Pete's iNtercom Tips

A no-Hybrid 4-Wire interface to RTS

Suppose you have multiple RTS intercom systems to interface into the same party line from remote sites where every site must hear the others.
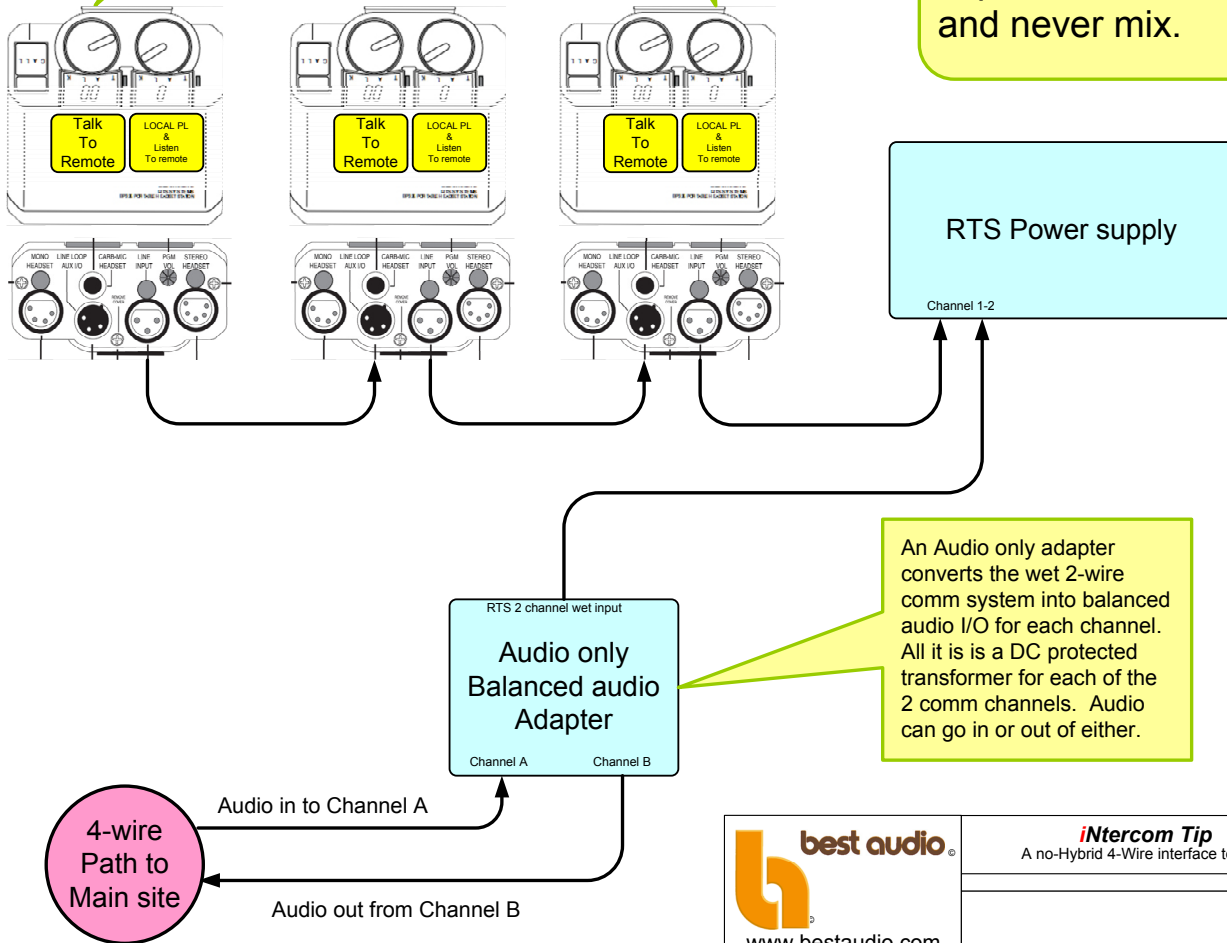
A typical setup would have a hybrid to convert from the 4 wire feed from your satellite or fiber feed to the 2-wire RTS at each site. At the Matrix. each 4-wire feed would connect to the PL channel. The problem is, that when the number of hybrids gets large, and the nulls are not perfect (which is often hard to do), the PL channel begins to ring.

Here is a way to interface <u>any number</u> of remote RTS systems without using a hybrid.

Channel 2 is the TALK to the main site. Local beltpacks will hear your talking on this channel normally but the audio will be sent back to the main site. It is a good idea to set the talk to momentary. This channel is only for talking to the main site, not listening.

Channel 1 is the LISTEN from the main site. Conversations on this channel will not be heard at the main site. The listen volume will set the level at which you hear the remote site.

Now we have configured the RTS system to accept the 4 wire connection without using a hybrid. Talking and Listening are on separate channels and never mix.

Talk To Remote

LOCAL PL & Listen To remote

RTS Power supply

Channel 1-2

An Audio only adapter converts the wet 2-wire comm system into balanced audio I/O for each channel. All it is is a DC protected transformer for each of the 2 comm channels. Audio can go in or out of either.

RTS 2 channel wet input

Audio only Balanced audio Adapter

Channel A   Channel B

Audio in to Channel A

4-wire Path to Main site

Audio out from Channel B