

5. PROTEA^{ne} SOFTWARE

Protea^{ne} software offers a comprehensive suite of tools for controlling Ashly NE multichannel amplifiers as well as other Ashly products. The standard NE multichannel amplifiers allow for ethernet control and monitoring of power functions, level, mute, and polarity. With the DSP option installed, software control and monitoring of major audio functions can be custom configured on a per channel basis, as well as through linked channels. *More in depth discussion of software features can be found in the Protea^{ne} software online help.*

The base amplifier comes with software provisions for an audio control surface, password protected security functions, and network property management. Furthermore, Link Group Configuration and Power On Delay are set up under the Device Options menu tab. In addition, provisions for implementing DSP modes, AES/EBU Inputs, and Cobranet inputs are made available, presuming the necessary hardware has been installed in the amplifier. Protea^{ne} software will auto-detect the installed amplifier hardware options and display the resultant menu items as soon as it recognizes the amp on the network.

Link Group Configuration - Linking allows the controls for multiple signal processing function “blocks” to track each other. For example - if two graphic equalizers are “linked”, any change made to a control within either of the equalizers will result in an identical change to the other. Blocks may be linked within a Protea^{ne} device, or across multiple devices (assuming that devices are networked). Linking of multiple devices is managed through LINK GROUPS.

Each Protea^{ne} device will support up to eight Link Groups. DSP function “blocks” may be assigned to these groups through Protea^{ne} Software. Once assigned to a group all LIKE functions within the group will track parameter changes. However more than one function type may be assigned to a group. Each LINK GROUP may be assigned a name by the user, and also be assigned a color for easy identification. For further details about linking, see the online help in Protea^{ne} Software.

Preset Options - The Preset Options tab in the main amplifier window allows amplifier setups to be saved to and recalled from the amplifier as well as a computer. Presets are a snapshot of all current settings on a given amplifier.

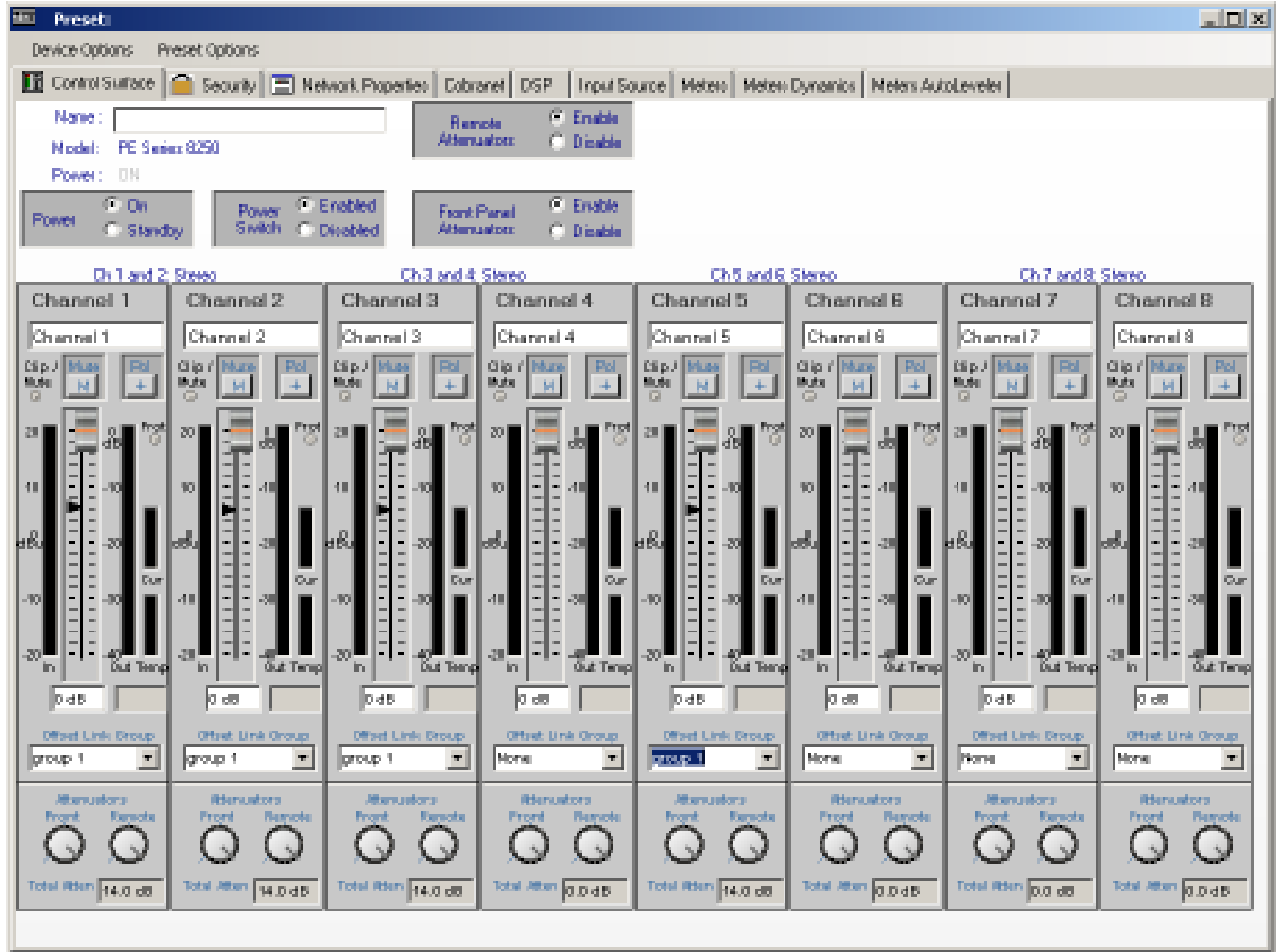
Sub Presets - Sub Presets are user defined groups of DSP functions within one channel or across multiple channels. Sub Presets allow the end user to instantly recall a pre-determined set of DSP parameters to quickly address changing environmental conditions, without the risk of making undesirable or irrecoverable system changes.

