

# BOSTITCH®

## FC96EC BOX BOTTOMER



### OPERATION and MAINTENANCE MANUAL MANUALES DE OPERACIÓN y MANTENIMIENTO LES MANUELS D'UTILISATION et D'ENTRETIEN

**⚠ WARNING:**

**⚠ ADVERTENCIA:**

**⚠ ATTENTION:**

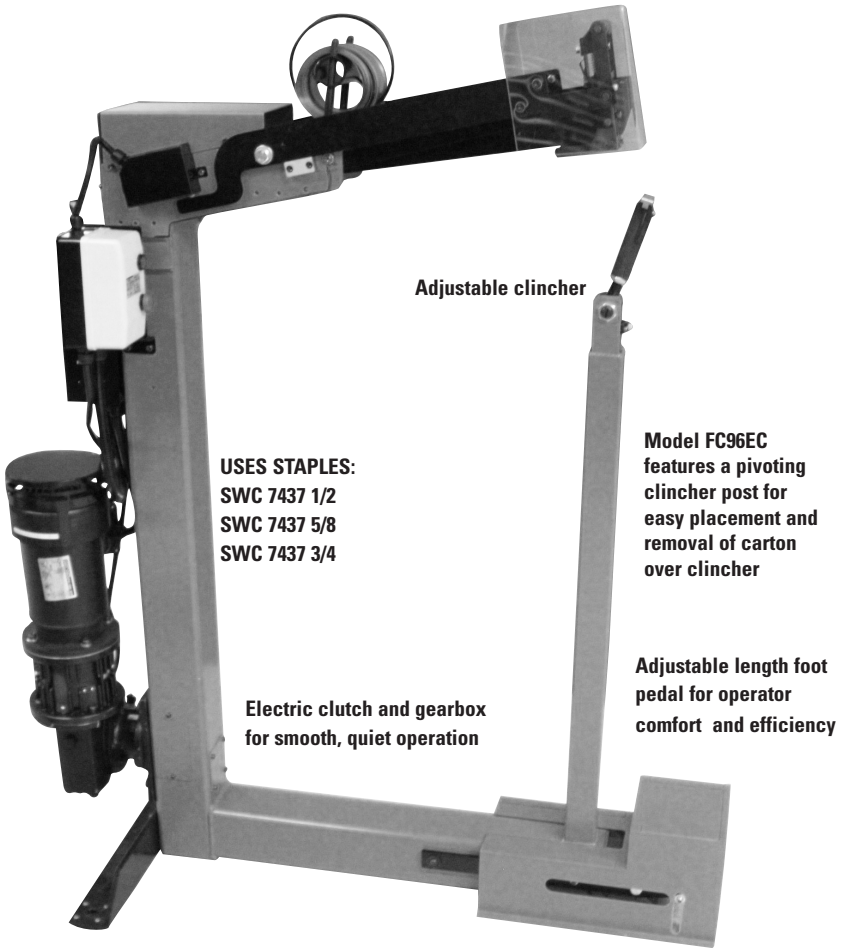
BEFORE OPERATING THIS MACHINE, ALL OPERATORS SHOULD STUDY THIS MANUAL TO UNDERSTAND AND FOLLOW THE SAFETY WARNINGS AND INSTRUCTIONS. KEEP THESE INSTRUCTIONS WITH THE TOOL FOR FUTURE REFERENCE. IF YOU HAVE ANY QUESTIONS, CONTACT YOUR BOSTITCH REPRESENTATIVE OR DISTRIBUTOR.

ANTES DE OPERAR ESTA HERRAMIENTA, TODOS LOS OPERADORES DEBERÁN ESTUDIAR ESTE MANUAL PARA PODER COMPRENDER Y SEGUIR LAS ADVERTENCIAS SOBRE SEGURIDAD Y LAS INSTRUCCIONES. MANTENGA ESTAS INSTRUCCIONES CON LA HERRAMIENTA PARA FUTURA REFERENCIA, SI TIENE ALGUNA DUDA, COMUNÍQUESE CON SU REPRESENTANTE DE BOSTITCH O CON SU DISTRIBUIDOR.

