



MINIWARE



AirGo 140 Hot Air Gun

热风枪

用户手册 V1.0

User Manual

感谢您购买AirGo140热风枪
使用前请先详细阅读此手册
(本使用手册基于AirGo 140 DFU V1.01, APP V1.0)

Thank you for purchasing AirGo 140 Hot Air Gun.
Please read this manual before use.
This user manual is based on AirGo 140 DFU V1.01 , APP V1.0

NOTICE

This appliance is intended for use by persons aged 16 years and above. Persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, may use this appliance only if they have been given supervision or instruction concerning its safe use and understand the hazards involved. Before use, please carefully read this user manual to familiarize yourself with the safe operating methods and potential hazards of this product.

Children should be supervised to ensure that they do not play with the appliance. This appliance must only be supplied at safety extralow voltage corresponding to the marking on the appliance (DC 20–28V).

WARNING:

When using this tool, place it on a stable, heatresistant table or workbench, or secure it with a dedicated stand. Do not touch the air outlet or nozzle during or immediately after use (maximum temperature can reach 450°C). Do not leave the appliance unattended during use; before leaving, turn off the power and unplug the power cord. When not in use, allow the appliance to cool completely to room temperature before proper storage.

产品合格证

Product Certificate

本产品经检验合格，准予出厂。

This product has passed the quality inspection.

检验员QC: _____



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感谢您选用本产品，为帮助您更好的了解产品特性和操作方法，我们建议您在使用前仔细阅读本手册。如需获取最新版本的用户手册，敬请访问我司官方网站。

1.1 操作环境

操作环境	要求
温度	工作状态： 0℃到40℃ 无凝露
	非工作状态： -20℃到60℃
湿度	工作状态： 高温： 30℃到40℃， 0%到60%RH 无凝露
	工作状态： 低温： 0℃到30℃， 10%到90%RH 无凝露
	非工作状态： 高温： 40℃到60℃， 5%到60%RH
	非工作状态： 低温： 0℃到40℃， 5%到90%RH

1.2 安全警告 ⚠

使用前请阅读完整手册。忽视以下警告可能导致严重人身伤害或设备损坏：

高温烫伤：出风口最高450℃，使用中及刚关机后，请勿触碰出风口及喷嘴，以免造成严重烫伤。

火灾风险：请勿将热风对准易燃物体（如纸张、布料、泡沫塑料、汽油、溶剂等）。工作区域应远离可燃物。使用期间请勿无人看管，离开前请务必关闭电源并拔掉电源线。

电源安全：本产品仅支持DC 20-28V电源（USB-C PD充电器或DC适配器）。请勿使用超出电压范围的电源，以免引发电路烧毁、火灾或电击风险。请勿在潮湿环境或雨中操作，线缆等破损立即停用。

断电保护：发热芯温度高于100℃时，请勿直接拔除电源。关机时请先通过操作界面停止加热，设备将自动进入降温模式，风机继续运转为发热芯散热。待风机完全停转后，方可拔除电源。

风口勿堵：本机采用前进风前出风结构，进风口与出风口均位于前部。使用时请保持进风口通畅，切勿遮挡或堵塞，否则可能导致内部过热、风机过载，甚至引发火灾或损坏加热芯。请勿吸入液体、金属碎屑、粉尘等异物。

专用用途：本产品仅限用于电子焊接、热缩套管、塑形、解冻等合法热风作业。请勿用于烘干人体、头发、衣物，或加热密闭容器（如气罐、喷漆罐），否则可能引起爆炸。

儿童安全：本产品应置于儿童及无相关经验者无法触及之处。如需转交他人使用，请务必事先说明全部安全事项。

1.3 使用注意事项

遵守以下事项可保证设备性能与寿命，避免非故障停机。

电源要求:

请使用本产品专用或经过所在国家/地区认证的电源适配器（详细电源标准请查阅“电源选择”）。

请勿使用车用点烟器或未知品质的直流电源，以免电压不稳导致电路板损坏。

温度与风速设定:

工作温度范围为80-450℃，请根据作业对象选择合适的温度：

- 热缩管：120-150℃
- 无铅焊锡：350-400℃

风速为5档可调（1档最低，5档最高），建议根据元件特性选择：

- 细小元件（如 0402 电阻、微小 IC）：1-2 档，避免吹飞元件
- 常规焊接/拆焊（如 SOIC、QFP）：2-3 档
- 大型连接器、散热较快元件或大面积接地层：4-5 档

本产品经专门设计，任意风速档位下均可安全使用最高温度（450℃），不会因散热不足导致发热芯异常老化。

进风口维护:

本机采用前进风前出风结构，工作时喷嘴附近的气流会同时吸入环境空气。请保持工作台面清洁，避免细屑、线头、锡渣等杂物被吸入堵塞风机叶轮。

操作习惯:

- 工作距离：枪口与工件保持 5-15mm 距离，请勿堵住出风口。
- 连续使用：每次连续使用 30 分钟以上后，建议关机冷却 2-3 分钟再继续，以延长加热元件寿命。
- 休眠功能：本产品配套有休眠底座。将热风枪放上底座后，内置霍尔开关感应并自动进入休眠状态，停止加热并开始降温流程，无需手动操作。
- 断电时机：退出工作状态（手动停止加热或放入休眠底座）后，请等待风机完全停转再断开电源，这是保护发热芯的关键习惯。

收纳与携带:

待设备完全冷却（风机停转且外壳不烫手）后，方可收纳。存放环境应保持干燥、无尘。请避免跌落或撞击：出风口为精密器件，结构脆弱，跌落易导致喷嘴变形或内部损坏；尾部 PD/DC 接口区域同样应避免剧烈撞击，以免影响供电可靠性。

故障处理:

若出现异常噪音、焦味、温控失灵或风机停转，请立即停止使用，断开电源，并联系售后检修。

请勿自行拆解发热芯或控制板，以免破坏绝缘或校准参数。

1.4 使用责任说明

请务必遵循本手册中所述的操作环境、安全警告、使用注意事项及操作说明。因未遵循上述指引进行操作而导致的任何直接或间接损失，生产厂家不承担相关责任。

请勿私自拆装或改造本产品，因此类行为导致的任何损坏或损失，由使用者自行承担。

本产品应置于儿童及无相关经验者无法触及之处。请妥善保管，避免儿童在无人看管的情况下接触或使用本产品。如需转交他人使用，请务必事先说明全部安全事项。

02 产品概述

MINIWARE敏维® AirGo 140 是 e-Design 团队推出的首款采用 PD 供电的便携式智能热风枪。整机仅重 115g，可轻松放入工具箱或随身携带，适用于现场维修、实验室研发及日常电子作业等多种场景。

在紧凑体积下，AirGo 140 实现了最高 140W 加热能力，出风温度可在 80-450°C 范围内精准调节，风速 5 档可调，室温升至 300°C，最快需要 10 秒。用户可根据不同元件的散热特性与风敏感度自由匹配参数。

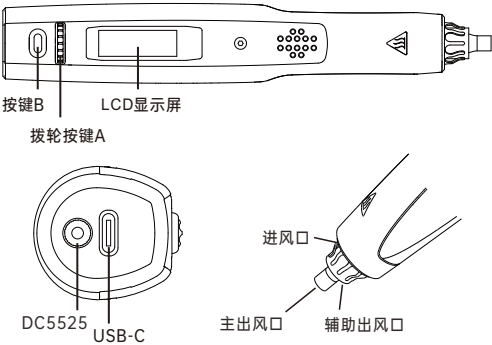
对于烙铁或加热平台难以操作的场景——如底部带焊盘的 BGA/QFN 等封装或双面板焊接——AirGo 140 提供了有效的热风解决方案，是电子工作台上灵活的补充工具。

为实现上述性能，AirGo 140 采用前进风前出风风道设计，配合高速无刷风机，气流集中、风压充沛，同时确保长时间运行的可靠性。机身支持 USB-C (PD) / DC 5525 双输入，可灵活适配多种供电场景。配套智能休眠底座内置霍尔感应开关，热风枪放上后自动进入休眠降温流程，无需手动操作，兼顾便捷与安全。

在人机交互与系统保护方面，AirGo 140 配备人性化操作界面，并支持手机 APP 无线操控，可实时监控设备状态、调节温度与风速。内置智能断电、高温自动降温保护、过压/过流保护等多重机制，确保长时间使用的稳定性和安全性。整机采用耐高温工程材料与精密发热芯，在保证轻量化的同时兼顾耐用性。

MINIWARE敏维® AirGo 140 —— 小体积，大能耐，随行随焊。

2.1 接口/部件介绍



2.2 产品参数

屏幕		LCD 160*50
电源接口	USB-C	USB-C (PD)
	DC	DC5525
外形尺寸		长：176mm 宽：28mm 高：31mm
重量		115g

2.3 工作参数

工作电压	20-28V
最高功率	140W
功率范围	65-140W
升温时间	约10秒*
温度范围	80 °C~450 °C

注：升温时间是在140W电源供电、室温26℃环境下，升温至300℃的测试结果。

2.4 电源选择

AirGo 140 支持两种供电输入方式

- DC 电源：接口为 DC5525，电压范围 20-28V（如电源适配器、工业开关电源、电池组等）
- PD 电源：接口为 USB-C（PD），需支持 20V 或 28V 档位

输入电压范围： 20-28V

功率范围： 65-140W（建议使用 100-140W 电源以获得最佳性能）

DC电源要求:

- 输出电压：20-28V
- 持续输出电流：≥5A

PD电源要求:

请使用支持 PD 3.0 及以上协议的标准 PD 电源，并具备以下档位之一：

- 20V / 5A (100W)
- 28V / 5A (140W)

注：PD 电源的 28V 档位需使用 PD 3.1 28V 电源，并搭配支持48V 5A 240W EPR的 USB-C 电源线。

功率说明:

本产品可在 65-140W 功率范围内正常工作。若电源功率低于 100W，热风枪仍可正常启动与使用，但无法达到最高温度（450℃），且加热速度会明显变慢。如需满功率输出及快速升温，建议使用 100-140W 电源。导致设备损坏。

