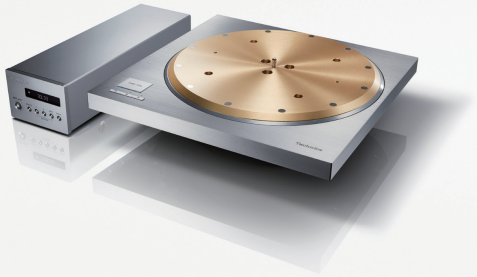
Direct Drive Turntable System SL-1000R

*Headshell and cartridge are not included



Direct Drive Turntable SP-10R

*Interchangeable with the previous SP-10MK2 and SP-10MK3

Specifications

Turntable Section

Drive method
Direct Drive

Motor
Brushless DC motor

Turntable Speeds
33 1/3, 45, 78 rpm

Adjust Range
±16 %

Starting Torque
0.39 N・m / 4.0 kg・cm (3.47 lb-in)

Wow and Flutter
0.015 % W.R.M.S.

Turntable Platter
Brass and aluminium diecast combined
Diameter : 323 mm (12-23/32")
Weight : Approx. 7.9 kg (17.5 lbs)
(including turntable sheet)

Tonearm Section (SL-1000R)

Type
Universal Static Balance

Effective Length
239 mm (9-7/16 inch)

Overhang
15 mm (19/32 inch)

Tracking Error Angle
Within 1° 48' (at the outer groove of 30 cm (12") record)
Within 0° 30' (at the inner groove of 30 cm (12") record)

Offset Angle
21°

Arm Height Adjustment Range
0 - 15 mm

Stylus Pressure Adjustment Range
0 - 4 g (Direct Reading)

Applicable Cartridge Weight Range (including Headshell)
15.9 - 19.7 g (without auxiliary weight)
18.8 - 23.6 g (with small auxiliary weight)
22.5 - 26.3 g (with middle auxiliary weight)
26.0 - 31.0 g (with large auxiliary weight)

Terminals (SL-1000R)

Audio Output
PHONO (Din Jack) x 1

General

Power Supply
AC 110 - 240 V, 50 / 60 Hz

Power Consumption
10 W Approx. 0.05 W (Standby)

Dimensions W x H x D
(SL-1000R)
Main Unit
531 x 188 x 399 mm (20-29/32 × 7-13/32 × 15-23/32 inch)
Control Unit
110 x 84 x 350 mm (4-11/32 × 3-5/16 × 13-25/32 inch)

(SP-10R)
Main Unit
365 x 109 x 365 mm (14-3/8 × 4-5/16 × 14-3/8 inch)
Control Unit
110 x 84 x 350 mm (4-11/32 × 3-5/16 × 13-25/32 inch)

Weight
(SL-1000R)
Main Unit
Approx. 40.2 kg (88.7 lbs)
Control Unit
Approx. 2.1 kg (4.7 lbs)

(SP-10R)
Main Unit
Approx. 18.2 kg (40.2 lbs)
Control Unit
Approx. 2.1 kg (4.7 lbs)

Operating temperature range
0° to +40° (32°F to +104°F)

Operating humidity range
35 % to 80 % RH (no condensation)

Accessories

(SL-1000R)
Turntable, Turntable sheet, EP record adaptor, Balance weight,
Auxiliary weight(Small)(Middle)(Large), Overhang gauge,
Screw set for turntable, Eye bolt, Hex key, Insulator attachment,
Dust cover, AC power supply cord, Owner's manual.

(SP-10R)
Turntable, Turntable sheet, EP record adaptor, Screw set for turntable,
Screw set for turntable base, Eye bolt, Hex key, AC power supply cord,
Owner's manual.

Technics is a brand name of hi-fi audio products owned by Panasonic Corporation

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SL1000R_SP10R_AP_Catalog_US_2017_1218

Reference Class

Direct Drive Turntable System SL-1000R

Direct Drive Turntable SP-10R

Rediscover Music / Technics

While the SL-1200 remains the bestselling Technics model ever, our original direct drive turntables, the SP-10 Series, still enjoys an almost cult-like status among fans of Technics audio components. Our work over the past two years on the revival of the SL-1200 Series are bearing fruit in many ways—among them the upcoming Technics SP-10R and Technics SL-1000R.

