

Rhin-O-Tuff Onyx HD8370 14" Semi-Automatic Wire Inserter and Closer

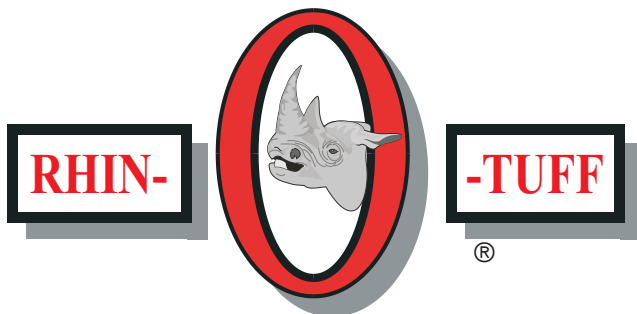
Instruction Manual



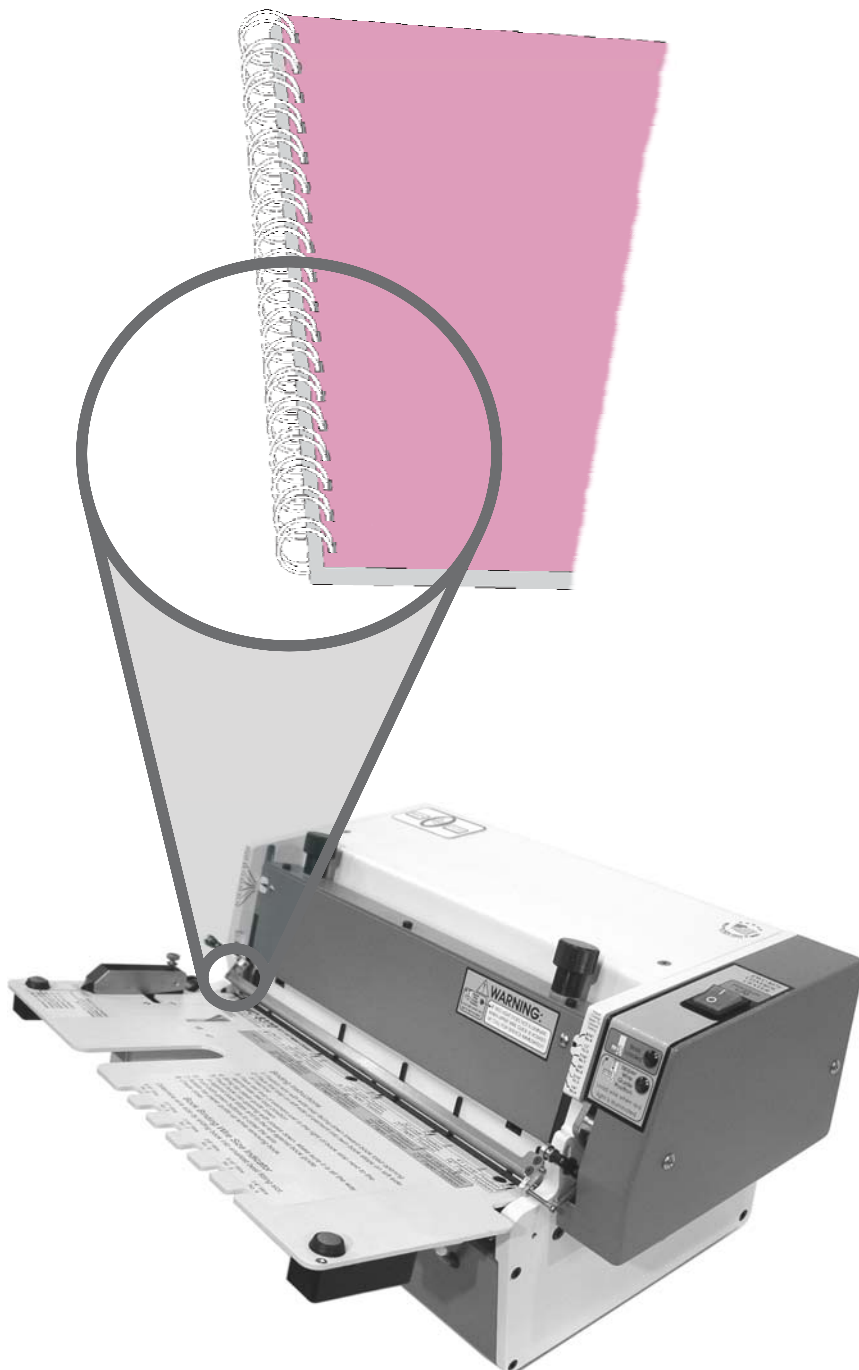
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EWC-8370 Electric Wire Closer

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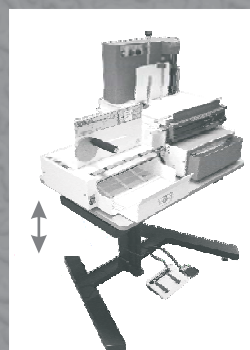
INSTRUCTION BOOK FOR THE EWC-8370, HD-8370, HC-8318

HD 8370 Automatic Wire Inserter/Closer

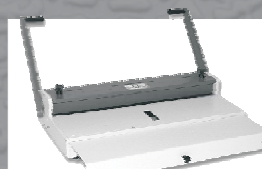


HC 8318 Automatic Wire Inserter/Closer

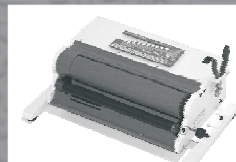
AND INTRODUCTION TO OTHER HD BINDING MODULES AND ACCESSORIES



