

# 762 Automatic Shaker Unit Installation and Operations Manual



S/N: Rev.: 2.0

Dear Customer,

Congratulations on deciding to choose an STS adhesive shaker unit for your DTF printing activities. You made an excellent choice.

When you need service or technical help, please let us know your purchase invoice number. This will make it easier to provide you with correct service.

For your convenience, space is provided below for you to record your local STS service contact information.

#### STS TECHNICAL TEAM

Service number: 561-999-8818 email: support@stsinks.com

#### 1. General

Carefully read the instructions in this manual as they contain important information regarding proper, efficient and safe installation, use and maintenance of the unit.

The installation of this unit must be carried out in accordance with the manufacturer's instructions.

Switch off the unit in case of failure or malfunction and contact your distributor for service information.

#### 1.1 Symbols that may be used in this manual



This symbol informs about a situation where a safety risk might be at hand. Given instructions are mandatory in order to prevent injury.



This symbol informs about the right way to perform in order to prevent bad results, appliance damages or hazardous situations.



This symbol informs about recommendations and hints that help to get the best performance out of the appliance.

## 2. Safety

#### 2.1 Safe use of the appliance



For your safety. Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

#### 2.2 Other prohibitions (dangerous procedures)



Using any parts other than genuine STS approved manufactured parts can void the warranty.



Improper installation, adjustment, alteration, service or maintenance can cause property damage or major injury. Read the installation and operating instructions thoroughly before installing or servicing this equipment.

# 3. Functional description

#### 3.1 General

# Model 762 shakers are:

- Heated by electrical coiled tubes
- Have both auto/manual interface
- Cylinder driven
- Electronically controlled 110/220v
- Auto sensor controlled



#### 3.2.1 Component Locations



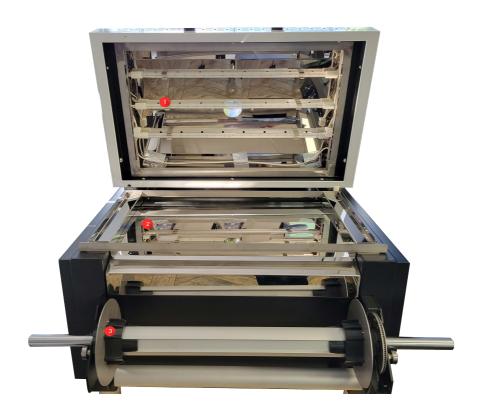
- 1. Powder box switch
- 2. Multifunction relay
- 3. PLC touch screen
- 4. Powder recycle drawer
- 5. Manual switch

1. Powder box and

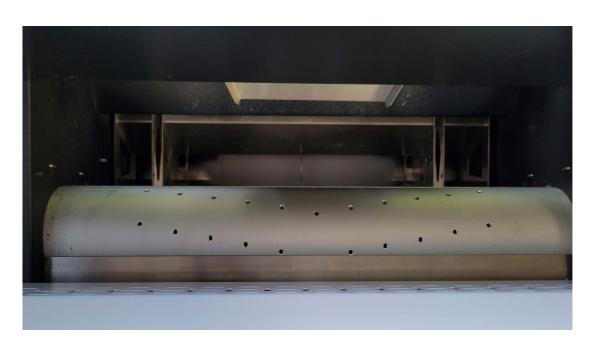
TPU roller



- 1. Top coiled electrical heating elements
- 2. Bottom elements
- 3. Motorized take-up reel



Vacuum cylinder and TPU dispensing tray (top)



- 1. Front film sensor
- 2. Film loading slot



Recycled powder drawer



#### Unit Control box



- 1. Paper feeding function
- 2. Dusting function
- 3. Shaking function
- 4. Suction to vacuum cylinder
- 5. Heating chamber control
- 6. Cylinder roller function
- 7. Automatic mode (powder and film must be present for auto mode to begin)

- (1) **Heat temperature (609)** of the infrared heating tunnel is set according to the melting temperature of the adhesive powder
- (2) **Shaking strength (608)** adjusts the shaking strength of the powder removal sequence NOTE: Only these two elements are controllable manually in 762 Shaker

The left side of the display is the current heating temperature. The right side is the weight currently felt by the weight sensor.

To set values manually press and hold SET/M at the same time, press up or down to change the values.



