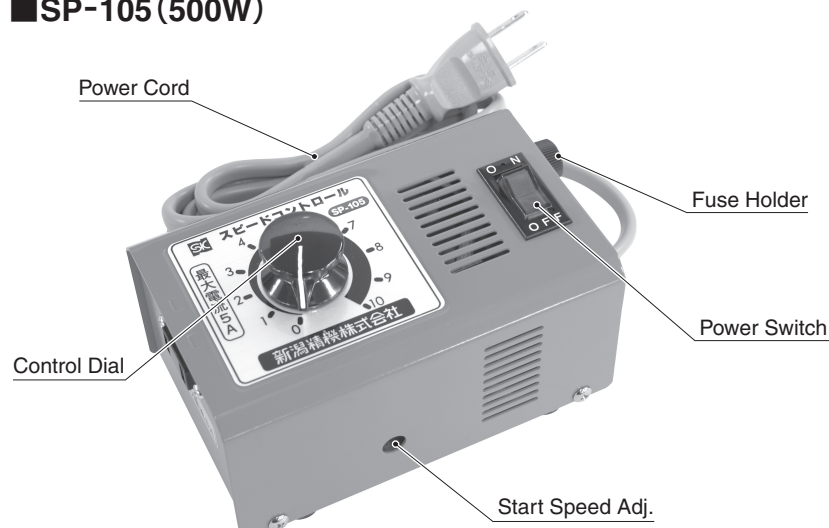
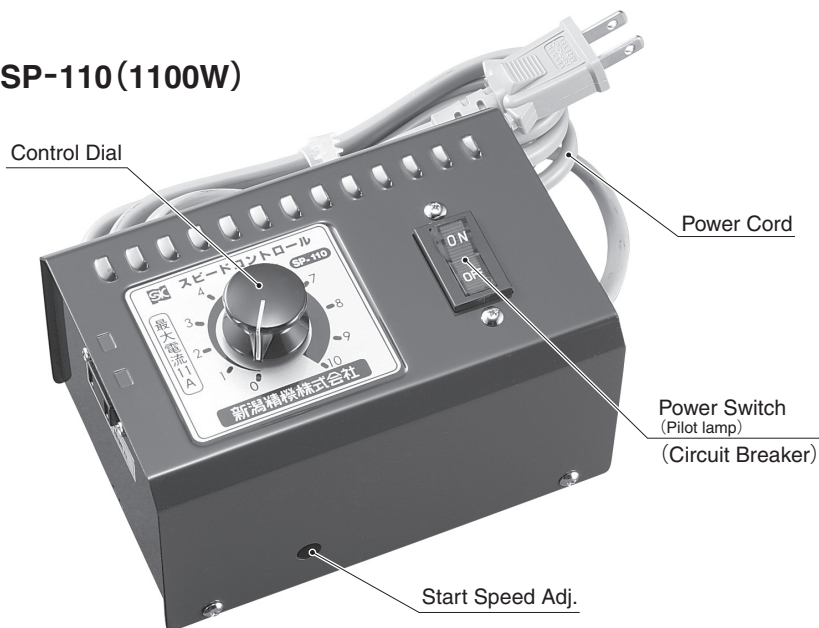


Control Speed of Motors Over Full Range!!

■ SP-105 (500W)

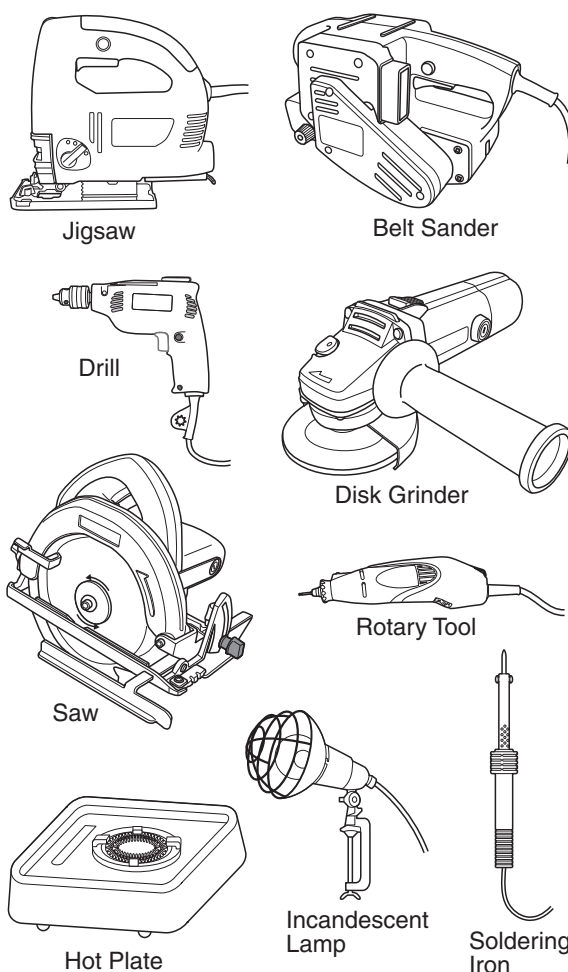


■ SP-110 (1100W)



Control speed and power for a wide range of applications, including speed control of single-phase commutator motors (Brush motor) used in many power tools; temperature control for electric heaters, and soldering irons; and dimming for incandescent lighting.

