kywoo3D

Tycoon IDEX

User Manual
使用说明书

V2.2

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kywoo3D

Content 目录

Dear Customers,

Thank you for choosing our products. For a better user experience, please read the instructions carefully before operating the printer. Our team is always be ready to provide you with the best customer service. Please contact us via the email address provided at the end of the manual if you encounter any problem with the printer.

You can also learn how to use the printer in the following ways:

· View the instructions and videos on the supplied TF card;

· Visit our official website www.kywoo3d.com to find relevant firmware / hardware information, contact details and operation and maintenance instructions.

尊敬的开物三维用户：

感谢您选择和使用开物三维的产品，为了您使用方便，请您在使用之前仔细阅读该说明书，并严格按照说明书上的指示进行操作。

开物三维团队时刻准备着为您提供最优质的服务，在使用过程中无论遇到什么问题，请按照说明书结尾所提供的邮箱与我们进行联系。

为了您能够更好地体验我们的产品，您还可以从以下方式获取设备操作知识：

· 您可以在随机附带的TF卡内找到相关使用说明及视频。

· 您还可以登陆开物三维官网www.kywoo3d.com寻找相关软硬件、联系方式、设备操作、设备保养等信息。

I Notes

◆ 1. After unboxing, please check whether the machine is damaged, bent, or scratched, and check the parts against your order. If you have any questions, please promptly contact our after-sales service via the Kywoo 3D official website or the email address provided on the manual.

◆ 2. Do not use the printer for anything other than described herein in order to avoid personal injury or property damage.

◆ 3. Do not place the printer near any heat source or flammable or explosive objects. We suggest placing it in a well-ventilated, low-dust environment.

◆ 4. Do not expose the printer to violent vibration or any unstable environment, as this may cause poor print quality.

◆ 5. Please use the recommended filaments to avoid the blockage of the extruder and damage to the machine.

◆ 6. Do not use any other power cable except the one supplied. Always use a grounded three-prong power outlet.

◆ 7. Do not touch the nozzle or printing surface during operation as they may be hot. Keep hands away from machine while in use to avoid burns or personal injury.

◆ 8. Do not wear gloves or loose clothing when operating the printer. Such clothes may become tangled in the printers moving parts leading to burns, possible bodily injury, or printer damage.

◆ 9. After printing, use the provided tools to clean up any filament on the nozzle while it's still hot. Do not touch the nozzle directly with your hands.

◆ 10. Clean the printer frequently. Always turn the power off when cleaning, and wipe with a dry cloth to remove dust, adhered printing plastics or any other material off the frame, guide rails and wheels. Use glass cleaner or isopropyl alcohol to clean the print surface before every print for consistent results.

◆ 11. Children under 10 years of age should not use the printer without supervision.

◆ 12. This machine is equipped with a security protection mechanism. Do not manually move the nozzle or printing platform while booting up, otherwise the device will automatically power off for safety.

◆ 13. Users shall comply with related national and regional laws, regulations and ethical codes where the equipment or prints produced by it are used, and users of our product shall not use aforesaid products to print any end-use products, objects, parts or components or any other physical prints that violate the national or regional laws, regulations and ethical codes where herein referred product and produced prints by it is located.

II Introduction 设备简介

Gantry Frame 龙门框架

Filament Detector 断料检测装置

Feed-in Knob 挤出旋钮

Nozzle Cleaning Brush 喷嘴清洁刷

Hotbed 热床板

Base Frame 底座

Reset Switch 复位开关

Touchscreen 触摸屏

Storage Card Slot 储存卡卡槽

USB Port USB接口

Nozzle 1 喷头1

Nozzle 2 喷头2

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i Parts List 零部件清单

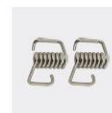| Body｜机身×1	Base Frame｜底座×1	Power Cord 电源线×1	Filament Holder 料架×2	Tempered Glass 晶格玻璃×1	200g Filament 200g耗材×2

ii Tool List 工具包清单

Spade｜铲刀×1	Card Reader 读卡器×1	SD Card SD卡×1	Open-end Wrench 开口扳手×1	Cable Tie｜扎带×5	Limit Switch 限位开关×1	0.4mm Nozzle 0.4mm 喷嘴×2

