

RANE RPE 228

PROGRAMMABLE EQUALIZER



Features

Advantages

Benefits

The RPE 228 provides significant features, advantages and benefits that are desirable and necessary for the successful use of a broadband equalizer by a designer or installer. While being a superb equalizer, the real secret to its success is the unmatched user friendly aspect of the software.

R a n e W a r e



More than two years of careful field-testing has gone into the RPE 228, to ensure that reliability and critical performance criteria are met or exceeded in real world applications. The unit is tamper-proof, meaning that when it is installed and configured, it will not allow unauthorized personnel to alter or manipulate its settings or functions unless such access is intended. This level of security is provided through a combination of hardware and software features. The first section of this guide, Hardware, outlines significant advantages of the basic unit itself. The second section, Software, features functions under computer control, including step-by-step software installation and operation.

Hardware

- The RPE 228 is a standard one rackspace (1U) high, full 19-inch wide unit.
- The unit is tamper-proof, and does not require a computer for daily operation.
- The front panel provides critical information that is most helpful to a technician or end-user. While Rane subscribes to the concept that tamper-proof programmable equalizers are important, Rane believes that technicians can greatly benefit from status indicators. So, our front panel includes:

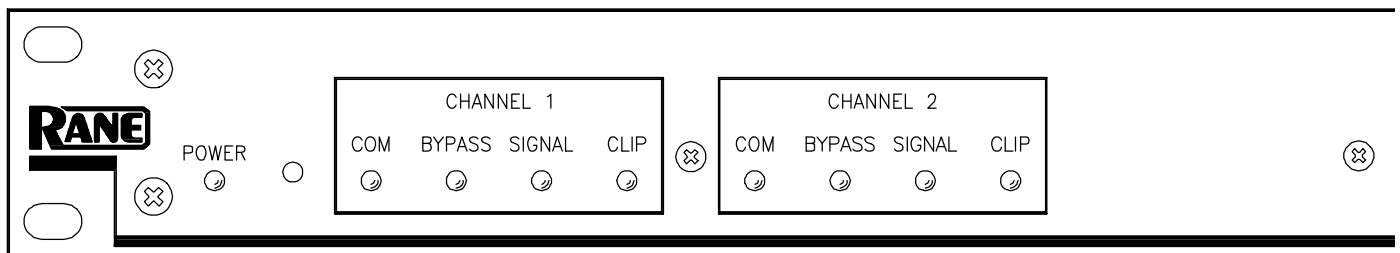
Power On Indicator: *Hey, the juice is on!*

Communications: (When “talking” to the unit) *“I’m listening and will do as I’m told.”*

Bypass (Each Channel): *What an expensive patch cord!*

Signal Presence (Each Channel): *Incoming, Incoming!*

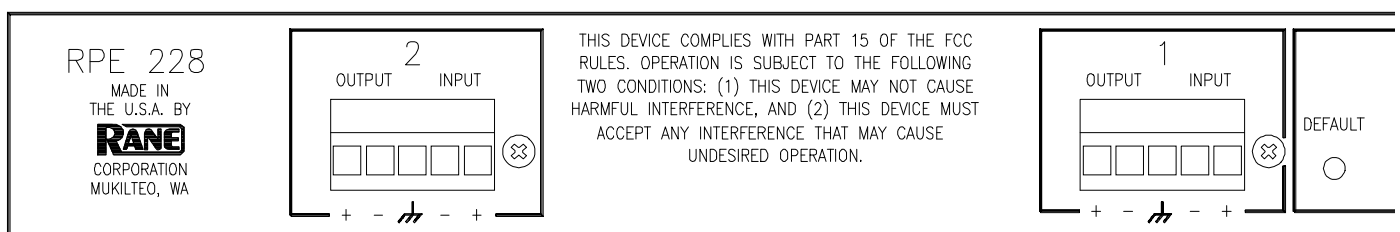
Clip (Each Channel): *Okay, enough already; turn it down!*

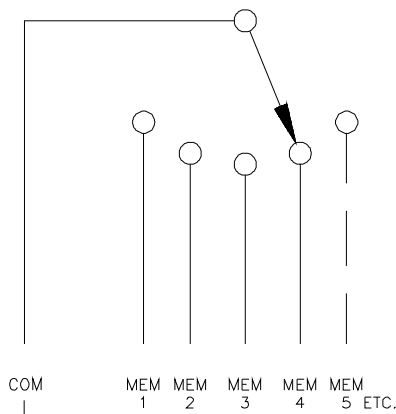


Tamper-proof doesn’t have to mean dead-front.

