



Chromoflex RC USB Dongle and „Color-Editor“

The Chromoflex RC USB Dongle can be used to control single modules or complete networks of Chromoflex RC modules. Compared to the Handheld Remote Control the USB Dongle can also modify the colour table and the 3 user-changeable colour changes. The range of the USB Dongle is depending on the environment, indoor normally the reliable operation range is 20-50 mtr, outdoors up to 300 mtr are possible.

Chromoflex RC operates on a frequency of 868.3 Mhz (license free in EC, Switzerland, Norway and Iceland).

Safety instructions

The USB Dongle was designed for use in dry places. Electrostatic discharge, humidity and dirt may damage the device. Do not modify the electronics.

We decline any liability, loss, or damage caused by improperly used devices! Also guarantee is lost in such cases.

This product is not a toy, keep away from children!

First Test

Important: Before connecting the USB Dongle, please install the software „Color-Editor“ first! The latest version can be downloaded freely from the address at the end of this document. The software was tested with Windows 98 SE, Windows XP and Vista (all trademarks of Microsoft).

After correct installation of the software „Color-Editor“ can be started.

Important: It does not matter which USB port is used on the computer, but only one single USB-Dongle is possible per PC.

The used radio frequency (868.3 Mhz) is also used by other devices (like radio controlled sockets, weather sensors, ...), but the current regulation ensure an interference-free operation. For a reliable transmission the Chromoflex RC therefore uses a 2-way transmission. This means: the USB Dongle listens for a reply of the Chromoflex RC!

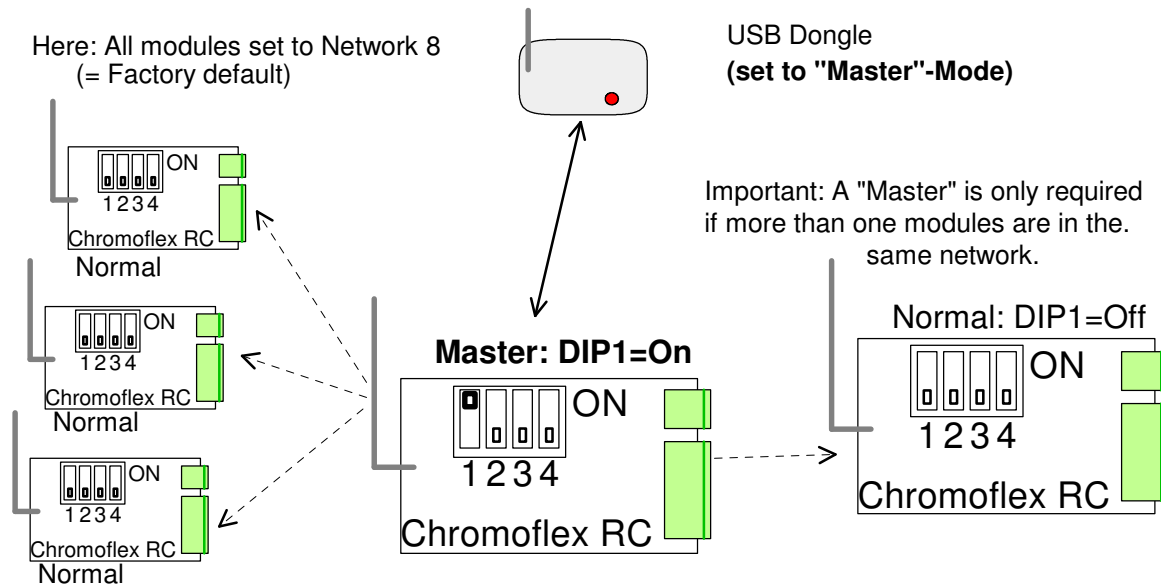
In the simplest case, the USB Dongle has to communicate only with one Chromoflex RC module. Then only both must be set to the same network (1-8). This mode („Normal, Network 8“) is the factory default.

Updates

The latest version of the Software can be installed without removing the previous version.

Networking and wireless operation

If a group of more than one modules build one network, one module within the network should be set up as a „Master“ module. Only the „Master“ will communicate with the USB Dongle. But it will forward its settings (and its time base) periodically (all few seconds) or on a communication event to all other modules within the network.



Even if other modules (non-“Master“) are switched on later, they will receive (at least after a few seconds) the settings from the Master.

The communication of the USB Dongle with the Master is 2-way. But the master itself sends signals to the other modules only in one direction. However, this safe, because if any packet goes lost, the next will follow after a few seconds. Even if many packets are lost, the network will still work synchronous.

