

1000T Precision Fluid Dispenser

USER GUIDE



gluebond™



Adhesive Dispensing Ltd
Solutions customers stick with...

Introduction

Thank you for purchasing the 1000T pneumatic timed syringe dispenser. Dispensing systems are supplied tested and are made using high quality parts to ensure that your time is spent where it belongs, on productivity. The 1000T will accept most airline feeds up to 100psi. You can use dispense most fluids such as solder paste, flux, silicone, RTV, grease, threadlockers and PVA using barrels and tips supplied in the box. This user guide will answer most of the more common questions and help you to maximise the benefits from your new 1000T fluid dispensing system.

The 1000T is widely used in the electronics industry, aviation, automotive, food, medical device, aerospace, cosmetics, craft work, education, chemicals and general industry.

Dispensers can apply a range of deposits from a very small dot to large volumes - handling watery liquids to thick pastes.

To achieve maximum performance from Adhesive Dispensing equipment, please read the instructions carefully.

After completing this guide, please do not hesitate to contact the technical team at Adhesive Dispensing Ltd or contact your authorised Adhesive Dispensing Ltd reseller.

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Our Pledge

We offer you the assurance that our products will operate and perform to your satisfaction. Our goal is to provide the highest quality products for use with your industrial applications.

If for any reason you feel that you are not satisfied with our products, we would be grateful if you would call or write us. We strive to develop strong partnerships by delivering cost effective solutions that provide savings in assembly time and raw materials.

So your confidence and trust in Adhesive Dispensing Ltd is of the utmost importance to us.

Meets applicable CE requirements.

This manual is for the express and sole use of ADL dispenser users and customers, and no part of this manual may be reproduced in any way. © Adhesive Dispensing Ltd 2007

Specifications

Part ID:	1000T
Timer Display:	LED
Timer Range:	0.001 to 99.99 seconds or continuous mode
Input Air Pressure:	80-100 psi
Output Air Pressure:	1-100 psi
Cycle Rate:	Up to 600 cycles/ minute
Timer Repeatability:	+/- 0.1%
Minimum Volume:	0.005ml
Size:	246 x 145 x 65mm
Weight:	2.9kg
Input Voltage:	220V AC 50HZ
Internal Voltage:	24V DC
Consumed Power:	< 15W
Warranty:	1 Year
Meets or Exceeds:	CE Certified

TO SAVE ENERGY, PLEASE SWITCH OFF THE DISPENSER FROM THE MAINS PLUG WHEN NOT IN USE.

First Steps

Step 1:

Unpack the shipping box and use the supplied delivery note to make sure all items are present. If any items are missing or damaged, please contact us immediately.

Step 2:

Ensure the area where you are setting up the equipment is clean and follow safety procedures of your adhesive Material Safety Data Sheet for safe handling.

Step 3:

Activate your one (1) year product warranty by filling in and returning by fax or email the warranty card.

What's Included

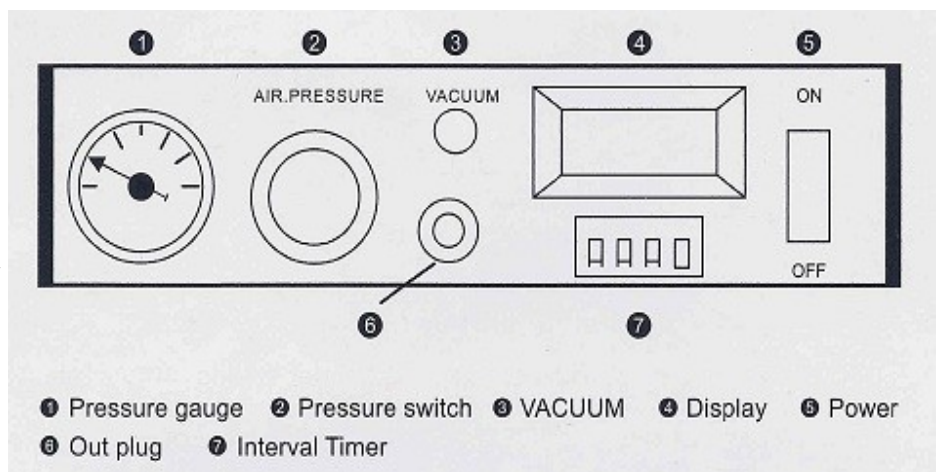
Boxed System:

The 1000T precision dispensing system consists of the main timed dispenser box, air-line hose input, foot pedal, finger switch, power lead, syringe stand, 30cc syringe air adapter hose, 30cc syringe pack, 30cc piston pack, selection of dispensing tips. Some additional components might be included depending on the application discussed with our technical sales team.

