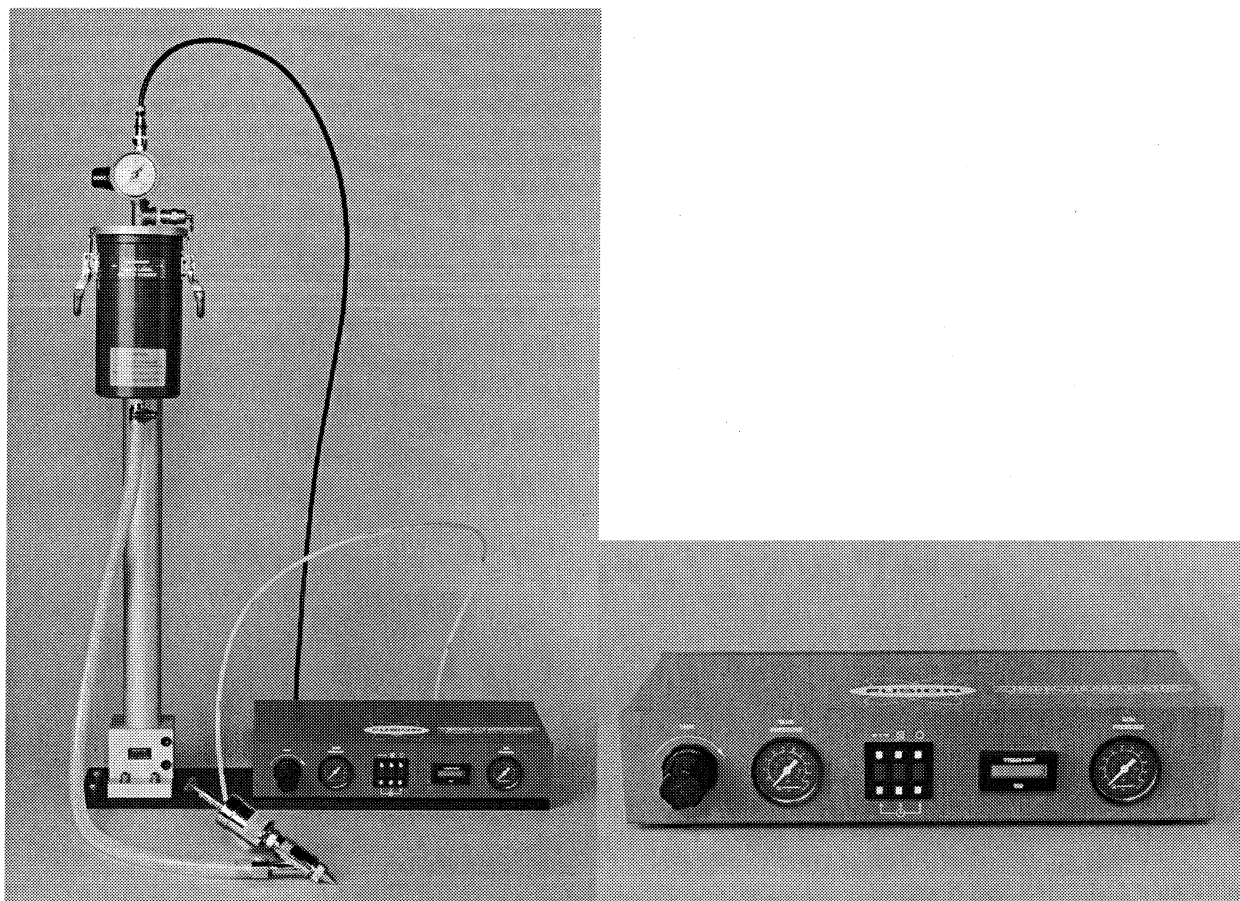


OPERATIONS MANUAL

MODEL 710

DIGITAL DISPENSING SYSTEM



Model 710 Digital Dispensing System

OPERATIONS MANUAL

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Fusion

MODEL 710 PRECISION DISPENSER

The Model 710 Dispenser consists of:

- (1) Dispenser Control Box
- (2) Foot Pedal Switch
- (3) Power Cord

INSTALLATION

- 1) Connect the dispenser to plant air. A minimum of 60 PSI of compressed air from a 1/4" line is required. The unit requires clean dry air. A 5-micron filter/regulator is required because of the vacuum transducer.
- 2) Connect the foot pedal to the rear of the dispenser control box.
- 3) Plug the power cord into the rear of the Dispenser. Then plug the 3 prong end into a grounded 115 VAC outlet. The power entry unit on the rear the dispenser can be converted to 220 VAC by opening up the fuse holder and rotating it 180°. The correct voltage should be showing in the window of the power entry unit.
- 4) Attach the hose from the dispensing gun to the white quick disconnect on the rear of the dispenser labeled "GUN".
- 5) Attach the hose from the Paste Reservoir to the white quick disconnect on the rear of the dispenser labeled "TANK".