LIRE ATTENTIVEMENT LE PRÉSENT MANUEL AVANT D'UTILISER L'APPAREIL. PRÊTER UNE ATTENTION TOUTE PARTICULIÈRE AUX CONSIGNES DE SÉCURITÉ ET AUX AVERTISSEMENTS. GARDER CE MANUEL AVEC L'OUTIL POUR FUTUR RÉFÉRENCE. SI VOUS AVEZ DES QUESTIONS, CONTACTEZ VOTRE REPRÉSENTANT OU VOTRE CONCESSIONNAIRE BOSTITCH.

**BOSTITCH®**  
Stanley Fastening Systems L.P.

**Fast, Easy Reloading  
4000 Staples in Each Coil**



**USES STAPLES:**  
SWC 7437 1/2  
SWC 7437 5/8  
SWC 7437 3/4

**Adjustable clincher**

**Model FC96EC**  
features a pivoting  
clinchier post for  
easy placement and  
removal of carton  
over clincher

**Electric clutch and gearbox**  
for smooth, quiet operation

**Adjustable length foot**  
pedal for operator  
comfort and efficiency

<b>FC96EC</b>	<b>SPECIFICATIONS</b>
<b>MOTOR</b>	115 VAC 60 Hz 1/3 hp
<b>SPEED</b>	180 Staples/Per minute
<b>CAPACITY</b>	4000 Staples
<b>LENGTH</b>	41" (104 cm)
<b>WIDTH</b>	22-3/4" (58 cm)
<b>HEIGHT</b>	53-1/2" (58 cm)
<b>WEIGHT</b>	330 lbs. (150 kg)

# INTRODUCTION

The BOSTITCH FC96EC box bottoming stapler is a precision-built machine designed for high speed, high volume carton bottoming. The coil fed stapler will deliver efficient, dependable service when used correctly and with care. As with any fine machine, for best performance the manufacturer's instructions must be followed. Please study this manual before operating the bottomer and understand the safety warnings and cautions. The instructions on installation, operating and maintenance should be read carefully and the manual kept for reference. Note: additional safety measures may be required because of your particular application of the bottomer.

**⚠ CAUTION** NEVER OPERATE MACHINE WITHOUT CORRUGATED BOARD ABOVE THE CLINCHER, AS DAMAGE MAY RESULT TO DRIVER OR CAUSE JAMS.

**⚠ CAUTION** MAKE SURE THE SET SCREW IN THE CLINCHER HOLDER IS FACING FORWARD SO THAT IT MAY BE TIGHTENED AGAINST THE FLAT ON THE CLINCHER POST. NEVER TIGHTEN THE SET SCREW AGAINST THE THREADS ON THE CLINCHER POST AS DAMAGE MAY BE DONE TO THE THREAD RESULTING IN JAMMING THE CLINCH HOLDER DURING ADJUSTMENT.

**⚠ CAUTION** DO NOT OIL EXCESSIVELY AS THIS WILL RESULT IN THE WORK BECOMING OIL SPOTTED.

## BEFORE USING THE FC96EC BE AWARE OF THE FOLLOWING WARNINGS:

- ⚠ WARNING:** NEVER PLACE HANDS BETWEEN STAPLER HEAD AND CLINCHER WHEN OPERATING MACHINE
- ⚠ CAUTION** WHEN MANUALLY FEEDING STAPLES INTO HEAD DO NOT GRIP SHARP EDGES OF STAPLE BELT. PLACE FINGERTIPS ON CENTER OF BELT AND PUSH BELT FORWARD TO FEED

