



3450 Sabin Brown Road • Wickenburg, AZ 85390  
(800) 992-3833 • mail@bnproducts.com

## Operating Instructions

### BNT-40X Tiger Tier™ Automatic Rebar Tying Machine



This tool has  
Passed ISO9001 International  
Quality System Certification  
The charger has passed ETL Certification

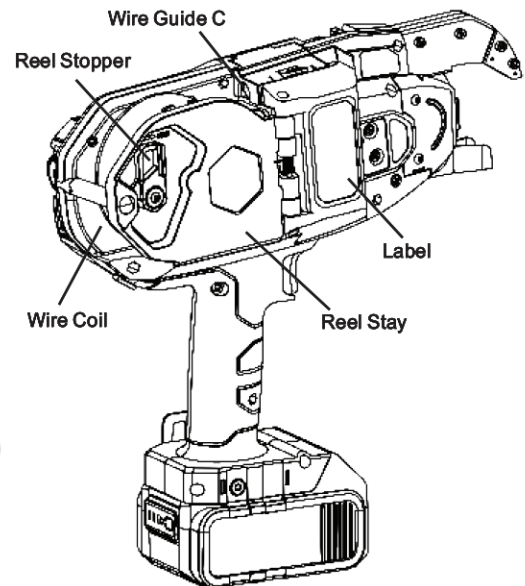
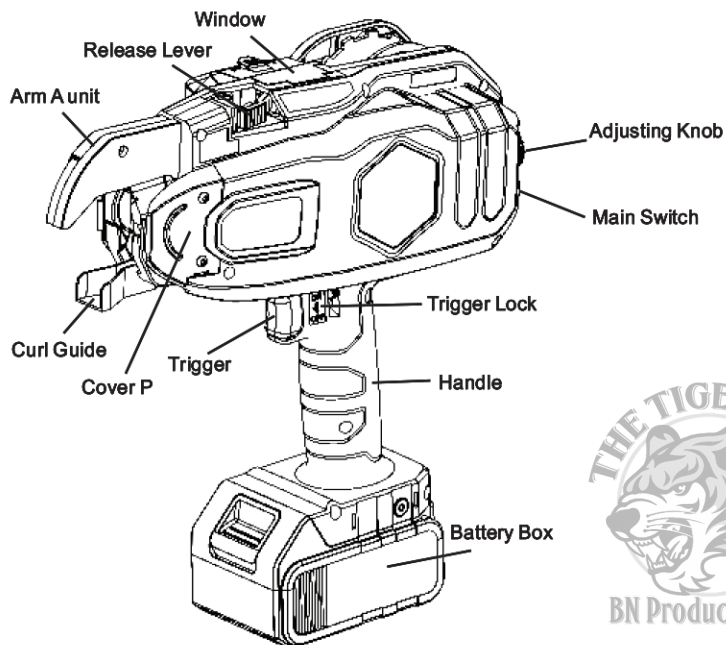


Please read this manual carefully before using this machine to  
make sure you are familiar with all safety and warning instructions.

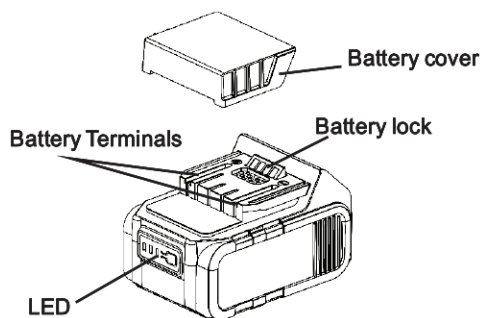


Please read this manual carefully before using this machine to make sure you are familiar with all safety and warning instructions.

