

SHORT WAVE INFRARED PAINT DRYERS



Before use, adjustment or maintenance, it is important to read this instruction manual very carefully. The manual must be stored in a safe place for any future reference that may be necessary.

IMPORTANT

Thank you for choosing the Anest Iwata infrared paint dryer. Follow the assembly instructions outlined in this instruction manual. To ensure safe use and correct maintenance, Anest Iwata infrared paint dryers must only be used by adequately trained operators. In the interest of user friendliness, this manual contains information in a brief and concise format and does not include information regarding normal use of the equipment and its components, or information that constitutes an operator's basic technical knowledge.

All operations outlined in this instruction manual are to be deemed correct, however Anest Iwata is not responsible for any damage or accidents caused by use that is either incorrect, or does not conform with the instructions given in this manual.

Anest Iwata declines all responsibility for any accidents or damage, to people or property, caused by failure to observe safety warnings. The safety regulations described in this instruction manual include, and do not substitute, existing safety regulations that must be acknowledged and enforced by operators.

For any additional information you may require regarding paint dryer operations, or if any missing parts or any damage during transportation is found, please contact your nearest Anest Iwata Company (see last cover page).

INSTRUCTIONS BEFORE USE

Anest Iwata Infrared lamps, with their paint drying system, are a fast, efficient answer to all your local body repairs. This cost effective method of paint drying and curing can be achieved in just minutes, using the highly effective short wave infrared lamp.



Your system will provide years of trouble free operations by following these few simple steps:

- **Always keep the unit clean.**
- **Replace damaged or broken emitters/lamps.**
- **Make sure reflectors are kept clean.**
- **Do not touch emitters/lamps with fingers - clean with alcohol (when the unit is switched off).**
- **Follow paint manufacturers' recommendations.**
- **NEVER use the unit closer than the recommended distance. (recommended distance 500 mm).**
- **Always follow safety regulations and never use the unit in areas where there is risk of explosion.**

SAFETY WARNINGS

- Read this instruction manual carefully and ensure that you understand all the instructions regarding safety, assembly and general operation of the equipment, before unpacking the infrared unit.
- Always disconnect from the main power supply before carrying out maintenance or moving the unit.
- Ensure that the correct power source is available for the unit you have purchased. Identify the requirements from the serial number label fixed to the unit. If in doubt, consult a qualified electrician.
- Consult a qualified electrician to confirm the suitability of your electrical supply system and wiring for the unit you have purchased.
- Always ensure that the control panel is correctly grounded.

- Always use the unit in an adequately ventilated area.
- Never use the unit in areas where inflammable products are present.
- Always position the unit correctly, according to the work surface: at a distance of 500 mm and perpendicular to the surface to be dried. Incorrect positioning could overexpose the work surface.
- Never leave the supply cable coiled when unit is in use, as heat build-up can occur due to magnetic induction.
- Do not expose yourself directly to the radiation emitted from the lamps. Do not stare directly at the lamps when they are turned on. If eyes are directly exposed to light emitted from the lamps for a prolonged period, consult a doctor.
- Only touch lamps when they are at room temperature. Never handle them with bare hands. This could permanently damage the lamps and leave traces of oil and grease that are difficult to remove. Use a soft cloth soaked in methylated spirit for this purpose.
- It is normal for lamps to overheat during use. Allow them to cool completely before carrying out maintenance or moving the unit: only then is it safe to remove it from the work surface.
- Make sure lamps or electronic components do not come into contact with liquid or water based substances.
- When positioning the cantilever arm, take care not to trap fingers or arms.
- Securely tighten the black fixing bolts before switching the lamps on, to ensure that the unit does not move.

ASSEMBLING THE HAND HELD UNIT (1KW)

The hand held unit has been packed with a separate handle that should be attached to the body.

