YIHUA

预热台、热风枪、焊台组合

Preheating Station/Hot Air Reworks & Soldering Station Combination

使用说明书 INSTRUCTION MANUAL

853系列 (Series)

中文/English

声明：本公司保留改进升级产品的权利，产品规格及设计如有变更，恕不另行告知。
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YIHUA

感谢您购买此款产品，本产品是专门为无铅拆焊而设计的，使用前请仔细阅读本说明书，阅读后请妥善保管，以供日后参考。

Thank you for choosing this type of product. The product is designed for soldering and unsoldering without lead. Please read the User Guide thoroughly before use, and keep it in a safe place for future reference.

安全守则

使用本机器，下列基本措施要遵守，以免触电或对人体造成伤害，避免火灾等现象的危害。

1、为了确保人身安全，该机器工作完毕后，请关闭机器总电源开关，长期不使用请拔掉电源线!!!

2、必须使用原厂认可或推荐的零件，否则将导致严重后果。

3、机器故障必须由专业人士或本公司指定人员进行维修。

4、本产品使用三线接地插头，必须插入三孔接地插座内，不要更改插头或使用未接地三头适配器而使接地不良。

5、机器开启后请确保处于安全状态，并切勿离开工作岗位。

6、切勿在易燃、易爆气体、物体附近使用!!

7、机器开启后，其温度都有可能达到400°C以上，切勿触及预热盘附近的机箱、铝网。

8、切勿触及风枪金属部分，热风枪喷管及喷出的热气都十分炎热，切勿以热气直接喷向人体，有灼伤人体的危险。(853AA /853AAA)

9、请保持风枪进/出风口畅通，不能有堵塞物。(853AA /853AAA)

10、切勿触及烙铁金属部分，高温危险!!(853AAA)

11、切勿使用烙铁进行焊接以外的工作；切勿将烙铁敲击工作台面以清除焊剂残余，此举可能严重损坏烙铁。(853AAA)

12、更换部件时必须拔掉电源插头，并冷却至室温后方可进行。

13、请将热风枪手柄放回手柄架，机器进入休眠后再关机。(853AA /853AAA)

14、焊接时会冒烟雾，请做好应有的通风设施。

15、使用后，切记要冷却机身。

警告

1、如果电源线损坏，为了避免危险，必须有制造商或维修部分的专业人员进行更换。

2、本工具不使用时必须放置在它的支架上。

3、在有易燃材料的地方使用本器具时要小心；不要长时间在同一地方使用本器具。

4、要意识到热可能传递到远处的易燃材料；器具接通时需有人照看。

5、器具不能由存在肢体、感官或精神能力缺陷或缺少使用经验和知识的人(包括儿童)使用，除非有负责他们安全的人对他们进行与器具使用有关的监督或指导；应照看好儿童，确保他们不玩耍本器具。

一、用途

1、适合拆焊和焊接BGA、SOIC、CHIP、QFP、PLCC等封装贴片IC，特别适合BGA模块、电脑主板南北桥、手机主板各类贴片IC及LED灯的拆焊。

2、可用于热收缩、烘干、除漆、解冻、预热、焊接等。

二、产品特点

853A

1、采用微电脑处理器PID程控控温技术，程序以每20毫秒为周期检测发热体实际温度，并进行快速校正。回温迅速，温度稳定。采用LED显示屏，精确显示预热台/风枪/烙铁温度。

2、预热台是采用具有高热效应的釉层，热震性能良好的陶瓷作为基体，高质量的镍铬合金丝一次烧结而成。它具有热效应高、整体性好、热稳定性好、发热均匀、绝缘强度高、清洁卫生、安装方便等特点。

3、853系列预热台使用且操作简单，卡板的滑动支架采用轴承技术，来回移动自如耐用，卡板方便，同时配上固定滑动支架螺丝，卡板稳固可靠。

853AA

1、继承853A特点，风枪发热芯采用陶瓷发热芯，发热丝稳固缠绕在陶瓷骨架上，发热迅速且均匀。采用升级版风机，风量比普通风机大，螺旋出风，使用寿命长!

2、机器各部分器件设有自我检测功能，全智能的超温、短路、开路、过载等故障显示和保护功能。

3、**温度校正功能：**适应于由于环境影响或更换发热芯、烙铁头等零配件引起的实际温度与显示温度出现偏差，可通过此功能校正，校正温度范围：-50°C~+50°C。

4、**华氏/摄氏显示温度功能：**为满足不同地区的市场要求需要而设计的温度显示模式，可根据习惯兴趣选择。

853AAA

继承853AA特点，增加4大人性化功能

1、数字温度校正功能：适应于由于环境影响或更换发热芯、烙铁头等零配件引起烙铁温度与显示出现偏差，可以通过此功能进行校正。

2、风枪手动/自动功能：

A、当选择自动功能时，风枪手柄放回手柄架时，机器自动切断发热体降温，有效的提高发热体的使用寿命，节能环保。再次开机安全系数极高，可有效防止在未知的情形下开机，热风枪搁置在其他地方而引起的火灾或其他安全事故。

B、选择手动功能，风枪放回手柄架后风枪不会降温，很适合频繁操作风枪，可省去降温和升温时间，提高工作效率。建议在使用手动功能状态工作完毕切换回自动功能状态，提高安全性！

3、风枪无风保护功能：使用热风枪过程中非正常停风，发热丝停止加热，防止无风烧手柄，大大提高产品安全性能。

4、增加电烙铁功能：烙铁部分采用进口发热芯，升温迅速，温度稳定，使用寿命长。防静电设计，防止静电损坏娇嫩的SMD元件。

三、规格参数

型号	853A	853AA	853AAA
最大功率	500W	1200W	1270W
电源电压	AC 110V ±10% 60Hz/AC 220V~240V 50Hz		
外尺寸	L250xW220xH90mm ±5mm	L320xW220xH100mm ±5mm	
重量	3.1kg	4.5kg	5.6kg
工作环境	0~40°C/32~104°F		
储存环境	-20~80°C/-4~176°F		
储存湿度	35%~45%		
预热台			
温度范围	50~300°C或50~400°C/122~572°F或122~752°F		
温度稳定度	±2°C（静态）		
显示形式	LED		
面积	120x120mm		
风枪部分			
气流类型	无	无刷风机柔和风	
风机风流量		120L/min	
温度范围		100°C~480°C	
温度稳定度		±1°C（静态）	
显示形式		LED	
手柄线长		≥100cm	
电烙铁部分			
温度范围	无		200°C~480°C
温度稳定度			±1°C（静态）
焊咀对地电压			<2mV
焊咀对地电阻			<2ohm
显示形式			LED
手柄线长			≥100cm

