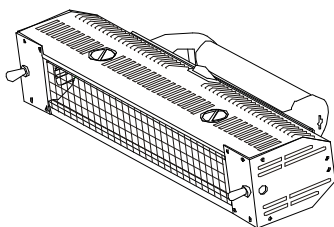
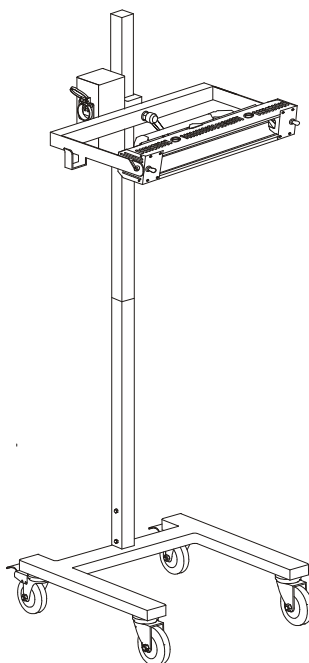


Short Wave Infra-red Car Paint Curing Equipment

User Manual



Model: IR1
()



IR1+S3
()

CONTENTS

Foreword	1
Features	1
Structure Diagram of Whole Machine	3
Installation of S3.....	4
Knowledge for Higher baking quality	6
Maintenance & Notices	7
Caution	9
Replacement of Emitter Tube.....	10
Wiring Diagram.....	11
Trouble Shooting	12

FOREWORD

The short-wave infrared paint dryers are special **curing / drying automobile coatings, Short wave infrared produces good through curing, short baking times, long tube life, height efficiency and convenient, flexible usage in your work environment.**

IMPORTANT: In order to get the best, safe use of this equipment, please read these instructions thoroughly before commencing assembly or operation of the machine. Failure to do so could result in damage or injury for which Solary will accept no responsibility or liability.

FEATURES

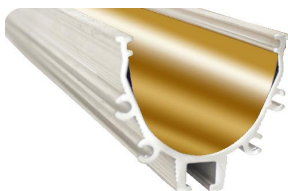
- Powerful penetration directly into the inner paint layer. Completely drying double component paints within 15 minutes and polyester putty in 5 minutes.
- Portable design; convenient to cure feather edges, small spot or drying in hard to reach areas. Switch is next to the handle for convenient start and shut down.
- It is also used to soften trim mouldings when replacing windscreens or removing strips.
- Short wave infrared emitter modules: high light emitting efficiency.
- Long life emitter:life span up to 6000 hours.
- Even radiation.

Good effective reflectors

Used gold-coated short-wave tubes and gold-coated reflector as it has 97% high reflectivity and strong anti-oxidation. For this reason, the IR dryers always have unsurpassed drying capacity.

The cassette unit used special design reflectors provide a more even heat distribution and a larger curing area than conventional reflectors, while reduced power consumption.

In turn, this increases productivity and raises the quality of the result of drying.



Reflector

Field of application

The IR1 infrared dryer, can be operated either on stand with timer or handheld for the following applications:

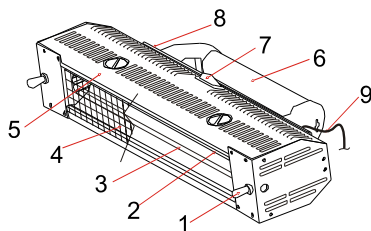
- Heating on old putty prior to removal
- Heating on old paint prior to scraping
- Fast-drying for putty, filler and paint
- Heating on strips prior to removal
- Heating on glued joints
- Hardening on paint drips

Technical data

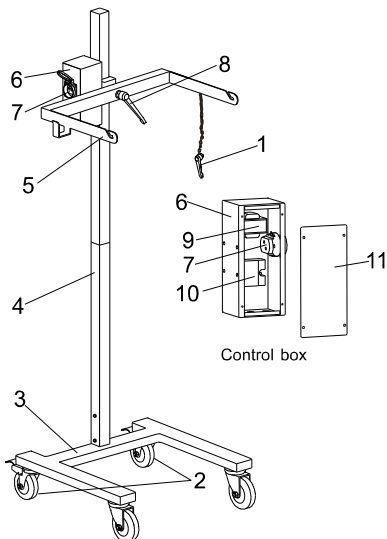
Model	IR1			IR1+S3		
Supply Voltage	230 V	220 V	110 V	220 V	230 V	110 V
Emitter power(W)	1X1000	1X1000	1X1000	1X1000	1X1000	1X1000
Frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Irradiation area(m ²)	0.36 x 0.7	0.36 x 0.7	0.36 x 0.7	0.36 x 0.7	0.36 x 0.7	0.36 x 0.7
Temperature(°C)	60-70	60-70	60-70	60-70	60-70	60-70
Current(A)	4.4	4.4	9	4.4	4.4	9
Output	1000W			1000W		
Net weight	1.2kg					
Incl. packaging	1.7kg					

