

MANUALE di ISTRUZIONI - INSTRUCTION MANUAL
NOTICE D'UTILISATION - GEBRAUCHSANWEISUNG

SIGNUM ROTATOR

SIGNUM F140



SIGNUM ROTATOR - SIGNUM F140

USER GUIDE

Thank you for choosing our projector. Its bespoke design guarantees a performance which is tailored as closely as possible to your needs.

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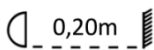
1. SAFETY INFORMATION

Please, read this user guide carefully and keep it for your future reference. Please, make sure to follow the instructions to guarantee safe and correct installation, use and maintenance of the appliance. Goboservice by Sunland Optics SRL is not liable for any damage, derived from wrong installation, use or maintenance.

Goboservice by Sunland Optics SRL reserves the right to modify the manual at any time and without prior notice.

INSTALLATION - Please, make sure that the surface on which you are going to install the projector is suitable for it. In some cases, you might have to use dowels or screws or other anchorages adapted to the surfaces the projector has to be mounted on.

- Make sure all parts for fixing the projector are in good condition.
- Before positioning the projector, make sure that the anchorage is stable.
- The safety cable, properly hooked to the appliance and attached to the support structure, must be installed in such a way that, in the event of failure of the primary support system, it has the lowest possible impact on the appliance. After any intervention, the safety rope must be replaced with the original spare part.
- If the cable of this appliance is damaged, it must be replaced exclusively by the manufacturer or its service technician or by equally qualified personnel to avoid any risks.
- The external Z-type flexible cable of this appliance cannot be replaced. If the cable is damaged the appliance must be disposed of.
- The pin plug is not included. Installation must be performed by qualified staff. Use EN 60998-2-1 or EN 60998-2-2 compliant cable junctions suitable for 0.5 mm² to 1 mm² cable size range.



MINIMUM DISTANCE FROM ILLUMINATED OBJECTS - The projector must be placed **at least 0,20 meters** away from the projection surface

MINIMUM DISTANCE FROM FLAMMABLE MATERIALS - Flammable materials must be placed **at least 0,20meters** away from the projector lens and 1 meter away from any other surface of the projector.

Ta40°C

MAXIMUM TEMPERATURE OF THE ENVIRONMENT- Install the projector in a place with good ventilation. Please, do not use it in closed or semi-closed environments due to a possible temperature increase, which reduces the life span of the projector. For safe projector functioning the temperature **must not exceed 40°C**.

IP65

IP65 PROTECTION RATING - The device is protected against dust (first digit 6) and against splashes of water (second digit 5).

IK09

IK09 PROTECTION RATING -The device is protected against shocks from external mechanical impacts.



PROTECTION AGAINST ELECTRIC SHOCK -It is mandatory to connect the projector to a power supply with efficient earthing (Class I appliance according to EN 60598-1). It is also recommended to protect the projector power supply lines from indirect contacts and/or short circuits to ground through the use of appropriately sized differential switches.

CONNECTION TO THE POWER SUPPLY

Connection to the electricity distribution network must be carried out by a qualified technician. Make sure that the frequency and voltage of the network correspond to the frequency and voltage for which the projector is set up and indicated on the rating plate.

The absorbed power is also indicated on the same plate. Ensure that power line is able to withstand the power absorbed by the projector and, if so, check the maximum number of devices that can be connected to the power line, in order to avoid overloads.

If the external flexible cable of this appliance is damaged, it must only be replaced by the manufacturer, its after-sales service, or equally qualified personnel.

If the projector is used in a residential environment, in some cases it may be necessary to take specific measures to avoid electromagnetic radio frequency interference.

Tmax60°C

EXTERNAL SURFACE TEMPERATURE - In the thermally steady state, the maximum temperature which can be reached on the external surface of the device is 60°C.

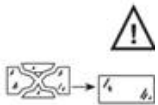
MAINTENANCE

Before starting any maintenance works or cleaning the projector, cut the power off the mains supply.

Allow at least 10 minutes for the projector parts to cool down to avoid burns.

The lenses must be mounted; they must, if visibly damaged, be replaced with authentic spare parts.

From time to time remove and clean the dust filters located in the two air outlets of the device to allow proper ventilation of the product. In case the filters are worn out, please contact the manufacturer for replacement with authentic spare parts.



