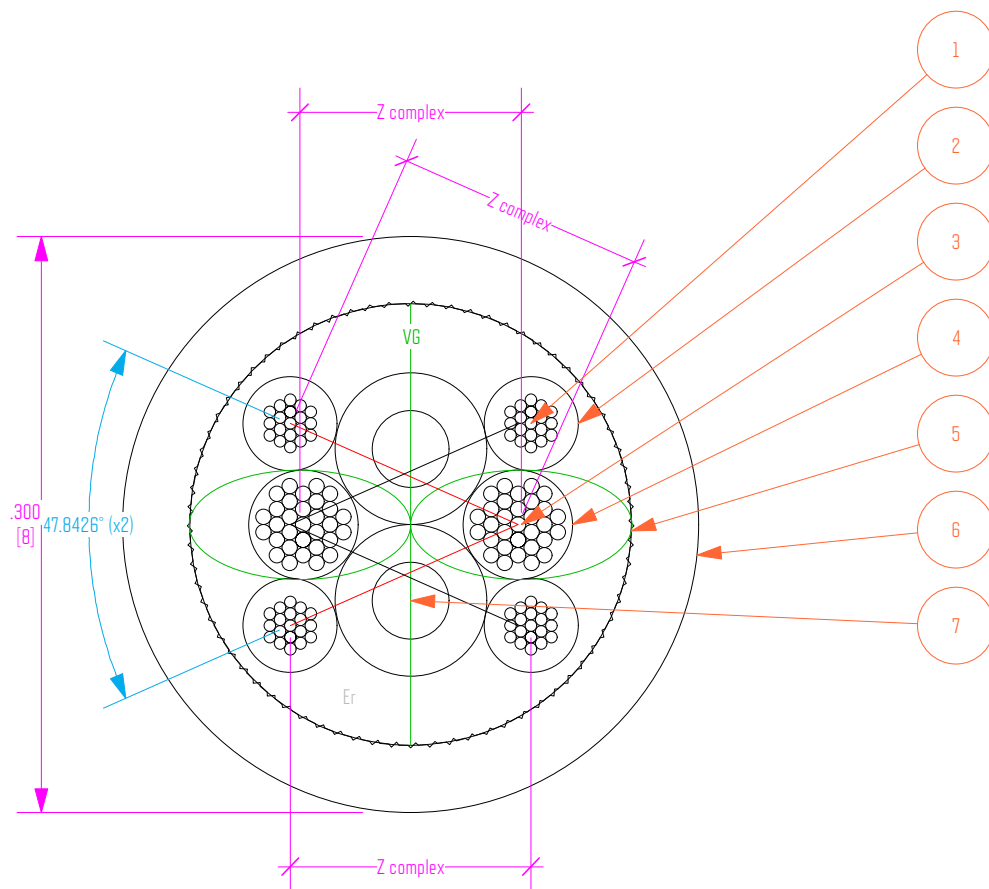


# VARIATIONAL RCA

[Mk.I-III]



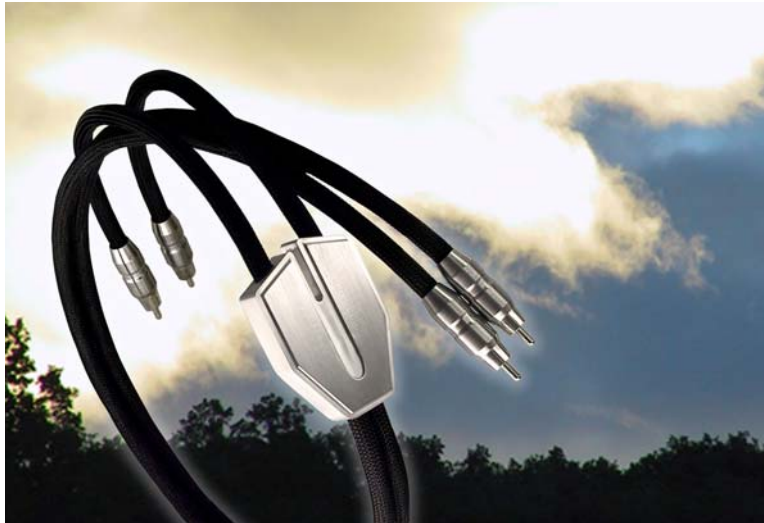
AD COPY + SPECIFICATIONS

11 | 2015



# VARIAL RCA PHOTOS

ZU AUDIO VARIAL RCA [Mk.I-III] LINE-LEVEL CABLE SPECIFICATIONS + INFORMATION





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# VARIAL RCA AD COPY/INFORMATION

ZU AUDIO VARIAL RCA [Mk.I-III] LINE-LEVEL CABLE SPECIFICATIONS + INFORMATION

Varial—our first flagship RCA interconnect. It featured extremely low conductance and very low susceptibility to RF despite it being a balanced-type cable format.

