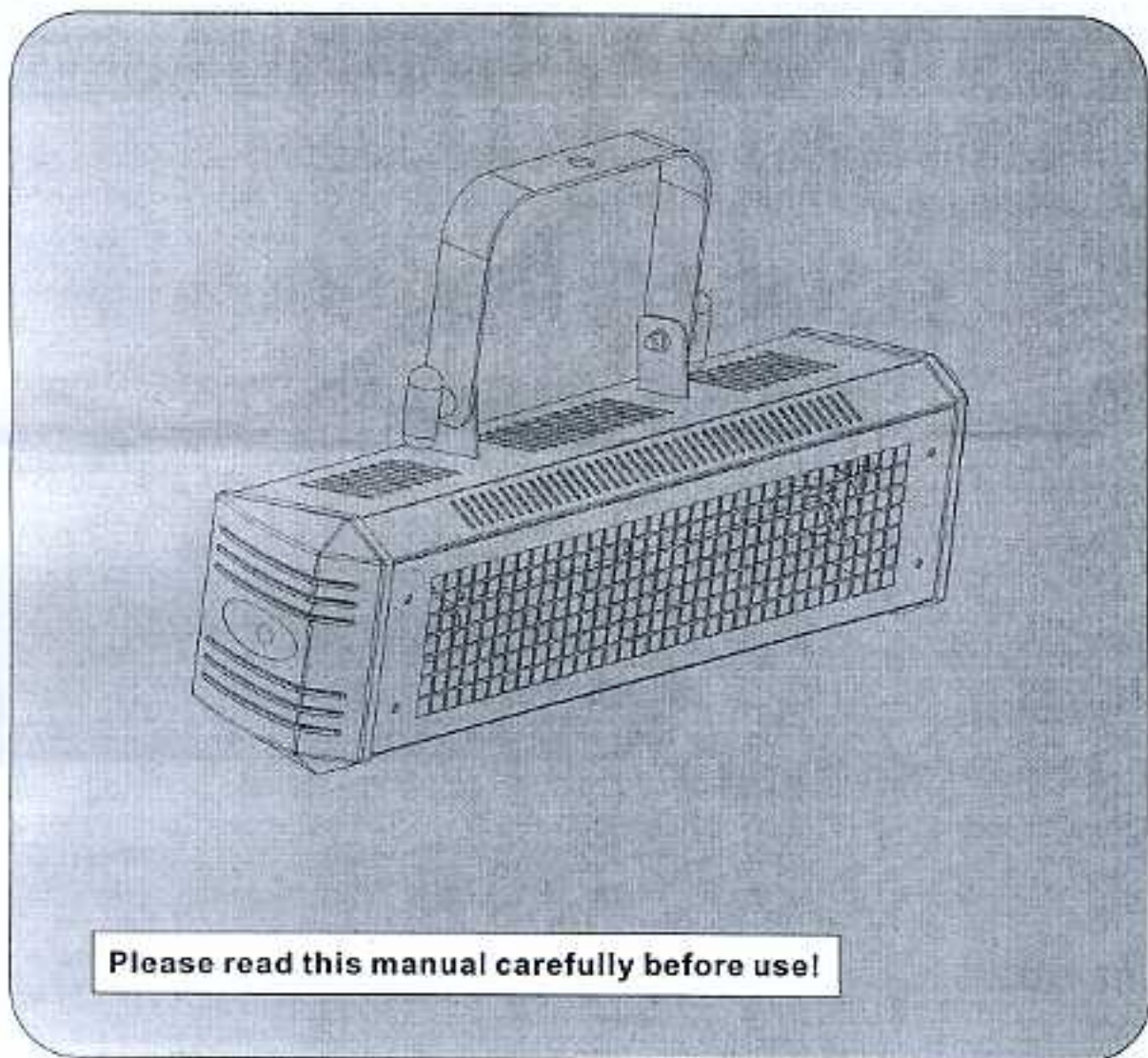




FIRECRACKER



Please read this manual carefully before use!