PHOTOBIOLOGICAL SAFETY

CAUTION! Possible emission of dangerous optical radiation from this product. Do not look at the light source, it can damage your eyes.



According to
EN 62471

Risk group1 Signum 25W Signum 50W	Risk group2 Signum 75W
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DO NOT MOUNT THE PROJECTOR WHILE IN USE



CAUTION! RISK OF ELECTRIC SHOCK

The light source inside the projector must be replaced only by the manufacturer or a qualified service technician.



THE PRODUCT IS DESIGNED FOR USE IN THE FOLLOWING AREAS:

studios, stages, theatres, exhibitions, fairs, events, theme parks, entertainment venues, architectural lighting and the like. The projector is suitable for both indoor and outdoor use.



NOT SUITABLE FOR HOME LIGHTING



DISPOSAL

This device complies with the European Directive 2012/19 / EU - Waste Electrical and Electronic Equipment (WEEE). To minimize the overall *environmental* impact, dispose of/recycle the product at the end of its life cycle according to the local waste disposal regulations.



The products listed in this user guide comply with the European Directives to which they are subject:

- 2014/35 / UE - Safety of Low Voltage (LVD) powered equipment
- 2014/30 / UE - Electromagnetic Compatibility (EMC)
- 2011/65 / UE - Restriction of use of certain dangerous substances (RoHS)
- 2009/125 / CE - Specifications for the eco-compatible design of energy-related products (ErP)



2. INSTALLATION AND OPERATION

2.1. INSTALLATION

The **SIGNUM** projector can be installed on the ceiling, floor or wall using the provided basic mounting bracket or on a pole with the SIGNUM pole bracket accessory.

For mounting the projector on flat surfaces, please follow the instructions below:

- remove the bracket as shown in Image 1 by unscrewing the four screws to the sides of the projector. Place the unscrewed bracket on the chosen surface;
- fix the bracket with at least two screws, preferably choosing slots opposite to each other;
- sit the projector on the bracket and screw the previously removed four fixing screws.

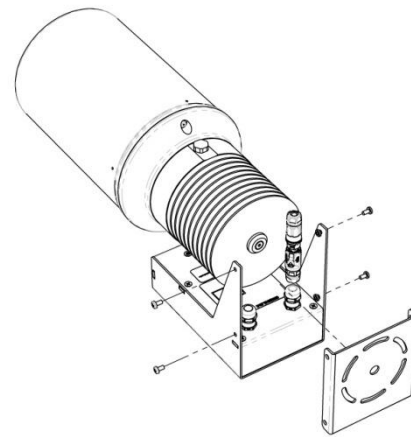


Image 1

To install the projector on a pole or tube it is necessary to purchase the SIGNUM pole bracket accessory and follow the instructions below:

- position the bracket on the pole at the desired height and orientation (Image 2);
- remove the basic bracket as shown in Image 1 by unscrewing the four fixing screws, place it on one of the two flat surfaces of the pole bracket and connect the two central parts, orient it to obtain the desired position;
- fix the bracket with at least two screws, preferably choosing slots opposite to each other;
- sit the projector on the bracket and screw the previously removed four fixing screws.

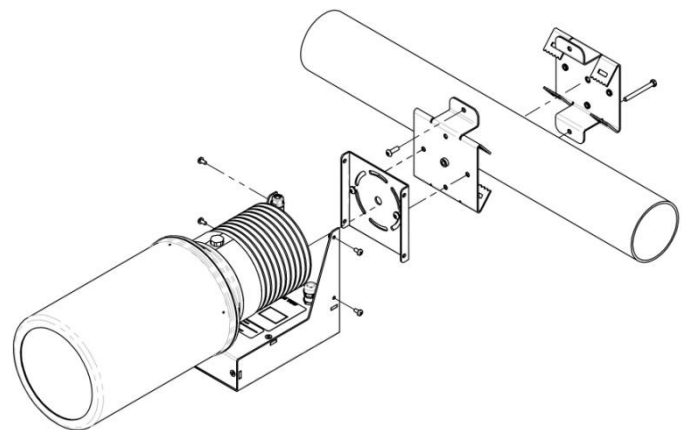


Image 2

2.2. CONNECTION AND SAFETY

Connection to the electricity distribution network must be carried out by qualified staff.

