# **TDP HEAT LAMP**

# **User Manual**

# \*CAUTION\*

Lamp head gets hot. Handle with extreme care.

Do not touch the lamp head during operation.

To prevent possible burns, do not position the lamp head too close to the skin. Adjust the positioning of the lamp head to reach the desired level of heat.

Turn off after use and allow the lamp to cool down before moving the lamp.

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# I GENERAL INFORMATION

#### Intended Use & Indications for Use

TDP Heat Lamp is used for the temporary relief of minor muscle and joint pain and stiffness, the temporary relief of minor joint pain associated with arthritis, the temporary increase in local circulation where applied, and the relaxation of muscles. In addition, it may also help muscle spasms, minor sprains and strains, and minor muscular back pain.

#### ■ Contraindications and Adverse Reaction

- 1. Never use on infants or children. The device may cause severe burns.
- 2. Patients with acute and urgent illness and injury.
- 3. Patients with abnormal blood pressure.
- 4. Patients with cardiovascular or cerebrovascular disease at acute stage.
- 5. People with skin abnormalities or skin tactile dysfunction.
- 6. Patients with high fever.
- 7. Do not use this device if you are pregnant.
- 8. Patients with bleeding disorders.
- 9. People with cancer, cardiac muscle problem are prohibited to use.
- 10. Never use on incapacitated persons. The device may cause severe burns.
- 11. Never direct heat from the lamp into the eyes.
- 12. Do not use for undetermined calf pain.

#### Patient Populations

This device is intended for use by adults. Unattended use of infrared heat by incapacitated persons may be dangerous.

#### Warning

- 1. Use carefully. It may cause serious burns.
- 2. Severe burns are possible if the device is not used correctly.
- 3. Do not use over sensitive skin areas or in the presence of poor circulation.
- 4. Do not use by children or incapacitated persons. It may be dangerous.
- 5. Do not touch the lamp head while using.
- Do not use on facial areas.
- 7. Do not use for any pain for which etiology (cause) has not been established.
- 8. Do not use when body is wet or in bath tub.
- 9. Do not leave unit on when not in use.
- 10. Do not operate under a blanket, or cover. Excessive heat may develop and cause fire, electricshock, or injury to person.
- 11. Do not pull or carry this device by the power cord.
- 12. Do not make any repairs yourself or disassemble or modify the device.
- 13. Do not use the device in small spaces, or near anything flammable including bed mattresses, carpet, and curtain.
- 14. Do not subject the device to strong impacts or drop it on the floor.
- 15. Do not operate the device while driving.
- 16. Do not expose this appliance to rain or moisture in order to avoid the risk of electric shock.
- 17. When the lamp is not in use, let the lamp cool down, then place a cover over the head portion to prevent dust and debris from entering the lamp head. Store the lamp in a room free from dust, debris, and moisture.
- 18. Do not modify this equipment without authorization of the manufacturer. To avoid risks during subsequent use, all repairs should be carried out by authorized service companies.

#### Precautions

- 1. Use this device only for its intended purpose as described in this manual.
- 2. In order to avoid skin burns, please keep at least 20 cm distances between radiating skin and device head
- 3. Check with physician for use of infrared heat on varicose veins or on anesthetic of the skin.
- 4. Keep the device away from high temperatures or high humidity, and direct sunlight.
- 5. Use the device at a sufficient distance from devices with strong electrical fields, such as television, microwave ovens. X-ray equipment, etc.
- 6. Store lamp in dry environment avoid excessive moisture.
- 7. Use only a soft dry cloth to clean the unit. Do not use solvents or other petroleum based cleaners.
- 8. During the period of therapy some patients may have higher temperature, slight prickling or itchy feeling, these are normal.
- 9. The patient is an intended operator. The patient can operate this device under normal circumstances and maintain the device according to the user manual, no servicing / maintenance while the ME equipment is in use.

#### ■ Nature and Frequency of Maintenance

This product is designed for use over an extended period of time; however, the lamp's heating plate shall be replaced when the working time reaches 1000 hours.

### Protect the Nature Environment

Please help to protect natural environment by respecting national and/or local recycling regulations when disposing of the product at the end of their useful live.

# II. PRINCIPLE OF TDP HEAT LAMP

#### ■ Therapeutic Principle

With the usage of the infrared lamp, emits energy in the infrared spectrum to provide topical heating for the purpose of elevating tissue temperature, to temporarily increase local blood circulation, and temporary relief of pain and stiffness associated with minor muscle and joint.

## ■ Function and Performance

- 1. Provide topical heating for the purpose of elevating tissue temperature
- 2. Temporarily increase local blood circulation
- 3. Provide temporary relief of pain and stiffness associated with minor muscle and joint.