#### **Operations**

Once the printer has printed enough transfers and the media has been fed into the front film loading slot and extends to the vacuum cylinders (pg.5-6) ensure that the PET transfer media is aligned correctly to inhibit any skew that may be present through the heating tunnel and take-up reel.

When the media is placed correctly to the vacuum cylinder the shaker suction system should be in the on or auto position. From this point the media will now be controlled by both the vacuum system through the heating tunnel (pg. 5). It is important to note that when placing the media under the powder hopper for the first time that enough slack is provided to allow powder to fill at the bottom and then be shaken off as the media moves back up through the system. In addition, the media should also have enough slack to allow the front sensor to locate the material which then directs the system to pull the film through to the take-up reel.

After finishing the current print job, cut the last part of PET film. The film will then be automatically wound by the take-up to complete the printing process.

**Recycling the hot melt powder** is accomplished simply by brushing the powder from the interior walls into the recycled powder tray (pg.6) and refill it into the powder box.

# **Error code and instruction**

## Error codes and instructions

Code	Problem	Solution
Code1	MainBoard memory chip	The MainBoard returns factory to be
	read failure	repaired
Code2	MainBoard printing data	The MainBoard returns factory to be
	loss	repaired
		1.Check the 26pin cable between
		mainBoard with CarrierBoard
		1.1 Reconnect the 26Pin cable
		1.2 Add a 26Pin cable
	Mainboard and	2.Check the power of CarrierBoard
Code3	CarrierBoard connection	2.1 Confirm the power indicator of
	failure	CarrierBoard is normally on
		2.2 Confirm the CPU indicator of
		CarrierBoard is Twinkle
		3. Change the mainboard
		4. Change the CarrierBoard
Code4	Empty	Empty
Code5	Empty	Empty
		1.Check the 26pin cable between
		MainBoard with CarrierBoard
		1.1 Reconnect the 26Pin cable
		1.2 Add a 26Pin cable
	Communicate exception	2.Check the power of CarrierBoard
Code6	between MainBoard with	2.1 Confirm the power indicator of
	carrier board	CarrierBoard is normally on
		2.2 Confirm the CPU indicator of
		CarrierBoard is Twinkle
		3. Change the MainBoard
		4. Change the CarrierBoard
Code7		The carrier can't move when the machine
	Carrier blocked	powered on ,Check railway above the
		platform is clean.
		1.Check the encoder sensor and Gratings.
		2.Check the cable of Carrier motor
		3.Check or change the Driver board
		4.Check or change the MainBoard
		5.Check or change the CarrierBoard

		6.Check or change the Carrier motor
Code8	The information of carrier register is unusual	1.Check the system information, Confirm the program version is right 2.The CarrierBoard returns factory to be repaired
Code9	Print head surface anti- rubbing	<ul><li>1: check if the film is flat and can't be arched</li><li>2: Righting the paddles on both sides of the anti-rubbing device</li></ul>
Code10	Driverboard detects temperature is unusual	<ol> <li>Restart the machine</li> <li>Check the temperature induction cable and heating system</li> </ol>
Code11	DriverBoard undefined error	1.Restart the machine 2.Returns factory to be repaired
Code12	MainBoard parameters save failure	1.Restart the machine 2.Returns factory to be repaired
Code13	System time up(Using time is up)	Contact with factory or supplier to register
Code14	MainBoard output port short circuit	<ul><li>1.Pull the cable of output-port out one by one, To find out the Machine Parts shorting circuit.</li><li>2.Change the Machine Parts</li></ul>

Code14	V4-Car	Cause description:  1.Machine fault  2.Port current is too large. short circuit or bad original.  3. Board is bad  1. Machine fault  1.1 Turn off the machine. The railway oiled with light oil, Forbidden to use the solid oil.  1.2 Check if belt is wearing too large  1.3 Check the cable of carrier motor  1.4 Check the parts about carrier moving  2.Board or Machine Parts is bad  2.1 Check or change the DriverBoard.
		2.2 Check or change the carrier motor 2.3 Check or change the CarrierBoard 2.4 Check or change the MainBoard
	Heat1	Cause description: Port current is too large .short circuit or bad original  1.Change the port, Test it and check if it is still an error.  2.Check or change the bad original of heating system  The same way is following questions
	Heat2	Cause description: Port current is too large. short circuit or Change machine Part
	Heat3	Cause description: Port current is too large. short circuit or Change machine Part
	Unwind	Cause description: Port current is too large. short circuit or Change machine Part
	Wind	Cause description: Port current is too large. short circuit or Change machine Part
	Wipe	Cause description: Port current is too large. short circuit or Change machine Part
	Ink2	Cause description: Port current is too large. short circuit or Change machine Part
	Ink1	Cause description: Port current is too large. short circuit or Change machine Part
	Fan in	Cause description: Port current is too large. short circuit or Change machine Part
	Fan out	Cause description: Port current is too large. short circuit or Change machine Part
Code15	Empty	Empty

