

# owner's manual

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## preliminary

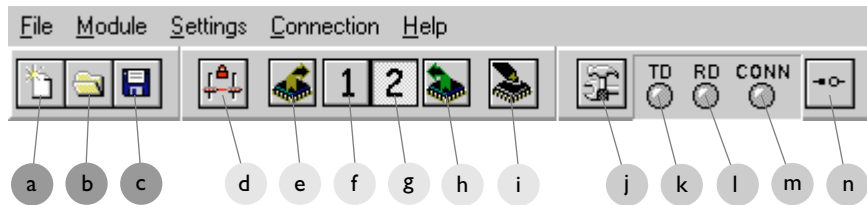
**N-Coder PC**



v. 1.0 A4400054 4/29/98

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Printed in USA





## files

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- b open file — p.28
- c save settings to PC file — p.28

## settings

- d attenuator-link — p.52
- e copy module settings to Bank 1 — p.21
- f Bank 1 settings — p.21
- g Bank 2 settings — p.21
- h copy module settings to Bank 2 — p.21
- i write settings to module — p.25

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- k transmit data — p.40
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## conventions

### terms

each indicator or control on the display  
and all N-Coder PC terminology  
will appear as: *terms*

### actions

specific actions or selections the user can execute  
will appear as: *actions*

### tasks

are broken down into steps ①  
②  
③

### warnings

Procedures  
**not** to  
attempt.  
Issues or hazards  
to keep in mind  
when operating  
the equipment.



### indicators

What to look  
for on-screen.  
Alerts, indicators,  
or prompts that  
may appear.



### tips

Preferred  
methods.  
Helpful hints.  
Feature insights.



### see

see—refers you to other sections of the manual containing  
supplementary information on the current topic or a  
related issue

### note

note—supplimentary feature information

## n-coder pc

N-Coder PC is a Windows-based program designed to provide real-time audition and control of Crest Audio input processor modules. The N-Coder PC software can read a module's settings, adjust them while you listen, and then save them: either to the module's internal memory or a PC file.

N-Coder PC can instantly switch between two independent groups of settings, assisting in rapid auditory comparisons to determine how new settings contrast with existing ones.

Connection occurs between the PC's parallel port and the module's data port, via an RJ-14 cable and DB25-to-RJ14 adapter—both included with N-Coder PC.

## power processing control

N-Coder PC is designed to work with the CK family of Power Processing amplifiers and NC-class input modules.

note—DSP modules are only supported by N-Coder DSP.

Learn more about  
Power Processing  
Control by visiting  
[www.crestaudio.com](http://www.crestaudio.com)

## capabilities

N-Coder PC allows you to program modules in three basic ways.

- 1 **connect to a module:**  
adjust its settings  
hear the module demonstrate these settings  
store the settings in the module's memory
- 2 **connect to a module:**  
open previously saved settings from a PC file  
apply them to the module  
store the settings in the module's memory
- 3 **not connected to a module:**  
create presets for any module-type  
store the settings as a PC file for later use

## terminology

### active connection

There are three requirements for an active connection.

The module must be:

- 1 powered
- 2 properly connected to both the amplifier and PC
- 3 the connect button or menu command must be active—hence the term active connection

Modules must be powered in order for N-Coder PC to read and write to them—unlike N-Coder Hand Held.

Unless all of these conditions are satisfied, N-Coder PC will be unable to exchange data with a module.

### current display settings

Display refers to the central region of the N-Coder PC front-panel which contains the knobs, faders, and entry-fields used to adjust module settings. The specific settings visible on these controls at the present moment comprise the current display settings.

### module settings

Those settings currently stored in the module's internal memory.

### PC settings

The settings recalled from a previously saved N-Coder PC file.

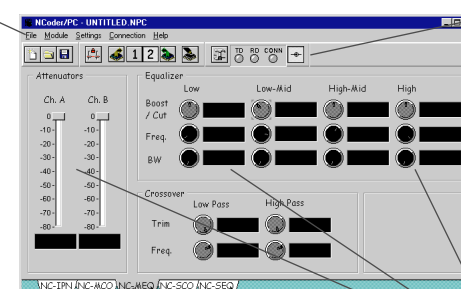
## legend

menus

toolbar

module selection tabs

display area



- contents of the shipping container
- recommended hardware configuration
- how to install or remove the software

### shipping contents

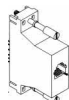
#### software installation disk



#### owner's manual



#### DB25-to-RJ14 adapter



#### RJ14 cable



### recommended hardware configuration

#### PC

Intel Pentium, 486/66, or compatible

#### operating system

Microsoft Windows 95 (preferred) or Windows 3.1

#### RAM

1 megabyte

#### hard disk space

1 megabyte available

#### video resolution

monitor and driver-card capable of displaying of 1024x768

#### floppy drive

high density 3 1/2 inch, 1.44 MB

#### mouse

standard two-button

### installing the software

- 1 insert the enclosed 3.5" floppy disk into your PC
- 2 copy the file Ncpc v1~3.exe to the directory location of your choice.

In most cases, you will want to remove any older versions of N-Coder PC before installing the latest.

### removing the software

- 1 find the file Ncpc v.????.exe
- 2 drag this file to recycling bin or right-click the mouse and delete it

Take care not to delete any of your saved N-Coder PC files during this procedure.

### upgrades

You can keep apprised of any software upgrades by visiting [www.crestaudio.com](http://www.crestaudio.com) or by calling 201.909.8700

The version number for your N-Coder PC software can be found in the **Help** menu under **About**.

### PC-to-module connection

Modules must be physically connected to the PC's parallel port before they can be programmed or adjusted.

see—**making connections**

- operation with and without a module
- understanding Bank 1 and Bank 2
- three kinds of settings
- over-writing and recovering settings
- two kinds of module memory

N-Coder PC can operate with or without a module connected. The behavior of the program depends upon whether or not a module is currently attached and actively connected.

## module actively connected

### available options

The appropriate display panel for the connected module will be automatically selected.

Module settings can be displayed, adjusted, and then saved to PC or module memory.

Real-time audition of settings is possible. If the amplifier is connected to loudspeakers, any changes made to the N-Coder PC display settings will instantly be audible.

