VCL8100 Series
Dual Lamp Cold Light Head

For Besler 4x5 *(with 8" x 10" Besler conversion)*,
Salzman, EK Auto focus, Elwood and
many other 8x10 Format Units with Slight Adaptation

General Information

◊   Complete variable contrast control
     from grade 0 to grade 5 with 50 settings
     over entire range without using filters
◊   Low power consumption
◊   Fast consistent exposures
◊   Maybe used with most any timer
◊   Full 8x10 Coverage

Light Head
(*2 lamps High Intensity*)

◊   Size: 11 7/8" L x 11 7/8" W x 6" H
◊   Weight: 10.5 lbs.
◊   Secondary Cable: 6'
◊   Heater: adjustable thermostat controller
◊   Power supply: 120 VAC, 60 Hz, 568 Watts
◊   Fuse: AGC 10 amp
◊   Size: 9" L x 9 1/2" W x 4 5/8" H
◊   Weight: 16.5 lbs.
◊   Primary cord: 6' long, 3-prong grounded
◊   Relay: Built-in with 6' 2-line cord for timer connection
     (Can be used with any timer with a rating of .012 amps or more)
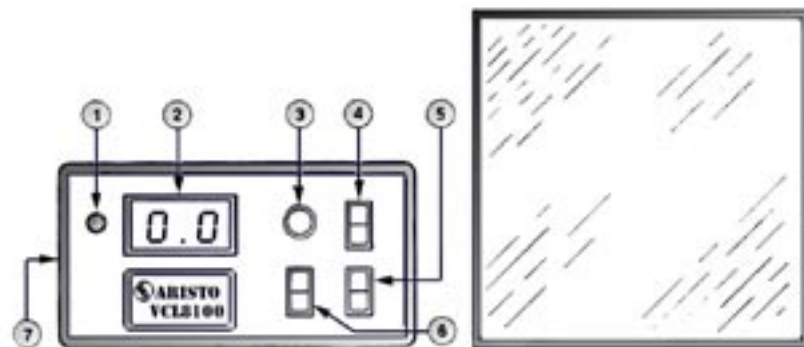
VCL8100-C-110V Model Shown

2 pc set with separate power pack.
Blue lamp is dimmable on standard models.
Blue and green lamps are dimmable on Dual models.

1. LED intensity control
2. Red LED Display 0.0 up to 5.o in tenths.
3. Variable contrast control from grade
     0 through grade 5 with 50 settings. Maybe
     used to adjust speed on graded paper
4. Color selection 3 way rocker switch
5.   Main power on/off lighted rocker switch
     with red lens
6. Normal/split printing mode switch
7. Zero adjustment for different variable
     contrast papers

Installation:

1. Your diffusion light source is equipped with two (2) high intensity lamps. They are designed to give you peak spectral distribution in blue and green for optimum control. Installation of your VCL8100 is fast and easy and only requires removing the existing lamp housing and condenser lenses.

2. Connect the cable from the light head into the back of the power supply.

3. Plug the three-prong power cord into any 115 Vac outlet.

4. Plug the two-line cord into any 110 Vac timer with a 1.5 W or more capacity.

5. Turn on the main power switch and allow 10 to 15 minutes for the thermostatically controlled heating system in your light head to warm the lamps to optimum operating temperature. This will insure consistent light output during each exposure. Turning the lamps on for two to three minutes at the start of a printing session is beneficial and will hasten the warm-up.


VCL8100 Back Shown

Caution:

The lamps do generate moderate amounts of heat on their own. Excessive on time can cause light loss. This is a temporary condition. When turned off and allowed to cool to the thermostat setting (95°F on the top of the lamp head) the light level will increase and return to normal. Repeat overheating will degrade the light output faster than normal and shorten lamp life. Proper work habits are important and will insure consistency.
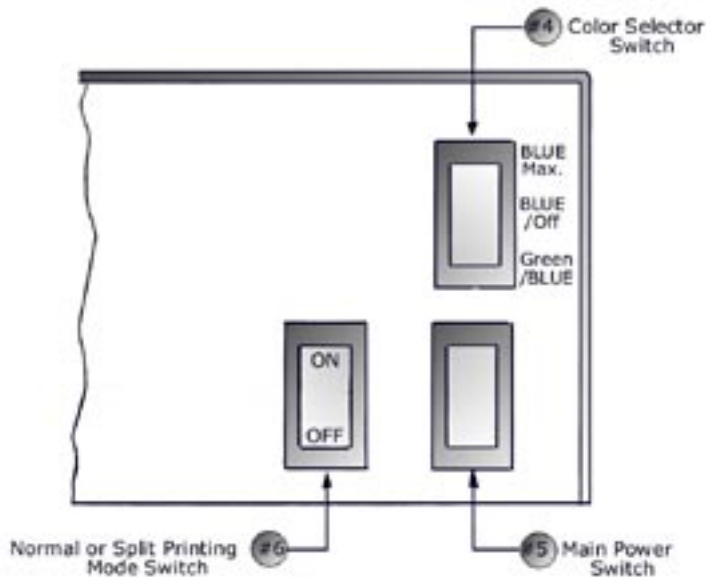
Typical VCL8100 Front Electronics Box Shown

#6 in **ON** position, #4 provides;
        Blue Max: = blue only at maximum brightness
        Blue/Off: = blue only with fully adjustable brightness control
      Green/Blue: = Green and blue combined with blue intensity being fully adjustable
#6 in **OFF** position, #4 provides;
        Blue Max: = blue only at maximum brightness
        Blue/Off: = off only
        Green/Blue: = Green only, no blue

Note: For printing without timer, cold light may be turned on and off by plugging two line cord directly into a 110Vac outlet with an ON/OFF switch Capability.

The LED numerical display is not meant to *represent* each exact paper grade when dialing up from 0 toward 5.

With switch No. 6 in the ON position and switch No. 4 in the green and blue color mode, you can dial in any contrast.

The minimum brightness level of the blue lamp is set at the factory to provide and approximate minus 0 starting point with the display at 0.0.   This can be manually re-adjusted according to what brand of paper you are using.

Re-adjusting of No. 7 only effects the starting point
and not the maximum brightness of the blue lamp.

High contrast is obtained with the LED set at 5.0 and printing times
may have to be reduced by 50% from mid range settings.

Switching to the maximum blue or blue adjustable position will print
extra hard and yield an approximate grade 5.5 depending on the paper and chemistry used.

For split printing on variable contrast papers,
switch No. 6 should be in the OFF position.
It is then simply a matte of selecting BLUE ONLY or
GREEN ONLY from switch No. 4.

For printing on graded papers switch No. 6 should
be used in the ON position.

Graded papers primarily like the blue energy spectrum.
You can now select maximum blue, blue with adjustable
intensity or blue and green combined. In the blue adjustable
position you can set the intensity level to control printing
speeds or adjust for dry down time. You can also print with
blue and green combined and may find it possible on
some papers to achieve plus or minus a half grade by
adjusting the blue green ratio.
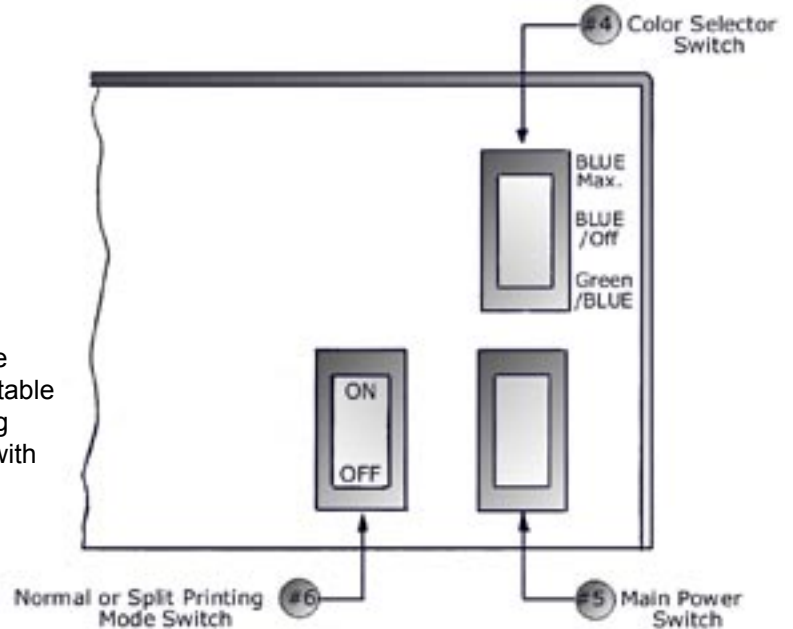
The thermostatically controlled heater is preset at the factory for average room temperature (70°F).
Should your darkroom be above or below average or have wide temperature swings because of
heating or air conditioning ducts close by, you may need to readjust. See the thermostat adjustment sheet.

