

Serial Diluter UC: Short Instructions

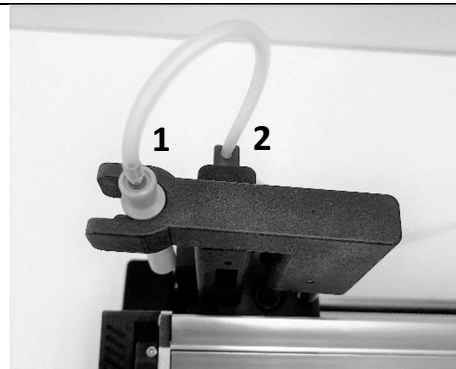
These instructions supplement the operating manual. For detailed information, consult the manual. Demonstration videos are available at www.inlabtec.com.

Commissioning

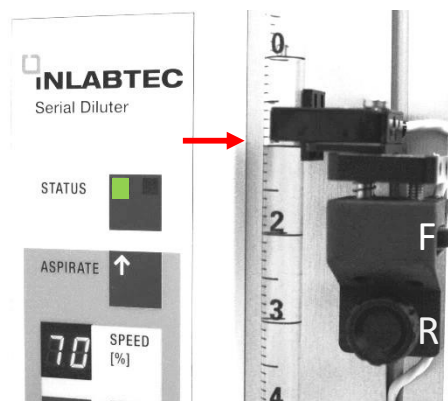
The following components must be present:

- Dispensing Nozzle 140011 with Tubing Set 100010 (sterile).
- Diluent in a bottle with Connector Cap GL 45 100020 or in a bag with tubing connector (sterile).
- 10 ml pipette (plastic or glass, sterile)

- Switch on the instrument. If there are no bags in the bag holder, the dosing arm moves fully to the right and then back to position 1. The blue LED then flashes.
- Insert the Dispensing Nozzle into the dosing arm (1) and secure the tubing in the clamp (2).
- Press **OPEN VALVES** and insert the T-piece of the Tubing Set into the lower pipette holder, place the two tubing lines into the pinch valves (3), and connect the aspiration tubing to the diluent container (4).
- Press **OPEN VALVES** again to close the pinch valves.
- Connect the 10 ml pipette to the upper pipette connection (5).
- Remove the cap from the pipette connector and insert the pipette tip into the pipette connector (6).
- Attach the pipette mouthpiece to the pipette holder (7).



- Loosen screw (R) to move the sensor and set the lower end of the sensor to 9 ml (arrow).
- Press and hold **ASPIRATE** until the diluent rises slowly in the pipette and the **STATUS** indicates readiness ■.
- For volume correction, loosen the screw (R) to move sensor or use the fine adjustment (F).
- Press **ASPIRATE** after each adjustment until **STATUS** indicates readiness ■.



Device control panel

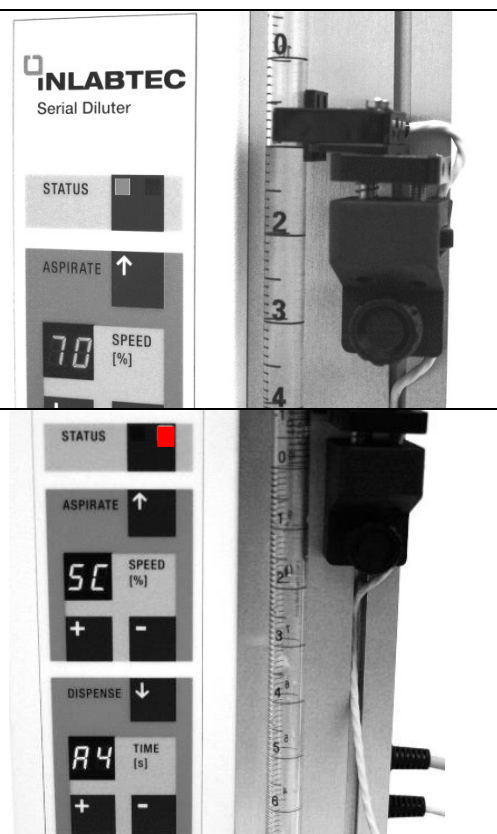
Button functionality:

First press activates, second press stops. Continuous pressing keeps the function active.

ASPIRATE	<ul style="list-style-type: none"> Fills the pipette to the set volume During dilution, pressing aborts the process and moves the dosing arm to the park position (blue LED flashes)
SPEED [%]	<ul style="list-style-type: none"> Aspiration speed. Standard: 50 – 75 % Adjust using +/- Reduce speed if bubbles form in the pipette
DISPENSE	<ul style="list-style-type: none"> Inactive
TIME [s]	<ul style="list-style-type: none"> Alternating display of bL for mixer (blender) and the operating time in seconds Standard blender time: 3 seconds (3.5 seconds mix-while-pipet mode) Brief press (+ / -): starts mixer Press for 1 second: adjust mixing time (0.5–99 s)
OPEN VALVES	<ul style="list-style-type: none"> Opens pinch valves and displays PU (purge) in SPEED [%] Then press ASPIRATE: liquid is pumped back into the bottle via the aspiration tubing Press again: Close the pinch valves
POWER	<ul style="list-style-type: none"> Turns the device on/off

Operating states

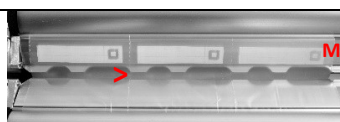
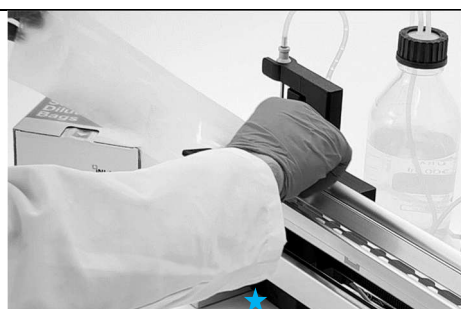
- STATUS ■ = “Serial Diluter ready“:**
 Ready for sample dilution. The pipette is filled according to the sensor setting.
- STATUS ■ = “Serial Diluter not ready“:**
 Press **ASPIRATE** until **STATUS** indicates readiness ■.