So... how about our hindquarters? Well, since this product was conceived, intended, planned and determined for unqualified success in the fixed-installation markets, Rane made the ins and outs “just right” for those applications.

Signal Input and Output are easy to wire and detachable Euroblock connectors (also known as Phoenix™ connectors).





Remote Switch External Memory Selection (Contact Closure Switch Terminals) are detachable Euroblock connectors. A single pole switch, several single pole switches in different locations, or up to an eight pole switch may be used depending on the number of presets required. A third-party touch screen with a contact closure interface would also work well.

RS 232 Control DB9 Connectors; The INPUT connector receives direction from a PC via a standard serial port, or is a loop-through from another RPE 228. The OUTPUT connector extends the communications loop to the next unit — we even supply the 18" interconnect cable.

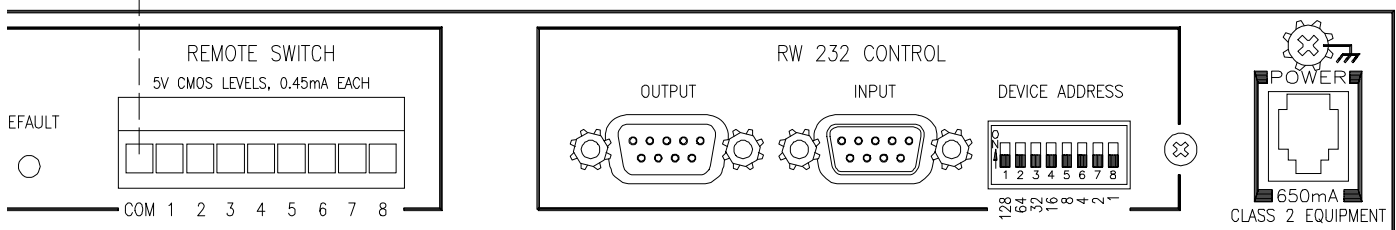
Device Address dipswitches allow the unit to be identified as one of the potentially 250 devices on-line in a system. This way, one computer can talk to and program each unit separately.

In addition to the above connectors, the low voltage AC outboard power supply (*not a wall wart!!*) not only powers the RPE 228, but enables the unit to be UL exempt... and quiet, to boot!

In summary, the front panel is tamper-proof, so that no one can alter settings. And it includes important information to help verify proper or improper function. The back panel features switches, inputs and outputs, and control points that are easy to use and require no additional connectors.

It goes without mentioning—but we do it anyway—that the chassis is robust and cold-rolled steel for all kinds of strength and protection, from butterfingers to RFI.

So, that's the product. And we are proud of it! But remember—the real secret of the RPE 228 is the software.



RaneWare

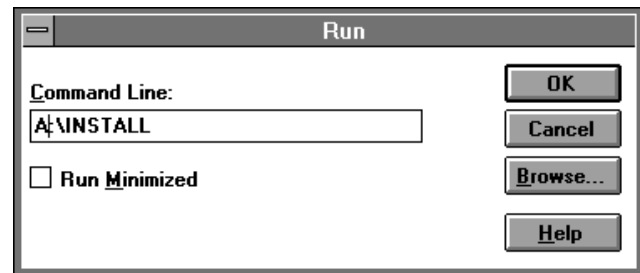


We worked diligently for quite awhile to make RaneWare as effective and intuitive as we could. Our goal was (and is) to provide you with software that is easy to use, doesn't cost you an "arm and a leg" (how about *no charge*), and makes our product so natural for you that you just can't wait to use it again and again!

