

Evolution



About Entreq

My name is Per-Olof Friberg; Music, HiFi and sound reproduction have been my passion since my childhood. Over the years I have had many different systems but back in 1973 I bought my first 2 x 5W stereo.

I could never have dreamt of the developments that have taken place in the subsequent years and how my system would look and more importantly sound today.

I have always tried to understand & improve the sound reproduction in my systems, always trying to extract as much fidelity as I possibly could. Mainly because I couldn't afford the really nice stereo systems that I was always dreaming about.

As a farmer and agriculturalist I found "tinkering" around with HiFi to be an incredibly rewarding hobby, it simply allowed me to take a break from all the hard physical labour and indulge my passion, music.

By the end of the 1990s my friends and acquaintances began asking me if I wanted to manufacture and sell some of the things that I made for myself, to them. That was around the year 2000 and officially the commercial beginning of Entreq. At that time our premises measured a modest 36 square meters and our products were limited to Vibbeaters, Catfeet and AC Wraps.

By 2007 Entreq was taking almost all of my time and I had no choice but to quit agriculture all together.

In 2008, we started making our first cable line, Konstantin. Konstantin cables have been gently refined over the years but they are by and large the same design of cables today as they were eight years ago.

In 2009 we received the fine distinction of being awarded with the years "Most Wanted accolade " for the Konstantin cables.

In 2012 we were delighted to receive the same "Most Wanted "award for our Apollo line of cables.

Moving on to the present day -2015 - our present facilities measure 12,000 square meters and we own & run a fleet of machinery, consisting of 3 CNC laser cutters, Laser burners, CNC mills, high-precision saws and a host of other equipment. This investment allows us the luxury of being able to design & process almost everything we make, from the raw material to the packed & finished product. However we do out source one very important part of our product, which is the manufacture of our custom designed contacts and connectors. These are exclusively manufactured by a neighbouring, highly skilled engineering company who employ state of the art advanced CNC machinery and absolutely top class engineering skills to create what we have always believed to be one of the most important parts of any the cable design, the connector!

Today we have a large assortment of cables. From our entry-level model, Discover, to our range topping Atlantis line. With all of our products but especially in our cable designs there is always one common theme and that is that we very carefully listen to each model at each stage of its development before we sign of on the finalized design that then goes into full production. We never ever rely solely on measurement!

2 Entreq History

In our construction process we will always use pure metals, employing no alloys, as well as the careful application of natural cotton material and wooden cinch connectors. The use of wood & cotton comes from a very simple design principle; they are non-conductive, non-magnetic materials, free from static electricity!

All metals, plastic's and synthetic materials are magnetic in one-way or another (paramagnetic) and adversely effect signals and electronic devices when in close proximity.

In 2010 we brought to market our first MinimUs/Tellus Ground boxes. It took more than 5 years' of intensive work to reach this launch point.

5 years on the Tellus/Minimus are still part of our extensive range of Grounding products and will remain the cornerstone for the foreseeable future. They still perform exceptionally well; doing as good a job today as the day they were conceived. But because stray voltages and high frequency pollution has increased & evolved over the years (think of them like computer virus which evolve & constantly demand solutions) we to have had to continually test and develop our Ground box's with new more effective and diverse solution's. Our understanding, learning and work are seemingly never finished. Over the years, having studied & learnt so much more about Stray Voltage's and their negative impact, we have naturally developed and refined our mineral and metal blends inside our Ground boxes. In doing so we have had to create a further three lines of product. These lines are the Silver Minimus /Tellus, Atlantis and Olympus. As well as the growing body of Ground box's we have had to develop, in tandem, an extensive range of partnering "Ertha cables". Please read our separate section on Ground Boxes & Ertha cables.

In 2012 we received the "Most Wanted Award" for the Silver Tellus.

Then in 2014 the Silver Tellus received the Super AV Award for the product with the most outstanding overall performance.

" That which can be measured is not so important, and that which is important cannot always be measured "

There is quite a lot of truth in this statement, even if it is not completely correct.

We have learnt one very important lesson on our 15-year journey of discovery and that is to often trust more what you hear and experience than purely what the measurement tells you. If it sounds better than anything else, then it is. It is that simple; even if you perhaps cannot "currently" explain it scientifically with measurements. Do you remember back in the 70's when everything was judged by the laboratory measurements? At that time it was the DIN 45.500 measurement that told us everything that we needed to know. It was the DIN Watt, IM dist, HM distance etc. At that time if it didn't measure correctly, it could be easily solved with the introduction of some negative feedback...perfect! Many times the stuff sounded awful, but of course if the measurement was good, it must be good! Maybe not?

