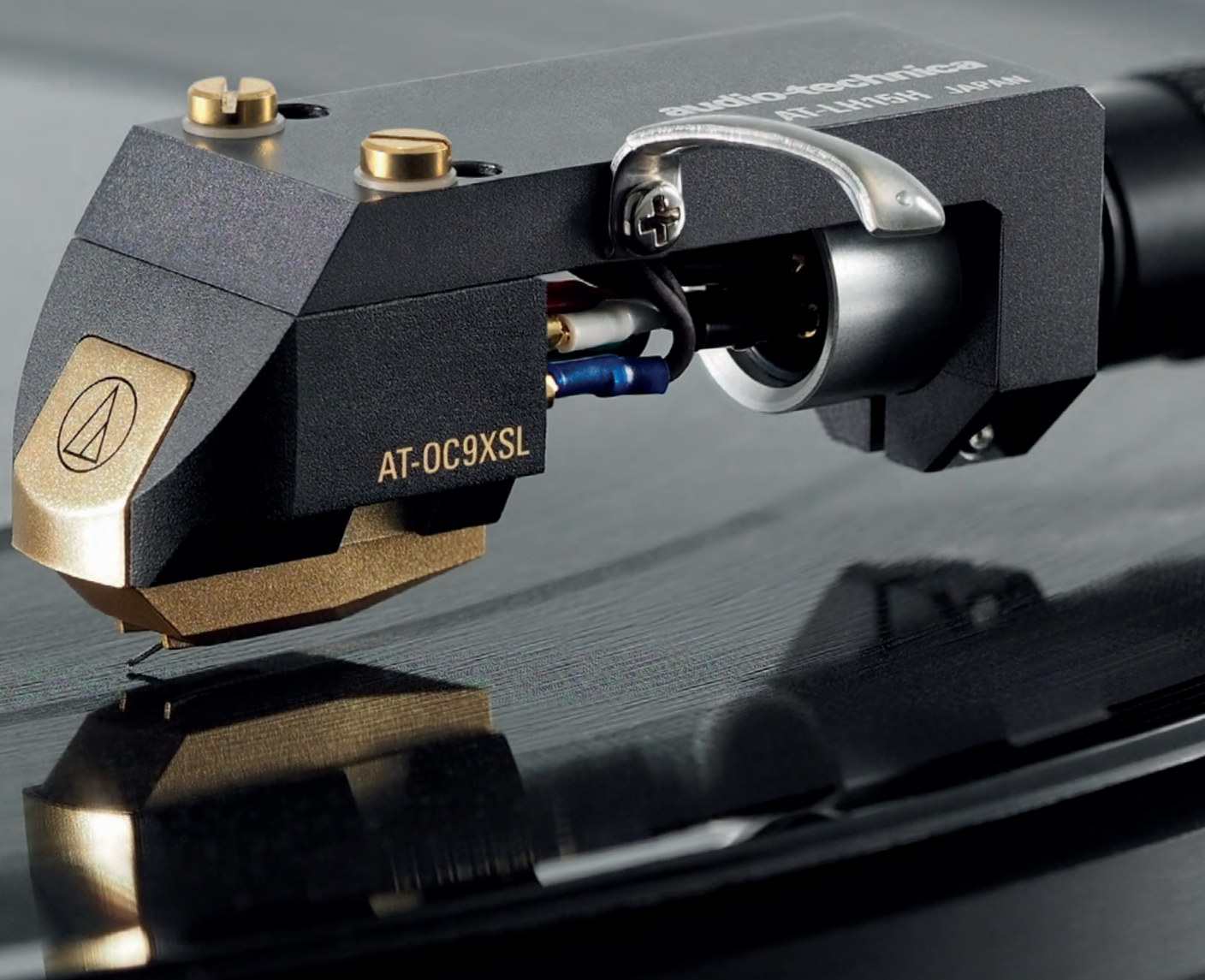


2019



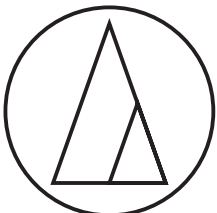
audio-technica



PHONO CARTRIDGES

PER L'ITALIA

sisme
DISTRIBUISCE QUALITA'



Audio-Technica Machida, Japan, opened January 2016

The newly constructed global headquarters and research centre of the Audio-Technica Corporation, housing 250 employees & engineers. Affectionately known as "Moby Dick" by staff due to its resemblance to the white whale.

Codice	Modello	Descrizione	Pagina	Prezzo i.e.
TESTINE				
Testine per Audiofili - Moving Coil				
10618	AT-ART1000	Testina Moving Coil HiEnd - Special Line Contact	13	4333,33
10620	AT-ART7	Testina Moving Coil - Special Line Contact	14	991,67
10619	AT-ART9	Testina Moving Coil - Special Line Contact	14	908,33
10626	AT-F2 ■	Testina Moving Coil - Ellittica		165,83
10627	AT-F7 ■	Testina Moving Coil - Ellittica		224,17
10700	AT-OC9XEB	Testina Moving Coil - Ellittica	18	199,17
10699	AT-OC9XEN	Testina Moving Coil - Ellittica Nuda	18	282,50
10622	AT-OC9XML	Testina Moving Coil - Micro Line	19	457,50
10698	AT-OC9XSH	Testina Moving Coil - Shibata	19	540,83
10621	AT-OC9XSL	Testina Moving Coil - Special Line Contact	19	624,17
10625	AT-33Sa	Testina Moving Coil - Shibata	20	665,83
10624	AT33PTG/II	Testina Moving Coil - Microline	20	582,50
10623	AT33EV	Testina Moving Coil - Ellittica	20	407,50
Testine Mono - Moving Coil				
10629	AT33MONO	Testina Moving Coil Mono	22	332,50
10628	AT-MONO3/LP	Testina Moving Coil Mono	22	165,83
10630	AT-MONO3/SP	Testina Moving Coil Mono per 78rpm	23	165,83
Testine Moving Magnet V-Mount				
10631	VM760SLC	Testina V-Mount - Special Line Contact	30	582,50
10632	VM750SH	Testina V-Mount - Shibata	30	357,50
10710	VM740ML	Testina V-Mount - Microline	30	274,17
10633	VM540ML	Testina V-Mount - Microline	30	215,83
10674	VM540ML/H	Kit Testina + Portatestina	30	236,67
10711	VM530EN	Testina V-Mount - Ellittica	31	149,17
10675	VM530EN/H	Kit Testina + Portatestina	31	173,33
10634	VM520EB	Testina V-Mount - Ellittica	31	99,17
10676	VM520EB/H	Kit Testina + Portatestina	31	115,00
10712	VM510CB	Testina V-Mount - Conica	31	90,83
10635	VM670SP	Testina V-Mount - Conica per 78rpm	32	132,50
10636	VM610MONO	Testina V-Mount - Mono	32	115,83
10643	AT91R T ■	Testina Conica Entry Level		26,67
Testine Moving Magnet Serie VM95				
10637	AT-VM95C	Testina - Conica	38	28,33
10677	AT-VM95C/H	Kit Testina + Portatestina	38	53,33
10638	AT-VM95E	Testina - Ellittica	38	40,83
10678	AT-VM95E/H	Kit Testina + Portatestina	38	65,83
10639	AT-VM95EN	Testina - Ellittica Nuda	38	99,17
10679	AT-VM95EN/H	Kit Testina + Portatestina	38	124,17
10640	AT-VM95ML	Testina - Microline	39	140,83
10680	AT-VM95ML/H	Kit Testina + Portatestina	39	165,83
10641	AT-VM95SH	Testina - Shibata	39	165,83
10681	AT-VM95SH/H	Kit Testina + Portatestina	39	190,83
10642	AT-VM95SP	Testina Conica per 78rpm	39	65,83
10682	AT-VM95SP/H	Kit Testina + Portatestina	39	90,83
Testine con sistema P-Mount				
10645	AT81CP	Testina P-Mount - Conica	42	25,00
10644	AT85EP	Testina P-Mount - Ellittica	42	33,33
10646	AT-PMA1	Adattatore per installare testine P-Mount su supporti standard da 1/2"	42	7,92

<i>Codice</i>	<i>Modello</i>	<i>Descrizione</i>	<i>Pagina</i>	<i>Prezzo i.e.</i>
STILI DI RICAMBIO				
10659	AT-VMN95EN	Stilo Ellittico Nudo per testine serie VM95	40	82,50
10657	AT-VMN95C	Stilo Conico per testine serie VM95	40	17,50
10658	AT-VMN95E	Stilo Ellittico per testine serie VM95	40	24,17
10660	AT-VMN95ML	Stilo Microline per testine serie VM95	40	124,17
10661	AT-VMN95SH	Stilo Shibata per testine serie VM95	40	149,17
10662	AT-VMN95SP	Stilo 78rpm per testine serie VM95	40	49,17
10655	ATN81CP	Stilo Conico P-Mount per testine serie VM95	42	16,67
10654	ATN85EP	Stilo per AT85EP - Ellittico P-Mount	42	23,33
10656	ATN91R	Stilo AT91R - Conico	50	18,33
10652	VMN10CB	Stilo per VM510CB e VM610MONO - Conico	32	47,50
10651	VMN20EB	Stilo per VM520EB - Ellittico	32	60,00
10650	VMN30EN	Stilo per VM530EN - Ellittico Nudo	32	113,33
10649	VMN40ML	Stilo per VM740ML e VM540ML - Microline	32	180,00
10648	VMN50SH	Stilo per VM750SH - Shibata	32	250,00
10647	VMN60SLC	Stilo per VM760SLC - Special Line	32	475,00
10653	VMN70SP	Stilo per VM670SP - Conico per 78rpm	32	78,33
PORTA-TESTINE				
10663	AT-LH13H	Portatestina 13 G + Cavi Ofc	52	74,17
10664	AT-LH15H	Portatestina 15 G + Cavi Ofc	52	74,17
10665	AT-LH18H	Portatestina 18 G + Cavi Ofc	52	74,17
10667	AT-LT13A	Portatestina 13g - Colore Nero	53	32,50
10666	AT-MG10	Portatestina 10g - In Magnesio	53	40,83
10672	AT-HS6BK	Portatestina 6g	53	24,17
10673	AT-HS6SV	Portatestina 6g	53	24,17
10669	AT-HS10BK	Portatestina 10g per Dj - Colore Nero	53	24,17
10668	AT-HS10SV	Portatestina 10g per Dj - Colore Silver	53	24,17
10671	AT-HS1	Portatestina 10g per Dj - Colore Silver	53	10,00
10670	AT-HS3	Portatestina 3g per AT-LP3	53	26,67
10701	AT-HS4BK	Portatestina Ad Angolo - Colore Nero	53	26,67
10702	AT-HS4SV	Portatestina Ad Angolo - Colore Silver	53	26,67
ACCESSORI				
10694	AT6006R	Sollevatore per braccio	54	107,50
10692	AT6003R	Contenitore per testine	54	20,00
10695	AT6181DL	Kit Disco Stroboscopico + Luce	54	107,50
10691	AT6180a	Disco stroboscopico	54	18,33
10684	AT618a	Stabilizzatore	54	40,83
10690	AT615a	Livella	54	28,33
10696	AT617a	Pulitore Gel per Stili	55	29,17
10685	AT607a	Pulitore Liquido per Stili	55	10,83
10687	AT6011a	Spazzola Antistatica	55	15,00
10688	AT6012	Kit Manutenzione Dischi	55	16,67
10689	AT6013a	Spazzola Antistatica Doppia	55	24,17
10686	AT634a	Pulitore Liquido per Dischi	55	8,33
10683	AT6101 KIT	Cavi per Testina Pcocc	52	10,00
10693	AT6108 KIT	Cavi per Testina Ofc	52	29,17

Il presente listino annulla e sostituisce tutti i precedenti.

Condizioni Generali di Vendita

Ordini

Non si accettano ordini di valore inferiore a **€ 100,00 netto + IVA** per i prodotti, ed inferiore a **€ 50,00 netto + IVA** per parti di ricambio ed accessori. L'ordine anche se telefonico deve essere sempre **confermato per iscritto**, a mezzo posta, fax o e-mail. Eventuali annullamenti devono essere sempre confermati in **forma scritta**. L'ordine dovrà contenere la denominazione dell'azienda, l'indirizzo completo di CAP, le condizioni di pagamento e destinazione della merce se diversa dall'indirizzo della sede legale.

Prezzi

I prezzi del presente listino sono **IVA esclusa**. La SISME spa si riserva il diritto di modificare i prezzi, senza preavviso sino al momento della consegna.

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Le condizioni di pagamento sono quelle previste dalla **politica commerciale** in vigore. Nel caso di **ritardo** nei pagamenti verranno addebitati gli **interessi di mora stabiliti per legge**; inoltre la SISME spa avrà il diritto di sospendere eventuali consegne non ancora effettuate. Per i **"nuovi" clienti** che non hanno mai avuto rapporti commerciali con la ns azienda, l'unica modalità di pagamento previsto è il **bonifico bancario anticipato**.

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Resi

I resi di merce dovranno essere preventivamente **autorizzati** dalla SISME spa.

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Assistenza tecnica

L'assistenza tecnica viene effettuata **presso la sede della SISME spa via Adriatica, 11 - 60027 Osimo Stazione -AN- tel.: 071-7819666 fax: 071-781494 e-mail: info@sisme.com**

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Ogni prodotto inviato in **riparazione** dovrà contenere un **documento** che descriva chiaramente il **difetto riscontrato**, corredato di **scontrino fiscale o fattura d'acquisto** in modo da poter verificare lo stato della garanzia. La riparazione verrà eseguita gratuitamente o con addebito in relazione alla validità o meno della garanzia. La merce deve essere **spedita** in SISME spa in **Porto Franco**, la restituzione avverrà con ns. corriere convenzionato in **Porto Franco se in garanzia**, in Porto Franco **con addebito in fattura se fuori garanzia**.

Riserva di proprietà

I prodotti spediti e fatturati all'acquirente **rimangono di proprietà** della SISME spa **fino al totale pagamento** del loro valore e delle spese di spedizione e delle relative tasse. Il **mancato pagamento** totale o parziale dei prodotti

fatturati all'acquirente da diritto alla SISME spa di **tornare** immediatamente in **possesso** degli stessi, restando impregiudicate le altre conseguenze legali e contrattuali della **morosità**.

Foro competente

Per qualsiasi controversia il foro competente è il tribunale di **Ancona**.

*“...pleased to introduce
a new line of cartridges...”*



a message from the president

Dear Customer,

I am proud to present the 2019 edition of our full-line phono cartridge and analogue record-related accessories catalogue, and I'm also pleased to introduce a new line of cartridges.

On page 13 you will find our new Moving Coil cartridges called the "OC9x Series" – Five new cartridges from Elliptical entry model up to the most sophisticated Special Line Contact configuration, the same diamond used on our flagship cartridge, the AT-ART1000.

The OC9x Series will represent a wide choice of great value proposition in the category of Moving Coil cartridges.

We simply wish to share the experience and our passion of analogue, and I would like to take this opportunity to thank you personally for your continued interest in our products.

松下 和雄

Kazuo Matsushita
President
Audio-Technica Corporation

History

1962



AT-1

Audio-Technica's first product:
AT-1 stereo cartridge.

1967



AT35X

An early model of the AT35X, the origin
of the VM cartridge, which received patents
worldwide.

1978



AT25

The AT25, an integral structured body
housing a VM cartridge. Features the newly
developed toroidal power system.

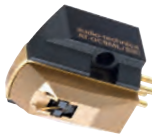
1979



AT120E/G

Launch of the AT100 series VM cartridges.
Audio-Technica improves performance
with low-loss para-toroidal power system
by using technology developed for the AT25.

1987



AT-OC9

The AT-OC9, launched in 1987, was
the original cartridge model from which
the AT-OC9ML/II and AT-OC9/III evolved.

2012



AT50ANV

50th anniversary model AT50ANV,
the first non-magnetic core MC cartridge.

2016



ART1000

The AT-ART1000 ("ART" for Audio-Technica
Reference Transducer) is Audio-Technica's new
flagship phono cartridge, handmade in Japan.

2017



VM Series

After 40 years of legendary success of MM
cartridges using VM technology, Audio-Technica
introduces the VM Series. A completely renewed line
using the latest technologies and materials, keeping
the original and exclusive AT-VM design.

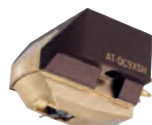
2018



VM95 Series

After 38 years of 90 series success, this newly
design series represents the best value proposition
for every record player user, from conical entry
model to the most sophisticated Shibata version.

2019

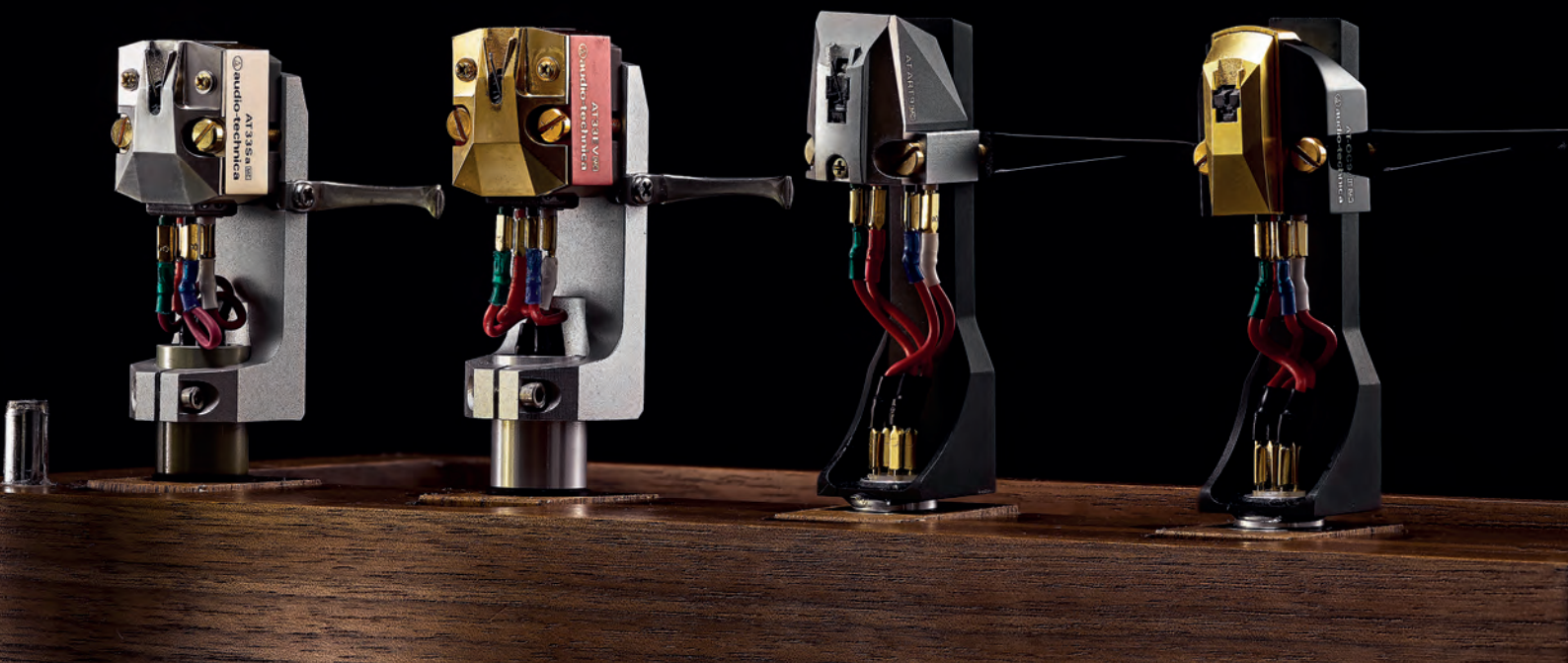


AT-OC9X Series

The next generation of the widely revered AT-OC9
cartridge series has been developed by
Audio-Technica, pioneers of cartridge technology.

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Choosing the right cartridge

The ultimate performance potential of any record playing system is defined by the capabilities of its phono cartridge. Tonal balance, response range, clarity on musical peaks, stereo separation and imaging, along with freedom from noise and distortion are all affected at the outset. The selection of this first component is critical to the full enjoyment of the rest of your system.

Your choice of cartridge can also strongly affect the life of your records. With vinyl records becoming more and more difficult to replace, it's an important point to keep in mind when selecting a cartridge or upgrading your system.

Since Audio-Technica has long been recognized as a world leader in phonograph cartridge design and production, we offer a wide range of models designed to match turntable/tonearm requirements, performance levels and budget considerations. This brochure is intended to help make your decision easier by giving you as much information as possible. It will also give you specific "numbers" for all of our cartridges, with additional detailed information on our Audiophile Series. But no matter which model you select, we're confident you'll find your Audio-Technica cartridge to be outstanding value in every respect.

