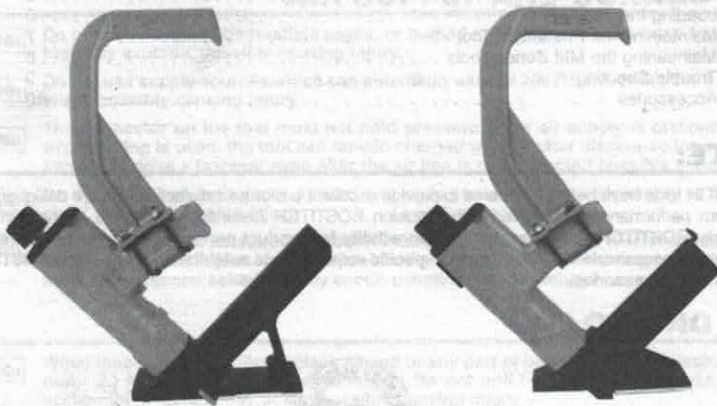


29114  
**BOSTITCH®**

**MIIIFS / MIIIFN**

SGS275

**FLOORING TOOLS  
HERRAMIENTAS DE PISOS  
CLOUEURS DE PLANCHER**



**OPERATION and MAINTENANCE MANUAL  
MANUAL DE OPERACIÓN Y DE MANTENIMIENTO  
MANUEL D'INSTRUCTIONS ET D'ENTRETIEN**

**⚠ WARNING:**

**⚠ ADVERTENCIA:**

**⚠ ATTENTION:**

BEFORE OPERATING THIS TOOL, 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.

103697REVE 10/05

## INTRODUCTION

BOSTITCH tools are precision-built tools, designed for precise, high volume nailing. These tools will deliver efficient, dependable service when used correctly and with care. As with any fine power tool, for best performance the manufacturer's instructions must be followed. Please study this manual before operating the tool and understand the safety warnings and cautions. The instructions on installation, operation 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 tool. Contact your BOSTITCH representative or distributor with any questions concerning the tool and its use. BOSTITCH, East Greenwich, Rhode Island 02818.

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## NOTE:

BOSTITCH tools have been engineered to provide excellent customer satisfaction and are designed to achieve maximum performance when used with precision BOSTITCH fasteners engineered to the same exacting standards. BOSTITCH cannot assume responsibility for product performance if our tools are used with fasteners or accessories not meeting the specific requirements established for genuine BOSTITCH nails, staples and accessories.



## LIMITED WARRANTY — U.S. and Canada Only

Effective December 1, 2005 Bostitch, L.P. warrants to the original retail purchaser that the product purchased is free from defects in material and workmanship, and agrees to repair or replace, at Bostitch's option, any defective Bostitch branded pneumatic stapler or nailer for a period of seven (7) years from date of purchase (one (1) year from the date of purchase for compressors and tools used in production applications). Warranty is not transferable. Proof of purchase date required. This warranty covers only damage resulting from defects in material or workmanship; it does not cover conditions or malfunctions resulting from normal wear, neglect, abuse, accident or repairs attempted or made by other than our national repair center or authorized warranty service centers. Driver blades, bumpers, o-rings, pistons and piston rings are considered normally wearing parts. For optimal performance of your Bostitch tool always use genuine Bostitch fasteners and replacement parts.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. BOSTITCH SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Some states and countries 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 and country to country.

To obtain warranty service in the U.S. return the product, together with proof of purchase, to the U.S. Bostitch National or Regional Independent Authorized Warranty Service Center. In the U.S. you may call us at 1-800-556-6696 or visit [www.BOSTITCH.com](http://www.BOSTITCH.com) for the location most convenient for you. In Canada please call us at 800-567-7705 or visit [www.BOSTITCH.com](http://www.BOSTITCH.com).

## SAFETY INSTRUCTIONS

**EYE PROTECTION** which conforms to ANSI specifications and provides protection against flying particles both from the FRONT and SIDE should ALWAYS be worn by the operator and others in the work area when connecting to air supply, loading, operating or servicing this tool. Eye protection is required to guard against flying fasteners and debris, which could cause severe eye injury.