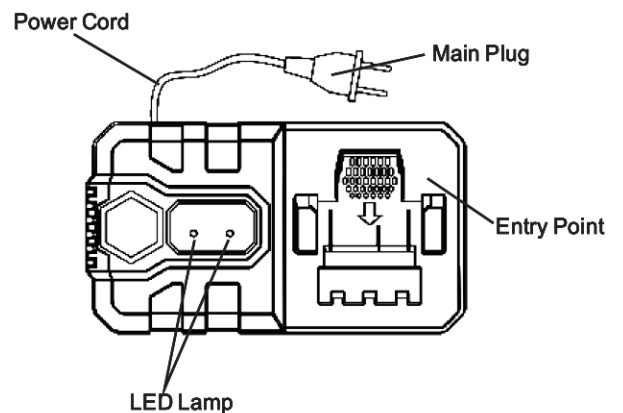
## BNT-40X Tiger Tier™ Call-Outs



### Battery



### Charger



## Safety

This machine is a high-performance battery operated tool. Failure to follow the warnings and instructions may result in an electric shock, fire or serious injuries.

- Always operate the tool with personal protection equipment (including eye protection, etc.). Using the appropriate safety equipment at all times will avoid body injury.
- Keep children and bystanders away while operating this tool. Distractions may cause serious accidents.
- Do not aim the tool at those standing around your work area. Serious accidents can happen if you mis-handle this tool.
- Do not place your hand or position the machine near your body. This could cause serious injury.
- Do not attempt to dismantle, modify or perform any major maintenance on this tool. Modifications may result in a deterioration of the tool's performance and may cause serious injury and void the warranty.
- Make sure that the main switch is in the off position when the tool is not being used or when abnormalities occur. When changing or adjusting the wire coil, or when changing the battery pack, make sure to turn off the main power switch and lock the trigger or remove the battery.
- Do not place fingers or hands in the wire coil area. This may result in distortion of the coil and may cause injury to you.
- Do not operate this tool in the rain or areas where moisture is present. This may result in electrical shock or accident.
- Stay particularly alert while working in a high area. Do not operate any power tool under the influence of drugs, alcohol, or medication. A moment of inattention may result in serious injury to you or someone near you.
- Do not operate this tool in a hazardous area containing flammable liquid, gas or powders which may ignite and cause a fire.
- The charger has been designed to use standard AC power (100-240V ~ 50-60Hz). Do not recharge the battery using a generator power supply as this will cause the charger to malfunction.
- Our batteries charge best when the ambient temperature is between 32°F and 113°F. Super-cooling or over-heating environments are not suitable for charging.
- Continuous use of the charger is not advised as this will shorten the life span of the battery and the performance of the charger itself. When not in the charging mode the power supply must be turned off.
- Please do not carry the charger by the cord. Do not pull out the power cord from the wall socket with the

cord, this will damage the cord and break the wires or cause a short circuit. A damaged cord must be repaired or replaced immediately.

- Use only the specified charger that came with your machine. Using an unauthorized charger may result in damage to the battery components and possible explosion.
- Avoid battery terminal contact with other metal objects. Trying to recharge the battery with an external wire could result in a short circuit of the battery.
- Do not throw away the protective battery cap. Use it to cover the terminal when not in use.

## Safety Locks

Make sure that all safety features are operational before using any power tool.

**DO NOT OPERATE THE TOOL IF THE SAFETY LOCKS ARE NOT FUNCTIONAL.**

**This tool is equipped with the following safety devices:**

The Main Switch: Please turn the main switch off when not in operation.

The Trigger Lock: Always engage the trigger lock when not in use or when changing the wire spool.

Technical Data	
Tool Specs	
Product No.	BNT-40x
Weight Information	
Tool Only	4.45 lbs. (2.02 kg)
Tool + Battery	5.8 lbs. (2.63 kg)
Tool+Battery + Spool	6.7 lbs. (3.04 kg)
Height	11.81 in. (300mm)
Width	4.29 in. (109mm)
Length	11.69 in. (297mm)
Ties per coil	120 - 160
Wraps per Tie	3 Wraps/tie
Time per Tie	0.6 - 0.8 sec per tie
Max Tying Diameter	1.575" (40mm)
	#6 x #6 bar
Battery	Li-Ion 18V, 4.0Ah, 72Wh (BNTLI-20)
Ties Per Charge	4000-5000 ties per charge
Additional Charger (BNTLI-20C)	
Part No. BNTLI-20 Lithium-Ion	
Voltage	DC-18V
Capacity	4.0 Ah

