OPERA MMD MK2

Instruction Manual

model:

PF 1183 OPERA MMD MK2

ATTENTION

This instruction manual contains important information about the installation and use of the projector. Please read and follow these instruction carefully.

ATTENTION

Always ensure that the power to the projector is disconnected before opening the projector or commencing any maintenance work.

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INDEX

01 – SAFE USAGE OF THE PROJECTOR. 3
02 – INSTALLING THE PROJECTOR. 3
03 – FITTING THE LAMP. 4
04 – POWER SUPPLY – MAINS 4
05 – ZOOM AND FOCUS. 5
06 – COLOUR CHANGER. 5
07 – PROFILE SYSTEM AND IRIS. 5
08 – DIMMER/SHUTTER. 6
09 – HOUR COUNTER, , , , , , , , , , , , , , ... 6
10 – MAINTENANCE. 7
11 – KEEPING THE PROJECTOR CLEAN. 7
12 – TROUBLESHOOTING. 7
13 – ELECTRICAL DIAGRAM. 8
14 – TECHNICAL DATA. 9

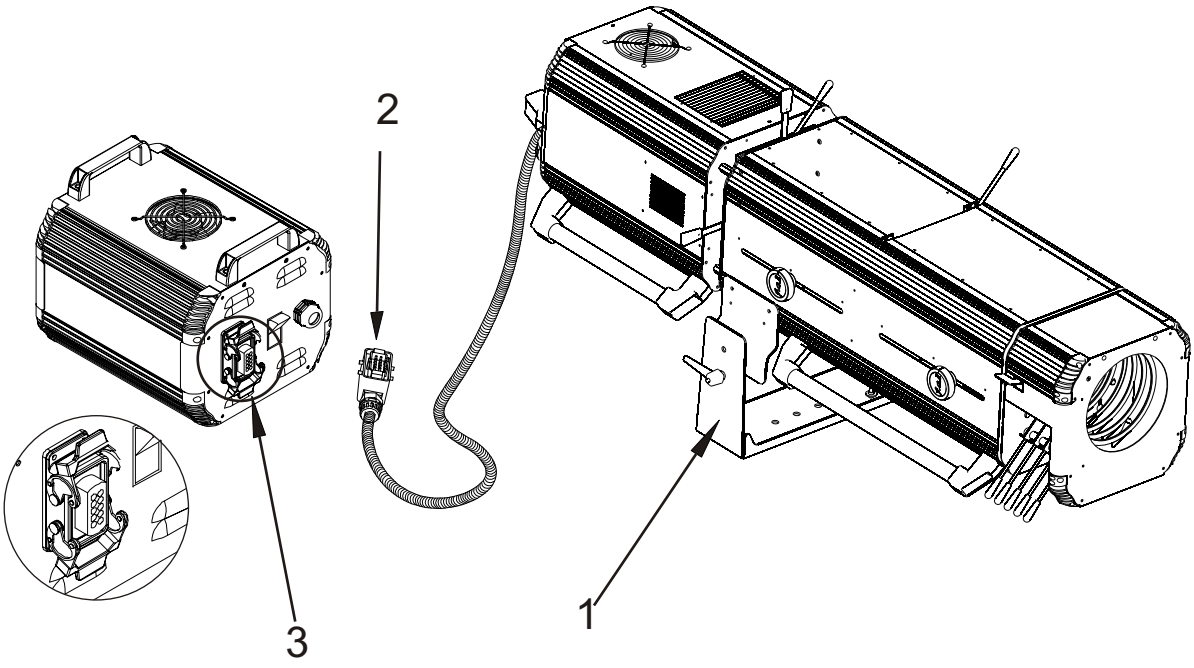
Please note that as part of FAL's ongoing commitment to continuous product development, specifications are subject to change without notice. Whilst every care is taken in the preparation of this manual FAL reserves the right to change specifications in the course of product improvement. The publishers cannot be held responsible for the accuracy of the information herein, or any consequence arising from them.