Example Applications



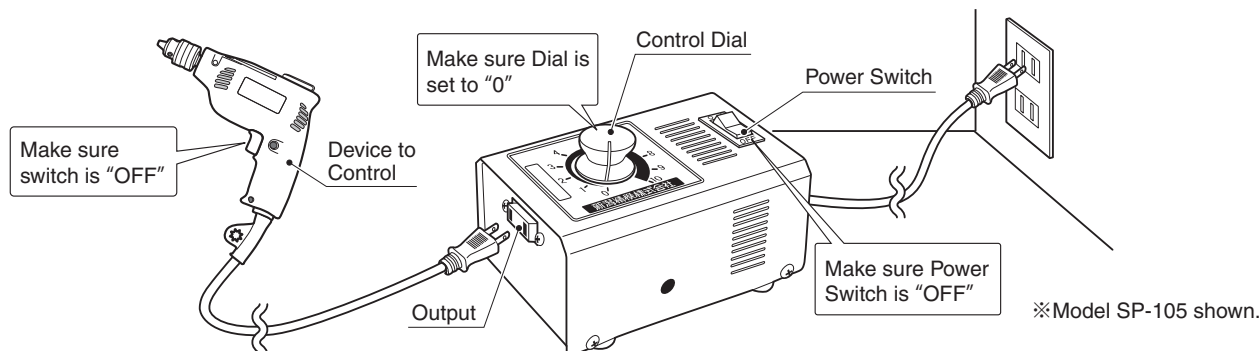
■ SPECIFICATIONS

Model	SP-105 (500W)	SP-110 (1100W)
No. of Phases	Single-Phase	Single-Phase
Rated Voltage	AC100V 50-60Hz	AC100V 50-60Hz
Operating Temp. Range	0°C~45°C	0°C~45°C
Control Type	Triac phase control	Triac phase control
Max Load Current	5A	11A
External Dimensions	approx. W80×L144×H85mm	approx. W99×L150×H101mm
Weight	approx. 0.6kg	approx. 1kg
Other	• Power Switch • Start Speed Adjustment	• Power Switch • Resettable Circuit Protection (Breaker) • Fuse replacement for load overcurrent not required • Start Speed Adjustment

FEATURES • APPLICATIONS

- Adjust speed of cutting tools as required for different materials.
- Improve tool life by using proper cutting speeds.
- Easily set low rotation speeds.
- Reduce temperature of heating equipment, and dim lighting (incandescent.)
※ Not for use with fluorescent lamps.
- Model SP-110 includes circuit breaker; fuse replacement not required.

SET-UP PROCEDURE

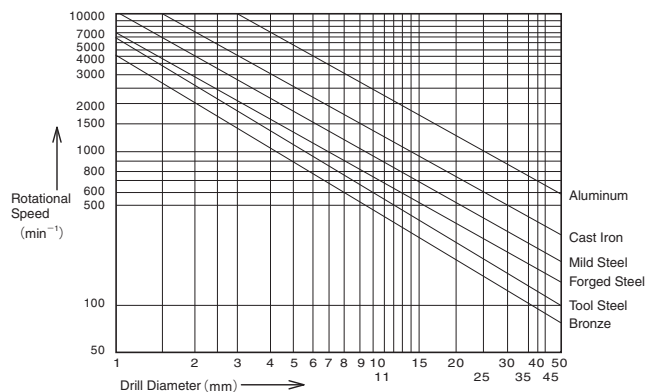


- ① Insert the Speed Controller plug into the (Mains) Power Outlet.

NOTE: Make sure Power Switch is "OFF" and Control Dial is set to "0" before inserting plug.

- ② Make sure the Device to control is switched "OFF"; plug into Output of Speed Controller.
- ③ Turn on Power Switch of Speed Controller.
- ④ Turn Control Dial clockwise to turn on and increase speed, power level for heaters, or brightness for lighting.
"0" position is off, and "10" position is full power.
Set appropriate power level as required by application.

Rotational Speed vs. Drill Diameter for different materials

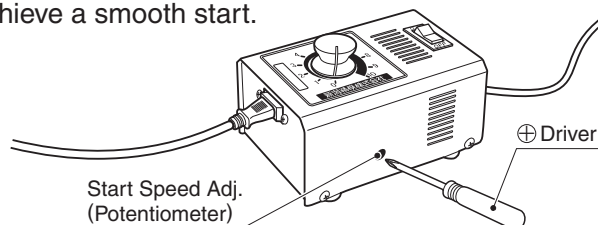


※ As Drill Diameter increases, Rotational Speed is reduced.

If Start Is Not Smooth

If device does not start smoothly, please use the following procedure to adjust start speed.

Turn Control Dial to "0", and using a ⊕ (Phillips) driver in Start Speed Adj. Hole, turn driver left and right to achieve a smooth start.



※ Start speed is internal potentiometer soldered to control board
- Be careful not to force or turn too strongly.

CAUTION

- Only use within rating. Excessive conditions may cause malfunction.
- Do not short circuit output. An output short will damage Controller.
- For use within temperature range of 0°C~45°C.
- Controller may cause radio interference. Keep 3m from receiving devices to prevent.
- Note - some equipment may cause current surge when first turned on.
- Electric motors typically require a start current of 1.5~1.6× steady state values to achieve rated speed. Make sure this load current does not exceed rating for Speed Control model.
- Controller will not control speed for induction type motors.

※ Factory fans are of this type, and for these motors, rotational speed is determined by load resistance.

- Always start with Control Dial set to zero to prevent malfunction.
- If Load Current is exceeded on SP-110 model, circuit breaker will trip. Allow controller to stand for a few minutes before resetting using Power Switch. Continue use at a lower current level.
For SP-105 model, please replace fuse.
- For normal operation, motor will not begin to turn, and incandescent bulb will not light when Control Dial is set to "0" or for very low settings. This is normal behavior. Output level at position "0" can be adjusted using the Start Speed Adj. control.
- Use only as directed.

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