Familiarize yourself with the function and location of the controls shown in the product specification sheet.

Thermostat Adjustment

Upper Contact
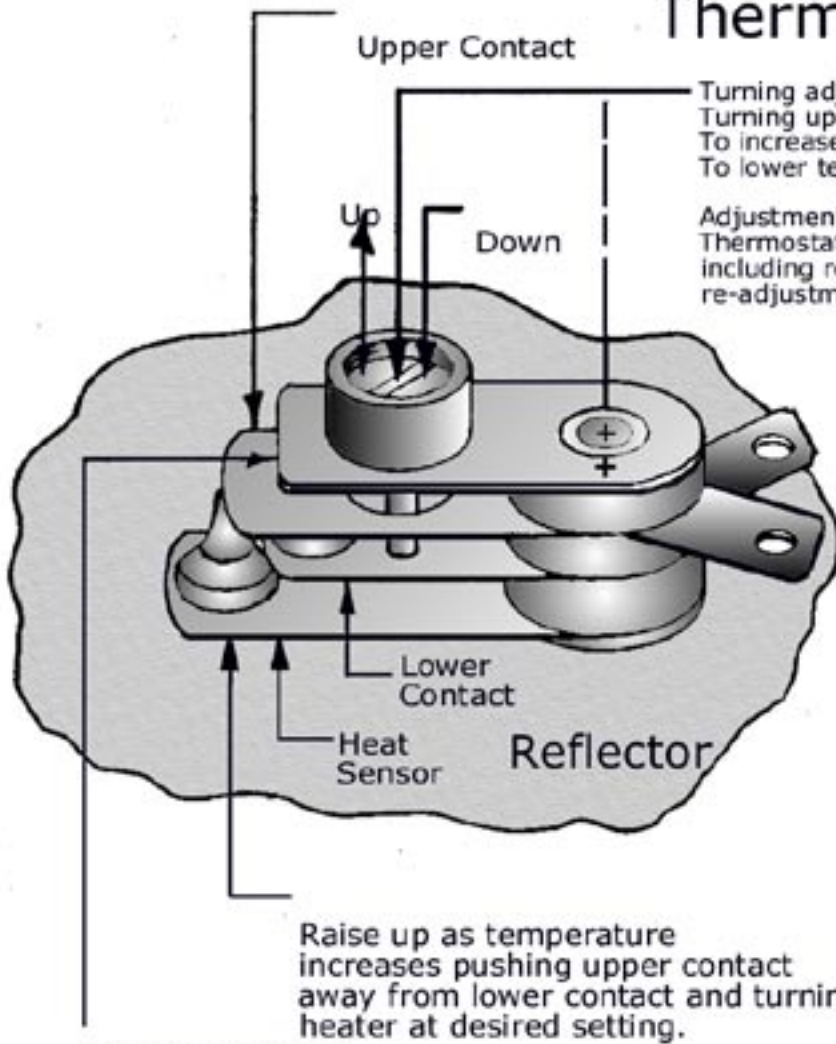
Turning adjustment screw down lowers temperature.
Turning up makes temperture higher.
To increase temperature turn clockwise.
To lower temperature turn counter-clockwise.

Adjustments should be made in 1/8 turn increments.
Thermostats are preset at Aristo, but various factors,
including room temperature may cause the need for
re-adjustment.

With the thermostat properly set, the lamp
will be at optimum operating temperature
(approx.) 105F. When turned on the lamp
will be at peak intensity.

This can be easily checked with a
light meter. Turn the light on after suffcent
warm-up (approx.10 min.)

If significant increase is noticed while on
the setting is low. Decrease almost
immediately after turn on denotes a high
setting and overheating.

Intensity will be restored by allowing
lamp to cool.