The world's first direct drive turntable, the SP-10 was launched in 1970, astonishing consumers and professionals alike with a level of rotational precision and reliability that belt drives and idler drives simply couldn't match. The SP-10MK2 pushed rotational precision even further with its Quartz-Phase-Locked Control. Superb performance and reliability quickly made the SP-10MK2 the go-to turntable for broadcast stations and the holy grail of audiophiles worldwide. The great appeal of direct drive technology is its ability to eliminate degradation in sound quality caused by rotation fluctuation and minute vibrations between the motor and transmission mechanism inherent in other types of systems. Many manufacturers embraced the technology and soon the direct drive turntable became the industry standard. And it all began with the SP-10. Over the intervening years, the SP-10 Direct Drive Turntable—together with the SL-1000 Direct Drive Turntable System with tonearm and cabinet based on the SP-10—have become synonymous with direct drive technology and been hailed as legends in their own time, fitting symbols of the Technics brand name that still inspires the admiration and loyalty of audiophiles worldwide.

For some time now, analogue turntables have been experiencing a resurgence after being sidelined for many years by the compact disc player. Once again belt drive turntables have become the industry standard, despite their inferior sound quality, simply because they're easier to design and manufacture. The formerly dominant direct drive turntable now finds itself marginalized due to the high technical threshold it demands. The result is that the market for high-fidelity turntables is dominated by a material-intensive approach that relies on sheer mass to achieve rotation stability. However, direct drive technology is not only inherently superior in its level of rotational precision, but the new SL-1200 Series' newly-developed coreless direct drive motor achieves unprecedented high-fidelity by eliminating cogging.

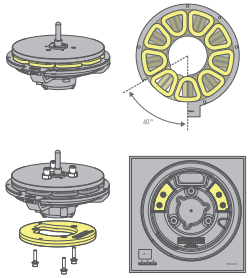
Given the current state of the high-fidelity turntable market today, we considered it our mission to leverage the technological expertise we've developed to build the next generation of direct drive turntables: with their refined architecture, these new-concept products will offer consumers a truly superior alternative to the mass-intensive turntables currently available in the high-end market. These will be worthy namesakes of the history-making SP-10.

The revival of the SP-10 Series establishes a new reference point for the modern high-fidelity turntable, redefining it for a new age. That's why, as the newest additions to Technics' signature Reference Class lineup of audio components, we have dubbed our newest direct drive turntable and turntable system, designed and engineered to optimize its outstanding performance, the Technics SP-10R and Technics SL-1000R.

Direct Drive Motor (SL-1000R / SP-10R)

Coreless Direct Drive Motor

The motor that forms the heart of the direct drive turntable is based on the coreless direct drive motor that was developed for the SL-1200G launched in 2016, and further improved. The double coil twin rotor-type coreless direct drive motor that was newly developed for this purpose had coils on both sides for 12-pole, 18-coil drive, with high enough torque to drive the heavyweight-class platter (approximately 7.9-kg). Offsetting the coils on both sides 60 degrees improved the rigidity of the substrate, suppressing fine vibrations and reducing self-inductance. These improvements achieved stable rotation of 0.015% wow and flutter or less, which is considered to be the measurement limit. Also, the thrust bearings supporting the heavyweight-class platter use a special engineering plastic to provide both high rigidity and reliability.



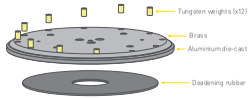
Suppressing Unwanted Motor Vibration

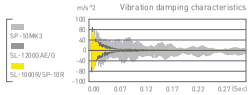
The motor that was developed for the SL-1200G served as the platform for the direct drive motor. The double coil, reinforced thrust bearings, and a chassis with increased rigidity achieved a stabilised motor with low centre of gravity. By positioning two stainless steel weights with high rigidity and high specific gravity at the bottom of the chassis, the rigidity and low centre of gravity are maintained. These thorough measures to prevent unwanted vibration help to achieve overwhelming rotary precision and improve S/N.

