Color Control GX

The Color Control (CCGX) provides intuitive control and monitoring for all Victron power systems. The list of Victron products that can be connected is endless: Inverters, Multis, Quattros, MPPT solar chargers, BMV battery monitors, Lynx Ion + Shunt and more.

VRM Online Portal
Besides monitoring and controlling products locally on the CCGX itself, all readings are also forwarded to our free remote monitoring website: the VRM Online Portal. To get an impression, try the demo on https://vrmonline.victronenergy.com. See also the screenshots below.

Remote Console on VRM
Monitor, control and configure the CCGX remotely, over the internet. Just like standing in front of the device, everything can also be done remotely. The same functionality is also available on the local network, Remote Console on LAN.

Automatic genset start/stop
A highly customizable start/stop system. Use state of charge, voltage, load and other parameters. Define a special set of rules for quiet times, and optionally a monthly test run.

The heart of ESS – Energy Storage System

Data logging
When connected to the internet, all data is sent to the VRM Portal. When there is no internet connection available, the CCGX will store the data internally, up to 48 hours. By inserting a micro SD-card or USB stick, more data can be stored. These files can then be uploaded to the VRM Portal, or offline converted with the VictronConnect app, for analysis.

Supported products
- Multis and Quattros, including split-phase and three-phase systems. Monitoring and control (on/off and current limiter). Changing configuration is possible (only remotely via the internet, not without an internet connection).
- BlueSolar MPPT Solar Chargers with a VE.Direct port.
- BlueSolar MPPT 150/70 and the MPPT 150/85 with VE.Can port. When multiple BlueSolar MPPTs with VE.Can are used in parallel, all the information is combined as one. See also our blog-post about synchronizing multiple MPPT 150/70 solar chargers.
- BMV-700 family can be connected directly to the VE.Direct ports on the CCGX. Use the VE.Direct Cable for this.
- BMV-600 family can be connected to the VE.Direct ports on the CCGX. Requires an accessory cable.
- Lynx Ion + Shunt
- Lynx Shunt VE.Can
- Skylla-i battery chargers
- NMEA2000 tank sensors
- A USB GPS can be connected to the USB port. Location and speed will be visible on the display, and the data is sent to the VRM Portal for tracking purposes. The map on VRM will show the latest position.
- Fronius PV Inverters

When more than two VE.Direct products must be connected, USB can be used.

Internet connection
The CCGX can be connected to internet with an Ethernet cable and via Wi-Fi. To connect via Wi-Fi, a Wi-Fi USB accessory is required. The CCGX has no internal cellular modem: there is no slot for a sim-card. Use an off-the-shelf GPRS or 3G router instead. See the blog post about 3G routers.

Other highlights
- The CCGX can automatically update itself from the internet, when there is a new software version available.
- Multiple languages: English, Czech, German, Spanish, French, Italian, Dutch, Russian, Swedish, Turkish, Chinese, Arabic.
- Use the CCGX as a Modbus-TCP gateway to all connected Victron products. See our Modbus-TCP FAQ for more information.
- Powered by the Venus OS – embedded linux.
https://github.com/victronenergy/venus/wiki/sales-pitch
## Color Control GX

