

# 6 OPERATING PROCEDURES

## Start-Up Procedures

Follow the “Daily Start-Up Procedure.” If the processor has been idle for longer than overnight, follow the more extensive, “Weekly Start-Up Procedure.”

**Note:** *The start-up checklist form is located in the Appendix on page 12-3. The Daily Log Sheet form is on page 12-11. Chapter 7 contains detailed instructions on how to perform the cleaning and maintenance procedures.*

## Daily Start-Up Procedure

1. Turn on the following:
  - a. Hot and cold water lines feeding the Intellifaucets
  - b. Water chiller
  - c. Compressed air line
  - d. Splicer
2. Visually check the solution levels in the machine tanks. If they are:
  - a. Normally low, add water to volume
  - b. Lower than normal for the idle time, check the tank, pumps, and fittings for leaks. If leaks are observed, repair before bringing the tank to volume. Refer to “Low Solution Level Adjustments” on page 6-25.
  - c. Fill the wash tanks if they were drained. If the wash tanks were chemically treated to control biogrowth, refer to page 7-2 for instructions.
3. Check the shear pins.
4. Drain and refill the final rinse tank. Use final rinse and replenisher solution diluted according to package directions.
5. Place the processor in Standby Mode.
6. Verify that the chiller temperature is between 75° and 77°F (24° and 25°C).
7. Verify that the air pressure at the replenisher rack is 45 lbs.
8. While the processor is coming to temperature, the following preventive maintenance procedures should be performed:
  - a. Remove the floating covers from the developer tanks and clean them.
  - b. Check and adjust all squeegees.
  - c. Check the wash tank overflows for proper operation.
  - d. Clean the rollers in the splice chamber and elevator cabinet.
  - e. Clean the splicer and any magazines and reels to be used during the day.
9. Presplice KODACHROME Splicer Test Film SO-604, KODACHROME 200 Test Film SO-446, and a process control strip. These comprise the daily start-up set.
10. Verify that the solutions have reached the correct temperatures.
11. Measure the solution temperatures and record them on the log sheet.
12. Calibrate the reexposure printer lamp intensities. Record the intensities on the log sheet.
13. Check the final take-up. Verify there is a threaded take-up reel and that the take-up is switched on.
14. Bring the processor to Processing Mode.
15. Visually check the spray units in the wash tanks. Verify that the water is flowing normally (an even fan pattern) and that the film is not being pushed against the sides of the tubes by excess water pressure.
16. Visually check the performance of the squeegees.
17. Verify that the break detectors are operating properly.
18. Return the processor to Standby Mode.
19. Close the panels on the processor.
20. Splice and process the daily start-up set of films.
21. While the start-up set is being processed, check the quantity of chemistry remaining in the BIBs and storage tanks. This may be done by checking the replenisher Status screen and by checking the BIBs and tanks themselves. Replenish any chemicals that are low.
22. Evaluate the SO-604 and SO-446 films for physical quality. If acceptable, splicing the customer films may begin.
23. Read the process monitor strip. If the process is in control sensitometrically and the physical quality tests are good, the K-LAB Processor is ready to process customer films.



### Important

**Once the splicer and processor are certified as meeting the physical quality objectives, neither should be entered by anyone other than the operator to perform interim cleaning during the day. Follow any maintenance or adjustments to either the splicer or processor by another set of certification tests prior to resuming splicing or processing of customer films.**

## Weekend/Holiday Start-Up Procedure

When the K-LAB Processor has been idle for longer than overnight, a more extensive start-up procedure is required.

1. Turn on the following:
  - a. Hot and cold water lines feeding the Intellifaucets
  - b. Water chiller
  - c. Compressed air line
  - d. Replenisher rack
  - e. Processor
  - f. The battery back-up (to turn on the computer and monitor)
2. Drain, rinse, and refill the rem-jet remover tank solution with Rem-Jet Remover and Replenisher solution diluted according to the package directions.
3. Replace the buffer sponge, if necessary.
7. Check the shear pins.
8. Drain and refill the final rinse tank. Use final rinse and replenisher solution diluted according to package directions.
9. Place the processor in Standby Mode.
10. Verify that the chiller temperature is between 75° and 77°F (24° and 25°C).
11. Verify that the air pressure at the replenisher rack is 45 lbs.
12. Calibrate the replenisher pumps. If the replenisher pumps are consistent from week-to-week, this calibration may be scheduled every other week.
13. Do steps 8 through 17 of the “Daily Start-Up Procedure” on page 6-1. Verify the processor speed. Then do Steps 18 through 23 of the “Daily Start-Up Procedure.”

**Note:** *Water hardness affects the longevity of the sponge. If you have hard water, if the surface of the sponge feels “rough or coarse” in the morning, or if the sponge is creating base scratches on the film, you should remove and clean the sponge daily.*

4. Clean the film/leader detector.
5. Clean the drain pans under the replenisher rack and inside the machine.
6. Visually check the solution levels in the machine tanks. If they are:
  - a. Normally low, add water to volume
  - b. Lower than normal for the idle time, check the tank, pumps, and fittings for leaks. If leaks are observed, repair before bringing the tank to volume. Refer to “Low Solution Level Adjustments” on page 6-25.
  - c. Fill the wash tanks if they were drained. If the wash tanks were chemically treated to control biogrowth, refer to page 7-2 for instructions.

## Shutdown Procedures

Shutdown procedures vary depending upon the length of time the processor is scheduled to be idle. Normally, the K-LAB Processor is shut down either overnight using the “Daily Shutdown Procedure,” or for a weekend using the “Weekend/Holiday Shutdown Procedure.”

**Note:** *The shutdown checklist form is located in the section “Appendix” on page 12-5.*

### Daily Shutdown Procedure

1. Splice leader to the trailing end of the last production roll and let the leader fill the machine. An uncut roll of leader is recommended.



#### Caution

**If you are using leader with staple splices, be sure the staples are not left in the bleach overnight.**

2. After the end of the production roll is on the take-up reel, cut the leader and thread it onto a fresh reel.
3. If you are in:
  - Processing Mode, you may place the processor in Standby Mode or, if you are finished for the day, you may go directly to Sleep Mode.
  - Standby Mode, you may place the processor in Sleep Mode.
4. Turn off the hot and cold water lines feeding the Intellifaucets (optional).
5. Turn off the compressed air line.
6. Turn off the chiller.
7. Open the top covers of the processor.
8. Check the solution overflows for proper operation.



#### Caution

**During the next step, if the squeegees are soaked overnight, the magenta developer and fixer squeegees could cause contamination. To avoid this contamination, label and store them in separate beakers.**

9. Remove, clean, and replace all squeegees in their proper locations. If necessary, the squeegees may be soaked in water overnight.
10. Clean the entrance roller in the rem-jet buffer box.
11. Clean the top drive rollers and tension drive rollers.
12. Remove and soak the buffer sponge in water (optional).
13. Drain the wash tanks to control biogrowth (optional).
14. Replace the floating covers on the developer tanks. Be sure to replace them in their correct locations.
15. Close the top covers.
16. Turn off the splicer.
17. Clean the outside of the processor, replenishment rack, and adjacent areas.

## Weekend/Holiday Shutdown Procedure

When the K-LAB Processor is shutdown for longer than overnight, additional steps should be taken to clean and prepare the processor.

1. Splice leader to the trailing end of the last production roll and let the leader fill the machine. An uncut roll of leader is recommended.
2. After the end of the production roll is on the take-up reel, cut the leader and thread it onto a fresh reel.
3. If you are in:
  - Processing Mode, you may place the processor in Standby Mode or, if you are finished for the day, you may go directly to Sleep Mode.
  - Standby Mode, you may place the processor in Sleep Mode.
4. Turn off the hot and cold water lines feeding the Intellifaucets (optional).
5. Turn off the compressed air line.
6. Turn off the chiller.
7. Open the top covers of the processor.
8. Check the solution overflows for proper operation.



#### Caution

During the next step, if the squeegees are soaked overnight, the magenta developer and fixer squeegees could cause contamination. To avoid this contamination, label and store them in separate beakers.

9. Remove, clean, and replace all squeegees in their proper locations. If necessary, the squeegees may be soaked in water overnight.
10. Clean the entrance roller in the rem-jet buffer box.
11. Clean the top drive rollers and tension drive rollers.
12. Remove and soak the buffer sponge in water.
13. Treat the wash waters to control biogrowth (optional).
14. Replace the floating covers on the developer tanks. Be sure to replace them in their correct locations.
15. Close the top covers.
16. Turn off the splicer.
17. Clean the outside of the processor, replenishment rack, and adjacent areas.
18. Perform a data transfer if the system has not already done an automatic transfer.
19. Go to the Power Off mode to exit KPMS.
20. Turn off the battery backup. This turns off power to the computer and monitor.
21. Turn off the processor.
22. Turn off the replenisher rack.

## Charging the Replenisher Rack

### Initial Start-Up Procedure

For routine BIB changes, see page 6-11.

1. Verify the lines between the replenisher rack and the processor are connected and fastened.
2. Refer to page 6-11 for instructions on opening a BIB, logging the mix code into the computer, and connecting the BIB to the replenisher rack.
3. Install the eight developer replenisher BIBs in their correct location. Use the labels on the rack.

**Note:** *When properly installed, the BIB labels should show a progression from 1 through 8.*

4. Refer to page 4-2 for instructions on the preparation of the replenisher solutions that are placed in the plastic tanks on the replenisher rack. Mix these solutions and place them in the appropriate tanks. Log the mix code information into the computer.
5. Purge the water and air from the lines between the BIB and the calibration valve:
  - a. Select the appropriate hose and pull it up from its storage position.
  - b. Place a graduate or other container beneath the end of the hose.
  - c. Move the grey lever to “calibrate.”
  - d. Open the green spigot and press the manual operation button until flow of chemistry is obtained.



### Caution

**Do not operate the pump with the spigot closed.**

6. Calibrate the replenisher pump. See page 6-16.
7. Move the grey lever to “Run,” and return the hose to its storage position.
8. Repeat steps 5 through 7 for each of the replenisher solutions.
9. Because of the low replenishment rate, begin filling the first developer, part C line by moving the grey lever to “Run” and then hold the manual operation button in for 10 minutes.



