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ENGLISH

HYPERCOLOR 575



CYM continuous colour changer wash luminaire

USER' S MANUAL release 1.0

This manual must be considered an integral part of the projector.

BEFORE CONNECTING AND USING THE PROJECTOR, IT IS IMPORTANT TO READ CAREFULLY ALL THE INSTRUCTIONS IN THIS MANUAL.

QUALIFIED PERSONNEL ONLY, IN COMPLIANCE WITH ALL THE SECURITY LAWS, CAN DO THE INSTALLATION, THE MAINTENANCE AND THE UTILISATION OF THIS PROJECTOR.

BEFORE CONNECTING THE PROJECTOR, MAKE SURE THAT THE FREQUENCY AND THE VOLTAGE VALUES ARE SUITABLE AS SPECIFIED ON THE PROJECTOR.

FOR ANY DOUBT, CONTACT YOUR SUPPLIER OR SEND AN E-MAIL TO:

tech@lamposrl.it

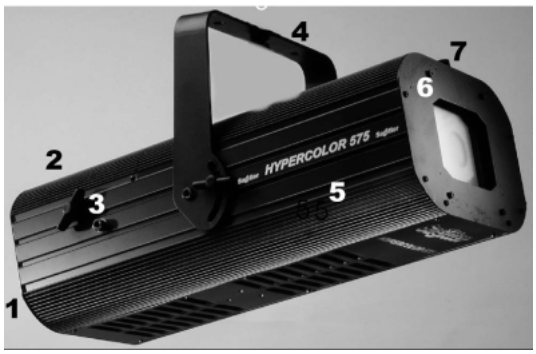
INDEX

GENERAL DESCRIPTION ---------- page 2
START-UP PROCEDURES ---------- page 4
CONNECTIONS ---------- page 5
DMX CHANNEL ASSIGNMENT ---------- page 6
STAND ALONE FUNCTION ---------- page 8
MAINTENAINCE ---------- page 9
TROUBLESHOOTING ---------- page 11
WARRANTY ---------- page 11
OPTIONAL AND BEAM ANGLE ---------- page 12

GENERAL DESCRIPTION

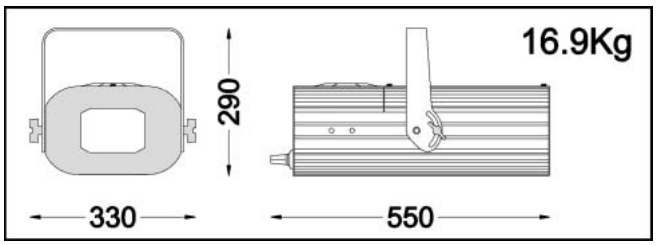
As shown in Figure 1, the HYPERCOLOR 575 is made up of the following parts:

1. Auxiliary support/ Rear panel
2. Cooling fan
3. Optional Anchoring bracket
4. Anchoring bracket
5. Projector body
6. Front panel
7. Top cover knob



Features and dimensions

Voltage rating	230 V
Rated current	4,1 A
Absorbed power	940 W
Frequency	50 Hz (order option 60 Hz)
Socket	GX 9.5
Lamp	MSR-MSD-HSR
Maximum room temperature	35º C
Maximum surface temperature	70º C
Distance from inflammable surfaces	1 mt
Main montage via n°1 screw	M 12
Auxiliary device mount via n°1 screw	M 12
Length	550 mm
Width	290 mm
Deep	330 mm
Weight	16,9 Kg
Weight, including packaging	20 Kg