01 – SAFE USAGE OF THE PROJECTOR

- Do not attempt to dismantle and modify the projector.
- Do not allow contact with water or any other fluids, or metallic objects.
- Do not install the projector in areas of high humidity.
- Not allowed to be mounted directly on inflammable surfaces.
- Keep at least 0.5m distance between the projector and adjacent inflammable surface.
- The projector grill, lenses or ultraviolet filter must be changed if they are visibly damaged to the point at which their effectiveness is diminished, for example by becoming cracked or deeply scratched.
- The lamp must be replaced if it becomes damaged or deformed by heat.
- 5m Keep at least 5m between the lamp and the illuminated surfaces.
- Avoid direct exposure to the light from the lamp . The light is harmful to the eye.
- Note : The lamp reaches very high temperatures, allow at least 15 minutes for the lamp to cool completely before attempting to handle it. Ensure the lamp is cool before attempting to handle it.
- To ensure the reliability of the projector it should be kept clean. It is recommended that the fan should be cleaned every 15 days. The lens and dichroic filters should also be regularly cleaned to maintain an optimum light output. In locations such as discotheques the objective lens should be cleaned every week as smoke fluid can condense on it and very quickly reduce the light output.

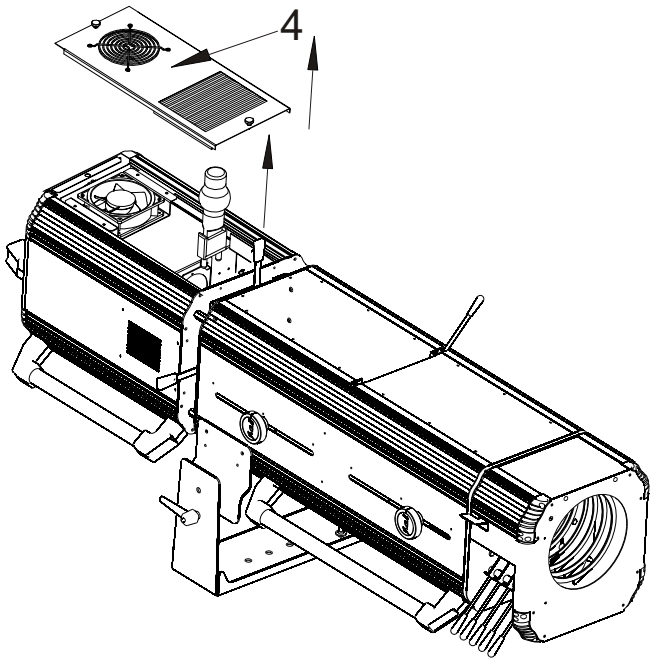
02 – INSTALLING THE PROJECTOR

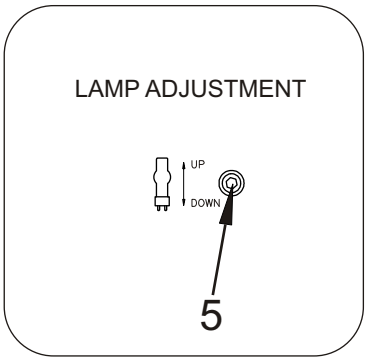
The projector should be fixed on an appropriate stand which will remain stable. Always ensure that the stand or structure to which you are attaching the projector is secure and is able to support a weight of 48.8 kg for each followspot. The projector should be fixed using the bracket(1). Connect the 10 pin plug (2) of the projector to the socket (3) of the ballast unit.



03 - FITTING THE LAMP

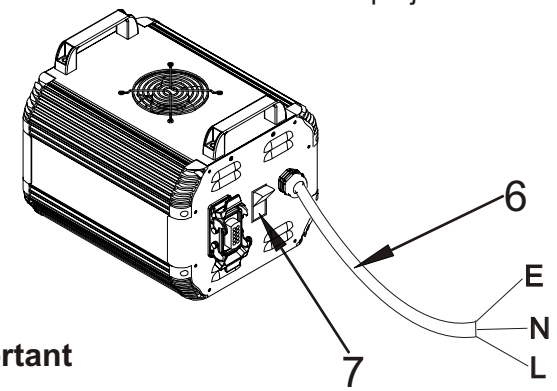
The lamp access hatch (4) is released by undoing the two M4 Allen screws on the access hatch. Insert the HMI 2500/SE lamp into its socket. To ensure optimum light output and a uniform distribution of light across the beam it is necessary to adjust the lamp position. Screw(5)(at the bottom of the projector) adjusts the vertical positioning of the lamp. Care should always be taken when handling this lamp. Always read the manufacturers ″ instructions for use″ enclosed with the lamp. On the back of the projector is an hour counter which shows the on time of the projector. The counter can usually be reset, in which case it is recommended that you do this when fitting a new lamp. If it is of the nonzeroing type, make a note of the hours shown. Please make sure that the lamp is not run to the very limit of its lamp life, this will give an optimum light output and reliability.