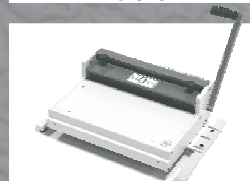
RTT 42 Table



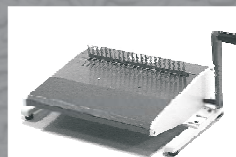
HC 8024 for WIRE



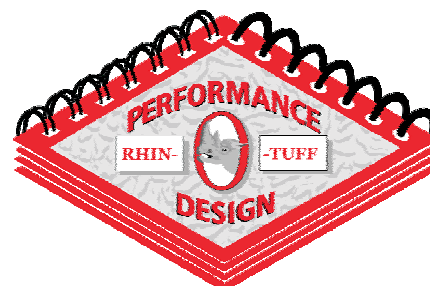
HD 4170 for COIL



HD 4270 for WIRE



HD 4470 for COMB



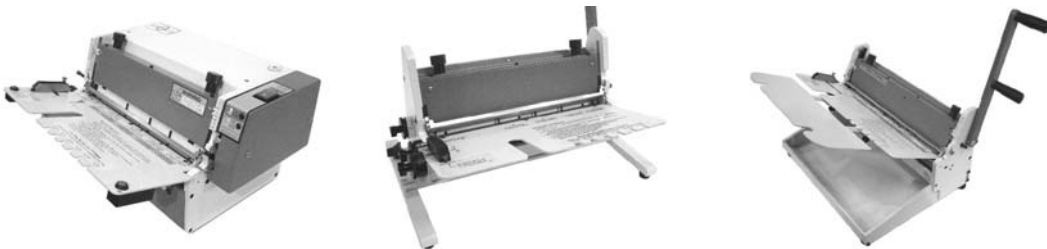
**This manual contains very important safety information
and must be read!**

Insert-A-Bind EWC-8370, HD-8370, and HC-8318 Operators Manual Issue 0 Dec, 05

The EWC-8370: Our reliable one EZ-Step inserter and closer is now available in a safe, button operated, electric machine, the EWC-8370. Adjustable for varying sizes of 3-1 pitch 1/4" to 9/16" (6mm-14mm), the EWC-8370 can become a module and be mounted to your OD or HD vertical punch with an optional kit.

The HD-8370 Insert-A-Bind wire inserter/closer mounts to OD-4000, OD-4012, OD-4800, HD-6500, HD-7000 & HD-7700 punches or with Stand Alone Production Feet. It inserts and closes in one EZ-Step, eliminating manual insertion of wire into documents. The HD-8370 is easily adjustable for varying sizes of 3-1 pitch 1/4" to 9/16" (6mm-14mm) wire.

The HC-8318 is an 18 inch wire closer that **binds calendars with hangers. Wire hangers can be bound into the calendar as the wire is closed!** At last a small, affordable, easy to operate wire closing machine for short runs and yearly calendar applications. The HC-8318 binds documents up to 18 inches in length using 1/4" through 9/16" standard 3-1 pitch wire.



There are helpful accessories and other modules to benefit your binding station. These are just a few of our many accessories and modules. Please visit us at www.RHIN-O-TUFF.com to see the complete line of punching and binding equipment.

RTT-42 Rhin-O-Tuff Table

Our new binding equipment table adjusts from 25" to 44" (63cm-112cm) in seconds for sitting or standing while punching and binding. The table is 42" (107cm) wide with an optional side table and has a 200 pound (90kg) capacity.



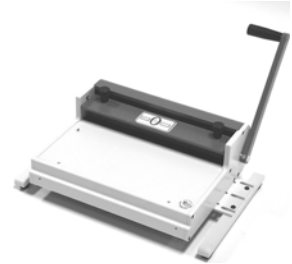
HD-4170 Coil Inserter

The HD-4170 "Rhin-O-Roll" Coil Inserter Module has 12" dual powered adjustable rollers for easier more accurate coil insertion. It has gauges for book thickness and coil sizing. The HD 4170 can be used as a stand-alone production coil inserter or it can be attached on any OD or HD Series punch (except the HD-7500 and horizontals). All pitches and diameters can be inserted using it. The HD 4170 comes with a crimper pliers holder and pliers.



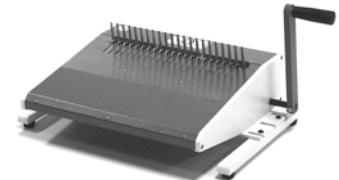
HD-4270 Wire closer

The wire closer is capable of binding books up to 1-1/8" (28.6mm) thick. It uses wire sizes from 3/16" to 1-1/4" any pitch. It has an adjustable closing bar for the different size wires. Each end can be adjusted independently to obtain a perfect close.



HD-4470 Comb opener

The comb opener will bind books up to 2" (51mm) thick. The opener has an adjustable ring opener control for exact book placement.



HC-8024 Wire Closer

The HC-8024 provides you with an affordable wire closer for binding up to 24" documents. Doing the job of machines that cost hundreds of dollars more the 8024 offers fast, accurate wide application closing. Comes complete with an adjustable table for the support of extra long documents.



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Read the entire operators manual before setting the machines adjustments for your first book. The **hint** paragraphs are helpful tips if you should run into problems with a certain portion of setup or binding a book

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Warranty Registration Card Information: Please fill this out immediately and mail in. **Product registration is important to establish trouble free warranty repair** of any of your Rhin-O-Tuff equipment. Please fill out and mail in the card provided with your machine or register on-line at www.RHIN-O-TUFF.com ; then select Support, then Warranty. For repair, service, supplies, or any other help, contact your dealer.

Important Safety Notice!



Make sure you read this section very carefully! Learn to recognize this **Safety Alert Symbol**. The EWC-8370 has been designed to provide a very high level of protection to an operator. Follow the guidelines below while installing, operating and maintaining your machine.



- Plug the machine into an outlet that provides a 15-amp service (16-amp for European installation) that is protected at the customer's circuit box (EWC-8370 only).



- Always replace fuses or circuit breakers with the correct amperage and type.



- If the machine cycles erratically, call dealer immediately for service.



- Never bypass Safety devices!

Special EWC-8370 Note:

This manual covers the HD-8370, EWC-8370, and the HC-8318 wire closers. When this manual refers to the Upper Position of the closing bar, the EWC-8370 is in the normal up position it is at rest. Then referring to pulling the handle or closing wire, the EWC-8370 is operated with the two green buttons on each side of the table. Both buttons must be pressed at the same time for the machine to cycle. Refer to Chapter 9 page 18 for more EWC-8370 operation information.



