

## FEATURES

- Caters for all magnitudes of displays.
- High performance.
- 100% reliability.
- Precision.
- Synchronisation.
- Built-in safety features.
- High flexibility.
- Low Cost.

## APPLICATIONS

- Indoor fireworks displays.
- Outdoor fireworks displays.
- Special effects.
- Choreography to music.

## DESCRIPTION

The Pyro Fire System is a computerised & fully automated fireworks control system. This system is capable of producing fireworks displays of various magnitudes of size, from large public events, to corporate events, and smaller private events. This system has been designed to be highly flexible and user intuitive, from the PC software right through to the embedded microcontroller firmware. The Pyro Fire system accommodates for all levels of pyrotechnics expertise, from the novice operator to the expert.

This system is a must-have for the fireworks operator who seeks high reliability, precision, synchronisation to music and all this coupled with low running costs.

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## CONFIGURATION

The Pyro Fire System consists of a main control unit (ECU) and from 1 to 256 networked distribution controllers (DU). A system can consist from 40 switch's to 10,240 switch's, if more switches are needed a second set of ECU/DUs can be integrated to the one ECU to create a second set of 40 switch's to 10,240, an unlimited amount of systems can be integrated to produce any amount of switches necessary. If one shot was fired every second in a system comprising of 1 ECU and 256 DUs, shows could run as long as 170min or 2.8hrs. This system accommodates for all magnitudes of displays.

With this system you can start with one ECU & DU and build your system up to 256 DUs (note: only one ECU is needed for up to 256 DUs). Each DU switch can have up to 5 e-matches in series and/or 5 e-matches in parallel. This means a total of up to 25 e-matches per switch. With 40 switches individually controlled per DU a total possible of 1000 e-matches can be connected per DU.

## TYPICAL APPLICATIONS

A typical system would consist of 1 ECU and several DUs giving unlimited individually controlled switches. The DUs can be configured in a star / series network topology, or a combination of both. Figure 1 below graphically describes some of the many network combinations.

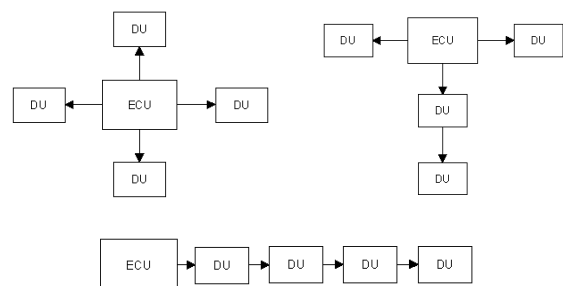


Figure 1: Network topology.

# PYRO FIRE SYSTEM

## ABSOLUTE MAXIMUM RATINGS

Operating Temperature Range  
 Commercial grade.....0 to +85°C  
 Industrial grade..... -40 to +85°C  
 Humidity Range..... 10 to 90%

## PACKAGE INFORMATION



## SYSTEM CHARACTERISTICS / RATINGS

The specifications are at T<sub>A</sub> =

25°C, unless otherwise specified.

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
Battery Voltage		10	12	14	V
Voltage @ Switch	No load	23	24	25	V
	Full load	18	24	25	V
Current @ Switch	Full load	8.8	9.1	9.4	A
Power @ Switch	Full load	140	150	160	W
Show length		0		6553	Sec
		0		109	Min
Battery Capacity	Fully charged	15		20	Hrs
Shot resolution			0.1		Sec

# PYRO FIRE SYSTEM

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