

Technics service

Richard Talmage, LCGI EngTech TMIET - Qualified service engineer. 13 Sydney St, Weymouth, Dorset DT4 0NF, UK.

www.technics-service.co.uk - info@technics-service.co.uk - 07710556857

SFDZ122N11-2 Product Information (History, Outline & Re-manufacture) – Page 1

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Intro:

On the Technics SL-1200 and SL-1210 Mk2 turntables, there has been three different types of pitch (slide potentiometer) manufactured all with slightly different characteristics. They are as follows:-

SFDZ122N11

SFDZ122N11-1

SFDZ122N11-2

The original SFDZ122N11 had a 20k Ω logarithmic resistance taper with ± 2.5 mm quartz lock, which also calibrated best to 2.7k Ω and is what the original service manual took into account for its measurements. The calibration was to bring the $\pm 3.3\%$ and $+6\%$ dots inline to around 2.7k Ω ($\pm 20\%$) centre tap according to the service manual, however with the 20% manufacturing tolerance this sometimes would need to have been altered.

History and progress:

Since the release of the first Mk3 turntable (initially just for the Japanese market) in 1989, the carbon track was altered to 22k Ω , changing the calibration to 2.875k Ω ($\pm 20\%$) on VR302 for the pitch gain. This meant the SFDZ122N11 was replaced with a newer model having the -1 suffix, making it the SFDZ122N11-1. The ± 2.5 mm quartz lock calibration was not changed on this model, only the resistance taper. It remained at 22k Ω with the same 20% tolerance, however because of the taper change it was difficult to get the $+6\%$ and $\pm 3.3\%$ to line up perfectly, if you had the $\pm 3.3\%$ lined up then the $+6\%$ actually ran at around 6.4% (which was then actually printed as 6.4 on Mk5 models to correct this issue)

In 1997 the M3D was introduced and a clickless slide potentiometer (SFDZ122N11-3) was introduced for that model. Around the same time the SFDZ122N11-2 was introduced for the Mk2, both the SFDZ122N11-2 and SFDZ122N11-3 keeping the same resistance taper as the SFDZ122N11-1 but with the SFDZ122N11-2 shortening the quartz lock travel from ± 2.5 mm to ± 0.5 mm bringing the quartz lock within the ± 1.0 mm centre null point on the resistance taper. The quartz lock was removed from the SFDZ122N11-3.

The shortening of the quartz lock on the SFDZ122N11-2 was made because whilst the mk2 turntable was originally made for hi-fi use, many DJs were having issues with the quartz/VCO conflict when beatmatching close to the 0% centre mark on the pitch scale when used with the SFDZ122N11-1 as these turntables were now mainly being sold for the DJ market having become both the industry and club standard. Production of all the pitch slide potentiometers also moved to a new factory (a subsidiary of ALPS) around this time, rather than ALPS directly and this can be noted by the pins no longer having a 'hook' shape since being made in the new factory. The new factory also improved the longevity of all these models to around 10,000 operations before failure, which averaged at around 15 years of use by the average DJ.

The SFDZ122N11-2 was available as a spare part on its own for a very brief period, before becoming the standard part fitted to all SFDZ122-24A1 complete pitch units (which were designed for easier replacement) – However the SFDZ122N11-1 was still available, as were the SFDZ122N11-3 (Mk3 and Mk5) and SFDZ122N11-4 (the latter being for Mk5G only having a 10k Ω resistance value).

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Product discontinuation:

When Technics ceased production of all models in 2010, spare parts began to run out in 2016 with the SFDZ122N11-1 being the first to become no longer available, followed by the SFDP122-24A1 (housing the SFDZ122N11-2) in 2017 and the SFDZ122N11-3 in 2018. The SFDZ122N11-4 was still available at the time of writing this (September 2018).

Despite Technics releasing new models (GAE, G and GR variants) the original models remained the preferred choice for DJs due to the analogue VCO pitch design providing the best accuracy and infinite resolution (with the exception of the Mk5G which was digitally controlled) – The new release models were of a completely different design with a full digital pitch control, and completely different components thus gaining poor reviews amongst DJs as a result due to latency and stepped resolution. Many DJs chose to have their Technics turntables serviced since the vinyl revival began in 2015.

Product re-manufacture:

The SFDZ122N11-2 design was approved for manufacture in March 2018 and the design now owned solely by Richard Talmage, LCGI EngTech TMIET of Weymouth, Dorset, United Kingdom who is the owner of the Technics service business at www.technics-service.co.uk.

The lead time for the first batch was to be 6 months allowing for the tooling to be set up by the original factory who made the SFDZ122N11-2. As a result of product research, the following improvements were made to the new SFDZ122N11-2:

- 1) Resistance tolerance to be reduced from 20% to 10%
- 2) Resistance taper improved to be able to calibrate better at the original 2.7kΩ VR302 gain ($\pm 10\%$)
- 3) Softer centre click
- 4) Longevity to increase up to 15,000 operations.

It is worth noting that ALPS no longer uses their old oval style logo, which is why it is no longer printed on the underside of the slide potentiometers. However the product identifiers confirm these are indeed manufactured in the same factory. The identifiers are a number '1' stamped on the top corner of the metal casing, with a curve on one of the edges of the carbon track PCB underneath. This is seen on all pitch faders fitted to Technics turntables.

The new SFDZ122N11-2 arrived in stock on Thursday 13th September 2018 and immediately became available on that date, with initial items being sent out to customers who pre-ordered and reserved items.

Information submitted by:

Richard Talmage, LCGI EngTech TMIET

Technics Service Engineer

UK Engineering Council Registration No: 590664.

IET Registration No: 1100173589