Please, make sure that the frequency and voltage of the network correspond to the frequency and voltage of the projector, indicated on the electrical data plate.

The absorbed power is also indicated on the same plate.

Refer to the latter to evaluate the maximum number of devices to be connected to the power line, in order to avoid overloads.

CAUTION: the use of the safety rope is mandatory unless the projector is placed on the floor. The security rope must be tied to the projector as shown in Image 3.

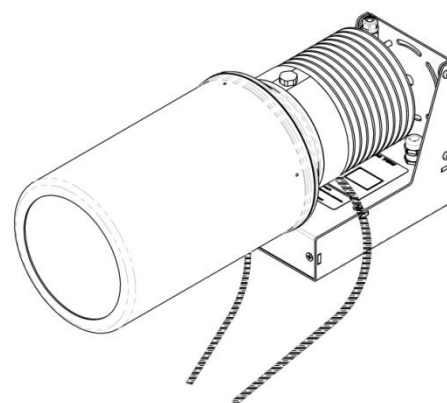


Image 3

2.3. GOBO MOUNTING INSTRUCTIONS

A gobo has two main parameters that allow its correct mounting inside the projector; these parameters are shown in Image 4:

- OD (Outer Diameter) is the physical gobo diameter;
- ID (Inner Diameter) is a diameter of the circle with the actual image which will be projected.

SIGNUM's gobo size:

OD = 37,3mm e ID = 30mm.

Gobos for **SIGNUM F140** are made with a magnetic metal support in order to guarantee simple and rapid replacement and are perfectly interchangeable with those of the standard versions.

Gobos for **SIGNUM ROTATOR** are made without metal support and are not interchangeable with the other **SIGNUM** versions.

For gobos with special graphic features, please contact Goboservice customer service at info@goboservice.com to get advice on the best configuration.

During gobo installation/replacement make sure that the **reflecting side always faces the lamp**; hence the **matt (black/grey) coating must face the lens**.

To insert a gobo, please follow these steps:

- unscrew and remove the front cover as shown in Image 5;
- insert the gobo inside the slot (magnetic for **SIGNUM F140**, rotating for **SIGNUM ROTATOR**) (Image 6) and make sure it fits in properly. In the **SIGNUM F140** place the metal support with the gobo inside in the desired position;
- tighten the front cover of the projector again.

Please avoid staining, scratching or leaving fingerprints on the surface of the gobo, as this could lead to visible flaws in projection or even chipping, which with the heat generated inside the projector could lead to the cracking of the gobo.

CAUTION: The gobo mounting/replacement must be carried out when the projector is switched off and disconnected from the mains supply. If the gobo should be replaced after use, let the internal parts of the projector cool down.



Image 4

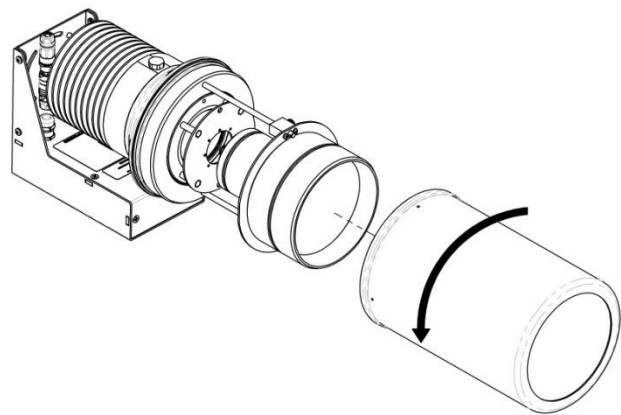


Image 5

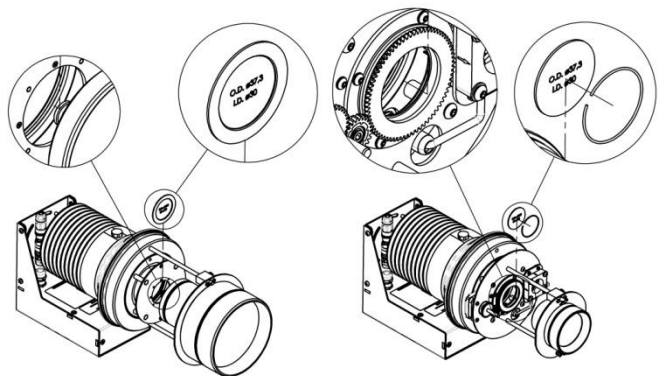


Image 6

2.4. ORIENTATION AND FOCUSING

The main body of the projector **SIGNUM** can be manually rotated clockwise and counterclockwise.

