

NSDGT90FRH USER MANUAL



Universal Fastener Outsourcing

800-352-0028 or 479-443-9292 WWW.911-NAILS.COM

The **NSDGT90FRH** cordless full round head gas framer combines the convenience of a cordless tool with the power and utility of a pneumatic framing nailer. This well-balanced framing nailer has the power to complete all of your framing and sheathing job requirements. Perfect for framing crews, re-modelers, punch-out or service crews who need to un-tether from the hassle of a hose and compressor. Built with components that ensure all day durability and reliability, the **NSDGT90FRH** comes with a Ni-MH battery, battery charger, service tools, durable plastic case, and features a 2-year limited warranty.

Each tool comes complete with –

- Safety and Operating Instructions
- Ni-MH Battery
- Battery Charger
- Rafter Hook
- Rugged Carrying Case
- Service Tools
- 2-Year Limited Warranty



Applications:

Truss building, framing, sub-flooring, sheathing and decks. Other applications include crate and box assembly, pallet making and fencing. Great for any application where cordless convenience would be a benefit.

Features and Benefits:

- Cordless Convenience – No hoses, no compressors, no hassles. Navigate the job site with no restrictions
- Powerful Motor – High-voltage ignition gives you more power and cleaner combustion
- Consistent Drives In All Weather Conditions – Performs optimally between 20° to 120° Fahrenheit
- Durable Metal Magazine – Rugged design outlasts plastic
- Tool-Free, Metal Thumbwheel Depth-of-Drive – Easily control fastener depth with no tool required

Tool Specifications:

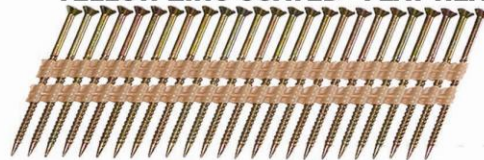
Item #: **NSDGT90FRH**
Tool Weight: 8.0 lbs (3.6 kg)
Height: 14.7" (373 mm)
Length: 14.5" (368 mm)
Width: 4.2" (107 mm)
Collation: 20 degree strip
Capacity: 32 nails
Battery: 6 volt Ni-MH
Charger: 2 hours
Fuel Cell: 40g or other compatible fuel
Mode of Operation: Sequential Trigger Mechanism Only
UPC: 741474061264
Packaged Dimension: L: 20.5", H: 18.5", L: 7", Wt: 17.25 lbs.

Fastener Specifications:

20-22° PLASTIC STRIP 1-3/4" to 3-1/2" DIA .113, .120 & .131

U.F.O. BALLISTIC NAILSCREWS®

YELLOW ZINC COATED - FLAT HEAD



SUBFLOOR &
SHEAR WALLS
*IAPMO #0133



PHILLIPS

#2 SQ. DRIVE

PT2000® (PPG1500) - COMBO TRIM HEAD



PT2000® GRAY

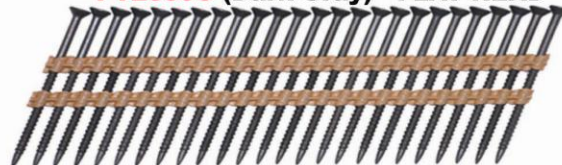
BROWN - CEDAR - GRAY - TAN



T-15 TORX HEAD



PT2000® (Dark Gray) - FLAT HEAD



305 STAINLESS STEEL - COMBO TRIM HEAD





IMPORTANT! Always read the Operators Manual and Safety Instructions
With all tools to ensure proper use and safety precautions.

