PRINTEX UE s.c.

INTERSTATION CURING UNIT
CLH 2030

BIELSK PODLASKI, FEB 2010

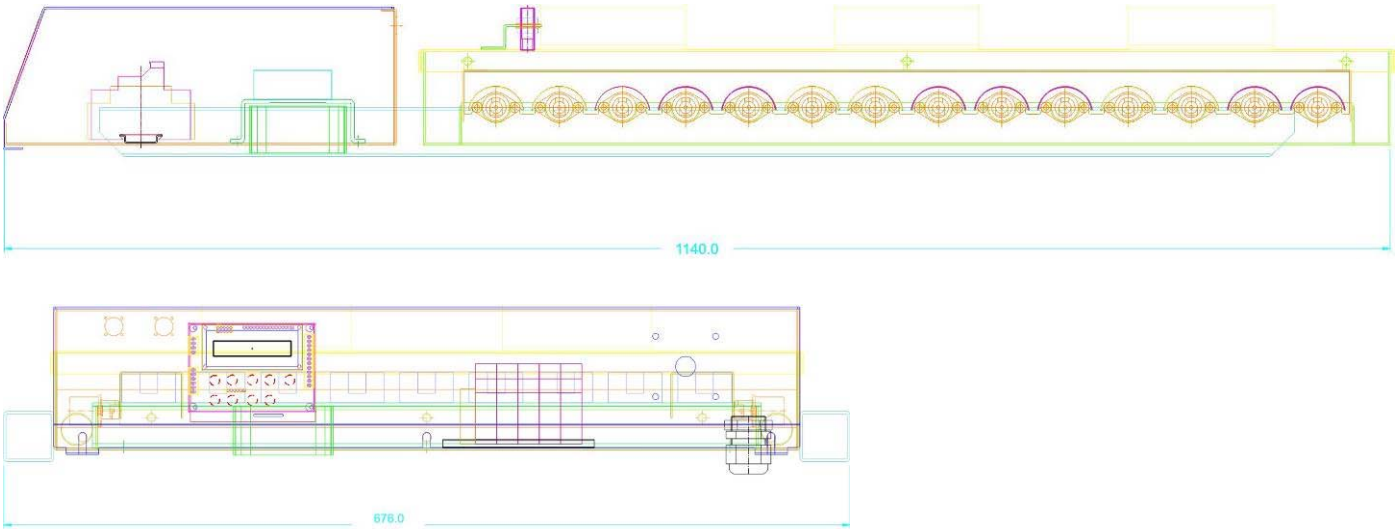
TABLE OF CONTENTS

1. TECHNICAL DESCRIPTION

1.1.Using condition.

Construction:

- 2 types of flash cure available: CLH 2020 and CLH 2030
- for working with manual rotary machine and automatic rotary machine
- 3 Horizontal heat zones, all possible combination of ON/OFF state
- medium wave quartz glass lamps, fast response
- fan blowers
- Digital time and power control with zero – ON, zero – OFF voltage synchronization
- lamps characteristic: power / pcs 1500W; luminous flux 3350 lm; color temperature 1550°K.
- Galvanic separation IN - OUT



drw 1: CLH 2030 outside dimensions

CLH2030
Power requirements: 3 - phase, 230V, 50-60Hz, 26A/zone
Maximum power consumption: 18,0 kW
The qty of heating lamps: 12
Heating area: 20”x24”
CLH2030
Power requirements: 3 - phase, 230V, 50-60Hz, 32A/zone
Maximum power consumption: 22,5 kW
The qty of heating lamps: 15
Heating area: 20”x 30”

1.2.Technical data:

1.2.1.Input data:

Turn-off voltage - 15-24 VDC;

1.2.2.Output data:

- output PCB10B - 15 VDC;

- voltage(Uz) - 230 VAC

1.2.3. Galvanized separation:

- optoelectronic,

1.2.4. The data SSR Output stage:

- output signal (type OC)

- switching voltage - 230 VAC

- load current In - 26,0A/phase(QLH2024)

- 32,0A/phase(QLH2030)

1.2.5. Normal condition of use:

- operating temperature - -25°C...+80°C,

- relative humidity - 30...80%,

- pollination - undefined,

- position of work - horizontal,

- concentration of active components in atmosphere - lack of aggressive components,

1.2.6. Conditions of transportation and storage:

- storage temperature - -25...+85°C,

- relative humidity - to 95% at 40°C,

- storage and transport position(with lamps) - horizontal.

