

FS 1000 Underpinner

# Owner's Manual

Volume 714  
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Know your FS 1000 Underpinner

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# FS 1000 Underpinner

Congratulations on your choice of *framingsupplies.com*'s FS 1000 underpinner. Previous to shipping your FS 1000 was completely tested to ensure that you receive a perfectly functioning underpinner. (See test documents enclosed.)

For your safety and satisfaction, please take a few minutes to read and understand this manual before using the FS 1000.

Note: You can find many useful videos on the care and use of your new FS 1000 on our websites, *framingsupplies.com* and *framingsupplies-shop.com*

## FS 1000 Safety

For what it is worth, be safe. Safety is very important. The FS 1000 is a precise machine that has a lot of power. When operating, make sure your hands are clear of all moving parts. When you are loading, changing drive heads or servicing the FS 1000 make sure to first disconnect the air supply.

# FS 1000 Underpinner

## UNPACKING YOUR MACHINE

For shipping, your FS 1000 has been packaged in a wooden crate. To remove this crate, simply unscrew the screws located along the bottom edge of the crate on all sides. Now you can lift the crate off of the machine.



## INCLUDED PARTS:

- ✔ FS1000 Underpinner
- ✔ Air regulator/oiler unit
- ✔ Foot pedal and connecting hoses
- ✔ Drive head sleeves – 5mm, 7mm, 10mm, 12mm, 15mm
- ✔ Round Rubber Foot for Vertical Clamp
- ✔ V-shaped Rubber Foot for Vertical Clamp
- ✔ #5 Metric Ball-head Allen Wrench
- ✔ Joined corner sample from your new FS 1000
- ✔ Owner's manual / warranty card
- ✔ Test documents

## ADDITIONAL REQUIRED EQUIPMENT AND SUPPLIES:

- ✔ Small Air Compressor, capable of least 65 PSI and 4.5 CFM's
- ✔ Air Hose and Coupler (1/4")
- ✔ Pneumatic Oil (Marvels Mystery Oil<sup>®</sup>)
- ✔ V-nails (Universal stick type)

Record here

Serial Number \_\_\_\_\_ Date of Purchase \_\_\_\_\_

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## SETTING UP YOUR FS 1000

Once you remove your FS 1000 from the shipping crate, you are ready to set up your machine.

Unwrap the foot pedal and attach the three 1/4" hoses to the FS 1000. Note that the hoses are marked: the first hose has no lines, the second has one line and the third has two lines. Find the fittings on the right side of your FS 1000. Note that each fitting has the corresponding markings above it. Insert the first hose into the fitting with no dot, the second in the fitting with one dot and the third in the fitting with two dots. If you accidentally put the wrong hose in one of the fittings, you can remove the hose by depressing the plastic ring on the fitting and pulling gently on the hose.



Thread the 1/4" air hose quick release coupler (that you need to obtain) into the inlet of the air regulator/oiler unit. At this point you should have the air hose connected from your air compressor to your FS 1000.

Your FS 1000 is provided with an air regulator/oiler unit to insert oil into the machine's air lines on a periodic basis. This unit is located on the inside leg of your FS 1000. It has been attached and adjusted by [framingsupplies.com](http://framingsupplies.com) before leaving our facility.



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Before using your new machine, you must add pneumatic oil to your FS 1000 air regulator/oiler unit. To add oil, first disconnect the source of air to your FS 1000. Remove the metal oiler cover by sliding the “black plastic slide” down. Next, pull down on the clear plastic oil cup, rocking from side to side, causing the cup to release. Fill the cup about half way with pneumatic oil. Do not fill past the max fill line. Replace the clear plastic oil cup by pushing gently upward, rocking from side to side, until it is firmly in place. To return the metal oiler cover, place the cover over the clear plastic oil cup (make sure the plastic protrusion fits inside the metal oiler cover), push up on the metal oiler cover, and turn counter-clockwise until the “black plastic slide” snaps back into place.



# FS 1000 Underpinner

## OVERVIEW OF UNDERPINNING

If used correctly, v-nails can create incredibly strong joints. When using an underpinner properly, it is not necessary to glue the joints. We recommend that you do not use glue with your underpinner.

V-nails come in different sizes: 5mm, 7mm, 10mm 12mm, and 15mm. This size refers to the depth of the v-nail, not the width. The size that you should choose will depend on the molding you are going to join. You want the depth of your v-nail to cover about 70% of the depth of your molding. This can be achieved in one of two ways. First, you can choose the v-nail size that comes closest to inserting 70% of the molding's depth. Second, you can stack the v-nails. This means that you drive one v-nail directly on top of another causing the first to be pushed farther into the molding.



The number of v-nails to use depends on the width of your molding. For a molding that is 1 ½" wide, you will probably want to use 5-6 v-nails.