1) Installation:

Locate a clear work area 24" wide X 30" deep. The work area must be a solid and firm cabinet or a heavy duty table with a flat level surface.

EWC-8370:

The EWC-8370 requires an outlet within 5 feet that provides a 15-amp service (16-amp European) which is protected at the customer's circuit box. **Never attempt to move the EWC-8370 with one person! Always move your EWC-8370 with two people, one on each end.** To mount your EWC-8370 to a OD or HD vertical punch will require an optional mounting kit. Contact your dealer for the kit that fits your punch model and follow the instructions inside the kit. The EWC-8370 came as a stand-alone machine and is ready to operate after setup. Continue to chapter 2.

HC-8318:

Attach the closing handle with the brass colored screw, washer, and nut (with the two wrenches provided) with the nut on the back side of the handle Figure 1 item 2. The HC-8318 is ready to operate after setup. Continue to chapter 2.

HD-8370 Stand-Alone:

The HD-8370 can be operated in the stand-alone or mounted to an OD or HD vertical punch as a module. Continue to the next section if mounting the HD-8370 to a punch is required.

Stand-alone configuration: See figure 1. Attach the feet provided with two 3-winged knobs on both sides of the machine (1) (use the button head screws if the 3-winged knobs interfere with the operation of the HD-8370). Attach the closing handle with the brass colored screw, washer, and nut (with the two wrenches provided) with the nut on the back side of the handle (2). Continue to chapter 2.



Fig. 1

HD-8370 Mounting To a Vertical Punch.

➤ **HD-6500, HD-7000, and HD-7700:**

Locate the Interface Blocks, screws, Allen wrenches, these will be required in the next step. See Figure 2 & 3.

HD-6500 and HD-7000 Instructions;
See Fig. 2.

Locate the two top, rear-most screws on the side of your HD-6500/7000. Inserting the short end of the Allen wrench into the screw head, remove the two screws.

HD-7700 Instructions;
See Fig. 3.

Locate the two top, forward-most screws on the side of your HD-7700. Inserting the short end of the Allen wrench into the screw head, remove the two screws.

Both HD-6500/7000 and HD-7700 Instructions cont...

Store the two screws removed from the punch. Locate one of the Interface Blocks and orient it against the two now-available holes. Orient the block so that the interface block oval hole (Fig. 2 & 3, item 1) is forward and the counter bores face out. To the right is an example of a counter bore.

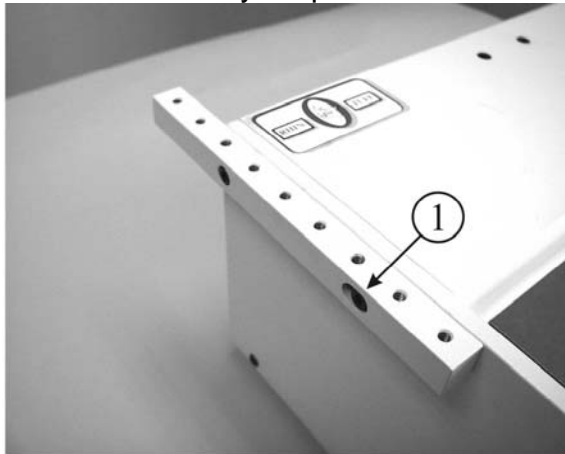
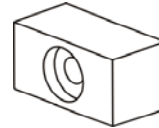


Fig. 2

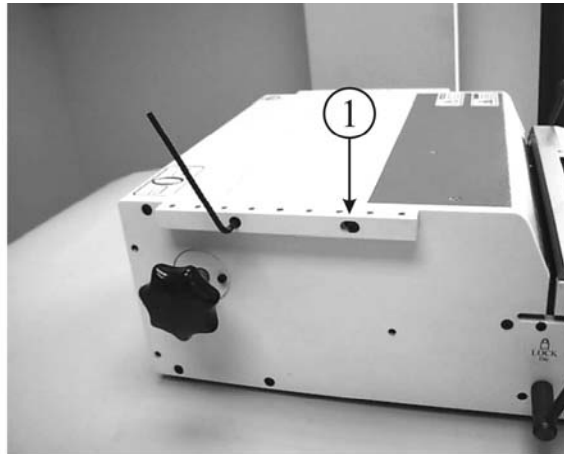


Fig. 3

Mount your module onto your punch using the 3-winged knobs as shown in Fig. 4, item 1. The 3-winged knob can be replaced with the button head screws if required. A minimum of 1 knob or screw is required on each side of machine. Continue to chapter 2.



Fig. 4

➤ **OD-4000, OD-4012, and OD-4800;**

Locate the OD-HD Bracket and screw pack. Mount the RIGHT labeled bracket (Fig. 5, item 1) with the screws (Fig. 5, item 2) and Allen wrench provided. Repeat on LEFT side (Fig. 5, item 3).

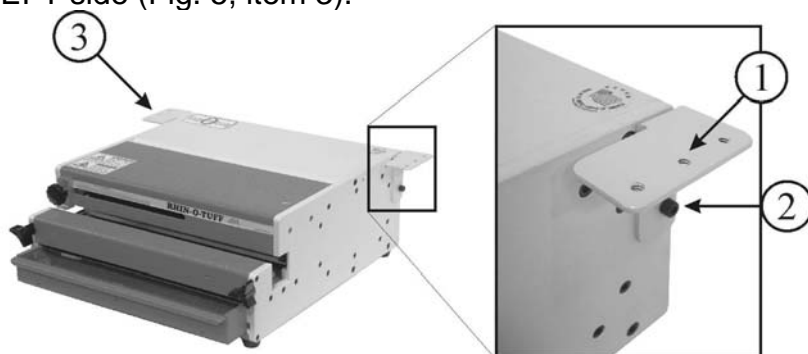


Fig. 5

Special note for OD-4800 machines; Newer OD-4800 have extended shafts (Fig. 6, item 1) to accommodate the new mounting kit. If your OD-4800 does not have these extensions, contact your dealer for the OD-4800 shaft extension kit.