USB Cable USB 数据线×1	Diagonal Pliers 剪钳×1	Allen Wrench Set 内六角扳手套装×1	PTFE Tube 铁氟龙管×1	Belt Tension Spring 皮带弹簧夹×2	M5×25mm Screw M5×25mm螺丝×4	Nozzle Cleaner｜通针×2 Slotted Screwdriver｜一字螺丝刀×1

ⅲ Parameters 设备参数

Model | 型号	Tycoon IDEX
Molding Tech | 成型技术	FDM
Nozzle Number | 喷头数量	2
Max Printing Size of Single-color Mode 单色模式最大成型尺寸	260mm x 300mm x 350mm
Max Printing Size of Dual-color Mode 双色模式最大成型尺寸	220mm x 300mm x 350mm
Max Printing Size of Duplication Mode 复制模式最大成型尺寸	150mm x 300mm x 350mm
Max Printing Size of Mirror Mode 镜像模式最大成型尺寸	120mm x 300mm x 350mm
Machine Size | 机器尺寸	671mm x 514mm x 760mm
Nozzle Diameter | 喷嘴直径	Standard 0.4mm | 标配0.4mm
Precision | 打印精度	±0.1mm
Filament | 打印材料	PLA,ABS,TPU,PETG,水溶性耗材等| PLA/ABS/TPU/PETG/Water-soluble
File Format | 切片支持格式	STL/OBJ/AMF/G-Code | STL/OBJ/AMF/G代码
Working Mode | 打印方式	SD card/ WiFi | SD 卡/ WiFi打印
Slice Software | 可兼容切片软件	STL,OBJ,3MF
Power Supply | 额定电压	Input | 输入: 100-240V 8A Output | 输出: 24V 17A Max
Total Power | 额定功率	400W
Bed Temp | 热床最高温度	≤110°C
Nozzle Temp | 喷嘴最高温度	≤260°C
Filament Detector | 断料检测	Yes | 支持
Calibration | 调平方式	Auto Leveling | 自动调平
Recommended Printing Speed | 推荐打印速度	50-80mm/s
Net Weight | 机器净重	16kg
Auto Shut-down Function | 自动关机功能	Standard | 标配
Supported Languages | 支持语言	1. English; 2. Spanish; 3. French; 4. Italian; 5. German 1. 英语;2.德语;3.西班牙语;4.法语;5. 意大利语

III Assemble the 3D Printer 组装3D打印机

ⅰ Install the Base 安装底座

①Take the printer out from the package box and pull the Z-axis timing belt slowly to make the Z-axis raise 15cm around, as shown in picture 1.
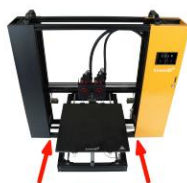
①取出机器,缓慢拉动底部皮带使Z轴上升约15cm,如图1。

②Slide the base through the gantry frame from the front of the body (please make sure the Y-axis motor is at the rear of the body). Next fix the body and the base together using four M5*25mm screws, as shown in picture 2 and 3.

②将底座从机身正面穿过(注意辨别正反,电机在机身后方),在底部使用4颗M5*25mm的杯头螺丝固定,如图2和3。

Screw fixing position
螺丝固定位
螺丝固定位
Screw fixing position

③Connect the Y-axis motor wire and end-stop switch wire, as in pic 4 and 5.

③连接Y轴电机线和Y轴限位开关的线,如图4和5。

④Then connect the hotbed heating wire and thermistor wire, like in picture 6.