⚠ 重要提示：DC5525电源与USB-C（PD）电源请勿同时输入，同时连接两种电源可能导致设备损坏。

2.5 APP无线操控

AirGo 140 支持手机 APP 无线操控，可实时监控设备状态、调节温度与风速。具体操作指引请扫描下方二维码获取。



Android

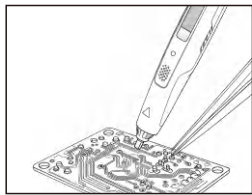
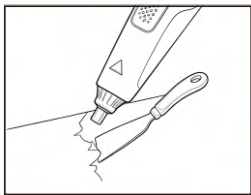


iOS

03 用途

AirGo 140 热风枪适用于以下场景：

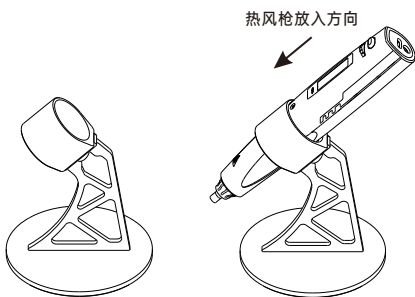
- 电子焊接与拆焊：适用于 BGA、QFP、PLCC 等贴片元件的焊接与拆焊，尤其适合 1cm 以内小型元件的精密操作。
- 热缩套管：用于线束保护套管的快速均匀热缩。
- 塑形：对塑料零件进行局部加热塑形或弯曲加工。
- 解冻：对冻结的金属部件或管路的快速解冻处理。
- 除漆与除粘：用于局部加热去除油漆、胶粘剂或涂层。
- 预热：焊接前对电路板或元器件进行预热，减少热冲击。



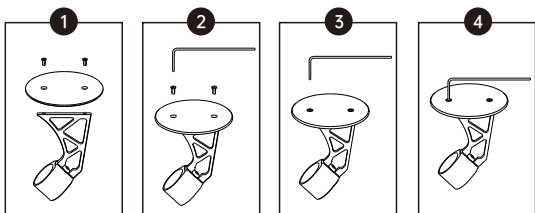
04 安装说明

休眠座安装与使用

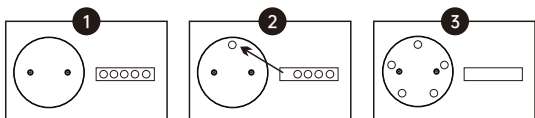
AirGo 140 配套有智能休眠底座，兼具放置支架与休眠触发功能。



底座安装指引：



防滑垫安装：



05 使用方法

5.1 屏幕界面

5.1.1 上电界面

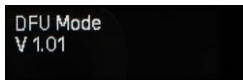
接通电源后，AirGo 140 屏幕显示 MINIWARE 品牌标识，加载完成后自动进入待机界面。



5.1.2 DFU界面

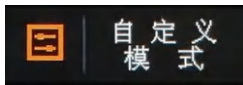
进入DFU模式：按住 B 键 同时通过 USB-C 线缆将设备连接至电脑，屏幕显示 "DFU Mode"，即表示已成功进入DFU模式。

退出DFU模式：拔掉电源线，不按任何按键重新通电，设备即恢复正常启动，进入待机界面。



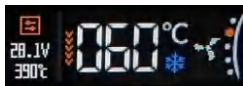
5.1.3 待机界面

设备上电后进入待机状态，用户可选择工作模式、查看设备信息或修改系统设置。



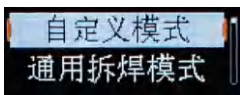
5.1.4 工作界面

设备进入工作状态后显示工作界面，集中呈现温度、风速、当前模式等运行信息。用户可在该界面实时调整温度、风速、工作模式，并可切换冷风/热风输出。



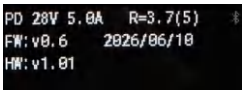
5.1.5 设置界面

在待机界面选中"设置"并短按 A 键进入，或长按 A 键直接跳转。用户可在该界面修改工作模式预设值、功率限制等系统参数。



5.1.6 信息界面

在待机界面长按 B 键进入信息界面，可查看当前供电电压、发热丝阻值、固件版本等设备信息。



5.2 基本操作

5.2.1 启动运行

进入工作状态：

在待机界面滚动拨轮选择所需工作模式，短按 A 键确认，设备即自动升温至该模式预设的温度与风速。

退出工作状态：

在工作界面长按 B 键，设备退出工作并返回待机界面。此时风机将继续运转散热，待发热芯冷却后自动停转。

5.2.2 调整工作参数

进入工作界面后，可进行以下调整：

- 切换工作模式：短按 B 键，在当前模式间循环切换。
- 切换调节项：短按 A 键，在温度与风速之间切换调节光标。
- 调节参数值：滚动拨轮，调整当前选中项（温度或风速）的数值。
- 切换冷/热风：长按 A 键。
- 退出工作状态：长按 B 键，设备返回待机界面并自动散热。

5.2.3 修改系统设置

进入设置界面：

在待机界面滚动拨轮选中“设置”，短按 A 键进入；或在待机界面直接长按 A 键快速跳转。

进入设置界面后：

- 选择设置项：滚动拨轮浏览各选项。
- 预览当前值：短按 A 键进入预览状态，查看该选项当前参数。
- 编辑参数：再次短按 A 键进入编辑状态，滚动拨轮修改参数值，修改完成后短按 A 键保存并返回预览状态。
- 返回上级菜单：短按 B 键。