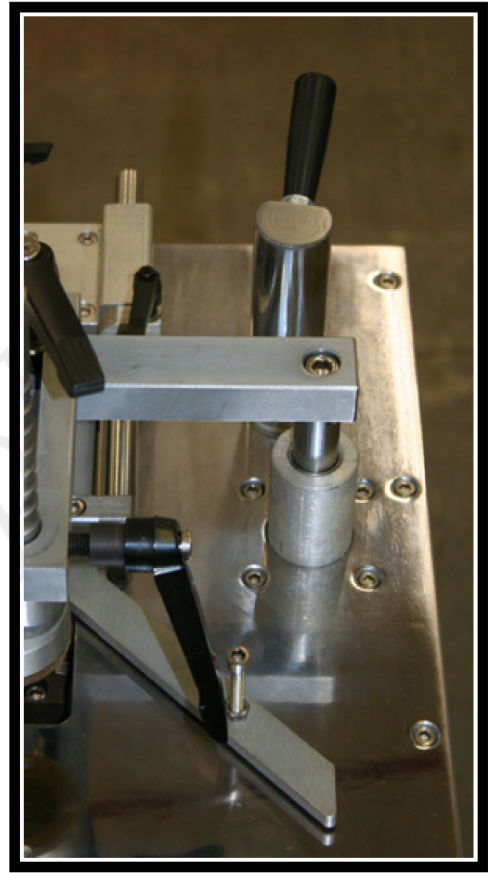
Knowing where to place the first v-nail and subsequent v-nails is part of the learning experience. For practice we recommend going to the home improvement center, purchasing 1" x 2" and 1" x 4" low quality wood, mitering it and then have fun driving v-nails.

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## LOADING V-NAILS IN THE FS 1000

For your safety, before you begin to load or change v-nails, disconnect the air supply to your FS 1000.

Locate the black handle on the back right corner of your FS 1000. When you pull this handle toward the front of your machine, the v-nail feed ramp will become visible. If the v-nail feed ramp currently holds v-nails, use the provided magnetic rod to remove them; double check to make sure that all v-nails are removed. Insert the v-nails that correspond to the drive head that is currently in use. When inserting v-nails, make sure that the point of the “v” faces the back of the machine. Also, insert them with the glue side up. This is the sharpened side.

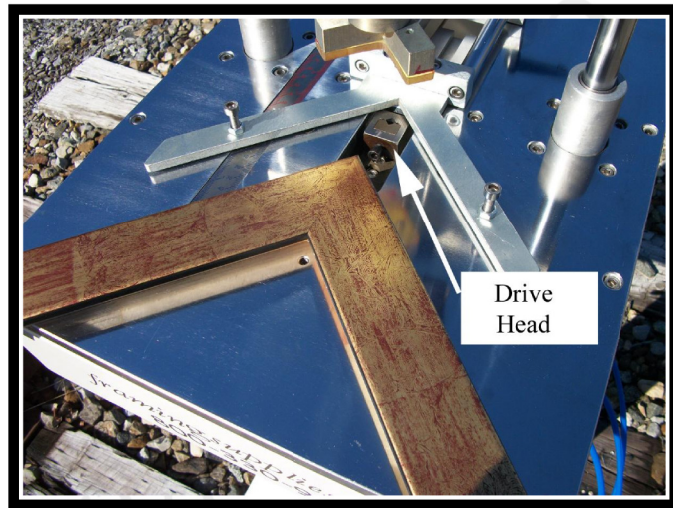


# FS 1000 Underpinner

## CHANGING THE DRIVE HEAD ON THE FS 1000

For your safety, before you begin to change the drive head, disconnect the air supply to your FS 1000.

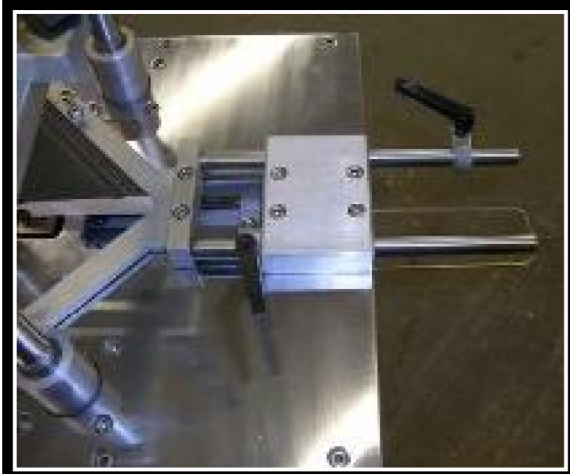
Standing in front of your FS 1000, locate the drive head. When changing drive heads, make sure that you remove the current v-nails in the v-nail feed ramp. Use the provided #5 metric ball-head allen wrench to loosen the screw holding the drive head in place. Lift the existing drive head vertically off its position. Replace with the desired drive head and re-tighten the drive head screw using the #5 metric ball-head allen wrench. Insert the size v-nail that corresponds to the drive head you will be using.





