

WinFrog Device Group:	LBL ACOUSTIC
Device Name/Model:	NS-011
Device Manufacturer:	Sonatech, Inc. 879 Ward Drive Santa Barbara CA 93111-2920 (805) 683-1431
Device Data String(s) Output to WinFrog:	NS011 command responses
WinFrog Data String(s) Output to Device:	NS011 commands
WinFrog .raw Data Record Type(s):	Transceiver (LBL TRANCEIVER): Type 420 Transponder (XPONDER); Type 421

DEVICE DESCRIPTION:

Long base line acoustic equipment. Used to position underwater vehicles or surface vehicles. Uses fixed transponders placed upon the bottom and other transponders placed on vehicles, relay or responder only. Also see chapter 5 WORKING TRANSPONDERS (.XPT) FILE, chapter 17 LBL ACOUSTICS and chapter 20 ACOUSTIC CALIBRATIONS in the WinFrog User's Guide.

There are two data items: LBL TRANCEIVER and XPONDER.

DEVICE CONFIGURATION INSTRUCTIONS:

Baud Rate: 1200
 Stop Bits: 1
 Parity: None
 Data bits: 8

See NS011 manual for details.

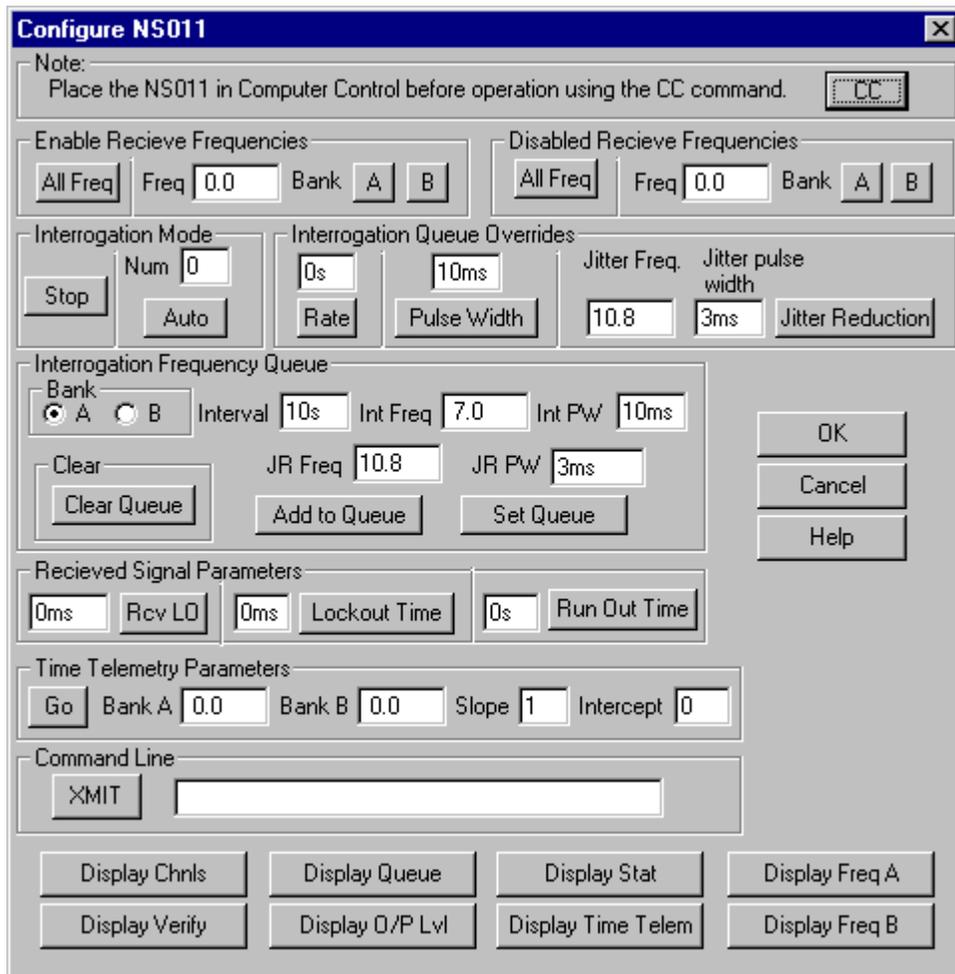
WINFROG I/O DEVICES > CONFIG OPTIONS:

