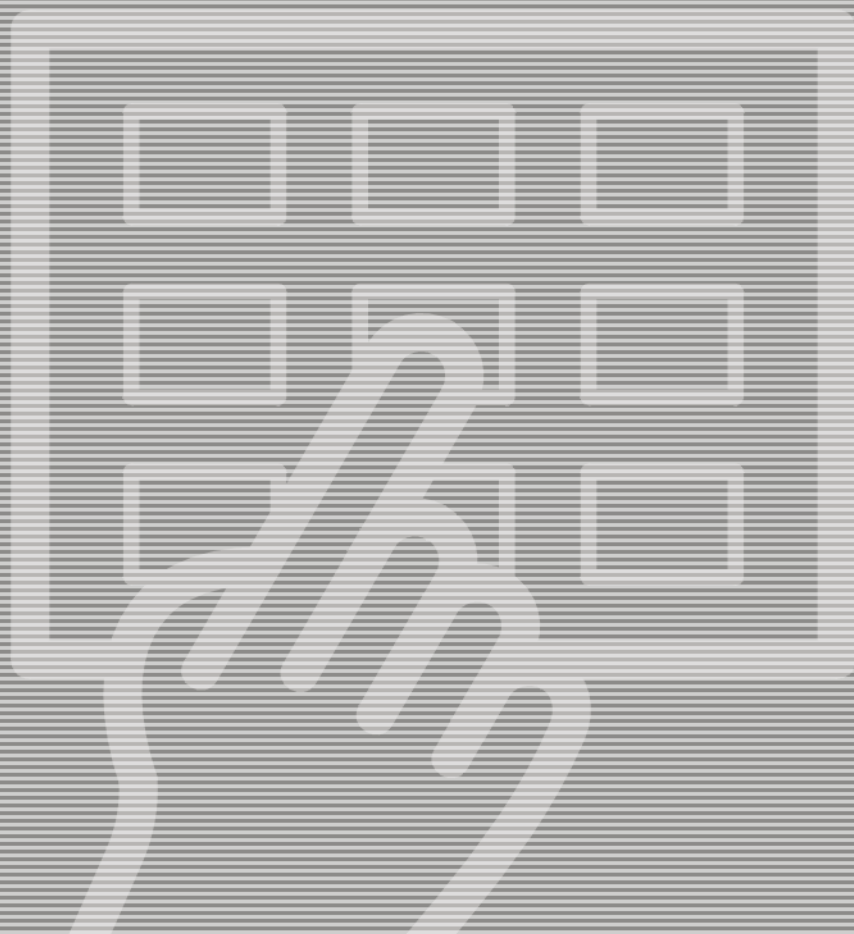


User's Manual



Cyrel[®] 2000 ECLF



User's Manual

Cyrel® 2000 ECLF



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Always read the *Safety Instruction Manual part No 21741* before installing or operating the equipment.

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Part 1: General information

About this manual

Intended use of this manual

This manual describes the common use procedures of the equipment. It is intended for the daily user and should be kept with the equipment for reference at all times.




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.

Notes, cautions, and warnings !

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

 **Electrical installation must conform to local regulations and guidelines.**

Symbol	Meaning	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 personal injury.

Unintended use of the equipment

Glunz & Jensen S.r.l. does not take any responsibility for any damage or accidents caused by unintended use of the equipment:

- It is absolutely prohibited to make any modifications, electrical nor mechanical, of the equipment. If however this prohibition is disregarded, Glunz & Jensen warranty will no longer apply.

Intended use of the equipment

- This equipment is a part of a full range dedicated for the treatment of flexographic printing plates. This range includes exposure, processor, dryer and light finisher.
- This equipment is designed to expose, dry, post-expose and light finish of flexographic printing plate before and after the washout process.
- This equipment is designed to work with plates which has been washed with non-chlorinated hydrocarbon based solvent. Maximum operating temperature must be 15°C below the lowest flash point of the liquid. Always consult your dealer or the Material Safety Data Sheet (MSDS) for information about the hazards and necessary precautions for the liquids you are using.
- This equipment has not been designed as an explosion proof equipment. Do not use combustible liquids for anything other than their intended uses.

Installation

- Never install the equipment in explosive environments.
- It is the responsibility of the owner and operator/s of this equipment that the installation is made in accordance with local regulations, and by engineers authorized to carry out plumbing and electrical installations.
- Installation, service and repair must be performed only by Service Technicians who are trained in servicing the equipment.
- The manufacturer cannot be held responsible for any damage caused by incorrect installation of this equipment.
- The equipment is intended for installation in a restricted access location only.

