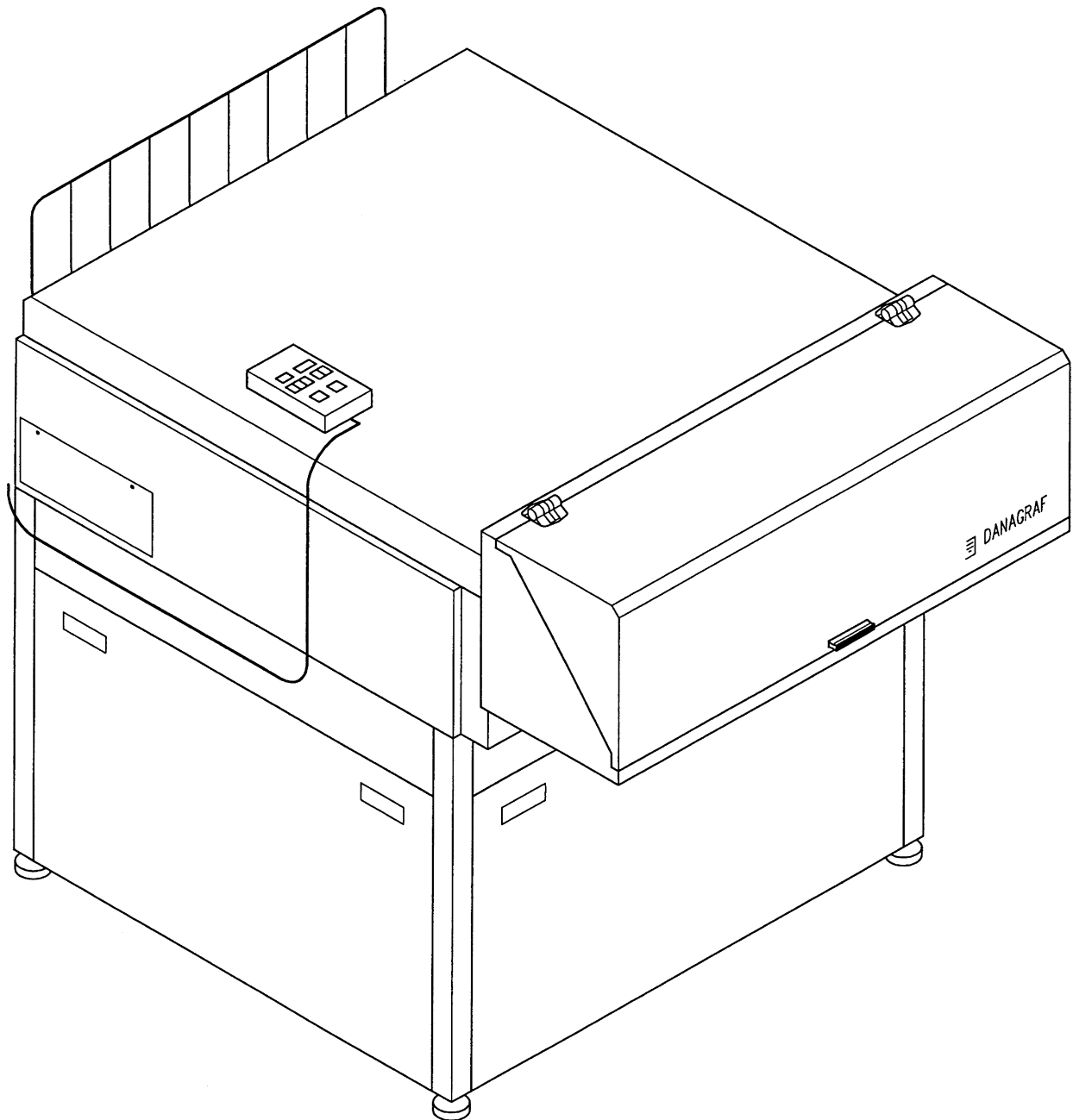# USER MANUAL

DG 2802F

TEGN. 1:10 001103/JOA 6239-OOB

NOTICE

All statements technical information and recommendations contained herein are based on tests we believe to be reliable, but accuracy of completeness thereof is not guarantied and the following is made in lieu of all warranties, expressed or implied:

Danagraf A/S shall not be liable or responsible to any purchaser or other person for injury, loss or damage neither direct, incidental or consequential, due to the use of or inability to the Danagraf equipment information in this manual.

Before using, user shall determine the suitability of the product for his intended use, and user assumes all risks and liability, whatsoever in connection therewith.
The processor is, to the best of our knowledge, suitable to work with all types of chemistries known to the graphic marked.

No statement or recommendation not contained herein, shall have any force or effect in any agreement signed by officers of sellers and manufacturer.


