out if no film has been inserted for 8 hours after the READY lamp went on. Will light up again when the RUN button is pressed.

○ **READY Lamp**
Lights up when the temperatures of the processing chemicals and heater are at their preset values. Film may be inserted for processing whenever this lamp is on.

○ **Replenishment Button**
Press and hold down this button for about 5 seconds to begin the supply of processing chemicals to the tanks at a rate of 3mℓ per second. During replenishment, READY lamp will change to flashing.

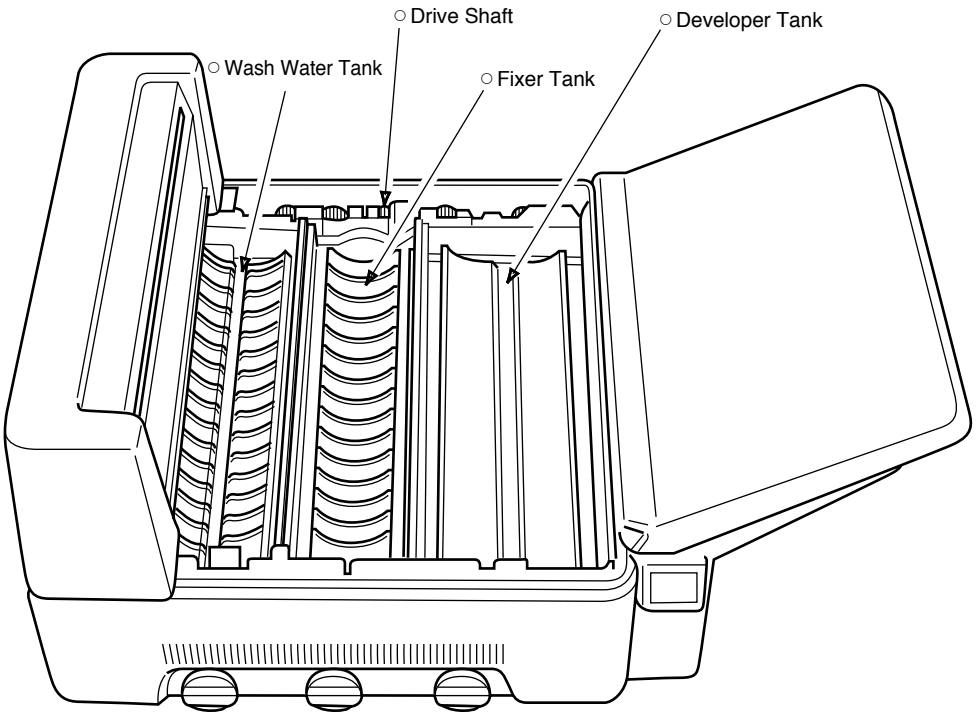
○ **RUN Button Lamp**
Indicates that the SRX-101A is electrically powered.

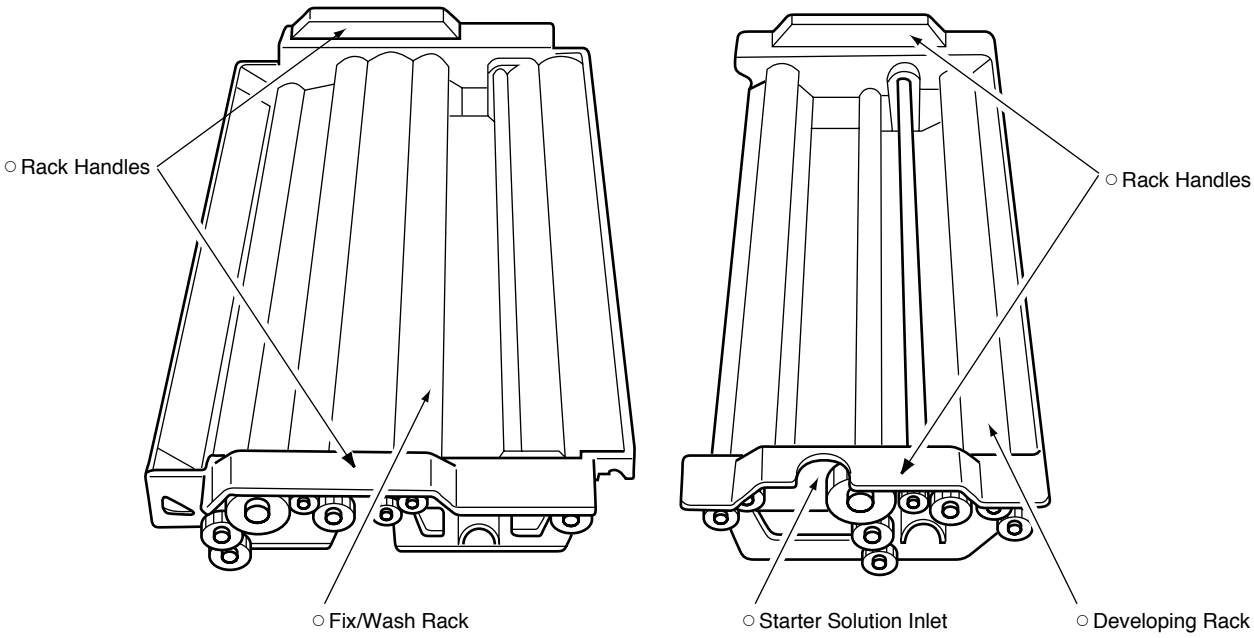


○ **RUN Button**
Press this button to start and stop film processing.

NAME OF PARTS

5 Main Unit (Top View)



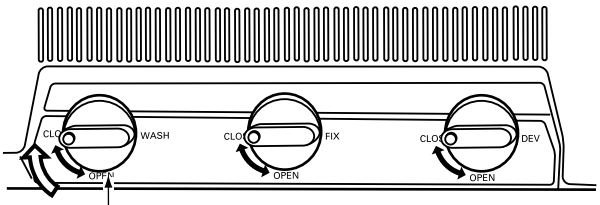


OPERATING PROCEDURES

See the section SERVICE AND MAINTENANCE for directions on how to clean the racks and processing tanks.

1 Film Processing

① Close the wash water drainage valve.
Make sure that the developer and fixer drainage valves are closed.

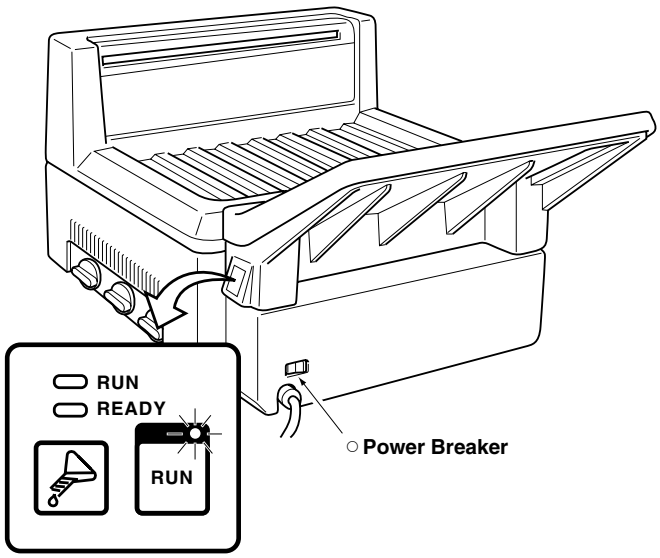


○ Wash Water Drainage Valve

② 1) When using a direct water utility supply line.
➡ Open your facility's water supply valve.
2) When using a self-contained wash water supply system. (A specially designed system that allows you to keep water stored in wash water tank).
➡ Do not open the facility's water supply valve.

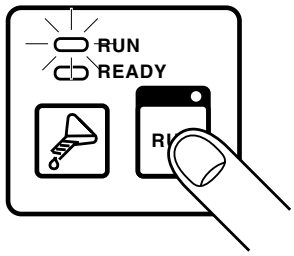
③ Plug in the SRX-101A's power cord, and turn the power breaker ON (Left button on front below the feed tray).

