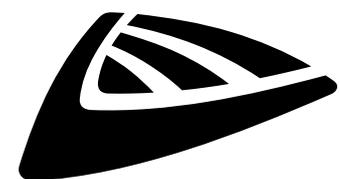


LED-REPEATER



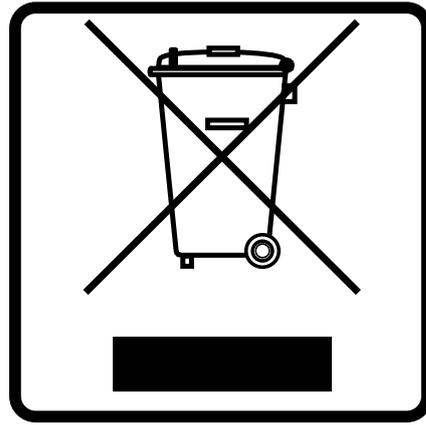
ENGLISH Operation Manual

Other languages can be downloaded from:
WWW.JB-SYSTEMS.EU



JBSYSTEMS

Version: 1.0



EN - DISPOSAL OF THE DEVICE

Dispose of the unit and used batteries in an environment friendly manner according to your country regulations.

FR - DÉCLASSER L'APPAREIL

Débarrassez-vous de l'appareil et des piles usagées de manière écologique Conformément aux dispositions légales de votre pays.

NL - VERWIJDEREN VAN HET APPARAAT

Verwijder het toestel en de gebruikte batterijen op een milieuvriendelijke manier conform de in uw land geldende voorschriften.

DU - ENTSORGUNG DES GERÄTS

Entsorgen Sie das Gerät und die Batterien auf umweltfreundliche Art und Weise gemäß den Vorschriften Ihres Landes.

ES - DESHACERSE DEL APARATO

Reciclar el aparato y pilas usadas de forma ecologica conforme a las disposiciones legales de su país.

PT - COMO DESFAZER-SE DA UNIDADE

Tente reciclar a unidade e as pilhas usadas respeitando o ambiente e em conformidade com as normas vigentes no seu país.

OPERATION MANUAL

Thank you for buying this JB Systems® product. To take full advantage of all possibilities, please read these operating instructions very carefully.

FEATURES

- This LED-REPEATER (also called LED AMPLIFIER or LED BOOSTER) is an essential component in many installations using LED-strips!
- LED-strips cannot support a lot of current: by adding this vital component in the LED-strip line, the current is reduced and the length of the LED-strip can be increased a lot!
- Can be used for both RGB and 1-COLOR led strips.
- Easy electrical installation
- PWM technology for smooth and flicker-free dimming from 0% to 100%
- Max. output power:
 - 80Watt/channel (total = 240W) @12V
 - 160Watt/channel (total = 480W) @ 24V
- Perfect for use in LED installations for homes, shops, ...

BEFORE USE

Check the contents:

Check that the carton contains the following items:

- LED-REPEATER unit
- User manual

Some important instructions:

- Before you start using this unit, please check if there's no transportation damage. Should there be any, do not use the device and consult your dealer first.
- **Important:** This device left our factory in perfect condition and well packaged. It is absolutely necessary for the user to strictly follow the safety instructions and warnings in this user manual. Any damage caused by mishandling is not subject to warranty. The dealer will not accept responsibility for any resulting defects or problems caused by disregarding this user manual.
- Keep this booklet in a safe place for future consultation. If you sell the fixture, be sure to add this user manual.
- To protect the environment, please try to recycle the packing material as much as possible.

SAFETY INSTRUCTIONS:



This symbol means: indoor use only



This symbol means: Read instructions



The device is suitable for mounting on standard flammable surfaces. Standard flammable surfaces include building materials such as wood and wood-based materials more than 2mm thick.

