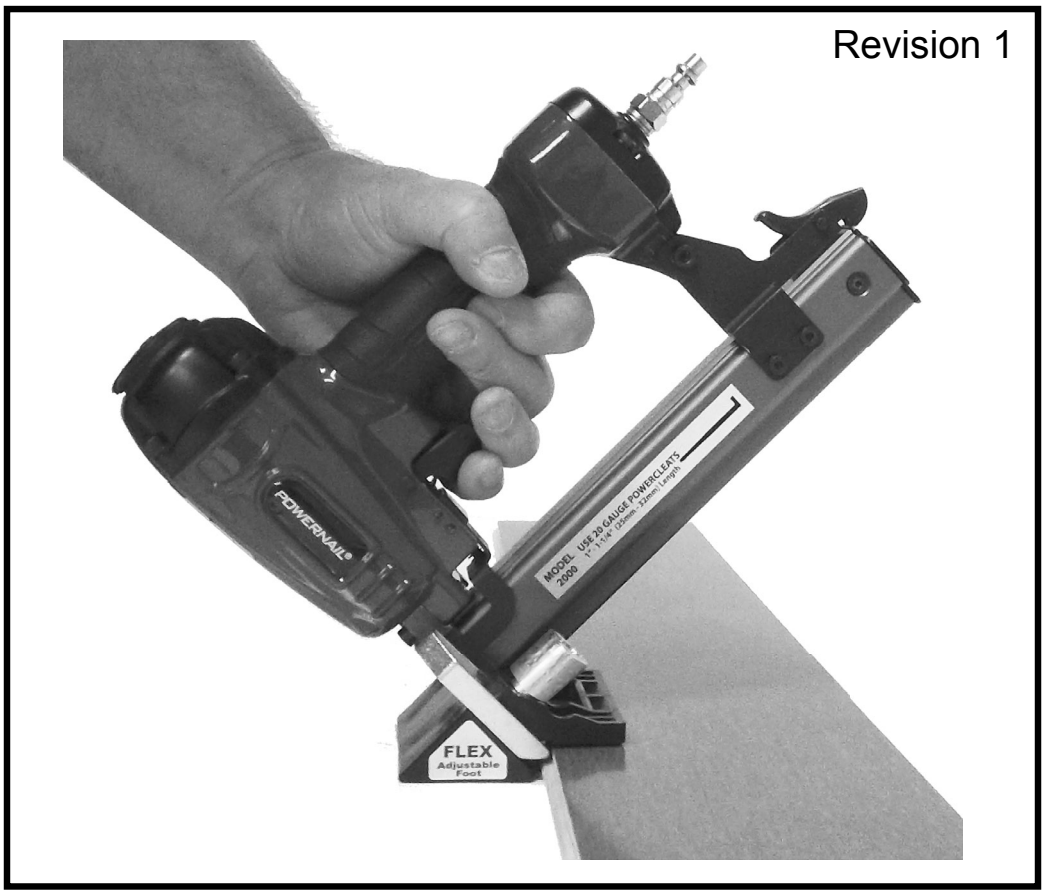
POWERNAIL® CO.

Model 2000 Pneumatic Powernailer™



OPERATION AND MAINTENANCE MANUAL
MANUAL DE OPERACION Y DE MANTENIMIENTO
MANUEL D'INSTRUCTIONS ET D'ENTRETIEN

WARNING

Read this manual before you use this Powernailer®. Follow all safety warnings and instructions. If you are uncertain about the operation of the nailer, call us directly at 1-800-323-1653 for assistance or contact the closest Powernail Dealer for help. Please retain this information for future reference.

REV 24.03.19

INTRODUCTION

The Model 2000 trigger-pull nailer is designed to bring Powernail quality and flooring expertise to a pneumatic nailer. The Model 2000 is designed for use with 1" and 1-1/4", 20 gauge L-Cleat Powernails®. The Model 2000 nails from 5/16" to 9/16" flooring through the use of a FLEX adjustable foot assembly that can be adjusted to fit different flooring profiles.

INDEX

Index.....	2	Troubleshooting Chart.....	9
Warranty.....	2	Schematic / Parts List.....	10-11
Operating the tool.....	4-6	Nail Depth Chart.....	12
Air Supply.....	5	Phone Support.....	12
Safety Labels.....	7	Web Site.....	12
Maintenance.....	7	Powernail Company Info.....	12
Clearing a jam.....	8		

LIMITED WARRANTY

POWERNAIL® Company, Inc. warrants to its customer, and to the first end-use purchaser of POWERNAIL Model 2000 POWERNAILER purchased from an authorized POWERNAIL distributor, that each serialized manufactured Model 2000 POWERNAILER by POWERNAIL®, for a period of 12 months from the date of purchase; shall be free of defects in materials and workmanship and will meet POWERNAIL'S specifications in effect at the time of product shipment. POWERNAIL will repair or replace, at its option, any Model 2000 POWERNAILER that does not conform to this warranty. Claims must be made no later than fifteen (15) days after the end of the warranty period. POWERNAIL will perform all repair or replacements itself or through its authorized contractors. POWERNAIL is not responsible for shipping, labor or other direct or indirect costs. Damage caused by abuse, misuse, unusual or excessive wear is excluded. Repair or modification of the Products by unauthorized parties will void this warranty. The customer is responsible for returning Products to POWERNAIL for verification of nonconformance. Warranties for Products not manufactured by POWERNAIL are limited to warranties provided to POWERNAIL by the manufacturer of such product that are assignable to customer.