● The RUN button lamp goes on.

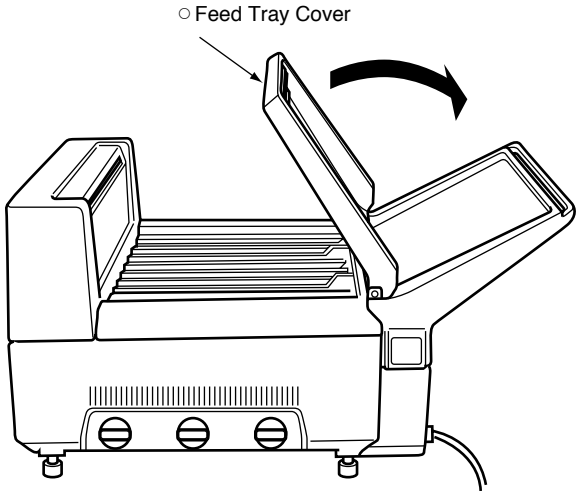


④ Press the RUN button.

● The RUN lamp will light up to indicate the SRX-101A is operating.

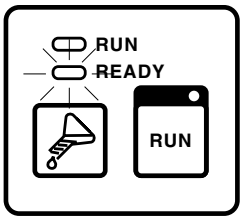


⑤ Close the feed tray cover.



⑥ Wait until the READY lamp lights up.

● This will take about 20 minutes under 77˚F room conditions and about 30 minutes under 59˚F room conditions.
When the READY lamp goes on, the SRX-101A is ready for film processing.



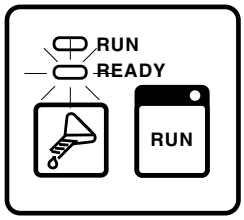
2 Inserting Cleaning Film

In order to assure the highest quality images, it is necessary to keep the rack rollers and guides clean. To do this, insert cleaning film every day before you start film processing.

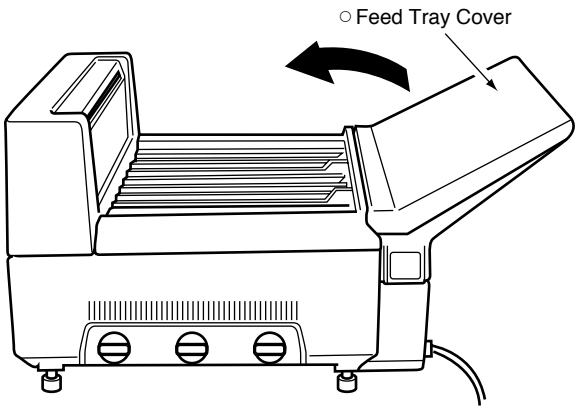
① Prepare 2 or 3 sheets of cleaning film.

> HINT:
> Use sheets of undeveloped film or developed film that has no clear areas on it. For the best results use the largest size sheets available.

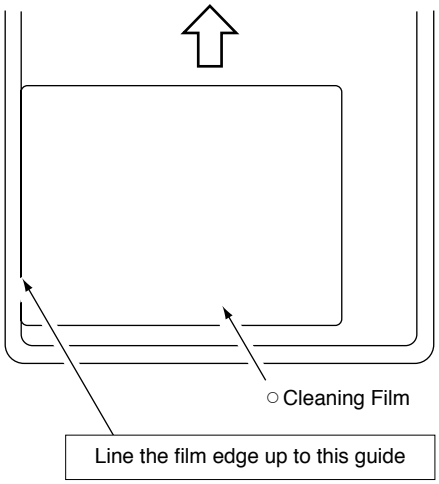
② Make sure that the READY lamp is on.



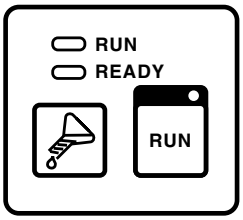
③ Open the feed tray cover.



④ Insert the cleaning film, one sheet at a time, always lining up the film edge either the right or left guide on the feed tray.



- After the leading edge of the film is grabbed by the roller, the film will be automatically fed into the SRX-101A.
- The READY lamp will go out.



- As soon as film insertion is completed, the feed signal (beep) will sound and the READY lamp will go on again.

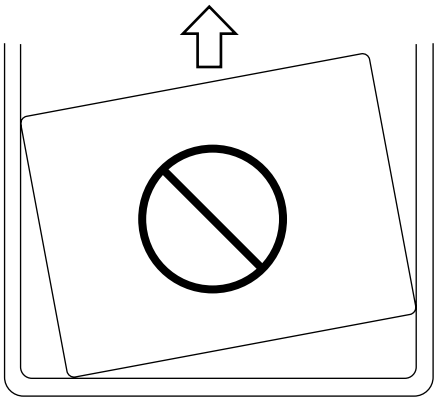
⑤ After the beep stops, insert the next sheet of film.

NOTE:

If you insert the next sheet of film before the beep stops, the two sheets will go through the processor stacked one on top of the other.
This will defeat the purpose of the cleaning process.

⚠ CAUTION:

Don't fail to line the film up with the guides, or the sheets of film may be jammed at the gears, causing the scratch on the film and the damages against gears and drive motor.



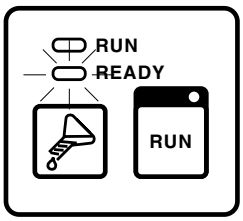
Do not insert the film diagonally

NOTE ON AUTOMATIC REPLENISH AMOUNTS AND TIMES

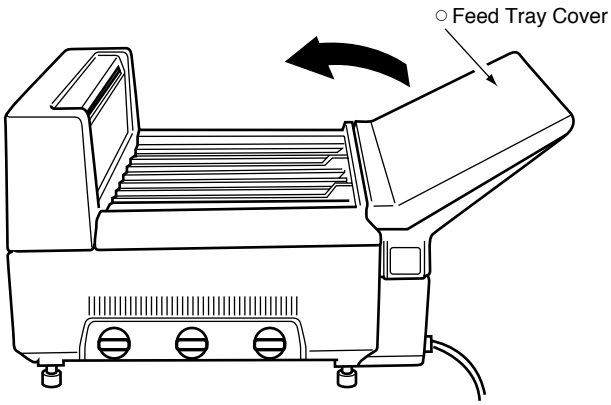
1. When the SRX-101A has not processed any film for one hour, developer and fixer solutions corresponding to one sheet of 10"x12" film will be automatically supplied to the processing tanks.
2. As soon as the RUN button is pressed ON after initial start-up, developer solution corresponding to 4 sheets of 10"x12" film and fixer solution in the amount of 2 sheets of 10"x12" film will be automatically supplied to the processing tanks.
3. After initial start-up, if the RUN button is pressed after a 4-hour-OFF interval, developer solution corresponding to 2 sheets of 10"x12" film and fixer solution corresponding to 1 sheet of 10"x12" film will be automatically supplied to the processing tanks.
4. The above automatic replenishing operations are designed to keep the solution level in the processing tanks compensating their evaporation loss while the SRX-101A is not operated.
   It will make stable the medical film finishing, with the chemical solutions kept in good conditions.
5. After 8 hours of no operation with the READY lamp illuminated, the SRX-101A will be automatically shut off.

3 Inserting Exposed Film

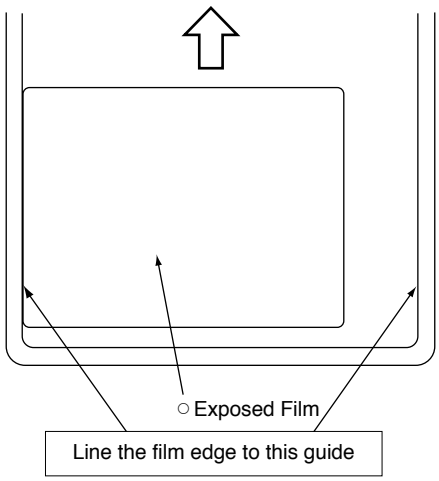
① Make sure that the READY lamp is ON.



