

**TBM Series**  
**Short Wave Infrared Painting Machine**

**USER MANUAL**

**LAUNCH TECH CO., LTD.**

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## General Notice

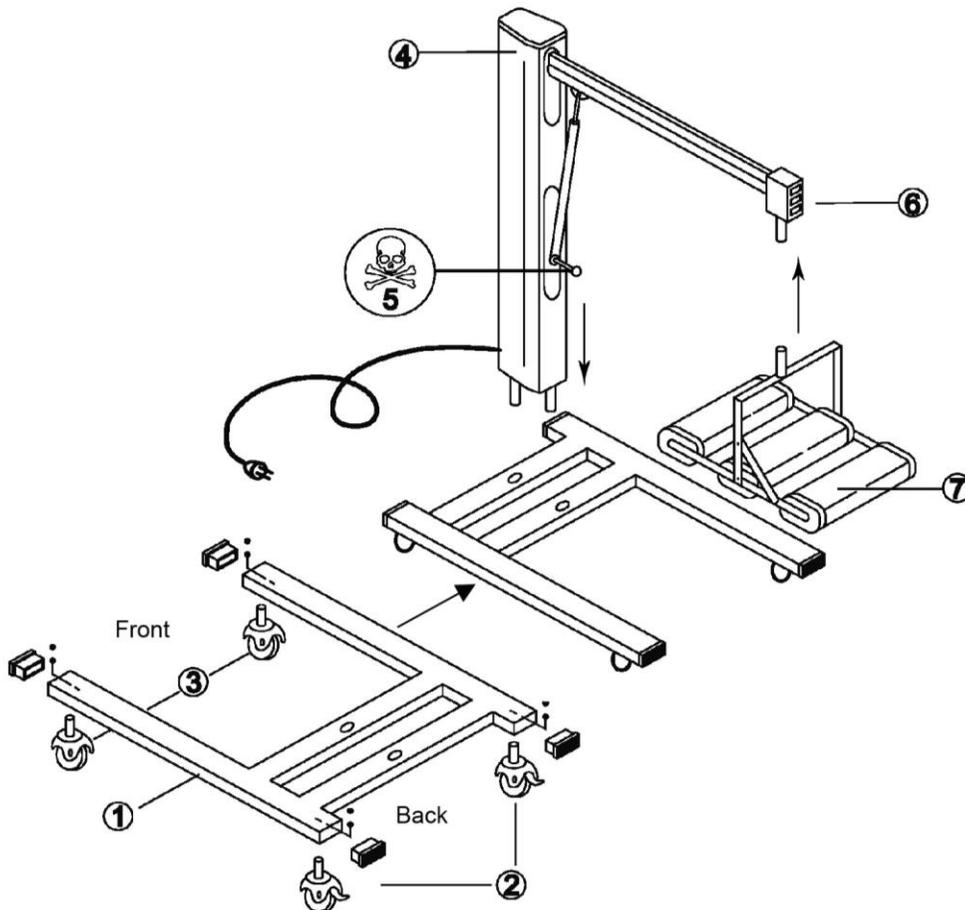
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## 1. Installation of TBM

