



**American Hakko Products, Inc.**

## P R O D U C T B U L L E T I N

**Bulletin No:** PB260

**Issue Date:** November 5, 2007

**Product:**

FM-203 Dual Port Soldering Station

**Part No:**

FM203-01

FM203-DP

**Comments:**

The Hakko FM-203 is a Dual Port high performance soldering station. Even when soldering lead-free solders the high performance allows lower



operating temperatures. The soldering station can operate any of the following hand pieces, FM-2027 Soldering Iron, FM-2022 Parallel Remover (SMD tweezer), FM-2023 Mini Parallel Remover (SMD mini tweezer), FM-2024 Desoldering Module, and/or FM-2026 Nitrogen Soldering Iron. The soldering iron and desolder tool can be used in either or both ports and the tweezers are limited to one port with a soldering or desoldering iron in the other port.

The station features a programmable sleep mode of 0-29 minutes or auto-power shut off at 30 minutes. Sleep mode, auto power shut off and tip temperature can be programmed separately for each port. The sleep mode reduces the tip temperature to approximately 200°C (400°F) after the programmed time (0-29 minutes). The lower tip temperature will reduce oxidation of the tip and improve the tip performance. When in sleep mode the tip will quickly return to temperature after the iron is removed from the holder.

When utilizing the FM-2027 Soldering Iron the station uses the T15 series composite tip. The composite tip is a soldering tip in which a heating element and sensor are integrated with ceramic. Despite its highly compact design, the tip offers superior thermal response and greatly improved thermal recovery. T15 series tips are available in a wide variety of tip shapes and can also be used with the Hakko FM-203, FP-102 and FM-202 soldering stations. Any tip can be operated at temperatures 200 - 450°C (400 - 840°F). The station includes a card lock system to lock the preset soldering temperature. With the card removed operators can not adjust the working temperature.

The FM-2022 uses T16 tips, The FM-2023 uses T9 tips, The FM-2024 uses N3 nozzles and The FM-2026 uses T17 tips.

From...

For pricing information, please contact your local American Hakko representative or our customer service department at (661) 294-0090.

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AHP14 Rev 2000-01

**Specifications:**

<b>FM-203 Soldering Station</b>	
Power Consumption	140W 120V
Temperature Range	200 - 450°C (400 - 840°F)
Temperature Stability	±5°C (±9°F)
Temperature Accuracy	±15°C (±27°F)

<b>Soldering Iron (No.FM-2027)</b>	
Power Consumption	70W (24V)
Tip to Ground Resistance	< 2Ω
Tip to Ground Potential	< 2mV
Cord Length	1.2m (47 in.)
Total Length (w/o Cord) with 2.4D soldering tip attached	188mm (7.4 in.)
Weight (w/o Cord) with 2.4D soldering tip attached	30g (1.0 oz.)

<b>Station</b>	
Output	24V
Dimensions	120(W) x 120(H) x 190(D)mm (4.7 x 4.7 x 7.5 in.)
Weight (w/o cord)	2.7kg (5.9 lb.)

**Contents:**

Part No.	Name	FM203-01	FM203-DP
N/A	FM-203 soldering station	1	1
FM2027-02	Connector	1	2
B2387	Power cord	1	1
B2972	Control card	1	1
B3219	Sleeve assembly, Green, anti-bacterial	1	1
B3216	Sleeve assembly, Yellow, anti-bacterial	0	1
B2300	Heat-resistant pad	1	2
FH200-01	Iron Holder, Sleep, w/ 599B	1	2
B3253	Connecting cable	1	2
B2756	Tip tray	1	1
N/A	Instruction manual	1	1

The FM2023-DP includes two FM-2027 connectors and sleep holders. Tips not included.

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**Accessories/Replacement Parts:**

Part No.	Name	Specification
FM2027-01	HAKKO FM-2027 w/ Yellow Sleeve Assembly	Does not include tip or holder
B3216	Sleeve Assembly Yellow (Lock-type, Antibacterial)	
B3217	Sleeve Assembly Orange (Lock-type, Antibacterial)	
B3218	Sleeve Assembly Blue (Lock-type, Antibacterial)	
B3219	Sleeve Assembly Green (Lock-type, Antibacterial)	
A1536	Cleaning sponge	Green
FM2022-05	Conversion kit	FM-2022 Parallel Remover with sleep holder and cable. Tips not included.
FM2023-05	Conversion kit	FM-2023 Mini Parallel Remover with sleep holder and cable. Tips included.
FM2024-21	Conversion kit/120 V	FM-2024 Desoldering Module with sleep holder and cable. Nozzle not included.
FM2026-06	Conversion kit	FM-2026 Nitrogen Iron with sleep holder and cable. Tips not included.
FM2027-03	Conversion kit	FM-2027 Soldering Iron with sleep holder and cable. Tips not included.

**Tips and Nozzles:**

See PB258 for T15 tip list for HAKKO FM-2027

Tips for HAKKO FM-2022

Part No.	Part Name	Specifications
T16-1001	Tip / CHIP 0.5I	
T16-1002	Tip / CHIP 0.5C	
T16-1003	Tip / CHIP 1L	
T16-1004	Tip / CHIP 2L	
T16-1005	Tip / SOP 6L	
T16-1006	Tip / SOP 8L	
T16-1007	Tip / SOP 10L	
T16-1008	Tip / SOP 13L	
T16-1009	Tip / SOP 16L	
T16-1010	Tip / SOP 20L	
T16-1011	Tip / SOP 25L	
T16-1012	Tip / SOP 18L	
T16-1013	Tip / CHIP 3L	

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### Tips for HAKKO FM-2023

Part No.	Part Name	Specifications
T9-I	Tip / CHIP I	
T9-L1	Tip / CHIP 1L	
T9-L2	Tip / CHIP 2L	

### Nozzles for HAKKO FM-2024

Part No.	Part Name	Specifications
N3-06	Nozzle / 0.6mm (0.02 in.)	
N3-08	Nozzle / 0.8mm (0.03 in.)	
N3-10	Nozzle / 1.0mm (0.04 in.)	
N3-13	Nozzle / 1.3mm (0.05 in.)	
N3-16	Nozzle / 1.6mm (0.06 in.)	
N3-20	Nozzle / 2.0mm (0.08 in.)	
N3-23	Nozzle / 2.3mm (0.10 in.)	
N3-L10	Long Nozzle / 1.0mm (0.04 in.)	

### Tips for HAKKO FM-2026

Part No.	Part Name	Specifications
T17-B2	SHAPE-0.5B Conical	
T17-BC1	SHAPE-1BC Bevel	
T17-BC2	SHAPE-2BC Bevel	
T17-BC3	SHAPE-3BC Bevel	
T17-BCF1	SHAPE-1BC Bevel	Tinned on the soldering surface only
T17-BCF2	SHAPE-2BC Bevel	Tinned on the soldering surface only
T17-BCF3	SHAPE-3BC Bevel	Tinned on the soldering surface only
T17-BL	SHAPE-B Long Shape Conical	
T17-D08	SHAPE-0.8D Chisel	
T17-D16	SHAPE-1.6D Chisel	
T17-D24	SHAPE-2.4D Chisel	
T17-J02	SHAPE-0.2J Bent	
T17-KF	SHAPE-KF Knife	
T17-KR	SHAPE-KR Knife	
T17-KU	SHAPE-KU Knife	

**Available:**

November 6, 2007

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