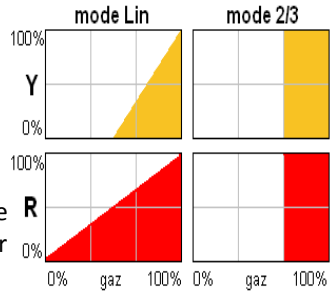
Jet Afterburner Simulators NF-Jet3, Jet4, Jet5

The **NF-Jet3** and **NF-Jet4** controllers serve to simulate flame on the output of the jet engine using red and yellow ultra bright LEDs (Light-Emitting Diodes) 3 or 5 mm. The input of the module has to be connected to the receiver in parallel with the engine controller. Use "Y" cable. The controllers has two outputs, red (**R**) and Yellow (**Y**). If the blue jumper is “off” the intensity of the light follows the power of the engine (Linear mode). If the jumper is inserted the LEDs switch on at 2/3 of the gas . 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 (see Fig.1)



Without signal, it means either the **Rx** connector is not connected to the receiver or the receiver is switched off, the flame can be controlled by the red jumper. If the red jumper is inserted the flame is switched off othervise it flames at 100%.

The unit is connected to receiver by a Graupner, Hitech type connector. The receiver circuits are galvanically separated by an opto-coupler from the light circuits. The light circuits are powered from accumulator with a voltage from 8 up to 16 V. The optimum is 12 V = 3 LiPol. The red AKU wire has to be connected to plus pole of the accumulator. The brown wire (ground) to the negative pole. Maximum voltage is 16,0 V (4 LiPol). The output connector has two outputs on three pins. One positive pole for first color (typically red) and one positive pole for second color (typically yellow). The common negative pole (LEDs cathodes) for both colors (ground) is in the middle. The output connector has not a direction lock against change of polarity. If you turn the connector only the order of R and Y outputs will change (see Fig.2)

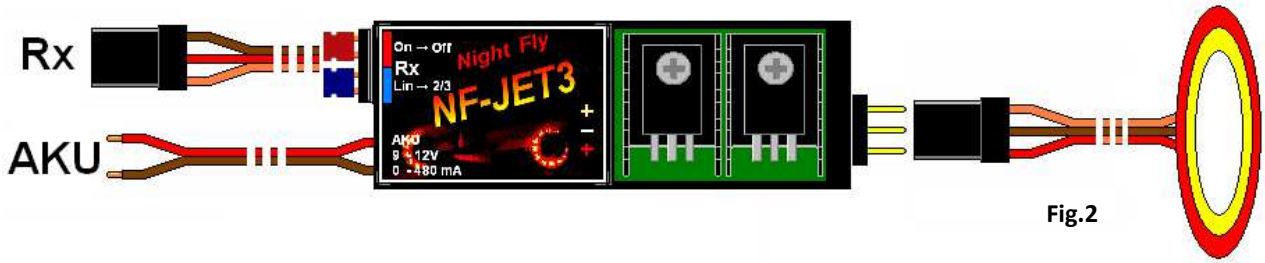


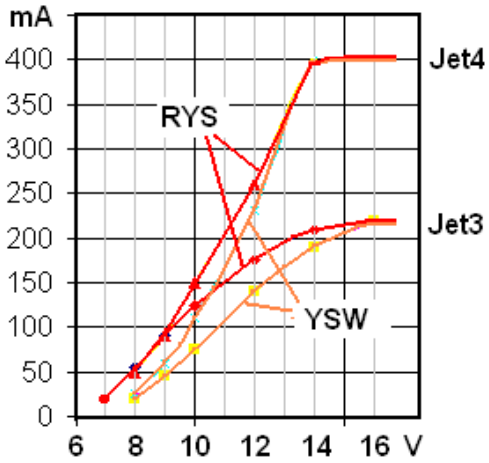
Fig.2

Each output has a current limitation, the NF-Jet3 at 200 mA and NF-Jet4 at 400 mA. The controllers are optimized to work with flat LED circles **NF-Jet3** (72 LEDs, diameter 105/130 mm)and **NF-Jet4** (120 LEDs, diameter 115/145mm) or with NF flexible LED belts. The belts are segmented. Each segment has three LEDs 3mm or/and three LEDs 5mm. If the belt is turned so that the last segment is placed on the starting "0" segment (free segment without LEDs) You will obtain a circle with diameter up to 105 mm depending the number of segments. Two belts can be joined together to obtain a circle up to 210 mm .

The circle can be fixed either glue, by screws in holes **A** or by soldering of **B** points together. You can enlarge the holes to M2,5 or M3 but ensure that bolt and nut stay electrically separated (by an insulating washer) from contacts and LEDs of the belt.

If You need a smaller circle you can shorten the belt by cutting of one or more of the ending segments along the line **C**. Each segment represents 5 mm (0,2 inches) of circle diameter. Diameter marks **D** (in milimeters and in inches) represent diameter of the center of the turned belt. 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 the starting segment. As the LEDs are placed from one side of the belt, You can obtain two different final diameters either with LEDS inside the belt or with LEDs outside the belt. So mesure well before cutting segments.

NF-Jet3 circles and belts are produced in more color variants. Yellow (**Y**), Red /Yellow (**RY**), Yellow/Sunny white (**YS**) and Yellow/White (**YW**).



Do not look LEDs directly when shining, this can damage your eyes.

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-Jet3, Jet4 and Jet5

	min	typ.	max.
Operational voltage [V]:	4.8	12.0	16.0
Consumption [mA]:	6.0	7.0	10.0
Output current Jet3 [mA]:		220	225
Output current Jet4 [mA]:		400	410
Output current Jet5 [mA]:		800	820
Temperature:		0 – 70 °C	
Dimensions [mm]:		90 x 24 x 19	
Weight [g]:		29	

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