Sincerely Yours,

DANAGRAF A/S

TABLE OF CONTENTS

INTRODUCTION

The Danagraf DG 2802F Film Processor is conceived to accommodate the smaller user with the technology and ease of operation of automatic processing .

The high quality of Danagraf s renown processor line is also applied in this simplified, though complete production unit. All processor functions such as developer and fixer temperature and processing speed are controlled by means of a small handy operator panel. The holder for the control panel can be installed on the standard feed table or the daylight cassette left or right. If by accident the developer gets into the. wall, it can be drained below the front of the processor, see drawing below.
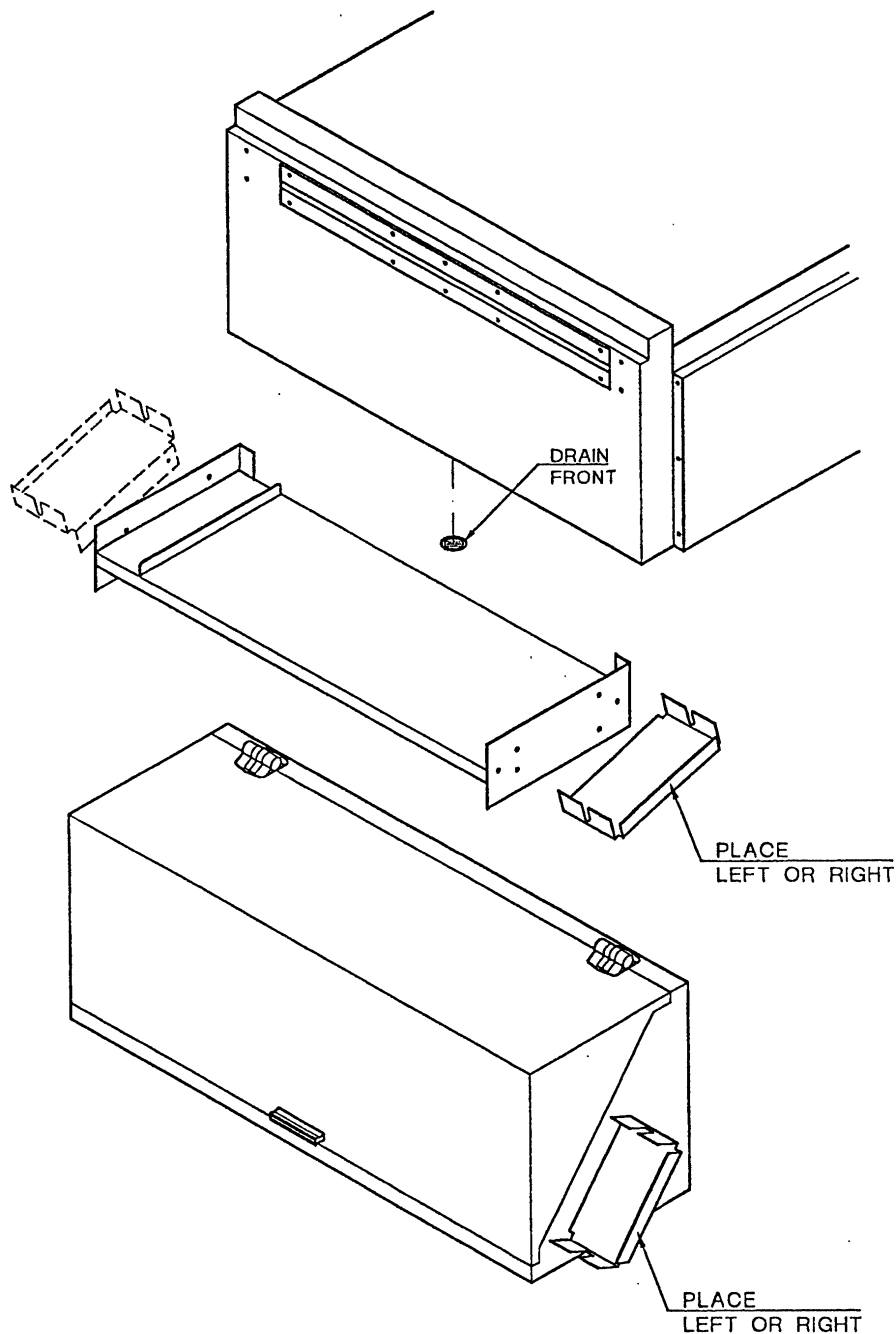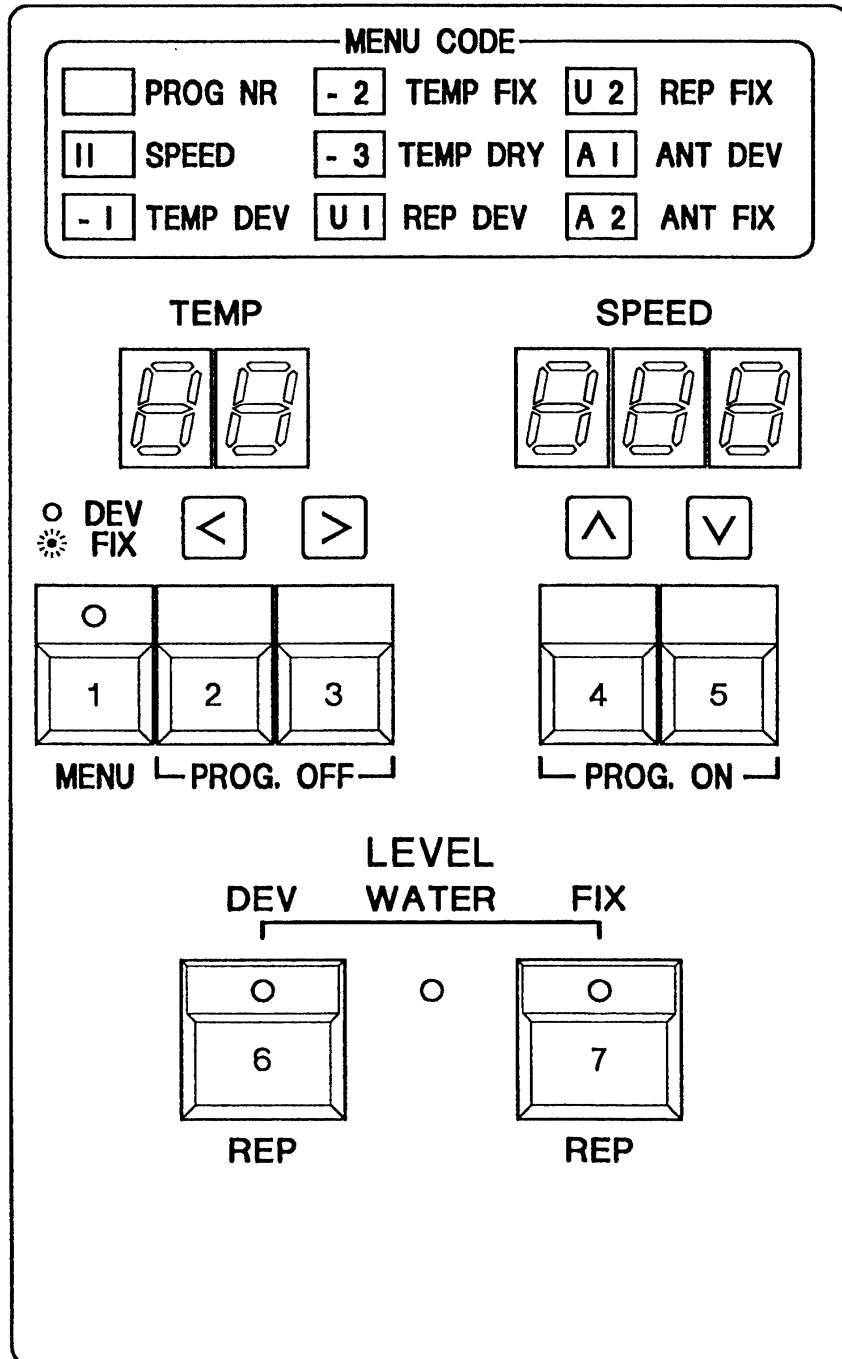
TECHNICAL DATA