OPERATION

- 1) Fill the paste reservoir.
- 2) Turn the Dispenser's power on by using the switch on the rear of the unit over the power cord.
- 3) The large regulator knob on the left of the front control panel controls the pressure to the paste reservoir. Turning the knob clockwise will increase the pressure. The pressure can be read from the left gauge on the front panel.
- 4) The gauge on the right side of the dispenser indicates the gun pressure. This value is factory pre-set to around 45 Psi..

HOW THE DISPENSER WORKS

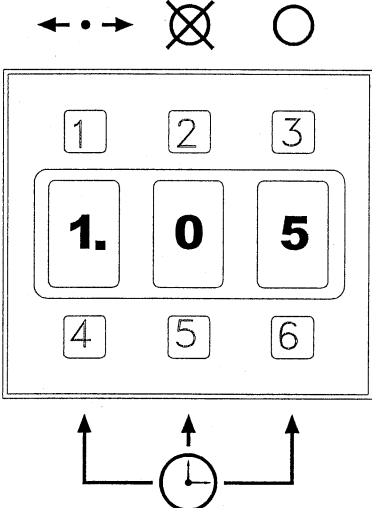
- 1) When the foot pedal is pressed the digital timer begin the timing cycle. The display will show dashes on the top and bottom.
- 2) The gun valve is energized.
- 3) The tank Air pressure pushes the material out of the gun.
- 4) At the end of the dispense time the gun valve shuts off.
- 5) The tank pressure is applied when the dispenser is turned on. The paste reservoir stays pressurized for 30 minutes, which is factory-preset time. After 30 minutes of inactivity, this pressure to the paste is shut off to eliminate the possibility of continued air pressure on the paste which may affect the paste. Air pressure is restored by power cycling the unit or by stepping on the foot pedal to dispense.

SETTING DISPENSE TIME


There are 2 ways to set the dispense time:

1. Use the foot pedal to teach a time. This is done the first time you need to dispense a new compound and don't know how long to set the dispense time.
2. Use the time set buttons to set the dispenser to a previously used time.

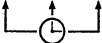
TIMER DISPLAY CONTROL

<p>1 Decimal Button – Press to move the decimal point from right to left. When no decimal point is shown the range is .000 to .999 seconds.</p> <p>2 Timer Bypass Mode – Press button once and the display changes to --- (dashes). Now the foot pedal controls the liquid flow. Press again and the display shows the last programmed time.</p>		<p>3 Teach Mode – Press this button once and the display will start to blink. Now the time can be set using the time set buttons or the foot pedal can be used to set a time. Hold the button in for 2 second and the display will be set to 000. Press the button again to stop the flashing and store the taught time in memory.</p> <p>4-6 Time Set Buttons - Each button controls the display digit in the panel. Each press will advance the display. This can only be done in Teach Mode when the display is flashing.</p>
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HOW TO USE THE DISPLAY CONTROL PAD

 To put the dispenser in manual mode and bypass the timer


This mode is used to do manual dispensing operations or to fill the dispensing tip with material. Press the Manual Button Once and the display will change to ---. Press again to return to timed mode. The valve is actuated as long as the foot pedal is depressed.

 To set a new time on the display using the time set buttons

Press the Teach button in and hold for 2 seconds. The display will start flashing and change to 000. You can now adjust the time using the Time Set Buttons. When the desired time is set press the Teach button again to store the time.

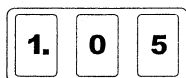
 To change the position of the decimal point

When the display is flashing indicating that you are in teach mode, the decimal point can be moved using the decimal button. When no decimal point is showing the time range is .000 to .999 seconds. The maximum time is 99.9 seconds.

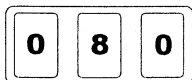
 To teach a new time using the foot pedal

Press the Teach button once. The display will start flashing. Press the foot pedal to dispense the desired amount. The time the foot pedal was pressed will be shown on the display. This can be repeated as many times as needed. You can also adjust the time using the time set buttons. Once you are satisfied press the Teach button again to store the time. The display will stop flashing indicating that you are in the timed mode.

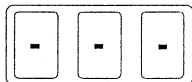
EXAMPLES OF DISPLAY TIME



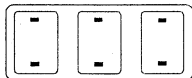
This would be a dispense time of 1.05 seconds



This would be a dispense time of 0.080 Seconds. When no decimal is displayed, it is assumed to be before the first digit.



This indicates the dispenser is in manual mode.



This indicates that the dispenser is currently in a timing cycle. At the end of the timing cycle the programmed time will be displayed again.

