FY-TECH

Instruction Manual

CE

FY-4DM

Our equipment is approved by the following car manufacturers (China)

CONTENTS

1. PRECAUTION

1. Read this manual carefully before installing or using this equipment.
2. This equipment is designed for paint drying applications. Adjust to the correct temperature and check minimum safe distance from the heat source when using. Improper use may cause paint surface damage.
3. Installation and servicing must be performed by a qualified installer or service agency.
4. The system has been designed for easy installation, low operating costs and minimal maintenance. The warranty does not cover lamp tube defects resulting from misuse or improper operation.
5. Disconnect power source when the equipment is not in use for a long time.
6. The light tube should not be perpendicular to the ground when the equipment is in operation. Otherwise, it will shorten the useful life of the light tube.
7. Make sure the cassette plug is tightly connected before using to prevent it from burning.

2. SPECIFICATIONS

Model	FY-4DM
Input Voltage	220V / 1-ph / 50-60Hz
Input Power	4 × 1000W
Curing Area	1200 × 1000mm
Temperature	35°C - 80°C
Time Setting	0min - 99min adjustable
Light Intensity	10% - 100%

3. INSTALLATION

The shortwave infrared curing lamp is divided into 3 parts (a base, a column and a cassette).

1) Installation of the base.

a. Open the packing of the base.

b. Install the four wheels on the base respectively and tighten up the screws. Usually, the wheels with brakes should be mounted on the rear of the base.

2) Installation of the column.

a. Open the packing of the column.

b. Put the column vertically on the top of the base, directly engage the screw holes and tighten up using the screws.

c. Connect the support arm with the column for supporting cassette.

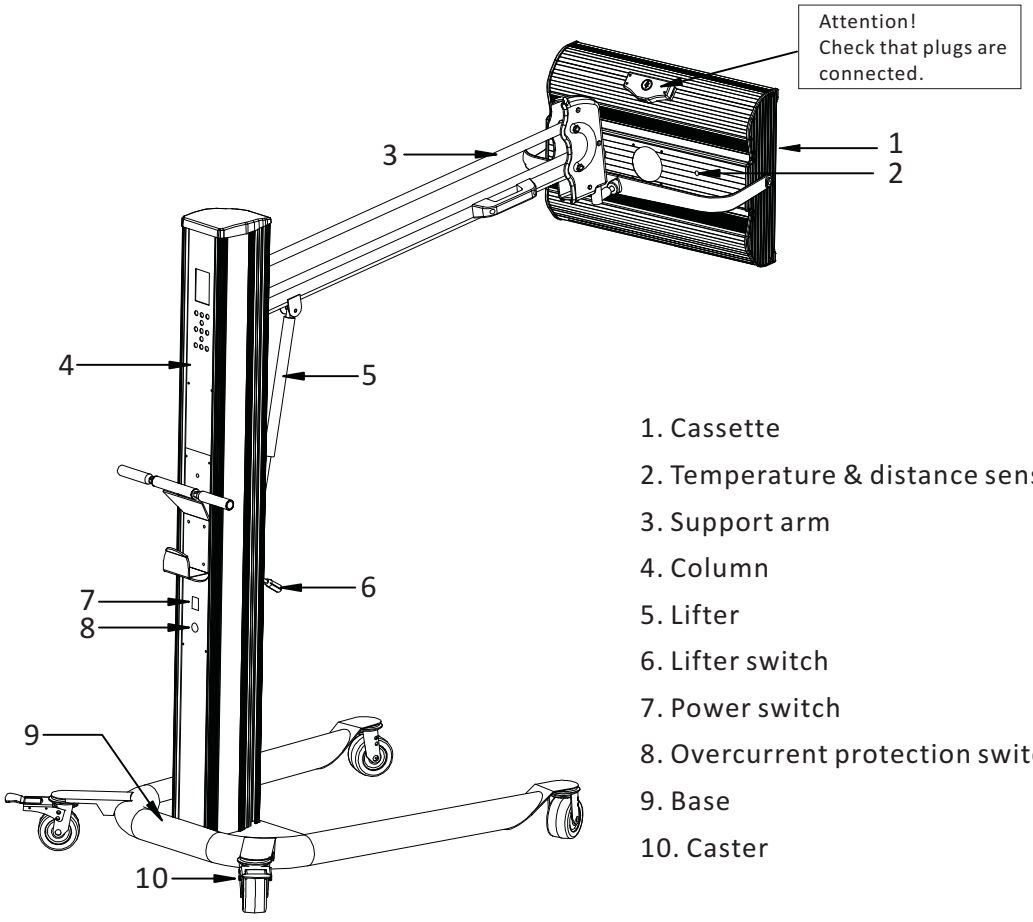
d. Connect the lifter with the column to control the up and down movement of cassette.

