

BM T-01 instruction manual



Transformers Power: I / P: AC 100-240V 50-60Hz 0.36A O / P: DC 12V 1A

Quantitative Accuracy: better than $\pm 10\%$

Size: 235x160x70mm (without transformer power supply)

BM-T01 dosing pump is an advanced computerized controller unit. By itself, the BM T-01 can operate three independent pump heads, using various adjustments. Each pump head on the unit or extending from unit can be configured separately within the specified range of 1ml to 1999ml, and divided into different intervals of a 24hr day. The BM-T01 is a master controller, and it can operate with two other BM-T02 extension/slave units (sold separately). With each extension unit having the capacity of four more pump heads, the maximum number of pump heads for which the BM T-01 can manage in a configured is 11 pump heads.

In addition, this product has a data protection feature. In the case of a power outage (blackout or brownout), the BM-T01 can retain its settings up to 24 hours.

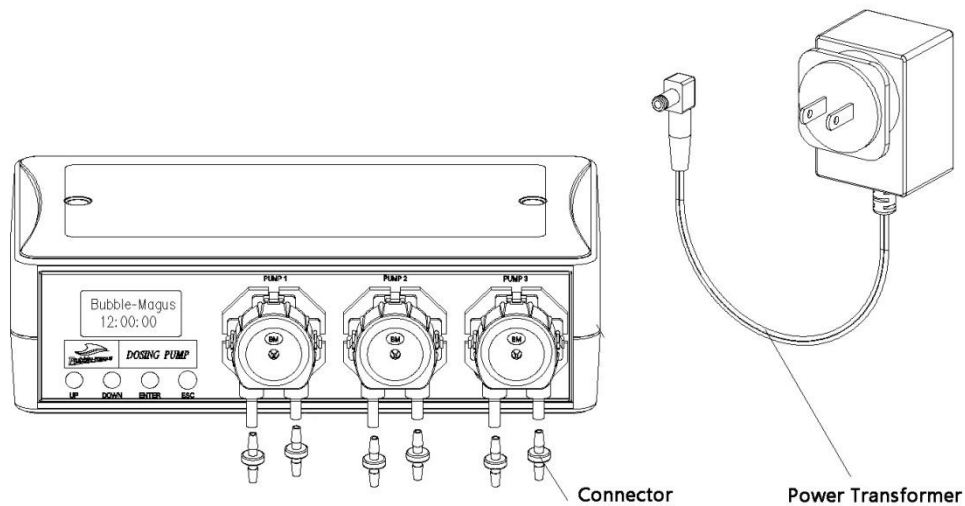
Thank you choosing BUBBLE-MAGUS. Please read the instructions carefully before use. If you encounter any issues, whether it is in the packaging, during your installation, or during normal operation of your product, contact support@seasideaquatics.com for further support. Be sure to register your product to activate your warranty.

BM-T01 Packing List

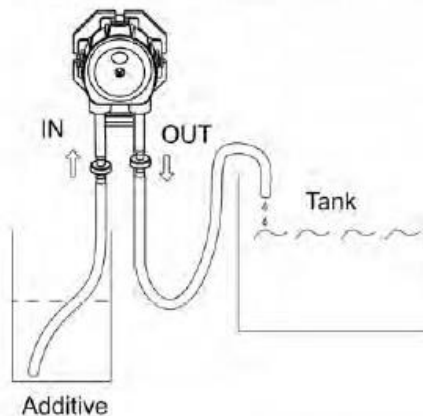
No.	Name	Amount	Notes
1	Quantitative pump control box of the main	1PCS	3 pump head with 3 hose
2	Power Transformer	1PCS	
3	Instructions	1PCS	
4	PVC transparent pipe	3M	
5	Hose connector	6PCS	

Installation

1. Locate a sturdy and secure platform, and place the unit horizontally in an upright position as illustrated in the figure below. The dosing pump control box should be housed in a dry, cool, and clean area. Moisture, debris, or excessive heat may result in electrical failure (not covered by the warranty).



2. Connect the hose connectors to the inlet and outlets tubes of each pump head as illustrated above.
3. Proceed to connect the PVC line to each connector. Each PVC line should be cut to the appropriate length of your configuration.
4. When facing of the pump heads, the PVC line connected to the inlet port on the left side needs to be routed to your supply of additives. Whereas, the line connected to the right outlet should be routed to your tank.
NOTE: The pump is designed for aquarium additives only. Strong acids or other chemicals like alkali solutions are not suitable.



5. Lastly, connect the power transformer/supply to the unit. Double check all your connections to ensure that they are safe and secure.
6. Turn on the unit. The screen should show the clock as **00:00:00** (initial state).