CAUTION

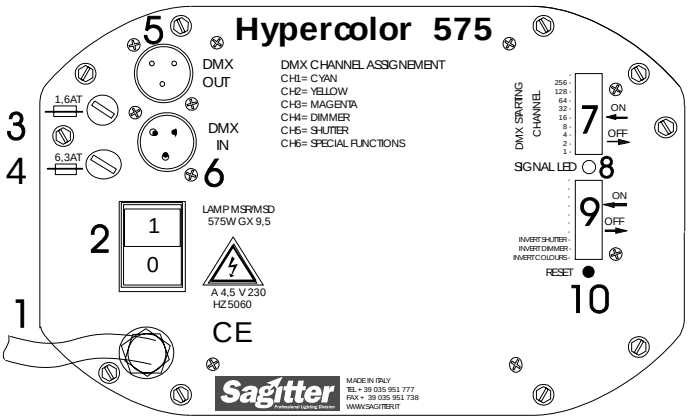
The projector cannot be mounted on inflammable surfaces.

Norms applied to construction:

EN 60 598-1	**EN 60 598-2-17**	**EN 294**	**EN 50 082-1**
EN 55 015	**EN 60 555-2**		**EN 61 000-3-2**

Rear panel

As shown below, the following elements can be seen on the rear panel:



1. Power supply
2. Main switch
3. 1,6A Fuse
4. 6.3A Fuse
5. DMX OUT
6. DMX IN
7. Dip-Switches
8. DMX detector
9. Personality swithces
10. Reset button

Adjustment of Projector Body Angle

As shown in the two pictures HYPERCOLOR 575 can be adjusted to any possible angle. Utilizing the Optional anchoring point the projector can easily adapt itself to any mounting situation like theatre and television ceiling applications or standard stage utilizations.
Once installed or any time you change position of the unit,
- Make sure the projector is correctly mounted at the new angle and that the cables are not too tighter in the new position





Working Position

Hypercolor 575 can work in any position.

Mechanical Safety Guards

A bipolar cut-off switch is located between the lamp compartment and the cooling unit. This safety switch cuts off the power to the projector if the top lid is opened.

Noise Level

After the projector has been powered up and the initial configuration takes place, the noise produced by the projector is primarily due to its cooling system. The noise level is much lower than the limit of 70 dB as permitted by the law.

Packing

The projector is shipped and delivered in a cardboard box made of KRAFT cardboard and semi-chemical additive-free paper, in compliance with BSFV Class 3 standards for waste disposal. The projector is completely assembled, placed in the box inside a polyethylene bag and held firmly in place with preformed polyester packing material. The box is stapled shut. The package can not be exposed to inclement weather or humidity.

No more than three identical boxes can be stacked one on top of the other.
Keep the original packing for possible shipments in the future.

Storage
The projector, in its original packing, must be kept in covered, dry areas with a temperature between -10° C and +50° C.

Handling
The projector, with or without packing, must be handled with care. Lifting and handling must be carried out with special equipment. Do not expose the projector, with or without its packing, to brusque accelerated or decelerated movements, knocks, dragging, or other stress caused by unsuitable handling methods.

IMPORTANT

The projector in its packing can be seriously damaged if it falls or suffers a blow during transportation.
HANDLE WITH CARE!

START-UP PROCEDURES

Positioning and Installation
Follow these steps for opening the package and installing the projector on its working position:
· Place the projector near the place it will be installed.
· Open the package and remove anchoring elements and accessories.
· Carefully read the instructions in the manual.
· Prepare suitable hooks for the anchoring brackets and auxiliary support.
· Using suitable lifting equipment, place the projector up against the hooks.
· Tighten the M12 bolts and insert a device to prevent them from accidentally loosening.
· Attach the auxiliary support element and make sure it is tightly fastened.
· Make sure all adjustable parts are locked firmly in place in the desired position.

CAUTION

You must verify the stability of the anchoring elements when the projector is in working condition. In compliance with the laws in force, the anchoring support must withstand a load of 170 kg. Screws, hooks, and hardware must be inserted correctly and installed to prevent them from accidentally loosening.

IMPORTANT

The projector was designed to function when attached to the bracket. The projector cannot function sitting upon a flat surface that obstructs the rear cooling vents. Do not install the projector where there are objects located at a distance of less than 20 centimetres from the cooling system.

