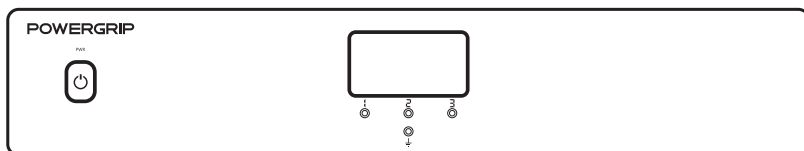


# POWERGRIP

## YG-2

CLEAN POWER CONSOLE



OPERATION MANUAL

for devices with serial number 19xxxxxx and less

## GENERAL DATA

POWERGRIP YG-2 power console is intended for connected equipment protection against overvoltage, power surges and network interference of various kinds.

Due to a great number of digital power modules in the network there is a large amount of high-frequency interference which disturbs the operation of devices with traditional power modules. In POWERGRIP console different types of filters are used which enable isolation of devices preventing their undesirable influence on each other, as well as help avoid interference produced by the network.

Filters ensure minimum harmonic distortion and are able to gate through large current impulses, unlike traditional power filters. Switching relays operate using Zero cross technology: switching on and off the load is performed while crossing zero point supply voltage by the sinusoidal wave. Thanks to it, soft switch on and off even of the most high-capacity energy users is provided.

Protection system consists of three levels:

- The first level includes the filters for absorption of interference and minor surges.
- The second level includes varistors absorbing heavy voltage surges in the network.
- The third level deenergizes the console in case the voltage deviation in the network exceeds the permissible level.

Besides, POWERGRIP console is equipped with self-diagnostics system. In case of failure connected equipment will be deenergized, and blinking indicators will inform the user of the arisen defects.

## **SPECIFICATIONS**

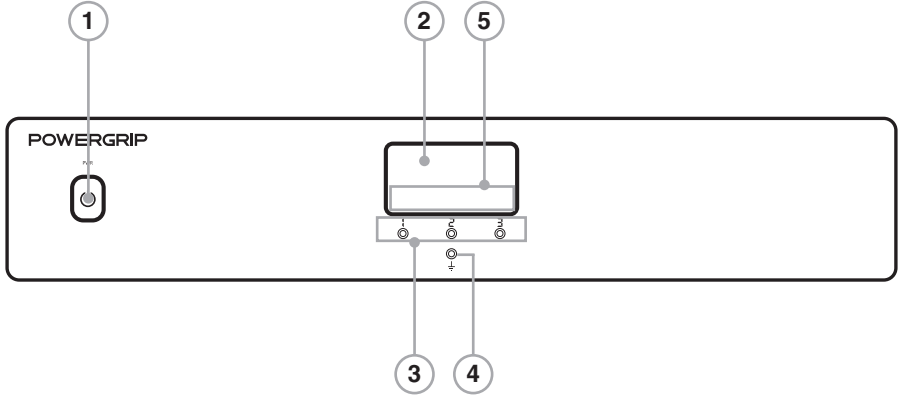
- Electrical characteristics: 190 – 256 V ~ 16 A (3680 W at 230 V)
- Number of power outlets: 6 programmable outlets
- Energy indicator in Joules: 2,220 J
- Maximum peak current: 65,000 A
- Limits at which emergency shutdown of power supply occurs:  
≤ 190 / ≥ 256 V (may vary depending on harmonic distortion in the network, as well as with voltmeter readings)

## **DELIVERY PACKAGE**

- Power console unit
- Power cable 1.5 m
- Fasteners for rack-mount
- Antenna filter
- User Manual

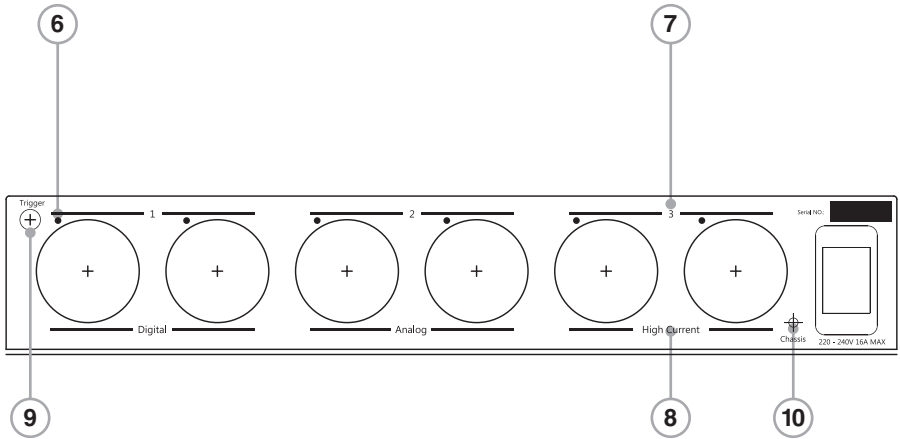
# APPEARANCE AND CONTROLS

## FRONT PANEL



- 1. Power ON/OFF button** controls switching on and off of the group of outlets. Its readings may differ from other measuring devices.
- 2. Voltmeter** displays a current value of voltage in the mains line.
- 3. The group indicator** shows groups of outlets active at the moment.
- 4. Correct switching indicator** will turn blue when the console power cord is properly plugged into an outlet. If the indicator is RED, you need to turn the power plug in the outlet. If the indicator stays RED regardless of the plug position, the outlet is not grounded. Consult a competent electrician to remedy this problem. For more information, visit [POWERGRIP.COM](http://POWERGRIP.COM).
- 5. By means of touch-screen** you can control the console using touch. Features a touch with one or two fingers in the center of the area shown in the diagram.

