Metcal MX-500
Soldering/Rework System - Data Sheet

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, wherein 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.

FEATURES AND BENEFITS

- **Integrated Power Indication Meter:** 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. Only after the power line ground has been restored can the MX-500 be restarted and soldering operations can be resumed.
- **Universal Power Supply:** automatically senses the input line voltage and adjusts accordingly, which allows for worldwide operation without adaptors or a change in performance.
- **Compatibility with all MX products:** the MX-500 redesign allows full compatibility with existing and previous MX upgrade kits, tip-cartridges, hand-pieces and accessories.
- **Greater process control with SmartHeat® Technology**
- **Reduced space requirements**

MX-500 SYSTEMS CONFIGURATION & UPGRADE KITS

ONE HAND-PIECE SYSTEM

MX-500S Soldering / Rework System
Power supply, MX-RM3E soldering and rework hand-piece and WS1 sleeper workstand

TWO HAND-PIECE SYSTEMS

MX-500SPT Rework System
Power supply, MX-PTZ precision tweezer hand-piece with MX-W4PT TipSaver workstand and MX-RM3E soldering and rework hand-piece and WS1 sleeper workstand

MX-500DS Desoldering System
Power supply, MX-DS1 desoldering hand-piece with MX-W5DS TipSaver workstand and MX-RM3E soldering and rework hand-piece and WS1 sleeper workstand

POWER SUPPLY WITHOUT HAND-PIECE

MX-500P: MX-500 dual port switchable power supply

UPGRADE KITS

MX-UK1: MX-H1-AV Advanced Soldering and Rework Hand-piece with MX-W1AV TipSaver Workstand

MX-UK2: MX-H2-UF Ultra Fine Soldering and Rework Hand-piece with MX-W1AV TipSaver Workstand

MX-UK4: MX-PTZ Precision Tweezers Hand-piece with MX-W4PT TipSaver Workstand

MX-UK5: MX-DS1 Desoldering Hand-piece with MX-W5DS TipSaver Workstand

www.metcal.com

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HAND-PIECES AND CARTRIDGE SERIES

The MX-500 Series offers users a choice of hand-pieces to meet the customer's application needs. Each hand-piece has its own range of cartridges with many choices available for tip geometry and temperature.

MX-RM3E

MX-H1-AV

MX-H2-UF

MX-PTZ

MX-DS1

STTC Soldering & SMTC Rework

UFTC Ultra-Fine

PTTC Tweezers

STDC Desolder

These hand-pieces are compatible with the Metcal MX-500 and MX-5200 Soldering and Rework Systems.

ACCESSORIES

AC-Y10	Yellow sponge, pack of 10	WS1	Sleeper Soldering Workstand
AC-BP	Brass pad, pack of 10	MX-W1AV	TipSaver Soldering Workstand
AC-BRUSH	Soft Brass brush	MX-W4PT	TipSaver Precision Tweezer Workstand
MX-CP1	Cartridge removal pad	MX-W5DS	TipSaver Desoldering Workstand
AC-TC	Desolder Tip Cleaner	WST	Talon Workstand

TECHNICAL SPECIFICATIONS
CONFIGURATIONS

Ambient Operating Temperature	10 to 40°C
Maximum Enclosure Temperature	55°C
Input Line Voltage	100 – 240 VAC, grounded circuit
Input Line Frequency	50/60 Hz
Rated Power Consumption	70 Watts
Output Power **Output Frequency**	**40 Watts max. *** **13.56 MHz ***
Power Supply Dimensions w x d x h	12.1cm (4.8") x 12.1cm (4.8") x 22.2cm (8.8")
Certification / Marking	cNRTLus, CE
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=183cm (72"), burn proof, ESD safe
Hand-piece Connector	F connector
Weight of the power supply	2.65 Kg (5.85 lbs)

*** RF SmartHeat Technology provides greater power.**
More details at www.metcal.com