Reversed fields (white numerals on black backgrounds) indicate any module memory settings which differ from the current display settings.

As long as the module is actively connected, other module-tabs cannot be selected.

## no module connected

### available options

Any module-type can be selected and its settings adjusted.

Two independent groups of settings can be held in Bank 1 and Bank 2 respectively.

The settings contained in Bank 1 and Bank 2 can be saved to a PC file for later retrieval.

## what are Bank 1 and Bank 2?

Bank 1 and Bank 2 each contain a distinct group of settings, which can be applied and adjusted independently of one another. These banks can be thought of as temporary storage areas in which groups of settings are housed for purposes of ready comparison.

The Bank currently selected:

- ① contains the current display settings
- ② will adopt any changes made to the display

This principle of replacement means that the settings held in a Bank are lost as soon as the display is adjusted. The original settings will be retrievable only if previously written to module memory or saved to a PC file.

## three kinds of settings

Settings can come from one of three places: module memory, saved PC files, or the current display settings.

### module memory

When a module sits inside an amplifier with no N-Coder PC attached, the module receives its settings from an internal memory. This memory remains until you overwrite it.

The module's memory contains the settings the module will revert to, when the amplifier is switched-off. This memory persists independent of amplifier power.

### saved PC files

When opened, these settings will automatically occupy Bank 1 and Bank 2. These settings can then be adjusted via the display.

Choosing the **Save** command will over-write the existing PC file, incorporating any changes made to the display settings.

Choose **Save As** if you opened an existing file, altered its settings, and now wish to save these changes—while keeping the original file settings intact.

### current display

When connected, the module conforms to the currently display settings—so changes can be auditioned. If you are actively listening to the module, you will immediately hear any change made to the display.

These display settings remain in effect until amplifier switch-off, then module's settings revert to those stored in its internal memory. Unless these display settings are saved to a PC file or written to module memory they will be lost when the amplifier and PC are switched-off.

### over-writing settings

#### over-writing module memory

Module memory is only over-written when the write settings to module command is selected. The module will audition any changes made to the N-Coder display settings and retain them until the amplifier's power is switched-off.

The currently displayed settings are always the ones in effect.

#### over-writing PC files

If a PC file is currently open, selecting the Save command will over-write any previously saved settings, replacing them with the current display settings. (In this respect, N-Coder PC behaves much like a word processing program.)

### recovering lost settings

what happens to the current unsaved settings if:

#### N-Coder PC crashes

If the module has been receiving uninterrupted power from the amplifier, the module will have retained the last display settings. To recover them, copy the module memory to either Bank 1 or Bank 2, then save the settings to a PC file.

If N-Coder PC was not connected to a module, then the settings are permanently lost

#### the PC-to-module connection is severed

As long as N-Coder PC is running, the settings are retained. Save the settings to a PC file just to be on the safe side.

#### the amplifier loses power / shuts down

As long as N-Coder PC is running, the settings are retained. In this case, your first step should be to save the settings to a PC file since computer power might be about to fail as well.

### two kinds of module memory

There are two kinds of module memory, each of which contributes important elements to N-Coder PC functionality.

#### volatile memory

Retains the display settings only until the amplifier is switched-off.

Unless these settings are saved to a PC file or written to internal module memory, they will be lost when the amplifier and PC are switched-off.

#### internal memory

The module's internal memory changes only if it is specifically overwritten by the user.

This memory is independent of amplifier power.

Module memory contains the settings the module will revert to, when the amplifier is switched-off.

- six primary functions
- an exploration of the settings menu

**functions**

There are six primary functions which the N-Coder PC interface can perform.

**reading**

Copy the settings from module memory into Bank 1 or Bank 2.

**recalling**

Enter the settings from a previously saved PC file into Bank 1 and Bank 2.

**comparing**

Comparing the settings in Bank 1 vs. Bank 2:

- ① as two sets of saved PC presets
- ② as one saved preset vs. the module memory settings

**changing**

How the display settings effect:

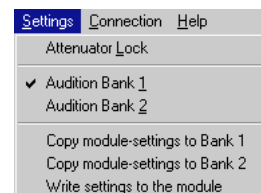
- ① the module's sound (audition)
- ② what the module remembers

**saving**

Store the settings from Bank 1 and Bank 2 in a PC file.

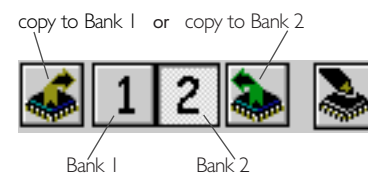
**writing**

Store the currently displayed settings in module memory.

**reading**

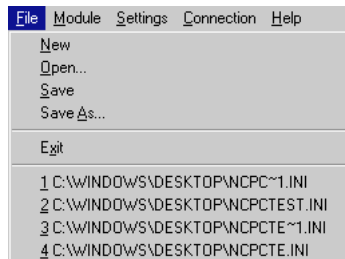
Copy settings from the module's memory to either Bank 1 or Bank 2.

- ① actively connect to the module
- ② decide which Bank (1 or 2) will receive the module's memory settings



Any settings previously contained in the Bank copied-to are now **replaced** by those from the module's memory.

## recalling

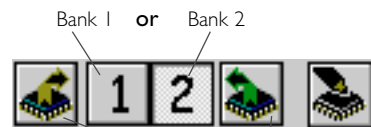


Enter settings from a saved PC file in order to view or audition them.

- ① open the PC file
- ② the previously saved settings are automatically transferred into Bank 1 and Bank 2

The settings in Banks 1 and 2 will remain unchanged unless you alter them via the display or by reading from the module.

- ③ selecting Bank 1 or Bank 2 will cause the module to audition that Bank's settings

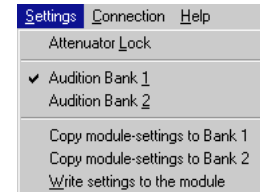


Remember that pressing either of these buttons will replace the PC settings in the corresponding Bank.

PC files follow the form: *file.npc*

Once altered, PC settings can **only** be restored by re-opening the original file.

