Rework Systems Overview

SmartHeat® Soldering Technology = Variable Power / Fixed Temperature

- SmartHeat® tips and cartridges sense the load and instantly deliver the right amount of heat directly to the solder joint.
- The required solder joint temperature drives the heating process, as opposed to the idle tip temperature setting (as in a conventional iron).
- Operates at lower and safer temperatures. Power is delivered in proportion to the load. SmartHeat® technology eliminates overshoot.
- No calibration required - saves money and eliminates system down-time.

Watch our SmartHeat® Video on YouTube or www.metcal.com
The new MX-5200 Soldering, Desoldering and Rework Series offers the same increased power and process control as the MX-5000 Series, now with dual-simultaneous ports.

**For two users or single user with dual applications.** The MX-5200 can be operated with two hand-pieces dynamically sharing the 80 watts output power based on demand adding even more application flexibility and speed.

**Fast time-to-recovery.** Delivering increased production rates and throughput. No matter the application. The challenges of high mass components, multilayered boards and lead-free solders are seamlessly tackled by the MX-5200 super-charged power supply.

**SmartHeat process control.** Our Technology built-in every Metcal System means that soldering and rework are always performed at safe, controlled temperatures. Metcal users know that moderate fixed temperatures, where power is varied, provide the best assurance for a well controlled soldering and rework process.

**TipSaver™ Workstand improves** tip life as well as operator ergonomics. This “Auto-Sleep” Workstand reduces the power to the hand-piece when it is placed in the Metcal TipSaver™ Workstand. Reduction in power will substantially decrease tip oxidation, a major cause of reduced tip life.

**Ergonomic Hand-pieces.** The aluminium hand-pieces for soldering and rework provides a cooler, lighter weight and more comfortable feel for the operator. And, the Metcal UltraFine™ Hand-piece features a new generation of extremely fine diameter cartridges in a slim profiled handle. Both of these hand-pieces uniquely offer users a choice of three interchangeable grips.

**ESD safe and features incoming AC ground monitoring circuitry.** This AC (mains) 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-5200 be restarted and soldering operations can be resumed.

**Built-in power indication meter** with digital display and bar graph that visually provides the operator with feedback on the status of the soldering operation. Whether using a large mass rework tip for QFPs or a fine-point soldering tip, the power indication meter is a valuable resource for making consistent, acceptable solder joints.

**Four mode indicators:**

**Ready Mode:** The hand-piece is removed from the workstand, ready for soldering or rework.

**Power Mode:** The hand-piece’s tip is in contact with the load. The power indication meter provides graphical and numeric feedback on the system power output.

**Sleep Mode:** The hand-piece is at rest in the workstand; power is reduced to the hand-piece.

**Powersave Mode:** Power to the hand-piece is shut off. This programmable sleep feature allows an operator to set the desired time to cut off power to the hand-piece (from 10 to 120min).
SYSTEMS CONFIGURATION

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>MX-PS5200 Power Supply</th>
<th>Hand-pieces</th>
<th>TipSaver™ Workstands</th>
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<tbody>
<tr>
<td>MX-5210</td>
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<td>MX-5251</td>
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**SYSTEMS WITH ONE HAND-PIECE**

**MX-5210 Soldering and Rework System**
Configured with the Advanced™ Hand-piece. Highly effective for soldering applications including: lead-free, high mass components or boards, thermally sensitive components requiring low operating temperature, high volume production soldering and touch-up soldering operations.

Soldering cartridges: STTC Series and SMTC Series

**MX-5220 UltraFine™ Soldering System**
Configured with the UltraFine™ Soldering Hand-piece which is a specialty tool for soldering and touch-up of very small components, restricted access or high density component packaging on a PCB.

Soldering cartridges: UFTC cartridges featuring small tip geometries and low mass, suited for small part soldering.

**MX-5250 Plated-Through-Hole Component Desoldering System**
Includes the MX-DS1 Desoldering hand-piece designed for through-hole desoldering.

Desoldering cartridges: STDC Series provide assurance for fast, high quality results

NOTE: Unit requires shop air for desoldering.

**SYSTEMS WITH TWO HAND-PIECES**

**MX-5211 Soldering and Rework System**
Same features as MX-5210 but configured with two Advanced™ Hand-pieces and two TipSaver™ Workstands.

Soldering cartridges: STTC Series and SMTC Series

**MX-5241 Precision Tweezers, Soldering and Rework System**
Combines both the Advanced™ Hand-piece and the Precision Tweezers Hand-piece. Users get maximum application flexibility for soldering and reworking the widest range of surface mount components.

Tweezer cartridges: PTTC Series. Soldering Cartridges: STTC and SMTC Series

**MX-5251 Soldering, Desoldering and Rework System**
For through-hole desoldering, general soldering, and SMD rework applications. Includes two hand-pieces: the Advanced™ Hand-piece and the MX-DS1 Desoldering hand-piece. Ideal for mixed technology boards. Provides versatility for addressing soldering & rework tasks.

Desoldering cartridges: STDC Series Soldering cartridges: STTC and SMTC Series.

NOTE: Unit requires shop air for desoldering.

www.metcal.com