Lamp installation
· Loosen the two knobs that close the top lid.
· Remove the lamp from the packing and carefully read the Manufacturer's instructions.
· Position the new lamp into the socket without touching the glass with the hand or any other dirt or greasy thing.
· Reposition the top lid and firmly tighten the two knobs.

Admissible environmental Conditions
The projector was engineered and produced to function in covered, dry areas with an air temperature ranging between 5° and 35°C, and with a humidity level between 30 and 90%. Sharp changes in room temperature may generate condensation inside the projector, which can harm the projector. Therefore, switch on the projector only after it has undergone a period of gradual adaptation to the room temperature.

CONNECTIONS

Power Supply

Use the cable provided inside the special junction box. The power line must be protected by a differential magneto thermal circuit breaker, while metal parts that might be electrically charged through the projector must be grounded. Hypercolor 575 absorbs 940W at 230V. Makes sure the projector does not pull the cable in all different working positions, and that sources of heat are not placed in the vicinity.

PIN	SYMBOL	EC	US	UK
phase	L	brown	yellow/c	red
neutral	N	blue	silver	black
earth	⏚	yellow/green	green	green

When in doubt, consult a qualified electrician.

Don't power the projector with a dimmer circuit

Be careful with your operations. With a high voltage you can suffer a dangerous electric shock when touching the wires! Inside the projector, the ignitor circuit have very high voltage, over 5Kv.

The User must ensure that the power supply is provided with a highly sensitive differential circuit breaker 30m/A to protect the projector from indirect contacts, and that the grounding system PE is working properly.

Control Unit

HYPERCOLOR Projectors can be controlled by practically all types of controllers on the market that can execute the standard DMX 512 protocol. Controller-projector and projector-projector connections require a two-core screened cable provided with CANNON XLR 3 pin plugs and sockets. The ground braid on the screened cable must be connected to just one end of the cable. The projector and cables must not be installed near overhead ducts for electrical cables or intense magnetic fields.

Projector Address

To make sure the projector functions properly, the dip-switches in the DMX ADDRESS AREA, on the rear panel(page 3, object#7), must be correctly configured. Keep in mind that each HYPERCOLOR occupies 6 DMX channels . Each projector must be set separately on its own BASE CHANNEL (or STARTING CHANNEL). The BASE CHANNEL assignment is obtained by summing the values for each switch in the DMX SECTION (for example, to set a projector on BASE CHANNEL #39, you must set dip-switches 32, 4, 2, and 1 to the ON position, because 32+4+2+1=39). In the Standard Operating Mode, this means the HYPERCOLOR will receive signals on 6 channels following the BASE CHANNEL, BASE CHANNEL included (for example, if the projector is set on BASE CHANNEL #39, it will receive signals on channels #39, 40, 41, 42, 43 and 44).

RESET procedure

To enable RESET proc. keep a stable DMX signal between 240 and 250 on all 6 channels for 5 seconds.
Do not forget to change the values after the reset start to avoid the continuous reset procedure.

DMX CHANNEL ASSIGNMENT

CHANNEL	FUNCTION
01	CYAN
02	YELLOW
03	MAGENTA
04	DIMMER
05	SHUTTER
06	SPECIAL FUNCTIONS

DMX values (The values % are approximated)

CHANNEL 1 = CYAN

percent values	**decimal values**
0 % >>> OPEN	=0
>>> 100% CYAN	=255

OPTION: PERSONALITY DIP-SWITCH N°01 in position ON

0 % >>> CYAN	=0
>>> 100% OPEN	=255

CHANNEL 2 = YELLOW

percent values	**decimal values**
0 % >>> OPEN	=0
>>> 100% YELLOW	=255

OPTION: PERSONALITY DIP-SWITCH N°01 in position ON

0 % >>> YELLOW	=0
>>> 100% OPEN	=255

CHANNEL 3 = MAGENTA

percent values	**decimal values**
0 % >>> OPEN	=0
>>> 100% MAGENTA	=255

OPTION: PERSONALITY DIP-SWITCH N°01 in position ON

0 % >>> MAGENTA	=0
>>> 100% OPEN	=255

CHANNEL 4 = DIMMER

Percent values	**decimal values**
0% BLACK –OUT	=0
>< INCREASING DIMMER LEVEL	
100% DIMMER LEVEL 100% (OPEN)	=255

