



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

DXE-NCC-2-Quick Start -INS Rev 0b



**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.



**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**

### **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 accidentally 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.**

**Important:** When using the NCC-2, unexpected relay chattering sounds and flickering of the RTR Blue/Red LED during transmission is an indication of a failure of the ground on transmit signal. Cease operations immediately and check the keying cable center conductor and the transceiver amplifier keying settings and connection. Transceiver ground on transmit on the center conductor **AND** a transceiver chassis-grounded shield on the keying cable connected to RADIO PTT connector of the NCC-2 are required for proper RTR relay operation.

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