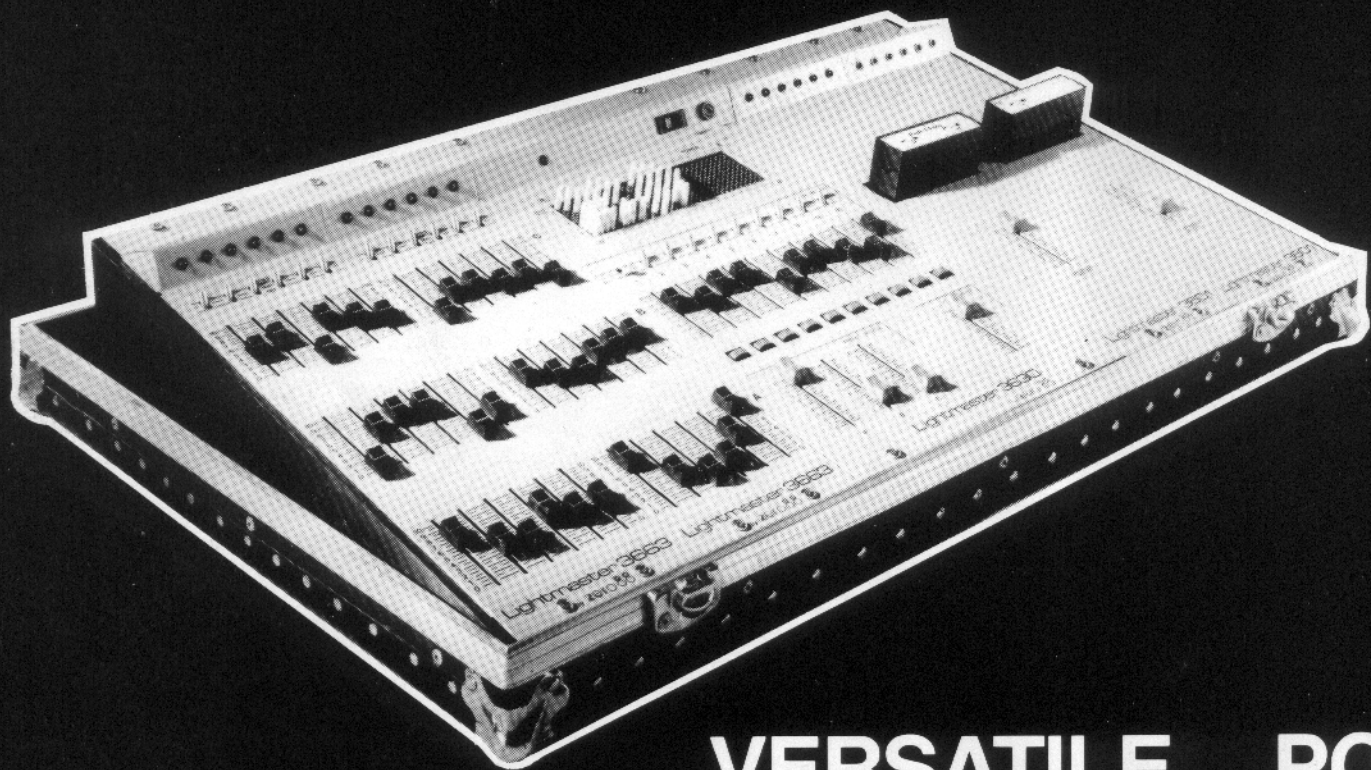


THE
LIGHTMASTER
3600
SYSTEM



by

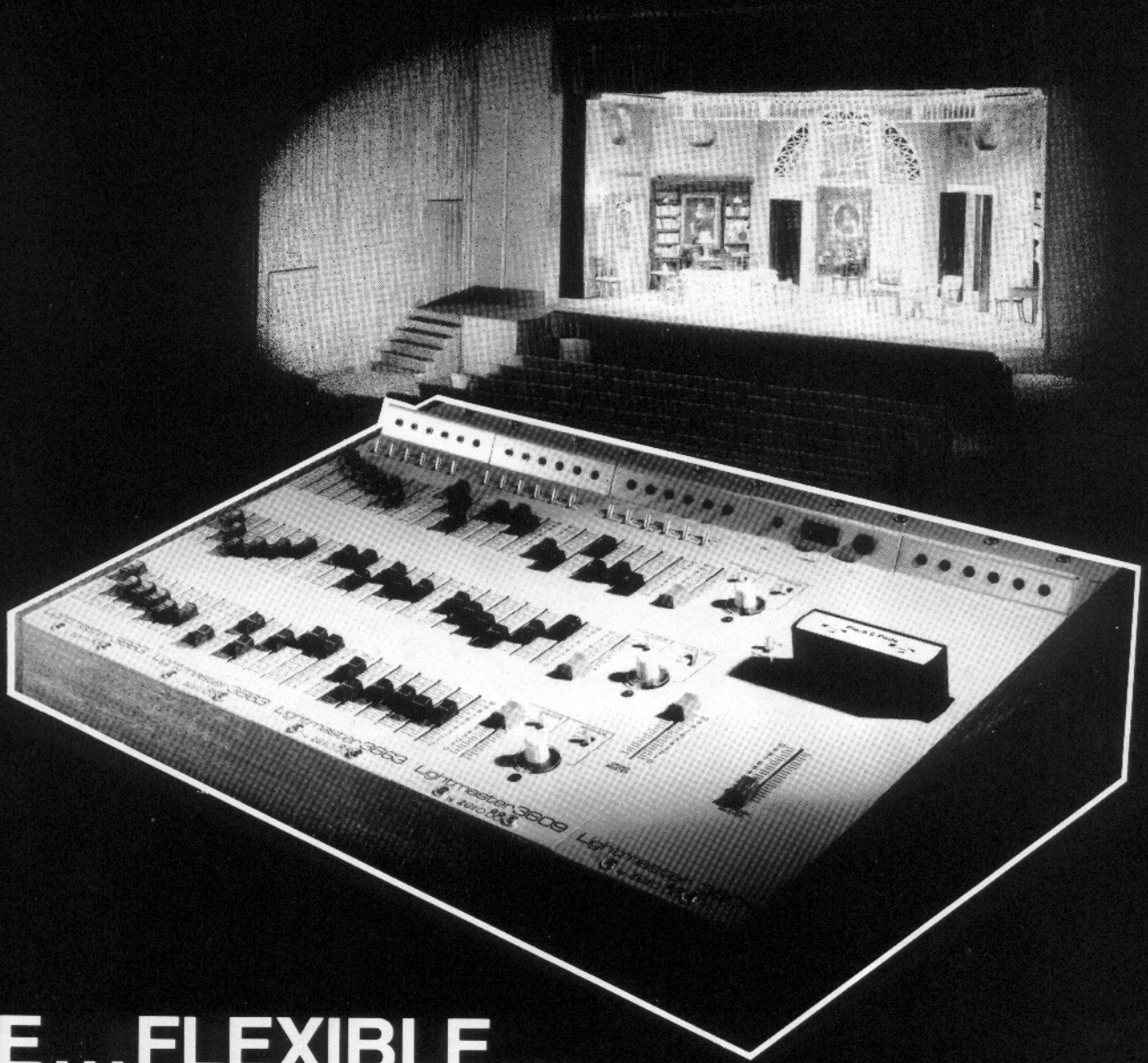
zero 88



VERSATILE...PORTA

WHY THE VERSATILE MODULAR 3600 SYSTEM IS THE IDEAL LIGHTING CONTR

- * **FULLY MODULAR** – Why modular? It's not just the ability of buying individual modules when budgets permit, it also allows you, the user, the flexibility of being able to 'tailor' the right permutation of modules for your particular use. We have a pamphlet available illustrating typical set ups you may come across, and also the not so typical!
- * **The MATRIX PANEL** – for instance is a good example of how 3600 system can be used in high-speed events such as 'live music'. Because the Matrix Panel effectively gives the operator 10 extra presets, it becomes a must for your next 'rock n' roll' concert.