To do so, please:

- loosen the locking clamp by loosening the screw shown in Image 7;
- position the projector at the desired angle;
- tighten the locking clamp again.

After having chosen the right projection angle, it is possible to focus the projected image.

To focus the image, please follow these steps:

- unscrew and remove the front cover (Image 5) ;
- loosen the two screws shown in Image 8;
- move the optical unit along the respective tracks, sliding it back and forth until the projected image is perfectly defined;
- tighten the screws and place the cover back.

The distance from the focal surface will vary depending on the distance between the installation point and the projection.

When the pointing direction is not perpendicular to the projection surface, the image may be partially out of focus. In the **SIGNUM F140** (in the **SIGNUM ROTATOR** isn't possible) to improve focus, use the micro-adjustment knobs shown in Image 9 so as to tilt the gobo until obtaining a perfect focus. To understand which of the knobs to move it is first necessary to focus the projected image on the part of the surface closest to the projector (A) and move the knobs from the same side to focus on the opposite part (B), i.e. if the part to be focus again is on the right, you have to move the knobs on the left, if it is above you have to move the knobs down and so on.

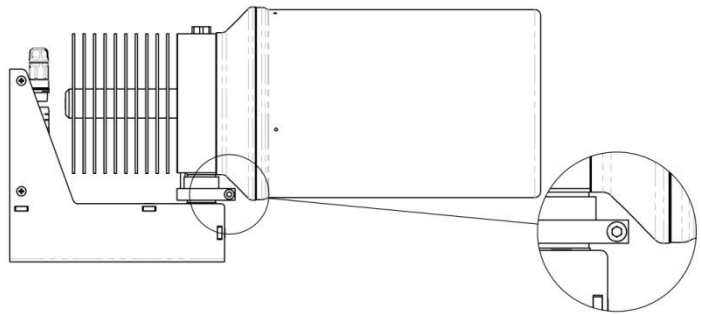


Image 7

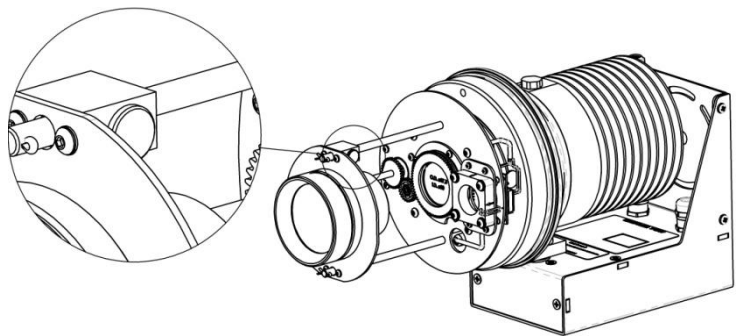


Image 8

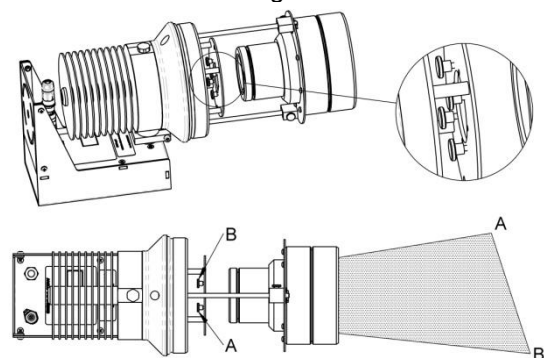


Image 9

3. USE OF THE PROJECTOR

3.1. LENS REPLACEMENT

In the **SIGNUM ROTATOR** the optical unit is interchangeable. Configure your projector by choosing a suitable lens.

To carry out the replacement of the optical unit, follow these steps:

- unscrew and remove the front cover (Image 5);
- loosen the dowels shown in Image 8;
- remove the split pin shown in Image 10 and then remove the optical unit from the tracks;
- insert the new lens and repeat the previous steps.