② Change to safelight conditions
③ Open the feed tray cover.

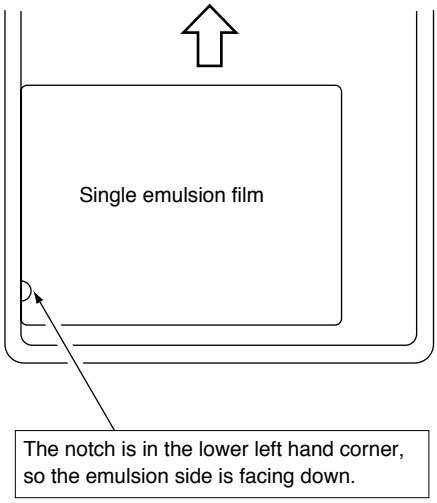


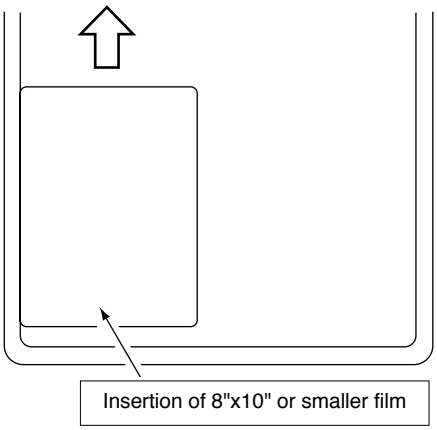
④ Insert the exposed film one sheet at a time, always lining up the film edge to either right or left guide located on the feed tray.



REMINDER:

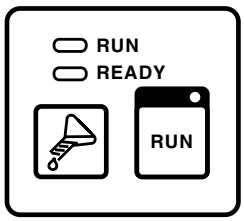
To get the best images possible, always insert single-emulsion film with the emulsion facing down. This means that the notch will be in the lower left hand corner (See first diagram below). Insert film 8"x10" or smaller with the longer edge lined up with the guide (See second diagram below).



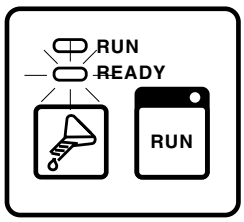


● After the leading edge of the film is grabbed by the roller, the film will be automatically fed into the SRX-101A.

● The READY lamp will go out.



● As soon as film insertion is completed, the ready signal (beep) will sound and the READY lamp will go on again.



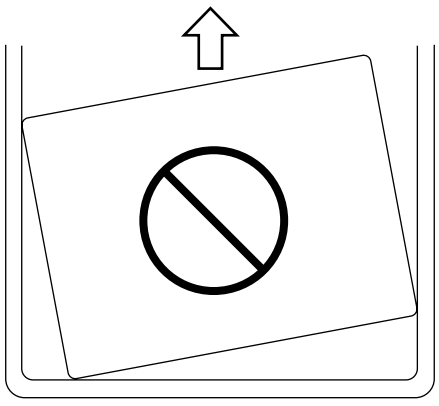
⑤ After the beep stops, insert the next sheet of film.

NOTE:

If you insert the next sheet of film before the beep stops, the two sheets will go through the processor stacked one on top of the other and the film will not be processed.

⚠ CAUTION:

Don't fail to line the film up with the guides, or the sheets of film may be jammed at the gears, causing the scratch on the film and the damages against gears and drive motor.

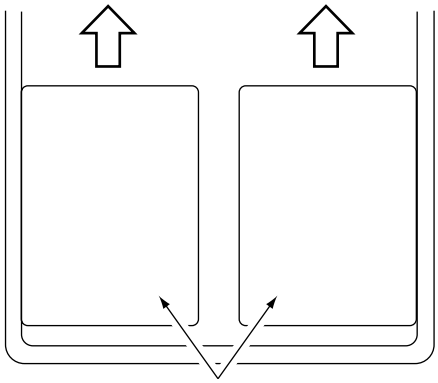


Do not insert the film diagonally

⑥ After all the film is inserted, close the feed tray cover.

HINT:

To speed up processing of smaller size film (8"x10" or less), you can feed two sheets in at the same time: one sheet along the left-hand guide, and the other along the right-hand guide (See diagram below). Just make sure that they do not overlap.



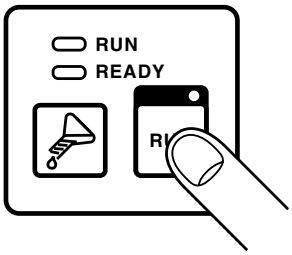
Insertion of 8"x10" or smaller film

OPERATING PROCEDURES

4 Shutting Down

① Press the RUN button.

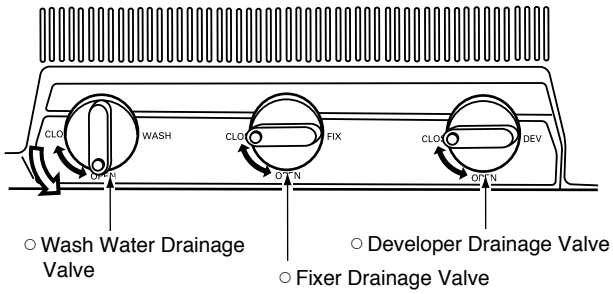
● The RUN lamp will go out.



NOTE:

If the film is still being processed or has just outputted from the SRX-101A, operation will not stop (the RUN lamp will not go out), even if the RUN button is pressed.

② Open the water drainage valve.
Leave the developer and fixer drainage valves closed.

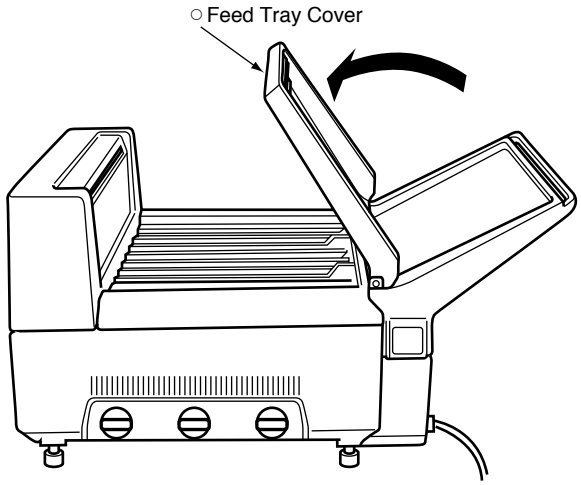


NOTE:

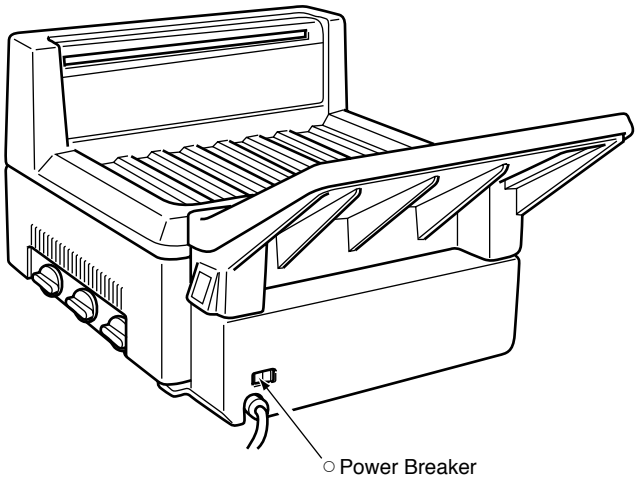
Temperature in the drying section is kept high during operation. Wait for app. 5 min. after the processing has completed, then turn the Power Breaker off. This will help to maintain the processor in good condition so that the stable quality is ensured for long time.

● The wash water will begin draining.

③ Open the feed tray cover to prevent condensation inside the main unit.



④ Turn the power breaker OFF (Left on front below the feed tray).



⑤ Unplug the power cord.