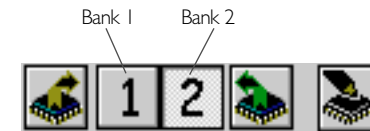
## comparing



Bank 1 and Bank 2 can compare settings in three distinct ways.

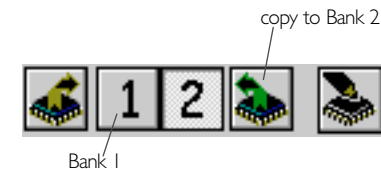
## saved PC presets

- ① open the desired PC file
- ① switch between Bank 1 and Bank 2 to both view and audition their respective settings



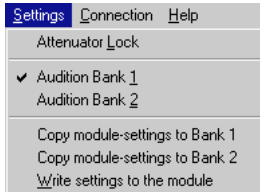
## module memory vs. new settings

- ① copy the module's memory settings into Bank 1 or Bank 2  
see—**reading**
- ② select the remaining Bank and enter completely new settings



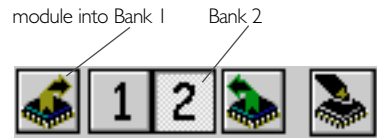
In the above example, Bank 2 contains the module memory settings and Bank 1 will contain any new settings.

## comparing



### module memory vs. saved PC settings

- 1 open the saved PC file
- 2 decide which Bank (1 or 2) you want to compare with the module memory settings
- 3 copy the module's memory settings into the remaining Bank  
see—**reading**



In the above example, Bank 1 contains the module memory settings and Bank 2 contains the saved PC settings.

Only **one** Bank of saved PC settings can be compared with those of the module—at any given time. Comparison with the second bank of PC settings, requires the PC file to be reopened.

## changing



How do display changes effect the module's sound and what the module remembers?

### the module's sound

If actively connected, the module's sound will instantly reflect any changes made to the display.

### what the module remembers

The module remembers the current display settings until its power is switched-off, then the module reverts to its internal memory settings.

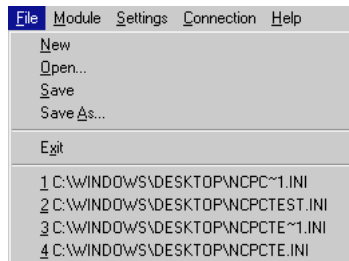
In order for the module to remember the current display settings after its power is switched-off, they must be written to the module's memory.

see—**writing**

write current settings to module



## saving

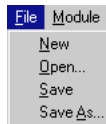


Save the settings contained in Bank 1 and Bank 2 to a PC file.

Don't press any of these buttons!



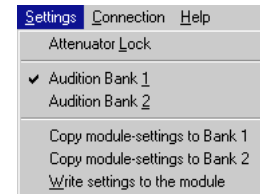
- 1 instead, from the **File** menu choose **Save**



- 2 then name your file  
and choose the directory it will be saved in

Choose **Save As** if you opened an existing file, altered its settings, and now wish to save these changes –while keeping the original file settings intact.

## writing



Write the currently displayed settings to the module's memory.

write current settings to module



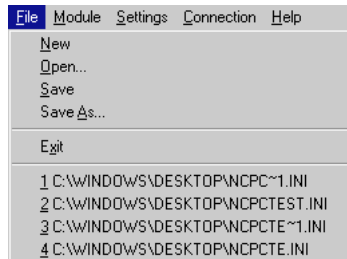
the currently selected Bank

When attempting to save either Bank 1 or Bank 2 settings to the module, remember that the Bank *selected* at the moment of writing contains the settings that module memory receives. see—**recalling** to transfer the original settings to the module

N-Coder PC will ask if you want to overwrite the existing settings... After clicking ok... N-coder PC reports whether or not the settings were successfully stored in module memory

If you open a saved file and then alter its settings on the display, the previously saved Bank 1 and Bank 2 settings will **not** be transferred when the module is *written* to.

- survey of the available menus
- the possible menu commands

**File****New**

Creates a new N-Coder PC file.

**Open**

Opens an existing N-Coder PC file.

**Save**

Saves the current settings in Bank 1 and Bank 2 to your PC.

**Save As...**

Saves the currently displayed settings under a different file name.

**Exit**

Closes N-Coder PC.

**1 2 3 4**

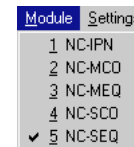
Lists the four files most recently opened. Selecting any file will re-open it.

PC files follow the form: *title.npc*

If you've opened an existing file and made modifications, the **Save** command will overwrite your previous settings for the file.

Labor-saving when you want to create a new file with settings similar to an existing one.

If any files with unsaved settings are open, N-Coder PC will prompt you to save them to your PC and/or connected module.

**Module****1 NC-IPN**

Selects the **Programmable Gain Input** module.

**2 NC-MCO**

Selects the **Mono Crossover** module.

**3 NC-MEQ**

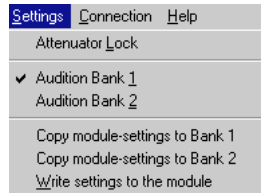
Selects the **Mono Crossover and Four-band Parametric EQ** module.

**4 NC-SCO**

Selects the **Stereo Crossover** module.

**5 NC-SEQ**

Selects the **Stereo Crossover and Four-band Parametric EQ** module.

**Settings****copy module-settings to Bank 1**

The settings currently stored in module memory are copied into Bank 1.

Selecting Bank 1 will now recall these settings for purposes of visual and auditory comparison with Bank 2.

**copy module-settings to Bank 2**

The settings currently stored in module memory are copied into Bank 2.

Selecting Bank 2 will now recall these settings for purposes of visual and auditory comparison with Bank 1.

**write settings to module**

The current display settings, as viewed on-screen, are written to the module.

**audition Bank 1 settings**

Reloads the settings from Bank 1 into the display fields, making them the active-settings for the module.

**audition Bank 2 settings**

Reloads the settings from Bank 2 into the display fields, making them the active-settings for the module.

see—**settings** for a more detailed account of these features

 If the module is actively connected to N-Coder PC, then it will reproduce the current display settings and continue to adopt any new display settings until its amplifier is switched-off. The module will then revert to those settings last stored in its memory.