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# LIMITED WARRANTY

Stanley Fastening Systems L.P. ("Bostitch") warrants to the original retail purchaser that this product is free from defects in material and workmanship, and agrees to repair or replace, at Bostitch's option, any defective product within 90 days from the date of purchase. This warranty is not transferable. It only covers damage resulting from defects in material or workmanship, and it does not cover conditions or malfunctions resulting from normal wear, neglect, abuse, accident or repairs attempted or made by other than our regional repair center or authorized warranty service center. THIS WARRANTY IS IN LIEU OF ALL OTHER EXPRESS WARRANTIES. ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS LIMITED TO THE DURATION OF THIS WARRANTY. BOSTITCH SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

This warranty is limited to sales in the United States and Canada. Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

To obtain warranty service, return the product at your expense together with proof of purchase to a Bostitch Regional or authorized warranty repair center. You may call us at 1-800-556-6696, in Canada, 1-800-567-7705, or visit [bostitch.com](http://bostitch.com) for the location of authorized warranty service centers in your area.

# **RULES FOR SAFE OPERATION**

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## **Be Educated:**

All users must read and fully understand all information contained in this owner's manual before assembling, operating, or maintaining this machine.

## **Avoid Moving Parts:**

When the machine is plugged into an electrical source and the switch is in the "ON" position, the machine will cycle upon depressing foot pedal.


- Never touch any moving parts.
- Keep all body parts, hair, clothing, and jewelry away from moving parts.
- Never operate the machine without all guards and shrouds in place.

## **Personal Protection:**

The employer and/or user must ensure that proper eye protection is worn. Eye protection equipment must conform to the requirements of the American National Standards Institute ANSI Z87.1 and provide both frontal and side protection.

**NOTICE!** Non-side shielded spectacles and face shields alone do not provide adequate protection. Eye protection conforming to ANSI Z87.1 will always be marked "Z87".

**⚠WARNING:** Additional Safety Protection will be required in some environments. For example, the working area may include exposure to noise level which can lead to hearing damage. The employer and user must ensure that any necessary hearing protection is provided and used by the operator and others in the work area. Some environments will require the use of head protection equipment. When required, the employer and user must ensure that head protection conforming to ANSI Z89.1.

- Always wear eye protection. 
- Wear proper hearing and head protection.

# **TRANSPORTING**

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Before attempting to move or transport this machine make sure that it is unplugged and its power cord secured. USE proper transportation methods when moving or transporting this machine. NEVER pull the machine by the power cord. This machine is heavy it could tip, resulting in personal injury or death to user and bystanders.

# **PERSONAL SAFETY**

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- Stay alert, watch what you are doing, and use common sense when operating a power tool. Do not use the machine tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating a machine may result in serious personal injury.
- Dress properly. Do not wear loose clothes, jewelry, or long hair can be caught in moving parts.
- Use safety equipment. Always wear eye protection and hearing protection must be used for appropriate conditions.
- Do not overreach. Keep proper footing and balance at all times. Proper footing and balance enables better control of the tool in unexpected situations.

**NOTICE!** Do not operate this machine if it does not contain a legible **WARNING LABEL**.

**⚠WARNING:** This machine produces **SPARKS** during operation, **NEVER** use the Machine near flammable substances, gases or vapors including lacquer, paint, benzene, thinner, gasoline, adhesives, mastics, glues or any other material that is - or the vapors, fumes or by-products of which are - flammable, combustible or explosive. Using the stapler in any such environment could cause an **EXPLOSION** resulting in personal injury or death to user and bystanders.

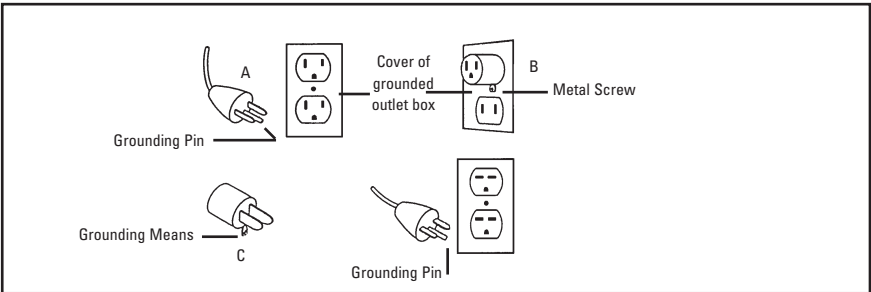
# **ELECTRICAL GROUNDING INSTRUCTIONS**

This product should be electrically grounded. In the event of an electrical short circuit, grounding reduces the risk of electrical shock by providing an escape wire for electrical current. This product is equipped with a cord having a grounding wire with an appropriate grounding plug. The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.

