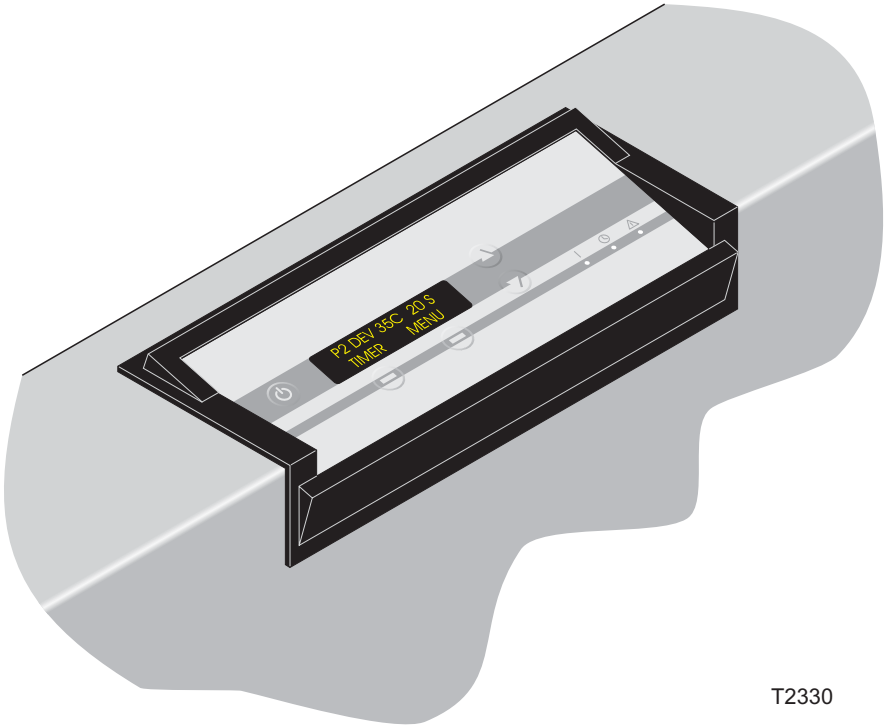
PTA
Control Panel



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This manual is for the ***Daily Users*** of the equipment.
Always read the ***Safety Instruction Manual part No 21741***
before starting up the equipment and keep it with the machine for reference
at all times.

Edition BC, October 2006 **This book has part no. 51200-GB**

INTRODUCTION

THIS MANUAL

- **Scope:** This manual is valid for **PTA** software from version **PTA 4.05.XX**.
- **Intended use of this manual:** This manual is for the daily user of the equipment.
  Always read the ***Safety Instruction Manual, part No 21741*** before starting up the equipment and keep it with the machine for reference at all times.
- **Illustrations:** As this manual covers a complete range of processors the illustrations will not fully reflect your present processor.
- **Reservations:** This manual was written and illustrated using the best possible information available at the time of publication.
  Any differences between this manual and the equipment reflect improvements introduced after the publication of the manual.
  Changes, technical inaccuracies and typographic errors will be corrected in subsequent editions.
  As a part of our policy of continuous improvement, we reserve the right to alter design and specifications without further notice.

WARNINGS, CAUTIONS AND NOTES!

Throughout the manual warnings, cautions, and notes are written in bold on a grey background like the example below:

NOTE! The JOG FUNCTION must be set up by a Service Technician.

Explanation:

NOTE!
The operator should observe and/or act according to the information in order to obtain the best possible function of the equipment.

CAUTION!
The operator must observe and/or act according to the information in order to avoid any mechanical or electrical damage to the equipment.

WARNING!
The operator must observe and/or act according to the information in order to avoid any personnel injury.

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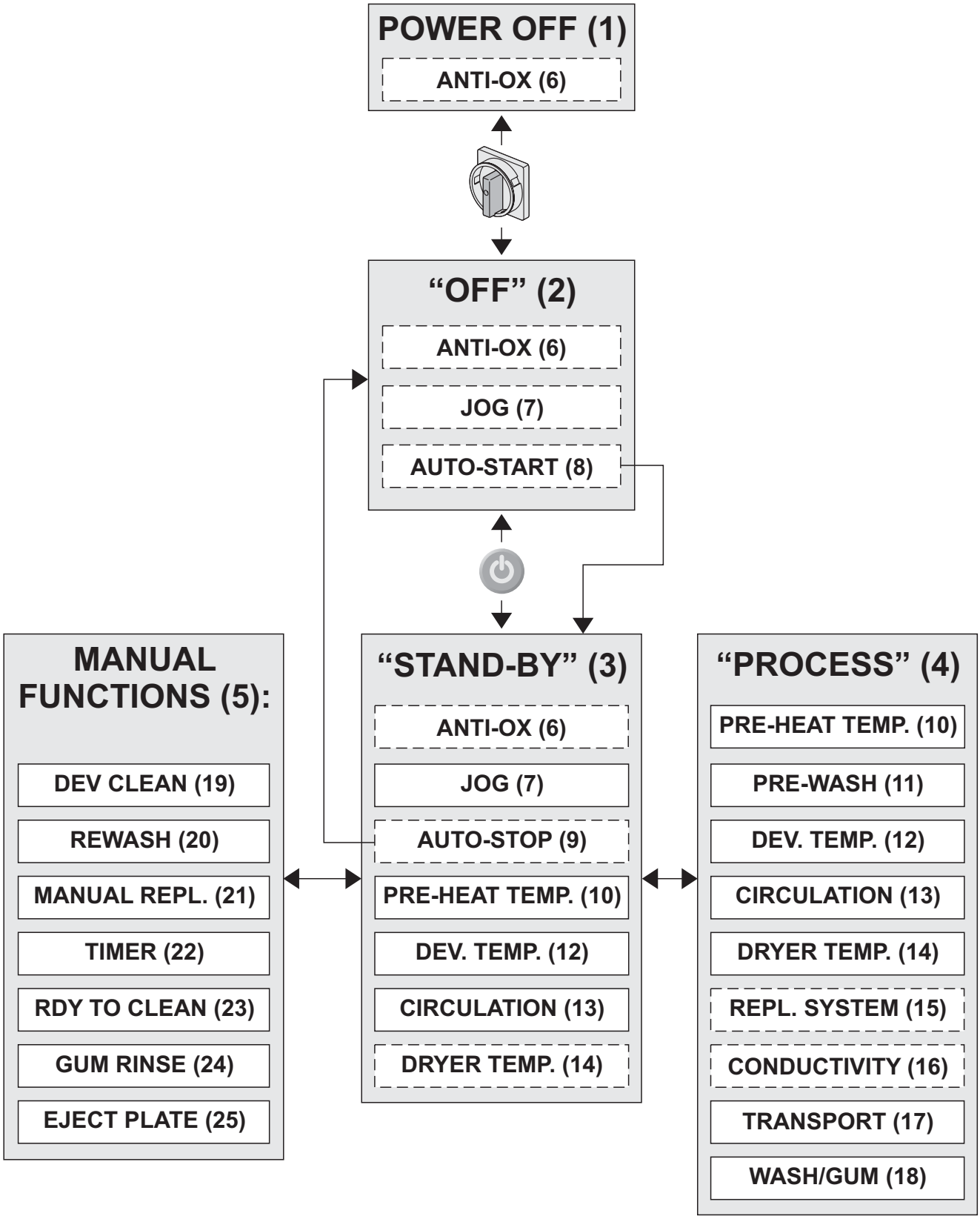
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PROCESSING FUNCTIONS

(See diagram opposite).

POWER OFF (1)

- The processor is switched off on the main switch.
- ANTI-OX function **(6)** may be active.

“OFF” mode (2)

- The processor is switched on by the main switch and has initialized.
- All processing functions are off.
- ANTI-OX function **(6)** may be active.
- JOG function **(7)** may be active.
- AUTO-START function **(8)** may be active.
  If so the processor will automatically switch into “STAND-BY” mode **(3)** when it reaches the set start-up time.

“STAND-BY” mode (3)

- The processor is ready to process plates.
- ANTI-OX function **(6)** may be active.
- JOG function **(7)** is active.
- AUTO-STOP function **(9)** may be active.
  If so the processor will automatically switch into “OFF” mode **(2)** when it reaches the set stop time.
- Pre-heat temperature control **(10)** is on.
- Developer temperature control **(12)** and circulation pumps **(13)** are on.
- Dryer section stand-by temperature control **(14)** may be on (if selected).
- From “STAND-BY” mode the processor can be switched into “PROCESS” mode **(4)** or you can start one of the MANUAL FUNCTIONS **(5)**.

“PROCESS” mode (4)

- The processor is processing a plate (started by activating an input sensor).
- Pre-heat temperature control **(10)** is on.
- The pre-wash brush and spray pumps **(11)** start delayed just before the plate enters the respective sections.
- Developer temperature control **(12)** and circulation pumps **(13)** are on.
- Dryer section temperature control **(14)** and blowers are on.
- The replenishment system **(15)** or the optional conductivity control system **(16)** add replenishment to the various sections as set in the specific parameters.
- Transport system **(17)** runs with the set speed.
- The brush(es) and various wash and gum spray pumps **(18)** start delayed just before the plate enters the respective sections.
- The processor automatically returns to “STAND-BY” mode **(3)** shortly after the plate exits.

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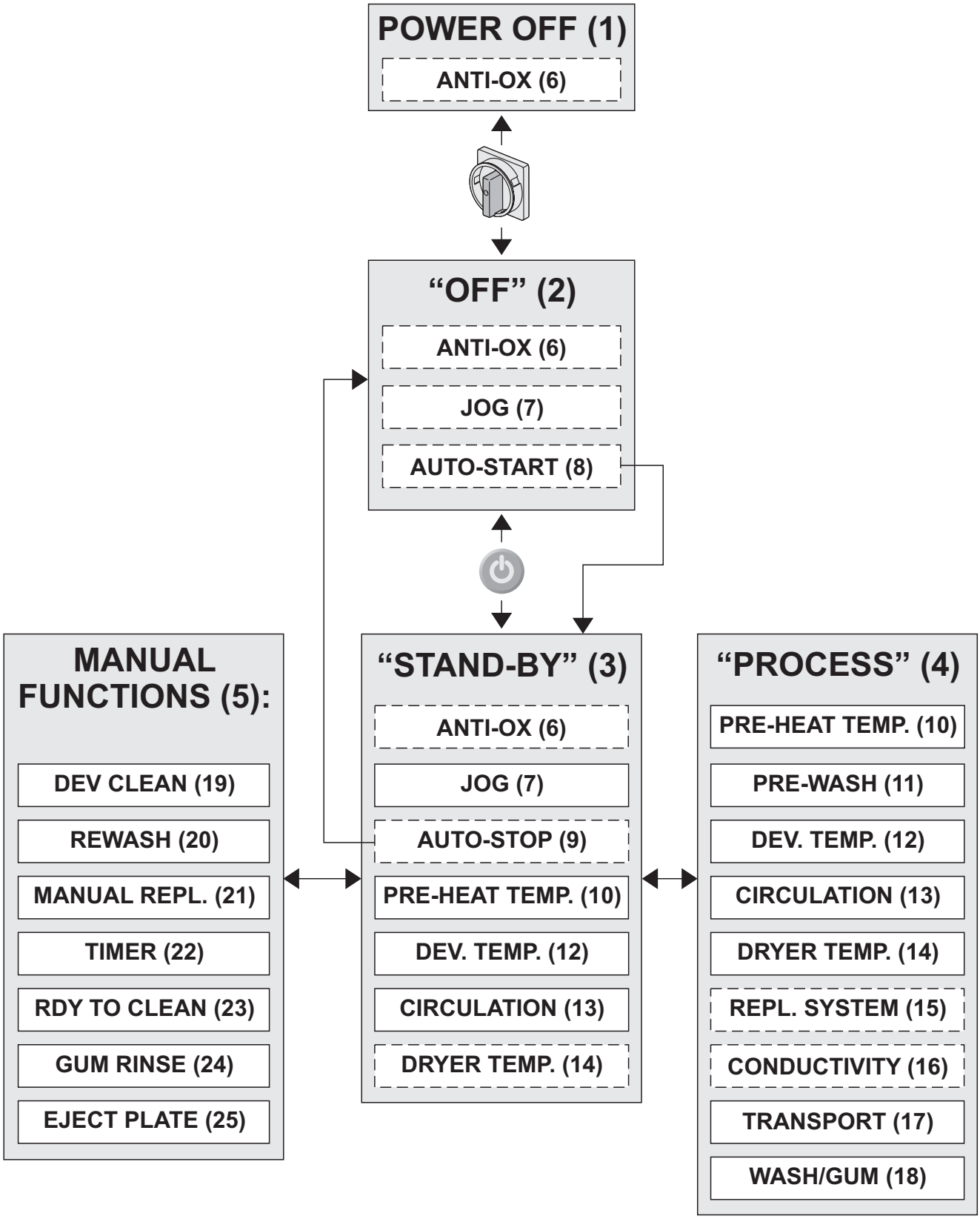
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MANUAL FUNCTIONS (5)

The MANUAL FUNCTIONS are processor functions not directly related to the processing.
The functions are:
DEV CLEAN (19)
REWASH (20)
MANUAL REPLENISH (21)
TIMER (22)
RDY TO CLEAN (23)
GUM RINSE (24)
EJECT PLATE (25)

The manual functions can be started from the main menu on the display.
Also it is possible to assign one of the manual functions to a soft key on the control panel.
See “LEFTKEY ASSIGN” in “GENERAL SETTINGS” later in this manual.

ANTI-OX FUNCTION (6)

See also explanation for REPLENISHMENT SYSTEM **(15)**.
The ANTI-OX function adds replenishment developer to the developer section to compensate for oxidated/evaporated solution.
In “STAND-BY” mode **(3)** replenishment is added every 5 minutes.
From “OFF” mode **(2)** or if powered off **(1)** the processor will, when switched into “STAND-BY” mode, add an amount of replenishment corresponding to the time it has been off.

JOG FUNCTION (7)

The jog function makes the transport rollers turn for a short while at intervals to prevent crystallization of chemicals on the rollers.
The jog function can be set to run both in “OFF” mode **(2)** and “STAND-BY” mode **(3)** or in “STAND-BY” mode **(3)** only.