## Wire Technical Parameters

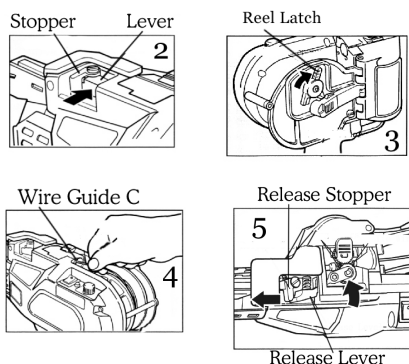
Part No. BNT-40-Wire	
Diameter (in.)	ø 0.03 (21 Gauge)
Material	Q195 Galvanized
Length (in.)	3937 (approx)
Part No. BNT-40-Wire-USA	
Diameter (in.)	ø 0.03 (21 Gauge)
Material	Q195 Galvanized
Length (in.)	3937 (approx)
Part No. BNT-40-Wire-P	
Diameter (in.)	ø 0.03 (21 Gauge)
Material	Q195 Polycoated
Length (in.)	3937 (approx)

## Battery and Charger Usage

Before inserting or removing the battery from this tool, please set the main switch to the off position.

- To avoid a short circuit to the battery, always use the battery terminal cover when it is not in use with the tool.
- When placing the battery into the tool, press the battery lock before placing it into the battery holder. When removing the battery, press the battery lock button before pulling it out of the battery holder.
- Use 100-240V ~ 50-69Hz AC power supply for the charger. Fully insert the battery into the charger slot and it will begin to charge automatically as indicated by the charging light. It will take approximately 74 minutes to fully complete the battery charge.
- It is recommended to charge the battery between 32°F and 113°F. Do not charge in extreme cold or hot environments.

## Machine Operation and Methods



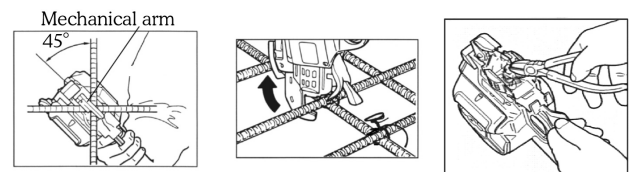
- Before inserting or removing the wire spool turn the main power switch to off and lock the trigger.
- When installing the wire spool in this tool only use recommended wire that is clean and rust free.

- Only use recommended wire spools. Using non-standard wire or spool could cause the tool to malfunction.
- Press and lock the lever. (figure 2)
- Push the Reel Stopper to release the Reel Stay (door) and open. (figure 3)
- Cut about 2 inches of wire off the end of the coil.
- Install the wire spool with the left side facing the tool (left is marked on the spool). Close and latch the Reel Stay (door).
- Insert the wire into Wire Guide C. Note: the wire must not be bent or curved. (figure 4)
- The wire must pass through Wire Guide C and in between the two feeding gears until it reaches the flared tube. Then push the wire an additional ½ inch into the flared tube. (figure 5)
- Release the Release Stopper and confirm the Release Lever has returned to its original position. Note: the wire must be clamped in between the feeding gears. (figure 5)
- Turn on the main power switch and unlock the trigger. The tool is now ready for use.

## How to remove the wire coil spool

- Turn off the main power switch, lock the trigger and remove the battery.
- Press the release lever and confirm that it is caught in the open position.
- Remove the plastic wire spool.

## The Tying Procedure



Unlock the trigger lock. Keep the mechanical arm on the rebars to be tied with a 45° angle at a vertical position to the rebars.

Press the trigger and the tool will tie automatically.

Remove the tool when the tying is complete.

Do not press the trigger when the mechanical arm is not on the rebar surface. (Note: if this should happen turn off the machine, position the trigger lock to the "off" position and remove the trapped wire with a pair of pliers inside the machine mouth).

Adjust the tie tightness. There are 10 tightness levels that can be adjusted with the "adjusting dial".

