

User Manual
TN6900
H&E Slide Stainer



Read Prior to Operation!
Always keep this manual near the unit!

WP47777
05.06.15

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1 | Safety

- Pay close attention to safety procedures if you are using flammable reagents.
 - If the instrument is not in use for extended periods, unplug and cover the unit.
 - Place the instrument on a stable, flat work surface.
 - Ensure the power socket is 3-prong grounding type.
 - Use a dedicated socket for supplying power to avoid power fluctuations.
 - The instrument should not be placed near any flammable or explosive objects.
 - The instrument should only be serviced by factory trained technicians.
-

2 | Technical Parameters

Processing Time of Each Station: 0 sec to 59 min

The frequency of agitating during container stay can be programmed in a range of 0-6 minutes. The duration of dripping after moving out from the container can be programmed in a range of 0-60 seconds.

Users: Total of 10 users, including 1 public user without password (user#: 0) and 9 individual users who require a password (user#: 1-9).

Total Stations: 15 - The first bath is the dryer station, the second bath is the rinsing station, the rest of the baths are reagent stations.

Approximate Volume: 350mL

Specimen Capacity: 24pcs

Voltage: AC110V

Frequency: 60Hz

Power: ≤ 400VA

Dimensions: 36.5" x 9.6" x 10.2"

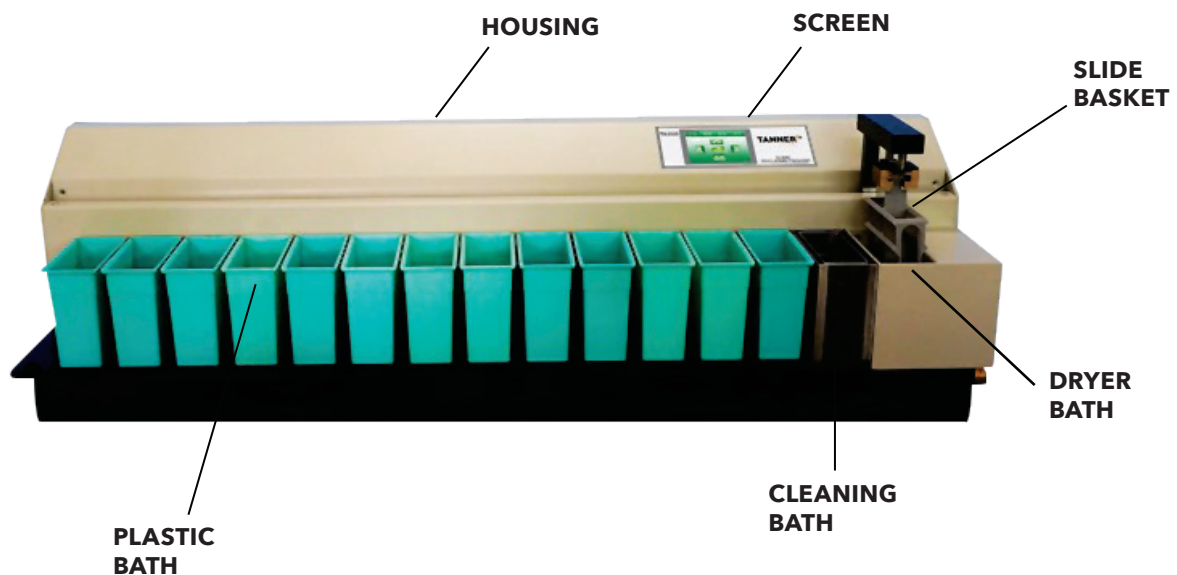
Weight: 44lbs

Fuse: F3A/110VAC

3 | Installation

- Ensure that the outer packaging is not seriously damaged. If it is damaged, do **NOT** open. Contact Tanner Scientific® at 888.708.5233.
- Unpack the carton, and remove all components including the instruction manual.
- Take out the instrument and place it on a stable platform.
- This machine should be stored in a clean and dry indoor place with relative humidity under 80%.
- Do **NOT** put the instrument in an explosive or flammable area.
- The instrument should be installed using only a 3-prong grounding type socket.
- The instrument should be placed under a vented fume hood.
- Ensure that there is a water connection and drain near the unit. A faucet type connector is provided. If using a direct connection, just remove end and use secure clamp.