In “OFF” mode (2):
The display will turn on 10 secs. before jogging starts and a beeper will beep for app. 5 secs. to advise the operator, and when jogging has finished the display turns off again.

In “STAND-BY” mode (3):
No display change or beep indication..

NOTE! The JOG FUNCTION must be set up by a Service Technician.

AUTO-START/STOP FUNCTION (8 & 9)

The AUTO START/STOP function can make the processor start up and shut down automatically.
Setting of the AUTO START/STOP parameters is described in “AUTO-MODE” later in this manual.

PRE-HEAT TEMPERATURE CONTROL (10)

The pre-heat section is equipped with IR-heaters and a thermostat to keep the temperature within setting range.

PRE-WASH (11)

The pre-wash functions start delayed just before the plate enters the sections.

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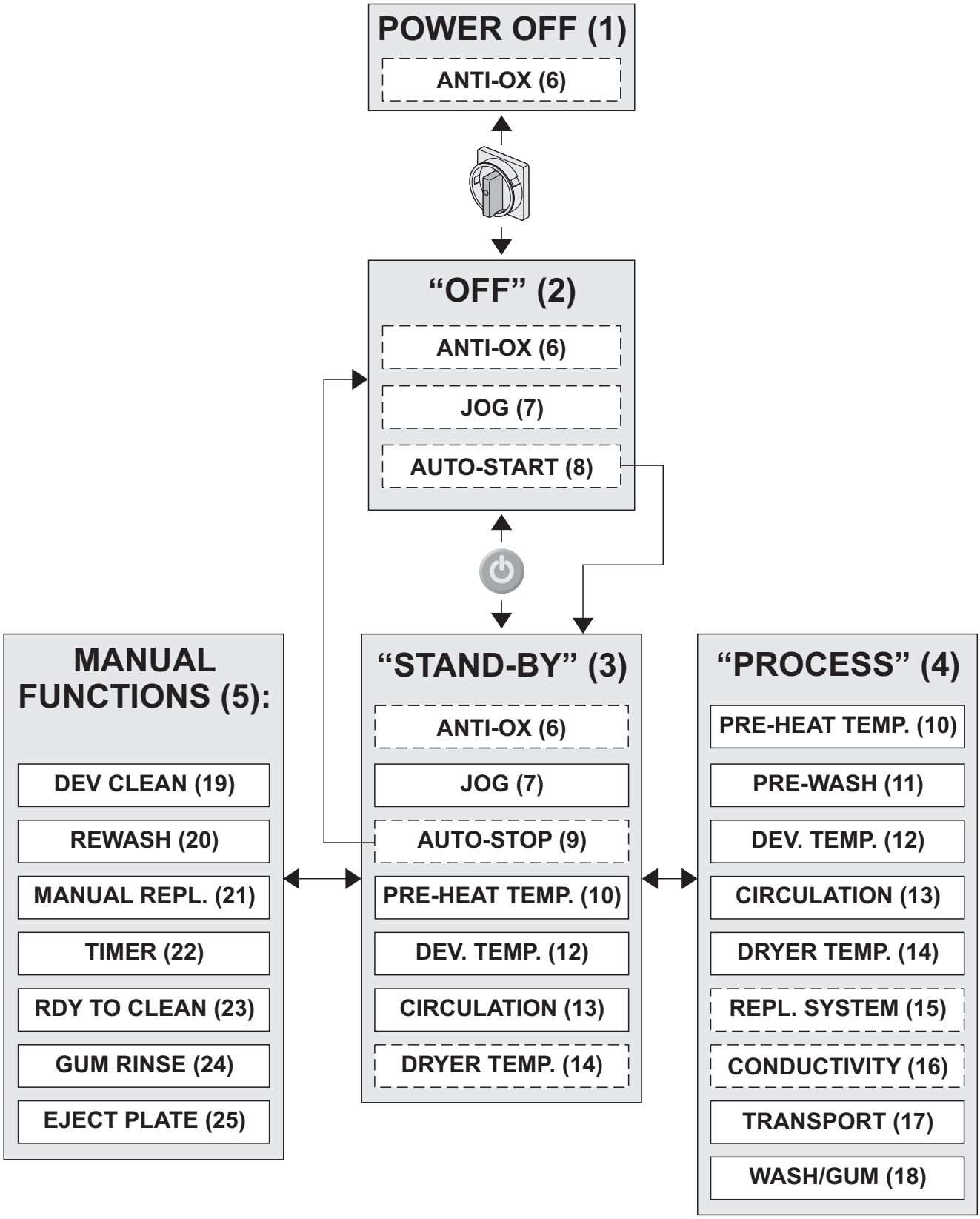
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DRYER TEMP. (14)
REPL. SYSTEM (15)
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DEVELOPER TEMPERATURE CONTROL (12)

The developer section is equipped with a heater and a thermostat to keep the temperature within setting range.

CIRCULATION (13)

In the developer section the solution is circulated constantly to maintain a uniform solution temperature.
In the other sections the pumps start to circulate the solutions just before the plate enters the respective sections.

DRYER TEMPERATURE CONTROL (14)

The processor can be set to maintain a certain temperature in the dryer section when in "STAND-BY" mode **(3)**. Normally the stand-by temperature should be set to 0, which means that the dryer heating system will only run in "PROCESS" mode **(4)**.

REPLENISHMENT SYSTEM (15)

NOTE! The "REPLENISHMENT SYSTEM" only runs if processor is configured with the D COND parameter to OFF or R/O (READ OUT).

In "PROCESS" mode **(4)** the replenishment system will add a set amount of replenishment developer (in ml/m^2 processed plate) to the developer section.
To determination of the processing area the processor has a plate size recognition system.
The replenishment value can be set differently in each of the 4 available processing programs.
Both the REPL. SYSTEM and the ANTI-OX function **(6)** continuously add the required amounts to a "developer account" and on some models using mix water also to a "water account".
When the "developer account" reaches a min. pump amount the respective pumps start to add the accounted amounts to the developer section.

CONDUCTIVITY (16)

NOTE! Not all models.

The function of the Conductivity Control System is described in the separate instruction delivered with the system.

TRANSPORT SYSTEM (17)

The plate transport system leads the plate through the processor. The speed value can be set differently in each of the 4 available processing programs.
Also the rotation speed of the various brushes are set in the programs.

WASH/GUM (18)

The wash- and gumming functions start delayed just before the plate enters the sections.

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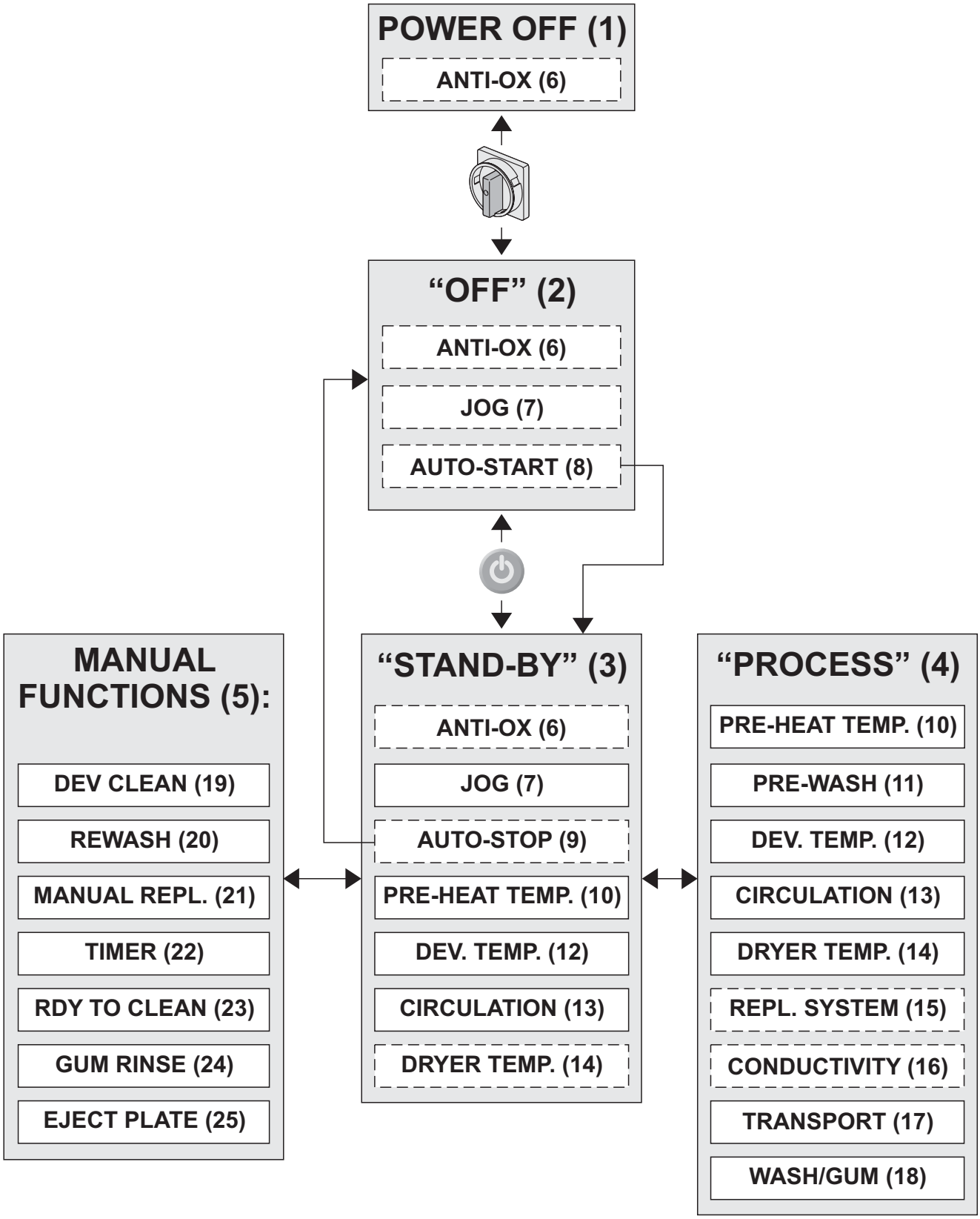
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REPL. SYSTEM (15)
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DEV CLEAN (19)

Use this function to clean the developer section rollers, brushes and circulation system with cleaning solution.
See how to execute this function in “MANUAL FUNCTIONS” later in this manual.

REWASH (20)

NOTE! Only available if processor is configured with REWASH -> ON.

Use this function to rewash, gum and dry a plate entered through the “Rewash” slot.
See how to execute this function in “MANUAL FUNCTIONS” later in this manual.

MANUAL REPLENISH (21)

NOTE! Only available if processor is configured with the D COND parameter set to OFF or R/O (READ OUT).

Use the “MANUAL REPLENISH” function to add a fixed amount of developer replenishment to the developer section.
See how to execute this function in “MANUAL FUNCTIONS” later in this manual.

TIMER (22)

The TIMER function enables you to shut down the processor and at the same time select when it should start up again (within a week).
See how to execute this function in “MANUAL FUNCTIONS” later in this manual.

RDY TO CLEAN (23)

Makes it possible to run the processor with water in all wet sections for cleaning purposes.
See how to execute this function in “MANUAL FUNCTIONS” later in this manual.

GUM-RINSE (24)

The processor rinses the gum section rollers.
See how to execute this function in “MANUAL FUNCTIONS” later in this manual.

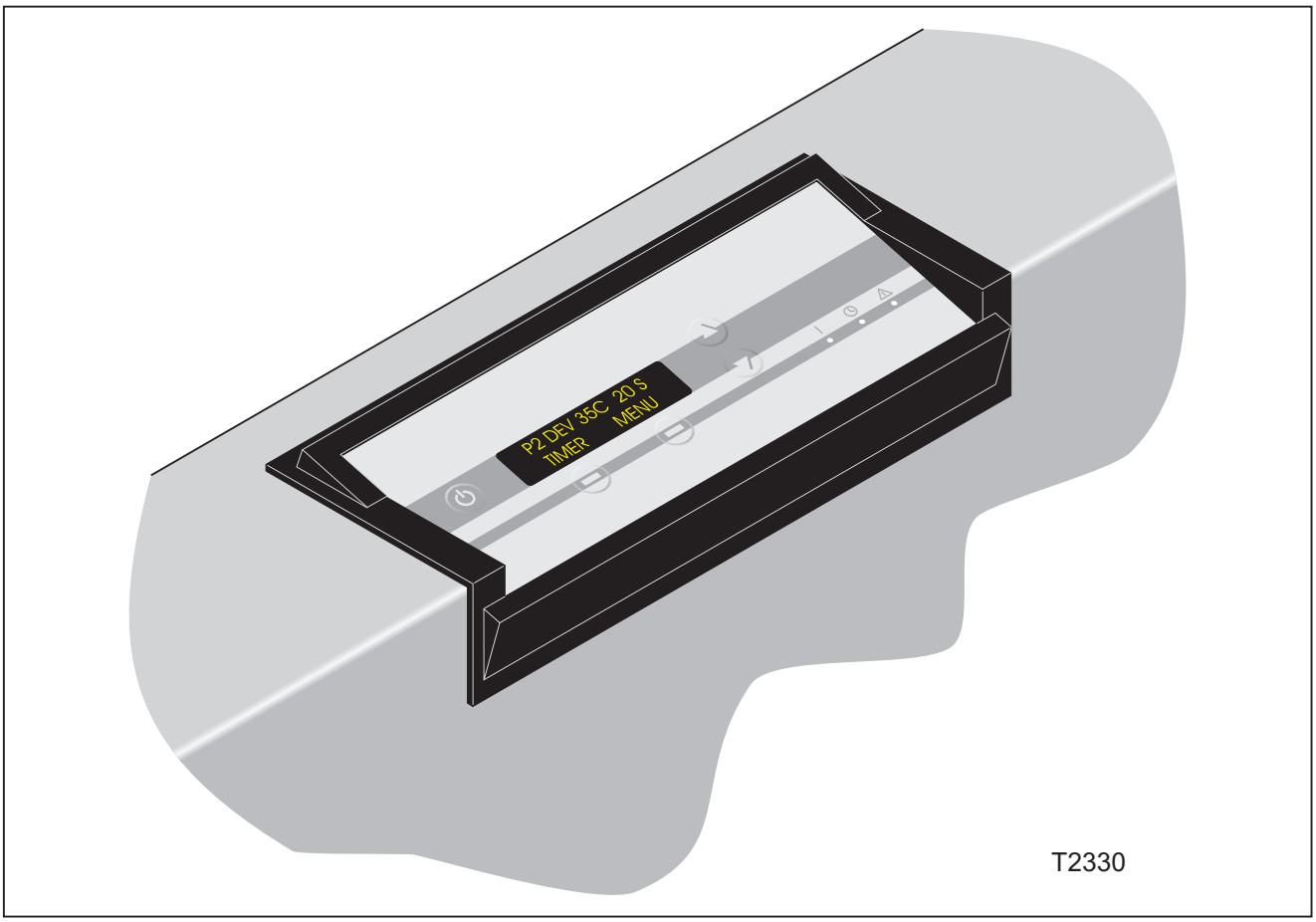
EJECT PLATE (25)