Service assistance

- If help is needed to correct any problem with the equipment, please contact your supplier.

Part 2: Daily use

General

This equipment is designed to expose, post-expose and light finish of flexographic printing plate before and after the washout process.

The equipment is divided in the following sections:

- **Exposure section** - 38 lamps to ensure even exposure.
- **Post exposure/light finishing section** - 27 UVA lamps and 26 UVC lamps.

This processor is equipped with the graphical finger touch display which ensures very easy control.

Safety warnings

Any maintenance, servicing or adjustments must only be carried out by suitably skilled or properly instructed/supervised personnel. Guards, other than the top covers must NOT be removed by anyone other than an authorized and trained service engineer.







To use this equipment safely, it is necessary that operators and maintenance people follow the safety instructions and safety cautions and warnings specified in the manuals.

The equipment is equipped with emergency switch which allows the operators to stop the equipment in case of emergency. This emergency switch cut off the power supply of the entire equipment.

Make sure that the risk or the problem has been eliminated before restoring the power on the equipment.

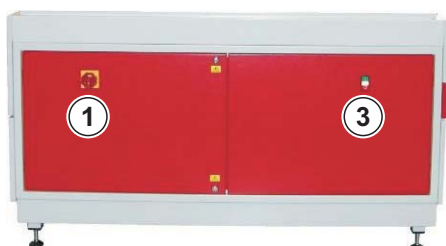
To release the emergency switch, turn it clockwise. The equipment has to be restarted following the "Initial operation of the equipment" later in this manual.

For the safety of operators, the equipment is equipped with interlock switches for the opening of the exposure cover, dryer and light finisher drawers during operation, and for removing the rear panels of the equipment. If any of the interlocks are not installed or closed, the equipment or a specific section of the equipment will not operate. If an interlock is activated during operation, the equipment or a specific section of the equipment stops immediately the concerned section.

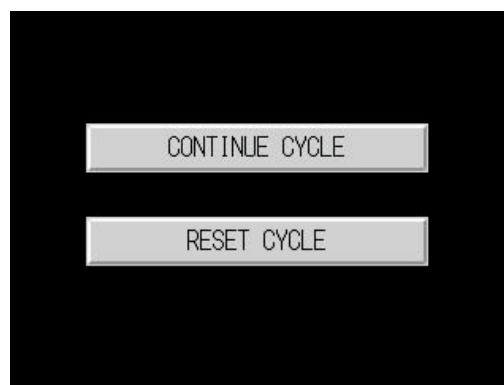
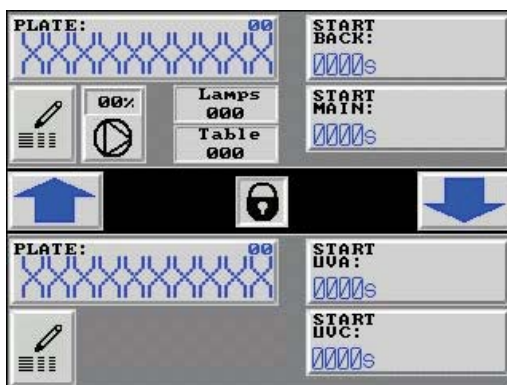
-  The exposure section is fitted with a safety interlock to prevent user to be exposed to UVA light radiation.
 -  The light finisher drawer is fitted with a safety interlock to prevent user to be exposed to UVC and UVA light radiation.
 -  UVC light radiation is dangerous for human skin and particularly the eyes. Even a short exposure time may cause burning in the lower skin layers and damages the eyes retina. Due to the safety systems installed, it should never be required to check the UVC tubes by view the UVC light directly when operating, maintaining or servicing the equipment. However, in case of need it is mandatory to wear a welding helmet with at least shade 6, safety clothes and gloves.
 -  The equipment is equipped with UVA and UVC fluorescent lamps which contain mercury. Dispose according to local, state or federal laws.
 -  If lamps are broken, ventilate area where breakage occurred. Clean up with mercury vacuum cleaner or other suitable means that avoid dust and mercury vapor generation. Take usual precautions for collection of broken glass. Use cut resistant gloves and appropriate respirator. Clean up requires special care due to mercury droplet proliferation. Place materials in closed containers outside the building to avoid generating dust.
- Cyrel[®] flexographic printing plates are considered articles by e.g. OSHA (CFR1910.1200). An article does not require a Material Safety Data Sheet. However, unexposed plates contain material that may cause skin irritation or allergic skin reactions and sensitization in susceptible persons.
-  For handling the plates use a safety gloves.

