∴ Quick start guide

LineScope™

PC-based call progress
handshake and data
analyzer for V.22*bis*
dial-up systems.

Developed in Malta by

3am Systems™

1. Wiring up

Connect the LineCoupler in series with the telephone line you want to monitor.

Connect the trailing 3.5mm audio jack from the LineCoupler to the Microphone input on your PC, which is usually pink.

If you computer has a single 4-pole multi-purpose jack, you will also need to use the supplied white TRRS splitter cable.

2. Check system readiness

Have you ever used your PC to record audio before?

Before using LineScope, ensure that the audio recording subsystem on your computer is working properly.

If you run into problems, review the following:
- Download the latest audio drivers
- Disable third-party audio enhancements

Before blaming LineScope, test your system with a different audio recording application. We recommend Audacity, a freeware audio editor.
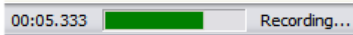
3. Set the recording level

Open LineScope, start a recording, and click on the Mixer icon in LineScope to launch the mixer applet.

Select the Microphone as the recording source, and initially set the recording level halfway.

If there is an 'Advanced' button, click it, and then disable the AGC feature if shown.

WinXP mixer

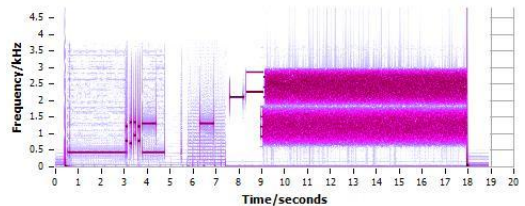*Recording level indicator on the LineScope status bar*

Set the recording level so that the level indicator is at roughly 70% when a dial tone or data carriers are present.
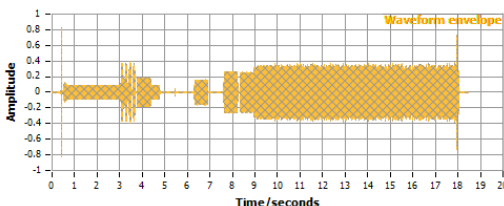
4. What should recordings look like?

Spectrogram

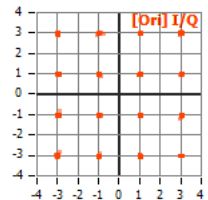Your recordings should look and sound like the demonstration WAV files in the Samples folder.

Waveform envelope

Constellation

5. Windows Vista/7/8 audio

In Windows Vista/7/8, important features related to audio recording are a little different from Windows XP.

Sound applet in Vista

In newer versions of Windows, when you click the Mixer icon in LineScope, you will see the Sound applet.
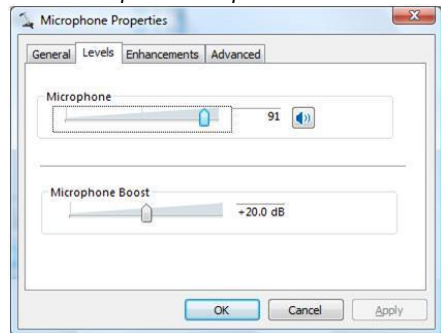
Select the **Recording** tab, highlight the Microphone device, click **Set Default** if needed, and then, click **Properties** button.

Use the **Levels** tab to adjust the input level.

If present, use the **Listen** tab to enable monitoring.

Disable any **Enhancements**.

Microphone Properties in Vista

Please visit our website
www.3amSystems.com
for more information.