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. NOTE: Non-side shielded spectacles and face shields alone do not provide adequate protection.

**CAUTION:** 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 is used.

## AIR SUPPLY AND CONNECTIONS

Do not use oxygen, combustible gases, or bottled gases as a power source for this tool as tool may explode, possibly causing injury.

Do not use supply sources which can potentially exceed 200 P.S.I.G. (14kg/cm<sup>2</sup>) as tool may burst, possibly causing injury.

The connector on the tool must not hold pressure when air supply is disconnected. If a wrong fitting is used, the tool can remain charged with air after disconnecting and thus will be able to drive a fastener even after the air line is disconnected possibly causing injury.

Do not pull trigger or depress contact arm while connected to the air supply as the tool may cycle, possibly causing injury.

Always disconnect air supply: 1.) Before making adjustments; 2.) When servicing the tool; 3.) When clearing a jam; 4.) When tool is not in use; 5.) When moving to a different work area, as accidental actuation may occur, possibly causing injury.

## LOADING TOOL

When loading tool: 1.) Never place a hand or any part of body in fastener discharge area of tool; 2.) Never point tool at anyone; 3.) Do not pull the trigger or depress the trip as accidental actuation may occur, possibly causing injury.

## OPERATION

Always handle the tool with care: 1.) Never engage in horseplay; 2.) Never pull the trigger unless nose is directed toward the work; 3.) Keep others a safe distance from the tool while tool is in operation as accidental actuation may occur, possibly causing injury.

The operator must not hold the trigger pulled on contact arm tools except during fastening operation as serious injury could result if the trip accidentally contacted someone or something, causing the tool to cycle.

Keep hands and body away from the discharge area of the tool. A contact arm tool may bounce from the recoil of driving a fastener and an unwanted second fastener may be driven possibly causing injury.

Check operation of the contact arm mechanism frequently. Do not use the tool if the arm is not working correctly as accidental driving of a fastener may result. Do not interfere with the proper operation of the contact arm mechanism.

Do not drive fasteners on top of other fasteners or with the tool at an overly steep angle as this may cause deflection of fasteners which could cause injury.

Do not drive fasteners close to the edge of the work piece as the wood may split, allowing the fastener to be deflected possibly causing injury.

This nailer produces SPARKS during operation. NEVER use the nailer near flammable substances, gases or vapors including lacquer, paint, benzine, thinner, gasoline, adhesives, massics, glues or any other material that is - or the vapors, fumes or byproducts of which are - flammable, combustible or explosive. Using the nailer in any such environment could cause an EXPLOSION resulting in personal injury or death to user and bystanders.

## MAINTAINING THE TOOL

When working on air tools note the warnings in this manual and use extra care when evaluating problem tools.

## MIII TOOL SPECIFICATIONS

All dimensions in inches unless otherwise specified

MODEL	LENGTH	HEIGHT	WIDTH	WEIGHT
MIIF5	17-1/4" (438mm)	11-1/2" (292mm)	3-1/8" (80mm)	11.2lbs (5.1kg)
MIIFN	17-1/4" (438mm)	11-1/2" (292mm)	3-1/8" (80mm)	11.2lbs (5.1kg)

### FASTENER SPECIFICATIONS:

MODEL	FASTENER	CROWN WIDTH	WIRE SIZE	MAX. LENGTH
MIIF5	BCS1500	1/2" (13mm)	15-1/2 Ga.	2" (50mm)
MIIFN	FLX-200			2" (50mm)

### TOOL AIR FITTING:

This tool uses a 3/8" N.P.T. male plug. The inside diameter should be .275" (7mm) or larger. The fitting must be capable of discharging tool air pressure when disconnected from the air supply.