HOW TO ADJUST TANK AIR PRESSURE

- 1) Pull out the air pressure regulator knob.
- 2) Turn the knob clockwise to increase the pressure. The pressure can be read on the left gauge.
- 3) Once the pressure is set, press the knob in to lock in the setting.

TIPS ON DISPENSING

- 1) The gun should be held or mounted at a 45-degree angle to work surface. The tip should contact the work surface for more consistent deposits.
- 2) Start with the tank air pressure of 10-15 PSI. Most materials can easily be dispensed at this pressure. Higher pressures will cause the paste to separate.

DIGITAL COUNTER

- 1) The digital counter on the front panel counts the number of times the foot pedal is pressed and the gun dispenses paste.
- 2) This can be reset to Zero, by pressing the white button near the display.

SPECIFICATIONS

Size:	14.75"W x 5.75"D x 3"H
Air Input:	100-Psi max.
Tank Output:	1-100 Psi
Gun Output	Preset to 45 psi
Voltage Input:	100/120/220 VAC
Internal Voltage:	24VDC
Cycle Rate:	>600/minute
Time Control:	Digital Timer Control
Time Range:	Programmable 0.001 – 99.9 seconds
Initiation:	Momentary or self completing (see optional settings)
Memory:	Non-volatile memory to store last displayed time.

I/O Connection

There is a 9 pin "D" connector on the rear of the unit that can allow the unit to be controlled by an external system.

Pin	Function
1	Initiate + start cycle (contact closure or TTL input)
2	Ground
3	Output + TTL output (20mA Max)
4	Ground
5	Initiate + start cycle (contact closure or TTL input)
6	Ground
7	Ground
8	Ground
9	Ground

Optional Settings:

Note: a qualified technician should only do this.

Changing from self-completing mode to Momentary.

1. Remove the power cord.
2. Remove the 4 screws on the bottom of the unit.
3. You will find a jumper (J5) on the main board. This should be moved so it is attached to both pins. When the jumper is on both pins of the connector the dispenser is in the momentary mode.

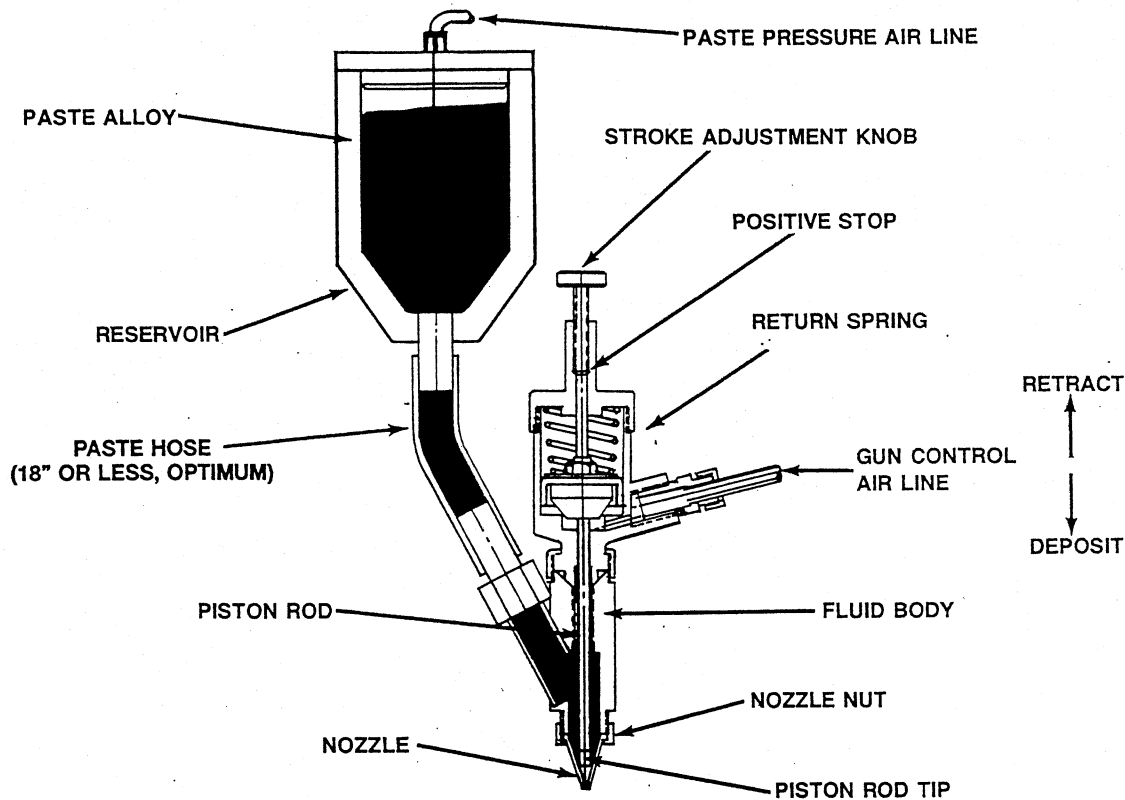
Changing the tank air shutoff delay

1. Remove the power cord.
2. Remove the 4 screws on the bottom of the unit.
3. You will find a jumper (J7) on the main board. To set the delay to 15 minutes move the jumper to pins 1+2 and for 30 minutes move jumper to pins 2+3

1-YEAR LIMITED WARRANTY

Your Dispenser is warranted to the original purchaser for 1 year from the date of purchase to be free from defects in materials and workmanship (but not against damages caused by misuse, negligence, accident, and faulty installation or by using materials incompatible with the equipment).