#### Feature

- 1. No medical or chemical components, without pain, damage or stimulation during treatment.
- 2. Short treatment time, 15 or 30 min each time.
- 3. More convenience in use and easier maintenance.

# III. NAME OF EACH PART

# ■ TDP-166F





Control panel



Lamp head



Bracket

# ■ TDP-124D





Control box with base

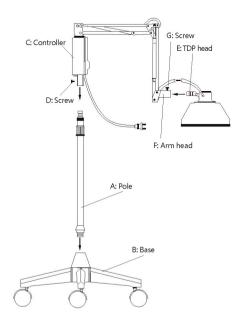


Lamp head



Bracket

# IV. TDP ASSEMBLY INSTRUCTIONS



# **Assembly Instructions**

- 1) Place the base (B) on the floor and screw the wheels into the base (B).
- 2) Insert pole (A) into the base (B).
- 3) Loosen screw (D), then insert controller (C) into the pole (A) and tighten screw (D).
- Loosen screw (G) and insert TDP head
  into the arm head (F), then tighten screw (G).

#### Caution:

- 1. Before inserting the plug into a power outlet, please make sure the voltage for the lamp corresponds with the local power voltage.
- 2. Effective measures must be taken to protect the eyes when there is any exposure to the face (ex: wear goggles).
- 3. Do not let children or incapacitated person operate the lamp. The lamp should not be operated on or near children or incapacitated person.
- 4. When using the lamp for the first time, you may notice light smoke or a smell, which is normal and temporary. The smoke and smell will eventually disappear after continued use.
- 5. Please consult with a doctor or physician prior to use.

#### Note:

- 1. The lamp will take approximately 15 minutes to warm up.
- 2. As a general guideline, the distance between the treatment surface and heating head should be approximately 8 to 10 inches. Actual positioning of the TDP head may be adjusted to reach the desired level of heat. In order to prevent possible burns, do not position the lamp head too close to the skin.
- 3. A minimum of 40 minutes per treatment session on the targeted area is recommended. The treatment time for a given session may vary depending on the condition being treated.
- 4. The heat lamp only provides warmth for therapeutic heat treatments. Please do not expect a higher temperature range as higher temperatures may cause the skin to overheat and burn. Higher temperature ranges will not increase effectiveness of treatment.

# V. OPERATION PROCEDURE

### ■ TDP HEAT LAMP Therapy

- 1. Plug in power unit.
- 2. "POWER" indicator (green light) on.
- 3. The device is active and ready for preheating. Let the lamp preheat to work for 15 minutes.
- 4. "WORK" indicator (yellow light) on when timer is in the position of "15, 30..." (Treatment Time) the device works.

Note: The position "ON" is only the label marking, you cannot turn to that position.

- 5. Should there be 20-30 cm (8-12 inch) between radiating skin and device head (after 15 minutes preheating). The surface temperature of human skin should remain around 40°C (104°F) or what makes the patients easy.
- 6. The device will automatically turn off after the timer reaches "OFF" position. The maximum treatment time is 60 minutes.
- 7. After use, make sure switch is "OFF" and unplug the power cord.

#### Assemble Carrier

- 1. Connect the head (1) and swing arm (2), by inserting A into C and tightening the screw.
- 2. Connect the outer tube (3) and stand (4) by screwing D into the middle of E.
- 3. Connect the outer tube (3) and inner tube (5), by inserting H into G and tightening the screw.

# VI. TROUBLESHOOTING PROBLEMS

Description	Reason	Checkout
No display in indicator	Instruments poor contact	Check the power supply
No power on the device when the power switch is on.	Instruments poor contact	Check the power supply
Not heating output	The plug is not in proper direction	Check the power supply

Note: If you cannot resolve the problem, you can contact factory or service agent.

# VII. SPECIFICATION & MODEL DIFFERENCE

## ■ Specification

Basic Specifications		
Power Input Rating	110Vac, 60Hz, 250W	
Electric Shock Protection Classification	Class II	
Water Proof Class	IP22	
Spectrum Range	5~25 microns	
Temperature Range of Skin Surface Applied	40~45°C (TDP lamp distance to skin 20~30cm)	
Warming Up Time	15 minutes	
Operating Timer	Maximum 60 minutes	
Heating Lamp Total Working Hours	1000 hours	

Physical Characteristics					
Device	TDP-124E (Desktop		690 x 255 x 500 mm		
Dimension Device Weight	TDP-166F (Floor Type	<del>)</del>	565 x 387 x 255 mm		
Device Weight	TDP-124D		5kg		
	TDP-166F		9.5kg		
Radiant Plate	TDP-124D		12.4 cm		
Diameter	TDP-166F		16.6 cm		
Operation Environment Requirements					
Temperature	Temperature		5°C ~ 40°C		
Relative Humidity	Relative Humidity		≤ 80% RH		
Barometric Pressu	Barometric Pressure		70kPa~106kPa		
Transportation and S	torage Envir	onment Rec	quirements		
Temperature		-20°C ~ 50°C			
Relative Humidity		≤ 95% RH			
Barometric Pressure		70~106kPa			