四、性能对照表

性能 \ 型号	853A	853AA	853AAA
功能组成	预热台	预热台+热风枪	预热台+热风枪+焊台
显示形式	LED显示	LED显示	LED显示
华氏/摄氏转换	无	有	有
温度校正	无	有	有
高温保护	有	有	有
送风类型	无	风机	风机
控温方式	数字PID	数字PID	数字PID
风枪手动/自动	无	无	有

五、使用操作

预热台部分

1、853A:

A、将预热台摆放好，接上电源。

B、移动支架卡板，将需要预热的元件置于预热盘上方，拧紧移动支架上的4颗螺丝，固定需要预热的元件。

C、将加热开关打开，预热盘开始加热，设置合适的温度，待温度稳定后便可进行预热工作。

2、853AA/853AAA:

A、将预热台摆放好，接上电源。

B、移动支架卡板，选择合适的方位将需要预热的元件置于预热盘上方。注意支架上有三个卡板口，通常使用下面的卡口，需要预热的元件离发热盘远一点，预热温度低一点。

C、打开机箱后面的总开关，再打开预热台开关，预热盘开始加热，设置合适温度便可正常进行预热工作。

D、预热台、热风枪、焊台灵活组合利用。预热台、热风枪、焊台三个功能是独立的，可以关闭不需要用到的功能，节省电能。

风枪部分（853AA/853AAA）

1、机器摆放好，把手柄架装在机箱侧面，风枪支架安装在机箱后面，把手柄放在风枪支架上。

2、打开机箱后面的总开关，打开风枪开关，风枪开始加热，按风枪温度加按键“▲或🡅”和减按键“▼或🡇”设置温度，调节调风旋钮设置合适的风量，待风枪工作指示灯有规律高速闪动，温度稳定后便可正常作业。

3、工作完毕后，关闭风枪开关，机器自动切断风枪加热体电源，进入冷却发热体模式。当温度低于100°C后，风枪显示窗熄灭并停止送风。

焊台部分（853AAA）

1、将烙铁连接好，将手柄放在烙铁架中。

2、打开烙铁电源开关，发热丝开始加热，按烙铁温度加按键“🡅”和减按键“🡇”设置合适温度，当烙铁工作指示灯有规律高速闪动进入恒温状态后便可正常作业。

3、工作完毕后，可高温清洁海绵清理烙铁嘴上的残留物，重新镀上一层新锡，将烙铁放入烙铁架中，就可以关闭电源了。

附：技术篇-返修过程（仅供参考）

风枪配合预热台，方便大型扁平集成电路IC、双面板大型元件拆焊。

●取下元件

1、成功的返修首先是将母板上故障位置的元件拆卸，将焊点加热到熔点，然后小心地将元件从板上拿下。

2、加热控制是返修的一个关键因素，焊料必须完全融化，以免在取走元件时损伤焊盘及铜皮。同时温度不能过高，防止电路板加热过度而造成母板扭曲。

●线路板和元件加热

1、先进的返修系统采用微电脑控制加热过程，使之与焊膏制造商给出的规格参数尽量接近，并且应采用顶部和底部组合加热的方式。

2、底部加热用以补充电路板因传导流失的热能，同时可升高电路板的温度；而顶部加热则用来加热元件，另外使用大面积底部加热器可消除因局部加热过高而引起的电路板扭曲。

3、可以用三种方法对母板加热、即传导、对流、和热效应。传导加热时热源与母板相接触（例如电热板），这对背面有元件的线路板不适用 。

4、元件加热（或成顶部加热）一般采用对流气喷嘴，仔细控制顶部加热，使元件均匀受热，是极为重要的，特别是对小质量元件尤为关键（如图1）。

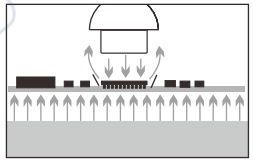


图1

5、另外要注意避免返修工位附近的元件再次回焊或吹跑小贴片元件，喷嘴喷出的热气流必须与这些元件隔离，可以在返修工位周围的元件上放一层薄的遮板或者掩膜。掩膜技术相当有效，不过比较模范费时。也可以采用专用的BGA拆焊风嘴，它可以减小拆焊过程中对拆焊元件的附近元件和电路板的损坏。

六、功能设置说明

温度校正功能

1、853AA

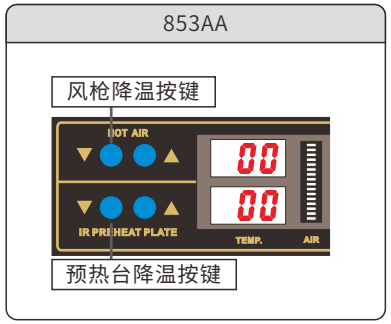
在开机情况下，同时按下风枪、预热台降温按键3秒，这时预热台和风枪显示窗口显示出厂默认校正温度“00”， 如需校正预热台或热风枪或电烙铁的工作温度，可按各自的升降温按键校正。（校正范围：-50℃~+50℃）。 设置好4秒后，程序自动记忆并退出，显示窗显示工作温度，设置完成。

