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QUALITY ASSEMBLY TOOLS

Semi-auto shut off, direct plug-in electric screwdrivers

Instruction Manual

Applicable Models: AT-1631, AT-1632, AT-2631, AT-2632, AT-3631, AT-3632, AT-4631, AT-4632, AT-6631, AT-6632

■ *Thank you* for purchasing the CHP electric screwdriver. In order to ensure maximum performance and product life, **please read this manual before operating your screwdriver**.

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1. General Safety Warnings

WARNING: Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury. Keep this manual readily accessible for reference.

■Working area safety

- Keep working area clean and well lit.
- Do not operate power tools in the presence of flammable liquids, gases or dust.
- Keep the power tool away from children.

■Electrical safety

To avoid risk of electric shock:

- Never modify the plug in any way.
- Do not expose the power tool to wet conditions.
- Do not pull or damage the power cord.
- Use suitable extension cord when operating outdoor.
- Use a residual current device (RCD) when operating in a damp location.

■Personal safety

To avoid injury during operation:

- Do not use the power tool when under influence of drugs, alcohol or medication.
- Ensure that the switch is in OFF/Neutral position before connecting the power source.
- Keep proper footing and balance at all time.
- Do not wear loose clothing or jewelry. Keep hair, clothing and gloves away from moving parts.

2. Care/Maintenance

- Use the appropriate power tool for the application. Do not force the power tool.
- Do not use the power tool if the switch is malfunctioning.
- Disconnect the power source before making adjustments, changing accessories or storing the tool.
- Keep the tool away from children or untrained personnel.
- Periodically check for any misalignment or binding of moving parts, breakage of parts and any other condition that may affect the operation.
- Keep the screw bits clean before and after use.
- Only use compatible power supplies and accessories.

3. Read Before Use

- Check Voltage: Please read the label on the product exterior and the manual thoroughly before using the screwdriver. Only plug the screwdriver into an outlet with correct voltage (115VAC or 230VAC)

- Check for suitable torque range: Choose a screwdriver model that matches your required torque range. To maximize service life, avoid using screwdrivers at maximum torque over long period of time. (The recommended torque value is between scales 1-8 on the engraving ring.)

- Check that the product is properly assembled: Make sure the carbon maintenance bonnet is fully closed and that the power cord is not in any way damaged. (If the bonnet or spring connector is loose, the motor will automatically cut off until the screwdriver has been correctly reassembled.)

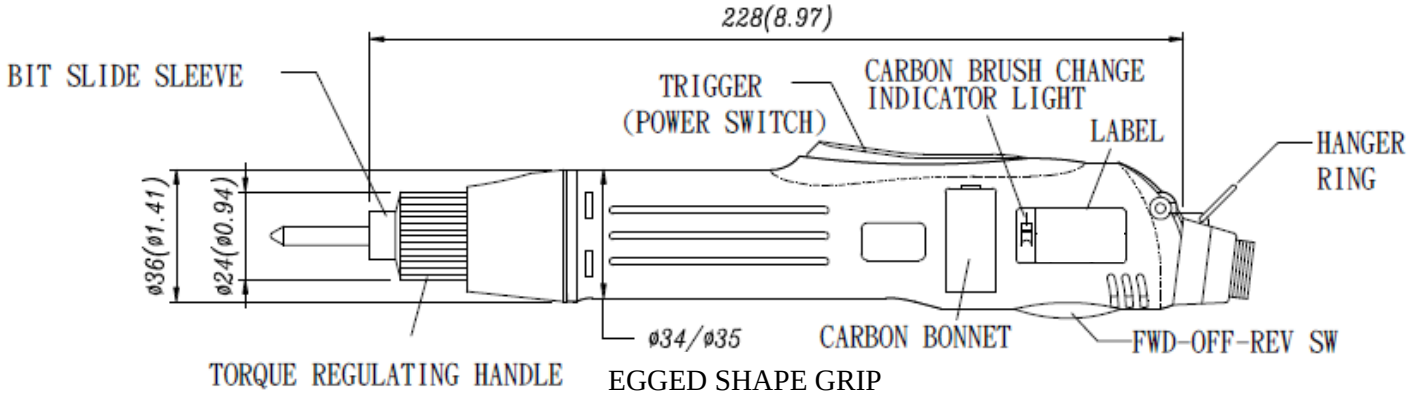
- Ensure proper working environment: do not use in high temperature, high humidity environments or near flammable materials.

- When plugging in or unplugging the power cord, hold the plug firmly. Never pull on the cord.