Operation

The 1000T dispenser takes a pressure feed of air and regulates this to suit the type of liquid being dispensed. So for watery liquids, a low pressure is used, for thick pastes a high pressure.

The amount of air pressure needed is adjusted by using the regulator knob (2) on the dispenser front and by monitoring the gauge (1). Turn clockwise for higher pressure and anti-clockwise to regulate down. A vacuum (3) is used to stop liquids dripping. The timer (4) can be set for making repeat dots or left to make continuous beads.

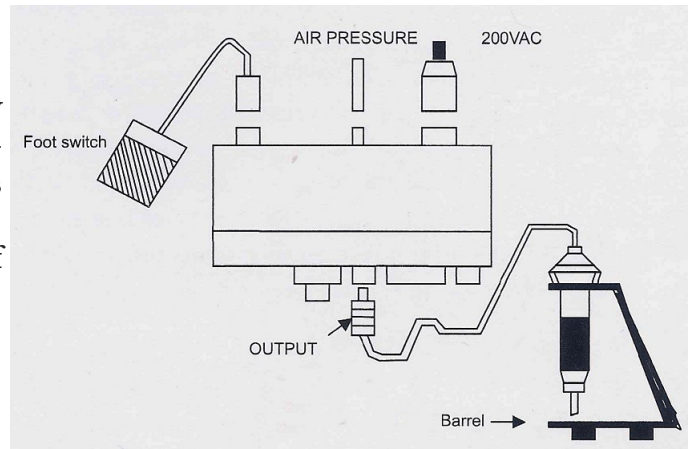


Setting Up

Connect to mains:

The dispenser will require a clean & dry air connection of 80-100 psi. It is supplied with a standard air pipe hose. This will connect to a compressed air supply/compressor. A power supply is required of 220V AC.

Remove the main dispenser unit from the plastic packing protector bag.



Place the dispenser on a suitable flat workbench.



Ensure that the unit is in good condition. Remove from the box the power cord, air hose, foot pedal, finger switch, adapter hose, syringes & tips. Place next to the dispenser ready to use.



On the rear of the dispenser, attach the power cord. Find a suitable power outlet to plug in.



Take the clear airline hose and insert into the air in push fit connect. Attach the other end to your mains supply or small compressor.



Take the footswitch or finger switch. Locate the connector on the back of the dispenser unit. Line up correctly and then screw the bezel until hand tight. Do not force this fitting in. It should locate very easily.

Turn on the power using the red button at the front of the dispenser. The LED display will glow red showing 0.000. Now turn on the air supply to the dispenser.



Next attach the syringe adapter assembly. This has a yellow male connector fitting one end. Line up to the air outlet on the dispenser front. Push in and turn clockwise. It will lock in place. This connector is spring loaded so it will only allow air to release when the connector is inserted.

Setting Up



Attach syringe barrel:

Fill a syringe barrel with fluid. Use a tip cap to seal the tip end. Fill to approx. 2/3 of the barrel. Insert a white, blue or red piston. Push down on the piston so it sits on the liquid.

Select a dispensing tip from the assortment supplied. Use standard precision tips for most fluids. Use tapered tips for thick pastes. Use Teflon tips for Cyanoacrylates. Use long Polypro tips for potting into products. Select small

bore tip for small deposits, larger bore for more output. All tips attach to the barrel by twisting on (luer lock).



How to setup dispense time:

1. When the display shows as 0.000, it is set on continuous mode/ teach mode. By pressing the foot pedal in this mode, the dispenser will run so long as the pedal remains pressed. It will stop as soon as the pedal is released.