Varial was introduced in 2001, second generation mark-two in 2002 and mark-three was introduced in March 2004. Refinements have been made to the cable geometry (better field relations within our B3 model), conductor area and metallurgy, as well as shielding and dielectric materials

## **Mk.I [2001]**

The original Varial RCA featured custom made RCA connectors using Cardas made silver plated RCA tip and tulip.

## **Mk.II [Q3 2002]**

Added aluminum shielding to further safeguard signal from RF noise. This change was easy to identify as the observer can see silver glints through the black sheathing. No change in cable geometry.

## **Mk.III [Q2 2004–2015]**

Change in cables geometry and resulting impedance. Also, higher conductance copper/tin shielding replaced the coarse aluminum; and change to the RCA plugs, from a solder type silver plated RCA to a solderless gold plated locking-type RCA. All versions were able to be ordered with or without the machined V-block which captured left and right cables together to prevent the matched pair from being mixed up.

## **ORIGINAL AD COPY**

Varial is our flagship, top of the line interconnect product. Quick features include silver alloy conductors in a multiple conductor exclusively ZuB3 geometry, high conductance on all legs, 100% high magnitude RF shielding.

ZuB3 is a cable archetype specific to the E&M of the cable. Its not about special materials, chemistry or treatment processes. The technology was invented by Zu in 2001 and allows signal and power to be transmitted with increased immunity from RF while lowering reactance compared to cables of similar conductance and size. ZuB3 design, manufacturing process and correlative electrodynamic relationships are the intellectual property of Zu Cable Incorporated.

## **VARIAL DIRECTION OF SIGNAL PROPAGATION**

Zu Varial interconnects are directional and the V-block points in the direction of signal flow. If V-block was not included in the build, Varial's label would read in the direction of signal flow.



# VARIAL RCA AD COPY/INFORMATION

ZU AUDIO VARIAL RCA [Mk.I-III] LINE-LEVEL CABLE SPECIFICATIONS + INFORMATION

## BURN-IN

Varial, being all Teflon® insulation, will require play before it's fully burned in, roughly 400 hours. We do not recommend any burn-in devices or special recordings. We do recommend music you enjoy, preferably upbeat full spectrum recordings: rock, roots, full orchestra, big band.... We do not recommend any burn-in devices or special recordings, simply play the music you enjoy, preferably upbeat full spectrum recordings: rock, roots, full orchestra, big band.... For the possible how and whys about burn-in please see our Answers section.

## MAINTENANCE

No maintenance is required for the cable or the connector unless it is the silver plated version, in which case you will need to clean them with Cape Code polish or the like. Those that used the gold plated RCA are unlikely to ever need cleaning. Regarding contacts generally however, we offer the following information.

If the contacts of any connector become dull or tarnished you will need to clean them. This is likely to never be a problem with nickel, gold or rhodium plated connectors. Pure copper or silver contacts that are not plated may require cleaning. If your connector contacts are nice and bright, don't worry about it; and the only time you need to check them would be if you disconnect the cables. In fact, anytime you are making an electrical connection make it a habit to inspect the contacts and clean them if they are tarnished or dirty. Cape Code™ is one of our favorites.

## PHONO (RCA-TYPE) CONNECTOR OPTIONS AND DETAIL

Varial Mk.III interconnects features locking type RCA plugs. Standard RCA plugs simply push on and slide off. Locking type plugs require you to loosen the outer barrel, slide the connector on and then cinch it up. All things being equal about the two types of connectors, we do not feel either type has a sonic advantage over the other. And as we have never heard of a standard type vibrating loose, we do not feel either type represent a superior connection once installed. The advantage of a locking type RCA plug: easy, low insertion force connection—the user loosens the barrel, allowing the coaxial shell to open up a bit, then easily slides the plug onto the socket. Once connected the users tightens the barrel. The disadvantages: first time users may not know how to use them, or find them complicated or tedious. Barrels are not captured and may become lost when moving the unconnected cables. Higher cost. Advantage of standard RCA plugs: they're simple and completely functional. Disadvantages arise when the outside ground part of the connection is too tight. Really tight fitting RCA plugs are not fun to connect, forcing you to brace the front side of the equipment you are connecting. Disconnecting of excessively tight fitting plugs can tear low quality female connectors out of the chassis.

