



NRG Edison 15 NRG Edison 20 220-240V AC Duplex Outlet

Installation Instructions

EN Important Information

Warning: AC power is potentially hazardous and lethal if electrical shock occurs! Installation of AC wiring and installation of the AudioQuest NRG 15 or 20 AC duplex outlet should be performed by a qualified licensed electrician.

This AC outlet is intended for single phase AC branch circuits ranging from 220 to 240 volts AC, with either a 50 or 60 Hertz sine wave frequency. If the branch circuit uses a 15 amp circuit breaker, it is appropriate to employ the NRG Edison 15. For a 20 amp service, use an NRG Edison 20. The service circuit breaker should be 20 amp rated with *at least* #12 AWG wiring or heavier (lower number) gauge.

Recommendations for dedicated wiring:

The AudioQuest NRG Edison 15 & 20 AC duplex outlet can accommodate up to #8 AWG wiring, although #10 or #12 may have superior properties versus #8 AWG wire in terms of noise dissipation, that is, routing RF noise back to the electrical panel and ground rod-stake. This is due to skin effect at radio frequencies favoring thinner wire gauges, thus making noise reduction more efficient with a thinner wire gauge. This is an important consideration when optimizing your system with a dedicated line, that is, a *discrete* Line, Neutral, and Ground wire that travels back to your primary electrical panel without other AC outlets being daisy-chained or series connected to or from any of these wire leads.

The lower the wire resistance (using heavier wire-cable), the lower the AC impedance that is present at 50-60 Hz. This is an advantage for any power amplifier. However, it is equally true that providing optimal noise dissipation (routing radio frequency noise away from your system's delicate components), is more efficient with *slightly* smaller wire diameters. Whenever possible, solid core electrical grade AC wiring will yield superior results. We find that when a *dedicated AC line* is installed, #10 to #12 AWG wiring is the best compromise regardless of whether the branch circuit is meant for 15 or 20 amp operation.

A dedicated line may not be possible (nor is it *absolutely necessary*), particularly if the installation is in a rented, leased, or temporary space. Even with stock wiring of a 10 or 15 amp service, your system will benefit greatly from the installation of the NRG Edison AC duplex outlet.

Installation Instructions *(for qualified licensed electrician only):*

Warning: AC power is potentially hazardous and lethal if electrical shock occurs! Please leave all installation of AC wiring and installation of the AudioQuest NRG Edison 15 or 20 AC duplex outlet to a qualified licensed electrician.

Note to Licensed Electricians:

*We understand you have safely installed thousands of AC outlets within your career as a professional licensed electrician. Please observe (at a minimum) notes 3 through 5 and 14 as these are the instructions that are **unique** to either this specific outlet or this application. The installation will be superior in electrical performance for having done so, and the device will operate more reliably.*

1. Shut off the branch service for the chosen outlet to be replaced with the AudioQuest NRG Edison 15 or 20 AC duplex outlet.
2. Remove the existing cover plate and disconnect the existing AC duplex receptacle from the wall's mounting tabs or back box.
3. Loosen the wires from the existing outlet, or, if there is enough wire or service loop (excess wire), cut the wire flush to the existing outlet at all three connection points. The latter method is **preferred** as it will yield fresh un-oxidized or un-marred copper wire leads with which to work. This will yield the *best results* for RF noise dissipation.
4. Trim the Line and Neutral insulation **0.75"** from the AC cable's exposed edge. Trim the ground wire's insulation back **0.25"** from the lead or cable's exposed edge. Use the **#10 Direct-Silver Plated spade lug** that is included with the AudioQuest NRG Edison AC duplex outlet. A standard #10 ring or spade lug crimping tool should be used to connect the exposed 0.25" copper lead with the spade lug's barrel. Make sure the connection is airtight and that the lead cannot move after the lug is crimped over the wire lead.
5. Remove the NRG Edison ground screw adjacent to the green tap. Place the screw through the center-bottom of the "U" section of the spade lug. Place it flat against the silver surface of the ground screw threaded hole, and thread the ground screw with a #2 Philips screwdriver until the spade lug and ground wire are tight and secure.
6. Install the Line lead into any of the two lower "Line" wire holes labeled "Black L." Make certain the fastening screws to the left are fully extended (loose), and that your thumb is applying pressure to it while you thread the 0.75" wire Line lead into the hole.
7. Once the wire is seated fully into the receptacle's wire clamping mechanism, use a #2 Philips screwdriver to secure the lower left Line wire lead securing screw. Secure the screw immediately above it as well.
8. Install the Neutral lead into any of the two lower "Neutral" wire holes labeled "N White." Make certain the fastening screws to the right are fully extended (loose), and that your thumb is applying pressure to it while you thread the 0.75" wire Neutral lead into the hole.
9. Once the wire is seated fully into the receptacle's wire clamping mechanism, use a #2 Philips screwdriver to secure the lower right Neutral wire lead securing screw. Secure the screw immediately above it as well.
10. While holding the outlet by its upper and lower mounting tabs, pull each lead away from its securing screw to establish that it is secure. Apply a little extra tension to each wire screw to assure they are well and permanently seated.
11. Use the clamp-on screw mounts at the top and bottom of the NRG Edison AC duplex outlet to attach to the wall frame or backing box. Make certain it's secure as the damping force of this outlet is unusually tight, and we would not wish for this wall mount to become loose because of AC cord plugs that must be wiggled from side to side during removal from the outlet.
12. Remove the black Philips screw located in the center of the duplex outlet's front surface.
13. Place the piano black AudioQuest NRG Edison mounting plate over the duplex outlet, and secure with the black Philips screw you previously removed. A #2 Philips screwdriver is best for this operation.

NOTE: These outlets have a VERY tight grip!

14. Take a standard AC cord, and exercise it into the top and bottom outlet 5 to 10 times to help properly seat the spring tension. Note that the outlet will be VERY tight compared with any other AC outlet, even hospital-grade outlets. This clamping strength is necessary to ensure optimum performance and the lowest possible impedance. However, the installation and retraction of AC cords will become a little easier with use. This exercising will not impede performance in any way, and is not required for optimum performance; it is optional.
15. Apply the branch's circuit breaker and ensure with your AC voltmeter that an appropriate AC voltage is present Line to Neutral, and Line to Ground. The appropriate voltage is 220 V AC to 240 V AC, depending on your area.

Important Note for Hong Kong and China:

The North American or Japanese NEMA Edison AC outlet does not follow CCC guidelines for a compliant AC wall outlet and as such, cannot be *necessarily* endorsed for installation by AudioQuest in Hong Kong or China. However, if it were to be installed, the above installation instructions would be the same except that you would require a NEMA type backing box, and the Line wire would be Brown, while the Neutral wire would be Blue.

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