## Replacement of Gears

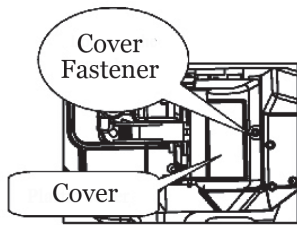


Figure 1

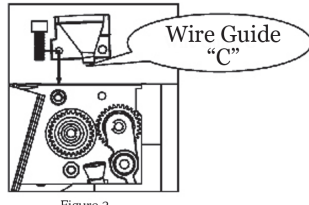


Figure 2

- Remove the screw that fastens the plastic cover over the motor. (figure 1)
- Remove Wire Guide "C" which is fastened to the plate. (figure 2)

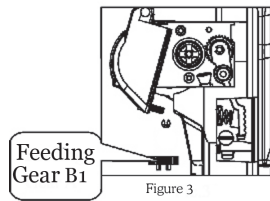


Figure 3

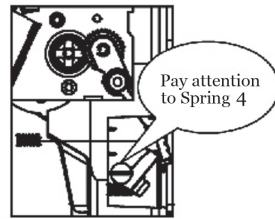


Figure 5

- Remove the E-ring on Feed Gear B1. Press lever and remove feed gear. (figure 3)
- Release the lever and remove Comp. Spring 3. Be careful not to lose the smaller Comp. Spring 4 on the Release Stopper. (figure 5)
- Take out the screw and washers from the Release Lever and remove the Release Lever in the direction of the arrow. (figure 6)
- After you remove the Release Lever you can remove the E-ring and Pin to replace Feed Gear B2. (figure 7)

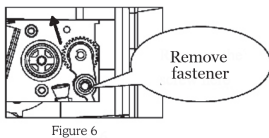


Figure 6

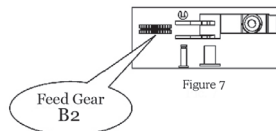


Figure 7

After you finish replacing the gears reassemble the tool in reverse order

- First install the Release Lever and fasten it.
- Install Comp. Spring 4 on the Release Stopper and Comp. Spring 3 on the Release Lever (press lever into locking position to hold springs in place while making sure spring 4 stays in place).
- Install Feed Gear B1 and E-ring in sequence.
- Install Wire Guide C on the plate. Finally attach the Motor Cover with the screw.

## Care and Maintenance

- Perform a daily inspection prior to using this tool.
- Please maintain this electric tool carefully, making sure that the adjustments are correct and that it has been stored properly.
- Inspect the tool for damage and cracks in the housing and that the power supply is in good working order.
- Make sure that the battery charger is the one that came with your machine. Using another charger could cause damage to the battery and/or charger and could even cause a fire.
- Improper use of the battery could cause it to leak. If this happens it will need to be replaced and properly recycled. Do not touch any leaking material from this battery. If you come in contact with the battery liquid, flush with clean water and seek medical attention if necessary.
- When not in use, store this tool carefully in the supplied case. It can be washed with a soft cloth and soapsuds after you finish work. Do not use petroleum chemicals or alcohol to clean this tool.
- In the event that this tool malfunctions or drops in performance you can call our Customer Service Repair Center (800) 992-3833 or send us a note to mail@bnproducts.com.





## Product Specifications and Technical Parameters

---

BNT-40X			#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
			1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1-1/8"	1-1/4"
			6mm	8mm	10mm	13mm	16mm	20mm	22mm	25mm	29mm	32mm
#1	1/8"	6mm			x	x	x	x	x	x	x	x
#2	1/4"	8mm		x	x	x	x	x	x	x	x	x
#3	3/8"	10mm	x	x	x	x	x	x	x	x	x	
#4	1/2"	13mm	x	x	x	x	x	x	x	x		
#5	5/8"	16mm	x	x	x	x	x	x	x			
#6	3/4"	20mm	x	x	x	x	x	x				
#7	7/8"	22mm	x	x	x	x	x					
#8	1"	25mm	x	x	x	x						
#9	1-1/8"	29mm	x	x	x							
#10	1-1/4"	32mm	x	x								
#11	1-3/8"	36mm										
#14	1-3/4"	43mm										
#18	2-1/4"	57mm										