### Caution

**The machine must be threaded with leader and all recirculated tanks must be filled with water.**

10. To fill the other replenisher lines:
  - a. Place opaque material or a piece of film in the film/leader detector.
  - b. Go to Processing Mode and operate the processor for 15 minutes.
  - c. Remove the opaque material or film and continue operating the machine for an additional 40 minutes.
11. Return the processor to Sleep Mode.
12. Install the fresh tank solutions in the processor. See pages 4-1 and 4-2.

## Operator Actions

### Starting up the Processor

1. Turn on the water to the Intellifaucets.
2. Turn on the water chiller.
3. Turn on the compressed air line.
4. Turn on the power to the replenisher rack.
5. Turn on the power to the processor.
6. Turn on the battery backup. This turns on power to the host computer and the monitor.
7. The computer automatically loads the KMS software. The following screens will appear.



If there is a problem, the computer will display the following screen:



This generally indicates the host computer is unable to reach one of the other computer systems. Check that power is switched on for the replenisher rack and processor. Then select "Restart KPMS."

8. Once KPMS is loaded, the processor will be in Sleep Mode and the following screen appears.



If you want to turn the wash water on, select the “Turn On Wash Water” button.



To turn the wash water off, select the “Turn Off Wash Water” button.

### Going from Sleep Mode to Standby Mode

1. From Sleep Mode, select “Standby.” This turns on the pumps, heaters, and wash waters.



2. Wait until all the status lights are green and two tones sound.



**Note:** You can check the temperature as it changes by selecting “Processor Status.” The temperature values turn green when they reach their lower tolerance limit. The setpoints are reached a short time after that. After performing the start-up tasks you are ready to process the morning start-up strip and physical quality test rolls.

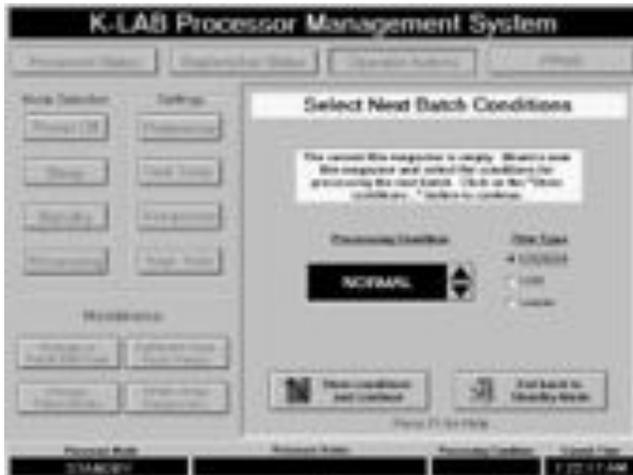
## Going from Standby Mode to Processing Mode

1. Verify that there is leader or film attached at the feed end of the processor.
2. Check that the leader or film is threaded onto the take-up reel at the end of the processor.
3. Select “Processing” Mode.



4. Select the batch processing conditions and film type. During a processing run, the conditions from the previous batch are the defaults.

**Note:** K25/40/64 films season the process to one level. K200 film seasons the process to a different level. Selecting the correct film type allows the replenishment to adjust for the film being processed. Failure to select the correct film type may lead to an out-of-control process requiring a fresh first developer tank.



5. Select “Store conditions and continue.”

6. The following Processing Mode screen will appear.



7. The machine drive will start after all indicator lights are green and two tones sound.

**Note:** The break detection devices are disabled for 30 seconds after the drive is activated.

## Going from Processing Mode to Standby Mode

At the end of a processing run, the processor should be returned to Standby Mode if additional processing is anticipated. Once the film has cleared the processor and leader is threaded onto the take-up reel:

1. Select “Standby.”



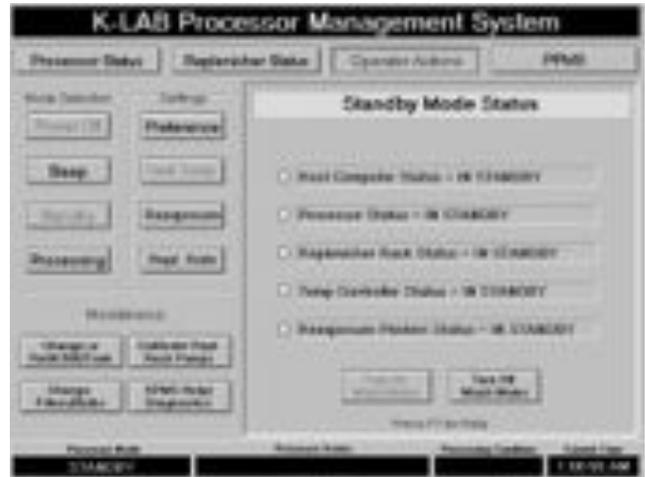
**Note:** If the Standby button was selected accidentally, select “No, go back to Processing Mode.” The processor will remain in Processing Mode.

2. Select “Yes, go to Standby Mode.”

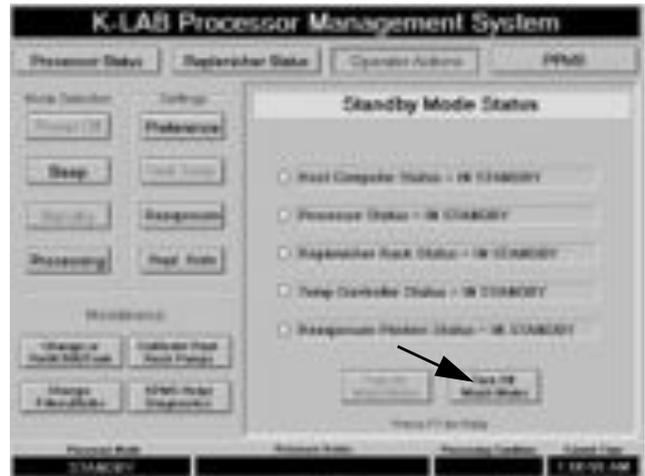


The “Exit Processing Mode” screen is displayed for ten seconds. If no selection is made, the processor remains in Processing Mode.

The following Standby Mode screen displays and two tones sound:



The wash water is on when the processor is in Standby Mode. You can turn off the wash water if you expect an extended delay before the next production run. To turn off the wash water, select the “Turn Off Wash Water” button.



You can turn the wash water on at any time by selecting the “Turn On Wash Water” button. KPMS will automatically turn on the wash water when you return to Processing Mode.

## Going from Processing Mode to Sleep Mode.

If the processing is complete for the day, you may go directly to Sleep Mode. Once the film has cleared the processor:

1. Select “Sleep.”



**Note:** If the Sleep button was selected accidentally, select “No, go back to Processing Mode.” The processor will remain in Processing Mode.

2. Select “Yes, go to Sleep Mode.”



The “Exit Processing Mode” screen is displayed for ten seconds. If no selection is made, the processor remains in Processing Mode.

The following Sleep Mode screen displays and one tone sounds:



## Going from Sleep Mode to Power Off Mode.

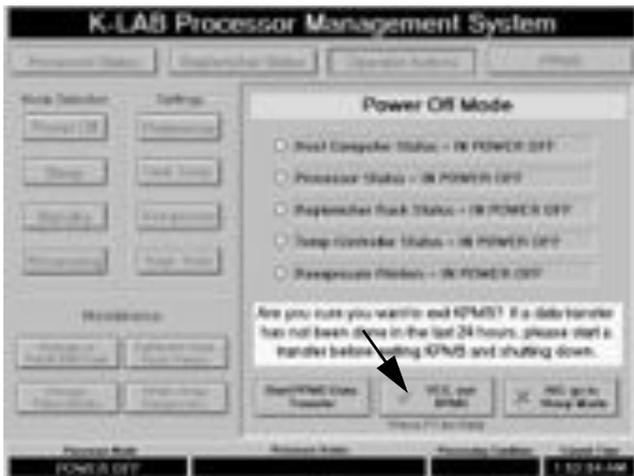
You can choose to go to Power Off Mode at the end of your processing day.

At the end of the week, or over holidays, you should completely turn off your K-LAB. This is required to reset the replenisher rack software.

1. Select “Power Off.”



2. The following screen will appear to remind you to do a daily data transfer. PPMS will automatically perform a data transfer after the K-LAB Processor goes from Standby or Processing Mode into Sleep Mode and the keyboard is inactive for 30 minutes.



- a. If the automatic transfer has occurred, or if you have already created a manual data transfer, select the “Yes, exit KPMS” button.
- b. If the automatic transfer has not occurred and you have not created a manual data transfer:
  - Select the “Start PPMS Data Transfer” button to initiate a manual data transfer. PPMS will remain on the screen following the transfer.
  - Quit PPMS to return to the Power Off Mode screen.
  - Select the “Yes, exit KPMS” button.

3. Turn off the battery backup. This turns off power to the computer and the monitor.
4. Turn off the processor.
5. Turn off the replenisher rack.

## Opening a Bag-In-Box (BIB)



### Caution

Do not use a screwdriver to other pointed device when opening a BIB.

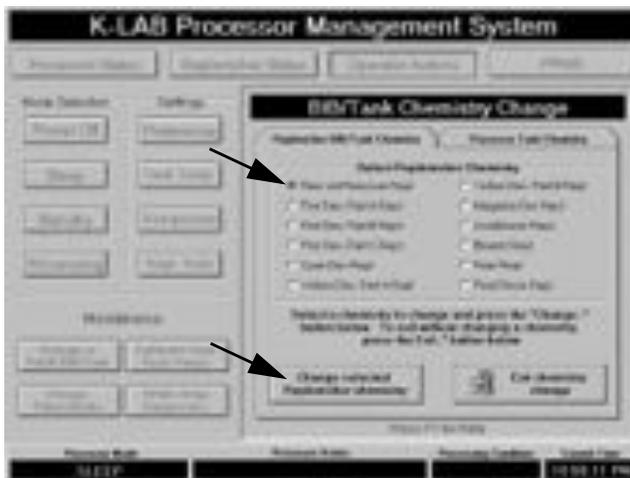
1. Before placing a BIB on the flipper or the filling station, open the perforated cutout on the box. Use a rubber mallet.
2. Remove the cardboard flap or fold it inside the box.