Fig. 6

2) Machine specifications & wire size chart:

The maximum book length is 14", Euro 13" (HC-8318 up to 18", Euro A3) down to a minimum of 5-1/2", Euro A6. Book stops are placed at the 5-1/2", Euro A6, 8-1/2", Euro A5, 11", Euro A4 & 14", Euro 13" positions. The book stop positions are placed at the most common book lengths, although any size book can be bound from 14" (18" HC-8318) down to 5-1/2". See chapter 3) Punching Requirements, for exact hole specifications.

Use the table below to determine the correct wire size for the book thickness. Covers are not included in the number of sheets column.

Wire Diameter		Book Thickness		Number of sheets	
Inch	mm	Inch	mm	20lb	80gsm
1/4	6.4	3/16	4.8	45	
5/16	7.9	1/4	6.4	65	
3/8	9.5	5/16	7.9	80	
7/16	11.1	3/8	9.5	95	
1/2	12.7	7/16	11.1	110	
9/16	14.3	1/2	12.7	125	

3) Punching Requirements: See figure 7. The correct punch hole patterns have to be used in order to provide a clear path for the wire as it is closed into the book. All 3 machines require a 3-1 pitch hole pattern, which means 3 holes to every inch.

Hint: The size and placement on the sheet is also important. If the size of the hole is smaller, or if the placement of the hole is not in the correct position, the wire may have a problem closing into the holes of the book. The following sizes are standards and are manufactured by Performance Design Inc. for the Rhin-O-Tuff line of paper punch machines.

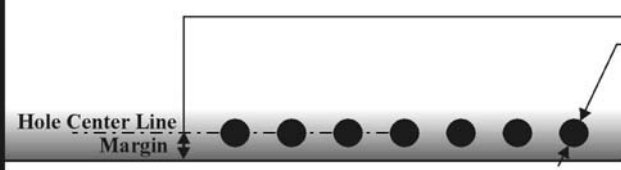



Pattern & Spacing	Punch Pattern Not To Scale	Hole Size & Margin
3:1-.3333"		Hole Size Margin 11/64" Dia. .168"
3:1 Thumb		3/4" Dia. 11/64" Dia. .168"
3:1-.3333"		5/32" Sq. .179"
3:1 Thumb		3/4" Dia. 5/32" Sq. .179"

Fig. 7

- The size of hole for all 3 machines should be $11/64"$ (.172) round or $5/32"$ (.156) square. The Margin or Backspace for is .168" for round and .179" for square holes.

4) Determine the correct wire size for a book: See figure 8.

Determine the correct wire size by placing the book to be bound into the best fitting slot located on the book table. If the book seems too tight in the slot, always use the next larger size wire.

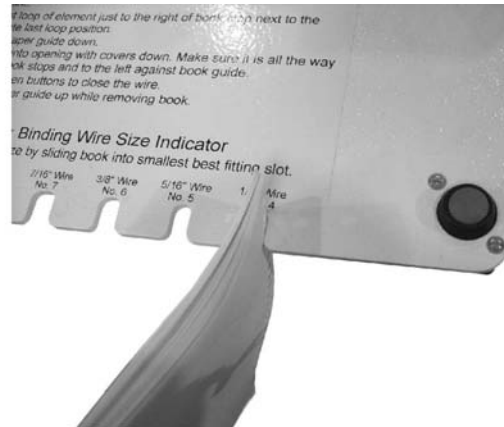


Fig. 8

5) Adjustments:

- **Wire Rest** see figure 9.

Locate the wire rest adjustment knob. Unlock the center, winged knob and turn the outside dial until the size of wire to be closed is adjacent to the indicator pin.

***Hint:** You can change the cross match of the wire slightly by moving the adjustment dial a $1/4$ of a mark, off the set mark one way or another. This may be necessary if the wires do not close correctly.*



Fig. 9

➤ **Loading Wire** see figure 10.

Place a piece of wire to be closed into the book load area with the wide loop facing down. Place the first loop on the left side of the wire in between the twin book stops on the left side of the machine. Place the last loop of wire just to the right of the book stop next to the appropriate last loop position. Magnets will hold the wire in place; lightly press the entire length of the wire down against the bottom closing bar.

Hint: Any wire length from 14" (18" for the HC-8318) down to 5-1/2" can be used. If you are using a nonstandard length, line the first loop on the left side of the wire into the twin book stop position as you would normally do and let the end loop fall freely into the closing tool. The only time you may run into a problem with nonstandard lengths is if the wire is manufactured under or over pitch by a substantial amount.

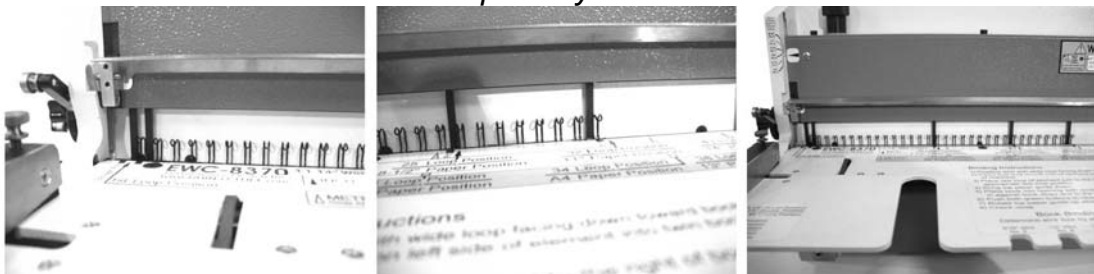


Fig. 10

➤ **Book Stop** See figure 11.

Locate the **book stop adjustment knob (2)**. Unlock the center, winged knob and turn the outside dial until the size of wire to be closed is adjacent to the indicator pin.

Hint: If the holes are not punched in the standard position relative to the edge of the book (.168" for round, .179 for square), the book stop adjustment knob may have to be moved from the normal setting. This may also need a slight adjustment if the wire rest adjustment knob is moved off the standard setting.

