Renovia™ | NUVO Whole Home Audio

Frequently Asked Questions

QUESTION: Other Powerline Carrier systems such as Insteon® require a phase coupler device to be installed somewhere in a two-phase residential system in order to insure that the system signals are distributed to every branch circuit (and outlet) in the residence. Is this a requirement for Renovia components?

ANSWER: No. Older PLC systems use a lower frequency carrier (<1MHz), which required couplers to get adequate signal strength in a two-phase home. The HomePlug® standard uses higher frequencies (2MHz-30MHz), which will jump across small gaps much more readily. In fact, all that is required for coupling is a short wiring distance where the two phases run close together in parallel. This almost always occurs either between the power meter and electrical panel or in the two-phase wiring to a dryer, stove, air conditioner, or furnace. Don't spend your installation money up front on an add-on coupling device; in most cases you will not need it.

QUESTION: Does Renovia use X10®?

ANSWER: No. X10 was an early form of Powerline communication developed in 1975. It uses a lower carrier frequency; an X10 system would require a coupler for phase issues. There can be communication interference with modern electronic equipment. X10 protocol is slow and would not be practical for distributed audio systems. It can only send 1 command at a time and takes roughly three quarters of a second to transmit a device address and a command. HomePlug Version 1, the Powerline communication standard utilized with the Renovia system, was released in 2005 and addresses the limitations that other Powerline protocols (such as X10) do not address. The HomePlug 1 specification was designed to provide sufficient bandwidth, signal encryption, and error correction for audio distribution over powerlines.

QUESTION: I have heard that using a vacuum or hair dryer may cause interference with Powerline-based technologies. Is this true?

ANSWER: Products with inexpensive brush-and-commutator motors, like paper shredders, vacuums, and hair dryers may interfere with the Renovia system if plugged into the same outlet that is being used to power the zone amp. If this occurs, and it is important to the end user to continue to listen to music in the area while this device is in use, the inexpensive Renovia NV-HPNF HomePlug filter may be purchased to isolate the outlet.

QUESTION: I am installing a Renovia system in multiple condos that are part of the same development. Will neighbors that both have Renovia systems be able to hear each other's music in their systems?

ANSWER: No. First of all, there may be no coupling of signals between the condos, depending on local wiring practice. If there is coupling, using password separation protocol built into the HomePlug standard, Renovia allows the setting three alternate network channel settings, in addition to the default Channel A setting. This channel assignment across the adjacent condos will insure that audio and control will be isolated across the separate systems.

QUESTION: How many amplified zones does Renovia support?

ANSWER: Renovia supports 8 amplified zones. Zone numbers 9 through 20 are available for assignment to Wireless Control Pads, or extra NV-I8GCP/NV-E6GCP/NV-CTP36 Control Pads configured as slaves to the 8 amplified zones.

QUESTION: I want to put my Renovia Main Source Hub in a home entertainment center where some of my music source devices can be shared with a home theater system. How do I get a line output connection to an A/V Receiver in the home theater system?

ANSWER: The Main Source Hub provides a rear-panel ZONE 16 AUX OUT stereo line output jack that makes available up to six Renovia system sources, if you configure all of them. Connect the 3.5mm stereo output jack to an available auxiliary input on your A/V Receiver with an RCA patch cable. Selection of the stereo source output here will be under control of the Control Pad device that is addressed for Zone 16. This can either be designated as a Slave Zone that always follows the selection on the Renovia amplified zone of your choice – Zone 1 to 8, or a Control Pad can be set up that is dedicated for source selection in the A/V Receiver's listening area. This line level output is a fixed (non–volume controlled) output for compatibility with an A/V Receiver that has its own volume control.

QUESTION: Do I have to use sources designed for Renovia?

ANSWER: No. While the available NV-RIPD NuVoDock for iPod is designed to work exclusively with Renovia, the system is backward compatible with all NuVo sources. You can also use non-NuVo sources with Renovia on all audio inputs, and set up custom IR control macros for these sources that are triggered with buttons on NuVo Control Pads.

QUESTION: Is the programming software for Renovia different than the Grand Concerto/Essentia E6G software?

ANSWER: Yes. It maintains much of the same layout, look, and feel, but requires a few special modifications for Renovia. Authorized dealers can download the Configurator software from the NuVo ProZone's Dealer Resource Center.