### 1.1 Installation of Equipment TBM-111/121/131/132 (Fig.1)



**Fig.1**

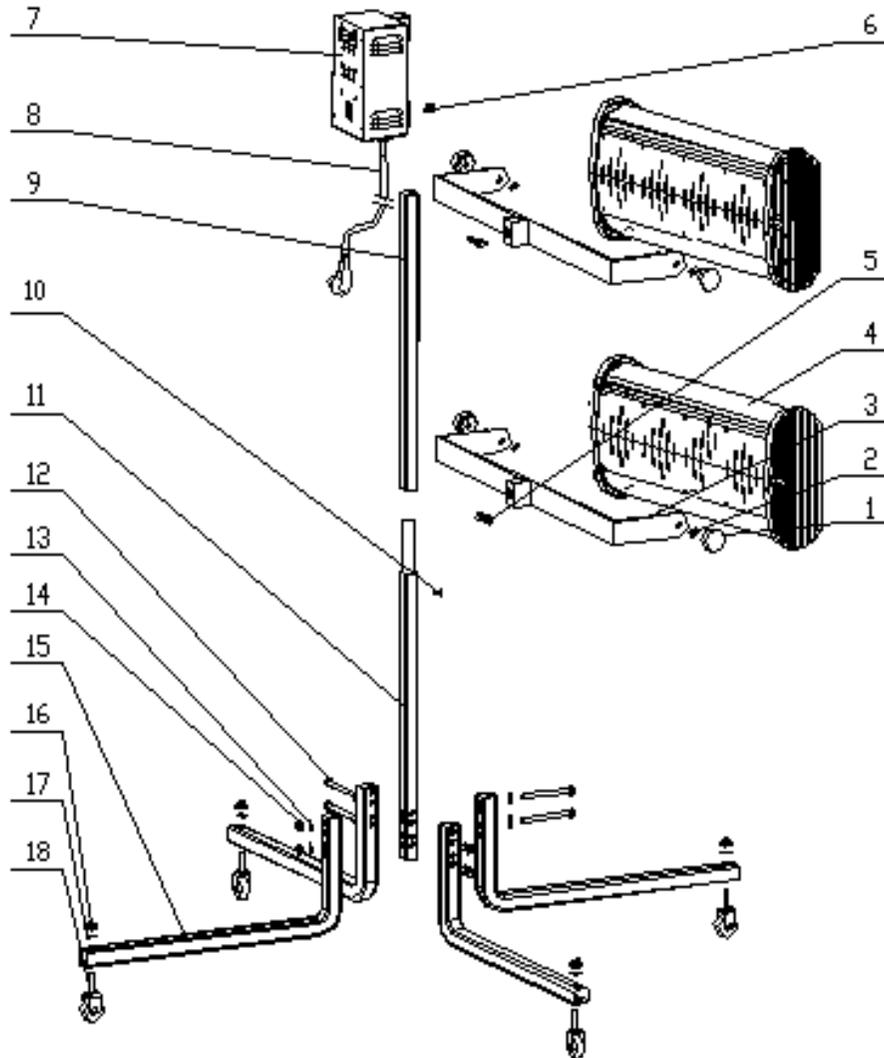
- 1) First, take the equipment base (1) and wheel (2), (3) out. Wheel (2) put on the back base, Wheel (3) put on the front base.
- 2) Install the equipment post (4) on the base.

**Notices:** Do not touch the handle on the post when you install the equipment, the rest (6) will hurt you when you install.

- 3) Take the balance unit (6) on the post unit (4).
- 4) Take the radiation unit (lamp unit) (7) on the rest (6).
- 5) The step of install radiation unit you can consult the installation of radiation tube.
- 6) Install the power plug.

- Notices:**
- (1) Electrical Input: 220V (AC).
  - (2) There are three wires in it: brown for power, blue for zero line and yellow with green for earth.
  - (3) Require of plug: 15Amp
  - (4) Move the write foam before you turn on the power. In case of melted down.

## 1.2 Installation of Equipment TBM-212 and TBM-222 (Fig.2)

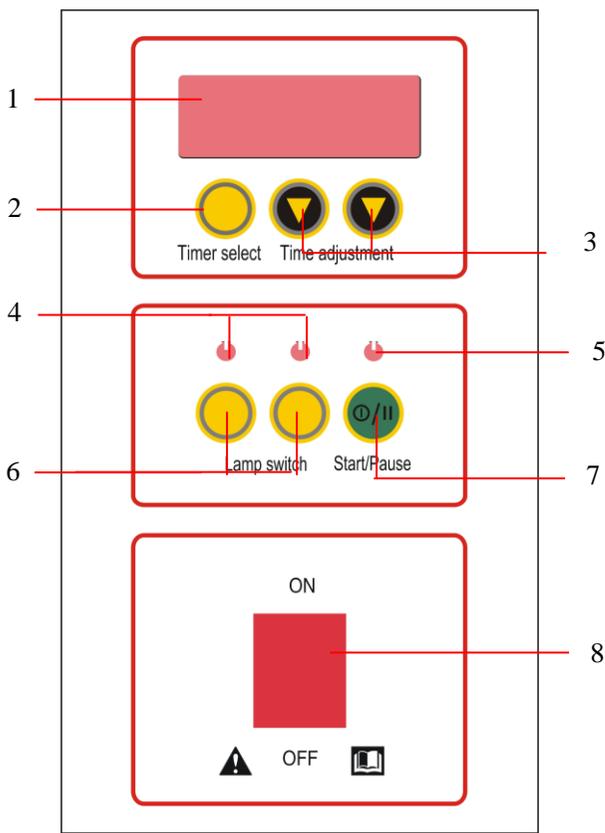


**Fig.2**

- 1、 Take all the accessories out, compare with packing list and check all the accessories are ready.