## Changing a Bag-In-Box (BIB)

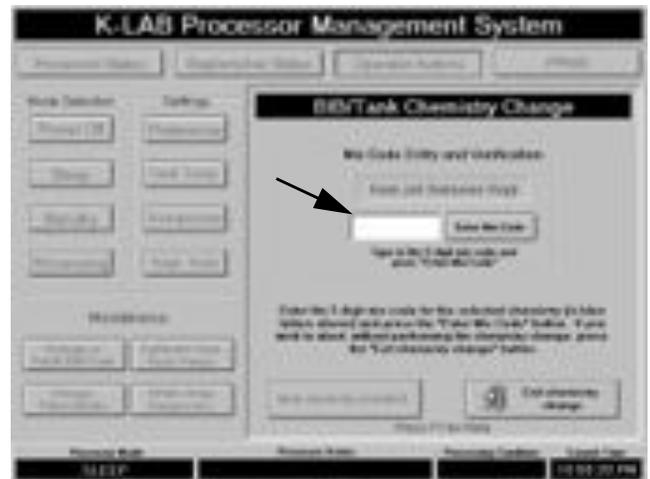
1. The processor may be in Sleep, Standby, or Processing Mode.
2. Select “Change or Refill BIB/Tank.”



3. Select the solution you wish to change from the “Replenisher BIB/Tank Chemistry” menu.
4. Select “Change selected Replenisher chemistry.”



5. Enter the 5 digit mix code located on the new BIB.



### Caution

To prevent contamination, it is helpful to have the same person make the entries in the computer, install the BIB, and verify that it was installed in the correct location.

6. Select “Enter Mix Code.”
7. If an error is made entering the mix code, the following screen is displayed.



If this screen appears you must:

- a. Select “Reenter” to enter the correct mix code. Instructions for locating and identifying the mix code are found on page 4-3.
- OR
- a. Select “Select” to return to the “Replenisher BIB/ Tank Chemistry” menu (step 4).

- If the mix code is accepted, the following screen appears. You can now proceed to change the BIB.



- At the replenisher rack, move the flipper to the correct position and flip the empty BIB into an upright position.

**Caution**

The hose fitting includes a valve. It is not necessary to close the valve prior to removing the hose fitting from the BIB. If you do close the valve, be sure to open it again prior to flipping the new BIB into position.

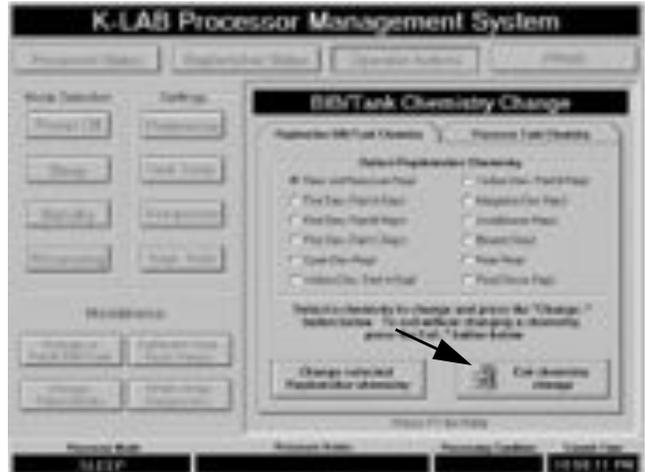
- Remove the hose fitting and the empty BIB.
- Install the new BIB onto the flipper with the opening on the left. Lift the neck of the BIB.
- Remove the cap and the induction seal.
- Install the hose fitting.
- Flip the BIB onto the replenisher rack.
- Verify that the identification code on the front label is correct.

- Return to the computer and select “New chemistry installed.”

**Note:** If you select “Exit chemistry change,” you return to the KPMS Operator Actions screen and the BIB change is not recorded.



The following screen is displayed.



- If you want to change another BIB return to step 3.
- When you are finished changing BIBs, select “Exit chemistry change” to record the new information and reset the status.

**Note:** The same procedure is followed when refilling a replenisher tank (rem-jet, first developer, part C, yellow developer, part B, or final rinse).

## Replacing a Tank Solution

### Introduction

The Rem Jet and final rinse tank solutions are replaced on a routine basis during the daily or weekly start-up procedures. The other tank solutions are rarely replaced.

All but three chemical solutions are recirculated. The solutions that are not recirculated are the rem-jet, conditioner, and final rinse.

There are three situations when you may need to replace a tank solution:

1. Initial start-up
2. Old or incorrectly replenished chemistry
3. Contaminated chemistry

First determine if the solution is in a recirculated machine tank or a non-recirculated machine tank. Then, each of the above conditions requires a slightly different procedure to prepare the machine tank prior to adding the fresh chemistry.

### Preparing a Recirculated Machine Tank

**Note:** *To ensure that all pumps and heaters are off, perform this procedure in Sleep Mode.*

#### Initial Start-Up

1. After the machine is water tested, charge the replenisher rack with chemistry. See page 6-4.
2. Drain the water as completely as possible from the machine tank.
3. Close the drain valve.
4. Verify the filter housing is empty.
5. Install a new recirculation filter. See page 7-11.
6. Continue with “Adding Fresh Chemistry” on page 6-14.

#### Old or Incorrectly Replenished Chemistry

1. Drain the machine tank.
2. Remove the recirculation filter from the filter housing.
3. Reattach the housing without a filter.
4. Fill the tank with warm water.
5. Remove the air from the filter housing by pressing the red button.
6. Top the tank off with water.
7. Recirculate the water by bringing the machine to Standby Mode.
8. After the water has recirculated 3 to 4 minutes, take the machine back to Sleep Mode.
9. Drain the water from the tank.
10. Close the drain valve.
11. Drain the filter housing and install a new recirculation filter. See page 7-11.
12. Continue with “Adding Fresh Chemistry” on page 6-14.

### Contaminated Chemistry

**Note:** *If the contamination is a result of an incorrect chemistry being replenished into the tank, you must first remove the source of the contamination. Thoroughly flush the replenisher line and fill the replenisher line with the correct chemistry before cleaning the machine tank. For further instructions, see “Cleaning a Contaminated Replenisher Tank or Lines” on page 7-1, and “Charging the Replenisher Rack” on page 6-4.*

1. Drain the machine tank.
2. Remove the recirculation filter from the filter housing.
3. Reattach the housing without a filter.
4. Fill the tank with warm water.
5. Remove the air from the filter housing by pressing the red button.
6. Top the tank off with water.
7. Recirculate the water by bringing the machine to Standby Mode.
8. After the water has recirculated 3 to 4 minutes, take the machine back to Sleep Mode.
9. Drain the water from the tank.
10. Remove, drain, and reattach the filter housing.
11. Close the drain valve.
12. Repeat steps 4-11 two more times.
13. Install a new recirculation filter. See page 7-11.
14. Continue with “Adding Fresh Chemistry” on page 6-14.

### Preparing a Non-Recirculated Machine Tank

#### Initial Start-Up

1. Drain the water as completely as possible.
2. Close the drain valve.

#### Old or Incorrectly Replenished Chemistry

1. Drain the machine tank.
2. Fill the tank with warm water.
3. Drain the water from tank.
4. Close the drain valve.

#### Contaminated Chemistry

1. Drain the machine tank.
2. Fill the tank with warm water.
3. Drain the water from the tank.
4. Repeat steps 2 and 3 two more times.
5. Close the drain valve.

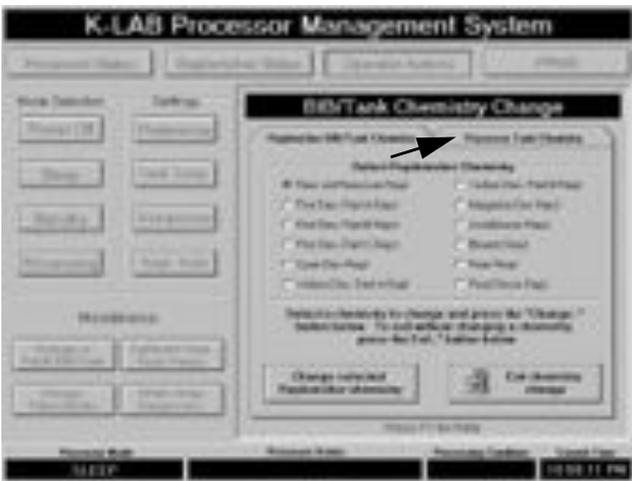
## Adding Fresh Chemistry

**Note:** To ensure that all pumps and heaters are off, perform this procedure in Sleep Mode.

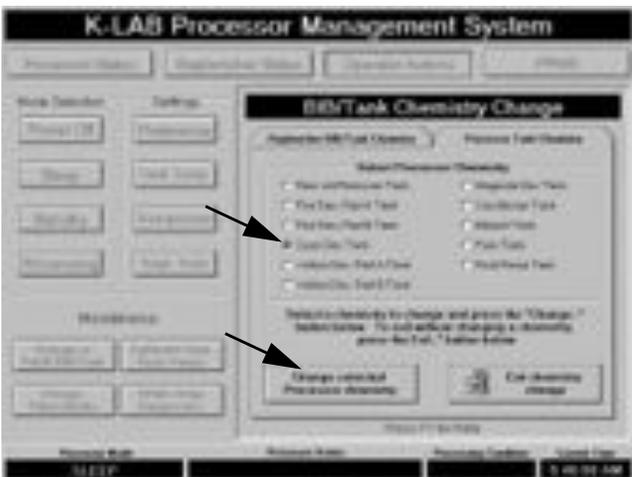
1. Place the processor in Sleep Mode.
2. Select “Change or Refill BIB/Tank.”