USER MANUAL CONTENTS:

- ⦿ **Important Safety Rules**
- ⦿ **Operating Instructions**
- ⦿ **Installation**
- ⦿ **Maintenance**
- ⦿ **Troubleshooting**
- ⦿ **Parts List**

⦿ Important Safety Rules

General safety warning

- User must wear eye protection which conforms to ANSI specification with front and side protection against flying object; when handling, operating, and servicing the tool. It is employer's responsibility to enforce user and all other nearby personnel at worksite to wear eye protection when operating the tool.
- It is recommended to wear ear protection near or at the job site to prevent hearing damage.
- Beware of the danger of entangled clothe and hair. Do not dress loose clothing and jewelry at work. Keep your hair, clothing, and gloves away from moving part of the tool.
- Keep your finger AWAY from the trigger when the tool is not in use. This will prevent accidental fire of the tool.
- This tool is not designed to be used in explosive atmosphere. The design of this tool will generate spark and the exhaust will also cause possible danger to ignite highly flammable fuel or gas. Do not use this tool in this kind of environment. Please also not smoke while using or handling the tool and fuel cell.
- The fuel cell is high pressure liquefied gas bottle. Keep it away from spark, fire or high temp and explosive environment. Do not puncture the bottle or attempt to open the fuel cell. When the fuel used up, do not incinerate the bottle. Follow the recycle instruction on the bottle.
- Do not store the tool in temperature above 120°F (50°C). High temperature will result in explosion or fire and the release of flammable gas. When not in use, keep the tool from high temperature source or direct sun light.
- The tool needs to be used in well ventilated area. Do not inhale the exhaust or fume or the gas because they are potentially dangerous to human body.
- Keep body balance when operating the tool, do not over reach.
- Keep the tool, fuel, charger and battery out of the reach of children. The tool is dangerous in the hand of untrained person.

Tool safety warning

- Do not modify or repair the tool in any method other than the original design. The tool may function unexpectedly after the modification and cause dangerous.
- Never point the nozzle of the tool toward anyone including yourself. This tool is self-contained with power source and will be dangerous if not use with care. Always assume the tool is loaded with nail and fuel.
- Do not drive this tool over materials that are too hard or too soft. Hard materials can cause NailScrews to ricochet and hurt people, soft materials may penetrate easily and cause the nail to free fly.
- Please use only lubrication liquid specified in this manual to perform the lubrication. Use other lubrication may cause damage to the tool and the risk of malfunction that will injure the operator.
- Please keep the tool in clean condition, wipe off grease or oil after work. Do not use any solvent based cleaner to clean the tool. It is possible the solvent will deteriorate the rubber or plastic components on the tool. Greasy handle and body will cause accidental drop of the tool and injury to nearby person.
- Please use fastener specified in this manual and on the tool. Use fastener that is not compatible to the tool will cause jamming of the tool and injury to operator or nearby person.
- Do not use the tool to perform other job than designate function. Especially not use the tool as a hammer, impact on the tool will increase the risk of cracked body and accidental discharge of fastener.
- Remove the fuel cell and battery before performing maintenance, repair, cleaning and jam clearing.
- Load the fastener at last to prevent unexpected danger of loading fuel cell and battery.
- Never use the tool if the trigger and safety or springs are damaged in any way.

Fuel safety warning

- Use only the fuel cell recommended by the manufacturer. Read the Safety Data Sheet to understand more of your fuel cell contents.
- Recycle the empty fuel cell according to the local law. Do not attempt to recharge the fuel cell or incinerate the empty fuel cell.

Battery safety warning

- Use only batteries that are supplied by the manufacturer.
- Recycle the battery according to local law. Do not incinerate the battery or attempt to puncture and crush the battery.
- Do not immerse the battery into water or other fluid. Do not expose the battery to rain or snow.
- Do not expose the battery or tools loaded with battery under direct sun light exposure. Prevent to put above items at temperature higher than 120°F (50°C). Overheating the battery can result in explosion or fire.
- Do not allow direct contact of the battery nodes with metal or conductive material.

Charger safety warning

- Do not use the charger in explosive atmosphere. The electrical device is not designed to use in such environment.
- Do not charge battery outdoors or in temperatures below 40°F (5°C).
- Do not puncture or attempt to open battery case or cells.
- Do not immerse the charger into water or other fluid. Do not expose the charger under rain or snow.
- Do not use the charger if the cord is damaged or the charger is defect.
- Unplug the charger by pulling the adaptor unit, not by pulling the cord.
- Do not cover the charger with anything.
- Do not use a step up transformer or engine generator as the power source of the charger.