④连接热床加热线和热敏电阻线,如图6。

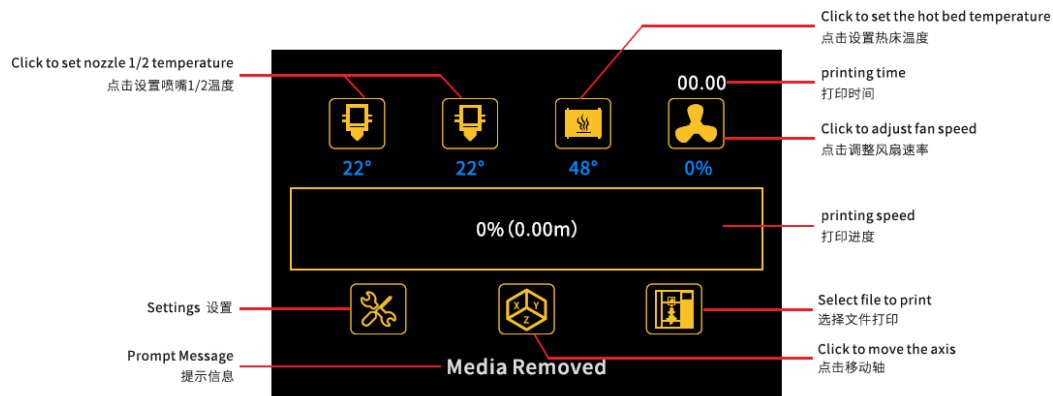⑤As shown in picture 7, fix the filament holder on the top profile, then tighten the T-nuts of the holder.

⑤如图7所示,将料架固定在顶部型材上面,锁紧料架上的T型螺母。

*For the detailed installation, please refer to the installing video on the SD card.
详细安装步骤请参考SD卡内的安装视频。

IV Screen Interface 屏幕界面

Click to set nozzle 1/2 temperature
点击设置喷嘴1/2温度

Click to set the hot bed temperature
点击设置热床温度

printing time
打印时间

Click to adjust fan speed
点击调整风扇速率

22° 22° 48° 0%

0% (0.00m)

printing speed
打印进度

Settings 设置

Prompt Message
提示信息

Media Removed

Select file to print
选择文件打印

Click to move the axis
点击移动轴

V Use the 3D Printer 使用3D打印机

ⅰ Home and Auto-level the Heated Bed 自动回零，自动调平

1. Turn on the 3D printer, click the coordinate box, click " ⊙ → 🏠 " and wait for all the axes homed.
1. 打开3D打印机，点击 ⊙ → 🏠 ，等待机器回零。

2. Click " ⊔ " to auto-level the printer. (Note: the printer needs to be auto-leveled whenever the nozzle or the printing bed is exchanged.)
2. 然后点击"⊔"进行自动调平。(注：更换喷嘴或热床平台后需要重新调平)
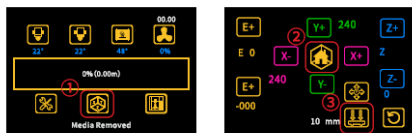
ⅱ Preheat 预热

Back to the home page. Click the "nozzle" and "hotbed" icons above, and adjust the preheating temperature by dragging the slider. For your reference: the preheating temperatures of PLA filament are 200℃ for nozzle, 55℃ for hotbed.
返回主页面，点击上方"喷头"和"热床"图标，通过滑动滑块调整预热温度，PLA材料预热温度为：喷头200℃，热床55℃。
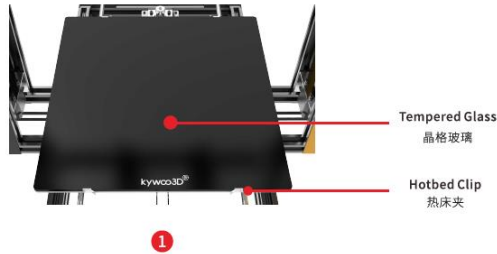
Nozzle1
200

Nozzle2
200

Bed
55

ⅱ Install the Tempered Glass Platform and Connect the Power Cord 安装平台（晶格玻璃）和电源线

①As shown in picture 1, place the glass on the silver-white platform and clamp it with the Hotbed clips.
①如图1，把晶格玻璃放在银白色平台上，用热床夹固定。

Tempered Glass
晶格玻璃

Hotbed Clip
热床夹

❶

②Select the proper input voltage to match your local mains (115/230V), 230V by default. Damage may occur if the voltage is set incorrectly.