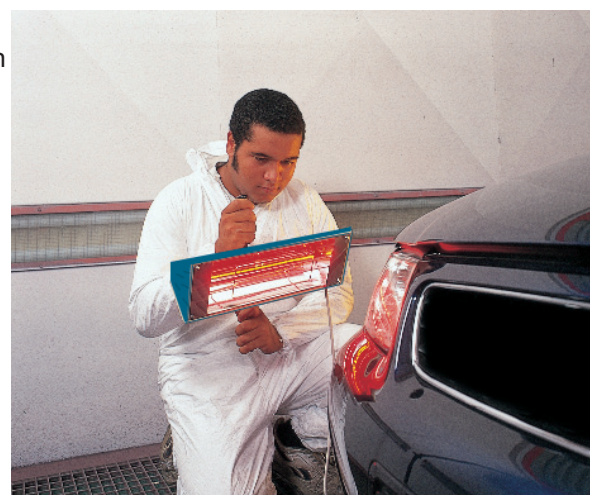
The handle should be attached to the main unit using the screw supplied. Ensure that the spacer provided is correctly fitted between the two ready made holes on the fixing post, on the back of the unit.

When the screw has been inserted, fix it with the hexagonal nut. This nut is useful for fixing the unit in the desired position.



The hand held unit can also be used with its stand. Hold it as shown in the photograph on the right.

Otherwise, it can be assembled on its stand, as described on the following page.



ASSEMBLING THE STAND

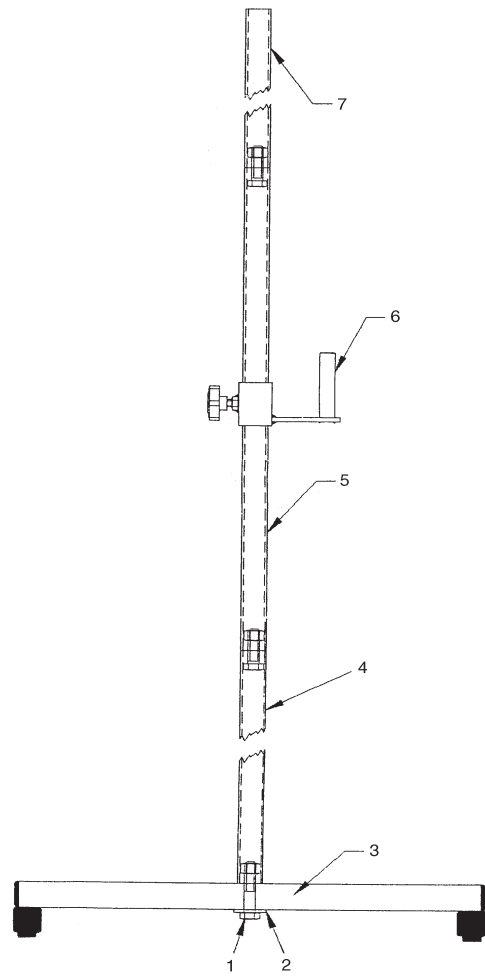
The stand is packed separately from the unit and must be assembled as follows:

The components are:

- _ M12x60 bolt (ref.1)
- _ M12 washer (ref.2)
- _ H-shaped base (ref.3)
- _ 2 main poles (ref.4 and ref.5)
- _ slide and lock bracket (ref.6)
- _ top pole (ref.7)

ASSEMBLING SEQUENCE:

1. Unpack stand and check all above components.
2. With the H base (ref.3) on its side, insert the M12 bolt (ref.1) and washer through the centre hole. Fix one of main poles (ref.4) to bolt by locating the cap titive nut in one end of the pole. Secure and tighten.
3. Turn over and stand upright on the floor, screw on the next section of main pole (ref.5) followed by the top section (ref.7).
4. the slide lock bracket (ref.6), can now be slid over the pole assembly and secured at any desired position using the hand wheel. This is now ready to use in conjunction with our hand held infrared dryer.



ASSEMBLING THE MOBILE UNIT (3_4_6 KW)

(see page 9 for reference to components)