OPERATING PROCEDURES

5 Chemical Mixing, Replacing and Replenishing

1) **When Using Replenishment Tanks**

Mix the fixer and developer solutions according to the directions on the packages.

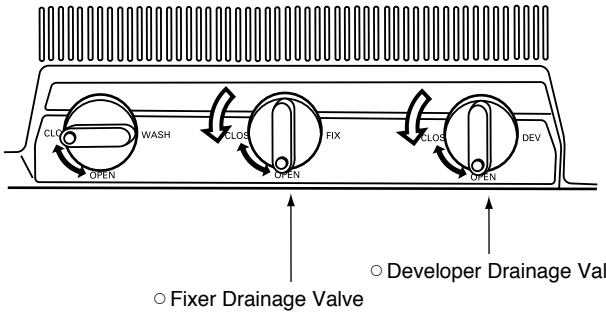
2) **Replacing Chemical Solution**

When replacing the chemical solution in the processor the replenishment button (beaker) is used to supply new chemical solution. Developer and fixer solutions must be replaced once a month (See SERVICE AND MAINTENANCE).

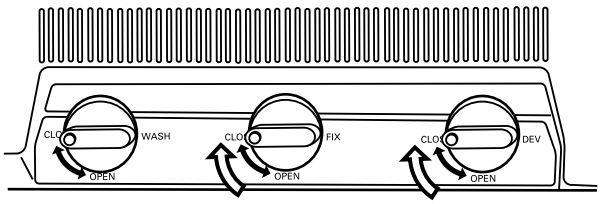
The replacement procedure is:

① Remove the top cover.

② Open the developer and fixer drainage valves to empty the tanks.

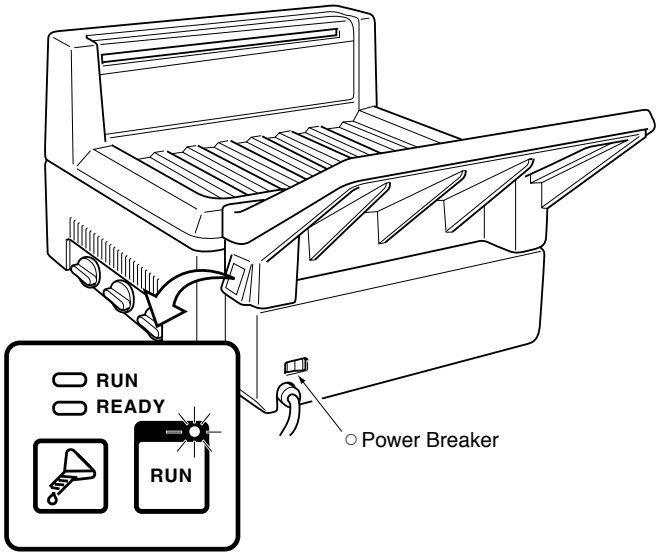


③ After the tanks become empty, close the valves.



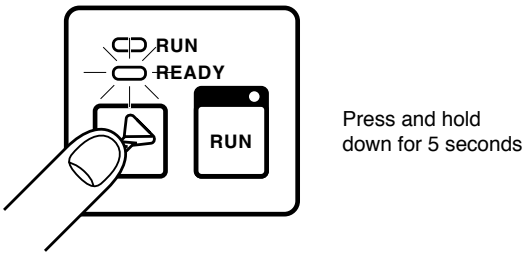
④ Turn the power breaker ON (Left on front below the feed tray).

● The RUN button lamp will go on.



• Do not press the RUN button.

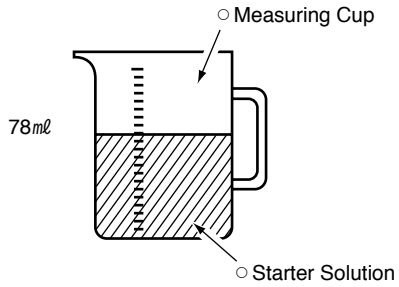
⑤ Press the replenishment button (beaker) until the READY lamp begins flashing (about 5 seconds).



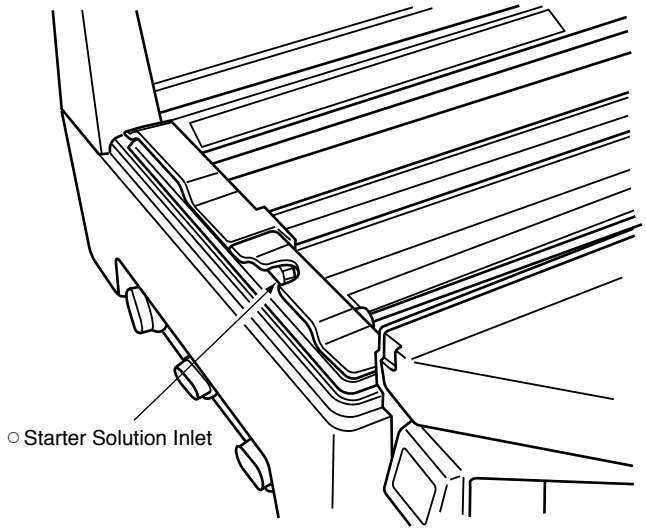
● It will take about 22 minutes for the tanks to be filled. As soon as the tanks are filled, the READY lamp will stop flashing.

OPERATING PROCEDURES

⑥ Measure out 78mℓ of the starter solution.



⑦ Pour the starter solution into the starter solution inlet in the developing tank.

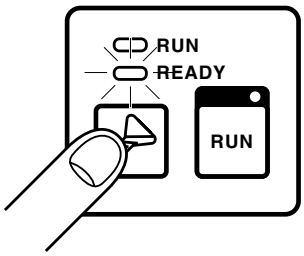


⑧ Close the top cover.

3) Manual Replenishing

① Make sure that the RUN button lamp is on. (The READY lamp can be either ON or OFF.)

② Press the replenishment button (beaker). Chemical solutions will be supplied to the tanks at a rate or 3mℓ per second.

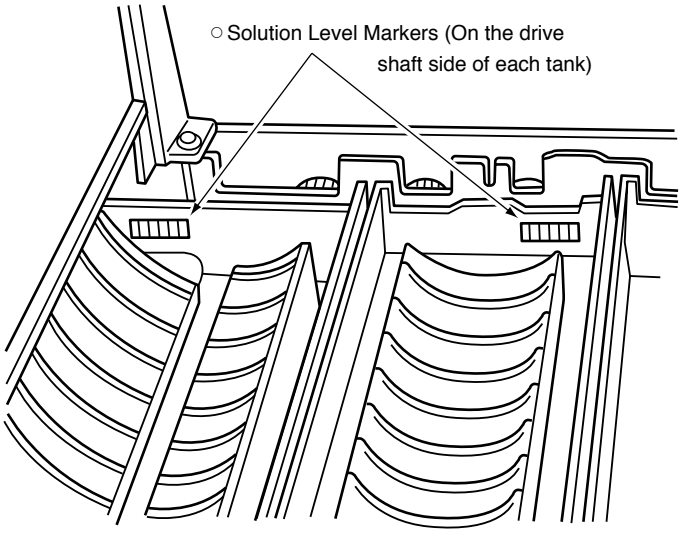


AVOID CHEMICAL SOLUTIONS OVERFLOW:

1. You have to set the racks in the tank before supplying new chemical solution.
2. Whenever you have to set a rack in a tank where the chemical solution is already in, insert the rack slowly while checking to see that the rising chemical solution level stays within the marker on the drive shaft side of the tank.
3. If the chemical solution level does rise above the marker, open the drainage valve until the chemical solution level falls within the marker.
4. Dropping a rack forcefully into a filled tank can cause sudden overflow and contamination of the chemical solution.

⚠ CAUTION:

1. The chemical solution and starter solution are dangerous to eyes, can cause skin irritation and damage clothing. Handle them with care. If you accidentally splash chemical solution on your skin or clothing, immediately wash the stained areas with water. If you splash any of these chemical solution in your eyes, immediately wash with water and get professional medical treatment.
2. To avoid accidents, strictly follow the directions for handling and mixing of chemical solution.