Up

Down

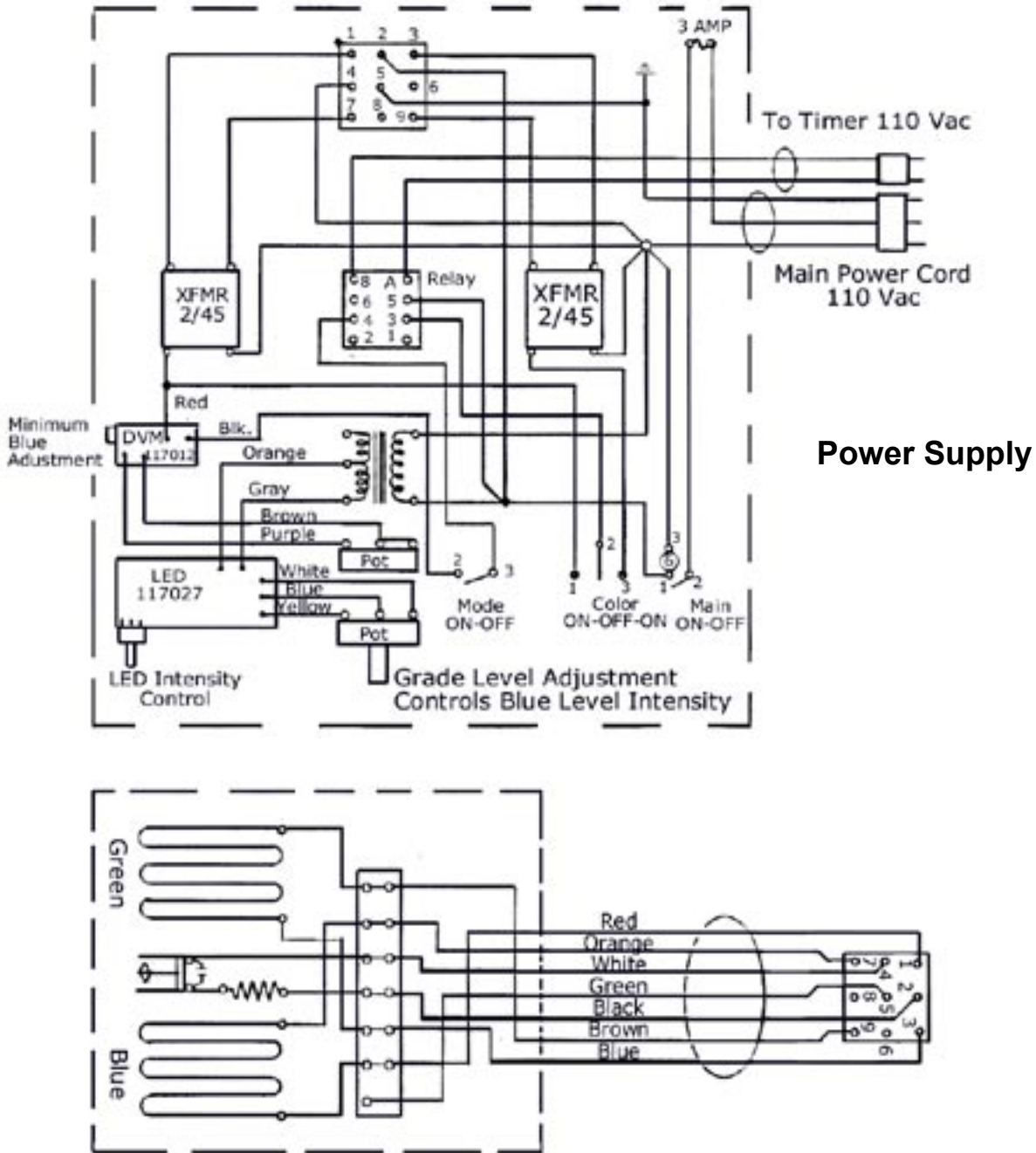**Lower Contact**

Heat Sensor

Reflector

Raise up as temperature
increases pushing upper contact
away from lower contact and turning off
heater at desired setting.

VCL4500/VCL8100
Thermostat

Caution: *Instructions are for guidance only.*
Aristo/Voltarc will not be responsible for any damage to lamp or lamp housing for items improperly installed.

Power Supply

Caution: Instructions are for guidance only.
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