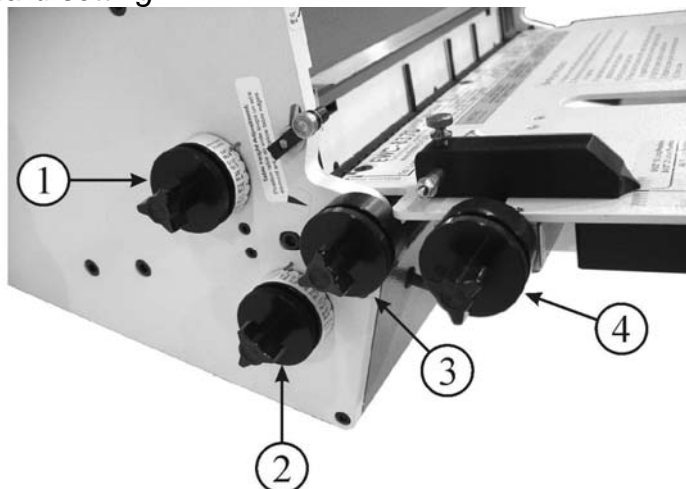


Fig. 11

1) Wire Rest

2) Book Stop

3) Table Height

4) Book Guide

➤ **Table Height**

Locate the **table height adjustment knob, fig 11 item 3**. Unlock center, winged knob and turn the outside dial until the wide loops of wire are slightly below table's edge.

***Hint:** The purpose of the book table is to support the book and guide the bottom covers or sheets of the book into the wire. Some fine adjustment may be necessary if some of the bottom covers or sheets are not located in the closed wire after the book has been bound. At eye level to the book table, move the book table as described above until you cannot see the wide loops above the table.*

➤ **Closing Bar Adjustment** see figure 12.

With the closing bar all the way up, turn both the left and the right closing bar height adjustment knobs so the top of the bar is adjacent to the size of wire to be closed.

***Hint:** The closing bar height adjustment marks are used as a reference setting. After the wire is closed, check to make sure the covers do not slip out of the wire. If they do, you will need to close the wire tighter, on one or both ends of the book. Do this by turning the closing adjustment knob clockwise on one or both ends a ¼ turn at a time and re-inspect the close after binding the next book.*

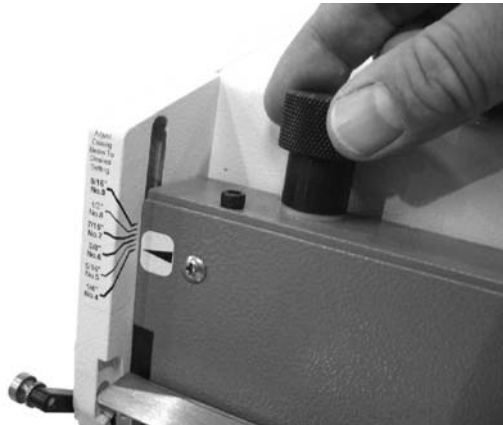


Fig. 12

➤ **Upper Wire Guide** See Figure 13 on next page.

The Upper Wire Guide (1) hides the narrow loops of the wire and is adjusted until the narrow loops of the wire are hidden. Unlock the pivot (2) and adjust the Upper Wire Guide (1) up or down (3) until you have reached the desired results. Lightly retighten (lock) when adjusted. Both ends of the Upper Wire Guide will need to be adjusted.

***Hint:** The purpose of the wire guide is to guide the sheets of the book under the narrow loops of the wire. Some fine adjustment may be*

necessary if some of the top sheets are not in the closed wire after the book has been bound. To set this adjustment, make sure the wire is in the loaded position with the Upper Wire Guide down, resting above the narrow loops of the wire. At eye level to the book table, move the upper wire guide as described above until you cannot see the narrow loops below the upper wire guide. With all other adjustments set, lift up the upper wire guide by pulling it up away from the book table to expose the narrow loops of the wire. The narrow loops should line up with the center of the holes in the book. Move the book stop knob to bring the holes in the book to the correct position relative to the narrow loops of wire.

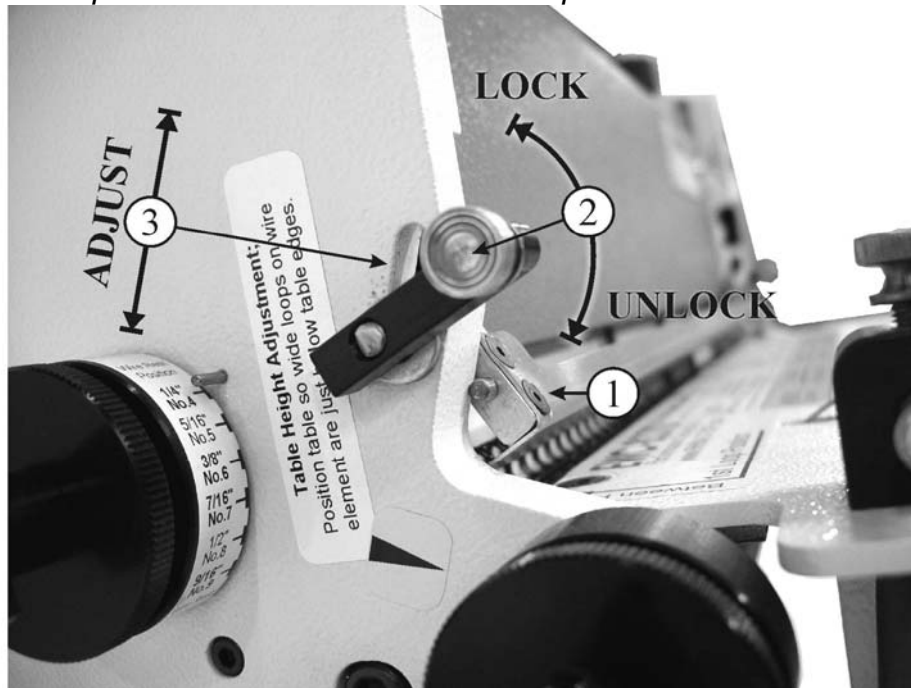


Fig. 13

➤ Book Guide

Locate the book guide adjustment knob (Figure 11, item 4). Unlock the center, winged knob and turn the outside dial until the book guide indicator is in front of the book length to be bound. If overhanging covers are to be used, offset of book to cover can be obtained by loosening the overhanging cover guide knob and offsetting the contents of book to cover. The alignment of the book to the wire will have to be done manually when using overhanging covers. Retighten when adjusted.

