

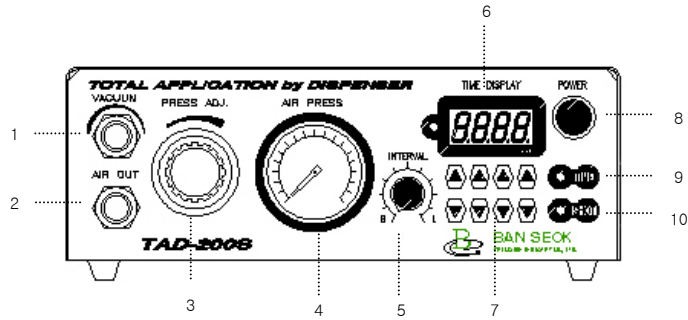
TAD-200S
Dispense Controller
Manual

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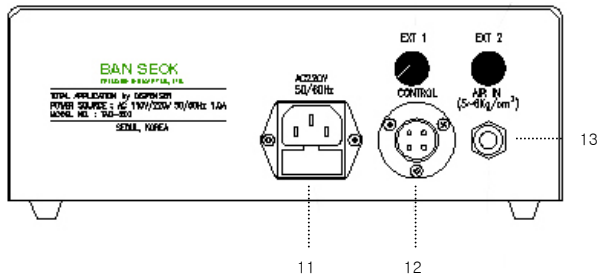


1. Parts and Description



<Figure 1 : Frontage>

- 1 Barrel Vacuum
- 2 Barrel Air Outlet Port
- 3 Air Pressure Regulator
- 4 Air Pressure Gauge
- 5 Time Interval Set
- 6 Digital Time Display
- 7 Time Control S/W (0.01 ~ 99.99 sec.)
- 8 Power S/W
- 9 Time On/Off Button
- 10 Shot Button
- 11 Power Connector and Fuse Box
- 12 Foot or Finger S/W Connector
- 13 Air Inlet (Main Air Port)



<Figure 2 : Backside >

2. Specification

TYPE	Air Syringe & Cartridge
MODEL	TAD – 200S
VOLTAGE	AC110/220V 50/60Hz 1.0A
PRESSURE AIR	4 ~ 6 kg/cm ²
SOLENOID VALVE	2Way 3Port Valve / DC 24V
Response speed of SOLENOID VALVE	20 ms
TIMER Range	0.01 ~ 99.99 sec
MEASUREMENT	232mm x 186mm x 81mm

3. Set-Up Guide

• Connect Air hose

Connect the main air hose from the compressor into the air inlet port on the rear panel of controller. (please see Figure 2., no.13)

• Electrical Connection

Please check whether the voltage is AC 220V or 110V before connecting. (Figure 2., no.11)

• Connect the Foot / Finger S/W

Connect the foot or finger switch into the connector on the rear panel of The controller (Figure 2., no.12)

• Connect the Barrel air hose

Connect the barrel air hose (♂ Coupler) into the barrel air outlet port (♀) on the front panel (Figure 1., no. 2). Push it until you hear a sound with a click.

*** Note :** When disconnect the Barrel air hose, please pull the air hose coupler (♂) body slowly then it will depart from the coupler (♀) of air outlet port.

• Power on

Turn the power on. (Figure 1., no.8)

4. Operation Guide

• Setting the Main Air pressure (Auto / Manual Operation)

Set the main air pressure to 5 ~ 6 kg/cm using the air pressure regulator on the compressor or any other air supply source.

• Setting the Dispensed deposit size (Auto / Manual Operation)

The deposit size is determined by different air pressure, time settings and tip (needle) gauge;

- needle gauge (Needle) asf
- air pressure (Air pressure regulator)
- time (Timer)

a. Select the Needle (Auto / Manual Operation)

Select the right size of needle.


If the needle is too thin for application of high-viscosity material, the material May drip or ooze at the end of dispensing cycle.

b. Setting the Barrel air pressure (Auto / Manual Operation)

Set the barrel air pressure by using the air pressure regulator on the front panel of the controller.


High viscosity material needs high air pressure.

Low viscosity material needs low air pressure.

