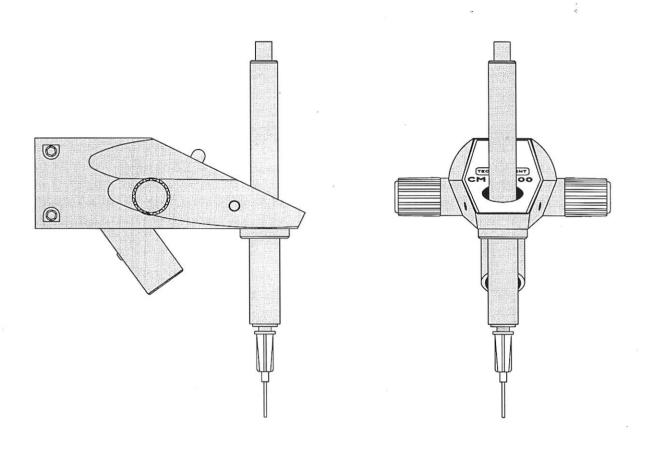
# CMS-1000 (COMPACT)

# MANIPULATOR ARM



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#### **Technical specifications**

Weight 0.6 kg.

Built-in spot illumination.

Can be used by right or left handed people.

#### Accessories

- Set allen-keys 1.5, 2, 2.5, 3
- Holder for 10cc solder cream syringe
- Adapter for 5cc syringe

#### **WARRANTY:**

Like all of our other products the CMS-1000 has a full one year warranty against faults in material or production.

Any defective part under these warranty will be repaired or replaced at our cost. The whole unit must be returned to us, transportation payable by the customer, together with a detailed description of the fault.

Defects due to wrong use or lack of care are not covered under this warranty.

#### Maintenance and care:

Use the CMS-1000 only in a dry, clean place, and strictly avoid aggressive environmental conditions, such as etching equipment.

Check all air tubes for signs of wear once a month

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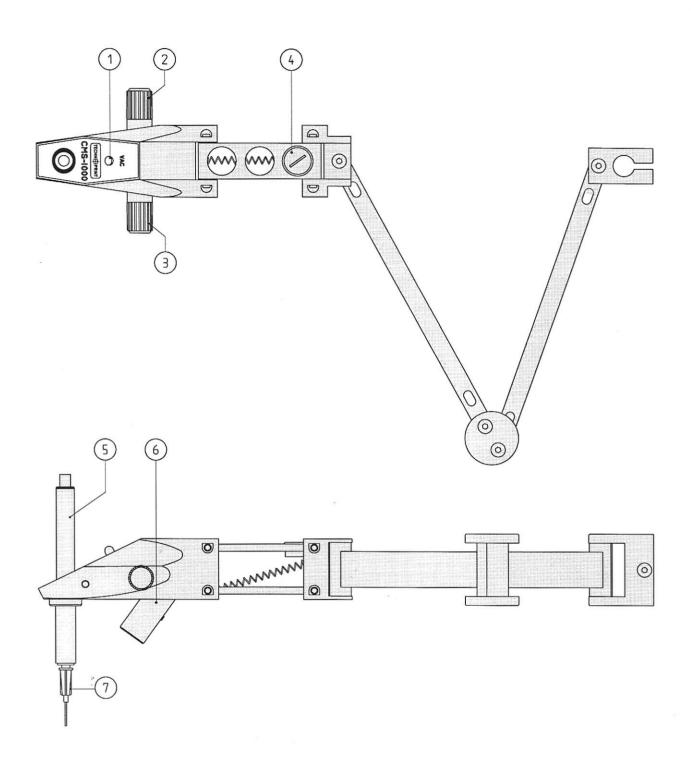
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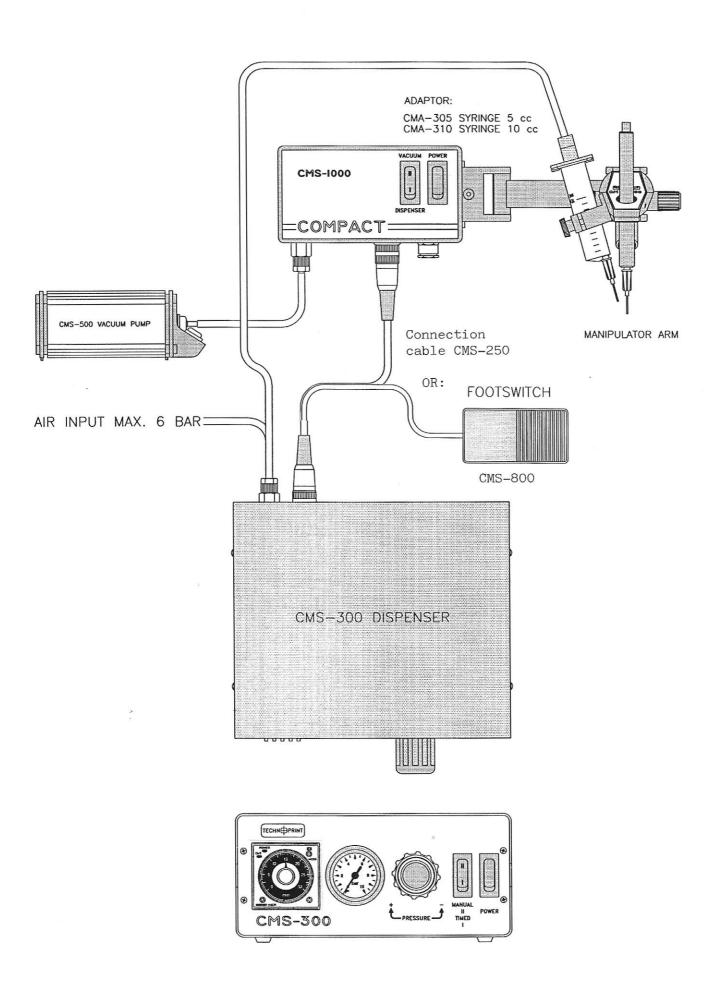
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### Overview manipulator arm.



