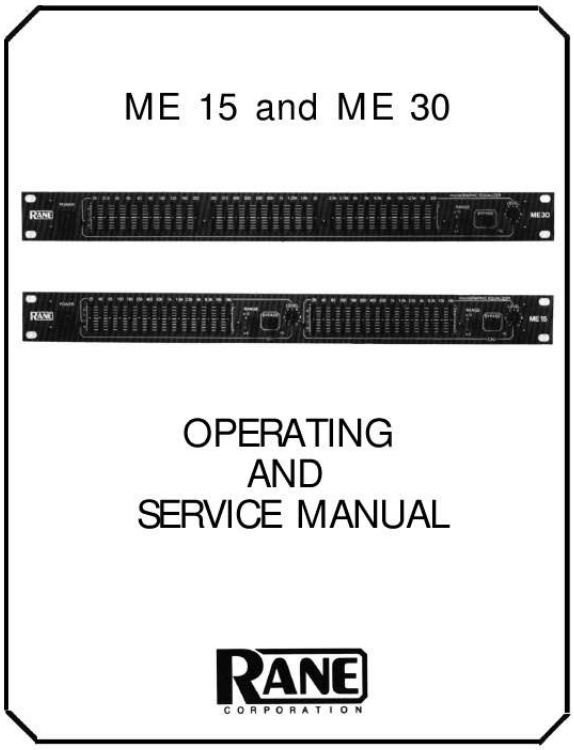

***Manual abstract:***

*PANEL DESCRIPTIONS FRONT PANEL DESCRIPTION 1. POWER SWITCH: As you have astutely surmised by now, this switch powers up the ME 15 or ME 30. Note: "power" in this context refers to electrical power, as opposed to political, financial (often related to the previous), psychic or supernatural. 2. FILTER LEVELSLIDE CONTROLS: Each of these sliders controls the output level of each of the 30 bandpass filters. Center position is grounded for guaranteed flat response. 3. FILTER RANGE SWITCH: The gain range of the filter sliders is switchable (as a group) from ±6 dB for high resolution, to ±12 dB for maximum boost/cut capability. 4. BYPASS SWITCH: When the red LED is lit, this indicates that the unit or channel is in the bypass mode: signal is routed directly from the input to the output without passing through any active circuitry (often referred to as "hard-wire bypass").*
*@@5. @@Occasional blinking of this LED is acceptable, but if it remains on more than intermittently you should turn down either the equalizer's level control(s) or reduce the output level of the preceding component to avoid audible distortion. 6. LEVEL CONTROL: This controls the level of signal coming into the ME 15 /ME 30. Turn this control down if the Overload LED lights up steadily (meaning too strong an input signal).*
*@@@@@@For balanced signals use microphone cable (two conductor with shield) with a stereo 1/4" plug on one end for the ME 15/30, wired as described below, and either a stereo 1/4" or three-pin connector as dictated by the signal source on the other end. Rane adheres to the international and U.S. standard for balanced pin configurations: Pin #1 = Case ground (Neutral) = Sleeve on a 1/4" connector Pin #2 = Hot (Positive) = Tip on 1/4" connector Pin #3 = Signal Ground (Negative) = Ring on 1/4" connector 2. OUTPUT JACK: This is a stereo 1/4" "floating" output which is compatible with either balanced or unbalanced systems.*
*For balanced systems, use a microphone cable wired as explained in #1 above. @@@@@@@@@@Both WHAT and WHY you are equalizing will also determine where you install it. We'll leave the WHEN and WHO entirely up to you. 1. WHAT AND WHY. Most outboard equalizers are used to correct and/or enhance the acoustical performance of a sound system: everything is under control until the program material reaches the speakers--then trouble begins. EVERY speaker system reacts drastically different in each room in which it's located, resulting in feedback problems, absorption nodes, resonances and everything else short of chicken pox. This is where the equalizer comes in-to alter the ELECTRICAL performance of the program material in order to COMPENSATE for the ACOUSTICAL PROBLEMS in the system. This seems very basic, but many fall victim to misuse of the system equalizer: boosting several low frequency filters when a simple boost of the bass guitar controls is what's really needed. Don't use the system equalizer to make specific tonal changes in vocals or instruments; use the MIXER EQ controls for this.*

*2. WHERE. Since most equalizers are used for acoustical correction, the equalizer should be one of the LAST pieces of gear in front of the amplifiers and active crossovers. @@@@1. DOWNSTREAM OF ANY COMPRESSOR/LIMITER. @@@@@@2. @@@@@@@@This should give better noise performance from the mixer, as well. @@@@3. BE CAREFUL WITH SEND/RECEIVE LOOPS. @@@@@@OPERATING PROCEDURES The ME 15 and ME 30 are extremely accurate, professional quality instruments capable of precise equalization down to a fraction of a dB.*
*You can expect several advantages from your constant-Q equalizer over conventional designs: Moving one sliderwill not affect neighboring filters as much, so you won't spend time re-adjusting sliders (we call this "equalizing the equalizer"). You'll be able to obtain better feedback control without losing sound quality. @@@@@@@@@@Forget everything you've thought about analyzers and consider this: there's a new generation of analyzers which are compact, simple, very easy to operate and surprisingly affordable. Best of all, they can make a drastic improvement in the overall performance of your sound system while saving you a great deal of time and effort. (Yes, we just happen to make such an analyzer, the Model RA 27, but this is not a sales pitch.*
*We are genuinely concerned that you obtain the best performance from your system. Check around, there are lots of good analyzer designs available. Get the one you like best.) A realtime analyzer will help you quickly achieve things nearly impossible by ear: flatten speaker response, minimize feedback, remove room resonance and allow accurate crossover alignment. @@@@Fatten the bass, sweeten the highs, brighten the mids as you see fit.*
*@@Fact: analyzers don't have good taste--people do. @@@@Conclusion: TO CONSISTENTLY OBTAIN THE BEST SOUND FROM YOUR SYSTEM, YOU NEED TO USE BOTH AN ANALYZER AND YOUR EAR, IN THAT ORDER. The analyzer supplies the consistency and calibration while your ear supplies good taste. If obtaining an analyzer is not feasible for you, then you will have to resort to Section 2408, Paragraph 84-B of the Professional Audio Code, which reads: "Fiddle with it until it sounds good." V. SPECIFICATIONS Constant-Q Bandpass Filters: ME 15: 2/3 octave bandwidths on precise ISO centers, 25-16 kHz ME 30: 1/3 octave bandwidths on precise ISO centers, 25-20 kHz Boost/Cut Range: switchable ±6 dB or ±l2 dB Built-in Low Cut Filter: -3 dB at 20 Hz (18 dB per octave) Built-in Ultrasonic Filter: -3 dB at 60 kHz (6 dB per octave) Overall Gain Range: Off to +6 dB (minimum) Frequency Response: 20 Hz to 60 kHz, +0/-3 dB Signal To Noise Ratios: Unweighted, 20 kHz bandwidth Boost/cut Centered, Unity Gain: 108 dB below +20 dBu Boost/cut Centered, Maximum Gain: 107 dB below +20 dBu THD + Noise: Less than .009%, 20 Hz to 20 kHz, @ +4 dBu (1.23V) output Intermodulation Distortion (SMPTE): less than .005% @ +4 dBu output Input Impedance: 20,000 ohms Output Impedance: 100 ohms Maximum Input Level: +21 dBu (9 Volts) Maximum Output Level: +21 dBu (9 Volts) Dimensions: 1.75" H x 19" W x 5.*

*25" rack depth, all steel chassis Weight: 5 Ib. net Note: 0 dBu = .775 Volts .*