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# Technical Note

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## Using the B&K Type 2250 Hand-held Analyzer with Dirac



## TN011 Using Type 2250 with Dirac

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## TN011 Using Type 2250 with Dirac

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### 1 Introduction

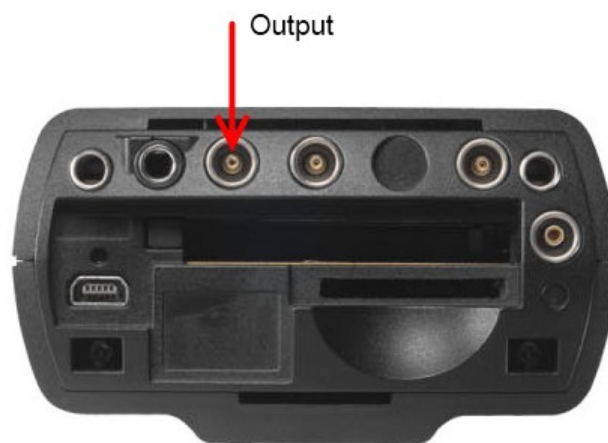
The Brüel & Kjær Type 2250 Hand-held Analyzer can easily be used as a front-end for measurements with Dirac. This document describes how to set up the 2250 for use with Dirac.

### 2 Hardware connections

To connect the 2250 to the PC running Dirac, you either need a line-input on the PC's internal sound device, or you need to use an external sound device such as the Acoustics Engineering Triton USB device.



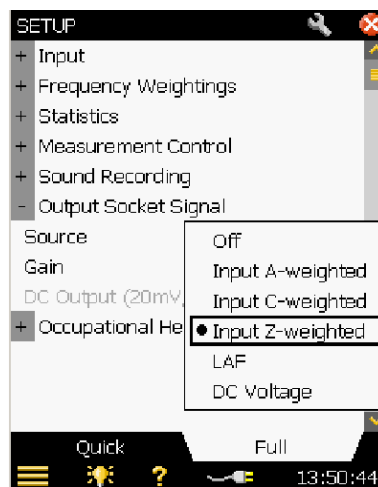
Connect the output of the 2250 Analyzer to the input of the sound device.



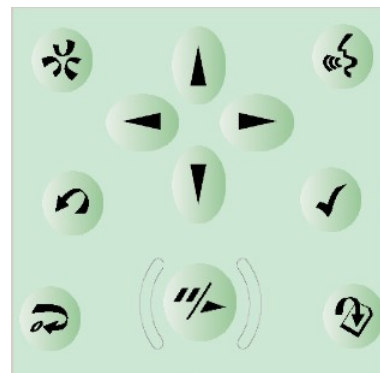
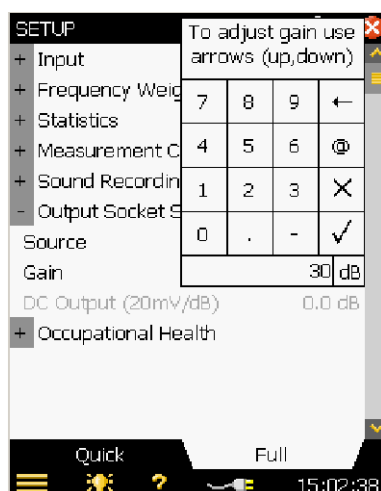
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### 3 2250 Setup

Select for instance the Sound Level Meter or Frequency Analysis application on the 2250. In the *Setup* menu, select the **Output Socket Signal** and set the **Source** to *Input Z-weighted*.



Set the **Gain** to the desired value, or press the up or down hardkeys to adjust the signal level.



Make sure to set the gain such that the sound device is not overloaded.

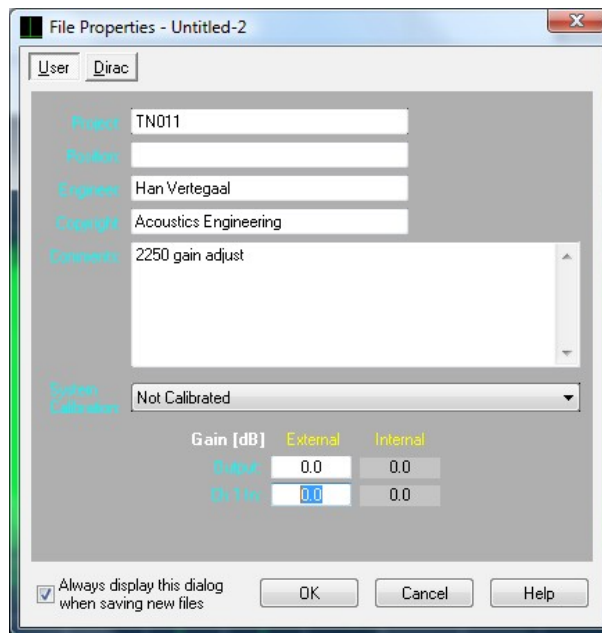
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### 4 Calibration

To perform level calibrated measurements, the input level must be calibrated. The input level calibration is only available when the sound device calibration has been performed. Check the Dirac manual or helpfile for detailed calibration instructions.

Set the calibrator on the 2250 microphone, and record some 5s of the signal using the external impulse setup in Dirac. Check the recorded signal to verify that no overload occurred in the signal chain (i.e. the sine wave signal has not been chopped off). In Dirac, choose **Setup – Calibrate Input Level** and enter the calibrator level.

Make a note of the output gain setting in the 2250, and keep this gain for future measurements. If you need to change the gain, enter the difference between the current gain and the noted gain in the **File Properties** dialog under **External Ch1 In (Gain)**.



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