5.2.4 休眠状态

本产品配套智能休眠底座，内置霍尔感应开关，可自动感应热风枪的放置与取出。

- 进入休眠：工作状态下，将热风枪放入休眠座，设备立即停止加热并自动降温。
- 唤醒恢复：从休眠座取出热风枪，设备自动恢复至取出前的工作温度与风速设定。

- 自动返回待机：在休眠状态下，若达到“待机时间”设定值，设备将自动返回待机界面。工作状态下，若达到“静止检测”设定值，设备同样自动返回待机界面。

5.3 菜单释义

参数名称		说明	出厂设置	可调范围
自定义模式	温度	自定义模式温度预设值	250	80℃~450℃
	风速	自定义模式风速档位预设值	3	1~5档
通用拆焊模式	温度	通用拆焊模式温度预设值	300	80℃~450℃
	风速	通用拆焊模式风速档位预设值	4	1~5档
大焊点模式	温度	大焊点模式温度预设值	350	80℃~450℃
	风速	大焊点模式风速档位预设值	5	1~5档
精密小件模式	温度	精密小件模式温度预设值	300	80℃~450℃
	风速	精密小件模式风速档位预设值	2	1~5档
预加热模式	温度	预加热模式温度预设值	120	80℃~450℃
	风速	预加热模式风速档位预设值	5	1~5档
待机时间		休眠状态下，自动返回待机状态的时间	5min	永不~30min
静止检测		工作状态下，静置返回待机状态的时间	永不	永不~30min
息屏开关		待机状态下10分钟自动息屏开关	关	开/关
温度单位		设置温度单位	℃	℃/°F
功率限制	PD	设置PD供电时设备的最大运行功率	140W	40-140W
	DC	设置DC供电时设备的最大运行功率	140W	40-140W
降温模式		设置停止加热时的降温速度	默认	默认/快速
屏幕亮度		设置屏幕显示亮度	5	0~10
提示音量		设置设备提示音量	4	0~5
语言选择		设置系统语言	英文	中/英/德/俄

5.4 配置文件

- 1) 使用 USB Type-C 线缆将 AirGo 140 连接至电脑，电脑将识别出一个名为“AG140_APP”的虚拟磁盘，此时设备已进入 USB 模式。
- 2) 打开虚拟磁盘中的 CONFIG.TXT 文件，修改所需参数（参数值须在可调范围内）。
- 3) 保存文件后，修改将即时生效并同步至 AirGo 140。

参数名称	说明	出厂设置	可调范围
Gear1	自定义模式参数	250,3	80-450温度,1-5档
Gear2	通用拆焊模式参数	300,4	80-450温度,1-5档
Gear3	大焊点模式参数	350,5	80-450温度,1-5档
Gear4	精密小件模式参数	300,2	80-450温度,1-5档

Gear5	预加热模式参数	120,5	80-450温度,1-5档
IdleTime	待机时间	5	0~30min (0: 永不)
StaticDet.	静止检测	0	0~30min (0: 永不)
ScreenOff	息屏开关	0	0:关/1:开
TempUnit	温度单位	0	0:°C/1:°F
PowerLimit	PD/DC功率限制	140,140	PD:40~140W, DC:40~140W
FastCool	降温模式	0	0:默认/1:快速
Backlight	屏幕亮度	5	1~10
Volume	提示音量	4	0~5
Language	语言	0	0:英/1:中/2:德/3:俄

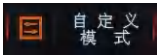
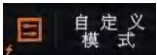
06 技术支持和保修条款

6.1 保修条款

欢迎访问 www.miniware.com.cn 获取产品相关资讯，包括用户手册、固件更新、使用技巧等。

AirGo 140 热风枪享有一年免费保修服务（非人为损坏）。保修服务请与销售商联系。

6.2 常见问题处理

现象	可能的原因	请尝试
屏幕无显示	设备处于息屏休眠状态	拿起设备或轻晃，屏幕应自动亮起。
	电源未正确连接或线缆损坏	检查电源连接是否可靠，更换线缆后重试。
	连接电脑后进入USB模式	连接电脑后出现可移动磁盘属正常现象，此时屏幕不显示界面。
	硬件故障	如以上均正常，请联系售后检修。
待机界面出现红条闪烁 	设备出风口温度过高	暂停使用，待散热完成后红条闪烁提示将自动消失。
待机屏幕左下显示电压异常图标 	供电电压过低	进入信息界面确认电压：DC应≥19V，PD申请功率应≥40W。低于此范围请更换符合规格的电源。

设备正常使用时 自动返回待机画面	误触或长按了B键	B键为返回键，长按会退出工作状态，重新短按A键进入即可。
	放入休眠座后 触发“待机时间”	检查“待机时间”设置是否过短（参见5.3菜单释义）
	静置触发“静止检测”	检查“静止检测”设置是否开启（参见5.3菜单释义）

6.3 固件升级

- 1) 访问www.miniware.com.cn，将适用于 AirGo 140 的最新固件下载至电脑。
- 2) 按住设备上的B 键，同时使用 USB 线缆将 AirGo 140 连接至电脑。此时屏幕将显示“DFU MODE”，表示已进入 DFU 模式，电脑将识别出一个名为“AG140_DFU”的可移动磁盘。
- 3) 将已下载的 .hex 固件文件拷贝至该磁盘的根目录下。拷贝完成后，按下设备上的 B 键开始更新。更新完成后，重新上电即可正常使用。



07 法律标识



此设备符合美国联邦通讯委员会FCC规则第15部分中的规范。操作设备须符合以下两个条件:(1)本设备不得引发干扰;(2)本设备必须能承受其收到的任何干扰，包括可能导致意外操作的干扰。



CE标记是欧洲共同体的注册商标。此CE标记表示产品符合所有相关的欧洲法律规定。



UKCA (United Kingdom Conformity Assessed)标记是英国合格认定的认证标识。

本设备符合电子电气产品进入英国市场需要通过的英国法规下的标准测试认证。



本产品内包含电池和/或可回收电子部件。弃置产品时请勿与生活垃圾一起丢弃。请根据当地法律和法规进行处理。



RoHS RoHS标记是符合欧盟合格认证的标识，表明该产品符合欧盟关于限制在电气电子设备中使用某些有害物质的法规。

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Thank you for choosing our product. To help you better understand its features and operating procedures, please read this manual carefully before use. Users can visit our website to learn about the update of the user manual.

