Overview

The six way is one of the latest additions to 'Le Maitre's' range of pyrotechnic devices, and as such represents the very latest in safety and technology

Unit Specification

Detonating Method	High-energy 'low voltage', time slice capacitive discharge, with lock out.
Channel Switching	Mechanical individual switching with '0', '1' (OFF/ ON) status indicators.
Test Facility	Test status LED - <20mA test current.
Isolation	Key switch disconnects detonator energy source.
Output	Pyroflash 3 pin sockets, Prostage II quick connects.
Cabling	The use of 05mm cable is specified for the six way system. Cable lengths of up to 100 Metres per channel are supported, or any combination of lengths up to this limit.
Firing Capabilities	The six way can detonate all six channels with up to eight effects on each channel simultaneously (48 effects), or up to sixteen effects if only one channel is to be fired. The channel and socket marked 'Air Interface' is a dedicated channel used to fire Le Maitre 'Air Cannons' via the 'Air Cannon Interface' available as an optional extra. The firing pulse from the six way is used to pulse the 'Air Cannon Interface', which in turn detonates the 'Air Cannon'.
Supply Power	18V d.c. (2 x 9V PP3 batteries supplied) for mains free operation. optional power supply. The use of non 'Le Maitre' power supplies will invalidate the warranty.

Testing and Firing

In accordance with safety regulations, the testing of pyrotechnic effects should be viewed as a possible detonation. Therefore all clearance and safety zoning is applicable at such times.

All channels should be up in the off position, i.e. '0' position.

With the unit in the unarmed position and the key removed from the key switch.

By selecting channels, one by one, and pressing the test button, each effect connected within the system can be checked for a correct circuit loop, and this will be verified by the illumination of the channel test LED.

All wiring should be checked before use. See Checking Wiring & Pod Section.

Any suspect device should only be removed from the system after the six way unit has been disarmed. (Suspect devices are very rare and therefore wiring should be checked initially).

Should it be thought that a suspect effect is present, remove it from the system as described, store it in the original packing, and return it safely to the source of supply.

When all effects and system wiring has been verified as correct, the six way should be securely disarmed.

Detonating any sequence is an identical operation to testing, except that the FIRE button will be used to perform effect ignition. All channels should be returned to their OFF position after firing to prevent possible corruption of the next detonation. With the unit armed via the key switch, the test facility will work as before, but the test button will not be required to be pushed for the test led to illuminate.

The FIRE button must be released after ignitions, to enable further selections to be fired.

Safety is of the utmost importance in all aspects of pyrotechnic displays and is above all else. If in doubt - DON'T.

All persons involved within any pyrotechnic display should be aware of all safety zones.

At no time should any effect be loaded into a cabled system, without having first removed the Arming Key, isolating the output.

Checking Wiring & Pods

Before any cable or Pod is used in a display situation, several checks should be made to ensure that these devices are in good working condition Although the pressures of live performances can give rise to the need of haste, it must always be remembered that the Pyro-Effects Engineer will be ultimately responsible for any errors that may occur, no matter who made them.

A thorough visual check of cables/connectors for signs of physical damage in the form of cuts, over twisting, exposed cores, missing securing screws etc, is the first check that can be performed.

Any faulty cabling should be discarded or repaired.

It would be wise to check the security of all connector wiring lock screws, on a regular basis, to ensure that vibration in transit/stage conditions, has not caused any loosening. At the same time, the cable clamping may be inspected to ensure that the cable has not been subjected to overstress.

A visual inspection of Pods will identify any visual damage to the Pod case, sockets or cable connector. The cable connector sockets should be checked for over opened terminals, which could result from excessive force, and lead to open circuits. If they are damaged, these terminals can be closed to their correct shape with the aid of narrow nosed pliers. Any damaged Pod should be referred for service.

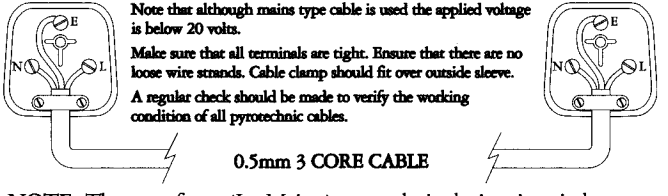
After a visual check has been performed, the six way maybe used to check wiring integrity, Pod cartridge sockets for electrical performance.

Connect all cabling and Pods to the six way, with the Pods in close proximity to the six way.

With all Pods empty, perform the individual Channel/Effect test procedure. At no stage should the Channel test LED give an indication. If the Channel Test LED does come on, then a short circuit in the cable or Pod exists. Disconnect the Pod attached to this particular channel cable and re-test. If the LED still remains on, then the cable is faulty, if not, then the Pod is at fault. Either way, the faulty item should be referred for service.

Where multiple effects are to be fired, all wiring and connections should be checked before use.

PYROFLASH POD CONNECTOR WIRING DIAGRAM



NOTE: The use of non 'Le Maitre' pyrotechnic devices is strictly forbidden and will invalidate the warranty.