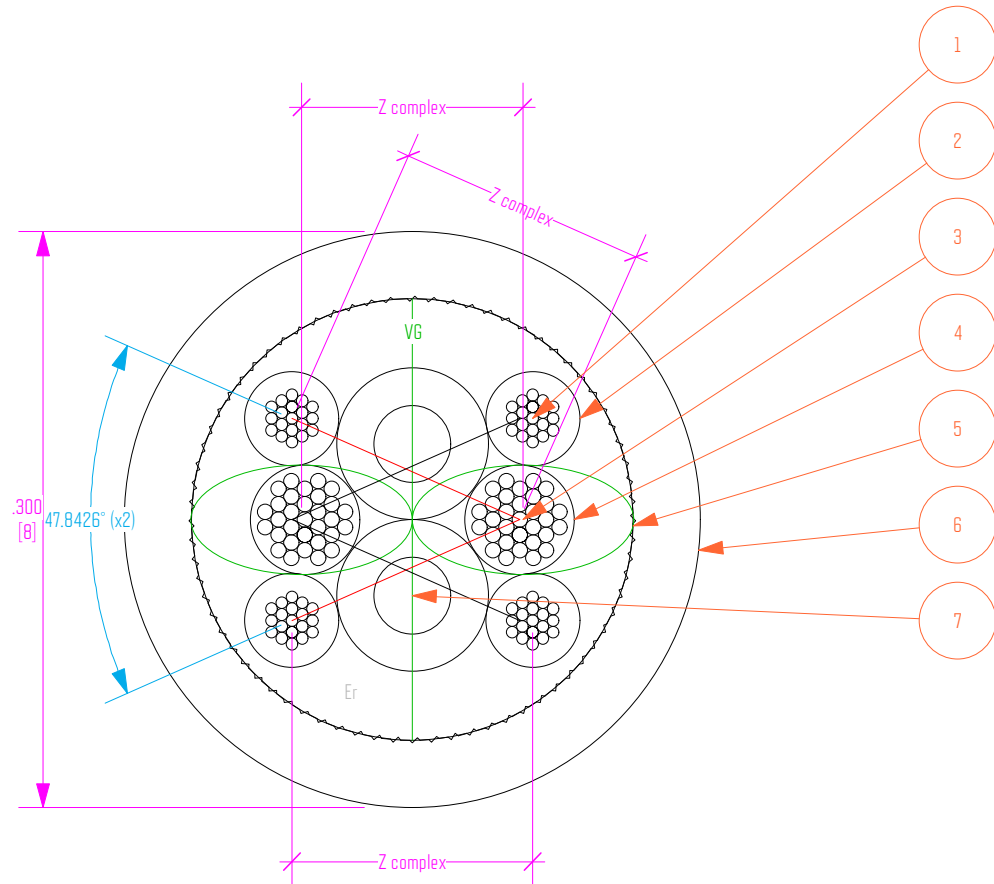
Locking RCA-type connector usage: Hold the rear of the connector with your left hand. With your right hand loosen the barrel [clockwise, as pictured] until it hides the outer ground portion of the plug [usually a couple of turns—720 degrees]. Once loose, plug it in. It should slide on very easily. If it's anything but smooth and easy, you need to loosen the barrel a bit more.

Now plugged in, simply rotate the barrel counter clockwise to lock it down.



# VARIAL RCA SPECIFICATIONS

ZU AUDIO VARIAL RCA [Mk.I-III] LINE-LEVEL CABLE SPECIFICATIONS + INFORMATION



1. Signal conductor: Each strand is pure silver deposit over copper, perfect lay, U.S. cast, drawn, plated and cabled (x4).
2. Signal, insulated with virgin Teflon®, U.S. extruded (x4).
3. Signal conductor: Each strand is pure silver deposit over copper, perfect lay, U.S. cast, drawn, plated and cabled (x4).
4. Signal, insulated with virgin Teflon®, U.S. extruded (x4).
5. Tight braid, tin plated copper outer screen.
6. Dacron monofilament cable sheath.
7. Inner ground conductor, pure copper, perfect lay, U.S. cast, drawn and cabled (x2).