# FS 1000 Underpinner

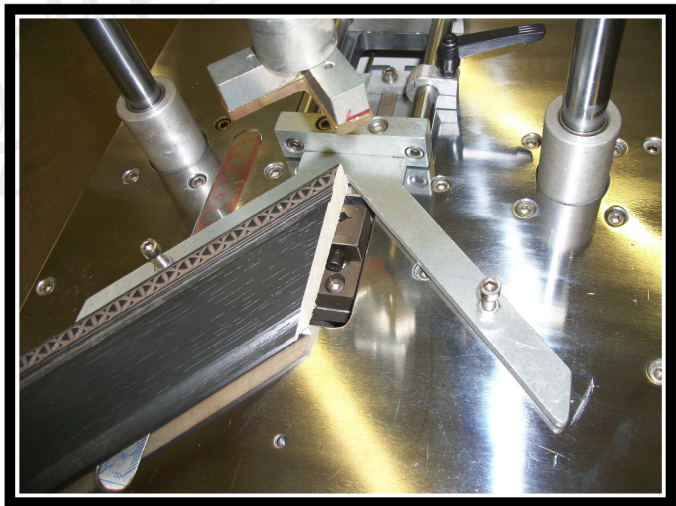
## PREPARING TO DRIVE V-NAILS WITH THE FS 1000



Turn the two handles at the back of your FS 1000 to loosen the rods of the v-shaped adjustable molding stop. You are now going to set the inner and outer span for v-nail placement.

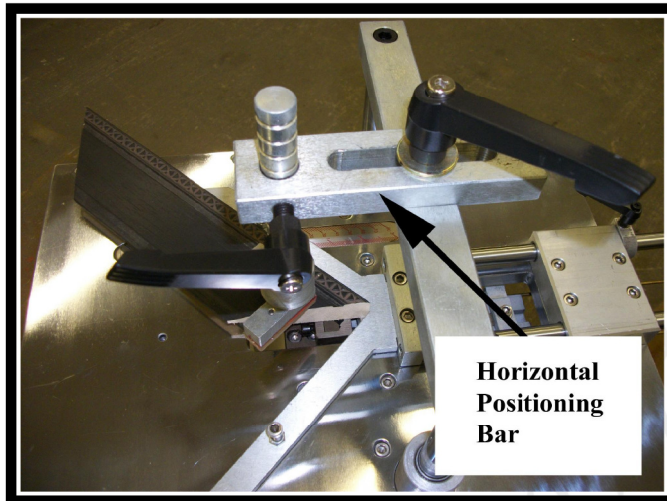
Standing at the front of your FS 1000, place **one piece** of chopped molding against the molding stop. While

looking at the mitered piece of molding, line up your molding with the drive head to where you want to drive the v-nails. Slide molding stop forward and backward to set the “span” of where you want to place your v-nails. For example,  $\frac{1}{4}$ ” away from the rabbet to  $\frac{1}{4}$ ” away from the outer back edge of the molding. Tighten the right handle on the molding stop rod for the “closest to rabbet” adjustment. Tighten the left handle on the molding stop rod for the outer back edge adjustment. You have now set the inner and outer span for v-nail placement.



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Choose your desired vertical clamp foot (v-shaped or round). Please take caution to not get hands, hair or anything else between the clamp and the clamp foot as they would be pinched. The vertical clamp contains an extremely strong neodymium magnet which holds either the *round rubber foot* or the *v-shaped rubber foot* in place while still allowing for adjustment. Carefully attach either clamp foot to the neodymium magnet.



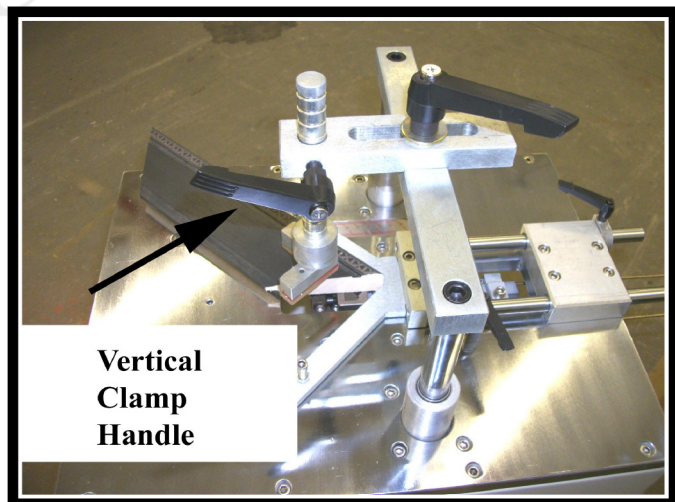
**Horizontal  
Positioning  
Bar**

Loosen the horizontal positioning bar handle to adjust the horizontal placement of the vertical clamp.