4 | Equipment Overview



5 | Operation

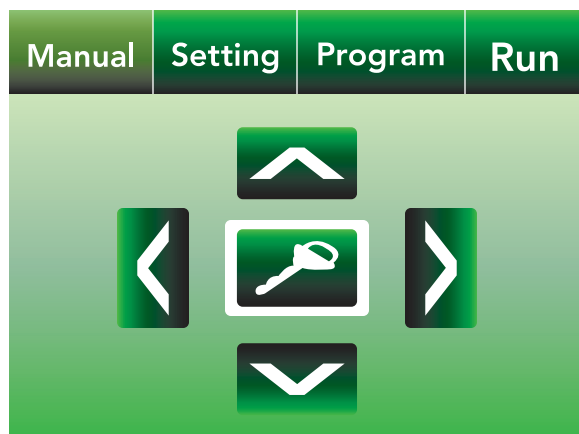
Start Up

- The instrument must always use the power cord supplied.
- The instrument should use the water tube provided. This can be connected directly to the main water pipe or to the sink faucet. If connecting directly to a water supply, a flow regulator is provided.
- Before connecting to the main power source, please make sure that the power switch is in the **(O) OFF** position.
- **When connecting the power, please insert one end into the instrument and then insert the other end into the wall power plug.**
- Before turning on the instrument, please ensure that the water pipe has a good connection.
- **The plastic water drain pipe must be lower than the water outlet in order to avoid water flowing back into the instrument.**

Operation

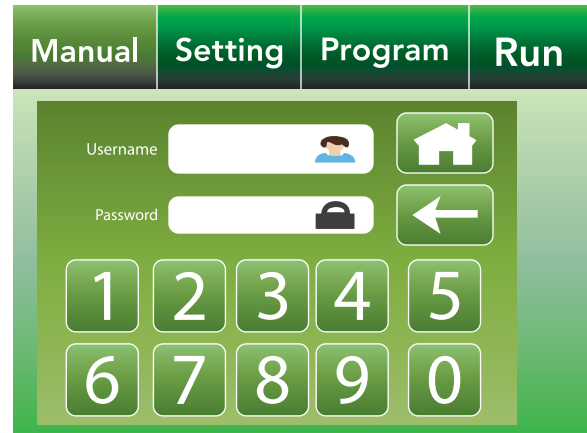
- 1) Connect the instrument to the power outlet.
- 2) Connect the water pipes to the stainer.
- 3) Turn on the instrument.
- 4) The slide basket will move to the dryer bath and stop above the dryer bath.
- 5) The machine will enter into the menu interface shown below automatically.
Remove all lids from the plastic baths and make sure the containers are straight and firmly placed into the slots.

Note: Please hold the plastic bath when removing the lids to avoid the bath tipping.