Applicator Gun and Reservoir System (Cross-Section)



This sketch shows a cross-section view of the paste applicator gun and reservoir. As the sketch indicates, pressure is supplied to the paste alloy in the reservoir through the paste pressure air line. The amount of air pressure in this line is controlled by the regulator located on the applicator control panel and designated there as paste pressure. This air pressure keeps the paste alloy flowing through the system for eventual deposit through the applicator nozzle.

Air also passes to the cylinder of the applicator gun through the gun pressure air line. The pressure gauge is also located on the applicator control panel and designated there as gun pressure. This gun pressure is factory set for your operation. The pressure on the piston causes the movement of the piston rod within the cylinder.

The piston rod in the gun extends down into the fluid body and the tip seats in the nozzle. A piston rod tip is attached to the piston rod. Tip material varies depending upon the type of Fusion Paste

Alloy to be dispensed. The stroke and retraction of the piston rod dispenses the paste alloy through the nozzle orifice on a positive displacement principle. As the piston rod retracts, paste flows into the void created within the nozzle. When the rod comes forward, the amount displaced is dispensed through the nozzle orifice.

Adjustment of the piston rod stroke is controlled by a knob, located on the applicator gun cap. The end of the stroke adjustment knob and the piston rod are visible through a small window in the gun cap. This adjustment acts as a positive stop on the length of the retraction stroke of the piston rod and is used as a control of the paste deposit. Closing the adjustment shortens the rod stroke, resulting in a smaller paste deposit. Opening the adjustment lengthens the rod stroke, resulting in a larger paste deposit. Once the adjustment is made, this setting can be maintained by tightening the locking nut against the top of the gun cap.

Familiarization Procedure

The following items should be checked to insure proper installation of applicator and to familiarize you with the adjustments possible on the applicator. *Do not fill paste reservoir until you have completed these checks. Power switch on the control cabinet should be "OFF".*

- 1 Check to be sure that all electrical and air connections have been completed as described in the Installation Procedure.
- 2 Unlock the paste pressure control knob and turn counter-clockwise until it turns free. No pressure should show on gauge.
- 3 Turn electrical power switch "ON" to actuate unit. Note: A delay timer in the applicator will cut off the air pressure to the entire system, if the unit is not energized at least once within any 30-minute period. This delay timer shut-off eliminates the possibility of continued air pressure on the paste (when the system is not in use) which might affect the paste. Air can be restored by operating this switch to the "OFF" position, then back to "ON", or by firing the actuator switch.
- 4 Gun pressure regulator has been factory set at approximately 45 psi and should require no adjustment.
- 5 Turn the paste pressure control knob clockwise until approximately five pounds of pressure registers on the paste pressure gauge. Check the air line to the paste reservoir and the paste tubing from the reservoir to the gun, making sure there are no leaks. After any leaks are corrected, turn paste pressure control knob counter-clockwise until it stops. This removes pressure from this side of the air line. Turn electrical power switch to "OFF".
- 6 Remove nozzle from the applicator gun and turn the stroke adjustment knob counterclockwise to full open position.
- 7 Set timer at approximately 1 second and turn electrical power switch to "ON". Actuate the system with the footswitch. As this switch closes, the tipped piston rod, which would normally seat in the gun nozzle, should move about 3/8" back into the fluid body of the gun. After one second, there should be an audible click as the timer de-energizes the circuit. At this point, the piston rod returns to its original position at a moderate speed. If the rod moves rapidly back to its original position before the timer de-energizes, an air leak between the gun and the solenoid valve is indicated and should be corrected.
- 8 Open and close the stroke adjustment knob on the applicator gun cap. Note that the piston rod, when actuated, moves a lesser distance back into the fluid body as the knob is closed. Conversely, the piston rod will move a greater distance as the adjustment is opened.

In operation, the stroke adjustment knob is one adjustment which can be used to control the amount of paste deposited. After the appropriate dot size is set, the knob can be used for adjustments. When a larger deposit is required, open the knob. When a smaller deposit is required, the knob should be turned in. As a starting point, use a stroke adjustment setting of 50 – 75% open, and up to 100% open for larger deposits. **DO NOT CLOSE COMPLETELY.**
- 9 The digital timer is used to establish the time that the gun nozzle orifice is open. (Cycle the gun several times to determine the effect of the timer.)

