

# MX-500 Dual Switchable Output

[Soldering, Desoldering & Rework Systems]

**Metcal's MX-500 Soldering and Rework System** has been reimagined, adding features and a new look to a bench top icon.

The system utilizes SmartHeat® Technology, where each cartridge is equipped with a self-regulating heater which 'senses' its own temperature and closely maintains its pre-set idle temperature for the life of the heater-tip. The tip temperature is determined by the inherent metallurgical properties of the heater; no external adjustment or equipment is required. The MX-500 retains switchable dual port, 40W operation while introducing numerous new features in a new housing.



## MX-500 System Configuration

Part Number	MX-PS500 Power Supply	Hand-pieces					Tip Saver™ Work-stands			
		MX-RM3E*	MX-H1-AV*	MX-H2-UF*	MX-PTZ*	MX-DS1*	WS1*	MX-W1AV*	MX-W4PT*	MX-W5DS*
MX-500S	•	•					•			
MX-500AV	•		•					•		
MX-500UF	•			•				•		
MX-500SPT	•				•				•	
MX-500DS	•					•				•

\*See hand-piece descriptions on page 10

## Technical Specifications

	MX-PS5200 Power Supply	MX-PS500 Power Supply
Input Line Voltage	100 - 240 VAC, grounded circuit, 50/60 Hz	
Rated Power Consumption	125 W	
Output Power	80 W max.*	40 W max.*
Output Frequency	13.56 MHz	
Heating Method	Induction, SmartHeat®	
Display	LCD, 2.5 x .6 inch (64.5 x 14 mm)	
Connections	2 connectors, single mode 80 Watt. Dual mode power is shared dynamically	2 connectors, single mode 40 Watt
Power Supply Dim. W x D x H	4.7 x 5.1 x 9.2 inch (121 x 130 x 235 mm)	4.7 x 4.7 x 8.7 inch (121 x 121 x 220 mm)
Power Supply Weight	7.4 lbs (3.35 kg)	5.8 lbs (2.65 kg)
Certification / Marking	cTUVus, CE	
Tip-to- Ground Potential	< 2 mV	
Tip-to-Ground Resistance	< 2 Ohm	
Idle Temperature Stability	1.1 °C (2 °F) in still air	
Tip Temperature Accuracy	Meets or exceeds IPC J-STD-001 Standard	
Surface Resistivity	10 <sup>5</sup> - 10 <sup>9</sup> Ohm, ESD safe	
Ground Detection	Permanent	
Warranty	5 Years	4 Years

\*RF SmartHeat® Technology provides greater power.

## Key Features & Benefits

- A built in Net Power Meter which will display a graphical and numerical representation of the power applied to the cartridge.
- User Programmable PowerSave Mode: the time to enter PowerSave Mode is adjustable from 10 to 120 minutes.
- Ground Fault Interrupt: AC ground monitor detects power line ground failures and immediately alerts the operator and shuts down the system.
- Universal Power Supply: automatically senses the input line voltage and adjusts accordingly, which allows for worldwide operation without adaptors or a change in performance.
- Full compatibility with existing and previous MX upgrade kits, tip-cartridges, hand-pieces and accessories.

# MX Series Hand-Pieces

[Soldering, Desoldering & Rework Systems]

## MX Series

### Hand-pieces and Upgrade Kits

Metcal offers a variety of hand-pieces and upgrade kits for the MX Series Soldering and Rework Systems.

#### Advanced Hand-piece

The Advanced **MX** Hand-piece is highly effective for most soldering applications including lead-free and thermally sensitive components requiring low operating temperatures.



- For use with STTC and SMTC Cartridges. See pages 14-16, 18-19 for cartridge list

Part Number	Description
MX-H1-AV	Advanced Hand-piece for MX Systems
MX-W1AV	Tip Saver Work-stand for Advanced Hand-piece
MX-UK1	Upgrade Kit, includes Advanced hand-piece and Work-stand

#### UltraFine Hand-piece

The Ultrafine hand-piece is a specialty tool for soldering and rework of very small components.



- For use with UFTC Cartridges. See page 20 for cartridge list

Part Number	Description
MX-H2-UF	UltraFine Hand-piece for MX Systems
MX-W1AV	Tip Saver Work-stand for Ultrafine Hand-piece
MX-UK2	Upgrade Kit, includes Ultrafine hand-piece and Work-stand

#### MX-RM3E Hand-piece

The MX-RM3E is an economical hand-piece for use on most common soldering applications.



- For use with STTC and SMTC Cartridges. See page 14-16, 18-19 for cartridge list

Part Number	Description
MX-RM3E	Economical Hand-piece for MX Systems
WS1	Tip Saver Work-stand for MX-RM3E Hand-piece

#### Precision Tweezer Hand-piece

Transform the MX Soldering System into a rework system for applications requiring the removal of surface mount components.



- For use with PTTC Cartridges. See page 22 for cartridge list

Part Number	Description
MX-PTZ	Precision Tweezer Hand-piece for MX Systems
MX-W4PT	Tip Saver Work-stand for Precision Tweezer Hand-piece
MX-UK4	Upgrade Kit, includes Precision Tweezer hand-piece and Work-stand

#### Desolder Hand-piece

The desolder hand-piece is great for mixed-technology boards and for through-hole desoldering



- For use with STDC Cartridges. See page 23 for popular cartridges

Part Number	Description
MX-DS1	Desolder Hand-piece for MX Systems
MX-W5DS	Tip Saver Work-stand for Desolder Hand-piece
MX-UK5	Upgrade Kit, includes Desolder hand-piece and Work-stand

#### High Thermal Demand Hand-piece

The High Thermal Demand (HTD) hand-piece transforms your MX-5200 Series power supply into a powerhouse for applications with high thermal loads such as dense boards, without damaging sensitive components.



- For use with HTC Cartridges. See page 17 for popular cartridges

Part Number	Description
MX-H6-HTD	High Thermal Demand Hand-piece for MX Systems
MX-W1AV	Tip Saver Work-stand for HTD Hand-piece
MX-UK6	Upgrade Kit, includes HTD hand-piece and Work-stand