

## **DRC-1s System Line Level Setting Procedure**

To utilise the DRC-1s in a radio system at it's best efficiency it is imperative that system line levels are measured and set correctly.

This procedure describes the process for setting the line input and output levels from the DRC-1s. It is assumed that the engineer carrying out system configuration has determined system peak levels, land line losses etc.

Assuming line levels of – 10 dBm into and out of the DRC-1s the following procedure can be adopted and where appropriate adjustments made for alternative line input and output levels:-

### Line input levels

1. Power on the DRC-1s and inject a level of 1 kHz at 10 dB below the required line input level into the DRC-1s line input. ( -20 dBm)
2. Using a terminated level meter measure the audio output on pins 2 and 7 of the auxiliary connector.
3. Adjust the audio output at the auxiliary connector for – 20dBm using the “Line In” pot.
4. Increase the Audio input by 10 dB to peak levels and check that the audio at the auxiliary connector rises to – 10 dBm.
5. Increase the audio input by a further 10 dB and check that the audio level at the auxiliary port remains at – 10 dBm +/- 1 dB.

### Line output levels

6. Using the switch banks within the DRC-1s set switch bank 2 switch 1 to on (talkthrough enabled) and switch bank 1 switch 8 to off (local talkthrough mode).
7. Inject a signal of 1 kHz at 10 dB below peak line input (-20 dBm) into the line input connector.
8. Check that local talkthrough is operational and that the audio is being presented at the line output.
9. Using a terminated level meter measure the level of audio at the line output and adjust to 10 dB below the required peak line output (-20 dBm) level using the “ Line Out” pot.

10. Again raise the input level by 10 dB and check that the output rises to peak line output, and then raise the input by a further 10 dB and check that the line output remains at peak levels +/- 1 dB.

Auxiliary transmit level

11. Input an audio tone of 1 kHz at – 10 dBm into pins 3 and 8 of the auxiliary connector.
12. Apply a link between pin 9 (Ground) and pin 4 (AUX PTT) of the auxiliary connector, check that the TX indicator on the DRC-1s is illuminated.
13. Using a terminated level meter measure the line output level at the line connector and adjust this level for 6 dB below peak (- 16 dBm) using the “Aux” pot.

Once the above procedures have been completed, adjust the switch banks to the required settings for the system.