Reference of Applicator Adjustments

CONTROL	PURPOSE	EFFECT OF ADJUSTMENT
Stroke Adjustment Knob	Determines length of piston rod stroke in applicator gun. Reaction Time: 1 Cycle	1. Open (turn counterclockwise) to lengthen stroke for a larger paste deposit. 2. Close (turn clockwise) to shorten stroke for smaller deposit.
Deposit Timer	Determines length of time piston rod is retracted. Reaction Time: 1 Cycle	As timer setting is increased, piston rod is retracted for a longer period, allowing more paste to flow into nozzle area for a larger deposit.
Paste Pressure Control	Controls flow rate of paste alloy from reservoir to applicator gun. Reaction Time: 1 minute	Increased pressure increases flow. Normal pressure is that which keeps paste moving about 1" per minute. Ref. Procedure to Check Minimum Paste Pressure on page 9.
Gun Nozzle	Orifice size plays a major role in determining amount of paste which can be deposited.	Correct nozzle style and size have been recommended by Fusion Inc. Usually not enlarged unless a much larger deposit is required.

Procedure to Establish Minimum Paste Pressure

FOR BEST RESULTS, AIR PRESSURE TO THE PASTE RESERVOIR SHOULD BE SET AS LOW AS POSSIBLE. The objective is to keep paste alloy just moving through the system, without excess pressure which could cause erratic deposits or separation of the carefully-balanced paste alloy ingredients. To accomplish this, a general understanding of the applicator gun sequence will be helpful.

A digital timer is used to energize the gun and establishes the time that the nozzle orifice is

open. The timer setting should be just long enough to hold the orifice open for the period of time required for the paste to flow with minimum pressure and fill the end of the nozzle. The stroke adjustment knob at the back of the gun controls how far the piston rod will retract. It should be set **as far open as possible** for the size dot required. The example below illustrates the rod, nozzle, and timer conditions at various points in the cycle.

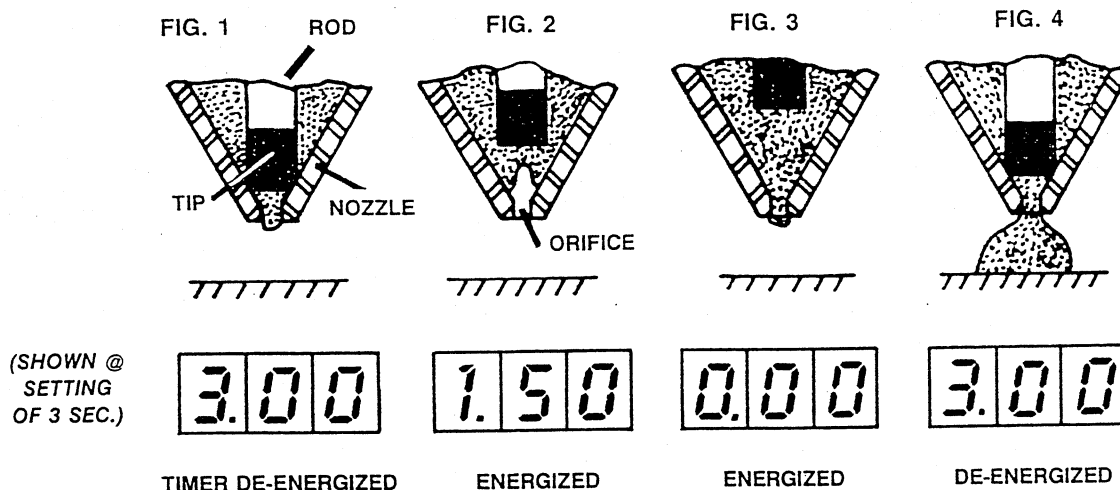


Fig. 1 Rod and tip “seated” into internal cone of nozzle, causing shutoff condition.

Fig. 2 Rod partially retracted. This action creates a “void” or “cavity” which is being filled by pressurized paste. Note paste that remained at nozzle orifice in Fig. 1 is drawn back into nozzle by suction created as rod retracts.

Fig. 3 Rod in fully retracted position. Paste, under pressure, has filled “cavity” completely and has just begun to appear at nozzle orifice opening. Simultaneously, timer has timed out and rod will immediately begin return stroke into internal cone of nozzle. During this return stroke, paste will be dispensed thru nozzle orifice.

Fig. 4 Rod has returned to shutoff position and paste deposit is completed.