3. Select the “Processor Tank Chemistry” folder.



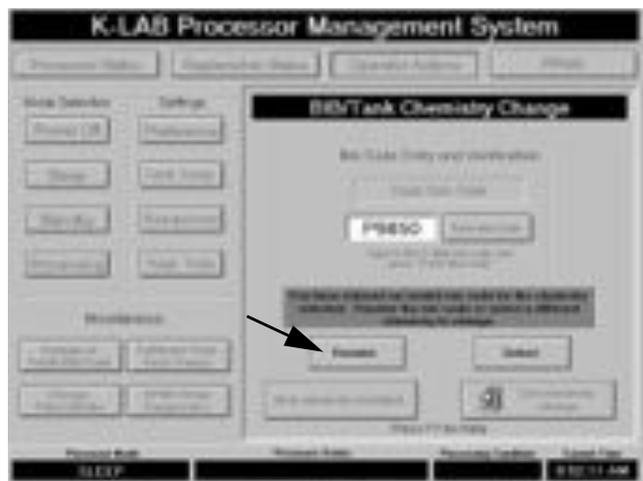
4. Select the solution you wish to change from the “Processor Tank Chemistry” menu.
5. Select “Change selected Processor chemistry.”



6. Enter the 5-digit mix code located on the new BIB. When changing a first developer or yellow developer tank, the mix codes for both part A and part B must be entered.



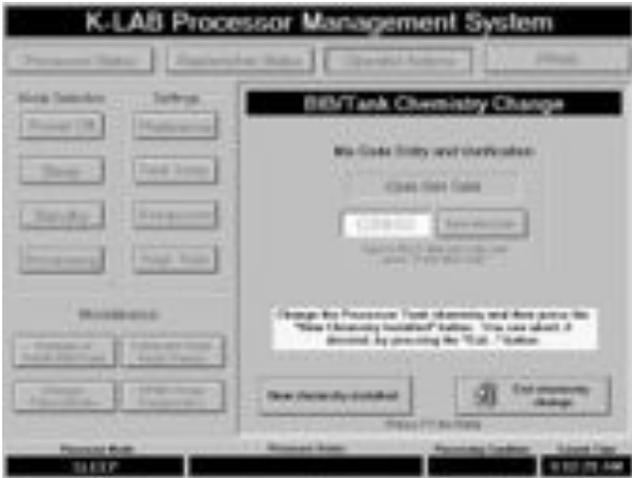
7. Select “Enter Mix Code.”
8. If an error is made entering the mix code, the following screen is displayed.



If this screen appears you must:

- a. Select “Reenter” to enter the correct mix code. Instructions for locating and identifying the mix code are found on page 4-3.
- OR
- b. Select “Select” to return to the “Processor Tank Chemistry” menu (step 4).

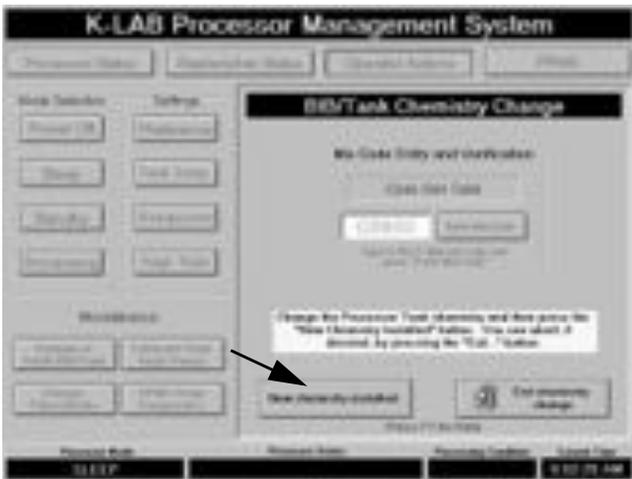
9. If the mix code is accepted, the following screen appears. You can now proceed.



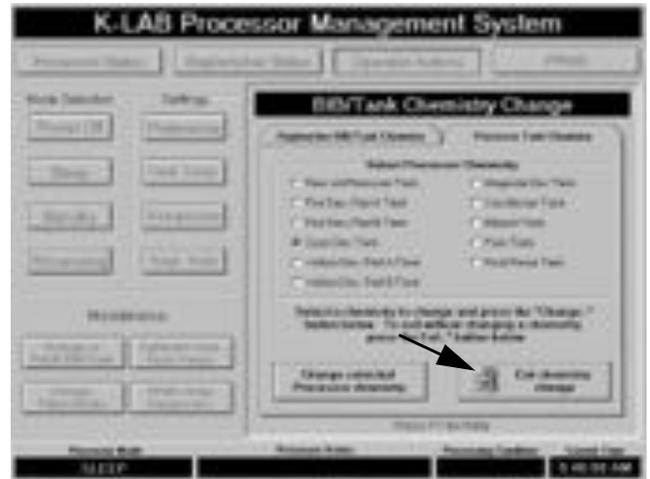
10. Dump the machine tank. Follow the instructions on page 4-1 to install fresh tank chemistry. Use the Filling Station to install fresh first, cyan, yellow, or magenta developer. See page 4-5.

11. Select “New chemistry installed.”

**Note:** If you select “Exit chemistry change,” you return to the KPMS Operator Actions screen and the tank change is not recorded.



The following screen is displayed.



12. If you want to change another tank, return to step 4.
13. When you are finished changing tanks, select “Exit chemistry change” to record the new information and reset the status.

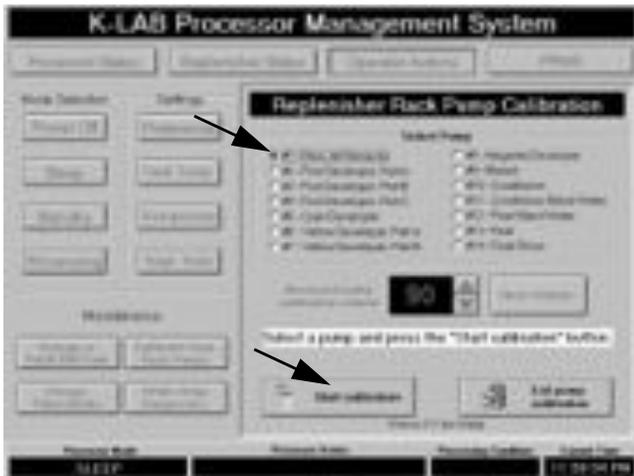
## Calibrating the Replenishment Pumps

**Note:** Use this procedure when calibrating any of the Replenishment Pumps. This procedure requires two people - one at the replenisher rack and one at the computer.

1. Place the processor in Sleep Mode or Standby Mode.
2. At the Replenishment Rack:
  - a. Select the hose from the appropriate pump and pull it up from its storage position.
  - b. Move the gray lever to “calibrate.”
  - c. Place a graduate or other container beneath the end of the hose.
  - d. Open the green spigot (valve).
  - e. Purge the line by pressing the manual button until flow is obtained.
  - f. Place the hose into an empty 100 mL graduate.
3. At the Main Control Computer:
  - a. Select “Calibrate Repl Rack Pumps.”



- b. Select the appropriate pump.
- c. Select “Start calibration.”



4. When the countdown is complete:
  - a. Close the valve.
  - b. Replace the hose.

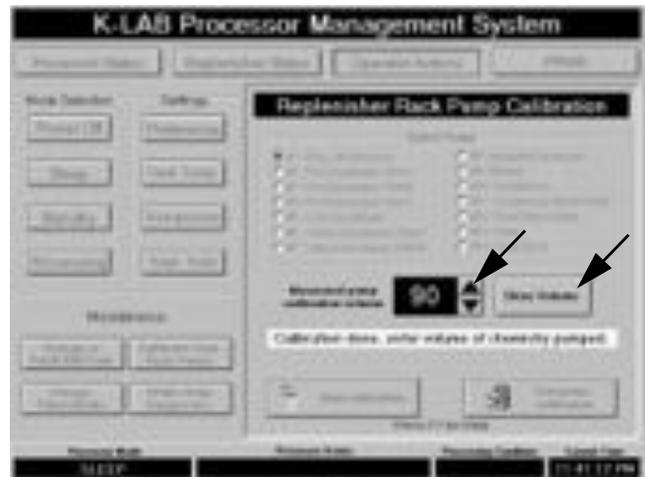
- c. Move the gray lever to “run.”
- d. Check the measurement on the graduate.



### Caution

**An accurate measurement is critical for this calibration.**

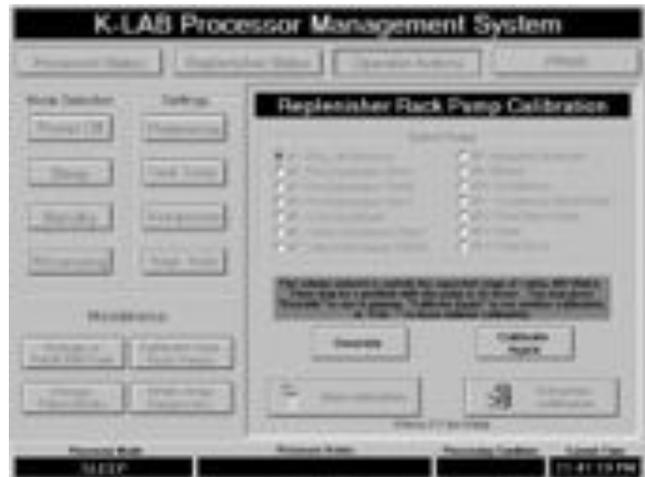
- e. Discard the contents of the graduate. Do not return the solution to the BIB or tank.
5. Using the up or down arrow buttons, enter the measurement.
  6. Select “Store Volume.”



The calibration is complete, you can now:

- Calibrate a different pump
- Select “Exit pump calibration.”

**Note:** If the volume measured is beyond the range of 85-95 mL, an error message is displayed.



Usually, this indicates a problem with a plugged in-line filter, a kinked hose, or possibly the hose was not full at the start of the measuring. Repeat the calibration measurement. An override button is provided because, in some cases, such as a new pump, the volume may fall outside of the range. This is considered an exception.

## Changing the Default Film Type and Processing Condition

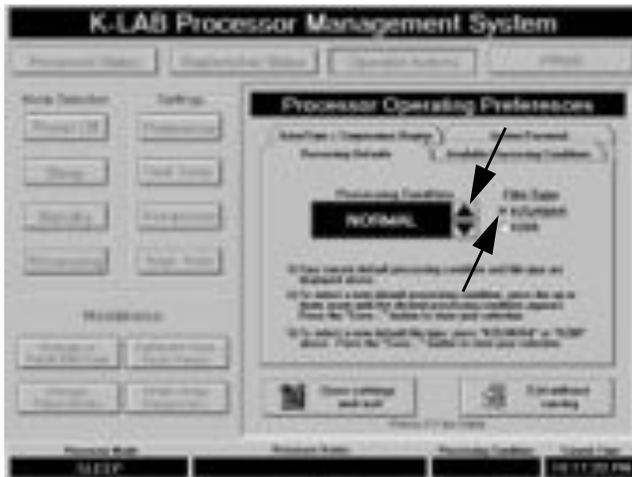
**Note:** The typical system default is Normal Processing for K25/K64 film. Exceptions to the default are entered when you “Select the Next Batch Conditions” (see page 6-7).