1.2.7. Casing:

- type - metal,

- dimensions - see drw. 1,

- protection level - IP 20,

1.2.8.Weight:

- 25kg(CLH2024)

- 34kg(CLH2030)

1.2.9. Prepare ordering.

CLH2024 – flash cure with active heating area 20”x24’(width. X length.);
CLH2030 – flash cure with active heating area 20’x30’(width. X length.);

1.3. Conditions of usage.

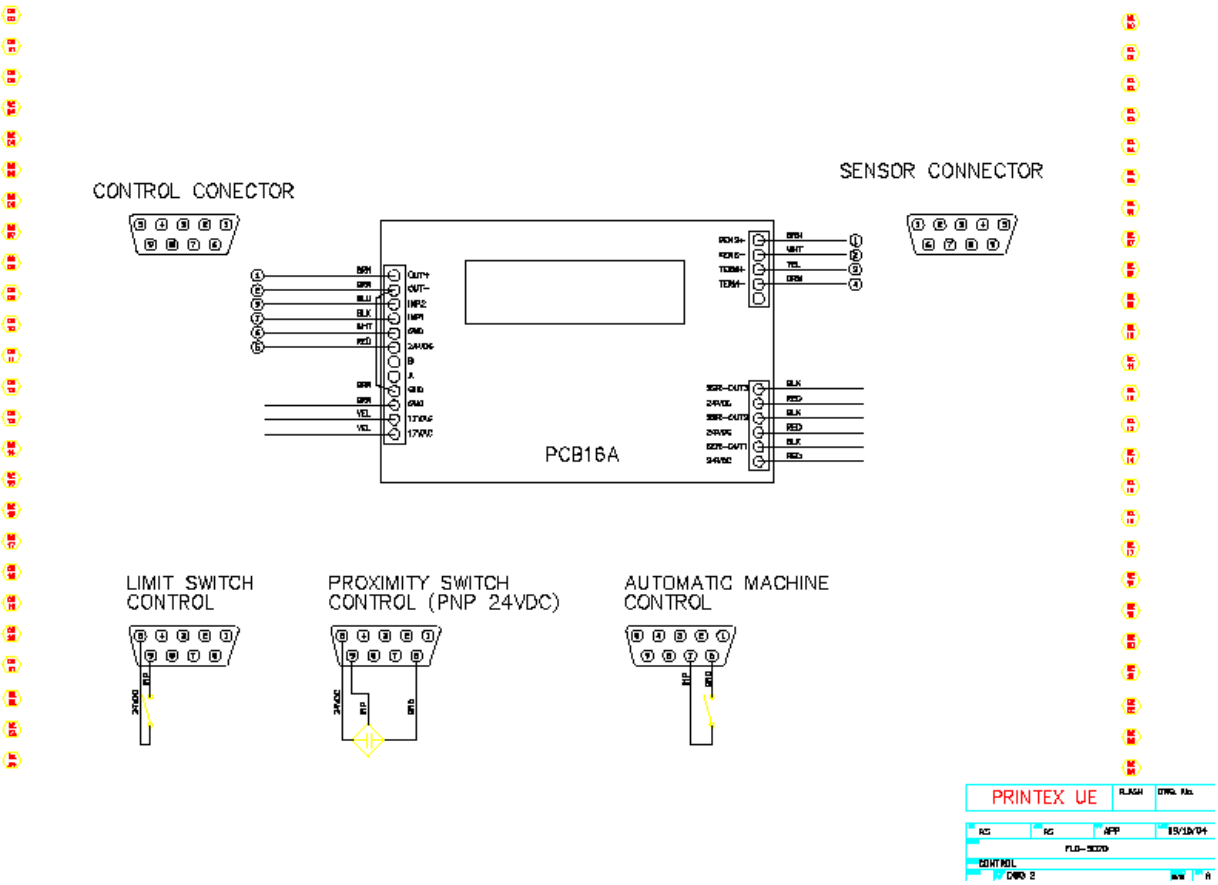
The present DTR defines the conditions of usage.