Hint: The book guide may have to be adjusted manually if the book is not a standard size or if overhanging covers are used. To do this, make sure all other adjustments are made and a wire is in its loaded position with the closing bar down, resting on the wire. Simply lift up the upper wire guide away from the book table and line the holes of the book laterally to the upper, narrow loops of the wire. Adjust book guide to edge of book.

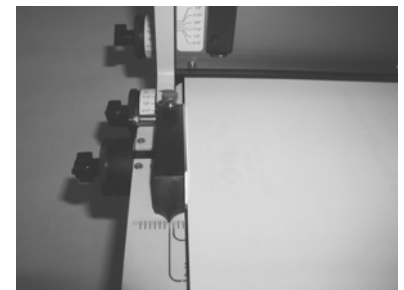


Fig. 14 Flush Cover

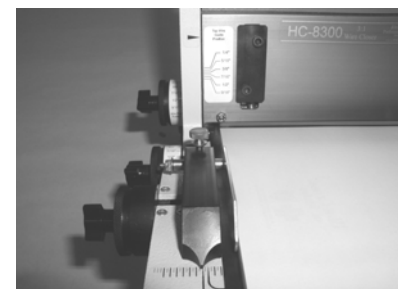
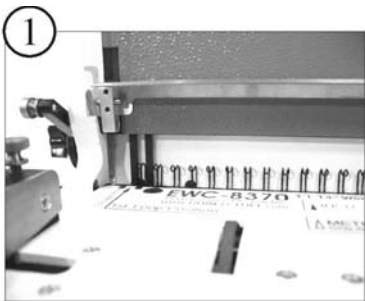


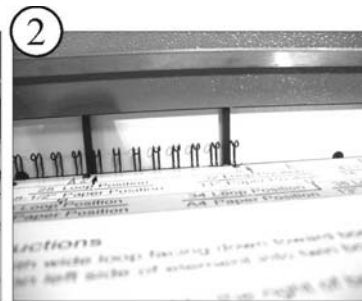
Fig. 15 Overhanging Cover

6) Binding a Book: See Figure 16.

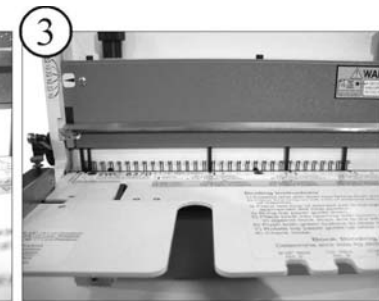
- Position the wire with wide loop facing down toward book load opening.
- Place the first loop on the left side of the wire into twin book stops on left side of machine.
- Place the last loop of the wire just to the right of book stop next to the appropriate last loop position
- Bring the Upper Wire Guide down. Magnets will hold the wire firmly in place while inserting book.
- Place the book into the opening with covers down. Make sure it is all the way in against book stops and to the left against the book guide.
- Pull the handle all the way down to close the wire (EWC-8370 press both green buttons simultaneously).
- Place the handle to its full open position (EWC-8370 will cycle to this position).
- Remove book and check close.