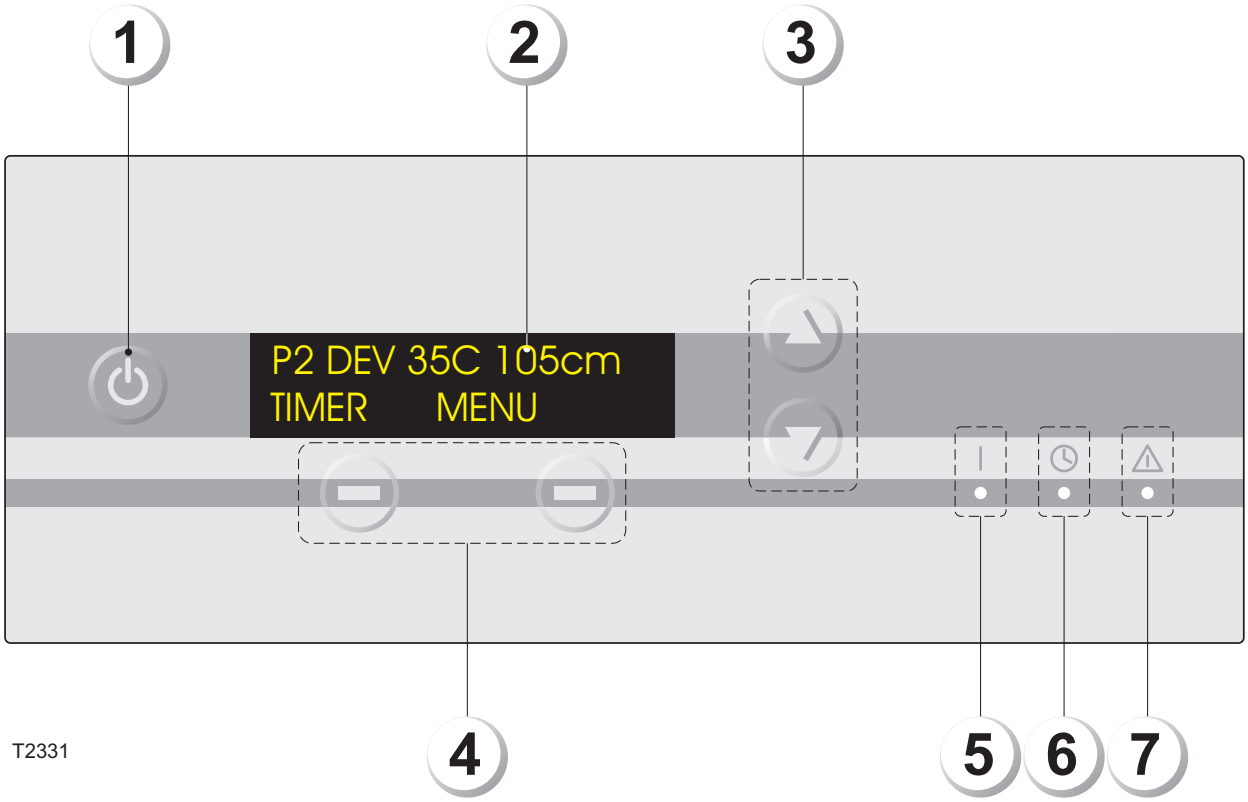
Use function to remove a jammed plate from the processor.
See how to execute this function in “MANUAL FUNCTIONS” later in this manual.

CONTROL PANEL

The operation of the processor is controlled from the Control Panel (see illustration below).

The Control Panel functions are described on the next pages.




1
2
3
P2 DEV 35C 105cm
TIMER MENU
4
5
6
7
T2331

KEYS, BUTTONS AND INDICATORS

(See illustration opposite).

“STAND-BY” KEY (1)
Switches the processor from “OFF” mode into “Stand-by” mode provided that the processor’s main switch is switched on (ON/I).

DISPLAY (2)
The display holds 2 lines of 16 characters each:

Line 1: Display of
- programs
- program parameters/settings
- input/output device status (test functions)
- alarms

Line 2: Display of the softkey **(4)** functions.

“UP/DOWN” KEYS (3)
Use the “Up/Down” keys to
- scroll between menu items.
- scroll between alarms/warnings.
- adjust settings of various programs/parameters.

SOFT KEYS (4)
Key functions are displayed in the bottom line of the display **(2)**.

Use keys ex. to
- select programs
- enter programs
- change values/parameters
- cancel adjustments/exit functions
- start/stop various functions

“POWER ON” INDICATOR (5)
Indicates that power is ON (main switch on).

“AUTO” INDICATOR (6)
Indicates that AUTO-function is ON.
(Processor shuts down and/or starts up automatically).

“ALARM” INDICATOR (7)
Indication of abnormal conditions/alarms.
Condition/alarm is described in the top line of the display.

FUNCTIONAL DESCRIPTION

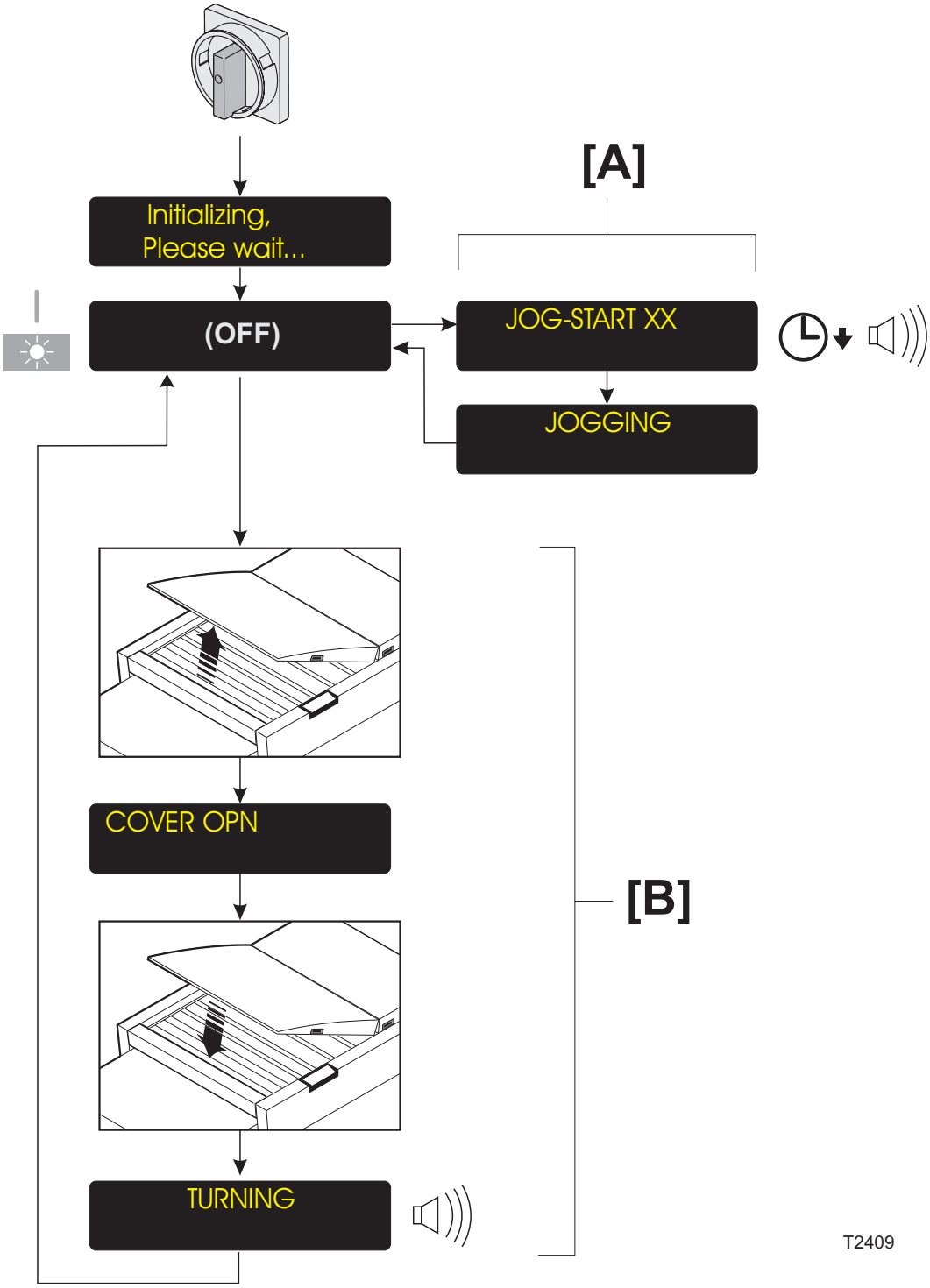
In the following the various operations from the control panel are described.

In the diagrams following the descriptions are used a number of symbols.

The symbols are explained in the table on the opposite page.

IMPORTANT!
As the description of the control panel functions will refer to various processor functions, we recommend that you familiarize yourself with these functions before commencing.
The functions are described in “PROCESSING FUNCTIONS” earlier in this manual.

Action by operator			
	Switch processor's main switch to ON/I or OFF/O.		Use "Up/Down" keys to scroll between menu items.
	Push "Stand-by" key		Use "Up/Down" keys to adjust a value on the display.
Action by control panel			
	Sound indication (beeper)		Countdown
	Display continuously changes between two different messages		Indicator on control panel is lit:
REWASH EXIT START REWASHING STOP P2 DEV 35C 105cm REWASH MENU	Display changes or function starts/stops when related soft key is pushed Display changes or function starts/stops automatically at time-out etc.		"Power ON" "AUTO" "Alarm"


[A]
Initializing,
Please wait...
(OFF)
JOG-START XX
JOGGING
COVER OPN
[B]
TURNING
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TURNING THE PROCESSOR ON

(See diagram opposite)

- Turn main switch to ON/I.
- The “Power ON” indicator is lit, the processor initializes for a short while and then turns into “OFF” mode.

[A] JOG FUNCTION

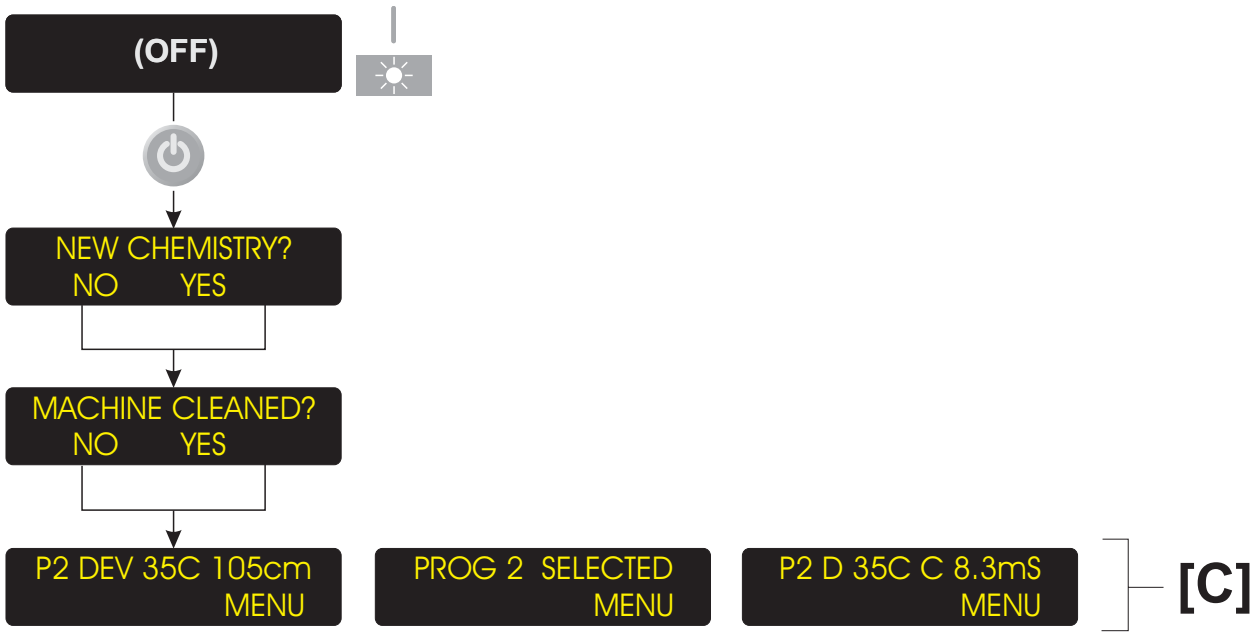
The JOG function makes the transport rollers turn for a short while at intervals to prevent crystallization of chemicals on the rollers and sticking of gum rollers. The display will turn on 10 secs. before jogging starts and a beeper will beep for app. 5 secs. to advise the operator, and when jogging has finished the display turns off again.
The jog-function can be set to run both in “STAND-BY” and “OFF” mode or only in “STAND-BY” mode.

[B] TURN ROLLERS

From "OFF" mode it is possible to turn the processor's rollers ½ a revolution, making it possible to clean the rollers all over if necessary.

