

# Choosing a Power Supply

What works best for your OSR2+ or SR6, and what to look for on the label

The machine does not come with a power supply, so this is the question I am asked most. Plenty of supplies will run it; this guide shows the ones that run it best and the few that catch people out. Not sure about one you already have? Send me a photo of its label and I will check it for you.

## THE SHORT ANSWER

A **5.5 × 2.5 mm** plug, **centre positive**, rated **8–10 A**, ideally an **adjustable 3–12 V** supply set to **4.5–6.5 V**.

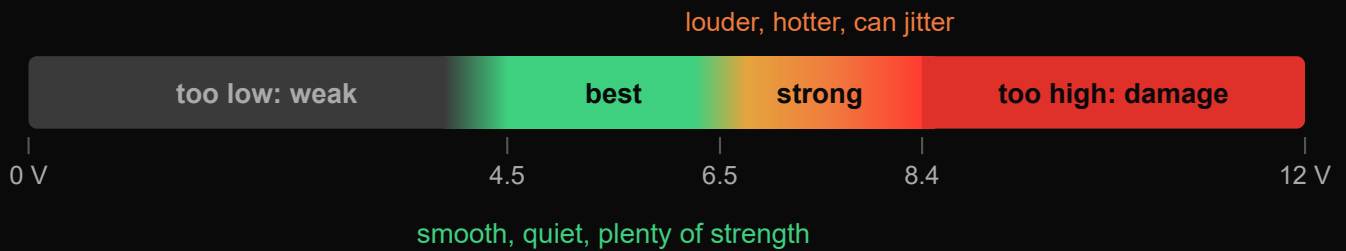
## IN THIS GUIDE

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- Part 2** Supplies that work well
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- Part 4** Reading the label, and the plug
- Part 5** Setting it up

## Part 1 Why voltage matters

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The servos are rated 4.8–8.4 V. Where you set it inside that changes how the machine feels.



I recommend **4.5–6.5 V**: the best balance of smoothness, noise and strength. Going higher adds speed and torque the scripts rarely need, and costs noise, heat and wear, and above about 6.5 V the motion can start to jitter. For this kind of use smoothness matters more than raw power. Never go above **8.4 V**.

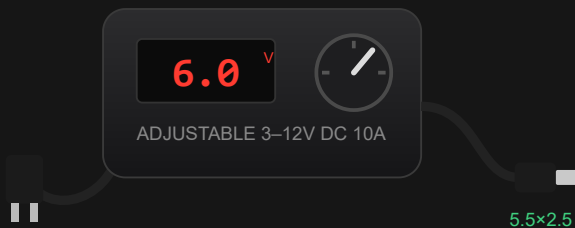
That is why an **adjustable** supply is the one I recommend: you can turn it to exactly where your machine feels best, nudge it for a heavier sleeve, and you will never be stuck with the wrong voltage. It is worth it.

**Current:** the servos pull short bursts of current as they change direction. 8 A is enough and 10 A is ideal. The machine's power input is rated for 10 A, so a bigger supply than that brings no benefit.

## Part 2 Supplies that work well

Any of these is a good choice. Examples are linked so you know what to search for.

### RECOMMENDED

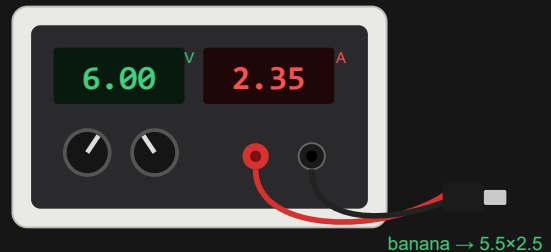


#### Adjustable adapter with a display

The easy, cost-effective choice, and the one I recommend for most people. A dial sets the voltage and the display shows it. Look for 3–12 V, 10 A and a 5.5 × 2.5 mm plug; AliExpress and local listings both have good ones.