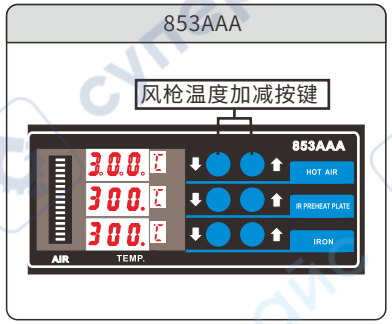
2、853AAA

A、风枪、烙铁、预热台恒温后，同时按下温度加减键2秒， 显示屏显示设置温度，同时三个小数点亮。

B、按温度加减键输入测量温度。

C、同时按下温度加减键确定，程序自动校正温度并退出校正状态。



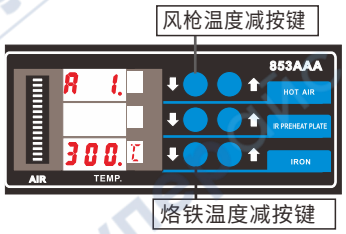


风枪手动自动功能切换（853AAA）

1、打开风枪和烙铁开关。

2、同时按下风枪温度减、烙铁温度减按键2秒，显示屏显示“A1”，为自动状态（A0为手动状态）。

3、按风枪温度加减键设置手动或自动状态。停止操作3秒退出设置状态，设置完成。



华氏/摄氏转换功能

1、853AA

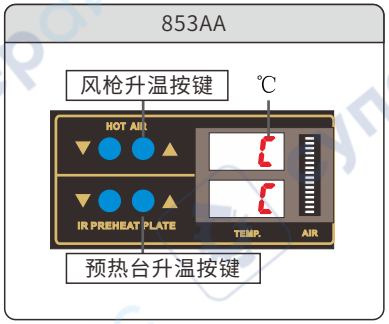
在开机的情况下，同时按下风枪、预热台升温按键3秒，这时853AA温度显示窗口显示“C/F”，然后按风枪和预热台升温按键设置摄氏或华氏显示状态。设置好4秒，程序自动记忆并退出，设置完成。

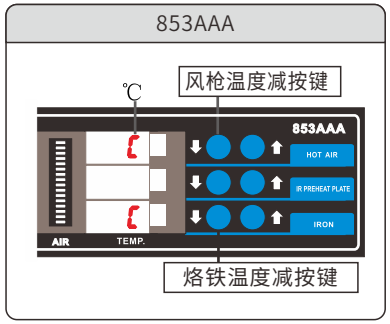
2、853AAA

A、打开风枪和烙铁开关

B、同时按下风枪温度减、烙铁温度减按键2秒，显示屏显示“A1”。

C、按烙铁温度加或减键，显示屏显示“C”，按风枪温度加减键设置华氏或摄氏显示，停止操作3秒退出设置状态，设置完成。





七、提示符号说明

1、显示“---”，表示出风口温度低于100℃，拆焊台进入待机状态，手柄搁置在手柄架上。

2、显示“S-E”，表示烙铁、风枪的传感器组件有问题，或未插上手柄，需要更换发热体（发热材料及传感器组件）。

3、显示“F-1/F-2”，表示风枪无风保护，需要检查风机和风枪供电电路。

八、使用须知

1、请保持风枪出风口畅通，不能有阻塞物。
2、工作完毕后，把风枪手柄放在手柄架上，关闭风枪开关，让机器自动冷却至显示“---”后关闭电源总开关。
3、在使用机器标配的喷嘴以外的更小喷嘴时，必须要将风量调为最大，使用较低的温度并在短时间内使用，避免长时间使用损坏风枪。
4、根据工作需求，选用合适的风嘴，不同的风嘴，温度可能略有差别，出风口与物件之间距离最少是2mm。
5、当烙铁初次使用时，要注意检查烙铁升温情况，待其温度刚刚能熔化锡丝时，在烙铁嘴上镀上一层锡再将温度调到所需温度。
6、烙铁头温度不宜过高，温度过高会减弱烙铁头功能。间隔不使用时，可将温度调低。
7、应定期使用耐高温清洁海绵清理烙铁头，使用后抹净烙铁头，镀上新锡层，以防烙铁头氧化。
8、预热盘非防水性结构，因此存放及使用安装时勿与油、水、塑胶粒接触，以防止漏电及其他安全隐患。
9、预热盘应避免被用力敲击或用硬物相撞造成瓷砖断裂、合金电阻丝外露而影响操作寿命。
10、预热盘勿长时间高温使用，防止机箱过热。

特别说明：
尊敬的用户您好！因机器风枪和烙铁手柄采用的是高强度不锈钢钢管，在生产过程中机器必须在正常工作状态通过四次检验或校准，钢筒因高温会出现轻微变黄！当新机拆开使用时发现钢筒处有轻微变黄，此为正常现象，请放心使用！

九、注意事项

1、装置喷嘴时勿使劲装置喷嘴，或用钳子拉动喷嘴边缘，勿使劲紧栓螺丝。
2、装置喷嘴时必须在发热管与喷嘴都冷却时，才能装置喷嘴。
3、切勿触摸发热管，或以热气直喷脸部，有灼伤人体的危险。启动初时，可能会冒出白烟，此属正常现象，稍后此现象会消失。
4、更换发热体时，小心不要损坏接地线！！
5、更换时注意连接线的顺序以及颜色，不能接错！！
6、请更换同一型号的发热体或发热芯！！

十、可换组件说明

风枪发热体的更换（图2）

1、更换发热体必须在风枪冷却后方可进行。
2、如图，松开手柄上的2颗固定螺丝.
3、旋出手柄组件，再将手柄壳取出。
4、轻轻移出风机，取出固定接线板的3只螺丝。
5、将接线板反过来，从接线板上拆开发热体的连接线，注意其连接位置。
6、从钢管中取出发热体与包住发热体的云母纸，注意不要弄断钢管上的接线。
7、用云母纸包装好新的发热体，将其插入钢管中，注意发热体要安装到位。
8、按照原先的位置连接发热体的各连接线。
9、按拆开时的相反程序回装好手柄。

烙铁发热芯和烙铁头的更换（图4）

1、旋出螺母1，再将钢管2取出，这时就可以取下烙铁头进行更换了。
2、如需更换烙铁发热芯可继续旋出螺纹头4，拔出烙铁发热芯6和线路板 7，要注意弹簧5的连线。
3、将烙铁发热芯从线路板上焊下，更换新的发热芯，装好即可。注意烙铁引线的连接顺序。

预热盘的更换（图3）

1、拆开机盖1
2、旋开螺丝2
3、取下预热支架
4、拉出卡子
5、取出预热盘

Safety Rules

Using this machine, the following basic measures to abide by, in order to avoid electric shock or cause harm to human body.