It was a sensation when Matti Otaala from Uleaborg university explained why some amps that only give 20 W with Din 45-500 sounded far better & more powerful than amps that produced 200w using the traditional measurement parameters.

Basically what we are saying is that sometimes we don't know the value of what we measure and what we measure doesn't always, solely, add up to a better sound. On that basis we intend to continue as we have began. You can rely on us to always listen to our developments as well as use our panel of experienced test listeners to qualify our designs, from not just a technical position, but also the real world position of listening to music – after all that is what its all about!

If we can then measure, correlate & calculate the reasons as to what and why something makes a particular sonic improvement, so much the better, we will share it. But that in many ways is actually far less important. It is more important, as far as we are concerned, that we have a product that you as a customer experience better sound reproduction & a closer relationship with the music that you love.

Ground boxes

In order to describe the origin of our ground boxes we need to go back to 1998. One afternoon in October of that year I heard on a news broadcast that a team at the Chalmers University had found a level of pollution in the earth so large that it was producing dangerous levels of magnetic fields. In fact so dangerous that it was effecting not just the operation of electrical & electronic equipment (in some cases the equipment just stopped working!) but also the health and well being of the local community.

The man they were interviewing was so upset that I have never forgotten this broadcast.

At that time I was very focused on vibrational energy and its subsequent influence's on sound reproduction but I had never considered the big influence or effects that stray voltages & magnetic fields could have on the sound.

From that point on I worked to gain a better understanding in this specialist field. This subsequently led to our introduction of Vibbeaters and Catfeet. These products not only reduce vibration but also help in the control of stray magnetic fields.

Working with signal cables was a field that I had never considered and in truth there are so many other specialist manufacturers in the industry that I thought, what else could I possibly offer that hasn't been explored already?

However I just could not help but be disturbed by the fact that nearly all of the supposedly better/ more expensive interconnects & speaker cables were and are fully shielded, sometimes ad absurdum, however they were all mainly shielded through the middle or the entire length of the cable. Curiously the connections were always unshielded and it is here, especially at the amplifier and at the loudspeaker, where the interference is at its greatest! It was at this time that we began to experiment with what later became the AC Wraps. The AC Wrap is a simple, portable, adjustable and transferable product - which can be used to control the fields on almost any cable.

Using the application of different minerals and metals, held in a soft jacket, an Ac Wrap could then be wrapped around the connections on the cables to both protect and in practice extend a shield over the sensitive connections. We tested different mineral blends and metals and discovered that each particular metal & mineral mixture has its own quality, leaving its own specific imprint on the sound reproduction as well as differing levels of protection.

Our understanding today about why these various metals affect the sound & the magnetic fields, so dramatically in tandem, are still in conclusive. We are however convinced that it is the overtones related in one specific ultra high frequency range that brings the most positive effects. When the Ac Wraps were introduced to the market, everyone using them expressed great delight with the results. The product was then released to the Hifi press, who proceeded to review our solution very positively, creating greater awareness to a wider audience. The introduction of The Ac Wraps led to me being contacted by a cable manufacturer who wondered if we could construct an OEM wrap that could be part of their standard cable production. We then received a few examples of this manufacturers cable and started working on a viable solution. One thing led to another and at last we tested a number of different contacts, Wraps and shielding of various configurations on their cables. This experience was in valuable and taught us a great deal.

No matter what the configuration it seemed that shielding the cable only collected a bunch of noise & garbage, which was then conveyed, into the devices via the negative pole/connection. Our conclusion was simple, the full shielding of any cable is seldom if ever beneficial to the sound!

Unfortunately the cooperation with the cable manufacturer fizzled out but we had already spent so much time, money and effort discovering so many interesting things that we broke a promise to ourselves and indeed started looking at designing a cable range of our own.