DG 1802F

Height Total	108 cm. / 42.52"
Height Processor	36 cm. / 14.17"
Height Stand	65,5 cm. / 25.8"
Height Daylight cassette	33 cm. / 12.99"
Width	92 cm. / 36.22"
Length	163 cm. / 64.17"

Net weight	179 kg / 147.7 lbs.
Power supply	230V 50/6OHz
Max. power consumption	2700 W
Min. developing time	25 sec.
Factory setting developer time	35 sec.
Max. Developing time	60 sec.
Min. film length	20 cm. / 7.87"
Min. film width	3 cm. / 1.18"
Max. film width	71 cm. / 27.95"

Tank capacity	11 ltr / 2.89 U.S. Gallon
Developer	11 ltr / 2.89 U.S. Gallon
Fixer	11 ltr / 2.89 U.S. Gallon
Water	

5 User Program

Adjustable temp. Developer	$15 - 45\,^0C$ / $59 - 113\,^0F$
Factory setting developer	$33\,^0C$
Adjustable temp. fixer	$15 - 45\,^0C$ / $59 - 113\,^0F$
Factory setting fixer	$30\,^0C$

Adjustable automatic dev. Replenish	$0 - 999$ ml / m^2
Factory setting dev. Replenish	400 ml / m^2
Adjustable automatic fix. replenish	$0 - 999$ ml / m^2
Factory setting fix. Replenish	300 ml / m^2

Adjustable dryer temperature	$20 - 60\,^0C$ / $68 - 140\,^0F$
Factory setting dryer temperature	$45\,^0C$ / $113\,^0F$

Anti-oxidation program, fixed	60 min.
Anti-oxidation dev. Adjustable	15 - 75 ml / hrs.
Anti-oxidation fix. Adjustable	15 - 75 ml / hrs.

