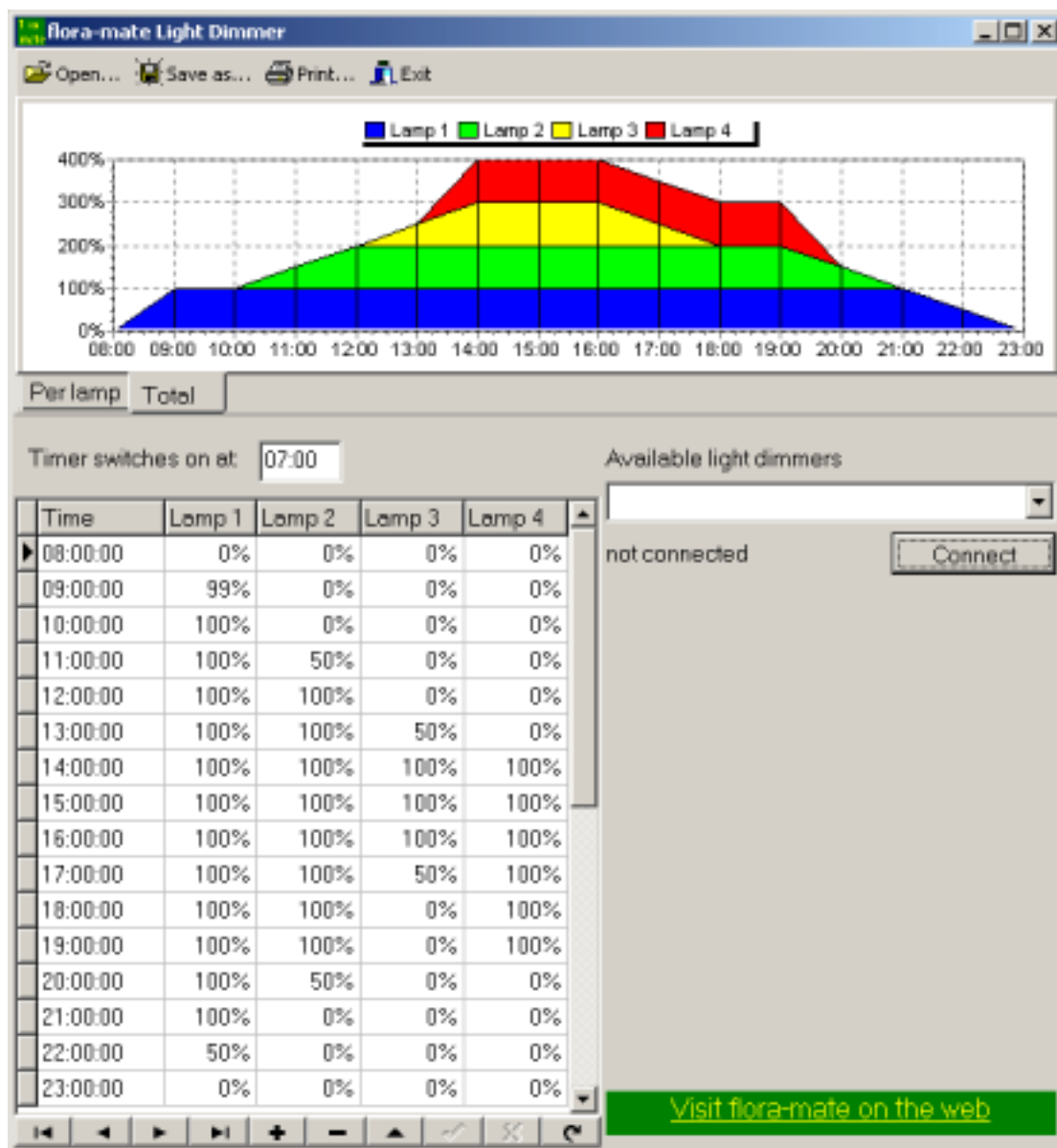


flora-mate

LIGHT DIMMER

for aquarium, terrarium and aviary



With the **flora-mate** light dimmer you can create nice sun rise and sun set effects in your aquarium, terrarium or aviary.

Light levels can be set separately for each of the 4 channels, and for each 30-second period. This gives an unprecedented flexibility in the design of the light effects.

Not only can you program an exact reproduction of the light conditions on any place on the earth, you can also consider mixing different colored lamps and use the 4 channels to make the color of the light change during the day. The possibilities are limited only by your imagination.