The Amplifier Control Surface

This is the main user interface for the NE multichannel amplifier. Key features of this window include:

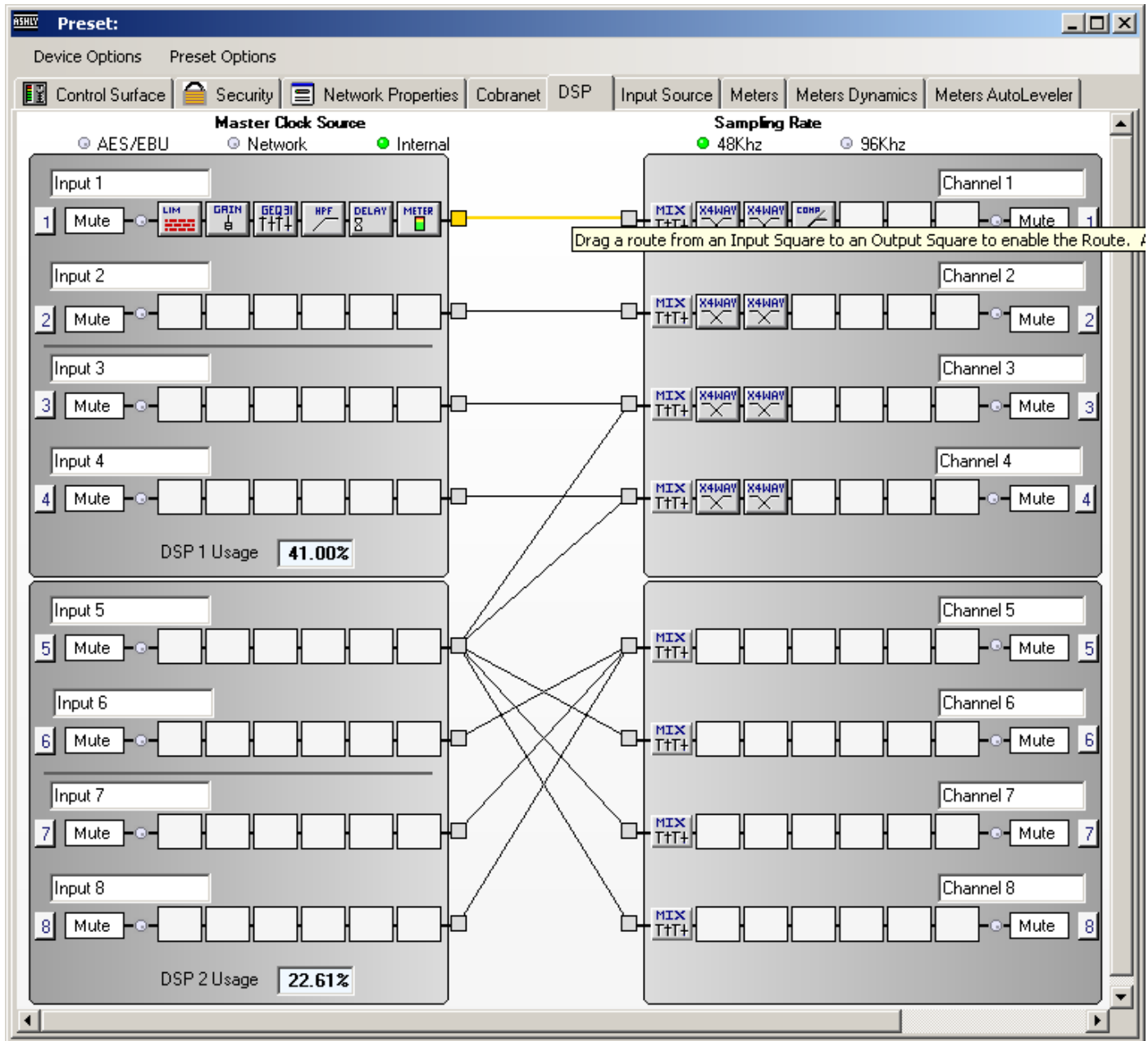
- 1) Channel/Offset Link Group Faders - The level control provides up to 40dB of analog input attenuation. More than 40dB of cumulative attenuation causes the channel to mute. If a channel has been assigned to an offset link group, a colored triangular marker appears on the left side of the fader graticule for secondary level control of all channels in that group. The main level control faders can not be linked to a group.
- 2) Mute button - This mutes the input channel
- 3) Polarity button - This inverts the phase of the input channel

The Amplifier Control Surface



- 4) Offset link group - Up to eight groups are available for the purpose of linking similar function parameters across multiple channels. In addition to the control surface secondary level control (not the main fader), most DSP functions have a link group check box in their work window to assign a specific parameter to one of the eight link groups if desired. Link groups can be renamed by clicking on any group name and entering the new name then pressing <enter> on the keyboard.
- 5) Attenuators - These two dials indicate the physical position of hardware controls on either the amp front panel or the remote level control (if present). Note that these will display the position of attenuators even when DISABLED in software.
- 6) Total Attenuation - This indicates the total amount of attenuation being applied to the channel. This is the sum of the following attenuators: main fader, offset link group attenuation, front panel and remote attenuators (if enabled).
- 7) Meters - Input and Output meters display the real time activity per channel, in dB below rated output. Also, the amplifier's operating temperature and output current are shown. Output current shows that the amplifier channel is actually delivering output to a connected speaker load.

The DSP Window



Extensive online help information is available for all DSP blocks. Look in the Protea^{ne} Software Help Menu/Contents and Index/Contents/Protea NE Products/PE Multichannel Amplifiers/DSP Control for details of all DSP functions. The key features include:

- 1) Input Channel Number - Right click on this to bring up Clear, Copy, Link, and Sub Preset functions for that input channel.
- 2) Input Channel Name - The user can name each input channel.
- 3) Input Mute Button - Mutes the input.