- * **BBC TV**, as you will see from the cover of this brochure, use the Zero 88 3600 system as the standard effects system on all Light Entertainment programmes. Whenever you see effects lighting on such shows as 'Seaside Special' or 'Top of the Pops' you can be sure that the ubiquitous cartridge effects system is working hard.
- * **The CARTRIDGE EFFECTS** system, as the BBC have found, gives a quick and reliable method of changing effects. In fact there are currently 16 different cartridges to choose from; a separate sheet covers the full range of cartridge effects available.

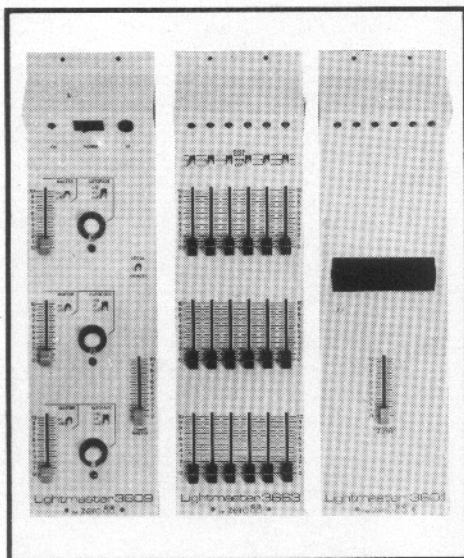


ABLE... FLEXIBLE...