Room conditions: Temperature $20 - 25\,^0C$ / $68 - 77\,^0F$, humidity 45 – 85%

DISPLAY MODULE
30100110

MENU CODE

☐ PROG NR	- 2 TEMP FIX	U 2 REP FIX	
II SPEED	- 3 TEMP DRY	A I ANT DEV	
- I TEMP DEV	U I REP DEV	A 2 ANT FIX	

TEMP

SPEED

O DEV
☼ FIX   < >   ∧ ∨

O
1   2   3   4   5

MENU └─PROG. OFF─┘   └─ PROG. ON ─┘

LEVEL

DEV   WATER   FIX

O   O   O

6   7

REP   REP

GENERAL DISCRIPTION

When turning power ON the TEMP display (x x) will show the type of machine and the SPEED display (x x x) will show the E-Prom version for 5 sec.

When turning ON the main power, the rollers and pumps will run for a short while, this is for refreshment of the chemistry and to avoiding crystallization on the top rollers.

As long as the processor is turned ON, the fan on the fight hand side will be ON. This will prevent condensation and removes fumes from the processor.

The temperature for Developer, Fixer are adjustable and so is the process speed.

Whenever you enter material, and tile machine, is ready, tile processor will go to operating mode.

The amount of replensihment of developer and Fixer is automatically calculated to maintain a correct level and balance of the chemistry.

In case of "Low level" in any of the tanks, you will hear an acoustic ala and a red diode on the Control Panel will go ON. The processor will set the respective replenish-pump ON in order to keep the correct level. If the replenish-pump is active for more than 40 sec the pump will stop and Dev or Fix level warning will light up.

If low level occur in one of the baths, the belonging circulation pump and heater will not be able to work.

You have the possible to control the replenish pumps manually by pressing the respective buttons.
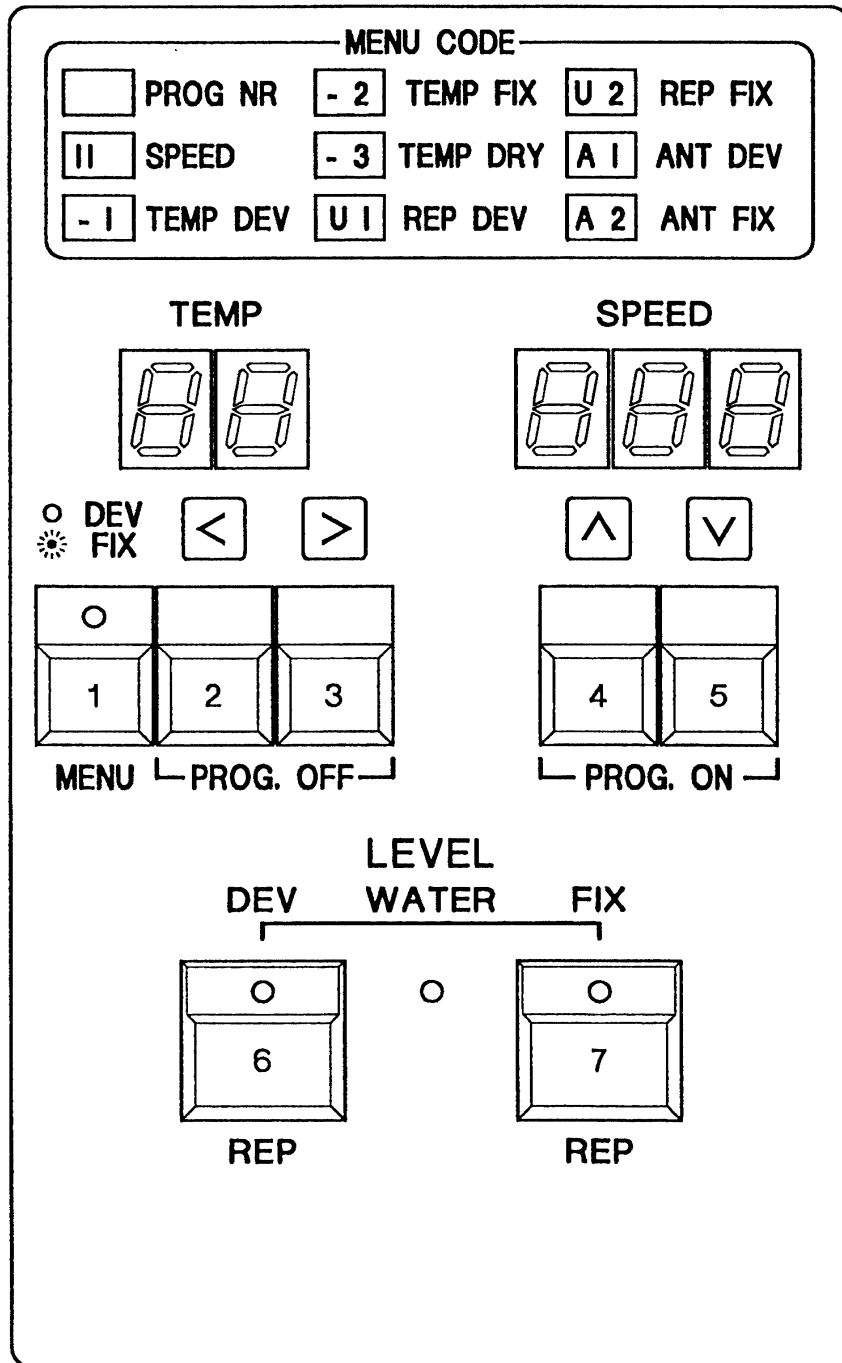
When the film affect the inlet sensor the processor starts and the Speed Display will flash with fast speed as long as the film affect the inlet sensor (" NO further INPUT ") (processor busy). When the trailing edge of the film pass the inlet sensor the Speed Display will return to steady display, and the next film can be introduced.