1. **In order to ensure the personal safety, the machine work has been completed, please close the total power switch to the machine, not use for a long time please unplug the power cord!**
2. You must use the original approved or recommended by parts, otherwise will lead to serious consequences.
3. Machine failure must be by professionals or the company designated personnel for repair.
4. This product use three-wire grounding plug, grounding must be inserted into the three hole socket, don't change the plug or make with three head off ground adapter and make bad earth.
5. Please make sure that in the safe state, the machine open, and do not leave work.
6. Do not use the machine near flammable, explosive gas, objects!!
7. After machine open, its temperature can reach 400°C above, do not touch the preheating plate near the chassis, aluminum mesh.
8. Do not touch the air pressure gun metal parts, heat gun nozzle and jet of hot air is very hot, don't treat the heat directly spray to the body, is in danger of burn the body. (853 AA/AAA)
9. Please keep the air pressure gun inlet/outlet flow, there can be no blockages. (853AA/AAA)
10. Do not touch the iron metal parts, high temperature dangerous! (853AAA)
11. Do not use the soldering iron welding outside of work; Don't do the soldering iron percussion work surface to remove fluxes residual, a move that could seriously damage the iron. (853AAA)
12. When the replacement parts must pull the plug, and cool to room temperature rear can be carried out.
13. Please put back to handle the heat gun handle frame, machine into sleep again after power off. (853 AA/AAA)
14. Welding will emit smoke, please get proper ventilation.
15. After use, remember to cooling the fuselage,

WARNING!

1. If the supply cord is damaged, it must be replaced by a special cord or assemble available from the manufacturer or its service agent.
2. WARNING: This tool must be placed on its stand when not in use.
3. Be careful when using the appliance in places where there are combustible materials; Do not apply to the same place for a long time.
4. Be aware that heat may be conducted to combustible materials that are out of sight; Do not leave the appliance unattended when it is switched on.
5. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge. Unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

I. General Usage

1. Suitable for de-soldering and soldering BGA, SOIC, CHIP, QFP, PLCC package SMD IC, particularly suitable for de-soldering BGA module, computer mother board north and south bridge, all kind of mobile phone motherboard SMT IC and LED lights.
2. Shrinking, paint drying, adhesive removal, thawing, warming, plastic welding etc.

II. Feature

853A

1. Using microcomputer processor PID programmable temperature control technology, the program cycle every 20 milliseconds to detect the actual temperature of the heating element and a quick correction, rapid return temperature, temperature stability LED display, precise preheating station, air gun and soldering iron temperature.
2. Preheating station is to use a glaze layer having a high thermal effect, good thermal shock resistance of the ceramic as the substrate, high-quality nickel branded alloy wire once sintering. It has a high thermal effect, overall good, good thermal stability, uniform heating, high dielectric strength, clean, easy to install and so on features.
3. 853 series preheating station practical and easy to operate,the card plate sliding bracket bearing technology, to move around durable, convenient card board, coupled with a fixed sliding bracket screws at the same time, the card board is solid and reliable.

853AA

1. Inherite the characteristics of the 853A that the air gun heating element is made of ceramic heating core, and the heating wire is tightly wound on the ceramic skeleton with rapid and uniform heating. With the upgraded version of the fan, air volume is stronger than the ordinary fan and the service life is longer with spiral wind.
2. The machine has a self-test function full intelligent over-temperature, short-circuit, overload and fault display and protection functions.
3. **Temperature correction function:**
   Or replace the heating elements, soldering iron tips etc. Spare parts caused by temperature deviation, can use this function calibration temperature. The correction temperature range is -50°C~+50°C.
4. **Celsius/Fahrenheit temperature display function:**
   Meet different market needs to design the temperature display mode, you can choose under customary interest.

853AAA

Inherite the characteristics of the 853AA, add 4 humanized function:

1. **Digital temperature correction function,** the soldering iron temperature and display temperature deviation which caused by the environmental impact or replacement of heating element, iron tips and other spare parts, you can use this function to correct.
2. **Air gun manual / automatic function:**
   A. When choosing the automatic function, put the gun handle back on the holder, the machine automatically cut off the heating up and cooling, its effectively improve the heater service life and energy saving, good for environmental protection and high safety factor. can be effective to avoid hot air gun handle caused by fire or other accidents.
   B. When choosing the manual function, when the gun handle back on the holder ,that the gun is not cool and keep in work. Its very suitable for frequent operation and save cooling and heating time to improve work efficiency, it is recommended to use the manual function status was finished, please switching back to the automatic function to improve safety!
3. **The air gun without wind protection function,** when the air gun stop sending wind abnormally ,during the using process, the heating element will stop heating to prevent burn the handle in the windless condition. It is greatly improving the product safety.
4. **Add to soldering iron function**, iron part used imported heating elements, heating up quickly, the temperature is stable, long service life. Anti-static design to prevent static damage to delicate delicate SMD components.

III. Specification

Model	853A	853AA	853AAA
Power supply voltage	AC 110V ±10% 60Hz/AC 220V~240V 50Hz		
Power	⩽500W	⩽1200W	⩽1270W
Size	L250xW220xH90mm ±5mm	L320xW220xH100mm ±5mm	
Weight	3.0kg	4.5kg	5.6kg
Work environment	0~40°C/32~104°F		
Storage environment	-20~80°C/-4~176°F		
Store humidity	35%~45%		
Preheating station			
Temperature Range	50~300°C or 50~400°C / 122~572°F or 122~752°F		
Temperature Stability	±2°C (static)		
Display Type	LED		
Area	120x120mm		
Hot Air Reworks			
Airflow type	NO	Brushless fan gentle wind	
Fan air flow		120L/min	
Temperature Range		100°C~480°C	
Temperature Stability		±1°C (static)	
Display Type		LED	
Handle cable length		⩾100cm	
Soldering Iron			
Temperature Range	NO		200°C~480°C
Temperature Stability			±1°C (static)
Tip of ground voltage			<2mV
Tip ground impedance			<2ohm
Display Type			LED
Handle cable length			⩾100cm

IV. Performance Comparison Table

Function \ Model	853A	853AA	853AAA
Functional components	Preheating station	Preheating station +Hot air reworks	Preheating station +Hot air reworks+ Soldering station
Display type	LED	LED	LED
Fahrenheit/Celsius Conversion	NO	YES	YES
Temperature correction	NO	YES	YES
High temperature protection	YES	YES	YES
Gun Type	---	Brushless fan	Brushless fan
Control Temperature way	Digital PID	Digital PID	Digital PID
Air gun manual / automatic function	NO	NO	YES

V. Operation

Preheating station part

1. 853A:

A. Preheating station laid out plugged power cord.

B. Move bracket card board, preheat element is placed above the plate, tighten the four screws on the bracket, fixed need to preheat components.