1.4. Description of building and working.

All electronic elements using to control quartz lamps are on PCB16A board. On the front panel there is membrane keypad to control all functions this machine. The whole be mounted in metal casing.

.

Electric components consist from:
- main changeover switch,
- the block of fuses preservative the current tracks of individual heating zones and with one fuse preservatives the transformer 230/17 VAC feeding PCB16A,
- 3 electronic relays(SSR),
- sockets (type R7s) quartz lamps.



Drw 2: PCB 16A electrical diagram CLH 2024 (CLH 2030)

2. INSTRUCTION OF ASSEMBLY AND EXPLOATATION

2.1. Assemblies-recommendation.

Flash cure should be used according to DTR.

The arrangement of connections and typical arrangement of work were introduced on drw. 2.

Correct connection main power supply in main power distribution box is very important to make failure-free job for all electrical devices used at this flash cure. Complying to factory descriptions marked near clamps of nest you can be sure no one element will breakdown and guard you from electrical shock..

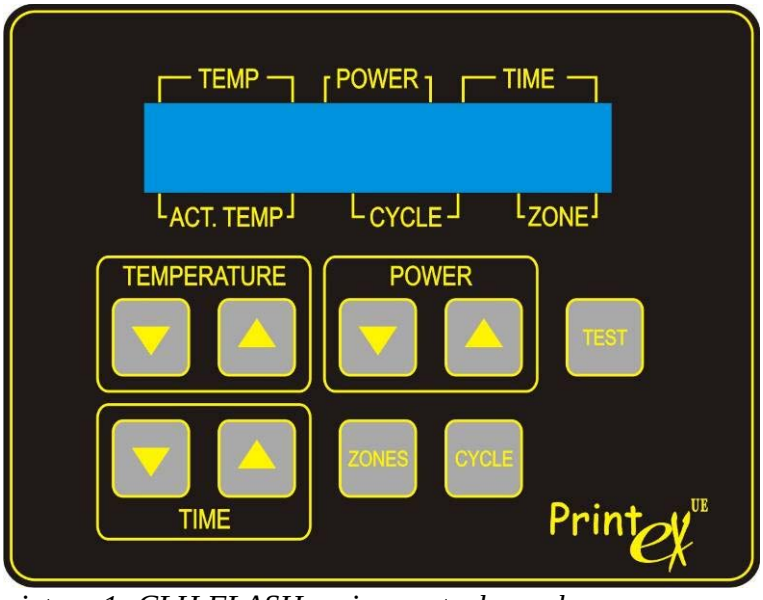
Feeding electrical cable needs to be minimum: 5x4mm2

.

2.2. Option description and settings.

1. **TEMP (LCD):** Readings of set temperature,
2. **ACT. TEMP (LCD):** readings of temperature measured,
3. **POWER (LCD):** Indication of IR lamps power settings in %,
4. **CYCLE (LCD):** Indication of actual work CYCLE (mode) . Flash can work in one of 6 CYCLES (modes): MAN, AUTO, MAN1, AUTO1, MAN2, AUTO2,
5. **TIME (LCD):** readings of set TIME,
6. **ZONE (LCD):** readings of active HEAT ZONES. Active zone is indicated with " * " on LCD display,
7. **TEMPERATURE (PUSH BUTTON):** allows to change set temperature,
8. **TIME (PUSH BUTTON):** allows to change set time,
9. **POWER (PUSH BUTTON):** allows to change set power level,
10. **ZONES (PUSH BUTTON):** allows to choose combination of working heat zones. 3 ZONES AVALIABLE : 4-6-4 lamps,
11. **CYCLE (PUSH BUTTON):** allows to choose CYCLE (mode) of work,

