

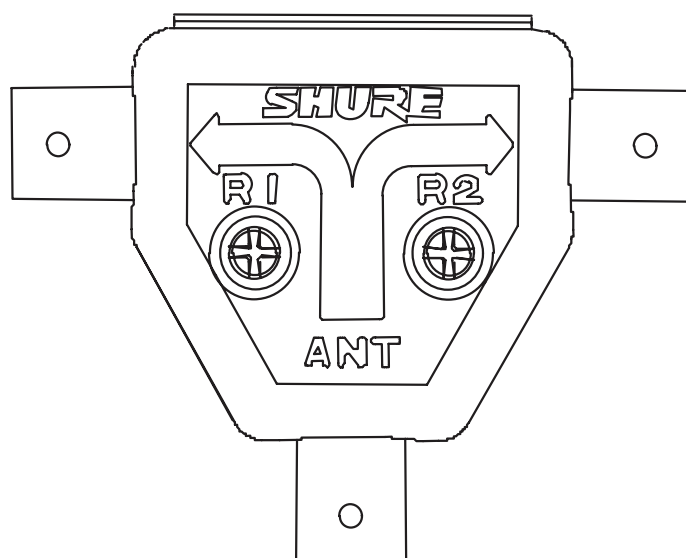
**UA221 PASSIVE ANTENNA SPLITTER KIT**

**KIT UA221 COUPLEUR PASSIF D'ANTENNES**

**PASSIVE ANTENNENWEICHE-KIT UA221**

**KIT UA221 DE BIFURCADOR PASIVO DE ANTENAS**

**KIT UA221 SPLITTER PASSIVO PER ANTENNE**



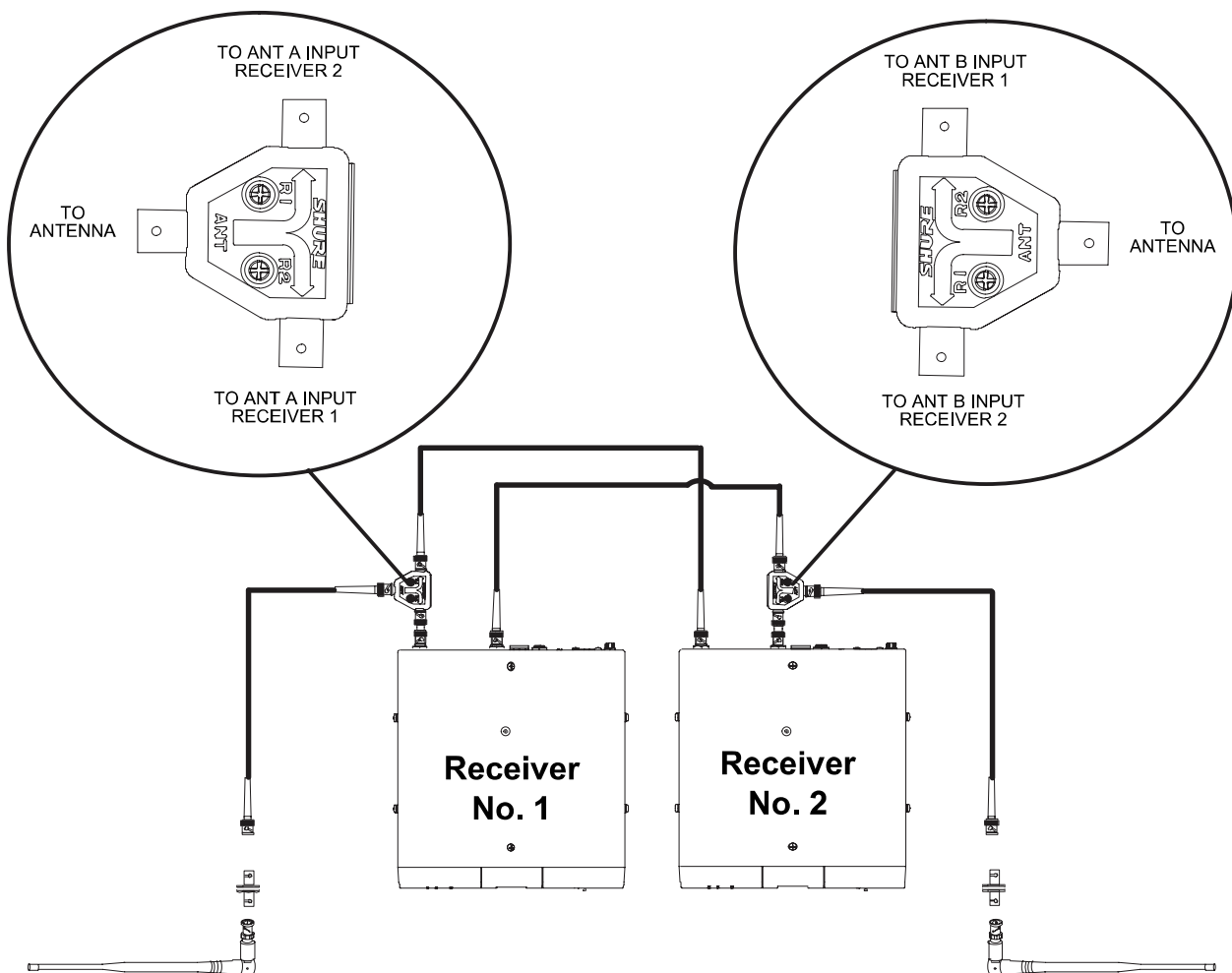
## GENERAL

The Shure UA221 Antenna Splitter Kit includes a pair of one-input, two-output passive antenna splitters, four coaxial cables, two BNC male-to-male adapters, and connecting hardware. Each UA221 splits an incoming signal into two outgoing signals.