C. Turn on the heating switch, the preheat plate heating, set the appropriate temperature can be preheated.

2. 853AA/853AAA:

A. Preheating station laid out plugged power cord.

B. Move bracket card board, select the appropriate orientation preheat components placed above the preheat plate. Note that bracket above three card board ports, usually use the below one you need to preheat the components from the hot plate preheat temperature is a little lower.

C. Open the master switch, then open the preheat plate switch set the appropriate temperature can be preheated.

D. Preheat station, hot air reworks, soldering station can flexibility combination to use. Preheat station, hot air reworks, soldering station three functions are independent, you can turn off no need part to save energy.

Hot air reworks part (853AA/853AAA)

1. The hot air gun rework station is laid out handle frame is installed on the side of the chassis,air gun bracket rack installed in the back of the chassis, fixed to the handle in the air guns handle frame.
2. Open the back of the chassis whole switch, open air gun switch, air gun begin heating, press air gun temperature plus button " ▲ or ⬆ " and minus buttons " ▼ or ⬇ " to set temperature, adjust the airflow knob to set the appropriate airflow, gun indicator regularly flashing means the temperature stability will be able to normal operation.
3. After work, turn off the air gun switch, the machine automatically cut off the air gun heating body the power to enter the cooling heating element mode. When the temperature is below 100°C, the air gun display window goes off and stop the wind.

Soldering station part (853AAA)

1. The soldering iron handle on the iron holder.
2. Open the soldering iron power switch, heating elements begin to heating, press soldering iron temperature plus button " ⬆ " and minus buttons " ⬇ " to set the appropriate temperature, when the soldering iron work indicator regular flash at high speed into the thermostat state can work properly!
3. After work, you can use the residue under high temperature cleaning sponge cleaning up the soldering iron tips and re-coated with a new layer of solder, the soldering iron into the iron hp; der can turn off the power!

Attached:technical article-Rework the process(for reference only)

Air gun with preheating station, to facilitate the large flat IC,dual-panel large components de-soldering.

Remove the components:

1. The successful rework first removal location of the fault on mother board, and the solder is heated to the melting point, and then carefully scored the components from the board.
2. Heating control is key factor in the rework, the solder must be fully melted, so as to avoid injury in the removed component plate and copper. While the temperature is not too high ,to prevent the circuit board is heated excessively caused motherboard distorted.

PCB and component heating:

1. Advanced rework system uses a microcomputer to control the heating process, with solder paste manufacturer specifications given parameters as possible, and using a combination of the top and bottom of heating.
2. Bottom heating to complement the board due to pass of heat, while elevated board temperature; The top heating is used heating components, in addition the use of coders bottom heater can be eliminated due to local over - heating the circuit board caused by distortions.
3. Motherboard heating can be used three methods, namely conduction, convection, and thermalefferma effects. Conduction heating when the heat source with the motherboard contacts (for example, using a hot plate), which on the rear components of the circuit board not applicable(NA).
4. Components heating (or top heating) generally use a convection hot air nozzles, careful control of top heating components uniformly heated is extremely important , especially for small quality components is particularly critical (Figure 1).

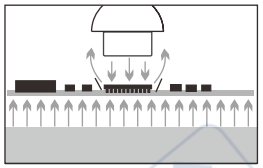


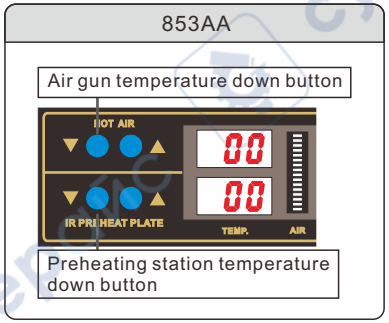
Figure 1

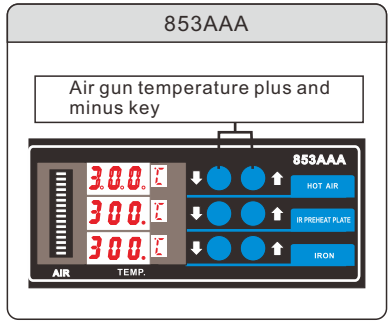
5. Pay attention to avoid rework station nearby components reflow or blow away small chip components, the hot gas stream discharged by the nozzle must be isolated with these elements, the thin layer of shielding plate or the mask can be put in the surrounding components of the reword station. Mask technology is quite effective,but more trouble consuming, but can be used dedicated BGA rework nozzles, it can reduce the damage to the components in the vicinity of the demolition components and circuit boards in the process of unsoldering.

VI. Description For Function Setting

Digital temperature correction function

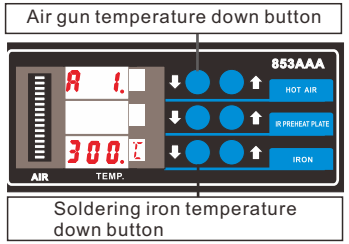
1. **853AA**
   In the case of shutdown, to press the air gun and preheat the reduce button for 3 seconds, then preheat window will show the factory default the correction temperature“00”,If need to correct the working temperature of the preheating station, or not air gun soldering iron, you can press increase button or reduce button to make compensation of the respective temperature (compensation range: -50°C~50°C). After 4 seconds, the program and exit the automatic memory, display windows shows working temperature, the setting is completed.
2. **853AAA**
   A. After air gun ,soldering iron and preheating station temperature is stable, pressing the temperature plus and minus key at the same time for 2 seconds, the LED display screen display setting temperature, at the same time 3 digit lighting.
   B. Press the temperature plus and minus key to input the measured temperature.
   C. Press the temperature plus and minus key at the same time to make sure, the program automatically correct the temperature and exit the correction state.