In 2006 the Konstantin Cables were born. Konstantin has the Entreg DNA and blue print built into every aspect of its design. Its template can be found in every subsequent range. Its design does not use traditional shields but rather a drain wire system " EEDS " to conduct away-unwanted voltages and currents from the dielectric and conductor insulation. Instead of connecting the drain wire to the negative pole on the device, we led it away at the end of the cable to its own dedicated terminal. The intention was to then connect this to a protective earth so that noise could be led to the ground, thus offering a purely independent earth where the noise could no longer do any further damage to the delicate audio signal. At that time we used regular copper cable with alligator clips in order to connect to the protective ground either through a wall outlet or to a radiator / water pipe. However we noticed rather guickly that at times connecting to the earth could actually result in poorer sound quality! We also discovered that if you turned on a lamp or switched on another product, when earthing a digital cable between transport/computer and a DAC, the DAC signal was instantly lost! Remember I said earlier that I had never forgotten the news programme that I heard on the Radio in 1998! Instantly I understood what the problem was and recognised that stray currents/voltages and high-frequency noise polluting the protective earth were the root cause of the issue. At that time we had no idea how badly this could be affecting the sound quality, this only came later, the problem became very clear once we started grounding the equipment directly. Of course at this time we were still wholly focused on the significance of a clean earth point for our cables. Little did we realize what we would discover later?

The currents & voltages involved in grounding our cables are really very small but we knew that specialist companies working with very powerful currents, of around 16000V, generated their own clean ground rod system to use as a true clean reference. Our challenge was to produce our own reference ground system that was independent of external contamination, while being extremely stable, as well as working optimally to draw the voltages to it.

When we tested our first ground box, we simply used regular copper wire in its construction. That was when I thought that an earth cable was an earth cable. After all it only needed to conduct noise away, didn't it? How little I understood! Eventually we succeeded in developing the first beta samples of what was to become known as the Tellus, in early 2009. Its design was initially intended to solely earth our signal cables and we were very satisfied with the results. There was a noticeable sound improvement and above all it was stable even when we used it with the very sensitive signals from USB & digital cables.

We then sent out a few samples for testing and evaluation to some of our trusted partners. The results were very good and everyone was very positive. Then for some reason, luck really; we tried connecting the chassis ground to our Tellus... WOW!

With further experiments we discovered that the results could be even better if you used the signal earth (GND) instead of the chassis. Some weeks later we received an

e-mail from one of our many-valued partners, he wanted us to design some even better earth cables to use with the Tellus. He said he was getting different results based on which sort of cable he used. We were very skeptical, to say the least, but we took a bundle of cables and started testing ourselves. We of course found out very quickly that an earth cable is not just an earth cable At that moment I started searching for the man from the University Chalmers whom I had heard interviewed on the news more than ten years previously. Eventually I found his name, Yngve Hamnerius, I contacted him. I told him that we were a small company that produces cables and vibration dampers for audio use and that we had developed a ground box that, when electronics for both sound and vision were connected to it, it improved the performance considerably. I explained that while we had spent a very long time developing our Ground box solution we were still unable to fully and comprehensively explain the theoretic results, could he help us? His answer was simple " yes I think so, but it will be a very expensive process " more importantly why should you waste your money doing it anyway? " What you need to understand is that working in this field you will always be challenged and questioned, no matter what you do - so even if I help you write a document to explain the theory, you will still be challenged regarding its validity, there are far better ways for you to spend your time and your money."

Since that time, we have continually improved and developed both our ranges of ground boxes and Ertha cables. Constantly learning & understanding more and more about what happens in a purely practical sense rather than worrying about proving its theoretical value with numbers and empirical data.

Our latest discovery, grounding an amplifiers negative speaker terminal, has to be mainly credited to our friends in Korea and Hong Kong. Over the years we received many reports from customers who tested our grounding system by connecting it directly to the negative post on their loudspeakers, claiming very positive & excellent results! We had always been incredibly doubtful about his approach and in particular the potential issue of damaging the connected Amplifier. Our friends in Korea then started to test the next logical step, connecting our Ground system directly to the Amplifier itself. They tested many amplifiers claiming incredibly positive results! We apprehensively started to investigate and tested this for ourselves, testing a wide range of different amplifier designs; the results were & are indeed something special.

Currently we cannot back-up or substantiate the sonic results with empirical data or a host of clearly defined measurements, however, we hope to in the future. In the mean time we can only urge you to listen to the results for yourself and tell us if your ears are mistaken!

Why Focus on the Earthing?