ROLLER FOR MULTI-PURPOSE THEATRES, HALLS OR TOURING ROAD SHOWS.

- * The 3600 uses 3 PRESETS instead of the normal 2. To the professional user the advantage of having an extra preset is blindingly obvious. This third preset gives that extra edge of versatility not available on smaller 2 preset systems, enabling the operator to perform complex lighting changes quite easily.
- * The AUTOFADE PANEL – provides automatic dimming cross-fade on each of the 3 presets independently, from 2 - 200 secs.
- * LIGHTWEIGHT. A typical 18 channel Matrix system with Effects Panel would only weigh around 12 Kg, not at all heavy, especially when one considers the panels are made of 16 gauge steel! This means that for touring even the addition of a flightcase (available to order) and the system, can still be carried in relative comfort.
- * FADERS – to bring lighting control back to the operator's fingertips!
- * REMOTE CONTROL – The Autofade panel has the built-in facility of remote control so that not only the presets can be switched in and out, but also the effects.

THE 3600 SYSTEM MODULES



The Lightmaster 3609 Master Panel

As its name implies, this panel is the heart of the 3600 system. One 3609 master panel is required on every 3600 control desk and it carries the master controls for the whole system.

- **Grand Master** is the master that controls the maximum level of the entire system with the exception of the effects.
- **3 Preset Masters** each control the brightness of their own preset. They can be used for fading between preset or combining the settings of two presets together.
- **3 Preset blackout switches** provide a 'dead blackout' facility on each preset and can be used for flashing whole presets.
- **3 Autofades** provide automatic dimming on each of the three presets independently.

Automatic fades of 2-200 seconds are available by moving the Preset master or Grand master. Times are reduced in proportion on partial fades and Red and Green lights indicate the Autofades's operation.

- **Remote/local switch** enables or inhibits the remote control of certain parts of the system (see below).
- **Power switch, fuse and lamp** control the power supply for the whole control desk, but not for the dimmer racks.

The Lightmaster 3601 Cartridge Panel

On this panel is the socket that takes the ever-expanding range of Zero 88 effects cartridges. Any one of these will turn your Lightmaster 3600 into a multi channel effects controller of amazing flexibility. Cartridge effects are distributed to all channels and can be selected using the channel function switches. More than one cartridge panel may be incorporated into a system up to a maximum of one for every six channels.

- **Cartridge socket** accepts any Zero 88 effects cartridge.
- **Cartridge master** controls the maximum brightness level of the cartridge effect plugged in.
- **Cartridge led indicators** show either the output of the cartridge panel as set by the cartridge master, or the cartridge effect before the master control. This 'preview' facility is most useful for setting up effects sequences and can be selected at time of installation.
- **Voltage output:** Each Cartridge Panel will drive an LS6 (Voltage version) dimmer pack on its own, or via a 3630 master panel (Without preset panels).
- **Effect mixing:** The outputs of two or more Cartridge panels may be mixed so that effects can be cross faded thus providing a smooth change.

The Lightmaster 3663 Preset Panel

The Lightmaster 3663 preset panel contains all the channel controls and indicators for the system. Each panel controls six channels and comes complete with multicore output cable for connection to a Zero 88 slave dimmer pack.

• **Channels faders**, three banks of six, one bank for each preset. These faders directly control the individual channel brightness levels, and the three banks are controlled by the three preset masters. When two or more faders are in use on any channel, the highest level takes precedence.

• **3 Position function switches**, one for each channel.

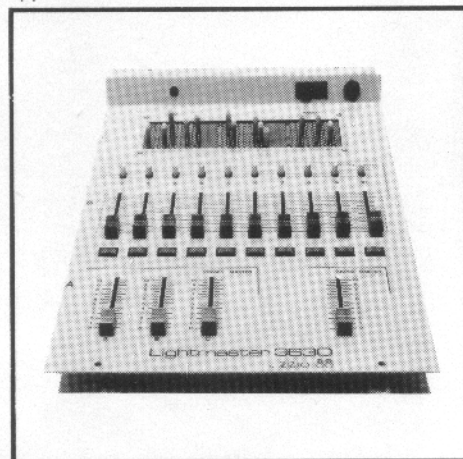
OFF: channel blacked out.
MANUAL ONLY: channel operates normally but without any effects

MANUAL & EFFECTS: for full effects facilities.

• **Channel led indicators**, one for each channel to show the operator the relative level of each channel, even if he cannot see the lights.

The Lightmaster 3630 Matrix Master Panel

This panel has been designed after extensive research into the facilities required for medium to large scale multifunction control desks. The versatility built into the design offers the user a wide number of options allowing the desk functions to be 'tailored' to a particular application.