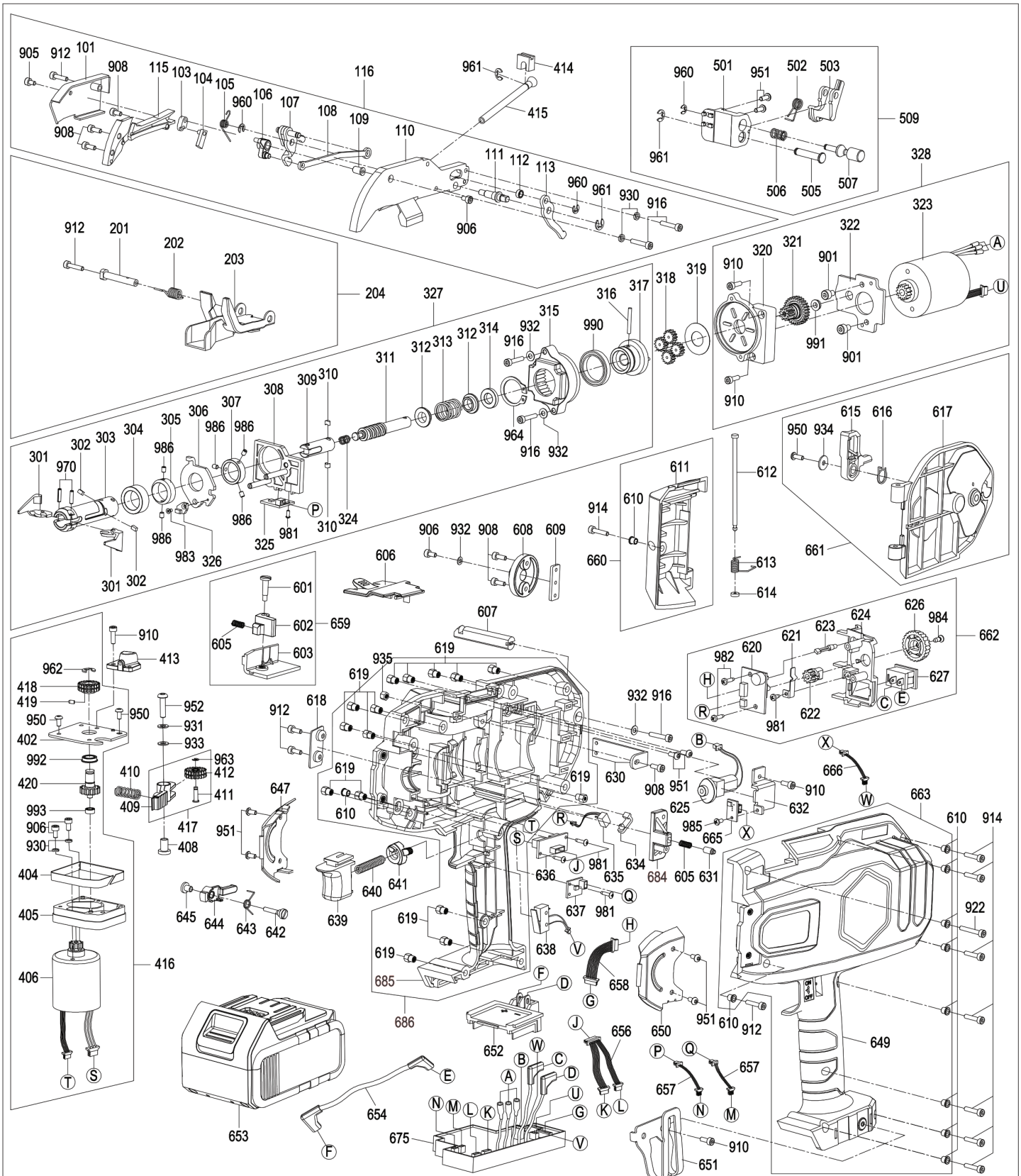




## BNT-40X Tiger Tier™ Common Faults

This tool alerts you to the following fault conditions by means of a warning sound and warning light. If the problem is not solved please contact our maintenance support department: (800) 992-3833.