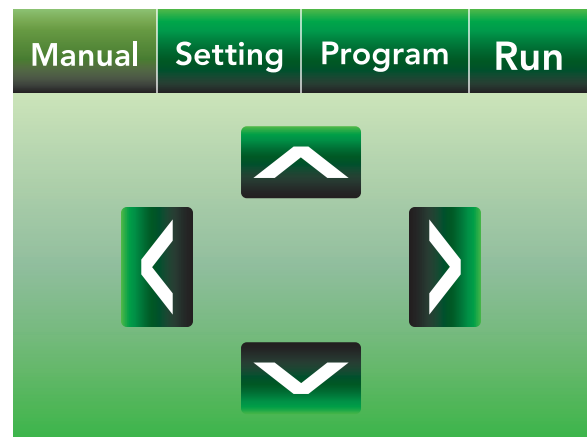


Interface After Self-Testing

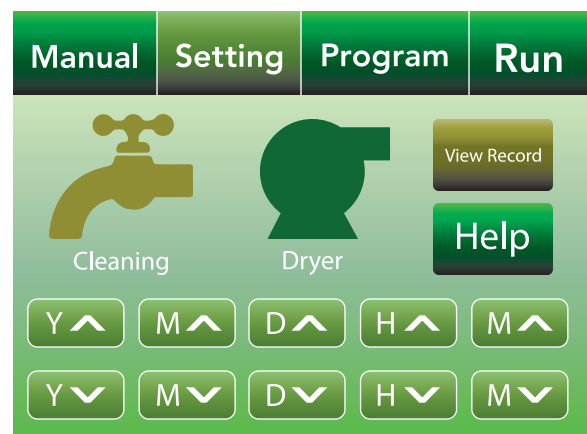
- 6) Select desired function. Then, press the middle key to enter into the password setting interface.
- 7) Enter a figure from 1 to 9 in the first line to indicate the user's operation number, and then enter a 6 digit password into the second line.
- 8) Re-enter the same digits from the first line into the second line to confirm operator code and password.



- 9) If the user does **NOT** require a password, press the **Manual** key to return back to the main menu.
- 10) Press ► to move the basket to left.
Press ◀ to move the basket to right.
- 11) Press ▲ to raise the basket.
Press ▼ to drop the basket.



- 12) Press **Setting** to enter into the setting interface.
- 13) Press **Dryer** symbol to test the dryer system.
- 14) Press **Faucet** symbol to test the cleaning bath.
- 15) Press **Y ▲** , **Y ▼** to adjust Year.
Press **M ▲** , **M ▼** to adjust Month.
Press **D ▲** , **D ▼** to adjust Date.
Press **H ▲** , **H ▼** to adjust Hour.
Press **M ▲** , **M ▼** to adjust Minute.
Press **View Record** to check.
- 16) Press **HELP** to enter into Help menu if needed.



- 17) Press **PROGRAM** to enter editing interface.
- 18) Press **▲** or **▼** to choose step #.
- 19) Press **TANK+** or **TANK–** for bath #.
- 20) Press **MIN+** or **MIN–** to set the time for container stay.
- 21) Press **SEC+** or **SEC–** to set seconds for container stay.
- 22) Press **STIR+** or **STIR–** to set agitating time.
- 23) Press **DROP+** or **DROP–** to set drip time.
- 24) Press **PROG+** or **PROG–** for program #.
- 25) Press **ON<** key to page up.
Press **UNDER>** key to page down.

Manual		Setting		Program		Run
step	tank	min	sec	stir/min	drop sec	PROG+
01	01	00	13	00	00	14
02	02	00	13	00	00	PROG–
03	03	00	13	00	00	On<
04	04	00	13	00	00	Under>
05	05	00	13	00	00	
▲ Tank+		Min+	Sec+	Stir+	Drop+	
▼ Tank–		Min–	Sec–	Stir–	Drop–	

- 26) Press **RUN** key to enter into running interface.
- 27) Press **OK** key after checking.

Manual		Setting		Program		Run
step	tank	min	sec	stir/min	drop sec	PROG+
01	01	00	13	00	00	14
02	02	00	13	00	00	PROG–
03	03	00	13	00	00	
04	04	00	13	00	00	
05	05	00	13	00	00	
On<		Under>		Time total: 06:30		OK

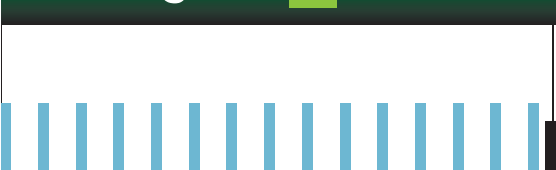
- 28) When the instrument finishes one program, the slide basket will stop above the bath for the last step and the machine will sound a buzzing alarm to indicate the program is now finished.
- 29) Remove slide basket and turn off the instrument if finished. Or, press **RUN** to process another program.

Note: Cover the cups with the lids once finished with work in order to avoid liquid vaporization.