Air gun manual / automatic conversion function (853AAA)

1.Open the air gun and soldering iron switch.
2. Pressing the air gun temperature minus key and iron temperature minus key at the same time for 2 seconds, the display shows “A1”, for the automatic state (A0 for the manual state).
3. Pressing the air gun plus key or minus key to set the manual state or automatic state. No operation for 3 seconds to exit the setting state, the setting is completed.



Celsius/Fahrenheit display the conversion feature setting (853AA/853AAA)

1. 853AA

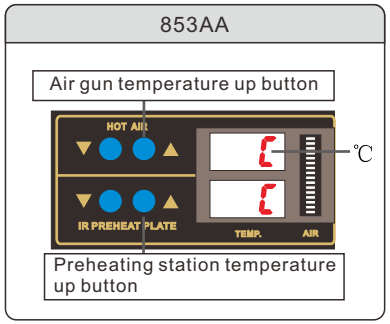
In the case of shutdown, pressing the air gun and the preheating station ▲ button for 3 seconds, then the temperature display window shows“C or F”, then pressing air gun and preheat station ▲ button to set the status of Celsius or Fahrenheit, after set 4 seconds and the program is automatically memory setting and exit, the setting is completed.

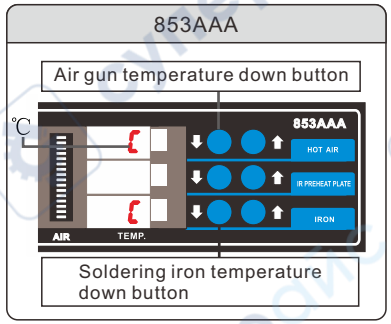
2. 853AAA

A. Open the air gun and soldering iron switch.

B. Pressing the air gun temperature minus key and iron temperature minus key at the same time for 2 seconds, the display shows “A1”.

C. Pressing the soldering iron temperature plus key or minus key, the display shows “C”, press the air gun temperature plus key or minus key to set the Fahrenheit or Celsius display, stop operation 3 seconds to exit the set state, set to complete.





VII. Display Notes

1. When the LED digital displays “---”, it means the outlet temperature is below 100°C; the hot air rework station is standby mode, and the handle is placed on the handle’s rack.
2. When the LED digital displays”S-E”,it means the Soldering iron and Hot air rework’s sensor is having a problem or handle is un-plugged,if this the case it needs to replace the heating element (heating core’s element and sensor components).
3. Show “F-1 / F-2”, t mean the air gun without wind protection, need to check the fan and air gun power supply circuit.

VIII. Use Notice

1. Please ensure the outlet is clear,must free from any blockages or obstructions.
2. After the work is completed, put the air gun handle on the frame,turn off air gun switch , the machine automatically cooled to display “---” , then turn off the whole device power switch in the back of the chassis.
3. When using the machine standard nozzles other than the smaller nozzle, must set air volume to the maximum, avoid long time use damage the air gun.
4. In regards to the usage requirements, choose the appropriate Hot air flow, different Hot air flow will cause the temperature to be slightly different, and please maintain the distance between the outlet and the object must be at least 2mm.
5. When the iron is used for the first time, please pay attention to check the iron tip warming condition, when the tip can melt the tin wire, please plate some tin on tip, then adjust to the desired temperature.
6. The tip temperature should not be too high,too high temperature would weaken the tip function. When interval using ,can lowering the temperature.
7. Should be regularly use clean sponge to clear soldering tip, after finish use, should wipe clean soldering iron tip, plate new tin to prevent soldering iron tip oxide.
8. Preheat plate non-turn on the water structure, therefore, do not install the storage and use of contact with oil, water, and plastic pellets to prevent leakage and other security risks.
9. The preheat plate should avoid being forced to tap or hard objects collided causing tiles fracture, alloy resistance wire exposed affect the operating life.
10. The preheat plate DO NOT for prolonged use,and prevent chassis overheating.

Special Instructions:

Dear User! Our air gun and soldering iron handle adopt high strength stainless steel tube, the machine must be inspected or calibrated four times in normal working condition during the production process, the copper tube could be slight yellowing due to high temperature! When use the new machine first time, it is normal that the steel tube at tube at a slight yellowing, please be assured!

IX. The do's and don'ts

1. DO NOT install/De-install Nozzles with excessive force. DO NOT use pliers to pull the nozzle edge out, DO NOT tight the nozzle's bolt exessively.
2. Only install nozzles when the unit is cool(room temperature).
3. DO NOT use unit near flammable gas or liquid or any combustible material WHATSOEVER especially when using the unit in high-temperature operation. DO NOT face the hot air outlet or touch the soldering Iron to the human body WHATSOEVER because it is very hot and can instantly burn the skin/body. When the first use the unit might emit white smoke. But this soon will go away.
4. Replacement heater, be carful not to damage the grounding line!
5. Replacement the cable should pay attention to the order and color, can not be wrong.
6. Please replace the same model heater.

X. Interchangeable Component Description

Replacement of Hot Air rework heating element(Figure 2)

1. Ensure the Hot Rework is fully cooled down before replacing the element.
2. As Figure, loosen the two screws on the handle.
3. Turns the handle antic-clockwise until it comes off and then remove the handle's cover.
4. Gently takes out the fan, loosen the three screws to remove the fixed wiring board.
5. The wiring board vice versa, apart from the heater wiring board connection cable, pay attention to the connection location.
6. Remove from the heat pipe heat body with mica paper, careful not broken ground wire of the steel.
7. Wraps well with the new heater mica, inserted into the tube, the attention heater to install in place.
8. According to the original location of the connection to connect heater.
9. When the revers process by open bottles and handle back.