Common Faults	Warning Sound	Indicator Light	Items To Inspect	Possible Cause	Actions
The machine does not work after putting in a new wire spool.	None	Off	Inspect the battery terminal	Oxidation or there is dirt on the electrodes	Use a dry cloth to wipe the surfaces
	Beep----	On	Confirm that the battery is charged	Low power in the battery	Recharge the battery
	Beep, Beep, Beep	On Off On Off On off...	Check wire guide "A" to see if there is stray wire in the guide	The head of the wire was caught in the guide	Using a pair of pliers remove the wire
	Beep, Beep, Beep, Beep...	On Off On Off On off...	Check the curl guide to see if there is a stray wire caught in the tool	Tying strength may be too strong	Adjust the tying force and remove the caught wire
The wire does not feed correctly	Beep, Beep	On Off On Off On off...	Check the curl guide	The curl guide is open	Close the curl guide
	Beep, Beep, Beep	On Off On Off On off...	Check the diameter of the rebars	The diameter of the rebar exceeds chart	Use the proper diameter rebars
	Beep, Beep, Beep, Beep...	On Off On Off On off...	Check the tightness of the wire coil	The wire is too tight on the coil	Clear the wire
Irregular binding and wire stepping out of the curl guide	None	On-	Alarm when pressing the trigger-- No alarm when released	Overheated motor from constant use	Let the motor cool down
Failure to cut the wire after binding	None	On-	Check if the wire hits the rebar when tying	The wire hitting the rebar will stop the action	Pay attention so that the wire does not hit the rebar
Tying knot is loose	None	On-	Check to see if the cutting mechanism is working correctly	There may be a stray piece of wire in the cutting mechanism	Clean the cutting mechanism
	None	On-	Check the operation instruction	Wrong operation	Please read the operation manual
Tying knot is not correct	None	On-	Check the tying strength	The tying force is too great	Adjust to the proper tying force





PARTS LIST BNT-40X (6-17-19)			
No.	Part No.	Description	Qty
101	BNT-40X-101	Arm A	1
103	BNT-40-006	Connecting Plate 1	1
104	BNT-40X-104	Fixed Cutter	1
105	BNT-40X-105	Torsion Spring 1	1
106	BNT-40X-106	Cutter	1
107	BNT-40X-107	Cutter Lever A	1
108	BNT-40X-108	Connecting Rod 1	1
109	BNT-40X-109	Cutter Sleeve	1
110	BNT-40X-110	Arm A unit	1
111	BNT-40X-111	Shaft Screw	1
112	BNT-40X-112	Washer 4	1
113	BNT-40X-113	Cutter Lever C	1
115	BNT-40X-115	Wire Guide A	1
116	BNT-40X-116	Arm A Unit Assy	1
201	BNT-40X-201	Stopper Shaft	1
202	BNT-40X-202	Torsion Spring 3	1
203	BNT-40X-203	Curl Guide	1
204	BNT-40X-204	Curl Guide Assy	1
301	Assy. 327	Hook	2
302	Assy. 327	Key A	2
303	Assy. 327	Sleeve A	1
304	Assy. 327	Sleeve Guide	1
305	Assy. 327	Cutting Ring Guide	1
306	Assy. 327	Cutting Plate	1
307	Assy. 327	Cutting Ring Washer	1
308	Assy. 327	Tip Axis Guide Assy	1
309	Assy. 327	Tip Axis B	1
310	Assy. 327	Key B	2
311	Assy. 327	Tip Axis A	1
312	Assy. 327	Pin 1	2
313	Assy. 327	Comp. Spring 2	1
314	Assy. 327	Bumper	1
315	Assy. 327	Internal Gear	1
316	Assy. 327	Pin 5	1
317	Assy. 327	Planet Gauge Unit	1
318	BNT-40-053	Planet Gear	4
319	BNT-40-054	Gear Press Wheel	1
320	BNT-40X-320	Twisting Motor Gearbox	1
321	BNT-40X-321	Sun Gear Unit	1
322	BNT-40X-322	Motor Fixing plate	1
323	BNT-40X-323	Twisting Motor Unit	1
324	Assy. 327	Comp. Spring 1	1
325	BNT-40-062	Route PWB Unit	1
326	BNT-40-061	Magnetic Plate	1