- 2、 First, take the wheel units(18) on the bracket (15).
- 3、 Fix the bracket(15) on the bottom post(11).
- 4、 Install the up post (9)on the bottom post together.
- 5、 Install the frame (3) on the lamp head (4) together.
- 6、 Install and fix the frame on the post.
- 6、 Install the control box on the top of the post.
- 7、 Install the power plug.

## 2、 Operating Instruction of TBM-131/212/222



TBM Series control box

### 2.1 Instruction of keyboard

- 1、 Time display window
- 2、 Timing function button
- 3、 Timing adjustment button
- 4、 LED indicator for working lamp head

- 5、 Start or Pause LED indicator
- 6、 selection button for working lamp head
- 7、 Start or Pause
- 8、 Power switch

### 2.2 Operating Instruction

- 1) Assemble the device according to the instruction, connect the power line correctly.
- 2) Adjust the height and angle of the lamp to the right position.
- 3) Turn on the power switch, Displaying “—” in the time window. Press the start button and select the lamp switch, the machine is working.
- 4) Timer settings: Two kinds of working modes are available, semi-power work mode and full power work mode. Press button 2, it displays the pulse digit of “0” in the window, adjust the working time through button 3, it enters the semi-power work mode. Press button 2 again, it displays the stable digit of “0”, adjust the time through press

the button 3, it enters the full power work mode.

5) Working mode converting :

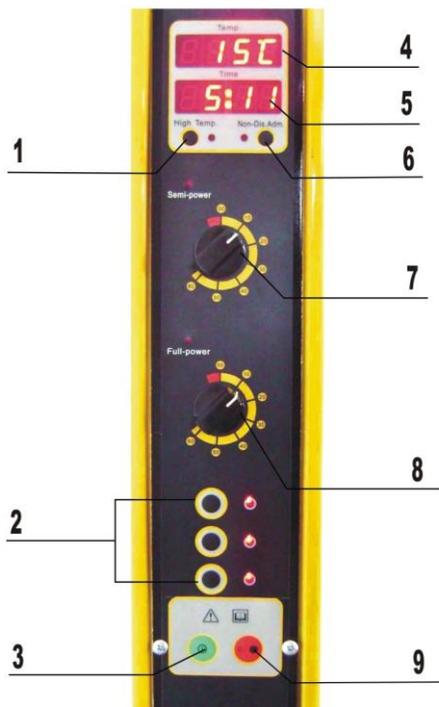
The working mode can be converted when the lamp is shut off. Press button 2, the working mode can be converted between the two modes. When the lamp is working, the converting of the working mode is not allowed.

6) Start or pause: Press button start or pause, machine can be started or stopped working.

7) Select the working lamp :  
Selecting the lamp switch button 6.

8) Memory function: The system has the special remembering function, the working mode will be remembered when the machine is stopped working, press the start button again, the working mode is recovered.

### 3. Operating Instruction of TBM-132/132-1/132-2



#### 3.1 Buttons Instruction:

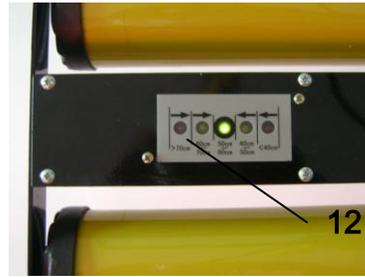
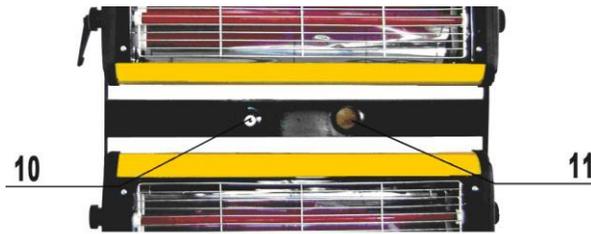
- 1、 High Temp. Select
- 2、 Working Light Switch
- 3、 Working Start Switch
- 4、 Digital Temp.
- 5、 Digital Time
- 6、 Dis.Adm Start Switch
- 7、 Pulse mode Select Switch
- 8、 Full-power Select Switch
- 9、 Working Pause / Replace

#### 3.2 Operating Instruction

- 1) Connected the power cord to the power outlet, and then turn on total power switch which is in the stand.;
- 2) . Adjust the lamp components in the suitable place (height and angle) and adjust the distance of lamp head to the baking area (usually at around 50cm, it can adjust to between 40 ~ 50cm). In the adjusting process of lamp head, the display board behind

