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QUALITY ASSEMBLY TOOLS

Power Supply

Instruction Manual

**Applicable Models: APS-301A, APS-351B,
APM-301A, APM-301C**

- ***Thank you*** for purchasing the CHP Assembly Tool. In order to ensure maximum performance and product life, **please read this manual before operating your power supply.**

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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.
- Remove and adjusting key or wrench before turning on the power tool.
- 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

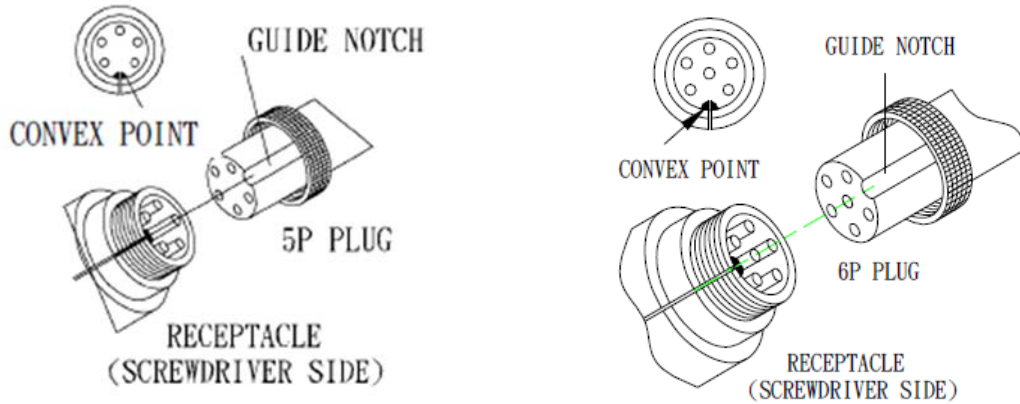
■ Set-up Notice

- Use the controller in dry place indoors without the presence of dust or metal grindings.
- Position the controller on a stable surface.
- Keep the controller away from high voltage sources or noise generating sources.
- Do not place objects on the top of the controller, keep surroundings clear to allow heat dissipation.

■ Caution during operation:

- Only use the power supply on an AC circuit with an overload relay.
- Ensure the ground pin is connected to a socket equipped with a ground circuit to avoid electric shock.
- Ensure that the power cord is tightly plugged into the socket.
- When plugging in or unplugging the power cord, hold the plug firmly. Never pull on the cord.
- Do not switch between forward and reverse when the electric screwdriver is in operation.
- We recommend only use up to 80% of the rated maximum torque to avoid inaccurate clutch escape (The maximum torque may vary with the flexibility of the fastened object).
If over 80% of the rated maximum torque is needed, using a screwdriver with higher torque is recommended.

- Ensure that the connecting cable to the driver is aligned properly with the guide slot before inserting; then twist the knob to fix the connection. Please see the picture below:



■Safety Notice

- Stop using the product if there is any unusual noise or smell. Turn off the power and contact our customer service immediately.
- Turn off the controller when not in use. Remove the power cords from the controller for long period storage.
- The controller is for CHP electric screwdriver use ONLY. Do not use with any other tools.

4. Declaration of Conformity (CE)

We, American Hakko Products, Inc., hereby declare that the products described in this manual are in conformity with the following Directive(s)/Standardization document(s):

Low Voltage Directive 2014/35/EU
EMC Directive 2014/30/EU

5. Product Information

■Specification

Item \ Model	APS-301A	APS-351B	APM-301A	APM-301C
Input Voltage (VAC)	100~240V 、 50/60Hz			
Output Voltage (VDC)	20-30 V	25-35 V	20-30 V	
Soft-start (sec)	N/A	0 – 1 sec	N/A	0 – 1 sec
Output Voltage setting	Stepless Control			
Output Pin	5 pin	5 pin	5 pin	6 pin
Internal Signal Output	Switch-on/Brake, Dry contact signal			
External Signal Output	Switch-on Signal			
No. of Controlled Screwdriver	1 piece			
Power (W)	60 W	59.5 W	75 W	