© Fuel cell activation Instructions

Cordless Fuel Cell Installation Procedure

Before inserting the fuel into a tool, see instructions below.

The fuel valve is already partially installed onto the can. To fully install the valve complete the following steps:

1. Press downward on the front side of the valve (Stem side) until it seats.
2. Press downward on the rear side of the valve until it seats.

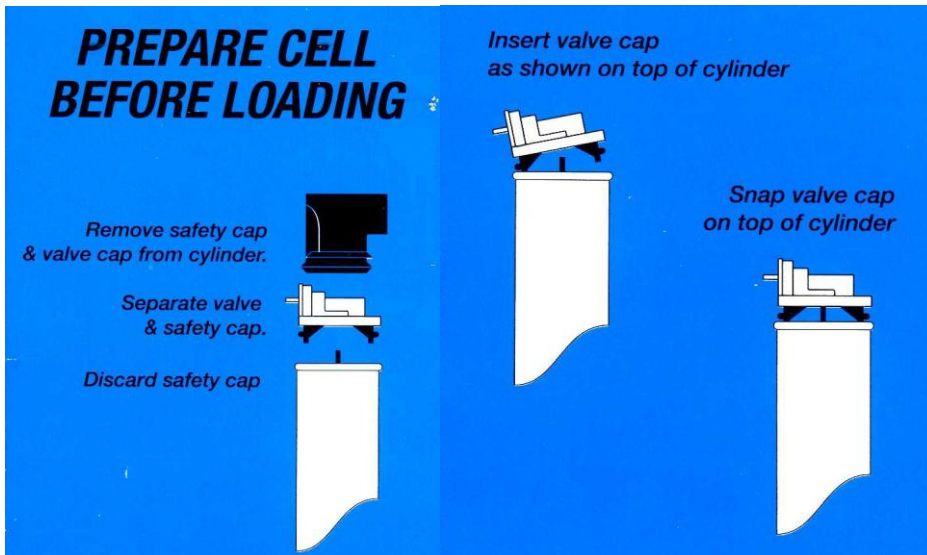
The valve is now completely seated onto the fuel can and can be inserted into the tool.



Cordless Fuel Cell Installation Procedure

Before inserting the fuel into a tool, see instructions below.

The fuel valve is already partially installed onto the can. To fully install the valve complete the following steps:



Features and Benefits

- Fuel cells tend to last about 1200 shots and have a shelf life of 18 months.

Load and unload the fuel cell

- Open the fuel cell door by pulling the door and rotate.
- Insert the fuel cell into the chamber. Align the fuel cell nozzle into the **red V** groove receiver of the fuel cell stem on the tool.
- Close the fuel cell door.

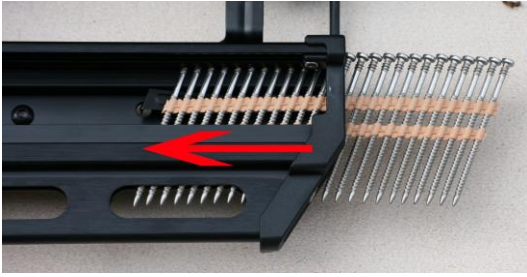


(If Incorrect REPEAT STEPS ABOVE in Fuel Cell Activation Instructions Section)

Load and unload the fastener

- Connect to battery and fuel cell before you load the fasteners. Let the Nailer cycle through once before firing first fastener.
- Point the nozzle away from any personnel and keep your finger out of trigger when loading the fastener.

- To load the nail, slide in the nail strip into the magazine until the nail strip passed the nail stopper.



