

# Setting Up the AT-LP120-USB Turntable – Part 1

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The [AT-LP120-USB Turntable](#) is a professional direct-drive turntable with both analog and USB connection capability, so you can use it with all standard audio equipment or plug it directly into your computer. But make no mistake, this isn't just a tool to transfer records to MP3s – it's loaded with all the tools you'd expect from a professional turntable, including adjustable tone arm and pitch control, ½-inch Dual Magnet™ cartridge, three speeds (33/45/78), DJ functionality and more.

But, as with most professional gear, proper setup is critical to getting the most out of the AT-LP120-USB and ensuring long-lasting operation of the stylus and enjoyment of your records. In this post we'll cover headshell and counterweight installation, and tone arm balance. In Part 2 we'll tell you how to set the tracking force and pre-amp selector switch, and make anti-skate and tone arm height adjustments.

The first order of business is to put all the pieces in place. So set the platter and slip mat onto the turntable spindle, making sure the platter is fully seated. Next, lock the tone arm in place in the tone arm rest and attach the headshell assembly by inserting it into the end of the tone arm. While continuing to hold the headshell, rotate the locking ring on the tone arm counterclockwise to pull the headshell securely into place.

Rotate headshell  
locking ring  
counterclockwise



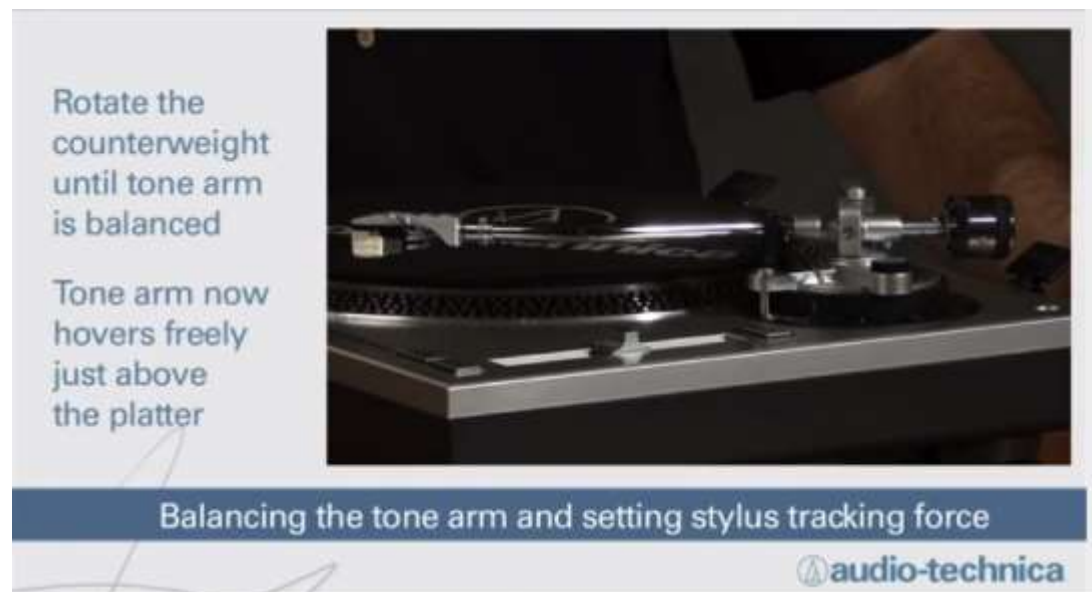
Assembling the turntable

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Now install the counterweight. With the black stylus force gauge facing forward, screw the counterweight onto the back of the tone arm. Then, if you intend to use the dust cover, slip its hinges into the slots on the back of the turntable and slide the cover into place on the hinges.

Once you have all that taken care of, you can move on to the important matter of balancing the tone arm. This will help ensure that the cartridge tracks properly and that the stylus won't wear prematurely or damage your records. To get started set the anti-skate dial to 0.

Remove the protective cover from the stylus by sliding it straight forward off the front of the cartridge. Take hold of the headshell and then release the tone arm's locking clamp. The tone arm will be unbalanced at this point, so take care not to damage the stylus by letting it come into contact with the slip mat (or anything else). While continuing to gently hold the headshell, rotate the counterweight until the tone arm is horizontally balanced – it should hover just above the platter. Once this is done, lock the tone arm back in place on its rest.



## Setting Up the AT-LP120-USB Turntable – Part 2

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In [Part 1](#), we told you how to install the headshell and counterweight, and how to balance the tone arm. Now it's time to set the stylus tracking force. Setting the force properly will keep the stylus from skipping out of the record groove at especially dynamic musical passages (too little force) and prevent excessive wear to stylus and records (too much force).

The recommended force varies from cartridge to cartridge, so first you need to determine which cartridge you're dealing with. The AT-LP120-USB currently comes with an [AT95E](#) cartridge

(identifiable by its green stylus). Prior to September 2011, the turntable was equipped with the now discontinued [ATP-2XN](#) (white stylus). If you are working with the AT95E, we recommend setting the force to 2 grams; if you have the ATP-2XN, set the force to 3.5 grams. (If you ever install an alternate cartridge, you'll need to adjust the tracking force according to the manufacturer's recommended setting.)

As you'll recall from the previous post, the stylus force gauge is located on the front of the counterweight. Without adjusting the counterweight, rotate the force gauge so the number 0 lines up with the centerline marked on the rear of the tone arm. Then set the tracking force by rotating the entire counterweight (the force gauge should turn along with the weight) counterclockwise until reaching the desired value.



Also, to compensate for the natural “skating” force that pulls the tone arm toward the center of the record, set the anti-skate knob to match the value of the tracking force. However, if you anticipate doing a fair amount of back-cueing, scratching or reverse-direction operation, you may want to use less or no anti-skate control.

If you use a taller cartridge, thicker slip mat or play thick records (such as 180 g pressings or old 78s), you may also need to adjust the tone arm height in order to keep the tone arm parallel. To do so, loosen the height-lock switch and rotate the black height-adjust dial – the lock and dial are both located at the base of the tone arm. Once the height is adjusted correctly, secure it by flipping the switch back into locked position.

Loosen the height lock

Rotate height-adjust dial as desired and tighten height lock



Setting the tone arm height adjustment

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Finally, adjust the PHONO/LINE selector switch on the back of the turntable to set the proper output. If the turntable is connected to a receiver or other device with a dedicated phono input, move the switch to PHONO. If the turntable is connected to a sound card, powered speakers or AUX-type inputs, set the selector to LINE, which will activate the turntable's internal pre-amp. If you are using the USB output to connect the turntable to a computer, the selector switch can be set to either PHONO or LINE as the switch doesn't affect USB output in any way.