



## **X-Clamp** For PRIME X Vacuum Wax Injectors



# **OPERATIONS MANUAL**

- The manufacturer shall in no event be liable for any damage resulting from improper use, negligence to follow the warnings and cautions in the instructions manual or the labels on the machine, unskillfulness, use of non-original optional / consumable accessories/ spare parts, non-authorized modification.

- The manufacturer shall in no event be liable for any consequential or indirect damages including, but not limited to, loss of production or loss of profit or damages due to machine downtime.

- Damages to the instrument and / or human bodies resulting from contacting with high temperature parts, and their consequential or indirect damages are not compensated by the manufacturer.

- Damages resulting from delay of reaction at emergency and mistaken operation are not compensated by the manufacturer.

- Damages from electrical noise, over voltage, or wiring error are not compensated by the manufacturer.

- Mold production results by the machine or by this manual are not compensated by the manufacturer.

- No part of this document may be copied or in any way reproduced without the expressed written consent of the manufacturer.

- Product information including specification will be subject to change without prior notice.

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## **1. SAFETY INFORMATION**



#### WARNING

1. Do not look into wax injection nozzle by bare eyes because unexpected discharge of molten wax from the nozzle may cause eye burn.

Be sure to always place a rubber mold or a pan in front of wax injection nozzle to block molten wax flow so as to prevent accidental flow of molten wax into the eyes or over the skin. Because wax injected from wax injection nozzle is heated above 70 degrees Celsius, the eyes or skin may be burnt.

If the eyes or skin were exposed to molten wax, flush and cool the eyes or skin with a large amount of cold water and get prompt medical attention.

2. Take care not to touch START button (blue) on control unit unnecessarily, because machine starts its injection process automatically.

3. Do not place fingers on moving parts such as platen, as this could result in injury. Fingers may be pinched between platen and the bottom edge of cylinder base.



#### CAUTION

1. Turn air regulator knob to "zero" when operator leaves machine for an extended period of time.

2. At the time of cleaning or maintenance work, do not wipe surface of warning labels attached to the surface of machine.

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## 2. INTRODUCTION

#### 2-1. SPECIFICATION LABEL

1) The principal specifications label of this machine is affixed on the side of X Clamp.

2) When ordering spare parts, specify the production serial number that is printed on that label.Other information on the label should be recommended to take note.

#### **2-2. WORKING CONDITIONS**

Use the machine at temperatures ranging 0-40 degrees Celsius and humidity under 70%.
Do not use the machine under atmosphere with too much dust or with harmful gas.

#### 2-3. INSTALLATION

It is very important to handle and install with enough attention to show the superior performance.
Try to check loose connection and contacts first, especially when it is transported by car.

#### 2-4. TRANSPORTATION

1) When you transport the machine, put cushion material provided in the package with a double carton box.

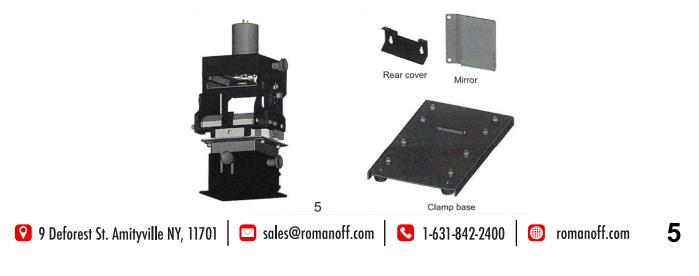
2) Do not turn upside down.

3) Do not expose the package to water.

4) Keep away from flame.

#### **2-5. PRODUCT INFORMATION**

SKU: 74-269X-SC X-Clamp unit and accessories



## 3. INSTALLATION

#### 3-1. ACCESSORIES

	Code no.	Descriptions	Q'ty	
1	74-265-AJ2	Adjustable acrylic jig (for ALTIMA sta.)	1	
2		Hex wrench-1 (5mm, fixing Clamp base)	1	
3		USER'S REGISTRATION SHEET	1	Vasui
4		Request of user registration	1	
5		Rear cover	1	
6		Instruction manual	1	
7		Observation mirror	1	
8		Clamp base plate	1	

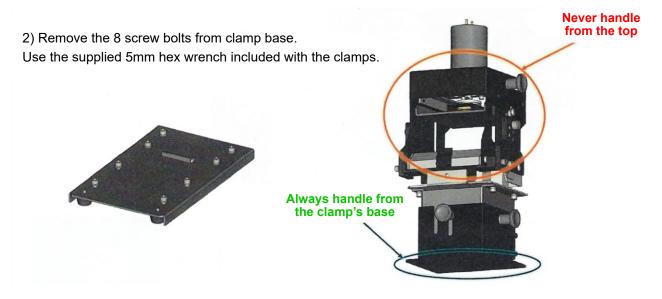
Please review this list to ensure all parts are included without damage.

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#### **3-1. ACCESSORIES**

1) It is dangerous to hold any part of upper clamp when removing it from the box or while transporting. The upper clamp can be easily removed from lower clamp unit.