Clock settings:

Bubble-Magus
s00:00:0

1. In the initial state, press **ESC** key, and then press the **UP** or **DOWN** button until the screen display **SETUP CLOCK**.
2. Press the **ENTER** button to access the clock setting mode. Press **UP** or **DOWN** to increase or decrease the values.
3. Press **ENTER** to confirm and proceed to the next digit.
4. To finalize your adjustments, press **ENTER** again to exit the clock adjustment

SetClock
10:00

Manual control mode (for priming or testing):

1. In the initial state, press **ESC**, select **MANUAL CONTORL**, and press **ENTER**.

MANUAL
CONTOR

2. The screen will show **PUMP01**. Press **UP** or **DOWN** to select from **PUMP01-PUMP11**.
3. After selecting the desired pump head. Press and hold the **ENTER** key to activate the flow of liquid. Release the button to stop operation.
4. Press **ESC** to exit the manual control mode.

NOTE: Without the expansion unit (BM-T02), the BM-T01 dosing pumps should only show PUMP01, PUMP02, and PUMP03.

**SETUP
PROGRAM**

Program control mode:

Below is an overview of the procedure for adjusting the pump's total dosage, frequency of delivery, and starting time.

1. Pump Selection

- In the initial state, press **ESC** key. Press the **UP** or **DOWN** to select **SETUP PROGRAM**
- Press **ENTER**. The screen will display the group of head pumps to adjust, like **SETUP P 1-3**.
- Press **ENTER**. The screen will display the individual pump for configuration, like **SETUP PUMP 1**.
- Press the **UP** or **DOWN** key to select the desired pump.

ml/DAY
P 1:0000

2. Total Dosage Quantity

After selecting the desired pump, select the daily amount of liquid to add (range of 1 ~ 1999ml) per 24 hours. The figure to the right shows PUMP1 as being selected.

At this point:

- Select the dosage quantity (ml) by pressing **UP** or **DOWN** to change the value of the selected digit.
- Press the **ENTER** key to advance to the next digit.
- Example: **P 1:0888** signifies that in 24 hours, **PUMP1** will add 888ml worth of solution.

CYCL/DAY
P 1 8

3. Frequency (cycles per day)

- After confirming the total dosage, the user may then select the frequency of the dosage per 24 hours.
- The screen to the right, **CYCL / DAY P1 8**, shows the total dosage being pumped 8 times a day (every 3hrs).
- Press **UP** or **DOWN** to change the number.
- Press **ENTER** to confirm.
- *NOTE: '24' points is the maximum value (total dosage is delivered in the increments of once per hour, 24 time a day). In contrast, '1' is the minimum value (total dosage is delivered all at once, 1 time a day).*

4. Set Start Time

START:
00:00

- After confirming the frequency of dosage, the user may set the start time.
- The default screen is **START: 00:00**.
- Press **UP** or **DOWN** to adjust the set of digits, ranging from 00 to 23.
- Press **ENTER** to confirm and to proceed to the next set.
- After finalizing your hour and minutes, press **ENTER** again.
- The screen will display **Saving ...**, stating that your settings are being saved per pump head.
- Press the **ENTER** key to confirm.

- To adjust the other head pumps, press the **ESC** key to access the selection screen or to return to the previous menu.

NOTE: Although you can set the starting time for various pump to be the same, the system is calibrated to deliver each dosages at different intervals. When there is a time overlap, the pump is readjusted for each 5-minute intervals. For example, when all three pumps can be set to 01:00 start, PUMP1's start time is at 01:00, but PUMP2's actual start time is at 01:05; and PUMP3's actual start time is at 1:10).

5. **To Finish**

- After everything is set up, press **ESC** until the screen shows the current clock (time is in 24hr intervals, not 12hr).
- Your settings will take effect automatically.

Expansion unit configuration:

The BM-T01 has a back panel that allows it to connect with the BM-T02 extension pump unit. The expansion unit can unlock "**SETUP P 4-7**" and "**SETUP P 8-11**" configurations for additional pump head control.

Table: The total dosage that can be administered how many times a day.

Total Dosage (ml)	Cycles per day
1	1, 2
2	1, 2, 3, 4
3	1, 2, 3, 4, 6
4, 5	1, 2, 3, 4, 6, 8
6-11	1, 2, 3, 4, 6, 8, 12
12-160	1, 2, 3, 4, 6, 8, 12, 24
161-319	2, 3, 4, 6, 8, 12, 24
320-479	3, 4, 6, 8, 12, 24
480-639	4, 6, 8, 12, 24
640-959	6, 8, 12, 24
960-1279	8, 12, 24
1280-1919	12, 24
1920-1999	24