STRUCTURE DIAGRAM OF WHOLE MACHINE

1. IR1



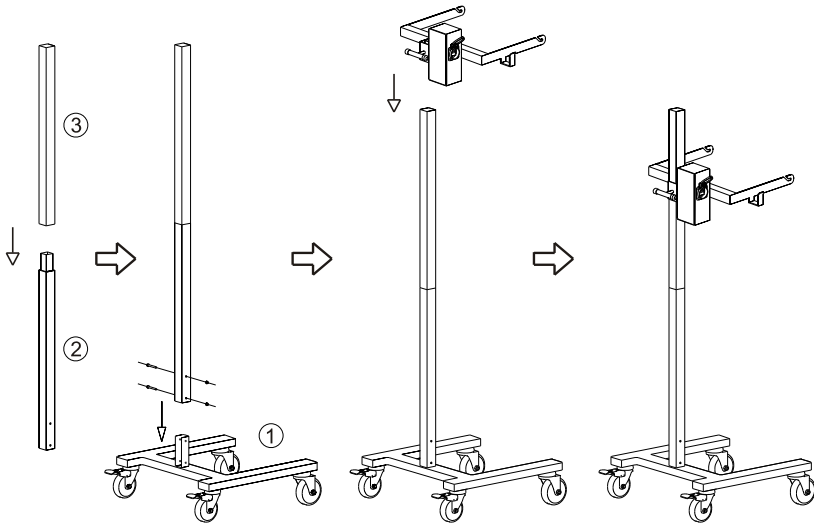
S3



Parts List of IR1		Parts List of S3	
S/N	Name of parts	S/N	Name of parts
1	Safe Leg*	1	Held handle for IR1
2	Reflective panel	2	Back castor
3	Emitter tube	3	Pedestal
4	Front protective net	4	Post
5	Rear panel	5	U shape support
6	handle	6	Control box
7	Power switch	7	Socket
8	Side panel of emitter	8	AM12 adjustable handle
9	Cable	9	6W transformer
		10	10A solid state relay
		11	Control panel

* Safe Leg: The lamp can not stand by front side

Installation of S3



OPERATING INSTRUCTIONS

When the equipment is working, the ventilation in the workshop must be in good order, the concentration of solvent in the air should never over than 25% of the lowest explosive limit.

Model IR1 is smart, flexible and simple to operate without site-specific constraints. With a power switch on the rear panel. The machine will start working by turning on the switch on the rear panel. It is also used to soften trim mouldings, replacing windscreens or removing strips.



Drying on the
small area



Removing strip



Replacing
windscreen



Softer trim
moulding

Because of the reflector of IR1 is elliptical, distance acts as both the temperature and surface area regulator. Normally it is suggested to start at a distance of 30 cm from the baking piece. Move the IR1 sideward to maintain an even temperature.



Warning! If the baking distance is too short, the temperature of the object increases very high quickly. Please disconnect the power on equipment immediately if the IR lamp should stop for any reason.



Warning!

After baking 5 minutes, do remember not to touch all front parts and side plates of the lamp so as to avoid any scald due to its high temperature.

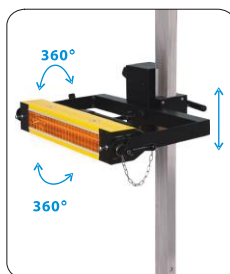
【Instructions for Use of IR1+S3】

IR1 can be operated individually, you can also operate by the control box, it needs to plug in the socket box, the function and operation please see the picture below.

When the IR1 is holding by the U shape support of S3, you can turn the emitter flexibly by tuning the Picture2 AM12 handles, then fix in the position you need.



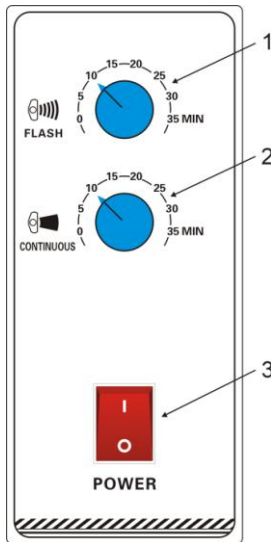
Picture1



Picture2

【Control Panel of S3】

S3 can supply power for IR1, there is a timer with pre-heat and full baking function.



1. Pre-heating timer knob.
2. Full baking timer knob.
3. Power switch.

Operation:

- (1) Adjust the timer knob 1 to set the pre-heating time.
- (2) Adjust the timer knob 2 to set the full heating time.
- (3) Turn on the power switch 3; pre-heating firstly then switch to full baking automatically. Please adjust to “0” option if you do not need pre-heating function. Power on then start full baking.
- (4) The machine will stop working automatically when the time is up. If you want to continue use, restart the machine after power off 2 minutes.