1.1 Operating Environment

Operating Environment	Requirements
Temperature	Working State: 0°C ~ 40°C, non-condensing
	Non-working State: -20°C ~ 60°C
Humidity	Working State: High Temperature: 30°C ~ 40°C, 0% ~ 60% RH, non-condensing
	Working State: Low Temperature: 0°C ~ 30°C, 10% ~ 90% RH, non-condensing
	Non-working State: High Temperature: 40°C ~ 60°C, 5% ~ 60% RH
	Non-working State: Low Temperature: 0°C ~ 40°C, 5% ~ 90% RH

1.2 Safety Warnings

Please read the manual before use. Failure to follow the warnings may result in serious personal injury or equipment damage.

Burn Hazard: The air outlet reaches a maximum temperature of 450°C. Do not touch the air outlet or nozzle during use or immediately after power-off to avoid severe burns.

Fire Risk: Do not direct the hot air toward flammable materials such as paper, fabrics, foam plastic, gasoline, solvents, etc. Keep the work area clear of combustibles. Do not leave the device unattended during use. Always turn off the power and unplug the cord before leaving.

Power Safety: This product only supports a DC 20–28V power supply (USB-C PD charger or DC adapter). Do not use power sources outside this voltage range, as this may cause circuit burnout, fire or electric shock hazards. Do not operate in damp environments or rain. Stop using the device immediately if the cable or other components are damaged.

Power-Off Protection: Do not pull out the power plug directly when the heating element temperature exceeds 100°C. When shutting down the device, first stop heating via the control interface. The device will automatically enter cooling mode, and the fan will keep running to cool the heating element. Please cut off the power after the fan stops completely.

- Do Not Block the Air Vents:** This device adopts a front air intake and front air outlet layout. Keep the air intake unobstructed during use. Blocking the air inlet will cause internal overheating, fan overload, fire or damage to the heating element. Prevent liquid, metal debris, dust or other foreign objects from being sucked into the device.
- Intended Use:** This device is intended solely for legal hot-air applications such as electronic soldering, heat shrinking, material shaping and defrosting. Do not use it to dry the human bodies, hair, clothes, or heat-sealed containers (such as gas cans or spray paint cans), as this may cause explosions.
- Child Safety:** Keep this device out of reach of children and individuals without relevant experience. If you hand the product to others, be sure to explain all safety precautions in advance.

1.3 Precautions

Comply with the following precautions to guarantee equipment performance and avoid unplanned shutdowns.

Power Requirements

Use a dedicated or locally certified power adapter in your country or region (refer to “Power Supply Options”).

Do not use a car cigarette lighter adapter or unqualified DC power supplies, as unstable voltage may damage the control board.

Temperature & Airflow

The operating temperature range is 80–450°C. Please select an appropriate temperature based on the workpiece.

- Heat-shrink tubes: 120–150°C
- Lead-free solder: 350–400°C

There are 5 adjustable airflow speed settings (1=min, 5=max). Select the appropriate setting based on component characteristics.

- Small components (such as 0402 resistors, miniature ICs): Gear 1-2 for tiny chips to prevent components from being blown away.
- Regular soldering/desoldering (such as SOIC, QFP): Gear 2–3
- Large connectors, components with rapid heat dissipation, or large-area ground planes: Gear 4–5

This product is specially designed to safely operate at the maximum temperature (450°C) at any gear without causing abnormal aging of the heating element due to insufficient heat dissipation.

Air Intake Maintenance

The front intake & outlet design draws ambient air during work. Please keep your work surface clean to avoid fan clogging by waste such as fine particles, thread scraps and solder residue.

Operating Tips

- Working Distance: Keep a distance of 5–15 mm between the nozzle tip and the workpiece. Do not block the air outlet.

- **Continuous Use:** After over 30 minutes of continuous operation, power off and cool the unit for 2–3 minutes to extend the service life of heating elements.
- **Sleep Mode:** This unit is equipped with a sleep base. When the hot air gun is placed on the base, the built-in Hall sensor will trigger sleep mode automatically, stop heating and start cooling without manual operation.
- **Power-off Timing:** After exiting the working state (manual heating stop or placed on sleep base), wait until the fan stops completely before cutting off the power. This is a crucial practice for protecting the heating element.

Storage & Carrying

Do not store the device until it has completely cooled down (fan stops and housing is not hot). The storage environment shall be dry and dust-free.

Avoid dropping or impact: The air outlet is a precision component with a fragile structure. Dropping the device may deform the nozzle or cause internal damage. The PD/DC interface area at the rear shall also be protected from heavy impact to guarantee stable power supply.

Troubleshooting

If abnormal noise, burnt smell, temperature control failure or fan stall occurs, stop using the device immediately, disconnect the power and contact after-sales service for repair.

Do not disassemble the heating element or control board yourself, as this may damage the insulation or calibration parameters.

1.4 Liability Statement

Be sure to follow the operating environment, safety warnings, precautions and operating instructions specified in this manual. The manufacturer shall not be liable for any direct or indirect losses caused by non-compliance with the above guidelines.

Do not disassemble or modify this product on your own. All damage and losses arising from such acts shall be borne by the user.

Keep this device out of reach of children and individuals without relevant experience. Keep it properly to avoid unsupervised contact or use by children. If you hand the product to others, be sure to explain all safety precautions in advance.