Once the pedal is pressed, the timer display will count. So for use as teach mode, see the timer display once its completed as a guide to adjusting the buttons.

To manually set the timer, use the buttons below the LED display to set. Use lower time setting for micro dots.

The smaller the time setting and lower the air pressure - the smaller the dot size. By slowly increasing timer duration and air pressure, the dot size of glue will increase.

There is a vacuum knob. Turn anticlockwise to increase the air that is pulled against the syringe. This feature is used to eliminate low viscosity liquids that might drip. Do not use excessive vacuum as it can draw liquid into the dispenser if a piston is not used.

As you use vacuum, air will escape from the rear of the dispenser. Most fluids do not require excessive vacuum is using a piston.



Setting Up

Dispensing:

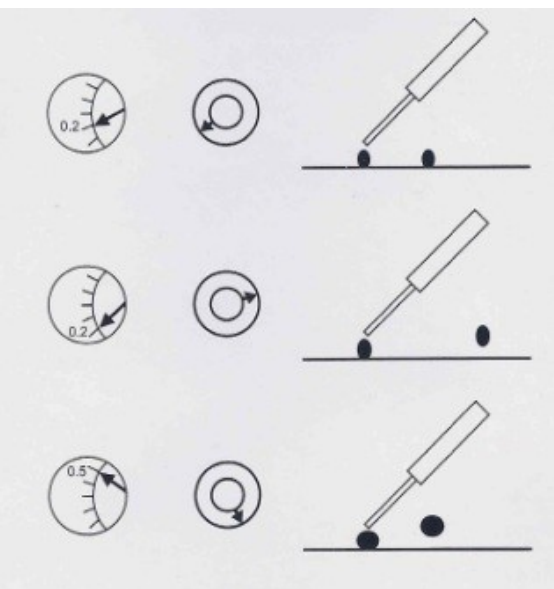
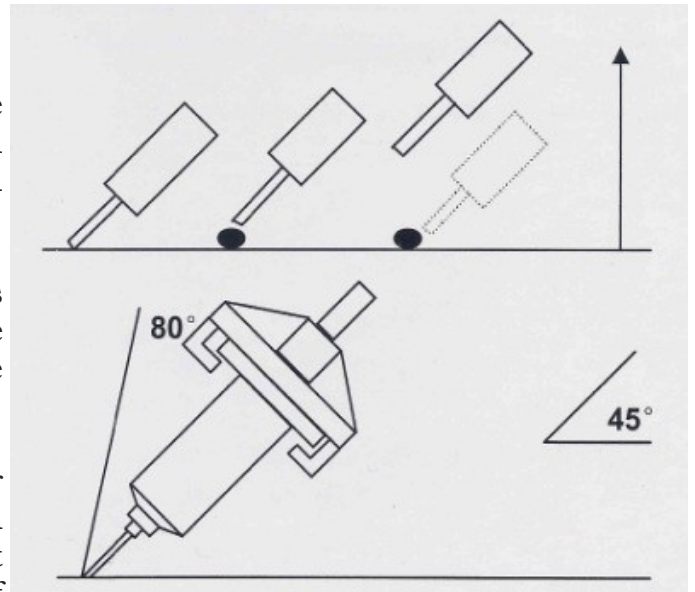
With the dispensing tip attached, hold the filled syringe barrel like a pen. Start with a scrap piece of paper/ card and touch the tip to the surface.

Set the air pressure to say, 15 psi. Press the foot pedal while the tip is touching the substrate. Allow liquid to flow. Lift off the pedal before lifting up the tip.

If the flow rate is too slow, increase air pressure to suit. For making beads, run the tip along the substrate as the foot pedal is depressed. Remember to lift off the pedal as the bead ends, then lift up the tip.

It is ideal to angle the syringe barrel when holding for comfort. If using a syringe stand for hands-free dispensing, the part/ product to be glued will be held to the tip as the liquid is dispensed.

For dots, set the timer and set air pressure to suit the amount required. If liquids drip, adjust the vacuum suckback.

