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You can read the recommendations in the user guide, the technical guide or the installation guide for RANE PE 15. You'll find the answers to all your questions on the RANE PE 15 in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

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RANE OPERATORS MANUAL **PE 15**
PARAMETRIC EQUALIZER



QUICK START

If all else fails, read the manual. Yeah, yeah. But nothing is going to fail and you, being one smart cookie, don't need to read the stupid manual. But you should read this section just to cover your a**s. So, quickly, here goes.

The PE 15 has few hidden gotchas. One of these may be the shelving feature of Bands 1 and 5. Remember that pulling on the bandwidth (BW) knob causes it to come forward with a positive click, indicating the Shelf Mode is active. Use Shelving Bands 1 and 5 like Bass and Treble tone controls, where you want control over the whole top or bottom ends of the spectrum.

Hook-up is simple. The PE 15 accepts all combinations of balanced or unbalanced, XLR, 1/4" TRS or TS connectors. However, note the INPUT connectors are wired in parallel and may not be used together. Use only one at a time. They will not function as a summing type of Input for two different sources, but they may be used in a daisy chain fashion to feed other units. On the other hand (to randomly pick a hackneyed expression), you may use the parallel OUTPUTs to drive two destinations.

Never connect anything except a Rane approved AC power supply to the thing that looks like a red telephone jack on the rear of the PE 15.

WEAR PARTS: This product contains no wear parts.

Manual-1



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Manual abstract:

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However, note the INPUT connectors are wired in parallel and may not be used together. Use only one at a time. @@@@This switch allows power to flow from the source to the very soul of the PE 15, thereby empowering all its vital functions. @@@@Unity gain is approximately 12:00, (Central Daylight Time). Overall BYPASS switch: Engaging this pushbutton provides a complete hard-wire bypass of the PE 15, including signal ground.

In the out position, the Input to the unit is processed through all of the active electronics. This is a passive control requiring no power to operate. Overall BYPASS indicator: illuminates red when the unit is in the BYPASS mode created by . BANDWIDTH controls (Q): Full counterclockwise rotation yields a bandwidth of 1/30 octave (Q=43) in the respective filter, while full clockwise rotation gives a 1.5 octave (Q=0).

9) bandwidth. (Pulling this control to the out position on Bands 1 and 5 switches the filters to their Shelf Mode.) Filter LEVEL controls: The center detent position guarantees flat response through the respective filter due to its grounded center-tap. Full clockwise rotation delivers +15 dB of boost, while full counterclockwise rotation yields -20 dB of cut. FREQUENCY sweep controls: set the center frequency of the filter band (or the Turnover Frequency for Shelf Mode). Available sweep range is approximately four octaves. Filter BYPASS switches: Each of the five filter BYPASS switches disables the respective filter providing instant comparison between flat response and equalized response. Filter BYPASS LED: illuminates when the band is in BYPASS created by . Manual-2 REAR PANEL DESCRIPTION 1/4" TRS INPUT jack: A differentially active balanced, auto unbalanced 1/4" Input connector; tip = positive, ring = negative, and sleeve = chassis ground. @@@@Making this connection engages the auto unbalanced Input mode.

@ 1/4" TRS OUTPUT jack: This is an active balanced Output. @@This jack parallels the XLR Output connector and may be used simultaneously to give two Outputs. For unbalanced applications, the preferred choice is to use a TRS (tip-ring-sleeve) plug and leave the ring open; however, a standard TS (mono) plug may be substituted without damage. XLR OUTPUT jack: This Output parallels the above. Wiring is per IEC/ANSI/AES standards: pin 1 ground, pin 2 positive, and pin 3 negative. Remote POWER supply input: This unit is supplied from the factory with a Model RS 1 Remote AC Power Supply suitable for connection to this jack. This unit requires an 18 volt AC center-tapped transformer only. This is not a telephone jack. Never use a power supply other than the one supplied or a Rane approved replacement. Chassis ground point: A #6-32 screw is used for chassis grounding purposes.

See below for details. CHASSIS GROUNDING If after hooking up your system it exhibits excessive hum or buzzing, there is an incompatibility in the grounding configuration between units somewhere. Your mission, should you accept it, is to discover how your particular system wants to be grounded. Here are some things to try: 1. @@2.

@@3. @@@@Use a PE 15 anywhere line-level frequency contouring is required. @@@@They will not sum from two different sources. @@@@They also are wired in parallel and are actively balanced. Both Outputs may be used simultaneously.

All XLR connectors used by Rane are wired per the IEC/ANSI/AES standard as follows: pin 2 positive, pin 3 negative and pin 1 chassis ground. Unbalanced use of a PE 15 requires you to take some particular steps in wiring. On the Input, use either a mono 1/4" connector (no ring), or short pin 3 to pin 1 and drive pin 2 for XLR connectors. On the Output leave pin 3 open and take the signal from pin 2 (hot) and pin 1 (chassis ground).

@@@@With either a canned or live source applied, advance the MASTER CONTROL until normal system gain is achieved. Now you are ready to make some adjustments. A detailed discussion on room equalization lies outside the scope of this manual; however, a few words can't hurt. Experienced sound people almost always use some sort of realtime analyzer (RTA) as an aid in setting equalization. An RTA allows you to see the frequency response changes as you do them. This is invaluable in achieving better sound.

As a notch filter, the PE 15 works very well in increasing system headroom by attenuating system peaks that create feedback problems. The obvious goal in notching is to remove only the problem areas and nothing else. With this in mind, it is always a good idea to first try to notch out feedback with the BW controls set to their full counterclockwise positions. The acoustic resonances causing feedback are generally so narrow that a filter bandwidth set at .03 (1/30) octave easily cures the problem. @@@@REGARDING PE15 NOISE You may experience noise when using this unit with one or more bandwidth (BW) controls set to the narrowest (.03) possible setting. This is the noisiest possible setting. The most usual use for this setting is deep notching. e.

g. for eliminating a specific frequency, such as problems caused by feedback or other oscillations. Most often only one filter is required. It should also be noted, there is a trade off between noise and desired results, when using narrow bandwidth notching. For example, where the system correction achieved out weighs the noise levels generated by the required setting.

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