**⚠ DANGER:** **IMPROPER INSTALLATION OF THE GROUNDING PLUG CAN RESULT IN A RISK OF ELECTRIC SHOCK.** If a repair or replacement cord is necessary, do not connect the grounding wire to either flat blade terminal. Check with a qualified electrician or serviceman, if the grounding instructions are not completely understood or if there is doubt as to whether this product is properly grounded. Do not modify the plug provided. If the supplied plug does not fit the outlet, have the proper outlet installed by a qualified electrician.

This product is shipped for use on a nominal 120-volt circuit, and has a grounding plug that looks like the plug in sketch A. A temporary adapter that looks like the adapter illustrated in sketches B and C may be used to connect this plug to a 2-pole receptacle as shown in sketch B, if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet (sketch A) can be installed by a qualified electrician. The green colored rigid ear, lug, or like extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box cover. Whenever the adapter is used, it must be held in place by a metal screw.

**NOTICE:** **BOSTITCH** does not recommend the use of extension cords with this machine. The use of an extension cord can result in the drop of line voltage supplied to the machine resulting in a loss of power and causing the motor to overheat. For optimum performance plug the machine directly into the outlet.



**NOTE:** The motor of this machine has a thermal overload protector in the motor winding. If the motor should overheat, the overload protector will shut the motor off. When the temperature returns to normal, the machine can be restarted.

## **ELECTRICAL INSTRUCTIONS**

### **Speed and Wiring**

The no-load speed of the electric motor in this machine is approximately 1,720 rpm. This speed is not constant and decreases under a load or with lower voltage. For voltage, the wiring in a shop is as important as the motor's horsepower rating. A line intended only for lights cannot properly carry a power tool motor. Wire that is heavy enough for a short distance will be too light for a greater distance. A line that can support one power tool may not be able to support two or three tools.

# OPERATING THE FC96EC BOX BOTTOMER

## LOADING

1. Make certain power switch is off.
2. Slide coil holder off the magazine studs and slide coil onto spindle.
3. Feed staples under top guide and oiler felts until the lead end strikes the door assembly.
4. Switch power on and depress foot pedal for one cycle. Machine is now ready for stapling.
5. Try a sample of work to be stapled. If the clinch is not satisfactory, adjustment must be made. See chart on page 7.

**NOTE:** If the staple belt should break, run the machine until it stops feeding staples. Reload as described above.

- In operating the stapler be careful not to drive one staple over another as damage may be done to the driver.
- Staple Jams - Most jams are easily cleared by removing the door from the front of the head and removing the jammed staple(s) with needle nose pliers. If the head binds against the work, the head must first be raised off the work. See note under maintenance for manually cycling machine. With head raised, remove door and jammed staple.

**▲WARNING:** If head is not in its raised position after jam is cleared, it will return to its normal position when the machine is turned on. Stand clear of stapling head when turning machine on.

**NOTE:** Use only staples recommended by Stanley-Bostitch for use in **FC96EC** or staples which meet Stanley-Bostitch requirements.

## GUARD INTERLOCKING

The **FC96EC** head is equipped with a guard interlock. This mechanism prevents the machine from operation when the guard is not down.