THESE WARRANTIES AND REMEDIES ARE EXCLUSIVE OF ALL OTHERS, EXPRESS OR IMPLIED. THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PURPOSE ARE EXPRESSLY EXCLUDED. IN NO EVENT SHALL POWERNAIL'S LIABILITY FOR A WARRANTY CLAIM EXCEED THE PRICE PAID TO POWERNAIL FOR THE NONCONFORMING PRODUCT, REGARDLESS OF THE FORM OR BASIS OF THE CLAIM OR CAUSE OF ACTION.

SAFETY INSTRUCTIONS

When operating this Nailer, the operator and others in the work area should ALWAYS wear approved SAFETY GLASSES, with front and side eye protection. Eye protection will help guard against flying nails and debris, which could cause severe eye injury.

EAR PROTECTION should be used to prevent hearing damage when there are high noise levels in the work area. ALWAYS use ear plugs with a noise reduction rated at 29 db or higher at a construction site.

Nailer noise ratings are at LPA-1sd=90.6,
LWA-1sd=99.3 and LPA-1s,1m=86.3.
Nailer vibration rating: m/s2=3.05.

Always **DISCONNECT THE AIR SUPPLY** before making any adjustments, repairing, clearing jams or when the Nailer is not in use. Do not use on scaffolding or ladders and disconnect nailer from air supply when transporting between installation areas.

Never attach the female end of a quick disconnect to the Nailer. This will trap air inside the Nailer and permit it to be discharged. Only the unrestricted male connection should be attached to the Nailer.

Nailer requires an air source that can continuously deliver 70 to 110 psi at 3-1/2 cubic feet of air per minute for operation.
Normal air pressure should not exceed 110 psi or damage to the Nailer and seals may occur. Excess air pressure can cause the Nailer to explode.

To prevent fire or explosion, use only regulated compressed air—do not use bottled gases of any kind (no oxygen or combustible gasses) to power this Nailer.

Nailer is intended for use installing wood flooring and is not to be used for purposes not specified in the operations manual.

Do not use any nails other than Powernail® Powercleats which are 20 gage L-cleat nails specifically designed for use in any 20 gage Powernailer. Powercleat nails are available in lengths of 1” and 1-1/4”. Contact your Powernail Dealer for the correct Powercleats for the Model 2000.

Use only Powernail replacement parts in the repair or maintenance of this nailer. Parts or repair services are available from the manufacturer or from agents authorized by the manufacturer. Repairs should be carried out only by trained service personel in the field of fastener driving tools who will observe proper safety controls while performing maintenance. Service personel should be qualified to assess the safe working condition of fastener driving tools.

Always make sure Nailer is empty of nails before connecting air hose, so as to prevent any accidental discharge from occurring. ONLY CONNECT AIR TO AN UNLOADED NAILER.

Do not depress the trigger when loading. If the fasteners are jammed, disconnect the tool from the air supply before you remove the jammed nails.

Never place any part of the body in the discharge path of the Nailer when air is connected to the Nailer. Never point the tool at yourself or others, even if the tool is not loaded. For safety, keep out of reach of children. Never leave the Nailer unattended while it is connected to an air supply.

Do not fire into hard materials or attempt to use on hard or brittle material such as concrete, steel or tile. Before using this tool, carefully check that all parts are working correctly. Do not use the tool if it is not operating correctly, check for causes and adjust as necessary for proper operation. When not in use, the tool should be cleaned, fully assembled and then stored in a dry location. This will extend the life of the tool and reduce any oxidation.

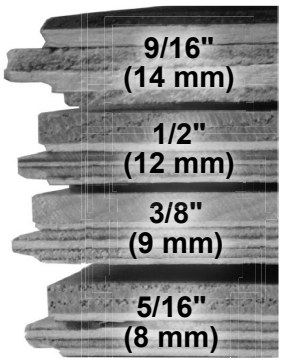
OPERATION

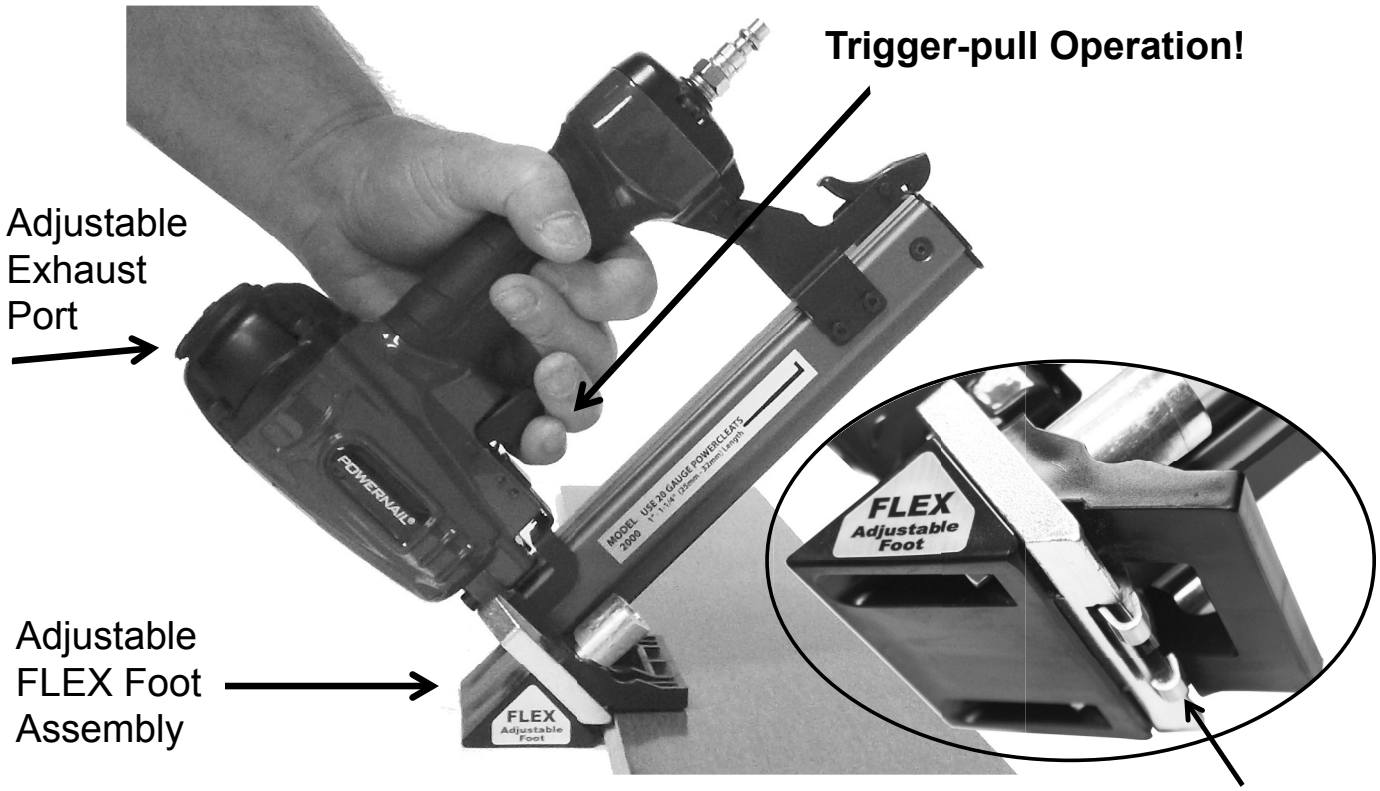
The Model 2000 nails down flooring from 5/16” to 9/16” using the Powernail FLEX adjustable foot assembly that can be adjusted to fit different flooring profiles.