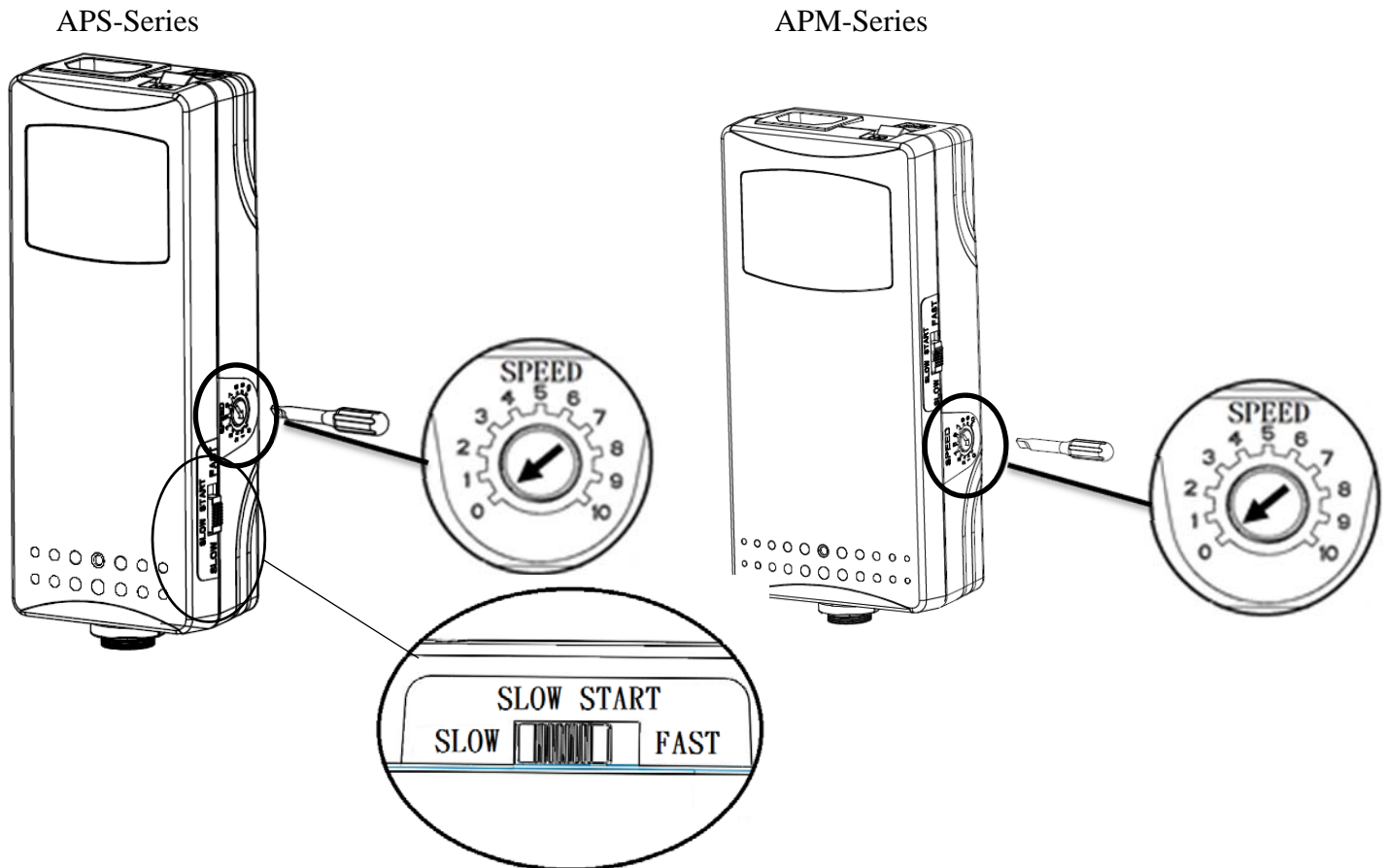
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Applicable Electric Screwdriver models	AT-2000B AT-3000B AT-4000B AT-4000FB AT-6000B AT-6500B AT-200B AT-250B	AT-2000 AT-3000 AT-4000 AT-4500	AT-6800B	AT-6000 AT-6500 AT-6800
Dimension (mm)	164X64X42 mm		172X84X46 mm	
Weight (g)	300 g		380 g	
AC cable length (m)	1.8 m			
Safety Standards	CB,CE,UL(CUL),ROHS,REACH			
Accessories	Adjustment tool, 2P/4P socket terminal 1 pieces, and AC cable			

6. Operation

Speed setting

- Change the speed setting by turning the speed-setting screw on the side of the power supply with the small screwdriver (standard accessory).
- Turn clockwise \curvearrowright 0→10 to increase the speed.
- Turn counter-clockwise \curvearrowleft 10→0 to decrease the speed.

