



1110 Archer Court, Alexandria VA 22312

www.excaliburelec.com

CDA-2 COMPOSITE DISTRIBUTION AMPLIFIER

The Excalibur CDA-2 is a one-in four-out distribution amplifier for stereo composite or SCA subcarrier signals. Its performance is appropriate for use with the newest highest-performing stereo generators, STL's and exciters.

Please read the instructions carefully. Remember that you are dealing with unbalanced circuitry in an environment that can be very hostile to such signals. In an unbalanced circuit the signal current must flow in the common or ground conductor as well as in the hot conductor. As long as current flows there is resistance and voltage drop – therefore it is possible for unwanted signals to be picked up. Be careful!

Should you have any questions please contact your Excalibur dealer. Our dealers are few in number because they have been chosen on the basis of their technical expertise and their record of customer support.

INSTALLATION

The CDA-2 is quite small, measuring just 5-1/4 inches deep, 4-1/8 inches wide and 1-5/8 inches tall. It can sit on a rack shelf, or on another piece of equipment, or be wire-tied to a rack rail. If desired, a rack-mount panel which will accept the CDA-2 can be made to order for an extra charge. Please contact your dealer for additional information.

Although the CDA-2 is designed to function properly in hostile thermal environments (such as non-air conditioned transmitter buildings) and generates no discernible heat itself, prudence suggests that the unit NOT be placed near any significant heat sources.

Power is provided by a 5-VDC center-positive “wall-wart” plug-in power supply (included). An internal protective diode prevents damage from the use of a power supply of the wrong polarity.

The output of your stereo generator, STL receiver, etc., connects to the BNC input of the CDA-2 using standard RG-58 or similar coaxial cable. The length of cable that can be used depends on the output characteristics of the source. Many stereo generators cannot feed over 10 or 15 feet of cable. If a longer cable is needed please check with the manufacturer of the source equipment to determine cable length limitations.

The four BNC outputs of the CDA-2 connect to your exciters, STL's, etc., also using RG-58 or similar cable. The CDA-2 has been designed to feed moderate lengths (up to 75 feet) of RG-58 cable, which has a capacitance of 30pf per foot. The longest run of cable is best fed when the far end is terminated with a 250-ohm load. If your destination equipment has a higher input impedance (many exciters are around 1000 ohms) you can make a termination with a BNC “T” connector and a terminating resistor at the equipment input. Most installations will not need this, however.

OPERATION

Operation of the CDA-2 is simple and straightforward. The output level of the source equipment is set to an acceptable level (less than 5 volts RMS), then each output can be individually adjusted to supply the appropriate level for the destination equipment. Since the gain is stable over a wide range of temperature and power line variations no routine re-adjustments should be necessary.

The front panel LED indicates acceptable power polarity and level.

MAINTENANCE

No routine maintenance is required.

If you are located in a hostile environment, such as the saline atmosphere of a coastal area, annual treatment of the connections with Deoxit will help to prevent corrosion and the inevitable noise associated with it.

SPECIFICATIONS

Frequency Response..... DC-100kHz, ± 0.2 dB (< 0.05 db down at 53 kHz)
Distortion..... $< 0.01\%$ THD
Noise..... > 90 dB below 4 Volts output, unity gain
Gain..... individually adjustable, -20 dB to +6 dB
Connectors..... BNC
Source Impedance..... should be fed from < 1 k Ω
Load Impedance..... should be > 250 Ω
Drive Capability..... up to 75 feet RG-58 coax (if load $< 500\Omega$)
Maximum Level..... 5 Volts RMS, input & output
Size..... 4-1/8" wide, 1-5/8" high, 5-1/4" deep (with BNCs)
Power..... 5VDC, 1A, 2.1mm I.D. x 5.5mm, center-positive wall transformer