Use function as described below:

- When in "OFF" mode open the top cover.
- The display will flash with a "COVER OPN" message.
- Clean rollers as required.
- Close cover again.
- The rollers start to turn ½ a revolution and the display shows "TURNING" and the beeper will sound.
- When display and beeper turn off you can open top cover again and finish cleaning the rollers.


(OFF)
NEW CHEMISTRY?
NO YES
MACHINE CLEANED?
NO YES
P2 DEV 35C 105cm
MENU
PROG 2 SELECTED
MENU
P2 D 35C C 8.3mS
MENU
[C]

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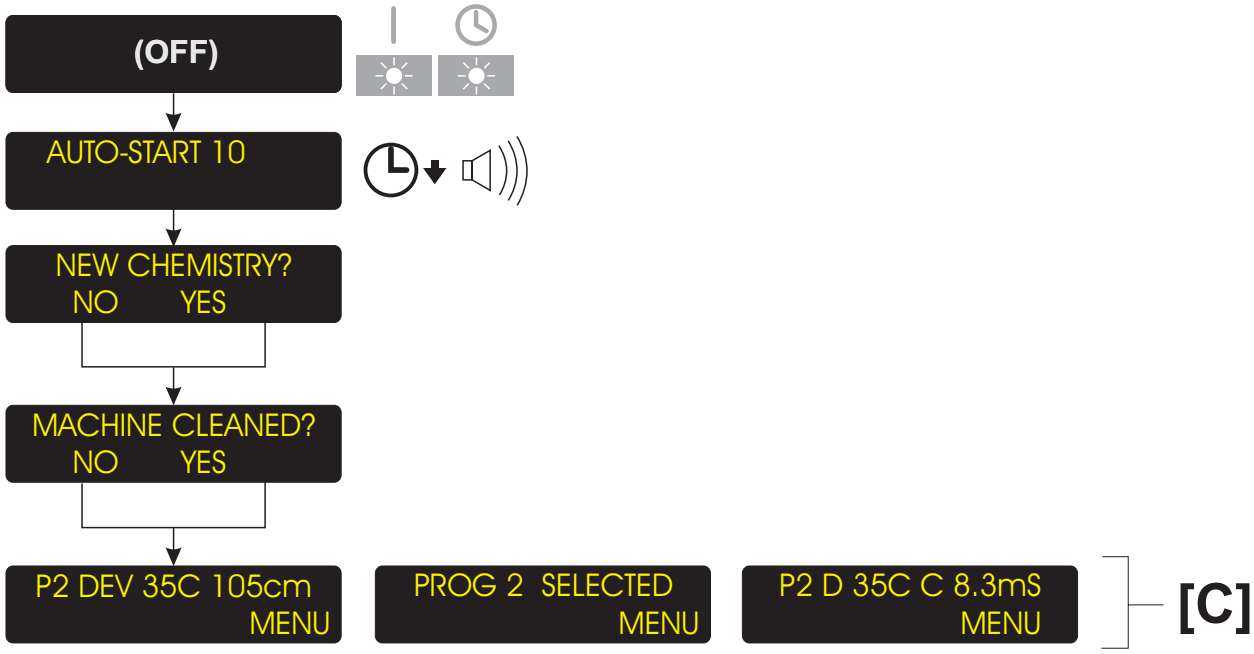

(OFF)
AUTO-START 10
NEW CHEMISTRY?
NO YES
MACHINE CLEANED?
NO YES
P2 DEV 35C 105cm
MENU
PROG 2 SELECTED
MENU
P2 D 35C C 8.3mS
MENU
[C]

STARTING THE PROCESSOR

There are 2 ways of starting the processor:

- **MANUAL START**
  or
- **AUTO-START**

MANUAL START
(See upper diagram opposite)

- The processor must be in “OFF” mode.
- Push the “Stand-by” key and the processor switches into “STAND-BY” mode.

(See also "NEW CHEMISTRY/CLEANING").

AUTO-START
(See lower diagram opposite)
The processor’s AUTO-START function enables automatic start-up and shut down.

- If AUTO-START function is switched on, the “AUTO” indicator will be lit when the processor is in “OFF” mode.
- The display will turn on 10 secs. before start-up and a beeper will beep for app. 5 secs. to advise the operator, and when time is up, the processor automatically switches into “STAND-BY” mode.

(See also "NEW CHEMISTRY/CLEANING").

NOTE! Even though the AUTO-START function is switched on, you can start-up and shut down the processor manually any time.

[C] DISPLAY OPTIONS
When the processor is in “STAND-BY” mode the display shows the currently selected processing program.

It is possible to select whether you want the display to show
- Selected program.
- Selected program, developer temperature and transport speed settings of the program.
- Selected program, developer temperature and current developer conductivity.

NOTE! If the manual function "RDY TO CLEAN" has been set to ON, the top line on the display will say "RDY TO CLEAN ON".

Also the function of the left softkey can have various functions.

See “GENERAL SETTINGS” later in this chapter for detailed description of the display settings.

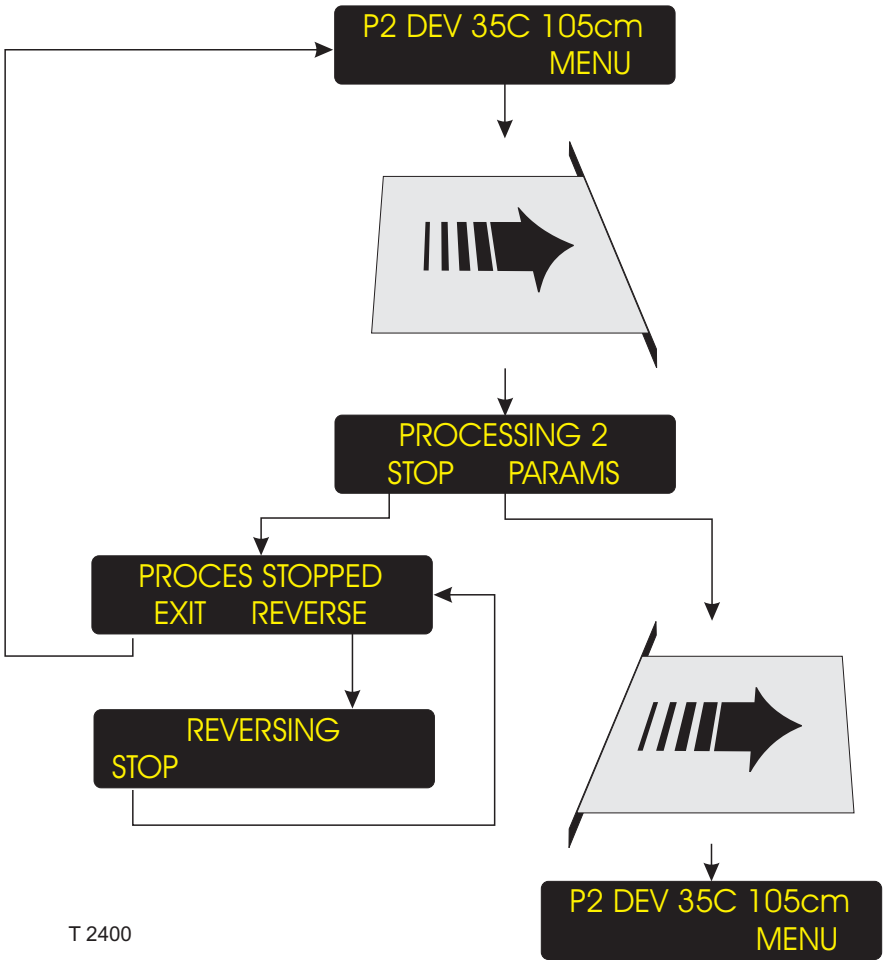
NEW CHEMISTRY/CLEANING
If processor has been shut down completely or if low level is detected in the developer section when in OFF mode, you will be asked the following when starting up:

NEW CHEMISTRY?
Push YES if you have filled the developer section with new chemistry or if there is low level and you want the developer section to be filled with new chemistry, otherwise push NO.

If processor is configured with the HISTORY function ON you will also be asked:

MACHINE CLEANED?
Push YES if you have cleaned the processor otherwise push NO.

If you answer YES to one or both of the questions the chemistry change or cleaning event is registered with a date in the HISTORY menu in the STATISTICS function available from the MENU (see description later in this manual).


P2 DEV 35C 105cm
MENU
PROCESSING 2
STOP PARAMS
PROCES STOPPED
EXIT REVERSE
REVERSING
STOP
P2 DEV 35C 105cm
MENU

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PROCESSING

(See diagram opposite)

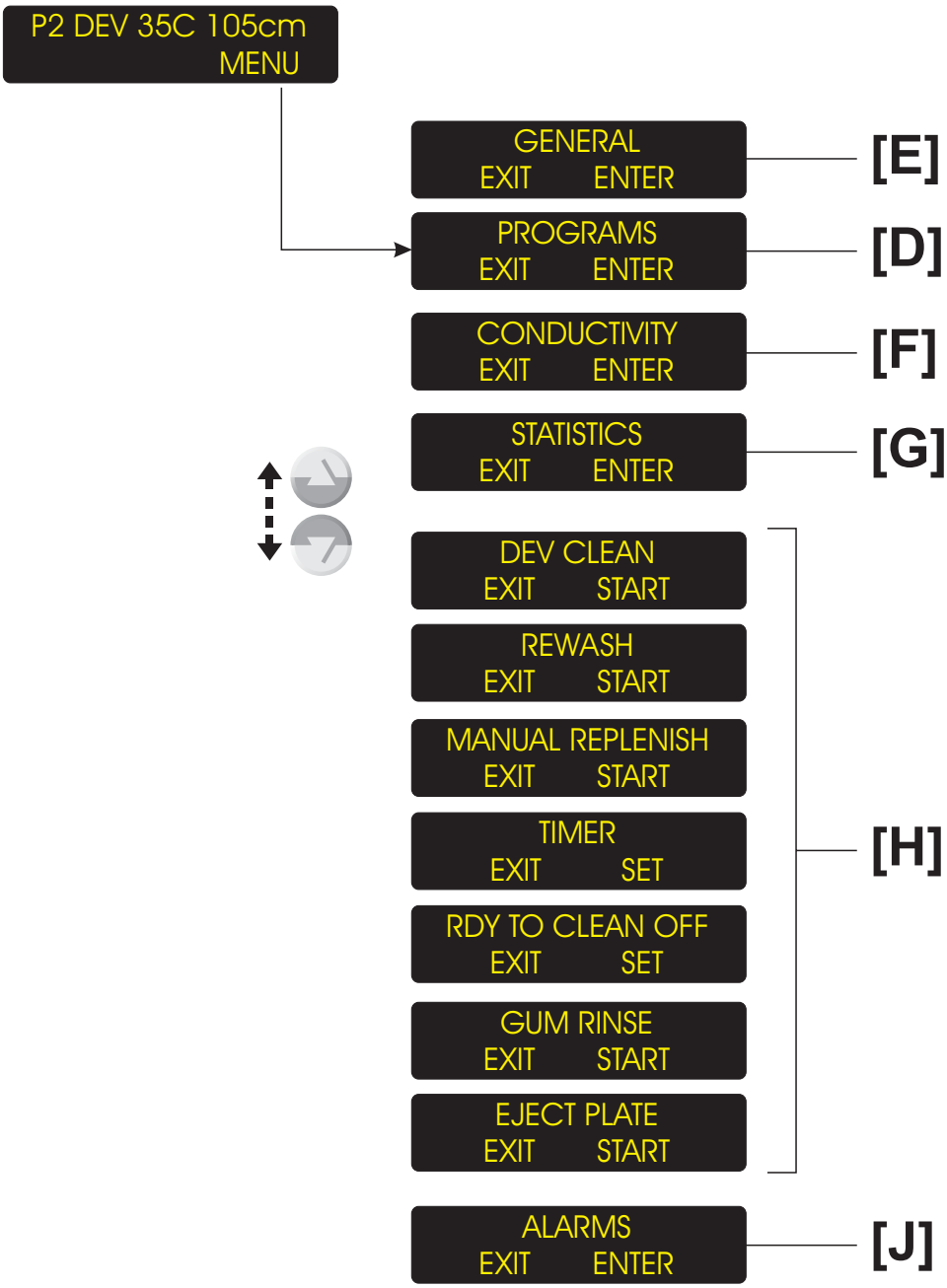
- The processor must be in “STAND-BY” mode and ready to process.
- When a plate is entered, either manually (Off-Line) or automatically (CTP-OnLine) the processor switches into “PROCESS” mode.
- If necessary you can stop the processing and reverse the transport system to remove the plate again.

CAUTION! Reversing is not possible when the plate has left the input sensor.

- Pushing the “PARAMS” soft key while processing enables you to change the program parameters.

NOTE! Changes in transport or brush speed parameters will not take effect until motors stops and starts again.

- The processor automatically returns to “STAND-BY” mode shortly after the plate exits.


P2 DEV 35C 105cm
MENU
GENERAL
EXIT ENTER
[E]
PROGRAMS
EXIT ENTER
[D]
CONDUCTIVITY
EXIT ENTER
[F]
STATISTICS
EXIT ENTER
[G]
DEV CLEAN
EXIT START
REWASH
EXIT START
MANUAL REPLENISH
EXIT START
TIMER
EXIT SET
RDY TO CLEAN OFF
EXIT SET
GUM RINSE
EXIT START
EJECT PLATE
EXIT START
[H]
ALARMS
EXIT ENTER
[J]

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MENU

(See diagram opposite)

The “MENU” contains the following functions:

[D] PROGRAMS

It is possible to choose between 4 processing programs, each programmable with different temperature, speed, and replenishment settings for various processing jobs.

See “PROGRAMS” later in this chapter for detailed description of how to select and/or change a program.

[E] GENERAL

The general settings are parameters not directly related to the processing such as time, date, display light, and contrast etc.

See “GENERAL SETTINGS” later in this chapter for detailed description.

[F] CONDUCTIVITY

NOTE! The function only applies to processors equipped with a Conductivity Measuring Probe and only appears in the MENU if processor is configured with the D COND parameter set to R/O (READ OUT) or AUTO.

The Conductivity Control System is described in a separate instruction delivered with the system.

[G] STATISTICS

The STATISTICS function contains various processing information.