1. Unpack the U-shaped base (A), place it on the ground and block the rear wheels.
2. Unpack the main upright (B) and remove nuts and washers from the base. Take care not to remove the safety strap.
3. Insert protruding bolts (see picture on page 9) into the ready made holes on the U-shaped base (A). Hold in place with nuts and washers, remove the safety strap and tighten nuts to fix. Make sure that you do not touch the gas strut lever (C) whilst carrying out this step.
4. Raise the support arm (D) carefully, using lever (D) until the arm is horizontal to main upright (B). When in the desired position, release lever (C) and it will be locked into place.
5. Unpack cassette module (E), locking handle (F) and special washers.
6. Place one of the two star washers on the protruding bolt (G) of the cassette module, then insert bolt into swivel head hole (H), fit the remaining star washer, then the plain washer and secure with locking handle (F).
7. Plug cassette module cables into socket (J) in a logical order - from top to bottom.
8. Push handle (C) and lower cassette module (E) until it is 75mm from the floor. Then release the two bolts securing the stop (K) and slide this and the rubber bush up to the gas strut. Tighten the two bolts. This is necessary to stop the cassette module hitting the floor when the support arm is fully lowered.
9. The unit may now be operated. Push gas strut lever (C), adjust to desired height using support arm (D) and then set cassette module direction.
10. Check the electrical rating label on the unit and attach the appropriate plug. (220/240 V- 50 Hz).

OPERATION

Your infrared unit can be used successfully in body shops with fillers, primers and top coats.

Before use: Consult paint manufacturers' technical information carefully for appropriate drying times, according to type of product or colour used. (drying times vary according to paint colour)

We recommend you contact your own paint supplier with regard to short wave infrared drying of paints and colours not listed in the guide and to check that the materials and colours used in the product, are correct.

WE RECOMMEND THAT A TEST PANEL IS USED BEFORE FIRST USE TO ALLOW THE OPERATOR TO FAMILIARISE HIMSELF WITH THE SYSTEM.

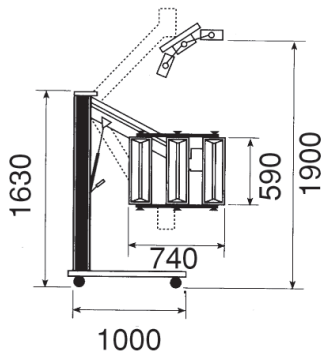
1. Place the unit about 500 mm away from the surface to be dried. Adjust the cassette heads around the contours of the repaired area and lock into position.
2. Plug into a suitable electrical source (See electrical supply specifications at the bottom of this page).
3. Bring the unit close to the surface to be dried (rear wheels unlocked), position the cassette modules about 60 cm away from the surface, using lever (C) and block rear wheels.
4. Depending on the type of surface to be dried, 1 or more tubes can be turned on, using the switches on the cassette modules (E). Direct the cassettes so that the module matches the shape of the surface to be dried.
5. Turn on the luminous power switch (0-I) on the main upright (B). (The control panel should light up).
6. Each cassette head has its own on/off switch, giving the operator total flexibility to control heat as required.

NB: If the cassette fails to operate during a new cycle, check that its individual switch is not turned "OFF" before carrying out a technical intervention.

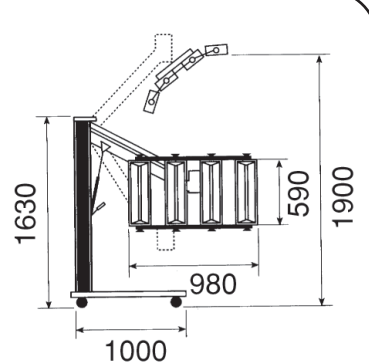
SPECIFICATIONS

- 1 Kw Series**
- 220/240 Volt- 1 Kw
 - 50 Hz single phase
4.25 amps
 - 110/120 Volt version also available
 - Module dimensions: 400x 140x85 mm

- 3 Kw Series**
- 220/240 Volt- 3 Kw
 - 50 Hz single phase
12.50 amps

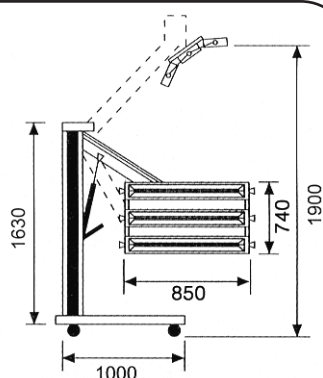


- 4 Kw Series**
- 220/240 Volt- 4 Kw
 - 50 Hz single phase
17.00 amps



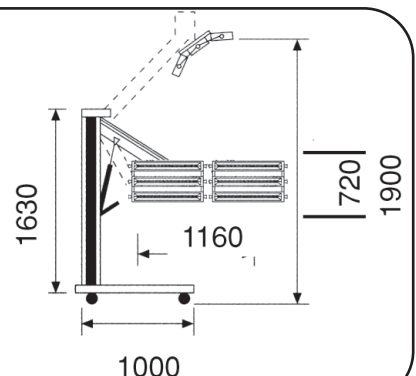
- 4,5 Kw Series**
- 220/240 Volt- 4,5 Kw
 - 50 Hz single phase
18.75 amps