 Unless these settings are written to the module (or saved as an N-Coder PC file on your computer), the module will “forget” the current settings as soon as its amplifier is switched-off.

**Connection****Connect**

Connects N-Coder PC to a module.

Re-selecting Connect will disconnect N-Coder PC from the module.

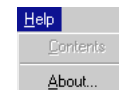
**Port setup**

Chooses the desired parallel port for module connection and the baud rate at which data is exchanged.

**optimal baud rate**

What is the most appropriate baud rate?  
see—**making connections**

 Modules must be powered in order for N-Coder PC to read and write to them—unlike N-Coder Hand Held.

**Help****Contents**

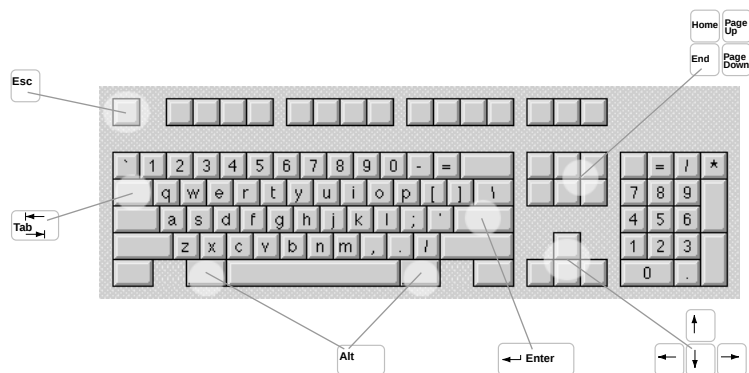
Lists a table of contents for the N-Coder PC help files.

**About...**

Displays N-Coder PC version and serial number.

- accessing program functions via the keyboard
- accessing program functions via the mouse

## keyboard



## navigating menus

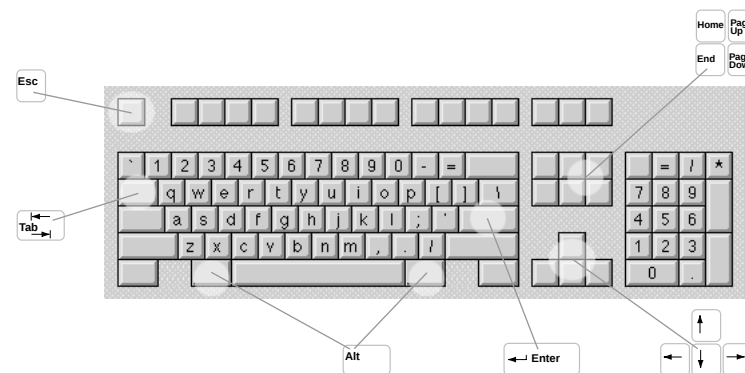
**Alt** + *letter-key* opens menu  
next *letter-key* selects and executes menu command

or

**Alt** + *letter-key* opens menu  
↑ selects menu command  
← ↓ → selects menu command  
↵ Enter executes the command

**Esc** closes menu

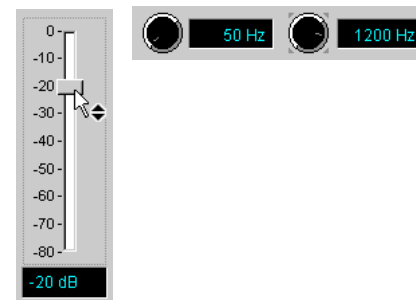
## keyboard



## changing display settings

**Tab** selects a **fader** or **knob**

**space bar** no longer functions  
—Rich???



Once a knob or fader is selected, the following keys can be used to alter settings:

↑ ↓ ← → each click moves the controller up or down one-detent

|           | ATTN.<br>LEVEL | EQ<br>BOOST/CUT | FREQ.       | BW   | CROSSOVER<br>TRIM FREQ. |
|-----------|----------------|-----------------|-------------|------|-------------------------|
| Page Up   | increase       | 0dB             | two-detents | five | one                     |
| Page Down | decrease       | -80dB           | two-detents | five | one                     |
|           |                |                 |             |      | four six                |

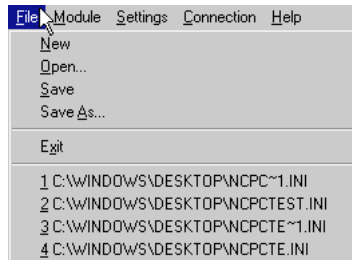
**Home** selects first-value in control range

**End** selects last-value in control range

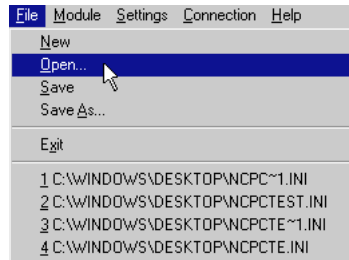
### mouse



### navigating menus



Click to open the menu of choice,

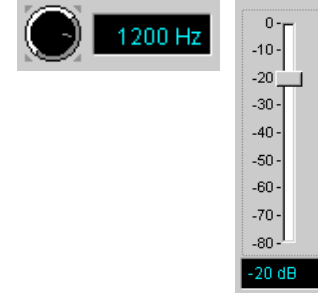


then click to execute the desired menu command.

### mouse



### changing display settings



Click and drag any knob or fader to change its value.

|       |       |       |
|-------|-------|-------|
| 1/6   | 7/8   | 1 2/3 |
| 1/4   | 1     |       |
| 1/3   | 1 1/6 |       |
| 1/2   | 1 1/4 |       |
| 2/3   | 1 1/3 |       |
| ✓ 3/4 | 1 1/2 |       |

The checkmark ✓ indicates the current value.

Right-click the mouse above any knob to display a table showing the entire range of possible values.

|       |       |       |
|-------|-------|-------|
| 1/6   | 7/8   | 1 2/3 |
| 1/4   | 1     |       |
| 1/3   | 1 1/6 |       |
| 1/2   | 1 1/4 |       |
| 2/3   | 1 1/3 |       |
| ✓ 3/4 | 1 1/2 |       |

Then click on the desired value.

