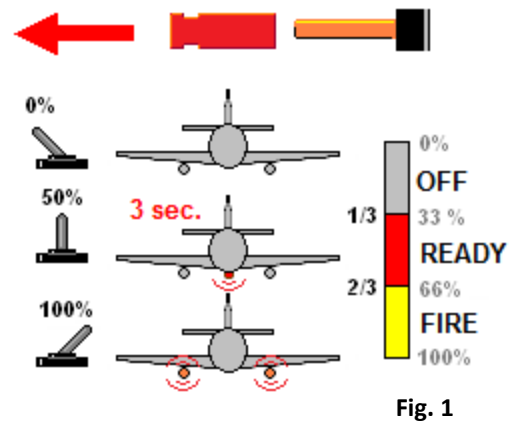


Missiles launcher unit NF-M

NF-M controller is designed for warbird scaled models to simulate missiles firing. It allows to simulate firing up to 15 shots. Missiles can be fired individually or in batches. For the simulation LED 350 or 700 mA can be used. The output is doubled for use on both right and left wing.

The unit is secured by jumper SP (Safety Pin), which must be ejected before takeoff. The unit is operated by 3 positions switch. The control lever in one side position functions as a safety fuse, sets mode off (**OFF**). After moving the control lever to the center position (**READY**) security LED flashes for 3 seconds and then the unit is activated. By moving the lever from the position **READY** to position **FIRE** fires one shot. Leaving the lever in the position **FIRE** missiles are launched automatically one after another. At any time during the process of firing it is possible to return the lever back to **OFF** position and block the unit. Operation is shown in Fig. 1.

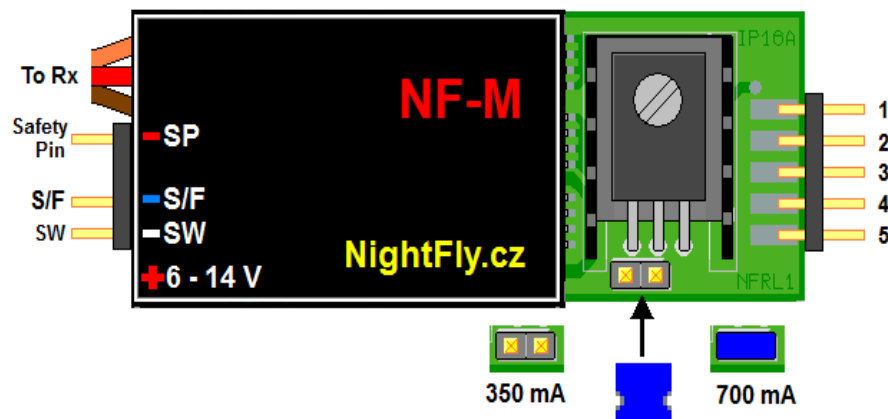


In batch mode of firing missiles, it is possible to adjust the speed using a blue jumper. Ejecting jumper enables slow speed **SLOW** - 1 shot per second. Inserting jumper sets speed **FAST** - 2 shot per second (see Fig. 2).

Fig. 2



The output current is stabilized. The LEDs can be connected directly to the unit output. The value of the nominal current output can be set by a jumper on the cooler. Output works at 350 mA without jumper, if the jumper is inserted, then the value of the output current is 700 mA. (See Fig. 3).



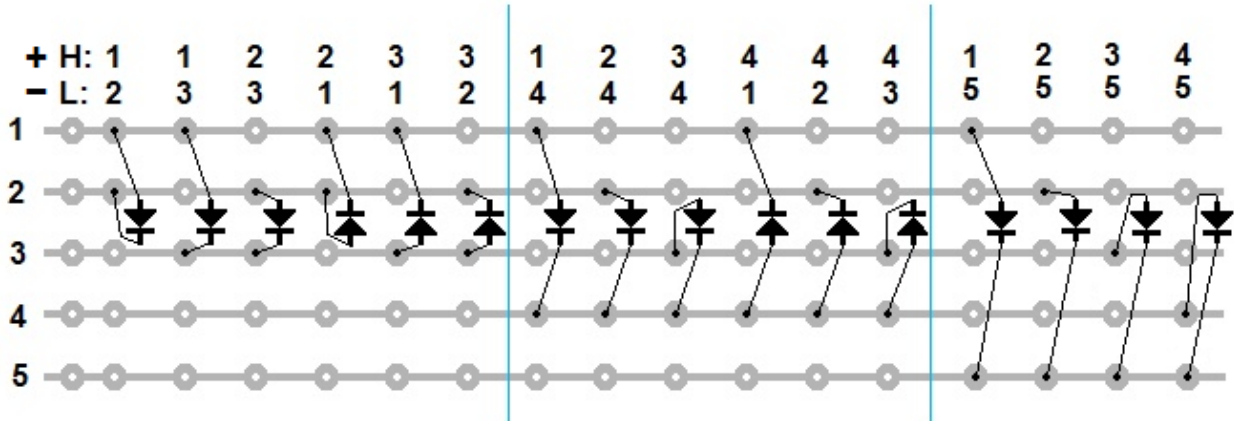
The **Rx** cable is compatible with Graupner or Hitec-type connectors. The receiver circuits and the output are galvanically separated by an opto-coupler. The power input is diode-protected against reversing of polarity.

The unit is equipped with an electronic power supply switch. If the black jumper **SW** is pulled out, the mode of electronic switch is activated. If the power supply of the receiver is switched off and or if the receiver cable is disconnected, the unit is automatically disconnected from the power supply.

Installation procedure

The typical connections are shown by the scheme on Fig.4. Single shots are connected in the output pins 1-5. They are activated by gradual plugging of the positive and negative voltage to a pair of output pins, to turn into all possible combinations. In total it is possible to connect up to 15 missiles. The sixteenth position is reserved for safety LED which is activated when a positive voltage is applied to the input 4 and the negative to input 5. This must be followed. The number of connected shots may be lower.

Fig. 4



ATTENTION: Do not test the LEDs by connecting them directly to the accumulator. Without using a compensating resistance you would destroy them. When connecting the LEDs you have to observe the polarity.

Assembly and pre-flight tests

During installation it is necessary to ensure access to the safety connector (Safety Pin) and visibility of the safety LED. Alternatively, the extension cord can be used. Separate power supply to power the unit can be used or it is possible to plug the unit in to the joint board source.

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-M

	min	typ.	max.
Operational Voltage [V]:	6	8	14
Consumption [mA]*:	10	15	20
Outputs [mA]:	350		700
Pulses Slow (freqv. 1 Hz):		1000 ms	
Pulses Fast (freqv. 2 Hz):		500 ms	
Temperature:		0 – 70 °C	
Dimensions [mm]:		77 x 24 x 19	
Weight [g]:		28	

* in sleep mode

Production:

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

tel: +420 605 404 499
E-mail: info@nightfly.cz
www.nightfly.cz