First Loop, Twin Book Stops



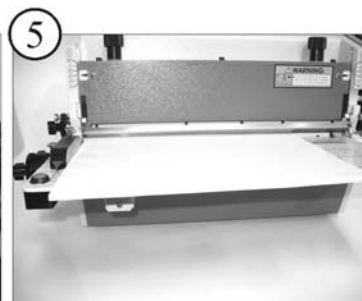
Last Loop, Single Book Stop



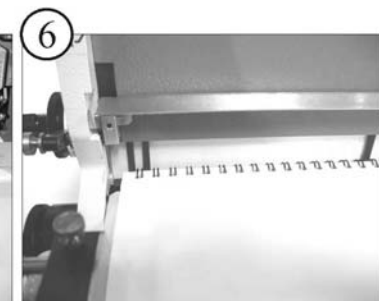
Wire in Position



Upper Wire Guide Down

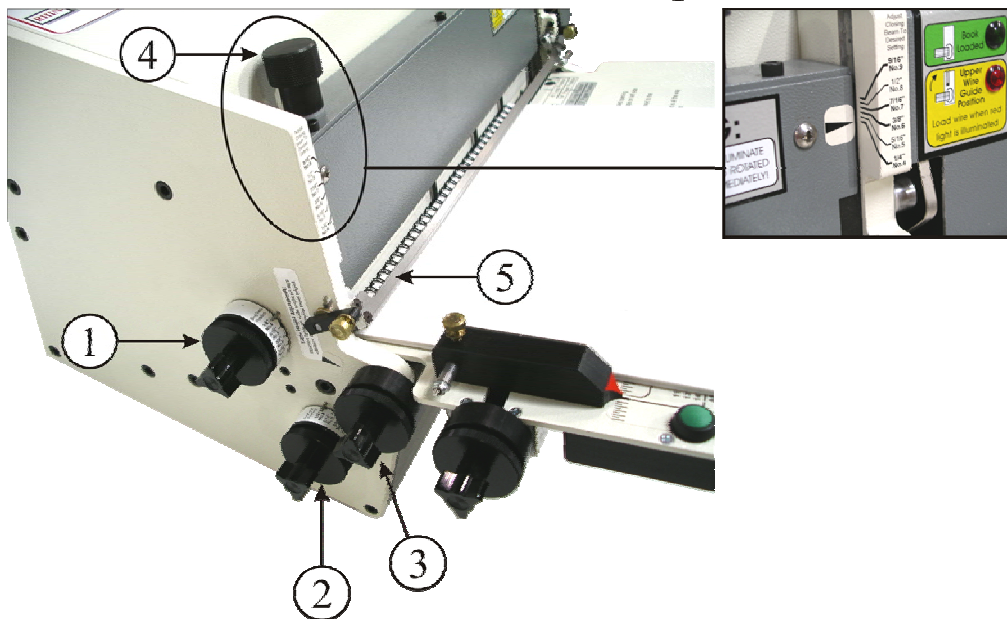
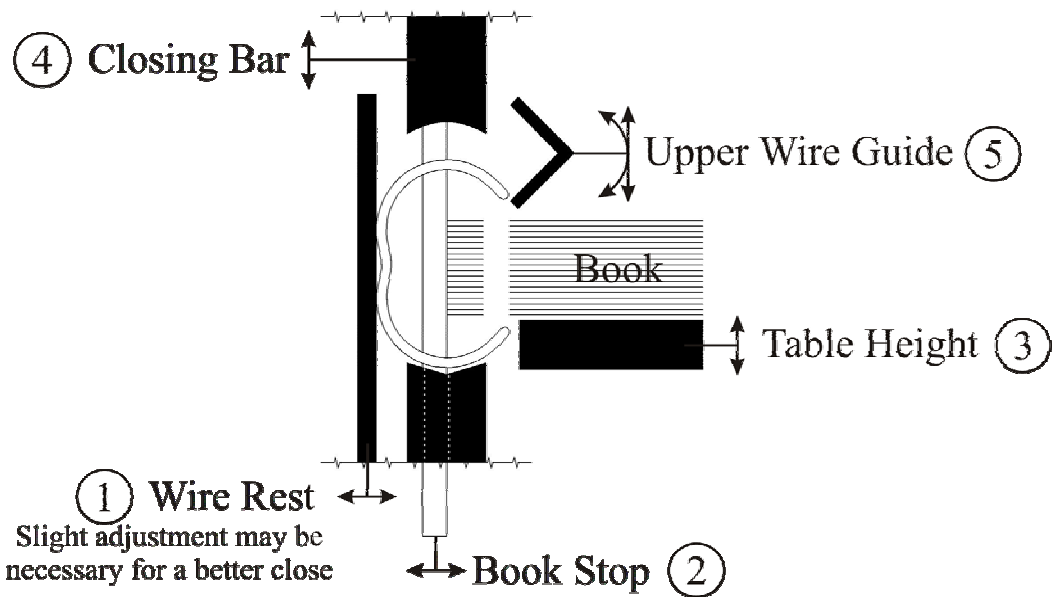


Place Book into Wire
Fig. 16



Wire Closed into Book

CORRECT ADJUSTMENT



CORRECT CLOSE

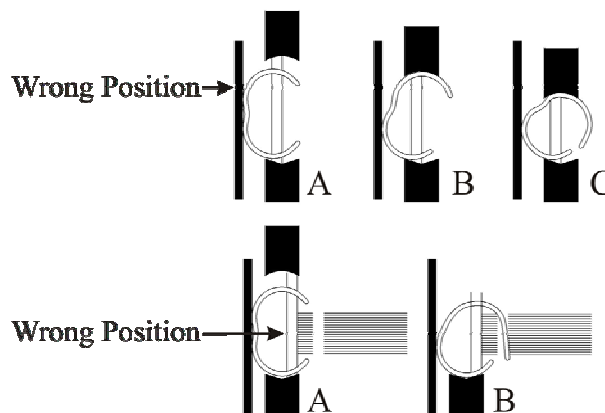
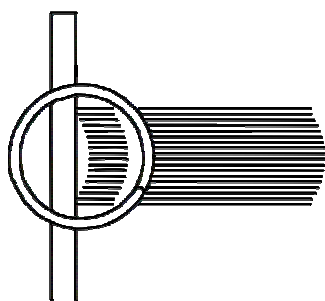


Fig. 17

7) Calendar Binding (HC-8318 only):

The HC 8318 Wire Inserter can bind books up to 18" long or documents with a calendar hanger inserted into the two wire elements. When binding any continuous wire up to 18" long, use the prior instructions for *binding a book*. All setup instructions are the same for the 18" version except where listed below. Books will have to be punched with a thumb cut style die that have two loops missing where the thumb cut is placed. The pitch has to remain continuous from the first to the last hole.

Binding a document with a calendar hanger: *The calendar hanger will always be placed in the center of the machine into the wire elements. The two wire elements will be placed to the left and the right of the hanger.*

- There is a label on the table specifying the placement of the hanger that is located at the centerline of the machine. On each side of the hanger label are single book stops. Place the left element so the loop on the extreme right side is placed on the right side of the book stop. Now place the right elements extreme left loop over the left side of the book stop.
- Rotate the Upper Wire Guide down. Magnets will hold the wire elements firmly in place while inserting book.
- Place the hanger between both wire elements. Make sure hanger falls into slot on table.
- Place the book into the opening with covers down. Make sure it is all the way in against book stops and to the left against book guide.
- Pull the handle all the way down to close the wire.
- Place the handle to its full open position.
- Remove document and check close.

8) Glossary of Terms:

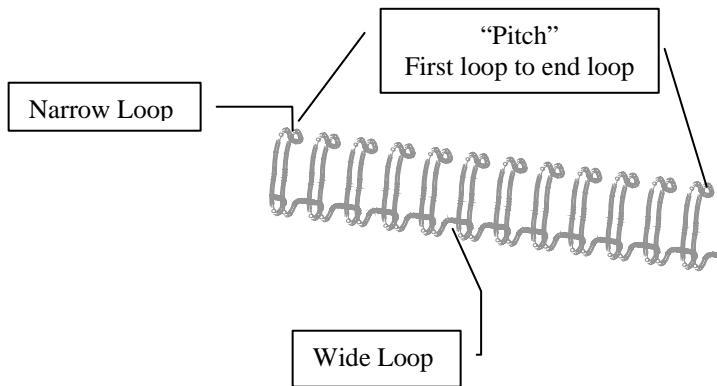


Fig. 18

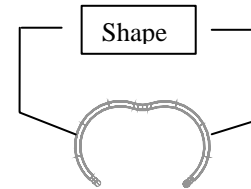


Fig. 19

➤ **Element / Wire**

References to the wire as a whole. I.e.: 32 loops

➤ **Narrow Loop**

The section of the element that is closed into the holes of the book. Faces up when loaded properly. One loop = 1 hole.

