Purpose-Built for Performance.

Introducing the
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

METCAL™

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 complements 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
- Integrated Net Power Meter and power graph
  - ° With optional precise tip temperature display
- 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
- Wide variety of cartridges available for most applications
- Power supply protected by 5-year warranty, longest in the industry

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

Tip temperature displayed on large color screen.

CV System Configuration

Part Number	Description
CV-5210	Solder System includes:
CV-PS5200	Power Supply*
CV-H1-AV	Advanced hand-piece for CV with LED light*
CV-CP1	Cartridge Removal Pad*
CV-W1AV	TipSaver Workstand*
Also Available	*Can be ordered separately
CV-UK1	Upgrade Kit, includes CV Advanced Hand-piece and Workstand

See our complete cartridge/tip selection at **www.Metcal.com**

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	<2ohm
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.

Connection Validation
Hand-pieces and Upgrade Kits

Metcal offers eight different hand-pieces and upgrade kits for the Connection Validation Soldering system. These ergonomic hand-pieces transform the CV system into a complete soldering solution for a wide variety of applications.

UltraFine Hand-piece & UltraFine Tweezer Hand-piece

Metcal's UltraFine hand-pieces add a specialty tool for soldering and rework of very small components, restricted access or high density component packaging on a PCB.

Key Features & Benefits:

- Improved temperature control: Metcal's SmartHeat® inside means lower risk of overshooting delicate components
- Very fast heat-up speed means you can get to your next task even faster
- Ergonomic, lightweight hand-piece keeps you comfortable even on large industrial jobs
- Designed for use under a microscope
- Compatible with UFC cartridges and available in 600 and 700 series temperatures for the UltraFine hand-piece. Compatible with UFT cartridges and available in 600 and 700 series for the UltraFine Tweezers hand-piece

Part Number	Description
CV-H2-UF	UltraFine Hand-piece for CV System
CV-UK2	Upgrade Kit, UltraFine Hand-piece and Work-stand
CV-H4-UFT	UltraFine Tweezer Hand-piece for CV System
CV-UK4-HFT	Upgrade Kit, UltraFine Tweezer Hand-piece and Work-stand

Precision Tweezer Hand-piece

Transform the Connection Validation Soldering Systems into a rework system for applications requiring the removal of surface mount components from 1mm x 1mm on up.

Key Features & Benefits:

- Adjustable tip alignment for both height and rotation ensures co-planarity of the tip cartridges

- Dual position pitch-switch enables adjustment of pincer-action, adjusting to the component width, improving operator ergonomics
- Lightweight and ergonomic hand-piece
- Quick change tip cartridges with keyway to prevent misalignment
- For use with PTC Tweezer Cartridges

Part Number	Description
CV-H4-PTZ	Precision Tweezer Hand-piece for CV System
CV-UK4	Upgrade Kit, Tweezer Hand-piece and Work-stand

Desolder Hand-piece

Transform the Connection Validation Soldering Systems into a rework system for applications requiring the removal of solder such as through hole components.

Key Features & Benefits:

- Designed for plated-through hole component desoldering
- Ergonomic easy-to-grip handle
- The hand-piece requires shop air for operation
- Compatible with DSC cartridges available in 700, 800, and 900 series temperatures

Part Number	Description
CV-H5-DS	Desolder Hand-piece for CV System
CV-UK5	Upgrade Kit, Desolder Hand-piece and Work-stand

High Thermal Demand Hand-piece

Metcal's High Thermal Demand hand-pieces and tips transform the CV-5200 Soldering System into a powerhouse. Metcal's HTD solution provides a boost in performance by more effectively delivering thermal energy to the most demanding loads.

Key Features & Benefits:

- Improved temperature control: Metcal's SmartHeat® inside means lower risk of overshooting delicate components
- Very fast heat-up speed means you can get to your next task even faster
- Ergonomic lightweight hand-piece keeps you comfortable even on large industrial jobs
- Compatible with HCV cartridges and available in 700, 800, and 900 series temperatures

Part Number	Description
CV-H6-HTD	High Thermal Demand Hand-piece for CV System
CV-UK6	Upgrade Kit, High Thermal Demand Hand-piece and Work-stand

Solder Wire Feeder Hand-pieces

Metcal's Solder Wire Feeder System adds control and convenience to your soldering process. The digital controls, high performance, and its ability to handle multiple solder wire diameters provide repeatability and functionality to your process. Two hand-pieces available, for standard CV applications and high thermal demand applications.

Key Features & Benefits:
- Improved temperature control: Metcal's SmartHeat® inside means lower risk of overshooting delicate components

- Very fast heat-up speed means you can get to your next task even faster
- Compatible with solder diameters from 0.3mm to 1.27mm
- Compatible with CVC and SMC series cartridges for standard applications and HCV series cartridges for high thermal demand applications. Available in 700, 800, and 900 series temperatures.

  CV-H7-HTD Not Recommend for use with the CV-500 Connection Validation System.

Part Number	Description
CV-H7-AV	Solder Wire Feeder Advanced Hand-piece for CV System
CV-UK7	Upgrade Kit, Solder Wire Feeder Advanced Hand-piece, Work-stand and Solder Wire Feeder Unit
CV-H7-HTD	High Thermal Demand Hand-piece for CV Solder Wire Feeder System
CV-UK7-HTD	Upgrade Kit, Solder Wire Feeder HTD Hand-piece, Work-stand and Solder Wire Feeder Unit

Introducing the All-New CV Monitoring Software

Improve your solder process traceability and create a performance baseline using CV's intelligent cartridges plus CV-5000 Monitor software. Using our Connection Validation patented technology, CV Monitor software allows you to capture solder process information over time for each joint when attached to the communication port.

Now that you have a baseline, you can quickly analyze your soldering performance, identify changes in your solder conditions, and make changes to your process. Download the free CV-5000 Monitor software and start monitoring your process.

You'll get:

- Power demand
- Tip temperature
- Solder time
- Intermetallic Compound Formation (IMC Formation)*

Metcal Exclusive

**Download the free software to get started.
www. Metcal.com**

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

http://moschip.ru/get-element

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009