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CE 24-004-1748
Rev1.0

General instructions

Introduction:

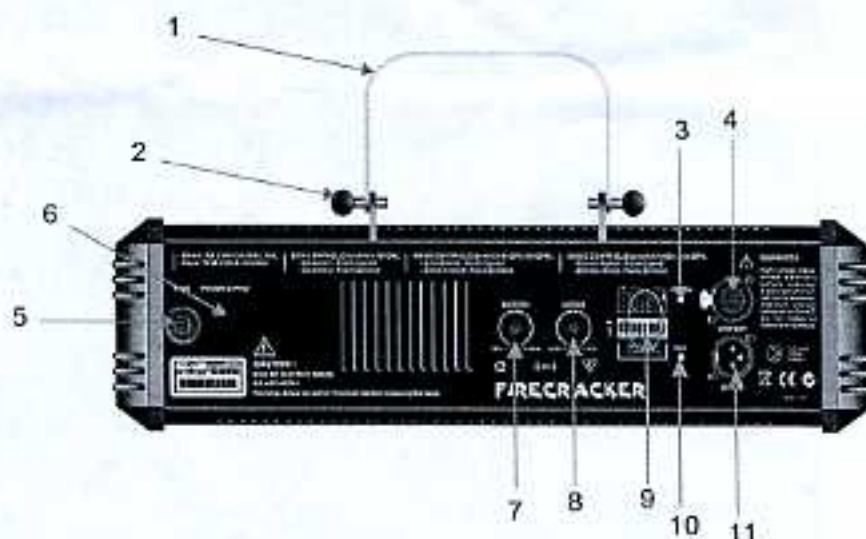
To optimize the performance of this product, please read these operating instructions carefully to familiarize yourself with the basic operations of this unit. The **FIRECRACKER** is a 800 watt strobe light product with many professional functions, flash speed and flash dimmer can be adjusted as user's requirement, that has a flash rate range of 1 to 15 flashes per second. Up to 16 units may be linked together and controlled by single controller. The unit's intensity, and flash rate can be manually adjusted using the dipswitches. The printings on the case of the unit offer helpful information for user. This unit can be controlled by three modes: DMX-control mode, Knob control mode and Music control mode.

Unpacking:

Thank you for purchasing **FIRECRACKER** by **SPEKTRONIC**. Every **FIRECRACKER** has been thoroughly tested and has been shipped in perfect operating condition. Carefully check the shipping carton for damage that may have occurred during shipping. If the carton appears to be damaged, carefully inspect your unit for damage and be sure all accessories necessary to operate the unit have arrived intact. In the event damage has been found or parts are missing, please contact our customer support number for further instructions. Please do not return this unit to your dealer without first contacting customer support at the number listed below.

Control Panel View

1. Carrying handle
2. Bakelite fastening screw
3. Power Indicator
4. DMX OUT
5. Fuse holder
6. Power input
7. DIMMER Knob
8. SPEED Knob
9. Dip-switches 1-10
10. DMX indicator
11. DMX IN



Main Features

- Bright 800 Watt Lamp ZB-800
- Adjustable Flash Rate, and Intensity Rate
- Flash Rate range of 1 to 15 Flashes per Second
- Thermostat Protection
- Large coverage area
- Easy lamp Replacement
- Built-In Adjustable Hanging Yoke

Cleaning Instructions

Due to fog residue, smoke, and dust cleaning the fixture should be carried out periodically to optimize light output.

1. Use normal glass cleaner and a soft cloth to wipe down the outside casing every 20 days.
2. Use normal glass cleaner with a soft cloth to wipe down the inside reflector and lens every 30-60 days.
3. Always be sure to dry all parts completely before plugging the unit back in.
4. Frequent cleaning the unit will extend lamp life and ensure the fixtures reliability.

Cleaning frequency depends on the environment in which the fixture operates (i.e. smoke, fog residue, dust, dew). In heavy use we recommend cleaning on a monthly basis. Periodic cleaning will ensure longevity, and crisp beam output.

Safety Warnings

Safety Issues: This unit may blow a fuse if the maximum allotted load of 15 amps is reached. If the fuse needs replacement, always replace the fuse with same exact type that was remove, unless otherwise instructed by an authorized service technician. Use of a different type fuse from that which is recommended may cause fire or electric shock and will void the manufactures warranty.