See “STATISTICS” later in this chapter for detailed description.

[H] MANUAL FUNCTIONS

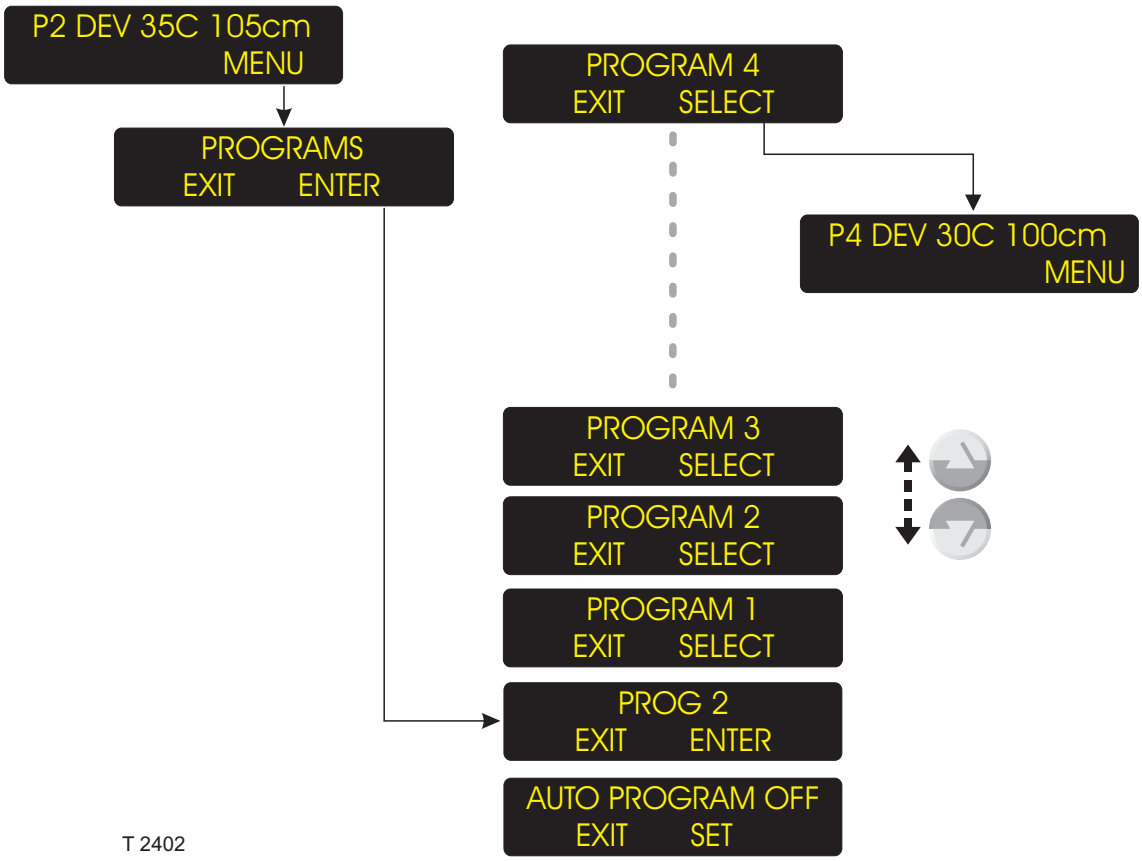
Besides the 4 processing programs the menu contains a number of additional processor functions.

See “MANUAL FUNCTIONS” later in this chapter for detailed description of the functions and how to execute them.

[J] ALARMS

When the processor is in “STAND-BY” mode or during processing, a number of alarms can occur. If 2 or more alarms occur simultaneously you can enter this function to see the description of the different alarms.

See “ALARMS” later in this chapter for detailed description of the various alarms and how to act in case an alarm occurs.


P2 DEV 35C 105cm
MENU
PROGRAMS
EXIT ENTER
PROGRAM 4
EXIT SELECT
P4 DEV 30C 100cm
MENU
PROGRAM 3
EXIT SELECT
PROGRAM 2
EXIT SELECT
PROGRAM 1
EXIT SELECT
PROG 2
EXIT ENTER
AUTO PROGRAM OFF
EXIT SET
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PROGRAMS

PROCESSING PROGRAMS (1 - 4)

It is possible to choose between 4 processing programs, each programmable with different temperature, speed, and replenishment settings for various processing jobs.

AUTO PROGRAM

When set to ON the AUTO PROGRAM enables a connected plate setter to automatically choose the program suitable for the plates sent from the setter.

The parameter normally reflects the setting of the AUTO PROGRAM parameter in CONFIGURATION, but it can be changed and so it will overrule the setting as set in CONFIGURATION.

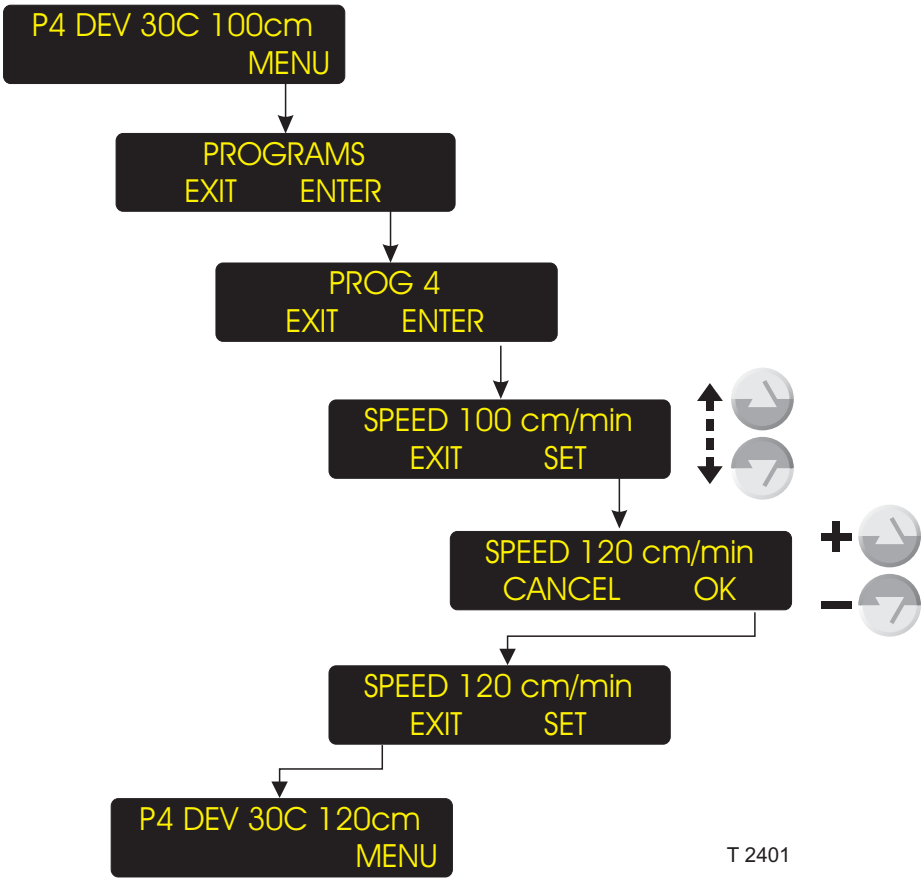
When processor has been switched OFF and then ON, the parameter is automatically reset to reflect the setting of the AUTO PROGRAM parameter in CONFIGURATION.

SELECTING A PROGRAM

(See diagram opposite)

- From “STAND-BY” display push “MENU” and the display changes to show the"PROGRAMS" menu item.
- Push "ENTER" to enter the programs list. The display will show the currently selected program (ex. PROG 2).
- Use “Up/Down” keys to scroll between the programs and when display shows the desired program number (ex “PROGRAM 4”) push “SELECT”.
- The display returns to show the “STAND-BY” display with the settings of the selected program.

The procedure of changing the program parameters is described on the following pages.


P4 DEV 30C 100cm
MENU
PROGRAMS
EXIT ENTER
PROG 4
EXIT ENTER
SPEED 100 cm/min
EXIT SET
SPEED 120 cm/min
CANCEL OK
SPEED 120 cm/min
EXIT SET
P4 DEV 30C 120cm
MENU
T 2401

CHANGE PROGRAM SETTINGS

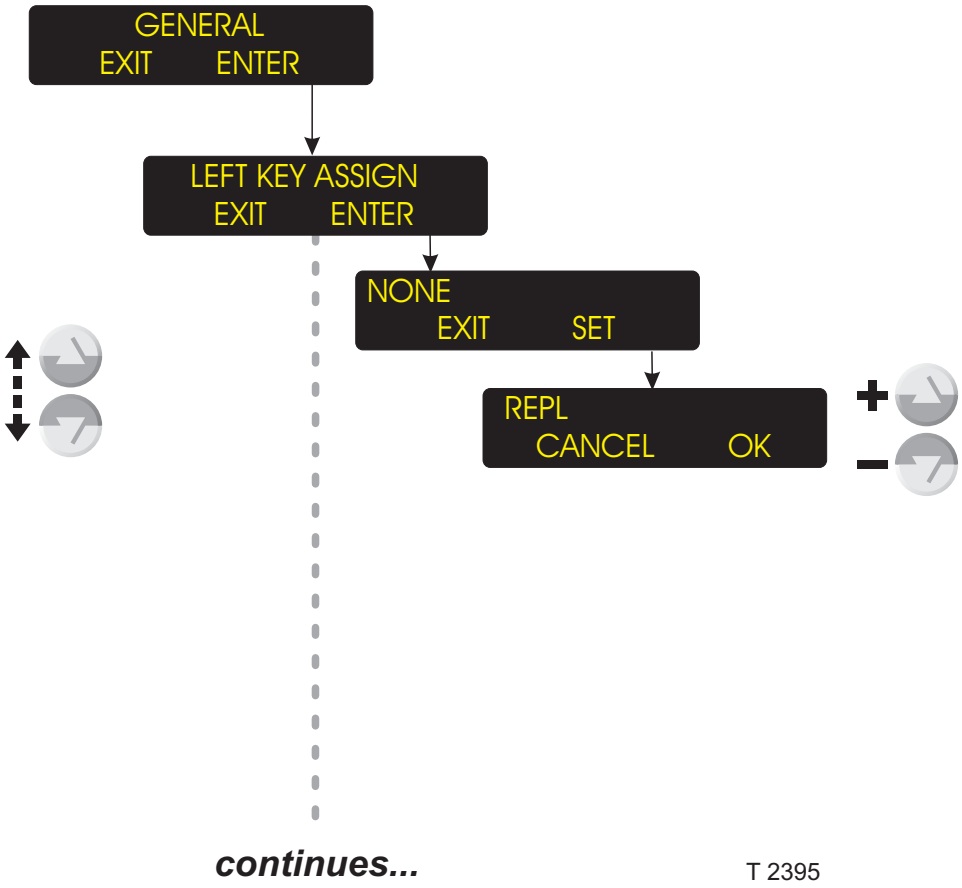
(See diagram opposite)

- From “STAND-BY” display push “MENU” and the display changes to show the"PROGRAMS" menu item.
- Push "ENTER" to enter the programs list. The display will show the currently selected program (ex. PROG 4).
- Push “ENTER” to enter the program.
- Use “Up/Down” keys to scroll between the various program parameters until display shows the parameter you want to change.
- Push “SET” to enter the parameter.
- Now use “Up/Down” keys to change the parameter value and when finished push “OK”.
- If necessary select another parameter and change it, otherwise push “EXIT” to end the operation.

The lists below shows the various program parameters:

PARAMETER	UNIT	DESCRIPTION
SPEED	cm/min	Plate transport speed.
HEAT TEMP [1)]	°C	The temperature of the IR-heaters in the preheat section.
PW RPL [1)]	ml/m^2	The amount of fresh water to be added to the prewash section per m^2 plate processed.
PW BRUSH [1)]	rpm	Prewash brush rotation speed.
DEV TEMP	°C	Temperature of the developer solution.
D RPL	ml/m^2	The amount of replenishment developer to be added to the developer section per m^2 plate processed.
D TOP	ml/m^2	The amount of developer to be added to the developer section per m^2 plate processed.
DEV BRUSH [1)]	rpm	Developer brush rotation speed.
W RPL [1)]	ml/m^2	The amount of fresh water to be added to the wash section per m^2 plate processed.
W BRUSH [1)]	rpm	Wash brush rotation speed.
DRY TEMP	°C	Temperature of the drying air.
PAR. PLATES	ON/OFF	Select if the processor must be able to process parallel plates.

[1)] The parameter will be enabled or disabled according to the processor configuration.


GENERAL
EXIT ENTER
LEFT KEY ASSIGN
EXIT ENTER
NONE
EXIT SET
REPL
CANCEL OK
continues...
T 2395

GENERAL SETTINGS

(See diagram opposite)

The “GENERAL” functions/parameters are processor settings in general and thus not directly related to the actual processing.

LEFT KEY ASSIGN

The LEFT KEY ASSIGN function assigns a manual function to the left softkey on the “STAND-BY” display.

