# **Technics SL-1200**

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Technics SL-1200 is a series of turntables originally manufactured from October 1972 until 2010, and resumed in 2016, by Matsushita under the brand name of Technics. S means "Stereo", L means "Player". Originally released as a high fidelity consumer record player, it quickly became adopted among radio and club disc jockeys, thanks to the direct drive, high torque motor design, making it initially suitable for pushbutton cueing and starting of tracks on radio.

When the use of slip-mats for cueing and beat-mixing (and scratching) became popular in hip hop music, the quartzcontrolled high torque motor system enabled records to be mixed with consistency and accuracy. A primary design goal was for hi-fidelity, but having good build quality, control over wow and flutter, and minimized resonance made the equipment particularly suitable for use in nightclubs and other publicaddress applications. Since its release in 1978, SL-1200MK2 and its successors were the most common turntable for DJing and scratching. Producers, DJs and MCs refer to the Technics turntable as the "Tec 12's", "Wheels of Steel", and "Ones & Twos". Technics 1200s are commonly used in recording studios and for non-electronic live music performance. More than 3 million units were sold. It is widely regarded as one of the most durable and reliable turntables ever produced. Many 1970s units are still in heavy use. In the autumn of 2010, Panasonic announced that the series was to be discontinued. [3][4] However, at the 2016 Consumer Electronics Show, Panasonic announced that they would return in two models named "Grand Class": one a limited run of 1200 globally (1200GAE), and the other a

#### **Technics SL-1200**



Invented by Matsushita

1972 Launch

year

**Technics** Company

Availability 1972-2010, Late 2016-present

Technics SL1200 (https://web.archiv Website

> e.org/web/20100101124138/http://w ww.panasonic.com/Consumer Electr onics/Technics Dj/compare analog.a

sp)

#### Notes

Production ceased in late 2010 but resumed in  $2016^{[1][2]}$ 

consumer product (1200G). A lighter and less expensive 1200GR model was announced.

At the London Science Museum, a Technics SL-1210<sup>[5]</sup> is on display<sup>[6]</sup> as one of the pieces of technology that have "shaped the world we live in".<sup>[7]</sup>

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### **Features**

#### SL-1200 features include:

- Magnetic (no wear), direct drive (low slip) mechanism.
- High torque (1.5 kgf·cm or 0.15 N·m), which means the platter spins at the desired speed almost immediately (0.7 seconds to reach 33 ½ RPM from standstill), and rapidly reacquires the desired speed, without "overshooting", if the platter is dragged or nudged. This aids beatmatching.
- Low wow and flutter (0.01%), implying that the platter stays within 1/100 of 1% of the desired speed.
- Heavy base (2.5 kg), and increased isolation of platter from base, reduced the likelihood of feedback or stylus jumping.
- Variable pitch control, allowing the rotational speed to be adjusted from -8% to +8% (for the purpose of beatmatching).
- High reliability: many examples of SL-1200s lasting well over 15 years of heavy use and withstanding physical shock without functional impairment.
- S-shaped tone arm: No longer popular on high end hi-fi turntables.

## **Specifications**

- Dimensions MK1: 45.3 cm (w) x 36.6 cm (d) x 18 cm (h)
- Dimensions MK2: 45.3 cm (w) x 36 cm (d) x 16.2 cm (h)
- Weight: 11 kg (net, unboxed without lid)
- Voltage: 220 V / 110 V (selectable)
- Pitch Control: +/- 8%
- Starting Time (MK2): 0.7s
- Rotation Speeds: 33-1/3 & 45 rpm

### Models

#### Original model

■ SL-1200 The SL-1200 was introduced in 1972 as an evolution to the popular SL-1100. It was dubbed "The Middle Class Player System". It was delivered in two different versions: The SL-1200 came with a tonearm section. The SL-120 came without a tonearm section. An SME tonearm was the usual choice for the audiophile.

#### MK2 models

The SL-1200 Mark 2 was introduced in 1979 as an update to the SL-1200. It represented a culmination of Technics Turntable Innovations. It was dubbed as "The Middle Class Quartz Direct Drive". It soon found its way into discos as well as radio stations for airplay because of its vibration damping ability and resistance to feedback, and eventually it became



The original SL-1200 from 1972

popular with pioneering hip-hop DJs. Model numbers indicated colour: the 1200 (silver) and 1210 (matte black). This was the same in the US and Japan initially, however later the 1200 was available in both silver and matte black finishes.

■ SL-1200MK2 (released in 1979) came in both silver and matte black. Technics improved the motor and shock resistance and changed the rotary pitch control to a slider style. This became the base model and is the oldest whose production continued until 2010. The older version of this model that was sold in the 1970s and 1980s has a large 4-inch-diameter (100 mm) plate where the RCA and ground wires enter the unit, while the newer version has a smaller 2-inch-diameter (51 mm) hole in the rubber where the RCA and ground enter. International versions of the SL-1200MK2 included switches for line voltage and frequency beneath the platter.