Choosing your cartridge format

Audio-Technica cartridges can be:

- P-mount (plug-in),
- half-inch mount (1/2")
- P-mount cartridges have four terminals at the back that simply plug in to the end of the tonearm. The cartridge is then secured to the tonearm with a single screw.
- Half-inch mount cartridges also have four terminals at the back, but they have larger pins that connect to four individual wires at the end of the tonearm. The cartridge is secured to the tonearm's headshell with two screws, spaced 1/2" apart.

Cartridges such as AT81CP and AT85EP are P-mount design, though they can be used as 1/2" cartridges using the optional half-inch adapter bracket AT-PMA1. Once equipped with the optional half-inch adapter bracket AT-PMA1, P-mount cartridges become compatible with both half-inch mount tonearms and half-inch mount headshells.

The specifications (pages 44 to 47)

The most important specifications include frequency response, channel separation, channel balance and output level.

These "numbers" are an attempt to describe how your cartridge will perform, and how well it will meet your needs. Frequency response is a measure of the range of sounds that the cartridge will reproduce uniformly.

This "flatness" of response ensures that no frequencies are given over- or under-emphasis. And uniform response is a hallmark of Audio-Technica Vector Aligned cartridges, with even the least expensive units providing smooth reproduction within their stated ranges.

Channel separation is another key specification. It is the measure of how well one channel "ignores" the other stereo channel, so that you don't hear signals from the right channel in your left-side speaker. It's measured in dB, and the higher the number, the higher the separation. Separation is especially important at the higher frequencies, a region where Audio-Technica cartridges are particularly outstanding.

Channel balance is a measure of both production quality and good basic design. Both sides of a stereo cartridge should have equal loudness when equally recorded levels are present.

Output level is important in matching your cartridge to the electronics. Too low a level can result in noise, too high a level can over-drive a preamp into distortion. However, the output levels of all A-T Dual Magnet cartridges will work well with virtually any magnetic phono input.

There are a number of other measurements of phono cartridge performance, but in the final analysis, the most important characteristics to you will probably be how well the cartridge performs audibly, how it interfaces with your other system components, and how carefully it preserves your record library for future use.

Is tracking force important?

Yes, but not to the exclusion of other characteristics. Each cartridge (regardless of its manufacturer) operates best in a particular range of tonearm tracking forces. It is important that this range is within the capabilities of your turntable if optimum performance is to be achieved. Keep in mind also that record wear goes up as pressure on the record surface increases. Tracking too light can cause as much (or more) damage as tracking too heavily.

Understanding styli shapes, shank shapes and constructions

Four main series of cartridges :

Excellence, Moving Coil, VM Series, VM95 Series and P Mount series.

Five different diamond stylus shapes :

Special Line Contact, Shibata, Microlinear, Elliptical and Conical.

Four different stylus constructions :

Nude Rectangular Shank, Nude Square Shank, Nude Round Shank and Bonded Round Shank.

The Special Line Contact stylus, offers the optimum tip design for high frequency response with minimum abrasion, providing low distortion and low record wear.

The Shibata stylus was originally developed to play four channels vinyl records (quadraphonic) for this purpose it was necessary to playback up to 45 kHz. The Shibata shape provides a long line of contact with groove walls, minimizing record wear and playback high frequency material with minimal distortion.

The Microlinear stylus almost exactly duplicates the shape of the cutting stylus used to produce the original master disc. This enables it to track portions of the groove other styli cannot reach, resulting in extremely accurate tracking of high frequency passages and ruler-flat frequency response within the audible range.

The Elliptical stylus has two radii, the front radius being wider than the side radius. This allows the stylus to ride in the center of the groove, like the conical, while the smaller side radius can more accurately track higher frequencies.

Audio-Technica Elliptical styli have a size of - 0.3 x 0.7 mil⁽¹⁾ with the first number indicating the side radius. The Conical stylus is the simplest, least expensive and most widely used stylus. Its spherical tip, which has a typical radius of 0.6 mil, normally touches the center of the record groove walls. The conical design works best in moderate to lower priced, and older record players with a tonearm imposing higher tracking forces, or tonearm not featuring cartridge tilt adjustment. Typical radius of conical stylus for 78rpm records is 2.5 or 3 mil (pages 43 & 57), four times bigger than LP record conical styli.

Stylus shank construction : Nude or Bonded Styli

Nude styli, shaped from whole diamonds, are more costly than bonded styli, with their diamond tips "bonded" to metal shanks before finishing and being assembled to the cantilever. Also because of their lower mass, nude styli track more accurately (diamond density is lower than the metal shank, and the size is smaller). Also, since our nude styli are grain-oriented, with their longest-wearing faces touching the record surface, they last longer.

Stylus shank form factor :

Rectangular and Square Shanks or Round Shank

Rectangular and square shanks nude styli cost even more than round shank nude styli to make, but mounting them in laser-cut square holes in the cantilever locks them precisely in correct alignment with record groove.

Which cartridge is best? Moving coil or moving magnet?

Many serious audiophiles prefer moving coil designs, citing clarity and transparency of tone, better defined transients, precise stereo imaging and lower distortion as the reason for their preference.

Please note that moving coil cartridges require preamps with special compatible inputs (MC phono inputs). The output level of MC cartridges

is between 0.2mV to 0.5mV, therefore MM phono inputs designed for cartridges delivering around from 3mV to 5mV cannot accommodate moving coil cartridges.

Moving magnet cartridges are more robust.

Moving magnet cartridges stylus assembly are field replaceable.

⁽¹⁾ The abbreviation mil is equal a thousandth of an inch - mil = 0,001 inch = 0,0254 mm = 25,4 µm

	Point Contact Styli						Line Contact Styli		
	<i>Conical Styli</i> Nude Square Shank	<i>Conical Styli</i> Bonded Round Shank	<i>Conical LP Styli</i> Bonded Round Shank	<i>Elliptical Styli</i> Nude Round Shank	<i>Elliptical Styli</i> Nude Square Shank	<i>Elliptical Styli</i> Bonded Round Shank	<i>Microlinear Styli</i> Nude Square Shank	<i>Shibata Styli</i> Nude Square Shank	<i>Special Line Contact Styli</i> Nude Rectangular Shank
Direct power Moving Coil									AT-ART1000 (page 9)
Moving Coil	AT33MONO (page 18)	AT-MONO3/LP (page 18)	AT-MONO3/SP (page 19)		AT33EV (page 16) AT-OC9XEN (page 14)	AT-OC9XEB (page 14)	AT-OC9XML (page 15) AT33PTG/II (page 16)	AT-OC9XSH AT33SA (page 12) (page 15)	AT-OC9XSL (page 15) AT-ART9 (page 10) AT-ART7 (page 10)
Moving Magnet		VM510CB (page 27) VM610MONO (page 28) AT-VM95C (page 34) AT81CP (page 40) AT-XP3 (page 39)	VM670SP (page 28) AT-VM95SP (page 35)	VM530EN (page 27) AT-VM95EN (page 34)		VM520EB (page 27) AT-VM95E (page 34) AT85EP (page 40) AT-XP5 (page 39) AT-XP7 (page 39)	VM740ML (page 26) VM540ML (page 26) AT-VM95ML (page 35)	VM750SH (page 26) AT-VM95SH (page 35)	VM760SLC (page 26)



Excellence Series cartridge



AT-ART1000

Direct power stereo MC cartridge



Nude Rectangular Shank
Special Line Contact

Audio-Technica's new reference AT-ART1000 Direct Power Stereo Moving Coil Cartridge has been developed and engineered as part of the company's "Excellence" programme to deliver the highest listening experience for audiophiles. AT-ART1000 Audio-Technica's is the most advanced and sophisticated cartridge to-date.

Special Line Contact Stylus

The AT-ART1000 features a special line contact diamond tip stylus and a solid boron cantilever. This high-performance stylus / cantilever combination enables the maximum pick-up of "information" from even the most complex vinyl record grooves.

For the Direct Power System to flourish effectively, a lightweight solid boron has been specially selected for superior strength and subtle control of movement.

Direct Power System

To ensure the best possible listening experience when playing analogue records, Audio-Technica have engineered and developed our Direct Power System. Considered by some as simply a theoretical idea, we have succeeded in making this a reality in the AT-ART1000 cartridge by combining our unique analogue technology with the most advanced construction materials available today.

Our Direct Power System places the moving coil directly on top of the stylus tip to ensure that audio quality is not compromised with the negative effects introduced by the cantilever's length and material. With the coils in such close proximity, the stylus tip allows the cartridge to vividly render the most subtle sonic details with unsurpassed transient response.

Non-magnetic core coil with 3 ohm impedance

To create the non-magnetic core coil, a 20 µm diameter PCOCC wire wound eight turns to a diameter of 0.9 mm is used. Despite being a non-magnetic core type, an output voltage of 0.2 mV is obtained by placing a 3 ohms coil in the minuscule 0.6 mm gap of a powerful magnetic circuit.

⁽¹⁾ For more information on how you can apply for this rebuild programme, contact your local Audio-Technica service centre (locations can be found at: www.at-globalsupport.com) or the Excellence retailer from where you purchased your AT-ART1000. For terms and conditions, please visit www.excellence.audio-technica.com.

⁽²⁾ Please note, as part of the Audio-Technica Excellence programme the AT-ART1000 Direct Power Stereo MC Cartridge is only available from selected Audio-Technica Excellence retailers.

Titanium Body

The structure that supports the specialized magnetic circuit and suspension system is constructed from titanium. Known for its lightweight, strong and anti-resonant acoustic properties, this material requires sophisticated machining and is only employed in Audio-Technica's top of the range cartridge models. The titanium also works in tandem with the cartridge's polymer cover and aluminium housing to minimize vibrations that can colour the sound quality.

Cartridge Rebuild Programme⁽¹⁾ see page 21.

To protect against damage to the cantilever and wear to the stylus tip of this product, we offer our Cartridge Rebuild Programme, a paid service. This service offers a replacement of the whole motor unit (stylus tip, cantilever, coils and rubber dampers).

Model Number	ART1000
	
Type	Direct Power System
Body Material	Aluminium / titanium
Frequency Response	15 to 30,000 Hz
Channel Separation	30 dB (1 kHz)
Output Channel Balance	0.5 dB (1 kHz)
Output Voltage	0.2 mV (at 1 kHz, 5 cm/sec)
Vertical Tracking Angle	21 degrees
Vertical Tracking Force Range	Specified for each individual cartridge
Stylus Shape	Special Line Contact
Stylus Curvature Radius	1.5 x 0.28 mil
Stylus Construction	Nude rectangular shank
Cantilever	0.26mm Ø solid boron
Static Compliance	30 x 10 ⁻⁶ cm / dyne
Dynamic Compliance	12 x 10 ⁻⁶ cm / dyne (100 Hz)
Wire Used for Coil	20 µm Ø PCOCC (see note n°3)
Terminal Pins	Brass
Recommended Load Impedance	Min 30 Ω (see note n°4)
Coil Impedance	3 Ω (1 kHz)
DC Resistance	3 Ω
Coil Inductance	1 µH (1 kHz)
Cartridge Weight	11 g
Dimensions	17.3 (H) x 17 (W) x 25.5 (L) mm
Mounting	1/2" centers
Replacement Stylus	(see page 9, note n°1)
Accessories Included	1 non-magnetic screw driver; 1 brush; 2 washers; 2 x 12 mm mounting screws; 2 Nuts; 2 x 18 mm mounting screws; 1 plastic protector; 1 set of PCOCC Lead Wires

Moving coil cartridges / ART Series



AT-ART9 Magnetic core MC type stereo cartridge



Nude Rectangular Shank
Special Line Contact

- **Flagship magnetic core MC type cartridge with very high quality magnetic circuit.**

The AT-ART9 inherits the basic magnetic design from the AT50ANV, which was developed as our 50th anniversary model. Also, it reproduces the highest-quality sound using the vibration system from the AT-OC9/III.

- **Neodymium magnet and permendur yoke drastically increase the magnetic energy**

A neodymium magnet is employed with a maximum energy product BH_{max} of 50 [kJ/m³] whilst a permendur yoke is used with a high saturation flux density and excellent magnetic materials.

- **Hybrid body that reduces unnecessary parasitic resonance**

The housing is made of machined aluminium materials and the cover is made of hard plastic materials. This disperses parasitic resonance and results in clear sound quality.

- **Machined aluminium base**

The base that supports the magnetic circuit and vibration system is made of machined aluminium material. This enables it to serve as a solid base to support stable playback capability.

- **High-separation, wide-response dual moving coil**

The basic structure is an original MC type, with separate cylindrical coils to the left and right channels. Since power is generated independently in each of the left and right channels, this structure offers truly superior separation. If the signal from the opposite channel escapes, this can cause intermodulation distortion and have a decisive impact on audio quality and how the stereo sound spreads. The structure of this product ensures a clear and smooth sound. Additionally, the two coils have a reverse-V shape which reduce effective moving mass as seen from the stylus tip, limiting unnecessary movement of the coil and further eliminating distortion.

- **Special line contact stylus and solid boron cantilever with a 0.26 mm diameter**

The stylus tip is a special line contact type with a 1.5 x 0.28 mil curvature radius (used in the AT50ANV) and a solid boron cantilever with a 0.26 mm diameter. This allows accurate transfer of music signals read by the stylus tip to the magnetic coil.



AT-ART7 Non-magnetic core MC type stereo cartridge



Nude Rectangular Shank
Special Line Contact

- **Non-magnetic core MC type cartridge based on commemorative model AT50ANV.**

This product keeps the basic design of non-magnetic core MC type cartridge AT50ANV and changes the coil winding frame from a pure titanium armature to a newly developed liquid crystal polymer armature by an injection molding. This product also succeeds in reducing the weight of the vibration system and provides the extremely natural and clear sound quality with the ability to express three-dimensional sound fields inherent to non-magnetic core types. In addition, this product enables an output voltage of 0.12mV, a relatively high output level for a non-magnetic core system.

- **Liquid crystal polymer armature**

Liquid crystal polymer used for the coil winding frame not only has an extreme mechanical strength but also a unique property which increases the mechanical strength as the product becomes thinner.

- **Newly designed magnetic circuit that maximizes magnetic energy**

The magnetic circuit of this product uses a large-sized neodymium magnet with approximately twice the volume of conventional Audio-Technica ferrite core MC types. The permendur magnetic circuit parts located around the magnet have also

been newly designed to maximize the strength of the intensive magnetic field in the coil gap. This magnetic circuit increases the output voltage, and also enhances playback capability in the medium-to-low-frequency range that is said to be a weak point of conventional non-magnetic core MC types. This provides a very accurate frequency response.

- **Special line contact stylus and solid boron cantilever with a 0.26 mm diameter**

The stylus tip is a special line contact type with a 1.5 x 0.28 mil curvature radius (used in the AT50ANV) and a solid boron cantilever with a 0.26 mm diameter.

- **Machined aluminium base**

The base that supports the magnetic circuit and vibration system is made of machined aluminium material. This enables it to serve as a solid base to support stable playback capability.

- **Hybrid body that reduces unnecessary parasitic resonance**

The housing is made of machined aluminium materials and the cover is made of hard plastic materials. This disperses parasitic resonance and results in clear sound quality.



audio-technica
AT-ART7BBSO



AT-ART7BBSO

AT-OC9X Series cartridges



AT-OC9X Series cartridges made from 32 Years of cumulated experience and customer feedback from 12 different models all inspired by the acclaimed AT-OC9.



AT-OC9XEB



AT-OC9XEN



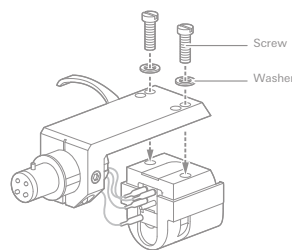
AT-OC9XML



AT-OC9XSH



AT-OC9XSL



The 5 new models of the AT-OC9X series all feature PCOCC internal wiring and an aluminium body with integrated M2.6 threaded inserts to enable easier mounting. AT-OC9XML, AT-OC9XSH, AT-OC9XSL also feature a Permendur Yoke magnetic structure combined with a Boron cantilever.

The next generation of the widely revered AT-OC9 cartridge series has been developed by Audio-Technica, pioneers of cartridge technology.

The new series features an array of stylus options including: Bonded Elliptical, Nude Elliptical, Microlinear, Shibata and Special Line Contact.

- The moving coil structure has a wide frequency response and enables the audio information to be separated into both the left and right channels resulting in an accurately defined stereo image.
- Pure Copper by Ohno Continuous Casting process (PCOCC) is used for the coils to achieve the purest signal possible.
- Threaded holes in the cartridge body enable the cartridge to be mounted on to the headshell, or integral tonearm, with just two screws M2.6 – no nuts or bolts required.
- Features an aluminium cantilever for AT-OC9XEB and AT-OC9XEN models, and boron cantilever for AT-OC9XML, AT-OC9XSH and AT-OC9XSL.
- A neodymium magnet and pure iron yoke (for AT-OC9XEB and AT-OC9XEN) provides increased magnetic energy.
- The yoke parts of the magnetic structure of the AT-OC9XML, AT-OC9XSH and AT-OC9XSL uses Permendur, a soft magnetic alloy made of Iron and Cobalt.
- Aluminium body minimizes unwanted vibration for reduced resonance and a superior audio reproduction.



AT-OC9X Series / Elliptical models



AT-OC9XEB

Dual moving coil stereo cartridge with bonded Elliptical stylus



Bonded Round Shank
Elliptical

An excellent affordable introduction to the characteristics that is moving coil.

- Features bonded Elliptical stylus and aluminium cantilever
- A neodymium magnet and pure iron yoke provides increased magnetic energy
- Aluminium body minimizes unwanted vibration for reduced resonance and a superior audio reproduction
- Pure Copper by Ohno Continuous Casting process (PCOCC) is used for the coils to achieve the purest signal possible

Includes :

- 1 non-magnetic screw driver
- 1 brush
- 2 washers
- 4 pairs of mounting screws (M2.6):
5mm, 8mm, 10mm, 12mm
- 1 plastic protector.



AT-OC9XEN

Dual moving coil stereo cartridge with Elliptical nude stylus



Nude Square Shank
Elliptical

Featuring a square shank for accurate stylus alignment and nude diamond for increased fine detail retrieval.

- Features low mass nude elliptical stylus and aluminium cantilever
- A neodymium magnet and pure iron yoke provide increased magnetic energy
- Aluminium body minimizes unwanted vibration for reduced resonance and a superior audio reproduction
- Pure Copper by Ohno Continuous Casting process (PCOCC) is used for the coils to achieve the purest signal possible

Includes :

- 1 non-magnetic screw driver
- 1 brush
- 2 washers
- 4 pairs of mounting screws (M2.6):
5mm, 8mm, 10mm, 12mm
- 1 plastic protector.



AT-OC9X Series cartridges feature threaded insert for easy mounting either on integral tonearm or on removable headshells. A special line of removable through hole type headshells have been designed for the new AT-OC9X cartridges, see page 50.

AT-OC9X Series / Line Contact models



AT-OC9XML

Dual moving coil stereo cartridge with Microlinear stylus



Nude Square Shank
Microlinear

Microlinear complex diamond profile enabling higher frequency response, detail like never before experienced and limiting inner groove distortion. Microlinear diamond profile provides low record and stylus wear.

- Features nude Microlinear stylus and boron cantilever which provides lower distortion and high transient response
- A neodymium magnet and permendur yoke for dramatically increased magnetic energy
- Aluminium body minimizes unwanted vibration for reduced resonance and a superior audio reproduction

- Pure Copper by Ohno Continuous Casting process (PCOCC) is used for the coils to achieve the purest signal possible

Includes :

- 1 non-magnetic screw driver
- 1 brush
- 2 washers
- 4 pairs of mounting screws (M2.6): 5mm, 8mm, 10mm, 12mm
- 1 plastic protector.



AT-OC9XSH

Dual moving coil stereo cartridge with Shibata stylus



Nude Square Shank
Shibata

Shibata profile diamond originally design for Quadraphonic replay offers a depth of sound, combined with high frequency response that has to be heard to be believed.

- Features nude Shibata stylus and boron cantilever with rich low frequency reproduction and high transient response
- A neodymium magnet and permendur yoke provides dramatically increased magnetic energy
- Aluminium body minimizes unwanted vibration for reduced resonance and a superior audio reproduction

- Pure Copper by Ohno Continuous Casting process (PCOCC) is used for the coils to achieve the purest signal possible

Includes :

- 1 non-magnetic screw driver
- 1 brush
- 2 washers
- 4 pairs of mounting screws (M2.6): 5mm, 8mm, 10mm, 12mm
- 1 plastic protector.



AT-OC9XSL

Dual moving coil stereo cartridge with Special Line Contact stylus



Nude Rectangular Shank
Special Line Contact

Special Line Contact as featured in our flagship ART1000, this diamond profile offers the ultimate in accurate sonic reproduction with a sense of space and realism to all instruments that few other configuration can achieve.

