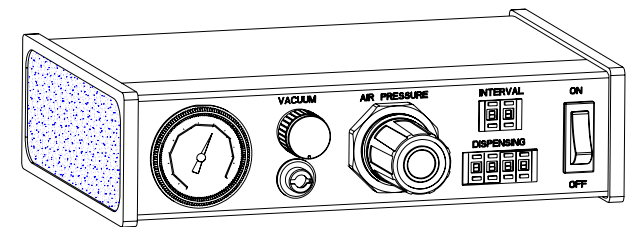


# IDF-101A OPERATING MANUAL

DIGITAL  
DISPENSER

CONTROLLED



The Automatic Liquid Dispenser with time control, to push the liquid pneumatically, controlled by timer, to be sure the same dispensing drops and dispensing cycle time, regulated the air pressure with suitable tip at your equipments of the different liquids as glues, greases, solder pastes. Applied for 10 types of steel tips and 5 types of plastic tips for various customers' needs.

## I .Specifications

Ways of dispensing	Automatic, Manual, etc with a total of 16 kinds, free setup
Dispensing Time	0.01-99.99Seconds Adjustable
Timing Intervals	0.1-9.9Seconds Adjustable
Repeat Tolerance	±0.05%
Size	23.8X15.0X6.0cm
Weight	1.7Kg
Internal Voltage	24V DC
Air Input	35-100Psi(0.25-0.7MPa)
Air Output	1-100Psi(0.01-0.7Mpa)

## II .Operation

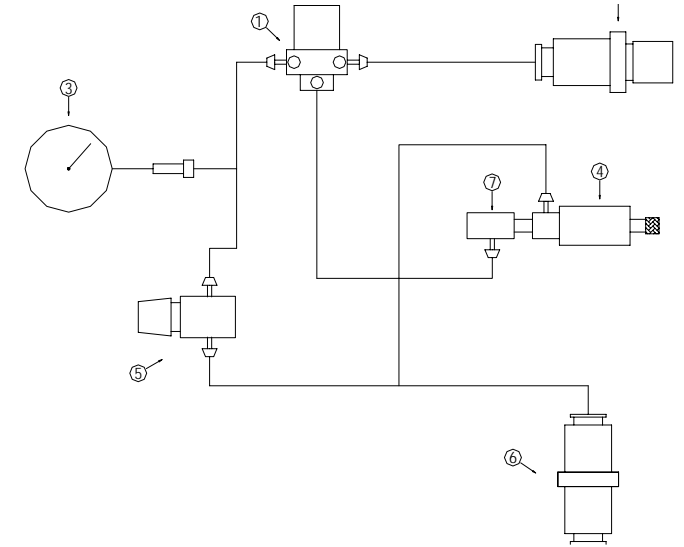
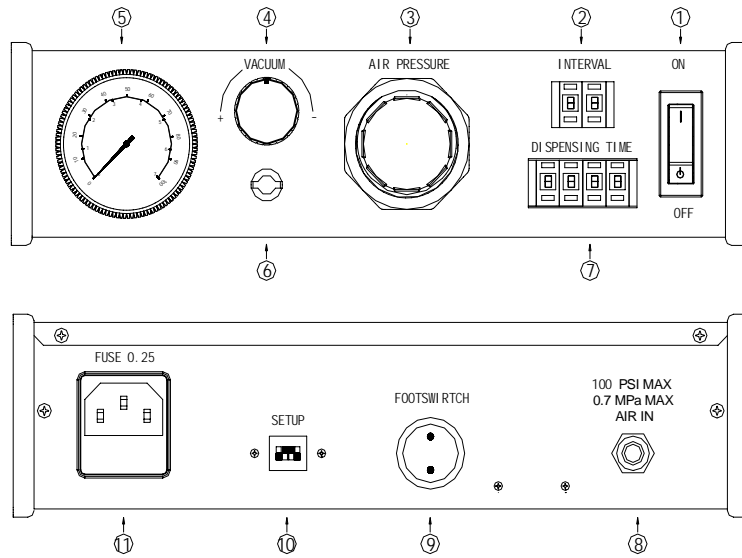
### ( I ) Features

- 1.Power Switch
- 2.Timing Interval switch
- 3.Air Pressure Regulator
- 4.Vaccum Control
- 5.Air Pressure Gauge
- 6.Dispense Outlet
- 7.Dispensing Sliding Switch
- 8.Air-in Tube
- 9.Footswitch
- 10.Model Switch
- 11.Power Connector