- pilot lights explained
- what do reversed fields mean?
- survey of alert-messages and possible responses

## pilot lights



### TD

transmitting data

Whenever this light flashes green, the PC is actively transmitting data to the module.

### RD

receiving data

Whenever this light flashes green, the PC is actively receiving data from the module's memory.

### CONN

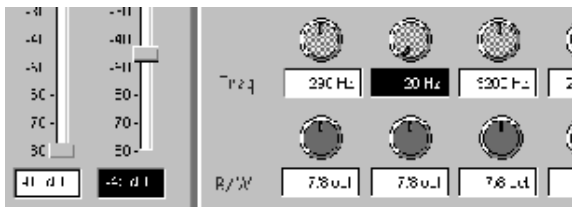
connect

When this light is green, the module and PC are actively connected.

If no connection can be established, or if the connection is interrupted, the light will turn red and an alert will appear on-screen.

TD and RD can be useful when setting the optimal baud rate for the PC-to-module connection. see **making connections**

## reversed fields



When connected to a module, you may observe that the first time the module's memory is read, some of the display fields may appear reversed (white numerals on black backgrounds).

Regardless of how the display has initially been set, its values must perfectly correspond to the module's settings, whenever these are copied to Bank 1 or 2. Reversed fields call attention to module memory settings which differ from those on the initial display.

This feature assists you in quickly determining which module settings **differ** from those currently displayed.

this section is unfinished

## alerts and prompts

N-Coder PC incorporates a variety of messages which serve to alert, prompt, or ask the user at times when something significant is about to happen or has already gone wrong. These on-screen statements are here arranged in alphabetical order for ease of reference.

### **action will erase existing module presets—are you sure you want to do that?**

what does it mean? old module presets will be lost  
what do I do? click yes / no

### **connection cannot be established**

what does it mean? tries but cannot send or receive  
what do I do? check connections / baud rate / try another module

### **connection interrupted**

what does it mean? there is no longer an active connection  
what do I do? power to amp / cable out of plug / cable severed

### **data exchange with module failed**

what does it mean? connection exists but no exchange  
what do I do? adjust baud rate

### **do you want to save before closing?**

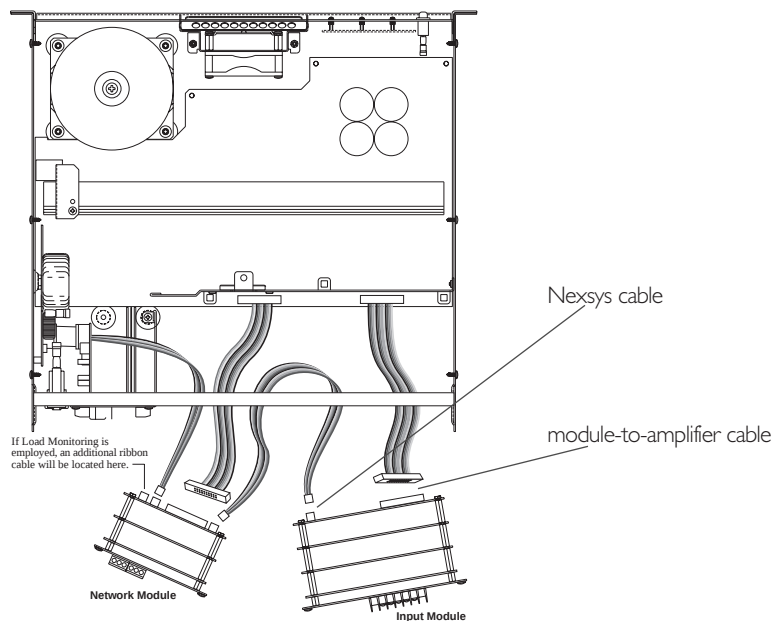
what does it mean? save to pc file—not module  
what do I do? click yes / no

### **settings successfully stored in module**

what does it mean? confirmation  
what do I do? click ok

- connecting module-to-amplifier
- connecting module-to-PC
- connector wiring schemes
- establishing a connection
- setting up the parallel port
- determining an appropriate baud rate

## module-to-amplifier



## module power

If the amplifier is switched-off, the module will receive no power.

## module connection

If the module isn't connected to the amplifier by its module-to-amplifier cable, then it will not receive the power required to communicate with N-Coder PC.

Modules must be powered in order for N-Coder PC to read and write to them—unlike N-Coder Hand Held.

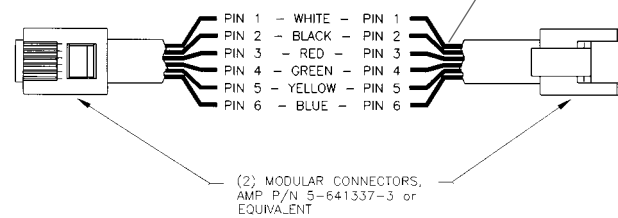
## PC-to-module

- attach the DB25-to-RJ14 adapter to the PC's parallel port
- insert the RJ14 cable into the adapter and then into the module's data port

Consult your PC owner's manual if you don't know the location or appearance of the parallel port.

## proper connectors

The six-conductor RJ14 cable should be wired as follows.

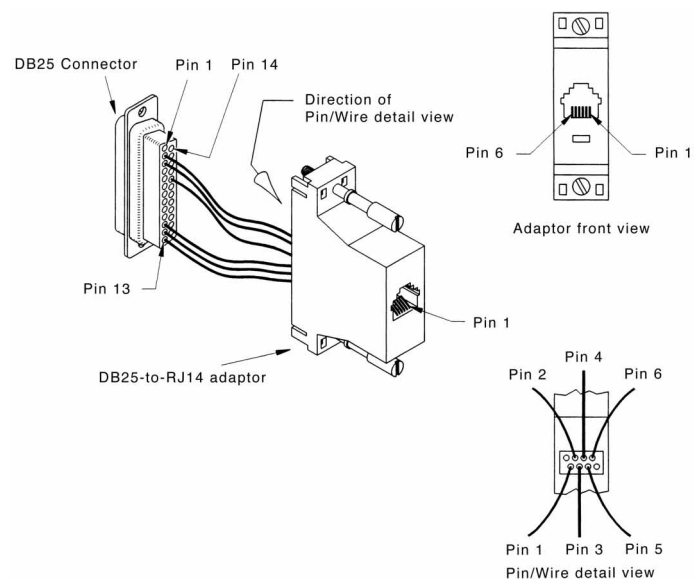


A regular phone cable can be plugged into the six-conductor data port. Having only four-connectors, a phone cable will **not** work—even though it fits.