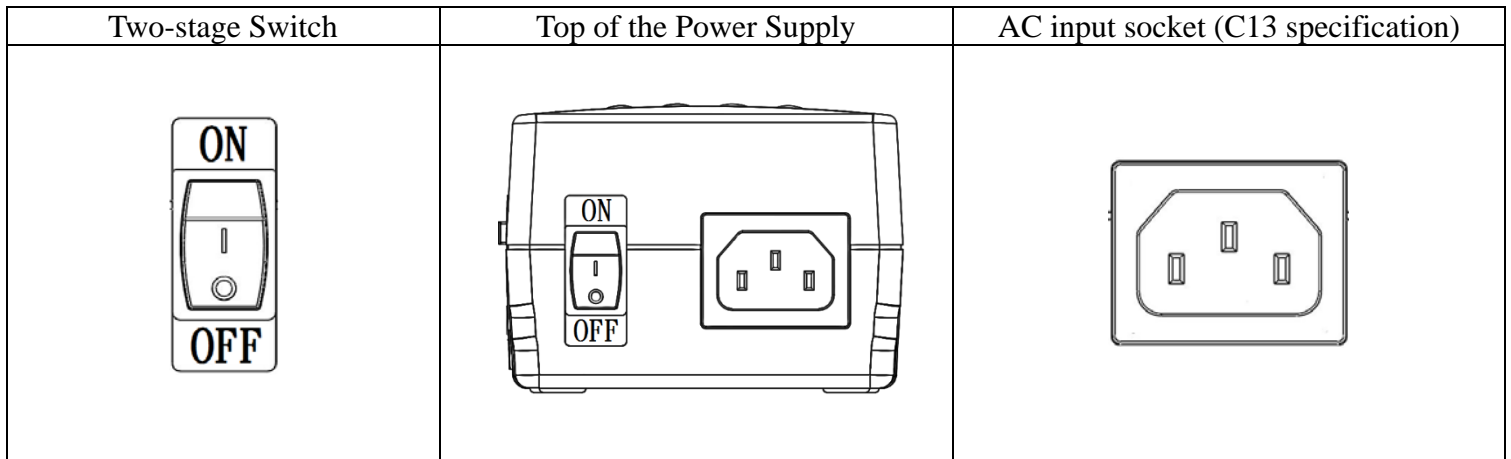


Soft-start setting (APS-351B/APM-301C ONLY)

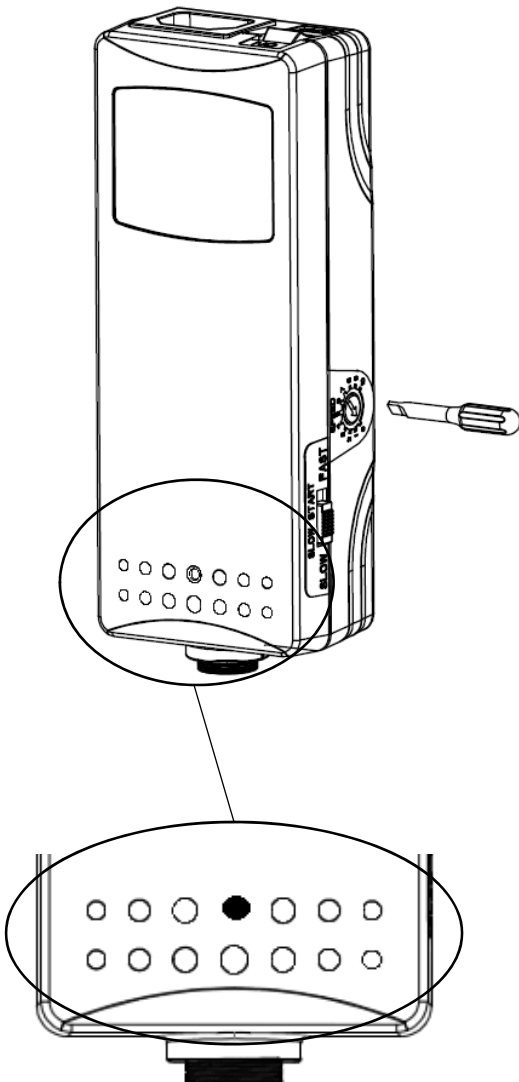
- Two-stage switch located on the side of the power supply.
- SLOW: the speed gradually increases up to full speed (approx. 1 second).
- FAST: constant speed without change.

