GPIB IEEE-488 Interface and RS-232 Communications

- An ICS-4819A GPIB Interface card is used in the IR-301 blackbody controller.

- The IEEE interface used in the IR-301 controller is preconfigured to the GPIB address 4. The most common problems with GPIB are related to the user selecting the incorrect address in their application. If you are unsure of the current settings. The ICS GPIB Keyboard (GPIBkybd.exe) program can be used to determine the correct address. Figure 1 shows the keyboard program when launched. The text in the display shows (*FindLstn: Found 1 device at address = 4)*. This means that the interface is set at the default address of 4.

- https://www.icselect.com/gpib_config.html

    - The programs mentioned can be downloaded here free of charge.

- If the settings need to be changed for a particular user or to view the rest of the configuration, the ICS GPIB Configuration Program (niconf_w.exe or ICSConfig.exe) program can be used.

    - Launch the Configuration application. Select model number 4819A from the menu and click **Configure**
    - Enter 4 in the device address box and click **Set Address**.
    - Click **Enter** to move down the list and view each setting. (If the box above the button is left blank, then the setting will no be modified. If you need to change the selected value then enter the new value in the box and click **Enter**.)
    - Once through the list, click **Save ESE and SRE, Save Configuration,** and **Done** to finish.
    - Click **Exit** to close the niconf_w.exe application.

- The default settings for the ICS-4819A are shown in Figure 2.

- The RS-232 interface on the IR-301 controller is configured at a 19,200 bps baud rate.

- The 2 interfaces (IEEE and RS-232) **can not** be used simultaneously. You must choose to use one or the other at one time.

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- **NOTE:** Once the GPIB communications have been activated, the RS-232 serial interface is temporarily disabled. You will be unable to use the RS-232 interface until the IR-301 controller power is cycled off and on again.