### Function

- Turn unit on or off.
- Set timing intervals.
- Control air pressure to the dispensing circuit.
- Adjust the intensity of "suck back" vacuum applied to the dispense circuit
- Air pressure indicate
- Provide a quick connect receptacle for dispense ai circuit.
- Set time for the liquid output and time intervals
- High-pressured air input
- Step on to start unit
- Places unit in manual, automatic or other modes
- Connect power supply

## (II).Diagram of front and rear panels



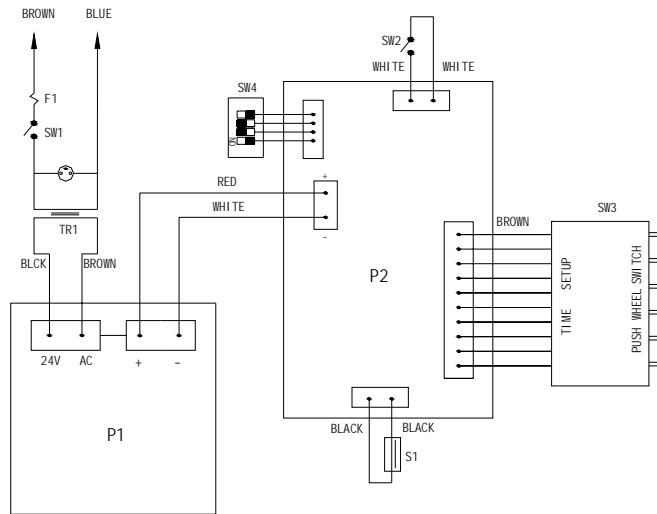
## (III).Adjustment of dispensing time and interval time

Mode switch on the rear panel of the unit can be adjusted by users according to the following table to suit different needs.



### 2.Theory Schematic of pneumatic system.

### 1. Electrical Theory Schematic



## □.The dispensing controller pneumatic system.

### 1. Parts List

Symbol	Description	Part No.
1	Solenoid valve	26034
2	Dispensing socket	47165
3	Air pressure gauge	26035
4	Vacuum regulator	47163
5	Air pressure regulator	26036
6	Air-in manifold	44122

No.	S1	S2	S3	S4	
1	OFF	OFF	OFF	OFF	With pedal switch pressed, dispense continuously, otherwise it will stop dispensing.
2	ON	OFF	OFF	OFF	Be triggered once, dispense at controlled time once.
3	OFF	ON	OFF	OFF	Be triggered once, dispense at controlled time twice.
4	ON	ON	OFF	OFF	Be triggered once, dispense at controlled time three times.
5	OFF	OFF	ON	OFF	Be triggered once, dispense at controlled time four times.
6	ON	OFF	ON	OFF	Be triggered once, dispense at controlled time five times.
7	OFF	ON	ON	OFF	Be triggered once, dispense at controlled time six times.
8	ON	ON	ON	OFF	Be triggered once, dispense at controlled time seven times.
9	OFF	OFF	OFF	ON	Be triggered once, dispense at controlled time eight times.
10	ON	OFF	OFF	ON	Be triggered once, dispense at controlled time nine times.
11	OFF	ON	OFF	ON	Be triggered once, dispense at controlled time ten times.
12	ON	ON	OFF	ON	Be triggered once, dispense at controlled time eleven times.
13	OFF	OFF	ON	ON	Be triggered once, dispense at controlled time twelve times.
14	ON	OFF	ON	ON	Be triggered once, dispense at controlled time continually, the next trigger will stop dispensing.
15	OFF	ON	ON	ON	With pedal switch pressed, dispense at controlled time continually, or it will stop dispensing.
16	ON	ON	ON	ON	Dispense at controlled time continually and automatically.

Note: Dispensing at controlled time means dispensing according to set dispensing time and interval time.

### 1. Adjustment of dispensing time and interval time.

With the setting button for dispensing time on the front panel of the unit, the dispensing time can be set directly. Press the “+” button, and the match digit will increase by one step. Similarly, press the “-” button, and the match digit will decrease by one step. There are four digits in all, with the range over 0.01 second to 99.99 seconds,

Item	Mode Switch Status	Function
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and the resolution is 0.01 second.

### 2.Interval Time Setup

With the setting button for interval time on the front panel of the unit, the interval time can be set directly. Press the “+” button, and the match digit will increase by one step. Similarly, press the “-” button, and the match digit will decrease by one step. There are two digits in all, with the range over 0.1 second to 9.9 seconds, and the resolution is 0.1 second.

## (IV)Internal air pressure regulated

On the air pressure regulated knob, regulated internal air pressure, on the air pressure gauge, general used between 0.1-2.7bar (1-40Psi).