If paste pressure is set too low, paste will not appear at opening of nozzle orifice before timer causes rod to close, resulting in erratic deposit sizes. If paste pressure is set too high, paste will not only be visible at orifice opening but may actually be extruded from nozzle orifice before rod begins return stroke into nozzle. At the correct minimum paste pressure setting, the paste must just begin to appear at the nozzle orifice which is opening at the same time as the rod begins its return stroke. Remember that the rod return begins when the applicator timer times out and is de-energized. Cycle the gun several times with different timer settings to determine the effect of the timer, and which setting is appropriate for your application.

KEY ADVICE:

Longer timer settings and increased stroke lengths will provide paste deposits with less paste pressure, resulting in less maintenance.

Procedure to Establish Correct Paste Deposit Size

- 1** Turn the electrical power switch to "OFF". Set timer at 1 second and turn the stroke adjustment knob counterclockwise to the open position. Remove the top of the paste reservoir and fill with well-mixed Fusion Paste Alloy to within **1 INCH OF THE TOP OF THE RESERVOIR**. If filled beyond this point, paste will back-up into tubing. Insure that paste alloy is not obstructing the o-ring seating area. Replace the reservoir top and turn the electrical power switch "ON". Turn paste pressure control knob slowly clockwise to apply pressure to the paste in the reservoir. Increase the pressure gradually to keep the paste moving slowly and steadily through the tubing to the applicator gun and out through the fluid body of the gun. At this point, adjust the paste pressure control knob to move the paste from the end of the fluid body about 1" per minute. This is ample unless an unusually large volume of paste or fast cycle time is required for each deposit.

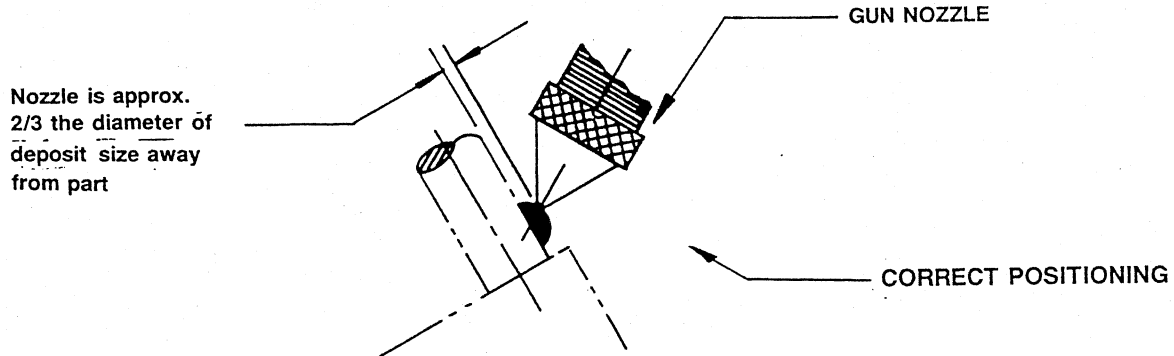
Note the setting on "paste pressure" gauge, and turn paste pressure control knob counterclockwise, which eliminates pressure on the paste, stopping the paste flow. Turn electrical power switch to "OFF".

- 2** Wipe paste from the piston rod tip, **BEING CAREFUL TO KEEP THREADS ON THE END OF THE GUN FLUID BODY FREE OF PASTE**. Replace nozzle and hand-tighten the nozzle nut to the end of the gun fluid body.
- 3** Reset the gun adjustment knob to the desired setting (Ref. Familiarization Procedure, p. 5, point 8) and tighten lock nut. **REMEMBER: LONGER STROKE = LESS PASTE PRESSURE.**
- 4**

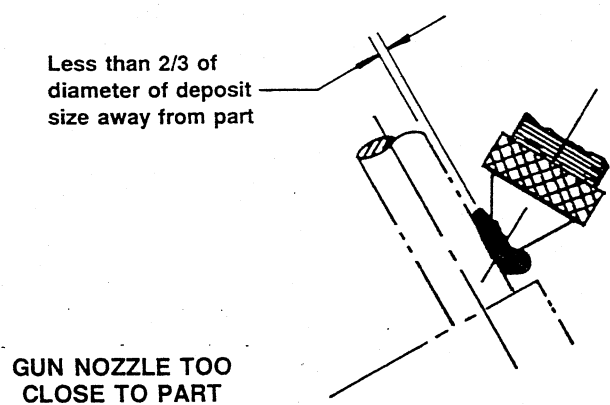
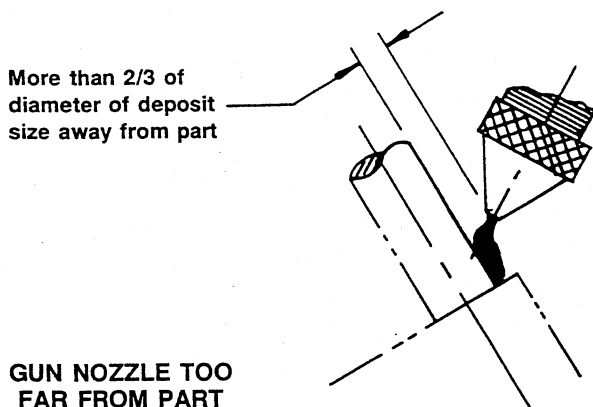
To check for **excessive paste pressure** without removing the nozzle, set the timer for 2 seconds, and actuate the switch. If paste flows steadily through the nozzle orifice while the piston rod is retracted, the paste pressure is excessive and should be reduced. (Ref. Procedure to Check Minimum Paste Pressure, p. 7)