#### Model Differences

Model Differences						
Model	TDP-124D	)	TDP-166F			
Use Type	Desktop Ty	ype	Floor Type			
Device Dimension	690 x 255 x mm	x 500	565 x 387 x 255 mm			
Device Weight	5 kg		9.5 kg			
Radiant Plate Diameter	12.4 cm		16.6 cm			
Photo		7				

# VIII. SYMBOL FORM

Symbol	Explanation		
$\triangle$	Symbol for caution. This is a safety symbol that is used to highlight that there are specific warnings or precautions associated with the devices that are not otherwise found on the label. The symbol can alsobe used to mean "attention, see Instructions for Use."		
IP22	Protection against ingress of water, it means the device could protected against solid foreign objects of 12.5mm and greater, and against vertical falling water drop 15°		
***	Manufacturer		
The symbol indicates that the device should be sent to the specia agencies according to local regulations for separate collection after its useful life.			
Symbol for "THE OPERATION GUIDE MUST BE READ"			
LOT	Symbol for lot number		
<u>11</u>	Symbol for "This side up".		
Symbol for "Fragile, handle with care". Indicates a medical device that can be broken or damaged if not handled carefully.			
学	Symbol for "Keep dry". Indicates a medical device that needs to be protected from moisture.		
(€	Symbol for CE Mark. This symbol certifies that a product has met European Union consumer safety, health, or environmental requirements.		

# IX. LIMITED WARRANTY

#### 12 MONTHS LIMITED WARRANTY

For twelve(12) months from the date of purchase, Yu He Com. will repair or replace at our option to the original purchaser, free of charge, parts found upon examination by an authorized representative of Yu He Com. to be defective in material and/or workmanship EXCLUDING:

#### **WARRANTY EXCLUSIONS**

- TDP head
- · Circumstances beyond the control of Yu He Com.
- Labor, service calls, shipping costs, and other charges incurred for repair of the product, unless specifically authorized by Yu He Com.
- Repairs and/or modifications made to any part without specific consent from Yu He Com.

#### Exclusions also include components with damage caused by:

- Contamination
- Abuse, misuse, accident, or negligence
- Improper operation, maintenance, or storage

#### SERVICE CHECKS AND WARRANTY SERVICE

Warranty service must be performed by an authorized Yu He Com. provider. Do not return faulty parts to Yu He Com. without prior written authorization. All

transportation costs and shipping damage incurred while submitting parts for repair or replacement are the responsibility of the purchaser.

Failure to follow these instructions and warnings can result in personal injury or damage to the product and will void Yu He Com product warranty.

#### Protect the environment

This electronic equipment contains reusable material and must not be disposed of with domestic waste. Please take it to a collecting point for electric and electronic equipment (ask your local authorities for details).

# X GUIDANCE AND MANUFACTURER'S DECLARATION

- 1) This equipment needs to be installed and put into service in accordance with the information provided in the ACCOMPANYING DOCUMENTS;
- 2) Wireless communications equipment such as wireless home network devices, mobile phones, cordless telephones and their base stations, walkie-talkies can affect this equipment and should be kept at least a distance d away from the equipment. The distance d is calculated by the MANUFACTURER from the 800 MHz to 2.5 GHz column of Table 6 of IEC 60601-1-2:2007, as appropriate.

EXAMPLE: As indicated in Table 6 of IEC 60601-1-2:2007 for ME EQUIPMENT, a typical cell phone with a maximum output power of 2 W yields d = 3.3 m at an IMMUNITY LEVEL of 3 V/m.

# A1 Electromagnetic Emissions-For all EQUIPMENT and SYSTEMS

Guidance and manufacture's declaration-electromagnetic emission

The "TDP Heat Lamp"Model TDP-166F"and TDP-124D" is intended for use in the electromagnetic environment specified below; The customer or the user of the TDP Heat Lamp "Model TDP-166F"and TDP-124D should assure that it is used in such and environment.

Emission test   Compliance		Electromagnetic environment-guidance		
RF emissions CISPR 11	Group 1	The "TDP Heat Lamp "Model TDP-166F" and TDP-124D" uses RFenergy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.		
RF emissions CISPR 11	Class B	The "TDP Heat Lamp "Model TDP-166F"and TDP-124D"		
Harmonic emissions IEC 61000-3-2	Class A	is suitable foruse in all establishments, other than domestic and those directly connected to the public low-voltage		
Voltage fluctuations/flicker emissions IFC 61000-3-3	Complies	power supply network that suppliesbuilding used for domestic purposes.		