After the film leaves the dryer, the processor will go to a " stand by " mode.

If the processor has not been used for **one** hour, the " ANTI-OXIDATION " program will go active, which will cause the roller to turn for 14 sec. to avoid crystallization. Replenish pump will give amount of replenish. See page 9 chapter for control Panel.

CONTROL PANEL

DISPLAY MODULE
30100110

MENU CODE		
☐ PROG NR	-2 TEMP FIX	U2 REP FIX
II SPEED	-3 TEMP DRY	A1 ANT DEV
-1 TEMP DEV	U1 REP DEV	A2 ANT FIX

TEMP   **SPEED**

○ DEV ☀ FIX   < >   ∧ ∨

○ 1 | 2 | 3   4 | 5

MENU └ PROG. OFF ┘   └ PROG. ON ┘

LEVEL
DEV   WATER   FIX

○ 6   ○   ○ 7

REP   REP

CONTROL PANEL

The DG 2802F have 5 User Programs.

The TEMP. display will show the **actual** temperature of the developer. to check the temp. for fixer, just press [1] key to change between DEV and FIX temperature.

1,0 Setting Program
Press key [4]+[5] PROG. ON for 1 sec.
The display for TEMP. will go OFF and the Program 01 - 05 selected by pressing key [4] or [5] will be shown in the SPEED display.

2,0 Speed Change
Press key [1] until Temp Display shows (II).
The SPEED can be changed with [^] and [v] key.

3,0 Developer Temperature Setting
Press key [1] until Temp Display shows (-1).
The temperature can be changed with [^] or [v] key.

4,0 Fixer Temperature Setting
Press key [1] until Temp Display shows (-2).
The temperature can be changed with the [^] or [v] key.

5,0 Dryer Temperature Setting
Press key [1] until Temp Display shows (-3).
The dryer temperature can be changed with [^] or [v] key.

6,0 Developer Replenish Setting
Press key [1] until Temp Display shows (U1) (05-99) is 50 - 999 ml/m^2, can be changed with the [^] or [v] key.

7,0 Developer Replenish Setting
Press key [1] until Temp Display shows (U2) (05-99) is 50 - 999 ml/m^2, can be changed with the [^] or [v] key.

8,0 Anti-oxidation Developer
Press key [1] until Temp Display shows (A1) adjust amount between 15 - 75ml pr. hour, with [^] or [v] key.

9,0 Anti-oxidation Fixer
Press key [1] until Temp Display shows (A2) adjust amount between 15 - 75ml pr. hour, with [^] or [v] key.

All new value will be saved in the E-Prom. To exit press at the same time key [2] + [3] (Program OFF) for one sec.

(THIS PAGE IS NOT IN USE)

PREPARATIONS

After the processor has been installed by a qualified technician, you can prepare to fill up the tanks with chemistry.
NOTE: Always follow the instructions given by the film and chemistry manufacturer.

Fixer:
It is strongly recommended first to fill-up the fixer tank in order to prevent splashing into the developer section. This will cause contamination of the developer and result in a poor developing process. The fixer tank is marked with blue.

Developer:
Before filling the developer into the Dev. tank, check and make sure that no splashing has occurred, when filling the fixer tank. If so clean thoroughly. The developer tank is marked with red.

Replenishment:
Mix some additional Developer and Fixer in separate containers. Place these under the processor and insert the 1/2" red hose into the Developer and the 1/2" it blue hose into the Fixer container.

Turn the processor "ON" and set up the programs, according to your needs.