Initial operation of the equipment

- Before switching the machine on make sure that the working area around the machine is clean and free for easy movement.
- Check if there is any damage on the different hoses, check for water leak and verify the needed supplies:
 - Electrical power supply: Cable connected and not damaged.
 - Compressed air: 7 bars minimum.
 - Exhaust: hose connected and not damaged.
- You are now ready to switch the machine on.
- Turn the main switch (1) of the machine, which is located on the electrical box door on the left of the machine.
- Verify that emergency stop button (2) is released (front panel). If not, release it by turning it clockwise.
- Switch the machine on by pressing the ON/OFF button (3), which is located on the electrical box door on the left of the machine.



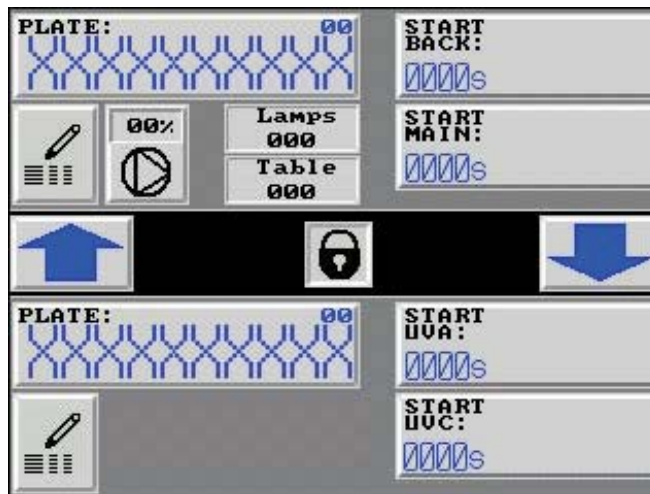
- After a couple of second of display initialisation the main screen is displayed:





- i** If the machine has been switched off during at least one process on going, the following screen appears at the switch ON of the unit asking to continue the cycles which have been interrupted (restart exactly at the point it has been stopped) or to reset all on going cycles.




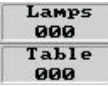




Main screen description

The main screen allows to make several functions and to display several machine parameters:







Exposure section

Display overview	Description
	<p>Display the last plate name selected. Press on this frame to access to the plate list memorised in the machine and select the plate needed to process. This frame is used in both exposure and post-exposure/light finishing section. The plate channel number is as well displayed in the top right corner for an easier use.</p> <ul style="list-style-type: none"> i 25 channels (0 to 24) are available to store all the parameters of the different plates. i The plate name is common between the exposure and the post exposure/light finisher section.
	<p>Display the back exposure time memorised in the channel of the plate displayed. When the cycle is started the frame is blinking green and the remaining time is shown at the centre. The frame is changing as well from "START BACK" to "STOP BACK". At the end of the cycle, "END" is displayed and the frame remains green indicating the end of the cycle.</p> <ul style="list-style-type: none"> i To start a second back exposure, it is needed first to "acknowledge" the end of the previous cycle by pressing on the frame. At this point the frame goes back to grey and the display "END" is removed. The machine is now ready to start another back exposure cycle. i It is possible to stop an ongoing cycle by pressing on the frame. A confirmation dialog box appears asking for the confirmation of stopping the cycle.

Display overview	Description
	<p>Display the main exposure time memorised in the channel of the plate displayed. When the cycle is started the frame is blinking green and the remaining time is shown at the centre. The frame is changing as well from “START MAIN” to “STOP MAIN”. At the end of the cycle, “END” is displayed and the frame remains green indicating the end of the cycle.</p> <p>i To start a second main exposure, it is needed first to “acknowledge” the end of the previous cycle by pressing on the frame. At this point the frame goes back to grey and the display “END” is removed. The machine is now ready to start another main exposure cycle.</p> <p>i It is possible to stop ongoing cycle by pressing on the frame. A confirmation dialog box appears asking for the confirmation of stopping the cycle.</p>
	<p>This frame allows to access directly to the plate parameters modification screen.</p>
	<p>Press on the frame to start and stop the vacuum pump. The level of vacuum is displayed on top of the frame.</p> <p>i If the function to stop the main exposure if the vacuum is too low has been activated, the vacuum level frame is displayed in red colour in case it is too low (refer to Technical section).</p> <p>i It is not possible to stop the vacuum pump if a main exposure cycle is ongoing.</p>
	<p>Display the lamps or table temperature in either °C or °F scale depending of the setup of the machine (refer to technical section).</p>
	<p>“LI” is displayed between the back and main exposure frames only when the light integrator function is in use.</p>
	<p>Press on the frame to open the lid. During the opening the frame is blinking green. When the lid is fully open it remains fixed green.</p>
	<p>Press on the frame to close the lid. During the closing the frame is blinking green. When the lid is fully closed it remains fixed green.</p>
	<p>Press on the frame to access to the password screen.</p>