[UK example](#) → [US example](#) →  
[AliExpress \(pick 3V-12V 10A Display\)](#) →

### BEST CONTROL

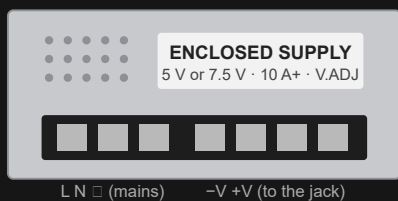


#### Bench power supply

A little more, but you see the exact voltage and current at all times. Pair it with a banana plug to 5.5 × 2.5 mm lead; choose one rated 10 A.

[Bench supplies, 10 A](#) →  
[Banana to 5.5 × 2.5 lead](#) →

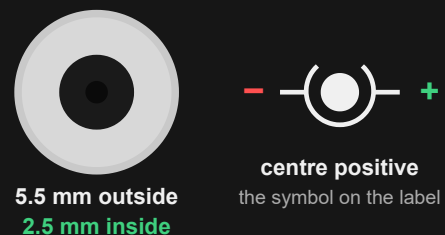
### WORKS, LESS RECOMMENDED



#### Mean Well-style enclosed supply

Solid and reliable, but it needs mains wiring and a lead making up to 5.5 × 2.5 mm. Only if you are comfortable with that.

### PLUG AND LEAD



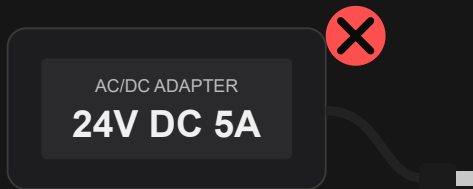
#### The plug: 5.5 × 2.5 mm, centre positive

The jack on the machine takes a 5.5 mm plug with a 2.5 mm pin hole, positive in the centre. Almost every adjustable adapter is wired this way.

## Part 3 The ones that catch people out

These are the messages I get most. Each is an easy mistake, because the plug often fits.

### AVOID



#### 12 V and 24 V supplies

The plug fits, but the voltage is far more than the servos are made for (8.4 V at most), so these are not suitable. Choose an adjustable supply instead and set it in the 4.5–6.5 V range.

### AVOID



#### 3 A or 5 A supplies

The right voltage but too little current. When the servos pull a burst, the voltage dips: weak or stuttering motion, and the board can restart mid-session. Look for 8–10 A.

### CHECK BEFORE YOU BUY

**5.5 × 2.1 mm plugs** look identical but have a thinner pin hole: they sit loose and can lose contact under load. **Centre negative** supplies (the symbol reversed) are rare but wired the wrong way round. And a supply rated above 10 A is fine but gains nothing, because the input is rated for 10 A.

## Part 4 Reading the label

Four things, all printed on the supply. This takes ten seconds.

### ADJUSTABLE POWER ADAPTER

OUTPUT: 3–12V DC 10A 120W MAX

PLUG: 5.5 × 2.5 mm



**Voltage:** adjustable 3–12 V, or fixed 5–6 V

**Current:** 8–10 A

**Plug:** 5.5 × 2.5 mm

**Polarity:** centre positive (+ in the middle)

## Part 5 Setting it up

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A minute's care the first time.

1. **Set the voltage first**, with the supply plugged into the wall but **not** into the machine. Turn the dial until the display reads around 5.5–6 V.
2. Switch the machine off, then plug the supply into its power input.
3. **V3 board** (units from 20 October 2026): switch on; USB-C is only needed for Studio, a wired player or updates. **V1/V2 board**: connect USB-C first, then switch on. Part 3 of the [Quick Start Guide](#) covers this in full.
4. Try a script and adjust in small steps within 4.5–6.5 V until it feels right: smooth and quiet first, then as strong as you like. Part 5 of the Quick Start Guide has more on servo care and noise.
5. On the way out, switch the machine off before unplugging anything.

### KEEP THE DIAL WHERE YOU SET IT

On adapters with an exposed dial it is easy to knock. If yours has a lock or a cover, use it, and glance at the display before each session.

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Not sure about a supply? Send me a message with a photo of its label and I am happy to confirm it before you buy. Every guide is on the [Support page](#). And if anything ever needs looking at, I repair units free of charge; you only cover the cost of any parts.

V E S P E R A