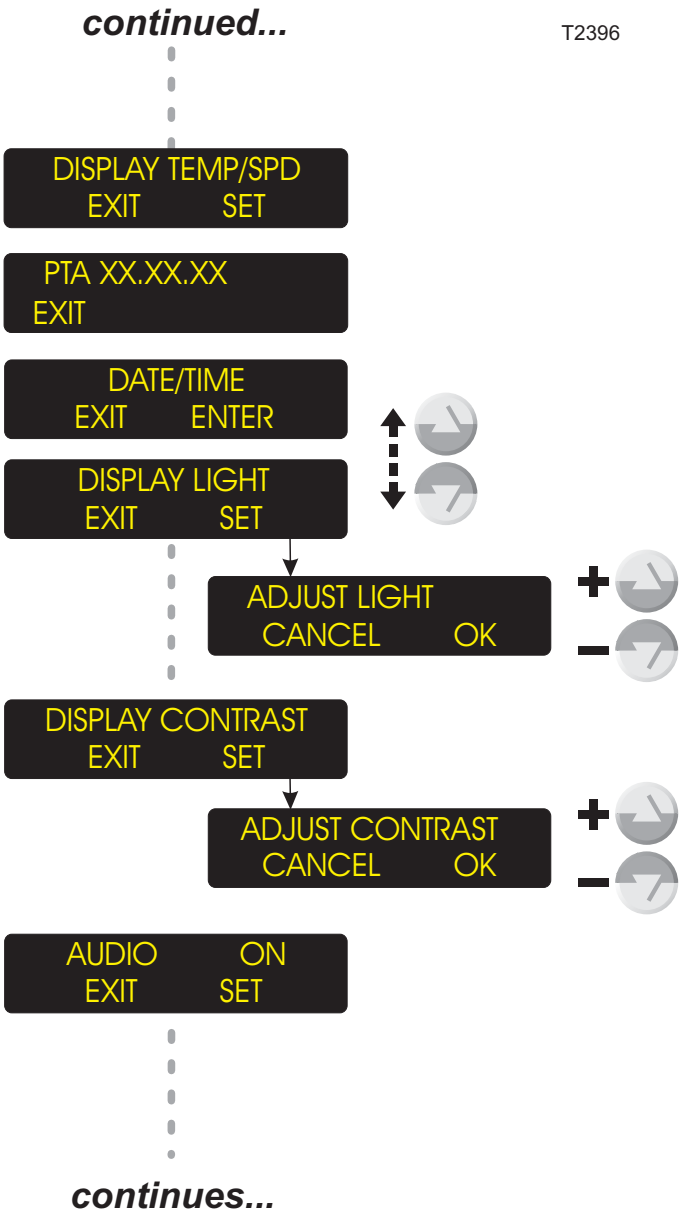
When assigned the function can be executed directly from the “STAND-BY” display.
The list below shows the available settings:

continues...

SETTING	FUNCTION
(None)	(Display blank)
MAN REPLENISH [1) 2)] (M.REPL)	Adds a fixed amount of replenishment developer.
REWASH [1) 2)] (REWASH)	Starts the “REWASH” function.
GUM RINSE [1)] (G.RINSE)	Starts the “GUMRINSE” function.
DISPLAY LIGHT (LIGHT)	Enables you to adjust the display light intensity.
TIMER [1)] (TIMER)	Enables you to shut-down the processor and at the same time select when it should start up again (within a week).
STATISTICS [3)] (STAT)	Holds information about number and area of plates processed and total processing time.
CONDUCTIVITY [2)] (COND)	The Conductivity Control System is described in a separate instruction folder delivered with the system.
EJECT PLATE (EJECT)	Starts the "EJECT PLATE" function. See description in "MANUAL FUNCTIONS" later in the manual.

The text in parenthesises below the setting parameter shows how the function appears on the display when assigned to the left softkey.

[1)] See more detailed description of how to execute the function in “MANUAL FUNCTIONS” later in this chapter.
[2)] Whether or not the setting is available depends on the processor configuration.
[3)] See description in “STATISTICS” later in this chapter.


continued...
T2396
DISPLAY TEMP/SPD
EXIT SET
PTA XX.XX.XX
EXIT
DATE/TIME
EXIT ENTER
DISPLAY LIGHT
EXIT SET
ADJUST LIGHT
CANCEL OK
DISPLAY CONTRAST
EXIT SET
ADJUST CONTRAST
CANCEL OK
AUDIO ON
EXIT SET
continues...

...continued

DISPLAY
In the DISPLAY function you can select the appearance of the “STAND-BY” display:

SETTING	FUNCTION
SELECTED	Display will show selected program number.
TEMP/SPD	Display will show selected program number, developer temperature and transport speed setting of this program.
TEMP/CON*	Display will show selected program number, developer temperature setting of this program and currently measured conductivity of the developer.
*) Only available if processor is configured with conductivity to either AUTO or R/O.	

SW VERSION
The display shows the software version currently installed.

DATE/TIME
Setup the processor clock to the correct date and time:
- Push “ENTER” to enter the function.
- Use “Up/Down” keys to select DATE or TIME.

DATE
- Push SET to enter the function.
- Use the “Up/Down” keys to make the “YEAR” adjustment and push “OK”.
- Use the “Up/Down” keys to make the “MONTH” adjustment and push “OK”.
- Use the “Up/Down” keys to make the “DAY” adjustment and push “OK”.

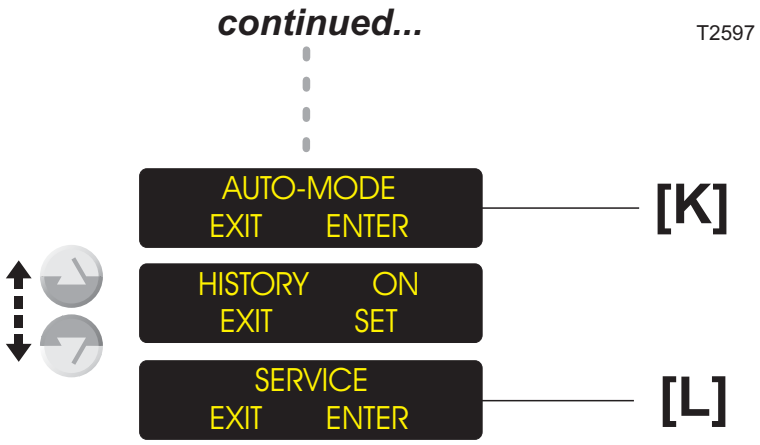
TIME
- Push SET to enter the function.
- Use the “Up/Down” keys to make the “HOUR” adjustment and push “OK”.
- Use the “Up/Down” keys to make the “MIN” adjustment and push “OK”.

NOTE! In order to adjust the internal clock according to above settings the processor will reset itself when pushing “EXIT” to leave the function.

DISPLAY LIGHT
DISPLAY CONTRAST
Use these functions to adjust the display light intensity and contrast:
- Push “SET” to enter the function.
- Use the “Up/Down” keys to make the adjustment and when finished push “OK”.

AUDIO
Some display messages also have a sound indication (beeper).
Use this function to turn the beeper ON or OFF.

continues...


continued...
T2597
AUTO-MODE
EXIT ENTER
[K]
HISTORY ON
EXIT SET
SERVICE
EXIT ENTER
[L]

[K] AUTO-MODE

In the “AUTO-MODE” function the various parameters for the AUTO-START/STOP function are set.

See “AUTO-MODE” later in this chapter for detailed description of the AUTO-START/STOP function.

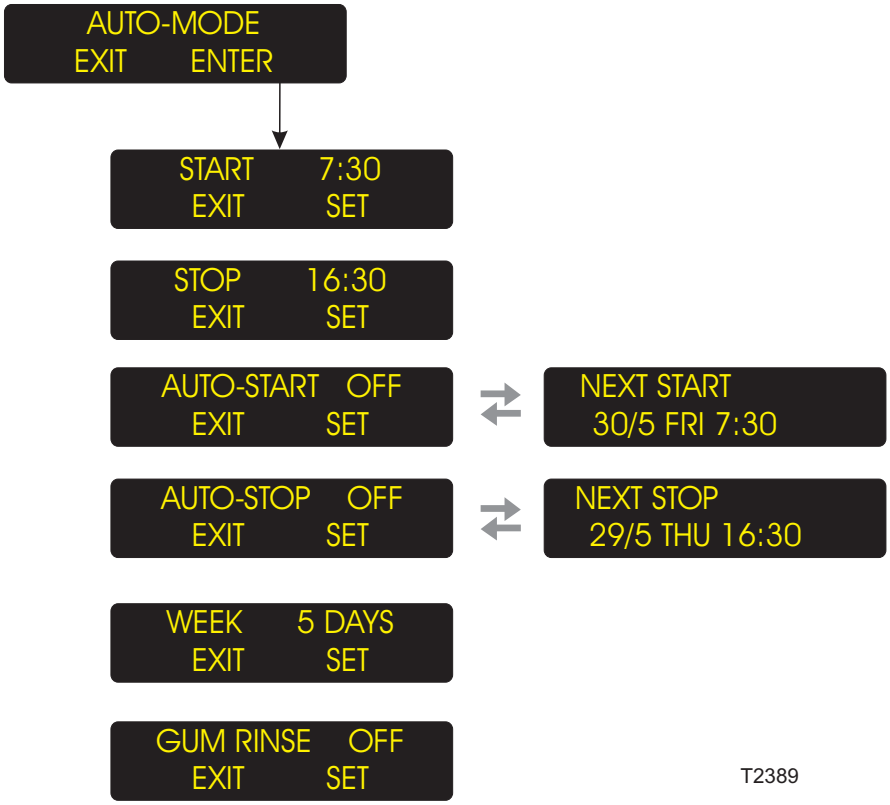
HISTORY

Select whether the HISTORY function should be ON or OFF. If set to ON the STATISTICS function in the main MENU will contain the HISTORY function listing the latest 5 cleaning/chemistry change or Software/Hardware events.
(See "STATISTICS" later in this manual for list of possible events).

[L] SERVICE

The “SERVICE” functions are described in the separate “PTA SERVICE INFORMATION” manual.

NOTE! The “SERVICE” functions are for Service Technicians only.


AUTO-MODE
EXIT ENTER
START 7:30
EXIT SET
STOP 16:30
EXIT SET
AUTO-START OFF
EXIT SET
NEXT START
30/5 FRI 7:30
AUTO-STOP OFF
EXIT SET
NEXT STOP
29/5 THU 16:30
WEEK 5 DAYS
EXIT SET
GUM RINSE OFF
EXIT SET
T2389

AUTO-MODE

The AUTO START function can make the processor start up and shut down automatically.
The AUTO START parameters are set in the "AUTO-MODE" function as described below:

CONDUCTIVITY

The Conductivity Control System is described in a separate instruction delivered with the system.

PARAMETER	DESCRIPTION
START	Set the start-up time (HOUR and MIN).
STOP	Set the shut down time (HOUR and MIN).
AUTO-START	Select whether the processor should start up automatically or not (ON or OFF). The display will change between this appearance and a display showing the next automatic start-up time.
AUTO-STOP	Select whether the processor should shut down automatically or not (ON or OFF). The display will change between this appearance and a display showing the next automatic shut down time.
WEEK	Select if the normal working week will be of 5, 6 or 7 days. If week is set to 5 days the processor will skip Saturday and Sunday, if set to 6 days it will skip Sunday and if set to 7 days the processor will start up every day.
GUM RINSE	(Not on all models). Select whether or not the processor should run the "GUM RINSE" function when shutting down.


STATISTICS
EXIT ENTER
ABSCNT XX
EXIT
RELCNT XX
EXIT RESET
ABS X.XXX m2
EXIT
REL X.XXX m2
EXIT RESET
TIME X:XX:XX
EXIT
D FILT XXX.X m2
EXIT RESET
BRUSH XXXXX m2
EXIT RESET
D CHANG XXXX m2
EXIT RESET
HISTORY
EXIT ENTER
DDMM CLEAN MACH
EXIT
DDMM CLEAN+CHANG
EXIT
DDMM CHANGE CHEM
EXIT
0000 NO EVENT
EXIT
0000 NO EVENT
EXIT
T 2445

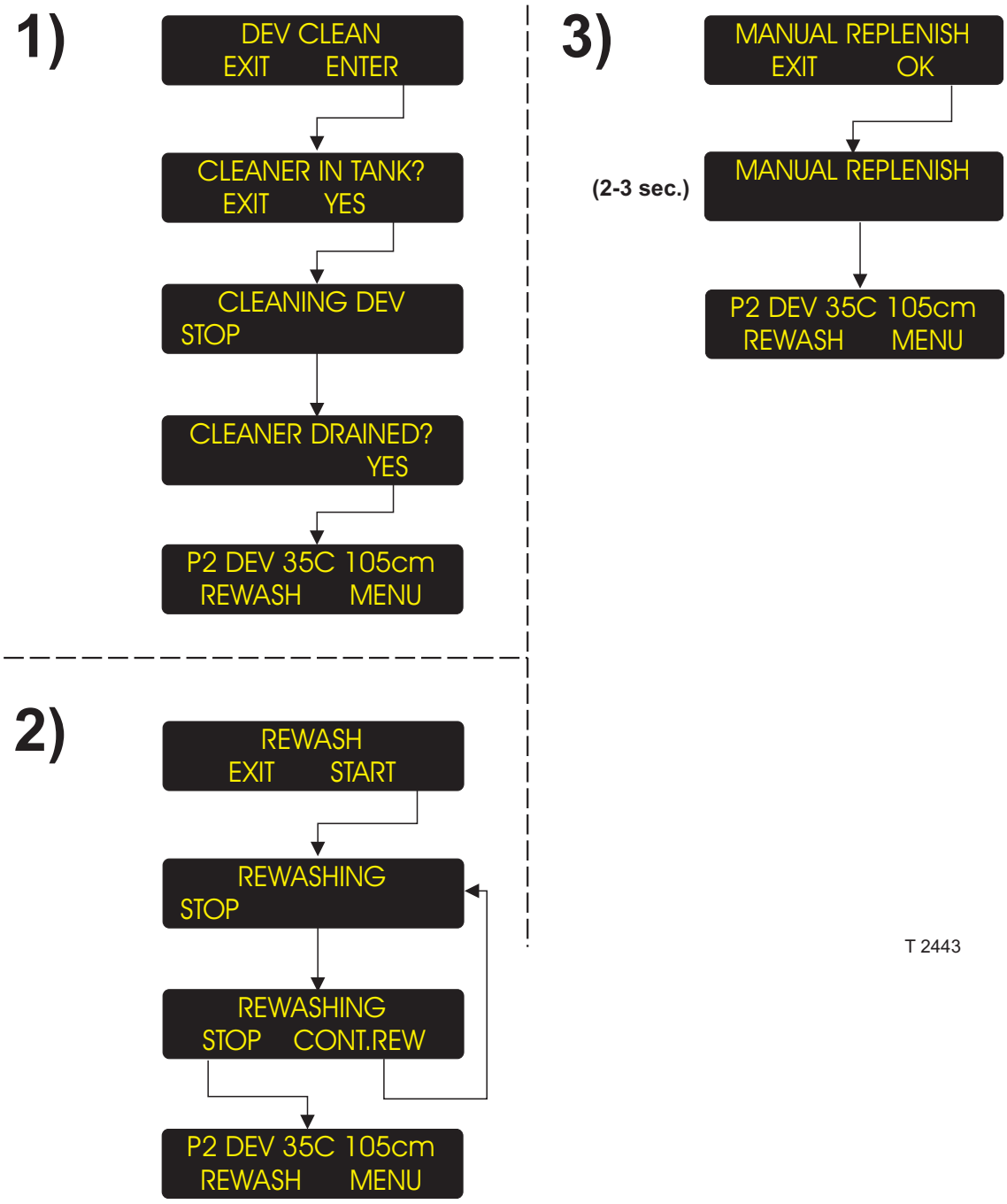
STATISTICS

(See diagram opposite).

