

Jet Afterburner Simulator NF-Jet1

The **NF-Jet1** unit serves to simulate flame on the output of the jet engine using red and yellow ultra bright LEDs 1.8 mm, 3mm or 5 mm. The input of the unit has to be connected in parallel with the engine controller. Use "Y" cable. Then intensity of the flame follows the power of the engine. Red color starts to light at the beginning of "gas" range. The yellow LED starts on the middle of the range. To increase the reality of the flame the light intensity changes in pseudo-random period. The frequency of changes speeds up when increasing the engine power.

The unit can also be connected as an uncontrolled unit when disconnecting the orange wire of the cable. In this case the light intensity is 100% (full gas). The red wire has to be connected to plus pole of the accumulator. The brown wire to the negative pole. The module is designed to work with BEC receivers. Maximum voltage is 6,0 V. The module is connected to receiver by a Graupner, Hitech type connector.

The module has two outputs, one for red color and the second for yellow color. The brown output (ground) is a common negative pole of LEDs (cathodes) for both colors. LEDs cannot be connected directly to the output. They have to be protected by resistors. The total current of one output range from 0 to 80 mA depending up the input signal and up the number of LEDs (see Fig.1).

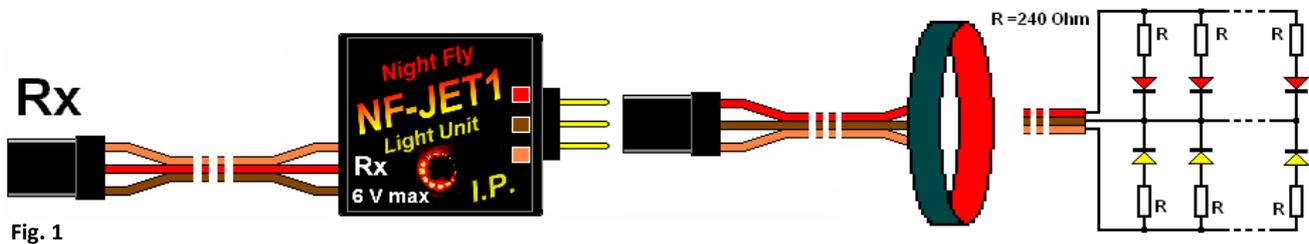


Fig. 1

ATTENTION: the output connector has not a direction lock against change of polarity. If you turn the connector only the order of colors will change.

If the module is sensitive to touch, the likely cause is a bad connection of the servo-cable to the module connector. Connection can be fixed by bending down the middle contact by a half, or at most its entire size. Bend it with small pliers, holding the module in your fingers as close as possible to the connector to reduce the risk of the breaking of the contact (see Fig. 2).



Fig. 2

The unit is optimized to work with LED belt NF-Jet1. NF-Jet1 belts are produced in three variants. The mini-version contains 10 pieces of two colors LEDs (R/G = Red/Green) 3 mm. The middle version contains 15 + 15 pieces of red and yellow LEDs 3 mm and the big version contains 15 + 15 pieces of red and yellow LEDs 5 mm. The mini belt is 179 mm length. The middle and big belts are 258 mm (10.15 inches) length. If the belt is turned so that the last segment is placed on the first free segment (without LEDs) You will have a circle with diameter 75 mm (3 inches). See the picture below. The circle can be fixed either by screws in holes **A** or by soldering of **B** points together. If You need a smaller circle you can shorten the belt by cutting of one or more segments along the line **C**. Each segment represents 5 mm (0,2 inches) of circle diameter. Diameter marks (in milli-meters **D** and in inches **E**) are placed beside the hole **A**. You obtain the circle of a required diameter when the mark (and the hole) of the segment with the requested diameter is placed onto "zero" mark (and the hole) on a first free segment.

If you need a bigger circle, you can put together two belts by the same way (see Fig.3).

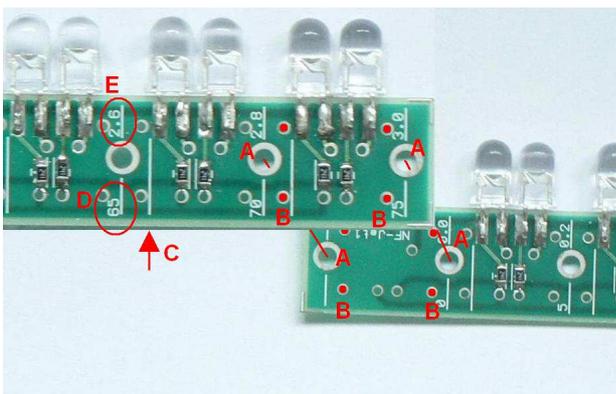


Fig. 3

How to adapt the LED belt for two exhaust tubes 35 mm

Cut the belt in two parts. Then sold a three wires cable to connect both parts together as shown in the Fig. 4.

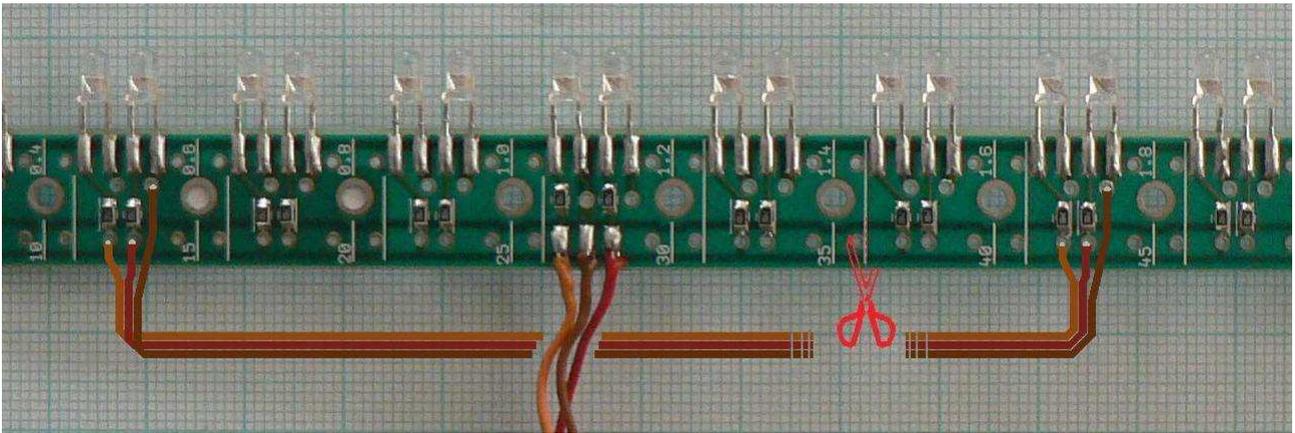


Fig. 4

The manufacturer is not liable for damages caused by the operation of the unit beyond the technical parameters and the above recommendations. Instructions for the implementation of socket adapters, cabling and more information about diodes can be found on the website.

Technical parameters NF-Jet1

	min	typ.	max.
Operational Voltage [V]:	3.35	5.0	6.0
Consumption [mA]:		< 1.7	
Output Current R [mA]:			80
Output Current Y [mA]:			80
Input pulse width [mA]:		0,95 – 2,05	
Temperature:		0 – 70 °C	
Dimensions [mm]:		20 x 25 x 6	
Weight [g]:		3.6	

Production:

Ivan Pavelka
K Rostokům 65
165 00 Praha 6 – Suchbátov
Czech Republic

tel: +420 605 404 499

E-mail: info@nightfly.cz
www.nightfly.cz