To use the Model 2000, simply snug up the flooring, pull the trigger and let the nailer drive and set the nail at the correct 45 degree angle.

The unique body design allows for different grip angles and has an adjustable exhaust port to redirect nailer exhaust.

The Model 2000 installs tongue and groove flooring from 5/16” to 9/16”





OPERATION, *continued...*

FOOT ADJUSTMENT / NAIL LOCATION

Loosen both adjusting knobs (#76, See Figure 1.)

Hold nailer on a piece of sample flooring to be installed.

Adjust the foot rest (#74) so it lays flat on the finished surface of the flooring (Figure 1).

Lightly snug both adjusting knobs (#76).

Push down on the support shoe (#73) so it lays flat on the sub floor.

Tighten both adjusting knobs (#76).

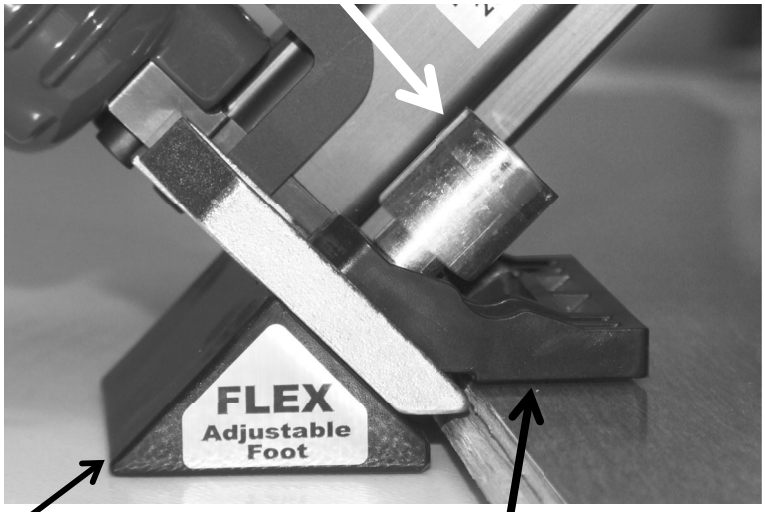
Test the adjustment by nailing down a sample piece of flooring.

Re-adjust the foot if necessary so that the nail insertion point enters the center of the flooring nail pocket. (Figure 4).

Figure 1.

Adjust the foot to a sample of your wood.

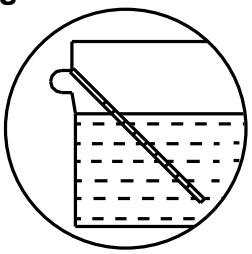
76. Adjusting Knobs (2)



73. Support Shoe

74. Foot Rest

Figure 4.



CONNECTING THE TOOL TO AN AIR SUPPLY

Your air tool is fully assembled when you receive it. Before using it, attach the air line and desired air system accessories. Be sure the air hose is depressurized when installing or removing adapters to the air line. To prevent misfire, do not connect air to a loaded nailer.

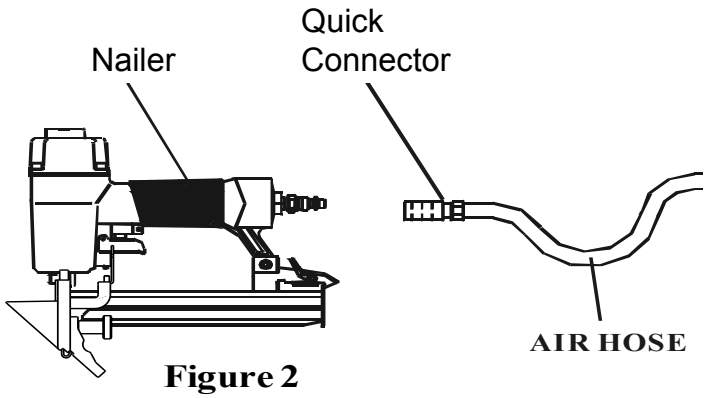


Figure 2

1. An automatic airline oilier is recommended but oil may be added manually before every operation or after about 1 hour of continuous use.