Replacement of the soldering iron's tip and soldering iron heating core's element(Figure 4)

1. Unscrews the nut NO.1,and then removes the steel tube NO.2, followed by removing the tip which is going to be replaced.
2. For the replacemnet of heating core's element can be performed by unscrewing the plastic cap NO.4,pulls out gently the heating core's element NO.6 along with the circuit board NO.7, please carefully remember the connection of spring NO.5.
3. The iron core from the circuit board welding, the replacement of the heating core, can be fitted well. Note that the order of the iron corewire connection.

Replacement of the preheating plate(Figure 3)

1. Remove the topo cover1.
2. Unscrew the screws2.
3. Remove the warm-up bracket.
4. Pull out the clamp.
5. Remove the preheated plate.

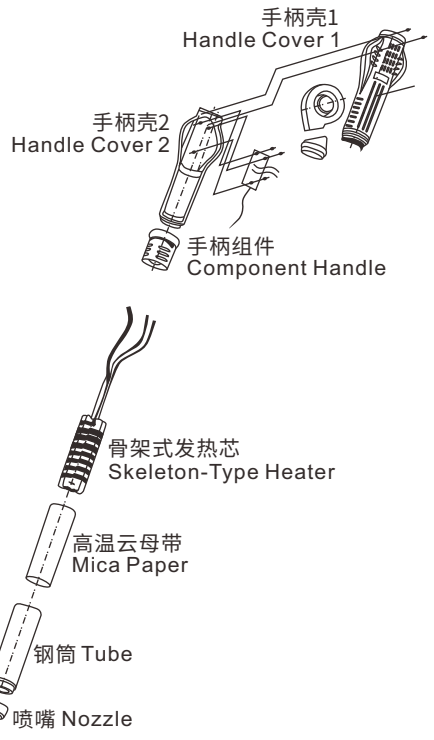


图2（Figure 2）

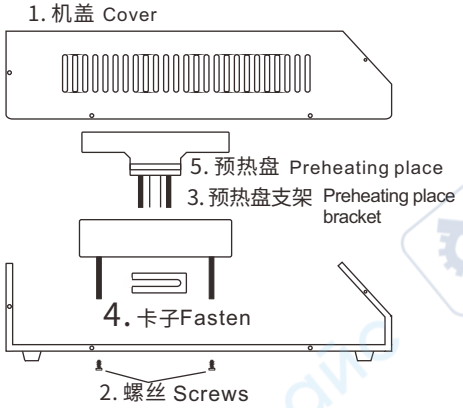


图3（Figure 3）

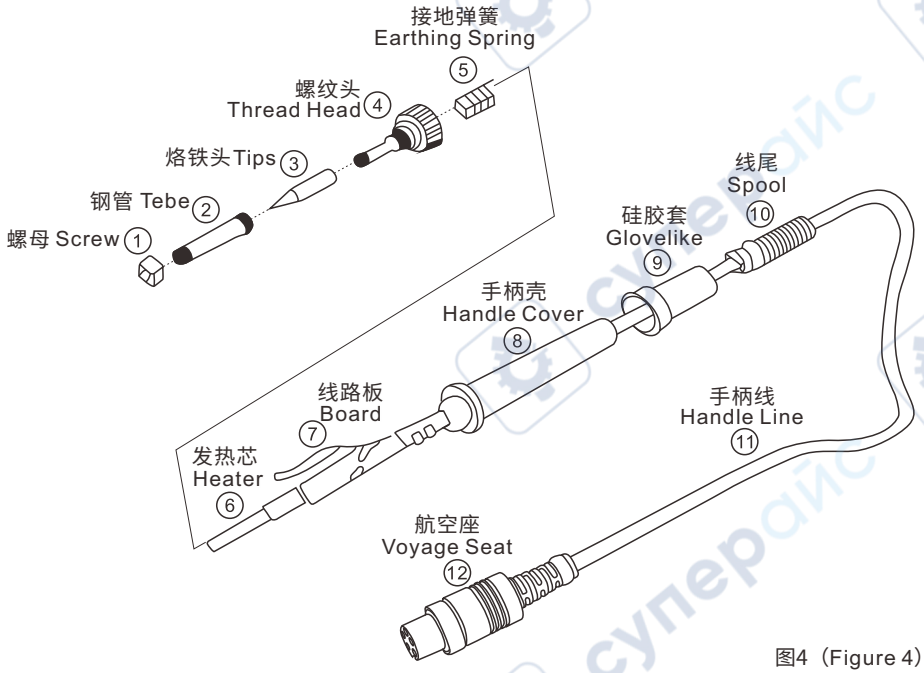
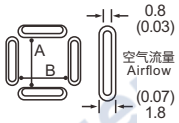
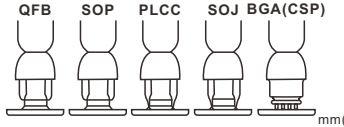


图4（Figure 4）

通用部件
*喷嘴的规格尺寸
表示该IC的尺寸

General parts
*Nuzzle specification
and sizemeans the IC size





A1125 QFP 10x10 (0.39x0.39)
A:10.2(0.4) B:10.2(0.4)
10 (0.39)

A1126 QFP 14x14 (0.55x0.55)
A:15.2(0.6) B:15.2(0.6)
15 (0.59)

A1127 QFP 17.5x17.5 (0.68x0.68)
A:19.2(0.76) B:19.2(0.76)
19 (0.75)

A1128 QFP 14x20 (0.55x0.78)
A:15.2(0.6) B:21.2(0.83)
21 (0.83)

A1129 QFP 28x28 (1.1x1.1)
A:29.7(1.17) B:29.7(1.17)
29 (1.14)

A1135 PLCC 17.5x17.5 (0.68x0.68) (44针needle)
A:18.5(0.73) B:18.5(0.73)
15 (0.59)

A1136 PLCC 20x20 (0.78x0.78) (52针needle)
A:21(0.83) B:21(0.83)
19 (0.75)

A1137 PLCC 25x25 (0.98x0.98) (68针needle)
A:26(1.02) B:26(1.02)
24 (0.94)