- Or:**
- 380/415 Volt- 4,5 Kw
 - 50 Hz three phase



- 6 Kw Series**
- 220/240 Volt- 6 Kw
 - 50 Hz single phase
25.00 amps

- Or:**
- 400/415 Volt- 6 Kw
 - 50 Hz three phase



HOW TO ADJUST DIGITAL CONTROL PANEL

FLASH - HALF POWER CYCLE

1. Press the (FLASH) pad, then the (TIME) pad and adjust pre-drying time with (+) and (-) pads.

Display: mins., mins., sec.

2. Press the (°C TEMP) pad, then the (+) and (-) pads to adjust pre-drying temperature, recommended between 27 and 30 °C.

Display in °C.: (max. 40°)

BAKE - FULL POWER CYCLE

3. Press the (BAKE) pad, then the (TIME) pad and adjust drying time with (+) and (-) pads.

Display: mins., mins., sec.

4. Press the (°C TEMP) pad, then the (+) and (-) pads to adjust drying temperature, recommended between 55 and 63 °C.

Display in °C.:(max. 70°)

5. Press the (DISTANCE) pad, then the (+) and (-) pads to adjust the required distance, according to the surface to be dried.

The recommended distance is 500mm (min. 350_max. 999 mm).

Display in mm: 500

6. Press the (DISTANCE and SOUND) pad and move the infrared closer to the surface to be dried. When a continuous sound is audible, the unit is within 500mm of your set distance.

Reading the distance on digital display, adjust to the exact distance required and fix the unit in that position.

Press "SOUND " pad to turn off sound.

INFRARED UNIT START-UP:

7. Press the green (START) button to begin the complete cycle: pre-drying + drying. You can press "DISPLAY button" to select object temperature (°C) or time remaining of FLASH or BAKE cycle, an illuminated LED above the FLASH or BAKE button tells you which part of the cycle you are on.
8. The first, **pre-drying**, phase is indicated by the **red** LED on the (FLASH) pad and the time remaining is shown on the display. Press the (DISPLAY) pad to read the temperature or time, during the cycle.
9. The second, **drying**, phase is indicated by the **red** LED on the (BAKE) pad and the time remaining is shown on the display. Press the (DISPLAY) pad to read the temperature or time, during the cycle. The unit will automatically switch off when the cycle is complete.

SAFETY

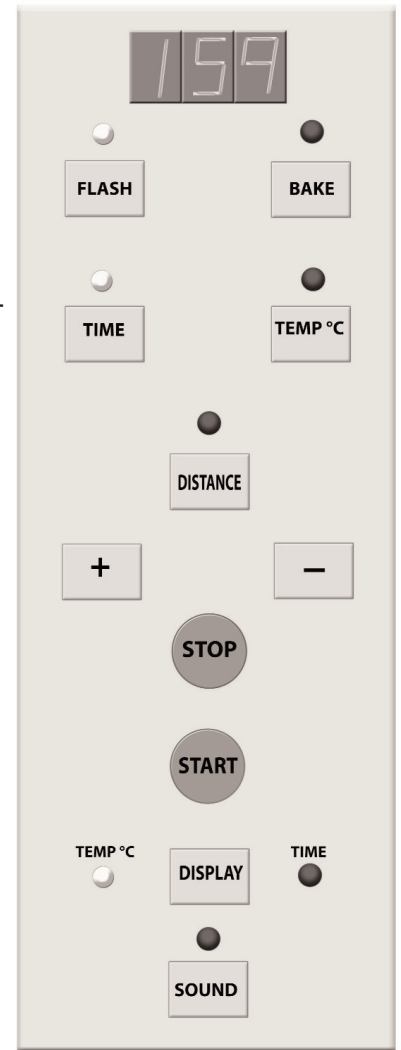
10. To stop the unit at any time press the (STOP) pad or, if necessary, switch off at the luminous power switch. When you press the (STOP) pad, an audible buzzer sounds to indicate the unit has stopped.
11. If the unit is moved too close to the surface being dried during the drying cycle, it will automatically shut down and an intermittent alarm will sound. This prevents both the object and the paint from overheating.