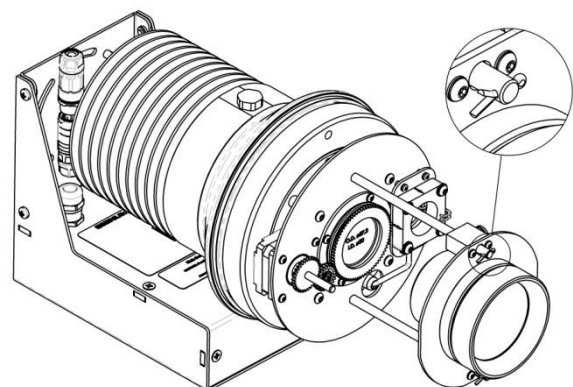


Image 10

3.2. ROTATION FUNCTION

The **SIGNUM ROTATOR** rotates the image clockwise doing a complete revolution in 1' 40". It's possible to stop the rotation by pulling out the power plug (Image 11), it isn't possible to change the speed and direction of rotation.

For special features, please contact Goboservice customer service at info@goboservice.com.

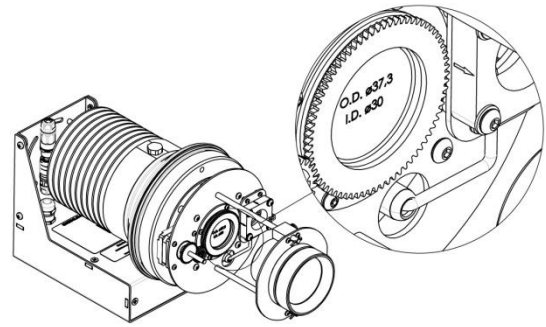


Image 11

3.3. DIMMER FUNCTION

The **SIGNUM F140** and the **SIGNUM ROTATOR** units include as standard the use of an additional input (Image 12) that allows it to be turned on or off through an external command signal.

This type of control is the analogue 0-10V system (for example, a **Casambi system that can be directly connected to the projector**); however, other types of control signals must be accompanied by a device that converts the control signal into a 0-10V signal (for example, **a DALI signal cannot be accepted as a direct input to the Signum**).

In this regard, since it is an analogue 0-10V system, it is essential to respect the polarity of the signal control cables according to the following scheme:

Dim+ (Blue) → Pin 1
Dim- (White) → Pin 2

Please get in touch with your designated sales representative for further information regarding this functionality.

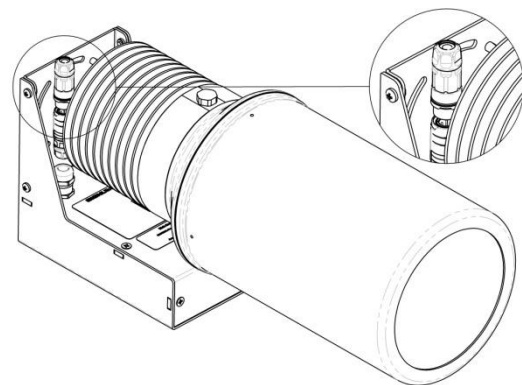


Image 12

3.4. CONDENSATION PHENOMENON

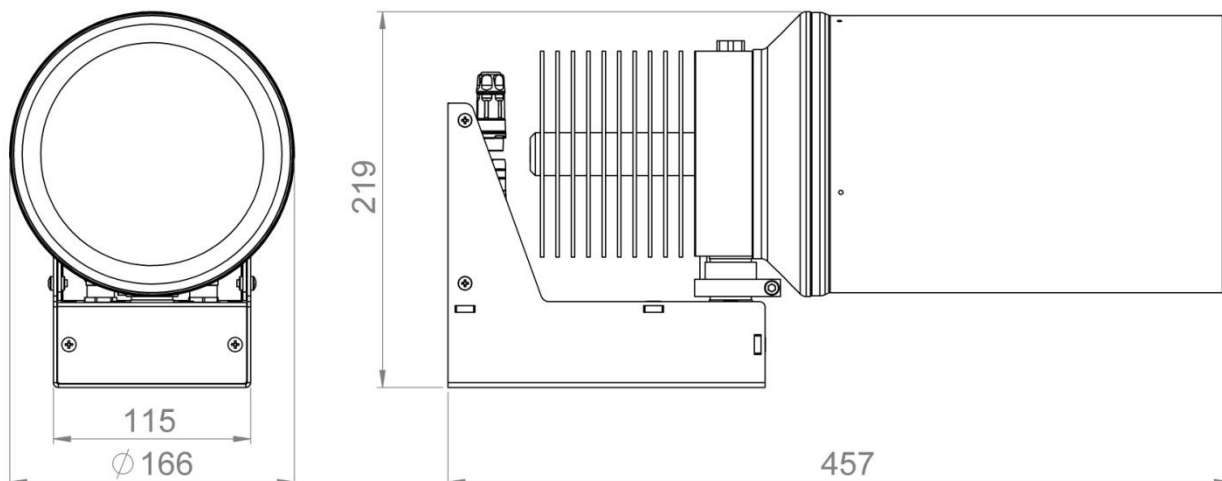
Signum is a product that is suitable for outdoor use and has an **IP65** rating. This means that condensation may form, a phenomenon typical of products with this IP rating, which cannot be completely avoided but can be contained as explained below.

