

## FEATURES

- LED illuminated switch connection (night visible).
- Tough & watertight case.
- Stainless steel panel.
- Accessible fuse.
- Battery operated (rechargeable).
- Recharge socket on panel.
- Two network outlets for in-line configuration.
- 40 Shot outlets.

## APPLICATIONS

- Indoor fireworks displays.
- Outdoor fireworks displays.
- Special effects.
- Choreography to music.
- Pyro Fire system networked shot outlet.



Figure 1: DU Controller.

## DESCRIPTION

The DU controller is the networked shot outlet to the Pyro Fire system. The controller is a stylish design in an industry tough, watertight case. Opening the case of the DU reveals a stainless steel panel with illuminated LED switch indicator. Safety is a concern in pyrotechnic systems, so several procedures have been put into place to make using the DU a safe experience.

This controller integrates with the ECU to make up a Pyro Fire system. 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-match's can be connected per DU.

## TYPICAL APPLICATIONS

A typical system would consist of 1 ECU and several DUs. The DUs can be configured in a star / series network topology, or a combination of both. Figure 2 below graphically describes some of the many network combinations.

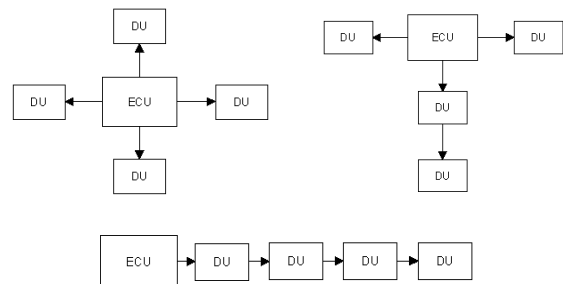


Figure 2: Network topology.

## DU Controller

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### 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



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### 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     |
| Battery Capacity | Fully charged | 15  |     | 20  | Hrs   |
| Shot resolution  |               |     | 0.1 |     | Sec   |

# DU Controller

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