Press the "MAN. REP. DEV." and "MAN. REP. FIX." buttons for a few seconds to make sure chemistry is pumped up through the system in order to remove air pockets.
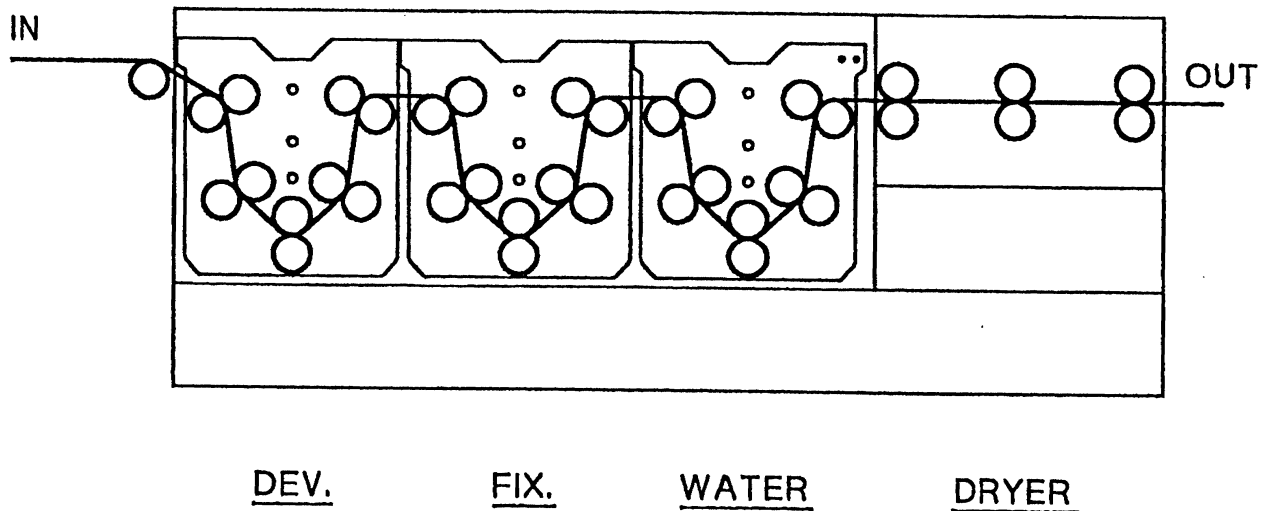
(THIS PAGE IS NOT IN USE)

DEVELOPING

When you insert film through the entrance slot a switch will be activated. The processor will start up in process mode. After the trailing edge has left the infeed sensor the processor will still run in process mode until material has completely left the dryer section.

When the processor is in the "STAND BY" mode the Anti-oxidation program will be active. This means the rollers will turn for 14 sec. every 60 min. to avoid crystallisation on the rollers. At the same time the Anti-oxidation program will maintain the balance of the chemistry according to the settings.

Note: It is not possible to change the developing time (SPEED) during process mode.

DG 2202E

DEV.   FIX.   WATER   DRYER

(THIS PAGE IS NOT IN USE)

RECOMMENDED MAINTENANCE

Routine cleaning:
The most effective way to avoid operating difficulties is to regularly clean the processor, its hoses and the replenishment pumps.
Chemistry is subject to oxidisation and even though the machine has its own program to eliminate this problem, the operator should pay special attention to preserve the chemistry and remove crystallised deposits from the equipment.
The use of floating lid in the developer replenish container will keep out the air to preserve the chemistry. This will give better results and create fewer problems.

The following suggestions are simple but extremely necessary. They will help enormously to avoid spoiled work, wasted time, lost tempers and unnecessary expense.
NOTE: Be careful, always to mount the parts in the correct position after cleaning.

Every day:
Clean the to cover, the film entry and the light room cassette (optional).
Use separate damp cloths to clean guides and each set of upper rollers.
Feed one or two film before commencing the days work.

Every week:
(in addition to above)
Turn OFF the processor and remove all 3 racks. Clean them carefully with lukewarm water, using separate cloths for each rack.

NOTE: Racks can be removed and refitted without draining out the chemicals, but once again, it is essential to make sure that not one drop of fixer goes into the developer bath. If this happens, the developer must be drained and the bath must then be thoroughly cleaned and refilled.

Every month or when needed:
(in addition to above)
Drain both baths and empty the replenishment containers.
Fill the baths and replenishment containers with water and ensure that the racks baths, hoses and containers are thoroughly washed by flushing and pumping water through each bath / system.

After refilling the bath, repeatedly press the manual replenishment buttons for the developer and fixer, to eliminate any air pockets in the system.

GENERAL QUALITY CONTROL STATEMENT

If there is a reduction in the quality of the processed materials, it can probably be solved by checking the control settings, the operational procedures, or by giving a little extra attention to the routine cleaning. A small amount of time invested in "SELF HELP" will usually avoid a lot of wasted time and possible expense which will result from calling in a service technician.

