Robocolor MSD200
users guide

TABLE OF CONTENTS

INTRODUCTION

Congratulations on your choice of the Robocolor MSD 200 which is a high performance, intelligent lighting projector that features:

- 200 Watt MSD lamp.
- 8 dichroic colours on two separate flags to give a possibility of 24 colours.
- Full Colour-mixing facilities.
- Fast shutter control for strobe effects.
- Motorised Dimmer.
- Variable speed control on all functions.
- Precision optics with adjustable focus (wide-angle available as optoional).
- Efficient fan cooling.
- Can be run without a controller (stand alone) using built-in random sequence programs with and without music trig.
- When in "stand alone" mode up to 32 Robocolors can be connected together so that they all perform the same program in synchronism (MASTER/SLAVE mode).
- Can be controlled by the Martin 2501 (32 pcs.), 2308 (8 pcs.), 2032 (32 pcs.) or 3032 (96 pcs.) controllers.
- Can be controlled by DMX 512 via the Martin DMX-Interface.

HOW TO INSTALL THE ROBOCOLOR MSD 200

The Robocolor MSD 200 is delivered fully adjusted from the factory so only a few basic procedures are necessary and you will be ready to enjoy your new professional lighting equipment.

- Install the lamp by removing the 3 thumb screws which secure the access plate of the lamp housing at the rear of the Robocolor and remove the lamp holder.
- Hold the lamp in a clean cloth, avoiding touching the glass part with your fingers and carefully insert it into the lamp socket.
- If you do touch the glass part of the lamp with your hands you must clean the lamp thoroughly with alcohol before use.
- Replace the lamp holder and tighten the thumb screws.
- Make sure that the factory settings for voltage and frequency match your local power supply. Rewire the Robocolor if necessary (see page 8).
- Set the DIP switch to the desired setting and connect the cables according to your needs (see the following instructions on operating the MSD 200).
- Connect to mains.

OPERATING WITHOUT A CONTROLLER (STAND ALONE)

- Select one of the available built-in shows by setting the DIP switch to one of the settings shown on page 6. The programs which are described as "music" trig will use the beat of the music picked up by the built-in microphone to trigger the program. The other programs run at a pre-set speed without needing a trig source.

OPERATING "STAND ALONE" IN MASTER/SLAVE MODE

- The DIP switch of the unit which you designate the "master" unit should be set to the desired program as described above (settings marked with * on page 6).
- The DIP switches of the "slaves" should be set to the setting for unit no. 1 as shown on page 6.

IT IS VITALLY IMPORTANT THAT **ONE** AND ONLY ONE OF THE UNITS IS SET UP AS A "MASTER" AND THAT **ALL** THE OTHERS ARE SET UP AS SLAVES. OTHERWISE DAMAGE CAN OCCUR TO THE ELECTRONIC CIRCUITRY

- Insert a female termination plug (Martin part no. 309952) in the male socket of the "master" unit.
- Insert a male termination plug (Martin part no. 309950) in the last unit on the link
- Connect the units together using XLR/XLR cables. Standard balanced microphone cable can be used but we recommend that you purchase extra cables from your local Martin dealer to ensure that these has the correct impedance (120 Ohm).

The "slave" units will now all perform the same program as the "master" unit in perfect synchronism.

OPERATING WITH A CONTROLLER

- Connect the Robocolor to the controller using the XLR/XLR or XLR/Dsub cable that came with the controller.
- If you are only using one Robocolor insert the terminating plug, that came with the controller, into the unused XLR socket on the Robocolor.
- If you are using other lighting units with the controller they should be interconnected with XLR/XLR cables. The order is not important and has no influence on the address as far as the controller is concerned - use an order which gives the easiest and shortest cable routing. The last unit on the link should be terminated with the terminating plug.
- Set the DIP switch on the Robocolor to the desired controller channel as shown on page 6.
- Switch the Robocolor(s) on before you switch on the controller.
- Switch on the controller, configure the software according to your DIP switch settings and program your show!
- It is possible to access some of the built-in sequences from the 2501 or the 3032 controller. Please refer to the controller manual.

FOCUSING

- When the Robocolor is mounted in its final position you can focus manually to produce a sharp image on the desired target.

DIP SWITCH SETTINGS

- The DIP-switch settings listed on page 6 must be used to assign the Robocolor unit to the controller channel you use, or, if you wish to run the unit stand-alone/master-slave, to select the built-in show you wish the unit to perform (See the previous instructions).

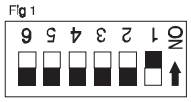
SETTING THE DIP SWITCH OF THE ROBOCOLOR MSD 200

Address Settings for Robocolor MSD 200			
Unit no.		Unit no.	
1	1	17	1,5
2	2	18	2,5
3	1,2	19	1,2,5
4	3	20	3,5
5	1,3	21	1,3,5
6	2,3	22	2,3,5
7	1,2,3	23	1,2,3,5
8	4	24	4,5
9	1,4	25	1,4,5
10	2,4	26	2,4,5
11	1,2,4	27	1,2,4,5
12	3,4	28	3,4,5
13	1,3,4	29	1,3,4,5
14	2,3,4	30	2,3,4,5
15	1,2,3,4	31	1,2,3,4,5
16	5	32	6

DIP Switch Settings for Robocolor MSD 200 - Stand Alone Mode		
Test		All schwitches ser to OFF position
Demo 1	*	2,6
Demo 1, with music trig	*	1,2,6
Demo 2	*	3,6
Demo 2, with music trig	*	1,3,6
Demo, Random	*	2,3,6
Demo, Random with music trig	*	1,2,3,6
Demo, Random 1	*	4,6
Demo, Random 1 with music trig	*	1,4,6
Preprogram chase	*	2,4,6
Preprogram chase, with music trig	*	1,2,4,6
Color sync.	*	3,4,6
Color sync. with music trig	*	1,3,4,6
Mechanical stop (For service use)		1,3,4,5,6
Adjustment (For service use)		3,4,5,6
Led chase (For service use)		2,4,5,6

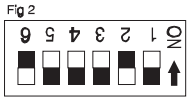
* Stand Alone Master

Fig 1



The example in figure 1 would be described above as; "1" (unit no. 1).