The STATISTICS parameters are:

PARAMETER	DESCRIPTION
ABSCNT	Total number of plates processed.
RELCNT [2]	Number of plates processed since resetting.
ABS	Total plate area processed.
REL [2]	Plate area processed since resetting.
TIME	Total processing time.
D FILT [3]	Area of plate (in m^2) left to be processed until developer filter change is required. If displayed value is negative (-) the processed plate area has exceeded the max. setting.
BRUSH [1] [3]	Area of plate (in m^2) left to be processed until change of brushes is required. If displayed value is negative (-) the processed plate area has exceeded the max. setting.
D CHANG [3]	Area of plate (in m^2) left to be processed until change of developer chemistry is required. If displayed value is negative (-) the processed plate area has exceeded the max. setting.
HISTORY [4]	This function contains date (DD=day, MM=month) registrations of the latest 5 cleaning, chemistry change or software/hardware events. The possible events are: CLEAN MACH (processor cleaning) CLEAN+CHANGE (processor cleaning and chemistry change) SW-ASSERT (software error) RECONFIG (processor has been reconfigured) EPROM RESET (EPROM resetting - machine has to be reconfigured) RTC-RESET (RTC resetting - statistics information has been reset) MMU/HPU/HCU LOST (connection to board lost during operation)

[1] The parameter will be enabled or disabled according to the processor configuration.
[2] Resettable to 0.
[3] Resettable to a pre-set max. value.
[4] Function can be enabled or disabled in the GENERAL settings.


1)
DEV CLEAN
EXIT ENTER
CLEANER IN TANK?
EXIT YES
CLEANING DEV
STOP
CLEANER DRAINED?
YES
P2 DEV 35C 105cm
REWASH MENU
2)
REWASH
EXIT START
REWASHING
STOP
REWASHING
STOP CONT.REW
P2 DEV 35C 105cm
REWASH MENU
3)
MANUAL REPLENISH
EXIT OK
(2-3 sec.)
MANUAL REPLENISH
P2 DEV 35C 105cm
REWASH MENU
T 2443

MANUAL FUNCTIONS

(See illustration opposite)

The MANUAL FUNCTIONS are processor functions not directly related to the processing.

NOTE! Whether a manual function is available or not depends on the processor configuration.

NOTE! The processor must be ready in "STAND-BY" mode before executing a manual function.

The functions are:

1) DEV CLEAN
Cleaning of developer section rollers, brush(es) and circulation system with cleaner solution.
2) REWASH
Entering a plate through the "REWASH" slot for rewashing and finishing.
3) MANUAL REPLENISH
Adding developer replenishment to the developer section.
4) TIMER
Shutting down the processor and selecting next start-up time.
5) RDY TO CLEAN
Adapting the level detection system to water for cleaning purposes.
6) GUM RINSE
Starting the automatic rinsing of the gum/finisher section.
7) EJECT PLATE
Removing a jammed plate.

1) DEV CLEAN

- Push "ENTER" to start the function.
- When displays says "CLEANER IN TANK" open cover, drain developer and fill up with cleaner before pushing "YES".
- Developer section is now being cleaned for the specified time or until "STOP" is pushed.
- When displays says "CLEANER DRAINED?" open cover and drain cleaner before pushing "YES".
- Cleaning is now finished.

NOTE! During cleaning developer rollers, brush(es) and circulation is running as when processing plates.

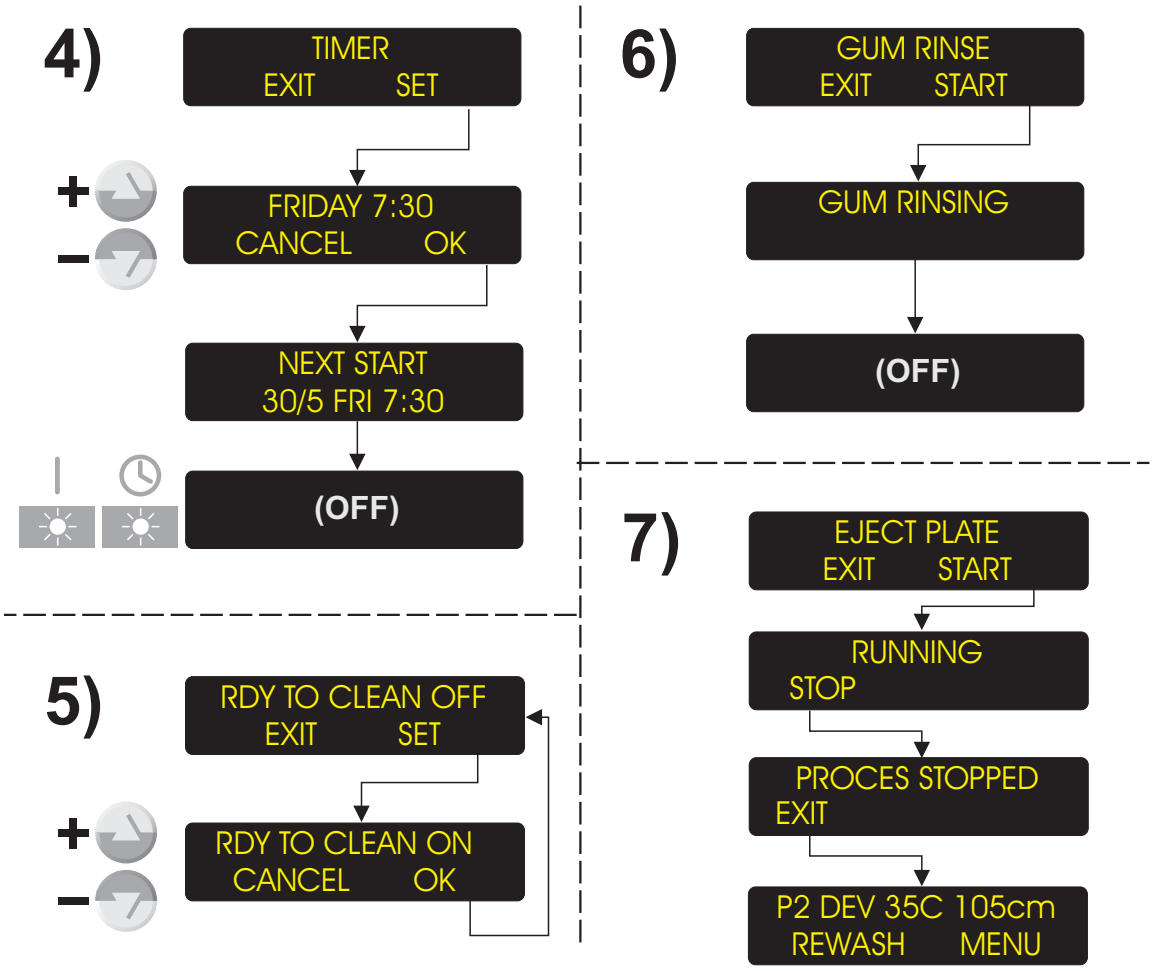
2) REWASH

- When pushing "START" the washing, gumming and drying functions start while the developing and replenishment functions remain deactivated.
- Enter a plate into the processor's rewash slot until it engages the transport system.
- When the plate activates the output sensor you are given the opportunity to enter another plate for rewashing by pushing "CONT.REW" else the processor will automatically return to "STAND-BY" shortly after the plate has left the processor.

3) MANUAL REPLENISH

- When pushing "OK" the developer replenishment system adds a fixed amount (as set in the "SET-UP" parameters in the "SERVICE" functions) of replenishment developer to a developer "account".
- When the developer "account" reaches a certain amount, the developer replenishment pump will pump the accounted volume into the developer section.

continues...


4)
TIMER
EXIT SET
FRIDAY 7:30
CANCEL OK
NEXT START
30/5 FRI 7:30
(OFF)
5)
RDY TO CLEAN OFF
EXIT SET
RDY TO CLEAN ON
CANCEL OK
6)
GUM RINSE
EXIT START
GUM RINSING
(OFF)
7)
EJECT PLATE
EXIT START
RUNNING
STOP
PROCES STOPPED
EXIT
P2 DEV 35C 105cm
REWASH MENU

T 2444

continued...

4) TIMER

Enables you to shut-down the processor and at the same time select when it should start up again (within a week).

- Push “SET” to enter the function.
- Use “Up/Down” keys to select the week day (within the following week) on which the processor should automatically start up again.

NOTE! The start-up time will be as set in the “AUTO-MODE” function.
See description earlier in this chapter.

- After pushing “OK” the display will briefly show when the next start-up time and then the processor switches to “OFF” mode.
  ”AUTO” lamp will be lit.

5) RDY TO CLEAN

Setting this function to ON will adapt the level detection system's sensitivity to water, enabling you to run the processor with water in all wet sections for cleaning purposes.

6) GUM RINSE

- When pushing “START” the processor will start to let in water to the gum section from a spray tube down onto the gum section rollers to clean them. The rollers will turn slowly while the “GUM RINSE” function runs.

NOTE! If the processor runs with a filled gum section the gum is emptied into the gum container before rinsing starts.

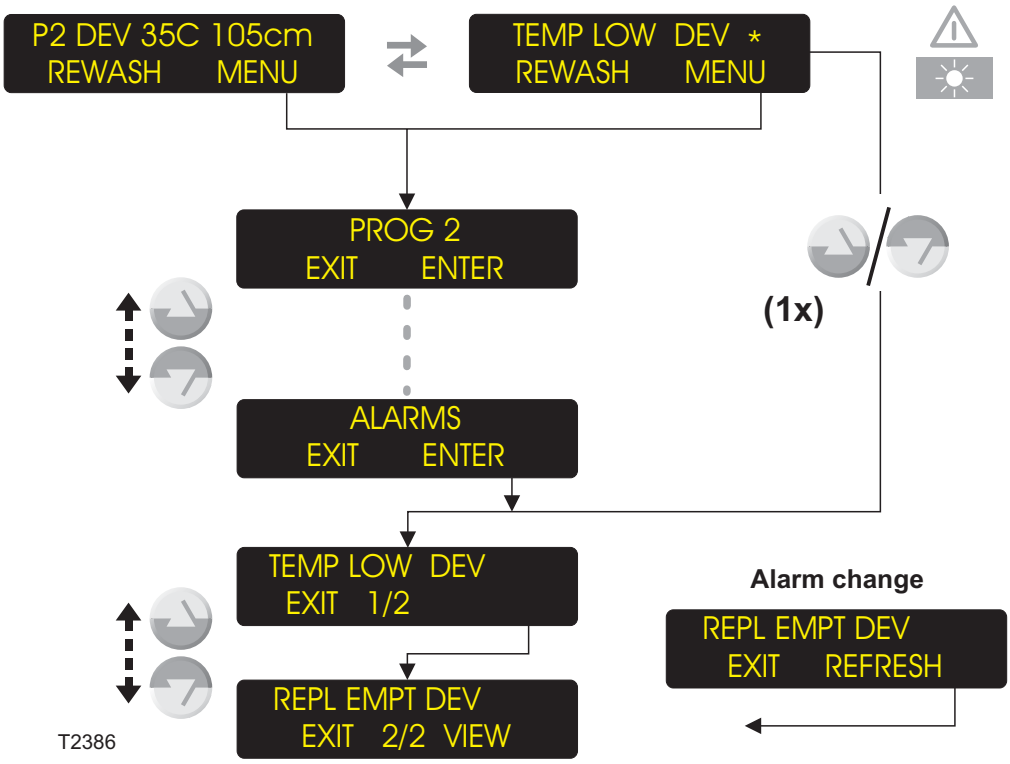
- When finished the processor automatically switches to “OFF” mode.

It is possible to assign some of the manual functions to the left softkey in the “STAND-BY” display.
See how in “GENERAL SETTINGS” earlier in this chapter.

7) EJECT PLATE

If a plate has jammed in the processor, use this function to remove the plate.

- When pushing “START” the transport system will start to lead the jammed plate out of the processor.
- When the plate is out of the processor push “STOP” to stop the function and then “EXIT” to leave the function.


P2 DEV 35C 105cm
REWASH MENU
TEMP LOW DEV *
REWASH MENU
PROG 2
EXIT ENTER
(1x)
ALARMS
EXIT ENTER
TEMP LOW DEV
EXIT 1/2
Alarm change
REPL EMPT DEV
EXIT REFRESH
REPL EMPT DEV
EXIT 2/2 VIEW
T2386

ALARMS

GENERAL

When the processor is in STAND-BY mode or is processing, a number of alarms can occur.

If 1 alarm
If an alarm occurs the alarm lamp will turn on and the display will start to change between the current display appearance and the alarm message.

If 2 or more alarms
As above, and the alarm display shows an asterisk (*) after the alarm text.

DISPLAYING THE ALARMS

(See diagram opposite).
There are two ways to display the different alarms currently detected:

- Push one of the “Up/Down” keys once
  or
- Push “MENU” then use the up/down keys to select the “ALARMS” function and push “ENTER”.

NOTE! Entering the “ALARMS” function will freeze the current alarms.

- The display will change to show the first alarm. The number in the center of the display (e.g. 1/2) indicates that the alarm currently displayed is the first of 2 alarms detected.
- Use the up/down keys to scroll between the alarms.
- If there is a change in the alarms during displaying e.g. if an alarm disappears or if a new alarm occurs, the lower right corner of the display will change to show “REFRESH”. Push “REFRESH” to redisplay current alarms.

SEE DETAILED DESCRIPTION OF THE ALARM TYPES ON THE NEXT PAGES.