OPERATING PROCEDURES

6 Responding to Power Failure

Follow these procedures when an electrical power failure while film is being processed in the SRX-101A.

① Wait until the power is restored.

② After the power is restored, press the RUN button ON.

● The film that was being processed will be ejected from the processor.

NOTE:

If the power failure occurred when the film was in the developer tank, the film may be damaged if the power is not restored shortly.

③ Wait until the READY lamp goes on to resume film processing.

7 Maintenance When Long Periods of No Operation

If SRX-101A will be out of use for a long period (a week or longer), follow the procedures below.

① Open all the drainage valves and empty all of three tanks.

② Remove the DEV and FIX/WASH racks. Scrub them (including their rollers) with a sponge and warm water (under 104˚F).
After rinsing, leave them to dry.

③ Fill the processing tanks water and switch the SRX-101A ON to circulate it through the system.
Make sure that the tanks and hoses have been thoroughly rinsed, then drain the water from the tanks.

④ Set the dried racks back into their respective tanks.

⑤ Store the SRX-101A in a dry (low humidity) place.

8 Changing Processing Conditions

The following table is a listing of the values preset at the factory to control the SRX-101A's operating conditions. If you need to change any of these conditions, please contact your nearest authorized KONICA dealer.

Condition		Preset Value
Process cycle(1)		120 seconds
DEV temperature(2)		93˚F
Replenish amounts	DEV	40mℓ/10"x12" sheet
	FIX	70mℓ/10"x12" sheet
Standby interval(3)		10 minutes
Power source frequency		60Hz

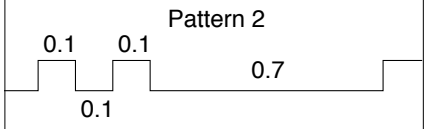
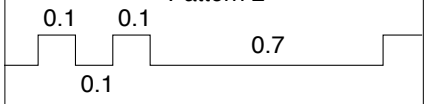
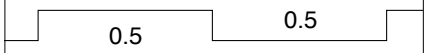
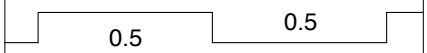
(1) There are three process cycle to choose from:
90 seconds, 120 seconds and 180 seconds.
If you choose the 90 second cycle, use KONICA's recommended SR film and SR chemical.
If it is not available for you, please contact the authorized Konica dealer.

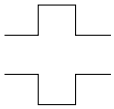
(2) DEV temperature may be set between 84˚F and 99˚F.
This value may be adjusted according to room condition.

(3) There are three standby options to choose from:
10 minutes, 30 minutes, continuous operation.
The SRX-101A will switch over to standby if no film has been inserted for 5 minutes while the READY lamp is ON. During standby the heater will go ON and OFF at 5 minute intervals.
As soon as a sheet of film is inserted, the SRX-101A will automatically switch over to normal operating conditions.

9 RUN and READY Lamps ON-OFF Patterns

Different ON-OFF patterns shown by the RUN and READY lamps on the control panel indicate different operating conditions. The following is a listing of all the possibilities and the conditions they indicate.

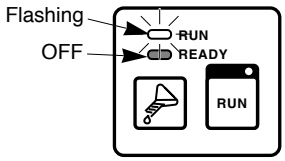
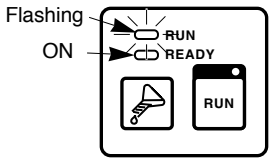
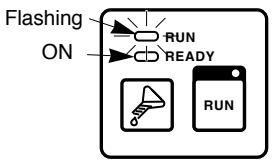
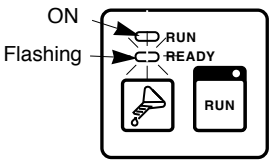
ON-OFF Pattern	Operating Condition	Note(1)
RUN OFF READY OFF	All operations shut down	
RUN ON READY ON	Normal operation (Operating temperature LOW)	
RUN ON READY OFF	Normal operation (Operating temperature OK)	
RUN OFF READY Flashing(Pattern 1)	Preparing for supplying chemical solutions (Repl. switch ON for 5 sec.)	Pattern 1 
RUN OFF READY Flashing(Pattern 2)	Supplying chemical solutions	Pattern 2 
RUN ON READY Flashing(Pattern 2)	Manual replenishment	Pattern 2 
RUN Flashing(Pattern 1) READY OFF	Drive motor error	Pattern 1 
RUN Flashing(Pattern 1) READY ON	Temperature error	Pattern 1 

(1)  : ON time(in seconds)
: OFF time(in seconds)

TROUBLESHOOTING

1 Motor Error and Temperature Error

If mechanical problems should arise in the motor unit or troubles should occur in processing temperature control, the following errors will be indicated by the control panel lamps with an alarm buzzer.

ERROR	DISPLAY	CAUSE	RESPONSE
Motor Error	The RUN lamp will begin flashing, the READY lamp will go out, and the alarm(buzzer sounds"Pi") will sound. 	The rack drive motor is being overloaded.	Press the Power Breaker OFF. Check to see if there is film or some foreign object jammed in the rack roller or gear mechanisms.
Temperature Error	The RUN lamp will begin flashing, the READY lamp will remain lit, and the alarm(buzzer sounds"Pi Pi Pi Pi") will sound. 	The temperature levels for the heater have abnormally risen above the preset values, or have remained below preset values for a long period of time.	Press the Power Breaker OFF.
DEV Temp. Error	The RUN lamp will begin flashing, the READY lamp will remain lit, and the alarm(buzzer sounds"Pi Pi Pi") will sound. 	The temperature levels for the heater have abnormally risen above the preset values, or have remained below preset values for a long period of time.	Press the Power Breaker OFF. Check to see if the developer is being circulated property.
Film Sensor Error	The RUN lamp will begin flashing, the READY lamp will remain lit, and the alarm(buzzer sounds"Pi Pi") will sound. 	Detective Lever of film sensor keep detectiving.	Though ormal operation can be done after error occuring, report to Konica service station if the error occurs again. In fear of depositing of solutes on the lever.

NOTES:

1. If an error continues to be displayed after reset, press the Power Breaker OFF and contact the authorized KONICA dealer.
2. If the jammed films cannot be removed from the heater unit, press the Power Breaker OFF and contact the authorized KONICA dealer.

TROUBLESHOOTING

2 Trouble Check List

Whenever any trouble should occur, carry out the following checks before contacting the authorized KONICA dealer. Report the results to the authorized KONICA dealer so that it will shorten the down time needed to repair the trouble.

The processor will not operate when the RUN button is pressed.

Is the SRX-101A power breaker OFF?

↓

Is the power cord connected properly?

↓

Is the facility's breaker or fuse box operating properly?

↓

Call the authorized KONICA dealer.

Film will not exit from the processor.

Is there any unusual noise or any vibration in the processor?

↓

Is the film stalled in the feed tray?

↓

Are the racks properly set in place?

↓

Are there any cracked or damaged gears on the rack or any missing springs?

↓

Call the authorized KONICA dealer.

Processed film is not being dried properly.

Is the room humidity too high. or the room temperature too low?

↓

Is the heater unit cover warmed up?

↓

Has FIX solution been replaced on schedule?

↓

Is the FIX replenishment function working properly?

↓

Call the authorized KONICA dealer.

TROUBLESHOOTING

Density of the processed film is too low.

↓

Is the DEV temperature correct?

↓

Has the DEV solution been replaced on schedule?

↓

Is the DEV replenishment function working properly?

↓

Call the authorized KONICA dealer.

Processed film is dirty.

↓

Have cleaning films been processed before starting the operation?

↓

Have racks and rollers been cleaned once every week?

↓

Have chemical solutions been replaced regularly?

↓

Are the DEV and FIX replenishment functions working properly?

↓

Is the wash tank filled at the beginning of the work day and drained at the end of the day?