- the lamp components will automatically show the distance between the lamp head and baking range, the green light for the factory set up the best temperature away from baking. After adjusting the good position, through the brake fixed the device's operating position.
- 3) Through the button 1 to choose a normal temperature or high-temperature paint baking mode (with temperature sensor equipment proprietary function), the indicator light does not shine at room temperature when baking, that is, 70 degrees alarm, shut down 80 degrees; indicator light for the high-temperature baking paint, and that is 130 degrees alarm, shut down 140 degrees
  - 4) Through the button 6 to choose whether to automatically manage the distance function, when the indicator light shines, the distance protection automatically start., the equipment set up to protect from the distance to be baked for the lamp from the baking area is less than 40cm.
  - 5). Through button 7 to adjust pulsed baking time, baking time, the range of 0 ~ 60 minutes, adjusting button 7 at the same time, the time display window shows the value of working time choice;
  - 6). Through button 8 to adjust Full-power baking time, the range of 0 ~ 60 minutes, adjusting button 8 at the same time, the time display window shows the value of working time choice;
  - 7). Through button 2 to select the number of radiation tubes, the indicator lights, that is the lamp work;;
  - 8). Through button 3 to start the equipment working, equipment set up in accordance with the beginning of baking good work automatically, while the time display window shows the corresponding procedures for the remaining time. After the program finished, the equipment shut down automatically;
  - 9). If you want to change work procedures, can use button 9 to suspend work procedures, the initial set up procedures to restore or re-provision of new working procedures. After change the process, through button 3 to start a new work procedures.
  - 10) If the device with temperature sensor, temperature window will be real-time show the baking surface temperature. and at the same time starts the temperature alarm equipment and protection automatically.

### 3.3 Other Parts Instruction:



- 10、Temp. Sensor
- 11、Dis.Sensor
- 12、Dis.Range Display Board

## 4. Equipment Maintenance and General Notice

- 4.1 Avoid hitting.
- 4.2 Avoid hard things put in radiation unit.
- 4.3 Please pay attention to the ground when you move the equipment.
- 4.4 Please use soft cloth or cotton with alcohol clean the radiation tubes and baffle-board, keep it cleanness.
- 4.5 Keep the equipment well grounded.
- 4.6 If the equipment is to be used in a spray booth, the air in the booth must be purified before switching on the equipment, since flammable gas may cause explosion.
- 4.7 Keep the equipment away from painting area, about 3-4 meters.
- 4.8 Please don't turn on the power when adjust the angle and distance of the lamp.
- 4.9 Do not pull the wire when you want move the equipment.
- 4.10 If the radiation tubes don't work, please check up power switch,

## 5. Dismounting of Radiation Tubes

- 5.1 Turn off the power switch.
- 5.2 Take the protecting net which is in front of radiation tubes out.
- 5.3 Get the screws out in the radiation unit back, and remove the back.
- 5.4 Get baffle-board down at two sides.
- 5.5 Take the old radiation tubes (broken one) out.
- 5.6 Fit the new radiation tubes on it.
- 5.7 Link all wires like before.
- 5.8 Fit the baffle-board.
- 5.9 Cover the radiation unit back.
- 5.10 Fit the protecting net.

## 6. Problems and Solutions

Problems	Cause	Solutions
paint solvent have pinhole	<ol style="list-style-type: none"> <li>1. Radiation tubes were too near from repair place.</li> <li>2. Time of warm-up is too short.</li> <li>3. There is speedy thinner in paint.</li> </ol>	<ol style="list-style-type: none"> <li>1. Keep the distance of radiation tubes and repair place.</li> <li>2. Increase the time of warm-up.</li> <li>3. Use normal thinner.</li> </ol>
Paintwork is illegibility	<ol style="list-style-type: none"> <li>1. Radiation tubes are far away from repair place.</li> <li>2. Work time too short.</li> <li>3. Skin of paint is too thick.</li> </ol>	<ol style="list-style-type: none"> <li>1. Keep the distance of radiation tubes and repair place.</li> <li>2. Increase the time of work.</li> <li>3. Keep the skin of paint thin.</li> </ol>
Paintwork have impurity	<ol style="list-style-type: none"> <li>1. Work time too long.</li> <li>2. Distance of radiation tubes and repair place is too near.</li> </ol>	<ol style="list-style-type: none"> <li>1. Reduce work time.</li> <li>2. Keep the distance of radiation tubes and repair place.</li> </ol>
margin is illegibility	Repair place is too large	<ol style="list-style-type: none"> <li>1. Separate into two places to repair.</li> <li>2. Please warm-up in the first time.</li> <li>3. Without warm-up in the second times.</li> </ol>
Heat is asymmetry	Radiation units and repair place not in the same level.	Adjust radiation units and repair place in the same level.