- To reduce the risk of electrical shock or fire, do not expose this unit rain or moisture.
- Do not spill water or other liquids into or on to your unit.
- Do not attempt to remove or break off the ground prong from the electrical cord. This prong is used to reduce the risk of electrical shock and fire in case of an internal short. Do not attempt to operate this unit if the power cord has been frayed or broken.
- Disconnect from main power before making any type of connection.
- Do not remove the cover under any conditions. There are no user serviceable parts inside.
- Always be sure to mount this unit in an area that will allow proper ventilation. Allow about 6" (15cm) between this device and a wall.
- Do not attempt to operate this unit, if it becomes damaged.
- This unit is intended for indoor use only, use of this product outdoors voids all warranties.
- During long periods of non-use, disconnect the unit's main power.
- Always mount this unit in safe and stable matter.
- Power cords should be routed so they are not likely to be walked on, pinched by items placed upon or against them.
- Cleaning -The fixture should be cleaned only as recommended by the manufacturer.
- Heat -The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
- The fixture should be serviced by qualified service personnel when:
 - A. The power-supply cord or the plug has been damaged.
 - B. Objects have fallen, or liquid has been spilled into the unit.
 - C. The unit has been exposed to rain or water.
 - D. The unit does not appear to operate normally or exhibits a marked change in performance.

DMX Setup

Power Supply: Before plugging your unit in, be sure the source voltage in your area matches the required voltage for your new unit. The unit is 230v only. Because line voltage may vary from venue to venue, you should be sure your unit voltages matches the wall outlet voltage before attempting to operate you fixture.

DMX-512: DMX is short for Digital Multiplex. This is a universal protocol used as a form of communication between intelligent fixtures and controllers. A DMX controller sends DMX data instructions from the controller to the fixture. DMX data is sent as serial data that travels from fixture to fixture via the DATA "IN" and DATA "OUT" XLR terminals located on all DMX fixtures (most controllers only have a DATA "OUT" terminal).

DMX Linking: DMX is a language allowing all makes and models of different manufactures to be linked together and operate from a single controller, as long as all fixtures and the controller are DMX compliant. To ensure proper DMX data transmission, when using several DMX fixtures try to use the shortest cable path possible. The order in which fixtures are connected in a DMX line does not influence the DMX addressing. For example; a fixture assigned a DMX address of 1 may be placed anywhere in a DMX line, at the beginning, at the end, or anywhere in the middle. When a fixture is assigned a DMX address of 1, the DMX controller knows to send DATA assigned to address 1 to that unit, no matter where it is located in the DMX chain.

Dipswitches in DMX mode: This unit uses dipswitches to assign a DMX address. Each dipswitch represents a binary value.

Dipswitch 1 address equals 1

Dipswitch 2 address equals 2

Dipswitch 3 address equals 4

Dipswitch 4 address equals 8

Dipswitch 5 address equals 16

Dipswitch 6 address equals 32

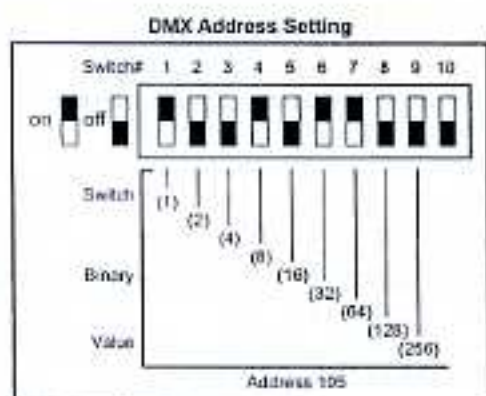
Dipswitch 7 address equals 64

Dipswitch 8 address equals 128

Dipswitch 9 address equals 256

Dipswitch 10 - Some units omit dipswitch 10. When a unit does include dipswitch #10, it is usually used for special functions such as sound activation.

Assigning DMX Address: Each dipswitch has a preset value. A specific DMX address is set by combining the dipswitches that sum your desired value. For example: To achieve a DMX address of 7, combine dipswitches 1, 2, and 3. Since dipswitch 1 has a value of 1, dipswitch 2 has a value of 2, and dipswitch 3 has a value of 4, the combination of the three create a DMX value of 7. (See example below).