3) Installation of the cassette.

a. Open the packing of the cassette.

b. Connect cassette with support arm and tighten up with the screws.

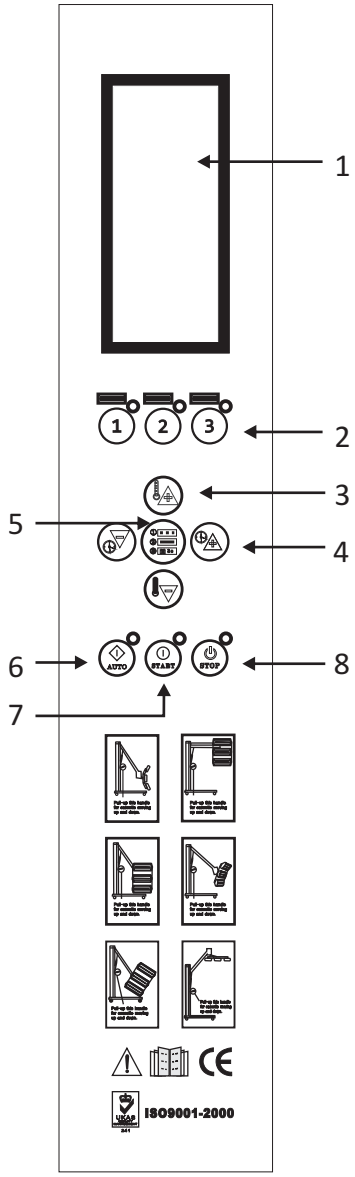
c. Connect control wires and adjust the angle of cassette.



1. Cassette
2. Temperature & distance sensor
3. Support arm
4. Column
5. Lifter
6. Lifter switch
7. Power switch
8. Overcurrent protection switch
9. Base
10. Caster

4. CONTROLS

1. LCD display
2. Lamp selector (each lamp can be controlled separately)
3. Power adjustment
4. Time adjustment
5. Setting:
   - Press the button once, it will enter into "Routine" mode when the lamp is on.
   - Press again, it will enter into "Pulse" mode when the lamp is on.
   - Press and hold to enter into curing parameters setting mode.
6. Auto
7. Start
8. Stop



1. Setting for Distance

Press and hold the "Setting" (Button 5) to enter into setting mode. Set the curing parameters according to the requirements of different paints. Nearest distance: The equipment will stop automatically when the distance between the panel and emitter is less than its preset distance. Farthest distance: The equipment will stop automatically when the distance between the panel and emitter exceed its preset distance. The equipment works only in the preset distance range.

2. Setting for Temperature

Press "Power adjustment" (Button 3) when the lamp is ready to use to set the temperature.

3. Setting for Automatic Mode

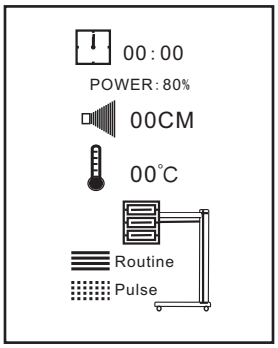
Press "Setting" (Button 5) when the lamp is ready to use to set curing parameters (shown on LCD display) according to the requirements of different paints to achieve the best effect - see next page.

5. OPERATION

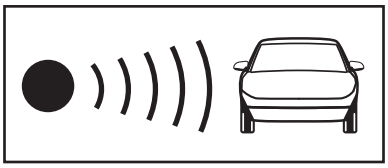
1. Automatic Mode

a. Properly assemble the curing system according to the instruction (see page 3).

b. Switch on the power supply. The system is ready to use when the graphic appears on the display screen as follows:



c. Move the cassette forward or backward from the paint surface to adjust to the best distance for curing. The distance data will be detected and shown on the display screen automatically. The measuring range is 20-120cm and beyond it is blind zone. The curing distance between the cassette and paint surface should be set according to the paint material and weather conditions (air humidity). Usually, keeping a distance of about 45cm from the paint surface is recommended.



d. Press the "Auto" button and then press "Start" to go into the automatic curing mode. Once the automatic mode is selected, four related cure programs become available to the user – Program 1-4 (Fig. A). The data of these four programs, time (min) and power (%), can be set respectively (Fig. B). (The curing time and power should be set according to the requirements of the paint material).

1.Nearest distance	(20cm)
2.Farthest distance	(70cm)
3.Lowest Temperature	(35°C)
4.Highest Temperature	(75°C)

d. The time and power can not be set directly during the program running.