# VARIAL RCA SPECIFICATIONS

## ZU AUDIO VARIAL RCA [Mk.I-III] LINE-LEVEL CABLE SPECIFICATIONS + INFORMATION

<b>Design</b>	Varial was designed in 2001 and represented our flagship, top of the line interconnect product. It was a balanced cable design intended for both single-ended and balanced analog audio line-level applications. Varial was made exclusively in-house by Zu Audio, Ogden, Utah, USA.
<b>Device Under Test</b>	Wylde-RCA 3.3' [1.0 m] Mk.III
<b>Production Format</b>	2001-20015 single-channel analog audio line-level coaxial interconnecting cable
<b>Primary Signal Conductor Metallurgy</b>	pure silver and copper
<b>Secondary Conductor Metallurgy</b>	pure silver and copper
<b>Ground / Shield Conductor Metallurgy</b>	copper, copper/tin
<b>Cable Geometry</b>	ZuB3
<b>Primary Signal Wire Geometry</b>	perfect-lay low strand count
<b>Secondary Signal Wire Geometry</b>	perfect-lay low strand count
<b>Dielectrics</b>	Teflon®/air
<b>Cable Sheath</b>	Dacron
<b>Connector Metallurgy</b>	high copper brass with heavy gold plate
<b>Connector Barrel Metallurgy</b>	brass
<b>Connector Termination</b>	cold forged and epoxy sealed
<b>Directional</b>	yes, Varial V-block and logo recommended to be placed at source, arrow pointing, and logo reading in the direction of signal
<b>Crosstalk</b>	nil, channels are physically discrete
<b>Shielding</b>	high magnitude copper/tin tight braid
<b>Bandwidth</b>	DC-1 00MHz
<b>Cp</b>	260 pF
<b>Rs Signal</b>	0.02 Ω
<b>Rs Ground</b>	0.01 Ω
<b>Ls Signal</b>	.8 uH
<b>Ls Ground</b>	.9 uH
<b>Bend Radius</b>	1-1/2" [38mm]
<b>Cable Diameter</b>	.30" [8mm]
<b>Tolerance</b>	0.2%
<b>RoHS</b>	compliant
<b>Manufacturers Country Of Origin</b>	U.S.A. [Zu Audio, Ogden, Utah]
<b>Life Expectancy</b>	100 years+
<b>Warranty &amp; Service</b>	limited lifetime, does not cover misuse or abuse





# VARIAL RCA WARRANTY

ZU AUDIO VARIAL RCA [Mk.I-III] LINE-LEVEL CABLE SPECIFICATIONS + INFORMATION

## WARRANTY

Zu products are designed and manufactured to the highest quality. However, if something does go wrong Zu will fix or replace the product free of charge. Zu Varial-RCA audio cables have a limited lifetime warranty applicable to the original owner. If under normal home use you have any problems with this cable we will fix or replace the product.

While every effort is made to ensure a perfect finish that will last a lifetime, this warranty does not cover damage from impact, abrasion or UV exposure. Zu products are designed to be used in temperature and humidity controlled environments, namely your home, studio or office unless otherwise stated.

If in the highly unlikely event that a Zu product arrives to you dead on arrival (D.O.A.), and after discussing it with a Zu tech, we will ship another of the same product at our expense and arrange for the D.O.A. product to be collected. If after inspection we find that you have misrepresented a returned product's condition, and that it was improperly handled or used, Zu will charge you for all damaged parts, labor, shipping and handling of the product.

Warranty does not apply to damage caused by operating the product outside the intended use, accident, damage caused by another product, misuse, abuse, flood, fire, earthquake or any other external causes. Warranty does not cover damage caused by modification or service performed by anyone other than a Zu representative.

When a product or part is exchanged the replacement becomes your property and the suspect or damaged part becomes Zu's property.

## WHAT YOU CAN EXPECT IF WARRANTY SERVICE IS NEEDED

If warranty becomes necessary, you must call or e-mail for a return of material authorization (R.M.A.) number. This provides opportunity to assist in diagnosing the problem and helps us to schedule for rapid turnaround in the event that parts, service or repair is needed. Upon factory inspection of parts or product, warranty eligibility will be determined. While service options, parts availability and response times will vary, we do our best to keep you happy. International customers should know that Zu will comply with all applicable export/import laws and regulations, you may be responsible for custom duties, taxes, broker fees, freight, and other charges. When shipping of product or part is required, repackage the complete product, or part, in its original packaging. If you have any questions about packaging please call or e-mail. Product damage caused from incorrect repackaging is not eligible for refund or warranty and the freight company may also reject your insurance claim. Until we have the product back in the shop and sign-off that it is eligible, the product is still your property, we recommend you insure or declare the full value when shipping. We also recommend that you only ship with a freight company that has a good reputation and offers tracking and insurance for the full amount.



**ZU AUDIO**

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OGDEN, UTAH — U.S.A.

[DESIGNED AND MADE BY US]