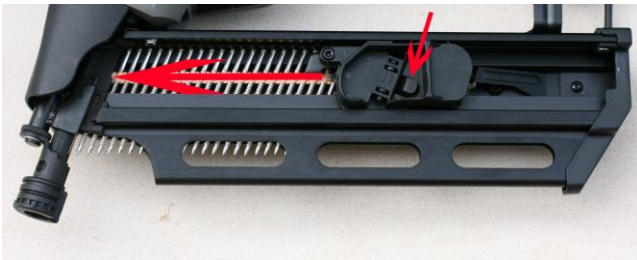
- Pull the pusher until it is beyond the stopper.



- Release the pusher to engage the nail strip and feed it into the nozzle.



- To unload the fastener from the magazine, press the release lever on the pusher and tilt the tool to slide the nail strip to the rear of the magazine.



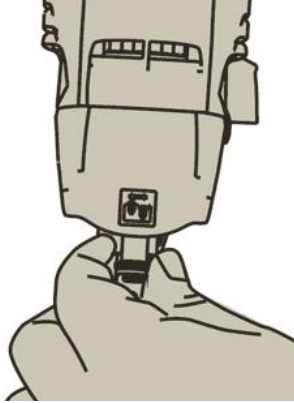
- Unload the nail strip by press the nail stopper and slide out the nail strip.



Depth of drive adjustment and no mar tip installation

- This tool is equipped with tool free depth of drive adjustment. Test the depth of drive on scrap piece before you start your work.

- Turn the knob to adjust the depth of drive.
- Repeat above procedure until you find your desired depth of drive setting.



Rubber No Mar Tip Can Be Removed



Actuate method and the steps to fire the tool

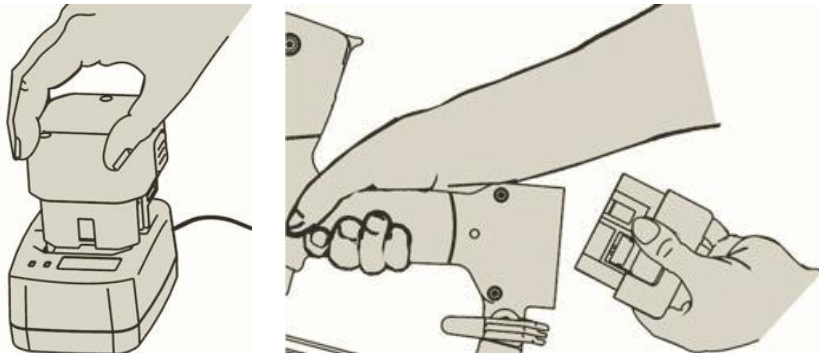
- This tool is equipped with single sequential trigger system only.
- To actuate the tool, depress the safety against the work piece, and then pull the trigger.
- To actuate the tool again, you will need to release the safety fully and release the trigger before you repeat above procedure.
- Make sure you are driving against work piece before you pull the trigger.

Jam clearing for framing tool

- In the case of nail jam, disconnect the power source (fuel cell and battery) before you perform any action.
- Use a #2 Phillips screw driver to insert into the drive channel.
- Tap the screw driver with a hammer to push back the driver blade and release the jam.
- Remove the jammed nail with needle nose pliers or similar type of tool. Do not use your hand to remove the nail.
- If you failed to remove the jammed nail by above method, remove the magazine by un-thread the connecting bolt and remove the jammed nail with needle nose pliers. Assemble the magazine back before further use.

Charge the battery and LED on tool and charger

- There is battery comes along with the tool. It will take 2 hours before the new battery can be fully charged.
- There will be no LED light when the charger is connected to electric and no battery is on the charger.
- The LED on the charger will turn red when it is charging a battery.
- The other LED will turn green when the battery is fully charged.
- In the case of battery failure, the red and green LED will blink in sequence.
- When the tool is connected to a charged battery, the LED indicator on the tool will turn green.
- If the tool is running out of battery, the indicator LED will turn red. When the LED indicator turns red, stop using the tool and replace the battery.



© Composite Deck Installation

TREX®, MOISTURE SHIELD® & CHOICEDEK® Installation with the model *NSDGT90FRH* Cordless NailScrew Driver™

Recommendations for driving the **UFO™ Composite Ballistic NailScrews®** through Composite Decking material to a wood frame or light gauge metal frame.