- SL-1210MK2 came in satin black metallic finish and is nearly the same in function as the SL-1200MK2, although some of the circuitry inside is updated to use fewer types of pots and resistors. [8] The Technics 1210 series also had a switch to change between voltages on the underside of the platter. It was unavailable from official Panasonic dealers in the United States.
- **SL-1200MK2PK** has a matte black finish, and was only available in the USA.



The Technics EPA-120 tonearm was standard equipment on the original SL-1200 and was significantly different than the tonearm introduced with the MK2 and subsequent models

#### MK3 models

- **SL-1200MK3** (released in 1989) has a matte black finish like the MK2, gold RCA plugs, and a small gold-foil Technics label on the back. It was destined only for the Japanese market.
- SL-1200MK3D (Japan only, factory gold RCA cables, black finish)
- SL-1200M3D (released in 1997) has a silver finish like the MK2, a detached dust cover (no hinges), and no self-locking detent ("click") at the zero point of the pitch adjustment slider, allowing more precise control of pitch near that point. It has a reset button that sets the pitch adjustment to 0, regardless of the actual position of the pitch adjustment slider. In addition the M3D series has unique details: the brand and model label is printed in a single line instead of two; and the stroboscopic light is red with a slightly orange tone.
- **SL-1210M3D** is the same as the SL-1200M3D except with a matte black finish like the MK2 and a voltage switch.

#### MK4 models

■ SL-1200MK4 The SL-1200 Mark 4 was introduced in 1996. It was an update to the SL-1200MK2.

Only available in Japan / Southeast Asia Markets Price for around \$650.00. It has a matte black finish like the MK2, This model is aimed at the hi-end audiophile market rather than DJs. It is the last model made with the detent ("click") in the neutral position (+/- 0%) of the pitch adjustment slider. In addition to the existing 33 RPM and 45 RPM buttons, the MK4 adds a 78 RPM button. It is designed to be used with regular removable RCA cables (along with a removable ground/earth cable) rather than having hard wired RCA cables like all other 1200/1210 models.

#### MK5 models

- SL-1200MK5 (released on 1 November 2002) has a silver finish like the MK2, increases the range of antiskate settings from 0–3 grams-force (0–30 mN) to 0–6 grams-force (0–60 mN). It has a white LED target light (previous versions only had an incandescent bulb). Current MK5 models have a removable lid with magnets as opposed to the MK2 and MK3 removable hinged lid.
- **SL-1210MK5** has a matte black finish like the MK2, and is exactly the same as the SL-1200MK5, aside from the voltage switch, like the other decks in the 1210 series.
- SL-1200MK5G Similar to the SL-1210M5G.
- SL-1210M5G (released on 1 November 2002) has a glossy black finish with silver speckles. It was a special 30th-anniversary edition. It was initially launched in Japan only (together with the MK5) but then became internationally available. It switches between ±8% and ±16% ranges for pitch adjustment, and the pitch control is digital. It also features blue target lights and blue pitch-number illumination. The brake strength potentiometer, although still located beneath platter, can now be adjusted, unlike previous models, using a

small plastic knob. Minor improvements over Mk2, Mk3, Mk4, & 1200LTD include improved tonearm mounting and oxygen-free copper wire, improved vibration damping in the body, improvements to pitch control accuracy and better LEDs.

#### MK6 models

- SL-1200MK6-K & SL-1200MK6-S (released in February 2008 in Japan) with minor improvements including improved tonearm mounting and oxygen-free copper wire, improved vibration damping in the body, improvements to the pitch control accuracy and better LEDs. -S model has a silver finish like the MK2.
- **SL-1200MK6K1** is the same as the SL-1200MK6 except with a matte black finish like the MK2. Released on 12 December 2007 (in Japan) as a special 35th-anniversary Limited edition of 1000 units.

#### **Special models**

These were limited edition versions, with 24 karat gold plated metal parts including tonearm and buttons.

- SL-1200LTD The SL-1200 Limited Edition was introduced in 1997 to commemorate the 25th anniversary of the SL-1200 series. Only 10,000 units were made, all of which sold out in less than a year. Like the MK3D, it has a pitch reset button, but differs in that it also has a self-locking detent at the zero position of pitch adjustment. This model has a piano black gloss finish and gold-plated hardware. It was priced at about US\$1200.00.
- **SL-1200GLD** (released in 2004), another limited edition model, with only 3,000 units manufactured. 1,500 of them were sold in the U.S. and the other 1,500 internationally. It is based on the MK5G model, with blue (instead of the regular white) target lights, a piano black gloss finish, and gold-plated hardware.

Many "non-official" special models of the SL-1200 and SL-1210 appeared over the years, mainly given away as prizes for turntablism, most notably the DMC World Championship, who awarded the winner a pair of 24K gold plated Technics turntables. Due to the customisation trend that has grown in the DJ community, many local events or competitions gave away custom coloured or finished units.