Air Pressure Regulator	<p>Low Pressure ← High Pressure →</p> <p style="text-align: center;">PRESS. ADJ.</p> 	<p>Unlock the pressure regulator by pulling it and set the pressure by turning the regulator to the right and left.</p> <p>After the desired air pressure is setted, please push the regulator (Lock-up)</p> <p>< Recommended Air pressure ></p> <p>Low viscosity : ~ 2kg</p> <p>Medium viscosity : 2 ~ 4kg</p> <p>High viscosity : 4kg ~</p> <p>* Please adjust the air pressure watching the dispensed deposit size.</p>
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c. Setting the Time (Automatic Operation)

Set the time with ▲ ▼ button until the desired amount is dispensed .

<p>Function : 1. Select Auto and Manual Mode 2. Setting The Time</p>		<p>1. Select 'Auto' and 'Manual' mode with Time button.</p> <p>* Auto mode : Timer on * Manual mode : Timer off</p> <p>2. You can set the time with ▲ ▼ button. While you set the time, the number on the display will be twinkled. To fix the time for continuous dispensing , please wait 2 seconds after setting the time. Or, press Time button.</p>
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d. Foot / Finger S/W or Shot button

Check whether the desired deposit size is set by using Foot/Finger S/W or pressing the Shot button.

• Effects of pressure/time/needle

- Thicker more viscous liquids, like pastes or greases, will require either more pressure, longer time or larger gauge tips.

- Thinner less viscous liquids, like cyanoacrylates or thinners, will require either less pressure, shorter time or smaller gauge tips.

- Higher pressure and short time cycle will increase speed of dispensing and higher output.


- Lower pressure and longer time cycle will allow more accuracy in deposit size.

Please choose the correct tools and the appropriate factors considering above For getting high quality dispensing and operation efficiency.

• Control the Barrel Vacuum : Barrel Vacuum - Auto / Manual Operation


When you dispense low to medium viscosity materials, it offers precise Control over flow rate and shut-off that prevents oozing or dripping at the end of dispensing cycle.

Turn the 'Vacuum pressure dial' to the left and right slowly if the material drips or is dewed at the end of tip (needle) until you can see the the material can not be oozed at the end of dispensed.

Control the Barrel Vacuum	<p>Vacuum Pressure</p> <p>High Low</p> <p>← →</p> 	Control the vacuum by using the vacuum dial.
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• Setting the Time Interval (Automatic Operation)

Set the interval. Turn the S/W to the right or left one by one division until The desired interval is set.

Time Interval Set Dial	<p>Short Long</p> <p>← →</p> 	If you need time interval between dispensing in Automatic mode, set the interval from 0.01 ~ 3.99 sec. & 0.01 ~ 5.99 min.
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5. Troubleshooting

Problem	Cause	Solution
The power doesn't work	- Plug is not connected - The Fuse blew	- Put a plug in the socket. - Change the Fuse (AC220V-250V 1A, AC110V-125V 1A)
The material is not dispensed	- Poor supply of Air - Regulator is locked. - Poor connection of Auto Coupler.	- Supply with Main Air. - Turn the Regulator "clockwise" to supply Air. - Push the Auto Coupler until you hear a sound with click.
Poor dispensing	- Vacuum is too low. - Poor connection of Auto Coupler.	- Open a valve by turning Metering Valve counter clockwise. - Push the Auto Coupler until you hear a sound with click.

6. Cautions and Reminders

- Use a "Rated Voltage of AC 110V/220V"
- Avoid using of Shot S/W frequently. We recommend to use a Foot / Finger S/W
- Don't allow water or materials to run into the Controller. Avoid rapid vacuum pressure increase. It allows liquid to run into the air hose. **Avoid tilting the barrel too much** (especially, when low-viscosity liquids is dispensed). **It causes a breakdown by allowing liquid to run back into the dispenser.**
- Only new barrels and tips should be used. Do not use toxic cleaning solvents to avoid liquid contamination.
- Do not disassembling the controller. If you have a problem, please contact us.

7. Circuit Diagram and In/Out Signal

* In/Out Signal is set by "Open Collector" (Out Signal Time : 20 ms)

• INPUT SIGNAL

- ① Open Collector
- ② DC 24V

• Output Signal

- ① Open Collector
- ② DC 24V
- ③ RELAY : a point of contact
- ④ Out Signal : 20 ms, 100 ms

• Circuit Diagram