2. Place two (2) drops of air-tool oil in the air plug as shown (Figure 3). If you are using an automatic in-line oiler, check and add oil if necessary.

3. Turn your compressor on and set the compressors pressure regulator to the proper pressure for the size and type of fastener being used. Normal operating pressure should be adjusted between 70-110 psi based on fastener and wood being used.

4. Connect the tool to the air supply (Figure 2).

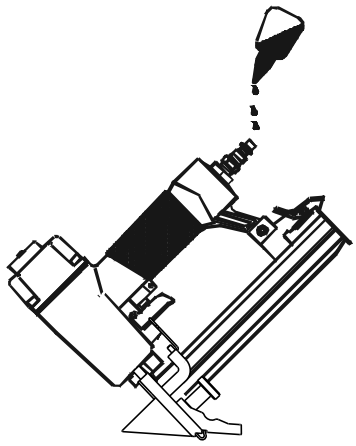


Figure 3

LOADING THE FASTENERS

1. Depress the LOCK (61) to release the MOVABLE CHANNEL GUIDE (44) and slide the channel guide out fully as shown in Figure 5.

2. Place a full stick of 1” or 1-1/4” 20 gage Powercleats into the FIXED CHANNEL (43).
Lay the stick of nails with the L-shape facing inward towards the center of the channel (See Figure 6).

3. Slide the MOVABLE CHANNEL GUIDE (44) forward until it is locked.

Figure 5.

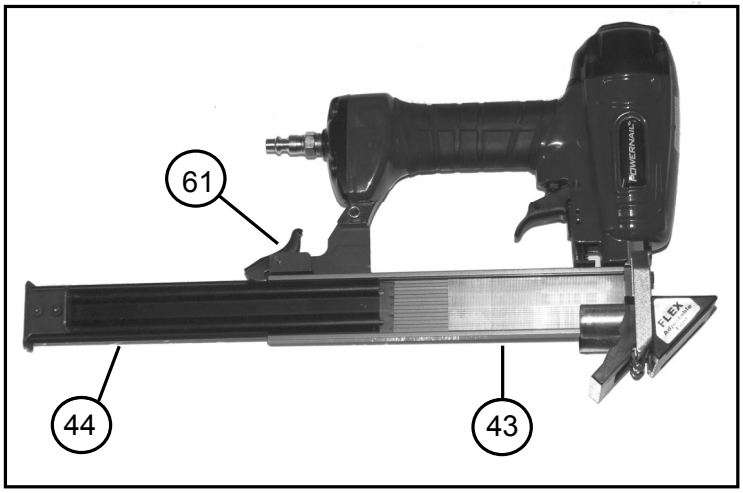
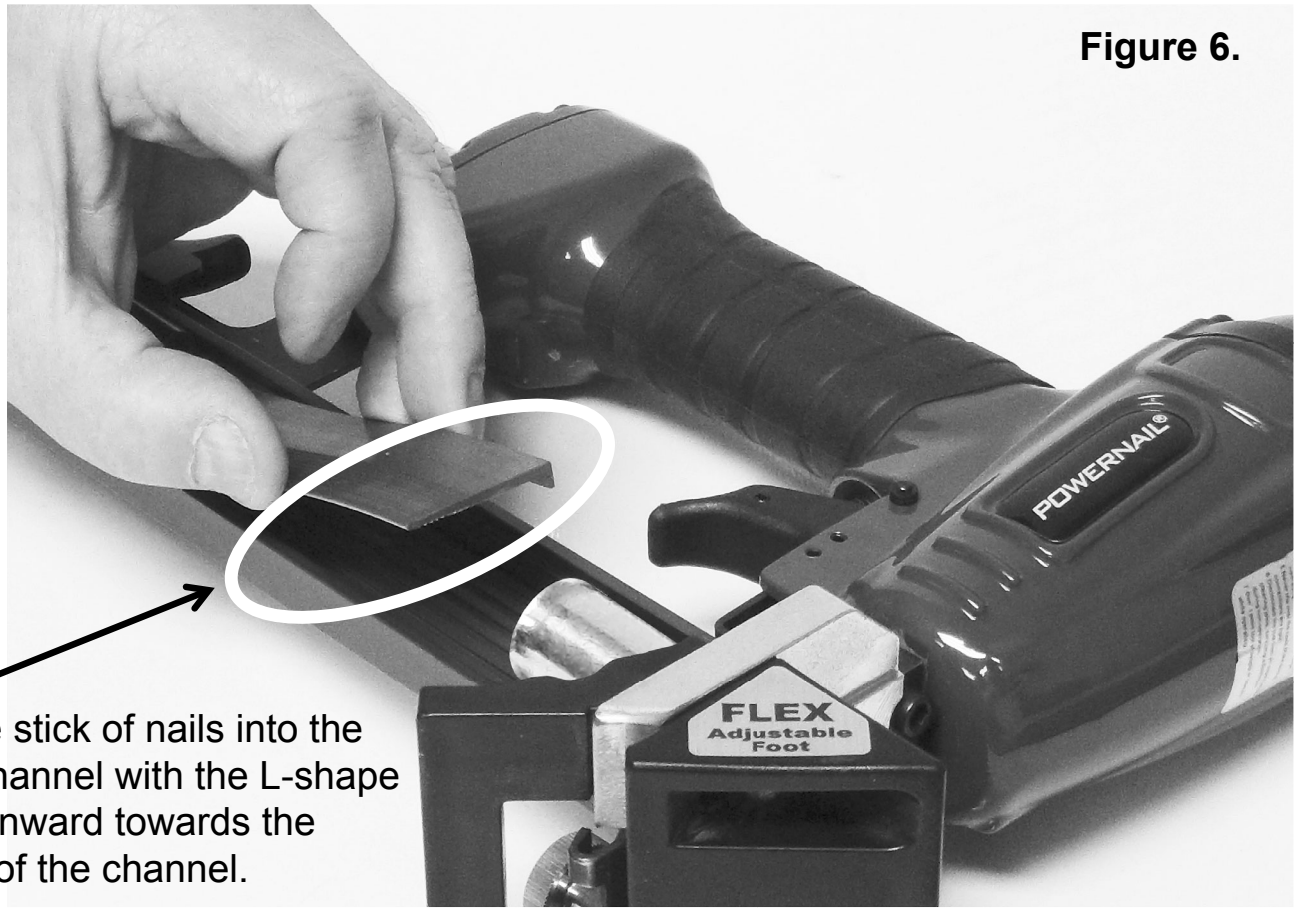