04 - POWER SUPPLY - MAINS

Connect mains power plug to the power cord (6) outgoing from the ballast. The ballast unit should be connected to the mains power, pay attention to the voltage and frequency marked on the label attached. The blue wire should be connected to neutral (N) of the socket, the brown wire to the live (L), and the yellow and green wire to the earth. To switch on the projector ensure the switch (7) on the ballast unit is in the on position, then turn the switch on the back of the projector to position 1, position 0 is off.
It is recommended that each projector is supplied separately so that they may be individually switched on and off. You should also turn on and off the projector with the power switch on the back of the projector.



L = Brown
E = Yellow/Green
N = Blue

Important

It is essential that each projector is correctly earthed and that electrical installation conforms to all relevant standards.

05 - ZOOM AND FOCUS

Zoom and focus of the light beam are obtained using 2 knobs (8-9) located on the right of the projector. The beam spread can be adjusted from 5° (handles apart, see Fig. A) to 9° (handles together, see Fig. B).

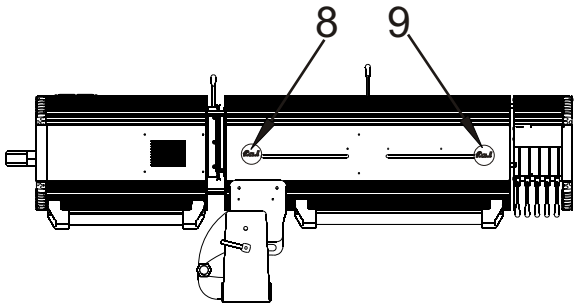


Fig. A - 5°

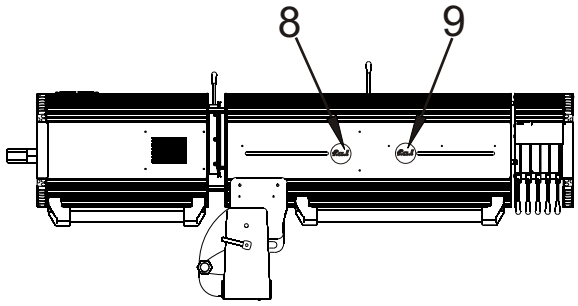
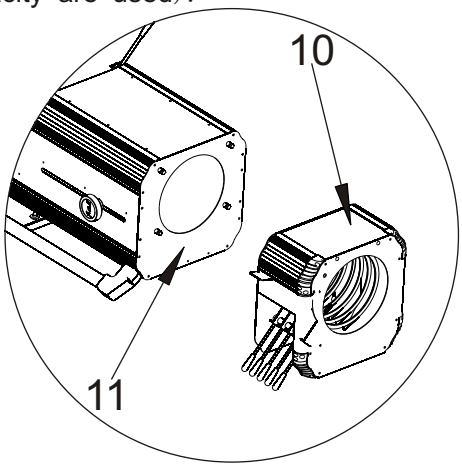


Fig. B - 9°

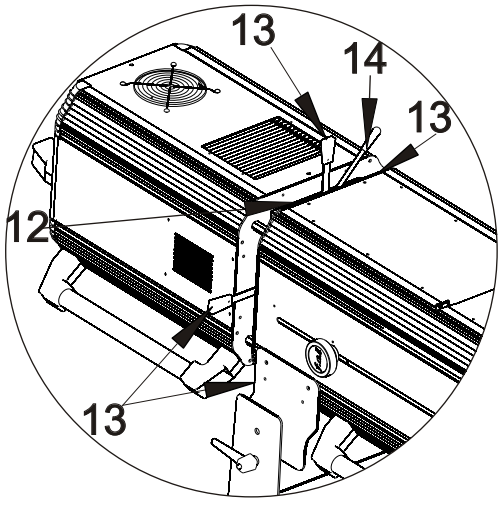
06 - COLOUR-CHANGER

The colour-changer system(10) mounts on the front of the projector by inserting the mounting studs into the appropriate holes on the colour changer(11). The colour-changer system has 5 filter frames for colour filter gel sheets (it is recommended that only filters with a high temperature capacity are used).