Special attention: pre-heating function which can make painting temperature increase slowly. Also it can avoid the surface of painting is splitting and matted at beginning due to high temperature. It is normal phenomena that tube is twinkle at pre-heating.

Knowledge for Higher baking quality

Using the dryer when you cure putty also improves the quality of the top coat.

The short wave IR curing enables the coating to be cured from the inside and outwards. This prevents solvents to be trapped inside the

coating and secures a fast and high quality curing.

Drying times (just for reference)

Material	minutes
Putty	2-3
Filler	3-7
Primer	5-8
Water base	2-4
Base coat	4-8
Top coat	6-10
Clear coat	5-10
Filler on plastic	7-10
Top coat on plastic	15-18
Clear coat on plastic	15-18

MAINTENANCE & NOTICES



1. It is not allowed to use this machine in an explosive or combustible environment; otherwise it may lead to fire.
2. In case the machine is used in a spay booth, it is a must to purify the in-house air first.
3. It is not allowed to knock or crash the equipment.
4. It is not allowed to insert any hard object into the emitter.
5. Regular cleaning of tubes and reflector panel should be done by using a piece of soft cloth or cotton with alcohol (Note: cleaning must be conducted after the machine is disconnected with the power and cooled down). You are not allowed to start the lamp tube until the alcohol becomes volatile, otherwise it may lead to explosion.

6. Be careful of the uneven floor when moving the machine to avoid any falling down.
7. The machine should be well grounded for safety. The grounding device should be connected to the proper output port under correct direction. Unauthorized alteration or change of output port is strictly prohibited. Use of any outlet converter is also disallowed. For any uncertainty, please find a professional electrician to check whether the grounding is correct. Please make sure the machine is well grounded to avoid the electric shock.
8. Remove all objects in front of the lamp tubes before starting.
9. Any person should keep away from the painting place for at least 4 meters.
10. If any lamp tube fails to work after starting, it may result from the loosened outlet socket. In such a case, just switch off the machine and plug in socket on the connective box.
11. Avoid any accident caused by random placement and dark lights. Please keep the site clean and bright.
12. Do not use this machine when it is rainy or damp. Water coming into the machine may lead to electric shock or damage to the machine.
13. For outdoor use, please use the outdoor-specific cables marked with “W-A” or “W” to avoid electric shock.
14. Keep your body away from the floor to reduce the possibility of electric shock.
15. Please replace the damaged cables and wires as soon as possible for avoidance of electric shock.
16. Don't misuse the electric cable. It is not allowed to drag the machine with the power cable or pull the power plug. Please keep the power cable away from the hot, oily or sharp or movable objects.
17. For avoidance of overheating, don't cover the heater. If the heater is covered or positioned at a wrong place, it may lead to fire.
18. Don't use the heater at a place where there is any bathroom or swimming pool.
19. When the machine is working, try your best not to allow any

stander-by, child or visitor close to the site. If necessary, protective equipment should be provided.

20. Should the power cable is damaged; please ask the manufacturer, service provider or a professional to replace it for avoidance of any injury and damage.
21. It is not allowed to use two emitters to bake or allow one emitters to bake the other one when there is no object to be baked.
22. For replacement of lamp tube, ask the repair service center or a technician to do so.

CAUTION

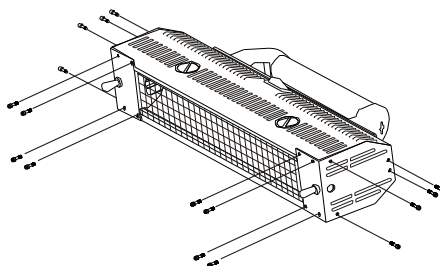
1. Be aware! Special attention should be paid to the current operation for safety. The operator is not allowed to operate the machine when he gets drunk or takes drugs, otherwise disoperation of this machine may lead to serious injury and even death.
2. Proper dressing: It is not allowed to wear too loose clothes and accessories. Please bind your hair if it is too long.
3. When the machine is started, the wrench or any adjusting tools should be avoided to touch the live part of the machine, which may result in electric shock.
4. When you leave, make sure the power is shut down and unplugged.
5. Please maintain a good working environment and keep the working area clean and free of any obstructions, oil, waste article or other broken parts. It is not allowed to use this machine in a place full of chemical gas, particles and volatile chemicals. Keep the site dry.
6. Operation of this machine should not be conducted by a person who has problem in self-control capacity, sense and metal capacities or lacks of experience (including children) except that they are supervised or guided by a responsible person.
7. Take care of children. Make sure that children can't play with this machine.