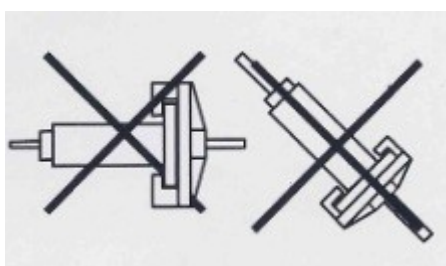


Higher air pressure/ timer and tip = large timed deposits.

Low air pressure/ timer and small tip = micro dots.

Dispense tips are supplied in gauge sizes 14 to 32 (with 14 being the largest bore). If a tip is too small for the viscosity of the liquid being applied, flow rate will be too slow or the liquid might not flow. Achieving the right deposit size is a system of adjusting air pressure, time duration and tip size.

Never re-use tips or barrels should cured or dried adhesive contaminate fresh. And dried remains of a glue can affect the dispensing performance. If dispensing thin fluids without a piston, NEVER tip the barrel upside down as it will cause fluid to enter the dispenser and is not covered by warranty. Use an inline air filter trap (part 881-000-000) to prevent watery liquids entering a dispenser. Available to order from stock.



Disposable Reservoir System



Five sizes, three colours and two types of syringe barrels/pistons make up the 700 series reservoir system for quality dispensing of all kinds of assembly fluids.

For samples, recommendations and immediate customer service:

0845 652 0058

www.adhesivedispensers.co.uk

Syringe barrel & piston sets

	QTY	Clear Barrels White Pistons	Clear Barrels Red Pistons	Amber Barrels White Pistons	Black Barrels White Pistons
3cc	(50)	903-NW	903-NR	903-DW	903-BW
5cc	(50)	905-NW	905-NR	905-DW	905-BW
10cc	(50)	910-NW	910-NR	910-DW	910-BW
30cc	(50)	930-NW	930-NR	930-DW	930-BW
55cc	(50)	955-NW	955-NR	955-DW	955-BW



Syringe Barrel Dimensions

CAPACITY	Overall Length A inches/mm	Outside Diameter B inches/mm
3 cc	2.96/75.18	0.46/11.56
5 cc	2.83/71.9	0.59/14.99
10 cc	3.58/90.9	0.72/18.29
30 cc	4.66/118.36	0.99/25.15
55 cc	6.91/175.51	1.01/25.65

Reservoirs available in clear for most fluids; translucent amber for UV and light-sensitive materials (*240 to 550 nm); and opaque black to ensure complete light blockage. Amber and black barrels also available with red pistons; request the straight wall series.

Syringe barrel without pistons

	QTY	Natural Clear Barrels	Light Block Amber Barrels	Opaque Black Barrels
3cc	(50)	903-N	903-D	903-B
5cc	(50)	905-N	905-D	905-B
10cc	(50)	910-N	910-D	910-B
30cc	(50)	930-N	930-D	930-B
55cc	(50)	955-N	955-D	955-B

Tip and end caps

	QTY	End Cap
3cc	(50)	903-EC
5cc	(50)	905-EC
10cc	(50)	910-EC
30cc	(50)	930-EC
55cc	(50)	930-EC
	QTY	Tip Cap
	(50)	900-ORTC

Note: Order appropriate type of piston separately.

End cap for air tight barrel sealing. Locking tip cap fits all

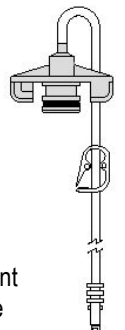
Wiper and flat wall pistons

QTY	White Wiper Pistons	Red Flat Wall Pistons
3cc	(50) 7030009WPK	7030006RPK
5cc	(50) 7050009WPK	7050006RPK
10cc	(50) 7100009WPK	7100006RPK
30cc	(50) 7300009WPK	7300006RPK
55cc	(50) 7300009WPK	7300006RPK



Adapter assemblies

QTY	Black Head 3 ft clear hose	Black Head 6ft clear hose
3cc	(1) 70303RHB	70306RHB
5cc	(1) 70503RHB	70506RHB
10cc	(1) 71003RHB	71006RHB
30cc	(1) 73003RHB	73006RHB
55cc	(1) 73003RHB	73006RHB



Pistons ensure constant dispensing force, prevent drip or ooze, contain all possible hazardous fumes and empty all fluid from barrel.