↓

Call the authorized KONICA dealer.

Film is being scratched.

↓

Is there any unusual noise or any vibration in the processor?

↓

Are the racks properly set in the tanks?

↓

Are the processing tanks dirty?

↓

Have any foreign objects fallen into the tanks?

↓

Are there any cracked or damaged gears on the rack or any missing springs?

↓

Are the rack rollers rotating smoothly?

↓

Call the authorized Konica dealer.

TROUBLESHOOTING

Film processing is uneven.

Are the uneven areas coming out in bands across the film perpendicular to the direction of film transport?

Are the rack rollers rotating smoothly?

Is the surface of the DEV rack dirty?

Is the foundation supporting the processor too weak, shaky or off balance?

Call the authorized KONICA dealer.

Are the uneven areas foggy with indefinite pattern?

Has any water or DEV solution been splashed on or leaked into the feed tray, or the film guides?

Call the authorized KONICA dealer.

SERVICE AND MAINTENANCE

To keep the SRX-101A working at optimum performance for as long as possible, perform the following service and maintenance procedures on a regularly scheduled basis. Always make sure that the processor's power switch is OFF before beginning these procedures.

1 Monthly Service and Maintenance

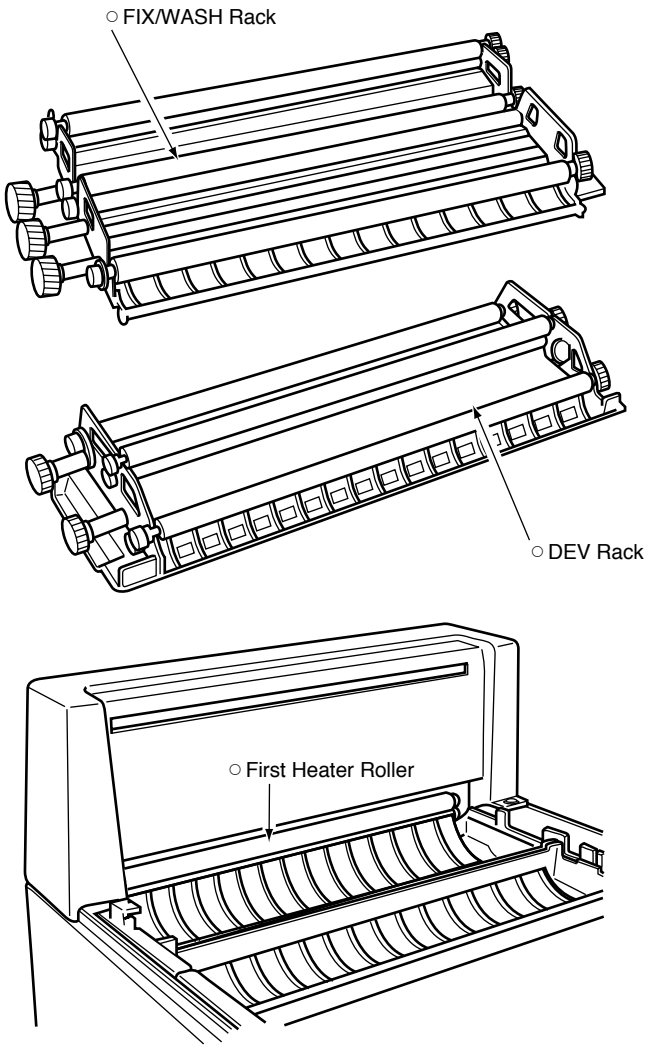
(1) Cleaning the inside of the Top Cover
- ① After washing, be sure that the cover is completely dry before re-installing it.

(2) Cleaning the Racks
- ① Remove the top cover.
- ② Remove the FIX/WASH rack first.
- ③ Remove the DEV rack.

TO REMOVE THE RACKS:

1. First, remove FIX/WASH rack, and then DEV rack.
2. Before pulling the rack out of the processor, tilt it to drain the excess liquid off into the tank grabbing the handles on the left and right hand side.

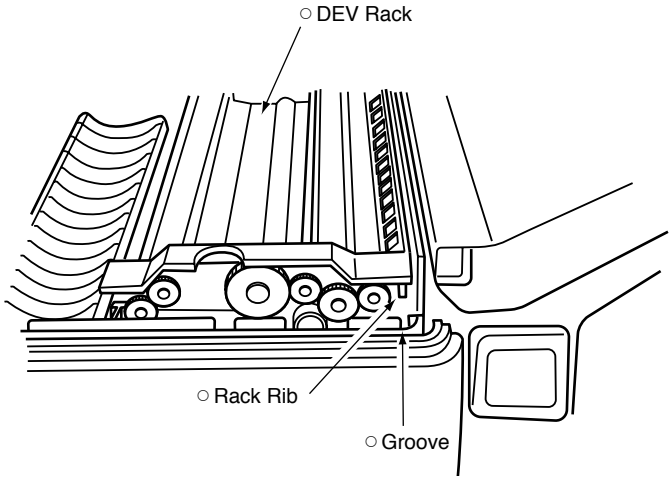
- ④ Scrub each rack. including the rollers, with a sponge (or clean cloth) and rinse the grime off with warm water (under 104˚F).
  After rinsing, place the racks at an angle to drain the excess water off.
- ⑤ Wipe the first heater roller with a damp sponge (or cloth) to remove the dirt. Use long smooth wiping strokes, **NEVER SCRUB IT**.



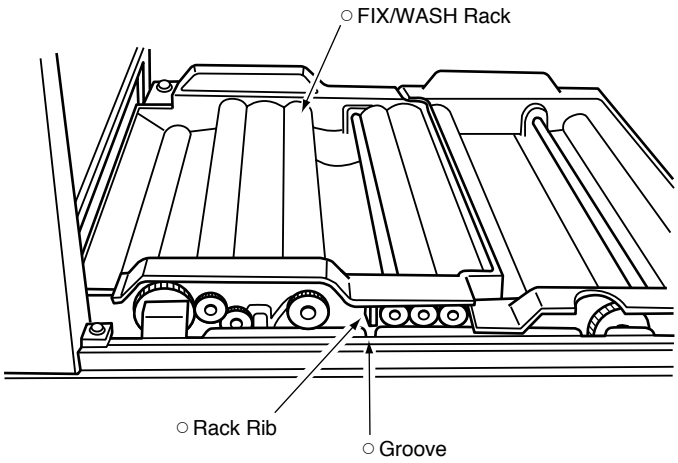
SERVICE AND MAINTENANCE

HINTS FOR RACK RE-INSTALLATION:

1. Put the DEV rack first, and then FIX/WASH rack.
2. When re-installing each rack, make sure to set the rack rib properly into its groove.



• Re-install the DEV rack slowly and carefully.



• Re-install the FIX/WASH rack slowly and carefully.

HINT:

1. Be careful not to splash the solution over the film entrance sensor when you clean the processing tank. Should the solution contact with the film entrance sensor, thoroughly wipe it out.
2. Use a splash guard(optional equipment) to prevent the splash of the solution.(See page 27 as to instruction for use)

(3) Cleaning the Area Around the Processing Tanks

① Scrub the area clean with a wet sponge (or clean cloth) dipped in warm water(under 104˚F)

(4) Cleaning Inside the Processing Tanks

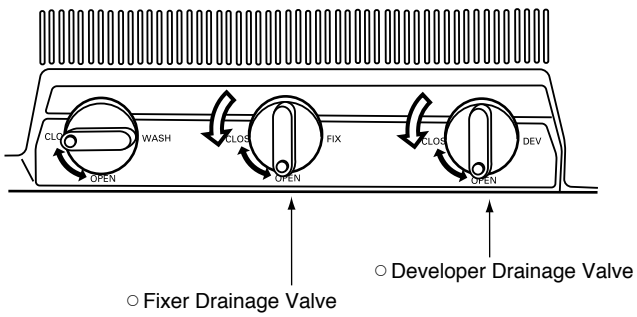
① Pour a small amount of water into each tank and scrub it clean with a sponge (or clean cloth). Add more water for rinsing.

