

# Multi-Channel Systems with evolution wireless

**Soundings gives a few tips to facilitate the hook-up of multi-channel wireless mic systems.**

## Rack-mount your gear...

A rack ensures that all 'stationary' evolution wireless™ units will be laid out clearly. The GA 1 rack adapter can accommodate 2 half-rack sized units, such as a receiver, a splitter, an IEM transmitter or an AM 1 kit which includes 2 front mounts for antennas. Consider how many channels you will need, and select the appropriate number of GA 1 units.

## Splitters and boosters

Determine whether you will need an antenna splitter(s) based upon the number of channels you require. A rule of thumb is that you will need a splitter for every four channels. Also, one great advantage splitters offer is that they will provide DC power to the receivers. A single splitter will power up to four receivers. Additionally, you will need an AB 1 antenna booster for each antenna. It will amplify the antenna's RF signal so that it can be fed to all receivers.

## Antennas

Now you need to connect the antennas. Choose between the telescopic antennas supplied with the receivers or separate remote antennas. If you decide to use the supplied antennas and wish to keep them at the rack front, you will need an AM 1 kit for every splitter you have. An AM 1 kit

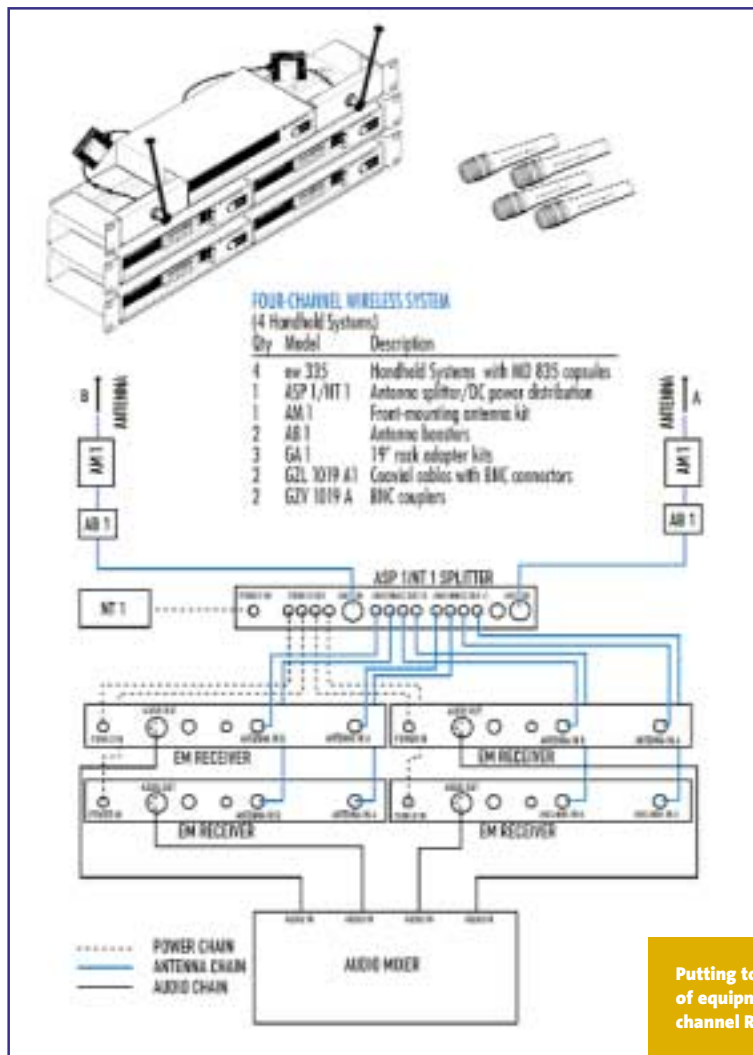
front-mounts two antennas, and takes a total of 1/2 a rack. If, instead, you wish to remote-mount your antennas to increase the coverage area, you will need to utilize A 1031-U antennas, which are typically mounted to mic stands. Use low-impedance coaxial cable to connect the antennas to the splitter(s).

antennas needed to one pair for every eight receivers. This is done by jumpering the splitters (see your owner's manual).

## Finally, a few simple rules of thumb...

Before configuring an RF wireless system, make sure that the frequencies you want to use are not occupied. Pay special attention to local TV stations, and make certain that you do not assign a frequency twice. Every wireless transmitter needs its own receiver. Receivers must be within the transmitter's range (max. 100 m). There is also a minimum distance between transmitter and receiver to be observed: the distance should be at least four meters, otherwise you risk to overload the receiver.

When using remote antennas, place them on separate sides of the stage. Protect all settings on your transmitters and receivers against unintentional operator errors. evolution wireless will warn you when transmitter batteries are going flat – but when you're using fresh batteries for every show, you will avoid hectic changes during the event. Sennheiser wishes you every success with your RF wireless application!



Putting together a system: Diagram and list of equipment for an evolution wireless four-channel RF wireless system.

## Optimizing the splitters

If you are setting up a large system you will be able to configure the splitters in a way that reduces the total number of