One-piece moulded lock adapter provides safe attachment of syringe barrel. Includes 5/32" OD flexible polyurethane tubing, EPR O-ring, quick-connect & optional safety clip. Refer to price list for spare parts.

Adapter assembly o-rings

QTY	EPR Rubber	Viton Rubber
3cc	(10) P3015EPK	P3019VPK
5cc	(10) P3016EPK	P3020VPK
10cc	(10) P3017EPK	P3021VPK
30cc	(10) P3018EPK	P3022VPK
55cc	(10) P3018EPK	P3022VPK



Rubber o-ring replacements for all size adapter assemblies. Use EPR rubber o-rings for most standard fluids and adhesives. Use Viton rubber o-rings for solvents, aggressive fluids.





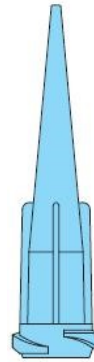
Precision Dispense Tips

All tips supplied in packs of 50 unless specified.

Tapered tips

gauge	standard	colour	opaque rigid	colour
14	TTN14	Olive	TTN14E	Salmon
16	TTN16	Grey	TTN16E	Grey
18	TTN18	Green	TTN18E	Green
20	TTN20	Pink	TTN20E	Pink
22	TTN22	Blue	TTN22E	Blue
25	TTN25	Red	TTN25E	Red
27	TTN27	White	n/a	n/a

Use with gel cyanoacrylates, UV-cure adhesives, sealants, and particle filled materials or any medium to high viscosity fluid. Moulded of polyethylene with UV-light block additive.



Gauge	Color	I.D. (inches)	I.D. (mm)
14	Olive	0.063	1.600
15	Amber	0.054	1.371
18	Green	0.033	0.838
20	Pink	0.024	0.610
21	Purple	0.020	0.508
22	Blue	0.016	0.406
23	Orange	0.013	0.330
25	Red	0.010	0.254
27	Clear	0.008	0.203
30	Lavender	0.006	0.152
32	Yellow	0.004	0.102

Precision stainless steel tips

gauge	0.5"	1.0"	45°	90°
14	914050-TE	914100-TE	914050-45BTE	914050-90BTE
15	915050-TE	915100-TE	915050-45BTE	915050-90BTE
18	918050-TE	918100-TE	918050-45BTE	918050-90BTE
20	920050-TE	920100-TE	920050-45BTE	920100-90BTE
21	921050-TE	921100-TE	921050-45BTE	921050-90BTE
22	922050-TE	922100-TE	922050-45BTE	922050-90BTE
23	923050-TE	923100-TE	923050-45BTE	923050-90BTE
25	925050-TE	n/a	925050-45BTE	925050-90BTE
27	927050-TE	n/a	927050-45BTE	927050-90BTE
30	930050-TE	n/a	930050-45BTE	930050-90BTE
32	932025-TE	n/a	n/a	n/a



Burr-free, polished, passivated stainless steel dispense tips with polypropylene double helix locking hubs for a secure fit to barrel reservoirs. Smaller gages ideal for microdots. Standard all-around precision dispense tips. 1", 45° and 90° tips: Easy access into hard-to-reach areas. 0.25" and 1.5" also available.

TS-P plastic flexible tips

gauge	1.5" long	colour
15	TSP15	Grey
16	TSP16	Brown
18	TSP18	Pink
20	TSP20	Yellow
22	TSP22	Black
25	TSP25	Red



Flexible tips allow access to hard to reach areas and allow you to cut and customise the length. Ideal for CA applications. Both hub and tube are made from polypropylene. 1.5" length.

gauge	soft bristle	stiff bristle
16	BT16SOFT	BT16STIFF
18	BT18SOFT	BT18STIFF
22	BT22SOFT	BT22STIFF

Brush tips



Use these double helix brush tips for spread applications such as glues and other materials. Soft brush is made of red sable, stiff of nylon. In packs of 12.