② Open the drainage valve and empty each tank thoroughly.

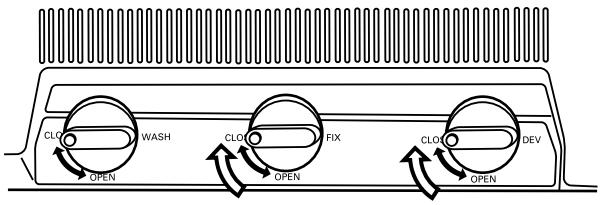
(5) Supply of the Chemical Solution

① Remove the top cover.

② Open the DEV and FIX drainage valves to empty the tanks.

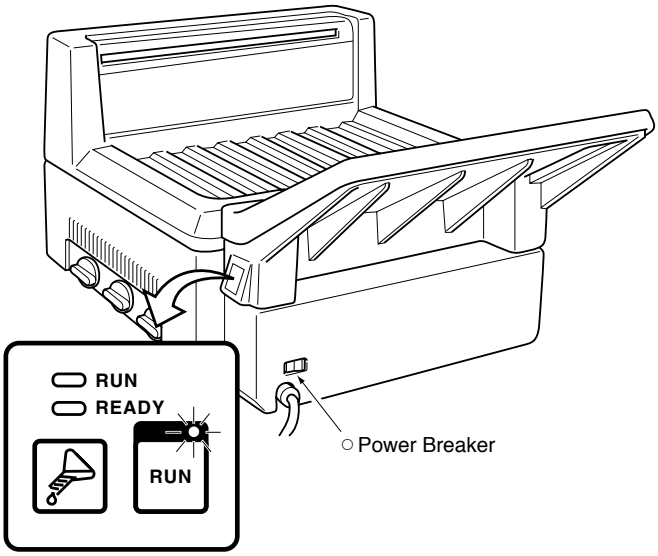


③ After the tanks are empty, close the valves.



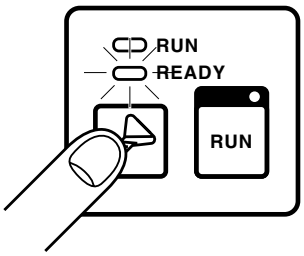
④ Turn the power breaker ON (Left on front below the feed tray).

● The RUN button lamp will go on.



• Do not press the RUN button.

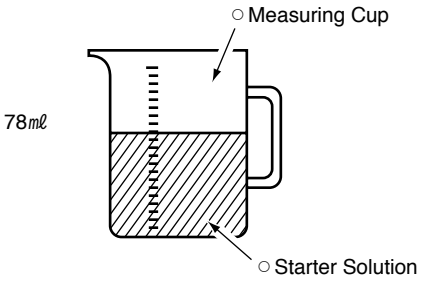
⑤ Press the replenishment button (beaker) until the READY lamp begins flashing (about 5 seconds).



Press and hold down for 5 seconds

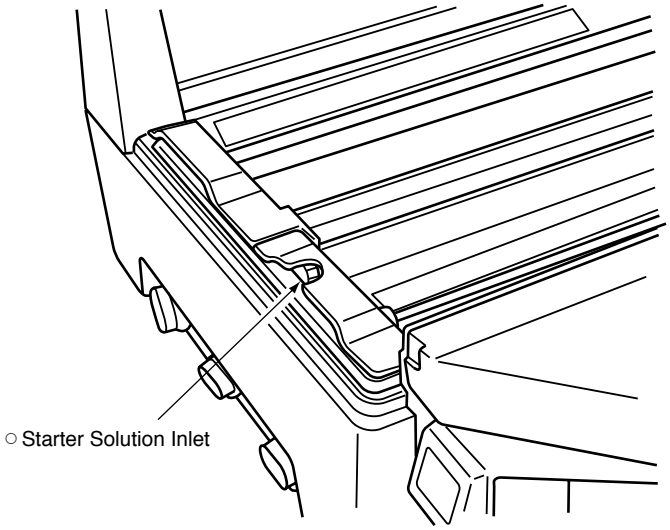
● It will take about 22 minutes for the tanks to be filled.
As soon as the tanks are filled, the READY lamp will stop flashing.

⑥ Fill the measuring cup exactly with 78mℓ of starter solution.



•Use the starter specified by the DEV solution.

⑦ Pour the starter solution into the starter solution inlet in the developing tank.



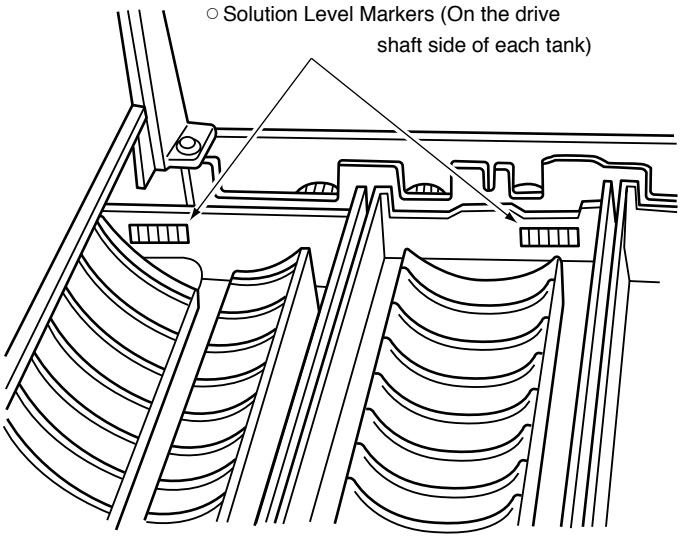
⑧ Close the top cover.

TO AVOID CHEMICAL SOLUTION OVERFLOW:

1. Set the racks in the tank before supplying new chemical solution.
2. Whenever setting a rack in a tank where the chemical solution is already in, insert the rack slowly while checking to see that the rising chemical solution level stays within the marker on the drive shaft side of the tank.
3. If the chemical solution level does rise above the marker, open the drainage valve until the chemical solution level falls within the marker.
4. Dropping a rack forcefully into a filled tank can cause sudden overflow and contamination of the chemical solution.

⚠ CAUTION:

1. The DEV and FIX and starter solutions are dangerous to eyes, can cause skin irritation and damage clothing. Handle them with care. If you accidentally splash chemical solution on your skin or clothing, immediately wash the stained areas with water. If you get any of these chemical solution in your eyes, immediately wash with water and get professional medical treatment.
2. To avoid accidents, strictly follow the directions for handling and mixing of chemical solution



2 Quarterly Service and Maintenance

(1) Using System Cleaner

Scrubbing the rack rollers with warm water and a sponge only will not completely remove the crystallized processing solutions or built up film gelatin and silver. It is necessary to wash both the racks and the processing tanks with system cleaner about every 3 months. Use the following procedure.

① Remove the top cover.
② Open the DEV drainage valve. After the DEV tank is empty, close the valve.
③ Use the beaker to fill the tank with water.
④ Press the RUN button and let the processor operate for about 5 minutes.

NOTE:

After pressing the RUN button, solution may be automatically supplied to the tanks as explained on page 10. This depends on the timing. In any case, solution in the tanks during this maintenance procedure will not affect the performance of the system cleaner.

⑤ Open the DEV drainage valve. After the DEV tank is empty, close the valve.
⑥ Fill the tank with system cleaner. Press the RUN switch and let the processor operate for about 30 minutes.
⑦ Open the DEV drainage valve. After the DEV tank is empty, close the valve.
⑧ Fill the tank with water. Press the RUN button and let the processor operate for about 5 minutes.
⑨ Repeat steps ⑦ and ⑧ 3 times.
⑩ Open the DEV drainage valve. After the DEV tank is empty, close the valve.
⑪ Fill the tank with developer and add the starter solution. (See page 24)
⑫ Re-install the top cover.

