

# 8020 8030 STEREO STEP-UP TRANSFORMER

## SILVER WIRE STEP-UP TRANSFORMER

### FOR MOVING COIL TYPE CARTRIDGES

model 8030 for low output, model 8020 for standard output & AD8000 adapter

Our new 8000 series transformers are the step-up toroidal transformers for moving coil type cartridges, featuring high input overload, wide frequency range and low distortion.

In developing these transformers, we repeated unprecedented times of trial production under full command of our technique accumulated through years' experience in transformers. This time, we intentionally decided to make the exclusive type for each cartridge instead of interchangeable type to make the most of inherent capability of transformer. Two types are available: the model 8020 with step-up ratio of 1:10, and the model 8030, 1:32.



#### < Excellent Core material of Toroidal Type >

The core material adopted is an alloy of 79% nickel, 5% molybdenum and iron. High-grade super-permalloy smelted in vacuum processed by special treatment in pure hydrogen gas is considered to be the best material as the core in the small signal level area. Its performance exceeds by 10 times that of the conventional super-permalloy in primary magnetic permeation ratio.

Toroidal system is adopted to improve the high frequency characteristic, and the core is constructed by several layers of 0.1mm-thick plate. (In case joint is inevitable like cut-core or EI-type core, the magnetic field is disturbed at that point, while as there is no joint section in toroidal core, the inherent characteristic of the material itself can be fully utilized.)

While the super-permalloy core of special processing offers excellent characteristics, a slight shock or heat would give damage to the core. Therefore the core is packed into a ring-shaped acrylic case in which silicon oil is filled up, to maintain the best capability obtained just after the special treatment.

#### < Optimum Wire Material & New Winding Technique >

The wiring is inevitably complicated because of toroidal core, but the conventional toroidal wiring system had the limit in improving high frequency characteristics. Therefore we used extra fine threads of litz wire newly developed to reduce 'stray' between wires together with full utilization of new wiring technique, thus improving transient and phase characteristics in mid/high frequency range.

At the primary side of low impedance, pure silver wire (no less than 99.9%) is used to reduce DC resistance and to realize excellent damping characteristic from low frequency range up to high frequency range. Further with the model 8030, the primary side is wired in parallel. Thus the transient distortion inherent to transformers has been reduced, which had been extremely hard to be eliminated.

#### < Multiple Electromagnetic Shield >

The toroidal transformer is hardly influenced by the exterior magnetic field thanks to its construction. But to completely eliminate the influence of inductance noises, our step-up transformer adopts multiple electromagne-

tic shield by super-permalloy of nickel 78.5%. Incidentally, realized is such an excellent shield effect of no more than 95dBm even in 1 oersted standard magnetic field.

#### < Superb Structure >

Two transformers for STEREO use are housed in a case. Of course, these two are shielded independently.

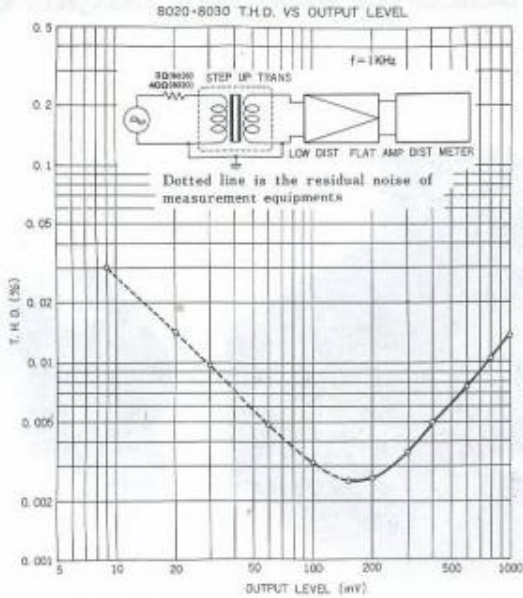
At the primary side which handles fine and minute signals, coaxial type terminals are employed to utilize the inherent capability of transformer without being affected by exterior inductance at the terminal connection or at the wiring.

All the terminals and sockets of the 8000 series transformer are gold-plated to ensure contact-stability between the transformer and the socket. Further, to prevent the secondary (PHONO) circuit from being open-circuited when the transformer is removed, a switch is provided on the socket, which is activated by a guide-pin placed at the center of the transformer.

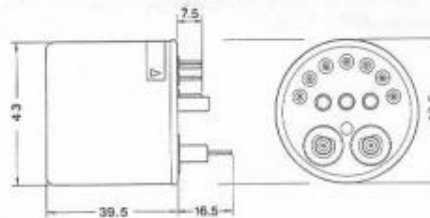
NOTE: The 8000 series step-up transformer is designed to plug into the exclusive adapter socket available on optional sale, but in case you have the 5C50 preamplifier in our Laboratory Reference Series, you can connect them direct to the socket provided on the rear panel of the 5C50.

<Suitable Cartridges for each model>

<b>8020</b>	EMT(XSD-15, TSD-15), DENON(DL-103, DL-103S), SONY(XL-55), etc.
<b>8030</b>	ORTOFON(MC-20, SL-15 series, SL-20 series, SPU-G series, SPU-A) entré (EC-1), MICRO(LC-40), SUPEX(SD-700) etc.



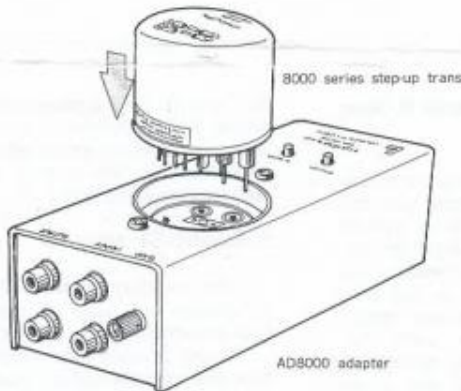
**DIMENSIONS**



**[CONNECTION]**

In case the step-up transformer is used with a conventional preamplifier or a integrated amplifier, it is necessary to couple it to the adapter model AD8000 which is available on your request. To insert the transformer to the AD8000, place it so that the silk prints on the top of the transformer can be read correctly from the front side (no terminal) of the adapter. Two button-switches are provided for selection to use the transformer or to bypass it.

When you are going to couple the transformer with the 5C50 (preamplifier of DC amp configuration) in our Laboratory Reference Series, the transformer is not necessary, since the exclusive socket is installed on the rear panel. Plug the transformer into the socket so that the "Δ" mark can be seen at the top-side.



**SPECIFICATIONS:**

	<b>model 8020</b>	<b>model 8030</b>
* STEP-UP RATIO	1:10 (20dB)	1:32(30dB)
* OPTIMUM PRIMARY IMPEDANCE	20 ~ 40 ohms	1.5 ~ 3.5 ohms
* OPTIMUM SECONDARY IMPEDANCE	47 ~ 50k ohms	47 ~ 50k ohms
* INPUT OVERLOAD VOLTAGE	70mV	22mV
* FREQUENCY RESPONSE (-1dB)	10Hz ~ 100kHz	10Hz ~ 100kHz
* DISTORTION	no more than 0.003%	no more than 0.003%
* (1kHz, 200mV output at secondary side)		
* SEPARATION at 1kHz	better than 90dB	better than 90dB
* ELECTROMAGNETIC SHIELD	no more than -95dBm	no more than -95dBm
(1 oersted standard magnetic field)		
* WEIGHT	NET 100g	NET 100g



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