

## Products & Applications

### Versatile Pencil and Pistol Grip Combination Hand-piece System

The MFR Desoldering Systems provides superior thermal transfer to the joint, effectively reflowing the solder and then quickly and efficiently removing all solder. SmartHeat technology makes through-hole Desoldering easy and safe from board damage. The state-of-the-art hand-piece can be adjusted from a pencil to a gun with a simple press of a button. Operators can find the most comfortable and efficient position to tackle the rework challenge. The paper solder collection chamber and filter system is quick and easy to change, and provides low cost maintenance.

Two MFR Desoldering Systems are available. The MFR-DSX system requires shop air for desoldering. If shop air is not available, the MFR-DSI features an internal vacuum pump



#### Technical Specifications

MFR-DSI, MFR-SDI, MFR-DSX, MFR-SDX  
**Ambient Operating Temperature:** 10- 40°C  
**Maximum Enclosure Temperature:** 55°C  
**Input Line Voltage:** 100- 240 VAC, grounded circuit  
**Input Line Frequency:** 50/60 Hz  
**Power Consumption:** 90 Watts max.  
**Output Power:**  
 50 Watts max. at 22°C ambient temperature  
**Output Frequency:** 450 KHz  
**Power Cord 3-Wire:** 183cm (18/3") SJT  
**Power Supply Dimensions w x d x h:**  
 170mm x 200mm x 152.5mm (7" x 8" x 6")  
**Agency Tested Per:** IEC 60335-2-45 and UL499, FCC CFR Part 15  
**Tip-to-Ground Potential:** < 2mV  
**Tip-to-Ground Resistance:** < 2 ohms  
**Idle Temperature Stability:** ± 1.1°C in still air  
**Hand-piece Cable Length:**  
 L=71cm (48"), burn proof, ESD safe  
**Connector:** 8-pin power connector  
**Workstand Dimensions w x d x h:**  
 100 mm x 200 mm x 100 mm (4" x 8" x 4")  
**Recommended Air Pressure Input:** 450kPa (65PSI) -

MFR DESOLDER SYSTEMS	
Part No.	Description
MFR-DSX	Desolder System, External Air
MFR-DSI	Desolder System, Internal Air Pump
<b>INCLUDES</b>	
MFR-PS2X	Two Port Universal Voltage Power Supply, External Air (MFR-DSX only)
MFR-PS2K	Two Port Universal Voltage Power Supply, with Internal Air Pump (MFR-DSI only)
MFR-HDS	Desolder Hand-piece

MFR-WSDS	Desolder workstand
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*Contents subject to change without notice\**

## Complete MFR System for Soldering, Desoldering and Rework

The MFR Solder / Desoldering Systems include both the innovative desoldering hand-piece and the solder/rework cartridge hand-piece to cover all your rework needs.

Two MFR Soldering / Desoldering Systems are available. The MFR-SDX system requires shop air for desoldering. If shop air is not available, the MFR-SDI features an internal pump that provides suction.

MFR SOLDERING, DESOLDERING & REWORK SYSTEMS	
Part No.	Description
MFR-SDX	Desolder System, External Air
MFR-SDI	Solder / Desolder System, Internal Air Pump
<b>INCLUDES</b>	
MFR-PS2X	Two Port Universal Voltage Power Supply External Air (MFR-SDX only)
MFR-PS2K	Two Port Universal Voltage Power Supply with Internal Air Pump (MFR-SDI only)
MFR-HSR	Soldering and Rework Hand-piece
MFR-WSSR	Soldering Workstand
MFR-HDS	Desoldering Hand-piece
MFR-WSDS	Desoldering Workstand

*Contents subject to change without notice\**

shop air versions only

### Soldering Tip Heater Options

With hand soldering, the task is to make a quality solder connection, without damaging the substrate and without negatively impacting throughput. All of the standard MFR Series power tips & rework cartridges are designed for use with glass fiber (FR4) PCB substrates. This is denoted by the second letter in the part number: "F". For example: **SFP-CH10**, **DFP-CN3**, and **SFV-CNL10**.

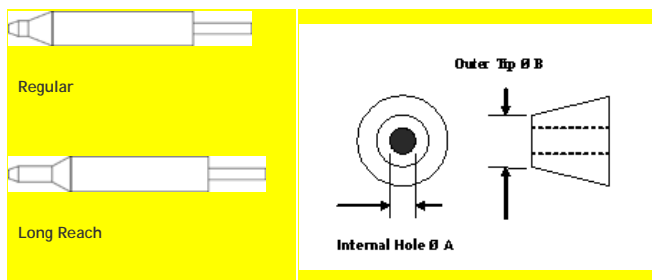
However, some specialist applications require working with thermally demanding or temperature sensitive substrates, such as ceramic hybrids or flexible circuits. OK International has developed specialty heaters that quickly deliver the necessary power, but operate at temperatures that minimize the risk of substrate damage. These are denoted by replacing the "F" in the part number with a "T" for temperature sensitive or a "C" for demanding loads. Please contact your local representative for information and availability of specialty tip heaters. For example: **STP-CH10** and **DCP-CN3**.

- F** = Standard FR4 Substrate
- T** = Temperature Sensitive
- C** = Ceramic or Heavy Load



## Desoldering Cartridges

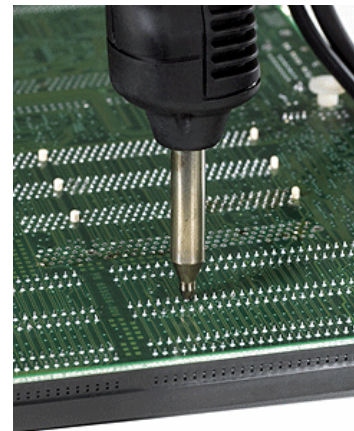
The Desoldering Cartridges are used with the MFR-HDS De-soldering Hand-piece, primarily for solder removal on through-hole components. The tips are supplied in a range of diameters as well as in a long reach configuration to allow improved access on tightly packed PCBs.



REGULAR			
Part No.	Description	$\text{Ø A mm (in)}$	$\text{Ø B mm (in)}$
DFP-CN2	Desolder Tip	0.67 mm (.026")	1.80 mm (.070")
DFP-CN3	Desolder Tip	0.79 mm (.031")	2.05 mm (.080")
DFP-CN4	Desolder Tip	1.05 mm (.041")	2.30 mm (.090")
DFP-CN5	Desolder Tip	1.31 mm (.052")	2.65 mm (.104")
DFP-CN6	Desolder Tip	1.55 mm (.061")	2.85 mm (.112")
DFP-CN7	Desolder Tip	2.44 mm (.096")	3.65 mm (.143")
LONG REACH			
Part No.	Description	$\text{Ø A mm (in)}$	$\text{Ø B mm (in)}$
DFP-CNL3	Desolder Tip, Long Reach	0.79 mm (.031")	2.05 mm (.080")
DFP-CNL4	Desolder Tip, Long Reach	1.05 mm (.041")	2.30 mm (.090")



Versatile Pencil and Pistol Grip Hand-piece System



Desoldering in Action

DFP-CNL5	Desolder Tip, Long Reach	1.31 mm (.052")	2.65 mm (.104")
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To order specialty versions of the Standard Tweezer Cartridges replace the "F" in the part number with the appropriate letter designate for your application when ordering:

T = Temperature Sensitive C = Ceramic or Heavy Load

*Dimensions and artwork listed are for indication/guidance only. Numbers have been rounded up.*

*Please contact your local technical support if you require specific technical information.*



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