#### Rebirth

- **SL-1200G** (Announced in January 2016 CES in Las Vegas, released in October 2016) SL-1200 Grand Class, an aluminum bound turntable with a high–damping tonearm, a "three–layer" turntable system, complete with a microprocessor and rotary positing sensors to eliminate cogging, as well as 78 rpm speed compatibility.
- **SL-1200GAE** (Announced in January 2016 CES in Las Vegas, released in April 2016<sup>[9]</sup>) SL-1200 Grand Class 50th Anniversary Edition A Limited edition of 1,200 units. Same as above, with a magnesium case.<sup>[10]</sup>
- SL-1200GR (Announced in January 2017 CES<sup>[11]</sup>)

## **Design strengths**

The SL-1200 series was developed as a special project by Technics parent company Matsushita in an attempt to solve problems related to turntable design. The task included minimizing acoustic feedback, unwanted resonances, wow and flutter and speed errors.

This was achieved by designing a heavy plinth (base) made of a non-resonant composite sandwiched between a cast alloy top plate and a solid rubber base. In addition, the adjustable rubber-damped feet insulated against acoustic feedback, which can be a serious problem when operating a turntable in close proximity to loudspeakers (a common situation for DJs).

The drive system designed by Matsushita is direct-drive rather than the more commonly found belt-drive type. This design was developed to reduce wow and flutter and produces a very quiet turntable which, for a direct-drive turntable, has minimal motor and bearing noise, (although the bearing rumble does tend to become characteristic in well-used turntables). This was partially achieved through the fact that the SL1210/1200 was the first (and only) turntable to actually make the platter a part of the motor mechanism as opposed to attaching it via screws or magnets as is the case with most direct-drive turntables. On the underside of the platter a large magnet is placed over the spindle, surrounding the coils and forming the motor drive, thus eliminating loss through power transfer. The SL-1200 utilizes a Frequency Generator Servo Control Quartz Lock system that is claimed to produce the most accurate and consistent speed possible. The system is immune to static and dynamic stylus drag which otherwise cause unwanted speed variances that change the pitch and tempo of the music. [12]

### **Termination**

On 1 November 2010, Panasonic made the following statement on the DMC World DJ Championships home page.<sup>[1]</sup>

Panasonic reactive statement - Production of analogue turntables has ceased

Panasonic has confirmed that it ceased the production of its Technics-branded analogue turntables this autumn.

After more than 35 years as a leading manufacturer of analogue turntables, Panasonic has regretfully taken the decision to leave this market. However, Panasonic will continue to sell headphones under the Technics brand.

We are sure that retailers and consumers will understand that our product range has to reflect the accelerating transformation of the entire audio market from analogue to digital.

In addition, the number of component suppliers serving the analogue market has dwindled in recent years and we brought forward the decision to leave the market rather than risk being unable to fulfil future orders because of a lack of parts.

Panasonic employees who have been working on the analogue turntable range have been redeployed elsewhere within Panasonic - many of them continuing to work in Panasonic's Audio Video Business Unit.

## **Re-Launch Petition**

Due to the increasing popularity of vinyl by DJs, a petition is currently underway (and a petition page on Facebook.<sup>[13]</sup>) for the re-launch of the Technics SL1200/SL1210 series turntables.<sup>[14]</sup> As of September 2015 the petition had 27,000 supporters, while 35,000 is the target Panasonic requested. On January 05, 2016 Technics agreed to relaunch both the SL-1200G and the SL-1200GAE <sup>[15]</sup>

### **Resuming Production**

At the 2016 Consumer Electronics Show in Las Vegas, Panasonic announced it would be resuming production with a new line of turntables, [16] beginning with the Limited Edition SL-1200GAE [17]

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- 17. "Grand Class Direct Drive Turntable System SL-1200GAE Hi-Fi Audio Technics".

### **External links**

- Panasonic (Technics) product page (https://web.archive.org/web/20100101124138/http://www.panasonic.com/Consumer\_Electronics/Technics\_Dj/compare\_analog.asp) [From Archive.org as link has now been removed from Technics.com website]
- Frequently asked questions on Hyperreal on the Technics SL-1200MK2/SL-1210MK2 Turntables (http://music.hyperreal.org/dj/sl1200.html)
- Technics SL-1200 MK2 at Vinyl Heaven (http://www.mds975.co.uk/Content/vinyl01.html) a hi-fi perspective
- Technics SL-1200 MK2 at TNT Audio (http://www.tnt-audio.com/sorgenti/technics\_sl1200\_e.html) an audiophile review
- Technics SL-1200 History (http://blog.discostudio.co.uk/2009/02/technics-sl1200-sl1210/) With timescales and images.
- Technics SL-1210 Review (http://www.bestdjturntables.com/which-turntable-does-tiesto-use/) Review about the SI-1210 M5G edition.

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