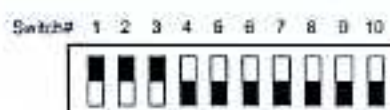


DMX Address Table
(Dipswitch10=ON)

START CH#	SWITCHS ON	START CH#	SWITCHS ON
1	1	11	1, 2, 4
2	2	12	3, 4
3	1, 2	13	1, 3, 4
4	3	14	2, 3, 4
5	1, 3	15	1, 2, 3, 4
6	2, 3	16	5
7	1, 2, 3	:	:
8	4	:	:
9	1, 4	:	:
10	2, 4	511	1, 2, 3, 4, 5, 6, 7, 8, 9



Set DMX address 1:
Dip-switch #1 = 1



Set DMX address 7:
Dip-switch # 1 = 1
2 = 2
3 = 4

Data Cable (DMX Cable) Requirements (For DMX and Master/Slave Operation): The **FIRCRACKER** can be controlled via DMX-512 protocol. The **FIRCRACKER** is a two channel DMX unit. The DMX address is set on the side panel of the **FIRCRACKER**. Your unit and your DMX controller require a standard 3-pin XLR connector for data input and data output (Figure 1). If you are making your own cables, be sure to use standard two conductor shielded cable (This cable may be purchased at almost all pro sound and lighting stores). Your cables should be made with a male and female XLR connector on either end of the cable. Also remember that DMX cable must be daisy chained and can not be split.



Figure 1

Notice: Be sure to follow figures two and three when making your own cables. Do not use the ground lug on the XLR connector. Do not connect the cable's shield conductor to the ground lug or allow the shield conductor to come in contact with the XLR's outer casing. Grounding the shield could cause a short circuit and erratic behavior.

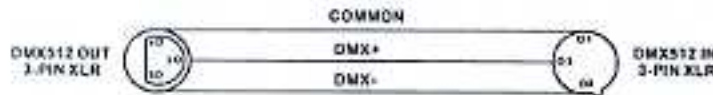


Figure 2



XLR Pin Configuration
Pin 1= Ground
Pin 2= Data Compliment(negative)
Pin 3 = Data True(positive)

Figure 3

Special Note: Line Termination. When longer runs of cable are used, you may need to use a terminator on the last unit to avoid erratic behavior. A terminator is a 90-120 ohm 1/4 watt resistor which is connected between pins 2 and 3 of a male XLR connector (DATA + and DATA -). This unit is inserted in the female XLR socket of the last unit in your daisy chain to terminate the line. Using a cable terminator (**SPEKTRONIC** part number Z-DMX/T) will decrease the possibilities of erratic behavior.

Figure 4



Termination reduces signal errors and avoids signal transmission problems and interference. It is always advisable to connect a DMX terminal, (Resistance 120 Ohm 1/4 W) between PIN 2 (DMX-) and PIN 3 (DMX +) of the last fixture.

5-Pin XLR DMX Connectors: Some manufactures use 5-pin XLR connectors for DATA transmission in place of 3-pin. 5-pin XLR fixtures may be implemented in a 3-pin XLR DMX line. When inserting standard 5-pin XLR connectors in to a 3-pin line a cable adaptor must be used, these adaptors are readily available at most electric stores. The chart below details a proper cable conversion.

3-Pin XLR to 5-Pin XLR Conversion		
Conductor	3-Pin XLR Female(Out)	5-Pin XLR Male (In)
Ground/Shiled	Pin 1	Pin 1
Data Compliment (-signal)	Pin 2	Pin 2
Data True (+signal)	Pin 3	Pin 3
Not Used		Pin 4 - Do Not Use
Not Used		Pin 5 - Do Not Use

Operation Instructions

Power Supply: This unit is available only in 230v. Before plugging your unit in be sure the source voltage in your area matches the required voltage for your unit.

General Operation: This fixture is designed to operate as a stand alone, sound-active unit, or in a Master/Slave configuration. It can also operate via DMX controller. The unit is ready to be plugged in out of the box.

Duty Cycle: Because the unit can be used for continuous output (ie while simulating lightning), it can build up intense heat. Due to the build up of intense heat the unit should not run for 15 minutes continuously. After 15 minutes of continuous use, allow the unit to cool for about fifteen minutes, this will greatly increase the lamp life and insure product longevity.

