Intercom systems have many different types of stations. Each has a listen volume control and some even have talk volume controls. A successful comm implementation depends on setting disparate equipment to the same consistent volume levels both for talking and Listening.
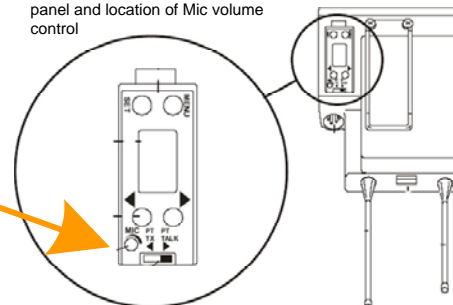
The first part of the process is to determine what the reference should be. Most hard wired beltpacks have a fixed microphone preamp level – this becomes the reference point for the whole system. If you happen to have one of the few hard wired beltpacks which has a microphone level control, set them to a default level standard.

For this example the system consists of hard wired RTS beltpacks and Telex BTR wireless beltpacks. The controls we will be setting in the Telex are the IN and the OUT volumes on the base station and the Mic level control on the beltpack. The hardwired system and the BTR wireless should be on the same comm channel.
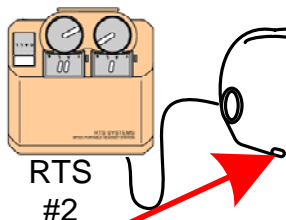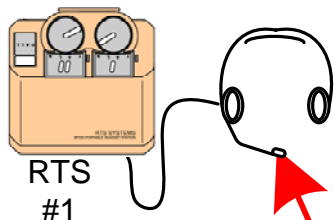
Step 1: Adjust the mic level on the BTR beltpack

Detail of BTR800 programming panel and location of Mic volume control

While talking at a loud volume into the headset microphone of the BTR beltpack, adjust the volume control such that the overload light peaks. Setting the volume too loud will allow background sound to overwhelm the beltpack limiter and effectively cut off the talker. Keep this volume level as low as possible while still showing good peaks during loud talking, close to the mic. Use the type of headset which will be used with the beltpack since each headset model has different sensitivity.

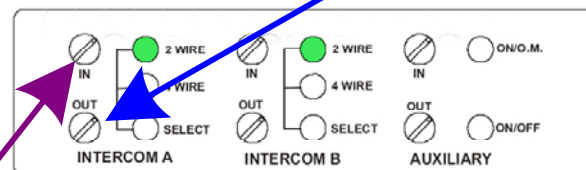## Step 2: Set the talk or output level of the wireless system

RTS #1

RTS #2

BTR

2A – talk into the first RTS Hard wired beltpack while listening to yourself on the second RTS hardwired beltpack. Set a reference listen level using the volume control on the second beltpack. The reason we don't set the reference on the same beltpack is that the sidetone adjust (inside the beltpack) also affects how loud you hear yourself.

2B – Now talk on the BTR beltpack while listening for the reference level on the second hardwired beltpack. Adjust the OUT level until you match the level. (Note that, due to a design flaw in BTR's, you will most likely need to run this volume control up full for RTS systems and the it still might not be enough.)
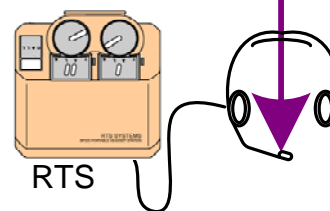
Step 3: Set the listen or input level of the wireless system

3A – talk into the first BTR wireless beltpack while listening to yourself on the second BTR wireless beltpack. Set a reference listen level using the volume control on the second beltpack.

BTR System 800 base station control detail

3B – lastly, talk on the RTS hardwired beltpack and listen for the reference level on BTR #2 beltpack. Adjust the IN volume control on the BTR master station to match the reference level

BTR #1

BTR #2

RTS

Of course, now that the system is balanced for YOUR voice, adjustments need to be made for the show's voices!

Revisions				Comm Beltpack level setting routine		
			best audio			
			320 Seventh Avenue, #264 Brooklyn, NY 11215 917-750-1134			
Designer: Pete Erskine			SCALE None	Drawn by: Pete Erskine	Drawing Number	1
			DATE: Nov 3, 2007			

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