When the projector is mounted in its final position, it is opened to mount the gobos and/or adjust the zoom; when the more or less humid air is closed, it remains inside the projector, and when it is put into operation, the water vapor contained in the air may condense inside the projector, making the typical drops on the glass visible, which may make the projection less clear. To partially counteract this phenomenon, when used outdoors, we recommend the introduction of silica bags inside, which together with our anti-condensation cover, help to contain the formation of moisture inside the projector.

3.5. MAINTENANCE

To maintain optimal performance of the projector for a long time, it is necessary to regularly clean it from dust and grease. The frequency of maintenance works depends mainly on the operation environment (air humidity, presence of dust, salt, etc.). To remove dirt from the lens or filter, use a soft cloth and some cleaning liquid for cleaning glass. Make sure that there are no excessive deposits of dust and grease between the fins of the heat sink.

4. TECHNICAL DETAILS



SIGNUM

Available power:

- 110-240V 50/60 Hz

Light Source:

- Type: Cob LED

Weight:

- 8,6 Kg (18,96 lbs)

Protection rating:

- IP65

50W

Colour temperature: 6.000K

SIGNUM ROTATOR

- Luminous flux 32°: 4.000 lumen
- Luminous flux 18°: 3.600 lumen

SIGNUM F140

- Luminous flux 12°: 3.460 lumen

Available lens:

SIGNUM ROTATOR

- Focal 56mm (Angular aperture 32°)
- Focal 90mm (Angular aperture 18°)

SIGNUM F140

- Focal 140mm (Angular aperture 12°)

75W

Colour temperature: 6.000K

SIGNUM ROTATOR

- Luminous flux 32°: 5.400 lumen
- Luminous flux 18°: 4.900 lumen

SIGNUM F140

- Luminous flux 12°: 4.650 lumen

Available lens:

SIGNUM ROTATOR

- Focal 56mm (Angular aperture 32°)
- Focal 90mm (Angular aperture 18°)

SIGNUM F140

- Focal 140mm (Angular aperture 12°)

5. DISPOSAL



This device complies with the European Directive 2012/19 / EU - Waste electrical and electronic equipment (WEEE).

To respect the environment, dispose of / recycle the product at the end of its life cycle in accordance with local laws.

In any case it should not be thrown in the normal waste or dispersed in the environment, the latter action, even if pursued legally, represents a serious danger for animals and people and a long-term source of pollution. The product cannot be treated as a simple urban waste and must be disposed of appropriately in accordance with the regulations in force on the subject of separate waste disposal.

6. WARRANTY

The product is covered by a warranty under the law. In case of malfunction during the warranty period, the product will be repaired or replaced, based on the manufacturer's evaluation.

To claim product replacement or servicing under the warranty, please provide us with:

- Date of purchase (invoice date);
- A detailed description of the problem.

The unit was sent to you in perfect condition. Any damage, caused by not following the User Guide, will void the warranty, and the manufacturer assumes no legal responsibility.

Any repair/servicing should be carried out by the manufacturer. The manufacturer denies any responsibility for the unauthorized dismantling of a projector (even partial), which will void the warranty.

Consumables are not covered by the guarantee.

The manufacturer reserves the right to modify the contents of this User Guide at any time and without prior notice.

7. MAINTENANCE HISTORY

Projector Mod.: _____

Purchase date: _____

Serial number: _____

First ignition date: _____

NOTE