- Features Nude Special Line Contact stylus and boron cantilever with accurate tracking ability and high transient response
- A neodymium magnet and permendur yoke provides dramatically increased magnetic energy
- Aluminium body minimizes unwanted vibration for reduced resonance and a superior audio reproduction

- Pure Copper by Ohno Continuous Casting process (PCOCC) is used for the coils to achieve the purest signal possible

Includes :

- 1 non-magnetic screw driver
- 1 brush
- 2 washers
- 4 pairs of mounting screws (M2.6): 5mm, 8mm, 10mm, 12mm
- 1 plastic protector.



Moving coil cartridges / AT33 Series



- **MC cartridge with Shibata stylus**
The AT33Sa is the first Audio-Technica MC cartridge model to feature a Shibata stylus. In addition to its superior high-range performance as a line-contact stylus, the Shibata stylus produces mid and bass sound that is strong and rich. The Shibata stylus is mounted on a boron cantilever with a double damper to greatly improve sound quality.
- **Advanced tapered boron cantilever and reduced weight**
The AT33Sa uses a tapered boron cantilever. Tapering the cantilever and revising the number of coil rotations reduce the weight, giving the cartridge better high range performance and wide range reproduction.
- **Neodymium magnet with dramatically enhanced magnetic energy and permendur yoke**
The model uses a neodymium magnet with maximum energy product BHmax of 50 [kJ/m³] and a permendur yoke with high saturation flux density and outstanding magnetic properties, which further enhances the concentrated magnetic field of the coil gap.

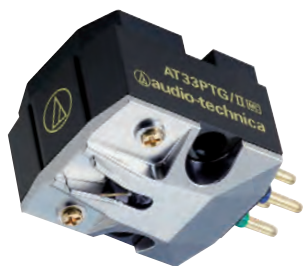
AT33Sa

Dual moving coil stereo cartridge with Shibata stylus



Nude Square Shank
Shibata

- **High-separation, wide response dual moving coil**
The basic structure is an original MC type, with separate cylindrical coils to the left and right channels. Since power is generated independently in each of the left and right channels, this structure offers truly superior separation. If the signal from the opposite channel escapes, this can cause intermodulation distortion and have a decisive impact on audio quality and how the stereo sound spreads. The structure of this product ensures a clear and smooth sound. Additionally, the two coils have a reverse-V shape which reduces effective moving mass as seen from the stylus tip, limiting unnecessary movement of the coil and further eliminating distortion.
- **A tough body designed to be rigid**
The product's housing is made of precision-cast hard aluminium alloy. Hard synthetic resin sandwiching in the structure on the top and bottom suppresses parasitic resonance. This minimizes unnecessary noise while enhancing rigidity and the signal-to-ratio.



- **Advanced nude tapered boron and weight reduction**
This model succeeds in thinning down and shortening the cantilever, compared to the AT33PTG. The coil impedance is also refined from 17Ω to 10Ω. We realized significant weight reduction of the vibration system and successfully improved the basic performance and sound quality of the cartridge.

AT33PTG/II

Dual moving coil stereo cartridge with Micro linear stylus



Nude Square Shank
Microlinear

- **High performance and long-life Micro linear stylus**
Micro linear (ML) is a specially polished line contact stylus. This has a better high range performance than the conical or elliptical stylus due to its small curvature radius and realizes low distortion and expanding high range reproduction even when playing at the inner circumference of records. And the constancy of the line contact shape is one of its main features with an average product lifetime of around 1,000 hours.



- **Elliptical stylus and hard duralumin tapered pipe cantilever**
The big advantage to the elliptical chip is its ability to richly reproduce sounds in the medium and low ranges. This elliptical diamond is embedded into a hard duralumin tapered pipe cantilever. With its outstanding machine strength, the duralumin cantilever is tough enough for the job and produces natural sounds without distortion. The cantilever of this product, moreover, goes through a tapering process to harden it, making it faster to transmit sound than conventional duralumin cantilevers and producing unsurpassed response. Supporting this cantilever fulcrum with the traditional double damper disperses

AT33EV

Dual moving coil stereo cartridge with Elliptical stylus



Nude Square Shank
Elliptical

resonance, enables stable tracing and achieves linear frequency characteristics.

- **“Hanenite” vibration-controlling rubber minimizes unnecessary vibration**
The vibration-controlling rubber “hanenite” is used in the housing interior and the cantilever fulcrum support to minimize unnecessary vibration. The body structure, designed to be rigid and suppress vibration, allows the outstanding basic performance of the dual moving coil to fully express itself.



 AT33Sa ^{MC}
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Moving coil phono cartridges for mono vinyl LP records

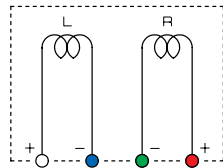


AT33MONO

High-end moving coil mono cartridge for mono vinyl LP (Long Play) records



0.65 mil Conical Stylus
Nude Square Shank



AT33MONO internal wiring
This schematic shows the internal wiring of AT33MONO featuring two horizontal voice coils each voice coils termination is available independently per the above diagram.

The AT33MONO is made specifically for use on mono LP.

The AT33MONO produces sound to a very high quality because it does not easily pick up unnecessary strain components from distorted or scratched records, producing audio that you couldn't possibly get from a stereo cartridge.

The AT33MONO also has appropriate compliance in the vertical direction to avoid damage to stereo records.

- Mono cartridge compatible with stereo playback systems.
- 0.65mil conical nude square shank stylus hard duralumin cantilever.
- Strong body stabilized by a rigid body set-up.
- "Hanenite" anti-vibration high-damping rubber eliminates unnecessary vibrations.
- High-quality brass fastening screw.
- Note: this model is not compatible with SP records due to the size of the diamond (0.6mil) designed for microgroove 33,45rpm and 45rpm vinyl records.

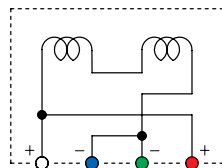


AT-MONO3/LP

High output moving coil mono cartridge for mono vinyl LP (Long Play) records



Bonded Conical Stylus
Round Shank



AT-MONO3/LP internal wiring
This schematic shows the internal wiring of AT-MONO3/LP featuring two horizontal voice coils wired in series, resulting electrically as a single mono voice coil. The mono signal is available from white-blue terminals, the same signal is also available from red-green terminals in order to feed both inputs of a stereo phono preamp.

Made specifically for mono recordings on vinyl records, the cartridge only generates signal with horizontal movement. However to produce a minimal wear on the groove, the AT-MONO3/LP also has an adapted vertical compliance.

- Carefully selected components and state of the art technology produce a high resolution cartridge.
- Straight pipe aluminium cantilever and low mass stylus guarantees a high tracking ability.
- The average usage time is 500 hours extending the life span of precious mono recordings.
- High purity PCOCC allows a more transparent signal transmission both high efficiency and high fidelity.
- To support the internal mechanism, the body is made of solid die-cast aluminium alloy, furthermore stiffness is achieved with the addition of rigid synthetic resin to hold the body.
- Note: this model is not compatible with 78rpm SP records due to the size of the diamond (0.6mil) designed for microgroove 33 1/3rpm records.

Moving coil phono cartridge for 78rpm mono Shellac SP record

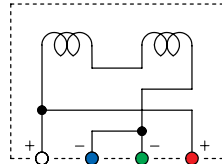


AT-MONO3/SP

High output moving coil cartridge for 78rpm mono Shellac SP (Standard Play) records



2.5mil Bonded Conical Stylus Round Shank



AT-MONO3/SP internal wiring

This schematic shows the internal wiring of AT-MONO3/SP featuring two horizontal voice coils wired in series, resulting electrically as a single mono voice coil. The mono signal is available from white-blue terminals, the same signal is also available from red-green terminals in order to feed both inputs of a stereo phono preamp.

The AT-MONO3/SP cartridge is designed to faithfully transcribe the performances recorded on 78rpm Shellac records.

Made specifically for mono recordings, the cartridge only generates signal with horizontal movement. However to produce a minimal wear on the groove, the AT-MONO3/SP also has an adapted vertical compliance.

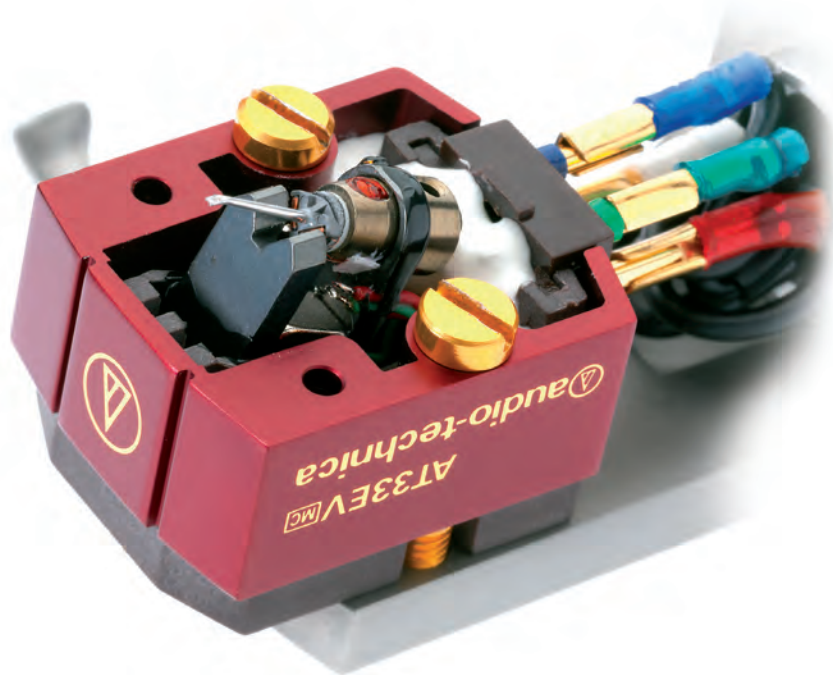
- Straight pipe aluminium cantilever and low mass stylus guarantees a high tracking ability.
- The average usage time is 500 hours extending the life span of precious mono recordings.
- High purity PCOCC allows a more transparent signal transmission offering a high efficiency and a high fidelity.
- To support the internal mechanism, the body is made of solid die-cast aluminium alloy, furthermore stiffness is achieved with the addition of rigid synthetic resin to hold the body.




AT33MONO, AT-MONO3/LP and AT-MONO3/SP are true mono cartridges due to the horizontal configuration of the voice coils. The cartridge only generates electrical signal with horizontal movement due to the horizontal configuration of the coil.

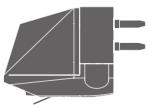


Note: Moving Coil Cartridges Styli are not field replaceable





Moving Coil Cartridge



Authorized Service Center

audio-technica

Terms and conditions

The customer must return the old Audio-Technica moving coil cartridge to an Authorized Moving Coil Cartridge Service Centre along with proof of purchase.

The MC cartridge returned under the programme must be outside of its warranty period, and be in working order (with the exception of a worn stylus) with no mechanical damage on the cantilever.

This programme is available exclusively for customers in Europe.

(For customers with damaged or broken cartridges, please contact your local Authorized Moving Coil Cartridge Service Centre for assistance)

Moving coil cartridges replacement styli European programme

Due to the technical nature and highly skilled construction involved in moving coil cartridges, it is not possible to replace the stylus. Audio-Technica does not recommend having a moving coil cartridge re-tipped or repaired by any independent, unauthorized repair centre since the original performance and optimal specifications can only be obtained when the complete cartridge is assembled and thoroughly tested by our skilled engineers at Audio-Technica's specialist production facility in Japan.

Therefore Audio-Technica offers a comprehensive trade-in programme for its customers with moving coil cartridges with worn out styli.

Stylus replacement of ART1000 cartridge is achieved by sending back your own cartridge to Tokyo, Machida factory (see cartridge ART1000 rebuild programme price below and details on page 9).

AT-ART1000/RB	ART1000 Cartridge rebuild programme	1
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Moving coil cartridge trade-in programme prices

Your old cartridge	Your new order	Description of the new cartridge
AT-ART9	AT-ART9/RP	MC cartridge replacement for AT-ART9 or AT50ANV
AT-ART7	AT-ART7/RP	MC cartridge replacement for AT-ART7 or AT50ANV
AT50ANV	AT-ART9/RP	MC cartridge replacement for AT-ART9 or AT50ANV
AT50ANV	AT-ART7/RP	MC cartridge replacement for AT-ART7 or AT50ANV
AT-OC9/III	AT-OC9xSL/RP	MC cartridge replacement for AT-OC9xSL or AT-OC9/III or AT-OC9/III LTD
AT-OC9/III	AT-OC9xSH/RP	MC cartridge replacement for AT-OC9xSH or AT-OC9/III or AT-OC9/III LTD
AT-OC9/III LTD	AT-OC9xSL/RP	MC cartridge replacement for AT-OC9xSL or AT-OC9/III or AT-OC9/III LTD
AT-OC9/III LTD	AT-OC9xSH/RP	MC cartridge replacement for AT-OC9xSH or AT-OC9/III or AT-OC9/III LTD
AT-OC9ML/II	AT-OC9xML/RP	MC cartridge replacement for AT-OC9xML or AT-OC9ML/II
AT-OC9xEB	AT-OC9xEB/RP	MC cartridge replacement for AT-OC9xEB or AT-F2
AT-OC9xEN	AT-OC9xEN/RP	MC cartridge replacement for AT-OC9xEN or AT-F7
AT-OC9xML	AT-OC9xML/RP	MC cartridge replacement for AT-OC9xML and AT-OC9ML/II
AT-OC9xSH	AT-OC9xSH/RP	MC cartridge replacement for AT-OC9xSH or AT-OC9/III
AT-OC9xSL	AT-OC9xSL/RP	MC cartridge replacement for AT-OC9xSL or AT-OC9/III
AT33EV	AT33EV/RP	MC cartridge replacement for AT33EV
AT33PTG/II	AT33PTG/II/RP	MC cartridge replacement for AT33PTG/II
AT33sa	AT33Sa/RP	MC cartridge replacement for AT33sa
AT-F7	AT-OC9xEN/RP	MC cartridge replacement for AT-OC9xEN or AT-F7
AT-F2	AT-OC9xEB/RP	MC cartridge replacement for AT-OC9xEB or AT-F2
AT-MONO3LP	AT-MONO3LP/RP	MC cartridge replacement for AT-MONO3LP
AT-MONO3SP	AT-MONO3SP/RP	MC cartridge replacement for AT-MONO3SP
AT-33MONO	AT33MONO/RP	MC cartridge replacement for AT33MONO

VM Series cartridges: features & mechanism



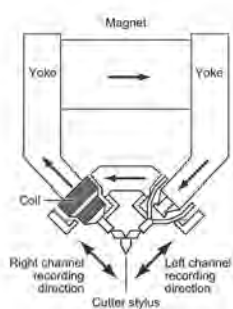


Analogue to the cutter head

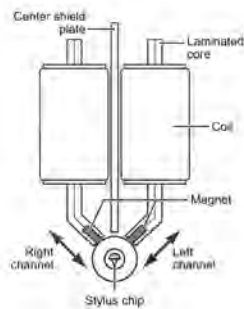
A cutter head carves out the record grooves. The modulations in the groove are "analogue" mechanical equivalents of the original audio signals. To "read" these modulations, Audio-Technica developed the Dual Magnet design which duplicates the structure of cutter head.

Instead of using a single, large magnet, the two magnets are arranged in the shape of a "V". The two magnets are positioned precisely to match the positions of the left and right channels in the stereo groove walls. Consequently, the VM design (VM as V Mount, mounted in a shape of V) ensures outstanding channel separation, extended frequency response and superb tracking.

Basic structure of the cutter head



Basic structure of the VM cartridges



Para-toroidal coil construction of VM Series cartridges

With the VM type dual magnet system & high-performance para-toroidal generator coil system, Audio-Technica's VM stereo cartridges feature a unique structure. The structure greatly improves electromagnetic performances compared with non para-toroidal construction such as in 90 Series cartridges.

Additionally, the VM series cartridges adopt a lossless para-toroidal generator coil system to their cartridge bodies that results in peak generating efficiency.

Stacking two cores makes further improvements to high frequency characteristics by separating the right-and-left channels from the center shield plate, resulting in reduced electrical cross talk.

Para-toroidal generating system delivers substantial improvements

The new VM cartridges differ in their styli design, but all share the basic construction of their generating systems (Cartridge Engine). On the Para-toroidal generating system, since leakage of magnetic flux in this continuous and unitised magnetic circuit is low, a superb linearity can be obtained. Permeability of the cores is also optimised through the use of laminated cores.

Centre shield plate between stereo channels

A permalloy centre shield plate enables the effective separation of left and right channels, suppressing electrical crosstalk to below 40dB. This is similar to the actual crosstalk value found in the grooves of the record itself.

6N-OFC Coil Wire

OFC - Oxygen Free Copper - is electronically refined to reduce the level of oxygen: 6N-OFC is more than 99.99997% pure oxygen free copper. This highly sophisticated coil wire material enables the cartridges to pick up an enormous amount of information from the vinyl grooves and provide high resolution audio with a powerful sound image.

Mono Body

For monaural operation, (unless a dedicated archiving phono-preamplifier is used), left and right channels should be connected. Mono body on which left and right terminals are connected internally improve signal-to-noise ratio, minimizing surface noise.

Importance of tension wire construction and material

Suspension wire (tension wire) has an important role as a fulcrum point of the cantilever/stylus/magnets assembly.

Quality Audio-Technica MC cartridges use stainless suspension wire, providing a mechanical stabilization optimizing auditory lateralization to provide excellent expression of the high frequency range.

Audio-Technica VM Series cartridge models VM760SLC and VM750SH are designed with a stainless suspension wire featuring a unique design with selected materials. Other moving magnet Audio-Technica cartridge models are designed with a moulded integrated suspension system.

VM Series cartridges overview

700 Series For superior sound with superfine fidelity.

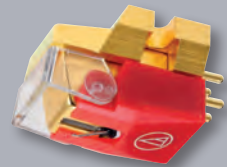
VM760SLC



VM750SH



VM740ML



500 Series

VM540ML



Special Line Contact



Shibata



Microlinear

Line Contact Styli

For more faithful reproduction of sound, with VM cartridge precision.

VM530EN



VM520EB



VM510CB



600 Series

For special models that bring out the best sound of mono LP records and 78rpm SP records.

VM610MONO



VM670SP



Elliptical Nude



Elliptical Bonded



Conical Bonded 0,6 mil



Conical Bonded 3 mil

Elliptical Styli

Conical Styli

VM cartridges / with Line Contact styli



VM760SLC VM cartridge with Special Line Contact Stylus



Using an ultra-lightweight stylus tip ground to a high level of precision, we have achieved a combination of low distortion rate with fuller frequency reproduction during playback. This stylus tip extracts every possible piece of information from the grooves on a record.

- Aluminium tapered cantilever
- Para-toroidal coils improve generating efficiency
- Centre shield plate between the left and right channels reduces crosstalk
- Die-cast aluminium alloy housing reduces vibration and adds a natural electrical shield



VM750SH VM cartridge with Shibata Stylus



Fitted with the Shibata stylus, which was developed for playing quadradis, 4-channel vinyl records that demand high-frequency reproduction capabilities during playback. Not only high-frequency, it is also ideal for reproducing rich mid and low frequencies.

- Aluminium tapered cantilever
- Para-toroidal coils improve generating efficiency
- Centre shield plate between the left and right channels reduces crosstalk
- Die-cast aluminium alloy housing reduces vibration and adds a natural electrical shield



VM740ML VM cartridge with Microlinear Stylus



High-end model featuring a Microlinear stylus in an aluminium die-cast alloy body. In addition to outstanding high-frequency reproduction, this model enables clear sound image localisation.

- Aluminium tapered cantilever
- Para-toroidal coils improve generating efficiency
- Centre shield plate between the left and right channels reduces crosstalk
- Die-cast aluminium alloy housing reduces vibration and adds a natural electrical shield



VM540ML VM cartridge with Microlinear Stylus 500 Series body



Standard model with a Microlinear stylus. Distortion is low even on the inner circumference of a record because the curvature radius of the stylus tip does not alter even if the stylus becomes worn.

- Aluminium tapered cantilever
- Para-toroidal coils improve generating efficiency
- Centre shield plate between the left and right channels reduces crosstalk
- Durable low resonance polymer housing



VM540ML/H VM540ML mounted on AT-HS10BK headshell

VM cartridges / with Elliptical & Conical styli



VM530EN

Dual moving magnet stereo cartridge



Nude Round Shank
Elliptical Nude



Accessories included

High-end elliptical stylus model equipped with a light-weighted nude elliptical stylus to reduce the execution mass of the vibration system. This enables fuller frequency reproduction.

- Aluminium cantilever
- Para-toroidal coils improve generating efficiency
- Centre shield plate between the left and right channels reduces crosstalk
- Durable low resonance polymer housing



VM530EN/H

VM530EN mounted on AT-HS10BK headshell



VM520EB

Dual moving magnet stereo cartridge



Bonded Round Shank
Elliptical Bonded



Accessories included

Standard elliptical stylus model equipped with an elliptical bonded stylus. This reduces tracing distortion and allows for more accurate sound reproduction.