Display examples:

Time (mins./mins.)_ example : 10mins.30 sec = **is displayed as 10.5** or 6mins.18sec = **is displayed as 6.3**

Temperature (C°)_(for each pre-drying and drying phase)

Distance (mm)_(min. 350mm , max. 999mm)



STOP IN CASE OF EMERGENCY: TURN OFF AT LUMINOUS POWER SWITCH (RED) AND UNPLUG FROM MAIN POWER SUPPLY.

GENERAL APPLICATIONS

- FILLER:** Full power cycle "BAKE" for about 5 minutes, will achieve a hard sandable finish.
- ETCH PRIMER :** Full power cycle "BAKE" for about 5 minutes.
- PRIMER:** For a normal build of two coats, use the full power cycle "BAKE" for about 8 minutes.
- HIGH BUILD PRIMER:** For a normal minimum of three coats, we suggest the half power cycle "FLASH" for 5 minutes, followed by the full power cycle "BAKE" for at least 10 minutes.
- TOP COATS:** Drying times for top coats can vary according to characteristics, type of paint and colour. Dark colours tend to heat rapidly, therefore a "FLASH" cycle at just under half power should be used, for an average cure time of 12 minutes.

REFER TO THE FOLLOWING PAINT DATA GUIDE FOR FULL INFORMATION

PAINT DATA GUIDE

PAINT TYPE	CODE NO.	COATS	(1/2 cycle) "FLASH" CYCLE	(full cycle) "BAKE" CYCLE	TOTAL
DUPONT					
WATERBORNE PRIMER SURFACE	210S	2-3	-	10 mins.	10 mins.
2K WATER	275S	2-3	5 mins.	10 mins.	15 mins.
VELASEAL WPS PRIMER	2120S	1	5 mins.	-	5 mins.
	2125S	1	5 mins.	-	5 mins.
	2140S	1	5 mins.	-	5 mins.
URO PRIMER FILLER	1120S	2-4	3 mins.	8 mins.	11 mins.
	1140S	2-4	3 mins.	8 mins.	11 mins.
PRIME N SEAL PRIMER SEALER	2600S	1-2	3 mins.	8 mins.	11 mins.
	2601S	1-2	3 mins.	8 mins.	11 mins.
	2640S	1-2	3 mins.	8 mins.	11 mins.
CHROMACLEAR GLAMOUR	7800S	2	3 mins.	9 mins.	12 mins.
SIKKENS					
POLYKIT	-	-	4 mins.	-	4 mins.
POLYSTOP	-	-	6 mins.	-	6 mins.
WASHFILLER 580/WASHPRIMER EM	-	-	5 mins.	-	5 mins.
PRIMER SURFACER	-	-	4 mins.	6 mins.	10 mins.
AC-FILLER 3+1	-	-	2 mins.	4 mins.	6 mins.
AUTOCLEAR MS SYSTEM	-	-	2 mins.	5 mins.	7 mins.
AUTOCRYL FILLER 3110	-	-	3 mins.	6 mins.	9 mins.
R-M					
RM STOP GLASSFIBER	-	-	10 mins.	-	10 mins.
RM STOP FIN	-	-	4 mins.	-	4 mins.
RM STOP EXTRA FIN	-	-	4 mins.	-	4 mins.
RM STOP ZINC	-	-	4 mins.	-	4 mins.
RM STOP ALU	-	-	4 mins.	-	4 mins.
RM STOP FILLER	-	-	4 mins.	-	4 mins.
MAXIFILL 610	-	-	5 mins.	20 mins.	25 mins.
MAXIFILL 611	-	-	4 mins.	15 mins.	19 mins.
MAXIFILL 612	-	-	3 mins.	10 mins.	13 mins.
RM FAST FILLER 512	-	-	3 mins.	8 mins.	11 mins.
SOLO DE DIAMONT	-	-	2 mins.	10 mins.	12 mins.
SOLO + SOLO FLASH	-	-	3 mins.	5 mins.	8 mins.
DIAMOTOP	-	-	3 mins.	10 mins.	13 mins.
STARTOP HS	-	-	3 mins.	10 mins.	13 mins.
SOLO BLENDING CLEAR	-	-	3 mins.	10 mins.	13 mins.
SOLO BLENDING CLEAR (for polishing)	-	-	-	10 mins.	10 mins.