Operating Modes:

1. Knob-control Mode

To run the strobe in **Knob-control Mode**, dipswitches #9 and #10 must be in the "off" position.
In **Knob-control Mode**, the unit will function as a normal strobe light. Rate (speed), and intensity (brightness), are set directly on the unit. Note that these settings are made using the knobs on the back of the unit. Once the settings are made they can only be changed by physically adjusting the knobs on the unit. Be aware of this if you plan on installing your strobe in a permanent application, if your are not satisfied with your settings you will have to physically remove the unit and adjust the knobs.

Switch# 1 2 3 4 5 6 7 8 9 10



In this mode, the **dip-switch9** and **dip-switch10** is simultaneously switched **OFF**. And relevant controls are as below:

Flash Speed is controlled by the **SPEED Knob**.
Flash Dimmer is controlled by the **DIMMER Knob**.

2. Music-control Mode

Dipswitch #9 must be in the "on" position. The dimming will still be controlled by the knob on the back of the unit. But the beat of the music will control the flash speed. Note that these settings are made using the knobs on the back of the unit. Once the settings are made they can only be changed by physically adjusting the knobs on the unit. Be aware of this if you plan on installing your strobe in a permanent application, if your are not satisfied with your settings you will have to physically remove the unit and adjust the knobs.

Switch# 1 2 3 4 5 6 7 8 9 10

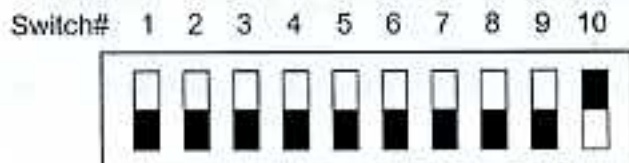


In this mode, the **dip-switch10** is switched **OFF** and the **dip-switch9** is switched **ON**. And relevant controls are as below:

Flash Speed is controlled by the **Bass Music effect**.
Flash Dimmer is controlled by the **DIMMER Knob**.

3. DMX-control Mode

Assign your desired address to the unit, and flip **dipswitch #10** to the "on" position. The unit uses two DMX channels. Channel 1 controls the flash speed and channel 2 controls the dimmer. Use your DMX controller to activate the various built-in patterns.



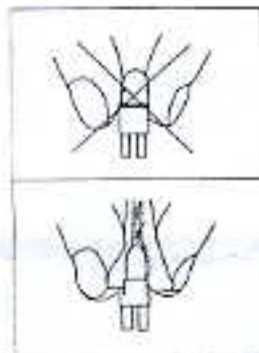
As the above illustration shows, user can use dip-switches 1-9 to set relevant DMX address. When having finished your setting, add up the values of the "ON" dip-switches, the total value just stands for the current DMX address. In this DMX-control mode, relevant controls are as bellow:

Flash Speed (0~255) is controlled by **Channel 1**.

Flash Dimmer (0~255) is controlled by **Channel 2**.

The DMX indicator will begin to flash when there is an effective signal input.

Fuse and lamp Replacement



Halogen Lamp Warning! This fixture is fitted with halogen lamps which are highly susceptible to damage if improperly handled. Never touch the lamps with your bare fingers as the oil from your hands will shorten lamp life. Also, never move the fixture until the lamps have had ample time to cool. Remember, lamps are not covered under warranty conditions.

Caution: Always replace with the exact same type lamp and fuse, unless otherwise specified by an authorized technician. Replace with anything other than the specified part can damage your unit and will void your manufactures warranty.

Warning! Allow the lamp to discharge all current. Allow the unit 24hrs. to discharge before changing the lamp. Stored current can cause a very severe shock.

Warning:

If after you have replaced the lamp or fuse and you continue to blow either one, **STOP** using the unit. Contact customer support for further instructions, you may have to return the unit for servicing. Continuing to use the unit may cause serious damage.

Fuse Replacement:

Disconnect the unit's main power supply. Insert a standard flat head screw driver in to the fuse holder housing (located on the rear of the unit). Turn the screwdriver in a counter-clockwise direction to remove the fuse holder. Remove the old fuse and discard it, replace the fuse with the same type. Insert the fuse holder back into it's housing and turn in a clockwise direction to secure the holder in place.

Lamp Replacement:

Caution! Never open the unit when in use. Always disconnect the main power and allow the fixture ample time to cool before attempting to replace the lamp. Lamp replacement has been made simple by incorporating a remove tray that is retained by a single thumb screws. Again, please remember to always replace with the exact same type lamp.