- To prevent fire or shock hazard, do not expose this appliance to rain or moisture.
- To avoid condensation to be formed inside, allow the unit to adapt to the surrounding temperatures when bringing it into a warm room after transport. Condensation sometimes prevents the unit from working at full performance or may even cause damages.
- This unit is for indoor use only.
- Don't place metal objects or spill liquid inside the unit. No objects filled with liquids, such as vases, shall be placed on this appliance. Electric shock or malfunction may result. If a foreign object enters the unit, immediately disconnect the mains power.
- No naked flame sources, such as lighted candles, should be placed on the appliance.
- Don't cover any ventilation openings as this may result in overheating.
- Prevent use in dusty environments and clean the unit regularly.
- Keep the unit away from children.
- Inexperienced persons should not operate this device.
- Maximum safe ambient temperature is 40°C. Don't use this unit at higher ambient temperatures.
- Always unplug the unit when it is not used for a longer time or before you start servicing.
- The electrical installation should be carried out by qualified personal only, according to the regulations for electrical and mechanical safety in your country.
- Check that the available voltage is not higher than the one stated on the rear panel of the unit.
- Please use the original packing when the device is to be transported.
- Due to safety reasons it is prohibited to make unauthorized modifications to the unit.

MAINTENANCE

Clean by wiping with a polished cloth slightly dipped with water. Avoid getting water inside the unit. Do not use volatile liquids such as benzene or thinner which will damage the unit.

ELECTRICAL INSTALLATION

RGB-SETUP: INCREASING THE LENGTH OF A LEDSTRIP

Used when the power of the connected flexible led strip exceeds the maximum allowed power of the controller AND/OR when the led strip reaches the maximum permissible length of 5m (otherwise it will be damaged due to excessive current)

Follow these instructions:

- Calculate the total power for part of the led strip installed at the LED-REPEATER output. The power of led strips is mostly given in watt/meter (W/m).

Example: the power of your ledstrip = 14,4W/m and length = 5m

The total power = 14,4 W/m * 5m = 72W

- Choose an adapted power supply to be connected to the LED-REPEATER, based on the previous calculation. For long-term reliability we suggest to add about 20% power reserve and choose the nearest power supply exceeding this calculation.

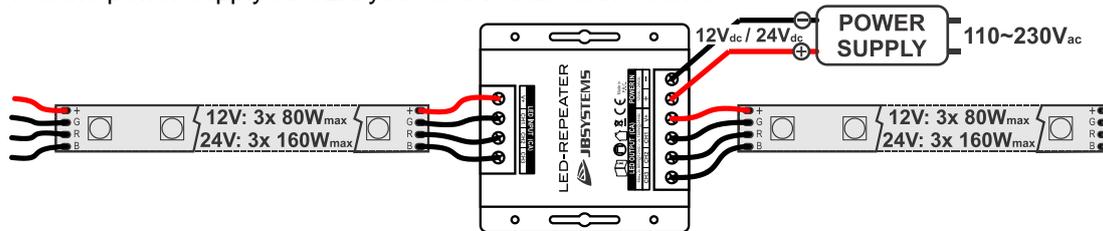
Example: in our example we need 72W. So we add 20%: 72W + 20% = ±87W

The nearest power supply in this case is 100W, so a 150W / 24V power supply also fits perfectly.

- Connect the output of the power supply to the power input of the LED REPEATER. (polarity of the wires!)
- Connect the end of the previous led strip to the input of the LED-REPEATER (polarity of the wires!)
- Connect the next led strip to the output of the LED-REPEATER (polarity of the wires!)