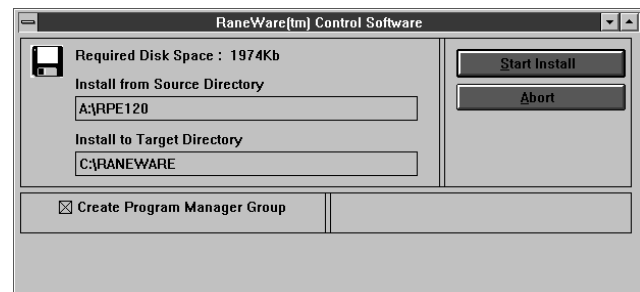
- RaneWare 232 works under Windows 3.1 or Windows 95®, on a PC or laptop. It also successfully tested with a Power Macintosh® running SoftWindows™ version 2.0.
- RaneWare 232 needs a fully wired DB9 cable less than 50' long, connecting from the serial port of a computer to the RPE 228 communications input port. No interface boxes are required; just a cable and your computer.
- RaneWare 232 can be fully demonstrated and used without an actual RPE 228 attached.
- A RaneWare 3½" floppy comes with each unit. Installation is simple, with instructions on the disk label. The latest version is downloadable 24 hours a day from Rane's Internet web site, <http://www.rane.com>.
- A generous Help screen is included online with the RaneWare 232 software; mucho pages of text, but oh, so easy to navigate.
- The software is so easy to use, so intuitive, you'll wonder why someone else didn't do it earlier.

Software

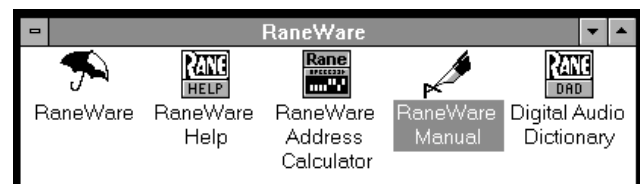
Step by Step Installation. If you have the RaneWare 3.5" floppy disk, insert it in your drive. In Windows 3.1 Program Manager, under **File**, select **Run**. On the command line, type **A:\install**. Click **OK**. This starts installation. In Windows 95, use **Add/Remove Programs** in the **Control Panel**.



If you downloaded RaneWare from the web, decompress the file first. Create a new directory named **RANEWARE**, and move the **RW232***.EXE** file to this new directory. Now run this file, and all the separate files will decompress. Locate **INSTALL.EXE**, click **OK**. Installation now proceeds, as this screen verifies file locations.

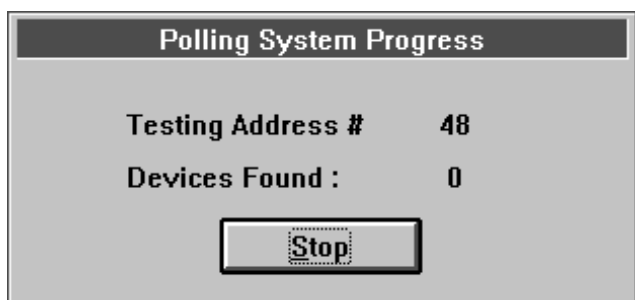


Starting RaneWare. A RaneWare program group is now created. When the software is first installed, the Help screen appears. Here any questions can get answered. Subsequent activation does not bring up the Help screen until you ask for it. But let's get on with the program. Close the Help file, and welcome to RaneWare!

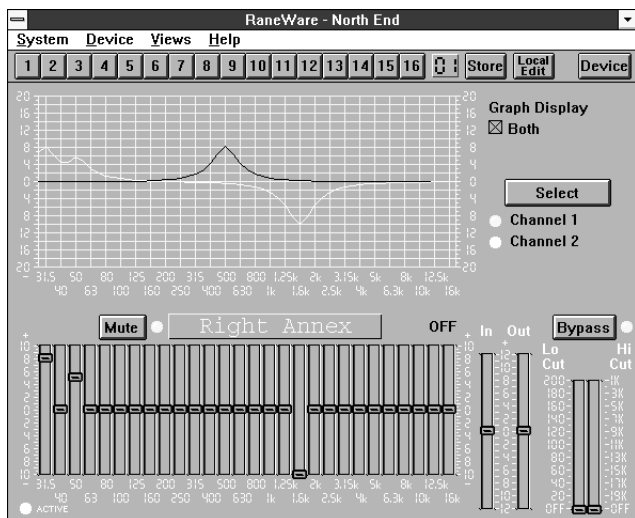




This screen stays up for a few seconds, then **Polling** begins the first time you run the program. This process checks if any RPEs are connected to the serial port. If a Device is found, you are in control! (If not, with an RPE connected, read the Help file [Reference, Troubleshooting Hints]). If you don't have an RPE connected, you can still use RaneWare offline.



After Polling, the Graph screen appears.



Changing curves. Go ahead, grab any slider with the mouse cursor. An accurate representation of the full audio frequency response is portrayed in the graph. Once a filter band is selected, clicking above or below the slider can make fine half decibel adjustments. The up/down cursor keys can also make these adjustments, while the left/right keys move from one band to the next.