Always turn the machine off and unplug it from the outlet before attempting any adjustments or

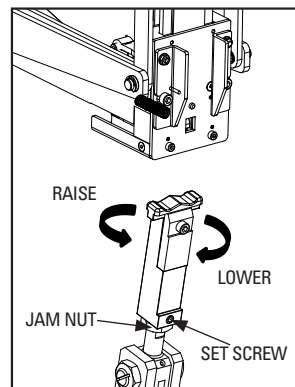
**▲WARNING:** maintenance.

## ADJUSTING FOR WORK THICKNESS (SEE FIG. 1)

**NOTE:** Machines are shipped from the factory set for two thicknesses of C-flute single wall corrugated board. Always make sure the guard is fully down before attempting to start the machine.

### 1. FC96EC

- a. Loosen the set screw in the clincher holder and the hex jam nut sufficiently to turn the clincher holder.
- b. Turn the clincher holder approximately two turns clockwise (lower) if the machine clinches too tight or counterclockwise (raise) if the clinch is too loose.
- c. Stapler is properly adjusted when in head disengages at bottom of stroke.
- d. Tighten set screw. Try a sample of work to be stapled. If machine still clinches too tight or too loose, continue to adjust height of clincher until required adjustment is obtained.
- e. Tighten hex jam nut.







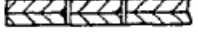




**FIG. 1** SHOWN WITHOUT GUARD FOR CLARITY

## TIME OUT SWITCH

This machine is equipped with a time out function. The machine will automatically shut off if it is left running without use after 5 minutes. To re-start the machine, first make sure that the guard is down and press the **ON** button.

# INSTRUCTIONS FOR CORRECTING STAPLING PROBLEMS

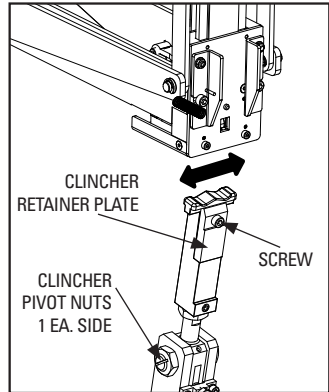
ILLUSTRATIONS	TROUBLE	CAUSE	CORRECTION
	Good Clinch. Slight carton compression.		
	Clinch too tight. Excessive carton compression. Machine pounds excessively	Clincher too high	Lower clincher
	Loose clinch	Clinchers set too low	Raise clincher
	Buckled crown on 3/4 leg staple	Worn door	Replace worn door
	Staple pierces work but returns with head.	Clinchers set too low	Raise clincher
	Staple penetrates board but buckles at crown	Poor alignment of clincher	Realign Clincher
	Machine operates but staples do not enter board	Staples jammed in door	Remove Door and remove jammed staples. Do not operate the machine without work on the clinchers
	Clinch too short	Staple leg too Short for thickness of work	Use next longer leg staple
	Crown collapses	Staple leg too long for thickness of work	Use next shorter leg length staple

## CLINCHER LATERAL ADJUSTMENT (SEE FIG. 2)

**⚠WARNING:** Always turn the machine off and unplug it from the outlet before attempting any adjustments or maintenance.

1. This adjustment is best done without staples in the head.
2. Loosen clincher retaining plate.
3. Lower the head and centralize clincher. Tighten screw.

**NOTE:** The head is lowered as follows. With the machine off and the power disconnected, lift the guard all the way up. Manually pull the head down until it is flush with the clincher allowing the adjustment described above. The head must be manually held down. The return springs will return it to its rest position as soon as it is released. After adjustment is complete, slowly release the head to return to its rest position.