see—**service and support** for part numbers and ordering information

### PC-to-module proper connectors

The DB25-to-RJ14 adapter is connected to the PC parallel port and should be wired as shown.



see—**service and support** for part numbers and ordering information

### buttons



#### port setup

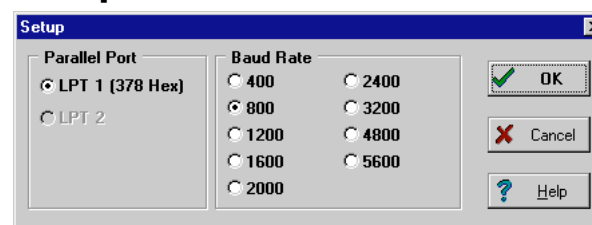
Opens the port setup panel for selecting the connection port and setting its baud rate.

see—**port setup** below

#### connect

Establishes an active connection with the attached module.

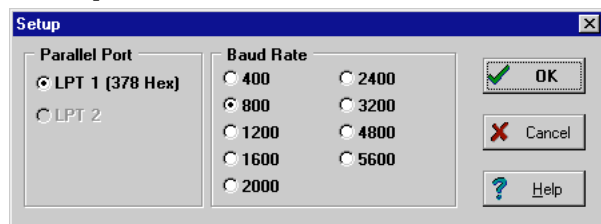
### port setup



#### parallel port

The port setup panel selects the parallel port to be used for module connection and the baud rate at which data is exchanged between module and PC.

The default port is LPT 1 (378 Hex)—usually the printer port. Some PC's have a second parallel port available, in which case, it can be selected and used if necessary.

**port setup****baud rate**

The baud rate determines the speed of the data exchange between the PC and module. The higher the rate, the faster the exchange—but if the baud rate is too high, data exchange will fail.

The goal is to set an optimal baud rate: one as fast as possible, without halting the data exchange.

The default setting is 2400 baud.  
The possible range of values is 400–4800 baud.

**optimal baud rate**

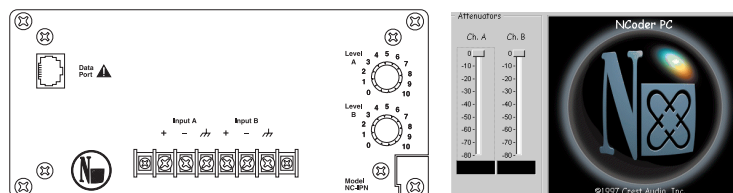
① begin with the default setting of 2400 baud  
—can the module exchange data with the PC?

|                                                               |                                                            |
|---------------------------------------------------------------|------------------------------------------------------------|
| ② <b>yes</b>                                                  | <b>no</b>                                                  |
| increase the<br>baud rate until<br>data exchange<br>is halted | decrease the<br>baud rate until<br>data exchange<br>begins |

The goal is to set a baud rate as fast as possible, without halting the data exchange.

- views of each module  
and its corresponding control panel
- available control parameters and their ranges
- indication of user configurable features

## NC-IPN programmable gain input



## two precision attenuators

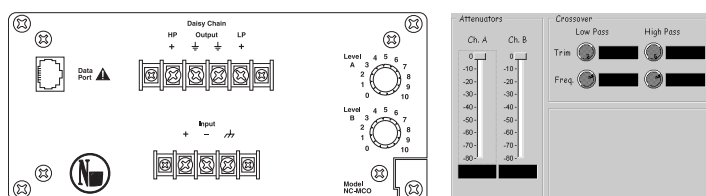
level 0 to -80dB

note Channel A and B attenuators can be linked



attenuator-link button

## NC-MCO mono crossover



## two precision attenuators

level 0 to -80dB

one fourth-order two-way  
24dB/octave crossover

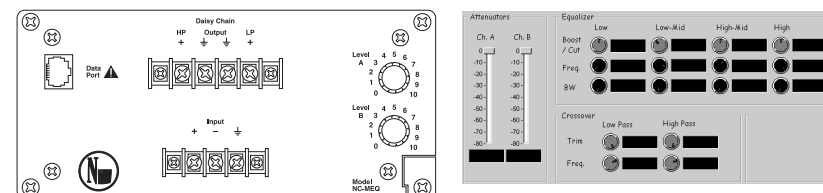
freq 85 to 8000Hz

trim 0 to -20dB

default High Pass output on Channel A  
Low Pass output on Channel B  
Other options are jumper-configurable  
see—**user configurable options**

note Channel A and B attenuators can be linked  
see—**modules descriptions** NC-IPN

## NC-MEQ mono crossover and four-band parametric eq



## two precision attenuators

level 0 to -80dB

one fourth-order two-way  
24dB/octave crossover

freq 85 to 8000Hz

trim 0 to -20dB

default High Pass output on Channel A  
Low Pass output on Channel B

Other options are jumper-configurable  
see—**user configurable options**

## four-band parametric eq

boost/cut -12 to 12dB

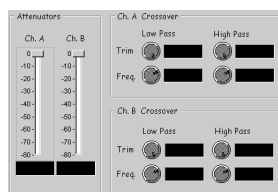
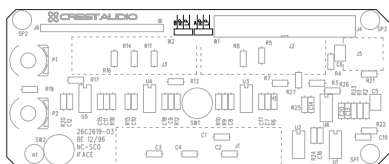
freq 20 to 2000Hz (low, low-mid)

210 to 20,000Hz (mid-high, high)

band width 1/6, 1/4, 1/3, 1/2, 2/3, 3/4, 7/8,  
1, 1+1/6, 1+1/4, 1+1/3, 1+1/2, 1+2/3 Oct.

note Channel A and B attenuators can be linked  
see—**modules descriptions** NC-IPN