## (V)Vacuum control regulated

On the vacuum control knob, regulated the ending dot in the air reflection, avoid dotting connected with others. Turn the knob clockwise, and the air reflection will decrease, otherwise, it will increase.

## (VI)Set up

1. Connect the 7 bar dry and filtered air supply to the units air input plug.
2. Put the material and the parts in barrel properly. Make sure that material height do not excess the warning line,

Power/light, but not operate

- 1.Check foot switch connection.
- 2.Unplug from wall, remove top cover and check for loose connection.

Power/light, but will not dispense

- 1.Check air supply and pressure gauge. reset the regulator if necessary, remove barrel from adapter .Depress foot switch to check air flow.
- 2.If solenoid clogged with foreign matter from air compressor, clean or replace it.

Solenoid buzzes

- 1.Voltage is low
- 2.Air is insufficient.
- 3.Solenoid is not clean.

Blowing fuse

- 1.Checking fuse specifications.
- 2.Unplug power input, remove cover, and check internal wiring for loose connection.

Inconsistent dots

- 1.Check needles tip, barrel, adapter and material for possible clogging.
- 2.Check bubbles in the material.
- 3.Check air gauge for air pressure variation.

Dispensing ok, but no vacuum in dispense circuit

- 1.Check vacuum adjustment setting.
- 2.Check air pressure setting(must be 30-40Psi,0.2-0.27Mpa).

## □.The dispensing controller electrical

### schematic

#### 1. Parts List

Symbol	Description	Part No.
F1	Fuse, 0.25Amp	
P1	Power PCB	47087
P2	Controlling PCB	47166
S1	Solenoid Valve	26036
SW1	Power switch	12034
SW2	Foot pedal switch	47024
SW3	Time setup switch	12040
SW4	Mode Switch (DIP Switch)	47164
TR1	Transformer 110V/24V	18035
	Transformer 220V/24V	18036
	Transformer 230V/24V	18037

- 7.Clean the material of the tip in order to shot easily.
- 8.The suck-back air force should be adjusted under air pressure, dispensing cycle and drop size, too stronger air would break the normal work, even cause running back of the liquid through the controller, resulting in some permanent damages.
- 9.Avoid turning barrels upside down or laying barrel, so that material may run through air line to internal component.
- 10.Do not allow barrel assemblies to contract hot or sharp objects.

11. Avoid exposing liquid dispenser to excessive moisture or solvent situation.

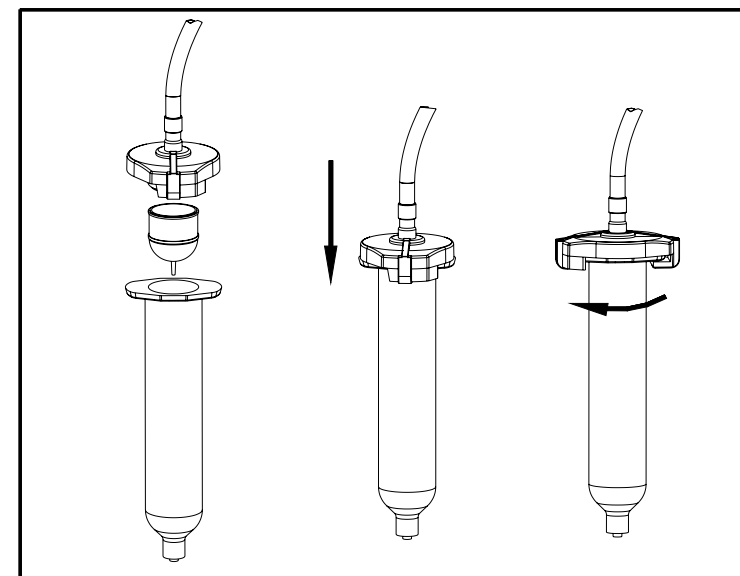
12. On ending works, clean the barrel in time, to put the concerned parts in cleaning water for 5-10 minutes, it is easy to clean.

## □.Parts list

No.	Description	Unit	Quantity	Part No.
1	Piston	piece	1	25023
2	35cc barrel	piece	1	25024
3	35cc adapter (+1.0m clean tube)	set	1	47089
4	Needle(10pieces/set)	set	1	25025
5	Power cable	CCC	piece	1
		USA		
		VDE/CE		
6	Foot switch ( include two cores plug)	set	1	47024
7	"O" ring	piece	1	26041
8	Instruction manual	set	1	
9	Barrel rack	piece	1	43035
10	Air-input tube (3m)	set	1	26040
11	Fuse	200-240V/0.25A	piece	1
		110V/0.5A		