QUESTION: My customer does not want Control Pads in every room that has audio. Do I have to wire a Control Pad to control individual zones?

ANSWER: No. Renovia offers the utmost flexibility when designing a system. You can hard-wire a Control Pad to the zone amp in every room. In this scenario you can use a single-gang Essentia E6G Control Pad, dual-gang Grand Concerto Control Pad, or the Color Touch Pad. However, you do not need a Control Pad in every room. The new Color Touch Pad allows for multi-zone control, so you can control multiple zones from a single Color Touch Pad. And with the new Wireless Control Pad, you can control your complete system and not install any wired Control Pads if you desire.

QUESTION: I am not sure if a home will work with Renovia. Is there something I can do to test it in advance?

ANSWER: Yes. NuVo makes a device called the Site Analysis Tool. This should be used to qualify prospective Renovia System customers in advance. It will test the communication quality with the proposed Main Source Hub and zone amp locations in your customer's home to ensure proper delivery of audio and metadata to individual zones. If there is a signal path through the home wiring that will not work for Renovia signals, this tool will quickly point that out and will very likely allow you to find alternate connection points.

QUESTION: A prospective customer's house was built in the 1960's or 1970's and uses aluminum wiring. Will Renovia work with aluminum wiring?

ANSWER: Yes. Aluminum wiring will not block Renovia signals. As with all existing wiring, the Renovia Site Analysis Tool should be used prior to installation to uncover any latent connection problems blocking Renovia signals. However, the results of Site Analysis Tool should NOT, under any circumstances, be considered a reliable method to verify the overall safety of an electrical wiring system. Methods for such safety inspections are well established, and should be done by a qualified electrician.

QUESTION: What if a house has been wired with only two wires, and not three? Will Renovia work with 2-wire?

ANSWER: No. Renovia is not designed to work with 2-wire electrical systems.

QUESTION: I do most of my business on the coast, where high salt content in the air wreaks havoc on home electrical wiring. What does NuVo recommend to ensure Renovia will work in these scenarios?

ANSWER: In general, as long as the wiring is in good enough condition to operate a high-current appliance, such as a hair dryer, properly from outlets on the branch circuits, there should be no problem with the connection of Renovia signals at those locations. Use your Site Analysis tool to determine if the home wiring is too damaged at any of your proposed home locations to successfully install Renovia system components.

QUESTION: When selecting a zone amp location, can I pull my electricity off a GFI outlet?

ANSWER: Sometimes. This varies depending on the manufacturer and design of the GFI device. If the Site Analysis Tool says your signal path through a GFI is Excellent or Good, you can depend on it. Of course, if the GFI device "trips" due to a ground fault condition on connected electrical devices, this will interrupt music playback on zone amplifiers connected to the load side of the GFI device.

QUESTION: Are the zone amplifiers 4-ohm stable?

ANSWER: Yes. Zone amplifiers will ship default-set for an 8-ohm speaker load. For a 4-ohm installation, an installer will need to check a box in the Zone Configuration menu in the Renovia Configurator software to provide the necessary voltage limiting. Alternatively, the installer can set this up in the Setup menu in the Control Pads. If you left the setting at the default 8-ohms and did a 4-ohm installation, the power supply will go into current protect under high volume conditions and reset the zone amplifier, resulting in a few seconds of interrupted play cycling in and out. The zone amplifier would not be damaged in this case.

QUESTION: A customer would like to have Renovia installed in their home. However they are currently using another Powerline-based technology in their home to distribute a wired home network. Will Renovia work on a home's electrical wire if multiple devices are transmitting over them?

ANSWER: Renovia components use a proprietary discovery and control protocol that prevents interference with other Powerline Carrier devices, including standard HomePlug-based Ethernet bridges. Furthermore, there is no way for Renovia components to receive and process or forward data from computers that is packetized by these Ethernet bridge devices, because the Renovia components do not use the TC/IP Ethernet protocol, so there are zero security concerns. For other wideband Powerline Carrier products on the same electrical net, the HomePlug V1+ algorithm

our devices employ will adapt and coexist with them. Of course, the total available bandwidth is reduced with two systems communicating on the same electrical net, so we could not necessarily guarantee that either our system or, for example, a HomePlug Ethernet bridge link would not experience some performance degradation. However, in nearly all cases, any bandwidth reduction to the data applications in these circumstances will not be noticeable, and as far as Renovia components are concerned, audio dropouts are very rare.