- Make sure the work piece isn't conducting any form of electricity before operation.

4.Product Information

■Outline



■Accessories

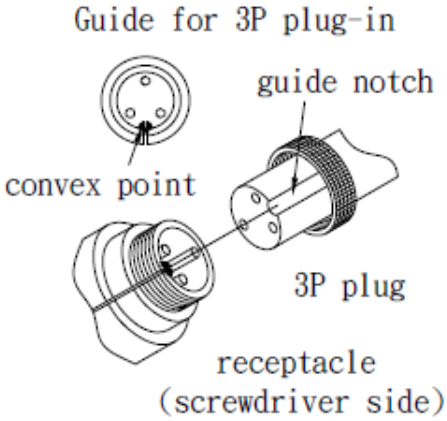
- Electric screwdriver
- Power cord
- Bits (2)
- Replacement carbon brush (one pair)
- Instruction manual

■Specifications

Model		AT-1631	AT-1632	AT-2631	AT-2632	AT-3631	AT-3632	AT-4631	AT-4632	AT-6631	AT-6632
Power source (VAC)		115 60HZ	230 50HZ	115 60HZ	230 50HZ	115 60HZ	230 50HZ	115 60HZ	230 50HZ	115 60HZ	230 50HZ
Torque range kgf-cm/lbf-in		0.2~2.0/0.17~1.7		0.5~7.0/0.43~6.1		1.0~12.0/0.9~10.4		2.0~18.0/1.7~15.6		5.0~25.0/4.3~21.7	
No load speed rpm		1000		1000		1000		1000		1000	
Torque setting		Stepless									
Available Screw	Machine Screw mm/in	1.0~2.0/0.04~0.08		1.0~2.6/0.04~0.10		1.4~3.0/0.06~0.12		2.0~4.0/0.08~0.16		2.6~5.0/0.10~0.20	
	Tapping Screw mm/in	1.0~1.7/0.04~0.07		1.0~2.3/0.04~0.09		1.4~2.6/0.06~0.10		2.0~3.0/0.08~0.12		2.3~4.0/0.09~0.16	
Weight g/lb		400g/0.88lb		480g/1.0lb							
Length mm/in		228mm/9.0in									
Available bit shank		Ø4.0				Ø 5.0/5mm Hex shank , 1/4"Hex shank					
Power consumption (Watts)		55W									

5. Operation

- Connect the power cord to the driver as shown below, twist the knob on the power cord to secure it onto the driver. Do not force the connection as this can cause damage to the driver and power cord.

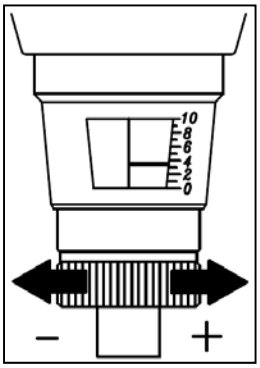


- To avoid accident and injury, check driver's torque setting, and make sure that the work piece is fixed firmly before operating.

- Change torque settings: Use the regulating handle to set the torque. Turning it clockwise into the casing will increase the torque. Turning it counterclockwise out of the casing will decrease the torque.

Note: The engraved markings on the engraving ring are for reference only and does not indicate actual torque output. Torque output can only be determined by repeated testing with a torque meter. To prevent your torque setting from being tempered, an optional torque cover is available, which covers and secures the regulating handle.

Illustration of torque setting



- Bit insertion: press the slide sleeve into the screwdriver and insert an appropriate bit. When the slide sleeve is released, the bit will be automatically locked.

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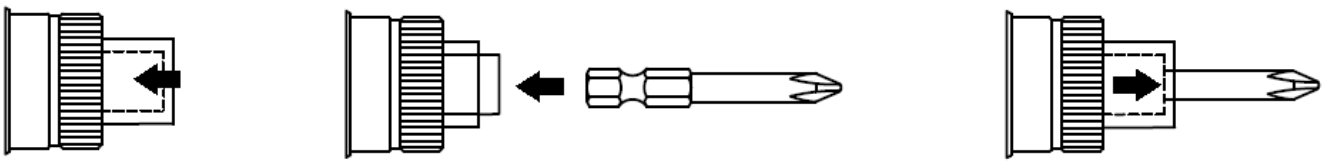
Illustration of insertion of bits

Figure 1 **Figure 2** **Figure 3**



Fastening and removing screw:

To drive a screw, set the forward/reverse switch to the FWD position. To remove a screw, set the switch to the REV position.