- Aluminium cantilever
- Para-toroidal coils improve generating efficiency
- Centre shield plate between the left and right channels reduces crosstalk
- Durable low resonance polymer housing



VM520EB/H

VM520EB mounted on AT-HS10BK headshell



VM510CB

Dual moving magnet stereo cartridge



Bonded Round Shank
Conical Bonded



Accessories included

Entry-level VM cartridge model equipped with a conical bonded stylus. The round stylus is less likely to be affected by placement and boasts stable tracing performance.

- Aluminium cantilever
- Para-toroidal coils improve generating efficiency
- Centre shield plate between the left and right channels reduces crosstalk
- Durable low resonance polymer housing

VM cartridges / mono cartridges for Shellac & early mono LP's



VM670SP

For Shellac 78rpm mono Standard Play Records



Bonded Round Shank
Conical (3 mil)



Accessories included

Model dedicated to 78rpm records, whose conical stylus has a large curvature radius at the tip. The curvature radius is 3 mil, and suitable for playing 78rpm records from a wide variety of eras.

- Aluminium cantilever
- Para-toroidal coils improve generating efficiency
- Mono body terminating left and right channels reduces surface noise
- Durable low resonance polymer housing



VM610MONO

For mono Vinyl Microgroove Long Play Records



Bonded Round Shank
Conical



Accessories included

Mono LP model with a conical bonded stylus, dedicated to early monaural LP records. Specialised internal wiring allows for reduced surface noise.

- Aluminium cantilever
- Para-toroidal coils improve generating efficiency
- Mono body terminating left and right channels reduces surface noise
- Durable low resonance polymer housing

Replacement styli for VM cartridges

VMN60SLC

Replacement stylus for VM760SLC



Nude Rectangular
Shank
Special Line Contact

VMN70SP

Replacement stylus for VM670SP



Bonded Round Shank
Conical (3mil)

VMN50SH

Replacement stylus for VM750SH



Nude Square Shank
Shibata

VMN20EB

Replacement stylus for VM520EB



Bonded Round Shank
Elliptical

VMN40ML

Replacement stylus for VM740ML & VM540ML



Nude Square Shank
Microlinear

VMN10CB

Replacement stylus for VM510CB & VM610MONO



Bonded Round Shank
Conical

VMN30EN

Replacement stylus for VM530EN



Nude Round Shank
Elliptical

Replacement & upgrade styli matrix

The cartridge becomes worn after an extended period of play⁽³⁾, even the finest diamond stylus. Our VM cartridges can be used again for a long time by only replacing the stylus. Our renewed VM cartridges series is composed of 7 styli and 3 types of bodies. Not only is it not necessary to buy the cartridge itself, but you can also enjoy the experience of upgrading your stylus, or trying a new cartridge / stylus combination.

								
Cartridge Body	Product	Special Line Contact Stylus VMN60SLC	Shibata Stylus VMN50SH	Microlinear Stylus VMN40ML	Elliptical Nude Stylus VMN30EN	Elliptical Bonded Stylus VMN20EB	Conical Bonded Stylus VMN10CB	3mil Conical Bonded Stylus VMN70SP
 VM700 Body	VM760SLC	Standard Replacement	Becomes VM750SH	Becomes VM740ML	Compatible	Compatible	Compatible	Possible ⁽¹⁾
	VM750SH	Upgrade to VM760SLC	Standard Replacement	Becomes VM740ML	Compatible	Compatible	Compatible	Possible ⁽¹⁾
	VM740ML	Upgrade to VM760SLC	Upgrade to VM750SH	Standard Replacement	Compatible	Compatible	Compatible	Possible ⁽¹⁾
 VM500 Body	VM540ML	Compatible	Compatible	Standard Replacement	Becomes VM530EN	Becomes VM520EB	Becomes VM510CB	Possible ⁽¹⁾
	VM530EN	Compatible	Compatible	Becomes VM540ML	Standard Replacement	Becomes VM520EB	Becomes VM510CB	Possible ⁽¹⁾
	VM520EB	Compatible	Compatible	Becomes VM540ML	Upgrade to VM530EN	Standard Replacement	Becomes VM510CB	Possible ⁽¹⁾
	VM510CB	Compatible	Compatible	Becomes VM540ML	Upgrade to VM530EN	Becomes VM520EB	Standard Replacement	Possible ⁽¹⁾
 VM600 Body	VM670SP	Possible not recommended ^{*(2)}	Possible not recommended ^{*(2)}	Possible not recommended ^{*(2)}	Possible not recommended ^{*(2)}	Possible not recommended ^{*(2)}	Becomes VM610MONO	Standard Replacement
	VM610MONO	Possible not recommended ^{*(2)}	Possible not recommended ^{*(2)}	Possible not recommended ^{*(2)}	Possible not recommended ^{*(2)}	Possible not recommended ^{*(2)}	Standard Replacement	Becomes VM670SP

(1) Since SP records only have monaural modulation, combining an SP stylus with a stereo body would be recommended only when used with a dedicated archiving phono Preamplifier-equaliser. These incorporate various features to allow Mono reduction from Stereo inputs (Mono L+R, Mono L, Mono R, L&R Variable Mix). When an SP record is played with a standard Stereo Phono Preamplifier, it is recommended that a VM600 body is used for signal to noise ratio optimisation and to minimise record surface noise.

(2) For best results when playing vintage mono LPs, Audio-Technica recommends using the VMN510CB Conical stylus. A Special Line Contact, Shibata, Microlinear or Elliptical type stylus can be considered if you are sure that the dimensional groove construction of the LP(s) can safely handle these stylus tip shapes.

(3) Lifetime of the replacement stylus is approx. 300 to 500 hours for Conical, 300 hours for Elliptical, 1000 hours for Microlinear, and 800 hours for Shibata and Special Line Contact.

VM95 Series



For 38 years the AT95E has been known as the best-in-class cartridge.

Now after more than 5 million sold, it's time to move to a new level...

...introducing the new generation

AT-VM95E



The VM95E has been upgraded and redesigned to offer the user improved performance and better sound quality.

- An improved and distinctive design resulting in a more rigid low resonance housing.
- A new coil design delivering increased output voltage (4mV) compared to AT95 and AT95EX.
- Newly designed radial damping ring improving and increasing frequency and transient response to 22,000Hz.
- Easier to mount using threaded inserts in the cartridge body enabling it to be mounted to the headshell or on an integral tonearm with just two screws (no nuts).

Designed to be interchangeable and upgraded

The VM95 Series will not only replace two legendary Audio-Technica products, its adaptable design allows the interchangeability and the upgrade to more expensive styli.



One family, 18 products :

- Six moving magnet VM cartridges in the Series, use the same electromagnetic engine-body featuring six different styli, offering a wide choice of options for every budget and application.
- Six interchangeable replacement styli are perfectly compatible with VM95 Series body (and also with XP Series DJ cartridges).
- Six cartridge sets featuring each of the VM95 Series cartridge pre-mounted on the black version of AT-HS6 headshell for plug and play solution.



Due to the increased quantity of counterfeit products available online, never accept an Audio-Technica cartridge, replacement stylus or cartridge-headshell set in non Audio-Technica original packaging and always buy from an Audio-Technica Authorized Dealer.

VM95 Series overview

VM95 Series consist of 18 new products, six cartridges using the same electromagnetic engine-body featuring six different styli, offering a wide choice for every budget and every application.

The six cartridges are also available factory mounted on the exclusive AT-HS6BK headshell.

Six cartridges using the same electromagnetic engine-body

AT-VM95C



AT-VM95E



AT-VM95EN



Six replacement styli all interchangeable

AT-VMN95C



AT-VMN95E



AT-VMN95EN



Six factory pre-mounted sets using AT-HS6BK headshell

AT-VM95C/H



AT-VM95E/H



AT-VM95EN/H



Conical Bonded 0,6 mil



Elliptical Bonded



Elliptical Nude

Conical Styli

Elliptical Styli

AT-VM95ML



AT-VM95SH



AT-VM95SP



AT-VMN95ML



AT-VMN95SH



AT-VMN95SP



AT-VM95ML/H



AT-VM95SH/H



AT-VM95SP/H



Microlinear



Shibata



Conical Bonded 3 mil

Line Contact Styli

SP Styli for 78rpm

VM95 Series cartridges and sets

The AT-VM95C, the new Audio-Technica entry model Conical cartridge will replace the legendary AT90 Series models such as AT91, AT91R and CN5625AL. Also the AT-VM95C is a "budget" cartridge featuring a conical stylus, the compatibility in the range will allow to upgrade with any of the 4 other LP styli of the Series such as Elliptical, Elliptical Nude, Microlinear and Shibata.



AT-VM95C Cartridge with Conical Stylus



Bonded Round Shank
Conical



Accessories included

- Aluminium cantilever
- 4.0mV output voltage
- Compatible body with all VM95 Series stylus assemblies
- Replacement for AT91, AT91R and CN5625AL



AT-VM95C/H

AT-VM95C mounted on AT-HS6BK headshell

64,00 €
Including VAT
EAN 4961310146535

- The AT-VM95C/H Audio-Technica cartridge set is assembled, tested and packed in the Audio-Technica Factory in Fukui-Japan
- The total set weight is 15.5g

The AT-VM95E, the new Audio-Technica entry model Elliptical cartridge will replace the legendary AT95E and take advantage of the developments of the AT95EX introduced in 2015. The AT-VM95E features an improved and distinctive design resulting in a more rigid low resonance housing, and two threaded inserts in the cartridge body enabling it to be mounted to the headshell or on an integral tonearm with just two screws, no nuts.



AT-VM95E Cartridge with Elliptical Stylus



Bonded Round Shank
Elliptical



Accessories included

- Aluminium cantilever
- 4.0mV output voltage
- Compatible body with all VM95 Series stylus assemblies
- Replacement for AT95E and AT95EX
- 20 to 22,000Hz frequency response



AT-VM95E/H

AT-VM95E mounted on AT-HS6BK headshell

- The AT-VM95E/H Audio-Technica cartridge set is assembled, tested and packed in the Audio-Technica Factory in Fukui-Japan
- The total set weight is 15.5g

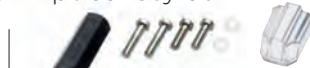
The AT-VM95EN, features a Nude Elliptical Diamond. The construction of the stylus being a one piece diamond with a round shank inserted in the cantilever creates a lighter and more rigid transmission system than a diamond tip bonded on a round titanium shank such as in the AT-VM95E. Also the use of nude diamond implies a substantial difference in pricing, yet the quality of the reproduction will be immediately noticed, specifically in the fidelity of high frequencies and in the quality of the transient responses.



AT-VM95EN Cartridge with Nude Elliptical Stylus



Nude Round Shank
Elliptical Nude



Accessories included

- Aluminium cantilever
- 3.5mV output voltage
- Compatible body with all VM95 Series stylus assemblies
- 20 to 23,000Hz frequency response



AT-VM95EN/H

AT-VM95EN mounted on AT-HS6BK headshell

- The AT-VM95EN/H Audio-Technica cartridge set is assembled, tested and packed in the Audio-Technica Factory in Fukui-Japan
- The total set weight is 15.5g

VM95 Series cartridges and sets

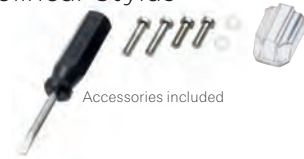
The AT-VM95ML, features a Nude Microlinear diamond, not only the Microlinear stylus will permit to double the duration of your stylus. The performance of a line contact stylus, will minimize the "inner groove distortion" as well as providing extended frequency response and maximize resolution in the medium and high frequencies of the audio program material.



AT-VM95ML Cartridge with Microlinear Stylus



Nude Square Shank
Microlinear



Accessories included

- Aluminium cantilever
- 3.5mV output voltage
- Compatible body with all VM95 Series stylus assemblies
- 20 to 25,000Hz frequency response



AT-VM95ML/H

AT-VM95ML mounted on AT-HS6BK headshell

- The AT-VM95ML/H Audio-Technica cartridge set is assembled, tested and packed in the Audio-Technica Factory in Fukui-Japan
- The total set weight is 15.5g

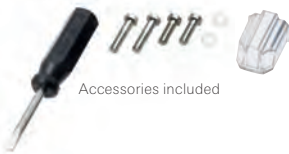
The AT-VM95SH, features a Nude Shibata stylus, one of the most acclaimed stylus format by high end audiophiles. The Shibata stylus produces mid and bass sounds strong and rich in addition to offer a frequency response up to 25,000 Hz



AT-VM95SH Cartridge with Shibata Stylus



Nude Square Shank
Shibata



Accessories included

- Aluminium cantilever
- 3.5mV output voltage
- Compatible body with all VM95 Series stylus assemblies
- 20 to 25,000Hz frequency response



AT-VM95SH/H

AT-VM95SH mounted on AT-HS6BK headshell

- The AT-VM95SH/H Audio-Technica cartridge set is assembled, tested and packed in the Audio-Technica Factory in Fukui-Japan
- The total set weight is 15.5g

Since SP records have monaural modulation, when combining an SP stylus with a stereo body, such as the AT-VM95SP, it is recommended to use the "MONO ON" function of your standard Stereo Phono Pre-amplifier to minimize record surface noise.

AT-VM95SP, as stereo cartridge for SP mono records, when used with a dedicated archiving phono pre-amplifier-equalizer incorporating various functions to generate a mono signal from Stereo inputs (Mono L+R, Mono L, Mono R, LR Variable Mix) allows professional archivers to minimize noise and distortion by sampling the least damage side of the grooves from an old record.



AT-VM95SP 78rpm cartridge with 3mil SP Conical Stylus



Bonded Round Shank
SP 3mil Conical



Accessories included

- 3mil SP stylus for reduced record surface noise
- Aluminium cantilever
- 2.7mV output voltage
- Compatible body with all VM95 Series stylus assemblies



AT-VM95SP/H

AT-VM95SP mounted on AT-HS6BK headshell

- The AT-VM95SP/H Audio-Technica cartridge set is assembled, tested and packed in the Audio-Technica Factory in Fukui-Japan
- The total set weight is 15.5g

VM95 Series - Styli compatibility charts

Every cartridge diamond stylus becomes worn after a period of play.

Around 500 hours for a conical stylus, 300 hours for an Elliptical stylus, 1000 hours for a Microlinear stylus, and 800 hours for a Shibata stylus.

Our VM95 Series dual moving magnet cartridges can be used almost forever by replacing the interchangeable stylus.

It is no longer necessary to purchase a complete cartridge when your diamond is worn out, you can simply buy the matching replacement stylus, but also enjoy the experience of upgrading your cartridge with a different stylus.

The six models of VM95 Series cartridges all use the same electromagnetic engine-body, therefore each of the six replacement styli are perfectly compatible.

VM95 Series cartridges features two M2.6 threaded inserts allowing the installation of the cartridge onto tonearm or removable headshell without the use of nuts. Each cartridge is provided with one pair of 8mm M2.6 screws, one pair of 11mm M2.6 screws and two plastic washers.



VM95 Series compatibility with the AT-XP Series DJ Cartridges

- The electromagnetic engine-body of XP-Series, is fully compatible with all replacement styli of VM95 Series and will deliver more output voltage than VM95 Series cartridge. So providing improved compatibility with phono inputs of Professional DJ Mixers.
- VM95 Series electromagnetic engine-body is also compatible with the three replacement styli of the DJ cartridge AT-XP Series, nevertheless, the electromagnetic engine-body of XP-Series, will deliver more output voltage than VM95 Series cartridge in order to provide better compatibility with phono inputs of Professional DJ Mixers.
- Note that typical tracking force when using XP Series styli is three grams as opposed to two grams for VM95 Series styli.
- The suspension design and compliance of XP-Series styli have been optimized for intensive DJ'ing, including possible manual cueing and back-cueing.
- The VM95 Series suspension design and compliances of VM95 Series have been designed for optimum audiophile reproduction.



VM95 Series - Replacement Styli

AT-VMN95C

Conical replacement stylus for AT-VM95C



Aluminium Cantilever
Bonded Round Shank
Conical

AT-VMN95ML

Microlinear replacement stylus for AT-VM95ML



Aluminium Cantilever
Nude Square Shank
Microlinear

AT-VMN95E

Elliptical replacement stylus for AT-VM95E



Aluminium Cantilever
Bonded Round Shank
Elliptical

AT-VMN95SH

Shibata replacement stylus for AT-VM95SH



Aluminium Cantilever
Nude Square Shank
Shibata

AT-VMN95EN

Elliptical nude replacement stylus for AT-VM95EN



Aluminium Cantilever
Nude Round Shank
Elliptical Nude

AT-VMN95SP

3mil Conical replacement SP stylus for AT-VM95SP



Aluminium Cantilever
Bonded Round Shank
SP 3mil Conical



P-mount moving magnet plug-in cartridges

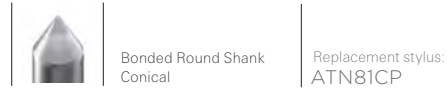
This selection of three cartridges allows owners of Technics™, Hitachi™, Pioneer™(3) and similar linear tracking turntables with T4P plug-in connectors to enjoy the high-fidelity sound that only Audio-Technica can offer.

Each is designed specifically for the linear format, while all feature Audio-Technica's unique dual moving magnet construction. The dual magnet system is combined with the para-toroidal coil construction to assure an excellent sonic clarity and wide channel separation. Special Alnico magnets are employed for a natural and uncoloured sonic performance.

Conical stylus P-mount moving magnet cartridge



AT81CP
P-mount MM cartridge, conical stylus

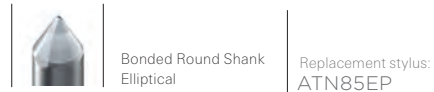


- 0.6 mil conical stylus
- Carbon fiber cantilever
- Bonded round shank, conical diamond

Elliptical stylus P-mount moving magnet cartridge



AT85EP
P-mount MM cartridge, elliptical stylus

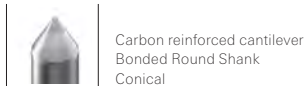


- 0.3 x 0.7 mil elliptical stylus
- Alloy tube cantilever
- Bonded round shank, elliptical diamond

P-mount cartridge replacement styli



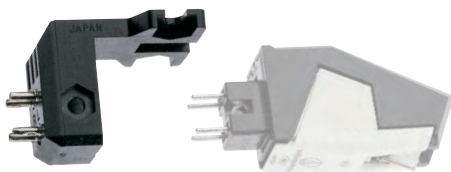
ATN81CP
Replacement conical stylus for AT81CP,
The ATN81CP is also compatible with AT300P,
AT3482P and AT3482H/U.



ATN85EP
Replacement elliptical stylus for AT85EP
The ATN85EP is also compatible with AT92ECD, AT301EP and AT311EP.



P-mount to 1/2" adapter



AT-PMA1
Half-inch adapter bracket

The P-Mount Adapter bracket allows to mount P-mount cartridges on half-inch mount tonearms and half-inch mount headshells.

P-MOUNTING

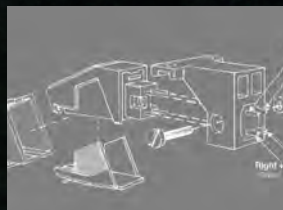
- **P-mount cartridge** has four terminals at the back that simply plug in to the end of the tonearm. The cartridge is then secured to the tonearm with a single screw.

Audio-Technica P-mount cartridges can be mounted as follow:

- P-mount (plug-in)
- Half-inch mount (1/2") using universal AT-PMA1 adapter

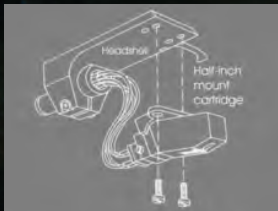


P-mount cartridge mounted on P-mount tonearm (screw and nut are supplied with all models).



P-mount cartridge mounted on standard 1/2" headshell using AT-PMA1 U-mount adapter.

HALF-INCH MOUNTING



- **Half-inch mount cartridge** also has four terminals at the back, but they are larger pins that connect to four individual wires at the end of the tonearm. The cartridge is secured to the tonearm's headshell with two screws, spaced 1/2" apart.



Playing 78rpm Shellac SP Records

Why 78, Why Shellac, Why SP ?

Those records are black, heavy, easily breakable and were the main music and audio media from 1900 to 1960.

- **78** is one way to name them in the sense that the rotational speed is in general 78rpm (rotations per minute).
- **Shellac** is another way to name them because there were made among other components out of Shellac resin.
- **SP** is another way to name them, it is the abbreviation of Standard Play, Standard Play as opposed Long Play (LP) who started to replace SP records from 1955.



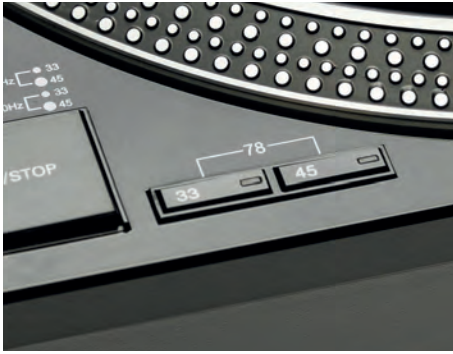
“Play your SP records as many times as you want!”