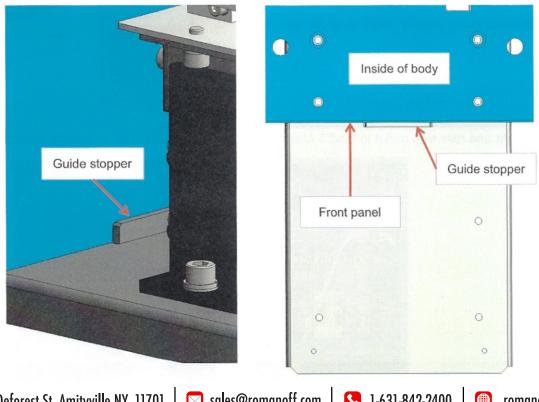
As such, the lower clamp unit may become accidentally undone and fall on your foot.



3) Place the base under the body of PRIME X.

Allow the guide stopper on the base and front panel touch each other.

Fasten the 4 screws inside of body.

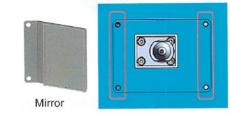


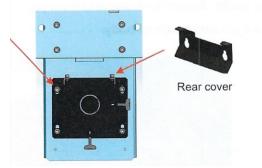


4) You may use the supplied mirror to assist your installation of the nozzle cover on the right or left side. This will allow you to confirm the nozzle position and sprue gate of the rubber more easily.

5) Place the clamp unit on it's base and fasten it to the unit with the 4 remaining screws. Be sure not to hit the nozzle or mirror during installation.

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6) Open the right and rear side panels to feed the 5 plastic tubes inside of the control box through the partition and front panel.





😢 9 Deforest St. Amityville NY, 11701 🛛 🖂 sales@romanoff.com 🛛 🕓 1-631-842-2400 🗍 🎯 romanoff.com

Connect each corresponding tube from clamp unit with barb joints.



**CAUTION** Do not power on the unit while right panel is open

#### 3-3. Z axis adjustment

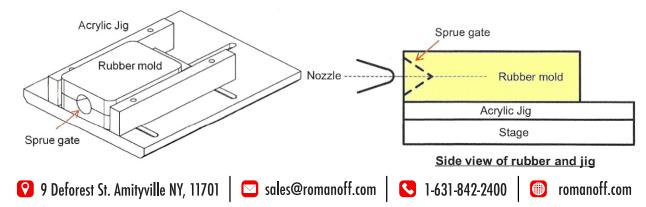
1) The PRIME X has a new acrylic jig with an adjustable Z axis. This new jig eleminates the need of having several acrylic jigs for each mold.

2) Place the rubber mold onto the stage of the clamp unit.

3) Check the height of nozzle and sprue gate is on same level from the side. Adjust height as necessary using the following instructions;

- \* Loosen the two lock nuts that hold the clamp in place.
- \* Adjust the height and reinstall the two screw bolts.
- \* Use the supplied mirror to aid this process.

Dial positions displayed are for shown as a reference.







#### CAUTION

Do not touch anything around the rubber mold or clamp stage. Be cautious of hot wax.

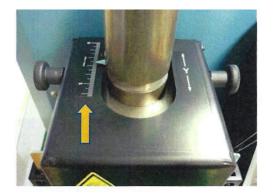
\*\* Sprue former: Strongly recommended when vulcanizing rubber for optimal fitting. SKU: 98-132 (large) or 98-133 (small)



#### 3-4. Y axis adjustment

if poor wax due to vacuum or wax leakage results occur, you can manually adjust Clamp Position along the Y axis (back and forth).

Changing the pivot point of clamp cylinder can very effective. Simply loosen two lock nuts to adjust the clamp cylinder position.





Lock nuts on both sides. Reference the indicator on top of the clamp for current position.

## **4. FUNCTION**

#### Maintenance and configuration menu via the FUNCTION button

As previsously ounlined in PRIME X instruction manual, you will need to edit the system's configuration using the FUNCTION menu under P10 to configure your X-Clamp. Navigate to the FUNCTION display by holding the [FUNCTION] button down. The first FUNCTION menu option (No.1 Counter clear) will be displayed. Navigate to P10 by turning the rotary dial clockwise until option 10 is reached. To return to standby mode, long press the [FUNCTION] button or press the [CANCEL] button.

Follow this chart to configure the P10 menu

P10	Config	Clamp Unit	Select your clamp unit. 0: No clamp unit 1: Standard clamp 2: Large clamp
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#### CLAMP UNIT - P10

- 1) From the FUNCTION Button, turn the rotary dial to navigate to P10.
- 2) Press the rotary dial. The selected value will start blinking.
- 3) Select the desired value by turning the rotary dial (Valid range 0-2).
- 0: Working without Clamp unit.
- 1: Standard Clamp unit.
- 2: Large Clamp unit.
- 4) Press the rotary dial to confirm selections.



## **5. OPERATION**

#### SHOOTING PRCEDURE

- 1) Power ON the machine before starting.
- 2) Select the desired memory preset.
- 3) Check temperature, pressure and other settings.

4) Place your rubber mold onto the acrylic jig, then place the jig onto the clamp stage.

4) Place your rubber mold onto the acrylic jig, then place the jig onto the clamp stage.



5) Press the START button to start the wax shooting process. (You can also start the process via the system's foot pedal.

6) Remove the rubber mold from the clamp unit when the process is completed.





## NOTES


74-269X-SC - X-Clamp for Yasui Prime X Wax Injector Systems