After many years it has become accepted that the sound quality that you are actually listening to, through your Hifi system, is fundamentally effected/related to the quality of what is being delivered from your wall outlet. One should therefore have good power cables, preferably power-line conditioners - that keep track of the phase and thus provide a perfect sine wave of 230V 50Hz, 110V 60 Hz - which in our opinion is correct, in a way, but it is not the whole story! We feel that the relationship of the neutral/ protective earth is actually as relevant, if not more so, to how your Hifi is going to sound. In general terms the following paragraph will be based on the assumption that the mains power is an accurate 220V 50 Hz / 110 V 60Hz supply. After many years of studying the complex issue of electrical power we are wholly convinced now that there are a number of hidden overtones in the passing of any current and these are always present. In which case, accepting this position, no one has ever had an absolutely perfect sine wave! It is not the intention for the overtones to be there but they have always been there as a bi-product from the 50/ 60 Hz wave cycle itself. These overtones are probably the same the world over; we have just unwittingly & guite simply become use to them and accepted that they are there without even knowing it, blissfully unaware of their significance. Everything you own has been developed under these conditions! Furthermore these overtones are then co-joined by a large number of other over-tones/distortions which appear in the very high frequency spectrum. These high frequency aberrations are, in the main, created by our every day devices used throughout our homes.

These devices give rise to stray voltages that can generate, amongst other things, strong magnetic fields that then flow around the system looking for an attractive earth point. This action results in the noise floor being raised, the dynamics being limited and the flow and timing of our audio being deteriorated. Therefore solving the problem becomes obvious - the difficulty is draining away the newly added noise & the unwanted overtones/ magnetic fields – while at the same time preserving the fundamentals of the power As we have discovered, if you drain those away as well, the resulting sound becomes dark and lifeless with no dynamic's at all. You quite simply throw the baby out with the bathwater!

Electricity and your home

Most things in your home run on electricity. Current goes in and current goes out, all of these products & devices make the current fluctuate and induce noise. Most of the worst culprits, because of there dirty switch mode power supplies, are computers, power chargers, mobile phones, halogen lights, LED dimmers etc, all of which cause a great deal of high-frequency noise and stray voltages. But modern TV's, Washing machines, fridges and heating systems, which are always present on the home electrical circuit, can dump even larger currents/noise back on to the phase & the earth plane. This noise always tries to seek the easiest path to earth but it is not always certain that the path of least resistance is via the protective earth! These currents instead find their way back through dish-washers, laundry machines, water pipes, your HiFi rack and more especially your Hifi system - with all its cables and electronic devices posing a far more attractive path to the earth. Moreover, these stray voltages often generate very large magnetic fields that have a particularly negative influence on the sound. It is also the case that the protective earth plane itself can become over-loaded with the high frequency noise & field effects. If it were simply a question of the ground plane taking care of a "burst" at 240/380 V - 50 Hz and x number of Watts, it works, however if you are dealing with high-frequency noise involving a few mili-volts to a maximum of a few volts at 60Hz up to many KHz, perhaps even MHz, you need to find another way to deal with this. They simply remain and float around in everything in contact with the electrical grid, always searching for ground. In our experience they can be so bad that the entire protective earth plane "leaks" this noise back to all the connected devices in your HiFi system! As stated previously, the Hifi is a very attractive place!

Many of the devices & lighting fixtures that can cause noise, are not even earthed but because the neutral and protective earths come together in the fuse box the overtones and noise come in the back way - via the apparatus's protective earth/ neutral point. They in turn will then hunt for something that will serve as an earth plane for them. The triggering earth point may often be you personally, as you serve as a very good earth plane each time you touch the devices thus allow the voltage and current that has gathered in the devices to pass through you. With this in mind some people think that it sounds better if you do not use a systems remote control, but rather simply handle the stereo system manually. The explanation for this may be quite simply that the noise is more often drained directly by your touch, therefore instantly grounding the piece of equipment.

With this in mind our ground boxes/ Ertha cables are designed to work a bit like Mother Earth but in a more concentrated form. Offering the simplest, most attractive and fastest route for high-frequency noise to reach an earth point. With the high-frequencies being a relatively weak current, it is generally not necessary to purely have a high mass within the ertha cables but it is extremely important that the cables are optimized for the particular high frequencies we are targeting and that the ground box's are a sympathetic & very attractive earth point. The construction and choice of materials in the earth box has a crucial effect on this result. In part the minerals and metals involved have an effect but the relationship of proportion and distance between them also affects the result. The big problem in designing a ground box is that there are (reflections/mirrors) from the 230V/ 50 Hz & 110V/ 60Hz sine waves. These are located higher in the frequency spectrum.