Best tools; UFO NailScrew® Driver *NSDGT90FRH* Cordless or UFO's *NSD9021*

1. RE: Combo Trim Head Ballistic NailScrews® (with T-15 Torx inserts in heads) for many kinds of decks including: Composite, PVC, all Treated Lumber, Cedar, Redwood and many kinds of Hardwoods from around the world. If you are using denser composites this is the best top down Ballistic NailScrew® for you. In cool or cold weather you may need 120 lbs of pressure at the tool. Most 83 series / 83 mm size tools will do the job with this newest Combo Trim Head Ballistic NailScrew®. Our larger 90 series / 90 mm tool is available if you need more power for your combination of building materials (Example tough composite boards to 14-16 gauge steel studs or Tiger wood and Ipe).
2. Composite Ballistic NailScrews® (with #2 Robertson Square Drive inserts in heads) are approved for Trex Accents and Contours as well as AERT MoistureShield and ChoiceDek. These work great in PVC boards like Azek and many others. The Ballistic NailScrew® Driver tool #NSD9021 has enough power to do tough jobs for professional use. These NailScrews® are also great for treated lumber wood decking!
3. Tips that will help your installation with Ballistic NailScrews®
 - a. Sequential fire will help keep you from double firing the tool. Depth of drive adjustments work well.
 - b. Add rubber or plastic noise piece / guard to keep from scratching softer decking materials.
 - c. Dedicated air compressor with 100 to 120 lbs of consistent pressure at the tool (adjust the compressors kick-on controls to stay within a 10 lbs range), you can reduce the pressure as needed.
 - d. Temperature will change your composite density greatly, and below 50 degrees a full size 90 mm tool might be needed to do the best installation.
 - e. Use a 3/8" diameter hose, as short as possible; 25' best or 50' maximum to get consistence driving.
 - f. Drive NailScrews® perpendicular to the decking surface and **always wear eye protection!**
 - g. Do multiple test runs with scraps of the actual materials that you intend to use before starting the deck (hot and cold weather will affect this greatly).
4. Tips that will help your removal of Ballistic NailScrews®
 - a. Best to use a low RPM Cordless Impact Driver or Drill; very strong and slower is better.
 - b. Start slow to avoid stripping the wood fibers and then speed up after about 3 revolutions (once the NailScrew® begins to reverse out of the hole).
 - c. NailScrew® can be backed out part way and then re-driven with an Impact Driver or a hammer.
 - d. More tips can be found on our web site and on the videos at www.HowToNailScrew.com

5. The finished decking look (with **NailScrew®**, driven through the Composite Decking materials) should be reviewed with customers / home owners beforehand. The **NailScrews®** smaller heads will give your customer a very clean looking deck. “The better the installer / mechanic, the better the project!”

RSDescription: CORDLESS Ballistic NailScrew Driver: Model NO. **NSDGT90FRH** color matched **Ballistic NailScrews®** thru the LifeCycle™ composites into the deluxe 16ga black powder coated steel frame and stop the drive when it is flush. This is possible, but must be done a little differently that what you may be used to when you are attaching wood to wood, so please follow these step by step rules when installing LifeCycle™ Fencing. For more information on installation of LifeCycle™ Fencing please visit (www.lifecyclefencing.com)

- Consistent power is the key to success. The cordless gas tool allows the same energy each and every time .
- The high velocity this creates is our friend. **Please understand this is where we are different than fastening to wood.** Always be sure to test fire into the actual material scraps, adjusting the depth of drive on the tool (**See Depth of drive adjustment section above**) to compensate for the excess drive.
- The **NSDGT90FRH** is designed to be sequentially fired only! First, place the nose of the tool where you want the fastener to be; this will depress the safety. Second, use the trigger to fire the tool in this sequence each and every time. The tool must be placed squarely and very firmly; try not to let the tool bounce off the work surface. This will give a more consistent drive and finished look.
- **When** you have a **Ballistic NailScrew®** that is too high or low, use a T15 Torx bit in a screw driver or impact driver to adjust the NailScrew. Go very slowly to the desired depth. High rpm will strip out the NailScrew. Go slow and you will be amazed at the results.
- This is very important! Please make sure the steel frames are set very firm--not springy or bouncy. If the frame moves much, it will cause the NailScrews to be set very inconsistently.