➤ **Wide Loop**

The part of the element that is loaded facing in the down position.

➤ **Pitch**

Measured from element to element or the number of elements in an inch.

➤ **Under / Over Pitch**

Measured from the first loop of any given wire length to the last loop. If the pitch is too far under, the wire will have to be stretched a slight amount over book stop when element is loaded. Wire should be slightly under pitch. If wire is over pitch adjust the Book Guide (Fig. 11, item 4) to center the book over the length of the wire.

➤ **Shape**

The shape of any given wire should resemble two half circles. If the wire looks like one half is smaller than the other, you may have problems closing the wire evenly (Cross-match).

➤ **Close**

How near the narrow loop is to the wide loop when element is closed. Narrow loop should overlap wide loop by about 1/32" when closed.

➤ **Cross-match**

The evenness of the bind. Viewed from end.

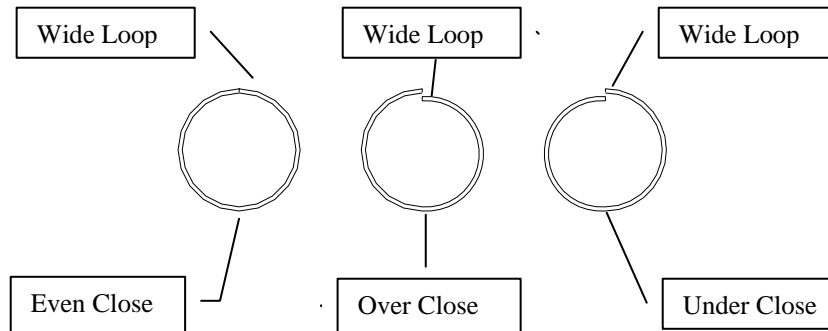


Fig. 19

Even Close: An even close is the most desirable type of bind.

Over Close: When the wide loops are closed under the narrow loops, the covers may slip out of the bind if not closed tight enough.

Under Close: When the narrow loops are closed under the wide loops, the wire forms a wedge, which will keep the covers in the wire from falling out. This is also a desirable bind. The wire still has to be closed tight enough with the closing bar adjustment knobs.

9) EWC-8370 Control Panel: See figure 20.

The **Power Switch I/O (1)** is located on top of the machine (On 230VAC models the power switch is on the back of the machine with the fuse. An LED is in located in **position (1)** that indicates that the power is on or off).

The **Upper Wire Guide Position RED light (2)** indicates that the Upper Wire Guide is in the **UP position (3)**. The machine will not cycle if the **Red light is ON (2)**.



WARNING: If red light does not illuminate when upper wire guide is rotated up, call for service immediately!

The **Book Loaded GREEN light (4)** indicates that the Upper Wire Guide is in the **DOWN position (5)**, a book is loaded, and the machine is ready to operate.

Always power the machine off when not in use or if the machine is being moved.

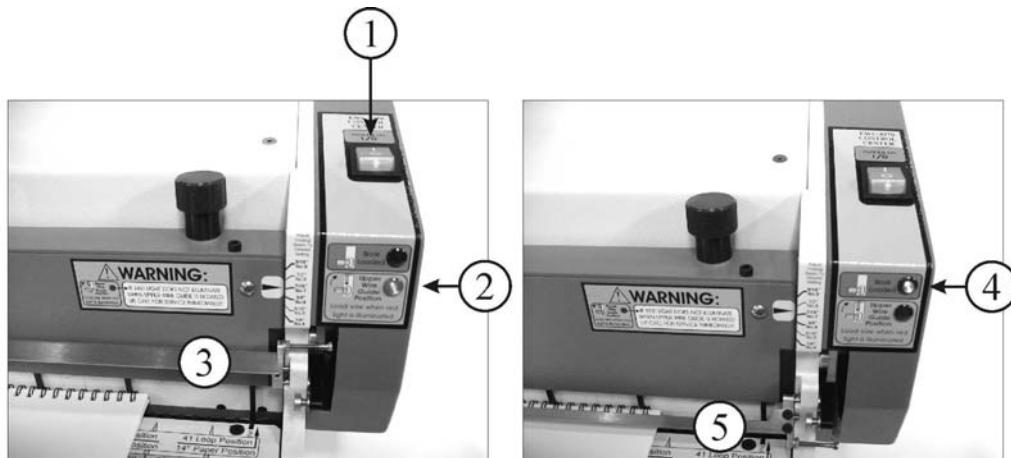


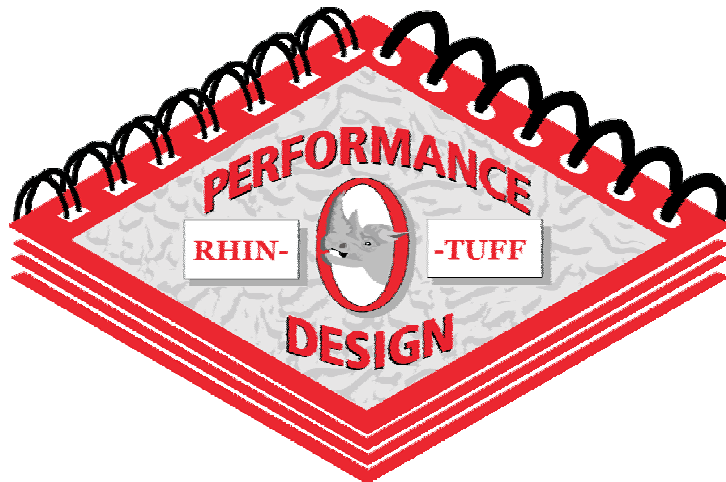
Fig 20

IMPORTANT

Be sure to fill out and return your Product Warranty Registration Card inside. If you don't find one, please call us at 1-800-390-5782 or 1-208-384-8581.

You can also register this product online at www.RHIN-O-TUFF.com then select Support then Warranty Registration.

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