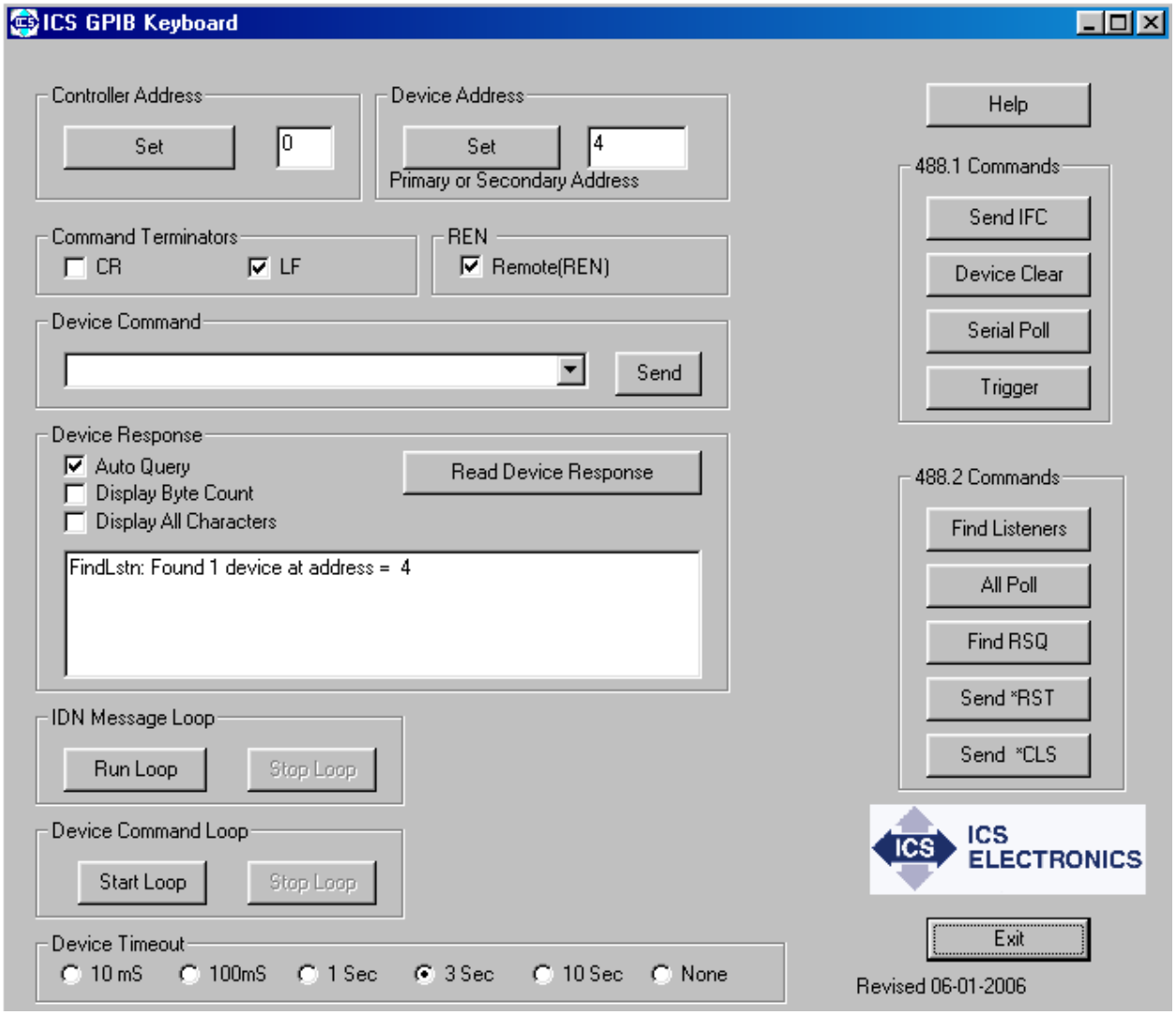

Figure 1.

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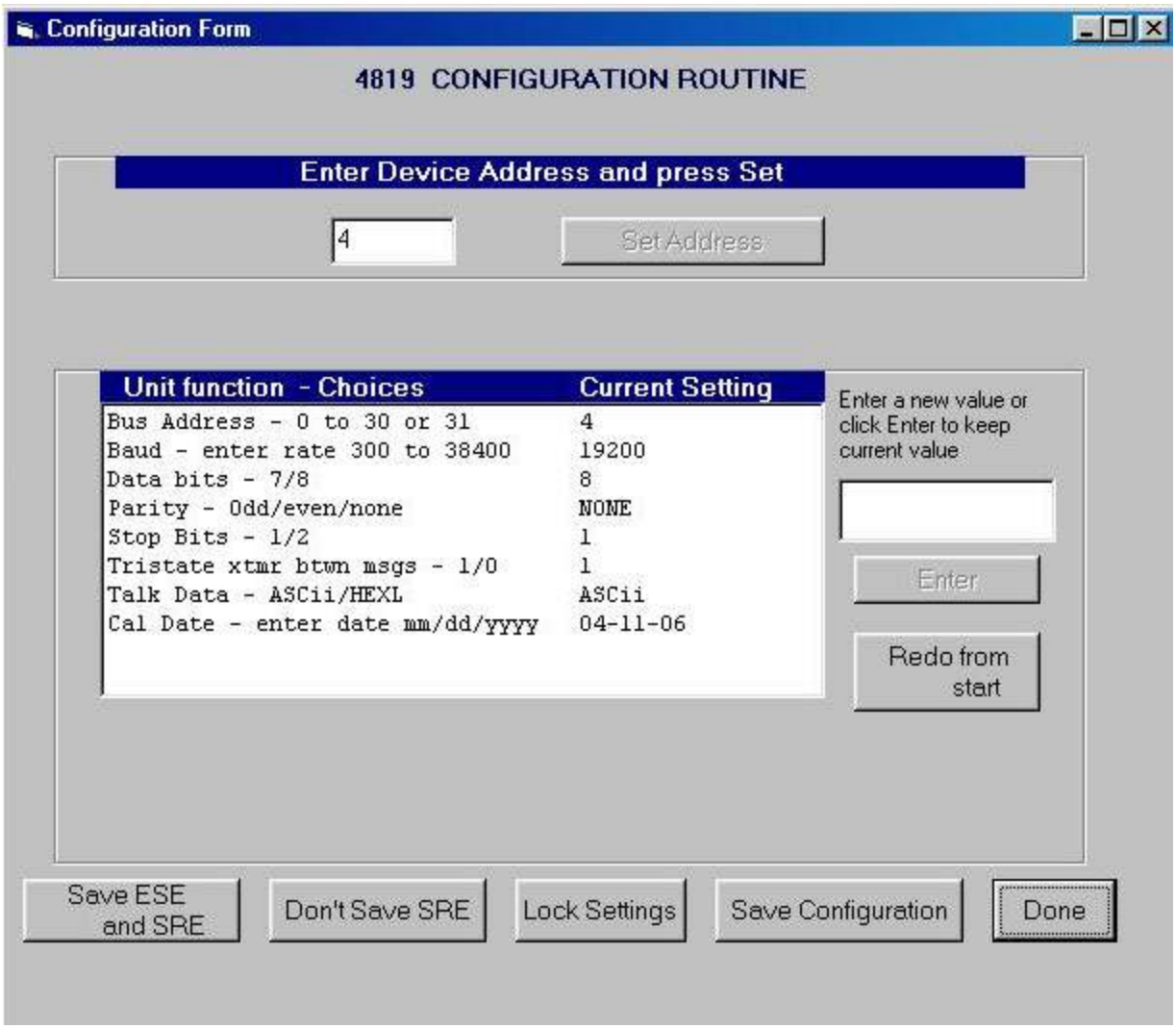

Figure 2.