Light finisher section

Display overview	Description
	<p>Display the last plate name selected. Press on this frame to access to the plate list memorised in the machine and select the plate needed to process. This frame is used in both exposure and light finishing section. The plate channel number is as well displayed in the top right corner for an easier use.</p> <ul style="list-style-type: none"> i 25 channels (0 to 24) are available to store all the parameters of the different plates. i The plate name is common between the exposure and the post exposure/light finisher section.
	<p>Display UVA time memorised in the channel of the plate displayed. When the cycle is started the frame is blinking green and the remaining time is shown at the centre. The frame is changing as well from "START UVA" to "STOP UVA". At the end of the cycle, "END" is displayed and the frame remains green indicating the end of the cycle.</p> <ul style="list-style-type: none"> i To start a second UVA cycle, it is needed first to "acknowledge" the end of the previous cycle by pressing on the frame. At this point the frame goes back to grey and the display "END" is removed. The machine is now ready to start another UVA cycle. i It is possible to stop ongoing cycle by pressing on the frame. A confirmation dialog box appears asking for the confirmation of stopping the cycle.
	<p>Display the UVC time memorised in the channel of the plate displayed. When the cycle is started the frame is blinking green and the remaining time is shown at the centre. The frame is changing as well from "START UVC" to "STOP UVC". At the end of the cycle, "END" is displayed and the frame remains green indicating the end of the cycle.</p> <ul style="list-style-type: none"> i To start a second UVC cycle, it is needed first to "acknowledge" the end of the previous cycle by pressing on the frame. At this point the frame goes back to grey and the display "END" is removed. The machine is now ready to start another UVC cycle. i It is possible to stop ongoing cycle by pressing on the frame. A confirmation dialog box appears asking for the confirmation of stopping the cycle.
	<p>This frame allows to access directly to the plate parameters modification screen.</p>

Alarms

When an alarm occurs, the warning sign is then displayed in the middle of the main screen. Depending of the type of alarm, the corresponding warning sign will be displayed.

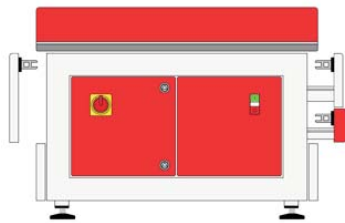
Critical alarm



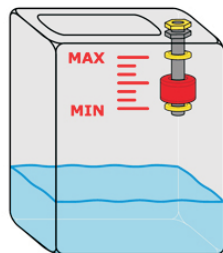
This sign indicates the machine is not in the condition to work in normal and safe way. This prevents the use of the section affected by the alarm. When a critical alarm is ON the acoustic signal is ON as well.

Press on the warning sign to display which alarm is activated:

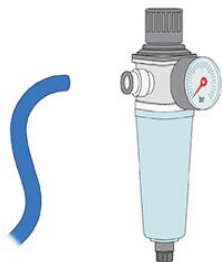
- At least one panel of the light finisher open.



- Water level too low.



- Compressed air too low.




Service alarm



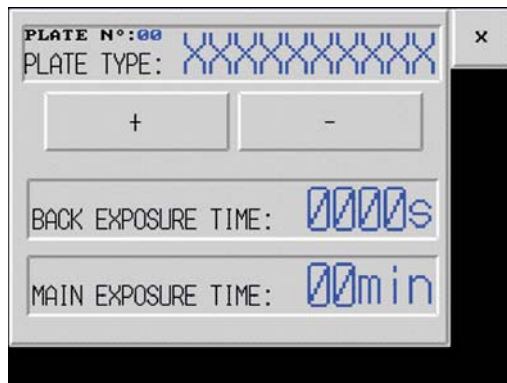
This sign indicates a warning. The warning will not stop the the equipment. There is acoustic signal for the warning too. By pressing this sign, alarm/warning history screen is accessed. For further details regarding alarm/warning history screen please refer to the next page.

Plate parameters

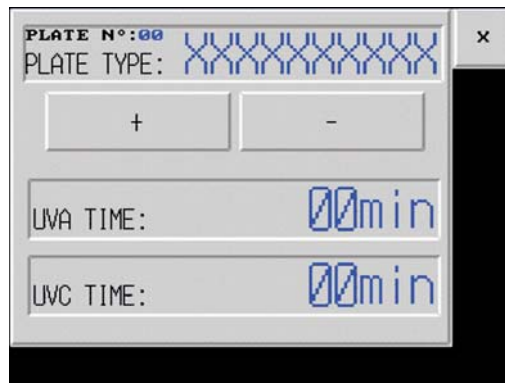
25 channels (from 0 to 24) are available to store the plate name as well as back exposure, main exposure, UVA and UVC times.