REAR PANEL



- 6. **Phase position** in an outlet is marked by a dot with a lighted indicator of correct switching (4).
- 7. **Number of outlet group.**
- 8. **Filter type of a given outlet group.** The console is equipped with different types of filters (see the «Equipment connection» section).
- 9. **Trigger signals input** is intended for switching on and off the console by the signal from another device. RS232 signal transmission by means of an adapter is possible (not included in the delivery package).

**To find out more about the use of RS232 port for control systems connection** please visit to [POWERGRIP.COM](http://POWERGRIP.COM)

- 10. **Ground terminal** is designed for optional grounding of devices.

## EQUIPMENT CONNECTION

In POWERGRIP console outlets different types of filters are used, which allow to achieve the best results for certain equipment.

For connecting equipment with digital power modules a multi-level filter is provided designated as **DIGITAL** (used in the first and second group of outlets). Generally, digital power modules are used in DVD and Blu ray players, satellite tuners and remote units (adapters). It is recommended to connect these devices to the outlets of the first or the second group, thus providing reliable segregation of the interference emitted by digital power modules. If you are not able to determine what kind of power module is used in the equipment, consult the manufacturer.

The filters marked as **ANALOG** and **HIGH CURRENT** are intended for equipment with traditional power modules. These filters ensure the most accurate power transmission to devices' power transformers and help eliminate interference from the power supply network effectively. These filters are effective both with traditional power modules of a small consumption (used in CD-players) and high-power toroidal transformers of terminal amplifiers.

## **SAFETY RULES**

POWERGRIP power console should be connected directly to the stationary grounded outlet of the power network. Do not connect console in parallel (i.e. daisy chain connection) to other electrical devices, such as power supply protection devices, power filters or UPS. Do not use extension cords or T-connectors. Non-compliance with these requirements may cause injuries or equipment damage, which will automatically incur warranty termination. If you are not sure which power outlet is duly grounded, consult a competent electrician.

Although POWERGRIP console is intended for considerable current surges, it is recommended to unplug the device in case of heavy thunderstorm. To disconnect the equipment connected to the console is not necessary.

Avoid water ingress in the console or the housing. In case of water ingress disconnect the console from the power outlet. Use the device only indoors. Do not use the console in the rooms with high humidity.

In case any problems in console operation or its complete damage may occur, do not try to remedy them unassisted. It may cause serious injuries or death. Do not disassemble the console. This will automatically incur warranty termination. Disconnect the console from the network immediately and contact authorized . The manufacturer is not liable for console functioning and reparation of unauthorized interference effects if the maintenance was performed in an uncertified service center.

## CONTROL VIA SENSOR

The sensor is located in the bar under the digital indicator.

There are 3 types of sensor action (for sensor activation it is necessary to fix the action for approximately one second):

- 1 To change the brightness bring the hand close to the screen (10 – 15 mm).
- 2 Light touch with one finger. The action is assigned via the menu.
- 3 Light touch with two fingers activates the second group; it can be deactivated via the menu.

**Do not apply too much pressure to the panel – it may cause damage! Only light touch is needed for sensor operation.**

**In case of sensor activation incorrect recognizing of action is possible which may cause unwanted tripping of the controlled group!**



## CONFIGURATION MENU

To enter configuration menu, disconnect the console from the power outlet, wait for the screen to blink off, plug the console into the outlet **with pressed power button**.

**Short pressing of power button** enables to change the settings of the selected menu item, **prolonged pressing** moves you to the next menu item.

Menu items:

**0n** Selection of permanently operating outlet groups. From 1 to 3 in succession. Blue group indicator means that the group will be operating permanently, red is switched off by power button. For full disconnection of the console hold the power button for some time with switched off automatic restarting.

**rES** Automatic restarting of permanently operating outlets after protection activation. **This menu item is accessible only when at least one permanently operating group of outlets is chosen.** Blue group indicator means that the function for the group is active, red is inactive.

**dXX** Selection of delays, where XX is time in seconds. Delay is set for the group marked by indicator 3. If the indicator is blue, delay is set before switching on the group, if it is red, after switching off the selected group.

**BH** The first stage of brightness.

**BL** The second stage of brightness.

**Switching between the selected brightness stages during the setting is done by bringing the hand close to the touch pad. Touch pad in menu mode is not active.**

**5**

Sensor mode:

0 – only brightness by bringing the hand close

1 – brightness by bringing the hand close +  
first group activation using one finger touch +  
second group activation by two fingers touch

2 – brightness by bringing the hand close +  
second group activation by two and one fingers

3 – brightness by bringing the hand close +  
third group activation by one finger touch +  
second group by two fingers

4 – brightness by bringing the hand close +  
change of measurement mode by one finger touch (see  
Measurement mode) and the second group activation by  
two fingers touch

**To save the settings you need to go through the menu to the end.**

## MEASUREMENT MODE

To switch to measurement mode, the fourth sensor mode should be chosen in the menu (see configuration menu), and then, by touching the screen with one finger in the operating mode one can change the displayed information.

Three types of values are displayed:

1. Supply voltage
2. .XX – supplying network frequency deviation by one and two decimal places of 50 Hz. It characterizes the power plant workload.
3. H00 – percent of sinusoid cut. It closely matches harmonic distortions of sinusoidal wave in the network. It characterizes the electrical wiring workload.



**For detailed information on port RS232 application**  
for control system connection  
visit [POWERGRIP.COM](http://POWERGRIP.COM)

## **POWERGRIP**

Power Console

Model: YG-2

Designed & Engineered in Russian Federation

Assembled in Taiwan

Manufacturer: AO «Barnsly Import»

Office 10, 3 bld.1, Signalny Proezd, Moscow 127106, Russia

[www.powergrip.com](http://www.powergrip.com)