There has always been a harmonic distortion their and it plays a decisive role in the quality of sound. In-fact one side effect that is often mentioned with Mains filters/ power-line conditioners and Regenerators, even though they can create a nearly perfect sine wave, is that they are dy-namically limiting and take the energy out of the sound. This is likely due to not enough attention and understanding of the effects of specific filtering within the high-frequency spectrum. At Entreq we have worked extensively at draining away these stray currents, present in the high-frequency domain, while maintaining the energy from the original source.

As stated earlier we began working on our Ground boxes in the mid 90's, eventually launching our first MinimUs/Tellus Ground boxes in 2010. Over the years we have refined and optimized the mineral and metal mixtures, first with Silver MinimUs and Silver Tellus Silver then later with the Olympus series. With every new model we have succeeded in refining and improving the mixtures, offering the most optimal and persuasive ground point possible.

Ertha Cables

Ertha cables are designed to drain away noise & stray currents from our equipment, offering an optimal path for these signals by creating a very fine balance of properties. The key is to consider the high frequency energy in relation to the low pass of currents. The design considerations and properties are therefore very different to the criteria normally associated with normal signal cables. Interestingly, however, the choice of materials and the design of the Ertha cable can produce as wide a range of results as a signal cable. Again the explanation for this is a matter of how you handle the very high frequencies, frankly otherwise why should there be any difference between a regular copper cable and a mirror-twisted silver cable? The only similarity between the design of a good Ertha cable and a signal cable are the contacts and the dialectric. Otherwise they have hardly anything else in common. Our first Ertha/Ground cable was the Ertha Cupper in 2010 since then we have added a further five lines. Currently the Ertha Atlantis is the pinnacle of our understanding and is our top cable.

The descriptions below are not absolute; they are purely general guide lines offered from our design experience and feedback from many users. However unlike signal cables, where pure neutrality and balance has to be the aim, Ertha cables are reacting to variables far more diverse and completely out with anyone's control. So we urge you to please listen to ensure the correct match for your system.

Ertha Cupper: Produces a warm effect.

- Ertha Konstantin: Produces warmth with a little more detail
- Ertha Challenger: Hybrid Copper/ Silver mix that is neutral but with good detail.
- Ertha Silver: Produces a very detailed effect, especially at high frequencies

Ertha Apollo: Warm, but very open and detailed.

Ertha Atlantis: Very detailed and neutral.

As you can see it is simply not possible to offer any specific advice as to which cable & Ground box performs best in any given stereo system as the conditions & equipment can vary so dramatically. Since each cable has its own properties, just like your stereo, they must be matched with the right ground box as outlined previously. You do need to experiment.

However, in general, we can say that Ertha Challenger and Apollo cables almost always work well. When matched carefully with an appropriate ground box these two cables should match a wide range of systems offering a very well balanced overall result.

The most expensive is not necessarily the best for you. Please listen!

General Cable Assortment

"Duo negative affirm ant"

Two negatives multiply together to make a positive.

One might say, "I am not without knowledge" which sounds contrived and forced. Or quite simply "I know", which sounds simple and natural. The message is the same!

In general it's the same thing with HiFi but in our opinion it's a particular problem with cables and their application. If a Hifi system or component in the chain is not well balanced and relatively neutral but rather has some more exaggerated tones, for example a particularly exaggerated treble, it is then most common practice to try to compensate by rolling the top off with a cable later in the signal chain. It is therefore possible to simply mask the issue or mistake by tuning the issue away. Unfortunately, at least in our experience, something always gets lost in translation with this approach resulting in the musical message, as described above, sounding contrived, false and forced.

You will find with all our cables that they have a neutral resonance and no particular register stands out. In addition to this you should also find good placements in depth as well as a believable sound image. Singers are rarely 12ft tall, guitars aren't 10ft wide and pianos don't normally have their legs cut off. You understand what we mean!

Power Cables

Of course being right at the beginning, certainly as we see it, the power cable is the most important cable in the jungle of cables. If it is not correct here then you will be compensating for errors as well as compounding errors all the way down the chain, musically... a disaster! There are many people who are skeptical about Power cables who feel that since the power is conveyed for miles down ordinary wires that it is just silly to believe that the last few meters are significant. Add to it the fact that each device has a glass fuse in its IEC contact and it can seem even more logical that the power cable does not or should not have a valid enough effect. We do sympathize. However once more we believe that besides the regular parameters such as inductance, capacitance etc, the power cable's ability to handle very high frequencies is a crucial element in the final result. There is quite a lot of evidence to substantiate our belief in this approach.