OPTION: PERSONALITY DIP-SWITCH N°02 in position ON

0% DIMMER LEVEL 100% (OPEN)	=0
>< DECREASING DIMMER LEVEL	
100% BLACK-OUT	=255

CHANNEL 5 = SHUTTER

Percent values	**decimal values**
0 > 10% OPEN	=0
11 >20 % CLOSED	=40
21%>>>> STROBE EFFECT MIN SPEED	=54
>>> 100% STROBE EFFECT MAX SPEED	=255

OPTION : PERSONALITY DIP-SWITCH N°03 in position ON

0 > 10% CLOSED	=0
11 > 20% OPEN	=40
21%>>> STROBE EFFECT MIN SPEED	=54
>>> 100% STROBE EFFECT MAX SPEED	=255

CHANNEL 6 = SPECIAL FUNCTIONS

DMX decimal values	**FUNCTION**
000>>>>031	special function disabled
032	colour change mode: fading colours from colour 1 to colour 4
033	speed 1 (max) (1 sec/col)
034>>>062	28 variable speed
063	speed 30 (min) (1800 sec/col)
064	colour change mode: colours change from colour 1 to colour 4 (no fading)
065	speed 1 (max) (1 sec/col)
066>>>094	28 variable speed
095	speed 30 (min) (1800 sec/col)
096	colour change mode: fading colours from colour 2 to colour 4
097	speed 1 (max) (1 sec/col)
098>>>126	28 variable speed
127	speed 30 (min) (1800 sec/col)
128	colour change mode: colours change from colour 2 to colour 4 (no fading)
129	speed 1 (max) (1 sec/col)
130>>>158	28 variable speed
159	speed 30 (min) (1800 sec/col)
160	colour change mode: fading colours from colour 2 to colour 7
161	speed 1 (max) (1 sec/col)
162>>>190	28 variable speed
191	speed 30 (min) (1800 sec/col)
192	colour change mode: fading colours from colour 1 to colour 7
193	speed 1 (max) (1 sec/col)
194>>>222	28 variable speed
223	speed 30 (min) (1800 sec/col)
224	colour change mode: colours change from colour 1 to colour 7 (no fading)
225	speed 1 (max) (1 sec/col)
226>>>253	28 variable speed
254	speed 30 (min) (1800 sec/col)
255	special functions disabled

COLOUR MODE

- Colour 1 = White
- Colour 2 = Cyan
- Colour 3 = Yellow
- Colour 4 = Magenta
- Colour 5 = Deep Green
- Colour 6 = Deep Blue
- Colour 7 = Deep Red

STAND-ALONE FUNCTIONS

HYPERCOLOR can work in Stand-alone both single and in banks, that means without the need of a control unit, in Master/Slave function, since any luminaries can be Master of a bank, it becomes able to control synchronously all the other HYPERCOLOR fixtures and to manage a menu for a total of 6 options.
To make the HYPERCOLOR operating in Stand-alone mode, you must put in position ON the dip-switch 10. This enable the projector to start its own program.

With HYPERCOLOR, once in stand-alone functioning, you just connect the DMX cable starting from the DMX OUT (see page 2 object n°5) and the unit will perform the same program to all the other units.

All the “Slave” fixtures must be addressed on DMX 001. This means with the dip-switch 1 in position ON and all the other dip-switches in OFF position.

Putting the dip-switch n°10 in position ON enable the unit to work in stand-alone functioning performing the menu of channel 6 (see page 6).
Practically the DMX value is setted directly through the dip-switches value.