REPLACEMENT OF EMITTER TUBE

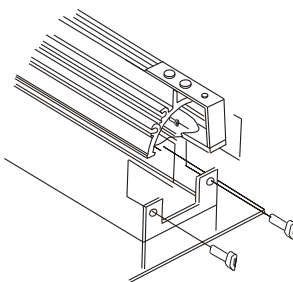
Tube replacement

Attention! Do not touch the gold coated reflector or the new IR lamp with your fingers. Only remove the protective paper on the IR lamp after you have installed it.

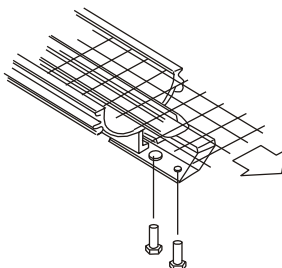
1. Disconnect power supply.
2. Loosen top screws on the side panel of the cassette, Pull off the rear panel.



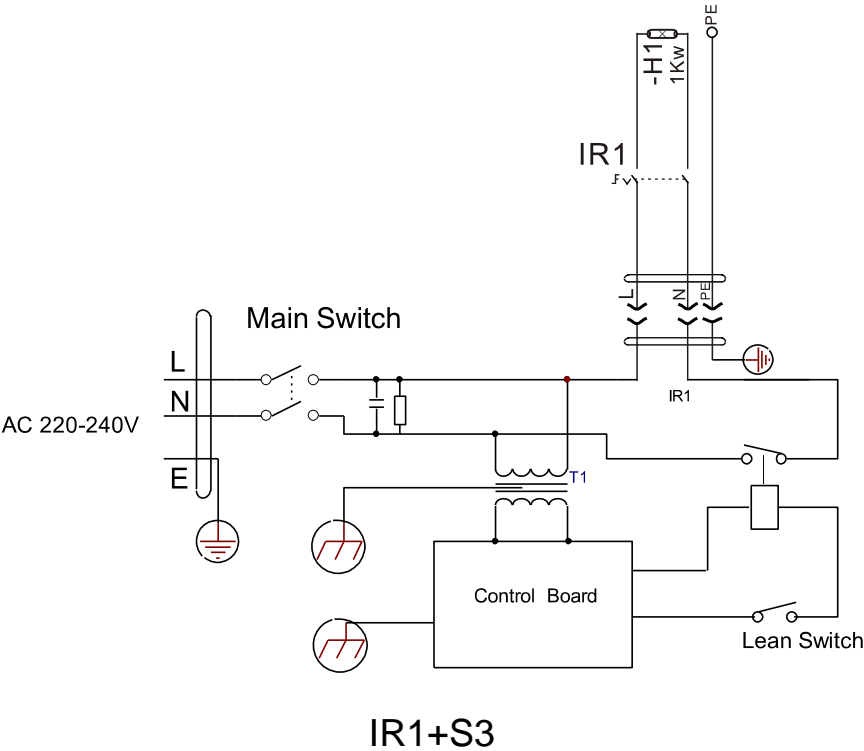
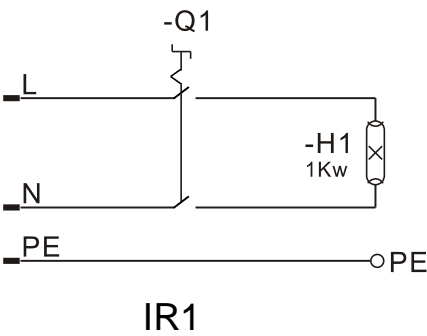
3. Disconnect the cable of connector of tube inside.
4. Loosen the four screws at the ends of the reflector and remove the reflector from the plate.



5. Remove the mesh and unscrew the tube from the two ends.



WIRING DIAGRAM



Attention: In some cases, the input voltage be changed by customer required.

TROUBLE SHOOTING

Causes of defects on repaired surface and troubleshooting method

Ref.	Defect	Cause	Troubleshooting
1	Small pores on the baked paint surface	Too near between the lamp cassette and the repaired surface.	Increase the distance.
		Insufficient Preheating Time.	Increase the preheating time.
		Fast thinning agent included in the paint.	Use standard or slow thinning agent.
2	Dim paint	Too far between the emitter and the repaired surface.	Make the machine closer.
		Insufficient baking.	Increase the baking time
		Too thick coating.	Thin the coating.
3	Stains	Too long baking.	Shorten the baking.
		Too near distance.	Increase the distance.
4	Fuzzy edge	The repair surface is too large.	Separate it into two pieces to baking.
			Pre-heating for first time, and do not use preheating for second time.
5	Uneven baking	The emitter is not as height as the repaired surface.	Adjust the emitter to allow it to be as height as the repaired surface.

Note: For optimal baking performance, we recommend that users should work out the suitable operating procedures, baking time and distance according to the local natural conditions, working environment and the types of paints.