1.The data can be set before the program started.

2.The data can also be adjusted during program with a long press on the button “Setting” changing the interface to set the data.

step1	☐Routine Time (5min) Power(70%)
step2	Pulse Time(15min) Power(60%)
step3	Routine Time(5min) Power(60%)
step4	Pulse Time(15min) Power(60%)

e. Setting curing time. Press the navigation buttons "time +" or "time -” (Button 4, Page 4) when the lamp is ready to use to adjust curing time.

f. Protect the lamp against shocks and vibrations when the lamp is in use.

g. After this program is completed, the system is able to carry out other programs. Make sure to turn off the system when the equipment is not in use and keep the equipment securely in place.

5. OPERATION

2. Manual Mode

a. Press the navigation buttons "Power +/- " and "Time +/-" when the lamp is ready to use to adjust the curing power and time.

b. Press the button "Setting" to set the mode of "Routine" or "Pulse”.

c. Press the button "Start".

d. The curing distance between the cassette and paint surface should be set according to the paint material and weather(air humidity). Usually, keeping a distance of about 45cm from the paint surface is recommended.

e. The curing time and power should be set according to the requirements of the paint material. Usually, "Pulse" is set to 5 mins and "Routine" to 10 mins.

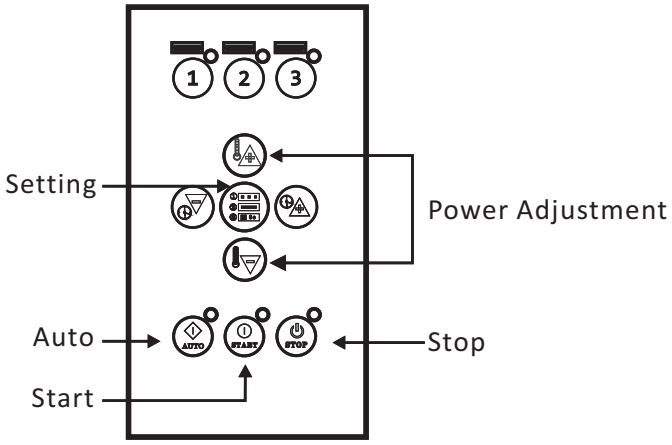
g. Turn off the equipment when the work is completed.

3. Pulse Mode

a. Set power and time. Press the button "Setting" and select "Pulse".

b. Press the "Start" button.

c. The curing distance between the cassette and paint surface should be set according to the paint material and weather (air humidity). Usually, keeping a distance of about 45cm from the paint surface is recommended.



d. After this program is completed, the system is able to carry out other programs. Make sure to turn off the system when the equipment is not in use.

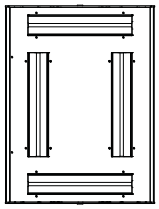
6. TROUBLESHOOTING

1. Troubleshooting

PROBLEM	CAUSE	SOLUTION
Light tube does not work	a. Light tube damaged b. Lamp is not plugged in c. Control silicon damaged	a. Check light tube b. Check the connections c. Check control silicon
Light tube does not turn off	a. Control silicon damaged	a. Check control silicon
Digital display is blank or is incomplete	a. Unplugged flat wire in circuit board b. Digital display damaged	a. Check flat wire b. Check digital display
Temperature and time cannot be adjusted	a. Switch imbalance b. Key board has exclusion	a. Check the installation of switch b. Check keyboard exclusion

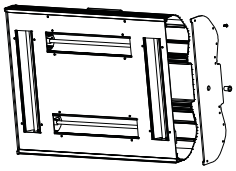
6. TROUBLESHOOTING

2. Lamp Tube Replacement



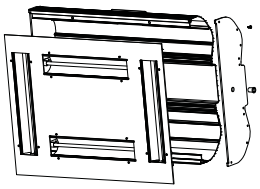
(1)

1. Prepare cassette for replacement



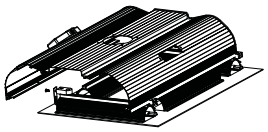
(2)

2. Remove the screws on the side panel of cassette.



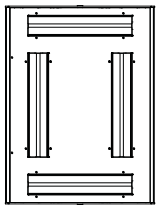
(3)

3. Remove the screws on the front panel to open it.



(4)