Clicking the **Select** key changes the audio channel being controlled. Channel 1 appears in red. Channel 2 appears in yellow. Checking the **Both** box under **Graph Display** shows both channels at the same time, but only the active channel's sliders can be operated.

Go ahead, play! You'll find Low and High Cut filters, Input and Output level controls, Mute and Bypass switches, just like our other high end equalizers. Only now you can instantly see the equalizer response! If you have an equalizer connected, changes are instantly heard.

The **Device** menu contains a few handy tools. **Flatten** does just that, and gives you a clean slate on either or both channels. **Copy** lets you transfer a curves between channels.

The **Views** menu lets you switch between viewing a single channel with graph and sliders, or both sets of sliders on one screen, or both graphs on one screen. This is useful for comparing channels and stereo equalization.



Memories. The red local memory number flashes to indicate that current memory settings have changed. If you wish to save these settings in one of the 16 memories, simply click **Store**, and the memory number key. It's that easy! Go ahead and store different curves in different memories. After storing a few, clicking any memory number instantly recalls that memory. Store your favorites in memories 1 through 8, since these can be recalled via the rear panel Remote Switch contact closures when the computer is removed.

To change a curve without affecting the audio in the RPE, simply select **Local Edit** before making any changes, make them, and re-click **Local Edit**. You will be asked: **Accept the Edited Curve?** Answering **Yes** sends that curve to the RPE. While **Local Edit** is selected, clicking on any of the memory buttons displays the preview curve without sending it to the RPE.

Device brings up a selection menu of up to 15 RPE units connected to the computer. Simply select the device you wish to control.

Devices and channels can also be given custom names, tailored to your installation. Simply choose **Device, Name Device**, and the following screen appears.

A dialog box titled "Change the Device and Channel Names". It contains three text input fields: "Device Name" with the text "North End", "Channel 1 Name" with the text "Left Annex", and "Channel 2 Name" with the text "Right Annex". At the bottom are two buttons: "OK" and "Cancel".

If your installation changes by adding more RPE units, choose **Device, Select**, and the **POLL** button to make the computer recognize currently connected units in the system.

When multiple units are connected, assign each unit a unique Device Address number. Rane provides a special calculator to assist in setting the dip switches on the back of each unit. Alt-Tab to the Windows Program Manager, and in the RaneWare program group, launch the **RaneWare 232 Address Calculator**. This binary calculator converts decimal numbers into corresponding dipswitch settings.

A small dialog box titled "Address Calc". It features two numeric input fields, both containing the number "1". Below these is a display showing a row of eight dipswitches, each with a number from 0 to 7 above it. The first switch (0) is currently set to "0".

Security. The RPE can be operated on a daily basis either through the computer, or through the contact closures. To preserve preset security with a computer operator, the software can be locked (under **Device**), and a system password can be assigned (under **System, Change Password**). The default password is *please*.

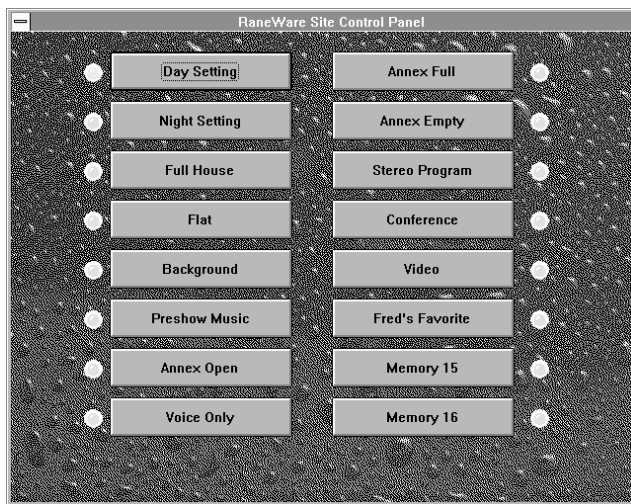
A dialog box titled "Change the System Password". It contains two text input fields: "Old Password" and "New Password". At the bottom are two buttons: "OK" and "Cancel".

With the device locked, and a user tries to change a curve, this friendly screen appears.

A dialog box titled "Please Enter the System Password". It contains a single text input field with the prompt "Please enter the magic word" above it. At the bottom are two buttons: "OK" and "Cancel".