②选择合适的输入电压以匹配您的本地电源（115/230V），默认230V。如果电压设置不恰当，可能会造成机器损坏。

③Connect the power cord, first turn the power switch to "I", then press and hold the reset switch for 1-3 seconds, until the display lights up, indicating that the printer has started. Do not disconnect the power cord while the printer is working.

③连接好电源线，首先将电源开关拨动至"I"，然后按住复位开关1-3秒，直到显示屏点亮，表示打印机已启动。打印机工作时，请勿断开电源线。

①

②

ⅲ Load the Filament 安装耗材

When the hotbed and the nozzles reach their set temperatures, lift the Z-axis by 5cm, and pass the filament through the filament detector, then insert it into the extruder and the nozzle. When you see the melted filament flow out from the nozzle, the filament is successfully loaded.
*When loading the filament, please make sure the distance between the Z-axis and the hotbed is beyond 5 cm.

当喷嘴和热床的温度都达到指定温度后，向上抬升Z轴5cm，将耗材通过断料检测，插入挤出机直至喷嘴位置，看到喷嘴处有耗材流出，表示耗材装载完成。
注：装载耗材时请保证Z轴距离平台5cm以上。

Tips: How to Replace the Filament?
1.Cut the old filament just above the extruder and slowly feed new filament in.
2.After the nozzle is preheated, push the old filament down a little way and withdraw it quickly, then feed the new filament in.
注：如何更换耗材？
方法一、在靠近挤出机处将旧耗材剪断，将新耗材缓缓送入，直到耗材被送入导料管为止。
方法二、预热喷嘴后，将旧耗材往前推进，然后迅速抽出，将新耗材送入即可。

iv Adjust Z-axis Offset 调Z轴补偿

Insert the storage card →click [icon] → choose Auto-leveling Test. When printing the first layer, look at how well the model attaches to the hotbed, click [icon] → Probe Z Offset to adjust the z-axis until the model can stick to the hotbed firmly, as shown in the following picture.
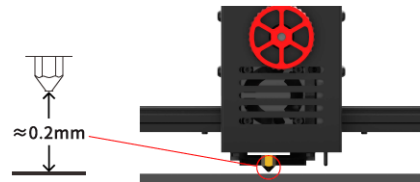
插入存储卡→点击"[icon]" → 选择"自动调平测试"。在打印第一层时，观察模型在热床上的依附情况，点击 [icon] →Probe Z Offset，适当调整Z轴补偿，直至模型能够比较牢固地吸附在热床上，如下图。
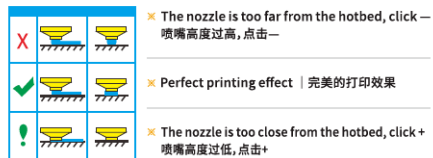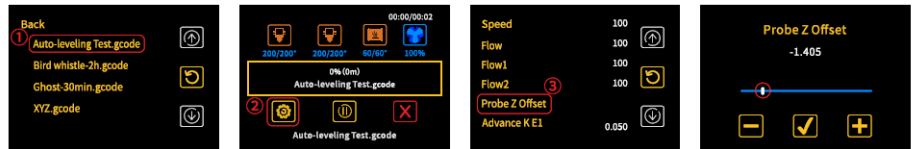
✗ The nozzle is too far from the hotbed, click —
喷嘴高度过高，点击—

✗ Perfect printing effect ｜完美的打印效果

✗ The nozzle is too close from the hotbed, click +
喷嘴高度过低，点击+

≈0.2mm

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v Start Printing 开始打印

Click [icon] →Files→ [icon] Printing would start once you choose a file, then the hotbed and nozzle start to heat in sequence.
During your printing process, you can click " [icon] " to pause or stop the printing, adjust printing speed, and the like. (If the height of the z-axis is found improper, you can enter [icon] →Probe Z Offset to adjust the z-axis again).