As long as you use a modern dedicated SP cartridge, you can play them again and again with very minor alteration of the record, as the tracking force of a modern phono cartridge is only 2 to 5 grams.

As opposed to the tracking force of over 50 grams that was applied by an acoustic Gramophone using needles, when the extra weight could potentially damage the record.



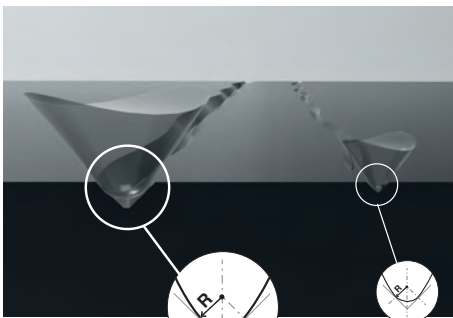
To play SP Records, you need a turntable that operates at 78rpm



Obviously, if the rotational speed of the record is 78rpm, your turntable needs to be able to operate at this given speed. If your turntable plays only 33rpm or 45rpm as many turntables do, you will not be able to play your SP record.

Audio-Technica AT-LP120 models and the AT-1240 model operate perfectly at 78rpm and in addition the speed is adjustable within 10%, a nice feature as a lot of SP records were not always recorded at the right speed.

To play SP Records, you need a dedicated SP cartridge



SP stylus radius = 3mil

LP stylus radius = 0.6mil

Never use any cartridge designed for LP Vinyl records on an SP record.

As you can see on the schematic, the groove of an SP record is much wider than the groove of an LP record (Vinyl). Using a LP record stylus, typically of a radius of 0.6 mil on a 78 record will result in more noise than music. Playing SP records with LP stylus will result in damage to both the record and the cartridge. The typical radius size of a SP stylus is from 2.5 mil to 3.5 mil, about 5 times the radius size of the typical styli used for LP records.

Audio-Technica cartridges for SP 78rpm records



AT-MONO3/SP

High output true mono moving coil cartridge for 78rpm mono Shellac SP records



2.5mil Conical Stylus
Bonded Round Shank

See entire description on page 19.



VM670SP

VM Series mono moving magnet cartridge for 78rpm mono Shellac SP records



3mil Conical Stylus
Bonded Round Shank

See entire description on page 28.



AT-VM95SP




VM95 Series stereo moving magnet cartridge for 78rpm mono Shellac SP records



3mil Conical Stylus
Bonded Round Shank

See entire description on page 35.

Audiophile moving coil cartridges specifications

Model Number	AT-ART9	AT-ART7	AT33Sa	AT33EV	AT33PTG/II
					
Type	Dual Moving Coil	Non-magnetic Core Moving Coil	Dual Moving Coil	Dual Moving Coil	Dual Moving Coil
Body Material	Aluminium	Aluminium	Aluminium/Synthetic Resin	Aluminium/Synthetic Resin	Aluminium/Synthetic Resin
Frequency Response	15 to 50,000 Hz	15 to 50,000 Hz	15 to 50,000 Hz	15 to 50,000 Hz	15 to 50,000 Hz
Channel Separation	30 dB (1 kHz)	30 dB (1 kHz)	30 dB (1 kHz)	30 dB (1 kHz)	30 dB (1 kHz)
Output Channel Balance	0.5 dB (1 kHz)	0.5 dB (1 kHz)	0.5 dB (1 kHz)	0.5 dB (1 kHz)	0.5 dB (1 kHz)
Output	0.4 mV (at 1 kHz, 5 cm/sec)	0.12 mV (at 1 kHz, 5 cm/sec)	0.4 mV (at 1 kHz, 5 cm/sec)	0.3 mV (at 1 kHz, 5 cm/sec)	0.3 mV (at 1 kHz, 5 cm/sec)
Vertical Tracking Angle	23 degrees (see note n°1)	23 degrees	23 degrees	23 degrees	23 degrees
Vertical Tracking Force Range	1.6 to 2 g (standard 2.0 g)	1.6 to 2 g (standard 1.5 g)	1.8 to 2.2 g (standard 2.0 g)	1.8 to 2.2 g (standard 2.0 g)	1.8 to 2.2 g (standard 2.0 g)
Stylus Shape	Special Line Contact	Special Line Contact	Shibata	Elliptical	Microlinear
Stylus Curvature Radius	1.5 x 0.28 mil (see note n°5)	1.5 x 0.28 mil (see note n°5)	2.7 x 0.26 mil (see note n°5)	0.3 x 0.7 mil (see note n°5)	2.2 x 0.12 mil (see note n°5)
Stylus Construction	Nude rectangular shank	Nude rectangular shank	Nude square shank	Nude square shank	Nude square shank
Cantilever	0.26 mm Ø solid boron	0.26 mm Ø solid boron	Gold plated nude tapered boron	Duralumin tapered pipe	Gold plated nude tapered boron
Static Compliance	35 x 10 ⁻⁶ cm / dyne	35 x 10 ⁻⁶ cm / dyne	40 x 10 ⁻⁶ cm / dyne	40 x 10 ⁻⁶ cm / dyne	40 x 10 ⁻⁶ cm / dyne
Dynamic Compliance	18 x 10 ⁻⁶ cm / dyne (100 Hz)	10 x 10 ⁻⁶ cm / dyne (100 Hz)	10 x 10 ⁻⁶ cm / dyne (100 Hz)	10 x 10 ⁻⁶ cm / dyne (100 Hz)	10 x 10 ⁻⁶ cm / dyne (100 Hz)
Wire Used for Coil	PCOCC (see note n°3)	PCOCC (see note n°3)	PCOCC (see note n°3)	PCOCC (see note n°3)	PCOCC (see note n°3)
Terminal Pins	Brass	Brass	Brass	Brass	Brass
Recommended Load Impedance	Min 100 Ω (see note n°4)	Min 100 Ω (see note n°4)	Min 100 Ω (see note n°4)	Min 100 Ω (see note n°4)	Min 100 Ω (see note n°4)
Coil Impedance	12 Ω (1 kHz)	12 Ω (1 kHz)	10 Ω (1 kHz)	10 Ω (1 kHz)	10 Ω (1 kHz)
DC Resistance	12 Ω	12 Ω	10 Ω	10 Ω	10 Ω
Coil Inductance	25 µH (1 kHz)	8 µH (1 kHz)	22 µH (1 kHz)	22 µH (1 kHz)	22 µH (1 kHz)
Cartridge Weight	8.5 g	8.5 g	6.9 g	6.9 g	6.9 g
Dimensions	17.3 (H) x 17.0 (W) x 25.6 (L) mm	17.3 (H) x 17.0 (W) x 25.6 (L) mm	16 (H) x 16.6 (W) x 26.5 (L) mm	16 (H) x 16.6 (W) x 26.5 (L) mm	16.0 (H) x 16.6 (W) x 26.5 (L) mm
Mounting	1/2" centers	1/2" centers	1/2" centers	1/2" centers	1/2" centers
Replacement Stylus	(see note n°2)	(see note n°2)	(see note n°2)	(see note n°2)	(see note n°2)
Accessories Included	1 non-magnetic screw driver; 1 brush; 2 washers; 2 x 12 mm mounting screws; 2 Nuts; 2 x 18 mm mounting screws; 1 plastic protector; 1 set of PCOCC Lead Wires (AT6101)	1 non-magnetic screw driver; 1 brush; 2 washers; 2 x 12 mm mounting screws; 2 Nuts; 2 x 18 mm mounting screws; 1 plastic protector; 1 set of PCOCC Lead Wires (AT6101)	1 non-magnetic screw driver; 1 brush; 2 washers; 2 Nuts; 2 x 13 mm mounting screws; 2 x 19 mm mounting screws; 1 plastic protector;	1 non-magnetic screw driver; 1 brush; 2 washers; 2 Nuts; 2 x 13 mm mounting screws; 2 x 19 mm mounting screws; 1 plastic protector; 1 set of PCOCC Lead Wires (AT6101)	1 non-magnetic screw driver; 1 brush; 2 washers; 2 Nuts; 2 x 13 mm mounting screws; 2 x 19 mm mounting screws; 1 plastic protector; 1 set of PCOCC Lead Wires (AT6101)

Model Number	AT-OC9XEB	AT-OC9XEN	AT-OC9XML	AT-OC9XSH	AT-OC9XSL
					
Type	Dual Moving Coil	Dual Moving Coil	Dual Moving Coil	Dual Moving Coil	Dual Moving Coil
Body Material	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium
Mounting Feature	Threaded inserts	Threaded inserts	Threaded inserts	Threaded inserts	Threaded inserts
Frequency Response	20 to 30,000 Hz	20 to 30,000 Hz	20 to 47,000 Hz	20 to 47,000 Hz	20 to 50,000 Hz
Channel Separation	25 dB (1 kHz)	25 dB (1 kHz)	27 dB (1 kHz)	27 dB (1 kHz)	28 dB (1 kHz)
Output Channel Balance	1.5 dB (1 kHz)	1.5 dB (1 kHz)	1.0 dB (1 kHz)	1.0 dB (1 kHz)	0.5 dB (1 kHz)
Output Voltage	0.32 mV (at 1 kHz, 5 cm/sec)	0.35 mV (at 1 kHz, 5 cm/sec)	0.4 mV (at 1 kHz, 5 cm/sec)	0.4 mV (at 1 kHz, 5 cm/sec)	0.4 mV (at 1 kHz, 5 cm/sec)
Vertical Tracking Angle	20 degrees (see note n°1)	20 degrees (see note n°1)	20 degrees (see note n°1)	20 degrees (see note n°1)	20 degrees (see note n°1)
Vertical Tracking Force Range	1.8 to 2.2 g (standard 2.0 g)	1.8 to 2.2 g (standard 2.0 g)	1.8 to 2.2 g (standard 2.0 g)	1.8 to 2.2 g (standard 2.0 g)	1.8 to 2.2 g (standard 2.0 g)
Stylus Shape	Elliptical Bonded	Elliptical Nude	Microlinear	Shibata	Special Line Contact
Stylus Curvature Radius	0.3 x 0.7 mil (see note n°5)	0.3 x 0.7 mil (see note n°5)	2.2 x 0.12 mil (see note n°5)	2.7 x 0.26 mil (see note n°5)	1.5 x 0.28 mil (see note n°5)
Stylus Construction	Bonded round shank	Nude square shank	Nude square shank	Nude square shank	Nude rectangular shank
Cantilever	Aluminium pipe	Aluminium pipe	0.28 mm Ø nude boron	0.28 mm Ø nude boron	0.28 mm Ø nude boron
Static Compliance	20 x 10 ⁻⁶ cm / dyne	20 x 10 ⁻⁶ cm / dyne	20 x 10 ⁻⁶ cm / dyne	20 x 10 ⁻⁶ cm / dyne	22 x 10 ⁻⁶ cm / dyne
Dynamic Compliance	9 x 10 ⁻⁶ cm / dyne (100 Hz)	9 x 10 ⁻⁶ cm / dyne (100 Hz)	16 x 10 ⁻⁶ cm / dyne (100 Hz)	16 x 10 ⁻⁶ cm / dyne (100 Hz)	18 x 10 ⁻⁶ cm / dyne (100 Hz)
Wire Used for Coil	PCOCC (see note n°3)	PCOCC (see note n°3)	PCOCC (see note n°3)	PCOCC (see note n°3)	PCOCC (see note n°3)
Terminal Pins	Brass	Brass	Brass	Brass	Brass
Recommended Load Impedance	Min 100 Ω (see note n°4)	Min 100 Ω (see note n°4)	Min 100 Ω (see note n°4)	Min 100 Ω (see note n°4)	Min 100 Ω (see note n°4)
Coil Impedance	12 Ω (1 kHz)	12 Ω (1 kHz)	12 Ω (1 kHz)	12 Ω (1 kHz)	12 Ω (1 kHz)
DC Resistance	12 Ω	12 Ω	12 Ω	12 Ω	12 Ω
Coil Inductance	25 µH (1 kHz)	25 µH (1 kHz)	25 µH (1 kHz)	25 µH (1 kHz)	25 µH (1 kHz)
Cartridge Weight	7.6 g	7.6 g	7.6 g	7.6 g	7.6 g
Dimensions	17.3 (H) x 16.8 (W) x 25.7 (L) mm	17.3 (H) x 16.8 (W) x 25.7 (L) mm	17.3 (H) x 16.8 (W) x 25.7 (L) mm	17.3 (H) x 16.8 (W) x 25.7 (L) mm	17.3 (H) x 16.8 (W) x 25.7 (L) mm
Mounting	1/2" centers	1/2" centers	1/2" centers	1/2" centers	1/2" centers
Replacement Stylus	(see note n°2)	(see note n°2)	(see note n°2)	(see note n°2)	(see note n°2)
Accessories Included	1 non-magnetic screw driver; 1 brush; 2 washers; 4 pairs of mounting screws: 5mm, 8mm, 10mm, 12mm; 1 plastic protector	1 non-magnetic screw driver; 1 brush; 2 washers; 4 pairs of mounting screws: 5mm, 8mm, 10mm, 12mm; 1 plastic protector	1 non-magnetic screw driver; 1 brush; 2 washers; 4 pairs of mounting screws: 5mm, 8mm, 10mm, 12mm; 1 plastic protector	1 non-magnetic screw driver; 1 brush; 2 washers; 4 pairs of mounting screws: 5mm, 8mm, 10mm, 12mm; 1 plastic protector	1 non-magnetic screw driver; 1 brush; 2 washers; 4 pairs of mounting screws: 5mm, 8mm, 10mm, 12mm; 1 plastic protector

⁽¹⁾ Vertical tracking angle of 20 degrees is IEC/DIN standard.

⁽²⁾ When the stylus is to be replaced, replace the entire cartridge. Take the used cartridge to your Audio-Technica Authorized Service Center.

The new cartridge, or any other model which is desired among the line-up of MC cartridges sold by Audio-Technica, are available at the stylus replacement price (contact an Audio-Technica Authorized Service Center).

⁽³⁾ PCOCC = Pure Copper by Ohno Continuous Casting process.

⁽⁴⁾ When head amplifier connected.

⁽⁵⁾ The abbreviation mil is equal a thousandth of an inch - mil = 0,001 inch = 0,0254 mm = 25,4 µm

Moving coil cartridges specification for mono vintage records

	for 78rpm Shellac SP Records	for Mono Vinyl	for Mono Vinyl
Model Number	AT-MONO3/SP	AT-MONO3/LP	AT33 MONO
			
Type	Horizontal Mono Moving Coil (see note n°5)	Horizontal Mono Moving Coil (see note n°5)	Horizontal Mono Moving Coil
Body Material	Aluminium/Synthetic Resin	Aluminium/Synthetic Resin	Aluminium/Synthetic Resin
Frequency Response	20 to 15,000 Hz	20 to 20,000 Hz	20 to 20,000 Hz
Output Voltage	1.2 mV (at 1 kHz, 12 cm/sec)	1.2 mV (at 1 kHz, 5.0 cm/sec)	0.35 mV (at 1 kHz, 5.0 cm/sec)
Vertical Tracking Angle	23 degrees	23 degrees	23 degrees (see note n°1)
Vertical Tracking Force Range	3 to 7 g (standard 5.0 g)	1.5 to 2.5 g (standard 2.0 g)	2.3 to 2.7 g (standard 2.5 g)
Stylus Shape	Conical	Conical	Conical
Stylus Curvature Radius	2.5 mil (see note n°4)	0.6 mil (see note n°4)	0.65 mil (see note n°4)
Stylus Construction & Size	Bonded round shank	Bonded round shank	Nude square shank
Cantilever	Aluminium Pipe	Aluminium Pipe	Duralumin Pipe
Static Compliance	10 x 10 ⁻⁶ cm / dyne	20 x 10 ⁻⁶ cm / dyne	20 x 10 ⁻⁶ cm / dyne
Dynamic Compliance	3.5 x 10 ⁻⁶ cm / dyne (100 Hz)	7 x 10 ⁻⁶ cm / dyne (100 Hz)	6 x 10 ⁻⁶ cm / dyne (100 Hz)
Wire Used for Coil	PCOCC (see note n°2)	PCOCC (see note n°2)	PCOCC (see note n°2)
Recommended Load Impedance	400 Ω to 47,000 Ω (see note n°6)	400 Ω to 47,000 Ω (see note n°6)	Min 100 Ω (see note n°3)
Coil Impedance	40 Ω (1 kHz)	40 Ω (1 kHz)	10 Ω (1 kHz)
DC Resistance	40 Ω	40 Ω	10 Ω
Coil Inductance	190 μH (1 kHz)	190 μH (1 kHz)	28 μH (1 kHz)
Cartridge Weight	6.8 g	6.8 g	6.9 g
Dimensions	16.0 (H) x 16.6 (W) x 26.5 (L) mm	16.0 (H) x 16.6 (W) x 26.5 (L) mm	16.0 (H) x 16.6 (W) x 26.5 (L) mm
Mounting	1/2" centers	1/2" centers	1/2" centers
Accessories Included	Non-magnetic screw driver; 1 brush; 2 washers; 2x 20mm mounting screws; 2x 13mm mounting screws; 2x nuts; 1 plastic protector; 1 set of PCOCC lead wires AT6101	Non-magnetic screw driver; 1 brush; 2 washers; 2x 20mm mounting screws; 2x 13mm mounting screws; 2x nuts; 1 plastic protector; 1 set of PCOCC lead wires AT6101	Non-magnetic screw driver; 1 brush; 2 washers; 2x 19mm mounting screws; 2x 13mm mounting screws; 1 plastic protector; 2x nuts; 1 set of PCOCC lead wires AT6101

(1) Vertical tracking angle of 20 degree is IEC/DIN standard.

(2) PCOCC = Pure Copper by Ohno Continuous Casting process.

(3) When head amplifier connected.

(4) The abbreviation mil is equal a thousandth of an inch - mil = 0,001 inch = 0,0254 mm = 25,4 μm

(5) Due to high output voltage this moving coil cartridge can be used directly in MM phono inputs without the use of a step-up transformer.

(6) When connected to the MC input of a transformer-less phono pre-amp, choose a lower gain position due to the high output voltage (1.2 mV).

XP series audiophile DJ moving magnet cartridges specifications

	AT-XP7	AT-XP5	AT-XP3
			
Type	Moving Magnet VM Cartridge	Moving Magnet VM Cartridge	Moving Magnet VM Cartridge
Mounting	Half-inch	Half-inch	Half-inch
Frequency Response	20 to 20,000 Hz	20 to 18,000 Hz	20 to 18,000 Hz
Channel Separation	22 dB (1 kHz)	20 dB (1 kHz)	20 dB (1 kHz)
Output Channel Balance	2.0 dB (1 kHz)	2.0 dB (1 kHz)	2.0 dB (1 kHz)
Output Voltage	6.0 mV (at 1 kHz, 5 cm/sec)	5.5 mV (at 1 kHz, 5 cm/sec)	5.5 mV (at 1 kHz, 5 cm/sec)
Vertical Tracking Angle	20 degree (see note n°1)	20 degree (see note n°1)	20 degree (see note n°1)
Vertical Tracking Force Range	2.0 to 4.0 g (standard 3g)	2.0 to 4.0 g (standard 3g)	2.0 to 4.0 g (standard 3g)
Stylus Shape	Elliptical bonded	Elliptical bonded	Conical bonded
Stylus Size	0.3 x 0.7 mil (see note n°4)	0.3 x 0.7 mil (see note n°4)	0.6 mil (see note n°4)
Stylus Construction	Bonded Round Shank	Bonded Round Shank	Bonded Round Shank
Cantilever	Aluminium tapered tube	Carbon reinforced ABS	Carbon reinforced ABS
Coil Impedance	6,700 ohms (1 kHz)	6,700 ohms (1 kHz)	6,700 ohms (1 kHz)
Static Compliance	20 x 10 ⁻⁶ cm / dyne	20 x 10 ⁻⁶ cm / dyne	20 x 10 ⁻⁶ cm / dyne
Dynamic Compliance	8.0 x 10 ⁻⁶ cm / dyne (100 Hz)	6.0 x 10 ⁻⁶ cm / dyne (100 Hz)	6.0 x 10 ⁻⁶ cm / dyne (100 Hz)
Recommended Load Impedance	47,000 Ω	47,000 Ω	47,000 Ω
Recommended Load Capacitance	100-200 pF	100-200 pF	100-200 pF
Weight	6.2g	6.2g	6.2g
Dimensions	17.2 (H) x 17.8 (W) x 28.3 (L) mm	17.2 (H) x 17.8 (W) x 28.3 (L) mm	17.2 (H) x 17.8 (W) x 28.3 (L) mm
Replacement Stylus	ATN-XP7	ATN-XP5	ATN-XP3
Accessories Included	Cartridge installation screws 11 mm x 2,8 mm x 2; Washer x 2; Nut x 2; Non-magnetic screwdriver x 1	Cartridge installation screws 11 mm x 2,8 mm x 2; Washer x 2; Nut x 2; Non-magnetic screwdriver x 1	Cartridge installation screws 11 mm x 2,8 mm x 2; Washer x 2; Nut x 2; Non-magnetic screwdriver x 1

(1) Vertical tracking angle of 20 degree is IEC/DIN standard.