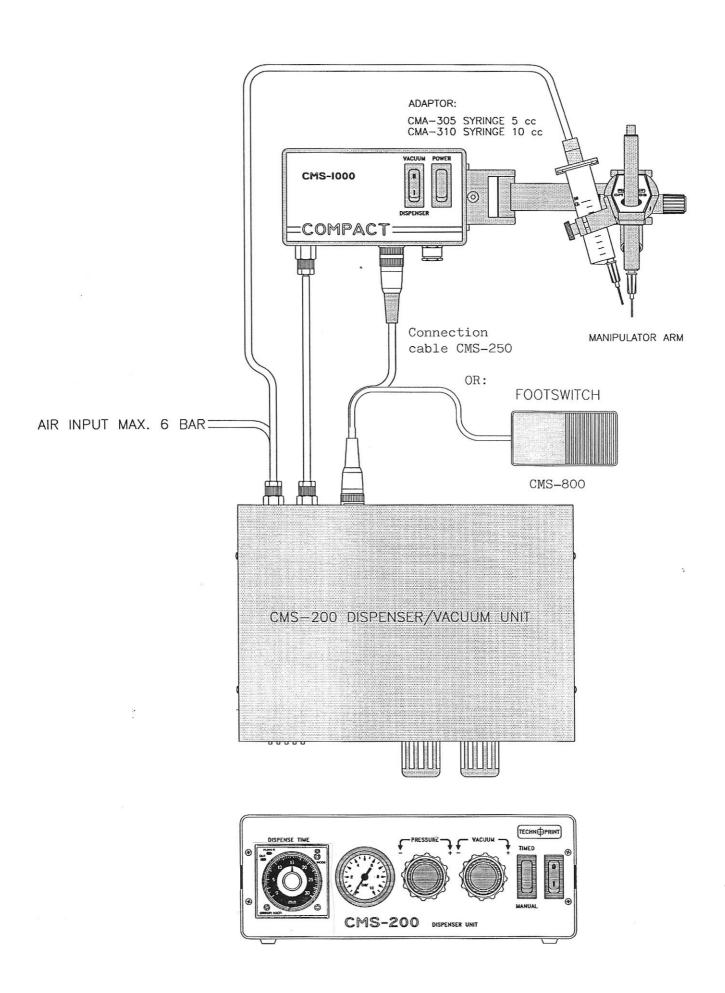
- 1 Vacuum Indicator
- 2 Left handed control of the arm and rotation.
- 3 Right handed control of the arm and rotation.
- 4 Balance-adjustment of the 'Pick & Place' head.
- 5 'Pick & Place' pipette holder
- 6 Spot-illumination
- 7 Interchangeable pipette