Polypro flexible tips

gauge	0.5"	1.5" long	colour
16	3115PPS	3115PP	Amber
18	3118PPS	3118PP	Green
20	3120PPS	3120PP	Pink
25	3125PPS	3125PP	Red

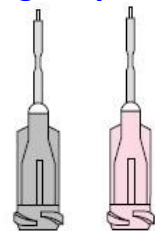


Flexible polypro tips allow access to hard to reach areas and allow you to cut and customise the length. Ideal for CA applications. Made from polypropylene. 0.5" and 1.5" length.

Teflon Lined rigid tips

gauge	0.5" long	1.0" long
21	5121TLCS	5121TLC
25	5125TLCS	5125TLC

Teflon lined dispensing tips will not clog when used with cyanoacrylate adhesives. Rigid stainless steel shaft with crimped Teflon inner lining. Supplied in packs of 50.



Assorted tip kit



part	description
TN00DKIT	Tip kit

This kit contains a selection of our most popular precision, precision bent and TTN needles to let you test different types to find the ones that fit your applications.

SS precision tips



Precision stainless steel needles ideal for use with automated dispensers. 10 per box. Not available in bulk.

gauge	part no	colour	Length
14	TS14SS-1/2	Stainless Steel	1/2"
15	TS15SS-1/2	Stainless Steel	1/2"
16	TS16SS-1/2	Stainless Steel	1/2"
17	TS17SS-1/2	Stainless Steel	1/2"
18	TS18SS-1/2	Stainless Steel	1/2"
20	TS20SS-1/2	Stainless Steel	1/2"
21	TS21SS-1/2	Stainless Steel	1/2"
22	TS22SS-1/2	Stainless Steel	1/2"
23	TS23SS-1/2	Stainless Steel	1/2"
25	TS25SS-1/2	Stainless Steel	1/2"
27	TS27SS-1/2	Stainless Steel	1/2"
30	TS30SS-1/2	Stainless Steel	1/2"

Troubleshooting

Problem

Possible Solution

No Fluid Flow

Remove the tip cap.
Check that adhesive or paste has not cured at tip.
Check airline is connected.
Check power light is on.
Increase air pressure on the regulator.
Use a new syringe barrel, piston and tip.
If tip size too small, use a larger bore tip.

Fluid Drips

Use a new syringe barrel, piston and tip.
Try the next size up dispense tip.
Use vacuum suck back knob.
Remove air gap between wiper piston and fluid level.
Use a shorter length dispense tip.
Check for air-entrapment in the fluid or paste.

Syringe Barrel Does Not Fit

Use only syringes 930-N, 930-B, 930-D, 955-N, 955-B and 955-D. (30cc and 55cc sizes).

This 30cc/55cc size adapter hose is industry standard so can also be used with other manufacturers pre-filled barrels that feature the same wide flanges.

Dispense Rate Too Slow

Increase tip gauge size.
Use tapered dispense tips.
Increase air pressure.
Use fresh adhesive/ material.

Inconsistent Timed Shots

Replace barrel and piston with new.

Air might be present between the piston and the fluid level inside the syringe. Remove from the syringe by removing from adapter, turning the barrel upside down with tip removed and pushing the piston up to remove bubble.

Check air pressure into dispenser is above 80psi.
Check air pressure into dispenser is consistent.

Check adhesive spec. and cure times once in the syringe barrel. Fast cure will harden over time.

If you require any further assistance with this product, please call us on Free Phone 0800 094 9058 or +44 (0) 845 652 0058.

Or email us at support@adhesivedispensers.co.uk.

Warranty

One Year Limited Warranty

Adhesive Dispensing Limited (ADL) warrants its product to be free from defects in materials and workmanship for a period of one year from the date of purchase.

Under this warranty, ADL will repair or replace any defective part or, at its own option, the complete value regardless of fault. To obtain service under warranty, product must be returned, carriage prepaid, to ADL.

Before use, the customer must determine the suitability of the product for their intended use and therefore customer assumes all risk and liability connected with product's use. At no time, under any circumstance, shall any liability or obligation of ADL arising from the warranty exceed the purchase price of the product.

Except as provided herein, ADL makes no warranties, express or implied, including warranties of merchantability and fitness for a particular purpose. In no event will ADL be liable for direct, indirect, special, incidental, or consequential damages arising out of use of this product.



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