Code16	Status:d-0-0-1 The Cap ink station position sensor is unusual	The cause: capping station works off normal.  1. Software settings mistake     Check the parameters of advance, and confirm .It is up and down capping system machine (Maintenance key/system/advance/Cap lift /Mode/Enable)  2.Board or Hall _Senseor_v00 bad     (1)Check or change the cable of capping station sensor. (2)Check or change the Capping station sensor (3)Check or change the up and dowm station step motor. (4)Check or change the Mainboard
Code17	Empty	Empty
Code18	Empty	Empty
Code19	VD:**-**-	The cause: The customer code is mismatch. Confirm the PCB source or return factory to be repaired
Code20	Mainboard is uninitialized	the MainBoard need registered ,Return factory to be registered
Code21	CarrierBoard is uninitialized	The CarrierBoard need registered ,return factory to be registered
Code22	Up and down capping station sensor is unusual	The cause: capping station works off normal.  1. Software settings mistake Check the parameters of advance, and confirm It is up and down capping system machine(Maintenance key/system/advance/Cap lift /Mode/Enable)  2.Board or Hall _Senseor_v00 bad  (1)Check or change the cable of capping station sensor.  (2)Check or change the Capping station sensor  (3)Check or change the up and down station step motor.  (4)Check or change the Mainboard

Code23	Up and down capping station step motor detects unusual	The cause:capping station works off normal.  1. Software settings mistake     Check the parameters of advanced setting, and comfirm It is up and down capping system machine (Maintenance key/system/advance/Cap lift /Mode/Enable)  2.Board or Hall _Senseor_v00 bad     (1)Check or change the cable of capping station sensor. (2)Check or change the Capping station sensor (3)Check or change the up and dowm station step motor. (4)Check or change the Mainboard
Code24	Boards version is mismatch	The new board(V200)unmatch with old board, Need to change the right board
Code25	System time up(Using time is up)	Contact with factory or supplier to register
Code26	Shortage of film induction mode reports an error	1:maintenance—advanced— —media roll—wind up -mode-damp 2:maintenance-advance-vertical anxismedia detected-disable
Code27	Paper rolling abnormal	1.Check the rolling system (1)If it is normal,Press any key ignore (2)Press Enter,into MainMemu *ingore Disable(Roller mode is Damped) (Memu:Maintenance key /system/advance/Roll/Roller in or Roller out /move mode/Damped or Photoelectric)
Code28	Conduction band detects abnormal	1.Check the light of conduction inductor 2.Check the cable of conduction inductor
Code29	Carrier motor works abnormally	<ul><li>1.Restart the machine</li><li>2.Chck the cable of carrier motor</li><li>3.Change the carrier motor</li></ul>

code30	Carrier can't move	1.Check railway above the platform is clean. 2.Turn off the machine.The railway oiled with light oil,Forbidden to use the solid oil.adjust the carrier belt 3.Low the printing speed 4.Change the carrier moving mode Memu:maintenance key /system/advance/Carriage/move mode/Style A or C 5.Check the cable of carrier motor 6.Repair or change the Driver board 7.Repair or change the Mainboard 8.Repair or change the CarrierBoard 9.Repair or change the carrier motor
Code31	CarrierBoard done signal abnormal	Restart the machine
Code32	Carrier motor electricity is too large	1.Restart the machine     2.check the carrier motor
Code33	Carrier printing abnormal	Restart the machine
Code34	CarrierBoard abnormal	Restart the machine
Code35	Printhead voltage is abnormal	<ul><li>1.Check the CarrierBoard</li><li>2.Confirm the power voltage is 40V</li><li>3.Check and Change Carrier Board</li></ul>
Code36	Printing paper out	Paper is out, Need to put paper on platform
Code37	Carrier unknown error	1.Restart the machine 2.Returns factory to be repaired
Code38	Ink out (The secondary ink supplying function is opened)	The new with out the function