(4) The abbreviation mil is equal to a thousandth of an inch - mil = 0,001 inch = 0,0254 mm = 25,4 μm

XP Series pre-mounted cartridge-headshell sets specifications




	AT-XP7/H	AT-XP5/H	AT-XP3/H
			
Dimensions	H21.2xW21.4xL62.4mm	H21.2xW21.4xL62.4mm	H21.2xW21.4xL62.4mm
Weight	15.6g	15.6g	15.6g

VM Series cartridges specifications

Model Number	VM760SLC	VM750SH	VM740ML	VM540ML	VM530EN
					
Type	VM Stereo	VM Stereo	VM Stereo	VM Stereo	VM Stereo
Frequency Response	20 to 30,000Hz	20 to 27,000Hz	20 to 27,000Hz	20 to 27,000Hz	20 to 25,000Hz
Output Voltage	4.0mV (1kHz, 5cm/sec.)	4.0mV (1kHz, 5cm/sec.)	4.0mV (1kHz, 5cm/sec.)	4.0mV (1kHz, 5cm/sec.)	4.5mV (1kHz, 5cm/sec.)
Channel Separation	30dB (1kHz)	30dB (1kHz)	28dB (1kHz)	28dB (1kHz)	27dB (1kHz)
Output Balance	1.0dB (1kHz)	1.0dB (1kHz)	1.0dB (1kHz)	1.0dB (1kHz)	1.5dB (1kHz)
Tracking Force	1.8 to 2.2g (2.0g standard)	1.8 to 2.2g (2.0g standard)	1.8 to 2.2g (2.0g standard)	1.8 to 2.2g (2.0g standard)	1.8 to 2.2g (2.0g standard)
Coil Impedance	2.7k Ω (1kHz)	2.7k Ω (1kHz)	2.7k Ω (1kHz)	2.7k Ω (1kHz)	2.7k Ω (1kHz)
DC Resistance	800 Ω	800 Ω	800 Ω	800 Ω	800 Ω
Recommended Load Impedance	47k Ω	47k Ω	47k Ω	47k Ω	47k Ω
Recommended Load Capacitance	100 to 200pF	100 to 200pF	100 to 200pF	100 to 200pF	100 to 200pF
Coil Inductance	460mH (1kHz)	460mH (1kHz)	460mH (1kHz)	460mH (1kHz)	460mH (1kHz)
Static Compliance	40×10 ⁻⁶ cm/dyne	40×10 ⁻⁶ cm/dyne	40×10 ⁻⁶ cm/dyne	40×10 ⁻⁶ cm/dyne	35×10 ⁻⁶ cm/dyne
Dynamic Compliance	10×10 ⁻⁶ cm/dyne (100Hz)	10×10 ⁻⁶ cm/dyne (100Hz)	10×10 ⁻⁶ cm/dyne (100Hz)	10×10 ⁻⁶ cm/dyne (100Hz)	8×10 ⁻⁶ cm/dyne (100Hz)
Stylus Shape	Nude Special Line Contact	Nude Shibata	Nude Microlinear	Nude Microlinear	Nude Elliptical
Stylus Curvature Radius	1.5×0.28mil	2.7×0.26mil	2.2×0.12mil	2.2×0.12mil	0.3×0.7mil
Cantilever	Aluminium tapered pipe	Aluminium tapered pipe	Aluminium tapered pipe	Aluminium tapered pipe	Aluminium pipe
Vertical Tracking Angle	23°	23°	23°	23°	23°
Dimensions	H17.3×W17.0×D28.2mm	H17.3×W17.0×D28.2mm	H17.3×W17.0×D28.2mm	H17.3×W17.0×D28.2mm	H17.3×W17.0×D28.2mm
Weight	8.0g	8.0g	8.0g	6.4g	6.4g
Replacement Stylus	VMN60SLC	VMN50SH	VMN40ML	VMN40ML	VMN30EN
Accessories	Cartridge installation screws 5mm×2; 8mm×2 and 10mm×2 Washer×2 Round nut×2 Non-magnetic screwdriver×1 Brush×1 Lead wire set×1	Cartridge installation screws 5mm×2; 8mm×2 and 10mm×2 Washer×2 Round nut×2 Non-magnetic screwdriver×1 Brush×1 Lead wire set×1	Cartridge installation screws 5mm×2; 8mm×2 and 10mm×2 Washer×2 Round nut×2 Non-magnetic screwdriver×1 Brush×1 Lead wire set×1	Cartridge installation screws 5mm×2; 8mm×2 and 10mm×2 Washer×2 Round nut×2 Non-magnetic screwdriver×1 Brush×1 Lead wire set×1	Cartridge installation screws 5mm×2; 8mm×2 and 10mm×2 Washer×2 Round nut×2 Non-magnetic screwdriver×1 Brush×1

Model Number	VM520EB	VM510CB	VM670SP	VM610MONO
				
Type	VM Stereo	VM Stereo	VM Mono (for SP)	VM Mono (for LP)
Frequency Response	20 to 23,000Hz	20 to 20,000Hz	20 to 20,000Hz	20 to 20,000Hz
Output Voltage	4.5mV (1kHz, 5cm/sec.)	5.0mV (1kHz, 5cm/sec.)	3.0mV (1kHz, 5cm/sec.)	3.0mV (1kHz, 5cm/sec.)
Channel Separation	27dB (1kHz)	25dB (1kHz)	–	–
Output Balance	1.5dB (1kHz)	1.5dB (1kHz)	–	–
Tracking Force	1.8 to 2.2g (2.0g standard)	1.8 to 2.2g (2.0g standard)	4.5 to 5.5g (5.0g standard)	1.8 to 2.2g (2.0g standard)
Coil Impedance	2.7k ohms (1kHz)	2.7k ohms (1kHz)	1.4k ohms (1kHz)	1.4k ohms (1kHz)
DC Resistance	800 Ω	800 Ω	400 Ω	400 Ω
Recommended Load Impedance	47k Ω	47k Ω	47k Ω	47k Ω
Recommended Load Capacitance	100 to 200pF	100 to 200pF	100 to 200pF	100 to 200pF
Coil Inductance	460mH (1kHz)	460mH (1kHz)	230mH (1kHz)	230mH (1kHz)
Static Compliance	35×10 ⁻⁶ cm/dyne	35×10 ⁻⁶ cm/dyne	15×10 ⁻⁶ cm/dyne	35×10 ⁻⁶ cm/dyne
Dynamic Compliance	8×10 ⁻⁶ cm/dyne (100Hz)	8×10 ⁻⁶ cm/dyne (100Hz)	2.0×10 ⁻⁶ cm/dyne (100Hz)	8×10 ⁻⁶ cm/dyne (100Hz)
Stylus Shape	Bonded Elliptical	Bonded Conical	Bonded Conical	Bonded Conical
Stylus Curvature Radius	0.3×0.7mil	0.6mil	3mil	0.6mil
Cantilever	Aluminium pipe	Aluminium pipe	Aluminium pipe	Aluminium pipe
Vertical Tracking Angle	23°	23°	23°	23°
Dimensions	H17.3×W17.0×D28.2mm	H17.3×W17.0×D28.2mm	H17.3×W17.0×D28.2mm	H17.3×W17.0×D28.2mm
Weight	6.4g	6.4g	6.4g	6.4g
Replacement Stylus	VMN20EB	VMN10CB	VMN70SP	VMN10C
Accessories	Cartridge installation screws 5mm×2; 8mm×2 and 10mm×2 Washer×2 Round nut×2	Cartridge installation screws 5mm×2; 8mm×2 and 10mm×2 Washer×2 Round nut×2	Cartridge installation screws 5mm×2; 8mm×2 and 10mm×2 Washer×2 Round nut×2	Cartridge installation screws 5mm×2; 8mm×2 and 10mm×2 Washer×2 Round nut×2

VM series pre-mounted cartridge-headshell sets specifications

Model Number	VM540ML/H	VM530EN/H	VM520EB/H
			
Dimensions	H21.3×W21.0×L60.4mm	H21.3×W21.0×L60.4mm	H21.3×W21.0×L60.4mm
Weight	16.8g	16.8g	16.8g

VM95 Series dual moving magnet cartridges specifications

Model Number	AT-VM95C	AT-VM95E	AT-VM95EN	AT-VM95ML	AT-VM95SH	AT-VM95SP
Cartridge EAN Code	4961310146023	4961310146016	4961310146009	4961310145996	4961310145989	4961310146030
						
Type	VM Stereo Dual Magnet	VM Stereo Dual Magnet	VM Stereo Dual Magnet	VM Stereo Dual Magnet	VM Stereo Dual Magnet	VM Stereo Dual Magnet ⁽⁴⁾
Frequency Response	20 to 20,000 Hz ⁽⁴⁾	20 to 22,000 Hz	20 to 23,000 Hz	20 to 25,000 Hz	20 to 25,000 Hz	20 to 20,000 Hz
Channel Separation	18 dB (1 kHz) ⁽⁵⁾	20 dB (1 kHz)	22 dB (1 kHz)	23 dB (1 kHz)	23 dB (1 kHz)	NA
Output Channel Balance	2.5 dB (1 kHz)	2.0 dB (1 kHz)	2.0 dB (1 kHz)	1.5 dB (1 kHz)	1.5 dB (1 kHz)	1.5 dB (1 kHz)
Output Voltage	4.0 mV (at 1 kHz, 5 cm/sec)	4.0 mV (at 1 kHz, 5 cm/sec)	3.5 mV (at 1 kHz, 5 cm/sec)	3.5 mV (at 1 kHz, 5 cm/sec)	3.5 mV (at 1 kHz, 5 cm/sec)	2.7 mV (at 1 kHz, 5 cm/sec)
Vertical Tracking Angle	23 degrees ⁽¹⁾	23 degrees ⁽¹⁾	23 degrees ⁽¹⁾	23 degrees ⁽¹⁾	23 degrees ⁽¹⁾	23 degrees ⁽¹⁾
Vertical Tracking Force Range	1.8 to 2.2g (standard 2.0 g)	1.8 to 2.2g (standard 2.0g)	1.8 to 2.2g (standard 2.0g)	1.8 to 2.2g (standard 2.0g)	1.8 to 2.2g (standard 2.0g)	4.5 to 5.5g (standard 5.0g)
Stylus Shape	Conical	Elliptical	Elliptical	Microlinear	Shibata	SP 3 mil Conical Bonded
Stylus Radius	0.6 mil ⁽²⁾	0.3 x 0.7 mil ⁽²⁾	0.3 x 0.7 mil ⁽²⁾	2.2 x 0.12 mil ⁽²⁾	2.7 x 0.26 mil ⁽²⁾	3 mil ⁽²⁾
Stylus Construction	Bonded Round Shank	Bonded Round Shank	Nude Round Shank	Nude Square Shank	Nude Square Shank	Bonded Round Shank
Cantilever	Aluminium Pipe	Aluminium Pipe	Aluminium Pipe	Aluminium Pipe	Aluminium Pipe	Aluminium Pipe
Static Compliance	17 x 10 ⁻⁶ cm / dyne	17 x 10 ⁻⁶ cm / dyne	20 x 10 ⁻⁶ cm / dyne	20 x 10 ⁻⁶ cm / dyne	20 x 10 ⁻⁶ cm / dyne	12 x 10 ⁻⁶ cm / dyne
Dynamic Compliance	6.5 x 10 ⁻⁶ cm / dyne (100 Hz)	7 x 10 ⁻⁶ cm / dyne (100 Hz)	7 x 10 ⁻⁶ cm / dyne (100 Hz)	10 x 10 ⁻⁶ cm / dyne (100 Hz)	10 x 10 ⁻⁶ cm / dyne (100 Hz)	2.0 x 10 ⁻⁶ cm / dyne (100 Hz)
Wire Used for Coil	T.P. Copper ⁽³⁾	T.P. Copper ⁽³⁾	T.P. Copper ⁽³⁾	T.P. Copper ⁽³⁾	T.P. Copper ⁽³⁾	T.P. Copper ⁽³⁾
Coil Impedance	3.3 kΩ (1 kHz)	3.3 kΩ (1 kHz)	3.3 kΩ (1 kHz)	3.3 kΩ (1 kHz)	3.3 kΩ (1 kHz)	3.3 kΩ (1 kHz)
DC Resistance	485 Ω	485 Ω	485 Ω	485 Ω	485 Ω	485 Ω
Recommended Load Impedance	47,000 Ω	47,000 Ω	47,000 Ω	47,000 Ω	47,000 Ω	47,000 Ω
Recommended Load Capacitance	100-200 pF	100-200 pF	100-200 pF	100-200 pF	100-200 pF	100-200 pF
Coil Inductance	550 mH (1 kHz)	550 mH (1 kHz)	550 mH (1 kHz)	550 mH (1 kHz)	550 mH (1 kHz)	550 mH (1 kHz)
Cartridge Weight	6.1g	6.1g	6.1g	6.1g	6.1g	6.1g
Mounting	2 x M2.6 Threaded inserts	2 x M2.6 Threaded inserts	2 x M2.6 Threaded inserts	2 x M2.6 Threaded inserts	2 x M2.6 Threaded inserts	2 x M2.6 Threaded inserts
Replacement Stylus	AT-VMN95C	AT-VMN95E	AT-VMN95EN	AT-VMN95ML	AT-VMN95SH	AT-VMN95SP
Replacement Stylus EAN Code	4961310146085	4961310146078	4961310146061	4961310146054	4961310146047	4961310146092
Accessories Included	Two 11 mm installation screws; Two 8 mm installation screws; Two washers; —	Two 11 mm installation screws; Two 8 mm installation screws; Two washers; —	Two 11 mm installation screws; Two 8 mm installation screws; Two washers; Non-magnetic screwdriver	Two 11 mm installation screws; Two 8 mm installation screws; Two washers; Non-magnetic screwdriver	Two 11 mm installation screws; Two 8 mm installation screws; Two washers; Non-magnetic screwdriver	Two 11 mm installation screws; Two 8 mm installation screws; Two washers; —
Dimensions (H x W x D mm)	17.2 x 18.9 x 28.3	17.2 x 18.9 x 28.3	17.2 x 18.9 x 28.3	17.2 x 18.9 x 28.3	17.2 x 18.9 x 28.3	17.2 x 18.9 x 28.3

⁽¹⁾ Vertical tracking angle of 20 degree is IEC/DIN standard.

⁽²⁾ The abbreviation mil is equal to a thousandth of an inch - mil = 0,001 inch = 0,0254 mm = 25,4 μm

⁽³⁾ **TPC, Tough Pitch Copper** (or ETP grade Copper, Electrolytic Tough Pitch Copper) is about 99.90% purity of copper, has excellent electrical and thermal conductivity.

It is not considered as Oxygen Free Copper, due to typical oxygen content in TCP from 0.02% to 0.04%.


⁽⁴⁾ AT-VM95 SP is used to play 78rpm mono records, nevertheless the AT-VM95 SP is a stereo cartridge. It allows to choose between the signal, from right or left groove in order for archiving engineer to minimise noise and distortion.

VM95 series pre-mounted cartridge-headshell sets specifications

Model Number	AT-VM95C/H	AT-VM95E/H	AT-VM95EN/H	AT-VM95ML/H	AT-VM95SH/H	AT-VM95SP/H
Bundle EAN Code	4961310146535	4961310146528	4961310146511	4961310146504	4961310146498	4961310146542
						
Dimensions ⁽¹⁾	H21.2xW21.4xL62.4mm	H21.2xW21.4xL62.4mm	H21.2xW21.4xL62.4mm	H21.2xW21.4xL62.4mm	H21.2xW21.4xL62.4mm	H21.2xW21.4xL62.4mm
Weight	15.5 g	15.5 g	15.5 g	15.5 g	15.5 g	15.5 g

(1) Total length depend on final cartridge position following overhang adjustment.

P-mount moving magnet cartridges specifications

Model Number	AT81CP	AT85EP
		
Type	Stereo Dual Magnet	Stereo Dual Magnet
Frequency Response	20 to 20,000 Hz	20 to 22,000 Hz
Channel Separation	18 dB (1 kHz)	20 dB (1 kHz)
Output Channel Balance	2.5 dB (1 kHz)	2.0 dB (1 kHz)
Output Voltage	3.5 mV (at 1 kHz, 5 cm/sec)	3.5 mV (at 1 kHz, 5 cm/sec)
Vertical Tracking Angle	20 degree (see note n°1)	20 degree (see note n°1)
Vertical Tracking Force Range	1.0 to 1.5 g (1.25g recommended)	1.0 to 1.5 g (1.25g recommended)
Stylus Shape	Conical	Elliptical
Stylus Size	0.6 mil (see note n°4)	0.3 x 0.7 mil (see note n°4)
Stylus Construction	Bonded Round Shank	Bonded Round Shank
Cantilever	Carbon reinforced ABS	Alloy Tube
Color : body / styli	Black / Black	Black / Ivory
Wire Used for Coil	TPC	TPC
Recommended Load Impedance	47,000 Ω	47,000 Ω
Recommended Load Capacitance	100-200 pF	100-200 pF
Coil Inductance	400 mH (1 kHz)	400 mH (1 kHz)
Weight	6.0g	6.0g
Replacement Stylus	ATN81CP (carbon reinforced ABS cantilever)	ATN85EP (aluminium cantilever)
Accessories Included	Plastic protector;	Plastic protector;

(1) Vertical tracking angle of 20 degree is IEC/DIN standard.

(4) The abbreviation mil is equal to a thousandth of an inch - mil = 0,001 inch = 0,0254 mm = 25,4 μm

Replacement styli for audio-technica cartridges Series AT95

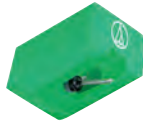
ATN95E

Replacement stylus for AT95E

The ATN95E is also compatible with discontinued models AT93 and AT95.



Bonded Round Shank
Elliptical



ATN95Ex

Replacement stylus for AT95EX

The ATN95Ex is also compatible with discontinued models AT93 and AT95.



Bonded Round Shank
Elliptical



Replacement styli for audio-technica cartridges Series AT91

ATN91

Replacement stylus for AT91

The ATN91 is also a compatible stylus for CN5625AL and AT90 discontinued cartridges. The ATN91 can also be used as upgrade replacement styli for AT3600L, if tonearm setting allows tracking force setting. The tracking force of AT3600L equipped with ATN91 becomes 2g, do not upgrade from ATN3600L to ATN91 when your tonearm does not allowed tracking force adjustment.



Bonded Round Shank
Conical
ABS carbon reinforced cantilever



ATN91R

Replacement stylus for AT91R

The ATN91R is also a compatible stylus for CN5625AL and AT90 discontinued cartridges. The ATN91R can also be used as upgrade replacement styli for AT3600L, if tonearm setting allows tracking force setting. The tracking force of AT3600L equipped with ATN91R becomes 2g, do not upgrade from ATN3600L to ATN91R when your tonearm does not allowed tracking force adjustment.



Bonded Round Shank
Conical
Aluminium cantilever



Replacement styli for audio-technica cartridge AT3600L replacement styli for audio-technica LP60's turntables

ATN3600L

Replacement stylus for AT3600L

This ATN3600L styli is compatible with the following cartridges: AT3600 - AT3600L - AT3601 - AT3651 - AT3650L - AT3650C - AT3650 - AT3626.

This is also the replacement stylus for turntable models Audio-Technica LP60USB and LP60.