PAINT TYPE	(1/2 cycle) "FLASH" CYCLE	(Full cycle) "BAKE" CYCLE	TOTAL
STANDOX			
TOP STOPPER	3 mins.	3 mins.	6 mins.
ALU SPRAY	2 mins.	5 mins.	7 mins.
1K FULL PRIMER	2 mins.	5 mins.	7 mins.
HS FILLER	-	5-7 mins.	5-7 mins.
2K STANDOCRYL	7 mins.	7 mins.	14 mins.
2K RAPID CLEAR 2:1 MS	-	7 mins.	7 mins.

PAINT TYPE	CODE NO.	RATIO	REDUCER	HARDENER	COATS	"FLASH" CYCLE	"BAKE" CYCLE	TOTAL
PPG								
CONCEPT	DCC	2-1-2	DT885	DU5	2	5 mins.	10 mins.	15 mins.
ACRYLIC URETHANE	DAU	1-1-2	DT885	DAU2	3	3 mins.	7 mins.	10 mins.
CLEAR	DC1100	1-1	-	DC1275	3	3 mins.	7 mins.	10 mins.
CLEAR	DAU82	1-1-1	DT885	DAU2	3	3 mins.	7 mins.	10 mins.
CLEAR	DCU2020	2-1-1	DT885	DU5	2	3 mins.	7 mins.	10 mins.
CLEAR	DCU2001	2-1-1	DT885	DU5	2	5 mins.	12 mins.	17 mins.
CLEAR	DCD35	2-1	-	DU5	2	5 mins.	15 mins.	20 mins.
PRIMER	DP	1-1	-	401	2	4 mins.	6 mins.	10 mins.
PRIMER	DPW1832	RTS	-	-	1	3 mins.	5 mins.	8 mins.
PRIMER	DPW1834	RTS	-	-	1	3 mins.	5 mins.	8 mins.
SURFACER	K36	5-1-1	DT870	K201	3	3 mins.	6 mins.	9 mins.
SURFACER	DCP21	4-1-4	DT870	DCP212	3	4 mins.	8 mins.	12 mins.
SURFACER	K200	4-1-4	DT870	K201	3	3 mins.	6 mins.	9 mins.

PAINT TYPE	CODE NO.	(1/2 cycle) "FLASH" CYCLE	(Full cycle) "BAKE" CYCLE	TOTAL
BASF DIAMONT				
DIAMONT EPOXY PRIMER	DE-15	-	7 mins.	7 mins.
DIAMONT PRIMER FILLER	DP-20	-	5 mins.	5 mins.
DIAMONT TINTABLE PRIMER	DP-21	-	7 mins.	7 mins.
WATERBORNE PRIMER	HP-350	2 mins.	5 mins.	7 mins.
WATERBORNE PRIMER	HP-400	2 mins.	5 mins.	7 mins.
DIAMONT SINGLE STAGE	HS SOLO	-	7 mins.	7 mins.
DIAMONT CLEAR	DC-88	5 mins.	7 mins.	12 mins.
DIAMONT MS CLEAR	DC-92	5 mins.	7 mins.	12 mins.
DIAMONT MS CLEAR	DC-93	5 mins.	7 mins.	12 mins.
BASF GLASURIT				
EPOXY PRIMER	801-1552	-	7 mins.	7 mins.
POLYESTER SPRAY FILLER	1006-202	11 mins.	-	11 mins.
POLYESTERFINE BODY FILLER	839-11	2 mins.	-	2 mins.
ACRYLIC PRIMER FILLER MS	285-22	-	5 mins.	5 mins.
ACRYLIC PRIMER FILLER	285-81	-	5 mins.	5 mins.
ACRYLIC TINTABLE PRIMER	285-75	-	7 mins.	7 mins.
GLASSOHD	76-86	2 mins.	5 mins.	7 mins.
GLASSOHD EPOXY	76-22	2 mins.	5 mins.	7 mins.
GLASSODUR ACRY TOPCOAT	21 LINE	-	7 mins.	7 mins.
GLASSODUR MS CLEAR	923-85	5 mins.	7 mins.	12 mins.
GLASSODUR CLEAR	923-54	5 mins.	7 mins.	12 mins.