Correct Gun Distance For Paste Deposits

GUN NOZZLE CORRECTLY POSITIONED FROM PART



INCORRECT POSITIONING



The three sketches depict the correct and incorrect distances of the applicator gun nozzle from the surface where the paste alloy is to be deposited:

CORRECT DISTANCE FROM PART:

The nozzle orifice should be approximately $\frac{2}{3}$ the diameter of the paste deposit away from the assembly. In this way the joint area will receive the deposit and paste alloy accurately, and since a greater area of the paste will be in contact with the part when the gun is retracted, the paste will remain on the assembly and the nozzle tip will be clean.

TOO FAR FROM PART:

The paste will drip down as it is dispensed from the gun nozzle. The desired spot for the deposit will be missed.

TOO CLOSE TO PART:

The paste will contact the assembly but then will "curl around" and adhere to the nozzle itself. Hence, when the gun is moved back out of applying position, the paste will remain on the nozzle rather than the part.

Applicator Trouble Shooting

CAUTION: Always turn electrical power switch "OFF" before removing nozzle, hoses, fittings, or paste reservoir cover.

PROBLEM: PASTE NOT BEING DEPOSITED / ERRATIC DEPOSIT SIZE

- I. If paste is not coming out of the gun nozzle when the applicator actuating switch (micro-switch or footswitch) is energized, the following routine checks should be made before troubleshooting the problem:
 1. Check that electrical power is being supplied to the unit. This can be determined by observing the illuminated digital display.
 2. Check that air is being supplied to the unit. Observe the gun pressure gauge which is factory preset at 40 – 50 PSI.
 3. Check that both white and black, 1/4" plastic air connections are correct (Ref. Installation Procedure, p. 2) and neither line is kinked.
 4. Check that the timer is set at a minimum of 1 second or at the recommended setting.
 5. Check that paste pressure gauge registers a minimum of five pounds of pressure or at the recommended settings.
- II. Having made the above checks, proceed with the following troubleshooting sequence:
 1. Check that the stroke adjustment knob on the gun (visible through window in gun cap) is not seated against the piston rod in a de-energized position).
 2. Check that the piston rod (visible through window in gun cap) retracts when the gun is actuated. If piston rod retracts, but problem is not corrected, proceed to Step #3. If piston rod **does not retract**, remove the white air line from the gun. With one hand, hold onto the end of the air line, turn the switch back to "ON" and actuate the micro-switch or footswitch. If **air does flow** out of the line, remove gun and connect a new (spare) gun to the unit. If **air does not flow** out of the line, there is a problem with the applicator control panel. Consult Fusion Inc. or your local Fusion Sales Engineer for service.
 3. With the power switch "OFF", remove nozzle and clean out paste. Clean nozzle orifice to remove any obstruction. Turn the switch back to "ON" and allow 3" of paste to flow from the gun. Replace nozzle. If problem is not corrected, proceed to Step #4.
 4. With the power switch "OFF", remove the paste reservoir cover and check that there is sufficient paste in the reservoir. (Ref. Procedure to Establish Correct Paste Deposit Size, p. 8). Also, insure that paste tubing is completely filled from paste reservoir to gun without gaps. With one hand, hold onto the end of the cover, turn the switch back to "ON" and see if there is air flow out of the opening in the reservoir cover. If **air does not flow** out of this opening, there is a problem with the applicator control panel. Consult Fusion Inc. or your local Fusion Sales Engineer for service. If **there is air flow** out of the cover opening and the problem is not corrected, proceed to Step #5.
 5. Remove the paste from the system, mix thoroughly, and put back in reservoir. Follow the correct procedure for setting paste pressure (Ref. Procedure to Check Minimum Paste Pressure, p. 7). If problem is not corrected, consult Fusion Inc. or your local Fusion Sales Engineer for service.
 6. Reduce the tubing length, if possible.

CAUTION: Always turn electrical power switch "OFF" before removing nozzle, hoses, fittings, or paste reservoir cover.

