### **3M**

## **Installation Instructions**

# Microphone Duplex System With Foam Housing

(78-6911-4476-6)

#### **Microphone Installation Instructions**

## 1. Determine the type of speaker post and cut the microphone shield to the required size.

Determine the microphone shield dimensions for the type of speaker post present at the installation location. A typical installation in a speaker post is shown in Figure 1.

Mark the dimensions on the microphone shield.

Using a razor blade or scissors, cut the shield to the required size.

#### 2. Clean the inside of the microphone grill.

Remove any existing foam from the inside of the grill.

Clean the grill to ensure good tape adhesion. Use alcohol to remove dirt and oil.

#### 3. Attach the microphone behind the grill.

Remove the backing from the foam tape and press the microphone and shield in place behind the grill. Be sure that the tape adheres well to provide a good acoustic seal. (The entire grill area must be blocked by the microphone shield.)

On posts with two cavities, mount the microphone in the upper cavity and the speaker in the lower cavity.

Strip the microphone leads and connect them to the microphone cable from the building. Solder and tape is recommended. Do not ground the microphone ground lead to the post.

## 4. Fill the hollow area behind the microphone.

Fill the hollow area behind the microphone with fiberglass insulation to decrease any echo effect. Allow at least four inches of clearance around the light bulb. Use only unfaced (without paper backing) insulation.

Do not pack the insulation into the cavity. Two to three feet of insulation - cut to the width of the cavity - is sufficient.

(continued)

## 5. Connect the attenuators to the microphone line.

Using wire nuts, connect the attenuators to the microphone line at the base station end of the mic cable. See Figure 2.

#### 6. Check the system for correct operation.

Determine the type of intercom system, and adjust the speaker and microphone according to the related installation instructions.

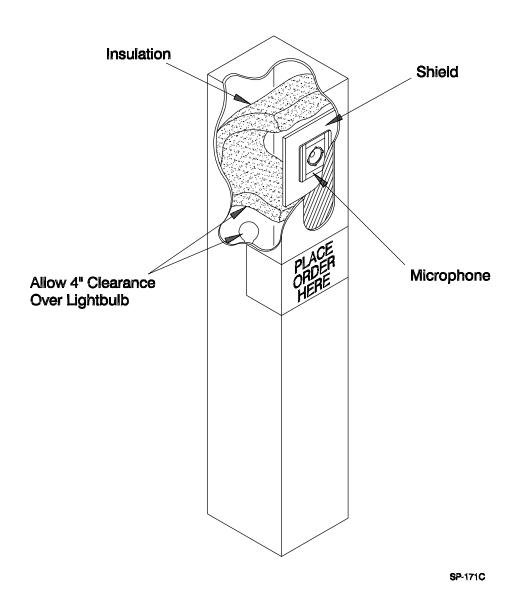
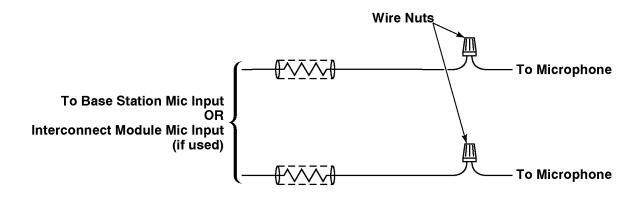


Figure 1. Typical Installation in a Speaker Post



Attenuator is a 2-foot section of shielded microphone cable containing 2–1500 ohm resistors used for matching the audio output level of the new microphone to the base station electronics.

SP-170A

**Figure 2. Attenuator Connections**