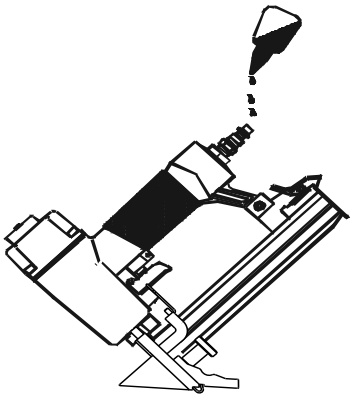
Figure 6.



Lay the stick of nails into the fixed channel with the L-shape facing inward towards the center of the channel.

MAINTENANCE

REGULAR MAINTENANCE



1. Frequent, but not excessive, lubrication is required for best performance. Oil added through the airline connection will lubricate internal parts. An automatic airline oilier is recommended but oil may be added manually before every operation or after about 1 hour of continuous use.

Only a few drops of oil at a time are necessary. Too much oil will collect inside the tool and be blown out during the exhaust cycle. ONLY USE PNEUMATIC TOOL OIL. Do not use detergent oil or additives, as these lubricants will cause accelerated wear to the seals in the tool.

2. Use a small amount of oil on all moving surfaces and pivots.

3. Dirt and water in the air supply are major causes of pneumatic tool wear. Use a filter/oiler for better performance and longer life. The filter must have adequate flow capacity for the specific application. Consult the manufacturer's instructions for proper maintenance of your filter.

4. Keep tools clean for better and safer performance. Use nonflammable cleaning solutions only if necessary. CAUTION: Soaking the tool may damage O-rings and other tool parts.

NAILER SAFETY LABELS

Operating Pressure
70 - 100 psi

WARNING!

1. Read and understand operating manual before using.
2. Operator and all the by-standers must wear ANSI approved safety glasses, ear and head protections.
3. Never use oxygen or other flammable gases. Only choose clean dry regulated compressed air below 110 PSI pressure.
4. Remove finger from trigger while not operating.
5. Never trip over the hose. Make sure all connections are tight.
6. Disconnect the tool from air supply before clearing jams, serviceing, adjusting or during non-operation.
7. Don't point tool at people or animals while operating.

MODEL 2000 **USE 20 GAUGE POWERCLEATS**
1" - 1-1/4" (25mm - 32mm) Length

CLEARING A JAM

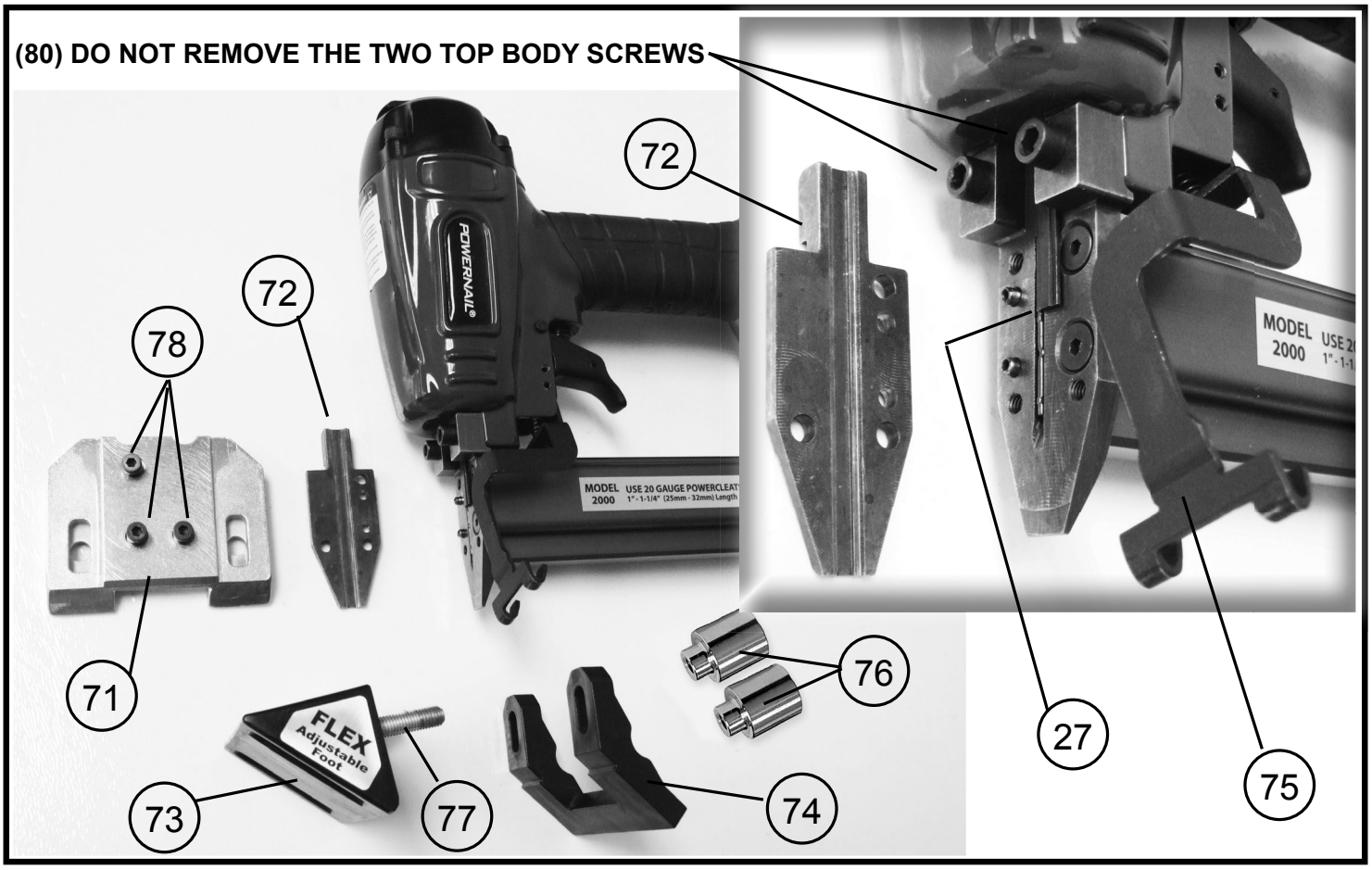
Disassembly: (See Figure 7.)