Turntable Platter (SL-1000R / SP-10R)

Heavyweight-class Turntable Platter

The turntable platter positions tungsten weights, which have an extremely high specific weight and are difficult to process, on the outer periphery of a 10-mm-thick brass weight. The brass weight is laminated onto the aluminium die-cast, giving the platter a total weight of approximately 7.9 kg and an inertial mass of approximately 1 ton/cm. A deadening rubber for eliminating unwanted vibration is also attached to the rear surface to form a 3-layer construction and achieve high rigidity and excellent vibration damping characteristics.

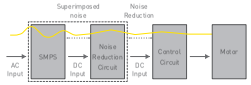




Control Unit (SL-1000R / SP-10R)

Separate Control Unit

The control unit is separated from the main unit to suppress the effects of unwanted noise on the main unit. In order to achieve a power supply circuit that provides good regulation for high torque, a switching power supply is used. To reduce the noise reaching the pickup, the switching power supply is equipped with a unique technology that provides a voltage supply with minimal noise by a newly developed "unwanted noise reduction circuit". Also, to minimise the noise even during communication, a highly reliable system that resists the effects of external noise is used for communication between the main unit and the control unit. These thorough noise-reduction measures achieve the world's highest-level S/N.



Minute Adjustment and Indication of Rotations

This turntable supports not only LP (33 1/3 rpm) and EP (45 rpm) analogue records, but also SP (78 rpm). Rotation (rpm) can also be set down to two decimal places (maximum ±16%) from the control unit. The OLED display is also capable of displaying rotation with accuracy down to two decimal places, so the user can both hear and see extremely precise rotation.

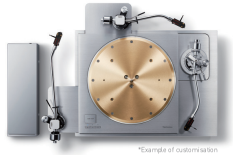
Tonearm (SL-1000R)

High-sensitivity Tonearm

To enable the tonearm to precisely track the record's rotation, Technics has traditionally used the static balance, S-type universal tonearm with a lightweight, high damping magnesium tonearm pipe. The gimbal suspension construction tonearm uses high-precision bearings. Highly skilled Japanese craftsmen handle all assembly and adjustment to achieve a high initial-motion sensitivity to precisely trace the grooves cut into the records. OFC is used for internal wiring, so the music signal relayed from the cartridge is not dampened and the musical energy cut into the record is not lost, thereby producing highly vivid sounds.

Tonearm Base

The tonearm base, to which the tonearm is mounted, is strongly integrated with the turntable part. Comparing the turntable base part with the tonearm mounting construction, the relationship of the tonearm bearings, turntable bearings, and needle position is always constant, providing a structure in which the vibration caused by the rigidity of the turntable base materials has minimal effect, and the tonearm performance is maximized. An optional tonearm base can also be purchased, enabling, in addition to the standard tonearm, an existing short or long-type tonearm from SME or Ortofon to be mounted (up to three including the standard tonearm).



*Example of customisation

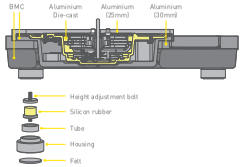
High-quality Terminal

A gold-plated 5-Pin DIN terminal is used, enabling the user to select the desired PHONO cable. An integrated, machined, high-rigidity aluminum housing also suppresses external noise from reaching the pickup.

Body and Insulator (SL-1000R)

A Rigid Cabinet and High Damping Silicon Insulator

The cabinet has a 2-layer construction consisting of BMC (bulk molding compound) and a 30-mm-thick aluminium top panel. The turntable part is a 3-layer construction comprising BMC, aluminium die-cast, and a 25-mm-thick aluminium top panel. This gives the system a construction of 5 layers of different materials to ensure sufficient rigidity. The insulator that supports the cabinet is a special silicon rubber that combines high vibration damping characteristics and long-term reliability. Reinforcement with a cylindrical tube made of a microcell polymer absorbs vibrations in the horizontal direction. These parts are contained in a zinc die-cast housing with high specific gravity, for isolation from external vibrations.



Backward Compatibility (SP-10R)

SP-10MK2 and SP-10MK3 Compatibility

In order to enable users to continue using the turntable base and tonearm of systems including the SP-10MK2 and SP-10MK3, the shape and screw positions of the SP-10R base plate are designed to allow mounting onto the SP-10MK2 and SP-10MK3 for complete backward compatibility. The control unit is also the same shape and size as the SP-10MK2 power unit for trouble-free replacement.