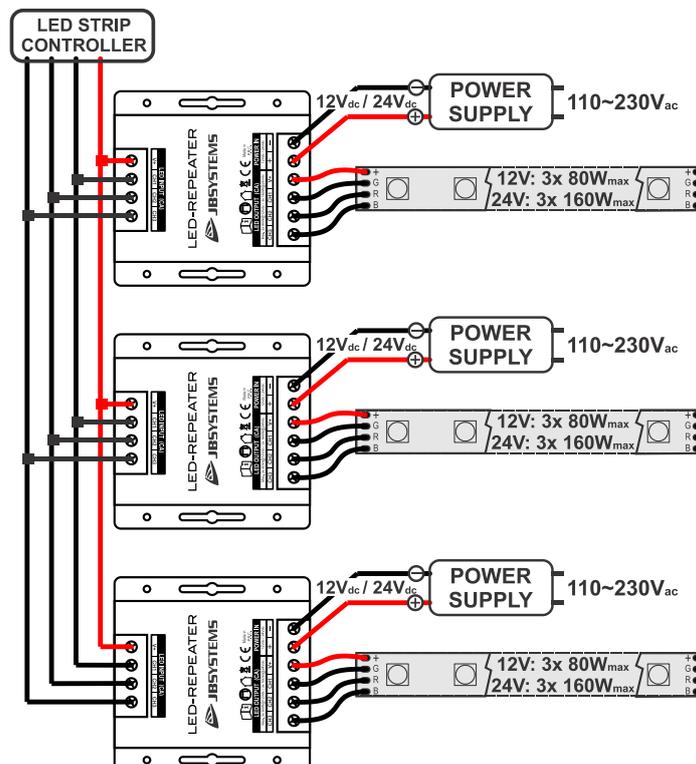
Remark: don't connect more than 5m led strip in series, excessive current will damage the led strip. Instead you can connect the led strips in parallel.

- Switch on the power supply AFTER you checked all connections.



RGB-SETUP: ALTERNATIVE SETUP FOR A BIGGER INSTALLATION

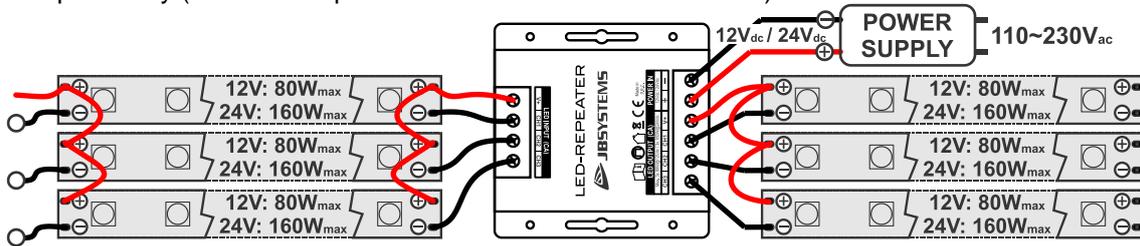
The basic idea is the same but the controller is directly connected to several LED-REPEATER units.



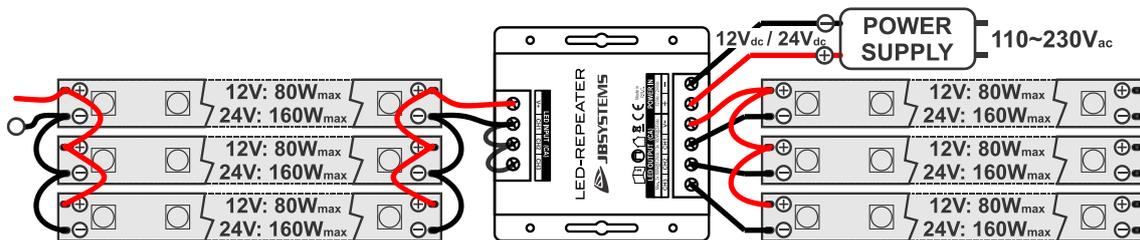
1COLOR-SETUP: INCREASING THE LENGTH OF A LEDSTRIP

Basically this is the same setup as for RGB led strips, the only difference is that you only have 1 color instead of 3. So you can connect the 1color led strips in 2 ways:

- **THREE 1 COLOR LED STRIP WITH INDIVIDUAL CONTROL:** 3 LED strip lines can be dimmed independently (each led strip is connected to a different channel).



- **THREE 1 COLOR LED STRIP WITH JOINT CONTROL:** 3 LED strip lines are dimmed together. Therefore 3 channels are connected together in parallel: see connection diagram.