**FIG.2** SHOWN WITHOUT GUARD FOR CLARITY

## TROUBLESHOOTING

PROBLEM	CAUSE AND REMEDY
1. Machine shuts off	<ol style="list-style-type: none"> <li>1. Timer has timed out, push start button</li> <li>2. Motor over heated and thermal switch tripped allow machine to cool and push start button</li> <li>3. Guard not in the down position, check and verify guard is all the way down</li> <li>4. Power cord un-plugged, reinsert plug into outlet</li> </ol>
2. Motor over-heats	<ol style="list-style-type: none"> <li>1. If extension cord is being used <ul style="list-style-type: none"> <li>- Upgrade the extension cord to heavier gauge</li> <li>- Move machine closer to outlet, remove the extension cord</li> </ul> </li> <li>2. Clincher post is not adjusted properly <ul style="list-style-type: none"> <li>- Refer to ADJUSTING FOR WORK THICKNESS instructions in manual, adjust post</li> </ul> </li> </ol>
3. Staple Jams	<ol style="list-style-type: none"> <li>1. Clincher post height is not adjusted properly <ul style="list-style-type: none"> <li>- Refer to ADJUSTING FOR WORK THICKNESS instructions in manual, adjust post</li> </ul> </li> <li>2. Clincher lateral position is not adjusted properly <ul style="list-style-type: none"> <li>- Refer to CLINCHER LATERAL ADJUSTMENT instructions in manual, adjust clincher position</li> </ul> </li> <li>3. Driving a staple on top of another staple, avoid driving staples on to each other</li> </ol>
4. Box gets caught on clincher	<ol style="list-style-type: none"> <li>1. Clincher post height is not adjusted properly <ul style="list-style-type: none"> <li>- Refer to ADJUSTING FOR WORK THICKNESS instructions in manual, adjust post</li> </ul> </li> </ol> <p>1- Staple jammed in head, Remove door and check for jammed or crushed staples</p>
5. Head stuck in down position	<ol style="list-style-type: none"> <li>1- Staple jammed in head, Remove door and check for jammed or crushed staples</li> </ol>



# MAINTENANCE (SEE FIG. 3)

## LUBRICATION

1. Use S.A.E. #10 oil. (Refer to lubrication diagram on the following page for points of oil.)  
Machines in constant use should be oiled daily. Machines operated occasionally should be oiled just prior to operation.
2. Usually only a few drops of oil are required at each point of lubrication. Lubricate regularly instead of excessively. Excessive oiling will result in work becoming oil spotted.
3. Saturate head oiler felts with oil until oil is visible on bottom side. Repeat this process each time a new coil of staples is loaded or each time machine has been idle for some time which would allow felts to dry out.
4. DO NOT OIL CLUTCH ASSEMBLY. Unit is permanently lubricated and extra oil will cause malfunctions.

## 1. CLINCHER POST PIVOT ADJUSTMENT

In case of looseness in the clincher pivots, loosen the clincher pivot nuts and tighten the clincher pivots to remove all looseness, then retighten the nuts. Check clincher adjustment. Do not overtighten clincher pivots otherwise binding will prevent smooth operation and return of foot pedal.

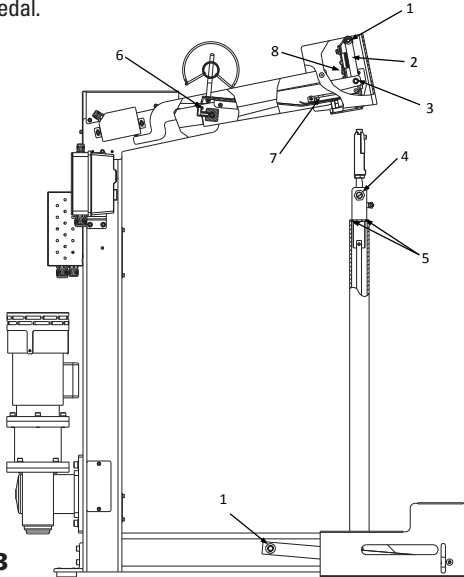


FIG.3

ITEM NO.	DESCRIPTION	ITEM NO.	DESCRIPTION
1	Oil (Both Sides)	5	Oil (Front and Rear of Clincher Arm)
2	Oil (Both Sides)	6	Oil (Front and Rear of Clincher Arm)
3	Oil (Daily)	7	Oil (Two Felt Strips)
4	Oil (Both Sides)	8	Grease Front & Rear of Surface of Driver Stop Lightly

**NOTE:** It is recommended after replacing parts that the machine be manually turned over for one full cycle to make certain all parts operate freely. To manually cycle the machines, first turn the machine switch off and disconnect the power supply. Lift the guard cover all the way up. Depress the foot pedal to bring the clincher up. Manually pull the head down until it contacts the clincher. Slowly allow the head to return to its rest position.