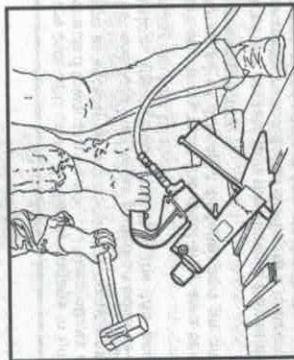
### OPERATING PRESSURE:

70 to 90 p.s.i.g. (4.9 to 6.3 kg/cm<sup>2</sup>). Select the operating pressure within this range for best fastener performance. **DO NOT EXCEED THIS RECOMMENDED OPERATING PRESSURE.**

### AIR CONSUMPTION:

The Mill requires 4.2 cubic feet per minute (221 liters per minute) of free air to operate at the rate of 60 fasteners per minute, at 80 p.s.i. (5.6 kg/cm<sup>2</sup>). Take the actual rate at which the tool will be run to determine the amount of air required. For instance, if your fastener usage averages 30 fasteners per minute, you need 50% of the tool's c.f.m. of free air which is required to operate the tool at 60 fasteners per minute.

## OPERATION



### Caution Regarding Use of this Tool to Install Pre-finished Flooring

This Markkili Flooring Tool was designed for use in installing unfinished hardwood flooring. It can be used to install pre-finished flooring however caution must be used to ensure that the finish is not damaged by the tool. It is recommended that the tool be tested on a sample section to be certain that the tool and technique of use do not leave marks on the finish. This procedure should be followed before each job due to variations in flooring and tool condition.

## AIR SUPPLY AND CONNECTIONS

**WARNING:** Do not use oxygen, combustible gases, or bottled gases as a power source for this tool as tool may explode, possibly causing injury.

### FITTINGS:

Install a male plug on the tool which is free flowing and which will release air pressure from the tool when disconnected from the supply source.

### HOSES:

Air hoses should have a minimum of 150 p.s.i. (10.6 kg/cm<sup>2</sup>) working pressure rating or 150 percent of the maximum pressure that could be produced in the air system. The supply hose should contain a fitting that will provide "quick disconnecting" from the male plug on the tool.

### SUPPLY SOURCE:

Use only clean regulated compressed air as a power source for this tool. **NEVER USE OXYGEN, COMBUSTIBLE GASES, OR BOTTLED GASES. AS A POWER SOURCE FOR THIS TOOL AS TOOL MAY EXPLODE.**

### REGULATOR:

A pressure regulator with an operating pressure of 0 - 125 p.s.i. (0 - 8.79 KG/CM<sup>2</sup>) is required to control the operating pressure for safe operation of this tool. Do not connect this tool to air pressure which can potentially exceed 200 p.s.i. (14 KG/CM<sup>2</sup>) as tool may fracture or burst, possibly causing injury.

### OPERATING PRESSURE:

Do not exceed recommended maximum operating pressure as tool wear will be greatly increased. The air supply must be capable of maintaining the operating pressure at the tool. Pressure drops in the air supply can reduce the tool's driving power. Refer to "TOOL SPECIFICATIONS" for setting the correct operating pressure for the tool.

### FILTER:

Dirt and water in the air supply are major causes of wear in pneumatic tools. A filter will help to get the best performance and minimum wear from the tool. The filter must have adequate flow capacity for the specific installation. The filter has to be kept clean to be effective in providing clean compressed air to the tool. Consult the manufacturer's instructions on proper maintenance of your filter. A dirty and clogged filter will cause a pressure drop which will reduce the tool's performance.

## LUBRICATION

Frequent, but not excessive, lubrication is required for best performance. Use BOSTITCH Air Tool Lubricant, Mobil Velocite #10, or equivalent. Do not use detergent oil or additives as these lubricants will cause accelerated wear to the seals and bumpers in the tool, resulting in poor tool performance and frequent tool maintenance. Only a few drops of oil at a time is necessary. Too much oil will only collect inside the tool and will be noticeable in the exhaust cycle.