## □.Trouble shooting

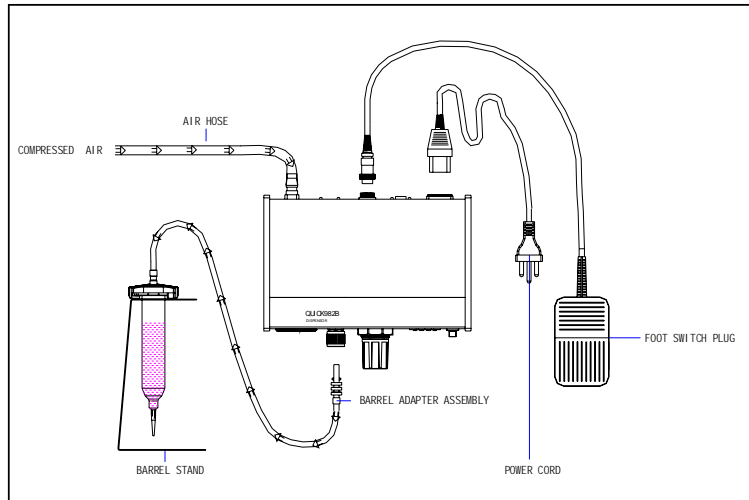
Problem	Check for correction
No power	1.Check wall socket of power supply
	2.Check fuse.
	3.Unplug from wall. remove top cover ,visually inspect for any loose or shoot connection.
Power, but no light	replace power switch



otherwise, spend more and cause negative effects.

3. Make sure the power supply socket is grounded with the corresponding voltage. Then insert the power plug in the socket.

4. Insert plugs of pedal switch and the barrel adapter assembly in their match sockets.

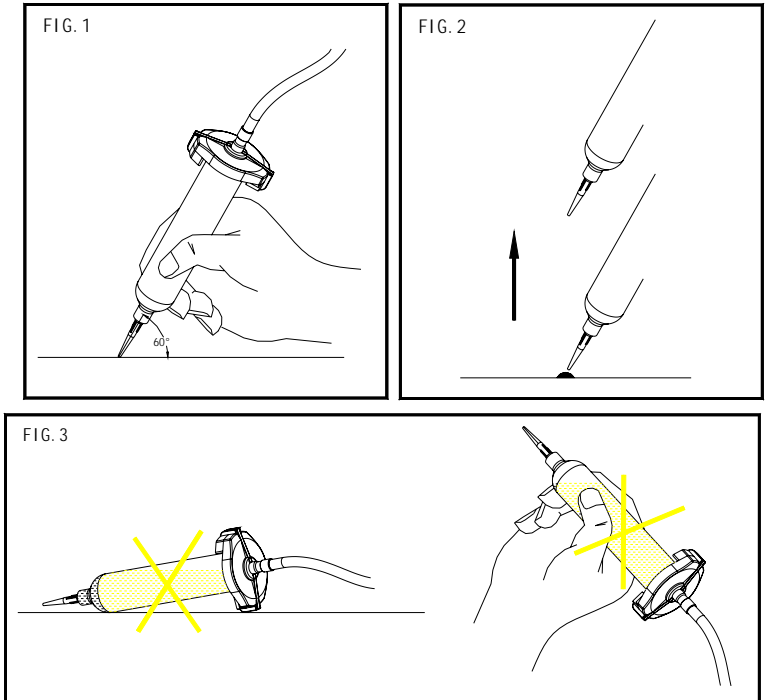


## ☐ Operation

1. Turn the unit "on" by switching the red power to on position.
2. Pull the air pressure regulator knob outward and turn clockwise until the desired air pressure is indicated.
3. Set the mode switch to proper position, referring to the adjustment of dispensing time and interval time.

## ☐ Helpful hints for making deposit

1. Hold the barrel at approximately 60° (+ or -20°) angle (FIG1)
2. After making deposit remove tip as shown (FIG2)
3. Do not permit the liquid to flow back into the controller as shown in FIG3.
4. Increase or decrease size of dots by either,  
Increase or decrease time only,  
Or  
Increase or decrease pressure only,  
Or  
Increase or decrease size of tip.



## ☐ Caution

1. The dispensed material maybe toxic and/or hazardous, refer to material manufacturer's bulletin for proper handling and safety precautions.
2. High-pressure air max does not excess 7 bar (100Psi), otherwise, it will cause negative effects (damage to objects or injury to the user).
3. Make certain air supply is clean and dry.
4. All material are kept on 5° avoid the density changed more, if not, hard to pass, can not dotting.
5. The material must be used average normally, when operate.
6. The air pressure regulated at 0.1-0.27Mpa(15-40Psi) available