Note: Do not change the running direction during operation. Always switch the direction after the screwdriver has completely stopped.

- Secure screwdriver during operation: During operation, hang the screwdriver securely (from balancer) in order to prevent damage to driver and power cord.

- When the selected torque is reached: The driver features a semi-auto (slip-clutch) assembly. When a screw is fastened and the selected torque has been reached, the clutch assembly will automatically disengage the bit. Clicking sounds will be heard as the motor continues running. Release the trigger at this point to prevent the motor from overheating.

Note: When driving screws, grasp the driver firmly as recoils generated by the clutch can be strong.

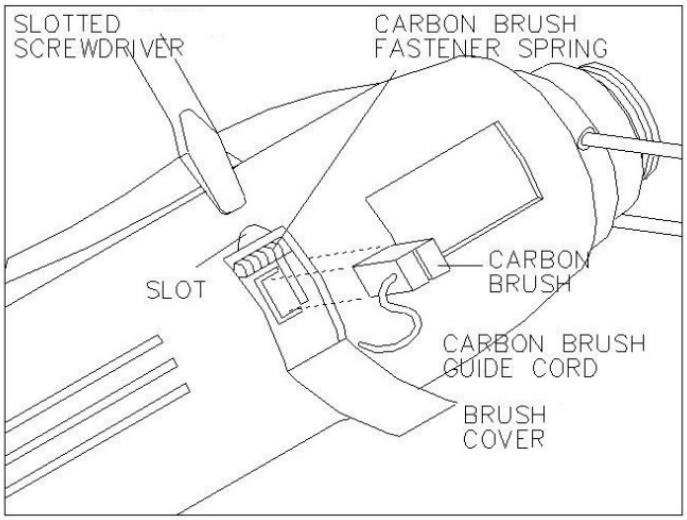
- When removing screws: If a previously driven screw cannot be removed using the same torque that it was driven with, raise the torque setting. When turning the regulating handle, use the number of “click” sounds as reference so that the torque setting can be changed back afterwards.

- Operation Frequency: Suggested duty cycle: 0.5s/3.5s (ON/OFF). Total screws: 7000pcs/8hours. To avoid damage to the screwdriver and to prolong the product life, do not exceed the suggested operational frequency.

- Overloading Operation: If the operator discovered the handle overheating or the revolutions plunging rapidly while fastening, it means that the screwdriver is overloaded. Please change to a torque screwdriver with higher power or reduce the frequency of fastening to prolong the lifespan of the screwdriver.

- If the screwdriver has operated for a long period, or if excessive current surges are experienced, the screwdriver may overheat. In this case it will switch off automatically. When the heat has dispersed, normal operation can be resumed.

Replace the Carbon Brush:
As illustrated below, insert a slotted hand screwdriver with 2~4mm head edge into the slot and open the carbon brush cover. Remove the carbon brush fastener spring. Loosen and pull the carbon brush guide cord to remove the carbon brush. Insert a new carbon brush and then follow the above steps in reverse order.



- Unplug the driver before changing the carbon brush. Only use factory specified carbon brush.
- The notch direction on the carbon brush surface must follow the illustration

6. Troubleshooting

If the screwdriver does not work properly, check the list below. If you cannot solve the problem do not open the unit. Contact one of our authorized agents as soon as possible.

If the screwdriver does not run

- Check the output power.
- Check whether the plug is inserted properly and the outlet has power.
- Check for open or short circuit in the AC wire. If an open or short circuit is found, replace the AC wire.

- Check if the carbon brush is damaged or worn out.
  Inspect method: open the carbon brush cover and use an insulated rod to gently press the brush. If the screwdriver resumes rotating, the carbon brush has reached the end of its service life and must be replaced immediately.

If the screwdriver is not rotating normally

- Long-term usage causes the motor's commutator to wear down. In this case, it must be replaced. (Please contact our customer service)

If the bit falls out easily or wobbles

- Check that the bit matches our specifications. If not, change the bit to one that does.
- Check that the bit is inserted tightly into two guide channels within the bit shaft. If not, remove the bit and re-insert it tightly.
- If the bit tends to wobble, remove the bit, rotate it 60 or 180 degrees and re-insert it.

7. After Use

- Storage and maintenance: when the unit is to be stored for a long period, remove the power supply and bit, open the carbon brush cover and blow out any accumulated carbon brush dust with compressed air, and wipe the exterior clean. Store the screwdriver carefully in a dry, dust-free place away from direct sunlight. Store the bit in grease. To ensure continued serviceability, periodically check and maintain the screwdriver.

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