ALARM TYPES

Some alarms require a minor repair or replacement/emptying/refilling of container(s), but the processor can still be operated.

Other alarms will make the processor stop immediately and it cannot be started until the condition causing the alarm has been repaired.

For a few alarms the processor will automatically try to reestablish the required condition.

ALARMS WITH USER ACTION

Some alarms will demand for immediate user action. They are displayed as an instruction and will always appear on top of other displays/messages, e.g.:

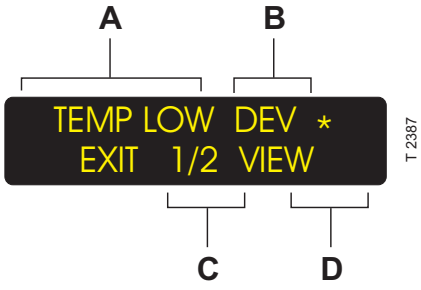
Pushing “EXIT” will skip the alarm for 1 min. and the display will either return to STAND-BY/- processing display or it will show the next alarm with user action (if any). Meanwhile the alarm will be shown as an ordinary alarm (see description later).

Pushing “OK” will reset the alarm if required action has been executed. The display will either return to STAND-BY/processing display or it will show the next alarm with user action (if any).

CAUTION! It is very important for the correct function of the processor that the required action is executed before resetting the alarm, as some alarms will automatically reset counters etc.

ORDINARY ALARMS

Ordinary alarms are shown in the display like the example below :



A: Alarm is specified by a short description. Look up the detailed information in the alarm list on the following pages.
B: Section to which the alarm refers.
C: No of alarms (ex. 1 of 2).
D: Skipped alarms will offer a VIEW-function to retrieve the user alarm. Only displayed for alarms with user action.

See detailed description of the alarms in the alarm list on the following pages.

SERIOUS ALARM HANDLING

Alarms that stop the processor (cover open, sensor error, motor error, filter change etc.) switches the processor into a special alarm state:
When skipping all alarms by pushing EXIT, a limited menu system appears containing the alarms menu and the service/monitor menu.
When the situations causing the alarms have been repaired, the EJECT PLATE function will be displayed if the processor was in processing mode when the alarms occured.

ALARM LIST

The following pages hold a list of the possible alarms, the causes and remedies for each alarm.

EXPLANATIONS
for abbreviations and notes used in the ALARM list

COND	=	**Conductivity Control System**
DEV	=	**Developer section**
WASH	=	**Wash section (Open/Tap Water)**
WASHC	=	**Wash section (Closed/Circ. Water)**
GUM	=	**Gum section**
PWASH	=	**Pre-wash section**
HEAT	=	**Pre-heat section**
DRY	=	**Dryer section**
TRANS	=	**Transport system**
WASTE	=	**Dev waste container**
IN	=	**Input**
OUT	=	**Output**
CNV	=	**Conveyor**

1) Only in “OFF” mode.

2) When the “EMPTY WASTE CONT” alarm occurs the developer replenish pump will not operate. This is to prevent that waste containers overflow. The need for replenishment will be added to the account and released (if any) when the waste container has been emptied and the “OK” key pushed.

3) If the cover is open the alarm can not be reset. If cover has been opened during processing, an "EJECT PLATE" function is displayed when closing the cover again to remove a plate from the processor if necessary.

ALARMS

NO.	ALARM W. USER ACTION	ORDINARY ALARM	SECTION	CAUSE	ACTION / REMEDY
	TURNING [1]			Rollers are turning half a revolution (for cleaning purposes).	Wait until display turns off.
1	COVER OPN [3]	COVER OPN	TRANS	Top cover is open. *Not all models:* External safety system activated.	Close top cover. Refer to external safety system.
2		BELOW MAX	PWASH DEV WASH WASHC	Level below max. sensor. Level sensor error.	The processor will automatically try to reestablish the correct level. Call Service Technician.
3	EMPTY WASTE CONT [2]	OVERFLOW	WASTE	Waste container full.	Empty waste container. Push “OK”.
4	PWASH TOP-UP STP	TOP LIMIT	PWASH	Max. level not reached within time when topping up.	Check fill pumps and hoses. Push “RETRY”. The processor will try to reestablish correct level(s).
	DEV TOP-UP STOP		DEV		
	WASH TOP-UP STOP		WASH		
5	REFILL REPL CONT	REPL EMPT	DEV	Low level in container.	Refill/replace container.
	REFILL GUM CONT		GUM		

ALARMS					
NO.	ALARM W. USER ACTION	ORDINARY ALARM	SECTION	CAUSE	ACTION / REMEDY
6		TEMP LOW	DEV DRY HEAT	Temperature too low in section. Heater element defective. Temp. sensor error. Fuse(s) blown.	The processor will automatically try to reestablish the correct temperature. Call Service Technician. Call Service Technician. Call Service Technician.
7		TEMP HIGH	DEV DRY HEAT	Temperature too high in section. Chiller unit malfunctions. Temp. sensor error.	The processor will automatically try to reestablish the correct temperature. Call Service Technician. Call Service Technician.
8		SPEED LOW	TRANS PWASH DEV WASH WASHC	Transport or brush speed too low caused by: Tacho error. Supply voltage too low. Motors worn out or blocked.	Check tacho disc and sensor. Call Service Technician. Check motor and transport system.
9		SPEED HI	TRANS PWASH DEV WASH WASHC	Transport or brush speed too high caused by: Tacho error. Defective electronics.	Check tacho disc and sensor. Call Service Technician.
10	SPEED ERR TRANS	SPEED ERR	TRANS	Motor has not been able to maintain correct speed. <u>Probable causes:</u> Plate jam. Tacho error. Supply voltage too low. Motors worn out or blocked.	Check for plate jam. Check tacho disc and sensor. Call Service Technician. Check motor and transport system. To reset alarm push "OK".
	SPEED ERR DEV	SPEED ERR	DEV		
	SPEED ERR WASH	SPEED ERR	WASH		
	SPEED ERR PWASH	SPEED ERR	PWASH		

ALARMS					
NO.	ALARM W. USER ACTION	ORDINARY ALARM	SECTION	CAUSE	ACTION / REMEDY
11		WAIT	TRANS	The processor is not ready to process.	Wait until alarm disappears.
			CNV	System Conveyor not ready to receive plate	Wait until alarm disappears.
14		TMP INCOR	HEAT DEV	The section is warming up.	Wait until alarm disappears.
16	SENS.ERR.WASH [3)]	SENS ERR	WASH	Wash section max. sensor defective or disconnected.	Check for proper connection and function of respective sensor. Push "OK". If sensor needs to be replaced, call Service Technician.
	SENS.ERR. D.REPL. [3)]		DEV	Dev. repl. container min. sensor defective or disconnected.	
	SENSOR ERR. DEV. [3)]		DEV	Dev. section max. sensor defective or disconnected.	
	SENS ERR D. FILL [3)]		DEV	Dev. fill container min. sensor defective or disconnected.	
	SENSOR ERR. GUM [3)]		GUM	Gum repl. container min. sensor defective or disconnected.	
	SENS ERR. WASTE [3)]		WASTE	Waste container max. sensor defective or disconnected.	
	SENS ERR PREWASH [3)]		PWASH	Prewash section max. sensor defective or disconnected.	
	S.ERR.DEV.WAT [3)]		DEV	Dev. water repl. container min. sensor defective or disconnected.	
			CNV	The cable containing a sensor detecting the busy signal from the conveyor has been disconnected	Reconnect the cable.
17		TMP REG	HEAT DEV DRY	Temperature measurement in above or below measurable value.	Heater defective. Temp. sensor defective or disconnected.

ALARMS					
NO.	ALARM W. USER ACTION	ORDINARY ALARM	SECTION	CAUSE	ACTION / REMEDY
20	PLATE JAM OUT	PLATE JAM	OUT	Plate's leading edge has not reached the output slot, indicating a plate jam. Probable causes: Plate stuck underneath input sensor. Entrance transport rollers not adjusted tight enough resulting in poor plate transport. "Input/Output sensor displacement" not properly adjusted. Output sensor malfunctioning or defective.	If possible push "REVERSE" otherwise push "IGNORE", then start the "EJECT PLATE" function or manually remove the plate from the processor. Remove plate as described above then adjust roller pressure. Call Service Technician. Check sensor function - replace if necessary.
	PLATE JAM IN	PLATE JAM	IN	Interleaf paper is stuck in the input slot.	Remove paper and plate and press "IGNORE" to reset.
	PLATE JAM CNV	PLATE JAM	CNV	A plate has jammed in the conveyor.	Remove plate and press "OK" to reset.

ALARMS					
NO.	ALARM W. USER ACTION	ORDINARY ALARM	SECTION	CAUSE	ACTION / REMEDY
21	TRAIL EDG OUT	TRAIL EDG	OUT	Plate's trailing edge has not reached the output slot, indicating a plate jam. Probable causes: One or more of the transport roller pairs near the output sensor not adjusted tight enough resulting in poor plate transport. Plate gap too short to detect. Output sensor malfunctioning or defective.	If possible push "REVERSE" otherwise push "IGNORE", then start the "EJECT PLATE" function or manually remove the plate from the processor, then adjust roller pressure. Increase plate gap by either increasing processor speed or decreasing setter/conveyor speed. Check sensor function - replace if necessary.
22	LEN. MAX IN	LEN. MAX	IN	Plate's trailing edge has not left the input slot, indicating a plate jam. Probable causes: Plate gap too short to detect. Input sensor malfunctioning or defective.	Increase plate gap by either increasing processor speed or decreasing setter/conveyor speed. Check sensor function - replace if necessary.
25	MOTOR STOP TRANS 3)	MOTOR ERR	TRANS	Current limiter has engaged because the respective motor runs tight due to mechanical damage, plate jam or poor cleaning.	If cause requires repair call Service Technician. Otherwise solve the problem and push “RESET” to reset the current limiter and remove the alarm.
	MOTOR STOP PWASH	MOTOR ERR	PWASH	Current limiter has engaged because the respective motor runs tight due to mechanical damage, plate jam or poor cleaning.	The current limiter will attempt to reset automatically. Push "IGNORE" to remove alarm. If alarm appears persistently please contact a service technician.
	MOTOR STOP DEV		DEV		
	MOTOR STOP WASH		WASH		

ALARMS					
NO.	ALARM W. USER ACTION	ORDINARY ALARM	SECTION	CAUSE	ACTION / REMEDY
30	RTC MEM RESET	RTC MEM		RTC-battery empty because processor has been powered off for too long or SW has been updated.	The RTC battery will automatically recharge when processor is turned on. It will be necessary to set date and time again. Statistics and replenishment account data are lost.
32	FILL LIMIT DEV	FIL LIMIT	DEV	Dev. section min. level not reached within time when filling.	Push “RETRY”. The processor will resume filling.
34	REFILL FILL CONT	FIL EMPTY	DEV	Low level in developer fill container.	Refill/replace container.
35	CHECK MIX WATER	NO WATER	DEV	Water tap closed. Water filter clogged. Water solenoid valve malfunctions.	Check tap water connection. Clean filter. Check valve function. Push “OK”.
36		REPL WAIT	DEV	The processor is releasing a large amount of accounted replenishment.	Wait until alarm disappears.
42	FILL LIM. DEV WAT	WAT. FILL	DEV	Dev. mix water container min. level not reached within time when filling.	Push “RETRY”. The processor will resume filling.
43		FILLING	DEV	Processor is adding a specified amount of developer into the section after max. level sensor has been reached.	Wait until alarm disappears.
61	HEATER X DEFECT (X = 1 to 6)	WRM X DEAD (X = 1 to 6)	HEAT	Respective pre-heat heater defective.	Call Service Technician.
62	SENS ERR HEAT	SENS ERR	HEAT	The pre-heat current measuring sensor measures current even though the heaters are turned off.	Call Service Technician.

ALARMS					
NO.	ALARM W. USER ACTION	ORDINARY ALARM	SECTION	CAUSE	ACTION / REMEDY
85	CHANGE CHEMISTRY	MAX AREA	DEV	Chemistry area counter limit reached.	Push “EXIT”. Alarm is postponed until chemistry has been changed (in OFF-mode). When section has been emptied (in OFF-mode) you can have it automatically refilled when processor is started (see "STARTING THE PROCESSOR" in the "PTA Control Panel" manual). Conductivity system will measure initial conductivity value. Chemistry area counter will be reset.
90 95	REPLACE FILTER [3)]	CHANGE FILT	DEV	Developer filter area counter limit reached.	Change filter. Push “OK”. Filter area counter will be reset.
91 92 93 94		FILTER X/4 (X = 1 to 4)	DEV	Filter needs to be replaced soon. X will indicate the number of alarm appearances out of 4.	
103 108	CHANGE BRUSH TRANS [3)]	CHANGE BRSH	TRANS	Brush area counter limit reached.	Push "OK". Brush area counter will be reset. Shut processor down and replace all brushes.
104 105 106 107		BRUSH X/4 (X = 1 to 4)	TRANS	All brush rollers need to be replaced soon. X will indicate the number of alarm appearances out of 4.	

ALARMS					
NO.	ALARM W. USER ACTION	ORDINARY ALARM	SECTION	CAUSE	ACTION / REMEDY
111	PLATE TAIL OUT	TAIL	OUT	Plate has exited output sensor ahead of schedule. Probable causes: Processor runs too fast caused by a defective or dirty tacho disc. Plate has been dragged out of the processor ahead of time e.g. by a conveyor. "Input/Output sensor displacement" not adjusted properly.	Clean the tacho disc. If tacho disc needs to be replaced, call a Service Technician. Push "OK". Check roller adjustments. Call a Service Technician
112	PLATE HEAD OUT	HEAD	OUT	Plate has activated output sensor ahead of schedule. Probable causes: Processor runs too fast caused by a defective or dirty tacho disc. "Input/Output sensor displacement" not properly adjusted.	Clean the tacho disc. If tacho disc needs to be replaced, call a Service Technician. Push "OK". Call a Service Technician.
118 119 120 121		DEV X/4 (X = 1 to 4)	DEV	Developer solution needs to be replaced soon. X will indicate the number of alarm appearances out of 4.	
129		CLEANING	DEV	DEV CLEAN function is being executed.	