### COLD WEATHER OPERATION:

For cold weather operation, near and below freezing, the moisture in the air line may freeze and prevent tool operation. We recommend the use of BOSTITCH winter formula air tool lubricant or permanent antifreeze (ethylene glycol) as a cold weather lubricant.

**CAUTION: Do not store tools in a cold weather environment to prevent frost or ice formation on the tools operating valves and mechanisms that could cause tool failure.**

**NOTE: Some commercial air line drying liquids are harmful to "O"-rings and seals - do not use these low temperature air dryers without checking compatibility.**

## LOADING THE MIIIF

### **WARNING:**



EYE PROTECTION which conforms to ANSI specifications and provides protection against flying particles both from the FRONT and SIDE should ALWAYS be worn by the operator and others in the work area when connecting to air supply, loading, operating or servicing this tool. Eye protection is required to guard against flying fasteners and debris, which could cause severe eye injury.

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. NOTE: Non-side shielded spectacles and face shields alone do not provide adequate protection.

### **WARNING:**

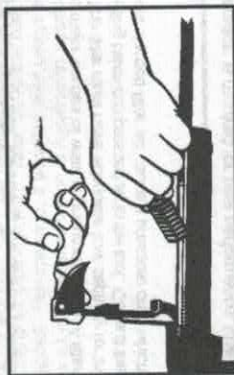
#### TO PREVENT ACCIDENTAL INJURIES:

- Never place a hand or any other part of the body in nail discharge area of tool while the air supply is connected.
- Never point the tool at anyone else.
- Never engage in horseplay.
- Never pull the trigger unless nose is directed at the work.
- Always handle the tool with care.
- Do not pull the trigger or depress the trip mechanism while loading the tool.

## MIIIFN

### STAPLE LOADING:

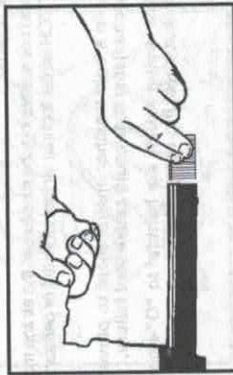
Pull cover open. Insert stick of staples. Push cover forward until the detent pin snaps into place, locking the cover. The tool is now ready to operate.



## MIIIFN

### NAIL LOADING:

Insert nails. Pull pusher assembly back to engage pusher to strip of nails. Tool is now ready to operate.



NOTE: Use only nails recommended for use in BOSTITCH MIIIFN nailers or nails which meet the BOSTITCH specifications.

## BEFORE HANDLING OR OPERATING THIS TOOL:

- I. READ AND UNDERSTAND THE WARNINGS CONTAINED IN THIS MANUAL.
- II. REFER TO "TOOL SPECIFICATIONS" IN THIS MANUAL TO IDENTIFY THE OPERATING SYSTEM ON YOUR TOOL.

## IN ADDITION TO THE OTHER WARNINGS CONTAINED IN THIS MANUAL OBSERVE THE FOLLOWING FOR SAFE OPERATION

- Use the BOSTITCH pneumatic tool only for the purpose for which it was designed.
- Never use this tool in a manner that could cause a fastener to be directed toward the user or others in the work area.
- Do not use the tool as a hammer.
- Always carry the tool by the handle. Never carry the tool by the air hose.
- Do not alter or modify this tool from the original design or function without approval from BOSTITCH
- Always be aware that misuse and improper handling of this tool can cause injury to yourself and others.
- Never clamp or tape the trigger or contact trip in an actuated position.
- Never leave a tool unattended with the air hose attached.
- Do not operate this tool if it does not contain a legible WARNING LABEL.
- Do not continue to use a tool that leaks air or does not function properly. Notify your nearest BOSTITCH representative if your tool continues to experience functional problems.

## MAINTAINING THE PNEUMATIC TOOL

**WARNING:** When working on air tools, note the warnings in this manual and use extra care evaluating problem tools.

**CAUTION:** Pusher spring (constant force spring). Caution must be used when working with the spring assembly. The spring is wrapped around, but not attached to, a roller. If the spring is extended beyond its length, the end will come off the roller and the spring will roll up with a snap, with a chance of pinching your hand. Also the edges of the spring are very thin and could cut. Care must also be taken to insure no permanent kinks are put in the spring as this will reduce the springs force.