To access to the plate parameters modification screen, press on  from the Exposure or Light- finisher section. This touch is available on the main screen as well as on the plate selection screen.

The corresponding modification screen is then displayed.



Exposure parameters



Light finisher parameters

On each screen it is possible to modify the name of the plate as well as the dedicated parameters.

It is possible to scroll up or down the channels by pressing on “+” or “-”.

When the correct channel is displayed, press on the plate type frame to change the plate name or on one of the 2 memorised times to change it.

An alphanumeric keypad for the plate name and numeric keypad for the time is then displayed.



Alphanumeric keypad




Numeric keypad

In all cases, after typing in a new value, always confirm the input by pressing on “ENT”. Not doing this may result in corrupted values memorisation.

i The plate name from the same channel is common for both exposure and light finisher section. Modifying the plate name from one channel in one of the section will end up in modifying plate name in the other section.

Part 3: Making plates

Plate selection

Press on  from the exposure or light finisher section to access to the plate selection screen.



Exposure section



Light finisher section

To select the plate to produce just scroll up or down until you the correct plate name is displayed. Then press on the desired plate to highlight it. It is then possible to check the plate parameters on the right to ensure the right plate has been selected.

If the plate parameters are not correct, press on  to access to the plate parameters modification screen.

When the correct plate with the correct parameters has been selected, just press on "X" to come back to the main screen. The parameters are automatically transferred in the concerned section and the machine is now ready to start a process cycle.

Starting an exposure cycle



During an automatic cycle as well as in manual operation, the safety of the lid is in operation. In case of contact the lid will stop closing and will then open completely. The ongoing exposure cycle is cancelled as well.



At the end of cycle the lid will open automatically.

- Put the plate on the vacuum table to make the Back exposure or the main exposure.
- If needed, start the vacuum pump.
- Verify the vacuum level.
- Select plate type to produce.
- Verify all the times are correct.
- To start an exposure process, press “START BACK” or “START MAIN” depending of the process you want to start. The machine then proceed an automatic cycle doing first the closing of the lid, the exposure and then opening the lid.
- During all the process the display shows remaining times for back or main exposure and the dedicated frame is blinking in green colour.
- At the end of the cycle the buzzer rings, “END” is displayed in the back or main expo frame, the frames remains in fixed green colour and the lid opens.



To start a second back exposure or main exposure, it is needed first to “acknowledge” the end of the previous cycle by pressing on the frame. At this point the frame goes back to grey and the display “END” is removed. The machine is now ready to start another back exposure cycle.



It is possible to stop an ongoing cycle by pressing on the dedicated frame. A confirmation dialog box appears asking for the confirmation of stopping the cycle.



A red colour for the background of the exposure section indicates a critical alarm (refer to “Alarm” section).

Starting a light finisher cycle

- Open the drawer and put the plate in.
- Close the drawer (the background of the light finisher section switch from red colour to green).
- Select plate type to produce.
- Verify all the times are correct.
- To start a light finisher process, press “START UVA” or “START UVC” depending of the process you want to start.
- During all the process the display shows remaining times for UVA or UVC cycle and the dedicated frame is blinking in green color.
- At the end of the cycle the buzzer rings, “END” is displayed in the UVA or UVC frame, the frames remains in fixed green colour and the lid opens.

Specific cycle

The unit offers the possibility to have an automatic sequence of post exposure and light finishing.

If this function has been enabled (refer to “Machine Setup” section) the cycle is proceeding as followed:

- If “START UVA” is pressed: the UVA lamps start until the end of the selected time, and after a time delay, the UVC lamps start until the end of the selected time.
- If “START UVC” is pressed: the UVC lamps start until the end of the selected time, and after a time delay, the UVA lamps start until the end of the selected time.

When the automatic sequence has been selected, an additional time is then displayed on the screen between UVA and UVC time. It indicates the time delay between UVA and UVC.



- i** To start a second UVA or UVC cycle, it is needed first to “acknowledge” the end of the previous cycle by pressing on the frame. At this point the frame goes back to grey and the display “END” is removed. The machine is now ready to start another cycle.
- i** It is possible to stop ongoing cycle by pressing on the dedicated frame. A confirmation dialog box appears asking for the confirmation of stopping the cycle.
- i** A red color for the background of the light finisher section indicates the drawer is open if the acoustic signal is OFF or a critical alarm if the acoustic signal is ON (refer to “Alarm” section).