Fig 2



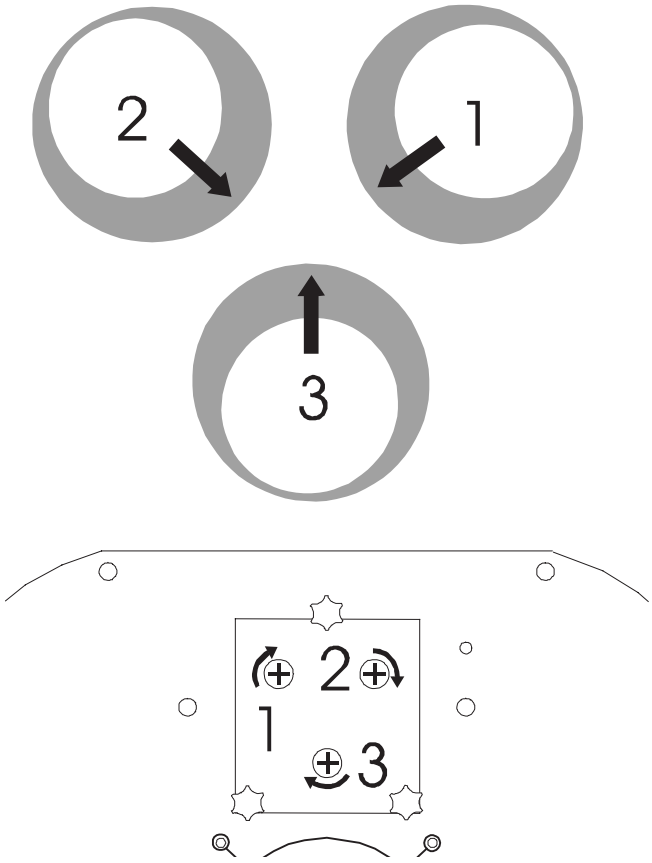
The example in figure 2 would be described above as; "2,6" (Demo 1).

ADJUSTING THE LAMP FOR MAXIMUM OUTPUT

The Robocolor MSD 200 is delivered fully adjusted from the factory, however readjustment of the mechanical parts may be necessary after extensive use. We recommend that you read the following instructions carefully before trying to make any corrections. If you are not an experienced user and are not absolutely sure how to go about solving the problem contact your Martin dealer for assistance.

- The object in getting maximum light output is to position the filament (glowpoint of the lamp) at the focal-point of the parabolic reflector.This is done by moving the lamp-holder within the lamp housing.
- At the rear of the Robocolor the access plate of the lamp housing is held in place by 3 thumb-screws. On the access plate there are 3 Phillips screws which are used to adjust the lamp-holder within the lamp housing. Turning these clockwise will pull the lamp towards the rear of the lamp housing and vice versa.
- Start by making a rough adjustment by positioning the lamp-holder so that there is a distance of 25 mm measured between the back-plate of the lamp-holder to the access plate of the lamp housing.
- Using the controller set the Robocolor to produce a white image without dimming. Point the beam a flat surface.
- If the hotspot of the light is not centred make adjustments by turning one or more of the screws as shown in figure 1.

Figure 1



- If you are not satisfied with the light-output you can try to adjust the lamp-holder further by turning all of the screws a 1/4 turn clockwise, making sure that the hotspot is centred, if the result is an improvement then repeat the procedure until there is no more improvement. If the light-output gets less turn the screws a 1/4 turn anti-clockwise a few times and observe the result.
- N.B. It is important that the lamp is firmly in place in the lamp-holder at all times. Make sure that this IS the case, especially after you have made an adjustment because the inner-rim of the parabolic reflector can dislocate the lamp, especially if you use excessive numbers of turns of the adjusting screws.

CAUTION: The lamp is very fragile when hot so do not move the unit until it is completely cooled, you must also wait approximately 10 minutes after having turned off the lamp before you turn it on again.

SELECTING THE MAINS VOLTAGE AND FREQUENCY

The unit has been wired from factory to match 230V/50Hz or 210V/60Hz mains supply. The actual wiring is printed on the label located on the rear end of the unit. However, it is possible to change the wiring, if necessary, by following the below mentioned procedure. Note that 210V/60Hz is applied to the unit by connecting it between two 110V/60Hz phases. This is known as high-power.

- **DISCONNECT THE UNIT FROM THE MAINS.**
- Unscrew the four screws which secure the top-cover, then remove the top-cover from the unit.
- Locate the ballast with the ’230V/50Hz’ and ’210V/60Hz’ terminals.
- Move the brown and the white wire to the ’230V/50Hz’ or the ’210V/60Hz’ according to the frequency on the mains supply.
- Re-assemble the unit before connecting to the mains.

TECHNICAL SPECIFICATIONS

RoboColor MSD 200	
Dimensions : Length Width Height	 260 mm 220 mm 220 mm
Weight:	12.0 Kg
Power consumption:	275 W
Lamp:	Philips 200 W MSD
Fuse	5 AT