If your processor is generally used for a different processing condition or film type, you may choose to change your defaults. Be careful. Because it takes longer to cool the processor than to heat it, you may choose to retain Normal as your Process Default even if the majority of your work is pushed.

1. Place the processor in Sleep or Standby Mode.
2. Select “Preference.”



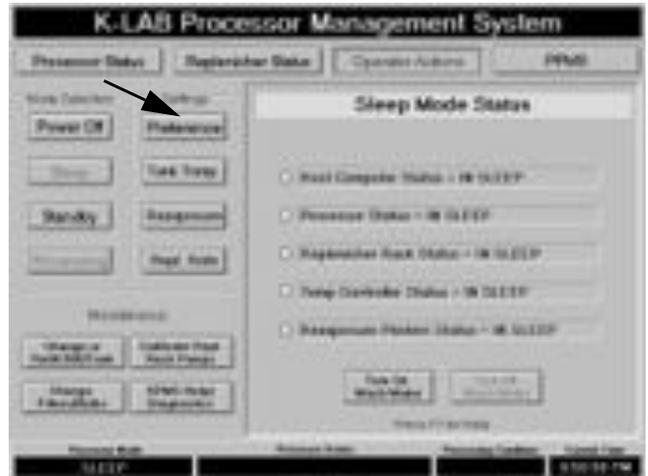
3. Select the Processing Defaults folder if it is not already open.
4. Select the desired “Condition” and/or “Film Type.”



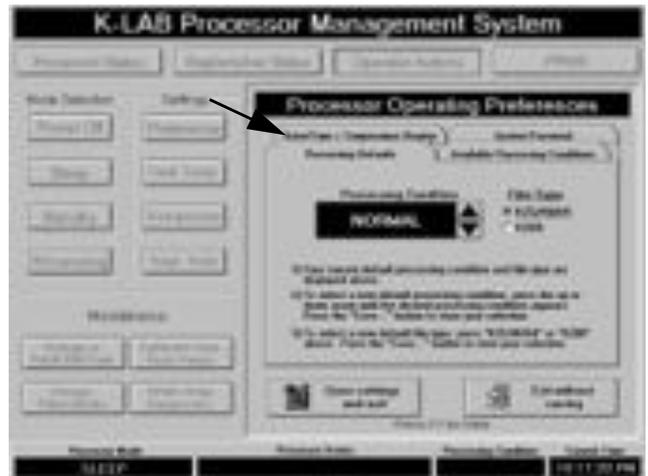
5. Select “Save settings and exit.”

## Changing the Current Date/Time Setting

1. Place the processor in Sleep or Standby Mode.
2. Select “Preference.”



3. Select the “Date/Time & Temperature Display” Folder.



4. Enter the current date/time. The time must be entered in 24-hour format.



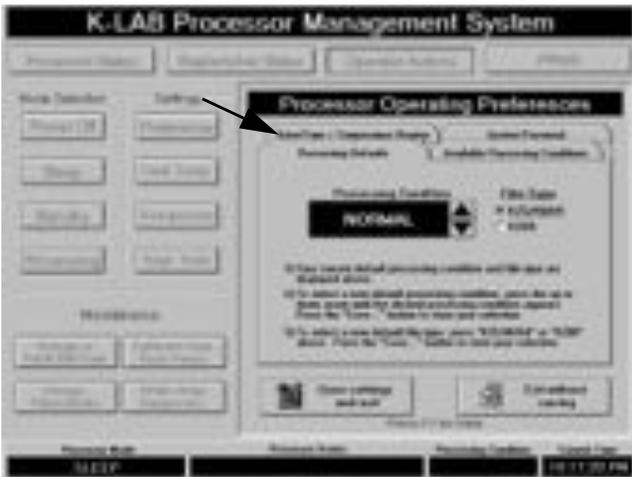
5. Select how you want the time displayed on your monitor (“12 Hour” or “24 Hour” display).
6. Select “Save settings and exit.”

## Selecting the Temperature Display

1. Place the processor in Sleep or Standby Mode.
2. Select “Preference.”



3. Select the “Date/Time & Temperature Display” Folder.



4. Select either the “Celsius” or “Fahrenheit” button.



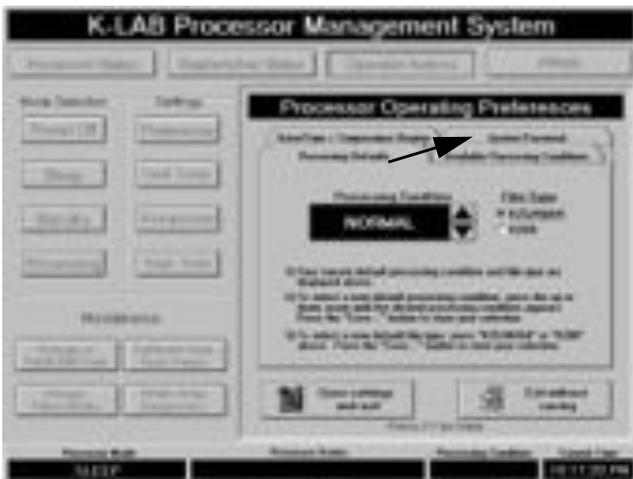
5. Select “Save settings and exit.”

## Changing the System Password

1. Place the processor in Sleep or Standby Mode.
2. Select “Preference.”



3. Select the file folder labeled “System Password.”



4. Follow the directions on the following screen:



**Note:** The System Password is required to access and change three fundamental mechanical parameters:

1. Temperature controller setpoints
2. Reexposure printer setpoints
3. Replenishment rates

Compromising the security of the password opens the possibility for unauthorized changes which could dramatically alter the process control position. If the password has been compromised, it should be changed.

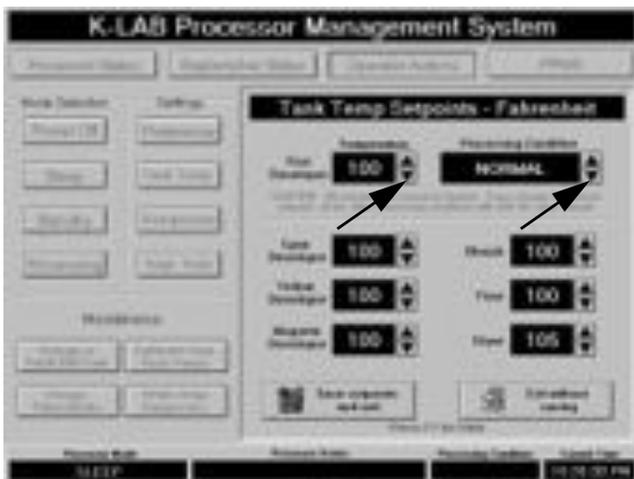
## Viewing or Changing the Setpoints for the Temperature Controller

**Note:** The System Password is required in order to change the setpoint values.

1. Place the processor in Sleep Mode.
2. Select “Tank Temp.”



3. To change the tank temperature setpoints to the desired amount:
  - a. Select an up or down arrow.
  - b. At the password pop-up screen, enter the System Password then select “Enter password.”
  - c. Select the Processing Condition you want to change.
  - d. Change the value. Use the up or down arrows.



- e. Select another Processing Condition or select “Save setpoints and exit.”

## Viewing or Changing the Setpoints for the Reexposure Printer Intensity

**Note:** The System Password is required in order to change the intensity values.

There are two different ways to calibrate the reexposure printers.

- Use the buttons on the printer housing.
- Increase/decrease the values at the computer screen.

The preferred approach is to calibrate the printers using the buttons on the printer housing while measuring the intensities of the light with your photometer.

The other approach is to have someone raise/lower the values on the computer screen until the photometer displays the desired readings.

**Note:** Because the intensity of the lamps will change with time, the photometer must be used to calibrate the printers.

The printers must be calibrated every day as part of the daily start-up procedure. Your calibration is retained until the next calibration of the printers. For more information see *Changing the Setpoints for the Reexposure Printer Intensity* on page 7-4.

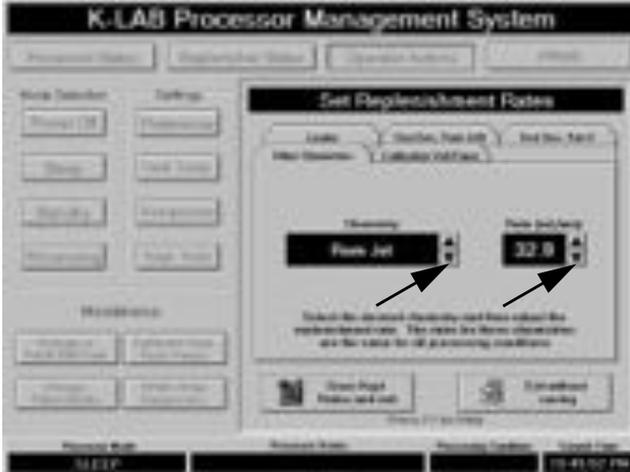
## Viewing or Changing the Replenishment Rates

**Note:** The System Password is required in order to change the replenishment rates.

1. Place the processor in Sleep or Standby Mode.
2. Select “Repl. Rate.”



3. To change the replenishment rates to the desired amount:
  - a. Select the folder and the solution to be changed.
  - b. At the password pop-up screen, enter the System Password then select “Enter password.”
  - c. Use the up and down arrows to enter the replenishment rate value.



- d. Select “Save Repl Rates and exit.”

**Note:** The “Calibration Vol/Times” folder on this screen is intended for diagnostic use only. The volume numbers displayed on this screen are your inputs from the replenisher pump calibrations. The run time values are calculated by the computer, using the Replenisher Rates and the replenisher calibration values.