## GEAR BOX

This machine is equipped with a gearbox. To assure optimum performance and service life follow these maintenance procedures.

- After 100 hours of use drain and re-fill the gear box with 27 oz (0.8 L) of AGMA 4EP oil
- Once a month check the oil level (see fig) and top up with oil if required
- Every year or 2,500 hours of use drain and re-fill the gear box with 27 oz (0.8 L) of AGMA4EP oil.

## 2. DRIVER REPLACEMENT (SEE FIG. 4)

- Remove the (2) retaining rings from the link arms
- Separate the link arms from the staple head
- With a screw driver or another similarly appropriate tool, wedge the driver stop flat spring open to release the driver stop block
- Remove the driver stop block and lift the driver assembly from the staple head
- Remove the screw and replace the driver assembly
- Reassemble the driver assembly, leaving the screw slightly loose
- Lightly oil the driver and slide it back into the head
- Press the staple head down and wedge the flat spring open and replace the driver stop block to its original position
- Push the driver down once or twice and verify that it's functioning
- Replace the link arm and retaining clips
- Fully tighten the screw

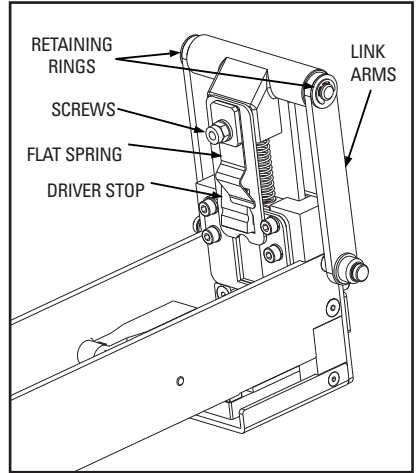


FIG.4

## 3. DISABLING THE TIMER FUNCTION

- Verify that the machine is unplugged
- Remove the (4) screws that secure the cover (see Fig. 5)
- Move the switches to the off position (see Fig. 6)
- Replace cover and tighten screws

**⚠WARNING:** Always turn the machine off and unplug it from the outlet before attempting any adjustments or maintenance.

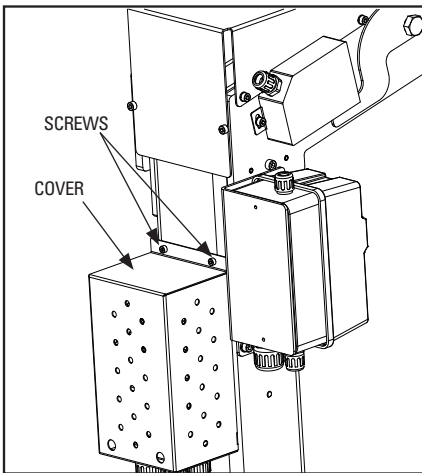


FIG.5

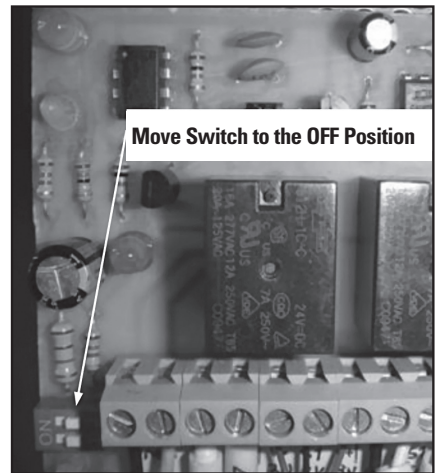


FIG.6

# ELECTRICAL DIAGRAM