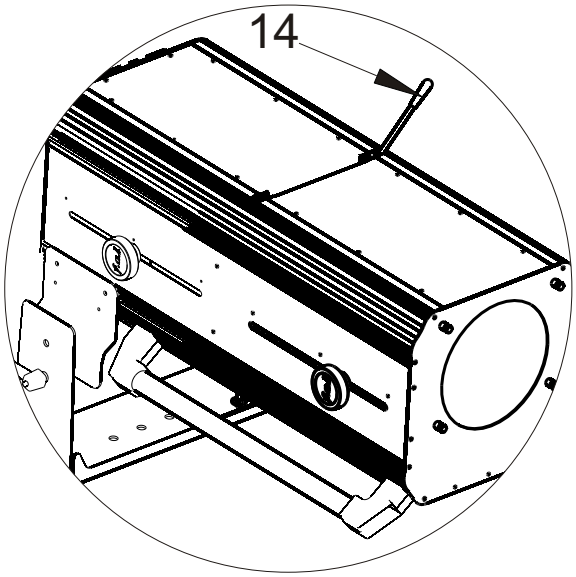
07 - PROFILE SYSTM AND IRIS

The Opera series are supplied with a four blade profile system(12). The blade profile system can rotate random. Inserting the blades(13) into their slots allows the beam to be shaped as required. By moving the lever(14) it is possible to adjust the iris and vary the beam width.



08 - DIMMER /SHUTTER

By moving lever (14) it is possible to dim or black-out the light beam. The beam brightness can be adjusted from 0% (black-out) to 100% (maximum brightness).



09 - HOUR COUNTER

On the back of the projector is an hour counter which shows the on time of the projector. The counter can usually be reset to zero, in which case it is recommended that you do this when fitting a new lamp. If it is of the non-zeroing type, make a note of the hours shown. Please make sure that the lamp is not run to the very limit of its lamp life, this will give an optimum light output and reliability.

10 - MAINTENANCE

If the projector lens becomes damaged or broken it should be replaced.
If the lamp becomes damaged or deformed in any way it must be replaced.
If the light from the lamp appears dim this would normally indicate that it is reaching the end of its life and it should be changed at once, old lamps run to the extremity of their life can explode.
The OPERA MMD MK2 also has a thermal protection device that will switch off the projector in case of overheating, should this operate, check that the fans are not blocked, and if they are dirty clean them before switching on the projector again.
Check that the fans are operational, if not call a qualified technician.

11 - KEEPING THE PROJECTOR CLEAN

To ensure the reliability of the projector it should be kept clean. It is recommended that the fans should be cleaned every 15 days. The lens and dichroic filters should also be regularly cleaned to maintain an optimum light output.