HINT:

1. Be careful not to splash the solution over the film entrance sensor when you clean the processing tank. Should the solution contact with the film entrance sensor, thoroughly wipe it out.
2. Use a splash guard(optional equipment) to prevent the splash of the solution.(See page 27 as to instruction for use)

SERVICE AND MAINTENANCE

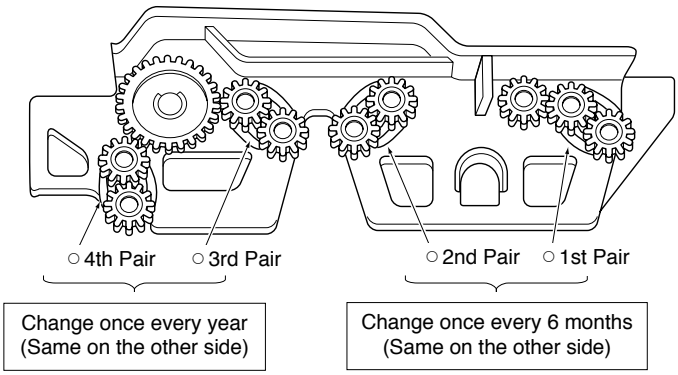
3 Semiannual Service and Maintenance

(1) FIX Roller Spring Replacement

After every six months, change the springs on the rollers that have been in the fixer.

There are two different spring lengths (See the table) and different places where they are attached, so be careful to replace them properly. The diagram shows where the springs are located.

FIX/WASH Rack Springs



4 Annual Service and Maintenance

(1) DEV and WASH Roller Spring Replacement

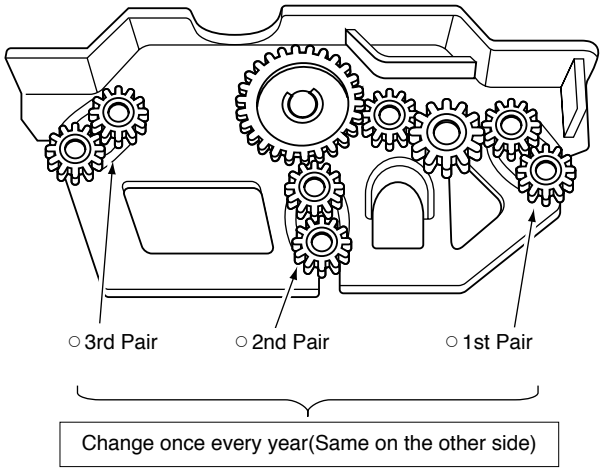
Once every year, change all of the springs on the DEV rack and the springs on the wash water side of the FIX/WASH rack.

There are two different spring lengths (See the table) and different places where they are attached, so be careful to replace them properly. The diagram shows where the springs are located.

Table of Roller Spring Replacement

Rack	Roller	Spring Length	Replace
DEV	1st pair	74 mm	Every year
	2nd pair	80 mm	Every year
	3rd pair	74 mm	Every year
FIX/WASH	1st pair	80 mm	Every 6 month
	2nd pair	74 mm	Every 6 month
	3rd pair	74 mm	Every year
	4th pair	74 mm	Every year

DEV Rack Springs

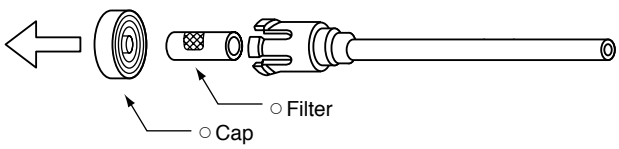


(2) Cleaning the Replenishment Tanks and Replenishment Hoses

① Scrub the tanks with a sponge (or clean cloth) and warm water (under 104˚F).

② Remove the caps in the replenisher supply pipe. Take out the filters and wash them.

Replenisher Supply Pipe



SERVICE AND MAINTENANCE

5 Service and Maintenance Schedule

① Maintenance by User

Task	Monthly	Quarterly	Semiannually	Yearly
Wash Top Cover inside	●			
Wash DEV and FIX/WASH racks with warm water	●			
Clean the area around processing tanks	●			
Wash DEV, FIX and WASH tanks	●			
Change DEV and FIX solutions	●			
Wash processing tank and racks with system cleaner		●		
Replace FIX side FIX/WASH roller springs			●	
Replace DEV roller and WASH side FIX/WASH roller springs				●
Wash replenishment tanks and replenishment hoses				●

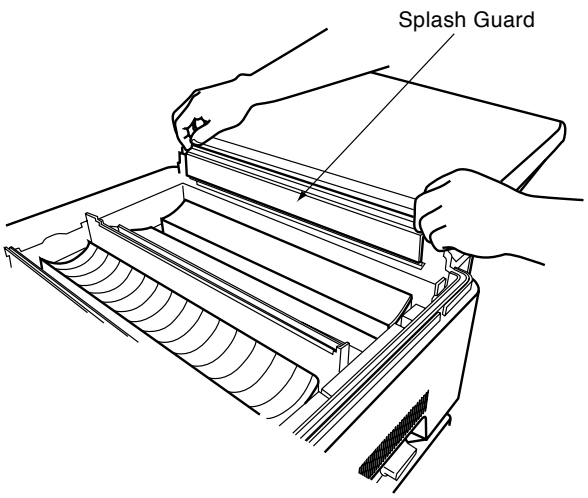
NOTE:

Please use this maintenance schedule as a reference. Frequency of cleaning schedules will vary depending upon the workload and volume of film processed.

6 How to Use Splash Guard(Optional equipment)

Use the splash guard in the following case.

①When replacing the solution(s) with a measuring cup in a way other than the procedure described in page 24 and 25.
②When cleaning the processing tank(s).



To use the splash guard, fit it onto the rib located above the film insertion slot.

After the work, check if the solution contacted with the film entrance sensor or the splash guard. Thoroughly wipe it off in case if it was so.

SPECIFICATIONS

Model name : SRX-101A
Film transport method : Continuous roller transport.
Film type and sizes : Sheet film, 10 x 10 cm~ 14 x 17 inch(35 x 43 cm) sizes.
Processing capacity :

Cycle \ Size	10 x 12 inch	14 x 17 inch
90sec.	75	60
120sec.	70	55
180sec.	55	40

(sheets/hr)

Process cycle switching : Available by a service engineer.
Processing solution volumes : DEV tank : 1.03 gallons
FIX tank : 0.47 gallons
WASH tank : 0.37 gallons
Temperature control : Processing solution temperature;
Controlled by the temperature control tank, with the thermistor monitoring, and with the heater heating.
Drying temperature;
Controlled automatically according to a fixed temperature setting.
Replenishing system : Replenishing volume for the film sheet is calculated exchanging with 10"x12" film.
Circulation system : Continuous pumping of developer and fixer solutions.
Wash water : Ordinary tap water 41 ~ 86˚F
Water pressure 49 ~ 686 kPa(0.5 ~ 7kgf/cm^2, 7 ~ 98psi)
Water supply : 0.22 gallons(0.8 liters)/min.
Standby functions : 10min./30min./Continuous operation. (Selectable by a service engineer)
Power source : AC 115/120V, single phase, 12A, 60 Hz.
Dimensions(W x D x H) : 24.0 x 26.8(35.4 incl. feed table) x 17.8 inch.
Weight : 40kg (47kg with processing tank full)
88 lb (104 lb with processing tank full)
Certification : Conforms to UL, FDA.
Applied standard : FCC
Heat generation : Approx.3135kJ/hr max.
Noise level : Approx.55dB(A) max.
Operating condition : 59 ~ 86˚F , 30 ~ 75%RH(no condensation)
Storage and transport condition : -4 ~ 140˚F , 20 ~ 95%RH(no condensation)
Accessories : Measuring cup, Funnel, Installation parts kit, Replacement parts kit, Replenisher tanks, and Operation manual.
Optional equipment : Light shield panel, Stand, Splash guard.

*The above specifications are subject to change without prior notice.

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1052-55011C

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