UA221 splitters are intended for use with Shure Wireless Systems. Use Shure UA820 1/2 wave antennas (shown in Figure 1) or Shure UA400 1/4 wave UHF antennas, and Shure UA802, UA825, or UA850 50  $\Omega$  low-loss antenna cable.

## INSTALLING THE UA221 SPLITTERS

1. Connect one BNC male-to-male adapter (two supplied) to the ANTENNA A input on the first receiver.
2. Connect the other BNC male-to-male adapter to the ANTENNA B input on the second receiver.
3. Using the supplied coaxial cables, connect the R1 and R2 connectors on the UA221 splitters to the ANTENNA A and ANTENNA B inputs on the receivers, as shown in Figure 1.
4. Using the supplied coaxial cables, connect the ANT connector on each UA221 splitter to a UHF antenna, as shown in Figure 1.
5. Install the receivers in a 19-inch audio equipment rack.



UA221 ANTENNA SPLITTER CONNECTIONS  
FIGURE 1

## UA221 conversion to UA220 DC blocking Capacitor removal

In certain applications it may be necessary to use multiple remote antennas. If the antenna runs exceed 25' they may require an inline amplifier, such as the UA830, to overcome antenna cable line losses. In order to supply the necessary dc power to more then one antenna, the UA221 must be modified by replacing the dc blocking capacitor C102 with a jumper wire or solder short.

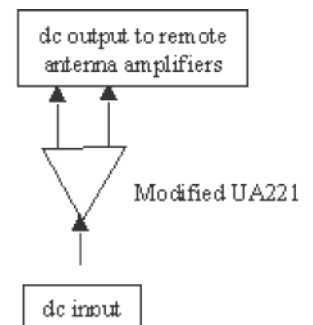
**NOTE:** Reinstalling C102 is very difficult so you should consider this a permanent change.



The discontinued UA220 passed dc from the lower BNC to upper BNC's

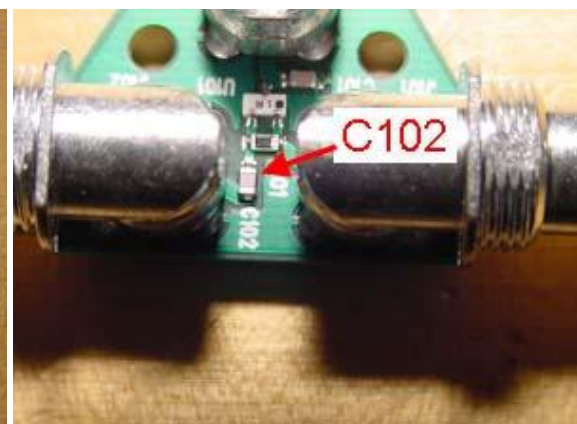
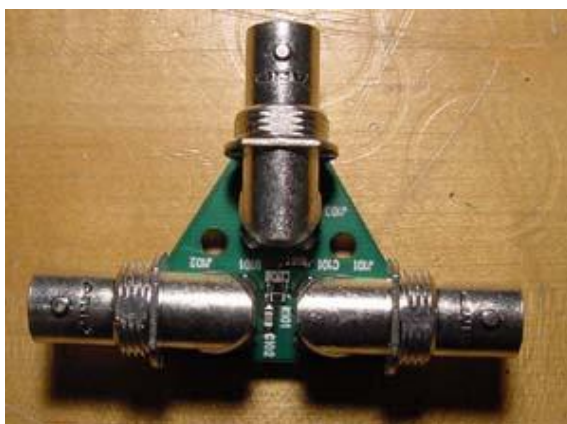


The UA221 passes dc from 'ANT' to R1 but blocks dc from R2



### Process

1. Remove the two Philips head screws taking care not to lose the associated nuts.
2. Open the UA221 clam shell case and remove the pc board.
3. Locate C102 between the opposing BNC connectors
4. With a small tip soldering iron remove C102
5. Replace C102 with a jumper wire or solder short between the two solder pads
6. Reassemble case and mark it as modified



## SPECIFICATIONS

### RF Carrier Frequency Range

10 to 1,000 MHz

### Voltage Wave Standing Ratio (VSWR)

1.2

### Impedance

50  $\Omega$

### Isolation

20 dB

### Insertion Loss

2 dB

### Overall Dimensions

63.5 mm x 48.2 mm x 22.3 mm (2.5 in. x 1.9 in. x 0.9 in.)

### Weight

45.3 g (1.6 oz)

## FURNISHED PARTS

0.5 m (2 ft.) Coaxial Antenna Cable (4).....	UA802
BNC Bulkhead Adapters, lockwasher, nut (2).....	95A8647
BNC Male-to-Male Adapter (2).....	95A8738

## OPTIONAL ACCESSORIES

1/2 Wave Antenna (774-865 MHz).....	UA820A
1/2 Wave Antenna (662-698 MHz).....	UA820C
1/2 Wave Antenna (554-590 MHz).....	UA820D
1/2 Wave Antenna (756-784 MHz).....	UA820E
1/4 Wave Antenna.....	UA400
7.6 m (25 ft.) Coaxial Antenna Cable .....	UA825
15.2 m (50 ft.) Coaxial Antenna Cable .....	UA850
33 m (100 ft.) BNC-to-BNC Cable .....	UA8100
Remote Antenna Bracket with BNC Bulkhead Adapter .....	UA505
Antenna Rack Panel with Cables and BNC Adapters.....	UA440

**SHURE®**

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