If, however, the problem seems to be electrical or mechanical do not attem t suc complex trouble shooting unless you are well qualified to do so.

Great care has been taken in the development specification, and manufacture of this equipment to ensure that it will give many years of reliable performance and quality. It should therefore be expected that "REAL" technical problems will be rare and, if encountered, will involve the chemistry and materials, or the routine cleaning.

The following pages will provide answers to the most common problems that can be encountered when processing work.

TROUBLESHOOTING GUIDE

PROBLEM	SOLUTION
The processor is not working	Make sure that the machine is plugged in Check whether the fuse is working
The processor shows only vertical lines in display and does not work	Check that the toppled is correctly on the Processor, switch off the Processor wait 5-10 sec. and switch on again.
The material jammed at the entry	Check that the material is not to curled Check that the entry guide is in correct position Make sure that the rollers in the developer input rack is running smoothly. Check daylight feed slot.
The material jammed in developer, fixer or water rack.	Make sure that all rollers in the developer-fixer-water rack is running smoothly. Check that the developer rack is in the correct position. Remove the roller rack and clean it thoroughly. Ensure that the rack and its rollers are in their correct locations and the rollers are turning evenly and freely.
The material jammed at crossover between developer and fixer or between fixer and water rack.	Insure that the developer, fixer and water rack are perfectly levelled. Check that the crossover guide is in correct position. Ensure that the roller rack are at their correct location and that the crossover guides are correctly fitted.

The material jammed at crossover between fixer and water or water and dryer.	Insure that the fixer, water and dryer rack are perfectly levelled.
	Check that the crossover guide is in correct position.
	Ensure that the roller rack are at their correct location and the crossover guides are correctly fitted.
The material jammed in Dryer rack.	Make sure that the Dryer temperature is approx. 45^0C and that excessive heat is not causing the material to curl.
	Check that Dryer-rack is in correct position.
	Make sure that the rollers in the Dryer-rack is running smoothly.
No manual replenish	Check level in replenish tank. Qualified investigation necessary.
No heating in baths.	Check pre-set temperatures.
	Check level in baths.
No circulation in baths.	Check level in baths.
Beeper is sounded twice	Film has been developed
Speed display is flashing	There is film in the entrance.
Temperature display is flashing	Low temp in Dev
Temperature display is flashing and LED is lit.	Low temp in Fix.
Beeper is sounded, Dev. LED is On and Speed display is flashing	The level is low in the DEV. bath.
Beeper is sounded, Fix LED is On and Speed display is flashing	The level is low in the FIX. bath.