02 Product Overview

MINIWARE® AirGo 140 is the first PD-powered intelligent hot air gun developed by the e-Design team. Weighing only 115g, it can be easily stored in toolboxes or carried around. It is suitable for a variety of scenarios, including on-site repairs, laboratory R&D and daily electronic work.

Despite its compact size, AirGo 140 delivers a maximum heating power of 140W with adjustable air temperature ranging from 80°C–450°C and 5 airflow gears. It takes only 10 seconds to heat up

from room temperature to 300°C. Users can freely adjust settings to match the heat dissipation characteristics and heat sensitivity of different components.

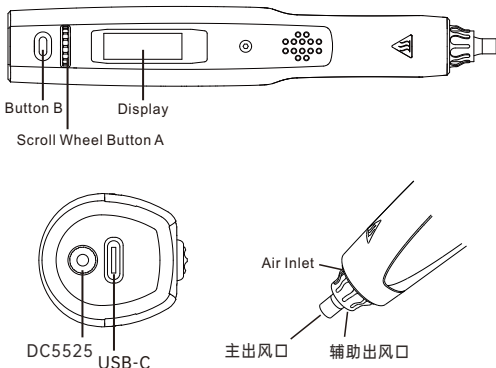
For scenarios where soldering irons or heating plates are difficult to use, such as BGA/QFN packages with bottom pads or double-sided board soldering, AirGo 140 provides an effective hot-air solution, serving as a flexible auxiliary tool on electronic workbenches.

To achieve such performance, AirGo 140 adopts a front air intake & front air outlet design paired with a high-speed brushless fan, delivering concentrated airflow and sufficient air pressure while ensuring reliability during prolonged operation. The unit supports dual power inputs: USB-C (PD) and DC 5525, allowing for flexible adaptation to various power supply scenarios. Equipped with an intelligent sleep base with a Hall sensor, the hot air gun automatically enters sleep mode when placed on the base without manual operation, ensuring both convenience and safety.

In terms of user interaction and system protection, AirGo 140 features a user-friendly interface and supports mobile APP wireless control, allowing users to monitor device status and adjust temperature and airflow in real time. Built-in multi-protection mechanisms including intelligent power-off, high-temperature auto cooling, overvoltage and overcurrent protection guarantee stability and safety during long-time operation. The entire device adopts high-temperature resistant engineering plastics and precise heating element, achieving a lightweight design without sacrificing durability.

MINIWARE® AirGo 140 - Compact Size, Powerful Performance, Weld Anywhere Anytime

2.1 Ports/Components



2.2 Product Specifications

Display		LCD 160*50
Power Interface	USB-C(PD)	USB-C(PD)
	PC	DC5525
Dimensions		Length:176mm Width:28mm Height:31mm
Weight		115g

2.3 Operating Parameters

Operating Voltage	20-28V
Maximum Power	140W
Power Range	65-140W
Heat-Up Time	约10秒*
Temperature Range	80°C~450°C

Note: The heat-up time test result for heating up to 300°C is obtained under 140W power supply and ambient temperature of 26°C.

2.4 Power Supply Options

AirGo 140 supports two power input methods

- DC Power: DC Power: DC5525 interface, voltage range 20–28V (power adapters, industrial switching power supplies, battery packs, etc.)
- PD Power: PD Power: USB-C (PD) interface; must support 20V or 28V output gear

Input VoltageRange: 20–28V

Power Range: 65–140W (100–140W power supply recommended for optimal performance)

DC Power Requirements:

- Output Voltage: 20–28V
- Continuous Output Current: ≥5A

PD Power Requirements:

Use standard PD power supplies that support PD 3.0 or above

- 20V / 5A(100W)
- 28V / 5A(140W)

Note: The 28V gear requires a PD 3.1 28V power supply paired with a USB-C cable that supports 48V 5A 240W EPR.

Power Specifications:

This product can work normally within 65–140W. If the power supply is lower than 100W, the device can boot and operate normally, but it will not reach the maximum temperature (450°C), and the heating speed will be significantly slower. 100–140W power supply is recommended for full power output and fast heating.

⚠ Note: Do not connect DC5525 power supplies and USB-C (PD) power supplies simultaneously, which may damage the device.

2.5 Wireless Control via App

AirGo 140 supports wireless control via mobile app. Users can monitor real-time device status and adjust temperature and airflow. Scan the QR code below for detailed operating instructions.



Android

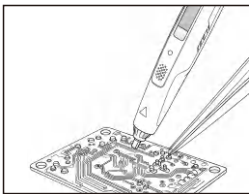
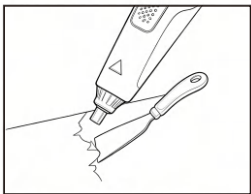


iOS

03 Intended Use

AirGo 140 hot air gun is applicable to the following scenarios:

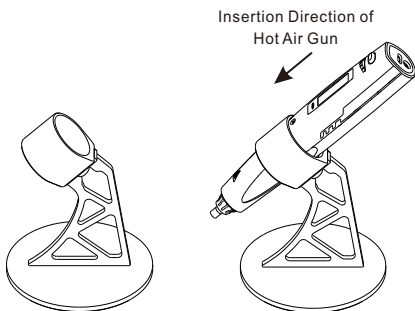
- **Electronic Soldering & Desoldering:** Used for soldering and desoldering surface-mount components such as BGA, QFP, and PLCC; especially for precision operations for small components within 1cm.
- **Heat Shrink Tubing:** Used for rapid and uniform heat shrinking of wire harness protective tubing.
- **Shaping:** Used for local heating, forming and bending of plastic parts.
- **Defrosting:** Used for rapid defrosting of frozen metal parts and pipes.
- **Paint & Adhesive Removal:** Used for local heating to remove paint, adhesives and coatings.
- **Preheating:** Used for preheating circuit boards and components before soldering to reduce thermal shock.