Power setting and AC input socket (C13 specification)

- The input voltage of the power supply is ranged between 100-240VAC, 50/60 Hz. Please make sure to use the correct voltage in order to avoid damage to the power supply.



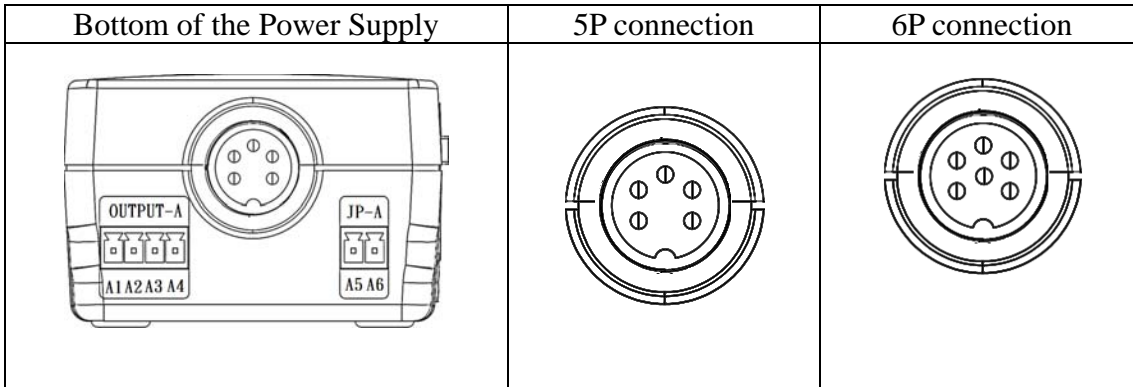
Indicator Light



Item \ Model		APS-301A	APS-351B	APM-301A	APM-301C
Green light	Switch-on	◎		◎	
	After switch on, flash orange light three times, then turn to green light.		◎		◎
	Brakes				
No light	No DC voltage output	◎	◎	◎	◎
Flashing green	Short circuit protection	◎	◎	◎	◎
	Over power protection	◎	◎	◎	◎
Red light	Brakes	◎	◎	◎	◎
Flashing red	heating protection (temperature set at 75~85°C)				◎

Main Output (DC) Plug

- Provides power to the electric screwdriver.

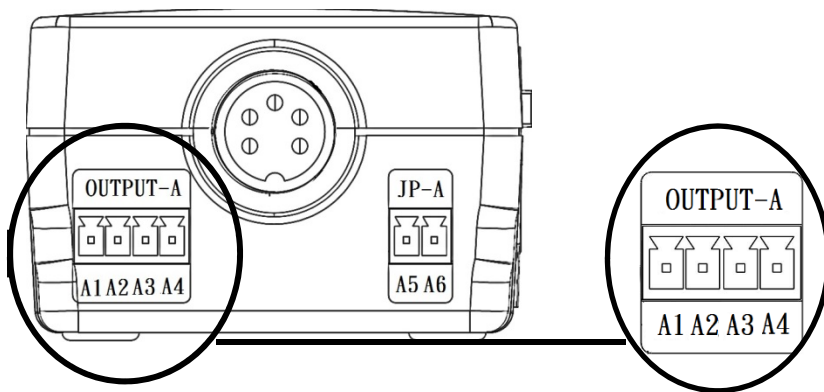


OUTPUT-A: Signal output terminal

-A3 & A4: "Switch on" signal output. A3 and A4 will export dry contact signal when the electric screwdriver switched on.

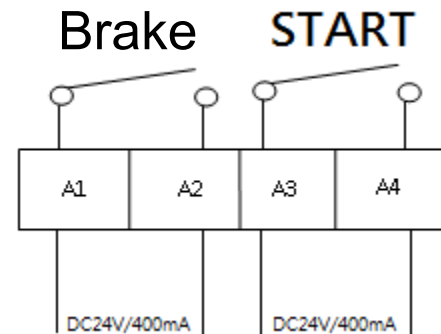
-A1 & A2: "Shut-off" signal output. When the electric screwdriver has reached its set torque and stopped, no signal will be exported.