EXAMPLES

- The first 5 dip switches set the speed of the colour sequences (increasing from 1 to 31 binary code)

- The switches 6 –7 – 8 set the colours change mode, combining the 3 dip switches we can obtain 7 different colour sequences:

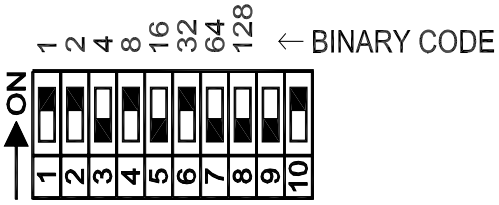
from colour 1 to colour 4 (fading) = **32**
from colour 1 to colour 4 (no fading) = **64**
from colour 2 to colour 4 (fading) = **96** (32+64)
from colour 2 to colour 4 (no fading) = **128**
from colour 2 to colour 7 (fading) = **160** (32+128)
from colour 1 to colour 7 (fading) = **192** (64+128)
from colour 1 to colour 7 (no fading) = **224** (32+64+128)

Colour 1 = White
Colour 2 = Cyan
Colour 3 = Yellow
Colour 4 = Magenta
Colour 5 = Deep Green
Colour 6 = Deep Blue
Colour 7 = Deep Red

EX 1: Dip-switch 10 in position ON

Medium speed, the binary code is 1+2+8 = 11

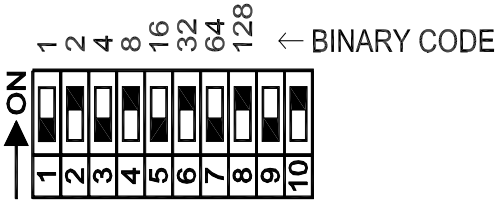
Colour change from 1 to 4, whit fading, the binary code is **32**



EX 2: Dip-switch 10 in position ON

Medium speed, the binary code is 2+8 = 10

Colour change from 2 to 7, whit fading, the binary code is 32+128=**160**



MAINTENANCE

CAUTION

Safety guards, lenses, and filters must be replaced if they are visibly damaged to the point that they become ineffective (for example, if they have deep slashes or cuts).

The lamp must be replaced if damaged, cracked, or deformed by the heat.

PLANNED MAINTENANCE

at user's charge and responsibility

Operation	Frequency	Action
Lamp replacement	750 hours	M1
Surface temperature test	Quarterly	M3
Cleaning	Two months	M4
Testing of safety breaker circuit on general electric system	Monthly	Check life-saving safety device pressing "T" button
Check damage to cables due to mobile use of projector	Once a year	Replace cables if damaged
NOTE: To ensure the correct functioning of the unit, a general service check of the projector must be made, twice a year, from an authorized technician		

ATTENTION

Always use original spare parts to ensure safe and proper functioning of the projector.

ATTENTION

Do not make changes to the projector. A modified projector requires a new CE marking.

M1 - LAMP REPLACEMENT

The lamp must be replaced with the same type of lamp and according to the same frequency. A less efficient lamp jeopardizes projector performance. Replace the lamp as follows:
- When the projector is cold, turn off the ON/OFF switch to cut the electricity and follow the instruction as explained in page 3 of this manual .
-Switch on the projector to make sure the lamp is working correctly.

M3 - SURFACE TEMPERATURE TEST

Before you check the temperature, make sure the projector is in the full operating mode (wait about 20 minutes after switching on the projector). Use a contact probe to measure the surface temperature on the projector's metal case and determine the hottest area (Top lid near to the lamp). The temperature must be less than 70°. Otherwise, check the cooling system.

M4 - CLEANING

ATTENTION

Cleaning must be carried out when the projector is cool, disconnected from the power supply, with the general power switch turned off, and the ON/OFF switch on the rear panel switched OFF.

FREQUENCY

It is recommended to clean the projector every two months to ensure efficiency and performances. If the projector is used in particularly smoky or dusty areas, clean the projector more frequently.