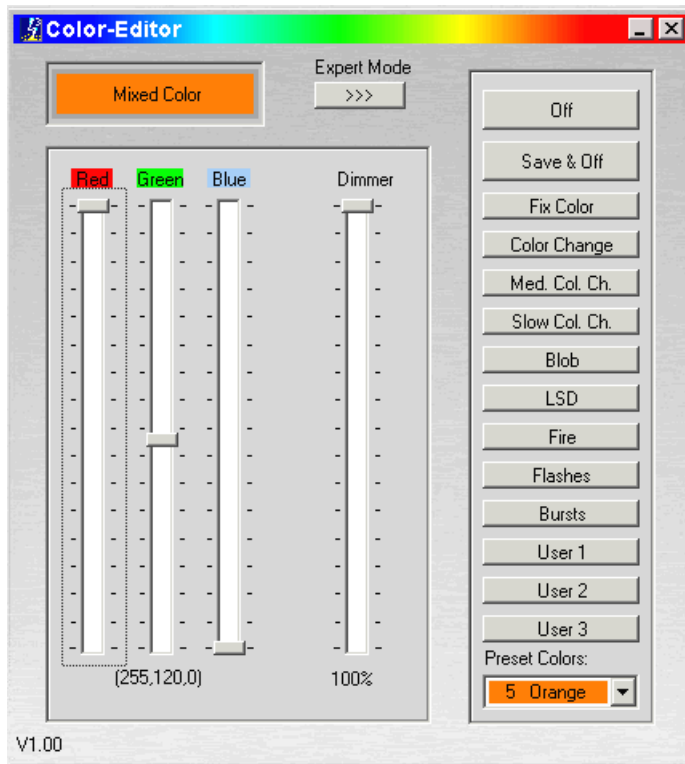
It is good practice to set a module in the middle of the network as Master. If there is any of the other modules too far from the master, it will not follow reliably (or not at all) to the Master's commands (so this can be recognised easily).

A word about the range: To achieve a good range, we recommend to justify the antenna directly „into the air“. Dense materials (especially if close to the antenna) like stone, concrete and metal parts may reduce the range significantly. In case of weak signals, sometimes it often already helps, if the module is moved some cm.

Using the „Color-Editor“



The „Color-Editor“ first starts in Standard-Mode. The initial default is network 8. If any Chromoflex RC module with the same net is in range, it can be controlled with the sliders and buttons. In case of success, the signal strength will be displayed, else an error message will be displayed.



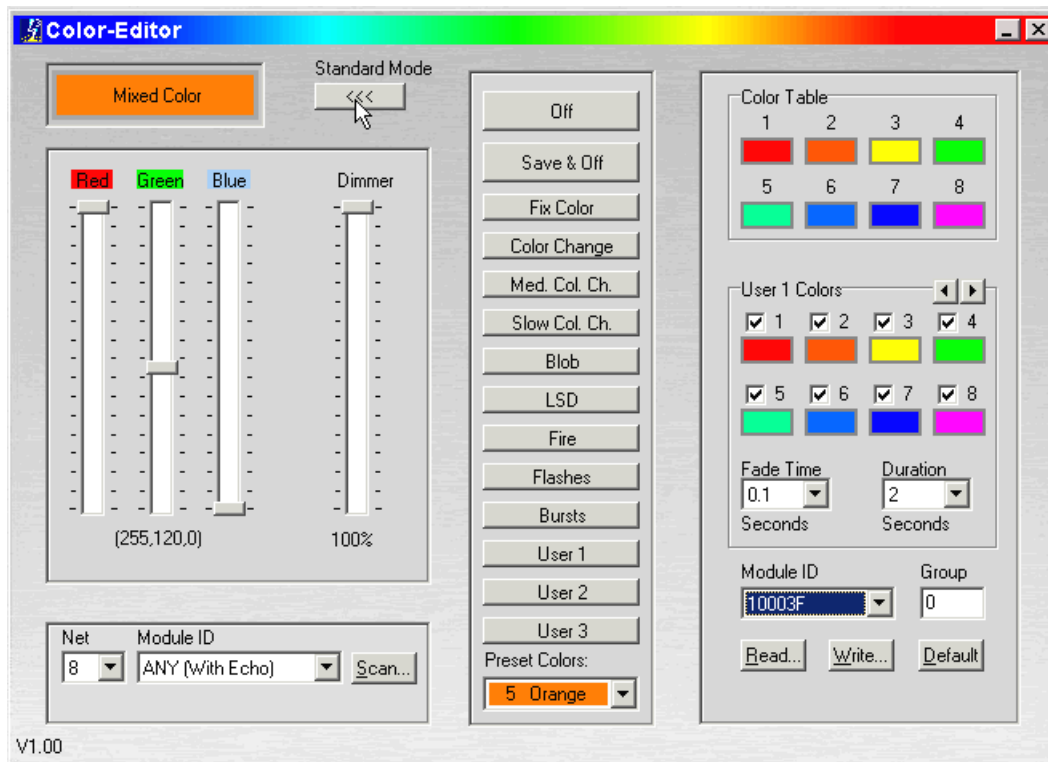
Color-Editor in Standard-Mode

Die buttons select the predefined effects:

- 1.) Switch off (without saving)
- 2.) Switch off with saving (last effect, fixed colour and dimmer are saved) as new power-on settings
- 3.) Fixed Colour (last saved fixed colour)
- 4.) Normal Colour Change (all 8 colours of the standard colour table, 5 seconds per colour)
- 5.) Medium Colour Change (all 8 colours of the standard colour table, 20 seconds per colour)
- 6.) Slow Colour Change (all 8 colours of the standard colour table, 40 seconds per colour)
- 7.) „Blob“: Randomly uplighted/dimmed colours (from the 8 colours of the standard colour table)
- 8.) „LSD“: Randomly changing colours (from the 8 colours of the standard colour table)
- 9.) „Fire“: Simulation of a burning fire (red and orange)
- 10.) „Flashes“: Bright random flashes over a deep blue (looks very good with several Chromoflex RC)
- 11.) „Bursts“: Randomly selected, non-synchronised flashes (from the 8 colours of the standard colour table)
- 12.) User Program 1 (can only be modified with „Color-Editor“, pre-set: 8 colours with fast changing)
- 13.) User Program 2 (can only be modified with „Color-Editor“, pre-set: red-green-blue)
- 14.) User Program 3 (can only be modified with „Color-Editor“, pre-set: 3 uplighted/dimmed combined colours)

The „Expert-Mode“

Pressing the button „Expert-Mode“ extends the window:

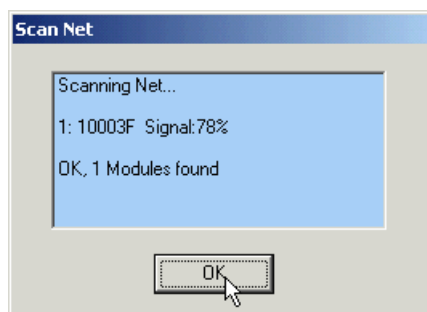


The Color-Editor in „Expert-Mode“

At first the net can be selected (1-8) and the communication type:

- „ANY (With Echo)“: The „Color-Editor“ expects and accepts a reply from any Chromoflex RC module
- „ANY (No Echo)“: if more than one Chromoflex RC are operated in a net without a „Master“, this mode should be used (then each command is sent several times, but no reply is checked)
- „MASTER („With Echo“)“: The „Color-Editor“ will only communicate with a „Master“ in the net, the „Master“ will then forward the commands to the other Chromoflex RC.

Pressing „Scan...“ will scan the current net for Chromoflex RC modules:



Scanning takes a few seconds...

All found modules will be listed and the ideal communication type will be set.

Please note: The selected settings for net and communication type will be saved by the „Color-Editor“, hence it not necessary to switch to „Expert-Mode“ every time the „Color-Editor“ is started.

Now the colour table and the three user programs can be read or written (by radio transmission) from or to the modules.

Each Chromoflex RC module has an unique ID (6 digits). This ID can be used to communicate with only this module. The buttons „Read.“ and „Write“ will transfer the data to or from a single module the „Color-Editor“. „Default“ will restore the factory settings. In a network each module must be accessed separately.

Colour table

Each Chromoflex RC module has a colour table with 8 entries. This table is used for the effects (see previous list).

The **left mouse button** will select a colour, the **right mouse button** will store the current colour in the colour table.

It is possible to use e.g. only „cold colours“ or „warm colours“ for special scenarios.

The three User Effects

Each of the User Effects consists of a list of one to (maximum) 8 colours, including a duration time („Duration“) and a fade time („Fade Time“). If e.g. three colours are used in an User Effect and the duration is 5 sec, the total User Effect will require 15 sec. Normally the fade time should be selected smaller then the duration.

Each module can have single (and different) User Effects (e.g. for special scenarios). But all modules should have the same number of colours in the same User Effect and the same duration. This is required that the „Master“ can keep synchronisation.

The „Group“

This parameter is only used for the three predefined colour changes (No. 4-6 in the previous list). It stands for an offset in the colour change sequence and can have any value from 0..255: The colour changes are divided in 8 steps of 32 sub-steps each. If (e.g.) one module has a „Group“ of 128, its colour change is shifted by 4 colours compared to a module with a „Group“ of 0. ($128 = 4 * 32$). This means, the module with „Group“ 128 will change from colour 5 to 6 exactly, when the module with „Group“ 0 will change from colour 1 to colour 2.

Hence „Group“ is ideal to form scenes (e.g.: modules for lighting the ceiling in a room can have tem same, but different „Groups“ than the modules for lighting the walls)...

Because each step has 32 sub-steps, these sub-steps can be used to perform e.g. „waves of colour“ (but this only looks good with three ore more Chromoflex RC modules).

Technical Data

Radio frequency: 868.3 Mhz (license free in EC, Switzerland, Norway and Iceland)

Contact / Internet

Download of the PC Software, manuals, data sheets and technical requests (technical requests only as E-mail please!):

www.chromoflex.com , www.barthelme.de

Manufacturing and distribution:

www.barthelme.de