点击 [icon] →选择文件→ [icon] 即可开始打印，热床和喷嘴开始依次加热。
打印过程中，点击" [icon] "可选择暂停打印、停止打印、调整打印速度等 (打印开始后如果发现Z轴高度异常，可进入 [icon] →Probe Z Offset再次调整Z轴补偿值)。

1. Click "Print" ｜点击"打印"

2. Choose a file ｜选择文件

3. Confirm the print ｜确认打印

4. Preheating ｜正在预热

5. Printing Menu ｜打印菜单

6. Z-axis Offset ｜Z轴补偿

⚠ When using mirror or duplication mode, users need to add raft to the model when slicing.
复制和镜像模式下打印需添加底座。

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V | **Filament Detection Function** 断料检测功能

When the filament accidentally disconnected or runs out during printing, the printer will make a loud buzz to alert the user, and printing would be paused. The filament detection module is above the extruder. The user needs to use the change filament function to withdraw the original filament, insert the new filament into the extruder, and then click Resume on the screen to continue printing.
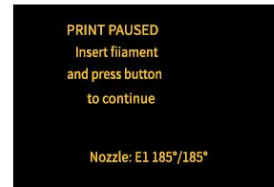
打印过程中耗材意外断开或耗材用完时,打印机会发出很大的蜂鸣声提示用户,并暂停打印。断料检测模块在喷头上方,用户需要使用换料功能将原有耗材退出来,将完好的耗材插入挤出机,然后点击屏幕上的恢复继续打印。

PRINT PAUSED
Insert filament
and press button
to continue

Nozzle: E1 185°/185°

| Normally printing 正常打印中 | Filament disconnected, the printer buzzes 耗材断开,机器发出蜂鸣声 | The screen shows printing paused 屏幕显示暂停 |

Resume Printing: If power is interrupted during printing, the printer will prompt whether to continue the print when the power supply is resumed.

断电续打: 若打印机在打印过程中断电,恢复供电后,打印机将提示是否继续打印。

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VI | **Frequently Asked Questions** 常见问题解答

Q: How to flash the firmware?
A: 1.Download the corresponding firmware file on the Kywoo official website (www.kywoo3d.com).
2. Copy the file to the SD card.
3. Insert the SD card into the machine, press and hold the reset switch on the side of the printer until it enters the home page.

Q: White screen or poor display?
A: 1.Check whether the LCD ribbon cable is loose.
2. Flash the firmware again; if the issue cannot be solved, please contact our customer support(service@kywoo3d.com).

Q: The file name is garbled and cannot be read?
A: 1. Modify the file name to a number or English format.
2. Re-slice the model file.

Q: The nozzle cannot be heated?
A: 1. Check whether the nozzle harness is loose.
2. Check whether the current temperature of the nozzle is normal; if it is abnormal, the nozzle thermistor is damaged.
3. If the current temperature is normal, the heating tube is damaged.

Q: The hotbed cannot be heated?
A: 1. Check whether the wiring harness under the heating bed is loose.
2. Check whether the current temperature of the hotbed is displayed normally; if it is abnormal, the hotbed thermistor is damaged.
3. If the current temperature is normal, the hotbed plate is damaged.

Q:如何更新固件:
A:1、在开物官网(www.kywoo3d.com)下载对应固件
2、将下载的文件拷贝到SD卡中
3、将SD卡插入机器,长按机身侧面复位开关直到进入主页面即可

