Quick Start Guide for the NCC-2
Receive Antenna Phasing Controller
DXE-NCC-2

**PLEASE** - Read this guide completely before applying power or transmitting RF. You can cause serious damage to the NCC-2 and your receive antenna system by making incorrect connections to this unit. This type of damage is NOT covered by warranty.

If after reading this guide and the complete NCC-2 manual you still have any questions about the hook up of the NCC-2 for your system, please call DX Engineering for technical assistance.

Make these connections first then perform the Transmit Safety Test described on page 2 of this guide.

Make connections to the NCC-2 as follows:

- Connect a standard shielded audio style cable between the **RADIO PTT** Phono connector and a transceiver keying output that provides a ‘ground on transmit’ connection. Some modern transceivers have a rear panel amplifier control jack typically labeled as "TX", "AMP", "Send" or "TX GND" that pulls low when the transceiver is keyed. (Check the user manual for your radio). **Note:** Kenwood transceivers have a 7-pin DIN labeled “REMOTE”. Use the DXE-KWD-RTR cable.

- **ACC PTT** connector on the NCC-2 is a keying pass-through used for keying another accessory such as an amplifier or sequencer. **Do not** use this connector for a transceiver keying line. See warning on second page of this guide.

- Connect the NCC-2 **RADIO** jack to a transceiver antenna jack with a standard coaxial cable.

- When using two receiving antennas, connect the first one to the **CH A RX ANT IN** BNC or F Connector.

- When phasing a receive only antenna with a transmit antenna, connect the included BNC patch cable between **MAIN ANT OUT** and **CH A RX ANT IN**.

- Connect the second receiving antenna (or local noise source antenna) to the **CH RX B ANT IN** BNC or F Connector.

- Connect a well filtered, fused power source of +13.8 to +21 Vdc 2A minimum to the **MAIN PWR** jack to the NCC-2 using the supplied 2.1 mm plug. Input DC line should be fused at 3 amps to protect circuitry. Power will be fed through the bias tee circuitry to A and B Ports if individually enabled. See the manual for jumper settings.

- Proceed to the Transmit Safety Test on page 2.

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**NEVER** connect the **MAIN ANT OUT** connector of the NCC-2 to a transceiver RF output!
Transmit Safety Test:

After making all of the connections and prior to transmitting through the NCC-2 for the first time:

- **Turn the NCC-2 POWER On.** The Power LED should change from Yellow to Green.
- **Toggle the RTR switch in the center Norm position.** The RTR should change from Red to Blue. If not - **STOP** - Re-check all connections. In receive mode (Norm), LED must be Blue to receive properly.
- **On your transceiver, adjust the Transmit RF level to Zero output and Mic Gain to Zero.**
- **With your transceiver in SSB mode, key the microphone PTT.** The NCC-2 RTR LED **MUST** change from Blue to Red. If not - **STOP** - The keying cable is either not connected or has a defective center conductor and must be replaced.
- **When the RTR LED changes from Blue to Red when the transceiver PTT is keyed, then all is ready for normal NCC-2 operation.** The RF Transmit level and Mic Gain can now be turned up to the normal operating levels.

**MAXIMUM Transmit power through the NCC-2 is 200 watts**

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**KEYING LINE CONNECTION WARNING:**

**MAKE ABSOLUTELY CERTAIN** that the KEYING LINE from the TRANSCEIVER is connected **ONLY** to the NCC-2 RADIO PTT connector. The keying line to the amplifier must be connected **ONLY** to ACC PTT “pass through”.

Do Not reverse the RADIO PTT and ACC PTT keying line connectors. These connections are **NOT** interchangeable.

When the NCC-2 RADIO connector is used to carry transmitted RF, if these keying connectors are accidently reversed, PERMANENT INTERNAL DAMAGE will occur to the NCC-2 and potentially to other receive antenna devices.

**INTERNAL DAMAGE TO THE NCC-2 DUE TO REVERSAL OF KEYING LINES IS NOT COVERED UNDER WARRANTY.**

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