The dialog below acts as a terminal allowing the operator to send commands to the NS-011. Commands may be typed into the command line beside the XMIT button, then the XMIT button clicked to actually transmit the command over the serial port. Some commands may be set up for transmission automatically by setting the desired value in the appropriate edit box and then clicking the appropriate button to generate the command. Note: The XMIT button must be clicked before any of the commands described below are actually sent.

For additional details on these and other commands see the NS-011 manual.

The NS-011 must be in the computer control mode. To select this mode, click the CC button found at the top of the dialog, then click XMIT.

To enable individual receive frequencies, first disable all the frequencies by clicking “All Freq” in the “Disable Receive Frequencies” group box. Then enter the desired frequency in the edit box within the “Enable Receive Frequencies” group box. If this frequency is destined for bank A then click A, otherwise click B to create the command in the command box. Clicking “All Freq” within the “Enable Receive Frequencies” group box will generate the command AA that will activate all available frequencies.



To place a set in the interrogation queue, first select bank A or B, enter all the desired values, then click “Add to Queue” to add a new interrogation set or click “Set Queue” to first clear the existing queue then add a new interrogation set. To clear the existing queue without adding a new set, click “Clear Queue”.

To override the values in the queue enter the desired value within the “Interrogation Queue Overrides” then click the appropriate button.

To start interrogations enter the number of interrogation in the edit box within the “Interrogation Mode” group box and click “Auto”. For continuous interrogation enter 0 for the number. To stop click interrogations click the stop button.

For the receiver lockout, lockout time and runout time, enter the desired value and click the appropriate button.

For time telemetry enter the desired values and click “Go” to generate the time telemetry command.

The eight buttons at bottom send a status request (appropriate to the name on the button) to the NS-011. A window is also opened in which WinFrog will display the reply to the status request. The returned status information will reflect the settings sent by the operator and should be checked before proceeding.

WINFROG VEHICLE TEXT WINDOW > CONFIGURE VEHICLE DEVICES > DEVICE > EDIT OPTIONS:

Data item: LBL,NS-011,LBL TRANCEIVER

See the LBL ACOUSTICS chapter (chapter 17 of the WinFrog User’s Guide) for details on setting these parameters. They are the same across all LBL TRANCEIVERS except for the **Transmit Code**. The “transmit code” must match exactly what the unit outputs. This value must also match exactly that which is entered as the Receive value in the transponder file. Example: 9.0 is not the same as 9.00. In the case of this device the output is in hertz, however WinFrog converts this to kilohertz and to one decimal place. Consequently, enter all frequencies (transponder file as well as the Transmit Code) to one decimal place only (e.g. 9.5).

Data item: LBL, NS-011,XPONDER

See the LBL ACOUSTICS chapter (chapter 17 of the WinFrog User’s Guide) for details on setting these parameters. They are the same across all transponders (XPONDERS).

Relay Transponder

Currently WinFrog uses an observed range from the transceiver to a fixed transponder to reduce the observed relay transponder’s range (which includes the ranges: vessel to relay, relay to fixed transponder and transponder to transceiver, sometimes called sing-around time). Consequently the LBL TRANCEIVER must be setup to interrogate with a transmit code. For details on the settings see the LBL ACOUSTICS chapter (chapter 17 of the WinFrog User’s Guide). The following string would alternate with the one above.

Responder Transponder

Responder mode is essentially the same as relay mode however, the responder transponder is triggered by an electrical pulse instead of acoustic pulse.