Q:白屏或显示不良:
A:1、检查屏幕排线是否松动
2、重新更新一下固件,若无法解决请联系售后人员

Q:文件名乱码,无法读取
A:1、将文件名修改为数字或英文格式
2、重新切片

Q:喷嘴无法加热
A:1、检查喷嘴线束是否松动
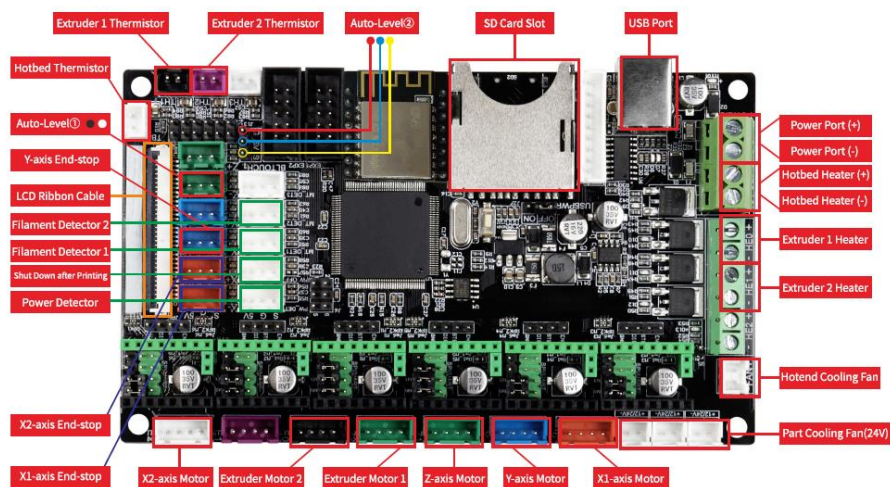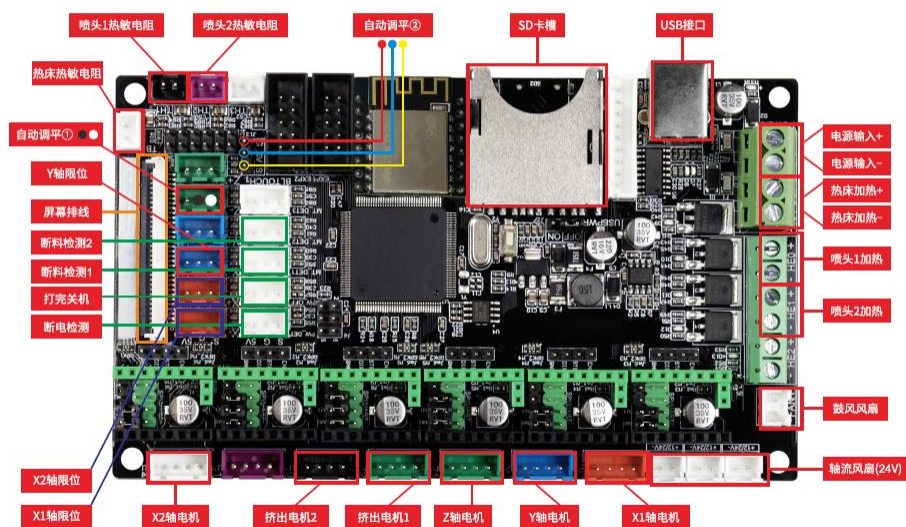2、查看喷嘴当前温度是否显示正常,若异常则为热敏电阻损坏
3、当前温度显示正常,则为加热管损坏

Q:热床无法加热
A:1、检查热床下方线束是否松动
2、看热床当前温度是否显示正常,若异常则为热敏电阻损坏
3、当前温度显示正常,则为热床板损坏

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VII Mainboard Information 主板信息

Extruder 1 Thermistor
Extruder 2 Thermistor
Auto-Level②
SD Card Slot
USB Port

Hotbed Thermistor

Auto-Level①

Y-axis End-stop

LCD Ribbon Cable

Filament Detector 2

Filament Detector 1

Shut Down after Printing

Power Detector

Power Port (+)
Power Port (-)
Hotbed Heater (+)
Hotbed Heater (-)

Extruder 1 Heater

Extruder 2 Heater

Hotend Cooling Fan

X2-axis End-stop

Part Cooling Fan(24V)

X1-axis End-stop
X2-axis Motor
Extruder Motor 2
Extruder Motor 1
Z-axis Motor
Y-axis Motor
X1-axis Motor

喷头1热敏电阻
喷头2热敏电阻
自动调平②
SD卡槽
USB接口

热床热敏电阻

自动调平①

Y轴限位

屏幕排线

断料检测2

断料检测1

打完关机

断电检测

电源输入+
电源输入-
热床加热+
热床加热-

喷头1加热

喷头2加热

鼓风风扇

X2轴限位

轴流风扇(24V)

X1轴限位
X2轴电机
挤出电机2
挤出电机1
Z轴电机
Y轴电机
X1轴电机

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.

-- Increase the separation between the equipment and receiver.

-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-- Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.