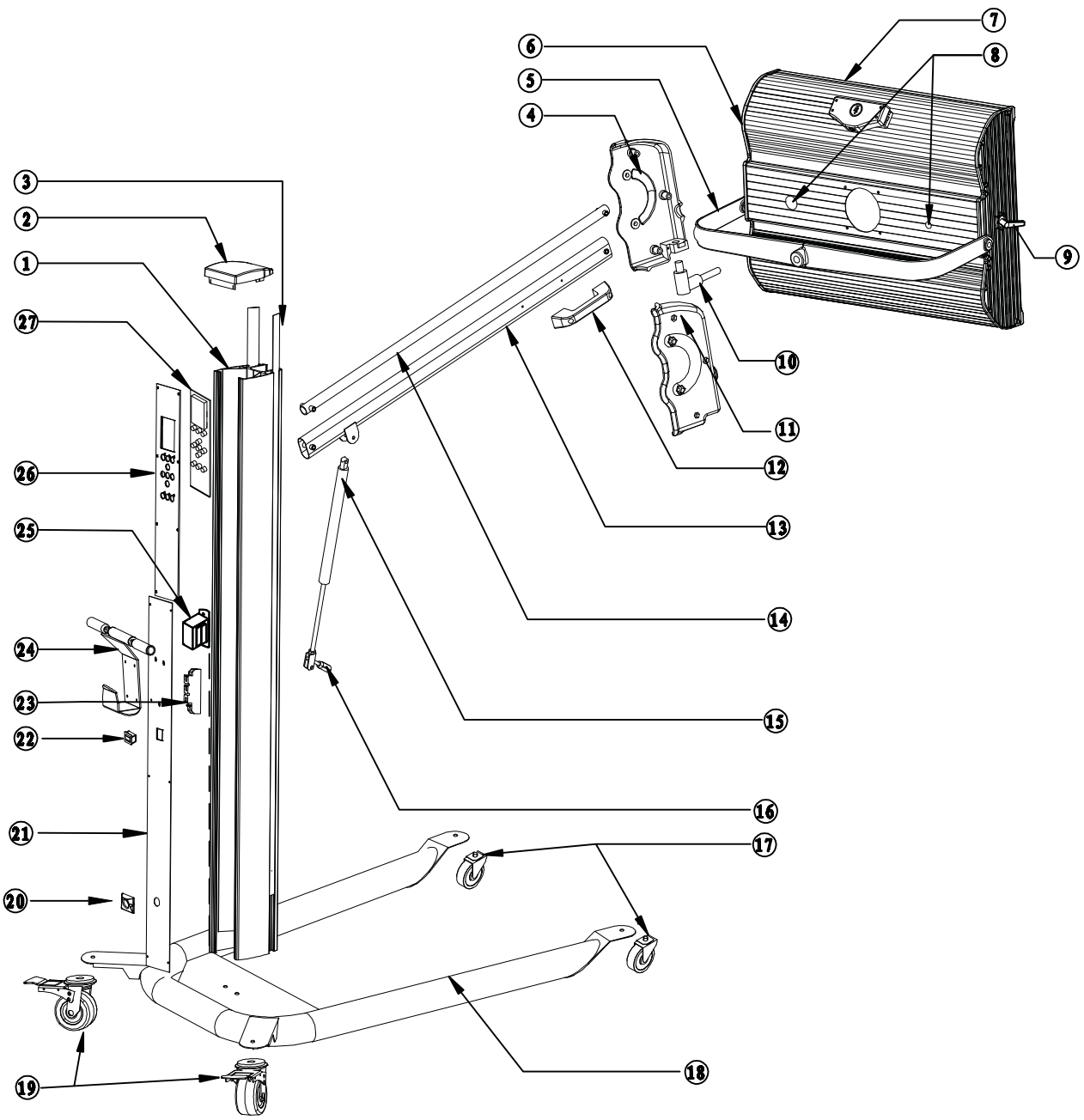
4. Remove the screws on both ends of the lamp tube so it can be replaced.



(5)

5. Reverse the steps above after replacement to re-install the cassette.

7. EXPLODED VIEW



No.	Name	No.	Name	No.	Name	No.	Name
①	Upright post	⑨	Plastic nut	⑰	Front wheel	㉕	Transformer
②	Top cover	⑩	Connecting axle	⑱	Base	㉖	Cover plate (upper)
③	Plastic band	⑪	Connector (right)	⑲	Back wheel	㉗	Circuit board
④	Connector (left)	⑫	Handle	⑳	Flange		
⑤	Bracket	⑬	Lower connecting rod	㉑	Cover plate (lower)		
⑥	Clamping bar	⑭	Upper connecting rod	㉒	Power switch		
⑦	Cassette	⑮	Lifter	㉓	Control silicon		
⑧	Temperature distance sensor	⑯	Lifter handle	㉔	Cable holder/handle		

8. CIRCUIT DIAGRAM