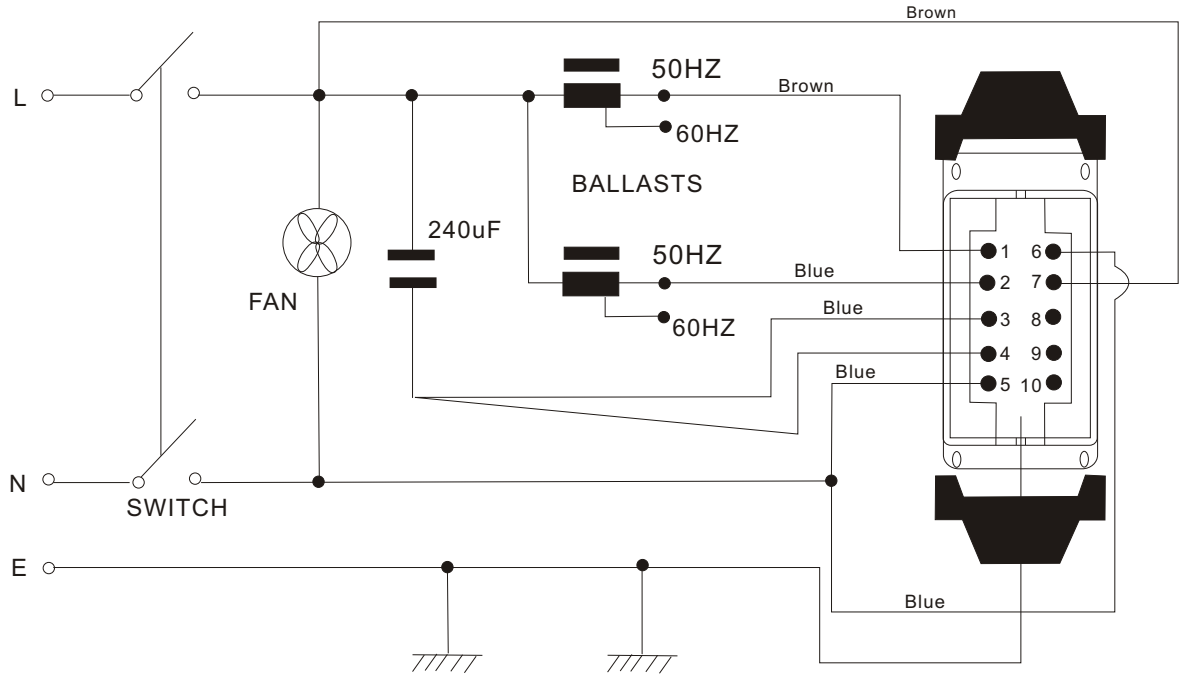
12 - TROUBLESHOOTING

PROBLEM	POSSIBLE SOLUTION
The projector only functions intermittently	Check the fans is working and not dirty.
The projected beam appears to have a halo	Check the lamp is installed correctly (section 03).
The beam appears dim	The lamp may be at the end of its life and should be replaced. Check the optics are clean.

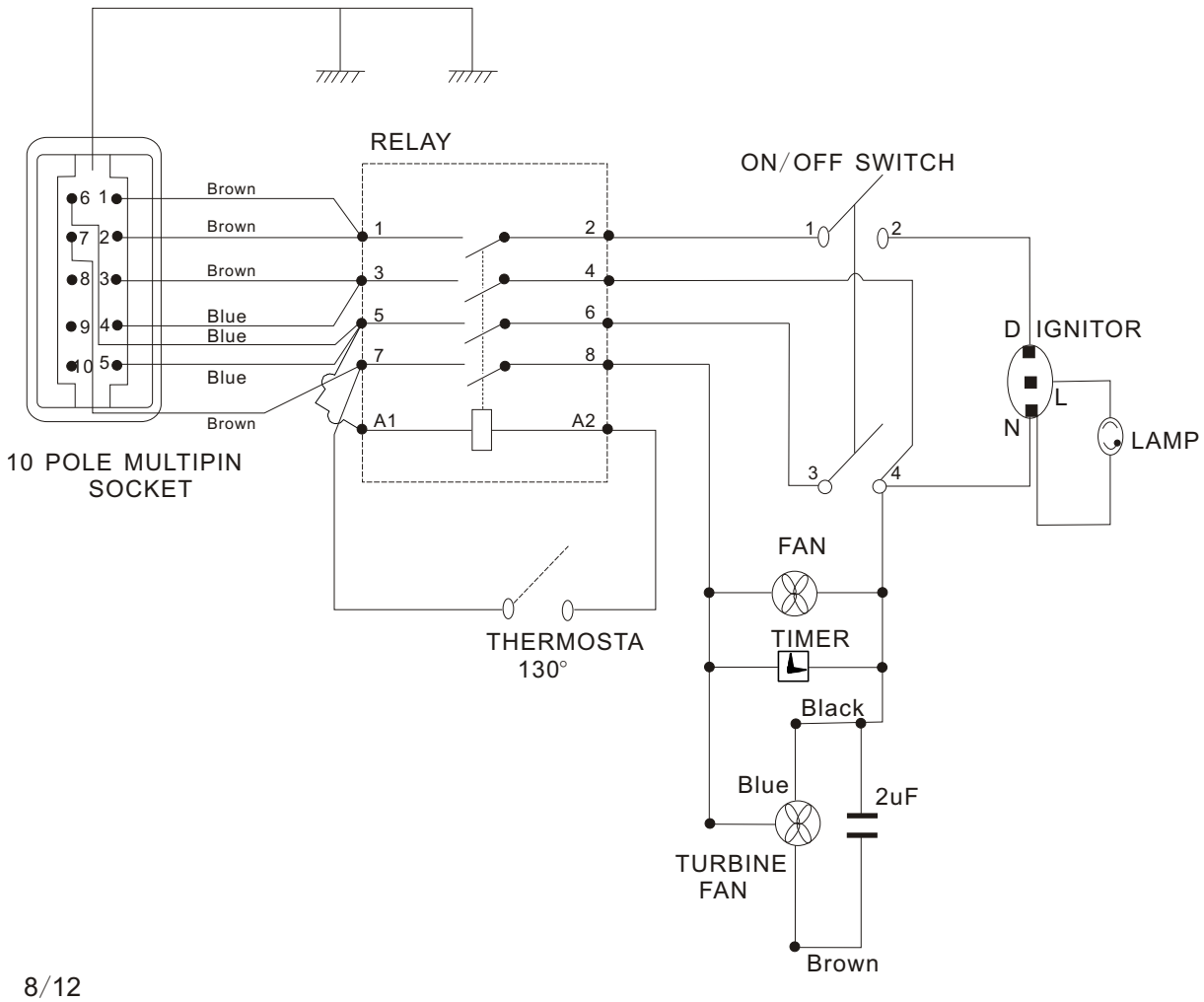
Any other maintenance should only be performed by a qualified person.