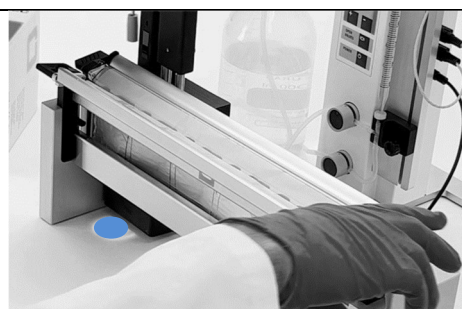
Common causes for STATUS ■ = “not ready“:

- Pipette not filled.
 - Process interrupted by pressing **ASPIRATE**.
 - Automatic interruptions:
 - A2: Pipette not filled correctly.
 - A4: Container with diluent empty.
- For additional messages, refer to the operating manual.

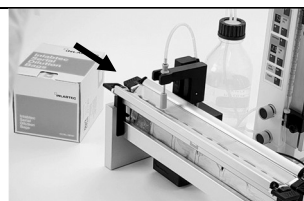
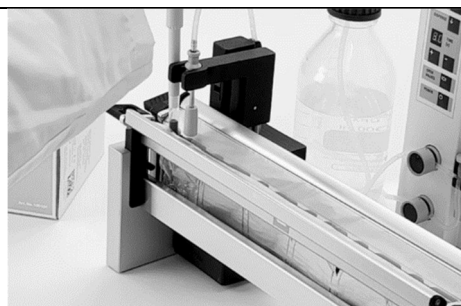
Performing a dilution series



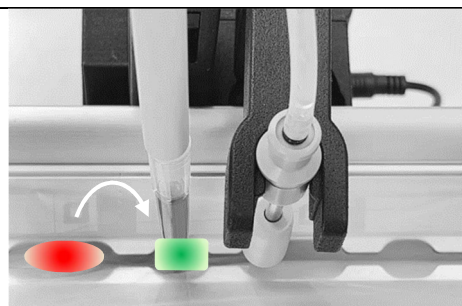
⚠ Caution - Bag positioning:
Align the perforation of the bags with the centre mark (M) or the end of the wide opening. Do not extend beyond the mark or the right edge of the opening, as this may cause malfunction.



- Insert the bags.
- Press the side handles of the bag holder together to open the bags.
- The blue LED lights continuously, indicating that bags are loaded.



Dosing arm movement:
Standard mode: moves right when the pipette is removed.
Mix-while-pipet mode: moves right during pipetting.



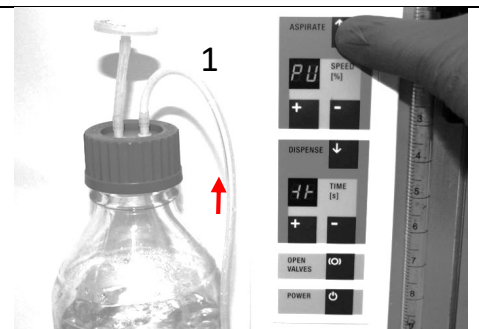
- Fill the first bag: Rotate the dosing arm forward. Once filled, the flashing green LED indicates the position for sample addition. (Note: The arm returns if STATUS ■ = "not ready")
- Pipette the sample into the filled bag. The green LED lights continuously if pipette is recognized.
- The next bag is mixed and filled automatically:
 - In standard mode: after the pipette is removed.
 - In mix-while-pipet mode: during sample pipetting.
- After mixing:
 - Red LED = diluted sample.
 - Flashing green LED = next bag for sample addition.



- Repeat until the series is complete. The dosing arm returns to the park position; blue LED flashes (new bags required).
- Press the side handles down to release the bags.
- The dosing arm returns to position 1, ready for the next series.

Cleaning Procedure and Deinstallation

- Press **OPEN VALVES**.
- Press **ASPIRATE** until the aspiration tubing is empty (1).
- Press **OPEN VALVES** again to close the pinch valves.



- Replace the diluent with water or place the dispensing nozzle and the end of the aspiration tubing into water.
- Press **ASPIRATE** until the pipette is filled and the **STATUS** indicates readiness ■.
- Insert \geq two bags (opening is not required if the dispensing nozzle is in water).
- Briefly place your finger on the sensor below the flashing green LED to start dispensing.
- After dispensing, press **OPEN VALVES**, then **ASPIRATE** to empty the tubing.
- Remove the tubing set with the dispensing nozzle.
- Note: Alternative cleaning procedure: see operating manual (Section 7.7).



- Close the tubing ends with the caps (arrow).
- Autoclave the tubing set and the dispensing nozzle.