## NC-SCO stereo crossover

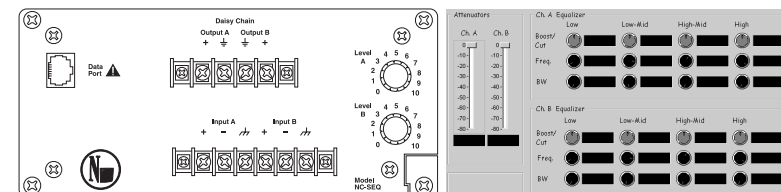


## two precision attenuators

level 0 to -80dB

two fourth-order two-way  
24dB/octave crossoversfreq 85 to 8000Hz  
trim 0 to -20dBdefault High Pass output on Channel A  
Low Pass output on Channel BOther options are jumper-configurable  
see—**user configurable options**note Channel A and B attenuators can be linked  
see—**modules descriptions NC-IPN**

## NC-SEQ stereo four-band parametric eq



## two precision attenuators

level 0 to -80dB

## four-band parametric eq

boost/cut -12 to 12dB

freq 20 to 2000Hz (low, low-mid)  
210 to 20,000Hz (mid-high, high)band width 1/6, 1/4, 1/3, 1/2, 2/3, 3/4, 7/8,  
1, 1+1/6, 1+1/4, 1+1/3, 1+1/2, 1+2/3 Oct.note Channel A and B attenuators can be linked  
see—**modules descriptions NC-IPN**

- configuring a module's crossover jumpers
- configuring a module's input-sensitivity jumpers

**crossover jumpers**

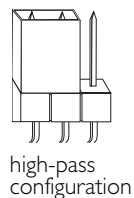
It is possible to route the high-pass and low-pass crossover signals to either the Channel A or Channel B outputs.

This option is adjusted via mechanical jumpers, located on the module's bottom-most circuit board.

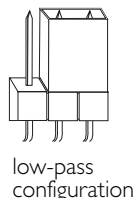
note—the default setting is: Channel A—high-pass, Channel B—low-pass.

**configuring the jumpers**

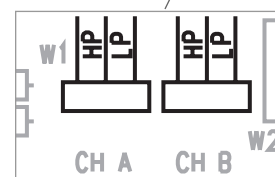
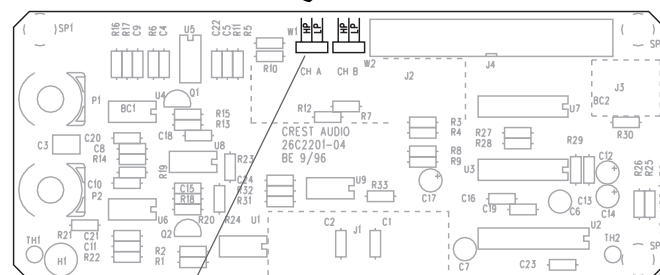
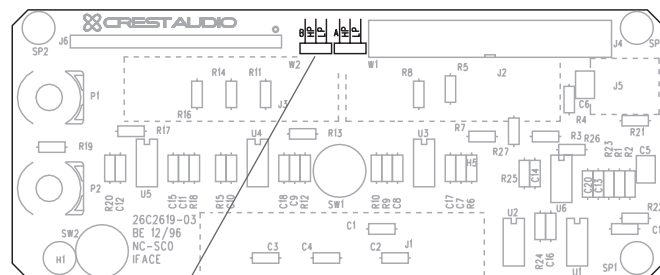
- 1 turn-off the amplifier and remove the module
- 2 remove jumpers
- 3 examine the figures at right and observe which prongs to jump for either high-pass or low-pass configurations of Channel A
- 4 repeat for Channel B



high-pass configuration



low-pass configuration

**NC-MCO and NC-MEQ modules****NC-SCO module**

## input sensitivity jumpers

A module's input sensitivity can be switched, adapting it to a wide range of applications.

There are three options for sensitivity settings: +26dB, 0dBu, +32dB

note—+32dB is the factory standard

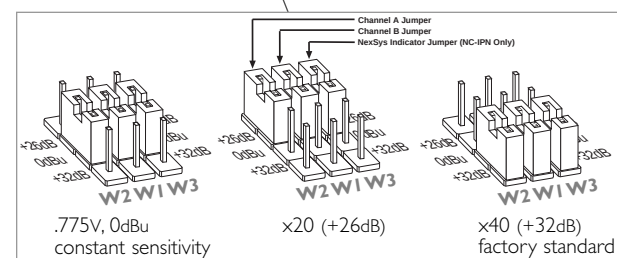
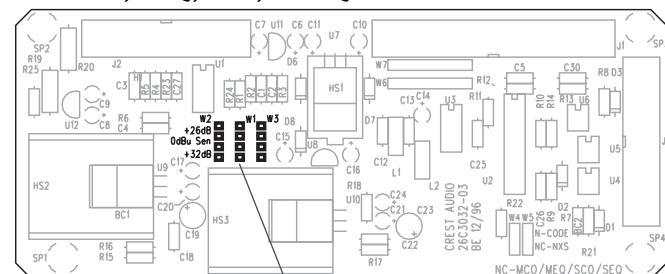
## configuring the jumpers

- 1 turn-off the amplifier and remove the module
- 2 locate the jumpers on the module's top-most circuit board
- 3 lift and reposition the jumpers to conform with the desired input sensitivity, as shown above

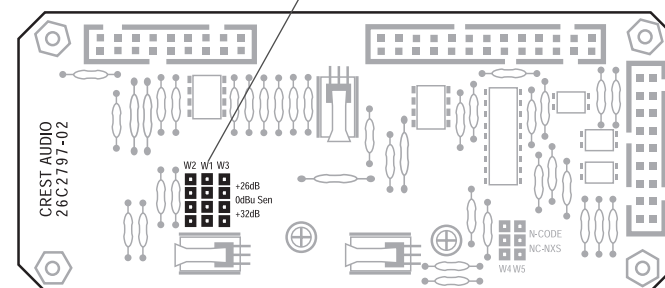
The module **must** be disconnected from the amplifier's AC mains supply, before any of these adjustments are undertaken.