13 – ELECTRICAL DIAGRAM

BALLAST UNIT

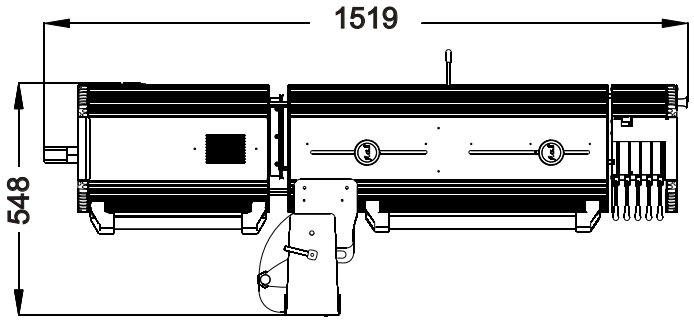


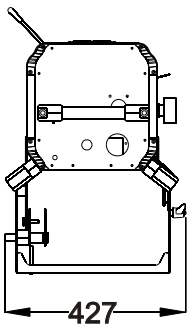
PROJECTOR



14 - TECHNICAL DATA

POWER SUPPLY:	230V 50Hz(240V and /or 60Hz to order).
POWER CONSUMPTION:	2800 VA at 230 V.
LAMP:	HMI 2500W/SE (Osram). Color temperature 6000K. Socket G38. Life 500 hours(manufacturers rating). MSR 2500W/HR(Philips). Color temperature 6000K. Socket G38. Life 750 hours(manufacturers rating). Easy lamp adjustment via external screws.
ZOOM:	Beam angle variable between 5° - 9°.
DIMMER, BLACK -OUT:	Variable dimmer from 0% to 100%.
IRIS	Iris included as standard. In the same position it is possible to mount the optional gobo holder which accepts standard M size gobos.
COOLING:	Forced cooling via axial and turbine fans.
HOUSING:	Extruded aluminium profile and steel plate. Metal parts have epoxy powder paint finish. Easy access to lamp and main components. Protection rating IP20.
CONTROL:	The projector may be mounted titled at +/-16° from the horizontal axis. Maximum ambient temperature 35℃.
DIMENSIONS:	1519mm L x 427mm W x 548mm H. Weight: Projector 48.8kg. Ballast 31kg.





Important information for the correct recycle/treatment procedures of this equipment

The European Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE), requires that old lighting fixtures must not be disposed of the normal unsorted municipal waste stream. Old appliances must be collected separately in order to optimise the recovery and recycling of the materials they contain and reduce the impact on human health and the environment.
The crossed out ″wheeled bin″ symbol on the product reminds you of your obligation, that when you dispose the appliance it then must be separately collected.
Consumer should contact their local authority or retailer for information concerning the correct disposal of their old appliance.





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