## Push/Pull Processing

The operator can choose the process condition for a film magazine by using up/down arrows to scroll through a list of available push/pull conditions.

A simple selection procedure allows you to customize the list of available push/pull conditions. The list available to the machine operator can have as many or as few of the total available push options as you wish. The total available push/pull conditions range from pull 1 1/3 to push 3 in increments of both 1/3 and 1/4 stop.

You select the temperatures for each of the push/pull conditions during the initial setup of the software. The temperatures for all of the push/pull conditions will be updated automatically if a change is made to the normal process temperature.

Customized lists and set point temperatures can be easily changed on screen. The customized list of push/pull conditions can be changed using a simple selection process when the machine is in sleep mode. The temperatures for individual process conditions can be changed by entering a new temperature when the machine is in sleep mode.

The set point temperatures are password protected to avoid inadvertent changes.

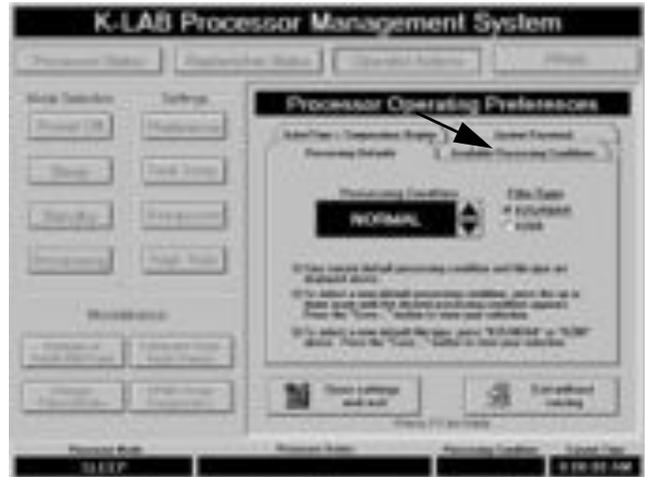
## Customizing the List of Push/Pull Options

This procedure enables you to customize the list of process conditions available to the operator when selecting the processing conditions for a batch of film.

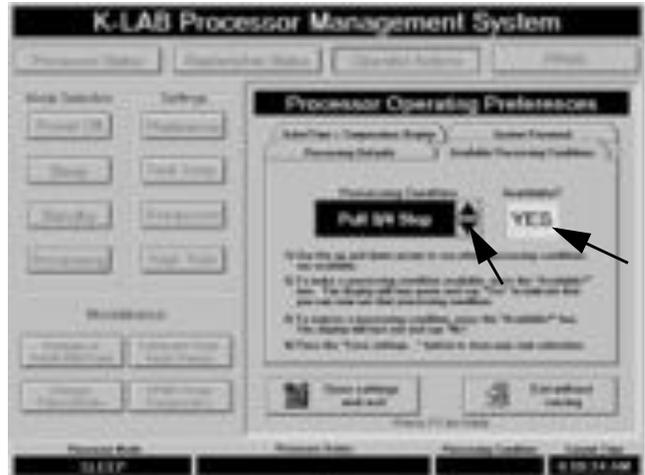
1. Place the processor in Sleep Mode.
2. Select the "Preference" button on the Operator Actions screen.



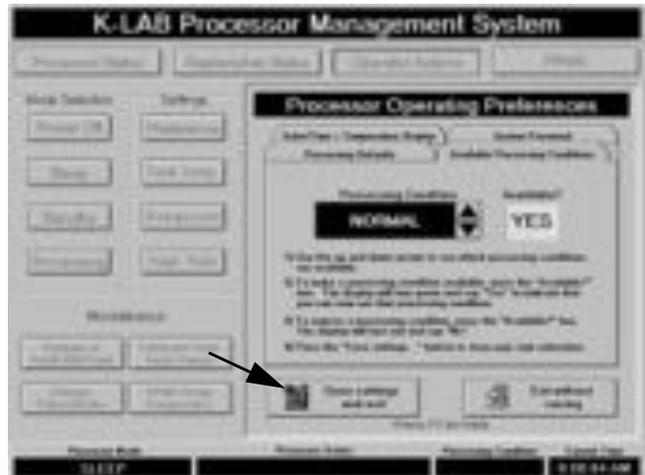
3. Select the "Available Processing Conditions" folder.



4. To select the desired push/pull conditions:
  - a. Use the up/down arrows to scroll through process conditions.
  - b. For each process condition you can toggle between yes/no under "Available." Touching the yes/no button will switch between yes and no. "Yes" indicates that this condition will be available to the operator.



5. When you have selected those options you want to offer, select the "Save settings and exit" button



## Push/Pull Processing Procedures Starting from Sleep or Standby Mode

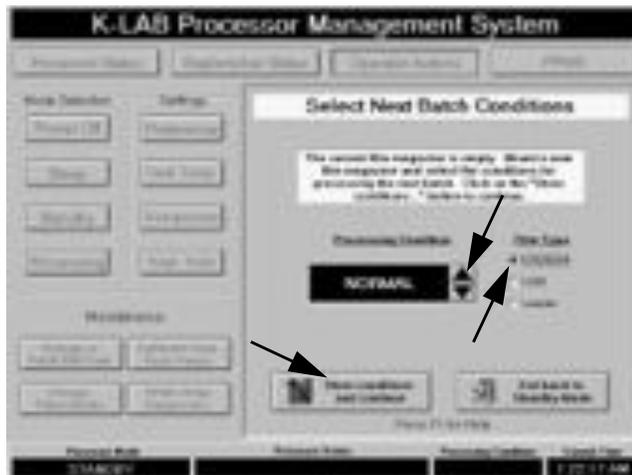
1. If in Sleep Mode, select “Standby” to enter Standby mode.



2. Splice on the film to the trailing end of the leader.
3. Select “Processing” Mode.



4. Select the “Processing Conditions” and “Film Type.”



5. Select “Store conditions and continue.”

The machine will not start until the correct first developer temperature is reached.

6. If necessary, repeat steps 2-5 to process additional magazines of film requiring the same process conditions.
7. When the end of the magazine is reached, and there are no additional magazines requiring the same process conditions, leader should be fed on. DO NOT change the processing conditions at this point.

The process condition should not be changed until you can verify the processor will not change process conditions until all film is through the first developer. There are three ways to accomplish this:

**Method 1:** Wait six (6) minutes after the last roll of film entered the elevator.

**Method 2:** Wait until the last film has passed the film leader detector. The film/leader detector will switch to “RUNNING LEADER.”

**Note:** Make sure you are not fooled by a small piece of leader passing in front of the film/leader detector.

**Method 3:** Verify that the leading edge of film from the last magazine entered has reached the film/leader detector AND there is no leader interspersed in the film batch that would cause the machine to detect a change over. (The machine will accept changes after 2 minutes of leader have passed in front of the film/leader detector.)

## Push/Pull Processing Procedures Starting from Process Mode

1. Ensure that film already fed into the machine will obtain correct processing conditions. When the end of the magazine is reached, and there are no additional magazines requiring the same process conditions, leader should be fed on. **DO NOT** change the processing conditions at this point.

The process condition should not be changed until you can certify that the processor will not change process conditions until all film is through the first developer. There are three ways to accomplish this:

**Method 1:** Wait six (6) minutes after the last roll of film entered the elevator.

**Method 2:** Wait until the last film has passed the film leader detector. The film/leader detector will switch to "RUNNING LEADER."

**Note:** Make sure you are not fooled by a small piece of leader passing in front of the film/leader detector.

**Method 3:** Verify that the leading edge of film from the last magazine entered has reached the film/leader detector **AND** there is no leader interspersed in the film batch that would cause the machine to detect a change over. (The machine will accept changes after 2 minutes of leader have passed in front of the film/leader detector.)

2. Manually activate the end of roll detector (if not already at the end of a roll of leader).
3. Select the process condition and film type you need for the next magazine.
4. Reset the end of roll detector (or splice in new roll of leader if necessary) and continue running leader.
5. Wait until the first developer temperature changes, then cut the leader in the splice box.
6. Splice the magazine of film to the trailing end of the leader.
7. Select the same process condition and film type. (You should only have to use the "Store and Continue" button.)
8. If necessary, repeat steps 6-7 to process additional magazines of film requiring the same process conditions.
9. When the end of the magazine is reached, and there are no additional magazines requiring the same process conditions, leader should be fed on. **DO NOT** change the processing conditions at this point.

The process condition should not be changed until you verify that the processor will not change process conditions until all film is through the first developer (see the verification methods in step 1).

## **Adjustment Procedures**

### **Solution Level Adjustments**

#### **Introduction**

Under normal circumstances, solution levels in the K-LAB Processor tanks may be slightly low in the morning because water evaporated from the solutions overnight. If the solution in a tank is abnormally low, identify and correct the cause before topping off the solution. A low solution message triggered by a level sensor in the machine, indicates there is probably a leak in the tank or plumbing lines which must be addressed prior to filling or topping off the tank.

The procedures for adjusting the solution levels are different for developers and secondary solutions.

#### **Adjusting the Level of the Developer Solutions**

Developer solution levels are usually lower because of evaporation. To bring the developer tank back to its normal level, add water. If the level has dropped to the point where the level sensors are activated, contact Kodak before adding to the tank. To minimize evaporation losses, use floating covers. These should be left in position overnight.

#### **Adjusting the Level of the Secondary Solutions**

The chemistries of the rem-jet, conditioner, bleach, and fixer are not as critical as the developers, but these solutions must not be overconcentrated. If the levels are down less than  $\frac{1}{4}$  inch, do not add water or chemistry to these tanks. If the level is down more than  $\frac{1}{4}$  inch, but less than  $\frac{1}{2}$  inch, add water to top off the tanks. If the level has fallen more than  $\frac{1}{2}$  inch, first determine the reason, correct it and then top off the tank using replenisher chemistry. Refer to "Mixing Chemicals" on page 4-1.

#### **Adjusting the Level of the Final Rinse Solution**

Low tank levels should not be a concern in the final rinse because you empty and refill the tank daily.

## Break Procedures

### Introduction



#### Warning

Wear IR goggles during break procedures.