# A2 Electromagnetic Immunity -For all EQUIPMENT and SYSTEMS

Guidance and manufacture's declaration-electromagnetic immunity

The "TDP Heat Lamp "Model TDP-166F" and TDP-124D" is intended for use in the electromagnetic environment specified below. The customer or theuser of "TDP Heat Lamp "Model TDP-166F" and TDP-124D" should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment -guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±6 kV contact ±8 kV air	±6 kV contact ±8 kV air	Floors should be wood, concrete or ceramic tile. If floor are covered with synthetic material, the relative humidity should be at least 30%.

Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines	±2KV for power supply lines	Mains power quality should be that of a typical commercial or hospital environment.	
Surge IEC 61000-4-5	±1 kV line to line ±2 kV line to ground	±1 kV line to line ±2 kV line to ground	Mains power quality should be that of a typical commercial or hospital environment.	
Power frequency (50/60Hz) magnetic field IEC 61000-4-8	(50/60Hz) magnetic 3A/m		Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.	
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5% UT (>95% dip in UT) for 0.5 cycle 40% UT (60% dip in UT) for 5 cycles	-5% UT (>95% dip in UT) for 0.5 cycle 40% UT (60% dip in UT) for 5 cycles	Mains power quality should be that of a typical commercial or hospital environment. If the user of the TDP Heat Lamp "Model	
	70% UT (30% dip in UT) for 25 cycles <5% UT (>95% dip in UT) for 5 sec	70% UT (30% dip in UT) for 25 cycles <5% UT (>95% dip in UT) for 5 sec	TDP-166F and TDP-124D" requires continued operation during power mains interruptions, it is recommended that the "TDP Heat Lamp"Model TDP-166Fand TDP-124D" be powered froman uninterruptible power supply.	
NOTE UT is the a.c. mains voltage prior to application of the test level.				

# A3 Electromagnetic Immunity -For EQUIPMENT and SYSTEMS that are not LIFE-SUPPORTING

Guidance and manufacture's declaration-electromagnetic immunity

The TDP Heat Lamp "Model TDP-166F and TDP-124D" is intended for use in the electromagnetic environment specified below. The customer or the user of the TDP Heat Lamp "Model TDP-166F and TDP-124D" should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment -guidance
Conducted RF IEC 61000-4-6 Radiated RF IEC 61000-4-3	3 Vrms 150 kHz to 80 MHz 3 V/m 80 MHz to 2.5 GHz	3 Vrms 3 V/m	Portable and mobile RF communications equipment should be used no closer to any part of the "TDP Heat Lamp" Model TDP-166F and TDP-124D", including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance $d=1.2 \ \sqrt{P}$ $d=1.2 \ \sqrt{P}$ 80 MHz to 800 MHz $d=1.2 \ \sqrt{P}$ 800 MHz to 2.5 GHz Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in metres (m). Field strengths from fixed RF transmitters, as determined by an electromagneti should be less than the compliance level in eachfrequency range.b



Interference may occur in the vicinity of equipment marked with the following symbol:

NOTE 1: At 80 MHz and 800 MHz, the higher frequency range applies. NOTE 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless)telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the "TDP Heat Lamp "Model TDP-166F and TDP-124D" is used exceeds the applicable RF compliance level above the "TDP Heat Lamp "Model TDP-166F and TDP-124D" should be observed toverify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the "TDP Heat Lamp "Model TDP-166F and TDP-124D" b Over the frequency range 150 kHz to 80 MHZ, field strengths should be less than 3 V/m.

# A4 Recommended Separation Distances

Recommended separation distances between portable and mobile RF communications equipment

The "TDP Heat Lamp "Model TDP-166F and TDP-124D" is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the "TDP Heat Lamp "Model TDP-166F and TDP-124D" can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the "TDP Heat Lamp "Model TDP-166F and TDP-124D" as recommended below according to the maximum output power of the communications equipment.

Rated maximum	Separation distance according to frequency of transmitter (m)				
output power of transmitter (W)	$d=1.2 \ \sqrt{P}$	80 MHz to 800 MHZ $d=1.2 \ \sqrt{P}$	$d=1.2~\sqrt{P}$		
0.01	0.35	0.12	0.23		
0.1	1.1	0.37	0.73		
1	3.5	1.2	2.3		
10	11	3.7	7.3		
100	35	12	23		

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1: At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies. NOTE 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.



- Please read this manual carefully before using the product.
- Please keep the manual appropriately for future reference.
- This instruction Manual is applicable for the TDP Heat Lamp, "Model TDP-166F and TDP-124D"
- Additional features of the device are highlighted throughout the Manual.
- TDP Heat Lamp is an infrared therapeutic instrument.
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