FILM QUALITY HINTS AND TROUBLE SHOOTING

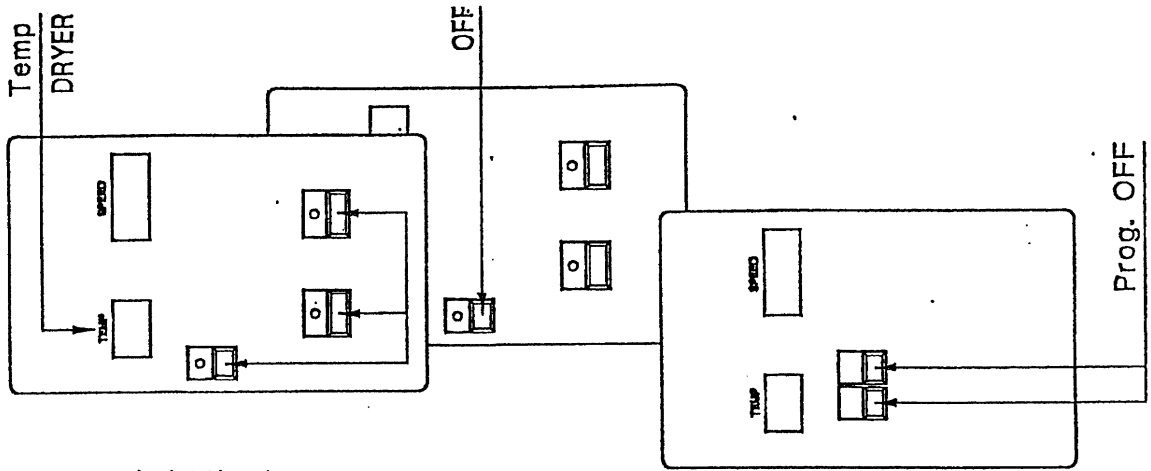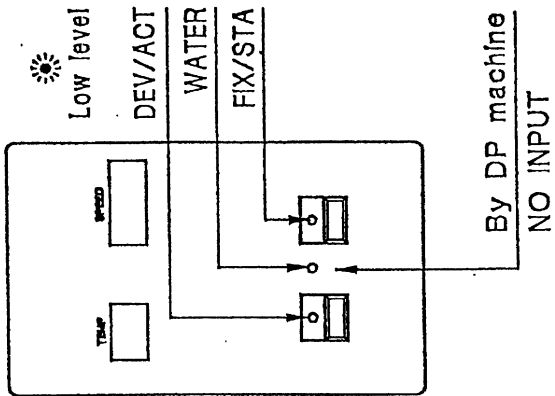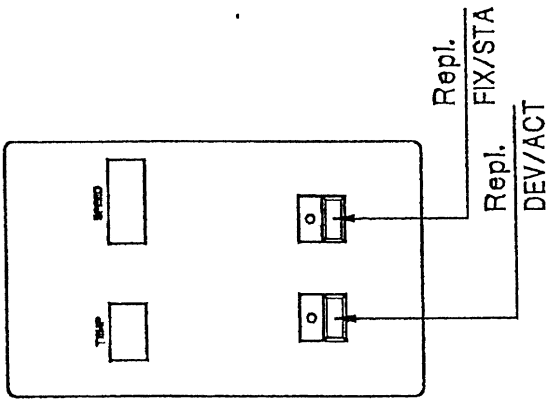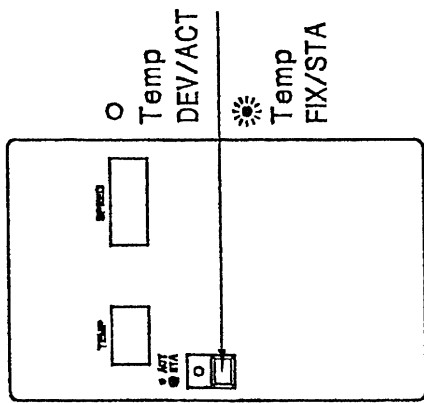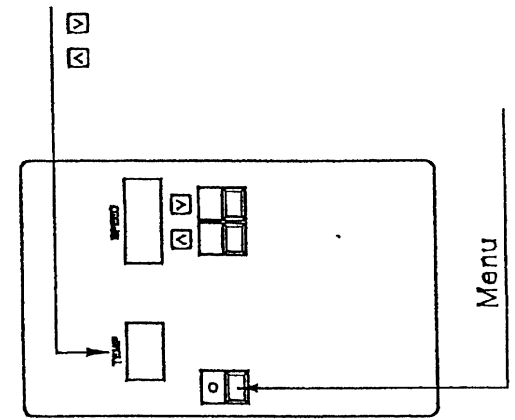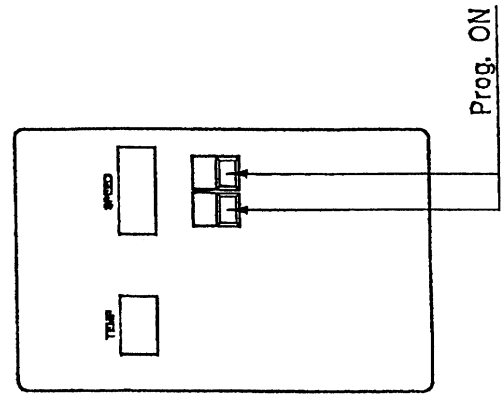| PROBLEM	SOLUTION
Lengthways stripes on the material	Remove and clean the crossover guides.
The material is scratched	Check that the crossover guides are fitted correctly, and clean all top rollers and crossover guide
	Inspect the dryer section and make sure that the assembly is correctly
	Drain the fixer bath and refill with a new chemistry solution.
The material is coming out wet	Make sure that the Dryer temperature sensor bar is in correct position
	Check that the Dryer rack is in correct position
	Check whether there is sufficient dryer air flow.
	Check the developing time is set correctly.
The Processor stops before the material come out	Insure that the input sensor has been activated during the entire length of the material.
	Check that the rack are in correct position and the rollers are running smoothly.
Material is sticky or milky when coming out (for optimum drying use hardener)	Drain the fixer bath and refill with a new chemistry solution
	Clean rollers in dryer section
Material is jamming in one of the baths	Remove the roller rack and clean it thoroughly. Ensure that the rack and its rollers are in their correct locations and the rollers are turning evenly and freely.
Material is jamming at the crossover	Ensure that the roller rack are their correct location and that the cross over -,guides are correctly fitted.

NORM. MODE

Temp DRYER

OFF

Low level

DEV/ACT

WATER

FIX/STA

By DP machine

NO INPUT

Repl. FIX/STA

Repl. DEV/ACT

o Temp DEV/ACT

Temp FIX/STA

Prog. OFF

Menu code

Menu code	
PROG NR	☐
SPEED	II
TEMP ACT	-1
TEMP STA	-2
TEMP DRY	-3
REP ACT	U1
REP STA	U2
ANT ACT	A1
ANT STA	A2

Menu

USER MENU

Prog. ON

SPEED

TEMP