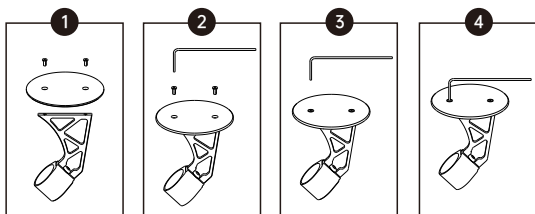
04 Installation Instructions

Installation and Use of the Sleep Base

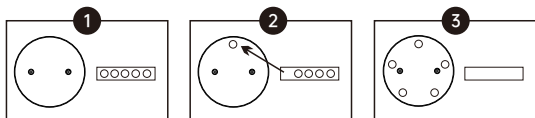
AirGo 140 is equipped with an intelligent sleep base serving as storage stand and sleep trigger.



Base Installation Guide



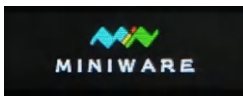
Non-Slip Mat Installation



5.1 Screen Interface

5.1.1 Power-On Interface

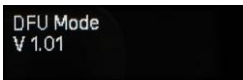
After connecting to power, the screen displays the MINIWARE logo and automatically enters standby interface after loading.



5.1.2 DFU Interface

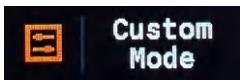
Enter DFU mode: Press and hold the button B while connecting the device to a computer via USB-C cable. The screen shows "DFU Mode" for successful entry.

Exit DFU mode: Unplug the power cable and power the device on without pressing any buttons. The device will boot to the standby interface normally.



5.1.3 Standby Interface

The device will enter standby interface after power-on. Users can select operating modes, view device information or modify system settings.



5.1.4 Operating Interface

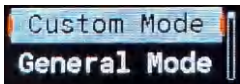
After entering operating mode, the screen displays real-time running data, including temperature, airflow speed and current mode. Users can adjust temperature, airflow speed and operating mode in real time on this screen, and switch cold/hot air output on this page.



5.1.5 Settings Interface

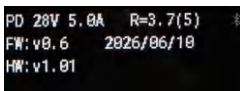
Select "Settings" on the standby interface and short press the button

A to enter, or press and hold the button A for quick access. Users can modify system parameters such as preset operating mode and power limits on this interface.



5.1.6 Information Interface

Press and hold the button B on the standby interface to enter the information interface, where users can view device information such as current supply voltage, heating element resistance and firmware version.



5.2 Basic Operations

5.2.1 Start-up Operation

Enter Operating Mode:

Scroll the wheel to select target mode on the standby interface, then short press the button A to confirm. The device will automatically heat up to the preset temperature and reach the preset airflow speed for that mode.

Exit Operating Mode:

Press and hold the button B on the operating interface to return to the standby interface. The device will exit operating mode and return to the standby interface. The fan keeps running for heat dissipation and stops after the heating element cools down.

5.2.2 Adjust Parameters

After entering the operating interface, you can make the following adjustments:

- Switch Operating Modes: Short press the button B to cycle through the modes.
- Switch Between Adjustment Options: Short press the button A to toggle between temperature and airflow speed.
- Adjust Parameter Values: Scroll the wheel to modify the selected option (temperature or airflow speed).
- Switch Cold / Hot Air: Press and hold the button A.
- Exit Operating Mode: Press and hold the button B. The device will return to the standby interface and automatically cool down.

5.2.3 Modify System Settings

Enter Setting Interface:

Select "Settings" on the standby interface and short press the button A to enter, or press and hold the button A for quick access.

Once in the Settings Interface:

- Select Item: Scroll the wheel to browse options.
- Preview Parameter: Short press the button A to view the current parameter.
- Edit Parameter: Short press the button A again to enter edit mode; scroll the wheel to adjust value, short press the button A to save and return to preview mode.
- Return to Upper Menu: Short press the button B.

5.2.4 Sleep Mode

This product is equipped with an intelligent sleep base with a built-in Hall sensor that automatically detects when the device is placed in or removed from the base.

- Entering Sleep Mode: Place the hot air gun on the base under operating mode. The device will immediately stop heating and automatically cool down.
- Wake Up: When the hot air gun is removed from the sleep base, the device will resume previous temperature and airflow settings automatically.
- Auto Return to Standby: In sleep mode, the device will return to standby interface automatically when “standby time” expires. In operating mode, the device will return to standby interface automatically when “idle detection time” expires.

5.3 Menu Explanation

Parameter		Description	Factory Default	Adjustable Range
Custom Mode	Temperature	Custom Mode Preset Temperature	250	80°C~450°C
	Airflow Speed	Custom Mode Preset Airflow Speed	3	1~5 Gears
General Desoldering Mode	Temperature	General Desoldering Mode Preset Temperature	300	80°C~450°C
	Airflow Speed	General Desoldering Mode Preset Airflow Speed	4	1~5 Gears
Large Solder Joint Mode	Temperature	Large Solder Joint Mode Preset Temperature	350	80°C~450°C
	Airflow Speed	Large Solder Joint Mode Preset Airflow Speed	5	1~5 Gears
Precision Small Component Mode	Temperature	Precision Small Component Mode Preset Temperature	300	80°C~450°C
	Airflow Speed	Precision Small Component Mode Preset Airflow Speed	2	1~5 Gears
Preheat Mode	Temperature	Preheat Mode Preset Temperature	120	80°C~450°C
	Airflow Speed	Preheat Mode Preset Airflow Speed	5	1~5 Gears
Standby Time		The time it takes to return to standby mode while in sleep mode	5min	Never~30min