The vertical clamp should “hover” over the top of your molding to where your v-nail is

to be inserted – tighten the horizontal clamp handle.

Loosen the vertical clamp handle to adjust the vertical placement of this clamp so that the clamp foot is about  $\frac{3}{8}$ ” above your molding and then tighten the handle.



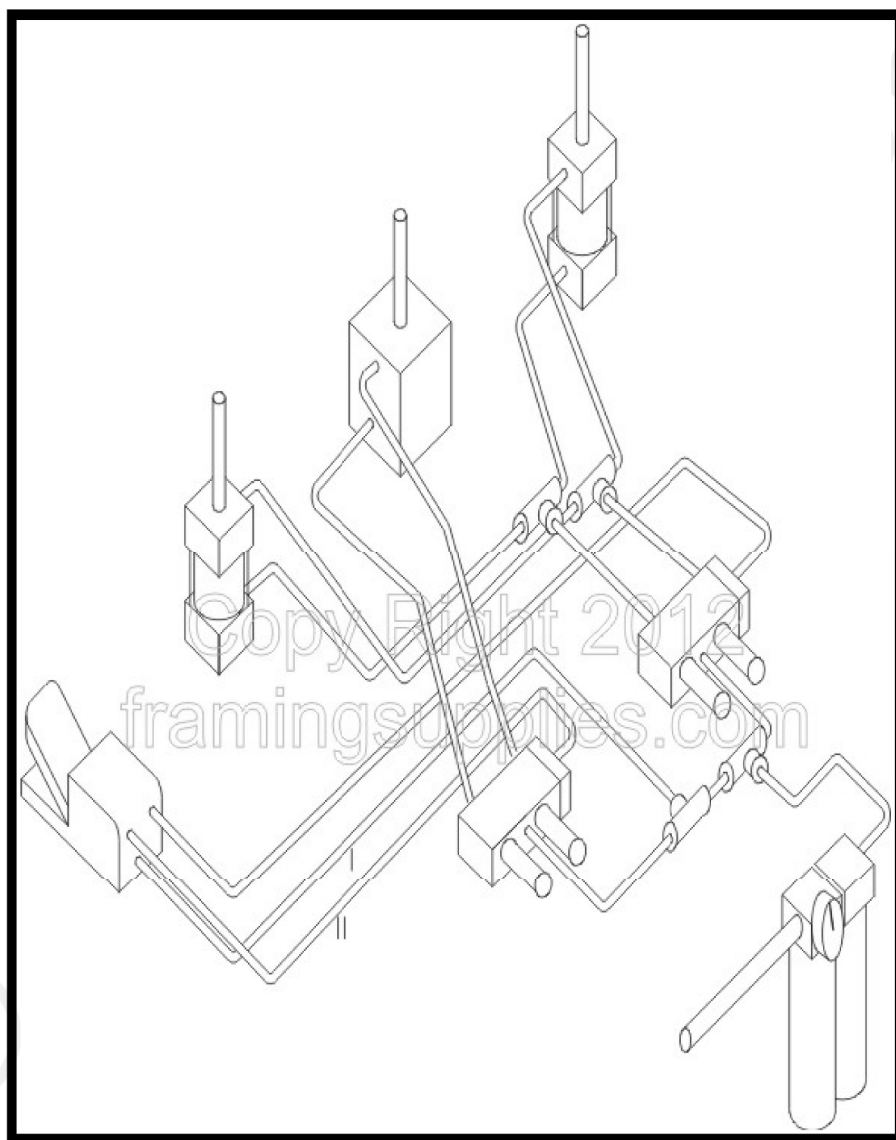
**Vertical  
Clamp  
Handle**

# FS 1000 Underpinner

## The best value in framing equipment

Framingsupplies has made a partnership with an old and venerable Chinese/Korean company known for quality and integrity. FS 1000 has a one-year parts warranty. If you ever experience problems call 800-334-9060. Most of the time we can assist you in solving a problem over the phone. In the unlikelyhood that FS 1000 must come back to framingsupplies.com, please call us for RMA number and details about shipping it back. 800-334-9060 ~ Celebrating our 42<sup>nd</sup> year in business ~

# FS 1000 Underpinner



**Air Schematic**



## FS 1000 Product Registration Card

Registering your FS 1000 Underpinner is necessary to validate your warranty and receive all the benefits of product ownership.

Date of Purchase \_\_\_\_\_

First Name \_\_\_\_\_

Last Name \_\_\_\_\_

Street Address \_\_\_\_\_

City, State, Zip Code \_\_\_\_\_

Email Address \_\_\_\_\_

Phone Number \_\_\_\_\_

Serial Number \_\_\_\_\_

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