**KODACHROME film must be processed in the dark until it exits from the yellow developer Wash. The quality of the film is unaffected by light from the time it enters the magenta developer tank and subsequent processing steps.**

When a break alarm sounds, check the computer to locate the break. If there is customer's film in the early part of the process (prior to the magenta developer), your break procedures must be conducted in the dark. If you are sure that the last of the customer's film has entered the magenta developer tank, you may conduct your break procedures in the light. If you are unsure, begin your recovery in the dark.

When darkroom conditions are necessary, use two people for the recovery procedure. The primary operator operates the processor and is nearby when customers' films are being processed. The secondary operator is trained in handling breaks and responds to a call for assistance from the primary operator.

If the break is prior to the magenta developer tank, the primary operator is responsible for pulling the film through the processor at a rate that is similar to the normal machine speed. If the film must pass through a reexposure printer, the speed at which you pull the film affects the amount of reexposure the film receives. The machine prevents you from pulling the film too fast. Pull the film at a rate where you feel the resistance from the machine.

Break procedures are divided into three sections:

- Breaks prior to the center drive unit
- Breaks between the center drive unit and the magenta developer tank
- Breaks after the magenta developer tank

#### Preparation:

Prepare for a break by becoming familiar with the following procedures. Also, have the following special tools available:

- IR Goggles
- 2 step ladders or a platform
- Trouble bucket (an opaque 20-gallon plastic garbage can containing about 5 gallons of water). This water should be changed periodically to minimize biogrowth.

## Recovering From a Film Break Located Prior to the Center Drive Unit

When the break is prior to the center drive unit, the processor continues to operate. The film attached to the leader continues to travel through the processor normally. To salvage the film between the feed elevator and the break:

1. Determine the location of the break by checking the computer screen.
2. Call for the secondary operator.
3. Turn off the room lights and computer monitor and put on IR goggles.



#### Caution

Use care in handling the film. Touch only the edges.

4. Open the appropriate top cover.
5. Find the leading end of the film. If it is inside a tube, pull the loose end back out of the tube.
6. Begin pulling the film through the processor to the break point.
7. Ask the secondary operator to locate the trouble bucket, move it to a location near the break, and remove the cover.
8. Place the film into the trouble bucket.
9. Carefully, transfer the pulling operation to the secondary operator.
10. Rinse and dry your hands.
11. Open the panel in front of the rem-jet remover tank.
12. If customer's film is still feeding into the processor, locate and cut the next splice that exits the elevator cabinet. Splice blue leader to the trailing end of the film when it is between the buffer box exit and the entry into the first developer tank.



#### Caution

During the next step, if the secondary operator is still pulling film, you must make the splice without stopping the machine.

13. Splice blue leader from an overhead reel to the trailing end of the film that has continued to move through the processor by:
  - a. Lifting the film at a crossover between tanks.
  - b. Making the splice.
  - c. Guiding the film back into position.
14. If the secondary operator has pulled all of the customer's film from the processor, you may stop the processor to tie leader to the trailing end of film once the trail end has reached the crossover between the yellow wash and the magenta developer.

**Note:** To stop the processor use any of the red buttons inside the machine. Do not press the red emergency stop button! To start the machine again, use one of the green buttons.

15. The secondary operator should continue to pull the film from the processor and place it in the trouble bucket until all customer film is cleared and there is 3 to 4 ft. of leader in the bucket.
16. Cut the leader. Hold onto the leader trailing the customer's film.
17. Wrap the end of the trailing leader around the bucket handle and staple it. Replace the bucket cover to protect the film from light.



### Caution

**It is critical to wash your hands if you have come in contact with magenta developer solution.**

18. Wash and dry your hands, again.
19. At the feed end of the machine, splice blue leader to the lead end of the film exiting the feed elevator.
20. Disable the anti-backup roller at the exit of the feed elevator cabinet.
21. Open the cover of the feed magazine.
22. Rewind the film that is in the splice chamber and feed elevator back onto the feed reel. Wind in 3-4 feet of leader.
23. Cut the leader in the splice chamber.
24. Close the cover on the feed magazine. Remove and set the magazine aside.
25. Enable the anti-backup roller.
26. Verify that all customer film is safe. Check that the:
  - film is stripped from the dark portion of the processor
  - cover is securely on the feed magazine
  - cover is tightly on the trouble bucket
  - trailing end of the film has reached the magenta developer
27. Turn on the lights.
28. Using leader from an internal or overhead reel, thread the machine from the break point to where the leader feeds into the machine from the overhead reel. Do not thread from the feed elevator to the break point.
29. Cut the leader coming off the overhead reel and splice the leader you have just threaded to it. Guide the leader into the processor.
30. Check for twists as the leader moves through the processor.



### Important

**The secondary operator should be available to assist in getting the film from the trouble bucket back into the machine.**

31. Turn off the room lights and verify the computer monitor is still off.
32. Put on the IR goggles.
33. Stop the processor by pressing one of the red buttons inside the processor.
34. Uncover the trouble bucket and cut the leader from the bucket handle.
35. Staple the leader to the trailing end of the leader in the processor.



### Caution

**The film must be reintroduced into the processor at the same location it was removed. The initial leading end of the film does not need to continue to be the leading end.**

36. Splice the film with the emulsion side up.
37. Cut the leader feeding into the processor and splice the leading end of the leader you threaded to it.



### Caution

**During the next step, avoid rubbing the emulsion side of the film on any fixed objects.**

38. Touching the film only at the edges, start the processor and carefully guide the film out of the trouble bucket and back into the processor.
39. When you reach the end of the film, attach leader.

**Note:** If you were not able to attach leader, allow the film to travel until it reaches the magenta developer or wash. Then you may stop the processor to attach leader.

40. Once the film has reached the magenta developer, turn on the lights and begin to thread the processor from the feed elevator to the break point.



### Caution

**Remove any staple splices at the take-off reel. Do not wind the film onto the reel with the staples still in place.**

41. Follow the lab procedures for reporting breaks.
42. Visually check the processor.
43. Process a control strip and a set of certification tests.
44. Once you are sure the process is in control and you have checked the physical quality, you may resume processing customer's film.
45. Empty and clean the trouble bucket. Fill it with fresh water.

## Recovering From a Break Located After the Center Drive Unit, but Before the Yellow Wash

When the break is after the center drive unit, the center drive continues to pull film from the front end of the processor. The film begins to accumulate immediately following the center drive roller. To salvage the film between the feed elevator and the break:

1. Determine the location of the break by checking the computer screen.
2. Call for the secondary operator.
3. Turn off the room lights and the computer monitor, and put on IR goggles.



### Caution

Use care in handling the film. Touch only the edges.

4. Open the appropriate top cover(s).
5. At the center drive unit, pull up the slack that has accumulated.
6. Maintain a constant tension on the film and locate the break.
7. Find the leading end of the film. If it is inside a tube, pull the loose end back out of the tube.
8. Guide the slack down through the machine to the point of the break.
9. Pull the film through the processor to the break point.
10. Ask the secondary operator to locate the trouble bucket, move it to a location near the break, and remove the cover.
11. Place the film into the trouble bucket.
12. Carefully, transfer the pulling operation to the secondary operator.
13. Rinse and dry your hands.
14. Open the panel in front of the rem-jet remover tank.
15. If customer's film is still feeding into the processor, locate and cut the next splice that exits the elevator cabinet. Splice blue leader to the trailing end or the film when it is between the buffer box exit and the entry into the first developer tank.



### Caution

During the next step, if the secondary operator is still pulling film, you must make the splice without stopping the machine.

16. Splice blue leader from an overhead reel to the trailing end of the film that has continued to move through the processor by:
  - lifting the film at a crossover between tanks
  - making the splice
  - guiding the film back into position
17. If the secondary operator has pulled all of the customer's film from the processor, you may stop the

processor to tie leader to the trailing end of film once the trail end has reached the crossover between the yellow wash and the magenta developer.

**Note:** To stop the processor use any of the red buttons inside the machine. To start the machine again, use one of the green buttons.

18. The secondary operator should continue to pull the film from the processor and place it in the trouble bucket until all customer film is cleared and there is 3 to 4 ft. of leader into the bucket.
19. Cut the leader. Hold onto the leader trailing the customer's film.
20. Wrap the end of the trailing leader around the bucket handle and staple it. Replace the bucket cover to protect the film from light.



### Caution

It is critical to wash your hands if you have come in contact with magenta developer solution.

21. Wash and dry your hands, again.
22. At the feed end of the machine, splice blue leader to the lead end of the film exiting the feed elevator.
23. Disable the anti-backup roller at the exit of the feed elevator cabinet.
24. Open the cover of the feed magazine.
25. Rewind the film that is in the splice chamber and feed elevator back onto the feed reel. Wind in 3-4 feet of leader.
26. Cut the leader in the splice chamber.
27. Close the cover on the feed magazine. Remove and set the magazine aside.
28. Enable the anti-backup roller.
29. Verify that all customer film is safe. Check that the:
  - film is stripped from the dark portion of the processor
  - cover is securely on the feed magazine
  - cover is tightly on the trouble bucket
  - trailing end of the film has reached the magenta developer
30. Turn on the lights.
31. Using leader from an internal or overhead reel, thread the machine from the break point to where the leader feeds into the machine from the overhead reel. Do not thread from the feed elevator to the break point.
32. Cut the leader coming off the overhead reel and splice the leader you have just threaded to it. Guide the leader into the processor.
33. Check for twists as the leader moves through the processor.



## Important

**The secondary operator should be available to assist in getting the film from the trouble bucket back into the machine.**

34. Turn off the room lights and verify the computer monitor is still off.
35. Put on the IR goggles.
36. Stop the processor by pressing one of the red buttons inside the processor.
37. Uncover the trouble bucket and cut the leader from the bucket handle.
38. Staple the leader to the trailing end of the leader in the processor.



## Caution

**The film must be reintroduced into the processor at the same location it was removed. The initial leading end of the film does not need to continue to be the leading end.**

39. Splice the film with the emulsion side up.
40. Cut the leader feeding into the processor and splice the leading end of the leader you threaded to it.



## Caution

**During the next step, avoid rubbing the emulsion side of the film on any fixed objects.**

41. Touching the film only at the edges, start the processor and carefully guide the film out of the trouble bucket and back into the processor.
42. When you reach the end of the film, attach leader.

