

## **VZ-Series Operating Instructions**

Rev 2.6 (5/28/13)

### Operating the Tool

- Select a bit. Retract the bit collar. Insert the bit and release the retracted collar. To avoid damaging fasteners, make sure the proper bit is suitable for the head of the fastener.
- 2. The torque limit is determined by the tension of the coil spring housed in the torque adjustment nut. The tighter the coil spring is wound the higher the torque limit is raised. See Torque Charts on page 2 to determine the appropriate torque adjustment setting.
- 3. Rotate the torque adjustment nut to set the torque limit. Turn clockwise to increase torque and counter clockwise to decrease torque. The scale adjacent to the Torque Adjustment Nut is a reference guide. The torque output from the driver can change depending on various fastening factors like friction, type of joint, and the type material being used like a washer.
- 4. Make sure the FOR/STOP/REV switch is in the "Stop" position. Plug-in power cord.
- 5. Turn driver on and check for proper rotation. FOR-clockwise, REV-counterclockwise.
- 6. To apply torque, squeeze the lever (Push-to-Start models place light downward pressure on the nose of the driver). The driver will automatically stop when the preset torque has been reached. Never run the motor continuously for extended periods. Use tool intermittently: (example 5 seconds on and 3.5 seconds off).
- 7. To remove the screw, turn the FOR/REV switch to REV.

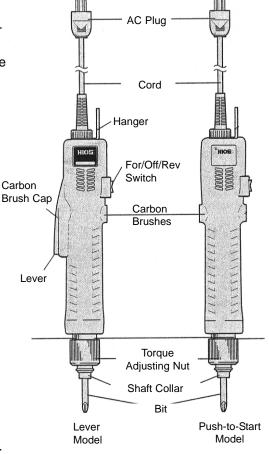
### **CARE & Safety**

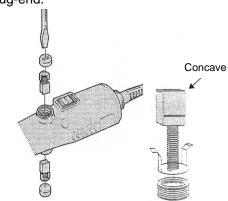
- 1. The VZ-Series screwdrivers are a precision torque control instrument and should be handled with care at all times.
- 2. Operate under safe conditions. Do not place in operation where such objects as hair, strings, clothing, etc. can become tangled in the rotating bit.
- 4. Keep away from moisture. Never use in high humid, moist or damp environment.
- 5. Use the tool intermittently (example 5 seconds on & 3.5 seconds off).
- 6. Do not tighten more than 900 PCS of tapping screws during a period of 60 minutes.
- 7. When using the VZ4506PS at high torque settings, please use a torque arm or Shock-Resistant stand with the tool. The high impact on the operator's hand may result in Carpal Tunnel Syndrome.
- 8. Never lubricate electrical parts.
- 9. Tool is not for tightening wood screws.
- 10. Use tool with proper voltage (120V).
- 11. While tools is in use, never change Forward and Reverse direction immediately.
- 12. Do not pull the cord as means to unplug the driver. Unplug driver using the plug-end.

### HOW TO REPLACE THE CARBON BRUSH

WARNING: When replacing the carbon brushes, detach the cord from the power outlet.

- 1. The carbon brush piece is 1/3" long when new. Change the pair when they are worn to about half the original length.
- 2. Insert a flat tip screwdriver into the slot in the carbon brush cap and unscrew the cap.
- Replace the worn brushes with new pair. The contact surface of the brush is concave. Insert the brush so that the concave end properly aligns with rounded surface of motor comutator.
- 4. Be careful not to tighten the Carbon Brush Cap too strongly.







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### **Torque Reference Charts**

These charts are meant to be used as guidelines for setting the torque on the VZ-Series electric screwdrivers. The drivers have a torque scale on the torque adjustment nut showing reference numbers. These numbers determine the approximate torque setting. Refer to the charts to determine the reference number setting for your torque requirement.

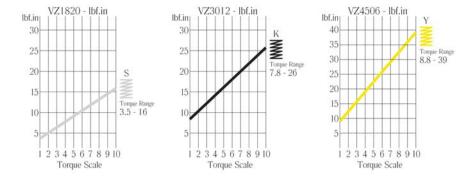
Torque ranges (lbf.in) approximate tightening torque. Figures below each chart indicate scale setting on the tool.

Color of Springs:

K = Black

S = Silver

Y = Yellow



#### **Extension Cords**

Make sure your extension cord is in good condition. When using an extension cord, be sure to use heavy enough cord to carry the current your tool will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and over heating. The table below shows the correct size to use depending on cord length and ampere rating. If in doubt, use the next heavier gage. The smaller the gage numbers the heavier the cord.

	Minimum Gage for Cord Sets * Total Length of Cord in Feet			
Volts 120V				
	0-25	26-50	51-100	101-150
240V	0-50	51-100	101-200	201-300

Ampere Rating			
More	Not More		
Than	Than		
0	6		
6	10		
10	12		
12	16		

### **Testing Power Tools:**

- Application Method: Use a torque tester in "Peak Mode" with a rotary torque sensor between the power tool and the actual application. This is the best way to test since you are using the actual joint as the test station. You will see the actual torque applied to the fastener. Caution: Variances in tool performance may occur do to the addition of the rotary torque sensor.
- Simulated Method: Always use a quality joint rate simulator (run down adapter) with a torque tester when testing power tools in a simulated application. Use Joint rate and Breakaway methods to obtain most accurate torque readings in a simulated rundown.