The **NSDGT90FRH** has very low noise level, making it ideal for installing **Ballistic NailScrews®** for Composite fencing to wood or steel, construction of pallets and crate assembly, composite or wood deck construction, roof decks, sub-floor, sidewall sheathing, anywhere screws are being used and you want to save time installing and still do a quality job etc. (see www.911-nails.com)

© Maintenance

Warning: *disconnect the power source (fuel cell and battery) before performing any maintenance*

General maintenance

Keep the tool in clean condition at all times. Wipe off grease or oil with dry clean cloth to prevent accidental tool drop. Avoid using solvent base cleaner to clean the tool, certain solvent will damage or weaken the composite parts of the tool. Clean the intake filter regularly to keep the tool in full efficiency.

Lubrication and cleaning

- This tool should not need extra lubrication since the fuel already contains some lubrication oil.
- The combustion chamber and cylinder can be cleaned by applying automobile carburetor cleaner. You will need to remove the 2 screw on the handle and 4 screws on the top cap to expose the internal component of cylinder.

Cold weather

This tool is not suggested to be used in cold winter. The cold weather will decrease the combustion efficiency and also the battery performance. Use the tool only at temperature above: -7°C(19°F).

© Troubleshooting

Following are common operating problems and solutions. Please read carefully for suggested solutions. If any of the following symptoms occur during tool operation, stop using the tool immediately or serious personal injury could result! Only a qualified person or an authorized service center can perform repairs or replacement of tool parts.

symptom	Counter measures
Tool will not cycle, the indicator LED is green and the fan runs.	<ul style="list-style-type: none">• Run out of fuel, replace a new fuel cell.• Spark wire is loose, check the spark wire by removing the cap.• Spark plug is dirty. Clean the spark plug.• If all above did not work, send to service center near you.
Tool operate normally, but no nail is driven	<ul style="list-style-type: none">• Wrong type of nails was used. Please change to correct nail spec.• The cylinder needs cleaning.• Nail is jammed, clean the jammed nail before use.• The nail pusher did not engage properly with the nail strip. Adjust to fully engagement.
Combustion chamber is not returning to start position.	<ul style="list-style-type: none">• The work contact element is bending or dirty. Check the work contact element and repair or replace it. Clean the safety track.
Driver did not return to initial position, miss fire frequency get higher than usual.	<ul style="list-style-type: none">• Check and replace fuel cell.• Clean the tool with proper cleaning fluid.• Check for piston ring wear status.• The tool maybe over heated. Clean or replace the intake air filter.
Tool appears to be loosing power.	<ul style="list-style-type: none">• Check fuel cell.• Clean or replace air intake filter.• Check spark plug wire.• Clean the tool with proper cleaning fluid.
For failure other than above situation, please stop using the tool and contact your local dealer for service.	

ONLY USE PARTS AND ACCESSORIES RECOMMENDED BY THE MANUFACTURER.

