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JGD-200S Digital Syringe Dispenser

SPECIFICATIONS

Timer	00.01 to 99.99
Size	9.1 x 7.3.x 3.1 inches
Weight	5.2 lbs
Voltage Input	AC 110/220 switchable 50/60 Htz 1.0A
Internal Voltage	DC 24V
Solenoid Valve	2 way, 3 port valve; response speed: 20 ms
Air Input	35 -100 psi (2.5 - 7 bar)
Output	1 -100 psi (0.1 - 7 bar)

Parts & Description

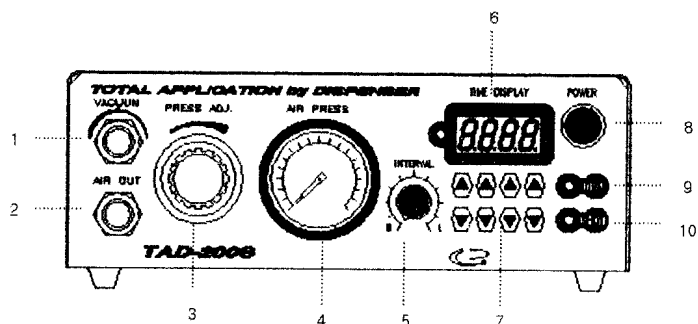


Figure 1: Front Panel

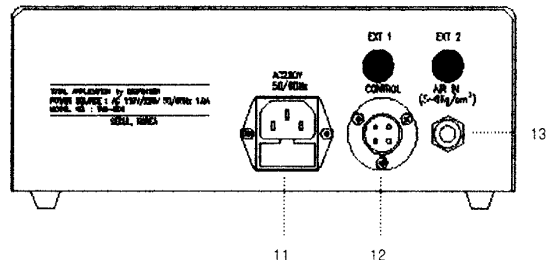


Figure 2: Back Panel

Part / Feature

1. Vacuum control
2. Syringe adapter air outlet port
3. Air pressure regulator control
4. Air pressure gauge
5. Time Interval control
6. Digital time display
7. Time control keypad
8. Power on/off button
9. Timer on/off button
10. Shot activation button
11. Power connector and fuse
12. Foot/Finger switch connector
13. air inlet port (1/4" od tubing)

INITIAL SET-UP GUIDE

1. Air

Connect dry, filtered air to the JGD-200S dispenser to [part # 13](#) (Figure 2). This air inlet takes 1/4 inch OD tubing; if you have the standard quick connect female fitting, then use the 1/4" tubing and male quick connect fitting included.

2. Electrical

Check the voltage selector (just above [part # 13](#)) to make sure it is set to the proper voltage selection. Then connect the white power cord to [part # 11](#) and plug into an electrical outlet.

3. Foot Pedal and Syringe Adapter

- a. Connect the foot pedal to [part # 12](#).
- b. Connect the short 1/4" tubing and metal adapter to [part # 2](#) on the front panel. This adapter has a reducer quick connect that allows you to push in the small (5/32 OD) blue tubing that is connected to the Universal Syringe Adapters. If you have an adapter with 1/4" tubing, please contact sales@jensenglobal.com for a complementary 1/4 to 1/4 inch tube quick connect.

4. Turn Power On [part # 8](#)

GENERAL OPERATION settings for deposit control

Pressure

Set the air pressure using the regulator control knob [part # 3](#) (and reading the gauge- [part # 4](#)). Please note the regulator knob locks by pushing it toward the unit. To unlock it, simply pull away from the unit. The amount of air pressure controls the flow speed of material.

Dispense Time

In *Manual* mode (when [part # 9](#) is not lit), however long you hit the foot pedal/finger switch, you will have material being dispensed.

In *Timed* mode (when [part # 9](#) is depressed and lit), you will get a pre-determined shot of material based on the timer settings (see timer operation in the next section).