Bonded Round Shank
Conical
**Tracking force for ATM3600L should be 3.5g
(standard tracking force of LP60's turntables)**



Replacement styli guide for other discontinued audio-technica models

Discontinued model	Original stylus shape	Recommended replacement	Alternative replacement / Note
AT100E	Elliptical	VMN20EB	Any VMN model can be selected
AT101EP	Elliptical	ATN3472SE	ATN3472P (Makes cartridge conical)
AT101P	Conical	ATN3472P	ATN3472SE (Makes cartridge elliptical)
AT103	Elliptical	VMN20EB	Any VMN model can be selected
AT120E	Elliptical	VMN20EB	Any VMN model can be selected
AT120E-II	Elliptical	VMN20EB	Any VMN model can be selected
AT120E/T	Elliptical	VMN30EN	Any VMN model can be selected
AT120Ea	Elliptical	VMN30EN	Any VMN model can be selected
AT120Eb	Elliptical	VMN30EN	Any VMN model can be selected
AT120ET	Elliptical	VMN30EN	Any VMN model can be selected
AT125LC	Microlinear	VMN40ML	Any VMN model can be selected
AT130E	Elliptical	VMN30EN	Any VMN model can be selected
AT130E	Elliptical	VMN30EN	Any VMN model can be selected
AT130Ea	Elliptical	VMN30EN	Any VMN model can be selected
AT140E	Elliptical	VMN30EN	Any VMN model can be selected
AT140Ea	Elliptical	VMN30EN	Any VMN model can be selected
AT140LC	Microlinear	VMN40ML	Any VMN model can be selected
AT140ML	Microlinear	VMN40ML	Any VMN model can be selected
AT150ANV	Microlinear	VMN40ML	Any VMN model can be selected
AT150E	Elliptical	VMN30EN	Any VMN model can be selected
AT150Ea	Elliptical	VMN30EN	Any VMN model can be selected
AT150MLX	Microlinear	VMN40ML	Any VMN model can be selected
AT150Sa	Shibata	VMN50SH	Any VMN model can be selected
AT150Ti	Elliptical	VMN30EN	Any VMN model can be selected
AT155LC	Microlinear	VMN40ML	Any VMN model can be selected
AT160ML	Microlinear	VMN40ML	Any VMN model can be selected
AT2000XE	Elliptical	ATN3472SE	ATN3472P (Makes cartridge conical)
AT2001	Conical	ATN91	Choose ATN91R for aluminium cantilever
AT2002	Conical	ATN91	Choose ATN91R for aluminium cantilever
AT2003	Conical	ATN91	Choose ATN91R for aluminium cantilever
AT2004	Conical	ATN91	Choose ATN91R for aluminium cantilever
AT2005	Conical	ATN3600L	Choose ATN91 for 2g Tracking Force
AT250	Conical	ATN3472P	ATN3472SE (Makes cartridge elliptical)
AT300P	Conical	ATN85EP	Makes cartridge elliptical
AT300P	Conical	ATN81CP	No alternative options
AT311P	Elliptical	ATN85EP	No alternative options
AT3400	Conical	ATN95E	Makes cartridge elliptical
AT3400C	Conical	ATN95E	Makes cartridge elliptical
AT3401	Conical	ATN95E	Makes cartridge elliptical
AT3410	Conical	ATN95E	Makes cartridge elliptical
AT3450	Conical	ATN95E	Makes cartridge elliptical
AT3450C	Conical	ATN95E	Makes cartridge elliptical
AT3450L	Conical	ATN95E	Makes cartridge elliptical
AT3451	Conical	ATN95E	Makes cartridge elliptical
AT3451E	Elliptical	ATN95E	Choose ATN95Ex as upgrade
AT3452E	Elliptical	ATN95E	Choose ATN95Ex as upgrade
AT3472BE	Elliptical	ATN3472SE	ATN3472P (Makes cartridge conical)
AT3472C	Conical	ATN3472P	ATN3472SE (Makes cartridge elliptical)
AT3472EP	Elliptical	ATN3472SE	ATN3472P (Makes cartridge conical)
AT3472P	Conical	ATN3472P	ATN3472SE (Makes cartridge elliptical)
AT3472PBK	Conical	ATN3472P	ATN3472SE (Makes cartridge elliptical)

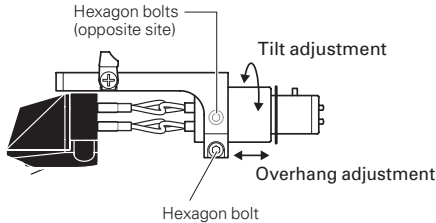
Discontinued model	Original stylus shape	Recommended replacement	Alternative replacement / Note
AT3472EPBK	Elliptical	ATN3472SE	ATN3472P (Makes cartridge conical)
AT3474SE	Elliptical	ATN3472SE	ATN3472P (Makes cartridge conical)
AT3482P	Conical	ATN3472P	ATN3472SE (Makes cartridge elliptical)
AT3492EP	Elliptical	ATN3472SE	ATN3472P (Makes cartridge conical)
AT3492P	Conical	ATN3472P	ATN3472SE (Makes cartridge elliptical)
AT3600	Conical	ATN3600L	Choose ATN91 for 2g Tracking Force
AT3600C	Conical	ATN3600L	Choose ATN91 for 2g Tracking Force
AT3600L	Conical	ATN3600L	Choose ATN91 for 2g Tracking Force
AT3601	Conical	ATN91	Choose ATN91R for aluminium cantilever
AT3626	Conical	ATN3600L	Choose ATN91 for 2g Tracking Force
AT3650	Conical	ATN3600L	Choose ATN91 for 2g Tracking Force
AT3650C	Conical	ATN3600L	Choose ATN91 for 2g Tracking Force
AT3650L	Conical	ATN3600L	Choose ATN91 for 2g Tracking Force
AT3651	Conical	ATN91	Choose ATN91R for aluminium cantilever
AT3651E	Elliptical	ATN91	Makes cartridge conical
AT3652	Conical	ATN91	Choose ATN91R for aluminium cantilever
AT3712	Conical	ATN3472P	ATN3472SE (Makes cartridge elliptical)
AT3472PBK	Conical	ATN3472P	ATN3472SE (Makes cartridge elliptical)
AT3482P	Conical	ATN81CP	No alternative options
AT3482P	Conical	ATN85EP	Makes cartridge elliptical
AT420E	Elliptical	VMN20EB	Any VMN model can be selected
AT430E	Elliptical	VMN20EB	Any VMN model can be selected
AT440LC	Microlinear	VMN40ML	Any VMN model can be selected
AT440ML	Microlinear	VMN40ML	Any VMN model can be selected
AT440ML/OCC	Microlinear	VMN40ML	Any VMN model can be selected
AT440MLa	Microlinear	VMN40ML	Any VMN model can be selected
AT440MLb	Microlinear	VMN40ML	Any VMN model can be selected
AT440MLb	Microlinear	VMN40ML	Any VMN model can be selected
AT5000SE	Elliptical	ATN3472SE	ATN3472P (Makes cartridge conical)
AT80	Conical	ATN3472P	ATN3472SE (Makes cartridge elliptical)
AT90	Conical	ATN3600L	Choose ATN91 for 2g Tracking Force
AT91E	Elliptical	ATN91	Makes cartridge conical
AT91	Conical	ATN91	Original stylus still in production
AT91R	Conical	ATN91R	Original stylus still in production
AT93	Conical	ATN95E	Makes cartridge elliptical
AT95C	Conical	ATN95E	Makes cartridge elliptical
AT95E	Elliptical	ATN95E	Original stylus still in production
AT95EX	Elliptical	ATN95Ex	Original stylus still in production
ATP2	Elliptical	No replacement Styli available	
ATP1	Conical	No replacement Styli available	
ATP2XN	Elliptical	No replacement Styli available	
ATX1	Elliptical	No replacement Styli available	
ATX11	Elliptical	No replacement Styli available	
ATX3E	Elliptical	No replacement Styli available	
ATX5E	Elliptical	No replacement Styli available	

Headshells

Removable headshell for half-inch cartridges with azimuth and overhang adjustment

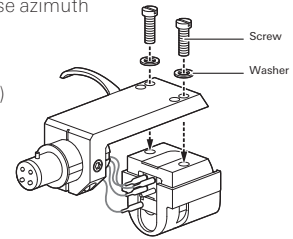
Threaded headshells for non-threaded cartridges

- Threaded headshell avoiding use of nuts when fitting cartridge
- 7 pairs of installation screws (3mm, 5mm, 6mm, 8mm, 10mm, 12mm and 14mm)
- 1 hexagon wrench (for overhanging and tilt adjustment)



Through hole type headshells for threaded cartridges

- Aluminium headshell with hard anodized finish reduces unwanted vibration
- Through hole type headshell fits well with cartridges with threaded holes such as the AT-OC9X series
- Equipped with OFC lead-wires (*Oxygen Free Copper). Lead-wires utilize a flexible elastomer jacket for ease of cartridge mounting
- Adjustable cylinder enables precise azimuth and overhang setting
- Includes; hexagonal wrench, cartridge installation screw (M2.6) (8.0 mm x 2, 10.0 mm x 2), plastic washer x 2



AT-LH13/OCC

13g TechniHard™ adjustable headshell with AT6101 quad wire



AT-LH13H

13g adjustable through hole type headshell, with OFC lead-wires



- Lighter weighted model, that would be chosen by the consideration of cartridge and tonearm specifications.

AT-LH15/OCC

15g TechniHard™ adjustable headshell with AT6101 quad wire



AT-LH15H

15g adjustable through hole type headshell, with OFC lead-wires



- Middle weighted model, that would be chosen by the consideration of cartridge and tonearm specifications.

AT-LH18/OCC

18g TechniHard™ adjustable headshell with AT6101 quad wire



AT-LH18H

18g adjustable through hole type headshell, with OFC lead-wires



- Higher weighted model, that would be chosen by the consideration of cartridge and tonearm specifications.

AT6101

Cartridge to headshell
PCOCC lead wires



- Perfect Crystal OCC quad wire (PCOCC high purity oxygen free copper conductors)
- Ø 0.12mm x 22 core strand construction
- 24K gold plated crimped lead tip.

AT6108

Cartridge to headshell
lead wires



- 6N-OFCC 99,9999% high-purity oxygen-free copper
- Ø 0.12mm x 29 core strand construction
- 24K gold plated crimped lead tip.

Headshells

Removable headshell for half-inch cartridges, M2.6 threaded

AT-LT13A

13g headshell aluminium die cast body



- Threaded headshell avoiding use of nuts when fitting cartridge
- 7 pairs of screws (3mm, 5mm, 6mm, 8mm, 10mm, 12mm and 14mm)
- Includes gold plated terminals quad wire
- 3 pairs of M2.6 threaded holes with 3.5mm distance allows 3 overhang positions adjustment
- 12.8g with cables, without screws

AT-MG10

10g headshell magnesium body



- Threaded headshell avoiding use of nuts when fitting cartridge
- 7 pairs of screws (3mm, 5mm, 6mm, 8mm, 10mm, 12mm and 14mm)
- Includes gold plated terminals quad wire
- 3 pairs of M2.6 threaded holes with 3.5mm distance allows 3 overhang positions adjustment
- 10g with cables, without screws

Removable headshell for half-inch cartridges with slot type overhang adjustment

AT-HS6BK

9g headshell aluminium die cast body

black finish



AT-HS10BK

10g headshell aluminium die cast body

black finish



AT-HS6SV

9g headshell aluminium die cast body

silver finish



AT-HS10SV

10g headshell aluminium die cast body

silver finish



- Includes terminals quad wire
- 1 pair of 10mm screws and 1 pair of 8mm screws
- 1 pair of M2.6 nuts with plastic washer

- Includes gold plated terminals quad wire
- 1 pair of 16mm screws and 1 pair of 10mm screws
- 1 pair of M2.6 nuts with plastic washer

AT-HS1

10g dj style cartridge headshell

- Includes terminals quad wire
- 1 pair of 16mm screws and 1 pair of 10mm screws
- 1 pair of M2.6 nuts with plastic washer



Removable headshell for half-inch cartridges and straight tone arms with slot type overhang adjustment

AT-HS3

11.1g angled shape headshell for straight tonearm



- Compatible with AT-LP3, AT-LP2x turntables*
- Includes terminals quad wire
- 1 pair of 16mm screws and 1 pair of 10mm screws
- 1 pair of M2.6 nuts with plastic washer

*On AT-LP2x turntable, the AT-HS3 headshell is an exclusive black finish version.

AT-HS4

Angled shape headshell for straight tonearm

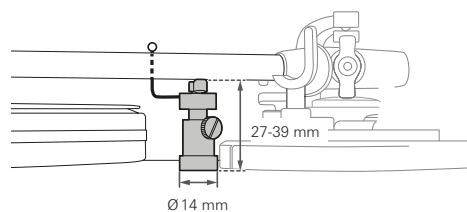


- Compatible with AT-LPW Series turntables
- Includes terminals quad wire
- 1 pair of 8mm, and 1 pair of 10mm screws
- 1 pair of M2.6 nuts with plastic washer

Turntables related accessories



AT6006R
Tonearm Safety Raiser



- Lifts tonearm automatically at the end of a record, protecting stylus tip
- Hydraulic lift with rubber lift bar operates safely and smoothly
- Can be mounted on a variety of turntables with different tonearm heights

AT6003R
Cartridges
protective display



AT6181DL
Stroboscope Disc
and Strobe Quartz Light



- Stroboscope disc and light kit allows you to precisely check a turntable's rotation speed
- Yellow LED light provides a clear, accurate reading of 33 $\frac{1}{3}$, 45 and 78rpm speeds
- Useful overhang guide is included on the stroboscope disc

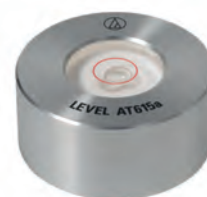
AT6180a
Stroboscopic disc
(50 Hz / 60 Hz) 33 $\frac{1}{3}$ - 45rpm
and overhang adjustment tool



AT618a
Disc stabilizer

- Holds record firmly in place stabilising the record
- Thick rubber construction
- 600g.

AT615a
Turntable leveler



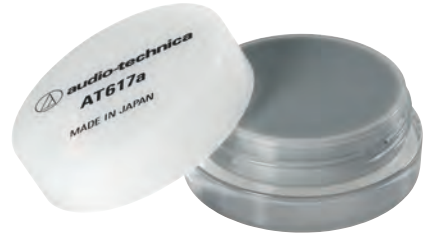
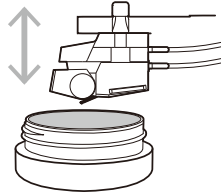
- Precise level for horizontal adjustment of turntable
- Machined aluminium housing.

Cleaning accessories

AT617a

Cartridge Stylus Cleaner

- Specially formulated polyurethane gel gently removes dirt particles from stylus tip
- Gel remains tacky for years
- Surface is washable for repeated use



AT607a

Stylus cleaner liquid with brush applicator



- 10ml volume
- Applicator brush is attached to the cap for ease of use.

AT6011a

Anti-static record brush



- Removes harmful dust and contaminants from your vinyl records.

AT6013a

Dual-action anti-static record cleaner



- Two carbon fibre brushes and central velvet pad work together to collect dust and other contaminants in one pass.

AT6012

Record care kit



Scientific record-care formula gently removes microdust and other contaminants, dissolves fingerprints, and eliminates static electricity

- Velvet brush pad reaches into grooves
- Inner reservoir directs the record care solution into brush pad's leading edge
- For LP/EP use only (do not use for Shellac records)
- A two-ounce bottle of A-T Record Care Solution is available separately as AT634a.

AT634a

Record care solution



- One bottle supplied with AT6012 record care kit

P20009

Anti-static stylus brush



Cartridge-making dictionary Audio-Technica's guide to cartridge-making terminology

33rpm

33rpm very often denotes 12" LP Vinyl records (1949-Today), that should be played at a speed of 33 1/3rpm. Rpm stands for Rotation Per Minute.

45 rpm

45rpm very often denotes 7" Vinyl records (1949-Today), that should be played at a speed of 45rpm. Rpm stands for Rotation Per Minute.

78rpm

78rpm very often denotes 10" Shellac SP Gramophone records (1925-1950), that should be played at a speed of 78rpm. Rpm stands for Rotation Per Minute.

Anti-skating

When the record is in play, the friction between the stylus in the groove of the record and the length of the arm (the distance between the tip and the arm bearing) creates a force that pushes the cartridge toward the center of the disk. Anti-skating creates a force that pulls the arm towards the outer edge of the disc to compensate it. Because records don't have a constant amplitude, a static compensation will never totally cure the problem. It is a matter of balance. Badly set anti-skating will produce channel balance and distortion issues. When the anti-skating is set too high, the left channel will distort during loud passages, while on the other side if it's too low, the right channel will distort. Also the amount of anti-skating depends on the shape of the tip. Conical stylus tends to require more anti-skating (due to the amount of friction generated by their shape) than more complex shapes (Line Contact or Micro linear).

Azimuth (see also Tilt)

For magnetic tape drives, azimuth refers to the angle between the tape head and magnetic tape. For phono cartridges, Azimuth is the angle between the surface of the record and the vertical axis of the cartridge.

Note the difference between cartridge removable head shells: some models such as the "Technihard Series" (page 50) feature an "azimuth" adjustment. This feature is particularly useful when it is not provided by the tonearm itself.

Bonded diamond

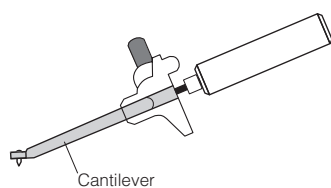


Bonded diamond refers to a stylus where the diamond tip is glued on a metal shank that is itself glued into the hole of the cantilever. This construction may increase the mass of the overall tip and affect transient reproduction compared with nude styli that are preferred and used on higher-priced models.

Boron (boron cantilever)

Boron is a chemical element from the metalloid family, extracted from Borax and Kernite. Its atomic number is 5. Boron is used for high-end cantilevers due to its lightweight and high-rigidity properties. It reaches a score of 9.5 on the Mohs hardness scale (for reference Diamond scores 10 and Aluminium 3).

Cantilever (stylus cantilever)



Styli are principally made of three components: Stylus Tip, Stylus Cantilever, and Stylus Suspension.

The cantilever is a tiny suspended "arm" (solid or pipe) that holds the Diamond Tip on one end and transfers the vibrations to the other end where the Magnets (in case of MM cartridges) or the Coils (in case of MC cartridges) are housed.

Different materials are used to make a cantilever: Aluminium, Saphyr, Beryllium, Boron... The lighter and stiffer being the best.

Cartridge (Phono Magnetic Cartridge)

The phono cartridge is the transducer used for the playback of gramophone records.

The phono cartridge converts the mechanical energy (vibrations) from a stylus riding in a record groove into an electrical signal that will be amplified then processed, recorded, or played through a sound system.

Channel Balance

The channel balance of a cartridge is the ability of the transducer to reproduce left and right channels in the same manner. Channel balance should be part of the cartridge specifications, it expresses the possible output difference in dB from one channel to another. A cartridge with ideal channel balance will playback any mono signal with equal level in both channels. The channel balance will be 0dB. The ratio of the signals between the two channels is specified in dB. Channel imbalance can result in several factors independent from the cartridge itself: mechanical factors include incorrect azimuth settings, misalignment of the tonearm and/or of the cartridge on the headshell, and/or improper anti-skating adjustment. Other Channel imbalance issues, independent from the cartridge or the turntable, could include mismatched cables, electronic elements such as stereo preamplifiers, speaker system, speaker positioning and/or room acoustics.

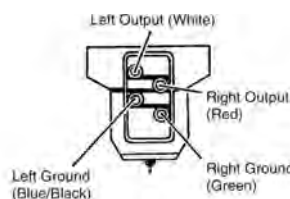
Channel Separation

The channel separation of a cartridge is the ability of the transducer to deliver only signal on the left channel of the cartridge, and nothing on the right channel when there is only signal on the left channel groove, and vice versa. Channel separation is frequency dependent. Audio-Technica indicate in the specifications the Channel separation, specified at 1kHz. For high-end cartridges, Audio-Technica provides channel separation curves, showing the separation in dB from 20Hz to 20,000Hz. A high channel separation provides a better stereo image.

Compliance

Compliance is the inverse of stiffness. Every cartridge works as a suspension, a high compliance cartridge will be suited for a low mass tonearm and a low compliance (stiffer) cartridge will be suited for a high mass tonearm. There is not a perfect compliance number, the cartridge compliance together with the effective mass of the tonearm/cartridge combination determine the tonearm's fundamental resonance. For optimal results the frequency should be maintained between 9-13Hz.

Connecting (the phono cartridge)



To install a Phono cartridge, connect the four wires of the cartridge headshell to the correct terminals on the back of the cartridge.

The four wires are colour-coded and generally labeled as follows :

Left Channel: **White**

Left Channel Ground: **Blue**

Right Channel: **Red**

Right Channel Ground: **Green**

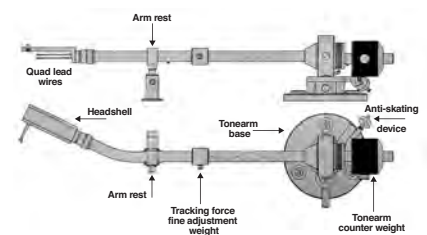
Conical



(form factor of the diamond stylus)
Also called spherical, because of the shape of the tip of the cone. Conical shaped stylus are simple to produce, therefore it becomes the most popular when economy is a factor.

Counterweight

(Tonearm Counterweight)



Dual Moving Magnet cartridge

Audio-Technica's Vertical Dual Magnet phono cartridge, unlike conventional cartridges, use the 90° V-Shape of the cutter head. The standard cutter head (used to record the vinyl master) uses two transducer coils, mounted perpendicular to each other at 45° from horizontal, to cut the channel: one in each wall of the 90° record groove. This way, the cartridge achieves accurate tracking, excellent channel separation, high definition of the stereo image and extreme clarity over the entire audio spectrum.

Elliptical



(form factor of the diamond stylus)
An Elliptical stylus is produced starting from a Conical Stylus, then two cuts are made in order to make the vertical contact longer and the front to back contact narrower.