Parts & Service Contact: <http://elder-hayesinc.com> or call 1-800-769-0775

© Parts List

ITEM	PART NO.	DESCRIPTION
101	840866	DEFLECTOR
102	840869	FILTER
103	920164	HEX.SOC.HD.BOLT
104	830582	FLAT WASHER
105	840864	COLLAR
106	840860	CAP
107	840840	PCB ASSEMBLY
108	840839	SPARKLER
109	840882	MOTOR
110	840905	C - RING
111	840897	HALF ROUND HD.HEX.BOLT
112	840844	FAN MOTOR BRACKET
113	840877	SLEEVE MOTOR
114	840870	WASHER-MOTOR SHAFT
115	840889	FUEL STEM ADAPTER
116	840883	END CAP-COMBUSTION CHAMBER
117	840909	O - RING
118	840865	SEAL
119	840845	SEAL PLATE-MOTOR
120	840907	IN-CONCENTRIC RING
121	840898	HEX.SOC.HD.SCREW
122	840838	COOLING FAN ASSEMBLY
123	920151	HEX.SOC.HD.BOLT
124	840892	UPPER COMBUSTION CHAMBER
125	840851	PACKING
126	840884	COMBUSTION CHAMBER
127	840880	WASHER
128	920323	HEX.SOC.HD.BOLT
129	840910	O-RING
130	840904	C - RING
131	840859	PISTON RING
132	840913	DRIVER UNIT
133	840850	BUMPER
134	840843	CYLINDER
135	840858	BUMPER-COMBUSTION CHAMBER
136	840930	NOSE PIECE
137	840885	EXHAUST MESH PLATE
138	840887	EXHAUST BAFFLE
139	840886	REED VALVE
140	840881	CLEANER

ITEM	PART NO.	DESCRIPTION
202	840841	TRIGGER
203	840853	SAFETY
301	840872	GUN BODY
302	840871	WASHER CAP
303	840876	CAP NUT
304	840846	CONNECTOR PLATE-NOSE/CYLINDER
305	920660	HEX.SOC.HD.BOLT
306	840856	SPRING COVER
307	840879	WASHER-NOSE COVER
308	820655	HEX.SOC.HD.BOLT
309	820645	HEX.SOC.HD.BOLT
310	840902	FLAT WASHER
311	920348	LOCK NUT
312	840868	HANDLE A
313	840848	HANDLE BOLT
314	840874	SPACER
315	840890	FUEL ACTUATOR
316	840878	BUSH-FUEL ACTUATOR
317	840849	PIN-FUEL ACTUATOR
318	840867	HANDLE B
319	920199	HEX.SOC.HD.BOLT
320	840900	SELF TAPPING BOLT
321	840893	MOTOR FAN SWITCH LEVER
322	840847	BRACKET-MOTOR FAN SWITCH LEVER
323	840862	BATTERY NODE BRACKET
324	840891	BATTERY NODE
325	820706	TAP BOLT
326	840894	LED COVER
327	840901	SELF TAPPING BOLT
401	840933	MAGAZINE A
402	820811	FLAT WASHER
403	820660	HEX.SOC.HD.BOLT
404	920664	HALF ROUND HD.HEX.BOLT
405	840946	STEEL CHANNEL
406	920328	HALF ROUND HD.HEX.BOLT
407	830770	PROTECTING HOOD COVER
408	830771	STOP NAIL PLATE
409	820685	HALF ROUND HD.HEX.BOLT
410	810854	SPRING
411	920186	ROLLING ELEMENT