## REPLACEMENT PARTS:

BOSTITCH replacement parts are recommended. Do not use modified parts or parts which will not give equivalent performance to the original equipment.

## ASSEMBLY PROCEDURE FOR SEALS:

When repairing a tool, make sure the internal parts are clean and lubricated. Use Parker "O"-LUBE or equivalent on all "O"-rings. Coat each "O"-ring with "O"-LUBE before assembling. Use a small amount of oil on all moving surfaces and pivots. After reassembly add a few drops of BOSTITCH Air Tool Lubricant through the air line fitting before testing.

## AIR SUPPLY-PRESSURE AND VOLUME:

Air volume is as important as air pressure. The air volume supplied to the tool may be inadequate because of undersize fittings and hoses, or from the effects of dirt and water in the system. Restricted air flow will prevent the tool from receiving an adequate volume of air, even though the pressure reading is high. The results will be slow operation, misfeeds or reduced driving power. Before evaluating tool problems for these symptoms, trace the air supply from the tool to the supply source for restrictive connectors, swivel fittings, low points containing water and anything else that would prevent full volume flow of air to the tool.

# MAINTAINING THE MIII SERIES TOOLS

## TO REPLACE PISTON:

- Insert the flats on the lower end of the driver piston stem carefully into the end of piston and plunger wrench, BC1009.
- Using another special wrench, BC1009, or another wrench of the proper size, unscrew the plunger from the upper end of the stem. After this is done, it will be possible to lift the poppet off the stem.
- Place the special wrench, BC1009, down over the piston stem onto the driver piston, locking the piston ears in the slots in the wrench. Unscrew the piston from the stem.

## TO REPLACE DRIVER:

- It is not necessary to disassemble the piston-poppet-driver assembly to replace the driver. Pull the poppet up on the driver piston stem as far as it will go.
- Insert special wrench, BC1009, over the driver piston, locking the piston ears in the slots in the wrench. Unscrew the piston from threaded portion of the stem.
- To remove the driver blade from the piston stem, push the driver blade pin out of the stem. This will release the blade.
- Insert new driver blade into the slot in the end of the driver piston stem and assemble the driver blade pin. Test the side play in the driver blade by grasping the driver piston stem in one hand and the blade in the other and moving the blade sideways in alignment with the slot in the stem. There should be a small amount of side play in the blade. This is necessary to take care of any slight misalignment between the blade and guide in the nose. If there is no side play, the blade should be removed and the top (pin end) just barely dressed off with a stone. It is not necessary to do more than smooth off the top to get the necessary side play. Do not grind. Reinsert the blade and pin in the stem and test for side play once more. Repeat as necessary to get this small amount of side play. Carefully examine the large threaded portion of the piston stem. A nylon lock can be seen imbedded in a recessed hole in the stem. It is very important that this nylon lock can be replaced when its locking efficiency has been reduced through several disassemblies of the piston. It is necessary to use the sharp point of a knife, or some such instrument, to remove this nylon lock. Insert a new one by setting it into the recessed hole in the stem, and tapping it gently until firmly seated. Reverse these instructions to reassemble.
- Assemble plunger flush with end of piston stem.

## TO REPLACE PILOTED VALVE SEALS:

- Remove exhaust deflectors and four hex socket head cap screws holding cap to cylinder. Remove cap, exposing the poppet piston and piloted valve.
- Remove gasket, piloted valve seat, piloted valve, spring and O-rings.
- Clean all O-ring grooves. Lubricate new O-rings, and assemble.
- After new O-rings have been assembled to piloted valve, insert spring into valve body. Lay tool on its side and slide valve into position. Turn tool upright and replace gasket.
- After new O-ring has been assembled to valve seat, slide it through the gasket and over the piloted valve.
- Insert new O-ring in stepped hole in cap directly over piloted valve. Assemble cap using four socket head cap screws and replace exhaust deflectors.