No.	Part No.	Description	Qty
327	BNT-40X-327	Twister Assy	1
328	BNT-40X-328	Twisting Motor Assy	1
402	BNT-40X-402	Partition Plate	1
404	BNT-40X-404	Dust-Proof strip	1
405	BNT-40X-405	Feeding Motor Gearbox	1
406	BNT-40X-406	Feeding Motor Unit	1
408	BNT-40X-408	Hollow Pin 1	1
409	BNT-40X-409	Release Lever	1
410	BNT-40-103	Comp. Spring 3	1
411	BNT-40-115	Step Pin 1	1
412	BNT-40-114	Feeding Gear B2	1
413	BNT-40X-413	Wire Guide C	1
414	BNT-40X-414	Rubber Base	1
415	BNT-40X-415	Pipe	1
416	BNT-40X-416	Feeding Motor Assy	1
417	BNT-40X-417	Release Lever Assy	1
418	BNT-40X-418	Feeding Gear B1	1
419	BNT-40X-419	Step Pin 4	1
420	BNT-40X-420	Feeding Gear Shaft	1
501	BNT-40-353	Reel Press D	1
502	BNT-40-355	Torsion Spring 7	1
503	BNT-40-356	Reel Press A	1
505	BNT-40-354	Reel Press Centre Axis	1
506	BNT-40-352	Torsion Spring 7	1
507	BNT-40X-507	BN Reel Press limit Axis	1
509	BNT-40X-509	BN Braking Housing Assy	1
601	BNT-40X-601	Step Pin 2	1
602	BNT-40X-602	Release Stopper	1
603	BNT-40X-603	Reel Stopper	1
605	BNT-40-136	Comp. Spring 4	2
606	BNT-40X-606	Window	1
607	BNT-40-123	Joint Reel Magazine	1
608	BNT-40-122	Reel Guide	1
609	BNT-40-143	Fixing Plate 1	1
610	BNT-40-201	Hollow Pin 7	11
611	Assy. 660	Motor Cover	1
612	BNT-40X-612	Step Pin 3	2
613	BNT-40-182	Torsion Spring 5	1
614	BNT-40-183	Rubber Washer	2
615	BNT-40X-615	Reel Stopper	1
616	BNT-40X-616	Torsion Spring 6	1
617	BNT-40X-617	Reel Stay	1
618	BNT-40X-618	Strength Plate	1
619	BNT-40-131	Nut M3	15
620	Assy. 662	Adjusting PWB Unit	1