**Note:** *If you were not able to attach leader, allow the film to travel until it reaches the magenta developer or wash. Then you may stop the processor to attach leader.*

43. Once the film has reached the magenta developer, turn on the lights and begin to thread the processor from the feed elevator to the break point.



## Caution

**Remove any staple splices at the take-off reel. Do not wind the film onto the reel with the staples still in place.**

44. Follow the lab procedures for reporting breaks.
45. Visually check the processor.
46. Process a control strip and a set of certification tests.
47. Once you are sure the process is in control and you have checked the physical quality, you may resume processing customer's film.
48. Empty and clean the trouble bucket. Fill it with fresh water.

## Recovering From a Break Following the Center Drive Unit with all Customer's Film Located After the Yellow Wash

Once the film is past the yellow wash it is no longer affected by exposure to light. To salvage the film:

1. Open the top cover.
2. Press a red button to stop the machine drive.
3. Staple leader from an overhead reel to the trailing end of the film.
4. Restart the processor by pressing a green button.
5. Guide the film and leader into the processor.
6. While the film is processing you may thread any loops that were stripped.
7. Cut the leader feeding into the processor and splice the leading end of the leader you are threading to it.
8. Follow the lab procedures for reporting breaks.
9. Visually check the processor.
10. Process a control strip and a set of certification tests.
11. Once you are sure the process is in control and you have checked the physical quality, you may resume processing customer's film.

## Power Failure

### Recovering From a Temporary Power Failure

The processor will automatically restart itself after a temporary power failure.

There is no way to determine how long the power will be off. If there is film in the machine, do not wait to see if power will return. Whenever there is a power failure, immediately start the “*Recovering From a Power Failure or a Machine Drive Failure*” procedure.

If the power failure lasts only a few seconds, the machine will restart itself and no operator intervention is required. After power is restored, the machine takes approximately 20 seconds to initialize all components and to start the machine drive.

When the machine restarts, the system will generate several error messages because of the power outage. The first will be “Processor Computer Reboot,” which indicates that a power outage occurred and the processor computer rebooted when power was restored. In almost all cases, there will be two additional messages: “Invalid COM 1 Character” and “First Developer Temperature High/Low.” You can click on OK to clear each of these messages without affecting the operation of the processor.

Under some circumstances, the power may come back on in a way that does not allow the processor to restart itself correctly. If the machine drive does not restart 20 seconds after power is restored, the printers and pumps will also remain off. In this case, follow the *Recovering From a Power Failure or a Machine Drive Failure* procedure.

In rare instances, the power interruption may create problems with temperature control or printer control. If more than one temperature high/low alarm occurs, immediately check the Processor Status screen (page 2-7). If the temperature does not return to standard, or if the temperature drops, stop processing customer film. Turn off the room lights and cut the film at the next splice that exits the elevator cabinet. Then proceed as if there has been a film break at the point you made the cut (see the *Break Procedures* starting on page 6-26). If a “Printer not Responding” error message occurs, immediately initiate the *Responses to Reexposure Printer Failures* procedure on page 7-18.

### Recovering From a Power Failure or a Machine Drive Failure

If there is a power failure or a machine drive failure, the machine drive will stop. If there is a power failure, the reexposure printers and recirculation pumps will be off. Customer’s film in the process prior to the conditioner must be removed and transferred to trouble buckets. **DO NOT ATTEMPT TO PULL FILM THROUGH THE PROCESSOR.**

The film is removed from each developer/wash tank separately and is placed in trouble buckets. Once power is restored or the drive repaired, the film is returned to the processor beginning with the film that was closest to the end of the process. The procedure, as written, assumes there is customer’s film throughout the processor. A minimum of four trouble buckets are required to deal with this situation. Each situation will be different, but the overall approach remains the same.

When a power or machine drive failure occurs:

1. Call for the secondary operator.
2. Turn off the room lights and the computer monitor (even if there is a power failure), and put on the IR goggles.
3. Open the top covers of the processor.  
If the power returns before you locate the first splice prior to the rem-jet dip tank, simply close the covers of the processor, turn on the room lights, and continue processing.
4. If customer’s film is still feeding into the processor, reach down and locate and cut the first splice prior to the rem-jet dip tank. This will prevent additional customer’s films from becoming wet.

If there is customer film in the red printer:

- a. If there is a power failure, locate and cut the first splice after the red printer. Pull the partially exposed roll back through the printer. The film will be returned to the processor prior to the red printer, so that all frames are exposed in the printer.
- b. If there is a machine drive failure, locate and cut the last splice in the first developer wash. The balance of the roll in the printer will be pulled forward through the printer (which is operational in this situation).

**Note:** *If the power returns after you cut a splice but before you start pulling film, it may be possible to splice the ends back together. You have 20 seconds from the time power is restored until the drive starts. If the trailing edge is not accessible to splice to the leading end, you will have to pull film from that section of the machine. Then proceed as if there has been a film break at the point you made the cut (see the *Break Procedures* starting on page 6-26).*

*If the power returns after you start to pull film from a section of the machine, complete the task of pulling film from that section. Then proceed as if there has been a film break at the*

point you made the cut (see the Break Procedures starting on page 6-26).

5. Begin pulling the film through the rem-jet, first developer and first developer wash.
6. Place the film in the first trouble bucket.



### Important

**Handle the film by its edges. Do not touch the picture area of the film.**

7. If there is customer film in the blue printer:
  - a. If there is a power failure, locate and cut the first splice after the blue printer. Pull the partially exposed roll back through the blue printer.
  - b. If there is a machine drive failure, locate and cut the last splice in the cyan developer wash.
8. Pull the film through the cyan developer and cyan developer wash tanks and place it in the second trouble bucket.
9. Locate and cut the last splice in the yellow developer wash. Pull the film through the yellow developer and yellow developer wash tanks and place it in the third trouble bucket.
10. Locate and cut the last splice in the magenta developer wash. Pull the film through the magenta developer and magenta developer wash tanks and place it in the fourth trouble bucket.
11. Wash and dry your hands.
12. At the feed end of the machine, splice blue leader to the lead end of the film exiting the feed elevator.
13. Disable the anti-backup roller at the exit of the feed elevator cabinet.
14. Open the cover of the feed magazine.
15. Rewind the film that is in the splice chamber and feed elevator back onto the feed reel. Wind in 3-4 feet of leader.
16. Cut the leader in the splice chamber.
17. Close the cover on the feed magazine. Remove the magazine and set it aside.
18. Enable the anti-backup roller.
19. Verify that the customer's film is safe. Check that the:
  - film is stripped from the dark portion of the processor
  - cover is securely on the feed magazine
  - covers are tightly on the trouble buckets
20. Turn on the lights.
21. If the machine drive stopped, follow this sequence to reset the motor controller board:
  - a. Place the host computer into Power Off Mode.
  - b. Turn off the power to the processor and replenisher rack.

- c. Wait 10-15 seconds and then turn on the processor and replenisher rack. This will reset the motor controller board.
  - d. Turn on the host computer and restart KPMS.
  - e. Place the host computer in Processing Mode. If the machine drive is now operational, you may proceed. If resetting the motor controller board did not solve the problem, request maintenance support.
22. Once the machine drive is operational or power is restored, follow these steps to return film from the trouble buckets to the processor:
    - a. Tie emergency leader to the tail end of the film in the magenta wash.
    - b. Place the machine in Processing Mode to resume processing customer's films left in the tail-end of the processor.



### Caution

**Remove any staples at the take-off reel. Do not wind the film onto the reel with the staples still in place.**

- c. Rethread each of the individual tanks where film was removed. Splice the threading leader to the leader coming from the feed elevator. Do not tie any other ends of splicing leader together.
- d. Stop the machine drive using one of the red buttons inside the machine.
- e. Cut the emergency leader at the crossover between the magenta wash and the conditioner.
- f. Splice the film from the fourth trouble bucket to the leader and press one of the green buttons inside the machine to restart the machine drive. Guide the film into the processor.



### Caution

**Use care in handling the film. Touch only the edges.**

- g. When you reach the end of the film, stop the processor by pressing one of the red buttons inside the machine.
- h. Splice the threading leader in the magenta developer tank to the end of the film.
- i. Wash and dry your hands.
- j. Open the third trouble bucket and splice the film to the leader at the entrance to the magenta developer. Start the processor by pressing one of the green buttons inside the processor and guide the film into the processor.
- k. Splice emergency leader to the tail end of the film and allow the film to pass through the magenta developer.
- l. Once the film is in the magenta wash, turn off the room lights, verify the computer monitor is off, and put on IR goggles.

- m. Stop the machine drive using one of the red buttons inside the processor. Cut the emergency leader and splice the lead end of the threading leader coming out of the yellow developer wash to the end of the leader in the machine.
- n. Start the machine drive. Once most of the slack is taken up, stop the machine drive.
- o. Open the second trouble bucket and splice the film to the leader at the entrance to the blue reexposure printer. Start the processor by pressing one of the green buttons inside the processor, and guide the film into the processor.
- p. Splice emergency leader to the tail end of the film and allow the film to pass through the magenta developer.
- q. Once the film is in the magenta wash, stop the processor, cut the emergency leader, and splice the lead end of the threading leader coming out of the cyan developer wash to the end of the leader in the machine.
- r. Start the machine drive. Once most of the slack is taken up, stop the machine drive.
- s. Open the first trouble bucket and splice the film to the leader at the entrance to the red reexposure printer. Start the processor by pressing one of the green buttons inside the processor. Guide the film into the processor.
- t. Splice emergency leader to the tail end of the film and allow the film to pass through the magenta developer.
- u. Verify there is no film remaining in the trouble buckets.
- v. Once the trailing end of the film has entered the magenta developer, remove the IR goggles and turn on the room lights.
- w. Stop the processor. Cut the emergency leader and splice the end of the threading leader coming out of the first developer wash to the end of the leader in the machine.
- x. Verify the leader between the feed elevator and rem-jet dip tank is spliced and that there is a leader reel on the feed stand.
- y. Visually check the processor.
- z. Close the covers on the processor.
- aa. Process a control strip and a set of certification tests.
- ab. Once you are sure the process is in control and you have checked the physical quality, you may resume processing customers' films.
- ac. Empty and clean the trouble buckets. Fill them with fresh water.