The elliptical tip follows the groove modulation with more precision than a conical tip, improving frequency response, phase response, and lowering distortion, specifically in the inner turns of the record.

Frequency Response

Frequency response is the quantitative measure of the output spectrum of the cartridge in response to the stimulus of the record groove modulation.

It is a measure of the magnitude for the output as a function of frequency; typically measured in decibels (dB). In the case of cartridge measurement, the input signal will be a constant-amplitude pure tone through the bandwidth provided by a reference record.

Impedance

The impedance is a measure of the total opposition that a circuit presents to alternate electric current. The output impedance of an electronic device is the impedance of its internal circuit "seen" by any device connected to its output. The Input impedance of an electronic device is the impedance "seen" by any source connected at its input.

Input impedance of the phono preamplifier and output impedance of the cartridge should be properly matched to achieve optimal sound. An impedance mismatch will work as a filter and degrade the sound making it dull or harsh depending on the setup. A general rule of thumb is that the input impedance of your phono preamp (also referred to as the load impedance of your cartridge) should be 10 times the output impedance of your cartridge (also called the source impedance).

Load

When connected to a phono preamp, the cartridge forms a RLC (Resistor, Inductor, Capacitor) circuit which acts as a resonant filter emphasizing certain frequencies while reducing others. In order to achieve to most linear frequency response, manufacturers specify several load values (load capacitance, load impedance and so on). By following these specifications for the choice of the phono stage, one can achieve the best sonic results.

LP Record

LP stands for Long Play or 33rpm microgroove vinyl record format. Introduced by Columbia Records in 1948, it was adopted in the mid-fifties as a new standard by the entire record industry. It became stereophonic in the mid 60's and is still the standard format of vinyl albums today.

Magnetic cartridge (see cartridge)


MC phono input

MC stands for Moving Coil. A Phono Input on a pre-amplifier or Amplifier mentioning MC means that the characteristics of the preamplifier input stage, in terms of Input impedance, Gain and de-emphasis equalisation are such that it will allow you to use a Moving Coil Phono Cartridge by plugging it into this input.

Micro linear (form factor of a stylus diamond, see Microlinear)

A specific shape of a diamond stylus, Micro linear refers to a particular "ridge shape" stylus. An Audio-Technica trademark, Micro linear styli are known as Microlinear.

Microlinear



Audio-Technica Trademark which denotes the Micro linear "ridge" shape stylus. The tip of the diamond is such that it allows a contact surface of around 115 μm^2 . The shape is "similar" to other diamond tips such as SAS, Dynavector or Namiki.

The Microlinear diamond is different from Line Contact diamonds, also featured on high-end styli. Line Contact tips are also known as "Shibata", providing a contact surface between 50 and 75 μm^2 .

MM input

MM stands for Moving Magnet: an MM input denotes the input stage of a preamplifier is able to handle the signal of a Moving magnet phono cartridge and the MM input also has an input impedance suitable for the output impedance of MM cartridges.

Monaural

Monophonic sound reproduction (often called mono) is single-channel audio program material or single channel audio reproduction. Monaural recording on vinyl has been replaced by stereo sound during the mid 60's. 78 rpm records and Vinyl records from 1952 to 1960 are Monaural. Stereo sound on vinyl records was introduced in 1958.

Moving Coil cartridges

The MC design is a tiny electromagnetic generator, but as opposed to MM design, the 2 coils are attached to the stylus (the moving part), and move within the field of a fixed permanent magnet. The coils are much smaller than MM cartridge coils and made from very thin copper wire.

This result in a low impedance, low output signal but on the other hand it is also very lightweight allowing for a better response and a more detailed reproduction. Moving coil cartridges are extremely small precision devices and as a consequence they are considerably more expensive, but are preferred by audiophiles due to measurable and subjectively better performance.

Moving Magnet cartridges

The MM design is a tiny electromagnetic generator, but as opposed to the MC (moving coil) design the stylus cantilever carries a pair of small permanent magnets. Those magnets are positioned between two sets of fixed coils forming the tiny electromagnetic generator. As the magnet vibrates in response to the stylus following the record groove, it induces a tiny current in the coils.

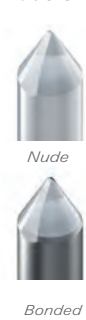
Mu-metal (shielding)

Mu-metal is a range of nickel-iron alloys that are notable for their high magnetic permeability. The high permeability makes mu-metal useful for shielding against static or magnetic fields. Mu-metal is frequently used to protect low signal transformers such as the ones found on microphone preamplifier input stages or on the Cartridge step-up transformers used with MC cartridges. Several models of Audio-Technica cartridges use Mu-metal shielding between the left and right sections of the cartridge in order to improve channel separation.

Neodymium

Neodymium is used as a component in the alloys used to make high-strength, powerful permanent magnets (neodymium magnets). These magnets are widely used throughout the audio industry in products such as microphones, professional loudspeakers, or in-ear headphones, where low magnet mass or volume, and strong magnetic fields, are required.

Nude Shank diamond

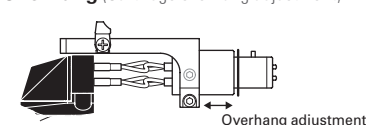


Nude diamond refers to a stylus when the diamond glued into the hole of the cantilever is made out of one single piece of diamond. This construction as opposed to Bonded shank (jointed) improves the mass of the overall tip and, because the vibrating signal does not have to transfer through two different materials, provides the best possible transient reproduction. Nude styli, although expensive to produce, are preferred and used on the higher priced models.

Output Voltage (of a cartridge)

Amplitude in mV of the electrical signal delivered by the cartridge for a given standard program material of the record groove. Knowing the Output voltage is an important factor: it will inform of the characteristic of the Phono input needed in order to accommodate a given cartridge. Output voltages may vary from under 0.1mV for the least efficient Moving Coil models on the market, up to 5mV for very efficient Moving Magnet cartridges. Such differences of more than 30dB shows that when selecting a cartridge, the selection of the associated preamplifier, with or without step-up transformer, is essential.

Overhang (Cartridge overhang adjustment)



In the case of cartridges mounted on a removable headshell, it could be necessary to adjust the cartridge

by several millimeters in order for the stylus to be properly aligned with the tangent of the groove. Older tonearms provide adjustment on their bases in order to perform a proper setting using a tonearm protractor alignment system. Most modern tonearms do not provide this feature. In such a case, it is important to be able to adapt the distance between contact point of the stylus and axis of the tonearms with the Overhang adjustment provided by the cartridge headshell.



Tonearm protractor

Para-toroidal coil

Para-toroidal coils are used on high-end Moving Magnet Audio-Technica cartridges, providing better channel separation, channel balance and improved transient response. Para-toroidal inductors are passive electronic components, widely used for transformer construction. The inductor with a closed-loop core can have a higher magnetic field and thus higher inductance and Q factor than similarly constructed coils with a straight core. The advantage of the toroidal shape is that due to its symmetry, the amount of magnetic flux that escapes outside of the core (leakage flux) is minimum; therefore it radiates less electromagnetic interference to nearby circuits or equipment.

Phono Preamp

Denotes a preamplifier with an input or a series of inputs capable of handling the output from a Phono cartridge.

As opposed to a "standard" line input preamp such as a Microphone input preamplifier, the Phono Preamplifier will provide the necessary gain, Input impedance matching to the output impedance of the cartridges, and the de-emphasis equalisation needed to support the signal originated from the phono cartridge playing a record.

In the case of a Vinyl record, the equalisation will usually be RIAA.

Phono Cartridge (see Cartridge)

Phono input

Denotes the pair of input connectors (L&R) of the Phono Preamp.

Pole Piece

The pole piece is a structure composed of material of a high magnetic permeability that serves to direct the magnetic field produced by the magnet. A pole piece attaches to and, in a sense, extends a pole of the magnet, hence the name.

Radius (stylus Radius)

The radius of a stylus is the distance (R) in either mil (thousandth of an inch) or μm (micro, 10^{-6} , of a meter). The conical stylus has a unique Radius which varies from 0.6 to 0.7 mil for Vinyl records. (2, 2.5, 3, or 3.5mil for shellac records). The elliptical stylus has two radii, R1 and R2, for the front and side. Standard elliptical Styli are around 0.3 x 0.7 mil. Due to the complexity of line contact and Microlinear styli, their radius value is not always an accurate description of their shape and size.

Replacement Stylus

Stylus assembly of Moving Magnet cartridges are field replaceable.

When the diamond is worn out, (between 600 and 1000 hours) or if the cantilever becomes damaged, the stylus assembly needs to be replaced.

The Stylus assembly represents between 60% to 80% of the cost of a complete cartridge (depending on the nature of the diamond tip). It makes sense, not only for economic reasons but also to avoid work on the cartridge wiring or mechanical position, to replace only the Stylus assembly instead of the complete cartridge.

RIAA

RIAA stands for: Recording Industry Association of America (RIAA), the trade organization that represents the recording industry in the United States. Early RIAA standards included the RIAA equalization curve, the format of the stereophonic record groove and the dimensions of records.

RIAA equalization

A specification for the recording and playback of phonograph records. The purpose of the equalization is to permit greater recording times, improve sound quality, and to reduce the groove damage that would otherwise arise during playback.

RIAA equalization is a form of pre-emphasis on recording and de-emphasis on playback. A recording is made with the low frequencies reduced and the high frequencies boosted, and on playback the opposite occurs.

RIAA input

(Also known as Phono input)

Input of a preamplifier section providing the de-emphasis equalization needed to support the signal originating from a phono cartridge playing a vinyl record. (Note: Most 78rpm shellac records produced after 1942 can be played with RIAA equalization, nevertheless we recommend you check the nature of the pre-emphasis used by the record company.)

Round Shank



Specifically the shape of the shank where the tip is fitted. Round shank is generally used for shapes that require no or minimal orientation (round, conical elliptical).

Shellac record

Shellac records are also described as 78rpm records or SP (Short Play)

Shibata



The Shibata stylus has two radii, similar to an elliptical stylus. However, the radii of a shibata stylus are longer and more narrow. This allows for more surface contact and effective pick-up of ultra-high frequencies with less groove stress and distortion.

SP record (see Shellac record)

SP stands for Short Play denoting 78rpm Shellac records, as opposed to LP (Long Play) denoting 33 1/3 rpm micro-groove vinyl records.

Special Line Contact



(form factor of specific stylus diamonds)
Audio-Technica uses Special Line Contact shape stylus on several high-end cartridge styli. The tip of the diamond is such that it allows a contact surface between 50 and 75µm². The shape is "similar" to other diamond tips known as Shibata.

Spherical (diamond, see conical)

Square Shank



Square shank styli cost more than round shank to make but mounting them in laser cut holes in the cantilever locks them precisely in correct alignment with the record groove. This is the reason why they are used for shapes that need a precise orientation (Line Contact, Microlinear).

Step-up Transformer

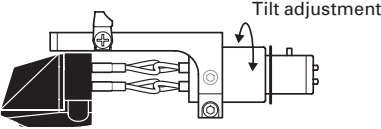
An MC cartridge has both a low output voltage (generally below 1mV) and a low output impedance compared to a MM cartridge. The role of the step-up transformer is to raise the output voltage while, at the same time, match the required impedance between your cartridge and the phono preamplifier.

Stylus Holder (Stylus Assembly)

The plastic part of an interchangeable stylus that holds the cantilever and the vibrating part, both forming the Stylus assembly.

On Moving magnet cartridges, the removable stylus assembly is held in place on the cartridge casing.

Tilt (see also Azimuth)



Tilt is the angle between the surface of the record and the vertical axis of the cartridge. This angle should be 90° in order to ensure optimal channel balance.

Tracking Force

To play back a vinyl disc, the stylus must make good contact with the walls of the record groove. Excessive down force (tracking force or tracking weight) will both wear and not guarantee that the stylus will perfectly follow the record groove. Audio-Technica specifies the tracking force, for each cartridge, as a range of recommended values in grams. A cartridge given insufficient tracking force is more likely to cause damage to the groove wall than one whose tracking weight is set at the high-end of the recommended range. The cartridge could lose contact with the groove wall, or "jump", causing damage to the record as it bounces trying to regain contact.

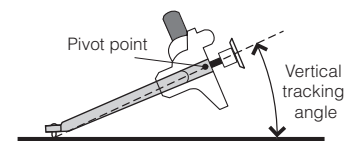
Tracking weight (see Tracking force)

Transient Response

The transient response is the behaviour of a system when a signal is changing from one value to a specified higher value. Rise time (the time required for the signal to change) and Overshoot are among the most important parameters entering under the generic definition, Transient response. A transducer having a good transient response will result in perceiving that the music material is sharp, with fast accelerations, capable of reproducing accurately and in a realistic manner the fastest impulses of musical instruments. On a record, the signal is present in the groove, the cartridge is transforming the mechanical groove of the record into an electrical current, and the transient response of the cartridge will essentially respond to fast changing sound waves present into the groove. Under Transient response, the capacity of the moving parts such as cantilever/stylus/tension spring assembly to be controlled and not to produce parasitic oscillations is also part of the transient response quality. The capacity of the system after changing to revert to its equilibrium is also important.

Vertical Tracking Angle

Vertical Tracking Angle is the angle between the record surface and the axis "cantilever-pivot-point" to "stylus-contact-area".



Vinyl (see also LP record)

Vinyl for most people denotes a 12 inch, 33 1/3 rpm, micro-groove LP record.

The word Vinyl comes from the chemical form of the material used to produce LP records: vinyl chloride.

An important industrial application of this molecule is PVC (Poly Vinyl Chloride), the plastic commonly known as vinyl.

Vinyl was used for the first time to produce records by Columbia in 1946. During the early 50's the Vinyl record replaced the 78rpm Shellac SP record as the standard.

VM™ (see Dual Magnet cartridge)

Understanding the sizes and shapes of Audio-Technica stylus tips and contact areas in the record groove for microgroove Long Play vinyl records (LP)

Stylus curvature radius Stylus shape	0,6mil Conical	0,3 x 0,7mil Elliptical	2,2 x 0,12mil MicroLinear	2,7 x 0,26mil Shibata	1,5 x 0,28mil Special Line Contact
Stylus front view					
Stylus horizontal cross-section					
Audio-Technica moving coil cartridges	AT33MONO (0,65mil) AT-MONO3/LP	AT-OC9XEB AT-OC9XEN AT33EV	AT-OC9XML AT33PTG/II	AT-OC9XSH AT33Sa	AT-ART1000 AT-ART7 - AT-ART9 AT-OC9XSL
Audio-Technica VM Series cartridges	VM610MONO VM510CB	VM530EN VM520EB	VM740ML VM540ML	VM750SH	VM760SLC
Audio-Technica VM95 Series cartridges	AT-VM95C	AT-VM95E AT-VM95EN	AT-VM95ML	AT-VM95SH	
Audio-Technica moving magnet DJ cartridges	AT-XP3	AT-XP5 - AT-XP7			
Audio-Technica moving magnet P-mount cartridges	AT81CP	AT85EP			
Dimensions (see horizontal cross section)	R=0,6mil	R=0,7mil r=0,3mil	R=2,2mil r=0,12mil	R=2,7mil r=0,26mil	R=1,5mil r=0,28mil
Contact surface on record groove (stylus side view)					
Approximative contact dimensions ratio	D1/D2=1	D1/D2=1,60	D1/D2=2,25	D1/D2=3	D1/D2=6

⁽¹⁾ D2 represents the contact dimension at the horizontal plane while D1 shows the contact dimension at the vertical plane. These two dimensions indicate the contact area between the record groove walls and the stylus tip. D2 must be as small as possible to track small groove variations (high frequency). The total contact area should be as large as possible to minimize record wear and maximize accurate reproduction. The larger the area, the smaller pressure from the cartridge on the record; as opposed to the smaller the area, the more pressure is applied on a specific point of the groove, leading to record wear. We can see from the above table that the Line Contact and Microlinear shapes offers a smaller horizontal contact area leading to superior precision and high frequency transcription, while offering a larger contact area than conical or elliptical styli due to a taller vertical contact area minimizing record wear.

Understanding the styli sizes of Standard Play Shellac records (SP)

Stylus sizes Stylus shape	3mil Conical	2.5mil Conical
Stylus front view		
Stylus horizontal cross-section		
Audio-Technica moving coil SP cartridges		AT-MONO3/SP
Audio-Technica VM Series SP cartridges	VM670SP	
Audio-Technica VM95 Series SP cartridges	AT-VM95SP	

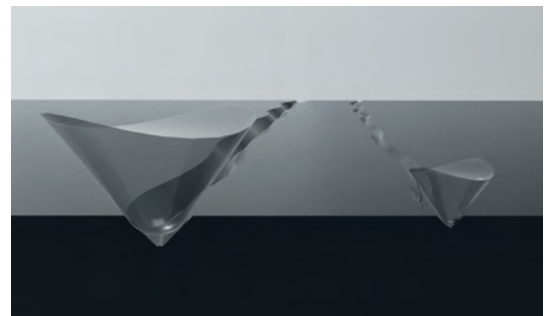


Illustration of different sizes between two typical conical styli:
 – on the left, 3mil radius SP stylus for 78rpm records
 – on the right, typical 0.6mil conical LP stylus for 33 and 48rpm records
 LP and SP record grooves are represented at the same scale
 – groove width of LP record 0.0025", groove width of SP record 0.0070"
 – groove depth of LP record 0.0013", groove depth of SP record 0.0029"

Alphanumeric product listing

Product Code	Page	Product Code	Page	Product Code	Page
AT-ART1000	13	AT-VM95SP	39	ATN91R	50
AT-ART7	14	AT-VM95SP	45	ATN95E	50
AT-ART9	14	AT-VM95SP/H	39	ATN95Ex	50
AT-HS1	53	AT-VMN95C	40	P20009	55
AT-HS10BK	53	AT-VMN95E	40	VM510CB	31
AT-HS10SV	53	AT-VMN95EN	40	VM520EB	31
AT-HS3	53	AT-VMN95ML	40	VM520EB/H	31
AT-HS3RD	53	AT-VMN95SH	40	VM530EN	31
AT-HS4	53	AT-VMN95SP	40	VM530EN/H	31
AT-HS6BK	53	AT300P (Discontinued, see AT81CP)	42	VM540ML	30
AT-HS6SV	53	AT301EP (Discontinued, see AT85EP)	42	VM540ML/H	30
AT-LH13/OCC	52	AT311EP (Discontinued, see AT85EP)	42	VM610MONO	32
AT-LH13H	52	AT33EV	20	VM670SP	32
AT-LH15/OCC	52	AT33MONO	22	VM740ML	30
AT-LH15H	52	AT33PTG/II	20	VM750SH	30
AT-LH18/OCC	52	AT33Sa	20	VM760SLC	30
AT-LH18H	52	AT3482H/U (Discontinued, see AT81CP)	42	VMN10CB	32
AT-LT13A	53	AT3482P (Discontinued, see AT81CP)	42	VMN20EB	32
AT-MG10	53	AT6003R	54	VMN30EN	32
AT-MONO3/LP	22	AT6006R	54	VMN40ML	32
AT-MONO3/SP	23	AT6011a	55	VMN50SH	32
AT-MONO3/SP	45	AT6012a	55	VMN60SLC	32
AT-OC9XEB	18	AT6013a	55	VMN70SP	32
AT-OC9XEN	18	AT607a	55		
AT-OC9XML	19	AT6101	52		
AT-OC9XSH	19	AT6108	52		
AT-OC9XSL	19	AT615a	54		
AT-PMA1	42	AT617a	55		
AT-VM670SP	45	AT6180a	54		
AT-VM95C	38	AT6181DL	54		
AT-VM95C/H	38	AT618a	54		
AT-VM95E	38	AT634	55		
AT-VM95E/H	38	AT81CP	42		
AT-VM95EN	38	AT85EP	42		
AT-VM95EN/H	38	AT92ECD (Discontinued, see AT85EP)	42		
AT-VM95ML	39	ATN3600L	50		
AT-VM95ML/H	39	ATN81CP	42		
AT-VM95SH	39	ATN85EP	42		
AT-VM95SH/H	39	ATN91	50		



Established in 1962, Audio-Technica's first product was the AT1 phono cartridge.



Early stereo phono cartridge production line in Shinjuku, Tokyo, Japan.

The quality and musicality of the Audio-Technica phono cartridges of today is the result of 56 years of analogue heritage, the ongoing dedication of our design engineers and continued handcraftsmanship of our production teams.



Audio-Technica Corporation are proud to be both a co-founded and sponsor of The Analogue Foundation which is creating opportunities for more people to discover, learn and simply enjoy the qualities of analogue. Through seminars, productions, collaborations and events, the Analogue Foundation seeks to share both the experience and passion of analogue. Pictured is the Listening Station, a collaboration between the Analogue Foundation and luxury heritage luggage brand Globe-Trotter, which travels the world fitted with specially selected Audio-Technica analogue audio products, offering people a high-end vinyl listening experience.

Find out more at <http://www.analoguefoundation.com>



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