



## CDM 3201

**Stud Welding Unit** (with wide range power supply) for CD stud welding (capacitor discharge welding) according to current standards

Technical Data	
Automation	Series
Welding range	#4 to 7/16", dia. 14 ga to 3/8" (M3 to M10, dia. 2 to 10 mm)
Welding material	Mild steel, stainless steel, aluminum and brass
Welding rate	12 to 40 studs/min (depending on application and stud dia.)
Capacitance	132,000 µF/66,000 µF*
Welding time	1 to 3 msec
Energy	3,200 Ws/1,600Ws*
Charging voltage	50 to 220 V (stepless voltage regulation)
Primary power	85 to 265 V ~ wide range selection, 50/60 Hz, 10 AT
Power source	Capacitor
Cooling type	F (temperature controlled cooling fan)
Insulation class	IP 21
Operational and storage conditions	According to current standards
Dimension L x W x H	23.62" x 9.45" x 11.02" (600 x 240 x 280 mm) without handle
Weight	59.52 lbs (27 kg) * with change over of capacitors
<b>Order No.</b>	<b>92-12-2321 (Automation)</b>
General Information	
<b>Application</b>	
<ul style="list-style-type: none"> <li>Especially suitable for thin sheets (at least 0.6 mm)</li> </ul>	
<b>Process variants</b>	
<ul style="list-style-type: none"> <li><b>Contact welding</b></li> <li><b>Gap welding</b></li> </ul>	
<b>Special equipment</b>	
<ul style="list-style-type: none"> <li><b>Automation</b> (series)</li> </ul>	



## Advantages

### Features

- **Microcontroller** – for precise process times, optimal functional reliability and maximum operating convenience
- **Function monitoring** – automatic function test following power-up; monitoring of all internal system functions
- **Display of error codes** – on LCD display
- **Lift test** – for gap welding guns and stud welding heads
- **Library function** – 8 programs (charging voltages) can be stored; library with stored welding parameters; additional customer-specific entries possible; user interface available in various languages; display of charging voltage in volts
- **Process monitoring** – recording and analysis of factors affecting the welding process by means of the process-analysis factor (PAF); after each weld, the reference PAF value is compared with the actual value; display of the actual and reference values; switchable automatic welding stop, if limits are exceeded; limits selectable in increments; manual entry of PAF value possible
- **RS232 interface** – for data output; data and time of day are stored; welding parameters of each weld are logged

### Structure

- **Extremely easy to operate**
- **Compact**
- **Robust** – metal housing withstands rough treatment in shop and on site

### Safety

- With integrated **mains filter** (protection against voltage peaks)
- **Optimal for construction sites with large mains voltage fluctuations** – safe to operate with mains voltages ranging between 85 to 265 V (wide range power supply); use even with critical voltage supply
- **EMC test**
- **High-voltage test with log**
- **Retriggering lock-out** – prevents welding on a welding element that has already been set
- **Thermal monitoring of transformer and internal temperature of stud welding unit** – automatic shutdown in case of overheating
- **Temperature-regulated ventilator** – reduces noise and dust in the stud welding unit (greater system reliability)
- **Control unit galvanically separated from welding lines** – high degree of functional safety
- **Optimal protection against external interferences**

### Welding

- **Display** – infinitely adjustable power setting (charge reversal via set-point switch); easy monitoring of all functions via LCD display; user-friendly operation via large LCD display
- **Powerful** – built-in power reserves
- **Electronic regulation of charging** – allows high clock rates
- **Trouble-free changing** of welding voltage polarity possible by reconnecting welding current and ground cables
- **Use of special capacitors** (developed for stud welding)
- **Capacitance switching** – 66,000  $\mu\text{F}$  or 132,000  $\mu\text{F}$

### Suitable stud welding guns/ -heads

- **C 08**
- **CA 08**
- **PAH-1**
- **KAH 412**

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(Technical data may change)