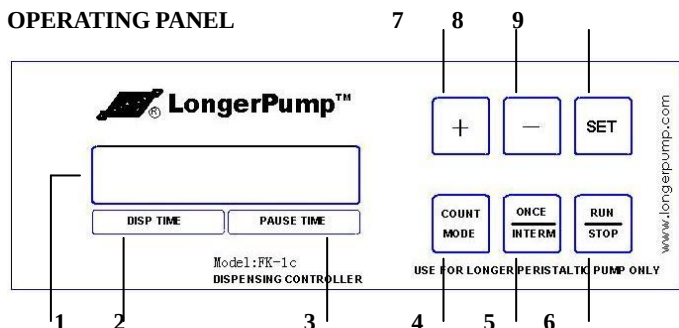


MODEL FK-1C DISPENSING CONTROLLER USER MANUAL

MAIN FUNCTION

Fk-1c is designed specially for some longer peristaltic pumps to realize automatic dispensing by time.

OPERATING PANEL



1 LCD display

2 DISP TIME

Dispensing time (0.01s to 99.9s)

3 PAUSE TIME

Pause time for intermittent dispensing (0.01s to 99.9 s) or “once”

4 COUNT MODE KEY

Changes between count-up (from 0 to 999) and count-down (from 999 to 0) during intermittent dispensing mode.

5 ONCE/INTERM KEY

- Changes between once and intermittent dispensing mode.
- Once dispensing mode: presses down **RUN/STOP KEY**, finishing one

time dispensing according to the dispensing time

- Intermittent dispensing mode: once **RUN/STOP** pressed down, dispensing cycles begin according to dispensing time and pause time until **RUN/STOP KEY** is pressed down again.

6 RUN/STOP KEY

- Starts and stops a dispensing process
- The function start can also be triggered by external device such as a foot switch or photoelectric sampler.

7 + KEY

Increase value

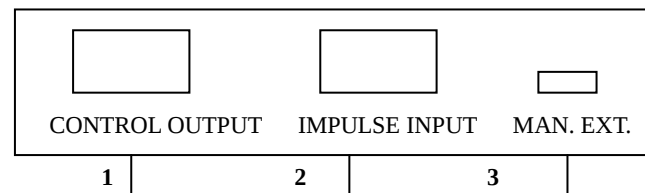
8 - KEY

Reduce value

9 SET KEY

Changes between setting dispensing time and pause time

REAR PANEL



Baoding Longer Precision Pump Co.,Ltd

1 CONTROL OUTPUT PORT

A db9 port connected to the pump through an exclusively original cord.

①②③④⑤ ②-GND ④+12V
⑥⑦⑧⑨ ⑨ STOP (TTL)

PIN 2, GND (GROUND)

Reference potential for all other pins

PIN 4, +12V

+12V input from the pump

PIN 9, STOP (TTL)

- Starts and stops the pump
- Stops the pump when connected to pin 2

2 IMPULSE INPUT PORT

A db9 port connected to the foot switch or photoelectric sampler through an exclusively cord.

①②③④⑤ ②-GND ③ ~~EXT.~~
⑥⑦⑧⑨ ④+12V ⑧ INPUT

PIN 2, GND (GROUND)

Reference potential for all other pins

PIN 3, EXT. (TTL)

Changes between external and manual control .for activating external

control, it must be connected to **pin 2**.

PIN 4, +12V

+12V dc is available (max. current 20ma).

PIN 8, INPUT (TTL)

For external start control input

2 MAN. EXT. SWITCH

- External/manual control switch
- Changes between external and manual control mode

STARTING THE DISPENSING SYSTEM

- 1 Preparing the pump:
 - Insert the tubing
 - Connect the pump to the mains
- 2 Connect fk-1c to the pump
- 3 Connect the foot switch or photoelectric sampler to fk-1b if necessary
- 4 Switch the dispensing system on with the mains switch of the pump

OPERATING MODE

● ONCE/INTERMITTENT MODE

- 1 Switch **MAN. EXT. switch** to **MAN.** (manual)
- 2 Change to once or intermittent mode with **ONCE/INTERM key**.
 - In once mode,
LCD displays “99.99 sec **once** ”.
 - In intermittent mode,
LCD displays “99.99 sec **99.99 sec**”.



- 3 Entering the required dispensing time or pause time with+, — key and **SET** key.
- 4 Start the dispensing process with **RUN/STOP**.
 - In once mode, the pump stops automatically after the dispensing time has elapsed.
 - In intermittent mode, the pump dispenses at intervals.
 - The dispensing process can be stopped by pressing **RUN/STOP**.
 - The dispensing or pause time can only be changed after the dispensing process has been stopped.

● COUNT MODE

- 1 Switch **MAN.EXT. switch** to **MAN** (manual)
- 2 Change to intermittent mode
- 3 Entering the required dispensing time and pause time
- 5 Change to count-up or count-down mode with **COUNT MODE** key.
 - In count-up mode, count value increases, LCD displays “999 time→run 0”.
 - In count-down mode, count value drops, LCD displays “999 time←run999”.
- 4 Entering the required count value of the dispensing cycles with + and — key.
- 5 Start the dispensing process with **RUN/STOP**.
 - The dispensing process can be stopped by pressing **RUN/STOP**.
 - The dispensing time, pause time and count value can only be changed

after the dispensing process has been stopped.

● EXTERNAL CONTROL MODE

- 1 Switch **MAN.EXT switch** to **EXT.** (external), LCD displays “ 0 TIME EXT ”.
- 2 Operate foot switch or photoelectric sampler to start the dispensing process.
 - The pump stops automatically after the dispensing time has elapsed
 - counting up the dispensing process
 - During external control mode, all the keys are out of action
 - The dispensing time can only be changed during manual control mode and the dispensing process has been stopped.

TECHNICAL SPECIFICATIONS

- Dispensing time 0.01s to 99.9s
- Pause time 0.01s to 99.9s
- Count range 1 to 999
- Operating voltage +12v dc
- Operating current ≤50ma
- Operating conditions: Temperature 0- 40℃
Relative humidity <80%

FOOT SWITCH

Jk-2 foot switch is designed for fk-1c dispensing controller specially. It serves as a start device, which is very useful when using the pump as a dispenser for filling tubes, bottles, etc. Both hands are free for handling bottles and tubes.