PROBLEM:

PASTE LEAKAGE FROM NOZZLE ORIFICE

- I. If you experience paste leakage from the nozzle, check for three probable causes:
 1. Worn piston rod tip.
 2. Nozzle nut not tight enough.
 3. Piston rod length out of adjustment.
- II. Proceed with the following troubleshooting sequence:
 1. Remove nozzle by turning nozzle nut counterclockwise. Inspect piston rod tip and replace if signs of wear are visible. Tip can be removed by hand turning counterclockwise and pulling downward simultaneously. **(DO NOT USE TOOLS — piston rod may bend).**
 2. Replace worn tip with new tip of same material. Turn clockwise and push upward simultaneously.
 3. Clean paste from nozzle and threads on end of gun fluid body. Manually, place cleaned nozzle into position over piston rod and try to seat against gun fluid body. There should be .015"-.035" clearance between the piston rod and nozzle. If clearance is proper, hand tighten nozzle nut firmly and test for leakage. If there **is not** proper clearance, or problem not corrected, return applicator gun to Fusion Inc. for service.

Cleaning Paste From Applicating Equipment

Preparation:

It is recommended that workers wear gloves during any cleaning operation, and wash hands thoroughly afterwards.

Cleaning Solvents:

To select the proper cleaner for your particular paste, check the first group of letters on the paste jar label for the type of flux-binder that is used. The following charts show recommended cleaners for the most popular Fusion pastes.

CLEAN WITH MINERAL SPIRITS

ASN	GPR	PTP
BMA	JNC	SL-5
BMW	KNC	SS
BMX	LHK	STK
BNC	LPS	STL
CBC	MBC	STN
CBF	MGP	STR
CBL	NCA	STW
CP	NFC	TNC
CPF	NPA	WSB
DMX	PMX	WSP
FNC	PNP	WSU

CLEAN WITH HOT DETERGENT WATER

CAP	FAB	SSX
CAT	FUZE BRAZE	WC
CKG	G (Special)	WCC
CKT	GTX	WCE
CNG	JNC	WSA
CNH	PA	WSR
CNO	PMS	WSS
CNT	S	WTX
CRT	SMH	

All pastes above, if allowed to dry, may require considerable soaking, plus physical scouring with steel wool, etc. to remove.

General Instructions:

- Both leather and rubber gun packings will deteriorate after repeated exposure to cleaning solvents. For optimum performance, packings should be replaced frequently (Ref. Applicator Gun Service Policy, p. 13).
- After cleaning with Mineral Spirits, a final wash with hot detergent water is recommended to remove solvent residue. A drop or two of mineral oil or light machine oil on the gun packings will prolong their life.
- With the exception of MX Series and Aluminum Brazing Pastes, most Fusion Paste Alloys will withstand storage of up to 4-5 days in the reservoir. Gun nozzles, however, should be capped or removed, and cleaned at the beginning of each production shift.
- To facilitate removal of dried paste most parts may be soaked overnight in Mineral Spirits. Plastic 12cc/30cc cartridges or plastic gun-mounted (Semco) cartridges **should not be soaked**, but rather cleaned with the recommended solvent promptly after use.
- Friction created by moving gun parts may cause some low-temperature solder pastes to "cold work" in the gun nozzle. If this occurs, remove the nozzle and clean tip mechanically. To minimize cold working, decrease paste pressure and increase rod stroke adjustment.
- **DO NOT ATTEMPT TO THIN FUSION PASTE ALLOYS WITH ANY DILUENTS!! ADVERSE CHEMICAL REACTIONS MAY OCCUR!!**

Applicator Gun Service Policy

To maintain a trouble-free brazing or soldering operation, it is imperative that your Fusion Paste Applicator Guns be kept in good working order. As part of its commitment to customers, Fusion offers a program of periodic factory service, the details of which are explained below. Of course, this service applies only when **factory approved materials** are used.

Reconditioning:

Fusion checks each gun carefully for worn parts. Packings and piston rod tips are replaced where necessary, and the gun reset and lubricated. No charge is made for parts or labor.

Replacement Parts:

Where there is physical damage to major gun components such as fluid body, piston rod, nozzle, etc. a charge will be made for parts only. No charge for labor and reconditioning.

Service Frequency:

The exact interval between gun service periods will vary depending on your operation. Experience will dictate the approximate number of dispensing cycles after which the gun should be returned. Of course, it is always advisable to schedule routine service **before** trouble is experienced.

Spare Applicator Gun:

It is recommended that a spare gun be purchased for each applicator unit. This will permit guns to be returned for service on a rotating basis without interrupting production.

Guarantee:

All guns that are factory reconditioned carry the Fusion guarantee. Should a malfunction occur, Fusion will correct without charge, provided the gun was assembled/reconditioned at Fusion initially, and has been used to dispense only **factory approved materials**.

Applicator Control Panel and Accessories:

In the event of physical damage or wear to other components of the applicator system (paste reservoir, timer, or other parts), a charge will be made for the replacement parts plus labor. Fusion control panels carry a one year warranty from date of purchase.

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