

Playing Records...

Apologies if we are trying to teach granny how to suck eggs, but younger members have no experience whatsoever of vinyl records.

Records are much more susceptible to damage than CDs. You should always make efforts to hold them by the edges or centre, keeping your fingers off the surface. Always place them carefully back in their sleeve(s). Try not to leave them in sunlight or heat or lying on a rough or dirty surface. If not stored properly they will warp, break or scratch.

Usually, records come in two sizes – 7 inches (18cm) wide and 12 inches (30cm) wide.

In general 7 inch records are singles with one or two tracks each side. These are listed in our library as S1, S2, S3 etc. We have around 3,000 of them.



Most singles have a small hole in the middle, (see picture left) but some will have a hole about an inch (2.5 cm) wide (see picture right). These are singles which at one time were used in juke boxes. Those with the larger hole will need a special adapter in order to play them. We'll get to that a little later!



A few singles (particularly dance mixes) may be on 12 inch discs. These are listed as X1, X2, X3 etc. in the library.

Usually singles (both 7 and 12 inch) will play at 45 rpm or "revolutions per minute".

Most 12 inch records are albums or LPs. They may have as many as 10 or 12 tracks on each side. Usually albums will play at 33 $\frac{1}{3}$ rpm. You'll see that we have thousands of these too.

Over the years there have been other speeds such as 16 rpm and 78 rpm. However these were phased out about 50 years ago and we have no equipment suitable for these records.



The tracks can be found by checking which side they should be on (A or B or 1 or 2). You should be able to see each track in a band on the record.

If you look closely at the orange album in the picture you will see that there are 7 tracks. The lines between the tracks are the silences between the songs. Track one is on the outside and it plays inwards in a spiral until it reaches track 7 beside the central label.

Records get a bit crackly with age. Because of handling it tends to be the outer tracks that are worst, so if you have a choice you might prefer to play an inner track.

Hospital Radio Perth uses the Technics SL1200 record deck to play records. They are an industry standard – used by top DJs and quite sensitive – so need to be treated gently. In broadcasting, record decks are often known as GRAMS.

But first lift the Perspex lid so we can examine the working parts.



The S shaped arm on the right is known as the tone arm it is very delicately balanced and it is the front part of that which goes onto the record. The arm may be clipped into place – make sure if that's the case that you undo the clip before moving the arm.

You will see that there is a small curved leg sticking out of the right of the head, that's the bit you use to lift the arm and place it on the record.



Although it isn't shown in the main picture, there will be a device below the head of the arm known as a cartridge and fitted into that will be a tiny stylus. It is the stylus that makes contact with the record, so it's important that it is clean and in good condition – don't touch it – they are delicate and expensive! It should look something like the one in the picture on the left.

The round bit that holds the record is the turntable or platter. The SL1200 is very advanced, but it still takes about 0.7 of a second for the turntable to get up to speed from a stationary start. The turntable is designed so that it can be rotated backwards and forwards by hand when it is switched off. Don't try doing that on any record player at home though.

You will see that the turntable has a spindle in the middle for fitting the record over. If it's one of the large hole "jukebox" records we mentioned earlier, then first fit the adaptor over the spindle. You can see the adaptor in its recessed home at the top left of the deck top.

On the front left of the deck top you can see four controls.

The large black topped rotary knob is simply to switch mains power on and off.

The large rectangular press switch is simply to start an stop the turntable rotating.

The small rectangular switches are to select the speed of rotation, 33 $\frac{1}{3}$ or 45 rpm as required.

About halfway along the front of the deck top is a small button that, when pressed, causes a small light to lift up and illuminate. This lights up the area of the record where the stylus will be playing and helps you cue up the song.

On the right hand side of the deck top is a sliding fader. This should always sit in the central position. Sliding it either way will slightly speed up or slow down the record. It's a device used by club DJs who are mixing records. You are unlikely ever to need it.

Now let's look at how to play a record.

Cueing a record is a trial and error process, so you will need to use pre-fade (either on speaker or headphone) to monitor your progress.

Check the speed of your record and set the speed on the record deck. Ensure that you have the correct side of the record and that you know what number track you want. Place your record on the turntable and start it rotating by pressing the rectangular start / stop switch at the front left.

Turn on pre-fade. Lift the tone arm and gently lay the stylus on the record as close as you can to the narrow band that marks the start of the track that you want to play. It might take you a few efforts to hit the area of silence.

As soon as you hear the start of the track, press the rectangular start / stop switch and use your hand to stop the turntable rotating. You can now hand-rotate the turntable in reverse until you get to the moment that the track begins.

If you were to start the record at this point it would take 0.7 of a second to come up to speed and would sound odd. To counteract that, hand turn the turntable back another $\frac{1}{4}$ rotation. Now when you start the record the $\frac{1}{4}$ turn buffer will mean that it will be up to speed by the time it reaches the first music.

Turn off pre-fade. Your record is now cued to play. It will start automatically when you open the "GRAMS" fader on the mixing desk or press the GRAMS channel "On" button.

Remember that there will be a very brief moment before the music starts as the turntable comes up to speed.

The turntable will not stop until you stop it. So if you are not careful, it will continue on to the next track. You can stop it by closing the GRAMS fader or pressing the GRAMS "On" button.

Carefully lift the tone arm off the record and put the record back into its sleeve. Remember to switch off the mains to the record deck and close the Perspex lid.

Learning points...

Understand the types of records available and how to handle them.

Understand how to find tracks on a record and the different speeds they play at.

Understand the various parts and controls of the Technics SL1200 record deck.

Understand how to cue a record and the need for the $\frac{1}{4}$ turn buffer.

Understand how to start and stop a record using the mixing desk.