



**Innovation has a
brand new color.**



Introducing the new CV-5200 Connection Validation™ Soldering Station

**Metcal is raising the bar with a
technology that will change hand
soldering forever.**

Metcal soldering stations have led the way with SmartHeat® technology for 35 years. SmartHeat senses the thermal load and instantly delivers Power on Demand directly to the joint. The embedded, self-regulating heater delivers the right amount of power based on the requirements of the solder joint. This provides a fast, safe and repeatable process with no calibration required.

**Currently, the industry standard relies
on a visual inspection of the solder
joint. Metcal has developed a better
way...**

Introducing Connection Validation .

CV-5200 Series

Connection Validation™ Soldering Station



The intermetallic compound thickness is critical in the formation of a solder joint. Connection Validation (CV) evaluates the quality of the solder joint by calculating the intermetallic compound formation and provides closed loop feedback to the operator.

CV provides feedback to the operator via the LED light ring integrated in the hand-piece. It takes the risk associated with the variables involved in the soldering activity and removes the success and failure determination of a good solder joint out of the hands of the operator.

CV compliments the skill of the operator to judge the quality of a solder joint by introducing an objective method of evaluating solder joint quality. This systemic and objective approach provides repeatability and a measureable standard to the soldering process.

Features and Benefits

- SmartHeat Power on Demand Technology
- Patented Connection Validation IMC Formation Technology
- 2.8" color touchscreen with bold graphics
- Communications Port for process traceability data and firmware graphics
- Precise tip temperature display
- Integrated Net Power Meter and power graph
- Patented Chip-in-Cartridge technology
 - Closed loop bi-directional communication
 - Stores and records cartridge attributes
 - Provides traceability information
 - Protects power supply from non-conforming cartridges
 - Backwards compatible with MX series power supplies
- Password protection



LED equipped hand piece signals to operator when a good solder joint is formed.



Tip temperature displayed on large color screen.

System Configuration

The CV-5210 soldering station includes:

- CV Power supply
- CV-H1-AV: Advanced hand-piece with integrated LED light*
- MX-W1AV: TipSaver Workstand*

Additional system configurations will be available soon.

*Can be ordered separately.

Technical Specifications

CV-5200 Connection Validation Power Supply	
Ambient Operating Temp.	10 to 40 °C
Max. Enclosure Temp.	55°C
Input Line Voltage	100 – 240 VAC, grounded circuit
Input Line Frequency	50/60 Hz
Rated Power Consumption	125W
Output Power	80W max.
Output Frequency	13.56 MHz
Heating Method	Induction
Display	2.8" Color TFT LCD Display
Resolution	320*240 RGB
Size	2.8" Diagonal
Active Area	43.20 x 57.60 mm
Connections	Single Port
Communications	USB
Power Supply Dim. w x d x h (mm)	121 x 130 x 235
Power Supply Weight (kg)	3.35
Certification / Marking	CE TUV
Tip-to- Ground Potential	<2mV
Tip-to-Ground Resistance	<2ohms
Idle Temperature Stability	1.1°C in still air
Tip Temperature Accuracy	Meets or exceeds IPC J-STD-001 Standard
Hand-piece cable length	L=183cm (72"), burn proof, ESD safe
Hand-piece connectors	
RF Connector	F type power connector
LED Power Connector	6 pin DIN
Operation	2 single port or dynamic dual simultaneous
Firmware upgrade	Via USB port and appropriate software with compatible computer and cables.