# Overview CMS-1000 Compact in combination with a CMS-300



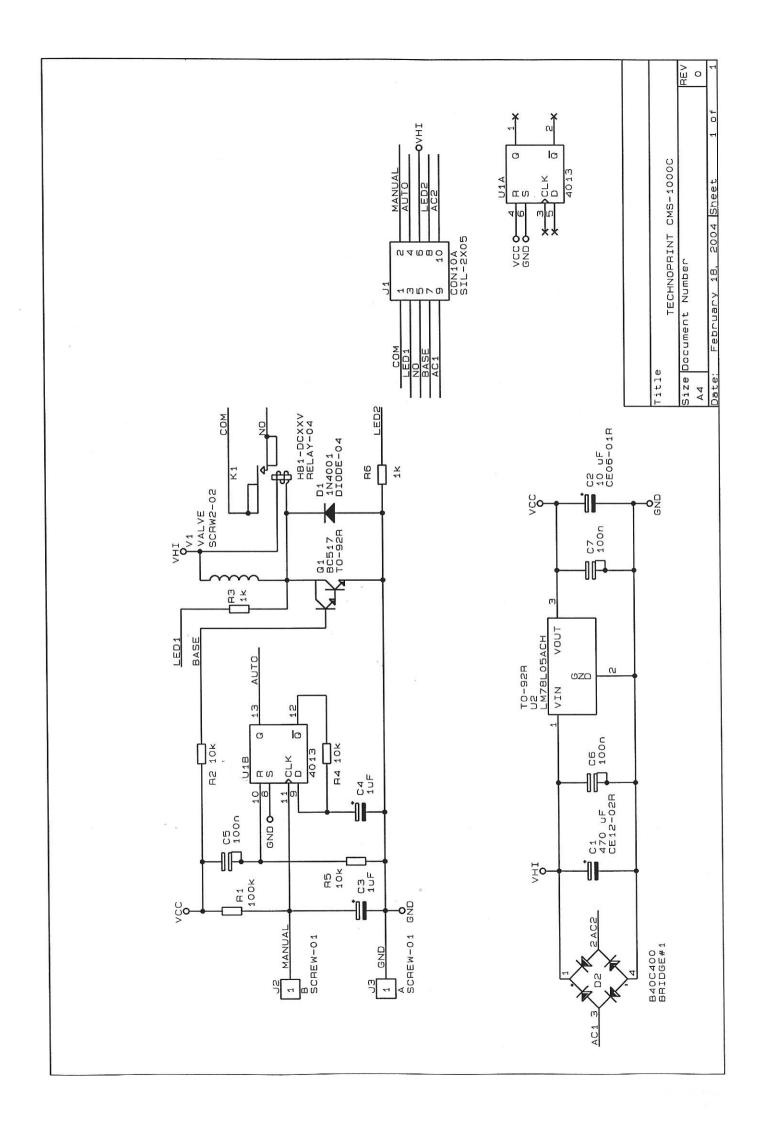
#### Installation of the CMS-1000 compact in combination with a CMS-300

- 1 Attach the manipulator arm with the supplied bolts and allen keys to the backside of the 'Pick & Place' table.
- 2 Connect, the vacuum pump CMS-500 to the air inlet at the bottom of the switch box of the manipulator-arm using the supplied air hose.
- 3 Connect the DIN-cable CMS-250 between the switch box and the dispense unit. With this in place the vacuum 'Pick & Place' pen functions as the switch for the dispense unit. If a foot switch is used, you may connect it directly on to the DIN-connection of the dispense unit.
- 4 Connect the air-inlet of the dispense unit to an air-pressure system. (max 6 bar). The adapter with air hose for the paste-syringe must then be connected to the Air-out connector.
- Remove the red cap of the paste-syringe. Press the syringe on the adapter (moisten the rubber O ring a little) and turn until the 'wings' are tied. Remove the red top cap and attach the needle. Usually, the yellow (0.6 mm) or green (0.5 mm) needles are used for SMT work.
- 6 Fix the barrel-holder (black) by using the bolt to one side of the head of the manipulator arm. Adjust it, by personal preference, in a oblique angle.
- 7 Place the paste-syringe in this holder and adjust it to the desired height. The point of the needle should be a bit higher then the 'Pick & Place' needle because the latter will be used as a pulser.
- 8 By turning the 'Balance-Adjustment' (4) the spring tension of the manipulatorarm head can be adjusted. (see drawing: Overview Manipulator arm.)
- 9 The sensitivity of the micro switch in the vacuum pen (factory adjustment) can be adjusted if needed. See: Adjustment Contact Pressure.
- 10 After connecting to the main power, the unit is ready for use.

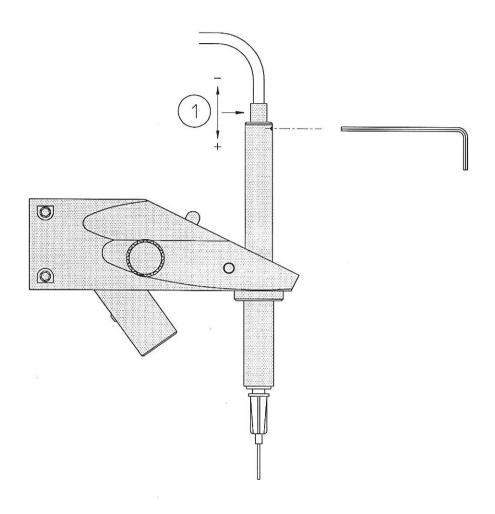


#### Installation of the CMS-1000 compact in combination with a CMS-200

- 1 Attach the manipulator arm with the supplied bolts and allen keys to the backside of the 'Pick & Place' table.
- 2 Connect the CMS-200 and the air inlet at the bottom of the switch box of the manipulator-arm using the supplied air hose.
- 3 Connect the DIN-cable CMS-250 between the switch box and the dispense unit. With this in place the vacuum 'Pick & Place' pen functions as the switch for the dispense unit. If a foot switch is used, you may connect it directly on to the DIN-connection of the dispense unit.
- 4 Connect the air-inlet of the dispense unit to an air-pressure system. (max 6 bar). The adapter with air hose for the paste-syringe must then be connected to the Air-out connector.
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- 10 After connecting to the main power, the unit is ready for use.



# Adjustment contact pressure



The sensitivity of the micro switch in the vacuum pen (factory adjustment) can be adjusted with an allen key. Loosen the internal works and adjust the pressure of the needle to your preference.