Programming the **flora-mate** light dimmer is made simple by the user-friendly PC software that you can download for free from the **flora-mate** website www.flora-mate.nl. A USB interface is used to connect the dimmer to your PC. The PC software automatically detects the dimmer, and you can send the new light program to the dimmer with the click of a button. You can also set the light levels directly from the PC, for manual operation. For normal every-day operation the PC is not needed and can be disconnected.

The flora-mate light dimmer was designed to be used with dimmable electronic control gear with a 1-10 Volt control input.

Functions

- Four separate channels, individually programmable.
- User-friendly PC software to design the light program, and to transfer it to the dimmer.
- High resolution dimming, both in time and in light level. A new level can be programmed for each time slot of only 30 seconds, and light levels can be set accurate to 1%.
- Total duration of the light program can be up to 17 hours. After that the last level is maintained.
- The dimmer has the possibility for a separate calibration for each of the four channels.
- Direct manual control from the PC is possible.

Operations principle

The flora-mate light dimmer operates as follows:

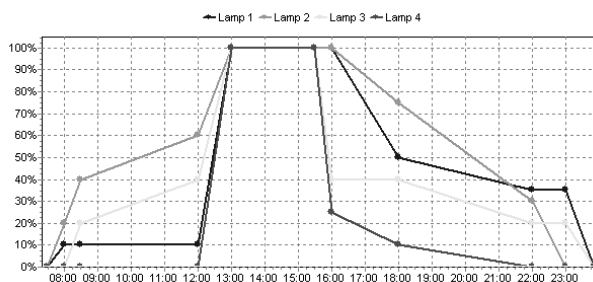
- The lamps and the electronic control gear are switched on and off with a timer. This is probably the situation before the **flora-mate** light dimmer is installed, and nothing is changed in that respect. The timer stays, and is used to switch the mains supply to the lamps on in the

morning, and off at night.

- An adapter, that is also plugged into the timer that switches on the mains supply to the lamps, is used to supply power to the **flora-mate** light dimmer. When the light dimmer is powered on, it knows that it must start the light program.
- Next, the light dimmer executes the light program that is has stored in its internal memory. This light program is nothing more than a large table that contains a light level for each of the 4 channels, for each 30-second timeslot following power-on of the dimmer.
- The dimmer takes care of sun rise and sun set effects during the day, following the program that was previously stored in the dimmer using the PC and the PC software.
- Once the light cycle is complete, the timer can be used to switch off the mains supply to the lamps. During the night, the lamps are completely switched off, and the dimmer is also powered down.
- The following morning, the timer once again switches the lamps and the dimmer on, and the cycle repeats itself.

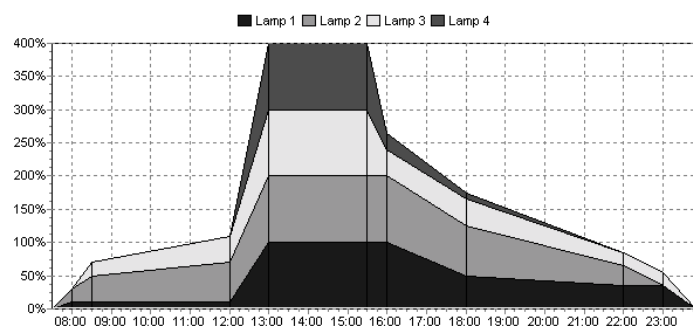
The PC software

To design the dimmer program you can download free PC software from the **flora-mate** website. You simply enter the required light levels at specific times of the day, and the software will smooth the transition from one level to the next.



While you are designing the light sequence, the software shows what you have entered so far, in two graphs. The first graph shows the light that each lamp will generate in the course of a day.

The second graph adds up the light from all the lamps and shows the total amount of light that will be generated during the course of a day.



Some advanced functions further enhance the possibilities of the light dimmer.

- Each of the electronic gear can be calibrated individually if required. This enables you to combine gear from different manufacturers and still have comparable light output at the same percentages.
- The light levels can be controlled directly from the PC.

Installation

Installation is easy and straight forward. Of course, dimmable electronic gear must be installed.

1. The lamps probably are controlled by a timer already. This does not change. The adapter for the dimmer is simply also connected to the timer that switches the lamps on and off.
2. The control output of the dimmer is connected to the control input of the electronic gear.

Done. Nothing more needs to be changed in the existing installation.