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Power supply voltage range</strong></td>
<td>8 – 70V DC</td>
</tr>
<tr>
<td><strong>Current draw</strong></td>
<td></td>
</tr>
<tr>
<td>12V DC</td>
<td>140mA</td>
</tr>
<tr>
<td>24V DC</td>
<td>80mA</td>
</tr>
<tr>
<td>48V DC</td>
<td>40mA</td>
</tr>
<tr>
<td><strong>Display at minimum intensity</strong></td>
<td></td>
</tr>
<tr>
<td>160mA</td>
<td>160mA</td>
</tr>
<tr>
<td>90mA</td>
<td>90mA</td>
</tr>
<tr>
<td>45mA</td>
<td>45mA</td>
</tr>
<tr>
<td><strong>Display at maximum intensity</strong></td>
<td></td>
</tr>
<tr>
<td>245mA</td>
<td>245mA</td>
</tr>
<tr>
<td>125mA</td>
<td>125mA</td>
</tr>
<tr>
<td>65mA</td>
<td>65mA</td>
</tr>
<tr>
<td><strong>Potential free contact</strong></td>
<td>3A / 30V DC / 250V AC (Normally open)</td>
</tr>
<tr>
<td><strong>Communication ports</strong></td>
<td></td>
</tr>
<tr>
<td>VE.Direct</td>
<td>2 separate VE.Direct ports – isolated</td>
</tr>
<tr>
<td>VE.Can</td>
<td>2 paralleled RJ45 sockets – isolated</td>
</tr>
<tr>
<td>VE.Bus</td>
<td>2 paralleled RJ45 sockets – isolated</td>
</tr>
<tr>
<td>USB</td>
<td>2 USB Host ports – not isolated</td>
</tr>
<tr>
<td>Ethernet</td>
<td>10/100/1000MB RJ45 socket – isolated except shield</td>
</tr>
<tr>
<td><strong>Modbus-TCP</strong></td>
<td>Use Modbus-TCP to monitor and control all products connected to the Color Control GX</td>
</tr>
<tr>
<td><strong>JSON</strong></td>
<td>Use the VRM JSON API to retrieve data from the VRM Portal</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Outer dimensions (h x w x d)</strong></td>
<td>130 x 120 x 28mm</td>
</tr>
<tr>
<td><strong>Operating temperature range</strong></td>
<td>-20 to +50°C</td>
</tr>
<tr>
<td><strong>Standards</strong></td>
<td></td>
</tr>
<tr>
<td>EMC</td>
<td>EN 61000-6-3, EN 55014-1, EN 61000-6-2, EN 61000-6-1, EN 55014-2</td>
</tr>
<tr>
<td>Automotive</td>
<td>E4-10R-053515</td>
</tr>
</tbody>
</table>

### Overview - Multi with PV Inverter on output

![Diagram](image1.png)

### Mobile & boat overview

![Diagram](image2.png)

### Genset control page

![Diagram](image3.png)

### Main menu

- **Device List**
- **Lynx Ion**
- **Lynx Shunt 1000A VE.Can**
- **PV Inverter on AC Out**
- **Ouattro 24/3000/70-2x450**
- **PV Inverter on output**
- **Notifications**

### Alarm notifications

- **MultPlus Compact 24/2000/50-30**
  - Warning Inverter overload
  - 2014-10-22 22:54
- **MultPlus Compact 24/2000/50-30**
  - Warning Inverter overload
  - 2014-10-22 19:26
- **MultPlus Compact 24/2000/50-30**
  - Warning Inverter overload
  - 2014-10-22 19:25

### Tiles overview

- **BATTERY**: 83% discharging, 518W, 548V
- **ESS**: Bulk, 21:11, no alarms
- **PV INVERTER**: 0W

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Color Control GX

VRM Portal - Dashboard

Almere ESS-Grid-1000 OPzS

Last update: a minute ago

- Consumption
- Solar
- Battery

VRM Portal – Remote Console

Almere ESS-Grid-1000 OPzS

Last update: a few seconds ago

- Consumption
- Solar
- Battery

Device List

- Fronius Symo 8.2-3-M: 0W
- Grid meter: 216W
- MultiPlus 48/5000/70-50: Bulk
- PV Inverter on input 1: 0W
- Notifications
- Settings

Realtime data
Color Control GX

- **Multi and Quattro Inverter/Charger**: Single, parallel, three-phase and split-phase.
- **MPPT 150/70 and MPPT 150/85**
- **Skylla-i**
- **VE.Can RJ4S terminators**
- **Alarm buzzer**
- **Ethernet**: Connect to internet router
- **Wifi**: Connect to internet router
- **GPS**
- **USB stick**: Used for manually updating firmware and for data logging.
- **To battery**
- **MicroSD Card**: Used for manually updating firmware and for data logging. When panelmounted, this slot is accessible from the front.
- **Digital Multi Control**
- **MPPT 75/15 up to 250/100**
- **BMV-700 or BMV-712 Smart**
- **Potential free contact**: - alarm signaling - automatic generator start/stop
- **USB Device**: 8-70VDC GND
- **Power in V+"