1. Use a (soft) compressor to remove the dust from the front areas and from the fan (keeping the fan blocked with i.e. a screwdriver)
2. Use a vacuum cleaner to remove dust.
3. Use a soft cloth (non-fabric) and pH neutral (pH7) liquid detergent to clean front glass and the other surfaces. Make sure you remove all residual traces.
4. Make sure the cleaning procedure did not damage any internal part or modified their correct position.
5. Make sure no cleaning materials or tools remain inside the projector.

LIFE SPAN AND DISPOSAL

If the projector is operated in ordinary working conditions and the user follows the planned maintenance operations established by the Manufacturer, it should last for three years. When the projector is discarded, it must be disposed of according to recycling laws.

The improper use of this projector, cancel the guarantee and our responsibility. All the information have been written and driven with extreme care; however, we do not engage us any responsibility for contingent errors or omissions. We reserve the right to modify and/ or improve our product as we retain necessary, without subsequent warning or notice. It is forbidden any complete or partial reproduction of this handbook, if not expressly authorized.

TROUBLESHOOTING

Problem	Possible cause	SOLUTIONS
Projector will not turn ON	No mains power No power to the projector Burned-out fuse	Make sure the mains power is ON and the circuit breaker hasn't been triggered Make sure the switch on the back of the projector is ON. Make sure the top lid is tightly closed Replace the burned-out fuse *Use the type of fuse indicated on the side of the fuse box
The lamp will not light	Burned-out or faulty lamp	Replace the lamp
The beam is not regular	An optical element is damaged Dirt on glasses and dichroic filters	Switch OFF the power and check the optical components. If damaged call an authorized technician Switch off the power and clean the parts as explained in the cleaning paragraph
The projector does not respond to controller signals	Malfunctioning signal cable Wrong DMX address Malfunctioning electronic circuit Malfunctioning motor or transmission	Replace the cable and check the line before switching on again the projector Check the DMX SECTION dip-switch setting and correctly reconfigure them Contact an authorized technician
Discontinuous projector functioning	Safety thermostat has been triggered	Remove the dirt and check to see if the cooling system is working properly Contact an authorized technician
Noisy projector	Mechanical wear	Identify the source of the noise and remove the cause. Contact an authorized technician

*Before switching on the projector, identify and remove the causes that made the fuse intervene

WARRANTY

HYPERCOLOR 575 is guaranteed against any manufacturing defects or material flaws, if defects or breakdowns occur during the warranty period. After inspection and according to its own unquestionable judgment, the Manufacturer will repair or replace the defective part.
The warranty is not valid in the following cases:
1. If the projector was used improperly or with negligence, or if it was damaged and repaired and/or modified to the point of jeopardizing safe functioning.
2. If the projector is used in conditions other than those specified in this manual.
3. If non-original spare parts are used.
4. All malfunctioning and breakdowns caused by acts of God, negligence, and improper use, and parts subject to wear are not covered by the warranty.
The Customer shall be responsible for all shipping costs for the material.
All orders for spare parts must be accompanied by the model of the projector and the serial number.

OPTIONAL AND BEAM ANGLE



BARN DOORS KIT

The barn doors mounting kit is supplied if requested as a optional, the mounting process is very easy:
1- Unscrew the 4 PH screws from the front panel.
2- Insert the 4 spacers you will find in the barn door kit and firmly tight.
3- Position the barn doors and reposition the 4 PH screws of the front panel without thigh them
4- Once in the correct position, tight firmly.

SPOT ADAPTER



The spot adapter it is mountable on HYPERCOLOR 575.
This system enable the projector to perform a beam like a standard theatrical PC Spot: Loosing a bit the knob on top of the adapter and moving the lens from front to back enable to project a variable aperture beam from 10° up to 25° aperture.

The SPOT ADAPTER is supplied, under request as an optional and it is mounting process is exactly the same as per the BARNDOORS.
Adjust the beam loosing and reblocking the knob on top of the adapter to obtain the desired aperture.