1) **NOTE: Do not remove the two M5 screws (80).**
2) Remove the two adjusting knobs (76) and cap screws (77).
3) Remove the support shoe (73) and foot rest (74).
4) Remove three M4 screws (78) with a 3mm allen wrench and lift off foot (71).
5) Slide the safety arm (75) to the side.
6) Lift the gate plate (72) off to clear the jam and inspect the drive blade (27) and its path.

Reassembly:

1) Make sure the drive blade (27) is centered and re-install the gate plate (72).
2) Slide the safety arm (75) back on top of the gate plate (72).
3) Install foot (71) on top of safety arm (75) and gate plate (72).
4) Install three M4 screws (78) and tighten.
5) Install support shoe (73), foot rest (74), cap screws (77), and adjusting knobs (76).

Figure 7.



TROUBLE SHOOTING CHART

Here are some common issues that may occur during use.
If the nailer is not working as it should, stop using the tool immediately and resolve the issue before continuing.

	PROBLEM	POSSIBLE CAUSE	SOLUTION
1	Air leaking at Trigger area	1. O-ring (31) in trigger valve is damaged. 2. Trigger valve head (30) is damaged. 3. Trigger valve stem (35), seal (29) or O-ring (31) is damaged.	1. Check and replace O-ring. 2. Check and replace trigger valve head. 3. Check and replace trigger valve stem, seal or O-ring.
2	Air leaking between body and drive guider	Damaged bumper (22).	Check and replace bumper.
3	Air leaking between body and cylinder cap	1. Screw loose (5). 2. Damaged gasket (8).	1. Tighten screws. 2. Check and replace gasket.
4	Blade driving fastener too deeply	1. Worn bumper (22). 2. Air pressure is too high	1. Replace bumper. 2. Adjust the air pressure.
5	Runs slowly or has loss of power	1. Insufficient oil. 2. Insufficient air supply. 3. Broken spring in cylinder cap (8a). 4. Exhaust port (3) in cylinder cap is blocked	1. Lubricate as instructed 2. Check air supply. 3. Replace spring. 4. Replace damaged internal parts.
6	Tool skips a fastener	1. Worn bumper (22) or damaged spring (57). 2. Dirt in gate (50). 3. Inadequate airflow to tool. 4. Worn or dry O-ring (17) on piston. 5. Cylinder cap seal leaking (8).	1. Replace bumper or pusher spring. 2. Clean drive channel of front plate. 3. Check hose and compressor fittings. 4. Replace O-ring or lubricate. 5. Replace seal.
7	Fasteners are jammed (see page 8)	1. Joint guider is worn (24). 2. Fasteners are wrong size or damaged. 3. Magazine or front plate screws are loose (78). 4. Blade (27) in piston assembly is damaged.	1. Replace joint guider. 2. Use the recommended and undamaged fasteners. 3. Tighten screws. 4. Replace piston assembly.
8	Tool will not drive down tight	1. Worn blade in piston assembly. 2. Lack of power. 3. Slow cycling and loss of power.	1. Replace piston assembly. 2. Adjust to adequate air pressure. 3. Check cylinder cap spring for broken coils or reduced length. Check if exhaust port of cylinder cap is restricted.