The Matrix Master Panel provides a method of grouping output channels together so that one master (the Matrix Master) controls their level. The channels are selected by means of diode pins inserted into a pin matrix. In this way any channel may be controlled by any matrix master.

- **Grand Master** is the master that controls the maximum level of the entire system, with the exception of the effects.
- **3 Preset Masters** each control the brightness of their own preset on the 3663 panels. They can be used for fading between presets or combining the settings of two presets.
- **30 Channel Matrix** allows any of up to 30 channels to be grouped onto the ten matrix masters.
- **10 Matrix Masters** each set the level of the channels connected to their matrix group.
- **10 Flasher Buttons** may be used not only to flash a group to 'full' but also in 'Solo' mode to flash that group to full AND black out all other lighting. This cuts to a single group giving superb dramatic impact.
- **10 Function Switches** each determine whether the flasher button is 'normal', or 'solo' and whether effects are routed through the group.
- **Power Switch, Fuse, and Lamp** control the power supply for the whole desk, but not for the dimmer racks.
- **+10 Volt Output.** When used with a Matrix Panel Output Kit (Product 804), the 3630 Matrix Master Panel may be used on its own, or with cartridge panels, to drive an LS6 (Voltage version) dimmer pack directly. The three preset masters may be used for other functions such as house lights. The kit includes five XLR7 chassis mounting sockets.

Installation Points:

Cartridge Effects: Channel 1 of the cartridge is routed to matrix group 1; Channel 2 to group 2 and so on. Groups 7 to 10 may be used with a second cartridge panel using four channel cartridges.

Solo Feature: At installation it is possible to change the extent of the 'SOLO' FUNCTION.

The options are:

- 1 Blackout all except the solo group.
- 2 As 1 but leaving effects running.
- 3 As 1 but leaving background levels as set by the presets.
- 4 As 1 but leaving both background and effects running.

Remote Control

Several of the facilities provided by the Lightmaster 3600 system can be controlled from a remote point.

This facility is often used by clubs and hotels for remote control from the bar or manager's office, by theatres for rehearsal lights, and by bands for foot operated control of the lighting by the players themselves.

Each of the three presets may be turned on and off remotely by a switch. The brightness levels will be those set in the normal way by the preset and grand masters, so complex lighting changes can be made remotely by an unskilled person. If the autofade is switched in, this operates too, giving smooth automatic fades in and out. In addition to the three presets, any or all of the effects can be turned on and off remotely. Lastly a second grand master control can be located anywhere in the building to adjust the overall brightness of all the lights.

Power Supply

One mains power supply unit is included with every Lightmaster Master panel. This steel cased unit is usually located in the bottom of the Lightmaster box, and is sufficient to run up to six Lightmaster 3600 panels. For larger systems order a second power supply to drive the extra panels.

Accessories

A range of superbly finished veneered wooden cases (without lid), is available for the Lightmaster 3600 system. They are available in 4, 5, 6 and 8 panel sizes from stock. Robust flight cases of any size can be supplied to order. A matching blank panel is available for users to customise, or to allow for system expansion. Multipin output connectors are available to special order, these are most useful for touring applications.

Lightmaster 3600 Technical Specification

LM3663	
No. of Presets	Three
No. of Channels	120 maximum
Output cable supplied	5 metres per preset panel
Output cable termination	7 pin XLR free socket
Control Output (Standard)	1 to 4.3 millamps
Control Output (Optional)	0 to +10 volts 0 to -10 volts
LM3609	
Preset Masters	Three
Max. No. of Preset Panels	20 (will need extra power supplies for maximum system)
Autofade time	2-20 seconds
Remote facilities: Preset:	20-200 seconds 1 wire per preset connect to system 0v to disable preset (via Autofade if switched in)
Grand master:	10k ohm potentiometer remotely located
LM3601	
No. of Cartridges	One
Effects Master	One
Control Output	0 to +10 volts
Remote Facilities	1 wire, connect to system 0v to disable effect (Unless 3630 'solo' option in use) 100mv to 75v rms
LM3630	
No. of Preset Masters	Three
No. of Matrix Masters	Ten
Max. No. of controlled channels	Thirty
Matrix Master functions	Effects/Normal/Solo
Flasher/Solo Buttons	Ten
Grand Master	One
Matrix pins (gold plated)	50 supplied with panel
Control Output	0 to +10 volts
POWER SUPPLY	
Power Input	230 or 115v (50 or 60 Hz)
Power Consumption	20 VA per PSU
Output	Will provide power necessary for up to six panels in a normal system
One Power Supply included with each 3609 and 3630 Master Panel.	

zero 88 lighting ltd