## 7. Warranty Cards

### Warranty

THIS WARRANTY IS EXPRESSLY LIMITED TO PERSONS WHO PURCHASE WHO PURCHASE PRODUCTS FOR PURPOSES OF RESALE OR USE IN THE ORDINARY COURSE OF THE BYER'S BUSINESS.

TBM electronic product is warranted against defects in materials and workmanship for one year (radiation tubes half year)(12 months) from date of delivery to the user. This warranty does not cover any part that has been abused ,altered ,used for a purpose other than for which it was intend , or used in a manner inconsistent with instructions regarding use .The exclusive remedy for any automotive meter found to be defective is repair or replacement ,and shall not be liable for any consequential or incidental damages .Final determination of defects shall be made by in accordance with procedures established by us .No agent ,employee ,or representative of us has any authority to bind us to any affirmation ,representation ,or warranty concerning us equipments ,except as stated herein .

Company		Address	
P.C.		Telephone	
Product Name		Serial No.	
Product Model		Purchase Date	
Remarks			
Company		Address	
P.C.		Telephone	
Product Name		Serial No.	
Product Model		Purchase Date	
Remarks			

## 8. Packing list

### 8.1 TBM-212/222 Packing list

items	name	specification	unit	TBM-212	TBM-222
1	User manual	B5	pcs	1	1
2	qualification		page	1	1
3	Heater lamp		set	1	2
4	wheels		set	4	4
5	Bracket for wheels		pcs	4	4
6	Down stand		pcs	1	1
7	Up stand		pcs	1	1
8	Control box		pcs	1	1
9	Frame for lamp		pcs	1	2
10	Handles	M10	pcs	2	4
11	Adjustable handles		pcs	1	2
12	Top screws		pcs	1	1
13	Screws	M4 X 10	pcs	1	1
14	Screw/bits	M8 X 90	set	4	4

### 8.2 TBM-111/121/131/132 Packing list

Items	Name	Unit	131/132	111	121	Quantity
1	User manual	pcs	1	1	1	1
2	Qualification	page	1	1	1	1
3	Radiation units	set	3	1	2	3
4	Stand unit	set	1	1	1	1
5	Base unit	set	1	1	1	1
6	Balance bar	set	1	1	1	1

## Warranty

THIS WARRANTY IS EXPRESSLY LIMITED TO PERSONS WHO PURCHASE LAUNCH PRODUCTS FOR PURPOSES OF RESALE OR USE IN THE ORDINARY COURSE OF THE BUYER'S BUSINESS.

LAUNCH electronic product is warranted against defects in materials and workmanship for one year (12 months) from date of delivery to the user. This warranty does not cover any part that has been abused, altered, used for a purpose other than for which it was intended, or used in a manner inconsistent with instructions regarding use. The exclusive remedy for any automotive meter found to be defective is repair or replacement, and LAUNCH shall not be liable for any consequential or incidental damages. Final determination of defects shall be made by LAUNCH in accordance with procedures established by LAUNCH. No agent, employee, or representative of LAUNCH has any authority to bind LAUNCH to any affirmation, representation, or warranty concerning LAUNCH automotive meters, except as stated herein.

## Disclaimer

THE ABOVE WARRANTY IS IN LIEU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

## Order Information

Replaceable and optional parts can be ordered directly from your LAUNCH authorized tool supplier. Your order should include the following information:

- Quantity
- Part number
- Item description

## Customer Service

If you have any questions on the operation of the unit, please contact us:

Tel: 86-755-84528046

Fax: 86-755-84528051,

E-mail: [overseasales@cnlaunch.com](mailto:overseasales@cnlaunch.com).

If your unit requires repair service, return it to the manufacturer with a copy of the sales receipt and a note describing the problem. If the unit is determined to be in warranty, it will be repaired or replaced at no charge. If the unit is determined to be out of warranty, it will be repaired for a nominal service charge plus return freight. Send the unit pre-paid to:

Attn: Overseas Department  
LAUNCH TECH. CO., LTD.  
Launch Industrial Park,  
North Wuhe Avenue,  
Banxugang Industrial Park,  
Longgang District.,

Shenzhen, Guangdong Province, P.R.China