



## RC Zenoah Engine Failsafe Kill Switch Modules

Thank you for purchasing one of our Zenoah Failsafe Kill Switch Modules, we hope it will give you many years of trouble free service. If you have any problems with your module, please either email or contact our technical support helpline on the number provided at the bottom of this page. We are sorry that it is a mobile number, but we work between three sites and find that our mobile phones are far more versatile for our non –electronic communication needs.

Before pressing your switching module into service, please carefully read through the installation drawings, notes and information below.

Irreparable damage will occur to the internal components of the module if you:

Exceed the Maximum 4A Load

Allow water or fluid to enter the module.

Connect BOTH Positive and Negative Supply Lines to the Terminals (At the same time!)

The Zenoah Failsafe Kill Switch is installed on a switched R/C receiver channel which either causes a 'Short Circuit' across the Kill Line (Refer to Drawing 3), effectively killing the engine when the Transmitter switch is thrown, or breaks the circuit to the Electronic Ignition System causing the engine to stop likewise.

Secondly, it constantly analyzes the incoming signal pulses using a microcontroller looking for any problems with signal quality or integrity. If the Signal strength or quality is poor or missing the circuit places the same condition onto the Engine Ignition System once again, killing the engine.

Finally, the same outcome occurs when DC power is lost from RC the control system, thus making this one of the most versatile Failsafe device available.

The following Truth Table explains the results when either of the three conditions arise:-

SIGNAL	LED	RELAY	N.O. CONTACT	N.C. CONTACT
OFF	OFF	MADE	CLOSED	OPEN
ON	ON	OPEN	OPEN	CLOSED
SIGNAL ERROR	ON	OPEN	OPEN	CLOSED
POWER LOSS	OFF	OPEN	OPEN	CLOSED

As can be seen, in normal engine run condition the Transmitter switch will be in the 'OFF' Position, to where the Normally Closed (N.C.) Contact will be open allowing the C.D.I. Type Magneto Ignition System to operate (Drawing 3 refers). Any other condition will kill the ignition and stop the engine..

In the instance of the Electronic Ignition version, the supply from the Ignition battery pack is connected across the Normally Open (N.O.) Contact (Drawing 2 refers) giving the same result over the three conditions.

Should you need technical support for your purchase, please call +4475 9999 8183 between 9am and 5pm Monday to Friday.

**Please Note...**

To maintain our multiple order carriage discounts to you, if your order was for more than one module of the same kind, we will only have sent you one set of documentation. If you need more copies, please contact us to where we will send you printable .pdf's or you can download a copy from our website, [www.mr-rcworld.co.uk](http://www.mr-rcworld.co.uk).

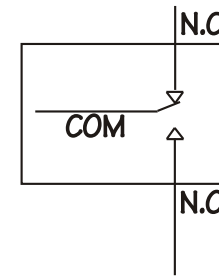
### ZENOAH FAILSAFE KILL SWITCH TRUTH TABLE

SIGNAL	LED	ACTION	N/O CONTACT	N/C CONTACT
OFF	OFF	CLOSED	CLOSED	OPEN
ON	ON	OPEN	OPEN	CLOSED
SIGNAL ERROR	ON	OPEN	OPEN	CLOSED
POWER LOSS	OFF	OPEN	OPEN	CLOSED



Normally Open Contact  
Common Contact  
Normally Closed Contact

Inside the relay



COM = Common

N.C. = Normally Closed.

(When the Relay is NOT energised, the Common is connected.)

N.O.= Normally Open

(When the Relay IS energised the Common is connected.)

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RC Zenoah Failsafe Kill Switch		
Scale 1:1	Drawing No 1 of 3	