Connectors, connections and wires, the importance to how a network of cables perform!

If it were only a matter of 50Hz, the different alloys and materials in the contacts shouldn't really affect the performance or the sound. But in our testing the relationship between the cable area/ performance suggests that it is a matter of high frequencies rather than purely the 50Hz cycle that truly effects the performance.

Naturally all of our power cables are designed with separate cables for the phase and neutral, with a mixed earth wire employing a suitable surface area.

We also feel that the antenna effect is of very great significance, i.e. how many radio waves, magnetic fields etc. the cable receives and then sends into the device. In this case, material selection and length are decisive. It is quite simply a matter of designing the cable so that it is a really bad antenna but without suppression! (Those who are interested can easily experiment using a radio/TV receiver and a copper wire - just to have practical experience of how the simple change in length effects the reception) Since 2014 we have developed a range of power cords where we also employ our "EEDS" system as part of the core design. This is where we earth the dielectric directly to one of our ground boxes. This approach is designed to draw away the magnetic fields and stray voltages. The result of this approach speaks for itself by simply offering a considerably more relaxed, noise free and an unforced reproduction.

Signal/ Loudspeaker Cables

All cables connected to a Hifi system work as either a transmitting or receiving antenna. We know that attenuating the length of the cables, tuning the antenna effect, has the ability to handle & control the really high frequencies. In our opinion this tuning offers a far more direct path for the signal and in our testing proved a more important sonic parameter than purely the inductance and capacitance.

However, in our opinion, adapting the connectors according to the design of the cable then becomes absolutely crucial to the overall result!

If one simply uses ready-made contacts, one must simply adapt the cable to match the characteristics of the contacts. We have always felt this is the wrong approach, which is why we have always manufactured our own contacts within wooden frameworks. A material that is completely free of both magnetic and conductive properties, which does not affect the signal at all, unlike plastic or metals!

For the contact surfaces themselves we use pure silver & copper, where silver is used for the positive conductor and copper for the negative. Furthermore all of our signal/loudspeaker cables feature our "EEDS" (External Earth Drain System). This system ensures that the shielding, via the drain wire, is not connected to the negative pole but is led away to one of our ground boxes. This way, we drain off any interference/noise that the shielding both absorbs & attracts and remove its harmful effects from the signal path itself.

Conventionally shielding, of any type, is of course trying to protect the signal. However no matter the configuration, even by careful separation of shield & conductors with distance and insulation, will always end up mixing the shield with the noise. Why?.. because at some point you eventually have to bring it all back together at the connection, even if its only connected at one end!

Characteristics of Entreq Cable Design

- 1. Separate cable for positive and negative signals.
- 2. Asymmetrical design.
- 3. Positive and negative cables are spun clockwise and anticlockwise respectively.
- 4. Adapted lengths to minimise the antenna effect.

5. DIC Dedicated contacts so the area and the mass of the contacts correspond to the area of the cable.

- 6. Wood in the contact framework Non-magnetic and non-conductive.
- 7. Only pure copper and silver in the signal paths. No alloys.

8. Drain wire instead of shielding in order to connect to a pure earth point (External Earth Drain System).

- 9. Cotton covering instead of synthetic materials.
- 10. EEDS External Earth Drain System.

RecievUs.

All electrical devices radiate magnetic & interference fields. These fields can, depending on conditions, become quite powerful. Even the stray currents and noise generated by LED displays can be surprisingly deleterious to your audio quality.

What our studies have shown is that these fields are oval-shaped, where the device is located at the bottom of the oval and most of the radiation/ field of interference goes upward. It is therefore optimal to place your electronic devices side-by-side at an absolute minimum of 10-15 cm intervals. We realize that this is often not possible to implement practically with the space available in the home as well as the simple constraints of most rack designs being a governing factor.

However attention to this problem in a normal system set-up, if un-checked, creates a multiplying field effect of noise & interference.

The RecievUs serves as an antenna/shield, capturing and attracting interfering field effects. The ReceivUs contains a simple but very effective net that captures & shields against these interference fields. Its strategic & careful placement in your system can reduce the interference & pollution dramatically.

