Hotline
Mo to Fr 08:00 o´clock AM to 04:00 o´clock PM

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For technical questions, especially about the device / gun please have ready in advance:

Type of machine and serial number

Error description

Please observe the detailed operating instructions for equipment and guns! There are knowledge of stud welding equipment and their components necessary. Stud welding work may be performed only by persons who have reached the age of 18. Observe all the necessary safety instructions.

Please note the technical roules and standards DIN EN ISO 13918, DIN EN ISO 14555, DVS-Merkblätter 0901, 0903 und 0904

Power switch

Display

Rotary encoder

Connection ground

Connection control

Connection welding gun

1. Connection of welding gun and ground cable

// Set the power switch to "0"
Note: with the **CDP-133M** the power switch is located on the back of the device!

// Connect the power cable to the back of the device and then connect to the mains plug (230V / 115V, single-phase, 50 / 60Hz)

// Ground cable, control cable and the welding cable and connect to the device and secure by twisting

// Ideally, attach the earth cable to the workpiece diagonally and equidistant from the welding point with the two grip pliers (ATTENTION: Both positions must be metallically bright!)

// Switch on the device: Mains switch to "1" and continue with point 2 "Startup"

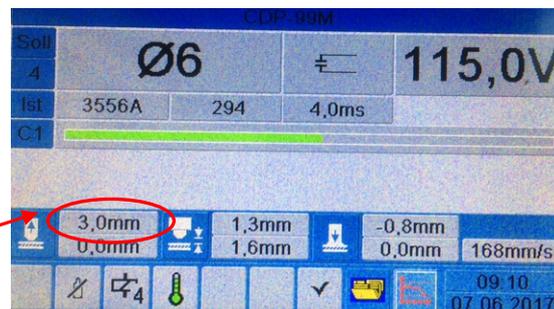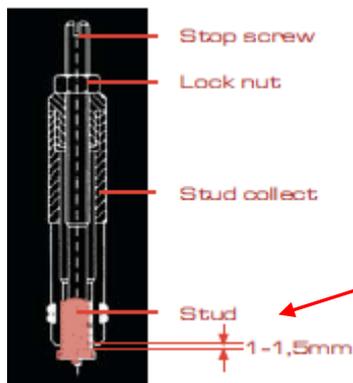# 2. Setting-up operation

Adjustement of the chuck

Figure 2: Target default value stud-overlap (circled in red)

// Select chuck suitable for welding element
// Adjust the chuck (see picture above left)
// Insert the chuck into the gun
// Firmly tighten the chuck with the enclosed wrench SW 17
// Check stud overlap (see Figure 2):

NOTE (for guns with lenght measuring system "GAP-M" / "CONTACT-M"): The nominal dimension of the stud overlap is stored in the fixed library and is displayed in the basic menu by calling up a charging voltage. This value serves as an adjustment aid and can be checked by placing and pressing down the welding gun on the (plane!) workpiece with inserted stud. The actual dimension is displayed below the nominal value and only if the gun is placed on the workpiece with studs. The measuring of the stud-overlap must not be undershot! Possibly. set up the chuck again!

ATTENTION: Do not trigger the gun during setup and during workpiece contact!
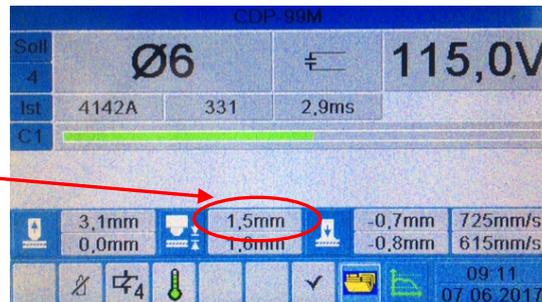
Gap-gun „GAP" / „GAP-M" adjustement

Fig. 4: Desired target value for removal (circled in red)

// Place the gun on a flat surface and turn the adjustment knob counterclockwise until the feet, including the stud, rest flat on the surface of the workpiece. This setting is called "Zero-Abhub"
ATTENTION: set the "Lift-Test" on the device (in the menu "CDP-M") or loosen the ground again for the adjustment work so that no welding current can flow, if the start button on the welding gun is pressed becomes!