Idle Detection Time		The time it takes to return to standby mode while idle during operation	Never	Never~30min
Screen Off Switch		10-minute auto screen-off switch under standby mode	Off	On/Off
Temperature Units		Set temperature units	°C	°C/°F
Power Limit	PD	Set the maximum operating power of the device when using PD power supplies	140W	40-140W
	DC	Set the maximum operating power of the device when using DC power supplies	140W	40-140W
Cooling Mode		Set the cooling speed after heating stops	Default	Default/Fast
Screen Brightness		Set screen display brightness	5	1~10
Prompt Volume		Set device prompt volume	4	0~5
Language Selection		Set system language	English	Chinese/ English/ German/ Russian

5.4 Configuration File

- 1) Connect AirGo 140 to PC via USB Type-C cable. The PC will recognize a virtual disk named "AG140_APP", which indicates USB mode is activated.
- 2) Open the CONFIG.TXT file on the virtual disk and modify parameters within adjustable ranges.
- 3) Save the file; the modifications will take effect immediately and be synchronized to AirGo 140.

Parameter	Description	Factory Default	Adjustable Range
Gear1	Custom Mode Parameter	250,3	Temperature: 80°C–450°C, Levels: 1–5
Gear2	General Desoldering Mode Parameter	300,4	Temperature: 80°C–450°C, Levels: 1–5
Gear3	Large Solder Joint Mode Parameter	350,5	Temperature: 80°C–450°C, Levels: 1–5
Gear4	Precision Small Component Mode Parameter	300,2	Temperature: 80°C–450°C, Levels: 1–5
Gear5	Preheating Mode Parameter	120,5	Temperature: 80°C–450°C, Levels: 1–5
IdleTime	Standby Time	5	0~30min (0:Never)

StaticDet.	Idle Detection	0	0~30min (0:Never)
ScreenOff	Screen Off Switch	0	0: Off / 1: On
TempUnit	Temperature Unit	0	0:°C/1:°F
PowerLimit	PD/DC Power Limit	140,140	PD:40~140W, DC:40~140W
FastCool	Cooling Mode	0	0:Default/1:Fast
Backlight	Screen Brightness	5	1~10
Volume	Prompt Volume	4	0~5
Language	Language	0	0: English / 1: Chinese / 2: German / 3: Russian

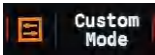
06 Technical Support & Warranty Terms

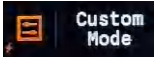
6.1 Warranty Terms

Visit www.miniware.com.cn for product information, including user manuals, firmware updates and operation tips.

AirGo 140 hot air gun comes with a one-year free warranty for non-artificial damage. Please contact your seller for warranty service.

6.2 Troubleshooting

Problem	Possible Causes	Solution
No screen display	Device in sleep mode	Pick up the device or give it a gentle shake; the screen will light up automatically.
	Loose or damaged power cable	Check that the power connection is secure; reconnect power or replace the cable.
	Entered USB mode after PC connection	It is normal to see a removable disk without screen display when connected to a PC.
	Hardware fault	If all the above methods fail, contact after-sales service.
A red bar flashes on the standby interface 	Excessively high temperature at air outlet	Stop using; the red bar prompt will disappear automatically after full heat dissipation.

Low voltage icon appears in the lower-left corner of the standby interface 	Insufficient power supply voltage	Enter the information interface to verify the voltage: DC $\geq 19V$, PD $\geq 40W$. Replace the qualified power supply if the standard is not met.
Auto return to standby interface during normal operation	Accidental long press on Button B	Button B is the exit button; press and hold it to exit the operating mode. Short press Button A to resume.
	"Standby Time" triggered after placing on sleep base.	Check whether "Standby Time" is set too short (See Section 5.3 Menu Explanation)
	"Idle Detection" function activated due to long inactivity.	Check whether "Idle Detection" is enabled (See Section 5.3 Menu Explanation)

6.3 Firmware Update

- 1) Download the latest AirGo 140 firmware from www.miniware.com.cn to your PC.
- 2) Press and hold Button B and connect the device to PC via USB cable. The screen will display "DFU MODE" and a removable disk named "AG140_DFU" will appear on the PC.
- 3) Copy the downloaded .hex firmware file to the root directory of this disk. Press Button B to start the update after the copy is complete. After the update is complete, power the device on to resume normal use.

07 Legal Statements



The CE mark is a registered trademark of European Community. This CE mark indicates that the product complies with all the relevant European Legal Directives.



UKCA (United Kingdom Conformity Assessed) mark is a certification mark for UK conformity.

This device complies with the testing standard and certification under British regulations required for electrical and electronic products to enter the British market.

This product contains batteries and / or recyclable electronic parts. Do not dispose of the product together with household waste. Please handle it in accordance with your local laws and regulations.



RoHS

RoHS is a mark of conformity, indicating that the product complies with EU regulations on restricting the use of certain hazardous substances in electrical and electronic equipment.



Federal Communications Commission Notice

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.

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

Note: 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.

The device has been evaluated to meet general RF exposure requirement.

The device can be used in portable exposure condition without restriction.



网站
Website



技术论坛
Tech Forum



公众号
WeChat



bilibili



抖音



YouTube



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