A1138 PLCC 30x30 (1.18x1.18) (84针needle)
A:26(1.02) B:26(1.02)
29 (1.14)

A1139 PLCC 12.5x7.3 (0.49x0.49) (18针needle)
6.9 (0.27)

A1140 PLCC 11.5x11.5 (0.45x0.45) (28针needle)
A:13(0.51) B:13(0.51)
10(0.39)

A1141 PLCC 11.5x14 (0.45x0.55) (28针needle)
A:15(0.59) B:13(0.51)
10(0.39)

A1182 BOFP 24x24 (0.94x0.94)
A:24.2(0.95) B:24.2(0.95)
21(0.83)

A1187 TSOL 18.5x8 (0.73x0.31)
10 (0.39)
18.5(0.73)

A1257 SOP 11x21 (0.43x0.83)
21 (0.83)
11.7(0.46)

A1258
11.7 (0.83)
8.2(0.32)

A1259 SOP 13x28 (0.51x1.1)
29 (1.14)
13.5(0.53)

A1260 SOP 8.6x18 (0.34x0.71)
19 (0.75)
8.7(0.34)

A1261 OFP 20x20 (0.78x0.78)
21 (0.83)
21(0.83)

A1262 OFP 12x12 (0.47x0.47)
12 (0.47)
12(0.47)

A1263 QFP 28x40 (1.1x1.57)
A:27.2(1.09) B:39.7(1.56)
39(1.54)

A1264 QFP 40x40 (1.57x1.57)
A:40.2(1.58) B:40.2(1.58)
39(1.54)

A1265 QFP 32x32 (1.26x1.26)
A:32.2(1.27) B:32.2(1.27)
31(1.22)

Single-tube
A1124 单管式φ2.5 (1.1x1.57)
Ø2.5(1D) (0.09)

Single-tube
A1130 单管式φ4.4 (0.17)
Ø4.4(1D) (0.17)

A1131 SOP 4.4x10 (0.17x0.39)
4.8(0.19)

A1132 SOP 5.6x13 (0.22x0.51)
5.7(0.22)

A1133 SOP 7.5x15 (0.3x0.59)
7.2(0.29)

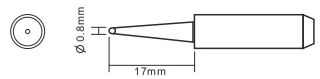
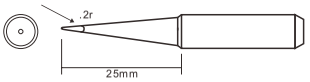
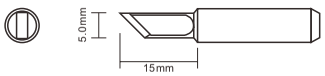
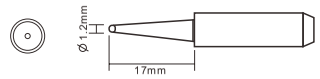
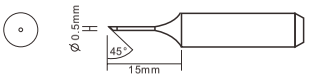
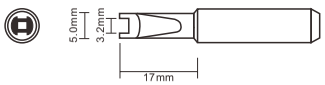
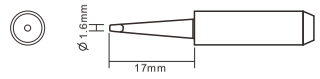
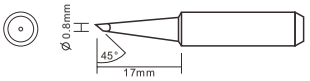
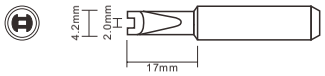
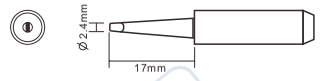
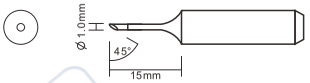
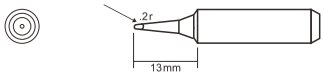
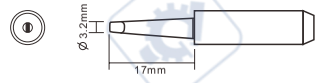
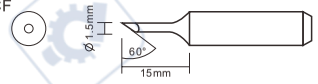
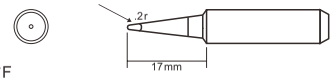
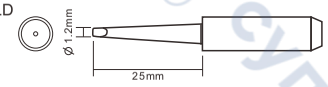
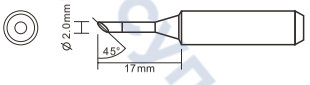
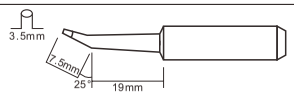
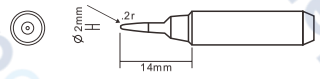
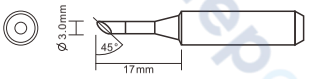
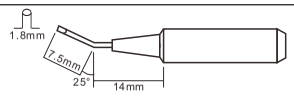
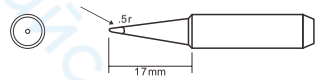
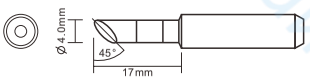
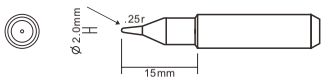
A1134 SOP 7.5x18 (0.3x0.7)
7.2(0.28)

Curved single tube
A1142 弯型单管式 1.5x3 (0.06x0.12)
45°
Ø1.5(0.06) (1D) (0.12)(1D)

A1325 Single-tube 单管式φ1.5x5.10 (0.06x0.02-0.39)
管脚距离可调
Pin distance adjustable
管脚距离可调
Pin distance adjustable
5-10mm
5(0.2)
10(0.39)
喷嘴正面
Front nozzle
Ø1.5(1D) (0.06)

附:电焊台使用烙铁头型号图

Attachment: Electric welding machine using welding head model figure

900M-T-0.8D  0°C	900M-T-LB  -10°C/-18°F	900M-T-K  30°C/54°F
900M-T-1.2D  0°C	900M-T-0.5C  0°C	900M-T-R  0°C
900M-T-1.6D  0°C	900M-T-0.8C  0°C	900M-T-RT  0°C
900M-T-2.4D  0°C	900M-T-1C  0°C	900M-T-SI  0°C
900M-T-3.2D  0°C	900M-T-1.5CF  0°C	900M-T-I  -10°C/-18°F
900M-T-1.2LD  -10°C/-18°F	900M-T-2C  0°C	900M-T-H  -20°C/-36°F
900M-T-SB  0°C	900M-T-3C  0°C	900M-T-1.8H  -10°C/-18°F
900M-T-B  0°C	900M-T-4C  0°C	900M-T-S4  0°C

900M系列外径φ6.5mm　　900M Series Tip Out Diam ∅6.5mm