

**INSTRUCTION MANUAL**

**ACCESSORIES**

<b>Model No.</b>	<b>Description</b>
FA-500	Flexible 1/2 wave antenna, 680-870 MHz
CLA-1	1/2 wave antenna, 520-565 MHz
CLA-2	1/2 wave antenna, 565-615 MHz
CLA-3	1/2 wave antenna, 615-660 MHz
CLA-4	1/2 wave antenna, 660-690 MHz
CLA-5	1/2 wave antenna, 690-725 MHz
CLA-6	1/2 wave antenna, 725-760 MHz
CLA-8	1/2 wave antenna, 798-865 MHz
AB-2	Mounting bracket for 1/2 wave antennas with 10 feet (3 meters) of coax cable
LPA-500 (Electro-Voice)	
ALP-450 (Telex)	Broad-band directional Log Periodic antenna, 5 dB gain, 450-900 MHz, supplied with mounting brackets and 10 ft (3 meters) coaxial cable
CXU-25	25 ft (7.6 m) low loss coaxial cable with TNC connectors
CXU-50	50 ft (15.3 m) low loss coaxial cable with TNC connectors
CXU-75	75 ft (22.9 m) low loss coaxial cable with TNC connectors
CXU-100	100 ft (30.5 m) low loss coaxial cable with TNC connectors

**General Description**

The UAA-500 is a low-noise amplifier designed to compensate for coaxial cable loss in long cable installations. DC power for the amplifier is provided at the receiver or splitter antenna input connector and is routed through the cable to the UAA-500 output connector. Consult the receiver or antenna splitter manual for compatibility with the UAA-500 and for instructions on how to enable DC voltage at the antenna input connector.

Select an antenna mounting area that is clear of metallic objects and that has a clear view of the transmitters if possible.

Mount the antennas as far apart as practical within view of the transmitters.

Mount the UAA-500 as close as possible to the antenna. The FA-500 and CLA antennas can be mounted directly to the antenna input of the UAA-500. Other antennas should be attached with a short cable. **Do not use 1/4 wave antennas.**

**For indoor use only! (Not water proof).**

**NOTE:**

Never install antennas or amplifiers where accidental electrical high voltage contact is possible.

**SPECIFICATIONS**

RF Frequency Range.....	500-900 MHz
Operating Voltage .....	12 VDC
Operating Current .....	65 mA typical
Connectors .....	TNC Female
RF Signal Gain .....	3 or 10 dB
3rd Order Intermod .....	30 dBm
Case Material .....	Cast Aluminum
Dimensions.....	4.3 x 1.5 x 1.3 inches 119 x 38 x 32 mm

## Installation

1. Mount the UAA-500 in the desired location using the provided screws. Do not mount it where it will be exposed to weather or moisture.
2. Attach the antenna or the antenna cable to the connector indicated by the arrow and "antenna".
3. Attach the cable from the receiver or splitter to the connector indicated by the arrow and "receiver".
4. Set the "output level" switch to 3 or 10 dB depending on the length of the cable run. (See Chart for recommendations.)
5. Turn on the receiver and/or splitter. The green "power" light on the UA-500 should come on. If it does not, consult the manual for the receiver or splitter.
6. "Walk test" the wireless system. If the range of the transmitter seems exceptionally low, check to be sure that the UAA-500 is not connected to the cable reversed.

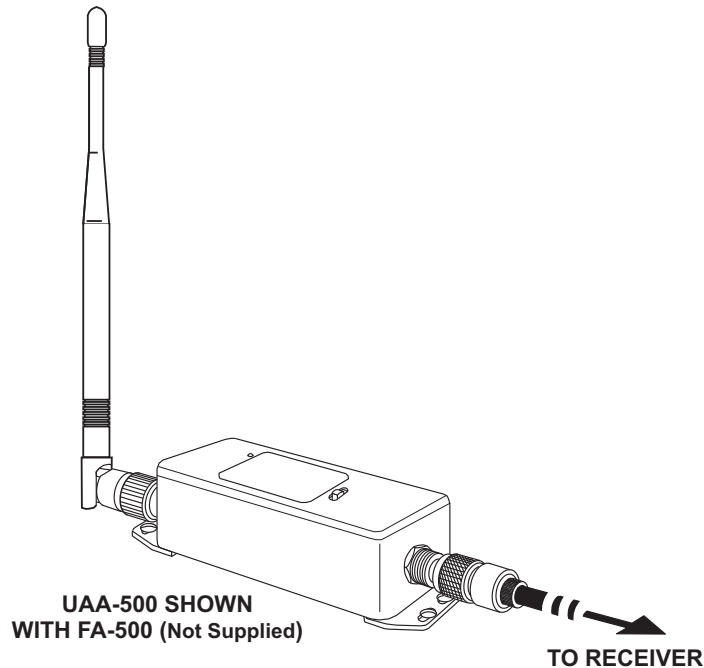


Figure 1

If 10 dB or more of antenna gain is added to the system, it may be necessary to increase the squelch settings of the receiver(s).

Using more gain than necessary may increase the noise level in the receiver.

Do not mount the UAA-500 at the receiver or splitter location. The cable will attenuate weak signals from the antenna before they reach the amplifier. This will increase the noise level.

**Cable Length and Gain Setting Chart  
(loss is at typical frequencies)**

Cable Type	Length	Loss	Gain Setting
RG-58	25 ft (7.6 m)	3.4 dB	3 dB
	50 ft (12. m)	6.8 dB	10 dB
	75 ft (22.9 m)	10.2 dB	10 dB
	100 ft (30.5 m)	13.6 dB	*
RG-8/213	25 ft (7.6 m)	1.7 dB	**
	50 ft (12. m)	3.3 dB	3 dB
	75 ft (22.9 m)	5 dB	3 dB
	100 ft (30.5 m)	6.6 dB	10 dB
	150 ft (45.8 m)	9.9 dB	10 dB
	Over 150 ft (45.8 m) ***		
RG-59	Do not use! This cable is 75 ohm and is intended for cable television only.		
RG-6	Do not use! This cable is 75 ohm and is intended for cable television only.		
CXU-25	25 ft (7.6 m)	1.7 dB	**
CXU-50	50 ft (12. m)	1.7 dB	**
CXU-75	75 ft (22.9 m)	2.6 dB	3 dB
CXU-100	100 ft (30.5 m)	3.4 dB	3 dB
CXU-100 +			
CXU-25	125 ft (38.1 m)	5.1 dB	3 dB
CXU-100 +			
CXU-50	150 ft (45.8 m)	5.1 dB	3 dB
CXU-100 +			
CXU-75	175 ft (53.4 m)	6 dB	10 dB
CXU-100 x 2	200 ft (61 m)	6.8 dB	10 dB
CXU-100 x 3	300 ft (91.5 m)	10.2 dB	10 dB
*	RG-58 cable not recommended for runs over 75 ft (22.9 m)		
**	No amplifier needed. If used, set to 3 dB		
***	RG-8/213 cable not recommended for runs over 150 ft (45.8 m)		