Picture 1



Picture2

Dry contact signal
Voltage specification: DC24V/400mA MAX

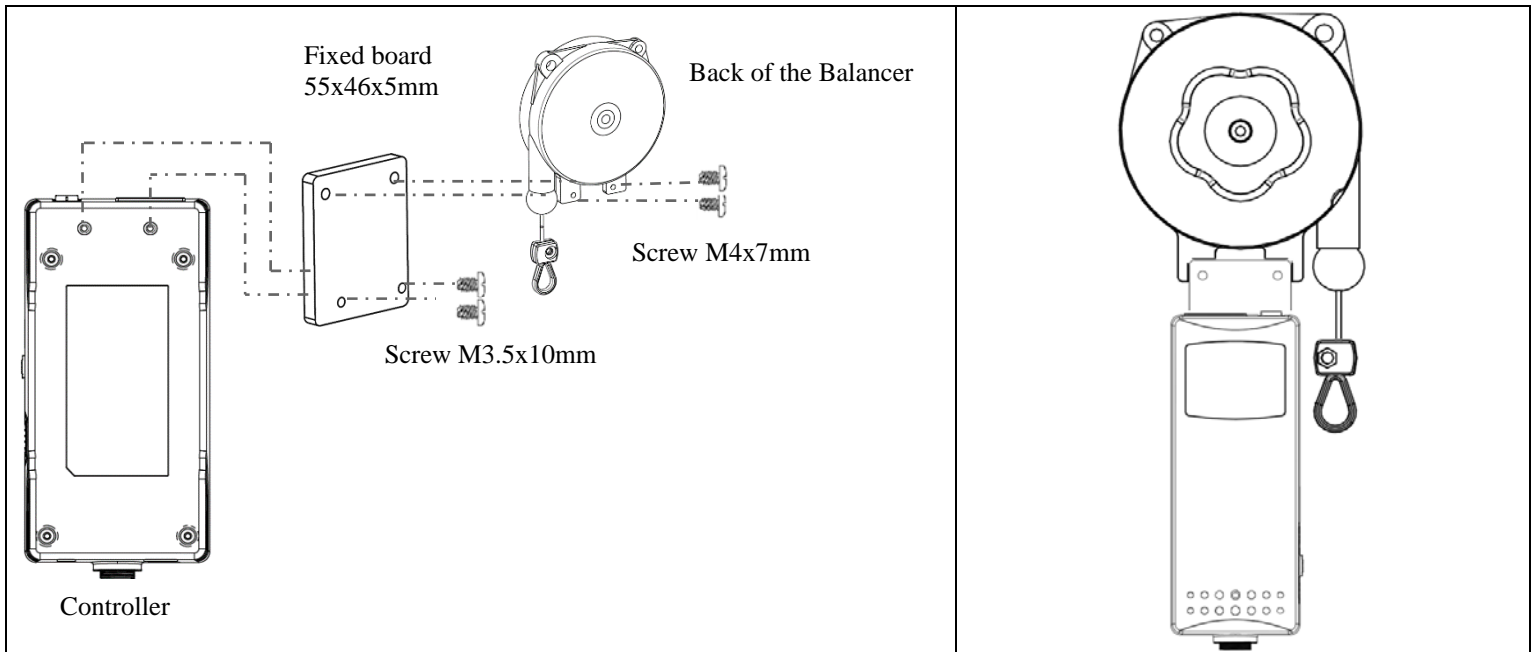


JP-A: External controller use terminal (APS-301A & APM-301A ONLY)

- The power supply supports external controller to control screwdriver operation.
- Connect ON/OFF switch to JP-A terminal for external control (Forward only).

Screw hole for the assembly of the power supply and the balancer

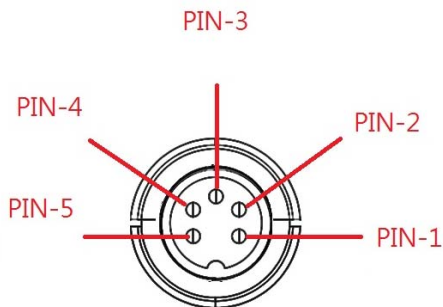
- There are screw holes at the bottom of the power supply that allow the unit to be mounted on CHP spring balancer (optional accessory) and the fixed board. Please follow the instruction below:



7. Troubleshooting

The screwdriver is not operating:

- Please ensure that the power plug is correctly plugged into the designated power source.
- Check voltage (DC) between pin 1(-) and pin 4(+). If there are no output voltage, replace the power supply.
NOTE: For 6 pin power supplies, connect pin 3 and pin 5 before measuring the output voltage.
- Check for short/open circuit in the DC connection cord.
- Please contact our customer service if the issue persists and/or other issue have occurred.



American Hakko Products, Inc.
28920 Avenue Williams
Valencia, CA 91355
1-(800)88-HAKKO(42556)
www.HakkoUSA.com

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