Presets can be customized with names, through **System, Site Control Panel Setup**. Here each memory can have a logical name.

A dialog box titled "Site Control Panel Setup". It features a "PANEL TITLE" field containing "RaneWare Site Control Panel". Below this is a grid of 16 numbered buttons (1-16) arranged in two columns. Each button is associated with a preset name: 1 Day Setting, 2 Night Setting, 3 Full House, 4 Flat, 5 Background, 6 Preshow Music, 7 Annex Open, 8 Voice Only, 9 Annex Full, 10 Annex Empty, 11 Stereo Program, 12 Conference, 13 Video, 14 Fred's Favorite, 15 Memory 15, 16 Memory 16. At the bottom are three buttons: "OK", "Cancel", and "Help". There are also two checkboxes: "System Exclusive" and "Auto Start", both of which are currently unchecked.



This Site Control Panel is all an operator needs to see to recall memories. If only a few presets are required, blanking an entry in the Site Control Panel Setup removes the button from this screen, simplifying operation. A password is not required to operate the RPE from this screen.

If more than 16 memories are needed, they can be saved to disk and recalled later. For mobile sound trucks, presets for a particular venue can be saved to disk and loaded when returning to that venue. Printouts of device data, graphs, and curves are available for those who still like to file paper. These can be kept in the project file.

Hints for Windows 95 Users

If you find yourself squeezed for room at the bottom of the screen, you can modify the Task Bar so it only appears when you move the mouse pointer below the bottom of the screen.

To do this,
Right-Click on a blank spot on the task bar.
Select **Properties**
Enable **Auto Hide**
Press **OK**.

While operating the Device Control Panel in Windows 95, there is no button-box for the system menu on the title bar. There is, however, a Close-Window button-box.

As expected, the Close-Window button-box does exit the Device Control Panel, but unfortunately, it also quits RW-232.

To get back to edit mode, Right-Click the mouse on the Device Control Panel title bar. This will open the menu allowing you to return to Device Edit mode or exit the program altogether. As usual, a password is required for either option.

Support

Accurate, simple, complete specifications and an operator's manual are supplied to inform the designer and technician about the RPE 228. These are downloadable from Rane's web site as well. The operator's manual features a "Quick Start" section that gets the installer up and running in seconds. But even easier to use than the manual is the complete Windows Help file. Here, many operational questions are answered.

Third-Party Support. AMX has complete information on the Rane RPE 228 so that they can easily incorporate the unit into any special applications with their equipment.

In conclusion, the real key to your success with the RPE 228 and RaneWare 232 is a little practice (remember, the software can be used without an actual unit attached to the PC). You have to reach a comfort level and some enthusiasm for the power and simplicity of this great approach to providing solutions. Reaching that comfort level is easy and it will make you an expert in front of your client.

Rane has accurately assessed the needs of the installer and client, we are proud to provide a superior solution that is unmatched in ease of use and security.



20 FAB Reasons to Own an RPE 228

<i>Feature</i>	<i>Advantage</i>	<i>Benefit</i>
1) 1U Rackspace	Compact	Takes less space
2) Rackmountable	Ready to install	No adaptors required
3) Tamper-proof	No unauthorized access	No compromise of settings
4) Front Panel Indicators	Tells status of operation	Instant troubleshooting
5) No Front Panel Controls	Security	No security cover with special screws
6) Detachable Euroblocks	Quick hookup	Fast installation/service, no extra cost
7) 232 serial port	Standard protocol	No extra "black boxes"
8) Rane Power Supply	Safety agency exempt	Meets safety requirements
9) Dipswitch Selectable ID	Easy to set and change	Access, flexibility, expandability
10) Steel Chassis	Substantial	Resists physical and electrical abuse
11) RaneWare 232	Unmatched ease of use	Intuitive, fast and easy to use.
12) RaneWare 232	No cost	Extra profit / Instant upgrades
13) RaneWare 232	Superior performance	Confidence in use
14) RaneWare 232	Backup, verification	"Insurance", proven performance
15) RaneWare 232	Standard PC gear	No special hardware costs
16) RaneWare 232	Complete on-screen help	Immediate easy answers
17) Data Sheet	Clear, concise, honest info	Accurate, easy to learn
18) Operator's Manual	Clear, complete	Easy to use, full documentation
19) http://www.rane.com	Instant info and upgrades	24 hours a day
20) RANE	U.S. designed/made	Customer support.