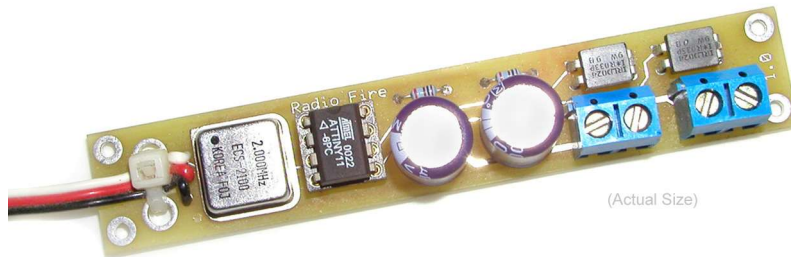


Deploy on demand!



Radio-controlled manual override device gives your rocket a second chance.

- RadioFire™ is a convenient and inexpensive means of adding manual override capability to your rocket's altimeter-based or timer-based parachute deployment.
- Use your ordinary model airplane R/C equipment for the radio link.
- RadioFire™ simply plugs into your R/C receiver like a standard servo.
- No additional power supply is needed.
- Attach two electric matches to the convenient screw terminals, and get remote control of two independent pyro-operated functions.

Why RadioFire™?

Although modern recovery system deployment can be quite reliable, malfunctions still occur. It's prudent to provide redundancy for every safety system in a complex rocket. Even if you are already using redundant systems for deployment, a manual override capability could give you the precise choice of deployment timing that might be needed in an unexpected circumstance. There's a reason why "real" rockets in the military and space programs have a manual abort capability!

For high-power hobby rocketry, specialized radio-deployment equipment is available. Such gear tends to be of excellent quality and performance, and is a good choice for projects where the high cost is not an issue. RadioFire™ is an alternative for the high-power rocketeer working on a more modest budget.

RadioFire™ does not include a radio transmitter or receiver. Instead, you use standard model airplane R/C equipment for the radio link. RadioFire™ plugs into your R/C receiver just like an ordinary servo. No additional power supply is needed; the RadioFire™ draws its operating power from the receiver. You can attach up to two electric matches to the convenient screw terminals on the RadioFire™ unit. Then, when you push the joystick on your transmitter all the way "up" one of the electric matches will fire, and when you push the joystick all the way "down" the other will fire.

The two independent channels on the RadioFire™ give you independent control of two events, such as main chute deployment, ignition of a tracking smoke device, or activation of a pyrotechnic release mechanism.

The RadioFire™ unit incorporates signal-processing software running on an onboard microprocessor to decode the signal from the receiver, and to reject noise and spurious signals. It uses onboard capacitors and high performance MOSFET semiconductors to provide the current jolt necessary to fire the electric match, without placing excessive drain on your receiver's power supply.

Will RadioFire™ work for me?

The RadioFire™ device was designed to work with most modern R/C equipment. It comes fitted with a universal servo connector, which will fit Futaba "J" style or Hitec / Airtronics "Z" style receivers. Because of the electronics on the RadioFire™ board, it can only be used with R/C receivers that run on a 4.8-volt power supply. An FM transmitter and receiver are recommended for use with the RadioFire™.

The RadioFire™ was designed to be used with low-current electric matches, such as the Daveyfire 28B, Oxral, or M-Tek. The unit also works well with AG1 flashbulbs. Although we have successfully tested the unit with "standard" electric matches, we do not recommend that they be used, because the current pulse delivered by the unit is at the lower end of what is required to fire standard electric matches. Because of this, the RadioFire™ unit is recommended only for recovery system deployment and similar applications, not for staging or other motor-ignition tasks.

The operating range is determined by your transmitter and receiver combination, and your particular installation.

For more information, contact radiofire@newlon.net
or go to
<http://www.aeroconsystems.com/electronics/radiofire.htm>