Use infrared unit immediately after painting.

All products were thinned with K2 EXPRESS THINNER.

2 K 4:1 hardened with 2 K NORMAL.

2 K STANDOCRYL and 1/2 RAPID CLEAR were hardened with 2:1 MS.

THE ABOVE DATA HAS BEEN COMPILED AS A GUIDE ONLY

USER INFORMATION AND MAINTENANCE GUIDE

TO KEEP YOUR INFRARED UNIT IN GOOD WORKING ORDER ALWAYS KEEP THE UNIT CLEAN AND STORED IN A DRY PLACE.

IMPORTANT: ALWAYS DISCONNECT THE EQUIPMENT BEFORE DISASSEMBLING OR CARRYING OUT MAINTENANCE. WAIT FOR THE UNIT TO COOL SUFFICIENTLY BEFORE HANDLING.

REFLECTORS - (ALL MODELS)

The reflectors should be kept clean at all times to ensure maximum heat reflection. Dirty reflectors could reduce the energy transmitted and seriously affect the recommended drying times.

GAS STRUT MOVEMENT - (ALL MODELS)

All models are all fitted with a lockable gas strut, to assist in the correct positioning of the cassette heads prior to any drying.

ALWAYS depress the gas strut lever before attempting to move the cassette support arm. When in position and the spring lever is released, the cassette assembly will be locked into place.

If the support arm is difficult to move or the arm moves downwards when the gas strut lever is depressed, a small adjustment may be required. (This may also become necessary after the machine has been in use for any length of time).

To make an adjustment, loosen the locking nut just above the lever - then turn the centre spindle of the gas strut half a turn in a clockwise rotation. This will adjust the pressure of the gas strut to improve operation.

The ideal setting for the strut, is when the cassette arm moves neither up nor down on its own when the lever is depressed. If necessary, the centre spindle can be adjusted in an anticlockwise direction to obtain the opposite pressure.

After adjustment re-tighten the lock nut above the lever.

LAMPS/EMITTERS - (ALL MODELS)

If any cassette fails to operate when the unit is re-programmed, first check all switches at the rear of each cassette again, as these may have been switched off during the previous program.

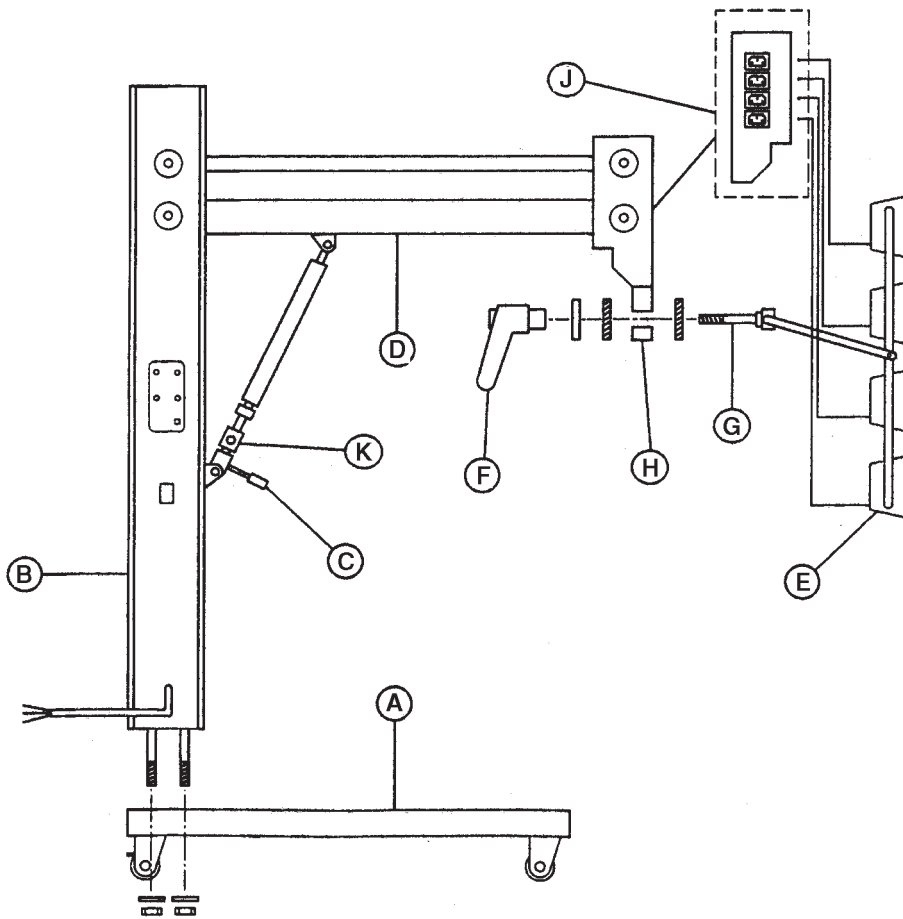
SHOULD IT BE NECESSARY TO CHANGE A LAMP/EMITTER ON ANY OF THE MODULES PLEASE FOLLOW THESE INSTRUCTIONS CAREFULLY:

TURN UNIT OFF AT MAIN SUPPLY, then remove the first two screws from one end of module, this will release the guard and expose one of the lamp terminal end posts. Repeat this procedure on the opposite side of the module to expose the other lamp terminal. Unscrew the nuts holding the fork terminals of the lamp leads, then carefully remove the lamp from its retaining clips. Replace with a new lamp/emitter of the same type (voltage and wattage) ensuring that the connection terminals are tight. Now replace modules, grill and test.

In case of malfunction, please contact your local dealer/supplier for technical assistance.

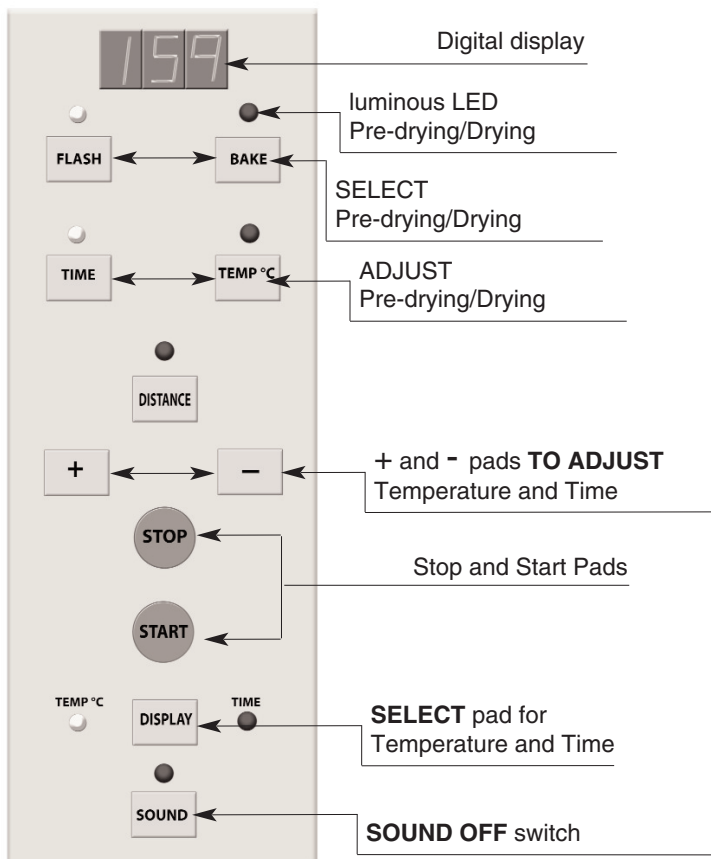
PLEASE DO NOT ATTEMPT TO CARRY OUT ANY OTHER FORM OF MAINTENANCE OR ADJUSTMENT WITHOUT FIRST CONSULTING YOUR SUPPLIER.

SPARE PARTS LIST



REF.	DESCRIPTION
A	U-SHAPED BASE
B	MAIN UPRIGHT
C	GAS STRUT LEVER
D	SUPPORT ARM
E	CASSETTE MODULE
F	LOCKING HANDLE
G	CASSETTE BOLT
H	SWIVEL HEAD
J	ELECTRIC PANEL
K	STOP

CONTROL PANEL





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