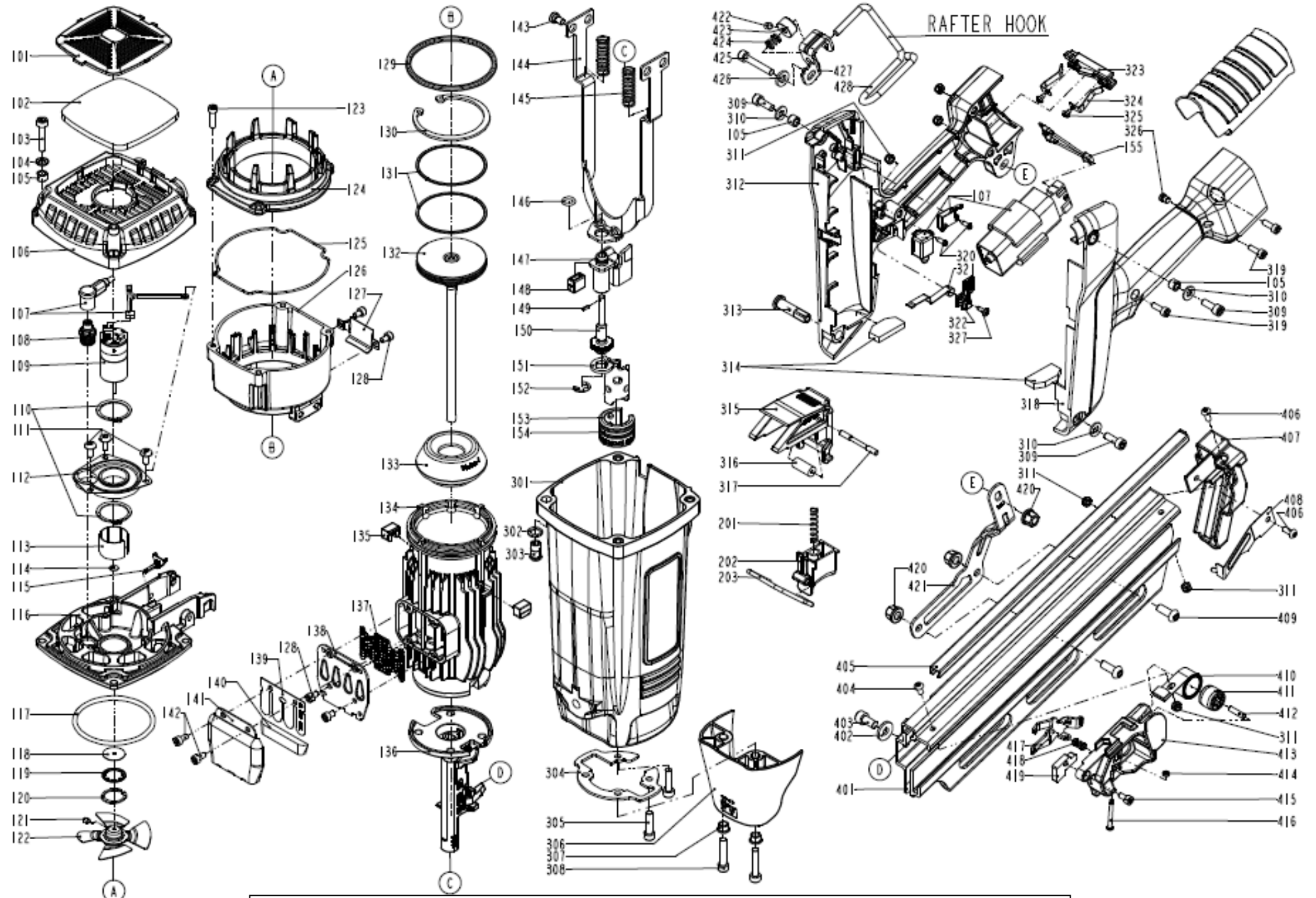
141	840888	DEFLECTOR
142	920945	HEX.SOC.HD.BOLT
143	840896	HEX.SOC.HD.BOLT
144	840852	SAFETY C
145	840854	SAFETY SPRING
146	840911	O - RING
147	840921	SAFETY B
148	840857	FEED BUMPER
149	840908	SPRING PIN
150	840875	ADJUST AXIS
151	840919	SAFETY A
152	840906	E - RING
153	810834	PROTECTIVE CASING
154	810436	FIXED RING
155	840895	SOURCE
201	840842	SPRING

412	820432	ROLL PIN
413	830766	PROTECTING HOOD COVER
414	920627	URETHANE RETAINER
415	920687	HEX.SOC.HD.BOLT
416	810414	TRIGGER PIVOT PIN
417	830767	PUSHER
418	920379	SPRING
419	840926	SQUARE UNITS
420	830015	BOLT CAP
421	840917	POSITIONING SHEET
422	840899	HEX.SOC.HD.SCREW
423	840861	POSITIONING AXIS
424	840873	SPRING RETAINER
425	830591	HEX.SOC.HD.BOLT
426	840903	FLAT WASHER
427	840863	RAFTER HOOK BRACKET
428	840855	RAFTER HOOK

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