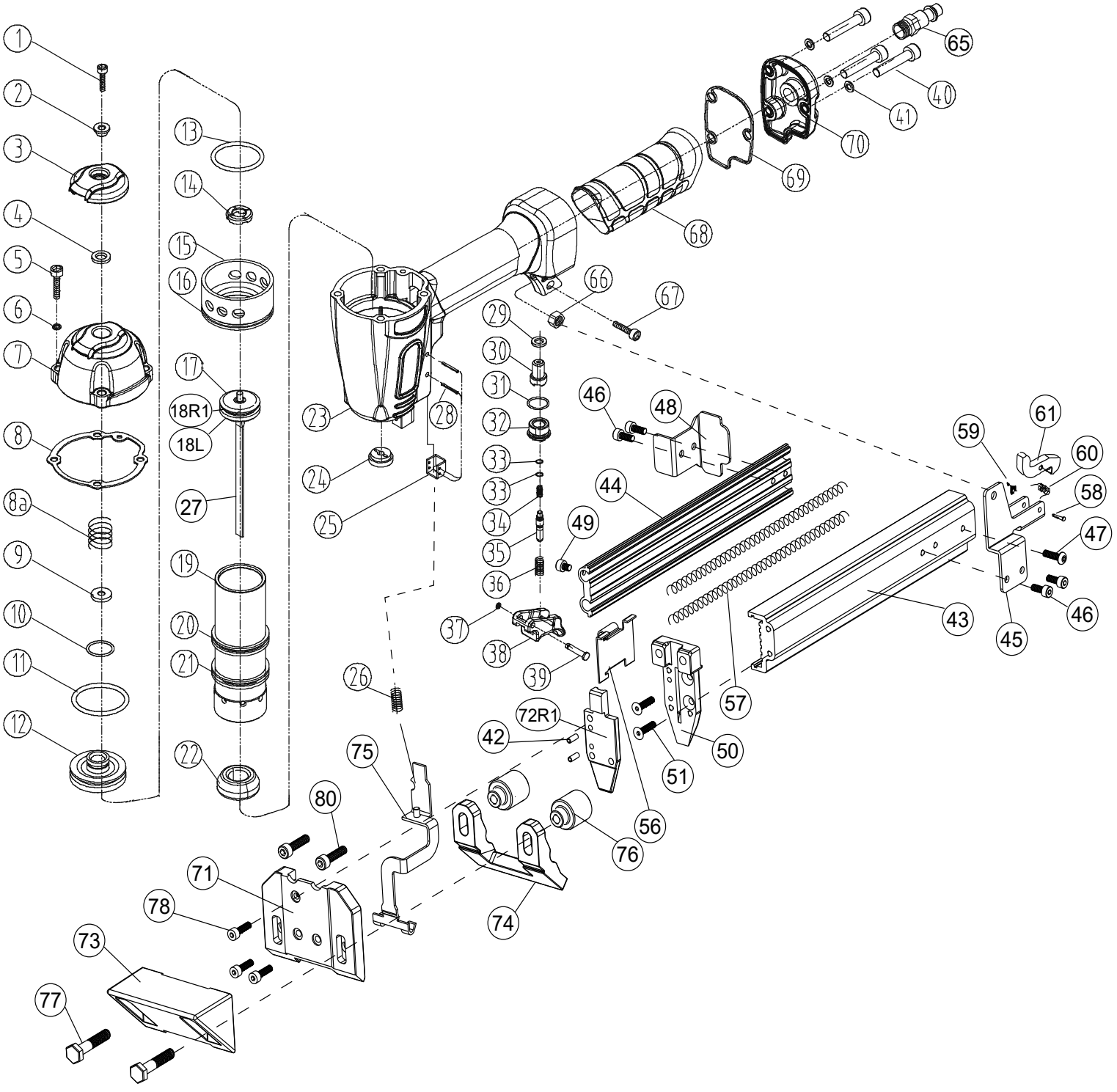
MODEL 2000 PARTS LIST

ITEM	DESCRIPTION	Avail.	PART #
1	SCREW M4 x 10mm		n/a
2	BUSHING		n/a
3	EXHAUST COVER		n/a
4	WASHER		n/a
5	SCREW M5 x 20mm		n/a
6	SPRING WASHER 5		n/a
7	CYLINDER CAP		09-20FN2007
8	GASKET	S	09-20FN2008
8a	SPRING		09-20FN20082
9	VALVE SEAT		09-20FN2009
10	O-RING 15.7 x 2	KIT	09-20FN2010
11	O-RING 38.8 x 3	KIT	09-20FN2011
12	VALVE		09-20FN2012
13	O-RING 33.5 x 3.5	KIT	09-20FN2013
14	STOPPED WASHER		n/a
15	COLLAR		n/a
16	O-RING 50.5 x 2.5	KIT	09-20FN2016
17	O-RING 28.3 x 3	KIT	09-20FN2017
18	Obsolete: Use #18R1 or #18L for Driveblad & Gate (R1)		
18R1	Piston-Driveblade Assembly (Revision 1 Assembly)	S	09-20FN2018R1
18L	KIT: Piston-Driveblade (R1) with Revision 1 Gate Plate Included		09-20FN2018L
19	CYLINDER	S	09-20FN2019
20	O-RING 36.3 x 2.5	KIT	09-20FN2020
21	O-RING 35.3 x 2.5	KIT	09-20FN2021
22	BUMPER	S	09-20FN2022
23	BODY		n/a
24	JOINT GUIDE	S	09-20FN2024
25	SAFE GUIDE		n/a
26	SPRING	S	09-20FN2026
27	DRIVE BLADE	n/a	See #18
28	SPRING PIN 3 x 26		n/a
29	SEAL		n/a
30	TRIGGER VALVE HEAD		n/a
31	O-RING 15 x 1.9		n/a
32	TRIGGER VALVE GUIDE		n/a
33	O-RING 5.5 x 1.5		n/a
34	SPRING		n/a
35	TRIGGER VALVE STEM		n/a
36	SPRING		n/a
37	WASHER	S	09-20FN2037