Needle Size

Select the correct needle for you application. :

- a. use the largest needle possible with lower air pressure. An example is if you are dispensing at 90 psi with a 20 gauge needle, try using an 18 gauge needle with 75 psi to achieve the same deposit amount. This creates less backpressure and may alleviate any potential dripping of material.
- b. Try the tapered needles that are available

TIMER & VACUUM OPERATION

General time settings

Select the timer mode by pressing the TIME button [part # 9](#). This will light up the LED to the left of the TIME button.

Simply press the UP or DOWN arrow buttons once, to initiate the TIMER DISPLAY to flash, then press the appropriate UP or DOWN arrow to change that digit. Wait 2 second and the display will stop flashing and you are ready to dispense with that time setting.

Interval time setting [part # 5](#)

1. If you activate the time interval (turning [part # 5](#) clockwise), you will activate the ability to have continuous dispensing in TIMED mode.
2. Make sure the TIMED MODE light is on, and the TIMER DISPLAY is set to a certain amount of time (somewhere between 00.01 and 99.99 seconds).
3. Hit the foot pedal and keep it depressed. The machine will continue to dispense the set timed amount, with a pause in between based on the position of the INTERVAL knob. The “pause” or interval can range from .01 sec to about 6 seconds.

****IMPORTANT**** If interval is ON, you can not tap the foot pedal to get the timed amount; you must keep the foot pedal depressed to dispense the timed amount. If you release the foot pedal, it will stop mid-way in the timed shot. Turn the interval OFF (all the way in the counter-clockwise position) and you can go back to a single timed shot.

Vacuum setting part # 1

For low to medium viscosity materials, the vacuum feature allows you to draw back material into the needle, when you release the foot pedal or the timer finishes the cycle. It is recommended to use the vacuum at the minimal setting, otherwise you could introduce air into the syringe causing inaccuracies (especially when dispensing in timed mode).

TROUBLESHOOTING

Problem	Cause	Solution
Power doesn't turn on	- Plug not connected - Fuse is blown	- Make sure the electrical cord is plugged in properly - Change the fuse AC110V-125V 1A; AC220V-250V 1A
Material doesn't dispense	- Poor air supply or poor connection to back port - Regulator is at 0 psi/Bar - Timer Mode is on and timer is set at 00.00 - Poor connection of adapter on the front panel	- Make sure at least 35 psi is going into unit, and hose is connected properly to the back of the unit - Unlock regulator knob and turn clockwise to set - Adjust timer to at least 00.01 second or higher, or turn off timed mode, and dispense in manual mode - push the Auto Coupler fitting all the way in so you hear it click into place
Inaccurate dispensing	- Vacuum is too high or too low - Pressure is too high or low - Timer is not set properly - Needle is too large or small	- Adjust vacuum appropriately- or turn off completely - Adjust Pressure - Adjust Timer - Try different needle gauges, lengths, and types

MAINTENANCE

The unit is designed and built to be relatively maintenance free, but the following recommendations should be followed:

- A. Ensure that air supply is clean and dry
- B. Make sure the AC outlet is grounded and correct voltage is used.
- C. Avoid turning barrels upside down or laying them flat so that material would not run through the air line to internal component.
- D. Do not allow barrel assembly to be in contact with hot or sharp objects.
- E. Avoid exposing fluid dispenser controller to excessive moisture or solvent saturation.
- F. Avoid connecting fluid dispenser to air supply exceeding 100 psi.
- G. Always replace fuse with correct type and amperage rating.

CAUTION

- A. Use the properly rated voltage 110V or 220V.
- B. Avoid frequently using the Shot activation on the front panel. It is recommended to use the foot pedal that comes with the unit, (or optional finger switch).
- C. Use dry compressed air, or a moisture filtration system to trap water before it can flow into the JGD-200S
- D. Use a stopper in your syringe and avoid tilting syringe upside down in case material can seep back into the controller (especially if vacuum is on).

CIRCUIT DIAGRAM & IN/OUT SIGNAL

In/Out signal is settled by "Open Collector". Out signal time: 20ms

Input signal:

1. Open Collector
2. DC 24V

Output signal

1. Open Collector
2. DC 24V
3. RELAY (point of contact)
4. Out signal 20ms, 100ms

• Circuit Diagram