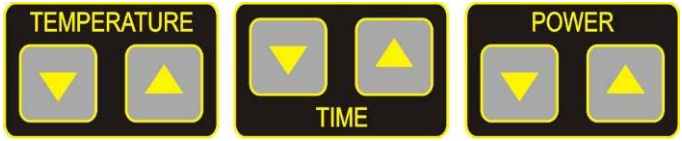
2.2.1.Setting TIME, TEMPERATURE and POWER of HEATING



picture 1: CLH FLASH series control panel

.

To change settings for: TEMPERATURE, heat TIME, heat POWER press corresponding Arrows push buttons. New values are automatic stored and memorized.



2.2.2. Setting descriptions

1. **ZONES:** Choice of working HEAT ZONES. Its possible to have any combination of working HEAT ZONES. Each pressing of ZONES push button is indicated on LCD display by * sign . Each HEAT ZONE has corresponding * sign on LCD display. Presence of * signalize on state of corresponding HEAT ZONE.
2. **CYCLE:** Choice of CYCLE. Its possible to to set one of below CYCLE. Each pressing of CYCLE push button is indicated on LCD display by changing to next CYCLE mode in below manner .
   - MAN: Starting with external limit switch or proximity switch (see drw 2. for LIMIT SWITCH control and PROXIMITY SWITCH control). In this mode flash works without temperature regulation. POWER regulation and TIME regulation is internal.
   - AUTO: starting with external time trigger (i.e. Rotary automatic machine, see drw 2. for AUTOMATIC MACHINE control) with DC24V output. In this mode flash works without temperature regulation. POWER regulation is internal, TIME is external.
   - MAN1: Starting with external limit switch or proximity switch (see drw 2. for LIMIT SWITCH control and PROXIMITY SWITCH control). In this mode flash works with temperature regulation. In this mode flash works with power level set on LCD display. Cure Time elapsing starts after temperature reach set level.
   - AUTO1: same as MAN1 but starting with external time trigger (i.e. Rotary automatic machine, see drw 2. for AUTOMATIC MACHINE control) with DC24V output..
   - MAN2: Starting with external limit switch or proximity switch (see drw 2. for LIMIT SWITCH control and PROXIMITY SWITCH control). In this mode flash works with temperature regulation. Power level set on panel is ignored. After activation flash cures with 100% power level, after reaching set level of temperature power is regulated to keep set temperature level. Cure Time elapsing starts after temperature reach set level.
   - AUTO2: same as MAN2 but starting with external time trigger (i.e. Rotary automatic machine, see drw 2. for AUTOMATIC MACHINE control) with DC24V output..
3. **TEST:** manual test of flash, respecting all settings

2.3. Safety rules

All warnings and cautions in the Operating Instructions and on the unit should be strictly followed, as well as the safety suggestions on it. Avoid **overloading** AC outlets and extension cords beyond their capacity, as this could result in fire or shock.
Objects and liquid entry - Take care that objects or liquids do not get inside the unit through the ventilation openings

3. STORING AND TRANSPORTATION

3.1.Storing.

Equipment needs to be store in close room free from aggressive factors making corrosion in temperature 0°C do 70°C and humidity close 80%. Please protect from vibrations and shocks.

3.2.Transport.

In case the flash needs to be in transport please do it by cover car and protect from move it in.

4. LIST of DRAWINGS.

Drw.1. Flash Cure CLH2030 - dimensions.
Drw.2. PCB 16A Electrical diagram CLH2024 (CLH2030).
Pic.1. Control panel CLH2024 (CLH2030)