## MIIIFS

### TO REPLACE WEAR PLATE OR BLADE GUIDE:

- Separate the magazine from the nose by removing four socket head cap screws.
- Remove and replace Wear Plate or Blade Guide.

### TO REPLACE DETENT SPRING, OR PUSHER SPRING:

- Remove Magazine.
- Set the magazine down on a flat surface. Cup palm over the hooked end of the cover to prevent the detent pin and the detent pin spring from popping out and being lost when cover is removed. Turn the magazine upside down and reach in with a small screwdriver, or needle nose pliers, and lift the pusher spring off the pusher. Slide cover out the BACK end of the magazine.
- To remove the springs from the magazine, use a 3/32" (2.4mm) pin punch and drive the spring anchor pin out of the magazine body. Replace and reverse the instructions to reassemble.

## MIIIFN

### TO REPLACE WEAR PLATE OR DRIVER GUIDE:

- Remove the three socket head cap screws holding the wear plate and driver guide to the magazine assembly.
- Pull the pusher assembly back to disengage from the wear plate.
- Remove and replace the wear plate and driver guide.

### TO REPLACE the PUSHER SPRING ASSEMBLY:

- Remove the three socket head cap screws holding the wear plate and driver guide to the magazine assembly.
- Remove the four socket head cap screws holding the magazine assembly halves together.
- Remove two of the flat head cap screws holding the plastic spacer to the bottom of the magazine assembly. Note: remove both screws from the same magazine half.
- Remove the socket head cap screws holding the pusher handle to the pusher assembly.
- Remove the shoulder screw holding the pusher drum to the magazine.
- Replace the pusher assembly.

# TROUBLE SHOOTING

## PROBLEM

Trigger valve housing leaks air  
Trigger valve stem leaks air  
Frame/nose leaks air

Frame/cap leaks air

Failure to cycle

Lack of power; slow to cycle

Slipping fasteners; intermittent feed

## CORRECTION

Replace O-ring  
Replace trigger valve assembly  
Tighten and recheck  
Replace O-ring or gasket  
Replace bumper  
Replace gasket or seal  
Replace bumper  
Tighten and recheck

Check air supply equipment  
Use BOSTITCH Air Tool Lubricant

Replace O-rings  
Replace cylinder cap spring  
Disassemble/Check/Lubricate  
Use BOSTITCH Air Tool Lubricant  
Replace cap spring

Check bumper, head valve spring, muffler  
Replace trigger assembly  
Disassemble nose/driver to clean  
Disassemble to correct  
Disassemble/lubricate

Check air supply equipment  
Replace bumper  
Disassemble and clean nose and driver

Worm bumper  
Tar/dirt in driver channel  
Air restriction/inadequate air flow through

quick disconnect socket and plug

Worm piston O-ring

Tool dry, lacks lubrication

Damaged pusher spring

Low air pressure

Loose magazine nose screws

Fasteners too short for tool

Bent fasteners

Wrong size fasteners

Leaking head cap gasket

Trigger valve O-ring cut/worn

Broken/chipped driver

Dry/dirty magazine

Worn magazine

Fasteners jam in tool

Driver channel worn

Wrong size fasteners

Bent fasteners

Loose magazine/nose screws

Broken/chipped driver

Replace quick disconnect fittings

Replace O-ring, check driver

Use BOSTITCH Air Tool Lubricant

Replace spring

Check air supply system to tool

Tighten all screws

Use only recommended fasteners

Discontinue using these fasteners

Use only recommended fasteners

Tighten screws/replace gasket

Replace O-ring

Replace driver (check piston O-ring)

Clean/lubricate use BOSTITCH Air Tool Lubricant

Replace magazine

Replace nose/check door

Use only recommended fasteners

Discontinue using these fasteners

Tighten all screws

Replace driver