## NC-MCO, MEQ, SCO, or SEQ modules



## NC-IPN module



- module-to-PC connection failure
- possible module / N-Coder PC incompatibilities

**module-to-PC communication fails**

There are four user-addressable causes for communication failure:

① **module power problem**

Is the amplifier switched-on?

Is the module properly connected to amplifier?

see—**making connections**

Try substituting another module  
—preferably one you know has worked before.

If the PC can communicate with the substitute module,  
then refer to **the resistor problem** below.

② **improperly configured Port Setup****parallel port**

LTP1 (378 Hex) is the default port

LTP2 probably appears grayed-out,  
unless your PC has two parallel ports.

If your computer has two parallel ports,  
examine the rear of your PC.

Be certain the DB25-to-RJ14 adapter is connected to the port  
you have selected.

**baud rate**

If the PC and module are connecting, but not exchanging  
data, the baud rate may be set at too high a value.

Try lowering the baud rate.

see—**making connections**

③ **cable and connector problems**

Is your cable a six-connector RJ14?

see—**making connections**

Try substituting a new cable.

Even if you have the proper cable, it may have failed  
or be working intermittently.

Is your DB25-to-RJ14 adapter the correct one?

see—**making connections**

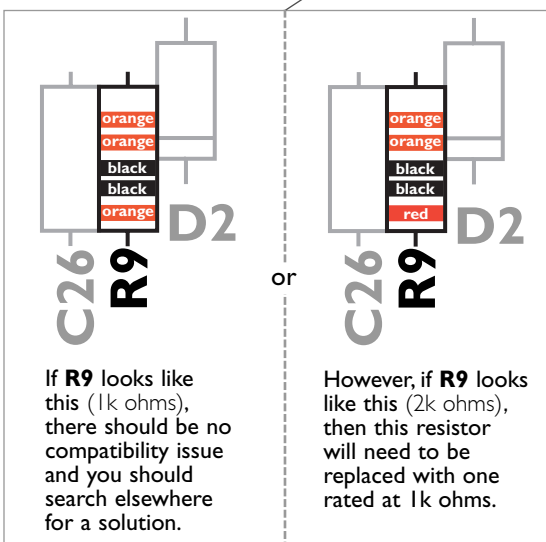
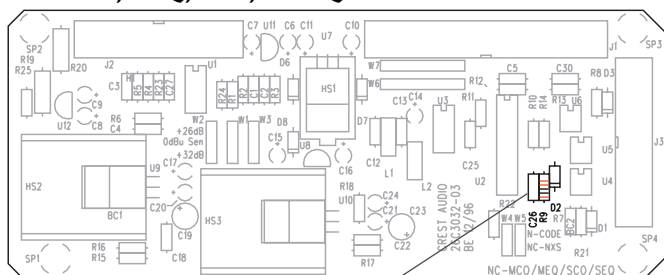
▲  
A regular  
phone cable  
can be plugged  
into the six-con-  
nector data port.  
Having only four-  
connectors, a  
phone cable will  
**not** work—even  
though it fits.

## ④ the resistor problem

A small percentage of modules may have circuitry incompatible with your PC. By examining the rear of your module, you can determine if this is likely to be the case.

Examine the rear of your module and locate the top-most circuit board. Look for the resistor marked **R9**.

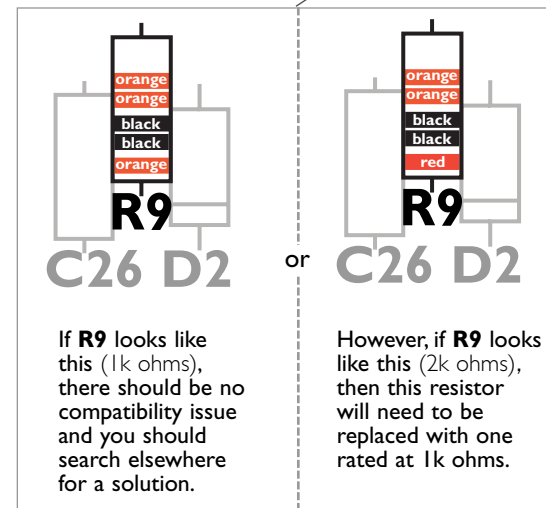
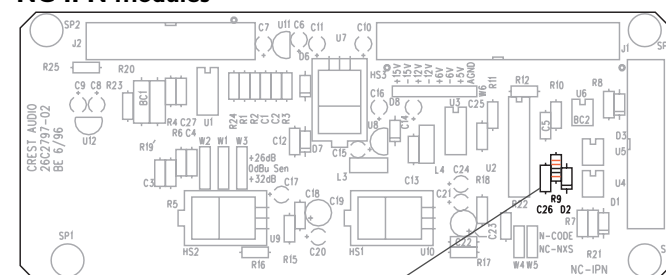
## NC-MCO, MEQ, SCO, or SEQ modules



Unless you are an experienced technician, do not attempt to replace this resistor yourself. Please contact Crest technical support, before attempting any modification of the circuit board.

see—**service and support** if you would like assistance in solving this problem

## NC-IPN modules



Unless you are an experienced technician, do not attempt to replace this resistor yourself. Please contact Crest technical support, before attempting any modification of the circuit board.

see—**service and support** if you would like assistance in solving this problem

- **support**
- **parts numbers**
- **contact us**

**support**

In the unlikely event that your software develops a problem, it must be returned to an authorized distributor, service center or shipped directly to our factory.

To obtain service, contact your nearest Crest Audio Service Center, Distributor, Dealer, or any of the worldwide Crest Audio offices. For those with Internet access, please visit the Crest Audio website.

**ordering parts**

RJ14 cable—part number 82510045

DB25-to-RJ14 adapter—part number 82510046

**contact us****customer service**

phone 201.909.8700 USA

fax 201.909.8744 USA

email [customerserve@crestaudio.com](mailto:customerserve@crestaudio.com)

**technical support**

phone 201.909.8700 USA

fax 201.587.0550 USA

email [techserve@crestaudio.com](mailto:techserve@crestaudio.com)

**website**

[www.crestaudio.com](http://www.crestaudio.com)

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