Le Maitre Air Cannon Controller

The Air Cannon Controller is a mains powered, 4 channel switching device intended for use with Co2 powered Le Maitre Air Cannons.

All safety requirements and procedures associated with the Air Cannons should be followed before employing this device.
Safety is of the utmost importance and is above all else. If in doubt –DON'T

At no time should any effect be loaded into a cabled system, without first having isolated the power to the Controller.

Proper risk assessments must have been established before use.

ENSURE ALL AIR CANNONS ARE SECURED AND SAFETY WIRE/SAFETY CHAINS ARE ATTACHED

CHECK TRAJECTORY OF CANNONS – ENSURE THE PROXIMITY OF LIGHT BULBS AND VULNERABLE OR FRAGILE ITEMS ARE ISOLATED AND SAFE FROM POTENTIAL IMPACT

PRE FIRING SET UP AND TEST PROCEDURE

PRIOR TO LOADING the Co2 Bulbs in, and fitting the barrels, to the Air Cannons, run all cabling and connect to each unit so the entire system is set up as for the show.

1. Attach the Controller 13 amp plug to mains power.
2. Attach the Grey PowerCon cabling to the Air Cannon Controller.
3. Switch on the mains switch on the Air Cannon Controller – This should now be illuminated red.

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4. Switch on the relevant Channel for an individual circuit. - This should now be illuminated red.
5. Turn the key to ARM – Repeatedly press the FIRE button in quick succession, and listen out for activation of the solenoids.
6. Switch off the tested circuit, and go to the next.
7. Repeat the above, 3 to 6, for each circuit.
8. If the Air Cannons are to be an 'ALL FIRE' on a single cue, once the individual circuits have tested successfully, switch on all four circuit buttons and test the entire installation.

POST TESTING PROCEDURE

1. Switch off and remove key
2. Switch off all Channel switches
3. Switch off mains switch
4. Remove plug from mains power
5. Screw in all Co2 Bulbs to each Air Cannon
6. Attach the Tubes, twist in the bayonet fitting to secure.
7. Attach safety wire cable/safety chain
8. Check all attachment points are secure, safety wire/chains are attached, cables run safely and PowerCon connectors 'clicked' in to sockets.

In use, all effects should be loaded and wired as required, taking into consideration the surge currents of each connected Air Cannon.

Only then should the required channel(s) be selected, the unit armed, and the 'Fire' button depressed.

Note: The Air Cannon works by firing a pin into the cap of a Co2 Bulb using a powerful solenoid. The gas will only escape when the pin retracts, so it is important to only provide repeated 'pulse' type activation of the 'Fire' switch.

The Air Cannon Controller is supplied plug fused at 10A. Each Air Cannon requires a 10mS current draw of 6A, and 1A continuously. A typical 10A ‘T’ fuse can withstand 100A for 10mS before rupture. The 10A circuit breaker installed in the Controller can typically withstand 100A for 0.2 seconds and is for fail safety.

The above implies that it could be possible to fire up to 16 units. It is strongly advised that no more than 8 Air Cannon units be fired from one Controller simultaneously. This allows for fuse and solenoid variations.

When using this controller with Air Cannons, the Air Cannon units should be fitted with a suitable “PowerCon” connector in place of the mains plug normally fitted.

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