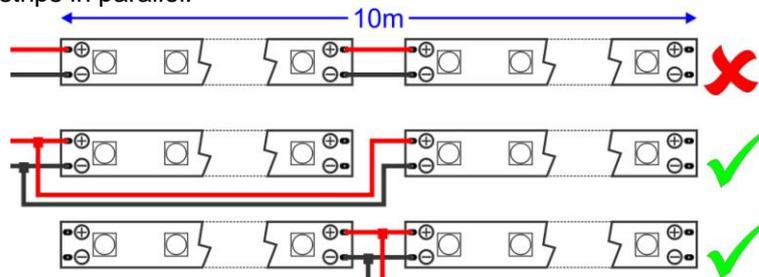


- Switch on the power supply AFTER you checked all connections.
- Done!

SOME GENERAL GUIDELINES

You can make any desired installation BUT you have to keep some important guidelines in mind:

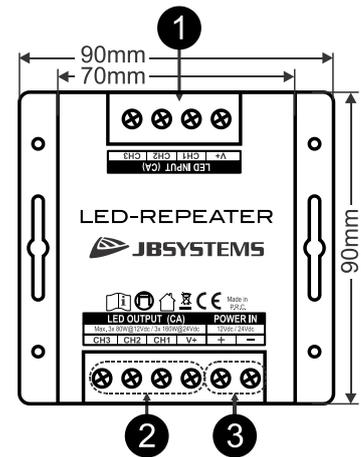
- Calculate the total power of the led strips and add $\pm 20\%$ to determine the power of the power supplies.
- Never connect led strips together in lengths exceeding 5m, instead:
 - Connect the strips in parallel:



- Use one or more LED-REPEATER + extra power supplies to extend the led strips.
- Use wires with a maximum cable section to reduce important voltage drops. Use at least 1,5mm² wires, for higher power and cable lengths we suggest 2,5mm². Even better is to calculate the voltage drop and use special charts to determine the perfect cable section.

FUNCTIONS

1. **LOAD INPUT:** connect the led strip(s) here (check the polarity !)
2. **LOAD OUTPUT:** connect the next led strip(s) here (check the polarity !)
3. **POWER INPUT:** connect the power supply (12Vdc or 24Vdc) here. (check the polarity !)



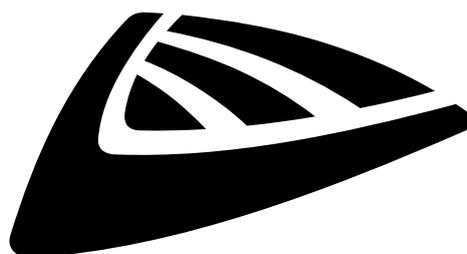
SPECIFICATIONS

This unit is radio-interference suppressed. This product meets the requirements of the current European and national guidelines. Conformity has been established and the relevant statements and documents have been deposited by the manufacturer.

Power Input:	12Vdc or 24Vdc (depends on the voltage of the led strips)
Input:	3ch common anode
Max output:	3ch common anode
	80Watt/channel (total = 240W) @ 12V
	160Watt/channel (total = 480W) @ 24V
Dimensions (LxWxH):	90 x 90 x 24 mm
Weight:	190 g

Every information is subject to change without prior notice

You can download the latest version of this user manual on our website: www.jb-systems.eu



JB SYSTEMS

MAILING LIST

EN: Subscribe today to our mailing list for the latest product news!

FR: Inscrivez-vous à notre liste de distribution si vous souhaitez suivre l'actualité de nos produits!

NL: Abonneer je vandaag nog op onze mailinglijst en ontvang ons laatste product nieuws!

DE: Abonnieren Sie unseren Newsletter und erhalten Sie aktuelle Produktinformationen!

ES: Suscribete hoy a nuestra lista de correo para recibir las últimas noticias!

WWW.JB-SYSTEMS.EU

Copyright © 2016 by BEGLEC NV

t Hofveld 2C ~ B1702 Groot-Bijgaarden ~ Belgium

Reproduction or publication of the content in any manner, without express permission of the publisher, is prohibited.