ITEM	DESCRIPTION	Avail.	PART #
38	TRIGGER ASSEMBLY		n/a
39	TRIGGER PIN		n/a
40	SCREW M4 x 16mm		n/a
41	WASHER		n/a
42	.125 DIA x .312 ROLL PIN	S	09-20FN2042
43	CHANNEL	S	09-20FN2043
44	CHANNEL GUIDE	S	09-20FN2044
45	CHANNEL BRACKET	S	09-20FN2045
46	M4-0.7 x 10mm S.H.C.S. (CH BRACKET & PLATE)	S	09-20FN2046
47	M4-0.7 x 14mm B.H.C.S. (PUSHER STOP)	S	09-20FN2047
48	LOCK PLATE	S	09-20FN2048
49	M4-0.7 x 5mm S.H.C.S.	S	09-20FN2049
50	GATE	S	09-20FN2050
51	M4-0.7 x 16mm F.H.C.S.(w/patch)	S	09-20FN2051
56	NAIL PUSHER	S	09-20FN2056
57	SPRING	S	09-20FN2057
58	LOCK PIN	S	09-20FN2058
59	LOCKING WASHER	S	09-20FN2059
60	TORSION SPRING	S	09-20FN2060
61	LOCK	S	09-20FN2061
65	AIR PLUG		n/a
66	NUT M5		09-20FN2066
67	M5-0.8 x 18mm S.H.C.S. (Bracket)	S	09-20FN2067
68	SOFT GRIP SLEEVE		n/a
69	GASKET		n/a
70	END CAP		n/a
71	FOOT	S	09-20FN2071
72	Obsolete: Use either #72R1 or #18L Kit		See #72R1
72R1	Gate Plate -Revision 1 Gate Plate only fits with #18R1 Driveblade.		09-20FN2072R1
73	SUPPORT SHOE	S	09-20FS5073
74	FOOT REST	S	09-20FS5074
75	SAFETY	S	09-20FN2075
76	KNOBS - FOOT REST	S	09-20FS5076
77	1/4-28 x 1-1/4” CAP SCREW	S	09-20FS5077
78	M4-0.7 x 14mm S.H.C.S.	S	09-20FN2078
80	M5-0.8 x 20mm S.H.C.S.	S	09-20FS5080
90	Model 2000 Seal Kit	S	09-20FN2090SK
KIT	Piston-Driveblade (R1) with Revision 1 Gate Plate Included		09-20FN2018L

KEY: S=Sold Separately, n/a Not available separately, KIT=Sold as part of a Kit

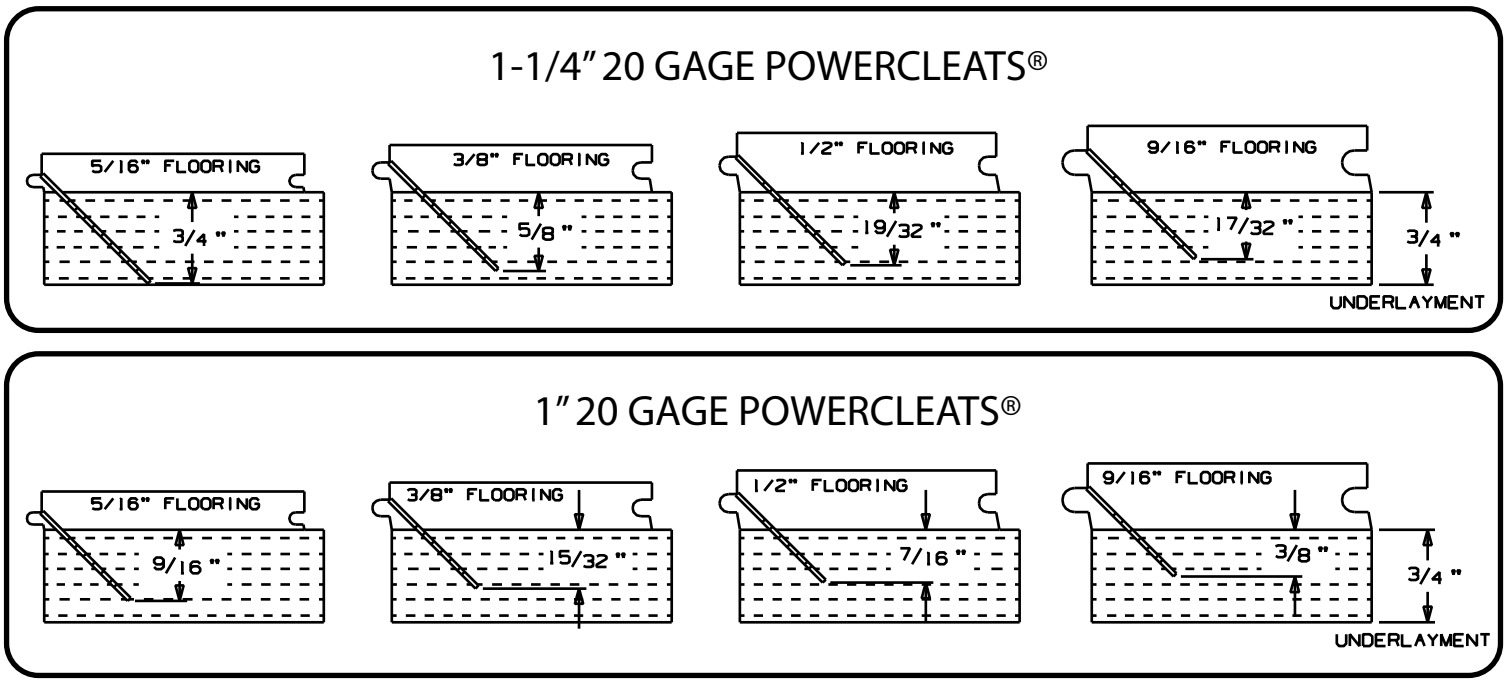
MODEL 2000 SCHEMATIC



POWERCLEATS LENGTH DETERMINATION CHART

This chart will assist you in determining the proper length of Powercleats to use for various thicknesses of flooring. Approximate vertical penetration of the Powercleat under the hardwood floor is shown for each application. This is only a guide. Results should be tested in the field before proceeding.

Nail Penetration for 3/4" Subflooring.



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