// Now turn the adjustment knob counterclockwise until the lift is reached according to your welding task

// standard setting steel / stainless steel: 1,5mm ... 2,0mm (1,5 to 2 turns on the adjusting knob)

// standard setting aluminum: 2.5mm ... 3.5mm (2.5 to 3.5 turns on the adjusting knob)

NOTE (for guns with distance measuring system "GAP-M"):
The nominal dimension of the lift is stored in the fixed library and is displayed in the basic menu by calling up a charging voltage. This value serves as an adjustment aid and can be checked by placing, pressing down and releasing the welding gun on the (flat!) workpiece with inserted stud and read off the display. The actual dimension is displayed below the setpoint value (see Fig. 4).

The lift may be exceeded by a maximum of 0.1 ... 0.2 mm deviating from the setpoint default value or exceeded! Possibly. Rebuild the lift!

In addition, the setpoint value for the stud overlap and with the setting in the way measurement, the setpoint for the immersion dimension is displayed. The actual piston speed is also displayed, but cannot be specified without activated mechanical process monitoring including parameter recording.

Contact-gun „CONTACT" / „CONTACT-M" adjustment

Fig. 6: Target value for bolt projection and red symbol "no magnet" (circled in red)

// Only the spring pressure can be set on the contact gun

// adjustment screw in the end cap by means of money coin or similar turn to adjust the spring force to the welding task if necessary

NOTE: the spring force is factory set to approx. 20% of the max. Preload adjusted and usually does not need to be changed (1 - 2 scale lines, seen on the side window handle)

// Clockwise: more spring force = shorter welding time

// Counterclockwise: Less spring force = longer welding time

NOTE (for guns with "CONTACT-M" position sensor, see Fig. 6):
As the contact welding guns generally have no lift-setting, the magnet symbol in the display with connection of this gun to the device remains red. This is not an error or defect! Only the setpoint value for the stud overlap and with the setting in the position measuring sysmte the setpoint for the depth of immersion is displayed. The actual piston speed is also displayed, but cannot be specified without activated mechanical process monitoring including parameter recording.

3. Basic-setting at the power unit

// If the device is switched on, a self-test is carried out and the company logo and the software version appear on the display

// After the self-test, the basic menu is displayed **NOTE: Only in the basic menu can be welded!**

// The following values appear in the basic menu with the connected and adjusted welding gun (see page 4):

Display of the **selected welding stud** (selectable in fixed library)

Capacitor-symbol (only for information)

Adjusted loading voltage

Charge status:
// blue: soft start after switching on the device
// red: charge to preset charging voltage
// green: charging voltage reached, device ready for welding

Temperature of machine

Menu-Button

Symbol „lift-magnet (only with gap-gun black)

Ready-signal

Piston speed

Overlap (see chapter 2)

Lift (see also chapter 2)

Depth of immersion

3.1 Adjustment of loading voltage

3.1.1 Loading voltage adjustment in basic menu
// Scroll to the charging voltage by means of a rotary encoder and change the value by pressing and turning (The respective field turns blue when the position is reached in the basic menu, pressing the rotary encoder to change the value will change the field to "Magenta".)

3.1.2 Select loading voltage in fixed library

// Press the yellow menu-button in the main menu using the rotary encoder > the "CDP-66M" or "CDP-99M or" CDP-133M "menu appears (depending on the device)

// Scroll to "Library fixed" using the rotary encoder and press > a table with material- and diameter-related charging voltage values appears

// Select the desired charging voltage with the rotary encoder (scroll through and set the hook) and switch back to the basic menu (welding menu) with the "START" button.

3.1.3 Select loading voltage in variable library

// Press the yellow menu-button in the main menu using the rotary encode r> the "CDP-66M" or "CDP-99M or" CDP-133M "menu appears (depending on the device)

// Scroll to **"Library variable"** using the rotary encoder and press > a table with material and diameter-related charging voltage values appears

// Use rotary encoder to select the desired table position (set the hook) and **either** copy a value from the main menu by means of the "NEW" button or accept and change it from the table position by pressing the "START" button in the main menu (welding menu).

Welding gun and device are now set and ready to weld!