No.	Part No.	Description	Qty
621	Assy. 662	Adjusting Spring	1
622	Assy. 662	Joint Knob	1
623	BNT-40-193	LED Unit	1
624	Assy. 662	Adjusting Plate	1
625	BNT-40X-625	BN Braking Motor Assy	1
626	Assy. 662	Adjusting Knob	1
627	BNT-40-190	Main Switch Unit	1
630	BNT-40X-630	Fixing Plate 2	1
631	BNT-40X-631	Jaw Pin	1
632	BNT-40X-632	Brake Motor Platen	1
634	BNT-40X-634	Socket Cap	1
635	BNT-40X-635	Socket	1
636	BNT-40X-636	Feeding PWB unit	1
637	BNT-40-156	Sensor PWB D Unit	1
638	BNT-40-148	Trigger Switch	1
639	BNT-40X-639	Trigger Switch	1
640	BNT-40X-640	Comp. Spring 5	1
641	BNT-40X-641	Trigger Lock	1
642	BNT-40X-642	Bolt	1
643	BNT-40X-643	Torsion Spring 4	1
644	BNT-40X-644	Switch Lever	1
645	BNT-40-161	Pin 4	1
647	BNT-40X-647	Cover L Unit	1
649	Assy. 663	Frame R	1
650	BNT-40X-650	Cover P Unit	1
651	BNT-40X-651	Belt Hook	1
652	BNT-40X-652	Electrode Unit	1
653	BNTLI-20	18V Li-ion Battery	1
654	BNT-40X-654	Battery Connecting Wire	1
656	BNT-40X-656	Feeding Motor Connecting Wire	1
657	BNT-40X-657	Sensor Connecting Wire	2
658	BNT-40X-658	Adjusting Connecting Wire	1
659	BNT-40X-659	Reel Stopper Assy	1
660	BNT-40X-660	Motor Cover Assy	1
661	BNT-40X-661	Reel Stay Assy	1
662	BNT-40X-662	Main Switch Base Assy	1
663	BNT-40X-663	Frame R Assy	1
665	BNT-40X-665	Feeding-Response PWB unit	1
666	BNT-40X-666	BN Cam Connecting Wire	1
675	BNT-40X-675	Main PWB Unit	1
684	BNT-40X-684	Jaw	1
685	BNT-40X-685	Frame L	1
686	BNT-40X-686	Frame L Assy	1

No.	Part No.	Description	Qty
901	BNT-40X-901	Hex Bolt M4X6	2
904	BNT-40-359	Hex Bolt M3X4	2
905	BNT-40X-905	Hex Bolt M3×5	1
906	BNT-40-002	Hex Bolt M3×6	4
908	BNT-40-071	Hex Bolt M3×8	7
910	BNT-40-021	Hex Bolt M3×10	6
912	BNT-40-001	Hex Bolt M3×12	5
914	BNT-40-173	Hex Bolt M3×14	8
916	BNT-40-172	Hex Bolt M3×16	5
922	BNT-40X-922	Hex Bolt M3×22	1
930	BNT-40-069	Spring Washer φ3	4
931	BNT-40-098	Spring Washer φ4	1
932	BNT-40-105	Washer	4
933	BNT-40-099	Washer 2	1
934	BNT-40-185	Washer 3	1
935	BNT-40-125	Nut M3 (T4)	1
950	BNT-40X-950	Button Head Screw M3X6	3
951	BNT-40-132	Button Head Screw M3X8	8
952	BNT-40X-952	Button Head Screw M4X20	1
960	BNT-40-360	E-ring 3	3
961	BNT-40-012	E-ring 4	3
962	BNT-40X-962	E-ring 5	1
963	BNT-40-073	E-Ring 2	1
964	BNT-40X-964	C-ring 20	1
970	Assy. 327	Spring Pin φ2.5	2
981	BNT-40-063	Pan-head Screw ST2.2×6	5
982	BNT-40-165	Pan-head Screw ST3×8	2
983	BNT-40-060	Countersunk screw M2×4	1
984	BNT-40-191	Countersunk Scw M3×10	1
985	BNT-40-025	Pan-head Countersunk screw M2×4	1
986	BNT-40X-986	Hex Screw M3×3	5
990	BNT-40X-990	Bearing 1	1
991	BNT-40X-991	Bearing 2	1
992	BNT-40X-992	Bearing 3	1
993	BNT-40X-993	Bearing 4	1
	BNTLI-20C	Charger, Battery, BNT40X Not Shown	1





The BNT-Series are hand-held battery operated tools. In this manual you will learn that these machines consists of four parts: the machine body, special wire coil, battery box and a charger. The tool is designed to be used for the fast tying of rebar or steel used in construction sites for the building trades. Due to its speed, convenience and safety, this machine can save a great deal of valuable labor and material resources. In addition, the parts and components as well as advanced production technologies are made from well-known manufacturers both here and abroad. This machine was developed as an economical and practical tying machine with many international patents.



BN Products-USA  
3450 Sabin Brown Road  
Wickenburg, AZ 85390  
(800) 992-3833 • [mail@bnproducts.com](mailto:mail@bnproducts.com)