Program

14

16:07:56



15

14

13

12

11

10

9

8

7

6

5

4

3

2

1

STEP 01

TANK 01

DIP 00

min 11

sec 00

DROP 00

sec 00

STIR

/min

NEXT STEP

TANK

DIP

min

sec

6 | Cleaning & Maintenance

Cleaning

- Before cleaning the instrument, turn off the main power switch and pull out the power cord.
- Acetone and xylene organic solvents should not be used to clean the surface of the instrument. Use only common detergent and a soft cloth to keep unit clean.
- Spilled reagents on the surface or inside the unit can cause damage.
- Avoid allowing liquid to come in contact with the unit.

Changing a Fuse

- Before replacing a fuse, turn off the main power switch and pull out the power cord. Replace the fuse with the same model and specifications. **Refer to the Technical Parameters** for this information.

7 | Warranty & Service

Tanner Scientific® warrants this product for a period of one year from the date of purchase, provided that the customer complies with the rules of this manual. Extended warranties are available. Contact Tanner Scientific® at 888.708.5233 for more information. Tanner Scientific® will not be responsible for the damage and other problems caused by abuse and misuse of the instrument.

Service Information

If you require any service or parts during the warranty period, please contact **Tanner Scientific® at 888.708.5233** or the sales agent who sold you the unit. Prior to calling, please have the instrument model and serial number ready.

Amendment

Tanner Scientific® reserves the right to change the technical parameters of any model for improving the function of our instruments.

Quality Guarantee

- Tanner Scientific® will ensure that every instrument sold has been strictly examined to ensure it meets our stringent quality and technical standards.
- Service terms are only provided for those who regularly use the instrument and operate the instrument according to its instructions.

Disposal of Unwanted Instruments

Discarding the instrument and its parts should be done according to current laws or regulations.

8 | Troubleshooting

H&E Slide Stainer		
PROBLEMS	CAUSES	ELIMINATION
+ No power.	+ Burnt fuse or power cord not connected.	+ Change fuse or power cord.
+ Little water inflow.	+ The water tube is blocked.	+ Clean the filter, check line.
+ Mechanical arm moves toward right direction without moving vertical.	+ Vertical sensor is damaged.	+ Check the sensor, if the sensor voltage is > 0.1V, please change. If sensor voltage is < 0.1V, it's good.
+ Mechanical arm moves up but does not move toward right direction.	+ Sensor for the first bath is damaged.	+ Change the sensor.
+ Mechanical arm does not stop when the machine runs or when pressing left/right arrow.	+ Alignment sensor is damaged.	+ Change the sensor.
+ Motion mechanism has loud noise and little power.	+ Electrical motor has problem.	+ Check the electrical motor and circuit board.
+ Mechanical arm moves up and down in a jerky motion.	+ The gear for mechanical arm has become damaged.	+ Check and change.
+ Mechanical arm cannot move side but the electrical motor is good.	+ The stainless steel wire for side to side movement is broken.	+ Change the stainless steel wire.
+ The dryer bath cannot heat.	+ The heating pipe or controlled silicon on the temperature controller board is damaged.	+ Check and change.
+ Words on screen appear blurred.	+ The circuit board behind screen is damaged.	+ Adjust 103 electric resistance on the circuit board.
+ No words on screen.	+ The circuit board behind screen or LCD screen isn't functioning.	+ Check the voltage of the circuit.
+ LCD screen cannot work or is not sensitive.	+ LCD screen is damaged.	+ Change LCD screen.



Information

The information, notes, and figures that appear in this user manual represent the present state of knowledge as we comprehend it. Due to continuous improvements in technology and manufacturing techniques, specifications/manufacturing procedures may change.

For inaccurate statements, drawings, and technical illustrations in this user manual we exclude liability as far as permissible. No liability is accepted for any monetary loss or consequential damage caused by or related to compliance with statements or other information in this user manual. Tanner Scientific® will update the manual as needed according to the latest technological developments.

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Statements, drawings, illustrations and other information regarding contents or technical details of the present user manual are not to be considered as warranted characteristics of our products. These are determined only by the contract provisions agreed between us and our customers.

Refer to the name plate on the back of the unit for the serial number and manufacturing date of this instrument.

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